Q&A the Invisible



DAVID DVORIN

Normally, you use Q&A interactively. But it doesn't always have to be that way. You can exploit Q&A's wealth of features without personally setting foot inside the program at all



Y personal information manager (PIM) is a program called Commence. It handles things for me such as contact information, meeting scheduling, project management, notes, and the like. But I work at a place where Lotus Organizer is the standard for scheduling. Everyone is expected to schedule meetings and keep their personal calendars in Organizer.

This presented a dilemma for me. Do I abandon the PIM I know so well or do double data entry in both programs? As it turned out, I didn't have to do either. Q&A came to my rescue.

I worked it out so I could perform all my data entry in Commence and, with the help of Q&A, transfer my calendar data from Commence to Organizer with the push of a button. This way, I could continue to use the application I preferred, my workplace requirements for using Organizer were satisfied, and I only had to enter my data once.

In this article, I'll show how I use Q&A to import a data file exported from Program A, manipulate it, then spit out a modified data file formatted for import into Program B – all without ever pressing a key inside Q&A.

You probably don't use Commence or Organizer. That's fine. The focus here is on *using Q&A as a translator or facilitator between two applications*. You might find the concepts and techniques useful – if not right away, then at some point in the future.

The big picture

Before going into the details, let me give you a feel for what the task entailed. Both Commence and Lotus Organizer come in 16- and 32-bit versions. With Q&A in the picture, I've successfully integrated both Commence 16- and 32-bit versions with the 16-bit version of Organizer in both Windows 3.1 (Win31) and Windows 95 (Win95).

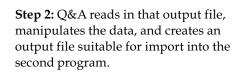
Here are the broad steps that integrate two programs with Q&A acting as the glue:

Step 1: The first program creates an output file.

What About Win 98 and NT?

My PC at work was recently upgraded to Windows NT. With no modifications, everything except step 3 worked fine. The reason why step 3 failed was due to an Organizer issue—not Q&A. So there's no reason why the techniques described in this article won't work on an NT machine as well.

Though I haven't tested the procedure on a Windows 98 PC, Win98 is really just a mature Windows 95 with some new interface-, utility-, multimedia- and hardware support-related features. It's likely that everything I've discussed here will work just as smoothly on a Windows 98 PC.



Step 3: The second program imports the Q&A output file.

What's actually done in Steps 1 and 3 depends on the programs being used. Though I'll discuss these steps briefly to give you an idea of what's involved, I'll focus on Step 2 – the Q&A step – since

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The Independent Guide to Q&A Expertise

Volume 9, Number 8

- 1 Q&A the Invisible David Dvorin
- 2 Q&A 5.0 Fast-Pentium Problem Fixed
- 4 Merge-Print Q&A Records in MS Word Tom Marcellus
- 8 @Help

Edited by Bill Halpern & Gordon Meigs

- When 5.0 Is Slower than 4.0
- Splitting Whole Names & Addresses
- Prevent Users from Exiting Q&A
- Solution for Too Large a Hard Drive

10 Letters

<u>Special Insert</u> included in this month's Download File for Online Subscribers. Open **QA9808IN.PDF** in Acrobat Reader 3.0



Q&A Works Hard Even When You Can't See It

TOM MARCELLUS

S David Dvorin explains in this month's lead article, you don't have to work in Q&A to get useful stuff out of it. You can pass data to Q&A under the table, have it manipulate that data however you like, then spit it out the other end expertly reformatted for whatever other program is going to make use of it.

Dave decided to exploit Q&A's utility-like features when he was faced with having to switch to another scheduling program to satisfy new workplace requirements. He didn't want to give up his old faithful Personal Information Manager (PIM) or do double data entry in both programs. And as it turned out, he didn't have to. Find out how he got Q&A to serve behind-the-scenes as an intermediary between the two programs. Chances are you'll need a similar technique one day.

Passing Q&A data to other programs is great fun, and sometimes you just gotta do it. As I pointed out in my April 1998 editorial:

If a client needs some jazzed-up output like invoices with a logo, shading and fancy fonts, I just design the container in whatever Windows program they have, then add a macro "button" to their *Q&A* form that ports the data to it for printing.

This month, I show you how to do just that. You'll create and store your invoices, sales orders, purchase orders, quotations, or the like in your Q&A database as usual, but print them in attractive form-like documents in your favorite Windows word processor.

What does it take? Not much, as you'll see. Some initial set up is required, of course. But after that it's no more complicated or timeconsuming then pressing F2 and F10 to print the record in Q&A itself.



Fast Pentium Fix for Q&A 5.0

Q&A 5.0 (not 4.0) can have trouble running on today's PC's. For you techno-geeks, the problem stems from a potentially harmful timing

loop bug that can lead to a division by zero interrupt and cause 5.0 to freeze in its tracks on high-speed processors.

As a workaround, we've recommended Moslow, a utility you can run before starting 5.0 to retard your processor. (See August 1997, p. 2, March 1998, p. 8, and June 1998, p. 12.)

Now there's a real fix. As we were about to go to press, we received a patch

from Q&A 5.0's creator Andreas Goebel. Dubbed Q&A Speedfix 1.0, it updates your Q&A 5.0 QA1.EXE file, so you no longer have to cripple your highspeed processor with Moslow.



Editor / Publisher Tom Marcellus

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Preliminary tests on a 300MHz Pentium

II PC confirmed that **Speedfix** delivers the goods. We'll have a full report next month. In the meantime you can get Speedfix from our Free Downloads page at www.quickanswer.com or order it from us on diskette for \$10 postage and handling. You'll need Windows 95/98 or NT to install the patch.

Q&A the Invisible...continued from page 1

that's where the concepts remain consistent regardless of the applications involved.

To perform the work required in Step 2, I created a simple database named Comm_Org.dtf (see Figure 1) and a macro file named Comm_Org.asc. (see Figure 2). I'll refer to these in this article.

