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Review

Q&A and Windows XP

WILLIAM HALPERN

WELL, here we go again. Microsoft has released another operating system (O/S)—*Windows XP*—complete with all the usual warnings about it not having DOS or a DOS prompt or supporting DOS programs, and so forth. Windows XP comes in two flavors—Home or Standard, and Professional—with the major difference being extended administrative support and more networking controls in the pricier Professional edition. What does all this mean to Q&A users? And just how good is this O/S?

Do we like XP?
Let's take up the second question first. Windows XP is a refinement of Windows 2000 and is based on the NT/2000 kernel. It has a really neat interface and is much more user-friendly (if you want your computer deciding everything for you). From the limited testing I have done to date, it is extremely stable and at least as fast as Windows 2000 (which is considerably faster than, for example, Windows 98). I have not been able to crash it, nor have I ever had to reboot it due to system errors. It does require more memory and should not be installed on a computer with less than 256M RAM. While I am not necessarily thrilled by the new menus and "stylish" new Windows look, it is really pretty good and you do have the option to reset the desktop interface to the "classic" (Windows 95/98) mode.

Setting up a network in XP is a piece of cake.

Bottom line? Thumbs up for this one. If you are still running Windows ME, dump it and do the upgrade (a bit pricey at $99, but worth it).

Does Q&A like it?
Now, what about Q&A? Does it run in Windows XP? *You betcha!* Let's look at the different areas.

Starting with Q&A for DOS (4.0 and 5.0), XP does all that you would want it to do. It supports and runs Lesspace.com, which enables you to use Q&A safely on a large (+2G) hard drive. (No need to create a small partition just for Q&A.) On every machine I have installed XP (as of now, that's four), it has provided Expanded Memory for Q&A 5.0 even though the DOS *mem* command doesn't report that the machine has Expanded Memory available. Q&A's System Information screen (press Ctrl-F3 from the Main menu) shows that it is fat and happy with both Expanded and Extended memory. (Q&A 5.0 uses Extended Memory for its internal Clipboard feature). It easily handles the DOS screen requirements for the program, and displays Q&A in your choice of window size or in full screen. Setting the window size correctly is still a bit of "an art," but if you handle the properties correctly in the shortcut, you can get just what you want.

Because XP runs each instance of a program in a separate virtual memory space, you can run multiple copies of Q&A without slowing down the machine. I saw no affect on memory or speed up through four copies. When you load the fifth copy, XP stacks them in a single button on the task bar and then you see some impact on processor time, though no real slowdown.

Network printing is tricky if you don't know how to capture a network printer in an NT-like environment (the *Net Use* command), but it is the same as with Windows 2000. Also, as with 2000, when you set up a shortcut for the first time, you cannot create it using a batch file. You must create the shortcut using the qa.com file, make all the appropriate settings for memory, screen and the like, and only then change the command line from qa.com to your batch file.

Remember, you can't install Q&A 4.0 for DOS from the original floppy disks to a large hard drive. You'll have to copy all the files into a directory from

Quick Tip

Get a Formal Date from a Templated 'Date' Field

Recently I got a call from a Q&A'er who needed to create a formal printable date from the data in a templated field. The original field they were using, **CheckDate**, contained a template (*File / Design / Customize / Field template* in Q&A DOS) in this format:

```
##/##/##
```

With this, the data entry person could enter only digits in the field—in this case the month number, day number and two-digit year, such as the following for January 5, 2002:

```
010502
```

It appeared in the field like this:

```
01/05/02
```

Only text fields can contain templates, so this wasn't a true Date field and wasn't searchable as one. Fortunately, they used it only for display purposes and reports.

The reason they called was that they had another text field in the database named **CheckLongDate**, which they wanted to fill with the corresponding full formal date for merge document printing. In other words, if the **CheckDate** template field contained *01/05/02*, they wanted **CheckLongDate** to contain *January 5, 2002*. Again, they didn't care about **CheckLongDate** being a searchable Date field. They just wanted to have a full formal date version of **CheckDate** that would look nice in a merge doc. Here's the program (in the **CheckDate** field) that did the trick:

```
> Checklongdate = Checkdate;
  Checklongdate = @Left(Checklongdate, 2)
  + "-" + @Mid(Checklongdate, 3,2)
  + "-20" + @Right(Checklongdate, 2);

  Checklongdate =
  @Month$(Checklongdate) + " " +
  @Str(@Dom(Checklongdate)) + ", " +
  @Str(@Year(Checklongdate));

  If @Len(Checklongdate) < 9 Then {
  @Msg("Check Date is invalid");
  Clear(Checklongdate);
  Goto Checkdate }
```

The program first copies the value in **CheckDate** (such as *010502*) to the **CheckLongDate** field. It then adds a dash between the date elements and "20" to the two-digit year, giving Q&A something it can interpret as a date. The program next determines the name of the month (Month$) from the month part, finds the day of the month, then the four-digit year, and finally reformats and displays the date in the desired format.

