

## Windows Example Series

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### Overview

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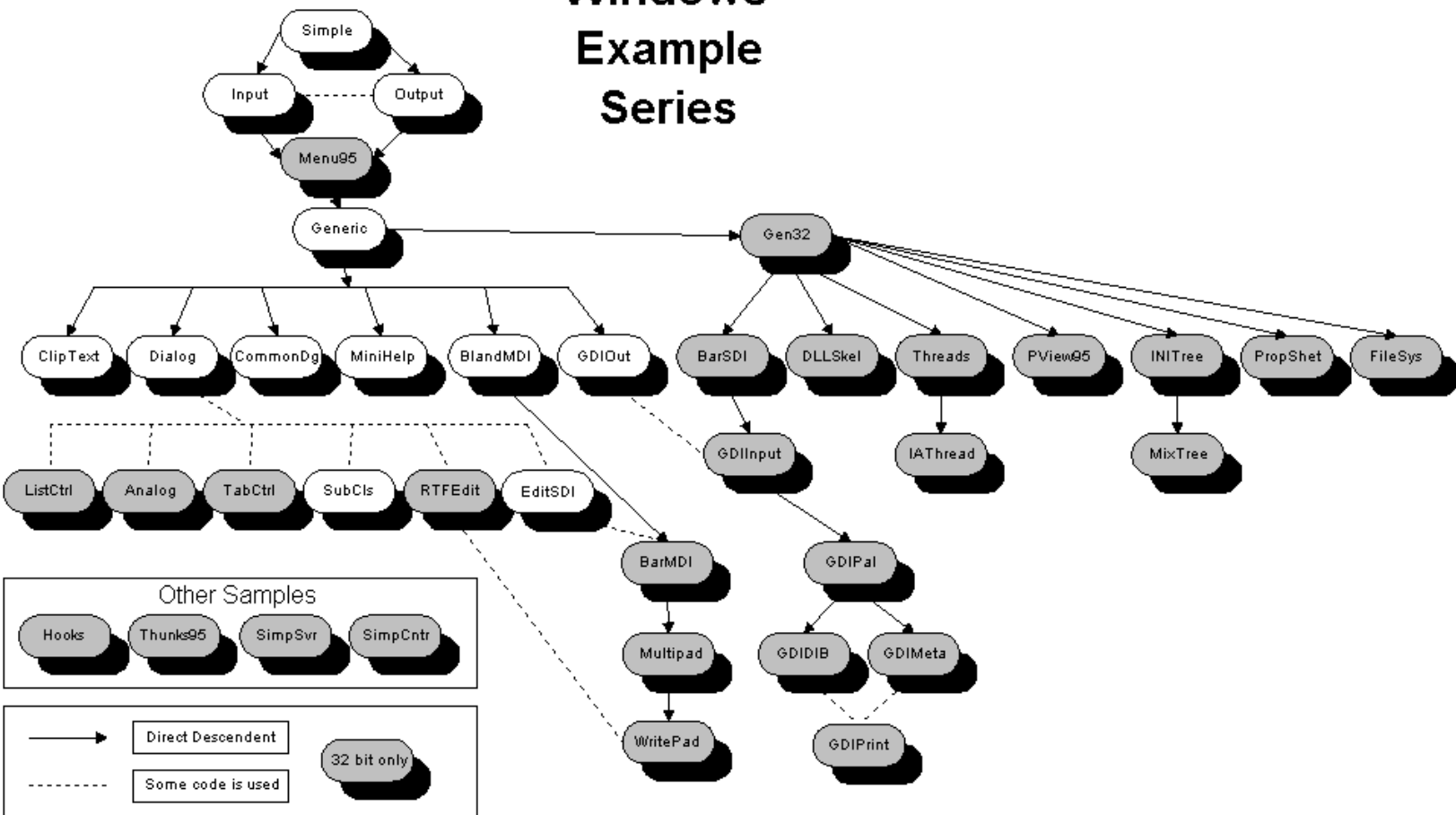
The example series has been designed to illustrate many different Windows programming concepts. This includes examples that are very basic, as well as examples that demonstrate the new Windows 95 and Windows NT controls and API's. It is designed to help both the novice and advanced Windows programmers.

### The Graph

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As you can see from the graph below most examples in the series "derive" from Generic and Gen32 examples. There are four basic examples (SIMPLE, INPUT, OUTPUT, and MENU95) that do not derive from Generic.

# Windows Example Series



## Brief Sample Descriptions

- ANALOG - Common controls: Status bar, Progress Bar, Tracker (slider), Up/Down (spin).
- BARMDI - Status bar and Toolbar in MDI application. Also shows Tooltips.
- BARSDI - Status bar and Toolbar in SDI application. Also shows ToolTips.
- BLANDMDI - Basic MDI application
- CLIPTEXT - Clipboard example
- COMMONDG - Common dialog example
- DIALOG - Basic modal and modeless dialog boxes.
- DLLSKEL - Basic Win32 DLL example
- EDITSDI - Notepad like example in SDI application.
- FILESYS - Shows basic implementation of some of the new File System API's.
- GDIDIB - Demonstrates CreatedIBSection
- GDIINPUT - GDI example showing lines, points, beziers, brushes, pens, etc. User input with mouse here.
- GDIMETA - Shows how to create, load, and save enhanced metafiles.

