
DSWiki

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DSWiki: 1998 DS Sales Brochure

1998 DS Sales Brochure Text

(added_10.17.07) **Special thanks to Rick at nakedeye**

You know, you get to this point in your life where yeah, money's still important. It's really important, you gotta eat, you want to go places, do things, buy stuff, maybe raise a family. You still need to feel like you're on the way up, you haven't plateaued or started down the other side of the hill or something like that, so you've gotta keep working. But at the same time you need to be working on something worthwhile. When you put this kind of time and energy into a career you need to come out of it with more than a paycheck.

Once you've been in film or video for a while, you realize the single most important thing is that you just want your tools to work, to work together, because you don't have the time or inclination to fool around any more. You've paid your dues, you've done the crap jobs, wrestled with clients, stayed up all night over and over again. I mean, you can get pretty sick of it. It gets old real fast.

It's hard enough getting good ideas. Once you've got one, you want to get it out, play around with it until you're expressing it the best way possible, and move on. Obviously, if you're gonna put together something that really flows, the last thing you need is a bunch of separate applications from a bunch of different companies that don't talk to each other, that don't get it. Doing all these distracting little dances to move your ideas across, and then having to use a boatload of different procedures, protocols, interfaces and behaviors. – Basically needing to change your entire mindset just to do the next thing on your laundry list – that's a real drag.

These days, offline and online editors – and for that matter, composers, graphic designers and others – are morphing into a kind of hybrid: the digital artist. It's a new job description that's been evolving over the past few years. And ironically, the more film and video production processes become digital, the more hands-on creative seem to be getting. This is a great time to be alive – we're starting to see comprehensive toolsets that let you make your ideas real without forcing you to deconstruct them first and then put them back together again.

Maybe that's the whole thing: you're suddenly a lot more aware of time. And not wanting to waste it any more. It's a total cliché, but it's really true – when you're younger you don't care, you just don't give a damn, you've got all the time in the world to concentrate on whatever crazy things you want, and that was cool, it's nice to remember those days, but now . . . ?

If you want to go to another part of your mind, you just go. If you want to think of something different, you just do. You don't have to ask permission or wait in line or see how you feel about it. When you're coming up with a concept or a sequence or something, you're not just thinking about the images in it, or

the sound of it, or the pacing or whatever. You're the thinking about all of it. It all comes to you. And so that's like this really good and really terrible place to be because you've got this crystalline entity, this complete idea, you know, which is great, but you're immediately figuring out how you're gonna break it into chunks to execute it, how you're gonna get it on screen in some form that's recognizable to you. And that's where things start to suck because now you're already changing it before you've even started: uh, these guys'll sweeten and I can go here for the edit and use this box for some of the effects and go across town for others and so on and so forth until you end up with this rogue thing that's kind of what you had in mind. Sort of.

It doesn't matter how good you are – when you present your ideas, most clients are gonna want some changes. That's only natural. The trick is hanging on to your creative vision while trying to make them happy. That's easier said than done. Sometimes you'd rather start from scratch than do a tweak here and there, especially when you have to get other people and machines involved who don't necessarily see what you do, because you can end up watering things down. The problem is, you don't have much of a choice if your system is limited in scope.

You still have some traditional, one-dimensional old-liners who continue to work the way they always have. But what's becoming much more common is somebody who's not only able to do the conceptualizing up front but is also thinking at the very same time, about what's gonna happen in post and how that'll finish the concept. They want it all at their fingertips, demand the right gear, know that they want to pick and choose for each different project. This is a big change: It's gonna let a lot more people say a lot more things and not have to dance to the same old industry tune.

Your studio is your second home. Sometimes it feels like your first. So you've got to have the right kind of stuff around – not just cool equipment, but the furniture, the art, the music, the space itself. They all need to project you and reflect you at the same time. It's got to be friendly and it's got to be comfortable. You're obviously very interested in anything that will enhance your working environment, because the more conducive it is to your workstyle, to your lifestyle, to more creative, productive and profitable you can be.

Technology that's cool is technology you don't have to think about. If it's truly sophisticated, if it works the way it should, after a while you don't even notice it. You live in it. That's when you can really get something done.

Introducing...Softimage|DS.

Softimage|DS empowers you to redefine the way video content is created, edited and finished by providing a comprehensive set of tools in one unified, integrated environment. Designed by people who work in production – creating, editing and animating images and sound day after day – Softimage|DS is built by digital artists, for digital artists.

Based on an advanced new software architecture, it is the only system that seamlessly integrates the full range of capabilities required for end-to-end production: picture and audio editing, compositing, paint, 2D and 3D effects, image treatment, character generation and content management – fused together with a transparent interface and workflow. The consistency of the production environment obviates the need for data to be transferred or translated to different video and audio systems, significantly streamlining the

production process. Remove a scratch as soon as it's found, change the color of an object in a multi-layer composite, add an audio effect in real-time, you can do all of this and more without having to move between systems or facilities.

Work with non-compressed and compressed images. Quickly and easily call upon tools for almost any production task. Work by yourself or with others. Softimage|DS shatters existing barriers to creativity and productivity.

Softimage|DS is a customizable, extensible work environment. Designed to help you thrive in the multiple revolutions that are changing the industry, its interface and capabilities can be reconfigured, adjusted and added upon as needed to meet the specific requirements and preferences of each project or individual.

From cuts-only to effects-intensive projects, Softimage|DS encompasses all the tools needed to create, edit and finish videos with greater creativity and productivity. And it does so at a price that makes high-end, non-compressed capabilities available to a wider range of digital artists than ever before.

// Revised: Jun 17, 2012 5:33 pm

2005 DS Wish List

(get original PDF [here](#))

WISH LIST for DS / whatever Avid want to replace it with

This is a pretty exhaustive list, gathered from DS users worldwide who use DS for many different purposes. This list is a good indication of what users really WANT as opposed to what engineers might choose to GIVE. It must be read in conjunction with a good knowledge of the current DS feature set.

GENERAL / METADATA HANDLING

- Igor volunteers to re-design the DS interface and make something that does not look like “Dr. Frankenstein’s failed attempt at combining WinXP, Old DS and MC together”. He thinks that dark Grey would be nice color for a start.
- Universal Object View (Like the GOV but “everything”). This would enable simple retiming of effects inside trees for instance. It’s actually a HUGE feature that would make an enormous difference.
- Attic
- Improved Command Mapping
- 24fps SD
- MC style 'Modify' command
- Ability to make HD proxies within custom projects
- Interface to external controllers other than just the MCS 3800
- Process command available from Avid Explorer (Bin). eg select a bunch of sequences and select “Process”

ANIMATION EDITOR

- Automatic highlighting of curves for the selected effect when multiple effects are displayed.
- Ability to select multiple curves or slopes and adjust them together. (UOV might facilitate this)
- Simple one-click adjustment of keyframe interpolation type (Bezier/linear/constant)
- Make Metacurve Region only affect selected effects

AUDIO

- Auto-Crossfade for audio edits (to eliminate non-zero crosspoint clicks)
- Ability to see audio fader curves in overlay mode along with the audio waveform, á lá Xpress. (Maybe in the animation editor?). Or Audio mixing clip based rather than track based, offering curves in the timeline
- Ability to save mixer settings and presets
- Ability to display the audio tracks while working in a container
- Ability to scale waveforms on the timeline any size you want, any time you want
- Track mixing information to follow when those tracks are converted to Audio Container
- Default behaviour changed for Mono tracks in a Stereo sequence to be routed Left and Right instead of Left only. Possibly a user option?

COLOR CORRECTION

- RT Secondary CC
- Curves animation in the CC
- **BIG BALLS**. If Avid can't make one, interface to somebody else's
- Masking/tracking of masks within the Colour Corrector

COMPOSITING / TREES / EXPRESSIONS /

- New 3D compositing environment with, amongst other things, the ability to import and export commonly used 3D data (such as 3D Max shapes, Monet tracking data etc). It also needs the ability to use 2D plugins (like T_Glow for instance, or Primatte) within the 3D environment to **individual 3D objects** within the scene. This would be unique.
- Scripting
- Ability to “bake” expressions (make ‘em, save ‘em, use ‘em again)
- Represent expression output with a curve in the animation editor (view only)
- Ability to define curves in expressions
- Node cloning (for instance, have the output of node “A” appear in several places within the tree)
- Node builder (like Macros in Shake)
- Custom parameter node (user defined parameters with values and sliders to drive expressions). For example, make a tree to create a picture frame around an image. With a single expression node with 5 sliders you could control all the major parameters of that frame – and you’ve achieved a new effect.
- Composite Node layer order animation
- De-containerize clips – just throw them onto Video tracks and discard the tree. Take clip and track effects with them.
- Pixel Value Sampling node (for use in expression nodes) which samples values such as Red or Luma for a region. It could just sample the whole image if the Mask input can be used to define the region the sampling happens in.
- A simple connection to 'link' all parameters of an effect to another effect. (Instant Expression of every parameter to every parameter)
- *Optionally* Track Effects to follow tracks when those tracks are “containerized”

CONFORMING

- Decompose
- Much improved capture list tools, allowing selection by tape, a "move to top" button etc.
- Total Conform (yes, **total**)

EFFECTS

- Particle Generator. Ideally this would be in the 3D environment, but even the inclusion of Particle Illusion would be no bad thing.
- Major improvements to the blue-green screen keyer
- A “Force RGB Processing” option in YCbCr sequences
- Better quality DVE on a par with hardware ARCs - Lanczos3 / Mitchell filtering?
- “Track Level” effect (similar to deflicker) with the ability to see and adjust the parameters that are affected. (See Pixel Value Sampling in Compositing section)
- Effect instancing. Apply many places, tweak all in one. For all places where effects can exist (clip/track/timeline/tree). This might be more easily addressed with the “parameter linking” expression

suggestion above.

- Clip/Track/Timeline Effect bypass hotkey.
- Modifier key to bypass the numeric limits when "sliding" a number in an effect.
- DVE concatenation
- *Optional* ability to work in Log space for DI workflow. ie do not linearize.
- "Add all caches to the cache list" function within the Cache List Browser

GRAPHICS

- Many improvements required here, these are just some.
- Shape animation available in the Animation Editor
- Variable outer softness on graphics shapes. (You don't need variable inner and outer - think about it)
- B-Splines
- Expressions in graphics
- Improved EPS import, akin to Photoshop import. Automatically cut holes in shapes etc. just as if it was opened in Illustrator. Plus bring it up to current EPS release.
- Underline
- Alignment Tools additions to also allow equal spacing between objects vertically or horizontally
- New controls – "Match Position" and "Match Size"
- Text – Animations. eg expressions for text
- Ability to export a vector shape from a matte shape (e.g. do something else with it inside DS, such as paste it into a Graphics effect as a shape)
- Motion Blur

MEDIA I/O (Including DI)

- Firewire support for both DV and HDV on Nitris
- P2 Support straight from P2 disk
- User definable duration for vtr to keep rolling between clips during batch capture. Currently hard-coded at 5 secs.
- Read/interpret Varicam flags
- Video Routing remembered by Nitris as part of the deck preset.
- BWF (Broadcast Wav) export
- Define what to do in the event of a timecode break (make new clip, stop, log and keep going)
- Ability to batch insert to tape only where media exists on the timeline.
- Batch Export to file for where sections exist on the Timeline. Possibly as a render queue where different output settings can be applied
- Much improved file import, allowing redirection and correction of aspect ratio information etc at the time of recapture
- Batch Capture/Import as an import queue where different input settings can be applied
- Ability to record from tape without setting an out. Mark in, digitize away
- Ability to see progression/evaluation of time for batch captures
- Ability to pause whilst batch capturing to allow manual searching on the tape, or to skip individual clip.
- Capture Settings to persist with the project.
- Link Settings separate from Capture Settings to enable to you to specify how DS links to media. The present system causes confusion as some Capture Settings affect Links, and some don't.
- Avid File Folders should be able to split non-consecutive sequences, i.e. sequences of files with one or more breaks in them, into separate folders, rather than simply informing you the sequence is broken (the

'!' in the icon). The present system means that an operator must manually define each file sequence, and import them separately. DS should give the operator options to import one clip (with breaks), one clip (without breaks), or multiple clips.

- Capture settings should have presets that can be saved and loaded in the project
- Outputting to .dpx files could be simplified by an option in the DPX dialog box to make the filename the same as the timecode/frame number the cursor is on (in a similar vein to 'use Timeline Timecode'). This would mean that, assuming you have put your sequences in the right position on the timeline, outputting single frames could be done by a simple 'Snapshot to File', without any risk of finger trouble. Ideally, the operator should be able to mark frames to output with a locator, then script the output of these frames, so that all the marked frames on a timeline could be outputted in one go. The Timeline timecode should also make it back to the DPX header
- When outputting to Tape or Ref Movie, a new option – “The Timeline includes unprocessed effects. Would you like to process these before output?”
- Enable Nitris to display After Effects images in the broadcast monitor (like Mojo and Adrenaline)
- Keycode support.
- 3:2 pulldown removal when capturing

MEDIA MANAGEMENT

- Improved sifting and sorting of source clips (eg "find all unused clips" or "find anywhere this take has been used" (More than Reverse Matchframe)). Perhaps similar to iTunes Clip Sorter
- Ability to change Master Clips after they've been logged. (eg add audio tracks, change DF/NDF etc) Basically bring over all of the MC Modify Bin commands.
- Source Side Audio to remember volume settings when pasted onto timeline
- Multiple Tape Archive
- Multiple Format Archive
- Print Bin
- Explorer Thumbnails should be playable and interactively re-sizable, and should remember their position
- ALL Explorer windows to remember size, position **and options**
- Match tool that works on an open bin in whatever listing view is current
- Ability to recapture a clip that has media. DS should give the option to "Delete and Recapture?"
- **Optionally** recapture a clip and have the new clip propagate to all instances on the timeline.
- A Unity-type environment that really works well with DS allowing collaborative working with other DSs and the rest of the Avid family of products.
- Ability to see Sequence Length from the Avid Explorer (Bin) window
- Ability to see effects in the MediaTool with all sort of nifty and ground breaking tools like delete, copy, replace of instance, etc
- Sequence tree view should also show the contents of the SED, be editable and show effects.
- Restore the ability (pre v5?) to easily open a sequence as a source in the Avid Explorer (without having to add the name of the sequence to the path). And have this view show the effects used in the sequence.

METADATA IMPORT/EXPORT

- AVX2 support
- OMF export fixed to not give 6Gb files for a 30 sec cut!
- OMF export data on par with Media Composer (transition support).

- OMF import fixed so that it just works 100% of the time
- AAF with Media support
- Export of AFE/AAF
- Import and Export of After Effects/Combustion composition data
- Import and Export of Monet/3D (etc) tracker data
- Outsource Container for multiple-pass layers

PLUGIN SUPPORT

- OFX support
- AVX2 support

SOURCE SIDE EFFECTS

- Options to “Convert SSE to Clip Effect for just this clip” and/or “Just change this effect for this clip”. Another approach would be a simple marker-based division of effects, so that you could for instance use a source-side color corrector more like a telecine/traditional CC. You would chop up your material by dropping in marks, and then park in between any two marks and set your color correction for that segment
- Ability to use Source Side Effects to color code clips in timeline

TIMELINE

- Improved handling of longform edits on the Timeline
- Composite (transfer) modes for video tracks directly in the timeline

TRACKING

- Planar Tracker (à lá Monét)
- Improvements to the standard tracker
- Tracking info that is savable, recallable wherever it would be useable
- Tracker Effect with unlimited tracking points that simply track.. Connect it to DVEs and/or other effects subsequently.
- Give the option to average multiple points before applying elsewhere.

VIEWER

- More user control of viewer grids, safe areas, etc.
- Make viewer grids etc available on the client monitor/output

// Revised: May 17, 2007 3:21 pm

The Complete 2007 Un-filtered DS Wish List.

Below are all of the requests, suggestions, recommendations and demands as compiled from the [DS List](#) by [Sean Stall](#). The narrowed down and prioritized version of the 2007 Wish Lists can be viewed by clicking [here](#). (added 3.13.07)

Effects (possibly with plugin workarounds)

1. COMPLETELY REBUILT TRACKER (Planar would be \$\$), unlimited tracking points. *[Perhaps Avid could license Motor? Or encourage Imagineer to port Motor as a plug?]*
2. PARTICLES, much more than Wonderstuff, and the ability to use alpha or luma channels as spawning points for the particles.
3. AVX2 AND OFX SUPPORT. *[Avid have traditionally refused to accept the concept of OFX]*
4. TREE/EXPRESSION MASTER NODE (UI Widgets added to the master node (in encapsulated node trees) so you can wire sliders, checkboxes, color pickers, etc to parameters on the node tree inside. So just like Shake where a node is made up of internal nodes but you can create your own UI for your effect.)
5. EXPAND THE AVAILABLE EFFECT OPTIONS like built in lens flares, displacement effects, particles, etc. *[Easily covered with plugins – Boris, Sapphire, Speed Six, Foundry all offer these]*
6. Beyond the generic "a new tracker" wish, I would be happier now if the current tracker
 - (1) had expression points so you could pipe tracker data into other effects without manually copying/pasting
 - (2) could load a special multi-channel .fraw file so those of us using Monet could import track data without manually loading 8 separate .fraw files into the animation editor, and
 - (3) had a button to copy the current value of the reference trackers into that of the layer trackers
7. SUPPORT FOR AFTER EFFECTS PLUGINS. *[Very unlikely that Avid would support this – see OFX comment]*
8. CLONING NODES. I know you can use expressions to link every parameter in a node to another, but that can take a while, and it doesn't include things (DVE as an example) like filter choices, motion blur on/off, etc. This would be really handy.
9. FORCE RGB PROCESSING. Composite nodes are YCC and when using RGB elements in a YCC sequence, it can cause issues with edges and what not.
10. UOV. What DS has always needed is a global "dope sheet" style keyframe editor for when you want to adjust keyframe timings without looking at the curves. All animated parameters (including rotoshapes) should be displayed and are easily multi-selectable, etc. *[UOV – Universal Object View. A way of seeing*

all assets within a project in context, in a time-based view. Graphics objects are no different to captured media, so let's see them in a global view to enable their repositioning – likewise selectable keyframes, etc... the list is endless. This would be HUGE and would be UNIQUE TO DS. It would also require a tremendous development effort]

11. BETTER FILTERING ON THE DVE.

12. 'Stickies' A way to leave notes throughout the tree. They can be used for reminders to turn on motion blur before rendering, or explaining what certain areas are doing. It can be really helpful for single users, and especially if more than 1 person will be working on the project. Freelancers, etc. *[The jover for this is to add a cache node and change its name to the relevant note.]*

Audio

13. SUPPORT FOR PRO TOOLS AUDIO PLUGS. Or at least give better feedback and UI for the DS sound nodes. *[Possible that Avid would support this, but support for the latest Steinberg VST standard would be more likely and would give access to some excellent plugs]*

14. BEING ABLE TO SAVE AND IMPORT MIXER SETTINGS, per sequence, per audio container, per project.

Capture/Frame rate

15. NATIVE SUPPORT FOR FIREWIRE-BASED FORMATS (P2, HDV, DVCProHD) *This is being addressed with Avid's inclusion of Media Composer with Version 10, but using MC as a "front end" adds significantly to the length of the workflow needed to support these formats.*

16. MIXED FRAME RATE / COMPRESSION RATE Timeline (a la Quantel) *[DS already supports mixed compression rates, so this is actually only a single request]*

17. BETTER MANAGEMENT AND OPTIONS OF TC BREAKS ON CAPTURE.

18. RECAPTURE THRESHOLD PARAMETER, so when I recapture a new version of something, I can tell it to skip clips with less than 'x' number of offline frames. This is help avoid having to load 60 tapes to digitize 2 additional frames at the end of pre-existing handles.

19. 'MIXED FRAME RATE EDITING', 23.98 _SD_ sequence support with on-the-fly pulldown removal on digitize and pulldown insertion on play out *[This is a similar request to #3 above]*

20. A P2 IMPORT FEATURE that creates clips (including audio) and preserves the timecode (see FCP).

This is being addressed with Avid's inclusion of Media Composer with Version 10, but using MC as a "front end" adds significantly to the length of the workflow needed to support these formats.

21. 720/24P HARDWARE SUPPORT

22. SIMPLE DRAG/DROP IMPORT of Audio CDs, DVDs, Photoshop, Illustrator files with no helper applications needed.

22b. ILLUSTRATOR FILES should come in with proper colors, layer order and hole-cutting preserved without additional manipulation.

23. 3D LUT support. If DS is really going to be considered a DI tool, this is bare bones fundamental feature requirement.

24. PRINT/SAVE SOURCE LIST When digitizing from the timeline or recapturing from the bin, the source list window appears showing you all the clips/tape sources. There should be a button to PRINT a source list as well as a SAVE to file option that essentially gives you a neatly formatted pull list.

25. SMART CAPTURE When selecting Capture from Timeline with Options, there should be an additional option to Capture Clips with Visible Missing frames Only, perhaps called SMART CAPTURE, that would work nicely with handles selected. So if I select this SMART CAPTURE with say 10-frame handles, then only the clips that are missing media for frames actually visible in the sequence (ie NOT in missing from handles) would be flagged for capture—and those would be recaptured with the 10-frame handles I specified. (Similar perhaps to another item in the list, but maybe more clear)

26. SKIP REMAINING FILE IMPORTS When recapturing from timeline, could we please have a requester box with an option to "Skip ALL file imports" YES or NO *before* the DS starts parsing the timeline... huge time-waster if you're just looking to load stuff from tape and haven't gone through the timeline to weed out all the video mixdown slugs and quicktime movie references to files that you don't have yet.

Export

27. BATCH FILE-BASED EXPORT

28. EXPORT OMF FOR MC - files, audio and video

29. MULTIPLE INSERTS TO TAPE instead of one at the time. *[I assume this means batch-export-to-tape]*

Color Corrector

30. BIG BALL SUPPORT in all Color Correction Modes (USB/JL Cooper)
31. REAL TIME SECONDARY Color Correction Wheels (steal from Symphony)
32. BASE THE HUE OFFSETS IN THE COLOR CORRECTOR ON GAMMA/GAIN/LIFT math and not by luma ranges math. *[I would assume this would require a pretty immense re-write, and would almost certainly make conforming from other products even MORE difficult than at present.]*
33. GROUP THE MASTER COLOR CONTROLS ON ONE PAGE LIKE DAVINCI CONTROLS. So the 4 vector hue offsets and RGB gamma/gain/lift and master saturation on one page.
34. Better color grading interface with multiple realtime secondaries/selectives, grading history on clip (saving presets w/ snapshots), support for tactile surfaces, with parallel input & feedback on multiple parameter changes (no more "release control to update viewer".) *[To avoid the "release control to update viewer" situation, right-click the control and select 'Interactive Update']*
35. LOG SPACE COLOR CORRECTOR

New Addition: The ability to Change Interface colors.

New Addition: Scopes in the 3 monitor layout (ala Symphony). That would make life easy, esp. those edit suites that for some reason, skipped on bringing in scopes...\$\$\$

Editing

36. EXPAND A COMPOSITE CONTAINER. Once a composite container is made, you can bring it back to just being a master clip (would that be "decomposing"?) *[This has been asked for/talked about since around v3. I don't know if it's really difficult, or if the Project Lead never considered it important enough to implement]*
37. CLIP COLOR SCHEME for clips that are partially online. Offline clips are red, maybe these could be a nice blue or yellow or something.
38. INSERT SEQUENCE AS REFERENCE. The ability to drag a sequence into the source viewer but cut/replace parts of it onto the timeline as a reference sequence
39. VIEW INSIDE CONTAINER. I would like the option using a simple drop down to see inside a composite container so I can see what's inside it without switching modes. I don't like switching modes because I lose reference to my original edit and the other clips. I would like to back up and play from earlier on in the timeline to get a sense of timing but still be working with tree effects. *[This can be achieved right now by using Sequence View]*

40. MAINTAINING VISUAL REFERENCE TO THE MASTER TIMELINE in all modes would be awesome. This allows me to reference audio cues and other clips. Especially if I am combining track based effects with tree based effects. *[UOV??]*

41. Another solution would be a way of changing keyframe timing from the other modes on the master timeline. I often use the little colored bars with one key at the beginning and one at the end of just a single parameter. Then precede or follow that bar with a static bar of the initial or final value. I then modify the length of bar with the keyframes. This way I don't have to open the keyframe editor and lose reference to my timeline. I can edit my key frames right on the timeline along to music etc. This also works great for track effects. *[By 'little colored bar' I assume we're talking about clip/track effects?]*

42. FIND BIN ENHANCEMENT Hitting "find bin" without opening up a new window every time would be great.

43. The ability to OPEN MULTIPLE TIMELINES at the same time. *[I could only imagine this would completely stop DS – a heavy timeline gets close to doing so anyway]*

44. MACROS support.

45. CLIP COLOR A great MC feature that allows quick & really useful organization of stuff. Under User Preferences, allow user to select "Show offline media" and if selected all clips in timeline (not just audio) with missing media show up as RED. Also, right-clicking a clip either on the timeline or in a folder should allow you to SET CLIP COLOR with the same sort of color section as the locators. The sub-options here could be for "This Clip", "All instances of This Clip", or "This Source". Hey, could we maybe even conform clip color from the AFEs as well?

46. NODE COLOR Along the lines of clip color, how about node colors, to help organize trees.

47. MULTI-CAM A decent multi-camera mode.

48. SCENE DETECTION would be great so we can get cuts back in timeline for Pan & Scan and CC sessions. *[This function can be achieved with an edl, but Scene Detection would be useful anyway, for splitting up Masterclips when offlining]*

49. FADE IN/OUT The ability to lasso a clip or container and hit a function key that fades the clip both in and out the same duration at the same time. Maybe a pop-up window asking for duration in frames.

50. ANIMATION EDITOR ENHANCEMENTS A smarter keyframing/animation editor interface that easily and quickly allows the user to see/manipulate all of the keyframes that are relevant at the time across multiple layers and nodes, and eliminate those that aren't. After Effects is pretty good at this. I would love to be able to select any number of nodes in a tree, and bring up an animation editor that shows only the curves for those nodes, and only curves that have user added keyframes in them. Also, it would be great if it were possible to optionally link dual curve parameters such as X and Y scale into a single curve for easier manipulation. *[It was suggested on the DS-L that a simple (?) way of achieving this would be to make the left-hand list of parameters reflect the right-hand curve view. So if only animated*

curves are shown, so are only the animated parameters.]

Graphics improvements

51. ILLUSTRATOR IMPORT Full Color / Vector / Shape Support for Illustrator Import (Continuously Rasterize)

52. MOTION BLUR in Graphics

53. FULLY KEYFRAMEABLE SHAPES - that show up in the Animation Editor and everything

54. Much MORE ANIMATION OPTIONS in graphics (like handwriting, draw on, and kerning but involving scattering and all sorts of FCP type fx) and motion blur for moving objects.

55. EDGE ENHANCEMENTS Inner/outer (generally more) control of feathering/blur in graphics already?

56. EXPRESSIONS in graphics.

57. UNDERLINE function in graphics. *[I can't believe this is only #79!]* Fixed in Version 10.

Metadata

58. ATTIC-esque Backup System

59. DECOMPOSE in DS, so that the source side color can work more like Symphony, with Masterclip/Subclip etc... but we can still digitize individual clips from the bin

60. SOURCE SIDE EFFECTS ENHANCEMENT Mirror the color model in Symphony so that I can apply a Masterclip effect, then change it to be clip specific without removing or altering from all the other clips.

61. MODIFY EFFECT Ability to modify clips to include/exclude tracks after logging

62. ARCHIVING ENHANCEMENTS Powerful, sophisticated archiving that allows for project revisions to be updated without re-archiving the entire project, to multiple tapes if necessary. Partial restores for the same purpose.

63. AUTO-INCREMENT, the ATTIC ALTERNATIVE Perhaps instead of an ATTIC (useful in MC but I always found a bit of a kludge), how about a User Preference setting near Auto-Save Interval that would allow us to optionally also choose "AUTO INCREMENT" and append a simple version number scheme

to the auto save? This would append a “.0000” sort of thing to the Segment name, and at user specified intervals, the sequence would be saved as Sequence.0001.Segment, Sequence.0002.Segment, etc. You would also want a MAX NUMBER OF VERSIONS parameter, so you didn’t fill up your project with too many versions. Also, there should be an option, when archiving projects, that allows you select a number (N) for MAX NUMBER OF VERSIONS TO KEEP—then the archiving process can automatically delete all but your most recent (N) versions.

New Addition: SUBCLIP FLEXIBILITY Being able to trim beyond the finite ins and outs of subclips.

3D Native Compositing

64. REAL 3D COMPOSITING, including ability to import 3d shapes, cast shadows, adjust lighting, apply plug-ins in 3D Space (eg T_glow, surrounds an object in 3D space)

65. 3D COMPOSITING WORLD SPACE; import of models lights cameras null objects animations; particles, displacement, ray tracing etc.

66. A NEW 3D GRAPHICS TOOL, with tons of cool, but easily customized type animation presets and transitions. Like LiveType. Also, a one-button title fade up and fade out tool that also includes the shadows and borders please.

67. I'd like to see the 2D and 3D tools written so that it is one proper feature set instead of 2 unrelated ones.

Also:

- OGL accelerated when possible for previewing.
- Always continuously vector
- motion blur
- animateable shape points (in 3D)
- customizable edge extrusions with large library of presets (like Zaksworks Invigorator)
- proper cameras that access 3D tracking data

Conforming

68. CLOSER CONFORM abilities with FCP/Avid [*We'll have to see how much Avid's management has REALLY changed for this one to work. Historically they have never been interested in making any of their products play nicely with FCP. To quote: “We don't support FCP”.*

Ignorant, yes. Stupid, yes. Lacking in foresight, yes. A good way to lose future sales, yes. Nevertheless, that's how their approach has always been]

69. EDL CONFORM Some kind of utility that would allow for a closer conform that EDLs when onlining a 24fps project from a 30fps offline.

70. TOTAL CONFORM *[I think this one was mine – hey, I can dream]*

71. PLAY NICER WITH COMPOSER/XPRESS. Direct import/opening of Avid Composer/Xpress bins. No AFE, No Medialog. Just open 'em and use 'em. Export DS bins so that they can be used in Composer/Xpress. Same with FCP. This would make DS a more attractive conforming tool.

72. CONFORM LOG TO TIMELINE When an AFE is conformed on the timeline, and the error log appears, the options are currently SAVE (as html) or OK. Please add a “TO TIMELINE” button that would parse the notes adding locators to the timeline with the text of each message intact. You could even add a section in User Preferences to not only make this a default behavior, but also add the ability to color code (user-definable) different kinds of errors... IE blue locators for Keyer effects, red locators for missing file references, etc.

73. CONFORM OF MC LOCATORS Yes, it would be great to just open Avid Bins (.avb) natively, but whether we get this or not, could we please conform the MC Locators either via AFE or by reading them out of the .avb? Lots of offline editors and assistants use those for notes to us and apparently just saving their locators as a text file and sending it on is way too difficult for them. Perhaps another User Setting – “Conform MC locators” either checked or not.

74. PROPER CONFORM OF DISSOLVES, DIP TO COLOR, FADES, ETC. FROM MC I have posted this using the support tool as a software bug, never heard anything, please don't flame me, but I'm really p'd off that here we are in v8 QFE3 and we're still not conforming a friggin' dissolve properly! MC dissolves etc. do **not** include the zero or one hundred percent values of the effect timing curve in their duration, as the DS does. This means that **all** such effects conformed from MC have incorrect timings. On longer durations it's not very noticeable, but when you get to about ten frames or less, we always FIX them because the result can be quite different especially on very short DIP TO COLOR effects. For example, the DS conforms a 2-frame dissolve from MC, but it looks like a cut. Here's why: the incorrectly-conformed timing value in DS for frame 1 is zero and for frame 2 is one hundred. No dissolve there, it's essentially “first frame is this shot, second frame is the other shot, no blending”. But in MC, since the zero and one-hundred points are **outside** the effect, the correct timing values are 33.33 for frame one and 66.66 for frame two. This will match what the MC editor did, and it's a simple bit of math that works for **all** dissolves, dips, fades, etc. *[Agreed 100%. I've made this point myself to the devs many years ago, but was told it wasn't as simple to fix as it appeared – I cannot imagine why]*

75. 24FPS TO 23.98FPS BYPASS When conforming an AFE from any MC-family app (Xpress, MC, Symph) 24fps project into a 23.98fps DS timeline, allow user to select “24 FPS TO 23.98 FPS” YES or NO as a requester box when the sequence is dropped on the timeline. This would allow the DS software to **bypass** converting all the 24-based numbers into 23.98 numbers and thereby avoid **screwing up** all the function-curved timewarps, container clip placement, etc from MC. I know this would really be a workaround to an MC problem, and the DS is just being accurate since the MC AFE ID's itself as 24... but it seems this would be quicker than tediously tweaking tons of timewarps.

Management issues

76. Proper marketing for DS. *This seems to be being addressed with Avid's "New Thinking" campaign.*

77. Aggressive training program to convert the unwashed masses

78. A more affordable upgrade path.

79. Unity support. The DS needs to be able to work at full resolution with a Unity in 64-bit so that media may be shared both across platforms and within a workgroup. //This has been addressed in Version 10 with Unity MediaNetwork. And apparently ISIS as well. From Avid:

- Avid Unity ISIS client support starts with Avid DS version 8.0 and it supports both 32-bit and 64-bit Unity clients to fully host all Avid DS product family.
- Avid Unity MediaNetwork is limited to 32-bit client only with Avid DS up to version 8.4. Avid Unity MediaNetwork version 5.1 introduces a 64-bit client and fully supports Avid DS v10.0 with this operating system.

80. CLEAR and ACCURATE documentation? *[Not sure I can go along with this one. I've always felt DS documentation to be excellent, well-written, and concise. I've had input on more than one occasion with the documentation for new features (such as Fluid Motion for example). Can we be more specific?]*

81. a really good demo project (a la the 'fisherman' from v.5) *[Agreed, and I can't see why it can't be there – that same project would work just as well on v8.0 as on any other version]*

82. Custom keycaps would be a cheap fix that would NOT require developer time. *[Or stickers that could go onto any keys?]*

// Revised: Nov 29, 2008 9:54 am

2007 DS Wish List Finalists - Round 1

Organized and compiled by [Sean Stall](#) from suggestions and votes on the [DS List](#), the idea of this group of lists is to prioritize a few of the most wanted additions and modifications inside specific categories. [Round 2](#) further narrows down the wish list. For the complete, un-filtered list of wishes, click [here](#).
(added 3.13.07)(updated 3.31.07)

Editing Finalists

- 1. a. Clip color scheme for clips that are partially online.** Offline clips are red, maybe these could be a nice blue or yellow or something.
 - b. Clip color.** A great MC feature that allows quick & really useful organization of stuff. Under User Preferences, allow user to select "Show offline media" and if selected all clips in timeline (not just audio) with missing media show up as red. Also, right-clicking a clip either on the timeline or in a folder should allow you to set clip color with the same sort of color section as the locators. The sub-options here could be for "This Clip", "All instances of This Clip", or "This Source" . Hey, could we maybe even conform clip color from the AFEs as well?
 - c. Node color.** Along the lines of clip color, how about node colors, to help organize trees.
- 2. Animation editor enhancements.** A smarter keyframing/animation editor interface that easily and quickly allows the user to see/manipulate all of the keyframes that are relevant at the time across multiple layers and nodes, and eliminate those that aren't. After Effects is pretty good at this. I would love to be able to select any number of nodes in a tree, and bring up an animation editor that shows only the curves for those nodes, and only curves that have user added keyframes in them. Also, it would be great if it were possible to optionally link dual curve parameters such as X and Y scale into a single curve for easier manipulation.
- 3. The ability to open multiple timelines** at the same time.

Honorable Mention:

Insert sequence as reference. The ability to drag a sequence into the source viewer but cut/replace parts of it onto the timeline as a reference sequence

Effects Finalists

- 1. Completely rebuilt tracker.** Unlimited tracking points. (*Perhaps Avid could license Motor? Or encourage Imagineer to port Motor as a plug?*)

2. AVX2 and OFX support.

3. Particles. Much more than Wonderstuff, and the ability to use alpha or luma channels as spawning points for the particles.

Honorable Mention:

HM1. UOV. What DS has always needed is a global "dope sheet" style keyframe editor for when you want to adjust keyframe timings without looking at the curves. All animated parameters (including rotoshapes) should be displayed and are easily multi-selectable, etc. (*UOV – Universal Object View. A way of seeing all assets within a project in context, in a time-based view. Graphics objects are no different to captured media, so let's see them in a global view to enable their repositioning – likewise selectable keyframes, etc... the list is endless.*). What DS has always needed is a global "dope sheet" style keyframe editor for when you want to adjust keyframe timings without looking at the curves. All animated parameters (including rotoshapes) should be displayed and are easily multi-selectable, etc. (*UOV – Universal Object View. A way of seeing all assets within a project in context, in a time-based view. Graphics objects are no different to captured media, so let's see them in a global view to enable their repositioning – likewise selectable keyframes, etc... the list is endless.*)

HM2. Tree/Expression Master Node. UI Widgets added to the master node (in an encapsulated node trees) so you can wire sliders, checkboxes, color pickers, etc to parameters on the node tree inside. So just like Shake where a node is made up of internal nodes but you can create your own UI for your effect.

Capture/Frame Rate Finalists

1. Native Support for Firewire-based formats. (P2, HDV, DVCProHD)

- A P2 IMPORT FEATURE that creates clips (including audio) and preserves the timecode (see FCP).

2. Skip remaining file imports. When recapturing from timeline, could we have a requester box with an option to "Skip ALL file imports" YES or NO before the DS starts parsing the timeline... huge time-waster if you're just looking to load stuff from tape and haven't gone through the timeline to weed out all the video mixdown slugs and quicktime movie references to files that you don't have yet.

3. Better management and options of TC breaks on capture.

Honorable Mention:

Recapture threshold parameter. When recapturing a new version of something, you can tell it to skip clips with less than 'x' number of offline frames. This helps to avoid having to load 60 tapes to digitize 2 additional frames at the end of pre-existing handles.

Smart Capture. When selecting Capture from Timeline with Options, there should be an additional option to Capture Clips with Visible Missing frames only, perhaps called “Smart Capture” that would work nicely with handles selected. So, if I select this “Smart Capture” with say, 10-frame handles, then only the clips that are missing media for frames actually visible in the sequence (i.e. NOT in missing from handles) would be flagged for capture—and those would be recaptured with the 10-frame handles I specified.

Conforming Finalists

(added 3.16.07)

1. Total Conform.

- **Closer Conform abilities with FCP/Avid.**
- **Play nicer with Composer/Xpress.** Direct import/opening of Avid Composer/Xpress bins. No AFE, No Medialog. Just open 'em and use 'em. Export DS bins so that they can be used in Composer/Xpress. Same with FCP. This would make DS a more attractive conforming tool.

2. Proper conform of dissolves, dip to color, fades, etc. from Media Composer. I have posted this using the support tool as a software bug, never heard anything, please don't flame me, but I'm really p'd off that here we are in v8 QFE3 and we're still not conforming a friggin' dissolve properly! MC dissolves etc. do **not** include the zero or one hundred percent values of the effect timing curve in their duration, as the DS does. This means that **all** such effects conformed from MC have incorrect timings. On longer durations it's not very noticeable, but when you get to about ten frames or less, we always FIX them because the result can be quite different especially on very short dip to color effects. For example, the DS conforms a 2-frame dissolve from MC, but it looks like a cut. Here's why: the incorrectly-conformed timing value in DS for frame 1 is zero and for frame 2 is one hundred. No dissolve there, it's essentially “first frame is this shot, second frame is the other shot, no blending”. But in MC, since the zero and one-hundred points are **outside** the effect, the correct timing values are 33.33 for frame one and 66.66 for frame two. This will match what the MC editor did, and it's a simple bit of math that works for **all** dissolves, dips, fades, etc.

Honorable Mention:

3. Decompose. So that DS can keep track of Master Clip references for source based color correction.

Graphics Finalists

(added 3.23.07)

- 1. Fully Keyframeable Shapes** that show up in the Animation Editor and everything.
- 2. Motion Blur in Graphics.**
- 3. Much More Animation Options in graphics** (like handwriting, draw on, and kerning but involving scattering and all sorts of FCP type fx) and motion blur for moving objects.

3D Native Compositing Finalists

- 1. Real 3D Compositing.** Including the ability to import 3D shapes, cast shadows, adjust lighting, apply plug-ins in 3D Space (ie, T_Glow, surrounds an object in 3D space)
- 2. A new 3D Graphics Tool** with tons of cool, but easily customizable type animation presets and transitions. Like LiveType. Also, a one button title fade up and fade out tool that also includes the shadows and borders please.
- 3. 2D and 3D tools** written so that it is one proper feature set instead of 2 unrelated ones.

Also:

- OGL accelerated when possible for previewing.
- Always continuously vector
- Motion Blur
- Animateable shape points (in 3D)
- Customizable edge extrusions with large library of presets (like Zaxwerks Invigorator)
- Proper cameras that access 3D tracking data

Audio Finalists:

- 1. Support for ProTools Audio Plugs.** Or at least give better feedback and UI for the DS sound nodes.
- 2. Being able to Save and Import Mixer Settings, per sequence, per audio container, per project.**

Export Finalists:

1. **Multiple Inserts to Tape**, instead of one at the time. A method to Batch Export to tape.
2. **Batch File-Based Export**
3. **Export OMF for MC** - files, audio and video

Metadata Finalists:

1. **Modify Effect.** Ability to modify clips to include/exclude tracks after logging.
2. **Decompose in DS**, so that the source side color can work more like Symphony, with Masterclip/Subclip etc., but we can still digitize individual clips from the bin.
3. **Source Side Effects Enhancement.** Mirror the color model in Symphony so that I can apply a Masterclip effect, then change it to be clip specific without removing or altering from all the other clips.

Honorable Mention:

4. **Archiving Enhancements.** Powerful, sophisticated archiving that allows for project revisions to be updated without re-archiving the entire project, to multiple tapes if necessary. Partial restores for the same purpose.

Color Correction Finalists:

1. **Real Time Secondary Color Correction Wheels** (steal from Symphony).
2. **Better color grading interface** with multiple real time secondaries/selectives, grading history on clip (saving presets w/ snapshots), support for tactile surfaces, with parallel input & feedback on multiple parameter changes (no more "release control to update viewer").
3. **Log Space Color Corrector.**

Honorable Mention:

4. **Big Ball Support** in all Color Correction Modes (USB/JL Cooper).

// Revised: May 7, 2007 2:27 pm

2007 DS Wish List Finalists - Round 2

Organized and compiled by [Sean Stall](#) from suggestions and votes on the [DS List](#), this group is **Round 2** of the Wish List Finalists. Once these have been selected, the next round will trim the list down to only the top few most wanted features and enhancements. To see the first round of the category finalists, click [here](#) and to see the complete, un-filtered list of wishes, click [here](#). (added 4.13.07)(updated 4.23.07)

Round 2 Finalists:

1. Animation Editor Enhancements. A smarter keyframing/animation editor interface that easily and quickly allows the user to see/manipulate all of the keyframes that are relevant at the time across multiple layers and nodes, and eliminate those that aren't. After Effects is pretty good at this. I would love to be able to select any number of nodes in a tree, and bring up an animation editor that shows only the curves for those nodes, and only curves that have user added keyframes in them. Also, it would be great if it were possible to optionally link dual curve parameters such as X and Y scale into a single curve for easier manipulation. (added 4.13.07)

2.

a. Clip Color Scheme for Clips that are Partially Online. Offline clips are red, maybe these could be a nice blue or yellow or something.

b. Clip Color. A great MC feature that allows quick & really useful organization of stuff. Under User Preferences, allow user to select "Show offline media" and if selected all clips in timeline (not just audio) with missing media show up as red. Also, right-clicking a clip either on the timeline or in a folder should allow you to set clip color with the same sort of color section as the locators. The sub-options here could be for "This Clip", "All instances of This Clip", or "This Source" . Hey, could we maybe even conform clip color from the AFEs as well?

c. Node Color. Along the lines of clip color, how about node colors, to help organize trees.(added 4.13.07)

3. Real Time Secondary Color Correction Wheels (steal from Symphony) (added 4.13.07)

4. Completely Rebuilt Tracker. Unlimited tracking points.(added 4.19.07)

5. Real 3D Compositing. Including the ability to import 3D shapes, cast shadows, adjust lighting, apply plug-ins in 3D Space (ie, T_Glow, surrounds an object in 3D space). (added 4.19.07)

6. AVX2 and OFX support. (added 4.19.07)

7. Native Support for Firewire-based formats. (P2, HDV, DVCProHD)- A P2 Import Feature that creates clips (including audio) and preserves the timecode (see FCP). (added 4.23.07)

8. Total Conform.

- Closer Conform abilities with FCP/Avid.
- Play nicer with Composer/Xpress. Direct import/opening of Avid Composer/Xpress bins. No AFE, No Medialog. Just open 'em and use 'em. Export DS bins so that they can be used in Composer/Xpress. Same with FCP. This would make DS a more attractive conforming tool.(added 4.23.07)

9. Skip remaining file imports. When recapturing from timeline, could we have a requester box with an option to – “Skip ALL file imports “ - “YES or NO” before the DS starts parsing the timeline? It’s a huge time-waster if you’re just looking to load stuff from tape and haven’t gone through the timeline to weed out all the video mixdown slugs and quicktime movie references to files that you don’t have yet. (added 4.23.07)

10. Modify Effect. Ability to modify clips to include/exclude tracks after logging. (added 4.23.07)

// Revised: May 7, 2007 2:26 pm

2010 DS Development Wish List

Drivers and Ingest/Output

1. Complete drivers/support for Long-GOP sources such as XDCAM and EX for all the devices and software [likewise for other manufacturer's products]
2. A file based ingest work flow that does not rely on Media Composer.
3. Better file based conform.
4. Able to work with OMF, this includes both import and export including video (for ProTools)
5. Better file output options: Render queue / scriptable output / sparse renders; File name based (automatically) on source or timeline frame no/tc, with more user friendly padding options; ability to output to more than one format at a time (ie render once, write to dpx and qt in one step); Automatic creation of resolution folders (like what Baselight does).
6. A way to script or queue output to tape. (Isn't this part of #5?)
7. OpenEXR Ingest and Output
8. Digitize across time-code breaks
9. AAF/AFE Export of sequences, also for Audio with media embedded.
10. Support for Silicon Imaging, Phantom, WeissCam, Arri D21 Digital formats in realtime and the new RAW formats.
11. XML import-export
12. Support for more than 8 audio I/O channels with the AJA card.
13. The ability to edit the capture settings for a file **after** the file **or files** have been captured and have the result translate to all timelines. Previously rendered clips will show as unrendered.
14. The ability to change Reel name and timecode of a captured clip or file with no unlinking of media. The result will translate to all timelines with a Yes/No operation dialog. Previously rendered clips will show as unrendered.
15. Unleash the full potential of the AJA card in V10! Allow it to be used as a standalone I/O standards converter. Please see [this workaround](#) as a temporary expedient.
16. Embrace any new file format BEFORE FCP does.

Color Correction

1. BIG BALLS (A user interface for color correction); Tangent Panel support (or any panel with rings and big balls) Seriously if Avid was to do this, they would have to rebuild the entire engine so the screen smoothly reacts to the panel control. The way DS is working now, panels would be useless. If everything worked DS would be taken far more seriously by many more colorists.
2. Dark & neutral User Interface (to help with Color Correction), Advanced options in CC like colour warpers etc
3. Layers & effects inside the Color Correction module, masks including invert within color mode so you don't need to work in graphics to build a window or multiple windows
4. Additional tools for grading (e.g. masks inside CC for main / secondary .. not only just before ...)
5. Proper handling of RED files with a color correction effect or an easier LUT workflow. LUT's are not a workaround. We need better support for them.
6. Adding video scopes (Waveform, Vectorscope, Histogram).
7. OpenEXR - Full Float or Half Float? - Most certainly half, but asking anyway - will need new

grading tools.

8. Thumbnails for grade presets. (Preferably user defined sizes - so we can use them for comparison sources)

3D

1. A workable, flexible less-than-15-year-old 3D space with 3D trackers
2. The 3D DVE User Interface integrated with the rest of DS's tools -- at least have the same icons for the same things.
3. If no 3D tracker is to be developed, the ability to import camera data from Bijou -or- PF track. 3D tracking without being able to extract camera data is a non-starter, and Planer trackers do not work on a lot of 3D shots.
4. Blurs and optical glows working in X, Y and Z as you pan around in a 3d environment
5. Support for Wondertouch Particles or a particle generator with a tracker.

Graphics

1. Expressions within Graphics, the same as the rest of DS.
2. More realtime effects within Graphics, including CC.
3. Text capitalization tools in graphics effect text tool (Capitalization as a formatting option is rarely retained when copied and pasted from Microsoft Word)
4. Motion Blur in Graphics / Paint
5. Some pre-built text animation similar to Apple's Motion.
6. Object edge feathering controls (eg.: have one edge hard, but another blurring inwards; while another section could blur outwards slightly).
7. The ability to add a drop shadow or edge to a stroke
8. Rotoscoping Features: Bspline rotosplines, double-edged splines to control drop-off.

Timeline

1. Resolution/FrameRate-independent timeline in REAL TIME.
2. 8 tracks of guaranteed realtime effects (CC + DVE) for HD DNX projects via SDI output. (NB: This functionality was demonstrated on SD projects when DS Nitris was first released.)
3. Total (complete) conform from MC & Symphony - now that MC has 3D tools, we need the same 3D modes and the ability to conform those in the same way, we also need to be able to conform different frame rates
4. The ability to drop sequences and clips of different framerates onto a timeline to play back in realtime.
5. Modify MULTIPLE clips simultaneously.
6. UOV - Universal Object View. A unique 'overview' of the Timeline where all objects, effects, graphics etc are all visible and drag-about-able
7. Duplicate clips indicator in the timeline.

Tracking

1. Fluid Stabilization similar to MC's tool.
2. Better Tracker (better than Smoke)
3. Embed Mocha inside DS

Miscellaneous

1. Controllable motion blur with shutter angle and weighting to match live action.
 2. Improved Stereoscopic support.
 3. Faster response to loading sequences.
 4. Faster response while confirming.
 5. Ability to truly share projects, by having the same project (but not sequence) open on 2 DS systems at the same time
 6. Decompose, or some similar ability that would enable improved functionality of Masterclip based effects
 7. Give all effects the ability to work in at least 16bit. No more 8-bit only effects (even though there are only a few)! Obviously this doesn't apply to legacy effects such as the old 'Classic' CC.
 8. Make "Recapture with Options" become "Recapture with + options" not only "Recapture with - options"...
 9. Have the number pad "." (period) for double-zeros be able to be used more than once per entry (1:00:00:00 would be 1... instead of 10000. as it is now)
 10. Modify Clip that is MC-like 'modify' capability so you don't have to re-log from scratch in order to add an audio track.
 11. Modify Clip for a selection of Master Clips (for instance, add Audio to a whole bunch of logged clips)
 12. Clip color Selector/Filter
 13. More "cool" effect presets to ameliorate the costs of third-party plugins, Text Presets and 3D presets.
 14. After effects plugin.
 15. An ATTIC-like crash/screwup recovery system. (Please note, DS retains its ["Auto Save Files"](#) that may be used for this if you have an issue currently.)
 16. Thumbnails in the Tree.
 17. A method of altering timings within a tree more elegantly than with Keyframes
 18. Print Bin.
 19. Conform of Illusion FX from MC
 20. Aggressive training initiatives to expand the user base.
21. Media Archive: ability to find any media used from other projects and copy into current project's GUID folders to be able to archive the GUID folders and not lose any media used from outside the project.

And need I say we need development and integration of the AVIDIDS product to continue and not to stagnate.

A

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[How to import from an AFE file on DS](#)

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How to import from an AFE file, using .MXF media

When you are importing projects from Media Composer or Symphony, you have to export them to DS

first in those applications, which will create an AFE file. AFE stands for Avid File Exchange and it is a means by which you can use bins created in the other two editing applications with DS.

First, double-click on the AFE

Next, create a new folder in your project called 'Conform Clips', and select the path in the Timeline Drop Settings. (click on the button with three periods)

Tick 'Create Associated Clips' and 'Force Creation of External Tape Sources'.

Then double-click the icon below, in this case 'Cut 1080'.

All the clips associated are laid out as you can see, so...

Click the down pointing arrow (bottom left corner) to access 'Set Bin Display'. Select it and it will give you the menu below...

Click Sequences and click OK.

Now your Sequence is ready to be double-clicked. Do that and ...

In the folder you created called 'clips' or 'conform clips', will be all the clips associated with the project/sequence. They should be red, which means they have no media.

Providing your Capture Tool has the correct deck templates installed, you can now right-click these red clips and select 'Recapture'.

If you created MXF media in Media Composer or Symphony, the clips should not be red if they are on your Media Array and you have set it up for MXF media and those files are in that folder set up for that on your DS. You don't have to capture, you are ready to edit.

Notes on the AJA I/O Card

With DS Version 10, more people are using the AJA I/O card as it is offered as the solution (the Nitris does not work) with the HP xw8600. Please note, you have to have a dual-link license in order to work with an Avid DS and 4:4:4 media. Dual-Link requires the AJA - it always has done, nothing has changed there.

Without the AJA (which **must** be purchased through Avid if you want to do 4k) you won't have the license. Without the license you won't have the 4k sequence presets.

With DS 10.1.1, you can work with RED Cine. If you have a Dual-Link system and it is upgraded to 10.1.1+, you can work with RED Cine:

1. New-->Sequence-->Film -->RED
2. Under "Resolution" you have the choice of Full or RT Proxy (if you have an Nvidia 3700 on the 8600).

If you don't have the 8600, there is an official Avid "Jover:"

1. Create your masterclips as Log files in a Final 4K sequence, Capture settings media conversion set to Scale Keep aspect ratio. RED settings set to Full Premium.....Do Not Capture Yet
2. Open a new HD offline sequence.
3. Recapture from timeline, and if you want, you can said "yes" to change Format Capture settings and switch to Half Good or even Eight Good if you want to capture faster and don't care about perfect image (it's offlining anyway) RED format specifics tab will not change if you reenter to the options (always show options choosen when creating log, this is something Avid is going to address, but it's captured half good or eight anyway, capture speed is proof of it).
4. Edit the sequence.
5. Reopen the Final 4K sequence and choose in sequence pref to "show media not available" instead of "closest available" and "Scale Keep aspect ratio" for Presets and media conversion.
6. Drop the HD sequence in it: **Sequence should appear offline.**
7. Select recapture from timeline and change your Format Capture to **full premium ...**
8. Wait a long time until all media from the sequence has been recaptured.
9. Color Grade.
10. Output.

Because of limitations with the RED SDK - Audio is NOT part of this workflow at this time.

Sync issues

Jean-Marc Porchet said:

When you get to the output tool the initial mode is a capture passthru mode so the incoming video is passed through the AJA and DS and yes at this point the AJA is locking to the incoming video. However as soon as you trigger an output DS switch back into play mode and the AJA then locks to the external video.

This is also how it worked with Nitris.

Dropped frames are not normal and having a valid external sync or not should not have an influence on dropping frames. We know we had some issue with audio and or video frames and samples dropped prior to 10.1 but it would be new to us this still happens in both 10.1 or 10.1.1.

Igor Ridanovic said:

When you're outputting and the VTR goes in record so the green sync light on the DS taskbar lower right goes amber. If you disconnect external reference and feed valid video SDI signal the light remains green. I suspected this to be related to the AJA driver.

Anamorphic 16:9 to 4:3 conversion

(added 07.10.2007 MH)

1. Create a new 4:3 project.
2. Change settings to fit either x axis for letter boxed or y axis for center crop in sequence preferences.
3. Drag the anamorphic footage into the 4x3 sequence.

N.B.: Digibeta footage shot 16:9 is anamorphic.

Or just stick a DVE on the 16:9 timeline with X=133.33 (or Y=75), which should play out in real time.

ANIMATION EDITOR

R-click the animation button on any property page to get to the animation editor for only the properties of that page.

Tip: To **cheat the value of a slider past its limit**, set a Key Frame using Auto Key (sets a Key Frame for that value only) and step into the Animation Editor. Then enter a numeric value that exceeds the slider limit.

Animation curves can be saved and loaded in two file types: .FXI and .FRAW. FXI is compatible with XSI and DS.

Curves may be saved or loaded. Cut, copy and pasted.

Tip: **To export or load an individual animation curve**, select the curve and click on the Save icon. To replace a curve with a previously saved curve, select the target curve and click on the Load icon, navigate to the desired curve and click load.

TIP: To adjust the speed in which a scale stops or accelerates in multiple dimensions (XYZ), Edit one, and then just select the entire curve and copy/paste it to the other channel (that's usually what Sexy Bob does), or edit one and hook the other up to it as an expression.

You can select both keys to move them around in time or value but you can't adjust the tangents at the same time.

To view a curve, it's effect must be selected in the effects tree.

Crop Curves will trim rather than scale animation curves in scaled time. Time values of keyframes will not change.

Control and dragging a box will select Key Frames within area.

Frame and value **windows may be incremented or decremented with + - numerical values.**

Orange DIVOT at upper left—keeps the area you are working on in the graph as you pan or zoom the graph.—ALSO allows for selection of multiple effects in animation editor window.

VIEW META-REGION. has tabs at the bottom of the graph, which allow you to move all time-aligned keyframes at once.

TOOLS SELECT—selects points, groups of points. Marquee select or shift-click or ctl-click to select multiple points.

SELECT REGION- drag over a group of points. Makes a whole section of keyframes which can then be moved, stretched, shrunk, copied, pasted, etc. R-ripple button at top ripples or doesn't when cutting and pasting.

MOUSE KEYFRAME CONTROLS

- Left button- MOVES a keyframe
- Middle button (press wheel) ADDS a keyframe
- Right button—REMOVES a keyframe

ZOOM Select- Z

F frames selection to full area

SHIFT-F Frames all curves

- X-drag—pan

VIEW—NORMALIZE Y VALUE—makes all curves visually the same height.

Numbers are arbitrary. Helps isolate effect parameters that have keyframes. Great for working with multiple parameters together. NOT ACCURATE FOR VALUES.

View tip: Set the Animation Editor to only show Animated Parameters –will reduce clutter in animation editor window.

View tip: Turn on labels for curves and axis in the View menu.

FRAME SELECTED KEYS—makes selected keys fill the graph window.

SNAPSHOT—holds a snapshot of each curve... toggle between snapshot and new adjustment. In View preference, you can turn on snapshot curve...holds a ghosted version of the snapshot in the graph.

- Snapshot and Swap to Snapshot
- Snapshot takes a snapshot of a curve and hold it in memory
- Swap to snapshot toggles an edited curve with the one in memory

Tip: Turn on snapshot overlay in Preferences/Editor/View/Snapshot Curve

H.U.B.

To handle splines

- H—HANDLE selection—for grabbing a handle when it's too close to a spline
- U—UNIFY tangents-- Unite broken splines... make angular splines curvy.

- B—BREAK tangent—makes curvy splines angular—broken spline.

CURVE PROCESSING

- **RESAMPLE** will give you more or less points... **More points help smoothing work better.**
- **FIT**—Removes extra keyframes, thins them out.
- Smoothing Key Frames adds points on a curve by resampling.

CONTINUITY OPTIONS--DON'T TOUCH!

Key Frame Types: Lock in time, specific value, Slope Vertical, Slope Horizontal.

Plateau Slope: Eases the in and out of a curve but makes a linear curve between two Key Frames.

Curve Types:

- Constant Extrapolation
- Gradient extrapolation
- Cycle (loops the curve between first and last Key Frame)
- Freeze Cycle
- Make Rotation Continuous (Inverts the direction of a circular value, such as hue.)

Crop Curves—turn on to stretch the duration of an effect, without stretching the keyframes.

Smoothing Curves

1. Select the curve to be smoothed
2. Resample the curve with a step of 0.5, with the "Keep existing keys" button checked (this will give you the maximum number of points to smooth, one per field)
3. Remove any keys at the beginning or end of the curve which are flat (i.e. where there was no motion)
4. Select Average or Gaussian smoothing (I usually use Gaussian - the further away a key is, the less influence it will have)
5. Select the Range. This is the number of keys either side of any key that will effect the key in question. In other words, a range of 5 will mean that a key's value will be influenced by the five keys on either side of it.
6. Select the variance (if using Gaussian). This will determine how much the smoothing will smooth your curve - the higher the number, the flatter the curve. Start with say 2.
7. Hit the "Smooth" button.

Antivirus Applications that work with DS

From Avid:

There is no AntiVirus listed on the Support Center because there is none officially approved by Avid. (even though the KB states: Symantec Antivirus version 10.1.5.5000 is the ONLY version currently qualified)

But I can say that we faced many problems with McAfee, and so this one is the least recommended...

We are currently using [Symantec Endpoint Protection](#) with no ill-effect.

What others say:

What we do here we simply connect the client's drive to another computer loaded with antispyware and virus protection, an access it through the network.

We were using Symantec Corporate Edition, as we owned it, and it was recommended by Avid. Last year, when the autorun virri were all the rage, we found Symantec to be quite useless. We switched to [ESET NOD32](#), and is worked well. Initial scans often found dozens of infections that Symantec had ignored. We leave it running live in the background. This protects us with customer drives.

Once a drive is attached, NOD32 will immediately warn you. A scan is not required typically.

We have [Avaast](#) on our DSs and it works fine. We do turn off on access scanning though as it potentially could slow down the video drives. We've also disabled USB drives on all our edit systems since a client managed to infect all our PCs with a virus brought in on a USB drive. All drives are now scanned on a non network attached PC before being allowed onto the network. Its a real PITA but not as much as having to spend a Sunday virus checking all our PCs and cleaning up a virus that they'd all put on Edit Share.

(Thanks to Jef Huey, Sylvain Labrosse, Randal L Rike, Curtis Nichols and Serge Verrault)

Antlers and Schlitz! The real story

A new user joined the DS list sometime in -- I'm gonna guess mid-2001 (Tony guesses around 2000). He was from the mid-atlantic area. Henninger Media Services -- Richmond and Charlottesville, Virginia branches -- were hotbeds of early DS adoption.

Lucas Wilson, in his welcome to the list, had a fit of imagination. He wrote:

Welcome, Jeff.... I assume by now that Tony Jover has explained the initiation process. If not, just don't be alarmed when several people with "Henninger" tattooed on their foreheads show up at your door wearing moose antlers and carrying cases of Schlitz. Lucas Wilson

Soon thereafter, Schlitz and antlers became mentioned every time someone joined the list.... and passed into myth and legend.

(Thanks to Woody Sherman who got it right, Tony Jover and David Friedman -- good attempt)

AUDIO

RENAME TRACKS—R-click track properties, or label the mixer faders.

On Mixer page, set up MIXER CONFIGURATION, i.e. stereo, mono, 5.1, etc. DO THIS FIRST.

Post button on faders switch input channel VU's to post fader. Normally, meters are prefader.

Double Click a fader or pan control to set to default—**0 dB or center pan.**

R-click pan to enable or disable.

Note: Pan is available on Stereo as well as Mono channels/tracks.

Note: You must enable pan control. R-click on pan to enable pan controls.

Effects can be stacked in input channel viewer. R-click to add mixer effects.

ALT click on Track View: Shows channels routing.

R-click in effects box to add a channel audio effect (post clip effects, post track effects).

ORDER OF PROCESSING:

- Clip effects (stays with clip when moving it)
- Track Effects (affects entire track)
- Mixer/fader effects (affects entire track)

VIDEO/AUDIO SYNC--After making an audio container, hit S (Sync Lock) to maintain container's sync with video. CTL-Click video and audio clips before re-syncing.

FADER AUTOMATION—hit ANI button. Start play (L), move fader. If you want to correct an

animation halfway into a clip, start play from end of good area and continue animation. Starting from beginning blows away previously recorded automation data. To automate PAN without touching FADER automation, r-click to BYPASS fader automation (and vice-versa). Mixer Animations are relative to the parent sequence timeline, NOT per clip.

The Keyframe Icon both red and green indicates that one animation exists.

USING ANIMATION EDITOR for LEVEL TRACKING

Make a new layout for audio... Open a floating animation editor window, and move it over the timeline. Scale animation editor window, and timeline to match.

Switching mixer configuration (mono/stereo/5.1) will NOT remember animation.

Note: Control-click S will sync lock any clip or set of clips in the timeline.

Apply REVERB to track effects instead of clip effects, in order to have reverb time spill past the end of the clip. Or, lengthen the audio container with reverb to accomplish the same thing.

Minimizing pre-recorded reverb: Export it to Quicktime and add compression to suit. Will reduce ambience and undesirable reverb.

IMPORTING AUDIO CD'S-

Use [CDEX](#), which is on DS installation CD. Also, [dBPowerAmp](#). OR use CD Copy or Audio Catalyst... all will make a .wav file.

SEPARATING AUDIO CHANNELS

Use Dual Audio Channel Switcher in the audio effects to separate the left & right channels (needs to be installed separately from your Drivers CD). OR you can make MONO A1 and A2 tracks in your timeline and place the same clip on each track and they will separate out respectively.

**Creating two different mixes on the same timeline
(Added 07.08.2007MH Thanks to Sean Stall)**

For a separate mix, copy your sequence later on the timeline, create a 4 stream audio track and place all of your audio clips in an audio container (which will reside on the 4 Stream track.) Set the mixer inside the container to 4 Stream and track patch your audio accordingly. Now you have your main mix on the first part of your sequence on their respective channels, and your split tracks in an audio container with the right configuration later on your sequence. Output all at once without having to make new sequences or change configurations.

**Dealing with phase inversion
(Added 11.20.2007 MH)**

Duplicate the phase-inverted track. Put the DUAL AUDIO CHANNEL SWITCHER on both tracks. Isolate Left on one. Isolate Right on the other. Patch them accordingly in the mixer and add a GAIN effect to the left track. Choose the "invert phase" button on the Gain effect. MAGIC.

DS does not handle more than 8-channels for output

As VCRs get more audio channels, DS has lagged a bit and will not do a 12-channel output. But there is [a workaround for outputting 12 channels of audio](#) if you have a DS-Symphony dual-boot system:

VST Plug-ins (DT - 12/18/06)

**The free MDA VST plug-ins give you a few more options for tweaking your audio <http://mda.smartelectronix.com>.

Scrubbing Audio (Keyboard Shortcut)

To scrub audio, hold down [Ctrl]-[Shift]-S

(Thanks to John Heiser)

How to recapture audio that was not captured using the right deck settings

(Case Study)

One of our editors was capturing from Mini-DV tape and instead of selecting Embedded Audio, she used AES/EBU. Now there is no audio on any of her clips. We've been trying to recapture the clips with Embedded but they still come back with AES/EBU and no audio. Is there a way to change this without having to start from scratch with the capture?

The clips don't remember what physical source they came from (AES or SIF) - That's part of the deck preset you're capturing from. When you are capturing new material you can switch it from the default, but when you recapture, it's going to use whatever defaults the Deck Preset has.

1. Select all your clips, right click, and Purge just the audio (I like to use 'Show Media' and then sort and select the WAVs and delete them, but you can use the Purge tool and select appropriately.)

2. Under Deck Configuration, make sure the deck you're capturing from is set to Embedded
3. Save the deck preset so it sticks.
4. Select the clips and recapture.

If you have your room wired for Embedded audio, delete all deck templates that use AES/EBU. If you have your room wired for AES/EBU, delete all deck templates that use Embedded. If you have a mixture, save deck templates that are specific to the type of capture you do from each VCR.

Many facilities will set up a microphone input to a voiceover booth for capture with DS. Some will set up a microphone in the edit room for scratch narration. Each of these should be set up as a "deck" preset for live capture so that the appropriate audio type is captured. This will save considerable time.

Also, when recording audio from a live source, remember to change the tape name for each recording. If DS receives no timecode, it will record over each previous recording with the new recording with a timecode start of 00:00:00:00. Being disciplined about recording from live sources will prevent headaches in the future.

(Thanks to Margaret Faulkner and Bob Maple)

Embedded Audio Captures on the Wrong Tracks

(Case Study)

DS Version 10.1.x, xw8400 AJA and Nitris hardware.

Throw a tape in the DVCPRO HD deck, go into Capture Mode and start playing the tape. BTW, audio is set to Embedded within DS. Video is fine. Audio on the tape is Ch. 1&2, audio in the capture tool says Ch. 3&4. Hmm. Ok, scrap deck config., create a new one, same deal. Restart DS, same thing. Feed output of deck directly to Leader 5700A scope and check the audio. Ch 1&2 as expected. Restart workstation, power cycle Nitris, open new project, go to Capture mode, audio is now coming in on Ch. 2&3!!!

Response from Avid: This occurs due to a problem with the firmware. Manually reloading the Nitris Firmware should resolve this issue.

To reload your Nitris Firmware, please see [Avid's instructions](#)

Your audio hardware does not support the seq sample rate of 44k

You're trying to open a sequence with 44k audio as the Seq setting and you keep getting this error. The only sequence sample rate that you can choose is 48k audio. The audio won't play.

The sample rate is restricted to 48 *when your input is set to be embedded* (that is the only valid rate in that scenario). If you change your input to something else that should work and will not affect your output because the audio is broadcast to all on playback.

ProTools and the Broadcast Wave Format

(Case study thanks to Knut A. Helgeland)

The symptoms:

Imported audio files sound fine in the source window (and in any external editor), but samples are chopped off once the file is placed in the timeline.

This thing really had me going there for a while. We've been doing audio laybacks on the DS since forever, and it's always been sample accurate. Now it just seemed after the DS 10.x upgrade, not so. And it was a weird issue; The file plays fine inside DS, just not in a timeline! We tried dragging it into an audio container and had the same issue.

The solution:

My audio engineer and I started analyzing the issue. It so turns out that on this specific project, which is music based (the broadcast design package for our local Grammy's), the 95 BPM ProTools project was started before they had an animatic of the design, and once they got that, the frame rate of video didn't fully align with the bars of the project. It's like half a frame off. But audio is audio, so he bounced his bars, in .WAV format as we always do, which incidentally defaults to Broadcast Wave Format (.BWF), *which has embedded timecode*.

In DS, the file reads correctly in the source viewer, but *when you put it in the timeline it aligns to the embedded timecode*, chopping off the "extra" samples before a full frame count. Bouncing the mix again in .AIFF format solved the issue and was sample accurate. Exporting the original file as .AIF from QuickTime Pro did the same thing.

So it's not a bug, it's a gotcha. If you receive a final mix as .WAV or .BWF, and the start is wrong once placed in the timeline, convert the file to .AIF or .AIFF to remove the embedded Timecode.

Auto Saves

Also known as Attic (a feature request) (MH - 05/18/2007)

Directly from Avid: [Recovering a sequence after an application failure](#)

Based on the interval set in your User Preferences, Avid DS will save a copy of your sequence as an AutoSave file. This AutoSave is saved to a maximum of 4 copies. In the event of an application crash, these AutoSaves are used by the recovery mechanism to reopen the sequence.

As always, it is recommended that you save your work often. Ideally, you should be able to rely on copies of your sequence (created via "File > Save As...") or an archive of your project .

The AutoSave files only exist to recover a sequence from a crash and the manual recovery of sequences should not be considered a replacement for frequent saves and archives of your project, and should be used as a last resort.

Note: The AutoSave files are purged on the next successful launch of Avid DS. This means that a new set of AutoSave files are created and previous AutoSaves are no longer available, unlike the Media Composer Attic folder option.

To manually recover a sequence from an AutoSave file:

- 1. Locate the most recent AutoSave files from the CrashBackup folder on your C: drive. These can be found at C:\Program Files\Avid\DS_vX.X\DSSystem\temp.[USERNAME]. (Text appearing in bold will vary based on your version of software and the user account name)**
2. Drag a copy of the most recent AutoSaves to the project's folder location.
(the root of the project is probably the best location for this operation)
3. For each AutoSave you intend to check, right-click the AutoSave file and choose rename. When renaming the file, add the extension ".Segment" to the end of the file name.
(This is case-sensitive. Note that the "S" in Segment is capitalized)
4. When you launch Avid DS and choose that project, you will see a new sequence called AutoSave. Open this sequence and verify its content. If this sequence is usable, choose "File > Save As", save a copy of this sequence and next exit the application to clean the memory from the potentially dirty content.
5. Restart Avid DS and you can now safely open the newly saved sequence (from the recovered AutoSave copy) and resume work.

If there was no AutoSave file present in the temp.[USERNAME] folder, verify the CrashBackup folder content. You may found additional AutoSave files in there. If present, check their data and time stamps. If the match the date and time of the crash, you can also use these AutoSave files and attempt to manually recover the sequence.

C:\Program Files\Avid\DS_vX.X\DSSystem\temp.[USERNAME] maximum number of possible AutoSave files: 4

- AutoSave1
- AutoSave2
- AutoSave3
- AutoSave4

When Avid DS is restarted, it automatically reads the most recent AutoSave file and loads the data. If the content is deemed too corrupted, it automatically reads the next available AutoSave until it picks the least damaged file content. The sequence then appears as "Untitled" and Avid DS presents the user with a message requesting this recovered sequence to be save to a new name, and to restart the application. The user **MUST** not ignore this message.

C:\Program Files\Avid\DS_vX.X\DSSystem\temp.[USERNAME]\CrashBackup maximum number of possible AutoSave files: 3

- AutoSave5
- AutoSave6
- AutoSave7

- The reason being that AutoSave1 is usually lost in the crash, thus AutoSave2, 3 and 4 are automatically pushed in the CrashBackup folder and are renamed AutoSave 5, 6 and 7.

ARCHIVE

For complete instructions on how to archive projects, please see: [How to archive projects](#)

Archive Backup Utility

Officially, the Archive Backup Utility is a nearline temporary archive system for media files and project data. Since DS media file formats from time to time undergo subtle under-the-hood improvements alongside DS version updates, possibly making media files incompatible between versions, using the ABU for long-term archiving is not recommended or supported by Avid. The approved archive method is to video tape, which is a bit more agnostic over time. In theory.

What I've read is that most people are preserving their original source-native files on hard drives, and in multiple copies for safety. In terms of the overall budget for most projects, another several hundred dollars for some hard drives doesn't add that much. Best practices for care and storage of the drives, and protocol for updating/recopying over time, are a moving target.

(Thanks to John Heiser)

NB:

- **The DS Archive Backup Utility is an additional tool, which is not part of the core product, so is unsupported.**
- **If you use this tool as the core of your File Archive workflow, there is no guarantee the archives can be restored on Avid DS versions in the future and there is a guarantee that no caches will be restored.**
- **Currently** the only, Avid, futureproof Archive and Restore solution is via Tape.
- **This type of archive tool is on our Feature Requests. DS Support created this tool as a half-way-house method of achieving that request until it gets implemented into the main toolset. It remains unsupported.**

What about archiving stuff that you linked to from another project?

DS Archive Backup takes its linked files list from the archive DS is making. These are only files that got linked (not imported) in the Capture process. So in this respect, all linked files will be included in the backup process.

But Clips that were imported in the project but remained linked in the source project will not be included in the DSAB list because they do not belong to the project to backup.

Archive to Tape is indeed better because DS knows of these external (to the current project) media files and they are included in the Tape archive.

The DS Archive Backup is a Support own-made utility and not using any of the DS code and resources, hence its limitations.

(Thanks to Sylvain Labrosse)

Archive only the material you need
(added 11.26.2007 MH)

There is no one-button-push way to do this unfortunately. DS wants to archive all the media that exists online for the entire project.

The only way to do it is to make it so only the media you are interested in archiving is the only media on the system - which generally means purging all of the other material off the system.

You can jump through a bunch of hoops to do it without losing all of the 'other' media, but it's kind of a pain and requires extra disc space...

Make a second video storage in another directory outside of the regular 'VideoStorage' one, and use the Media Tool to *copy* the media used in a particular sequence(s) to the new storage. Then you remove the main storage from the indexer, and do a purge '*Except For*' on the sequence in question

to dump all the extra heads/tails. Finally, archive the project. Then you can deactivate and/or delete the temp storage, and re-activate your main storage so things appear as they did (with all the original material online).

Obviously not a quick or terribly straightforward thing to do but it works

ARCHIVING WHEN MULTIPLE TAPES ARE REQUIRED

DS does not archive to multiple tapes. Here's a workaround:

Close DS. Go inside your videostorage folder for that project and move half of your files out to a folder called something else, temp video for example. You must put it outside of your shared videostorage folder. Open DS and archive, it should only be seeing what is left in your folder. Once the archive is finished, swap the video files and archive again. When you restore, restore both archives with media.

For more on archiving please see [Using the Data Manager to make an archive](#)

Archiving to an external drive

Softimage has created the [DS Archive Backup](#) that will do the work for you. In order to use this tool, you must have installed the [Microsoft .NET framework](#) (there are complete installation instructions on Microsoft's website as well as a download link) for the DS Archive Backup to work.

This will archive all footage and linked material associated with your project that was not imported via link from another project on DS, ie:

- Link to images outside of DS = will archive.
- Link to footage from other DS project = will not archive.

It would appear that e-SATA drives and drive arrays can be very useful for this process. Rock Creative Images in Nashville, TN uses them for this purpose.

Archive Failure due to your sourcemodel being too long

If you are archiving your project and you get an "Archive operation failed" error, it could be caused by one or more of the sourcemodel names being too long. There is a [fix for this on Avid's website](#).

Archive Tapelog Timecode Change

(Case Study)

Pulling in an old archive. Noticing the video being pulled back in from tape is going to a wrong timecode on the archived D5 tape. I know its the correct tape, because the archived footage belongs earlier on the tape. Is there a way to go into the archivetape.log and change the starting timecode so the restore can capture the right archived material? Why should a "correctly archived archive" change timecodes?

1. Always make sure that you have the correct archive tape (if you did several for the project).
2. Always confirm that the first frame on tape corresponds to the timecode listed in the archivetape.log whenever you do an important archive (is there any other type?).
3. The archivetape.log can always be edited if required; it's only a text file.

When You Archive, Be Sure First

When you make an archive DS automatically fills in the start timecode with whatever TC the deck is sitting at at the time. You can (obviously) type in a new timecode... but sometimes when performing the archive DS will ignore what you typed and set the IN to the original timecode/where the tape is currently parked.

This would happen to me often on 7.6. I haven't noticed in later versions as much ...

Anyways, what I always do before an archive is go into capture, scrub around the tape to find where I want to start it (I usually build 'comp archives' with many different jobs on them) and then park the deck exactly there just to be sure, close capture, and do the archive.

