

DeltaV™ Workstation Hardware



The DeltaV Operator Workstations are available to support multiple versions of DeltaV Systems.

- Pre-installed Operating System (O/S) software for ease of deployment
- Available with Windows 7 and Server 2008
- Easy control network installation; all network cards pre-installed and ready to plug and play
- Choice of client and server workstation hardware to optimize your cost/performance
- Choices for tower and rack-mount computers including RAID drive options
- Supports single, dual, and quad monitors

Introduction

DeltaV software runs on a limited variety of Dell Intel-based computers. Available using workstation hardware with single, dual, or quad monitors, or using server hardware with a single monitor. The selection of DeltaV workstation hardware provides the performance you need to engineer your control strategy and operate your process.

DeltaV workstations run on a specific set of preselected Dell computer hardware specifically chosen to provide the best cost performance solution for your DeltaV system. We provide you with a guaranteed solution to deliver the performance required.

We have pre-tested the DeltaV system with both the hardware configuration and the O/S configuration so you can be sure that the DeltaV system will always operate correctly. You will never be bothered with incompatible drivers, bad or overwritten DLLs, or substandard hardware. You will not waste time in no-value system setup engineering and troubleshooting. Instead, you can focus on your process control functions.

Benefits

Pre-installed software. When ordered through a DeltaV system integrator that can pre-load the correct DeltaV software version, the pre-loaded workstation, monitor, keyboard, and mouse are delivered ready to plug and play in your DeltaV system. This is hassle-free hardware delivery. No third-party interfaces, compatibility problems, or software versions to worry you. A trouble-free system is guaranteed.

Easy control network installation. The workstation ships from the factory with the appropriate DeltaV control network cards preinstalled — no cases to open or network drivers to set up. Just plug a control network segment into the workstation and the other end into the DeltaV control area network (CAN), and you've just set up a new DeltaV network node.

Choose between PCs and servers to optimize your cost/performance. Some systems are served well with PC workstations. But when larger systems demand higher levels of performance, the servers provide exactly what you need.

Flexible options. Match our options with your requirements for towers, servers, dual monitors, and RAID storage. We provide recommendations, but the choice is yours. Either way, the O/S is pre-loaded and ready to roll.

DeltaV v13.3 can only be installed on a 64-bit O/S. Move up to a Windows 64-bit O/S for both workstations and servers.

Product Description

The workstation hardware described in this document is subject to improvements at any time. It is the policy of Emerson Process Management to ship workstation hardware that is current with industry standards.

We want you to enjoy the benefits of the increasing performance and decreasing costs inherent with using state-of-the-art, off-the-shelf equipment as much as possible. The DeltaV system performs testing to help eliminate the risks associated with new platforms, and we continue to focus on measures that extend the life of installed hardware.

Workstation Hardware

Plenty of horsepower. All workstations use state-of-the-art processors well suited to provide the performance required for DeltaV software.

Lots of memory. All computers come with sufficient memory to handle DeltaV applications.

Secure data and fast recovery from hard drive failures. Workstations with RAID1 drives provide higher availability and fast recovery from failures. Servers in RAID 10 configurations maximize data protection and help enhance the performance of the server.

Crystal clear video. DeltaV software works at 1024 x 768, 1280 x 1024, 1680 x 1050 (DeltaV v10.3 and later), or 1920 x 1080 (DeltaV v13.3 and later) pixel resolution. DeltaV servers do not support 1920 x 1080 resolution. Please see monitors section for details. You can increase your viewing space with dual monitors or quad monitors.

Alarm annunciation. Audible alarms use the on-board sound cards included on the motherboards of all operator workstations. (Sound is not available on server-class computers.)

Legendary support. Emerson Process Management consistently receives top honors in service from our customers. This service is extended with a variety of optional support plans. When you subscribe to one of these plans, you are supplied with an external modem. This modem enables the factory to perform remote diagnostics on your workstation should the need arise.

Communications redundancy. The DeltaV system is solid, secure, and safe. The DeltaV control network is fully redundant, and the workstations are equipped to take advantage of this redundancy.

System backups. All workstations come with a DVD-RW drive that can be used for storing backup data.

Monitor options. Choose standard or widescreen flat panel monitors to display your process graphics. Choose dual or quad monitors for maximum viewing area.

