



software 2006
Unifying the Ecosystem

Software 2006

**Mobile Computing and Hosted Solutions:
China as a Market and Source of Innovation**

April 4-5,
Santa Clara, CA

Augmentum™

- Established in May, 2003 to provide development services for software products and solutions
- All customers are North American, many are leaders in their respective sectors
 - Including Intel, Motorola, Microsoft
- Distributed teams in United States and China
- Headcount in China around 500 out of 550 worldwide
- Engagement profile: 60% software development and solution, 40% test and QA, 10% internationalization, 10% general support
- 100% of managers and project leaders are trained local nationals with no full time expatriates

Introduction

Dr. David Nagel

- Former CEO, PalmSource, Inc.
 - Leading provider of operating system software platforms for smart mobile devices
- CTO, AT&T and President of AT&T Labs
- Senior Vice President, Apple Computer
 - Led the WW research & development group
 - Responsible for all Macintosh hardware and software products
 - Responsible for advanced technology group
- Head of Human Factors Research, NASA's Ames Research Center
- Served on a number of national and international advisory committees
 - First President's Information Technology Advisory Committee (PITAC) for 5 years for President Clinton
- Board member and trustee
 - Leapfrog, Inc. Tessera, Inc., ArcSoft, Inc., and ePocrates, Inc.
 - International Computer Science Institute (ICSI) at UC Berkely and the SETI Institute



The background is a vibrant green with abstract, flowing shapes. A prominent feature is a stylized, light-green figure that resembles a bird or a person in motion, with a circular head and a long, curved body. The overall aesthetic is modern and dynamic.

