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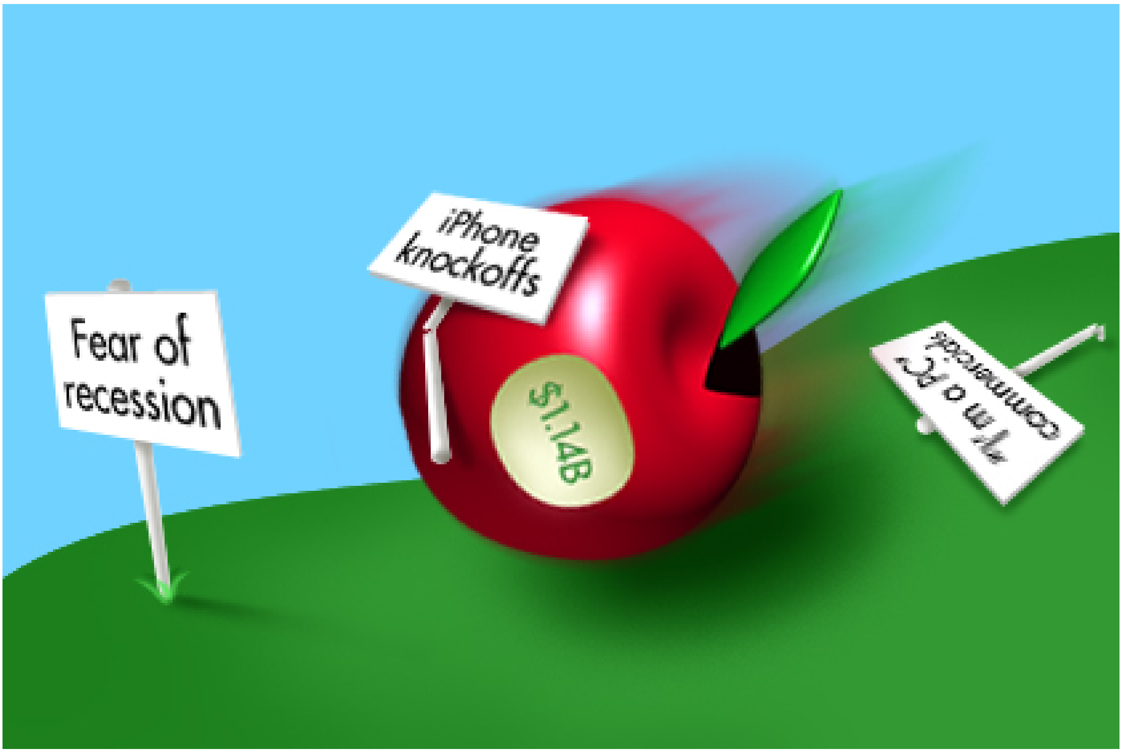

About This Particular Macintosh: About the **personal** computing experience.™

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Welcome

by Robert Paul Leitao, rleitao@atpm.com

Welcome to the November issue of *About This Particular Macintosh!* This weekend we return to standard time and we offer you yet another monthly issue filled with our standard interesting stuff. The days grow shorter, reading time grows longer, and ATPM provides relevant content for today's changing times.

7 Million iPhones (Almost)

In the quarterly financial reports for the three-month period ending in September, Apple reported the sale of almost seven million iPhones. In the quarter Apple sold more smartphones than Research in Motion, maker of the popular BlackBerry devices. To put this accomplishment in heightened perspective, the 3G iPhone went on sale for the first time 11 days into the start of the September quarter. Actual reported unit sales of the iPhone in the September quarter totaled 6.892 million units.

At press time Apple has exceeded its calendar year 2008 goal of 10 million iPhones sold.

The Mac Attack Continues

In the September quarter, Apple also reported the sales of 2.611 million Macintosh computers, representing a 21 percent increase in unit shipments over the prior year period. While the sales results signal a slowing in the pace of Macintosh sales growth to a more sustainable pace moving forward, the numbers also illustrate the growing popularity of the Mac on college campuses across the United States.

Apple's New Math

Apple reports revenue for the iPhone and the Apple TV using a deferred revenue model that recognizes revenue and manufacturing expense over the anticipated two-year life of the product. Using the deferred revenue model under GAAP (Generally Accepted Accounting Principles), Apple is pushing recognized revenue and earnings into future periods. To explain Apple's new math, the company is reporting results using GAAP and non-GAAP methods to highlight the company's strong sales and earnings performance. Apple is taking this step presumably to close the gap in understanding of how well the company is currently performing relative to product popularity and sales.

We won't detail the intricacies of deferred revenue accounting in this column. It's enough to say each iPhone sold today will benefit the company's reported revenue and earnings for the next two years, representing the anticipated useful life of the product.

The Numbers

For the three-month period ended September 27, 2008, the company reported GAAP revenue of $7.9 billion and earnings of $1.14 billion or $1.26 per share. Using non-GAAP methods, the company realized revenue in the quarter of $11.68 billion and earnings of $2.44 billion. The difference in the GAAP and non-GAAP measures will be realized over the next two years as the deferred revenue from iPhone and Apple TV sales are added to future quarter GAAP results.

Fall Forward—The Portable Mac Update

In October, Apple updated its full line of portable Macs while introducing a MacBook at $999 in a traditional white enclosure. The new line of laptops have aluminum unibody shells and sport beefed-up graphics sub-systems.

Presumably, the new graphics sub-systems are in line with the increased role the graphics processor will play in Snow Leopard, the pending upgrade to Mac OS X which will be big on performance improvements rather than the gains in features seen in previous Mac OS X releases.

Our November Issue

Each month the editors of ATPM strive to bring you interesting news and reviews that enhance your personal computing experience. Thanks for joining us again this month.

Our November issue includes:

FileMaking: Incremental Progress

Charles Ross returns to expand upon a database for tracking books, utilizing many of FileMaker's features.

MacMuser: Less Than Stimulating Simulation?

After lamenting the release of Feral Interactive's ToCA game, Mark Tennent has some things to say about the disappearance of FireWire from Apple's latest MacBook.

Next Actions: Master List for November

Ed Eubanks Jr. updates his master list of GTD applications.

Photoshop for the Curious: File Format Fever

O to struggle against great image file formats, to meet these choices undaunted (with apologies to Walt Whitman).

Desktop Pictures: Little Rock

Reader Zac Stivers provides this month's desktop pictures from Little Rock, Arkansas..

Cartoon: Cortland

The story of Cortland has reached its final chapter, and artist Matt Johnson touches on his plans for a future comic in ATPM.

Review: Mask Pro 4.1.2

Building intricate layer masks in Photoshop can be tedious work, but does Mask Pro live up to its name for streamlining the process?

Review: MX Revolution

A fine, but overpriced, wireless optical mouse for right-handers that relies on quaint, proprietary wireless technology instead of the now-ubiquitous Bluetooth.

Review: PDFPen and PDFPen Pro 4.0.1

A promising product to help the journey toward a paperless office.

Review: StoneLoops 1.0.7

A challenging game of strategy with modes suitable for both casual and serious play.

E-Mail

Datahand Professional II

R.I.P. Datahand. I hope they manage to sort out manufacturing issues! It's worrying to not be able to go just out a get another pair, should something happen to these.

—Andy

Apple Keyboard

It sure looks good, and feels like a slightly stretched version of the laptop keyboards.

Which is why I'll never use it, because my tendonitis flares up like a bonfire when I use a keyboard that's so flagrantly flat and square.

—Marc Durant

FileMaking: Getting Relational

This is a nice series of articles, well written, clear, and informative. I only wish there were more and that they were more frequently published!

—Chris Knight

Text Parsing With FileMaker

Thank you very much for this tutorial. I am a relatively new FileMaker user and today I taught myself how to create a full name field from fields containing a first name, two fields with middle names, and a last name. I then wanted to turn the process around and parse the full name into its elements . Your instructions were great!! Success! Yippee!!

I was especially pleased at having figured out how to calculate the position of the words in a name that has four parts (i.e. "Sally Ruth Sims Stokes") and send them to their appropriate fields. Now here's the catch: I figured out how to do everything except for one thing. I have created a `MiddleNameA` and `MiddleNameB` field, as the names table in my database includes individuals other than myself who have two middle names.

If I enter "Sally Ruth Sims Stokes" in the `FullName` field, my calculations successfully parse the four parts of this name into `FirstName`, `MiddleNameA`, `MiddleNameB`, and `LastName`. But when I deal with a name combination containing *only one* middle name, such as "Mary Ellen Jones", the name parses as "Mary" `FirstName` "Ellen" `MiddleNameA` "Ellen" `MiddleNameB` "Jones" `LastName`. Could you possibly help me figure out how to get a null value in the `MiddleNameB` field in such an instance? I would be extremely grateful for your help. Thanks again!

—Sally Stokes

You need to count the words with the built-in FileMaker function `WordCount`.

Assume that full names can have two, three or four names. For simplicity, I'm not considering prefixes (i.e., "Dr.") or suffixes (i.e., "Jr.").

The first name will always be the first word:

```
FirstName = LeftWords( FullName; 1)
```

The last name will always be the last word:

```
LastName = RightWords( FullName; 1 )
```

The `MiddleNameA` will be the second word if there are three or more words, and blank otherwise:

```
MiddleNameA = Case( WordCount( FullName ) >= 3;
                    MiddleWords( FullName; 2; 1 ); "" )
```

Finally, `MiddleNameB` will be the third word if there are four words, and blank otherwise:

```
MiddleNameB = Case( WordCount( FullName ) = 4;
                    MiddleWords( FullName; 3; 1 ); "" )
```

I hope this helps if you need to extend this to more possibilities.

—*Charles Ross*

We'd love to hear your thoughts about our publication. We always welcome your comments, criticisms, suggestions, and praise. Or, if you have an opinion or announcement about the Macintosh platform in general, that's OK too. Send your e-mail to editor@atpm.com. All mail becomes the property of ATPM *and may be edited for publication.*

FileMaking

by Charles Ross, cross@atpm.com

Incremental Progress

Last time, we built the beginnings of a FileMaker database to track books. In this column we'll build on this, providing some additional features that will be useful to us as the developers of this system. We're going to touch on many of FileMaker's features, including layouts, table occurrences, scripts, and custom functions.

If you didn't participate in the tutorial last month, you can download the file we'll begin with that was completed in that column.

Roadmap

Starting with this column, I'm going to depart from the standard progression of teaching about FileMaker. Most FileMaker tutorials in books teach you about databases in general, moving to fields and calculations, then relationships, and moving to scripts, getting progressively deeper into the guts of FileMaker. We'll be taking a different route. I've been building FileMaker databases for a long time, and while we will cover all those topics eventually, I'm going to build this system, for the most part, just as I would if I were building it for a client. Therefore, we'll cover some advanced topics early.

Along the way, you're going to learn not only how to use FileMaker's development tools, such as ScriptMaker and Custom Functions, but you'll also learn how one developer, me, uses them in the real world.

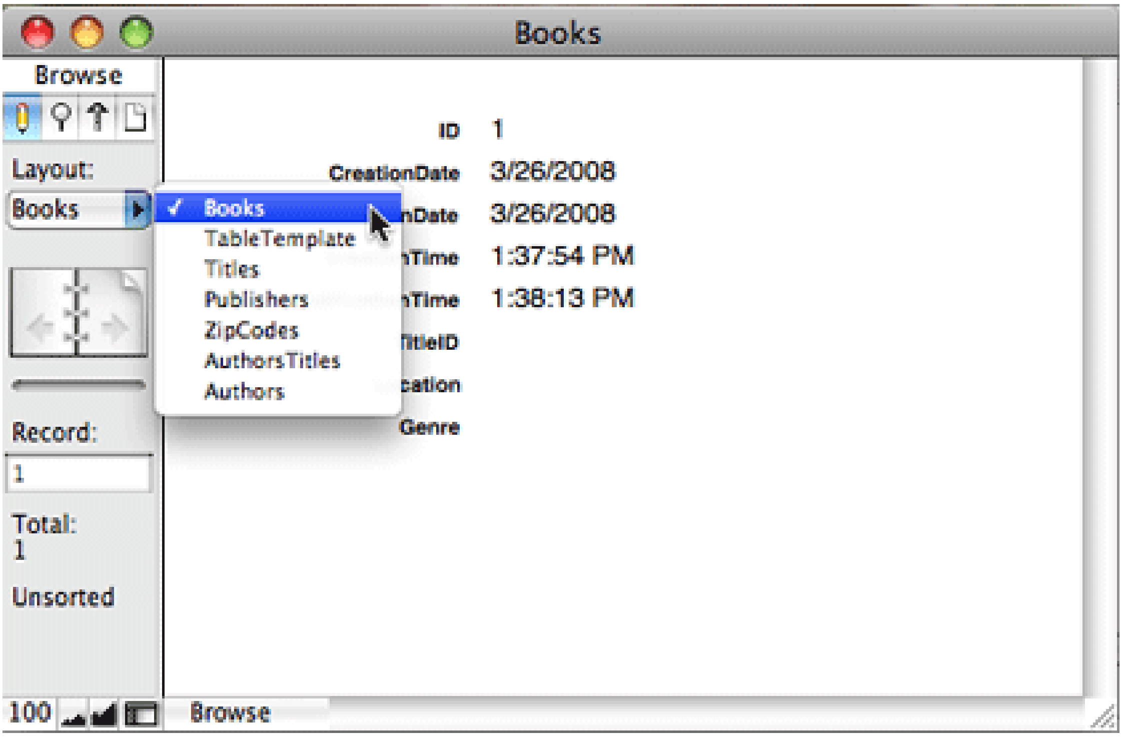
I'll be using FileMaker Pro 9 Advanced for all of my development. This means that if you're using FileMaker Pro 9 instead, or an earlier version, we'll be covering some topics that you won't be able to follow along with. For example, Custom Functions can only be created with FileMaker Pro 9 Advanced (although once they've been created in a file, they can be used in FileMaker Pro 9). As a similar example, when we cover custom menus, you'll need at least FileMaker Pro 8.

Some topics we'll introduce and explain as we need them, while others (including much of what's covered in this column) we'll introduce in advance of their need. When we do need to cover a topic, we'll cover just as much as needed for the moment. We're going to be moving rather quickly, so if there's anything I gloss over too much, just let me know.

What Are Layouts?

FileMaker's ease of use and development extends beyond the easy creation of tables and fields. Without the ability to view and edit data, tables and fields would be rather useless. So FileMaker also includes the ability to create customized views into the database. These views are called layouts in FileMaker terminology.

You can think of layouts as windows into your database. When we created the Books database, creating tables automatically induced FileMaker to also create layouts for each of the tables we created. In the case of the Books table, it also created our first record (this was done only for the Books table, which was the table created automatically by FileMaker when we created the database file).



ID 1
CreationDate 3/26/2008
nDate 3/26/2008
nTime 1:37:54 PM
nTime 1:38:13 PM
TitleID
cation
Genre

Record: 1
Total: 1
Unsorted

All of the fields we created in the Books table are placed by FileMaker on the layout. Using FileMaker's menus, we could create book records and fill out the TitleID and other fields on the layout.

That's the first and primary purpose of layouts: to enable users to view and edit data in the database. But layouts serve other purposes as well. A secondary but very common purpose is for printing reports. We'll get to report design in a future column, but for now you can keep in mind that FileMaker provides layout design tools that are especially useful for creating reports. They are still views into data, but the difference is that the view isn't designed to be interactive. Print reports will (generally) not be seen on the screen and will (generally) not be used to enter data.

A third use for layouts is within scripts. There are times when a script needs access to data in a particular form that simply isn't useful to the end user. A layout might be created, and accessed only by a script, never being seen by the end user.

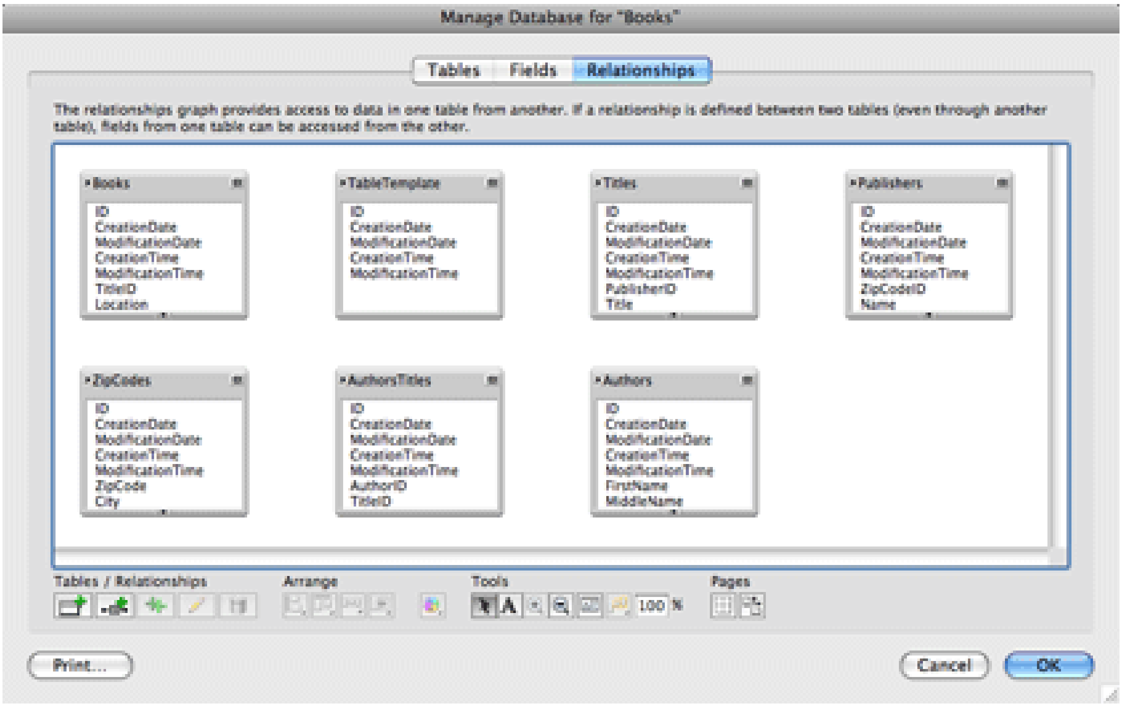
Finally, a layout may be seen by the user, but not be interactive in any way. The most common reason for this might be a splash screen shown to the user during the launching of the FileMaker system. Perhaps some lengthy script operations need to be performed at startup, and rather than showing a data entry layout, a splash screen is displayed with, perhaps, a progress bar.

90% of the layouts you create, however, will be used for data entry. We'll begin, however with developer layouts, converting the automatically created layouts to developer layouts with some minor changes. Before we get there, let's cover table occurrences and how they differ from tables.

Tables vs. Table Occurrences

We've already seen (last time) that tables correspond to the things we're storing data about. Usually a table corresponds to a "thing" that our database tracks. But layouts don't actually view the data in a table. Rather, they view the data in a table occurrence that is linked to a particular table.

Table occurrences can be viewed in FileMaker's relationship graph, seen by choosing File ▷ Manage ▷ Database and clicking on the Relationships tab. If you do this for our Books database you'll see something like this:



The relationships graph provides access to data in one table from another. If a relationship is defined between two tables (even through another table), fields from one table can be accessed from the other.

Books
ID
CreationDate
ModificationDate
CreationTime
ModificationTime
TitleID
Location

TableTemplate
ID
CreationDate
ModificationDate
CreationTime
ModificationTime

Titles
ID
CreationDate
ModificationDate
CreationTime
ModificationTime
PublisherID
Title

Publishers
ID
CreationDate
ModificationDate
CreationTime
ModificationTime
ZipCodeID
Name

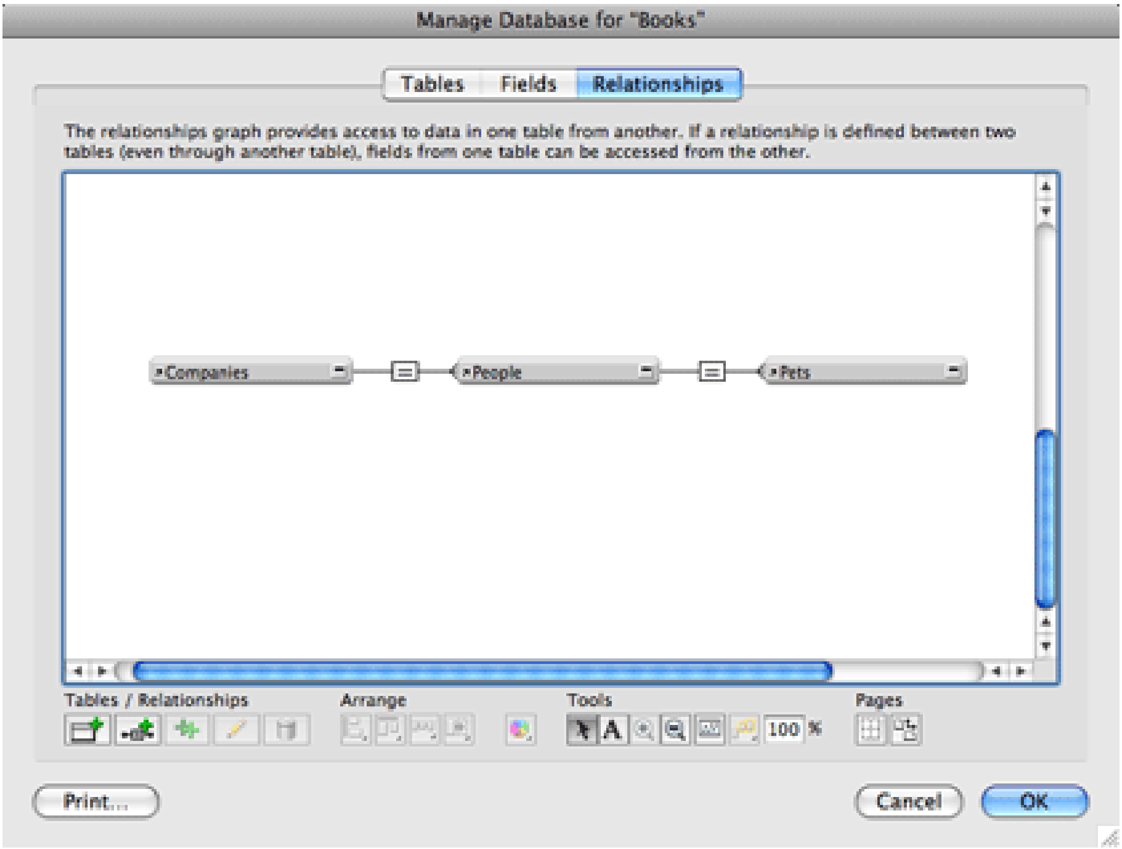
ZipCodes
ID
CreationDate
ModificationDate
CreationTime
ModificationTime
ZipCode
City

AuthorsTitles
ID
CreationDate
ModificationDate
CreationTime
ModificationTime
AuthorID
TitleID

Authors
ID
CreationDate
ModificationDate
CreationTime
ModificationTime
FirstName
MiddleName

A single table can have many table occurrences. Each table occurrence can be linked to a layout (or a portal on a layout). The table occurrence can be thought of as the context for the table.

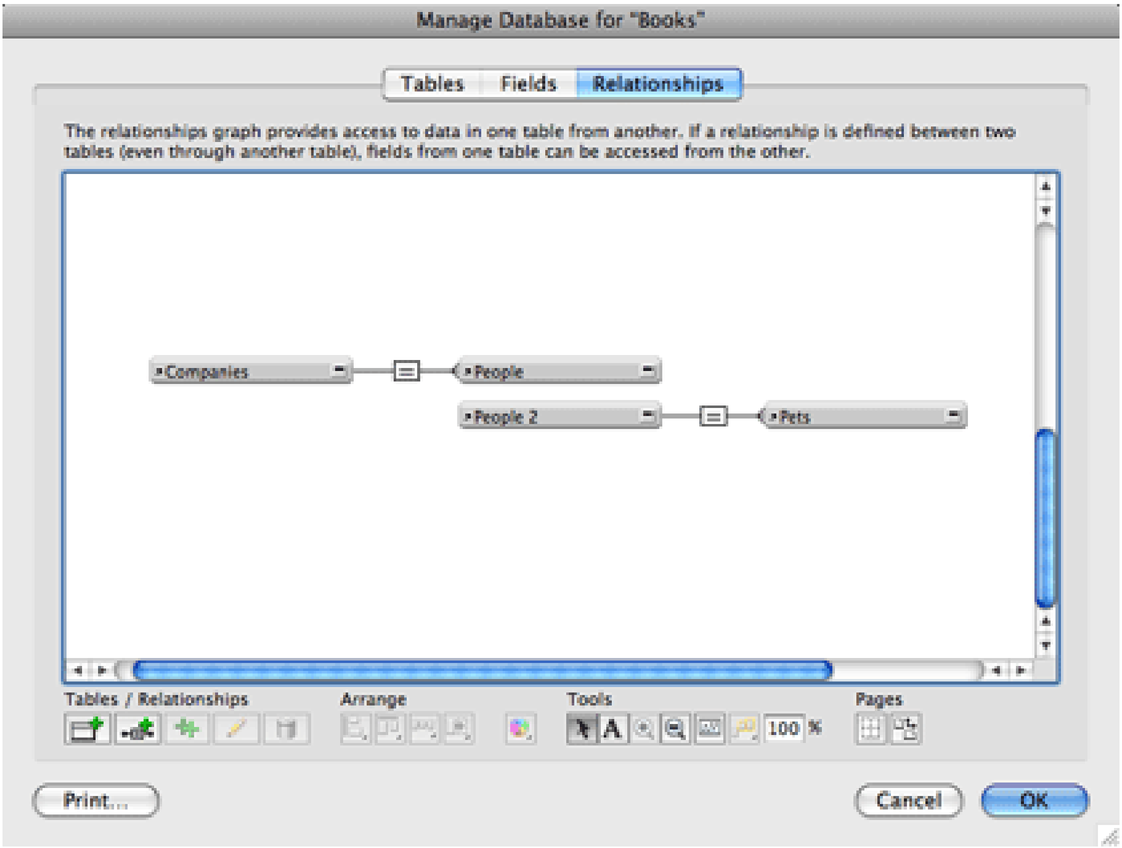
For example, if you create three tables, Companies, People, and Pets, where in your design, Companies are related to multiple People and People to multiple Pets, you could create relationships in FileMaker in one of a number of ways. The first, and most obvious way, is to simply create a series of relationships leading from Companies through People to Pets.



The relationships graph provides access to data in one table from another. If a relationship is defined between two tables (even through another table), fields from one table can be accessed from the other.

With such a set of relationships, you can create a layout showing records from the Companies table occurrence (*not* the Companies table) and use portals (to be discussed in detail later) to display data about related People or related Pets. Or you you create a layout linked to the Pets table occurrence and see information about the related person and company.

But you could also create a relationship graph that looks completely different.


The relationships graph provides access to data in one table from another. If a relationship is defined between two tables (even through another table), fields from one table can be accessed from the other.

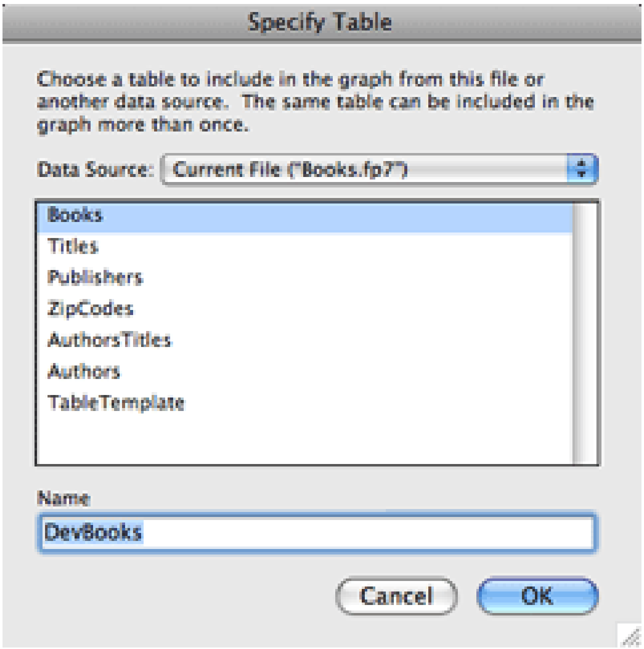
Notice that there, there's no direct link between Companies and Pets. If we now created a layout linked to the Companies table occurrence, we wouldn't be able to automatically get information about Pets, because it's not linked to the table occurrence that the layout looks into. The context of our view into the Companies table doesn't include any information about Pets.

So, tables in FileMaker define what information the system is able to store. Table occurrences, on the other hand, define how the tables are linked and which data is viewable from each particular context. This will become much more clear as we actually begin to build table occurrences and link them to layouts.

Setting Aside the Developer Layouts and Table Occurrences

First, let's change the names of the table occurrences that have been automatically created and the names of the layouts linked to them. We're going to set them aside as for developer use only, so we will prefix their names with "Dev."

Open the database management window by selecting File ▷ Manage ▷ Database (or pressing Shift-Command-D) and click on the Relationships tab. Double-click the "Books" table occurrence and rename it "DevBooks" by changing the name in the "Name" field at the bottom of the "Specify Table" window. Then click OK. Repeat this process for the other tables in the relationship graph.



Specify Table

Choose a table to include in the graph from this file or another data source. The same table can be included in the graph more than once.