(Thanks to Pete O'Neill, Tony Jover, Craig Gordon and "Sexy" Bob Maple)

Minimal requirements for a generic Avid DS Assist Station platform:

(added 04.16.2008 thanks to Tim Bolt)

Dual Processor

- Dual or Quad-Core Intel® Xeon®

- Dual-Core AMD Opteron (*AMD single-core not supported*)

RAM

- 2GB for SD (Windows XP 32-bit)
- 4GB for HD (Windows XP 64-bit recommended)
- 8GB or more for HD RGB and 2K/4K (Windows XP 64-bit only)

Graphics card

- ATI FireGL X1 or X2
- NVIDIA Quadro FX 3400, 3450 or 3500 (for HP xw8200, 8400 and 9300 only)
- NVIDIA Quadro FX 1500, 4500 or 5500 (for any generic workstations)

Monitor

- HP LP3065 supporting 2560 by 1600 in a single large display
- SVGA supporting 1280 by 1024 display resolution (dual monitor suggested)

Network

- Gigabit Ethernet adapter

Operating system

- Windows XP Professional (32-bit and adequate for SD and HD work)
- Windows XP Professional x64 Edition (recommended for HD RGB and 2K/4K)

Optional component that can be added to the Assist Station:

Video card (**supported on Windows XP Professional x64 Edition only**)

This option requires a license update to enable the Dual-Link hardware.

Install the driver for both cards by running the Avid DS Nitris DNA 64-bit drivers and firmware installer

../../../../download/drivers/v8.4/right_text/drivers/avid/nitris/avidnitris64.zip.

Skip the Nitris Base and Codec steps and the AJA driver will install. This is the only Avid DS qualified AJA driver. Do not install other versions to avoid issues.

Warning!

The AJA option on Avid DS Assist Station is strictly to allow external video monitoring and we do not certify the audio integrity nor its accuracy with the video material. If used for crash record to

tape, we do not guarantee nor support that it will work properly.

- [AJA Dual-Link Xena 2Ke](#)
- [AJA HD/SD I/O Xena LHe](#)

Important notes regarding the new Avid VideoRAID

1. **Avid has not qualified the new Avid VideoRAID SR (SAS) product with Avid DS Nitris standalone nor with Avid DS Nitris and Avid Symphony Nitris systems in a dual boot configuration. The reason is that the new VideoRAID SR (SAS) requires a BIOS version of 2.26 which is currently NOT supported for DS v8.4. While Avid Symphony Nitris v3.0 is certified with the Avid VideoRAID products as a standalone, the VideoRAID SR can NOT be used in a dual boot configuration for the reason above.**
2. Avid Symphony v3.0 requires that the firmware on Avid Nitris classic hardware be updated. This firmware update has not completed qualification with Avid DS v8.4, therefore *customers with dual-boot Symphony/DS systems are advised not to update to Symphony v3.0 at this time.*

Note:** At this writing, you cannot set up Symphony 3.0 to dual boot with any Avid DS with any array.

Revised: Dec 21, 2011 3:17 pm

The DSWiki is a collaborative venture for members of the DS-List. As the site's caretaker, if you have any ideas, suggestions or questions about the DSWiki, I can usually be reached on the [DS-list](#) or you can send a note to me directly: [David Tarr](#). Thanks for stopping by and keep checking back for new content.

Revised: Nov 24, 2008 7:57 pm

Achieve More with the 3D DVE

The following was taken from [Tristan Le Rudulier's](#) NAB 2005 presentation. The original pdf can be found here: [Achieve More with the 3D DVE](#).

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// Revised: Mar 27, 2010 9:03 am

The Prestigious Purple Antler Award

Once a year, the DS'ers of the world choose one individual to recognize for that person's tireless efforts to improve the DS and/or the DS community. The Purple Antler award is an annual award presented at the NAB DS User Group meeting and bestows the honoree with the title of "Honorary DS Artist."

The 2009 Purple Antler Award Winner:

Marianna Montague

Avid DS Champion and Loyalist

Sean Stall presenting Marianna with the Purple Antler Award

Sean Stall presented Marianna with the first ever Purple Antler Award at Yolies 2009 on Tuesday 21st April. Present were many DS users, plus Kirk Arnold and several other Avid execs.

[Link to Schy's video of the Award ceremony.](#)

[Link to more Schy Meatfest photos.](#)

For more information about this award, please see [Antlers and Schlitz!](#)

// Revised: May 1, 2009 4:40 pm

Arri Alexa

Use this

[AlexaV3 K1S1 LogC2video Rec709 EE Luther3d.Preset](#)

- [Details](#)
- [Download](#)
- 848 KB

generated using [Arri LUT Generator](#). This DS Preset (LUTs Effect) converts Alexa Log C to ITU709 color space.

Steps in 4:2:2, not tested, but it should work

1. Link Alexa Log C material as "ITU 601/709" in the capture settings.
2. Apply LUT as clip effect to individual clips or as source side effect to Alexa Log C footage.
3. Color correct as usual.

Steps in 4:4:4

1. Link Alexa Log C material as "linear" in the capture settings.
2. Apply LUT as clip effect to individual clips or as source side effect to Alexa Log C footage.
3. Apply LUTs Effect ITU709 Log to Lin preset as track effect. Make sure no other footage than Alexa is on the track.
4. Color correct as usual, between two LUTs.

Advanced Discussion

Why not create a Log C to Lin LUT for use in 4:4:4? That would get rid of the Log to Lin track effect. Because DS color corrector as of version 10.5 is calibrated to work with gamma corrected video.

// Revised: May 29, 2008 7:51 am

A collaborative space for DS Colorists

Pushing DS to grade like the best. (Revised: Apr 2, 2010 3:00 pm)

I hope that other DS operators like myself who do all our facility's grading on DS find this page useful. Will be uploading useful trees/ grades/ looks and techniques etc. Please join in!
Content coming soon.

// Revised: Apr 2, 2010 3:00 pm

B

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[Bob Maple, why he is so sexy](#)

Background Tracks

Multiple background tracks are effectively all the same track, so only one background clip (or container) can ever be active at any one place on the timeline. You can only dissolve between tracks if they are "background" tracks.

Black Magic Codec

How to deal with an .AVI that uses the Black Magic Codec

[Black Magic Design](#) used to have the codec available on their web page. Lately they took it away but it can be found as a part of their software products.

Try opening the AVI with QT pro and saving a ref QT. Also make sure you have the Blackmagic codecs loaded

SMPTE 16x9 Color Bars

For those who don't have DS Version 10 and for those who do and who accidentally "murfed" them.

Blend Mode Effect

OK, so you have several video tracks and you need to do a blend mode and you really cannot put them in a container in order to do a tree or to use Layers to blend the video together. What do you do?

It cannot actually be done, though you can set up a blend mode for the top clip and that does, in certain cases, result in a blend. But since blend modes are based on RGB mathematics, you can't apply a math operation between two clips when the operator only has access to one of the clips. $2 + x$ will always equal $2 + x$; you'll only know that it equals 5 when you know that x is 3.

So no, you can't use blending modes on the Timeline. Blending modes are used when Compositing - that's why we have a container of that name.

Here are some ideas that were offered.

1. Add effect tree to the timeline.
2. Expand the tree.
3. You will see input 1 attached to an output.
4. Add a composite effect.
5. Attach input 1 to L1 (Back) and L2.
6. Apply the Composite mode that you wish.. add, hardlight or whatever.
7. Save your tree to reapply to other clips on the timeline.

OR

it should be possible with an effects tree. If you have one clip on V1 and another directly above it on V2 you should be able to add an "effects tree" to the clip on V2.

1. Expand the tree
2. Add a composite node
3. Add a "Black" source generator
4. Set the alpha on the Black source to 0.
5. Plug the Black into L1 (back).
6. Plug your source clip into L2.
7. Adjust the blend mode in the composite node to whatever you want.

OR

Try [Jay Hunt's Track Add Blend Mode effect](#)

(Special thanks to Annaël Beauchemin Tony Jover, Jamie Diki, Brian Holter Jay Hunt and Jeff Krebs)

Blinking Thumbnails and what they mean

This is new since version 10 and the result of code optimizations done to open data and sequence much faster in the application.

What happens is that there is a scan to validate the Clips in relation to their media but either the specific media storage is offline or there is a problem with the images that populate the thumbnails (or another unknown issue).

A data refresh of the Clips should rewrite the thumbnails with updated information. When that happens, the thumbnails stop blinking.

Questions:

- Was this a restored project or one created in your current version of DS?
- A project that was created in a previous version but opened in a newer release without any archive and restore?
- Data from a conform (originating from another application)?
- Clips from tape sources or Files?

How Bob Maple became sexy

Late in January, 2009, Sherrie White was having problems coming up with a workflow that would enable her to take P2 material shot on a Sony EX3 camera and get it into her DS. Several people on the DS List recommended [a tutorial](#) for just that that Bob Maple posted on Avid's website.

Sherrie writes:

I have been reviewing your file transfer video from excam to MC to DS ... well at least 20 times so far ... and wow you have a great sexy voice btw!... no sexual harassment intended. Just wanted to tell you that it is a great instructional video and very easy to listen to!

Bob Maple responded:

'll have to just take your word on that one ... one always hates how they sound when they hear themselves ...

Sherrie wrote later:

... well yes it easy to get distracted by "sexy" Bob's voice. ...

(totally sexy)

Revised: Apr 9, 2010 7:27 am

Between Blue & Green

The following was taken from [Tony Jover's](#) NAB 2004 presentation. The original pdf can be found here: [Between Blue and Green](#). The complete NAB 2004 Zip file with presets can be found here: [NAB 2004](#).

//

[Iovsoft Blu-ray Copy](#)

This convenient and simple iovSoft **Blu-ray Copy** can help you copy Blu-ray movies to blank Blu-ray discs or DVD discs. It can not only copy the main movie, but also support copying overall content on Blu-ray disc including BD BonusView, BD Live etc. It not only supported disc-to-disc copy, but also supported backup to Hard disk. Its features are as indicated above. For more information, please visit <http://www.cd-to-mp3-converter.com>

// Revised: Jun 29, 2011 6:55 pm

C

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CACHES

CACHES SUDDENLY APPEAR YELLOW OR RED ON TIMELINE

DS is confused. Save your sequence and reopen it by doubleclicking on it in the project window and your caches will usually come back into view normally.

DISAPPEARING CACHES

To prevent processed caches from disappearing, perform a “Save As” regularly as you work.

RECOVERING LOST CACHES

Make a new sequence and drop your faulty sequence as a reference clip (hold the ALT key while dragging to the timeline). Unless something is really screwed with your machine, you should have your caches. Its convenient only if you want to output, unfortunately because next time you will open the faulty sequence DS still won't see the caches.

Closed Captioning

(Added per list request 10-24-2007)

On HD masters, you can insert audio but **no video** on closed Captioned masters without losing your captioning.

The Nitris BoB and the AJA **will not pass high-definition captioning** so you will have to re-caption anything you have ingested into DS and any video you play back to tape from DS. The Adrenaline BoB (which may not work for HD) can preserve closed captioning but one cannot, of course, use that with DS.

If you have an Adrenaline system, here is what you do:

1. select TOOLS > VIDEO OUTPUT TOOL
 2. Click the **VBI menu** and select **preserve**.
- Media Composer v4.x will handle ANC with MojoDX, NitrisDX and Adrenaline hardware.
 - Symphony v4.x will handle ancillary data when running on Nitris DX
 - DS is limited to Nitris/AJA hardware which cannot deal with ANC

(thanks to Rhys Llewellyn, Bogdan Grigoresco and Troy Thompson)

On SD, pull in the SD master with CC info in the header and then *crop the top of the new video to leave the CC info from the original* poking out from behind.

If you are using your Sony HDcamSR deck to playback a digibeta to make a dub to a digibeta machine but the closed captioning does not seem to be coming across. The setting on the SR machine to make that happen is menu item 778, "Blank Lines Select", set "all lines" to "through" in the sub menu. This works for a dub via SDI. For some reason the Sony 5500 deck comes default set to blank those lines on dBeta playback.

[Zoe Creative Services](#) in Nashville offers HD Closed Captioning.

COLOR CORRECTOR

Define **BALANCE**--highlights, mids, blacks on color wheel. **RANGE CURVES** manipulates how those color points affect what levels of pixels are affected by those colors, and how much.

Hue: Affects pixels that have Saturation only.

Gain: Works by Multiplying Values.

Brightness: Offsets values and effects brightness by adding to every value of every pixel.

Sub-region: Opens a window in the viewer to use for comparison.

Tip: Adding Gain and Removing Offset will add Contrast.

RGB CURVES—color checkboxes select the VIEW, not the color channels affected.

Hold A key to add keyframes. H.U.B. works (see ANIMATION EDITOR section).

To find a specific color/luminance range to affect, marquee select a group of keyframes with a notch or a bulge, and slide it up and down the curve.

SHIFT key helps with little sliders, but constrains increments to units of 5.

6 will toggle color picker.

To do a really quick white balance, go to curves, set the layout to combined, and drop the eyedropper on what should be white in a shot, and then use the white patch beside the hue offset, select natural match, and click on match color... done

COMPARATIVE COLOR CORRECTION

In viewer, R-click and **Turn on COMPARISON BUFFER**. R-click again, and use **GRAB to grab current frame**. These keys can be mapped to the keyboard as well under Command Mapping > Viewer

Shift and Drag the viewer next to itself and use X to pan the viewer. This allows for a side by side comparison.

Or

Use DUAL VIEWER to watch switch between both pictures on SDI monitor/wfm View individual RGB channels on each picture—visually match brightness/contrast for each channel—will result in matched color image.

Adding a bogus no RT effect like Channel Switcher will enable the **output to be seen** in the external monitor/scope. Good for a split screen

TIP: Using Color Correction Curves

Using the ranges curves under the curves tab of the color corrector. Horizontal (x) scale can be looked at as a grayscale. 0 is black and 100 is

white. There is a lot of overlap of the default shadow/midtone/highlight curves which is not always what you want.

For example, if you adjust the shadow curve to absolutely end at 20, when you adjust the shadows under the balance tab of the color corrector you will know that you are precisely adjusting only the color for the bottom 20% of the grayscale. If you want your midtone range to extend only from 25% to 75% of the grayscale adjust the midtone curve to those values. It is usually best if you have at least a small amount of overlap between the curves or you might get hard borders between pixels that have been modified and those that haven't.

Color Correction Example:

In the effect tree, add three channel switchers and route the input clip into all three. In each channel switcher set all channels to be fed from Red, Green and Blue respectively.

Tip: ALT click to rename an effects node in the effects tree.

Route the output of each channel switcher into its own Color Corrector and use the curves for RGB in each to effect each channel individually. Route the output of each Color Corrector to the Output node.

When **Color Correcting a clip with alpha** use Spill Replace / Matte, Invert Matte to isolate the clip from its alpha. Also use Mask / Alpha.

TIP: A Legalizing Technique

Slap a Color Corrector across the entire timeline and set Gain to 99 on the Basic tab, with "Clamp to Video Levels" checked.

TIP: White Balance using "Match Colour" in Hue Offset (DSlist_al - 12.19.06)

A simple way of balancing the hue in hue offset. On the right hand side of the screen, you have the "Match Colour" function. As long as you make sure that the colour in the right hand box is "without colour" (ie: white, grey or black) you can use the colour picker on the left box and match it to the box on the right and it will automatically set white, grey or black. The luminance values are not taken into consideration when doing match colour in the hue offset tab.

Source Side Color Correction Disconnect

Symphony has the ability to do source color correction based on a variety of source relationships just like DS. DS only has Tape and master and subclips.

Let's say you are color correcting interview (A) based on source tape and the majority of the tape is interview (A). Then the camera person decides to shoot another interview (B) on the same tape, but the skin tone is different. You would want to unlink (or disconnect) that color setting for the source tape and

apply a new color for interview (B) without out removing the entire source color from interview (A).

DS has always had the 'neatness' of SSEs being effectively hidden by being on the Master Clip and not as effects on the Timeline. Unfortunately, this can also be its drawback in this regard.

I think that what everyone (including Jeff) is missing here is the power of the new "Select All Effects of Same Type" button. Whilst certainly not a replacement for SSEs it can 'do what Symphony does' if you want it to. Here's a "jover" that can get you close to the Symphony-style workflow:

1. Apply a null CC to every clip on the Timeline
2. Edit the CC to suit on one of the clips from Tape 1
3. Save this CC, using the Save button on the PPG - the DS Presets folder for the project is probably a good place.
4. Go to another of the clips from Tape 1 and Ctrl+Shift Select the SAEOST button with "From same underlying source" selected and load your saved preset.
5. You now have your saved preset applied to every clip from that tape. If you decide later to change that effect then you can simply follow the same workflow to change it on all the same clips.

(Thanks to Jeff Krebs and Tony Jover)

When Color Correctors Go Bad

color wheels in the CC layout go nuts

This happens occasionally and is caused by the Wacom Tablet.

Go to: Start / All Programs / Wacom / Tablet Preference File Utility and clicked 'Remove All Preference Files'. This fixes the problem!

(Thanks to David Tarr, Jason Russell, Igor Ridanovic and Kristian Whitlock)

COLOR SPACE

- There are two main Color Spaces used in video - RGB and YUV (or more correctly Y, R -Y, B-Y, but YUV is more convenient to use)
- YUV Color Space is a "bigger" color space than RGB - that is, it can contain

levels that RGB cannot contain.

- Digibeta stores its signal in YUV
- DS works natively in YUV.
- Most DS effects work in YUV
- Some DS effects (up to and inc. V6) work in RGB.
- Graphics is one of the effects that works in RGB.
- If your image contains "illegal" RGB levels (levels that cannot be contained within the RGB Color Space) then those levels will be clipped when you apply an RGB effect. This is what you were experiencing.
- The way to avoid seeing the clipping is to either use a ColorSpace effect to force the levels to RGB or to apply a Color Corrector and correct the levels manually.

CONTAINERS

BACKGROUND CONTAINERS

Act as a "holder" for several clips, horizontally in the timeline . If you've cut a sequence of shots that you'll be using (perhaps as a background) over and over again you can just copy the container, slide it around etc, rather than having to copy a load of individual clips. You can move this group around as if it were one clip. You can dissolve into the background container although there may be many clips inside covered by the dissolve.

Apply clip effects or timewarps to entire background containers.

COMPOSITE CONTAINERS

Used to place clips above each-other on layers, Multiple clips on layers grouped may be grouped together (vertically). The entire contents of the Composite Container will be treated as one single clip.

CREATE-CTL-CLICK two clips in timeline—Hit Composite Container.

Use the composer-like step-in/step-out buttons in timeline to move up or down levels.

- Control U **goes to the parent timeline** (steps out of a container)
- Control Shift U **goes to the top timeline** (steps out of multiple containers)

CONTAINER VIEW—R-click properties—**show container time or timeline time.**

Use CONTAINER PROPERTIES to **rename your container**.

MAKING COPIES OF COMPOSITE CONTAINERS in a timeline, so that if you **change the original, all the others automatically change**:

Drag a new clip to the ribbon to **create a new track in the container and add a compositing layer**.

Right-Drag a new clip to the ribbon to **create a new track, with no new layer**.

Container elements are where compositing elements come from. Drag a timeline track (left side button (used to be the track jewel) into compositing window to add a layer to the composite. Container elements may also be dragged into tree area for use in trees.

EFFECTS COMPOSITING FLOW (For each layer)

(**Note: Flow chart missing -DT**)

SLICE

EFFECTS

Key

GFX

DVE

CC

Opacity

%

Slider

Track

(w/clip

effects

or track

Alpha Composite Effects Tree effects)

SLICE EFFECTS occur in order shown. Change the order... R-click-drag to new order.

ALPHA CHANNELS

R-click-drag layer to ribbon—**makes it a layer for alpha manipulation**. Drag a timeline's layer's jewel/button to layer alpha window to **control alpha for that layer**. Additional Alpha manipulators can be added... R-click alpha window for Boolean operator.

Example: Make **black lines of a black and white graphic** (without alpha) **key over** a color. Drag the layer up to the alpha thumbnail within a composite container, click on the top thumbnail to export the alpha up through the container. Make sure you're using the RGB for the alpha, not the existing alpha channel (which is fully opaque.)

REPLACE SOURCE- drag new sequence track jewel to RGB window on a layer. All effects will remain as is.

GREEN TRACK JEWEL in LAYER **indicates an effects tree is present.**

Mute Background: Ignores the alpha

RESULT WINDOW AT TOP—R-click to

- Mute background
- Insert a layer
- Export alpha

GLOBAL DVE- Accessed by R-click from the top of the composite area. Affects all DVE's below.

Tip: A shadow can be a value other than a color such as desaturation or color correction.

Viewing top timeline (final result) while working in a container: Add a bogus clip effect to container in timeline (i.e. a blur, with zero blurriness). R-Click effect, "Open Viewer". **A floating viewer will appear.** "Pin the viewer to keep it around.

USE REFERENCE SEQUENCES

When finished creating a composite container, right click on the container (in top timeline) and choose: **Save as Reference Sequence**. Now you can alt-drag this saved container (showing as a sequence) to the timeline to create as many instances as you like. Updating the reference sequence will update all instances.

Credit Rolls without headaches

Or how to construct a credit roll without artifacts and without using Build Roll:

1. Create a black (bg) clip that's way longer than you need. You will cut it later.
2. Apply a GFX effect, and create the text body for the roll.
3. At the intended beginning of the roll, place the text body in its start position (usually barely bottom-offscreen).
4. Set a keyframe in the Transformations property editor.
5. Move the play cursor forward by 1 second.
6. Enter the Y displacement value for the text body in the Translation value according to the frame rate of your sequence (see **Note**)
7. Set a second keyframe.
8. Open the animation editor
9. Select the curve for Transformation Offset Y

10. In the Animation Editor's Curves menu, choose Relative Cycle.

The animation for the Y value will now be extrapolated backwards and forwards to infinity.

At this point, you can see where your roll ends, and cut it off there.

If the roll needs to have a specific duration, you can extend or compress it by fiddling with the text body (Leading, font size, and/or paragraph spacing) without changing the roll speed.

- For HD, 23,97 PsF, problems arise because of the segmented frame issue.

If you apply the method above, you get a credit roll that makes good-looking individual frames (good for printing to film), but that look ugly when rolling.

To get around this problem, you need to create a half-speed roll (e.g., 48 lines per second intended for 96), and then apply a Interlace effect to it.

Individual frames will now look "interlaced", but the text will appear correctly when rolling.

Note

- 30, 60 or 120 pixels for an NTSC sequence (30 fps)
- 25, 50 or 100 pixels for a PAL sequence (25 fps)
- 48 or 96 pixels for an HD (24 fps) sequence (although some problems arise because of progressive segmented frame display)

This article is a lift from [Avid's website](#).

How to construct a foolproof credit crawl

There's a quick 'n dirty way to make a crawler (the same methodology also holds true for rollers). Crawls tend to be used more in Europe these days than they are in the US or Canada.

1. Make your first credit as its own Graphics object and align the text suitably

2. Copy/paste that object, drag it to the right of the 1st one and edit the text for your next credit. You may want to use the Transformations tab to ensure that it's spaced by a fixed amount from the previous text so that you can repeat the spacing for all the objects.
3. Repeat step 2 for as many times as necessary. Bear in mind that you can "select all" any time you need to.
4. When all the text objects are edited, select them all and use the "Relative Align Vertical Centre" button (or press Ctrl + Alt + Num9). This aligns them all vertically (you've already aligned them horizontally in Steps 2).
5. Select Graphics Properties main PPG and click the "Crawl" button.

Now if you have to edit any of the captions you just scroll along the Timeline until the relevant one is on screen, then enter Graphics and edit it.

If you need to close the gap between any 2 objects you can select everything to the right of it and move it right or left, then re-select all and re-create the crawl.

(Thanks to Tony Jover)

Cull Back Faces

(Added 10.31.2007 MH)

In the 3D DVE:

Back Face Culling happens on a Object by Object Basis. So you will have to turn the option on for each piece of geometry you have.

(IE: Back Face Culling is not a Global option)

1. Select Geometry ("DVE")
2. Select the "Render" tab for that geometry (The property page 3rd from the bottom that has an Icon that looks like a eye inside a red box with corner points)
3. Select "Cull Back Faces"

To test how this works fly your camera inside and object like sphere and select /de-select the "Cull Back Faces" option.

When the 3D DVE culls the inside surface of the object vanishes as it is no longer being processed. With the option off the inside of the sphere is visible again.

Revised: Jan 24, 2014 6:20 pm

Color It Corrected

The following was taken from [Tony Jover's](#) NAB 2004 presentation. The original pdf can be found here: [Color It Corrected](#). The complete NAB 2004 Zip file with presets can be found here: [NAB 2004](#).

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Commercial Delivery Specifications from Broadcasters

Please note All of these specifications have been placed on this Wiki with the following caveat: *These specifications may be wrong* they are subject to change and broadcast outlets have been known to change specifications at the drop of a hat. Use these guidelines as a general rule and please **verify the broadcaster's delivery needs in advance**.

One good resource for deliverables via file is [DG Fastchannel](#) who can offer specifications before you use their service.

[CBS Network Master Spec sheet 2004 - 2005](#) (Added 05/18/2007)

[Fox Network Commercial Spec sheet from September 2006 version 1a](#) (Added 05/18/2007)

[ESPN Commercial Delivery Specifications from January, 2006](#) (Added 05/18/2007)

Sound on ESPN and ABC:
(From the List by Tom Edwards 05/16/2007)

From ESPN's web site:

In order to make the most of ESPN HD, look for a receiver with the SRS Circle Surround logo on the faceplate. ESPN HD uses this encoding system for their 5.1 surround sound track! Dolby Pro-Logic and Dolby Pro-Logic II decoders will also be able to produce a surround sound effect with the ESPN HD audio track. Also make sure your receiver bears the Dolby Digital and DTS logos to make the most out of all of your DVD movies.

From SRS web site:

Circle Surround delivers 5.1-surround sound in an Lt/Rt two-channel playback format. This means live television and radio can be delivered for playback and broadcast in 5.1-surround over existing stereo infrastructures. The Circle Surround-encoding process allows for the transmission and delivery of 5.1-encoded programming through virtually any broadcast chain.

For live television programming, Circle Surround not only enables the transmission of a 5.1-encoded mix over a standard definition ("SD") stereo broadcast, it also provides mono, stereo, four-channel LCRS (Left, Center, Right, Surround) and 5.1-surround compatibility in a single delivery standard with no delay introduced. Circle Surround -encoded material passes straight through existing stereo infrastructures without requiring a change in equipment. For broadcasters currently mixing in surround for high definition ("HD") delivery, Circle Surround can be used on the SD feed, enabling 100% of audiences with home theater systems to enjoy surround sound.

From a Mix Magazine article interviewing Jim Hilson of Dolby Labs:

ESPN, which like ABC is owned by Disney, also doesn't use Dolby E. (Recently, ABC dissolved its remote operations unit and turned everything over to ESPN.) To get the audio from ESPN's trucks to the network, the network uses a completely different method of encoding: SRS Labs' Circle Surround matrix encoding. In fact, Scalise's original system for delivering surround used SRS' technology for the entire signal chain — from truck to living room. "It was the simplest way to transport the audio and still be compatible," he says. "It can be decoded with Circle Surround II and with Dolby Pro Logic II, as well as

Neural Audio's decoder. It's a stereo signal until it's told not to be by a decoder.

From the DS List (DF 05.14.07)

ABC only accepts hd-d5 720p, not SR, and if they follow the same specs as espn (which they own) will only accept stereo, not surround for audio.

NBC does accept hdcam SR 2 channel w/ Dolby Pro Logic II preferred, but will accept stereo on 1&2 as well

Custom MC Color Surface Layouts

(added by Igor Ridanovic 01.24.2014)

The stock layout maps for MC Color that ship with DS are very buggy, incomplete and in many cases unsuitable for use. This collection of custom layouts offers major improvements in the following areas:

- Standard Lift/Gamma/Gain mapping for luma and RGB
- Bug fixes
- Labeling disambiguation and other labeling improvements
- Workflow-facilitating knob/wheel arrangements

Installation

Download

[DS_CC_layouts.zip](#)

- [Details](#)
- [Download](#)
- 22 KB

and run CC_Layouts_Install.bat. Alternately, you may download the layouts from hdhead.com.

Known Issues

Channels and levels layouts can not be modified. They are functional in the factory state, but the labeling is confusing. Curves layout is useless. Properties from multiple color corrector tabs can not be aggregated on a single page of MC Color, i.e. can't have hue offsets and lift/gamma/gain on the same page. MC Color does not allow preset saving/loading nor copying/pasting. MC Color can not work as a mouse. Certain parameters just don't work.

Thanks

Bob Maple for the RGB tab layout.

// Revised: Jan 24, 2014 6:32 pm

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Data Manager

PURGING MEDIA-view media usage details. **Shows all projects w/media usage.** % indicator shows percentage of media a project is using out of total media residing on the drive.

Deleting Timewarp Media

Any unused portions of clips inside Timewarp containers will not be purged.

To purge extra material inside Timewarp containers (because they could easily be holding a complete 30 minute roll depending on how you captured your original material),you need to dip into the container and razor away the clip either side of the "Active area" markers. Any timewarps you do this to will require reprocessing.

(See also **manually purging media** under **MEDIA PURGING**)

PROJECT MANAGER- Delete, manage projects. Media: Each piece of media has a cryptic ID number for each project that is appended to each media file.

Delete: **Project / Delete will delete the media file folder (media) for that project.**

NOTE: Any file in a project that has been copied from a CD, such as an audio file, maintains read-only status, even if it has been copied to your hard drive. DS cannot delete these files when deleting the project, unless they have been **changed to read/write** in Windows.

Archiving a Project

When you archive a project, you must archive the entire project.

ARCHIVE—Selects a project for archiving. Shows the project size. Project data and audio are archived to F/ Project Archive or the drive letter chosen during the Avid|DS installation..

FILES- sets a data path for archiving. Archives all project data. Audio media **DOES NOT** archive to tape.. it goes in the archive data..

DS will not **backup a project if it won't fit on one videotape.**

Archive to Tape

Video only. Indicates how much time is needed for tape. No ability to update archive, must redo the whole thing when updating. Set the tapes' starting timecode in the in-point field on the output panel.

VERIFYING ARCHIVE TO TAPE

Inside the archive folder there is a file called **ARCHIVETAPELOG**. Open this file and verify that the timecode for the last clip matches the timecode on the videotape.

When you **RESTORE** a project, **select the clips or sequences** you wish to restore and begin the restoration process. Allows for a **selective restoration.**

Archive to Multiple Tapes

DS does not archive to multiple tapes. Here's a workaround that works for DS versions up to 7.6:

Close DS. Go inside your videostorage folder for that project and move half of your files out to a folder called something else, temp video for example. **YOU MUST PUT IT OUTSIDE OF YOUR SHARED VIDEOSTORAGE FOLDER.** Open DS and archive, it should only be seeing what is left in your folder. Once the archive is finished, swap the video files and archive again. When you restore, restore both archives with media.

Another workaround: When DS complains about the tape running out, **eject the tape** and then stripe the beginning of a new tape with the last minute or so of the original's timecode. Hit OK on the DS error message and it picks up where it left off. (Note from Avid Support: this is an unsupported procedure. Use at your own risk). This does not work with DS 8.x or 10.x

Archive will fail if your project folder contain any files with illegal characters in the name. Use the procedure outlined in the [SEQUENCES section](#) to remove such files.

Put LINKED FILES and AUDIO FILES in the project folder to archive. Put the Original files that were linked to in the project, too. Additionally, you can insert a note (.txt) containing information about project files, fonts, linked files, or anything else that may be helpful when the project needs to be revisited in the future.

IMPORTANT NOTE: Files that were **imported or copied from CD must not be** read-only, in order to be properly deleted from a project. Go to File-Properties and **deselect read-only** on all files copied from CD.

Updating an existing Archive

Unarchive the project (data only), add graphic or new material, save a new sequence, and copy it into the sequences folder in the archive. **NOTE: THIS IS AN UNDOCUMENTED PROCEDURE. USE AT YOUR OWN RISK!!**

Deleting Projects

It is OK to delete a projects' folder in Windows. But be sure to **delete their associated media folders too (audio & Video)**. You'll see the sourcemodel name in the `project name\system\sourcemodels` folder. (This cryptic-named folder is a Windows GUID actually - Globally Unique Identifier). Do this only if DS cannot delete the project inside the software (happens...).

Moving a Project

1. You need to do it by making a new project and following the rules.
2. Create (Call it "xyz repaired for archive" or something)
3. From within navigate to , right-click and import everything into
4. Confirm that everything exists satisfactorily within
5. Still in go to the Media tool
6. List all media, right-click it all, and select "Move". Select the storage that you are offered

(assuming you only have one video storage).

7. If there's a lot of media go and have several cups of coffee.
8. Archive and confirm archive is good.
9. Quit DS and from Explorer navigate to and take a look in System-->Sourcemodels and make a note of the sourcemodel for that project. Now delete everything from that you are able. This will leave you with just the project folder with one 0kB file in it.
10. Launch DS and from the Project Browser window select to remove from the list. It'll always be there, but it'll only take up around 4bytes and you'll learn to forget it exists ;o)
11. Check on the VideoStorage folder for a media folder with the name of project> sourcemodel. Delete it.
12. As 11, but Audio Storage

A Poor Man's Decompose on DS

If you don't have MC or Xpress Pro (or DS v 10, which comes with Media Composer) and you need to use your DS to do a Decompose, here are the steps:

1. Take the bin into Media Log and create AFE of the sequence.
2. Conform AFE into DS. All master clips will have their original long durations.
3. Export EDL.
4. Import EDL with "create logs only" selection. Select a new empty folder to place the clips in. Set desired handles.

The clips you create through reimporting the EDL will represent only the material actually used in the project plus handles. There is an occasional off-speed glitch here and there but it generally works.

(Thanks to Igor Ridanovic)

Dither when processing

Q: What does the "Dither when ..." check box mean when you are processing material on a DS?

A: Working in 4:2:2, your storage is only ever 8 or 10-bit. However internally DS can render at 8, 16, or 32-bit float. Dither makes DS dither pixels from the processing bit depth into the storage bit depth when it's higher than 8-bit, rather than just quantizing the bits.

This can smooth out all kinds of things like large low-contrast gradients, vignettes, etc. when rendering with 16-bit processing in an 8-bit sequence for instance. Make a solid color and put a vignette or gradient on it at say 20% opacity and render it in 8-bit all around, and you'll get banding. Process it at 16-bit with

dithering, and the edges of the bands should be much less noticeable as DS dithers the neighboring colors into each other.

This can however introduce unwanted 'noise' in some cases as the dithering pattern changes from frame to frame, but most notably it will do bizarre things to solid color Generators (or even bars) as the dithering algorithm gets confused and starts messing with things it doesn't need to, causing little vertical stripes in your solid colors.

(Thanks to Jim Fink and "Sexy" Bob Maple)

DG Fastchannel compatible files

(added 10.24.2007 from the List MH)

Delivery specifications:

Encoding MPEG-2

Min 10 Mb/s

Max 25 Mb/s

Preferred 25 Mb/s

Scanning 480 60i (upper field first)

Pixel Aspect Ratio 0.9

Aspect Ratio 4x3

Chroma 4:2:2 (MP@ML) (720x480)

GOP All Allowed, IBBP preferred

Frames per second 29.97 (NTSC)

Stream Type Program Stream

Audio-MPEG-1, Layer 2 384kb/s Stereo

Audio-Dolby AC3 NA

AVG Digital Audio Level -17dBfs

AVG Analog Audio Level +4dBm

Luminance Level Max 100 IRE

Chroma Level Max 120 IRE

Setup level 7.5 IRE

Timecode Non Dropped Frame

As an IMX format can be generated straight out of DS, it seems like a good thing to send to DG if you have the bandwidth to allow for such low compressed files to be sent to them. They (DG) will repack it into another 4:2:2 format once they get it - this time with P and B frames - depending on where it's going.

Dual-Boot

(Added 11.28.2007 MH)

To get a switch (or replacement) for your computer, please go to [Indus Technologies Website](#)

(added 11.03.2007 MH)

Case study: MTV Networks

DS-Symphony Dual Boot Machine Configuration

Please note: This configuration is working at MTV networks. Earlier dual-boot systems use the HP multisystem BIOS option where one may choose which system to boot at startup with one system set as default.

Two SATA boot drives. Key switch delegates which drive gets power. Typical configuration is XP 32bit for the Symphony drive and XP64bit for the DS drive. RAID 5 storage is used. It is a common media drive for both Symphony and DS. Media can be shared between the Symphony and the DS. Audio and Video can go on the RAID 5 protected media drives.

Projects are saved to a second partition of the system drive - the standard DS configuration. That media volume is assigned as the "Archive" location as well, so you have data protection. The media drive is one volume - in MTV Network's case to RTX320 chassis - 10TB of drives. We created "VideoStorage" and "AudioStorage" folders on that volume. Now all media is raid protected. The Symphony also uses that same media volume.

The DS is configured to write to the media volume *in MXF format only*. MTV Networks also has the Symphony's MXF file location as a "read-only" DS media location. This allows the use of media digitized on the Symphony to be available to the DS, but no chance of digitizing files into the Symphony MXF folder from the DS.

MTV Networks lost a drive in the media array on day two. They received a replacement drive from Avid popped it in as a hot swap - no downtime no lost data - no problem.

A small tip for those with dual boot, Symphony/MCA products:

Digitizing is done by mistake to a non-media drive on the computer. There is a setting to prohibit writing to the system drive, but all other local drives available to the computer are fair game as a target drive. To prohibit this on any potential target drive:

If they already exist, move the contents to the appropriate media drive folders and remove the "Avid MediaFiles" and "OMFI MediaFiles" folders. Create two "TEXT" files - "OMFI MediaFiles.txt", and "Avid MediaFiles.txt".

When an attempt to record to one of these drives, an error message will come up and the system will not record to it.

Special thanks to Tom Edwards for this information.

Tom amplified his comments above:

We changed to the MXF format rather than DS's native .GEN for video and wave format for audio because of the need to be more compatible with other systems. The storage configuration tool is where you make the choice of MXF or .GEN/Wave or both. If you setup the system for both, then in the capture tool you will see those choices in the media drive select pull-down window. Another thing I have done is label the media shares so you can tell what you are doing.

The DS creates share names by default as "ds_media", ds_media_1" etc. After I have initially setup the storage folders, I go back into the Windows Share setup and create a new share on the DS storage folder - for example, the VideoStorage folder. I create anew share called "MXF_VIDEO" - (you must grant everyone permissions on this share as well). I then delete the "ds_media" share.

I then return to the storage configuration tool and I see that DS is confused about the location of the storage (since I just removed the old share name). I simply redirect it back to the "VideoStorage" folder and all is well. I could also do this with the .GEN storage location if I wanted the option of both. In that case I would have two entries for video (.GEN and MXF) and two entries for audio (Wave and MXF). In the capture tool I then see, in this example "MXF_VIDEO" as the target location to digitize. This eliminates the need to try and remember that ds_media_1 is .GEN and ds_media_2 is MXF Video etc.

Side note...

The DS caches are always in .GEN and Wave formats no matter how the storages are configured.

It is my understanding that the DNX and DNX-TR coding schemes are independent of the MXF wrapper. However; there is a relationship between the two when it comes to compatibility. The burden is on Avid to make the DNX coding scheme compatible with the MXF specifications as it would be with any manufacturer who develops a proprietary bit reduction scheme, but expects the resultant file to play well with others.

MXF works with SD and HD media. There has not been much testing and/or acceptance of DNX coding at MTV Networks. The initial tests were impressive, but for now, the workflow is still to use the best method of recording with the available technology, rather than have surprises down the road when media is re-purposed and transcoding problems arise and the only master you have is already compromised.

What Versions Work with Which?

Avid DS / Symphony Nitris (Classic) Dual Boot Compatibility

Current configuration

- Avid DS 10.3 with Avid Symphony 4.0.5

Previous configurations

- Avid DS 10.2.1 with Avid Symphony 3.5.9 to 4.0.5
- Avid DS 10.2 with Avid Symphony 3.5 to 3.5.4
- Avid DS 10.1.1 or 10.1.2 with Avid Symphony 3.5.9 to 4.0.5, with the required Avid DS 10.1.x patch.
- Avid DS 10.1.1 or 10.1.2 with Avid Symphony 3.5 to 3.5.4
- Avid DS 10.1 is not supported with any Avid Symphony releases
- Avid DS 10.0 with Avid Symphony Nitris 3.0 or 3.0.5
- Avid DS 8.4 QFE 1 with Avid Symphony Nitris 1.7.1 to 1.8.4
- Avid DS 8.0 QFE 3 & 4 with Avid Symphony Nitris 1.6.6 to 1.7
- Avid DS 8.0 QFE 2a with Avid Symphony Nitris 1.6 to 1.6.5
- Avid DS 8.0 QFE 1 with Avid Symphony Nitris 1.5.3
- Avid DS 8.0 no QFE with Avid Symphony Nitris 1.5 to 1.5.2

There was no dual boot support for Avid DS prior to version 8.0 and Avid Symphony Nitris prior to version 1.5.

Avid DS and Symphony Nitris Configuration Differences on HP xw9300

Avid DS Nitris specifics:

BIOS revision

- Version 2.05 or 2.06 was loaded on a 9300 workstation shipped by Avid. BIOS 2.09 has been qualified since for Avid DS but not for Avid Symphony Nitris. For dual boot setup, we suggest that you do not install this BIOS.

BIOS settings

- Memory Remapping must be enabled in 64-bit (only for the HP xw9300) to access to full 4 GB available memory

XP boot.ini

- Windows XP x64 Edition does not modify its boot.ini file.

Windows Updates

- All supported, except when otherwise notified on this web.

2 partitions

- Primary partition (C:\) for OS, drivers and software. Secondary partition for Audio storage and projects location.

Storage

- Single partition to sustain capture and playback performance for DS.

Avid Symphony Nitris specifics

BIOS revision

- Version 2.05 or 2.06 was loaded on a 9300 workstation shipped by Avid. Avid Symphony Nitris does not support a more recent BIOS.

BIOS settings

- Memory Remapping must be disabled in 32-bit because it cannot access all available memory.

XP boot.ini

- /3GB USERVA=2500 This allows Symphony to see 3Gb of system RAM.

Windows Updates

- Automatic updates disabled, because not all Windows XP Security Updates are validated.

1 partition

- Primary partition (C:\) for OS, drivers, software, and for projects.

Storage

- Symphony can use multiple partitions but NOT in a dual boot setup because of the mandatory single stripe volume requirement for Avid DS Nitris. This can be a limitation for OMF based material but it is not an issue with MXF because of the numerical folder structure that propagates media files.

(Thanks to Marc Fisher and Randall Rike)

How to start a project in Symphony and finish it on DS

(added 03.15.2008)

1. In Symphony export an AFE of the sequence with everything set to "Link" to media.
2. Open DS and configure the storages through "My Network Places." Wait for Indexer... See note.
3. Import AFE and if you waited for the Indexer to finish before import **then you are DONE!** If not, the media will be offline until the indexer tracks it all down.

No copying media. No deleting files. No EDL's.

Note: Sylvain Labrosse states that every time you reboot the CPU, the Media Indexer will run. So, when going from Symph to DS, *be prepared to wait for the indexer.*

This apparently works well on Dual boot configurations.

(Special thanks to Bob Keuler and Roman Rossell for this workflow)

Using DMS Broker

Making a workstation standalone

(added 03.17.2008_MH)

Exit the DS application.

Go within the "Configure DS workgroup" utility (the same tool that you used to make the DS a standalone system) and go at the bottom of the menu within "configure Avid DMS Broker" to select "Do not use Broker". This should set everything properly.

Start up DS.

Go to "Data management>configure storages" and make sure that each and every DS storage that you are using have **throttling disabled**. It's a setting that's sometimes forgotten when a DS goes from "workgroup with RP" status back to its standalone status, and it adversely affects performance.

Thanks to Benoit.

DNxHD Codec

DNxHD is compatible across all Avid products. Obviously, you should try to keep versions as close as possible to be in sync with implementations or enhancements. For more information on the Codec, please see [Avid's DNxHD page](#)

Inserting onto Dolby E tapes

(added 06.12.2008 from the list)

It is perfectly safe to do **video-only** inserts onto Dolby-encoded tapes, as the video signal will not interfere with the audio.

If you are doing audio inserting:

Make sure to have audio edit set to "cut" mode in the audio page... Also if you are laying down Dolby-E make sure to set up audio record tracks to **non-audio mode**. Correct video ref is crucial when dealing with Dolby-E.

Capture using DS Nitris will **not** retain the Dolby information, either with DS hence modification to an existing master through the DS should be avoided unless you have the requisite Dolby E decoder (for capture) and encoder (for laying off to tape). (Thanks to Karim Arbaoui at Softimage)

The Symphony Nitris Version 3 **will** maintain a Dolby E datastream, as long as you don't do anything silly like change gain, panning, or cut on a non-frame boundary (which you can't do in Symphony anyways). Dolby Labs have been trying to track down where the DS software breaks the data, but it seems to do so at multiple points in the path. Dolby Labs only has the DS software here, but they have verified with a Symphony Nitris that it works. It would be quite handy to be able to assemble pre-E-encoded clip reels without having to fuss with decoding and re-encoding, and the resultant sync offsets.

FYI, it's always best practice to monitor the output of your final tape with a Dolby E decoder, but if you can digitize and edit the E datastream along with picture without corrupting it, while maintaining sync with the picture, there's nothing wrong with that. (Thanks to Kevin Perry at Dolby Labs)

If you are working with Dolby E with something other than DS:

1. The audio should be 20bit
2. Set the audio channels on your VCR to "data" mode

Remember: A 23.976 stream will not work with a 29.97/59.94 and vice versa. Also 29.97 NDF and 29.97 DF are not cross-compatible.

DPX Headers and how to edit them

DPX is a modern file format introduced by [SMPTE](#) (ANSI/SMPTE 268M-1994). It's versatile. It can be either Log or Linear, can be 8, 10 or even 16 bits per channel. There is more than enough embedded information such as keycode, timecode, frame count, etc.

Oriental Post is offering [RenderNan](#) as freeware for editing DPX headers.

Dreamcolor Monitoring

Using HP's Dreamcolor Monitor for 2K monitoring for 2k

Dreamcolor is an option but there are some intricacies as far as proper gamut mapping. In certain modes it only scales everything up to its on wider gamut so ironically, the color rendition is incorrect. I am using it with HDMI via Blackmagic HDlink. In this mode all LUTs are disabled and the monitor uses the native gamut. This gives me very saturated color and a brighter gamma curve.

- Igor Ridanovic

It does scale 2K into 1920x1080... and getting it color accurate is bit of a song & dance... fortunately you only have to do it once... and once it's there it's pretty stable.

- Dermot Shane

I discussed DreamColor with HP about whether or not the monitor needed to be calibrated separately for each input, and was told :

We built and designed the display so that all digital connections (DVI, DisplayPort, and HDMI) are all processed by the same chip. This means that a calibration performed on one of the digital inputs is valid for all three digital inputs. We did this because we recognized that it was unlikely that someone would have a computer with an HDMI output that would allow them to calibrate via that port. So calibration via DVI is the way to go. (Note that we don't recommend calibration via DisplayPort at this point. There are

issues with the DisplayPort drivers and implementation from NVIDIA and ATI which can cause the calibration to fail.)

This came from Greg Staten, DreamColor Solutions Architect. The point about the DisplayPort may have changed by now.

-Troy Thompson

The dreamcolor [Avid has] does not allow us to use the color management menu when the HDMI is enabled and from Igor message it looks like his does not either. It is well possible that the calibration does indeed apply to the three inputs, this does not however mean that you get access to all of the presets in the color management menu.

-Jean-Marc Porchet

Dropped Samples

(added 04.08.2008)

If you are getting sample dropped when you are capturing:

Take a look at the conditions when it works and when it fails

- If you CAN capture DNxHD but NOT uncompressed then you have a problem in the disk subsystem (drive slowing, cable, controller, etc.).
- If you can capture uncompressed but drop frames on DNxHD then you most likely have a problem with the Avid boards (that's where the compression is done) or the Avid fans are failing/clogged, machine overheating, etc.
- If it doesn't matter - uncompressed/compressed both fail intermittently, then make sure that the video and reference are both good (and locked).

Also, if you are capturing all media as MXF, switching to .GEN (or native for DS) will reduce overhead on capture.

Using HD_Speed to test drives

Using [HD_Speed](#) to test the stripe volume speed is only half of the testing you need to do.

You should next test (or stress) each of the drives in your stripe and check the MB result. It should be

about the same value for all. If one or more drives are giving lower results, they might be spinning more slowly or having errors and revealing an oncoming failure.

1. Speed test the entire volume at a sampling of % points - it's normal for individual drives to have slightly different performance at the outer and inner tracks (eg. 60MB/s @0% vs 50 MB/s@90% using 1meg chunks - NOT auto)
2. If you're still having intermittent (but frequent) problems - run individual instances of HD_Speed on ALL drives in the array (yes, this would be 24 instances on a 24 drive U320 array, running HD_Speed on all the drives simultaneously and not one after another).

It's normal for the first few drives on each bus to run at full speed - then as the bus is saturated to see the individual drives slow down. What you want to look for is **one(or two) drive** that is having trouble keeping up - if it has retries or can't maintain sync it will dramatically and intermittently slow the array.

Example: If you have a 24 disk array and 23 drives are giving 30MB/s and one is giving 18MB/s (arbitrary numbers) then the slow drive will cause the array to give significantly reduced performance - much less performance than you would expect if you just added the total of all 24 drives.

Mismatched drives can definitely cause problems - either faster or slower - the issue is that they may not synchronize properly. If one or two drives are getting their chunks of data early or late it can throw off the array performance significantly.

(Thanks to Rich and Sylvain)

Case Study

I usually run HD_Speed using the smallest block size and look for each striped set to give me **at least 430mb/sec or higher**. I'll run the speed test on each drive and/or striped set for 10 to 15 seconds to get a rough idea, sometimes longer but you usually get the average speed pretty quickly. Now if I start to see a fluctuation in a striped set, dipping and rising radically like an EKG (medical), then it might be an indication of a drive or more going bad. Either that or your cables need re-seating. But usually if it's a cable issue, the workstation will have trouble reading the array as a whole. HD Speed will give you the list of drives individually as well, and I would run the test on each drive and look for one or more to give you a lower mb/sec rate than the others.

-Sean Stall

Q: What should I choose for Block Size?

A: I usually pick 1MB. The important bit for benchmarking over time is to always use the same value. I'm not sure how big of an IO request DS makes when playing video.

Q:What speed should I see for healthy drives?

A: Depends on the drives and the number of them, the config, the above block size, the phase of the moon... My 12 x 136gb (or something) drives striped dual-bus on a ATTO UL4D gets ~380mb/sec average at 1MB block size; ~410mb/sec at 2MB blocks; ~430mb/sec at 4MB blocks. Any individual drive gets ~64mb/sec at 1MB blocks.

A: Real-world is always less since HD Speed is doing sequential reads through the disk whereas in real life the drives are typically going all over the place.

Q:How long should I run test on each drive?

A: You should get a good average after only a few seconds. Although if a drive is failing there might be a "problem spot" somewhere later on the drive which could kill performance and you won't see that unless you just let it run and run. You can also "spot check" by typing in various numbers in the 'Position %' box which will make it start reading x% into the drive instead of from the beginning.

Q:Also, sorry if I seem dense, but I'm not sure if I have single or dual bus. I have 2 chassis with a SCSI cable from each going into the xw8400. I'm guessing this is a clue that points to dual bus? (or not?)

A: In your case each chassis is running in single-bus mode. Dual bus here typically refers to a single chassis hooked up via 2 cables; the drives are split by the chassis, half on one bus and half on the other.

A: Whether you then stripe all the drives into a single set or treat them as two separate striped arrays is another matter. If you have all 24 drives striped together, then you could say that overall you are running as dual-bus, because you're considering all 24 drives as a single unit but they are connected via two separate data buses.

(Thanks to Phil Coulloudon and "Sexy" Bob Maple)

If you notice a problem with your array or one or more drives, please read [How to add a new drive to an array](#) before you attempt it.

Drive Array Configuration

- If you have 2 chassis with 1 cable running to each then each chassis is running single bus.
- If you have 1 chassis with 2 cables running to it then your chassis is running dual bus.

These are regardless of how many "striped sets" there are.

The number of striped volumes ("sets" being old NT stuff) is irrelevant. It could just be one volume of 24 disks or three volumes of 8 disks, for that matter. It only makes a difference when you configure your storages inside the DS application because DS guarantees two real-time HD video streams if you use at

least one volume of 12 disks. Now how users configure their system is their own decision, and indeed the two 12 disks volumes is the most common and logical choice.

(Thanks to David Friedman and Sylvain Labrosse)

How to detect duplicate footage in your sequence

DS does not have a "Dupe Detection" feature like Media Composer does. Here's a "jover" that will work, albeit in a limited way:

1. Park on the shot.
2. Match-Frame.
3. Click the [Reverse Match-Frame](#) button repeatedly to see every instance of that frame on the timeline.

This is time-consuming but it does work. *There is no reverse-match frame function in DS versions prior to 7.5*

Another (more manual) technique:

1. Export timeline as EDL's.... you'll need to do one for each video track.
2. Import EDL's into MS Excel.
3. Merge EDL's into one big list.
4. Sort by source time code

(Special Thanks to Tony Jover and Paul Murphy)

Importing from a DVD

(added 02.12.2008 from the List and edited for accuracy and clarity 4th Feb 09)

Please note: It is illegal to use copyrighted material without permission

1. Place the DVD in your drive

2. open [DVD2AVI](#)
3. file>open
4. select the first file from the vob you need (it will auto select the rest). This will probably be a VTS file, but you can scrub it to confirm that it's the correct file
5. file>save project

DVD2AVI will create a clip .d2v that needs an **extra step**:

1. Open [VFAP](#)
2. Select Add Job and import the .d2v file saved in step 5 above
3. Click Run and in less than 10secs a new .avi file, referenced from the DVD is created
4. Then just link that avi in DS and only when you need to, render it.
5. Note that this is fast because it's a link, but that also means you have to keep the DVD in the drive (or copy its contents elsewhere)

[DVDFab Platinum](#) will clone, backup, take a DVD-9 to 5 (dual layer to single layer), even make iPod and PlayStation files as well as Divx or Xvid. So if you need something from an encrypted DVD, rip it to hard drive with DVDFab, then use other software to convert.

DVD authoring

CREATING FILES FOR DVD AUTHORIZING PROGRAMS

DVD authoring programs require a 720x480 file. To create this:

1. Output a Quicktime or .AVI reference of your sequence.
2. Create a new DS custom DS sequence sized at 720x480
3. In Sequence Preferences, select Center, Keep Original Size.
4. Capture the file created in step 1.
5. Drop the new clip into your new sequence.
6. Output the file.

DVE

Keyboard Shortcuts

D Rotate

F Crop
S Scale
T Tool Properties

A+click Add new vertex

XY Lock is on by default. Hold SHIFT key bypasses XY lock to change aspect ratio by dragging screen handles.

Use **DEFIELD** to remove fields from blowups.

Quality Settings

- Nearest Neighbor (no interpolation - useful for making Mosaics or other occasions where you want the DVE to look 'nasty')
- Bicubic ((generally best when enlarging an image)
- Bilinear (generally best when shrinking an image)
- Multi Tap (the default hardware DVE within the Nitris DNA and still available as a legacy setting.)

Process **Still images** or anything that is **frame based** as **FRAME** rather than **FIELD**. If you DVE an animation rendered in a 3D software that is not field based, also use the frame option to keep the quality of the DVE effect. For anything video or field based, make sure it is field or “Same as Processing” (if field by default).

Filter Settings

The DVE filter filters the image to remove flickering lines, moiré etc. It can be set anywhere from 0 to 100. A setting of 2 is a good starting point. The default of 12 is generally a little too soft. If your image doesn't require it then don't use it.

When you make a DVE move see which quality setting looks best. Bilinear tends to look best. Multi-tap tends to look the worst.

(Thanks to Tony Jover)

Motion Path

Puts motion path in viewer w/keyframes to edit motion path. Use it to fly things across the screen, but not for much else. Checkers on path indicate individual frames.

R-click on points to change animation style

R-click on keyframes to adjust keyframe animation.

NOTE: MOTION PATH Data does **NOT** show up in the animation editor!

Motion Blur

Set samples and duration to suit visually. Higher numbers mean longer renders.

- Duration, degree of trail
- Samples: Number of repeated objects across linear opacities.
- Tip: The smaller or slower the object, the fewer samples and duration are necessary.

DVE VIEWING TIP

If you want to see the contents of the DVE as you move it around, hold down the [ALT] key as you grab and drag.

Revised: Aug 21, 2010 1:46 pm

DSWiki: Delivery Specifications

Commercial Delivery Specifications from Broadcasters

Please note All of these specifications have been placed on this Wiki with the following caveat: *These specifications may be wrong* they are subject to change and broadcast outlets have been known to change specifications at the drop of a hat. Use these guidelines as a general rule and please **verify the broadcaster's delivery needs in advance**.

One good resource for deliverables via file is [DG Fastchannel](#) who can offer specifications before you use their service.

DG Fastchannel specifications are as follows:

[Note: specs in brackets/bold are from a spec sheet sent by DG to John Heiser Dec. 2009]

Encoding MPEG-2 [**MPEG-2 Program Stream**]

Min 10 Mb/s [**no minimum mentioned in Dec09 specs**]

Max 25 Mb/s [**no maximum mentioned in Dec09 specs**]

Preferred 25 Mb/s [**total 18MB/s**]

Scanning 480 60i (upper field first) [**interlaced lower field first**]

Pixel Aspect Ratio 0.9

Aspect Ratio 4x3

Chroma 4:2:2 (MP@ML) (720x480) [**if captioned, must be 720x486**]

GOP All Allowed, IBBP preferred [**9 frame GOP**]

Frames per second 29.97 (NTSC)

Stream Type Program Stream

Audio-MPEG-1, Layer 2 384kb/s Stereo

Audio-Dolby AC3 NA

AVG Digital Audio Level -17dBfs [**Average digital audio levels must range between -17dBfs and -20dBfs - (Analog: 0dB @ +4dBm ref) -- Digital peaks between -10 and -12 (analog +3 max)**]

AVG Analog Audio Level +4dBm

Luminance Level Max 100 IRE

Chroma Level Max 120 IRE

Setup level 7.5 IRE

Timecode Non Dropped Frame

[10 seconds bars/tone; 5-10 seconds slate, followed by at least 2 seconds of black between slate and spot]

As an IMX format can be generated straight out of DS, it seems like a good thing to send to DG if you have the bandwidth to allow for such low compressed files to be sent to them. They (DG) will repack it

into another 4:2:2 format once they get it - this time with P and B frames - depending on where it's going.

[CBS Network Master Spec sheet 2004 - 2005](#) (Added 05/18/2007)

[Fox Network Commercial Spec sheet from September 2006 version 1a](#) (Added 05/18/2007)

[ESPN Commercial Delivery Specifications from January, 2006](#) (Added 05/18/2007)

For ESPN: 720p/59.94, preferably on DVCPProHD. Bars, Tone, 5 second slate at 59:50:00 DF. If it's a spot, solid :30. If it's a piece that will be rolled in, 2 seconds pad up front, at least 5 seconds out. SD downconverted Center Cut. All titles and graphics **within SD title safe**. Mix, mix minus 4 channel output for master. Clean, 4 channel split for generic. Channel assignments 1) SOTs 2)NATs/SFX 3/4) Stereo Music. (Editor's note: If ESPN is your client, ESPN has international channels where they run advertisements as well. They want a version without voiceover so that commercials may be re voiced in the local language. If someone other than ESPN is your client, they will want mixed stereo audio on channels 1 and 2. ESPN is not set up for 5.1 surround sound.)

(Thanks to Sean Stall)

[PBS 2007 Technical Operating Specifications](#) | [\(PBS 2007 TOS Appendices\)](#) | [Link to PBS Online Redbook](#) (added 10/24/07)

[APT SD Exchange TOS](#) | [APT HD Exchange TOS](#) | [Link to American Public Television Online](#) (added 10/24/07)

[HGTV and Scripps networks specifications](#) (added 09/06/2008)

Sound on ESPN and ABC:

(From the List by Tom Edwards 05/16/2007)

From ESPN's web site:

In order to make the most of ESPN HD, look for a receiver with the SRS Circle Surround logo on the faceplate. ESPN HD uses this encoding system for their 5.1 surround sound track! Dolby Pro-Logic and Dolby Pro-Logic II decoders will also be able to produce a surround sound effect with the ESPN HD audio track. Also make sure your receiver bears the Dolby Digital and DTS logos to make the most out of all of your DVD movies.

From SRS web site:

Circle Surround delivers 5.1-surround sound in an Lt/Rt two-channel playback format. This means live television and radio can be delivered for playback and broadcast in 5.1-surround over existing stereo infrastructures. The Circle Surround-encoding process allows for the transmission and delivery of 5.1-encoded programming through virtually any broadcast chain.

For live television programming, Circle Surround not only enables the transmission of a 5.1-encoded mix over a standard definition ("SD") stereo broadcast, it also provides mono, stereo, four-channel LCRS (Left, Center, Right, Surround) and 5.1-surround compatibility in a single delivery standard with no delay

introduced. Circle Surround -encoded material passes straight through existing stereo infrastructures without requiring a change in equipment. For broadcasters currently mixing in surround for high definition ("HD") delivery, Circle Surround can be used on the SD feed, enabling 100% of audiences with home theater systems to enjoy surround sound.

From a Mix Magazine article interviewing Jim Hilson of Dolby Labs:

ESPN, which like ABC is owned by Disney, also doesn't use Dolby E. (Recently, ABC dissolved its remote operations unit and turned everything over to ESPN.) To get the audio from ESPN's trucks to the network, the network uses a completely different method of encoding: SRS Labs' Circle Surround matrix encoding. In fact, Scalise's original system for delivering surround used SRS' technology for the entire signal chain — from truck to living room. “It was the simplest way to transport the audio and still be compatible,” he says. “It can be decoded with Circle Surround II and with Dolby Pro Logic II, as well as Neural Audio's decoder. It's a stereo signal until it's told not to be by a decoder.

From the DS List (DF 05.14.07)

ABC only accepts hd-d5 720p, not SR, and if they follow the same specs as espn (which they own) will only accept stereo, not surround for audio.

NBC does accept hdcam SR 2 channel w/ Dolby Pro Logic II preferred, but will accept stereo on 1&2 as well

// Revised: Dec 15, 2009 10:33 am

<http://www.asrarmag.com/asrar/>**DS Edit Suites from users on the DS list**

Above photo submitted by: Miguel Gómez, ENDOR (miguel@endor.tv) - **Madrid, Spain, (31/12/2010)**
[forum](#)
[arabic channels in usa](#)

Above photo submitted by: John Heiser, O2 ideas - Birmingham, Alabama, USA
<http://meuble-maroc.blogspot.com> (1.18.07)

Above photo submitted by: Sean Stall, Ironik Design and Post - New York City, NY, USA (1.18.07)

Above photo submitted by: Igor Ridanovic, Kappa Studios - Burbank, California, USA (1.18.07)

Above photo submitted by: Shannon Dunn, Sprint Creative Media Services - Overland Park, Kansas, USA (1.18.07)

Shannon says this was taken on a bad day. :-) Actually, click on the link below to view the Quicktime VR that this still was taken from. Once it opens click and drag inside the movie to get a 360 degree view of the edit bay. Very creative, thanks Shannon.

[EditShan.mov](#)

- [Details](#)
- [Download](#)
- 2 MB

Above photo submitted by: David Tarr, WFYI - Indianapolis, Indiana, USA (1.19.07)

Above photo submitted by: Carlos Robles, Alfa Recordings - San Juan, Puerto Rico, USA (4.27.2007)

Above photo submitted by: Daniel Birnbaum, <http://www.edit28.com> - Dallas TX (1.15.08)
It doesn't look like much... but I don't have to commute. :)

Above photo submitted by Tony Quinsee-Jover. [www.hdheaven.co.uk**](http://www.hdheaven.co.uk)**
HD Heaven's Edit 1. I think this picture's pretty lousy, but then I took it myself, so I only have me to blame!
I'll update it as soon as I have the opportunity.

Above photo submitted by Chris Rodgers. www.splicetv.com

It's the minimal look, there is a nice sofa at the back of the room though. And I have a huge 10ft window.....which is usually blacked out for grading !

Shoreditch, London

Above photo submitted by Jim Fink. New Century Digital Media (<http://www.NCDM.TV>) - Chapel Hill, NC, USA

No edit suite is complete without the classic shirt.

Above photo submitted by Peter Mirecki. Chocolate AVF www.chocolateavf.com.au - Melbourne, Australia

Edit 4, a bit dark maybe, but that's how we like our suites.

Above photo submitted by: Roy Janke, CTV Television Inc. - Toronto, Canada.
<http://tvmubacher.blogspot.com> (24.03.2010)

//

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DS Freelancers

If you're a freelancer, add yourself to the list!

[See also in bottom page : Official French list of DS Freelancers](#)

Declan MacErlane - Online Editor/Colourist/Composer - Australia

www.linkedin.com/pub/declan-macerlane/1/273/15

www.vimeo.com/declanmacerlane

Phone: 0481315373

Email: dmaxontour@yahoo.com

I am a senior online editor with 16 years post production experience and 13 years Avid DS experience incorporating Mocha & Fusion, including being a fully qualified Avid Certified Instructor, Beta tester and demo artist.

Available to travel.

William Newell - Avid DS | Symphony | After Effects (London - UK)

Mob: +447764 752526

Email: will@williamnewell.co.uk

Showreel: www.williamnewell.co.uk

SD + HD short-form and long-form online projects. Editor, colourist, composer, visual effects, graphics fixing, de-rigging + wire removal. Motion graphics experience. After Effects. Over 8 year's broadcast experience on DS + Avid.

Available to travel.

David José Romero - Avid Ds Artist / Senior editor

(Avid Ds / Avid Symphony Nitris / Avid Media Composer / Avid Unity)

Miami, Florida, United States

Telephone: 786.399.0921

davidjromeroa@hotmail.com

Over 31 years of experience in Broadcast in lineal and non-lineal editing system

Middle English

AVAILABLE TO STABLISHING IN OTHER PLACES

Néstor Moreno - Avid DS | Symphony | After Effects

Mendoza, ARGENTINA

54 9261 4547484

nmoreno@24pfilm.com.ar

Avid DS Artist +10 years experience

bilingual english/spanish - available to travel worldwide

Ronen Aminoff (Available to travel)

Avid DS Artist

Based in Jrusalem \ TLV ,Israel

+972 54 7586866 | raminoff@gmail.com

DS experience working in HD & SD. Commercials, cinema & TV.

Online\Offline Editing, VFX, keying, Compositing, Color Correcting & Motion Graphics.

[My 2011 Showreel](#)

Her türlü [film izleme](#) sitemize bekleriz.

Her türlü film vardır.

Hemen izle : <http://fullfilmizle.us>

James Johnson - Avid DS

Based in London, U.K.

Phone: +44 7715 113056

Check out my website for showreel, credit list & further info: www.videoeditor.me.uk

Email: JamesTheEditor@videoeditor.me.uk

Also available for AVID offline/online & FCP.

Michael Forrest

1608 Argyle Suite 101

Hollywood, CA 90028

(343) 393-0346

[PostBoxPost](#)

Avid DS Artist / Trainer since 1997
Avid DS / Metafuze Forum Moderator

Specializing in: HD & SD Feature Film Marketing, Color Correction and VFX,
Creative Editorial, Long Format Conform & Finishing.
I travel worldwide with or without a mobile DS V10x Long & short term project availability.

For bio and list of credits, please check out my company website. www.postboxpost.com

Gustavo Lage - Avid DS - 3D Artist

Buenos Aires, ARGENTINA

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gustavolage@yahoo.com

Over 15 years of television experience (7 years of DS experience).

Luc Bellerive | Senior Avid DS Artist | (11 years of DS experience)

(Available to travel) Based in Montreal - Canada

Mobile: +1 514 424-8885 or +1 450 616-5888

Mail: lbellerive@yahoo.co.nz

Commercials, TV Series, Broadcast Design, Films, Long Form... VFX, Compositing, Color Correcting, Design, Online Editing (HD - SD - 2k - DI - RED)

Aboud Hassouneh

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Avid DS Artist / Trainer

Editing, Visual Effects, keying, Composting, Color Correcting, Design, Online Editing

Kevin Dobson (Available to travel)

Avid DS Artist

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7 years DS experience working in HD & SD. Commercials, cinema & TV.

Email: kd@kevindobson.co.uk

Web: www.kevindobson.co.uk

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- Avid DS HD Artist Editor-Compositor-Color Grader.

- Discreet Smoke Artist Compseting & Editing.
- Experienced in Channels Branding.

Showreel Available on request.

Bobby Calautti (available to travel)

21 Hampshire Road Unit 307

Methuen, MA 01844

Worked for Avid supporting DS Equinox and Nitris for four years.

DS ACSR

Also available for editing.

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bcalautti@yahoo.com

PABLO SASTRE ---- *Avid DS Artist - Avid DS Certified (A.C.I.)* Available to travel

Based in Madrid & Viena.

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11 years DS experience.

Avid DS Editor-Compositor-Color Grading/Avid Media Composer/Avid Symphony

SD,HD,2K,4K,REDONE projects, Visual Effects, Keying, Compositing, Color Grading, Online-Offline Editing.

Expert in Avid & Redone Workflows.

Demoreel at <http://vimeo.com/11987051>

David Kitel

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david@davidkitel.com

www.davidkitel.com

Avid DS Artist (since v2.1)

available to travel.

Greg Steinbrecher

Chicago / Midwest

(847) 363-0442

gspfilmworks@yahoo.com

Avid DS Artist / MC Adrenaline / D.P.

Available for local and travel engagements.

Long form, short form, Broadcast, Internet, etc

For reel, please see:

[youtube.com/gspfilmworks](https://www.youtube.com/gspfilmworks)

Josh Luddeni

NYC, USA

Avid User Certified, DS 101, CS 100, CS 101, CS 200

Avid DS Artist / MC / Symphony / Colorist / Online Editor

For reel and contact infomation, please see:

<http://joshluddeni.com>

Mark Hollis

42 Fairfield Avenue

Newington, CT 06111

(917) 374-1248

Avid Certified, DS 101, 201 and 301.

SD ad HD projects. Extensive knowledge of the 3D DVE.

Available for Connecticut, NYC and travel engagements.

For reel, please see:

[On YouTube](#)

[Downloadable, on Dot Mac](#)

Nacho Orozco

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Avid DS Artist / Symphony Nitris

12 years experience in Music Videos, Commercials, Features and Television.

5 years of DS , Visual Effects, keying, Compositing, Color Correcting, Design,Online Editing

eml: ignaorozco@gmail.com

url: <http://personales.ya.com/distorted/>

Miguel Gómez(available to travel)

Owner/Operator: Avid DS Nitris/Avid Symphony Nitris

(available for on-site rental)

Avid DS Artist /Media composer/AE / Final Cut (12 years of DS experience)

VFX, keying, Compositing, Color Correcting, Design, Online Editing,HD-SD-2k.DI.

15 years experience corporate,commercial,broadcast, television, films, music videos...

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Sean E. Stall

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Avid DS Artist / Trainer

Specializing in: HD & SD Commercial work, Sports promos and features,

Offline to Online, Long Format Conform & Finishing.

I travel worldwide with or without my own DS V8.0. Long & short term project availability.

For my bio and more information, please check out my company website.

Showreel:

<http://dswiki.com/ironik1.html>

Kenneth Bonde (available to travel)

Odense, Denmark, Europe

Avid DS HD Editor-Compositor-Color Grader

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Showreel: www.vizfx.net/showreel_kenneth@vizfx.net

Bill Pollock

Los Angeles, CA

310-923-2750

DS Owner and Freelance Artist/Editor

Available for travel and system rental.

email: poll0022@hotmail.com

Schy Gleason

Seattle WA

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schy@schyproductions.com

Editor & Avid DS Artist

HD & SD Commercial work, Promotions, features, documentary

Offline to Online, Long Format Conform & Finishing.

available to travel

Please find more information at.

Showreel:

<http://schyproductions.com/feature.htm>

Evan Guidera

Avid DS Artist

Visual Effects, Compositing, Beauty, Color Correcting, Design, Online Editing

Los Angeles/Santa Monica, California, USA

(310) 339 7369

Extensive knowledge of all formats SD, HD, and 2K

5 years of DS experience in Music Videos, Commercials, Features and Television.

BFA in Fine Arts

Available for travel.

eml: e.guidera@gmail.com

url: www.guide-era.com

Reel: [Evan Guidera Reel](#)

Max Burgess

London, England

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mumutv@mac.com

Media Composer & Avid DS

HD & SD. Conform, grade, graphics and compositing.

available to travel

Showreel on request

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Avid DS Artist

Avid Certified, DS 201 and 301.

SD ad HD projects, Visual Effects, keying, Compositing, Color Correcting, Design, Online Editing

Daniel Birnbaum

Dallas TX (available to travel)

Owner/Operator: Avid DS Nitris (available for on-site rental)

Freelance Operator: Avid DS, Symphony, Adrenaline, FCP, smoke

For reel & contact: www.edit28.com

Somar Jbawi

Offline/Online MCA & DS senior film editor, Compositor, VFX & Colorist

HD, 2K and 4K DI finishing Artist

Avid Symphony Certified 201,301

Damascus, Syria

(Available to travel worldwide)

Mobile: (+963) 933 85 11 86

St_Danny@email.com

CARLOS ESPINOSA (available to travel)

Avid DS Artist

Visual Effects, Compositing, Color Correcting

Also available for editing in mc and Avid Symphony Offline/Online MCA & DS senior film editor

mail: carlospinosanitris@gmail.com

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Jess Bushyhead

Los Angeles, CA

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jbushyhead@roadrunner.com

Avid DS & Sympony Nitris Online / Media Composer Offline

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Documentary (25 years experience with NBC News, CBS News & ABC News)

Available to travel

Neil Stuart

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0780 435 7727

info@neilstuart.com

Avid DS Nitris Artist, Conform, Grade, VFX, Compositing

Long and Short Form, SD, HD

[Showreel](#)

[Credits](#)

Craig Gordon (New York)

Long Island, NY

631-236-9239

cigordon@optonline.net

Sr. Editor AVID DS / Offline / Online / Color Correct / Telecine / Symphony

HD - SD - Data, long format, commercial, broadcast or corporate

23 - years experience and growing.

Bart Verraest

Film/HD colorist

specialised in Avid DS Nitris/Baselight/Nucoda/Assimilate Scratch/AdobeAE/Final Cut Pro

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<http://www.joovo.net/bartverraest>

<http://www.imdb.com/name/nm2088365/>

available worldwide

Tim Hitchen

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tim@hitchenpictures.com.au

Senior DS and Symphony Operator.

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Over 25 years of television experience.

[Find freelancers here:](#)

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Epiphany Editorial

Metro Detroit, Michigan

Contact info:

248-894-6546

tvails@epiphanyeditorial.com

www.epiphanyeditorial.com

Avid DS Artist (15 years of DS experience)

Offline/Online editing, Keying, Compositing, Color Correcting, Design, HD-SD.

19 years experience commercial,corporate, broadcast, television, films, music videos...

Sean Meyers (Burbank, CA)

~ Avid DS Nitris Instructor / Freelance DS Nitris Artist (Willing to travel)

Creative Editorial- Type Design- Motion Design - 2D/3D Compositing - all aspects of DS

7+ years Experience

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JEFFREY MAY (available to travel)

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Avid DS Artist

Colourist-Editor-Compositor

SD,HD,2K,4K,REDONE, VFX, keying, Compositing, Color Grading, Design, Online Editing

RAFAEL BONILLA (Bogota, colombia)

Avid Ds Artist

Colorista, Editor y composicion

10 años de experiencia en postproduccion de tv en distintos campos como animacion 3d composicion digital y colorizacion,

durante los ultimos 5 años me he desempeñado como colorista y montajista para comerciales de television en Ds apoyado en software para 3d como maya.

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<http://www.rafabonilladsartist.com>

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JP Davidson (London, UK)

Avid Ds, Assimilate Scratch, Symphony, Media Composer, FCP, After FX.

+44 (0) 7968 742 049

<http://www.jp-film.com>

See the [Official French DS Talents List - French Freelances Community](#)

http://www.ctmsolutions.com/talents.php?cat=Avid_DS&modulesite=services&module=Services

//

Revised: May 24, 2013 2:58 am

[Find freelancers](#) at designmansion.org

The Avid DS Logo

We have a truetype font:

[DSLogo.TTF](#)

- [Details](#)
- [Download](#)
- 9 KB

We have a large JPEG of a DS Warrior:

And we have a screensaver:

[Dsnation.zip](#)

- [Details](#)
- [Download](#)
- 260 KB

(thanks to Tony Jover and Tony Cacciarelli)

[DS Edit Suites](#)

DS Edit Suite photos from the DS List. (added 1.19.07)

[DS Community Photos from the DS Support Site](#)

Some great photos on the DS Support Site of the DS Support team members and others in the close-knit DS community. (added 1.22.07)

Special Thanks to Schy Gleason for compiling and allowing the use of the following four links:

[DSing X USA](#)

Schy goes across the USA to meet up with fellow DS'ers. Look to the top of the linked page to find links for the whole tour. (added 1.22.07)

[Yolies Meatfest 2004](#)

2004 NAB and the DS Meatfest at Yolies. (added 1.22.07)

[Yolies Meatfest 2005](#)

Pics from the 2005 NAB DS Meatfest at Yolies. (added 1.22.07)

[Yolies Meatfest 2006](#)

More pics this time from the 2006 NAB DS Meatfest at Yolies. (added 1.22.07)

[Yolies Meatfest 2007](#)

Schy's photos from the 2007 NAB DS Meatfest at Yolies. (added 4.18.07)

[More 2007 NAB Photos from Schy](#)

(added 4.23.07)

[Schy's 2008 NAB & Meatfest Pictures](#)

(added 4.17.08)

[Schy's 2009 Meatfest & Purple Antler Award Photos](#)

[Schy's 2009 Meatfest Photos A](#)

[Schy's 2009 Meatfest Photos B](#)

[Schy's NAB2009 Blog](#)

// Revised: May 9, 2009 12:09 pm

DS Presets

Revised: May 14, 2010 3:11 pm

Thanks to the DS-List, we've added too many presets for one page to hold and the presets are now divided into individual category pages for easier browsing.

