WinBatch® User's Guide

Manual Revision Apr 2013

WinBatch
THE BATCH LANGUAGE
FOR WINDOWS

Wilson WindowWare, Inc.
5421 California Ave. SW
Seattle WA 98136 USA
Orders: 1.800.762.8383 (USA only)
International: 1.206.938.1740
Fax: 1.206.935.7129
Technical Support: Phone 1.206.937.9335
Internet: sales@winbatch.com
www: http://www.winbatch.com

U.S. Government Restricted Rights

Trademarks

CONTENTS

Welcome

Overview

From R. Petersen; "Our entire company is becoming 100% dependent on dozens of WinBatch programs that make everything hang together."

WinBatch can automate all versions of Windows. WinBatch manipulates the Windows interface, Windows applications, and network connections.

So, any operations in or from Windows, can be done at the click of a mouse button with WinBatch.

Testing values, getting system information, working with directories, logging events, and manipulating files are just a few of these capabilities.

WinBatch is often used to assemble reports, install software, automate testing, control processes, acquire data, and add efficiency to the Windows workstation.

WinBatch excels in tailoring the Windows interface to fit any user. Standard operations are easy to program in WinBatch.

WinBatch functions can manipulate:

- The operating system
- The Windows interface
- Any and all Windows applications
- Most MS-DOS applications
- Most networks

WinBatch has two main components:

- A system control language called WIL (Windows Interface Language)
- An interpreter that reads a text file written in the WIL language and performs the required operations

Note: WinBatch is a **batch file** based implementation of WIL. A WinBatch batch file is a text file containing one or more lines of WIL functions and commands.

WinBatch is continually being updated to function

It is easy to get started in Windows programming with WinBatch. The WinBatch Studio interface makes editing and debugging, streamlined and easy. Useful system *with future versions of Microsoft Windows.*

utilities are produced quickly with WinBatch. All the things you couldn't do before in Windows are suddenly just a few minutes away.

When projects demand an advanced solution, the flexibility of WinBatch is ready to speed development. A visual dialog editor, a window information grabber, a debugger, and the power of structured programming are included in the WinBatch package.

WinBatch has these capabilities: mathematical operators, text manipulation, binary file editing completely in memory, network connectivity, and Windows system manipulation.

Many WinBatch functions can accomplish more in a single line statement, than what could take pages of forms design, property setting, and coding in other programming languages.

WinBatch is optimized for making quick work of custom system management utilities.

Registering Your Copy of WinBatch

Registered users of WinBatch receive manuals, technical support, use of Wilson WindowWare on-line information services, and special offers on new versions of WinBatch and other Wilson WindowWare products. You must register your copy to obtain these benefits.

You can register WinBatch by mailing your registration card, faxing your registration card, emailing registration info to info@winbatch.com or calling Wilson WindowWare.

Registered users can share their WinBatch experience with other users on the Wilson WindowWare WebBoard

- http://webboard.winbatch.com.

The latest versions of WinBatch are available on-line. The addresses here may change at any time - check your installation sheet.

- Internet Web page: http://www.winbatch.com

There is a comprehensive database of tech support questions, answers, and sample scripts available on the Wilson WindowWare Web site.

- Internet Tech Support page: http://techsupt.winbatch.com

What WinBatch Can Do

With 510 general functions and commands, tons of networking functions, 99 physical constants, 28 operators and more than 24 additional extender Dll's for various specific operations, WinBatch can:

- Solve numerous system management problems
- Run Windows and DOS programs
- Send keystrokes directly to applications
- Schedule scripts to run at a specific time
- Send menu items directly to Windows applications
- Rearrange, resize, hide, and close windows
- Run programs either concurrently or sequentially
- Display information to the user in various formats
- Prompt the user for any needed input
- Present scrollable file and directory lists
- Copy, move, delete, and rename files
- Read and write files directly
- Copy text to and from the Clipboard
- Perform string and arithmetic operations
- Make branching decisions based upon numerous factors
- Call Dynamic Link Libraries
- Act as an OLE 2.0 / COM automation client
- And much, much more.

How WinBatch is Used

Launch one WinBatch icon or file and you can run from one to thousands of operations. One WinBatch script can squeeze any number of operations into a single batch file that runs just like any other Windows program. It can run from a Windows shell or any application that can run another application.

WinBatch excels in controlling other applications both in Windows and MS-DOS. From getting system information, through controlling software, to accessing the network, WinBatch can do it all from Windows.

System Requirements

WinBatch requires an IBM PC or compatible running Microsoft Windows 2000 or newer. WinBatch 32 requires a 32-bit version of Microsoft Windows. WinBatch 64 requires a 64-bit version of Microsoft Windows.

Memory requirements

Approximately 3 MB overhead, plus any memory used by your script. This memory is returned to the system when the WinBatch utility ends.

Hard disk space used by WinBatch

Approximately 12 MB for a *full* install.

About This Manual

WinBatch uses Wilson WindowWare's Windows Interface Language (WIL). Please refer to the **WIL Reference Manual** for an introduction to WIL, as well as for complete documentation of the many functions available in WIL (and in WinBatch).

This User's Guide includes topics and functions which are exclusive to WinBatch, or which behave differently in WinBatch. Since the WIL language is distributed with software other than WinBatch, we have contained those functions and utilities that are specific to WinBatch in this manual.

About Extenders

Many additional functions are dealt with in extensions to WIL, called WIL Extender Dlls. The extenders are dynamic link libraries that can be accessed with the WIL **AddExtender**() function. Each extender has its own help file.

To obtain any additional extender Dlls, either download them from our website, or copy them from the WinBatch CD. To install extenders from the CD, locate the Extenders directory on the CD. The Extender directory will contain all the available extender subdirectories. Select the appropriate extender subdirectory and run the corresponding SETUP.WBT file.

Notational Conventions

Throughout this manual, we use the following conventions to distinguish elements of text:

Boldface

Used for important points, programs, function names, and parts of syntax that must appear as shown.

System

Used for items in menus and dialogs, as they appear to the user.

`Fixed-width`

Used for WIL sample code.

Italics

Used for emphasis and to liven up the documentation just a bit.

Acknowledgments

WinBatch software developed by Morrie Wilson, Richard Merit and Tony Deets.

Documentation written by Richard Merit, Liv Browning, Jim Stiles and Deana Falk.

WinBatch Setup

Installing and Configuring WinBatch

WinBatch is easy to install.

If you have purchased WinBatch+Compiler, go to Appendix B, page 117, for instructions on installing WinBatch+Compiler.

The WinBatch installation program is itself a Windows application, so make sure Windows is running.

Insert your WinBatch CD into your CD-ROM disk drive. If you have your CD-ROM configured to "Auto-Start", the setup will run automatically. Otherwise, open the Explorer to your CD-ROM drive and double click on SETUP.EXE.

You will be prompted for the directory to install WinBatch into. The default will be C:\PROGRAM FILES\WINBATCH on 32-bit Windows or C:\PROGRAM FILES (X86)\WINBATCH on 64-bit Windows. It is recommended that you install WinBatch using these defaults, especially on Windows Vista and newer.

Hit OK, and then examine the install specification screen.

Select the desired items, and let the setup process copy the files. The Network and Control Manager extender Dlls and Help files are installed by default, so if you do not want these installed, de-select the checkbox for this item. All other WIL Extenders are available on the CD-ROM, in the Extenders subdirectory, along with their appropriate SETUP.WBT files.

You will be asked for license numbers. They are printed on the inside back cover of this manual.

WinBatch also includes WIL extender Dlls. These are special Dlls designed to extend the built-in function set of the WIL processor. These Dlls typically add functions not provided in the basic WIL function set, such as network commands for particular networks (Novell, Windows and others), MAPI, ODBC, and other important Application Program Interface functions as may be defined by the various players in the computer industry from time to time. **Most WIL extenders must be installed separately.**

To install WIL extender Dlls:

Insert the WinBatch CD in your CD-ROM drive. If you have your CD-ROM configured to "Auto-Start", the setup will run automatically. Otherwise, open the Explorer to your CD-ROM drive and double click on SETUP.EXE.

Click on the "Explore CD" button on the install specification screen. Select "Extenders" from the directory listing. Now select the directory of the extender you wish to install. In each directory you will find a file called SETUP.WBT. Double-click on the SETUP.WBT file, and the extender will be installed automatically.

Note: You can also install extenders using the "Extender Version Checker and Download Utility" (also known as **vCheck**). This utility allows you to keep up with all the extender updates posted to the website. You can download **vCheck** from http://www.winbatch.com/download.html.

License Numbers: Temporary and Permanent

Purchase of this software includes technical support, a full package of software materials, notification of updates and enhancements

To Enter License Information:

You can find your licensing information inside the back cover of this manual. To license WinBatch do the following:

1) Start WinBatch by running WinBatch.exe, and hit the "Enter License Info" button on the registration reminder screen.

2) Enter the information from the label inside the back cover of your WinBatch User's Guide into the licensing dialog box. Generally the top line is a registration id and the bottom line is the control number. Almost all control numbers begin with CG01 (Charlie Golf Zero One) or BG01 (Bravo Golf Zero One) followed by more letters and/or numbers.

3) After entering the information, select the OK button.

You may be prompted to enter your name at this point. After entering your name, select the OK button. That should do it. You will need to enter this information once each for the WinBatch.exe and the WBCompiler.exe.

You may need to re-enter this number if you re-install Windows, update to a new version of Windows, or update to a new revision of WinBatch. Please keep the number private. It is not required for Tech Support services unless asked.

WinBatch will run without license numbers, but a screen will appear to remind you to register the software.

Keep license numbers in a safe place. They will be needed whenever WinBatch is reinstalled. There will be a fee for replacing lost license numbers.

If you have been issued a temporary license number, it will expire after a period of time and the evaluation screens will re-appear. To prevent this, obtain a permanent license number in place of a temporary one.

Once you register your copy of WinBatch, you can enter your registration information. To make the registration screen appear, for a temporarily licensed copy, hold the shift key down while starting a WinBatch utility. Enter the license numbers into the screen that will pop up.

Once you have WinBatch successfully installed, you can check the version number by launching WinBatch.exe (which will launch the WinBatch 'Navigator'). The version should be something like "2013A", depending on which version you have.

There are several other utilities that can also be run from the WinBatch 'Navigator' that might also be useful. Check them out.

About Maintenance Plans

Wilson WindowWare offers a maintenance subscription system. One year of maintenance is included when you purchase.

How does it work?

When you purchase a new copy of one of our products, your purchase price will include a one-year maintenance subscription. During that year, you will be entitled to download and use any new versions of that product which are released, free of charge. At the end of the year, you will have the option to renew your subscription for an additional year. If you choose not to renew your subscription, you will be able to continue to use the versions which were released prior to your maintenance subscription expiration, but you will not be licensed to use future versions of the product.

Will the software I buy stop working after the year is up?

NO! The licensing period is based on the date that the software was released, not on the current calendar date. If you buy a product on Jan. 1, 2013, you will be licensed to use any versions of that product which are released in 2013. If you choose not to renew your maintenance subscription, then you won't be licensed to use new versions which are released after that. But you will be licensed to use the 2013 versions forever.

What about existing customers?

If you purchased an older version of one of our products, and you do not have an active maintenance subscription, then you may upgrade to the current version of the product for a discounted price, depending on the version that you have.

What day does my maintenance subscription expire?

Maintenance subscriptions always expire on the last day of the specified month. Run WinBatch.exe, select the "License Info" button for maintenance expiration.

What happens when I renew my maintenance subscription?

When you renew your maintenance subscription, you will receive a new license code which will allow you to download and use an additional year's worth of releases. In addition, you will receive a package with the current version of the software and the latest printed manuals - assuming you do not select the "License Only" shipping option.

Do I have to wait until the expiration date before I can renew?

No. You may renew your maintenance subscription at any time during the year before the expiration date. No matter how far before the expiration date you renew, your existing maintenance subscription will be extended for a full additional year.

What if I want to renew my subscription after it has expired?

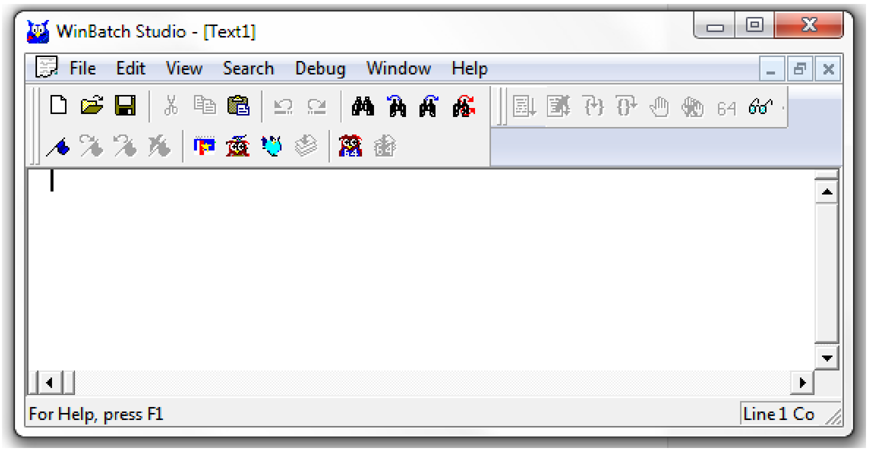
You may renew your maintenance subscription retroactively after it has expired. However, you will first have to pay for the period of time between the expiration date and the current date. For example, if your maintenance subscription expires at the end of Feb. 2013 and you choose not to renew it, but then in Oct. 2013 you decide to resume your maintenance subscription, you would have to pay a pro-rated amount for the months between Feb. 2013 and Oct. 2013 to bring your subscription up to date, and then pay for an additional year of maintenance from Oct. 2013 to Oct. 2014. Your new maintenance subscription expiration date would then be Oct. 2014, and you would receive a new license code which would be valid until then.

WinBatch Studio

WinBatch Studio Overview

WinBatch Studio is an ASCII text editor capable of editing numerous WinBatch files of an almost unlimited size (limited only by available Windows memory). WinBatch Studio has many features designed for creating and maintaining WinBatch program source code. Build, debug and run your WinBatch programs directly from WinBatch Studio.

As an ASCII text editor, WinBatch Studio allows you to open numerous .wbt files at once, print half sized "two-up" pages side by side in landscape orientation, print headers and footer text (document name, date and time, page number) and, merge files together.


WinBatch Studio - [Text1]
File Edit View Search Debug Window Help
64
For Help, press F1
Line 1 Co

WinBatch Studio Menus

File Menu

The File menu offers the following commands:

New	Creates a new document.
Open…	Opens an existing document.
Close	Closes an opened document.
Merge…	Inserts the contents of a new document into the current document.
Save	Saves an opened document using the same file name.

Save As…	Saves an opened document to a specified file name.
Save All	Saves all opened documents.
Revert	Re-reads the current document from disk, returning to its original state.
Page Setup…	Displays printing options.
Print Setup…	Selects a printer and printer connection.
Print…	Prints a document.
Print Preview	Displays the document on the screen as it would appear printed.
Send…	Sends the document using default email client.
Properties…	Displays information about the current document.
[Recent File List]	Displays a list of previously opened documents.
Exit	Exits WinBatch Studio.

Edit Menu

The Edit menu offers the following commands:

Undo	Reverse previous editing operation.
Redo	Reverse previous undo operation.
Cut	Deletes data from the document and moves it to the clipboard.
Copy	Copies data from the document to the clipboard.
Paste	Pastes data from the clipboard into the document.
Delete	Deletes data from the document.
Copy Other	Copies specific data from the document to the clipboard.
Cut Other	Cuts specific data from the document to the clipboard.
Change case	Changes the case of selected data.
Select All	Selects all the data in the document.

View Menu

The View menu offers the following commands:

Toolbars…	Shows, hides, or customizes the toolbars.
Status Bar	Shows or hides the status bar.
Output	Shows or hides the output window.
Watch	Shows or hides the watch window.

Options…	Editor, keyboard, and file specific settings are maintained in this dialog box.

Search Menu

The Search menu offers the following commands:

Find…	Searches the current document for the specified text.
Find Next	Repeats the last find operation, using the same options, for the next instance.
Find Prev	Repeats the last find operation, using the same options, for the previous instance.
Replace…	Searches the current document for the specified text, and replaces the found text with specified text.
Find in Files…	Searches one or more files for the specified text.
Go To Line…	Moves the caret to the specified line number.
Match Brace	If the caret is placed on a brace character "().{}, or []" the caret is moved to the matching brace character.

Debug Menu

WinBatch Studio offers a complete interactive debugging environment for WIL script files. To debug a WIL script, first make sure the saved file is loaded and is the active document. The Debug menu offers the following commands:

Run	Runs the script in the active window using the 32-bit interpreter.
Customize Tools…	Allows a program or WIL script to be added to the Project menu.
Dialog Editor	Provides a convenient method of creating dialog box templates for use in your WinBatch programs.
Compiler	Executes the 32-bit Compiler tool.
Type Viewer	Executes the development tool that assists you in writing Component Object Model (COM) Automation based WIL scripts.
Compiler (x64)	Executes the 64-bit Compiler tool.
Run (x64)	Runs the script in the active window using the 64-bit interpreter.
Debug	Runs the script in Debug mode.
Step Into	Executes the current line of the script. If the current line is a goto, gosub, or call command, execution stops at the first line of the goto, gosub, or call code.
Step Over	Executes the current line of the script. If the current line

	is a goto, gosub, or call command, all the code at the goto, gosub, or call location is also executed.
Run To Cursor	Begins executing script commands at the current location and continues to the point in the script where the cursor (caret) is located.
Stop Debugging…	Stops execution of the script.
X64 Debugger	Toggles between 64-bit and 32-bit debugger modes.
Insert/Remove Breakpoint	Inserts a breakpoint at the current line, or removes it if it already exists. When execution of the script is initiated with the Go or Run To Cursor commands, execution will still stop if a line with a breakpoint is encountered.
Remove All Breakpoints	Removes all defined breakpoints in the current script.

Window Menu

The Window menu offers the following commands, which enable you to arrange multiple views of multiple documents in the application window:

New Window	Creates a new window that views the same document.
Split	Split the active window into panes.
Cascade	Arranges windows in an overlapped fashion.
Tile Horizontally	Arranges windows in non-overlapped tiles horizontally.
Tile Vertically	Arranges windows in non-overlapped tiles vertically.
Close All	Closes all open windows.
Arrange Icons	Arranges icons of closed windows.
[Window Manager]	Lists all open windows. Multiple selections may be made.

Help Menu

The Help menu offers the following commands, which provide assistance with this application:

WinBatch Studio Help	Launches the WinBatch Studio help file.
Consolidated WIL Help	Launches the Consolidated WIL help file. This help file consolidates all of the various WinBatch and Extender help files into one single help file.
About WinBatch Studio…	Displays the version number of this application.

Context Menu

WinBatch has a completely configurable context menu that can be accessed by clicking the right mouse button anywhere within an open file. Right clicking results in a context menu drop down list filled with many useful macros.

Cut	Cuts the current selection to the clipboard.
Copy	Copies the selected text to the Windows clipboard.
Paste	Pastes text from the clipboard into the active document window.
Undo	Allows you to "undo" the most recent editing action
Insert Unicode Text	Allows you to insert Unicode text into the editor.
Keyword Lookup	Looks up highlighted keyword and displays help file.
Insert Parameters	Automatically inserts a functions parameters into the script.
Insert WIL Function….	Select from a list of functions, to insert into script.
Consolidated WIL help file	Launches the Consolidated WIL help file.
Help Options	**Insert WIL Function** specify whether or not to include a description. **Show Hints Now** displays WinBatch Studio 'hints' dialog.
Code Blocks	**Comment Block of Code** - easily comment out blocks of code. **Uncomment Block of Code** - easily uncomment blocks of code. **Create Dialog Callback in Clipboard** - options for dynamically creating callback procedures for dialog code. **Insert Block** - various useful blocks of code to insert into scripts.
More	Additional menu options. **UDF/UDS Colorization** - Adds or removes highlighted string to the list of functions to get colorized. **Highlight variable/label** – Add or remove color code highlighting for a variable or label. **Toggle Bookmark** - Places a bookmark on the current line if one does not already exist, or removes it if it does. **Copy current line** - Copies the entire line to the

	Windows clipboard. **Cut current line** - Cuts the entire line. **Edit highlighted file** - Opens the highlighted filename in the editor. **Browse highlighted file** - Opens the highlighted filename in the file Browser. **How do I?** – Explains how to customize this menu.

Using the Windows Interface Language, you can write your own macros and place them on this menu for easy access. Right click in the file, from the context menu dialog box select:

```
More | How do I? | Customize this menu.
```

Note: For more information on editing menu files, see the section "**Menu Files**" in the Windows Interface Language Reference manual or help file.

Using WinBatch

Creating WinBatch Script Files

WinBatch is a script file interpreter. Before you can do anything useful with the WinBatch interpreter, you must have at least one WinBatch script file to interpret.

Your WinBatch installation puts several sample scripts into your WinBatch\Samples directory.

WinBatch script files must be formatted as plain text files. You can create them with WinBatch Studio (included), the Windows Notepad or another text editor.

Word processors can also save scripts in plain text formatted files.

When you installed WinBatch, an association is automatically established between WinBatch and the .WBT file extension. The .WBT extension is used in this manual for batch file extensions, but you can use other file types as well. If you want to double click on a batch file and have Windows run it, be sure that you associate it in Windows with your WinBatch executable program file.

Each line in a WinBatch script file contains a statement written in WIL, Wilson WindowWare's Windows Interface Language.

A statement can be a maximum of 2048 characters long (refer to the WIL Reference Manual for information on the commands you can use in WinBatch). Indentation does not matter.

A statement can contain functions, commands and comments. Functions and constants are not case-sensitive.

You can give each WinBatch script file, a name which has an extension of WBT (e.g. TEST.WBT). We'll use the terms: WinBatch script files and WBT files, interchangeably.

WinBatch Operation: Running WinBatch Utilities

WinBatch utilities are very versatile. They can be run from:

- icons in the Windows Explorer.
- as automatic execution macros for Windows, via the Windows "StartUp" directory.
- from macros in word processors and spreadsheets.

- from a command line entry, such as the Windows logo key +R Taskbar menu option in Windows.
- by double clicking or dragging and dropping file names on the WinBatch icon.
- from menu items on the Windows "System Tray" using PopMenu, an accessory program included with WinBatch.
- from other WinBatch scripts to serve as single or multiple "agents", event handlers, or schedulers.
- from any Windows application or application macro language that can execute another Windows program. Software suite macro languages and application builders like Visual Basic and PowerBuilder are examples of these.

WinBatch system utilities run like any other Windows programs. They can run from a command line, a desktop icon, or from a file listing such as the Windows File Managers or Explorer.

WinBatch utilities are usually run as files with the extension .WBT. They can accept passed parameters when run from a command line.

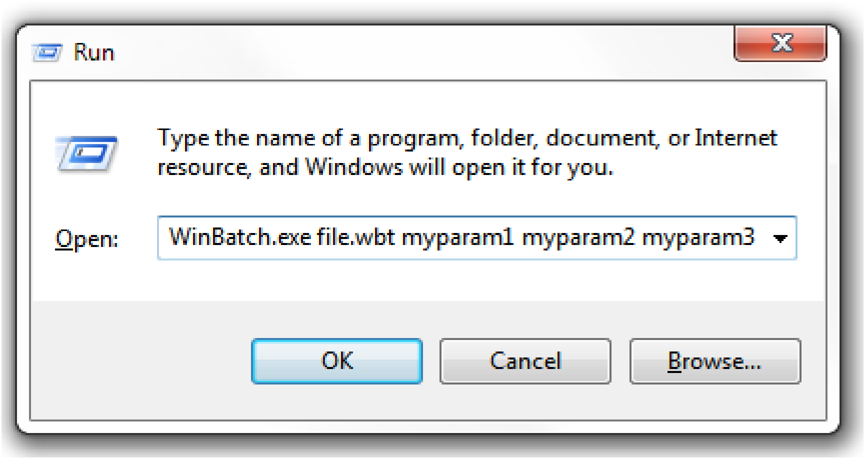
This capability can be used from the **Run** command line in Windows. You can access the Run command by pressing the Windows logo key +R.

Parameters can be also be passed through the command line entry, included in the item properties of any icon in the Explorer. Finally, an application can send parameters to a WinBatch utility it launches, from a command line, or from a function in a macro language.

A command like this runs a WinBatch file from a command line or an icon:

WINBATCHEXENAME filename.wbt param1 param2 ... param[n]

This command line can be entered into a Command Line text entry box like this one from the Windows **Run** command line.


Run
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:
OK
Cancel
Browse...

WinBatch.exe file.wbt myparam1 myparam2 myparam3

The command line is longer than the dialog can show, but it can be easily edited with the arrow keys.

"file.wbt" is any valid WBT file, and is a required parameter.

"myparam1 myparam2 ... myparam[n]" are optional parameters to be passed to the WBT file on startup. Each is delimited from the next by one space character.

These parameters will be automatically inserted into variables named **param1, param2, ... param[n]**. The WinBatch utility will be able to use these. An additional variable, **param0**, gives you the total number of command-line parameters.

Example command line:

```
"C:\Program files (x86)\WinBatch\System\Winbatch.exe" test.wbt Bob Joe
Sue
```

Example script:

```
;contents of test.wbt
names=StrCat(param1,@CRLF,param2,@CRLF,param3)
Message("Names",names)
Exit
```

A command like this runs the WinBatch+Compiler from a command line or an icon:

```
c:\ (x86)\WinBatch\System\WBCompiler.exe {.wbt}
c:\Program Files (x86)\WinBatch\System\WBCompiler.exe {.cmp}
```

A command like this runs the WinBatch+Compiler in Batch compile mode from a command line or an icon:

```
c:\Program Files (x86)\WinBatch\System\WBCompiler.exe {.cmplist}
```

For further details see: Batch Compile (page 126)

Using Icons to Pass Parameters to WinBatch Utilities

WBT files run from the Explorer as shortcut icons must have their complete path in the Properties dialog box in order for command line parameters to be received.

