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Can Q&A Live On In Windows 2000?

WILLIAM HALPERN

HERE we go again! Microsoft releases its latest and "greatest" new operating system and we're all supposed to scurry about like good little lemmings getting it installed on our computers. Windows 2000 is being held out as the harbinger of all good things to come in computer operating systems. Forget the fact that it's NT-based! Forget that there is no recovery if you upgrade from an earlier version of Windows! Forget that it doesn't have all the niceties of Windows 98! Forget the fact that it probably won't recognize some of your existing devices! Forget that some of your basic business and computer utility programs won't run under it! Forget that you'll probably spend hours downloading the new hardware and software drivers you'll need! Forget that the release date of the first service pack has already been announced since there are a known 64,000 bugs! Forget the fact that it costs twice as much as Windows 98! We are concerned only with one thing—*will Q&A run in Windows 2000?*

Well.... *Will* it?

Since the day Windows 2000 was released (February 17), I've been asked this question over and over again. My answer as of this writing is a definite but *qualified* Yes. In order to determine this, I went right out and bought my copies of Windows 2000 Advanced Server and Windows 2000 Professional Workstation. I must caution you that I've installed only the Workstation edition on my notebook computer which I use as a workstation on my Windows 98 peer-to-peer network. I think you realize from this article's opening paragraph that I wasn't anxious to install the Server edition on my company's network. However, one of my more courageous clients upgraded his entire system to Windows 2000—a system on which I then proceeded to install a brand new Q&A 5.0 for DOS application. Q&A is now running just fine on both my system and my client's. There are lots of issues to discuss—some really positive features and some cautions. Let's take a closer look.

Will all versions of Q&A run in Windows 2000?

No!—only Q&A for DOS. Q&A for Windows will not even get to the splash screen before it crashes.

Do we still have the "too-large-a-hard-drive" issue?

Absolutely. The good news is that not only does Q&A run in Windows 2000, but so does Lesspace. (Consult the *Quick Answer* index at www.quickanswer.com for back issues with information on using Lesspace with Q&A.) Lesspace does for Q&A just what it did in Windows 95/98—keeps it running just fine in a hard drive partition larger than 2G. So, you must still launch Q&A from a batch file that calls Lesspace and then Q&A (more on this later). Of course, you can always create a hard drive partition that's under 2G—then you won't need Lesspace. But don't try this on your C: drive since Windows 2000 needs more than 1G just for itself! Remember, Q&A 4.0 for DOS won't even install into a 2G+ partition, so for Q&A 4.0 you'll need the smaller physical partition. The good news is that although Windows 2000 is NT-based, it will recognize not only FAT32 but FAT

partitions as well. What a boon for us old DOS heads!

Do we still have to setup our shortcut Memory Tab properties for Expanded and Extended memory?

Yes, but here's some of the good news. All our testing to date shows that Windows 2000 will provide Expanded and Extended memory without *any* memory-related *device*= statements in the config.sys file. In fact, there's no config.sys file at all in Windows 2000!

Quick Tip

How to Calculate a Weighed Average

Application in ONLINE Edition

I wanted a quick way to find the average annual percentage rate of interest I was paying across all my charge cards. Each card has its own outstanding balance and Annual Percentage Rate (APR). I already had a record for each card in a database, so I created a report with this Column/Sort Spec:

```
Creditor: 5,AS,CS
 Balance: 10,T
    APR%: 15
```

And these two Derived Columns:

```
Heading: Total
Formula: @Total(#10)
Column Spec: 20,I

Heading: Weighted!Average APR
Formula: (#10 / #20) * #15
Column Spec: 30,F(N4),T
```

```
                                    Weighted
       Creditor     Balance  APR%  Average APR
     ---------------- --------- ----- -----------
     AMX CORP OPTIMA  $1029.93 11.99    0.8999
     ASSOCIATES        $202.16 14.90    0.2195
     AT&T MASTERCARD     $0.00 16.90    0.0000
     BOFA MASTERCARD     $0.00 17.49    0.0000
     CHASE MC         $3822.23  9.90    2.7576
     CHASE VISA       $1874.63 11.50    1.5710
     OPTIMA            $915.92  9.90    0.6608
     UNION BANK       $1433.10 11.70    1.2219
     WELLS FARGO MC   $1573.74  7.90    0.9060
     WELLS FARGO VISA $2870.59  7.90    1.6526
     ================ ========= ===== ===========
     Total:          $13722.30          9.8893
```

These Specs yielded a report showing that the average interest rate I was paying was a hair under 10 percent. (This report is in the Q&A 4.0 database IO.DTF in the download file for Online Subscribers.)

Quick Tip

Merge-Print From a Database Record

DOS 5.0

I have Q&A 5.0 databases where I need to auto-print a merge document for the record I'm viewing. But since the record ID field (which uniquely identifies the record) is always read-only to protect it from changes, a macro can't get into it to copy the ID number to the clipboard. I've tried having programming copy the ID to a temp field at the end of the database, then having the macro go there to copy it, but I've run into situations where even that proved unreliable. I've found a better way. Here's an example.