Now if Q&A *can't* see the **CheckLongDate** value as a valid date, that field will then contain only a portion of the date. In this case, the second part of the program displays an "Invalid Date" message, clears **CheckLongDate**, and moves the cursor back to the **CheckDate** field for another try

Field templates are handy in some cases but people rarely use them. They're good for things like social security numbers and U.S. telephone numbers— entries that have a common fixed length and always fit a prescribed format. They save you from having to type the separator characters and offer a kind of additional data entry control because they can force the entry of numbers. (Your *Q&A Users Guide* shows all the options for template fields.)

In reports and mail merges, Q&A includes the template. When exporting data, Q&A gives you the option of including the template. When referencing a templated field in programming, however, you must treat the contents of the field it as though it had no template.

Tom Marcellus

Put Your Q&A Data On Your Web Site, Part 1

TOM MARCELLUS

DOS

In this series, we look at five different ways to get the data out of your databases and onto the World Wide Web where anyone anywhere can access it.

IN the late '80's when modems became cheap and widespread, computer owners began working "outside the box." You could connect to remote bulletin boards (BBS's—*remember them?*) where you could gather information and download files.

By the mid-90's the Internet Age had arrived, and folks everywhere were busy prowling the Net and emailing and discovering new pastimes.

Today, merely gawking at the Web sites of others isn't enough. If you're a commercial entity or organization, people expect you to have a Web presence of your own. "*Oh, you don't have a Web site?*" is like saying, "*Oh, you don't wear shoes?*"

Creating a Web site requires a fair bit of know-how beyond registering a name for it and hiring a hosting company. Though today's Web page authoring programs insulate you from the rigors of Hypertext Markup Language (HTML)—the document formatting language behind the pretty pages you view in your browser—Web page elements such as tables, frames, images, Javascript and the like aren't for the dabbler.

But all that won't concern us here since it isn't Q&A-related. Q&A is about managing your data. What I *will* do in this series is show you five distinct methods or ways to get your data out of your databases and onto your Web site where anyone (or just those you choose) can view and, in some cases, interact with it. For any HTML that will be involved, I'll cover only what's necessary for you to know in order to use that particular method. I'll assume that you already have a Web site and know how to (or have someone who knows how to) put Web pages on it.

The five methods, in a nutshell, are these:

1. Turning individual 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, with the results displayed in tables, reports or other formats.

There are advantages, disadvantages and limitations to each of these methods, which I'll mention along the way. Some of these methods are relatively easy to implement, while others take more time and know-how. The method that will work best for you depends on the format in which you need your data to appear when viewed by visitors to your Web site and whether you want them to be able to control what they see.

This month I'll show you the first method mentioned above—turning individual Q&A database records into corresponding ready-made Web pages for your Web site.

Pros & cons of this method

This Q&A 5.0 method (I'll give you options for Q&A 4.0) is for applications where you need a separate Web page for each database record. It's useful for a company that offers a range of products and needs detailed information—and perhaps a picture—of each product on its own Web page. This could be anything from an electrical components supplier to an "escort" service.

With this method, programming in your database, a macro, and a DOS batch file are combined to generate a Web-ready page that you can immediately add to your Web site. Working in your database, you can add or update a record, press a key and—*presto!*—that record will be turned into a Web page ready to place in your Web.

This method is also adaptable to Mass Update and On-Record-Exit *If @Modified…* programming. In other words, with the right programming and other elements in place, you could run a Mass Update that would generate a Web-ready HTML file/Web page for every record in the database. Or, in the case of On-Record-Exit programming, you could set it up so that a new Web-ready HTML page is generated automatically whenever you save a record that has just been modified.

This method is virtually limitless in the sense that your database programming can be elaborate enough to generate highly sophisticated Web pages, complete with

images, tables, interactive elements such as hyperlinks and even Javascript.

The drawbacks of this method are that it takes time and care to intially set up, and it's only for applications where individual database records are to be turned into corresponding Web pages.

A sample database

To demonstrate this technique, we'll work with a database named ITEMS.DTF. (A sample record from ITEMS is shown in Figure 1.)

Here, you have fields for the **Stock No**, **Type**, **Description**, **Price**, **Availability**, and **Notes**. The contents of these fields will be translated into an HTML Web page by the programming to follow. (If you want to see what the HTML code behind a Web page looks like, visit a Web site and click *View/Source* in your browser. Our example won't be nearly as complex as what you're likely to see.)

Under the "**Update Web Page…**" line in Figure 1, there are programmed fields named **HTML** and **COPY**. The program for the **HTML** field looks like this:

```
< If @Askuser("Generate New Web Page?"," ", " ")
Then {

HTML = "<HTML>
<head></head>
<body>
<p><a href='index.htm'>Home Page</a>
    
<a href='cart.htm'>Add to Shopping Cart</a></p>
<p><font size='5'>
<b>" + Description + "</b>
</font>
<img src='" + Stock No + ".gif' align='center'
hspace='10'></p>
<hr>
<p>
Stock No: <b>" + Stock No + "</b><br>
Type: <b>" + Type + "</b><br>
Description: <b>" + Description + "</b><br>
Price: <b>" + "$" + @Str(Price) + "</b><br>
Availability: <b>" + Availability + "</b></p>
<blockquote><p>
<b><u>Details</u></b><br><em>" + Notes + "</em>
</p></blockquote>
</body></HTML>";

@Macro("Generate Web Page")
}
Else Chome
```

In addition to formatting the record's data in HTML tags, this program adds two hyperlinks ("Home Page" and "Add to Shopping Cart") and places an image on the page with a filename that consists of the **Stock No** value plus a ".gif" filename extension. It also adds an HTML *<hr>* tag—a horizontal divider line—and then indents the product **Notes** paragraph with the HTML *<blockquote>* tag. When this program executes, The **HTML** field will contain all the makings of a valid HTML file.

