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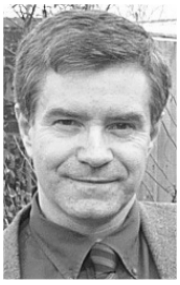
Sesame Seeds

New Search Options in *Sesame*



The Quick Answer
The Do-It-Yourself Guide to Q&A

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MARBLE PUBLICATIONS

ANYONE who knows me knows that I've got a thing about database searching. I believe everyone should learn all search techniques thoroughly. Only by being proficient at finding the records you need can you build efficient databases. Otherwise, you are forced to "compartmentalise" your data—splitting it up artificially—rather than keeping it all together and picking out just the parts you need at any given time. Compartmentalising your data costs you in terms of overall efficiency.

Adding "Smart" fields to your database

Take a company that creates a new sales database for every financial year. Okay—it's easy to understand why you might do that. But what happens when you want to look at an order from last year or the year before? You find yourself searching one database, then another. Likewise, why delete customers who are no longer active? Or products that have been discontinued? Why not keep them in the database so you can refer to them or resurrect them if needed. What's the difference between the former simplistic approach and what I'm suggesting? The difference is that you will need to add a field or two to store information such as "Current" or "Active"—or better yet—"Status: Active or Lapsed," and use retrieval parameters in your reports, Print Specs and the like to include only the records you need. When you split up your data, you cannot perform analyses across financial years. What's more, your old databases cannot benefit from the snazzy new reports, programming, and so forth that you add to the latest version.

Search options beyond Q&A

So much for the philosophy. All I'm saying is that you'll reap greater benefits by having fields that will enable you to select the data you need from the much larger data set—that is, the entire database. The only additional requirement is that you need to be able to construct a retrieve that will give you just the records you want.

In Q&A you have a Retrieve Spec and a host of search options—some easy to use, some more esoteric—that allow you to perform some pretty complex searches. Furthermore, Q&A has Retrieve Spec programming for when a standard search just can't do the job.

What does *Sesame* offer? Well, a whole lot. You have support for *all* of Q&A's standard search patterns with just one exception: soundex—"sounds like"—searches will not be supported in *Sesame* version 1.0. Chances are you've never used a soundex search anyway and you probably didn't even know it was available in Q&A. (See the *Users Guide*, p. 3-57.) In addition, *Sesame* has a whole raft of new search / retrieval options that allow you to refine any *result set*. This will be a new concept to those who know only Q&A, so let me elaborate.

What's a result set?

When you perform most actions in Q&A the sequence is 1) *Specify Action*, 2) *Specify Records to Include*, 3) *Perform Action*. For example, after specifying a Report, you get the Retrieve Spec where you specify which records to include. Likewise with a Mass Update—you select *Mass Update* from the File menu and the next thing you see is the Retrieve Spec for this single Mass Update operation. File / Remove, File / Post—all these operations first present you with a blank Retrieve Spec. If the set of records you want to include is a complicated one, you can easily find yourself printing or Mass Updating the wrong records, or being unable to get the exact result set you need and

Continues next page

abandoning the procedure. You might then spend an hour or more "rehearsing" your retrieval parameters before taking another run at it.

Sesame works differently. The order in *Sesame* is 1) *Specify Records to Include*, 2) *Specify Action*, 3) *Perform Action*. This allows you to do whatever you need to do to get that set of records right *before* performing an action with them. It's an important change. It might feel a bit odd at first, but I believe you will soon grow to prefer it. I certainly do.

That "set of records" in *Sesame* is called the *result set*. Q&A deals in result sets, too—they're just not called that. But it's the same thing—the "stack" of records you get when you press F10 at a regular Search / Update Retrieve Spec. The one case where Q&A allows you to search like *Sesame* (that is, get some records first and then decide what to do with them) is when you opt to print a group of records by pressing Ctrl-F2 after retrieving them. This prints the current "stack" of records, as it is called in Q&A.

New tools in *Sesame*

To perform a normal search in *Sesame*, you fill in the Retrieve Spec just as you do in Q&A (all the familiar search patterns are valid, such as "**S..**" for fields beginning with the letter "S") then press F10. With Q&A, that's it. But in *Sesame*, what you're looking at is only the beginning. The result set can be further refined by further searches, until it meets your exact needs. I'll show you how.

Imagine that you want to prepare a list of customers from your customer database. You have a number of ideas about the sort of people you want to include, but it's rather complicated. Okay, you start with a simple search:

```
Town: London
```

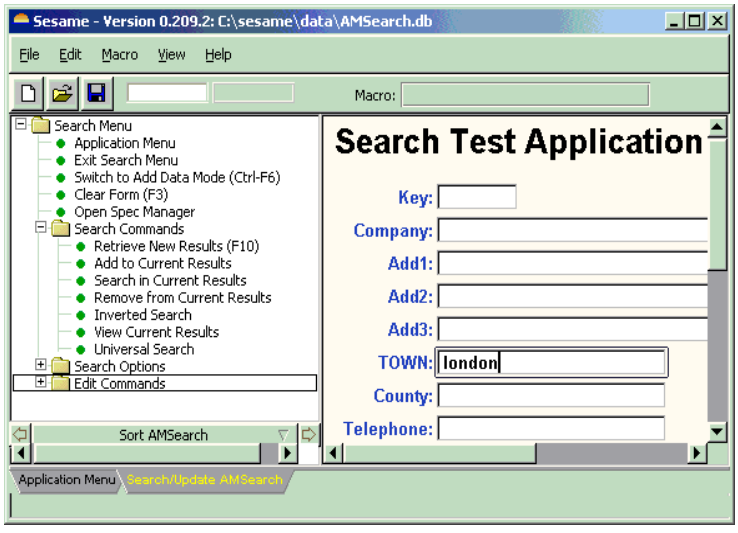

Figure 1. Sesame's Search commands.