A read-only field named **Case ID** stores the unique record identifier. The **Print Binder** field contains the following program:

```
< If @Askuser("Do you want to",
          "print the Binder",
          "for this case now?")
Then {
Print Binder = Case ID;
@Macro("Print Binder")
}
Else CNext
```

If the user answers "No" to the prompt (or simply presses Enter), nothing happens—the cursor just goes to the next field. If the user answers "Yes," then the program copies the Case ID number to the current field and invokes the *Print Binder* macro. The macro begins by "pressing" F11 to copy the Case ID to the clipboard, then Shift-F4 to clear the field. The macro then continues, saving and exiting the record, getting the Binder merge document, pasting the Case ID into that field at the Retrieve Spec, and finally printing the document. It's a brutally simple way to print docs for any record I'm viewing.

Mike Bell, Montgomery Home Title, mbell@mhtinc.com

Q&A and Win 2000...

Your Memory tab settings for Initial Environment, Expanded, and Extended memory should all be 1024.

Will Q&A run in a window *and* full screen mode?

Yes—just as in previous versions of Windows, Q&A will run either way. And pressing Alt-Enter will switch between the two modes. However, setting the size of the window for windowed mode is a little tricky. In Windows 95/98, you can select the font type in your shortcut's properties, then readjust it with the application running in the window. It's the same in Windows 2000, but once Q&A is running, you have to go to the *Layout* tab in the window properties (right-click on the icon in the upper right hand corner of the window) and manually set the window width and height as well as the position. While a little more complex, this will probably give you more control over your final window size.

Something else I noticed. If you're running Q&A in a window and use Page Preview, Q&A will revert to full-screen mode when you exit Page Preview.

Can I still use my mouse with Q&A?

Unfortunately, no. Not only won't your mouse work in windowed mode, it won't work in full screen mode, either. In Windows 95/98, you could use your mouse to make menu selections, jump to different fields, and so forth. In Windows 2000, the mouse has no more effect than planting a distracting orange box anywhere you click. What's more, where you could once use the *–g* switch to turn off mouse support for Q&A, this switch appears to have no effect in Windows 2000. About all you can do is move the mouse cursor off the screen and try to forget about it.

Can we copy, cut and paste in Windows 2000?

Yes, but differently than in earlier versions of Windows. In Windows 95/98, running Q&A in a window gives you a toolbar with an icon for marking (copying) text and another for pasting. These icons aren't available in Windows 2000. However, if you left- or right-click on the icon in the upper right hand corner of the window, or right click on the title bar, you'll get a dropdown menu with an *Edit* submenu. Here you'll find selections for marking and pasting. Be sure not to select *Hide Mouse Pointer* or you'll lose a lot of capabilities.

There's a really neat new feature. If you're running Q&A in a window and you click on the properties menu as described above—and have *Quick Edit Mode* selected in the Options tab of the properties—you'll be able to select anything you want simply by left-clicking and dragging (with the button held down) your mouse across it. You can then either right-click or press Enter to copy the selected text to the Windows clipboard. You will still need the menu's *Edit* selection to paste text into Q&A. Another plus is that with Windows 2000 you can set the properties to allow *Fast Pasting* for much speedier pasting than was available in previous Windows versions.

Are any of the shortcut settings different?

Yes—and there's one you'd better be very careful with. It seems that Windows 2000 wants DOS programs to suspend operations when they're not the active window. To that end, it sets the default property on the shortcut properties Misc Tab to *Always Suspend*. Make sure to turn this *off* (uncheck it) so that Q&A can still run, as necessary, while you're doing other things. In this area, Windows 2000 has it all over Windows 95/98. In 95/98, whenever you ran any DOS application, your PC would definitely suffer a performance hit. As a matter of fact, running multiple instances of Q&A could bring your system to its knees. Windows 2000 performs much better in this situation. I've run up to four instances of Q&A at the same time in separate windows with no degradation in performance. My testing to date indicates that Q&A in Windows 2000 runs much faster than in Windows 95/98. There appears to be no need to hold down the Shift, Alt or Ctrl key to speed up certain operations. (See "Magic Windows 95 Speed Up Key" in the July 1998 issue.) There's no performance degradation even if Q&A is running a mass update in the background! This, in my view, is a real boon.

But there's one issue with shortcuts that gives me a headache. If you're running Q&A with Lesspace in a +2G partition, you'll need a batch file. In Windows 95/98, you can simply drag the batch file onto the desktop and click on *Paste Shortcut*. You can then right-click on the shortcut to see the properties and you get a tabbed properties box as shown in Figure 1.

Note that the properties box gives you control over all of the features of the application including the Misc and the Memory tabs. These are where you set the items discussed in this article in Windows 95/98.

Figure 1. Windows 2000 shortcut properties

However, when you do the same thing with a batch file in Windows 2000, you get a tabbed properties box like the one shown in Figure 2

Note that the batch file properties box is missing the Misc, Program, and Memory tabs. This is because Windows 2000 thinks it knows what to do with your batch files and will not let you make the *absolutely necessary* changes to accommodate Q&A operation. This could potentially be a real disaster. The way around this is to drag Q&A.COM to the desktop and create the shortcut. This will give you shortcut properties like Figure 1. Then, proceed to make all the proper settings and, as a last step, click on the Program tab and change the *Cmd line* to the name and location of the batch file rather than QA.COM It's a workaround, but it only has to be done just once, after which everything will be fine. Your properties box will then always look like the one shown in Figure 1.

Will Q&A run on a Windows 2000 network ?

