# DEVICE-INDEPENDENT GRAPHICS SOFTWARE Tutorial

SIGGRAPH '82 Boston

July 27, 1982

Device Independent Graphics Software Summary Tutorial Schedule and Outline

> Sheraton-Boston Hotel Republic meeting room

Tuesday, July 27, 1982 8:30 am - 5:00 pm

- 8:30 8:45 Introduction to Morning Session (Reed)
- 8:45 10:00 Principles of Device-Independent Graphics Software (Warner)
- 10:00 10:15 Break
- 10:15 11:15 Principles of Device-Independent Graphics Software - continued
- 11:15 12:00 Architecture of Device-Independent Graphics Systems (Reed)
- 12:00 1:30 Lunch (Hynes Auditorium)
- 1:30 1:45 Introduction to Afternoon Session (Reed)
- 1:45 2:45 Taxonomy of Graphics Software with Extensive Examples of Typical Output (Bono)
- 2:45 3:00 Evaluation Criteria for Software Selection (Bono)
- 3:00 3:15 Break
- 3:15 4:00 Evaluation Criteria Applied to Commercially Available Software Packages (Bono)
- 4:00 4:30 Evaluation Criteria Applied to Public Domain Software Packages (Reed)
- 4:30 5:00 Methodology and Recommended Approach (Bono)

## Tutorial: DEVICE-INDEPENDENT GRAPHICS SOFTWARE

Chairman: Theodore N. Reed, Los Alamos National Laboratory

### Who Should Attend?

This tutorial is aimed at managers or technical personnel considering the purchase, adoption, or development of a device-independent computer graphics subroutine package. System programmers or those responsible for installation of a graphics package will benefit from this tutorial. Prior experience in computer programming is desirable. Attendees should have a knowledge of computer graphics hardware and software at the level of the Introduction to Computer Graphics tutorial.

## Program

This tutorial will provide attendees with sufficient information to intelligently evaluate, select, or specify a device-independent computer graphics software package appropriate to their needs. Functional capabilities of graphics software will be reviewed and the terminology and concepts of device-independent graphics software will be presented. A partial list of these concepts include: system architectures, device-independent coordinate systems, device drivers, multiple device capabilities, and graphic metafiles.

Existing device-independent graphics software, both in commercial environments, and in the public domain will be surveyed. Criteria for evaluation and a methodology for selection of device-independent graphics software packages will be established.

#### Lecturers

Mr. Theodore N. Reed (Chairman), Los Alamos National Laboratory, Los Alamos, NM. Lecture topics include: introduction, system architectures, public domain software.

Mr. James R. Warner, President, Precision Visuals, Incorporated, Boulder, CO. Lecture topics include: principles of device-independent graphics software.

Dr. Peter R. Bono, Vice-President, Athena Systems, Incorporated, Pawcatuck, CT. Lecture topics include: commercial software, selection and evaluation criteria.

#### Chairman's Biography

Theodore N. Reed received his M.S. in Computer Science from Montana State University. He is employed by the University of California at the Los Alamos National Laboratory where he has been designing, implementing, and supporting portable device-independent graphics software for the last seven years. He was an active participant in the ACM/SIGGRAPH Graphic Standards Planning Committee and is now Chairman of the ANSI task group specifying national standards for both the device-independent computer graphics metafile and the virtual graphics device interface.