Monitor Specifications		
<p>The DeltaV v11.3.1 and newer systems support widescreen monitors with a 16:10 aspect ratio up to 1680x1050 resolution. The DeltaV v13.3 and newer systems support widescreen monitors with a 16:9 aspect ratio up to 1920x1080 resolution. Note: DeltaV servers do not support 1080p (1920x1080) resolution.</p> <p>The DeltaV system also supports a 19" monitor (5:4 aspect ratio 1280x1024 resolution only) on workstations and servers.</p> <p>Wide screen monitors are supported on all DeltaV Workstations including server class computers as noted below. Wide screen monitors must be connected to the computer prior to making wide screen resolution selections. NOTE: The on-board video of servers may not support the same wide screen resolutions or aspect ratios as non-server workstations.</p>		
Order Number	DeltaV Compatibility	Description
SE2804	>=11.3	24-inch LED Widescreen Monitor; 16:10 Aspect Ratio; 1680x1050@60Hz Resolution; VGA/DVI/DP
SE2806	>=11.3	22-inch LED Widescreen Monitor; 16:10 Aspect Ratio; 1680x1050@60Hz Resolution; VGA/HDMI/DP
SE2807	>=11.3	19-Inch LED Monitor; 5:4 Aspect Ratio; 1280x1024@60Hz Resolution; VGA/HDMI/DP
SE2808	>=13.3	24-inch LED Widescreen Monitor; 16:9 Aspect Ratio; 1920x1080@60Hz Resolution; VGA/HDMI/DP Note: DeltaV servers do not support 1080p
<p>Monitor physical appearances change periodically and without notice from monitor suppliers. We cannot guarantee that physically compatible monitors will be available at all times. If you require that any spare or replacement monitors be physically compatible with installed monitors, then spare or replacement monitors must all be ordered at the same time the initial workstation is ordered.</p> <p>Touch screen is supported on DeltaV workstations however touch screen monitors are no longer supported as a standard offering. Touchscreen monitors must be sourced locally as part of the project using the 3M touchscreen technology listed in the Touchscreen product data sheet. Monitors selected for touchscreen should match the aspect ratio and Optimal resolution of the supported monitors.</p>		

Specifications Common to all Computers (applies to all computers with exceptions noted under computer specifications)
<p>Please refer to the Emerson Process Management Product Support Guidelines for complete details on available DeltaV Workstation hardware and software support. Consult our local Emerson support office or representative or visit us at www.sureservice.com).</p> <p>All computers must be installed in a dust-free, contaminant-free environment. These computers are not suitable for mounting in industrial environments unless they are mounted in enclosures that provide the necessary dust-free and contaminant-free environment. Environment must meet Class G1 level for airborne contaminants per the ISA standard ISA-71.04-1985, Environmental Conditions for Process Measurement and Control Systems: Airborne Contaminants.</p> <p>It is the responsibility of the user to insure their environment is compatible with G1. Due to compliance to RoHS requirements newer computers may not survive in the same environment as older models. If there is any chance of sulfur in the environment, computers must be protected in environmental enclosures or relocated to a sulfur-free environment.</p>
<p>Temperature: Operating 10° to 35°C (50° to 95°F) Storage -40° to 65°C (-40° to 149°F)</p> <p>Relative humidity: 20% to 80% (non-condensing)</p>
<p>Altitude: Operating -15.2 to 3048 m (-50 to 10,000 ft.), Storage -15.2 to 10,668 m (-50 to 35,000 ft.)</p> <p>Computer restore image: All computers come with an O/S restore image DVD for fast recovery of the O/S when restoring a computer. O/S install disks are not provided.</p> <p>Unless specifically listed in the individual computer specifications, floppy drives are no longer included with computers. Files can be transferred using portable USB media rather than floppy drives. If a floppy drive is required a USB floppy drive can be supplied locally.</p>

Note on the use of Uninterruptible Power Supply (UPS) with DeltaV Workstations

For workstations and servers that will be used as a DeltaV ProfessionalPlus Workstation, the use of a UPS is **required to prevent possible database corruption due to a sudden power loss** on the ProfessionalPlus.

