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Retrieve Programming in Q&A and Sesame

BY ALEC MULVEY



The Quick Answer

The Do-It-Yourself Guide to Q&A

August 2003

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Q&A's database search options are extensive. When these run out you can always use a programmed Retrieve Spec. This more recent capability—programmable Retrieves, added in Q&A version 4.0—is not used nearly as much as it ought to be. The good news is that Sesame supports Retrieve Spec programming just like Q&A. There are some relatively minor differences between the two, however. I want to tell you what these are, and in the process show you how you can use Retrieve Spec programming to good effect.

Retrieve Programming: two methods

Retrieve programming must be enclosed by what are called “French braces” { }. They contain the programming expression you want Q&A to evaluate, which will determine which record or records Q&A returns to your desktop, or to a mail merge, Mass Update, Report or other task that includes record selection as part of it. Your expression can take one of two forms: Either a value, such as a number, a date or a text string, or a Boolean expression that evaluates to either True or False.

As an example of a value expression, let's take a search for dates falling due within the next seven days, where the due date will always be in the future. At the Retrieve Spec, you could type the following into the **Due Date** or similarly named field, as long as it's a proper date type field:

```
< { @Date + 7 }
```

Notice that the less-than operator (<) is outside the main expression enclosed by the French braces. In this case, the expression is evaluated by Q&A and returns a date seven days in the future from the current date. When coupled with the “<”, this tells Q&A to find all the records where the Due Date field contains a date that is earlier than the date that is seven days from today.

Another example would be to find people with four-character surnames:

```
Surname: ={@Len(Surname) = 4}
```

This would produce records containing surnames such as Bird and Shaw.

This is the first way to use Retrieve programming. You could call it “implied comparison,” since the expression directly relates to the contents of the Retrieve Spec field in which you've typed it.

The second method—call it “truth-of-expression”—is independent of the field into which it is typed. It can be considered “universal” to all the fields on the form. It starts with the French braces:

```
Surname: {@Len(Surname) = 4}
```

When the expression inside the French braces is evaluated and then tested against a particular record, it will result in either a “True” or a “False.” If true, the record is included; if false it is not. A programming expression used in this way does not relate to the field it happens to be put in. Place it in a different field and the result will be the same.

About Sesame

Q&A and Sesame support both these methods. But there is a difference you need to know.

Continues on page 3

ANNOUNCEMENT

Sesame Release Date Announced!

Lantica Software, LLC proudly announces that it will release its new *Sesame* database management system for public sale on **October 15, 2003**

Exciting product features include:

- Remote Internet access to your Sesame databases
- True client/server network operation
- Windows/Linux 32-bit compatibility and interoperability
- HTML reports
- Built-in email capabilities
- Support for graphic images in database
- Open Database Connectivity (ODBC) compliant
- Relational capabilities
- Multiple forms per database. Forms within forms.
- Compatibility with Symantec Q&A® databases. Translates Q&A for DOS 4.0 and 5.0 databases, as well as Q&A for Windows databases
- Supports all Windows printers
- Fully programmable using Q&A-like language with a host of powerful new features
- Much, much more

Sesame will be priced as follows:

Full client/server package with single-user license and printed user manuals	\$249
Multiuser client licenses (1-4 additional users)*	\$149
Multiuser client licenses (5-9 additional users)*	\$129
Multiuser client licenses (10-24 additional users)*	\$109
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* Price is per user. Requires installed single-user client/server package

Advance orders will be accepted beginning July 23, 2003.

Advance orders placed prior to September 1, 2003 will receive:

- \$50 discount on the single-user client/server license
- Priority shipping from first production run.

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Or email order information plus your phone number to sales@lantica.com

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Frequently Asked Questions
about Sesame

Read 'em at www.lantica.com

Program Retrieves cont'd from page 1

We all know that Q&A is a very forgiving product. You can put "Don't Know" in a date field. You can name a field "150" and have a programming statement that says:

```
Total = #200 + 150
```

Q&A will use the value that's in field 150 rather than add the number 150. That's neat. But it's extremely difficult to replicate in a modern program that has a wider scope than Q&A.

Q&A's forgiving nature extends to Retrieve Spec programming as well. You've seen these two methods. If you use the first method, your programming expression produces a value. If you want that value to be compared to a field, you can put it in that field and put an equal sign in front of the French braces. In Q&A, if you omit the equal sign, Q&A will handle it anyway. Likewise if you do the opposite, and put an equal sign in front of the French braces when using method two, Q&A accommodates these errors. Sesame doesn't.

The following are valid in Sesame:

```
Rating: = {Key - 14}
```

```
Any Field: {Rating = Key - 14}
```

However, if you swap the equal sign to the second example, it is incorrect syntax and won't work in Sesame, even though this improper practice is tolerated in Q&A.

One thing you won't be able to carry forward to Sesame is the use of logical field numbers in programming. You have to use field names, plain and simple. Logical field numbers are actually a carryover from Q&A 3.0, where you *couldn't* use field names in programming and were forced to assign a logical field number to any field you wanted to reference in programming..

Again, this can be justified by stating that Q&A is extravagantly accommodating regarding such numbering. The numbers used are just for the Program Spec. So, you can have a numbering scheme in the Program Spec, another in the Navigation Spec, another in each of many saved Mass Update Specs, more yet in saved Retrieve Specs, and so on.

Using field names is ultimately just simpler.

I have to admit, though, that I will miss the ability to do this:

```
Any Field: {#1 <@Date + 7}
```

```
Date1:#1  
Date2:  
Date3:
```

Why? Because as I can run the search, press F7 to return to the Retrieve Spec, and simply move the "#1" from one field to the next. I find this particularly useful for those very complicated programmed Retrieves I sometimes need. I can save the retrieve with #1 in one field, then load that retrieve and put the #1 into a different field.

Why would you want Retrieve Spec programming? Being able to use Retrieval expressions can come in handy in various situations. They come into their own when you use them as Saved Retrieves. This can be as standalone Retrieve Specs, or as the Retrieve Spec saved as part of Reports or Print Specs.

Compare to current date

As you saw in the first example, you can compare a date field to the current date. This is invaluable for finding records for the next week, for the last 14 days, for next month, for this month, for the past 90 days, and so forth. You don't have to type in a new range of dates every time you perform the task, such as:

```
Date Due: >=8/14/2003..<= 8/21/2003
```

or simply this:

```
Date Due: 8/14/2003..8/21/2003
```

Here are a few more examples of using Retrieve Spec expressions with date ranges:

```
{@JobDate >= @Date - 7 And @JobDate <=@Date + 7}
```

(JobDate 1 week either side of today.)

```
{@Month(@JobDate) = @Month(@Date) And  
@Yr(@JobDate) = @Yr(@Date)}
```

(JobDate this month.)

```
{@Replace(DOB, @Yr(DOB), @Yr(@Date)) >=  
@Date and  
@Replace(DOB, @Yr(DOB), @Yr(@Date)) < @Date +  
7}
```

(Birthday (DOB) within the next week.)

