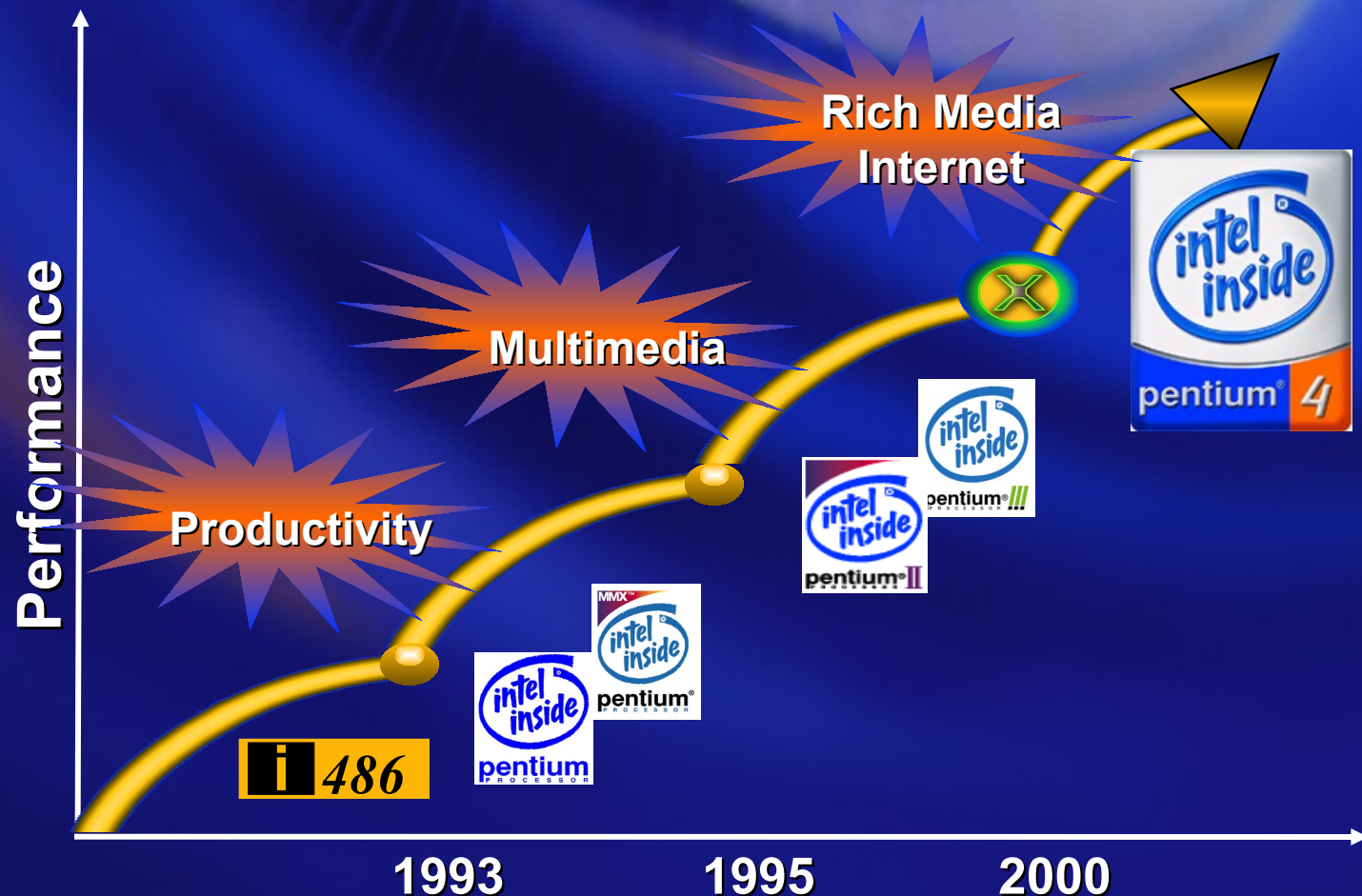


Intel® Pentium® 4 Processor Platform and Microsoft* Windows* XP



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Intel® Pentium® 4 Processor



New Architecture Designed to Meet Needs

“But I Will Never Need That Much Performance...”