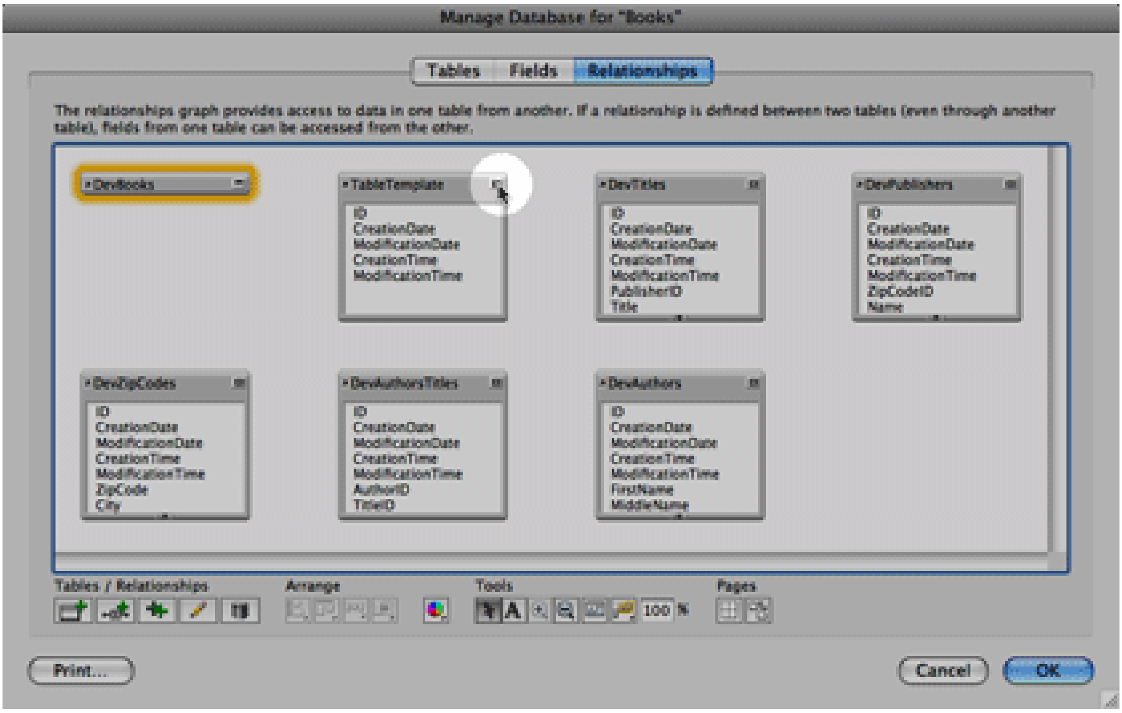
Data Source: Current File ("Books.fp7")

Books
Titles
Publishers
ZipCodes
AuthorsTitles
Authors
TableTemplate

Name: DevBooks

Now let's organize the table occurrences a bit. We won't be creating relationships to these table occurrences, so we'll collapse them to show only the table occurrence name and group them together.

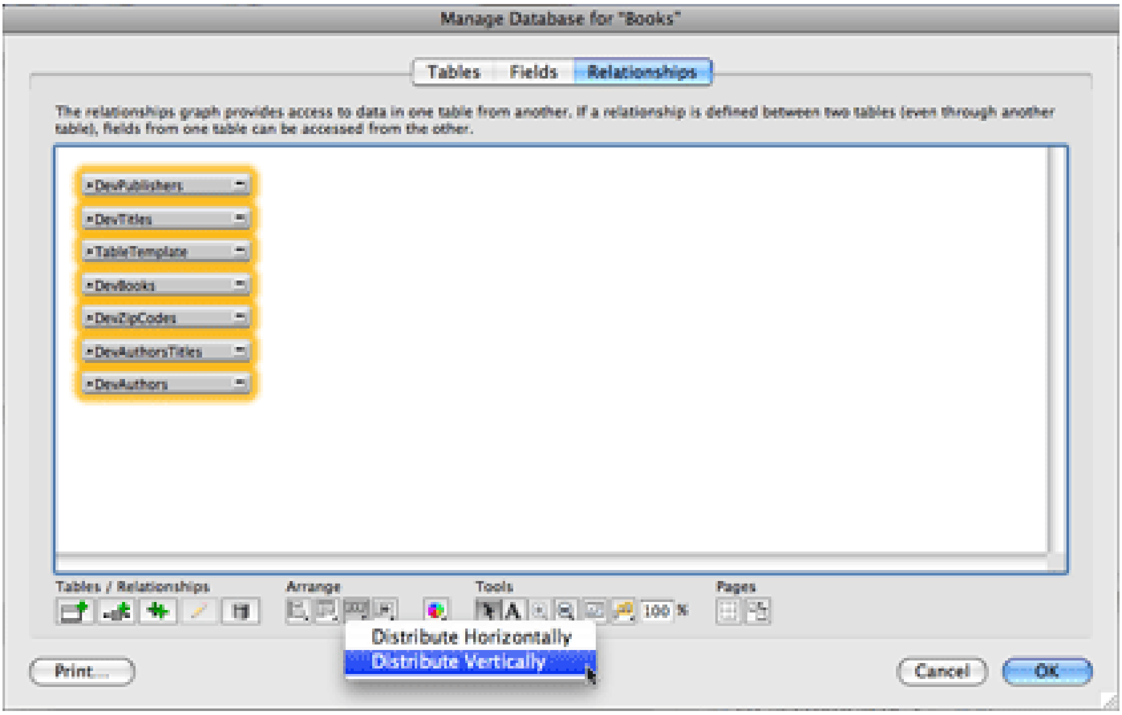
To collapse the table occurrence boxes, click the button in the upper right of each one.



Manage Database for "Books"

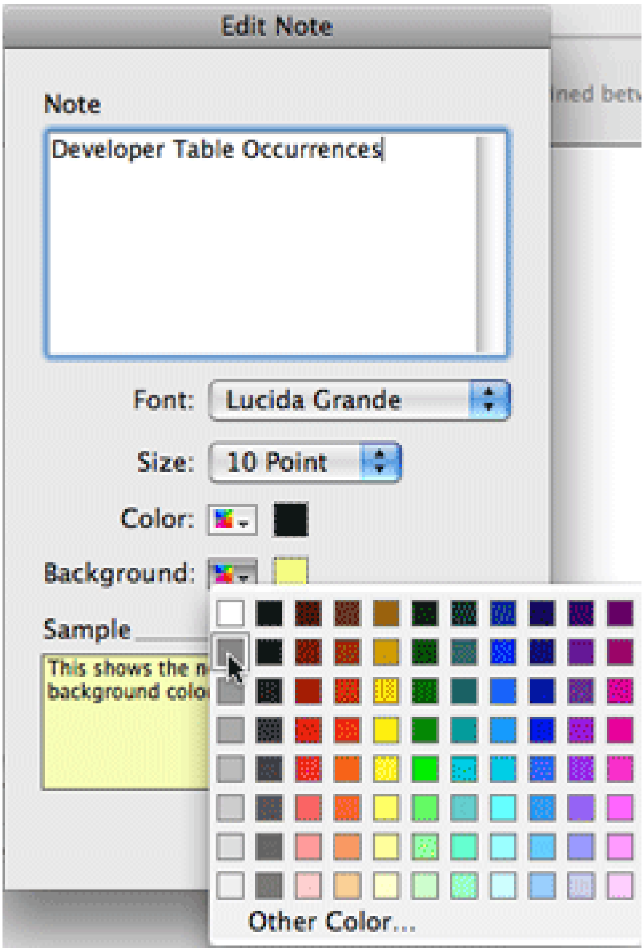
The relationships graph provides access to data in one table from another. If a relationship is defined between two tables (even through another table), fields from one table can be accessed from the other.

Now select them all by drawing a rectangle around them with the pointer or by pressing Command-A. At the bottom of the window are a number of groups of buttons. Under the “Arrange” heading, select the left-most button and select “Align Left Edges” and then select the third button in this group and select “Distribute Vertically.”



The relationships graph provides access to data in one table from another. If a relationship is defined between two tables (even through another table), fields from one table can be accessed from the other.

Now we’ll add a border around these table occurrences to visually group them. Click the second button from the left under “Tools” at the bottom of the window (it has the letter A in it) and draw a rectangle around the table occurrences. This will create a note, which always appears behind table occurrence boxes. In the “Edit Note” window that appears, enter a note of “Developer Table Occurrences” and change the color to one of the grays using the “Background” pop-up menu. Then click OK.



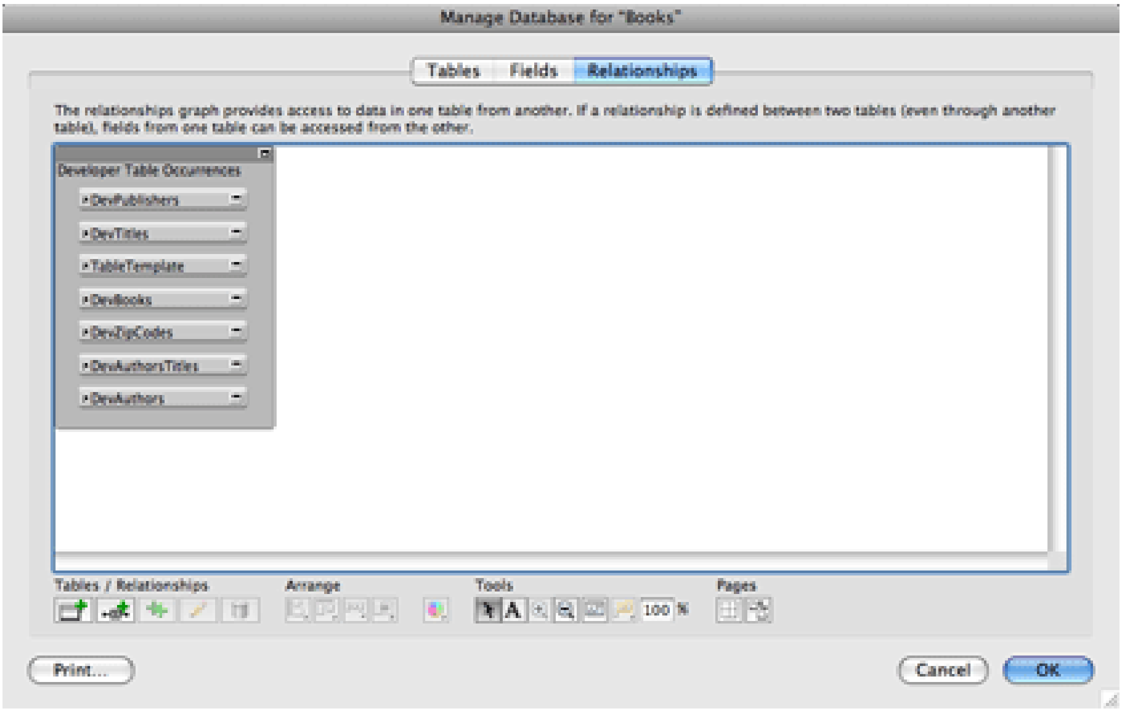
Edit Note

Note: Developer Table Occurrences

Font: Lucida Grande

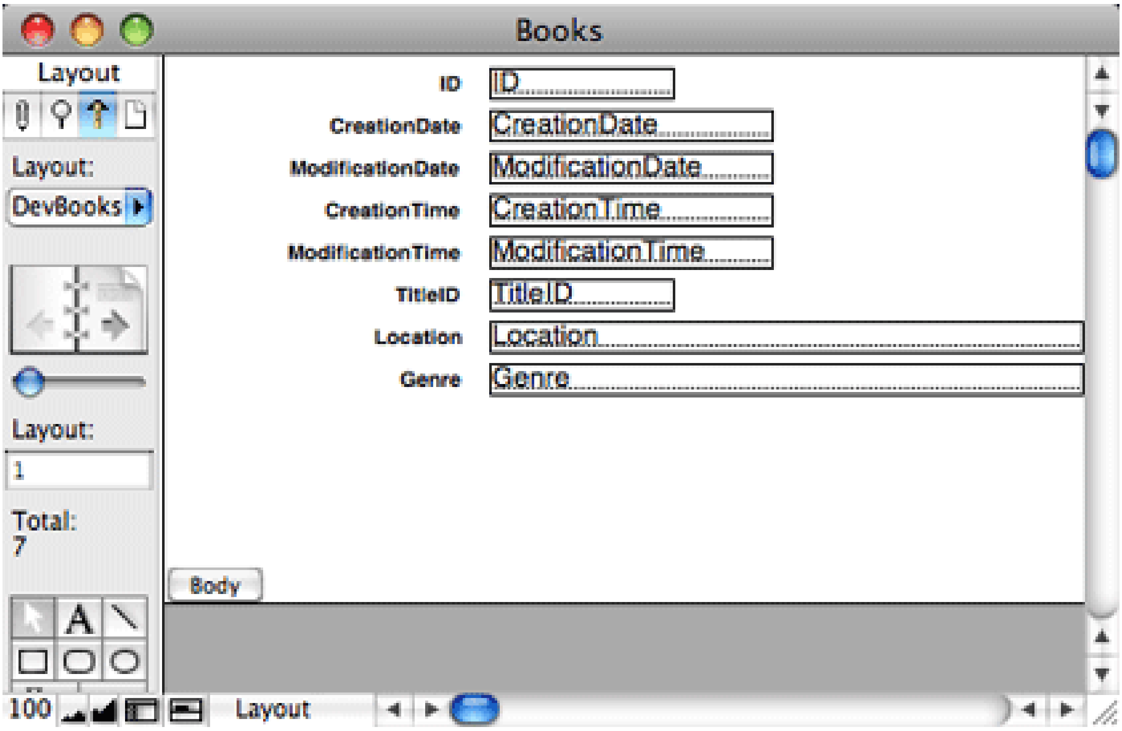
Size: 10 Point

Click on one of the table occurrences and then Shift-click on the rest to position them so that the note title is visible. Resize the note to surround all of the table occurrences if necessary.


The relationships graph provides access to data in one table from another. If a relationship is defined between two tables (even through another table), fields from one table can be accessed from the other.

Now we have some table occurrences for use only by the developer. The user will never directly edit data through these table occurrences, although we may write scripts that do so. Now let's change the associated layouts to have identical names.

Click OK to save your changes. If you're not on the "DevBooks" layout (automatically renamed from "Books" when the associated table occurrence was renamed), select it from the Layout menu in the status area on the right. Enter Layout mode by choosing View ▷ Layout Mode or pressing Command-L. You'll see the three sections of the layout: the Header, the Body, and the Footer. We'll cover the purposes of these sections later, but for now, know that we don't need to have a header nor a footer for our developer layouts. Remove these by clicking the button associated with each one and pressing the Delete key.



Note that this action won't change the functionality of the system, as it's being designed, in any way. These layouts will work just as well for developer purposes if the header and footer remained, but as they aren't being actively used for any purpose, I prefer to remove them.

Further note that renaming a table occurrence will not usually automatically rename a layout associated with it. It happened in this case because the layout had been automatically created when the table was created. If we had renamed the layout manually, changing the associated table occurrence's name would have had no effect.

Go ahead and remove the headers and footers from the other layouts. There are a number of ways to move from one layout to the next. You can select the next layout in the Layout menu in the status area, you can click the book page on the right below the Layout menu or you can press Control-Down Arrow. When you move from one layout to another, unless you've set a preference to the contrary, you'll be asked if you want to save your layout changes. I suppress this dialog box when it first appears, or you can do so manually by selecting FileMaker Pro ▹ Preferences, clicking the Layout tab, and checking the box labeled "Save layout changes automatically (do not ask)."

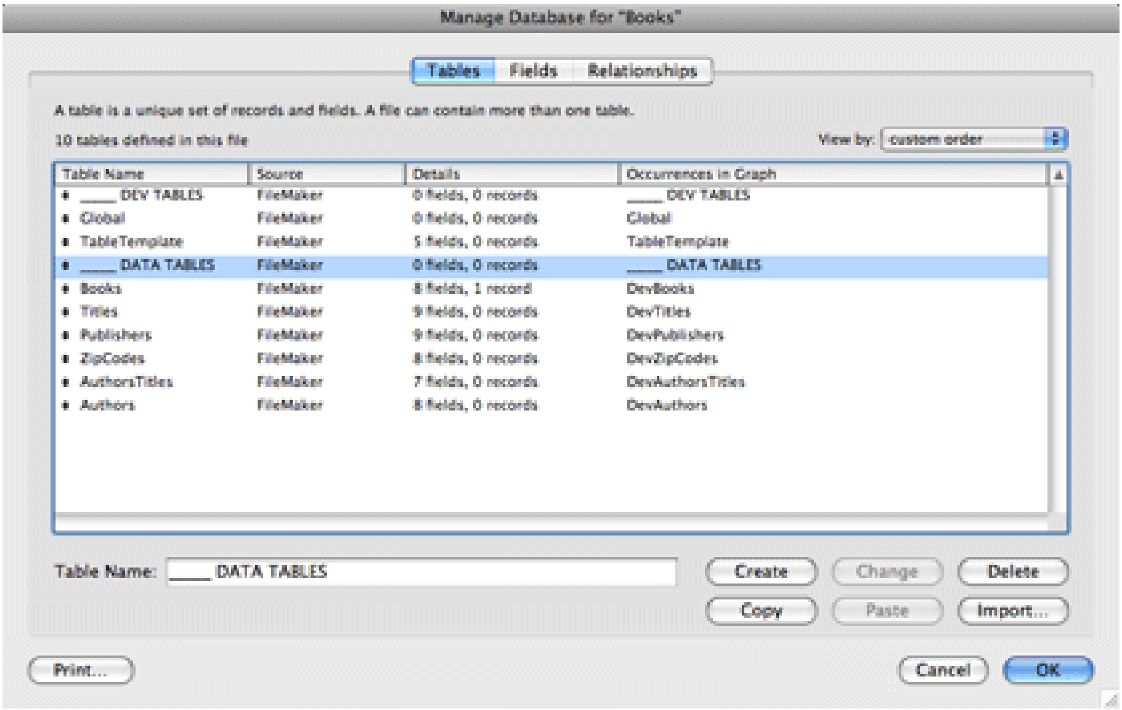
The Global Table

Before we begin creating actual user layouts, we're going to create one more table (and table occurrence and layout). This will be the Globals table. The Globals table will be used to hold information that is global to the entire system. It will have a single record only (which we will eventually ensure with a script that runs automatically). Such global information will be the version of the system, and eventually some graphic elements that are used throughout the system.

Return to the Define Database window (Shift-Command-D) and click on the “Tables” tab. This Globals table is not one that stores normal data, so we will not use the TableTemplate table here. Instead, click on the Table Name field at the bottom of the window and type in “Global”, followed by pressing Return.

We now have two categories of tables: developer tables (Global and TableTemplate) and data tables (everything else). It will be handy to separate these. Tables can be ordered as you like using the double-sided arrow to the left of each table name. Click on this next to the Global table and drag it to the top. Then reposition the TableTemplate table just below Global. You can also reposition a table by selecting it and holding down the Command key while pressing the up and down arrow keys.

Since these tables are of a different sort than the rest, a separator between them will be handy. Create a table called “_____ DEV TABLES” (prepended with five underscores) and position it above the “Global” table. Create another table called “_____ DATA TABLES” and place it below the TableTemplate table.



A table is a unique set of records and fields. A file can contain more than one table.

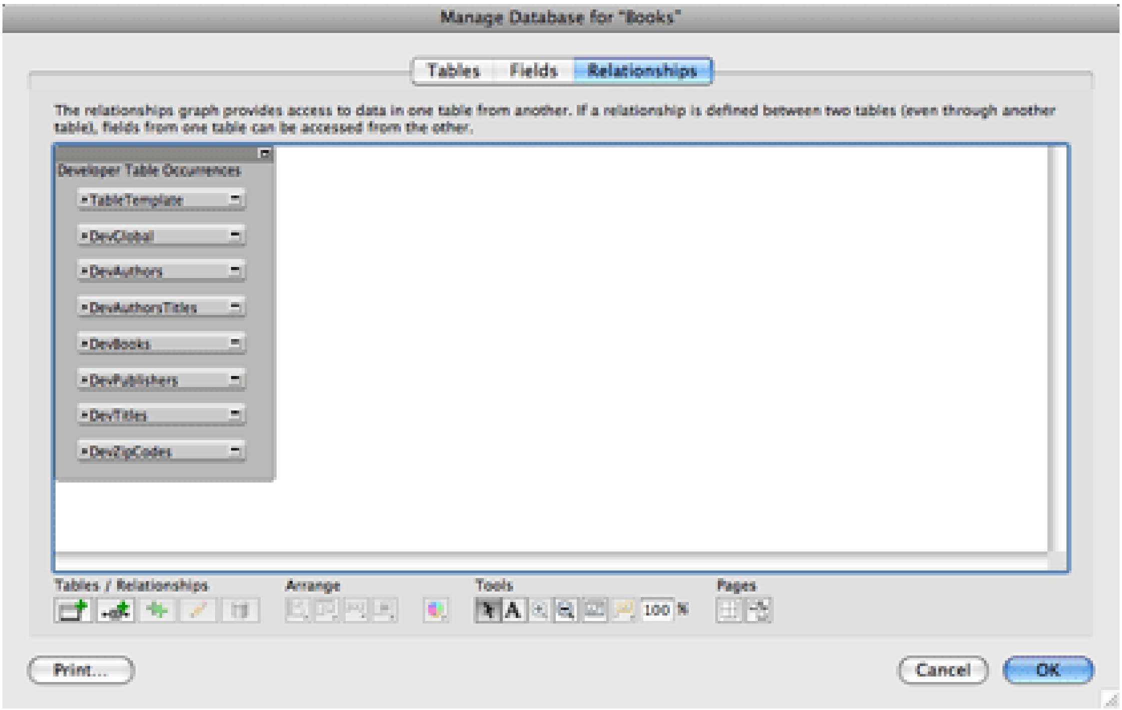
10 tables defined in this file

View by: custom order

Table Name	Source	Details	Occurrences in Graph
____ DEV TABLES	FileMaker	0 fields, 0 records	____ DEV TABLES
Global	FileMaker	0 fields, 0 records	Global
TableTemplate	FileMaker	5 fields, 0 records	TableTemplate
____ DATA TABLES	FileMaker	0 fields, 0 records	____ DATA TABLES
Books	FileMaker	8 fields, 1 record	DevBooks
Titles	FileMaker	9 fields, 0 records	DevTitles
Publishers	FileMaker	9 fields, 0 records	DevPublishers
ZipCodes	FileMaker	8 fields, 0 records	DevZipCodes
AuthorsTitles	FileMaker	7 fields, 0 records	DevAuthorsTitles
Authors	FileMaker	8 fields, 0 records	DevAuthors

Table Name: ____ DATA TABLES

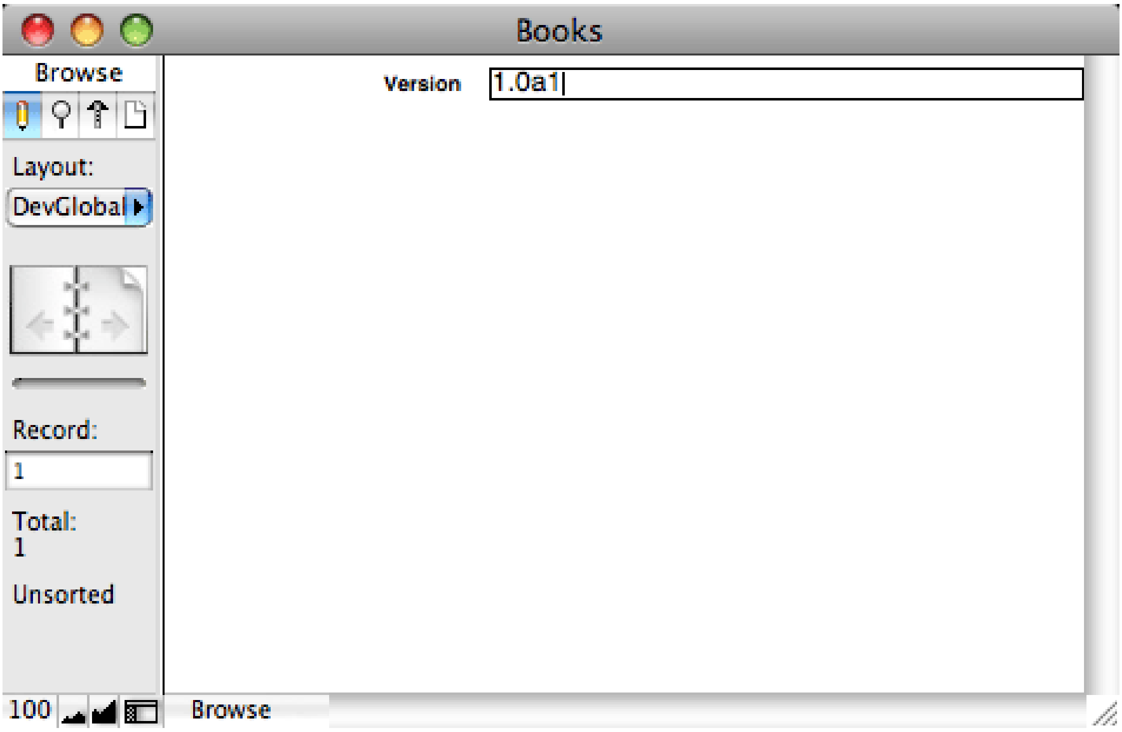
Some table occurrences were automatically created when we created these three tables. We don’t need table occurrences for our separator tables, as we will never create layouts to view data in them. Click on the Relationships tab and delete the table occurrences for “_____ DEV TABLES” and “_____ DATA TABLES.” Collapse the Global table occurrence, rename it “DevGlobal”, and arrange it within the “Developer Table Occurrences” note, using the alignment and distribution menus to position it with respect to the previous table occurrences.



The relationships graph provides access to data in one table from another. If a relationship is defined between two tables (even through another table), fields from one table can be accessed from the other.

Return to the Tables tab and double-click on the Global table to define its fields. For the time being, we'll only need one field in the Global table. Create a text field called "Version." We'll use this to store the version of the database, which will periodically be increased as it's developed. Click OK to save your changes.

FileMaker has automatically created a layout for the DevGlobal table occurrence. Go to that layout, make sure you're in Layout mode, and remove the header and footer. Enter Browse Mode by choosing either View ▷ Browse Mode or pressing Command-B. Create a new record by selecting Records ▷ New Record or pressing Command-N. You're automatically placed in the Version field. Enter "1.0a1".



Version 1.0a1

This is the first version of our system (indicated by “1.0"), we are in the alpha stage (indicated by the “a”), and this is the first alpha version (indicated by the final “1”). The integer portion of the number is the major version number, the fractional portion is the minor version number, and the final number is the revision number. Software development generally goes by stages. Alpha stage is when the initial development takes place, where the programmer adds and tests new features. Each time we work on the system, we’ll increment the alpha version by 1. So next month, we’ll be working on version 1.0a2. Once we’ve added all of the features we want to the system, it will move from the alpha to the beta stage, and we’ll change the version to 1.0b1, incrementing the last digit each time we work on the system, removing any bugs that have been reported. After the system is feature complete and (hopefully) bug-free, we’ll move to a release version, indicated by 1.0r1. We’ll use scripts and custom functions to automate the process of incrementing the revision number.

Automating Development

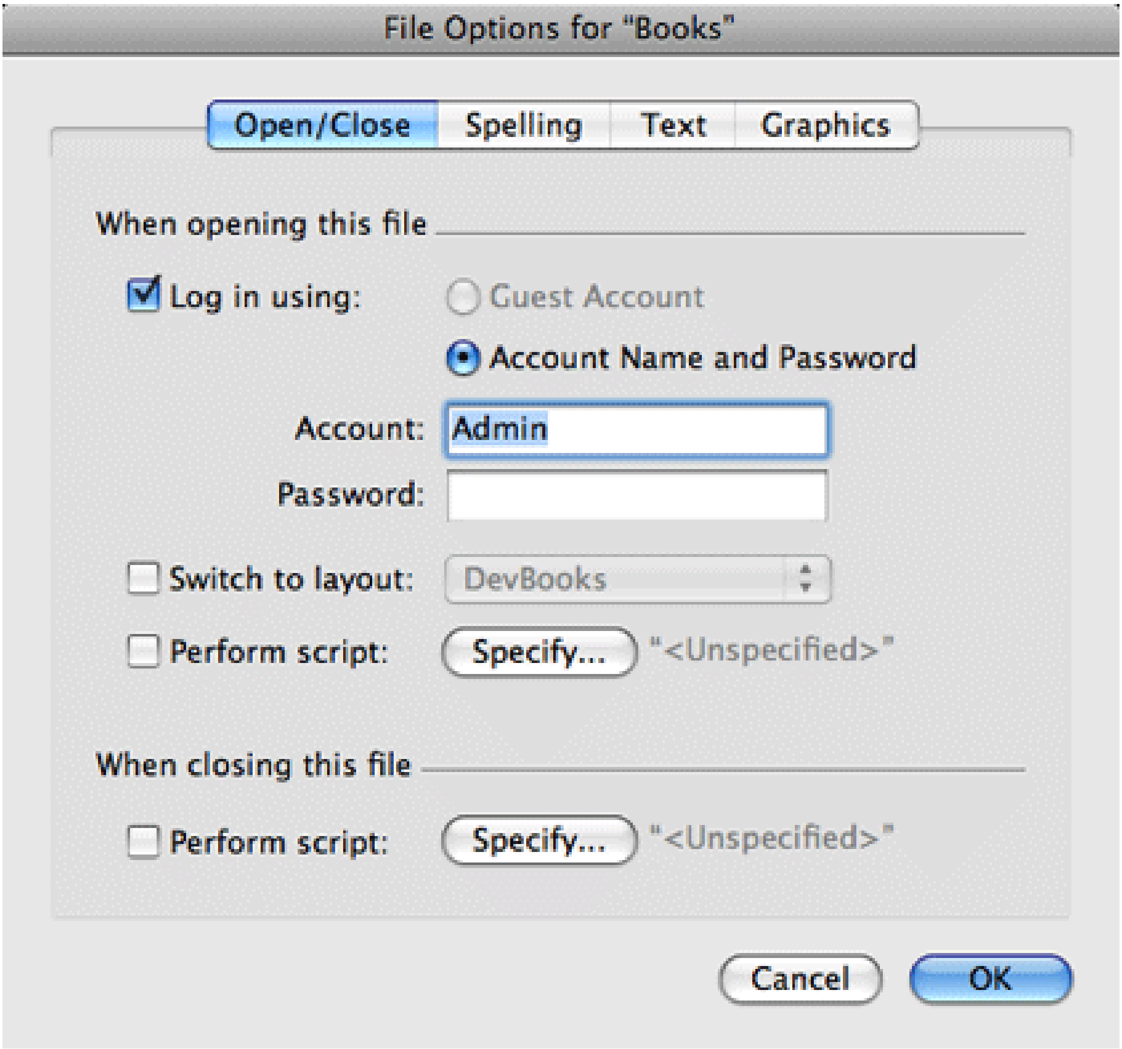
As we’ll see as we build this system, FileMaker offers many tools for building the software for the user, but these same tools can be used to make the life of the developer easier as well. For example, we just discussed how the software’s version number will be incremented. While the computer can’t tell when we’ve moved from one stage to the next (alpha to beta to release), it can tell what the next revision number should be. We’re going to create a custom function to determine what the next revision number should be, and a script that runs at startup will ask the developer if the revision number should be incremented. Before we do that, however, we’ll need to cover the concepts of user accounts, custom functions, and scripts.

