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## Review

# New Utility Pack Modernizes Q&A 5.0



**R**ECENTLY, the *Sesame* development team at Lantica Software, LLC sent us a zip file along with a message explaining that the process of developing *Sesame* (now in Beta testing) had produced programming code that could easily be funneled into separate small utility programs capable of being run and used independently of *Sesame*. They wanted to know if we thought Q&A users might have a use for them. We unzipped the file to take a look and – WOW!

The utilities in the pack are all Q&A 5.0-enabled, meaning that they can be launched from Q&A via an @Shell program or the External Programs menu. Designed to write whatever value they return to a plain text file that can be retrieved into a database field courtesy of the @Insert command, they can also be run from a command line or from any application that can shell out. Some or all of these new utilities might well be the solution to your data entry (or database design) dilemmas.

### Pop-Up Calendar

Data entry people will find it far more convenient and accurate to *select* a date from an actual calendar than to manually type the date into a field. The Pop-Up Calendar (See Figure 1) lets them do this. When you launch the Calendar via an @Shell command or from the External Programs menu, it pops-up right over your database record with the current month showing. You can quickly click your way to different months and/or years. When you select a date – simply by clicking on it – the utility writes a little text file containing the selected date (in the correct Q&A date format) that you can then have Q&A automatically insert (via @Insert) into your target date field. No longer will you or your data entry people have to deal with those pesky “*this does not look like a proper date ...*” messages that Q&A throws at you when you type “9/31/2002” or “2/29/2002” in a date field. What’s more, it

prevents people from entering the abbreviated two-digit year, which can result in records containing dates in 1902. It also helps you quickly find and enter dates such as “the first Monday in October.” The Calendar scrolls by month or year with the convenient buttons at the bottom.

### Image Utilities

While Q&A 5.0 can store pictures in the database, the formats of those image files are severely limited, the mechanism for dealing with



Figure 1. Why type dates when you can click-'n-enter?

# The Quick Answer

The Do-It-Yourself Guide to Q&A

October 2002

Volume 13 Number 10

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them is clumsy, and they can bloat your database to huge proportions very quickly. With the new Image Utilities, you can simply store the name of your picture (not the picture itself) in the database, yet still be able to view it while working inside the database. It'll also help you choose the image in the first place. The Image Utilities support JPG, BMP and PNG formats.

### Pop-Up Image Browser

Like the Pop-Up Calendar, the Pop-Up Image Browser displays over your open Q&A database record. It lets you browse thumbnails (mini versions) of all the

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# Think International

ALEC MULVEY

We Brits, being European, have a more international perspective than the average American. But this is changing. The Internet is producing a 24-hours-a-day, 7-days-a-week marketplace that knows no frontiers. We are increasingly exposed to new currencies, new languages, and unfamiliar names, addresses and telephone numbers. Considering just telephone numbers for now, I'd like to explain the "+ (0)..." format of telephone numbers that you might have come across, and the implications from a database design point of view.

## International Dialing Codes

Every country has an international code. Unfortunately, a lack of uniformity emerges straightaway, as this code can be one, two or three digits! Virtually every country has its own code. For example, the United Kingdom's is 44, Russia's is 7 and for Ireland the code is 353. An exception to this exclusivity is the USA. It has the distinctive code 1, but it shares this with Canada, and also all of the Caribbean. The Caribbean countries do have extra digits. Jamaica's, for example, is 1876.

You may have seen phone numbers that appear, for example, as +44 (0)1344-884 962, or similar variants. This is the internationally-approved way of quoting a full international phone number. Here is how it is broken down:

The "+" symbol means it's a full international telephone number. To ring it from another country, you substitute the "+" with the dialing code which, for your country, gives you an international number.

"(0)" is the digit for a national call. You dial it if you are in the same country. Otherwise, you omit it.

The actual telephone number follows, starting with the area code (in this case "1344"), then the subscriber number. Separators such as spaces, "/" or "-" are variable – everyone knows to ignore them.

So, this telephone number (mine, actually), is in country 44 (the UK). To ring the number from inside the UK, you would dial 01344-884 962. From any other country, you would dial the international access code and omit the zero. Most countries are switching to using "00" for the international access code, but the USA uses 011. Some others are even more

obscure: Cuba, for example, uses 119. So to ring our example number from the USA, you would dial 011-44-1344-884 962.

There are good reasons to take all these international numbers on board. Increasingly, technology is adopting this and it can save a lot of time. In my mobile phone, for example – which works in most countries in the world – if I enter a number in the international format, I don't need to do a thing when I "roam" to Rome! I just retrieve the number from my phone's address book and the phone and phone system replace the "+" with the local access code as needed. I don't need to enter it or even know it. As I said, international frontiers become as the internal frontiers within Europe – deserted customs posts. (Except for Great Britain. But hey, we're an island!)

Unfortunately, many people and companies print these numbers on their stationery and get it wrong, which is not surprising as there's been zero official guidance on using them.

Taking the earlier example, +44 (0)1344-884 962, the "(0)" is not part of the number. Strictly speaking, it is not needed. It has been added as a sort of "hybrid" format for the benefit of domestic callers who might be otherwise confused. It is worth

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## Q&A 5 Utilities... cont'd from page 1

images in a given folder and select one to *link* to the current record. (See Figure 2.) When you see the image you want, you simply click on it to copy its full path and filename into the preselected field, again via Q&A's @Insert command. Why would you want to do this? Read on.

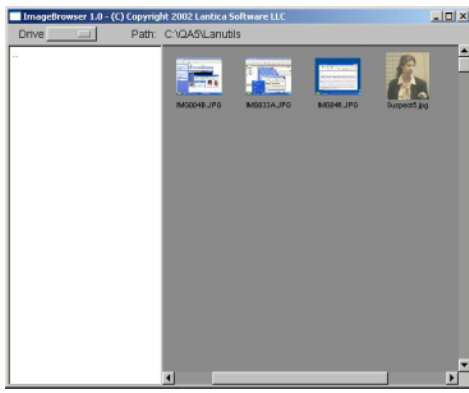


Figure 2. Browse thumbnails of your image files.