Searching for non-standard characters

Retrieve Spec programming can help you find characters that shouldn't be in a field. For example, to search for "±" in a field named **Reading1**:

```
{@Instr(Reading1, @Chr(241)) > 0}
```

Concludes on page 15

Using Sesame Tutorials

Part 2—Design an Application



ERIKA YOXALL

Several months ago, Erika Yoxall, a member of the *Sesame* development team, prepared a “Quick Start” tutorial guide designed to introduce beta testers to the first general *Sesame* beta release. (Until then, beta testing had been limited to a small select group of individuals close to Lantica Software.) Erika’s tutorials, which include *Create an Application*, *Design an Application*, *Translate a Q&A Database*, and *Fixing Common Q&A Translation Issues*, are being featured here in *The Quick Answer*. *Part 1—Create an Application* appeared in the March 2003 issue. This month, we continue in the series with *Part 2—Design an Application*. We think you’ll find these tutorials of interest if you’re planning a migration to *Sesame*.

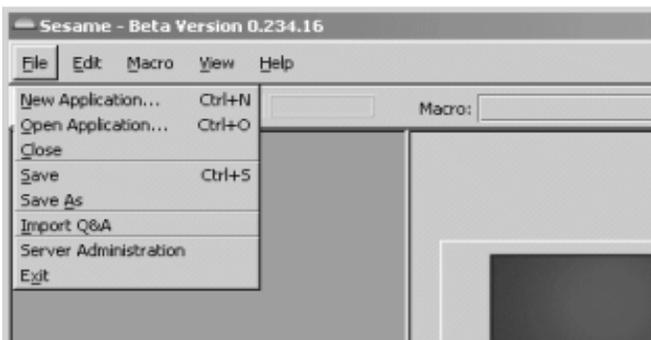
Note:—Due to the number of screen shots and relatively small amount of text (the pictures tell the story), we have departed from our usual format and kept all the screen shots in line with the tutorial text. Keep in mind that the screen shots have been scaled to fit within the confines of our two-column format.

In this tutorial, we will build a simple Sesame Application using Sesame Designer. For this example, we will create a basic Contacts application.

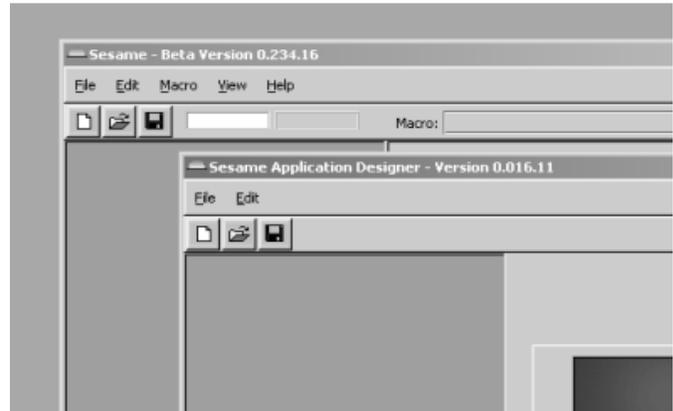
Step 1 – Starting Sesame Designer

Start Sesame by clicking on the Sesame icon on your Desktop.

On the **File** menu, click **New Application**.

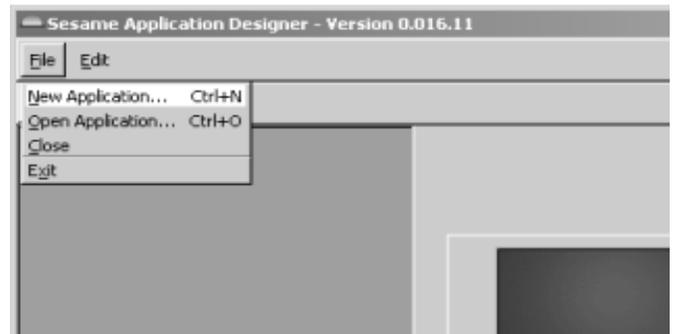


Sesame Designer will open in a new window. (See top of adjacent column.)

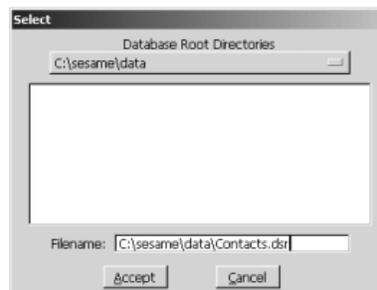


Step 2 – Creating A New Application

On the **File** menu in the Sesame Designer window, click **New Application**.



You are asked to select a filename for your new application. Type `c:\sesame\data\contacts.dsr` in the Filename box. (See below.) Click **Accept**. Your new application will be saved under this filename. Sesame Designer will also create a second file called `contacts.ddt`. Together, these files hold your entire application design.

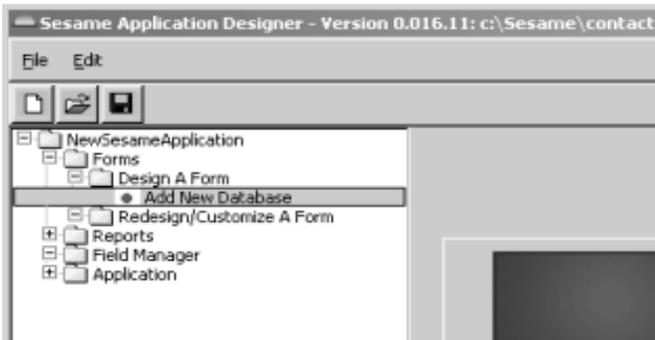


Sesame Designer creates the structure of a new application. By default, the application is named *NewSesameApplication*.