But how do you get from this all the way to a file with an .htm extension that you can display on your Web site as a Web page? A few additional elements are required.

Automating the process in Q&A 5.0

The **HTML** field program ends with a call to this Q&A macro named "*Generate Web Page*":

```
<begdef><nokey><name>"Generate<sp>Web<sp>Page"<vidoff>
<altf9>3<tab><enddef>
```

The macro's *<Alt-F9>3* command tells Q&A to "press" Alt-F9 for the External Programs menu and select the Menu Option named *3 - Print Web Page*. That Option's corresponding Command Line is *webpages.bat %g*.

Webpages.bat is a simple batch file. The *3 - Print Web Page* command passes the *%g* parameter (the field value as a temporary file) to it. *Webpages.bat* contains this line:

Figure 1. A record from ITEMS.DTF. The fields above the horizontal line contain the data that will comprise the Web page. The bottom two fields are programmed to "translate" the record into an HTML (Web page) file.

```
copy %1 d:\qa\webpages\webpages.tmp
```

The *%g* parameter contains the contents of the **HTML** field from the database record—everything needed to construct the Web page. The batch file reads in that *%g* file (all the HTML code) as its *%1* variable, then copies it, as a file, to *webpages.tmp.*

Back in the database record, the macro has *tabbed* from the **HTML** field to the **COPY** field, which invokes this final little program if the **HTML** field isn't empty:

```
< If HTML <> "" Then {

COPY = @Shell("COPY d:\qa\webpages\webpages.tmp
d:\qa\webpages\" + Stock No + ".htm");
  If COPY = 0 Then
{
  @Msg("New Web page generatated: Stock No " +
  Stock No + ".htm");
  Clear(HTML, COPY);
  Chome
} }
Else Chome
```

This program runs the DOS COPY command via @Shell, telling DOS to copy the *webpages.tmp* file just created by the batch file to a new file name consisting of the **Stock No** with an ".htm" filename extension. This way, if the **Stock No** field contains *BR12-3-X,* you'll get a valid HTML file named *BR12-3-X.htm.*

For all the programming, use your own paths and take into account the DOS 8.3 filenaming convention.

(If your PC won't run the DOS COPY command directly via @Shell, change it to *@Shell("webcopy.bat " + Stock No + ".htm")* and create a *webcopy.bat* file that includes the command: *copy d:\qa\webpages\webpages.tmp d:\qa\webpages\%1.* On the rare PC, an @Shell running an internal DOS command can give unexpected results.)

Conclusion

Figure 2 shows how the HTML code generated by the **HTML** field program, then saved to an .htm file, looks when viewed in a Web browser. (To display such a file, start your browser and simply enter the local file path in the Web address box.) You have your two hyperlinks at the top of the page, a title line in a large font with an image beside it (with the programming we've used, the image file must be in the same Web folder as the .htm file), the horizontal dividing line, and then the product info followed by the final indented Details paragraph.

If the HTML code doesn't specify a font (ours doesn't, though it could), all text will appear in the browser's default font—probably Times Roman or Arial or a variant of these. In Figure 2, it's Times Roman.

The sequence is a bit complex, so let's recap it:

1. You create or update a record in the ITEMS database.

2. You then tab down to the **HTML** field. Q&A asks if you want to create a Web page for the current record.

3. You answer "Yes." This invokes the **HTML** field program, which encodes the record's data in HTML and adds the other page elements, then runs the macro, passing the HTML to the first batch file.

4. The batch file (*webpages.bat*) copies the HTML to a file named *webpages.tmp.*

5. The cursor enters the **COPY** field, launching the @Shell program that copies *webpages.tmp* to a permanent file with an .htm filename extension.

If you invoke the **HTML** program each time you add or update a record, your .htm files will always be current. You can upload your entire Web pages directory to your Web server periodically, or select which files to upload. (How you upload them is another topic.)

Optionally, you can use a conditional *On-Record-Exit* program that runs if the *@Modified* flag is true—that is, if the record has been modified in any way.

How sophisticated your Web pages can be with this technique depends on your familiarity with HTML and how good you are at making your Q&A programming construct it. Your options are practically limitless.

Next month, we'll look at an altogether different way to get your Q&A data on a Web site.