China: World Market & Source of Innovation

David C. Nagel
Ascona Group

April 5, 2006

Mega Trends in Software

Yesterday

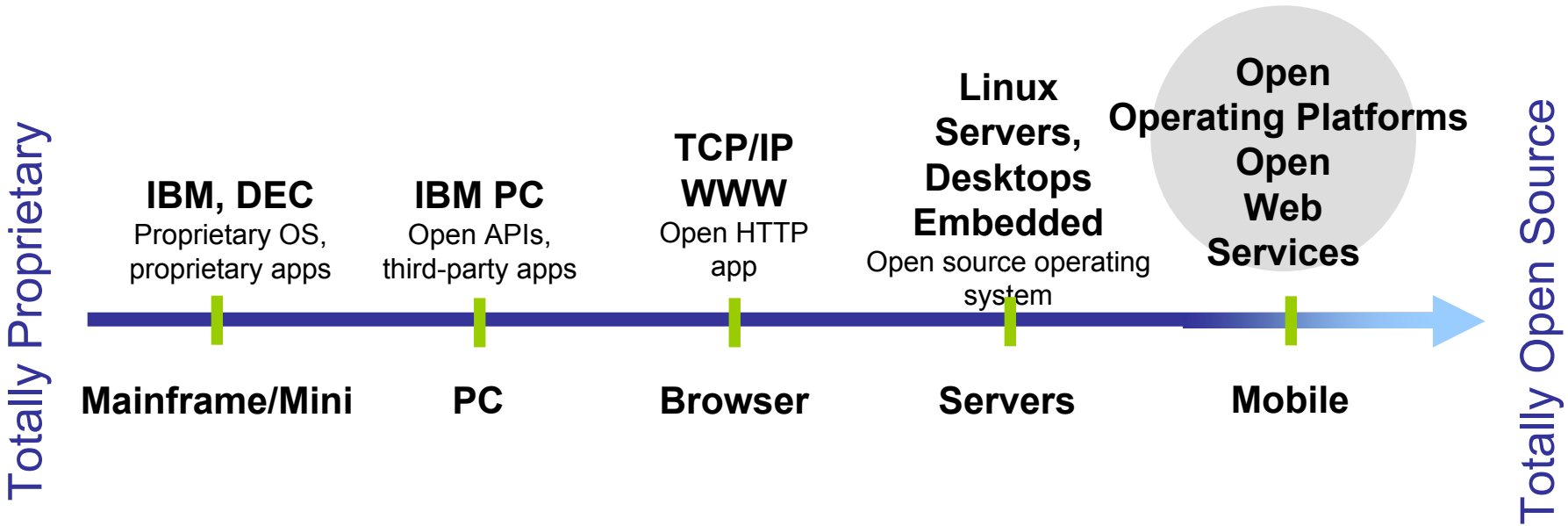
Today

Tomorrow

Desktop	Web	Smart Devices
Enterprise	Individual	Community
Shrink Wrap	Web Pages	Content Services
C, C++	.Net	Ajax, Ruby-on-Rails
In House	Outsourced	Distributed
US	India	China



The General Move to Open





Applications

- | | | |
|-------------|----------|-----------|
| Address | Calc | Card Info |
| DateBook | HotSync | Memo |
| Prefs | Security | SMS |
| ToDo | Welcome | Help |
| World Clock | Welcome | Note Pad |

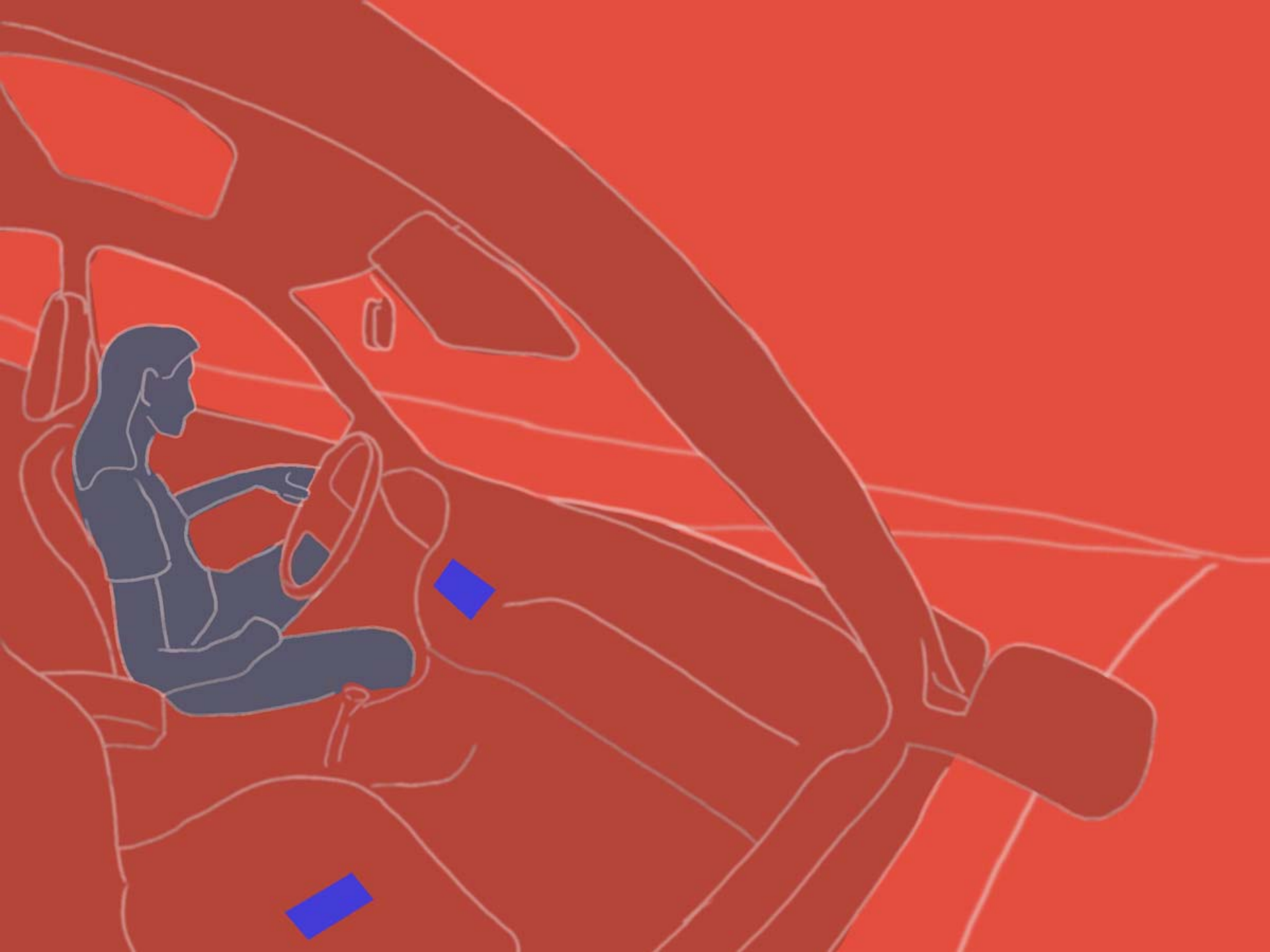
04p [signal] [battery] [alarm] [wifi] [bluetooth] [search] [list] [edit]