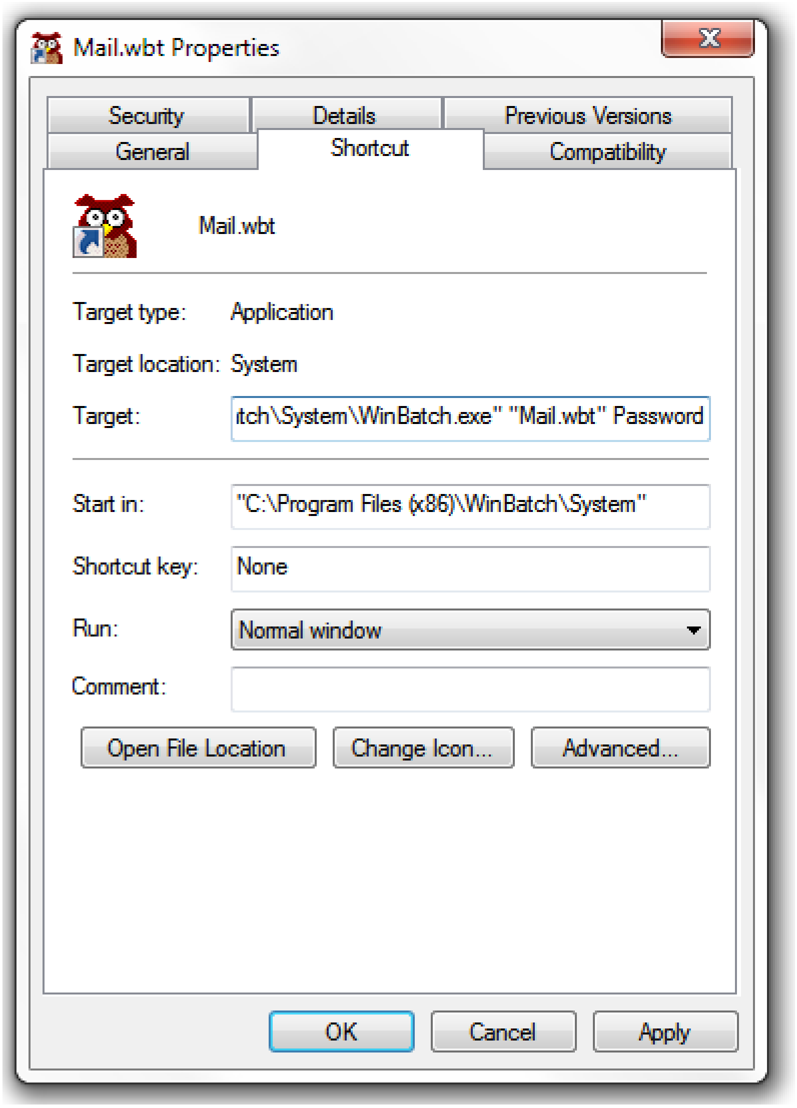
In order to pass parameters to a WinBatch .wbt file, you **must** run the WinBatch executable, itself, and it must be followed by the name of the WinBatch script file and any other desired parameters.

For example, the command line for "**MAIL.WBT**", an imaginary WinBatch utility that runs mail with a password passed as a parameter might be:

```
"C:\PROGRAM FILES (x86)\WINBATCH\SYSTEM\WINBATCH.EXE C:\PROGRAM FILES
(X86)\WINBATCH\MAIL.WBT" PASSWORD
```

Note: the previous command line should all be on one line.

To edit icon properties, highlight the icon, hold down ALT, and press ENTER. The program item properties box should look like the following:



Mail.wbt

Target type: Application

Target location: System

Target: itch\System\WinBatch.exe" "Mail.wbt" Password

Start in: "C:\Program Files (x86)\WinBatch\System"

Shortcut key: None

Run: Normal window

Comment:

Example: Displaying passed parameters in a message box.

To determine the total number of command line parameters, display the **param0** variable in a message box.

WinBatch works like the DOS Batch language when inserting parameters into text. Enclosing them in percent (%) signs works in WinBatch, too.

This example is a simple, one line WinBatch function that:

1. Displays a Message box with an OK button.
2. Specifies a title.
3. Specifies a message.
4. Puts varying information into the title or the message.

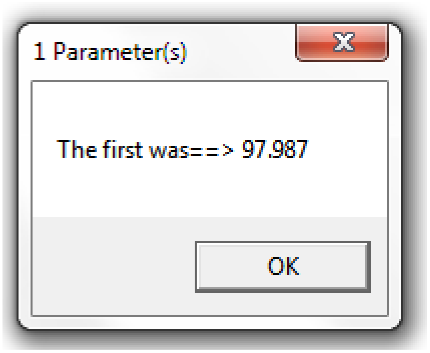
The **Message** function has this form:

```
Message("title in quotes","message in quotes")
```

The actual statement used to produce this dialog box was:

```
Message("%param0% Parameter(s)", "The first was==> %param1%")
```

It produced:



```
1 Parameter(s)

The first was==> 97.987
```

The command line that executed the utility producing the statement above was:

```
"C:\PROGRAM FILES (X86)\WINBATCH\SYSTEM\WINBATCH.EXE"
"C:\TEMP\MESSAGE.WBT" 97.987
```

Note: Full path names were used for both the WinBatch executable file and for the WinBatch utility. Spaces separate the three parts of the command line. Quotes are necessary around path and filenames, if the path name contains spaces. Otherwise the quotes are ignored.

Passing Parameters Between WinBatch Script Files

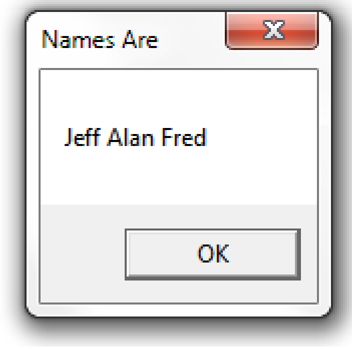
You can pass command line parameters from one WinBatch script file to another WinBatch script file. To do this, place percent characters (%) around the variables as in: %variable%.

The first WBT calls a second WBT then passes three parameters.

```
Call("test.wbt", "Fred Alan Jeff")
```

TEST.WBT contains the following line:

```
Message("Names are", "%param3% %param2% %param1%")
```


Names Are

Jeff Alan Fred

Accessing Help Files

Wilson WindowWare offers several different help files depending on what is installed on the system. The Consolidated WIL Help file acts as a single resource for many of the various help files. It combines multiple .CHM files at run time, allowing them to all be consolidated into a single Help system. So, as you install some new Wilson WindowWare product (i.e. WIL Extenders) you will see them show up in the table of contents of this help file.

The **ConsolidatedWIL.CHM** help file can be accessed from:

- Windows Start menu (Start | All Programs | WinBatch)
- WinBatch Studio's Help menu.
- WinBatch Studio's Context menu by clicking the right mouse button anywhere within an open file.

Reference Guides

These help files contain tutorials and documentation for various standard scripting functions. WinBatch and the WinBatch+Compiler are comprised of many pieces; the Windows Interface Language and special WinBatch specific commands are documented in separate reference guides.

These individual help files can be accessed from the Windows Start menu: Start | All Programs | WinBatch, from WinBatch Studio's context menu by clicking the right mouse button anywhere within an open file, or from inside the ConsolidatedWIL.CHM (Contents tab).

COM.chm

This help file contains documentation on WIL COM functionality. It also contains functions and lots of sample code.

WindowsInterfaceLanguage.chm

This help file contains documentation on all of the standard Windows Interface Language (WIL) functions. It also contains a tutorial that can be used to help get you started. The section titled 'Things to know' contains important information on using WIL.

WinBatch.chm

This help file contains documentation on the various utilities included with WinBatch: Compiler, WIL Dialog Editor, Window Information Utility, File Browser, FileMenu, PopMenu, WinMacro and the WIL Type Viewer. It also contains functions specific to WinBatch: **ExtractAttachedFile**, various **Box** functions and **Service** functions.

WebBatch.chm

This help file contains functions documentation specific to WebBatch: WebOut, WebOutFile, WebParamData, etc.

This help file can be accessed from the Windows Start menu: Start | All Programs | WebBatch or from inside the ConsolidatedWIL.CHM (Contents tab).

This help file will only be installed with WebBatch.

WIL Extenders

These various help files contain documentation for each of the individual WIL Extenders.

- ADSI.chm
- ControlManager.chm

- CPU.chm
- EHLLAPI.chm
- FileSearch.chm
- HugeMath.chm
- IPGrabber.chm
- MAPI.chm
- NetwareX.chm
- ODBC.chm
- ODBCTutorial.chm
- Pixie.chm
- Postie.chm
- Printer.chm
- Process.chm
- RAS.chm
- Reggie.chm
- Serial.chm
- ShellOperations.chm
- TerminalServices.chm
- WILX.chm
- Win32Network.chm
- WinInet.chm
- Winsock.chm
- Zipper.chm

WIL language extenders are among the most useful parts of the WIL language. Network connectivity, special arithmetic operations, and other capabilities can be added to WIL with extenders. Extenders are often available for download on the web site : **http://www.winbatch.com/download.html**.

The most widely used extenders are included on the distribution CD-ROM in the 'Extenders' subdirectory.

Software developers who want to create custom extensions to the WIL language may use the development kit called "WIL Extender SDK”. The actual extender must be written as a DLL using C or C++.

Each individual extender has a help file that explains how to use the functions in it.

These help files can be accessed from the Windows Start menu: Start | All Programs | WinBatch, from WinBatch Studio's context menu by clicking the right mouse button anywhere within an open file, or (if they are installed) from inside the ConsolidatedWIL.CHM (Contents tab).

Utilities

These help files contain documentation for utilities the can help developers design and create code. Many of these tools are installed by default.

- Browser.chm – File Browser.
- WinBatch.chm - WIL Dialog Editor, FileMenu & PopMenu.
- WILTypeViewer.chm - WIL Type Viewer.
- WinBatchStudio.chm - WinBatch Studio.
- WinMacro.chm – WinMacro.
- WMI.chm – WMI.

WinBatch Functions

Function Reference Introduction

This section includes only those additional WinBatch functions which do not appear in the **WIL Reference Manual.** The **WIL Reference Manual** is your primary reference for the functions available in WinBatch.

Note: The functions listed under the **See Also** headings may be documented either in this **User's Guide** or in the **WIL Reference Manual**.

Some of the 'box' functions cannot be used with the FileMenu or PopMenu utilities. See the documentation, for each individual utility.

Function List

Simple Box Functions

BoxOpen(title, text)
Opens a WinBatch message box.

BoxShut( )
Closes the WinBatch message box.

BoxText(text)
Changes the text in the WinBatch message box.

BoxTitle(title)
Changes the title of the WinBatch message box.

Graphical Box Functions

BoxBitmap(box ID, coordinates, filename, stretch-mode)
Displays a bitmap in a WinBatch box

BoxButtonDraw(box ID, button ID, text, coordinates)
Creates a push-button in a WinBatch box.

BoxButtonKill(box ID, button ID)
Removes a push-button from a WinBatch box.

BoxButtonStat(box ID, button ID)
Determines whether a push-button in a WinBatch box has been pressed.

BoxButtonWait( )
Waits for any button in any box to be pressed.

BoxCaption(box ID, caption)
Changes the title of a WinBatch box.

BoxColor(box ID, color, wash color)
Sets the background color for use with a WinBatch object.

BoxDestroy(box ID)
Removes a WinBatch box.

BoxDrawCircle(box ID, coordinates, style)
Draws an ellipse in a WinBatch box.

BoxDrawLine(box ID, coordinates)
Draws a line in a WinBatch box.

BoxDrawRect(box ID, coordinates, style)
Draws a rectangle in a WinBatch box.

BoxDrawText(box ID, coordinates, text, erase flag, alignment)
Displays text in a WinBatch box.

BoxesUp(coordinates, show mode)
Displays WinBatch boxes.

BoxMapMode(box ID, map mode)
Sets the mapping mode for a WinBatch box.

BoxNew(box ID, coordinates, style)
Creates a WinBatch box.

BoxPen(box ID, color, width)
Sets the pen for a WinBatch box.

BoxTextColor(box ID, color)
Sets the text color for a WinBatch box.

BoxTextFont(box ID, font-name, size, style, pitch & family & character-set)
Sets the font for a WinBatch box.

BoxUpdates(box ID, update flag)
Sets the update mode for, and/or updates, a WinBatch box.

Drawing Stack Management

BoxDataClear(box ID, tag)
Removes commands from a WinBatch box command stack.

BoxDataTag(box ID, tag)
Creates a tag entry in a WinBatch box command stack.

WinBatch Specific Functions

Breakpoint
Causes a breakpoint on the next statement when used with a script debugger, like

WinBatch Studio. Otherwise the command does nothing, outside of WinBatch Studio.

ExtractAttachedFile(source-name, target-name)
Extracts an embedded file from a compiled large EXE. {compiled version only}

Compiler Service Functions

SvcSetAccept(codes)
Specifies the control codes that the service will accept.

SvcSetState(state)
Updates the service control manager's status information for the service.

SvcWaitForCmd(timeout)
Waits or checks for receipt of a service control code. Note: In our shorthand method for indicating syntax, on the following pages next to "parameters", the (s) in front of a parameter indicates that it is a string. An (i) indicates that it is an integer and a (f) indicates a floating point number parameter.

Simple Box Functions

BoxOpen

Opens a WinBatch message box.

Syntax:

BoxOpen (title, text)

Parameters:

(s) title	title of the message box.
(s) text	text to display in the message box.

Returns:

(i)	always 1.

This function opens a message box with the specified title and text. The message box stays in the foreground while the WIL program continues to process.

The title of an existing message box can be changed with the **BoxTitle** function, and the text inside the box can be changed with the **BoxText** function.

Use **BoxShut** to close the message box.

Example:

```
BoxOpen("Processing", "Be patient")
TimeDelay(2)
BoxTitle("Still processing")
TimeDelay(2)
BoxText ("Almost done")
```

```
TimeDelay(2)
BoxShut()
```

See Also:
BoxShut, BoxText , BoxTitle, Display, Message

BoxShut

Closes the WinBatch message box.

Syntax:
BoxShut ( )

Parameters:
(none)

Returns:

(i)	always 1.

This function closes the message box that was opened with **BoxOpen**.

Example:

```
BoxOpen("Processing", "Be patient")
TimeDelay(2)
BoxTitle("Still processing")
TimeDelay(2)
BoxText ("Almost done")
TimeDelay(2)
BoxShut()
```

See Also:
BoxOpen, BoxText, BoxTitle

BoxText

Changes the text in the WinBatch message box.

Syntax:
BoxText (text)

Parameters:

(s) text	text to display in the message box.

Returns:

(i)	always 1.

Example:

```
BoxOpen("Processing", "Be patient")
TimeDelay(2)
```

```
BoxTitle("Still processing")
TimeDelay(2)
BoxText("Almost done")
TimeDelay(2)
BoxShut()
```

See Also:

BoxOpen, BoxShut, BoxTitle

BoxTitle

Changes the title of the WinBatch message box.

Syntax:

BoxTitle (title)

Parameters:

(s) title	title of the message box.

Returns:

(i)	always 1.

Example:

```
BoxOpen("Processing", "Be patient")
TimeDelay(2)
BoxTitle("Still processing")
TimeDelay(2)
BoxText("Almost done")
TimeDelay(2)
BoxShut()
```

See Also:

BoxOpen, BoxShut, BoxText, WinTitle

Graphical Box Functions

These WinBatch box functions generate attractive boxes with graphical interface elements. With a small number of primitive functions, very complex screens may be generated. The Box functions can draw lines, rectangles, circles, ellipses, text, and even additional windows on the screen. Plus they provide control over the size, placement, and color of the images.

The WinBatch setup program uses WinBatch box functions to display the GUI part of the user interface. Additional "box-drawing" wbt files can be found in the WinBatch\Samples subdirectory.

First, before we get into detailed descriptions of the box functions, we must define two very important data types. These are the "coordinate" and the "color" data type parameters.

Coordinate Parameters

A coordinate is a WinBatch string variable (actually a list) containing four numbers separated by commas. These four numbers define two points on the screen. The first number is the "X" coordinate of the first point, the second number is the "Y" coordinate of the first point, the third number is the "X" coordinate of the second point, and finally the fourth number is the "Y" coordinate of the second point.

The "0,0" point is in the upper left of the screen, and the "1000,1000" point is at the lower right.

With just these two points, WinBatch can size and place a number of items.

Rectangles: The first point defines the upper left corner of a rectangle, and the second point defines the lower right.

Circles and Ellipses: The first point defines the upper left corner of a bounding box for the Ellipse, and the second point defines the lower right corner of the bounding box. The ellipse will touch the bounding box at the center of each side of the bounding box.

Lines: The two points represent the beginning and end of a line.

Windows: The first point defines the upper left corner of a window, and the second point defines the lower right.

Color Parameters

A "color" data type is a WinBatch string variable (actually a list) containing three numbers separated by commas. These three numbers define the amount of red, green, and blue that the color has in it. Each number may vary from 0 (none) to 255 (max.). White has the maximum amount of all colors, while black lacks them all.

A sample list of colors follows:

```
WHITE="255,255,255"     RED="255,0,0"         DKRED="128,0,0"
BLACK="0,0,0"           GREEN="0,255,0"       DKGREEN="0,128,0"
LTGRAY="192,192,192"    BLUE="0,0,255"        DKBLUE="0,0,128"
GRAY="128,128,128"      YELLOW="255,255,0     DKYELLOW="128,128,0
DKGRAY="64,64,64"       CYAN="0,255,255"      DKCYAN="0,128,128"
LTPURPLE="255,128,25    PURPLE="255,0,255     DKPURPLE="128,0,12
```

BoxBitmap

Displays a bitmap in a WinBatch box.

Syntax:

BoxBitmap(box ID, coordinates, filename, stretch-mode)

Parameters:

(i) box ID	the ID number of the desired WinBatch box..
(s) coordinates	dimensions of button, in virtual units (upper-x upper-y lower-x lower-y).
(s) filename	specifies the name of a BMP file..
(i) stretch-mode	specifies the mode to use when resizing the bitmap. See below.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

'stretch-mode' specifies the mode to use when resizing the bitmap. The Bitmap will be stretched within the specified 'coordinates'. It can be one of the following:

Value	Meaning
1	**BLACKONWHITE:** Performs a Boolean AND operation using the color values for the eliminated and existing pixels. If the bitmap is a monochrome bitmap, this mode preserves black pixels at the expense of white pixels.
2	**WHITEONBLACK:** Performs a Boolean OR operation using the color values for the eliminated and existing pixels. If the bitmap is a monochrome bitmap, this mode preserves white pixels at the expense of black pixels.
3	**COLORONCOLOR:** Deletes the pixels. This mode deletes all eliminated lines of pixels without trying to preserve their information.
4	**HALFTONE:** Maps pixels from the source rectangle into blocks of pixels in the destination rectangle. The average color over the destination block of pixels approximates the color of the source pixels. Supported on Windows NT or newer only.

The stretching mode defines how the system combines rows or columns of a bitmap with existing pixels. The BLACKONWHITE and WHITEONBLACK modes are typically used to preserve foreground pixels in monochrome bitmaps. The COLORONCOLOR mode is typically used to preserve color in color bitmaps. The HALFTONE mode is slower and requires more processing of the source image than the other three modes, but produces higher quality images.

Note: In order for bitmaps to display properly in a WinBatch box, the rectangle into which the bitmap is to be placed should have the same aspect ratio (the relationship between the height and width) of the source bmp file.

However, the 1000x1000 coordinate system for WinBatch boxes, is not straightforwardly compatible with the pixel count of the bitmap. Therefore to figure out what size of bitmap box to use, the bitmap aspect ratio must be converted to the WinBatch coordinate system.

Usually you can just experiment with different WinBatch coordinates until you find one that looks reasonable in your box. But for those who wish to work out the coordinate transformations, here is some additional information.

On most standard monitors, the pixels on the monitor are square. The WinBatch virtual pixels are not square. In full screen mode, where the WinBatch window approximates the shape of the monitor, the WinBatch virtual pixels are wider than they are tall.

On the monitor a 600x600 block of pixels would be square. In WinBatch coordinates this would be 750x1000. A WinBatch virtual pixel is 75% as tall as it is wide. For every 3 horizontal pixels you need 4 vertical pixels to make a square.

For example: If you have a bmp file of, say, 100x200 pixels and want to determine what size box you need in WinBatch.

```
realWidth=100
realHeight=200
;Set scaling constant to any number you wish to adjust
;final size.  In general stay within the range of 0.10 to 10.0
scalingconstant=1.0

virtualWidth=realWidth * 0.75 * scalingconstant
virtualHeight=realHeight * scalingconstant

;So if you wish the upper left corner of the bit map
;to start at virtual point 20,30 the coordinates
;could be generated as in

ulX=20
ulY=30

lrX=int(ulX+virtualWidth)
lrY=int(ulY+virtualHeight)

coordinates=strcat(ulX, ",", ulY, ",", lrX, ",", lrY)
;Or you could figure out what they are and hard code them.
```

Example 1:

```
bmp = FileLocate("Coffee Bean.bmp")
if bmp == ""
   Message("???", "Bitmap not found")
else
   boxID = 1
   coordinates = "100,100,900,900"
   stretchmode = 3
   BoxesUp("200,200,800,800", @normal)
   BoxCaption(boxID, "WinBatch BoxBitmap Example")
   BoxBitmap(boxID, coordinates, bmp, stretchmode)
```

```
      TimeDelay(5)
   endif
   exit
```

Example 2:

For a slightly more fully fleshed out example, we'll take the **BoxBitmap** example and convert the coordinates so that the Coffee Bean BMP file will display as a square, as originally intended.

```
   bmp = FileLocate("Coffee Bean.bmp")
   if bmp == ""
      Message("???", "Bitmap not found")
   else
      boxID = 1
       ;Coffee Bean.bmp is a 128x128 square bmp file
      realWidth=128
      realHeight=128
      ;Set scaling constant to any number you wish to adjust
      ;final size.  In general stay within the range of 0.10 to 10.0
      scalingconstant=6.0

      virtualWidth=realWidth * 0.75 * scalingconstant
      virtualHeight=realHeight * scalingconstant
      ;So if you wish the upper left corner of the bit map
      ;to start at virtual point 20,30 the coordinates
      ;could be generated as in
      ulX=20
      ulY=30

      lrX=int(ulX+virtualWidth)
      lrY=int(ulY+virtualHeight)

      coordinates=strcat(ulX, ",", ulY, ",", lrX, ",", lrY)

      stretchmode = 3
      BoxesUp("200,200,800,800", @normal)  ; Maintain monitor aspect ratio
      BoxCaption(boxID, "WinBatch BoxBitmap Example")
      BoxBitmap(boxID, coordinates, bmp, stretchmode)
      TimeDelay(5)
   endif
   exit
```

See Also:

BoxesUp, BoxNew

BoxButtonDraw

Creates a push-button in a WinBatch box.

Syntax:

BoxButtonDraw(box ID, button ID, text, coordinates)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(i) button ID	the ID number from 1 - 16 specifying the desired push-button. Maximum buttons allowed, 16.
(s) text	text to appear in the button.
(s) coordinates	dimensions of button, in virtual units (upper-x upper-y lower-x lower-y).

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Draws a button using standard Windows colors and fonts by specifying a unique "ID", text and coordinates. If an existing button "ID" is re-used, the text will be changed and then the button will be moved.

Note: If a button is moved, it is best to do so before the background is painted in order to color over the button's original position. Moving buttons does cause some "flashing" on the screen.

The **BoxButtonDraw** function, which draws buttons in a WinBatch "box" window, is limited to 16 buttons per box window, but you can have up to 8 separate box windows, so you could have up to 128 buttons spread out over all the box windows.

Example:

```
;  sample code for BoxButtonDraw
bDraw1=1
bDraw2=2
bDraw3=3
BoxesUp("100,100,900,900", @normal)
BoxDrawText(1, "0,210,1000,1000","Drawing Buttons", @FALSE, 1)
TimeDelay(2)
BoxButtonDraw(1, bDraw1, "Button 1", "100,450,300,550")
TimeDelay(2)
BoxButtonDraw(1, bDraw2, "Button 2", "400,450,600,550")
TimeDelay(2)
BoxButtonDraw(1, bDraw3, "Button 3", "700,450,900,550")
bWho=0
while bWho == 0
   for x =1 to 3
      if BoxButtonStat(1,x) then bWho=x
   next
endwhile
Message("Excuse Me", "Please, don’t push my buttons")
BoxDestroy(1)
```

See Also:

BoxesUp, BoxNew, BoxButtonKill, BoxButtonStat, BoxButtonWait

BoxButtonKill

Removes a push-button from a WinBatch box.

Syntax:

BoxButtonKill(box ID, button ID)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(i) button ID	the ID number of the desired push-button.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Example:

```
;  sample code for BoxButtonKill
bDraw1=1
bDraw2=2
bDraw3=3
BoxesUp("100,100,900,900", @normal)
BoxDrawText(1,"0,210,1000,1000","Select a Button", @FALSE, 1)
BoxButtonDraw(1, bDraw1, "Button 1", "100,450,300,550")
BoxButtonDraw(1, bDraw2, "Button 2", "400,450,600,550")
BoxButtonDraw(1, bDraw3, "Button 3", "700,450,900,550")

bWho=0
while bWho == 0
for x =1 to 3
if BoxButtonStat(1,x) then bWho=x
next
endwhile

Switch bWho
;Message("Excuse Me", "Please, don't push my buttons")
Case 1
BoxDrawText(1, "0,310,1000,1000", "Killing Button %bWho%", @TRUE,
1)BoxButtonKill(1, bDraw1)
TimeDelay(2)
Break
Case 2
BoxDrawText(1, "0,310,1000,1000", "Killing Button %bWho%", @TRUE, 1)
BoxButtonKill(1, bDraw2)
TimeDelay(2)
Break
Case 3
BoxDrawText(1, "0,310,1000,1000", "Killing Button %bWho%", @TRUE, 1)
BoxButtonKill(1, bDraw3)
TimeDelay(2)
Break
endswitch
```

See Also:

BoxesUp, BoxNew, BoxButtonDraw, BoxButtonStat, BoxButtonWait

BoxButtonStat

Determines whether a push-button in a WinBatch box has been pressed.

Syntax:

BoxButtonStat(box ID, button ID)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(i) button ID	the ID number of the desired push-button.