The database featured in this article, along with the batch file and macro, are included in this month's download file.
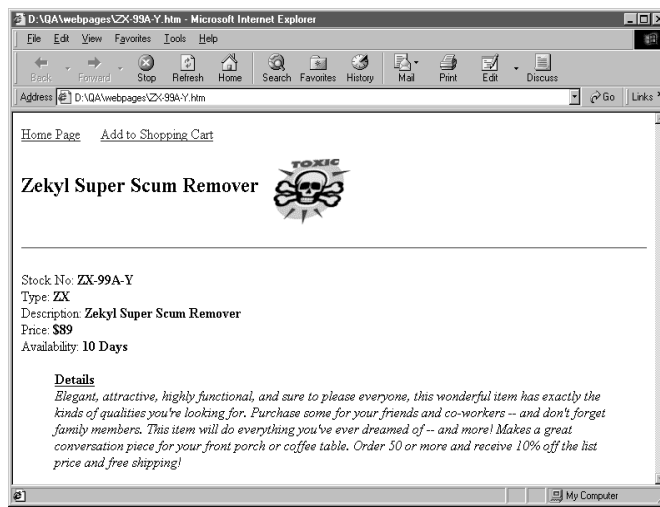

Figure 2. Welcome to your Q&A database record—*er*—Web page.

For Q&A 4.0 for DOS

If you're using Q&A 4.0, you can't take advantage of the automation. You won't need the **COPY** field and you'll have to remove the @Askuser and @Macro commands from the **HTML** field's program. After the remaining programming executes, you can expand the **HTML** field with F6, press F2, and print the field to a DISK file with an .htm filename extension.

@Help

EDITED BY WILLIAM HALPERN

Maintaining Record Order

I have a database I use to keep records of all my flight hours. I number each record as I enter it, starting at 1. I am currently up to record 975. Until recently, every time I looked at the records, they were always in numeric order. Now, the last few records in the file are like this:

```
972 – 974 – 975 – 973
```

How do I get 973 back where it belongs? This ought to be easy for you. I don't know how do it and am afraid of losing it by trying. I've worked real hard on this one!

<div align="right">Sammy</div>

Q&A doesn't physically store database records in any particular order. (No database manager does.) When you first start entering data into a new database, the records will generally be stored in the order in which they were added. However, as you change them or add new records, they may appear to move around in order. What Q&A is doing is simply maintaining the data in a form most efficient for the program and the computer. If you modify a record and there is not enough space to store it where it was, Q&A might move it to the end of the file. This "disorder" increases as you delete, edit, Mass-Update, and Recover the database. Q&A keeps track of the data, not the record position. The counter at the bottom of the screen that says, "*Retrieved form 4 of — Total Forms: nnnn*" (where *nnnn* represents the total number of records in the database) is just a counter. There is no way to retrieve by those numbers. So, if you want to see the records in a specific order, you must use a Sort Spec. When you are at the Retrieve Spec, press F8 to go to the Sort Spec screen and type *1AS* in the field you want to see the records sorted by. Then press F10. You can even save the Spec by pressing Shift-F8, and then pressing Alt-F8 to recall it the next time. In your case, as long as your Record Number field is formatted "N" for numbers, Q&A will retrieve the records in the order you numbered them.

In *Sesame,* you will be able to set a default Sort Spec so that each time you retrieve your records they will always appear in the same order.

Special Lookup Table Programming

I am trying to write a programming statement that calculates customer charges based on a grading system. Each record can have up to four different charges and/or grades attached to it. This is somewhat complex since Grades 1-7 have one price (2075), Grade 8 is another (2275) as is Grade 9 (2575)—and there are two special grades named EC (1925) and CIT (2000). I then want to be able to add up all of the charges to get a total. I have tried doing this with "If/Then" statements but they get very confusing and they make it all but impossible to easily change my pricing structure. Right now I am calculating by hand and always making mistakes. Any ideas?

<div align="right">Abe</div>

In most cases I avoid using a database's Lookup Table, preferring to use external databases instead. But with a limited set of values like you have, there's a good reason for using it. You will need some new fields in your database. One for each of the charge line classes (let's call them **S1**, **S2**, **S3**, and **S4**) in which you will enter the class (1,2,3,.. CIT, EC). You will also need a temporary field to store some values—we'll call that one **Temp**. (You can make **Temp** Read-Only so it doesn't upset your form navigation.) In addition, you will have your regular **Fee** field to show the total fee.

Place this program in the **Fee** field:

```
#10:
If S1<>"" then Fee = @Lookup(S1,1);
If S2<>"" then {Temp = @Lookup(S2,1); Fee = Fee +
Temp; Temp=""};
If S3<>"" then {Temp = @Lookup(S3,1); Fee = Fee +
Temp; Temp=""};
If S4<>"" then {Temp = @Lookup(S4,1); Fee = Fee +
Temp; Temp=""}
```

Now, fill in Lookup Table (File ∕ Design ∕ Program ∕ Edit Lookup Table) this way:

```
Key      1
Grade
1       2075
2       2075
```

```
3       2075
4       2075
5       2075
6       2075
7       2075
8       2275
9       2575
CIT     2000
EC      1925
```

Your Lookup Table gives you an easy place to change your rates from year to year. The programming is simple. It checks to see if you've entered a grade for a given line. If you've entered one only in the primary line, it looks up the charge in the table and puts it in the **Fee** field and you're done. However, if there are more charges, the programming checks each one, line-by-line, in order, and places the applicable fee from the table in the **Temp** field. It then adds the value from the **Temp** field to the total, then clears the **Temp** field. Set the database calculation mode to *Automatic* and this arrangement should do all that you need.