User Accounts

A database system must do more than simply provide the means for storing and retrieving data. It also needs to make sure that only authorized users are able to view sensitive data and be able to perform certain actions. FileMaker handles this responsibility with the mechanisms of accounts, privilege sets, and extended privileges. For the time being, we'll touch briefly only on accounts and privilege sets.

An account is a user name/password combination that identifies who a user is and confirms that they are who they say they are. Generally, each user of a FileMaker system will have their own account, and there may be additional accounts as well, for Web access to the system, for instance. All access to a FileMaker database is received through a user account that must be entered when the file is opened.

You might be thinking at this point that you've not been entering any user account information. That's because when FileMaker created the Books.fp7 file, it created an account automatically, and set the file to automatically use that account when opening the file. The account it created is called "Admin" and it currently has no password. You can verify this by selecting File ▷ File Options. There, you'll see that the options specify that the file should be opened automatically using the Admin account, leaving the password blank.



File Options for "Books"

When opening this file

☑ Log in using: ○ Guest Account ● Account Name and Password

Account: Admin

Password:

□ Switch to layout: DevBooks

□ Perform script: Specify... "<Unspecified>"

When closing this file

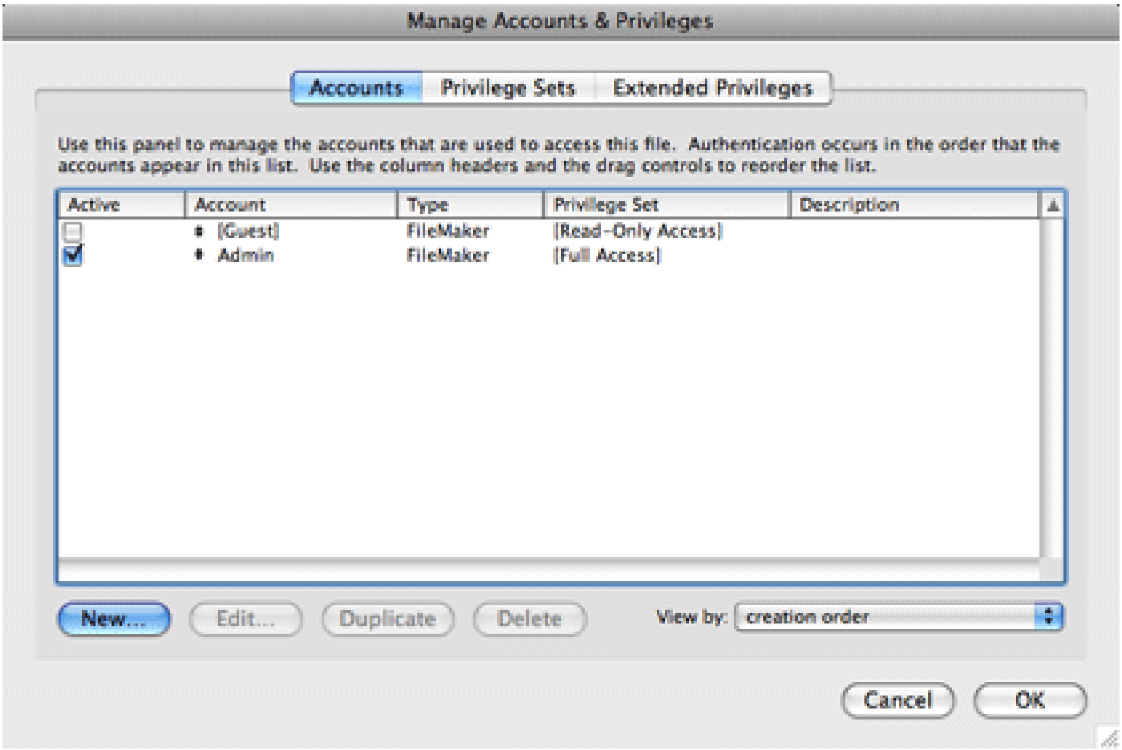
□ Perform script: Specify... "<Unspecified>"

We're going to change these options. First we'll remove the automatic login option from the file options. Go ahead and uncheck the checkbox labeled "Log in using." After you click OK to save this change, if you close the file and open it again, you'll be presented with a login window, prompting you to enter a user name and password. In all likelihood, the user name will be autofilled with "Admin" (obtained from the FileMaker application preferences, seen by going to FileMaker Pro ▹ Preferences). Since no password is associated with that account, you can simply click OK to log in.

The second component of accounts is the privilege set assigned. You can think of privilege sets as a way to break users into groups, specifying which actions each group can perform. So, for example, if you're tracking employee salary information within your database, it's likely that only people in accounting and management should be able to view the data. You can give access to the employee table to everyone (perhaps in addition to storing salary information, it also stores phone numbers that everyone needs access to), but limit the salary portion of the table to the privilege sets associated with management and accounting.

FileMaker comes with a number of privilege sets automatically, and the default Admin account is assigned to the “[Full Access]” privilege set, which you can think of as developer access. It includes access to everything, including defining how the database works. We’re going to modify the Admin account to be specific to you, and we’re going to provide it with a password.

Select File ▷ Manage ▷ Accounts & Privileges and make sure the Accounts tab is selected. You’ll see two accounts: a disabled [Guest] account and an enabled Admin account. We’ll ignore the [Guest] account for the time being.



Manage Accounts & Privileges

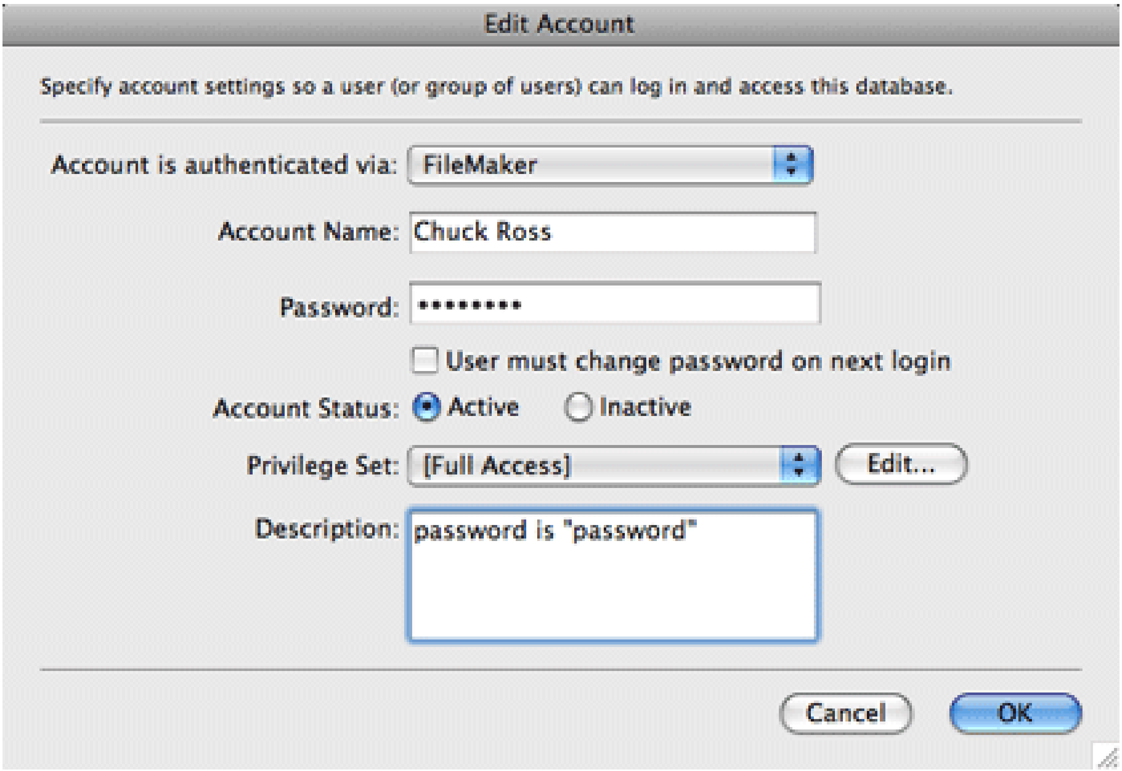
Use this panel to manage the accounts that are used to access this file. Authentication occurs in the order that the accounts appear in this list. Use the column headers and the drag controls to reorder the list.

Active	Account	Type	Privilege Set	Description
☐	[Guest]	FileMaker	[Read-Only Access]	
☑	Admin	FileMaker	[Full Access]	

View by: creation order

Double-click the Admin account to see the Edit Account window. Enter your first and last name for the Account Name and give yourself a password. Since I’ll be making my copy of the file available on our Web site, I’ll just use “password” for the password.

Leaving the Privilege Set menu as is, you can place anything you like in the Description field. During development, I often create sample accounts for each privilege set. These accounts are removed before delivering the system to the client. For easy reference, I’ll often place the password for the account in the description so that I can see it when viewing all the accounts.



Edit Account

Specify account settings so a user (or group of users) can log in and access this database.

Account is authenticated via: FileMaker

Account Name: Chuck Ross

Password: ••••••••

□ User must change password on next login

Account Status: ● Active ○ Inactive

Privilege Set: [Full Access]

Description: password is "password"

Click OK to save your changes and then OK again. Since you've changed the settings, FileMaker wants to ensure that you know how to get back in. It will present you with a window to confirm that you know how to log in with Full access. Enter the name and password you just used for the edited Admin account, and click OK. If you now close and reopen the file, you'll need to enter this account and password in order to access the file.

Scripts

Most tasks that FileMaker can perform can be automated with a script, which is a set of steps that should be performed. Scripts can do just about anything that a user can do, but faster and more accurately. As a simplistic example, suppose that you've created a layout for the user to view the list of all books in the database. The end-user can then choose Records ▷ New Record to create a new record and then manually navigate to a layout designed for data entry. By using a script, you can automate this process, creating the record and taking the user to the appropriate layout and perhaps performing other actions as well (maybe creating a log entry that the record was created and by whom it was created).

FileMaker offers dozens of script steps, many of which take parameters that affect the behavior of the step. We'll be creating a script in a few moments that will check which account was used to log into the system, and perform certain actions if the user is one particular person (you).

Custom Functions

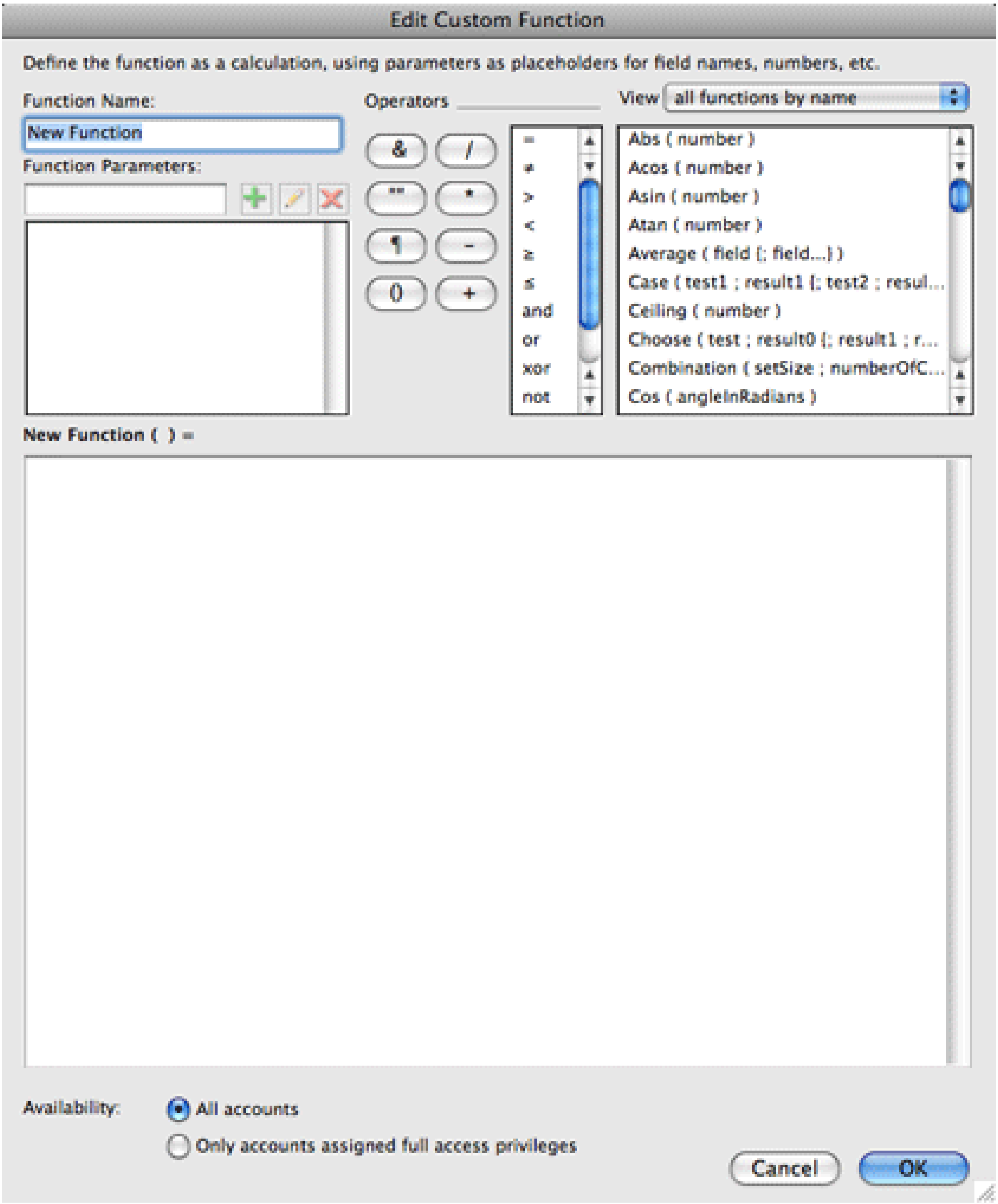
We haven't yet gotten to calculations in general, but briefly, calculations are used throughout the FileMaker application, within field definitions, privilege sets, and scripts, among many other places. A calculation uses functions to return a value. For example, if you have an Orders table with related line items, you would probably have a number of calculations that eventually determine the grand total of the order. First, each line item on the order probably has a `Quantity` and a `Price`, so you would create a calculation field with an equation of `Quantity * Price`, which multiplies the quantity by the price. Then, in the Orders table, you might have fields for shipping amount and the tax rate, which might produce a `TotalOrder` calculation in the form of `( Sum( LineItems::ExtendedPrice ) ) * ( 1 + TaxRate ) + ShippingAmount`.

In this calculation, `Sum` is a built-in FileMaker function which returns a total of all the values in the records related to the current record. FileMaker has dozens of built-in functions. Some are logical, so that a calculation can return different values based on some condition, and some work with text, allowing you to combine strings or pull them apart. But often, FileMaker doesn't have a function for what you want to do. This is where custom functions come in.

Any time you create a similar calculation more than once, consider placing it in a custom function. For example, it's common to combine a first, middle, and last name into a single string for display. You could type in the same sort of calculation each time, or you could create a custom function, and simply call it, as in `FullName( FirstName, MiddleName, LastName )`.

We're going to create a custom function now that will accept as a parameter a version string and return the incremented version. So if passed, for example, `"1.4r13"`, it would return `"1.4r14"`.

Select File ▷ Manage ▷ Custom Functions and click the "New" button at the bottom of the window.



Define the function as a calculation, using parameters as placeholders for field names, numbers, etc.

Function Name: New Function

View: all functions by name

New Function ( ) =

Availability: ● All accounts
○ Only accounts assigned full access privileges

Give the function a name by typing “NextVersion” in the Function Name field. Our function will take a single parameter, the current version, so type “CurrentVersion” in the Function Parameters field and press return. Now click in the calculation definition field (the largest text area in the window), and you’re ready to begin defining the equation.

We’re going to build our function in a couple of iterations, refining the equation each time. Let’s analyze what we need to do.

A version number is in the form of X.YmZ. We want to extract the *Z* from this, get it's numerical value, add one to it, remove the *Z* from the original string, and append this new value to what is left.

The value of the *m* in our version string template will be either "a", "b", or "r". Only one of those should appear in the string, so whichever one is in it, we can assume that any characters after it are the revision number we want to increment.

How can we tell which letter is used? It isn't very straightforward to do so. FileMaker doesn't have a function called something like `StringContainsSubstring`, but it does have a function called `PatternCount`, which will serve the same purpose. `PatternCount` has a template of `PatternCount( text; searchString )` and will return the number of times `searchString` appears in `text`. If `searchString` does not appear in `text`, a zero is returned. So we can search for the letter "a" in our version string with `PatternCount( CurrentVersion; "a" )`. If the result is not zero, "a" is in the version string. Similarly, `PatternCount( CurrentVersion; "b" )` and `PatternCount( CurrentVersion; "r" )` will tell us if there's a "b" or an "r" in the version string.

`Case` is another built-in FileMaker function. Its template is `Case( test1; result1 {; test2; result2; ...; defaultResult} )`. `Case` performs each test, and after finding one that returns true, returns the result following it. If no test returns true, the `defaultResult` is returned. The curly braces around `test2` through `defaultResult` indicate that those parameters are optional, and the ellipsis between `result2` and `defaultResult` indicates that additional tests could be placed there. If no test returns true and there is no default result, an empty string is returned (`""`).

One further item to mention before we build the `Case` function: FileMaker interprets a zero value as false in tests and any other value as true. This works well for treating our `PatternCount` function as a `ContainsString` function. If the `searchString` is found at all, a number greater than zero will be returned, and this will be interpreted by FileMaker as true.

We'll use the `Case` function to test for each of the three possible strings. For whichever string is found we'll keep that letter. Here's what our `Case` function will look like:

```
Case(
  PatternCount( CurrentVersion; "a" );
  "a";
  PatternCount( CurrentVersion; "b" );
  "b";
  PatternCount( CurrentVersion; "r" );
  "r"
)
```

This portion of the equation will return whichever letter appears in the version string. But what do we do with this? FileMaker has another function called `Let`, which allows us to store temporary variables in the equation for later use. Although anything you can do in FileMaker with the `Let` function is possible without it (with an advanced exception to be covered with the topic on script variables sometime in the future), it often makes the equation much more readable. So we'll store the above calculation's return value in a variable. The template for `Let` is `Let( {[} var1 = expression1 {; var2 = expression2...]} ; calculation )`.

```
Let(
  [
    Letter = Case(
      PatternCount( CurrentVersion; "a" );
      "a";
      PatternCount( CurrentVersion; "b" );
      "b";
      PatternCount( CurrentVersion; "r" );
      "r"
    )
  ];

  // Final result
)
```

Whichever letter appears in the string, we now want to know where it appears. FileMaker's built-in function for this purpose is `Position( text; searchString; start; occurrence )`, where `text` is the string we are looking for the position of something in, `searchString` is the string we are looking for, `start` is the position at which we should start looking, and `occurrence` is which occurrence should be considered. 90% of the time, `start` and `occurrence` both have a value of 1, meaning we begin at the beginning and find the first occurrence.

Since the variable `Letter` stores which letter we are searching for, our `Position` function takes the form of `Position( CurrentVersion; Letter; 1; 1 )`. In the case of a version string like `"1.0r1"`, this would return 4, as the "r" is the fourth letter in the string. Let's store this in a variable and add it to our equation.

```
Let(
  [
    Letter = Case(
      PatternCount( CurrentVersion; "a" );
      "a";
      PatternCount( CurrentVersion; "b" );
      "b";
      PatternCount( CurrentVersion; "r" );
      "r"
    );
    LetterPosition = Position( CurrentVersion; Letter; 1; 1 )
  ];

  // Final result
)
```

Once we know the position of the letter, we want to get everything to the right of it. FileMaker's built-in functions for this purpose are `Length` and `Right`. `Length`, with a template of simply `Length( text )`, returns the number of characters in a string, so that `Length( "1.0a1" )` would return 5. `Right`'s template is `Right( text; numberOfCharacters )`, so that `Right( "1.0a7", 2 )` would return `"a7"`.

Note that if we subtract the position of the letter from the length of the version string, this provides us with the number of characters on the right that we are interested in. So, `Right( CurrentVersion; Length( CurrentVersion )--LetterPosition )` will return the revision number as a string.

```
Let(
  [
    Letter = Case(
      PatternCount( CurrentVersion; "a" );
      "a";
      PatternCount( CurrentVersion; "b" );
      "b";
      PatternCount( CurrentVersion; "r" );
      "r"
    );
    LetterPosition = Position( CurrentVersion; Letter; 1; 1 );
    RevisionNumber = Right( CurrentVersion;
                            Length( CurrentVersion ) - LetterPosition )
  ];

  // Final result
)
```

Our `RevisionNumber` variable isn't actually a number; it's a string. We don't increment a string; we increment a number. We convert this string to a number with the `GetAsNumber( text )` function. After doing that, we can increment it.

```
Let(
  [
    Letter = Case(
      PatternCount( CurrentVersion; "a" );
      "a";
      PatternCount( CurrentVersion; "b" );
      "b";
      PatternCount( CurrentVersion; "r" );
      "r"
    );
    LetterPosition = Position( CurrentVersion; Letter; 1; 1 );
    RevisionString = Right( CurrentVersion;
                            Length( CurrentVersion ) - LetterPosition );
    NextRevisionNumber = GetAsNumber( RevisionString ) + 1
  ];

  // Final result
)
```

We need to append this incremented revision number to the base version string with everything up to the letter we found. Just like the `Right` function, there is a `Left` function for this purpose.

```
Let(
  [
    Letter = Case(
      PatternCount( CurrentVersion; "a" );
      "a";
      PatternCount( CurrentVersion; "b" );
      "b";
      PatternCount( CurrentVersion; "r" );
      "r"
    );
    LetterPosition = Position( CurrentVersion; Letter; 1; 1 );
    RevisionString = Right( CurrentVersion;
                            Length( CurrentVersion ) - LetterPosition );
    NextRevisionNumber = GetAsNumber( RevisionString ) + 1;
    BaseVersionString = Left( CurrentVersion; LetterPosition )
  ];

  // Final result
)
```

Now we can finally fill in the final result, converting our number back to text now that we've incremented it.

```
Let(
  [
    Letter = Case(
      PatternCount( CurrentVersion; "a" );
      "a";
      PatternCount( CurrentVersion; "b" );
      "b";
      PatternCount( CurrentVersion; "r" );
      "r"
    );
    LetterPosition = Position( CurrentVersion; Letter; 1; 1 );
    RevisionString = Right( CurrentVersion;
                            Length( CurrentVersion ) - LetterPosition );
    NextRevisionNumber = GetAsNumber( RevisionString ) + 1;
    BaseVersionString = Left( CurrentVersion; LetterPosition )
  ];

  BaseVersionString & GetAsText( NextRevisionNumber )
)
```

To give you an idea of how complicated this would have been without the Let function, and to demonstrate that anything you can do with Let you can do without, here's the same function after removing the Let function.

```
Left(
  CurrentVersion;
  Position(
    CurrentVersion;
    Case(
      PatternCount( CurrentVersion; "a" );
      "a";
      PatternCount( CurrentVersion; "b" );
      "b";
      PatternCount( CurrentVersion; "r" );
      "r"
    );
    1;
    1
  )
) & GetAsText( GetAsNumber( Right(
  CurrentVersion;
  Length( CurrentVersion ) - Position( CurrentVersion; Case(
    PatternCount( CurrentVersion; "a" );
    "a";
    PatternCount( CurrentVersion; "b" );
    "b";
    PatternCount( CurrentVersion; "r" );
    "r"
  ); 1; 1 )
) ) + 1 )
```

Notice that, even after using indenting to make this a bit easier to read, it's still quite difficult to understand what's happening, and that our large `Case` function appears twice.

Why did we go through all this trouble? For most cases, current revision number is a single digit at the end of the version string. Why not simply use something like `Left( CurrentVersion, Length( CurrentVersion )--1 ) & GetAsText( GetAsNumber( Right( CurrentVersion; 1 ) ) + 1 )`?

Such an equation would work so long as the revision number never got higher than 9. Similarly, although the letter is going to usually be the fourth character, that's only true so long as the minor version is 9 or lower.

Note, however, that we haven't covered all the possibilities. If a version string is passed to this function that doesn't conform to X.YmZ, our function will fail in an unpredictable way. Perhaps we'll cover error checking with this in a future column.

Now that we have the equation, we can comment it. Comments are notes within a calculation directed to the reader, not FileMaker. Here's our final custom function calculation with commenting.

```
// Accepts a version number of the form X.XxX, where Xs are integers and x is
// either "a" (for alpha version), "b" (for beta version) or "r" (for release
// version) and returns the next revision. It does this by keeping the X.Xx
// portion and adding one to the last X.

Let(
  [
    Letter = Case(
      PatternCount( CurrentVersion; "a" );
      "a";
      PatternCount( CurrentVersion; "b" );
      "b";
      PatternCount( CurrentVersion; "r" );
      "r"
    );
    LetterPosition = Position( CurrentVersion; Letter; 1; 1 );
    RevisionString = Right( CurrentVersion;
                                Length( CurrentVersion ) - LetterPosition );
    NextRevisionNumber = GetAsNumber( RevisionString ) + 1;
    BaseVersionString = Left( CurrentVersion; LetterPosition )
  ];

  BaseVersionString & GetAsText( NextRevisionNumber )
)
```

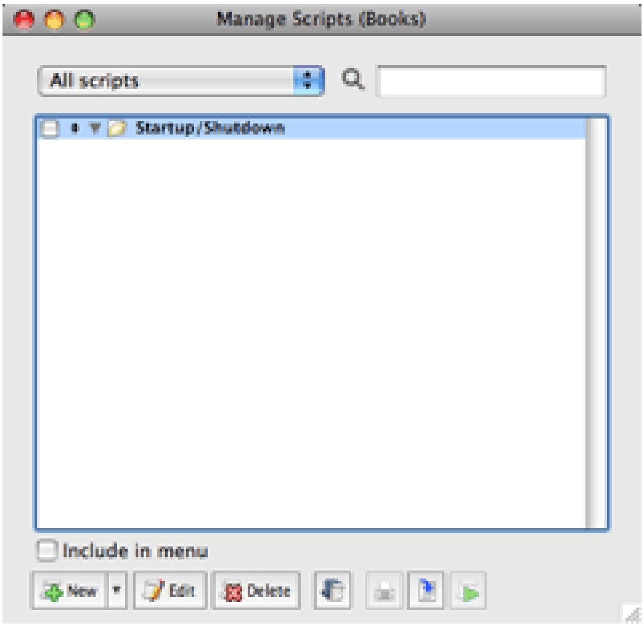
Enter this into the calculation field for your custom function and click OK to dismiss the Edit Custom Function dialog. Then OK again to save your changes.

Startup Script

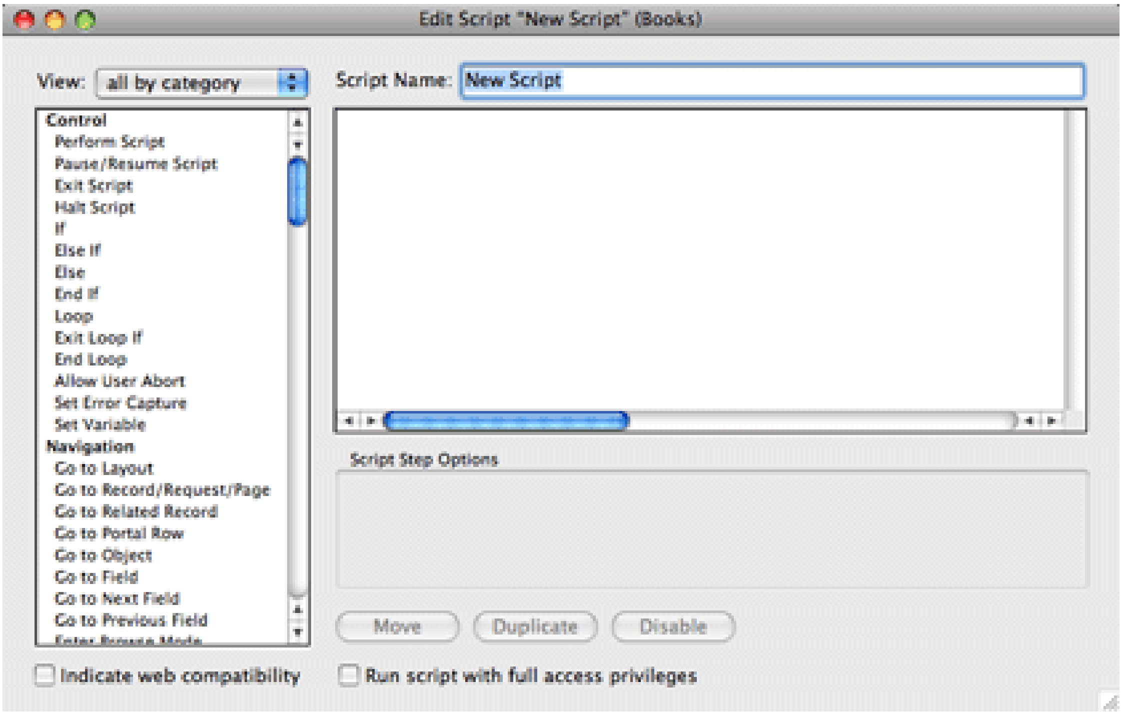
The whole purpose of this is to allow the computer to automatically increment the version number. We're going to write a script to do this and configure the database file to automatically run the script when the file is opened.