Returns:

(i)	**@TRUE** if the button has been pressed; **@FALSE** if it hasn't.

This function will also toggle the button back to "un-pressed".

Example:

```
;  sample script for BoxButtonStat
bDraw1=1
bDraw2=2
BoxesUp("200,200,700,700", @normal)
BoxDrawText(1, "0,310,1000,1000","Pick a Button", @FALSE, 1)
BoxButtonDraw(1, bDraw1, "Button 1", "200,464,450,558")
BoxButtonDraw(1, bDraw2, "Button 2", "550,464,800,558")
bWho=0
while bWho == 0
for x =1 to 2
if BoxButtonStat(1,x) then bWho=x
next
endwhile
Switch bWho
case 1
Display(3,"Button Example", "You pushed Button 1")
break
case 2
Display(3,"Button Example", "You pushed Button 2")
Break
endswitch
```

See Also:

BoxesUp, BoxNew, BoxButtonDraw, BoxButtonKill, BoxButtonWait

BoxButtonWait

Waits for any button in any box to be pressed.

Syntax:

BoxButtonWait( )

Returns:

(i)	always 1.

This function will stay in a loop while all buttons are false. If any of the buttons are true when this command is issued, the command will not wait.

Example:

```
bDraw1=1
bDraw2=2
bWho=0
BoxesUp("200,200,700,700", @normal)
BoxDrawText(1, "0,310,1000,1000","Pick a Button", @FALSE, 1)
BoxButtonDraw(1, bDraw1, "Button 1", "200,464,450,558")
BoxButtonDraw(1, bDraw2, "Button 2", "550,464,800,558")
BoxButtonWait()
for x =1 to 2
    if BoxButtonStat(1,x) then bWho=x
next
Switch bWho
case 1
    Display(3,"Button Example", "You pushed Button 1")
    break
case 2
    Display(3,"Button Example", "You pushed Button 2")
    Break
endswitch
```

See Also:

BoxesUp, BoxNew, BoxButtonDraw, BoxButtonKill, BoxButtonStat

BoxCaption

Changes the title of a WinBatch box.

Syntax:

BoxCaption(box ID, caption)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) caption	title for the box.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

This function sets the title of the Window. The main window always has a title (caption) bar. Windows created with the **BoxNew** function, using a "2" for the style parameter, also have a caption bar. If the box does not have a caption bar, the function is effectively ignored.

Example:

```
;;  sample script for BoxCaption
BoxesUp("200,200,700,700", @normal)
BoxDrawText(1,"0,310,1000,1000","Watch the Title Bar", @FALSE, 1)
BoxCaption(1, "WinBatch BoxCaption Example")
TimeDelay(5)
BoxCaption(1, "Change the title to whatever you like")
TimeDelay(3)
BoxCaption(1, "You have the power")
TimeDelay(3)
```

See Also:

BoxesUp, BoxNew

BoxColor

Sets the background color for use with a WinBatch object.

Syntax:

BoxColor(box ID, color, wash color)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) color	the background color, a string in the form: "red, green, blue".
(i) wash color	color used to create a background gradient effect.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Sets the background color for use with a WinBatch object, either a rectangle, a circle, or a line.

If a gradient effect is not desired, specify "0" for "wash color". If "wash color" is "0", or if a 16-color video driver is installed, then " normal color" will be used. Default is white, no wash

Color

BLACK="0,0,0"	DKGRAY="192,192,192"
WHITE="255,255,255"	GRAY="128,128,128"
RED="255,0,0"	DKRED="128,0,0"
GREEN="0,255,0"	DKGREEN="0,128,0"
BLUE="0,0,255"	DKBLUE="0,0,128"
PURPLE="255,0,255"	DKPURPLE="128,0,128"
YELLOW="255,255,0"	DKYELLOW="128,128,0"
CYAN="0,255,255"	DKCYAN="0,128,128"

Wash color

0	No Wash
1	Red
2	Green
3	Yellow
4	Blue
5	Magenta
6	Cyan
7	White

Example:

```
; sample code for various wash colors
BoxesUp("0,0,1000,1000", @zoomed)
for i=1 to 7
BoxColor(1,"255,0,0",i)   ;sets the background color
BoxDrawRect(1,"0,0,1000,1000",2);object that will use the color
Message("Wash Code",i)
next
```

See Also:

BoxesUp, BoxNew, BoxPen, BoxTextColor

BoxDestroy

Removes a WinBatch box.

Syntax:

BoxDestroy(box ID)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Removes a WinBatch box and any buttons in the box from the screen. If you specify a box ID of 1, all boxes vanish.

Example:

```
; sample script for BoxDestroy
BoxesUp("0,0,1000,1000", @normal)
BoxDrawText(1, "0,700,1000,1000", "BoxDestroy", @FALSE, 1)
BoxCaption(1, "WinBatch BoxDestroy Example  Box 1")
BoxNew(2,"30,41,310,365",  1)
BoxDrawText(2, "0,500,1000,1000", "Box 2", @TRUE, 1)
BoxNew(3,"330,41,610,365", 1)
BoxDrawText(3, "0,500,1000,1000", "Box 3", @TRUE, 1)
BoxNew(4,"639,41,919,365",  2)
BoxDrawText(4, "0,500,1000,1000", "Box 4", @TRUE, 1)
for i=2 to 4
```

```
Message("BoxDestroy", "Destroying Box Number %i%")
BoxDestroy(i)
next
```

See Also:

BoxesUp, BoxNew

BoxDrawCircle

Draws an ellipse in a WinBatch box.

Syntax:

BoxDrawCircle(box ID, coordinates, style)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) coordinates	dimensions of circle, in virtual units (upper-x upper-y lower-x lower-y).
(i) style	style of circle to be drawn.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Draws an ellipse on the screen using the current **BoxPen** for the outline, and the current **BoxColor** for the inside of the box.

Style:

0	empty circle with border
1	filled circle with border
2	filled circle with no border
3	transparent circle/rectangle with border.

Example:

```
; sample script for BoxDrawCircle
BoxesUp("0,0,1000,1000", @normal)
BoxColor(1,"255,255,0",0)
BoxDrawRect(1,"0,0,1000,1000",2)
BoxColor(1,"0,0,255",4)
BoxDrawText(1, "0,500,1000,1000", "WinBatch Box Example - BoxDrawCircle
",@FALSE, 1)
BoxCaption(1, "WinBatch BoxDrawCircle Example")
BoxDrawCircle(1, "30,41,310,365", 0)
BoxDrawText(1, "30,381,310,400", "Style 0 - empty with
border ",@FALSE,1)
BoxDrawCircle(1, "330,41,610,365", 1)
BoxDrawText(1, "330,381,610,400", "Style 1 - filled with border ",
@FALSE, 1)
BoxColor(1,"255,0,0",4)
BoxDrawCircle(1, "639,41,919,365", 2)
```

```
BoxDrawText(1, "639,381,919,400", "Style 2 - filled with no border ",
@FALSE, 1)
BoxDrawCircle(1, "30,41,919,365", 3)
BoxDrawText(1, "330,11,610,100", "Style 3 - transparent circle with
border. ", @FALSE, 1)
TimeDelay(5)
```

See Also:

BoxesUp, BoxNew, BoxColor, BoxDrawLine, BoxDrawRect, BoxDrawText, BoxPen

BoxDrawLine

Draws a line in a WinBatch box.

Syntax:

BoxDrawLine(box ID, coordinates)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) coordinates	starting and ending points for a line, in virtual units (start-x, start-y, end-x, end-y).

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Draws a line from first point to the second using the current **BoxPen**.

Example:

```
; sample script for BoxDrawLine
BoxesUp("100,100,800,800", @normal)
BoxDrawText(1,"0,600,1000,1000","BoxDrawLine", @FALSE, 1)
BoxCaption(1, "WinBatch BoxDrawLine Example")
co1=200
co2=200
co3=500
co4=500
For i=1 to 5
TimeDelay(1)
BoxDrawLine(1,"%co1%,%co2%,%co3%,%co4%")
co1=co1+10
co2=co2+-20
co3=co3+-5
co4=co4+15
next
TimeDelay(2)
```

See Also:

BoxesUp, BoxNew, BoxDrawCircle, BoxDrawRect, BoxDrawText, BoxPen

BoxDrawRect

Draws a rectangle in a WinBatch box.

Syntax:

BoxDrawRect(box ID, coordinates, style)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) coordinates	dimensions of rectangle, in virtual units (upper-x upper-y lower-x lower-y).
(i) style	style of rectangle to be drawn.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Draws a rectangle on the screen using the current **BoxPen** for the outline, and the current **BoxColor** for the inside of the box.

Style:

0	empty rectangle with border
1	filled rectangle with border
2	filled rectangle with no border
3	transparent circle/rectangle with border.

Example:

```
BoxesUp("0,0,1000,1000", @normal)
BoxColor(1,"255,255,0",0)
BoxDrawRect(1,"0,0,1000,1000",2)
BoxColor(1,"255,0,0",0)
BoxDrawText(1, "0,900,1000,1000", "WinBatch Box Example - BoxDrawRect
",@FALSE, 1)
BoxCaption(1, "WinBatch BoxDrawRect Example")
BoxDrawRect(1, "30,41,310,465", 0)
BoxDrawText(1, "30,500,310,665", "Style 0 - empty with border ", @FALSE,
1)
BoxDrawRect(1, "330,41,610,365", 1)
BoxDrawText(1, "330,381,610,365", "Style 1 - filled with border
",@FALSE,1)
BoxColor(1,"0,0,255",0)
BoxDrawRect(1, "696,114,839,841", 2)
BoxDrawText(1, "696,881,839,841", "Style 2 - filled with no border ",
@FALSE, 1)
BoxDrawRect(1, "30,41,839,841", 3)
BoxDrawText(1, "30,11,839,841", "Style 3 - transparent rectangle with
border.", @FALSE, 1)
TimeDelay(5)
```

See Also:

BoxesUp, BoxNew, BoxDrawCircle, BoxDrawLine, BoxDrawText, BoxPen

BoxDrawText

Displays text in a WinBatch box.

Syntax:

BoxDrawText(box ID, coordinates, text, erase flag, alignment)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) coordinates	dimensions of bounding rectangle for text, in virtual units (upper-x upper-y lower-x lower-y).
(s) text	text to be displayed.
(i) erase flag	**@TRUE** if background should be cleared; **@FALSE** if it should not be cleared.
(i) alignment	alignment mode for text.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Draws text on the screen using the current **BoxTextColor** and **BoxTextFont**. Text may extend beyond the box boundaries if the allotted space is exceeded or size of the text is too large.

Note: In order to update text, make sure the proper coordinates are specified for the given text.

Alignment is a bitmask, consisting of one or more of the following optional flags (OR'ed together):

0	left justified
1	centered horizontally
2	right-justified
4	centered vertically
8	bottom-justified (single line only)
16	wrap long lines
32	adjust font so that text fills width of bounding rectangle (single line only)
64	right-justify text by adding space between words
128	clip (truncate) text if it doesn't fit within specified rectangle

Example:

```
; sample code for BoxDrawText
BoxesUp("200,200,800,800", @normal)
BoxDrawText(1, "200,200,750,250", "WinBatch Box Example - BoxDrawText
",@TRUE, 0)
BoxCaption(1, "WinBatch BoxDrawText Example")
BoxDrawText(1, "100,350,900,400", "Use BoxDrawText to display information
to your user. ", @TRUE, 0)
TimeDelay(5)
```

See Also:

BoxesUp, BoxNew, BoxDrawCircle, BoxDrawLine, BoxDrawRect, BoxTextColor, BoxTextFont

BoxesUp

Displays WinBatch boxes.

Syntax:

BoxesUp(coordinates, show mode)

Parameters:

(s) coordinates	window coordinates for placement of top-level WinBatch box, in virtual units (upper-x upper-y lower-x lower-y).
(i) show mode	**@NORMAL**, **@ICON**, **@ZOOMED**, or **@HIDDEN**.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Places a WinBatch box on the screen for which drawing tools can be defined. "Coordinates" specify the placement on the screen when the window is not zoomed (maximized). The "box ID" of this main box (window) is 1. Up to 7 more boxes (windows) may be defined with the **BoxNew** function.

Note: Drawing tool definitions and drawing commands refer to a particular "box ID". Different drawing tools can be defined for separate boxes.

Example:

```
; sample script for BoxesUp
Message("Example","BoxesUp can display a box in Normal Mode. ")
BoxesUp("200,200,800,800", @normal)
BoxDrawText(1,"500,200,500,200","BoxesUp %@crlf% Normal Mode", @FALSE, 1)
BoxCaption(1, "Normal Mode")

Message("Example","BoxesUp can display the box as an Icon.")
BoxDestroy(1)
BoxesUp("200,200,800,800", @icon)
BoxDrawText(1,"500,200,500,200","BoxesUp %@crlf% Icon Mode", @FALSE, 1)
BoxCaption(1, "Example - Icon Mode")

Message("Example", "BoxesUp can display in a Zoomed mode.")
BoxDestroy(1)
BoxesUp("200,200,800,800", @zoomed)
BoxDrawText(1,"500,200,500,200","BoxesUp %@crlf% Zoomed Mode", @FALSE, 1)
BoxCaption(1, "Zoomed Mode")
Message("Example","Finally, WinBatch can set hidden mode to the box.")
```

See Also:

BoxNew

BoxMapMode

Sets the mapping mode for a WinBatch box.

Syntax:

BoxMapMode(box ID, map mode)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(i) map mode	**@ON** to map coordinates to client scale (default). One Unit is 1/1000 (or 0.1%) of the size of the current box. **@OFF** for screen scale. One unit is 1/1000 (or 0.1%) of the size of the screen.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

BoxMapMode defines how a function's "coordinate" parameters will be interpreted. The default setting, **@ON**, allows WinBatch boxes to automatically resize themselves per the user’s monitor adjustments. In the default "mapping" mode each window is assumed to be 1000x1000. This makes it easy to write a WinBatch program that will run on anybody’s screen.

Note: The Default setting is **highly** recommended.

Example:

```
;; sample script for BoxMapMode
IntControl(12,5,0,0,0)
title="BoxMapMode Example"
BoxesUp("100,100,900,900",@ZOOMED)

BoxMapMode(1,1)   ; Default map mode
BoxColor(1,"255,255,0",0)
BoxPen(1,"0,0,255",10)
BoxTextFont(1, "", 30, 0, 0)
BoxTextColor(1,"0,0,0")

BoxDrawRect(1,"50,50,150,150",1)
BoxDrawCircle(1,"200,50,350,150",1)
BoxDrawLine(1,"400,100,500,100")
BoxDrawLine(1,"450,50,450,150")
BoxDrawText(1, "50,160,500,190", "Map Mode = 1 Using sizes based on
window", 0, 0)
BoxMapMode(1,0)
BoxColor(1,"255,255,0",0)
BoxPen(1,"0,0,255",10)
BoxTextFont(1, "", 30, 0, 0)

BoxDrawRect(1,"50,200,150,300",1)
BoxDrawCircle(1,"200,200,350,300",1)
BoxDrawLine(1,"400,250,500,250")
BoxDrawLine(1,"450,200,450,300")
BoxDrawText(1, "50,310,500,340", "Map Mode = 0 Using sizes based on
screen", 0, 0)
Message(title,"Note that both sets of objects look pretty much the
same.")
WinPlace(0,0,750,750,"")
Message(title,"Note that when we changed the size of the window the
MapMode=1 object were resized proportionally, while as the MapMode=0
objects stayed the same.")
WinPlace(0,0,500,500,"")
Message(title,"MapMode=1 objects resized again.")
WinPlace(0,0,200,1000,"")
Message(title,"Note that while most objects scale reasonably well,
fonts are based on Window height.")
WinPlace(0,0,1000,200,"")
Message(title,"Giving us teeny tiny fonts in this sort of Window.")
WinPlace(50,50,950,950,"")
BoxMapMode(1,1)   ; Default map mode
BoxTextFont(1, "", 30, 0, 0)
BoxTextColor(1,"255,0,0")
BoxDrawText(1,"50,500,500,700","Resize the window with the mouse and
watch what happens.  Hit ESC when you are done. (This message drawn with
MapMode=1)",0,16)
WaitForKey("{ESC}","","","","")
```

See Also:

BoxesUp, BoxNew

BoxNew

Creates a WinBatch box.

Syntax:

BoxNew(box ID, coordinates, style)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) coordinates	dimensions of box, in virtual units (upper-x upper-y lower-x lower-y).
(i) style	style of box to create.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

This function makes a new box inside the top level (box ID 1) box. If an existing box ID is used, the newly specified coordinates and style will be adopted.

Style allows a selection from three different kinds of boxes.

0	No border
1	Border
2	Border and caption

Example:

```
; sample script for BoxNew
BoxesUp("0,0,1000,1000", @normal)
BoxDrawText(1, "500,500,500,500", "BoxNew ", @FALSE, 1)
BoxCaption(1, "WinBatch BoxNew Example")
BoxColor(1,"255,255,0",0)
BoxDrawRect( 1, "0,0,1000,1000", 2)

BoxNew(2, "30,41,310,465", 0)
BoxDrawText(1, "30,681,310,665","Style 0-No border ",@FALSE,1)

BoxNew(3, "330,41,610,365", 1)
BoxDrawText(1, "330,381,610,365","Style 1-Border ",@FALSE,1)

BoxNew(4, "696,114,839,841", 2)
BoxDrawText(1, "696,881,839,841","Style 2-Border with caption ",@FALSE,1)
BoxCaption(4, "Style 2 BoxNew")
TimeDelay(7)
```

See Also:

BoxesUp

BoxPen

Sets the pen for a WinBatch box.

Syntax:

BoxPen(box ID, color, width)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) color	color of pen to use.
(i) width	width of pen to use, in virtual units.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Defines the color and width of a "pen". Pens are used to draw lines and borders of rectangles and ellipses. The default is black, 1 pixel wide.

Width is defined according to the current mapping mode, (see **BoxMapMode**). In the default mapping mode, a width of 10 is 1% of whichever is smaller, the width or the height of the box.

"Color" is a string in the form: "red, green, blue".

BLACK="0,0,0"	DKGRAY="192,192,192"
WHITE="255,255,255"	GRAY="128,128,128"
RED="255,0,0"	DKRED="128,0,0"

GREEN="0,255,0"	DKGREEN="0,128,0"
BLUE="0,0,255"	DKBLUE="0,0,128"
PURPLE="255,0,255"	DKPURPLE="128,0,128"
YELLOW="255,255,0"	DKYELLOW="128,128,0"
CYAN="0,255,255"	DKCYAN='0,128,128"

Example:

```
; sample script for BoxPen
BoxesUp("100,100,900,900", @normal)
BoxColor(1,"255,255,0",0)
BoxDrawRect( 1, "0,0,1000,1000", 2)
BoxDrawText(1, "0,200,1000,1000", "BoxPen ", @FALSE, 1)
BoxCaption(1, "WinBatch BoxPen Example")
BoxColor(1,"0,0,255", 0)
BoxPen(1,"255,0,0",25)
BoxDrawRect(1,"350,350,650,650", 1)
BoxDrawLine(1, "350,700,800,700")
TimeDelay(5)
```

See Also:

BoxesUp, BoxNew , BoxColor, BoxTextColor

BoxTextColor

Sets the text color for a WinBatch box.

Syntax:

BoxTextColor(box ID, color)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) color	text color.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

BoxTextColor defines the color of text for a particular box. The default is black.

"Color" is a string in the form: "red, green, blue".

BLACK="0,0,0"	DKGRAY="192,192,192"
WHITE="255,255,255"	GRAY="128,128,128"
RED="255,0,0"	DKRED="128,0,0"
GREEN="0,255,0"	DKGREEN="0,128,0"
BLUE="0,0,255"	DKBLUE="0,0,128"
PURPLE="255,0,255"	DKPURPLE="128,0,128"
YELLOW="255,255,0"	DKYELLOW="128,128,0"

CYAN="0,255,255"	DKCYAN="0,128,128"

Example:

```
; sample script for BoxTextColor
BoxesUp("200,200,800,800", @normal)
BoxCaption(1, "WinBatch BoxTextColor Example")
x1="0,0,0"          ;BLACK
x2="0,0,128"        ;DKBLUE
x3="255,0,0"        ;RED
x4="0,255,0"        ;GREEN
x5="255,0,255"      ;PURPLE
x6="255,255,0"      ;YELLOW
x7="0,255,255"      ;CYAN
for i=1 to 7
      BoxTextColor(1,x%i%)
      BoxDrawText(1, "0,350,1000,1000", "BoxTextColor", @True, 1)
      TimeDelay(2)
next
```

See Also:

BoxesUp, BoxNew, BoxTextFont, BoxColor, BoxPen

BoxTextFont

Sets the font for a WinBatch box.

Syntax:

BoxTextFont(box ID, font-name, size, style, pitch & family & character-set)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) font-name	name of font typeface.
(i) size	size of font, in virtual units.
(i) style	style flags for font.
(i) pitch/family/char-set	font pitch and family.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

When defining the font using **BoxTextFont**, size is based on mapping mode. In the default, a height of 100 is 10% of the height of the box.

Style: (the following numbers may be added together)

0	Default
1-99	Weight (40 = Normal, 70 = Bold)
100	Italics
1000	Underlined

A style of 1170 gives you a bold, underlined, italic font.

Pitch & Family & Character-set parameters do not override the typeface supplied in the font-name parameter. If a match cannot be made, (font name misspelled, font not on system) they supply a general description for selecting a default font. To combine one pitch flag with one family flag, use the binary OR ("|") operator.

Pitch:

0	Default
1	Fixed pitch
2	Variable pitch

Family:

0	Default
16	Roman (Times Roman, Century Schoolbook, etc.)
32	Swiss (Helvetica, Swiss, etc.)
48	Modern (Pica, Elite, Courier, etc.)
64	Script
80	Decorative (Old English, etc.)

Example:

```
BoxesUp("100,100,900,900", @normal)
BoxCaption(1, "WinBatch BoxTextFont Example")
x1="0,0,0"          ;BLACK
x2="0,0,128"        ;DKBLUE
x3="255,0,0"        ;RED
x4="255,0,255"     ;PURPLE
x5="0,0,255"        ;BLUE
f1="Times Roman"
f2="Helvetica"
f3="Courier New"
f4="Brush Script MT"
f5="Book Antiqua"
fam=16
size=20
for i=1 to 5
 BoxTextColor(1,x%i%)
 BoxTextFont(1, f%i%, size, 0, fam)
 BoxDrawText(1,"1%size%,2%size%,1000,1000","BoxTextFont", @False, 0)
 Fam=fam+16
 size=size+16
 TimeDelay(2)
next
```

See Also:

BoxesUp, BoxNew, BoxTextColor

BoxUpdates

Sets the update mode for, and/or updates, a WinBatch box.

Syntax:

BoxUpdates(box ID, update flag)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(i) update flag	see below.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

BoxUpdates controls how particular boxes are updated. Screen updates can be suppressed so that images seem to suddenly appear on the screen, rather than slowly form as they are drawn. This function is rarely required.

Update flag:

0	Suppress screen updates
1	Enable updates (this is the default setting)
2	Catch up on updates
3	Redraw the entire box

Example:

```
; Define Main Box
BoxesUp("100,100,900,900",@ZOOMED)
BoxColor(1,"255,255,0",0)
BoxDrawRect(1,"0,0,1000,1000",2)
BoxCaption(1,title)
BoxColor(1,"0,0,255",0)

; Define Shape Colors
color1 = "255,0,0" ; RED
color2 = "0,0,255" ; BLUE

info = 'Default update handling'
BoxUpdates(1,1) ;Default Updates
For x = 1 to 6
   Pause('See whats happening...',info)
   BoxDrawRect(1,"100,100,200,200",1)
   BoxDrawCircle(1,"300,100,500,200",1)
   BoxDrawRect(1,"100,300,200,400",1)
   BoxDrawCircle(1,"300,300,500,400",1)
   BoxDrawRect(1,"100,500,200,600",1)
   BoxDrawCircle(1,"300,500,500,600",1)
   BoxDrawRect(1,"100,700,200,800",1)
   BoxDrawCircle(1,"300,700,500,800",1)
   If x Mod 2 then BoxColor(1,color1,0)
   else BoxColor(1,color2,0)
Next

info = 'Suppressed update handling'
BoxUpdates(1,0) ;Suppress Updates
```

```
For y = 1 to 5
   Pause('See whats happening...',info)
   BoxDrawRect(1,"100,100,200,200",1)
   BoxDrawCircle(1,"300,100,500,200",1)
   BoxDrawRect(1,"100,300,200,400",1)
   BoxDrawCircle(1,"300,300,500,400",1)
   BoxDrawRect(1,"100,500,200,600",1)
   BoxDrawCircle(1,"300,500,500,600",1)
   BoxDrawRect(1,"100,700,200,800",1)
   BoxDrawCircle(1,"300,700,500,800",1)
   If y Mod 2 then BoxColor(1,color1,0)
   else BoxColor(1,color2,0)
Next

BoxUpdates(1,1) ;Enable Updates
BoxUpdates(1,2) ;Catch up on Updates

Message(title,"That's all folks")
exit
```

See Also:

BoxesUp, BoxNew

Drawing Stack Management

In general, WinBatch lets you draw objects in various boxes using simple linear programming as with true message-based Windows programming. However, there is a fundamental discrepancy between the message-based Windows programming methods, and the traditional linear method used by WinBatch.

In a normal Windows application, the application must be ready to redraw all or any portion of its window at any time. This adds considerable complexity to a true Windows program. In WinBatch, the programmer is shielded from the gory details of the dynamic redrawing required by Windows, while WinBatch maintains a simple, traditional linear programming style.

In order to do this, WinBatch maintains a small database of the Box commands requested by the programmer, and refers to this database when Windows requests a redraw. In general, and for simpler applications, the existence of this database is completely transparent to the programmer. There are cases, however, in which the database must be managed by the programmer to avoid reaching the maximum limits of the database. If the maximum limits are reached, the program will die with a Box Stack exceeded error.

If there are some objects that constantly change, such that the limit of about 150 Box commands in the stack will be exceeded, then you must manage the Box Data. The idea is to draw all the fixed, non-changing objects first, and then place a "TAG" into the Data stack. Then draw the first version of the constantly changing object(s). When it comes time to update those objects, a **BoxDataClear** will erase all items below the "TAG", and all remaining data space will again be available for reuse.

