# DELL NEW PRECISION<sup>TM</sup> WORKSTATIONS



Han, SangOk
DELL MARKETING

#### DELL PRECISION™: THE WORLD'S MOST TRUSTED W/S BRAND

D	ATE	MILESTONE	WW SHARE
20	009	Dell's 9 <sup>th</sup> consecutive year as world leader (unit shipments)	>40%
20	005	1 <sup>st</sup> Tier 1 vendor to launch a dual-core workstation	>40%
20	001	1 <sup>st</sup> Tier 1 vendor to launch a mobile workstation	>30%
20	000	#1 in Total Workstations (units shipments)	>20%
19	998	#2 in Personal Workstations (unit shipments)	>10%
19	997	Dell enters the market in July	<3%



- Why rely on Dell Precision?
  - Performance first
  - Engineered for the task
  - Reliable and dependable
  - Full range of systems
  - Certified for key applications

Dell Precision™ Workstations





• Why rely on Dell Precision?

#### Performance first

- Engineered for the task
- Reliable and dependable
- Full range of systems
- Certified for key applications

All Dell Precision systems are designed to deliver the best application performance possible





- Why rely on Dell Precision?
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  - Reliable and dependable
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All Dell Precision systems are designed with relevant performance technologies





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  - Certified for key applications

All Dell Precision systems are designed with thermal headroom for reliable levels of sustained performance





- Why rely on Dell Precision?
  - Performance first
  - Engineered for the task
  - Reliable and dependable

Full range of systems

Certified for key applications

With 3 mobile, 3 tower and a rack system the Dell Precision family provides excellent choice





- Why rely on Dell Precision?
  - Performance first
  - Engineered for the task
  - Reliable and dependable
  - Full range of systems

Certified for key applications

Delivering systems tuned to run complex advanced applications in multiple different industries.





# WHAT ARE WE LAUNCHING? Major Refresh of Tower Workstation Offerings

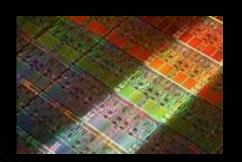


- Three new Dell Precision Towers with Intel® Nehalem architecture
  - Intel Nehalem architecture enhancements
    - X58 and X5520 chipsets
    - QuickPath Interconnects
    - Turbo Mode for dynamically scalable CPU performance
    - ECC DDR3 memory
    - Direct Cache Access
    - HyperThreading
- New graphics options from AMD® and NVIDIA®
  - Broad choice and performance options
  - DisplayPort® connectors
  - Support for GPU compute solutions (T5500 and T7500)
- Impressive application performance
  - Early benchmarks show encouraging results

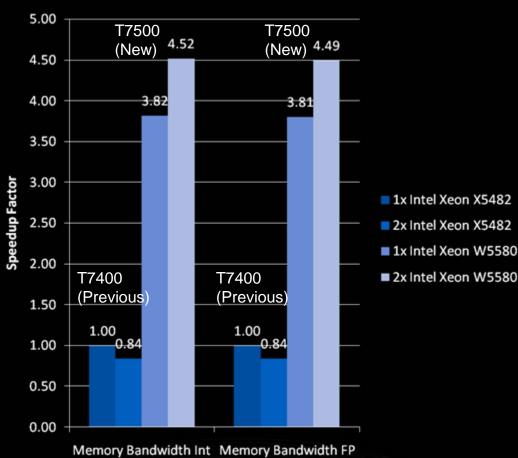


## DELL PRECISION: PERFORMANCE FIRST

- Up to 90% better multithreaded 3DS Max performance than Dell's previous generation
- Up to 350% more memory bandwidth than the previous generation using SiSoft Sandra benchmark



#### SiSoft Sandra 2009 Memory Bandwidth





<sup>\*</sup> See test configuration and more performance comparisons in backup slides

### DELL PRECISION: NEW GRAPHICS CARDS



NVIDIA® NVS 295

NVIDIA® NVS 420

NVIDIA® QUADRO FX580

NVIDIA® QUADRO FX1800

NVIDIA® QUADRO FX3800

NVIDIA<sup>®</sup> QUADRO FX4800

NVIDIA® QUADRO FX5800

**EXISTING** 

**QUAD MONITOR POST RTS** 

WITH SYSTEM LAUNCH

WITH SYSTEM LAUNCH

WITH SYSTEM LAUNCH

**EXISTING** 

**EXISTING** 



ATI<sup>®</sup> FIREGL V3750

ATI<sup>®</sup> FIREGL V8700

WITH SYSTEM LAUNCH WITH SYSTEM LAUNCH



### DELL PRECISION: RELIABLE AND DEPENDABLE

- Dell Precision workstations are designed to provide robust reliability:
  - Dell designed motherboard layout
    - High performance interconnects between subsystems
    - Advanced cooling even when fully configured
    - Enables flexible configuration options
  - Dell designed thermal envelope
    - Fans can turn slower yet deliver excellent cooling
    - Intel core technology with the control of performance of individual cores
  - High energy efficiency
    - Energy Star 5.0
    - Certified power supply by 80Plus.org









