ppleScript for Mac OS 8.5

Part Two - Steve Harris

Far back in the swirling mists of time (issues 2 to 6 of 1984-Online, anyway) I wrote a series of features on AppleScript and how to get to grips with it. With the advent of Mac OS 8.5, Apple added a heap of new features to AppleScript, so now seems a good time to take a look at some of new things it can do. In the previous part of this 8.5 series I covered some of the new standard additions such as choosing items from lists and speaking text.

In this part I'm going to look at the more hyped Folder Actions feature. However what I am not going to do is go over the basics of AppleScript, as this was done in issues 2 to 6 of 1984-Online, which are readily downloadable from 1984-Online's web site, which is nice.

Folder Actions
A completely new feature in Mac OS 8.5 is folder actions. These allow you to attach scripts to folders which are activated when a specified event occurs. The things you use to specify these events are called 'handlers'. Currently there are five 'handlers' for folder actions:

opening folder…
The script will be run when the folder window is opened.
closing folder window for…
The script will be run when the folder window is closed.
moving folder window for…
The script will be run when the folder window is moved.
adding folder items to…
The script will be run when items are added to the folder, but only when its window is open.
removing folder items from…
The script will be run when items are removed from the folder.

There is an annoying limitation, though.These events will only be triggered when a folder's window is open, or (for list views) when its contents is displayed. These events will not occur on a closed folder, apart from the 'closing folder window for…' handler, in which case the script will run once an open window has been closed.

This, to me, isn't quite good enough as the usefulness of folder actions are limited and I suspect it will be rectified in time. Are you listening, Apple?

Getting More Info
Open the Standard Additions dictionary to see information on the handlers and how to use them:
In the Script Editor, choose Open Dictionary from the File menu.
Click the 'Go to "Scripting Additions" folder' button :

croll down the list and choose the file "Standard Additions". A window should open which looks like this:

croll down the list on the left hand side of the window until you come to a section called "Folder Actions". Clicking on this will show you the syntax for the commands in the right-hand side of the window.

The Practical Bit
We're going to create a simple folder action script, which, while completely useless, will demonstrate how to write a folder action script.

The script will be very simple. When you open a folder, a message will inform you of how many items there are in the folder. I said it was completely useless, didn't I.

Writing The Script
Create a new script in the Script Editor by choosing New from the File menu. Then type this:

on opening folder this_folder

This is the first part of the 'opening folder' handler. The name of the folder will be put into the variable 'this_folder' for use in your script by the system, so you don't need to know specifically which folder you're dealing with. You don't have to name the variable 'this_folder', you can call it what you like. Apple has used 'this_folder' in its supplied folder action scripts but you don't have to follow that convention, you can think different if you like.

Then type this:

tell application "Finder"

activate

set num_items to the number of items in this_folder

This 'tells' the Finder to set a newly created variable called 'num_items" to the number of items in the folder to which the variable 'this_folder' refers.

This script was so uneventful to write it I decided to add a little refinement to it. Type this next:

```
    if num_items is 1 then
        set the_message to "There is " & (num_items as string) & " item in this folder."
    else
        set the_message to "There are " & (num_items as string) & " items in this folder."
```

```
      end if
       display dialog the_message buttons "OK" default button 1 with icon note
end tell
```

Here we display an appropriate message depending on the number of items in the folder. The line 'end tell' ends the 'tell application "Finder" command.

Finally, type the following:

```
end opening folder
```

This ends the 'on opening folder' code.

Checking
To check (compile) the script press the Enter button (on the numeric pad), or click the Check Syntax button. If there's a problem you've probably typed something wrong. All the code in this article has been cut and paste from the script editor, so it should work perfectly!

Saving
So long as the script is compiled (all the text becomes smartly formatted and you don't get any evil cryptic messages), it's time to save the script. You can save the script anywhere you like, but Apple has put all their folder action scripts in a folder (surprisingly) called 'Folder Action Scripts' in the 'Scripts' folder in the System Folder, so it's probably best to do the same.

In the Script Editor, choose Save from the File menu.
You need to save your script as a compiled script. Choose 'Compiled Script' from the 'Kind' pop-up menu at the bottom of the Save dialogue box:
Give your script a name, I've called mine 'open - pointless information', following the convention Apple have used with their scripts. It's nice to be consistent:

lick the Save button.

Testing
In order to test our script, we need to attach it to a folder. Do this:

In the Finder create a new folder called 'A Folder' or whatever you want.
Now we need to attach a our script to the folder. Control-click on the folder and choose 'Attach a Folder Action...' from the contextual menu.
In the resulting dialogue box, ensure you're in the folder in which you saved your script, select the script from the list and click Open.
In a moment, your folder's icon will be modified to show a little scroll in the bottom left hand corner, like this:

ow open the folder, you should get a dialogue box like this:

ou did that! Now create another folder inside your folder. Close the folder and open it again. You should see this:

ou did that, too! Add another folder, close the folder, open it again and the message should revert to its plural form:

sn't technology wonderful?

Summary
So there you have it, you've written a very simple Folder Action script. Remember,

though, that Folder Action scripts can be as simple or as complex as you like, but like most things in AppleScript they'll be easy to read and write. AppleScript technology is becoming increasingly important in the future development of the Mac OS. This is only the beginning.

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