(**Note:** Where known, the DS version for the preset is noted in the file name. If the appropriate version is not known, then the preset is placed in the most likely area. As with everything else in the DSWiki, feel free to add to these pages.)

Presets on DS are "forward-compatible." Here's a note from Tony Jover:

If the plugins are compatible then it will work. It will definitely work on the DS side.

All of the plugin manufacturers - Speed Six, Genarts, and The Foundry have upgraded their plugs over the years and a v3 Tinder preset will not work with a v4 Tinder installation for instance. Sapphire 32 bit and 64 bit are compatible, but not Sapphire v1 and Sapphire v2.

I generally only share presets that are native DS for the above reasons. I also like to work out how to achieve an effect on DS instead of using a plug - it's always faster to process and it's an interesting exercise. For instance, there's nothing in Anvil that can't be achieved with native DS effects (even though I used to like Anvil effects for their simplicity before I became an ex-Foundry customer).

[DS v10 Tutorial Presets](#)

[DS Presets 3D-Stereo page](#)

[DS Presets LOOKS page](#)

[DS Presets KEYING page](#)

[DS Presets SPECIAL FX page](#)

[DS Presets UTILITIES page](#)

[DS Presets AUDIO page](#)

[Original Photo - Download this to apply effects for Preset submissions \(optional\)](#)

[DS_10_TestPatterns.zip](#)

- [Details](#)
- [Download](#)
- 2 MB

Revised: May 14, 2010 3:11 pm

DS Reels

This is the place to take a look at reels from DS'ers around the world. If you want a link to your reel added to the page, you can send me a note([David Tarr](#)) with your information or you can simply add it to this page yourself. The same applies if you want to be taken off this page or if your info has changed or is incorrect. Thanks. (DT_1.25.07) (updated_Jun 21, 2013 9:27 am)

DS Reels (in alphabetical order)

Pablo Sastre - Spain

e-mail: editpablo@hotmail.com

Reel: [Pablo Sastre Demorrel](#)

Brian Bearg - Oregon USA

e-mail: ds_editor@charter.net

Reel: [bBearg 2011 Show Reel](#)

Daniel Birnbaum - Texas USA

e-mail: dan@edit28.com

Reel: www.edit28.com

Edgar Febus - Puerto Rico

e-mail: [Edgar Febus](#)

Web: [Reaktor Post](#)

Reel: [Edgar Febus Reel](#)

Henrik Friberg - Dubai, U.A.E

e-mail: [henrik](#) [at] sweetandsour.nu

Reel: [Henrik Friberg Reel](#)

Schy Gleason - Seattle, Washington, USA

e-mail: [Schy](#)

Web: www.schyproductions.com

Reel: [Schy Gleason Reel](#)

Ryan Gregory - Toronto, Ontario, Canada

e-mail: [Ryan Gregory](#)

Reel: [Ryan Gregory Reel](#)

Evan Guidera - Los Angeles/Santa Monica, California, USA

LA Based freelancer with over 5 years of DS experience in Music Videos, Commercials, Features and Television, as well as

a BFA in fine art. Available for travel.

eml: e.guidera@gmail.com

url: www.guide-era.com

Reel: [Evan Guidera Reel](#)

John Heiser - Birmingham, Alabama, USA

Reel: [John Heiser Reel](#)

email: John Heiser

Mark Hollis - Newington, Connecticut, USA

Working in New York as well as Connecticut.

You can easily find my e-mail address on the DS list in Google's Groups.

Reel: [Mark Hollis Show Reel](#)

[Ad for ESPN-I using Carlos Robles Flash transition preset](#)

David Kitel - Paris, France

Reel: www.davidkitel.com

e-mail : david@davidkitel.com

Declan MacErlane - Dublin, Ireland

e-mail: dmaxontour@yahoo.com

Reel: [Declan MacErlane Reel](#)

Ralph McHugh - London, England

e-mail: ralph.mchugh@sit-up.tv

Reel: [Showreel](#)

Will Newell - London, UK

Reel: [Will Newell Reel](#)

Dan Pratt - Houston, Texas, USA

Website & Reel: [Dan Pratt's Website](#)

Carlos Robles - Alexandria, Virginia, USA

email: [Carlos](#)

Reel: [Carlos Robles' Editor Reel](#)

Scott Roy - Raleigh, North Carolina, USA

e-mail: sroy@seriousrobots.com

Web: www.seriousrobots.com

Reel: [Scott Roy Reel](#)

Ross Shain - New York, USA

New York based freelancer available for finishing, compositing, design and training.

Will travel for the right gig!

e-mail: [Ross](#)

Reel: [Ross Shain Reel](#)

Eric Singer - Medford, OR, USA

Reel: [Eric Singer 2013 Show Reel](#)

email: fanboy.films@yahoo.com

Sean Stall - Ardsley, New York, USA

e-mail: [Sean](#)

Web: www.ironiknyc.com

Reel: [Ironik Reel](#)

Terrance Vails - Detroit, Michigan USA

e-mail: tvails@epiphanyeditorial.com

Web: www.epiphanyeditorial.com

Reel: [Terrance Reel](#)

Victor Wolansky - USA

Reel: [Victor Wolansky Reel](#)

Kiril Pahlev - Sofia, Bulgaria

e-mail: [Kiril](#)

Reel: [Not exactly Reel, just pieces from my heart...](#)

Don Days - Boston, Mass

e-mail: [Don](#)

Reel: [Fixedinpost.com](#)

Revised: Jun 21, 2013 9:27 am

DS Training & Tutorials

Here are some links to the DS tutorials available at Avid DS Support, the Avid Community site, [Tony Jover](#) and [Tristan Le Rudulier's](#) NAB 2004 & 2005 training and some newer tutorials from your fellow DS'ers. (updated Feb 17, 2010 7:47 pm)

=Everything below this line is UNDER CONSTRUCTION! - Check out the ["DSdex"](#) for an up-to-date list of the DS tutorials=

DS v10 Tutorials from the Avid Community site

If you want to upload your own tutorial to the Avid community site, here's a quick how-to: [Uploading Cheat Sheet](#)

Michael Forrest

[Setting up Render E-mail Notification](#)

[Customizing the Color Correction Layout](#)

[Advanced Output Tabs](#)

[Edge Fill \(Letterbox and Pillar Box\)](#)

[Creating a Credit Roll](#)

["Kung Fu Editing" with Gestures](#)

NB: The thing with swift menus is that they are ultimately meant to be used as you discovered above -- you hold the key, click down and 'swipe' in the direction of the function you want. It's like magic.

You won't actually get the visual buttons unless you hold down on the left button for a couple seconds without moving the cursor -- which is the extra trick on a Wacom, it's harder to hold still

[Organize your Combo Views](#)

[Organizing your folders](#)

[Multicam](#)

[Customizing Toolbars](#)

[File Based Capture](#)

Tony Jover

[Expressions 1 - Creating a Mosaic Effect](#)

[Expressions 2 - Creating a Mosaic Effect](#)

Bob Maple

[Using custom Slate Backgrounds](#)

[Using Effects Trees as transitions in DS](#)

[Getting P2/XDCam, etc. into DS 10](#)

In order to follow this tutorial, you need to download Sony's [XDCam EX Clip Browser for Windows](#) and the NLE Editing And File Transfers software at the same link.

[\(almost\) Everything You Ever Wanted to Know About Timewarps](#)

You can also subscribe to Bob's tutorials [through iTunes](#)

Tom Phillips

[DS Tracking in Graphics Effect](#)

Igor Ridanovic

[Create Paint Trails \(and more!\)](#)

[How to customize your Wacom Tablet](#)

[Color Bars and Head Format](#)

[Conform from EDL](#)

[Matte Protected Color Correction](#)

[Build a Glow Preset](#)

[Avid DS Rack Focus](#)

[DS Conform from AFE & AAF](#)

[Avid DS Basic Expressions - Part 1](#)

[Avid DS Basic Expressions - Part 2](#)

[Intermediate Expressions](#)

[Media Composer Export to DS](#)

[Avid DS Composite Containers](#)

[Stereoscopic Tutorial](#) You will need [this preset](#) for this tutorial.

In the tutorial I speak incorrectly about "interaxial separation." The proper term is "Horizontal Image Translation" or HIT.

The preset I made for DS v10 (above) is called "Stereoscopic Separation" which at least is a little more descriptive than HIT so I intend to leave it like that. You can rename it to whatever suits you if download the preset.

The idea, as illustrated in the tutorial, is to shift parallax by separating L and R images or bringing them closer together.

[Avid DS RED Import \(Basic\)](#)

You can also subscribe to Igor's tutorials [through iTunes](#).

iFlipr Flashcards

[DS keyboard shortcut flashcards at iFlipr.com](#)

Marc Fisher

["FCP to DS using Automatic Duck" Tutorial \(06.2008\)](#)

Thanks to Brian Humphreys at Rock Creative Images, here's are two Word doc versions of the above tutorial:

[AutoDuck OMF Quick.doc](#)

[AutoDuck OMF Comprehensive.doc](#)

Michael Forrest and the Virtual Scotsman

[DVE/RGB Tutorial \(05.2008\)](#)

[Flutter Cut Tutorial \(05.2008\)](#)

Avid DS Support Site Tutorials

[Avid DS Support Center Learning Collection](#)

This is a link to a wealth of tutorials that will get you familiar with the DS interface and more. It's a great place to get started with the DS and also to go back to review. The NAB tutorials listed below are also available on the site.

[Avid DS Support Center Legacy Tutorials\(Tutorial for DS 5.x\)](#)

Here are some tutorials designed for older versions of the DS, but they should be easily adapted to any version. Comprised of the traditional pdf with material style tutorial, these are worth going through at

least once. (Thanks for the link Schy!)

Tony Jover and Tristan Le Rudulier's NAB training material

These were taken from Tony and Tristan's original pdfs that they created for training purposes at the NAB conventions of 2004 & 2005. Links to the original pdfs are available on the pages. PDFs and Text-to-Speech audio files (m4a) included where available.

NAB 2004

[Between Blue and Green: It's a Keyable World - Tony Jover](#)

[Color It Corrected: A DS Editor's Guide to Color Correction - Tony Jover](#) ([Color.pdf](#) - [Color.m4a](#))

[It's All About Speed! Customizing DS and Learning How to Edit Faster - Tristan Le Rudulier](#) ([Speed.pdf](#) - [Speed.m4a](#))

[Bending Space: Morped and Warped - Tristan Le Rudulier](#) ([Morph.pdf](#) - [Morph.m4a](#))

NAB 2005

[Expressions - Tony Jover](#) ([Express.pdf](#) - [Express.m4a](#))

[Achieve More with the 3D DVE - Tristan Le Rudulier](#) ([3DDVE.pdf](#) - [3DDVE.m4a](#))

[How You Can Paint Yourself Out of a Corner: Fixing Production Problems with Avid DS - Tristan Le Rudulier](#) ([Paint.pdf](#) - [Paint.m4a](#))

Revised: Feb 17, 2010 7:47 pm

The DS Wish Lists

[2010 DS Wish List](#)

[2007 DS Wish List Top 5](#) - This is it! The top 5 feature requests from the [DS List](#) . Thanks again to Sean Stall for all his efforts in making this list. (added 4.30.07)

[2007 DS Wish List Finalists - Round 2](#) - [DS List](#) wishes narrowed down further from the Round 1 categorization. Thanks to Sean Stall for organizing and compiling this current effort. (added 4.13.07)

[2007 DS Wish List Finalists - Round 1](#) - Current wishes from the [DS List](#), prioritized and narrowed down into the top few from each category. Thanks to Sean Stall for organizing and compiling this current effort. (added 3.13.07)

[2007 DS Wish List Un-filtered](#) - The complete, un-filtered, 2007 DS wish list from the [DS List](#) as compiled by Sean Stall in 2007. (added 3.13.07)

[2005 DS Wish List](#) - Suggestions from the [DS List](#) originally compiled by Tony Jover in 2005.

Revised: Dec 23, 2009 8:43 am

DS ACSRs

If you're an Avid Certified Service Rep (ACSR), add yourself to the list.

Sean E. Stall Email: sqitaos@aol.com ACSR (Win/Mac; Newscutter, Media Composer, Symphony)

Certification: Up to date (2010); DS Tech Support and Training

Location: Simsbury, CT; Available for short term/long term/travel worldwide.

Ofer Raveh Email: oraveh@keycodemedia.com ACSR (Win/Mac Editors; Unity, DS)

Key Code Media, 270 S Flower, Burbank, CA 91502; 818:303-3980

Andrei Zhitkov Email: avidzombie.at.yahoo.com ACSR (DS, Unity, Media Composer)

Chicago, IL

Michael Radeck Email: [michael.radeck\(at\)email.de](mailto:michael.radeck(at)email.de) ACSR (Win/Mac Mediacomposer, DS)

Munich, Germany www.michael-radeck.de

Wayne Wolfe Email: wayne@marshallgraphics.com ACSR

Elite(MAC-WIN-Unity-ISIS-Interplay-DS-Protocols)

Orlando, FL / Nashville, TN www.marshallgraphcis.com

// Revised: Sep 7, 2010 3:32 pm

DS Credits

Open the pages below to see some of the projects that utilized an Avid DS. Feel free to add your projects to the appropriate lists.

[Film](#)

[Broadcast Television](#)

[Corporate Video](#)

[Music Video](#)

[Other](#)

Items in this category may eventually be split off into their own categories.

// Revised: Nov 28, 2007 4:25 pm

DS Corporate Video Credits

An Avid DS was used in the making of the projects listed below. (back to [DSCredits](#))

Starbucks 2007 Brand Video

Royal Caribbean Cruise Lines - Training Modules 2000 - 2007

The Home Depot Employee Orientation Video 2004-2006 - This 45-minute program in five modules integrated client-supplied archival footage with new material of executives and associates. The archival footage was from a multitude of formats and sources, shot over a long period of time with a wide variety of "looks." The new material was shot with two cameras - Panasonic Varicam (which was downconverted to Digibeta) and Sony PD-150 (anamorphic SD) - in studio sessions and on location in-store. The DS challenge was to bring some sense of unity to this wide range of material. The project was initially offlined in FinalCut Pro with EDL transfer into DS, but a change in client personnel meant major revisions took place well into the online phase. 3D DVE was used to create interstitials of the Home Depot "Values Wheel." Since the program was to be used across North America, versions were completed in English (for U.S. and Canada), French (Canada), and two versions in Spanish (Mexico and Puerto Rico).

Panasonic NAB Presentation - 2006 - 2007, Both presentations use a multi screen format. 2006 Both screens (16x9 HD) oriented side by side with a distance of 4 inches between. The goal was to have footage supplied as HDD5, P2, DVCAM, DVCPRO50, DVCPRO100, and other legacy formats integrate. The magic happens when images and graphics move from screen to screen **USING THE SPACE BETWEEN SCREENS**. Images do not appear instantly on the adjoining screen. Images and graphics move at different speeds. 2007's presentation utilized one (16x9 HD) screen vertically.

//

DS Film Credits

An Avid DS was used in the making of the projects listed below. (back to [DSCredits](#))

Lo Azul Del Cielo (2012 2k)
Black November (2012 2k)
Fake (2012 HD)
New York Says Thank you
Born and Bred
MegaMind
How to Train your Dragon
Bee Movie
Shrek 2
Shrek 3
Shrek 4
Kung Fu Panda
Shark Tale
Unrequited (2010) (2k)
I Love You, Man
Trouble the Water
Shake Hands With The Devil (2007) (2k)
Nim's Island (2007) DI Optical
City of Embers (2008) DI Optical
Everythings Jake
The Chronicles of Narnia : The Lion, the Witch and the Wardrobe (2005) (HD)
Superman 2 : The Donner Cut (2k & HD)
Alexander : Revisited-The Final Cut (2K and HD)
Letters From Iwo Jima
Unaccompanied Minors
Syrianna
Collateral
Inside Deep Throat
Tales of A Gypsy Caravan
Hostel
See no Evil
The Marine
The Mighty Times : The Children's March (2005 Oscar Winner)
Rescue Dawn (2k)
Grizzly Man (2005)
Bloodline - Jesus & Mary
The Warriors - Directors Cut
ATL
End Game
The Cutter
Touched

Mozart and the Whale
The Choke
Hangman's Curse
The Big Empty
Whacked!
Bone Dry
Searchers 2.0
You Kill Me
Kids in America (2005)
Shadow of Fear
Lenny the Wonder Dog
Max Rules
Den of Lions
Padre Nuestro
Gardener of Eden
The Gates
Fahrenheit 9/11
SiCKo
Capitalism: A Love Story
Adventureland (VFX)
Marie Antoinette (VFX)
Why We Fight
No Direction Home: Bob Dylan
Gonzo: The Life and Times of Hunter S. Thompson
Taxi to the Dark Side
Casino Jack and The United States of Money
Trainwreck: My Life As an Idiot
Day Zero 4:4:4
Happy Valley
August the First
The Bridge
The Ground Truth
Brooklyn Lobster
Adventures of Johnny Tao (2007)
Favela Rising
The Team
Saving Face
Duane Hopwood
2B Perfectly Honest
Sucker Punch
Grown Ups
Knots
Muffin Man
Turned Out - Sexual Assault Behind Bars (offline/online/grading/effects) (documentary)
My Summer of Love
Touching the Void

Blind Sight

Quinceañera (2006)

Human Trafficking (2005) (TV) (visual effects)

Flood (2006) (on-line editor)

Niagara Motel (2005) (on-line editor)

First Bite (2006) (visual effects)

Legally Blonde 2 (paint)

Click (paint)

Crouching Tiger Hidden Dragon (paint)

Starship Troopers (paint)

Christmas with the Cranks (paint)

Anaconda

Men in Black II

Eye of the Beholder (Paint)

Lords of Dogtown (Directors Cut DVD)

4th and Life

The Road to Memphis

Patient 14

Infested

Amandla

Hindsight

Ring Girls

Deuce Bigalow 2 (Audience Screener)

In The Shadow of the Moon (conform & online)

The World of American Indian Dance - Documentary

Miss March (Conform)Lower Learning (Conform)The Haunted World of El Superbeasto

(Conform, VFX)When You're Strange (Conform, VFX, Graphic Design)

The Cell 2 (Conform)

DS Film Trailer Credits

New Moon (Theatrical Trailer)

Eclipse (Theatrical Trailer)

Solomon Kane (Theatrical Trailer)

Red (Paint/Blood Removal)

Kick Ass

Letters To Juliet
Taladega Nights
The Dead Girl
Charlotte's Web
Freedom Writers
First Snow
Ali Raps (ESPN HD)
Paris Je Taime
The Breed
WTC (International Trailers)2K
Cinderella Man
Goal
Herbie
Goal 2
Déjà vu
Flushed Away
Ratatouille
Flight Plan
Sunshine(2K)
Night Watch
Sky High
The Greatest Game
Meet the Robinsons
Cars
The Guardian
Breaking and Entering
Once Upon a Time in Mexico
Marcie X
Dumb and Dumberer
Good Boy
Underworld
Pieces of April
The Real Cancun
HellBoy
Lilo and Stitch
The Fellowship of the Ring
League of Extraordinary Gentlemen
The Two Towers
Treasure Planet
Return of the King
Bulletproof Monk
28 Days Later
Who framed Roger Rabbit DVD release
Out of Time
Tomb Raider 2
Hollywood Homicide

The Hours
Elf
Harry Potter, The Chamber of Secrets
School of Rock
Cody Banks
Sahara
Cody Banks Destination London
Foolproof
No Good Deeds
Tupac Resurrection
Lion King 1 1/2
BattleStar Galactica
Blizzard
Kill Bill
Lemony Snicket
Miracle
Brother Bear
Finding Nemo
Cold Mountain
Freaky Friday
I, Robot
The Lizzie McGuire Movie
Mr. and Mrs. Miller
The Road Home
Hotel Rwanda
Boogeyman
The Hitchhiker's Guide to the Galaxy
Be Cool
A Lot Like Love
The Pacifier
Death Proof(2K)
There Will Be Blood

// Revised: Jan 12, 2013 11:06 am

DS Music Video Credits

An Avid DS was used in the making of the projects listed below. (back to [DSCredits](#))

Gigantour 1 - Various Artists

Gigantour 2 - Various Artists

Megadeth - One More Night

Candlebox - Alive in Seattle

Flobots - Rise

Barbra Streisand - Guilty

Motley Crüe - Carnival of Sins DVD - Conforming, Finishing, Visual Effects

OZZFEST 10th Anniversary DVD - Conforming, Finishing, Visual Effects

The Wild Pair - I Want It All - Conforming, Finishing, Visual Effects

Havana - Why Don't You Love Me? - Conforming, Finishing, Visual Effects

Icaro Azul - Beso Secreto - *finishing*

Circo - La Sospecha

Ultrafest 2005

Beyond Warped: The Warped Tour 2004

//

Other Projects Utilizing a DS

An Avid DS was used in the making of the projects listed below. (back to [DSCredits](#))

2006 MLB Homerun Derby - All promos, bumpers, player highlights, intros

2006 MLB All Star Game - All promos, bumpers, player highlights, intros

2006 MLB Celebrity Softball Game - All promos, bumpers, player highlights, intros

2006 World Cup (Featuring U2) - All promos, bumpers, player highlights, intros

2005 College Football Bowl Week - All promos, bumpers, player highlights, intros

ESPN's NCAA Pride Of The Program - All promos, bumpers, player highlights, intros

The 2005 Heisman Awards Show - All promos, bumpers, player highlights, intros

The 2006 Heisman Awards Show - All promos, bumpers, player highlights, intros

YES Network's Yankeeographies - Conform, Finishing

FX Channel_UK All promotions Spring 2006

Visual Effect (2K) Boot Camp

//

DS Broadcast Television Credits

An Avid DS was used in the making of the projects listed below. (back to [DSCredits](#))

Annoying Orange (Cartoon Network)

Angels Among Us (CMT)

Cajun Justice (A&E)

Giuliana and Bill

Christina Ferrara's Big Bowl of Love

Your Chance To Dance (CMT)

Dr 90210 Extreme

ESPN's The Women's Final Four (2010)

La La Land

Double Exposure (Bravo)

Launch My Line (Bravo)

House Husbands of Hollywood

Seducing Cindy

The Singing Bee (CMT)

Raw Nature

Ax Men

Quarterlife

Caveman

It's Always Sunny in Philadelphia

The Late Show with David Letterman

Conan O'Brien

FIFTH GEAR - Now into its 11th series of 13 shows (upped from 10 shows after Series 6). Duration also upped from 30 mins to 60 mins. For transmission on UK's 5TV, also reversioned for over 100 countries around the world. Every show finished on DS Nitris at HD Heaven, Birmingham, UK. Conforming, Grading, Compositing, Graphics, Keying, Effects all completed effortlessly with DS's comprehensive toolset.

FIFTH GEAR - New 30 sec title sequence designed and built on DS at HD Heaven

THE GADGET SHOW - Just completed its 7th series, also for TX on 5TV. Every episode completed as above (Fifth Gear). Style, overall 'look', and graphics / sting elements all designed on HD Heaven's DS.

CHEFS A' FIELD - Harvest it, then cook it. on PBS HD. Just finished the third season. This season they added kids to the mix. Conformed, Color corrected and mixed on DS. <http://www.chefsafield.com/>

SMART GARDENING - 3 seasons, total of 65 x 30 minute episodes of HD gardening magazine show. Distributed by American Public Television to PBS stations in HD and NTSC. HD conform, color grade & composites performed on DS Nitris at Chambers Productions in Eugene, Oregon. Series graphics & animation elements created on DS by Flying Spot in Seattle, WA. One of the first national series in the US to use the DNxHD codec.

ADVENTURE LODGES OF NORTH AMERICA - 2 x 60 minute HD travel documentary which aired in HD and NTSC in prime time on PBS nationwide. HD conform & color grade performed on DS Nitris at Chambers Productions in Eugene, Oregon.

THE O.C.

NUMB3RS

SURFACE

THRESHOLD

JOEY

PEPPER DENNIS

CONVICTION

E-RING (PILOT)

SEX, LOVE, AND SECRETS

THE DEADLIEST CATCH

ICE ROAD TRUCKERS

BLACK GOLD

WILD JUSTICE

EXTREME TRUCKING

PITCH MEN

BACKYARD NATION

AMERICAN CHOPPER

DAY of DISCOVERY - On the air every week since 1968. Edited on DS since 2008. Sunday mornings at 7:30 on ION Television. <http://www.dod.org>

AMERICAN IDOL - Every American idol Season, from January to May, DS is used to deliver more than 40 hours of finished, color corrected HD material for broadcast, including titles and effects. The show is seen by 30+ million households each week.

CMT's Top 20 Countdown - Weekly show done entirely in DS

True Grit- CMT's *True Grit* will tell the stories of some of America's most well known characters in a manner that hasn't been done before. The emphasis will be the emotional themes which demonstrate why our featured subject has "true grit." The entire show, from "offline" to online is done in DS.

30 ROCK

KNIGHTS OF PROSPERITY

ESPN Sports Classic - Mia Hamm Story

Así es Gilberto Gless - Full season 1hr Weekly Univision show done entirely on DS.

TODAY'S HOMEOWNER with Danny Lipford - a nationally syndicated weekly half-hour television show that appears on more than 180 stations in nearly 170 markets. High Definition online and finishing done in DS at Power Productions on the Alabama Gulf Coast.

LES PAUL: CHASING SOUND for the PBS series American Masters summer 2007. HD mastering at Henninger Media Services.

SENSING MURDER

MCCLOUD'S DAUGHTERS

YOGA TV

PLANET X

Raging Nature

Housesitter (2007)(on-line editor)
... aka The Housesitter (Australia)

Tipping Point (2007) (on-line editor)

Mind Over Murder (2006) (on-line editor)

Proof of Lies (2006) (on-line editor)
... aka Proof of Lies (USA)

Black Widower (2006) (on-line editor)

"**Killer Wave**" (2006) (mini) TV Series (on-line editor)

Targets: Reporters in Iraq (2005) (on-line editor)

"**The Tournament**" (2005) TVSeries (on-line editor) (unknown episodes)

Baby for Sale (2004) (on-line editor)

Bad Apple (2004) (on-line editor)

It Must Be Love (2004) (on-line editor) (uncredited)
... aka Surviving Love (Canada: English title: working title) (UK)

The Clinic (2004) (on-line editor)
... aka Animal Clinic (USA: DVD title)

Cirque du Soleil: Varekai (2003) (on-line editor)

Cirque du Soleil: Fire Within (2002) TV Series (on-line editor)

Cirque du Soleil - Flow: A Tribute to O

Prison Break

Las Vegas

Without a Trace

PBS NOVA "Forgotten Genius" (2007) (HD online) [NOVA "Forgotten Genius"](#)

PBS SoundStage All episodes of the multi-camera HD concert series have been edited and finished on DS for the last 5+ years.

I Dare Ya! (online and grade)

Guerrilla Gourmet (opening sequence, online and grade)

Just For Laughs (online and grade)

Hidden History (online and grade)

History Detectives (Season 1)

Queens Supreme (HD)

100 Centre St (HD)

Survivor (Bulgaria; SD) **4 seasons** (2006 - 2009)

All At Sea (opening sequence, online and grade)

Celebrity Bainisteoir (online and grade, stings)

Celtic Thunder (online and grade, sweat removal, rig removal)

Written Off (opening sequence, online and grade)

Canada's Next Top Model Season 1 (Conform and Package) and **Season 2** (Conform and Colour and Package)

Project Runway Canada Season 2 (Opening Sequence), **All Episodes** conform, colour and package)

Law & Order: Criminal Intent (Conform, VFX, Titles)

Law & Order: Special Victims Unit (Conform, VFX, Titles)

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- [First Cut: Marriage Techniques For Beginners](#)
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- [First Cut: The Seven Ages of Love](#)
- [First Cut: The Yorkshire Clamper](#)
- [First Cut: Wild Things](#)
- [For Crying Out Loud](#)
- [Frontline Battle Machines](#)
- [Good Bid Good Buy](#)
- [Heir Hunters](#)
- [Hidcote - A Garden For All Seasons](#)
- [Home Cooking Made Easy](#)
- [Jamie's 30 minute Meals](#)
- [Jamie's Christmas Lock-In](#)
- [Jamie's Christmas with Bells On](#)
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- [The Delicious Miss Dahl](#)
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- [The Event: How Racist Are You?](#)
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- [The Hospital Series 2](#)
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- [The Science Of Crime](#)
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- [The World's... and Me Series 1](#)
- [The World's... and Me Series 2](#)
- [The World's... and Me Series 3](#)
- [Tiger Woods: The Rise and Fall](#)
- [White Van Man](#)
- [Who's Your Daddy](#)

// Revised: Jan 14, 2013 11:59 am

DS Custom Layouts

Share your customized layouts or try out one of these. Add a description and please specify resolution and DS version. (added 4.16.07)

DS version 8

1600x1024

[Murf's 1600x1024 Layout](#)

"Stretch" mode is used for this oversized monitor layout, so circles may appear as ovals).

[Jeff Moorebeck's 1600x1024 Layout](#)

Revised: May 5, 2010 12:31 pm

The DSdex

Index of the best DS tutorials on the web. (Revised: Sep 13, 2013 10:29 pm)

YouTube

<http://www.youtube.com/user/reglan232>

All Igor Ridanovic's tutorials from avid.com and vimeo have been consolidated here. HDhead.com still contains the tutorials in podcast format as well as the tutorial presets.

Interface

[Customizing the Color Correction Layout](#)

by Michael Forrest on Sat, Feb 14 2009

[Customizing Toolbars](#)

by Michael Forrest on Wed, Nov 19 2008

[Functional On-screen Counter](#)

by Igor Ridanovic on Wed, Sep 9 2009

[How to customize your Wacom Tablet](#)

by Igor Ridanovic on Sun, Feb 8 2009

[Organize your Combo Views](#)

by Michael Forrest on Fri, Nov 21 2008

[Organizing your folders](#)

by Michael Forrest on Wed, Nov 12 2008

[Setting up Render E-mail Notification](#)

by Michael Forrest on Sat, Feb 14 2009

Timeline

["Kung Fu Editing" with Gestures](#)

by Michael Forrest on Thu, Feb 12 2009

[Multicam](#)

by Michael Forrest on Mon, Oct 13 2008

[Repeated Frames Detection](#)

by Igor Ridanovic on Sun, Apr 5 2009

Graphics

[Creating a Credit Roll](#)

by Michael Forrest on Sat, Jan 10 2009

[Create Paint Trails \(and more!\)](#)

by Igor Ridanovic on Wed, Feb 18 2009

[Doing Text Fast](#)

by Daniel Birnbaum on Fri, Mar 25 2010

[Tracking in Graphics Effect](#)

by Tom Phillips on Tue, Sep 9 2008

Color Correction

[Matte Protected Color Correction](#)

by Igor Ridanovic on Sun, Dec 21 2008

Compositing, Trees & Effects

[\(almost\) Everything You Ever Wanted to Know About Timewarps](#)

by Bob Maple on Mon, Aug 3 2009

[Avid DS Rack Focus](#)

by Igor Ridanovic on Mon, Dec 1 2008

[Build a Glow Preset](#)

by Igor Ridanovic on Thu, Dec 11 2008

[Composite Containers](#)

by Igor Ridanovic on Mon, Oct 20 2008

[Create a Rack Focus Effect in Avid DS with BCC](#)

by Rich D'Angelo on Tue, Dec 15 2009

[Edge Blur with Custom Sliders](#)

by Daniel Birnbaum on Fri, Mar 25 2010

[Fog and Smoke FX](#)

by Igor Ridanovic on Thu, Dec 3 2009

[Matte Key \(Matte Containers\)](#)

by Igor Ridanovic on Sun, Mar 1 2009

[Motion Parallax \(3D\)](#)

by Igor Ridanovic on Sun, Jan 11 2009

[Using Effects Trees as transitions in DS](#)

by Bob Maple on Wed, Feb 25 2009

[Z Buffer FX](#)

by Igor Ridanovic on Mon, Oct 12 2009

Expressions

[Basic Expressions - Part 1](#)

by Igor Ridanovic on Sun, Oct 12 2008

[Basic Expressions - Part 2](#)

by Igor Ridanovic on Sun, Oct 12 2008

[Expressions 1 - Creating a Mosaic Effect](#)

by Tony Jover on Fri, Oct 10 2008

[Expressions 2 - Creating a Mosaic Effect](#)

by Tony Jover on Fri, Oct 10 2008

[Intermediate Expressions](#)

by Igor Ridanovic on Mon, Nov 10 2008

Conforming & I/O

[Advanced Output Tabs](#)

by Michael Forrest on Thu, Feb 12 2009

[Color Bars and Head Format](#)

by Igor Ridanovic on Tue, Jan 27 2009

[Conform from AFE & AAF](#)

by Igor Ridanovic on Sun, Nov 23 2008

[Conform from EDL](#)

by Igor Ridanovic on Tue, Dec 30 2008

[Edge Fill \(Letterbox and Pillar Box\)](#)

by Michael Forrest on Tue, Jan 13 2009

[File Based Capture](#)

by Michael Forrest on Thu, Nov 20 2008

[Getting P2/XDCam, etc. into DS 10](#)

by Bob Maple on Sun, Nov 9 2008

[Media Composer Export to DS](#)

by Igor Ridanovic on Thu, Oct 30 2008

[RED Import \(Basic\)](#)

by Igor Ridanovic on Tue, Jul 7 2009

[Using custom Slate Backgrounds](#)

by Bob Maple on Fri, Feb 27 2009

Other

[Frames to Timecode Calculator](#)

by Igor Ridanovic on Sun, May 3 2009

[Stereoscopic Containers](#)

by Igor Ridanovic on Mon, Mar 16 2009

[Media Management and Indexing - Part 1](#)

by Igor Ridanovic on Mon, Apr 19, 2010

[Media Management and Indexing - Part 2](#)

by Igor Ridanovic on Thu, May 20, 2010

[Premultiplication in Avid DS - Part 1](#)

by Igor Ridanovic on Fri, July 23 2010

[Stereoscopic Titles](#)

by Igor Ridanovic on Fri, August 20 201

// Revised: Sep 13, 2013 10:29 pm

DS Trainers

If you're an Avid DS Trainer, add yourself to the list.

Europe:

Andi Loor Email: andi@andiloor.se Area: Held DS training in Sweden, Island, Russia and Rumania.

Declan MacErlane Email: dmaxontour@yahoo.com Area: Ireland & UK. Also available to travel on occasions: NZ, Australia, U.S, M.E and Europe.

Jan Levis - Email: janlevis@gmail.com Area: UK, Ireland, the rest of Europe (English), France / Belgium (français), ME...anyplace is fine really...

Pablo Sastre - Email: editpablo@hotmail.com Area: Spain, Austria, Europe, U.S., South America.

Available for travel worldwide.

Patrick Morgan - Email: patrick@bluegiraffe.tv Area: UK & Ireland, Europe - Available for travel worldwide.

Konrad Seidel - Email: konrad_seidel@web.de Area: Germany, Switzerland, Austria, Europe, worldwide...

Michael Radeck- Email: michael.radeck@email.de Area: Germany, Switzerland, Austria, Europe, worldwide...

United States:

Sean E. Stall Email: sqitaos@aol.com Location: Simsbury, CT; Training throughout the USA.

Jeff I. Greenberg - jeffg@fmctraining.com Location: Our offices are NYC, Boston, Philadelphia (where I live), DC, Orlando, Chicago and Dubai. Like everyone else, we do onsites everywhere.

Latinoamerica:

Orlando Araque H. - Email: tatoaraque@ccat.com.co Location: Our offices are Bogotá (Colombia),

Central and South America. Available for travel worldwide. Spanish Lenguaje.

// Revised: Jan 27, 2014 7:46 am

Upgrading to Avid DS Version 10

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[Avid DS Version 10.3](#)

The [Avid DS v10.0 Read Me](#) which also comes as a PDF on your installation disc, and other information on the [Avid website](#)

Archive Restore Bug

DS version 10.1

(Case Study)

I am trying to restore an archive from v7.6 onto v10. When I go through the archive restoration process everything works except for the video on the archive tape. The archive tape does not roll or digitize anything from the tape at all. This problem has been sent to Avid support and this problem did not occur on Avid DS version 10.0.

In the end we had to restore a data only archive and re-capture the media from the original source tapes. Just glad we labeled the tapes well.

According to Avid, this is a known bug and Avid is working on a v10.1.1 QFE that should solve the problem.

(Thanks to Mark O. Rachall, Bevis and Rhys Llewellyn)

Another Archive Bug in version 10

I just archived a small project in v10.1. I put the project files on the hard drive and I dumped the video to tape. The video for the archive was about 15 minutes long. I just tried to do a restore and it only restored about 1 1/2 minutes of the project. All of the media was purged from the computer. It was all archived to tape before the purge.

This is a known bug since November, 2008. Avid does know about it

It is recommended (as a workaround) to create a project with the same format and then sit in it while running restore.

Avid DVD problem

A few DVDs left Avid with Version 10.1 has the single `.iso` image file rather than the contents of the `.iso`. What you should get is the folders content with the `start.exe` that launches the navigation menu and options. You can indeed extract the ISO using [gBurner](#) to deal with `.isos` - (Morey Gers says it works great) and burn your own DVD copy

Dual Booters take note:

Avid DS 10.1 did not work in a dual-boot configuration. That was addressed with v10.1.1 and Symphony 3.5.

Final Cut Pro to DS 10.3

FCP -> Automatic Duck -> MC 3.5.4 -> Avid DS 10.3

Here are the steps to take:

Final Cut Pro

- Make sure all clips are the same Frame Rate.
- Export sequence using Automatic Duck (choose your project settings).

Avid MC

- Move your MXF files over and then import your AAF into a project that matches your previous settings.
- Here's the gotcha that got me!
- >The Canon 7D files didn't have Reel numbers associated with them, so once I relinked to the media in MC I "Modified" the source to an actual 6-digit reel number (i.e. - 000001, 000002, etc.) for each tape / clip.
- Now select the sequence and Transcode to your desired finishing compression. It'll create new MXF files that correct the reel number. Instead of looking for an "Aux" MXF file stringout, it'll look for the reel number stringout. (ex: AUX0001V011234 it'll look for 000001V011234) The reason why this step was important is because the MXF media files created from Automatic Duck will be the same as their File Names in FCP (CLIP01V011234).
- Create an AFE from the Transcoded sequence.

Avid DS

- Create a sequence that matches your finishing settings, and then import/open the `.AFE` file. All files

should link up.

(thanks to Don Raimondi)

Gamma Problem in 10.1

This is an issue with DPX files.

Case Study

I'm on a v10.1. I have linked to a series of 2K log dpx files using the following settings:

Sequence: 2K full aperture 4:4:4. 10 bit storage, 16bit processing

Capture setting: linear

LUT setting: Linear (0-1023)

I have then built text comps onto the textless plates, and outputted them as follows

- Output levels: linear
- Output LUT: Linear
- DPX Type: 10bit RGB

What is puzzling me is that when I re-link to my outputted files to check them (using the same settings as above), there is a disparity. Just to be clear, I put the linked files on a layer above the track they were output from, and mute the track, to see a slight gamma shift on RGB from the track below.

Moreover, the difference is only apparent in the sections that I have comped, not in the footage either side.

I think I've tried everything obvious. Rendering makes no difference. The change is still visible in 2K as well as in proxy mode.

tried to output the comps as 16bit tifs, then re-import them, and there is no disparity.

Also did 'timeline to clip' of the comp, there was no change.

Also when I then outputted the generated clip to dpx, and re-imported, no change!

So, I've got a workaround, but still no idea what the problem is

Avid writes: There is indeed a known issue and the fix is coming (soon) in the 10.1.1 version update for Avid DS 10.1.

(Thanks to Gareth Parry and Sylvain Labrosse)

New Media Composer Released

From Avid:

Dual boot systems

Avid DS version 10.0 works with Symphony version 3.0 or 3.05

Avid DS Version 10.1.1 works with Avid Symphony version 3.5

Single boot systems

Avid DS versions 10.0 or 10.1 works with Bundled Avid Media Composer v3.5.

Avid DS Version 10.1.1 works with Bundled Avid Media Composer v3.5.

As of May 13, 2009

DS 10.x customers on Avid Support with a valid support contract that have registered their Media Composer v3.0 software will receive a complimentary copy of Avid Media Composer v3.5 upgrade to complement their Avid DS v.10.x system. Any customer with a valid support contract that already received Avid Media Composer v3.5 with their DS 10.1 purchase or upgrade will NOT receive this upgrade kit.

For customers that qualify, Avid has started shipping these upgrade kits the past week and they contain:

- Avid Media Composer v3.5 application DVD
- Avid Media Composer MC v3.5 SW License Upgrade Key
- Installation Guide for Avid Editing Applications
- Dongle updater Key for MC v3.0 to MC v3.5
- Customer Letter

(Thanks to Marianna Montague)

[DS Downloads.](#)

Media Composer on Dual-Boot 9300

(Case Study)

I downloaded and installed MC 3.0.5 on the 64 bit side of DS V10.

1. During the install there was a message that popped up stating that I needed to verify something with the software vendor because it was not a Windows Logo compatible program or some such. I had the option of canceling the install or keep going. I kept going despite the fact that the warning was that my machine could become unusable unless I did this verification.
2. When using MC, It's dongle needs to be installed in a USB port **with the Symphony dongle removed**. If I switch to Symphony, I'll need to swap the dongles.

According to Avid:

You can install MC Soft on the 64-bit DS partition **but**, as documented, Avid will **only** support MC for its conform options to DS. Since MC is not officially blessed on XP 64-bit, any broken functionalities will not be logged as bug nor be repaired. Or, you set up MC on another PC supported by Avid. Avid confirms that you must switch dongles for MC function and, alternatively, for Symphony function on a dual-boot system.

What other applications can I use?

Troy Thompson reports: We have Squeeze (4.5) on the 64-bit DS system, but it does not work with REF AVI.

He does not believe that CinemaCraft will run in XP 64. He has an XP 32-bit system set up as a remote machine for 32-bit applications.

Tony Jover reports that Adobe applications behave in XP 64.

What HP Workstations work?

DS 10.0+ is qualified with Nitris on the HP xw8200, xw8400 and xw9300 only. *Support for the HP xw8000 and Equinox has been dropped.* The HP xw8600 is **AJA only**.

HP xw8200

From Sylvain:

"To be honest, the HP xw8200 was **very close** to not be qualified for 10.0 simply because *the workstation is borderline on performance*. If it was left up to me, the HP xw8200 would have been **out**. Luckily for some users, I don't make these final decisions..."

Think carefully about whether or not you want to have a trailing-edge workstation with XP 64 and DS version 10. This comment suggests many problems.

SAS Storage Array

Older Avid storage for DS used a smaller block size for media. If you are upgrading to DS Version 10's newer array, Genconverter.exe in v10 is meant to convert GEN media files to the SAS required 4K sector sizes, and to apply a 709 LUT to the media if needed.

This is not a general "convert media files across versions" executable.

The only way to be assured that you do have a good archive of old projects is to archive to tape.

(Thanks to Sylvain)

Case Study:

Do not attempt to install v10 with the dual link option if you're on the xw8200. The AJA dual link card is not compatible with DS v10 on the xw8200. I was aware of this before upgrading. But both the license request form and the installer ask you if you have the dual link option. It was on my 8.4 version. I paid for it. So, if you're like me, you say "yes", and the installer proceeds to install accordingly.

This results in symptoms/problems that are not obviously related to their cause. First of all, your install may or may not match your license specs. If your license says you have dual link "AVID DS DL HAL", then the DS will launch, but as "Software Only" (with disabled I/O functions). If your license does not list the dual link function, but the AJA card is detected, the system wants to launch as an RP workstation and DS won't launch at all.

If you are experiencing this problem, you must remove the AJA card and then re-install v10. If you require dual-link I/O, you have to move to either the xw8400 (for a dual boot system), or the xw8600 (which doesn't support Nitris).

Comment from Avid:

When Avid DS Setup runs, it detects hardware and that is why it saw the presence of the Dual-Link card. Avid allows you to use the Dual-Link or AJA XenalLHe as a *monitoring option* in a HP xw8200, but that turns the setup into an Avid DS Software, and that is what you ended up with.

Version 10 licensing has been changed slightly to allow the use of RGB 4:4:4 projects and media, even if you are not actually running the Dual-Link hardware. This is the AVID DS **Dual-link** option in your license file. So even if you request an Avid DS Nitris license, you **will** see this entry in your license text. What truly enables the Dual-Link abstraction layer is the AVID DS DL HAL option. If you request the wrong license and you get this option for a 8200, it turns your application into a DS Software with AJA monitoring option.

The HP xw9300 also can run Avid Nitris DNA and the Dual-Link option.

Configuration:

There is some confusion about what goes where and the documentation for DS version 10 was rolled out with a couple of errors that will be corrected very quickly. Here is the straight dope on cards supported in the HP xw8600:

SQA has tested and qualified the PCI-Express controller cards in the HP xw8600:

PCI-E ATTO UL5D for connection to legacy SCSI storage such as the Avid MediaDock Ultra 320 and Avid VideoRAID RTR (dual 10 disks).

PCI-E ATTO Celerity FC-41ES for Avid Unity MediaNetwork 5.1 and 64-bit client (Avid DS v10.0 no longer supports 32-bit, except for Avid DS Software and Avid DS RP, remember?).

DS release notes or install guide says you can't combine Unity media and local storage media on the same timeline. This was true of DS version 7.0 and was a bug that was fixed in DS version 7.1 but the fix did not make it to the documentation. You can combine Unity media and local storage and you have been able to do that since DS version 7.1.

PCI-X cards may probably work but were not fully tested nor qualified and so it is "at your own risk" if you try them.

Obviously, the HP xw8600 ships with on board SAS supporting the new Avid VideoRAID SR 16 disks as 500 GB or 1 TB options.

[Avid System Setup Guide for Version 10](#)

Input Level Changes

When you capture DPX files to revise a project after you have upgraded, you can run into problems. A [possible solution is here](#).

AVI CODEC Issues

(Case Study)

Q: I just digitized in a 3 minute SD clip (uncompressed) and have it on the timeline. Now when I export a ref AVI or AVI - neither will open in Media Player. When I drag it into CinemaCraftSP2 to encode for MPEG (read DVD) I get an error "the video codec SIRF not found" or something like that. Can't get it to

work with Sorenson Squeeze either. Can't export a QT and QT won't read the AVI or ref AVI file (I get audio but no picture).

A: On XP64, Windows Media Player is still a 32-bit app, so you need to install the 32-bit ref codec separately. DS installs the 64-bit ref codec when DS installs if I remember right, but the 32-bit one does not.

From the installer DVD, there should be a button for on the first autorun menu that pops up.

WMA Audio Files

Unfortunately the underlying wmformat support isn't in Windows XP-64 by default. Before you install Avid DS version 10.x, you must first [obtain the Windows Media Encoder 9 Series x64 Edition from Microsoft](#) and then install that on your system. You may then install DS version 10.x and you will have support for WME audio

Temporary to permanent license

I have now received a permanent license. What do I do?

1. Open the Support Console
2. Run DS License Manager
3. Point it at the new license
4. Hit okay and it will verify. If it's verified then it's in use.

(Thanks to Tomio Iwasa and Tony Jover)

What do you get with AJA versus the Nitris hardware?

What are the advantages or disadvantages of setting up version 10 with an existing Nitris I/O as opposed to the AJA Dual link I/O card?

- 720P24 - for one.
- Direct ingestion of more SDI formats for one -- (RGB 4:4:4 for one. There are others).
- Speed (you cannot run DS Version 10 with Nitris on the HP xw8600, which is a really fast machine).

What do you lose with Nitris?

- AJA setup alone CANNOT do any HD cross-conversion on the fly, meaning 23.97 to 59.94.
- _____
- _____
- _____
- _____

Common to both:

- Secondary color correction
- Ability to work with P2 files

AJA Outputs

- In SD, one connector outputs SD. The other upconverts.
- In HD 4:2:2 one is HD. The other is a SD downconvert. The AJA does RT up/down/cross conversion by default.
- In 4:4:4 both outputs are used (obviously) for the 4:4:4 connection.
- The user has controls like the normal AJA control panel, but the DS does not use the standard AJA control panel if you are familiar with it.

Currently with DS *the only analog output available with the AJA is component*. The Xena 2k does indeed provide a composite option but DS do not expose that, we expose only component RGB or YCC from the output panel.

I wouldn't also recommend using any other software that drives the AJA while DS is running, as you may screw things up. In other words, Avid does not support the use of companion software to configure the I/O for the BOB at the Windows level.

(Thanks to Morey Gers, Tony Jover Sean Stall Karim Arbaoui and Nicolas Courtemanche)

AJA Conversion Modes: A Dual-Boot Option

As is noted above, DS does not work with the AJA Machina software. Christian Vollenhofer decided to do some testing with a dual-boot idea:

I know the AJA can do a lot more but not inside DS. it can do 4:4:4 to 4:2:2 and crossconvert in the AJA

Machina software but this is not supported to use with DS drivers. I just tried to install the Machina software only - with no drivers (after an complete system backup) and voila - every conversion is possible in the AJA Machina software and - everything inside DS looks ok - for now. Machina runs under Windows XP-64.

With this dual-boot setup, I will switch to a file-based workflow where I capture media as e.g. .DPX]] , { { .TIFF and then do some stuff inside DS or other applications output to tape or export .DPX sequence and crossconvert the final masters 720 50p to 1080 50i or cossconvert 720 60p to 1080 25p using the Machina software.

This is absolutely not supported by Avid but it may be of help to those with these specific workflow issues.

Avid DS Version 10.3

As of Wednesday, 13 January 2010, 10.3 was released:

The new Avid DS v10.3 release contains various bug fixes and feature enhancements. This release is free of charge to all Avid Support customers running version 10.x. and is available on the [Avid Support Download Center](#) (login and password required).

Avid has also released MetaFuze v2.1 which is fully compatible with Avid DS v10.3. [Avid MetaFuze v2.1 is a free application](#) that automates the conversion of formats such as DPX, RED R3D, QuickTime and even 3D Stereoscopic files sequences to Avid DNxHD media for HD offline and 10Bit HD finishing.

Avid DS v10.3.Feature Enhancements:

- **Red Rocket Support¹** - Support for Red Rocket, the hardware accelerator for RED cameras, has been added to Avid DS v10.3 running on the HP Z800 and xw8600 platforms.
- **RED conform enhancement²** - Avid DS v10.3 now includes the latest color science from RED.
- **ARRIRAW file format now supported³** – Native support of ARRI 12 bit file format; can also conform from an Avid Media Composer offline project. (plug-in required from ARRI)
- ***AVX2 Plug-in Support** - Support for the AVX2 architecture will make newer 64-bit AVX2-based plug-ins available for Avid DS.
- **Boris Continuum Complete 6 AVX Support**
- **OFX (Open FX) Support** - Avid DS v10.3 now supports an OFX Host, increasing the number of available plug-ins from “The Foundry”.
- **Conform of Mixed Rate Sequences** - Avid DS now supports conforming of mixed rate sequences (called Mix & Match) from Avid Media Composer to Avid DS, support for mix & match of different frame rates is non real-time and requires a render to be real-time playable⁴.

- **Editing Mixed Rate Sequences is supported** - you can drop clips of different frame rate like in the previous versions but dropping a DS Sequence of a different frame rate onto the timeline is still not supported.
- **Storage LUT** - The previous Storage LUT has been removed and replaced with a gamma setting instead. The choices under the gamma setting are Redlog, Redspace and 709.
- **Hi-Res Playback on an External Monitor** - With the latest Avid DS enhancements and the appropriate graphics card, you can now play back high-res sequences (HD or higher) on an external monitor.
- **Alternate Source Conform** - Multiple enhancements have been made to the alternate source conform workflow—see Linking to High-Resolution Files during the Conform Session in the Help or in the Avid DS Hi-Res Workflow and Color Guide.
- **DNxHD Codec compatibility** - Avid DS v10.3 includes the DNxHD Codec introduced in Avid Media Composer v4, Avid Symphony v4 and News Cutter v8.
- **Throttle Manager No Longer Required** - The Throttle Manager service is no longer required as of Avid DS v10.3. Distribution of work across multiple workstations is still supported and is backwards compatible with previous versions of Avid DS.

Metafuzze v2.1 Feature Enhancements:

- ARRIRAW file format is now supported.
 - * ARRIRAW 12-bit data support, native support of the ARRI D21 and 1920 x 816 file format support
 - * Latest color enhancement for transcoding R3Ds.
- RedRocket support
 - * significant improvement for transcoding and reading native R3Ds ALE export enhancement
 - * Transcoding to multiple formats multiple ALEs will be generated; dramatically improving the organization of the newly transcoded files in Media Composer.
 - * 720P @ 25fps added to the output format
 - * Added support for transcoding file to 720P 25 fps in MXF in both 8 or 10Bit
 - * Multiple transcoding jobs deletion

Avid Media Composer Compatibility:

Avid DS v10.3 is compatible with Avid Media Composer v4.0.5 (software-only). Avid Media Composer allows the generation of AFE from bins and it also allows the proper logging and capture of P2 and XDCAM that can then be used in Avid DS through an AFE conform. The software can be installed on Windows XP Professional x64 Edition but only for Avid DS conform tasks. Avid does not support Avid Media Composer on this operating system for other purposes.

Avid Media Composer v4.0.5 for DS Support Contract Holders:

Avid DS v10.x customers with a valid Avid Support contract will be allowed to download at no charge

from the Avid Download Center (login and password required). Avid DS 10.x customers that were supplied a Avid Media Composer v3.x or higher license must go to <http://aviddssupport.avid.com/index.htm?section=licensing> to request a license upgrade in order to activate Avid Media Composer v4.0.5. From there they will need to enter their Avid DS system ID and Avid Media Composer Dongle ID (Software License System ID if applicable). Upon verification of the Avid DS contract, they will receive the necessary upgrade license. Customers should be encouraged to run the 30 day Avid Media Composer trial should they have any urgent issues or needs upgrading their license immediately. To rectify a licensing issue, customers should call Avid DS support.

QuickTime Support:

Avid DS requires QuickTime v7.6 or greater. To capture and link to any QuickTime files, you must have QuickTime v7.6 or greater. Other QuickTime enhancements include:

- Avid DS supports capture and linking to QuickTime files (v7.6 or higher).
- Improved support for timecode matching.
- Now supports the Cineform QuickTime codec (16-bit).

Readme and Known Limitations Documents:

Customers are encouraged to refer to the ReadMe and Known Limitations documentations included with the Download or located on the Knowledge Base for specific information pertaining to Avid DS v10.3 prior to downloading and installing the upgrade.

Notes

¹ DS Version 10.3 doesn't support Red Rocket RT playback yet, but the capture of files is greatly accelerated, especially when decoding in full premium. The rocket is supported in both DS and metafuzze.

² In addition to the rocket support, Avid simplified the color management for Red and provided access to the gamma setting (RedSpace, Redlog, 709), added support for .rsx file and improved the conform by allowing the .rlx files selected in metafuzze to be carried to MC and then to DS through the AFE. Avid also enhanced the alternate source conform to provide more flexibility when conforming to apply global changes to only some of the settings.

³ Avid worked closely with Arri and has the same level of support for the Arriraw media generated by the Arri D21 camera. The Arri support is delivered through an optional free of charge plugin shipping with DS. The plugin is also supported for metafuzze and can be downloaded from the arri web site for users that don't own a DS but want to transcode .ari media using Metafuzze.

⁴ The Media Composer player was designed from the ground up to support motion effects, such as timewarps, pulldowns and ramps and has done so far many years. Realtime mix & match just builds upon that support built into Media Composer. DS's player was not designed to support this, thus you must

render in order to play back material that does not match the frame rate of the sequence.

Revised: Jan 25, 2011 7:51 am

DS v10 Launch in Los Angeles, U.S.A.

Video link thanks to "Megantic":

[Gary Greenfield address at the v10 launch](#)

DS v10 Launch photos from Marc Fisher:

// Revised: Aug 21, 2008 6:43 pm

<\$WikiBreadcrumb\$>

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This is a page anyone can use to play with the page editing interface or test out formatting ideas. Click on the "Edit this Page" button and have at it!

Hint: I've found that the visual editor works fine most of the time, but every once in awhile, I need to go into the text editor to clean up formatting errors or to make cleaner selections.

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text

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[100. youtube](#)

Delicious/tag/avidds

- [Avid Community](#) Apr 29, 2012
- [aviddsupport.avid.com/learncoll/start.htm](#) Oct 5, 2011
- [DSWiki » home](#) Oct 5, 2011
- [Avid | Avid DS Software](#) Apr 19, 2011
- [Avid DS Support Center](#) Jul 29, 2010
- [\[MindSight\] - Jack Liga, Dan Niccolai partners have owned Chicago's finest video / media production facility](#) Feb 3, 2009

Revised: Jan 22, 2013 11:06 am

some fantastic info [coolest marketer in America](#)

DSWiki: FAQs, White Papers and Other Items of Interest

- [MXF/Firewire Hack FAQ](#)
- [DPI FAQ](#)
- [Link to Avid's "Bringing HDV into DS Nitris" article](#)
- [File Issues](#)
- [VCR Issues](#)

Also operations manuals for many Panasonic and Sony VCRs.

- [Windows Media](#)
- [1998 DS Sales Brochure](#)
- [DS Evolution](#)
- [1997 Softimage DS Initial White Paper](#)
- [DS Biography](#)

// Revised: May 29, 2009 5:42 am

DSWiki Google Search Page

Search the DSWiki using the Google Search Engine. (added 7.25.12)

// Revised: Jul 25, 2012 8:00 am

2007 Avid DS Wish List Top 5 Feature Requests!

Organized and compiled by [Sean Stall](#) from suggestions and votes on the [DS List](#), this group is the Top 5 Feature Requests. You can find all of the Feature Request Wish Lists at this [link](#). (added 4.30.07)

The Top 5

1. Real 3D Compositing. Including the ability to import 3D shapes, cast shadows, adjust lighting, apply plug-ins in 3D Space (ie, T_Glow, surrounds an object in 3D space).

2. Total Conform.

- Closer Conform abilities with FCP/Avid.
- Play nicer with Composer/Xpress. Direct import/opening of Avid Composer/Xpress bins. No AFE, No Medialog. Just open 'em and use 'em. Export DS bins so that they can be used in Composer/Xpress. Same with FCP. This would make DS a more attractive conforming tool.

3. Animation Editor Enhancements. A smarter keyframing/animation editor interface that easily and quickly allows the user to see/manipulate all of the keyframes that are relevant at the time across multiple layers and nodes, and eliminate those that aren't. After Effects is pretty good at this. I would love to be able to select any number of nodes in a tree, and bring up an animation editor that shows only the curves for those nodes, and only curves that have user added keyframes in them. Also, it would be great if it were possible to optionally link dual curve parameters such as X and Y scale into a single curve for easier manipulation.

4. Completely Rebuilt Tracker. Unlimited tracking points.

5. Real Time Secondary Color Correction Wheels (steal from Symphony)

Honorable Mention:

6. Native Support for Firewire-based formats. (P2, HDV, DVCProHD)- A P2 Import Feature that creates clips (including audio) and preserves the timecode (see FCP).

7. AVX2 and OFX support.

// Revised: May 7, 2007 2:26 pm

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Avid DS

A to Z

Note: Avid has recently reorganized its own website to help DS users find fixes to common problems. While this resource is helpful and does have non-Avid solutions, many of the questions we face may be answered in a search query at [Avid's Knowledge Base](#)

Note: This document was originally compiled by Phil Mastman for versions of the Avid DS up to and including version 6.x. It is now in the slow process of being updated to the most current version. In the meantime, there are a number of items that have changed since version 6.x that are not reflected in this knowledge base. If you'd like to change them, feel free to do so. If you'd like to report them, send me a detailed e-mail ([David Tarr](#)) and I'll see that it is taken care of. Thank You.

Originally compiled by [Phil Mastman](#) of Sandlot Pictures, Inc.

“Creativity is non-linear. Visual artists do not segment compositing, paint, and editing in their heads when they are realizing a vision. They just think it, and then figure out how to do it, and when I'm on a roll, I still think DS is still the best overall tool for that.”

–Lucas Wilson

This document contains information that has not necessarily been verified to be accurate. The editors have done their uttermost to expand on this knowledge base and to verify accuracy and to update it as time permits and as we get more information about current versions of the DS and its quirks. Avid does not stand behind this Wiki and neither does SoftImage. Any errors are inadvertent and not intentional, please use this knowledge base at your own risk.

Special Thanks:

From Phil Mastman: Thanks to Charles Meyer at NAD Centre, Montreal, Brandon Kraemer, Avid's Sylvain Labrosse and the many incredibly knowledgeable contributors to the online DS user group.

Revised: Jun 11, 2008 4:10 pm

DS Evolution

Jay Hunt posted this photo on the list showing the history of some of the CPUs used to run the DS.

DS Press

Listing of DS and DS users in the trade mags and on the web. (revised: Aug 22, 2013 12:40 pm)

2013

Blog on the end of DS:

<http://www.postperspective.com/2013/08/ds-is-dead-long-live-ds.html?m=1>

Studio Daily's Take on the end of the DS:

<http://www.studiodaily.com/2013/08/avid-pulls-the-plug-on-the-ds/>

Small Article about using the DS in the HBO documentary, Manhunt:

<http://digital.copcomm.com/i/115625/41>

2010

Mike Sullivan of BPI, talks about setting up a multi-media installation:

[Creative Cow: Mike Sullivan's "Coacoochee's Story"](#)

2008

Igor Ridanovic talks Red and Avid with StudioDaily (8/08): [Igor_StudioDaily](#)

FreshDV with audio of the DS conference call (8/08): [FreshDV](#)

CNN Money (8/08): [Avid DS 10 Speeds Creative Hi-Res Online Process](#)

[HD Head – Avid Announces the Release of DS v10](#)

[The Hollywood Reporter – Avid advances in the art of 3-D](#) - Mentions that the new version of Avid DS incorporates tools for stereoscopic filmmaking

[Splice Here – DSv10](#) - Steve Cohen posts his feedback - “The new version boasts impressive speed and a new approach to processing based on the host computer and the GPU in the video card (an Nvidia FX 3700)”

[Sports Video Group – Avid's New DS 10 Speeds Hi-Res Online Creative](#)

Declan MacErlane (Piranha Bar, Ireland) on the Digital Production Buzz Podcast (8/08): [Digital Production Buzz](#)

Broadcast Engineering (8/08): ["Avid Announces Avid DS v10"](#)

Digital Production Buzz (8/08): ["Avid Announces DS v10"](#)

Creative Cow (8/08): ["Avid DS 10 Speeds Creative Hi-Res Online Process"](#)

Digital Content Producer (8/08): ["Avid DS 10 Speeds Creative Hi-Res Online Process"](#)

DV Magazine (8/08): ["Avid Launches Avid DS Version 10"](#)

Scotoma Movie Geek (8/08): ["Avid Advances in the Art of 3D"](#)

Studio Daily (8/08): ["Avid DS 10 Speeds Creative Hi-Res Online Process"](#)

Videography (8/08): ["Avid Launches Avid DS Version 10"](#)

Ironik, Bluefoot and ESPN on Avid.com (8/08): [Ironik Bluefoot](#)

Avid Press Release (7/18/08): [Leading Post Production Facilities Save Customers Time and Money Finishing High Profile Projects on Avid DS Nitris Systems](#)

Marc Fisher's FCP to DS with Automatic Duck on Post Magazine's video section (7/03/08): [Marc Fisher PostMag](#)

Paul Neal and Dreamworks Animation in DV Magazine (7/08): [Paul Neal DVMag PDF](#)

Igor Ridanovic on Digital Production Buzz podcast - Scoll down to the July 03, 2008 entry (7/03/08): [Igor Ridanovic on DPB](#)

Sean Stall interview in Markee Magazine (6/08): [Sean Stall Markee PDF](#)

Igor Ridanovic, Kappa and Red Users Group (6/08): [Igor Ridanovic/Red Post PDF](#)

Kevin Johnson and Coolfire Media in Post Magazine (5/07/08): [Kevin Johnson PostMag](#)

2007

[DS, Big Bang Post and FilmLight](#)

[BNet article Democratizing D.I.](#)

2006

Heydar Adel mention in DV Magazine (2006): [Heydar Adel DVMag](#)

// Revised: Aug 22, 2013 12:40 pm

E

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- [How to print a list of files in a DS directory](#)

EDITING

ADDING CLIPS, SEQUENCES AND EFFECTS TO TIMELINE

Drag/drop to track.—Respects Ripple button

With ripple ON—new clip splits underlying track and ripples it.

Control Drag and Drop for storyboard editing: In the Explorer, hold Control while clicking in order a selection of clips, then drag and drop into the timeline. The clips will assemble in the same order.

CTL-Drag an effect preset from explorer to timeline clip, and the effect will **respect the** in-out markers.

R-drag clip—**gives you track router.**

To work with multiple clips, CTL-R-drag, lets you select track routing one at a time on multiple clips. Use reverse button to reverse audio/video track selection.

R-Drag to marking ribbon—**puts clip on a new video track.**

Drag clip—HOLD V—**makes an insert edit**—ripples even without ripple on.

Drag clip—HOLD B—**overwrite with activeness.**

CTL-drag, drop—**Selects clips in desired order from explorer, drag to timeline.** Preedits your sequence in order.

Drag clip to the Source Monitor, release, and then drag from the Source Monitor to the Timeline to retain video only/audio only active track selections which are set on the left side of the Timeline.

UPDATE CLIP button... **remembers in/out points in clip, and updates thumbnails** in explorer. Allows pre-editing, CTL-drag clips into timeline

Replace Edit will ignore the timeline in and out points and replaces a selected clip in the time line with the source clip. (Dual viewer)

Control-R will **razor** or adds an edit to a clip.

Control-E while making multiple selections will **convert the selections to edit points**.

Drag clip—HOLD V—**makes an insert edit**—ripples even without ripple on.

Drag clip—HOLD B—**overwrite with activeness**.

OVERWRITE/INSERT BUTTONS (B, V) override the ripple mode.

CTL-Tab...**Move down the timeline a track**

CTL-SHIFT-Tab... **Move up the timeline a track**

REPLACE BUTTON—uses timeline clip selection duration.

With RIPPLE ON, uses play clip selection duration.

With RIPPLE OFF, uses timeline clip duration.

Track routing **MUST MATCH** selected timeline clip.

MATCH FRAME MATCH BIN (Browser) CTL-

Adding a fade out or other clip effect at the end of a clip—Select clip, -10 puts the effect at last 10 frames. 10- removes 10 frames from the duration of the clip.

VIDEO/AUDIO SYNC--After making an audio container, hit S (Sync Lock) to maintain container's sync with video. CTL-Click video and audio clips before re-syncing.

CTL-E to SELECT MULTIPLE EDIT POINTS

Select several edit points, to add several transitions simultaneously.

NUDGE AUDIO CLIPS FORWARD AND BACKWARD IN THE TIMELINE

during playback... you can (to get better sync or whatever). **Select the clip**, press play, **use the square brackets to move the clip forward or back**. Remember that holding the control key or shift key will increase or decrease the speed at which it will react.

MOVING A CLIP VERTICALLY IN THE TIMELINE

To move a clip to a higher or lower track, without changing its position, **hold the “U”** key, while dragging the clip to the different track.

PUTTING A CLIP FROM THE TIMELINE INTO THE SOURCE MONITOR

Move the position over the clip in the timeline. Hit the backslash key. (\) The clip will load into the source monitor.

Even if the clip is video only, the source audio will become available to you in the source monitor. Also matches the frame in the source viewer.

Snapping to the next edit

The "," and "." keys also known as the "" keys (just without the need to press shift) will take you to the next edit point of any highlighted track.

EFFECTS

Use ' (apostrophe) key to **add an effect**, to a clip, track, timeline or tree.

CTL-Drag an effect preset from explorer to timeline clip and the effect will **respect the** in-out markers.

ADJUSTING PROPERTY SLIDERS

- [moves a slider value by -1
-] moves a slider value by +1
- Shift [moves a slider by -0.1
- Shift] moves a slider by +0.1
- Control [moves a slider by -10
- Control] moves a slider by +10

Rolling the wheel on the mouse increases/decreases the value by “1”,

- CTRL+wheel does it by 10,
- SHIFT+Wheel moves it by tenths (.1)

You can **do math in numeric input fields**.

MOUSE SPIN—click-hold in an input field, move mouse out of input field and orbit the field to increment or decrement values. **CTL- spin** increases or decreases by a factor of 10.

Use the BIG Color picker for better control and more choices. Hit the EDIT button on the little color picker.

Lock Effects property page, to **keep the property page open** while working in other windows. Click the icon that looks like a fat ! in the upper right corner.

LEGALIZE— use clip effect **COLOR SPACE ADJUSTMENT**—reveals out of gamut levels. Adjust slider chooses between fixing with luminance or chroma. Doesn't work

on blacks. **Any rendered effect will automatically legalize by clipping.**

PREMULTIPLIED-custom effect to **change the premult value of an imported clip** if necessary.

Right click on the Key Frame icon to edit an animation curve.

REPLACE AN EFFECT by **dragging an effect** into the icon next to the “L” and “S” buttons in the upper right of the effect property editor

PREVIEWING UNPROCESSED EFFECTS

Real Time, Degrade Play Press shift and apostrophe for degraded playback when in an unprocessed effect. This makes the DS play back (processing on the fly) at the correct speed; it drops frames to keep the duration correct.

Play All Frames. Hold down CTRL and press the play button. This plays every frame rendered in the resolution set with the checkerboard filled button over the viewer. Intensity of effects determine playback speed.

SOURCE GENERATORS

You can place additional images in the Test Patterns folder and use them for a slate or background or anything else. Then you just use Source Generator>Test Pattern and select your background from the pulldown menu.

The path for test patterns is:

ProgramFiles\Avid\DS_v6.0x\DSSystem\VideoBitmaps\TestPatterns\NTSC (or PAL as the case may be)

EFFECTS-CREATIVE TIPS

BLEACH BYPASS EFFECT

Add a CC mode, set saturation to 75%, gamma to 0.9. Add a composite node, route source to both input 1 and input 2, add a blur node to the top route, set blur to 3 pixels. Set transfer mode to hardlight. Add a little noise at the end. Violá!

FILM LOOK

Deinterlacing

The Deinterlacing process creates frames from the original fields, ending up with 60 frames for 1 second of original material. Since the original material has only half the lines per field, the missing lines needs to be interpolated.

Start with the "Linear" Deinterlace mode. If you find that the result becomes too blurry, switch to the "Adaptive" mode which will deinterlace only the moving parts of the frames keeping the static parts

sharp.

Timewarp

The Timewarp step is required to emulate the 24FPS. Since the Deinterlace process outputs 60 frames per second of material, speeding up by 250% (60/24) will output 24 frames per second of material, corresponding to the desired emulated 24FPS.

IMPORTANT Select "FRAME" as "Source Material" since the output of the Deinterlace process are frames.

IMPORTANT Process in FRAMES since the input of the next step (3:2 Expand) expects frames.

3:2 Expand

This last step is the common way to display 24FPS material in video. This step duplicates (pulls down) the fields in a standard pattern to restore 30FPS required by your sequence for playback.

OTHER THINGS TO TRY

1. DS's own Film Style effect.
2. Anvil's A_Look
3. Tinder's T_OldFilm (every bit as good as the classic 5D effect, with more control and faster processing)
4. 5D or Sapphire plugs such as c) Optical Glow, d) Dodge & Burn (or just play with Gamma - crush the image slightly) e) Noise to simulate grain
5. Color Correction-crush blacks

DS Error Codes

While editing, you will sometimes experience errors, either due to a bad configuration or a momentary problem. As this happens, DS will indicate what is wrong with a cryptic error code. Here are the translations of the more common ones into English:

Error code Translated error message

0xd62e3401 DS_E_VIDEO_HAL_NOT_INIT

0xd62e3402 DS_E_VIDEO_HAL_NO_RESOURCE

0xd62e3403 DS_E_VIDEO_HAL_TIMEOUT

0xd62e3404 DS_E_VIDEO_HAL_POINTER

0xd62e3405 DS_E_VIDEO_HAL_NO_BUFFER

0xd62e3406 DS_E_VIDEO_HAL_STOPPED

0xd62e3407 DS_E_VIDEO_UNK_CMP_TYPE

0xd62e3408 DS_E_VIDEO_UNK_FILE_HEADER

0xd62e3409 DS_E_VIDEO_HAL_NOT_RESPONDING

0xd62e3410 DS_E_VIDEO_HAL_BREAKOUT_BOX_DEFECT

0xd62e5001 kLCerr_ConsistencyCkFailureError

0xd62e5002 kLCerr_ClientCompilationAlignmentError

0xd62e5003 kLCerr_MemoryScribblerDetectedError
0xd62e5004 kLCerr_UnexpectedExceptionError
0xd62e5005 kLCerr_OutOfMemoryError
0xd62e5006 kLCerr_OS_Error
0xd62e5007 kLCerr_UnexpectedNULLpointerError
0xd62e5008 kLCerr_BadPathError
0xd62e5009 kLCerr_BadProcAddressError
0xd62e5010 kLCerr_DLLnotLoadedError
0xd62e501a kLCerr_InvalidUsageError
0xd62e501b kLCerr_ResourceNotAvailableError
0xd62e501c Unknown
0xd62e501d kLCerr_TimeOutError

Note HAL stands for Hardware Abstraction Layer, which usually relates to your breakout box (Nitris or AJA).

Usually a workstation restart will clear the code but frequent errors point to a bigger problem, such as hardware going bad or corrupted application components. If you are having frequent errors, you should contact Avid Support with the error code(s).

EXCEL TIMECODE FORMULA

To customize the text setting for Microsoft Excel so that it works with timecode, type:

00\:00\:00\:00

Then, any 8-digit number you type will show up as

hh:mm:ss:ff

(Credit to Lucas Wilson)

[Belle Nuit Montage](#) has Excel macros for working with Timecode. Note, this page is in French. [Belle Nuit Montage in English](#)

(credit to Dan Tatut)

EXPLORER

Shift-Double-click a window to **open multiple windows simultaneously**.

Customizing the folders that appear in all newly created projects:

To create a standard folder structure for new projects

1. Open a text file using a text editor.
2. On the first line of the file, type the following in uppercase letters: [FOLDERS].
3. Type in the names of the folders you want to appear in the Avid Explorer.

For example:

- Graphics
- Master Clips
- Sequences
- Trash

4. Save the file as folder.ini and save it in the following location:

C:\Program Files\Avid\DS_v6.0\Preferences\username

The order of the folders is not important, as they will be sorted in alphabetical order or according to the sorting method used in the Avid Explorer.

Tip: Make a shortcut for your own library of DS presets, and for the default DS presets

PRINT A LIST OF FILES IN AN AVID DS DIRECTORY

To add the print directory feature to Windows Explorer and AVID|DS, follow these steps:

Create the `Printdir.bat` file

1. Open Notepad, and then copy and paste the following text into Notepad:

```
@echo off dir %1 /-p /o:gn > "%temp%\Listing" start /w notepad /p "%temp%\Listing" del "%temp%\Listing" exit
```
2. Pull down File menu, click Exit and then click Yes to save your changes.
3. In the Save As... dialog box, type %windir%\Printdir.bat and click Save.

Create a new action for file folders

1. Click Start, click Control Panel (or, point to Settings, and then click Control Panel), and then click Folder Options.
2. On the File Types tab, click File Folder.
3. Click Advanced, and then click New.
4. In the Action box, type: Print Directory Listing
5. In the Application used to perform action box, type: printdir.bat

6. Click OK.
7. Click OK, click OK, and then click Close.

Note that after you follow the steps in the previous section, Search Companion may start when you double-click a folder instead of the folder being opened. To prevent this, you should follow the next step "Edit the Registry"

Edit the Registry

1. Start Registry Editor.
2. Locate the Default value under the following key in the registry:
HKEY_CLASSES_ROOT\Directory\shell
3. Click Modify on the Edit menu.
4. In the Value data box, type: none
5. Click OK.
6. Quit Registry Editor.

Open Windows Explorer, right-click the folder that you would like to print a directory listing of, and then click Print Directory Listing.

Since the AVIDIDS uses a modified version of Windows Explorer as its file manager, right clicking the file folder at its root level (i.e. in the project tree) will also bring up the Print Directory Listing option.

Note Serious problems might occur if you modify the registry incorrectly by using Registry Editor or by using another method. These problems might require that you reinstall your operating system. Microsoft cannot guarantee that these problems can be solved. Modify the registry at your own risk. It's recommended that you have a [complete backup of your boot drive](#) or that you have [activated System Restore](#) on your DS before you do anything to the Registry.

There is another way:

(added 01.19.2008 MH Credit to Jeff Krebs)

TechSmith's [SnagIt Screen Capture and Image Editor](#) will capture any Window that is open and allow you to print it.

1. You tell SnagIt that you want to print a scrolling web page click on the bin window and it scrolls and is grabbed in the snagit application. This is because of DS integration into windows
2. Then you choose your output method, print of course is a choice.
3. The DS bin printed in it's entirety.

Also you can modify the' image right in SnagIt so that the grey bg becomes white, with the replace color option.

Jeff says this will work in 32-bit XP **This has not yet been tried in 64-bit.**

Revised: May 29, 2009 5:27 am

Creating ProRes Quicktimes on Windows with ffmpeg

Created by Bob Maple - 25-Oct-2012

Revised 15-Jan-2014

While Apple has never released a ProRes encoding codec for Quicktime on Windows, some *very* clever guys have reverse-engineered the codec and contributed it to the open-source project [ffmpeg](#). Here's a complete guide to getting going with ffmpeg so you can create ProRes Quicktimes on Windows without having to feed it into a Mac.

Note: There are other software tools that encode to ProRes on Windows, like [Cinemartin Cinec](#) or [SGO's MambaFX](#) which generally use the same underlying libav library that ffmpeg does for encoding.