Step 1—Generating an output file in the first program

To create an output file in Commence, I use the Export option on its File menu. Commence lets you save a reusable filter for the data you want to export. I wanted to export future appointments – fields such as appointment descriptions, dates, and times. So, in Commence, I set up the appropriate export specification to include the data I wanted in the output file.

I knew which fields to export from Commence because I worked backwards. I learned from Organizer what the structure of the import file should be. I then compared it to what Commence could export. Working between the two, I learned the special conversion actions I'd need Q&A to perform.

Step 2—Massaging the data in Q&A

Q&A imports the first program's output file, manipulates the data, then creates its own output file that becomes the input file for the second program. What I wanted to accomplish here is to have Q&A import the file created by Commence in Step 1, convert it to a file that Organizer could successfully import, then quit.

Comm_Org.dtf has five fields for accepting data from Commence, along with two calculated fields (Mass Updated) to meet Organizer's import requirements.

The structure of the file from Commence to Q&A is constant. The structure of the file from Q&A to Organizer is constant. The steps to convert one to the other are also constant. It's the kind of job that's easily automated by a Q&A macro.

Figure 2 shows the one-macro macro file that

Q&A 5.0 - QA1	_ & ×
Commence to Organizer Conversion	
This datafile is used to move items from Commence into Organizer's Caler	ndar.
rom Commence Date Start: Time Start:	
Date End: Time End:	
Description:	
o Organizer along with Description	
Concatenated Date/Time Start: Concatenated Date/Time End:	
DMM_ORG.DTF New Record 1 of 1 Total Records: 0 Page 1	of 1
sc-Exit F1-Help F3-Delete form F7-Search F8-Calc F10-Cor	ntinue

Figure 1. The COMM_ORG.DTF database.

performs the data conversion. Starting from the Q&A Main menu, it removes all records from Comm_Org.dtf, then imports the export file from Commence using a saved Merge Spec. A Mass Update follows to fill the two calculated fields required by Organizer. Finally, the data is exported for Organizer, then Q&A is exited.

The macro doesn't care about the structure of the imported file or the application that created it. Nor does it care about the export file's structure or that Organizer is the destination program. All parts of the procedure unique to this specific integration are handled by the saved specs within the Comm_Org database. The advantage to working this way is reusability. That is, I can easily adapt this macro for other file conversions.

To automate the Q&A end of things, I took advantage of Q&A's special startup options. The option of interest is *alMacroFile -m1*, where *MacroFile* is the path and name of a Q&A macro file, the *-al* switch loads the macro file when Q&A starts, and the *-m1* switch automatically runs the Alt-1 macro defined in MacroFile.

On my PC, the command to start Q&A and perform the conversion looks like this:

C:\QADOS50\QA -alCOMM_ORG.ASC -m1

When run, Q&A performs the conversion then quits. So now that I have Q&A's end the procedure dialed in, how do I make it work in Win31 or Win95? The answer is a Win31 PIF or a Win95 shortcut.

A PIF or Program Information File tells Win31 how to run a DOS or batch program. It has various parameters you can tweak to create the best configuration for the given program. For this project, I modified the PIF that comes with Q&A (QA.PIF) stored in the Q&A program files directory, and saved it as COMM_ORG.PIF. (See Figure 3 on page 11.)

I changed the title to read *Converting data...* and entered the path to Q&A. In the startup options, I entered *-alCOMM_ORG.ASC -m1* so the conversion macro file is loaded and the proper autostart macro is executed. I turned on the the *Close Window on Exit* option.

The result is a PIF that starts Q&A to perform the file

Continues on page	1	Ì	1
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* Macro file: COMM_ORG.ASC
* Converts Commence data for Organizer's Calendar
* Autoexecution is set to Yes
* COMM_ORG.DTF is in default database directory
* File from Commence is C:\PROJECTS\FRM_COMM.TXT
* File to Organizer is C:\PROJECTS\TO_ORG.TXT
* Both To/From files must exist
*
<begdef><alt1><name>"Commence-Organizer</name></alt1></begdef>
conversion" <vidon></vidon>
<pre><esc><esc><esc><esc>FRCOMM_ORG<enter>S<f10>Y</f10></enter></esc></esc></esc></esc></pre>
<pre><esc>FUIS<home>C:\PROJECTS\FRM_COMM.TXT<enter></enter></home></esc></pre>
COMM_ORG <enter><altf8>Import from Commmence<enter><f10></f10></enter></altf8></enter>
N <f10> <esc>M<enter><f10><altf8>Convert for Organizer</altf8></f10></enter></esc></f10>
<pre><enter><f10>NUES<enter><home>C:\PROJECTS\TO_ORG.TXT</home></enter></f10></enter></pre>

<enter>Y<f10><altf8>Export to organizer<enter><f10><f10>
<esc><esc><esc>X<enddef>
Eigure 2 Of A magra file and magra that converts the Commande over a

Figure 2. Q&A macro file and macro that converts the Commence export file to an Organizer import file



Merge-Print Invoices and Other Complex Forms In Your Windows Word Processor



Tom Marcellus

Want stunning invoices, purchase orders or multi-line quotations? Here's an easy way to get them.



OST of us would rather not entrust our data to anything but Q&A. If only its printing abilities were as trustworthy.

Consider the transaction documents customers and vendors need to see – documents such as invoices, purchase orders, quotations. You want them to look professional – like the invoice shown in Figure 1. You've got the data in your Q&A database. But how do you print that data in an eye-catching "container" like this?

