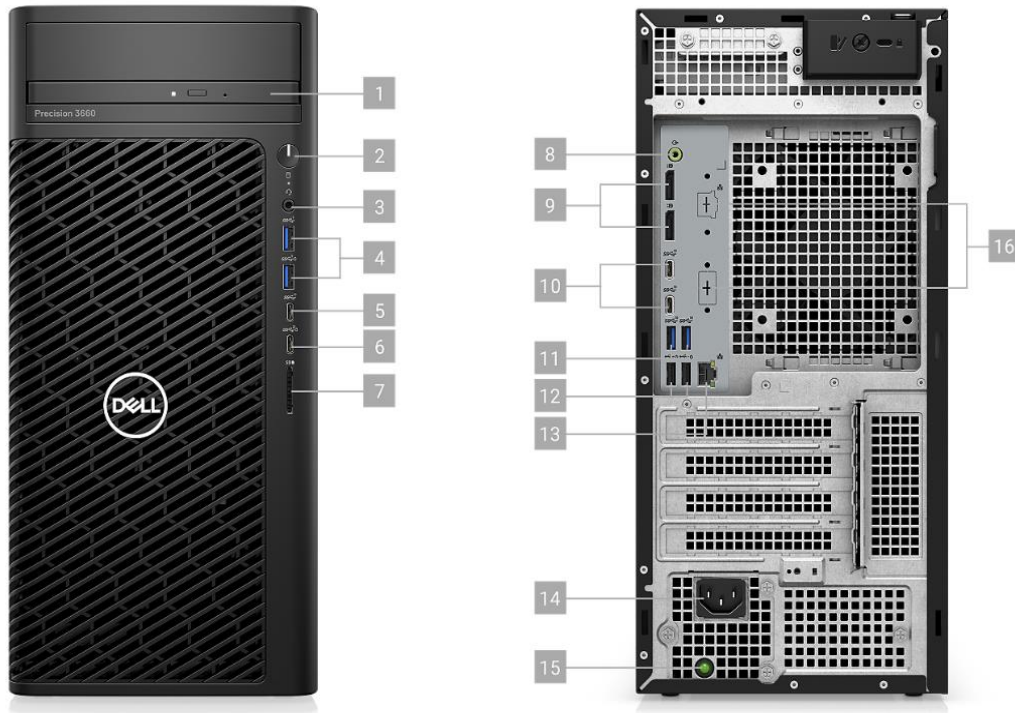


Avid Configuration Guidelines
DELL 3660 workstation tower
Intel Core i7/i9 CPU System



Ports & Slots

- | | |
|--|---|
| 1. Optical drive (optional) | 10. (2) USB 3.2 Type-C Gen2 (10Gbps) with power delivery |
| 2. Power button | 11. (2) USB 3.2 Type-A Gen2 (10Gbps) |
| 3. Audio-mic combo (3.5mm) jack | 12. (2) USB 2.0 Type-A |
| 4. (2) USB 3.2 Type-A Gen 1 (5Gbps) | 13. RJ45 i219 LAN (1G) |
| 5. USB 3.2 Type-C Gen2 (10Gbps) data only | 14. Power connector |
| 6. USB 3.2 Type-C Gen 2x2 (20Gbps) data only | 15. LED indicator light |
| 7. SD Card Reader 4.0 | 16. Video port optional (VGA HD15, HDMI 2.0, DP++ 1.4 HBR3, USB Type-C w/DP-Alt mode DP 1.4 HBR2) |
| 8. Audio out (3.5mm jack) | |
| 9. (2) DP1.4++ HBR2 | |

1.) DELL 3660 AVID Qualified System Specification:

3660 Hardware Configuration

Supported 13th Generation Intel Core i7/i9 CPU Choices

- Intel core i7-13700 2.1 Ghz, turbo up to 5.2 Ghz 8P+8E core
- Intel core i7-13700K 3.4 Ghz, turbo up to 5.4 Ghz 8P+8E core (2nd best performance)
- Intel core i9-13900 2.0 Ghz, turbo up to 5.6 Ghz 8P+16E core
- Intel core i9-13900K 3.0 Ghz, turbo up to 5.8 Ghz 8P+16E core (Best Performance with MC)