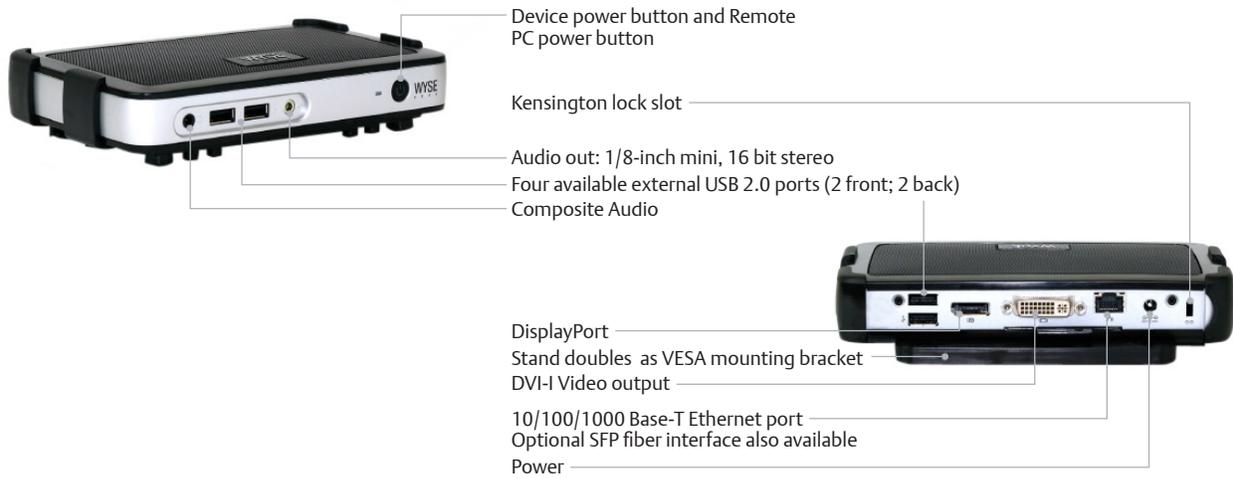
In addition, it is strongly suggested that all DeltaV Workstations including Operator workstations be connected to a UPS system to prevent possible corruption of the O/S, DeltaV software, or other data (such as historians) during a sudden power loss. Critical devices on the DeltaV network should always be protected by the use of a UPS system from possible damage due to sudden power loss.

SE2541 DeltaV Operator Workstation – Single Monitor [based on Dell Optiplex XE2 desktop computer] *The SE2541 workstation is only supported on v11.3 and newer systems. The SE2541 does not support XP.*

- Small form factor chassis
- 3 Network Interface Ports
- Intel i6-4570S Quad Core w/HD Graphics 4600
- Memory: 4.0GB
- Drives: 500GB or larger
- 8x slimline DVD +/- RW SATA drive
- On-board integrated audio
- On-board integrated video, HD Graphic 4600 (single-monitor only)
- Speakers
- USB optical mouse (2 button w/scroll)
- USB local country keyboard
- Local power cord option
- The SE2541 ships with Windows 7 Windows for Embedded Systems 64-bit installed and includes a Windows 7, 32-bit and 64-bit image DVD to field convert the workstation to a 32-bit O/S. This computer will support both English and non-English versions of the DeltaV system and includes the language MUI DVD required for installing a localized non-English version of the DeltaV system. This unit does not come with a Windows 7 O/S reinstall DVD. The image DVD is the only method available to reinstall the O/S on this computer.
- This computer does not support Windows XP.
- Dimensions (H x W x D) Inches/(cm) : 11.4 x 3.7 x 12.3 / (29.0 x 9.3 x 31.2)
- Weight (lbs/kg) : 13.2 /6.0
- Power Supply Unit (PSU) : 315W up to 90% Efficient PSU (80 PLUS Gold), Active PFC
- Maximum vibration: Operating 0.26 GRMS, Storage 0.26 GRMS.
- Maximum shock: Operating 40G, Storage 105G.



SE2500KIT-3 –Wyse® 5030 PCoIP Zero Client.



I/O Peripheral Support	Single Link DVI-I port, One DisplayPort (1 DisplayPort to DVI adapter included) Four External USB 2.0 ports (2 front; 2 back).
Button / LEDs	Multi-Function power button LED
Networking	10/100/1000 Base-T Gigabit Ethernet
Display	VESA monitor support with Display Data Control (DDC) for automatic setting of resolution and refresh rate.
Audio	Composite Audio 1/8-inch mini jack, One Line out / speaker 1/8-inch mini jack
Physical Characteristics	Height: 1.14 inches (29 mm), Width: 6.97 inches (177 mm) Depth: 4.57 inches (116 mm)
Shipping Weight	8.15 lbs. (3.7 kg)
Mounting	Horizontal feet standard also doubling as VESA mounting bracket.
Device Security	Built-in Kensington security slot (cable sold separately)
Power	Worldwide auto-sensing 100-240 V AC, 50/60 Hz. power supply Average power usage with device connected to 1 keyboard with 1 mouse and 1 monitor: less than 8 watts.
Temperature Range	Operating: 32° to 104°F (10° to 40°C), horizontal and vertical positions. Storage: 14° to 140°F (-10° to 60°C)
Humidity	20% to 80% condensing, 10% to 95% non-condensing

Wyse 5030/7030 KVM Installation Note:

If the rack-mounted workstation is installed within 100m of the monitor/mouse/keyboard, then using dedicated, point-to-point Ethernet-wired connections between the PC and Wyse 5030/7030 KVM is required.