Yes, but I've experienced a few issues you should know about. When I first pressed my Windows 2000 Workstation-equipped notebook into network service, Q&A would lock up *every time* I accessed files over the network. With some experimentation, I seem to have come up with the solution. Make sure that the network protocol you're using is exclusively TCP/IP. I had no success with the *netBEUI* or *IPX/SPX* protocols. Once I set my network system to TCP/IP, Q&A worked flawlessly. I
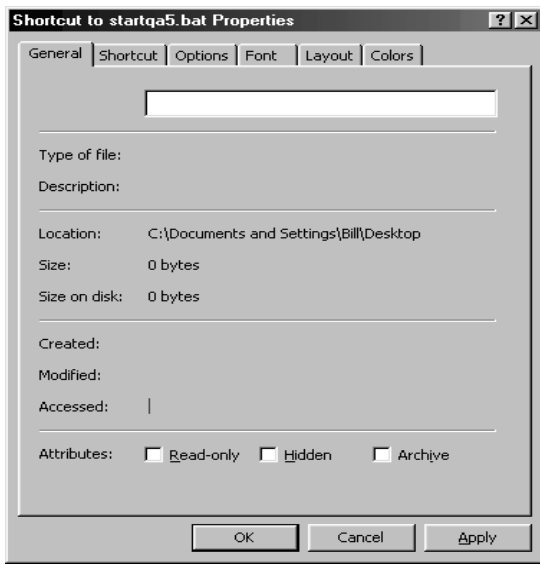

Figure 2. Windows 2000 batch file properties.

haven't received any network busy messages or hang-ups, Q&A hasn't locked up my system once, and I've otherwise experienced no Q&A failures to date.

Using network printers with Q&A in Windows 2000 is far different than in Windows 95/98. In 95/98, you used Printer Properties to capture your network printer to LPT2 or LPT3 and selected that port for your printer in Q&A. In Windows 2000, you must go to a command prompt and type a statement to set your captures. If you do this properly, it's a one-time operation. For example, if you want to capture your network printer called HPIII attached to the server as LPT3, you'd enter the following statement once at the command prompt to capture your printer and reset the capture whenever you boot.

```
Net use lpt3: \\server\hpiii persistent:yes
```

The verdict

So, with some reservations (due to the limited time I've been working with my new system), I must say that Q&A and Windows 2000 seem to be good partners. Although my recommendation relates to my (so far) positive experience with Windows 2000 Workstation, early indications are that Q&A for DOS will also get along well running in Windows 2000 Server. But I'm not recommending that you go right out and upgrade to Windows 2000.

If you're currently running Windows NT and are very familiar with its operation—*maybe* you should upgrade. The "maybe" relates to the condition of your network or standalone system and the fact that setting up your server is *not* a trivial process. As a matter of fact, Microsoft recommends that you take their nine-day training course before you attempt this. If you're using a standalone computer, adding one to an existing network or buying one with Windows 2000 already installed, then Windows 2000 should be fine for you.

If you're currently running Windows 98 and are not trained in NT operations and setup, I would recommend against attempting to upgrade to Windows 2000 until at least the first service pack is released. Even then, Q&A operational benefits notwithstanding, prepare yourself for some frustrating installation and upgrade problems as well as at least a few hours of work.

In future issues, we'll do our best to keep you up to date as we continue to work with Q&A in Windows 2000.

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Letters

HP LaserJet Color 4500 Printer Just Fine

The Q&A DOS LaserJet 4 printer driver (HPLASER4.FNT) fully functions properly with the HP LaserJet Color 4500 series printers though color, of course, is not available.

Wheel Mouse Support for Q&A Win

Another tidbit: The Microsoft Intellipoint software allows full function wheel options in Q&A for Windows.

Maynard F. Bertolet

Q&A Basics

Controlling Field Entries

ALEC MULVEY

Make your data entry more productive and accurate with these customizable Q&A features.

THIS month I'd like to show you a couple of ways you can customize your database—they're called *Restricting Values* and setting *Initial Values*. In Q&A for DOS, you can access these features via *File / Design a File / Customize a File*. In Q&A for Windows, the same features can be found by clicking *Select / Database Structure*.
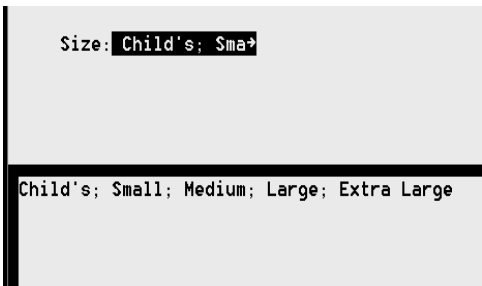
Restricting input

You can type almost anything in a Q&A database field—absolutely anything in a text field, in fact. But it's usually a good idea to place limitations on what can be entered into a field. For example, in a personnel database, you might want to ensure that the entries in a **Sex** or **Gender** field are restricted to *Male* or *Female*—or should it be *M* and *F*? There's the catch! Exactly *what* is supposed to be entered? A simple way to achieve consistent data entry is to *restrict* what can be entered. To apply restrictions to a database field:

1. Select File / Design a File / Customize a File.

2. Select Restrict Values from the Customize menu.

3. In the Restrict Spec, move to the field you want to restrict and fill in the permitted entries, separating each one with a semicolon. (See Figure 1.)

4. When you're finished, press F10 to save the Spec.

The entries in the Restrict Spec are the same as you might use in the Retrieve Spec, with a semicolon (;) separating the permitted entries for a field. You can also use the following special codes:

Figure 1. Filling in a field at the Restrict Spec. Note that spaces can be added between the entries to enhance readability.

