



Avid[®] Nitris DX and Mojo DX Drive Striping Tables

Avid Media Composer[®] Nitris[®] DX, Mojo DX, and Software-Only Version 3.x for the Windows[®] and Macintosh[®] Operating Systems

Avid Symphony[™] Nitris DX Version 3.x for the Windows[®] and Macintosh[®] Operating Systems

Avid NewsCutter[®] Nitris DX, Mojo DX, and Software-Only Version 7.x and later for the Windows Operating Systems

Important Information

Avid recommends that you read all the information in this document thoroughly before installing any software. These drive striping tables are for specific Avid Nitris DX and Avid Mojo DX hardware and software-only release for the versions listed in the title. These striping tables were created using Windows[®] XP, Windows Vista[™], and Macintosh 10.5.x operating systems. The performance data is the same between the Windows XP and Windows Vista operating systems. As new drives are qualified, this document will be updated.

Avid Nitris DX and Mojo DX systems support VideoRAID[™] disk arrays, MediaDrive enclosures, and MediaDock[™] drives. [Table 1](#) lists the families, their specifications, and their available storage capacities. All drive testing was done using the HP[®] xw8600 Workstation with dual-quad 3.0 GHz CPUs. All Macintosh drive testing was done using the early 2008 Mac Pro (with Intel[®] Harpertown processor) using the Mac OS 10.5.x operating system.

For additional information on a specific drive, see the documentation that shipped with the drive or the chassis. Updated striping tables for all releases are posted on the Avid Web site:

For the latest striping tables:

1. Type www.avid.com/onlinesupport/ in your browser.
2. Type “striping tables” in the Keywords text box.
3. Click Search All Answers

Models and Storage Capacities

 *The family name of your MediaDrive can be found on the front of the drive. MediaDock Ultra320 drives have purple accents on the bezel and are labeled with the capacity. VideoRAID drives are not labeled.*



Table 1 VideoRAID, MediaDrive, MediaDock Shuttle, and MEDIArray Drive Information

Family Name	Interface	RPM	Drive Type	Available Storage Capacities
iS 160/LVD Gen 5	Ultra160/LVD SCSI	10,000	MediaDock Shuttle	36 GB, 73 GB
iS 320/LVD Gen 6	Ultra320/LVD SCSI	10,000	MediaDock Shuttle	36 GB, 73 GB, 146 GB
iS 320/LVD Gen 7	Ultra320/LVD SCSI	10,000	MediaDock Shuttle	73 GB, 146 GB
rS 160/LVD Gen 5	Ultra160/LVD SCSI	10,000	Fixed MediaDrive	36 GB, 73 GB
rS 320/LVD Gen 6	Ultra320/LVD SCSI	10,000	Fixed MediaDrive	36 GB, 73 GB, 146 GB
rS 320/LVD Gen 7	Ultra320/LVD SCSI	10,000	Fixed MediaDrive	73 GB, 146 GB, 300 GB
MediaDock Ultra320 Gen 6	Ultra320/LVD SCSI	10,000	MediaDock Ultra320	73 GB, 146 GB
MediaDock Ultra320 Gen 7	Ultra320/LVD SCSI	10,000	MediaDock Ultra320	73 GB, 146 GB, 300 GB
VideoRAID RTR320	Ultra320 SCSI	7200	ATA	250 GB, 500 GB
VideoRAID RTR320X	Ultra320 SCSI	7200	ATA	250 GB, 500 GB
VideoRAID SR	SAS	7200	SATA	500 GB, 1 TB
VideoRAID ST	SAS	7200	SATA	500 GB, 1 TB

The information listed in these tables was derived using Full Quality (Green/Green) and Draft Quality (Green/Yellow) modes. *Full Quality* is a mode in the application that displays your media using the highest quality for the resolution you are using. *Draft Quality* is a mode in the application that displays your media with less quality but higher performance. The following tables might display NS indicating that the configuration is not supported.


The maximum configuration supported using MediaDrive rS 320/LVD enclosures is an 8-way stripe across two SCSI busses, consisting of four drives per bus. MediaDrive rS 320/LVD enclosures do not support 12-way stripes. Media used to qualify the data in the striping tables included:

- 2D effects
- Eight channels at 48 kHz audio
- Real-time downstream key (DSK) static titles

-  *There are slight differences in the test used to qualify an 8- and 12-way drive stripe. Details are listed with the 8- and 12-way striping tables.*
-  *The results in this document for the MediaDrive rS 320/LVD Gen 6 enabled for 320 MB/s and the MediaDock Ultra320 are achieved on an Ultra320 bus only.*

Windows Drive Striping Tables

All Windows drive testing was done using the HP[®] xw8600 Workstation with a CPU speed of 3.0 GHz dual-quad using both Windows XP with Service Pack2 and Windows Vista with Service Pack 1 operating systems. [Table 2](#) through [Table 23](#) list striping for Windows systems.