To get setup:

1. Pick up a copy of ffmpeg for Windows.
ffmpeg is a very active open-source project and the code changes often; There are no "official" Windows releases, but you can find several of the last few weeks' development builds up at [Zerano](#) - Grab one of the "Static" builds in 64-bit for running on your DS workstation.
2. Unzip it into a folder on one of your drives; you might need [7zip](#) if you don't have it, or modern versions of WinZip can probably decompress it too.
3. Although there are many 3rd-party GUI front-ends for it, ffmpeg is natively a command-line application and as such we're going to go commando.
Open a Command Prompt or a PowerShell window by either hitting Windows Key-R and typing cmd, or by tapping the Windows key and typing Power to find PowerShell.
4. CD into the ffmpeg\bin directory you unzipped:

```
cd d:\ffmpeg-xxxx-win64-static\bin
```

Now let's encode something!

ffmpeg can read (and create) a myriad of codecs in a myriad of containers, but we'll use a Quicktime file as a source, aptly named SourceFile.mov, and create a new ProRes Quicktime called OutputProRes.mov. Our mythical file is an Uncompressed 10-bit 422yuv file, 1920x1080 at 23.98fps, with stereo audio (more on formats and exporting things specifically from DS later.)

Into your shell, type:

```
.ffmpeg.exe -i SourceFile.mov -codec:v prores_ks -profile:v 2 -codec:a pcm_s16le -filter_complex  
asetnsamples=n=16384:p=0 OutputProRes.mov
```

Here's what everything does:

- -i SourceFile.mov
The source to compress. **NOTE:** If you have spaces in your filename or path, wrap the whole path in quotes, like "D:\Folder\Source File.mov"

- -codec:v prores_ks
Selects the video codec to be used as 'prores_ks' (there are actually two ProRes encoders in ffmpeg, 'prores' and 'prores_ks'; The 'prores' is faster than 'prores_ks' but creates files which wildly exceed the standard birates of the ProRes profiles, and doesn't properly support interlace.)

- -profile:v 2
Selects the prores_ks encoder profile to use:
 - 0 = ProRes 422 Proxy
 - 1 = ProRes 422 LT
 - 2 = ProRes 422 Standard
 - 3 = ProRes 422 HQ

- -codec:a pcm_s16le
Selects the audio codec to be used as uncompressed (PCM) 16-bit Signed Linear. For 24-bit audio use pcm_s24le **NOTE:** We assume the audio in your source is already 48khz, and it will get passed through ffmpeg and encoded as such. ffmpeg will also make its best choice/guess on the layout of the audio channels and encode them and mark them the same way (stereo, mono, etc.) There are many other options that can be passed to manipulate the audio which I have not included.

- -filter_complex asetnsamples=n=16384:p=0
The default mux rate ffmpeg uses is very small (only a couple of audio packets followed by one video packet) and can cause performance issues when playing back in realtime, including any apps that use Quicktime for realtime IO (like AMA on Media Composer.) The asetnsamples filter basically tells ffmpeg to use a longer string of audio packets in the mux, which in turn causes it to use a longer string of video packets to match. Without doing this you will likely have stuttering playback and dropped frames depending on the visual complexity of the frames (ProRes is variable bitrate.)

- OutputProRes.mov
Lastly, the file to write out. ffmpeg automatically picks the output container format as Quicktime due to the .mov extension, so make sure you include it in the filename. **NOTE:** If you have spaces

in your filename or path, wrap the whole path in quotes, like "D:\Folder\Output File.mov"

If your source Quicktime also had timecode, it should get passed along in the ProRes movie as well, or you can set it manually by adding **-timecode HH:MM:SS:FF** to the parameters, somewhere before the output filename. Otherwise, that's basically it! As mentioned above, the prores_ks encoder is somewhat slow, although your mileage will vary based on many things like the speed of the disks you're reading from/writing to, what format the source file is, the complexity of the material, and of course the speed of your workstation.

Export suggestions from DS for feeding into ffmpeg

As mentioned, ffmpeg can read a variety of formats and codecs -- including image sequences -- and can even read from multiple sources. However, I'm only going to talk about Quicktimes here, and there are of course caveats because Quicktime is Quicktime.

For an ideal, perfectly color-matching ProRes encode from a 422 YUV sequence **in DS version 10.5 or above**, the best way is to create an 8-bit Uncompressed 422 Quicktime from DS using the AJA 2vuy codec, which write out standard yuv422 Quicktimes -- they will import into Final Cut for instance and play realtime as standard 422 uncompressed files.

Why DS version 10.5 or above? Because up until 10.5 DS's Quicktime IO was only RGB, which meant a YUV->RGB conversion by DS plus another RGB->YUV conversion by Quicktime, which screws up your levels and gamma. In v10.5 and above, DS can pass the YUV data directly to Quicktime as YUV and avoid all the screwups (and it's a ton faster.) When exporting the Quicktime, **select 601/709** for your levels. **Don't use Quicktime Reference Movies from DS because they decode as RGB, and have other broken behaviors.** They wouldn't work anyway since ffmpeg doesn't actually use Quicktime and thus can't access the DS reference codec.

For older versions of DS, well, you're going to have to either live with a colorspace conversion and your colors changing a bit, or bypass Quicktime by outputting a .YUV image sequence from DS with a separate audio file and feed them all into ffmpeg for encode. However that requires some different/extra command-line options to specify the image sequence and audio, set the frame rate, etc. which I'm not covering here. Perhaps I'll write a separate document if enough people need it. For Quicktime, your best bet is to create an Animation codec Quicktime at 100% quality, using **Graphics** or **Legacy Graphics** levels from DS. Just know that:

1. If your sequence/media is 10-bit, you're squashing it down to 8-bit right out of the gate
2. Your YUV is being converted to RGB and the levels are being scaled from 16-235 to 0-255 (and eventually back again) which can cause additional banding and artifacts

3. The color conversion will be incorrect. In order to properly go from RGB to ProRes, you need to add the arguments:

```
-pix_fmt yuv422p10le -vf colormatrix=bt601:bt709
```

to the commandline, just before the output filename.

User Interface for FFmpeg

The command line gives you the full control of FFmpeg, but if you're not comfortable with it, or if you often encode ProRes with same parameters over and over again, you can try the batch file prores.bat.

Installation

Download

[prores.bat](#)

- [Details](#)
- [Download](#)
- 2 KB

and place on desktop or other place where you keep your batch files.

Configuration

Prores.bat assumes that FFmpeg is installed on your system in a particular place. While the program path is correct for my system and the current build of FFmpeg, it will likely be wrong on other computers. To configure the path:

1. Right click prores.bat
2. Select "Edit"
3. Look for line set FFmpegpath="C:\Program Files\ffmpeg-20121105-git-c995644-win64-static\bin" and change it to reflect the location of your FFmpeg (save the file too!)

Usage

Prores.bat can be used in drag-and-drop fashion or by double clicking the file.

Drag and drop a valid Quicktime file onto the prores.bat icon. This will launch FFmpeg and encode a "standard" quality 4:2:2 ProRes version of your clip and save it next to the original clip as originalname_ProRes.mov.

If you need to change the quality settings and/or the file name and destination path, double click prores.bat. The batch file will walk you through all the options. When entering paths and file names in prores.bat prompts, you don't have to enclose them in quotes whether or not they contain white spaces. In fact, using quotes will probably result in an error.

// Revised: Jan 15, 2014 2:07 pm

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5.1 Audio into the DS-Nitris

(Added 11.01.2007 from List MH)

In your Capture tool, you can set the audio to 8 channels and then you can actually select how you want to bring each track in...mono, stereo pairs or one clip that has all tracks in it. You can capture either AES/EBU or Embedded. Both have been tested to work with Panasonic D5 and HDCam-SR. You may have to make a new 8-channel deck template by hitting [Alt]-[F8] to bring up the template editor.

It is a good idea to select mono to bring in each channel as an individual mono track so that you have more control on the timeline. Of course you'd have to set up the time line with 6 tracks and then patch the audio for the timeline for 6 tracks.

NB: If your HDCam-SR is 4:4:4 media, you will need the AJA board to handle 4:4:4. The normal Nitris BoB works fine with 4:2:2 media.

HOW TO GET RID OF FLICKER (DSlist_ba - 1.11.07)

This trick involves the Foundry's Furnace_Kronos plug-in from www.thefoundry.co.uk.

Basically, all you have to do is apply the plug-in and retime the shot at 100% (no speed change), select the "Correct Luminance Change" option and change the shutter time to beyond 35 (a shutter angle greater than 120 degrees). What you are doing is retiming for a longer exposure per frame because of

the wider shutter angle. In the process, Kronos smoothes out the flicker.

The plug-in is expensive and render time is long, but it's a lot cheaper than a reshoot.

DT_Note: Kronos refers to a camera shutter angle as "shutter time." A time of 100 equals a 360 degree shutter angle.

The shutter time is what introduces the motion blur - a higher number equals more blur.

The shutter sample is your quality setting - the higher the number the smoother the motion blur.

How to set up Folders so they always open in your new projects:

1. Make sure the file is in the right place (see below)
2. Make sure it's called `Folder.ini` (not `Folder.ini.txt` or anything else)
3. Edit it with Notepad (not WordPad)
4. Ensure the structure of the contents is EXACTLY like the example below
5. Make a new project
6. You will have that folder structure within the project as if by magic

Example

[FOLDERS]

```
Name of first folder  
Name of second folder  
Name of third folder  
etc.
```

Note that if you're trying to make nested folders, you pretty much have to do it in sequence:

```
Junk  
Junk\Images  
Junk\Images\Captures  
Junk\Images\Snapshots
```

The file must be placed in `C:\program files\avid\ds_vX.x\preferences\[username]` where X.x is your version of DS and [username] is the user name you log onto your computer with.

Note that you have to put a `Folder.ini` into each and every user's Preferences folder if you want it to work for everyone.

Additionally, you can download this [example](#) and edit it.

Fonts and DS

Many times, when you are working with fonts on DS, Microsoft applications will show a font while DS does not.

Here is a fix:

If you have Microsoft Word on your DS system, you can simply copy from Word and paste into DS. The font will follow the text.

Microsoft's own Office applications do not follow Microsoft's guidelines for where to install typefaces. DS will "find" the correct typeface if it's pasted from an Office application.

From [Adobe's](#) website:

"In many Windows® applications, instead of every font appearing on the menu, fonts are grouped into style-linked sets, and only the name of the base style font for a set is shown in the menu. The italic and the bold weight fonts of the set (if any) are not shown in the font menu, but can still be accessed by selecting the base style font, and then using the italic and bold style buttons...."

Even beyond not seeing things like "Helvetica Bold" listed, you may see very different names. For example, "HelveticaNeueStd Black" shows up in the Graphics text tool as "Helvetica95Black." In the 3D DVE, the same font is listed as "HelveticaNeue-Black."

So you may have the font installed, but with some variation on the name. The link above contains some "translations" that clued me in to realizing Helvetica Neue Black was Helvetica 95 Black. Until I saw that article I thought the font installation was screwed up.

(Thanks to Tony Jover and Robert Reed)

Folders installed with Ds 8.4 running on XP-64

- AVX2_Plug-Ins
- Command Maps
- Contexts
- Customer Service
- DSPresets
- DSScripts
- DSSystem

Edm
Help
ire
lib
Luts
Marquee
Preferences
Scripts
Setup
spdl
state
Themes
VSTPlugs

(Thanks to Tony Jover and Igor Ridanovic)

4:4:4 conforming

Q: Is there a way, other than rendering a 1-hour 4:4:4 timeline, to get a real-time split screen?"

A: No, When working in 4:4:4 DS uses the AJA Hardware not the Nitris Hardware. (If you have the Dual-Link option installed. If not, then DS can still work in 4:4:4 but not output it to tape, monitors, etc...) Switching a sequence to 4:4:4 effectively bypasses the Nitris BOB.

I think it would be faster to conform a show by spot checking the edits and the clips than it would be to wait for a 4:4:4 Render + a 1 hour split screen playback.

Q: Can you use the 422 cable that is hanging off the back of the AJA card, or do you have to use the one from the com port?

A: Com port.

Q: Are DPX files the best way to incorporate the DS into a file-based multi-platform workflow?"

A: Depends on your "workflow:"

DPX is a widely used film format. But DPX is limited to 10Bit.

VFX programs use various file types like: Tiff (DS Supported) or OpenEXR (Which DS doesn't support...yet) because they allow for greater Bit Depth. 16Bit, 32Bit, etc...

Targa files for example are limited by their 8Bit depth so try to stay away from .TGA if color matters (which it should in 4:4:4 conform).

If your starting from a DS 4:4:4 10Bit sequence then DPX is probably your best option with current

software.

To get split-screen real-time:

Try;

1. Set Seq pref's to 4.2.2/YUV/36
2. Run the split screen in real time be happy -OR- tweak as needed
3. Set Seq pref's back to 4.4.4 RGB
4. Output

Output issues with 4:4:4 and the Sony srw5500

To record 4:4:4 video, you must have a valid setting for the Frame Convert. It needs to be a comparable rate. For example, if you want the deck to be 29.97Psf 4:4:4 then the frame convert has to be set to 4:2:2 29.97 or which ever other option is not dimmed in the menu.

Case Study: Savage Pictures

System specs:

HP XW8400 Quad, 8 gigs of ram, Xena I/O card, 5.6 TB Video Raid storage, WinXP 64-bit Dual Boot

1. Conform, finish and assemble edit your 4:4:4 picture only master to HDCAM SR in DS
2. Switch over to Symphony Nitris
3. Create a project which matches the project settings in DS, frame rate, etc.
4. Import your finished audio
5. Create an audio only sequence in Symphony which identically matches the timecode from your DS sequence
6. Set the Symphony audio output to 16 channels and HD/SDI. Create the necessary groups. In our case Group 1 was channels 1-8 and Group 2 was 5-12.
7. Make sure the audio inputs are looking for SDI on the HDCAM SR machine as well
8. Go into the audio menu on the SR machine and enable all 12 tracks for insert editing. Once the Symphony begins the digital cut, tracks 9-12 will be disabled. This is where it gets a bit tricky. Give yourself at least 10 seconds of pre-roll prior to the digital cut. Once the deck pre-rolls and begins it's countdown, take the SR machine out of remote and arm tracks 9-12 as quickly as possible, then re-engage the remote. Once the deck hits the record point on the sequence, you will see all of the tracks light up with audio. One pass. All of the necessary tracks. The video is

irrelevant and the sync is dead on. We had no problems.

This saved us enormous amounts of time as we had several copies of the film to create. So, until DS adds more audio outputs, we will do all of our feature laybacks requiring more than 8 tracks of audio with this method. Hopefully some of you will find this helpful as well!

16 audio channels

Anthony writes from Australia:

We use an [AJA Xena with it's own software \(Machina\)](#) for 9 channel audio re-stripes from wav files. We simply enable the panel controls while remote is selected and use the audio insert all channels button during the pre-roll (no need to go in and out of remote). I manage to do that within 5 sec. In a similar vein we use the same method for assemble edits as the Machina has insert only.

Dermot Shane writes:

With DS version 10 the HP xw8600 and the AJA solution, the AJA I/O answer is do an assemble edit, arming ch 9-> 12 manually, and route ch 1->4 to Ch 9-> 12 on both the DS and the deck, then go back and insert Ch 1->8 on the second pass

Revised: Jun 1, 2009 7:14 am

G

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GRAPHICS

CTL-Click on a timeline graphic effect to open “Combo Graphic” page (a more compact version of the graphics editor)-allows access to all graphic effects properties and GOV, while maintaining access to the timeline and viewer.

ADDING a graphic preset to the timeline:

CTL-drag the preset to the timeline, and your **in/out markers will affect the duration and placement** of the preset.

Viewing Graphics—composited result in timeline:

Go to top timeline or the timeline "outside graphics" and right-click on the "marker" stripe up on top and select "Open Viewer". Then on the new viewer push the "spike" so that the viewer stays with you when you go into graphics again.

Must select a clip before painting or adding a graphic. Hit graphics button, or add clip effect-graphics. OR Go to Graphics Layout page

FORCE OVERLAY—in sequence preferences... forces a key from alpha channel of a clip, instead of displaying RGB channels.

GRAPHICS OBJECT VIEWER-G.O.V.

Displays all strokes in time. Changes layer order of strokes. **Layers can be locked or hidden** by r-clicking on layer in GOV.

Stretch or shrink the duration of a stroke in the GOV. Use **CROP CURVES** in properties

window to stretch the duration of a stroke without stretching the keyframes. Otherwise keyframes automatically stretch with the duration.

Clicking on a stroke—**changing parameters changes the stroke**. Without clicking on a stroke, **changing parameters changes the tool**. Sort of like Illustrator.

Freehand Tool: Settings for tool, shape, color and strokes.

- Path: Closed, Constant interpolation, or Fast feedback.
- Curve fitting: Lower Tolerance for more points, Higher Tolerance for more cleanup.

To close a shape: Select, edit shape, then choose close shape.

Sampling Ratio: Edits brush exactness to its wire frame.

Opacity settings for both the Brush and the Brush Effect.

Paint Styles: Paint Style parameters from current tool or selected object. Parameters contain the brush; brush effects and fill effects.

KEYBOARD SHORTCUTS

ALPHA-NUMBERS SELECT THE PAINT TOOLS

1 eraser

2 blur tool

3 Red (default)

4 Green (default)

5 Blue (default)

6 color picker

Tip: Holding down 3,4,5 will allow a re-mapping of the colors.

F2 Opens the Quick Effects Toolbar

A Select an object

S Scale

D Rotate (roDate)

F Skew

Q Polyline

- Click to add vectors, ESC to exit draw
- Control click any where to close a path
- Click and drag to direct a tangency

W Freehand

E Ellipse
R Rectangle
T Text
Y MagicY wand

NOTE: Re-order the screen buttons to match keyboard layout for consistency.

- ESC-Exits Draw
- [-makes brush size smaller
-] –makes brush size larger
- [] adjust brush size

B Toggle Brush
N Toggle Fill

Control K will Copy (Kopy) any layer object (path, stoke etc.)

ENTER Edit a shape's bezier points
ESC Exit editing a shape

LAYER NAVIGATION

Shift-3 (NUM) Move up a layer level
Shift-9 (NUM) Move down a layer level

After using above keys once, you can...
Pg UP Move up a layer level
Pg DOWN Move down a layer level

VIEW

Z Zoom
X Pan
F12- Toggle FULL SCREEN view

MOVING OBJECTS (NUM PAD)

2 Nudge object UP one pixel
4 Nudge object LEFT
6 Nudge object RIGHT
8 Nudge object DOWN
Add CTL- for 10 pixels

TEXT

PROPERTIES

Turn on Filter-anti aliasing.
You can set the Font on a per character basis.

Shift [/] to **fine tune kerning**

Use font hinting for static text only.

Face Cut removes the face from edge

Don't use Font Hinting—looks bad.

Scrolling Text-Avoid vibrating text:

1. Ensure "Standard Speed" is switched off
2. Ensure "Filtering" is switched on in Font Attributes

SUB-PIXEL POSITIONING/FILTERING

The Filtering checkbox applies only filtering, and the Sub-Pixel Positioning will permit sub-pixel positioning.

To get sharper edges on text, turn Filtering OFF and turn Sub-Pixel Positioning ON.

- Filtering OFF + Sub-Pixel Positioning ON ==> sharper edge
- Filtering ON + Sub-Pixel Positioning ON ==> more blurry edge

Discussion

Text rendering is a tricky thing, and DS used to be pretty terrible at it (did we get Subpixel Positioning in v7? I can't remember) -- it's much better now but still has some room for improvement.

The reason you get soft lines is because of subpixel positioning; When the text is rasterized into pixels, horizontal and vertical features of the letters may or may not align precisely to the pixel grid depending on the size, kerning, and letting of the text block... the baseline of a letter might not wind up exactly on scanline 400, it might be on 400.3 -- which of course doesn't actually exist, so the bottom of the letter gets partially antialiased onto the line below which makes things look fuzzy. The smaller the text, the worse it stands out and looks blurry.

If you turn subpixel positioning off, things should look sharp. However if you then start animating that text in Graphics, it will move around rather chunky as the text block 'snaps' to whole pixels.

So, you just have to pick and choose depending on the situation. First, I **never** use Filtering - this is all we had before subpixel positioning but now it just does more damage than good. For small disclaimer-type text or anything that doesn't move, I turn off subpixel positioning; Everything else gets subpixel on. I generally leave the Supersampling at 8x8.

In the case where you need subpixel positioning for doing fine kerning or some other reason, but certain lines look fuzzy, about the only thing you can do is select the line in question and change the Character Transform in Y by small amounts (like +/- .1 increments) until it sharpens up sufficiently. Might have to do it in X too but that's usually less noticeable unless the font is very thin.

(Thanks to Bob Maple)

If you use very small letters in a roll and you are getting a wobbly feel. If the roll is white letters on black you can try to do a "manual antialiasing". Add a dark grey edge to the face. You will not see the edge if it's dark enough and the wobbly bits become much better.

(Thanks to Andy Loor)

For rollers I have Subpixel Positioning on, Use Antialiasing checked, and Supersampling either at 4x4 or 8x8 depending on what looks best.

(Thanks to Tony Jover)

Morphing Text Characters

See [Morphing Text](#)

Special Text Characters

© is Alt-0169

® is Alt-0174

™ is Alt-1053

Use Character Map for other special characters

Go to Windows START>Programs>Accessories>System Tools>**Character Map**. Choose the character you need from the display window, hit SELECT, hit COPY, then paste it into your DS title.

Writing in Japanese (or another language)

I'm using the standard MS MINCHO font that can be installed from the operating system CD.

For the Japanese Keyboard Layout it's the Microsoft IME Standard that can also be installed from the OS CD.

I'm using an English keyboard too.

You basically use the English alphabet (English Keyboard) to type out the Japanese sounds. It's called ROMAJI.

If someone needs more assistance, I'd be glad to help.

By the way there are only 5 vowels in the Japanese language.

A=□ I=□ U=□ E=□ O=□

For the rest, you just add a consonant to each of the vowels.

KA=□ KI=□ KU=□ KE=□ KO=□

SA= SI= SU= SE= SO=

and so on.....

I've never used the Character Map method.

First of all, the language settings must be set in Windows.

1. Go to Control Panel / Regional and Language Options
2. Go to the "Languages" tab and select the "Install files for East Asian languages" check box.
3. Click "Apply"
4. Once it's finished copying the files, Restart the machine.
5. Go to Control Panel / Regional and Language Options / Languages tab.
6. Click "Details". In the "Settings" tab, click "Add" and Select "Japanese" from the Input language list. *Confirm that the Japanese Keyboard IME is listed in the "Installed Services" list.* Click "OK".
7. Click OK.
8. On the bottom right corner of your TASK bar, you should now be able to select between Japanese and English.

Now inside DS, go to the Graphics panel as you would normally do when you type English Text.

1. Select the Text tool, and click in the Source/Record monitor viewing area.
2. Make sure you select the desired Japanese font.*
3. Select the Japanese IME at the bottom right corner of the TASK bar.
4. Also make sure to select "Hiragana".
5. Start typing.

*By installing the Japanese Language option in the previous step, you should find 2 or 3 default fonts.

- MS Gothic
 - MS Mincho
 - MS PGothic
-
- If you installed 3rd party fonts, you will need to select those instead.
 - The characters appear in the top left corner of your source/record monitor, and once you press “ENTER”, the confirmed text will appear in the TEXT area that you designated.
 - Sometimes, the language bar might be detached from the TASK bar and get behind the DS window. If that happens, click on “Show the Language bar”, which is located right underneath the Japanese and English IME menu.

(Special Thanks to Tomio Iwasa)

Please note: Avid DS's Graphics Tool **does not support writing in a language that goes from right-to-left**, such as Hebrew or Arabic. Additionally, the sub-titler, which is built on the paint/titler module does not render right to left fonts correctly.

(thanks to Jean-Marc Porchet)

Animating individual Text Characters

Select the text box and hit the "text to strokes" button. It creates a layer for each of the letters and makes it much easier to animate individual characters.

Handwriting Effect

1. Add a Graphics effect on the clip.
2. Type your text.
3. Draw a brush stroke color blend over the text body.
4. Trace each character with the brush stroke. Make sure the stroke fully covers the characters. That brush stroke will be used as a mask later in your graphics session.
5. Select the text body and set the following Masks properties: "Use alpha channel" and "Invert".
6. Cut the brush stroke(s) in the clipboard.
7. Now, apply another Graphics effect on the clip and push it below the first Graphics effect.

In the Graphics effect below the other one, paste the brush stroke(s). Set the following properties on the stroke(s):

- Brush FX: load the Reveal effect

- Masks PPG: set the "Paint On Channel" to Alpha only
- Stroke PPG: click on "Forward" handwriting

The brush stroke(s) has a handwriting animation. It will "reveal" the text characters over time.

That method works better if the font does not represent a "cursive script". If the brush stroke(s) reveals parts of a character that you don't want, you can "patch" those parts with other strokes of the same nature...

TEXT HANDWRITING EFFECT... another method

1. Type text
2. Create a single brushstroke that covers the words from start to finish as if you were handwriting it. This can be rough-ish at this stage.
3. Edit the shape so that it covers all the text neatly, not forgetting to cross the Ts and dot the Is.
4. Fill the stroke with an Erase
5. Animate the stroke with "Handwriting".
6. Process
7. Edit shape slightly
8. Repeat 6 & 7 "for a couple of hours"

Two more methods (courtesy Spencer)

Way 1

1. Make sure your brush fill color for the Alpha is set correctly. (Black or White)
2. Make sure your not painting on the RGB and that your Painting on the Alpha channel only. Check the correct check boxes in the Masking tab.
3. Once your "effect" is painted/built/animated. Place the output of the Graphics node into a composite node above your background image.

Way 2

1. Paint a Black & White "Wipe Effect" animation within the Graphics node.
2. In a tree add a "Key Combiner - Luma" effect.
3. Plug the Black & White animation into the "ALPHA".
4. Plug the .png image into the "RGB" portion of the Key Combiner.
5. With a Composite node, mix the output of the Key Combiner - Luma into a layer ontop of your Background Footage

You need a composite tree (or composite layers) because the Graphics "Node" can only handle one input at a time. (unless you link to clips with the clip effect... but this probably isn't the best work flow.)

Way 2 will give you the most flexibility. You will be able to edit, effect, alter your "Matte" with various effects that Trees have to offer and that the Graphics node does not.

Rolling Titles

1. Create a black (bg) clip that's way longer than you need. You will cut it later.
2. Apply a GFX effect, and create the text body for the roll.
3. At the intended beginning of the roll, place the text body in its start position (usually barely bottom-off-screen).
4. Set a keyframe in the Transformations property editor.
5. Move the play cursor forward by 1 second.
6. Enter the Y displacement value for the text body according to the frame rate of your sequence.
That is:

- 30, 60 or 120 pixels for an NTSC sequence (30 fps)
- 25, 50 or 100 pixels for a PAL sequence (25 fps)
- 48 or 96 pixels for an HD (24 fps) sequence (although some problems arise because of progressive segmented frame display)

- 7. Set a second keyframe.
- 8. Open the animation editor
- 9. Select the curve for Transformation Offset Y
- 10. In the Animation Editor's Curves menu , choose Relative Cycle.

The animation for the Y value will now be extrapolated backwards and forwards to infinity.

At this point, you can see where your roll ends, and cut it off there.

If the roll needs to have a specific duration, you can extend or compress it by fiddling with the text body (Leading, font size, and/or paragraph spacing) without changing the roll speed.

Text with an Inner Shadow

To create the inner shadow look on text like in Photoshop, you can use anything with an Alpha. But if it is not premultiplied, you will have to add a Premultiply effect before anything in the following tree:

In the Negative node, on the Masking tab turn off R/G/B processing and turn on Alpha. In the Composite

node, set L2's Alpha to 'Atop'. Adjust Drop Shadow to taste.

Tthanks to Martin Balk and "Sexy" Bob Maple)

Fading Titles/Graphics

1. Fade in and fade out buttons in the graphic properties. BUT these should only be used if your graphic strokes are going from start to end of your effects, and if your graphic objects are meant to fade up to 100% opacity including shadows. Otherwise you will screw up most of your graphic work. The buttons fade all graphic objects at the same time.
2. Text, Titling Style properties page... set keyframes on face, edge and shadow of each individual text object. That is the place where you have most control although it is messy to have to work face, edge and shadow individually.
3. Do it from outside the graphics panel by leaving all graphic and text objects without fades and dissolve from the clip without the graphic effect to the clip with the graphic effect. OR razor a clip if you need to fade inside the same clip.
4. You can use the layers opacity slider to fade graphics in and out on the layer and you can use 0 alpha generated black clips on a video track above your clip with a graphic effect on top and use one sided transitions (alpha fade in and out) to fade the graphics.

CLONING TOOL

Cloning is raster paint based on vectors.

1 will **toggle to erase a stroke**. An erase stroke is recorded as a stroke and can be reordered as a layer in the GFE.

SOURCE POINT—spatially, where to select pixels from in the frame. Set the Source point: In-place, Relative of Constant. **Pick cloning source point with the “6” key.**

SOURCE FRAME—

RELATIVE pick an offset for previous or later frames to select pixels from.

ABSOLUTE—specify a timecode to select pixels

Burning frames in cloning upon frame change as an option instead of rendering the container in the parent timeline. This is NOT Undo able. It will prompt with a warning before burning; this warning can be disabled.

IMPORT ILLUSTRATOR EPS

File must be created as **Illustrator 8 for Windows**. Can be .EPS or .AI file. Letters that have strokes inside of strokes, such as A or O will be displayed with the inner strokes filled. To fix this, select the inner stroke and the outer stroke of each affected letter, and use “**Combine Strokes**”. If you do not need to animate individual characters, you can **select an entire word, sentence, or paragraph** and “**Combine Strokes**” on the whole thing at once.

PAINTING ON FRAMES VS. FIELDS

24 FPS film transferred to NTSC Video

Both deinterlacing and reinterlacing and 3/2 contract and 3/2 expand require rendering.

3/2 contract your clip. Find the first bad frame of a sequence and apply the effect. You can render at this point or not depending on whether you want/need the cache yet. Render on frames if you do.

Apply a graphics effect and do your work. Render on frames.

Apply a 3/2 expand. Render on fields. Try rendering this on both ways and see which one works best.

If you want to paint on fields you have to deinterlace first, paint on the fields and then reinterlace to put it back together.

Rectangles with rounded corners

To get a round corner on a rectangle as you draw it, draw the rectangle and hold down the [or] keys. Round to suit!

OR

Select the Rectangle tool and set a Corner Radius in the main tool's PPG.

If you have all ready drawn the rectangle, you cannot round the corners after the fact.

TRANSFORMING OBJECTS

There are actually two sets of transformation animations available for graphics. One is on the **main transformations property page** and the other is when you are in "**edit shape mode**".

To fix undesired "jumps" in tracking, or to make a quick simple move, it can be easier to **jump into "edit shape" mode**, select all the vector points and move them into position, rather than using the transform properties. Just remember at the frame before the jump to set a keyframe on the "edit shape" property page or you will get a slow float.

Polyline Tool

Q: When working in the graphics tool polyline function, how do you "break" the curve handles so that you can operate them independently from one another?

A: Hold down 'B' for Break and manipulate one or other of the handles.

- U will 'Uniform' them again.
- if you select a clip and press T you will get Time.
- H adds the handles if they were not exposed.

ARTIFACTS

If you are having trouble with artifacts remaining on screen while moving graphic objects around, try purging memory caches.

Revised: Jan 18, 2010 12:12 pm

Google Maps DSFinder

Add your DS location to the DSFinder on Google Maps. (added 12.30.07)

[View Larger Map](#)

To add your location, go to the DSFinder [map](#) and then hit the "Edit" button, but look at the map (not the place the cursor starts flashing - which is of course the name) - you'll see the tools for adding yourself to the map. Zoom into your location add your blue locator - name and address. Presto, you're on the map.

// Revised: Apr 23, 2010 1:26 am

H

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h.264 Files (the easy way)

(Added 10-23-2007 thanks to Bill Admans MH)

Buy one of these two USB devices that make h.264 files out of Quicktime reference files:

[ADC Tech's Instant Video To-Go for PC](#) costs around \$65 at Best Buy.

[Elgato's Turbo.264 for Apple](#) and costs around \$100 at the Apple Store, usually less elsewhere.

1. Create a Quicktime reference file of the sequence or clip you want to encode.
2. Bounce out of the editing application and open the encoding software that comes with the USB device.
3. Make sure your settings are correct and let it render.

OR

Send it to another workstation that's connected to your shared storage. The other workstation does not have to be something fancy. It could even be a cheap PC from Fry's or a little Apple Macintosh Mini.

So long as you have a fairly new workstation with multiple core CPUs, you can go back to editing with little to no impact on performance because all the hard work is happening on the USB device.

NB: Avid does not support the use of these USB devices on a DS but certain persons we know of may have tried this successfully.

HAL Errors

No, this is not 2001: A Space Odyssey, and you are not Dave (unless you are).

From the DS perspective, an HAL error is the general catch point where anything that have gone wrong in the player/Hardware path is caught and told to the user. There are no specific action that triggers this, but rather a pretty large number of bad things could trigger this. Sometimes the HAL Error have additional information in the message, sometimes it does not.

Many things could have gone wrong, from bad media to buffer allocation issue, codec errors, hardware error, weird SW hiccup and many other things that could happen. Which is why when you get some "HAL Errors" it's important to describe the situation as much as possible, the format you where using, what media, compressed or not, with Fx or not, on playback or just scrubing, what you were doing at the time it happens etc etc etc.

As a side note, there is always an HAL present, it's not a hardware-specific thing, even the software version has one.

(Thanks to Nicolas Courtemanche)

We do use a start up procedure that ensures all indexers are running before launching DS, keep the drives de-fragged regularly, and stop the slp before exiting windoze... all the standard "keep the DS happy, and it will keep you happy" stuff.

(Thanks to Dermot Shane and Sean Stall)

If you are operating a Nitris BoB, you can usually clear a HAL error by exiting the DS application and rebooting your BoB. This is, unless you have [indexer problems](#) or other problems associated with your media or your sequence or your project, as Nik described above.

HD Tips

ENSURE FRAME ACCURACY BETWEEN OFFLINE AND ONLINE.

1. When you down-rez your HDCam (1080psf@23.98) to SD make sure that 2:3 (not 3:2) pulldown is applied with the "A" frame hitting at a :00 frame.
2. Important - since you cannot always trust dubbers, check your down-converts to make sure 2:3 cadence is correct. Also make sure that there is no offset. (Anything on the HDCAM at a second frame i.e. :00 will match the SD at a :00 frame).
3. Set up your Media Composer project at 24p (since hardly anyone has media comp's supporting 23.98 yet (MC v11.8+).
4. Just like doing a 24fps film based project, digitize your down-converted media into the AVID MC starting at a :00 frame. This way the pulldown frames will be properly extracted and frame accuracy will be maintained between 24-30-24.
5. (If you follow steps 1,2,3 - the frame accuracy between rates will always be perfect) (Note - If you digitize in Media Composer in a 23.98P sequence, you will be able to digitize your audio in Digital mode and the OMF¹ will translate perfectly into Pro-Tools.
6. When your offline is done, create a new bin and duplicate your sequence into that bin. Delete any un-necessary tracks (e.g.: audio, offline reference etc) Decompose with 0 frame handles to create new master clip references within the sequence. You can delete the de-comped clips. DS will make its own from the reference clips later. (If I have time, I usually pull a 24fps EDL at this stage using ED: manager v11.1+, otherwise a 30 EDL can be converted to 24fps via Delmar.)
7. Open MediaLog V11.1 or above. Start a new project. Move the bin with the sequence into your project in MediaLog.
8. Save the MediaLog project as an AFE. (Use v11.5 downloadable from the DS www site)
9. Start a new 1080psf@23.98 project in DS.
10. Open the AFE in your project. Select "force create new clips" and set up a folder for the new clips to be directed to.
11. Drag the sequence to your time-line. DS will take a while to translate.

You should now have a frame accurate sequence that reflects your offline.

Notes:

¹If you have file based audio in a sequence and want to create an OMF your first step should be to generate a new clip using the "Timeline to Clip" function. You can then drop that new clip into a sequence and successfully output file based audio to OMF (but it must be in chunks smaller than 2GB).

CONFORMING AUDIO FROM MEDIA COMPOSER 24p

When MC digitizes with the pulldown switch, audio is re-sampled at 47.952K, and sped up to 48K within the software to match true 24fps speed. For film, this is ideal, because everything eventually resolves to 24fps. But for video -- that OMF is being exported at true 48K, and being imported to DS at true 48K. But DS is playing video at 23.976p, and that audio is never slowed back down, so it is off. To get accurate sync audio for online, you have to redig audio from the offline master, or from sources. Also -- if redigitizing audio from the offline, make sure that 23.976p output speed is set on the MC side.

Basically, MC speeds up the audio on import, but never slows it back down on digital export.

A dicey, but proven workaround:

1. 23.976p HD masters
2. Downconvert to NTSC
3. Offline at 24fps.
4. Convert to AFE, import to DS, conform and online, etc.
5. audio...

Have MC generate an OMF, then Audio Timewarp in DS by .001%, or use the Audio Suite Pitch Shift effect in MC before export and change audio by .001%. Depending on length of program, this might be quicker.

VIEWING AN OFFLINE SD SEQUENCE WITH A DIFFERENT FRAME RATE THAN AN ONLINE HD SEQUENCE.

If you have, say, an HD online at 23.98 and a SD offline at 29.97. You need to continually reference the offline cut. Instead of having to jump back and forth between sequences, do the following:

1. Export your 29.97 offline as an AVI reference movie
2. Open your HD online sequence.
3. Double click on your AVI reference to launch Windows Media Player.
4. Under "Tools - Options" choose "Display on top when in skin mode."
5. Under "Skin Chooser" on the main interface choose a skin.
6. You now have a floating window to play your offline in.

HOW TO GET ACCESS TO ENTIRE HD FRAME IN SD TIMELINE (DSlist_tqj - 12/07/06)

Capture the HD footage in a native timeline (ie the same format as the HD) Drag the HD clip onto the SD timeline and you will be able to pan/scan with the DVE. In 7.5, if the frame rates are different you won't be able to drag onto the SD timeline, in which case make an HD Ref Movie of the HD clip and link to it in the SD sequence.

How to output a 1080psf / 23.98 seq to 1080i / 59.94 HDCAM tape

(added 04.14.2008)

Three Methods:

Method 1:

1. Crash record the HDCam deck and output directly from the Nitris BoB using the 1080i 59.94 stream (real time 3.2 insertion).
2. Do a machine to machine dub to have the program start at the correct time code.

If there are cadence issues, Chuck Crews says he'd blame them on Avid. Besides, you will always have your 23.98 master to fall back on.

Method 2:

1. Output directly to a 23.98 tape, full program.
2. do a machine to machine dub using the 59.94 output from the deck (again real time 3.2 insertion).

Method 3:

1. Using the output tool, output an .AVI reference file from your 23.98 sequence.
2. Open a brand new sequence at 1080i.
3. Capture the .AVI reference file, be sure your capture settings are in order, specifically do NOT change the frame rate at this time. Also, *don't link to the file*.
4. Add a 3:2 expand onto the clip, process and you should be able to insert directly to any tape at 1080i 59.94.

The 3.2 insertion is almost always available in real time from modern editing applications and decks and is your best friend for conversions both ways between 24f and 30f.

(Special thanks to Chuck Crews.)

How to output a file from HD to NTSC

If you are looking for a letterboxed 4X3 QT:

1. Choose 720X486 as your size.
2. Go to **custom** and set your **source region** as 1920X1080 with no offset and **destination** to 720X366 with a **y offset** of 60.

If you want to deal with square pixels:

1. Choose 720X540 as your size.
2. Go to **custom** and set your **source region** as 1920X1080 with no offset and **destination** to 720X407 with a **y offset** of 66.5.

(Special thanks to Brandon Bussinger)

Downconverting HD Progressive tapes for SD offline

Case Study:

Source Tapes: HDCAM-SR 1080 23.987 PsF. Offline Down Converts: DBC 29.97 frame rate. AFE Conform & Finishing: HDCAM-SR 1080 23.976 PsF.

1. Offline downconverts of 23.987 should be NDF.
2. Always make Non Drop frame down-converts, otherwise you cannot easily predict 2:3 cadence.
3. Make sure that the 2:3 cadence conforms to the normal standard of A = :00, :05; 10; :15, 20; 25
4. Check the down-converts for accuracy because its easy to mess them up and make tapes that are out of sync to the HD version.

Downconvert the HD source tapes to SD (standard-definition) tapes, using the 16:9 anamorphic aspect ratio. If they are shooting time of day TC, they need to do a dailies session and make a tape with new, unbroken TC, otherwise you are most likely screwed.

There is a [guide that may be downloaded and given to clients here](#).

(Thanks to Spencer, Jef Huey, Jay Hunt Bill Admans and Gus)

How to open an HD sequence in an SD sequence in DS version 7.6 and below

(Case Study)

DS Nitris V7.6

An HD sequence is opened in an SD sequence. Not even changed or edited, just opened in the source

viewer while an SD sequence is in the main viewer. If that HD sequence is then opened again, all of the projects geometry values in any geometry-based effects are all messed-up. DVE values, positions, crops, graphics objects, etc. Any non-geometry-based effects, like blurs and color-corrections, are OK.

If the HD sequence is brought into the SD sequence as a reference clip (holding ALT while dragging the sequence in) then there are no problems.

The weird thing is that the HD sequence was just VIEWED inside the SD sequence and nothing was saved.

Check User Preferences in the Editing tab and see if "Always update clips in source viewer" is deselected and this will not happen.

This is a known bug, or "Feature" In 7.6 and lower, if you load a sequence into the source side, it applies the sequence preferences for conversion mode to the sequence (all media and presets). If you drag directly into the sequence, you don't get this. But always make a duplicate of your sequence before for safety sake.

This bug was fixed in Version 8 and above.

(Thanks to Ed Fraticelli, Jef Huey, Tom Phillips, Tony Jover and Sean Stall)

HDV

(added 08.01.2007 from the List MH)

To work with HDV in the DS, You either need a Miranda HDV Bridge to get from HDV to SDI or you need to bump everything HDV to another format to use. There have been mixed reviews of the Miranda Bridge workflow. For some it works well and for others...they continue to curse HDV as a format.

You can also get the **Sony HVR-1500** with HD-SDI out and RS-422 control and you're supposedly all set. **(This needs to be tested)** But if your client is shooting with a JVC GYHD250 which, unlike Sony's 15 GOP, works at 6 GOP. The JVC also has an odd pulldown that FCP can deal with but almost nobody else works with it. Avids particularly do not like JVC's 720 24p.

Revised: Nov 24, 2009 7:46 am

The DSWiki Main Page

Welcome to the DSWiki! This site is designed to be a collaborative workspace primarily for members of the [DS List](#). Think of it as a website where everyone can easily add their own content.

Remember to download and back up Avid DS installers and patches before November 1, 2013:

[More Information](#)

Special Notice:

Avid has recently reorganized its own website to help DS users find fixes to common problems. While the wiki is helpful and does have non-Avid solutions, many of the questions we face may be answered in a search query at [Avid's Knowledge Base](#). We would add a special welcome to those of you who are seeking answers that are specifically not on Avid's knowledge base. Many people have collaborated to make this resource work and to come up with solutions, many not tested or testable by Avid, to particular issues with their DS. For that purpose, we offer case studies from people who have found novel ways of setting up their DS.

If you have a hardware problem, you may be able to order your part from Avid [from their Support website](#).

Notes:

- To add new pages, you'll need to create a wikispaces login name, but you can edit existing pages without a login ID.
- Go to www.wikispaces.com or click on the icon in the upper right to take a tour of wikispaces and see how easy it is to add content to the site.

[About Page](#)

Revised: Oct 22, 2014 8:52 am

To research more info about online project management then checkout [project planning online](#).

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Indexer Problems

Avid's website has a [troubleshooting guide](#) that may be useful.

Indexer problems are generally caused by corrupt media tables and/or project indexer tables. An indication of an indexer problem is an application crash with a message similar to this one:

SICORE engine has encountered a problem and needs to close. We are sorry for the inconvenience.

Error signature

szAppName : Consumermgrs.exe szAppver: 7.5.2004.916

szModName : ummd.dll szModVer: 1.0.2004.1129 offset: 0002cfe5

This may be caused by too many projects on your system (the solution is to archive them and get them off your system), a corrupt sequence or an improper shut down of your computer because the indexers write their tables right before a Windows shutdown (please see **note** below). You can try this:

1. Exit DS and navigate to `C:\Program Files\Avid\Services\DSSystem` (up to V8.4)
2. Exit DS and navigate to `C:\Program Files\Avid\DS_v10.x\DSSystem` (V8.x)
3. From the desktop, right-click on My Computer and choose "manage". Go to "services and applications>services" In turn, right-click on the Avid Project Indexer and the Avid Media Indexer and choose "stop" (or stop the Service location protocol to stop both indexers simultaneously).
4. Wait a moment in order for the command to complete.
5. Delete the media table `C:\Program Files\Avid\Services\DSSystem\server.ummd` and/or the project indexer table `C:\Program Files\Avid\Services\DSSystem\ummd.consumers`.
6. Right-click and choose "start" on both services. Wait a few minutes as reindexing takes places (you can monitor the progress of the indexers in the Task Manager interface, or using the small "W" bottom-right light within DS which will read as "Media Indexer: Scanning" instead of "Idle").
7. When indexer activity has ceased, launch DS. Work can now resume.

NB: Since the DS storage configuration information is stored in the `server.ummd` file, it is possible that the DS storages do not show as real-time anymore. In such a case, using the "configure storages" utility to restore the proper device settings will be necessary. Trash the `server.ummd` file **ONLY** if you really have to and, if you do, don't forget to go in Data management > Configure Storages... and reassign your audio and video storages with correct hardware devices for real times capabilities.

Note

1. For all versions of DS from around v5 up to and including v8.4, the two indexers are `Consumermgrs.exe` to index the Projects, and `UMMDS.exe` to index the media. Service

Location Protocol is the service that looks after both of these.

2. Consumermgrs will reside on the computer that is the Workgroup Manager for your DS. On a standalone DS this might be the DS workstation itself, but ideally should be a standalone PC specifically for this purpose.
 3. UMMDS will live on each DS workstation that has local storage. It indexes the local storage. Local storage might be Terrablock, LVD, Media Array - whatever.
 4. Consumermgrs and UMMDS each keep databases within the folder C:\Program Files\Avid\Services\DSSystem. They are server.ummd, ummd_consumers, and ummd_roots. The size of the databases are determined by the number of active projects within your workgroup, and by the number of discreet media files within the indexed storage.
 5. When you shut down the DS Workstation, or the cpu running the DS Workgroup Manager, the indexer(s) running on that cpu must complete writing the database out of memory and into the file. This takes a finite amount of time which is determined by how large the database is (see #4). Unfortunately, Windows only allows a set amount of time for services to close down when you reboot (or shutdown) a cpu, and it may not be long enough for Consumermgrs and/or UMMDS to complete writing their database before windows abruptly shuts them down. This will result in a corrupted database.
 6. So, **the correct workflow when rebooting a DS workstation or a Workgroup Controller** is to:
 - * Right-click **My Computer**, and select **Manage**
 - * Expand the tab "**Services and Applications**" in the left-hand pane and select "**Services**"
 - * In the right-hand pane scroll down until you find "**Service Location Protocol**"
 - * Select SLP and hit the **Stop** button. A window will open, telling you of the other Avid services it will stop. This is what you want it to do so select **OK**
 - * SLP might complain that it couldn't close one of the Avid Services in time. Just keep trying until it completes. It **WILL** complete eventually.
 - * Once you've done all of these steps, **shut down** or **reboot** your workstation. The indexers will restart automatically with your workstation.
- All the steps above may look long and complicated, but they only take a few seconds. NOT following them can give you an hour or more of waiting for the databases to rebuild.
 - If you do forget to follow step 6, and if you end up with a corrupted database, you'll need to follow steps stop your SLP, then manually delete the databases, then reboot.
 - If you do delete the databases, or if you didn't follow the steps above, you will/might have to go back into "**Configure Storages**" on DS to tell it once more where they all are. This is because that information is contained within the databases.

To **set up indexing** on DS, it is recommended that you read and understand (and carefully follow the steps outlined on) [Avid's site](#)

Managing your projects to prevent indexing issues

It is a good idea to have just a few projects on your DS. If you have a bunch of old projects that you do not regularly use, you should archive them and get them off your system. The fewer projects you have

active, the better your DS will run.

Multiple Project Roots

For example, you set a Project Root for a specific task where you work on one or several projects that will share between themselves (sequences, clips, even media files). If you keep everything under that main root location, the DS purge and delete functions will work exactly as designed.

If you need to keep your number of active projects to a decent amount (less than twenty is ideal, but that's not even the "number" of projects that is the real issue, it's rather the "size" or how long the Project Indexer requires to scan and save all the data information), then you can just create several Project Roots.

Why several roots? Because each can contain projects that are related to each other, and you can just easily Add or Remove these roots from the Open Project dialog, and immediately the Project Indexer will go and scan for the list changes.

A root is added? The Project Indexer scans it. A root is removed? Fine, the Project indexer takes it out of its content list.

Manually removing projects

If you are still having problems, try removing projects from the Projects Folder not in a sub-folder inside, but somewhere parent to the actual "DS Projects" folder.. like a different folder in the root of the F: drive if that's where your projects are.

Using the DS Project Manager Tool

The **DS Project Manager Tool** makes this procedure less scary and is recommended for moving projects out and in. Also make sure you only have *projects* inside your Projects folder. Anything else in there can be really problematic, as the Indexer may hang up trying to figure out what the additional material is.

To get to the DS Project Manager Tool, go to Start-->Progs-->Avid-->DS-->Tools. It should be there. Move out all projects you don't need for your day-of-edit. Media indexing, as a result, should take a lot less time.

Important note:

The DS Project Manager is a support tool option designed **strictly** to help remove (temporarily) a certain number of projects from the active Project Root (the location scanned by the Project Indexer) and to minimize indexing time.

If you indeed move projects out of the active Project Roots, its related media files will appear in the DS >

Data Management > Project Manager dialog as "**Unknown project**" and *you may accidentally purge or delete media that you need to keep.*

The recent DS Project Manager utility includes an option to move the projects data and its associated media (as long as it belongs in its GUID identity, **BUT NOT** media linked across other projects). The utility has no code to scan and understand dependencies and relationship between other sequences and projects. It is purely a basic tool to make projects and media ON and OFF to minimize indexing down time. You don't really need the DS Project Manager utility if you manage your projects using the "Multiple Project Root" technique above.

(Thanks to Sylvain for this)

Use the Project Manager to relieve the pressure on your Indexers, but don't do any purging until all those projects are back.

(Thanks to Tony for this)

Project Manager requires [Microsoft .NET Framework 2.0, 32 or 64-bit](#) depending what OS you are running.

Creating a batch file to shut down indexing

Open Notepad or something and type:

```
net stop slpd /y
```

To restart them you could create another batch file with the following:

```
net start slpd  
net start ummd  
net start dscm
```

this starts (in order) the
service location protocol
media indexer
project indexer

I just added material and now the green "Media Unavailable" display is up for everything! What now?

(Case Study by Tim Hitchen)

DS 8.4 on a 8400 dual boot.

PAL Project

5.x Unity

Happily working away off a unity when I add the DVD timeline - I just added another very large sequence to the project via an AFE..

Every thing's OK for a while then bang - all indexing is lost. (All material is unavailable).

Over the next hour or so it slowly came back but what made it happen in the first place? Was it too much for it to handle?

If you make a big change to the media database (like conforming a large AFE, or dragging a load of media into Indexed space) you will have to wait for UMMDS to finish indexing all the new media (even if it's offline media) before you can continue to work.

This is completely normal.

(With thanks to Tony Jover)

Loading a sequence in the Source viewer is NOT what caused the media rescan. It occurred at the same time but it is not what triggered the indexing.

You say that you run Avid DS 8.4 connected to Unity 5. That means that probably (just assuming here...) your local DS Media Indexer is directly hosting the audio and video off Unity MediaNetwork, and with 8.4 it does so in 32-bit.

Now DS and its Media Indexing Service will scan **up to around 30,000 files safely**. On a local storage, it is unlikely that you will reach such a high number (I've seen a bit over 20,000 files on a quite crowded chassis) but on Unity, it is absolutely possible to go over this limit.

If you keep all projects in progress, pending or done, and all media lying around on Unity storages, then you might have caused this problem...

On Unity, MediaNetwork or even ISIS since it is no different, *you should really divide media storages and use the Media Indexer to scan for required content "on-demand."*

How do you do this?

Bill Admans used a technique where he would **create a project-specific folder** for his video (and audio I think...). He would **add these folders for the Media Indexer to scan** and provide this media content to DS.

On the next project, he would **use another project-specific folder** with different audio/video content, **then remove the first** audio/video folders from the Media Indexer's list and simply **add the new** media folders.

All these operations really take a few minutes for the remove and add steps, and to allow the indexer to complete the required media scan. But **with far less media to index**, using this method, the chance to reach the 30,000 file count limit is almost null.

On a side note, ask the maintenance people at your facility to **ALSO** check the Unity logs. If there was anything odd going on with any of the Unity disks, the DS Media Indexer will also see such event as a change and this is known to trigger a scan of the storages content. Just so you know and to avoid possible issues with Unity...

(Thanks to Sylvain Labrosse)

Tim reports:

There was nothing unusual going on at the unity end at the time on the data base refresh.

The other thing I notice going on is when I delete (all unused media) a file, the current sequence will lose it's indexing.

Loading another sequence media's there - then loading the sequence that had the upset shows media again.

Input-Output

CONFIG PAGE

CONFIG WINDOW—select/create deck templates. Decks are connected to COM 1.

To customize a device configuration, change all settings except device, then save as a new device.

Edit mode: Auto (insert editing) and Assemble.

Tip: Make a duplicate setting of each device, one set for Auto and one set for Assemble.

PLAY/RECORD Bias—delays video frames, offset for TBC delays, etc. Affects video

PHYSICAL AUDIO PATCH—**Vertical is machine channels, Horiz. Is DS inputs.**

The primary visual **file format** DS uses is the **.GEN file format**. FYI, .GEN files are an altered AVI file

format (.AVI is the windows video format). A .GEN file is YCbCr 4:2:2 with color space support for both ITU-R-601 SD and uncompressed ATSC HD formats. It also supports one alpha channel layer playback in real-time since v6.0.

The pixel aspect ratio is driven by the sequence settings

New Input-Output Settings on Media Output/Input (DS Version 10)

The video level descriptions on version 10 have changed. What do they mean?

- SRGB
- Linear
- Legacy Graphics
- ITU 601/709
- Auto

Here's a crib sheet for Input. Output is the same thing in reverse.

If you are capturing to YCC

Which is a non-linear colour space, DS uses the input level to transform your media from the input level colour space to the log709 colour space. In YCC DS uses the input level which describes your media and then applies a LookUpTable to convert it to 709 colour space.

Input 709 -> media is log709 with Black 64 and white 940 (16, 235) -> DS will just copy the media

Input Video Linear -> media is linear with Black 64 and white 940 (16, 235) -> DS applies a $\log_{2\text{lin}}\text{VideoLinear}$ and a $\text{lin}_{2\log}709$

Input Linear -> media is Linear with Black 0 and white 1024 (0, 255) -> DS applies a $\text{lin}_{2\log}709$

Input SRGB -> media is logSRGB with Black 0 and white 1024 (0, 255) -> DS applies a $\log_{2\text{lin}}\text{SRG}$ and a $\text{lin}_{2\log}709$

If you are capturing to RGB 16/32bits

Which is a linear colour space, DS uses the input level to transform your media from the input level colour space to Linear colour space. Then DS applies the sequence LookUpTable(LUT) for the output

monitor and the viewer LookUpTable for the DS Viewer. You can activate/deactivate the Viewer LUT and choose the LUT in the Viewer options. Disable it if you want to see the same result as previous DS versions.

Input 709 -> Media is log709 with Black 64 and white 940 (16, 235) -> DS applies a log2lin709

Input Video Linear -> Media is linear with Black 64 and white 940 (16, 235) -> DS applies a log2linVideoLinear

Input Linear -> Media is Linear with Black 0 and white 1024 (0, 255) -> DS will just copy the media

Input SRGB -> Media is logSRGB with Black 0 and white 1024 (0, 255) -> DS applies a log2linSRG

If you are working in RGB 10bits the media is not changed but is tagged with its input LUT, so DS applies the LUT transformations to properly process the image, then another LUT for the output. There is also a viewer LUT for the DS Viewer.

Legacy Graphics

Means that DS will remap 0,255 to 16,235 but without applying the 709 gamma curve, just like previous versions (which is actually incorrect) -- the color and gamma Look Up Table that was used in DS versions before 10.0.

Additional comment from Tony:

Q: When importing an AVI or QT or WMV without knowing where it comes from and how it was exported, what is the best way to import it?

A: I generally import all RGB graphics files (which mostly includes QTs and AVIs) using Legacy. sRGB is supposed to be more accurate, but I think that legacy looks more correct most of the time.

If the supplier hasn't told you what levels it contains (and most won't because they simply don't know) there is no magic way to get it right on import other than take a look at it once it's in.

As I understand it, the Legacy Graphics LUTs are not strictly 'correct' according to ITU specs. However, most other kit (like encoders, other NLEs etc) are similarly incorrect and would therefore expect to see an image created with the curves used in Legacy Graphics. If you used Linear RGB instead you would indeed be making a file that is - in a strict sense - correct, but would "look wrong" when you did anything with it, because just about everything else out there is similarly wrong.

Does that make sense?

Encode with Linear RGB and again with Legacy and use an external converter (like WMENC for instance) to create two files and then play them side by side - the differences are small but noticeable.

(Thanks to Tony Jover and Bevis Jones, with profound apologies to Serge Verrault)

Legacy Graphics Problems in DS v 10.1.2 and 10.2.1

There are known issues with exporting Animation QuickTime files and in many different situations. DPX, TIFF, 8bit, 10bit, 16bit in Legacy GFX levels. A solution is to close DS and restart the application, but eventually it returns. It is described as "crazy green fuzz over areas of high luminance." (See photo below)

One "Jover" is to put a color correction on top of everything and take the video gain down to 97-98% it seems the blue, magenta, yellow stuff doesn't seem to appear. If you take it up to 100 it's there again.

Avid says: Engineering was finally able to pinpoint the root cause and they are actively working on a solution to this problem. The "corruption" happens only on a very narrow range of pixel levels right around the white point (235 in 8bit or 940 in 10bit) so the above "jover" works, even though you may wind up with levels that are too low.

(Thanks to Troy Thompson, Tony Jover, Adam, Woody Sherman, Des Murray, Mike, Linda Öhlun, Knut Helgeland, Sylvain Labrosse, Jean-Marc Porchet and the engineering team at Avid)

Case Study: Recapturing RED DPX files after an upgrade

The Issue:

We did some work on a RED job last fall running DS 8.4 QFE1 xw8400. Since then the system was upgraded to DS 10 on the same box (using Nitris not AJA). Client called up and wanted to make some changes to the piece, only to find out now all the material in the timeline looks like a madman color corrected it (blown out and very neon). Support wasn't surprised by my call.

All the RED material was processed as DPX and linked to on the DS. Best I can tell now is that the DS in applying the wrong LUT to the linked DPX. Going into properties seems to allow you to reset the LUT, but once you click okay it reverts to how it was being displayed. Support told us we had to go back in and bring the DPX material in again, and possibly re-color correct.

Probable Solution:

We found that on 8.4 we had linked to some DPX files (using LINEAR lut) and output (using GRAPHICS) and all was well. Just this week we had the issue you described (upgrade to 10.0 and had to

rebuild the DPX project). We Linked to the DPX files (once again using the LINEAR lut) and then output, using LEGACY GRAPHICS cause that output setting had changed, and all was NOT good!!

Turns out, we had to go into the properties of the DPX linked file and change the LUT to LEGACY GRAPHICS and then output using LEGACY GRAPHICS and all was good again. It seems that all we can use is legacy graphics to make our projects work. In order to change the LUT, you must not have anything in your source side viewer, or else it will not "stick." This is because the color management is completely revamped in V10.

Sylvain Labrosse reports:

Development tried to avoid such problems by implementing code that detects a sequence from a previous release, and allow you to convert to the correct legacy LUT when restoring and opening in version 10+.

- Did you not (archive and) restore the 8.4 project in version 10 to insure correct conversion of the metadata?
- Did you not open and save all sequences (as it is documented) before starting your work?

(Thanks to Troy Thompson, Sylvain and Paul Neal)

CAPTURING FROM VIDEOTAPE

To **avoid vertical displacement** of the captured video:

1. **Activate the internal black generator** on the Digital Betacam deck from which I am capturing. (or patch a known stable SDI video source into the deck).
2. Turn off the viewer.
3. Switch to capture mode.
4. Monitor the picture via the DS SDI output with an external SDI monitor. (If you are having the sync problem, it shows up there, too, so this is a reliable monitoring method.)
5. Sync sound will appear to be not-so-synced during the capture, but don't worry about it. It's being captured correctly. Monitor the DS, rather than the deck's output, to verify that a good signal is going into the DS.

VIDEO CAPTURE ASPECT RATIO

Before opening the capture tool, make sure that the appropriate type of sequence is open first: In other words, to capture 16x9 footage, a 16x9 sequence must be open. Same goes for 4x3. If you don't do this, you will need to process captured footage to view it.

DIGITIZE/LOG

Upon initialization, Media I/O checks the decks automatically.

J-K-L Deck control: J is reverse play, K is pause, L is forward play. Hit J or L repeatedly for increasingly fast shuttle speed. Hold K with J or K for slow playback.

YOU MUST TURN AUDIO ON in browser capture window if you want audio—even if you logged the clips with audio.

CAPTURE ON THE FLY—no logging function—only for digitizing.

Sets in and outs on the fly. Continually update setting ins and outs by repeating the same key. Media between out points and in points is not captured.

Use the mouse, clicking in viewer margins, while tape plays—

Left Button—**Mark IN**

Right Button—**Mark OUT**

You can also use keyboard I and O keys to mark ins and outs.

Alt+Capture, a list of tapes needed appears. You can then alter the order in which the tapes will be asked for.

If you cannot get machine control

Remember, all VCRs connected to DS must use Serial Port 1. To check the serial port, you can use [This tool from Sony](#) from Windows. It is recommended that you exit the DS application when you do that.

Case Study, MTV Networks:

We have a one rental XW8000 and I have seen this on two occasions with v7.6. Our situation was - the serial port was fine. The Sony utility that Sylvain speaks of worked fine which ruled out the port and the 232-422 serial converter.

I did notice both times that the DS machine control changed to Serial Com 2, *but you were not able to change it*. With the capture window open - the reference lock indicator was not lit either.

In both cases, after spending a few minutes troubleshooting, I just restored my Ghost image (6 minutes) and viola, it worked fine. This problem apparently is buried deep in a config table, the registry, or a corrupted DS file. I did try repairing and then re-installing the software the second time just to see if that fixed the problem - and no it did not.

I never saw this on IBM ZPro or Compaq EVO W8000 machines through software version 7.6 QFE4. I have not seen anything like this with HP XW8400 v8.4 either.

(Thanks to Tom Edwards, Sylvain, Howard and Seán Travers)

If capturing results in a crash or a non-responding application

If you are trying to capture from tape and, as soon as the capture ends you see an hourglass and the DS stops responding, you may have too much on your timeline. Do your recaptures while you have an empty timeline, or else you will have to wait until all indexing is complete to be able to use your DS.

(Thanks to Tony Jover and Jef Huey)

CAPTURE FROM FILE

For clips larger than D1 that need to keep the entire image size **use the link file import** option. The entire file will be loaded into RAM the first time it appears in a time line. Use to **pan/scan big files**. This will create D1 media when you process.

NB: For Avid DS 8.4 you can no longer Link to Quicktime files due to an incompatibility in the QuickTime audio stream encoding. This flaw is causing application errors (crashes). All QuickTime files must now be captured in order to be used safely in Avid DS version 8.4.

For Avid DS 10.0, Apple [QuickTime 7.4.5](#) can be used (7.5+ is not yet qualified).

For Avid DS 8.4, Apple [QuickTime 7.1.x](#) can be used except that *you can no longer Link to these files due to an incompatibility in the QuickTime audio stream encoding*. This flaw is causing application errors (crashes). **All QuickTime files must now be imported in order to be used safely in Avid DS.**

For Avid DS 8.0, Avid recommends [QuickTime 7.0.4](#) up to QFE 2a. Since the QFE 3 release, Apple [QuickTime 7.1.x](#) is now qualified. Due to the above QuickTime audio issue, Avid recommends you import QuickTime files instead of linking.

For Avid DS 7.6 and prior 7.x releases, Avid recommends [QuickTime 6.5.2](#) only.

Tip: Create a subfolder with in the project folder called Linked Files. This folder will then be archived with the rest of the project. (Archived to Disk) **Note:** This can cause issues, particularly truncated AVI captures. It's a pain that it causes issues because it's a convenient workflow. Philippe's clever [Archive Backup tool](#) can also copy all linked file sources, so a convenient workflow can therefore be to put your source files anywhere you like, use Archive Backup to back them up when the project's finished with, then delete the original folder.

Quicktime issue *it's all about where the file resides.*

Do **not** place Quicktime files in your project folder. If you do, you will get the following error:

No Quicktime file should be in an indexed folder otherwise it may prevent its capture in DS. Place your Quicktime files elsewhere.

Also, if you are accepting Quicktime files from a Final Cut Pro shop and they are not at the correct frame rate, you need to [tell your Final Cut Pro offline editor to export them correctly](#) with the right frame rate.

Photoshop or other square pixel (720x540 or 720x486 unscaled): 1.0 aspect ratio, NOT PREMULTIPLIED—USE SCALE TO FIT

Quicktime or other D1 file: .9 aspect ratio, PREMULTIPLIED ALPHA if there is alpha

Pre-multiplied setting should be on for files with alpha. If the alpha looks incorrect pre-multiplied can be turned off later in a clip effect editor under Custom/Pre-multiplied.

CAPTURING FROM FILES – RESIZE

- **CENTER/KEEP ORIGINAL SIZE-** puts the file in the center, with black surround if the file is smaller than D1. USE FOR AE QUICKTIMES.
- **SCALE TO FIT: distorts aspect ratio, fills the screen** Photoshop—720x540, use “scale to fit”
- **SCALE, KEEP ASPECT: Fills the screen in one dimension, black bars to fill.**
- **SCALE-KEEP ORIGINAL POSITION—Puts the picture in the bottom left corner**

CAPTURING FROM FILES - LEVELS

In Non-Custom sequences, the captured material is always stored on disk in YCbCr assuming Video Levels. This means that headroom and footroom are present, also meaning that black is considered at 16 and white at 235. **The "Input Levels" setting will allow Avid/DS to correctly map the value of the pixels read from file when capturing.**

- **"Input Levels" set to "GRAPHICS":** This setting tells DS that the pixels in the file **DON'T have any headroom-footroom.** A value of 0 in the file will be mapped to 16 after capture. Therefore the captured clip will NOT contain any 235 (SuperWhite) values. Use this setting if, in the file to capture, 0 means black.
- **"Input Levels" set to "VIDEO":** This setting tells DS that the **pixels in the file DO** have headroom/footroom. A value of 16 in the file will be mapped to 16 after capture. Therefore the

captured clip will preserve any 235 (SuperWhite) values. Use this setting if, in the file to capture, 16 means black.

- "Input Levels" set to "AUTO": Same as "VIDEO".
- In Custom sequences, the captured material is always stored on disk in RGBA assuming Graphics Levels. This means that NO headroom and footroom are present, also meaning that black is considered at 0 and white at 255. The "Input Levels" setting will allow DS to correctly map the value of the pixels read from file when capturing. Since Custom sequences assume Graphics Levels, the clips captured will NEVER contain any SuperBlack and SuperWhite values.
- **"Input Levels" set to "GRAPHICS"**: This setting tells DS that the pixels in the file DON'T have any headroom-footroom. Therefore a value of 0 in the file will be mapped to 0 after capture.
- **"Input Levels" set to "VIDEO"**: This setting tells DS that the pixels in the file DO have headroom/footroom. Therefore a value of 16 in the file will be mapped to 0 after capture. This also mean that any 235 (SuperWhite) values present in the file will be clamped out.
- "Input Levels" set to "AUTO": Same as "GRAPHICS".

Capture

Batch capture from timeline or browser. Use in/out points on timeline to capture partial timeline.

For **Sequential TGA files**, Avid DS will create what looks like a folder for all of the files and import them all in a batch. If you get sequential TGA files from Final Cut Pro that are not at the right frame-rate, you need to [tell your Final Cut Pro offline editor to export them correctly](#) with the right frame rate.

IMPORTING

IMPORTING AUDIO CD'S

Use [CDEX](#), which is on DS installation CD. Also, [dBPowerAmp](#). OR use CD Copy or Audio Catalyst... all will make a .wav file.

Field dominance is ODD

IMPORTING CLIPS FROM OTHER PROJECT BROWSERS—Navigate browser to other project/clip. **Right click to IMPORT CLIP**. Use FAVORITE button on browser window to get back to the current browser

PREMULTIPLIED—custom effect to **change the premult value of an imported clip** if necessary.

File Based Workflow

(thanks to Paul Neal for this case study)

A case study by Will Harris

Ok, say you have a client that has a Firewire drive with a lot of folders and inside every folder is a lot of files you need to capture. After you hook it up to your system and the computer recognizes the drive, start up DS, get into the project these files are to live in and follow these simple steps:

1. Under the **Tools** menu (at the top left of DS) click on **File Renamer** - this load the independent File Renamer 1.0 program
2. At the bottom of the program window, you see a checkbox labeled **Include Sub** (if you have a drive that has a lot of subfolders, click this) and then click on **Add Directory**.
3. A Dialog box opens that will allow you to navigate to the attached drive (or maybe even a network path... which I use on occassion). Find your firewire drive and click **OK**. The program then scans the drive and has a path of all items in that path.
4. At the top of File Renamer, there is a button called **DS Script**. Click on **DS Script**.
5. This runs a script that is set to log all the items that was discovered in the scan in step 3. You may want to look at the script closely to make sure you are only getting the files you want...SO, what you can do is Highlight the script by clicking somewhere in the script and hitting [CTRL]-A (select all) and then pasting the script in a Microsoft Word document (or wordpad or txt editor). While you are in Wordpad (or whatever text editor) you can **Find** and **Replace** items, you can delete items you may not need, etc. (some playing may be necessary to get the results you require). Now, once you have your script the way you want, highlight everything in Wordpad and [CTRL]-A to select all.
6. Get back into DS and go to the menu and select **View**, then **Single Instance Views** and move down until you find **Script Editor** and select that. This opens the script editor program. :)
7. Your cursor *should* be in the white area of the script editor...so just **paste** the script you had in wordpad here.
8. Click on the **Run** button at the top of the script editor program.

Once this runs, you should have a log of all the files you need off the drive, and you can now highlight them and batch **Capture**.

IMPORT ILLUSTRATOR EPS.

Import into Graphics session or 3D DVE. **File must be created as Illustrator 8 for Windows**. Can be .EPS or .AI file. Letters that have strokes inside of strokes, such as A or O will be displayed with the inner strokes filled. To fix this, select the inner stroke and the outer stroke of each affected letter, and use **“Combine Strokes.”**

From within Illustrator, save the file as an EPS again, it will add the extension .eps. Then hit OK and

another property page will come up asking you what format. Under one of the pulldown tabs you have the option to select whatever version of Illustrator. Save it as Illustrator 8 for Windows. For color or black and white, there is a Format selection on the next pulldown down the page. Select from Tiff (Black & White) selected or (8 bit Color).

IMPORT PHOTOSHOP FILES.

Build graphic on transparent background in Photoshop to DS. Save as tiff. Save-as a copy with no layers. Choose **Save** Transparency in the pop up dialog and you are done. Import to DS as graphic with premultiplied alpha and have a look at those nice edges.

IMPORTING/EXPORTING FILE SEQUENCES WITH LEADING ZEROS

filename.[x;y].tif

Where x is the number of the first frame of the sequence and y is the number of digits you in the number of files. For example the file avidds.[0;3].tif would yield a .tif sequence with up to 1000 files.

EDL / OMF / ALE

Import **OMFI 2.0 only**.

OMF Conform button converts to sequence or logs (clips in browser) or both. Must have browser open first—preferably an empty one.

OMF supports picture in picture effects from Avid systems

Importing Audio from Composer

1. Remove all Audi Suite Plug-In effects from you MC Sequence.
2. Take the Audio out of MC as OMF2 w/media.
3. Import the OMF w/audio into 6.01QFE1, with "Create Both" selected and "Force Creation of External tape sources" DE-selected.
4. Take a copy of your MC Sequence in a bin, and run it through Media Log, exporting as AFE.
5. Conform the AFE in DS with "Force Creation of External tape sources" DE-selected.
6. The audio from the OMF should link up with the sequence.

IMPORT ALE- Input/output mode—VIEW-ALE.

From Media Composer—Using Medialog

Have the Composer editor send you a bin with two things in it: the sequence that you should conform, and the decomposed clips (with desired handles) from that sequence. Open MediaLog, create an NTSC 30fps project, and import the bin. Convert the sequence to an AFE, and conform it in DS.

For 4-channel audio, in Media Log, select all the clips that contain audio, right click and modify them to have all 4 tracks of audio. Then select the sequence, Right Click and export as AFE. This will enable you to digitize all audio tracks into DS. This is important if the offline was done from a 4 channel master dubbed to tape sources that have only 2 audio channels.

If lots of subclips were used in offline, those clips will not be able to be modified in Media Log. Make sure that “Statistics” is displayed in the Media Log bin, then select all of these clips and export them as ALE. When importing into DS, go into Media I/O, then call up the ALE import window, open the ALE file and select the 4 channels in the Audio Channels matrix, then create the logs. This will cause the subclips to have all 4 channels of audio.

Excel 2007

(added 12.27.2007)

You must have Excel 2007 for this to work.

1. Open client's log sheet.
2. Copy all events into the [Excel 2007 template](#).
3. Export as Text Tab Delimited.
4. Open that in Notepad, and copy all the columns below Data into the [HD notepad template](#) or [SD notepad template](#) (depending on which you need).
5. Export as {filename.ale} and make sure the pulldown below the naming area is set to all files, not .txt
6. Go into DS. ALE import. Load and then send to a folder to make clips.

(Credit to Sean Stall for workflow and templates)

AAF/AFE

AFE and AAF are not the same thing, although they contain a lot of the same information.

AAF -- Advanced Authoring Format.

An AAF contains sequence metadata and information from Media Composer and Symphony that can then be conformed on DS. An AAF can ONLY be exported from a v11/v4 or greater MC/Symphony.

Export AAF from Media Composer

1. Ask the editor to NOT consolidate the sequence.
2. Forget embedded media - that's for when you're using shared media drives.
3. Ask for the project as well so that you can make your own AAF from that project using Medialog if needed.
4. Make explorer clips as well as timeline clips - they can be very useful sometimes.
5. Capture from Timeline with handles sizes you are comfortable with.
6. If I need any more handles when slipping a shot against the offline, simply select that clip on the timeline and select "Recapture Selection With Options" and give it bigger handles.

Notes:

1. Color Correction effects from MC do not come across completely intact, depending on what the offline editor did with it.
2. Speed Ramps require careful examination to ensure their accuracy against the offline.

Any errors or notes to do with the conform (apart from inaccurate speed ramps) are always flagged up at the end of the conform in a saveable file.

AFE -- Avid File Exchange

An AFE is created from MediaLog 11.1 or greater, and contains a lot of the same sequence and metadata information. One of the primary differences is that an AFE can be a wrapper for an entire project, including several bins, while an AAF is only one sequence. Import Composer/Xpress bins into MediaLog, and export to AFE.

Also... there are some things that conform with AAF that will not conform with AFE. For instance -- AVX effects will COMPLETELY (with all parameters, curves, etc.) with AAF. But AFE will only conform the AVX effect with default settings, i.e.: no keyframes or custom parameters.

From within DS:

1. Navigate to the AFE via Explorer.
2. Double click the AFE.
3. You will get a window that will give you the options for destination folder, logs, timeline clips, etc.
4. Ensure your location for clips is correct, then open the bin (it'll be obvious at this stage),
5. Drag the sequence to the Timeline.

If you hold down U when dragging it'll keep the same start timecode (just like an sequence within DS).

(Thanks to Sean Stall and Tony Jover)

REASSIGNING SOURCE REELS WITH EDL

Say 100 clips from an OMF/AFE have conformed with a source of OPT1. You have already digitized OPT1, except you've called the reel OPTICALS. All 100 clips need to be changed to a source of OPTICALS, or redigitize all the OPT1 material with the new name OPTICALS. Use the EDL tool in DS to change reel names for multiple clips simultaneously:

1. Sort a bin by reel name. Create a new sequence. Drag and drop all clips from OPT1 onto timeline.
2. Go to the EDL tool. Create an EDL from the timeline.
3. Select all the clips in the EDL tool. Right-click, and re-assign the source reel
4. Conform the EDL back to the timeline, and only create Browser Clips.

You now have new clips that are properly linked to the correct reel.

OUTSOURCE CLIP EFFECT

Lets you **send frames to another application** (such as Photoshop) for modification. In the properties you can specify format, destination and a couple other thingies. Hit export and DS will export the frames affected by the effect to the specified destination (local or LAN). Default file path is to a directory in the project called 3rd Party. You can use the tool of your choice to edit the images... save them over the original files on the LAN or HDD and use the update feature in the Outsource effect to reimport the modified pics to the correct place on the timeline.

File Naming procedure: **Write the file to a new name, then rename it after the render** or change is done.

Example : If the AVI you rendered out of DS is "bletch1.avi," then render out of AE as "bletch2.avi." Once the render is done, rename "bletch1.avi" to "bletch1.old" and rename "bletch2.avi" to "bletch1.avi."

Replacing Graphics

Case Study

I created an element in Photoshop to use in the graphics tool of the DS. It was an element consisting of a line with arrows at each end and a box in the middle showing a metric measurement. It was tracked to an object in DS so it was placed in a group so that I could use the opacity to dissolve between it and another version with a second metric measurement. Now I have to create a version using imperial measurements.

My question is, unless I've overlooked something, is there a way to simply step into that group of objects within the graphics tool and replace the objects with the new versions?

Here's how I'd it, providing the new element matches the old (in frame size etc):

1. Import the new element into the graphics tool.
2. Select the newly created graphics object
3. Select fill fx (cutout) and save the preset (or drag the icon to a toolbar)
4. Delete/hide the newly created graphics object
5. Select the object to be replaced, and load the recently saved fill fx (or drag the icon from the toolbar)

Repeat for all the objects you need to replace.

