

Using AppleScript with MacWise

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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

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. This folder is inside of the MacWise Resources folder. Make sure you put all of your compiled scripts into this folder for easy access.

MacWise/Contents/Resources/AppleScripts

Running AppleScripts from a Host Basic Program

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

A compiled AppleScript must be in the AppleScripts folder inside of the MacWise app in MacWise/Contents/Resources/AppleScripts

The sequence is "ESC tilde a tilde AppleScriptName.app"

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

PRINT CHAR(27):"~a~Carnation Time Zone.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
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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
or
AppendResultToClipboard "Use this result
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
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"
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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 parameter 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: DataReceivedFromHost
Reply from MacWise : 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: DeleteCaptureFile
Reply from MacWise : 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: GetCaptureFile
Reply from MacWise : The name and path of the capture file.
Reference Sample Script: 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:

Reply from MacWise :

Reference Sample Script:

HostToMacTransfer "theFile"

The file name selected by the user.

Or:

Invalid file name supplied by AppleScript

MacToHost Transfer

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:

Reply from MacWise :

Reference Sample Script:

Paste

None

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:

Reply from MacWise :

AppleScript.

Reference Sample Script:

SetCaptureFile "MyCaptureFile"

The file name and path of the new capture file.

Or:

Error! Incorrect path name supplied from

Or:

Error! Cannot use this file for a capture file.

Set Capture File Name

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

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
Phone 512 858-9234