Here's how the script will operate: it will first check to see who is logged in, and if it's you, it will ask if it should increment the file's version number. If you opt to increment it, it will set the value in the Version field in the Global table to the incremented version number.

To begin building the script, select Scripts ▷ ScriptMaker or press Shift-Command-S. Scripts can be organized into folders, so let's first create a folder for scripts that deal with starting up or shutting down the system. At the bottom right of the Manage Scripts window is a "New" button with a menu to its right. Click this menu and select "New Group." When the Edit Group window appears, enter a name of "Startup/Shutdown." Click OK to save your changes. Click the checkbox "Include in menu" at the bottom of the Manage Scripts window to turn off this option.



Now click the "New" button or click the menu next to it and select "New Script." The Edit Script window is where you specify the name of the script, which steps it has, and what options those steps include.



Edit Script "New Script" (Books)

View: all by category

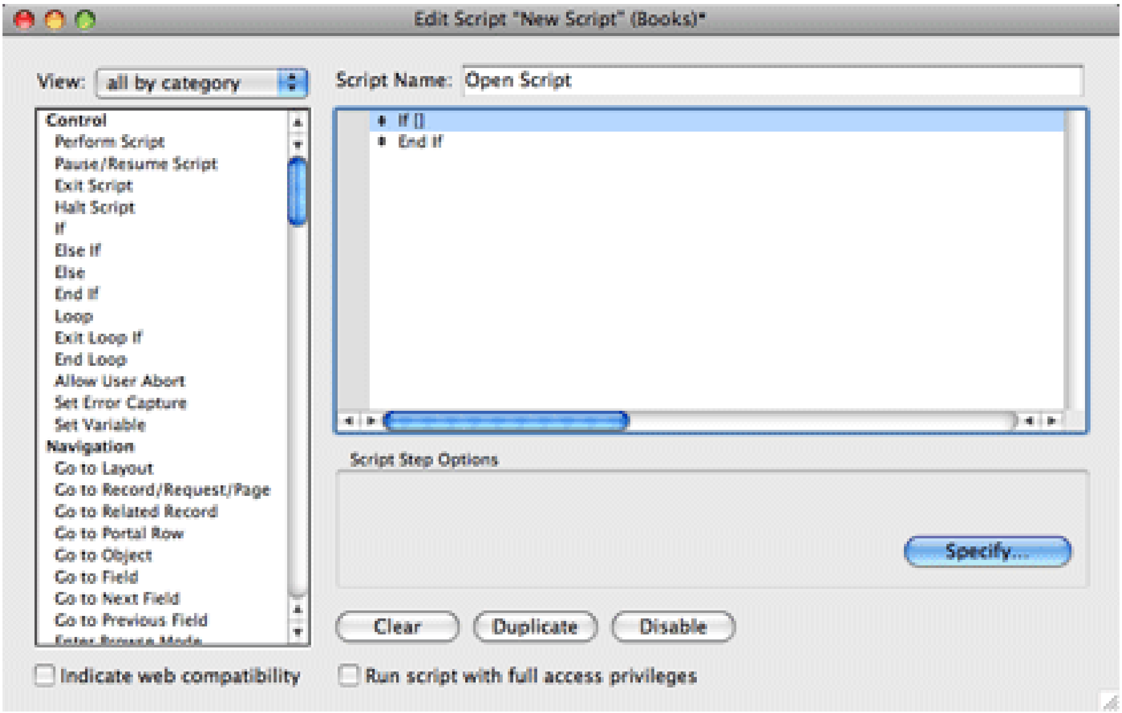
Script Name: New Script

□ Indicate web compatibility

□ Run script with full access privileges

Our first script will check to see who is logged in. We only want to perform the majority of the steps in this script if a particular person is logged in. Alternatively, you can check if a developer belonging to the [Full Access] privilege set is logged in. When I'm creating a solution, however, I'm generally the only one who will be interested in incrementing the version number, so I tie it to my name.

In the Script Name field, give the script a name of "Open Script" to indicate that this will be run when the file is opened. Along the left side of the Edit Script window are the script steps that can be added. Double-click the `If` step, which will add not only an `If` step, but also an `End If` step because every `If` step needs a corresponding `End If` step.



Edit Script "New Script" (Books)*

View: all by category

Script Name: Open Script

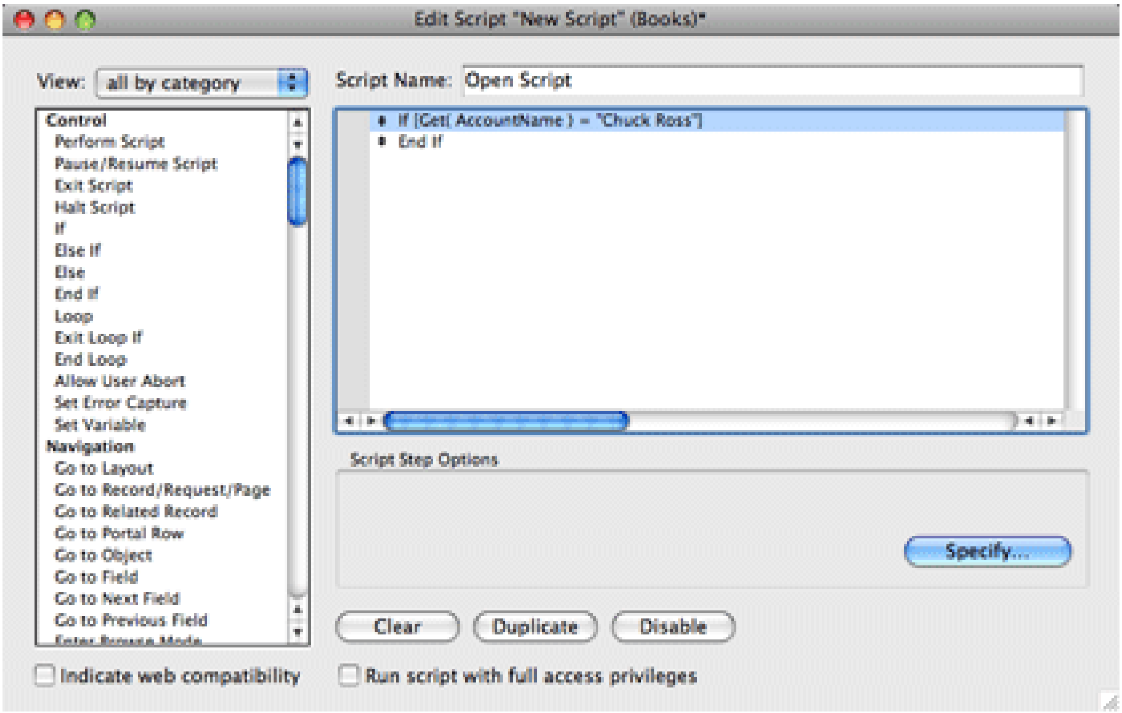
```
• If []
• End If
```

☐ Indicate web compatibility

☐ Run script with full access privileges

Double-click the If step in the script definition on the right. This will bring up the calculation that will be tested. If the calculation returns true, the steps between the If step and the End If step will be executed. If the calculation returns false, they will be skipped.

We want to check who has logged in. FileMaker provides a built-in function called `Get( AccountName )` that returns this information. Enter `Get( AccountName ) = "Chuck Ross"` into the calculation area at the bottom of the window, replacing “Chuck Ross” with whatever name you happened to use when you edited the Admin account, and click OK.



Edit Script "New Script" (Books)*

View: all by category

Script Name: Open Script

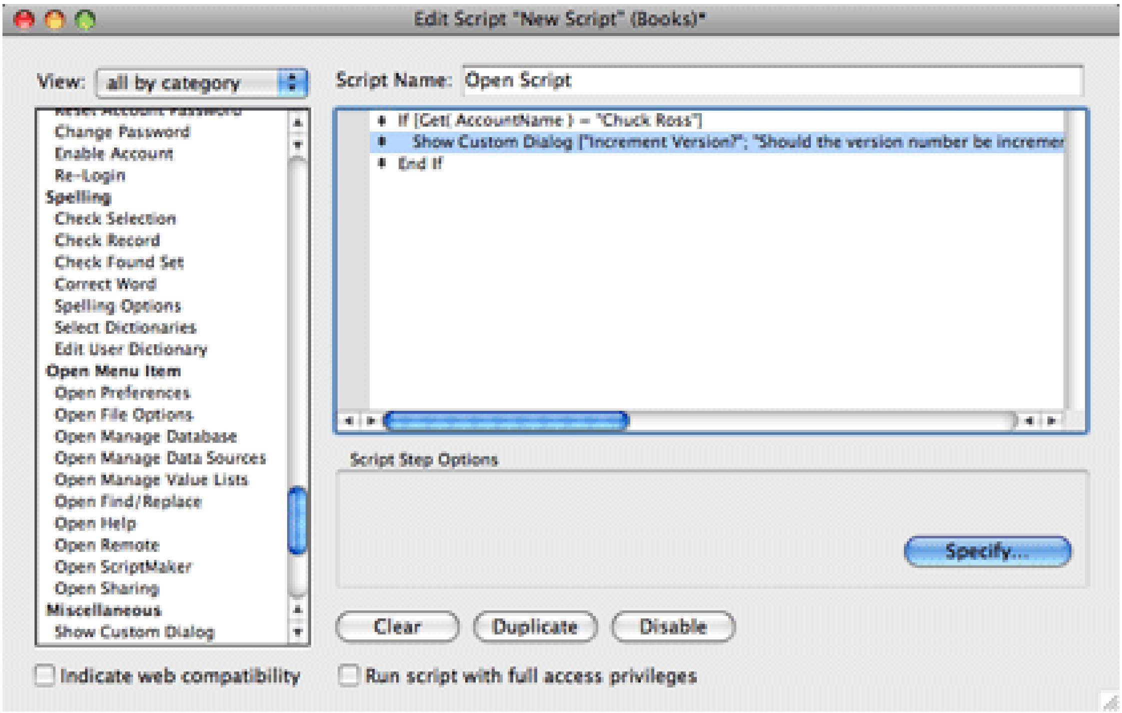
```
If [Get( AccountName ) = "Chuck Ross"]
End If
```

□ Indicate web compatibility

□ Run script with full access privileges

If I'm logged in, I want a dialog box to ask if the system's version number should be incremented. Scroll down the list of available script steps until you find “Show Custom Dialog” under “Miscellaneous.” Alternatively, you can press the Tab key until the script step list is highlighted and then type “show c,” which will highlight that script step. Either double-click it or, if you navigated to it with the keyboard, press the spacebar after pausing for a second. Now either double-click the script step in your script, or press the spacebar again to bring up the script step options.

For the title of this dialog box, enter “Increment Version?.” Type in “Should the version number be incremented?” for the “Message.” You can specify three buttons for a custom message, one of which can be a default button that is activated if the user pressed Return. In this case, I want the Cancel operation to be the default action, so change the “Default Button” field to read “Cancel” and the “Button 2" field to read “Increment.” Click OK to save your changes.



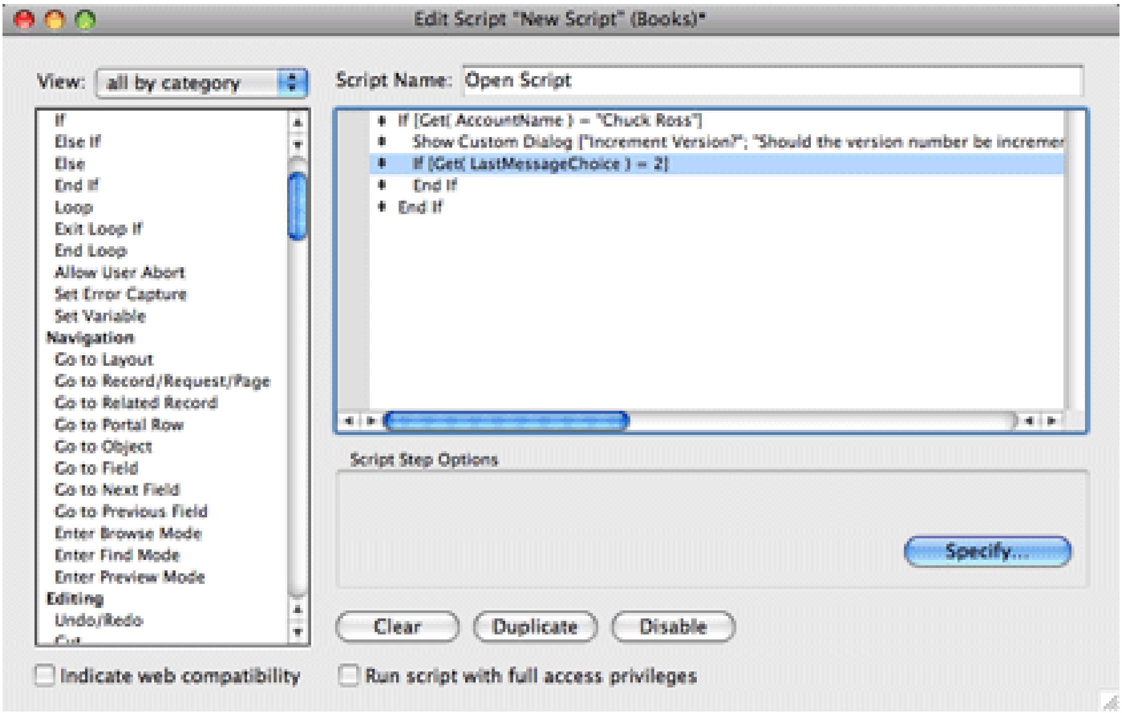
Edit Script "New Script" (Books)*

View: all by category

Script Name: Open Script

```
If [Get( AccountName ) = "Chuck Ross"]
  Show Custom Dialog ["Increment Version?"; "Should the version number be incremen
End If
```

Now we need another `If` block, so add one below the Show Custom Dialog step. FileMaker's built-in function for determining which button was clicked is the `Get( LastMessageChoice )` function, which returns the number of the button clicked. We want to continue executing the script steps in the `If` block if the user clicked the second button, so enter `Get( LastMessageChoice ) = 2` into the `If` step's calculation.



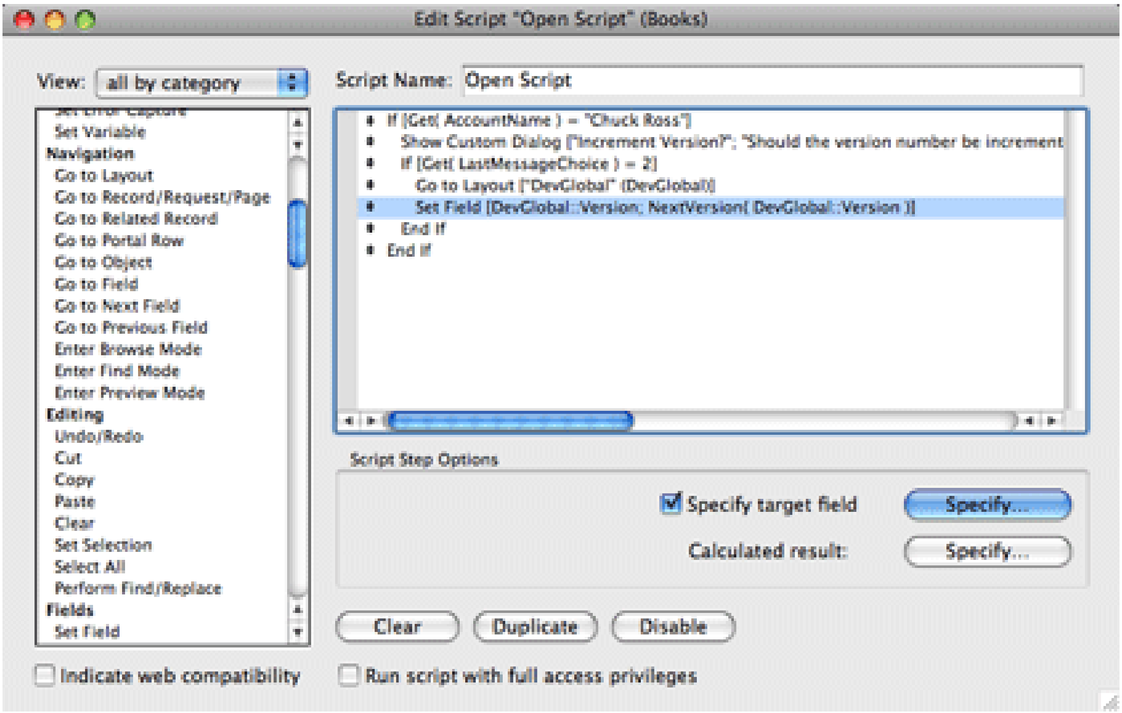
Edit Script "New Script" (Books)*

View: all by category

Script Name: Open Script

```
If [Get( AccountName ) = "Chuck Ross"]
  Show Custom Dialog ["Increment Version?"; "Should the version number be incremen
  If [Get( LastMessageChoice ) = 2]
  End If
End If
```

Now we can perform the actual increment. But to do so, we need to make sure we're on the right layout. Find the "Go to Layout" script step under Navigation and add it to the script. In the Specify menu at the bottom right of the window that appears, select DevGlobal. Now add a "Set Field" script step. For its options, set the Specify target field to Version under the DevGlobal table occurrence. For the calculated result enter `NextVersion( DevGlobal::Version )`. Your script should look like the one shown below.



View: all by category

Script Name: Open Script

```
If [Get( AccountName ) = "Chuck Ross"]
  Show Custom Dialog ["Increment Version?"; "Should the version number be increment
  If [Get( LastMessageChoice ) = 2]
    Go to Layout ["DevGlobal" (DevGlobal)]
    Set Field [DevGlobal::Version; NextVersion( DevGlobal::Version )]
  End If
End If
```

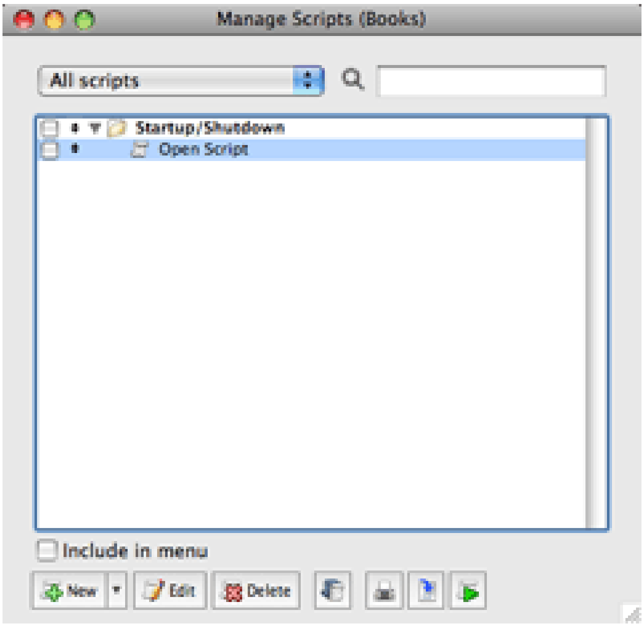
☑ Specify target field

Calculated result:

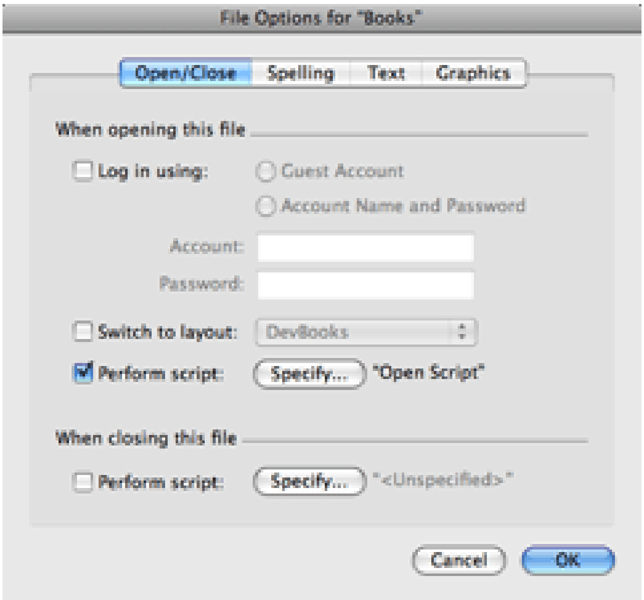
□ Indicate web compatibility

□ Run script with full access privileges

You still need to save your script. You can do so by pressing Command-S or by clicking the close box for the window (or pressing Command-W) and clicking "Save" in the dialog that appears. Your new script should appear in the Startup/Shutdown group in the Manage Scripts window. Press Command-W to close this.



Now set this script to run when the file is opened. Select File ▷ File Options, click the Perform script checkbox, select Startup, and click OK to return to the file options window and OK again to save your changes.



When opening this file

□ Log in using: ○ Guest Account ○ Account Name and Password

Account:

Password:

□ Switch to layout: DevBooks

☑ Perform script: Specify... "Open Script"

When closing this file

□ Perform script: Specify... "<Unspecified>"

Try it out! Close the file and reopen it, logging in with the account and password you set earlier. You should be presented with a dialog asking if the version should be incremented, and if you click “Increment” and check the version number on the DevGlobal layout, you should see it as 1.0a2.

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MacMuser

by Mark Tennent, http://www.tennent.co.uk

Less Than Stimulating Simulation?

At last! We thought. Something we should be really good at because we know the real thing inside out. What is it? Feral Interactive's ToCA (Touring car) based on Honda's latest Civic.

Yes, we know how sad we are driving a Civic. After many extended test runs and fun with the Type-R, we plumped for the diesel-engine version. It means we can keep our spinal cords from crumbling from the Type-R's suspension and keep our hearing from impairment by the screaming VTEC—which is actually quite gutless at low revs until the twiddly valves do their twiddling—and get a better all-around drive.

This is the Garrison Keillor, fluffy-bunny turbodiesel from the TV ad. Don't be misled; acceleration is faster than a 1970s Ferrari. Honda has created nearly a pocket rocket, so be careful at the traffic lights Grand Prix—in case granny and granddad embarrass your car.

When we tried the simulation, it was as similar to the real thing as corporate IT buying decisions are to intelligence. You think there is sense somewhere until IT dishes out Microsoft's latest version of Office instead of using any of the free alternatives. In the case of the simulation, the car has no brakes and accelerates at the speed of a half-squashed slug. Nothing at all like the real thing. Yet some simulations can, apparently, be good enough for serious work. X-Plane, for example, is so authentic that the Federal Aviation Administration counts it as real flight time.

No Smoke Without FireWire

The other big disappointment this week has been Apple's new MacBooks. They look great, and their silicon chippery is a big improvement, but the pricing is less so. And where is the FireWire port? This is no case of form following function—rather, more an accountant's decision overruling the design department. Apple went through this during the 1990s when it produced turkeys such as the Colour Classic II, Macintosh TV, and Performa 460.

Without a FireWire port, many DV cameras are rendered useless. And, there will be no FireWire target disk mode or networking. The fastest hard drives cannot be connected. We use a MacBook to repair other Macs, connecting them to the laptop via FireWire.

There are possible workarounds, such as USB to FireWire converters or a direct connection using the gigabit Ethernet ports, which is useful for migrating from computer to computer. To cap it all, MacFixIt reports that Apple is censoring all discussion on its forums about the lack of FireWire.

Postscript

Since writing this article, Feral has issued two further demos with three different scenarios. I put my hand up. I was too hasty dismissing the game. OK, I'll admit it: I'm hooked. My credit card details have been filled into the box at Feral, and I can't wait for the game to arrive.

I just hope it lasts longer than Call of Duty 4, which I completed in a long weekend, leaving me with a taste for more.

Next Actions

by Ed Eubanks, Jr.

Master List for November

I've got a couple of actual articles for *Next Actions* in the works. I had planned to finish "More ways to fill your inbox" for this issue, before my wife went into the hospital to deliver our twins! Look for a real article, not just a list, in the December issue.

As usual, I welcome any feedback on my list, or suggestions for additions. I won't always add every suggestion, but I'll look at them and evaluate whether they fit with what I'm trying to cover.

Locally Installed GTD Applications

Action Tracker

Developer: Mac Productive
Current Version: 1.3.1
Price: Free
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: FileMaker Pro (free Runtime version available)
Distinguishing Features: Also organizes notes, contacts, and other information related to projects.
News: None

ActionTastic

Developer: Jon Crosby

Current Version: 0.9.3

Price: Free, open-source

Development Status: Beta

iCal Sync: Yes

QuickSilver Plug-in: Yes

Web-app Sync: Yes

Print Lists: Yes

iPhone Presence: None

Required Applications: None

Distinguishing Features: Processing engine; iPod sync; Mail and MailTags compatibility.

News: ActionTastic now has a new Web site.

EasyTask Manager

Developer: Orionbelt.com

Current Version: 2.0

Price: $20

Development Status: Release

iCal Sync: Yes

QuickSilver Plug-in: Yes

Web-app Sync: Yes

Print Lists: Yes

iPhone Presence: App (free); Web App (free)

Required Applications: None

Distinguishing Features: Windows version available; automatic advance of uncompleted due tasks to today.

News: None

Frictionless

Developer: Twin Forces
Current Version: 2.0d18
Price: Free, open-source
Development Status: Release
iCal Sync: No
QuickSilver Plug-in: Yes
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: None
Distinguishing Features: Quick-entry box; fuzzy repeated actions.
News: None

Ghost Action

Developer: Ghost Park Software
Current Version: 1.1
Price: $20
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: None
Distinguishing Features: .Mac syncing (without iCal running); PDA/iPod syncing.
News: None

iGTD

Developer: Bartek
Current Version: 1.4.5.6
Price: Free
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: Yes
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: None
Distinguishing Features: Compatible with Address Book, Mail, iSync, and MailTags, as well as Web browser support, Path Finder, Yojimbo, MacJournal, and others; quick-entry feature; simple yet powerful interface.
News: A recent post on the forum suggests that there may actually be life for this application. But it has been almost a year, and from what I've heard and read many of their users have moved on. I wonder if they will be able to recover.

iCog

Developer: HensPace
Current Version: 1.88
Price: Free
Development Status: Release
iCal Sync: No
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: Python 2.4 or later
Distinguishing Features: Compatible with any OS running Python (including Windows); very simple text-only utility.
News: None

mGTD

Developer: Jeff Fisher
Current Version: 1.3
Price: Free
Development Status: Pre-final
iCal Sync: No
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: Mori 1.6.11
Distinguishing Features: Expands Mori (digital notebook) functions to include GTD principles.
News: None

Midnight Inbox

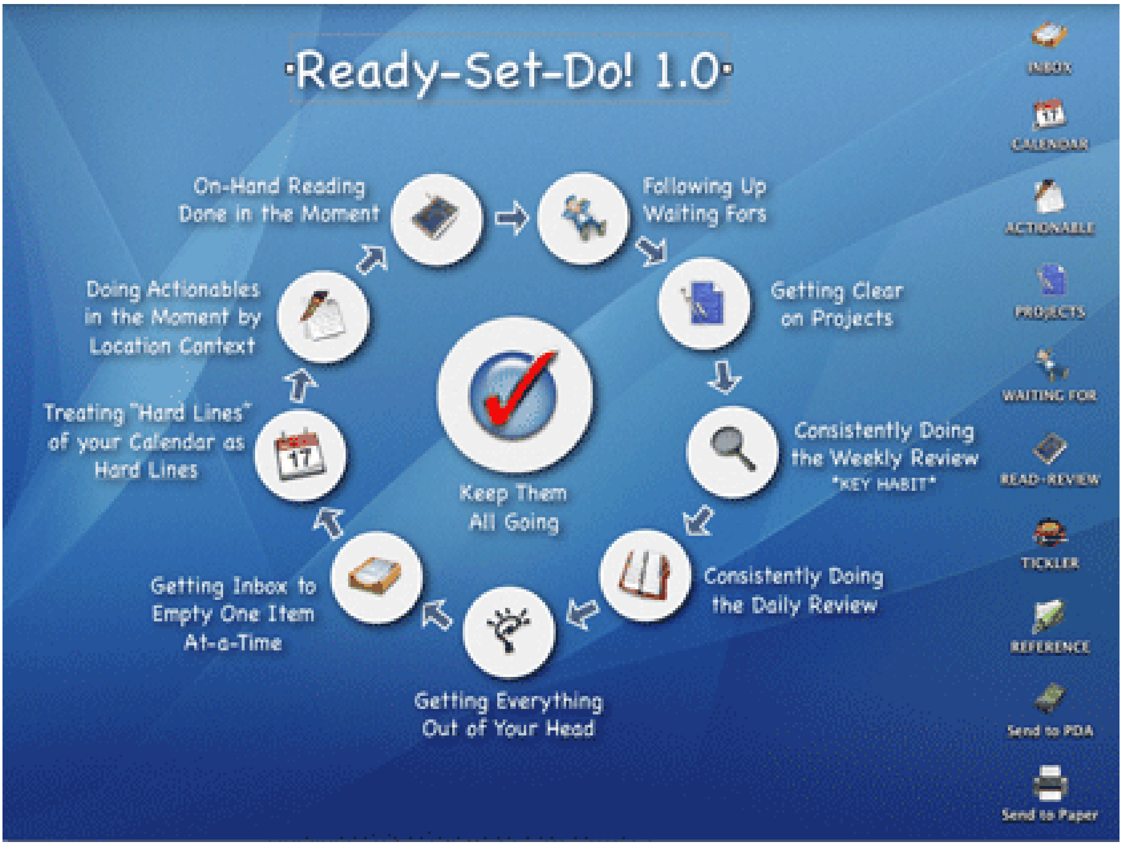
Developer: Midnight Beep Softworks
Current Version: 1.3.1
Price: $35
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: None
Distinguishing Features: Action timer; quick-note and quick-action hot keys; Mail compatible; automatic data collection.

