

Research Graphics: What's Next?

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OSMM



Research Graphics

What do we mean by Research Graphics

- Purpose:
 - ◆ Research-quality, state-of-the-art analysis of experimental data and theoretical simulations
- Primary needs:
 - ◆ High resolution display: 1000x1000 (no staircases for lines)
 - ◆ Real-time interactive operation
 - ◆ All-points-addressable, high resolution hardcopy output (200 pel/in)
 - ◆ Figure-quality photocomposer output for journal publication
- Also nice to have:
 - ◆ Color display, foils, slides (for complex graphs)
 - ◆ Scanning of documents
 - ◆ Ability to imbed in text (script) files

BIGGEST PROBLEM

New hardware and new software lead to serious issues of

**Compatibility, Compatibility,
Compatibility!!!**

For example: GDDM Rel. 4 (Version 1.4.1) is what we use now. New version 2.1.0 does NOT support GA as a valid device!!!

RESEARCH SOFTWARE ENVIRONMENTS

Analysis environments producing graphics

- Established
 - ◆ DSL, RGRAFGA, GRAFSTAT, GRAPHPAK, LABSPC, PLOTS (Fortran callable), *IPG*, SAS/GRAPH, EXPLOTV, ...
- New (requiring conversion/implementation)
 - ◆ APL2, C, more LABSPC, ...

Text and manuscript preparation

- SCRIPT3, JANUS, ISIL, ...

GRAPHICS HARDWARE ENVIRONMENTS

- Established
 - ◆ 3279, 3277/GA, PC/GA, 3800-III, APA6670, SHERPA

- New - which should we use?
 - ◆ 3820 Page Printer, AT/GX, 3179, 5080 high resolution color display, SCD matrix camera, RT/PC, PC/GX, Viking, ...

RECOMMENDATIONS

- Establish Research Graphics Project in RCF to provide graphics support and compatibility - should work closely with text group. Main goal is to provide a research graphics environment that maximizes productivity of physical scientists and other researchers in ARC
 - ◆ Make aware again of research graphics needs
 - ◆ Have them continually analyze the new devices and new directions in graphics software and provide recommendations as to which way we should go

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