When you run this search, you see the records for these customers—71 of them.

All very good. But while browsing through these records you can think of several other groups you want to include, so you press F7 to return to the Retrieve Spec and clear it. It's at this stage that Q&A runs out of steam. All you can do is another *new* search. You want to include people in Middlesex as well. (Middlesex is an urban county to the West of London which is wholly subsumed by London.) You enter the new criteria:

```
County: Middlesex
```

This time, though, you do not press F10 to run the search—that would simply replace the record set. From *Sesame's* Search Commands menu, you select *Add to Current Results*. You now see 84 records. Browsing through this record set you realise that not all the Middlesex customers are included. The reason for this is that Middlesex can be abbreviated as "Middx". F7 again and change the criteria to:

```
County: Middx
```

And again, *Add to Current Results* brings the total to 91. Good. But what about the area to the north? Much of Hertfordshire is actually the London

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Editor / Publisher
Tom Marcellus

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suburbs. So back to the Retrieve Spec via F7 or by clicking on the menu command and (not making the same mistake again, as Hertfordshire can be abbreviated to "Herts"):

```
County: Hert..
```

And again *Add to Current Results*. The total is now 102. Scanning through the record set this time shows that some of the Hertfordshire records are out in the Stevenage area. This is too far out. What these records have in common is that they have a Postcode starting with *SG*. So, changing the Retrieve Spec to:

```
County: Hert..    Postcode: SG..
```

Will find those records. This time, you want to remove them, so you use *Sesame's* menu command, *Remove from Current Results*. (See Figure 1.) This removes three such records, bringing the total to 99. You return to the Retrieve Spec again and clear it with F3, just like in Q&A. The trouble is that now you've forgotten where you are! No problem, you simply select the menu command, *View Current Records*. This allows you to just review the current state of play.

You decide to view the records in Table View. *Sesame's* Table View is much more versatile than its Q&A for DOS counterpart. (See "New Table View Features in *Sesame*," February, 2002.) You arrange the columns as you like, and scanning down you see that there is a record for a customer in Hertfordshire who, judging from the Postcode, should really be in Essex. Closing Table View leaves you looking at this record in Form View. You want to remove this customer—not from the database by deleting the record(!), but by removing it from the result set. You do this by clicking on *Remove from Current Results*, this time from the *Record Commands* menu which is available when you are viewing records in browse mode. (See Figure 2.) This menu pertains to the single record showing at the moment.

This process—adding and removing records—can be continued until you are happy with the results. What then? Well if you go to the *Results Commands* menu, you will see that you can perform all sorts of actions such as Mass Update, Export, Remove, Print, and so forth. Whatever action you choose will apply to the *Current Record Set*—the records you are looking at.

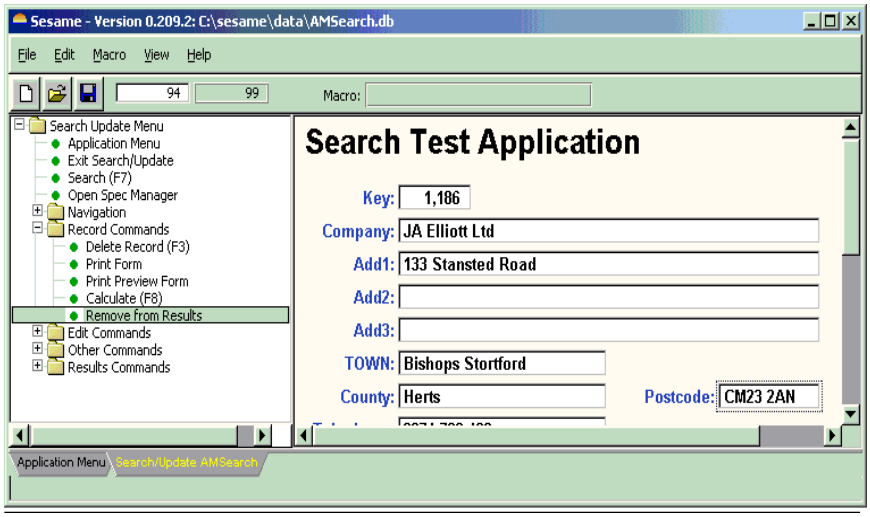

Figure 2. The Record Commands menu.

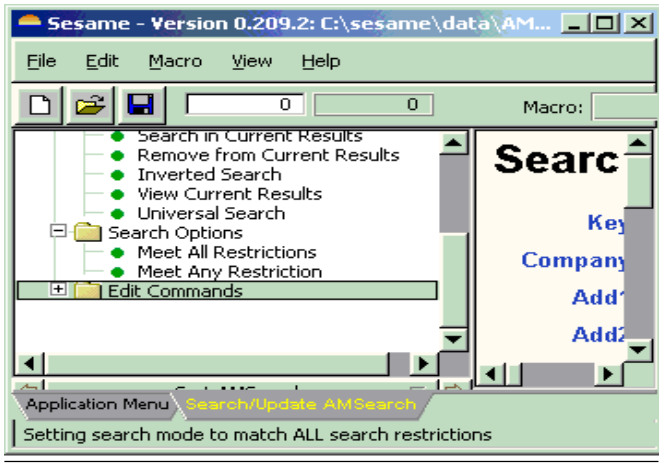

Figure 3. Sesame's Search Options.

