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Introducing AppleScript!

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Welcome to the first article of a regular column designed to help you to streamline your Quark-based workflow using Apple® Computer's AppleScript technology. This first article will provide an introduction to AppleScript, and will discuss how it can interface with QuarkXPress, allowing you to become more efficient. Future articles will explain specific aspects of scripting QuarkXPress, as well as other popular applications, showing how this amazing technology can be used to make your life easier.

Introduction to AppleScript

While many people have heard of AppleScript before, few fully grasp its usefulness, and even fewer are actually using it in their daily routines.

AppleScript is a scripting language that is built into Mac OS X. It has been around since system 7.1, and grows more and more powerful with every major OS

release. As a scripting language, AppleScript's usefulness comes in its ability to control existing applications on the Macintosh, or the operating system itself. By writing scripts, users can begin to automate time consuming and repetitive tasks that would otherwise need to be performed manually.

Benefits of AppleScript

As with any type of automation, the implementation of an AppleScript-based workflow yields a number of important

benefits. For one, AppleScripts perform faster than humans. By interacting with applications directly, AppleScript can bypass the extra time needed for mouse clicks and keystrokes. The result is a smooth and efficient process that takes only a fraction of the time it would take a user to perform manually.

Another benefit of implementing AppleScript-based automation is that, when written properly, AppleScripts will not make mistakes. This reliability and reduction of manual error immediately leads to the ability to generate higher-quality output.

By automating mundane tasks, AppleScript can even have an effect on morale by eliminating those stress-filled, tiresome, time-consuming manual tasks and allowing users to focus on things they actually enjoy, such as design. A happy user is a more productive user.

The bottom line is that scripting can dramatically improve virtually any workflow, and the time and cost required to develop an AppleScript is usually quickly outweighed by its benefits.

Writing AppleScripts

AppleScripts are written in a program called a script editor application, and Mac OS X includes one, appropriately named Script Editor. You can find Script Editor in the APPLESCRIPT folder. On older systems, it will be in the APPLE EXTRAS folder. Script Editor provides an interface for you to develop your scripts. Within Script Editor, you may open, edit, run, and save AppleScript files in a variety of formats. (fig. 1)

One strong selling point for AppleScript is its learning curve. While it does take time and practice to become comfortable with AppleScript, the learning curve is much less than that of other programming languages. Much of this can be attributed to AppleScript's unique syntax. Take the following line of code, for example: tell the application "finder" to make new folder at the desktop. It doesn't take a skilled programmer to determine that the above line of code will build a folder on the desktop.

Scriptable Applications

When planning an AppleScript-based workflow, one thing to consider is the applications that will be involved. You will need to select applications that support AppleScript. An application of this nature is considered to be scriptable. Unfortunately, not all applications on the Mac are scriptable. However, most of the applications you probably use on a daily basis are, and with the advance of Mac OS X, more and more applications are becoming scriptable.

As you begin working with AppleScript, something you will find is that the level of AppleScript support will vary between applications. While some applications may offer robust support, allowing you to automate virtually every task, others offer limited support for only a precious few tasks. In addition, an application's AppleScript terminology can even vary from version to version. If you have an AppleScript that interacts with a specific application, you should always conduct parallel testing prior to making any upgrades to that application. Many times, your AppleScript will continue to work without fail. However, at times, minor adjustments may be required.

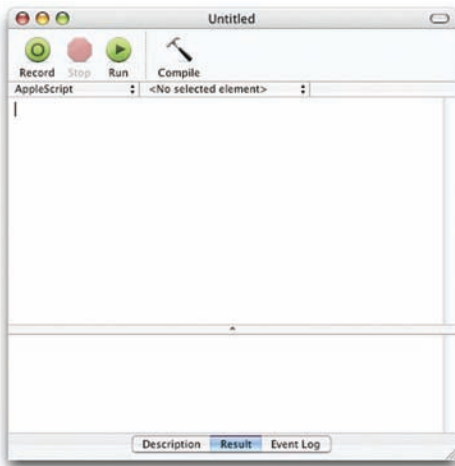


fig. 1 ▲ An empty Script Editor document

Another important thing to understand is that the level and quality of AppleScript support in an application is entirely at the discretion of the developer of that application. So, if the level of support in an application doesn't live up to your expectations, you may want to contact the developer to request better support. In some cases, developers just don't realize why someone would need AppleScript support in the application.