Imagine how handy this would be for an employee database or even a database of products. Unlike the image viewer included with Q&A 5.0, this one actually works. It supports more (and more modern) image file formats, and doesn't take up the entire screen. (Your record is right there in the background.) What's more, you won't have to remember those special keystroke combinations Q&A 5.0 requires to launch *its* image viewer.



Figure 3. View the full image from your database record.

### Program Launcher

The highly versatile Launcher utility gives you the ability to do many different things based on what you have in the fields in your Q&A records. It uses Windows' file association capabilities to launch the appropriate program for whatever filename you hand it. You don't have to write separate @Shell programs for different kinds of files,

and you don't have to know in advance what word processor or browser your client runs. Simply pass the name of the file to Launcher and it will figure out what to do! Here's a rundown of the different features built in to the Launcher:

#### Send email from your database

If you have a field with an email address in it, the launcher will open your default email program (Outlook,

Outlook Express, Netscape Mail, Eudora) and place the address in a new email ready for you to type your message and click Send. When you quit the email program, you're automatically returned to the same Q&A record. (This utility isn't for Web-based email systems like AOL, Compuserve, or Yahoo Mail.)

#### Open, edit, or print from other Windows apps

Imagine being able to open, edit or print any file of a registered Windows application (Microsoft Word, WordPerfect, Excel, Front Page, Adobe Acrobat, Works, and so on) where the filename is stored in a field in the database, without having to leave Q&A and open the other application. When you're finished with the application, you're right back in your record.

#### Explore your files

Don't know where you put some files you need while you're looking at a Q&A record? Enter your drive letter or folder in the field and Windows Explorer will open at that level. You then have the complete Explorer capability while still in your open Q&A record.

#### Find files or folders

Using this part of the Launcher utility will start *Windows Search* at the drive letter or folder you specify in the Q&A database field.

#### System Information

Ever wonder what user is logged on to the network on the computer you're working on? Or what the network name of the computer is? Or how much space you have left on your drive. These three little utilities will return this information right into your database fields in Q&A. You can use this information for tracking purposes in the database (who entered the data, from what machine, and how much space was left on the drive at that point) or just for information to see where you are.

#### Pop-up Mini-Forms

The Pop-Up Mini-Form utility displays a scrollable window containing a form that you create in a separate layout file. You can use colors, fonts, and merge in values from your database fields. For example, while Q&A can display a custom help screen when entering a field, it can't display *variable* help text based on the contents of other fields. The Pop-Up Mini-Form *can*. For example, if a user enters \$40,000.00 as their annual income, you might pop up a screen like the one shown in Figure 4 on the following page. But should they enter \$1,000,000.00 as their annual income, you might want a screen like the one shown in Figure 5 instead!

#### Just add fields

A Mini-Form can also include text fields. (See Figure 6 on the following page.) The values entered in the fields are written to a text file where they can be picked up for



insertion into the database record via Q&A's @Insert command. This can be very useful, for example, if you have 10 pages of fields, but only one page is appropriate at any given time.

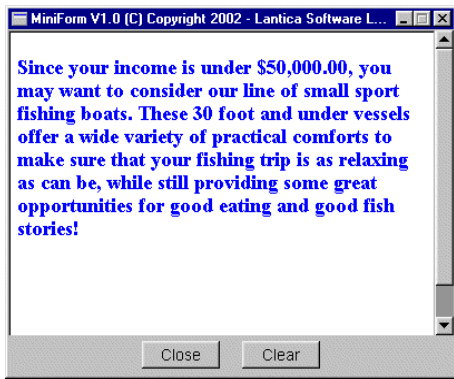


Figure 4. The Pop-Up Mini-Form lets you display variable custom help text in a pop-up window.

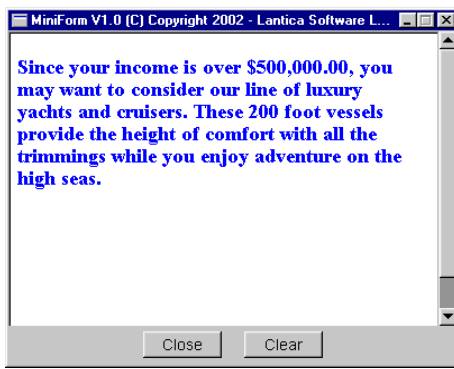


Figure 5. Customize your help text based on the contents of your database fields.

appropriate questions, and grab the answers when your user closes it. That way, they can't sneak off and start typing auto insurance information into the life insurance fields.

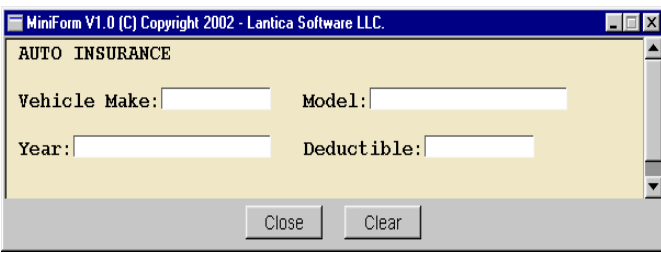


Figure 6. Pop-up forms within your form. What a handy (and less error-prone) way to prompt for key information that your programming can then distribute to the fields in the underlying database record.