GDIOUT - Simple GDI drawing/output functions. No user input here.

GDIPAL - Shows the use of the Windows palette manager on palette devices. User can choose pen and brush colors from the system palette.

GDIPRINT - Shows how to print DIBs and metafiles.  
NOTE: At this time, this example does not print metafiles.

GEN32 - 32 bit only version of Generic.

GENERIC - Basic windows application with about box.

HOOKS - Comprehensive example showing a "Spy" like utility.

IATHREAD - Interactive thread example. Shows multithreaded MDI application, with user set thread priority.

INITREE - Shows use of TreeView control by enumerating the .INI files in the Windows 95 directory. Use of Imagelists is also demonstrated.

INPUT - Show the use of simple windows input via mouse, keyboard, and timer.

LISTCTRL - Demonstrates the Listview control.  
The listview control also uses an Imagelist.

MENU95\* - Show several ways of using and manipulating menus, including handling menu commands from menu bars & pop menus, inserting menus on the fly, modifying menus, and implementing owner draw.

MINIHELP - Show how to call the Windows Help Engine from an application.

MIXTREE - Demonstrates use of TreeView control by enumerating the mixer lines and controls of a mixer device using the Mixer Services. If a mixer device is not present then simulation data is used to generate the TreeView control and text displays. Incorporates TreeView notifications and recursive functions to traverse the TreeView's items.

MULTIPAD - MDI version of EDITSDI. Notepad like example.

OUTPUT - Shows the use of two fundamental text drawing apis and several of the line and shape drawing apis.

PROPSHET - Simple implementation of a property sheet control.

PVIEW95\* - Sample which enumerates processes and threads.  
Uses 32 bit TOOLHELP API's. Allows you to kill processes.

RTFEDIT - Basic demo of the new RTF edit control.

SIMPCNTR - Simple OLE2 container.

SIMPLE - Shows the use of two fundamental text drawing apis and several of the line and shape drawing apis.

SIMPSVR - Simple OLE2 Server

SUBCLS - Subclassing a listbox and edit control.

TABCTRL - Shows how to implement the new tab control.

THREADS - Basic thread example.

THUNKS95\*- Shows how to use the Thunk Compiler. Basic thunking scripts are provided.

WRITEPAD - Multipad like example that uses the RTF edit control.

\* - These examples use several API's specific to Windows 95 and therefore will only run on Windows 95.

## Building the Samples

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Each example contains both a MAKEFILE and a .IDE file for building the application using the command line tools and integrated environment respectively. From a MS-DOS prompt, change directories into that which contains the example you wish to build and run MAKE. From the Borland C++ integrated development environment (BCW.EXE) open the .IDE file using File | Open and then pick Debug | Run to make and run.

All of the examples will build for 32-bits, many will also build for 16-bits. See the readme.txt which accompanies each example for details on its compatibility with Windows 3.1, Windows NT, and Windows 95.

## Architectural Approach

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The basic programming architecture is implemented using a message based dispatching mechanism which is intended to be simple yet functional.

Each message that needs to be processed is entered in a table (all window and dialog procedures have their own table), and an associated "handler function" is specified. This allows the processing for each message to be isolated in a single function. When a given message is bound for a window procedure, the dispatching architecture will call the appropriate handler function. All processing for the message is done in the handler function.

The series is designed to be modular, so that you can take "pieces" of one example and "plug" them into another.

## File Specific Information

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All examples from Generic (or Gen32) down contain the following base files. Note that GENERIC.RC, GENERIC.ICO and GENERIC.DEF (.DEF file will not exist for 32 bit only examples) will be <example>.\* rather than GENERIC.\*

ABOUT	C	-- Complete code to bring up About box
ABOUT	DLG	-- About box dialog template
DISPATCH	C	-- Dispatching routines for the messages
GENERIC	DEF	-- Module definition file for 16 bit builds (some examples are 32 bit only and will not contain a DEF file)
GENERIC	ICO	-- Icon file
GENERIC	RC	-- Resource file. Includes menus, icons, dialog template
GLOBALS	H	-- Header file containing global variables and function prototypes
INIT	C	-- Initialization code for main application
MAKEFILE		-- Makefile for building the example.
MISC	C	-- Contains generic support functions
README	TXT	-- Describes the example
WIN16EXT	H	-- Header file for 16 bit builds. Will not be there

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                                for 32 bit only examples.  
WINMAIN  C    -- Standard WinMain function
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