

# Using AppleScript with MacWise

## Updated January 2015

### Introduction

MacWise supports AppleScript commands. Many functions of MacWise can be controlled by a script (such as transferring data to and from the host, sending commands to the host and messages to the MacWise user.) Scripts compiled as applications can be run from "Run AppleScript" under the Special Menu. For instance, you can write a script to transfer data from the host to a file on your Macintosh and then tell another application to open that file.

### What You Need

Mac OS X which includes AppleScript and Script Editor  
MacWise

### MacWise Sample Scripts

Carnation Software provides many sample scripts to get you started programming your own scripts...

[http://www.macwise.com/ftp/MacWise\\_Sample\\_AppleScripts.zip](http://www.macwise.com/ftp/MacWise_Sample_AppleScripts.zip)

These scripts have been created with Apple's Script Editor. You can modify them to suit your needs.

### Apple's Script Editor

The Script Editor is included with the MacOS. Carnation Software does not provide any documentation for the editor. The best thing to do first is load in one of the sample scripts provided by Carnation Software and see how it works. It is very logical and easy to learn. A script looks like this:

```
tell application "MacWise"  
    activate  
    SendUserMessage "Hello from AppleScript"  
end tell
```

Commands inside of the tell loop can be a combination of commands that AppleScript understands and commands that only MacWise understands. To see a list of the commands that are specific to MacWise, run the Script Editor and select "Open Dictionary..." from the File Menu and open the MacWise program.

## Remote Scripts

If you are running your script from a remote Macintosh, you must specify the Macintosh that you want to send the command to. You must also have Remote Apple Events enabled in System Preferences... Sharing on the remote Mac. MacWise must also be running on the remote Mac.

A remote script looks like this...

(You will change username, userpass and remote\_ip to the correct remote Mac info)

```
set remoteMachine to "eppc://username:userpass@remote_ip"
```

```
using terms from application "MacWise"
```

```
    tell application "MacWise" of machine remoteMachine
```

```
        activate
```

```
        SendUserMessage "Hello there"
```

```
    end tell
```

```
end using terms from
```

## Running AppleScripts from the Special Menu in MacWise

Once you have created a script, you can run it directly from MacWise by selecting "Run AppleScript" from the Special Menu. Only scripts that have been saved from the Script Editor as an Application can be run from this menu. The sample scripts provided by Carnation Software cannot be run from this menu until you save them as an application using the Script Editor.

"Run AppleScript" looks inside of a folder called "AppleScripts" for compiled scripts to run. Make sure you put all of your compiled scripts into this folder for easy access.

(That is the folder that opens when you select "Run AppleScript" from the Special Menu)

## Running AppleScripts from a Host Basic Program

You can send an escape sequence from the host computer to MacWise to run an AppleScript.

A compiled AppleScript must be in the AppleScripts folder inside of the MacWise folder. The sequence is "ESC tilde a tilde AppleScriptName"

The following example shows how to do it from a host Basic program:

```
PRINT CHAR(27):"~a~My Applescript.app"
```

## The MacWise AppleScript Dictionary

The AppleScript commands below are special commands that MacWise understands. You can use "Open Dictionary..." in the Script Editor to see these commands. However, a more detailed description of the commands follows:

Each dictionary description has the dictionary terminology and an example of how to use the command. A Reference to a sample script is also included. The sample scripts are included with MacWise.

### Messages: Send Message to MacWise

**SendHostMessage:** Send a Message to the host Computer.

SendHostMessage string

Result: string

|                          |                           |
|--------------------------|---------------------------|
| Example:                 | SendHostMessage "LIST BP" |
| Reply from MacWise :     | "Message sent to host"    |
| Reference Sample Script: | Send host Message         |

NOTE: If you want to send a message to the host with no carriage return, append {noCR}

Example: SendHostMessage "LIST BP{noCR}"

**SendUserMessage:** Send a message to the user on the message line.

SendUserMessage string

|                          |                         |
|--------------------------|-------------------------|
| Example:                 | SendUserMessage "Hello" |
| Reply from MacWise :     | None                    |
| Reference Sample Script: | Send User Message       |