The thermometer bar and the text for the note in the setup program use this feature. All of the examples that do continuous screen draws also use these functions.

BoxDataClear

Removes commands from a WinBatch box command stack.

Syntax:

BoxDataClear(box ID, tag)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) tag	tag to be removed.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

This function removes all commands above "tag" from the command stack. "Tag" is not removed.

All buttons and Box commands after the tag are forever erased.

Example:

```
; sample script for BoxDataTag
BoxesUp("0,0,1000,1000",@zoomed)
;Changes the title of a WinBatch box.
BoxCaption(1,"Random Rectangles")
;Creates a push-button in a WinBatch box
BoxButtonDraw(1,1,"E&xit","750,860,900,930")
;Creates a tag entry in a WinBatch box command stack
BoxDataTag(1,"ACORN")
while 1
   ;Removes commands from a WinBatch box command stack
   ;if BoxDataClear was commented out it would exceed
   ;the limit of commands in the stack and error
   BoxDataClear(1,"ACORN")
   if BoxButtonStat(1,1)==1 then break
   x=Random(1000)
   y=Random(1000)
   s=Random(1000)
   t=Random(1000)
   r=Random(255)
   g=Random(255)
   b=Random(255)
   color=strcat(r, ",",  g, ",", b)
   location=strcat(x, ",", y, ",", s, ",", t)
   BoxColor(1,color,0)
   BoxDrawRect(1,location,2)
endwhile
exit
```

See Also:

BoxesUp, BoxNew BoxDataTag

BoxDataTag

Creates a tag entry in a WinBatch box command stack.

Syntax:

BoxDataTag(box ID, tag)

Parameters:

(i) box ID	the ID number of the desired WinBatch box.
(s) tag	tag to be created.

Returns:

(i)	**@TRUE** on success; **@FALSE** on failure.

Places a tag into the data stack for the specified box. Usually one tag per box is all that is needed. Multiple tags are allowed, but not advised. The tag "TOP" is automatically placed at the top of the data stack .

Example:

```
; sample script for BoxDataTag
BoxesUp("0,0,1000,1000",@zoomed)
;Changes the title of a WinBatch box.
BoxCaption(1,"Random Rectangles")
;Creates a push-button in a WinBatch box
BoxButtonDraw(1,1,"E&xit","750,860,900,930")
;Creates a tag entry in a WinBatch box command stack
BoxDataTag(1,"ACORN")
while 1
   ;Removes commands from a WinBatch box command stack
   ;if BoxDataClear was commented out it would exceed
   ;the limit of commands in the stack and error
   BoxDataClear(1,"ACORN")
   if BoxButtonStat(1,1)==1 then break
   x=Random(1000)
   y=Random(1000)
   s=Random(1000)
   t=Random(1000)
   r=Random(255)
   g=Random(255)
   b=Random(255)
   color=strcat(r, ",",  g, ",", b)
   location=strcat(x, ",", y, ",", s, ",", t)
   BoxColor(1,color,0)
   BoxDrawRect(1,location,2)
endwhile
exit
```

See Also:

BoxesUp, BoxNew, BoxDataClear

WinBatch Specific Functions

Breakpoint

Causes a breakpoint on the next statement when used with a script debugger, like WinBatch Studio. Otherwise the command does nothing.

Syntax:

Breakpoint

Parameters:

(none)

Returns:

(not applicable)

Use this command with WinBatch Studio to cause execution to stop in the debugger. If this command is encountered outside of the WinBatch Studio debugger it is ignored.

Debuggers usually have a method of setting a breakpoint on particular lines of a script or even stepping through the lines one at a time. Sometimes problems occur after extensive script execution where it would be tedious to step through. For example if you wish to investigate what happens on the 782'nd pass of a FOR loop you could do something similar to the example code below:

Example:

```
a=1
   b=1000
   For xx = 1 to b
      If xx == 782 then BreakPoint
      c=a+xx+1
   next
   Message("Loop","Complete")
```

See Also:

Debug, DebugTrace…(see Windows Interface Language)

ExtractAttachedFile

Extracts an embedded file from a compiled large EXE. {compiled version only}

Syntax:

ExtractAttachedFile (source-name, target)

Parameters:

(s) source-name	specifies the name of the embedded file. This must not contain any path information. The embedded file may be a WIL DLL, an extender DLL, or an "other file".
(s/i) target/request	specifies the name of the output file that will be written (This may contain path information.) or the request number (see below).

Returns:

(i/s)	returns 1 or a tab-delimited list of embedded file names, which do not contain any path information.

To list embedded files: "source-name" must be a blank string ("").

"target /request" specifies the type of embedded files to list:

Request	**Meaning**
0	WIL DLL
1	Extender DLL's
2	"Other files"

Note: Added an option to the compiler to skip auto-extraction of extenders and "other files" from large EXE's. The WIL DLL is always extracted from a large EXE, if necessary.

Make sure you choose the skip auto-extraction option in the compiler if you want to control file extraction with ExtractAttachedFile.

Example:

```
wildll = ExtractAttachedFile("",0)
Message("WIL DLL", wildll)
```

Compiler Service Functions

SvcSetAccept(codes)

Specifies the control codes that the service will accept.

Syntax:

SvcSetAccept(codes)

Parameters:

(i) codes	see below.

Returns:

(i) previous value	the previous value for "codes", or -1 if not running as a service.

Codes can be 0 to specify no code to process, or it can be one or more of the following control codes, combined using the bitwise OR ('|') operator:

Value	Controls accepted	Meaning
1	SERVICE_ACCEPT_STOP	Service can be stopped
2	SERVICE_ACCEPT_PAUSE_CONTINUE	Service can be paused and continued
4	SERVICE_ACCEPT_SHUTDOWN	Service is notified when system shutdown occurs
32	SERVICE_ACCEPT_HARDWAREPROFILECHANGE	Computer's hardware profile has changed.
64	SERVICE_ACCEPT_POWEREVENT	Computer's power status has changed.
128	SERVICE_ACCEPT_SESSIONCHANGE	Computer's session status has changed (requires XP/2003 or newer.)
256	SERVICE_ACCEPT_PRESHUTDOWN	Computer is about to shutdown (requires Vista/2008 or newer.)
32768	SERVICE_ACCEPT_LOGOFF	The service is notified when the user logs off

By default, a WinBatch service will accept and automatically process SERVICE_CONTROL_STOP commands. If you use the **SvcSetAccept** function, you will be responsible for processing any of the control codes that are received, including SERVICE_CONTROL_STOP (i.e., it will no longer be processed automatically).

See also:

SvcSetState, SvcWaitForCmd

SvcSetState(state)

Updates the service control manager's status information for the service.

Syntax:

SvcSetState(state)

Parameters:

(i) state can be one of the following service states:

Value	Service state	Meaning
1	SERVICE_STOPPED	The service is not running
2	SERVICE_START_PENDING	The service is starting.
3	SERVICE_STOP_PENDING	The service is stopping
4	SERVICE_RUNNING	The service is running
5	SERVICE_CONTINUE_PENDING	The service continue is pending

6	SERVICE_PAUSE_PENDING	The service pause is pending
7	SERVICE_PAUSED	The service is paused

Returns:

(i) previous value	the previous value for "state", or -1 if not running as a service.

See also:

SvcSetAccept, SvcWaitForCmd

SvcWaitForCmd(timeout)

Waits or checks for receipt of a service control code.

Syntax:

SvcWaitForCmd(timeout)

Parameters:

(i) timeout	timeout flag (in milliseconds)

Returns:

(i) control codes	see below.

Value	Control code	Meaning
-1		Script not running as a service
0		Timeout occurred or no codes to process
1	SERVICE_CONTROL_STOP	Requests the service to stop
2	SERVICE_CONTROL_PAUSE	Requests the service to pause
3	SERVICE_CONTROL_CONTINUE	Requests the paused service to resume
5	SERVICE_CONTROL_SHUTDOWN	Requests the service to perform cleanup tasks, because the system is shutting down
12	SERVICE_CONTROL_HARDWAREPROFILE CHANGE	Computer's hardware profile has changed
13	SERVICE_CONTROL_POWEREVENT	Power status has changed
14	SERVICE_CONTROL_SESSIONCHANGE	Session status has changed (requires XP/2003 or newer)
15	SERVICE_CONTROL_PRESHUTDOWN	System will be shutting down (requires Vista/2008 or newer)

128-255		User-Defined control code
32768	SERVICE_ACCEPT_LOGOFF	The service is notified when the user logs off

If any control codes have been received but not yet processed (using this function), this function immediately returns the value of that control code. WinBatch maintains a list of up to 16 unprocessed control codes that have been received, and this function returns the first (oldest) one in the list, then clears that code from the list, so the next time this function is called it will return the next control code in the list, if any.

If there are no unprocessed control codes in the list, the behavior depends on the value specified by "timeout". If "timeout" is -1, the function will wait until a control code is received, and then return its value. If "timeout" is zero, the function will immediately return a value of 0. If "timeout" is neither zero nor -1, then the function will wait until the timeout expires or a control code is received, whichever comes first.

See also:

SvcSetAccept, SvcSetState

Language Extenders

Network and other extenders are documented fully in the help files. For more extensive information locate the appropriate help file. For a brief overview, see below.

WIL extender Dlls are special Dlls designed to extend the built-in function set of the WIL processor. These Dlls typically add functions not provided in the basic WIL set, such as network commands for particular networks (ADSI, Windows, and others), MAPI, ODBC, and other important Application Program Interface (API) functions, as may be defined by the various players in the computer industry from time to time. These Dlls may also include custom built function libraries either by the original authors, or by independent third party developers. An Extender SDK is available for you to write your own extender Dll's, if you are familiar with C or C++ programming. Custom extender Dlls may add nearly any sort of function to the WIL language. These range from the mundane network math or database extensions, to items that can control fancy peripherals, including laboratory or manufacturing equipment.

Install Extenders

Most WIL extenders must be installed separately; many are not installed by default. To obtain any additional extender Dlls, either download them from our website, or copy them from the WinBatch CD.

CD Install - To install extenders from the CD, locate the 'Extenders' directory on the CD. The Extender directory will contain all the available extender subdirectories. Select the appropriate extender subdirectory and run the corresponding SETUP.WBT file. You may also run the INSTALLEXTENDERS.WBT to install all of the extenders for you.

Website Install – If you have a current software maintenance plan, visit http://www.winbatch.com/download.html. Locate, download and save the appropriate extender ZIP file. Unzip to an empty temporary directory. Run the SETUP.WBT file.

VCheck Install - The website also has a tool called VCheck which can be downloaded. This WBT file is designed to make it easier to keep track of the many WinBatch Extenders that are available, as well as any updates to those extenders. Requirements: WinInet & Zipper extender must already be installed.

Using Extenders

The **AddExtender** function must be executed before attempting to use any functions in the extender library. The **AddExtender** function should be only executed once per extender in each WIL script that requires it.

At the top of each script in which you use a WIL extender add the appropriate extender with the **AddExtender** ( ) command.

```
AddExtender("extender.dll")
```

Remember you can add up to 10 extender Dlls or a combined total of 500 functions.

The following is an abbreviated summary of the extenders. Refer to the extenders in the on-line help file for function names and more details.

Windows Networking Extenders

These extenders provide standard networking support and may be used in conjunction with other extenders.

Win32 Network Extender:

For use on all Windows NT family workstations. It can control Windows NT or newer servers.

```
AddExtender("wwwnt34i.dll",0,"wwwnt64i.dll")
```

This extender is installed by default. For more information and a list of functions see the Win32 Network Extender Help file.

ADSI Extender:

For use on all Windows platforms with the DS Client from Microsoft installed.

```
AddExtender("wwads44i.dll",0,"wwads64i.dll ")
```

For more information and a list of functions see the ADSI Extender Help file.

NetwareX Extender:

For use on all Windows platforms with the Novel Netware Client installed.

```
AddExtender("wwnwx34i.dll")
```

For more information and a list of functions see the NetwareX Extender Help file.

Other Extenders

Here is a list of various other current extenders available.

Control Manager Extender - Perfect control over all Windows dialog boxes. See inside list boxes, interrogate check boxes, set radio buttons and handle tabbed dialogs.

CpuInfo Extender - CPU speed, benchmark and other CPU information.

EHLLAPI Terminal Emulator Extender - Terminal Emulator support. This extender allows working with terminal emulation programs. Allows screen-scraping, data transfers, and much more.

File Search and File & Folder Finder Extender - High speed file and text search engine.

Huge Math Extender - Performs arithmetic on huge (up to 2000 digit) numbers.

IP Address Grabber Extender - Get the machine's IP Addresses

MAPI Extender - Perform MAPI Operations.

Netware Extender – A new generation of Netware extenders for Novell Netware.

ODBC Extender – A basic set of Open Database Connectivity (ODBC) commands.

Pixie Image Extender - Manipulate various image files, such as JPG, BMP, etc. Rotate, Crop, Resize, Blur, Convert Formats, and more.

Postie Extender - The Ultimate Internet Email extender. Sends and receives POP3, IMAP4, and NNTP (newsgroup) email. Able to send and receive mime or UUE encoded attachments. Supports SMTP, ESMTP, POP3, SSL/TSL and IMAP4.

Printer Control Extender - Assists in working with printer drivers. Sets default printer. Changes printer properties, Installs and removes printers, etc.

Process Information Extender - Retrieve information about processes and modules.

RAS Extender - Create, manage, modify, rename and copy the Dialup RAS entries used in dial-up networking.

Registry Search Extender - Registry Searcher. This extender, in combination with a few build-in WIL Registry functions, can perform a search and replace of most registry items.

Serial Port Extender - Talk to serial ports. Communicate with modems, X-10 household controllers, lab equipment, pretty much any serial device. Supports USB COM ports and custom baud rates.

Shell Operations Extender - Performs Explorer-style file operations with animated graphics. Can also copy, delete, and move entire directory structures.

Terminal Server Extender - Enumerate, interrogate and manipulate terminal services sessions on a Windows NT or newer systems that has terminal services enabled.

WILX Utility Extender - Various utility functions.

WinInet Extender - Internet Extender. Supports HTTP and FTP. Grab web pages, post form data to web servers, automate FTP sessions, and more.

WinSock Extender - Our older Internet extender.

Zipper Extender - ZIP and UNZIP files.

Utilities

Dialog Editor

Visual programming of dialog boxes is quick and accurate. Use generic variable names so you can reuse your favorite dialogs.

The WIL Dialog Editor (see Filenames: Appendix A, page 113 for filename) provides a convenient method of creating dialog box templates for use with the **Dialog** function.

It displays a graphical representation of a dialog box, and allows you to create, modify, and move individual controls which appear in the dialog box.

After you have defined your dialog box, the Dialog Editor will generate the appropriate WIL code, which you can save to a file or copy to the Clipboard for pasting into your WIL program.

Note: The WIL Dialog Editor comes with an on-line help section in the WinBatch help file, as well as detailed instructions in the next section.
Also see the Windows Interface Language Reference Manual for more details on how to use the **Dialog** function to further customize your dialogs, including adding callback procedures within User-Defined functions / subroutines to make your dialogs 'dynamic'.

You can have as many as 300 controls in a WinBatch dialog. However, too many controls can be confusing. Aim for simple dialogs with a consistent appearance between different ones.

The WIL Dialog Editor offers quick production of custom dialog boxes for your WinBatch programs.

The WIL Dialog Editor allows you to create dialog box templates for WIL into a file with the .WBT file extension. The Dialog Editor will write the WIL script statements necessary to create and display the dialog.

You can visually design your dialog box on the screen and then save the template script either as a .WBT file or to the Windows Clipboard.

You can include the dialog template code directly in your batch code, or you can use the batch language "Call" command to execute the dialog template. For example:

```
  Call("SampleDialog.WBT", "")
```

Getting Started

Using the Dialog Editor is easy. Once it is loaded, these hints offer a quick way to become comfortable with dialog box construction.

The dialog editor filename is: WIL Dialog Editor.exe.

Launch the dialog editor executable, (see Filenames: Appendix A on page 113 for filename).

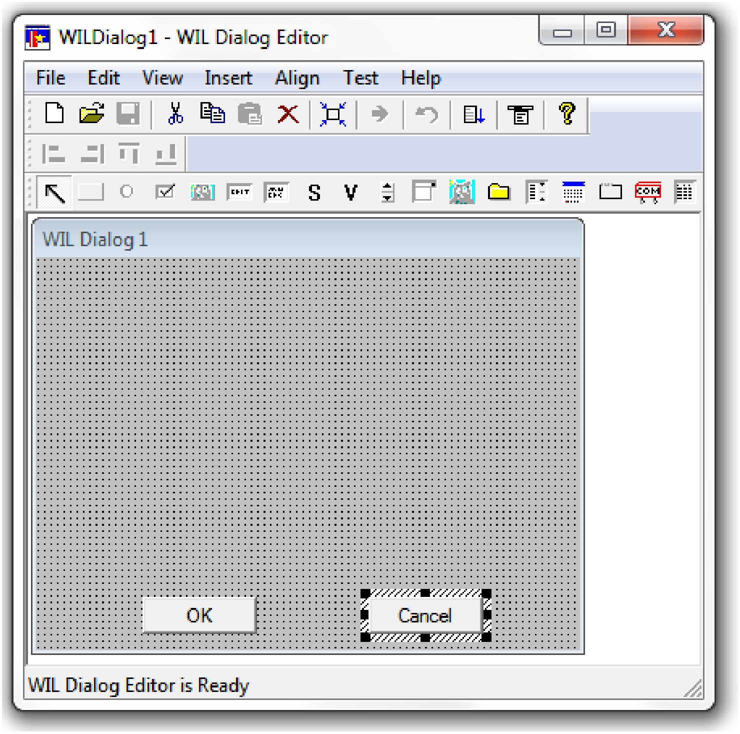
Run the Dialog Editor

Via the Windows Explorer: Locate and double click on the file 'WIL Dialog Editor.exe', in your WinBatch\System subdirectory.

or

Via WinBatch Studio: Click on the following tool bar icon

The editor will look like the following:



The dialog that gets generated by the WIL Dialog Editor will be the same size, as the dialog that you create in the editor's window.

To control the size of your dialog box, select the entire dialog, by clicking on the title bar. The dialog should now be highlighted. Next, move your mouse cursor to the highlighting at the edge of the dialog. When the mouse cursor changes to an arrow, you can drag and drop the sides of the dialog, to the necessary size.

Menu Commands

Familiarize yourself with the six standard menus in this program; FILE, EDIT, VIEW, INSERT, ALIGN, TEST and HELP.

File

New	Creates a new dialog template. The new template is created with two default buttons labeled "OK" and "Cancel".
Open…	Displays the standard open file dialog. Use this dialog to open an existing dialog template.
Save	Use this dialog to save the currently open template to a file. Dialog Editor will display the save file dialog box, if you haven't specified a file name yet.
Save As…	Saves the currently open template to a file. This command differs from the Save menu in that you are always prompted for a file name and location with the system Save dialog box.
Revert	Reloads the dialog template from disk. Use this item with care because, you will lose all changes since the last time the template was saved to disk.
Open from Clipboard	Loads a dialog template from the clipboard.
Save to Clipboard	Copies the dialog template to the clipboard.
[Recent Files]	List of most recently opened templates files. Click on the file name to open the file.
Exit	Terminates the Dialog Editor.

Edit

Undo	Reverses the last edit. This command will not undo changes made to control attribute values with the attribute dialog box.
Cut	Removes the active control from a dialog and places it in the paste buffer. If a control already exists in the paste buffer, it is destroyed before the copied control is added.
Copy	Places a copy of the active control into the paste buffer. If a control already exists in the paste buffer, it is destroyed

	before the copied control is added.
Paste	Inserts a control in the paste buffer into the dialog.
Delete	Removes the active control from a dialog.
Rescale	Expands or shrinks the dialog and all controls so that the dialog just fits in the Dialog Editor's current viewing area. *Note: Because of limits on the granularity of controls and fonts, the adjustments are only approximate and you may need to make additional edits.*
Convert	Converts a legacy (i.e. 6.1 format) dialog template to the latest dialog template format.
Options…	Launches the options dialog. The options dialog allows you to control how Dialog Editor loads and saves your dialog template.
	Load Tab The Load Tab options let you control what Dialog Editor does at startup and while reading your dialog templates. ***Load Bitmap Files:*** When this box is checked, Dialog Editor will search for and display the bitmaps you have specified for the dialog background, bitmap buttons and picture controls. When this box is not checked, Dialog Editor will not attempt to find or display bitmaps. If you change this option after you have already loaded a bitmap file into your dialog, Dialog Editor will not unload the bitmap. It will not, however, attempt to find and display any additional bitmap you may specify. ***Load Last Template at Startup:*** Check this box to have Dialog Editor load your previous work the next time you start it. If this box is not checked, Dialog Editor will start with the default new dialog template. ***Display Warnings When Loading Template:*** Use this check box to turn off warning messages while loading dialog templates. Dialog Editor displays warnings when it cannot find bitmap files or finds a malformed or missing attribute value in a controls definition. When this option is checked, Dialog Editor gives you the opportunity to continue or abort the loading process when problems are found. It may or may not be able to load the problematic control when you tell it to continue but it always attempts to load the next line in the template. When this option is not checked, Dialog Editor behaves as if you pressed the Continue button at each warning.
	Save Tab ***Prompt Before Saving Templates:*** When this box is

	checked Dialog Editor will always ask you before it saves your changes to a dialog template. Even if you do not check this box, Dialog Editor will still prompt you to save a new template, if you have not saved it before. ***Save to clipboard same as save to file *:*** This option only applies to templates loaded from the clipboard and when checked it increases the possibility of data loss.
Restore Defaults…	This command will return all user preferences under the Options menu to their original settings. It will also make all toolbars visible and positioned at either the top or bottom of the main application window.

View

Edit Bar	Check to make the Edit toolbar visible and uncheck to remove the Edit toolbar from the screen.
Status Bar	Check to make the Status bar visible and uncheck to remove the status bar from the bottom of Dialog Editor's main window.
Control Bar	Check to make the Control Palette toolbar visible and uncheck to remove the Control Palette toolbar from the screen.
Align Bar	Check to make the Control Align toolbar visible and uncheck to remove the Control Align toolbar from the screen.
Grid	Check to show the positioning grid in your dialog's background. This does not affect the appearance of your dialog when you use your template in a script. The grid is provided to assist you with control placement. When the menu item is unchecked, Dialog Editor displays a background bitmap, a selected background color, or the system default background color. The background displayed when this menu item is unchecked is determined according to following rules:
	• A bitmap is displayed if the Bitmap menu item is checked. • If you have selected a background color and the Bitmap item is not checked the selected background color is displayed. • The system default dialog background color is displayed, if you have not selected a background color and the Bitmap menu item is not checked.
	Note: the Bitmap item cannot be checked until you have selected a bitmap for your dialog template.
Bitmap	This menu item allows you to display or hide the dialogs bitmap background.
Attributes…	This menu item launches the Attributes property dialog. Selecting the dialog or one of its controls enables this menu

	item. The Attributes property dialog allows you to set the values that define your dialog and the controls it contains. The information you entered in this dialog becomes the comma-delimited list of values for each control variable and other template variables that define your dialog. You will see from two to five tabs when you launch this dialog. The tabs you see depend on the attributes of the visual object that is selected when the Attributes Dialog is launched. The contents of each tab of the Attributes Dialog also vary depending on the attributes of the selected object.
	General Tab The general tab can contain one or more of the following edit boxes:
	Name: The control's name is used to identify the control in a User-Defined Callback procedure. A control's name cannot contain more than thirty characters and must be unique. The name will be used as the third parameter to the UDF when a control related event triggers a call. It is also used to identify the control when calling any dialog callback related functions requiring a control name.
	Tab Order: This edit box controls the order of the control definitions in your dialog template. For example, if you give a control the tab order value of "1", it will be the first control listed in the dialog template. This position is important because it determines the tab order of the controls in your dialog and the tab order determines the sequence in which the controls are selected when a user presses the TAB key to move through the dialog. The Tab Order also affects the appearance of your dialog, if you have overlapping controls. When two or more controls overlap, the control with the smallest Tab Order number will hide the overlapping portion of any control with a bigger Tab Order number. **Tabs in Group Box control**: The Group Box control owns all of the controls inside of it and tends to use the tab order of the Group Box. Its best to first set the tab order on each Group Box and the controls that do not live in a Group Box. Then set the tab order within each Group Box.
	Variable Name: Type the name of a WIL variable in the Variable Name edit box. Values assigned to this variable will be used to set the displayed value(s) or initial state of the control. The variable can also contain selection or state information after the dialog is dismissed. This variable can be shared by more than one control when it makes sense to do so. It can also be used in WIL scripts, like any other WIL

	variable, so it must conform to WIL identifier rules.
	Text: A control displays the text entered in this edit box.
	Value: This value is the number returned by the WIL dialog function when the user presses the button control to close your dialog. For this reason each Push or Picture button in your dialog template must have a unique value. The value of a selected Radio Button is placed in the Variable associated with a group of Radio Button controls. You should, therefore, assign a unique value to each Radio Button that shares a common Variable.
	Caption: Enter the title of your template dialog here. The title appears on the bar at the top of your dialog.
	Pre-selected Item: Use the Pre-selected Item edit box to enter a default selection for controls that can display multiple values. When a dialog is dismissed, the pre-selected item will be placed in a controls variable, if the user has not selected an item.
	Procedure: Place the name of your User-Defined Callback procedure in this edit box. See the discussion of the User-Defined Callback procedure in the Dialog function (WIL reference manual) for more information. You do not need to supply a value, if you do not wish to use a User-Defined-Callback procedure.
	License String: for a COMCONTROL control that requires a license, the quoted license string should be placed here. Use the DEFAULT keyword as a placeholder if the control does not require a license.
	ProgID/ClassID/URL: ***ProgID*** is used with COMCONTROL controls and is the programmatic identifier of an ActiveX , OLE or COM component control that supports integration into an automation client container. It is usually in the form *servername.classname*. ***ClassID*** can be used as alternative to a controls ProgID. It is a sequence of hexadecimal numbers that must be quoted and enclosed in a curly brace ({}) pair. It is usually in the form *"{XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX}"* where each *X* is a hexadecimal digit. ***URL*** there are special monikers that can be used in this attribute to implicitly use the WebBrowser control or MSHTML COM component provided by Internet Explorer. You can use the WebBrowser control by placing a quoted URL moniker recognized by Internet Explorer in the attribute.