Supported 12th Generation Intel Core i7/i9 CPU Choices

- Intel core i7-12700 2.1 Ghz, turbo up to 4.9 Ghz 8P+4E core
- Intel core i7-12700K 3.6 Ghz, turbo up to 5.0 Ghz 8P+4E core (2nd best performance)
- Intel core i9-12900 2.4 Ghz, turbo up to 5.1 Ghz 8P+8E core
- Intel core i9-12900K 3.2 Ghz, turbo up to 5.2 Ghz 8P+8E core (Best Performance with MC)

Supported Video Cards

- 1.) NVIDIA T600 4GB PCI-e Gen 3 low profile video board – No longer shipping
- 2.) NVIDIA T1000 4/8 GB PCI-e Gen 3 low profile video board
- 3.) NVIDIA RTX A2000 6/12 GB PCI-e Gen 4 low profile video board (double wide)
- 4.) NVIDIA RTX A4000 16GB PCI-e Gen 4 video board
- 5.) NVIDIA RTX A4500 20GB PCI-e Gen 4 video board (Best performance - Nvidia)
- 6.) AMD Radeon Pro W6600 8GB PCI-e video board (reduced PCIe x8 lanes)
- 7.) AMD Radeon Pro W6800 32GB PCI-e video board (best performance – AMD)

Notes –

- PCIe Gen 4 GPUs have better performance on system with PCIe gen 4 slots

System Disk Drive – 500 GB (recommended) M.2 PCIe NVMe . DELL offers lower performing SATA SSD, and 7200 RPM SATA HDD (very slow) boot drive options which are acceptable. Recommend a DELL qualified drive be selected.

Note – PCIe gen 4 M.2 drives are twice as fast as the PCIe gen 3 M.2 drives

Standard AVID memory configuration:

- Systems using core i7 or i9 will use DDR5-4800 Mhz ECC or non-ECC memory (up to 4 DIMMs per system)
- 128 GB memory max for this system
- current platform will only be able to support the maximum memory speed of 4400MHz
- Each CPU has 2 memory lanes - optimal bandwidth when 2 memory slots filled (speed drops with 4 DIMMs)
 - 32GB (2 x 16GB) DDR5 4800MHz memory – (Requires two 16GB DIMMs) (max speed 4400 Mhz)

Optional AVID memory configuration:

- 16GB (2 x 8GB) DDR5 4800 memory – (Requires two 8GB DIMMs) (max speed 4400 Mhz)
- 32GB (4 x 8GB) DDR5 4800 memory – (Requires four 8GB DIMMs) (max speed 4000 Mhz)
- 64GB (4 x 16GB) DDR5 4800 memory – (Requires four 16GB DIMMs) (max speed 4000 Mhz)
- 64GB (2 x 32GB) DDR5 4800 memory – (Requires two 32GB DIMMs) (max speed 4400 Mhz)
- 128GB (4 x 32GB) DDR5 4800 memory – (Requires four 32GB DIMMs) (max speed 3600 Mhz)

Memory configuration constraints

- Memory modules must be installed according to manufacturer's requirements
- No other memory configurations are formally supported in AVID environments.
- Un-balanced memory configurations which mix and match memory module sizes and locations will result in a poor performing, non-optimal operating environment.
- Most Avid configs require the 500 or 1000 Watt option for Tower

2.) Qualified Operating Systems and Avid Client Editing Applications for the DELL 3660:

DELL Supports and ships with:

- Microsoft® Windows 11 Pro 64-bit Edition Version 21H2 or later – (MC 21.12 or later)
- Microsoft® Windows 10 Pro for workstations 64-bit Version 21H2 or later

Not Supported –

- Microsoft® Windows 7 – any version
- Microsoft Windows 8 or 8.1 – any version
- Microsoft Windows 10 Pro versions no longer supported by Microsoft - before version 21H1