News: None.

OmniFocus

Developer: Omni Group
Current Version: 1.5rc2
Price: $80
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: Yes
Web-app Sync: No
Print Lists: Yes
iPhone Presence: App ($20)
Required Applications: None
Distinguishing Features: Mail- and Spotlight-compatible; simple interface with powerful view features.
News: Version numbers have recently jumped, from what was an alpha/beta of 1.1 to what is now posted as a release-candidate of 1.5. The core advantages of the new version are a variety of syncing tools, although a few other minor changes are there as well.

Ready, Set, Do!


Ready-Set-Do! 1.0
On-Hand Reading Done in the Moment
Following Up Waiting Fors
Getting Clear on Projects
Consistently Doing the Weekly Review "KEY HABIT"
Consistently Doing the Daily Review
Getting Everything Out of Your Head
Getting Inbox to Empty One Item At-a-Time
Treating "Hard Lines" of your Calendar as Hard Lines
Doing Actionables in the Moment by Location Context
Keep Them All Going
INBOX
CALENDAR
ACTIONABLE
PROJECTS
WAITING FOR
READ-REVIEW
TICKLER
REFERENCE
Send to PDA
Send to Paper

Developer: Todd Vasquez
Current Version: 1.3d
Price: $20
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: Yes
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: None
Distinguishing Features: A very different approach using a set of AppleScript routines to impose organization and communication across a computer's entire file system; multiple language support.
News: A new Quicksilver action is now available on the "Xtras" section of the Web site.

TaskPaper

Developer: Hog Bay Software
Current Version: 1.0.3 (26)
Price: $19
Development Status: Release
iCal Sync: No
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Required Applications: None
Distinguishing Features: Simple, text-based system; no-frills, intentionally designed as an alternative to more fully featured systems.
News: None

Things

Developer: Cultured Code
Current Version: 0.9.4
Price: $50 (pre-release price of $40 with sign-up for newsletter)
Development Status: Alpha
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: App ($10)
Required Applications: None
Distinguishing Features: Features *will* include: iCal sync; repeating tasks; Mail compatibility; network and multi-computer operation; and import/export options.

News: Cultured Code has announced that Things 1.0 will be released at Macworld Expo on January 6, 2009.

Thinking Rock

Developer: Avente Pty Ltd

Current Version: 2.0.1

Price: Free, open-source

Development Status: Release

iCal Sync: No

QuickSilver Plug-in: No

Web-app Sync: No

Print Lists: Yes

iPhone Presence: None

Required Applications: None

Distinguishing Features: Cross-platform compatibility through Java; interactive collection and processing.

News: None.

What To Do

Developer: Objective Satisfaction

Current Version: 1.3.2

Price: $29

Development Status: Release

iCal Sync: No

QuickSilver Plug-in: Yes

Web-app Sync: No

Print Lists: Yes

iPhone Presence: None
Required Applications: None
Distinguishing Features: Drag-and-drop intensive for easy reorganization; .Mac syncing for multiple computers; XML export.
News: None

Locally Installed General Task Managers

Anxiety

Developer: Tom Stoelwinder, Model Concept
Current Version: 1.0
Price: Free/Donationware
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes (through iCal)
iPhone Presence: None
Distinguishing Features: A menu-bar utility that gives a HUD-like interface to iCal tasks; sorts by calendar; Mac OS X 10.5 only.
News: None

Check Off

Developer: Second Gear
Current Version: 3.8
Price: Free/Donationware
Development Status: Release
iCal Sync: No
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Distinguishing Features: A menu-bar utility that manages basic task lists; syncs with iPods; a .Mac Backup QuickPick is provided.
News: None

Dejumble

Developer: Thinking Code Software, Inc.
Current Version: 1.2.b19
Price: $19
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes (through iCal)
iPhone Presence: App ($8)
Distinguishing Features: A simple yet powerful menu-bar style task list manager, with tags, groups, notes, and a handful of other options.
News: Beta development continues for the new version 1.2.

Docket

Developer: Surprise Software
Current Version: 1.3
Price: $20
Development Status: Release
iCal Sync: No
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Distinguishing Features: A neat basic list management application. A Windows version is also available.
News: None

DoIt

Developer: Jim McGowan
Current Version: 2.6
Price: Donationware
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: Yes
Web-app Sync: No
Print Lists: No
iPhone Presence: None

Distinguishing Features: .Mac support and AppleScriptability. Also supports file attachments and categories for lists.
News: None

High Priority

Developer: Aram Kudurshian
Current Version: 1.11 (Mac OS X 10.4 *only*)
Price: $6 (personal); $12 (family); $60 (business)
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes (through iCal)
iPhone Presence: None
Distinguishing Features: A system preference pane, creates a menu in the menu bar that lets you create and update your iCal tasks.
News: None

Hot Plan

Developer: Intuiware
Current Version: 1.4.1
Price: $20
Development Status: Release
iCal Sync: No
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: No
iPhone Presence: None
Distinguishing Features: Tracks a substantial amount of information about a given task, including completion status, priority, time remaining; supports tagging, color-coding, and locking of tasks. Also allows collection of URLs and files.
News: None

iClock

Developer: Script Software

Current Version: 3.0.5
Price: $20
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: No
Distinguishing Features: Offers a menu bar–based method of managing task lists; includes .Mac syncing.
News: None

Life Balance

Developer: Llamagraphics
Current Version: 5.0.1
Price: $65 ($80 bundled with Palm version)
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes (through iCal)
Distinguishing Features: Gives "meta-feedback" about tasks: how much time are you spending in different areas of your life (i.e., work, family, hobbies, etc.), and are you keeping it balanced? Palm and Windows versions available.
News: *Another* big upgrade, this one jumping from 4.x up to 5.0.1—hard to say what's going on here without release notes.

MultitaskingAssistant

Developer: Green Cog Software
Current Version: 1.0.3
Price: Donationware
Development Status: Release
iCal Sync: No
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: No
iPhone Presence: None
Distinguishing Features: Perhaps especially helpful for repetitive and redundant tasks.

News: Web site fails; for three months in a row. If it persists next month, I'll remove it from the list.

Organized

Developer: iSlayer
Current Version: 1.11
Price: Donationware
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: No
iPhone Presence: None
Distinguishing Features: Dashboard widget with calendar events, tasks, notes, and world clock.
News: None

Stapler

Developer: The Blue Technologies Group
Current Version: 1.1
Price: €7.50 (about $10)
Development Status: Release
iCal Sync: No
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes
iPhone Presence: None
Distinguishing Features: Is a combination notepad and to-do list manager, with creation date, notes, and a check-box for completed items. Tasks can be color-coded based on a low-level preference set-up.
News: None

ToDo X

Developer: Omicron Software Systems, Inc.

Current Version: 2.2
Price: $15
Development Status: Release
iCal Sync: Import from iCal only
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: No
iPhone Presence: None
Distinguishing Features: Offers categories, priorities, and attached notes.
News: None

ZooDo

Developer: InterfaceThis
Current Version: 1.0
Price: Free
Development Status: Release
iCal Sync: Yes
QuickSilver Plug-in: No
Web-app Sync: No
Print Lists: Yes (through iCal)
iPhone Presence: None
Distinguishing Features: A basic task creator for iCal, serving as a collection bucket.
News: None

Browser and Web-based GTD Applications

30 Boxes

Price: Free
Description: Lean and fast, including a calendar, task list, and limited Gmail interaction. Also RSS and iCal feeds, SMS, and sharing. Nice interface, too.

43 Actions

Price: Free (donations get extra features)

Description: Specifically designed as an iPhone web-app, it's light and lean for EDGE network optimization. Submit inbox items via e-mail, Twitter (with donation), Jott (with donation), and the usual features.

GTDAgenda

Price: Free
Description: Another Web version of a GTD tool, with the standard features, plus addition of Goals, check-lists for recurring tasks, schedule management, and an iCal-compatible calendar. A mobile version is also available.

GTDInbox

Price: Free
Description: A Firefox extension for GTD integration with Gmail. Prepackaged labels, a Review process, specialized searches within Gmail, quick-entry for tasks, and printable. Works well in conjunction with RememberTheMilk. Current version, 2.0.8.4, is open-source; requires Firefox.

GTD-PHP

Price: Free
Description: A PHP solution designed to be locally installed. A simple tabbed interface, capture, and process stages; weekly review. Currently at version 0.8.

Neptune

Price: $10/year
Description: Includes a collection inbox and context or project task viewing panes, as well as inactive projects and tasks. Daily e-mail reminders of tasks; new tasks can be added by e-mail; data export.

Next Action

Price: Free

Description: Uses Google Gears and Firefox; has a lean, basic interface with multiple-list management capability. Works with or without a network connection.

Nexty

Price: Free

Description: PHP-based, so it installs locally and runs in your browser; supports contexts and reminders.

Nozbe

Price: Free

Description: Has markers for which action will be next and a time estimation for tasks. Contexts are visible and identifiable. And it is easy to collect and process quickly. iPhone-ready.

SimpleGTD

Price: Free

Description: Tabs for next actions, contexts, projects, and done actions; drag-and-drop organization; easy un-doing of tasks.

Toodledo

Price: Free

Description: Has a Firefox plugin and a Google gadget for easy collection; also supports e-mail, voice mail, and traditional entry for collection. Includes a good overview of GTD in co-operation with its tools, as well. iPhone-optimized.

Tracks

Price: Free

Description: A Web server that runs locally, or hosted through tracks.tra.in. Fast, lean, and pretty, it offers calendaring and a multi-user component. Currently at version 1.6.

Vitalist

Price: $5/month (premium)

Description: Is a wide-scale GTD system: collection, project management, recurring actions, and tickler files. Includes a mobile edition, iCal and RSS feeds, and e-mail and SMS reminders. An iPhone-specific version is available. A premium (paid) version also includes security encryption, collaboration, file attachments, and calendaring.

Other Browser/Web-based Task Managers

- Backpack
- Basecamp
- HiTask
- Hiveminder
- Joe's Goals
- Mojonote
- Remember the Milk
- Scrybe
- Sproutliner
- Task Freak!
- Tasks
- Tasktoy
- Todoist
- Tweeto
- Zenlists

- ZenPages

GTD and Task Management Wikis

- D3
- GTDTiddlyWiki
- MonkeyGTD
- Pimki

iPhone Applications (not Web Apps)

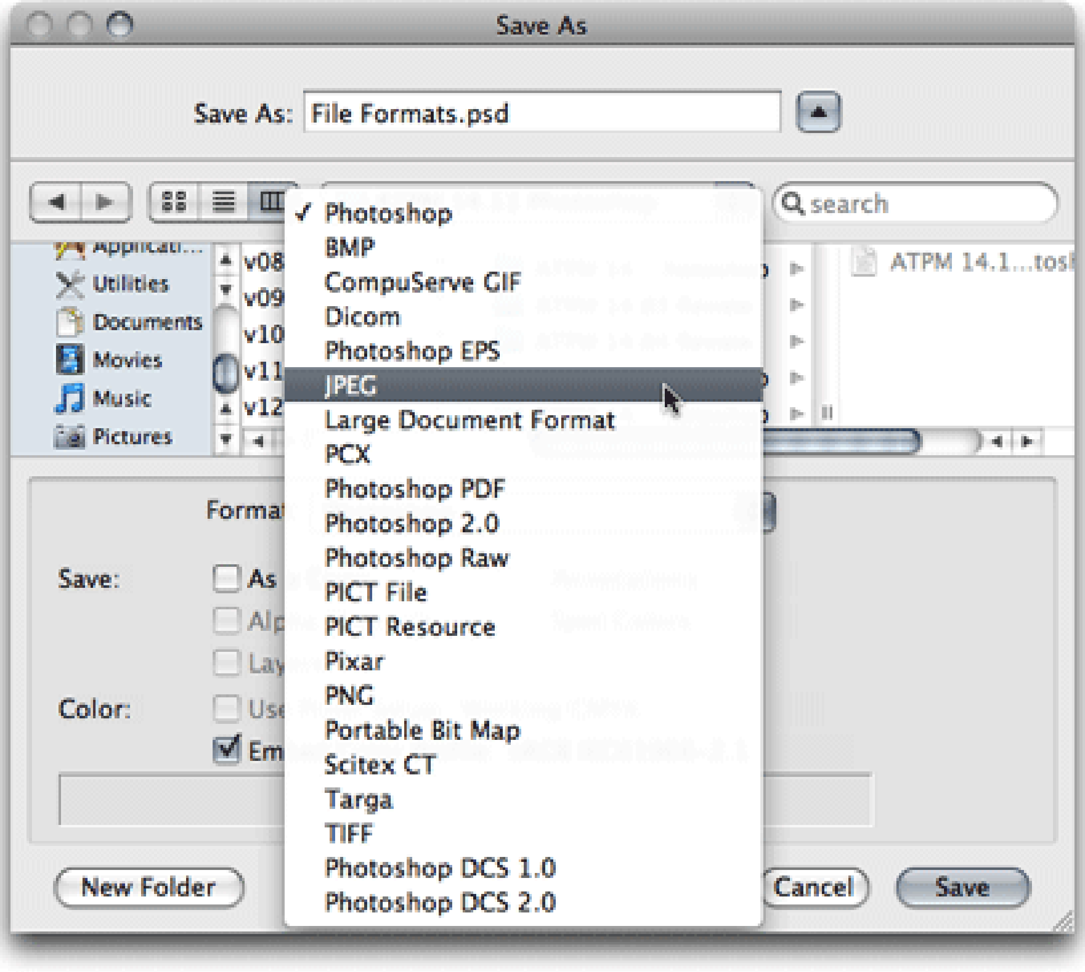
- Chores,
- Dejumble
- DoBot ToDos
- EasyTask Manager
- Lists by MobilityWare
- Lists by Tynsoe.org
- My Lists
- OmniFocus
- Outliner by CarbonFin
- Tanjas Checklist
- Tasks
- Things
- ToDo by Appigo
- To Do by Erica Sadun
- Zenbe Lists

Photoshop for the Curious

by Lee Bennett, lbennett@atpm.com

File Format Fever

Months ago, as I first conceptualized how to approach this month's Photoshop topic, I felt rather daunted over the prospect of adequately explaining each of the file types to which an image in Photoshop can be saved. I had to remind myself of the title for my Photoshop series. This isn't "Photoshop for the Expert." It's "Photoshop for the *Curious.*" Fortunately for all of us, that makes the job of breaking down the available file formats a lot easier.



Save As: File Formats.psd

The Format menu reveals all the image file formats that can be chosen from the Photoshop CS3 Save As dialog box.

When you save a file and select the Format pop-up menu, a somewhat menacing list of choices is offered. But these formats can be faced without fear once one realizes that most of them can be safely ignored. This month, we're going to look at eight of these formats. Everyone's mileage may vary; however, as far as I'm concerned, all the other formats provide support for very specific tasks which are of practically no concern to many Photoshop users. What this means is that formats such as Photoshop Raw (not the same as Camera RAW), Pixar (yes, as in the creators of *A Bug's Life*), or Scitex CT (another proprietary file format) are only used when working with niche workflows by people with far more Photoshop skill than I possess.

The Basic Eight

The following eight file formats are the only formats I have ever found a need to use: Photoshop, BMP, CompuServe GIF, JPEG, PCX, Photoshop PDF, PNG, and TIFF. Some years ago, I used to use the Photoshop EPS format to carry features over into the PageMaker page layout software—features that other formats didn't support. Today, using InDesign, the native Photoshop format can be imported directly into a page layout, supporting all of the features I used to get from EPS, and many more.

Photoshop—.PSD

The Photoshop format is, of course, the default and native format in which to save images. It includes full support for all of Photoshop's features, including layers, channels, color profiles, ad infinitum. Even if an image is just a photograph on a single, flattened layer, the Photoshop format is optimized. Such an image will save a little bit smaller as a Photoshop native file than as a TIFF (the de facto standard for uncompressed bitmap images). Even if the final destination must be a different file format, it's always a good idea to keep a Photoshop-native copy that retains all the adjustment work, layers, etc. which can be modified at a later time. Think of this as the master copy from which other formats should come.

Another perk of using the Photoshop format is evident when using Adobe InDesign for page layout. Since InDesign fully supports Photoshop documents for import, the images retain their full transparency and other effects in the page layout, and can still be further adjusted back in Photoshop.

Tagged Image File Format—.TIFF or .TIF

TIFF files were created by the Aldus corporation as a common format for bitmap images in graphic design, such as photographs placed into the PageMaker layout software. TIFFs are not normally compressed and, as such, retain their full quality even if an edit is made and they are re-saved. This also means that the amount of hard drive space they occupy can become rather large.

Generally, whenever a photo needs to be saved in a widely compatible format after it has been edited, and full quality needs to be retained by not saving it into a compressed format, TIFF is the best choice. Virtually all page layout applications happily accept TIFF files.

The original specification for the TIFF format was intentionally very basic to ensure compatibility. In recent years, however, a number of add-on specifications have been adopted. At least two have, more or less, become a standard part of TIFF files. LZW compression reduces the TIFF's file size without degrading image quality, but has had compatibility problems with some applications. TIFF files also now support clipping paths, which can mask an image into any shape other than the original rectangular boundaries.

Bitmap—.BMP

BMP files are almost exclusively used on Windows and the defunct OS/2 operating systems. On rare occasion, I encounter a need to save an image (usually limited-color graphics more often than photographs) as a BMP file in order to provide something compatible with an older Windows application.

The BMP format is, in a basic form, a lot like the TIFF format, although unofficially BMPs seem better suited for on-screen implementations where TIFFs are often used for images being printed. Another perspective might be that the similarity of BMP files to TIFF files is analogous to the similarity of digital point-and-shoot pocket cameras to a digital SLR. Both can provide excellent results, but there's no argument to the superiority of an SLR camera.

PC Paintbrush Exchange—.PCX

PCX files, like BMP, are also almost exclusively used in Windows environments. Initially, PCX only supported up to 256 colors, but it was later expanded to support full color. It also sports a rather efficient compression algorithm which, like GIF, does not degrade image quality.

Since older versions of WordPerfect and Microsoft Word often had trouble with TIFF files, any time I had to prepare a one- or two-color graphic for someone to use in their word processor on a Windows machine, I would always save it as PCX, which worked fine in those applications.

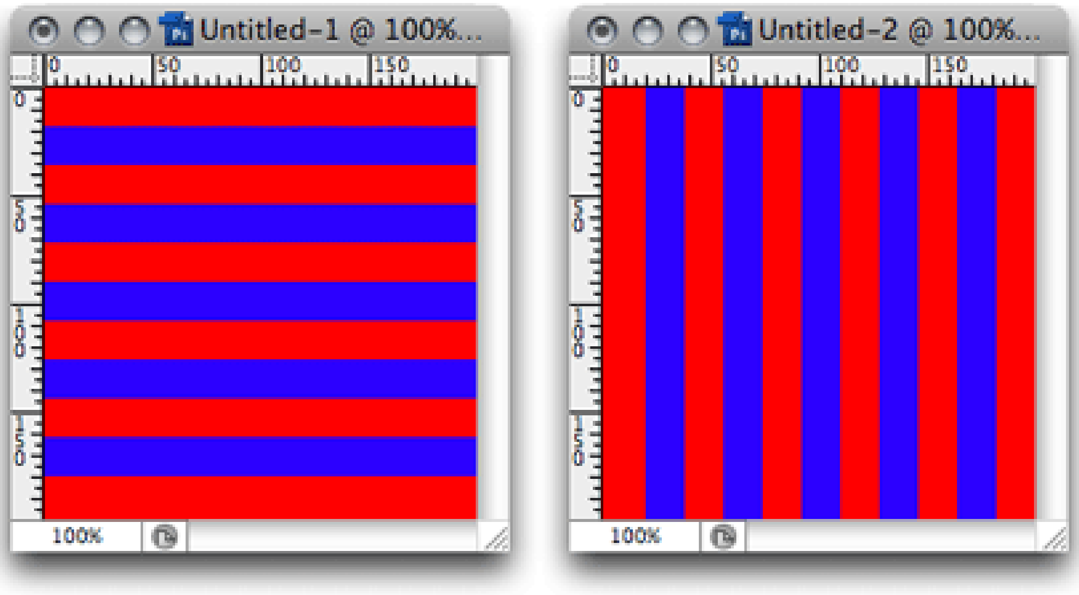
In modern software, there's hardly any need for the BMP and PCX formats, although they can still be used if compatibility is required with software running on an old machine.

CompuServe Graphics Interchange Format—.GIF

The GIF format was developed as a proprietary format for the CompuServe online network. Upon the advent of the World Wide Web, GIF files very quickly found their way onto Web pages, to the chagrin of Unisys, which owned the frequently abused patents on GIF's compression method. Today, the patents have expired, and image editing software programs are free to support GIF files.

Since GIFs only support a maximum of 256 colors, they are not ideal for standard photographs. They are better-suited for graphics with large areas of a single color due to the way they are compressed. Where TIFF files will contain information for each and every pixel in the image, the GIF format in effect will save information for a pixel and an instruction to repeat it x number of times until a definition for a different color pixel is needed.

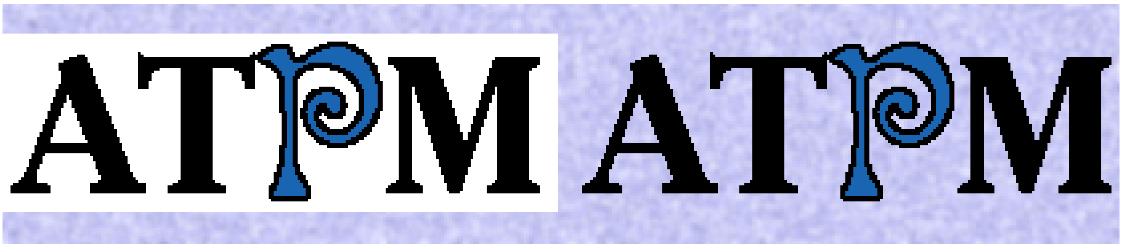
In other words, “pixel × 3” requires less information than “pixel pixel pixel.” Also, since this multiplicity pattern works on horizontal rows from top to bottom, an image made up of horizontal stripes compresses better than an image made up of vertical stripes, even if the exact same colors are used and the dimensions of the image are identical.



When saved in GIF format, the 200×200-pixel image on the left was 49.8 KB. The same image rotated 90 degrees (on the right) weighed in at 60.9 KB.

Each color used in a GIF file is specifically indexed. If a Photoshop image contains fewer than 256 separate colors, then the image can be represented in the GIF file identically to the original. When the image has more than 256 colors, an algorithm must be used to reduce the number of colors. There are several ways to do this, but one of the most common is to randomly dither two or more colors that are part of the indexed palette such that they blend to a human eye, approximating a hue that is not part of the indexed palette.

A feature that webmasters have always enjoyed about the GIF format is the ability to define one of the indexed colors as transparent. By doing this, an irregularly shaped graphic can be placed on top of a color background without the telltale white bounding box. However, since only one color can be chosen for transparency, automatic edge smoothing (anti-aliasing) is really not possible and must essentially be done manually. The caveat of this is, if the anti-aliasing is created for a light background and the graphic is instead placed on top of a dark background, a light-colored halo appears around the graphic’s edges.



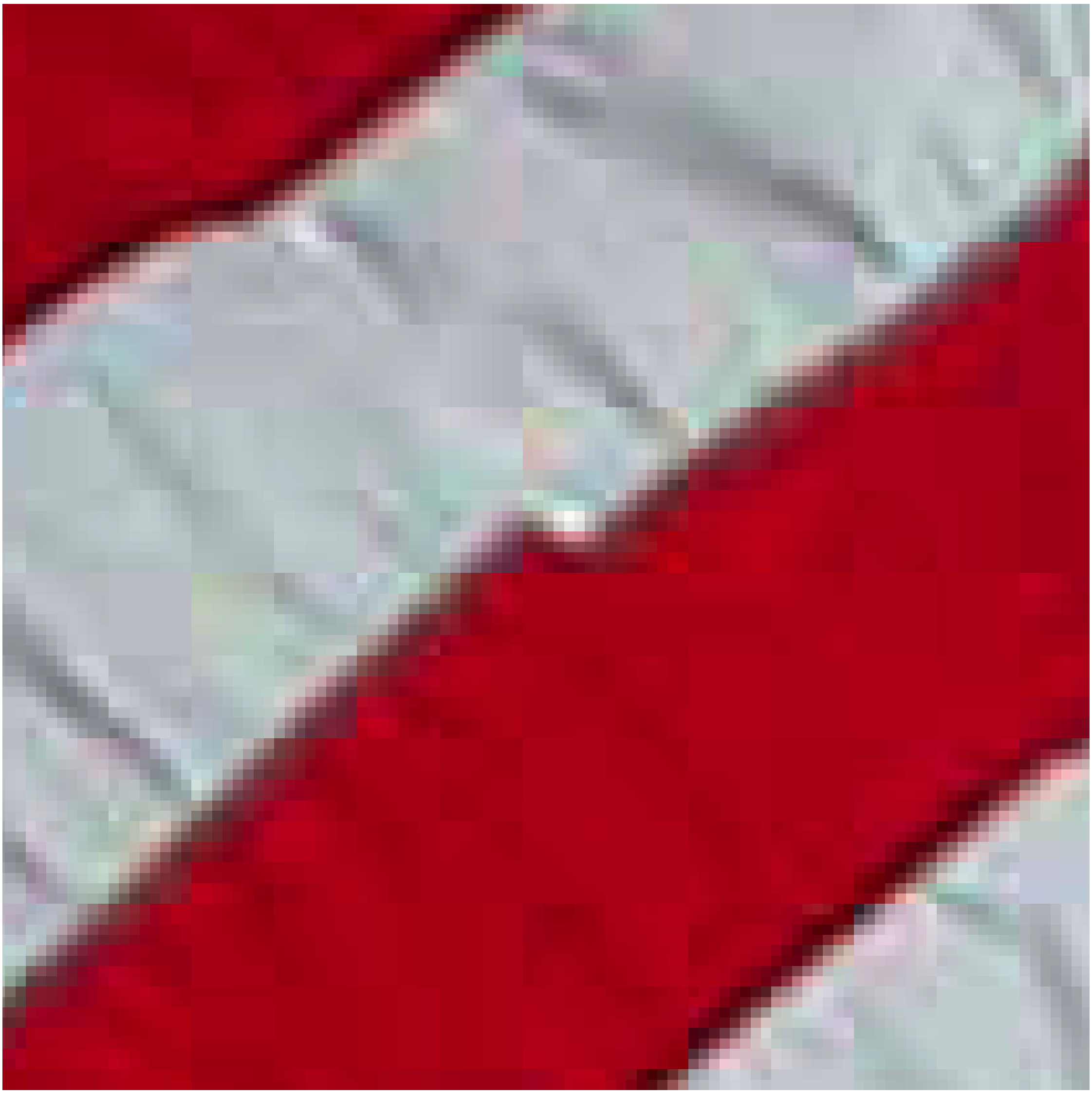
Left: a graphic without transparency. Right: white has been defined as the transparent color.

Another feature with GIF images is also one of the most notorious on Web pages—animation. I won't attempt to settle any differences about the merits or drawbacks of animated GIF images, but it's safe to say everyone who has browsed Web pages has seen them, and they're often used just to attract attention on what is otherwise a poorly designed Web page. The GIF format provides animation simply by holding multiple images in the single file. Analogous to a cartoon flip book, these images are displayed in sequential order at a specified number of frames per second. Whether the animation only runs once, loops, or runs forward and backward is chosen at the time the animation is created.

Both pronunciations of GIF (with a soft G as in George or a hard G as in Gift) are officially correct. According to Wikipedia, the format's creators always used a soft G, joking that "Choosy developers choose GIF" as in Jif peanut butter. However, many people feel the G should have a hard sound because the acronym's word, "graphics," has a hard G sound. To be clear, neither pronunciation is wrong, though I personally prefer the hard G.

Joint Photographic Experts Group—.JPEG or .JPG

The ubiquitous JPEG file format is actually named for the committee that created it. JPEG is the format virtually all consumer digital cameras produce and is, of course, used for the majority of photos seen on Web pages. All JPEG files carry a compression algorithm which, though efficient, comes at a cost. Whereas the compression used by GIF files is considered lossless, meaning no image information is lost in the compression, JPEG compression is lossy. Using the highest quality and least compression setting, JPEG photos appear virtually untouched and yet are considerably smaller than if they were saved in an uncompressed format such as TIFF. Conversely, heavy compression can be applied for radically smaller file sizes, but the result is a highly degraded image.



An enlarged view of JPEG compression artifacts.