### Q&A Form to Web Form Converter

This last utility runs outside of Q&A. If you have a database form that you would like to turn into a web application but don't have the experience or patience to mess with an HTML editor to create the initial design, this

To illustrate, suppose the user selects *Auto* from a list of insurance types. You might use a *Goto* command to jump them down to the page with the *Auto Insurance* questions. This is fine until they get clever and hit *Page Up!*

With Mini-Form, you can make all your fields read-only, pop up a page with the

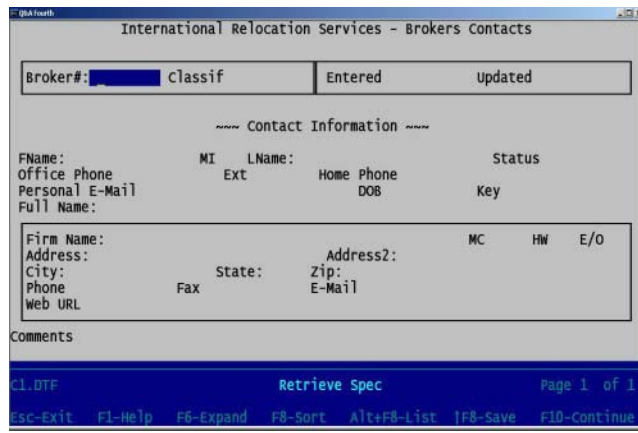


Figure 7. A Q&A database form.

utility will do it for you. Just one simple command line entry will take a database like the one shown in Figure 7 and turn it into a fully HTML-encoded file that gives you a Web-publishable form like the one shown in Figure 8 for direct use or further editing in your Web design program. This utility also comes with a precompiled cgi script linked to the Web form. Each time a user clicks Submit on your Web form, the contents of the fields are added to a text file in CSV (comma-separated values) format, ready to be pulled off the server and imported into your Q&A database.

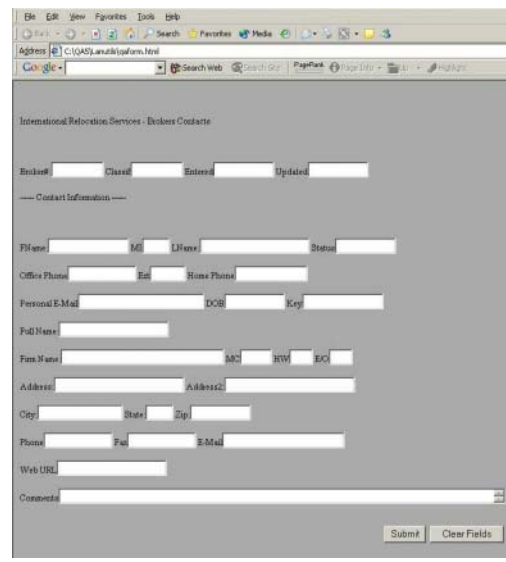


Figure 8. The resulting HTML Web form in a browser.

shown in Figure 8 for direct use or further editing in your Web design program. This utility also comes with a precompiled cgi script linked to the Web form. Each time a user clicks Submit on your Web form, the contents of the fields are added to a text file in CSV (comma-separated values) format, ready to be pulled off the server and imported into your Q&A database.

### How to get the Q&A 5 Utility Pack

These utilities will be available for purchase by **October 10, 2002** at [www.pcta-usa.com](http://www.pcta-usa.com). On the Home page, you'll find a link to an order page where you can conveniently and securely order the **Q&A 5 Utility Pack** for fast delivery to you by email attachment or shipped to you on CD.

Included with the Utility Pack is a preprogrammed Q&A 5.0 demonstration database that lets you get a quick view of how most of these utilities work. The Pack includes all the files you'll need to get up and running quickly with these little gems. You'll also get README files with details on configuring and using the utilities.

# Create a Quick Callback Count Calculator

TOM MARCELLUS



If you're in the kind of business that requires you to schedule regular follow-up calls to clients, customers or prospects — or make appointments — you may have run into the situation where you've scheduled more calls than you could possibly make on a given date.

Here's a scenario. You've just completed a follow-up call, and you're making some notes about it in the client's contact record. You want to schedule a follow-up call for a week or month from now, so you need to decide on a follow-up date and add it to the record (in a **Callback Date** field). But how do you know, at that moment, if you haven't already scheduled 20 calls for that particular date — too many for a single day?

What if you could get a quick count of the number of follow-up calls you already have scheduled for a given date? If you already had too many scheduled, you could decide on a different day, perhaps a day or two later than your original date, then check *that* date to make sure it isn't already booked up with enough calls.

If all you want is a quick, on-the-fly count of the number of callbacks you've already scheduled for a given date, the solution is to have a little routine you can run when you're about to schedule a callback date (or make an appointment). You won't have to leave the record you're working on. All you'll have to do is answer "Yes" to a prompt that asks you if you want a count of callbacks scheduled for the follow-up date you've entered. (See

Figure 1.) In an instant you'll know if the date you've selected is a good one for a callback, or if you should pick another day that isn't already booked up.

I'll show you how to build this routine into any Q&A 5.0 database. You can adapt it to other requirements as well. For example, if you schedule shipping dates in a database, you might want to know in advance of scheduling one, how many shipments you've already promised to get out on a particular date. If you're scheduling appointments for yourself or others, you might want to make a quick check of how many appointments are already scheduled for a given date before making a new one for that date. There are all kinds of ways to make use of a feature like this.

## Requirements

In any database where you want to extract information from the records in it while working in it, the approach you take depends on the kind of information you need.

For example, if all you want to do is lookup data from another record (with a matching key value), you'd use an XLookup or @XLookup command. If you wanted Q&A to display a pick-list of values from the database, you'd use one of the XUserselect family of commands.

If, however, you need Q&A to check all the records in the database and return a single value that represents some kind of cumulative count or total, you need to go, as they say, "outside the box."

In this case, you need to loop through all the records in the same database you're working in without having to leave the current record. The routine that will perform this loop needs to know two things: (1) Who you are, and (2) the date you're looking for a match on. For this example, you're not interested in how many callbacks Shirley or Ben have scheduled for a given date — just you. So, each record in the database (assuming the database is shared), needs to include a user name. You can do this by setting an Initial Value for the field as @UserID. Or, you can program Q&A to return your user name to a **User Name** field with a simple statement like this:

```
If @Add then User Name = @UserID
```

If the database is used only by you, then you don't need a field like this because you'll always know who the "who" is. In this case, you can modify the programming so that the "who" isn't part of the mix.