Media Composer Application	Minimum Rev
Media Composer	2021.12.7 2022.12.3 2023.3
Media Composer 7.x, 8.x, 2018.x, 2019.x	Not supported
NewsCutter 11.x	Not Supported

* See Avid Media Composer version matrix for Nvidia driver version

https://avid.secure.force.com/pkb/articles/en_US/Compatibility/en267087

3.) Qualified O.S., Hardware and shared storage supported:

	Qualified / Supported
Nitris DX Mojo DX	NOT SUPPORTED End of support 3/31/2020
Artist DNxIO/ DNxIQ (PCIe or thunderbolt connection). SFF requires TB connection as the BMD HIB is full size PCIe only Artist DNxIV/DNxIP/DNxID (thunderbolt only connection)	Yes – Supported <u>PCIe Guidance</u> PCIe preferred as it requires less system over-head due to direct PCIe to PCIe connection between the host CPU and Artist DNxIQ <u>Thunderbolt Guidance</u> Thunderbolt 2 & 3 - higher system over-head, not recommended to share Thunderbolt devices on the same Thunderbolt bus with DNxID, DNxIV. DNxIP DNxIO would require TB3 to TB2 converter
3 rd Party Qualified Hardware	See release notes and Avid website for information regarding supported 3 rd party hardware (vendor qualified)
NEXIS Single 1Gb Ethernet Client NEXIS Dual 1Gb Ethernet Client Intel i350, i210, i219LM	Avid NEXIS Pro, E2, E2 SSD, E4, E5, E5 NL Nexis Driver V22.12 Avid NEXIS Pro+, F2, F2X, F2 SSD, F5, F5 NL Nexis Driver V23.3
NEXIS Ultra Hi-res (10Gbit) client Myricom Single or dual Port 10Gbit Atto FFRM-NS11, NS12 NT11, NT12, N322 Intel X540-T2, X550, X710, X722	Avid NEXIS Pro, E2, E2 SSD, E4, E5, E5 NL Nexis Driver V22.12 Avid NEXIS Pro+, F2, F2X, F2 SSD, F5, F5 NL Nexis Driver V23.3
NEXIS 40Gigabit Atto FFRM-NQ 41/42 Atto FFRM-N311/N312/N351/N352 (40 Gb only)	Avid NEXIS Pro, E2, E2 SSD, E4, E5, E5 NL Nexis Driver V22.12 Avid NEXIS Pro+, F2, F2X, F2 SSD, F5, F5 NL Nexis Driver V23.3

4.) AVID qualified HBA info

AVID qualified HBA	AVID Part Number	Slot Location	Function
Avid Artist DNxIO HBA	Avid part # 7030-30048-02	#3	Avid Artist DnxIO interface HBA
Avid Artist DNxIQ HBA	BMD PCIe cable kit		Avid Artist DNxIQ interface HBA
DELL Thunderbolt 4 adapter card	Not stocked by AVID	#3	Single TB4 connector on PCIe card for IO or local storage
Vendor qualified 3 rd party hardware X4 PCI-e	Not stocked by AVID	#3	Vendor qualified 3 rd party hardware interface. See release notes and Avid website for information regarding supported 3 rd party hardware
Atto FFRM-NQ 41/42 Atto FFRM-N351/N352 (40 Gb only) Atto FFRM-N311/N312 (40 Gb only)	Not stocked by AVID	#1	Shared Storage: NEXIS 40 Gb-Ethernet
Atto FFRM-NS11, NS12 NT11, NT12 Intel X550, X520-T2, X540-T2, X710-DA2, X722 Atto FFRM-N322 (10 Gb only)	Not stocked by AVID	#1	Shared Storage: NEXIS 10 Gb-Ethernet
Intel i350-T2 – Dual Gb NIC	Not stocked by AVID	#1	Shared Storage: NEXIS Copper 1 Gb-Ethernet Dual Gb NEXIS Connectivity

Notes:

- Avid HIB part # 7030-30048-01 is no longer supported with DNxIO (use # 7030-30048-02 only)
- Avid artist DnxIQ requires BMD cable kit and PCIe card – Avid HIB card is NOT supported with DNxIQ

5.) Slot Configurations:

