

User's Guide

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OPEN/A TUTORIAL

Introduction

It is recommend that the site database administrator, or equivalent, generate the sample DMSII tutorial database. In addition, the database administrator may load data into the sample database via the load programs which are provided for your convenience.

It is also recommended that the database administrator, or equivalent, create the client configuration file(s). This file will contain a list of all DMSII structures that may be accessed. This file is created via the PC based administration program.

Once the sample database has been generated, data loaded, and the client configuration file created, end users may access the database files via Windows PC applications.

End users only need to follow the steps indicated in the section "User DataSource Definition" and then skip to the section on using Open/A with various PC applications.

If any problems arise in using the sample database, you will need to consult the site database administrator, or equivalent.

Sample Database Generation

The Open/A tutorial provides you the opportunity to explore the many features and capabilities of Open/A. Included is a sample DASDL for your usage. Follow the steps as outlined below to compile and generate the sample database; then, you may access the DMSII data in the database through various Windows applications.

The sample DASDL will be under the usercode and packname which was specified during the Open/A mainframe installation process. For our purposes, let's assume that the usercode is "OPENA" and the packname is "PACK". **Throughout this tutorial, if you specified a usercode and packname different from the ones indicated above, you will need to adjust the usercode and packname references accordingly. It is assumed that you have installed Open/A on the A-Series mainframe and on the PC.**

1. Log onto CANDE on the A-Series, under usercode OPENA.
2. Enter "GET TUTORIAL/DASDL/COMPANYDB ON PACK".
3. From Home position, enter "PAGE" for pagemode.
4. If you installed Open/A on a pack other than "PACK", you will need to change the packname in the "DISKPACK=PACK" reference in the DEFAULTS section of the DASDL, line number 15000, accordingly. Transmit your changes.
5. If you installed Open/A on a pack and usercode other than "PACK" and "OPENA", you will need to change the "DMSUPPORT" and "CONROL FILE" usercode and packname specifications accordingly. DASDL line numbers 33100 and 34000 respectively. Transmit your changes.
6. From Home position, enter "SAVE" to save all your changes to the original DASDL source.
7. From Home position, enter "C AS \$COMPANYDB".

After the successful compilation of your “COMPANYDB” database and the generation of all the necessary tailored software, you are now ready to load data into the database for usage. You should see a message that reads “DM SOFTWARE COMPILE COMPLETE, NO ERRORS” when the DASDL compilation process has completed.

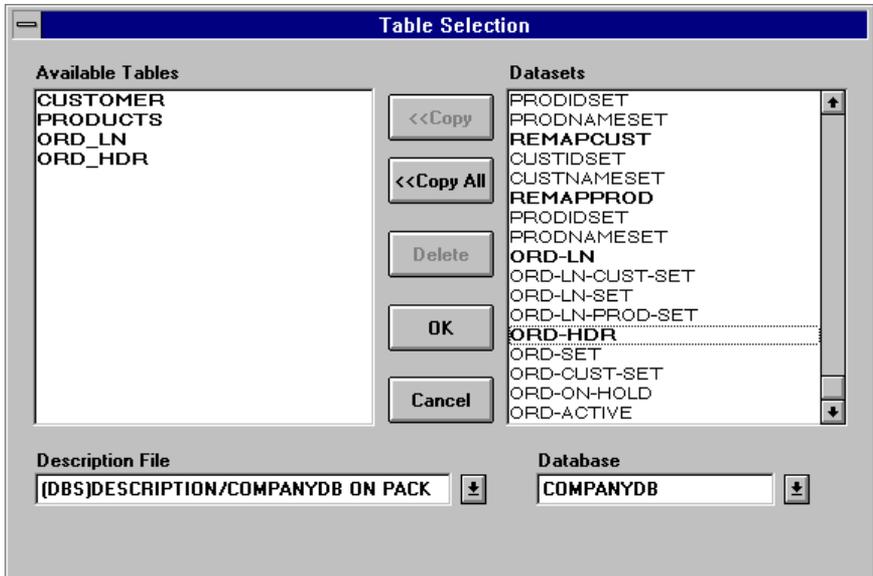
You will need to make the security of the sample database description file, CONTROL file, DMSUPPORT library, and the RECONSTRUCT file public.

8. From CANDE, GET TUTORIAL/LOAD/CUSTOMER ON PACK. Type in RUN. This program will be compiled and executed; thereby, loading the dataset “CUSTOMER” with data from the file “TUTORIAL/NEWDATA/CUSTOMER”, which was copied to your disk during the Open/A installation.
9. Type in SA to save the object code file created in step 8.
10. From CANDE, GET TUTORIAL/LOAD/PRODUCTS ON PACK. Type in RUN. This program will be compiled and executed; thereby, loading the dataset “PRODUCTS” with data from the file “TUTORIAL/NEWDATA/PRODUCTS”, which was copied to your disk during the Open/A installation.
11. Type in SA to save the object code file created in step 10.
12. From CANDE, GET TUTORIAL/LOAD/ORDHDR ON PACK. Type in RUN. This program will be compiled and executed; thereby, loading the dataset “ORDHDR” with data from the file “TUTORIAL/NEWDATA/ORDHDR”, which was copied to your disk during the Open/A installation.
13. Type in SA to save the object code file created in step 12.
14. From CANDE, GET TUTORIAL/LOAD/ORDLN ON PACK. Type in RUN. This program will be compiled and executed; thereby, loading the dataset “ORDLN” with data from the file “TUTORIAL/NEWDATA/ORDLN”, which was copied to your disk during the Open/A installation.
15. Type in SA to save the object code file created in step 14.

At this time, we will create a client configuration file(s) which will contain a list of all DMSII structures that may be accessed.

Client Configuration Files

1. From Program Manager, double click on the “Open/A Admin” icon. You will be presented with a dialog box which is similar in appearance to the Open/A ODBC data source setup dialog box.
2. Enter an A-Series usercode/password in the proper boxes which will be used to log you onto the host.
3. Specify your communications provider and connection name. Refer to the Open/A User Manual, chapter 2, section “Initial Installation” for additional information, if necessary. Click on “OK”. You will be presented with the Open/A window at this time.
4. From the Open/A window, enter your license key by clicking on “Special” on the menu bar. Choose “License Key” from the drop down list. Enter your license key in the box labeled “License Key”.
The license key only needs to be entered one time by the administrator.
5. Click on “File” on the menu bar; click on “Add Configuration File” from the drop down list. Enter “(OPENA)TUTORIAL/CLIENTCONFIG ON PACK” in the dialog box. Click “OK”.
6. From the right side of the Open/A window, click on “Tables”; then click on “New”. You will be presented with the “Table Selection” window.
7. Enter “(OPENA)DESCRIPTION/COMPANYDB ON PACK” in the “Description File” box.
8. Go to the “Database” drop down list and select “COMPANYDB”.
9. Select Customers, Products, Order Header, Order Details by double-clicking on the name of the structure.



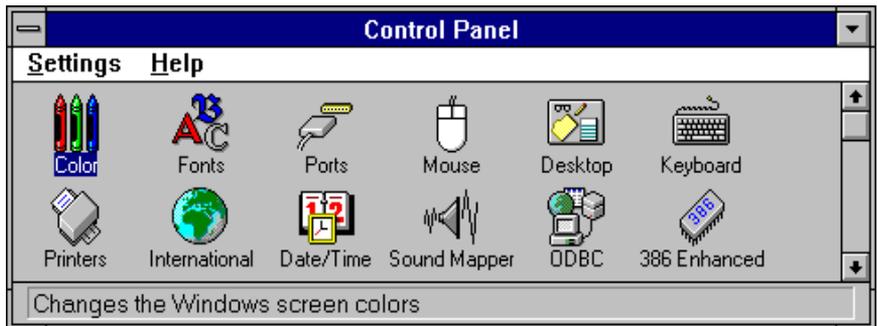
10. Click on “OK”.

