



Avid DS Nitris

Resolution doesn't matter. Results do. Avid® DS Nitris® systems give you native 64-bit power to handle everything from DV to HD-RGB. Mix multi-resolution DV, SD, and HD media. Edit 2K/4K files. Combine editing, compositing, paint, effects, and media management—with one interface. Save time with advanced HD conform of offline projects. Let the ideas flow with the resolution-independent Avid DS Nitris system.



Avid
do more®

Avid DS Nitris Resolution-independent creative power



The resolution-independent Avid DS Nitris system has all the power you need for multi-stream HD, Avid DNxHD®, and SD finishing and mastering as well as 2K/4K DPX file-based editing in native RGB. It combines 64-bit creative and finishing software with high-performance Avid Nitris Digital Nonlinear Accelerator™ hardware for multiple simultaneous streams of 10-bit uncompressed HD and SD video in real time, with color correction, DVE, and a title on each stream.

And Avid DS Nitris systems now offer dual-link HD-SDI I/O for end-to-end capture, conform, finishing, and mastering of HD-RGB media.



Avid DS Assist Station

Resolution-independent creative power

The Avid DS Nitris system combines advanced nonlinear audio and video finishing tools with a comprehensive set of compositing, paint, character generation, special effects, image treatment, and media management tools. Avid DS Nitris delivers dual-boot capability with Avid Symphony™ Nitris, giving editors access to both Symphony and Avid DS functionality on a single workstation using the same Avid Nitris hardware. Create, edit, and master TV programs, films, and commercials and easily generate multiple customized versions—and deliver in any major format—at the touch of a button.

One system. Two editors. Countless possibilities.

The Avid DS Assist Station offers the complete Avid DS toolset in a software-only product perfect for offloading tasks like conform checks, rotoscoping, graphics, and composite shots to a standard desktop system. Avid DS Assist Station makes the perfect complement to the hardware-accelerated power of Avid DS Nitris. Remote network processing is also available: Avid DS RP systems let you leverage the full power and potential of your Avid DS Nitris systems by automatically processing computationally intensive tasks in the background. A single license of Avid DS RP is included with every Avid DS Nitris system.

Avid: the leader in advanced workflow solutions

The family of high-bandwidth Avid Unity™ media networks enables simultaneous file sharing between Avid DS Nitris and Media Composer systems and scales from boutique to enterprise environments. High-efficiency Avid DNxHD encoding shatters the barriers to networked HD

production, delivering mastering-quality 10-bit HD images at SD file sizes. And Avid DS Nitris systems also work seamlessly with media and metadata from Digidesign® Pro Tools® audio sessions and SOFTIMAGE®|XSI® animation files.

Product Highlights

Video and film editing, mixing, and I/O

- 10-bit SMPTE 292M SDI high-definition video I/O (one input, two outputs)
- HD component YPbPr or RGB output
- HD XVGA output: use any standard computer monitor for low-cost monitoring of many HD formats
- 10-bit SMPTE 259M SDI standard-definition video I/O (one input, two outputs)
- Analog SD component YPbPr, S-Video, and composite (one input, two outputs)
- HD tri-level sync and SD sync reference inputs
- Optional 10-bit SMPTE 292M dual-link SDI for high-definition 4:4:4 I/O
- Simultaneous output of HD and SD in real time
- Uncompressed and compressed HD* formats:
 - 1080i at 30, 29.97, 25 Hz
 - 1080 PsF at 30, 29.97, 25, 24, 23.976 Hz
 - 720p at 60, 59.94, 50 Hz
- Real-time 10-bit and 8-bit uncompressed HD
- Real-time uncompressed PAL and NTSC ITU-R 601 formats
- Real-time DV25, DV50, and MPEG IMX standard-definition formats
- Capture, play, and process many Avid Adrenaline™ and Meridien™ JFIF formats
- 2K/4K RGB editing of DPX files
 - real-time single-stream 2K playback
 - real-time multi-stream HD proxy playback and timecode support
- Windows Media HD and SD encoding
- DPX file conform from Avid EDLs

