



Apple IIGS Programming for the 1990's



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Session Overview

- MPW IIGS Cross-Development Suite
- Prototyping Tools
- Native Development Tools
- Questions and Answers

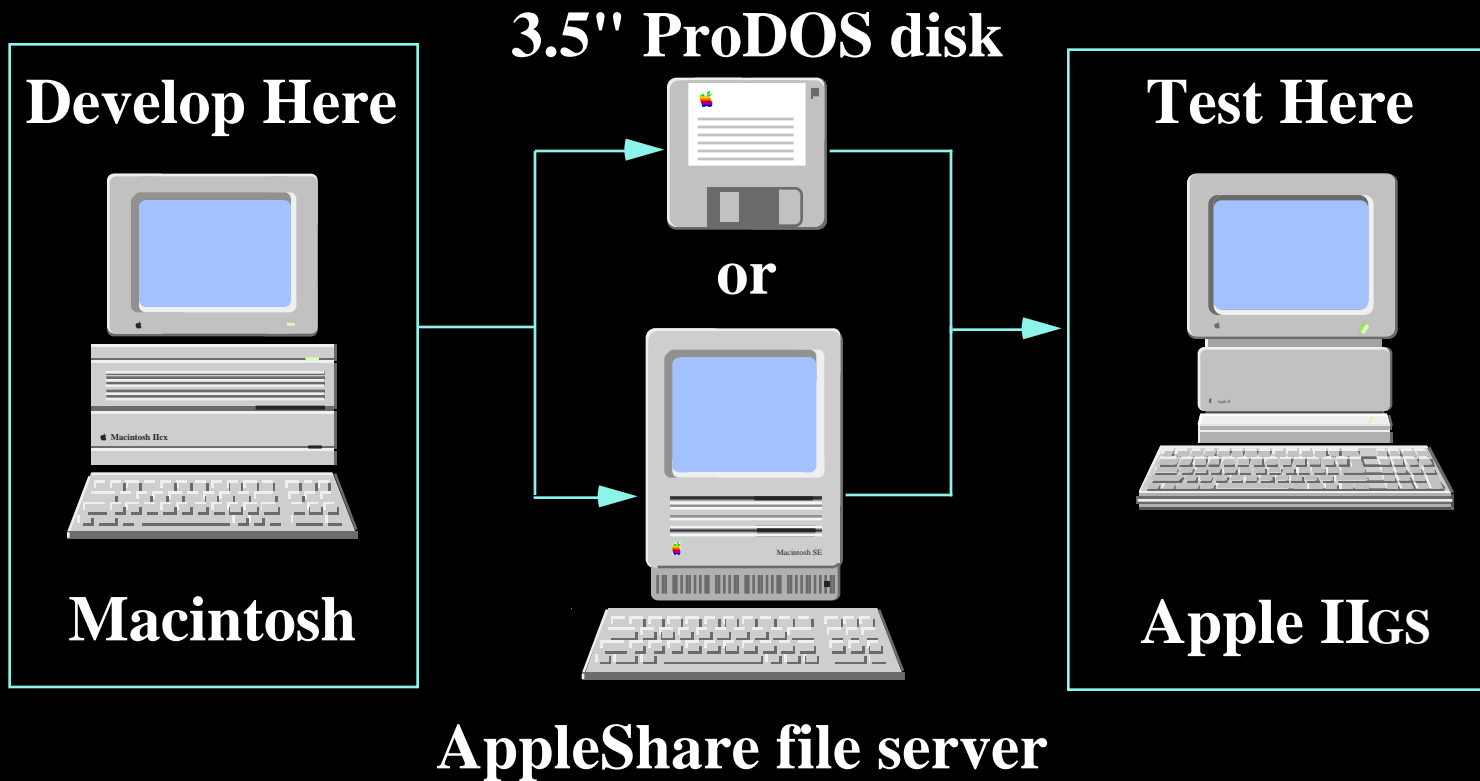


**MPW IIGS
Cross-Development Suite**

What is MPW IIGS?

- Tools used on a Macintosh under MPW to develop Apple II software
- Asm, C, and Pascal are available
- MPW IIGS tools look and feel as close to their MPW counterparts as possible
- “Bridge” to facilitate moving applications between Macintosh’s and Apple II’s

How Does It Work?