(thanks to Roy Janke and Des Murray)

Importing from 3D applications

Any image sequence that DS reads and your 3D application (like Cinema 4d or Maya) outputs works just fine. If the end product is video or even many forms of HD, a TGA sequence will do just fine because there is no need for 32-bit color or for printing. Tiff sequences are good, but they're huge. Both TIFFs and TGAs will contain alpha information and you will want to import them accordingly with alpha where needed. If you're doing film, then you would have a need for 32bit color and files like SGI, cineon, DPX are the norm.

XSI has the ability to export its Project file for the DS to read. You can export all of your 3D elements, lighting, shading, depth, ambience, to separate output files and then recompose them in the the DS and have a ton of control over each aspect..color, clip effects..etc.

OUTPUT EXPORT

To Tape: If you ever need to output to tape using assemble edits, create a separate deck configuration for your deck, enabling the assemble mode, and rename it to reflect that.

Using Windows Media 9 Encoder. Download this and Direct X 8.1 and install it. Encode your reel to an

impossibly small file size whilst still retaining extraordinary amounts of detail. Don't forget to use AVI reference movies to make this a piece of cake!

For Quicktimes, use Sorenson and ALWAYS deinterlace and raise the gamma. Results are superior to MPEG. Don't use Cleaner for this - Output a half size Sorenson QT straight from DS with real-time defield and CC effects applied.

NB: 64-bit versions of DS prior to Version 10 cannot work with Quicktime files, either imported or exported. You must use a 32-bit Assist workstation to import or export them. DS Version 10 (64-bit) can export and import Quicktime files but cannot export Quicktime Reference files.

Export .AVI Reference Movies, .WMV Files.

Avid|DS includes an option that lets you create an AVI reference movie.

Install the [Windows Media Encoder 9 Series](#) for added compression options with AVI reference and WMV file output. Windows Media 9 requires [DirectX to be installed](#). It is believed that you should have no problems with the Avid DS with this version of DirectX.

To output WMV files (that look good):

Using the standalone encoder do dual-pass VBR encoding. Start with New Project, select the source file, click through the next screen, then select 2Mb/s as the video data rate, click Finish. Now go to Properties and, if the source is NTSC Anamorphic, select Edit on the Compression tab, and select "Non Square pixels". On the next tab (Video Size) select "16x9" on the Pixel Aspect Ratio drop--down box. On Processing, select "Deinterlace". If you have an HD source, do the same, and keep the output size to around SD frame size.

Note: It is not recommended that you make WMV files straight out of the DS, but rather use an application, such as Windows Media Encoder, that gives you more control over the final output. Also, when you use WME, be aware that it does not handle resizing well, so it's recommended that you resize your file using the DS by exporting an AVI file that is your desired size and then use the WME to convert it to a WMV. (rev. 3/28/10)

For more information about Windows Media, please see [Ben Waggoner's article](#).

An AVI reference movie, like a QuickTime reference movie, contains only composition information. An AVI reference movie does not contain media. Instead, it points to the original media on your storage device. Any application that can read AVI files can read an AVI reference movie exported from Avid|DS, *as long as the application can access the original media*. Exporting an AVI reference movie lets you work around the size limit of AVI files. Since the AVI reference movie points to the original media, the output settings will be the same as the current sequence settings.

Before exporting an AVI reference movie, process the entire sequence, including any real-time effects.

To export an AVI reference movie:

1. From the Media Input/Output layout, select the Output panel.
2. In the Output Device box, select AVI for the To... Reference Movie option.

3. Click Export.
4. From the Export to File dialog box, select a folder in which to save the file, type in a name for the file, and click Save.

The AVI reference movie, which contains only the composition information, is created, and placed in the selected folder.

NB:

1. An AVI reference movie becomes invalid if the media to which it points is modified.
2. If audio is included in the AVI reference, the total file size will be greater because the audio is not compressed.

AVI Reference appears to be broken in 64-bit DS 8.0 if you run the 32 and 64-bit AVI Reference installers.

BUT it works if you only run the 32-bit installer.

So the workaround with DS 8.0 to have working AVI Reference for the time being is to run the 32-bit installer and skip the 64-bit installer.

(Currently looking to see if this was fixed for DS 8.4)

The initial 8.4 installer wouldn't properly install the Ref AVI on a clean system with no previous version of DS on it. The new installer on Avid's site includes a fix to this so that it should no longer be an issue.

DS would export, but the AVI would just be a white screen on playback. DS wouldn't recognize it on import. But this was fixed once Avid released the new installer.

Outputting Windows Media 9

Download and install the free [WM9 encoder from Microsoft](#). Downloading this encoder will place a number of codecs that are useful for both Windows Media files as well as .AVI files on your computer. Keep a folder with encoder templates that you have created in the Windows Media Profile Editor. Save the profile with a recognizable name. Encode directly out of DS, no reference movie necessary. When exporting as a Windows Media file, simply select the "custom" radio button and mouse over to the folder where you have all your presets stored.

Exporting for DVD: DVD MPEG2 is 720x480. **Crop** 4 lines off the top, 2 lines off the bottom and you'll keep the image as sharp as it should be. Otherwise, the image will be scaled. Maintain lower field dominance throughout the process.

Importing DVD video: Use **Super DVD Ripper**. It makes DivX encoded AVIs and is simplicity itself to use. A good DVD reference and download site is www.dvdrhelp.com

How to use Timeline to Media Composer in Avid DS

Preparing the DS Storages for the Timeline to MC export.

Make a To_MC folder on the video storage volume, but do not place it inside the existing VideoStorage media root, it must be its own folder.

Examples:

D:\To_MC

D:\VideoStorage

Inside this To_MC folder, create two additional folders.

Audio_to_MC

Video_to_MC

Right click on Audio_to_MC and select Sharing and Security...

Select "Share this folder".

In Comment, type Audio to MC.

Click Permissions.

Select "Full Control" and that enables also Change and Read.

Click Apply and OK.

Click Apply and OK to exit the dialog.

Right click on Video_to_MC and select Sharing and Security...

Select "Share this folder".

In Comment, type Video to MC.

Click Permissions.

Select "Full Control" and that enables also Change and Read.

Click Apply and OK.

Click Apply and OK to exit the dialog.

Either open Avid DS > Data management > Configure Storages... or via the Avid DS Support Console, open the Media Indexer in UMMD Test.

In Media Storage Configuration, click Add...

Select Avid Media Storage and click OK.

In Avid Media Storage, browse to To_MC, select the Audio_to_MC folder and click Select.

Select "Prevent purge of media on this storage" (important!).

Select MXF audio files (.mxf).

Set the Disk controller and storage type and click OK.

In Media Storage Configuration, click Add...

Select Avid Media Storage and click OK.

In Avid Media Storage, browse to To_MC, select the Video_to_MC folder and click Select.

Select "Prevent purge of media on this storage" (important!).

Select MXF video files (.mxf).

Set the Disk controller and storage type and click OK.

Click Close and close all dialogs.

In Avid DS, select the top most timeline to highlight the area (Timeline Effect space, below the timecode and the effects bar display) that you want to export to Media Composer.

Click Generate and select "Timeline to MC".

Set the appropriate options and click OK to initiate the export.

When the export is completed, retrieve the AAF clip in your project folder and the audio and video MXF media files.

Conform them in Media Composer. That means that you copy the audio and video in their specific Avid Mediafiles location and open the AAF to create a MC compatible Clip file that will link to the MXF media.

Note:

In each of the DS MXF folders, there is an empty GUID folder for the project. This is empty and can be trashed.

The audio appears as audcache"encryption".mxf

The video appears as vidcache"encryption".mxf

Export MXF missing in Version 10

DS Version 10

(Case Study)

I want to output a MXF file for our audio guy, to accompany an OMF export but v10 doesn't have this file format; I couldn't find this in the output settings. Version 8.4 had it. This is a real PITA!

Avid removed "Output MXF" because they were too many scenarios were DS was generating MXF that Media composer would not understand. To achieve what you want you just need to create a MXF storage that is writable and have no purge option set. You can then output your timeline to Media Composer and you will create an MXF file that either MC or ProTools can understand.

(Thanks to Nathan Downing, Chris Hahn, Bob Maple and Jean-Marc Porchet)

Isolating Chroma from Luminance

(DS List TJ 05.31.2007) *This may be helpful when trying to key from DVC Pro 25*

"you need to isolate the UV and blur it along 4 pixels horizontal.
I never was able to do that in DS, never managed to put it to work at YUV"

That's soooooo easy. Much simpler than "splitting U and V"...

1. Make a tree and stick a composite node and a blur inside it
2. Feed the input into Composite node Input 1
3. Feed the input via the blur into Composite Input 2
4. Make the blur 4 on X only
5. Change the transfer mode within the Composite to "Chroma"

Now you're just blurring the chroma (the U and V of the YUV) by 4 on X.

Installing iTunes on your DS System without messing up your system with the wrong version of Quicktime

The latest version of iTunes bundles the latest version of Quicktime which is a no go. You need to stay with [the recommended version of Quicktime for your DS](#). You can install iTunes without installing Quicktime. I used the following instructions:

1. Download latest iTunes installer.
2. Extract the contents of the installer file using [WinRAR](#) You will likely see 5 .msi Windows Installer Package setup files, namely AppleMobileDeviceSupport.msi, AppleSoftwareUpdate.msi, iTunes.msi, iTunesSetupAdmin.msi and QuickTime.msi.

3. Delete the `Quicktime.msi` installer file.
4. Open a Command Prompt window (`START>Run>cmd.exe`) with administrator privileges
5. Type the following command: `msiexec.exe /i iTunes.msi /quiet`

Revised: Dec 1, 2011 3:05 pm

Industry Blog links

(Revised: May 12, 2010 3:40 pm)

[Steve Cohen's "Splice Here" Blog](#)

Splice Now

- [Media Composer 7.0.2](#) by Steve Sep 11, 2013
Avid released Media Composer 7.0.2 yesterday. The new version includes dozens...
- [Avid Retires DS](#) by Steve Aug 7, 2013
Avid has announced that DS, or Digital Studio, formerly from SoftImage, and m...
- [SLOW – The Most Popular TV in Norway](#) by Steve Jul 15, 2013
A seven-hour train ride, a 134-hour ferry ride — in real time. These ar...

[Studio Daily Blog](#)

[Robert Labay's Blog](#)

Labay's Place

- [NASA Discovers Tatooine-Like Planet](#) by RLabay Sep 18, 2011
(From StudioDaily.com -- By Beth Marchant)NASA announced today that the KEPLE...
- [YouTube Introduces Video Editing Feature](#) by RLabay Sep 18, 2011
YouTube users can now edit their videos onsite thanks to a new feature it has...
- [Jedi Kittens Strike Back](#) by RLabay Sep 18, 2011

[Frank Capria Blog](#)

Capria.TV

- [Aereo is not a Betamax moment](#) by Frank Capria Apr 27, 2014
But pro wrestling could give us one All eyes were on the US Supreme Cour...
- [For the film industry, is the glass half full or half empty?](#) by Frank Capria Apr 21, 2014
It all depends on who you ask. Just before I left for NAB I’d read two ...
- [Looking back on 2013](#) by Frank Capria Jan 1, 2014
Facebook and Google+ bots each took a stab at defining my year in pictures an...

[Scott Simmons Blog](#)

The Editblog

- [Backup Day: November 2013](#) by S Simmons Nov 1, 2013
Surely you backed up before updating to Mavericks. Surely.
- [Backup Day: October 2013](#) by S Simmons Oct 1, 2013
The useless American government may very well be shut down this fine October ...
- [Backup Day: September 2013](#) by S Simmons Sep 1, 2013
Yes it’s a labor day holiday weekend in the states … but you sti...

[PVC CMG Keyframes](#)

cmg_keyframes

- [Preparing for Cinema 4D Lite v2.0](#) by joseantunes@joseantunes.com Sep 30, 2014
Adobe pre-announced many of the new features for the next vers...
- [Discounts on After Effects World and Adobe MAX](#) by joseantunes@joseantunes.com Aug 21, 2014
In addition to the free Moviola webinar on creativity Chris is...
- [From Still Frames to Fine Art](#) by joseantunes@joseantunes.com Aug 19, 2014
If you want to get Chris upset, come up to him and profess tha...

[PVC HD for Indies](#)

mcurtis

- [Come to My Workflow Panel Thursday Nov 7 at ETE 2013](#) by joseantunes@joseantunes.com Oct 31, 2013
Learning how to do Specific Workflow X for Camera Y is only a ...
- [Come To My Panel on Timelapse At ETE 2013 Next Wednesday](#) by joseantunes@joseantunes.com Oct 31, 2013
Hey all - in case you didn't notice, I don't post here much an...
- [NAB 2012: Motion Control Systems - CamBLOCK](#) by joseantunes@joseantunes.com May 3, 2012
I'd already heard about CamBLOCK before NAB, and sought out...

[VFXBlog](#)

vfxblog

- [God Only Knows how they did it](#) by Ian Failes Monday
- [Going full vamp: Dracula Untold](#) by Ian Failes Oct 13, 2014
- [Mean streaks: the VFX of The Equalizer](#) by Ian Failes Oct 10, 2014

// Revised: May 12, 2010 3:40 pm

By Igor Ridanovic

Description

Instacrap and Instacrap_P simulate the faded dye look and other imperfections of vintage snapshots. I created the effect in response to frequent client requests to simulate the look of Instagram filters. Instacrap and Instacrap_P are identical in operation except that the "P" version includes Polaroid frame simulation. The Instacrap_P preset is larger in size due to inclusion of scanned Polaroid frames. The scans are unique and clear for commercial use.

Usage

Apply Instacrap as a clip effect to a video clip or still image. Select the effect to open the custom controls.

Control Parameters

Magenta and Cyan

Magenta and Cyan controls simulate dye fade. When in "0" position the color balance is not affected.

Contrast

Controls the image contrast.

Exposure

Simulates in-camera exposure.

Saturation

Saturation sets the image saturation level.

Defocus

A small amount of defocus can simulate poor optics of an old camera..

Vignette

Vignette controls darkens the image corners.

Glow Amount, Width and Threshold

Image contrast is enhanced (Threshold), image is then blurred (Width) and is composited over itself using Soft Light transfer mode (Glow Amount). Glow helps smooth sharp edges of modern cameras and reduce a digital feel.

Grain Density, Size

These two controls simulate grainy film. Due to the way DS Fractal Noise Generator works, DS must render the full length of the noise pattern, even when the Fractal Noise is not animated. If applying the same Grain Size to multiple images, you can speed up the processing:

1. Apply a dummy Instacrap preset over a black clip longer than any of the final clips
2. Open the effect tree
3. Render the cache node connected to the Fractal Generator

Light Spill, Density

Light Spill control simulates flashed film. You can circle through six presets. "0" position turns spill off. The spill is designed to work with landscape orientation, but you can easily modify any spill strokes if you expand the Light Spill Module in the tree. The density control sets the amount of spill applied.

Polaroidize

This parameter is available in Instacrap_P preset only. It cycles through three custom scanned distressed Polaroid picture frames.

"0" position turns the Polaroid simulation off.

Download and Installation

Download not available yet.

Copy the presets to the location where you keep your custom DS presets. Typically, a custom location may look like:

C:\Users\Public\Avid\DS_v11.1\DSPresets\Custom.

It's All About Speed

The following was taken from [Tristan Le Rudulier's](#) NAB 2005 presentation. The original pdf can be found here: [It's All About Speed](#).

//

J

J.L. Cooper Installation

If you forgot to enable this option while installing Avid DS, and you run Setup to add the item, the 3D DVE will get broken. Instead, use the Version Info Extractor utility to enable the device (under DS Info).

Revised: May 27, 2008 7:41 pm

K

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[Keyframes](#)

KEYERS

LUMINANCE KEYS—2 TYPES

LINEAR LUMA—use for **semi-opaque keys**, such as smoke, glass, fog, fire, pyrotechnics—stuff that is over black. Takes selected luminance values and turns them into an alpha channel. Use brightness and offset to adjust keying alpha and foreground.

LUMA KEYER—Eradicates **luminance values from Alpha Channel**. Use picker to select key area. SHIFT DRAG over an area to select a range of values. CTL-Click additional pixels to add to key selection. Use sliders to set black and white points, with outside tolerance controls

SOLO THE TRACK to see alpha matte.

- MATTE BLUR—does that.
- MATTE SIZE—chokes or enlarges matte.

BRIGHTNESS affects whites. **OFFSET** shifts the entire waveform up and down, has most pronounced effect on blacks.

FIXING HOLES WITHIN THE MATTE—paste the clip again on a new overlay track. Copy the LUMA KEYER from the underlying track. Add a MATTE EFFECT that enlarges the matte area to fill the hole. Add another MATTE EFFECT which shrinks the matte down to the correct size. OR BUILD IN AN EFFECTS TREE---LUMA KEY to MATTE EFFECT (enlarged) to MATTE EFFECT (shrink to fit)

BLUE/GREEN KEYER

Keying based on chrominance

- Blue-Green Key Effect
- Chroma Key Effect
- HLS Key Effect (hue/lightness/saturation)

Tip: **Stretch keyer property window horizontally so that all tabs can be read. Work** with the Tabs from Left to Right.

Tip: **Select Output Matte to preview the resulting alpha channel.**

PICKING KEY VALUES

Tip: **Pick a value that is of an average blue or green density.**

TUNE CONTROLS

- **CLEAN UP**—amplifies the difference of the B&W alpha channel- works more on black than white.
- **FG PRESENCE**—**adjusts holes** in the foreground
- **PRE-BLUR**—Blurs RGB values pre-matte, then uses the original RGB values to cut the matte.
- **RGB**—**cleans up noise**, but will soften the matte edge.
- **RED/BLUE PRESENCE**—**adjust for better key**. A bias adjustment that offsets green from blue or blue from red.

Tip: **Leave cleanup at values of 50/20/20 if these controls alone do not result in the** desired matte. Offsetting these values will limit other parameters in the effect settings.

Tip: Pre-blur averages gray values in the matte and can destroy edge detail in the matte.

Tip: Select Keep Original Alpha if the clip has an alpha.

Tip: If the TUNE controls don't work, try picking on another color.

MATTE TAB

Works like the luma keyer for alpha—narrows the key range to black and white. Use pick tool on FOREGROUND.

- Controls the Luma Key of the alpha channel.
- Keep edges softer for good edge to fill transition.

Blur Fast is a linear blur, with fast unchecked it is Gaussian.

SHAPE TAB

- For creating garbage mattes.

TRACKER TAB

- Select a stroke (shape) then **use the tracker to track a garbage matte.**

SPILL REPLACEMENT TAB

Works on the edges of the keyed in object.

- By default **Spill Replacement is active when the effect is applied.** This is often undesirable and **should be turned off prior to editing the effect.**

TIP: Save a version of the Blue-Green Key Effect that has Spill Replacement off by default.

- Pick Hue: Applies selective Color Correction on the Key Color so it can be desaturated.
- Reduce the Luma Gain to increase contrast in the Key Color.

Click on **pick hue and select the color you want to replace** (green/blue spill on the hair of the talent) then start playing with the color wheel the saturation and luma gain brightness until you see that your green/blue is being replaced by this color you are mixing. Then you can go to the spill matte 1 and 2 to play with the softness of your alpha, shrink, blur it etc.

SPILL MATTE 1 TAB

Works on the keyed-in object. Turn on preblur to reduce noise.

SPILL MATTE 2 TAB

Works on the edges of the keyed in object.

KEYING TIP-KEYING BLACK LINES WITH NO ALPHA CHANNEL

Drag the layer up to the alpha thumbnail within a composite container, and make sure that you click on the top thumbnail to export the alpha up through the container. Also make sure you're using the RGB for the alpha, not the existing alpha channel (which is fully opaque.)

Another way to do it is by using the Channel Switcher, and mapping Luma to Alpha.

Keying tip for working with material that has low color resolution Please see [Isolating Chroma from Luminance for keying better with poor footage](#)

Are your mattes canceling each other out? Please see [Tip to keep mattes from canceling out other mattes](#)

How to key in DS using an alpha channel imported with video or a still

Problem: How do you replace the "fill" for an imported graphic with alpha in DS. It's something that I do often in Symphony or Media Composer by stepping into the graphic and cutting in moving video to replace the fill.

Solution: Place your file on the Timeline. Right click the clip and select Create Composite Container, or select the clip and simply press CTRL 8. Both will get you inside a composite container with you single source. In the effects tree area, add a Key Combiner Node. Feed your first source into the Key Combiner and feed that to the Output. Drag your second source, your new fill, to the effects tree and feed that also into your Key Combiner. Your new source will be affected by your original clips Alpha. Make sure you select Alpha for your first source, Luma for you second source.

In Layers:

Combine your new fill (the layer that is left) with the alpha of your graphic by: Grab hold of the track icon (very left of each track in the compositing timeline) of the track holding your graphic/alpha, and drag it to the alpha picture icon of the layer (the right hand picture icon of the layer). A second alpha picture icon will turn up to the right. You are able to scroll right and left to better view the alpha by dragging a horisontal bar next to the picture icons. Now you have combined them but there is a few more things left: You have to select wether to use alpha or fill part of your graphic/alpha clip in the operation. This you do by rightclicking on the very right (the new) alpha picture icon in the layer and select "alpha". Now it should be correct. All that is left now is to check that the alpha is beeing exported to the output of the compositing container. This is done by right-clicking on the container output picture icons above the layer picture icons and make sure export alpha is selected.

In the Effect Tree:

In the effect tree area below the layers (this is where you have two nodes, the first is the new fill clip and the second is the output of this area). Drag the track icon (as described above) of the graphic/alpha track and drag it in to this area. Place it below the left hand node. Rightclick the area (not the nodes) and "add effect". In the effects library (image effects), go up one level (out of the "image effects") and look for the "tree effects" folder. In the tree effects folder select "key combiner /alpha" and drag it in to the effect tree area of the compositing container. Make a connection between the "fill node" and the fill input of the "key combiner". Make a second connection between the "graphic/alpha node" and the alpha input of the "key combiner". Make a third connection between the "key combiner" output and the effect tree area "output node". Done. Now check alpha export on the compositing container output as described above.

(Thanks to Paul Sanni, Andi Loor and Sean Stall)

How to create a custom wipe without losing your mind

So you have a piece of text with an alpha (your PNG), that you want to wipe on using a black/white matte that you're painting. Yes?

If so, then a Key Combiner is not what you want. You want to keep the alpha of the PNG (the shape of the text/title) and instead reveal its alpha using ANOTHER alpha (your wipe). If that is the case, you want a Matte Composite.

See the tree below:

The 'Graphics' node represents your custom black/white wipe:

And the blue 'Title PNG' node represents your title/logo PNG with an alpha, which is captured un-premultiplied (as PNGs usually are).

The result is:

The Matte Composite node should be setup as shown below:

(Thanks to Judy Ranelli and "Sexy" Bob Maple)

KEYFRAMES

KEYFRAMES in effects properties window:

GREEN Keyframe light: you are **between keyframes**

RED keyframe light—**active keyframe**

YELLOW keyframe light—a **changed value but no keyframe** has been set.
GRAY keyframe light. **No animation has been set.**

Set **beginning and end keyframes first.**

Use arrows at top to move between keyframes.

AUTO keyframe sets keyframes **whenever you change a parameter.** New keyframes are made only for the parameter you are adjusting

To **add a KF to a single parameter** (rather than setting a global KF which means view>animated parameters in the curve editor doesn't work in a useful way) then just have autokey ON, highlight the value and press the **] or [to blip the value down/up, which will add a KF.**

With **MANUAL** Keyframes, you need to record a keyframe whenever you change something. Keyframes will be recorded for **EVERY** parameter in the effect, regardless of whether a value has been adjusted.

Revised: Feb 3, 2010 12:56 pm

L

Contents

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[How to view and delete locators](#)

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[How to lock a clip on the timeline](#)

LAYOUTS/INTERFACE

Tip: Map the “COMPRESSED” button to the user toolbar to instantly change sequence preferences.

LAYOUT-EDIT LAYOUT: allows customizing of interface, but DS Can't be used in this mode. Must relaunch application after changing.

ADD/REMOVE PANELS—R-click on a line between panels.

R-click on panel to add a split, remove a split, use the view switcher and set the view.

No two panels can overlap.

R-click on a panel border **to remove the splitter bar.**

R-click on the toolbar **to get a new toolbar.**

R-click / Customize / **to add a specific system function.**

Control and Drag will duplicate a button.

Customize Toolbars: Command and Control / Toolbars **to add a menu button** (for a pop up menu) or a specific preset button.

Only when a toolbar is closed can you set a view and populate the viewer. (A toolbar can only occur once in the UI)

SET VIEW—add additional toolbars.

SAVE LAYOUT

R-click any toolbar to create or open a new toolbar. Only one instance of each toolbar can open at a time.

PUT IN TOOLBARS:

- Effects presets you create or from browsers.
- System functions or buttons. R-click Customize.

R-click to **change from icons to text**

CTL-drag buttons into toolbar. They can be re-ordered in the toolbar.

Try XTRA layouts.

CREATE MENU BUTTON—has a list of whatever under it.

PRESET LIST—list of preset effects

SYSTEM FUNCTIONS

TOOLBAR GROUP LABEL—lets you label a group of buttons in a toolbar.

Creating Custom Preset Pulldown Buttons:

Customizing the layout and customizing a toolbar are two things that have to be done separately.

1. Create a toolbar -- call it "Tinder."
2. Right-click in the toolbar and say "Customize"
3. In the Customize popup, scroll to the "Toolbar" settings
4. Drag-and-drop a "Menu Button" to the toolbar. Name it.
5. In the Explorer, navigate to the Tinder effects, so that you see the thumbnails for the effects in a bin
6. Drag-and-drop the effects individually to the Menu Button created in step 4.

That's how you create a button similar to "Video Effects." Then...

1. Edit Layout
2. By a combination of splitting horizontally and vertically, create a space in the layout that will hold the newly created "Tinder" toolbar.
3. Right click in that space, and assign the "Tinder" toolbar.
4. Exit Edit Layout

That now embeds the toolbar you just created into the layout.

REVERT TO DEFAULT LAYOUTS

Go in Program Files\Avid\DS_vx.x\Preferences. Rename the folder that has your login name. Restart DS. A brand new "user name" folder will be created with all default layouts you can modify to your liking. You can then make copies of your personalized "user" folder, so if someone else messes with them, you just replace the folder with a copy, renamed to the "user" login name.

OK, that didn't work, How do I revert my layout to default with extreme prejudice

Uninstall DS, erase the DS_vx.x folder, reinstall DS and this problem should be resolved.

IMPORTING LAYOUTS

1. Go to Layout -> Import/Export Preferences.
2. On the "Import" tab, select "Import" and browse to the file.
3. Open the File, and Import it... that's it.

The imported layout should appear as an additional layout in the bar on the top left of the left-hand monitor.

EFFECT PROPERTY EDITOR-SCREEN PLACEMENT

To specify which screen (left or right) an effect property editor opens when doubleclicking the effect itself:

Go to File > User Pref > General, use the "Update Default Window Size/Position" options. That way, after Resizing/Closing/Moving, next time you re-open an effect, the PP will show up at the same place (on any monitor). If you'd like that place to remain constant, go back to user pref and de-select all the "Update Default Window Size/Position" options.

Layouts and different types of projects

Layouts are different when you open NTSC, versus PAL, versus 720 HD or even 1080 HD projects.

If you browse in your Preferences folder and check your "user name" > Layouts folder, you will see all these options.

Example: C:\Program Files\Avid\DS_v10.3\Preferences\username\Layouts

These were created each time you create and opened a project matching the relevant video formats.

If the layouts is mostly blank on one machine, try to rename your above "user name" folder and reopen DS to force it to create a new clean "user name" folder and layouts. If that works, your previous "user name" content is corrupted and should be discarded.

If not that, check the Display Properties and verify the monitors screen sizes and alignment (maybe one of off?), and even the bit-depth. Just one wrong value in there and the DS layouts can go blank.

(Thanks to Sylvain)

LEGALIZING

TIP: A CHEAP Legalizing Technique

Slap a Color Corrector across the entire timeline and set Gain to 99 on the Basic tab, with "Clamp to Video Levels" checked.

LENS FLARE

(Added 05/08/2007)

Tip: Track an object

To track a lens flare to an object, using T_LensFlare from the Foundry, go into the Animation Editor for the tracker and copy the X curve, open the Animation Editor for the Lens Flare and paste the X curve. Then do the same for the Y curve. Then scale those curves to suit

Tinder's values. A simpler route might be to copy/paste the curves to a DVE node and then use that DVE's X and Y values in an expression to control the T_LensFlare X and Y. That way you can set the scaling as part of the expression. This is time-consuming, and all in all it's probably quicker to track it manually.

Sapphire - S2_LensFlareAutoTrack will track an object as long as the highlight is obvious and doesn't get occluded.

LETTERBOX

16x9 LETTERBOX INSIDE 4x3 VIDEO

Use the **Crop effect** and set top/bottom to "**60**" and "**61**" respectively.

AN EASY FORMULA YOU CAN USE IN ANY PROJECT

Matte = Original Vertical Picture Area - [(Horizontal Resolution)
((Aspect Ratio Sought) * (Pixel Ratio))]

Take the **horizontal resolution** of your picture and **divide** by [(ASPECT RATIO YOU ARE TRYING TO FIGURE) * (**pixel ratio**)] this gives your **new vertical** picture area.

Subtract the **new vertical picture area** from the **original vertical picture area**; this is your **matte**.

Divide your matte by 2 and set your top and bottom crop accordingly.

For non-square pixels, the pixel ratio is (10/9)

For square pixels, the pixel ratio is 1 -- or 10/10 if you prefer :)

How to view and delete locators

Locators can be very useful and sometimes it's handy to see them all. You have a viewer that lets you do that in Views:

You can also:

1. Load the clip into the viewer
2. Invoke the source-side timeline
3. Open the Locators window (Views>Locators).
4. Delete them there
5. Update the clip.

To update a clip, there is a button in the viewer window:

Note:

Locators *generated during capture* cannot be permanently deleted. If you log a new clip (same tape, same TC) it will not have the locators. If you mark a source side clip with a locator, it defaults as a timeline locator which can be permanently deleted. Locators generated during capture are clip locators. But if you make a source side timeline locator, then manually move it down to a clip locator, it disappears when you change clips and then reload it.

Import Avid Media Composer Locators to DS

You can use [Markercon script](#) to import Media Composer markers (locators).

How to lock a clip on the timeline

You can't, actually but there is a "jover..."

1. Put a frame or more of black at the front of the sequence.

2. Put a frame or more of black at the end of the sequence.
3. Select them, plus your the clip you don't want moved.
4. Press S to keep the clips in sync.

It's not foolproof but it'll achieve a reasonable level of locking.

Another way is to place the clip on its own video (and audio) channel(s) and deselect those channels.

Revised: Nov 11, 2013 10:40 pm

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TIP TO KEEP MATTES FROM CANCELING OUT OTHER MATTES

(DSlist_bm - 12/11/06)

Quick hint: You might find it useful to first draw a shape (a box or something) somewhere off the screen, as the first shape you draw. Turn on it's Fill Outside and set it to 0. This gives you a "clean canvas" to work on. Then all your subsequent shapes, draw with only "Fill Inside" turned on set to 100 (or whatever).

This way you can treat all of your "main" matte shapes the same, since the dummy shape is there doing a job but is out of the way. You can then keep adding other shapes, deleting them, etc. without having to worry about which shape is now on the bottom of the stack so it's attributes can be set properly.

Creating mattes on DS may be faster than launching Photoshop

A Case Study

I gave a guy a bunch of images to cut out and create alphas for. He's been doing Graphic Design for many years (the last few years on DS). He asked me where PS was on his machine. I showed him how to achieve the cutout on DS faster than he could launch PS, create the cutout, export the file, import into DS.

1. Apply the Matte effect,
2. Choose the polyline tool
3. Encircle the object.
4. Verify the matte.
5. Keep editing.

He was in his comfort zone using PS for image manipulation and DS just for (2D) compositing. I pushed him out of his comfort zone to learn a new workflow. He's now happy using the DS workflow. (Thanks to Tony Jover)

How to create a Matte Effect using Graphics

In Graphics:

1. Select the Polyline tool (Q)
2. For Paint Style turn off Brush and turn on Fill (B and N)
3. For Fill - set it to Reveal if you want to erase, or Color Blend if you want to paint
4. For Masks, set to Alpha only

Q: If I want to add two mattes in the same effect where the second overrides the first. Is there a simple setting for this?

A: You have to think about what you're doing.

If you start with a clip from tape for instance, then it will already have solid alpha. So your first stroke is going to probably be something like an inverted Reveal fill. If you now want to add some more alpha somewhere else, the next stroke wants to be not-inverted, and wants to be a color blend, so that you're painting with alpha.

How to share Macintosh drives with Windows computers

Please note: Mediafour's MacDrive [does not work with Windows XP-64](#). It does work with Vista. It does work with 32-bit Windows.

OS X 10.5

A tip from **Bob Maple**:

Samba is the 'file server' for Windows (and Macs can use it too amongst themselves). I imagine when you create through the GUI it might be dynamically configuring the Samba config, but I've always edited the config myself since in the past there seemed to be no way to do it through the GUI.

If you want to get your hands dirty... Open a Terminal, and type `sudo su -` When it asks for the password, enter the same password you use to login to the machine with (and I'm assuming your account is an administrator account.) If you use no password to login, just hit return.

Then type `pico -w /etc/smb.conf` to edit the config. You can pretty much leave the [global] section alone. At the end, just add what shares you feel like. Examples from my own setup:

```
[Media] public = no path = /Volumes/Media writeable = yes guest ok =  
no [Projects] public = no path = /Volumes/Projects writeable = yes  
guest ok = no
```

When done hit [Ctrl]-X and then S to save.

Troy Thompson offers the following tutorial for OS X 10.5:

- 1. Create a folder for shared storage. Open the System Preferences and Click the Sharing Preference.
- 2. Click the "+" under the Shared Folders and navigate to the folder you created.
- 3. Select the folder and set the User Preferences. For my situation it was important that "Everyone" was set to No Access which disables Guest access and forces a login on the PC side.
- 4. Choose the "Options..." button. These are options applied to the entire group of Shared Folders.
- 5. Make sure to select "Share files and folders using SMB" and enable the accounts you want to be shared. If you've decided to enable Guest access, the individual accounts listed below don't actually need to be enabled.

- 6. On the PC, go to Network Places and click entire network. Navigate to the workgroup the Mac is setup under and double click the computer. If Guest access is disabled, you'll need to enter the account user and password. You'll now have access to the user's Drop Folder and the share that you've created.

Comment from Troy:

It actually took a couple of times setting those permissions to get it to work – and as far as I can tell – doesn't work when the share is on the desktop (but that might have been just a wrong set of permissions). I didn't explain it above, but I actually setup my shares to work under the same workgroup as the DS – with a separate user. Doing this keeps my files locked under my OS X user, which is important to me when we have freelancers in the house. This way I write all my renders to the shared folder, and import them directly within the Symphony or DS.

OS X 10.4 and below

Michael Horn's [Sharepoints](#) is an excellent application that makes it easy to add and delete share points like in the old (System 9 and below) Finder. This program makes it easy to share any folder. In addition SharePoints also brings back users and groups management to Mac OS X as well as easy configuration of AppleFileServer (AFS) and Samba (SMB) Server (for Windows) properties.

How to get a Macintosh Computer to read and write NTFS drives

Apple's OS X 10.4 (Tiger), 10.5 (Leopard), and 10.6 (Snow Leopard) can read NTFS drives formatted on a PC running Windows NT, 2000, XP, Vista or Windows 7. It cannot format those types of drives and cannot write to them, save on a local area network through SMB file sharing. So if you have a client who has given you a portable drive or a thumb drive and you need to get your Macintosh to write to it, you have a problem.

Tuxera offers a solution. [NTFS for Mac](#) allows any Mac to read and write to NTFS drives. The application can be freely downloaded and will work for 15 days. Registration is available for €25.00 for one person. If you have a three-person shop, you'll need three licenses.

If you are running Snow Leopard's 64-bit kernal, NTFS for Mac will not work. You must be in the 32-bit kernal or use a Mac with Leopard. Tuxera may support 64-bit Snow Leopard in the near future.

MEDIA COMPOSER IMPORT

Export AAF from Media Composer

1. Ask the editor to NOT consolidate the sequence.
2. Forget embedded media - that's for when you're using shared media drives.
3. Ask for the project as well so that you can make your own AAF from that project using Medialog if needed.
4. Make explorer clips as well as timeline clips - they can be very useful sometimes.
5. Capture from Timeline with handles sizes you are comfortable with.
6. If I need any more handles when slipping a shot against the offline, simply select that clip on the timeline and select "Recapture Selection With Options" and give it bigger handles.

Notes:

1. CCs from MC do not come across completely intact, depending on what the offline editor did with it.
2. Speed Ramps require careful examination to ensure their accuracy against the offline.

Any errors or notes to do with the conform (apart from inaccurate speed ramps) are always flagged up at the end of the conform in a saveable file.

Media Composer Lockup on Exit

This is really an issue with the Wacom Driver. Here is the problem:

When we exit Media Composer, it appears to close "most of the way" then the screen "gray's out" and then it just stops. If we click the Close "X" icon an error box appears saying that MC has stopped working. Click OK and it goes away. No harm being done to the projects, but it is not real pretty!

This is an issue with the Wacom virtual HD Driver. Just disable it in device manager and it cures the lock up on exit issue.

(thanks to Ed Fraticelli and Pat Horridge)

MEDIA MANAGER

The media manager allows for direct .GEN and .WAV file manipulation.

Options menu allows for different sorting options.

When entering, **hit REFRESH to show media**. OPTIONS sets search priorities, sort order of results.

NOTE: Based on the default filter, Media Manager (Media Tool in v6.x) scans only for media in the opened project. This utility is slow on system using massive storage space, as it needs to rescan the entire media folder every time you access it. Not a good idea to use on Unity for example...

R-click-defragment.

R-Click- pick thumbnail frame

R-click-find clip—shows all clips that use that piece of media

Defragmenting a specific clip: Select a clip or sequence in your DS Explorer) and hit "Show Media"...This will display the media files in the Media Manager. Select the media file (.GEN file)to be defragmented, right click and select "Defragment".

MEDIA LOG

When receiving a sequence from Media Composer, ask for the sequence to be decomposed with however many frames of handles you desire. Once in Media Log, select all the clips that contain audio, right click and modify them to have all 4 tracks of audio. The select the sequence, Right Click and export as AFE. This will enable you to digitize all audio tracks into DS. This is important if the offline was done from a 4 channel master dubbed to tape sources that have only 2 audio channels.

If lots of subclips were used in offline, those clips will not be able to be modified in Media Log. Make sure that "Statistics" is displayed in the Media Log bin, then select all of these clips and export them as ALE. When importing into DS, go into Media I/O, then call up the ALE import window, open the ALE file and select the 4 channels in the Audio Channels matrix, then create the logs. This will cause the subclips to have all 4 channels of audio.

MEDIA BACKUP

Media may be backed up to any drive. **It must retain exactly the same path when replaced.** You must also **wait until the media indexer has finished re-indexing the media** before it will be recognized. Large amounts of media may take a long time to index, so wait until UMMDS.exe has finished before expecting to see it.

MEDIA PURGING

PURGING MEDIA MANUALLY

Go first into Data Management > Project Manager, identify the project name versus its GUID folder (that is the {01BF7A3E-2EA2-4D61-AEC6-EFDE18E3727C} type of alpha-numerical name you see), then access the video storage folder and the very same GUID folder.

From that location, you can manually delete all ds\$xxx.gen and all vidCachexxx.gen files. It is also OK to delete the entire folder, as DS will recreate it if material is being recaptured for the project. Deleting in Windows Explorer is faster because it does not check for other projects and sequences dependencies, but you will lose media in other such projects and sequences if you use this method. Avid DS Support won't discourage this method because it does not break anything in the software but you can only blame yourself if you lose your critical media by not using the Avid DS tools.

Note that you can do the same in the audio storage\ "GUID" to delete audio fast.

Please note: Project Manager requires [Microsoft .NET Framework 2.0, 32 or 64-bit](#) depending what OS you are running.

MONITOR SETUP

(added 08.09.2007 by demand MH)

NB: This is for NTSC monitors using SMPTE color Bars, also known as "split color bars"

Look at full SMPTE color bars, all three "guns," R, G and B.

1. Adjust brightness and contrast so that the darkest black bar of the "pluge" is invisible but the other two black bars are black and lighter black.
2. Switch to Blue "gun" only.
3. Adjust chroma (color intensity) until outer bars match the lower chips and they look as close to one continuous bar as possible.
4. Adjust color phase (hue) until inner bars match the lower chips and they look as close to one continuous bar as possible.
5. Look at all three "guns"

You're set up.

There may be a difference between "underscan" and "overscan" On a decent broadcast monitor, this should not be the case.

For more information and a more complete setup, please see [Video University](#).

Morphing Text

How to morph one letter or character into another.

1. Type a letter, make it 1 frame long
2. Type another letter later in the Graphics session, make it 1 frame long
3. Use "Text to Strokes" on both characters and delete the original text bodies
4. Park over the 1st letter and select "Morph Start" (in DS v10.2.1 It's on GFX2 presets which is actually labelled GFX3!)
5. Park over the 2nd letter and select "Morph End"
6. DS will create a new morphed stroke and delete the originals

(Thanks to Tony Jover, Don Brown and John Heiser)

MISSING MEDIA

(Added 11.07.2007 MH)

If you are working on a project and you have shut down your system only to return the next day with media on your timeline *that you know is there* missing, it is usually due to the **Media Indexer** not finishing its work.

Here's how to prevent "Missing Media" from happening again.

1. Start your system
2. Press the Three-Fingered Salute to all that is bad in Windows. (that's [CTRL]-[ALT]-[DEL]).
3. From the selection, which may appear in the middle, spanning monitors, pick "Task Manager."
4. Click on the "Processes" Tab
5. Watch UMMDS.EXE and wait until it gets down to 0 CPU usage and stays there.
6. Turn on your BoB (if it is not on).
7. Start the DS application.

If this does not work, you may have an **Indexer Problem** due to the system not shutting down correctly. If this is the case, please follow the steps for solving [Indexer Problems](#)

MULTICAM EDITING

Turn on DISPLAY UNUSED MEDIA, R-click in timeline.

Use markers at sync points to visually sync up tracks that don't share the same timecode.

Use SOLO to display desired track

Select an area in the clip that you would like to make active. **Hit CUT TO (C) button to make that clip active**. Only works at the end of the edit. To work in the middle of a track, use A to Activate a selection.

CTL-Tab...Move down the timeline a track

CTL-SHIFT-Tab... Move up the timeline a track

Note: you must **conform audio to your cut selections using the cut to command** with your tracks selected while parked on the cut points.

MULTI-CAMERA CUTTING IN “REAL TIME” (METHOD 1)

- Use "Display unused material" by r-clicking on the grey stripe below the timecode numbers on the timeline.
- Put your clips on background tracks above each other.
- Select the clip you want to cut to using "ctrl+tab",
- Push "c" on the keyboard to perform the cut.
- Use "solo" to watch the deactivated clip.

MULTI-CAMERA CUTTING IN “REAL TIME” (METHOD 2)

- Place cam A on background track.
- Place cam B on Video track.
- Add a wipe as a clip effect to the clip on the video track - with no animation - just to be able to see both cams.
- Set focus on the timeline.
- Hit play.
- Hit [M] key - create marker- whenever you "feel" each cut- on the fly.

Then just deactivate those unwanted portion on the clip on the overlay track.

MULTI-CAMERA CUTTING IN “REAL TIME” (METHOD 3)

- Right click on the top of the timeline and select - display unused material.
- Cam A on video track 1.
- Cam B on video track 2.
- Solo a track, drag over the timeline, select the clip and hit [C] - for cut - it changes the activeness from track 1 to track 2.

MXF Media

The DS Media Indexer takes a little longer to index .MXF files over native GEN and WAV but on local SCSI storage the difference is minimal. It is a bit more obvious on Unity, though, but if you are using a separate Media Indexer to do the indexing then it doesn't really matter much.

DS Version 10 doesn't Export MXF

DS Version 10

(Case Study)

I want to output an MXF file for our audio guy to accompany an OMF export, but v10 doesn't have this file format. I couldn't find this in the output settings. Version 8.4 had it. This is a real PITA!

Avid removed "Output MXF" because there were too many scenarios where DS was generating MXF that Media composer would not understand. To achieve what you want, you just need to create an MXF storage that is writable and has no purge option set. You can then output your timeline to Media Composer and you will create an MXF file that either Media Composer or ProTools can understand.

(Thanks to Nathan Downing, Chris Hahn, Bob Maple and Jean-Marc Porchet)

Revised: Nov 11, 2013 10:14 pm

MarkerCon requires an internet connection to DS for updates. To determine this, look for the MarkerCon icon in the top right corner of the DS interface.

MarkerCon supports MarkerCon 7 required markers.

The DS interface of MarkerCon can be used outside of DS. For example, the MarkerCon DS interface can be used to create a marker plan and file. The dashboard in the DS interface can be used to monitor the status of your markers and to view the results.

Download

[Download MarkerCon 7.0.0](#)

MarkerCon

[markercon_screengrab.png](#)

MarkerCon Windows Installation

The most recent Python 2.7.6 can be downloaded from <http://www.python.org/download/releases/2.7.6/>.

The MarkerCon setup file can be found on the website.

MarkerCon DS Installation

DS users with Python already installed will require an additional installation which may not be necessary to install.

The most common installation path for MarkerCon is to install it to the same location as the Python installation.

Exporting MarkerCon to MarkerCon

Click on the first item of the marker list in MarkerCon, which is "Export Marker" and export it out.

MarkerCon Setup

Drag and drop the first file into the MarkerCon icon or click on "MarkerCon" with the mouse. The icon will appear in the top right corner of the DS interface.

Open the MarkerCon icon. If it does not, open the DS interface.

MarkerCon Advanced Setup

The command line operation of MarkerCon allows a selection of files to be installed.

From "MarkerCon" in the "DS" interface, click on "Advanced" to open "Advanced" to be able to select files to be installed.

MarkerCon C:\Program Files\

The optional operation of MarkerCon allows a selection of files to be installed. The files will be installed in the same location as the Python installation.

Click image

Page "test" is the highlight search box and search the keyword. The content list usually will open. Navigation to the directory where modification is used and stored.

and search by "test" and "test" in the search box.

The updated content is still under test. Checking the content will update in the top bar. Make sure you update the path and name.

Make a form

Inputting content of content items can be attached to PDF files. You can use PDF to create.

Click the "Make Content" button on the sidebar to add other content items to the sidebar.

Click to insert content into the sidebar. The content will appear in the sidebar. You can use the "Make" button.

Make

Make

www.HDhead.com

// Revised: Feb 18, 2010 6:50 pm

Bending Space: Morphed and Warped

The following was taken from [Tristan Le Rudulier's](#) NAB 2004 presentation. The original pdf can be found here: [Bending Space: Morphed and Warped](#).

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Networking in Windows 7, DS Workstation Not Seen

It's been reported that Windows 7 computers become invisible on the network 20 minutes after bootup. A registry hack tested by Tony Jover has been working with no ill effects for months:

Two LocalMachine keys need to be altered to look like:

HKLM\SYSTEM\CurrentControlSet\Control\Session Manager\Memory
Management\LargeSystemCache = 1

HKLM\SYSTEM\CurrentControlSet\Services\LanmanServer\Parameters\Size = 3

A different firewall related fix is available
at:

<http://social.technet.microsoft.com/Forums/en/w7itpronetworking/thread/932e8866-9f05-40d2-b86e-12a3bffeae75>

NVIDIA Card Setup to prevent monitor spanning with dialog boxes

(Added from TQ-J's comments to the List 10.17.2007 MH)

All the NVIDIA cards use Span for DS, but go into the Nvidia setup, and go to

Settings-->Advanced-->Quadro FX tab

Select "Additional Properties"

On the tab that opens on the left expand "Desktop management"

Select "Windows"

Check the top checkbox "Prevent windows from opening off-screen"

Select "Open windows on Analog Display 2 of 2" (Or 1 of 2, or any of the
other settings that you prefer)

Select "Reposition dialog boxes on Move to application display"

Apply all that and your windows will open up one monitor. It doesn't affect
DS in any way, other than the positive improvement that dialogue boxes open
up on one screen.

Adding a second Network Interface Card (NIC)

You can do this on some of the workstations. The example we have here is the xw8600:

I have used it for a direct link to an RP in the past by editing the "hosts" file found in C:\Windows\System32\drivers\etc\ on both machines, and adding the appropriate target machine's IP address to these files.

AND

Edit the C:\Windows\slp.conf file by adding the following at the bottom of the file:

```
;net.slp.isBroadcastOnly = true
```

(Thanks to Tom Edwards)

Revised: Jul 18, 2011 10:56 am

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The Old MajorDomo DS Discussion List

Some time ago, Avid had a discussion list using MajorDomo software for e-mail distribution. On January 25, 2006, the group was moved to Google Groups when the folks at Avid or Softimage wanted to free up a server. [There is an archive of the old list here](#). Be advised, if you are searching for an e-mail address, many of the e-mails revealed by MajorDomo have the @ symbol removed and changed to "at."

Output Frame Size:

When checked, images larger than sequence size (such as linked Photoshop files) are masked by the sequence window, revealing a sequence-sized

window to the clip and hiding outside areas. Deselect to view layers in their entirety in the viewer.

IMPORTANT NOTE: If Output Frame Size is deselected, you will be processing ALL of the pixels in the source clip instead of those just shown in the viewer.

REMEMBER NOT TO DO THIS unless you need pan and scan!

OMF Export

(Case Study)

DS version 7.6

I'm attempting to output an OMF of a film for an audio post house and I'm having troubles getting the files out whole. At this point I only have two tracks of audio (we are just cutting down a previous mix on our end) and I still can't get them out without them failing. I've tried isolating L and R and it still doesn't work. I've tried consolidating, not consolidating... Any other options besides breaking it up?

The film (1h 30min) was cut and audio was posted somewhere else. I made five cuts to the audio (more to the video but that's not relevant here). I cut the end off the timeline and moved it down five seconds. Our audio post guy will add in the music to fill the gap. Early on in the film I removed some time and put in some video to cover the edit. 5 total edits to the audio. When I attempt to output the OMF it corrupts with an error about checking my harddrive for enough space. It corrupts if I drop it on a new sequence and output. It corrupts if I output one audio track or both of them. If I remove all audio I can output an OMF with no audio (duh) but at least it outputs. If I delete all my audio and bring in the original full tracks (no cuts) and output, everything is fine (however nothing syncs obviously). If I output the original sequence without cuts it's fine. If I take off all DS generated effects (gain, tone etc) it still corrupts. There are no containers. There are no timewarps. Nothing but five cuts. If I cut it down to chunks, it corrupts.

Solution

If the audio tracks were originally imports from files, things get even wonkier. If you imported a 10 minute WAV file, and then made 10 edits in it (opening up gaps, or even cutting it down and only using 1 second pieces) when you go to make an OMF, DS will put 10 copies of the *entire* 10 minute clip in the OMF. This can send you over the 2GB limit in a hurry and result in a bunk OMF file.

Even if you manually consolidate the media by purging unused parts of the clip, it will just put dummy 'blank' audio in. You'd have to hand-consolidate by exporting each audio segment as individual files and then re-capture and replace the clips on your timeline.

If there are not a ton of edits, why not lay the original audio file off onto digital tape? Then capture the audio from tape and re-edit the audio clips from there. Then the OMF will only copy the parts of the clip (plus pads) to the file. There is a little manual labor involved in this, but it may be worth it in the end.

The good news (though not for you, immediately) is that OMF export was mostly re-written in either v8 or v8.4. I've made half a dozen OMFs out of v10 for ProTools houses and so far haven't had any complaints, and what used to create 300MB+ files for a couple of :30 spots are now more reasonably sized in the double-digits :)

7.6's OMF was a constant hair-puller.

(Thanks to Jason Russell, Bob Maple and Ed Fraticelli)

OMF Export with MXF

DS Version 10
(Case Study)

I want to output a MXF file for our audio guy, to accompany an OMF export but v10 doesn't have this file format; I couldn't find this in the output settings. Version 8.4 had it. This is a real PITA!

Avid removed "Output MXF" because they were too many scenarios were DS was generating MXF that Media composer would not understand. To achieve what you want you just need to create a MXF storage that is writable and have no purge option set. You can then output your timeline to Media Composer and you will create an MXF file that either MC or ProTools can understand.

(Thanks to Nathan Downing, Chris Hahn, Bob Maple and Jean-Marc Porchet)

Revised: May 1, 2009 11:09 am

Other DS Resource Pages on the DSWiki

[Arri Alexa](#)

[VCR Information](#)

[Useful Software](#)

[RED Cinema](#)

[Delivery Specifications](#)

[Wish Lists](#)

// Revised: Dec 21, 2011 3:37 pm

P

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[How to create ProRes Quicktime files on Windows](#)

Pan and Scan

Created by Michael, 03/2010

The hard way:

You can apply DVE to clips and use X translation to pan and scan.

The easy way:

Download custom DS Pan and Scan preset.

[PanScan.zip](#)

- [Details](#)
- [Download](#)
- 44 KB

Features:

- horizontal limits so you don't create illegal horizontal blanking
- support for MC Color for tactile control
- one-click installer
- simple and easy to use
- 1.33 guide charts and documentation included

Compatibility: Any DS version with expressions support.

P2 Files

(added 05.13.2007)

(Modified on 10.17.2007 with help from Scott Malkie)

Ok, so you're banging your head against a wall here...

Q: Can I get P2 shot at 720p/23.98 into DS?

A: Yes and no -- to work at 720p/23.98 you have to either do a custom sequence (but then you have no I/O), or you can drop it into a 1080p/23.98 sequence instead and render everything in order to play it (or since you have to go through MC first anyways, you could transcode it to 1080 there -- although I don't trust that Media Composer does a good job at scaling anything.)

Only v10.x + AJA can do 720p/23.98 with actual video display.

Importing P2 files into DS:

If it is a small amount of footage:

1. Use a Panasonic AJ-HD1400.

2. Set the deck to 720p/59.94.
3. Play it out of the camera via Firewire directly into the Panasonic AJ-HD1400. This will bring over Video, Audio, and Timecode.
4. Capture in the footage via HD-SDI into the DS Nitris as if it were any other tape source.

This has the bonus of getting all the material to tape so you lose the hassles of file-based backup and storage, however it is a real-time process and requires tape stock.

Keep in mind the above doesn't work for stuff shot 24pN (progressive native) - the camera won't spit that out the firewire port. It *does* work for any vari-speed and regular 24p.

For large amounts of footage or if you cannot procure the Panasonic AJ-HD1400:

1. Use MC software on a separate computer for ingest.
2. Set up a 720p project corresponding to the frame rate of acquisition and import the P2 footage.
3. Create an AFE of the bin where all the P2 files were imported. MediaLog works great for this, as do some versions of MC's "Export to Avid | DS" function.
4. Configure MXF storages on the DS, and simply copy the media from the MC computer's storage to the DS's storage.
5. Conform the AFE in the DS and, as long as you have "Use closest Media available" checked in your sequence preferences - the media should link up.

If you have an FCP suite with a Kona or Blackmagic card

1. Import the P2 into Final Cut, which will create timecoded Quicktime files.
2. Pull the selects in FCP and output directly out of the Kona or Blackmagic (via HD-SDI) into the DS.

You can even pull selects in Xpress Pro / MC soft and output back to the 1400 or 1700 via Firewire, then digitize just the selects into the DS via HD-SDI.

P2 Files in DS version 10

1. Log clips in MC (free with DS version 10)
2. Create AFE
3. Conform AFE in DS

DS v.10 doesn't work in P2 native space, but it links to them in real time and processing to .GEN is a lot faster than 1:1. DS v10.1 will play P2 MXF files without any processing required.

(Thanks to Tony Jover)

MC 3.5.4 using AMA / Consolidate / AFE export/import DS does not retain the source code from the

P2 media and has listed this as a bug to be fixed in future release.

Here is an Avid-developed "Jover" that is verified to work:

1. In MC / Disable AMA in the settings tab
2. Use the "Import P2" function to consolidate into bin
3. Export Bin to AFE
4. Load AFE into DS
5. Source TC now appears in clips in DS from P2 origination.

This is the similar workflow used with MC before AMA. Seems no one noticed that since AMA with MC the source TC was not being passed through the AFE file.

Case Study: Avid Media Composer v 4.05

Q: I was just doing my first P2 import into DS via MC and I noticed the "File>Import P2" no longer exists in MC as described in all the Avid documentation and tutorials (both Avid's and "Sexy" Bob Maple's). It appears to have been replaced by "File>Link to AMA volume" which seems to have worked... The help file that comes with this version of MC even says to use "File>Import P2."

Am I missing something?

A: If you turn off AMA in the Settings and restart MC, Import P2 will return.

However, you can just use AMA. The only caveat is that, at least with XDCAM, you must Consolidate your media onto your main drive before MC will let you transcode/export it for DS. If you don't you'll either get an error outright, or the media it makes won't always link back up once copied to DS.

Also since you're using MC 4, **make sure** if you're dropping everything in a sequence to send over to DS *that your sequence rate matches that of your footage*. For instance MC knows the difference between 1080p/29.97 and 1080i/59.94 and if your sequence is the latter and your footage the former, once it arrives in DS every clip will be in a 100% timewarp.

(Thanks to Daniel Birnbaum and "Sexy" Bob Maple)

If you have disabled AMA in the MC settings, make sure you close the program and re-open. The Import P2 function will be there then.

(Thanks to Steven Moore and Adam at Avid).

There is another workaround if you have to use AMA:

After linking AMA in MC Assign a reel number to all the Clips. You can highlight all the clips in a bin and modify them to assign them all the same reel number, or you can do it by cards. You will get a

warning that you are changing the reel number of an already linked clip and you may lose some aux TC associations. Disregard this warning and click ok to accept the new reel number. Then after you transcode and make an AFE, move the media to the DS and import the AFE into the DS, All the clips will have TC.

If you are using the included Media Composer Software you won't have to move anything, as your media will all ready be in DS storage.

(Thanks to Ron Heidt)

NB: The following is for HDV only

Follow the workflow described [On Avid's site](#)

1. Start a project in Avid Xpress Pro HD in HDV format.
2. Capture HDV media from Camera or Deck.
3. Create a sequence and edit.
4. Open a new project in the same frame rate but not HDV.
5. Open the HDV bin from first project.
6. Copy sequences and/or masterclips in a new bin.
7. Select sequences and/or masterclips.
8. In Bin menu select Consolidate/Transcode.
9. Select Transcode.
10. Transcode to DNxHD 145 or DNxHD 220.
11. Select audio conversion to MXF.

Insted of capturing HDV media on Avid Xpress Pro, you link to it. Then do the needed steps, transcode to DNxHD and audio in MXF. Then relink it with the standard AFE with DS.

Importing to Avid's Media Composer or MC Express

(added 11.15.2007 MH)

There is a very succinct tutorial on how to do an offline-online on the MC [On Avid's Website](#) for the Panasonic P2 camera. This is a file import, *not* a VCR playback capture. Also here is [Avid's official P2 Page](#) which covers getting P2 material into Media Composer.

(updated 05/05/2009 MH)

Case Study

(Thanks to David Friedman)

murf sent .mov files

my client also sent a test .mov file.

created 720p 59.94, mxf media project in xpress pro 5.8.0 macintosh, OS X 10.4.11

imported all .mov files ... no problem

took .avb file (avid bin) to media log 22.2.1 on DS station

created AFE of all clips (so i thought)

created project in xw8000 ds8.0 720p, 59.94, dnxhd 145

read afe. failed to see clips. back to medialog. made afe of 1 clip, back to ds. read & RELINKED no problem!

i assume if i make a SEQUENCE in xpress and afe that it should read all clips at once.

ISSUE: clips play poorly on computer screen (RED play arrow) but seem to play fine on b'cast monitor

Case Study PART 2.

Background: I was sent firewire hard drives with the p2 media in folders. Media was recorded w/ dvcprohd codec. My systems: DS Nitris 8.0 on an xw8000 and Xpress Pro 5.8 on a g5 Macintosh

process:

1. Attach supplied drive to mac
2. Run xpress pro
3. Make new project (in my case a 720p 59.94 using mxf media)
4. Since I had multiple folders on the drive i decided to make separate bins for each folder on the drive.
5. Go to File>Import p2>Clips to bin...
6. Navigate to the parent folder (not the 'content' folder)
7. System will scan & index the files and they will appear in your bin (the FILE NAMES ARE MEANINGLESS, but I was told NOT TO CHANGE THEM)
8. Select all of the clips
9. Go to bin>consolidate/transcode
10. Select the radio button for 'transcode'. Make sure the 'convert video'(and audio if needed) is checked and dnxhd 145 is selected from the drop down menu.
11. Save to the regular storage drive attached to the system, NOT the supplied drive! (This process takes a while depending on you system.)
12. Repeat with each folder. (I did separate ones to TRY and start organizing)

When done you can navigate the Avid storage to the `avid mediafiles/mxf/1` folder
You *can* rename the '1' folder to anything that's meaningful to you.

Back to your xpress pro bins.

1. Select all of the 'new.01' clips that should now be in the bin too (i sorted by start t/c but you can do whatever)
2. Drag all of the clips to the timeline and they will assemble themselves
3. Save your timeline (i put it in the same bin as the clips)
4. Select your timeline
5. Go to File>Send to>Avid|DS
6. Save your afe file to a nice place
7. Copy your '1' folder and your afe files(s) (i sneaker-netted a 3rd different hard drive) This takes a while (I had 350gb)
8. Navigate to your mxf folder for the project on your DS
9. Copy your '1' folder to the DS storage (this takes a while too)
10. Load and conform your .AFE file.

Importing material using the DVCPRO HD codec

DS will not import footage that was originally shot P2 where they were converted to "DVCPRO HD 1080p30" codec quicktimes or some variant of DVCPRO HD.

Windows will not play them, either. The solution is to get [DV Film's Raylight](#) and install that. DS will capture the files.

Importing media using Sony's PDZ-1 logs

(Added 02.03.2008 MH)

[Sony's free PDZ-1 software produces ALE files](#) that are not Avid|DS-Compatible. You have to adapt the resultant log file you create with the pdz-1 software by making two simple corrections in the ALE file itself:

1. Save your ALE file in the pdz-1 software to your desktop and right click on it. Click on "open with" and use **Notepad** as the software to view it.
2. Once open simply change two columns by typing over the existing column headings. The first is NAME type the heading SubClipTitle over it. Then type over SubClipTitle with the heading Name. *Apparently Sony has reversed the two.*
3. Now save your .ALE file and open Avid MediaLog. Create a project or use an existing one. Create a bin inside your project and import the .ALE file that you modified using Notepad. Now for reference open an .ALE file created by Avid Media Log in the MEDIALOG Drive on the network. The Columns must match up so compare the headings.

4. Click on each unnecessary heading starting with Subcliptitle and delete using the delete button. Continue until you have only the necessary headings: **Name, Creation Date, Duration, Drive, IN-OUT, Mark IN, Mark OUT, Audio, Tracks, Start, Tape, Video.**
5. Select all logs in your pdz1 bin and export the imported .ALE as a new .ALE file and save it. It is now converted to be used by the Avid!DS.

Special thanks to Michael Forrest who came up with this workflow

Further P2 importation is also covered in [this Avid Forum article](#).

Sony XDCamHD EX3 and DS

Case Study:

The Avid approved workflow is:

1. Use Sony Clip Browser v2 to Export "Avid AAF" of the selected clips
2. Use MC to open the AAF and MC will instantly 'see' the source
3. Use MC to transcode to MXF 1:1 or DNxHD
4. Export AFE from MC
5. Open AFE in DS and it will instantly link to the transcoded files (assuming the Avid mediafiles folder is mapped as a DS storage)

Now, for me, I had problems with steps 2 and 5 but didn't have time to find out why, so I changed the workflow to:

1. Use Sony Clip Browser v2 to Export "MXF for NLE" of the selected clips
2. Use MC to import the MXF files
3. Use MC to transcode to MXF 1:1 or DNxHD
4. Link to the transcoded files in DS (they play RT)

This second workflow worked but there is one HUGE caveat - *the audio and video clips are all separate*. So if you can get the approved workflow to work that's the way to go.

For those of you who want to capture SDI with timecode.

What you need to do is to plug the EX camera to an HD deck via SDI, set the TC Source on the deck to

"Video IN" (or SDI) and then patch the remote of the deck on the DS. When you capture live, DS will take the TC from the deck's remote.

You could even conform a timeline using the above method since DS will relink media to clips using TC and Tape name.

2 caveats:

- If there is a TC break, you need to stop the capture and start it again, else the TC will drift.
- So far it's not possible for the EX1 to output 24p over SDI. A firmware update is coming later in the 4th quarter of 2008.

Getting XDCAM and HDV into DS without using Media Composer

Note: Media Composer version 3 comes with DS version 10, so this case study is especially useful for those with older versions of DS.

Case Study by Timothy Duncan:

Here's a little tip for getting XDCamHD and HDV or any other file format that DS can't ingest natively captured into DS. This is for those who don't have access to Media Composer or a deck with HD-SDI, but do have a copy of Premiere or Vegas handy. These do NOT have to be installed on your DS workstation, but could instead be on a computer that is on your network.

Check out: [Frameserver](#)

This is a freeware plugin that is a "frameserver" which renders out a reference.avi which calls on the NLE to "frame serve" the files out to any application that can read AVIs. I've been using it for a few years now and thought I'd share.

From their website:

Debugmode FrameServer is a plugin which will allow NLEs to do FrameServing, Image Sequence export and AudioServing.

FrameServing and AudioServing are the techniques used to transfer audio/video data from one application to another without doing a full fledged render and temporary files. Debugmode FrameServer is a plugin for NLEs enabling them to export their timeline audio/video data outside so that other applications can use the timeline directly as input.

Another use of the Frameserver/Audioserver is to serve audio/video data to an application that does not understand the source format. If you have an NLE that can open .MOV files and your MPEG encoder can read only .AVI input files, you can open the .MOV file in your NLE and use Debugmode FrameServer to serve the a/v data to your MPEG encoder. This increases compatibility between applications.

Debugmode Frameserver can also export the video from your NLE as an Image sequence. Frames can be saved in lossless BMP, TIFF, PNG and high quality JPEG formats.

To get into DS, all you have to do is have Vegas or Premiere installed on a machine on your network, then install the frameserver plugin, and also on the DS install the frameserving application which puts an AVI reference file on the desktop to import. The source machine "serves" up the video via reference file over the network to the DS for import actually rendering frames on demand. Have clients coming in last minute with a DVD? Rip it with Vegas, then frame serve it to your DS or DS Assist.

You can also install Vegas on the DS. No worries or interference there that I have found. You can frame serve on the same machine if need be without doing it over the network. Speed is VERY fast.

If you have a DS V10, then you would have to use the 32bit DS software for ingest. (The Frameserver plugin doesn't work in 64 bit, even with the 64 bit version of Vegas).

I thought this might help someone in a pinch who might be on an older DS and stuck without access to the rest of the Avid software. Surely no one else has clients who spring wacky things on them last minute to add into projects. :0 If you don't archive your media from DS with the project (to tape or disc), then you can archive your 3rd party project files that were used to frame serve so that you can get back to the media later when clients suddenly want a revision, the day after you archived and purged.

Unfortunately, this plugin doesn't work to export directly from AE. However, if you have the Adobe Suite, you can do a dynamic link from AE into Premiere, then frame serve from Premiere. (Provided Adobe doesn't blow up and crash running out of RAM). So if there were last minute changes to an AE source, you wouldn't have to wait for AE to render to file, then ingest, but instead to could do it all on one sweep.

(added 02.25.2008)

1. If you have access to a version of xpress pro or mc or symphony, put all the stills onto a removable drive (firewire, usb or whatever).
2. Open the sequence in the Avid product. Go to batch import. Select all. When the Avid complains it can't find one, redirect it to the removable drive. Say OK or whatever. Now the sequence will think that is where all the stills are.
3. Make your AFE from that sequence. Plug the removable into your DS, making sure it has the same drive letter and name.
4. DS should find your stills.

Special thanks to Jef Huey for this workflow

Note: If you are working in a facility where you share a server and that server has the same drive letter throughout your facility, that shared drive may be used instead of the removable drive.

Tony Jover's workflow (includes linking):

1. Conform AFE.
2. Try to capture Timeline and note where DS/MC 'expects' the files to be
3. Create a UNC path as per #2 and put the files there
4. Capture.

Slightly different workflow if you want to **link** to the files:

1. Conform AFE.
2. Try to capture Timeline and note where DS/MC 'expects' the files to be
3. Create a UNC path as per #2 and put the files there
4. select "Create linked clips for file sources"
5. Repeat step 1, but deselect "Create master clips" because step 1 already did that.

Using Media Composer-Adrenaline to go from 720p 23.98 DVCPROHD to 1080 23.98 HDCam

Case Study per Steve Hoppe (added 06.05.2008 MH)

I could not get the transcoded 1080 media to work. Within the MCA the transcoded media said it is 1080 24p but in the DS the media showed up with a green line through it.

So my workflow was:

1. Final sequence in MCA using 720 23.98 DVCPROHD Codec.
2. Transcode & consolidate to 1:1 MXF
3. Create AFE
4. Configure & index consolidated media (on a Unity)
5. Conform AFE in a 1080 23.98Psf sequence.
6. Add a DVE Effect to every clip
7. Render timeline Potential real time effect (yellow) Guarantee real time effect (green) and complete options selected. Let run Overnight
8. Color correct & output.
9. never work this way again.

Avid recommends the use of [DVFilm's Raylight MXFX](#) until they come up with their own solution.

PHOTOSHOP FILES

IMPORT PHOTOSHOP FILES. Build graphic on transparent background in Photoshop to DS. Save as tiff. Save-as a copy with no layers. Choose **Save Transparency** in the pop up dialog and you are done. Import to DS as graphic with premultiplied alpha and have a look at those nice edges.

Adobe's Photoshop

(added 07.19.2007 MH)

If you are working with Photoshop CS1 or CS2, there are pre-defined presets for working with standard video.

In the menu, pull down File>New... and then in the resulting box, choose Film/Video from the Presets, then choose the one that relates to what you are using from the following list:

- NTSC DV
- NTSC DV Widescreen
- NTSC D1
- NTSC D1 Widescreen
- NTSC D! Square Pixel
- NTSC D1 Widescreen Square Pixel
- PAL D1/DV
- PAL D1/DV Widescreen
- PAL D1/DV Square Pixel
- PAL D1/DV Widescreen Square Pixel

- HDV/HDTV 720p 29.97
- HDV 1080p 29.97
- DVCPProHD 720p 29.97
- DVCPProHD 1080p 29.97
- HDTV 1080p 29.97

- Cineon Half
- Cineon Full
- Film (2K)
- Film (4K)

The settings that are correct for NTSC are 720x486 / 0.9 Pixel Aspect Ratio
The settings that are correct for PAL are 720x576 / 1.07 Pixel Aspect Ratio.

Playing Back with DS without skipped frames

When you use the L key (J, K, L) or the up arrow key, the Avid DS timeline plays but the viewer and output sometimes starts to stutter and skip frames. What's going on?

Avid DS supports two different playback modes: one that is synchronized and guaranteed, and one that is variable but not synchronized.

To enable a guaranteed playback of the timeline and output to the preview monitor without stuttering, you must either click the play icon or press the space bar on the keyboard.

In this mode, the play icon highlights :

The green color indicates that it reads all images in real-time, otherwise dropped frames would immediately be notified to the user by turning the icon red.

If you instead press the L or the up arrow key, the play icon remains gray and instead it is the forward icon that highlights itself.

In this mode, the playback is not synchronized and not guaranteed. This icon also has no color code to alert the user of possible dropped or skipped frames. It is a mode that initiates a faster playback start to accelerate edits decisions.

Obviously, you cannot safely crash record to a tape deck in the variable-speed mode because potential skipped frames will also be recorded this way and without any notifications.

By default, all deck controlled output to tape use the synchronized playback mode. If a frame is dropped, Avid DS will stop the output and reinsert to the dropped area of the timeline. If the application is unable to continue past three attempts, the problem is notified to the user.

PLAYING DS PONG

Select any master clip in a sequence, right-click it and select "Properties" and rename it to "Hey, let's play DS Pong" (precisely as shown, without the quotes).

Click and drag the green paddle to play.

To end, R-click in the timeline and select “Quit DS Pong”

How to make a key using the Primatte Plugin

[Primatte](#) is a particularly useful keyer for green screen work but there is a workflow that you have to get used to.

To use it as a clip effect:

1. Place effect on clip
2. Sample background color
3. Change Primate or DS so you are looking at the alpha.
4. Clean up background by sampling.
5. Clean up foreground / white matte by sampling
6. Turn on matte and slightly blur and shrink.
7. Change from seeing alpha to seeing composite image being keyed and background shot.

If you don't set up your key over a background shot, you will see the area that should be background turn pink or cyan.

If you are using Primatte as a tree effect you need to use a composite node keyed object into Input 2, background object into Input 1

PROCESSING

If you **process minimal** you will have **one cache file**.

If you **process complete**, you will have **one cache file per track** (outside the compositing container) **plus the sum of them**, and inside the compositing container you will have one cache of each layer plus the sum cache.

All this can be changed manually if you add a cache effect after the first effect. In this case the first effect will not be re-done but the second pass will actually consider the first render and create a new cache file modifying the first cache file.

The result though, in all these cases, will only be one cache file, the sum of all renders.

To **eliminate all caches except whatever is actually required to play the sequence** (dump all the earlier processing because you don't want to go back, just tidy up the media drives), **Apply a cache bar, right-click it, and select "Purge Below"**. This will delete any caches "below" the topmost one.

PROJECTS

RENAMING A PROJECT

Use Windows to navigate to the Projects folder, and simply rename the project folder.

The DS Project Mover

The DS Project Mover is a little application written by the Support Team to help users avoid messing with projects and media at the OS level because it's hugely dangerous if you get it wrong. All versions of this utility perform their tasks **as long as it manages the content locally**. Performing remote operations are indeed not working (as of DS v 10.3). So if you need to remove empty GUIDs or move projects and related media, these options only work as long as they are local to the system.

If you try to move Unity-based media, for example, that won't work.

It is available on the [Avid Support Website](#).

There is **one** option to search for empty folders and individually or globally delete them. That was to replace the Directory Cleaner tool (but Sylvain brought it back in recent releases because a few users liked it better for its simplicity). Project Mover will delete empty folder(s) **only** if you also select the "Show Guid Path" option, probably because it sees the full path instead of just the Guid name. If you don't select the "Show GUID Path" option it will list the selected empty folders as "missing" after you click the trash icon. With the "Show Guid Path" option, the status will change to "Deleted" and the folders are indeed removed from the defined audio and video storages.

Please note:

The Winzip Extractor is truncated to C:\Program Files\Avid\DS_v and **it is up to you to complete the setup path to match the version of DS that you use, otherwise it will copy files in a bogus DS_v folder.**

When you are moving media and/or projects the process will be much faster if you move them into an un-indexed folder **on the same drive**. That way the only thing that gets written and deleted is the FAT

entry and the files themselves are left alone.

(Thanks to Sylvain Labrosse and Jef Huey)

List all DS Projects

DS Project Manager does not allow saving of the projects list to a file. In order to create a text file of all local DS projects you can navigate to the DS Projects directory in command line and execute:

```
dir > list.txt
```

or use this small batch file

[DS_listprojects.bat](#)

- [Details](#)
- [Download](#)
- 1 KB

that saves projects lists for DS 10.x and above onto your desktop.

Pro Tools

(added 01/03/2008 thanks to Jonathan at NT Audio)

Pro Tools 5.1 and above is compatible with OMF's from DS at any frame rate the raster makes no difference as to how Pro Tools will sync. Pro Tools 5.1 added the 23.976 frame rate.

They will need the Digitranslator option (if they don't have that then they probably should not be in post) which allows them to import AAF and OMFi

If your Pro Tools house uses the **Avid MOJO** option for Pro Tools, then you will need to give them an MXF video at SD resolution at what ever the frame rate is that you are working in.

If your Pro Tools house is not using a MOJO with Pro Tools then you can give them Quick Time along with the audio OMF.

Some Pro Tools artists will insist that you export your individual tracks as WAV's. Mono tracks go out as mono WAV's, stereo tracks, stereo WAV's, etc. According to Jonathan this is not a requirement but it may make them feel better.

Revised: Feb 3, 2014 5:08 pm

Paint Yourself Out of a Corner

The following was taken from [Tristan Le Rudulier's](#) NAB 2005 presentation. The original pdf can be found here: [Paint Yourself Out of a Corner](#).

//

DS Plug-ins

Here are links to 3rd party plug-ins that work with the DS. [Avid](#) and the [DS Support site](#) also have information regarding plug-ins. (added 5.08.07)

A note about version 10:

Any AVX 1.0 plug-ins will work in v10.0.

Tinder works (as does Anvil, Keylight and Furnace), although the new versions might not be on their public website yet. Boris works, but it must be BCC1 AVX1. Sapphire works, and it must be the DS AVX1 version.

SDK specific plug-ins required a recompile and will need to be upgraded. Foundry plugins must be upgraded and you will have to purchase a new license for the upgrade.

[Boris: \(AVX1\)](#)

BCC (Continuum Effects)

Red (Compositing) Works poorly as a plug, but can be used standalone

Blue (3D) Works poorly if at all as a plug, but can be used standalone

[Digital Film Tools \(AVX1\) NOT 64 Bit DS](#)

55mm (optical filters)

Digital Film Lab (film looks)

Composite Suite (compositing!!)

zMatte (Chromakeyer)

[Foundry \(all using the Softimage SDK\):](#)

Supported on DS v10 as of 1st Sep 2008

Anvil (colourist tools)

Tinder (vfx)

Furnace (Steadiness (stabilizer) and Kronos (FluidMotion)) (**note 3.12.08: reported to not work properly on 9300 DS v8.x with XP64**)

Keylight 2 (Chromakeyer)

[Genarts: \(AVX1, 32bit and 64bit\)](#)

Supported on DS v10 as of 1st Sep 2008

Sapphire Plug-ins (many lighting effects, stylize, blurs, textures, etc.)

Re: Sapphire version 1 effects.

GenArts just announced they will no longer support v1 for Avid since development has long since stopped. Version 2 support will end in the not too distant future as v3 has been out for a while.

