



1990 Worldwide Developers Conference



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Object Programming Inside and Out

Object Programming in
THINK C and THINK Pascal

Objects in THINK Environments

- Languages
- Class libraries
- Tools

Objects in THINK C 4.0

- Based on Object Pascal
- Subset of C++
- THINK Class Library
- Integrated Support
 - Fast Compilation
 - Instantaneous Link
 - Source Level Debugger

Objects in THINK Pascal 3.0

- Object Pascal
- THINK Class Library
- MacApp 2.0
- Integrated Environment
 - Fast Compilation
 - Instantaneous Link
 - Source Level Debugger
 - Class Browser

The THINK Class Library

- Framework for a Macintosh application
- Handles Macintosh user interface
- Implements standard commands
- Follows compatibility guidelines
- Included in THINK C and THINK Pascal

What the TCL Handles

- Selecting menu commands
- Standard menu commands
- Manipulating windows
- Standard File dialogs

What the TCL Handles (*cont.*)

- Memory management
- Error handling
- Printing
- Multifinder
- Desk accessories

What the User Handles

- Custom menu commands
- Drawing window contents
- Mouse clicks in content

MacApp 2.0

- Supported in THINK Pascal 3.0
 - Large files
 - Segmentation
 - MacApp Debugger
 - Converter in MacApp 2.0 package
- Available from APDA

Environment Support for Objects in THINK C and THINK Pascal

Fast Compilation and Linking

- Compiles programs in seconds
- Links instantaneously
- Encourages experimentation

Environment Support for Objects in THINK C and THINK Pascal

Source Level Debugger

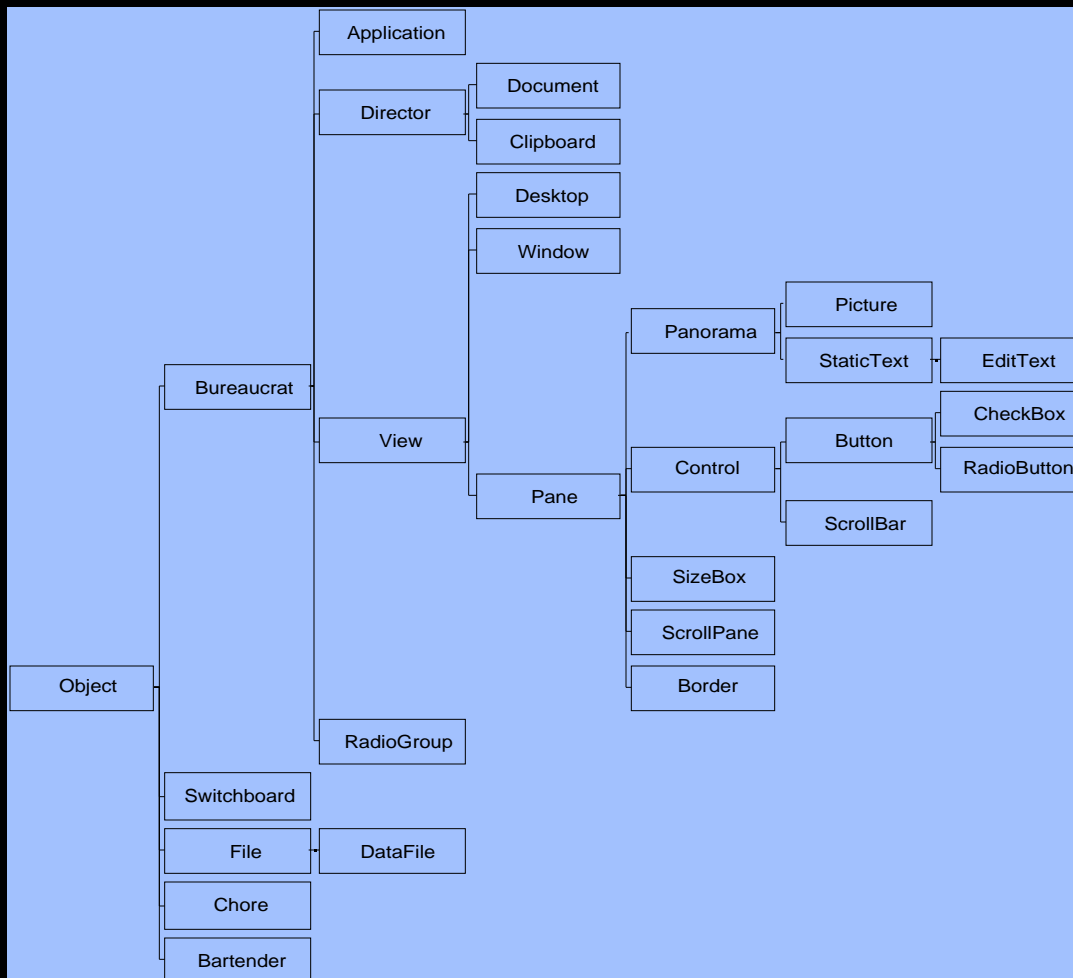
- Help learn object programming
- Help understand class libraries
- Trace methods and procedures
- Display objects and variables

Environment Support for Objects in THINK Pascal

Class Browser

- Hierarchical display of classes
- Popup menus of methods
- Navigate to:
 - Class declaration
 - Method implementation
- Updated automatically

Class Hierarchy Browser



AppMaker 1.1

- Create user interface graphically
- Generates Object Oriented source code
 - THINK C or THINK Pascal
 - THINK Class Library
 - Extensible
 - Customizable
- Available from Bower's Development

Summary

- Symantec provides broad OOP support
- THINK Languages
 - Object C and Object Pascal
- Class Libraries
 - THINK Class Library and MacApp
- Tools
 - Source level debuggers
 - Class Browser



The power to be your best