	The URL can point to either a local file or a document on the Internet. Use the Document control by specifying the programmatic identifier "MSHTML:" in this attribute. You can optionally add valid html text after the colon (:) and the MSHTML document object will parse and render the html in its window.
	Delimited File: for a REPORTVIEW control, to set to the path and file name of a CSV file used to populate the control. The file must meet the same CSV file requirements specified for the **ArrayFileGetCsv** function and the value separator must be a comma(,). The first line of the file can optionally contain column headings. See the **Style** attribute for details.
	Style Tab Use the Style Tab to choose the styles for your control. This Tab only displays styles that are applicable to the selected control. Check any style you wish the control to have.
	Invisible: Check this style and the control will not initially be visible in the dialog.
	Disabled: When this style is selected the controls appearance will change to indicate that it cannot receive user input
	Center Text: This style causes a VARYTEXT or STATICTEXT control to display text centered horizontally in the control's rectangle. This style cannot be used with the Right Align Text style.
	Right Align Text: A VARYTEXT or STATICTEXT with this style displays text flush-right in the control’s rectangle. This style cannot be used with the Center Text style.
	Numbers Only: Check this style for an EDITBOX and MULTILINEBOX and the control will only accept digits. Note that, even with this set, it is still possible to paste non-digits into the control.
	Read Only: This style prevents a user from changing a control’s text by typing new or editing existing characters. Although this style can be applied to SPINNER controls, the user can still change the value displayed by using the controls up and down arrows.
	Password: Check this style and an EDITBOX control will displays all characters as an asterisk (*) as they are typed into the control.
	List Only: DROPLISTBOX control will only accept values already in the drop down list portion of the control when this style is checked.

	Default Button: PUSHBUTTONs or PICTUREBUTTONs with this style is the default button when no other button has the input focus. Because it is the default, your dialog user can select this button by pressing the enter key, if no button has the input focus. You should only give one button this style. If this style is checked for more than one button, only the first button (in the tab order) will have the style. Generally, apply this style to the button that is the most likely option in your dialog.
	Flat Appearance: PUSHBUTTONs or PICTUREBUTTONs with this style, creates a button with a flat appearance. All aspects of the button's boarder are removed including the 3D shadowing.
	No Auto Height Resizing: FILELISTBOX or ITEMBOX with this style, turns off automatic height adjustment feature. Normally, these controls adjust their height so that they do not display partial items.
	Security Shield Icon (Vista Only): Select this style to display the Security Shield icon on the left side of a PUSHBUTTON or PICTUREBUTTON control. Use the Shield icon to indicate that pressing the button will result in a request for security elevation before processing the button’s associated command. This style only affects systems running the Vista version of Windows. Dialog Editor and the *Dialog* function accept the style but do not display the icon on pre-Vista systems.
	On Focus No Selection, Cursor at Beginning: Select this style to place the cursor at the beginning of any text in the EDITBOX control.
	On Focus No Selection, Cursor at End: Select this style to place the cursor at the end of any text in the EDITBOX control.
	No Column Headers: REPORTVIEW control, the header bar is not displayed across the top of the control.
	First Row Column Header Text: REPORTVIEW control, the first row of the source array or file is treated as column header text.
	Display Grid Lines: REPORTVIEW control displays vertical and horizontal lines to form a grid.
	Single Row Selection Only: REPORTVIEW control, only one row can be selected at a time.
	Selection Highlighting Extends to All Columns:

	REPORTVIEW control, selection highlighting extends to all subitems in the selected row.
	Sort Ascending: REPORTVIEW control is populated with rows ordered from lowest to highest first column values. Sorts using an "intuitive" sort (See ArraySort for details). The user can reorder control rows based on any column's values by clicking on the column header.
	Sort Descending: REPORTVIEW control is populated with rows ordered from highest to lowest first column values. Sorts using an "intuitive" sort (See ArraySort for details) The user can reorder control rows based on any column's values by clicking on the column header. Note: if both sort ascending and descending are used, sort ascending takes precedence.
	Allow Primary Item Edits: REPORTVIEW control, the first column text can be edited in place.
	Display Checkboxes: REPORTVIEW control, enables check boxes for each first column item in the control.
	Return Column Headers: REPORTVIEW control, the column header text is added as the first row of the array returned from an item search request, a selected or checked item request, or a request for all items of the control. This style will also cause the control's associated variable to contain the column header text as the first row of the array referenced by the variable.
	<u>Position and Minimum Size Tab</u> The Position Tab is used to control the location of your dialog on the screen.
	X Position: Use this box to specify the location of your dialog's upper left hand corner along the horizontal axis. This value is expressed in dialog units.
	Y Position: Use this box to specify the location of your dialog's upper left hand corner along the vertical axis. This value is expressed in dialog units.
	Use the Current Screen Location: Press this button to set the location of your dialog's upper left hand corner to its current position on the screen. If the current values of X Position and Y Position correspond to the current screen position, pressing the button has no affect.
	Minimum Width and Height: ***Use Sizing Dialog Borders*** Check this box to allow the user to resize the dialog.

	Minimum Width Indicates the approximate minimum width of the dialog window that can be set by the user dragging the dialog's boarders. The values are assumed to be in dialog units. When this variable is defined in a dialog template, the dialog becomes re-sizable by either directly dragging the dialog's boarder or by using the 'Size' system menu. ***Minimum Height*** Indicates the approximate minimum height of the dialog window that can be set by the user dragging the dialog's boarders. The values are assumed to be in dialog units and to not include the height of the title and menu bars. When this variable is defined in a dialog template, the dialog becomes re-sizable by either directly dragging the dialog's boarder or by using the 'Size' system menu.
	Configuration Tab The Configuration Tab allows you to control how the Dialog Editor creates the Dialog statement.
	Use the default return variable name: Select this option and Dialog Editor will use *Pushbutton* as the name of the Dialog statement's return variable.
	Use a unique return variable name: If you select this option, Dialog Editor will prefix the name of the Dialog statement's return variable with the name of the dialog. For example, if your dialog is named *mydialog*, the return variable will be named *mydialogpushbutton*.
	Create a dialog function that WinBatch will process: Select this option and the Dialog Editor will create a Dialog command with the second parameter set to one (1). This tells WinBatch to process the Dialog command by loading the dialog template listed in the commands first parameter.
	Create a dialog function that WinBatch will ignore: Use this option to have the Dialog Editor create a Dialog command with the second parameter set to zero (0). When the second parameter is zero WinBatch will ignore the command by neither loading nor displaying your template and continuing to the next statement in your script.
	Background Tab Use the Background Tab to set your preferences for a control's or dialog's background color or background bitmap.
	Use Default Background: Check this box if you want your control or dialog to display the system default background. The system default background depends on the type of control

	and the system settings. For some controls the default background is transparent so that the underlying dialog background becomes the control's background.
	Background Color: This edit box is used to indicate the background color of a control. Color is expressed as three vertical bar (|) delimited numbers representing red, green and blue. Valid red, green, and blue values range from 0 through 255, with 0 indicating minimum intensity and 255 indicating maximum intensity. Controls that support background color do not support bitmap background. This button launches the color selection dialog. Use the dialog to select one of the preset colors or press the Define Custom Color button to create your own color. When you press the Add to Custom Color button, the Dialog Editor will remember the color the next time you use the color selection dialog. If you select a predefined or custom color with a mouse click, the RBG values will be placed in the Background Color edit box for you.
	Bitmap File: Use this edit box to enter the name and path of a Bitmap file. The bitmap will become the background image for your control or dialog. Colors that support bitmaps do not support solid background colors directly. It is possible, however, to create the same affect by specifying a solid color bitmap for the control. This button launches a file selection dialog. You can use this dialog to navigate your local file system or network to find a bitmap file. When you select a file and press the ok button, the complete bitmap path and file name will appear in the Bitmap File edit box.
	<u>Text Appearance Tab</u> Use this tab to control the font and color of a control’s text.
	Use Default Font and Color: Check this button if you want your control to use the current system font and text color or the dialog font or text color. A control will use the system font and color when the dialog text appearance is defaulted, otherwise, a defaulted control will use the system font and color.
	Font and Color Selector…: Press this button to display the font and text color selector. The selector dialog allows you to view examples of and select available fonts and colors. When you press the selector’s OK button, your selections will be placed in the font and text color edit boxes. Note: When you press the OK button, the selection dialog will replace the DEFAULT setting with a specific font and text color. If you do not wish to have specific values for both font and color,

	simple replace the unwanted value by typing the DEFAULT key word in the appropriate edit box.
	Font: This edit box contains four bar delimited (|) fields that describe the font used to render text in a control. Although it is possible to manually construct a font description, it is recommended that you select your font with the Font and Color Selector dialog and let Dialog Editor create the description for you. If this attribute is set to DEFAULT, the control will use your Dialog's font or the system font for that control when your dialog does have a font.
	Text Color: This edit box is used to indicate the text color of a control. Text color is expressed as three vertical bar (|) delimited numbers representing red, green and blue. Valid red, green, and blue values range from 0 through 255, with 0 indicating minimum intensity and 255 indicating maximum intensity. When this attribute is set to DEFAULT, either the system text color or your dialog's text color will be used.
Show Script/Show Dialog	This menu item toggles between the script view mode and the editor mode of Dialog Editor. The menu item's text is Show Script when the editor is displaying your dialog and Show Dialog when editor is showing the script. Note: you cannot change the script directly while in show script mode; all changes must be made from edit mode.
Menu Editor…	This menu item launches the WIL Dialog Menu Editor tool. The Menu Editor dialog allows you to add a menu bar and menu items to your dialog template. The following explains the meaning and operation of each control in the Menu Editor dialog. ***Menu Type*** The two Menu Type radio buttons allow you to choose between editing the menus associated with the menu bar and the menus associated with your dialogs default context menu. • Menu Bar – edit your dialog's menu bar menu items • Context – edit your dialog's default context menu items Note: The Menu Type group is enabled only for editing your main dialogs menus. Since controls only have a context menu, this group is not enabled. ***Control Type*** This read-only text indicates the control type of the currently selected menu control. It can display either MENUBAR or a MENUITEM. ***Name*** This control is used to display and edit the control name

	attribute associated with the currently selected menu bar or menu item. The name is used to set the hierarchical relationship between menus and submenus. It is also used as the third parameter to your User-Defined Callback procedure on menu selection when you are processing menu events in your callback. ***Text*** This is the caption displayed by a menu item menu when its associated menu is displayed. You can add an access key for the menu item by placing an ampersand (&) immediately before the character in the caption. The access key will cause the menu item's selection while its hosting menu is visible. This attribute can also be used to associate a short-cut key with the menu item. This is done by appending a single backslash (\) to the caption followed by a key sequence. Use the key representations established for the **SendKey** function. The key sequence will automatically be converted to the system's current key representations when it is displayed next to the menu's caption in your dialog. Unlike an access key, a user can select a menu item using a hot-key combination even when the menu item and its menu are not displayed. Note: Short-cut key combination should not be used with menu items that display dropdown menus or submenus. It is not considered good UI design and the menu caption my not display correctly. ***Parent*** The name of the selected menu item's parent or host is displayed here. The Parent name can be the name attribute for a regular control, the menu bar, another menu item, or the DEFAULT key word when the menu item is a top level menu item of your dialog's context menu. The arrow buttons are used to change a menu items Parent attribute. ***Menu Styles*** The check boxes in this group set the menu styles for the currently selected menu item. • Invisible – the menu item is not displayed by its menu. • Disabled – the menu item has the disabled appearance and does not generate a menu event. • Separator – the menu item is displayed as a separator bar. The menu item's text is ignored. • Row Break – the menu item starts a new row on the menu bar or a new column on other menus • Check – the menu item displays a check mark to the left of the item's text

	• Radio – the menu item displays a dot to the left of the item's text Note: if both the Check and Radio style are selected, the Check style will take precedence. ***Left Arrow*** Press this button to decrease the menu level of the currently selected menu. When the menu level is decreased the menu item may because a part of a different menu in the hierarchy. A change to the menu's relative position in the menu hierarchy will cause a change in the menu item's Parent name attribute. ***Right Arrow*** Use this button to increase the menu level of the selected menu item. Increasing the menu level can cause the selected menu item to be the start of a new submenu or dropdown menu. Any change to the menu's relative position in the menu hierarchy will be reflected in the menu item's Parent name attribute. ***Up Arrow*** You can move the selected menu item up in the display order with this button. Depending on the menu items current level and the level of surrounding menu items, moving a menu item up can also cause a change in the menu items menu membership. Any change in menu membership is reflected in the Parent name attribute and the position change is reflected in the Position attribute. ***Down Arrow*** This arrow button moves the selected menu item down in the display order. When a menu item is moved it can cause both a change in the Position attribute and a change in the Parent name attribute. A change to the Parent name attribute also changes the menu that displays the menu item. ***New*** This button creates a new menu item or the menu bar in the menu list. If a menu item is already selected, the new menu item will have the same menu level as the selected item. It will also be positioned just below the selected menu item. If the Menu Bar radio button is selected and the dialog does not already have a menu bar, a menu bar is created the first time this button is pressed. ***Delete*** Press this button to remove the selected menu item from menu item list. If the menu bar is selected the entire menu hierarchy is deleted. Deleted items are not removed from your dialog's template until either the Menu Type radio button selection is

	changed or the OK button is pressed. ***Menu List View*** The Menu List View is a two column list representing the menu bar and its menu items or the menu items of a context menu. The first column shows a menu item's caption and the second column shows the name of a menu item or the menu bar. Selecting an item from the list allows you to edit the attributes for that menu control. The indentation level of the menu item in the Menu List View determines whether the menu item causes a menu command event or causes another menu to be displayed. A menu item that appears flush left in the list is displayed when the context menu is displayed. These menu items can either cause a menu command event or a submenu, depending on the level of subsequent menu items. The menu items indented one level are displayed on the menu bar. These menu items are best used to display dropdown menus. A menu item indented more than the preceding menu item is displayed on a submenu or dropdown menu when the user clicks the preceding menu item.A menu item followed by menu items that are further indented displays a submenu or a dropdown menu. The further indented items become menu items of that submenu or dropdown menu. ***OK*** Choose this button to verify and save changes to your dialog template before exiting the Menu Editor dialog. ***Cancel*** Choose this button to exit the Menu Editor dialog without saving changes.

Insert

Each menu item, with the exception of the Unselect item, represents one of the controls supported by the WIL dialogs. When you select one of the menu items and move the mouse cursor of your dialog, the cursor will change to crosshairs. The cursor indicates where the selected control will be created when you left click or press the Enter key. Click the Unselect menu to cancel your selection and restore normal function and appearance to the cursor. The Control toolbar provides another way to access this same functionality.

Unselect
Calendar
Check Box
Com Control
Drop-down Combo Box

Edit Box
File List Box
Group Box
Item List Box
Multiline Edit box
Picture
Picture Button
Push Button
Radio Button
Report View
Spinner
Static Text
Variable Text

Align

The align menu items allow you to align the sides of two or more controls along one of their sides. You can select controls for alignment by pressing the Control (Ctrl) key and left clicking on each control you wish to align. All selected controls will be aligned to the last control you select, when you perform the alignment. All alignment menu items have corresponding buttons on the Alignment toolbar.

Right	Use this menu item to align selected controls along their right side.
Left	This menu item will align selected control along their left side.
Top	Use this menu item to align selected controls along the top.
Bottom	This menu item will align selected controls along the bottom.

Test

Run Dialog	Use this menu item to run your dialog from within the editor. You can see how the finished dialog looks and test the tab order. You can terminate the dialog when you are finished by clicking a button or by pressing the Return or Escape key. Dialog Editor will not allow you to run your dialog, if you do not have at least one button defined.

Help

Dialog Editor Help	This menu item launches Dialog Editor help's table of contents page in the WinBatch help file.
About Dialog Editor…	You will find version information here, along with a handy link to the WinBatch web site.

User Interface

Here are the techniques for designing your titles and controls.

Dialog Box Caption

Dialog boxes have both an internal and external name. The dialog Caption is the title of the dialog box as it appears in the title bar. The Variable Name is the name of the dialog as seen in the script. This information can be entered or changed at any time. However, we suggest specifying it whenever you start a new dialog box. To display the caption dialog:

Right click on the workspace background, (not on a control), and select the attributes menu item

Or

From the **View** menu (with the dialog highlighted) select the **Attributes...** menu item.

Size the Dialog Box

The dialog that is generated by the WIL Dialog Editor will be the same size as the dialog that you create in the editor's window. To control the size of your dialog box, select the entire dialog by clicking on the title bar. The dialog should now be highlighted. Next, move your mouse cursor to the highlighting at the edge of the dialog. When the mouse cursor changes to an arrow, you can drag and drop the sides of the dialog to the appropriate size.

Setting Control Attributes

The Dialog Editor has a variety of controls which can be selected to create a customizable user interface.

To add a control:

Select the control from the icons on the Control toolbar. Or from the **Insert** menu, select the appropriate control. When you select one of these menu items and move the mouse cursor of your dialog, the cursor will change to crosshairs. The cursor indicates where the selected control will be created when you left click or press the Enter key. Click the Unselect menu to cancel your selection and restore normal function and appearance to the cursor.

Define attributes for a control:

Right-click on the control. Select **Attributes...** and fill in the information in resulting dialog box about the control. The control may need a **Variable** name, a **Value** or **Text**. Not all information will be needed for each control. When you've finished, select the **OK** button.

After a control has been created in your dialog box you can move it, size it, or delete it. To **MOVE** the control, click on it and drag it to a new position with the left mouse button. To **SIZE** a control, click on the edge and drag with the left mouse button. To **DELETE** a control, position the mouse over the control and press the delete key.

Note: Some of the Controls require extra knowledge or special handling.

You can have a maximum of 300 controls in a dialog.

Controls and Their Attributes

	Variable/ License String / Parent Name [*]	**Text/ pre-sel/ moniker [**]**	**Value**	**Style**	**Tab Ord / Pos [***]**	**Font**	**Text color**	**Background [****]**
Push Button		T	✓	✓	TO	✓	✓	C
Picture		T		✓	TO			B
Radio Button	V	T	✓	✓	TO	✓	✓	C
Check Box	V	T	✓	✓	TO	✓	✓	C
Picture Button		T	✓	✓	TO			B
Edit Box	V	T		✓	TO	✓	✓	C
Multiline Edit Box	V	T		✓	TO	✓	✓	C
Group Box		T		✓	TO	✓	✓	C
Item List Box	V	P		✓	TO	✓	✓	C
File List Box	V	P		✓	TO	✓	✓	C
Spinner	V	T		✓	TO	✓	✓	C
Static Text		T		✓	TO	✓	✓	C
Variable Text	V	T		✓	TO	✓	✓	C
Calendar	V	P		✓	TO	✓		
Drop-down Combo Box	V	P		✓	TO	✓	✓	C
Com Control	L	M			TO	✓	✓	C
MenuItem	PN	T		✓	RP			
MenuBar								
Report View	V	P		✓	TO	✓	✓	C

[*] V = variable, L = license string, PN = parent name
[**] T = control text, P = pre-selected value, M = progid/classid/moniker
[***] TO = tab order, RP = relative position
[****] B = bitmap, C= color spec.

Setting Variables

Any information which is needed by the Dialog Box Controls should be set up in the script prior to the dialog code. By setting the variables, you can pass lists, files, and set which options are chosen by default.

Control Attribute Specifics

For more details about the specific control attributes, see the **Dialog** command in the Windows Interface Language reference manual. Some of the Controls require extra knowledge or special handling, as in the following:

Calendar

The Calendar control has a calendar-like user interface. This provides the user with a very intuitive and recognizable method of entering or selecting a date. A user can select a day from the current month and year by simply clicking on a day number. A user can scroll the months of the year by clicking the arrow buttons in the top left or top right of the control.

To select a non-adjacent month, the user can click the name of a displayed month and a pop-up menu appears that lists all months within the year. The user can select a month on the list. If the user clicks the year displayed next to a month name, a Spinner control appears in place of the year. The user can change the year with this control.

Note: You can change the control's font by providing a font string in the *Font* attribute. However, you cannot change the text or background color of this control.

The Calendar control will return the user's selection in the variable you supply as the *Variable* attribute in the control's definition. The date will be returned in the standard WIL YYYY:MM:DD:HH:MM:SS date time format.

Check Box

A Check Box is a square box, in which a check mark appears when selected. The Check Box offers a way to present a variety of options. Each Check Box has its own specific information. *Variable*, *Value* and *Text* are all different, allowing the user to select more than one. Any number may be marked or left unmarked.

A Check Box can have a value of 0 (unchecked) or 1 (checked). Each Check Box in a dialog should use a unique *Variable*. The Check Box control will return the user's selection in the variable you supply as the *Variable* attribute in the control's definition. The value 1 indicates the control was checked, and 0 indicates the control was not checked.

Normally when a dialog box opens, every Check Box defaults to being unchecked. However, the Check Box can be checked by default, by assigning a value of 1 to the variable before calling the Dialog function.

COM Control

The COM Control is used to host an ActiveX, OLE, VB, or COM component control. You indicate the specific control by placing a programmatic identifier (progid), class identifier (classid) or moniker in the text attribute of the COM Control definition string.

If the control requires a license, place the license string in the *Variable* attribute. If all computers that execute your script have a machine license then you can set the *Variable* attribute to an empty string (""). The DEFAULT keyword should be used as a placeholder in the *Variable* attribute position when the control does not require a license.

You can include text font, text color and background color information in the appropriate attribute fields of the control definition string. However, many COM based controls ignore this information. As an alternative, many controls provide properties and methods to change the appearance and behavior of the control. To use these properties and methods you can use the **DialogObject** function to obtain a reference to the control in the initialization (0) call of a User-Defined Dialog Callback Procedure. Once you have the control reference, you can directly access the properties and methods of the control using standard COM dot notation.

Many COM Controls support COM events. Events are notifications passed back to the control's container when a use action occurs or a control's state changes. COM events often provide detailed information about the event and some even allow you to pass information back to control. You can receive COM events and related information in your dialog's Callback Procedure by using the **DialogObject** function to indicate which control events should cause your Dialog Callback Procedure to be invoked by the control. You can find more information about event handling, including an example, under the **DialogObject** help topic in the Windows Interface Language manual or help file.

Drop-down Combo Box

The Drop-down Combo Box control is made up of two parts: an Edit Box and a drop-down Item Select List Box. A user can enter a value in the Edit Box or select a suggested value from the list of drop-down menu items. The Drop-down Combo Box is displayed by clicking on the arrow next to the Edit Box.

To size the Edit Box: Drag the left or right edge of the control to the necessary width.

To size the Drop-down box: Click on the arrow next to the Edit Box. You will notice the highlighting changes on the control. You can now drag the top or bottom edge of the control to the necessary height.

Generally, a Drop-down Combo Box is appropriate when there is a list of suggested choices, and an Item Select List Box is appropriate when you want to limit input to what is on the list. In addition, a Drop-down Combo Box saves space on your dialog because the full list is not displayed until the user clicks the down arrow. You specify the items for the Drop-down Combo Box list by placing a delimited list of values in the variable named in the control's *Variable* attribute. You can give the Edit Box portion of the control an initial value by placing a string in the *Text* attribute of the control’s definition.

Drop-down Combo Box returns the user’s choice in the variable named in the *Variable* attribute.

Edit Box

A box in which text can be typed. Normally, when a dialog box opens, Edit Boxes are empty. You can specify a default string to display by assigning a value to the *Variable* before calling the **Dialog** function.

Whatever the user types in the Edit Box is placed in the variable named in the *Variable* attribute

Note: Variable names that begin with "PW_", will be treated as password fields causing asterisks to be echoed for the actual characters that the user types.

File List Box

A File List Box is a file selection list box that allows the user to select a file from any directory or drive on the system.

In combination with the File List Box, you can include an Edit Box control, which has the same variable named in the controls *Variable* attribute, as the file list box. If you do, the user can type a file mask into the edit box (e.g., "*.TXT"), which will cause the File List Box to be redrawn to display only those files which match the specified file mask.

Also in combination with the File List Box, you can include a Variable Text control which has the same variable named in the controls Variable attribute, as the file list box. If you do, this control will show the name of the directory currently displayed in the file list box.

For File List Boxes, *Text* should be DEFAULT. Normally, when a dialog box opens, file list boxes display files matching a file mask of "*.*" (i.e., all files). You can change this by assigning a different file mask value to the variable before calling the **Dialog** function. Set your variable to display a directory path and file mask, i.e. wbtfiles="C:\WINBATCH\*.WBT". Upon returning the value of the variable will be set to the selected filename; if you need to know what directory the file is in, use the **DirGet** function after the **Dialog** exits.

For multiple selections or to display pre-defined lists, use the Dialog Editor's Item List Box or Drop-Down Combo Box option.

Note: When File List Box is used, the dialog editor assumes that a file must be chosen before it proceeds. Add the following WIL command to the top of your script if you wish to allow the dialog to proceed without a file selection.

IntControl(4,0,0,0,0)

When no file is selected, the return value of the filename variable is: "NOFILESELECTED". For more information on **IntControl**, see the Windows Interface Language manual or on-line WIL help file. **Note:** You can have only one File List Box in a dialog.

Group Box

The Group Box control is a rectangle that surrounds a set of controls, such as Check Boxes or Radio Buttons, with text in its upper left corner. The sole purpose of a Group Box control is to organize controls related by a common purpose (usually indicated by the text).

Along with text, you can specify *Font*, *Text color* and a *Background color* for the control. The *Background color* applies to the area immediately behind the text in the upper left corner. It does not change the background in the majority of the control.

Tabs in Group Box control: The Group Box control owns all the controls inside of it and it tends to use the tab order of the Group Box. Its best to first set the tab order on each Group Box and the controls that do not live in a Group Box. Then set the tab order within each Group Box.