Believe me, in Q&A 5.0 this isn't as difficult as it sounds. It might take a couple of hours to turn it into a simple pushbutton operation. But what's that compared to

a 1949			_	
	INV	OICE		
WILLIAM BAI	RNHAM JANITORIAL	Ac	ct No: BARNHO	0433
1244 CIRCLE	DRIVE		er No: 2349	
UNIT 34C			Date: July 16,	
CHICAGO IL	60433		°erms: Nast30id pVba: Our Truo	
Stock No.	Description	Price	Quantity	Amount
P54-XX	Cabinet 36 Inch	\$ 87.00	4	\$ 268.00
BR-12B	Overalls Medium	\$ 19.95	3	\$ 59.85
435-B3 PR-34G	Pall Chemical	\$ 19.95 \$ 12.95	1	\$ 19.95 \$ 51.80
Plasse nøv fro	m this invoice. No statement will br	sent		
			Subtotal	\$ 399.60
			Sales Tax	\$ 29.97
			Shipping	\$ 39.96
		In	volce Total	\$ 469 .53

Figure 1. Sample invoice merge-printed in Word for Windows using your Q&A data. This could be any type of complex Q&A database record.

the good-looking output you'll enjoy day in and day out, month after month?

I'll show you how to merge-print your database records in a Microsoft Word for Windows 6.0 or 7.0 (Word 95) document—*on-the-fly*—regardless of the number of merge fields. (Later versions of Word might require some modification.) You'll simply click on a "Print" button to merge-print an invoice, sales order, purchase order, quotation or whatever in Word. You'll be able to print at any time—in Add Data or Search/Update mode—without exiting the record or interrupting your work flow.

In addition to having *total* flexibility in designing your custom merge document in a true WYSIWYG word processor, you'll have the option to fax it right from your desktop, or even send it as an email attachment. You'll be printing the best-looking transaction documents that any state-of-the art PC and high-priced software program can print, while keeping your data right where you want it—in Q&A.

(For ways to pass names and addresses to Word for merge printing letters, see my article, "Exporting Data to Windows Programs" in the December 1997 issue.)

Getting started

To illustrate, I'll use an invoice database, though it could just as well be a sales order, purchase order, quotation, or other multi-line-item type of database. Figure 2 shows a sample Invoice.dtf record, and Figure 3 shows Invoice.dtf at the Field Names Spec.

Word can use an ASCII text file as a merge data source. Such a file requires a *header* record containing the field names, followed by one or more data records that correspond to those field names. Here's a simplified example of a one-record Word-compatible merge data file in such a format:

Name;Address;City;State;Zip] (Header) Tom Jones;14 Elm St;Denver;CO;86755] (Record 1)

In this example, a semicolon serves as the *field delimiter* and a right square bracket serves as the *record delimiter*, though you can use other characters. When your Word merge document is linked to a data file like this, Word will merge the data with it as soon as you open the document.

To produce a merge data file in this format, you

program Q&A to create the header record containing the field names, then add the data record.

You'll need two special fields in your database. The first one, **Print** (see Figure 2) is a "button" field. (You click on it to invoke its on-field-entry program.) The second field can be just one character wide and invisible (text and background color the same as the form's color), but it must be positioned immediately to the right of the **Print** field.

Following is the program for the **Print** field. Notice that it includes the field names shown in the Figure 3 database, along with their corresponding data values.

```
< If @Askuser("","Print invoice now?","") Then {
Print =
"Acct No" + ";" + "Order No" + ";" + "Date" + ";"
"Act Nos + ";" + "Order Nos + ";" + "Date + "
+ "Terms" + ";" + "Ship" + ";" + "Name" + ";"
+ "Add1" + ";" + "Add2" + ";" + "CSZ" + ";"
+ "Stk1" + ";" + "Desc1" + ";" + "Price1" + ";"
+ "Qty1" + ";" + "Amt1" + ";"
  "Stk2" + ";" + "Desc2" + ";" + "Price2" + ";"
  "Qty2" + ";" + "Amt2" + ";"
  "Stk3" + ";" + "Desc3" + ";" + "Price3" + ";"
  "Qty3" + ";" + "Amt3" + ";"
  "Stk4" + ";" + "Desc4" + ";" + "Price4" + ";"
"Qty4" + ";" + "Amt4" + ";" + "Note" + ";"
  "Total" + ";" + "Tax" + ";" + "Shipping" + ";"
  "AmountDue" + "]" +
Acct No + ";" + @Str(Order No) + ";"
+ @Str(Date) + ";" + Terms +
+ Ship + ";" + Name + ";" + Add1 + ";"
+ Add2 + ";" + CSZ + ";"
  Stk1 + ";" + Desc1 + ";" + @Str(Price1) + ";"
  @Str(Qty1) + ";" + @Str(Amt1) + ";"
+
+ Stk2 + ";" + Desc2 + ";" + @Str(Price2) + ";"
+ @Str(Qty2) + ";" + @Str(Amt2) + ";"
+ Stk3 + ";" + Desc3 + ";" + @Str(Price3) + ";"
+ @Str(Qty3) + ";" + @Str(Amt3) + ";"
+ Stk4 + ";" + Desc4 + ";" + @Str(Price4) + ";"
+ @Str(Qty4) + ";" + @Str(Amt4) + ";" Note + ";"
+ @Str(Total) + ";" + @Str(Tax) + ";"
+ @Str(Shipping) + ";" + @Str(AmountDue) + "]";
Print = @Replace(Print, ";0", ";");
@Macro("Print Invoice") }
```

The header line is constructed by stringing together all the field names, each followed by a semicolon, with a right square bracket tacked onto the end. This is then

Else CHome

VORA 5.0-0A1 10 × 20 V V O I C E - A Sold to WILLIAN BARNAM JANITORIAL 1244 CIRCLE DRUE UNIT 34C CHICAGO IL 60433	Order No: Date: Terms:	BARNH60433 2349 Jul 16, 1998 Net 30 days Our Truck		_ 5 x
Stk No Description 1 P54-XX Cabinet 36 inch 2 BR-12B Oueralls Medium 3 435-B3 Pail Chemical 4 PR-34G Poster Betty Grable		Price \$67.00 \$19.95 \$19.95 \$12.95	0ty 4 3 1 4	Amount \$268.00 \$59.85 \$19.95 \$51.80
Posted x Print		Sales	Total Tax Tax Ding Due	\$399.60 \$29.97 \$39.96 \$469.53
INUOICE.DTF Retrieved form 2 Esc-Exit F1-Help Alt+F6-Table F7	of -Search Fa	Total Forms: 3 B-Calc F9-Go k		Page 1 of 1 F10-Continue

Figure 2. An Invoice.dtf record. This database has room for only four lineitems, but it could have many more. followed by all the data values that correspond to those fields (in the same order), with each value likewise separated by a semicolon. Any values comprised solely of digits are placed in an @Str function to force Q&A to treat them as text.

