

APPLICATIONS PROGRAMMING FOR THE X WINDOW SYSTEM

COURSE # 6

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**Application Programming
for the X Window System**



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Acknowledgements:

The X Window System is now the product of so many hands and minds that anyone attempting to acknowledge substantial contributors is certain to leave out important people. We didn't leave anyone out deliberately.

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INTRODUCTION

This is the second year this course has been offered at SIGGRAPH. The success of the X Window System, as measured by the enormous variety of new things people are doing with it, has exploded since last year. Not only have reliable X servers become available on most workstation platforms, but the X Toolkit Intrinsics have stabilized and a significant amount of toolkit software has been released.

This year the course surveys the use of X using case studies: we'll dissect a variety of application programs and explain what's going on in them. We want to use an approach which explains every example completely; because of this we must keep the examples simple.

We'll start by looking at the capabilities of X's base window system. Next we'll dig into the use of the X Toolkit via the Hewlett-Packard and OSF Motif widget (human-interface object) sets. Following that, we'll explain X's graphical output model in detail, and show how to implement an application and a simple custom widget. Finally, we'll talk about the use of Open Dialogue, a User Interface Management System which uses X as its base.

The first year of X Version 11's existence as a finished product, which was just finishing up at last year's SIGGRAPH, was the year of the X server. This past year was the year of the X toolkit. Our purpose in teaching this course is to make next year the year of the X application program.

Enjoy, learn, and return home to write wonderful applications!

Oliver Jones

THE SPEAKERS

Kate Erf graduated from the University of Michigan with a BS in Computer Engineering in 1984. Kate started work for the Burroughs Corporation developing a User Interface Management System (UIMS). While at Burroughs, Kate also wrote a User Interface Style Guide and participated in creating a User Interface Conceptual Model. In 1986, Kate joined Apollo to work with the Open Dialogue team. Since joining the team, Kate has become the Project Engineer for Open Dialogue and was integral in its successful first release in May 1988.

Ollie Jones is a software engineer at Apollo Computer, where he works on software for high-performance graphics hardware products. Prior to joining Apollo, Ollie worked in Digital's High-Performance Workstations group.

Doug Young is a software engineer at Hewlett-Packard Laboratories where he is a member of a team doing research on object-oriented programming techniques and programming environments. He is the author of a textbook on programming with the X Toolkit.

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