-  *The Windows drive striping tables are a guide for productions with typical edit densities. For projects involving high cut densities (extensive cuts at fewer than 10-frame edits), Avid recommends increasing to the next striping increment.*

Windows SAS VideoRAID Striping Tables

The group of five drives that are installed in the VideoRAID ST are configured as one RAID volume and referred to as an array. You can install eight or sixteen drives in the VideoRAID SR to create one or two arrays. The Windows operating system sees each array as one drive.

The configurations in [Table 2](#) and [Table 3](#) were qualified using one VideoRAID ST array on a single SAS channel with the Windows operating system.

Table 2 Windows Drive Striping — Number of Streams With One Array on One SAS Channel in a 5-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID ST (5 drives)	5	10	8	10	3	2	1	1

Table 3 Windows Drive Striping — Number of Streams With One Array on One SAS Channel in a 5-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID ST (5 drives)	6	12	10	9	4	4	1	1

The configurations in [Table 4](#) and [Table 5](#) were qualified using two VideoRAID ST arrays on two SAS channels with the Windows operating system.

Table 4 Windows Drive Striping — Number of Streams With One Array on Two SAS Channels in a 10-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID ST (10 drives)	8	12	11	12	6	4	2	2

Table 5 Windows Drive Striping — Number of Streams With One Array on Two SAS Channels in a 10-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID ST (10 drives)	8	12	12	12	6	5	2	2

The configurations in [Table 6](#) and [Table 7](#) were qualified using one VideoRAID SR array populated with eight drives on a single SAS channel with the Windows operating system.

Table 6 Windows Drive Striping — Number of Streams With Half an Array on One SAS Channel in an 8-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID SR (8 drives)	6	10	8	11	4	4	2	2

Table 7 Windows Drive Striping — Number of Streams With Half an Array on One SAS Channel in an 8-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID SR (8 drives)	6	10	10	7	5	4	2	2

The configurations in [Table 8](#) and [Table 9](#) were qualified using one VideoRAID SR array populated with sixteen drives on a single SAS channel with the Windows operating system.

Table 8 Windows Drive Striping — Number of Streams With One Array on One SAS Channel in a 16–Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID SR (16 drives)	8	12	11	12	6	4	2	2

Table 9 Windows Drive Striping — Number of Streams With One Array on One SAS Channel in a 16–Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID SR (16 drives)	8	12	12	12	6	5	2	2

Windows SCSI VideoRAID Striping Tables

The group of five drives that are installed in the VideoRAID RTR320 are configured as one RAID volume and referred to as an array. You can install five or ten drives in the VideoRAID RTR320X to create one or two arrays. The Windows operating system sees each array as one drive.

The configurations in [Table 10](#) and [Table 11](#) were qualified using one VideoRAID array on **one** SCSI channel with the Windows operating system.

Table 10 Windows Drive Striping — Number of Streams With One Array Unstriped on One SCSI Channel — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID RTR320 (5 drives)	2	5	2	5	2	2	1	1

Table 11 Windows Drive Striping — Number of Streams With a One Array Unstriped on a One SCSI Channel — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID RTR320 (5 drives)	4	8	8	6	2	2	1	1

The configurations in [Table 10](#) and [Table 11](#) were qualified using two VideoRAID arrays on **one** SCSI channels with the Windows operating system.

Table 12 Windows Drive Striping — Number of Streams With Two Arrays On One SCSI Channel in a 2-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID RTR320X (10 drives)	3	7	3	7	2	2	1	1

Table 13 Windows Drive Striping — Number of Streams With Two Arrays On One SCSI Channel in a 2-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID RTR320X (10 drives)	5	10	9	7	3	2	1	1

The configurations in [Table 14](#) and [Table 15](#) were qualified using two VideoRAID arrays on **two** separate SCSI channels on the same system and striped together with the Windows operating system.