Once the merge data file has been assembled in the field, an @Replace command strips out the freestanding 0's (zeros) that Q&A generates when an included number or money field is blank. Here's what the the Invoice.txt merge data file looks like for the Figure 1 invoice:

```
Acct No;Order No;Date;Terms;Ship;Name;Addl;Add2;CSZ;
Stkl;Descl;Pricel;Qtyl;Amt1;Stk2;Desc2;Price2;Qty2;Amt2;
Stk3;Desc3;Price3;Qty3;Amt3;Stk4;Desc4;Price4;Qty4;Amt4;
Note;Total;Tax;Shipping;AmountDue]
BARNH60433;2349;1998/07/16;Net 30 days;Our Truck;WILLIAM
BARNHAM JANITORIAL;1244 CIRCLE DRIVE;UNIT 34C;CHICAGO IL
60433;P54-XX;Cabinet 36 inch;67;4;268;BR-12B;Overalls
Medium;19.95;3;59.85;435-B3;Pail Chemical;19.95;1;19.95;
PR-34G;Poster Betty Grable;12.95;4;51.8;Please pay from
this invoice. No statement will be
sent;399.6;29.97;39.96;469.53]
```

Notice that the money values not only don't have dollar signs, their decimal places are truncated. (\$67.00 appears as 67, and \$51.80 appears as 51.8.) You can add programming to fix this, but it's far easier to simply format these merge fields in Word, as you'll see.

Finally, an @Macro command prints the invoice, more on which later.

The field just to the right of the **Print** field should contain this program:

```
< Print = "Print"; Chome
```

This restores the "Print" label to the **Print** field (button), and moves the cursor to the top of the form.

Wrapping up the Q&A end

You'll need three more Q&A components – the "Print Invoice" macro, an External Program selection, and a DOS batch file.

Your Print Invoice macro should look like this:

160 C	8A 5.0 -	QA1								_ 8 ×
1	0 × 20	-			A					
	Name Add1 Add2 CSZ	= I N U		E ==	Orde T	r No: Date:	Terms			
	Stk	No		Descript	ion		Pri	ice Qty	Amo	unt
1	Stk1 Stk2		Desc1 Desc2				Price Price		Amt1 Amt2	
3 4	Stk3 Stk4		Desc3 Desc4				Price Price		Amt3 Amt4	
N	ote							Total Sales Tax Shipping Amount Due	Shipping	
Pos	ted →	Pri	nt							
INU	OICE.C	TF			Field Na	mes S	pec		Page 1	of 1
Esc	-Exit	F1-	Help	F2-Print	F3-Clear	Spec	F6-E>	kpand Field	F10-Cor	tinue

Figure 3. Invoice.dtf at the Field Names Spec. You include the names of the fields in the merge data file Q&A passes to Word for Windows.

<begdef><nokey><name>"Print<sp>Invoice"
<vidoff><altf9>8<tab><enddef>

Your External Programs selection (Utilities / External Programs) should look like this:

Menu Option	Command Line
8 - Print Invoice	Invoice.bat %g

And the DOS batch file, Invoice.bat, should look like this, with the final three lines all on one line:

```
@Echo off
copy %1 d:\qa\docs\Invoice.txt
C:\msoffice\winword\winword.exe
c:\msoffice\winword\Invoice.doc
/mPrintInvoice
```

The third line is the path to the Word executable file. The fourth line is the path to the merge document. (Your paths will probably be different.) The last line is a Word macro I'll show you later.

Here's what happens when you click on "Print."

- 1. The data for the merge data file is assembled in the **Print** field.
- 2. The @Macro command runs the *Print Invoice* macro, which "presses" Alt-F9 and 8 to launch the 8 *Print Invoice* selection on the External Programs menu. (The %g option on the external program's command line passes the contents of the Print field to DOS.)
- 3. The Invoice.bat batch file starts and picks up the data in the %g variable (the merge data file) via its %1 parameter, saving it to a text file named *Invoice.txt* (overwriting any previous file of the same name). The batch file then starts MS Word, loads the Invoice.doc document, and runs the optional MS Word *PrintInvoice* macro I'll show you later. You'll have to modify the paths in your batch file to accommodate the location of the files on your PC.

At this point, Word will be busy printing your invoice and prompting you to return to Q&A. Back in Q&A, the final *Print Invoice* macro command – the <tab> – will execute, moving to the adjacent field. The program in that field will restore the "Print" label to the print button and move the cursor to the top of the form.

So all you'll have to do to print your invoice in Word is click on the **Print** button.

That takes care of the Q&A end of things.

The Word Invoice merge document

Start MS Word and open a new blank document. Add your company's letterhead and logo to the top of the document (or in the header), and type "INVOICE" (or whatever) on a blank line.

Now, how and where do you place the merge fields?

Figure 4 shows the merge document area where the merge fields and their labels are inserted in a table (producing the Figure 1 invoice.) The table's grid lets you easily align the text and merge fields in highly-structured documents like invoices and purchase orders.

To create a table in Word, click on Table / Insert Table, and specify the number of columns and rows. The table in Figure 4 began with five columns and 24 rows.

By using Word's *Merge Cells* command (on the Table menu) and resizing the columns, I turned the top third of the invoice (where the name, address, and invoice header information appears) into three columns, and the bottom third (the subtotal, tax, shipping and total) into two columns.