But DS 7.6 is the last version of DS that will work with Sapphire v.1 effects. DS 8.x and 10.x do not support v.1. (*See Jef's note below*) Sapphire 3 and 2 can co-exist and can be installed on any DS higher than v8 for people who are trying to support those plugins in a conform. For the latest information about these plugins please see [Genarts website](#). Version 3 will promote v2 effects, so it'll handle v2 happily - it'll also co-exist with v2 if required for even better compatibility.

Jef further reports: We have Sapphire v1 and v2 loaded on all our DS ver 8.4 systems and they work just fine. We did this with Genarts blessing. We keep v1 around because a lot of our "budget minded" clients still use Sapphire v1 only. Sapphire 2 does not understand Sapphire 1 effects in a conform. Genarts cannot generate a truly permanent license for v1, so we cannot just let it sit there. Don't really understand why.

(Thanks to Jef Huey, Sean Stall and Tony Jover)

[Photron/Imagica \(using the Softimage SDK\):](#)

Supported on DS v10 as of 1st Sep 2008

[Primatte's price list \(in PDF format\)](#)

Primatte (Chromakeyer)

[Primatte workflow here](#)

[Speed Six \(all using the Softimage SDK\):](#)

Supported on DS v10 as of 1st Sep 2008

Monsters (vfx)

Raptors (Fluidz - Fire, liquid etc, Lenz - Crash zoom, Rack defocus, Lens correct etc, Speedo - Fluid

Motion slomo, Trailz - well, er, trails)

[3prong \(AVX\)](#)

Not sure how many (if any) of these are still AVX1 - so may not work on DS.

[Imagineer Systems](#)

Mocha Tracking Station (planar tracking)

Imagineer makes a number of useful applications, but Mocha's .frw interaction with the DS makes it a halfway-plug-in for the DS.

[Tone's step-by-step DS to Mocha to DS tutorial](#)

[Imagineer's export to DS tutorial](#)

Revised: Jul 17, 2009 12:06 pm

DS Presets 3D-Stereo

Type in description here. (added 5.09.07)

v10.x.x

- Stereo without Stereocontainer > Anaglyph (red,cyan), SidebySide, OverUnder , Interaxial Separation, Vertical Align, Zoom, Rotation, Crop...

by Michael Radeck - Munich, Germany

[StereoAnaglyph-SbS-OvrUndr-DVE-Composite.Preset](#)

- [Details](#)
- [Download](#)
- 98 KB

- Demux Side by Side:

[demux-fromSbS2full-left.Preset](#)

- [Details](#)
- [Download](#)
- 23 KB

;

[demux-fromSbS2full-right.Preset](#)

- [Details](#)
- [Download](#)
- 23 KB

- Demux Over-Under (Top-Bottom)

[demux-fromTopBottom2full-left.Preset](#)

- [Details](#)
- [Download](#)
- 23 KB

;

[demux-fromTopBottom2full-right.Preset](#)

- [Details](#)
- [Download](#)
- 23 KB

- full with SbS and T-B demuxer

[StereoAnaglyph-SbS-OvrUndr-DVE-Composite-dm.Preset](#)

- [Details](#)
- [Download](#)

- 110 KB

optional demuxer
// Revised: Jan 21, 2011 4:49 pm

DS Presets AUDIO

Revised: Jun 9, 2008 8:03 pm

AUDIO

v8.x.x

[Jef Huey Constant Power Audio Dissolve](#)

// Revised: Jun 9, 2008 8:03 pm

DS Presets DSv10 Tutorial Presets page

(revised: Nov 12, 2008 4:56 pm)

Presets for DS v10 Tutorials:

Tony Jover

[Tony Jover "Mosaic" Preset](#)

[Tony Jover "Quesy" Preset](#)

Igor Ridanovic

[Igor Ridanovic "Audio Meters" Preset](#)

[Igor Ridanovic "Chirpy Sounds" Preset](#)

[Igor Ridanovic "Delay" Preset](#)

[Igor Ridanovic "Earthquake" Preset](#)

[Igor Ridanovic "Glow" Preset](#)

[Igor Ridanovic "Glow Blur" Preset](#)

[Igor Ridanovic "Matte CC" Preset](#)

[Igor Ridanovic "Rack Focus" Preset](#)

[Igor Ridanovic "Radar" Preset](#)

[Igor Ridanovic "Simple Sine Wave" Preset](#)

[Igor Ridanovic "Sine Wave" Preset](#)

Revised: Nov 12, 2008 4:56 pm

DS Presets KEYING

(revised: Apr 23, 2010 6:43 am)

KEYING

v7.x.x

[Tony Jover's NAB 2004 CC and Chroma Key Presentation w/Presets](#)

[Igor Boros Light Wrap Preset](#)

[Igor Boros Light Wrap Text](#)

[Brian Bearg Matte Expand Effects Tree small 7.6](#)

[BrianBearg Matte Expand Effects Tree BIG 7.6](#)

3D Metallic Type presets

[Brian Bearg's Blue Metal look](#)

[Brian Bearg's Gold Metal Text](#)

[Brian Bearg's Hyundai Metal Text](#)

[Brian Bearg's Metal Text](#)

v8.x.x

[Declan MacErlane Expanded Matte for white or colored border surround](#)

[Igor Ridanovic's rotoscope glow preset](#)

v10.x.x

[Tony Jover's 3D DVE Title with shadow](#)

// Revised: Apr 23, 2010 6:43 am

DS Presets LOOKS page

(revised: Apr 23, 2014 11:52 am)

LOOKS:

v7.x.x

[Tony Jover Bleach Skipped Reversal](#)

[Tony Jover Bleach Bypass](#)

[Tony Jover Bleach Tree](#)

[Knut Helgeland Bleach Tree](#)

[Benoit Melancon Simple Glare Preset](#)

[Benoit Melancon Simple Glare Text](#)

[Marcus Buckman Sapphire Diamondvision ****Needs Sapphire to run****](#)

[Victor Wolansky Tinder Day for Night](#)

Don't have Tinder?

1. Decrease contrast
2. Decrease overall level
3. Desaturate
4. Push midtones towards blue

[Kevin Johnson 7.5 Tinder Sapphire Projected Film Look](#)

v8.x.x

[Tony Jover Bleach Bypass Quick HWRT](#)

[Adam Sondej Silvery](#)

[Jay Hunt's Track Add Blend Mode effect](#)

v10.x.x

[Realtime Power Window Preset for color correction](#)

[Realtime Power Window version 1.1 Preset for color correction](#)

Igor Ridanovic writes: The only drawback is that to control the two color correctors you have to expand the tree in this preset.

Version 1.1 contains a circle as a default shape but you could make any number of basic shapes presets for most common situations. It's also very quick to redraw the object inside the matte operator. Make sure to render the cache to get the near RT playback. Igor and the editor of this Wiki does not know who put together this preset.

v11.x

[Instacrap Old Snapshot Look](#)

// Revised: Apr 23, 2014 11:52 am

DS Presets SPECIAL FX

Revised: Dec 1, 2011 2:21 pm

SPECIAL FX

v7.x.x

[Tony Jover Glassy Text](#)

[Tony Jover Reflection](#)

[Tony Jover Flip 2 Shots](#)

[Benoit Lauzon CC Beam](#)

[Neil Stuart Film Melt](#)

[Mark Hollis 3D Cylinder](#) (added 1.25.07)

[Mark Hollis Page Turn 3D](#) (added 1.25.07)

[Mark Hollis 3D Cube for v7.5](#) (added 10.10.07)

[Scott Roy Sapphire Glint Free](#)

[Brian Bearg "crappy" weave transition zipped 7.6](#)

[Brian Bearg Scannerly Glowly Fun \(requires Sapphire\) 7.6](#)

[Brian Bearg Glass Square Box Animated Preset](#)

[Brian Bearg Glass Circle Animated Preset](#)

[Brian Bearg Glass Box Full Animated Preset](#)

[Jason Russell's TV Wall](#)

[Jason Russell's Single TV Wall](#)

[Brian Bearg's shiny bulging glow text effect](#)

[Brian Bearg's Text with a background scan-line glint](#)

[Brian Bearg's NBC 3D Text Title](#)

[Brian Bearg's Hyundai metallic text](#)

[Brian Bearg's text pulsator preset](#)

v8.x.x

[Tone's Variable Face Mosaic](#) (added 4.9.07)

[Tone's 3D DVE NTSC Cube for v8.4](#) (added 10.10.07)

[Tone's 3D DVE 16:9 PAL Cube for v8.4](#) (added 10.11.07)

[Sean Stall's cube that puts itself together for v8.4](#) (added 01.22.2008)

Create a 3D DVE node in an effects tree. Load this preset from the property page of that node. Press A to add inputs to the 3D node. Feed each input with numbers 1 through 6 of the dice sides you've created. Select a side within the 3D DVE and change the input to fill that side.

[Benoit Melancon NTSC Circular ripple](#) (added 4.16.07)

A circular pond-like ripple that can be tweaked with expressions.

[Carlos Robles Flash Glow](#) (added 4.30.07)

A flash to use as a quick transition. [Carlos Robles Flash Glow as a transition effect](#) (added 5.02.07)

Same preset as above in a transition effect form.

[Mark Hollis Top to Bottom push with blur transition](#)

[Mark Hollis Left to Right push with blur transition](#)

[Paul Hessel "wiggling DVE" the simple version](#)

[Paul Hessel "wiggling DVE" the complex version](#)

Instructions for making DVE wiggle:

1. Apply a CC to a long black clip
2. Turn on Autokey
3. Press Play
4. Wiggle the brightness control up and down.
5. Open the Animation Editor and copy the Brightness curve
6. Paste that curve onto a DVE X position and scale in X (you'll also need to lower the whole curve to centre around zero, and also probably scale it in Y)
7. Paste the curve onto a DVE Y position and scale differently in X (you'll also need to lower the whole curve to centre around zero, and also probably scale it in Y)
8. Cycle the above curves

Sean Stall's Ripped Paper Mattes (use for torn headline look):

[Sean Stall's Ripped Paper Matte A](#)

[Sean Stall's Ripped Paper Matte B](#)

[Sean Stall's Ripped Paper Matte C](#)

[Sean Stall's Ripped Paper Matte D](#)

[Sean Stall's Ripped Paper Matte E](#)

[Sean Stall's Ripped Paper Matte F](#)

[Sean Stall's Ripped Paper Matte G](#)

DS Version 10

[Tony Jover's Mosaic preset that utilizes the new Node Builder function](#)

[Tony Jover's "Queasy" preset that utilizes the new Node Builder function](#)

[Igor Ridanovic's Glow-Blur transition Please rename the file without the ".txt extension](#)

[Igor Ridanovic's Earthquake Please rename the file without the ".txt extension](#)

[Clever Cropper for use with pan and scan](#)

DS Version 10.3

[Bob Maple's Inner Drop Shadow \(DS 10.3+\)](#)

[Tony Jover's RGB Split preset for "bad TV" offset guns](#)

[Tony Jover's DVE for the RGB Split preset for "bad TV" offset guns](#)

[ScottLockwoods_CheapO_Suffire_Lens_Flare_1.Preset](#)

- [Details](#)
- [Download](#)
- 155 KB

Des Murray's 80's style Sparkle trail DVEs:

[sparkle_trail_DVE.Preset](#)

- [Details](#)
- [Download](#)
- 109 KB

[sparkle_trail_DVE_no_sapphire.Preset](#)

- [Details](#)
- [Download](#)
- 2 MB

// Revised: Dec 1, 2011 2:21 pm

If you want to research more content about real estate mentors then visit [Freedom Mentor](#).

DS Presets UTILITIES

Revised: Feb 3, 2014 4:56 pm

UTILITIES

v7.x.x

[Tony Jover DS PAL Safe Areas](#)

[Todd Iorio Canvas Size 200%](#)

[Graydon Wagner multi cam tree 7.6](#)

[VIPER10BIT.LUT](#)

(NOTE: The Panalog LUT is available directly from Panavision. Contact your local office or call their HQ in Woodland Hills, California: +1.818.316.1000. **(Bill Admans to List 05.18.2007)**)

v8.x.x

[Joe Crewe's excellent timer for doing countdowns and other timer effects on the DS. Contains instructions and presets](#)

v10.x.x

Bob Maple's [Aspect Ratio Cropper](#) - Ask never again "how many lines on the top and bottom do I need to crop to make an XXX-to-1 ratio?"

Igor Ridanovic's [Pan and Scan](#)

// Revised: Feb 3, 2014 4:56 pm

Q

Contents

[Quicktime Codecs](#)

- [Apple ProRes Decoder for Windows \(a warning\)](#)
- [Error Selecting Codec](#)
- [Exporting to h.264](#)
- [Importing more than two audio channels](#)

[Which Quicktime Version should I use with which DS?](#)

Quicktime Codecs

(added 01.29.2008 courtesy Marianna Montague)

The latest and greatest DNxHD QuickTime codecs are posted on the [new Avid Knowledge Base](#). In this new set, you will find the DNxHD QuickTime codec which now support alpha channel export from a third party application such as Adobe After Effects.

Avid DS Reference codecs (for installing on other workstations) are available for v8.4 [here](#) or are available on the DS v10.x installer DVD in both 32 and 64-bit versions.

Note

There is currently a bug in Media Composer that cause imported Quicktime files in a 10bit sequence to generate a 10bit video file and an 8 bit alpha file. Because the video and alpha have a bit depth mismatch *these files will cause errors if a project containing these files are conformed in DS.*

So if you plan to do the finishing in DS and plan to relink to the media captured in media composer beware of capturing Quicktime movie in a 10 bit MC sequence. This happens regardless of which codec is used in the Quicktime file as long as the codec support alpha and as far as we know this won't happen with other file formats such as AVI.

(This information was added 01.30.2008 per Jean Marc Porchet and will be updated as soon as Avid fixes the problem.)

Note

As of 02.02.2008, Avid has tested the 10bit DNX-HD codec with 10bit alpha when imported in MC it correctly generarte a 10bit alpha in MC so it will conform correctly in DS. *Of course this does not solve the problem if the quicktime is for example a plain RGBA 8bit quicktime file.*

For clips larger than D1 that need to keep the entire image size **use the link file import** option. The entire file will be loaded into RAM the first time it appears in a time line. Use to **pan/scan big files**. This will create D1 media when you process.

NB: For Avid DS 8.4 you can no longer Link to Quicktime files due to an incompatibility in the QuickTime audio stream encoding. This flaw is causing application errors (crashes). All QuickTime files must now be captured in order to be used safely in Avid DS version 8.4. Avid DS version 10 fixes this.

Apple ProRes decoder for Windows (a warning)

Apple ProRes decoder for windows induces a small gamma shift when you import a ProRes Quicktime using Graphics. If you import as Video levels, *levels are even more wrong*.

Even if you use Quicktime on your DS to export to image sequence, the shift will be there.

This was tested on DS 7.6 Equinox with QT 7.3 and ProRes 1.0.

Exporting an image sequence on a Mac gives the right levels.

(thanks to Annaël Beauchemin)

The "Gamma Shift" occurs all of the time

The Gamma Shift occurs on all YUV codecs, like h264, Blackmagic, Motion-JPEG, Photo-JPEG and also on the ProRes

As a workaround, I've found that these values in for example a "Color Correction Classic" (DS Version 10) restore the gamma shift" close to normal:

h264 = gamma 0.73

M-JPEG, Photo-JPEG = 0.82

Error Selecting Codec

If you do not have the DSComserver appropriately installed, you may get this error. A reinstallation of

that server in DS Version 10.1.2 is usually required after you have installed DS in order to get proper exports.

h.264 Quicktime Export issues

So, you are trying to export h.264 from your DS and it fails. One solution is to export without a codec or with a codec that works, then use Quicktime Pro to transcode the file. But that's not elegant.

If you uncheck both boxes relating to frames, it will export.

Multipass encoding and smaller files

DS may not be set up to do multipass encoding, or it may be set up only to do Constant Bit Rate (CBR) encoding, which cannot take advantage of multipass advantages.

In multipass encoding, The video encoder analyzes the video many times from the beginning to the end before the actual encoding process. While scanning the file, the encoder writes information about the original video to its own log file and uses that log to determine the best possible way to fit the video within the bitrate limits user has set for the encoding process.

The best way to understand why this is used is to think of a movie - when there are shots that are totally, absolutely black, like scene changes, normal 1-pass CBR encoding uses the exact same amount of data to that part as it uses for complex action scene. But by using VBR and multi-pass, encoder "knows" that this piece is OK with lower bitrate and that bitrate can be then used for more complex scenes, thus creating better quality for those scenes that require more bitrate.

The end result is a smaller file.

Apple's Quicktime Pro will do multipass encoding.

(Case Study)

This is on a xw8600, running DS10.1.2 and Quicktime 7.4.5.

This was a 20sec spot and the file directly exported from the DS measured 105MB of course then with uncompressed audio.

Exporting a ref from the DS and opening that in QT 7.4.5. and doing a h264 from Quicktime Pro resulted in a file that was 36MB. A huge difference and the uncompressed audio can maybe be responsible for 4-5MB of that difference, but not more.

And I can't see any particular quality differences when looking at the final files.

Both encodings used the "Best" setting.

(Thanks to Mike)

(Thanks to Tom D. Shannon Dunn and M Badertscher)

Importing more than two tracks of audio

Just tried to link/capture a QT with 4 tracks of audio. Video captures just fine, audio fails. Movie inspector shows *2 x 24-bit integer (Little Endian), Stereo, 48.000 kHz* for audio tracks (four channels of audio). DS Version 7.6 can capture this but Version 10 cannot.

Linking the QT-file/files on the other hand, seem to bring in audio, at least from some files. But gives peculiar results.

Linking a Motion JPEG-A QT-file with 4 separate mono-tracks (which definitely contains audio) looks right when you check the DS file properties, but when it's sent down to the timeline, it creates 16, yes SIXTEEN mono tracks, but/and all are silent.

Another example file, this time an HD ProRes file containing ONE stereo-soundtrack and TWO mono-soundtracks also looks okey when it comes to file properties, but when sent down the timeline creates THREE stereotracks and 2 x THREE mono.tracks., ie, NINE audio tracks all in all.

This time all the audio tracks contain audio, but it looks like it's the FIRST soundtracks stereo-pair that's been distributed to all the nine audiotracks. The two mono-tracks should have contained separate dialogue and. narration but the linked file audio only contains mixed audio.

So it looks like when linking a file, the number of audiotracks created in the timeline is

“Number of DS Audiotracks” = “Actual QT file soundtracks” x “Actual QT file soundtracks”

Which version can I use?

For **Avid DS v10.3**, you can use Quicktime v7.6 or greater. To capture and link to any QuickTime files, you must have QuickTime v7.6 or greater. Other QuickTime enhancements include:

- Avid DS supports capture and linking to QuickTime files (v7.6 or higher).
- Improved support for timecode matching.
- Now supports the Cineform QuickTime codec (16-bit).

For Avid DS 10.0, Apple [QuickTime 7.4.5](#) can be used (7.5+ is not yet qualified). You need this version of Quicktime to extract RED audio files correctly.

To guarantee proper import and export in Avid DS, open the Apple QuickTime Player. Under Edit > Preferences > QuickTime Preferences...

- select the **Advanced** tab:
- Under Video, enable "Safe mode (GDI only)".
- Under Media Encoding, select "Enable encoding using legacy codecs" (whenever required).
- In the QuickTime export options dialog, the key frame options should be deselected.

In the Avid DS Output Tool, the QuickTime export options dialog may open behind the Avid DS interface. When this happens, it appears as if the application is no longer responding. Select the QuickTime export options dialog in the Windows Task bar to raise it above the Avid DS application. This is a 64-bit limitation only.

You can now export Quicktime Reference files, but only in DS 10.1.1 in 64-bit. If you must have Quicktime Reference files, you have to use 32-bit Avid DS software from versions 8.0 through 10.1.0.

For Avid DS 8.4, Apple [QuickTime 7.1.x](#) can be used except that *you can no longer Link to these files due to an incompatibility in the QuickTime audio stream encoding*. This flaw is causing application errors (crashes). **All QuickTime files must now be imported in order to be used safely in Avid DS.**

For Avid DS 8.0, Avid recommends [QuickTime 7.0.4](#) up to QFE 2a. Since the QFE 3 release, Apple [QuickTime 7.1.x](#) is now qualified. Due to the above QuickTime audio issue, Avid recommends you import QuickTime files instead of linking.

For Avid DS 7.6 and all releases prior to 7.x, Avid recommends [QuickTime 6.5.2](#) only. *Don't use Apple Quicktime 7.2 for any version of DS.*

So if you have Avid DS version 5.x, 4, 2, 1 and 7.1, use Quicktime 6.5.2.

Tip: Create a subfolder with in the project folder called Linked Files. This folder will then be archived with the rest of the project. (Archived to Disk) **Note:** This can cause issues, particularly truncated AVI captures. It's a pain that it causes issues because it's a convenient workflow. Philippe's clever [Archive Backup tool](#) can also copy all linked file sources, so a convenient workflow can therefore be to put your source files anywhere you like, use Archive Backup to back them up when the project's finished with,

then delete the original folder.

Quicktime issue *it's all about where the file resides.*

Do **not** place Quicktime files in your project folder. If you do, you will get the following error:

No Quicktime file should be in an indexed folder otherwise it may prevent its capture in DS. Place your Quicktime files elsewhere.

For more information about Quicktime, please see our [information on file capture](#)

Revised: Aug 23, 2010 9:17 am

R

Contents

[Recapture from Timeline](#)

[Reference Clips](#)

[Remote Processing](#)

- [Troubleshooting your RP](#)

[How to Rename a Project](#)

[Reverse Match Frame \(added in version 7.5\)](#)

Recapture from Timeline

When you do a recapture from timeline or selection there is no way to tell DS to find only the missing media and recapture those only.

The way to bypass pressing the cancel button zillion times is to:

1. Go into the timeline and deactivate the clips that come from files.
2. Capture from timeline only the active material.

Unfortunately to deactivate this material will take some time but at least if you have to go and capture from timeline multiple times this process will save you some time.

It is easy to bypass recapture of stills without clicking Cancel multiple times. In your User Preferences on the Capture tab, click **Display Recapture List**. This will pull up a list of sources and clips the system wants to recapture. Double-click the File-sourced clips to deselect and the system won't go out looking for them. Unfortunately, you have to click-through all the file sources before you actually get to the list.

The DS List is hoping for a resolution to this problem in an upcoming release (perhaps version 9.0).

Recapture with material not all ready captured

One of the items on the [DS Wish List](#) is to allow us to recapture material with channels not originally associated with that media, the most common of which is to recapture audio channels when originally one only captured video.

Here is the workaround:

1. Put all the clips to be recapture on a timeline,
2. Export an EDL of that timeline,
3. Modify the EDL to add audio in EDL manager,
4. Re-import the EDL asking to create clips,
5. Recapture those new clips.

Recapture With Options

A best practice case study

Note to self: Tracks not active in the timeline *will not capture* during "recapture timeline selection."

Use:

1. "Recapture Entire Timeline with Options"
2. Then deselect: "Recapture Only Active Material"

I always use the "...with Options" selections so that I can know exactly what the DS is doing when capturing.

(Thanks to John Heiser and Spencer)

REFERENCE CLIPS

Convert to reference clips, saves it as a sequence—you can add effects, etc, and every time you use it or modify it, the changes will appear in every instance of the clip in every sequence.

REMOTE PROCESSING

Start the RP before starting the DS.

NOTE: If you forget, and start DS before the RP, then you'll have to reboot the DS platform to get it to "find" the RP automatically. It only looks for it once - the first time it starts up.

Processing an individual clip: R-click on the clip, and select "Add Cache and

Process”. Select the RPS in the Processing dialog box.

Linked files have to also **reside on the RP** machine in order for them to be used by RP when processing.

Sharing Linked Files:..navigate to the files via the network. So if, for example, you have the files in f:\files you'd go into the properties for the linked clips, browse to your network, find your DS machine, find the f drive etc.. then click "Relink".

Linked files must have been captured using the **full network path** (domain\computer\driveletter\...) so the RP knows where to find it.

Any **fonts or effects plug-ins** used in a sequence to be rendered on Avid|DS RP **must be** installed on the RP machine.

RP TROUBLESHOOTING

RP USER ACCOUNTS

The RP should be installed under an account with administrator privileges. An administrator account with the same name and password should exist on the DS workstation, but it is not necessary to log into the DS workstation with this account to use RP.

Trouble Launching Avid|DS RP

If **Avid|DS RP won't start** due to a licensing error, on the DS host machine, launch LicTools (START>Softimage Products>Licensing>LicTools). Hit the **“Stop Server”** button, then hit **“Start Server”**.

The license server may work intermittently if you have other computers on your network that use DHCP addresses, or if your network uses hubs instead of switches.

You should be able to open “My Computer” on the RP, and see the video and audio storages. If not, something is wrong. **This is set up by the DS software... do not set up sharing for the storages manually!**

SHARING WARNING

Do not manually share any DS storage drives or folders or project folders. This will mess up the project indexer and will cause the RP to malfunction. DS will automatically set up all necessary sharing within the application.

How to Rename a Project

1. Make sure DS is not running
2. Stop the Avid Project Indexer
3. Go in the DS Projects\DS_Vx.x folder (or whatever location you picked).

4. Rename the project.
5. Start the Avid Project Indexer and wait for the process to complete its task (should only take a minute, unless you scan too many projects for your own good...).
6. Start DS and the new renamed project will appear in the Project Root (list, whatever, you know what I mean...).

(Thanks to Dermot Shane, Sean Stall, Omar A. Tony Jover and Sylvain Labrosse)

Reverse Match Frame

This is described on Page 785 of the DS Users Guide

You can locate the frames in a sequence that match the frame selected in the Source viewer. If the frame exists in more than one place, the sequence cues to the first location of the match frame and continues through the sequence to subsequent locations each time you click the Reverse Match Frame button. You can perform reverse match frames on sequences that contain timewarp container and container clips. However, you might receive false-positives for position/speed timewarp container clips. For example, the timewarp is highlighted as containing the frame, but the frame is not present in the timewarp container clip.

To perform a reverse match frame:

1. Load a sequence on the timeline.
2. Load the source clip in the Source viewer.
3. In the Track selector, select the tracks you want to search for the matching frame--see "Track Selector" in the Help.
4. Move the position indicator to the frame that you want to match.
5. Click the Reverse Match Frame button. The sequence is cued to the first matching frame.
6. Click the Reverse Match Frame button again to continue locating matching frames in the sequence.

Revised: Jan 12, 2010 5:25 pm

Recommended Reading for DS'ers

Here are some books that are often recommended for DS users and a few that I've thrown in that may be of interest to some of you. Thanks.

3D Book Written by a DS'er

Realiser un film en animation 3D by Benoit Melancon.

This book explains the different steps of traditional film production for a better understanding of the creation process of a computer graphic short film. The book deals with many notions such as: previsualization and animatic, virtual camera, modeling and textures, lighting, rendering, editing etc. It has the merit to adapt the cinematographic language to new realities of the virtual cinema. Okay, it's in French, so I haven't read it yet, but since a famous DS'er wrote it, I'm sure it must be fantastic. Amazon.com (US) doesn't carry it, but you can get it at Amazon.ca here's the link: [Realiser un film en animation 3D](#) (DT_1.24.07)

Compositing and Visual FX

Encyclopedia of Visual Effects (Apple Pro Training) by Damian Allen, Brian Connor.

This is an encyclopedia of visual effects, so it acts as a reference book, but it is much more of a how-to style book. There are even some tutorials for Shake, Motion and After Effects. The book not only covers keys and mattes, but other topics where information is more scarce. The book is almost 600 pages, but my one slight gripe is that I want more information on some of the topics. Even so, this is easily my favorite VFX/compositing book. Damian Allen is president of Pixeraati in LA and Brian Connor is a Senior Compositor at ILM. (DT_1.24.07)

The Art and Science of Digital Compositing - 2nd Edition by Ron Brinkmann.

This is usually the first book to be recommended when someone is

looking to learn more about compositing or how to use the DS better. It's not a how-to book, but more of an in-depth look at what is happening when you composite. I think it's a better book for someone who already knows how to use keys and mattes, but is at the point that they want to really master it. Ron Brinkmann is one of the creators of Shake and has recently done work on the Foundry's Nuke software. (DT_1.24.07)

Digital Compositing for Film and Video (2nd Edition) by Steve Wright.

This is usually the second book to be recommended. The Brinkmann book seems to be more in-depth than this one, but that tends to make it seem more like a textbook. If you don't have either of these two books, I'd say get this one first and then get the Brinkmann book later. I actually have the first edition of this book, but this edition looks even better. (DT_1.24.07)

Color Correction

The Art and Technique of Digital Color Correction by Steve Hullfish.

Apparently, this is to be considered a similar but separate book to the popular color correction book listed below. Steve Hullfish, writing solo, interviews several working colorists as they go through the process of correcting shots. (DT_4.28.08)

Color Correction for Digital Video by Steve Hullfish, Jamie Fowler.

This is a very good book on color correction. There are plenty of examples and explanations to make everything crystal clear. After reading this, you won't know enough to be a full-time colorist, but could certainly be on your way. I wish I would've had a copy of this one ten years ago. (DT_1.24.07)

Audio

Producing Great Sound for Digital Video and Audio Postproduction for Digital Video by Jay Rose.

I had to include both of these books because I usually end up searching each of them for the information that I'm trying to find. Look through the tables of contents to see which one interests you the most and get that one. (DT_1.24.07)

Sound for Film and Television and Sound for Digital Video by Tomlinson Holman.

I haven't read these yet, but they come highly recommended. Read the Amazon reviews, look through the contents and judge for yourself. Tomlinson Holman is the "TH" in "THX." (DT_2.06.07)

Other

High Definition Postproduction: Editing and Delivering HD Video by Steven Browne.

I haven't had the chance to look through this one, but the contents look good and it's from Focal Press, so it should be a quality book. Here's part of the description on Amazon: *"This book begins with an overview of the HD format and then covers commonly-asked questions. A chapter on shooting details how to smooth the path for post. Postproduction workflows, including the digital intermediate, are covered in great detail, and are enhanced by real-world examples.* Numerous HD tables clear up what format is used for which purpose*

- *Ample information on HDV*
- *Debunks myths and answers common questions about HD"*(DT_update_6.24.07)

DV Rebel's Guide by Stu Maschwitz.

Even though this one has sections about editing and finishing, it's more about how to shoot a movie on a budget. It's still a fun read and you may pick up a few tricks here and there - it may also tempt you to pick up a camera to do your own budget movie! Here are a couple of links to find out more: [Rebel's Guide Website](#) / [Stu's Blog](#). Stu Maschwitz is a former ILM guy, co-founder of The Orphanage and

also helped create the Magic Bullet and Colorista software.
(DT_update_2.06.07)

Droidmaker: George Lucas and the Digital Revolution by Michael Rubin.

This book is partly about George Lucas and his friends trying to break away from Hollywood and partly about the creation of the tools and technology you use today (you'll be surprised!). Although the book does get a bit dry in a couple of spots, it can also be a page-turner in other spots. (DT_update_2.06.07)

// Revised: Jun 9, 2008 5:06 pm

DS & RED

DS Version 10.1.1 does RED natively

There is an all-Avid solution, though MetaFuze does not yet support audio.

This is covered in depth in [Avid's RED workflow PDF](#). It is also covered [on Avid's Website](#)
You will need DS version 10.1.1 and Media Composer v.3 or v.3.5

Please see [Avid's site](#) to understand how to set up your DS to work with RED files natively. There are two files that are necessary. You will have to reinstall your DS Com Server:
Locate the DS Com Server Setup.exe here: DS_v10_1_1\DS_v10.1.1\setup\DSComServer

The first time the setup.exe is run it will uninstall the older version of this service. The second time the setup.exe is run the service will properly be installed and the RedDecoder.exe and RedWrapper.dll will now be placed in the proper folder.

Relaunch DS and begin working with RED files.

If you have a DS 10.1.1 system you can begin working with RED files. There is a [specific workflow](#) on our A-Z "A" page (you must have a Dual Link system and an AJA card).

If you are doing proxies in 4:2:2 for RED, you need to dust bust and edit in 4:2:2 then switch to 4:4:4 to not need to tweak color correction in 4:4:4 as there is a slight shift between 4:2:2 and 4:4:4.

"Sexy" Bob has done a little web-app to convert ALEs generated out of REDrushes. It rebuilds the reel number to match that of MetaFuze and DS so if you need to use REDrushes to make Quicktimes for MC (rather than using MetaFuze until it gets audio support) you can convert the ALE it generates.

You can find this at <http://www.idolum.com/redrushes-ale.php> - just upload your ALE and it will give you back one with fudged reel numbers. Also lets you mark the clips for audio channels as well, so you don't have to remember to modify the clips in MC before you capture.

The DS import does not support audio yet. Future MetaFuze may incorporate audio support. The current one uses the original SDK which does not support audio. Most productions record sound separately so this may not be a problem.

Recapture R3D files in lower compression & higher quality

(case study by Dermot Shane)

After some push'n and pull'n and a huge hint for some smarter folks than i in Montreal this what i came up with;

Unfortunately the key step (# 7) only is avb in 444 projects, AND DS seems to re-set the "resolution" setting to "Full Premium" once back in YUV meaning just modifying the clip's metadata and returning to YUV does not work either, and this makes it a bit more of a challenge, but i do have this working cleanly - try these steps to test it out;

1. Start a YUV HD project "test YUV"
 2. Capture some r3d files as DNxHD36 using half good
 3. Edit a seq, save as "test_1"
 4. Open a 444/HD project / 709 LUT "test RGB"
 5. Import "test_1" timeline, do not drop it on the RGB timeline (or DS will change the seq settings back to YUV).
 6. Open media tool, drop "test_1" timeline into it
 7. Click on a clip, delete media and select "recapture with options"
 8. De-select "use master clip lut on recapture"
 9. Click on "capture"
 10. Click on "yes" when asked "would you like to modify the clip settings before performing this operation?"
 11. Adjust the RED SDK settings to taste, white balance, half premium, ISO what ever..
 12. Click "OK" and re-capture the clip with modified settings
- Now two options.. the first one i what i would do, as i have 444 monitoring, and a realtime YUV output from my monitor breakout box;
 - 12a) put "test1" into the source side, and cut it on the timeline, finish as normal 444 project, use the YUV spigot to feed a HDCAM deck

- OR-

- Ttry this one, if you do not have 444 monitoring;
 - 12b) exit "test RGB", open the "test YUV" project
 - 13b) the timeline will now have to be rendered as the media is RGB, and it needs to be in YUV
 - 14b) all the modified SDK settings are intact, finish as a normal project, play out to an HDCAM deck.

The first option is much better, as you can keep modifying the r3d's without the shuffle, but i know not everyone has 444 monitoring or realtime YUV outputs from a RGB project, so the B option works with a bit more of a hassle... everything up to step 6 takes no more than 5 min, maybe 3 min.. so not a big deal, it took me alot longer to write this than to do it...

(With thanks to JM & Steve.)

RED ONE to DS Nitris 2k /4k Workflow:

This workflow is tested and valid as of 5/20/2008. Things are changing rapidly on the RED side so there may be improvements soon. Check [the RED page](#) for software updates.

The DS side of the workflow is very straightforward. Once you generate DPX files and an EDL you can conform the whole thing easily. However, there is a known issue with DS 8.4 DPX conform when source clips' timecode exceeds 23 frames. This results in unlinked clips on the timeline. You can request a patch from the support or download [QFE 2](#) when it becomes available.

1. Offline Edit

RED records 12 bit linear RGB RAW files in proprietary R3D format. In addition to R3D the camera also generates three sizes of Quicktime proxy files. These files must reside in the same directory as the R3D file they reference or else they will not be able to link to it.

The proxy files are suitable for short form editing. They contain timecode that points back to the master R3D files. For long form editing it is better to transcode the proxies to something else (ProRes in FCPRO for example).

Final Cut Pro can also import R3D files via [Log and Transfer plugin](#).

Media Composer can not read timecode from Quicktime files. While it is possible to edit with proxies in MC it is not easy to reference the original timecode for conform purposes. One workaround is using a third party utility called Metacheater. The rest of this workflow assumes you're using FCPRO for offline edit.

Any missing or deleted Quicktime proxies can be recreated using RED ALERT. The reference proxy creation is instantaneous.

2. Create DPX files

Another free companion application is REDCINE. It is very similar in functionality to RED ALERT but it can load multiple R3D clips and export sequential DPX files. You can either export all of your footage to DPX, you can manually pick and chose the takes you need or you can use a smarter approach with a \$190 USD program called [Crimson](#) which will select just the clips you need. There is also a free trial version of Crimson.

Export an EDL and XML from FCPRO. Follow the software instructions and process this XML with Crimson. It will create a new XML and pointers to the R3D clips you need for the cut.

Open REDCINE and load the pointers that Crimson has generated. Then load the XML. REDCINE will

organize the sequence in the proper cut order. Setup your basic project parameters such as 2k or 4k, aspect ratio, etc.

Now you can do a one light correction and repos. For DS use Rec. 709 color space. Remember that your color decisions at this stage may clip color information and the only way to retrieve it will be to redo select clips.

Prior to rendering DPX files ensure that the display quality and the render output quality are at the same setting or you will experience processing speed decrease. On an 8 core Mac it takes about 24x the running time to create 2k full aperture files.

3. Conform in DS

Load all DPX files in your local VideoStorage as per DS manual. I have loaded files outside VideoStorage to avoid DS indexing them and did not notice any performance issues.

Create a sequence that matches the DPX files in terms of size and bit depth (10-bit). For final renders you will need 10-bit or 32-bit float processing precision but for quick preview quality renders 8-bit is sufficient. Just remember to delete all caches and re-render at higher precision in the end.

Load the EDL in a text editor or EDL Tool and truncate all the source reels to 4 characters. For example, if the original source name was something like A001C002... rename it to A001. Save the EDL, load it in DS and follow the standard DS DPX conform procedure. DS will link to the DPX files.

Import files as linear without clamp.

If your computer is sufficiently fast you will be able to play back 2k files in real time within DS. You can also view the files on the video monitor if you switch on HD proxy. It is necessary to render HD proxy cache for real time playback.

4. Output

The way you deliver files depends on the filmout facility.

5. Issues

I ran into issues with off-speed clips in Crimson. This may be fixed in the future.

REDCINE DPX files have only 4 characters for reel name which is shorter than the original R3D files. It is possible to run into duplicate time codes with such a naming convention. The A001C002... name

syntax comes from RED camera where "A" is the "A" camera, "001" is reel 001, "C002" is clip 002 and so forth. The full name also includes the date.

[Igor Ridanovic's \(basic\) tutorial on import to DS](#)

Capture gives you real time playback immediately. **Linked clips** give you full source resolution, but clips must be processed in order to be played.

Same goes for the Red file imports. Capture the clips at low rez, so you can play them in real time for the "rough" edit and then link the clips at high-rez for the conform and then process just what is needed.

DS cannot play back RED 4K realtime without some really special gear -- and there is no monitor that will display it anyway. Here's your 4K workflow (for going back to film):

- Set proxies in a 4K project

or

- Capture with half premium, and you have to scale up to fill the raster if shot 2:1 (not a great idea really)

or

- Link, full premium, scale to taste, and render

But if your output is not going to need 4K, you can work in a HD seq with RED, capture at a low res, edit away, and then recapture for your final output.

[Igor's tutorial on basic RED import to DS](#)

Media Composer RED Workflow

(Thanks to Tony Jover)

1. Use Mafuze to create MXF media and an ALE
2. Use ALE to link to MXF media on MC and edit
3. Export AFE from MC
4. Conform AFE on DS, linking to the Red files at that time.

(Thanks to Shannon Dunn, Tom Phillips and Dermot Shane).

The difference between R3D and DPX imported to DS

(Case Study)

Not much of a surprise really. Firstly I have to say that **I did all this at HD (1920 x 1080) resolution in a 4:2:2 sequence**, so that could be part of the reason. The moiré pattern, or rather its absence is a result of the scaling algorithm, as someone already mentioned. It wasn't visible in the DPX files scaled with the Mitchell algorithm in RedCine, because its a softer looking algorithm, which results in a slightly softer overall image. When using Sinc (default in Shake) or Lanczos (both slightly sharper algorithms) the moiré reappears, but I have to say it's something that only appeared in a very specific shot during a focus pull, so it's not like these algorithms always introduce artifacts. Other than that, there is a slight difference no matter which algorithm, OLPF, DeNoise or DeBayer setting is selected between RedCine converted DPX files and R3Ds imported directly into DS, although I don't think it's a quality difference. When layering the footage with a subtract node / composite mode, certain edges showed a difference, though with most algorithms it's impossible (at least for me) to see any difference with the naked eye. There is no color banding, noise or other artefacts with either method, and the only other difference, which I already mentioned a few times is a slight shift in saturation and gamma. My guess is that the difference is due to the import settings (Scale to fit or Half Premium in the R3D dialogue box) the scaling algorithm and the colour space. Next someone would have to do a test at RGB 4:4:4 4K or 2K, but I'll leave that to someone else. I wouldn't expect a difference in quality anyway.

Ultimately this means for us that we can use the direct import of R3Ds in DS, though it would be nice to have the same amount of control as in RedCine, i.e. a wider range of scaling algorithms, which should be included in the capture settings (Scale to Fit...) and the basic DVE.

(Thanks to Peter Mirecki)

Important update

Some important things to note.

R3d files have 2 timecodes. Edge timecode, and Time Of Day (TOD) timecode. It is very important which

of these is selected when filming with the RED camera as it will affect the rest of your workflow.

My tests were with r3d files captured with the EDGE timecode selected during filming.

The quicktime proxies (with REDCODE codec) will reference BOTH timecodes. But...There are 3 different ways to bring media into FCP, and depending on how you bring in media, FCP will look at different timecode. IMPORT, and LOG & TRANSFER will bring in Time of day timecode ONLY. DRAG & DROP, from Finder to FCP, will bring in EDGE timecode. It is possible that DRAG & DROP brings in the timecode selected during filming but in my case this *was* EDGE timecode so I have no way to verify at this stage. REDCINE will read either timecode and reference back to the correct r3d files. However the DPX files that are generated by REDCINE will have ONLY the timecode that matches that displayed by the RED camera during filming.

So here is an example of problems that can arise:

RED captures displaying EDGE timecode.

FCP captures quicktime proxies using Log & Transfer. All clips now reference TOD timecode.

EDL and XML out of FCP both reference TOD timecode. XML into Crimson. Crimson reads what it is given, in this case, TOD timecode. Intermediaries and XML from Crimson reference TOD timecode. Intermediaries and XML from Crimson into REDCINE.

REDCINE reads all the TOD timecode and creates the correct DPX files. HOWEVER the timecode in the dpx headers will ONLY be EDGE timecode. Conform edl into online machine, fail to link to dpx files and bang head off the wall.

Arguably the problem is brought in by FCP, but poor documentation and lack of "on-street knowledge" compounds issue. Also, an option in REDCINE to export dpx file with TOD timecode would solve this too.

I am unaware of a way to know which timecode was used in the RED camera other than to create DPX files in REDCINE and open them in a program which allows you to see the timecode.

If TOD timecode was captured by RED it shouldn't be an issue using Log & Transfer. If EDGE timecode was used during capture, make sure the offline editor captures the Quicktime proxies using the DRAG&DROP method, to avoid these issues.

Also: For Crimson to work effectively, the timeline in FCP should be flattened to a single layer.

When bringing the Crimson XML into REDCINE there may be an error message such as "Failed to load construct". To avoid this, in Crimson, UNCHECK the option to add VOLUME/ to the intermediaries. This is the case when the FCP edit was done using proxies

[Declan MacErlane](#)

A RED ONE workflow has been posted to [Editors' Lounge](#)
[Editors' Lounge RED Event Booklet](#)

Special thanks to **Michael Radeck** for this case study:

12 February, 2008:

Two weeks ago I had the chance to test many things with 5 REDs and the possible post-production workflows. Testing has not finished yet, but our testing indicates there's a better AVID workflow than FinalCut!

The Quicktime "Reference proxies" are max 2K, 1K, 0.5K resolution of the original 4K. With Final Cut theres no FullHD - preview with these files. If you bring this format over HD-SDI you will lose a lot of resolution. Also they are camera RGB - RAW, so you do not reproduce the original colors, all desaturated and colorshifted. If you want real color you have to preprocess with Redcine or Redalert. Preprocessing needs render time. So If you want to make a good Realtime HD - Postpro-Offline you have to render Quicktime ProRES or Quicktime DNxHD. Then you are able to make an offline with Real-time preview in Full HD on Big HD - Screens if you want. If you render Quicktimes then theres no reason anymore to do the offline in FCP. If you want to go to Broadcast then HD is good enough, I have also printed lots of DNxHD stuff with Arrilaser to 35mm. If you print in 2K resolution theres no need to post more then in HD resolution. If you print out in 4K then you should finish in 4K, but the resolution of the RED is not more then a little more then 2K (4K RAW is not the same as 4K RGB so you are far away from 4K Resolution!!), but theres a big issue with focus pulling!! Much more then with 35mm (35mm is not more then 1K in cinema). Problems with backfocus, problems with finding the focus (the preview with the red is only 1K!) use the focus assist function if possible. If you want to bring 2K resolution to digital projection, then you have to produce sharp pictures that are in focus! If you printout you will lose lots of resolution!

Final Cut can not deal with 4k. Neither can Apple's Color, so **only AVID DS Nitris can do 4k finishing**. Scratch can only deal with the raw files but cannot apply a correct color matrix to reproduce correct colors!! We were not able to grade some pictures with high saturated colors in original, before we applied the colormatrix 709 with redcine, render to DPX and color correct. Please note that all 4k and 2k renders are scratch. **(Comment: Lucas Wilson says, "SCRATCH can reproduce "correct colors" just fine.... in whatever color space you need. If you have the NVidia SDI card, you can accurately reproduce whatever color space you want.")**. [See new Comment on using SCRATCH](#)

So AVID - Workflow is much more easy in HD, also Color correction can be done in HD, then connect the timeline to DPX-files in 2k or 4k.

Make DPX and Quicktime DNxHD in Redcine - both can be done on a Windows PC. You don't need a

Macintosh computer. The other way: You can make AVID - MXF Files with third-party tools, but you have to pay for those tools.

you will only need a little freeware that extracts the timecode information from the dnxhd-quicktimes to an ale-file (only a mouse click). Bring this to XpressPro or Media Composer and then batch import the quicktimes - very easy (all quicktimes should be in one folder). You should use the raw filename for the quicktimes and dpx files. This is an option in redcine.

Rendering the quicktimes is on a pc faster then on mac!

So forget final cut - it is only quick and dirty.

Also for all: Final Cut onboard - effects are all 8 bit!!! High precision rendering will not work with onboard effects only some third-party effects are able to render with higher bit depth. Final Cut also cannot deal with RGB - all RGB is transformed to legal TV - Levels. You are not able to preserve Superblack levels. So forget Final Cut!

We had 5 Reds, Cooks, Zeiss, Arri, Red - Lenses, 4k Projector, 2k projector, 2k arri laser printout.

The RED TESTING TEAM - Kameraverleih Ludwig - Germany

Cheers Michael Radeck - DS - Artist - Postproduction Supervisor

PS: If you Printout to Arrilaser and calculate the Format resolution for 1:1.85 then you would calculate **2048 x 1107** as the correct resolution, but theres a bug in DS with custom resolutions. If you bring your HD-Timeline to this format, the DS will scale the images. If you **link** to the HD files with no scaling!! You will lose 50% of the vertical resolution (v8.4 QFE1). You have to choose the preset 2k widescreen 2048 x 1108!! crazy (when you bring 1920 x 1080 to 2048 x 1108 then : 64 px left and right, 14px top and bottom are black but in cinema you have much more safe area (you should calculate about 12% for that). You have to do this to bring the HD-material in pixel native format to the laser, because *with any digital scaling you will lose resolution.*

Using SCRATCH

(Added 03.04.2008)

Special thanks to Lucas Wilson, Assimilate, Inc.

REDCINE was a collaboration between RED and Assimilate. Assimilate, Inc. helped write the application and there are many parts of REDCINE that function very similarly to SCRATCH.

1. Download the [free "RedNode for SCRATCH"](#) file. *You must do this from a Windows PC, the option will be grayed out for other operating systems.*
2. In that file is a folder called **RED LUTs**
3. Load the **Rec709 LUT** into the LUT section in SCRATCH.

4. In Matrix, you can choose what you want to do with the color metadata in the R3D file. In SCRATCH, there is much more color control than in REDCINE, so you can choose pretty effectively what you want to do.

The color spaces that are built into REDCINE are a download for SCRATCH. Unless that Rec.709 LUT is downloaded and applied, it is difficult to get an accurate Rec.709 out of SCRATCH with R3D files.

Also, SCRATCH can output to SDI. REDCINE cannot. So by hooking up SCRATCH to a WFM/Vectorscope, you can probably get a more accurate frame-to-frame determination of Rec.709 than you can by looking at an LCD screen with REDCINE and no scope.

Other RED Links

[RedUser discussion forum](#)

New Comment on using scratch: (Added 14.05.2008) from **Michael Radeck**

The tutorial above is incomplete, not solving the colorspace problem:

after talking with german scratch reseller, talking with scratch customer, tryouts on their system, we didn't find the solution. Also the guide above from lucas didn't help. Further discussion with lucas and again testing on the scratch system here in munich, that system seems to be misconfigured, the colorspace option is missing. Now with the help from fxphd.com (as a paying student) i have the newest scratch software and license. Now i can state: both scratch and redcine can reproduce correct colors, if you change two settings: gamma and colorspace:

What you have to configure in scratch is:

1. loading the Rec709 LUT for correct gamma in the LUT section for Display-Output
2. loading the colorspace Rec709 in the PROCESS section under fxcontrol: where you find the default colorspace "CAMERA-RGB" selected. Click on CameraRGB and select REC709 from dropdown. This is much more significant for correct colors than the gamma!! Because gamma can be corrected with any simple colorcorrection. (the REC709 LUT is only 1D-LUT). This colorspaceconversion needs a much more complex 3D-LUT. You are not able to reproduce those conversions with MATRIX section in scratch, with normal primary colorcorrecting methods.

Revised: Apr 7, 2010 4:25 pm

S

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SATA Array configuration

This is an unsupported configuration for the DS
(Added 01.06.2008_MH)

Second-generation SATA products feature maximum throughput to 300MB per second, which is the same speed as a Terrablock array, which is known to work with Avid DS.

You might have to try different slots for a SATA card to see if you can find a working configuration.

If you configure an array, you want to RAID 0 stripe the array and then start up the DS. Go to Configure Storages, select the drive letter associated with the array and tell the DS it's a 12-24 U320 stripe. You will definitely want to test the resultant array before you use it. Use [HD Speed](#) to test the drives. You will want the same min/max/average read time that you would use for the [Terrablock Array](#) even though your storage configuration is different. It's highly recommended that you use top-of-the-line drives with large caches and, if they don't measure up to the speeds needed, replace them until they do. As tested, an internal array of 4 500gig SATA's gives enough for uncompressed HD (see below).

An internal SATA array also makes useful locations for DNxHD video storage - The drives are easily fast

enough and have capacity for millenia of DNxHD media. That way you free up your SCSI array for uncompressed media.

Bob Maple reports:

I built an MC system recently and just put 4 SATA drives internal for media, and at least in raw throughput they do as well as my 12-disk 2-channel U320 array on DS.

It's just a matter of whether or not the particular computer's SATA BUS is designed in such a way as not to detrimentally impact other systems like the AJA, graphics card, etc.

Phil Coulloudon reports:

We too are running MC Adrenaline-HD on e-SATA. We have 2.5 TB external towers connected to Mac systems on G5s. HD and SD work great on these systems.

NB: This is **absolutely not supported by Avid**. If you call them and ask for help with your system and they find out you have a SATA array, they will not support you.

(Credit to Richard Torpey, who claims his e-mail account was hijacked to offer much of this information)

SEQUENCES

Naming Sequences: DO NOT use illegal DOS characters in your sequence names (such as : > that the sequence has not been saved. Additionally, you will create a 0kb file that cannot easily be removed from your project, and its presence will **prevent you from being able** to archive the project.

Procedure for removing illegally named files:

These files cannot be deleted, moved or renamed from within DS or even from within Windows. You must remove the file in DOS-land.

START MENU>RUN

Type in "Command". This will bring you to the DOS prompt. **Navigate to the folder** that contains the illegal file. You may need to **use dir/x to display the hidden 8.3** file/folder names to properly navigate to the folder. Once you've navigated to the right folder, use **dir/x** again to display a list of all the files in the folder, with their 8.3 filenames. The offending file(s) will show 0kb size. At the prompt, **type in ERASE** "the 8.3filename". (substitute the actual filename for "8.3filename").

SETTINGS

General settings—sets default for sequences—4x3, compression ratio, etc.

Sequence settings are not project specific. The project preferences are just default settings that are used by the new sequence menu item (in order to get going quicker by skipping the sequence preferences panel). In DS, a given project can contain sequences of different resolutions, frame rates, field dominances, etc...

Force Overlay Key option in Video Settings will force an alpha key on an overlay track if there is no clip residing on a layer below. It will key out on a black background.

Location of User preference files:

C:\Program Files\Avid\DS_v6x\Preferences\USERNAME

To move to another machine, copy the needed user folder.

Customizing the folders that appear in all newly created projects:

To create a standard folder structure for new projects

1. Open a text file using a text editor.
2. On the first line of the file, type the following in uppercase letters:
[FOLDERS]
3. Type in the names of the folders you want to appear in the Avid Explorer.
For example:

- Graphics
- Master Clips
- Sequences
- Trash

4. Save the file as folder.ini and save it in the following location:

C:\Program Files\Avid\DS_v6.x\Preferences\username

The order of the folders is not important, as they will be sorted in alphabetical order or according to the sorting method used in the Avid Explorer.

Sicore Engine Error Messages

Usually, when you get a Sicore Engine Error Message, you have corruption in the indexer table. Sometimes, though, the corruption is in media itself and that may happen in .MXF media that you have imported from elsewhere. [Indexer problems are covered here](#).

MXF Media Problems Case Study: Big Bang Post

After getting repeated Sicore Engine Errors, deleting media indexes repeatedly and checking cabling between nitris and the CPU, a new .MXF Media folder was created and the old one was renamed. This seemed to fix the problem. Obviously one (or more) of the MXF files was corrupted.

If you feel this could be media related, run UMMD Test from the Support Console (read the DS Utilities html for instructions on how to use this tool), remove your DS storages (only temporarily) and only mount the folder that contains these MXF files.

If one or more MXF are corrupt, the Indexer should stop right on it during the scan and show you what file to discard.

Don't forget to reset your valid DS storages when done.

(Thanks to Tim Bolt and Sylvain Labrosse)

How to snap to the next edit

The "," and "." keys also known as the "" keys (just without the need to press shift) will take you to the next edit point of any highlighted track.

SONY SRW-5500 Record Problems

(added_5.02.07)

Duplicated frame when inserting onto an HDCAM tape with the SRW-5500; 1080i 59.94 timeline. No errors on the DS, no warnings on the SRW. The DS sync is green, the channel condition of the SRW is

green.

Check your deck:

it's always a good idea to check your record-play offsets with a new machine or before a critical job in case something in your plant changed that would affect timings.

Just make a basic and make a ten frame clip in DS with a countdown to identify each frame. Output to tape and jog through to see if everything is correct. Then bring it back in to DS to make sure that the input timing is also correct. Adjust your play/record offsets as needed. The most common way to make a bad basic is to have incorrect video/reference feeding the record machine.

Sony technicians will claim that this is a problem in the Avid template. Setting the DS deck template to -1 corrects the problem. Unfortunately, the problem also exists on the Symphony, and there is no way to alter the play and record of the deck from a Symphony. Insist that Sony install the latest firmware on the SR deck. The latest firmware should fix the problem, as documented at the CBC.

Additional setting on deck: Menu setting A10 : TC Sense Sel needs to be set 'LINE / 24F'. Sony technicians may ask you to check this menu setting and confirm that it was set to 'FC / 30F' which is wrong.

Standard Conversion

How to use your Avid DS to convert from Pal to NTSC or vice-versa

Method 1:

1. Capture PAL
2. Make Ref AVI
3. Link or capture said Ref AVI in an NTSC sequence

This method will give you either normal speed (don't change speed on import) or '25 running at 30' (change speed on import)

Method 2:

1. Capture PAL
2. Make NTSC sequence
3. Drag PAL clip onto Timeline whilst holding down the F key

This method will give you 25 running at 30, because it's a true frame-for-frame import. It will therefore

need Timewarping to restore the proper length.

These two methods also work for NTSC to PAL. Method #2 will also need a timewarp to restore proper length.

Support (From Avid)

The quickest way to get text-based support for your Avid DS system is to use the

http://avidtechnology.custhelp.com/cgi-bin/avidtechnology.cfg/php/enduser/std_adp.php?p_faqid=74394.

Phone support is (800) 800-AVID (2843) This is believed to work in the USA and Canada.

Stereoscopic workflow for film and television in 3D

Note: The stereoscopic container was introduced in DS v. 10

1. Place one left eye clip on the timeline
2. Create a stereoscopic container
3. Open this container
4. Add the equivalent right eye clip
5. Edit your sequence.

Stereoscopic editing in Avid DS is limited to cuts, dissolves, and basic 2D effects. Don't look for parallax or sophisticated 3D correction tools because there are none. You need another application specifically for this type of work.

(Thanks to Peter Zacaroli and Sylvain Labrosse)

Case Study: Omar A Abbas, Boomtown Productions, Dubai:

I finished a full 3D stereoscopic project a few months ago using only the tools within DS. There are many workarounds if you need to do the job - I do agree that none of the presets are built in but it's not too complicated once you get the hang of it - just a serious pain in the ass.

1. Put the right eye on one track
2. Put the left eye on another track
3. CUT the right eye (Ctrl-X)
4. Create a Stereo Container using the left eye
5. Paste the right eye into the right track within the stereoscopic container

Exit the container and right click it, select properties, then choose the output format depending on your TV - mine used side by side.

THEN you need to line up your eyes

Go back into the container

Choose one eye to line up against the other - in my case the left eye had been shot through a mirror so it was flipped over and tinted, therefore my right eye was the baseline. (To correct for this I had to flip, then grade the left eye a bit to approximate it with the right eye).

It's useful to isolate each eye within the Stereo container by soloing the track, it helps you not lose your mind.

Next you add a DVE to the left eye and lock it on your screen. You add a DVE to your right eye and lock it on the screen beside it.

This is where you start to control the alignment of the two:

You LINK the elements of one eye's DVE to the other:

You link the Scale X on the Right to the Scale X on the Left and the same with the Scale Y. That way when you make the right eye bigger the left eye will follow suit.

BUT

You link X and Y Translate from the Right to X and Y Translate on the Left **NEGATIVELY**. (This means that you link the X Translate on the right eye DVE to the X Translate on the left eye DVE, then right click on the KEY button between the letter X and the gray bar and select EXPRESSION EDITOR, then type a MINUS SIGN to the left of the word INPUT1 in the EXPRESSION box, and click APPLY) That way when you move the left eye to the left, the right eye moves to the right, and vice versa, which is crucial in controlling depth.

You then negatively link X and Y offset and even Z rotate just in case, though I try to avoid messing with rotation as it throws everything off sometimes.

NEXT - this is where the workaround comes into play.

You make sure your DVEs are locked and step out of the container, then select ANAGLYPH in the stereo output. This helps you see both images at once on your monitor in 2D. Select a point near the center of your image and line it up using the DVEs so that there is no variation across the two eyes. For example if

there's a building on the horizon near the center of the image, you ignore the rest of the image and line up the building from the the left eye with the same building from the right eye as perfectly as possible.

If the footage was shot well, most of the rest of the image will be vertically aligned, otherwise you'll need to distort one of the eyes to make sure the left and right eye have **NO VERTICAL VARIATION**. Our eyes are not stacked one atop the other, so nothing should seem higher in the left eye than in the right. The only variation should be horizontal and that determines depth.

In order to correct for vertical variation you can use a **CORNER PIN** on the left eye, then gradually adjust the corners until the two eyes are lined up.

Basically apply a Corner Pin to the left eye within the stereo container, then start on one corner and adjust the point up or down to get objects near that corner vertically aligned, then go around the three remaining corners doing the same. For example if a man is standing near the bottom left corner and his feet are visible, the only variation between feet on the left eye and his feet on the right eye should be left to right. They should be equal up and down. If you create a guideline on the X axis and line it up with his feet on one eye, it should line up with his feet on the other eye.

When you correct for vertical alignment using the corner pin, make sure you do not alter the X values - only affect the Y values as we're trying to fix the picture's alignment up and down.

Once that's done you can set the Stereoscopic container properties back to your preferred output and determine your depth by varying the X values on the DVEs you linked - anything that is flush will be flat with the screen, anything that varies will either be in screen space or out, of course.

This is an extremely simplified method to work around the limitations of DS. I had to do numerous other tweaks and fixes depending on the shots used. Some shots vary a lot between the left and right eye to the point of madness since each camera lens might have its own peculiar warp.

There are programs, like Nuke's OCULA that have ways to analyse and deal with this kind of variation. Luckily for me the footage wasn't too distorted between the two eyes and I didn't have to depend on anything besides DS to complete the project.

Stereo work is very detailed and it adds exponentially to any workflow so good luck. There's so much more than this involved in getting the shots to look right, but this is the bare minimum.

My point is that although DS needs much more effective 3D Stereo tools, you can work on a project from start to finish using what it's got if you have the patience.

The three ways DLP based consumer TV/projectors handle television in 3D

1. Line Interleaved.
2. Side by Side.
3. Checkerboard.

The early Samsung displays were exclusively checkerboard. The current Vuon and JVC displays accept either side-by-side or line interleaved. Panasonic is checkerboard.

Checkerboard is exactly what it sounds like. If the monitor pixels are an (X,Y) grid, then:

0,0 = Left Eye
0,1 = Right Eye
0,2 = Left Eye
...

Line Interleaved is:

0,0...0,1920 = Left Eye
1,0...1,1920 = Right Eye
2,0...2,1920 = Left Eye
...

Side by Side is an anamorphic squeeze of both LE and RE images so that they fit side by side in one frame.

The trick here is to know what is the **native** format for any of the consumer displays. Because, for instance, the JVC monitor is a line interleaved display, but it does accept side-by-side. The problem with feeding it side by side is that you end up with only 1/4 resolution for each frame, because the monitor is internally stretching the signal out to full width, then chopping it in half to achieve line interleaved. If you feed a JVC monitor a line interleaved signal and then a side-by-side signal, you will immediately see the difference.

Checkerboard output is not available in DS's stereoscopic container (v 10.3) but I think with some effort you could build it in yourself.

Media Composer supports it and if you have MC 3.5 and above [check this out for reference](#).

(Thanks to Igor Ridanovic, Jean-Marc Porchet, Craig Gordon and Lucas Wilson)

Storage Configuration (losing)

(added_07.07.07)

If an Avid DS is repeatedly "losing" its storage configuration, this is what's happening:

If you shut down or restart the workstation, and the Avid Media Indexer cannot save the `server.ummd`

file before Windows exits (and Windows won't wait past a delimited allocated time of... say 90 seconds more or less), the `server.ummd` file may become corrupted and you lose your storage settings because they are embedded in that file.

For the proper shutdown steps, please see [Indexer Problems](#) and scroll down to **the correct workflow when rebooting a DS workstation.**

If your DS default setup used audio and video storages that still match your current configuration, they will automatically reappear without any user input. But *if anything changes*, the devices settings will be missing on reboot (because of the lost or corrupted `server.ummd` file) and you must reconfigure your storage manually.

How to add more storage to your DS system

If you have 12x 73G drives, one option would be to swap your drives for 146G. Another would be to add a second dock. A Third would be to substitute 300G Seagate Cheetah 10K RPM drives.

Case Study (Unsupported):

We bought some storage for our FCPs and tested it with our DS a while ago and came up with the following that works for us and is cheap.

Infotrend EonStor A12F-G2422-M2 19"Rack-2U; 12-Bay SATA HD About £1600

Hitachi-HGST Deskstar 7K1000 HDS721010KLA330 0A33863 / 0A34193 / 0A35155 / 0A36414
7200rpm SATA SerialATA/300 (1tb) Less than
£100 each

In the US I'm sure these prices will be less.

4 Gb Fibre card etc the exact details of which I can't remember.

The rack units go up to 24 bays if you really want. Also the bays come with up to 4 fibre ports I think?? so if you want to split them across several platforms you could The drives we selected cos they are exactly the same as our Baselight, if its good enough for Filmlight its good by me plus we have spares across both systems.

You can do SD on 8 drives but not HD.

We have raid 6 set up which means 2 drives can die before you are in trouble. But hey a DS with raided storage of 12/8 Tb usable for about £3k.

It is of course not supported so if you have a go and it don't work for you are on your own

We have had the array crash once in 6 months and this was found to be due to some corrupt media.

(Thanks to Tim Bolt, David Friedman and Howard Chasteen)

Case Study: Adding a second MediaDock with another full set of 146G drives

(Special Thanks to Sean Stall)

Add a second Mediadock with another full set of 146GB drives and stripe across both chassis. I was considering going with a full 24-disk stripe but instead with stripe 6+6 and have two separate arrays. Same amount of storage, just a safety precaution if I lose a drive in one array. It's a dual SCSI connection, one cable per drive array. Then stripe the first 6 drives of each chassis together in a 12-stripe configuration, then the send 6 drives together for another 12-stripe set. On the RIGHT side on the back of the array is the dual/single bus card carriage. Pop it out, move the card inside to the front screws (it should be easy to identify), then reinsert the bus carriage. The front of the array will show no light on the Dual Bus tag on the right. Do that for both arrays.

See Page 35 of the [U320 Mediadock Setup](#) manual.

If you're striping across the two arrays, 6+6, then the second 6+6, it is still Dual Channel. You're setting each array to Single Bus. Striping across the two arrays emulates a Dual Bus configuration when you have a SCSI cable going to each array. My only hesitation was whether I wanted to do a single 24-disk stripe set or two 12-stripe sets. Since we do a lot of HD work and fill the drives pretty quickly at times, I felt it was safer to go with two separate stripes in the event that we lose a drive. This way, we only lose media from half the available storage instead of the whole lot. Within DS, just configure both arrays in Storage Configs, and switch between the two when space runs low on one.

You will want to run HD_Speed Test to verify your arrays. See the [Terrablock Array](#) information. After running HD-Speed, I get the exact, and I mean *exact*, same speed as I did with each stripe set that I did with a single Dual Channel array. Each running at about an average of 440mb/sec.

Sync and High-Definition: How to get everything running right

From the List, initiated by Ed Fraticelli

(Several Case Studies)

Black Burst: Is a run from any decent primary sync generator to a Sync DA to each device or cluster of devices if you are looping. Go to the decks first if you are looping down a rack. Black reference is not

cable length dependent within reason. Most systems engineers are very familiar with simple black burst sync.

Tri-Level: You cannot or should not loop Tri-Level sync. Any old analog video DAs laying around are good for distributing Tri-Level sync.

We use an old Sierra 4x4, one-rack unit analog router to switch sync to a SRW-5500, AJ-HD1400, and a JH3 HDcam player. We also have a HDW-F500 but it knows what to do with trilevel and standard sync connected to both ref inputs.

I am beginning to place the sync inputs to our various systems on the patch bay. If a job needs PAL, NTSC Black, Or Tri-Level it can easily be patched into the devices. We also have the Reference Patch bays for machines that need it. Yes it is a bit scary, but on the other hand it is nice to have the visual check point for what ref a machine is getting.

We went through the same hops, when we started working in HD back in 2003. At first, same concept, HD island, few devices (it was DS and an F500 at the time).

Needs and equipment base grew up rapidly and today we have the following configuration:

- Tektronix SPG422, generating NTSC and PAL BB, interlocked. Same sync generator provides NTSC/PAL bars, as well as AES silence and tone.
- 2xEvertz SRG7750 Tri-level Sync generators, slaved to Tek and set for TL23.98/59.94 on one board and TL24/60 on the second board.
- Autopatch 32YDM 8x32 composite router. Fed to the inputs from the Sync generators(NTSC/PAL/TL23/TL59/TL24/TL60). Router outputs to VTRs, editing bays, Standard converters, Audio decks, etc.
- We have a very strict reference switching procedure, supported by the status LCD panel of above mentioned router. Solid operation with 0 failures and 0 missed switches.

We have two Evertz 5600MSC generators with a 5600ACO automatic changeover switcher. The 5600MSC units generate Bi-Level (Black Burst) and several Tri-Level reference signals. We distribute those pulses with DAs. At our SRW-5500s (which have the converter option) we have two 4x1 Input routers for reference. The SRW-5500 has to have two references when the source tape is not at the same frame rate as the desired converter output rate.

The input routers we created using Broadcast Video Systems Corporation switch cards. We built up LED buttons that are housed in the tape machines' Trinix router panel. It is real obvious what reference is feeding the machine.

You won't find these switch cards on the [Broadcast Video Systems web site](#). They will sell them - if you go that route make sure you tell them that you are going to be passing Tri-Level sync through them - they will make a mod to remove the clamping on the circuit prior to shipping.

(Thanks to Igor Ridanovic, Howard Chasteen, Morey Gers, Jef Huey, Bogdan Grigoresco, and Tom Edwards)

How to move a DS project to a Symphony

We love to hate the Phony but sometimes we have to share stuff with it.

1. Copy all DS MXF media to `AvidMediafile\MXF\1`.
2. Export the timeline as a CMX EDL.
3. Open the EDL

If clips don't relink

- Delete the two files : `msmFMID.pmr` and `msmMMOB.mdb` in the Symphony Media Folder to force the Database to update.

If it still not relinking

- verify the `TapeName` value of your files in both EDL and MXF files.

To do so for your MXF media

- in Symphony launch the **Media Tool**, search for all media on the disk, Media Tool will show you each media located on your Disk, arrange your view to verify Tape Name.

Note: The Timeline to MC command (32-bit only) will merge all your edits into one MXF. That may not be what you want if you wish to edit on Symphony.

Revised: Jan 22, 2013 11:07 am

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TECHNICAL

Use **Version Info Extractor** to create a **.cab file**, which may be e-mailed to tech support for diagnosis of problems.

If your DS does not have access to the Internet (or e-mail) the **.cab file** will be created at the root of C:\ with the extension **.cab**.

The quickest way to get text-based support for your Avid DS system is to use the [Avid DS Support website](#).

Phone support is (800) 800-AVID (2843)

Avid Codec IS NOT SUPPORTED with DS.

Defragmenting video files—use Windows Defragment Tool or [O&O Defrag](#). Use it often!

Repair install: Go to Start > Programs > Avid Products > Setup...

And then you select the "Repair" option. Reinstalls DS Software.

Back up Disk configuration: *This will save your stripe set if the internal drive fails or the OS gets corrupted and needs a reinstall* Repair Disk: Put a diskette in the floppy drive. Emergency Repair Disk is under Start > Programs > Accessories > System Tools > Backup.

Page File The page file is the virtual memory file. It is the file the system uses when it runs out of ram. To change it:

- Right click on the "My Computer" icon on the desktop.
- Select properties.
- Click on the "Advanced" tab.
- Click on the "Performance Options" button.
- You will see an area that says Virtual Memory and a "Change" button.
- Click on the "Change" button.
- At the top you will see the disks listed and whether they have a page file on them or not.
- Select the C drive and the Initial size and maximum size areas will fill in with values.
- Change both to **2250 mb** and click the set button.
- You now have a page file of 2250 mb. If you go to the C drive you will find a file called pagefile.sys. If you check its properties it should read 2250 mb.

It is generally recommended that you do not have the pagefile on the same disk as the OS even though Microsoft defaults the page file to the C drive. You may get a little better performance when rendering large jobs that cause paging if the file is on the F drive. It is not system critical to move it. If you do want to move it, select the F drive in the virtual memory list and set its initial and max sizes to 2250. Select the C drive and set its

initial and max sizes to 0 mb. Click the "set" button and the file is now on the F drive. You will lose 2 gigs of space on the F drive and gain 2 gigs on the C drive.

All versions of Windows XP-64 should have their pagefile set to "System Managed" In 64-bit, the system managed size option allows the operating system to better balance memory between running 32 and 64-bit application. And it's just simpler.

Project Storage Folder Management: All within Explorer - BE CAREFUL!):

If your system looks for a specific folder that you deleted from your Video storage, compare all folders in the video storage with all folders in audio storage. Add a folder to your video storage with exactly the same name as the lonely one in the audio storage.

1. On F drive go to your project-->System-->Sourcemodel. Note the first 8 digits.
2. On your Audio Storage find the folder with the same name.
3. Select the folder and press Ctrl+C (copy)
4. Go to your Video Storage and press Ctrl+V (paste)
5. Enter the folder on your Video Storage and delete its contents (it's a copy of all your audio media).

Also, verify if your storages matches what is found in the Storage Utility. You may have inadvertently deleted a folder that the storage configuration is looking for.

CONNECTING A MEDIA DRIVE ARRAY

Right click My Computer > Manage. Use "Import foreign disks" if you connect the array to another system, or after using the AvidlDS Recovery CD.

Swapping out a Media Drive Array

OK, your drive array is way too full to add another project. And you have a new job coming in and you need to preserve what you have but you have a handy extra media drive array that you can put this new project on. Here's how to swap out the arrays and (hopefully) not lose any data.

1. Stop Avid DS.
2. Open the Support Console.
3. Run UMMD Test.
4. File > Open Service.
5. File > Configure.
6. Remove the storages that are located on the chassis to disconnect.
7. Shut down the workstation.
8. Disconnect the video storage chassis.
9. Connect the temporary video storage chassis.
10. Boot the workstation.
11. Log in.
12. Add these disks in Windows Disk Management. (You just "Import foreign drive set").
13. Confirm this storage is fully accessible in Windows and write content to it to prove it. ;-)
14. Run UMMD Test again.
15. File > Open Service.
16. File > Configure.
17. Add the required video storage on that temporary chassis.
18. File > Commit.
19. Exit UMMD Text.
20. Start Avid DS and proceed with your uncompressed media capture.

Andi Loor's comments:

I do swap on a regular basis. A backup is good to have, this saved me a few months. I lost one drive while starting the storage up. (4 years old). Swapping storages usually is a rather straight forward thing but if you run into problems it may take some time, especially if you have to copy from a backup. Make sure you have time to do this. It is never good to have your client waiting while doing this. Things to think

about when swapping: Use the end of the cables that sits in the storage, not the end sitting in the computer. The computer end has pins that easily bend, the other end doesn't.

Howard Chasteen's comments:

Begin by archiving!

Easiest Solution Expand your current storage by moving some files off onto a 2 TB LaCie or similar.

Or:

Save System settings and notes on exact array names, sizes etc. Dynamic vs FAT 32 etc.

Save a copy of your "cab" file from AVID

Shut down everything systematically.

Rent and attach more storage to the same host adaptors or:

When you go back to the old storage put everything back as it was before the changes, restore the system settings and look carefully at the Avid VIE tool to make sure every thing is back as it was.

(Thanks to Peter O'Neill, Dermot Shane, Tony Jover, Phil Mastman, Howard Chasteen, Andi Loor and Sylvain Labrosse)

How to Add a New Drive to a Media Drive Array

(Case Study)

We had a bad drive and we bought a new drive. We were attempting to put the new drive into the array and make it 8 total. However when we loaded the system back up it appeared in DM but it was showing up as missing (I think that was the state) with a red X icon. It wasn't unallocated or unknown. I think what happened was we deleted that missing drive rather than importing it. This created a serious problem because after the bad drive was replaced, Disk Management did not see the new drive.

If the drive was pulled, but still showing up as missing, that means you deleted the drive, but didn't delete the stripe set first. You need to delete the stripe set before mounting a new drive.

Then, go into Disk Management and right click on the drive down in the list and Import Foreign Drives. You must first un-stripe the remaining drives, and then restripe all eight. The eighth should be there waiting to be recognized. Also realize that all your data is gone and you'll be starting with a pristine array.

If the drive is missing from the list when you try to "Import Foreign Drives," try refreshing the Disk Management pane. If that does not work, the disk may be dead or dying, in which case the Disk Management pane *should never* recognize it. You can try re-orienting the drives so that drive is oriented at an angle perpendicular to its preset position and reboot. It may show up but other drives may disappear if it is a mechanical or bearing problem. You can also remove the drive that is not showing up, chill it in a

freezer for about 30 minutes and then quickly boot it. Sometimes cooling a drive or inverting the entire drive frame will do the trick long enough to salvage things.

Another technique is to triple check all connections or pull a drive from one slot and place your new drive in that slot, placing the pulled drive into the slot where you were adding the new drive, changing the drives Disk Management was happy with. If you deleted the drive and did not delete the stripe set first, swapping two drives may "wake Disk Management up" and it will see all eight drives. This did solve the initial problem in this case study.

If you are changing one drive on an array and the array is pretty old, you should understand that it is not a good idea to have one new drive with several old ones. Drives that are the same age work better together and errors on older ones can spread to newer drives.

(Thanks to Jason Russell, Sean Stall, Tony Jover, Howard Chasteen and Rick Emery)

Drive Array Configurations

- If you have 2 chassis with 1 cable running to each then each chassis is running single bus.
- If you have 1 chassis with 2 cables running to it then your chassis is running dual bus.

These are regardless of how many "striped sets" there are.

The number of striped volumes ("sets" being old NT stuff) is irrelevant. It could just be one volume of 24 disks or three volumes of 8 disks, for that matter. It only makes a difference when you configure your storages inside the DS application because DS guarantees two real-time HD video streams if you use at least one volume of 12 disks. Now how users configure their system is their own decision, and indeed the two 12 disks volumes is the most common and logical choice.

(Thanks to David Friedman and Sylvain Labrosse)

AUTOSAVE FILES

Autosaves only exist for the current opened Sequence. If you open another sequence, the Autosaves are all deleted and replaced by new one's for the new sequence. This is a crash recovery mechanism, its autosave name is probably not the best... Maximum of 4 autosaves (hard coded).

Saves to C:\Program Files\Avid\DS_vx.xx\DSSystem\temp. as

Autosave1, Autosave2 etc. "DS_vx.xx" is the version you're running, and "yourname" is your Windows username. There you will find some files called "AutosaveX" where X is an incrementing number depending on how many times you've saved. **You can copy these into your project sequence directory, rename them to stick a ".segment" on the end, and try to open them manually.**

Normally DS tries to keep track of what you're working on and the last auto-save that it did (if you've got it on). If the program crashes or otherwise does not exit cleanly, it notices the next time you start up and asks if you want to try and recover, which basically loads the most recent Autosave. If it fails to notice, do the above procedure and hopefully dig out a useful sequence :) If you're paranoid, make a copy the Autosaves out of your temp directory before starting back up after a crash.