Only Half a Screen in Windows XP

Weird. I can only get half a screen for Q&A for DOS. I have tried various fonts, etc., but nothing works. Any ideas? Q&A is set to full screen. I get half a window in the sense that only 50% of the screen (top to bottom) is full. I am running XP where the 50% screen occurs. On my Windows 98 computer everything is fine. The settings are precisely the same on both computers.

Blair

As you can see by my review elsewhere in this issue, I think Windows XP is terrific and so does every version of Q&A that I have run in it.

To date, we only have four machines on which we can test Q&A with XP. (And at the price of the O/S, it may be awhile before we install it on any more!) We have encountered absolutely no problems with XP and Q&A. Everything that worked in Windows 98 and 2000 works the same in XP. You must be aware that XP is an NT-based O/S just like Windows 2000 and must be treated and set-up as such. We have run XP on a laptop screen with medium resolution (1024 x 768), a 15-inch desktop monitor with low resolution (640x 480), and a 19" screen with a high resolution (1152 x 864) and have experienced no display problems to date. However, we all know that XP is a bit finicky about just what hardware it will support.

I have heard this problem from one other Q&A'er. He had set Q&A up to run full screen in the properties of the shortcut. He only got 50% of the screen. We changed it so that it was set to run in a window instead of full screen. This way, Q&A opened properly, and pressing *Alt-Enter* then gave him a full screen with no loss. On his system, if he started with a full screen in the display settings and then pressed *Alt-Enter* to go to a window, even the Window appeared with only 50% of Q&A.

Going the other way (starting in a window and changing to full screen) works fine. It's a workaround, but seems to do the job.

@Shell Not Working in Windows XP

Recently, I bought a computer with Windows XP installed. The following programming which worked just fine under Windows ME , causes Window XP to close Q&A 5.0 for DOS:

```
If #10 = "OK" Then
#10 =
@Shell("C:\PROGRA~1\NETSCAPE\COMMUN~1\PROGRAM
\NETSCAPE.EXE /print(""f:\werk\doc\order.htm"")")
```

Can you offer any suggestions?

Kees

This is an interesting use of @Shell. You're having it launch your Netscape Communicator browser with a command line parameter to print the HTML Web page named *order.htm* stored on your server. This enables you to print an order form (I assume) complete with graphic images and attractive fonts in a nice form layout—something you can't do in Q&A for DOS alone.

Again, at PCTA we are running @Shells and External Program commands that call other Windows programs like Microsoft Word and Excel in at least three major applications in Windows XP and Windows 2000. In every case, they are working fine. In no case have I installed XP as an upgrade, and in each case I am using the Professional version, not the Home version. What I *have* seen is that Windows XP will close Q&A if you perform an operation that requires Expanded Memory and it is not available. Make sure that you have set both Expanded Memory and Extended Memory to 1024 in the shortcut properties, and confirm that Q&A is seeing at least 128K of Expanded Memory by pressing Ctrl-F3 at the Main menu and looking at lines 14 and 15 in Q&A 4.0 or 14, 15, and 16 in Q&A 5.0 You should see something like this:

	DOS/TSR	Q&A	FREE	TOTAL
14. Conventional memory	60K	580K	0K	640K
15. Expanded memory (EMS)	0K	128K	896K	1024K
16. Extended memory (XMS)	0K	3K	1020K	1024K

Please let us know if this solves the problem.

Please send any further comments on these or any other types of strange behavior in XP and we will research the issue as best we can. Our best resources are our readers and clients. You allow us a much wider scope of equipment and testing platforms than we can ever hope to have in-house. Please make sure to state in your messages whether you are using the XP Home or Professional edition, and whether you installed it freshly or upgraded to it from a previous version of Windows.

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The Overlooked Q&A Security Option—Database Lock

ALEC MULVEY
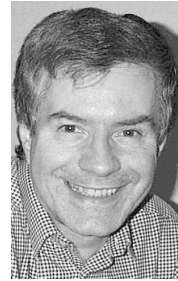
MUCH has been written in *The Quick Answer* on the subject of Q&A security, most recently about "privatising" or hiding sensitive reports, sensitive fields and the like. These security techniques employ one or the other of two distinct Q&A security features—field-level security and general database security. To use the former you need the latter.

Another level

There is, however, a *third* level of Q&A database security, one that's independent of the others. It's the *Database Lock.* This security tool can be immensely useful but it's severely under-utilised. I suspect this is because in Q&A for DOS it's not found on the Security menu ("Secure a File") where you might think to look, but on the more obscure and intimidating "Customize Application" menu. (See Figure 1.)

In Q&A for DOS, the menu path to the Database Lock screen (shown in Figure 2) is *File / Design a File / Customize Application / Lock Database.* In Q&A for Windows (see Figure 3 on the next page), you first open the database, then click *Select / Database Structure / Security / Database Lock.*

The options on the Database Lock screen are, for the most part, self-explanatory. You supply a password (up to 10 non-case-sensitive alphanumeric characters—there is no facility for a User ID), then set the options you desire. However, like all Q&A security, the options are not grouped as you might expect them to be. Let's look at each one in turn.