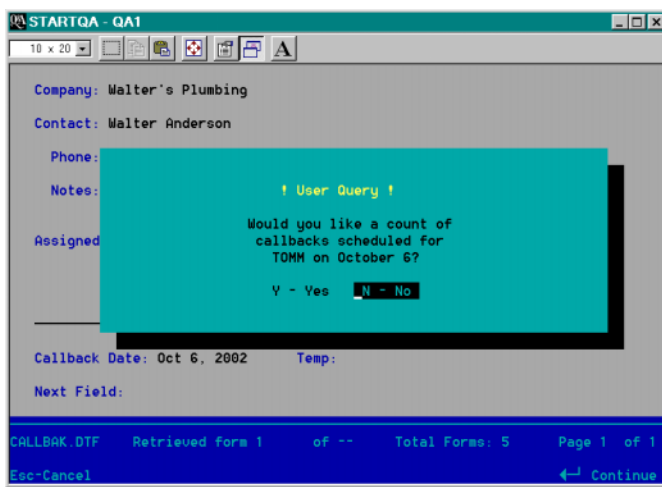


Figure 1. Q&A offers to give you a count of the number of callbacks you have scheduled for the selected date.

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## Damaged Q&A Write Documents DOS/Windows

I work with Q&A Write for Windows and have been getting some strange messages lately. When I open some of my merge documents, I get the message that the document is "too complex" and that I should save it before I lose my work. I perform a save and then go on to do my merge. Sometimes it works and all the merge records print out. At other times, when I try to print a lot of merged records, I get the message that there is not enough memory and the entire application crashes. My document is only one page long and has about six merge fields. It is anything but "complex." Do you have any suggestions?

Chris

This kind of behavior in Q&A for Windows is indicative of corruption or damage in the document. This can also happen in Q&A for DOS. Since it does not happen too often, it is hard to pin down the cause, but I would say that one cause could be storing documents on drives larger than 2G. In Q&A for DOS, you have the ability to *recover* the document which in most cases will correct the corruption with only the loss of the formatting in the original document. In Q&A for Windows there is no such option. You must recreate the document, in its entirety, from scratch. The good news is that you can use the Windows clipboard to cut and paste the parts of the old document into a newly opened document. Then reinsert the merge fields and save the new document to a new name as a Q&A Write document, and all should be well. Do not waste any time trying to repair the damaged document. Write it off as a loss and delete it.

## Q&A Write and Large Documents (DOS)

I started using the Q&A for DOS word processor way back with version 3.0 and have finally moved up to the latest version of Q&A for DOS. I am running into a problem. Some of the larger documents I created in Q&A 3.0 will not open in the newer version of the program. I get the message that there is *insufficient memory* to open the document. My computer has 256Mb of RAM available and my old document was only about 80 pages long. What is

happening? I created the document in Q&A and saved it in Q&A. I was able to open it in the old version. I really need to be able to use these old document files. They are part of a book I am working on and I cannot afford to lose all my work. Any help for me?

Phil

You have run into one of the limitations of the Q&A for DOS word processor. Remember, DOS programs run in a limited memory space of 640K and cannot use the Expanded and Extended types of memory available to Windows programs except for those functions which were specifically designed to take advantage of that additional memory. Your problem stems from the fact that the word processor is not one of those features. Worse than that, as the later versions of Q&A were released, the word processor was given more features which used more of the available memory and left less for the document itself. If you check the bottom of the word processor screen, you will see that Q&A keeps track of the amount of memory available that you have already used. So, in Q&A 3.0, with its limited feature set, you may have approached 90% of the available memory, but in Q&A 5.0 with a larger feature set, that same document has exceeded 100% of the available memory and will not open. Where does that leave you? If you still have Q&A 3.0 on your old machine, you can rectify the situation. Open your document in version 3.0 and delete the last half of the content and save the document to a *new* filename such as part1. Then reopen the original document in version 3.0 and delete the first half of the document, saving what is left as part2. you should then be able to open each of these parts in Q&A 5.0. When using the Q&A for DOS word processor, I find that it is always a good practice to limit your documents to less than 50 pages and keep close watch on the percentage meter at the bottom of the screen. It is actually possible to create and save a document that is too large to reopen. In addition, fonting a document and/or adding headers or footers actually makes it much larger and uses much more available memory.



## Stumped?

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

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

## Incorrect Margins in Reports

I am having trouble printing landscape reports. Are there additional print drivers for an HP 2200D printer. I have not been able to identify it on the list provided when setting up the printers. Therefore, I am trying to use the basic HP LaserJet Landscape setting. It does not want to recognize the left hand margin. Reports want to begin about three to four inches from the left edge of the page. I have tried everything I know.

Jerry

A couple of things. I would definitely use an HP LaserJet III or 4 landscape driver instead of the basic laser driver. Second, I would make sure that, on the report Print Options screen, the report is justified *LEFT* – not Right or Center. These would be the only things other than margin settings that would move the report body in from the left hand side of the page.

## Conditionally Highlighting Fields

Can a field be made to blink in Q&A for DOS 4.0? I see things blinking at the bottom of my screen—for example, “PgUp,” “PgDn” and “More,” when I am using the F1 help screens. I would like to have a field blink when the date is earlier than today’s date (an expired credit card date) but I could not find any mention of this anywhere.

Lewis

Sorry, blinking fields are just not supported in any version of Q&A. In Q&A 5.0 you can use programming to change the field’s color based on a condition, as in the following example that changes the Expiration Date field to white text on a red background if its date is earlier than the current date.

```
> If Expiration Date <> "" and Expiration Date  
< @Date Then @Color(Expiration Date, 7,4)
```

Q&A 5.0 also offers other ways to alert users to conditions in a database record, such as the pop-up @Msgbox and @Play (to play a sound or sounds).

