This free back issue of
THE QUICK ANSWER is provided courtesy of…

The Monthly Newsletter for Sesame Database Manager
http://www.insidesesame.com
[Read a Free Issue of Inside Sesame!](http://www.insidesesame.com)

AND

Makers of [Sesame Database Manager](http://www.lantica.com)
Compatible with Symantec Q&A™
http://www.lantica.com

Building in a Macro Check Point

ALEC MULVEY   DOS

T HE other day I was at a client setting up Q&A 5.0 to print to a specialised printer. I won't go into the details of the printer, but the upshot was that it required a plain ASCII text file consisting of data from the Q&A database surrounded by lots of special characters.

I was able to accomplish this by constructing a merge document in Q&A 5.0's word processor and printing it to a file by selecting "Print to DISK" at the Print Options screen. (See Figure 1.) Once the file was saved in this manner, it then had to be sent to the printer. This I did by creating a batch file, run as an External Program (*File / Utilities/ External Programs* in Q&A 5.0), which copies the ASCII file—the Q&A output—to the printer.

All this was fine and dandy. But when it came time to record a macro to do all this with a single keyboard command, I was hit by an unexpected problem.

How many records?
When you do a normal mail merge in Q&A, after pressing F10 at the Retrieve Spec, Q&A displays a helpful dialog that tells you how many records will be merged. (See Figure 2 on page 3.)

Now, we take this for granted. It's really very handy, as it not only confirms the database that's being used, but tells you how many records your Retrieve Spec is including and— crucially—gives you a final chance to abort the merge and start over. I'm sure many of you have been pulled up sharp at this dialog (or at essentially the same dialog when performing a Mass Update) and rapidly pressed Esc to avoid printing 600 pages when it should be 10, or mass updating 3,798 records when it was actually only 16 you expected to be updating!

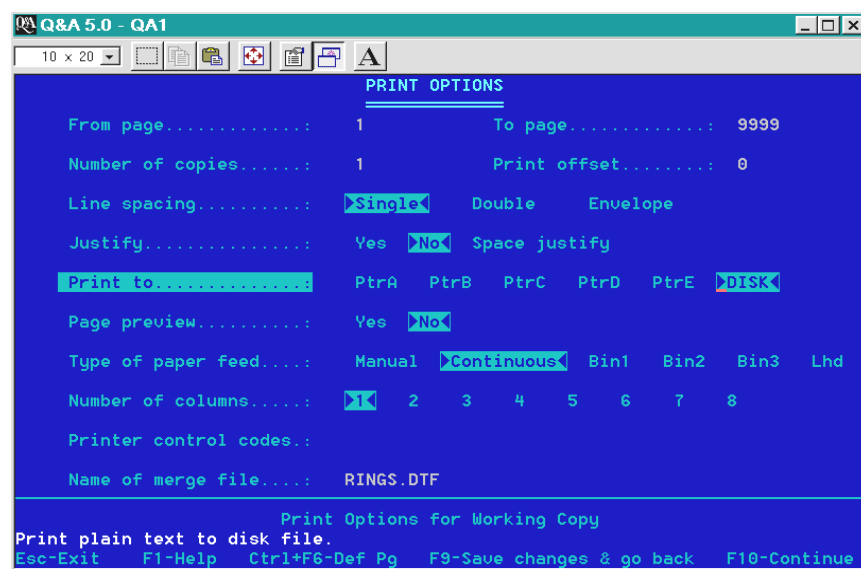However, if instead of specifying a printer at the Print Options screen

you select Print to *DISK*, then Q&A doesn't show this confirming dialog at all. It just goes ahead and performs the merge. I suppose you could be cynical and say this is a bug in Q&A, but it could be argued—and probably *would* be argued by Q&A's developers—that since all you are doing is generating a text file, then you don't need this final opportunity to abort the process. They might also point out that Q&A *does* tell you how many "pages have been printed," albeit *after* the mail merge has run. (See Figure 3 on page 3.)


```
Q&A 5.0 - QA1                                         _ □ ✕
10 x 20 ▾ [□] [⧉] [📋] [⊡] [🗐][🖨] A
                        PRINT OPTIONS
    From page............:    1           To page.............:    9999

    Number of copies......:   1           Print offset........:    0

    Line spacing..........:  ▶Single◀    Double      Envelope

    Justify...............:   Yes  ▶No◀   Space justify

    Print to..............:   PtrA    PtrB    PtrC    PtrD    PtrE   ▶DISK◀

    Page preview..........:   Yes  ▶No◀

    Type of paper feed....:   Manual  ▶Continuous◀  Bin1   Bin2   Bin3   Lhd

    Number of columns.....:  ▶1◀  2    3    4    5    6    7    8

    Printer control codes.:

    Name of merge file....:   RINGS.DTF
─────────────────────────────────────────────────────────────
                  Print Options for Working Copy
Print plain text to disk file.
Esc-Exit    F1-Help    Ctrl+F6-Def Pg    F9-Save changes & go back    F10-Continue
```

Figure 1. Merge document Print Options screen with the *Print To* line highlighted.

More Data in Less Space with Multi-Column Lists

Have you ever wanted something like a three-column list of a large number of records where the list might contain only a couple of fields? It might be a simple name and phone number list of several hundred names.

Using a regular report with just a couple of columns will leave a lot of wasted space on the page and allow only about 50 records per page. You might think of using the Mailing Label option with a three-across label format. But this produces a printout which, when sorted, sorts the records *across* the page, not down it, which for most people is awkward to use.

Here's a fairly simple way to use Report and Write to produce something more useful. This could also be used for a parts list or the like, sorted alphabetically by part name. I'm sure you'll find other uses for it.
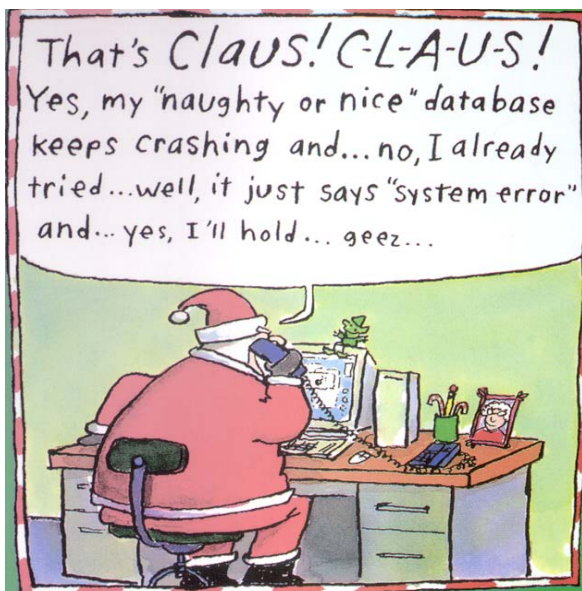
Using my example of a name and phone number List, here are the Column Specs for the report:

```
First Name:   20,as,I
Last Name:    10,as,I
Phone #:      30,I
```

Derived Columns:

```
Heading:  Filler
Formula:  @Text(30," ")
Column Spec: 1,I


Heading:  25: 5: Name & Phone
Formula:  #10 + ", " + #20 + #1 + #30
Column Spec: 40
```

The fields are sorted on **Last Name**, then on **First Name**, and are made "invisible" using the "I" code in the regular Column Specs.