Slot Configuration Information (Tower)			
Slot #	Electrical	Mechanical	
1	X4 PCI-e Gen 3	X4 open ended	Shared storage controller (PCIe x8 cards will connect at x4 only)
2	x16 PCI-e Gen 5	X16 75 Watts Double wide slot	Graphics Card: Nvidia or AMD
2A	No connector	Part of the double wide slot	double wide graphics would cover this area
3	X4 PCI-e Gen 4	X4 open ended	Avid/BMD HIB card for DNxIO, DNxIQ, DELL Thunderbolt 4 adapter card 3 rd party PCIe Open IO card
M1	M.2 slot 1 PCI-e Gen 4	M.2 x4	DELL M.2 NVMe SSD storage cards PCIe gen 4 (2x faster than Gen 3)
M2	M.2 slot 2 PCI-e Gen 4	M.2 x4	DELL M.2 NVMe SSD storage cards PCIe gen 4 (2x faster than Gen 3)
M3	M.2 slot 3 PCI-e Gen 3	M.2 x4	DELL M.2 NVMe SSD storage cards PCIe gen 3
	Embedded Intel I219-LM Gb NIC	PCI-e x1 Gen 3	Qualified for Avid Nexis

6.) Use of embedded NIC ports for Nexis connectivity Important Information

The Dell 3660 has one embedded NIC port. This port is qualified for Nexis

For proper operation and connectivity of the Intel network interface with NEXIS the following settings are required (these should be set automatically when Nexis is installed):

1. For the Intel NIC driver, under the performance settings, change the following parameters:
 - Receive Buffers to 1024
 - Transmit Buffers to 1024
2. Disable the windows firewall.

7.) Required system BIOS settings for AVID environments:

Use latest version from Vendor website

***Please Note:** CPU Hyper-threading should be enabled in all configurations. It is currently enabled by default for shipping 3660 systems*

8.) Graphics Drivers:

AVIDSoftware	Version(s)	GPU	Driver Required
Media Composer	2022.3	Nvidia AMD	514.08 2022.Q4
Media Composer	2022.12.x	Nvidia AMD	513.91 2022.Q4
Media Composer	2021.12.x	Nvidia AMD	472.98 2022.Q4

* Nvidia RTX Ada-series cards require Nvidia driver 528.89 and above

* AMD W6600, W6800 requires AMD driver 2022.Q4 or later

The required GPU files and installation instructions for AMD graphics can be found at the following Avid KB link:

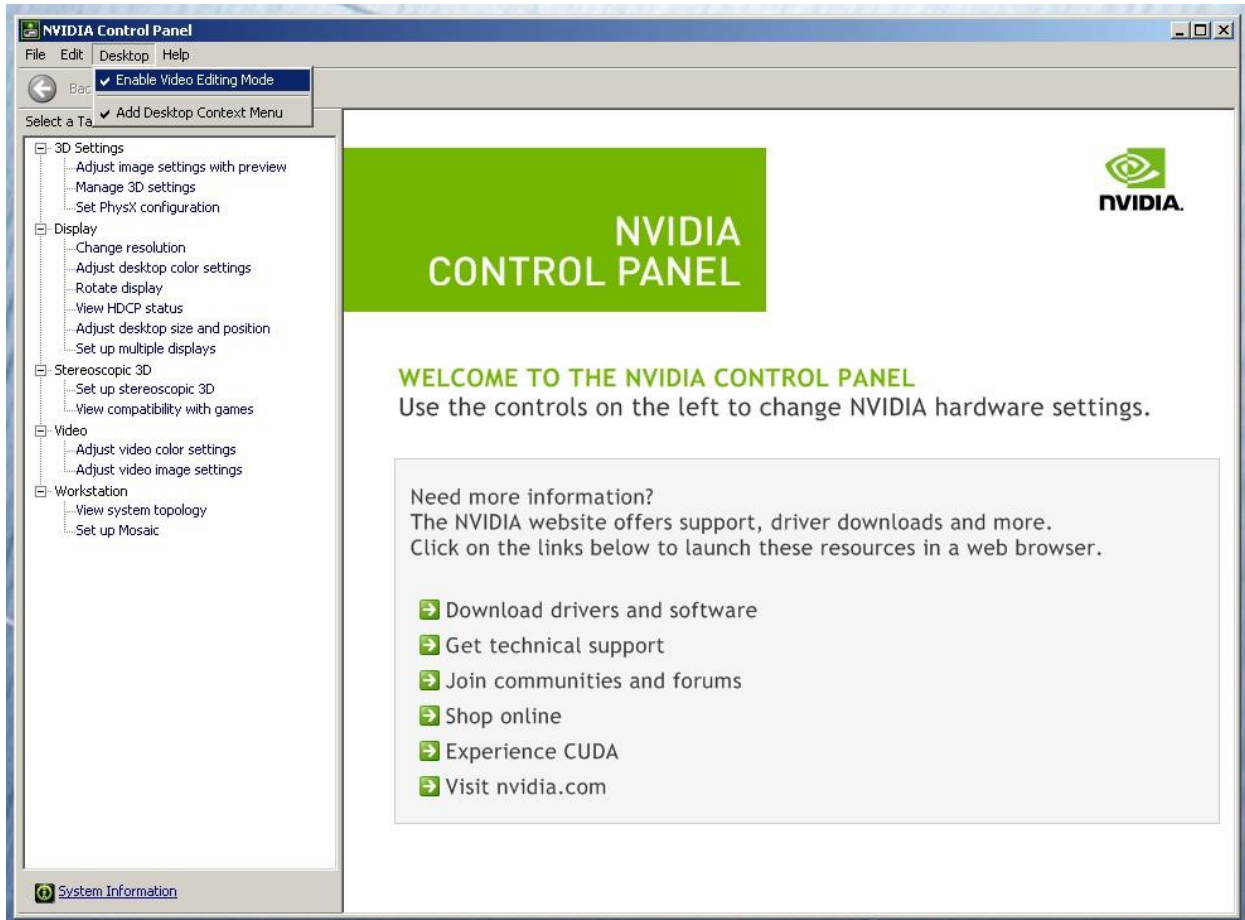
http://avid.force.com/pkb/articles/en_US/download/AMD-Supported-GPU-Drivers