Changing the search logic

Two advanced search features in Q&A which people rarely take advantage of are the options to use "OR" across fields, and perform a "negative" search. This is because these options are well hidden. To access them, you have to press Ctrl-F7 at the Retrieve Spec. And to do that you have to know it exists, which many don't!

```
Select those records which  >DO<  DO NOT
meet  >ALL<  ANY  of the restrictions
```

The default search logic in both Q&A and *Sesame* is "AND across fields." So, if you put "London" in the Town field and "Mr" in the Title field, you are seeking people who are both male and in London. Were it otherwise, you would retrieve *all* the Mr's along with *all* the London's—a very much larger result set. Should you want to use this type of search, you change the setting to "...meet ANY of the restrictions." *Sesame's* equivalent of this is found on its *Search Options* menu. (See Figure 3.)

The default is *Meet ALL Restrictions*. The alternative, *Meet ANY Restriction*, is the equivalent of Q&A's option of the same name. You might like to think of it as "OR across fields"—"London" OR "Mr"

Inverted searches

The other option at Q&A's Ctrl-F7 search options box—*Select those records which* ***DO NOT*** *meet*...— is rarely used.

When used with the above option, it can be especially hard to work out just what's going on. *Sesame* offers an alternative that's much easier to understand.

At the Retrieve Spec, you enter your search criteria, then select *Inverted Search*. You get the records *other than* the ones you would get had you simply run the normal search. Easy! So:

```
Town: London; Liverpool
```

Finds all the records for customers who are *not* in London or Liverpool.

Search in current results

This is a super *Sesame* feature you're going to love! It's a "drill-down" search. How many times have you repeatedly refined a search, adding criteria, but each time had to return to the Retrieve Spec to run the whole search again? *Search in Current Results* applies the new criteria you have entered to search *the current result set*, rather than the whole database again.

As an example of where this would be very useful, let's say you wanted to retrieve all those customers who were in the city of London or the counties of Middlesex or Hertfordshire. So far so good, *but* you only want to include those where the Money field is greater than 300. In Q&A, you can't do this in one retrieve without using programming. It's the classic "mixing AND and OR" dilemma. But you can do it easily in *Sesame*. You could do the following. First search, with Search Options set to *Meet ANY restriction (OR)*:

```
Town : London
County: Mid..x ; Hert..
```

This retrieves all the records based on geography. Now you need to restrict the money. It's easy. Return to the Retrieve Spec, clear it, and enter this:

```
Money : >300
```

And this time select *Search in Current Results*. (See Figure 4.)

New *Sesame* Slide Show! (p. 12)

Universal search

I've saved the best 'til last! All the above techniques illustrate something that's *easier* to do in *Sesame* than in Q&A. Here's one that's *impossible* to do in Q&A!

It has long been a personal quest of mine to find a viable way to search *all* fields in a database for some word or phrase. I know it's possible to design macros to do this, but that's lot of work for just one database. It's inflexible and hardly worth the effort. In fact, I have posed this challenge to your editor more than once, and we still don't have a solution! Well help is at hand. *Sesame* has a new search feature independent of all the others—it's called *Universal Search*. This does just what's required: *Sesame* searches *all* fields for the given parameter. This is made even more flexible by allowing you to use wildcards.

Suppose you don't know the name of a particular customer, but you think there is the word "Wall" in the address. At the Retrieve Spec you select *Universal Search* and in the special dialog box that pops up (see Figure 5) you enter "WALL."

Click on *Accept* and you find only one record—someone by the name of *Wall*. You then realise that *Sesame* searched for any records where the whole word "Wall" was the complete entry in any field. (Like Q&A, *Sesame* does not use "implied wildcards.") By repeating the search, this time using:

```
..wall..
```

You will find all the records where "Wall" occurs *anywhere* in *any* field. I'm sure you won't have to think long and hard to see how this might be useful!

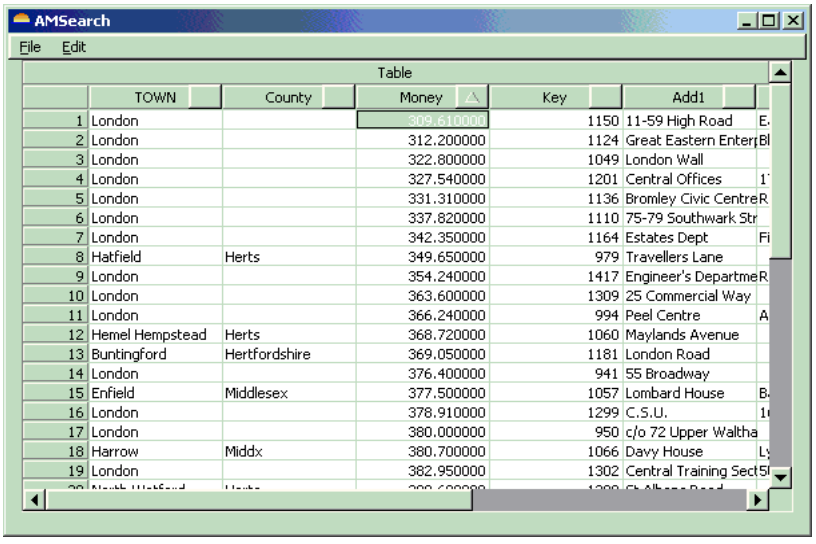

Figure 4. The final result set obtained by searching within results.

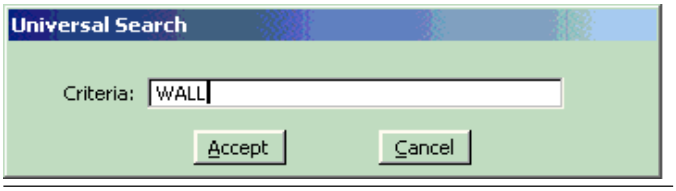

Figure 5. *Sesame*'s Universal Search dialog.