The report makes use of Derived Columns to put data from three fields into one column.

The @Text function in the first Derived Column allows spaces to be added after the parts of the name have been combined in the second Derived Column. The second Derived Column's Heading indents the data that is wrapped to the second line on each record. The value of "25:" is the column width, and the "5:" forces an indent of five spaces on the second line. This improves readability.

The Page Width for the report isn't critical. Set the Left, Top and Bottom Margins to 0 (zero), the Page Length to 66 as a starting point, and set *Allow Split Records* to *No*.

Make a note of the Page Length as you'll need this later.

Initially, print the report to Screen or use Page Preview to avoid wasting paper. The format should look like this:

```
Baker, Bobbi
     111-1111
McKinley, Ron
     999-9999
Shuflin, T.J.
     555-1212
```

That's CLAUS! C-L-A-U-S! Yes, my "naughty or nice" database keeps crashing and...no, I already tried...well, it just says "system error" and...yes, I'll hold... geez...

Macro Check Point...

Okay, I see that. But personally I would *much* prefer to know in advance how many records are to be "printed," even if I'm only printing to a file. Furthermore, in this case, I positively *needed* to build in an abort stage, rather than go ahead and complete the printing process. My client is a jeweller and prints onto specialized price labels (which attach to rings and can be left on when the ring undergoes ultrasonic cleaning) and he didn't want to waste these expensive labels.

A simple macro pause insufficient

The obvious thing to do would be to pause the macro at the above screen, where the number of "pages printed" is displayed. But I didn't like this for two reasons. Apart from the fact the event has already occurred, and you then need to repeat the mail merge (a picky objection, really, as this would involve no additional effort), I don't like leaving clients looking at merge documents if I can avoid it. Suppose a user edits the merge document—accidentally or deliberately? What if they save changes? I'd rather the merge document did its job and then disappeared without the possibility of it being modified. What I wanted was the good ol' dialog you see when doing a normal merge printing. Here's how I got it.

The check point macro

I installed a printer E, and set it to print to LPT2, which didn't exist on the computer. Having run through the macro steps once (to ensure that all saved files and specs already existed so that I get the "*Do you want to overwrite?*" Yes/No warning), I then recorded the macro so that it performs the following steps:

1. Opens the merge document and presses F2 to print it.

2. Pauses at the Retrieve Spec for the user to enter the retrieval criteria.

3. Saves the Retrieve Spec to the name "Price Labels."

4. Switches the printer to printer E on the non-existent LPT2 port.

5. Pauses at the "n records will be printed - OK?" dialog. (The user presses Enter to continue or Esc to abort.)

6. Presses Esc to clear the subsequent error message when Q&A can't print to LPT2.

7. Repeats the printing, using the previously-saved Retrieve Spec, "Price Labels."

8. Sets printing to print to DISK.

9. Runs a Q&A 5.0 External Program that sends the just-"printed" ASCII file to the printer via a batch file. The key line in the batch file that does this is:

```
Copy filename > LPT1
```

This gives the client a simple way to print his specialised price labels with the necessary confidence check and opportunity to abort after filling in the Retrieve Spec. He's pretty happy with it!

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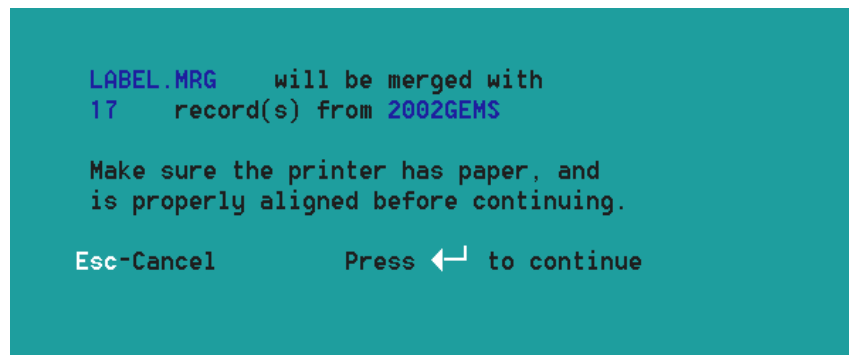

Figure 2 . When printing a merge document, Q&A tells you how many records will be merged and gives you the opportunity to continue or press Esc to cancel the printing.
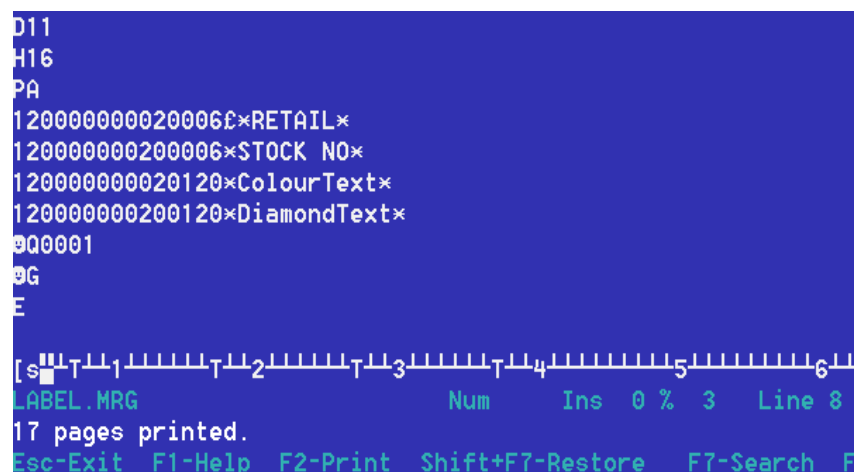

Figure 3. When you Print to *DISK*, Q&A displays the number of records merged only *after* the merge has been completed.