1989

“We’ll see a 10-year life cycle for the 80286, and almost 10 years of growth”

Byte, Gordon Campbell,
Chips&Technologies, March 1989



Would you have wanted an Intel 286™ based system in 1999?

Today

1992

“...do you and your users really need a 486 PC? Well, it depends on many factors, but more times than not, the answer is no”

Computerworld, Stephen Rood, Rood & Associates, IS consulting firm, 11/16/92



"Does the market need a 1.5-gigahertz processor? No," said Ashok Kumar, an analyst with US Bancorp Piper Jaffray."

Los Angeles Times November 18, 2000

1993

“Granted, Pentium has its audience, but the advantages of this chip will not be felt on the desktop... Pentium on a server? Sure. On the desktop? Nope.”

PC Week, May 3, 1993, John Trevisani



Windows* 2000
on a Pentium Processor?

**Short-sighted Comments Proven
Wrong Time and Time Again**



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Pentium® 4 Processor: Business Benefits



- **PERFORMANCE** for the new client workload
 - Net Burst™ Microarchitecture meets challenges
- Maximizes **ROI** and **LONGEVITY**
 - Investment protection
 - Headroom for future
- Minimizing costs with **STABILITY**
 - Intel platforms and software drivers enable OEM stable platform offerings

Client Workload Increases

Foreground

Passive Browser
Office apps
Multitasking OS

1998

Collaboration
Email
Dynamic Browser
'net-aware Office
M'tasking 'net-aware OS

2001

Richer Human Interface
CRM, SCM, ERP apps
Collaboration
Email
Dynamic Browser
'net-integrated Office
Next Generation OS

2002-3

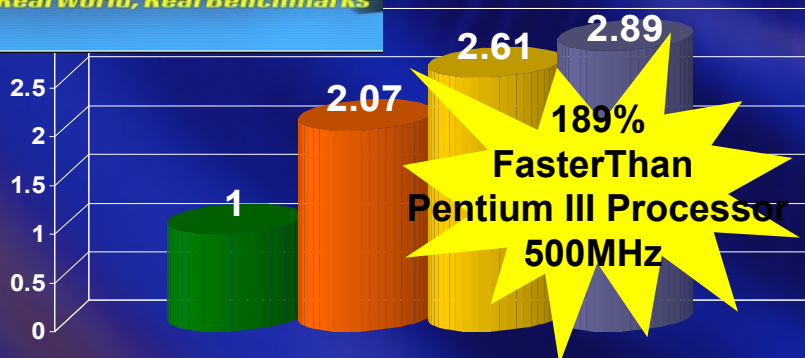
Background

Virus Scan
Compression
Back-up
System Management
Java applets

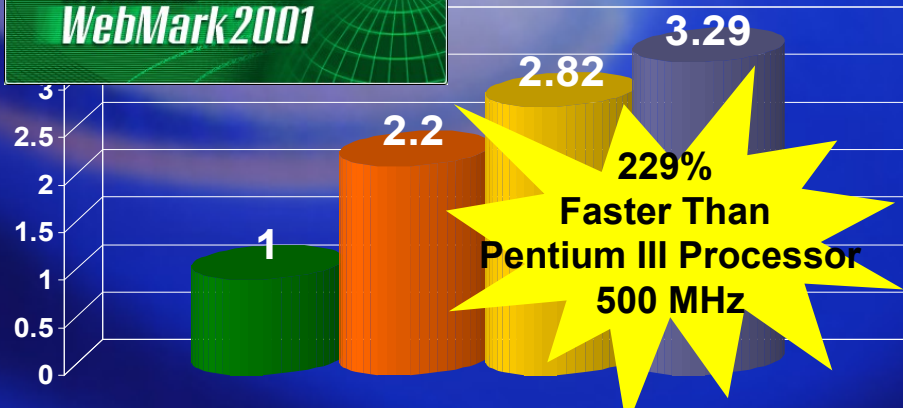
Virus Scan
Compression
Back-up
System Management
Authent/Encrypt
Synchronization
Java applets
Content Subscr. Svcs.