Table 14 Windows Drive Striping — Number of Streams With Two Arrays On Two SCSI Channels in a 2-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID RTR320 or one VideoRAID RTR320X with 10 drives	3	7	3	9	3	3	2	1

Table 15 Windows Drive Striping — Number of Streams With Two Arrays On Two SCSI Channels in a 2-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID RTR320 or one VideoRAID RTR320X with 10 drives	5	10	9	8	5	3	1	1

The configurations in [Table 16](#) and [Table 17](#) were qualified using four VideoRAID arrays daisy-chained on separate SCSI channels on the same system and all four striped together with the Windows operating system.

Table 16 Windows Drive Striping — Number of Streams With Four Arrays On Two SCSI Channels in a 4-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Four VideoRAID RTR320 or two VideoRAID RTR320X with 10 drives	6	4	4	12	3	4	2	2

Table 17 Windows Drive Striping — Number of Streams With Four Arrays On Two SCSI Channels in a 4-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Four VideoRAID RTR320 or two VideoRAID RTR320X with 10 drives	7	11	8	9	6	4	2	2

Windows MediaDrive and MediaDock Striping Tables

MediaDrive rS 320/LVD shipped in two versions (to run at 160 MB/s and to run at 320 MB/s). A firmware download is available to update earlier MediaDrive rS 320/LVD drives so they can run at 320 MB/s. Firmware packages and the update procedure are posted on the Avid Knowledge Base. Firmware upgrade instructions are included with the MediaDrive rS Drive Firmware link.

For firmware updates:

1. Type www.avid.com/onlinesupport/ in your browser.
2. Click Answers.
3. Click Advanced Search.
4. Type “MediaDrive rS” in the Keywords text box.
5. Select Download in the Refine by Category menu.
6. Click Search.

The information in [Table 18](#) and [Table 19](#) were qualified using **one** or **two** LVD SCSI channels.

Table 18 Windows Drive Striping — Number of Streams With 4-Way Striped SCSI Drives — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
iS 160/LVD Gen 5 rS 160/LVD Gen 5	3	5	2	5	1	1	1	1
iS 320/LVD Gen 6 and Gen 7	3	5	2	5	2	2	1	1
rS 320/LVD Gen 6 (enabled for 320 MB/s) and Gen 7	4	6	3	6	2	2	1	1
MediaDock Ultra320 Gen 6 and Gen 7	4	6	3	6	2	2	1	1

Table 19 Windows Drive Striping — Number of Streams With 4-Way Striped SCSI Drives — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
iS 160/LVD Gen 5 rS 160/LVD Gen 5	4	8	7	3	2	2	1	1
iS 320/LVD Gen 6 and Gen 7	4	8	7	3	2	2	1	1
rS 320/LVD Gen 6 (enabled for 320 MB/s) and Gen 7	5	10	8	4	2	2	1	1
MediaDock Ultra320 Gen 6 and Gen 7	5	10	8	4	2	2	1	1

The information in [Table 20](#) and [Table 21](#) were qualified using **two** Ultra320 SCSI channels on the HP xw8600 Workstation and the following:

- 2D 20% Picture-in-Picture effect
- No titles

Table 20 Windows Drive Striping — Number of Streams With 8-Way Striped SCSI Drives — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
rS 320/LVD Gen 6 (enabled for 320 MB/s) and Gen 7	5	7	3	10	3	3	1	1
MediaDock Ultra320 Gen 6 and Gen 7	5	7	3	10	3	3	1	1

Table 21 Windows Drive Striping — Number of Streams With 8-Way Striped SCSI Drives — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
rS 320/LVD Gen 6 (enabled for 320 MB/s) and Gen 7	6	10	8	5	2	2	1	1
MediaDock Ultra320 Gen 6 and Gen 7	6	10	8	5	3	3	1	1

The information in [Table 22](#) and [Table 23](#) were qualified using **two** Ultra320 SCSI channels on the HP xw8600 Workstation and the following:

- 2D 20% Picture-in-Picture effect
- No titles

Table 22 Windows Drive Striping — Number of Streams With 12-Way Striped SCSI Drives — Full Quality


Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
MediaDock Ultra320 Gen 6 and Gen 7	6	7	3	11	3	3	2	2

Table 23 Windows Drive Striping — Number of Streams With 12-Way Striped SCSI Drives — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
MediaDock Ultra320 Gen 6 and Gen 7	7	10	8	5	3	3	2	1

Macintosh Drive Striping Tables

All Macintosh drive testing was done using the pre 2008 Mac Pro (with Intel CPU) using both Mac OS 10.5.x operating systems. [Table 24](#) through [Table 45](#) list striping for Macintosh systems.

