

40 YEARS
OF CHANGING
THE WORLD



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FORUM**



Software: Unlocking the Opportunities On Intel Platforms

Renee J. James
Vice President
General Manager
Software and Solutions Group



The World of Software is Changing

Where Software is Developed

How Software is Developed

End User Experiences and Expectations



Where We Develop Software is Changing

Developer Growth Worldwide

1996



Source: IDC

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The Chinese Software Industry

Is projected to become one of the largest world wide

2011



Source: IDC

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The Chinese Software Industry

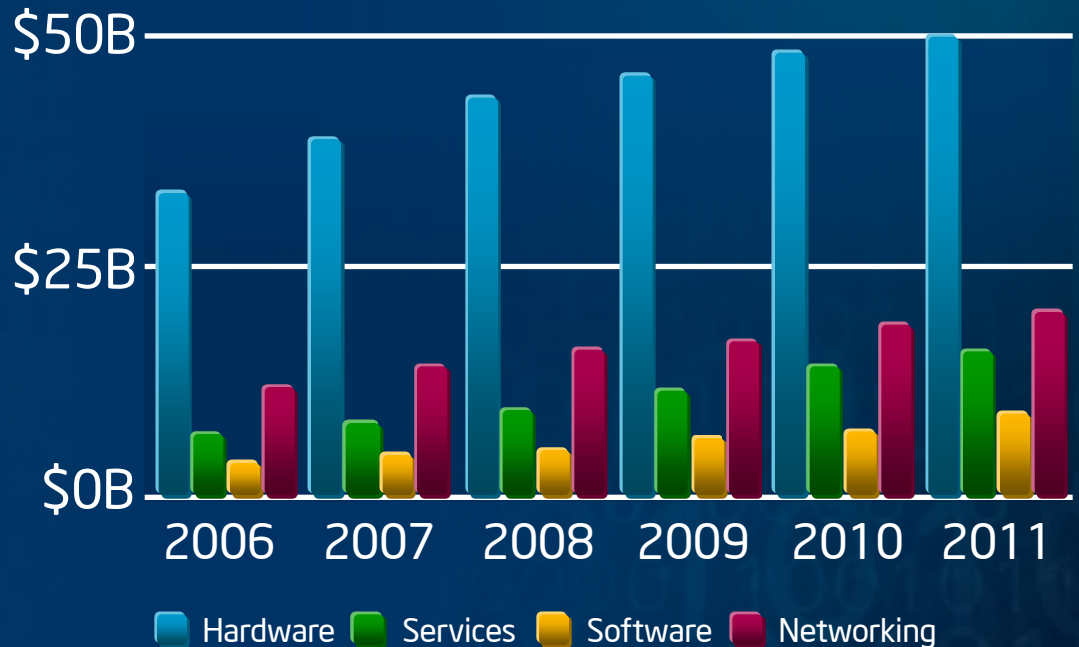
Is projected to become one of the largest world wide

15% Annual growth rate in IT spending from 2006 (US\$64.6 billion in '07)

US\$ 5 billion of software spending in '07

2.5 million software developers in 2012 based on the Ministry of Information Industry

IT Spending in PRC



Source: IDC



Intel's Software Investments In China

University Programs

Developer Programs

Intel Software R&D Centers



Engaging With China's Software Park Program

Software Park Program

Intel Software College

Intel Software Partner Program

Intel Software Network

Intel Software Innovation
Support Center

Intel Tools

Go To Market support

Strategic Investment



Hangzhou and Nanjing SWP MOU
Signing Ceremony

- \$10M invested in Software Parks
- 3000 local ISVs joined
- 1,100 software engineers trained in classrooms
- 5,000 developers trained online
- 1M ISN page views from China, 115K from the Software Park Program