I left the middle third of the table (the line-items area) with five columns and 13 rows — enough room for a column heading and Notes row, a blank line, and 10 lineitems. I also adjusted the column widths (by dragging the column separator lines) to accommodate the lengths of the various line-item elements. I turned on the table borders in this area to get the solid vertical and horizontal grid lines, and added 10% shading to every other row.

You can make your merge document as fancy (or as Spartan) as you like.

When you have the table the way you want, you can begin inserting your merge fields in it. Here's how:

- 1. Click on Tools / Mail-Merge. Word's Mail-Merge Helper will appear. (See Figure 5.)
- 2. Click on the Main Document *Create* button, then click on *Form Letters / Active Window*. This makes your current or active document the merge document.
- 3. Click on the Data Source *Get Data* button, then click on *Open Data Source*.

	<u>I N</u>	VOICE				
«Name»		A	ct No:	«Acct_No» «Order_No»		
«Add1»		Ore	ler No:			
«Add2»		Orda	r Date:	«Dates		
«CSZ»			Terms:	«Terms»	•	
		Sh	ip Via;	αShips		
Stock No.	Description	Price	Qui	antitv	Amount	
«Stk1»	«Desc1»	«Price1»	«Q	ty1»	«Amt1»	
«Stk2»	«Desc2»	«Price2»		tv2»	«Amt2»	
«Stk3»	«Desc3»	«Price3»	«Q	ty3=	«Amt3»	
«Stk4»	«Døsc4»	«Price4»	αQ	ty4≥	∉Amt4 x	
«Note»						
				ubtotal	«Totab	
			0.41	A D TALL		

Subtotal «Total
Seles Tax «Tax
Shipping «Shipping
Invoice Total «AmountDue

Figure 4. Portion of the Word Invoice merge document where the merge fields are inserted. (They're enclosed in chevrons.) This is a Word table which makes it easy to place and align the fields and their text labels.

- 4. Pull down the Files of Type menu and select Text Files (*.txt)
- 5. Navigate to the subdirectory where your Invoice.txt file is stored, select it, and click Open. (If you get a message that says Couldn't find installable ISAM, just click Cancel.) The Header Record Delimiters dialog box should appear. (See Figure 6.)
- 6. Select the semicolon as the Field Delimiter and the right square bracket as the Record Delimiter. Then Click OK.
- 7. Word will prompt you to begin inserting your merge fields using the Mail Merge toolbar shown in Figure 7.
- 8. Click in the table cell where you want to insert your first merge field, then click the Insert Merge Field button on the Mail Merge toolbar. The list of insertable fields from your Invoice.txt file will appear.
- 9. Click on a merge field and Word will insert it at the cursor position.

Continue to insert your other merge fields this way. You'll need text labels, such as Order No, Order Date, and so forth, to associate with some of your merge fields. These you can type in adjacent cells as ordinary text. Use Figure 4 as a guide.

Use the alignment icons on Word's Format toolbar (see Figure 7) to align your text and merge fields. For example, you'll want to right-align your money fields so the decimal points all line up. You can also apply any fonts or other enhancements at this stage.

Formatting money fields

The main document and data source are ready to merge Choose the Merge button to complete the merge.

<u>O</u>reate 🔻

Merge Type: Form Letters

<u>G</u>et Data 🔻

3 Herge the Data with the Document

<u>M</u>erge. Options in Effect Suppress Blank Lines in Addresses Merge to Printer

Data: D:\QA\DOCS\INVOICE.TXT

Mail-Merge Helper

Main Document:

2 🛅 Data Source:

Your Q&A merge data file will contain stripped-down money values. For example, \$39.00 will come across as 39.

Edit 🔻

Edit 🔻

Query Options.

Main Document: D:\WINWORD\LETTERS\invoice.doc

? ×

Cancel

Header Record Delimiters

the appropriate delimiter.

Field Delimiter

Preview:

Data fields must be separated from each other by a characte

•

Acct·No;Order No;Date;Terms;Ship;Name;Add1;Add2;CSZ;Stk1;Desc1;Price1;Qt

Amt3;Stk4;Desc4;Price4;Qty4;Amt4;Note;Total;Tax;Shipping,Am 💌

y1;Amt1;Stk2;Desc2;Price2;Qty2;Amt2;Stk3;Desc3;Price3;Qty3;

Record Delimiter

called a field delimiter. Similarly, data records must be separated by a record delimiter. Use the lists below to select

To include the dollar sign and two decimal places, you'll have to format these fields. It's far easier to do this in the Word document then to attempt to do it with Q&A programming.

Move to any money cell and press Alt-F9 to reveal the hidden merge field commands. For the Price1 field, for example, you'll see something like this:

{MERGEFIELD Price1}

Place the cursor to the right of the field name, and type in this format mask:

\#\$####.0.00

The revised merge field command should then look like this (though it might be split onto several lines):

{MERGEFIELD Price1 \#\$####,0.00}

Add this same mask to all your Price, Amount, and other money fields.

Printing

To see the actual data to be merged (instead of the merge field names), click the icon just to the right of the "Insert Word Field" button on the Mail Merge toolbar. (It's the one with the chevrons and "ABC" on it. See Figure 7.) Be sure this View Merged Data icon is depressed when you save the document. Otherwise, Word might print the merge field names rather than the actual merged data.

To print the invoice, click on Tools / Mail-Merge / Merge. Select your print options (such as Merge to Printer) and click OK to print. Once you've saved the document with all the merge-related settings, you can thereafter click File / Print to print an invoice.

You can automate printing with the following Word 6/7 PrintInvoice macro. The name of this macro follows

the */m* switch at the end of the command line in the Invoice.bat batch file we looked at earlier. (The batch file starts Word, loads the Invoice.doc merge document, then runs the PrintInvoice macro):

Continues on page 12

Figure 6. The Header Record Delimiters dialog box where you choose the characters to use as your field and record delimiters.