Determining if an Application is Scriptable

A scriptable application will contain what is known as an AppleScript dictionary, which will include all of the AppleScript terminology that the application will understand.

In order to find out if an application is scriptable, you must determine whether the application contains a dictionary. To do this, select **FILE** ▸ **OPEN DICTIONARY** from within Script Editor. You will then be prompted to select from a list of scriptable applications on your computer. Upon making a selection, the application's AppleScript dictionary will be displayed in a new window. (fig. 2)

Application dictionaries can appear daunting at first glance, but there is logic behind them. As you grow familiar with AppleScript, you will learn how to navigate dictionaries, and use them to help you with your scripting. In future columns, we will explore the QuarkXPress dictionary in detail.

How QuarkXPress Fits In

QuarkXPress has been a friend to AppleScript for many years. In fact, it was one of the first scriptable applications. Over the years, it has been scripted by many to automate such tasks as laying out catalogs and brochures, converting documents to EPS, PostScript®, and PDF, swapping out images, and much more. In QuarkXPress 5 and higher, a built-in AppleScript menu offers users quick and easy access to commonly used AppleScripts.

The AppleScript support in QuarkXPress is fairly extensive, and can be used to automate almost any task that you can perform manually. As with many applications, though, there are some things in QuarkXPress that are not accessible with AppleScript. However, sometimes there are ways around these limitations. QuarkXPress' architecture also means that its AppleScript support can be expanded if developers make their XTensions scriptable, offering even greater possibilities for automation.

In Conclusion

As you can see, AppleScript can play a tremendous role in virtually any workflow. In future columns, we will begin to explore specific aspects of scripting QuarkXPress itself, and look at automating tasks that

can benefit QuarkXPress users, such as image processing and conversion.

In the meantime, there are many resources available that can help you to become more familiar with AppleScript.

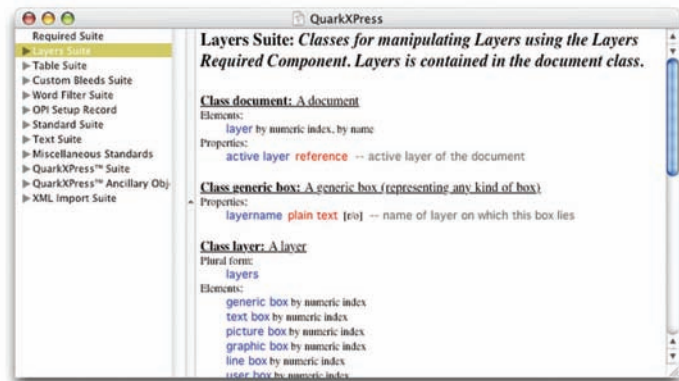


fig. 2 ◀ The QuarkXPress AppleScript Dictionary

WEB SITES

Apple's AppleScript web site — Here, you will find a variety of information about AppleScript, including sample scripts, success stories, and documentation. If you are interested in learning about the AppleScript language, be sure to locate and review the *AppleScript Language Guide*. <http://www.apple.com>

MacScripter.net — This web site features the latest AppleScript news, sample scripts, articles, links, and more. <http://www.macscripter.net>

BOOKS

Danny Goodman's *AppleScript Handbook* — This book, which has been around since the early days of AppleScript, has been updated for Mac OS X and is available in eBook format. This is, perhaps, the most well-known and respected AppleScript book of all time. Available from SpiderWorks, LLC.

<http://www.spiderworks.com>

***AppleScripting QuarkXPress*, by Shirley Hopkins** — This comprehensive book focuses specifically on automating QuarkXPress with AppleScript. Topics range from beginner level through advanced. Available from ThePowerXChange <http://www.thepowerxchange.com>

XTENSIONS

ScriptMaster XT — Generate AppleScripts by recording the user's actions with proper scripting syntax. Users just record their actions as they work and then play the script back. The automatically generated scripts are fully editable. ScriptMaster XT records any action in QuarkXPress that is supported by QuarkXPress' scripting libraries. Available from ThePowerXChange (see ad inside back cover).

<http://www.thepowerxchange.com>

Take some time to begin exploring and learning about AppleScript, and stay with us as we explore new ways to increase your efficiency. You will be glad that you did. See you *In the Trenches*. ☒