Don't be fooled, however, into thinking no quality is being lost in a maximum quality JPEG. "Maximum quality" simply means that *as little information as possible* is being lost. The nature of JPEG compression is that if information wasn't being lost, it wouldn't compress at all.

Different applications use different scales for defining the amount of compression to be used. Generally, it is either a 10-point or a 12-point scale—the highest number representing the best quality with minimal compression, and vice versa.

JPEGs should *always* be considered a final destination. Always keep an uncompressed original, such as a TIFF or Photoshop format, and save a copy down to JPEG for end use.

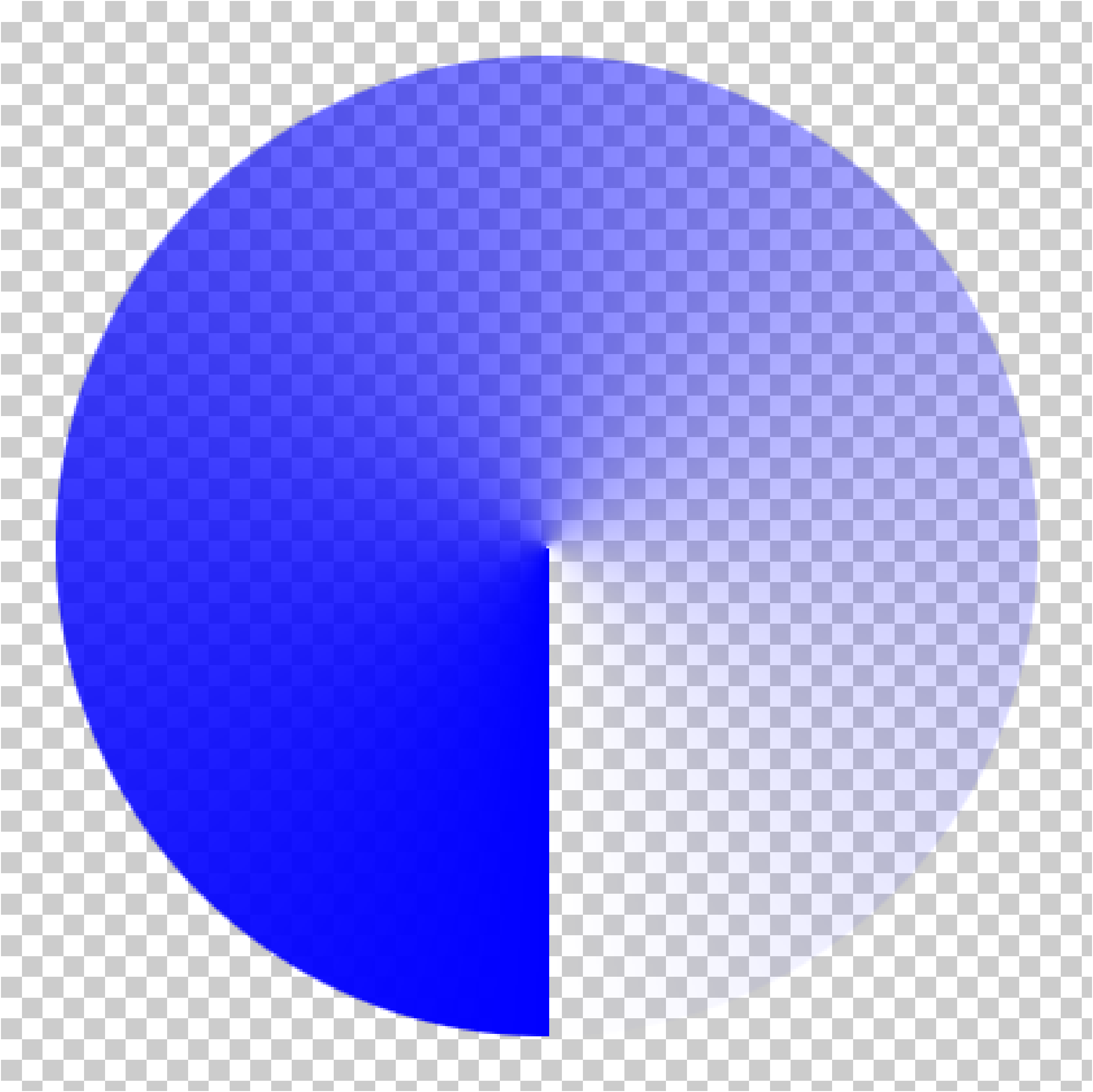
If the most original format is a JPEG out of a digital camera, always keep those unaltered files and work on copies of them.

Photoshop Portable Document Format—.PDF

Photoshop is capable of saving directly to PDF, which is a good choice for sending a sample of an image that contains text layers. Using PDF format keeps text in its high-quality vector format that can even by highlighted and copied by a person viewing the PDF. Designers will often use the PDF/X variant to send Photoshop documents for commercial printing. The PDF/X version includes information needed for custom inks, trapping, etc. If you aren't a graphic designer sending jobs to a commercial press, you have no need to worry about the PDF/X format.

Portable Network Graphics—.PNG

PNG files combine the best of what the GIF and JPEG formats offer. The format was created as an alternative in response to the patent enforcement concerns for the GIF format. PNG files are like GIFs in that they compress without loss of quality. However, like JPEG files, PNGs support full color and can be used for quality photographs. Surpassing both GIF and JPEG, PNGs support 8-bit transparency. This means that, in addition to fully opaque or fully transparent pixels, there can be more than 250 levels of translucency.



In Photoshop, the gray square background represents transparency. This graphic starts as a fully opaque blue and becomes increasingly translucent until it is fully transparent. PNG files can retain this translucency.

Unfortunately, full compatibility with PNG files has never really taken off. By the time Web browsers began commonly supporting PNG, the GIF format patents had expired. Even today, Internet Explorer does not properly support transparency in PNG images.

Because, like GIFs, PNGs compress extremely well for screenshot images while surpassing GIFs color limitations, PNG is my preferred format for submitting images that accompany articles submitted to ATPM.

Which Will You Choose?

My goal in describing these image file formats was not to suggest that any one is decidedly better than the others. There are very good reasons each of these should be used—given the right circumstances. Instead, by describing these formats, I hope you can better choose which is appropriate for your needs.

In Closing. . .

Upon reflection of my personal schedule and responsibilities, and needing to reduce the number of freelance projects I take on, this will be the last chapter of *Photoshop For the Curious.* I feel I have essentially run the full gamut of what I intended to accomplish with this series. It's been a wonderful experience researching these topics and sharing them during the past two years. In fact, there are many Photoshop skills I, myself, have learned as a direct result of writing these articles.

To continue learning about Photoshop, permit me to suggest two podcasts provided by the National Association of Photoshop Professionals: Photoshop User TV and Photoshop Killer Tips. If time is crunched for you, try just the Killer Tips podcast. Each episode is generally only one or two minutes and provides a useful, near-daily tip for Photoshop mastery.

Happy Photoshopping!

Desktop Pictures

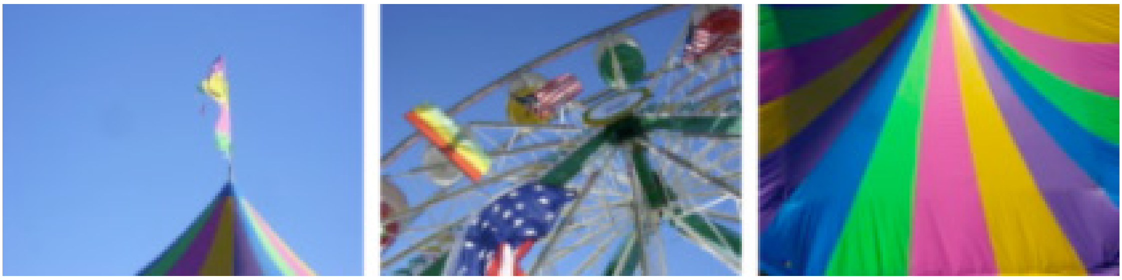
by Zac Stivers, mzstivers@comcast.net

Little Rock

We need new desktop pictures each month. Write to us!

This Month's Desktop Pictures

This month's photos were submitted by ATPM reader Zac Stivers. They include various images from his hometown of Little Rock, AR.



View Pictures

Arkansas State Fair - Big Top Tip This is the top of the big top tent at the 2007 Arkansas State Fair.

Arkansas State Fair - Ferris Wheel This was taken from the bottom of the ferris wheel at the 2007 Arkansas State Fair.

Arkansas State Fair - Tent Top I love this shot of a tent at the 2007 Arkansas State Fair. This was taken from the top of the ferris wheel.

Basket From Thousand Villages This is the lid of a basket purchased from a local store called Thousand Villages in Little Rock, AR.

Pop Art Painting A pop art original painting by my friend CJ Ellis. It's very large: 8′ by 4′. Used with his permission.

Quince 1 Several birds' nests were in the bush. I admired the birds and how lucky they were to have found such an amazingly secure place to make their homes.

Quince 2 This is a wild Quince bush on my grandparents' farm. They have thousands of acres near the AR River "bottoms."

Vintage Curtains Vintage curtains from the 1950s that I gave to my friend CJ because I wanted him to funk up his kitchen.

Vintage Gnomes A collection of vintage gnome statues at a friend's house.

Previous Months' Desktop Pictures

Pictures from previous months are listed in the desktop pictures archives.

Downloading All the Pictures at Once

Some browsers can download an entire set of desktop pictures at once.

iCab Use the Download command to download "Get all files in same path."

OmniWeb Choose "Save Linked ▷ Images. . ." from the File menu.

Safari Use this Automator workflow.

Contributing Your Own Desktop Pictures

If you have a picture, whether a small series or just one fabulous or funny shot, feel free to send it to editor@atpm.com and we'll consider publishing it in next month's issue. Have a regular print but no scanner? Don't worry. E-mail us, and we tell you where to send it so we can scan it for you. Note that we cannot return the original print, so send us a copy.

Placing Desktop Pictures

Mac OS X 10.3.x Through 10.5.x

Choose "System Preferences. . ." from the Apple menu, click the "Desktop & Screen Saver" button, then choose the Desktop tab. In the left-side menu, select the desktop pictures folder you want to use.

You can also use the pictures with Mac OS X's built-in screen saver. Select the Screen Saver tab which is also in the "Desktop & Screen Saver" System Preferences pane. If you put the ATPM pictures in your Pictures folder, click on the Pictures Folder in the list of screen savers. Otherwise, click Choose Folder to tell the screen saver which pictures to use.

Mac OS X 10.1.x and 10.2.x

Choose "System Preferences. . ." from the Apple menu and click the Desktop button. With the pop-up menu, select the desktop pictures folder you want to use.

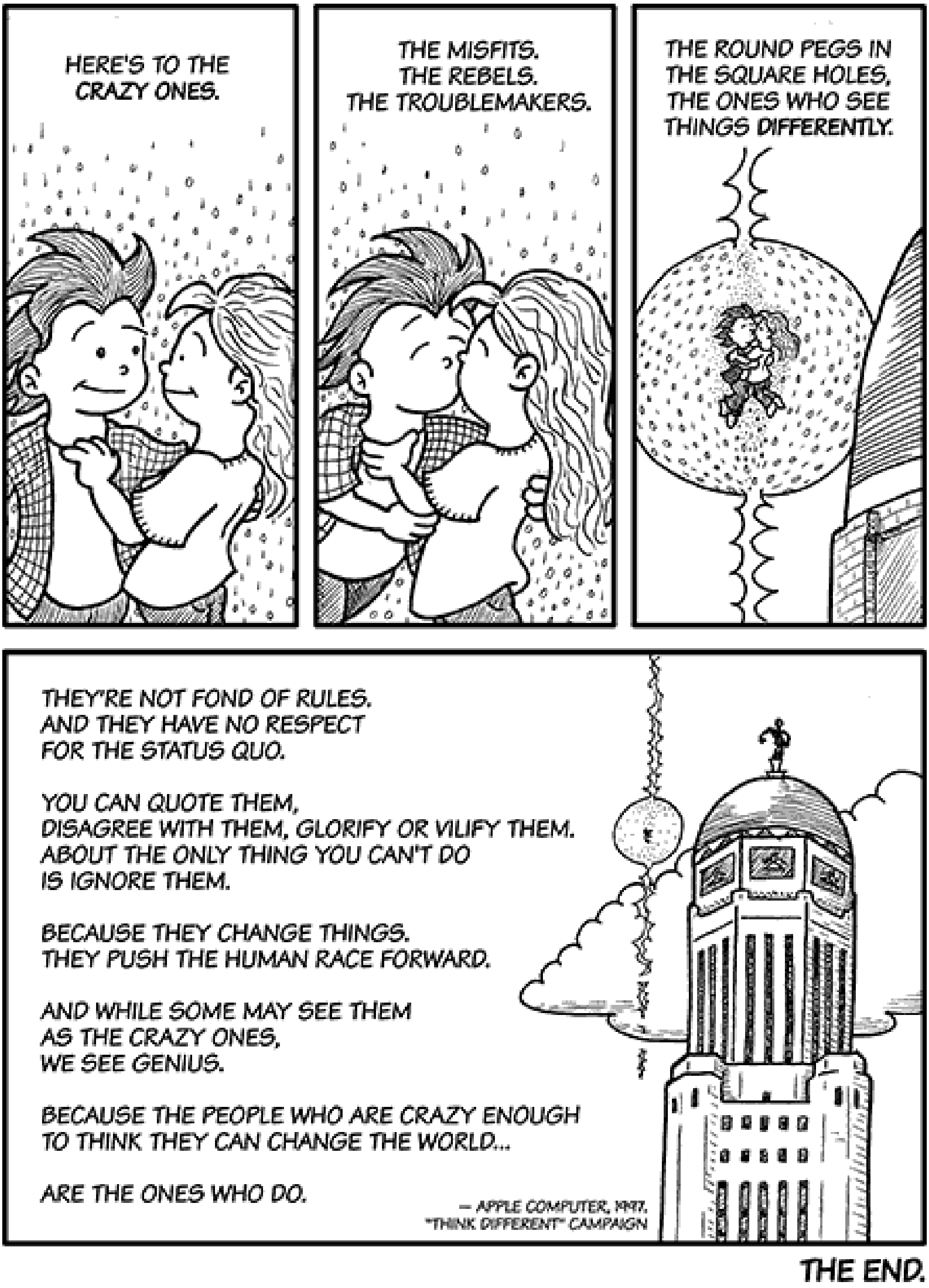
You can also use the pictures with Mac OS X's built-in screen saver. Choose "System Preferences. . ." from the Apple menu. Click the Screen Saver (10.1.x) or Screen Effects (10.2.x) button. Then click on Custom Slide Show in the list of screen savers. If you put the ATPM pictures in your Pictures folder, you're all set. Otherwise, click Configure to tell the screen saver which pictures to use.

Mac OS X 10.0.x

Switch to the Finder. Choose “Preferences…” from the “Finder” menu. Click on the “Select Picture…” button on the right. In the Open Panel, select the desktop picture you want to use. The panel defaults to your `~/Library/Desktop Pictures` folder. Close the “Finder Preferences” window when you are done.

Cortland

by Matt Johnson, mjohnson@atpm.com


HERE'S TO THE CRAZY ONES.
THE MISFITS. THE REBELS. THE TROUBLEMAKERS.
THE ROUND PEGS IN THE SQUARE HOLES. THE ONES WHO SEE THINGS DIFFERENTLY.
THEY'RE NOT FOND OF RULES. AND THEY HAVE NO RESPECT FOR THE STATUS QUO.
YOU CAN QUOTE THEM, DISAGREE WITH THEM, GLORIFY OR VILIFY THEM. ABOUT THE ONLY THING YOU CAN'T DO IS IGNORE THEM.
BECAUSE THEY CHANGE THINGS. THEY PUSH THE HUMAN RACE FORWARD.
AND WHILE SOME MAY SEE THEM AS THE CRAZY ONES, WE SEE GENIUS.
BECAUSE THE PEOPLE WHO ARE CRAZY ENOUGH TO THINK THEY CAN CHANGE THE WORLD...
ARE THE ONES WHO DO.
— APPLE COMPUTER, 1997, "THINK DIFFERENT" CAMPAIGN
THE END.

• • •

Dear readers,

Since 2002, I've enjoyed drawing comics for ATPM every month, and it's been a thrill to read your comments posted here that let me know you enjoy reading them. Now, after more than six years of drawing *Cortland*, I'm bringing the story to a close. I will continue to draw comics for ATPM, but I have just gotten married, started a new job, and moved to a new city, and right now seems as good a time as any for a hiatus. I will eventually start a new comic after I've had a chance to rest a bit and think more carefully about what kind of comic I'd like to draw for the next six years. I hope to have you all back when that happens.

Keep watching this space, and thanks for reading.

Sincerely,

Matt Johnson

Software Review

by Lee Bennett, lbennett@atpm.com

Mask Pro 4.1.2

Developer: onOne Software
Price: $160
Requirements: Mac OS X 10.4.8; PowerPC G4; 512 MB RAM; Adobe Photoshop CS2 or Photoshop Elements 4. Universal.
Trial: Fully-featured (30 days).

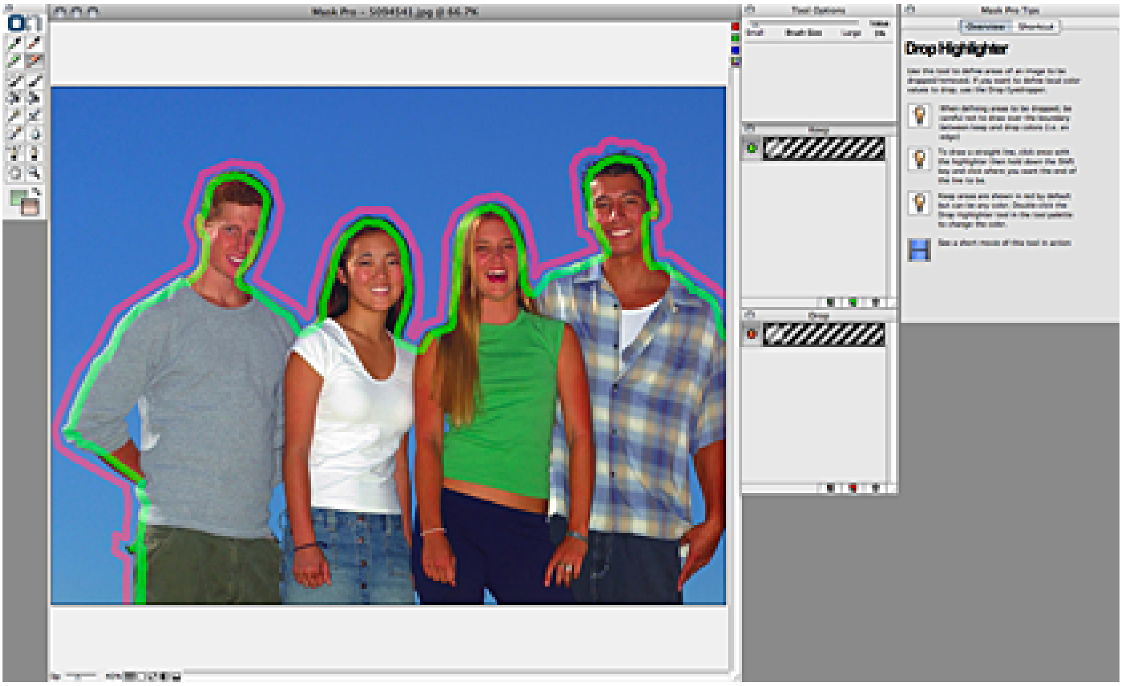
ATPM RATINGS
VERY NICE

When building image masks in Photoshop, a very important fact must be understood: even with the best tools at your disposal, building a quality mask can be tedious and require a lot of time. If I've learned anything during my evaluations of Mask Pro and competing tools, it's that there's no such thing as a one-click procedure. By accepting this truth, I began to better appreciate the difficulty of creating Photoshop tools to help make mask-building as efficient as possible.

Over the years, without a professional masking utility in my arsenal, I've become rather skilled at manually building an image mask with careful use of Photoshop's native tools. However, my best results came from images with simple backgrounds, in which the objects I wished to hold had clearly defined edges. Most of the mask-building tools I've tried in recent years also did extremely well with simple backgrounds, but failed to impress with complex backgrounds.

Though I must reiterate that building a quality mask can require a lot of tedious work, Mask Pro has proven itself to me as a champion utility to aid the process.

While giving Mask Pro a try, I used the same two photos as with my August review of SmartMask.

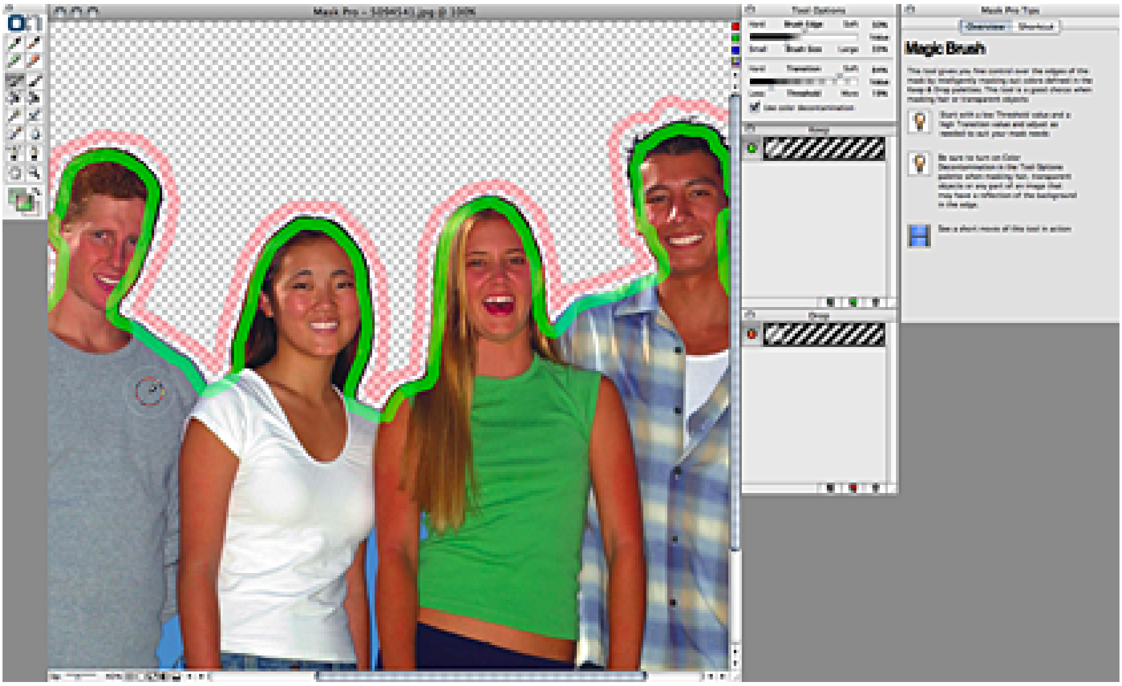


This photo should prove to be no challenge for any mask utility.

What I immediately noticed with Mask Pro is the very helpful tips window that appears along with the various palettes. Not only do context-sensitive help messages appear for each task, but short videos are also provided to visually demonstrate how to use the selected tool. I learned more about using Mask Pro through these videos than a written user guide could ever hope to teach me.

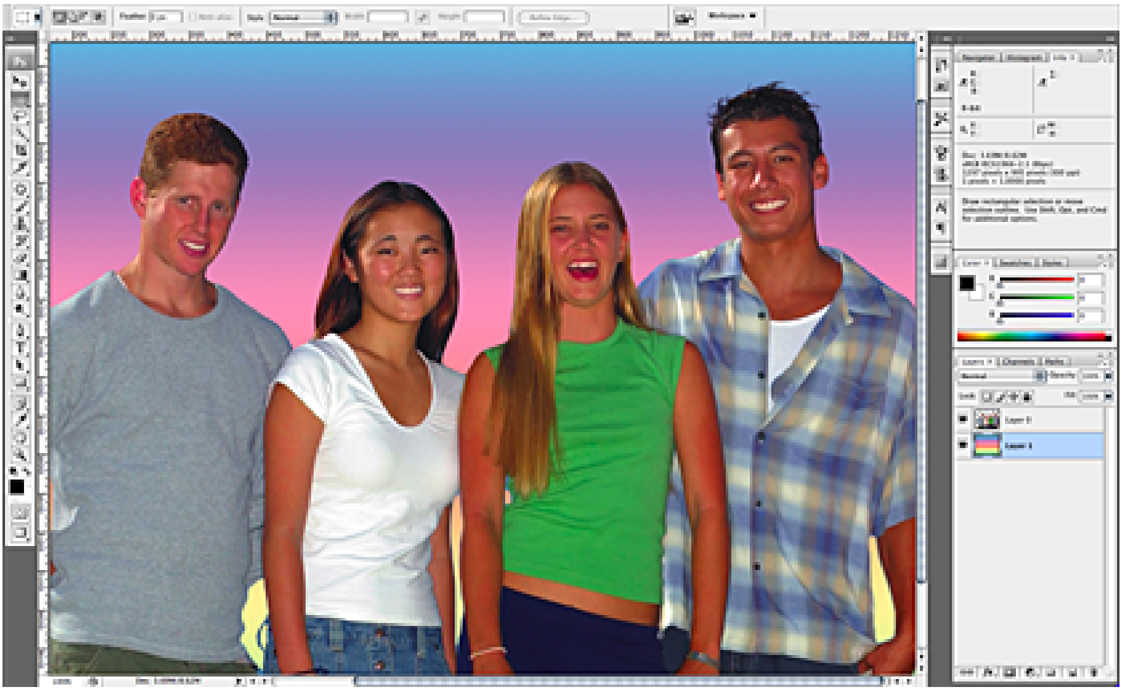
The thing I liked best about Mask Pro's interface is that every means of creating the mask is available from the tool palette at any time, unlike SmartMask, which works in one of three modes that largely only work properly in successive order.

With Mask Pro, any style of mask-building can be used at any time on different parts of the image. The Pen tool is great for straight, simple, high-contrast lines such as the arms of the people in the above photo against the blue sky. The Keep and Drop Color Highlighters are good general-purpose tools, while the Keep and Drop Color Eyedroppers are ideal for fine detail areas such as hair or translucent material.



Other masking tools, including SmartMask, attempt to do guesswork for you by specifically recommending a loose contour for the Keep and Drop Highlighters. Mask Pro recommends from the start that the best results for the Highlighters occur when the mask boundary is followed as closely as possible.

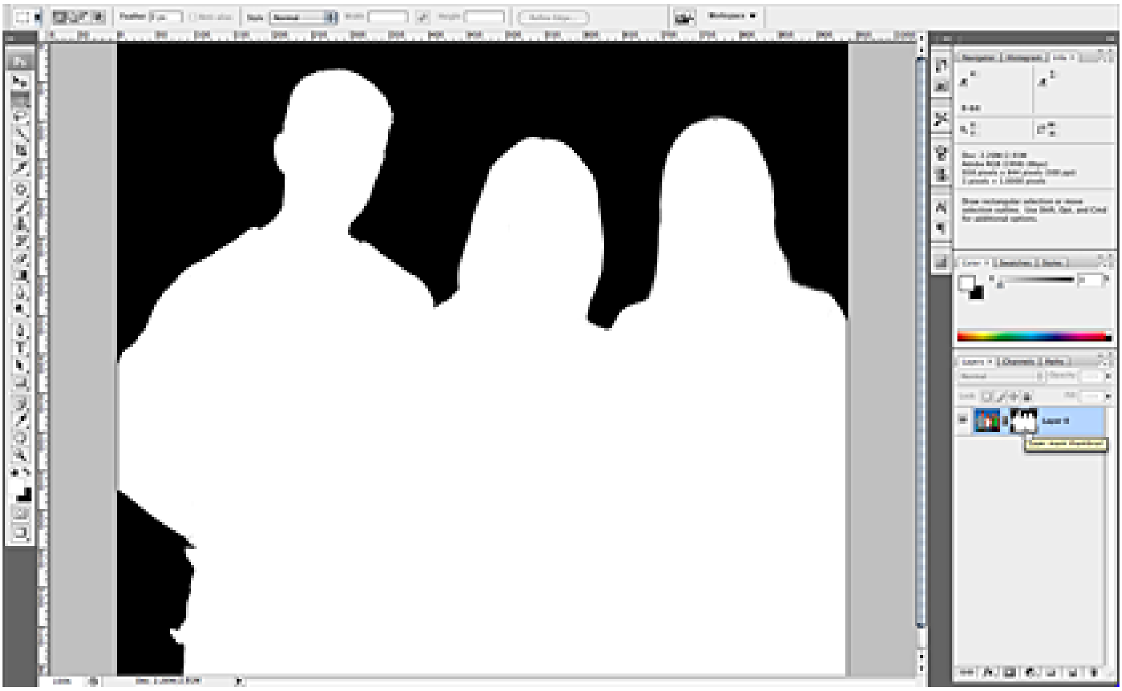
Though the Highlighters worked well for me in this photo, I could also have used the Pen tool to isolate the models' arms and shoulders, then the Highlighters for their heads, and even switch to the Eyedroppers to fine tune wisps of hair, such as the man on the right. But, there's no need to do it in this order. I could just as easily start with the wisps of hair.



The finished mask for the first photo sample. (Click to enlarge.)