W Micro	soft W	ord - in	voice.d	loc		× × × × × × × ×						
📲 Eile	<u>E</u> dit	⊻iew	<u>I</u> nsert	F <u>o</u> rmat	Tools	T <u>a</u> ble	<u>W</u> indow	<u>H</u> elp	1			
Normal			rial		▼ 1	-	BIU	⊮▼			≡ ≣ ∰	霍 2
% pt					l a B	∃ ⊡ ⊞	Clea	r		-	3	
Insert Me	erge Fi	eld I	nsert Wa	rd Field	≪≫ ABC I	▲ 1	► H		ѷ∣Ҏ҈	ş Ş 🛱		4

? ×

¥

ОK

Cancel

Figure 7. The Word toolbars you'll need. (1) The Menubar, (2) The Format toolbar, (3) The Borders toolbar (for tables), (4) The Mail Merge toolbar. Use the Insert Merge Field button to insert fields, and the "ABC" icon to view merged data. If any of the toolbars aren't visible, click View / Toolbars.

Figure 5. Word's Mail-Merge Helper guides you through the steps to create your merge document and specify your data source.





5.0 Slower Than 4.0



I've been working on upgrading our site from Q&A 4.0 to 5.0, using a site license we purchased from Symantec. I've discovered two problems:

- I'm unable to run multiple copies of Q&A 5.0 like I did with the Q&A 4.0 Network Pack. (We purchased a 75-user license for Q&A 4.0).
- Q&A 5.0 is as slow as a snail on Mass Updates.

Our Unix system dumps data onto our Novell server in fixed ASCII files. A Q&A macro runs an update to our databases, which I designed to take advantage of 5.0's XPost feature in two of the five linked databases. The other three are Mass Updated using XLookups to the first two.

With Q&A 4.0, the procedure takes about 25 minutes with about 45,000 total records processed. While testing Q&A 5.0, I stopped the process after 15 hours and 4,512 records processed.

I remember reading something about this problem, but can't recall the solution. I tried running the procedures with the databases local. I tried running everything from the server. I even tried adjusting memory allocation. No improvement. I also noticed when running Q&A 5.0 in Windows 95 that I get divide by zero errors. But the error windows close and the program still runs. Could this be the source of the problem?

Steve Pellow, Moonachie, New Jersey

Let's look at the multiple copies issue first. If you installed Q&A 5.0 but didn't install Network Packs with the upgrade, what you actually have is a single user version. You can't run multiple sessions unless you apply the Network Packs. (Your old Network Packs probably won't work since they're one-time installs). As to the cost and legal issues, you should contact customer support at Symantec. A good starting point is James Gambrill at 541-984-7904. He's the customer service team coordinator.

Your second problem seems to be a combination of various things. You're running Q&A in Windows 95 and getting a "divide by zero" error – an indication that you're running Q&A on a workstation with a 266Mhz or faster Pentium II processor. Q&A 5.0 has trouble with these high-speed processorss. The fix is to install the SpeedFix Patch (see p. 2), or run a utility program called Moslow to slow down the processor a bit. (See The Quick Answer, August 1997, p.2. and the @Help column in the March 1998 issue for details). You can download either one from the Quick Answer Web site's "Free Downloads" page. See prior Quick Answer issues and the Web site for information on setting up and running Q&A properly.

That's the good news. The bad news is that Q&A 5.0's XPost and XLookup are significantly slower than Batch Post and XLookup in Q&A 4.0 – particularly on networks. Fortunately, there are a few things you can do to speed things up.

1. Instead of running multi-field XLookups this way:

XLookup("filename", match field, "external match field", "external field1", local field1, "external field2", local field2, "external field3", local field3, etc)

Try running multiple @XLookups, like this:

local field1=@XLu("filename", match field, "external match field", "external field1"); local field2=@XLu("filename", match field, "external match field", "external field2"); etc.

The @XLookups will run faster than the XLookups.

2. If you can, use a macro to run Batch Posts instead of running XPosts in Mass Updates. You'll find that Q&A 5.0 will process your records much faster.

Splitting Whole Names & Addresses



I receive files that contain customers' names. Sometimes, I need to import some of the names into my Q&A database. A





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

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

typical name could be John Jones, John P. Jones, John P Jones, John Jones DDS, and so forth. Is there a program I can use to break down the name by the number of blank spaces or something? Even if it worked just 90% of the time it would save me a great deal of time and trouble. I'd also like to remove any commas in the name. I've been trying to program this using the @Instr function, but haven't had much luck.

I also need a way to break down a combined city, state, ZIP code field into separate City, State, and ZIP code fields, and I'd appreciate any help you could give me on this. John Denil, Green Bay, Wisconsin

You're on the right track with the @Instr function. Names can be tricky because of the way people spell and use them. Some people use a first initial and their middle name (J. Wilson Smith), some use only initials, some write or spell last names with spaces in them (Mac Arthur), and the variations go on and on. However, since you're not expecting 100% perfect results, here's a solution that will always work if we assign the following restrictions to the name:

- If there's a middle initial, it's one character with or without a period.
- Last names contain no spaces, though they may be hyphenated.

Bring the full name into a **Whole Name** field (#1), and be sure you have fields named **First**, **MI**, **Last**, and **Suffix**. Place the following program in the **Whole Name** field. (A sample database, Split-Em.dtf, containing this program – plus a program for splitting a combined city, state, zip field – is included in the download file for Online Edition subscribers. You'll also find it in on the "Freebies" page at www.quickanswer.com.)

```
>#1:If First="" Then {
```

```
If @Instr(Last," ")>2 Then {
   Suffix=@Mid(Last,@Instr(Last," ")+1,10);
   Last=@Lt(Last,@Instr(Last," ")-1)};
```

```
Rem("Remove All the Commas in the Last Name");
Last=@Replace(Last,",","") }
```

Be sure to remove the REM comments if you're using this program in a Q&A 4.0 or Q&A for Windows database.

For a program that parses a combined city, state, Zip field (such as *Boston*, *MA* 04322) into separate City, State, and ZIP Code fields, see page 12 of the October 1996 issue.