Redesign and Program. As it happens to be the most important option by far, this one is at the top of the list. This one is really why you're here at this screen. You can stop all users from adding, deleting or moving fields, or changing (or even seeing) the programming. Notice that a whole basket of features are disabled by setting this option to *No,* including access to programming, setting field names and changing field formats. These are all things that you will normally want to prevent users from doing—at least in an unconsidered way. In Q&A for Windows, the Database Lock option *Redesign Fields* does the same thing.

Design/Redesign reports. This one is much lower risk. Set this to *No* and no user can add a new report or save changes to an existing one. They will still be able to *Print* a *report* with *Temporary changes.* In Q&A for Windows disabling report design/redesign also disables label design/redesign.

Restrict Values *and* ***Set Initial Values***. Some users frequently need to change their Restrict Values list for use (in Q&A for DOS) with the Alt-F7 picklist feature. Initial Values may also need to be updated periodically, so you should think twice before blocking users from these features. But if you use Initial values, for example, to date-stamp new records (@Date) and/or auto-number

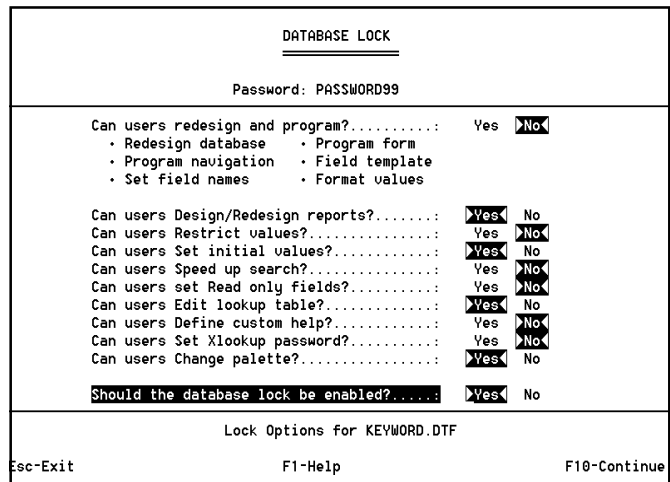**Figure 1.** Q&A for DOS menu path to the Database Lock screen.

Figure 2. Q&A for DOS Database Lock screen.

(@Number) each new record, and these are vital to your record keeping, then keep the scheme intact by preventing arbitrary changes to it.

Speed Up Searches / Read-only Fields. Most users won't need to go here. Adding "Speedy" (indexed) fields can slow down Q&A considerably (see John Dow's articles in *The Quick Answer*, July and September 2001).

Edit Lookup Table. How carefully constructed is the database's Lookup Table? How dependent is the accuracy of the data in your records (along with your programming) on the data in the Lookup Table? The more sensitive your data is to what's in the table, the more serious you should be about preventing it from being changed. On the other hand, it can be very handy to use the Lookup Table to store variables that users can change as data entry requirements change, while still locking them out of the programming.

Define Custom Help. No real reason to restrict this. Users can add their own notes if they like and are unlikely to cause any damage.

Set XLookup Password. Best to restrict this. It's a system issue and it could expose a security breach.

Change Palette. In Q&A 4.0 you have a choice of eight pre-defined colour schemes, several of which remind you of your worst hangover. Q&A 5.0 offers much more scope for users to change the colours of individual fields, background text colour and the like. As they can effectively make fields disappear, or undermine colour changes that you've programmed (such as causing negative values to appear in red via the @Color command), I suggest there's a stronger case to debar users from changing the palette in Q&A 5.0.

After setting your options, you enable the lock with the final option, *Should the database lock be enabled?* Q&A reminds you to write down the password, which you should do and store in a secure location that you will not forget.

Database Lock tips

- Q&A's Database Lock option is independent of all other Q&A security.

- There is no User ID with Database Lock, just a single password per database.

- If you are designing databases for others, *always* set the database lock password, even if you don't restrict anything. Any user will then need to enter the password to get to the Database Lock screen. The effect of this is that it prevents *someone else* from locking *you* out!

- When you want to redesign, program, etc., you don't need to reverse the settings. Simply enter the database lock password and set the "Enable?" option to *No*. Make your changes, then re-enable the lock when you're done.

- Applying the lock doesn't necessarily mean that you are preventing clients from changing their own databases. I frequently apply the database lock then supply the password to the client in an envelope. This stops users from making ad-hoc changes—a good thing to prevent.

- Another good reason to apply the lock to Q&A 5.0 databases is to prevent users from carelessly adding fields to the database and so creating another design generation that can cause problems with 5.0 databases.

- Record the password safely! If you forget it, you'll have to send your database out to a password removal service—and that's expensive!

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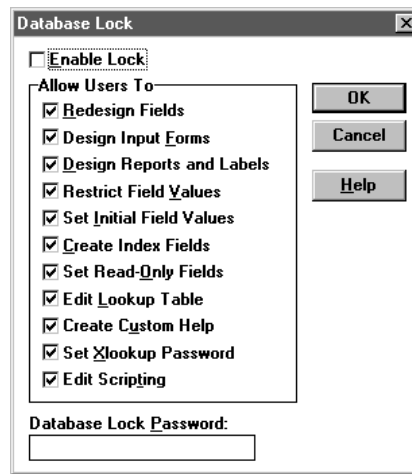
Figure 3. Q&A for Windows Database Lock screen.