Crashes

On early Compaq systems, shut the computer down, and pull the plug for 10 seconds. Power supply issues on these early machines prevent the system from resetting completely if you don't pull the plug. Newer Compaq power supplies don't have this problem. HP systems do not have this issue.

Crashes when expanding audio track to view waveform

Move the following files to a safe place...

[Partition letter]:\DS Projects\[project name]\system\data\audioplayfiles.
(files with .adf extension)

...and see if this resolves the problem. These files will be rewritten by Avid DS when you expand an audio track. If the sequence still crashes, there might be a corrupted audio file causing you this problem. You can run Verify Media in the Media Tool and see if it detects corrupted files. Note that in recent versions, the .adf files are written inside the audio storage, with the audio media (.wav).

Deleting 0kb "File cannot be found" files

If you get an error message while attempting to delete or move a file that "can't be found" do the following:

1. From the command prompt, navigate to the folder that contains the file.
2. Type `dir/x` which will display the DOS short filenames for the files.
3. Delete the files, using the short filenames.

Problems with the HP xw8400 and 64-bit XP and 64-bit DS 8.4 (frequent crashes and lockups)

(Very special thanks to Troy Thompson of Private Idaho and Pierre Corbeil of Softimage simultaneously found a solution to this issue Added 05.01.2008)

Users running an xw8400 workstation with Intel Pro1000 MT for Unity ISIS or ATTO Celerity FC-41XS for Unity MediaNetwork are **not** affected by this issue. It only affects those systems using the **ATTO UL4D SCSI card, Symphony and DS, 32 and 64-bit**. (added per Sylvain Labrosse 03.31.2008)

Avid engineering confirmed the problem with the currently qualified 3.0.100.0 driver for the ATTO UL4D dual-channel SCSI card. That driver dates from July 21, 2006. They have finished testing with the latest updates from ATTO Technology.

Avid allowed volunteers to Beta test the ATTO driver update (3.10.2.0) and these sites all reported stable xw8400 workstations.

Avid has now approved of this solution. You can download the pertinent drivers from [The Avid DS Support Center](#) or from [The Avid Knowledge Center](#)

Please note that DS documentation has said that you cannot combine Unity and local storage on a single timeline. This has been untrue since it was fixed in DS 7.1, although it did not make it into the documentation. In any case, if you are using Terrablock (unsupported by Avid), drives in that type of storage are seen as local drives by DS.

Here is the original **case study** given to us by Troy Thompson:

**xw8400 | XP64-bit
DS 8.4 QFE 1**

After talking with HP and ATTO I have a non-Avid supported fix. Our xw8400 | XP 64-bit | DS 8.4 QFE1 system has not been stable since we purchased it almost 8-9 months ago, with system lock-ups at least 3-4 times a day.

After speaking with support last Wednesday, it seemed that most (if not all) of the systems experiencing the issue were running local SCSI storage. Which is why I switched the system to our TerraBlock, to see if I could re-create the system lock-up with the fiber storage. Turned out to be rock-solid on the TerraBlock. On Monday, I spoke to ATTO about the Driver and Firmware that was loaded for the UL4D card that was downloaded from the Softimage Site. Turns out the Driver is almost 4 years old, and they wanted me to update it.

1. Download and install the [ATTO Configuration tool 3.17](#)
2. Download and install the [Windows XP 64-bit driver 3.10](#)
3. Restart system
4. Download the [February 18, 2008 Windows Flash Bundle](#)
5. Using the ATTO Configuration tool flash the UL4D card
6. Restart system

After changing the configuration, I've been solid without a single system lock-up for the last 4 days. One thing to note is that when I switched the system to the TerraBlock, I had to move the Interactive Cache to one of the internal drives, and as of right now it's still set there rather than back to the Video drive.

Getting the correct ATTO Driver for DS 10.1.1

Apparently, a search on Avid's site does not turn up the correct ATTO driver version for the DS 10.1.1. This should be rectified but the link to the correct [driver version 3.10](#) is available.

If your system's **PERFORMANCE DEGRADES NOTICEABLY**, **processing error** messages appear, or the whole system freezes...

Causes:

Your C: drive is running low on available disk space. DS works better when there is at least 300MB. In general, computers work better when at least 10% of the system drive is free.

See the [Windows Stuff](#)" section (under [Cleaning unnecessary files and logs](#) from C: drive) for cleanup tips for your C: drive.

How to make sure your 32-bit DS will recognize as much RAM as possible

(added 01.30.2008 thanks to Tony Jover)

The default Windows XP Professional `boot.ini` file must be modified to handle memory usage with Avid DS and the Avid Nitris DNA. For this purpose, the `boot.ini` file must include the following text:

```
"Microsoft Windows XP Professional 3GB DS=2700" /fastdetect  
/3GB/USERVA=2700
```

To modify the `boot.ini` file:

1. Right click **My Computer** and select **Properties**.
2. System Properties opens.
3. Select the **Advanced** tab.

4. In the **Startup and Recovery** section, click the **Settings** button.
5. Startup and Recovery opens.
6. Click the **Edit** button.
7. The `boot.ini` file opens in Notepad.
8. Locate the **2400** values and replace it with **2700**.
9. If the entry does not match the `boot.ini` example, edit your `boot.ini` text to reflect our recommended settings.
10. Under File select **Save** and exit Notepad.
11. Close all windows and restart the workstation to validate the changes

Tony has provided a `boot.ini` file, which may be downloaded here:

[boot.ini](#)

- [Details](#)
- [Download](#)
- 1 KB

Note: If you see a `/NoExecute=OptIn` switch, it means you are booting with the PAE kernel, and data execution protection is enabled -- but only for those programs that are "opted in". This does no harm. You should see a RAM count of 2.87 in System Properties.

A special note about memory with respect to 64-bit DS

64-Bit DS can see a lot more RAM than 32-bit and it's a good idea to add more as needed (singly or matched pairs in the manner consistent with the requirements of your HP workstation) for larger and more complex jobs. With respect to *virtual memory* in 64-bit, it is strongly suggested to let Windows automatically set the virtual memory for optimal results.

TERRABLOCK STORAGE SETTINGS

(added 07.29.2007 MH From the List)

The proper configuration for the TerraBlock units on an Avid DS using the ATTO Celerity FC-41XS (4 Gb) card. The current driver version for this card is is 2.18. The Connection Mode should be Point-to-Point (PTP) as checked through the ATTO Configuration Utility. The stripe interleave needs to be set at 1024 Kb in the ATTO Express Power Center Utility. In the DS you select for the **LSI controller, 12-24 disks**.

As a replacement to the ATTO SCSI, you could select the SAS x4 as the controller card and (in the DS

Configure Storages) the Videoraid RTR storage. (**added 03.21.2008 courtesy an unnamed source at Softimage**)

Case Study

TerraBlock 24D / 6T / Running 3.0.5
xw8400 DS 8.4 QFE 1 8G RAM – **no Symphony Dual-Boot**
FC-41XS configured Point-to-Point

FC-41XS configured Point-to-Point and Node WWN
Drivers and Firmware set to Facilis recommendations, this is what we're running:

Server : Driver 2.16 | Flash 2.16 (this is only because we have a FC-22XH card in the server)
Client : Driver 2.61 | Flash November 13

xw8400 | 64-bit | 8G RAM
DS 8.4 QFE 1 | **no Dual-Boot**

Configure Storages as:

- Controller : Onboard SAS x4
- Storage : Avid VideoRaid RTS
- Interactive Cache : Projects/Audio Drive

Make sure to change the interactive cache to a NON-TerraBlock drive.

I switched the controller and storage because of the recommendation on the Wiki and from Facilis. They noted that when using the FC controller, it can affect playback because it's treating the storage as if it's Unity. I was also reading, I can't seem to find where now, that configuring the storage as Generic limits the amount of real-time performance you'll get. I don't know how DS actually handles this, meaning if you're using SCSI storage, but you've set it to Generic, are you not getting all the performance you'd get if you'd set it to MediaDock 12-24?

Special thanks to Troy Thompson

How the DS sees Terrablock

DS doesn't use drive letters to access media. You might point DS to your D: drive when you set it up. But once it is configured, DS uses UNC paths to define media locations. Unity happens to use UNC paths for the workspaces you connect, so it doesn't matter if you are on a DS or a RP, the UNC path is the same to Unity (i.e. / /FileManager/workspace/directory).

Terrablock supports drive letters (or mount points), but not UNC paths directly to the Terrablock server.

Because of this, any Terrablock location appears as a local drive and when DS points to it, it creates a UNC path to a local drive (not to the server, i.e. / /MyDS/ ds_media/), this is why, if you have a Remote Processor the RP wants to connect over Ethernet back to the DS system to then access the media.

(Thanks to Kane Peterson)

Losing Renders with Terrablock

(Case Study)

My DS is losing it's renders. After a shut down I think. Old sequence that was rendered when I left it needs rendering again.

Caches should just reconnect -- they don't go away by themselves, unless additional storages were used and they're now offline after a restart because of a corrupted Indexer table.

The solution here was that the DS tech guy came in and **reconfigured the storages to be local instead of shared.** (a Terrablock between 2 suites).

Terrablock storage is **always** local storage to a DS. That is how it works. The way you share media between systems is to have drives from other rooms show up as Read Only local storage.

(Thanks to Tim Hitchen, Sylvain Labrosse Jef Huey and Tony Jover)

Check Your Throughput

The Avid DS reports the disk access statistic in the Avid DS event log, so clean your event log and do a couple of playbacks from your Facilis TerraBlock array and check the min/max/average read time. For realtime HD you need the average to be below a frame time (ie ~40 ms for 24/25 FPS, ~32 ms for 30 FPS and ~16 ms for 60 FPS) NB: FPS means Frames Per Second.

Another way to test drive arrays is to use [HD Speed](#). Please check [The HD Speed Procedure](#)

Typical (working) triple boot system with an HP xw8400 has the following config:

slot1: unused
slot2: QuadroFX 3500
slot3: ATTO FC41ES PCI-e
slot4: AJA Xena 2K-e
slot5: Nitris Base board
slot6: Nitris codec board

slot7: ATTO UL4D

HDD1(SATA) = WXP Pro SP2/ SymNitris 1.7.7

HDD2(SATA) = WXP Pro SP2/ DS ver8.0/32 bit

HDD3(IDE) = WXP 64 Pro/SP2 with DS ver8.4QFE1

Case study from [Derek Herr](#):

If you are using a HP xw8400 with DS v8.4 and have the AJA 4:4:4 card option AND are using Terrablock storage without any local SCSI storage attached, here is a way to get real-time dual stream HD 4:2:2 performance from your system WITHOUT installing a SCSI card in slot 3:

NOTE: ABSOLUTELY NOT SUPPORTED BY AVID – The following is provided for educational purposes only, please do not try this at home, in a production environment, on mission critical systems, or while eating cheese...

1. Go to HP site, click on “Software & Driver Downloads” on the left side.
2. Enter “xw8400” (no quotes) into the “For Product” search box.
3. In the page that pops up, select “Microsoft Windows XP Professional X64 Edition”
4. In the following page, select the link for “Driver – Storage”
5. Click on the “Download” link for the “LSI Logic SAS 1064X Driver for Microsoft Windows XP Professional X64 Edition”
6. Once you have downloaded the sp33930.exe file, run it. It will extract the driver you need (lsi_sas.inf) to C:\SWSetup\SP33930.
7. Open the device manager, then update the driver for the unused motherboard SCSI controller (might have a yellow exclamation point on it), pointing to the lsi_sas.inf file.
8. Windows will install the driver for you.
9. Re-boot your machine.
10. Start your DS software, delete any Terrablock storages that the DS has configured in the Configure Storages dialogue, and then add them again setting Disk Controller Type to “Onboard SAS x4” and Disk Storage Type to “Avid VideoRaid RTS”.
11. Now you have your real time dual stream playback and real-time titles back in HD 4:2:2 using Terrablock.

Once again, this is absolutely NOT supported by Avid – use at your own risk.

Test Patterns and where they are stored on DS

DSSystem\VideoBitmaps\TestPatterns and then go from there (there are different ones for each resolution).

Test Patterns are all assumed to be in 601/709 colorspace so if you are whipping something up in Photoshop or whatever, go into Levels and set the output levels at the bottom to "16" and "235". (Thanks to Bob Maple)

These are the Test Patterns from DS version 10:

[DS_10_TestPatterns.zip](#)

- [Details](#)
- [Download](#)
- 2 MB

They may be used on any DS and they include HD resolutions as well as SD resolutions.

Correct Export of sequential TGA files for editing

With sequential TGA files, Final Cut Pro does not set them up correctly for the 23.976 frame rate automatically. You will compare the sequential TGA sequence and the Quicktime sequence with your reference tape and you will notice that QT is dead on, but the TGA sequence is way off and that difference will increase with time.

Here's the fix, in Final Cut Pro:

1. Choose your sequence.
2. Choose File / Export / Using QuickTime Conversion.
3. Format Image Sequence, hit Options button.
4. Put 23.976 in the Frames per second section.
5. Click OK.

You must tell anyone cutting in Final Cut Pro to follow this procedure in order to get sequential TGA sequences to cut correctly.

The Procedure for Quicktime is follows:

In Final Cut Pro:

1. Choose your sequence.
2. Choose File / Export / Using QuickTime Conversion.
3. Format QuickTime Movie, hit Options button.
4. In Movie Settings window, choose Video and Sound (if you have sound).
5. Choose Settings in Video section.
6. Choose None for Compression Type.
7. Choose Custom for Frame Rate in Motion Menu and put 23.976.
8. Click OK.

(Thanks to Dennis Pilon)

3D DVE

Put 3D DVE into a compositing container tree whenever possible. This allows you to add inputs to the DVE node (r-click the node). If you add a 3D DVE to a clip, you get one input only.

TIPS FOR USING 3D DVE

- **Always build your effect using the crudest settings.**
- **Use Direct View/Suspend Output for fast screen updates** while building effects.
- **Use Fast 2D Antialiasing** if you can get away with it - it's much, much faster and often gives the best results.
- **Leave Texturing at either Low or Medium** - generally High filters the image too much and gives a worse result while taking twice as long.
- **Lighting can be on high** - doesn't make a lot of difference.
- **Leave the Motion Blur button alone!!!** If you need to blur motion, don't do it within the 3D DVE.

TEXT KERNING

Ctrl and Alt held down will kern in 3D Text

Note: Using the titling preset has no node for a video layer. Add a DVE Node to input video into the DVE.

Note: A 3D DVE must be added in the Effects Tree or as a clip/track effect, not In the DVE Slice Effect.

Shift Z –activates Z space tumbling.

Z –Zoom

R-click to delete objects.

R-click on the 3D DVE Node in the effect tree to add additional inputs.

Note: The background is usually not visible in the 3D DVE unless it is added as input.

Main Tools in the 3D DVE

- Make Object
- Make Path
- Type on a Path
- Select All Letters
- Rotate Letters
- Rotate Path

R-click on the DVE Node in the layer window to make a 3D layer of Type.

R-click / Motion / Crawl to move text on a path. Baseline offset moves text away from the path orientation.

IMPORT ILLUSTRATOR EPS. Import into Graphics session or 3D DVE. File must be created as Illustrator 8 for Windows. Can be .EPS or .AI file. Letters that have strokes inside of strokes, such as A or O will be displayed with the inner strokes filled. To fix this, select the inner stroke and the outer stroke of each affected letter, and use **“Combine Strokes”**

GRAPHIC OBJECTS

Constrain proportions on Ellipses and Rectangles: **Shift-Drag**

Create ellipse or rectangle **from center: CTL-drag**

POLYLINES/SHAPES

Start a curved shape: drag from starting point to where curve ends.

Subsequent control points:

Straight line: click at the next location

Curved line: drag from control point

Angular point: ALT-Drag tangent handle

Close a shape: Click on the first control point created

Open a closed shape: Hit ESC. Click R mouse button. Click a different tool.

SELECTING CONTROL POINTS

Click control points with **Shape Tool**. **Shift-click for multiple points**. **R-Click** “Select All Points” for all.

Add Control Point: Alt-Click with Shape Tool

Delete Control Point: Select point, press DELETE.

Panels can be saved and re-applied by dragging the effect icon from the desired panel into a toolbar, then into the desired panel of the new object.

PAGE CURLS

“Curl Time” property really means “**Curl Percentage**”. Don’t get fooled by the name.

Use **Shift-apostrophe in the 3D DVE** to animate a light during play back. Select the light, press Shift-apostrophe and then drag the light around with autokey on.

Working with text in the 3D DVE -- A case study

(Thanks to Jason Russell)

You can animate the individual letters in a text box in the 3D or you can animate the text box that holds the letters. If you animate the letter **INSIDE** the text box and then copy the outer text box you keep the animation. However if you animate the outer text box that holds the letter(s) (this achieves the exact same effect) and copy and paste that box you lose the animation. That solves one issue.

While finding this out I noticed that if you type a letter and copy/paste it solo into the main layer (without the bounding text box) you lose control and you can't change the actual letter. You also lose the animation. Basically it becomes worthless. No point here, just an observation.

The other thing that was throwing me off was the fact that the ALT key works differently on the individual letters inside the box than it does on the actual text box holding the letters. I was attempting to do something inside the text box with the ALT key that doesn't require the ALT key on the outside box.

And finally back to my original problem of keeping the animation when copying. I can keep the animation of a copied object (see above) until I change said object. This next point makes all the above moot. Regardless of whether the animation is inside or outside the text box as soon as I change my letter, I lose the animation. Which leads me back to Chuck's solution being the solution to my problem. It sure

doesn't make it easy to make templates but it is do-able on complex builds. Sean, you were onto my issue, I just couldn't understand it without working thru it myself.

So my build process is... I type one letter, set my variables, and do the animation inside the text box on the actual letter. I then copy the outer text box as many times as necessary to make my word. The easier way, if your word wasn't changing length, would be to type the word in one bounding text box and do the individual animations but I suppose it depends on the end result... I can't add letters if they are all in one bounding box. Next I go into each text box and copy the animation off the letter. I change the letter and then paste my animation back on. I do this for each letter of the word. This is my method, if there is an easier way please let me know. I wouldn't do this if I didn't have a ton of variables already setup on the letter(s) (ie lighting, extrusion, surface lighting (specular/emissive/shiny) etc).

Blurring Text Created in the 3D DVE -- A case study

(Thanks to Judy Ranelli)

1. Build a composite tree containing a 3D DVE with a moving background.
2. Set up the camera, lights, shadows and so forth like you want.
3. Duplicate the layer 4 times for a total of five layers.
4. On the bottom layer, mute all but the background in the 3D DVE.
5. The next layer mute all but the back line of text.
6. Repeat until you get to the top layer, muting all elements behind and in front of the line of text you want to work with.
7. On the layers you want blurred, add a blur effect in the tree.

This enables you to blur any layer and to change the blur for each level as it suits your needs.

Cull Back Faces

(Added 10.31.2007 MH)

Backface culling definition from [Wikipedia](#)

Since meshes are hollow shells, not solid objects, the back side of some faces, or polygons, in the mesh will never face the camera. Typically, there is no reason to draw such faces. This is responsible for the effect often seen in computer and video games in which, if the camera happens to be inside a mesh, rather

than seeing the "inside" surfaces of the mesh, it disappears completely (all faces are seen from behind, and are culled).

Back Face Culling happens on a Object by Object Basis. So you will have to turn the option on for each piece of geometry you have.

(IE: Back Face Culling is not a Global option)

1. Select Geometry ("DVE")
2. Select the "Render" tab for that geometry (The property page 3rd from the bottom that has an Icon that looks like a eye inside a red box with corner points)
3. Select "Cull Back Faces"

To test how this works fly your camera inside and object like sphere and select /de-select the "Cull Back Faces" option.

When the 3D DVE culls the inside surface of the object vanishes as it is no longer being processed. With the option off the inside of the sphere is visible again.

THUMBNAILS

(added 11.29.12 from TJover on the DSList)

To get Thumbnails of oversized linked stills to show the entire image...

1. Set capture settings to "Scale To Fit."
2. Set sequence prefs media scaling the same.
3. Link your files in thumbnail view

Once they're all linked and showing the full image, reset your sequence prefs however you want them.

TIMELINE

VIEWING & NAVIGATING THE TIMELINE

R-clicking on a clip and going to **Properties / Level of Detail** will show **proxy frames** in the timeline. To turn on proxy frames for every clip in a track, R-click the track and follow the same path.

- **Pan timeline- X-drag timeline**

- **Zoom timeline- Z-drag in timeline**
- **CTL+** (zoom in) or **CTL-** (zoom out) on numeric pad.
- **Focus timeline:** 1 button (in square at top left of timeline) or **CTL-SHIFT +**
- **Hit F12 for full-screen timeline.**

ADDING CLIPS, SEQUENCES AND EFFECTS TO TIMELINE

Control Drag and Drop for storyboard editing: In the Explorer, hold Control while clicking in order a selection of clips, then drag and drop into the timeline. The clips will assemble in the same order.

CTL-Drag an effect preset from explorer to timeline clip, and the effect will **respect the** in-out markers.

R-drag clip—gives you track router.

To work with multiple clips, CTL-R-drag, lets you select track routing one at a time on multiple clips. Use reverse button to reverse audio/video track selection.

Drag clip to marking ribbon—**puts clip on a new track.**

R-Drag to marking ribbon—**puts clip on a new video track.**

Drag clip—HOLD V—**makes an insert edit**—ripples even without ripple on.

Drag clip—HOLD B—**overwrite with activeness.**

MOVING A CLIP VERTICALLY IN THE TIMELINE

To move a clip to a higher or lower track, without changing its position, **hold the “U”** key, while dragging the clip to the different track.

The **duration window (D)** will **change the duration of a clip** or its effect by inputting a value.

To enter a value from the keyboard to a SMPTE box

1. Ensure the viewer is focused on the source or timeline/ record side... no need to focus any of the SMPTE entry boxes. You can tell by the color around it i.e. green on source, red on timeline/ record. To switch from one to other on the keyboard use the TAB key. Make sure that a clip in the timeline is NOT selected
2. Type the SMPTE number and it should appear in the middle of the focused viewer
3. after typing the timecode, you can press:
 - * I to set the in point
 - * O to set the out point
 - * D to set the duration.
 - * ENTER to set the play cursor

In this case, if you type a positive timecode, the out point is changed. If you type a negative timecode, the

in point is changed. Note that negative timecodes have the minus sign at the end. If you type a positive timecode and the in is undefined, it is treated like a negative timecode. If you type a negative timecode and the out is undefined, it is treated like a positive timecode.

You can also work in **incremental mode**. Incremental mode occurs when you type a + or a - at the end of the timecode, like 200- 1000+. In this case, after typing the timecode, you can press:

- I to increment/decrement the in point
- O to increment/decrement the out point
- ENTER to increment/decrement the play cursor

Selecting a clip, then entering numbers will affect the “Start” of the clip either by adjusting the position of the clip in the Timeline (with the Timeline” button selected lower left) of the clip’s start time (with the “Clip” button selected

Trimming Effects Durations

-10 will edit the clip effect to start 10 frames prior to the end of the effect. 10 will edit the clip effect to end 10 frames from the start of the clip. 10- will remove 10 frames from the clip effect duration.

Lists all the timeline markers, pulldown menu to select which marker appears in window.

COMMON KEYBOARD SHORTCUTS

- [CTRL] + (num pad) will zoom into the timeline.
- [CTRL] – (num pad) will zoom out the timeline.
- [CTRL]-[SHIFT] + (num pad) will frame timeline view to the in and out points.
- Period. Next Edit
- Comma, Previous Edit
- [SHIFT]-I Go to In
- [SHIFT]-O Go to Out
- -(minus) Locate to
- I Set In
- O Set Out
- / Selection to In/Out:
- [CTRL]-[SHIFT] I Clear In
- [CTRL]-[SHIFT] O Clear Out
- [CTRL]-[SHIFT] B Clear In and Out
- V Insert Clip
- B Overwrite Clip
- [CTRL]-R Razor
- D Dissolve

- **[SHIFT]-D Wipe**
- **P Process**
- **T Timewarp**
- **\ (backslash) Match Frame**
- **[CTRL]-\ (backslash) Match Bin**

MARKERS

- **M adds a marker** on a clip
- **[CTRL]-M adds a global marker**; it will transcend container clips.
- **[CTRL]-period--Next Marker**
- **[CTRL]-Comma-- Previous Marker**

CLIP ACTIVENESS

- **A Activate**
- **[CTRL]-[SHIFT]-A deactivates**
- **[SHIFT]-A: Fill activeness...** that means it will only activate areas of a clip that don't deactivate other clips that share the same space.

Shift while clicking and dragging the active-ness bar overrides active-ness (gives priority) to that clip.

THE ACTIVENESS BATTLE

Dragging an active clip over another active clip, the clip that was already there wins the activeness battle in the shared space. To make the new clip win the activeness battle, 'SHIFT-drag the new clip.

In/out to selection: [CTRL]-/

OVERVIEW AREA—white area at top that shows and navigates whole timeline. CTLclick on overview area cursor to move the play cursor to that point. R-click on an overview area allows you to scale the media.

R-CLICK-trim overview area to media—zooms timeline and overview to fill screen. You can move sequence to a designated area of the timeline, and eliminate area before and after active media.

TIMELINE EFFECT TRACK—add letterbox crops or other global effects.

GLOBAL MARKERS—show up in containers.

MOVING a clip up or down in the timeline: **Hold U** while you move it to prevent side to side movement.

R-CLICK OPEN VIEW—add a second viewer

Common Keyboard Shortcuts New in Version 10

Bypass effect (or multiple)

1. Select a clip or track effect on the Timeline
2. Press Ctrl+B

Select multiple clips and bypass:

1. Put them in a tree
2. Select the clip and press Shift+9

Select All Effects of Same Family

1. Customize Toolbars, go to Editing-->Select All Effects of Same Family and drag the SAEoSF button onto a toolbar
2. Take three different sources and mix them up as a bunch of clips on the Timeline
3. Rubber-band select all the clips and press F2 (Quick Effects)
4. Apply a DVE

Now...

- Select one of the DVEs and click the SAEoSF button and all the DVEs with the same underlying source will be selected (the default). All this allows you to do is delete them.
- Select one of the DVEs and Shift+click the SAEoSF button and the "Load Preset" window will open for all those DVEs with the same underlying source.
- Select one of the DVEs and Ctrl+Shift+click the SAEoSF button and you're presented with a bunch of options.

Many times folks have complained about how fiddly it is to amend a SSE CC for individual clips. Using the SAEoSF button you can apply a CC to every clip on the Timeline, then load a preset for each tape source. The CCs are now clip effects and are easily adjusted on a clip by clip basis. So you get (almost) the same functionality as SSE but as clip effects.

Note that the SAEoSF button also works for Track or Timeline effects.

This is very useful for removing or replacing poorly-done set CCs or DVEs put in at offline.

RIPPLE

Toggle Ripple globally: R

Set Ripple End: Puts a “barrier” in the timeline, beyond which nothing ripples.

[SHIFT]-E toggles it on and off. To turn it off, you must be parked on the ripple-end bar.

TIP: to turn it off quickly, just hit [SHIFT]-E twice (once to turn it on where you are parked, and again to turn it off).

Defeat Timeline Magnetism—hold the shift key while dragging clips around.

To cut a sequence into a sequence, use R-click and drag the sequence into the timeline.

With a clip selected, ‘ (apostrophe) will **add a clip effect.**

To **add a track in the timeline** while dragging a clip, drag clip to the marker ribbon of the timeline.

To **add an overlay track in the timeline** while dragging a clip, drag clip to the marker ribbon while holding down Control.

Dragging clips with the right mouse button directly into the timeline will prompt for each clip its destination track(s).

Set Timeline start time: go in the user preferences (file menu). In the Editing tab there is a box called "Timeline start". All new sequences will start at that point. For existing sequences, turn ripple on, selecting your first clip and typing the desired start timecode in the first window at the bottom. Then right click and select, "Trim Timeline to Media."

Changing Start Timecode of a New Sequence: Set in sequence preferences before beginning work on sequence.

Change Start Timecode of an Existing sequence: Highlight the first clip in your sequence. Turn on ripple and make sure all tracks are on. Type the desired sequence start number in the "start" field below the timeline. You can also use the Shift key and grab the left side of the overview area, to enlarge the timeline before the starting time.

Changing Sequence Timecode (Drop-frame/non-drop): Go to the time ruler in the timeline window and r-click. Select the Drop Frame option.

TIMEWARPS

The keyframe you set at the head of your top timeline clip will also affect the preceding media (which wouldn't normally be seen). Two workarounds which solve this:

Step back 1 frame and set a keyframe with speed at 100% which ensures that all the media up to that point will be at normal speed

Or **move to the leftmost keyframe on the Timewarp** Property page (which isn't a true keyframe really but just the start of the source clip) and **set a KF with speed at 100%**, set the curve for that first KF to "constant".

Explanation

If you have a clip on the timeline which has 1 min of extra media available on the head and you apply a timewarp set to "constant" all is well. Also if you look at the greyed out Base Frame figure it will say 00.01.00.00 even though you cannot change it, from this I'd assume that a base frame set to "first" gives the same result as a manually set one of 00.01.00.00.

However if you select "speed"...and step into the TW container, the markers show the base frame is at the same point as the "First frame" - 00.01.00.00 from the start of the clip. However if you go back up and this time select "Fix at 00.01.00.00" you see a completely different frame! Doesn't work. If you step back in you'll see the base frame has indeed been fixed at 00.01.00.00 but now the "First frame" and "End frame" have been shifted down by a minute, thus affecting which part of the clip you see. Its damn confusing!

A METHOD FOR RENDERING TIMEWARPS

Render the timewarp as frame and then add interlacing rendered as field. Though to be perfectly honest my method falls apart at constant speeds around 50%. I usually do a lot of ramping with the "input speed" selection and this method works best for me then.

TRIMMING MEDIA IN TIMEWARP CONTAINERS

DS will get confused on freezes if you trim the media directly inside the container.

Workaround:

1. Stick a couple of markers on the clip inside the container just before and after the "used" bit.
2. Create a Background Container of the clip
3. Trim the clip to the markers inside the Background Container

That way DS still sees a full length clip inside its Timewarp Container, even though there's only a little bit of media there.

TONE'S AUTOBIOGRAPHY

I was born, I edited, I shouted occasionally (hey, we all get frustrated), I got drunk.

TRACKS

VIDEO TRACKS

With video tracks, you can place clips above each other as well as next to each other. Video tracks always makes use of/calculates the alpha information... use alpha fades on the video tracks. You cannot dissolve between video tracks...Use an “alpha fade” instead.

BACKGROUND TRACKS

On background tracks you can't place clips above each other, only next to each other. Alpha information is not calculated or used. You can dissolve between background tracks.

TRACKERS

Create **GRAPHICS CONTAINER**. Hit **TRACKING button** in DVE properties window.

DVE goes on the object that needs to FOLLOW the track. That's the one you are moving.

TRACKER in a TREE

The track that is **supposed to follow** goes into **input 1**. The **track being followed** goes into **input 2**.

EDIT REFERENCE

Drag track jewel from timeline layer to be tracked into the start frame of reference.

- Select Edit Option (reference)
- If Below Threshold Options
- Stop
- Update (ok for rotation on 4 point tracking)
- Continue (if track point is stationary but becomes obscured by a foreground object)
- Predict (if track point is in motion and becomes obscured by a foreground object)

Drag jewel from the layer that is to follow the track into the TRACKED start frame window.

- Click Track to open the Tracker
- Select the type of Tracker
- 1-point (transformation)
- 2-points (transformation with scale and rotation)
- 4-points (corner pinning)

IMPORTANT TIP

Switch to **linear interpolation mode** in the stroke's transformation page before tracking. Bezier interpolation introduces nasty jitter because of its "bubbly" nature.

Choose Stop tracking if it falls out of tolerance. Choose **PREDICT** if the object is going to temporarily be hidden, but it is going to come back. **If the Tracker is interrupted, back up to the last good frame and continue.**

DEINTERLACE both layers to improve tracking. The container length will double. **DON'T USE ADAPTIVE. REINTERLACE AFTER COMPLETION.**

REFERENCE TRACKING—when the following object is to be placed offset from the tracking point. CTL-drag reference tracking point to where the layer point should go.

When **tracking reference goes out of the screen** and a new tracking reference point is needed, Tracking stops. Back up one frame. SHIFT R-click—move search region. CLEAR TARGET/SET TARGET to select a new target. Continue tracking forward.

STABILIZING

Choose the Reference Point from the same plate to be tracked, then switch to stabilize. Note: Scale must manually be adjusted in the DVE.

STABILIZING in a TREE

Use a tracker, and use input 1. Or use the STABILIZE preset.

TRANSPORT CONTROLS

Hit Return key for locked playback.

- J Play Reverse—Hit repeatedly to speed up.
- K Pause
- L Play Forward-Hit repeatedly to speed up.

Up arrow Jog. Right/left arrow jogs slower/faster

- Holding the Down Arrow with the direction arrows will scrub in the timeline.

Bottom arrow—SLOW SCRUB, right/left arrow for direction

- Holding down J and moving the mouse or arrows will job in the timeline.
- Left Arrow moves 1 frame back.
- Right Arrow moves 1 frame forward
- [CTL] Left Arrow moves 10 frames back.
- [CTL] Right Arrow moves 10 frames forwards.

Hold J—MOUSE SCRUB- spin cursor or drag on screen for slow scrub.

LOOPING- The ~ key sets the transport into loop mode, but will not toggle, you must click the loop icon to disable it

- **R/L arrows—move 1 frame left or right**
- **[CTL]- R/L arrows—move 10 frames left or right.**

- **I/O set IN or OUT**
- **[SHIFT]-I/O go to in/out**
- **[CTL]-[SHIFT] I/O Clear in/out**
- **[CTL]-[SHIFT]-B Clear Both**

- [CTL]-Shift B clears both the in and out points.
- **The moves to the previous cut point**
- **The > key moves to the next cut point**
- **[CTL] moves to the next marker**

LOCATOR BOX

Remembers a timeline location

Click the circle icon below it to go there.

SWIFT MENU

Press a key and hold down left mouse button. Brings up over 30 common commands

TRANSITIONS

[SHIFT]-DRAG to select multiple clips. You can then put them into a video container for further treatment.

[CTL]-E to SELECT MULTIPLE EDIT POINTS

Select several edit points, to add several transitions simultaneously.

- **D Dissolve**
- **[CTL]-R Razor-add a transition in a clip**

Add an effect to a transition (such as a blur/dissolve)... Transition must be **separated** from previous edit, and then rejoined.

Remap a dissolve to a wipe or 3D DVE move—Use transition properties window. Hit L to load wipe patterns or DVE moves.

USE 3D DVE for page turns. NOT 3D WARP!!!

Right click on the Key Frame icon to edit an animation curve.

[SHIFT]-Scrubbing a slider value bar **scrubs at lower resolution.**

- [moves a slider value by -1
-] moves a slider value by +1
- [SHIFT] [moves a slider by -0.1
- [SHIFT]] moves a slider by +0.1
- [CTL] [moves a slider by -10
- [CTL]] moves a slider by +10

Note: The Alpha option in the Masking menu should be on if you are compositing.

TREE EFFECTS

Tip: **Hold [SHIFT]** while opening a tree - **Opens the effects tree and expands it.**

Tip: **[ALT]** click to **rename an effects node**

- **B Bypass an effect-** yellow dot in upper right corner of effects icon
- **L Collapse a node**
- **C Add Cache node**
- **' (apostrophe) Add Effect**
- **ENTER Tree Properties**
- **F Frame Selected nodes**
- **Shift-F Frame all nodes**
- **SPACE+drag removes a node without disconnecting surrounding nodes**

R-click **EXPOSE** or **UNEXPOSED**—removes node effects from property editor window menu

Key Combiner-Allows foreground channels and alpha channels from separate pieces of media to be combined into one clip with alpha channel.. i.e. an Ultimatte foreground element with a separate pass for a matte.

Composite Node- Combines multiple inputs with user controllable transfer modes. Bottom layer goes into input 1. Input 1 **MUST** have an input for higher-numbered inputs to work. Can't skip an input.

TRIMMING

RIPPLE ON for trim—almost always.

With RIPPLE OFF, trim in SLIPS the edit with single handle trim.

Autotrim-Right click the trim button at the bottom of the timeline to activate or deactivate autotrim mode, which puts you in the trim mode by using composer command Next edit or Previous Edit

ACTIVENESS BALLS— **Yellow lights at a cut point indicate a confirmed edit** (an edit with no black holes). White lights mean an unconfirmed edit.

- **White: not connected**
- **Yellow: connected**

BREAK LINK-cuts edits apart to make a hole.

Allows a free trim option to one side of an edit. You must **map the Break Link** function to the UI.

Use PREVIOUS/NEXT to move between edits

TRIM KEYBOARD SHORTCUTS

- **[F9]-Trim OUT**
- **[F10]- Double roller trim**
- **[F11]-Trim IN**

[] -increment/decrement trim or other number 1 frame

[CTL]-[] -increment/decrement trim or other number 10 frames

In TRIM WINDOW, Shift click on one or more trim windows to get base trim control.

SLIP/ROLL

Do it in the slip/roll window...not in the timeline. If you do it in the timeline, you will break apart the edits.

RESYNC. If you break sync, use RESYNC. Only works if there is enough media available for DS to slip the edit. If not, use SYNC UNLOCK tool, to manually fix sync.

SUBCLIPS

7. MATCH FRAME \ from a subclip reveals entire original clip media
8. MATCH BIN [CTL]-\ reveals subclip
9. MATCH BIN again to reveal original clip media.

RAZOR [CTL]-R

[CTL]-E to SELECT MULTIPLE EDIT POINTS

Select several edit points, to add several transitions simultaneously.

[SHIFT]-DRAG to select multiple clips. You can then put them into a video container for further treatment.

24p in the United States

(A few notes from Matthew Small)

Most "24P" SD is recorded 29.97 with 3:2 pulldown- just like a telecine session from Film to SD 29.97 tape.

I believe Canon uses standard 2:3:2:3 pulldown which can be removed via some SDI capture cards during ingest or a 3:2 container in the DS.

With Panasonic, they have the standard 2:3:2:3 recorded at 29.97 and also the dreaded 2:3:3:2 (also recorded at 29.97) where the inserted pulldown can be removed easily over FireWire when the computer just throws out the last B frame and the first C frame to get from 30 to 24. Removing it through conventional methods can be more problematic.

Sony sometimes uses [CineFrame](#) in their HDV camcorders which re-orders fields to "simulate" a film-look and in my opinion generally makes a mess. Adobe Premiere can deal with it well, but not many other systems that I know of.

I saw SD-24P a lot with lower-budget productions that wanted the 24P "look" but couldn't afford to shoot film or HD. The DVX-series cameras from Panasonic are still great cameras if you need that flexibility.

For more on 24p, I recommend a read of [Adam Wilt's blog](#)

Revised: Nov 29, 2012 6:13 am

There are a range of common Prilosec aspect effects like pain in the rear, fatigue, upset stomach, upper respiratory problems, gas, migraines, and abdominal cramps. Stopping the intake of the drug can additionally stop Prilosec facet effects, but can additionally mean recurring esophagus and acid reflux issues. Different Prilosec side effects are itchiness, hives, Inflammation, and alopecia. [prilosec side effects](#)

To research more articles about prilosec side effects then visit [prilosec side effects](#).

Avid DS: The New Order

Revised: Jun 11, 2008 4:34 pm

Vinko Bogataj:

Vinko Bogataj was born and raised in Slovenia. Son to a butcher and handmaiden, Vinko was schooled in a one-room schoolhouse where he learned accounting using an abacus. As he journeyed out into the world, he discovered his true love for the moving picture. Begging, borrowing and working for scraps, Vinko put enough money together to purchase his first Avid DS. Film after film, Vinko edited away. Long form, short form, he did it all. Through the years, Vinko earned enough at his trade to provide for his parents and raise a family of his own. Now, Vinko finds that his one true love, the vehicle that brought him from obscurity to infamy, might very well be going away. But Vinko, a man with strong beliefs and an even stronger will, is determined to keep the dream alive. A staunch advocate of Avid's DS, Vinko now travels selflessly throughout the worldwide web spreading the word that DS lives! There's only one problem though, the very people Vinko is trying to help are now trying to bring him down. Follow Vinko's journeys as he tirelessly stumps for that which has brought him greatness. Through agony, comes defeat. Through triumph, comes victory. Long live Vinko Bogataj. Long live Avid DS [Gclub](#).

Tone's Expressions Tutorial

The following is taken from [Tony Jover's](#) NAB 2005 presentation on Expressions. To get the original materials, pdf and presets, click here: [Tone's Expressions ZIP](#)

TREES 'n stuff

In this paper we're going to be looking pretty closely at Expressions. Firstly because they're pretty new to most folks, and secondly because they are so very powerful. Also, by looking at the relationships that you can build with expressions and trees, we'll simultaneously be considering how to put trees together, and the relationship between nodes within trees.

I'd like to take this opportunity to thank Igor Boros, Bob Maple, and numerous folks at Softimage for their assistance in providing information and examples for this paper.

This paper is by no means exhaustive, and the examples it gives are relatively simple, but should give a good grounding on the use of Expressions.

RESTORE THE ARCHIVE

Start off by restoring the "Trees" archive. Then open the "Expressions" sequence.

Let's firstly look at the simplest method of creating an expression.

CREATING AN EXPRESSION

Right at the beginning of the timeline you can see that we have a pretty, lazy, fluffy lion, courtesy of Artbeats (as if you couldn't tell from the nice subtle logo up there top left!). There's a bypassed DVE effect on that clip, but I'll ask you to ignore that for now. What we're going to do is to create the same DVE effect ourselves, and the bypassed one is there to refer to in case there's any confusion at any stage. So, let's apply a DVE to that clip as a clip effect, using the Quick Effects toolbar. I use the Quick Effects toolbar a LOT for applying my commonly used effects if you don't already know about it, it's accessed off F2.

Let's take a quick look at this toolbar. If you right-click an area of the toolbar to get its properties, you'll see that "Auto-Close" is selected. This means that once you've clicked an effect, the toolbar will close down, getting it out of your way. There's nothing particularly special about the Quick Effects toolbar; it's just a regular toolbar. So you can drag effects onto it, delete effects from it etc, etc.

So, we apply our DVE as a clip effect. Let's open up its PPG and add an Expression between its size and its Z rotation. To do this we right-click the X Scale keyframe button, and drag it over the Z Rotation keyframe button. You'll notice that DS gives a little "Expression" symbol as you hover over the Z Rotation button, and when you release the mouse or pen, Z Rotation takes on the value of X Scale, causing the image to be rotated by 100 degrees. Strictly speaking, this isn't yet an

expression, it's just a link: one attribute has taken the value of another, but don't worry, we'll get to that later. Now we can right-click the Z Rotation button and select Expression Editor.

EXPRESSION EDITOR

The Expression Editor is where you'll make and adjust your expressions. At the bottom of the Editor is a list of all the inputs that you have so far made available for this attribute. Currently, there's just the one, and you'll see that it's labelled DVE X Scale (because that's what you dragged there). In the top window is the expression that's currently applied to that input. In other words, the top window says **what mathematical expression** you will apply, to achieve your desired output. You can achieve some pretty clever and complex expressions with this tool, and you can also mix and match inputs within the one expression. So for instance you can say "Rotate this image by x amount, but only if y is valid". We'll look at an example or two of these later.

Looking at the buttons available, you'll see there are 4 below each of the windows. The ones at the bottom are pretty obvious. You can add an input (which you will connect to a source later), you can remove an input, you can disconnect an input from its current source, and you can select an input, to see what it's doing how it's used within the expression.

The four buttons for the top window take a little more explanation.

Insert enables you to build an expression using all of the parameters available for the expression language. For reference, the language used for DS Expressions is the XSI scripting language, so it's well tried and tested. Clicking **Insert** shows all the functions available to you. You'll notice that there's a random function so you can now make those wobbly "hand held" DVEs natively within DS.

To see how to use Insert, select the value that you want to use like sin - and you'll see that DS sticks it in the expression window. The bits are simply placeholders which you then have to replace with whatever you want, such as "Input 1" or a value. Alternatively, you can hold down Ctrl when inserting a function, and it won't add the placeholders.

Revert is a kind of undo for expressions. Click it now and it'll remove the expression you just added. So if you're fiddling around, wishing you'd paid more attention in those maths classes at school, you can simply give up and revert back to the existing expression.

Validate is your friend. Validate will tell you whether or not your expression makes sense to DS. It'll either tell you that it's valid, or it'll tell you where it's confused like for instance forgetting a closing bracket. The last button, **Apply** is pretty self-explanatory.

Having quickly looked at its various areas let's quit the Expression Editor for now and get back to our DVE where we have Z rotation linked to X scale. You'll notice two important things here. Firstly, the button is showing a double-arrow. This means that the expression is **bi-directional**. What this means is that you can actually control either of the functions with the other one. So, adjusting the X Scale gives a corresponding adjustment to Z rotation as we expected, but altering Z rotation also gives the same adjustment to the X Scale. Here's where you'll notice the other

important thing. Adjusting the X Scale also adjusts the Y scale, because the "Link" button is selected, however adjusting the Z Rotation doesn't adjust the Y Scale because X scale is being adjusted by an expression; not directly. Read that again slowly if it didn't make sense the first time ;-)

This might be what you want to achieve, but if it isn't, then you can just make Y a link from X (right-click drag X onto Y) and they'll track together again.

Okay then.... what we want to happen here is that as the DVE scales down, so it rotates in Z. We can see our first problem it's starting off with Z rotated when X scale is 100%. So we need to make $Z = 0$ when X Scale 100. This is nice and simple, we simply need to remove 100 from the starting value. So open up the Expression Editor for Z Rotation and change the expression in the top window to become $\text{Input 1} - 100 >$ (without the angle brackets I shall be using those purely for identification of an expression).

Now, as we reduce the value of X Scale from 100 down to zero, we have Z rotation starting off in the right place, but it doesn't spin enough for our client's tacky taste, he wants the image to spin round and round. If we therefore multiply the value by something like 5 - we should be getting closer. So change the expression to become $5 * (\text{Input 1} - 100) >$.

Our client now likes the amount of rotation, but he wants the DVE to spin the other way. So we need to change sign of the result. There are a few ways to achieve that, but for this example we'll do it by changing that 5 to a minus 5, giving $-5 * (\text{Input 1} - 100) >$.

Just when we thought we were safe, the client wants the size to increase past 100 and then settle back down but with no rotation once the image reaches 100% size. So here's where we continue to think it through logically. We're saying *if X Scale is less than 100, then our current expression is fine, but if X Scale is greater than 100, don't do anything to Z rotation*. So we're making a **Condition**. *On the condition that X Scale is .* you now have them counter-rotating and looking like a ferris wheel.

BUT... you've probably noticed the deliberate error our ferris wheel only has two arms.

So, let's copy these two DVEs and paste them below the other two. If we feed their inputs as per the ones above we now have four arms, but of course two of them are beneath the other two, so we can't see them. We need to rotate them by a further 90 degrees with respect to the original two and to do so we must do something a little different. Unfortunately, we don't have access to a DVE's transform input, so we can't simply use an expression on that input.

But here's what you CAN do:

Firstly, disconnect the Transform node feeding the Global inputs of our two new DVEs and create a new Transform Node feeding those inputs, set to 90 degrees Z rotation.

Now feed that transform node's global input with the original transform node, and as if by magic you have the four arms!

STEP ON/OFF

As our last example of Expressions I just want you to look at a very clever although simple expression that Igor Boros shared with me for this paper. It's another conditional one but I really like his implementation of it.

It's an expression applied to the DVE Motion Blur Duration. Let's look at it. Firstly, process the clip at 0:01:15:00. It'll take a little while to process as it has a heavy Motion Blur for part of its duration. If you now play the clip and look carefully at it, you'll see that there's a pretty heavy Motion Blur when the image moves from side to side on the X axis (in other words between 00:01:19:10 and 00:01:24:27), and not at any other time.

So let's look at the Expression on the Motion Blur Duration ("General" tab) to see how this was achieved.

We start off with a conditional, and the condition is *If the value of Input 1 at the current frame equals the value of input 1 in the current frame plus one (the next frame) then return a value of zero. Otherwise return a value of 90.*

What this achieves is that it looks at the value of Input 1, which in this case is X translation, and it says "If it's moving, turn on Motion Blur, otherwise turn it off". If we step through the DVE we can see that the DVE only moves on X between 00:01:19:10 and 00:01:24:27. Looking at the result of our expression we see that Motion Blur is only on for that duration.

I've also dragged the Y and Z translations into the Inputs box, so you can experiment with changing inputs in the Expression.

SLAMMED LOGO

Process up the clips at 00:01:40:00 and take a look. Here's another tree just to get you thinking and looking at relationships of nodes with one another.

Basically, I was given this logo as flat artwork and asked to fly it around and make the thing shake!!

Take a look at the tree clip effect on the "Shawes-SlammedIcon" clip.

There were several approaches I could have followed but in the end I used an HSL keyer to pick out the orange colour. This is the foreground going into the Over node. I also grew the matte slightly with a matte effect, and CC'd it to white. This is the background of the Over node and gives the white outline. A Drop Shadow effect finishes it off. A very simple, but effective use of a little tree to "Cut out" a flat logo and give me something to fling around.

With a random DVE on top! Take a look at the Expressions on X and Y translate to see how it was made.

COMPLEX TREE

Lastly, take a look at the tree at 00:01:55:00. Ain't that a fun tree? Someone sent this to me years ago (apologies for forgetting who). It can replicate just about any telecine function including vignette etc all in the one tree. I've replaced all the nodes with current 16/32 bit versions and I've never ever used it... but it's still a fun tree.

I hope that's helped some of you. Any problems please email me at tony@hdheaven.co.uk

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Tone's Step-by-Step DS to Mocha to DS Tutorial

Here's a quick step-by-step tutorial to get you started using Imagineer System's Mocha Tracking Station with the DS. (Revised: Nov 13, 2007 10:26 am)

USING MOCHA WITH DS:

1. Export the clip-to-be-tracked as a QuickTime or AVI, full size. Currently none of the Imagineer products can read a Ref movie from DS, but they're working on it so this may change.
2. Start a new project on Mocha. Ensure the Mocha project is the correct frame rate for your clip - it does NOT auto-detect this.
3. Track in Mocha.
4. Export DS FRAW curves from Mocha of the final track. I'd suggest saving to a folder within your project.
5. In DS make a simple tree with your background (the thing that's just been tracked in Mocha), the foreground (the image that's going to be composited onto your background), a Composite node, and a Tracker.
6. (Optional per Tone) Feed the background into Input 1 of the Composite node.
7. Feed the foreground into the Tracker "Layer" input.
8. Feed the Tracker output to Input 2 of the Composite node.
9. Open the Tracker and open the Animation Editor for it.
10. For each curve in turn (L1y, L1x, L2y, L2x etc), select the curve in the left-hand column and select File-->Import Fraw. Navigate to where you saved the curves, and load the appropriate one. Note that because you'll see the curves in alphabetical order when navigating to them, it's not the same order as DS lists them.

The above is actually much easier than it looks, and takes only a few minutes.

// Revised: Nov 13, 2007 10:26 am

U

Unity

Avid DSs sharing media on a Unity server can really enhance workflows and allow you to create multiple programs from one set of media. While one DS is editing a program, another DS can use the same media to create bumpers, teases and promos for that program all using the same media. Both DS workstations can ingest to Unity at the same time, which can cut load in times for media in half.

But on Avid Unity MediaNetwork and ISIS, the Avid Media Indexing Service is unable to retain its media list content if the workstation hosting this service is shut down and/or restarted. This means that if you are using one Avid DS workstation to connect to Avid Unity, and that you must reboot for any reason, the Avid Media Indexing Service will automatically be triggered to re-index *all of the Avid DS-defined Unity storages*. Depending on how much media you have on Unity, this could take a long time.

Avid recommends that you add an additional Unity Client system and install a standalone Avid Media Indexer. The Unity Client system indexes the Unity storages and relays the index table to one or multiple Avid DS workstation. If you must restart an Avid DS workstation, the index is still alive and ready on the Unity Client system. Avid DS simply reads the index table once its own workstation is up and running.

[Avid's website](#) has information about configuring this kind of system for multiple DS workstations as well as a standalone DS.

Revised: May 21, 2009 11:57 am

Useful Software

Here are a listing of some helpful applications and plug-ins for DS. (added 5.09.07)

[Plug-ins](#)

Links to plug-ins that work with the DS.

NB: Plug-ins that were built for Avid DS 10.0 to 10.1.2 will not work with Avid DS 10.2 or 10.3.
Plug-ins that were built for Avid DS 10.2 will work with Avid DS 10.3.

Avid DS SDK plug-ins

[ARRI](#) ([ARRIRaw Avid Plugin](#) for Avid DS 10.3)

[GenArts](#) ([Monsters](#) and [Raptors](#)) formerly from Speedsix.

There is some confusion as to which versions work with which DS. The correct versions of Monsters are:

- Avid DS v10.2/v10.3 = DSV102_MonstersV101_64bit.exe
- Avid DS v10.0/v10.1 = DSV10_MonstersV103_64bit.exe

[Imagica Digix](#) ([Primatte](#)) and ([O-gi](#))

For anyone using Primatte with DSv10.2/10.3, the correct version is [PrimatteWEBv40_ds10.2](#). You will also need a new license key, as the previous keys for DS 10.0 and 10.1 will not work with that version.

[Foundry](#) Anvil, Furnace, Keylight and Tinder

AVX plug-ins

Avid DS 10.2 introduces support for AVX 2.0. Versions prior to 10.2 support AVX 1.0 only.

[Boris FX](#) ([Boris Continuum Complete](#) for DS version 10.2 and above)

[GenArts](#) ([Sapphire](#))

Please note: AVX2 plugins' thumbnails no longer display the useful example image preview. This is supposed to be fixed with a release after DS v 10.3

OFX plug-ins

[The Foundry](#) for DS version 10.3 and above.

Avid DS-Native Plugins

These should be available on your install disks since version 7.6

[v 7.5 Audio Channel Switcher](#)

[v 7.5 Tone Generator](#) (which has nothing to do with Mr. Jover -- Honest!)

[v 7.01 Audio Channel Switcher](#)

[v 7.01 Tone Generator](#)

Compatibility Prior to DS v. 10:

All of the plugin manufacturers - Speed Six, Genarts, and The Foundry have upgraded their plugs over the years and a v3 Tinder preset will not work with a v4 Tinder installation for instance. Sapphire 32 bit and 64 bit are compatible, but not Sapphire v1 and Sapphire v2.

On a 64 bit OS Plugins *must be 64 bit AVX1 effects*. Currently that means Sapphire, Sapphire, or Sapphire.

For a Software-only DS running on 32 bit then any 32 bit AVX1 effects can be used (like BCC1 as well as Sapphire).

VSTs plugins all need to be compiled for 64-bit and there are not too many of those. This will change as more people will want 64-bit versions.

The VST2 support in DS 10 is not quite 100% several commercial plugins either do not behave or do not work at all. It is best to try before you buy if you are considering a VST2 plugin.

(Thanks to Bob Maple and David Tarr).

Installation when you upgrade

(Case Study, Ironik Design and Post)

Going from v8 to v10, you will need new licenses for some. Are you changing your hardware or going 32bit to 64bit? I have Genarts Sapphire and SpeedSix Monsters. With Genarts, all I had to do was download the 64bit install, then uninstall from my previous workstation since I was changing hardware, and install the 64bit version on the new setup. Registration online validated the license that was released from my uninstall of the old box. For SpeedSix, I had to request a new license altogether and there is a transfer fee if it's a new workstation, though if you're a long time and valued customer, they may waive that fee. For a hardware change, you have to fill out a license transfer form with them as well.

It is unnecessary to uninstall/reinstall plugins for QFE's, but for version upgrades it is. Licensing requirements/costs vary between vendors. Current 10.0 users have to do a complete uninstall of their

plugins before upgrading to 10.1

(Thanks to Sean Stall and Sean B)

[Utilities](#)

Helpful utilities for the DS

Revised: Jan 26, 2010 11:50 am

Here are some links to software application websites that may be of some use to DS users. **Montreal generally recommends against installing unapproved 3rd party apps onto DS workstations, so use them wisely and at your own risk.** (updated 6.13.07)

Also, check out the [DS Support site for more useful utilities](#).

Utilities

Adobe's Photoshop

(added 07.19.2007 MH)

If you are working with Photoshop CS1 or CS2, there are pre-defined presets for working with standard video.

In the menu, pull down File>New... and then in the resulting box, choose Film/Video from the Presets, then choose the one that relates to what you are using from the following list:

- NTSC DV
 - NTSC DV Widescreen
 - NTSC D1
 - NTSC D1 Widescreen
 - NTSC D1 Square Pixel
 - NTSC D1 Widescreen Square Pixel
 - PAL D1/DV
 - PAL D1/DV Widescreen
 - PAL D1/DV Square Pixel
 - PAL D1/DV Widescreen Square Pixel
-
- HDV/HDTV 720p 29.97
 - HDV 1080p 29.97
 - DVCProHD 720p 29.97
 - DVCProHD 1080p 29.97
 - HDTV 1080p 29.97
-
- Cineon Half
 - Cineon Full
 - Film (2K)
 - Film (4K)

The settings that are correct for NTSC are 720x486 / 0.9 Pixel Aspect Ratio

The settings that are correct for PAL are 720x576 / 1.07 Pixel Aspect Ratio.

Audio/Video Converters

[MPEG Streamclip](#) (DS_list_MR_2.21.07)

MPEG Streamclip is a powerful video converter, player, editor for Mac and Windows. It can play many movie files, not only MPEGs; it can convert MPEG files between muxed/demuxed formats for authoring; it can encode movies to many formats, including iPod; it can cut, trim and join movies.

(note: Mac and Windows XP versions available. No mention of XP 64bit compatibility)

(note - Mar 27/10: It appears to run Windows 7 Pro (64bit) without issue.)

[RAYLIGHT](#) (DS_List_MH_02.14.2008)

RAYLIGHT is an HD codec for Windows that is compatible with the Panasonic HVX200 camera. It will work with any application that supports Vfw (Video for Windows) and allows native, real-time editing of DVCPRO-HD DVCPRO50, DV and other formats. RAYLIGHT also comes with a simple application called RayMaker which converts MXF files from the camera's P2 card into Raylight AVI, which can be used with DS. RAYLIGHT can also be used as an intermediate (editing) codec for [HDV cameras](#) (please see their website). There is a demo version. The full version costs \$195.00 (USD).

[TMPGEnc 4.0 XPress](#) (DS List 08.18.2007)

Take almost any video file and encode it to your desired file format including DivX 6 AVI, QuickTime, MPEG 4-ISO, H.264, DVD-Video, DVD-VR, HDV camcorder, and more.

Note: This software uses a *license verification system (L.E.A.P.System)* which **requires** Internet Connection. After the first installation of the software, the license validation (activation) will be processed when you start the application. Then it will be processed periodically from time to time thereafter. What this means is that even if your DS has an Internet connection, *unless you use the software frequently enough that it's running when it needs to reactivate or during the "grace period" then the software will deactivate and you may need to repurchase it if it decides that it no longer will accept the license string.* (DS List RT 05.18.2007)

(Windows only. XP 64 Compatible) (DS List TJ 05.19.2007)

[On2 Flix Software for Adobe Flash 8 and 9](#) (added 07.11.2007 from List MH)

Various software applications working on both PC and Mac platforms that create FLV files. You'll need a decoder to check your work.

From within other applications, you can download the free VP 6 codec:

[Free Codecs \(VP 6 Page\)](#)

VP6 is a high-quality, low bitrate video compression codec that can be used as a plug-in within any video processing application that is capable of utilizing third party codecs. The codec is free for personal/non-commercial use.

Within Cleaner the settings are:

Macromedia Flash Encoder for Flash Player 8 (you will already have this option but it will be limited in codecs and will most likely limit you to Sorenson 3 only)

Codec: On2 VP6

Video Data Rate: 400kps

Audio: mpeg layer 3 (mp3) @96kps

Frame Rate: 30

Size to 320X240

You may have to start you encode by choosing QuickTime, then changing the settings to FLV. Videos look pretty good and could look better if you crank up the data rate to something like 900. Don't forget, you will most likely need a FLV player of some sort (a decoder so to speak) or you won't have any way to look at your videos once you have encoded them.

The latest version of [TMPGEnc4.0 Xpress](#) (released 07-2007) will convert FLVs into something more easily digested by DS. Unfortunately it doesn't convert TO an FLV, but a decent converter FROM them is always useful.

Downloadable Goodies

[Cine-Byte Digital Framing Grids \(DS_list_DS_4.12.07\)](#)

Download 2K, HD, NTSC, & PAL framing grids from Cine-Byte Digital.

You may be wise to check with whomever is doing the filmout in case their systems are different... (Cine-Byte uses an Arri Lazer, don't know how a LazerGrafic's or the ancient Celco handles cut-off)

(note: this isn't a software download, but this page seems like the best fit for these grids. DT_4.12.07)

Drives

[O & O Defrag \(DT_1.22.07\)](#)

Whether you defragment your drives or don't de-fragment your drives is still up for discussion, but many who do defrag, report that O & O is a good choice.

(note: the current version, v8.5Pro, supports XP 64-bit and Vista - 1.22.07)

[Acronis True Image 10 \(DS_list_BM_1.23.07\)](#)

Make a copy of your hard disk. This is the "Home" version, but the "Workstation" version may be better for large facilities.

(note: ATI Home v10, supports XP 64-bit and Vista - DT_1.24.07)

[O&O Disk Image 2 DS_list_MH_11.07.2007\)](#)

Can perform either an incremental imaging or just as easily image an entire system. It works with either 32 or 64-bit Windows XP and supports Vista, should Avid move to that OS. It is recommended by Jim

Fink of New Century Digital Media but he has not booted from a restored system at this writing.

[Symantec Ghost \(DS_list_MH_5.16.07\)](#)

Backup and recovery for PCs. (note: not sure of XP64 status yet) **NB:** Symantec's tools in general have been deprecated in people's experience. It is recommended that one not use their tools.

With the [HP Recovery and Backup Manager](#), future releases of DS will instead use this option to create the operating system backup copies and your own recovery images. The nicer aspect of this process is that you will make the image that FITS your setup perfectly, down to licensing, plug-ins and any applications that you add to your system. And at any time you can update your recovery image if you change your setup.

(DS_List_SL_05.17.07) Presumably this is for versions above 8.0 or newer.

Note: The HP Recovery and Backup Manager *apparently does not work in XP 64-bit*. HP technical support seems to be very confused about this and does not offer real support.

(DS_List_SH_11.15.2007)

[Terrablock Registry keys](#) that will allow you to set up a Terrablock as a read-only space from which to share media for several DSs. Warning!! Please use this at your own risk! This is a Zipped file that contains Readme documents. (also presented in FAQ format [here](#))

[DIY DataRecovery's Disk Patch](#) is a professional DOS based data recovery utility that recovers data by repairing corrupt disk structures, like the partition tables, 'in-place'. It runs from a self-starting floppy disk or CD/DVD so even if you cannot start up your computer, you can run it. It also offers a powerful disk clone feature that allows you to clone disks even when 'conventional' disk cloning software fails due to disk read errors or logical errors. **(Credit to JoshB at Crosspoint added 01.05.2008)**

[gBurner](#) is very useful for creating DVDs and also dealing with .ISO files on DVDs to create a DVD copy on one of your drives, which is a lot faster, sometimes, than installing software from an actual DVD.

EDL Conversion

[Automatic Duck \(DS_list_MH_1.25.07\)](#)

Use this to reliably translate from Final Cut Pro to Avid Symphony, Media Composer and DS
Also useful for getting OMF files for audio work out of Final Cut Pro.

EDL Trace applications

(added 07.09.2007)

[Edit Lister and Edit Tracker](#)

NB: This application works with EDL, not with OMF or AFE.

This is a MS-DOS application that looks just like a CMX edit screen that will allow you to edit any details in an edit list, including reel names, timecodes, type of transition and drop-frame versus non drop-frame for the record VTR. EDL Trace will allow you to trace back as many as 15 generations of master tapes.

[EDLMax](#)

NB: There are two versions of this application, one for EDL, the other adding OMF and ALE.

EDLMax24 is a complete EDL management application for format translation, editing and manipulation, cleaning, optimization, and frame-rate conversion between 30, 25, and 24fps. **EDLMaxPro** adds OMF and ALE management to the EDL features of EDLMax24, providing conversion between EDL, OMF, and ALE. The unique OMF to Multi-EDL feature automatically creates EDLs from selected tracks of an OMF. You can download a trial version of EDLMax. Purchase price for EDL Max24 is \$599 and the price of EDLMaxPro is \$899.

Files and Folders

[GoodSync \(DS_list_TI_1.17.07\)](#)

Use this to clone your project directory and schedule it to sync when you're away.

[Opus8 \(DS_list_BM_1.17.07\)](#)

Another software app that helps you sync your folders.

[Unlocker \(DS_list_TI_1.17.07\)](#)

Software app that unlocks files or folders even when "access is denied" or the "file is in use."

(note: Tony J. reports that this app doesn't work on XP64 - 1.18.07)

[IrfanView \(DS_List_MS_6.12.07\)](#)

IrfanView is graphic viewer for Windows which, among other things, allows batch conversion of files.

(note: reported to work with XP64-bit)

[File Renamer from DS Support \(DS_List_SS_6.12.07\)](#)

File renaming tool from the DS Support site. Very nice. (other tools and a file renamer help file found [here](#))

[SuperCopier](#)

SuperCopier replaces Windows explorer file copy and adds many features, Transfer resuming, Copy speed control, Copy speed computation, Better copy progress display, Copy list editable while copyin, Error log, Copy list saving/loading,...

Fonts

[Transtype Pro 3](#) (DS_list_PM_KH_1.24.07)

From the Fontlab website: "Our universal font converter allows you to convert practically any font into any other format on Mac and PC ." (note: XP 64-bit is not specifically listed on their spec sheet for versions of Windows - DT_1.24.07)

[CrossFont](#) (DS_list_JH_1.24.07)

From the Acute Systems website: "Convert TrueType and PostScript Type1 fonts between Macintosh and PC platforms ." (note: Windows version only. Also, XP 64-bit is not specifically listed on their spec sheet for versions of Windows, but Vista is - DT_1.24.07)

[TransType's Fontographer](#) (DS List TE 01/09/2009)

I have seen DS not recognize the typeface "family" correctly. My remedy was to use Fontographer to open the font - change the attributes to a "Normal" typeface and resave and then DS saw the face correctly. This seems to be true more with Truetype faces than with Open Face type.

In those cases, the Windows "Font Viewer" displayed the face correctly, but it was not seen in the DS font listing.

There is no indication that Fontographer works on Windows XP 64. From their website: Fontographer 4.1.5 for Windows specifications: Any Pentium-class computer with 16 MB RAM and a hard drive, Windows 95, 98, NT. *Users may experience problems with Windows 2000, ME, XP or Vista.*

Screen Capture/Recorders

[Camtasia Studio](#) (added_4.27.07)

Screen Recorder and video editor from TechSmith.

[CamStudio](#) (added_4.27.07)

Free Screen Recorder software.

[Captivate](#) (added_4.27.07)

Adobe's Screen Recorder software.

[SnagIt](#)(added_4.27.07)

A Popular Screen Capture software from TechSmith.

Undelete and File Recovery

[Restorer 200 Pro 3.3](#) (added 11.07.07)

From the website: "the complete professional solution for your data recovery needs." (I could not find a reference to support of Win XP 64-bit)

[R-Studio](#) (added 11.07.07)

From the website: " R-Studio is a family of powerful and cost-effective undelete and data recovery software." (It does appear to support XP 64-bit [**GPT partition layout schema support**. This [schema](#) is used in 64-bit Windows OS.], but I'll need to do further research)

// Revised: May 25, 2010 7:32 am

V

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VariCam

VariCam records at 59.94 (60fps) PERIOD. It "flags" the frames the DP selected to keep, in your case 23.98 (24fps.)

You have to either:

1. Run the footage through Panasonic's Frame Rate Convertor and spit out true 23.98 footage on a new tape (which now becomes your camera original).
2. Ingest the footage with a AJ-1200a HD deck via firewire into a FCP system, with the free plug-in from Panasonic and transcode the footage to then send into the DS **or**:
3. Change the settings in the 1200 deck to be 24/25 fps and up convert to 1080p and capture into the DS from the deck in a 1080p 23.98fps project.

VEGAS

(Added 08.02.2007 from the List MH)

Vegas does Multi-cam editing and also edits with multiple takes. For more on MultiCam, see [Creative Cow's article on Timothy Duncan](#). Suppose that you have a container on the timeline. In that container you have multiple video tracks. Suppose that you could switch out the activeness of each layer with a key command on the fly while playing the timeline so that you could quickly preview many differently trimmed shots one at a time leaving the one you want active. That is essentially what "takes" are in Vegas. They work for audio and video. If you send audio out to a 3rd party wave editor, it comes back automatically as a "take." This way you can always get back to your original and you can preview several different FX quickly. The way I do it now is stack up several video layers and then turn them on/off until deciding (or getting a producer to decide) on a shot. When you can just do that with every clip on the timeline with ease and still leaving FX in place and transitions, it makes for a very creative decision

making time that is stress free.

Vegas will "play nice" with any frame rate and frame size, for example SDI to 1394 converter for digitizing DV with original TC.

Should you decide to export video from Vegas to import to DS, then use QT with TGA codec (this assumes 32-bit). This way you bypass the AVI 1 file size limitations in DS. Please note, AVI 2 files are now usable with DS version 8.0 and up.

Vegas does 5.1 sound with ease. Export OMF¹ from DS, then convert with EDL Convert Pro to a Vegas project. Then mix and export final wave files to bring back to DS for print out. Cui Bono Soft offers [EDL Convert v4™](#), an EDL translation tool for audio sequences.

Vegas will convert just about anything you need so that you can get it into DS. Plus -- it edits HDV and MXF beautifully. You could use Vegas to ingest HDV and MXF then do your editing, exporting QT files to bring into (32-bit) DS. This way you can always get back to the raw files or footage if need be when the client comes back later for changes or re-edits. (Plus DV, of course).

Keep in mind the level differences between RGB and YUV (computer and studio video). As long as you know this and treat it accordingly, you'll be fine. (Vegas allows you to setup the scopes based on codec type, 0-255 or 16-235). DS uses 0-255.

Notes:

¹If you have file based audio in a sequence and want to create an OMF your first step should be to generate a new clip using the "Timeline to Clip" function. You can then drop that new clip into a sequence and successfully output file based audio to OMF (but it must be in chunks smaller than 2GB).

Vidclip and what kinds of files these are in video storage

I was just in the process of doing some media management on the system (clearing out some vidcache files...safe to delete, yes?...I know requires a re-render if I want them back) and I came across some .gen files that start with "vidclip". What are they and can they be safely deleted as cache files are?

These files are the result of Timeline to Clip and similar functions. You can delete them but it's really your call as to whether or not you will have trouble restoring a Timeline to Clip function (especially if the timeline you brought in is from another project).

(Thanks to Roy Janke and Tony Jover)

VIEWER

DRAG a clip into viewer to view.

Hit F12 for full screen.

Animation keyframe controls at lower right corner.

Viewer Properties: Allows custom presets to viewer modes.

S/W Display switch toggles between hardware viewing mode and software viewing mode. DS will switch in the background to software viewing mode upon panning and zooming of the viewer. **A small (!) icon appears when software viewing mode is active.**

The display and capture of video as fields is a hardware-supported function of DS.

- **Z zoom. Hold Z and drag zooms. Shift Z shrinks image** based on magnification rectangle.
- **Z-L-Click Reset Zoom**

Better Zooming---Z-drag right mouse...nice zoom in and out.

- **X pans the viewer**
- **X-click resets pan**
- **XZ-click resets all viewer parameters.**

COMPARISON BUFFER

In viewer, **R-click and Turn on COMPARISON BUFFER.** R-click again, and **use GRAB to grab current frame.**

Shift and Drag the viewer next to itself and use X to pan the viewer. This allows for a side by side comparison.

Or

Use DUAL VIEWER to watch switch between both pictures on SDI monitor/wfm

The **square pixel switch** toggles a view to the actual media file on the hard-drive, displayed in the full 1.0 pixel aspect ratio. It is used as a comparative viewer.

Onion Skin—averages previous and next frames for viewing only.

Choose field or frame display to eliminate jitter (in viewer only)

Command Tip: The R-mouse button presents an interactive menu of options for most every command and interface function.

Viewing top timeline (final result) while working in a container or on a graphic: Add a bogus clip effect to container in timeline (i.e. a blur, with zero blurriness). R-Click effect, "Open Viewer". **A floating viewer will appear.** "Pin" the viewer to keep it around.

If you are working on an effects tree, you can right click the output node to open a viewer. If you are working on a graphic clip effect, you can open the viewer by rightclicking on the graphic effect.

Viewer not Updating

Problems where the source and/or record viewers are not updating to show the current frame of video. Some users have reported a problem with the viewer not updating when the Logmein application is installed. The fix for this is either uninstalling Logmein or uninstalling the Logmein "mirror" driver. The following information on uninstalling the mirror driver comes from the Avid Knowledge Base article, http://avid.force.com/pkb/articles/en_US/Troubleshooting/en432671

Avid Knowledge Base

Various GPU or ACPL Errors on launch (WIN PC)

Last Updated : February 2, 2012

Products Affected : Avid_DS, Media_Composer, NewsCutter, Symphony

Why am I getting various GPU or ACPL errors when I launch my Avid Software that will not let me start the application? (WIN PC)

In addition to checking your configuration and verifying that you have the correct or supported NVIDIA Driver, we have found that the Logmein Mirror Driver may cause this issue as well.

Logmein is an application commonly used that allows control of your computer remotely by another computer.

Here is how to remove the mirror driver if in fact you are seeing this issue:

For 64 bit Windows 7:

1. Type "cmd" in the Windows 7 search box to launch the command line 2. At the command prompt, type: cd c:\program files (x86)\logmein\x86 4. Once there, type: logmein uninstallmirrordrv

If prompted to update logmein on restart deny it. It will just reinstall the mirror driver once again.

Or use this technique from the Avid Knowledgebase (the link includes pictures),

http://avid.force.com/pkb/articles/en_US/troubleshooting/LogMeIn-Mirror-Driver-instead-of-NVIDIA

Avid Knowledge Base

LogMeIn Mirror Driver instead of NVIDIA

An issue that can potentially affect Avid DS performance

Last Updated : July 5, 2012

Products Affected : Avid_DS

After experiencing some operational problems with Avid DS, you run V.I.E and you notice that the Graphics Card Description is not showing the NVIDIA but rather a LogMeIn Mirror Driver.

What are the steps to solve this problem?

Click the Start menu (Windows icon).

Click "Search programs and files", type cmd and press Enter.

In the opened Command Prompt window, type `cd %programfiles(x86)%\logmein\x86` and press Enter.

Type `logmein uninstallmirrordrv` and press Enter.

Restart the system.

The LogMeIn Mirror Driver has been removed and VIE should display the NVIDIA driver normally.

Avid DS operates normally.

Revised: Jul 25, 2012 11:26 am

Vinko Bogataj continues his efforts to spread the word that Avid DS is alive and well. Along his journeys, he finds that people can be both good...and bad. Despite efforts by his detractors, Vinko forges ahead showing his strong will and determination. You will find much of his recent work below.

W

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WACOM TABLET

Increase your productivity. [Watch Igor Ridanovic's Wacom Control Panel tutorial.](#)

Comments:

Gareth Parry writes:

The quickest way of slipping clips is to select 'clip' timecode below the timeline, then simply select clip, and use square brackets.

If **Wacom tablet stops responding**, try this:

1. Hit Windows-R to pop up the '**Run**' dialog and type '**cmd**'.

2. Type "net stop TabletService"
3. Type "net start Tablet Service"

Put this in a .bat file to make life easier and keep it on your desktop.

If you are making an adjustment to an effect slider and the value takes off and you have no control to make adjustments.

Restart the DS application or go into My Computer>Manage>Services and stop and restart the Tablet service.

Or right click the slider and change it to classic mode, or if you're in classic mode then change it to low sensitivity in relative mode.

Or Unplug tablet USB and plug it back in. There are USB problems with Wacom that weren't there when they used serial port. Please note: there is no Serial port support in 64-bit DS any more.

Or go into the Wacom Tablet Properties and change the functions to all be disabled. This will work until the Tablet Properties file gets changed.

Or disable all the buttons you do not use.

Using the Wacom Intous side buttons and other notes:

1. Anomalies

You may experience a behavior that's similar to an invisible hand scrolling up and down the touchstrip. Windows with scroll bars will scroll up and down erratically. This is a USB related issue and to fix it avoid using a USB hub or disable the touch strip in the Wacom settings. You can fix it temporarily by unplugging and plugging back the USB cable.

Another problem you may experience is that the tablet sometimes freezes after a text field input i.e. completing a "Save As" dialog box will freeze the tablet. I have found no other way to fix this than to lift the stylus out of the range and lower it down again. I have this issue at home and it persists over multiple versions of the drivers and operating systems. I think it's hardware related.

2. Touchstrip and side buttons

These can be a huge timesaver in sessions. This will be a subject of my upcoming tutorial at Avid.com.

Some people tend not to use them though. The least you can do is map arrow left and arrow right keys to the tablet buttons using the Wacom setup so you can jog with one hand while holding the stylus in the other hand.

Any combination of keystrokes can also be programmed into the tablet buttons. This is like having a little macro utility at your fingertips. Even the touchstrip can be configured or disabled. For example, you can configure it to perform DS Zoom or timeline shuttle.

3. Stylus buttons

These are fully programmable. I typically assign right mouse click to the top button and ALT to the bottom button. (ALT is for Photoshop use).

4. Application specific

All these button assignments can be application specific. You can create sets for DS, Photoshop, etc. And you can change configurations on the fly depending on what you do in the DS. You don't even need to close down the Wacom setup box which can be found in your Settings/Control Panel.

(Very special thanks to Igor Ridanovic and Andi Loor)

Wacom and DS version 10.3

Since our update to 10.3 we have had problems with the Wacom. In general it seems more sluggish and less precise.

Make sure you have the latest drivers for your tablet. For example, if you are using the HP Z800, [you can get the driver here](#). If you are not, simply select the specific workstation from the website menu list.

The Wacom driver version for ds 10.2 and 10.3 should be version 6.1.1-3. Up to 10.1.2 it was 4.96-8, and that one had problems.