No Way Out



I have a client who runs Q&A on a network. He has a college student working with him who sometimes "plays in the system" outside of Q&A. This caused a system crash on one occasion. Is there a way to disable the **X - Exit Q&A** on the Main menu so that users can't get out to DOS or Windows? If there is, how could a few select users override this "fix" when they need to exit Q&A to work in other programs? Bob Brandt, via The Internet

There are two ways to accomplish what you want to do. (Three, if you consider my preferred method).

Preferred method: Have the boss (your client) inform the employee that the next time he is caught messing around in the system in an unauthorized manner, his next paycheck will come from the unemployment office.

Before I get into the two other methods, let's make one thing clear: If you're running Q&A under any version of Windows, the employee does *not* have to exit Q&A to gain access to the system. That's what multi-tasking is all about. Alt-Tab, Windows control keys, The Taskbar, Ctrl-Esc, X, Minimize – these are all basic Windows operating system features that will defeat anything we talk about here. That said...

Intermediate Method: You can always create a replacement menu in Q&A using Shift-F2 / *M* - *Create Menu*. Create a new menu and name it *Q&A Main Menu*. Make sure that it has these properties:

Menu name	Q&A Main Menu
Display:	Overlay
Status:	Active
Menu returns	No
On Escape, show	w menu (Leave blank)

Next, add the Menu Choices 1 through 5, like this:

<u>Choice</u>		Macro
F -	File	F
R -	Report	R
W -	Write	W
Α -	Assistant	А
υ-	Utilities	U

Consider leaving out the *A* - *Assistant* choice and macro, unless the client uses the Intelligent Assistant or Query Guide.

Press F10 to save this menu to Qamacro.asc (assuming that's the current macro file), then press Esc.

From this point on, you'll have a Q&A Main menu without the *Exit* option. Pressing *X* will do nothing. To exit Q&A, press Shift-F2, choose *Clear Macros*, then press

Esc. The regular Q&A Main menu will be back, and you can exit. (So can Mr. Wanderlust if he discovers the trick).

Dire Method: Follow the steps for the Intermediate Method above. Then, at the Q&A Main menu, choose File / Design / Customize Application / Protect Macro File. Enter the name of the macro file created above, press Enter, and name the protected macro file Qamacro.enc. On the machines you want to protect, start Q&A so that they load the protected macro file (for example, *QA* -*ALC:\qa\qamacro.enc*). On the PC's where you need a back door, start Q&A with the regular Qamacro.asc file (QA). The back door systems will be able to use the Shift-F2 / Clear Macros routine, while the others will only be able to Exit Q&A (Windows notwithstanding) by powering down their PC's.

Good Luck!

Gimme Space!



Could you tell me about the LESSPACE utility I've heard about? I understand it's a workaround for the large hard drive partition issue? And what about Q&A and FAT32? I'd appreciate any info you could spare. Thanks!

Jeff, via the Internet

We receive lots of questions like these from Q&A users confused about hard disk partition size, processor speed, and file allocation table (FAT) issues. We've covered these issues before, but a brief racap is probably in order. (See December 1996, page 8, and March 1998, page 8.)

Processor speed is a problem only with Q&A 5.0 running on a Pentium II processor. *SpeedFix* (see p. 2) or *Moslow* cures the headache, and both are available from the "Free Downloads" page at the Quick Answer's Web site (http://www.quickanswer.com).

Q&A for DOS or Windows won't run properly if the program or data is stored on a hard drive partition larger than 1.87GB (slightly more or less, depending on how you measure a gigabyte). Some of you will swear that you have Q&A running in a larger partition and everything is just hunky-dory. Just remember where you got this fair warning: *When you cross that 1.87GB barrier, you will start to* lose data and corrupt files, and you may even crash your machine.

The adventurous can change their hard disk's partition sizes using good old FDISK, but that means you'll lose all your programs and data and you'll have reconfigure your system from scratch.

A far safer choice is to use a hard drive partitioning utility such as Partition Magic from PowerQuest (800-379-2566, www.powerquest.com). Partition Magic lets you non-destructively (without losing files) resize your partitions. You can even use it to change from the old FAT16 to the new FAT32.

FAT32 has nothing to do with DOS's problem with large hard drives. It has to do with sector size and allowing Windows 95/98 to recognize hard drive partitions larger than 2GB. Windows, through the initial Windows 95 release, can't handle partitions larger than this. Moreover, FAT32, because of the smaller sector size it uses, will recover a significant amount of wasted space on a typical FAT16 drive. A gain of 100MB or more on a 1GB drive isn't unusual, particularly on drives that contain a multitude of small files.

But what if you don't want to (or can't, due to administrative restrictions) change the size of your hard disk partition? You don't have to give up Q&A. You can use LESSPACE.COM (also available at quickanswer.com on the "Free Downloads" page.

LESSPACE was originally written for Paradox database users who were experiencing the same problem. The utility lies to your system and software, telling them that there's up to 500MB of free space on a drive whose total size is 500MB. Here's an excerpt from the README file that comes with LESSPACE:

If your DOS application is misbehaving because you are using large hard drives, this TSR may help. Technically, the TSR watches for requests from the application to DOS/WIN for details of the disk space, and adjusts them down to "more reasonable" values. Therefore, you may get incorrect (reduced) Space values (total and/or free space) in the application, but your application should still work correctly.

Letters

I just received the July '98 issue of *The Quick Answer* and, as always, I first flipped to the @Help page. Two issues mentioned there are relevant to two of my installed Q&A applications.

I have a law firm client running a Q&A 4.0 application I wrote five years ago. They were running on a slow seven-user Novell network, so I got them into new hardware and a Win 95 network. Right after installation, they started getting the "disk drive door open" error message Meigs & Halpern mentioned. But after about six weeks, the frequency of that error message deminished greatly and now occurs only rarely. My sense, based on nothing except experience with how humans continually try to outdo computers, is that some part of the problem involves the operator(s), either in terms of what they're doing, or the frequency or speed at which they're doing it. This is just a gut feeling.