11. From the menu bar, choose “File”. Click on “Save Configuration File”; then, click on “Exit” from the drop down list.

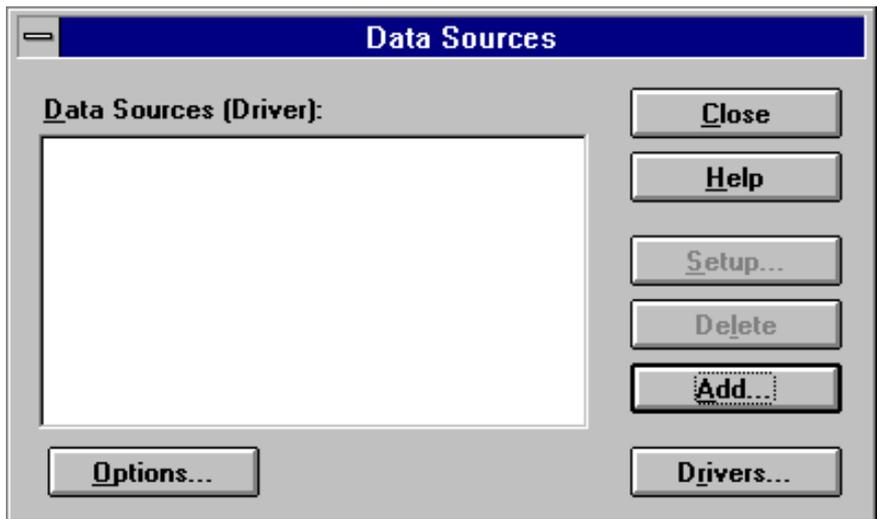
Before we proceed with some examples of using Windows applications to retrieve information from the DMSII databases, we will set up a datasource to use for ODBC connectivity purposes.

User DataSource Definition

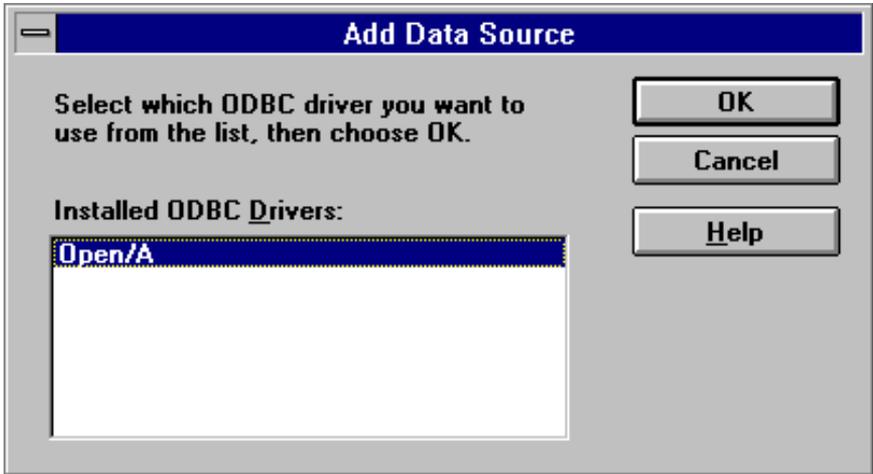
1. From Program Manager on your PC, double click on the icon “Control Panel”, which is usually in the “Main” group.



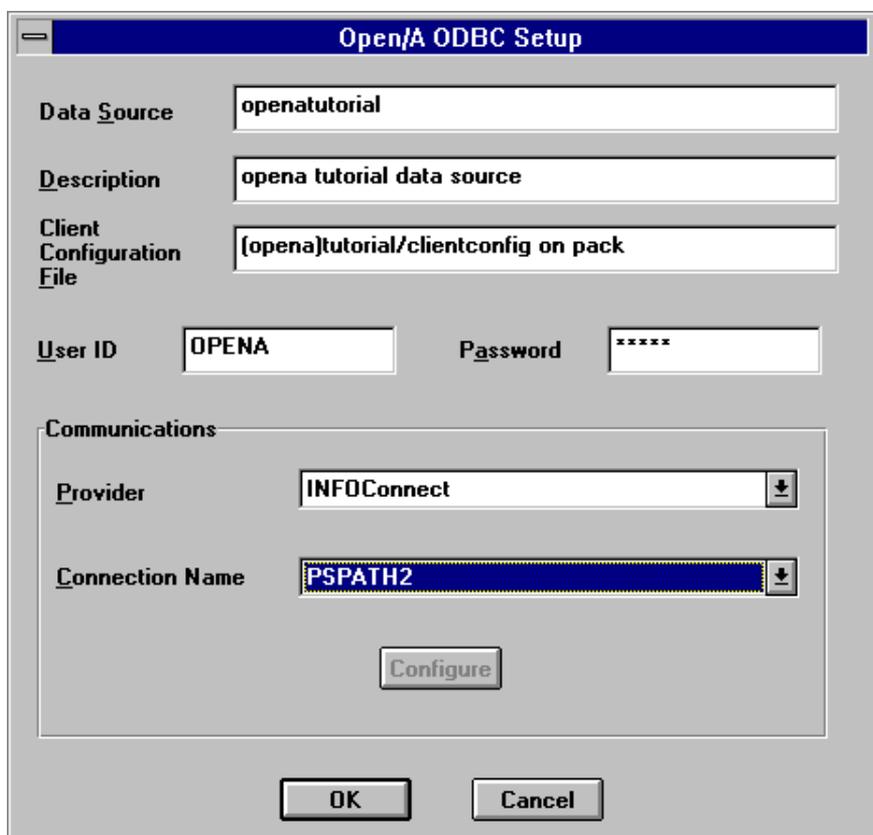
2. Double click on the icon “ODBC”.



3. Click on “Add”; click on “Open/A” under “Installed Drivers” and then click on “OK”.



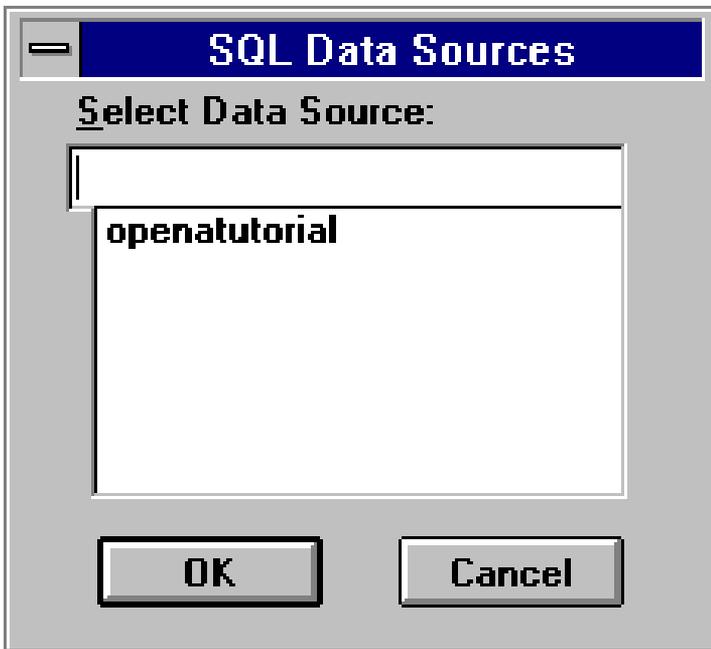
4. On the “Open/A ODBC Setup” dialog box, enter the following information in the “Data Source”, “Description”, and “Client Configuration File” boxes, as shown below. If you installed Open/A under a usercode other than “OPENA”, you will need to provide that usercode in the “User Id” box with the appropriate password in the “Password” box; otherwise, the default usercode should be “OPENA” with the appropriate password in the “Password” box. Indicate the proper communications provider and connection name; this name should specify a station which has been set up to use the Open/A ODBC driver-----for additional information on the communications provider and connection name, refer to the Open/A User Manual, Chapter 2, section “Initial Installation”.