Audio editing, mixing, and I/O

- 8 channels of 24-bit 96 kHz digital audio input and output
- Up to 16 streams of simultaneous 24-bit 96 kHz audio playback
- 8-channel AES/EBU digital audio I/O
- S/PDIF digital audio I/O
- Support for embedded SDI audio
- 8-channel XLR balanced analog audio I/O
- Dual microphone inputs
- Dual audio monitor outputs
- 96 kHz, 48 kHz, 44.1 kHz, and 32 kHz audio
- Unlimited audio tracks for editing
- Support for multi-channel audio mixing and panning including 5.1 surround sound
- Sample- and frame-based audio editing
- Automatic audio sample-rate conversion including pull-up and pull-down

Picture editing

- Unlimited number of video and overlay tracks
- Mix multiple compression ratios and resolutions within a sequence
- 3:2 pull-down removal and replacement
- Containers for managing multilayer effects and organizing complex timelines
- User selectable Frame Rate Conversions for preserving or changing clip durations within the timeline

Effects and transitions

- Real-time effects at 10-bit HD resolutions
- Real-time dissolves, fades, superimpositions, and standard SMPTE Wipes
- Real-time 2D DVE effects
- Real-time Avid Symphony style advanced color correction
- DVE Hierarchies in effects
- Effects processing at 16 or 32 float bit precision
- Source-side effects management
- FluidMotion™ timewarp effects
- Expressions-based effects model

Compositing and tracking

- Compositing on unlimited layers
- Effects Tree for complex multi-layered composites
- Unlimited external mattes per layer with Boolean operations for combining mattes
- Support for XSI render passes in Composite Tree

3D DVE and character generation†

- User-friendly 3D environment with interactive OpenGL
- 3D rotate, scale, translate, and skew controls
- Animatable camera for simulation of common camera effects

2D paint and character generation

- Vector-based, nondestructive paint system with high-performance raster mode for rotoscoping
- Freehand, polyline, and shape-based drawing, animated handwritten strokes, combine or separate strokes, clusters
- Animated stroke morphing
- Pressure-sensitive painting tools
- Fully animatable and editable brush strokes

Media management and character generation

- Media management tools for searching, sorting, viewing, moving, and deleting media; share media across projects and machines
- Automatic tracking of multiple media compression ratios and resolutions per clip
- Purge tools for selectively deleting unused media
- Support for High Dynamic Range images
- Iconographic media management

Automated distributed processing

- Increases creativity and speeds delivery by network rendering in the background
- Multiple render stations supported over Ethernet or Avid Unity media networks
- All DS Nitris systems include one seat of DS RP and DMS Broker

* Compressed HD for HD 4:2:2 only

† 3D DVE and 3D titling process at 8 bits only

Product Models

The **Avid DS Nitris system** provides the most comprehensive integration of tools for completing a wide range of SD, HD, and 2K/4K digital intermediate projects with Media Composer-style editing; Avid Symphony style advanced color correction; plus paint, graphics, character generation, advanced 3D compositing, special effects, image treatment, and project management—all within a single, intuitive interface.

Avid DS Assist Station is new software-only version of the Avid DS tool-set. Tasks like conform checks, rotoscoping, graphics and composite shots can be offloaded to a standard desktop system.

The Avid DS RP system enhances creativity by enabling editors and digital artists to experiment while computationally intensive tasks are automatically broken up and distributed to multiple Avid DS RP systems for processing in the background. One license is included with every DS Nitris system.

The Avid DS Nitris Training Edition is free software that lets DS operators, trainees, and students build their skills on a low-cost system (does not require the Nitris hardware). This system has no output and no compatibility with full Avid DS Nitris systems. Included with every DS Nitris system.

System configuration

Every Avid DS Nitris system is fully qualified, tested, and supported by Avid to deliver the highest performance and customer satisfaction right out of the box. Each system includes:

- Avid DS Nitris software
- Avid Nitris Digital Nonlinear Accelerator (Avid DNA™) hardware
- Qualified Hewlett-Packard workstation
- High-performance, high-capacity media storage array
- Dual 19-inch flat panel LCD monitors or optional dual 20-inch monitors
- One year of Avid Assurance



Avid DS Nitris system features a broad range of professional input/output connections, including analog video and audio.

Avid Total Services

Support, Training, and Consulting Services that provide faster return on your investment by getting your systems and personnel up and running quickly, maximizing workflow efficiency, and meeting your production schedules.

To learn more, visit www.avid.com/dsnitris or contact your local reseller.

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