### Dialing: Commands for Dialing a Modem

**Hangup:** Hangup the modem connection

Hangup

|                          |        |
|--------------------------|--------|
| Example:                 | Hangup |
| Reply from MacWise :     | None   |
| Reference Sample Script: | None   |

**QuickDial:** Dial the QuickDial number  
QuickDial

|                          |           |
|--------------------------|-----------|
| Example:                 | QuickDial |
| Reply from MacWise :     | None      |
| Reference Sample Script: | QuickDial |

### Required Events: Required Apple Events

**open:** Open the specified object(s)  
open alias -- list of objects to open

**print:** Print the specified object(s)  
print alias -- list of objects to print

**quit:** Quit application  
quit

**run:** Sent to an application when it is double-clicked  
run

### Data Transfer: Transfer data to and from MacWise

NOTE:

All of the following clipboard commands affect the clipboard of the Mac that is running MacWise (not the clipboard of a remote Mac the script is being run from)

**AppendResultToClipboard:** Append the AppleScript result to the clipboard without clearing it.

```
AppendResultToClipboard  
[UseResult]
```

|          |                                                                                      |
|----------|--------------------------------------------------------------------------------------|
| Example: | AppendResultToClipboard<br>or<br>AppendResultToClipboard "Use this result<br>string" |
|----------|--------------------------------------------------------------------------------------|

|                          |                     |
|--------------------------|---------------------|
| Reply from MacWise :     | None                |
| Reference Sample Script: | Append to Clipboard |

Takes the result from the last MacWise AppleScript command and appends it to the clipboard without erasing the contents of the clipboard. The UseResult parameter is

optional and tells  
MacWise to use this text to append to the clipboard instead of the last result.

**CaptureOff:** Turn off capture mode and close the capture file.  
CaptureOff

|                          |                |
|--------------------------|----------------|
| Example:                 | CaptureOff     |
| Reply from MacWise :     | None           |
| Reference Sample Script: | Capture On/Off |

**CaptureOn:** Turn on capture mode to send data to the capture file. Reply with capture file name.

CaptureOn  
Result: string

|                      |                                                               |
|----------------------|---------------------------------------------------------------|
| Example:             | CaptureOn                                                     |
| Reply from MacWise : | Contains the current capture file name<br>including the path. |

|                          |                |
|--------------------------|----------------|
| Reference Sample Script: | Capture On/Off |
|--------------------------|----------------|

**ClearClipboard:** Clear the Clipboard.

|                          |                |
|--------------------------|----------------|
| Example:                 | ClearClipboard |
| Reply from MacWise :     | None           |
| Reference Sample Script: | None           |

**ClipboardRecordOff:** Turns clipboard recording off.  
ClipboardRecordOff

|                          |                     |
|--------------------------|---------------------|
| Example:                 | ClipboardRecordOff  |
| Reply from MacWise :     | None                |
| Reference Sample Script: | Record to Clipboard |

**ClipboardRecordOn:** Turns clipboard recording on.  
ClipboardRecordOn

|                          |                     |
|--------------------------|---------------------|
| Example:                 | ClipboardRecordOn   |
| Reply from MacWise :     | None                |
| Reference Sample Script: | Record to Clipboard |

**CopyResultToClipboard:** Copies the AppleScript result to the Clipboard, clearing the clipboard first.

CopyResultToClipboard  
[UseResult]

Example: CopyResultToClipboard  
or  
CopyResultToClipboard UseResult "Use this  
result string"

Reply from MacWise : None  
Reference Sample Script: Copy to Clipboard

Takes the result from the last MacWise AppleScript command and copies it to the clipboard, erasing the contents of the clipboard first. The UseResult paramater is optional and tells MacWise to use this text to append to the clipboard instead of the last result.