Virus Scan
Compression
Back-up
System Management
Authent/Encrypt
Synchronization
Directory Services
Peer-to-Peer Services
Java applets
Content Subscr. Svcs.
Push/Pull agents
Biz Automation Svcs.

Pentium® 4 Processor Business Performance

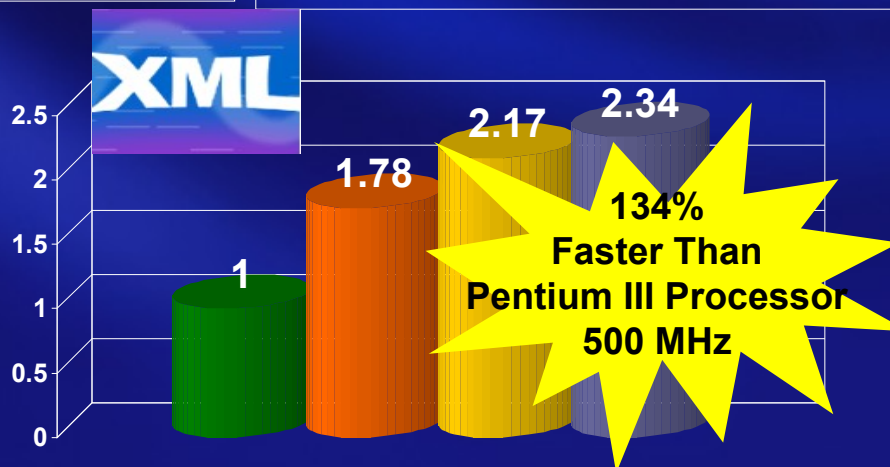


■ 500 MHz Pentium III Processor
 ■ 1.0B GHz Pentium III Processor
 ■ 1.5 GHz Pentium 4 Processor
 ■ 1.7GHz Pentium 4 Processor



■ 500 MHz Pentium III Processor
 ■ 1.0B GHz Pentium III Processor
 ■ 1.5 GHz Pentium 4 Processor
 ■ 1.7GHz Pentium 4 Processor

WebMark* 2001 Technology Run



■ 500 MHz Pentium III Processor
 ■ 1.0B GHz Pentium III Processor
 ■ 1.5 GHz Pentium 4 Processor
 ■ 1.7GHz Pentium 4 Processor

Source: Intel. Config: Pentium® III processor – Intel® Desktop Board D815EA; 128MB PC133 CL2 SDRAM Pentium® 4 Processor Platforms: Intel Garibaldi GB850, 128 MB PC800-45 RDRAM, Creative Annihilator 2 / nVidia GeForce 2 GTS 4x with 32 MB DDR memory, 1024x768 at 16-bit color, IBM DTLA-307030 30GB ATA-100, Intel INF 2.60.001, Windows 2000 (build 2195). FAT32 partition, 32-bit File System with Service Pack 1 installed., Toshiba 32X XM-6302B IDE CDROM Drive, Intel Pro/100+ Management PCI LAN card, SoundBlaster LIVE. Other Pentium® III and Pentium® II Processor Platforms: Intel Seattle SE440BX-2, 128 MB PC100 CL2 SDRAM, Diamond Viper 550 / nVidia TNT 2x AGP with 16 MB memory, 1024x768 at 16-bit color, IBM DTTA-301010 10GB ATA-33, DMA on, Windows 2000 (build 2195). FAT32 partition, 32-bit File System with Service Pack 1 installed, Toshiba 32X XM-6302B IDE CDROM Drive, Intel Pro/100+ Management PCI LAN card, Integrated sound



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New Desktop Technologies: XML and Java*

“In the case of Ford... the company uses Office XP's XML support to electronically notify suppliers about component needs. Lexis-Nexus and UPS... focus on a specific XML technology Microsoft calls Smart Tags. Lexis-Nexus ...[uses] Smart Tags to provide access to more than 15,000 information sources from within Office XP. UPS depends on the feature to allow customers to track packages and monitor shipping costs.”