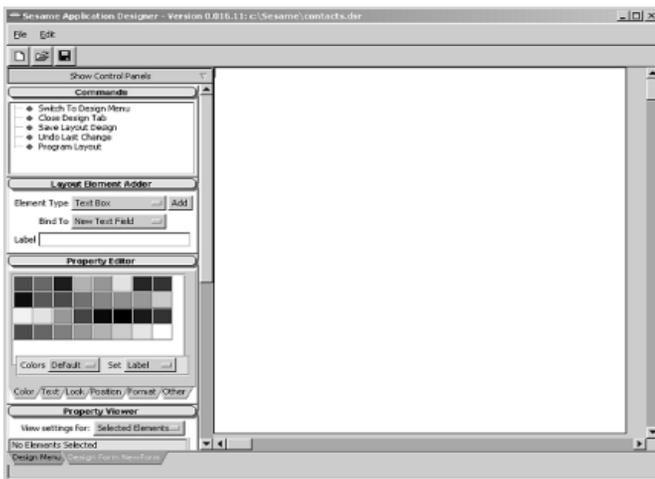
Step 3 – Creating A New Database

Creating a new database is as simple as adding a form. On the Design Menu Tree, click **Forms** to expand the Forms menu. Click **Design A Form** to expand the menu.



Click **Add New Database**.

Sesame Designer opens a new Design Tab with a blank Form.



The new Form is named *NewForm* by default. Let's change that. The left side of the Design Tab shows the various Control Panels. To change the Form name, we want the one called *Property Editor*. It should be the third one from the top. Many changes are made using the Property Editor. Find the Property Editor and click on the **Other** tab. At the top of this Tab is a dropdown



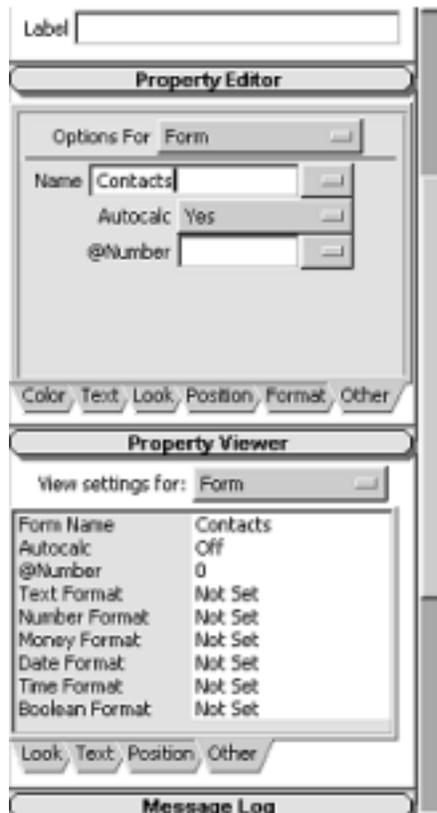
called **Options For**. Select **Form**.

The options for a Form are displayed. In the **Name** box, type **Contacts**. Click the button next to the Name box. Notice that the text



on the Design Tab label at the bottom of the screen (in yellow) has changed from "Design Form NewForm" to "Design Form Contacts."

To see the results of your changes, find the Control Panel called **Property Viewer**. It is located right below the



Property Editor. You may need to resize your window or drag the scrollbar thumb down to see it.

From the **View Settings For** dropdown, choose **Form**. The Property Viewer now displays the current settings for the Form. Click on the **Other** tab. The first item should show the Form Name as "Contacts."

Continues on page 10



Unexpected Problems with New HP Laser Printer

I have followed all the discussions about printers and what we should use with Q&A for DOS to make sure we are able to successfully print. I went out and bought a new HP 2300L laser printer figuring that it would meet both the needs of my Q&A for DOS applications and surely print from my Q&A Win apps. To my surprise and chagrin, it prints somewhat okay from Q&A for DOS, but prints garbage from Q&A Win. Any suggestions?

Sara

I'm pretty sure that this is a printer driver issue. Most newer HP laser printers have an option during install to set up the printer using the PCL5 or PCL6 language driver, or both. The default is usually PCL6, which is their enhanced PCL XL driver for better GUI support and backwards compatibility. For most Q&A users, this isn't the best choice. Q&A does not handle this driver very well even though the printer drivers are supposedly installed. More interestingly, Q&A for Windows has trouble with the fonts.

Uninstall your printer from Windows and then do a custom reinstall, selecting PCL5 as the desired option. In Q&A for DOS, install the printer as an HP LaserJet III or 4. Nothing need be done in Q&A for Windows.

P.S. Sara wrote back to say that this solved her printing problems.

Q&A Win Won't Print Converted DOS Reports

I needed to migrate to Q&A for Windows from Q&A for DOS because my company adopted a no-DOS-programs policy and purchased all new inkjet printers that Q&A for DOS can't even recognize. Now I have a major problem. My old reports from Q&A for DOS look awful. They were formatted for the wrong printer, things don't line up properly, and I can find no way to fix them. Do I have to redesign them all from scratch? Help!

Carolyn

A quick tip and a little trick. Q&A for Windows recognizes your DOS columnar reports and can print them if everything is just right. You will lose some features, like your fonting, margins, and header/footer programming but that may be acceptable. However, if the reports need updating or changing, what do you do? Easy, select *Design Reports and Labels* in Q&A for Windows, open the DOS columnar report that needs changing and then, from the Reports menu, select *Save as Freeform*. You can even use the same report name. Then, open the design of that new freeform report, and you'll have all of the facilities of Q&A for Windows to modify that old DOS columnar report.

Needs Gosub in a Mass Update

I need to run an extremely complex gosub routine (already in my Program Spec) for a one-time mass update. The problem is that mass update only gives me the option to run On-record-entry statements, Calculation statements, or On-record-exit statements. My gosub is not an on-record-entry or on-record-exit program, and it can't be made into a calculation statement because Q&A says it's an invalid programming statement if it is not preceded with a "<" or a ">" sign. I would even be willing to duplicate the programming statement in a Mass Update Spec (although that would be very time consuming) if I had to. Can you guys offer any suggestions?

Margo

Here it is. A simple suggestion and a way to get around Q&A's stubbornness. Mass update will not allow you to execute any goto's, or on-field-entry or on-field-exit programming. However, as you have noted, it will allow you to execute on-record-entry or on-record-exit programming during the mass update. Look carefully at your programming, make sure that you are not going to do anything you regret, and set your gosub field to temporarily be the on-record-entry or on-record-exit



Stumped?

Send your Q&A questions to @Help, The Quick Answer, Marble Publications, Inc., 1927A Harbor Blvd, Costa Mesa, CA 92627 or email to mailbox@quickanswer.com. Include your name, address, phone, and your

Q&A version number (and whether DOS or Windows) and a detailed description of the problem. We'll publish those questions we feel are of general reader interest; individual responses aren't possible.

statement. Run your mass update. Check that it all worked. Go back and reset the on-record-entry/exit as it was prior to the mass update. The secret is that Q&A can perform a gosub when you enter or leave a record. (You wouldn't want to do this on a regular basis since it can slow down browsing depending on the complexity of the gosub.) And an on-record-entry or exit statement can also be an on-field-entry or exit statement. Oh, did I mention that you should *only* do this on a *backup* of your database?