Item List Box

An Item List Box is a selection list box. The Item List Box allows the user to choose an item from a list box. This option is similar to the WIL function **AskItemList**. The variable, defined in the controls *Variabl*e attribute, is assumed to contain a tab delimited list. The user may choose none, one, or more items in the list. When the dialog box is closed, the selected items are returned via the variable, defined in the controls *Variable* attribute, as a tab delimited list. If the user selects more than 99 items, an error will occur.

Note: The list is loaded into the list box in the original order (Use the WIL **ItemSort** function if a sorted list is desired.). By default, the Item List Box allows multiple selections. To disable this feature use **IntControl 33**.

```
IntControl(33, 0, 0, 0, 0)
```

For more information on **IntControl**, see the Windows Interface Language manual or WIL help file.

Multiline Edit Box

A Multiline Edit Box is an edit box type of control which allows a user to enter multiple lines of text.

To resize the Multiline Edit Box, simply click on the edge and drag with the left mouse button. You can specify a default string to display, by assigning a value to the *Variable*, named in the *Variabl*e attribute, before calling the **Dialog** function. Whatever the user types in the Multiline EditBox is placed in the variable named in the *Variable* attribute

Picture

The Picture control is a simple control you use to display a bitmap. You indicate the bitmap to display by placing the bitmap file name and, optionally, the file path in the *Background Bitmap Attribute* of the control.

If you supply a file path, WinBatch will check the supplied path for the bitmap file, before checking other locations. If it does not find the file or if you do not supply a path, WinBatch will search the current directory, the windows directory and the WinBatch directory for the bitmap file.

Although the control does not normally display text, you can still place text in the *Text* attribute. WinBatch will display the text when it cannot find the bitmap indicated in the *Background* attribute while loading the dialog template.

Your bitmap does not need to be the same size as the Picture control. The appropriate stretch or compress is applied to the bitmap, so that the entire image is displayed. However, if the aspect ratio of your control is significantly different from the bitmap's aspect ratio, your image may appear distorted.

To resize the Picture control, simply click on the edge and drag with the left mouse button.

Picture Button

The Picture Button control is a push button that displays a bitmap on its face instead of text and a background color. You indicate the bitmap to display by placing the bitmap file name and, optionally, the file path in the *Background Bitmap* Attribute of the control.

If you supply a file path, WinBatch will check the current working directory first for your bitmap file. The current working directory is always searched before the file path is used to find a bitmap.

Although the control does not normally display text, you can place a text string in *Text* attribute. WinBatch will display the text when it cannot find the bitmap indicated in the *Background* attribute while loading the dialog template. Also, if you include an ampersand in the text, your users will be able to use an accelerator key to navigate to the button just like they can with regular push buttons.

Your bitmap does not need to be the same size as the Picture Button control. The appropriate stretch or compress is applied to the bitmap, so that the entire image is displayed. However, if the aspect ratio of your control is significantly different from the bitmap's aspect ratio, your image may appear distorted.

To resize the Picture Button control, simply click on the edge and drag with the left mouse button.

Push Button

A button, which can be labeled and used as desired. When creating Push Buttons, each button must have a separate value.

We recommend assigning the value of 1 to your "OK" button equivalent and the value of 0 to your "Cancel" button equivalent.

When the user presses a pushbutton, the **Dialog** function will exit and will return the *Value* assigned to the button which was pressed. Therefore, you should assign a unique *Value* to each Push Button in a dialog.

A Push Button with the *Value* of 0 has special meaning. If the user presses a Push Button which has a *Value* of 0, the WIL program will be terminated (or will go to the label marked ":CANCEL", if one is defined); this corresponds to the behavior of the familiar Cancel button. For more information on "Cancel", see the Windows Interface Language manual or WIL help file.

The default Push Button that is selected if the user presses the Enter key is the Push Button with the focus or, if no button has the focus, the default button specified with the style bit of that control.

An ampersand in the button text, acts as an accelerator key for button navigation.

For pushbuttons, the *Variable* attribute should be DEFAULT.

The Dialog Editor adds a line to the end of your script which helps to test return values.

```
Buttonpushed=Dialog("MyDialog",1)
```

To test the return value, do the following:

```
If Buttonpushed == 1 then goto label
```

Note: Every dialog box must contain at least one pushbutton.

Radio Button

Radio Buttons are used to select one item over another. The *Variable* assigned to the Radio Button should be the same for each of the choices but the *Values* should be different. For example, the script in a **Dialog** may look like:

```
MyDialog03=`33,9,84,14,RADIOBUTTON,"RadioButton_Blues",music,"Blues",1,DE
FAULT,[…]`
MyDialog04=`33,31,84,14,RADIOBUTTON,"RadioButton_Jazz",music,"Jazz",2,DEF
AULT,[…]`
```

The *Variable* "music" is the same on both lines but the *Text* and the *Value* attributes are different.

Note: Radio Button cannot have a value of 0.

To test the return value, the variable can be placed in an **If** structure.

```
If music == 1
   Message("Music", "Let's play the blues.")
Else
   Message("Music", "Let's play the Jazz.")
Endif
```

Don't limit yourself to using **If/Endif** statements. The **Switch** structure provides a more efficient way to test multiple values. For more information on **Switch**, see the Windows Interface Language manual or WIL help file.

Report View

The Report View control is a ListView common control with the 'report' Windows style. It can be used as either a simple grid control, when a full featured grid control is not needed, or as an advanced version of the WIL dialog ITEMBOX control.

The *Variable*, defined in the controls *Variable* attribute, is assumed to contain an array of values to display in the control. When the *Variable* is used to populate the control, the control will have a column for each column in the array. The array can optionally contain text for each column heading in the first row of the array. See the *Style* attribute for details. Note that the array variable contents will only be used to populate the control when the *Text* attribute is set to 'DEFAULT'. Upon return of the Dialog this *Variable* will contain an array of user selected rows from the control.

The *Text* attribute can either be set to 'DEFAULT' or set to the path and file name of a CSV file used to populate the control. The file must meet the same CSV file requirements specified for the **ArrayFileGetCsv** function and the value separator must be a comma (,). The first line of the file can optionally contain column headings. See the *Style* attribute in the WinBatch Help file for details.

Spinner

The Spinner control has a pair of arrow buttons which the user can click to increment or decrement a value displayed in a small edit box connected to the arrow buttons. Use the control's *Variable* attribute to set the range of values that the control will display. The *Variable* should contain a vertical bar (|) delimited list with two or three items. Make the first item the minimum value and the second the maximum value. The minimum value can be greater than the maximum value but both values must be in the range of –32768 to 32767 and the difference between the values cannot exceed 32767. The third value indicates the amount to add or subtract from the displayed number each time the user clicks an up or down arrow (or presses the arrow keys when the control has the input focus.) The control adds or subtracts one (1) each time, if you do not supply the third value.

```
var = "{minimum} | {maximum} | {increment}"
```

The final *Value* selected by the user is placed in the *Variable* when the **Dialog** function returns. You can indicate the initial value for your control by placing a number in the *Pre-Selected Item* attribute of the control definition. The control will default to the minimum value if you do not indicate an initial value or if your initial value does not fall within the range you have selected in the *Variable* attribute.

Static Text

Use the Static Text control to display labels, descriptions, explanations, or instructions. The Control Attribute box will let you type an endless amount of information into the text box. However, its display capability is limited by the defined coordinates (bounding rectangle). If you want to display a lot of text, you should simply create several Static Text fields. Be careful using variable substitution, because you could receive the error: 3101: Substituted line too long (>2048 Characters)

Variable Text

Variable Text is used to display text data which may change, like a date or a password.

Menu Bar

A Menu Bar is a horizontal bar that appears at the top of your dialog just below the title bar. A Menu Bar contains menu items. Generally, menu items displayed in the menu bar cause dropdown menus to be displayed when selected by the user.

Menu Item

Menu Items can be displayed on a menu bar or as a menu item associated with a drop-down, context menu or submenu. Dropdown menus are created by placing the name of a Menu Item displayed in the menu bar in the parent attribute of the menu item's template entry. A submenu is started by placing the name of a Menu Item other than a menu bar displayed menu item in the parent attribute.

Context menus are usually activated by right-clicking the client area of a control or dialog. Create context menus by specifying the name of a control in the parent attribute. If you use the DEFAULT keyword as the Menu Item parent, the context menu will be associated with the dialog and display when the user right-clicks on an 'empty' area of the dialog or on any control that does not already have a system or template supplied context menu.

Saving Dialog Scripts

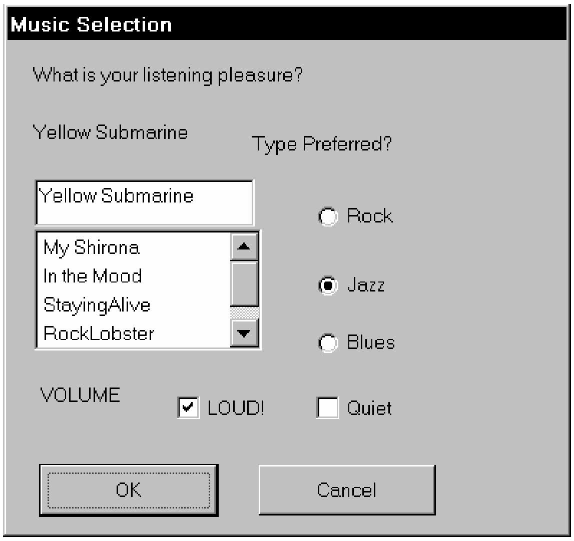
Once you are happy with your work, choose "**Save**" or "**SaveAs**" from the File menu to save your work to a file. Choose "**Save to Clipboard**" to put the work into the clipboard so that it can be easily pasted into one of your WIL scripts.

View the Script

To view the script code that gets generated by the WIL Dialog Editor, select the View | **Show Script** menu item.

Analyze the Script

The Dialog Editor follows a specific format when creating your script. For example, here is a dialog box we created.



The first line of a script sets the format and specifies the version of the Dialog Editor being used. As you can see in the example code below, the dialog variable name, in this case "Ex" precedes all of the keywords.

```
ExFormat=`WWWDLGED,6.2`
```

The next section establishes the caption which will appear in the title bar of the dialog box along with the coordinates, procedure information, font, background and number of controls in the dialog box.

```
ExCaption=`Dialog Editor Example`
ExX=002
ExY=050
ExWidth=158
ExHeight=139
ExNumControls=013
ExProcedure=`DEFAULT`
ExFont=`DEFAULT`
ExTextColor=`DEFAULT`
ExBackground=`DEFAULT,DEFAULT`
ExConfig=0
```

The third section contains the code for the actual controls. Each line has specific information. There will be one line for every control in the dialog box.

```
Ex001=`009,119,048,014,PUSHBUTTON,"PushButton_OK",DEFAULT,"OK",1,1,DEFAUL
T,DEFAULT,DEFAULT,DEFAULT`
```

The table below shows what the first line (Ex001...) means.

Code	**Definition**
Ex	Dialog Variable Name
001	Control Number
009,119,048,014	Coordinates of the control
PUSHBUTTON	Control type
PUSHBUTTON_OK	Control name
DEFAULT	Variable name
OK	Text
1	Value
1	Tab-order
DEFAULT	Style
DEFAULT	Font
DEFAULT	Text color
DEFAULT	Background

Each Dialog script will end with the following line, making it easy to test the push-button return values.

```
ButtonPushed = Dialog("Ex",1)
```

The variable "ButtonPushed" will be equal to the value of whichever button was pushed by the user. So in the example below, if ButtonPushed == 1, then the user pushed the OK button. If ButtonPushed == 0, then the user pushed the Cancel button.

Put all the parts together and the completed script looks like the following.

```
;preset variables
;the list for the item box.
tunes = StrCat("My Shirona",@tab,"In the Mood", @tab, "StayingAlive",
@tab, "RockLobster", @tab, "Tequila")

song = "Yellow Submarine" ; the contents of the varytext.
music = 2 ; sets this radiobutton as default
volume = 1 ; pre-selects checkbox.

ExFormat=`WWWDLGED,6.2`

ExCaption=`Music Selection`
ExX=002
ExY=050
ExWidth=158
ExHeight=139
ExNumControls=013
```

```
ExProcedure=`DEFAULT`
ExFont=`DEFAULT`
ExTextColor=`DEFAULT`
ExBackground=`DEFAULT,DEFAULT`
ExConfig=0

Ex001=`009,119,048,014,PUSHBUTTON,"PushButton_OK",DEFAULT,"OK",1,1,DEFAUL
T,DEFAULT,DEFAULT,DEFAULT`
Ex002=`071,119,048,014,PUSHBUTTON,"PushButton_Cancel",DEFAULT,"Cancel",0,
DEFAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex003=`087,077,034,016,RADIOBUTTON,"RadioButton_Blues",music,"Blues",1,DE
FAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex004=`087,061,034,016,RADIOBUTTON,"RadioButton_Jazz",music,"Jazz",2,DEFA
ULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex005=`087,041,034,014,RADIOBUTTON,"RadioButton_Rock",music,"Rock",3,DEFA
ULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex006=`047,095,034,014,CHECKBOX,"CheckBox_LOUD!",volume,"LOUD!",1,DEFAULT
,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex007=`087,095,034,014,CHECKBOX,"CheckBox_Quiet",volume2,"Quiet",2,DEFAUL
T,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex008=`009,095,034,014,STATICTEXT,"StaticText_VOLUME",DEFAULT,"VOLUME",DE
FAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex009=`007,007,110,014,STATICTEXT,"StaticText_2",DEFAULT,"What is your
listening pleasure?",DEFAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex010=`007,053,064,040,ITEMBOX,"ItemBox_1",tunes,DEFAULT,DEFAULT,DEFAULT,
DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex011=`069,025,056,014,STATICTEXT,"StaticText_3",DEFAULT,"Type
Preferred?",DEFAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex012=`007,023,056,014,VARYTEXT,"VaryText_1",song,"Choose a
title",DEFAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT,DEFAULT`
Ex013=`007,039,062,014,EDITBOX,"EditBox_1",song,DEFAULT,DEFAULT,DEFAULT,D
EFAULT,DEFAULT,DEFAULT,DEFAULT`

ButtonPushed=Dialog("Ex")
```

Note: The songs that appear in the ItemSelect Listbox are listed earlier in the script on one continuous line as the variable, *tunes*. i.e.

```
tunes = StrCat("My Shirona", @tab, "In the Mood", @tab, "StayingAlive",
@tab, "RockLobster", @tab, "Tequila")
```

Variables can be defined above the dialog script or in another WBT file above the statement which calls the dialog file.

NT 4.0 limitations:

The dialog size may not be properly adjusted to account for multi row menu bar when a menu bar displays enough menu items to cause the menu bar to automatically wrap to a new row.

Context menus may not work when associated with a DROPLISTBOX controls.

Window Information Utility

The Window Information utility can grab window position settings from windows displayed on your monitor. This utility can be launched from the WinBatch Navigator (WinBatch.exe). Under the heading "Utilities" select the "Window Information" button.

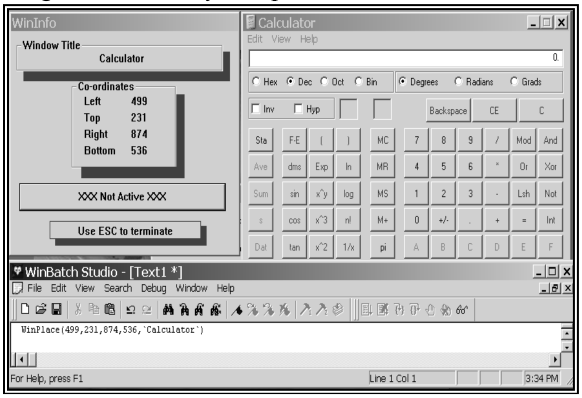
Using the Window Information Utility

The Window Information utility is a handy window name and position grabber

The **Window Information utility** lets you take an open window that is sized and positioned the way you like it, and automatically create the proper **WinPlace** statement for you. (**WinPlace** is a WIL function, useful for repositioning or resizing windows.) It puts the text into the Clipboard, from which you can paste it into your WIL program.

The **Window Information utility** captures coordinates in a 1000 by 1000 format that is relative to the current screen size. Since WinBatch considers every screen to have a 1000 by 1000 size, your sizing will always take up the same percentage of the user's screen. One eighth of a screen at 1024 by 768 screen resolution is actually much larger than the same eighth is at 640 by 480 pixels resolution.

Design your dialog boxes to be about 250 by 250 in size or larger. Then they will be prominent at all resolutions.



WinInfo

Window Title: Calculator

Co-ordinates

Left 499
Top 231
Right 874
Bottom 536

XXX Not Active XXX

Use ESC to terminate

WinBatch Studio - [Text1 *]

```
WinPlace(499,231,874,536,`Calculator`)
```

For Help, press F1 | Line 1 Col 1 | 3:34 PM

The **Window Information utility** captures relative screen coordinates. You'll need a mouse to use the **Window Information utility**. While the **Window Information utility** is the active window, place the mouse cursor over the window you wish to create the **WinPlace** statement for, and press the spacebar. The new statement will be copied into the Clipboard. Then press the **Esc** key to close the dialog.

FileMenu

Menu Utility for the Windows Explorer

Description

FileMenu is a menu-based WIL (Windows Interface Language) application.

FileMenu is a menu utility Dll for the Windows Explorer. FileMenu allows you to add custom menu items to the context menus (that appear when you right-click on a file in the Windows Explorer). Two types of menus are supported:

- A global menu, which is added to the context menu of every file.
- A file-specific "local" menu, whose entries depend on the type of file that is clicked on.

FileMenu.exe

FileMenu requires a version of Windows supporting the 32-bit subsystem.

On 64-bit platforms you can run the provided "filemenu.exe" to simply run Windows Explorer.

Installation

FileMenu.dll is installed during the normal setup of WinBatch. "Filemenu.exe" is installed to the Start Menu.

Operation

FileMenu can add menu items to the following types of context menus:

- The context menus that appear when you right-click on a file (but not a folder) in the Windows Explorer.
- The context menus that appear when you right-click on a file (but not a folder) in a browse window (for example, if you select **Start** **Run** from the Taskbar, and then press **Browse**).
- The Explorer **File** pull-down menu, when a file (but not a folder) is highlighted in the Explorer window.
- Files (or Shortcuts to files) on the Windows desktop.

Menu Files

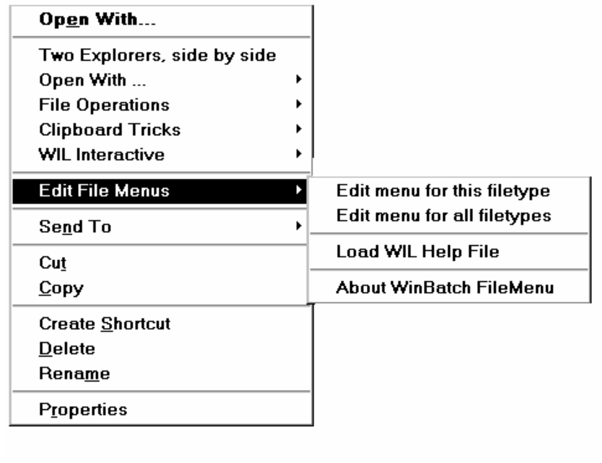
FileMenu can add two menu files onto a file's context menu: the "all filetypes" menu, which is added to the context menu of every file, and a file-specific menu, whose entries depend on the type of file selected.

A menu file can be created or edited by selecting 'Edit File Menus' from FileMenu**.** This option opens the WinBatch Studio and loads either a file-specific menu or the "all filetypes" menu. Modifications to menu files are made once the file is saved.

Menu files are discussed in the Windows Interface Language manual under the topic Menu Files.

Using the "all filetypes" File Menu

The "all filetypes" menu adds additional menu choices to the context menu which appears when you right click on ANY file in an Explorer window, or any file on the desktop. The following is a sample context menu. The menu options displayed are samples of the file operations which can be performed.



With FileMenu, the sample "all filetypes" menu starts with **Two Explorers, side by side** and continues down to **Edit File Menus**. When a pop out option is highlighted, an additional explanation of what the option does will be displayed on the status bar of the Windows Explorer.

The "all filetypes" menu can be modified with the context menu option **Edit File Menus | Edit menu for all filetypes**. This option opens WinBatch Studio with the "all filetypes" menu loaded. Changes are effective when the file is saved.

Note: The contents of the "all filetypes" menu file may vary from release to release as we continue to improve the sample menus.

Creating/Modifying File-Specific Menus

A file-specific menu allows you to create custom menus for any file type. These menus are shown only when a file of that file type is right-clicked on in the Windows Explorer.

File-specific menu files can be created or modified using the context menu item **Edit File Menus / Edit menu for this filetype.** When this option is selected, FileMenu looks for an existing file type menu in the file: FileMenu.ini. If the type menu is found, it is opened in WinBatch Studio. If no file is found, FileMenu creates a new menu file for that file type. FileMenu.ini is automatically updated and the new menu file is opened in Windows Notepad. The new file-specific menu will have a sample menu to help you get started.

FileMenu.ini

The menu file names used by FileMenu are defined in the file FileMenu.ini, which is located in your WINBATCH\SYSTEM directory. A sample FileMenu.ini is provided. The menu files can be located anywhere on your path. Or, you can specify a full path in FileMenu.ini.

By default, the "all filetypes" menu is named "FileMenu for all filetypes". This default can be changed by editing the "CommonMenu=" line in the [FileMenu] section to point to a different menu file. If you do not wish to use the "all filetypes" menu file, specify a blank value to the right of the equals sign; i.e., "CommonMenu=   ".

To use a file-specific menu, add a line of the form "ext=menuname" to the [Menus] section, where "ext" is the extension of the file type, and "menuname" is the name of the menu file you wish to associate with that file type. For example, if you wish to add the contents of the menu file TXT.MNW to the context menus of .TXT files, add the line "txt=txt.mnw". To specify a menu file to associate with files that do not have an extension, use an extension of ".". For example, ".=menufile".

Note: Extensions can be longer than three characters.

There is a limit on the number of menu items that can be added to a context menu. This limit seems to be 163 menu items, but it may vary from system to system and in different releases of Windows. FileMenu shares these resources with other menu extender programs you may have on a first-come, first-served basis. If the maximum available menu items is 163, and you have other menu extender programs installed that use 10 menu items, your FileMenu menus (global + local) could contain no more than 153 menu items. Of course, FileMenu only loads one local menu at a time. If your global menu contained 100 items, each of your local menus could contain up to 53 items.

If you exceed the limit of available menu items, a menu extender program will not be able to add additional items. If FileMenu is unable to load one of its menus completely, it will display an error message.

Please refer to the Windows Interface Language Reference Manual, Menu Files section, for information on menu file structure.

Functions

In addition to the standard WIL functions, FileMenu supports the following functions (which are documented in the WIL Reference Manual):

CurrentFile **CurrentPath** **CurrFilePath**

The following functions are NOT supported:

IsMenuChecked	**MenuChange**
IsMenuEnabled	**Reload**

Usage Tips, Known Problems and Limitations, etc.

FileMenu processes the "Autoexec" (initialization) section of a menu file every time an item from that file is executed.

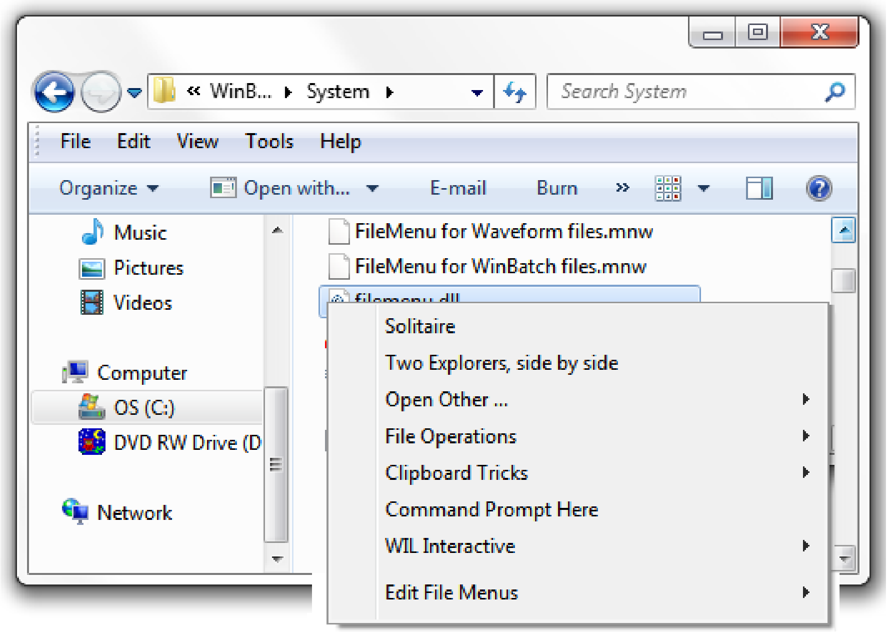
Hotkeys are not supported.

Menu extensions can be loaded and unloaded rather frequently by the operating system, so there is little benefit in using the "Drop" function.

The menu item below is a main menu for running the program Solitaire.

```
&Solitaire               ; A fun game
    Run("solitaire.exe", "")
```

The following dialog shows how the menu appears in the Explorer.



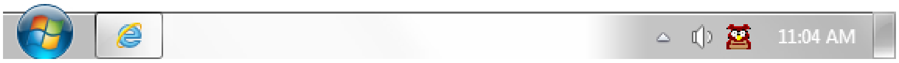
PopMenu

Pop-up menu for the Windows Taskbar

Description

PopMenu is a WinBatch desktop interface for Windows batch files written in WIL. PopMenu batch files are used to automate PC operations and application specific procedures from a system tray icon. (FileMenu, the other WinBatch menu utility, is used in manipulating files in the Windows Explorer.)

PopMenu appears as an icon in the system tray area of the Windows Taskbar. The Taskbar extends along one edge of the Windows desktop and includes the "START" Button. A click on the PopMenu (owl) icon brings up a menu of WIL batch files. Samples are included, but you can completely modify these to meet your needs.



(PopMenu is a menu-based WIL (Windows Interface Language) application.)

Installation

To install PopMenu:

PopMenu can be installed during the initial install of WinBatch. Make sure the checkbox option is checked on the setup screen.