5. Click on "OK"; then, click on "Close".

Using Open/A with Microsoft Access (v 2.0)

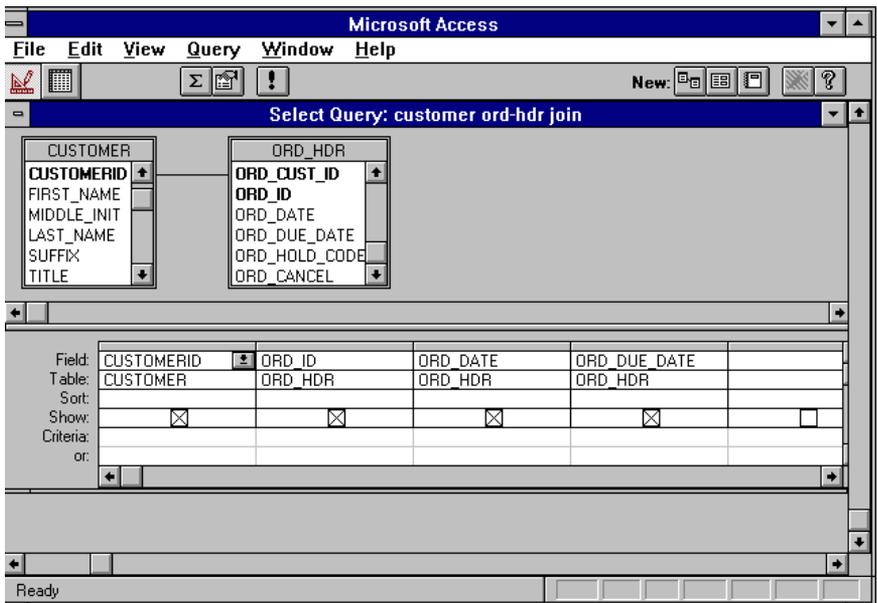
1. Run Access by double clicking on the Access icon or by choosing “File” from the program manager menu bar, then “Run” from the drop down list, and specify the complete path of the access executable file which is called “MSACCESS.EXE”.
2. Click on “File” on the access menu bar and then choose “New Database” from the drop down list. In the “New Database” window, specify “tutorial.mdb” in the File Name box; in the Directories box, you will need to be in the Access directory. Click on “OK”.
3. From the access menu bar, select “File”; then choose “Attach Table” from the drop down list.
4. Select “SQL Database” as the data source in the Attach dialog box. Click on “OK”.
5. From the Sql Data Sources dialog box, choose the data source which you created earlier, “opentutorial”.



6. Choose the table, CUSTOMER, and click on “Attach” in order to attach it. Attach all the remaining tables in the same manner. After successfully attaching the tables, you are ready to retrieve

information from these tables.

- From the database window, click on “Query” and then click on “New”. Click on “New Query”.
- Add the “CUSTOMER” table and the “ORD-HRD” table. Click on “Close” to close the “Add Table” window.
- Join the two tables together on the “CUSTOMERID” field from table CUSTOMER and field “ORD-CUST-ID” from table ORD-HDR.
- Click on “View” on the access menu bar; click on “Table Names” from the drop down list.
- Drop fields “CUSTOMERID” from CUSTOMER table, “ORD-ID”, “ORD-DATE”, “ORD-DUE-DATE” from ORD-HDR table onto the grid.



- Click on “Query” on the menu bar; then, click “Run”.
- To exit Access, click on “File” on the access menu bar; choose “Exit” from the drop down list. You may save your query if you desire.

An example of the DMSII data retrieved with Access follows:

Microsoft Access

File Edit View Records Layout Window Help

Field: CUSTOMERID New: [Icons]

Select Query: customer ord-hdr join

CUSTOMERID	ORD ID	ORD DATE	ORD DUE DATE
100	1	101594	103194
200	2	100194	101894
200	3	101094	103194
210	4	101494	110194
210	5	101594	120194

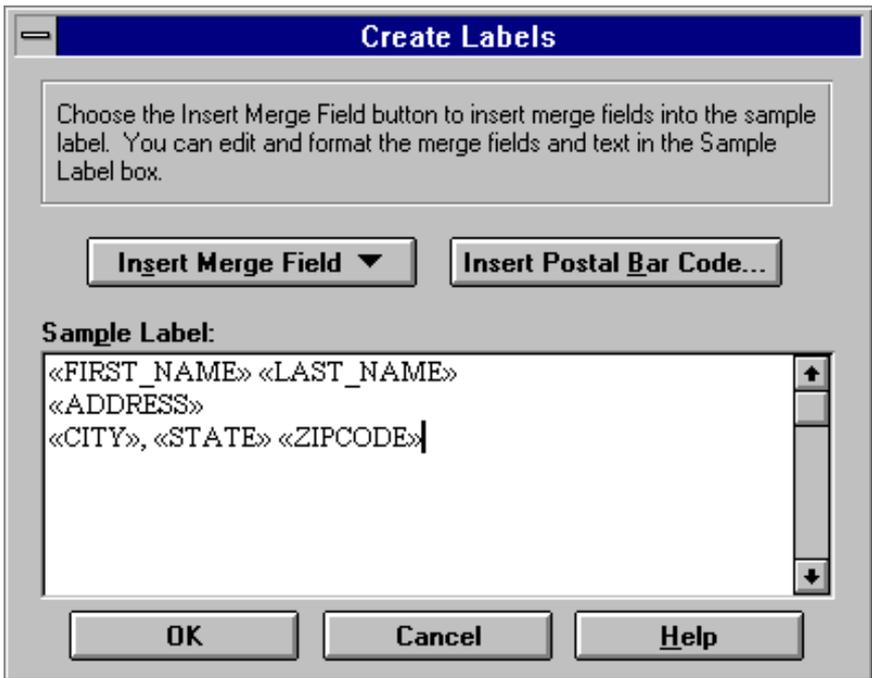
Record: 1

Datasheet View

Using Open/A with Microsoft Word (v 6.0)

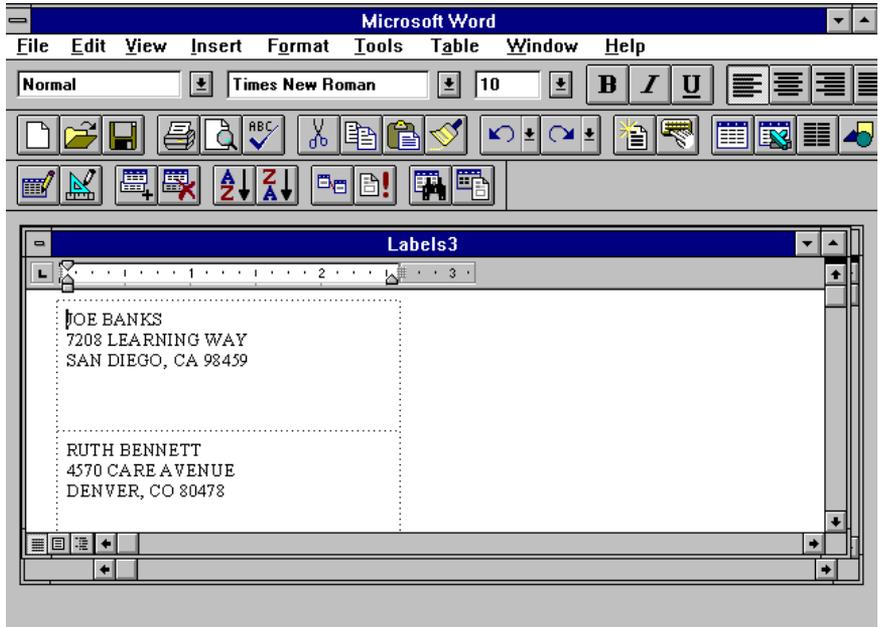
1. Run Word by double clicking on your word icon.
2. Click on "File" on the word menu bar; choose "New" from the drop down list. Click "OK".
3. Click on "Tools" on the word menu bar; choose "Mail Merge" from the drop down list.
4. Click on "Create" on the "Mail Merge Helper" window; choose "Mailing Labels" from the drop down list. Choose "Active Window" on the "Microsoft Word" dialog box.
5. Click on "Get Data" on the "Mail Merge Helper" window; choose "Open Data Source" from the drop down list.
6. Click on "MS Query" on the "Open Data Source" dialog box.
7. From the "Select Data Source" dialog box, choose the data source which you created earlier, "openatutorial". If "openatutorial" does not appear in the list, you will need to click on "Other" and select it. Click on "USE".
8. Choose "CUSTOMER" from the "Add Tables" dialog box. Click on "Add". Click on "Close".
9. Click on "Records" on the word menu bar; click on "Automatic Query" to turn this option off.
10. Click on field "ADDRESS" and drag and drop it to the data pane located beneath the table. Perform the same steps for fields "FIRST_NAME", "LAST_NAME", "CITY", "STATE", "ZIPCODE".
11. Click on "Records" on the word menu bar; choose "Sort" from the drop down list. From the "Sort" window, click on the drop down arrow and choose "LAST_NAME"; click on "Add"; click on "Close".
12. Click on "Records" on the word menu bar; choose "Query Now" from the drop down list.
13. Click on "File" on the word menu bar; choose "Return Data to Microsoft Word" from the drop down list.
14. Click on "Setup" from the "Mail Merge Helper" window as soon as Word allows it as an option. From the "Label Options" dialog box, under the "Product Name" box, choose "2160"; click on "OK".