/= Means an entry is *requested*. If the field is left blank during data entry, an error message will appear, but it can be ignored and the field bypassed if desired.

! Means an entry is *required*. If the field is left blank during data entry, an error message appears which *cannot* be ignored. Q&A does not allow you to leave the field until the requirement is fulfilled. If the ! symbol is the only restriction, any entry is permitted but the field cannot be left blank. The ! symbol can also be used to prefix a list of permitted entries, one of which *must* be entered.

Note that in the Restrict Spec, as in all Specs, Q&A is not case sensitive.

Here are a few examples:

Department:	Personnel; Sales; Admin	
Part No:	????	(Requests a 4-character entry)
Date:	!	(Compulsory entry)
Product Code:	>1000..<10000	(Product code between 1,001 and 9,999)
Product Code:	!250..300	(Between 250 and 300. Compulsory)

Without the *!*, the restriction is not absolute: users can ignore Q&A's warning message that the entry is *"Not in specified range. Please verify before continuing."* When you use the ! restriction in a field, Q&A will apply the list of restrictions absolutely and prevent you from leaving the field unless you enter one of them. It goes even further: If you apply such a restriction once data is in the database, Q&A will not let you leave a record with that field empty, even if the cursor is not in that field. This can be extremely irksome, so take care when using the ! restriction.

Unfortunately, something you cannot do in the Restrict Spec is rigorously enforce a list of restrictions while still permitting the field to be left empty. (You can do this with field programming, but that's outside the scope of this article.)

Viewing restrictions during data entry

When entering data, you can display the list of permissible field values from the Restrict Spec. While in the restricted field, simply press Alt-F7, select any entry from the list and press Enter. (See Figure 2 on page 11.) This gives you a quick and easy way to create helpful data entry "pick-lists." If you're using Q&A 5.0, you could optionally use the Userselect command, but that requires programming.

@Help

EDITED BY GORDON MEIGS AND WILLIAM HALPERN

Corruption and 'Network Busy' Messages

We run Q&A on a Novell 4.0 network with client version 3.1.0.0 and have a history of network-related problems. We used to be plagued by file corruption. Our consultant's network expert said that this can be caused by Realtec (I think) network cards with the numbers 8024 and 8029. We removed 11 such cards from our PCs and now seldom experience any corruption. We still get "network busy" messages almost every other day, though. It normally happens with only one of our four our busy databases. We clear the message by deleting the user connections from the server. When the offending connection is disconnected, the other users are released and the message disappears. I'm aware of the many issues involved in setting up Q&A 5.0 properly—the Speedfix patch, hard disk partition under 2G, various windows properties, Expanded Memory—and I believe I've attended to these throughout our 18-computer network. I hope this is a problem we don't have to live with.

Daniel Kirsh

No, you should *not* have to live with this problem! There might still be some other hardware or software issues with your network, but it seems that they're probably having no real impact on your Q&A databases. This is evident from the fact that three of your four heavily-used databases aren't giving you problems. First of all, if the "network busy" lockups are occurring on a certain PC, you should look very carefully at the hardware and network setup (including the network cables) for that machine. Secondly, once a database locks up (particularly in Q&A 5.0) and you're not able to release it correctly, you've probably created some corruption in the design or, at the very least, in one or more of the records. If you've updated such a database from a previous version of Q&A, you then have to look at it even *more* carefully. (You could use John Dow's DTFDOCTR to check for corruption in the Specs and records.) Any Q&A database should always be kept at the generation 1 level, and *The Quick Answer* has adequately covered this. However, once corrupted, the *most effective* fix for a Q&A 5.0 database is to redesign it from scratch and then import the records into it. The best way to do this is to use QEXTRACT (a Symantec utility available on the Freebies page at www.quickanswer.com) to extract the database form design, data, and programming to ASCII files. Then start by importing the basic design (F8 / Document Insert) and rebuilding it along with the reports and programming from scratch. When you've finished the new design, import all the records from the old database into it. Test the new database on the network. If it solves your problems—and I bet it will—rename your old database and then rename your new one to the old name. It's a lot of work, but it should make your daily operations run much smoother.

Problem with Q&A DOS Docs in Q&A Win

I just upgraded from Q&A 3.0 for DOS to Q&A 4.0 for Windows. The upgrade went smoothly and all of my databases are working properly. However, I'm having real problems with my word processing documents. I have several long documents—10 pages or more. When I open them in Q&A for Windows, I get only about five of the pages. These documents are very important to me and I have to find a way to correct the situation. Can you offer any suggestions?

Brent G.

Brent sent us some of his document files and we experienced the same problems opening them in Q&A for Windows. When we looked at the documents in Q&A 3.0, we found them to be very heavily fonted (including the text in the headers and footers) even though the fonts were not installed on the old computer. These docs were also set to print at 17 cpi on the Define Page screen! Q&A for Windows can't "convert" Q&A DOS fonts to the "equivalent" Windows TrueType fonts, but even un-fonting the documents in Q&A 3.0 didn't help. Fortunately, we were able to come up with the following solution. Open the document in Q&A 3.0 then escape to the Write menu and select *Utilities / Export to ASCII*. Be sure to select *Document ASCII* as the export format. Name the exported document *filename.txt*. You'll then find that Q&A for Windows will open the entire document. The

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only thing you'll lose are the headers and footers which you can easily re-create in Q&A for Windows.