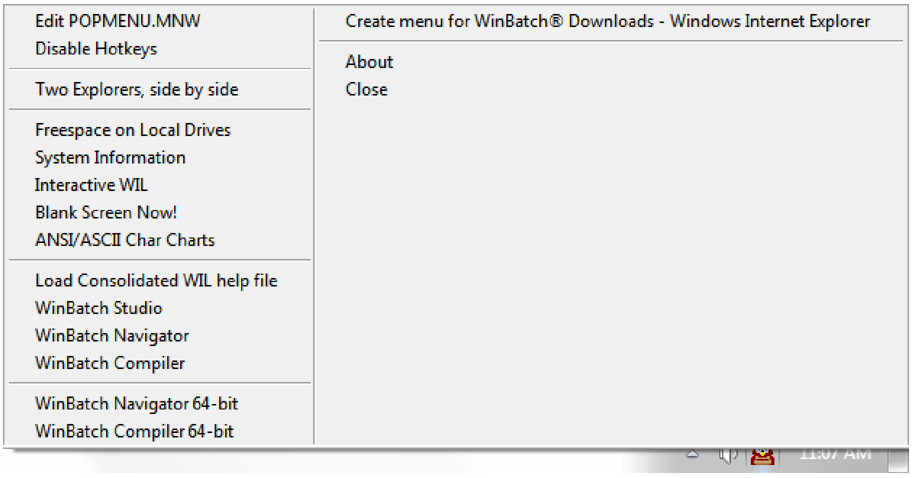
Operation

PopMenu is launched at start-up by default. If the PopMenu icon is not displayed in the System tray on the Taskbar, you can start PopMenu by running PopMenu.exe.

Activate PopMenu by clicking on its icon (you may have to click twice).

De-activate PopMenu by clicking anywhere outside of the menu.

Close PopMenu by selecting "Close" from its menu. Selecting "Close" will actually exit PopMenu.



Menu Files

PopMenu allows you to specify two menu files:

- a global menu file, and

- a window-specific local menu file.

The default global menu file is named PopMenu.mnw. You can change this by editing the INI file (see "INI Settings" below).

The name of the window-specific local menu file is based on the class name (a specific Windows program identifier) of the most-recently-active parent window, with an extension of .MNW added. So, for example, the local menu file for Explorer (whose class name is "Progman") would be "Progman.MNW". PopMenu will add a menu item at the top of each menu, allowing you to create or edit the appropriate menu file for that window, so in general you do not need to know the actual class names.

Each menu file can contain a maximum of 1000 menu items.

PopMenu searches for menu files using the following sequence:

1. If the menu name contains a path, use it as-is and don't search.
2. Menu directory ("MenuDir=" INI setting), it uses this directory if set in PopMenu.ini.
3. Home directory ("HOMEPATH" environment variable), if set in Windows.
4. Windows directory.
5. PopMenu directory.
6. Other directories on your path.

By default, new menu files created by PopMenu will be placed in your WinBatch\System directory (the directory where PopMenu.exe is located)

Please refer to the Windows Interface Language Reference Manual, Menu Files section, for information on menu file structure and how to create the appropriate menu files.

INI Settings

The following settings can be added to the [PopMenu] section of PopMenu.ini:

MenuDir=d:\path

where "d:\path" is the directory where you want PopMenu to place
menu files that it creates. This will also be the first place PopMenu looks for menus. The default is the PopMenu directory, unless you are running PopMenu from a network drive (see "Menu Files", above, for further information).

Editor=editor

where "editor" is the editor you wish to use to edit your menu files.
The default is "NOTEPAD.EXE".

GlobalMenu=menufile.mnw

where "MENUFILE.MNW" is the name of the global menu file you wish to use. The default is " PopMenu.mnw".

SkipGlobalMenu=1

Causes PopMenu not to load the global menu file. By default, the global menu file will be loaded.

SkipLocalMenu=1

Causes PopMenu not to load the window-specific local menu file. By default, the local menu file will be loaded.

SkipGlobalEdit=1

Causes PopMenu not to add a "Create/Edit menu" item at the top of the global menu. By default, the menu item will be added.

SkipLocalEdit=1

Causes PopMenu not to add a "Create/Edit menu" item at the top of the local menu. By default, the menu item will be added.

Functions

In addition to the standard WIL functions, PopMenu supports the following functions (which are documented in the WinBatch User's Guide):

BoxOpen
BoxShut
BoxText
BoxTitle

The following optional WIL menu functions are NOT supported by PopMenu:

CurrentFile
CurrentPath
CurrFilePath
IsMenuChecked
IsMenuEnabled
MenuChange
Reload

Usage Tips, Known Problems and Limitations, etc.

You can only run one PopMenu menu item at a time (if you click on the PopMenu icon while a menu item is currently executing, it will beep).

Sometimes you may have to click on the PopMenu icon twice for the menu to pop up.

PopMenu reloads the menu files every time PopMenu bring up its menu. You can dynamically change the current global menu file while PopMenu is running by updating the "GlobalMenu=" setting in the [PopMenu] section of PopMenu.ini (you can even do this from within a menu script using the IniWritePvt function).

PopMenu processes the "Autoexec" (initialization) section of a menu file every time an item from that file is executed.

Status bar comments are not supported.

WinMacro

Note: WinMacro is not currently supported or installed on Windows Vista or newer. We recommend using RoboScripter instead.

WinMacro is included as part of the PopMenu utility.

To start up WinMacro, click on the PopMenu icon and select WinMacro menu command. WinMacro should appear on your screen.

WinMacro can help you cut down on repetitious and time-wasting tasks, by recording your keystrokes and/or mouse movements.

The built-in script generation, allows the user to get a running start at writing a WinBatch script. With a simple command or keyboard stroke, your macro can whiz through tedious tasks like these, giving you more time and less heartache.

See the **WinMacro** help file for more details.

Browser

Browser is a file viewing utility. It is designed to view files in either a text-only format or as a hexadecimal file listing. The text may be displayed in various character sets such as ANSI (normal windows), ASCII (old-style DOS), or EBCDIC (IBM mainframe). Searching for various strings, copying lines of data to the clipboard and printing is also supported.

This utility is useful in identifying exactly what kind of file you are looking at, or to determine the exact binary contents of any file. Except for normal ANSI, ASCII, or EBCDIC text files, it will not display files in their normal application-specific format, but it does usually display enough information to get the general idea of what is in the file.

RoboScripter

RoboScripter is a Control Manager Extender companion program designed to automatically generate code, which interfaces with standard Windows controls.

It allows near-complete access to all standard Windows controls displayed on the screen, and especially within Dialog Boxes presented by various applications.

Control types include:

- Check Boxes can be interrogated, checked, or unchecked.
- Radio Buttons can be interrogated or set.
- Edit Boxes can be interrogated or set.
- Tabbed Dialogs where a particular tab can be selected.
- Contents of List and Combo Boxes can be interrogated and specific items within the List or Combo Box can be selected.

How do I use it?

The basic technique is to run RoboScripter from the Windows 'Start Menu'.

To launch RoboScripter select 'Start | All Programs | WinBatch | RoboScrp w32.

RoboScripter will prompt you to choose the application, you want to automate. RoboScripter will then launch that application. If you choose not to launch the application, select the 'Cancel' button on the 'Run Program' dialog.

You can then drag the cross-hairs to select the target window you want to automate. Choose the appropriate 'Action', and then select the 'Perform' button. Continue this process until you are finished. When finished, select the 'Paste' button, which pastes the generated code into the clipboard. Press the 'Quit' button when complete.

Now, launch WinBatch Studio. Type 'ctrl-v' to paste the generated code into a file. Save the file with the extension '.WBT'. Now you can either edit or run the script, as necessary.

See the **Control Manager Extender** help file for more details. The Control Manager Extender is installed by default.

Type Viewer

The WIL Type Viewer is a WinBatch development tool that assists you in writing Component Object Model (COM) Automation based WIL scripts. The viewer can be used to examine the type information details of properties, methods, and events associated with an individual COM object or interfaces, enumerations, and classes defined in type libraries.

The viewer also allows you to browse lists of objects and type libraries registered on your system. You can view the detailed type information for these object and type library by simply selecting the item from a lists.

WIL Type Viewer requires Microsoft® Internet Explorer version 5.0 or newer.

See the **WIL Type Viewer** help file for more details.

APPENDIX A: Filenames

WinBatch and Accessories

There are several different platforms on which WinBatch and its utilities may be run. When a file name is generated, it is made up of four or five characters which specify what the file is, three characters which specify which platform the PC is running under and an .EXE or .DLL file extension.

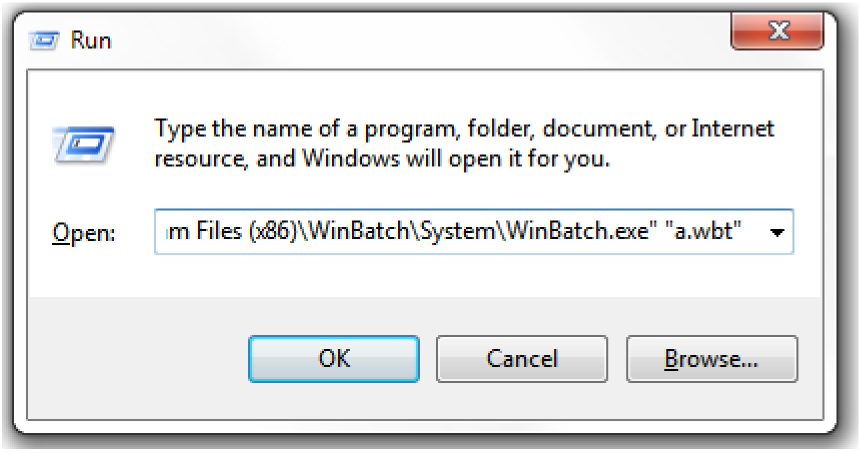
File Name Summary

File names are important in these areas:

1. Running WinBatch scripts.

WinBatch scripts are text files the WinBatch interpreter translates into action. To do this from a program launcher such as the **Run** command line , the file name of WinBatch has to be entered followed by a space and the name of a script.

You can access the Run command by pressing the Windows logo key +R.



Run

Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Open: m Files (x86)\WinBatch\System\WinBatch.exe" "a.wbt"

2. Compiling WinBatch files with WinBatch Compiler.

If you have the WinBatch Compiler, you have the option of including in the executable batch file; all, or just the minimum, number of files WinBatch needs to run a particular script. The Compiler includes selection dialogs for choosing options. The file name tables are here for general information.

3. Using Accessories.

WinBatch comes with a window position and name grabber called **Window Information.exe**. WinBatch also comes with a **Dialog Editor**. The filenames for these utilities as well as filenames for **WinBatch**, **Compiler** and **WinBatch Dlls** are listed below.

WinBatch and Compiler Programs: File Names

Environment	**WinBatch**	**Compiler**
Windows 32-bit & 64-bit Intel	WINBATCH.EXE WINBATCH_AF.EXE WINBATCH_AT.EXE WINBATCH_HF.EXE WINBATCH_HT.EXE WINBATCH_IF.EXE WINBATCH_IT.EXE WINBATCH_NN.EXE	WBCOMPILER.EXE

WinBatch Required DLL's: File Names

(?? stands for a two letter code unique to the version of WinBatch.)

Environment	**WinBatch WIL DLL**
Windows 32-bit Intel	WBD??44I.DLL
Windows 64-bit Intel	WBD??64I.DLL

WinBatch Accessories: File Names

Environment	**EXE Name**
WinBatch Studio	WINBATCH STUDIO.EXE
Dialog Editor	WIL DIALOG EDITOR.EXE
WIL Type Viewer	WIL TYPE VIEWER.EXE
Window Information	WINDOW INFORMATION.EXE
File Browser	BROWSER.EXE
PopMenu	POPMENU.EXE
FileMenu	FILEMENU.EXE

Win32 Network Extender: File Name

Environment	**Extender**
Windows 32-bit Intel	WWWNT34I.DLL
Windows 64-bit Intel	WWWNT64I.DLL

Control Manager Extender: File Name

Environment	**Extender**
Windows 32-bit Intel	WWCTL44I.DLL
Windows 64-bit Intel	WWCTL64I.DLL

Extender File Naming Conventions

The following tables show how the filename, minus the extension, is broken down and defined.

First few characters in the File Name

Program/Utility	**Filename**
Win32 Network Extender	WWWNT
Control Manager Extender	WWCTL

The second 3 characters in the File Name

Platform	**Filename**
Intel 32-bit version	34I or 44I
Intel 64-bit version	64I

WinBatch DLLs

WinBatch uses the WBD DLL for all standard WIL functions. In order for WinBatch scripts or compiled EXEs to find and use this DLL, it must be either in the directory where the WinBatch script file is, or on a system or network search path. It can be copied there manually, or will be automatically written to disk at runtime, with the 'Large EXE—standalone option of the Compiler'.

When a script is compiled with the 'Large EXE' option, all the necessary Dlls will be bundled into the executable. When the EXE starts up, it scouts around looking for its DLLs. If it cannot locate a copy either in the current directory or anywhere along the path or in the Windows directory then it un-stuffs the emergency copy of the DLL and places it in the same directory as the EXE.

If located on a fixed hard drive, it will make the DLLs in the same directory as the EXE. If executing on removable media (cd rom, zip, flash drives), it will attempt to create the DLLs in the Windows directory. If it is unable to unload the dll for any reason it will fail.

To decrease file sizes, the Compiler also has a 'Small EXE' option.

Small WinBatch executables needs to be able to find all the necessary DLLs. They can be located in the current directory, on the DOS path, on the search path, or in the Windows directory. The easiest way to get the initial copies of the DLLs there is to create a simple WinBatch utility that uses all the DLLs, extenders, and so forth. Run this once in any directory on the DOS or network search path.

Once the DLLs are extracted, they can be copied anywhere they will be needed. A convenient place for them is often in the Windows directory since it is always on the search path.

Name for the WinBatch DLL

The WinBatch DLL name is made up of 3 parts.

The first three digits identify the DLL type.

WBD = WIL Language Interpreter DLL

The second two digits are used for version identification purposes. The letters are chosen based on the WinBatch version and will change for each new version of the DLL.

XX = KA, or KD, (some combination of letters)

The final three digits reference the format of the DLL.

34I, 44I or 64I

Here is an example of a Dll for use on Windows on Intel class processors.

WBDLC44I.DLL

APPENDIX B: WinBatch+ Compiler

<u>Installing and Using WinBatch+Compiler</u>

This section is applicable only if you purchased WinBatch+Compiler. This is NOT a "shareware" software product. The Compiler is a separate product and is NOT included in the purchase of WinBatch, the single-user version. If you would like additional information on the Compiler and its capabilities, please call Customer Service.

Because the WinBatch+Compiler includes both WinBatch and the WinBatch Compiler, registered users of WinBatch can always upgrade to WinBatch+Compiler at a special price.

The WinBatch Compiler can change a WinBatch .WBT file into any one of the following:

- A small Windows EXE file.
- A large standalone Windows EXE file.
- An encoded and encrypted WinBatch script file.
- A password protected WinBatch script file.
- A Windows service EXS file.

No royalties of any kind are required for distribution of any file created by this compiler.

Compiler Installation

WinBatch and the Compiler install from the CD-ROM in your WinBatch+Compiler package. The installation program is itself a Windows application, so make sure Windows is running, when you are ready to install.

Make sure that <u>NO</u> WinBatch WBT files are currently running. Insert WinBatch+Compiler CD-ROM on your workstation. If you have your CD-ROM configured to "Auto-Start", the setup will run automatically. Otherwise, open the Explorer to your CD-ROM drive and double click on SETUP.EXE.

You will be prompted for the directory to install WinBatch+Compiler into. The default will be C:\PROGRAM FILES (X86)\WINBATCH. We recommend using this default directory.

The first time you run the Compiler you will be asked to enter your license number. The license numbers can be found in the inside back cover of this WinBatch User's guide.

Compiler Usage

The compiler may be run in interactive mode. In interactive mode, the user is prompted to provide all necessary information via a popup dialog box.

Before you can do anything useful with the Compiler, you must use the WinBatch file interpreter to create and test a WinBatch script file. Each WinBatch script file should have a file extension of .WBT, or .WIL.

Notes about the compiler:

The compiler creates a configuration file for each source file you compile. It will be placed in the same directory as the source file, and will have the same base name with an extension of ".CMP". For example, if you compile "C:\UTIL\TEST.WBT", it will create a configuration file named "C:\UTIL\TEST.CMP". Make sure you do not delete the .CMP files, if you plan to reuse or remember the previous compiler settings. The .CMP file is basically a record of the compiled files' last compile settings.

Compiler Command Line

The compiler may be run from the command line. Specify a directory name as the first parameter to the compiler. A dialog will appear that prompts you to select from a list of project configuration (.CMP) files in that directory to be compiled in 'batch' mode.

```
WBCOMPILER.EXE C:\COMPILE
```

Or you can specify a full path to a properly formatted .CMP as the first parameter to the compiler. The will launch the Compiler in Interactive mode with all the settings loaded from the .CMP file.

```
WBCOMPILER.EXE C:\COMPILE\BATCH.CMP
```

Or you can specify a full path to a properly formatted .CMPLIST as the first parameter to the compiler. See 'Batch Compile' (page 126).

```
WBCOMPILER.EXE C:\COMPILE\BATCH.CMPLIST
```

Running the Compiler in Interactive Mode

Start the compiler by double-clicking the compiler icon or the WBCOMPILER.EXE file name (or by choosing the appropriate item in any menu system you may be using).

32-bit

- Start | All Programs | WinBatch | WBCompiler exe
- C:\Program Files\WinBatch\System\WBCompiler.exe
- WinBatch Studio menu Debug | Compiler

64-bit

- Start | All Programs | WinBatch | WBCompiler(x64) exe
- C:\Program Files (x86)\WinBatch\System\WBCompiler.exe
- WinBatch Studio menu Debug | Compiler (x64)

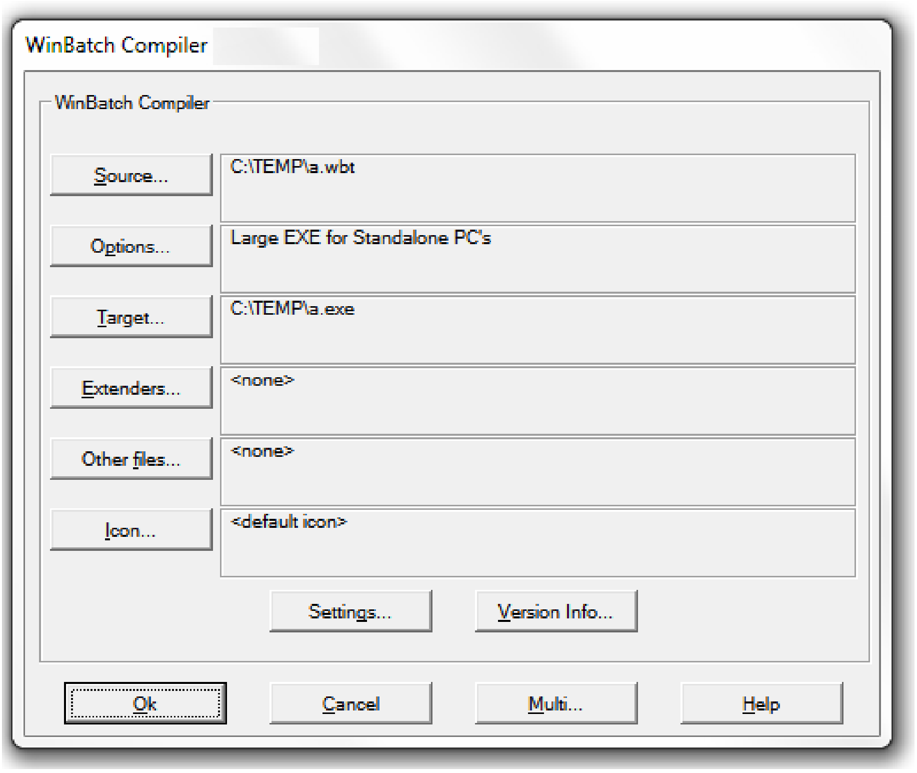
The compiler also supports "Drag and Drop" compiling. Select the WinBatch source file (WBT or WIL File) and drag it over the WBCOMPILER.EXE icon and drop the source file. A dialog box will be displayed asking for input. The source file you specified will be automatically displayed as the source file for the compile.

Select the type of compile desired (large EXE, small EXE, encoded or encrypted), choose the source .WBT file, and supply an output file name.

If you wish, choose an icon along with any necessary extenders. Press the OK button. The compiler will process for 5 to 10 seconds, and then report that the file has been compiled.

The compiler does not perform error checking. It is assumed the WBT file has been properly debugged with the WinBatch interpreter prior to the compile step.

When you launch the Compiler EXE, a dialog box similar to the following will be displayed:



C:\TEMP\a.wbt

Large EXE for Standalone PC's

C:\TEMP\a.exe

<none>

<none>

<default icon>

Options

The OPTIONS button allows you to select which type of executable file you would like to create from your WBT file.

Large Executable Utilities for Standalone PC's (includes accessory DLLs, Extenders, OLE 2.0, etc.)

This option creates an EXE designed for Standalone PC's and does not require any extra Dlls, unless you specify additional Dlls in your script with the **AddExtender** function. When a Standalone EXE is launched on a PC, the necessary Dlls are automatically written into the current directory. If for some reason, they cannot be written to that directory (perhaps the directory is set to be "Read Only"), the large compiled file will not run.

The Dlls can also be copied into a directory on a computer's PATH where the compiled EXE will find them there and execute successfully. The Compiler has a small EXE option that takes advantage of this configuration.

The Dlls need to be placed on the PATH only once. Subsequent EXE files installed on this same machine can be compiled with the Small EXE option, so that multiple compiled EXEs can use a copy of the WinBatch Dll located in a single place, resulting in easier file maintenance.

If Network commands have been used, you will need to compile the Network Extender Dlls into the EXE, by clicking on the "Extenders" button. This is explained more specifically in the section, EXTENDERS, see page 69.

Small Utilities for Networked PC's (without accessory files)

This option is suitable for network file server installation, and for distribution with separate Dll files. It makes a smaller EXE that loads faster over a network. You also know what copies of the Dlls are being used as you have to manually placed them.

One trick is to compile the setup program with the Large EXE option, and have it create the required Dlls. Subsequent EXEs can all be compiled with the small EXE option, because the Dlls already exist. For Network installations we recommend the small EXE with copies of the required Dlls in the same directory.

You have a couple of choices in terms of where to locate the Dlls:

1. Place a copy of the Dll in some directory that is on your system path. The EXE will use that copy instead of making a new one.

   OR

2. Make a directory for the EXE and just put a shortcut to it from the desktop.

When a small WinBatch utility is run, it will look in the Windows directory and the directories in the environment PATH variable for the Dll's. Place the WinBatch Dll's, and network extender Dll's on the path or search drive. If you launch this utility on a PC in which a large standalone utility has been run previously, the small utility can use the same Dlls the large one installed.

Hint: You can automatically install the Dll's on the PATH in a computer. Create a large executable containing only a single statement:

```
Display(1,"WinBatch","WinBatch installed. Thank You.").
```

You can change this statement as you like. Then, compile this as a large EXE with all the Dll's your scripts are ever likely to need. Copy it into the Windows System directory, and run it from there. The Dll's will be installed once and for all. Any subsequent batch files run on that computer can be small compiled EXEs that don't need the Dll's already installed on that computer.

Encode for Call's from EXE files

This option makes files that can be "called" from a compiled EXEs. It creates an encoded WBT file.

Encoded WBT files provide the following:

- Source code that is protected from unauthorized or accidental modification.
- Encoded WBT files may be CALL'ed from compiled files.

If your code has a Call to another WBT file, the called WBT must be compiled with this option. Otherwise, when you run your EXE, you will get an "Encrypted/Encoded Verification Failed" Error.

Note: When you compile your file, a new target filename will be created with a .WBC extension. It is necessary to have a different filename from the original filename. You cannot compile a file to its own name without corrupting the file. To protect the innocent, the default target extension is .WBC. After compiling, edit the uncompiled script file and change the Call statement to reflect the new filename extension .WBC. Then recompile the main EXE.

Encrypted with Password

This option encrypts a WBT file and uses a default target extension of .WBE. The WinBatch interpreter (WINBATCH.EXE, or version specific WinBatch interpreter) is needed to access the encrypted file. During compilation, you must input a password in to the compiler dialog. The same password must be supplied when the WBT file is run. The purpose of an encrypted WBT file is to prevent unauthorized personnel from executing it.

Since encryption is easily added to WinBatch utilities, this option is rarely used. In fact, no one has ever been known to use it. Like the human appendix, it reminds one of evolutionary events, while avoiding the performance of any useful function.

Extenders

The EXTENDERS button displays a list of extenders which can be chosen and compiled into a Standalone EXE option. More than one extender may be chosen. If any of the Network extender functions are used, the corresponding extender must be compiled into the Standalone, or placed in the Windows directory, or on the network path for a Small EXE to access. The extenders will be displayed in the WinBatch Compiler Dialog box when you click on the EXTENDERS button. After you make a selection of all the extenders you would like to include, they will be displayed next to the extenders button on the dialog box.

Source

The SOURCE button displays a File Selection Box. Select your file or type the filename and path into the File Name box and press OPEN. The path and filename will be displayed in the WinBatch Compiler dialog box next to the SOURCE button.

Note 1: Source and Target names:

After you select a SOURCE file, a default TARGET name will be generated and displayed next to the TARGET button. To change the default name, click on the TARGET button.

Target

The TARGET button displays a File Selection Box. Select your file or type the filename and path into the File Name box and press SAVE. The path and filename will be displayed in the WinBatch Compiler dialog box next to the TARGET button.

Note: A default target filename and path will generally be generated from the SOURCE filename and path.

Other Files

The OTHER FILES button displays a File Selection Box of files which can be selected and compiled into a Standalone EXE. More than one file may be chosen. The selected files will be displayed in the WinBatch Compiler Dialog box next to the OTHERFILES button.

Icon

The ICON button displays a File Selection Box which allows you to choose an icon. Select your .ICO file and press OPEN. The path and icon filename will be displayed in the WinBatch Compiler dialog box next to the ICON button.