- From the "Create Labels" window, click on "Insert Merge Field"; choose "FIRST_NAME" from the drop down list, hit the space bar on your keyboard, choose "LAST_NAME" from the drop down list, hit the "enter" key on your keyboard, choose "ADDRESS" from the drop down list, hit the "enter" key on your keyboard, choose "CITY" from the drop down list, enter a comma from your keyboard and hit the space bar on your keyboard, choose "STATE" from the drop down list, hit the space bar on your keyboard, choose "ZIPCODE" from the drop down list. Click on "OK".



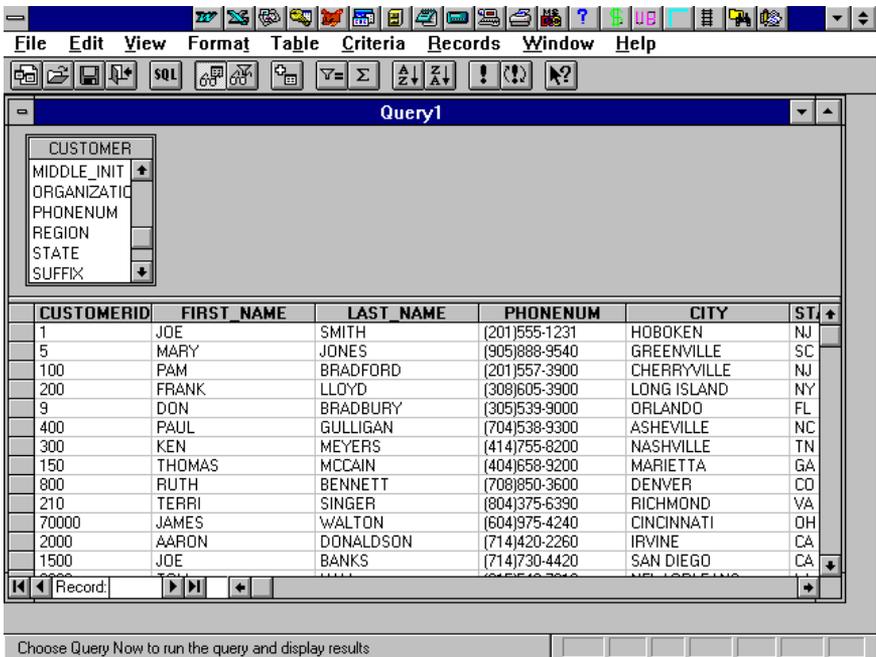
- Click on "Merge" on the "Mail Merge Helper" window; click on "Merge" on the "Merge" dialog box.
- To exit Word, click on "File" on the word menu bar; choose "Exit" from the drop down list. You may save your document if you desire.

An example of the DMSII data retrieved with Word follows:



Using Open/A with Microsoft Excel (v 5.0)

1. Run Microsoft Excel by double clicking on your Excel icon.
2. Click on "Data" on the Excel menu bar; choose "Get External Data" from the drop down list.
3. On the "Select Data Source" window, select the data source that you created earlier, "openatutorial". If "openatutorial" does not appear in the "Available Data Sources" list, you will need to click on "Other" and select it. Click on "USE".
4. On the "Add Tables" dialog box, choose "CUSTOMER" and click on "Add". Click on "Close".
5. Click on "Records" on the excel menu bar; click on "Automatic Query" to turn this option off.
6. Click on field "CUSTOMERID" and drop and drag it to the data pane. Follow the same procedure for fields "FIRST_NAME", "LAST_NAME", "PHONENUM", "CITY", "STATE".
7. Click on "Records" on the Excel menu bar; choose "Query Now" from the drop down list.



8. Click on "File" on the Excel menu bar; choose "Return Data to

Microsoft Excel” from the drop down list.9. Click on “OK” on the Get External Data window.

10. To exit Excel, click on “File” on the word menu bar; choose “Exit” from the drop down list. You may save your excel spreadsheet if you desire.

An example of the DMSII data retrieved with Excel follows:

	A	B	C	D	E	F	G
1	CUSTOMERID	FIRST_NAME	LAST_NAME	PHONENUM	CITY	STATE	
2	1	JOE	SMITH	(201)555-1231	HOBOKEN	NJ	
3	5	MARY	JONES	(905)888-9540	GREENVILLE	SC	
4	100	PAM	BRADFORD	(201)557-3900	CHERRYVILLE	NJ	
5	200	FRANK	LLOYD	(308)605-3900	LONG ISLAND	NY	
6	9	DON	BRADBURY	(305)539-9000	ORLANDO	FL	
7	400	PAUL	GULLIGAN	(704)538-9300	ASHEVILLE	NC	
8	300	KEN	MEYERS	(414)755-8200	NASHVILLE	TN	
9	150	THOMAS	MCCAIN	(404)658-9200	MARIETTA	GA	
10	800	RUTH	BENNETT	(708)850-3600	DENVER	CO	
11	210	TERRI	SINGER	(804)375-6390	RICHMOND	VA	
12	70000	JAMES	WALTON	(604)975-4240	CINCINNATI	OH	
13	2000	AARON	DONALDSON	(714)420-2260	IRVINE	CA	
14	1500	JOE	BANKS	(714)730-4420	SAN DIEGO	CA	
15	6000	TOM	HALL	(615)543-7210	NEW ORLEANS	LA	
16	8500	LYNN	CULBERT	(800)555-0800	PHILADELPHIA	PA	
17	740	BRUCE	MCDANIEL	(210)732-6400	HOUSTON	TX	

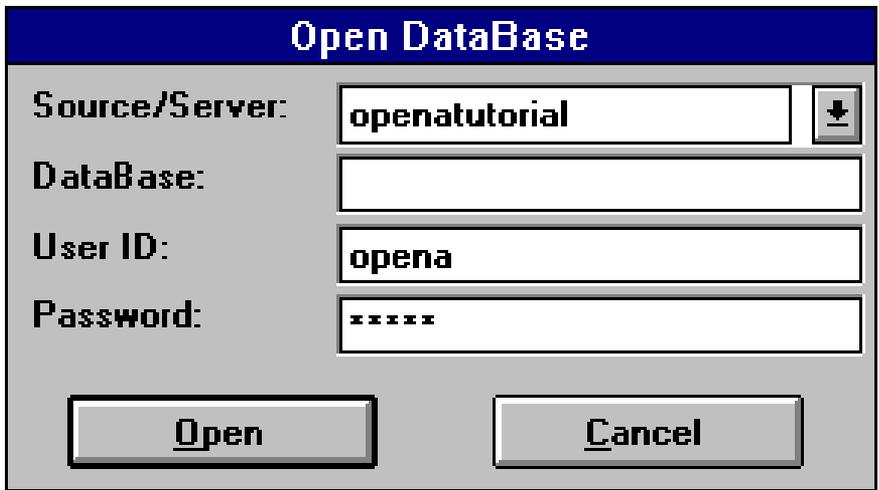
Using Open/A with Visual Basic (v 3.0)

1. Run Visual Basic by double clicking on your visual basic icon.
2. Click on “File” on the menu bar; choose “Open Project” from the drop down list.
3. On the Open Project window, in the visual basic directory, subdirectory “samples”, click on “visdata.mak”; click on “OK”.
4. Click on “Run” on the menu bar; choose “Start” from the drop down list.

The screenshot shows the Visual Data application window. The title bar reads "Visual Data". The menu bar includes "File", "Table", "Query!", "Utility", "Preferences", and "Window". Below the menu bar, there are controls for "RecordSet Form Type:" with radio buttons for "Data Control", "No Data Control", and "Grid" (which is selected). A "BeginTransaction" button is also present. The main window displays a "SnapShot: CUSTOMER [18 rows]" with a toolbar containing "Next", "First", "More", "Find", "Redo", "Filter", "Sort", and "Close". The data table below has the following columns: CUSTOMER, FIRST_NAME, MIDDLE_INIT, LAST_NAME, SUFFIX, TITLE, and ORGANIZATION.