Sesame's Tabbed Forms

ALEC MULVEY

YOU may have a database where you want to store and display as much data for each record as possible, but have more fields than can fit comfortably on a single screen page. With Q&A for DOS there are just two things you can do: You can use more of the available database form—pages 2 through 10—or you can create another database and look up the data in it from the "main" database.

The trouble is that what users usually want is to see lots of data for one record all at the same time—at a glance—or as close to that as possible.

The second "solution" is barely acceptable (for reasons of effort and inconvenience), so the great majority of users just content themselves with the available 10 screen pages. This can be convenient enough, but only with navigational aids such as "menu" buttons to navigate to specific sections of the 10-page database form. I mean, who likes having to press Page Down eight or nine times?

Q&A for Windows offers a valuable additional feature not available in Q&A for DOS—*multiple forms* per database. This way you can have one large database with as many fields as you like, and set up multiple data entry and/or search forms. Each of these forms can have any of the fields on it. You can create several task-related forms. They are all likely to have some of the same fields on them to identify the record. Beyond that you can create forms for different "groups" of fields. You can create forms that are optimised for data input, and perhaps others for updating or printing. They are all based on the same database—the same set of fields—containing the underlying data. The data is not stored in the forms; they merely show it. Change a field in one form and that change will be reflected in the other forms where that field appears. The forms are like multiple viewing windows for your data.

Multiple forms in *Sesame*

Sesame has multiple forms too, just like Q&A for Windows. What's more, they can each have their own programming, as each form has its own "Program Spec." This makes for great flexibility, as you can then write the programming you want for a particular task. For example, you might want to have extensive picklists using

combo boxes (a new feature in *Sesame*) for adding new records only. For viewing and editing data, you might have the same fields but as normal text boxes, perhaps with some of them made read-only. This helps avoid all of that "*If @Add Then…*" conditional programming and having to combine calculation and navigation programming in an effort to try to protect certain fields. Plus, you can then control which users are allowed to open which forms.

However, *Sesame* offers yet another way of handling multiple forms—*tabbed forms*.

You're probably familiar with the concept of tabs. Just select *Tools / Options* from the menu bar in Microsoft Word, and you'll see a tabbed dialog box. (Or, if you use Q&A for DOS, right click on your Q&A desktop shortcut, click on Properties, and you'll see the Properties screen with a series of tabs). In Word, there is one area of the screen—a box or "window," if you like—and at the top is a series of tabs: *View*, *General*, *Edit*, *Print*, *Save*, *Spelling & Grammar*, and so forth. Click on any of these tabs and the same area—that box or window—displays a series of checkboxes, picklists or the like that pertain to that tab. *Sesame's* tabbed forms work the same way.

Figure 1 shows a complete *Sesame* screen with one record—the one for Danny Dolphin. You're on the Name & Address tab. Figure 2 (following page) shows the same
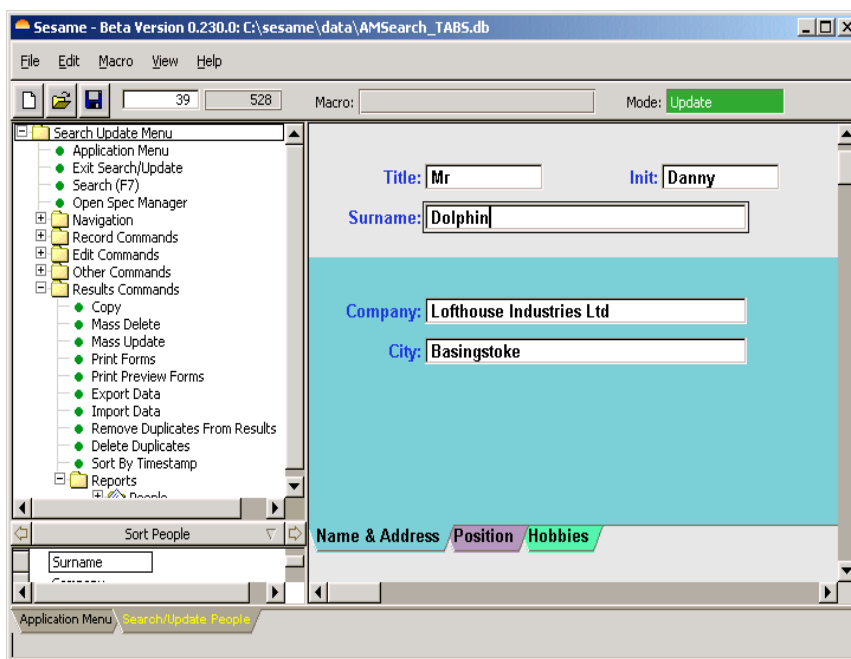

Figure 1. A record containing Company and City fields on the *Name & Address* tab.

record (just the record) with the *Position* tab active, and Figure 3 shows the same record with the *Hobbies* tab exposed.

The tabbed interface is another way of re-using one area of the screen to show different fields. All the fields are present all the time—it's just that on this particular form you can't see them at the same time. It's exactly as if they were on pages 2, 3, 4, etc. of a Q&A for DOS form, only more convenient. In Q&A for DOS you can't quickly move to any page you want simply by clicking on its tab. *Sesame* changes all that for the better!

These examples aren't as illustrative as they could be. The fields are in the same positions and are the same size. They needn't be. Each tab, each field, can be formatted as you wish. But hey, we're too busy testing *Sesame* to spend time creating pretty forms!

Searching with tabs

As for searching, the tabbed form works exactly as if the tabs weren't there and the fields were all on a single long form. You can put search criteria in any fields on any of the tabs, and the right records will be retrieved even if the retrieval data for a record is not showing on the first tab.

Table View reveals all

Switch to table view (See Figure 4) and, again, you see all the fields from all the tabs.

Tabbed forms. Very simple. Highly useful. I think you'll like them!

