

Lecture: Intro Material

Bring up desktop and WORD application

Looking at a design that is about 40 years old (dates from 1975 Smalltalk)

- Xerox PARC Alto

- Apple Mac (1983)

- Microsoft Windows (1987)

- UNIX X Window (1985) network support for interaction

Direct Manipulation compared to what? Command language

- OAI model

- WIMP (Windows, Icons, Menus, Pointing), WYSIWIG, GUI

Challenge for programmers

Who does what to whom? Application vs. the Operating System

- Window management

  - Movement, resizing

  - Geometry management

  - Event management

- Widgets provided

  - Similarity: class structure

  - Interactors: look and feel, input & output

- Application: semantic interpretation

  - Event management

Programming Language support for interaction

- UIMS

- Widget Toolkits

- Object-Oriented Languages

- Network support: browsers (applets)

User Interface Development Environments

Novel Widgets

- Elastic windows, zooming widgets, Dynapad