	CUSTOMER	FIRST_NAME	MIDDLE_INIT	LAST_NAME	SUFFIX	TITLE	ORGANIZATION
1	1	JOE	E	SMITH	JR	PURCHASING	SMITH
2	5	MARY	A	JONES		CONTROLLER	ABC
3	100	PAM	E	BRADFORD		VICEPRESIDENT	FOODS
4	200	FRANK		LLOYD	II	CEO	CAR MAKERS
5	9	DON	B	BRADBURY		COMPUTER	COMPUTERS
6	400	PAUL	M	GULLIGAN		SALES	CAR DEALER
7	300	KEN	L	MEYERS		DIRECTOR	SOFTWARE
8	150	THOMAS	P	MCCAIN		GENERAL	CATERPILLAR
9	800	RUTH	T	BENNETT		DIRECTOR OF	UNIVERSAL
10	210	TERRI	A	SINGER		REAL ESTATE	COLEMAN
11	70000	JAMES	R	WALTON		SOFTWARE	APPLICATION
12	2000	AARON	T	DONALDSON		PRESIDENT	MONEY BANK
13	1500	JOE	C	BANKS		PRESIDENT	LEARNING
14	6000	TOM	T	HALL		SURVEYOR	SURVEYING
15	8500	LYNN	M	CULBERT		CPA	AUDITORS
16	740	BRUCE	R	MCDANIEL		MARKETING	SALES &
17	9000	FRANK		MAJORS		MANAGER	BEST BAKERY
18	8100	JERRY		WATERS		MANAGING	WIFE BAKER

5. Click on “File” on the Visual Data window; choose “Open DataBase” from the drop down list. Choose “ODBC” from the next drop down list.
6. On the Open DataBase window, under Source/Server, choose the data source that you created earlier, “opentutorial”. Enter “opena” in the Password box. Click on “open”.



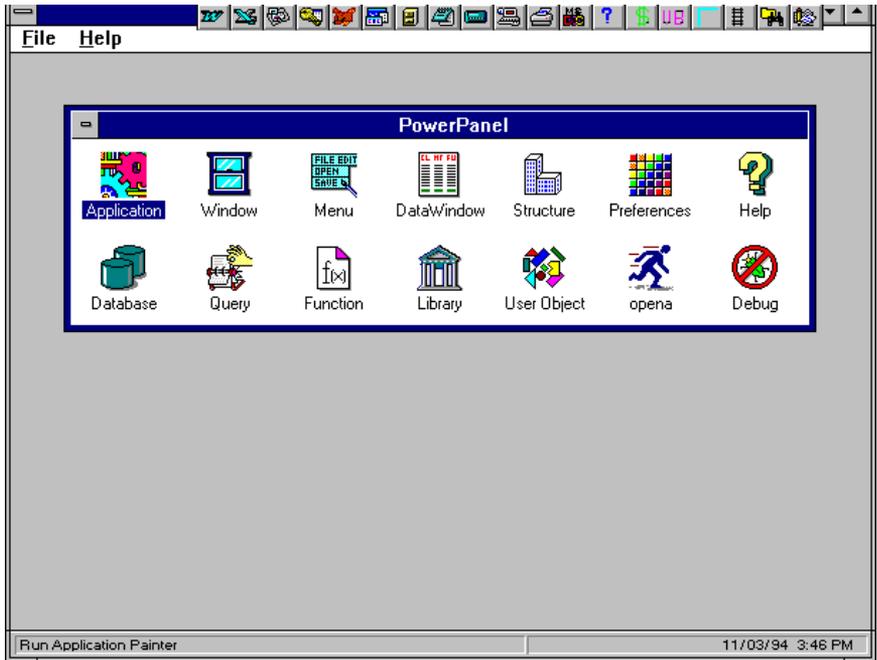
7. Click on "CUSTOMER" in the Tables list. Click on "Open".
8. To close the database, click on "File" on the Visual Data menu bar; choose "Close DataBase".
9. To exit the Visual Data window, click on "File" on the Visual Data menu bar; choose "exit".
10. To completely exit Visual Basic, click on "File" on the menu bar; choose "exit".

An example of the DMSII data retrieved with Visdata follows:

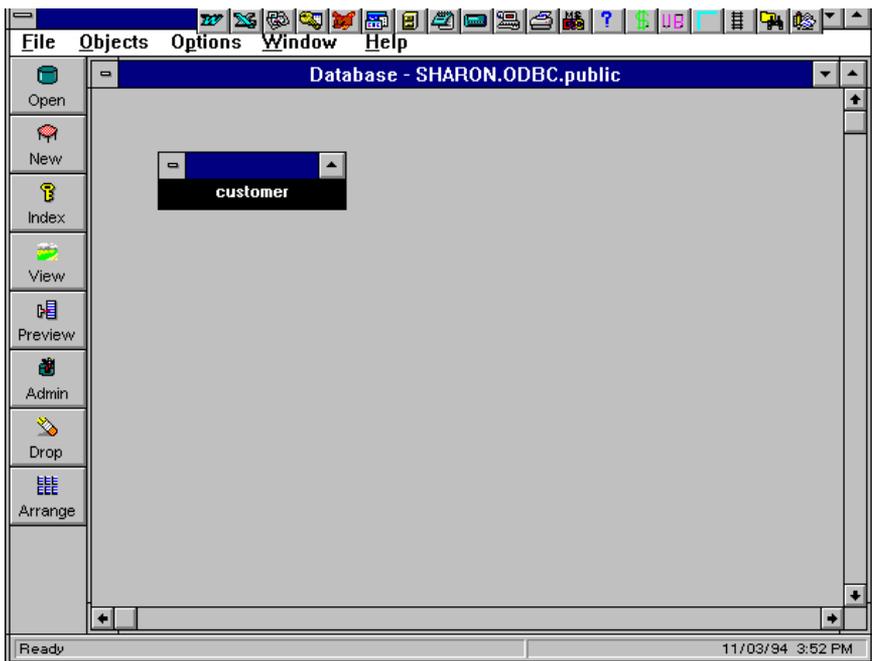
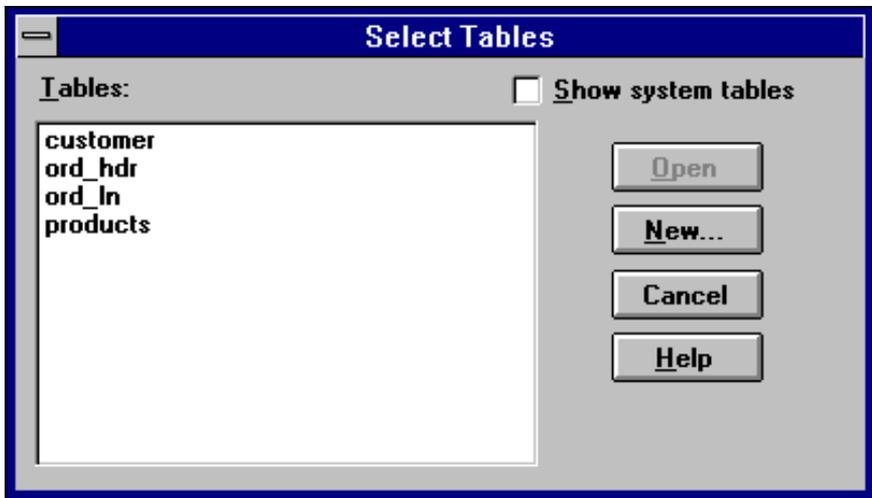
Visual Data							
File Table Query! Utility Preferences Window							
RecordSet Form Type: <input type="radio"/> Data Control <input type="radio"/> No Data Control <input checked="" type="radio"/> Grid BeginTransaction							
SnapShot: CUSTOMER [18 rows]							
<input type="button" value="Next"/> <input type="button" value="First"/> <input type="button" value="More"/> <input type="button" value="Find"/> <input type="button" value="Redo"/> <input type="button" value="Filter"/> <input type="button" value="Sort"/> <input type="button" value="Close"/>							
	CUSTOMER	FIRST_NAME	MIDDLE_INIT	LAST_NAME	SUFFIX	TITLE	ORGANIZATION
1	1	JOE	E	SMITH	JR	PURCHASING	SMITH
2	5	MARY	A	JONES		CONTROLLER	ABC
3	100	PAM	E	BRADFORD		VICEPRESIDENT	FOODS
4	200	FRANK		LLOYD	II	CEO	CAR MAKERS
5	9	DON	B	BRADBURY		COMPUTER	COMPUTERS
6	400	PAUL	M	GULLIGAN		SALES	CAR DEALER
7	300	KEN	L	MEYERS		DIRECTOR	SOFTWARE
8	150	THOMAS	P	MCCAIN		GENERAL	CATERPILLAR
9	800	RUTH	T	BENNETT		DIRECTOR OF	UNIVERSAL
10	210	TERRI	A	SINGER		REAL ESTATE	COLEMAN
11	70000	JAMES	R	WALTON		SOFTWARE	APPLICATION
12	2000	AARON	T	DONALDSON		PRESIDENT	MONEY BANK
13	1500	JOE	C	BANKS		PRESIDENT	LEARNING
14	6000	TOM	T	HALL		SURVEYOR	SURVEYING
15	8500	LYNN	M	CULBERT		CPA	AUDITORS
16	740	BRUCE	R	MCDANIEL		MARKETING	SALES &
17	9000	FRANK		MAJORS		MANAGER	BEST BAKERY
18	8000	FRANK		WATERS		MANAGER	WIDE BRAND