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Getting Data from Your Web Site Into Q&A

TOM MARCELLUS

OVER the past five months, in five installments, I've covered five ways to get the information from your Q&A databases onto a Web site. Here, in a nutshell are those five methods:

1. Turning Q&A database records into individual ready-made Web pages that you can add to your Web site.

2. Formatting Q&A documents as ready-made Web pages that you can put on your Web site.

3. Designing Q&A reports with HTML-formatted output that display your data in attractive, easy-to-read tables or spreadsheet-like formats on a Web site.

4. Exporting then uploading your data to your Web server in plain ASCII files that can be parsed (divided up) by programming on the server and displayed in informative tables.

5. Placing actual Q&A databases on your Web server with the ability to select (via a browser) which records and fields you want to see, and have the results displayed in tables, records, reports or other formats.

This month, we're going to turn that coin over and look at getting data *from* your Web site *into* your Q&A database.

When I talk about getting data *from* a Web site, I'm referring to data you *capture* at the site via a Web form. If you've plodded the Web at all, you've certainly seen these forms. They come in all shapes in sizes. You type information into the form's fields then submit the thing, and off your data goes to the server and from there to a human who will hopefully do the right thing with it, such as fill your order or put you on the mailing list you want to be on.

That's how you *capture* data from a Web site.

Three basic requirements are involved in obtaining this kind of Web data and getting it into Q&A:

1. A Web form that site visitors can fill out and submit.

2. A form processor on your Web server that accepts the submitted data, processes it, and outputs it in a format you can receive and understand.

3. A way to get that output into your database for further use.

There are approximately a million things you might need or want to know about designing a Web form to capture data, processing that data, and putting it in a format you can use. One of those things is that you don't need an HTML-type Web form at all. For example, you can design and use an Acrobat PDF form on your Web site. You already know a little about Acrobat documents because you're reading one. What you might not know is that you can take any old Acrobat PDF file and, using the full Acrobat program (which is *not* free), add form fields to it along with some programming that will enable it to be "submitted" to a server in the same way as a standard HTML Web form.

But this is getting too far afield. And besides, anyone who visits your site would need to have Acrobat Reader on their computer to use your Acrobat Web form. So don't bother chasing this one down unless you have a captive audience or don't care if some people won't be able to use it.

A simple Web contact form

Let's start with a bare-bones HTML Web contact form. Figure 1 shows a form that has fields for the person's name, company, and email address.

You can create one of these in almost any Web

Continues on page 8

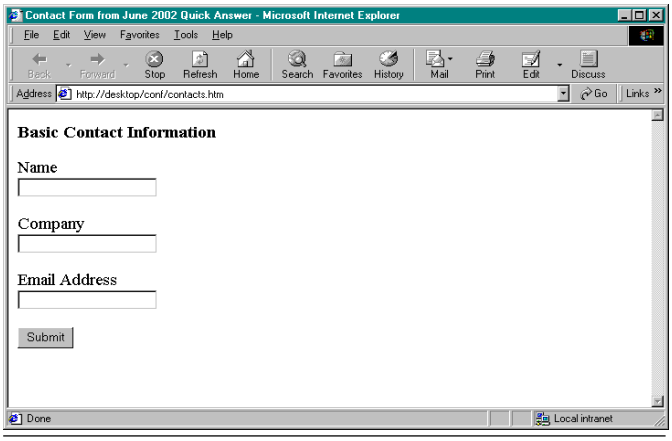

Figure 1. A simple Web form for contact information.

@Help

EDITED BY WILLIAM HALPERN

Getting More From the @Number Function

I need to have Q&A automatically set some numbers in my database records. The first is an order number, which is a combination of two letters followed by a sequential number. The second number has to be different but similarly unique for a follow-up assignment. And the third has to be a maximum number automatically assigned to the record, so a macro using a "max" Retrieve Spec parameter can retrieve the last record I worked on. I know I can use the @Number function in all of these places, but I don't like the fact that (1) all the numbers are too close to each other, and (2) I could wind up with large gaps in my order numbers. The application runs on a standalone computer and I enter between 25 and 50 orders per day. Can the @Number function be manipulated in any way to accomplish what I want to do?

Rhoda

You have some keys to the solution in the way you work. You run the Q&A application on a standalone computer, so using @Number (either as the Initial Value or returned by a programming statement) for the order number is perfect. It will help you keep track of your orders and give you sequential order number (incremented by one for each new order). You are not doing a high volume of data entry, so I will assume that there is at least a one minute interval between the entry of new records (or the need to run the macro). This means that you can make good use of the @Date and @Time functions to generate your numbers. They will be unique, and the latest one will always be higher than the earlier one. There are two ways to do this. Each will produce different values.

```
#10=@Str(@Num(@Date))+@Str(@Num(@Time))
```

-or-

```
#10=@Str(@Tonumber(@Date))+@Str(@Tonumber(@Time))
```

On April 25, 2002, at 3:39PM, the first statement will produce this value:

```
200204251539
```

The second statement will produce this value:

```
730965939
```

It is important to recognize that the first statement uses the @Num function, not @Number. @Num simply strips any non-numeric characters (non digits) out of the date and time values, then concatenates them. The second statement takes the *numerical values* of the date and time and then concatenates the two.

See the sidebar on the next page for a tip on using @Number to auto-stamp a record with the highest number in the database, so that you can always retrieve the last viewed record using the *MAX* command.