Incompatibility Among Q&A Win Versions

I've been using Q&A for Windows in my company for many years. I finally got a copy for my home computer. I can design and use my own databases, but when I bring copies of them from the office and try to use them on my home computer, Q&A tells me that they're incompatible with the version I have installed. Am I missing something? Is there a newer version of Q&A for Windows?

Gordon H.

Most people don't realize this, but there are actually *three* versions of Q&A for Windows. The first, version, 4.0 was the original Symantec release. This was followed by a version 4.01 update that fixed some bugs. Finally, when Q&A 5.0 for DOS was released, there was an update patch (4.06) that came with it to allow Q&A for Windows to work with Q&A for DOS 5.0 databases. Q&A for Windows 4.01 will *not* read 4.06 databases. Version 4.06 will prompt you to upgrade 4.01 databases to 4.06 and will then read them. Since you've just recently installed Q&A for Windows on your home computer, it's no doubt version 4.01. The incompatibility message indicates that you're trying to read 4.06 databases. We sent you the update patch files to bring your Q&A for Windows at home to version 4.06, which will solve your problem. Remember, the first time you open your home databases at work, Q&A will ask to upgrade them to the latest version. Just say "Yes"!

Sorting Address Fields

I'm helping a friend who wants to upgrade from Q&A 3.0 DOS to Q&A 4.0 for Windows. Before he buys it, though, I'd like you to tell me if you think it will address a particular problem he's having with the older version. He has an address field formatted for text where he enters something like *123 Main St*. He needs to sort on that field in such a way that he can retrieve the Main Street records in the following numeric order: 123 Main, 124 Main, 1025 Main, 2034 Main, and so forth. (As things now stand, he gets the records in this order: 1025 Main, 123 Main, 124 Main, 2034 Main.) Will the Windows version allow him to do this?

Cathy Schryer

No database manager is going to produce a numeric sort on a text field. Text fields are sorted in sequential character order—first character first, second character, third character, and so on. In contrast, numeric fields are sorted on the entire field by the numeric value of the entry.

One solution is to have a second field (a number field we'll call #2) where you have Q&A store the numeric value of the address field using a program such as #2 = *@Num(#1)*. This way, you can search for a street name

(*..main ..*) in the Address field, and specify a sort on the AddressNum field. You'll have to be careful with street names that have numbers in them like *123 W. 3rd Street*, though, because in this case the above program would set the address number field to *1233*. However, you can take care of this by changing the programming as follows:

```
#2 = @Num(@Left(#1, @Instr(#1, " ") -1 ) )
```

This will fill the number field with only the numeric characters that come *before* the first space in the address line and will work in any version of Q&A.

'Ghosts' Setting New Passwords?

We've been using Q&A for years and have recently run into a serious problem. It appears that Q&A—in our case, Q&A 5.0—is somehow automatically adding passwords to some of our databases. We have no idea what these passwords are and we can't access our data. What's happening?

Lisa Edwards

We thought we knew what might be happening, so we called this reader to confirm. People at her company were running some new macros and, all of a sudden, databases were being locked up with new passwords. We've warned of this before in these pages. You must be very careful to design macros that can't *run wild* on you. For example, if you have a macro that retrieves records then continues on, you must make absolutely sure that you've provided for the situation where Q&A finds *no* matching records to retrieve. Remember, a Q&A macro will keep "pressing" its keys no matter what results those keystrokes produce. Suppose the macro retrieves records, then presses F10 and continues. If no records are found, that F10 will put you back at the Retrieve Spec screen and the macro will keep hammering away from there. It isn't a stretch (we've seen it too often) to have a macro containing keystrokes that, under certain conditions, will invoke *File / Design / Secure a File / Assign Access Rights,* and then "type" in a garbage user name. We've even seen runaway macros that wind up deleting crucial data. Make sure your macros account for all possible conditions. (Before recording a macro, manually type all the keystrokes and try all possible situations). You might have to add a record to the database so that the macro will always have something to retrieve; you may have to add strategically-placed *N's* and/or *Y's*; you might have to add a series of Escapes between operations. Just make sure that whatever is needed is in the macro. Fortunately, in your case, by duplicating the situation we were able to figure out the garbage passwords created by the runaway macro.

Bill Halpern and Gordon Meigs own Professional Computer Technology Associates in Newtown, Pennsylvania, 215-598-8440, www.pcta-usa.com, email pcta@comcat.com.

Restrictions With A Twist

JON MCLAUGHLIN

Two innovative restriction techniques help ensure data entry consistency.

AS you probably know, Q&A offers a variety of tools to help you, the developer, ensure data entry accuracy. The first and foremost of these is the Format Spec, where you tell Q&A whether the information in a field should be a calendar date, money, a number, an ordinary text value, or what have you.

Next is the Restrict Spec. While this Spec is great for many kinds of fields, there are some situations where exact values or a range of values just won't work. What's more, a data entry operator can often beat a restriction like this and leave bad data in the database. I'd like to show you a few examples of how I combine Q&A's tools to avoid data entry errors.

When you type an exclamation point ("!") in a field at the Restrict Spec, you're telling Q&A "this is a *required* field"—the field *must* contain a value. This safeguard makes it impossible to save a record until that field has something in it. However, you can't use the Restrict Spec at all with read-only fields. If you try, Q&A will reprimand you with the message, "*Read-only/restriction conflict; read-only fields cannot be restricted.*" Now you've got a problem if you need a field to be read-only and need to have it filled before the record can be saved.