Using Open/A with PowerBuilder (v 3.0)

1. Run PowerBuilder by double clicking on your PowerBuilder icon.
2. Click on “Database” on the PowerPanel window.



3. On the SQL Data Sources dialog box, select the data source that you created earlier, “openatutorial”. If your default database is a database other than the Open/A tutorial database, you will need to click on “File” on the powerbuilder menu bar, choose “connect” from the drop down list, choose “Prompt” from the drop down list, and on the SQL Data Sources window, enter the data source that your created earlier, “openatutorial”. Click on “OK”.
4. Select “customer” from the Tables window and click “Open”.



5. From the list of PowerBuilder buttons located on the left side of your screen, click on the “Preview” button in order to view data.
6. To sort the data, click on “Rows” on the powerbuilder menu bar; choose “Sort” form the drop down list. Select “last_name” from the

drop down list and click on “OK”.

- To exit PowerBuilder, click on “File” on the powerbuilder menu bar; choose “Exit” from the drop down list.

An example of the DMSII data retrieved with PowerBuilder follows:

Data Manipulation for customer						
Retrieve	Customerid	First Name	Middle Init	Last Name	Suffix	Title
	1	JOE	E	SMITH	JR	PURCHASIN
Updtd DB	5	MARY	A	JONES		CONTROLLE
Insrt Row	100	PAM	E	BRADFORD		VICEPRESID
Del Row	200	FRANK		LLOYD	II	CEO
	9	DON	B	BRADBURY		COMPUTER
First	400	PAUL	M	GULLIGAN		SALES MAN
Prior	300	KEN	L	MEYERS		DIRECTOR
	150	THOMAS	P	MCCAIN		GENERAL M
Next	800	RUTH	T	BENNETT		DIRECTOR C
Last	210	TERRI	A	SINGER		REAL ESTAT
	70000	JAMES	R	WALTON		SOFTWARE
	2000	AARON	T	DONALDSON		PRESIDENT
	1500	JOE	C	BANKS		PRESIDENT
	6000	TOM	T	HALL		SURVEYOR

Rows 1 to 14 of 18 2/13/95 4:48 PM

Using Open/A with Crystal Reports for Visual Basic 3.0

1. Run Crystal Reports by double clicking on your icon for Crystal Reports.
2. Click on "Database" on the Crystal Reports menu bar; choose "Log on Database Server" from the drop down list.
3. On the "Log on SQL Server" dialog box, choose the data source that you created earlier, "openatutorial". Click on "OK".
4. Click on "File" on the Crystal Reports menu bar; choose "New Report" from the drop down list.
5. On the "SQL Table" window, choose "CUSTOMER" under the "SQL Tables:" box; under the "SQL Database" box, choose "openatutorial". Click on "OK".
6. On the "Insert Database Field" window, click on field "CUSTOMERID" and then click on "Insert", located at the bottom of the "Insert Database Field" window. Position your mouse to the detail section and click wherever you wish this field to appear. Follow the same procedure for fields "FIRST_NAME", "LAST_NAME", "PHONENUM". Click on "Done".
7. Click on "Print" on the Crystal Reports menu bar; choose "Print to Window" from the drop down list.

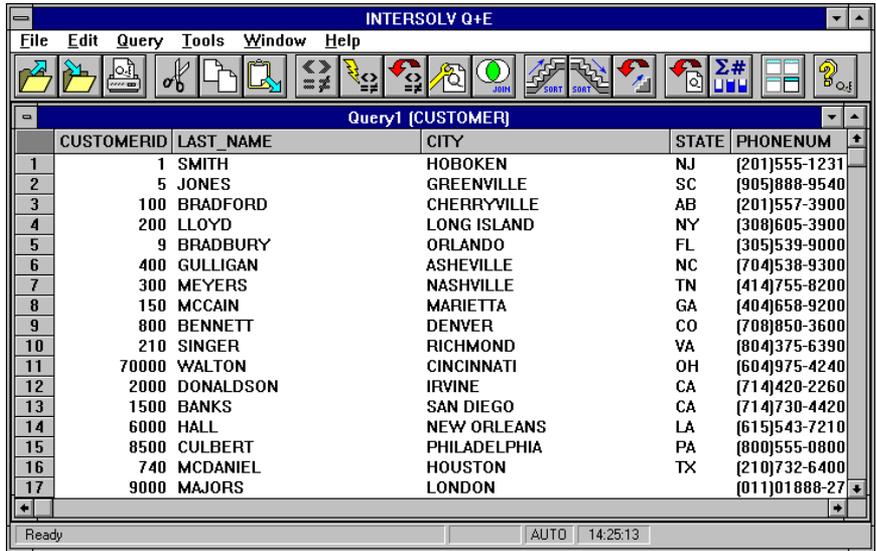
An example of the DMSII data retrieved with Crystal Reports follows:

<u>CUSTOMERID</u>	<u>FIRST_NAME</u>	<u>LAST_NAME</u>	<u>PH</u>
1	JOE	SMITH	(20
5	MARY	JONES	(90
100	PAM	BRADFORD	(20
200	FRANK	LLOYD	(30
9	DON	BRADBURY	(30
400	PAUL	GULLIGAN	(70
300	KEN	MEYERS	(41
150	THOMAS	MCCAIN	(40
800	RUTH	BENNETT	(70
210	TERRI	SINGER	(80
70,000	JAMES	WALTON	(60
2,000	ALBON	EDWARDS	(21

Using Open/A with Q+E (v 6.0)

1. Run Q+E by double clicking on your Q+E icon.
2. Click on "File" on the Q+E menu bar; choose "Logon" from the drop down list.
3. On the "Logon" window, choose the data source that you created earlier, "openatutorial". If "openatutorial" does not appear in the list, you will need to click on "Modify" and select it. Click on "OK".
4. Click on "File" on the Q+E menu bar; choose "New Query" from the drop down list.
5. On the "Tables" window, choose "CUSTOMER" from the table box. Click on the arrow that points to the right (->) in order to add it to the "Selected Table" list. Click on "OK".
6. From the "Fields" window shown, click inside the "Field" edit box on the Q+E Query Builder window.
7. Click on field "CUSTOMERID" and then click on the arrow that points to the right(->) in order to add it to the field list. Follow the same procedure for fields "FIRST_NAME", "LAST_NAME", "PHONENUM", "CITY", "STATE". Click on "OK".
8. On the "Query Builder" window, click on "OK".