Losing Q&A Settings

We have been using Q&A 4.0 for many years. We are networked, using Windows 95, and everyone shares the Q&A program files stored on the server. Last week, three users' command lines in the Windows shortcut somehow got changed and they weren't able to get into Q&A. I changed the command lines back to what they were before, then ran anti-virus software and vrepair on the server. While the command lines are staying put now and these users can get into Q&A, none of the default settings are being remembered. Each time someone goes into Q&A, they have to reset the global options and re-install the printers. For some reason, when I check the users' directories, there are no qa.cfg files there. I've tried copying them from other users' directories, but they don't seem to "stick." This is only happening on four of the ten computers that we have networked.

Cindy

What is happening here is that you did not restore the command lines back to what they were originally. In the

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.

Netpack configuration (see your *Network Administrator's Guide* that came with the Netpack), you must specify a personal path using the *–p* switch. If not, all users will be using the qa.cfg that resides in the default Q&A directory on the server. A good way to check this is to press Ctrl-F3 (System Information) at the Main menu and look at Line 7 for any Q&A Switches. If you don't see a *P* followed by a drive and path, then there is no personal path set up for that copy. With multiple people using the same personal path, the last one exiting Q&A will control the settings for all of the others. The command line for Q&A must read something like this:

```
QA.COM -PC:\USER1
```

Where *-P* tells Q&A to use a personal path, and the *C:\USER1* is the path you want to use. In your case, check one of the other machines that is working properly and you'll see what the path should be.

Encryption vs. Password Protection

I have been using Q&A for DOS for quite some time. Does Q&A for Windows encrypt its data any better? Is a database with a password better protected? By *encrypted*, I mean that it cannot be read by another program. Will your Q&A replacement product be able to encrypt its databases?

Michael

Q&A databases are *not* encrypted, nor is any of the data contained within them. They are, however, in a proprietary file format such that Q&A is the only program that knows how to display and manipulate the data in them and execute the programming stored within them. The data in a Q&A database can be viewed with specialty utility programs that can be used as "viewers." They simply open and read the database file content in its native format. Although they can see the "data," it will be interspersed with spurious computer (binary) characters and the data may or may not appear in much more than a random manner. This is the same way many programs deal with "password"-protected files. Password protection is to designed to render the file unusable by the program in which it was created or any other program designed to open that type of file, not encrypt the data.

Encrypting means that every human readable character has been changed to something that makes no sense to a person (binary values or seemingly random characters). You have to apply the proper encryption "key" to decode it, even for simple viewing. Password protection means that you cannot easily access the data and you absolutely cannot use it in the manner that it was designed to be used within the confines of its parent program without the password.

Q&A for DOS databases, Q&A for Windows databases, and even *Sesame* data files can have password-

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Auto-Stamp a Record with the Highest Number

If your work involves viewing/updating a record then performing an additional task that involves just that record (such as printing a merge-letter or running a Print Spec for it), how can you automate that additional task? If you're using Q&A for DOS, one way is to make use of @Number to have Q&A "stamp" the record with the highest number in the database and have a macro run the second task. For example, you could have an on-record-exit program like this:

```
Max Rec = @Number
```

This way, a macro invoked from the record could save the record with Shift-F10, Get the merge document, select the record at the Retrieve Spec, then print the document—without your having to perform any of these steps manually.

But how would such a macro "know" which record to print? You can create and save a Retrieve Spec that places "MAX" in your Max Rec field. You can then have your macro invoke that saved Spec simply by "pressing" Alt-F8 at the Retrieve Spec, "typing in" the Spec name, then "pressing" F10 to load it as the final step before printing or at the point needed.

If you do this, just make sure that your Max Rec field is formatted "N" for numbers and not "T" for text. Why? Because if it's merely a text field with a number in it, then Q&A will see the number "99" as *greater than* "100" ("9" comes after "1" in the ASCII table, right?) and you won't get the right record.

If you're already using @Number in the database for some other purpose (such as to generate an auto-incremented invoice or purchase order number) , you can't use it for this new purpose—you get only one @Number per database. A non-@Number method of generating the highest number in the database is to use a programming statement along these lines:

```
Max Rec = @XLookupR(@Fn, "999999", "Max Rec",
"Max Rec") + 1
```

With this command, Q&A looks for a record in the same database with "999999" in the Max Rec field. It won't find one because no record will have that high a number (I'm assuming). So instead, Q&A returns the number from the record with the *next highest* number to "999999," which might be, say, 8450, and adds 1 to it, returning "8451" to the Max Rec field in the current record.

—T.M.

Web Data to Q&A... cont'd from page 5

authoring program such as Microsoft's Front Page or Adobe's Go Live. Programs like these, with their WYSIWYG editors, insulate you from the HTML (hypertext markup language) you would otherwise have to type by hand. There are dozens of them on the market now from freeware to expensive. You pretty much get what you pay for. Some of the better ones not only have tools to help you quickly design Web forms, but also offer "wizards" to help you make those forms actually work once you've uploaded them to your Web server. FrontPage, for example, has a form wizard that lets you tell the server how to output the submitted data, such as adding it as a new line to a plain text file or sending it to you in a nicely formatted email message complete with field names.

Two ways to receive the data

Let's look at two ways you can receive data from a form on your Web site and get it into Q&A. How you get it into Q&A depends on how you receive it from the server.

The first way is where each time a form is submitted, a form processor on the server takes the data and appends it to a plain text file that grows with each new submission. I'll show you a PERL script along with an ASP page that can do this quite handily. (See the last couple of issues if "PERL" or "ASP" are unfamiliar terms.) Keep in mind that your Web server must support PERL if you want to use a PERL script to process your Web form data. Ditto with Active Server Pages if you want to use the ASP option. There are other options such as Javascript Server Pages, PHP, executables and so forth.