For Q&A for DOS 4.0, you might try using the @Msg command in a program like this:

```
> If Expiration Date <> "" and Expiration Date  
< @Date Then { @Msg("The Expiration Date is  
earlier than today!"); Goto Expiration Date }
```

## Q&A for DOS and USB Printers

Is it possible to get a USB printer to work with Q&A for DOS?

Dwain

Q&A for DOS can only address printers attached to LPT1, 2, 3 or COM1 or 2. This restriction is only for a *local printer* attached to the actual computer. If the USB printer is on the network, remote stations can capture that printer to LPT1, 2, and the like. We have done this in many

instances. Again, the person sitting at the station to which the USB printer is attached will not have direct access to that printer from Q&A for DOS, but other users on the network will.

That being said, there is a workaround in Windows NT, XP, or 2000. In any of these systems, if you have a network setup, you can share the local USB printer on the network and use the *net use* command to capture it to another local port. For example, I have an HP printer connected to the USB port on my Windows XP computer. It is shared on the network as \\Bill-XP1\HP. If I type the command:

```
Net Use LPT3 \\Bill-XP1\HP /Persistent:yes
```

this printer is now available to Q&A as an HP LaserJet on LPT3 even on my local computer. It does not seem to matter how the shared printer is attached (USB, parallel, or whatever). This does *not* work with a local printer in Windows 9X, where the *net use* command can only map a remote printer.

## @Number in Network Configurations

I am currently using Q&A 5.0 for DOS. I have a copy of Q&A for Windows that I am trying to get used to. I do have one question. When I last spoke to you, you indicated that if I installed Q&A 5.0 on each individual computer that it would enhance Q&A’s operation on a network. I currently have eight computers with Q&A running off the server. If I install Q&A on each computer, what effect will it have on XLookup and @Number functions since in various files I need consecutive numbers.

Jerry

The reason you want to run Q&A locally is to cut down the network traffic. (Every time you press F6, you are actually opening the Write module, which involves a trip back to the server.) With each station running its own copy of Q&A, the network is much more efficient and you will find that Q&A seems to respond better when running from a local drive, even though your databases are stored on the server.

As to the @Number function, Q&A knows when it is accessing a database that is *not* on a local drive. In this case, Q&A will invoke the network @Number scheme. That is, once @Number is invoked (by an Initial Value or programming statement), Q&A considers the returned number *used* even if the receiving record is not saved. The one issue here is when someone accesses the database at, and from, the server station. (This is true whether you are using a netpack or not.) In this case, Q&A does not know that the file is on a network. While it’s being accessed in this manner, Q&A thinks it is “local” and will not allow other users to access it. Thus, the @Number scheme is still valid. In order to allow others to access the file, while

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## Callback Count. . . cont'd from page 5

That takes care of the “who.” The other bit of information the routine will need to know is the “when” — the date you’re looking for a match on. That date, of course, you’ve just entered into the **Callback Date** or **Followup Date** field — and the routine is designed not to run without it.

Okay, so you’ve taken care of the “who” and the “when.” Now, what kind of tool can you use that can take that “who” and “when” and loop through all the records in the database, looking for matches and giving you a count of them?

You have two basic ways to go on this. You could launch another copy of Q&A with an autostart macro. That macro would run a report (or whatever) to find the count of matching records, save that count to a disk file, then exit itself, returning you to the original copy of Q&A and the record you’re working on. Programming could then insert that file into a field and read it to get the count.

But a faster and cleaner way to get the same result is to use DTFDATA (available at [www.johntdow.com](http://www.johntdow.com)). Every Q&A database developer (in-house or professional) should have a copy of DTFDATA in their arsenal. It’s a

remarkably versatile Q&A-complement utility with a host of features and options — and it extracts data from a Q&A database even faster than Q&A does. DTFDATA can really come in handy in a host of situations. For a list of articles in past issues where we’ve shown ways to use DTFDATA to perform many types of operations better and faster than Q&A itself — or where Q&A can’t do the job alone — search “TJ’s Quick Answer Index Database” at [www.quickanswer.com](http://www.quickanswer.com). There’s a link to it on the Home page. Just search on the Keyword “DTFDATA.”

I’ll show you how to use DTFDATA in the case at hand to generate a return value that will tell Q&A how many callbacks you’ve already got scheduled for a given date. First, let’s check out the programming.

### Programming

The program (see Listing 1) makes use of a number of Q&A 5.0-only commands such as @Askuser, @Msgbox, @Shell and @Insert.

As you can see, it’s not a lengthy or hugely complex program. It executes on-field entry (in the **Temp** field). **Temp** is Read-Only and, if you wanted, you could color it to make it invisible or place it on a back page of the form where it would be out of the way. In this case, it follows the **Callback Date** field in the form, so as soon as you tab out of **Callback Date**, you trigger the program in **Temp**.

The first line of the program is a remark (REM) that identifies Callbak.bat as the batch file that will be used as part of this routine. More on that later.

The first thing you see is a prompt that asks if you want to see a count of the number of callbacks you have scheduled for the date you’ve just entered in the **Callback Date** field. (See Figure 1.)

If you say “No,” nothing further happens. If you say “Yes,” the program checks to make sure the **Assigned To** and **Callback Date** fields actually contain something. The **Assigned To** field would contain your UserID or User Name. If you’re the only user of the database, you can remove this part of the program, along with any other references to it in the batch file (as you’ll see in a moment) because you won’t need it.

At any rate, if either the **Assigned To** or **Callback Date** field is blank, the programming pops up an @Msgbox warning you that the information is required, and returns you to the offending field. (See Figure 2 on the following page.)