Q&A Won't Accept Default Paths

We run Q&A 5.0 for DOS on our new computers over a network, but are finding things a bit of a struggle. The default path is to C:\QADOS50\. But to get stuff, we have to enter \\aia3\printsvr\qa5. I designed a little macro that enters that string at the Main menu, which helps a lot for searching in the databases. But whenever I go to print or try to Get documents in Write, I have to figure out what path the machine wants in order to get to where I need to go. It's a bit of a drag. I have tried your suggestion to use Utilities / Set Global Options to set default paths, but it won't accept the string \\aia3\printsvr\qa5. Q&A gives me a message that says: "You have selected a directory that does not exist. You can either create this new directory or cancel the operation: C:\aia3\printsvr\qa5. Do you want to create the directory?" When I say, yes, Q&A just closes the screen and nothing changes.

I could create more macros, where each one would take us to a different job, however, the Global Options would be much better if I could get it to work. Any suggestions?

Connie

The problem here is that Q&A will not accept UNC or URL naming ("\\Server\C\...") at the Set Global options screen. It needs to see a Drive letter (A: through Z:). What you have to do is this:

1. Share the folder \\aia3\printsvr on the server computer.
2. Set up a mapped drive on each workstation which maps Q: as \\aia3\printsvr\.
3. In Q&A, set your Global Options defaults to Q:\qa5. Note that you do *not* map all the way down to the Q&A folder and then try to set the Q&A default database directory to Q:\. That's because there's a bug in Q&A 5.0 that will not allow setting the default folder to a root drive letter.

Locked Out of Database

This might sound crazy, but here goes. I have been using Q&A for years and years. I love it, and depend on it so

much that I've even refused to get a Windows machine. My old DOS computer just keeps on going, like the energizer bunny. But Q&A has finally given me a problem. My main database is locked and now gives me a message "Problem: Cannot Run on Non-Network Drive"

Terry

When you run into this problem, perform the following steps:

1. Exit Q&A.
2. At the DOS prompt, type "CD\DOS" and press Enter.
3. At the DOS prompt, type "SHARE" and press Enter.
4. At the DOS prompt, type "CD\QA4" and press Enter.
5. Type "QA" and press Enter.
6. From the Q&A Main Menu, proceed through the following menu selections:

```
File
Design
Secure a File
[Select or type the database name]
Declare Sharing Mode
Set to "Automatic" instead of "Allow"
Press F10
```

All will be fixed. If the problem occurs again, try to remember what you did right before it happened. My bet is that you have a macro that ran amok and changed your sharing mode to "Allow." On a standalone DOS machine, this tells Q&A that it's is on a network. If it's not on a network, it will lock the database.

Which Server's Best?

We have a client running Q&A for Windows on Windows 95/98 client machines. The data resides on a Windows NT server. We would like to upgrade the server to Windows 2000 Server. The client machines would remain as Windows 95/98. Is there any problem running the data on a < 2.0GB Windows 2000 Server partition? Thanks.

Patrick

None whatsoever! Windows 2000 Server is my server of choice! Q&A, unlike the forthcoming *Sesame* database management system, is strictly a client-based program (not client/server). It has no idea and doesn't care what the operating system is outside of it's own "neighborhood." As long as QAWIN is running on the client machines and those machines are Windows 3x or 9x, the server operating system is of no concern. Even in a network installation where the Q&A program *resides* on the server, it is called and run from the client. The size of the partition the data resides on is important for

keeping the data healthy — it needs to be smaller than 2GB as you have it. If you later change any of the client machines to Windows 2000 or XP, you will need the NTFIX.EXE patch from www.johntndow.com.

Make a Database Generation One

I have worked with you and Tom and you have both repeatedly told me to make sure that my Q&A 5.0 databases are kept in *generation 1* status. I continually redesign my databases, but I can never keep it straight as to exactly what is required to make sure a database is generation 1, or how to make it so. Is there a set of steps you could give us for accomplishing this?

Ana

So many people ask this question that it's appropriate to cover the same ground again. Also, with *Sesame* on the horizon, now is a good time to start practicing good database housekeeping. The steps to make sure that a Q&A 5.0 database is at generation 1 are as follows:

1. Always, always work with a backup of your database.
2. Step through every menu choice on the File / Design / Customize a file menu by selecting each one in turn, then pressing F10 until the Customize menu returns.
3. Step through every menu choice on the File / Design / Program a file menu by selecting each, and then pressing F10 until the Programming menu returns.
4. Redesign all reports and print specs under the Reports / Design/redesign a report and the File / Print / Design/Redesign a spec menu choices. Highlight each report and print spec and press F10 until you get the message "Your report (or Print Spec) has Been Saved Do you want to ...". Select "No" and continue until you have run through all your reports and specs in this manner.*
5. Run a null mass update to bring all your records to the same generation. From the File / Mass Update menu, select the database, press F10 at the Retrieve Spec, F10 at the Update Spec, and answer "No" to the "Do you want to review ..." question.
6. From the Q&A Main menu, select File / Copy / Copy Design Only.
7. Assign a new database name and press F10.
8. From the Copy menu select Copy selected records.
9. Press F10 four times.

The new copy of the database is now Generation 1.

* For the tedious task of report and print spec redesign, I use a simple macro to step through the hundreds of reports I have. The only thing I have to do is highlight (select) the report I want and then press Alt-X. Here's the macro:

```
<begdef><altx><name>"Redesign<sp>Reports"<vidon>  
<f10><f10><f10><f10>n<enter><enter><enddef>
```

For those with many, many reports in a single database, Listing 2 on the following page shows a macro that processes an entire page of reports at one shot. It doesn't matter if the page isn't full. Listing 3 on the next page shows a macro to do pages 1 and 2 at the List of Reports screen. You can make one for pages 3, 4, and 5, if you have that many pages of reports. These macros are run from the List of Reports screen.

What Sesame Will and Won't Translate

I'd like to know exactly what *Sesame* will convert from my current Q&A databases and what it won't so that I can start my conversion planning.

Jim

The following is a good rule of thumb. Remember, *Sesame* does not "convert" a Q&A database to something new. It translates it and creates a new *Sesame* application from it. Your Q&A database remains unchanged.