New England Cottage

f2.8
1/60
focus

zoom





Smart Wireless Devices

- ❑ Communicators & Browsers
- ❑ Service Driven Media Players
- ❑ GPS & Telematics
- ❑ Digital Living Room

**New Devices Will Drive A New
Wave of Software Innovation**



Foundation for “The China Century”



- 1.3 B Population
- GDP: \$2,279 B
- GDP Growth: 9.9%
- 400M Mobile Phone Users



China's Software Industry

- ❑ China has a sizable world class software industry:
 - ❑ 2004 Revenue: \$7 billion
- ❑ China's total IT services market:
 - ❑ Expected growth rate: 25% /year
- ❑ China's outsourcing market:
 - ❑ Expected growth rate: 35% /year
- ❑ China's software capability has not been as well known to the outside world:
 - ❑ Exports have concentrated on embedded products.
 - ❑ Software outsourcing industry is currently fragmented



Intellectual Talent: China vs India

❑ Annual PhD's awarded in Computer Science:

- ❑ India: ~50 /year
- ❑ China: ~15,000 /year

Source: Microsoft

❑ Annual Bachelor's Degrees awarded in Engineering:

- ❑ India: ~60,000 /year
- ❑ China: ~220,000 /year

Source: NSF, 2001

❑ Adult Literacy Rate:

- ❑ India: ~60%
- ❑ China: ~91%

Source: CIA World Factbook

PalmSource's Distributed Dev't Model

Silicon Valley
Monpellier, FR
Nanjing, China
Augmentum

Core Tech
Telephony, App's
Linux, Tele App's
Release support

IP Changes/Improvements

- ❑ Solid, established legal framework
- ❑ One of the world's largest venues for patent and copyright registration
 - ❑ Japan accounts for around 40% of all foreign-invented patents files in China
 - ❑ In 2003, 9271 intellectual property cases filed in China
- ❑ Growing government support
 - ❑ Reflects recognition of importance of intellectual property rights
 - ❑ Reflects the desire to cultivate a nascent software industry



But...

- ❑ Cultural environment doesn't respect intellectual property
- ❑ Movies, music, shrink wrap applications, customer data all subject to piracy
- ❑ Robust digital rights technology, and
- ❑ General trend to provision of services are key to reducing IP property losses



Some Concluding Thoughts

- Distributed development models work
- Out- and Peak-Sourcing augment in-house R&D teams
 - Minimization of fixed cost structure
 - Development efficiency
 - Maintenance of focus
- Ignore China at your own risk
 - Tremendous new source of intellectual talent
 - Enormous, rapidly growing new market
 - Unique characteristics will drive new software models with application globally