## DELL PRECISION: FULL RANGE OF SYSTEMS

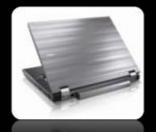
R5400 & FX100

M2400

M4400

M6400







For desktop workstation class performance but with mobility



2U rack workstation with world-class remote access

# NEHALEM

T3500



Balance of performance, scalability and affordability

T5500 T7500



Exceptional performance and scalability



## DELL PRECISION: CERTIFIED FOR YOUR APPLICATION





### DELL PRECISION™ T7500

# FLAGSHIP DUAL SOCKET DELL PRECISION WORKSTATION BREAKS PERFORMANCE AND SCALABILITY BARRIERS

#### **New Technologies:**

- Turbo Mode increases the speed of cores on demand when some are inactive or underutilized enabling higher performance primarily for single threaded applications
- Three channel DDR3 ECC memory at 1066 and 1333MHz up to 192GB<sup>1</sup>
  - Memory bandwidth scales with addition of 2<sup>nd</sup> processor
- Dual native Gen 2 PCIe x16 graphics slots
   Up to 450 watts (2 x 225W or single 300W)
- Nvidia SLI support no riser required
- Direct Cache Access (DCA):
   Cache of inactive cores can be accessed by those that are active



#### **Great for:**

- High end MCAD: Siemens, Dassault/Solidworks, PTC/ProE Wildfire
- Oil & Gas applications: Landmark, Petrel,
- CAE: Ansys, Mentor, Cadence, Nastran
- High end DCC: Adobe CS4, Softimage/XSI, Autodesk/3D Studio Max
- Customers looking for leadership memory and OpenGL 3D graphics scalability



### DELL PRECISION™ T5500

# DUAL-SOCKET, DUAL AND QUAD-CORE WORKSTATION PERFORMANCE FOR SPACE-CONSTRAINED ENVIRONMENTS

#### **New Technologies:**

- Turbo Mode dynamically increases the speed of cores when some are inactive or underutilized enabling higher performance primarily with single threaded applications
- Three Channel DDR3 ECC memory at 1066 and 1333MHz up to 72GB<sup>1</sup>
- Dual NATIVE Gen 2 PCIe x16 graphics slots and support for up to 300 watts (2 x 150W or single 225W)
- Direct Cache Access (DCA) when cores are inactive, the cache of those cores can be accessed by those that are active



#### **Great for:**

- High end MCAD: Siemens, Dassault/Solidworks, PTC/ProE Wildfire
- CAE: Ansys, Mentor, Cadence, Nastran
- High end DCC: Softimage/XSI, Autodesk/3D Studio Max
- Customers looking for memory and OpenGL
   3D graphics scalability in a compact chassis



### DELL PRECISION™ T3500

# MAINSTREAM DUAL AND QUAD-CORE WORKSTATION PERFORMANCE

#### **New Technologies:**

- Turbo Mode dynamically increases the speed of cores when some are inactive or underutilized enabling higher performance primarily for single threaded applications
- Direct Cache Access (DCA) when cores are inactive, the cache of those cores can be accessed by those that are active
- Memory controller integrated into CPU resulting in low latency and excellent application performance
- Three Channel DDR3 at 1066MHz and 1333MHz scales to 24GB¹ ECC

#### **Great for:**

- DCC Autodesk/3D Studio Max
- 3D CAD Dassault/Solidworks, PTC/ProE Wildfire
- AEC Autodesk/Revit, Bentley/Microstation
- CPU frequency for single threaded applications
- 2D and mainstream 3D graphics performance





# DELL PRECISION<sup>TM</sup> PERFORMANCE FIRST

- Dell Precision M6400
  - Twice the memory capacity of any competitive product
  - The only mobile
    workstation offering RAID
    0 and an optical drive at
    the same time
  - Drives two 30" flat panels at full resolution when docked



Performance, in particular, is stellar. It blew through my mixture of engineering, database, and software-development workloads with aplomb, outpacing the HP 8730w by margins of 9 to 23 percent.

Randall C. Kennedy, infoworld.com

# DELL PRECISION<sup>TM</sup> PERFORMANCE FIRST

- Dell Precision M4400
  - The only 15.4" mobile workstation offering RGB LED screen with 100% Adobe® color gamut
- Dell Precision M2400
  - Find a smaller and lighter mobile workstation!