See Avid Media Composer version matrix for Nvidia driver version and download

https://avid.secure.force.com/pkb/articles/en_US/Compatibility/en267087

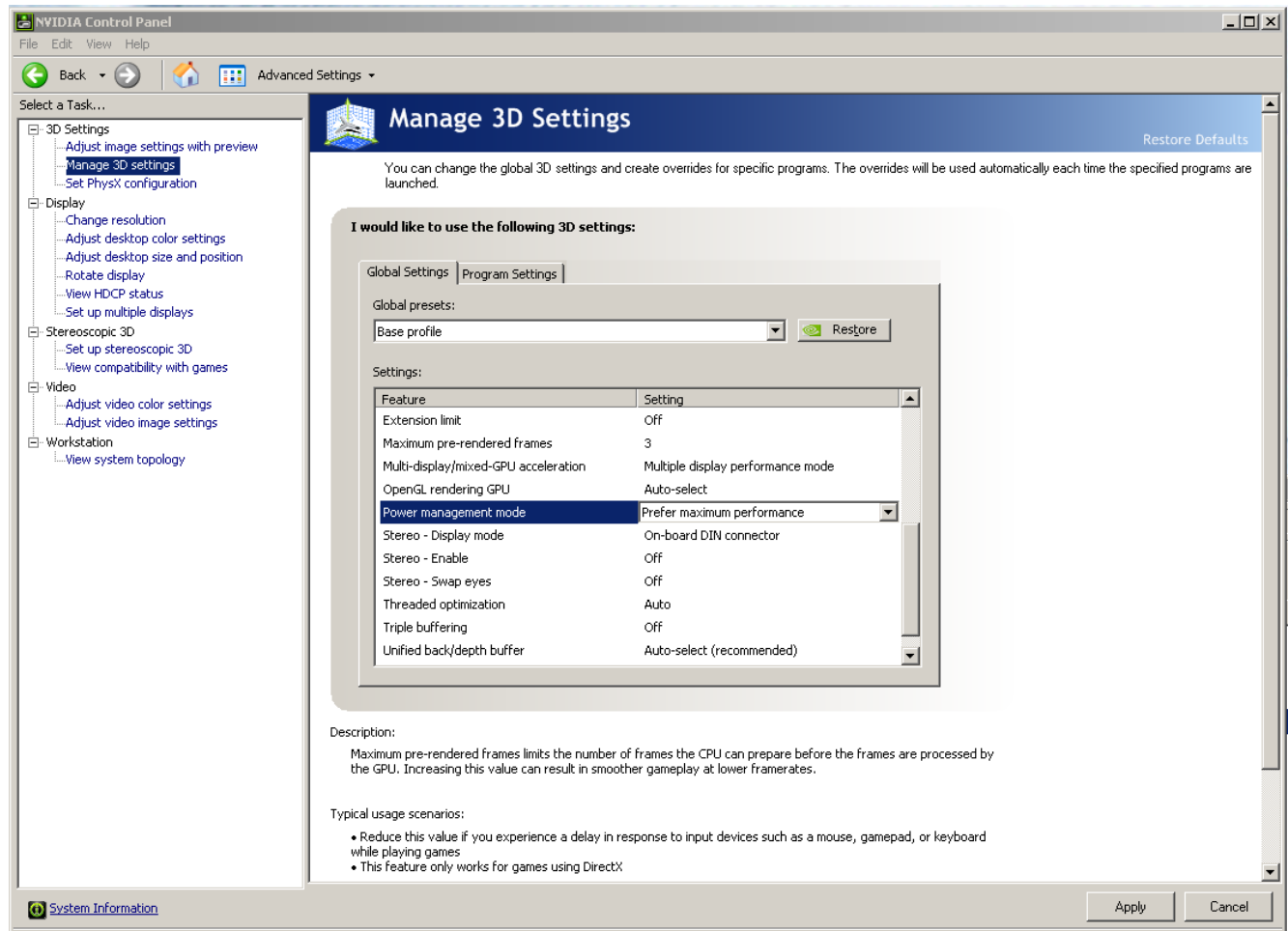
Set optimized Nvidia driver settings for Avid editing environments:

1. See picture below
2. Right-Click on the desktop and select Nvidia Control Panel
3. Select the “Desktop” menu selection in the control panel menu bar.
4. Enable “Desktop -> Video Editing Mode



5. Select Manage 3D Settings
6. Select “Global Settings” Tab
7. Under the “Global Settings” tab select “3D App – Default Global Settings” (Same as Base Profile)
8. Scroll down and locate the “Power Management Mode” feature. The default setting is “Adaptive”

9. For the “Power management mode” feature, select “Prefer maximum performance” as shown in the picture below.



10. Depress the “Apply” button.

11. Nvidia driver optimization settings for Avid environments are complete.

9.) GPU monitor connectivity:

The Nvidia RTX A4000 graphics card has four Display-Port ports. The T600, T1000, A2000 has 4 mini-display ports. All 4 ports can be used simultaneously.

(Important: Display-ports are not HDMI ports; at first glance they do look very similar to HDMI ports)

10.) Serial Port Deck Control

The DELL 3660 workstation does NOT have an embedded serial port. Primary or secondary / additional serial port deck control can be established using USB to serial port adapters. See the Avid KB for more info.

11.) O.S. setting recommendations for optimum performance with Avid Editing applications:

The following links provide O.S. setting suggestions for ensuring optimum performance when working with your Avid editing application with a Windows operating system.

- Optimizations for Video Editors - windows 10

http://avid.force.com/pkb/articles/en_US/Troubleshooting/Media-Composer-Windows-10-Optimizations-and-Troubleshooting

Revision Update

Revision	Date	Name	Update
Rev A	May 20, 2022	Dave Pimm	Initial release of the DELL 3660 configuration guide
Rev B	April 18, 2023	Dave Pimm	Add Intel core i7/i9 Gen 13 CPUs