Intel Supporting Regional Software Innovation

Hangzhou

中控·SUPCON

HUNDSUN

ArcSoft®

ENJOYOR®

TeaVea

Nanjing

VIEWGOOD®

NARI-RELAYS

JUMPLE

小哨兵
SENTRY

BYOSOFT
百傲软件

世及天



Shenzhen
Guangzhou

天
地
方
圆方软件
YUANFANG SOFTWARE

金证科技

JIANGMIN
江民科技

TongTech®
因科技而自由

凯立德
CARELAND

Wisetop 慧通
经典之作 智慧之选

超市网
WWW.SH.WE

KOUTON
沟通科技

Chengdu
Chongqing
Xian

中
联

KungHo

FARSTONE
Optimizing System Recovery & Performance

SoftLumos

Aurora
锦天科技

sohey
www.sohey.com

LIVE'800
www.live800.com

华图科技
CHINA GRAPHICS

SAMING®
TECHNOLOGY
http://www.saming.com



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Optimizing Professional Video Editing Software with Sobey

sobey



Ouyang Ruizhang
Senior Vice President,
Chief Technology Officer
Sobey

Intel Supporting China Higher Education

Faculty Training

Student Programs



Curriculum

Joint Research



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Encouraging Software Innovation in China's Universities



Zhang Yaoxue

Chinese Academy of Engineering,
Professor of Tsinghua University,
Director General for
Higher Education, Ministry of Education



The World of Software is Changing

Rapid Growth of China's Software Industry

Continued Innovation Through Open Source

New Opportunities : Mobility and Visual Computing



How we develop Software is Changing

Open Source is Mainstream Today



\$2B + raised since 2000 by open source startups
220k + open source projects on SourceForge
69% of WW developers say they use open source
modules in their applications (Evans Data)



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Open Source Software Gains Momentum

Dell to offer Ubuntu Linux on PCs, Laptops
PC World – May 2007

Gartner says: By 2011, 80% of commercial software will be open source
Sept 2007

“Linux-enabled devices to grow to 203.9 million in 2012”
Source: ABI



Community Projects Intel is Involved in

Power Savings

<http://www.lesswatts.org>

Mobility

<http://www.moblin.org/>

Graphics

<http://intellinuxgraphics.org>

Performance

<http://kernel-perf.sourceforge.net>

Operating Systems

Linux kernel: <http://kernel.org>

OpenSolaris: <http://opensolaris.org>

Virtualization

Xen: <http://xen.xensource.com>

UML: <http://user-mode-linux.sourceforge.net>

KVM: <http://sourceforge.net/projects/kvm>

Development Tools

Intel® TBB: <http://threadingbuildingblocks.org>

Eclipse: <http://www.eclipse.org>

GCC: <http://gcc.gnu.org>

Java: <http://harmony.apache.org>

Network and Wireless

<http://intellinuxwireless.org>

<http://e1000.sourceforge.net>

Manageability

<http://www.openwsman.org>

<http://www.openamt.org>

Firmware and Platform Integration

<http://www.linuxfirmwarekit.org>

<http://www.tianocore.org>



Apache Harmony



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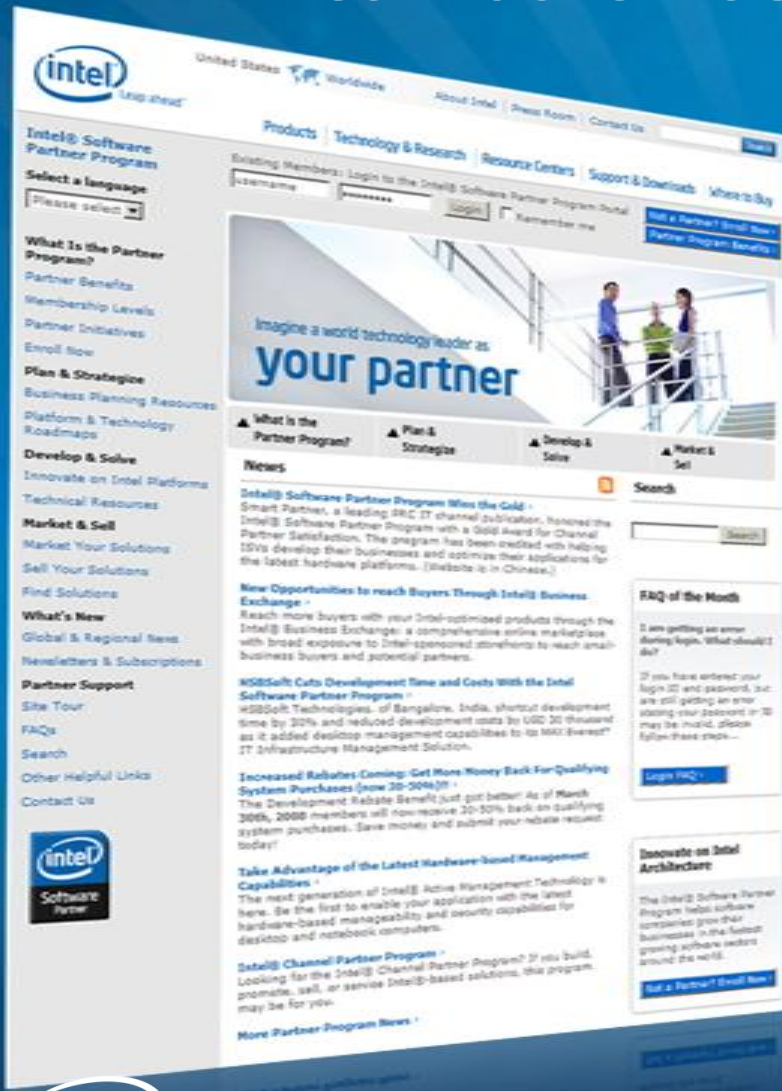
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Announcing Today: Intel® Certified Solutions Program