Alec Mulvey is a director of Lantica Software, LLC and also owns Keyword Software & Consultancy in Ascot, near London, England. Alec has been building Q&A applications and training clients for 12 years. Keyword Software is the UK distributor for the International English edition of Q&A. alec@keywordsoftware.com, www.keywordsoftware.com.
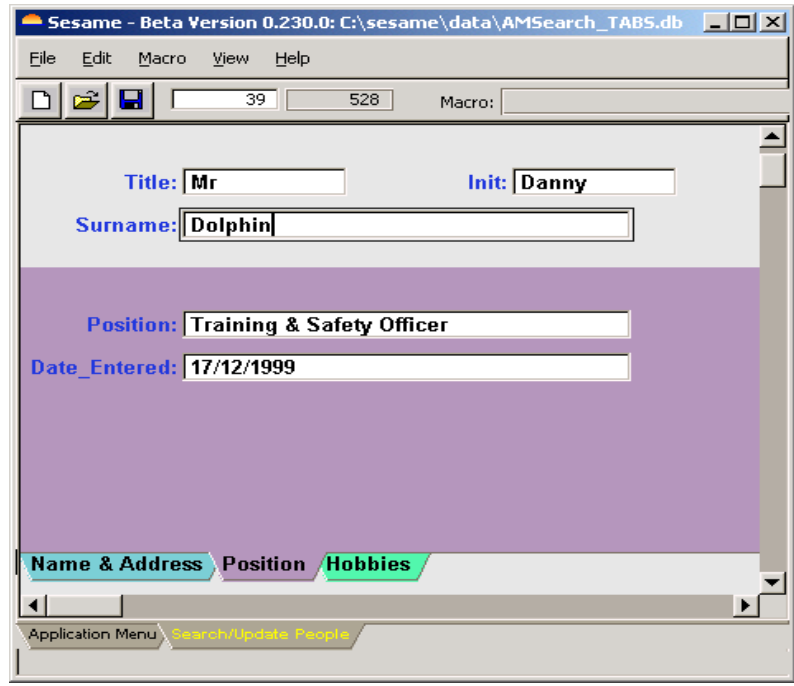
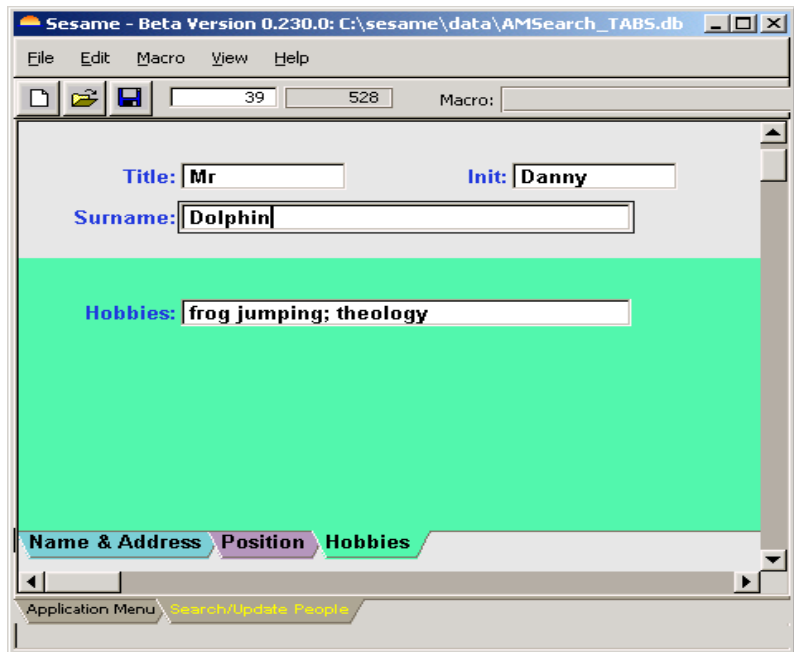**Figure 2**. The same record's *Position* tab, showing Position and Date Entered fields.

Figure 3. The same record with the *Hobbies* tab showing.

Figure 4. Table view shows all fields.

@*Help*

EDITED BY WILLIAM HALPERN

Mouse not Working in Windows 2000/XP

Since you helped us with the information required to set up Q&A on our Windows 2000 and XP machines, everything is working fine. I do have one question, though. After re-installing the Q&A the program, the mouse does not work and we now have to tab to all the fields instead of just being able to click on them to move the cursor there. What do I need to set or reset to get the mouse working again?

Monique

Start Q&A. Click on the little black icon in the title bar (in the extreme upper left hand corner of the Q&A window) and select *Properties*. Then go to the *Options* tab and uncheck *Quick Edit Mode*. Click OK and then click on *Save Properties For Future Windows With Same Title*. Exit Q&A. When you restart it, the mouse will work. You will need to do this just once on each workstation.

Lantica Pop-Up Calendar Minimizes Q&A

I've installed the Lantica Pop-Up Calendar Utility and it works quite well. (See the October 2002 issue for a review of these new utilities for Q&A 5.0.) However, when the Calendar closes, I'm back at my Windows desktop with Q&A minimized on the task bar. I'd rather the Calendar, on closing, return me to the maximized Q&A database record, if that's possible. Please advise what I need to do.

Terry

The issue here is that you are running Q&A in *Full Screen* mode. Windows *cannot* share full screen (which is different from a maximized *window*) or open another window for any program in this mode. Windows must first minimize the full screen application before it can display a new window. Then you have to click on the minimized icon to get your full screen Q&A back. If you were running Q&A in a window (see Figure 1), this would not be an issue (after selecting the date from the Calendar, you would be right back in the Q&A record). There is no way around this. Full Screen means just that. It is the only thing that can be displayed because it has *total* control of the *Full* screen.

Expanded Memory on New Computers

In the October 2002 issue you mentioned the problem with purchasing a Windows XP Pro machine that uses "shared memory." How does one inquire about that aspect when purchasing a new PC? Or are there certain brands we should avoid? A couple of years ago, I told Gateway to remove the "Promise" controller card that allocated Expanded memory to itself and prevented Q&A for DOS from running properly. The Gateway representative says they no longer use the Promise Card, and the XP Pro machines do have Expanded memory. But you stated that the Memory tab might *say* Expanded memory exists even when it does not. Can you work around it by setting up a dual boot system with DOS 6.22?