Media Composer Lockup on Exit

This is really an issue with the Wacom Driver. Here is the problem:

When we exit Media Composer, it appears to close "most of the way" then the screen "gray's out" and then it just stops. If we click the Close "X" icon an error box appears saying that MC has stopped working. Click OK and it goes away. No harm being done to the projects, but it is not real pretty!

This is an issue with the Wacom virtual HD Driver. Just disable it in device manager and it cures the lock up on exit issue.

(thanks to Ed Fraticelli and Pat Horridge)

WARPING

To warp, create two shapes that define areas of the image to warp between and join the shapes by drawing a line between them. The direction of the joining line determines how the shape will warp.

The two shapes to warp between should be drawn in the same direction to avoid the warp from flipping over itself.

It is recommended to use **Scaling Interpolation** and **Super High Precision** when warping, but do not use these settings until you are happy with your Warp. They increase processing time considerably.

- **A shape barrier limits a warp area.** If a shape is drawn outside of two warping

shapes, the warp will not effect pixels beyond the outer shape. It applies for inner shapes. To make the restraining shape, draw the shape, copy it (Control-K) and then join the two shapes. No warp will be applied because the two shapes are on the same pixels.

Warping Controls:

- Correspondence shows how one shape gets to the next.
- Density, Default value is 8.
- Allows you to edit points with in the warping shapes.

Making a DVE Wiggle

1. Apply a CC to a long black clip
2. Turn on Autokey
3. Press Play
4. Wiggle the brightness control up and down.
5. Open the Animation Editor and copy the Brightness curve
6. Paste that curve onto a DVE X position and scale in X (you'll also need to lower the whole curve to centre around zero, and also probably scale it in Y)
7. Paste the curve onto a DVE Y position and scale differently in X (you'll also need to lower the whole curve to centre around zero, and also probably scale it in Y)
8. Cycle the above curves

Thanks to Tony for remembering Lucas Wilson's technique.

Another simple way to obtain #2 - #4 is to use your **tracker** to track a vibrating and/or fast moving object...like a hand held shot from a vehicle shooting another vehicle. Then copy the curves from that

(you will then have x and y curves available).

Thanks to Mark McArdle for this tip.

Using Expressions

Change the variables in the first two var assignments for different results. For example if you want to wiggle z rotate very slowly then `var freq=(Fc/10)`, if you want it fast and spastic then `var freq=(Fc*3)`. The multiplier would correspond to pixel units or rotational degrees. This should get you similar results as After Effects wiggle.

frequency of changes, divide slower, multiply faster
`var freq=(Fc/3);`

noise returns value between 0 and 1. This increases the scale of effect.
`var multiplier=(20);`

two of the numbers are arbitrary and create different patterns of continuous noise, the math at the end gives you pos and neg numbers
`noise(0,1000,freq)*multiplier-(multiplier/2)`

Thanks to Paul Hessel for this tip. [He provided two presets.](#)

WINDOWS MEDIA 9

Outputting Windows Media 9

Download and install the free [WM9 encoder from Microsoft](#). Downloading this encoder will place a number of codecs that are useful for both Windows Media files as well as .AVI files on your computer. Keep a folder with encoder templates that you have created in the Windows Media Profile Editor. Save the profile with a recognizable name. Encode directly out of DS, no reference movie necessary. When exporting as a Windows Media file, simply select the "custom" radio button and mouse over to the folder where you have all your presets stored.

Note: Windows Media 9 encoders and all Windows Media players require the use of [DirectX End-User Runtimes](#). Previous versions of this runtime module worked just fine with the DS and it is believed to work with both Windows XP 32 (Service Pack 2) and Windows XP 64.

Using the standalone encoder do dual-pass VBR encoding. Start with New Project, select the source file, click through the next screen, then select 2Mb/s as the video data rate, click Finish. Now go to Properties and, if the source is NTSC Anamorphic, select Edit on the Compression tab, and select "Non Square

pixels". On the next tab (Video Size) select "16x9" on the Pixel Aspect Ratio drop--down box. On Processing, select "Deinterlace". If you have an HD source, do the same, and keep the output size to around SD frame size. **Do not make WMV files straight out of the DS.**

For more information on Windows Media, please read [Ben Waggoner's article](#).

WINDOWS STUFF

Great Tip: **Set Microsoft Windows Start Bar to the top of the screen and set to autohide.**

In taskbar properties, **deselect "always on top"**. Taskbar will no longer annoyingly pop up over DS interface, unless you **hit the "Windows button"**.

MANAGING WINDOWS' WINDOWS

Closing all open windows in a path: Hold down the shift button, while pressing the close box. As an alternative you can set your folder option to open each folder in the same window. If you need to open a folder in a separate window you just hold down the control button while double-clicking the folder.

To close down multiple windows from the same application that appear on the task bar, hold down [CTRL], use Windows-M to minimize all windows, and Windows-Shift-M to maximize them. Right-click one of the windows. Hit Close-all the windows close.

- **Command-E** opens the **Windows browser**
- **Command-M** **minimizes all open windows.**
- **Closing all open windows:** [ALT]-[Shift]-[F4]
- **[Shift]+Double click on a folder opens it as an Explorer.**

Moving folders—[CTL] **click** on folder to move. Let go of [CTL] before dropping it into a new folder, otherwise it will copy the folder

Tip: In the Displays control panel set reports option to screen one or two. Avoids the "Split dialog boxes" between two monitors.

*Windows Command Tip: [ALT]-[TAB] will take you to the **Windows application** switcher.*

*Bring up the **Task Manager** by pressing **control-shift-esc** .*

*If you run into **trouble with Windows**, try hitting F8 while booting... will take Windows back to the last time you logged in.*

Cleaning unnecessary files/logs

from C: drive, or How Microsoft's much-vaunted operating system eventually drowns in its own trash.

1. Delete the contents of the C:\temp folder.
2. Find and delete unnecessary graphics files (*.bmp, *.tif, etc.) using the Windows Search utility.
3. Uninstall any software that is not critical to your editing work.
4. There is the event viewer log that can be cleared from the event viewer itself: In Windows 2000 and Windows XP (and XP-64), it is in Computer Management (right click My Computer > Manage) or Start > Settings > Control Panel > Administrative Tools as a standalone utility.
5. From the log menu you can clear each of the three logs: System, Security, and Application.
6. Also, do a "find" for .dmp files on C: - those can get huge and are useless over time (Please see below)*
7. Make sure to regularly delete C:\WINNT\user.dmp after a crash.

TIP: Make a batch file, and put it in your Windows startup folder. This will eliminate the user.dmp file every time you start up. It's called "DelUsrDmp.bat" It has one line in it:

```
del c:\winnt\user.dmp
```

- Move your swap file to the F: drive.

Windows by default is setup to have a swap file on your C: Drive, typically by default it ranges from 2GB-3GB, so now in essence you're only dealing with a 4GB drive. It doesn't do you much good if it's above 2048mb besides from slowing you down, so you can lock that (right click on My computer > System Properties, Advanced tab, Performance Options, Change and then set the initial size and max size to the same, 2048 and make sure you don't have one on any other drives.)

- Look in the documents and settings folders for the Temporary Internet directories.

C:\Documents and Settings\Administrator\Local Settings\Temporary Internet Files. Every user will have one,

- Look for **NtServicePackUninstall** using the find utility. This file contains NT service pack

uninstall backup information, and can be safely deleted.

- Empty the Recycle Bin.

***Note:** .dmp files in the \DSSystem folder are MEANT to be there. If you delete them, VIE won't include them in the CAB file and development won't correlate DS crash information with Windows dump information (dmp = dump files). It is recommended to delete them in a normally healthy system that is not experiencing problems periodically. **If you are having problems, preserve these .dmp files** so that they will be useful if you need to send a CAB file to Avid Support [See Support](#).

BACKING UP WINDOWS STUFF

Back up your registry on a regular basis.

It's a good idea—particularly before installing a new piece of software-- to go to Start->Accessories->System Tools->Backup, and click the 'emergency repair disk' option. When the next dialog comes up, CHECK the "Also backup registry to repair directory..." and hit OK - you don't have to actually make the floppy every time, since what it writes there is only of limited use anyway. But the key is that now in C:\winnt\repair\RegBack are a set of your current registry files, in case an install or something else goes catastrophically wrong and inhales your registry.

Turn on System Restore

1. Click **Start**, right-click **My Computer**, and then click **Properties**.
2. In the **System Properties** dialog box, click the **System Restore** tab.
3. Click to clear the **Turn off System Restore** check box. Or, click the **Turn off System Restore on all drives** check box.
4. Click **OK**.

After a few moments, the **System Properties** dialog box closes.

For more information about how to use System Restore in Windows XP, please see [Microsoft's Webcast](#).

To restore the operating system to a previous state, please see [Microsoft's article 306084](#)

If Windows does not boot up, you can restore the operating system to a previous state [in Safe Mode from the Command Prompt](#)

As long as System Restore isn't disabled, it generally does a checkpoint each night and whenever software is installed. Just go to C:/programs/accessories/system tools/system restore and select restore to an earlier time. You'll get a calendar with the checkpoints, then pick the most recent when the system was working properly. Note that there is a user preference to set the amount of disk space allocated for storing restoration information so if only a small amount of space was reserved

it's easy to run out of checkpoints. When the system needs space it will overwrite the oldest restoration info.

It's always a good idea to back up projects and documents before doing any software installation or disk recovery activity just in case... Even though it's not "supposed" to affect that.

If the system can't restore to the date you pick you'll get a message telling you that when it tries to go back and fails. You can then pick an earlier day but, the farther you go back, the greater the likelihood that you'll run into the disk space limit.

Note:

According to Avid, System Restore *degrades the performance of DS*. Their Knowledge Base article 70880 last updated 07/16/2008 suggests that it be off in their article on [Windows XP optimizations for Avid DS](#). Thus, this practice is deprecated by Avid.

Generic Icons

If all of your **DS icons become generic**, you need to install a QFE that will correct the problem that is caused by a Windows Update. You can find the solution to this problem [on Softimage's website](#).

BACK UP YOUR BOOT DRIVE

[Acronis True Image Home \(DS_list_BM_1.23.07\)](#)

Make a copy of your hard disk. This is the "Home" version that works just fine for DS installations. They also sell multiple licenses. It supports XP, Vista and Windows 7.

[O&O DiskImage 6 DS_list_MH_11.07.2007\)](#)

Can perform either an incremental imaging or just as easily image an entire system. It works with Windows 7 installations. O&O's DiskImage 2 was recommended by Jim Fink of New Century Digital Media back in 2007.

[Symantec Ghost \(DS_list_MH_5.16.07\)](#)

Backup and recovery for PCs.

Case Study: MTV Networks

Symantec's Norton GHOST 2003 *does work* with WinXP32, WinXP64, Vista32, and Vista64. I boot from the GHOST CD - the application is never installed on any system. I GHOST the partition to another drive on the system and then save a second copy out on a server. To restore the system partition on a DS takes about 7 min from hard disk to hard disk within the computer. (Thanks to Tom Edwards)

NB: Symantec's tools in general have been deprecated.

Case Study: 28 Edit, LLC

Even though I am very careful, my personal DS acquired a nasty virus last week (thank you mr. client who sent me a .doc with a virus) that locked me out of the task manager, locked me out from editing the registry, and eventually disabled my keyboard and mouse, in addition to no longer allowing me to even log in or boot up the computer.

After painfully trying work-arounds and safemodes and whatnot for 4+ hours, I remembered that two years ago I made a ~\$75 investment in Norton Ghost. I popped in my boot disk and within 5 minutes, my entire system was restored sans virus.

Do yourself a favor.... purchase a disk backup program. You won't regret it!

(Thanks to Dan Birnbaum)

With the [HP Recovery and Backup Manager](#), future releases of DS will instead use this option to create the operating system backup copies and your own recovery images. The nicer aspect of this process is that you will make the image that FITS your setup perfectly, down to licensing, plug-ins and any applications that you add to your system. And at any time you can update your recovery image if you change your setup.

(DS_List_SL_05.17.07) Presumably this is for versions above 8.0 or newer.

Note: The HP Recovery and Backup Manager apparently **does not work in XP 64-bit**. HP technical support seems to be very confused about this and does not offer real support.

(DS_List_SH_11.15.2007)

Case Study, Konrad Seidel:

With the xw8600 Avid ships HP's Backup and Restore Manager and I had some opportunities to test this utility.

It is totally unreliable I found. Most of the times it produces an error when backing up. Then I finally had two versions of complete backups of the C: Drive. Some weeks later I had to restore the C: Drive due an installation mess of ProCoder. First when backing up, you are able to backup on the Video Array. When restoring, there is no way to access the backup from the Video Array. so I copied the files onto the internal drive. Then I tried the newest Backup, got an error, then I tried the older one and it worked. At least i could restore one of the backups.

So far so good.

Now I tried to back up the C: drive again. In 75 % I get an error when backing up, and I haven't got one restore point finished yet. Just complete backups... Anyway I find you cannot use this tool for security... I use [ShadowProtect](#) and it seems much more reliable

These applications will get you back up and working within minutes if your C: drive dies and/or Windows XP corrupts itself. If you're forever tinkering with your C: drive (which is bad practice) you might want to consider daily backups.

Further safeguards:

- Use [Good Sync](#) to keep a copy of your active and inactive projects. *Be sure to tell GoodSync to back up invisible files, too, so you don't have problems.*
- Or use [Microsoft's Sync Toy](#) which is a little harder to configure, but it is free (**Note:** Use version 2.0 or above).
- Or you can use [Handy Backup](#) combined with a batch file that will copy your files out to a server upon shutdown.
- When archiving projects make TWO copies of the archive (eg two DVDs) just in case one of them gets stepped upon.
- Get a **protected RAID** video storage when you replace your U320 array.
- UPSs and/or Conditioned Power for everything in the facility, or as much as you can put on.
- Temperature and Humidity controls.
- Every 2 weeks or so get behind all your gear and do a thorough dusting / cleaning.

SHARING WARNING

Do not manually share any DS storage drives or folder or project folders. This will mess up the project indexer and cause the RP not to work properly.

GAIN MORE DISK STORAGE SPACE

Set the properties of the recycle bin by unchecking the "same for all drives " option and set the selected drive to delete directly. You can free up to 10% more disk space.

HP Recovery may repartition your VideoRAID

Heard from a reseller:

"I had a customer who had to reinstall their windows;

He booted his xw8600 and pressed F11 to use HP Recovery. After the recovery the C:\ drive was still not recovered, but the VideoRaid SR was repartitioned with a new fresh Windows install"

From Morey Gers:

"I recently rebuilt a xw8200 and had to disconnect a second internal drive to prevent the HP recovery DVD from always wanting to install on that drive. Unlike a standard windows installer that asks you where to install."

Disconnect all but the System drive when you have to do something like this or there will be **ugly** surprises. During boot up the system looks at things like storage and hosting and adjust to get the sited to come up -- whether it is the way it used to be or not!

NB: This is not specific to DS or the HP installer.

If you are doing a clean Windows install on a boot drive that already has two partitions, like C: and D: on one physical drive, and you think you're installing fresh to a clean C: partition - you may have serious problems. It can put the `boot.ini` and the `NTLDR` files on the D: drive. It all works and you may not notice what it did. But if some future software needs to modify the `boot.ini`, it will fail. This bit me when adding the Unity Connection Manager to a recently rebuilt workstation - it would not install. Start over with a single partitioned boot drive.

(Thanks to Knut A. Helgeland, Morey Gers and Howard Chasteen)

How to get Windows XP-64

If you are upgrading to DS Version 10, which runs on XP-64, you can get the OEM version from [Newegg](#). Their list price is \$140 (USD) as of October, 2008. They do not ship to Europe or the Far East. They do have a [Canadian company that ships to Canada](#) but I did not see XP-64 on that website.

Windows 7 Networking Issue

Sometimes Windows 7 workstations become invisible on the network. Two fixes are [here](#).

WIRE REMOVAL

Four different techniques:

1. Draw a line and track the endpoints of the lines, animating the clone offset as necessary.
2. Create a composite, where `layer1 = layer2`, except that layer 1 is offset by a DVE of 1 or 2 pixels in X or Y. Paint through to the layer below instead of cloning. The track will still be the same, but for some shots this is a better technique to paint out the wire.

3. User Raster Mode and Copy Burned Frames judiciously. Although it will still be a frame-by-frame process, it's a lot less arduous moving a stroke than repainting it.
4. Create the curve
 - a. Stabilize the shot based on a wire point.
 - b. Apply a Clone stroke that works on the stabilized shot.
 - c. Copy the X and Y translation curves from the stabilization tracker to the X and Y translation curves of the Clone stroke.
 - d. Remove the stabilization

This basically creates an X/Y motion curve that accurately describes the motion in your shot. Then, you take those curves and apply it to a stroke. Remove the stabilization, and the stroke now has a motion curve that follows the shot.

Workgroup considerations

(added 04.29.2008)

Rename your computer in a DS workgroup

1. Perform the computer name change.
2. Restart Windows.
3. Run **Configure DS Workgroup** and select "Change logon information".
4. Change the computer name in there as well (notice that it keeps the older computer name, so be sure to spot that and replace it with the new name), then enter the proper user and password for your DS Workgroup (or Standalone, same difference...).

Any existing projects you have will be looking for the storages referenced by the Media Indexer with the old computer name. Here's the fix:

1. Configure Storages
2. Remove the old Indexer
3. Add the new Indexer
4. Wait for a re-index of media.

This must be done for each project you have on your renamed system.

Please note: If you archive projects (as well as the media) and restore these projects to a renamed computer, they come back as if you originally saved them on that computer with that name. This is the same behavior one might expect if one restored an archive to a different workstation. Everything comes

back and is stored where it is supposed to go and you are ready to get to work.

(Special thanks to Ed Fraticelli for confirming this)

Setting up a Workgroup Controller

If you have multiple DS Workstations, a workgroup controller can reduce the load on the DS workstations. You do not need an additional DS license. It is recommended that your Workgroup Controller be a CPU that is as fast or faster than your DS workstations.

There Can Be Only One

- There can only be one (1) Avid Project Indexer (also known as the Controller) for a defined DS Workgroup.

And if one or more Avid DS RP are used:

- There can only be one (1) Avid Interplay Media Service (Broker) for a defined DS Workgroup.
- There can only be one (1) Avid Throttle manager for a defined DS Workgroup.

BUT

There is one (1) Avid Media Indexer installed on each of your Avid DS installations, even if just Software and RP, and even if not used. The Media Indexer is the only DS service that exists on multiple machine in a DS Workgroup, and this is to exchange media location and information between DS clients.

To understand the terminology a bit better, please go to the [Avid website](#).

(Case Study)

When you install the Workgroup controller, you may have to include the DS software checkbox in order for the Controller to work right. If the DS client kicks back a locking error on starting a project, that's the problem. You don't license and never ever start that DS (it could go into training mode), just let it install.

You may have a problem doing this on a Server 2003/64 system or any system where you may not be able to install DS, check the fine print on Controller only installation.

Another problem that was unique to my test setup, but just solved today - running the Remote Processor, Interplay-DMS and Workgroup Controller on one box. After many re-installs It all finally worked great, An ATTO fibre card and drivers were installed but not the Unity Connection Manager. After installing

Unity Connection Manager, but still not physically connected on fibre, the Remote Processor became totally unusable, hanging up on "merging adapters". *The fibre must be plugged into the switch once Unity Connection Manager is installed even if it's not being used.*

(Thanks to Morey Gers)

How to soften wrinkles

OK, you have a tape with someone over 20 who is noticing their wrinkles on that wonderful HD display you have in your suite.

Here are some choices:

1. [OGI's](#) "OGIwrinkle", fast, easy, simple, the preset gets it right about 90% of the time
2. [BCC's](#) "SmoothTone"
3. DS's 3D keyer & Optical glow

Revised: Feb 27, 2012 7:40 am

DSWiki: DPI FAQ

DPI FAQ

(TJ_5.23.07)

Q. How many DPI should my supplied graphics be for use in my DS?

A. DPI is irrelevant in the video industry. The only thing you're interested in is the image SIZE, or the number of pixels making up the width and height.

In print, the closer together the points are, the higher the resolution. But in the world of video you have a fixed screen size (such as 720 pixels wide for SD, 1920 pixels wide in 1080 and so on).

So, the ONLY thing you need consider is the size of your TV format and whether or not you want to zoom into that image.

Let's take some examples:

1. You want to Capture an image into a 1080 project.

You need an image that's 1920 pixels wide by 1080 pixels high. (HD has square pixels, just like print graphics)

2. You want to LINK to an image in an SD NTSC sequence, and you want to zoom in 300%.

NTSC has a raster size of 720x480 pixels, but the pixels aren't square; they have a pixel aspect ratio of 0.9 (it's actually 0.904, but who's counting that close), so that makes the image size at 1:1 to be 720x531 pixels. You want to zoom in 300%, so your source image needs to be at least $(3 \times 720 \times 531) = 2160$ pixels wide x 1593 pixels high.

3. You want to Capture an image to a 16:9 anamorphic PAL sequence

SD Anamorphic PAL has a raster size of 720x576, with a pixel aspect ratio of 1.42 (or 1.422 for the pedants), making the square pixel equivalent of 1024 pixels wide, by 576 pixels high.

Note that for all of the above to work, you MUST have Capture Settings for "Computer Graphics - Square"

By now you should understand that as long as you know how big your image needs to be, whatever the dpi might be the image SIZE (in pixels) is the only thing you care about.

// Revised: Nov 28, 2007 4:04 pm

DSWiki: MXF/Firewire Hack FAQ

MXF/Firewire Hack FAQ

(DS_List_JH_6.07.07) (also listed under [Useful Software/Utilities](#)) **WARNING!!! Use this at your own risk!!**

Q: I have an AFE and MXF material on a firewire drive that was consolidated from an Xpress Pro - How do I get the DS to link to it?

A: Import the AFE into the DS with External Tape Names checked.

To configure the firewire drive, first choose the UL320 as the adapter in the DS storage configuration.

Secondly, there is a registry hack for Terrablock which changes the way firewire drives are handled by the OS. They are no longer considered removable drives, which DS does not like.

Here is the doc from Terrablock - if you can understand this then ...

"Windows XP - ReadOnly volumes appear to Windows XP as removable disks, and this label will be applied to the volumes in My Computer. ReadOnly volumes will be accessible to all applications that can work with removable volumes. ReadOnly volumes when mounted on the Windows XP system will display characteristics of true read-only drives, such that writes attempted will cause the Windows OS to display an error stating the drive is write-protected.

The ReadOnly volumes will behave as OS-filtered write-protected removable drives to any application running on Windows XP. Because of this certain applications are not compatible with default ReadOnly volumes. Facilis includes compatibility keys in the Windows TerraBlock Manager folder. The "Full Compatibility" registry key should be launched on any XP system that does not support removable media for active storage. This procedure should be activated on any Avid DS or Nitris client running on the Windows XP platform. The "True ReadOnly" key should be launched to revert a client back to default state from full compatibility. "

Here are the reg keys and a tiny bit of the doc. ([Reg Keys Hack](#))

WARNING!!! Use these at your own risk!!

(Thanks to Jef Huey and others)

// Revised: Nov 28, 2007 4:04 pm

DSWiki: VCR Issues

[Have you lost VCR Control or are you unable to establish it?](#)

Popular formats explained

HDCAM

Color Sampling = 3:1:1, Bandwidth = 143 Mb/s, Compression 7.1:1, Precision = 8 bit, 1440x1080

HDCAM SR (two modes)

Color Sampling = 4:2:2, Bandwidth = 440 Mb/s, Compression 2.7:1, Precision = 10 bit, 1920x1080

Color Sampling = 4:4:4, Bandwidth = 880 Mb/s, Compression 4.2:1, Precision = 10 bit, 1920x1080

D5 (two modes)

Color Sampling = 4:2:2, Bandwidth = 250 Mb/s, Compression 4:1, Precision = 8 bit, 1440x1080

Color Sampling = 4:2:2, Bandwidth = 250 Mb/s, Compression 5:1, Precision = 10 bit, 1440x1080

DVCPRO100

(1080)

Color Sampling = 2.7:1.3:1.3, Bandwidth = 98,5 Mb/s, Compression 6.7:1, Precision = 8 bit, 1280x1080i30

Color Sampling = 3:1.5:1.5 Bandwidth = 92 Mb/s, Compression 6.7:1, Precision = 8 bit, 1440x1080i25

(with a special testcharts you can see this loss of color resolution, and also that for 25i the color resolution of dvcprohd is slightly better then from hdcam)

(4:2:2 is wrong! (cause it's referenced to ThinRaster) compared to HDCAM. All know/ talk about HDCAM's real color resolution that is 3:1:1, but the resolution of 3:1:1 references to 1920x1080 FullHD, and you should always reference to the full raster)

(720)

Color Sampling = 3:1.5:1.5, Bandwidth = 98,5 Mb/s, Compression 6.7:1, Precision = 8 bit, 960x720p60
Color Sampling = 3:1.5:1.5, Bandwidth = 82 Mb/s, Compression 6.7:1, Precision = 8 bit, 960x720p50

HDV

(1080)

Color Sampling = 4:2:0, Bandwidth = 25 Mb/s, Compression 22.5:1, Precision = 8 bit, 1440x1080

(720)

Color Sampling = 4:2:0, Bandwidth = 25 Mb/s, Compression 22.5:1, Precision = 8 bit, 1280x720

also here 4:2:0 is referenced to thin-raster, so compared to fullraster it must be 3:1:0 or 3:1.5:0 depending on format and framerate (at this moment i have no trustworthy enough informations, on for hdv is in the table below, but that would be a 3:0.5:0.5 color sampling for hdv, i'm not sure if this is right)

A note about Varicam

You have to load overcranked Varicam via firewire for any NLE to interpret the Varicam flags. The Frame Rate Converter is not realtime.

You have to either:

1. Run the footage through Panasonic's Frame Rate Convertor and spit out true 23.98 footage on a new tape (which now becomes your camera original).
2. Ingest the footage with a AJ-1200a HD deck **via firewire** into an MC or FCP system, with the free plug-in from Panasonic and transcode the footage to then send into the DS **or:**
3. Change the settings in the 1200 deck to be 24/25 fps and up convert to 1080p and capture into the DS from the deck in a 1080p 23.98fps project.

Panasonic AJ-HDC27F Varicam VTR

[Complete manual for Panasonic AJ-HDC27F Varicam VTR](#)

Panasonic AJHD 1200 VCR

[Complete manual for Panasonic AJHD 1200](#)

Special thanks to Phil Coulloudon

Bogdan Grigoresco notes that many of the settings for the AJHD 1200 will flash and the actual setting will not change until you power cycle the VCR to make them take effect.

For example, if you want to change this VCR from 59.97 to 23.98:

1. Go to "00 - System"
2. Select setting "25 - System Freq"
3. Change it to "23/24." (the setting will flash)
4. Cycle the power of the deck.

(Thanks to Ryan Mulvaney)

Panasonic AJHD 1400 VCR

[Owners' Manual for Panasonic AJHD 1400](#)

Special thanks to Phil Coulloudon

Panasonic AJHD 1700 VCR

The Panasonic AJHD 1700 is unable to record @23.98. The 1700 only records 59.94 (720p frames or 1080i fields). It is able to record at 50 frames or fields per second.

[Owners' Manual for Panasonic AJHD 1700](#)

Special thanks to Phil Coulloudon

Panasonic AJHD 1800 VCR

[Owners' Manual for Panasonic AJHD 1800](#)

Special thanks to Phil Coulloudon

Panasonic AJHPM 110 Portable P2 Deck

[Owners' Manual for Panasonic AJHPM 110 Portable P2 deck](#)

Special thanks to Phil Coulloudon

Panasonic AJHD 3700B D5 VCR

Layoff issues:

Problem: cannot lay to tape (with corresponding TC) without jamming code from another deck. Code is set to internal and nothing is patched. Yet at the cue point it jumps to another code and that particular code is inconsistent.

Check the timecode convert menu on the deck to see if the remote TC is spitting out the incorrect frame rate.

There's a TC cross over point that you can set when using the TC conversion functions:

1. Go to TC/CHR menu
2. Go to "convert" page
3. Make sure that you turn off conversion options. i.e. 24-30, 24-25 ... etc.
4. Make sure that the "TC SYNC" point is not set to something weird.

[Owners' Manual for Panasonic AJHD 3700B](#)

Special thanks to Phil Coulloudon

To set the Timecode on the Panasonic AJHD 3700N D5 VCR

Use the button in the middle of the four curser arrows to get to the timecode. Hit it TWICE.

(Thanks to Paul Neal)

Panasonic AG-HVX200 Camera

[Complete Manual for Panasonic AG-HVX200 Camera](#)

Sony HDCAM versus HDCam SR

HDCAM = 8bit/3:1:1 = crap

HDCAM = 4Ch. Audio

HDCAMSR = 10bit 4:2:2 = happy happy

HDCAMSR = 12 Channels of audio. Not that you can do anything with those last 4 from DS...

Use SR if possible, then D5. HDCAM if you must.

HDCam SR single-link is 4:2:2.

Dual Link will give you 4:4:4 but you must use an AJA Xena 2K Dual Link video card for 4:4:4 I/O

HDCAM is 4:2:2 8-bit and 4 channels of audio.

SR can be either 4:2:2 or 4:4:4 and supports up to 12 channels of audio.

You can't put more than 4 channels on an HDCam tape. You can put either 4:2:2 or 4:4:4 (8 or 10 bit) and up to 12 channels on an SR tape. You can play an HDCam tape in an SR deck, but you can't play SR in an HDCam machine.

Sony HDW-M2000

[Owners' Manual for Sony HDW-M2000P](#)

Special thanks to Phil Coulloudon

Change System Frequency (Frame Rate)

Menu Item 13

To switch the system frequency between 59.94i, 50i, 29.97PsF, 25PsF, 24PsF and 23.98PsF proceed as follows:

Note

- Before carrying out this operation, consult the person responsible for system installation.
- When the unit is used in 50i, 25PsF mode, analog tape can only be played back in the simple playback mode.

- When this unit is put into 24PsF or 23.98PsF SDI (D1), component and composite signals are not output.

1. Perform steps 1 to 3 in the procedure described in the section "To change the settings of menu items without sub-items on page 10-3 to set menu item 013 SYSTEM FREQUENCY SELECT to ON.

The menu display changes to allow switching of the system frequency between 59.94i, 50i, 29.97PsF, 25PsF, 24PsF and 23.98PsF.

2. Switch the setting then press the F5 (SET) button.
3. Turn the unit off.

The next time the unit is turned on, it will operate in the new mode.

For some frequencies, you may need to have 23.976 Tri-level reference going into the deck. You may also have to have the pull-down card installed on the machine for some frequencies to work.

"Data" on Audio Channels

(added_02.19.2008)

Problem: Sony HDW-2000 shows "Data" on channels 3&4 when those channels are receiving M&E audio up the SDI spigot.

Solution:

The Sony HDW-2000 switches to Data on those channels for Dolby E encoded audio. It should automatically switch on playback if the tape has Data on those channels. Otherwise for recording purposes you have to manually change it to accept data or audio:

1. Hold the 'home' button while pushing the 'menu' F5 button.
2. Use the control knob until 'M3 others' shows and push set
3. Use the control knob until 'M37 audio config' shows and push set
4. Use the control knob until ' M372 non-audio input' shows and push set
5. Use the control knob until 'M372 Tr3/Tr4 audio' shows
6. This part gets a little tricky and sometimes it doesn't actually work like this, but... Hold the home button and turn the control knob until 'burst' shows. Push set. 'Burst' should then turn to 'comp'. This should set it to receive Data for Dolby E. Do the reverse for audio. You may need to power cycle the deck.

(Thanks to Jeff Moorbeck for this tip)

SONY SRW-5500

Record Problems

(added_5.03.07)

Duplicated frame when inserting onto an HDCAM tape with the SRW-5500; 1080i 59.94 timeline. No errors on the DS, no warnings on the SRW. The DS sync is green, the channel condition of the SRW is green.

Check your deck:

it's always a good idea to check your record-play offsets with a new machine or before a critical job in case something in your plant changed that would affect timings.

Just make a basic and make a ten frame clip in DS with a countdown to identify each frame. Output to tape and jog through to see if everything is correct. Then bring it back in to DS to make sure that the input timing is also correct. Adjust your play/record offsets as needed. The most common way to make a bad basic is to have incorrect video/reference feeding the record machine.

Sony technicians will claim that this is a problem in the Avid template. Setting the DS deck template to -1 corrects the problem. Unfortunately, the problem also exists on the Symphony, and there is no way to alter the play and record of the deck from a Symphony. Insist that Sony install the latest firmware on the SR deck. The latest firmware should fix the problem, as documented at the CBC.

Additional setting on deck: Menu setting A10 : TC Sense Sel needs to be set 'LINE / 24F'. Sony technicians may ask you to check this menu setting and confirm that it was set to 'FC / 30F' which is wrong.

(added_5.05.07)

A-10 is TC Sense and it is near the bottom of the VTR setup Menu. The choices are FC/30 or Line/24. Choose FC/30 to get 30frame code from a 23.98/24 source tape when adding pulldown on the FC output, this is the condition when a 30 frame offline used a 30 frame down convert of 23.98/24 frame material. If the offline was done as a 23.98 or 24 frame universal project then you should be able to use the 24 frame code. To use the 24 frame code set A-10 to line/24.

Here's the tricky part. When in the FC/30 mode there is a one frame delay of the time code out the rs-422, to match the frame delay in the FC board.. When you output to the machine you must set the A-10 back to Line/24 otherwise there may be a black frame at the beginning or end of the edit because of the time code delay. Earlier HD decks had a separate delay menu item along with the TC sense. The SR series combined the two menu items so beware.

Sync Issues

(Added 06.08.2007 from DS List BG)

SRW-5500, as many other decks can be instructed to use its locking signal from:

- input video
- ext reference HD
- ext reference SD
- both SD and HD reference inputs in a 23.98 to 29.97 3:2 pulldown scenario

For users that are not sure what are they locking up to, SONY has 3 amber LEDs on top of the jog wheel. Check those and you'll find all the answers.

(added 06.09.2007 TE)

There can be two reference inputs needed on the 5500 depending on the options you have. One reference will always be required to play the native format of the recorded tape. If you have the format converter option board, you will need a second sync source that matches the format you are expecting to convert to.

4:4:4

You must have the HKSR 5003 board to play back 4:4:4 tape. It's about \$11,000 USD from Sony. To convert 4:4:4 to 4:2:2 or cross-convert 1080 to 720 (in real-time during record or playback) you need the HKSR 5001 format conversion board option installed as well. This 5001 is common option because the deck isn't very useful without it in the first place. But to play back 4:4:4 tape or convert a 4:4:4 tape into anything, you must have the HKSR 5003 option as well. This 5003 option is not a 'board' that plugs right in, it's actually about 6 small circuit boards that have to be added onto 3 of the existing boards in the deck.

Editor's Note: It is fairly typical of Sony to sell VTRs and other equipment that is pretty much useless to your workflow, as their sales staff will tell you of the capabilities of Sony equipment with all of the options and happily sell you equipment that is as useful as a boat anchor in your facility until or unless you purchase highly-priced extra-cost options that allow the Sony equipment to really meet your needs.

When purchasing equipment from Sony, you need to fully research the equipment and know more about it than Sony's sales staff does. Bait-and-switch seems to be normal practice for their sales staff.

Problem:When laying off to SR 1080p 23.98 my audio appears to be outputting 2 frames early.

1. Make sure that on the SR deck the timecode sense is at **24**, not 30. If this is at 30, DS won't tell you it's wrong and output anyway, but you may end up with an offset.
2. Set the frame convert on the deck to **1080/23.98**
3. Change the setting for the "9P TC Sense" to **line** (instead of FC/frame convert) -- found under the pf2 set of options:

The settings on the deck should read...

- Sync = 1080/23.98
- PB = 1080/23.98
- Frame Convert = 1080/23.98
- 9p TC Sense = Line

Case Study

Brian Holter had this issue and wrote:

I did try the audio propagation delay and have found some interesting results. I set the delay to 2 frames just to see what would happen. The result was my audio and video in sync but both were two frames early, meaning by 01:00:00:00 card was coming up at 00:59:58:22. I have offset my sequence to compensate for this and my layoff is accurate, audio and video in sync.

The fix here is to set an edit offset of 2 frames in the VTR Preset and then save that in the deck template for further use.

Play back 1080Psf 23.98 masters as 1080i 59.94

To get the right timecode,

1. VTR Setup
2. A10
3. TC Sense SEL
4. FC/30

This assumes you have the right sync you should feed both tri-level 23.98 and NTSC(locked together) to the deck, and have the ref set to External. This is a common cause for cadence and inaccuracy issues with timecode.

(Thanks to Bogdan Grigoresco)

Preserving Closed Captioning in HD

When you are sending ANC closed captioning information in HD to the SRW-5500, you must set up the machine correctly. Currently (DS v 10.3) no Avid DS is able to preserve closed captioning for HD using either the Nitris or AJA.

- MC v4.x will handle ANC with MojoDX, NitrisDX and Adrenaline HW

- Symphony v4.x will handle ancillary data when running on Nitris DX.

You need to have the MetaData set as follows for HDCAM:

- ANC1
- Line 1: 9
- Line 2: 572
- DID: 61
- SDID: 01

Additionally you have to set the deck to use the CC data instead of User Data: In the system menu, under META DATA there are three choices, "C.C." "USER" and "FILM" -- you must have "C.C." selected for Closed Caption to be the META DATA.

[Zoe Creative Services](#) in Nashville offers HD Closed Captioning.

(Thanks to Troy Thompson and Timothy Duncan)

Format Converter Option

Typical of Sony equipment, necessary items are "extra cost options." The format converter card is one. It is the only way you can output 4:2:2 video off of SR tapes and you need an optional 4:4:4 card to input and output 4:4:4 video.

In the case of the former, There is a separate output on the back of the deck labelled Format Converter Output that the 4:2:2 signal comes out of.

[Photo of the rear of SRW 5500 showing Format Converter outputs](#)

[SRW 5500 input-output compatibility matrix](#)

(special thanks to Tom Edwards and Bogdan Grigoresco)

[Owners' Manual for Sony SRW-5000 and 5500 VCR](#)

Special thanks to Phil Coulloudon

SONY SRW-5800

The 5500 can be set record in 'plain' HDCAM *as well as SR* and use the 12 tracks of audio, where as the 5800 will not record the older HDCAM 3.1.1 format. The SRW 5800 is HDCam-SR only and will do 4:2:2 1080 59.94P as well as 720 59.94P. The SRW-5800 does 4:2:2 and even up to 1080p60. It can also playback dual 4:2:2 tapes (2 streams of 4:2:2 video recorder simultaneously such a Left eye/Right Eye)

recorded on the SRW-1.

- The 5800 is RGB recording only.
- It has dual HDSDI support as standard but no HDSDI 422 input.
- No Pre-read function on the deck.
- No crossfade option when doing audio edits to tape. Cut only.
- No Varispeed tool (plus the pitch corrector).

In true Sony fashion they have not made one deck that does it all instead they have made 2; The 5500 which is king of the 422 world with some of the 444 functionality of the 5800 and the 5800 which supports both 444 and 888 recording and playback for the purpose of slo-mo and 3D stereoscopic recording.

So if you want it all you will need both. We thought Sony had taken leave of their senses when they made the 5800 nearly \$30K USD cheaper than the 5500 but on a closer look we discovered why.

A note about the audio crossfade issue:

A technician at Sony has verified "no pre capability, due to different head stacks from previous models..."

So, there will be certain formats that are unique to the 5800 that one will not be able to perform audio inserts to. Such as "HQ" and the "double stream."

(Thanks to Jonathon , Timon Mahoney, Mark McCone, Graham Cooke Jean-Marc Porchet and Brian Holter)

Sony HVR-1500 Digital HD Videocassette Recorder

(Added 05.19.2007)

[Owners' Manual for Sony HVR-1500 VCR](#)

This machine was based on the DVCam 1500 deck (DVR1500).

Plays HDV, DVCam, and DVSP. Has BNCs with HDSDI, SDSDI outputs also firewire. All BNCs with XLR connectors.

It features color interpolation applied to the outputs. It has full 422 control and handles tape extremely well. You can direct clone to HDCam or Varicam with matching timecode. This is finally the pro deck we have been expecting.

It does not have an HDSDI input. HDV is recorded through firewire. It is handy for dubbing Digital Beta to DV via SDI.

It does not compare to the Miranda or Convergent boxes; this is a real deck.

More information at [Sony's site](#)

(From the DS List MM)

5.1 Audio into the DS-Nitris

(Added 11.01.2007 from List MH)

In your Capture tool, you can set the audio to 8 channels and then you can actually select how you want to bring each track in...mono, stereo pairs or one clip that has all tracks in it. You can capture either AES/EBU or Embedded. Both have been tested to work with Panasonic D5 and HDCam-SR. You may have to make a new 8-channel deck template by hitting [Alt]-[F8] to bring up the template editor.

If the material was not shot in 5.1, it is a good idea to select mono to bring in each channel as an individual mono track so that you have more control on the timeline. Of course you'd have to set up the time line with 6 tracks and then patch the audio for the timeline for 6 tracks.

If the footage was shot in 5.1 with the following layout (L,R,C,LFE,LS,RS - this is the layout DS works with), capture your footage as a 5.1 track rather than separate mono tracks *unless you have to make substantial changes to the audio in the DS*. The reason for this is that if you are getting involved with a creative edit process you will have fewer tracks to manage as you edit.

If you don't have 5.1 audio monitoring in your suite you could do a cheap folddown by choosing a stereo mixer and then for each 5.1 track in your timeline patch the left and right to the left and right output and the centre to both the left and right output.

You will certainly need to output your completed timeline to a protocols system (or whatever you use) so that you can get a proper folddown to stereo. You will probably need to test whether an OMF would work properly - if not allocate time for a track lay and export wav files of your individual tracks (make sure the mixer is set to 5.1 in it's default patching for this).

If you can get 5.1 audio monitoring in the suite you can have a lot of fun with the audio panning effects around etc!

NB: If your HDCam-SR is 4:4:4 media, you will need the AJA board to handle 4:4:4. The normal Nitris BoB works fine with 4:2:2 media.

Sony HDW-F500

[Owners' Manual for Sony HDW-F500](#)

Special thanks to Phil Coulloudon

Unless you have an engineer who insists that you don't do this - go into the "Set Up" menu, and access the submenu where you can assign menus to the PF (Programmable Function) softkeys. Set one of them to item K20 (IIRC) - that's the System Menu - where you can change the machine format. Saves you from having to find something small and pointy, and digging through four or five submenus. The procedure is

similar for the SR decks... I usually set up the deck so that you've got the System Menu, Servo Ref, and downconvert functions on PF1+Alt or PF2+alt.

-Kevin Perry (avidatkevinperrydotnet)

Sony HDW-1800

[Owners' Manual for Sony HDW-1800](#)

Special thanks to Phil Coulloudon

Sony JH-1 and JH-3

[Owners' Manual for Sony JH-1 and JH-3](#)

Special thanks to Phil Coulloudon

Sony HDW-F900 Camcorder

[Owners' Manual for Sony HDW-F900 Camcorder](#)

Special thanks to Phil Coulloudon

Sony HDW-F900R Camcorder

[Owners' Manual for Sony HDW-F900R Camcorder](#)

Sony PDW-F355L XDCamHD camcorder

[Owners' Manual for Sony PDW-F355L XDCamHD camcorder](#)

Sony HDRFX1 HDV camcorder

[Owners' Manual for Sony HDRFX1 HDV camcorder](#)

Have You lost VCR Control? Have you been unable to establish VCR Control?

Firstly, software and training versions of DS cannot control VCRs. So if you are on software only, you'll never get machine control.

Here is how to establish or re-establish VCR Control:

1. Turn off CPU
2. Pull power cord and leave it disconnected for 30 secs
3. Reconnect and reboot

If that doesn't work then try this:

1. Go to Device manager and remove the com port
2. Turn off CPU
3. Pull power cord and wait 30 secs
4. Reconnect and reboot
5. XP should automatically detect new hardware (removed com port) and offer to install it for you. If it doesn't then select "Add New Hardware" to force XP to find it.

(Thanks to Tony Jover and Tomio Iwasa)

// Revised: Oct 15, 2010 5:56 am

Best Practices for Windows Media Encoding

An article written by Ben Waggoner, February 21, 2007 at [Streaming Media.com](http://StreamingMedia.com)

Microsoft's Windows Media Video has been a leading web video format for many years, but good hands-on information for how to get the best results out of it hasn't always been easy to come by. Also, Windows Media has an enormous breadth of ways it's used, scaling from mobile phones to the PC to CE devices like the Xbox 360. This article strives to codify the most important best practices to get the optimum Windows Media encode, whatever the source and delivery environment.

Update to the Latest Codecs

The first and easiest best practice is to make sure that you have the current versions of the codecs installed on your encoding box. We've recently released a number of backwards-compatible enhancements to the codecs that offer broad improvements for anywhere Windows Media is used. The video codec has seen impressive, fully backwards-compatible improvements. Our codec is now 4-way threaded, meaning it can use all the cores in a dual-core, dual-socket workstation, or one of the new single-socket quad-core systems. Beyond that, there are a variety of general improvements in both performance and quality. More details can be found in "Using Windows Media Registry Keys," pp. 30–32 of the November 2006 issue of Streaming Media. Beyond video, there is also a new version of WMV 9 Advanced Profile, the new WMA 10 Pro, and enhancements to WMA 9, all detailed below.

This article refers to the new and updated versions of WMV 9 as "Version 11" or "v11." There are four ways to get the v11 codecs:

- Install Windows Media Player 11
- Install the Windows Media Format SDK 11
- Install a program that installs the Windows Media Format SDK 11 runtime
- Use Windows Vista (Not approved for use with the Avid DS)

Video Codecs

First, a note on VC-1. There's been some confusion on the relationship between the Windows Media Video codecs and the SMPTE (Society of Motion Picture and Television Engineers) VC-1 spec. VC-1 is the SMPTE designation for their standardization of WMV 9. In essence, you can now think of Windows Media Video 9 as Microsoft's brand for our implementation of VC-1, as implemented for advanced streaming format (ASF) files.

The VC-1 Simple and Main Profiles are progressive, and hence part of the existing WMV 9 profile. The Advanced Profile requires the new WMV 9 AP implementation. Note that the older and rarely used WMV 9 Complex Profile was not included in the VC-1 spec, and should no longer be used (although files using it are still supported for playback).

Windows Media Video 9

Windows Media Video 9 (WMV 9) has been a popular, mainstream choice for web video applications since the WM 9 ("Corona") launch back in 2002. We've been able to provide several generations of backwards-compatible enhancements to both quality and performance, so today you can encode WMV 9 both faster and with higher quality than ever before.

In general, the only time you'd use a codec other than WMV 9 for web video use is if you were trying to stream native interlaced content (and hence using WMV 9 Advanced Profile, described below) or screen capture content (potentially using WMV 9.2 Screen, also below).

There are two profiles supported in WMV 9—Main Profile and Simple Profile. For computer playback, WMV 9 Main Profile is the optimum choice. Simple Profile is a simpler version of the codec that targets lower-powered mobile devices, like mobile phones. This simplicity means it requires less horsepower to play back, but it also requires more bits to provide equivalent quality to Main Profile since Main has so many more tools it can use to improve compression efficiency. That said, many mobile devices, including those running Windows Mobile 2003 or higher, will decode Main Profile, although they'll need a lower bit rate for it.

Many encoding tools don't provide a profile control, and only do Main Profile.

Windows Media Video 9 Advanced Profile

Windows Media Video 9 Advanced Profile is a non-backwards compatible enhancement to WMV 9, focused primarily on much improved support for encoding content as interlaced, with other enhancements helpful for IPTV and HD DVD. For most web video, neither are needed.

WMV 9 AP was introduced with WMP 10 and the Format SDK 9.5 back in 2004. However, there have been a few format tweaks in the v11 implementation, meaning WMP 9 and 10 will require a codec download to play back v11-encoded WMV 9 AP.

Windows Media Video 9 Screen

The WMV 9 Screen codec is designed for efficient compression of screen recordings. It's a special-use codec—very efficient for this task, but not appropriate for encoding normal video. Screen is the most efficient with simpler, flat graphics, so you can get efficient encoding out of the "Windows Classic" theme in XP and Vista. However, richer graphics environments, especially Vista, include a lot of gradients and transparencies, and can often encode more efficiently using standard WMV 9.

For efficiency, WMV Screen needs access to the uncompressed RGB source video of the screen shots, and it doesn't work well when compressing from screen shots that have had any lossy encoding already applied to them. It's typically used in conjunction with lossless screen recording products like TechSmith's Camtasia. On a fast computer, it's possible to use Windows Media Encoder to record, or even broadcast, live screen activity with the Screen codec.

Compared to other screen capture codecs, WMV 9 Screen is unique in providing full support for 2-pass VBR and CBR encoding, making it possible to use it for real-time streaming.

Windows Media Video 9.1 Image

The WMV 9.1 Image codec is designed for video sequences made out of individual still images, including transitions. For this special class of content, Image can be quite a bit more efficient than WMV 9, but it is much less efficient for typical motion video sources.

Audio Codecs

Windows Media Audio 9.2

Windows Media Audio (WMA) 9.2 is a fully backwards-compatible upgrade to the venerable WMA standard. It's compatible back to WMP from the mid-'90s (predating ".WMA" files!), and can be played back virtually anywhere. The 9.2 version includes some minor (but welcome) performance and quality enhancements compared to the previous version.

WMA is the general, safe codec choice for any Windows Media file. It's flexible, offers high quality with sufficient bit rate, and is playable by anything that can play a .WMV file. However, there are some scenarios where Voice or WMA 10 Pro can offer better performance.

Windows Media Audio Voice 9

WMA 9 Voice is designed for low bit rate applications below 32Kbps, where WMA and WMA Pro don't perform as well. Despite its name, it does a credible job with music and other non-voice content. You're not going to dance to WMA Voice at low bit rates, but it can intelligibly compress music interludes and sound effects in otherwise voice-centric content.

WMA Voice 9 is supported in WMP 9 and higher. Note that Voice is not currently supported in all non-Windows players. Most notably, it isn't supported in the current versions of Flip4Mac or the Kinoma player for PalmOS.

WMA Voice replaced the now deprecated ACELP.net audio codec, and should be used instead.

Windows Media Audio 10 Pro

While the new video codec features of WMV are exciting, the biggest technical leap is the new Windows Media Audio 10 Professional codec (WMA Pro 10), which offers up to twice the improvement in compression efficiency compared to WMA 9. The original WMA Pro 9 has been around for several years, and it offers great audio quality and efficiency at 128Kbps and up. WMA Pro 9 supports up to 7.1 channels, up to 24-bit sampling, and up to 96KHz frequencies. But the high minimum bit rate (128Kbps) took it out of the running for most web video tasks. Thus, most streaming video projects have kept using good old WMA 9, which provides good support for lower bit rates.

With WMP 11, we've added a new frequency interpolation mode to WMA Pro, and incremented the name to WMA 10 Pro. With the new mode, we encode a "baseband" version of the audio as normal WMA 9 Pro at half the selected frequency, with additional data that tells how the higher frequencies are added. This gives a stream that's backwards-compatible with the existing decoder, but provides enhanced quality with an updated decoder (bundled with WMP 11).

WMA Pro 10 provides up to two times the efficiency of WMA 9.2, so at 64Kbps it can provide similar quality to WMA at up to 128Kbps. However, if only the old decoder is used, you only get the lower-quality baseband audio.

We feel WMA 10 Pro is the best audio codec included in a major streaming platform today. It handily beats our older codecs, as well as MP3, AAC-LC, and even the new HE AAC-LC, as demonstrated [in this study](#)— [Warning: PDF](#).

WMA 10 Pro is appropriate to use once the majority of your customers are using WMP 11 or another player that supports the full codec. Then at the same bit rate, a WMA 10 Pro stream with the older, non-upgraded decoder can sound a little worse than a WMA 9.2 version. Because it's an enhancement of the older codec, WMA 10 Pro won't trigger a codec download—users only get the new codec if they install WMP 11, Format SDK 11, or if they're running Windows Vista.

The biggest place where WMA 10 Pro is being used today is with Verizon's V CAST mobile media service. We're also working with over a dozen additional vendors to add WMA 10 Pro support to their devices.

Windows Media Audio 9.2 Lossless

The WMA 9.2 Lossless codec is, as the name implies, a lossless audio codec. A lossless audio codec's output is bit-for-bit identical to its input. Essentially, it's a more efficient alternative to PCM (uncompressed) encoding, and functionally equivalent to Zipping up a .WAV file.

The flip side of lossless encoding is that there's no bit rate control possible—each second of audio takes as many or as few bits as it needs. Hence the codec is only available in Quality VBR mode. Perfect silence takes up very little bandwidth, while white noise takes up as much as uncompressed. Typical savings are around 2:1 for music and 4:1 for TV/movie soundtracks.

In general, WMA 9.2 Lossless shouldn't be used for WMV files for streaming, obviously, as they are CBR. And WMA 9 and 10 Pro can provide incredible sounding audio at lower bit rates, and transparent compression at lower bit rates than WMA Lossless.

Data Rate Modes

Constant Bit Rate (CBR)

In essence, a CBR file is one where the average bit rate (ABR) and peak bit rate (PBR) are identical. This is appropriate for when peak bit rate is the primary constraint, required with real-time streaming, and typically used with devices where the speed of the decoder is the limit.

However, the constant rate is within a certain window of time, the buffer duration. So, a 200Kbps clip with a five-second buffer means that any five seconds of the file has to be at or below 200Kbps per second. But any individual second could go quite a bit higher than that.

1-Pass

1-pass CBR is required for live streaming (webcasting), of course. It's also the fastest bit rate-limited mode available in Windows Media (the bit rate-limited VBR modes are 2-pass only). Note that 1-pass CBR encoding can be significantly improved by the use of the Lookahead registry key parameter, described in a document linked at the end of this article.

2-Pass 2-pass encoding essentially lets the encoder see into the future, ramping the bit rate up and down as needed to account for future changes. With the v11 codecs, it always provides at least as good quality as 1-pass CBR, and will often provide significantly more consistent quality with variable content. And with the v11 codecs, the first pass is much faster than the second pass or a single pass would be, so going to 2-pass doesn't double encode time—it's more typically a 20% increase. So, the 2-pass should generally be used instead of 1-pass for CBR except for live streaming.

Variable Bit Rate (VBR)

The essential difference between CBR and VBR is that VBR files have a peak bit rate higher than the average bit rate. This lets a VBR file be more efficient for file size, since it can distribute bits throughout the file to provide optimal quality. You can also think of the difference as "CBR maintains bit rate by varying quality, and VBR maintains quality by varying bit rate."

1-Pass Quality-Limited VBR

1-pass quality-limited VBR is a pure VBR—you just specify the quality, and each frame takes as many bits as needed. The final file size can vary tremendously depending on complexity, and there's no limit on peak bit rate at all. Obviously, this makes quality-limited VBR a poor choice for content distribution. However, it's a great mode for archiving content, and since it is 1-pass, it can be captured in real time on a sufficiently powerful box.

2-Pass Bit Rate VBR (Constrained)

2-pass bit rate VBR (constrained) is the optimal encoding mode for when the playback environment can handle a peak bit rate higher than the average bit rate. This is typical of content that is distributed as files instead of streams, be it off a web server or a file on a disc. Almost every web video WMV file not targeted to run on Windows Media Services should be using Constrained VBR.

With previous versions of the codec, we recommended that 1-pass CBR be used for HD content, since there was a problem with occasional dropped frames with 2-pass at high bit rates. This issue has been addressed in the v11 codec, and 2-pass VBR can now be used for HD content. This can result in big savings in file size.

2-Pass Bit Rate VBR The unconstrained 2-pass bit rate VBR mode is just the same as constrained VBR, but without any peak constraint. This means that playability isn't predictable, and in most cases the constrained mode should be used instead.

General Parameters

Data Rate

Probably the most critical parameter for any WMV file is its data rate. This determines how big the file is,

and how much bandwidth a user would need to stream it. By default, Windows Media measures data rate in kilobits per second (Kbps). To figure out how big a file at a particular data rate is going to be, use this simple equation: the size in KB equals the data rate (in Kbps) divided by 8 times the duration in seconds. The "8" is in there as data rate is in kilobits per second, but file size is in kilobytes per second. I use "b" for bits and "B" for bytes as shorthand.

Note that Windows Media, like most streaming platforms, uses the correct base-10 metric values for K, M, and B, not the base-two derived values often but erroneously used for shorthand in computing.

To correctly predict the file size, note that you're calculating accurate KB sizes, while most operating systems list file sizes in KiB/MiB/GiB by default. To get the real value, see the file's Properties and look at the value in bytes. For more information see [this article](#).

Peak Buffer Size

The buffer-size parameter is available for all bit rate-limited modes. It specifies the duration (in seconds) of the window over which average (for CBR) or peak (for VBR) bit rate is calculated. Bigger buffers can provide more efficient encoding, but make hardware decode more complex and increase latency. For real-time streaming, the maximum startup and random access latency can go up by up to a second for each additional second of buffer.

Peak Bit Rate

Only used in bit rate VBR (peak), the peak bit rate value indicates the maximum bit rate during the peak. Higher values improve the quality of difficult sequences, but also increase the complexity of the decode. A simple way to determine appropriate bit rate is to encode in CBR with the same parameters, and find the highest data rate that will play back reliably. You can then use that as the peak bit rate.

Keyframe Interval

Keyframe interval determines the maximum time between keyframes. A keyframe (also called an I-Frame, for independent or intra frame) is a fully self-contained frame with no other frame based on it. These are the only frames that can be immediately jumped to in random access.

More frequent keyframes make random access, like scrubbing through a file or startup for a streaming file, faster. However, they also reduce efficiency, since a typical keyframe needs more bits to provide equivalent quality compared to normal frames. Note that the codec will insert additional keyframes as needed throughout the file, at points where the video changes dramatically.

Quality

The quality parameter used in the CBR and 1-pass (quality) VBR modes controls the target quality for the video. In quality VBR, it simply controls the quality of each frame, and hence how many bits it gets relative to its difficulty—higher values look better, but take a lot more bits.

In CBR, it controls emphasis on spatial versus temporal quality, essentially setting a minimum bar on frame quality. Lower values let the quality of video frames drop as low as needed in order to hit the target data rate without dropping frames. Higher values set a higher minimum frame quality, and the codec will drop frames on encoding in order to ensure the target bit rate and quality targets are maintained.

Using low quality settings can result in poorer video quality, even when the video is in no danger of dropping frames. This is because the codec doesn't always perfectly adapt to future changes in the video. In general, for most content you want to find the highest value that doesn't drop frames. The v11 codecs, especially if you're using the new registry key settings, can be a lot more efficient than previous iterations, so you can use a higher quality value with the same source and settings than before. I think 75Kbps is a good starting value for most web video now. If you're using Windows Media Encoder, it'll report after the encode if there were any dropped frames, a handy way of seeing if you're using too high a setting. WME also provides reasonable defaults to start with.

Encoder Complexity

Encoder complexity controls how hard the encoder works to encode the video. There are six levels in the v11 codecs with about an eight-fold difference in encoding speed from slowest to fastest, and about a 20% improvement in compression efficiency from fastest to best (which actually isn't the slowest). Different tools present the option in different ways. In Windows Media Encoder, it is set in Tools > Options > Performance. For optimal quality, the second-to-slowest mode (listed as "4" or "80" in some tools, and second last to the left in WME) is almost always the best choice. The slowest mode is a lot slower and very rarely produces any measurable improvement in quality.

Intelligent Streaming

Intelligent Streaming is Microsoft's name for our multiple bit rate (MBR) encoding system. The idea behind MBR is to provide content in multiple bit rates in a single file in order to provide scalability in streaming. Then the player and Windows Media Services (WMS) cooperate to determine the highest data rate version of the video and audio that will fit within the available bandwidth.

Intelligent Streaming is only available when doing real-time streaming from WMS with Windows 2003 Server. Files that won't be coming off WMS should not be encoded with Intelligent Streaming, since it'll just make the files larger, but won't provide any added functionality. Also, not all clients support Intelligent Streaming. It works best when targeting WMP 9 or higher running on Windows.

Tuning for the Target Player

Windows Media Player 11

Windows Media Player 11 is the newest version of WMP. It's available as a free download for Windows XP and built into Windows Vista. With WMP, you can safely use both WMV 9 Advanced profile and WMA 10 Pro's LBR modes.

Windows Media Players 9 and 10

WMP 9 is a good baseline target for mass-market WMV delivery today. WMP 9 is preinstalled with the widely deployed Windows XP Service Pack 2, and it is available via Windows update all the way back to Windows 98. WMP 9 established much of the modern infrastructure for Windows Media, and it's functionally equivalent to WMP 11 for almost all web video. It can safely use WMV 9 and all the WMA 9 audio codecs. WMP 10 was a fine release, but was focused more on performance and media management, and didn't add much functionality specific to web video.

Windows Media Players 6, 7, and XP

Older versions of WMP can use WMV 9 and WMA 9 using codec updates (either automatically downloaded, or via an enterprise deployment). However, none of the pre- WMP 9 versions support the full Intelligent Streaming model implemented in the current version of WMS, and hence can only switch between video tracks of the same frame size, and not at all between audio tracks. WMP 6.4 (the last version for Windows NT 4.0) also isn't reliable with VBR-encoded content.

Flip4Mac

Telestream's Flip4Mac is Microsoft's current recommended solution for Windows Media playback on the Mac.

Flip4Mac handles WMV 9 and WMA 9 and WMA 9 Pro very well, but doesn't currently support WMV 9 Advanced Profile or the other audio codecs. Telestream also offers professional versions of Flip4Mac that support importing WMV into Mac tools like Final Cut Pro and After Effects, and exporting to WMV in QuickTime Pro as well.

WMP 9.1 for Mac

While development has ended on it, WMP 9.1 for Mac is still available. While Flip4Mac provides higher performance and Intel compatibility, WMP 9.1 for Mac supports DRM and some web page embedding options that Flip4Mac does not currently support, although Telestream is working on improving embedding for future versions.

Windows Mobile

Windows Mobile has included Windows Media Player for a number of generations, and any device with Windows Mobile 2003 or later (including 5.0 and the just-released 6.0), has a very capable player, supporting WMV 9, WMA 9, Pro, and Voice. Kinoma Player

Kinoma has recently introduced a new version of the Kinoma Player for PalmOS with support for Windows Media playback. Note that it currently supports only the WMV 9 and WMA 9 codecs, without support for the WMA 9 Voice codec sometimes used for low-bit rate applications.

VLC

The open-source VLC player is adding WMV support to their forthcoming 0.8.6 release. While this product is not supported by Microsoft, it may become a useful solution for WMV playback on other platforms.

WPF/E (Codename)

The Windows Presentation Foundation/Everywhere is Microsoft's codename for a forthcoming rich media browser plug-in. It will support WMV 9 and WMA 9 on Mac and Windows, and within Internet Explorer, Firefox, and Safari. It's currently available as a Community Technology Preview. Downloads and lots of other information are available [here](#).

Advanced Registry Key Settings There are a variety of new advanced registry key settings supported in the v11 WMV 9 and WMV 9 AP codecs that can be used to dramatically fine-tune video quality. These were covered in detail in [this article](#). There is also a new PowerToy to edit and share those settings, [available here](#).

X

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XDCam EX

The [Sony XDCAM EX](#) Prosumer system can record at 25 Mb/s-1440x1080 or 35 Mb/s-1920x1080 VBR. It uses the newer 1/2" chips and even at 25 Mb/s-1440, the audio is uncompressed and the lookup table is much better than HDV. The pictures even at 1440/25 Mb/s second are far superior in every way to HDV. Word is the glass, depth of field, quality of blacks, so-called contrast range etc etc is amazing. Only a complaint concerning shooting around strobe lighting has been noted.

That being said, the output files are wrapped in an MP4 wrapper but you cannot just rename them. The XDCAM camera comes with a file browser that will allow you to export the files shot at 25 Mb/s-1440x1080 MXF which the DS can handle currently. The browser utility will also allow export of 1920x1080-35 Mb/s but that will cause DS problems. Hopefully the re-write of DS version 9 or a Quick Fix will handle the EX files directly.

Word on the street is that Avid is late with accommodating EX. THAT is unverified as far as version 8.x. I too believe the the EX format will become the most popular format for general use. Of course movies and artsy material may still resort to SR, 2K, 4K and the sky is the limit.

To ingest footage from the EX you connect USB-2 to Media Composer and the two 16 GB cards will show up on your edit system as drives. You can then import them to Media Composer and current versions of that software will handle them. Then you can transcode the material to MXF, create an AFE and send to DS.

Another way to handle the files is to play back from the camera via SDI output and digitize in but beware of the MANY variables.

Bob Maple's [Getting P2/XDCam, etc. into DS 10](#) tutorial

In order to follow this tutorial, you need to download Sony's [XDCam EX Clip Browser for Windows](#) and the NLE Editing And File Transfers software at the same link.

Case Study

If you use the 'Send To' function in MC (or 'Export') as AAF, you can choose separate folders for the audio and video to go to; If you look at [Bob Maple's tutorial](#) at around 8:32 you can see at the bottom of the window under 'Media Destinations' there is a Video and an Audio pulldown widget. Bob selects the same folder as the video, but it can certainly be a different one.

The Consolidate/Transcode function in MC is a totally different dialog and wants to write back into a MC media storage. Bob pretty much always uses Send To so he can do the two exports at once; one to make an AFE for the timeline and another as AAF to consolidate/transcode the media into a separate folder (often over the network directly into DS MXF storage)

Then create the .AFE of the final sequence and move everything over.

Frameserver

Timothy Duncan came up with [this workflow](#), using Frameserver, which eliminates the need for Media Composer for earlier versions of DS

Sony PDZ-1 Software Avid DS ALE Fix

- The first step in adapting the ALE file you created with the pdz-1 software is to make two simple corrections in the ALE file itself.
- Save your ALE file in the pdz-1 software to your desktop and right click on it. Click on “open with” and use NOTEPAD as the software to view it.
- Once open, simply change two columns by typing over the existing column headings. The first is NAME. Type the heading SubClipTitle over it. Then type over SubClipTitle with the heading Name. Basically, you're swapping the names of these two columns
- Now save your ale file and open Avid MediaLog. Create a project or use an existing one. Create a bin inside your project and import the ALE file that you created. (For reference you can open any other ALE file created by Avid Media Log. The Columns must match up, so compare the headings).
- Click on each unnecessary heading, starting with Subcliptitle, and delete using the delete button. Continue until you have only the necessary headings (Name, Creation Date, Duration, Drive, IN-OUT, Mark IN, Mark OUT, Audio, Tracks, Start, Tape, Video).
- Select all the logs in your pdz1 bin and export the imported ALE as a new ALE file and save it. It is now converted to be used by Avid DS.

(Copied and pasted (and slightly edited by TQJ) from a workflow posted on Avid's DS forum 1st Feb 2008 by Whitebalance.)

[Avid's page on XD Cam](#) Warning, this covers Media Composer only, which is only part of your workflow to DS.

MXF Audio

(Case Study)

I'm assuming I should copy the MXF audio files into an audio MXF folder and add that storage. Is this correct?

You can dump all of them into one MXF storage area you have configured in DS, they don't necessarily have to be split up into a separate 'audio storage' area unless disk bandwidth is a problem on your system. *But you must have the audio and video in a folder set to **Read Only**.* I have an "MXF Storage" folder on my D: drive (the DS video array) and have been fine tossing everything there.

if you use a lot of audio, you are taking away some bandwidth from video streaming. So if you start to drop frames, you know that you should then use a dedicated audio storage NOT on the Video storage.

If you plan to write to your MXF storage for audio and video, you must create specific audio and video folders, and set each to MXF audio and MXF video. If set to MXF video only, don't expect that the audio will magically scan and be online. The Media Indexer probably prefers split storages for audio and video.

Editor's note: The DS Media Indexer will index any media it finds within its indexed path. It doesn't matter if that media is gen, mxf, or wav. (And if it's Quicktime that can cause all sorts of problems but that's another matter.)

If you are writing media then you **have to have** separate storages for video and audio. If you are only reading media that has come from elsewhere then both audio and video media can be in the same folder. If you are doing this then you are best off making this folder Read Only for the sake of neatness. Furthermore, if you are doing this and have a lot of audio then you could find that there is insufficient bandwidth to support the video media in RT, resulting in dropped frames.

So, very simple rules...

- Media that's being written has to be in separate folders for audio and video.
- Media that's only being read can all be in one big folder but it's not a great idea.

(Thanks to Liz Boyer, Bob Maple Tony Jover and Sylvain Labrosse)

HP xw8000 Power Supply

If you are having problems with your xw8000 not powering on, HP tech support recommends you unhook power supply from mother board, plug in. If the fan doesn't spin, the power supply is toast.

[Micro Parts USA](#) has them for \$60 cheaper than direct from HP. HP's power supplies may be back-ordered for up to 4 weeks. They may also be able to help you with power supplies for the other HP CPUs used in Avid DS systems.

Editor's Note:

Rick noted that the power supply that was shipped by Micro Parts was apparently used and it did not work on his xw8000. Specifications for a DS system for version 7.5 are [at Avid's website](#). You can also get specifications for other versions of the DS there as well.

(Thanks to Rick Emery)

[xw8200](#)

HP xw8200 Workstation

This section covers Avid DS workstation specific system items.

HP xw8200 BIOS Verification

The BIOS is a group of software programs that control the system during the boot process and perform other hardware-related tasks. When you start the workstation, the BIOS is the first group of programs to be loaded, even before the operating system.

The BIOS revision for the HP xw8200 workstation is changing during its running life. You should check with Avid Support for the latest qualified HP BIOS revision.

There are two ways to verify the BIOS Version :

While booting the workstation, the BIOS version appears on the upper left corner of the screen when you press Esc (escape) during the HP logo display.

From the Start menu, select All Programs > Accessories > System Tools > System Information. The BIOS Version/Date information appears in the System Summary list.

BIOS program executable:

[HP xw8200 BIOS v2.10](#) (5849K)

HP xw8200 BIOS Settings

If the BIOS is reprogrammed, some critical BIOS options must be verified to avoid any hardware conflict with Avid DS.

PCI-X 133

If the PCI-X 133 MHz default setting is not modified, Avid DS Nitris will start with a Video L-HAL type error. Set the PCI-X bus to 100 MHz to resolve this problem.

1. Reboot the workstation.
2. At the start-up screen, press F2 to enter the BIOS setup.
3. Select Advanced.
4. Press the arrow down to PCI Slot 5 (PCI-X 133) and press Enter.
5. Verify that Bus Mode is PCI-X and Bus Speed is 100MHz. If it is set to PCI and/or Auto, change the values to PCI-X and 100 MHz
6. Press Esc. The bus displays a PCI-X 133 label although its value is set to 100 MHz.
7. Next select Device Options.
8. Select Onboard SCSI Latency Timer.
9. Set to 160 PCI Clocks.
10. Pres Esc.
11. Select Chipset - Memory.
12. Select PXHA Secondary Latency Timer.
13. Set to 224 PCI clocks.
14. Select PXHA Secondary Latency Timer.
15. Set to 224 PCI clocks.
16. Press the F10 key to save and exit the BIOS setup.
17. In the Setup Configuration dialog, select Yes and press Enter. The workstation is restarting.

Processors

The Hyper-threading mode must be disabled. Avid DS is multi-processor and does not require this option.

For more information, visit [HP's Website](#)

Revised: Jun 5, 2009 1:03 pm

Y

YouTube

Please see the [YouTube page](#) for formulas for good encoding.

Revised: Mar 11, 2009 11:46 am

8th Annual DS LIST MeatFest NAB 2009 Sign up

Here's a running tally of those attending the *8th Annual Yolie's [DS List MeatFest at NAB](#)* on Tuesday, April 21st **7pm Drinks (self pay), 8pm Dinner**.

For your planning purposes, NAB this year is from April 18th through April 23rd. The "Exhibits" part of the conference runs from April 20th through the 23rd.

Special thanks, as always, to [Schy Gleason](#) for taking the lead on organizing the MeatFest again this year. [Google map for Yolie's](#)

NAME (# attending)

1. Sean E. Stall (2)
2. Schy Gleason (2)
3. Tony & Patti Quinsee-Jover (2)
4. Timothy & Carol Duncan (2)
5. Howard Chasteen, Ivan Pencoff (2)
6. Jim Fink (1)
7. Scott Roy (2)
8. Ed Fraticelli (1)
9. Paul Bonnette (1)
10. Russ Grycza (1)
11. Mike Spalla (1)
12. Randall L. Rike (1)
13. Marianna Montague
14. Jim Maxwell
15. Shane Rodbourn
16. Angus MacKay
17. Beth Martinko
18. Kirk Arnold
19. Steve McNeill
20. Vincent Maza
21. Edith Gosselin Picard
22. Tim Sinha
23. Dave Colantuoni
24. Alexi Matte
25. Tom Phillips
26. Ross Shain
27. Jeff Moorbeck (2)
28. Ron Heidt
29. John Heiser
30. Wayne Wolf
31. Victor Wolansky (2)

32. Rich Torpey (if you let ex-DS'ers in the door ;-)
33. Bill Lawrence
34. Ed Ball
35. Alan Gilbertson (2)
36. Dermot Shane & Eva Jackson
37. Liz Boyer (I'm back!)
38. Woody Sherman
39. Charles Tinsley
40. Kyle Riteland (cocktails 7-8 only)
41. Anthony Gordon (cocktails 7-8 only)
42. Bob Roose
43. Dirk Weinreich

(note: Feel free to add your own name or drop me a note and I'll add it. Thanks. - [David Tarr](#))

Revised: Apr 19, 2009 9:27 am

The Yolie's Last Man Standing Fund

This fund was created to cover the last man, “Just in case we drink too much here’s \$10’s to cover the last man standing fund”

Unfortunately with the crush at the bar and several last minute attendees the “piece of paper” of who gave \$10 “cover” is gone.

For those of you that chipped in let me know your address so that I can send it to you immediately or I would be happy to put your portion in with Tony Jovers \$’s request toward cancer research, the suggestion is [-Livestrong \(Lance Armstrong\)](#).

Liz Boyer Put mine with Tone's

Woody Sherman Mine too

Ed Fraticelli Same here. Good idea. Anyway, I already expensed it away!! Maybe the DS User Group will become a charitable foundation, someday.

Victor Wolansky Mine too.

Sean Stall Donate mine as well. Great idea, Tone.

Dermot Shane Me too

Randall Rike Sounds good

Timothy Duncan Megga Ditto for me on the donation.

Randall L. Rike Sounds good.

A generous contribution

In Honor of

Giving DS Users

has been made by Giving DS Folks

May you feel a sense of comfort in knowing this contribution will help the Lance Armstrong Foundation continue to support cancer survivorship programs and provide the practical information and tools people with cancer need to live life on their own terms.

May 2009

YouTube

Recipes and general discussion about encoding videos for use on YouTube. (updated: Mar 30, 2010 12:02 pm)

Recipe from Andi Loor

Now that YouTube have started offering higher quality videos, the old settings for encoding your videos should be tossed out the window. This tip will walk you through the steps required to compress your video for YouTube so it will look great.

1. Make sure your video is exported to the highest quality possible.
2. Open Squeeze and expand the MPEG-4 presets.
3. Click the "HQ" preset and copy the preset by finding copy under the audience tab or clicking the copy icon.¹
4. Set your video data rate to 4000kbps, encoding method to 2-pass VBR and resolution to 640x480 (4:3) or 640x360 (16:9).²
5. Set your audio data rate to 256kbps.
6. Save the preset, apply it to your video, and click "Squeeze It."

Using the higher resolution and data rates will ensure that your videos look great at the current high quality options and be ready for any future increases in quality or resolution offered by YouTube.

Notes:

¹This will create a duplicate preset that you can title "YouTubeHQ."

²During testing I found that by increasing the data rate up to 4000kbps produced a higher end data rate with YouTube's high quality encoded version.

Recipe from Mark Rachall

1. I output a Quicktime reference of the video. (You cannot do this in DS version 8.x or version 10).
2. Using [TMPEG](#) I made a Mpeg-4 file with the settings below.¹
3. Upload to YouTube

The video was about 5 minutes long and at these setting the Mpeg 4 ended up being about 79 MB. YouTube puts a 10 minute/100MB limit on their videos.

¹Note Settings should be:

- 640 x 480
- 4 x 3 Progressive at 29.96fps
- 2 pass Variable Bit rate
- Average Bit rate: 1500 - 2000
- Maximum Bit Rate: 2500
- Audio: Mono at 64 kbs

Here are some of the YouTube help files.

Notice, near the bottom, that if you use the new YouTube Uploader, you are capped at 1GB instead of the 100MB that you get doing it the old way. That's a big difference.

What video file formats can I upload?

YouTube accepts a wide range of video file formats such as .WMV, .AVI, .MOV, and .MPG transferred from most digital cameras, camcorders, and cell phones.

What's the best format to upload for high quality? + Video

We recommend the following settings:

- MPEG4 (Divx, Xvid) format
- 640x480 resolution (* most updated recommendation)
- MP3 audio
- 30 frames per second

Resizing your video to these specifications before uploading will help your videos look better on YouTube.

How long/large can my video be?

There are two ways to upload your video: by using our Single File Uploader and the YouTube Uploader. Depending on which upload method you choose, your videos can be up to 100MB or up to 1GB. Videos uploaded through YouTube's Single File Uploader have to be under the 100MB file size limit. The longer the video is, the more compression will be required to fit it into that size. For that reason, most videos on YouTube are under five minutes long and there is a 10-minute length limit for all videos. You can compress your video using movie editors, like Windows MovieMaker or Apple iMovie. Programs like these allow you to edit your videos, add soundtracks, and compress file sizes. If you choose to use the YouTube Uploader, your video can be up to 1GB in size. Learn how to use the YouTube Uploader to upload large or multiple files [here](#)././

DT Notes:

1. In my brief experience, the YouTube Multi-video uploader not only allows you to upload larger files and multiple files at once, it is a much, much faster upload.
2. Because the multi-loader allows videos to be up to 1GB in size (although still only 10-minutes in length), you might want to think about your video in terms of encoding for a DVD instead of the web (ie. much higher bit-rates).
3. In Tony Jover's experience, WMV's work better than MPEG4's. Although he says quality can be a subjective judgement, it might be a good idea to start there.

// Revised: Mar 30, 2010 12:02 pm

Z

Revised: May 27, 2008 7:46 pm