If distance is longer than 100m, then dedicated point-to-point fiber connections using media converters are required to extend length.

The use of patch panels as part of the wiring between the PC and Wyse 5030/7030 KVM is strongly discouraged due to possible network issues introduced using these devices. Dedicated wiring runs are strongly recommended for Wyse 5030/7030 KVM connections.

We only support dedicated point-to-point connections from the PC to the Wyse 5030/7030 KVM device. If a switched network solution will be used between multiple workstations and remote P25 devices it must be a network dedicated to serving the Wyse 5030/7030 KVM devices and must not be shared with any other communications, Ethernet network planning and design will be required for a successful implementation. Consult Emerson Process Management SureService to obtain a quotation for assistance with this network planning.

SE2500-KIT1 -- Replacement part kit for the FX100 for the R5400 & R5500 (not for the R7910)

SE2500-KIT-1 Dual Monitor Wyse 5030 KVM Kit for dual monitor rack mount workstations: Provides the new Tera2 dual interface card , the cables between the Tera2 card and the video card and the Wyse Wyse 5030 KVM as a spare part for or to upgrade an FX100 KVM to a Wyse Wyse 5030 KVM. See the DeltaV KBA # NK-1300-0245 for instructions. (This kit is for the SE2525 or VE2555 only. Not supported on earlier versions of the DeltaV Workstations.)

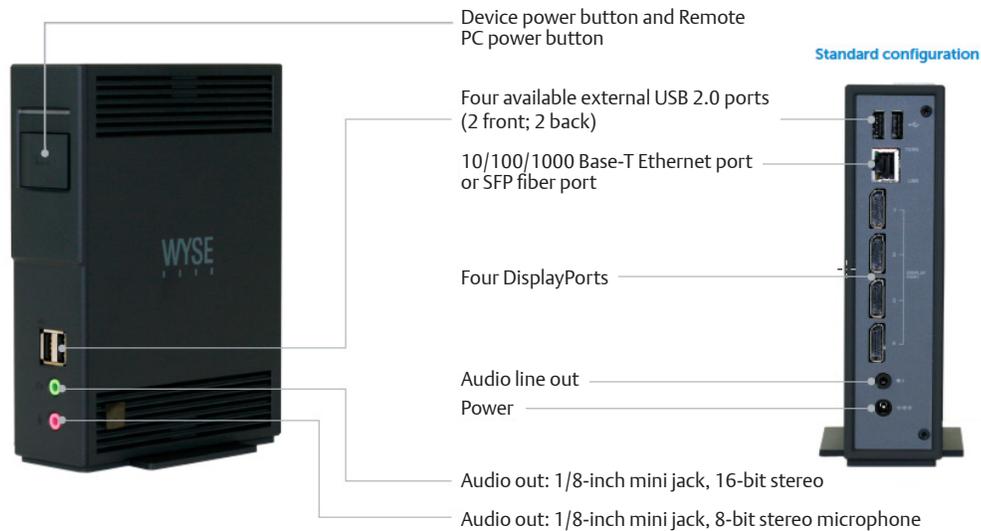
SE2534C2 —DeltaV Rack Mount Single/Dual/Quad Monitor Workstation [based on Dell R7910XL]

The quad monitor rack-mounted workstation is only supported on DeltaV v11.3 and newer versions