Use a Macintosh to Write Apple II Software?

- “Time to market” is critical
- Harnessing the power of MPW and high-end Macintosh’s reduces time to market
- Use one environment to write both Macintosh and IIGS versions of your application
- MPW is the best commercially available, all-purpose development environment for writing Apple II software today

C Shell Compile Times

- “C shell” from DTS source code sampler
 - APW C/“stock” IIGS 348 seconds
 - APW C/7MHz* IIGS 165 seconds
 - MPW IIGS C/Mac II 41 seconds
 - MPW IIGS C/Mac IICI 26 seconds

* TransWarp GS used to get 7MHz

BusyBox Compile Times

- “BusyBox” from 5.0 seed package
 - APW Asm/“stock” IIGS 290 seconds
 - APW Asm/7MHz* IIGS 170 seconds
 - MPW IIGS Asm /Mac II 90 seconds
 - MPW IIGS Asm/Mac IICI 54 seconds

* TransWarp GS used to get 7MHz

Where Do I Get MPW IIGS?

- Only from APDA
 - 1-800-282-2732 (U.S.)
 - 1-800-637-0029 (Canada)
 - 1-408-562-3910 (International)
- Price: (MPW 3.x needed also)
 - Tools \$50
 - Asm \$100
 - C \$150
 - Pascal \$175



User Interface Design Tools

Benefits of Interface Design Tools

- Allows rapid prototyping of alternative interfaces
 - Design interfaces by painting/drawing
- “Test run” your application’s interface before writing a single line of code
- Eliminates tedium of starting tools, creating menus, defining windows, laying out controls, etc.

What's Available for the IIGS?

- AppMaker/GS*
- DesignMaster
- GeneSys

* AppMaker/GS runs on a Macintosh,
but creates source code for IIGS applications

AppMaker/GS

- Creates COMPLETE source to implement the user interface
 - Ready to compile and run
 - Creates MPW IIGS Asm, C, or Pascal source
- Can import/convert some Mac resources
- Create menus, windows (w/controls), dialogs, and alerts
- Runs on a Macintosh

AppMaker/GS in Action

- Create quick application
- Compile and link in background
- Demonstrate more of AppMaker/GS
- Transfer to IIGS and test run

DesignMaster

- Create menus, windows (w/controls), and dialogs (separately)
- Save results as APW/ORCA Asm, Merlin Asm, C, Rez, or resource
- Allows “test running” in parts
- Runs on an Apple IIGS

DesignMaster in Action

- Create the pieces of an application
- Test run them as they're created
- Modify them immediately based on results of test run

GeneSys

- Create menus, windows (w/controls), dialogs, StartupTools list, etc.
- Save results in all popular languages (including Rez and resources)
- No “test running” of parts
- Runs on an Apple IIGS

GeneSys in Action

- Create the pieces of an application
- Modify an existing application's resources

Where Do I Get These Tools?

- AppMaker/GS
 - Bowers Development Corporation
 - 1-508-881-7307
- DesignMaster
 - The Byte Works, Inc.
 - 1-505-898-8183
- GeneSys
 - SSSi, Inc
 - 1-404-928-4388



Native Development Tools

Apple's Direction on Native Tools

- Primary focus is on the tools that Apple writes and uses
- Continue to provide new tools where significant value can be added
- Continue to support existing tools

How Does That Affect APW 2.0?

- Will there ever be an APW 2.0 and when?
- Apple-developed tools
 - LinkIIGS, Rez, DeRez, Compact, Express, MakeLib, ResEqual, Search, etc.
- Byte Works-developed tools
 - Shell, editor, assembler, command line linker, MacGen

Byte Works Status

- Apple has provided the product definition, engineering support, and incentives to make this product possible
- Current plans call for distribution directly by The Byte Works, Inc. as ORCA/M 2.0
- Byte Works has not announced a delivery schedule

The Future

- APDA will stock ORCA/M 2.0 and direct customers to it instead of APW
- Apple will continue to provide native development tools where significant value can be added
- Main focus will be on MPW IIGS
Cross-Development Suite

Tips for Reducing Time to Market

- Upgrade from floppies to hard drive
- Get the new high-speed SCSI card
- Add memory or a RAM disk
- Consider accelerator card
- Use two IIGS's



Questions and Answers



The power to be your best