

Chapter 10.

Sexy SQL Secrets



Data in and data out...

That's what a web application is all about. And the rumor that you can use remote databases to create devastating designs with Alpha Five is true! It has an astonishing aptitude for adapting to almost any type of data.

It takes only a few moments to create the connection—and you have already seen the outstanding way the Application Server articulates!

What you'll find here...

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How the material is organized

I'll apologize right off the bat for the title of this chapter. I confess to perhaps carrying alliteration too far—but it got your attention, didn't it?

For the most part, the Application Server works the same way for both DBF, SQL and files from other outside databases. There are, however, a few (maybe not so sexy) things that remote database users need to know.

First, we will discuss the wide range of files with which Alpha Five is compatible. That will be followed by information on connecting the Application Server to your database by using the built-in drivers. We will also touch on hints for working with Microsoft Access & Excel, as well as Oracle. If your favorite program is not in the list, contact Alpha Software to learn what driver to use.

Next, we will do an exercise that connects to “Northwind,” the Microsoft Access database that is packaged with Alpha Five. Then we will review the SQL builder where you create and edit SQL Select Statements.

Then we will give you the resources for learning to print SQL reports and explain the need to Publish them to the active Profile.

Version 9 has a new feature, called Active-Link

Preparation for the lesson

Open the **MiscComponentsDemo** web project for this lesson. The completed examples have the same names as those in the exercises, except they are not preceded by “My.” For example, MySQLViewWC is simply, SQLViewWC.

Understanding compatibility and connectivity

V8: In order to use SQL back-end databases, you need to have the Alpha Five Enterprise Edition installed on your computer.

V9: At this writing there is only one edition of Alpha Five. It includes all development tools, including those for using SQL in web applications and creating Active-Link tables (described on page 366).

*PAGE NAME: SUPPORTED DATABASE PRODUCTS**

“Alpha Five's Enterprise software gives you the ability to read and write to back-end database products in a manner similar to the way you would read and write to an Alpha Five table.



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*. For some reason, this page did not come up when the name was entered into the A5 Help Search. You can find it, however, by entering “back-end database.” The name of the page will appear in the search results list.

BACK-END DATABASES “The term “back-end database” refers to the following ODBC compatible database products which support the SQL query language.

Table 1: SQL databases

Database	Driver	Syntax
FlexQuarters QODBC	QuickBooks	
IBM DB2™	DB2	
InterSystems Cache™	ODBC	ODBC
Microsoft Access™	Access	
Microsoft Excel™	Excel	
Microsoft SQL Server	SQLServer	
MySQL™	MySQL	
Oracle XE™, 9i, 10g	Oracle	
Oracle Lite™ (9i, 10g)	OracleLite	
Quantel™	ODBC	ODBC
Sybase Adaptive Server Enterprise™	ODBC	Sybase
Sybase SQLAnywhere™	ODBC	SQLAnywhere

ODBC DRIVER “Alpha Five continues to add support for other products, so if your favorite back-end database is not on the list, check with Alpha Software. In addition, the generic ODBC driver will support many database products that are not listed.

ALPHA DAO “Alpha Five implements the back-end database connectivity with genie dialogs and an extensive tool kit of objects named AlphaDAO. AlphaDAO provides Action Scripting and Xbasic compatible functions that will let you:

- Open a connection to a back-end database.
- Select records from a table or view.
- Browse through those records.
- Retrieve them to your PC.

ADD, EDIT, DELETE RECORDS “In addition, you can access a back-end database to add, edit and delete records.

“The advanced user will also find tools that allow him or her to manage:

- Back-end databases.
- Tables and views.
- User security.

“Naturally, the standard access and security features of your back-end database still apply, and ultimately control any actions that you can take.”



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Connecting to SQL back-end databases

PAGE NAME: CONNECTIONS

You can easily connect to SQL databases, accessing to the **server-owned** data in three ways:

- On a local computer.
- On a local, wide area.
- Over an internet connection.

The Alpha Five Connection String builder and its built-in drivers do all the work. If the data is local, it is simply a matter of navigating to the proper folder. If it is on a remote server, the server name or address, TCP/IP port number and specific database are entered into the Connection String.

The Connection String provides the “directions” and “credentials” for connecting to any given database. Once you have selected the database type (such as Microsoft Access®, Oracle®, etc.) from the drop down list, and filled in a few optional fields, such as passwords, the Connection String can be saved for future use.

Using the built-in drivers

The drop down list for establishing the connection string is found in the SQL Connection String builder (see step 7 on page 356). At this writing, the following built-in drivers are available:

- Access
- DB2
- Excel
- MySQL
- ODBC
- Oracle
- OracleLite
- QuickBooks
- QuickBooksOnline
- SQLServer

If you have other questions about other programs, please contact Alpha Software.

Working with Microsoft Access®

PAGE NAME: WORKING WITH MICROSOFT ACCESS

The following is quoted from the page.

“In order to read or write to Microsoft Access® with AlphaDAO functions, you must have permission to read the database's System Catalog. To set permission to read the system catalog:



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**SYSTEM CATALOG
PERMISSION**

1. Open the database in Microsoft Access©.
2. Make System Objects visible.
3. Select Tools > Options.
4. Check the check box for System Objects.
 - “The System Object tables will now be shown in the table view window.
5. Set permissions so that the system table “MSysObjects” can be read.
 - Select Tools > Security > User and Group Permissions.
6. Select “MSysObjects” in the Object Name list.
7. In the permissions box check Read Design and Read Data.
 - You now will be able to read all the data from this MSysObjects table. This table contains the list of tables in the database.”
 - If you need further assistance, contact Alpha Software.

Working with Microsoft Excel

PAGE NAME: WORKING WITH MICROSOFT EXCEL

The following is quoted from the page.

“Things to be aware of when using Excel:

- “The JET (MS) driver wraps table names that contain spaces with single quotes. These single quotes MUST be preserved throughout because some functions (such as SQL::Connection::GetTableInfo()) require that they be present.
- “Worksheets are always referenced with a \$ at the end.
- “Named ranges are always referenced without the \$ at the end.
- “The name in SQL::Connection::CreateTable() refers to a named range, not a worksheet (hence the absence of a \$).
 - “If no worksheet exists with the same name as the new range, the method creates a new worksheet to contain the new range.
 - “If the name exists for a worksheet, the method changes the name slightly. You can create a named range (and hosting worksheet) using CreateTable(). You cannot create ‘just’ a worksheet.”
- If you need further assistance, contact Alpha Software.

Working with Oracle

PAGE NAME: WORKING WITH ORACLE

The following is quoted from the page.



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TABLE NAMES

WORKSHEETS

NAMED RANGES



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