An example of the DMSII data retrieved with Q+E follows:



The screenshot shows the INTERSOLV Q+E application window. The title bar reads "INTERSOV Q+E". The menu bar includes "File", "Edit", "Query", "Tools", "Window", and "Help". The toolbar contains various icons for file operations, editing, and querying. The main window displays a table titled "Query1 [CUSTOMER]". The table has five columns: "CUSTOMERID", "LAST_NAME", "CITY", "STATE", and "PHONENUM". The data is as follows:

	CUSTOMERID	LAST_NAME	CITY	STATE	PHONENUM
1	1	SMITH	HOBOKEN	NJ	(201)555-1231
2	5	JONES	GREENVILLE	SC	(905)888-9540
3	100	BRADFORD	CHERRYVILLE	AB	(201)557-3900
4	200	LLOYD	LONG ISLAND	NY	(308)605-3900
5	9	BRADBURY	ORLANDO	FL	(305)539-9000
6	400	GULLIGAN	ASHEVILLE	NC	(704)538-9300
7	300	MEYERS	NASHVILLE	TN	(414)755-8200
8	150	MCCAIN	MARIETTA	GA	(404)658-9200
9	800	BENNETT	DENVER	CO	(708)850-3600
10	210	SINGER	RICHMOND	VA	(804)375-6390
11	7000	WALTON	CINCINNATI	OH	(604)975-4240
12	2000	DONALDSON	IRVINE	CA	(714)420-2260
13	1500	BANKS	SAN DIEGO	CA	(714)730-4420
14	6000	HALL	NEW ORLEANS	LA	(615)543-7210
15	8500	CULBERT	PHILADELPHIA	PA	(800)555-0800
16	740	MCDANIEL	HOUSTON	TX	(210)732-6400
17	9000	MAJORS	LONDON		(011)01888-27

The status bar at the bottom shows "Ready", "AUTO", and "14:25:13".

Using Open/A with FoxPro (v 2.6)

1. Run Foxpro by double clicking on your Foxpro icon.
2. Click on "Run" on the menu bar; select "Wizard", and then select "Query".
3. Under "Select a Wizard", select "Client-Server Query Wizard". Click on "Next".
4. Choose the datasource "openatutorial" from the drop down list for Data Source. Click on "Next".
5. From the "Available Tables" list, choose "Customer"; click on "Add". Choose "ORDHDR" from the "Available Tables" list and click on "Add". Then, click on "Next".
6. From the Parent Table drop down list, click on the customerid field. From the Child Table drop down list, click on the ordhdr customerid field. Then, click on "Add". Click on "Next".
7. From the "Available Fields" drop down list, choose the field "Customer.customerid" and click on "Add". Do the same for fields customer.lastname, ordhdr.ordid, and ordhdr.ord due date. Click on "Finish".
8. Click on "Preview".
9. Click on the control menu bar (-) in the top left most corner of the window. Click on "Cancel". Click on "File" on the menu bar; choose "Exit" from the drop down list.

Using Open/A with Lotus Approach (v 3.0)

1. Run Lotus Approach by double clicking on your Lotus Approach icon.
2. Click on "File" on the menu bar; select "Open". On the "Open" window, under "List files of type", select "ODBC Data Sources". Under "Directories", select "openatutorial" and double click the mouse.
3. Under "File name:", click on "Customer".
4. Click on "OK".
5. To exit Lotus Approach, click on "File" on the menu bar; choose "Exit" from the drop down list.

An example of the DMSII data retrieved with Lotus Approach follows:

The screenshot shows the Lotus Approach interface with a menu bar (File, Edit, View, Create, Browse, Tools, Window, Help) and a toolbar. The main window displays a form titled "Form 1" with the following data:

CUSTOMERID	FIRST_NAME	MIDDLE_INIT	LAST_NAME	SUFFIX
1	JOE	E	SMITH	JR
TITLE	ORGANIZATION_NAME	ADDRESS		
PURCHASING MAN	SMITH BROTHERS	123 NORTH WADE STREET		
CITY	STATE	ZIPCODE	REGION	COUNTRY
HOBOKEN	NJ	09876	NE	USA
PHONENUM	FAXNUM			
(201)555-1231	(201)555-1232			

At the bottom of the window, there is a status bar with the text "Form 1", "Browse", "Record 1", and "Click for #".

Using Open/A with Lotus 1-2-3 (v5.0)

Before running Lotus 1-2-3, you will need to edit the file "Lotus.BCF", located in the Lotus directory, subdirectory "Datalens". The following lines will need to appear at the end of the file:

```
DN="ODBC", DL="DLODBC"  
DD="All ODBC Sources";
```

This information is documented in your Lotus 1-2-3 manual. Now, you are ready to run Lotus 1-2-3, using Open/A!

1. Run Lotus 1-2-3 by double clicking on your Lotus 1-2-3 icon.
2. Click on "Database" on the menu bar; choose "New Query" from the drop down list.
3. From the "New Query Assistant" dialog box, click on "External".
4. On the "Connect to External" dialog box, click on "ODBC". Click on "Continue".
5. On the "Connect to External" dialog box, under "Select a database or directory", click on "opentutorial"; click on "Continue".
6. On the "Connect to External" dialog box, under "Select a table:", choose "Customer". Click on "Continue".
7. Click "OK" on the "Connect to External", "Refer to as:" dialog box.
8. Click on "Choose Fields" on the "New Query Assistant" dialog box.
9. Click on "OK" on the "Choose Fields" dialog box.
10. Click on "OK" on the "New Query Assistant" dialog box.
11. To exit Lotus 1-2-3, click on "File" on the menu bar and choose "Exit" from the drop down list. You may save the query if you desire.

An example of the DMSII data retrieved with Lotus 1-2-3 follows:

	A	B	C	D	E	F	
1	CUSTOMERID	FIRST_NAME	MIDDLE	LAST_NAME	SUFFIX	TITLE	ORG
2	1	JOE	E	SMITH	JR	PURCHASING MANAGER	SMI
3	5	MARY	A	JONES		CONTROLLER	ABC
4	100	PAM	E	BRADFORD		VICEPRESIDENT-SALES	FOC
5	200	FRANK		LLOYD	II	CEO	CAP
6	9	DON	B	BRADBURY		COMPUTER DEPT MGR	COM
7	400	PAUL	M	GULLIGAN		SALES MANAGER	CAP
8	300	KEN	L	MEYERS		DIRECTOR	SOF
9	150	THOMAS	P	MCCAIN		GENERAL MANAGER	CAT
10	800	RUTH	T	BENNETT		DIRECTOR OF NURSING	UNI
11	210	TERRI	A	SINGER		REAL ESTATE AGENT	COL
12	70000	JAMES	R	WALTON		SOFTWARE DEVELOPER	APP
13	2000	AARON	T	DONALDSON		PRESIDENT	MON
14	1500	JOE	C	BANKS		PRESIDENT	LEA
15	6000	TOM	T	HALL		SURVEYOR	SUP

Using Open/A with DBASE (v5.0)

Before running Dbase 5.0, you will need to run the IDAPI Configuration Utility program and choose “New Driver”. Then, enter the following information:

Enter “opena” for SQL LINK DRIVER.

Choose “Open/A” for “Default ODBC Driver.”

The “Default Data Source” will automatically fill in with “openatutorial”. Click on “OK”; save this information by clicking on “File” on the menu bar and then selecting “Save”.

To exit, click on “File” on the menu bar; choose “Exit” from the drop down list.

Detailed information on running the IDAPI Configuration Utility is documented in your Dbase manual.

Now, you are ready to run Dbase 5.0 for Windows.

1. Run Dbase 5.0 by double clicking on your Dbase 5.0 icon.
2. Click on “File” on the menu bar; choose “Open” from the drop down list; then choose “Database” from the drop down list.
3. On the “Open Table” dialog box, click on “openatutorial”; then click “OK”.
4. On the “Open Database” dialog box, enter the username and password.
5. On the “Open Table” dialog box, choose “Customer”; click on “OK”.
6. To exit Dbase 5.0, click on “File” on the menu bar; choose “Exit” from the drop down list.