Richard

Shared memory means that the processor and video card are using the same memory, and that the video card gets the part of the physical memory that would be used in
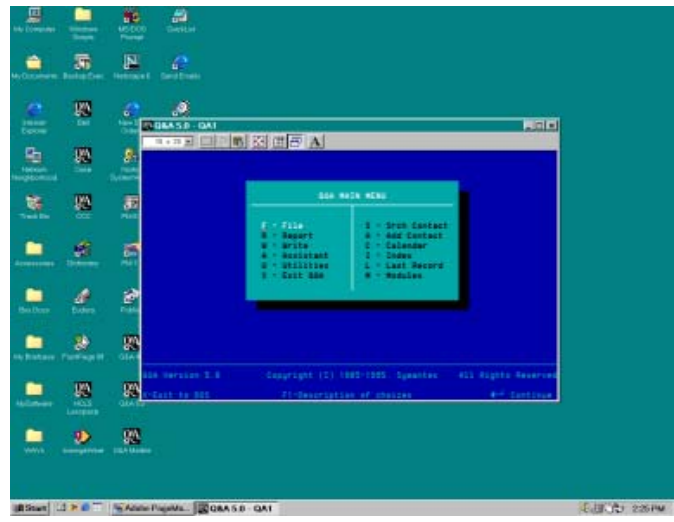

Figure 1. When you run Q&A for DOS in a Window (as shown), Windows won't minimize it when using the Pop-Up Calendar.

allocating paging to Expanded memory. This is typically the case only in "budget" computers and some laptops like the Sony Vaio or the cheaper Compaqs and HPs. So far we have not seen a good quality machine that has had this problem. I just purchased a new desktop PC along with a new notebook from Dell and they both operate just fine with Expanded memory available to Q&A. Most reputable computer suppliers will let you set up your software on a demo machine to see how it works. Gateway and Dell will both do this at their local kiosks or outlet stores. I have also been able to do this at CompUSA and BestBuy stores. As for "dual booting" to DOS—that just kills all the benefits of running Q&A in Windows. What's more, you might find that some of your peripherals don't work because they depend on Windows for the drivers, which are no longer available when running Q&A in exclusive DOS mode.

Windows 2000 or XP? What's Best for Q&A?

For the purpose of purchasing a new computer on which Q&A for DOS will be the primary application, is there any reason *not* to use Windows 2000 Professional? I was told by a technician at Lacerte Tax Software (Intuit) that Windows 2000 Professional has a "Windows 98 compatibility mode" in the Properties section for any program. This would allow you to run that program "as if" it were running in Windows 98. He said that this worked better than XP for older DOS programs like Q&A. The other reason for my wanting to go with Windows 2000 Professional is that it will work with older printers, such as HP LaserJet III models, whereas XP will not work with them. What's your advice?

Rich

Windows XP has a Compatibility Mode or "run as" capability where you can select any operating system from Windows 95 on up. I don't have much faith in this since it never seems to make much of a difference. But I have read reports that laud this as one of the best new features of Windows XP. Windows XP also works fine with most DOS programs, albeit a tad bit slower than Windows 2000. The suggestion that Windows XP will not work with older printers such as the LaserJet III is just ludicrous. It automatically recognizes them as part of the standard set of Windows printers.

I know it almost sounds like ranting, but I do like *both* Windows 2000 and XP. We use them interchangeably in our offices. Windows XP is a bit more user friendly than 2000, and 2000 is a bit faster (almost immeasurably so) than XP. They are both super stable. XP has better networking control, and 2000 has real server software. From a business standpoint, 2000 is the more stripped-down model (from the user's standpoint) and requires a more knowledgeable staff to maintain. However, it is easier than XP to maintain configuration control. As far as Q&A for DOS is concerned, it likes either one. It does run a little faster on

2000 but I would not base my decision on this marginal performance issue.

So, really, the choice is yours. Don't choose one over the other because of the reasons you listed. Try each on a machine and see which interface you like better. (By the way, it is easier to reconfigure XP's interface back to the standard Windows one than it is to do so in Windows 2000. Hope this helps some.

When a Simple Mass Update Can Save the Day

We have a database we filled with data imported from a supplied text file. There is a field in the file that is filled with a code that we would just like to use by marking it with a "Y" or "N." Is there any way to delete that code without going to each record and deleting it? We have about 9,000 records in the database. Manually updating each and every record will be very time consuming.

Bruce

It never ceases to amaze me that so many people use Q&A for so long and forget about its basic features and capabilities. Or maybe it's just that they've never needed those features. If you fall into this category, it's really not a bad idea to peruse your *Q&A Users Guide* once in a while. In this case the answer is to use a simple *Mass Update* where the Retrieve Spec is */=* (not empty) in the code field you mention, and the Update Spec is *#1 = " "* (make blank the field). After filling out your Retrieve and Update Specs in this manner, press F10 and say that you do *not* want to review each record. Q&A will go to work and your 9,000 records will have an empty field in mere seconds.

Emailing Reports

I use Q&A for Windows. Is there an easy way to save a report out as a Word doc or text file so I can email the report to someone as an attachment?

Steve

Since you are using Q&A for Windows, there is no easy way to print your reports to DISK, turning them into files that can be used as attachments (as you can with Q&A for DOS). The only way I can think of is to print to an Adobe Acrobat printer in the full version of the Acrobat program, and make a PDF file that can be attached to an email message. There is no way to get a Microsoft Word document out of this. There are also some version compatibility-related issues with Q&A for Windows and Acrobat.

That said, Tom Marcellus offers a few other options you might want to explore if you are willing to expend a little time and effort. You can set-up a *Generic / Text Only on FILE* printer in Windows. This way, when you go to print the report in Q&A for Windows, you can click the *Setup* button on the *Print* dialog and select that text-only printer to print to. (You do *not* need to check the *Print to*

Checking for Related Records

The Quick Answer

TOM MARCELLUS   DOS   WIN

FOR some types of database applications, it can be useful to know if there are any records in the database that have something in common with—or are in some way related to—the new record you are about to add to the file.

To check for another record with the same entry in a particular field, you can make that field Speedy/Unique (SU) at the Speed-Up Spec (*File / Design a file / Customize a file / Speed-up searches* in Q&A for DOS) and Q&A will warn you that the record you're about to add contains a duplicate entry in at least one existing record. For example, if you made a **Company Name** field Speedy/Unique and added a record for "Best Products," Q&A would throw a red warning flag if you then tried to add a second record containing "Best Products" in that same field.

This is tantamount to a kind of automatic duplicate record detection. It isn't the same thing as checking for existing *related* records.

And there a few other things to remember about this approach.

First, Q&A will let a user override its warning about a record already existing with this company name and allow the second one to be entered anyway.

Second, the match on an existing record with the same company name is good only through the first 15 characters (including spaces). In other words, a record with "Indianapolis Custom Carpeting" in the **Company Name** field will throw the red warning flag if you attempt to add a new record for "Indianapolis Custodial Services," but Q&A will *not* tell you that "Indianapolis Custom Carpeting" is the "duplicate" entry in the other record so that you can make an intelligent decision on the matter.

Finally, this Speedy/Unique feature alone doesn't give you a way to check for existing entries across *multiple* fields, which brings me to the topic of this article.