The real fun now starts with the line that begins `Temp = @Shell`. Here, you’re calling the batch file named *Callbak.bat*, and passing it a series of formatted parameters.

```
<
REM "See G:\QA5\DATA\Callbak.bat for details";

If @Askuser("Would you like a count of",
"callbacks scheduled for",Assigned To +
" on " + @Month$(Callback Date) + " " +
@Str(@Dom(Callback Date)) + " ?") Then
{
If Assigned To = "" Then
{
@Msgbox(" ", "User ID required for this operation", " ");
Goto Assigned To
};

If Callback Date = "" Then
{
@Msgbox(" ", "Callback Date required for this operation", " ");
Goto Callback Date;
};

Temp = @Shell("g:\qa5\data\callbak.bat " +
Assigned To + " " + @Str(@Year(Callback Date)) + " " +
@Right("0" + @Str(@Month(Callback Date)),2) + " " +
@Right("0" + @Str(@DOM(Callback Date)), 2));

Temp = @Insert("g:\qa5\data\callbak.txt");

Temp = @Replace(Temp, "
", "");

@Msgbox(Assigned To + " has " + @Str(@Len(Temp)) +
" Callback(s)", "scheduled for " +
@Month$(Callback Date) + " " +
@Str(@Dom(Callback Date)), " ");

Clear(Temp);
}
```

Listing 1. The program.

(This batch file will run DTFFDATA, as you will see.)

I say *formatted* parameters because the program first has to format the data that it will pass to the batch file, so the batch file will know what to do with that data.

You'll be using what are called *replaceable* parameters in the batch file. A replaceable parameter can't contain any spaces, therefore the **Assigned To** value can't contain any spaces. You have to use something like "Tomm" or "BHALPERN" or "maryanne." You don't have to be concerned about spaces in the date because Q&A will use its internal date value in the YYYY/MM/DD format (as will DTFFDATA). So if the **Callback Date** field contains *Oct 15, 2002*, Q&A will treat that as *2002/10/15*, and that's what DTFFDATA will see.

The year value of the callback date will always be four digits, but the month and day values might not, so the two @Right commands add a "0" (zero) to the beginning of the respective values so that month "9," for example, becomes "09."

The whole date value then passed to the batch file will be something like "2002 10 15" (with spaces separating the individual date parts). You don't want to pass slash characters to a batch file, so you pass the date as three separate values that the batch file will treat as three replaceable parameters. You'll see how this works when we get into the batch file.

At this point, the @Shell command executes and runs the batch file, which reads in the replaceable parameters passed to it by the command line. The program suspends while the batch file runs. When control returns to the program (after DTFFDATA has completed its task), the

DTFFDATA results file is inserted into the Temp field and the carriage returns in it are replaced with nothing. (You'll see why this is in a moment.)

The balance of the program then executes, and you get a pop-up @Msgbox that tells you how many callbacks you've already got scheduled for the date you typed into the **Callback Date** field. (See Figure 3 on the next page.) If that date is already filled up, you can return to **Callback Date** and try another date.

## The batch file

The Callbak.bat batch file (see Listing 2 below) receives the parameters passed to it by the @Shell command in the program. Callbak.bat serves as a kind of "interpreter" between your Q&A program and DTFFDATA.

DTFFDATA requires a plain text parameters file (usually called a ".qax" file) that tells it what information to extract from the Q&A database as well as how to output its results. Callbak.bat actually creates that .qax file before launching DTFFDATA. Here's what a typical .qax file for this application might look like:

```
SELECT='Assigned To'=TOMM & 'Callback Date'='2002/10/18"  
FORMAT=R  
TRUNCATE=Y  
1 Callback Date
```

First comes the *SELECT* statement that will tell DTFFDATA which records to select from the database. In this example, DTFFDATA will select the records where the **Assigned To** field contains "TOMM" and the **Callback Date** field contains "2002/10/18." This *SELECT* statement line is generated by the *echo SELECT=* line in the batch file.

The %1 variable (replaceable parameter) in the batch file is the User Name or User ID passed to it by the @Shell command. The %2, %3 and %4 variables are the year, month and day, respectively, that comprise the **Callback Date** field value. Notice the slash ("/") character that separates these three variables. The date is being "reconstituted" into a date format that DTFFDATA can understand and that matches Q&A's internal date format.

The *SELECT=* line is written (as the first line) to the callbak.qax file via the ">" redirection command.

The *FORMAT=R* command tells DTFFDATA that you want *Record* output – that is, one record per line in the output file that DTFFDATA generates as it extracts the selected information from the database. The ">>" characters tell the batch file to append the new line to whatever is already in the .qax file. The .qax file now contains two lines.

The *TRUNCATE=Y* command tells DTFFDATA to truncate the value(s) extracted from the database.

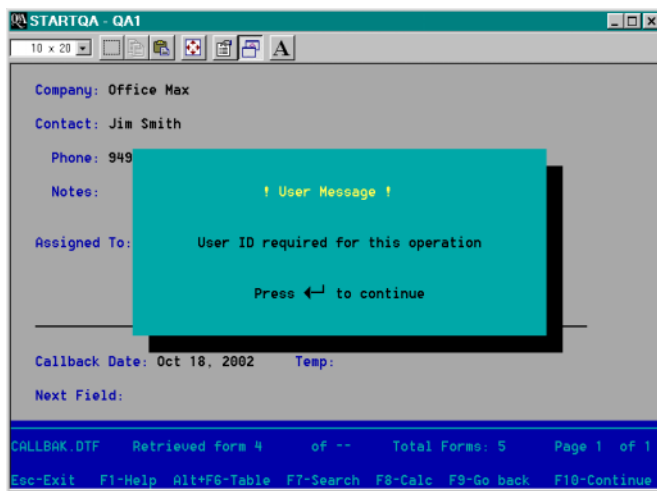


Figure 2. One of the key fields required for the counter is empty.

```
echo SELECT='Assigned To'=%1 & 'Callback Date'="%2/%3/%4" > g:\qa5\data\callbak.qax  
echo FORMAT=R >> g:\qa5\data\callbak.qax  
echo TRUNCATE=Y >> g:\qa5\data\callbak.qax  
echo 1 Callback Date >> g:\qa5\data\callbak.qax  
g:\qa5\data\dtffdata g:\qa5\data\callbak g:\qa5\data\callbak.gax g:\qa5\data\callbak.txt
```

Listing 2. The Callbak.bat batch file.