# DELL PRECISION<sup>TM</sup> PERFORMANCE FIRST



- Dell Precision R5400
  - Unique 2U rack workstation
  - Support for high performance OpenGL graphics cards
  - Ideal for use with 1U NVIDIA
     S1070 GPU solution
- FX100 Remote Access
  - Supports full choice of graphics cards
  - No client device required at remote location



## DELL PRECISION: TECHNOLOGY YOU CAN TRUST



- Major technology refresh from leading workstation vendor
- Undisputed leader in workstation shipments over the last nine years, worldwide.
- Unmatched application certification program to help ensure reliable performance





# Precision R5400 시스템 구축 DEMO



Jun, SoHyun
DELL MARKETING

## R5400 RACK WORKSTATION SPEC

Chassis	• 2U; 27" deep*		
Core Logic	Intel® 5400X Seaburg-DW chipset		
Architecture	<ul> <li>Intel® Xeon® Quad-core and Dual-core processors up to 80 watts</li> </ul>		
Memory	Fully Buffered DIMM (FBD) DDR2 667		
	<ul><li>4 DIMM slots; 32GB Max</li></ul>		
Graphics	raphics • Support for dual native PCle x16 graphics; up to 300W total		
Fixed Storage	• Up to 2 SATA 3.0 HDD		
	<ul> <li>Removable from the front, but not hot swappable</li> </ul>		
Optical Bays	• (1) Slim-line optical bay		
Ports	• (2) Gbit RJ45, (5) USB 2.0 (2 front, 3 rear), (2) Serial, (2) PS/2		
<b>Expansion Slots</b>	• Riser 1		
- 4 Slots	- (2) PCle x16 - Gen 1		
- All full height	• Riser 2 – choice of:		
- All full length	<ul><li>(1) PCIX 64-bit @ 100MHz; (1) PCIe x16, wired as x8 (default)</li></ul>		
· ··· · · · · · · · · · · · · · · · ·	Or		
	<ul><li>(1) PCIX 64-bit @ 100MHz; (1) PCI 32-bit; 5V</li></ul>		
Network &	Dual Integrated Gbit		
Manageability	Desktop manageability features (ASF 2.0)		
Miscellaneous	Supports industry standard racks		
	<ul> <li>Commonality with Dell PowerEdge™ for rails &amp; cable management</li> </ul>		













### Dell FX100 REMOTE ACCESS DEVICE

### 주요특장점:

- 최대 1920x1200, 듀얼 스크린으로 사용할시에는 최대 1600x1200 해상도를 지원하는 두개의 DVI 포트
- 비디오, 에니메이션, ClearType, Windows Aero for Windows Vista,
   Direct X 등 대부분의 3D 그래픽을 지원
- 10/100/1000 BaseT Ethernet 내장
- 원격지에서 Host 의 USB 포트를 그대로 쓸 수 있음 (오디오 기능 포함)
- 호스트에 설치된 각종 어플리케이션을 원격지에서 이용할 수 있음
- SSL IPSec 보안 프로토콜로 주고 받는 데이터를 해킹으로 부터 보호함



# Dell FX100 REMOTE ACCESS DEVICE SPEC:

- Video Ports
  - 2 DVI-I ports

#### **Ports**

- 4 USB 1.1 connectors
- 1 audio mic-in jack
- 1 audio headphone out jack
- 1 audio line-out jack
- 1 RJ45 jack for 10/100/1000 Mbps Ethernet

#### **Dimensions**

- Height 9.13" (232 mm)
- Width 3.7" (94mm)
- Length 6.85" (174 mm)

#### Power

- Power 12v DC 30Watts
- External power adapter with worldwide autosensing
- 100-240v VAC, 50/60 Hz support



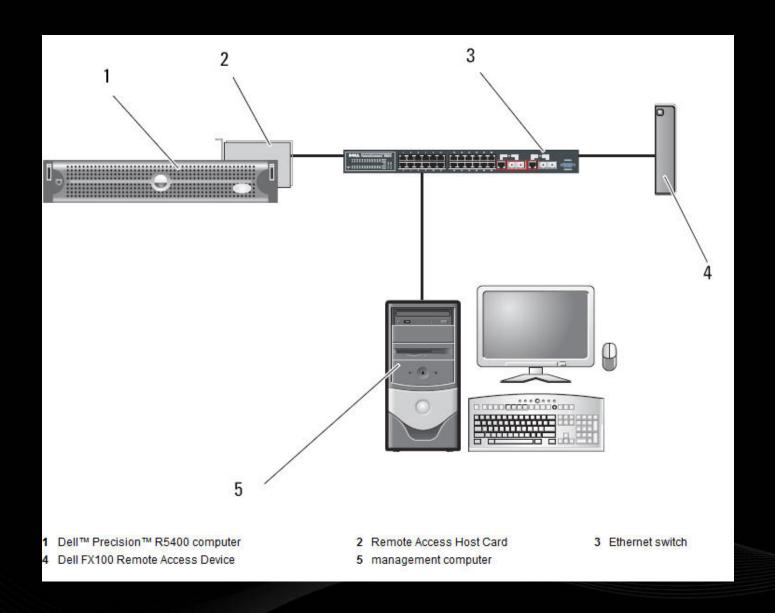
## Dell FX100 REMOTE ACCESS DEVICE







## Configuration Overview (Basic)









도전과제. R5400 + FX100 구축하기

구축시간 : 10분



# 08.4



# 감사합니다.

