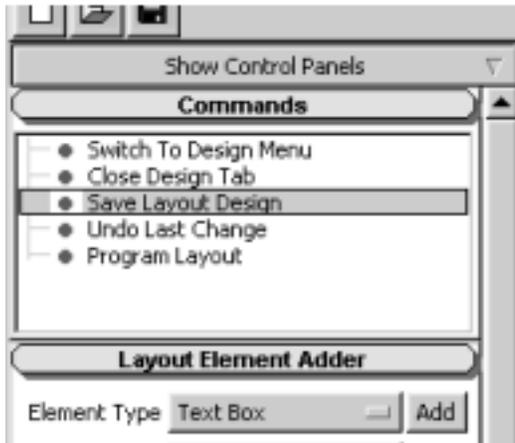
What Sesame will translate from a Q&A database:

- Its form or screen design. (For Q&A for Windows databases, only the Master form will be translated.)
- All of the database's records (data).
- Field formatting (Format Spec).
- All of the database's programming.
- The Lookup Table
- All your saved Retrieve specifications.
- All your saved Sort specifications.
- All your saved Mass Update specifications.
- All your field restrictions.
- Basic format and structure of your columnar reports.
- Most of your Color Palette settings.

What Sesame will *not* translate:

- Macros and Custom Menus (not part of database).
- Intelligent Assistant/Query Guide items.
- Saved Navigation, Merge, and Print specs.
- Cross-Tab reports.

To save your new database, look for the Control Panel called **Commands**. It should be the top one. Click **Save Layout Design** to activate the Control Panel by setting focus to it. Click **Save Layout Design** again to save your new database. The screen will flash briefly.

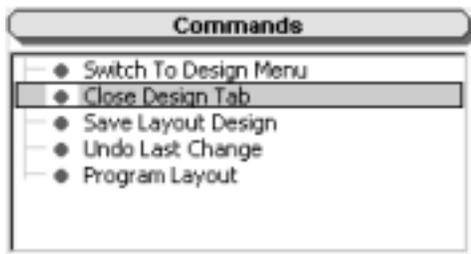


To confirm that your design was saved, scroll down until you see the Control Panel called **Message Log**.

Different types of messages will appear in this area. In this case, it should be empty except for the message that your design was saved.



Scroll back up to the **Commands** panel and click **Close Design Tab**. The Design Tab will close, leaving you at the Design Menu Tree.



At the most basic level, you have just created a new database. It cannot hold data yet, because you have not added any fields, but Sesame Designer knows that you have a

new application, with a Contacts database.

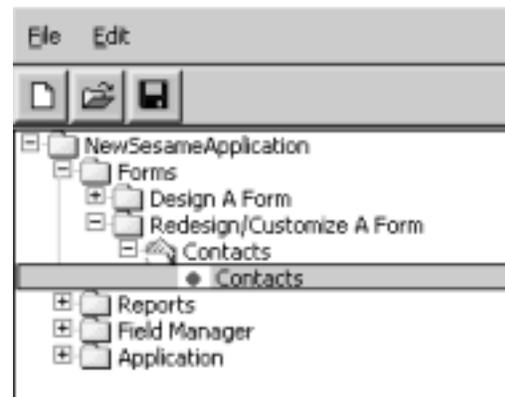
Step 4 – Add Layout Elements to the Form

A Sesame database *stores* information in Fields. A Sesame form *displays* information in Layout Elements (like a text box). When you place a text box called “First Name” on a Form, you are instructing Sesame Designer to do the following:

1. Add a field to the database named “First Name.”
2. Place a text box on the form that will show the value in the “First Name” field.

Because the text box shows whatever value is in the “First Name” field, we say that the text box is **bound** (tied) to the “First Name” field. By placing text boxes and other controls on your Form, you are, behind the scenes, actually creating your database fields. Let’s take a look at this in action.

Open the Contacts Form that you just finished creating. On the Design Menu Tree, click **Forms**. Click **Redesign/Customize A Form**. Click **Contacts** to show the list of Forms in the Contacts database. In this case, there is only one. To open it, click **Contacts**.



Sesame Designer opens a Design Tab with the blank Contacts form.

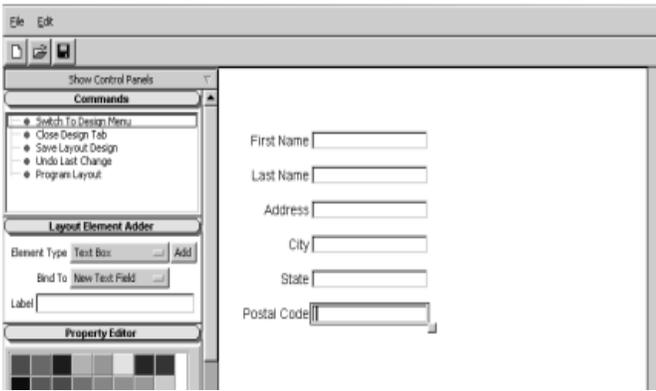
Start by adding a text box to the Form. The previous

tutorial, *Part 1—Create an application* (in the March 2003 issue), detailed how to do this by clicking on the Form and typing a name followed by a colon. So, click on the Form and type **First Name:**. Press **Enter**. Type **Last Name:**. Press **Enter**. Repeat these steps to add the following text boxes: **Address;** **City;** **State;** **Postal Code.**

Save your design by clicking **Save Layout Design** on the Commands Control Panel. You will need to click twice. You have just added six text boxes to your Form, and created six new fields in your database. (See top of next page.) As in the previous tutorial, this is actually sufficient to get you a working database, but we want to have more than just “working” at this point.

Step 5 – Changing Properties

A *property* is any characteristic of the Form or Layout Element. Color, Font, Visibility, and Name are all

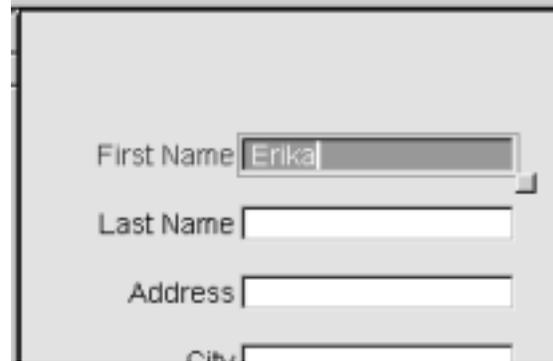


properties. Earlier in this tutorial, we used the Property Editor to change the name of the Form. Now, we'll use the Property Editor to change some other properties. To change properties, you select what element(s) you want to change, then use the Property Editor to alter them.