Let me show you a workaround I used in a database where some important programming calculated a money value for a read-only field. (I had to make absolutely certain that this programming executed before the record could be saved.) If you like, you can create a little database that includes the following setup:

First, the upper left hand corner of the database design needs a "Start" field we'll name **Type X Here To Start**. Now, go to File / Design File / Customize a File / Restrict values, and type **!X** (exclamation point followed by an "X") in this field, telling Q&A that the field *must* contain *X*.

Add a few other fields, and make the one at or near the end read-only. Go to the Program Spec and add the following programming:

```
Type X Here To Start:
> CNext

(Next Field):
< Type X Here To Start = "";
If (the Read-Only Field) <> "" then Type X Here To
Start = "X"
```

Finally, place the statement immediately after the programming that assigns a value to the Read-Only Field.

```
Type X Here To Start = "X"
```

With these various restrictions in place, you must type *X* in the first field in order to move to the second field. The second field immediately removes the *X*. As data entry continues, if the programming that assigns the read-only field its value is properly executed, the *X* is returned to the beginning field and the record can be saved. Any attempt to save the record before the read-only field has a value, though, will place the cursor in the beginning field with the Restrict Spec message, "*This field requires a value.*" If this occurs, the only choices are to exit without saving, or retype the *X* and try again. Of course, any attempt to manually fill the read-only field will also fail.
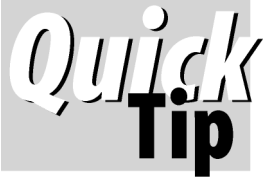
The loop-back failsafe

Another effective method of restriction is to program a loop-back should a value be incorrect. I used this for a database with an Area Code field. Because this field could contain any of hundreds of values, a pick-list just wasn't practical, so instead I used this statement:

```
Area Code: >#5: If @Len(@Num(#5)) <> 3 then
{@Msg("Invalid Area Code"); Goto #5}
```

The @Len function makes sure the field has exactly three characters, while the @Num function makes sure those characters are digits. If not, a message is displayed and the cursor returns to the Area Code field for correction.

With this programming, most users will "get the message" and make good on this field value. However, a sneaky user who wants to move on might know that pressing the <End> key twice will bypass this programming and take you to the last field of the page. From here, you can <Up Arrow> to fields. This bypass can really mess up the works. Not only does it bypass the Area Code programming, it also skips over any programming in other fields. This is because "arrowing up" into a field does not execute programming. Likewise, tabbing back down to fields or exiting the record might execute programming out of sequence. What a mess!

Concludes bottom of next page

Isolate a Printer-Not-Printing Problem

If you can't get Q&A to print *anything* at all to a printer, there are some steps you can take to try to isolate the problem.

Is the printer working?
Switch it on and perform a self test. (The manual that came with your printer will tell you how.) Usually, it involves holding down a button on the printer or pressing two buttons at the same time. If the test page prints, then the printer is obviously functioning.

Can the PC communicate with the printer?
Go to a DOS prompt (in Windows, click Start / Programs / MS-DOS prompt), and enter the following command:

```
ECHO HELLO > PRN
```

The printer should light up and the word "Hello" should print. (You might have to press the *Continue* or *Page Feed* button on your printer to get it to feed a sheet of paper. Type *Exit* and press Enter to return to Windows.)

If nothing prints and no there's no sign that anything *will* print (the printer's light doesn't come on or blink) then suspect the cable. Cables can get damaged or come loose or can be the wrong type for the printer.

Are your PC and the printer on a network?
If the printer is functioning and you're on a network, you need to check what's called *printer port capture*. If the printer isn't physically connected to a port on your PC (LPT1), your operating system must be set up to *capture* the data a program sends to that port and redirect it to the network printer. Follow these steps to set up print capture in Windows 95/98:

1. Select Start / Settings / Printers and select *any* printer.
2. Right click on the printer icon and select Properties.
3. Select the Details tab.
4. Click on the *Capture Printer Port* button.
5. Select a port (*LPT2* is best).
6. If not captured, then type the path to the printer.

Usually, it's easier to *re*install a network printer. Remove the printer then select *Add Printer*. Select *Network Printer* and browse to locate the printer on the network. Indicate that you want to print from DOS programs and the capture will be set up for you.

Printer setup In Q&A
To print in Q&A, you select the printer (PtrA, PtrB, and so on) at the Print Options screen. When you highlight a printer there, the message line at the bottom of the screen must show a *valid* port for the printer. For example, suppose you're planning to print to PtrA and the message line shows *LPT2* when you highlight PtrA. If your computer does not have a second parallel port (and you're not on a network with your PC set up to capture LPT2 as covered above), then Q&A has nowhere to send the print job. In this case, you'll need to reinstall the printer (Main Menu / Utilities / Install Printer) and specify LPT1 as the port.

Some newer printers just flat out don't support printing from DOS programs—HP DeskJet 700 series printers are among them. Sometimes called "GDI" printers, these don't have any built-in fonts, they only print Windows-generated TrueType fonts. If you recently purchased one of these (you can always call the manufacturer), take it back and exchange it for another one. You might be surprised at just how inexpensive laser printers, even HP LaserJets, are these days. These generally print fine from Q&A.

If you can print from Q&A for DOS but the results are poor, you might find some clues to the problem by perusing "Q&A Printer Drivers and Newer Printers" under the *Technical* heading on the Home page at www.quickanswer.com.