In this case, The 1 *Callback Date* line tells DTFDATA to extract the value from the **Callback Date** field (in all records where the **Assigned To** and **Callback Date** fields match the .qax file's *SELECT* statement) and truncate it to one character. Thus you'll get one line (with a single character on it) in DTFDATA's output file (callbak.txt) for every matching record in the database.

If you look back near the end of the program in Listing 1 where Q&A inserts the callbak.txt file, you'll see that it replaces that file's carriage returns with nothing, then takes the length (@Len) of the resulting value as the count of callbacks for the specified date. If DTFDATA finds five matching records, the resulting callbak.txt file will wind up looking like this:

```
2
2
2
2
2
```

Remember, you're telling DTFDATA to truncate the **Callback Date** value to one character, which in this case would write just the "2" in "2002" for each record.

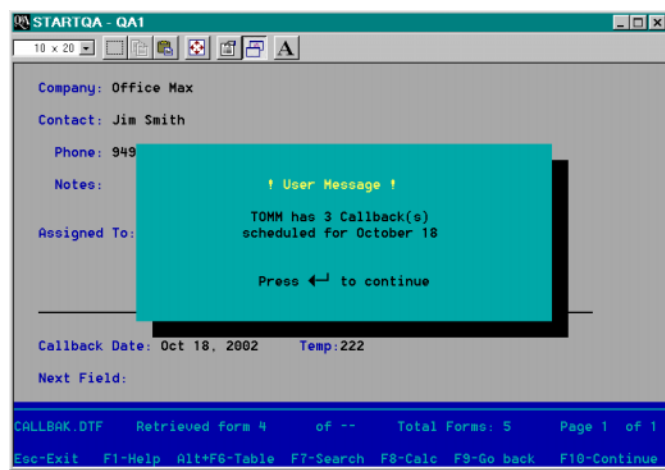


Figure 3. The number of callbacks already scheduled for the selected date is displayed

When your Q&A program replaces the carriage returns in the file with nothing, you get this:

```
22222
```

The length (@Len) of this value is 5, which represents five callbacks for the selected date.

Once the batch file has created the callbak.qax file for DTFDATA, it then launches DTFDATA with the three filename parameters DTFDATA requires:

1. The path to the Q&A database (the ".dtf" filename extension can be omitted).
2. The path to the .qax file.
3. The path of the output text file.

It's best to include the full paths to all the files. If this isn't possible, the documentation that comes with DTFDATA gives you some options.

Incidentally, if the database you're turning DTFDATA loose on is password protected, you'll need to supply a valid User ID and password as part of the DTFDATA command line. You do this by following the output filename with a space, a period, another space, the User ID, a space, then the password, as in this example:

```
...callbak.txt . TOMM marblepubs
```

## Conclusion

This application was developed and tested on a Windows 98 computer and has long been in use in a network environment on a shared database. All the PCs using the database run Windows 98. I see no reason why it shouldn't work on Windows 2000 or XP workstations, but these newer operating systems can sometimes present little "gotchas" that require modifications to the program or batch file.

Tom Marcellus is editor of *The Quick Answer*.

## Think International. . . cont'd from page 2

noting that to use the full implementation of these international numbers, such as in the mobile phone example, you must omit the zero and make the number simply +44-1344-884 962.

### What's programmed into Windows?

There's another example of where you'll see all this — on your PC. If you go into Networking and Dialup Connections and look at the properties of one of your dialup connections, you will find that as an alternative to simply typing the full telephone number, you can click on "Use Dialing Rules." (See Figure 1 on page 12.)

You then separate the area code from the rest of the number and omit any country code. All the country codes are programmed into Windows, as are all the international access codes.

What you can then do is set up Locations, and for each one say what country you are in, and any other parameters such as 9 for an outside line, and Windows will intelligently apply the international settings it has stored. See the example (Figure 2 on page 12) showing that 9 will be dialed for an outside line (user entered) and then 119 for an international call for Cuba, followed by 44 for the UK. Both these numbers were looked up by Windows, not by the user.

Concludes on page 12

someone at the server is also accessing it, you must set the database sharing mode to "Allow" rather than "Automatic." This, again, sets the @Number scheme into network mode for that database. So, no matter how you set it up, you are covered.

Where the Q&A program is run from has no effect on how @XLookup or XLookup programming works. They will still point to the other database in the Q&A default path (unless you have programmed the database otherwise). The key here is that all of these controls lie within the database structure, not within the program files, so it doesn't matter if you are running Q&A locally or from the netpack copy on the server.

### Missing Expanded Memory

I'm dying for Lantica's *Sesame* to come out, and I hope all is going well with it. I am running an XP Pro machine and, despite being able to see the memory management tabs on the shortcut, when Q&A 5.0 loads, it does not see any EMS, only XMS. Any help is greatly appreciated. I have fiddled with config.nt without success. In the System.ini there is no exclude under the 386 section. In fact, it's pretty empty. What now?

Jose

You may be running into the issue that is appearing on some of the new machines that use "shared" memory. It is the way manufacturers are keeping down the cost of their hardware and keeping their prices attractive. Although the memory tab says "1024" in Expanded memory, and although WinXP is probably trying to give it to you, the hardware may be using the paging memory physical space for video or something else. If your settings in the shortcut are correct and there is no *emmxclude* statement in the Config.nt file, I don't know what else to tell you except that you will have a very hard time with Q&A 5.0, particularly with mailing labels, merge documents, expanded fields, and any other features that need Expanded memory. This is why we never recommend the use of shared memory on a business computer — you get what you pay for. This is a regular problem on some notebook computers as well.

*Sesame* is moving along in Beta testing. We have had some delays and tough issues to deal with, but nothing we have not been able to resolve.