Existing entries in multiple fields

Suppose you're running a clinic or the like and you'd like to have your main "Visits" database set up to track patient visits by last name *and* date of birth. You prefer not to use Social Security Numbers because the law says they're not supposed to be used for identification purposes, and some people don't have them anyway. Phone numbers are always changing, so you don't want to use those either. As is always wise in such cases, you'd probably also have something on the order of a **Record Number** field whereby each new record you added to the database would get the next number courtesy of *@Number* in the Initial Values Spec (*File / Design a file / Customize a file / Set Initial Values* in Q&A for DOS).

When somebody walks into your clinic to have a cut finger sewn up, the administrative nurse might want to do a quick computer review for the records of any previous visits by this patient. The patient might tell you he's "Freddie Anderson," and it wouldn't take too much effort to search for any "Freddie Anderson" records in the database to find out what he might have been treated for previously. But after the doctor has practiced on Freddie and it's time to add his new record to the "Visits" database, it might also be helpful for you or the data entry person to know if your Freddie is already in the database—and even how many previous visits he's made.

The Speedy/Unique technique on the **Last Name** field won't cut it in this scenario. You could have a dozen or more "Andersons" in the database, all or mostly all unrelated to this guy. But each record also mandates the patient's date of birth (a required field). So why not have Q&A run a quick real-time check to see if there are any "Andersons" already in the database with the same birth date as Freddie, and tell you what the record numbers are so you can check them out if need be? What you do with this information largely depends on your administrative or business rules, but at least you have a way to check for possible matches across *multiple* fields on-the-fly—that is, when you're about to add the new record. I'll show you a way to make this happen.

Some limitations

As with most every programming technique, there are always some potential drawbacks. With this one, you still have that old Q&A limitation of a maximum 15-character match on duplicate values existing in other records in the database.

Okay, so suppose you string together an "ID" value that consists of the patient's Last Name, Date of Birth, and Record Number. A stripped down birth date (with a two-digit year and no separator characters) will be six characters in length:

```
October 11, 1949
```

or

```
491011
```

If you tack on a record number consisting of five digits, you're now at 11 characters, with only four characters left to play with. So you use the first four characters of the patient's last name. This way, for patient "Anderson" born October 11, 1949 with Record Number 25433, you'd wind up with a 15-character unique string value like this:

```
ANDE49101125433
```

Just the "ANDE491011" alone is probably unique enough. The odds of your clinic having two patients born on the same day of the same year with the same first four characters of their last name are probably pretty slim. So this should be a reliable criterion for flagging related records. We'll call them "possible relateds," in any case, just so we don't lose sight of the fact that the algorithm doesn't provide 100% certainty.

One other possible drawback here is that we're insisting on a five-digit record number. That will give us enough room for 89,999 records in the Visits database (with the record numbers starting at 10000). With an average of 20 patient visits per day in a clinic that's open every day of the year, that would give you more than 12 years worth of records before the 99999 would trip over to 100000 and take you to six digits.

The only other possible drawback is that the technique assumes a last name of at least four characters. Patients named "Yu" or "Nen" will cause it to fail, but you can always account for this by adding a sufficient number of "pad" characters in the programming, as you'll see.

A sample database

The simple database I'll use—VISITS.DTF—includes just enough fields to illustrate the technique for flagging related records. (This Q&A 5.0 database is included in the download file with this month's issue.)

Figure 1 shows a VISITS.DTF record. In the upper part of the form there are fields named **First Name** and **Last Name**, a field named **Record No**, a field named **DOB** (which is shown on the form with the label "Date of Birth"), and a field labeled "Check for Related Accounts(Y)," whose field name is actually **Related Accts**.

The **Record No** field is auto-filled by *@Number* in this field at the Initial Values Spec. This field also contains the *On-Record-Exit* program that generates the unique ID string for the record. That program is:

```
#1000:
ID = @Left(Last Name, 4) +
@Mid(DOB, 3,2) + @Mid(DOB,6,2) + @Right(DOB,2) +
@Str(Record No)
```

The program takes the first four characters of the **Last Name**, adds the six-digit date of birth (**DOB** field) string to it, tacks on the five character **Record No**, then saves the new value to the Speedy/Unique **ID** field at the bottom of the form. (More on this later.) This gives you the unique Lookup ID string for that record.

To tell Q&A to execute this program when exiting the record, press F8 while in the Program Spec and type *1000* on the *On Exit Field ID* line.

Note that this program will execute every time the record is saved—that includes when you press F10, Shift-F10, F9, Ctrl-F7 (and a few others) while on the record. If this adds more overhead than you want, you can enclose the program in an *If @Add Then…* context function so it executes only when a *new* record is added to the database or, with Q&A 5.0, you can use an *If @Modified Then…* conditional. Just keep in mind with @Add that the program will *not* execute when a data entry error necessitates your going back into the record later and changing the last name or birth date.

The fields at the bottom of the form (see Figure 1) can all be hidden on a back screen page or, in the case of Q&A 5.0, suitably colored at the Change Palette Spec (on the *Customize* menu) to make them invisible. They can also all be made Read-Only (on the *Programming* menu in Q&A for DOS). You can omit the field labels as long as the correct field names are assigned at the Field Names Spec (on the *Programming* menu).

The best way to show how these supplementary fields come into play is to go through the programming in the database. Only two fields require programming—the **Related Accts** field and the **ID** field.

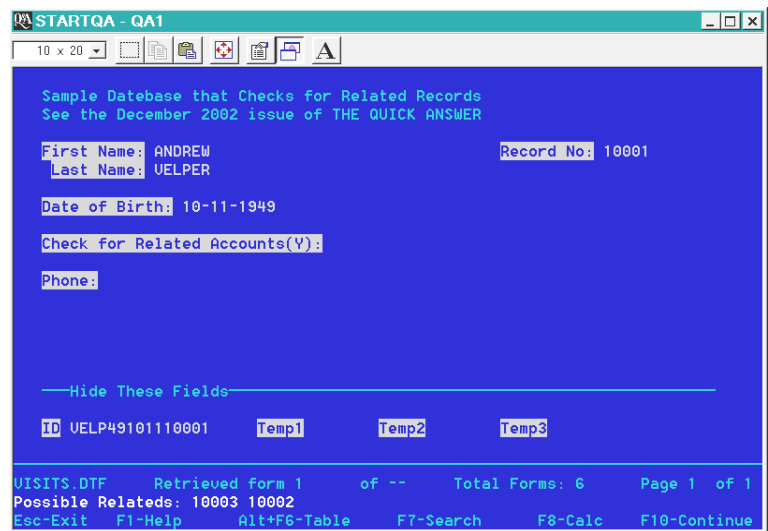Keep in mind that the purpose of the programming is