Tom Marcellus and Alec Mulvey

@Restrictions... cont'd from page 8

Here's how to make this impossible to happen. Design or Redesign the form to include an invisible field at the very end of the page. At the program Spec for this field, use this simple statement:
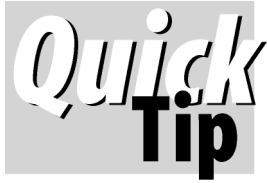
```
< Goto #1
```

Here, #1 is the first field of the form, or at least a field prior to any field that has important programming. Now, it's impossible to access fields from "the bottom up", and the user is forced to start at the top of the form and tab through the fields in the intended order. One further consideration, however. If the database has more than one page, you'll need another Goto statement in the field right before this last invisible field to take you to the next page.

It's virtually impossible to make sure each and every field of a database has it's intended value. Still, programming tricks like those I have outlined can get you closer to that goal in a fairly simple way.

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Build Key-Value Pick-Lists Automatically As You Go

By teaming up XUserselect, @Filename, and the Speedy-Existing command, you can simplify data entry *and* prevent orphaned records. I'll explain.

I use BILLINGS.DTF to track the work I do for clients and to generate my monthly billing statements. It has fields for the *Date*, *Client*, *Hours*, and *Description of Work*.

I add a new record to the database whenever I perform some work for a client. Existing clients display on a pop-up pick-list. If the client is on the list, I simply select them and Q&A puts their name in the Client field.

But if this is the first record for a client, they won't be on the list. In this case, I press Esc to cancel the list and type in the new client's name (abbreviated, usually). This causes Q&A to display a red warning box complaining that the client isn't in the database. To add this new client to the database *and* the pick-list, I simply press Enter again to override the warning.

But how does typing in a new client's name automatically add them to the pick-list? Here's how. The Client field is Speedy Existing (*SE* at the Speed-Up Spec). This tells me when the value I've just entered is *not* already in the database. I team this up with the following XUserselect program in the Client field:
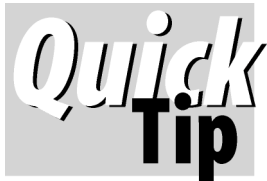
```
< XUserselect(@Fn, "Client" Client)
```

This simple command displays a pick-list of *unique* Client values (from the current BILLINGS database) and places the selection in the Client field.

So, while the pick-list saves me from having to type the client name when adding the vast majority of new records, SE, in effect, gives me a way to add a *new* client to the pick-list automatically. Both tools work together to simplify data entry *and* prevent the kinds of data entry goofs that can result in orphaned (unconnected) records.

For this technique to work, the database's Sharing Mode (*File / Design / Secure / Declare Sharing Mode*) must be set to *Allow*. (You must exit and restart Q&A after changing the Sharing Mode for the change to take effect.)

I use this same technique in my INCOME database that tracks payments received from clients. This way, if I need to search, say, on client *AHMS* or include them in a report, I don't have to worry about there being a record for "*AHMS Inc*" that might be missed due to a different spelling. The XUserselect pick-list will include any spelling variations of *AHMS*, making it easy to spot and correct such a goof before it can affect data integrity.

Make First Report Column Wide Enough When Totaling

If you specify a column total or count in a report and your first column is fewer than six characters wide, Q&A for DOS will print the *Total:* or *Count:* label by itself where the first column would normally be, and shift the *actual* first column to the right.

Check out the partial report shown in Figure 1. It's sorted in descending order on the *APR%* field. Because the column heading is only four characters and no value in the column exceeds five characters, Q&A shifts the entire report to the right to make room for the six-character *Total:* label.

To prevent this, simply tell Q&A to make the first column (APR%) six characters wide as in the following Column Spec:

```
APR%: 1, DS, CS, R, H(6:)
```

This Spec tells Q&A to sort the APR% field in descending order, cancel subcalculations (so the report will print single-spaced), repeat any recurring values, and make the column six characters wide. The *H(6:)* enables the first column to print flush at the left margin, saving space and improving the report's appearance, as shown in Figure 2.

```
APR%         KEY            Bal
-----  --------------------  ----
18.00 AMX
17.49 BOFA MASTERCARD
16.90 AT&T MASTERCARD
14.90 ASSOCIATES MC             $
12.00 AMX CORP OPTIMA PLAT     $1
11.70 UNION BANK               $1
11.50 CHASE VISA               $1
 9.90 CHASE MC                 $1
 9.90 OPTIMA                    $
 7.90 WELLS FARGO VISA         $1
 7.90 WELLS FARGO MC            $
===== ==================== ====
Total:                         $9
```

Figure 1. The first column isn't wide enough to contain the *Totals:* label, so Q&A shifts the entire report to the right.

```
APR%         KEY            Balance
-----  --------------------  ----------
18.00 AMX                       $0.00
17.49 BOFA MASTERCARD           $0.00
16.90 AT&T MASTERCARD           $0.00
14.90 ASSOCIATES MC           $402.16
12.00 AMX CORP OPTIMA PLAT   $1788.29
11.70 UNION BANK             $1433.10
11.50 CHASE VISA             $1899.37
 9.90 CHASE MC               $1633.86
 9.90 OPTIMA                  $466.92
 7.90 WELLS FARGO VISA       $1211.15
 7.90 WELLS FARGO MC          $899.74
===== ==================== ==========
Total:                       $9734.59
```

Figure2. Increasing the width of the first column a smidgen does the trick.

@Field Entries...cont'd from page 5

Notice the following about the Figure 2 restrict list:

- The entries appear in alphabetical order.