### Moving Data from Field to Field

I have a problem that was caused by a series of our own mistakes. The first was not having a sufficient backup strategy and then doing redesign work on our only copy of the database. One of the workers in the office decided that we needed the form design changed and went into the

database and deleted one field and added another one. This would not have been a problem except that they also changed the internal Q&A field letter designations (Aa, Bb, etc.). We wound up with a database with about 10 fields (a combination of text, numbers, and dates) in the middle of the form, shifted by one position. I thought that I could just run a Mass Update to move the data to the proper positions, but it doesn't work. (I do have a backup this time.) Some of the improper information in date fields will not copy to where it belongs, and the same thing is happening with the number fields. Is my data forever incorrect?

Max

This is part of the problem with Q&A's loose formatting. It allows you to enter, import, or copy improper data types into formatted fields. However, once there, if the format is incorrect, Q&A ignores the data as if there was nothing in the field. Thus, your problem. You cannot copy improperly formatted data from a date field to another field because Q&A thinks that there is nothing to copy. But keep the faith. There are two possible solutions.

The first is pretty easy. Redesign the database one more time (make sure that you have that backup) and change the format of all of the affected fields to *text*. Then you will be able to perform the Mass Update to move the data — all of the data will be accessible and copyable. Then, after the data is moved, go into Redesign again and reset the formats on the fields.

The second method is also easy but involves a bit more work. Copy the design only of the database to a new name. Then select copy selected records from the incorrect database to the new design and put in the Merge Spec the proper field locations of the data. (For example, you may be copying field 6 to position 7, 7 to 8, and then 12 to 12.) Because of the loose formatting issue discussed above, Q&A will copy the "wrong" data to the "right" fields with no problems.

So, you have two ways to go — Mass Update or Copy Selected Records.

### Q&A for DOS to Q&A for Windows

I use Q&A for DOS 4.0 on several computers, including a PII450, a PII333, a PII200, and an AMD K6-2 500 and 550. All are running Windows 98SE. My printers are a Brother HL1040 and a Panasonic KX-P7100. For years, in order to print, I have been pulling my Q&A output into WordPerfect and organizing then printing it from there. My question is about using Q&A for Windows to avoid this step. Are its capacities the same as Q&A for DOS? Does it support macros? Can it print directly through Windows? Are there updated printer drivers for Q&A for Windows as well as for Q&A for DOS?

Larry

The capabilities of the two editions of Q&A are similar, but there are some features lacking in Q&A for Windows.



Macros is one of them. Q&A for Windows has a scripting language rather than a macro language and it is much more limited than the Q&A for DOS macro language. For example, you cannot pause a script for user input, you cannot automate a routine that needs to use more than one database, and you cannot fully automate a merge-printing task or an export or import. Also, Q&A for Windows does not have a feature that enables you to automatically remove duplicate database records. Like any other version of Q&A, though, the data *must* reside on a hard drive partition that is smaller than 2G. On the other

side of the coin, with Q&A for Windows you can print to Windows-only printers and you have the ability to use multiple forms per database and to create free-form (but not cross-tab) reports. There are no new printer drivers for Q&A for DOS. You must use a printer that is supported on the current list or one that emulates one that's supported. Q&A for Windows should print to any printer installed in Windows.

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## Think International... cont'd from page 10

You might also be interested to learn that in the properties for a location you can even set up details of any calling card you wish to use.

The significance of all this for database designers is that you need to understand the way that phone numbers are made up from various components. You need to be familiar with the phone numbers of other countries. In particular, you need to be able to unravel a string of numbers into access codes (which are not actually part of the number), country codes, area codes and subscriber numbers. You need to know what to ignore (just about all the non-numeric characters), and what you mustn't ignore (the "+"). Then you need to store these in discrete fields

as appropriate for your application, and be able to concatenate them (string them together) as required. With the increasing integration of computer systems and telephony, we'll all be doing this in a few years – and not just for our own country!

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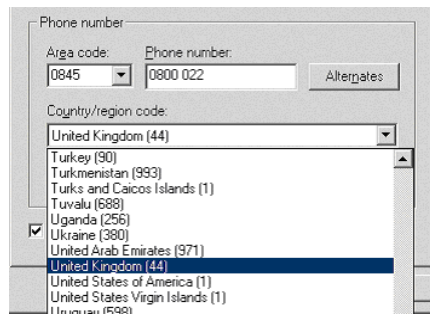
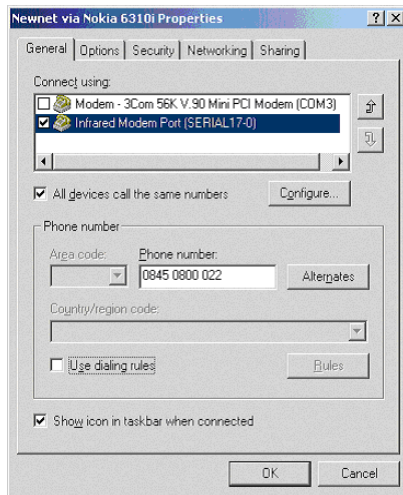


Figure 1. You either enter the full telephone number [LEFT] or use Dialing Rules [ABOVE].

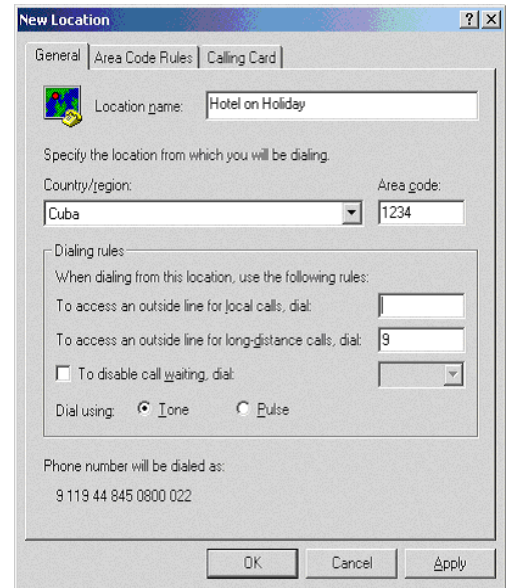


Figure 2. At the bottom, Windows shows you how the number will be dialed.

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