Intel® Certified powered by SpikeSource
Intel® Capital Invests in SpikeSource
Comprehensive Certification Service

- Security, interoperability, and maintainability
- Supports Microsoft and Open Source Software Stacks
- Validates solutions for Intel® processor-based platforms and feature sets

2008 early adopter program



Jointly Foster Remote IT Management Service Platform



Advanced Managed Service Platform
model pilot project with CNC, Hei Long Jiang MII,
Intel and Tong Fang

Provides fundamental IT services to
consumer and small and medium
enterprise customers



中国网通(集团)有限公司
黑龙江省分公司



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End User Experiences and Expectations are Changing

**Mobility
is expected**



**Visual computing
is desired**



Mobile Internet Devices

MIDs Will Deliver the *Full Internet in your Pocket*



Communication



Entertainment



Information



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Moblin.Org

Linux for Intel® based non-PC devices

Projects and Tools
Developer Resources
Community Forums
Optimizations



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Moblin Software Development Kit

Core Development Tools

Image Creator
PowerTop
GNU Toolchain

Intel® Software Development Products

Intel® C++ Compiler for Linux*
Intel® IPP Libraries
Intel® VTune™ Analyzer
JTAG Debugger / Apps Debugger

Sample Apps and Documentation

Open source sample apps
Application design, development, and optimization guides
Moblin porting guides (Windows*, Java*)