- The list is not case-sensitive and spaces are ignored.

- The list is not in the ideal order. One way round this is to prefix each entry—like this, for example.

```
1 - Child's
2 - Small
3 - Medium
etc.
```

The prefix can be left in the field or (with a program) removed on leaving the field. (See the Sidebar.)

Specifying default values

If you find yourself entering the same data time and again into the same field, you should consider specifying it as an *Initial Value*. This is a field entry which is automatically put into a new record in Add Data mode.
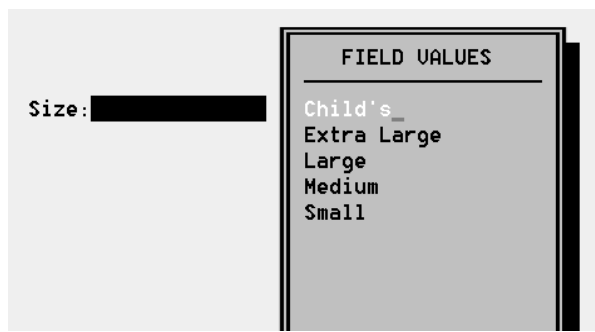
To Set Initial Values:

1. Select *File / Design a File / Customize a File*.

2. Choose *Initial Values* to display the Initial Values Spec.

3. Move to the field for which you want to specify an initial (default) value and type it in.

4. When you're finished, press F10 to save the Spec.

Although the Initial Values Spec is not case sensitive, remember that what you type here will be the actual field entry, so capitalize appropriately.

Here are a few examples of Initial Values:

City:	London	(If most of your customers are here)
Title:	Mr	(If most of your contacts are male)
Date:	@date	Produces current date
Form No:	@number	Generates a sequential number

Figure 2. A Restrict Values pick-list appears when you press Alt-F7 from a restricted field.

Remove Prefixes from Restrict List Selections

The following program will strip the number (along with the space-dash-space that follows it) from the sorted pick list entry when you exit the field after having made your selection:

```
>#900: If @Num(@Left(#900,1)) > 0
Then #900 = @Mid(#900,5,20)
```

This program assumes that there will be no more than nine items on the list, that the actual field values are not themselves numbers, and that the permitted entries are entered into the Restrict Spec this way:

```
1 - Child's; 2 - Small; 3 - Medium
```

In this case, there's a space on either side of the dash. If you use some other type of prefix numbering/sorting scheme, you might need to change the *5* in the @Mid function to another number. The *5* specifies the first character to keep. For example the *M* in *Medium* is the fifth character, so the program would keep just *Medium*.

An Initial value does not prevent you from deleting or amending the entry if it is not the entry you require. So, if you have *London* as an initial value for the City field, and you actually want to enter *Liverpool*, you simply overtype London with Liverpool.

A word of warning—Q&A does not check for conflicts between Restricted and Initial Values. It is possible to set an Initial Value that would place a non-permitted entry into a restricted field, even if the restriction is mandatory. You would then be forced, for each new record, to replace the initial value with one from the restrict list.

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London Telephone Numbers Changing

On April 22nd the telephone area codes for London and several other UK cities changed (again!). Alec has put together a routine that will convert your telephone numbers. It applies the current *as well as* the 1995 changes, accommodates old, new and already-converted numbers and applies proper spacing. Contact Alec for more details.

Quick Tip — Can't Get Expanded Memory DOS

Q&A for DOS can use up to 128K of Expanded memory if available. (Expanded memory is crucial to full Q&A 5.0 operation.) That's why I got bothered big time after Gateway tech support informed me that my new 9300XL notebook PC—on which I'd been unable to get any Expanded memory— "doesn't support it."

We then heard from another subscriber who could not get Expanded memory on his brand new 800Mhz PIII Dell PC. Dell tech support had told him that his PC "doesn't support it."

(In both cases, the *Expanded Memory* areas of our Q&A DOS shortcut's *Memory* tabs were dimmed. When we clicked the *Details* button, Windows 98 SE told us to *"...remove the NOEMS keyword from [our] config.sys file*, even though there were no "NOEMS" switches anywhere in them!)

Fortunately, after a session with the right pay-by-incident Gateway technician, I've now got an emm386 device line that gives me Expanded Memory. And the subscriber I mentioned earlier reports that this line does the trick on his Dell PC as well. Here are the first two lines of our config.sys files at this point.

```
device=c:\windows\himem.sys
device=c:\windows\emm386.exe ram frame=d000
```

These lines give me 591K Conventional, 128K Expanded, and 3K Extended memory (with or without the "DOS=HIGH, UMB" line) as long as my Q&A 5.0 shortcut's Memory tab properties set correctly.

I do get a little startup error message that says, "*Warning - Option ROM or RAM detected within page frame,*" along with a prompt to "*press any key to continue.*" But my PC boots just fine (without having to press a key) and gives me Expanded memory.

You might want to try this workaround on a PC that refuses to provide Expanded memory with the usual emm386 options.

Tom Marcellus

What you're being told about the BIOS not supporting Expanded memory is partially true. They reserve that area of high memory for some card or device (DVD?) or for swapping some overlay in and out. The warning message you are getting states that something else wants to grab that space. As long as you are not using that device or memory call, you are okay. However, as soon as you run something that makes that call, your can expect an ugly crash. Try to find out from Gateway and Dell what device wants that area of high memory.

Jeff Noreman

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