Change the Form color

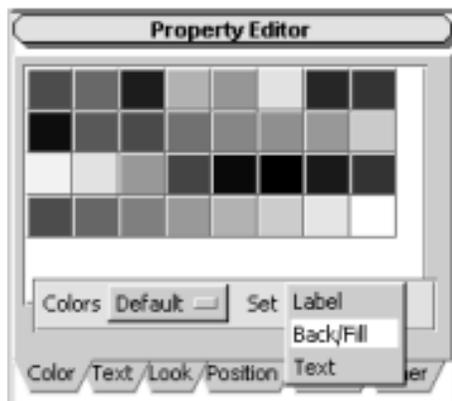
Select the **Form** by clicking on or cursoring to any area that does not contain a Layout Element. Click the **Color** tab on the Property Editor. From the **Set** dropdown, select **Back/Fill**. Click on any of the 32 **color swatches** to see the form background color change. When you have a color you like, click **Save Layout Design**.

The **Color Tab** of the Property Editor should still be set to **Back/Fill**. Click on the **color swatches** until **First Name** has a background color that you like. From the **Set** dropdown, select **Label**. Click on the **color swatches** until **First Name** has a label color that you like. From the **Set** dropdown, select **Text**. Click on the **color swatches** until **First Name** has a text color that you like. Save your layout design. You remember how to save by now, right?



Change Layout Element Text

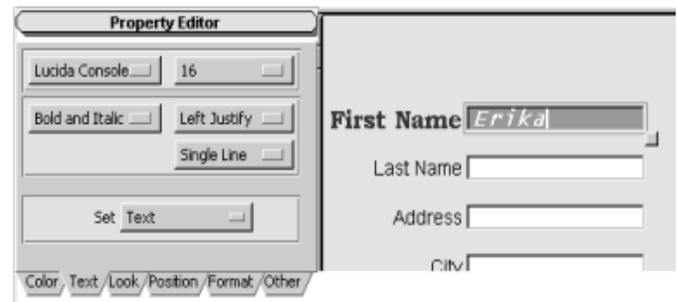
Leaving **First Name** selected, click on the **Text** tab of the Property Editor. The **Set** dropdown should have **Label** selected. Use the enabled dropdowns to change the font face, size and enhancements of **First Name's** label. Change the **Set** dropdown to **Text** and try some changes on the sample text. Save your Layout Design.



Change Layout Element Colors

Select the **First Name** text box by clicking on it. **Note:** *Clicking on the label will not select the element. You must click on the text box itself.* Type

some text in it, so you will be able to see changes to the text color.

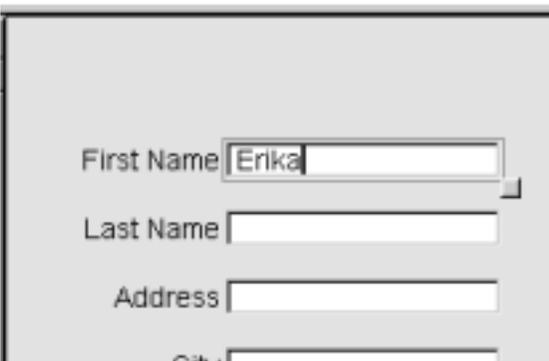


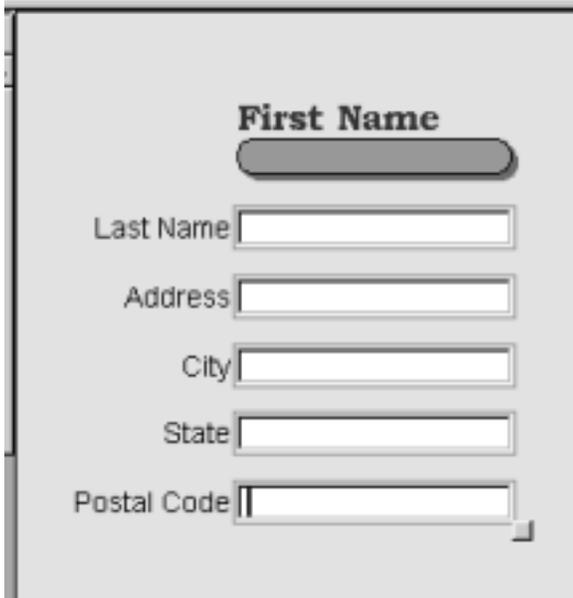
Change the Layout Element Look

Leaving **First Name** selected, click on the **Look** tab of the Property Editor. The choices on this tab control the shape and style of the Layout Element and the position of the Layout Element's label. (See top of next page.) From the **Box Shape** dropdown, select **Rounded**. From the **Box Style** dropdown, select **Shadow**.

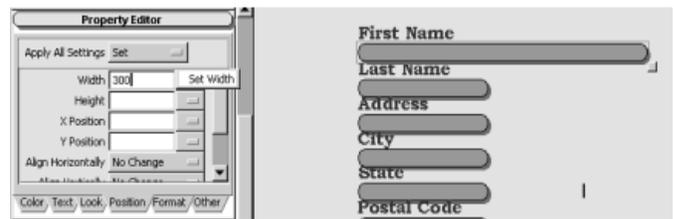
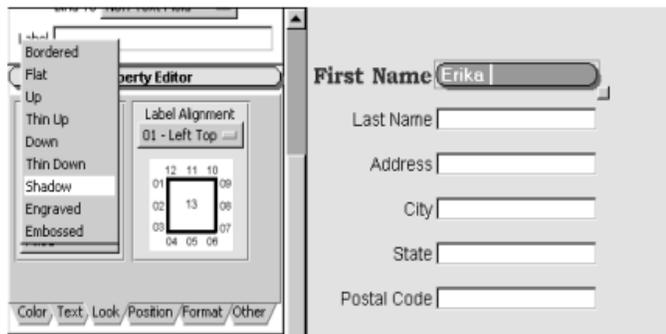
The **Label Alignment** dropdown (see top of next page) allows you to place the label text in relation to the text box. The diagram illustrates where the label will land for the numbered selection.

Experiment with the **Look** settings until the **First Name** Layout Element looks the way you want. Save your layout design.





appearing at the lower-right corner of selected elements) with the mouse. This tutorial will use the Property Editor to size and position elements. Click on the **Position** tab of the Property Editor. Click on the Form **canvas** to deselect the currently selected elements. Select **First Name**. Some of the elements are not wide enough. To increase the width of First Name, click in the **Width** box on the **Position** tab and type **300**. Click the **button** next to the Width box.



Copy Layout Element settings

Once you have First Name looking the way you like, let's make all the text boxes look the same way. Color, Text and Look settings can be copied from other elements using the **Make Like Me** tool.