Virus Protection a Must

ALEC MULVEY

PLEASE take this message seriously. It might save you all of your data and days of heartache.

The virus threat has been very real for the past few years and is rapidly becoming more severe. Just within the last week there have been two new rampant viruses ("Badtrans" and, starting yesterday, "Goner"). These destructive viruses exploit security weaknesses in Windows and your email client, typically Outlook Express. Such viruses often take the form of a "worm" which sends itself from your infected computer, without your knowledge, to some or all of the addresses in your address book, as if from you. Once inside your computer, they can lock you out of all your applications and permanently destroy files. You may have no choice but to reformat your hard disk and reinstall all your programs, which means all your data will be lost. Cleaning them out, when that's possible, will likely require an expert.

I've been working with PCs for 12 years and one thing I do know is that it is now more difficult than ever to keep computers working reliably. In the "old days" you could set up a PC and its software, and then as long as nobody changed anything, everything would stay working well year after year with just the occasional Scandisk needed to ensure hard disk health.

Today, that is not nearly enough. The main reason is that things aren't standing still. When people are using email and the Internet, chances are they are installing new software—or someone *else* (or some*thing*) is trying to install new software—on their PCs routinely. Some of this software might seem innocuous, such as RealPlayer or QuickTime—applets that let you exploit things on the Web. But some of it is unnecessary and potentially damaging. And still more of it is positively malicious.

If you receive email, it is essential to have effective antivirus software running whenever you connect to the Internet or receive email, and to keep it bang up to date.

Within the last week I have been sent both the above viruses. Earlier this year I actually contracted a virus sent to me by a trusted colleague. How did this happen? Because I was only updating my virus definitions every two weeks.

That is too infrequent.

This morning I received an email from Symantec's Norton Antivirus service warning of a new rampant worm which is said to be the fastest-propagating virus yet. Called "Goner," it carries an attachment named "gone.scr," and was first discovered on December 4th. I received an email with "Goner" attached *yesterday*, December 5th.

Okay—that's the threat. Now what should you do about it?

- Use a good antivirus software product. For years I used Dr. Solomon's. When they were taken over by McAfee, I didn't find the new product as good. So for a couple of years I have been using Norton Antivirus for myself and my clients. I like it because it offers easy updating. You can even have it update your virus definitions automatically in the background while you are online. It is also easy to renew your annual subscription online.

  I particularly like the way that I can download the virus definition updates separately from the program updates. You can choose to download the virus definitions as one file that you can store and then access across the network. This is very handy if you have a network or multiple PCs such as a desktop and a laptop and a dial-up Internet connection, as you only need to download each update once and can then update any number of PCs without having to set up network updating features or upgrade to network versions of the software. It is also very inexpensive. I find Norton to be extremely responsive. They have a fix out for any new virus within 24 hours and, like the McAfee/Dr. Solomon's people, produce fixes to help you eradicate a virus if you actually get infected with one. The latest version (Norton Antivirus 2002) even visibly scans outgoing emails, which is reassuring. McAfee might be just as good. I have simply gone down a different route.

- Subscribe to the Norton *Virus Bulletin.* (You have this option when installing the program.) That way you'll get notified if there is a particularly active new virus.

- Act immediately on any warnings or announcements you receive! They normally say that there are new virus definitions or program updates available for download to isolate and contain the new virus. Get them immediately. Don't wait until you "have the time."

- Update your virus definitions often. You can have

Norton prompt you to do so every week. New virus definition files are released about once a week. This is normally sufficient unless you get a new virus warning.

- Do not use the preview pane in Outlook Express. Yes, I know it is convenient as it allows you to read the email message and even see its attachment, if any, without "opening" the email. But if you have the preview pane turned on, you *are* opening the email, just not in its own window—and some viruses can propagate simply by your opening the email message. (The old rule that viruses could only be contained in traditional executables such as .COM and .EXE files hasn't been true for a long time. Files with .SCR and .PIF filename extensions, to name just two, can contain and spread viruses. Microsoft has been very busy over the last 10 years creating a host of new file types that can execute on computers and thus potentially cause severe damage to them.)

- Never open an email attachment that you are not expecting. Reply to the sender explaining that you do not open unexpected attachments and ask that they verify that this was sent to you intentionally and is of value to you. It is preferable to delete the email plus the attachment., but you might not want to do this if it took a long time to download and you suspect you might want it. I know of no way in Outlook Express to delete the attachment and keep the message.

   If you think this is alarmist—it isn't. On at least four occasions I have done this only to find the sender replies: "Yes, we have been infected by a virus. Sorry." That is how I intercepted "Goner" sent to me by a client in London yesterday. Do you really want a new screensaver?

- Do not open emails or attachments with an empty or suspect *From* or *Subject* line. Create a folder named something like "Attachments – CAREFUL," and set up a rule in your email program that sends emails with attachments there. To do this in Outlook Express, use:

   Tools / Message rules / Mail rules / New rule
   Apply this rule after the message arrives
   Where the message has an attachment
   *Move it to the **Attachments** - **CAREFUL** folder*

   After this is done, rename the rule "Attachments," and ensure that it is the *last* rule if you have others. If other rules follow, then the message may be moved to another folder by a subsequent rule.