WinBatch+Compiler comes with icons you can use. These are in an ICONS subdirectory of your WinBatch directory.

Note:

1. Icon files must be named with the standard .ICO file extension.
2. The icon (.ICO) file can contain a single icon group. An icon group is a set of one or more associated icon images, of different dimensions and color depths.
3. The icon must have all six definitions of the following icons. If the icon doesn't have all six definitions, some of the icons will not get replaced and the wrong icon can get displayed.

Dimensions	**Color depth**
16x16	4 bit (16 color) 8 bit (256 color)

32x32	4 bit (16 color) 8 bit (256 color)
48x48	4 bit (16 color) 8 bit (256 color)

Note: 32 bit (True color) color depth is not currently supported in the compiled EXEs.

4. Consult the tech support area of our website for some links to icon format tools. Go to http://techsupt.winbatch.com, and search for 'Icon Formatting Tools'.

Settings

The SETTINGS button displays a dialog for configuration settings.

Tech Support URL

URL (i.e., http://www.example.com) for technical support, which will be displayed in WinBatch error messages.

Run Script Hidden

If this option is selected the WinBatch icon will not appear on the desktop or in the Taskbar, when the EXE is executed.

Force Large EXE file extract to EXE folder on removable drives.

If this option is selected and the EXE is located on a removable drive, it will force the EXE to extract the files to the removable drive.

Skip auto-extraction of "Extender" and "Other Files"

If this option is selected the compiled EXE will NOT extract the Extender and Other files automatically. The function Extract Attached Files can be used to programmatically extract the files as needed.

Vista UAC Settings

Requested Execution Level

Value	Description	Comment
asInvoker	The application runs with the same access token as the parent process.	Recommended for standard user applications.
highestAvailable	The application runs with the highest privileges the current user can obtain.	Recommended for mixed-mode applications.
requireAdministrator	The application runs only for administrators and requires that the application be launched with the full access token of an administrator.	Recommended for administrator only applications. The application is already running elevated.

uiAccess Flag

Value	Description
False	The application does not need to drive input to the user interface of another window on the desktop. Applications that are not providing accessibility should set this flag to false. Applications that are required to drive input to other windows on the desktop (on-screen keyboard, for example) should set this value to true.
True	The application is allowed to bypass user interface control levels to drive input to higher privilege windows on the desktop. This setting should only be used for user interface Assistive Technology applications.

Important

Applications with the uiAccess flag set to true must be Authenticode signed to start properly. In addition, the application must reside in a protected location in the file system. \Program Files (x86)\ and \Windows\System32\ are currently the two allowable protected locations.

Sign Code

If this option is selected the EXE will be 'signed' using the information specified by the 'Signing Details' button. Note: Future versions of Microsoft Vista will require all code to be signed, when UAC is enabled.

Signing Details

Prompts for the 'friendly name' of the signing certificate, an optional description of the EXE and an option website URL.

UAC and Code Signing Help

Launches help for more information about UAC and code signing.

Version Info

The VERSION INFO button displays a dialog that allows you to specify Version information strings. These are the version strings that will be displayed in the Properties dialog, that is displayed when you right-click, and select "Properties", on the compiled EXE. The selected modifications are not displayed in the WinBatch Compiler Dialog box next to the VERSION button.

FileVersion and ProductVersion fields match the corresponding string fields. The strings should be specified as a series of up to four numeric fields, delimited by periods or commas or spaces (eg, "3.01" or "5,1,2,0" or "2000 1 2"). Any missing or non-numeric fields will be converted to 0.

Multi

The MULTI… button displays a dialog that allows you to select from a list of project configuration (.CMP) files in that directory to be compiled.

Note that these .CMP files must contain a "Src=" setting in the [Main] section to identify the source file to be compiled, and this setting was not written by earlier versions of the compiler, but can be added manually. The source file must be located in the same directory as the .CMP file.

Batch Compile

WinBatch+Compiler supports the following command line for ‘batch compilation' of WinBatch scripts:

```
"C:\Program Files (x86)\WinBatch\System\WBCompiler.exe"
"C:\WBProjects\Test.cmplist"
```

A batch compile does require a little setup in order to work.

First you must have .CMP file for each script you want to compile. A .CMP file is a configuration file that contains all the compile options used. A .CMP file automatically gets generated each time you successfully compile any script.

The format of the .CMP file is as follows:

```
[Main]
```

```
Type=1
Src=test1.wbt
Targ=C:\WBProjects\test1.exe
Icon=
CmpVersion=4

[Options]
TechWebPage=
UACManifestSelection=highestAvailable
UACManifestUI=false
CodeSign=0
CodeSignDetails=WWWTEST~~
RunHidden=0
LargeExtractDest=0
PreventAutoExtract=0

[Version Info]
Comments=
CompanyName=Wilson WindowWare Inc
FileDescription=test1
FileVersion=1.0
InternalName=test1.exe
LegalCopyright=Wilson WindowWare Inc
LegalTrademarks=
OriginalFilename=test1.exe
ProductName=test1
ProductVersion=1.0

[Other Files]
Count = 0

[Extenders]
Count =  0
```

Note: You could feasibly create a .CMP file on the fly. The internal format of the .CMP file is the same as .INI files. You can use all of the WinBatch Ini_Pvt() functions to manage these files.

CMP file format explained:

```
[MAIN]
Type = [REQUIRED] compile option. ( 1 = Large, 2 = Small )
Source = [REQUIRED] source file to compile. (.WBT or .WIL)
Target = [REQUIRED] Path to Exe name.
Icon = Path to Icon filename.
CmpVersion = Version of CMP file. ( Subject to change )

[OPTIONS]
TechWebPage = URL displayed in WinBatch error ( http://www.example.com )
UACManifestSelection =  Requested Execution Level. ( highestAvailable )
UACManifestUI = Manifest uiAccess. ( true or false )
CodeSign = Code sign settings. ( 1 = true, 0 = false )
CodeSignDetails = Code signing certificates friendly-name. ( WWWTEST )
```

```
RunHidden = Hides EXEs icon on the task bar. ( 1 = true, 0 = false )
LargeExtractDest = Force EXE to extract files. ( 1 = true, 0 = false )
PreventAutoExtract = Prevent extract of files. ( 1 = true, 0 = false )

[Version Info]
Comments = Comments about EXE. ( "My Test EXE" )
CompanyName = Company name. ( "Wilson WindowWare Inc" )
FileDescription = Description of EXE. ( test1 )
FileVersion = File version number of the EXE. ( 1.0 )
InternalName = Name of the EXE file. ( test1.exe )
LegalCopyright = Copyright info. ( "Wilson WindowWare Inc" )
LegalTrademarks = Trademark info. ( "X is a registered trademark of Y" )
OriginalFilename = Name of the EXE file. ( test1.exe )
ProductName = Product name of the EXE file. ( Test1 )
ProductVersion = Product version of the EXE file. ( 1.0 )

[Other Files]
Count = Total number of other files included. ( 2 )
File001 = Path of the 'Other file' to include. ( C:\sample1.txt )
File002 = Path of the 'Other file' to include. ( C:\sample2.txt )
Etc…

[Extenders]
Count = Total number of Extender files included. ( 2 )
File001 = 'Extender' file to include. ( wwctl44i.dll )
File002 = "Extender' file to include. ( wwwnt34i.dll )
Etc…
```

You will then need to create a specially formatted file with the file extension of .CMPLIST.

For Example:

```
C:\WBProjects\Test.cmplist
```

The .CMPLIST file must include a single line that contains the full path to the .CMP files for *each* script you would like to batch compile.

For Example:

```
C:\WBProjects\test1.cmp
C:\WBProjects\test2.cmp
C:\WBProjects\test3.cmp
```

You *must* specify a full file path to each .CMP file in the .CMPLIST file.

Ideally you should put all these .CMP files into a single ‘Project’ directory. However you can specify paths to all the various .CMP files regardless of the directory.

Now that you have successfully created a .CMP file for each script and also created a .CMPLIST file, you can create your ‘Batch Compile’ script.

For Example:

```
;BatchCompile.wbt
wbcompiler = 'C:\Program Files (x86)\WinBatch\System\WBCompiler.exe'
cmplistfile = '"C:\WBProjects\Test.cmplist"' ; Notice use of quotes to
handle file names with spaces
Run( wbcompiler, cmplistfile )
Exit
```

IMPORTANT:

The .CMP file information must be correct or this compile process will fail.

The .WBT source file must be located in the same directory as the .CMP file.

The .CMPLIST file information must be correct or this compile process will fail.

Run as a Native Service

It is possible to create a compiled WinBatch program that will run as a native service under Windows NT or newer. To do this, compile the WinBatch script as usual using the 'Small EXE for Networked PC's' option in the WinBatch Compiler, but make sure to specify an output file with an extension of ".EXS" instead of ".EXE". Alternatively, you can simply rename an existing WinBatch program (version 2001 and higher) by changing its extension from ".EXE" to ".EXS".

You can install a WinBatch service (or any service) using the **wntSvcCreate** function in the WIL Windows NT extender (see the Win32 Network Extender help file).

A WinBatch service can be configured in the Service Manager (in Control Panel) to run automatically on system startup, or manually on demand.

In either case, when the WinBatch service starts up, it processes the script just like a normal WinBatch program.

If you want the WinBatch service to wait for a particular time or event to occur, you can use any of the normal WIL methods (**TimeDelay**, **TimeWait**, **WinWaitExist**, etc.). You can also use any of the following service functions: **SvcSetAccept, SvcSetState and SvcWaitForCmd.**

You can also use loops or branching (**For**, **While**, **Goto**, etc.) to cause the WinBatch service to continue running for an indefinite period of time. When processing reaches the end of the script (or a **Return** or **Exit** command, or a **Cancel** event), the WinBatch service will automatically stop. You can force a WinBatch service to stop prematurely by using the "Stop" function in the Service Manager (in Control Panel), or using another service control program (such as the **wntSvcControl** function in the WIL Windows NT extender). A WinBatch service will exit automatically on Windows shutdown.

If you are making a WinBatch service that will not be installed as an interactive service, you should use **IntControl(38)** at the beginning of the script to prevent

WIL from displaying any unexpected error message boxes. If a non-interactive service attempts to interact with the desktop, it can cause the script to hang.

Notes: A service that is running under the LocalSystem account cannot access network resources.

To have a service access the desktop, that service must log on as the LocalSystem account, and be allowed to interact with the desktop.

```
;Initialize variables for the SvcSetAccept function
SERVICE_ACCEPT_STOP = 1 ;The service can be stopped
SERVICE_ACCEPT_PAUSE_CONTINUE = 2 ;service can be paused & continued
SERVICE_ACCEPT_SHUTDOWN = 4 ;service notified of system shutdown
SERVICE_ACCEPT_LOGOFF = 32768 ; service notified of user logoff

;Initialize variables for the SvcSetState function
SERVICE_STATE_STOPPED = 1 ;The service is not running
SERVICE_STATE_STOP_PENDING = 3 ;The service is stopping
SERVICE_STATE_RUNNING = 4 ;The service is running
SERVICE_STATE_CONTINUE_PENDING = 5 ;The service continue is pending
SERVICE_STATE_PAUSE_PENDING = 6 ;The service pause is pending
SERVICE_STATE_PAUSED = 7 ;The service is paused
;Initialize variables for the SvcWaitForCmd function
SERVICE_CONTROL_NOT_SERVICE = -1 ;Script not running as a service
SERVICE_CONTROL_TIMEOUT = 0 ;Timeout occurred or no codes to process
SERVICE_CONTROL_STOP = 1 ;Requests the service to stop
SERVICE_CONTROL_PAUSE = 2 ;Requests the service to pause
SERVICE_CONTROL_CONTINUE = 3 ;Requests the paused service to resume
SERVICE_CONTROL_SHUTDOWN = 5 ;Requests the service to perform
                             ;cleanup tasks, because the system
                             ;is shutting down
SERVICE_CONTROL_USER128 = 128 ;User command 128
SERVICE_CONTROL_USER129 = 129 ;User command 129
SERVICE_CONTROL_USER130 = 130 ;User command 130
SERVICE_CONTROL_USER131 = 131 ;User command 131
;More user commands as needed
SERVICE_CONTROL_USER255 = 255 ;User command 255
SERVICE_CONTROL_LOGOFF = 32768 ;logoff notification
;Setup debugging prompt strings....
debugcodes="0: Timeout|1: Stop|2: Pause|3: Continue|5: Shutdown|128: User
Cmd 128|129:User Cmd 129|32768: Logoff"
;Tell system that we want all notifications
flag=SvcSetAccept( SERVICE_ACCEPT_STOP | SERVICE_ACCEPT_PAUSE_CONTINUE |
SERVICE_ACCEPT_SHUTDOWN | SERVICE_ACCEPT_LOGOFF)
If flag== -1
   DoingDebug=@TRUE
   Pause("Debug Mode","Not currently running as a service")
Else
   DoingDebug=@FALSE
   ;Set up error handling
   IntControl(12,2+8,0,0,0) ;Tell WinBatch to not honor terminate and
                            ;not complain on Windows exit
   IntControl(38,1,"errorlog.txt",0,0) ;Route errors to log file
EndIf
;Now for the main service loop
;in this service we respond to all control messages
BoxOpen("Initializing","main service loop")
While @TRUE
   If DoingDebug==@FALSE
    code=SvcWaitForCmd(5000) ;Timeout in 5 seconds
   Else
    ;For Debugging.
    ;Prompt tester to see what code should be pretended here
    code=AskItemlist("Service Debug", debugcodes, "|", @UNSORTED,
                                                           @SINGLE)
    If code=="" Then Continue
    code=ItemExtract(1,code,":")
   EndIf

   Switch code
          Case SERVICE_CONTROL_TIMEOUT
               ;Timeout occurred
               BoxTitle("SERVICE_CONTROL_TIMEOUT")
               ;!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
               GoSub DoWork
               ;!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
               Break
          Case SERVICE_CONTROL_STOP
               ;Stop command received
               BoxText("Stop command received")
               SvcSetState(SERVICE_STATE_STOP_PENDING)
               ;do stop cleanup work here
               TimeDelay(5)
               SvcSetState(SERVICE_STATE_STOPPED)
               Exit    ;Goodbye
               Break
          Case SERVICE_CONTROL_PAUSE
               ;Pause command received
               BoxText("Pause command received")
               SvcSetState(SERVICE_STATE_PAUSE_PENDING)
               ;do pause cleanup work here
               SvcSetState(SERVICE_STATE_PAUSED)
               Break
          Case SERVICE_CONTROL_CONTINUE
               ;Continue command received
               BoxText("Continue command received")
               SvcSetState(SERVICE_STATE_CONTINUE_PENDING)
               ;do resume from pause state initialization here
               SvcSetState(SERVICE_STATE_RUNNING)
               Break
          Case SERVICE_CONTROL_SHUTDOWN
               ;Shutdown notification received
               ;Approx. 20 seconds to process
               BoxText("Shutdown notification received")
               SvcSetState(SERVICE_STATE_STOP_PENDING)
               ;do stop cleanup work here
               SvcSetState(SERVICE_STATE_STOPPED)
               Exit    ;Goodbye
               Break
          Case SERVICE_CONTROL_USER128
               ;User command 128 received
               BoxText("User command 128 received")
               Break
          Case SERVICE_CONTROL_USER129
               ;User command 129 received
               BoxText("User command 129 received")
               Break
          Case SERVICE_CONTROL_LOGOFF
               ;Logoff command received
               BoxText("Logoff command received")
               Break
         Case code
               ;Unrecognized command received
               BoxText("Unrecognized command received")
               Break
      EndSwitch

EndWhile

;Note.  The preceding loop never exits
Exit   ; Just a formality
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
;The DoWork subroutine can be used to execute the code you want to
;run while the service has not control requests
:DoWork
   BoxText("WinBatch Services test is running")
Return
```

Network Considerations

If you plan to put the compiled EXEs on a network, the following information will be helpful:

1) Set the compiled EXE files to read-only so that multiple users may access the same file.

2) Copy the Dlls from the WinBatch\System subdirectory in the Explorer, to a file server directory in the search path and set the Dlls as read-only. (see Filenames Appendix A)

3) When the compiler, or any compiled WBTs with the large Standalone option selected, are run, they will search the entire PATH for any required Dlls (see Filenames Appendix A). If the Dlls are not found, they will be created in the same directory as the compiled EXE.

UAC and Code Signing

The WinBatch+Compiler allows you to create and embed an application manifest and to sign your code. The SETTINGS button in the WinBatch+Compiler can be used to specify the appropriate options.

To find out more about code signing WinBatch EXEs, see the 'Code Signing' section in the WinBatch.chm help file.

Application Manifest

One of the requirements that User Account Control (UAC) puts on developers is that you must mark your applications with a 'manifest' to declare if the application would like to run elevated or not. The WinBatch+Compiler allows you to select UAC related settings: 'Requested Execution Level' and 'uiAccess Flag'.

Requested Execution Level:

Value	Description	Comment
asInvoker	The application runs with the same access token as the parent process.	Recommended for standard user applications.
highestAvailable	The application runs with the highest privileges the current user can obtain.	Recommended for mixed-mode applications.
requireAdministrator	The application runs only for administrators and requires that the application be launched with the full access token of an administrator.	Recommended for administrator only applications. The application is already running elevated.

uiAccess Flag:

Value	Description
false	The application does not need to drive input to the user interface of another window on the desktop. Applications that are not driving the 'user interface' should set this flag to false. Applications that are required to drive input to other windows on the desktop (WinBatch driving another application via the Control Manager Extender, for example) should set this value to true.
true	The application is allowed to bypass user interface control levels to drive input to higher privilege windows on the desktop. This setting should only be used if required.

Important: Applications with the uiAccess flag set to true must be code signed to start properly. In addition, the application must reside in a protected location in the file system. Program Files and \Windows\System32\ are currently the two allowable protected locations.

Code Signing

In order to run a compiled WinBatch EXE, that contains Control Manager Extender functions, on a Windows System with UAC enabled requires that the 'uiAccess flag' is set to true and that the EXE is 'Signed' by a 'Trusted Authority'.

In addition, if you do not code sign the EXE then UAC makes your program appear as if it's a malware or a virus program. When you run an EXE on Vista or newer you may receive a message asking you whether or not you trust the application you are about to run. If your EXE is not digitally signed then the Popup message will reference an "Unknown Publisher". If the EXE is digitally signed it will reference your own information in the Popup message.

NOTICE: Down the road, Windows will require any EXE, regardless of functionality, running under UAC, to be signed and trusted.

What is a certificate?

Code Signing certificates allow you to 'digitally sign' your EXEs for secure delivery of your software. By digitally signing your EXE you are letting the user know the software is safe.

To create a digital signature you will need 'a key pair': a public key and a private key. The private key is known only to its owner (you) and is used to sign the data. The public key can be distributed to anyone and is used to verify the signature on the data.

Digital certificates bind YOU to the specific public and private key pair. Digital certificates are like an electronic ID that verifies your identity. You can obtain a certificate from a certificate authority (CA), which vouches for the certificate. A CA generally requires you to provide unique identifying information. The CA uses this information to authenticate your identity before giving you a certificate.

Sources for digital certificates

'Self-signed' method for generating a digital certificate. The selfcert.exe tool from Microsoft can be used to create one. This approach allows you to test the operation of digital certificates, but it has limited practical use because no independent party verifies the authenticity of the certificate.

Windows Certificate Services within an organization to create certificates recognized by those within the organization and other groups, such as suppliers or consultants that work closely with an enterprise-based issuer of certificates. These certificates are trusted by those in the organization as well as close associates.

Certificates issued by a widely recognized trusted certifying authority. (RECOMMENDED)

Where do I buy a Certificate?

There are many different Certificate Authorities (i.e., VeriSign and Thawte). For a more complete list check out 'Microsoft Root Certificate Program Members' list: http://msdn2.microsoft.com/en-us/library/ms995347.aspx

#Include

The "**#include**" is a pre-processor directive. This command gives you the ability to embed external WBT files when running or compiling a WinBatch script.

Any of the following are permitted:

```
#include "filename"
#include 'filename'
#include `filename`
#include filename
```

Nothing else should appear on the line, including comments.

The file name may contain path information. If the 'include' command contains relative path information, the check begins relative to the current script's location. If the file is not found then a check is conducted relative to the current working directory. When both of those locations fail then a standard Windows file search is performed. The standard Windows file search varies somewhat by location order depending on the OS version and a few registry settings. The typical locations are:

- The directory from which the application loaded.
- The System directory.
- The Windows directory.
- The current directory.
- The directories that are listed in the PATH environment variable.

Of course, if the file information is absolute then the absolute path is used to attempt to open the included file. Each line containing a **#include** directive will be replaced by the contents of the specified WBT file. If the file cannot be found, an error will occur.

When using the WinBatch Compiler, the "included" file(s) must be present at compile time; it will be embedded in the compiled EXE, and therefore do not need to be distributed as separate files.

When using the interpreted version of WinBatch, the "included" file(s) must be present at the point in time when the script is launched (it cannot be created "on-the-fly" from within the script).

You can have as many **#include** directives as you wish, and they may be nested (i.e., "included" files may themselves contain **#include** directives).

Error Appendix

10102: WinBatch - Unrecognized ParentProcess request code

10103: WinBatch Compiler - CallExt not available

10104: WinBatch: EnvironSet Var and/or Value too long

10105: WinBatch: EnvironSet - Failed. No space?

10106: WinBatch: EnvironGet - Failed. Name too long?

10107: WinBatch: EnvironGet - Failed. Value too long?

10108: Box functions: Box command stack full

10109: Box functions: Invalid box ID

10110: BoxButtonDraw: Invalid button ID

10111: BoxButtonDraw: Invalid 'rect' string

10112: BoxButtonStat: Invalid button ID

10113: BoxColor: Invalid color string

10114: BoxColor: Invalid 'wash' color

10115: BoxDrawRect: Invalid 'rect' string

10116: BoxDrawLine: Invalid 'rect' string

10117: BoxNew: Invalid 'rect' string

10118: BoxNew: Invalid 'style' flag

10119: BoxNew: Unable to create box

10120: BoxPen: Invalid color string

10121: BoxPen: Invalid pen width

10122: BoxTextColor: Invalid color string

10123: BoxTextFont: Invalid font size

10124: BoxTextFont: Invalid font style

10125: BoxTextFont: Invalid font family

10126: BoxDrawText: Invalid 'erase' flag

10127: BoxDrawText: Invalid 'alignment' flag

10128: BoxDrawText: Invalid 'rect' string

10129: BoxUpdates: Invalid 'update' flag

10130: BoxesUp: Invalid 'rect' string

10131: BoxesUp: Invalid 'show' mode

10132: BoxMapMode: Invalid map mode

10133: BoxDrawRect: Invalid style

10134: BoxDrawCircle: Invalid 'rect' string

10135: BoxDrawCircle: Invalid style

10136: BoxButtonDraw: Unable to create button

10137: BoxButtonKill: Invalid button ID

10138: BoxDataClear: Specified tag not found

10139: IntControl: Unrecognized Request

10140: BoxBitmap: Invalid 'stretch' mode

10141: ExtractAttachedFile: Function supported only in compiled version

10142: ExtractAttachedFile: Target file name must be specified

10143: ExtractAttachedFile: Error finding or extracting specified file

10144: ExtractAttachedFile: Invalid request

10145: IntControl 1006: Unable to allocate or lock memory

Glossary of Terms

(a)	a value that must be an array
(f)	A value that must be in floating point format. This means that the number must include a number, a decimal point, and another number as in 0.123 or 456.2256. Exponentials of the form 4.9e7 are always floating point. Floating point numbers can include signs before the entire number, or before the "e" that stands for exponent.
(i)	A value that must be an integer.
(r)	A value that must be a COM object reference
(s)	A string value is from one to many alphabetic and/or numeric characters enclosed in quotation marks. Double quotes, single quotes and back quotes are equally acceptable as quotation marks.
(t)	Indicates special type information described in the function's text.
applications	Software programs that use one main window along with a menu bar. An example of an application would be a spreadsheet.
batch language	A programming language that automates a process, by processing events in a step-by-step fashion. Batch languages are interpreted at run time.
code signing	Code Signing certificates confirm publisher details and content integrity of code.
constant	A value that does not change. WinBatch has many built-in constants. Useful ones include **@CRLF** and **@TAB** for inserting these into lines of text in dialogs.
dynamic link libraries	Also called "Dlls". A Dll is an accessory file used by other Windows programs. Dlls can be actual program files without the EXE extension, libraries of executable routines, or even simple data files. The information in Dlls can be utilized through the WIL **DllCall**() function.
icon	A small picture that represents an application. Several sizes are available for use under Windows.
interpreter	A software program that reads a script file one line at a time. It examines the line, finds directives that indicate action, and

	then instructs the computer to carry out them out.
macro scripting language	A computer language that reads lines in a text file and turns them into action on that computer. The term "macro" comes from the capability of completing numerous operations in sequence.
menu items	Selections from a list of items found at the top border of the main windows of a Windows application.
MS-DOS	A personal computer operating system produced and marketed by Microsoft Corporation.
OLE 2.0	A specific version of a scheme of inter-program data exchange called Object Linking and Embedding. It is an extension of DDE and the Windows Clipboard. There are several OLE capabilities. WinBatch and WIL support OLE 2.0 automation. This is the capacity of one program to automate anything that an application can do.
operators	Actions that transform one numeric value into another. An example is the addition operator "+". It takes one numeric value, adds it to a second and makes the result available for display or use by another operator.
plain text	Text containing only letters and numbers. It must not contain hidden codes for formatting or null characters. Word processors do not normally produce plain text. They can, however, be directed to do so. Windows word processors generally provide this option in the File SaveAs menu.
register	Obtain a license to use software.
script file	A computer file generated by a text editor. It contains a list of statements that can contain both directives and comments.
system management utilities	Short programs for manipulating any operations on a computer. Generally they automate activities that otherwise need to be done repetitively and manually.
UAC	User Account Control (Vista and newer).
utilities	Utilities manipulate applications, the operating system, and the Windows interface.
WIL	Windows Interface Language (WIL) is the actual programming language used by WinBatch. WinBatch is a processor that interprets WIL directives and directs the computer to carry out these directives.