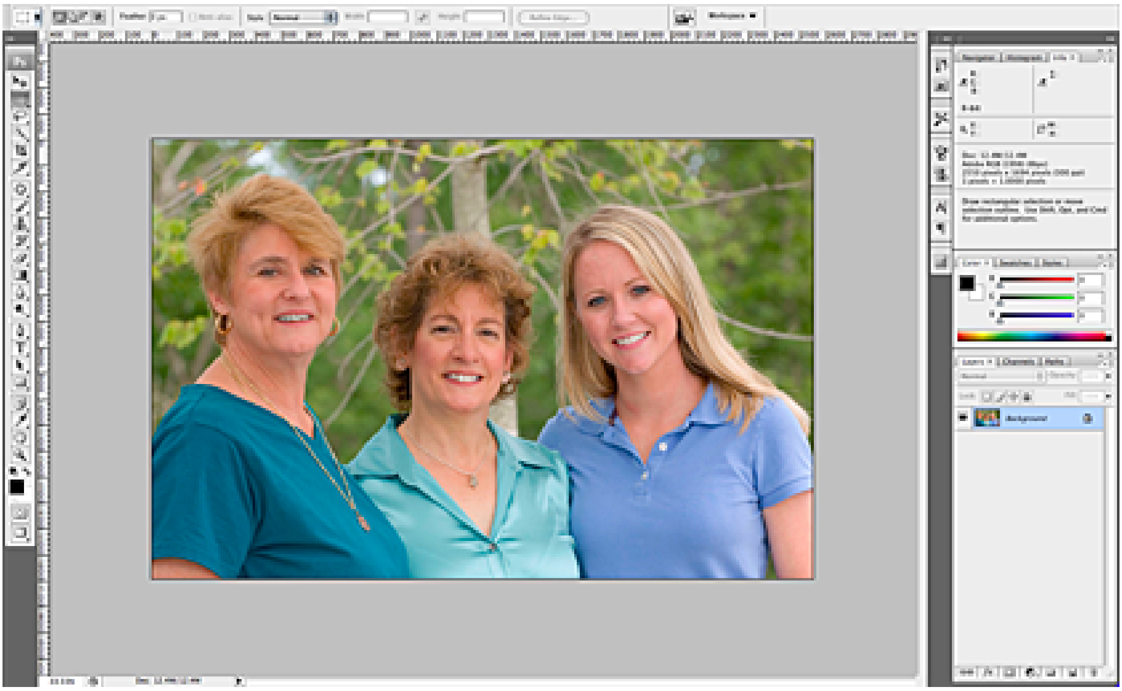
When I was finished, it was clear that I'd built a better mask for this photo, especially around the wisps of hair for the man on the right. For his hair, I used the Keep and Drop Color Eyedroppers to define colors in his hair to keep and the colors of the sky to drop out. Although these tools are generally present in other masking utilities, including SmartMask, none worked for me as well as Mask Pro's Eyedroppers.

A feature in Mask Pro that is absent in other masking utilities I've used is that the results can be held in a standard Photoshop layer mask. In other masking tools, the end result only erases the masked areas from the image's layer.



Mask Pro can create a true layer mask. Note the mask channel in the Photoshop layer palette.

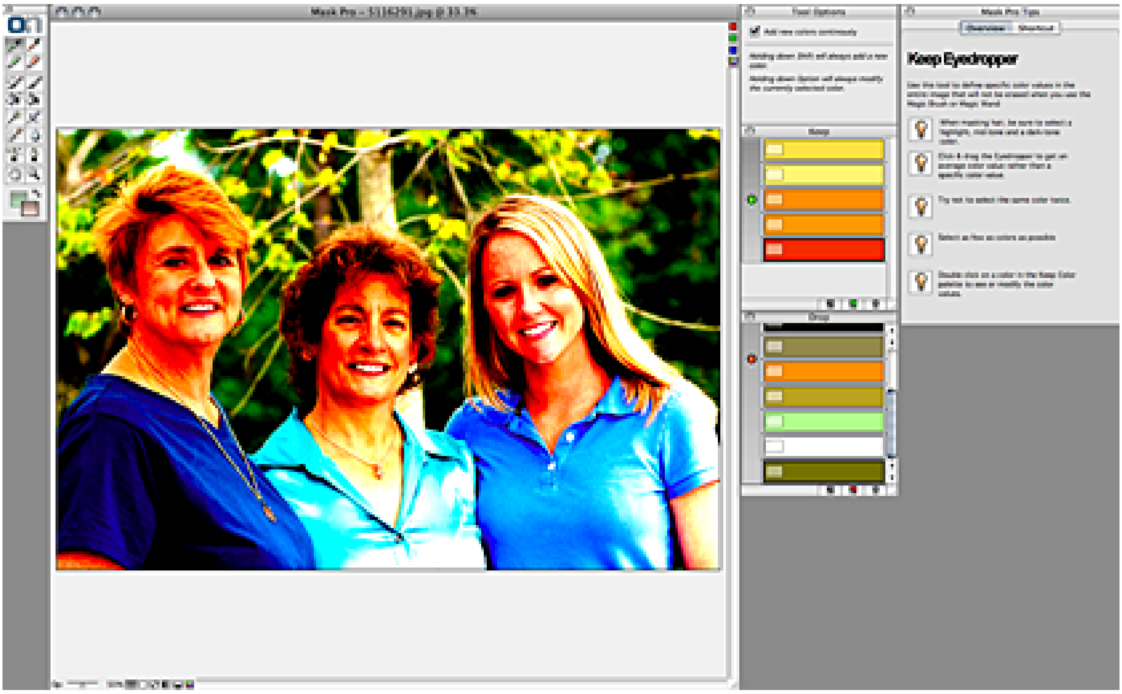
Admittedly, I thought for a short moment that Mask Pro, like the other utilities I've tried, also erased the masked area after accepting the final result. But those helpful videos came to the rescue, and I learned that if I first create a blank layer mask, then invoke Mask Pro with that layer mask targeted, my finished mask translates to that layer mask when I'm finished in the Mask Pro plug-in.



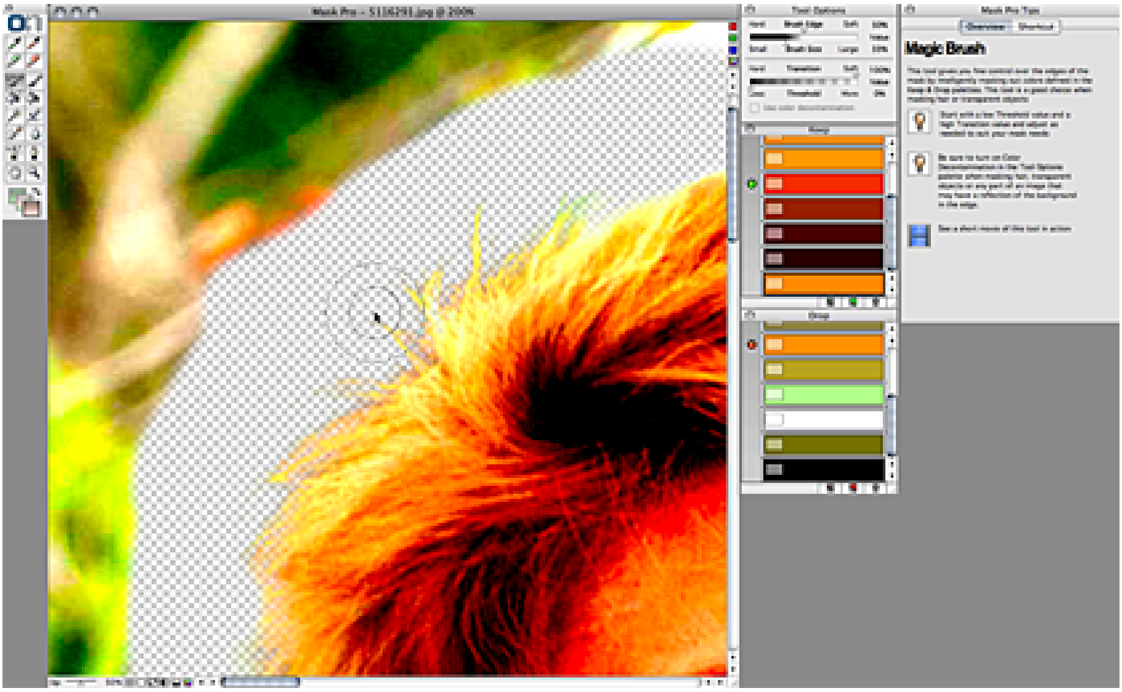
The nightmare photo returns.

Those who saw my SmartMask review will remember how difficult this second photo was and that I largely gave up on it. To be completely honest, my very first attempts with Mask Pro were not remarkably better. However, thanks again to those splendid tip videos, I found a tutorial specifically suited for the kind of problem this photo represents—building a mask when colors in the foreground and background are very similar.

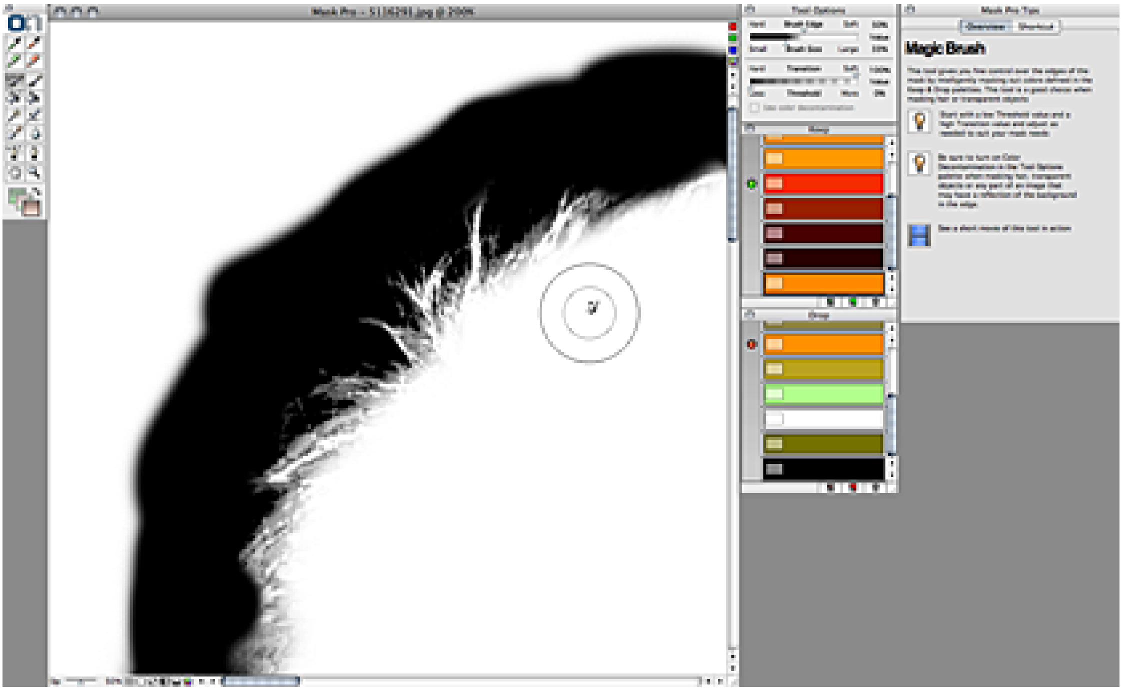
It turns out that the procedure described in the video is only possible because of Mask Pro's apparently unique feature of supporting Photoshop's layer masks. The video instructed me to make two copies of the photo layer, then use my favorite method to exaggerate the contrast of the top layer. Once done, I began work in Mask Pro.



With contrast greatly enhanced, the contours of the subjects I wish to mask are better defined and easier for Mask Pro to isolate.

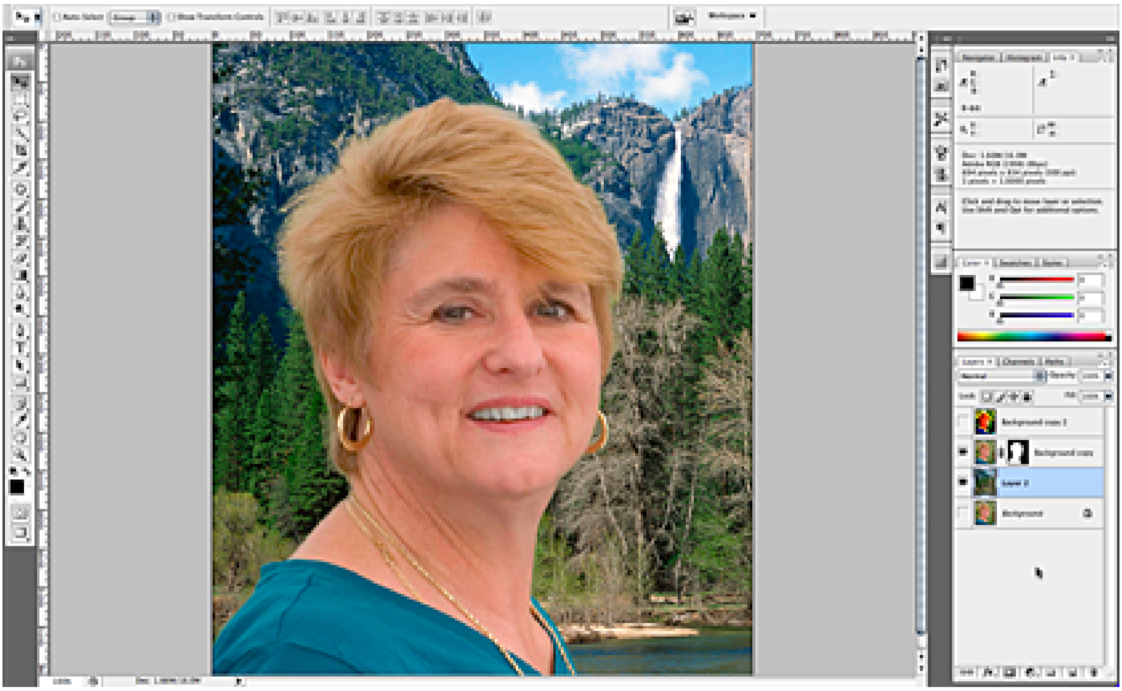


After specifying colors to keep and drop, the Magic Brush tool has a far easier job of removing the drop colors on this high-contrast image.



Quick access to view the actual mask helped me visualize exactly what was going on.

After the mask was built, the final steps called for dragging the layer mask from the top layer with the high-contrast photo to the next layer that contained a copy of the unaltered photo. Upon hiding the high-contrast layer, I was left with a very acceptable mask for the original photo. There were a few small places where even the high-contrast version wasn't clear on the delineation between foreground and background, but because I was left with a layer mask channel, I only needed to target that mask channel and perform some very minor cleaning.



The completed nightmare-photo mask.

Yes, that's correct, I didn't take the time to continue masking the other two women in the photo. The high-contrast tip would have worked just as well for the other models, but remember I began this review saying that quality masks on complex backgrounds are tedious even with the best tools. With Mask Pro, I accomplished the above result in about a half hour, and I feel I could've spent another half hour or more to make it even better.

Before you think that too much time is required to do this work, think about how long it might take without a professional masking utility. Given the thin wisps of hair, even if I'd spent most of a day working with Photoshop's native tools, I likely would not have achieved the half-hour results with Mask Pro.

Mask Pro is priced a bit higher than its competitors, but I don't believe the price is a detriment. Mask Pro truly is a useful utility that will help serious Photoshop artists build quality masks, so long as time is invested to let the software work its magic.

Hardware Review

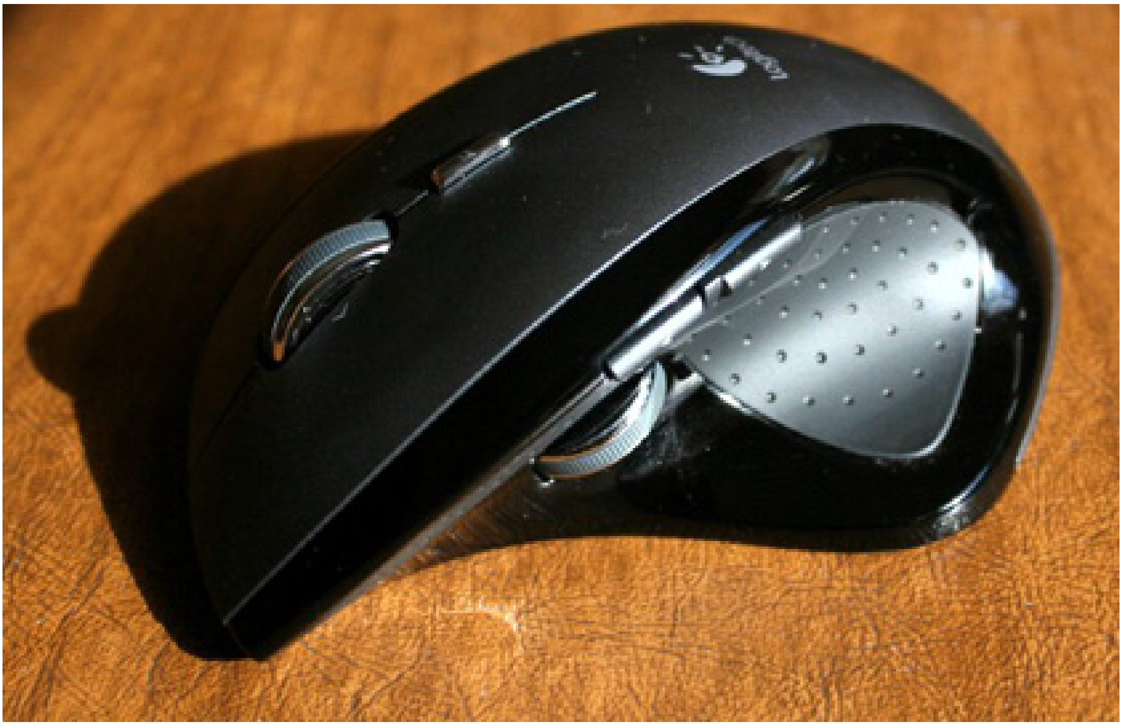
by Chris Lawson, http://chrislawson.net

MX Revolution

Developer: Logitech
Price: $100
Requirements: Mac OS X 10.3.9. Universal.
Trial: None.

ATPM RATINGS
OKAY

Logitech bills the MX Revolution as the “World’s Most Advanced Mouse.”
It’s certainly loaded with gee-whiz features and buttons, but does it really live up to the name? Not quite.



The gloss-black and matte surfaces make a nice combination, but tough luck if you’re left-handed.

The mouse is comfortable enough to use, shaped nicely, and made with quality materials that feel good to the touch. Logitech gets points for that, to be sure. But why on earth does a mouse that purports to be the “world’s most advanced” use a proprietary RF transceiver instead of Bluetooth? The transceiver occupies a USB port on your Mac, which may be a problem if you’re short on ports (especially if you’re buying this to replace, for example, Apple's wireless Mighty Mouse). It's also another thing that can get lost easily; many pointing devices from Logitech's main competitors have a small recess to store the transceiver during transport, but the Revolution has no such feature.

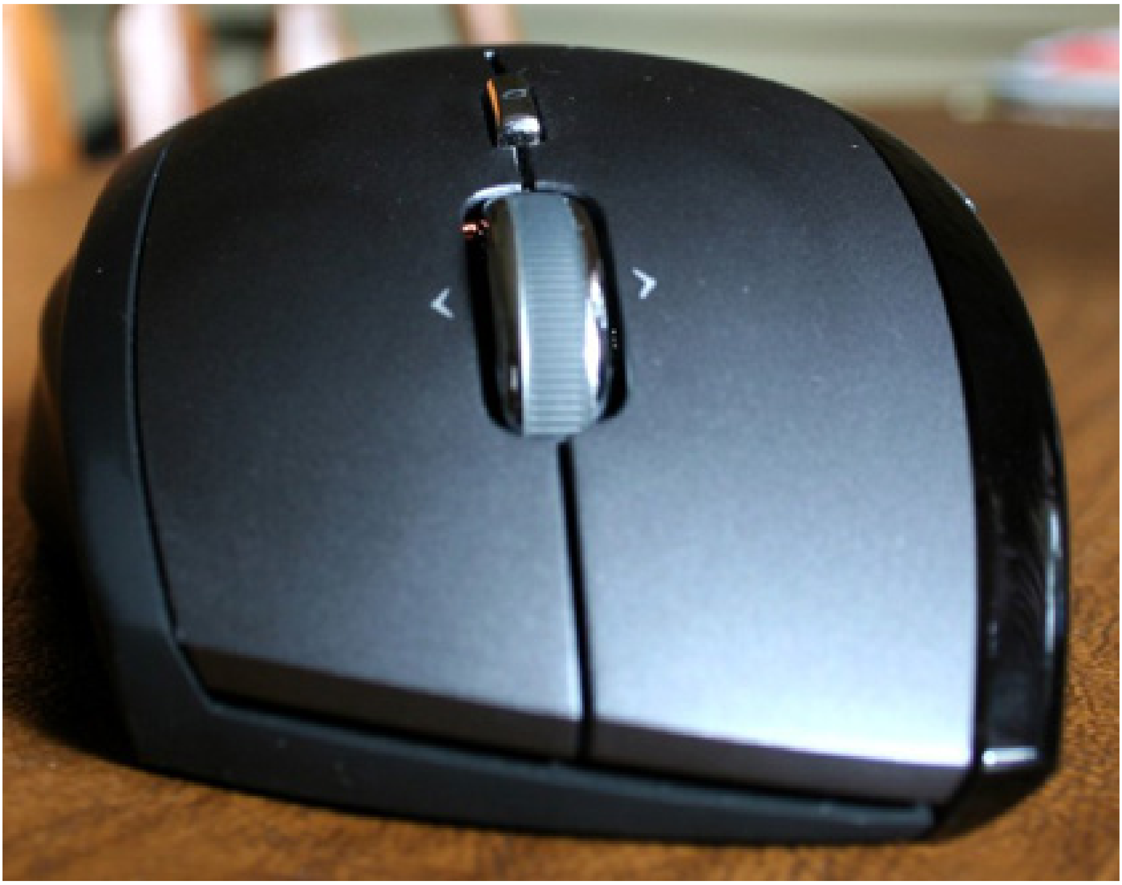
There's nowhere to store the USB transceiver in the base of the mouse, but there is an On/Off switch to save the battery when you're away from the mouse.

Design-wise, the Revolution isn't going to win any awards, but it looks attractive enough in dark gray and gloss black. The giant Logitech logo on top of the mouse doesn't do it any favors, though, and the ergonomic shape is only ergonomic if you're part of the 90 percent of the population that's right-handed. Mouse tracking, which uses an 848-nm infrared laser ("DANGER: DO NOT LOOK INTO INVISIBLE BEAM WITH REMAINING EYE"), is superb on a variety of surfaces, as one would expect. If you're going to be away from the mouse for a while, there's an On/Off switch on the bottom that allows you to save the battery by turning the mouse off entirely.

The MX Revolution would look much better without that logo in the middle.

Battery life, by the way, is pretty good; I'm on the road half the week and I don't take the mouse with me, but I easily got two weeks of usage between overnight charges. There's a nifty LED battery indicator built into the side of the mouse, just to the left of that big Logitech logo. It kicks on whenever the mouse is moved, and automatically turns off after about three seconds (whether the mouse is moving or not). The Logitech software can also tell you the battery level, along with the estimated remaining time before you'll need to recharge.

One of Logitech's selling points for the Revolution is the unique scroll wheel, which can be toggled between a "slow" scrolling mode with a distinct mechanical "click" in the wheel, which was pretty much a universal standard when scroll-wheel mice were introduced, and a free-spinning "fast" mode that allows for much quicker scrolling, at least in theory. It's a neat feature, but starts to feel gimmicky after a while, probably because it has two major problems.



The Revolution's scroll wheel is not clickable, but the button behind it is.

First, the way you toggle between modes is by pressing the scroll wheel. This means the scroll wheel isn't a middle-click button as it is with most scroll-wheel mice. To make up for this loss, Logitech put a slim button in the middle of the mouse just aft of the scroll wheel. Further compounding the problem is the default assignment of this extra button to the "One-Touch Search" feature, meaning that if you click it in an attempt to middle-click something, you'll get a Spotlight window in the Finder instead. It can be programmed for a Command-click using the Logitech software, but the position of the button is far enough toward the palm that people with average-sized hands will find it uncomfortable to reach that far.

Second, the click-scrolling mode doesn't always give consistent scrolling results. It's possible to scroll downward one or two clicks and see the active document moving in the opposite direction by a line or two. It's also possible to spin the scroll wheel hard enough (without pushing down on it) that it spins right out of the slow mode and into fast-scrolling mode, where it remains until you move the wheel again. Whether this is a bug or a feature is debatable, but it results in behavior that is inconsistent from a user's point of view, and I personally don't prefer it.

The scroll wheel can be tilted sideways to scroll horizontally, which is nice, although I miss the feature in Kensington's drivers (I've been using Kensington mice for 10 years now) that allowed the Shift key to toggle the scroll direction. The two arrow buttons above the thumb notch are mapped by default to Command-Left/Right Arrow, which functions nicely as a shortcut for Back or Forward in most browsers.

The Revolution includes a thumb "wheel" and two additional buttons on the side.

The thumb scroll "wheel," which is a spring-loaded switch rather than a wheel, is assigned to activate Dashboard by default. Finding this less than useful, I mapped its forward behavior to "Cruise Up" and its back behavior to "Cruise Down," which allows you to scroll the document under the cursor without moving your hand. This fulfills my scrolling needs nicely, but makes me wish there were a proper, clickable middle button on the top of the mouse even more. The thumb button is also a little bit difficult to use sometimes without accidentally clicking another button because the centering spring in it is so stiff.

Logitech's latest mouse software isn't awful, but it's not great, either. About the best thing that can be said for it is that at least it's no longer guilty of breaking popular software or being a haxie that relies on unsupported, buggy third-party frameworks to do its job (both of which it has done in the past). It's slower and less convenient to use than Kensington's driver software, and it still insists on installing an InputManager (a buggy, earlier version of which was responsible for the problems with Growl). Like most mouse driver software on Mac OS X, however, it's completely unnecessary if you're OK with the default button actions, so simply refusing to install it is an option. So is spending $15–20 on ControllerMate or USB Overdrive, but that's certainly no excuse for a manufacturer to be bundling such poor software with a $100 mouse, or to be writing such poor software in the first place.

The MX Revolution is a good enough piece of hardware, but it really needs Bluetooth and a proper means of middle-clicking to be considered in any discussion of "advanced" mice. All the extra buttons don't make up for the lack of these important basics. As with most "ergonomic" mice, left-handed users need not apply, and the software still leaves a lot to be desired. For $100, unless you absolutely loathe Microsoft or Kensington hardware, you can do a lot better.

Software Review

by Ed Eubanks, Jr.

PDFPen and PDFPen Pro 4.0.1

Developer: SmileOnMyMac
Price: $50 (standard); $100 (pro); upgrade and family pack prices available.
Requirements: Mac OS X 10.4. Universal.
Trial: Feature-limited (watermark on all saved/printed documents).

ATPM RATINGS
VERY NICE

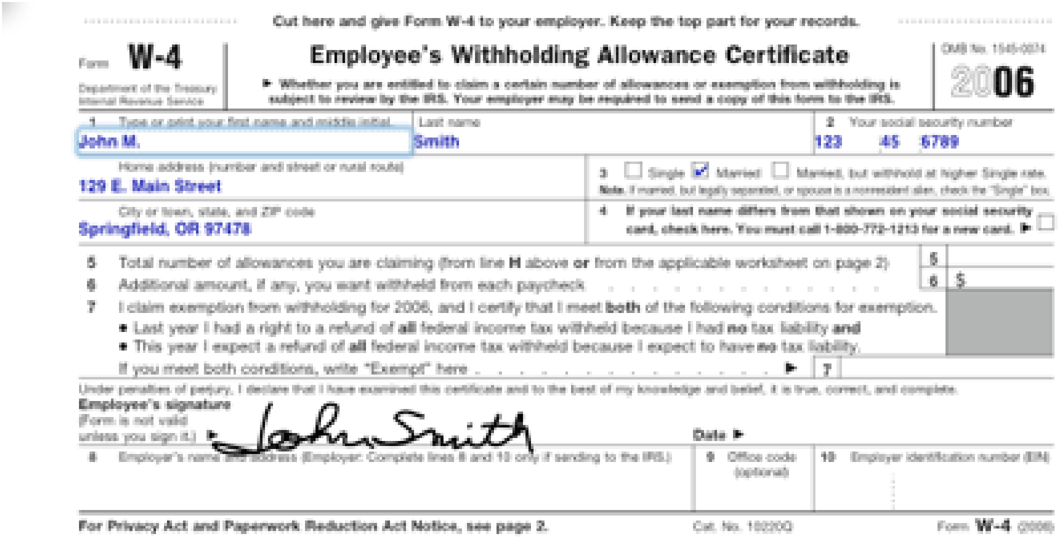
I'm so close to being free of fax machines (and the like) altogether. But when we bought our house a year ago, we would have been stuck without one: too many times we had papers faxed or e-mailed to us that we had to sign and fax back to them. Honestly, it was the signatures and initials that forced us.

With PDFPen, though, my faxing days are numbered. So, too, are my hand-cramps from filling out forms with my messy handwriting. And more.

The Basics

How many PDF forms do you download a year? If the answer is more than two then PDFPen may be for you.

The basic tools are all here: you can type your data into forms, rather than printing them out and hand-writing all of it. If you can envision text in the gaps and on the lines of the form on your screen, you have all that you need to have that form filled out.



Cut here and give Form W-4 to your employer. Keep the top part for your records.

Form **W-4**
Department of the Treasury
Internal Revenue Service

Employee's Withholding Allowance Certificate

▶ Whether you are entitled to claim a certain number of allowances or exemption from withholding is subject to review by the IRS. Your employer may be required to send a copy of this form to the IRS.

OMB No. 1545-0074
2006

1 Type or print your first name and middle initial: John M.
Last name: Smith
2 Your social security number: 123 45 6789

Home address (number and street or rural route): 129 E. Main Street

3 □ Single ☑ Married □ Married, but withhold at higher Single rate.
Note. If married, but legally separated, or spouse is a nonresident alien, check the "Single" box.