I recently ported another client's long-running Q&A 4.0 application from a 386 DOS PC to a new 266MHz Win 98 PC. There hasn't been a single problem, apart from the usual Windows learning curve that has nothing to do with Q&A. —Dave Jampole, djampole@softdisk.com

Q&A the Invisible...continued from page 3

conversion, with Q&A quitting when the task is done.

In Win95, a *shortcut* for a DOS program is the same thing as a PIF. It's just presented a bit differently. In fact, the shortcut I use for the conversion process is simply the PIF I copied over from my Win31 machine to my Win95 machine. The key tabs for the shortcut's properties are shown in Figures 4 and 5.

(Note: To learn more about PIFs and shortcuts and how they relate to Q&A, see my article "Q&A and Win 95" in the October and November 1997 issues of *The Quick Answer*.)

Step 3—The second program imports the Q&A

PIF Editor - COMM_ORG.PIF				
<u>F</u> ile <u>M</u> ode <u>H</u> elp				
<u>P</u> rogram Filename:	C:\QADOS50\QA.COM]		
Window <u>T</u> itle:	Converting data for Organizer			
Optional Parameters:	-alcomm_org.asc -m1]		
Start-up Directory:]		
<u>V</u> ideo Memory: Text Low Graphics High Graphics 				
Memory Requirements: KB <u>R</u> equired 128 KB <u>D</u> esired 640				
EMS Memory:	KB Required 0 KB Limit 1024]		
XMS Memory:	KB Reguired 0 KB Limit 1024]		
Display Usage: O Full Screen Execution: Background				
<u>W</u> indowed <u>E</u> xclusive				
Close Window on Exit				
Press F1 for Help on Program Filename.				

Figure 3. COMM_ORG.PIF's properties for Win31. Notice that Q&A is set to run in the background in a window.

output file

Every application has its own way of importing data (assuming it has such facilities at all). Unfortunately, Organizer doesn't have an automatic startup option I could use to import an external file. I have to initiate the import process manually.

Turning three steps into one

Though I had the three-step procedure *almost* fully automated, I still wasn't satisfied. I wanted it all done with a single mouse click. Fortunately, Commence let me assign up to four tasks to a single toolbar icon. So that took care of the problem. Commence creates the output file using the parameters I initially specified, invokes the PIF that runs Q&A, then starts Organizer.

The complexity of the procedure is all hidden – I never see it. Whenever I enter a scheduling item in Commence that I need to port over to Organizer, I simply click on my Commence button, and the next thing I see is Organizer's main screen ready for the import.

All I see while this is happening is a minimized icon at the bottom of the screen that appears briefly with the text *Converting data....* This is Q&A doing its thing without ever showing its familiar face.

Conclusion

I'm repeating myself (and many other *Quick Answer* authors) by saying that Q&A is a powerful tool. I've shown here that harnessing Q&A's power doesn't necessarily mean typing a single keystroke inside Q&A. It can work magic for you behind the scenes.

The example I describe here might not be directly applicable to you, though the concepts and techniques can certainly be used in many scenarios where data manipulation is needed to get two applications "talking"

to one another.

David Dvorin owns

Hillborough, New

Phoenix Solutions of

software for a broad

needs. 908-281-6272, dvorin@bms.com

range of business

Jersey, which specializes in tailoring off-the-shelf

Comm_org Properties ?X		
General Progr	am Font Memory Screen Misc	
Converting data for Organizer		
Cmd Jine:	C:\QADOS50\QA.COM -alcomm_org.asc -m1	
Working:		
<u>B</u> atch file:		
<u>S</u> hortout key:	None	
<u>R</u> un:	Minimized	
	✓ Close on e <u>x</u> it	
	Windows <u>N</u> T <u>C</u> hange Icon	
OK Cancel Apply		

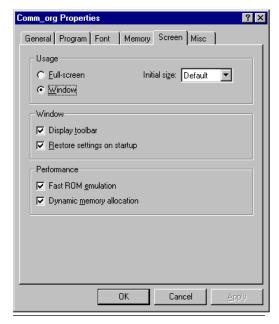


Figure 4. The Program tab of the Win95 COMM_ORG.PIF.

Figure 5. The Screen tab of the Win95 COMM_ORG.PIF.

Printing in Word...continued from page 7

```
Sub MAIN
FilePrint .AppendPrFile = 0, .Range = "0",
.PrToFileName = "", .From = "", .To = "",
.Type = 0, .NumCopies = "1", .Pages = "",
.Order = 0, .PrintToFile = 0, .Collate = 1,
.FileName = ""
message = MsgBox("Invoice now printing." + Chr$(13)
+ "Quit Word and return to Q&A?", 36)
If message = 0 Then Goto Bye
FileExit 2
End If
Bye:
End Sub
```

With the *PrintInvoice* macro, Word will automatically begin printing the invoice while asking if you want to quit Word and return to Q&A.

Your Word documentation will tell you how to record or write a macro.

Conclusion

There you have it — a fast and easy way (just three mouseclicks) to merge-print your transaction documents in Microsoft Word for Windows. If you're using a different Windows word processor, chances are it will have similar features to help you get the same result.

The technique I've covered prints one invoice at a time. You could modify it to *batch print* your merge-documents at the end of the day, but that's beyond the scope of this article.

You can use this technique to merge-print any document that requires complex formatting, graphics, shading, or the like. The number of merge fields doesn't matter. Once you've got the initial setup done, mergeprinting will take no more time or effort than printing in Q&A itself.

Tom Marcellus is the editor of The Quick Answer



Last Call... to sign up for *The Quick Answer's* **Q&A Masters Seminar** and National Q&A User Group's **Bash '98** in Washington, D.C., September 25-27. Details in the special insert in this issue (in the Acrobat Reader 3.0 file QA9808IN.pdf in the Online Edition download).



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