Figure 1. A sample VISITS.DTF record showing two related records found.

to check for *related* records in the database. In other words, if you're adding a new visit record for Freddie Anderson, you want Q&A to tell you which records, if any, exist in the database for this same Freddie Anderson. First, here's the programming for the **Related Accts** field:

```
> If Related Accts = "Y" Then
  {
  If Last Name = "" or DOB = "" Then {
  @Msg("Last Name & DOB required " +
      "to search for related accounts.");
  If Last Name = "" Then Goto Last Name
  Else Goto DOB }};

If Related Accts = "Y" Then {

  ID = @Left(Last Name, 4) +
  @Mid(DOB, 3,2) + @Mid(DOB,6,2) + @Right(DOB,2) +
  @Str(Record No);

  Temp1 = "100000";
  @Msg("Working...");
  Gosub ID;

  If Temp3 <> "" Then
  @Msg("Possible Relateds: " + Temp3)

  Else @Msg("Possible Relateds: NONE");
};

  Clear(Temp1..Temp3, Related Accts); Cnext
```

Next, the program in the **ID** field:

```
< Temp1 = Temp1 -1;

  Temp2 = @XLookupR(@Fn, @Left(ID,10) +
@Str(Temp1), "ID", "ID");

  If @Left(Temp2, 10) = @Left(ID, 10) Then {

  Temp3 = Temp3 + " " + @Right(Temp2, 5);
  Temp3 = @Replace(Temp3, Record No, "");
  Temp1 = @Right(Temp2, 5);
  Goto ID
  }
  Else {@Msg(""); RETURN };

  RETURN
```

Using a subroutine

The programming executes when you type a "Y" in the **Related Accts** field (formatted "Y" for "Yes/No" values).

It first checks to be sure the **Last Name** and **DOB** (Date field) fields are filled, returning you to one or the other (accompanied by an @Msg message) if either is blank. The programming assumes that the **Record No** field is filled. And it will be, since it was auto-filled by the @*Number* Initial Value when the new record was started. (**Record No**, incidentally, should be made *Read-Only*.)

Assuming the **Last Name** and **DOB** fields are filled, the program next creates the unique ID string discussed earlier, consisting of the first four characters of the **Last Name**, the six-digit **DOB** string, and the **Record No**.

It next sets the **Temp1** field to "100000," displays a "*Working…*" message, and then passes control to the **ID** field via the *Gosub* subroutine command. Now the fun begins.

This next bit is kind of hard to explain. I hope you can follow.

The **ID** field's program executes, subtracting 1 from the "100000" value in the **Temp1** field, returning "99999" for the initial loop. An @XLookupR command then takes a look into the (same) database to find a record whose **ID** field equals the leftmost 10 characters of the current record's **ID** field plus the "99999" from the **Temp1** field.

Q&A (probably) won't find a matching record, but the "R" on the end of the @XLookupR command tells Q&A to look for the *next lowest* value if an exact match can't be found. When Q&A *does* find a lower record, its **ID** value is copied to the **Temp2** field and the programming compares its first 10 characters with the first 10 characters of the current record's **ID** field. If they match, then you've got a hit. In this case, the rightmost five characters of **Temp2** (the **Record No** of the matching external record), preceded by a space, is added to **Temp3**. This first loop begins the process of building the list of previous record numbers for the patient whose visit record you're now viewing or adding to the database.

Each time a matching record is found and its record number is added to the **Temp3** value, the @*Replace* command replaces the current **Record No** value in that string with nothing. This effectively removes the record number of the record you're viewing from the list of matching records for this patient. (In other words, there's no point in including, as a related record number, the record number of the record you're on.)

Temp1 is then set to the rightmost five characters of the **Temp2** field, and the *Goto ID* command causes a loop back to the **ID** field to start the process again. This time, however, the @XlookupR begins searching from one less than the last matching record number found, so you're not starting the search from the top again but from some point well down the stack.

At some point, the *If/Then* condition in the subroutine will return no more matches (if it returns any at all), and control will be returned via the RETURN statement to the field that called the subroutine (the **Related Accts** field). The programming *there* will continue beginning with the line following the *Gosub* command. Q&A will display the record numbers from the related accounts on the message line, or tell you that no matches were found, then clear the pertinent fields and move to the next field on the form.

And there you have it.

This is a technique you might useful in situations where you need to quickly find related records that exist in the database without interrupting your work flow. With certain restrictions as noted, it allows you to search for such records across multiple fields. And it's adaptable. If you're starting out with this technique on an existing database, you'll probably want to mass update it to assign the record numbers and generate the unique **ID** field string for each existing record.

Tom Marcellus is editor of *The Quick Answer*

File checkbox). Q&A will prompt you for a filename with a default ".prn" extension. You can change that to ".txt" then supply the rest of the path and filename. The other option is only available if you have the full Acrobat program. You can set up what's called a "watched folder." When you save a Postscript (.ps) file to this folder, Acrobat will automatically snatch it up and "distill" it to a PDF file that you can attach to an email message. (Some Q&A for DOS users make use of this technique to generate instant PDF files from Write documents. They have a Postscript printer setup to print to FILE in Q&A for DOS and they simply "print" their documents to that printer to the "watched folder.") To make this option work in Q&A for Windows, you will probably need to set up a Postscript printer in Windows and print to it with the *Print to File* checkbox checked on the *Print* dialog. Installing Acrobat gives you some other options as well, such as printing directly to a printer port (such as LPT1, and having Acrobat "capture" the output to that port and from there distill it into a PDF file. Consult your Acrobat documentation to review all the various options you have for creating PDF files on-the-fly simply by printing from your application program.

Q&A Can't Find Records after Upgrade

I upgraded my old Q&A 3.0 databases to Q&A 5.0. Now, my searches don't seem to be working. When I search for a person's name in an indexed (Speedy) field, no records are found. If I search for the same type of thing in any other field, Q&A finds the records I'm after. Any idea of what is happening and how I can fix it?

Mark

I had Mark send me a copy of his database. What he described was exactly what was happening—the Speedy fields were not working. This indicated that there was damage in the .IDX file, the index part of the database. Whenever you upgrade a database from an older version of any software, you must take steps to make sure that the old data is healthy before you upgrade it. In the case of Q&A, at a minimum, you must recover the files in the old version of the program. Better is to copy the design of the database to a new name, then copy all the records to that new copy in the *old* version *before* upgrading. In this case, Mark was lucky. All I had to do was perform a database Recovery (*File / Utilities / Recover database*) and all of a sudden everything was working again. I recommend taking the following steps to ensure data health when upgrading any database.