The HTML for the simple Web form shown in Figure 1 looks like Listing 1. The form processor here is a PERL script named contacts.pl:

In this example, the *method* of the form is *GET*. This means that the data from the form, when submitted, will be sent to the contacts.pl script as a URL string you'll be able to see in the address box of your browser. The target of the submission—the form processor where the data is sent—is the *action* property of the form (in this case, contacts.pl). This is followed by the field labels and the fields themselves in form <input tags>. Note that each field has a name.

Listing 2 on the next page shows the contacts.pl PERL script designed to process the data from this form and append it to a comma-quote-delimited text file.

The gobbledygook at the top of the script is typical PERL code to read in the data submitted by a form via the *GET* method and parse it into what are called *name-value pairs*—in other words, each field name followed by its data. You don't need to know more about it than that. The script then outputs a custom Web page on-the-fly which serves as a confirmation, letting the person know the data was received and giving them a hyperlink they can click on to return to the home page.

After that, the script opens the text file stored on the server and appends just the data values (not the field names) to it as a new line, with quotes around the values and each one separated by a comma—just like a Q&A-style Standard ASCII file.

You could display this text file in your browser simply by navigating to contactdata.txt. But that won't do you much good. You're better off creating a Web page with a hyperlink to the file. This way, you can right-click on the link and select *Save-As* to download the file to your computer. Not very good security, but that's a topic for another day.

Once you've got the data file on your PC, you can, of course, import it into a Q&A database as a Standard ASCII file via the File / Utilities / Import menu.

A data file like this on the server will just keep on growing and, over time, could get quite large. Ideally, you'd have things set up so that you could download the file, then clear it out for the next batch of submissions. That's easily done with another PERL script that opens the file for overwriting (not appending) and prints a blank ("") value to it. For writing, you'd use a single ">" instead of the double ">>" angle brackets.

If you don't immediately have a way to clear the file after each download, you can always use Q&A for DOS's Remove Duplicates feature each time you download and import the data into your database.

```
<html>
<head>
<title>Contact Form from June 2002 Quick Answer</title>
</head>
<body>

<p><b>Basic Contact Information</b></p>

<form method="GET" action="http://web/cgi-bin/contacts.pl">
  <p>Name<br>
  <input type="text" name="name" size="20"></p>
  <p>Company<br>
  <input type="text" name="company" size="20"></p>
  <p>Email Address<br>
  <input type="text" name="email" size="20"></p>
  <p><input type="submit" value="Submit" name="submit"></p>
</form>
</body>
</html>
```

Listing 1. The HTML of a Web page with a form.

Getting the data in an email message

Now let's look at how you can use an Active Server Page to create the same kind of cumulative text file on the server *and* send yourself an email message each time a form is submitted. (See Listing 3.) In this example, the body of the email message to you will contain

```
#!/user/bin/perl

read(STDIN, $temp,$ENV{'CONTENT_LENGTH'});
@pairs=split(/&/,$temp);
foreach $item(@pairs) {
($key, $content)=split (/=/,$item,2);
$content=~tr/+/ /;
$content=~ s/%(..)/pack("c",hex($1))/ge;
$fields{$key}=$content;
}

print "Content-type: text/html\n\n";
print "<html><head><title>Contact Form Results</title></head>\n";
print "<body bgcolor=\"#FFFFFF\">\n";

print<<end_of_page;

<p align="center">THANK YOU!</p>
<p align="center">We will be in touch with you soon.</p>
<p align="center"><a href="../home.htm">Home</a></p>

</body></html>

end_of_page

open (DATAFILE, ">>e:\\Inetpub\\wwwroot\\yerweb\\txtfiles\\contactdata.txt");
### Windows boxes like the full physical path
### Path might be ">>txtfiles/contactdata.txt" on a Unix box
print DATAFILE "\"$fields{'name'}\"\,\"$fields{'company'}\"\,\"$fields{'email'}\"\n";
close(DATAFILE);
```

Listing 2. A PERL script that processes the data submitted from the form in Figure 1, then appends it to a text file.

What's next? I recommend designing a little specialty database (Dump.dtf) as a place , well, to *dump* the data you copy from your incoming email messages. (See Figure 2 on the following page.)

The body (message part) of the emails you receive will contain a Plain-Jane semicolon-delimited data string that looks something like this:

```
Jim Smith;Smith Tools;smitty@smithtools.com
```

You drag your mouse over this line to select it, then right-click and choose *Copy* to copy the line to the

just the delimited raw data, which you'll be able to easily copy then paste into a Q&A database.

The HTML for the Web form shown earlier in Listing 1 is exactly the same except for the two form properties: The *method* will be *POST* and the *action* will be the ASP page that's the target of the *POST*. The form tag would look like this:

```
<form method="POST" action = "http://
www.yerweb.com/contactdata.asp">
```

You can embed this block of code (be sure to place the programming inside the <% %> script tags) anywhere in your ASP page. Otherwise, the page is just like an ordinary HTML page but with an ".asp" filename extension. You'd want to include in the page a "Thank You" confirmation message, along with a link back to the Home page or wherever.

The *CDONTS.Newmail* thing (see Listing 3) will probably be different in your case. Check with your Web Hosting company to find out which email program you can use in your page and for information on how to construct the email part of your ASP script to take advantage of it.