Intel's Mid Cooperation with Asianux

Asianux Mobile Edition -- Midinux

Rich Internet Experience

Fast browsing

Innovative UI

Video and audio

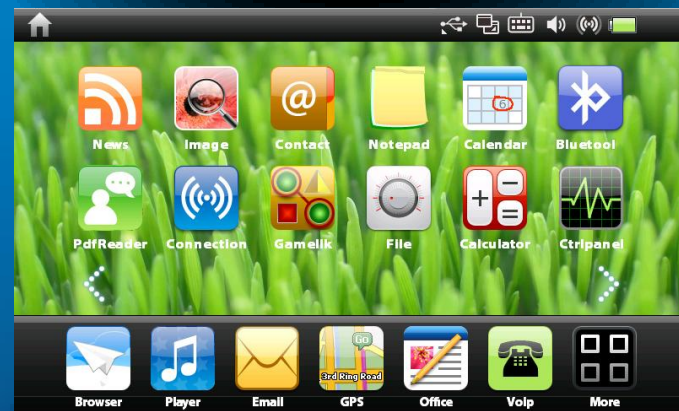
Optimized for Intel's MID

Low power

Performance

Small memory footprint

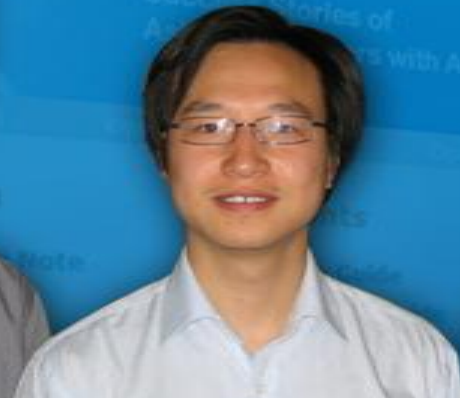
Small disk footprint



Demonstrating Breadth of Moblin Usage with Asianux



JayKay
Vice President
Asianux



Larry Geng
Vice President
Asianux



Kodama-San
Vice President
Asianux



Mr. Jiadong
Chairman and President
Asianux



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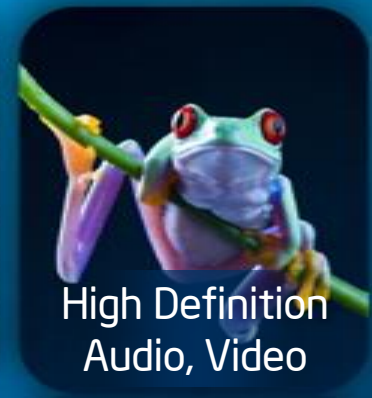
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Visual Computing

Making it Real and Personal
Redefining Market Segments



Photorealistic
3D Rendering



High Definition
Audio, Video



Interactive
User Interface



Computational
Modeling



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Demonstrating the Performance Gains With Multi-Threading on Kingsoft Game



Chen Fei Zhou
Vice President of Kingsoft

Intel Sees The Trend To Visual Computing

And We Have the Technologies to Propel it



An interactive generation who have grown to expect visually compelling interfaces

Moore's Law driving hyper-realistic games and environments that act real, via CPU driven physics and artificial intelligence



Global proliferation of broadband and powerful connected devices delivering content to users worldwide

Innovative usages: Games, interactive video, user generated visual content – video and game mods, training/learning, simulation, interactive UI, others



Enabling Developers to Better Deliver Innovative Immersive End-User Experiences

Committed to *raising the bar* in CPU and graphics products and technologies in 2008 and beyond

Dramatic performance increase in dual- and quad-core processors

Increased 3D and multimedia performance in both desktop and mobile Intel graphics products

"Nehalem" CPU architecture offers 8 simultaneous computing threads for increased performance on high-end desktops

Larrabee: An Intel® Architecture for the future of visual computing

Many IA cores

Throughput architecture

New vector instruction set

New vector processing unit / wide SIMD



Intel Software Group

Acquiring Deep Expertise in Visual Computing

Dedicated Resources

Visual computing software division



Project Offset

Cutting edge game engine



Neoptica

Advanced rendering pipelines for multi-core based rendering



Havok

Leader in physics technology for gaming and digital content



Pixomatic IP

Graphics rendering software



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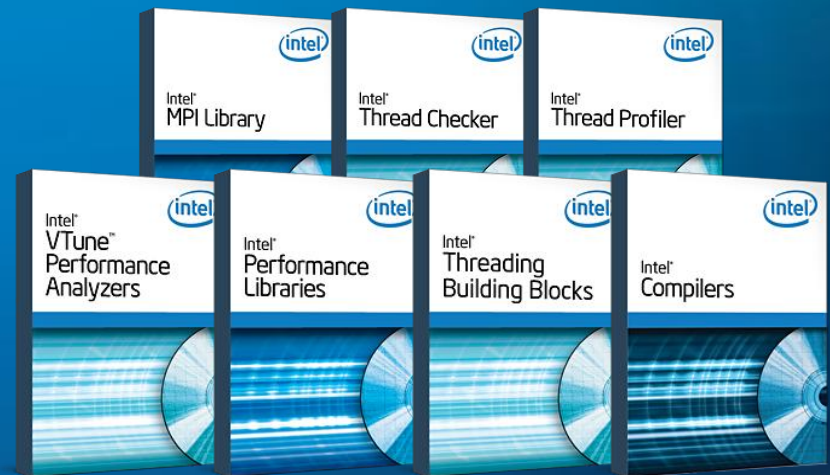
Intel Software Products for Developers For Visual Computing

Market Segment Leading Tools Today

- Compilers and debuggers
- Performance analyzers
- Threading building blocks
- Libraries

Extending Intel® Software for Larrabee

- Ensuring support for industry standard APIs (DirectX* and OpenGL*)



Industry Standard Development Models
Extending Proven Intel® Software Products



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