1. Copy the design of the database to new name.

2. Recover the new copy of the database.

3. Export then import (or copy) the records from the old database to the new copy of the database.

4. Upgrade the new copy of the database, then rename it if you like.

Q&A for DOS Imports Junk (#$!*) Into Records

I have an everyday task that requires that I make a report from our master database and print it to DISK in order to get some summary information in the form of counts and client job numbers. Until recently, I have been printing this report to DISK and letting people see the entire report by opening it up in Q&A Write. Now, the report is growing too large and I've been asked if I can instead put the information into a database, where a summary report I'll design can be run from there. I know I can do this by importing the fixed ASCII-like columnar report output into a pre-designed summary database. The problem I am having is that the saved report is too big to open in Write, which means that I can't do any editing (cleaning up) of the output before importing it as a Fixed ASCII file into the new summary database. Accordingly, when I import the data into the database, I get all kinds of records with garbage characters in the fields. I realize that these are coming from incomplete records, page breaks, margin settings and the like. Is there any way around the problem?

Ed

This is a very handy advanced technique, particularly when you need to output and store the kinds of derived, calculated or summary information that only a Q&A
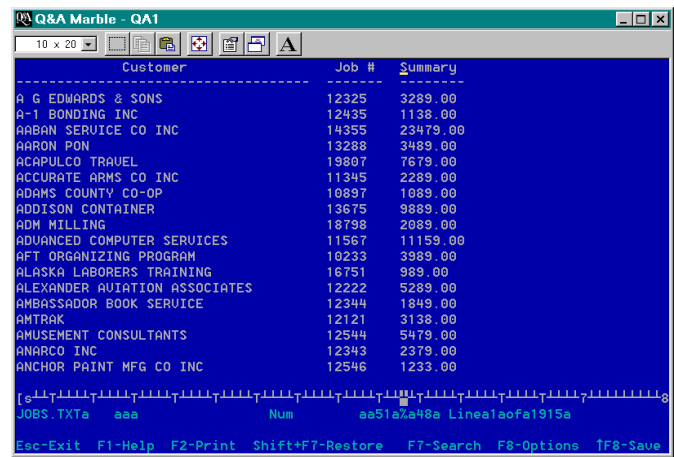

Figure 2. Printing a Q&A for DOS Columnar Report to DISK (with your report's margins and Page Length set as described on the following page) gives you a nice Fixed ASCII-like file (shown here in Q&A Write) that you can then import into a pre-designed summary database. In this example, customer names start at column 1 with a length of 38, Job Numbers start at column 39 with a length of 9, and the Summary amounts start at column 48 with a length of 9. (You need to know this information when filling out your Fixed ASCII Import Merge Spec.) All columns should be aligned left so that the values in each column all start at the same column position.

Report can produce. (See Figure 2.)

However, there are a few things you need to understand and be careful with. First, lighten up your load as much as possible in the Report module for the database where you're running the initial report. At the Define Page screen for the report, set your top, bottom and left margins to zero. Also set your page length to a large value (5,000 or thereabouts) to minimize any page breaks. (See Figure 3.) This will eliminate much of the garbage even before you import.

Be aware that on importing Fixed ASCII files, Q&A will fill the last imported field with high ASCII (garbage) characters if there is nothing in the last *specified* character position for each record. In other words, an Import Spec whose *last* field is specified as "30,3" (starts at position 30 and goes for three characters), where the field value in the record is "4" (a single character) will appear in the import as "4" followed by two garbage characters. You can correct this in the Report Spec by creating a derived column as the *last one* in your report that you know will have data in it:

```
Heading: end
Formula: @Txt(1,"...")
Column/Sort Spec: 40
```

This creates a column titled "end" where each record has "…" as a value. You don't have to import this into the new database but it will protect all of the data prior to this column.

Finally, once you import the data, assuming you have a formatted number field (count), remove all the records where the Retrieve Spec in that count field is "/.." (not properly formatted), and your "junk" record problem will vanish.
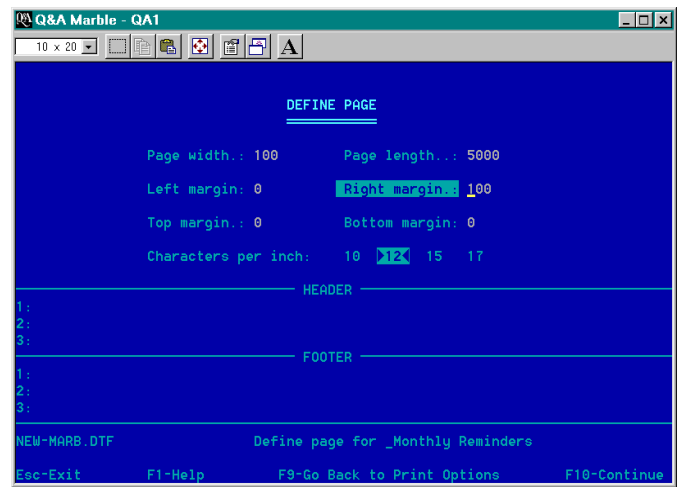

Figure 3. Setting Top, Bottom and Left margins to 0 (zero), and a Page Length that's greater than the number of lines in the report (to eliminate page breaks).

Bill Halpern is co-owner of Professional Computer Technology Associates (PCTA) in Newtown, Pennsylvania and is President and CEO of Lantica Software, LLC. 215-598-8440. bill@pcta-usa.com, www.pcta-usa.com.

Multi-Column Lists… cont'd from page 2

Print the report to DISK, select the IBM option, and give it a filename. When Q&A is finished "printing," your report will have been turned into an ASCII document.

Open the document in Q&A Write. It should look as shown earlier in a single long column.

Press Ctrl-F6 for the *Define Page* screen and enter the same setting for the Page Length as you did for the report. Set both the Top and Bottom Margins to 0 (zero). Settings for the Page Length and font size may affect the final result. If you're having trouble gitting the columns to look right, experiment by changing the number of columns to two, and work with Page Width, font size and Top/Bottom Margins. Also, data that is too wide for the column may wrap and affect column alignment.

If you now "print" the report using Page Preview, and your data isn't too lengthy, you should get three clean columns with the data sorted vertically (down the columns) in what are called "snaking" or "newspaper" columns. From here, you can print the report to paper for use as an easy-to-read alphabetized reference list. You may get up to 90 records per page, more or less, depending on your settings.

T.J. Shuflin