- 4 network interface ports
- USB ports: 4 ports - 2 front and 2 rear
- CPU: Single Intel Xeon Quad Core processor
- Memory: 8GB
- Drives: 2x- 500GB 2.5" Serial ATA 7200rpm in a RAID 1 configuration
- 8x DVD +/- RW Drive
- Audio: Creative Sound Blaster Audigy FX Model SB1570
- Video: AMD W5100 graphics card (quad-monitor capable). 4x display port to DVI adapters. **NOTE: the on-board VGA port is disabled and there is no HDMI port on the SE2534.**
- TERA2 Card. **NOTE: The TERA2 card supports but does not include the Wyse 5030 PCoIP Zero Client KVM Extender for dual monitors or the Wyse 7030 PCoIP Zero Client KVM Extender for quad monitors (See the Wyse 5030 and Wyse 7030 specs below).**
- Speakers: AX210 USB speakers
- USB optical mouse (2 button w/scroll), local USB country keyboard, local power cord option.
- Rack Rails: Rack chassis with ReadyRails and Cable Management Arm.
- The SE2534C2 ships with Windows 7 Windows for Embedded Systems 64-bit installed and includes a Windows 7, 32-bit and 64-bit image DVD to field convert the workstation to a 32-bit O/S. This computer will support both English and non-English versions of DeltaV DCS and includes the language MUI DVD required for installing a localized non-English version of DeltaV DCS. This unit does not come with a Windows 7 O/S reinstall DVD. The image DVD is the only method available to reinstall the O/S on this computer. Note that this computer cannot be converted to XP as it does not support the Windows XP O/S.
- Chassis: 2U rack mount
- Height: 3.44 in (8.73cm), width: 18.98in (48.2 cm), depth: with front bezel 29.75 in (75.58cm)
- Weight(minimum): With front bezel 69.23 lb. (31.4 kg)
- Power supply: dual redundant power supplies (hot swappable). Each supply 1100W 92% plus efficiency maximum heat dissipation for 1100W power supply: 1819.1 BTU/hr. with 15 amp power cables.
- Please see Dell R7910 documentation for detailed environmental specifications.



SE2500KIT-4 –Wyse® 7030 PCoIP Zero Client.



I/O Peripheral Support	Four DisplayPort ports, Four External USB 2.0 ports (2 front, 2 back)
Button / LEDs	Multi-Function power button LED
Networking	10/100/1000 Base-T Gigabit Ethernet
Display	VESA monitor support with Display Data Control (DDC) for automatic setting of resolution and refresh rate
Audio	Audio In 1/8-inch mini jack, 8-bit microphone Output: 1/8-inch mini jack, full 16-bit stereo, 48KHz sample rate One Line out / speaker 1/8-inch mini jack
Physical Characteristics	Height x Width x Depth: 177 mm x 46 mm x 130 mm (6.97 in x 1.81 in x 5.12 in) Weight 0.765kg (1.67lb)
Mounting	Vertical feet
Device Security	Built-in Kensington security slot (cable sold separately)
Power	Worldwide auto-sensing 100-240 V AC, 50/60 Hz. power supply Average power usage less than 15 watts
Temperature Range	Operating: 32° to 104°F (10° to 40°C), horizontal and vertical positions. Storage: 14° to 140°F (-10° to 60°C)
Humidity	20% to 80% condensing, 10% to 95% non-condensing

Installation Note:

If the rack-mounted workstation is installed within 100m of the monitor/mouse/keyboard, then using dedicated point-to-point Ethernet-wired connections between the PC and P45 is required.

If distance is longer than 100m, then dedicated point-to-point fiber connections using media converters are required to extend length.

The use of patch panels as part of the wiring between the PC and P45 is strongly discouraged due to possible network issues introduced using these devices. Dedicated wiring runs are strongly recommended for P45 connections.

Only supported using dedicated point-to-point connections from the PC to the P45 device. If a switched network solution will be used between multiple workstations and remote P45 devices it must be a network dedicated to serving the P45 devices and must not be shared with any other communications, Ethernet network planning and design will be required for a successful implementation. Consult Emerson Process Management Advanced Services to obtain a quotation for assistance with this network planning.

**SE2537—DeltaV Dual/Quad Monitor Workstation [based on Dell T5810 workstation]
(DeltaV has consolidated the dual and quad workstations into a single computer)**

- 3 Network Interface Ports
- USB ports: 10 ports - 4 front and 6 rear
- Intel® Xeon® E5-2609 Quad-Core processor, 1.9 GHz
- Memory: 8GB
- Drives: 2 - 500GB hard-drives in a RAID 1 configuration.
- 8x DVD +/- RW Drive
- On-board integrated audio.
- Video: Qty:2 AMD FirePro W2100 graphics card (quad-monitor capable).
Each video card provides 2- DisplayPort outputs. 4x Display port to DVI adapters are included.
There are no VGA ports available on the video card. If VGA outputs are required a DisplayPort to VGA adaptor must be purchased locally.
- AX210 USB Stereo Speakers.
- USB optical mouse (2 button w/scroll)
- Local USB country keyboard (for languages supported)
- Local power cord option
- The SE2537 ships with Windows 7 Windows for Embedded Systems 64-bit installed and includes a Windows 7, 32-bit and 64-bit image DVD to field convert the workstation to a 32-bit O/S. This computer will support both English and non-English versions of DeltaV and includes the language MUI DVD required for installing a localized non-English version of DeltaV. This unit does not come with a Windows 7 O/S reinstall DVD. The image DVD is the only method available to reinstall the O/S on this computer. Note that this computer cannot be converted to XP as it does not support the Windows XP O/S.
- Chassis: Convertible Mini-tower
- (H x W x D): 16.3" x 6.8" x 18.54" (H x W x D): 41.4cm x 17.3cm x 47.1cm
- Weight: 29.1 lb. (16.3 kg)
- Power—685-watt power supply.
- Please see Dell T5810 documentation for detailed environmental specifications