ZDNet, May 31, 2001

<http://www.zdnet.com/zdnn/stories/news/0,4586,2767005,00.html?chkpt=zdn053101>

**Moving from Server to Client:
Enabling Greater Integration, Efficiency
And Productivity**



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Optimizing an Intel® Pentium® 4 Platform

- Software
- BIOS

Integration on Windows* 2000

Windows* 2000

- Load Service Pack first
- Load INF utility second
- Video driver
- Use Intel Ultra ATA Storage Driver
- Update to Microsoft DirectX 8 or higher

Order Will Affect Performance

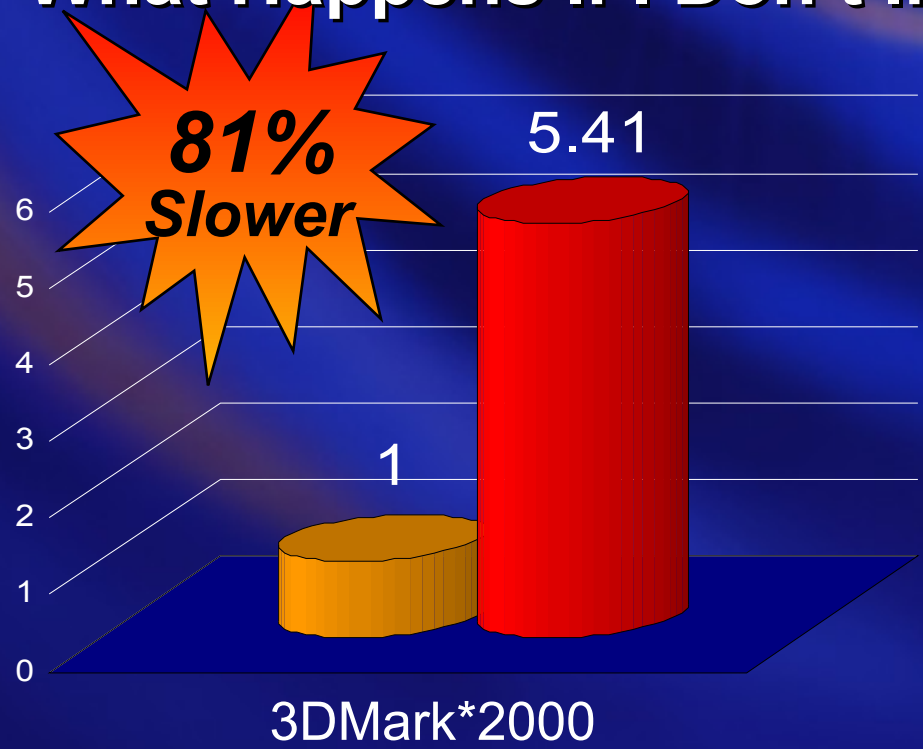
Integration on Windows* XP

- Drivers incorporated into Operating System, so Pre-install of OS loads all peripheral drivers
- INF update utility is not needed for Intel® 850 chipset based platforms or any Pentium III processor platforms
- Caveat
 - INF update utility will be needed for new Intel® 845 chipset based Pentium® 4 processor platforms
 - Use OPK and proper command line switches for INF update utility to slipstream driver load during OS preinstall

**Windows* XP Reduces System
Integration Time**

INF Performance Impact

- What Happens If I Don't Install INF First?