 *The Macintosh drive striping tables are a guide for productions with typical edit densities. For projects involving high cut densities (extensive cuts at fewer than 10-frame edits), Avid recommends increasing to the next striping increment.*

Macintosh SAS VideoRAID Striping Tables

The group of five drives that are installed in the VideoRAID ST are configured as one RAID volume and referred to as an array. You can install eight or sixteen drives in the VideoRAID SR to create one or two arrays. The Mac OS X operating system sees each array as one drive.

The configurations in [Table 24](#) and [Table 25](#) were qualified using one VideoRAID ST array on a single SAS channel with the Macintosh operating system.

Table 24 Macintosh Drive Striping — Number of Streams With One Array on One SAS Channel in a 5-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID ST (5 drives)	4	9	5	10	5	4	1	1

Table 25 Macintosh Drive Striping — Number of Streams With One Array on One SAS Channel in a 5-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID ST (5 drives)	7	12	9	9	8	4	1	1

The configurations in [Table 26](#) and [Table 27](#) were qualified using two VideoRAID ST arrays on two SAS channels with the Macintosh operating system.

Table 26 Macintosh Drive Striping — Number of Streams With One Array on Two SAS Channels in a 10-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID ST (10 drives)	5	10	6	10	6	5	2	2

Table 27 Macintosh Drive Striping — Number of Streams With One Array on Two SAS Channels in a 10-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID ST (10 drives)	8	12	10	10	8	4	2	2

The configurations in [Table 28](#) and [Table 29](#) were qualified using one VideoRAID SR array populated with eight drives on a single SAS channel with the Macintosh operating system.

Table 28 Macintosh Drive Striping — Number of Streams With Half an Array on One SAS Channel in an 8-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID SR (8 drives)	4	9	5	10	5	4	2	2

Table 29 Macintosh Drive Striping — Number of Streams With Half an Array on One SAS Channel in an 8-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID SR (8 drives)	6	12	9	10	7	4	2	2

The configurations in [Table 30](#) and [Table 31](#) were qualified using one VideoRAID SR array populated with sixteen drives on a single SAS channel with the Macintosh operating system.

Table 30 Macintosh Drive Striping — Number of Streams With One Array on One SAS Channel in a 16–Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID SR (16 drives)	4	9	5	12	5	5	2	2

Table 31 Macintosh Drive Striping — Number of Streams With One Array on One SAS Channel in a 16–Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID SR (16 drives)	7	12	11	12	7	4	2	2

Macintosh SCSI VideoRAID Striping Tables

The group of five drives that are installed in the VideoRAID RTR320 are configured as one RAID volume and referred to as an array. You can install five or ten drives in the VideoRAID RTR320X to create one or two arrays. The Macintosh operating system sees each array as one drive.

The configurations in [Table 32](#) and [Table 33](#) were qualified using one VideoRAID array on **one** SCSI channel with the Macintosh operating system.

Table 32 Macintosh Drive Striping — Number of Streams With One Array Unstriped on One SCSI Channel — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID RTR320 (5 drives)	4	8	4	7	4	3	N/S	N/S

Table 33 Macintosh Drive Striping — Number of Streams With a One Array Unstriped on a One SCSI Channel — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID RTR320 (5 drives)	4	8	7	5	3	3	N/S	N/S

The configurations in [Table 34](#) and [Table 35](#) were qualified using two VideoRAID arrays on **one** SCSI channel with the Macintosh operating system.

Table 34 Macintosh Drive Striping — Number of Streams With Two Arrays On One SCSI Channel in a 2-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID RTR320X (10 drives)	4	9	5	8	4	3	N/S	N/S

Table 35 Macintosh Drive Striping — Number of Streams With Two Arrays On One SCSI Channel in a 2-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
VideoRAID RTR320X (10 drives)	5	9	8	8	4	3	N/S	N/S

The configurations in [Table 36](#) and [Table 37](#) were qualified using two VideoRAID arrays on **two** separate SCSI channels on the same system and striped together with the Macintosh operating system.

Table 36 Macintosh Drive Striping — Number of Streams With Two Arrays On Two SCSI Channels in a 2-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID RTR320 or one VideoRAID RTR320X with 10 drives	4	9	5	9	5	3	1	1

Table 37 Macintosh Drive Striping — Number of Streams With Two Arrays On Two SCSI Channels in a 2-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Two VideoRAID RTR320 One VideoRAID RTR320X with 10 drives	5	9	8	10	5	3	2	1

The configurations in [Table 38](#) and [Table 39](#) were qualified using four VideoRAID arrays daisy-chained on separate SCSI channels on the same system and all four striped together with the Macintosh operating system.