SE2409 DeltaV Workstation—General Specifications [based on a Dell T630 server]

(This workstation is compatible only with DeltaV v11.3 and newer)

- Four ethernet ports (two on-board + Intel i350 DP 1GB server adaptor dual NIC ports)
- 8 USB ports: 2 front/6 rear
- Single CPU Quad-Core Intel® Xeon® E5-2609 1.9 GHz
- Integrated VGA controller
- Memory RDIMM, 2133MT Memory : 4GB
- Hard drive : hot pluggable 15K RPM SAS 12Gbps 2.5 hard drives w/ 3.5" Hybrid Carrier:
PERC H730 RAID Controller: Drives included: Two 300GB setup in a RAID 1 configuration
- DVD+/-RW drive
- USB optical mouse (2 button w/scroll), local USB country keyboard, local power cord option
- SE2409 includes Windows Server 2008 license and a server 2008 R2 image DVD. Windows Server 2008 64-bit operating system comes pre-installed and includes a Server 2008 32-bit and 64-bit image restore DVD to field convert the DeltaV Workstation to a 32-bit O/S. Includes 5 additional server CAL licenses (total of 10). Language support included with DeltaV over-pack.
- Height 443.5 mm (17.5 inch) with feet / 434.5 mm (17.1 inch) without feet
- Width 304.5 mm (11.98 inch) with feet opened / 217.9 mm (8.57 inch) with feet closed
- Depth 692.8 mm (27.27 inch) without bezel / 708.7 mm (27.9 inch) with bezel
- Weight (maximum configuration) 51.0 kg (112.43 lb) for 3.5 inch hard-drive chassis
- Single, hot-pluggable 750W power supply. Note: UPS required if used as a ProfessionalPlus to protect the system in the event of an unplanned power loss.
- Vibration: Operating: 0.26G at 5Hz to 350Hz for 2 minutes , storage: 1.54Grms Random Vibration at 10Hz to 250Hz for 15 minutes
- Shock: Operating Shock: 1 shock pulse of 41G for up to 2ms, Storage: 6 shock pulses of 71G for up to 2ms
- Note: Servers do not have PS/2 ports or parallel ports. Requires the use of a USB dongle.
- The RD1000 is not included in the standard server and must be ordered separately from Dell. Only an external RD1000 can be supplied separately.



This server does support wide-screen monitor resolutions, but does not support multi-monitors or sound cards (no speakers provided with servers).

NOTE: This server does not support the Server 2003 Operating System

Servers for use with Server 2003 must be purchased using the refurbished computer hardware available from DeltaV please consult with Installed Base support for information on the refurbished computer program.

SE2408 DeltaV Workstation—General Specifications [based on the Dell T630 server]

(This workstation is compatible only with DeltaV v1.3 and newer)

- Four Ethernet ports (two on-board + Intel i350 DP 1GB server adaptor dual NIC ports)
- Integrated VGA Controller
- 4 USB ports: 2 front/6 rear
- Memory: 16 GB RDIMM, 2133MT
- Hard drive : hot pluggable 15K RPM SAS 12Gbps 2.5 hard drives w/ 3.5" Hybrid Carrier: PERC H730 RAID Controller
- DVD+/-RW drive
- USB Optical mouse (2 button w/scroll), Local USB country keyboard, Local power cord option.
- SE2408 includes Windows Server 2008 license and a Server 2008 R2 image DVD. Windows Server 2008 64-bit operating system comes pre-installed and includes a Server 2008 32- and 64-bit image restore DVD to field convert the DeltaV Workstation to a 32-bit O/S. Includes 5 additional server CAL licenses (total of 10). Language support included with DeltaV over-pack.
- Height 443.5 mm (17.5 inch) with feet / 434.5 mm (17.1 inch) without feet
- Width 304.5 mm (11.98 inch) with feet opened / 217.9 mm (8.57 inch) with feet closed
- Depth 692.8 mm (27.27 inch) without bezel / 708.7 mm (27.9 inch) with bezel
- Weight (maximum configuration) 51.0 kg (112.43 lb) for 3.5 inch hard-drive chassis
- Dual, hot-pluggable 750W power supply Note: UPS required if used as a ProfessionalPlus to protect the system in the event of an unplanned power loss.
- Vibration: Operating: 0.26G at 5Hz to 350Hz for 2 minutes , Storage: 1.54Grms Random Vibration at 10Hz to 250Hz for 15 minutes
- Shock: Operating Shock: 1 shock pulse of 41G for up to 2ms, Storage: 6 shock pulses of 71G for up to 2ms
- Note: Servers do not have PS/2 ports or parallel ports. Requires the use of a USB dongle.
- The RD1000 is not included in the standard server and must be ordered separately from Dell. Only an external RD1000 can be supplied separately.



