Overview Of
Windows “Chicago”

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Agenda

- Product overview
- Product details
- Writing great Win32® applications
- Wrap-up
### Windows-Based Products Summary

**Today**

**Corporate, mission-critical**
- Windows NT™ 3.1
  - High-end desktop and server, +12-MB RAM
  - X86 and RISC

**Personal**
- Windows (and Windows™ for Workgroups) 3.1
  - PC desktop, 4-MB RAM
  - X86 only

**Non-PC**
- Modular Windows™
  - Non-PC devices
  - 1-2-MB RAM/ROM
  - Low power

**Tomorrow**

**Corporate, mission-critical**
- “Cairo”
  - High-end desktop and server, +12-MB RAM
  - X86 and RISC, Windows NT-based

**Personal**
- “Chicago”
  - PC desktop
  - 4 MB RAM
  - X86 only

**Non-PC**
- Modular Windows
  - Non-PC devices
  - 2-4-MB RAM/ROM
  - Low power

- “Chicago” delivers features tuned for personal needs
- “Cairo” delivers “Chicago” features plus features tuned for corporate needs
Mission For Windows “Chicago”

- **End users**
  - Make using PCs easy for everyone

- **IS managers**
  - Reduce cost of deployment

- **The industry**
  - A no-compromise standard for PCs
  - Great new applications on a mainstream platform
Key Benefits OF Windows “Chicago”

- **Easy**
  - Easy to install and configure; Plug and Play
  - Easy to use
  - Easy to connect and manage

- **Powerful 32-bit OS**
  - Complete, bootable OS
  - 32-bit APIs, 32-bit OLE 2.0, preemption, threads

- **Great connectivity**
  - Integrated, high performance, network-independent
  - LAN, WAN, remote; net, mail, fax
Safe, Hassle-Free Upgrade

- Compatible
  - MS-DOS®-based applications and drivers
  - Windows 3.x-based applications and drivers
- Performs well on installed base platform
- Easy transition for Windows 3.x-based users
- Reliability improvements throughout
- Replaces Windows 3.1 and Windows for Workgroups
Performance Goal

If all a user does is change from Windows 3.1 to “Chicago”, performance will be as good or better than under Windows 3.1*

*On a 386DX with +4-MB RAM
Schedule

- March: limited release to end users for shell/UI feedback
- April/May: broad beta release (M6)
- Second beta release 2-3 months after M6
- Planning “Early Experience” program to get “Chicago” prerelease into lots of users hands
- On target for 2H ’94, but will ship when ready
Plug And Play

- **Software**
  - Safe, simple setup
  - Easy system configuration

- **Hardware**
  - Better configuration of current hardware devices
  - Automatic configuration of new devices
Intuitive Interface

◆ New shell
  ➢ Great for new and existing users
  ➢ Unified manager and desktop
  ➢ Drag and drop everywhere
  ➢ OLE 2.0-enabled
  ➢ Long filenames
  ➢ File viewers
  ➢ Pen gestures built-in
  ➢ Improved printing interface
  ➢ Improved MS-DOS applications interface
**Product details**

**OLE 2.0**

- **Applications**
  - Visual Editing
  - Drag and drop across applications
  - Automation
  - Compound Documents

- **System**
  - Drag and drop across desktop, tray, cabinet
  - Ability to display document properties

- **Application - system communication**
  - Drag and drop between applications and system
  - Interapplication programming
32-Bit Multitasking Operating System

- 32-bit protect-mode components
  - Preemptive multitasking base
  - File system
  - Communications
  - Graphics
  - Networking
  - Printing
- 32-bit API
Windows “Chicago” Architecture

Applications
- MS-DOS VMs
  - MS-DOS-based application
  - Win16 system
    - Win16 application
  - Win32 application
- Win32 application

Operating system
- User interface
- Window management
- Graphics
- Printing
- Multimedia, network, pen support
- System loader
- Config. mgmt
- Memory and process mgmt.
- Thread scheduling
- File system and drivers

Hardware

Product details
# Networking

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Printing

- 32-bit printing subsystem
  - Background printing
  - Metafile spooling
  - Bidirectional printing device support
Multimedia

◆ 32-bit multimedia subsystem
  ➢ Audio, video, image compression services
  ➢ MCI for VCR, digital video

◆ Improved multimedia utilities
  ➢ OLE 2.0-enabled
  ➢ Better Sound Recorder, Media Player, MIDI applets
  ➢ Hand Control Device, Mixer and Volume Control applets
32-Bit Application Support

Upward API compatibility

- **Windows 3.1 - Win32s™**
  - Base 32-bit APIs
- **“Chicago” - Win32**
  - Base 32-bit APIs
  - Preemptive multitasking
  - Asynchronous input
  - Multithreading
  - Beziers, paths
  - Image Color Matching
  - Modem control
- **Windows NT - Win32**
  - Complete 32-bit APIs
32-Bit Applications

Asynchronous input model

- Mouse interrupts
- Keyboard interrupts

Interrupt handler → Messages → Raw input thread

Win32 Thread A
Win32 Thread B
Win32 Thread C
Great Connectivity

Enterprise client

- Universal network client
  - Easy to connect
  - Easy to use
  - Easy to administer

- Built-in messaging
  - Electronic mail client
  - Fax transport
Great Connectivity

Messaging architecture

Mail-enabled applications

MAPI

MAPI

Message spooler

MEAMEA

Mail client

Address Book Provider

Transport Provider

Store Provider

Services

Service Providers
Great Connectivity

Remote services

- Remote network access
- Remote electronic mail
- File synchronization
Great Connectivity

RAS architecture

- File Manager
- Mail client
- Schedule client
- Other client

RAS session API

- MAPI, TAPI
  - NetBIOS, NetBEUI
  - NetX, IPX
  - Authentication module

Asynchronous Media Access Control

- VCOMM.386
Great Windows-Based Applications

- 32 bits - Win32
- OLE 2.0
  - Container or object
  - Drag-and-Drop feature
  - Compound Files with summary information
  - Automation
- UI Style Guidelines
  - Long filenames, UNC support, register 16x16 icons, 3-D look, common dialogs, hide .3 extensions, support context menu on right mouse button click
- Setup: support Uninstall, use registry
- Plug and Play: messages
- Simple mail-enabled (CMC)
- Test and run on Windows NT “Daytona”
Technical Strategy

- Port your existing applications to Win32
- Attend:
  - Class: WS 333
  - “The Future of Windows: Win32 - On The Road to Cairo and Chicago”
  - Date: Mar 16, 1994
  - Time: 1:00-3:00pm
  - Room: J3 CC
- Test applications on all platforms
Questions?