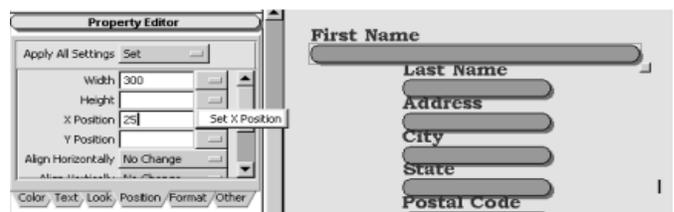
First, select the elements you want to change. Click on **Last Name** to select it. Hold down the **Shift** key and click on **Address**. You should now have both elements selected. Still holding down the **Shift** key, click on **City**, **State**, and **Postal Code** in turn. Release the Shift key. You should now have all the elements selected except First Name. Note: You can also select multiple elements by clicking on the canvas and dragging across the elements to select them. This is called "rubberbanding."

Now that you have all the elements that you want to change, *right-click* on First Name. From the **right-click pop up menu**, select **MakeLikeMe**, then select **All**. All the Layout Elements should now look the same. (See top of adjacent column.) Save your layout design.

Positioning and Sizing Layout Elements

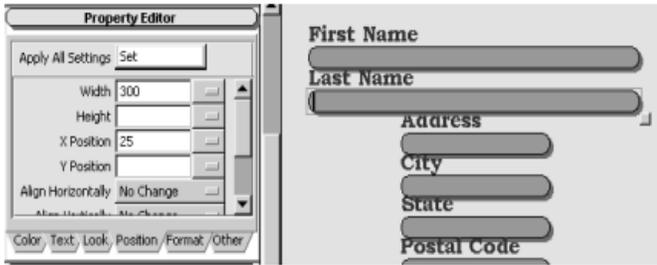
The main Application Designer manual covers moving and sizing elements by using the keyboard and by dragging the resize handle (which is the small box

Let's also move **First Name** closer to the left edge of the Form. Click in the **X Position** box on the **Position** tab and type **80**. Click the **button** next to the X Position box. **First Name** moves to the left.

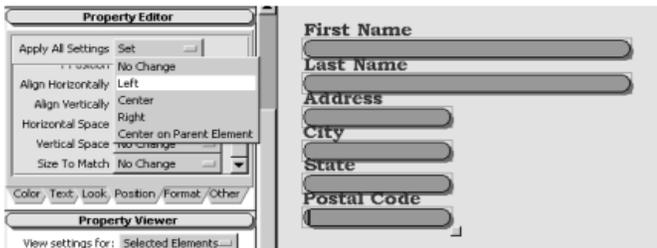


First Name looks good, so let's do the same thing to **Last Name**. This time, we'll take a shortcut. Select **Last Name**. Note that the settings you typed in to work with **First Name** are still there on the Position tab. This time, simply select **Set** from the **Apply All Settings** dropdown. **Last Name** both resizes and moves to the left. (See top of next page.)

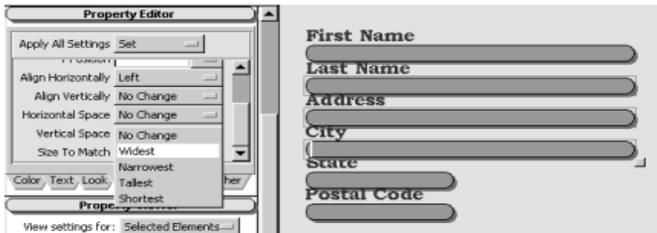
You can also work with multiple elements at once. Click on the Form canvas to deselect the currently selected elements. Use rubberbanding or Shift-Click to



select all six text boxes. From the **Align Horizontally** dropdown, select **Left**. (You may need to scroll down to see the bottom portion of the Position tab.) All the elements should now be left-aligned with First Name.



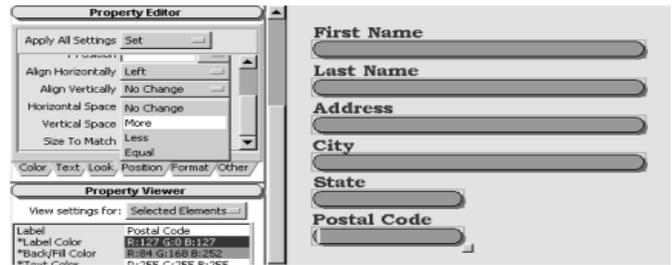
All the elements are lined up now, but **Address** and **City** are still too short to hold the expected information. Deselect the currently selected elements. Use rubberbanding or Shift-Click to **select Last Name, Address and City**. From the **Size To Match** dropdown, select **Widest**. All three selected elements should now be the same width.



Now, in the example shown in the screen shots, the changes made to the label font and alignment have made the form look too crowded. The elements need to have more vertical space between them. The Property Editor includes a way to easily remedy this. Deselect all selected elements. Use rubberbanding or Shift-Click to select all six text boxes. From the **Vertical Space** dropdown, select **More**. Keep clicking **More** until there is enough space between the elements. (See top of next column.) Save your layout design.

Convert Contacts.dsr into Contacts.db

We're finished building our Contacts application. Now, we need to convert the application design (contacts.dsr) into an actual Sesame Application (contacts.db).

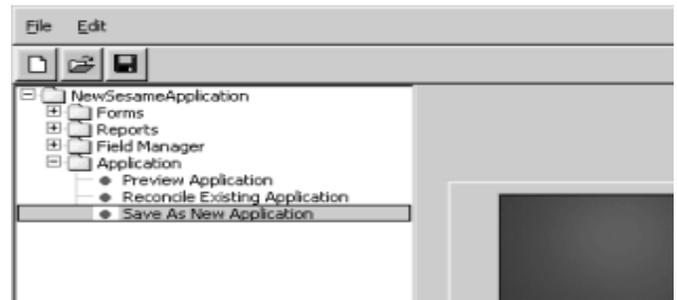


Close the Design Tab by clicking **Close Design Tab** in the **Commands Control Panel**. The Design Tab will close, leaving you at the Design Menu Tree.



On the Design Menu Tree, click on **Application** to expand the Application menu. Click on **Save As**

New Application.