This server does support wide-screen monitor resolutions, but does not support multi-monitors or sound cards (no speakers provided with servers).

NOTE: This server does not support the Server 2003 Operating System

Servers for use with Server 2003 must be purchased using the refurbished computer hardware available from the DeltaV system. Please consult with Installed Base support for information on the refurbished computer program.

SE2408C1-Tower Chassis Single Xeon Six-Core CPU Server

- Drives: Two 600GB or greater SAS hard-drives in a RAID 1 Array
- Single CPU - Intel Xeon E5-2620 2.4 GHz 6 cores

SE2408C2- Tower Chassis Dual Xeon Six-Core CPU Server

- Drives: Six 600GB or greater 15K RPM SAS hd-drives in RAID 10 Array
- Two CPUs - Intel Xeon E5-2620 2.4 GHz 6 cores

SE2410- Rack-mount Xeon Six-Core CPU Server General Specifications [based on Dell R730 server]

(This workstation is compatible only with DeltaV v11.3 and newer)

- 2U Rack-mountable chassis with sliding ready rails and cable management arm.
- 16GB memory
- 4 Ethernet ports all on the motherboard [no add-in NIC cards.
- 4 USB ports – 2 back panel and 2 on front panel
- Integrated graphics controller with wide-screen support (wide-screen has been tested using our supported Dell P2213 monitor at 1680x1050 resolution and 16-bit color depth using a direct connection to the VGA port. Other monitors and KVM solutions may function without issues but have not been tested and may not be supported).
- Hot-pluggable drive backplane
- Redundant, hot-pluggable, 750W power supplies. Note: UPS required if used as a ProfessionalPlus
- SE2410 includes Windows Server 2008 R2 Standard Edition licensed under Server 2008 for Embedded Systems. Server 2008 R2 SP1 64-bit operating system comes pre-installed and includes both Server 2008 32- and 64-bit image restore DVDs to field convert the DeltaV Workstation to a 32-bit O/S. Includes five additional server CAL licenses (total of 10). Language support is included with the DeltaV media pack.
- DVD+/- R/W drive
- USB mouse (2 button w/ scroll)
- Local USB country keyboard
- Local power cord option
- Rack server dimensions H: 8.73 cm (3.44 in.) x w: 48.20 cm (18.98 in.) x d: 75.58 cm (29.75 in.)
- Rack server weight 31.5 kg (69.45 lb), maximum configuration
- Note: Servers do not have PS/2 ports or parallel ports. Will require the use of a USB DeltaV dongle.



Environmental

- Maximum Vibration: Operating 0.26 Grms at 5 Hz to 350 Hz (all operation orientations). Storage 1.88 Grms at 10Hz to 500Hz for 15 minutes.
- Maximum Shock: Operating: Six consecutively executed shock pulses in the positive and negative x, y, and z axes of 40 G for up to 2.3 ms. Storage: Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for up to 2 ms.

NOTE: This server does not support the Server 2003 Operating System

Servers for use with Server 2003 must be purchased using the refurbished computer hardware available from DeltaV please consult with Installed base support for information on the refurbished computer program.

SE2410C1- DeltaV Server based on the PowerEdge R730 Rack Mounted Server – RAID 1

- One Xeon E5-2620 v3 2.4GHz, 15M Cache, 8.00GT/s QPI, Turbo, HT, 6C/12T (85W)
- Perc H730 RAID controller
- Two 600GB or greater hot pluggable 15K RPM SAS 12Gbps 2.5" hard drives in a RAID1 Array.

SE2410C2- DeltaV Server based on the PowerEdge R730 Rack Mounted Server – RAID 10

- Two Xeon E5-2620 v3 2.4GHz, 15M Cache, 8.00GT/s QPI, Turbo, HT, 6C/12T (85W)
- Perc H730 RAID controller
- Six 600GB or greater hot pluggable 15K RPM SAS 12Gbps 2.5” hard drives in a RAID10 Array.