Getting the data into Q&A

So the emails begin arriving from folks who've submitted the contact form at your Web site.

```
<%
name = Request("name")
company = Request("company")
email = Request("email")

path = Server.MapPath("/txtfiles/contactdata.txt")
Set dataObject =
Server.CreateObject("Scripting.FileSystemObject")
Set dataFile = dataObject.OpenTextFile(path, 8, TRUE)

dataFile.WriteLine(name & ";" & company & ";" & email)

dataFile.Close
Set dataObject = Nothing

If  email <> "" Then

Set myMail = Server.CreateObject("CDONTS.Newmail")
myMail.From = email
myMail.To = "yeraddress@wherever.com"
myMail.Subject = "New Contact Data from Web"
myMail.Body = name & ";" & company & ";" & email
myMail.Send
Set myMail = Nothing

End If
%>
```

Listing 3. An ASP script that captures the data from the Web form, appends it to a text file on the server, then sends you an email containing the data.

Windows clipboard. Now that it's in the clipboard, you can paste it into the **Dump** field in Dump.dtf and have programming parse the string and place the three data values in their corresponding fields. (You must be running Q&A in a window to paste data from the Windows clipboard.)

The **Dump** field should be a couple of lines (a multi-line field) in case the pasted text is lengthy. (Otherwise, it will get truncated.)

In Add Data mode (a new blank record) you simply click on the **Dump** field if the cursor isn't already in it, then click on the little clipboard (paste) icon on the Windows toolbar at the top of your Q&A window. (You can temporarily put Q&A in a window by pressing Alt-Enter.) If the data doesn't paste into the field, open your Q&A shortcut's properties, navigate to the Misc tab, and uncheck "Fast Pasting."

With the data in the **Dump** field, and fields below it for **Name**, **Company** and **Email**, you press Enter to run the **Dump** field's on-field-exit program, which might look like this:

```
>
If @Add and Dump <> "" Then
{
Name = @Left(Dump, @Instr(Dump, ";") -1);
  Dump = @Del(Dump, 1, @Instr(Dump, ";"));
Company = @Left(Dump, @Instr(Dump, ";") -1);
  Dump = @Del(Dump, 1, @Instr(Dump, ";"));
Email = Dump; Clear(Dump)
}
```

Later, you can use Q&A's Copy command (*File / Copy / Selected Records*) to copy the new records in Dump.dtf to your main contacts database, then take it from there. If you're concerned about the possibility of this adding duplicate records to the main database, see the sidebar.

Tom Marcellus is editor of The Quick Answer

The files featured in this article (Figures 1 and 2 and Listings1 through 3) are included in this month's download file.

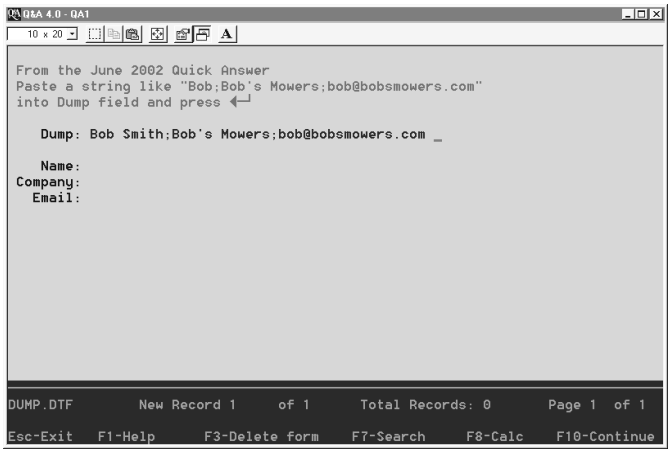

Figure 2. A Q&A database where you can paste and auto-parse a semicolon-delimited string.

Checking for Duplicate Records *Across* Databases

Q&A for DOS has a handy *Remove Duplicate Records* feature that you can use to delete duplicate records within a single database.

But what if the records in a database originally get there by copying them from *another* database?

This is the case in applications where the main database is periodically augmented by records that come from an export file obtained from an outside source. In such a case, you can import them first into a kind of temporary database, then check for duplicate records *across* the two databases. In other words, before copying the records from the temporary import database to the main or active database, you want to be sure that you're copying only records that are not already in the main database.

Take the example of the Dump.dtf database in the adjacent article. You might want to check the records you've imported into Dump.dtf against the records in your main database.

To do this, add another field ("**Dup**") to Dump.dtf and run a Mass Update on it that includes multiple @XLookups to the main database. The purpose of the lookups is to compare several Dump.dtf fields against the same fields in the main database (this assumes that the matching Key field in the main database is Speedy) and mark the Dump.dtf record for deletion if the same person is already in the main database.

The following example of a Mass Update Spec for Dump.dtf assumes that the field names in both databases are the same. The technique can be adapted to search for duplicate records across any two databsaes:

```
#1:
If @XLu("Main", Company, "Company",
"Company") = Company
And
@XLu("Main", Company, "Company", "Name") =
Name
And
@XLu("Main", Company, "Company", "Email") =
Email
Then Dup = "X"
```

After you've run the Mass Update, the Dump.dtf records that are already in the active database will have an "X" in their **Dup** field.

You can now use Q&A's *Remove Selected Records* feature to expunge any duplicate ("X'd") records from Dump.dtf before copying the remaining ones over to your active database.

protection applied to them via their parent programs, but you cannot encrypt the files. If you need the further protection of encryption, there are many good programs on the market that will encrypt / decrypt your files on-the-fly. That is, they will be auto-decrypted when you open them and auto-encrypted when you are done with them. This protects them from any form of viewing when they are not in use by the owner of the encryption key. With Q&A and most other database managers, you must be very careful when using external encryption routines since the database programs usually rely on multiple files being open at the same time.