**CopyScreenToClipboard:** Copy the entire MacWise screen to the clipboard as text.

CopyScreenToClipboard

Example: CopyScreenToClipboard  
Reply from MacWise : None  
Reference Sample Script: Copy Screen to Clipboard

**CursorColPosition:**Get the current column position of the cursor. Note: Columns start at zero ( 0-204 )

CursorColPosition  
Result: small integer

Example: CursorColPosition  
Reply from MacWise : The column position number  
Reference Sample Script: Cursor Position Test

**CursorRowPosition:** Get the current row position of the cursor. Note: Rows start at zero ( 0-70 )

CursorRowPosition  
Result: small integer

Example: CursorRowPosition  
Reply from MacWise : The row position number  
Reference Sample Script: Cursor Position Test

**DataReceivedFromHost:** Asks MacWise if any data has been received from the host since the last time we asked.

DataReceivedFromHost

Result: string

Example:

Reply from MacWise :

DataReceivedFromHost

Yes (when data has been received)

Or:

No (when data has not been received)

Reference Sample Script:

Business Card Reader

**DeleteCaptureFile:** Deletes the current capture file. Use SetCaptureFile to create a new one.

DeleteCaptureFile

Result: string

Example:

Reply from MacWise :

DeleteCaptureFile

The name and path of the file deleted

Or:

Cannot Delete file when capture is on

Reference Sample Script:

Delete Capture File

**GetCaptureFile:** Gets the name of the current capture file.

GetCaptureFile

Result: string

Example:

Reply from MacWise :

Reference Sample Script:

GetCaptureFile

The name and path of the capture file.

None

**GetScreenData:** Get data from the screen, specifying the row, starting column and ending column. Note: Rows start at zero ( 0-70 )

GetScreenData

Row small integer

ColStart small integer

ColEnd small integer

Result: string

Example:

GetScreenData

Row 0

ColStart 5

ColEnd 79

Reply from MacWise :                   The data from row 0, from column 5 to 79  
Reference Sample Script:               Get Screen Data  
                                          Get 10 Rows of Data

**line:** Get a line from the screen, specifying the line. Note that lines start with line 1.

line  
Result: string

Example:                               line 1  
                                          Or  
                                          Word 1 of (line 1)

Reply from MacWise :                   The data from the line on the screen  
Reference Sample Script:               Get a line

**HostToMacTransfer:** Starts a Host To Mac data transfer with operator intervention. You provide the host command.

HostToMacTransfer string  
Result: string

Example:                               HostToMacTransfer "LIST-CUSTOMERS"  
Reply from MacWise :                   The file name selected by the user.  
                                          Or:  
                                          User Canceled  
Reference Sample Script:               HostToMac Transfer

**HostToMacXfer:** Starts a Host To Mac data transfer without operator intervention. (this command works with MacWise version 14.3 or later)

You provide the host command, filename and other options that the user would normally enter into the Host-To-Mac Transfer window. Commands that are in [brackets] are optional and are set to a default setting if not specified.

HostToMacXfer

HostCommand string -- The command to send to the host to start the data transfer. If Convert is Yes then HostCommand needs to bring data to the Mac in a Labels format. Usually the HostCommand is a PROC name and the PROC uses LIST-LABEL.

FileName string -- The file name on the Mac where the data will be transferred to.

ConvertToSpreadsheet string -- If Convert = Yes then tabs will be inserted (Convert to

Spreadsheet/Database format)

[FieldsPerRecord small integer] -- The number of fields in each record being transferred.

Default: 0

[OverWrite string] -- If OverWrite = Yes then FileName will write over the existing file.

Default: "No"

[LinesToSkip small integer] -- Number of lines to skip before recording data (1 minimum)

Default: 1

[TimeOutTime small integer] -- Time in seconds to wait and end of transfer.

Default: 5

[NoPage string] -- If NoPage = Yes then (N is sent after HostCommand to the host.

Default: "Yes"

Result: string -- Result will be the name of the capture file including path. Any problems will be reported as Error! followed by a description of the error.

Example:

### **HostToMacXfer**

**HostCommand** "CUSTOMERS"

**FileName** "MyFirstXfer.xls"

**set** TransferFile **to** result

**ConvertToSpreadsheet** "Yes"

**FieldsPerRecord** "5"-- Ignored if ConvertToSpreadSheet is "No"

**OverWrite** "Yes"

**LinesToSkip** "1"

**TimeOutTime** "5"

**NoPage** "No"

Note: ESC character from host will terminate the data transfer

Reference Sample Scripts:

HostToMacXfer

HostToMacXfer Short Example

HostToMacXfer Short Example with Error Checking

If you are using ConvertToSpreadsheet, the data from the host must be in a labels format with a blank line between labels.