City or town, state, and ZIP code: Springfield, OR 97478

4 If your last name differs from that shown on your social security card, check here. You must call 1-800-772-1213 for a new card. ▶ □

5 Total number of allowances you are claiming (from line **H** above **or** from the applicable worksheet on page 2) 5
6 Additional amount, if any, you want withheld from each paycheck 6 $
7 I claim exemption from withholding for 2006, and I certify that I meet **both** of the following conditions for exemption.
- Last year I had a right to a refund of **all** federal income tax withheld because I had **no** tax liability **and**
- This year I expect a refund of **all** federal income tax withheld because I expect to have **no** tax liability.

If you meet both conditions, write "Exempt" here ▶ 7

Under penalties of perjury, I declare that I have examined this certificate and to the best of my knowledge and belief, it is true, correct, and complete.

Employee's signature
(Form is not valid
unless you sign it.) ▶ John Smith
Date ▶

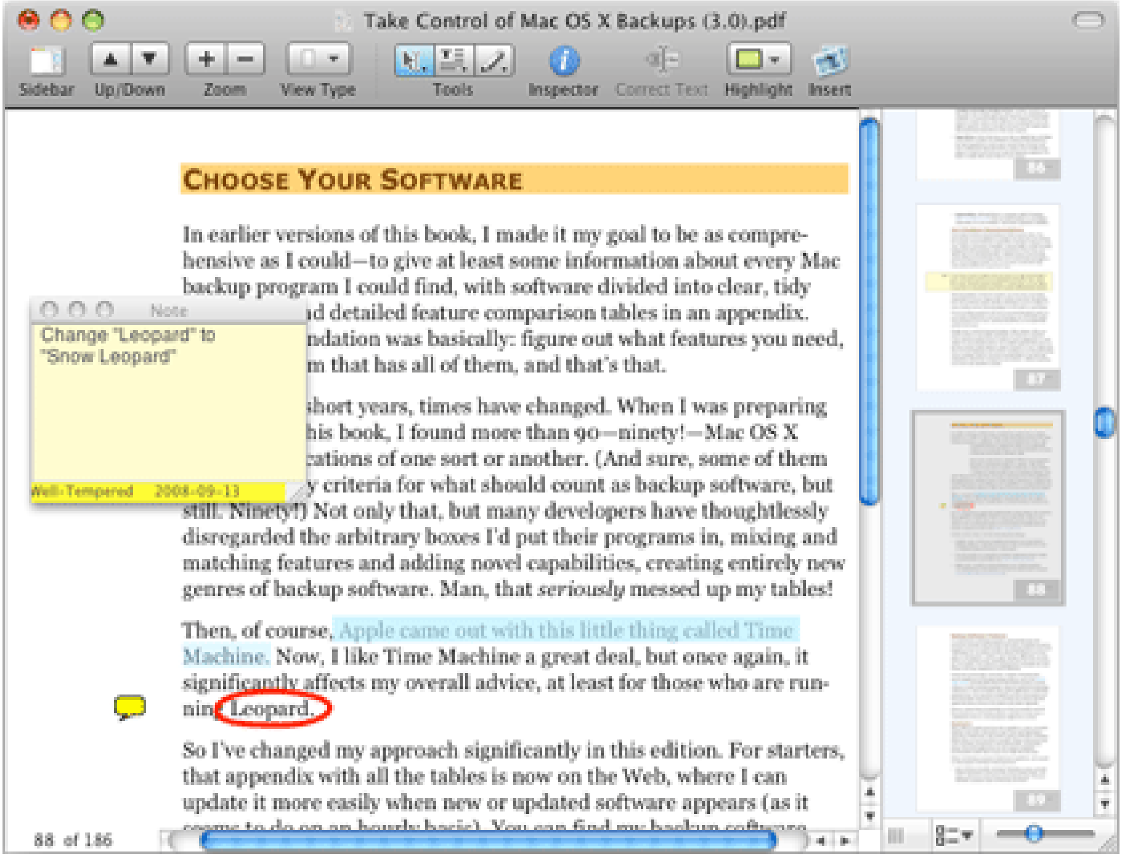
8 Employer's name and address (Employer: Complete lines 8 and 10 only if sending to the IRS.)
9 Office code (optional)
10 Employer identification number (EIN)

For Privacy Act and Paperwork Reduction Act Notice, see page 2.
Cat. No. 10220Q
Form **W-4** (2006)

The obvious benefit here is that your forms are neat and tidy, not messy, smudged, smeared, or difficult to read. Information that might be lost (because my handwriting is bad, and yours isn't foolproof either) is preserved by PDFPen. This is the bread and butter of a program like this, and they have done it well: easy to use, and easy to edit after you've done it. Change the font, size, position of the text, etc. with no problems.

Level-up

Maybe it's not all about forms for you. That's okay: PDFPen has other nice features too.



CHOOSE YOUR SOFTWARE

In earlier versions of this book, I made it my goal to be as compre-
hensive as I could—to give at least some information about every Mac
backup program I could find, with software divided into clear, tidy
ıd detailed feature comparison tables in an appendix.
ndation was basically: figure out what features you need,
m that has all of them, and that's that.

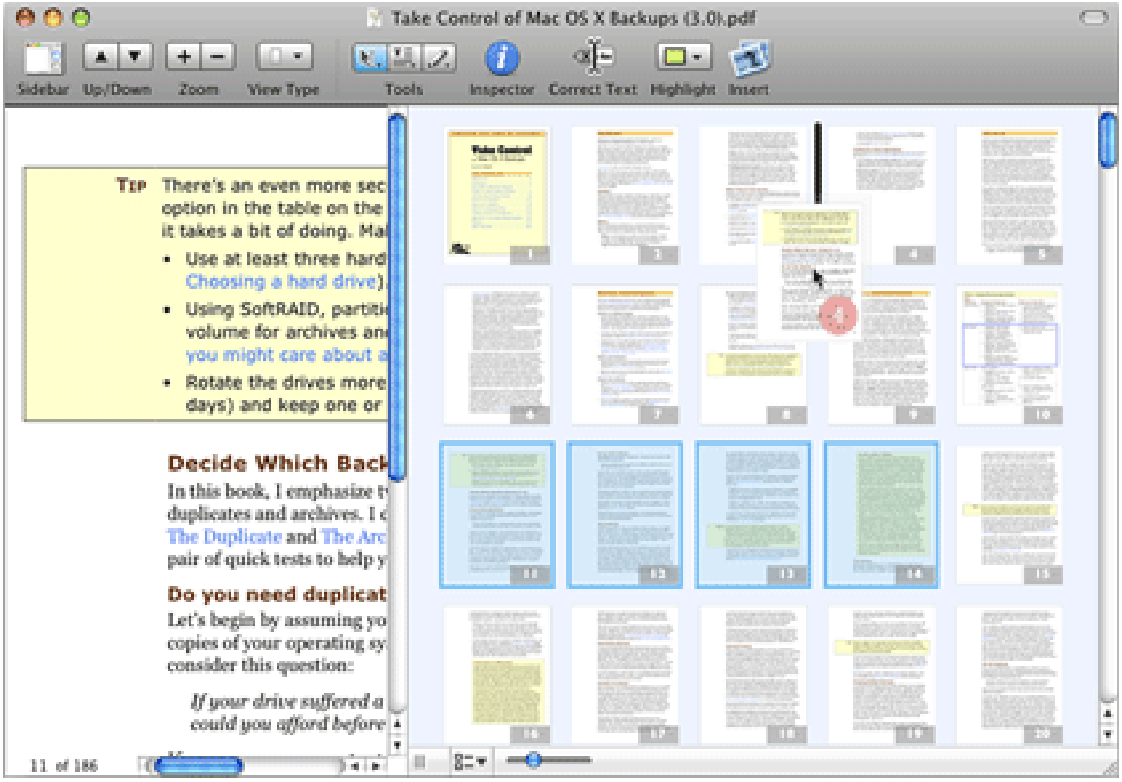
short years, times have changed. When I was preparing
his book, I found more than 90—ninety!—Mac OS X
cations of one sort or another. (And sure, some of them
y criteria for what should count as backup software, but
still. Ninety!) Not only that, but many developers have thoughtlessly
disregarded the arbitrary boxes I'd put their programs in, mixing and
matching features and adding novel capabilities, creating entirely new
genres of backup software. Man, that *seriously* messed up my tables!

Then, of course, Apple came out with this little thing called Time
Machine. Now, I like Time Machine a great deal, but once again, it
significantly affects my overall advice, at least for those who are run-
ning Leopard.

So I've changed my approach significantly in this edition. For starters,
that appendix with all the tables is now on the Web, where I can
update it more easily when new or updated software appears (as it

Note
Change "Leopard" to
"Snow Leopard"
Well-Tempered 2008-09-13

How about highlighting, strike-through, and other markup? Check. Text annotations and comments? Check. Add graphics? Check. Again, good work on all of these.



TIP There's an even more sec
option in the table on the
it takes a bit of doing. Ma

- Use at least three hard
Choosing a hard drive).
- Using SoftRAID, partiti
volume for archives an
you might care about a
- Rotate the drives more
days) and keep one or

Decide Which Back

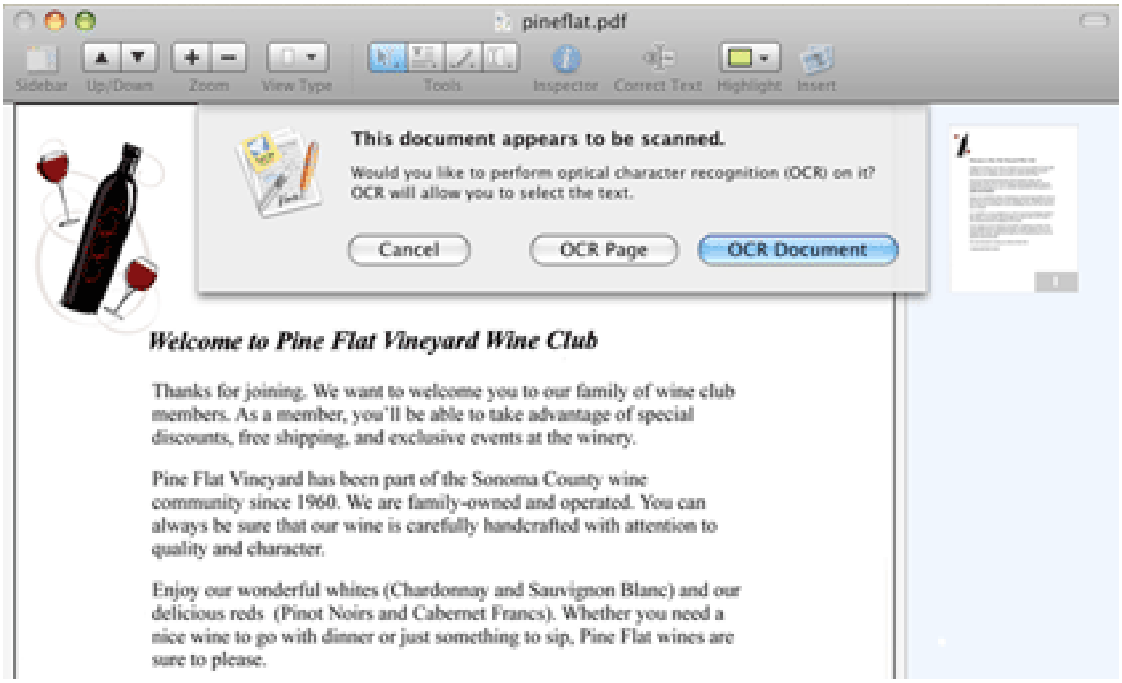
In this book, I emphasize t
duplicates and archives. I c
The Duplicate and The Arc
pair of quick tests to help y

Do you need duplicat

Let's begin by assuming yo
copies of your operating sy
consider this question:

If your drive suffered a
could you afford before

You can also insert pages, re-arrange existing pages, and delete pages. If need be, you can combine multiple PDFs into a single document. You can "white-out" portions that you'd like hidden. You can even edit text and images within the PDF. And the great part is that all of these are actually very easy and intuitive to accomplish.



This document appears to be scanned.

Would you like to perform optical character recognition (OCR) on it? OCR will allow you to select the text.

Welcome to Pine Flat Vineyard Wine Club

Thanks for joining. We want to welcome you to our family of wine club members. As a member, you'll be able to take advantage of special discounts, free shipping, and exclusive events at the winery.

Pine Flat Vineyard has been part of the Sonoma County wine community since 1960. We are family-owned and operated. You can always be sure that our wine is carefully handcrafted with attention to quality and character.

Enjoy our wonderful whites (Chardonnay and Sauvignon Blanc) and our delicious reds (Pinot Noirs and Cabernet Francs). Whether you need a nice wine to go with dinner or just something to sip, Pine Flat wines are sure to please.

The latest version also adds OCR (optical character recognition) technology, allowing scanned documents (which are by default image-only PDFs) to be converted into the more robust and searchable image+text PDFs. OCR is tricky, because without a high degree of accuracy it isn't worth bothering. PDFPen does an acceptable job with relatively good accuracy on well-scanned documents, but if the scan is a little off—especially if it's crooked—the OCR won't perform well. OCR in PDFPen is a resource hog, even on well-equipped Macs. My suggestion: if you are doing a lot of OCR, don't rely on PDFPen as your only tool.

What is more, you can "scribble." Sort of like a really basic version of the old MacDraw, the Scribble tool lets you insert lines, and shapes, or freehand-draw them. This by itself is mostly (in my view) a novelty. Combine it with a basic tablet (like a Wacom Graphire), however, and suddenly you can sign those documents—no printing or scanning required. Beautiful—Scribble plus my Wacom is my latest favorite trick.

A few other lesser-known features are worth mentioning. PDFPen has something of a "library" available, with proofreading marks already there, as well as frequently-used scribbles, text, signatures, etc. It is fully AppleScriptable, which grants enormous customization to those who know how to use it. It will import Microsoft Word documents directly as well, so it's not limited to PDFs (and it will give you basic read/edit capability of Word docs even without Word). It offers selective comment printing as well. Finally, SmileOnMyMac also offers a companion application, PageSender, which gives even more hope to my plan to be free of the fax: PageSender is a heavy-duty fax program that works hand-in-hand with PDFPen.

For the Pros

If you put in the extra cash for the Pro version, you get two more features. You can create and edit a table of contents for a document, and you can create PDF forms.

The writers and editors will love the first tool. Imagine a 100-page PDF of an annual report, or a 30-page proposal, but the table of contents is missing. No problem if you have the original—and your word processor supports making tables of contents. But if all you have is the PDF, what would you do? PDFPen Pro gets this done well.

It's the second tool that will get most of us. How about taking a basic document, adding buttons, checkboxes, and fillable text areas, and sending it out as a PDF to everyone you need a completed form from? They don't need to print it or mail it back—just open it in any Acrobat Reader (or other PDF viewer) and complete it, regardless of platform. Pretty nice—and again, easy to do in PDFPen Pro.

Interface Nuances and Updates

The latest version brought a few changes to the interface. The "drawer" isn't really a drawer anymore, at least not like a seasoned Mac user would recognize—but the change allows for enlarging the thumbnails to be more useful and readable, as well as resizing the drawer itself. There's also a new inspector that gives more tweaking ability to the text and other markings you add, as well as the metadata for the document.

A few other minor changes, like a cleaned-up properties window and a better toolbar, contribute to a good upgrade.

Wrapping Up

Overall, PDFPen is a very nice product. It gets the job done 95% of the time, only falling short significantly with OCR. I'd also like a little more for my extra $50 than just two features in the Pro version. But beyond that, PDFPen is a good buy that is mature and has a promising future.

Software Review

by Linus Ly, lly@atpm.com

StoneLoops 1.0.5

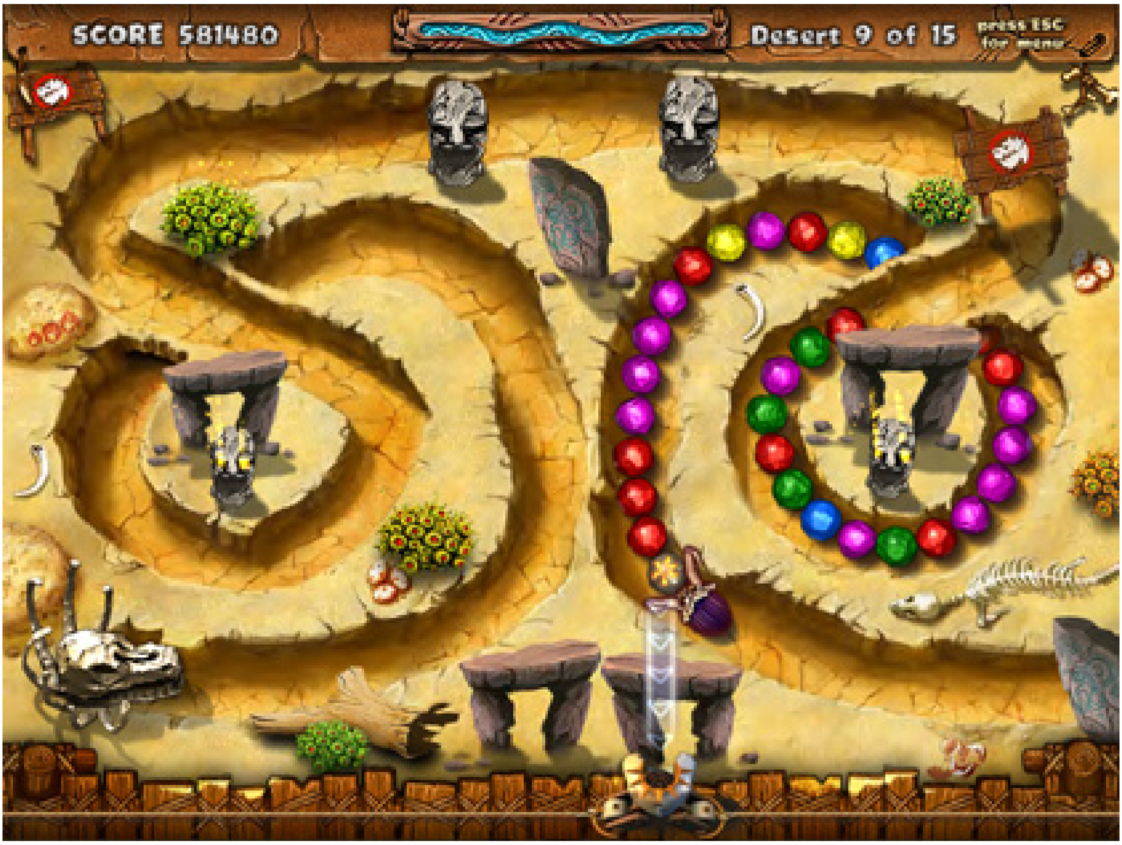
Developer: Game Club Cafe
Price: $20
Requirements: Mac OS X 10.3.9. Universal.
Trial: Fully-featured (60 minutes).

ATPM RATINGS
VERY NICE

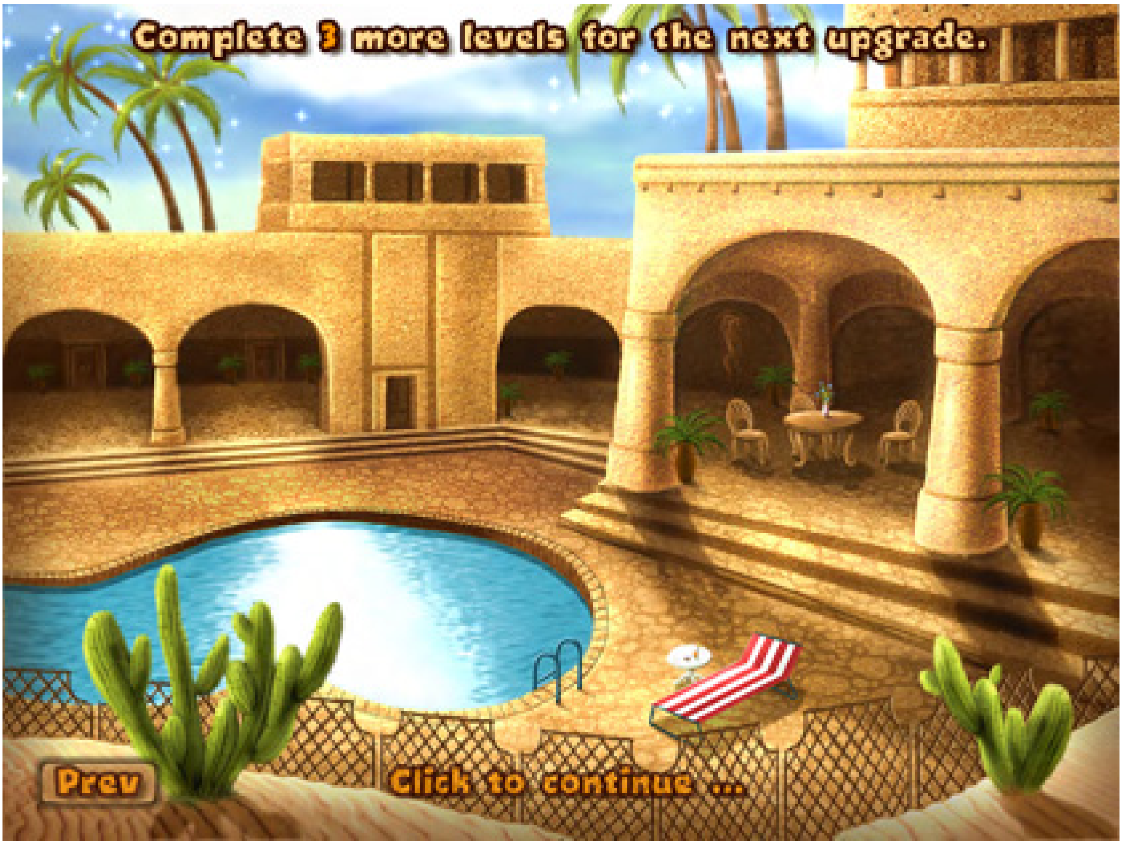
When I write game reviews for ATPM, I usually recruit my son Justin to help put the game through its paces. For the StoneLoops review, I also got help from my wife, Courtney. Based on the many hours Justin and Courtney spent with the game, it is easy to declare that the game is perfect. But what does my expert opinion say?

Goal of the Game

The goal of the game is to prevent a rolling chain of colorful stones from reaching the gaping mouth of a dinosaur skeleton head. Equipped with a sort of tractor beam device, you can grab individual stones and re-arrange the chain. Get three or more stones of the same color together and they explode. The chain shortens to give you a few precious seconds to plan your next move. As you blow up the stones, there are power-ups to catch. You can poke the stones with a spear, turn them into the same colors, shoot fireballs at them, have a pteranodon swoop down on them, and more. Earn enough points from blasting the stones and you advance to the next level. Other rewards are gems for you to catch and upgrades to your houses. You start with a fancy tree house which then gets a better roof, railing, mechanical elevator, and so on. The house gets fancier as you advance to the higher levels.



Re-arrange the stones into row of three or more to blow them up.



Upgrades to this house include the top level, the palm trees, and the in-ground swimming pool.

Modes of Play

There are supposedly three modes of play, although they really boil down to the same game. You have to start with the Classic mode, where the stones roll forward toward their destination as you try to blast them. Clear a number of the Classic levels to unlock the Strategy and Survival modes. In Strategy mode, the stones roll once with each action you make so you have plenty of time to plan your next move. However, you can press the spacebar and the game reverts to Classic. Survival mode differs from Classic mode only in that you can choose which of the completed levels to re-visit. In all modes, your goal remains the same, to blow up stones as they roll toward the dinosaur mouth. The only variation to the game is the Bonus Round, where you try to shoot pop-up targets with stones of the same color to earn power-ups for the next level. Not that this is a problem with the game. The simple rules of the game make it easy to learn, yet hard to quit. It is just a game to occupy time.

There are four difficulty levels—Easy, Normal, Challenge, and Skill Master. You have to pass some number of levels to unlock the Skill Master setting. I would not know as I never got past even the first 15 levels. Much to my surprise, my wife, supposedly the casual gamer, has already gotten to level 40.

Minor Annoyances

While I enjoy playing StoneLoops, I also have a few minor gripes with it. A male voiceover shouts encouraging words like "GOOD!" and "SMASHTASTIC!" frequently. He also dramatically announces "A NEW UPGRADE" whenever you get enough points to improve the house, in the manner of a sportscaster relaying a touchdown. I find it annoying after a while, and there is no way to mute just the announcer.

Another issue with StoneLoops is that, although you can create many players with each login, you can have only one saved game per player. Let's say you created an account called Joe and played an Easy game, then wanted Joe to try out the Normal level. You would have to delete the saved game for Joe and start all over with the Normal level. To be fair, you do have the option of switching difficulty level mid-game by pressing the Esc key.

Lastly, I wish that it were not so easy to change from Strategy mode to Classic mode. Strategy mode is for relaxing, but one press of the spacebar and the stones will start rolling just like in Classic.

Conclusion

Based on the experience of my family of three, StoneLoops is a Very Nice game that has something for everyone. The better players, like my wife, can run away with the Classic mode and blast stones as fast as she can. The slower players like me and Justin can take our sweet time with the Strategy mode. It would be nice if it were not so easy to accidentally switch from Strategy to Classic, but it is easy to avoid once you know about that the little annoyance.

FAQ: Frequently Asked Questions

What Is *ATPM*?

About This Particular Macintosh (ATPM) is, among other things, a monthly Internet magazine or "e-zine." ATPM was created to celebrate the personal computing experience. For us this means the most personal of all personal computers—the Apple Macintosh. About This Particular Macintosh is intended to be about your Macintosh, our Macintoshes, and the creative, personal ideas and experiences of everyone who uses a Mac. We hope that we will continue to be faithful to our mission.

Are You Looking for New Staff Members?

ATPM is looking to add more regular reviewers to our staff. Though all positions with *About This Particular Macintosh* are volunteer, reviewing is a great way to share your product knowledge and experience with fellow members of the Macintosh community. If you're interested, contact ATPM's Reviews Editor, Paul Fatula.

How Can I Subscribe to *ATPM*?

Visit the subscriptions page.

Which Format Is Best for Me?

- The **Online Webzine** edition is for people who want to view ATPM in their Web browser, while connected to the Internet. It provides sharp text, lots of navigation options, and live links to ATPM back issues and other Web pages.
- The **Offline Webzine** is an HTML version of ATPM that is formatted for viewing offline and made available in a Mac OS X disk image. The graphics, content, and navigation elements are the same as with the Online Webzine, but you can view it without being connected to the Internet. It requires a Web browser.
- The **Print PDF** edition is saved in Adobe PDF format. It has a two-column layout with smaller text and higher-resolution graphics that are optimized for printing. It may be viewed online in a browser, or downloaded and viewed in Apple's Preview or Adobe Reader on Macintosh or Windows. PDFs may be magnified to any size and searched with ease.
- The **Screen PDF** edition is also saved in Adobe PDF format. It's a one-column layout with larger text that's optimized for reading on-screen.

How Can I Submit Cover Art?

We enjoy the opportunity to display new, original cover art every month. We're also very proud of the people who have come forward to offer us cover art for each issue. If you're a

Macintosh artist and interested in preparing a cover for ATPM, please e-mail us. The way the process works is pretty simple. As soon as we have a topic or theme for the upcoming issue we let you know about it. Then, it's up to you. We do not pay for cover art but we are an international publication with a broad readership and we give appropriate credit alongside your work. There's space for an e-mail address and a Web page URL, too. Write to editor@atpm.com for more information.

How Can I Send a Letter to the Editor?

Got a comment about an article that you read in ATPM? Is there something you'd like us to write about in a future issue? We'd love to hear from you. Send your e-mail to editor@atpm.com. We often publish the e-mail that comes our way.

How Can I Contribute to *ATPM*?

There are several sections of ATPM to which readers frequently contribute:

Segments: Slices from the Macintosh Life

This is one of our most successful spaces and one of our favorite places. We think of it as kind of the ATPM "guest room." This is where we will publish that sentimental Macintosh story that you promised yourself you would one day write. It's that special place in ATPM that's specifically designated for your stories. We'd really like to hear from you. Several Segments contributors have gone on to become ATPM columnists. Send your stuff to editor@atpm.com.

Hardware and Software Reviews

ATPM publishes hardware and software reviews. However, we do things in a rather unique way. Techno-jargon can be useful to engineers but is not always a help to most Mac users. We like reviews that inform our readers about how a particular piece of hardware or software will help their Macintosh lives. We want them to know what works, how it may help them in their work, and how strongly we recommend it. Please contact our reviews editor, before you begin writing, if you have a piece of hardware or software that you'd like to review.

Which Products Have You Reviewed?

Check our reviews index for the complete list.

What is Your Rating Scale?

ATPM uses the following ratings (in order from best to worst): Excellent, Very Nice, Good, Okay, Rotten. Products rated Good or better are ones that we recommend. Okay products get the job done. We recommend avoiding Rotten products.

Will You Review My Product?

If you or your company has a product that you'd like to see reviewed, send a copy our way. We're always looking for interesting pieces of software to try out. Contact reviews@atpm.com for shipping information. You can send press releases to news@atpm.com.

Where Can I Find Back Issues of *ATPM*?

Back issues of ATPM, dating since April 1995, are available in DOCMaker stand-alone format and as PDF. In addition, all issues since ATPM 2.05 (May 1996) are available in HTML format.

What If My Question Isn't Answered Above?

We hope by now that you've found what you're looking for (We can't imagine there's something else about ATPM that you'd like to know.). But just in case you've read this far (We appreciate your tenacity.) and still haven't found that little piece of information about ATPM that you came here to find, please feel free to e-mail us at (You guessed it.) editor@atpm.com.