'Illegal Operation' Revisited

We run Q&A 5.0 on several computers, with 10 licenses in all. They are all running Windows, some 98/98SE/ME and at least one Windows 2000. All computers are running a virus scanner. Under certain circumstances Q&A crashes when Windows accuses it of performing "an illegal operation." This is the error message (translated from German to English):

> *"The application tried to perform an illegal operation.*
> *Address of error: 0168:016C*
> *Server Interrupt: None"*

This problem occurs when opening any field in the database by pressing F6 to add a lengthy value. It doesn't happen while in Search/Update or Add Data mode, only when performing a mail merge for printing. We open the merge document, specify the database to use for the merge, and continue. When we try to enter a lengthy retrieval parameter (such as a list of customer IDs), the error occurs. But it does not occur on every computer. My computer (Windows NT 4.0) does not have the problem. Thanks for any help you can provide.

Wilfried

This issue bears repeating because we are asked about it every week. The error that you are getting is a Windows error that has to do with memory allocation and system memory errors. If you are getting the error only when printing, it could be one of two causes:

1. You do not have the correct settings for Expanded Memory usage.

2. You have a problem in your printer setup.

There is one other possible explanation, which I'll mention at the end of this answer.

Since this is not occurring on the NT computer, I would suspect reason #1. Q&A 5.0 absolutely *requires* that you have Expanded Memory available to merge print. (It also uses Expanded Memory, to some degree, for expanding fields). If Expanded Memory is not available when needed, it crashes the memory in Windows and thus performs an "illegal operation." To solve this, go to the properties of your Q&A shortcut and make sure that you have the following settings under the Memory tab:

```
Total Memory - Auto
Initial Environment - 1024
Expanded (EMS) Memory - 1024
Extended (XMS) Memory - 1024
MS-DOS Protected Memory - Auto
```

All of these settings *must* be like this. If Expanded Memory is not available on a Windows 95 or 98 computer, you must make sure that you have the config.sys properly configured with the lines:

```
Device=C:\Windows\Himem.sys
Device=C:\Windows\EMM386.exe RAM
DOS=High,UMB
```

You will not be able to do the config.sys settings on the Windows ME or NT machines. This should not be a problem on the NT (NT / 2000 / XP) computers.

If you still cannot get Expanded Memory, you may just be out of luck on *that* PC. It is an operating system and memory configuration issue.

Reboot your computer. If this does not solve the problem, try working on problem #2 in the following manner:

In Windows, go to Start / Run / Settings / Printers. Right-Click on the printer and select properties. Go to the Details page. Select Port Settings and change the settings to *not* "Spool MS-DOS jobs" and to *not* "Check Port Settings."

The other possible culprit is a bug in Q&A 5.0 that rears its ugly head only if you've assigned a *default font for new documents* in the word processor. We first reported on this in the April 1996 issue (p. 7). Then, in the January 2001 issue, in "A Variant of Q&A 5's 'Expand Field' Bug," we provided more details along with an explanation of how this bug can affect other areas of Q&A (specifically, Reports) and some suggested workarounds. The upshot is this: When you press F6 to expand a field at the Retrieve Spec when preparing to print a merge letter or mailing labels, and you have a default font for new documents assigned in Write, Q&A 5.0 can crash. The "fix" is to select *Write / Type/Edit*, press Ctrl-F9 for the Font Assignments screen, delete all the "default" font assignments, then press F8 to make the now empty screen the default for all new documents. This won't affect any fonts assigned to existing documents.

Is Q&A 3.0 Still Out There?

I've been running Q&A 3.0 in Windows 95 for the last five years with no problems. Is there any way I can achieve

@Help... cont'd from page 11

either of the two things below without upgrading to a higher DOS version or Q&A for Windows?

1. Use a mouse with Q&A.

2. Export the database to a word processor I use.

Craig

Amazing! Q&A 3.0 is now more than 15 years old and you have been using it for the last five? Oh well. No, Q&A 3.0 does *not* support a mouse *at all*. A mouse wasn't even in use on the PC when Q&A 3.0 was released. On the other hand, Q&A 4.0 and 5.0 both support pointing devices when running in DOS or any version of Windows.

As for exporting the data to a word processor. Again, since you can't use a mouse to copy and paste your data , the only option is to export it to Standard ASCII format (via the *File / Utilities / Export* menu) and then import the resulting file into any program that supports comma-delimited text files. Any word processor or other kind of program that imports files can normally import files of this type. In the newer Windows programs, they're often called "csv" or "comma-separated values" files.

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Letters

Norton Antivirus Print Problem Remedy

I too have had the problem with my PC freezing when printing from Q&A for DOS. (*The Quick Answer* May 2002, p. 7). The show stopper in my system was Norton Antivirus. When I run it, my system will not print with DOS print spooling on. When I uninstall it, the printers work again. I'm using another antivirus program because even when I turn off the DOS spooler, I still have random printing problems with Norton Antivirus.

Philip Huntwork, Phil@gbsoaps.com

See the New *Sesame* Slide Show!

With the *Sesame* beta testing phase now under way, and product release to follow, you're probably itching for a look deeper inside the coming Q&A replacement product.

At www.lantica.com, you'll find a new slide show that takes you on a grand tour of many of *Sesame's* features, enabling you to compare them with Q&A and get a preview of some of *Sesame's* powerful new features that you won't find in Q&A at all.

The tour is in the form of a PowerPoint presentation that you can run online or download to your computer and run from there. If you opt to download it, you won't need the full PowerPoint program on your computer because we've arranged it so that you can optionally download the compact PowerPoint *Viewer* along with the presentation file.

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