Table 38 Macintosh Drive Striping — Number of Streams With Four Arrays On Two SCSI Channels in a 4-Way Stripe — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Four VideoRAID RTR320 or two VideoRAID RTR320X with 10 drives	5	10	6	10	6	3	2	2

Table 39 Macintosh Drive Striping — Number of Streams With Four Arrays On Two SCSI Channels in a 4-Way Stripe — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
Four VideoRAID RTR320 Two VideoRAID RTR320X with 10 drives	6	12	11	11	8	4	2	2

Macintosh MediaDrive and MediaDock Striping Tables

MediaDrive rS 320/LVD shipped in two versions (to run at 160 MB/s and to run at 320 MB/s). A firmware download is available to update earlier MediaDrive rS 320/LVD drives so they can run at 320 MB/s. Firmware packages and the update procedure are posted on the Avid Knowledge Base. Firmware upgrade instructions are included with the MediaDrive rS Drive Firmware link.

For firmware updates:

1. Type www.avid.com/onlinesupport/ in your browser.
2. Click Answers.
3. Click Advanced Search.
4. Type “MediaDrive rS” in the Keywords text box.
5. Select Download in the Refine by Category menu.
6. Click Search.

The information in [Table 40](#) and [Table 41](#) were qualified using **one** or **two** LVD SCSI channels.

Table 40 Macintosh Drive Striping — Number of Streams With 4-Way Striped SCSI Drives — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
iS 160/LVD Gen 5 rS 160/LVD Gen 5	2	5	3	4	N/S	N/S	N/S	N/S
iS 320/LVD Gen 6 and Gen 7	2	5	3	4	N/S	N/S	N/S	N/S
rS 320/LVD Gen 6 (enabled for 320 MB/s) and Gen 7	2	5	3	4	2	2	1	N/S
MediaDock Ultra320 Gen 6 and Gen 7	3	6	4	5	2	2	1	N/S

Table 41 Macintosh Drive Striping — Number of Streams With 4-Way Striped SCSI Drives — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
iS 160/LVD Gen 5 rS 160/LVD Gen 5	2	5	3	4	2	1	N/S	N/S
iS 320/LVD Gen 6 and Gen 7	2	5	3	4	2	1	N/S	N/S
rS 320/LVD Gen 6 (enabled for 320 MB/s) and Gen 7	2	5	3	4	4	2	1	N/S
MediaDock Ultra320 Gen 6 and Gen 7	3	6	4	5	4	2	1	N/S

The information in [Table 42](#) and [Table 43](#) were qualified using **two** Ultra320 SCSI channels on the HP xw8600 Workstation and the following:

- 2D 20% Picture-in-Picture effect
- No titles

Table 42 Macintosh Drive Striping — Number of Streams With 8-Way Striped SCSI Drives — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
rS 320/LVD Gen 6 (enabled for 320 MB/s) and Gen 7	3	4	4	6	3	2	1	1
MediaDock Ultra320 Gen 6 and Gen 7	4	5	5	7	3	2	1	1

Table 43 Macintosh Drive Striping — Number of Streams With 8-Way Striped SCSI Drives — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
rS 320/LVD Gen 6 (enabled for 320 MB/s) and Gen 7	3	7	6	7	3	3	1	N/S
MediaDock Ultra320 Gen 6 and Gen 7	4	8	7	8	4	3	1	N/S

The information in [Table 44](#) and [Table 45](#) were qualified using **two** Ultra320 SCSI channels on the HP xw8600 Workstation and the following:

- 2D 20% Picture-in-Picture effect
- No titles

Table 44 Macintosh Drive Striping — Number of Streams With 12-Way Striped SCSI Drives — Full Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
MediaDock Ultra320 Gen 6 and Gen 7	5	6	6	8	3	2	1	1

Table 45 Macintosh Drive Striping — Number of Streams With 12-Way Striped SCSI Drives — Draft Quality

Drive Family	Single-Field Resolution NTSC/PAL	Two-Field Resolution NTSC/PAL		Uncompressed Two-Field Resolution NTSC/PAL	Avid DNxHD	HDV	Uncompressed HD	
	2:1s	DV 25	2:1	1:1 8-bit	220/TR	1081i 5994	Avid MXF 1:1 HD 8-bit	Avid MXF 1:1 HD 10-bit
MediaDock Ultra320 Gen 6 and Gen 7	5	10	9	9	4	3	1	1

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