Here is some useful information...

<http://macwise.com/PICK%20Data%20Transfers.pdf>

**MacToHostTransfer:** Transfer a file from the Mac to the host computer.

If the file name is supplied in "theFile" then it will be used. If theFile is blank then MacWise will prompt the user for a file name.

MacToHostTransfer string  
Result: string

Example: HostToMacTransfer "theFile"  
Reply from MacWise : The file name selected by the user.

Or:  
Invalid file name supplied by AppleScript  
MacToHost Transfer

Reference Sample Script:

**Paste:** Paste the contents of the clipboard to the host computer. This is the clipboard on the computer that MacWise is running on.

Paste

Example: Paste  
Reply from MacWise : None  
Reference Sample Script: None

**SetCaptureFile:** Sets the capture file to the name specified The file will be created in the MacWise Prefs folder unless a full path is specified.

SetCaptureFile string  
Result: string

Example: SetCaptureFile "MyCaptureFile"  
Reply from MacWise : The file name and path of the new capture file.

Or:  
Error! Incorrect path name supplied from

AppleScript.

Or:  
Error! Cannot use this file for a capture file.  
Set Capture File Name

Reference Sample Script:

**TransferDone:** Asks MacWise if the data transfer is done.

TransferDone  
Result: string

|                          |                    |
|--------------------------|--------------------|
| Example:                 | TransferDone       |
| Reply from MacWise :     | "Yes" or "No"      |
| Reference Sample Script: | HostToMac Transfer |

Special Commands: Send Special Commands to the Host such as Break, Escape etc...

**Break:**

Break

|                          |                  |
|--------------------------|------------------|
| Example:                 | Break            |
| Reply from MacWise :     | None             |
| Reference Sample Script: | Special Commands |

**Control:** Send a control character to the host. Example: Control "X"  
Control string

|                          |                  |
|--------------------------|------------------|
| Example:                 | Control "X"      |
| Reply from MacWise :     | None             |
| Reference Sample Script: | Special Commands |

**Escape:**

Escape

|                          |                  |
|--------------------------|------------------|
| Example:                 | Escape           |
| Reply from MacWise :     | None             |
| Reference Sample Script: | Special Commands |

**Tab:** Sends a Tab to the host  
Tab

|                          |                  |
|--------------------------|------------------|
| Example:                 | Tab              |
| Reply from MacWise :     | None             |
| Reference Sample Script: | Special Commands |

**Wait:** MacWise will wait for n seconds before processing the next command.  
Wait small Integer

|                          |        |
|--------------------------|--------|
| Example:                 | Wait 1 |
| Reply from MacWise :     | None   |
| Reference Sample Script: | None   |

Note: You can also use the "delay" command. Delay is built into AppleScript and will pause the script. (the "Wait" command tells MacWise to pause).

### Connection Commands:

**CloseConnection:** Close the connection

CloseConnection

Example: CloseConnection  
Reply from MacWise : None

**ConnectionOpen:** Is the Connection open? Result is "Yes" if open and "No" if closed.

ConnectionOpen

Result: string

Example: ConnectionOpen  
Reply from MacWise : "Yes" or "No"

**ConnectionMethod:** Connection method in use. Result is the name of the method

ConnectionMethod

Result: string

Example: ConnectionMethod  
Reply from MacWise : telnet  
Or:  
modem  
Reference Sample Script: Connection Tests

**OpenConnection:** Open the Connection

If the connection is already open then command is ignored.

OpenConnection

Example: OpenConnection  
Reply from MacWise : None

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### Optional Reference Material

Danny Goodman's AppleScript Handbook.

AppleScript Studio - Write applications with sophisticated user interfaces. (Included with the developer's CD that comes with OS X).

Some Internet AppleScript Sites...

<http://www.applescript.apple.com/>  
<http://www.scriptweb.com/>

Carnation Software  
<http://www.carnationsoftware.com>  
[richlove@carnationsoftware.com](mailto:richlove@carnationsoftware.com)  
Phone 512 858-9234