   Then, be very cautious with such emails. By having them placed in a dedicated area, you are less likely to open them without thinking.

- Consider using an email client other than Outlook or Outlook Express. Many of today's viruses target only

Outlook and know how to replicate themselves using its proprietary address book format. I still use Outlook Express myself, mostly because that's what most of my clients use. Why do they use it? Because it's there. Many of my American colleagues use Eudora Pro (or Eudora Lite, which is free) and I am thinking of trying it myself.

If you find that antivirus software slows down your computer (which has been reported in *The Quick Answer*) then you can tailor it to only check executable files rather than all files when it is running all the time. You can even set it up it so that it does not monitor continuously, but just checks floppy disks, CD-ROMs and incoming emails plus attachments. Personally, I wouldn't be satisfied with that. If your computer is too slow then it's probably too old - buy a new one

If your computer is, say, four years old, you might be amazed to find that its replacement today is *six times faster* and only *half the price*! The £500 (approximately $700) that it costs might be a fraction of what it could cost you if you were to lose all your data, and you get the benefit of a fast new computer with practically limitless storage capacity. (How else can you describe 40GB?)

If you are not already using Norton Antivirus, you can purchase it by mail-order, at a store, or on-line at *http://www.symantec.com/region/reg_eu/product/nav2002.html (UK),* or in USA go to *http://www.symantec.com/purchase/* and select "Norton Antivirus 2002,* where you can download it immediately. Or you can order the package for postal delivery. You can also upgrade older versions of it at lower cost.

If you want more information on "Goner" go to *http://service2.symantec.com/SARC/sarc.nsf/html/w32.goner.a@mm.html.*

Virus creators are getting more savvy as time goes on. They know that few people these days will open an email named "I love you" from an unknown person. So they trick you. Their "worm" might transmit itself to people in your address book, sending a document you have recently saved (what a privacy nightmare!) and with a very unsuspicious title such as the name of the document.

There are even "hoax" virus alerts. A popular one is to say that there's a new virus going around which leaves a "time-bomb" file named such-and-such on your system. The message tells you to search for it and delete it forthwith. Great—*but this file is essential!* All PCs have it and your computer won't start up again without it! Imagine getting a message such as this from, say, me or the editor of *The Quick Answer*! All this sounds unlikely, I know—about as unlikely as a guy getting on a plane and trying to blow himself up mid-Atlantic by detonating explosives in his shoe. You have got to be really skeptical.

This is for your benefit. I have no vested interest in anything I am recommending here. In fact, I am potentially depriving myself of the income of eradicating viruses for my clients and perhaps even restoring their

Windows XP...

a previous installation, or obtain one of the newer Q&A installation CDs available from PCTA (*www.pcta-usa.com*) or Keyword Training (*www.keywordtraining.com*). I even set my systems up using the NTFS file system rather than FAT32 and Q&A didn't so much as hiccup. So, the energizer bunny keeps on going.

What about installing Q&A for Windows (4.01 and 4.06) in XP? Well, slightly different story. You cannot install from the original disks. Again, you will need the CD versions from PCTA or Keyword Training. In addition, you will need to get the NTFIX program from John Dow (www.johntdow.com) before running Q&A for Windows. Without this patch, Q&A for Windows will bring XP to its knees. It will perform an illegal operation and the entire system will go at a crawl until you reboot. But with these conditions met, even Q&A for Windows runs fine in XP!

For more information and details on setting up Q&A shortcuts and batch files in Windows XP, see the earlier *Quick Answer* articles, tips and @Helps on Q&A and Windows 2000: "Can Q&A Live On in Windows 2000?," May 2000; "Q&A and Win 2000 Correction," June 2000, p. 7; "Windows 2000 Quirks," September 2001, p. 5 and "Q&A for DOS and Windows 2000 Copy/Paste," August 2001, p. 8. Much of this information is now available at

www.pcta-usa.com and is also in the comprehensive *Q&A/New PC Setup Guide* available at *www.quickanswer.com*.

If you're having trouble getting your full Q&A for DOS screen to display in XP, see this month's *@Helps*.

How does *Sesame* run Windows XP? Perfectly, of course, with no O/S-related issues whatsoever.

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Viruses...

systems—work that they would *not* enjoy paying me for! I just don't want you to suffer the misfortune of others—including one of the recipients of this (you know who you are!)—who lost all their data from a virus attack.

Be careful out there!

And back up your data religiously!

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to look for your answer first. If the answer isn't there or you can't resolve the problem, email us at **mailbox@quickanswer.com** describing the problem in an much detail as you can. Please Include your daytime phone number in case we need to call.

Sesame Beta Tester Evaluation Phase to Begin

The Q&A replacement product coming from Lantica Software (code-named "*Sesame*") is now in an advanced stage of development. More than 1,200 people have told Lantica that they want to be *Sesame* beta testers, and now the company needs to determine who are best-prepared to participate in this important program. If you asked to be included in the program (or now wish to do so), there's an on-line questionnaire that will take you just a few minutes to fill out. Once Lantica has received all the responses, they will evaluate them and let you know if you have been selected. If you wish to apply to be a *Sesame* beta tester and have not yet filled out the questionnaire, go to *www.lantica.com* and click on "**Beta Testers.**"