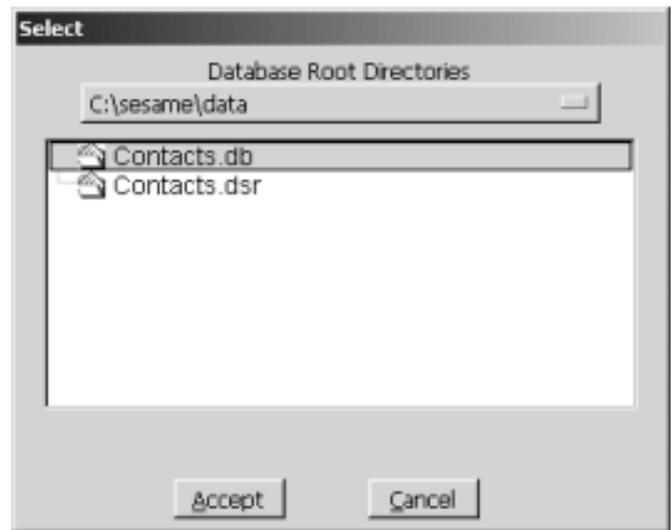
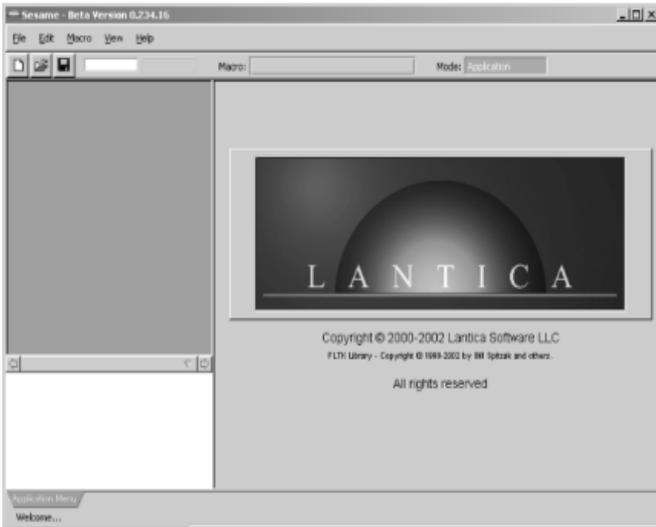
In the **Filename** box, type `c:\sesame\data\contacts.db`. Click **Accept**.



Sesame Designer creates `contacts.db` and `contacts.dat`. Together, these files hold your entire Sesame application.

Close Sesame Designer by clicking **Exit** on the **File** menu. There will be a brief delay while

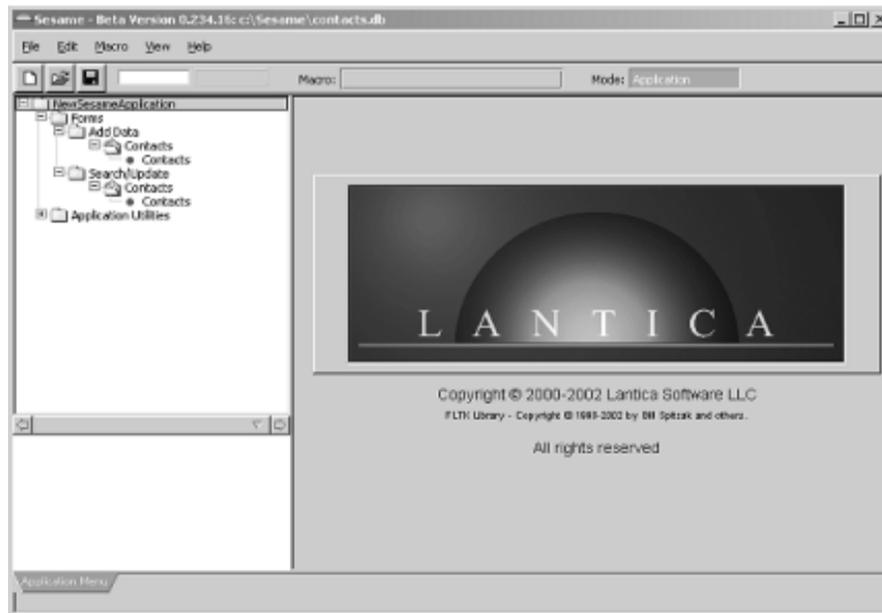
Sesame Designer exits. You should now be at the Sesame window from which you originally launched Sesame Designer.



On the **File** menu in the Sesame window, click **Open Application**. Then click **contacts.db**. (Top of right column.)

Sesame will load your new Contacts Application. You are ready for data entry!

Erika Yoxall is the technical coordinator for Lantica Software, LLC.



Program Retrieves cont'd from page 3

Complex string manipulation

To find records where the third-from-last character in the "Item" field is a backslash:

```
{@Mid(Item, @Len(Item)-2, 1) = "\"}
```

To find field values of a certain length

Short, or especially, long values, which might cause problems with mailing labels, merge documents or exports:

```
{@Len(Comments) > 255}
```

Although the @Len function is commonly used to determine the length of a text string, it can also be used though to find the length of a number field. An integer from 0 to 9 will have a length of 1, an integer from 10 to 99 will have a length of 2, and so forth. A definite case of a solution in search of a problem!

Mixed Search logic

Where Retrieve Spec programming really comes into its own, is where you have mixed "And" and "Or" conditions across fields. Such retrieves are impossible to do without programming.

The best example is the "Chase Creditors" situation. You want to print out a list of, or send letters to, all those people who are overdue on their payments. Who do you the send the letters to?

You want those who are overdue a long time who owe a moderate amount, and you also want those who owe you a lot even if they are less severely overdue. In Retrieve Spec terms you want:

Overdue moderate time AND amount due is large
OR

Overdue long time AND amount due is moderate

You need criteria in two fields, and you need a mixed "And" and "Or" across them. Assuming there's a **Date Paid** which is blank if not paid, and fields for **Invoice Date** and **Amount**, the programmed Retrieve would look like this :

```
Date Paid : ""
```

```
Any Field: { (Invoice Date <@Date-30 AND  
Amount>5000 ) OR (Invoice Date <@Date-60 AND  
Amount>2000 ) }
```

To repeat—you create and then save these Retrieve Spec programs, either with Reports or as standalone Saved Retrieve Specs. The example above will produce different records each day because the dates are being compared to the current date, no matter what date that is.

Furthermore, all these programmed Retrieves—if they don't start with an equals sign, and if they use Field Names—will not only translate into Sesame from your Q&A database, but will work in Sesame to give you the same consistent results.

New case-sensitive search support

Q&A does not give you a way to perform a case-sensitive search on the first character in a field—but Sesame does. In Sesame, if you type a Retrieve Spec parameter like this:

```
City: ~c..
```

You'll get a match on "cleveland" and "canton," but not "Cleveland" or "Carrollton." Note that this replaces Q&A's seldom-used "Soundex" (sounds like) feature. Sesame was not going to support Soundex anyway.

Alec Mulvey is a director of Lantica Software, LLC and also owns Keyword Software & Consultancy in Ascot, near London, England. Alec has been building Q&A applications and training clients for 12 years. Keyword Software is the UK distributor for the International English edition of Q&A. alec@keywordsoftware.com, <http://www.keywordsoftware.com>.

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