*

■ Unoptimized

■ Optimized



81% Performance Loss Measured by 3DMark* 2000



Source: Intel RAE. Config: Pentium® 4 processor 1.50 GHz, Intel® Desktop Board D850GB IMGB04708153 AA A22917-306, Windows® Me v4.90.300, 128MB PC800 RDRAM, Creative® 3D Blaster Annihilator 2 Ultra w/Detonator® 3 v6.31 driver, IBM® DTLA-307015 ATA-100 hard drive at 7200rpm w/2MB cache. Unoptimized: No additional drivers. Optimized: Intel® chipset INF update v2.50, Intel® Ultra ATA Storage Driver v6.08, DirectX® 8.0 v4.08.0400.

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BIOS

System Boot Time

intel. | Desktop Boards

Leading Technology. Together.

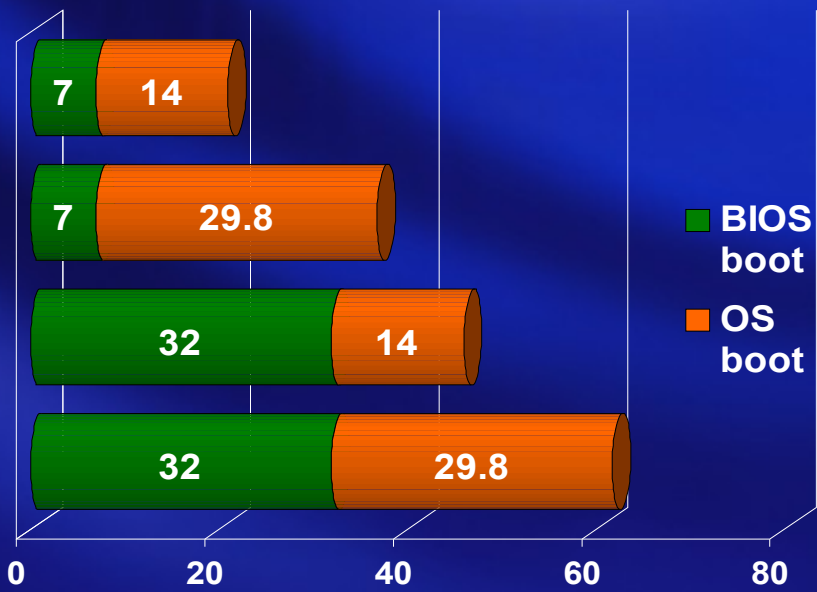
Boot Time to Windows* Start

Intel® Rapid BIOS Boot
and Windows* XP

Intel® Rapid BIOS Boot
and Windows* 2000

Generic BIOS and
Windows XP

Generic BIOS and
Windows 2000



Intel® Rapid BIOS Boot Saves 10-12 Seconds in POST time



Source: Intel RAE. Config: Pentium® 4 processor 1.50 GHz, Intel® Desktop Board D850GB IMGB104000102 AA A48927-900, Windows* XP Beta build 2468, 128MB PC800 RDRAM, ASUS V7700 w/Detonator* 3 v6.31 driver, WD* WD400BB ATA-100 hard drive at 7200rpm w/2MB cache.

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Intel® Boxed Motherboards

- **Rock Solid**

- WHQL certified hardware and drivers
 - Cut your WHQL testing from 5 man days to 2 man days when using logo'd components⁺
- Interoperability testing with Windows* XP and Intel Pentium 4 Processor
- All Intel developed and 3rd party software tested to be Windows XP compatible



- **Snap Integration**

- Intel Express Installer automates driver and 3rd party software installation

- **Leading Technology**

- Intel Rapid BIOS Boot and XP – boot to desktop in 20 seconds
- Intel Express BIOS Update – update system BIOS from within Windows
- Instantly Available PC



⁺Based on internal testing by DPSD WHQL testing team

Released on internal testing by DPSD WHQL testing team

Summary

- Offer Intel® Pentium® 4 Platforms today to give your customers headroom
- Optimize your Intel Pentium 4 Platforms system builds for best performance

Intel® Pentium® 4 Processor is your best choice for Windows* XP



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