An example of the DMSII data retrieved with Dbase 5.0 follows:

The screenshot shows the dBASE 5.0 for Windows interface. The title bar reads "dBASE 5.0 for Windows". The menu bar includes "File", "Edit", "View", "Table", "Properties", "Window", and "Help". The toolbar contains various icons for file operations and navigation. The main window displays a table titled "Table Records [DBS.CUSTOMER]". The table has the following columns: "Rec", "CUSTOMERID", "FIRST_NAME", "MIDDLE_INIT", "LAST_NAME", "SUFFIX", "TITLE", and "ORGA". The data rows are as follows:

Rec	CUSTOMERID	FIRST_NAME	MIDDLE_INIT	LAST_NAME	SUFFIX	TITLE	ORGA
	1	JOE	E	SMITH	JR	PURCHASING MANAGER	SMITH
	5	MARY	A	JONES		CONTROLLER	ABC CO
	9	DON	B	BRADBURY		COMPUTER DEPT MGR	COMPU
	100	PAM	E	BRADFORD		VICEPRESIDENT-SALES	FOODS
	150	THOMAS	P	MCCAIN		GENERAL MANAGER	CATER
	200	FRANK		LLOYD	II	CEO	CAR M
	210	TERRI	A	SINGER		REAL ESTATE AGENT	COLEM
	300	KEN	L	MEYERS		DIRECTOR	SOFTW
	400	PAUL	M	GULLIGAN		SALES MANAGER	CAR DI
	740	BRUCE	R	MCDANIEL		MARKETING DIRECTOR	SALES
	800	RUTH	T	BENNETT		DIRECTOR OF NURSING	UNIVE
	1500	JOE	C	BANKS		PRESIDENT	LEARN
	2000	AARON	T	DONALDSON		PRESIDENT	MONEY
	6000	TOM	T	HALL		SURVEYOR	SURVE
	8400	JERRY		WATERS		MANAGING DIRECTOR	WIRE
	8500	LYNN	M	CULBERT		CPA	AUDIT
	9000	FRANK		MAJORS		MANAGER	BEST
	70000	JAMES	R	WALTON		SOFTWARE DEVELOPER	APPLIC

At the bottom of the window, there is a status bar with the text "CUSTOMER" and "Ins".

Using Open/A with Delphi (copyright 1983-95)

Before running Delphi, you will need to run the Database Engine Utility program and choose "New ODBC Driver". Then, enter the following information:

Enter "opena" for SQL LINK DRIVER.

Choose "Open/A" for "Default ODBC Driver.

The "Default Data Source Name" will automatically fill in with "openatutorial".

Click on "OK"; save this information by clicking on "File" on the menu bar and then selecting "Save".

To exit, click on "File" on the menu bar; choose "Exit" from the drop down list.

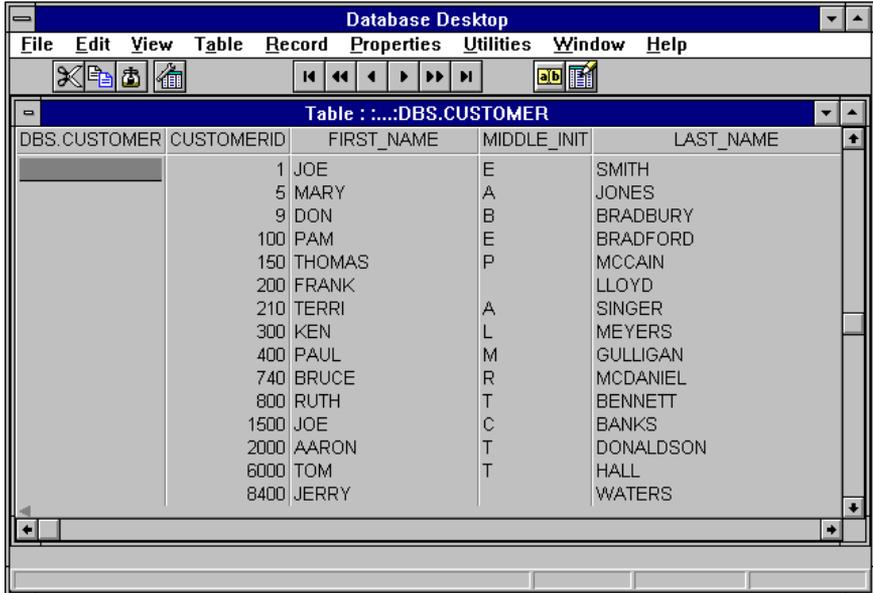
Detailed information on running the Database Engine Utility is documented in your Delphi manual.

Now, you are ready to run Delphi for Windows.

We will invoke the Database Desktop to retrieve data from the Customer table.

1. Run Delphi by double clicking on your icon for Delphi.
2. Click on "Tools" on the menu bar; choose "Database Desktop" from the drop down list.
3. On the "Open Table" dialog box, under "Drive", choose "openatutorial".
4. On the "Database Information" dialog box, enter the password for the OPENA usercode. Click on "OK".
5. On the "Open Table" dialog box, choose "Customer"; click on "OK".
6. To exit from "Database Desktop", click on "File" on the menu bar and select "Exit" from the drop down list.

An example of the DMSII data retrieved with Delphi follows:



The screenshot shows a window titled "Database Desktop" with a menu bar (File, Edit, View, Table, Record, Properties, Utilities, Window, Help) and a toolbar. The main area displays a table titled "Table : ...:DBS.CUSTOMER". The table has five columns: DBS.CUSTOMER, CUSTOMERID, FIRST_NAME, MIDDLE_INIT, and LAST_NAME. The data is as follows:

DBS.CUSTOMER	CUSTOMERID	FIRST_NAME	MIDDLE_INIT	LAST_NAME
	1	JOE	E	SMITH
	5	MARY	A	JONES
	9	DON	B	BRADBURY
	100	PAM	E	BRADFORD
	150	THOMAS	P	MCCAIN
	200	FRANK		LLOYD
	210	TERRI	A	SINGER
	300	KEN	L	MEYERS
	400	PAUL	M	GULLIGAN
	740	BRUCE	R	MCDANIEL
	800	RUTH	T	BENNETT
	1500	JOE	C	BANKS
	2000	AARON	T	DONALDSON
	6000	TOM	T	HALL
	8400	JERRY		WATERS

Using Open/A with Crystal Reports Professional (v4.0.1.0)

1. Run Crystal Reports Professional by double clicking on your Crystal Reports Professional icon.
2. Click on “Database” on the menu bar; select “Log on Server”.
3. On the “Log on Server” dialog box, choose “ODBC-openatutorial”; click on “OK”.
4. On the “Create Report Expert” window, choose “SQL/ODBC”.
5. On the “Choose SQL Table” window, under “SQL Table”, choose “Customer”. Click on “ADD”; click on “Done”.
6. Click on “Fields”, located at the top, on the “Create Report Expert” window.
7. Click on “Customerid”, rename it in the appropriate box as “CUSTID”, and click on “ADD”. Click on “First_Name” and then click on “ADD”; do the same for “Last_Name”, “Phonenum”, and “State” .
8. You may close your report by clicking on “File” on the menu bar; then choose “Close”. You may save your report if you desire.
9. To exit Crystal Reports Professional, click on “File” on the menu bar and choose “Exit” from the drop down list.

An example of the DMSII data retrieved with Crystal Reports Professional follows:

The screenshot shows the Crystal Reports Professional interface. The title bar reads "Crystal Reports Pro - [Untitled Report #6]". The menu bar includes "File", "Edit", "Insert", "Format", "Database", "Report", "Window", and "Help". The toolbar contains various icons for file operations, editing, and report generation. The status bar at the top indicates "Today 13:21", "Close", "1 of 1", and "Cancel". The report content area displays a table with the following data:

<u>CUSTID</u>	<u>FIRST NAME</u>	<u>LAST NAME</u>	<u>PHONENUM</u>	<u>STATE</u>
1	JOE	SMITH	(201)555-1231	NJ
5	MARY	JONES	(905)888-9540	NC
100	PAM	BRADFORD	(201)557-3900	NJ
200	FRANK	LLOYD	(308)605-3900	NY
9	DON	BRADBURY	(305)539-9000	FL
400	PAUL	GULLIGAN	(704)538-9300	NC
300	KEN	MEYERS	(414)755-8200	TN
150	THOMAS	MCCAIN	(404)658-9200	GA
800	RUTH	BENNETT	(708)850-3600	CO
210	TERRI	SINGER	(804)375-6390	VA
70,000	JAMES	WALTON	(604)975-4240	OH
2,000	AARON	DONALDSON	(714)420-2260	CA
1,500	JOE	BANKS	(714)730-4420	CA
6,000	TOM	HALL	(615)543-7210	LA
8,500	LYNN	CULBERT	(800)555-0800	PA
740	BRUCE	MCDANIEL	(210)732-6400	TX
9,000	FRANK	MAJORS	(011)01888-2775	
8,400	JERRY	WATERS	(011)01621-0548	

The bottom status bar shows "Records: 18" and "100 %".