SE2410C3- DeltaV High Performance Server based on the PowerEdge R730 Rack Mounted Server - RAID 10

- Two Xeon E5-2643 v3 3.4GHz, 20M Cache, 9.6GT/s QPI, Turbo, HT, 6C/12T (135W)
- 32 GB memory (8 x 4GB RDIMM, 2133MT/s)
- Perc H730 RAID controller
- Six 400GB SAS Mix Use MLC 12Gbps 2.5in hot pluggable Solid State Drives, 13G in a RAID10 Array
- Embedded Windows Server 2008 R2 Standard Edition (For DeltaV v12.3 and greater 64-Bit systems only)

Information on the “Windows for Embedded Systems” Operating Systems

“Windows for Embedded Systems” is a version of the Windows Operating systems specifically created and licensed for vendors who are purchasing the operating system for resale as part of a solution such as DeltaV DCS. The Windows for Embedded Systems O/S software is exactly the same as the Dell OEM version.

The Windows for Embedded Systems license does introduce the following situations:

Computers supplied with “Windows for Embedded Systems” licenses are licensed only for the operating system purchased with the computer and do not have “downgrade rights.” Any change to the license shipped with the computer requires the purchase of a new O/S license.

The DeltaV SE and VE numbered computers using the “Windows for Embedded Systems” license must only be used as a DeltaV workstation or for DeltaV related tasks. These computers may not be purchased for use as general purpose computer or used for applications where DeltaV or DeltaV related tasks are not primary use for the computer.

As a Windows for Embedded Systems licensed vendor Emerson can continue to provide Windows XP licenses on new computers (even though XP is no longer available from other suppliers) and to provide Windows 7 and Server 2008 Upgrade kits, which can only be purchased from Emerson.

Use of KVM (Keyboard, Video, and Mouse) extenders and switches on DeltaV Workstations

Only the specific KVM products listed in the DeltaV Alliance program are supported with DeltaV. Please note the video card information on the workstation computers. The video output connectors have changed and special adaptors must be used [that may not be supplied] or new KVM equipment may have to be obtained to use these computers in existing systems where KVMs are installed. These computers no longer have VGA connectors and the use of VGA adaptors may not be supported by existing KVM devices.

Computer Ordering Information

Ordering numbers (VE and SE numbers) are listed in the sections above. These specifications are subject to change without notice. We guarantee that the computers sold for use with the DeltaV system will provide performance and storage space needed to support DeltaV solutions. We do not guarantee that the hardware specifications of the computers will remain unchanged during the sales life of a specific DeltaV SE or VE number.

The DeltaV Workstation specifications provided in this data sheet describe the products sold by Emerson for use with DeltaV Control Systems. These specifications are not provided to allow users to purchase similar computers directly from Dell or other PC vendors. The DeltaV system is supported only on the specific Dell computer configurations specified in this document and sold from our pricebook. The DeltaV system is not supported on other Dell computers or other computer configurations or on non-Dell computers unless specifically noted otherwise. Any use of non-supported computers will affect our ability to provide technical support and will involve additional costs for technical support.

This PDS only provides specifications for DeltaV specific options that can vary from the standard Dell computer. So specifications for features that are built-in and not optional are not listed. If detailed information on the standard features of the computer is required please refer to the Dell specifications.

NOTE: Hardware specifications of these computers especially as related to: size, backplane connection types (such as COM ports or P/S2 ports), number of slots, etc. are not guaranteed to be available on newer DeltaV workstations as these specifications can change from the vendor. It may not be possible to provide the same capabilities from one version of a DeltaV Workstation to a succeeding version.

To order the computers in this document with specifications different than those listed requires a customer special configuration to be quoted by Emerson. Changing computer specification requires testing the new configuration for compatibility with DeltaV software.

Note about modifying DeltaV Workstation Hardware Configurations

DeltaV workstations are delivered with sufficient memory, hard drives, and network interface cards and other hardware to support all DeltaV applications. No additional hardware changes are required to support DeltaV applications and standard installations. As such we do not support the field installation of additional memory, additional hard drives, added NIC cards, different video cards or other field implemented hardware modifications without consultation with Emerson. Failure to consult with Emerson on any hardware modifications may result in poor DeltaV performance and make it difficult to provide technical support for those workstations that have been modified. Hardware modifications can also require changes to the Windows O/S configuration that may impact the performance of the workstation or the network.

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