VOLUME

I

Alpha Five v10

Web Applications

The Tutorial

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CHAPTER 1

Hello, Alpha!

In the spirit of the "Hello, World!" program that quickly introduces programmers to programming languages, we'd like to show you a minimal Alpha Five Version 10 Web component. Our "Hello, Alpha!" application will display the contents of a database table in a browser.

WHAT WE'LL LEARN

In this chapter, we'll install Alpha Five Version 10 (V10 for short), learn a little about databases, and get a very brief introduction to SQL. Then we'll create a connection to an existing database, define a Grid that uses that database, and preview that Grid with actual data.

If it sounds like that might be going too fast for you, don't despair: this is a picture book. We won't let you go astray. If it feels at any point like we might be going too slowly for you, feel free to skip over or skim sections that cover familiar material. If it turns out that

Downloading & Installing Alpha Five Version 10

Let's begin by getting V10 installed on your computer. It has to be a Windows computer, or at least a Windows environment running on another computer (say, on a Macintosh running VMWare Fusion), and the Windows version has to be Windows XP or later, including Windows Vista, Windows 7, Windows 2003 Server, and Windows 2008 Server.

Open your favorite Web browser and browse to **http://www.alphasoftware.com/trial/v10/**. The page should look something like this:

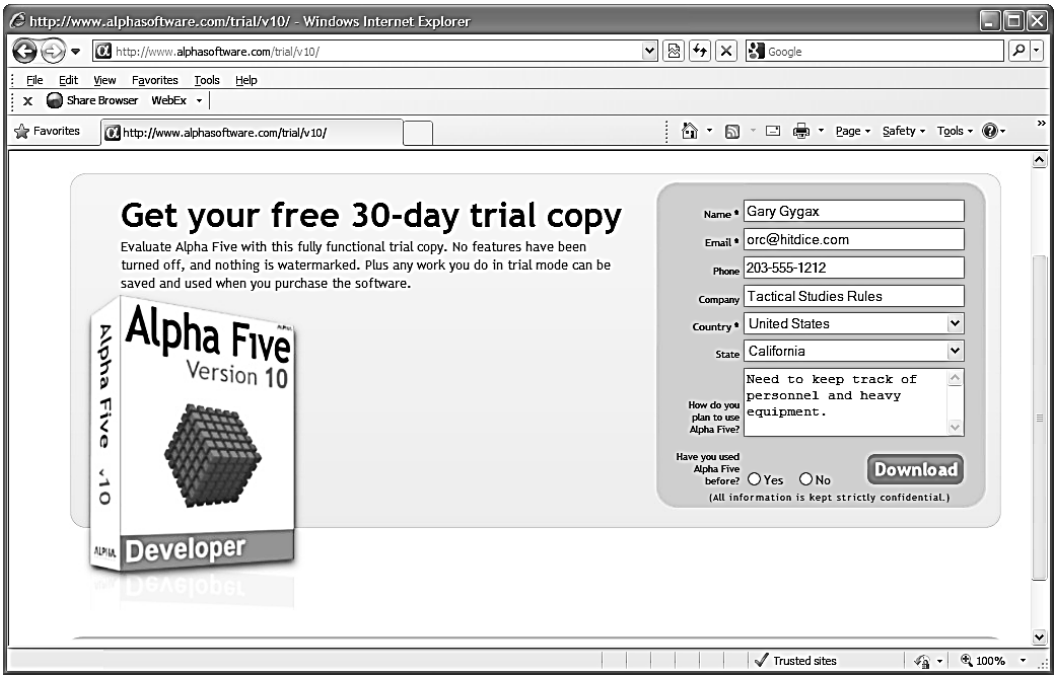


FIGURE 1-1: Trial download page for Alpha Five version 10

Fill out the form and click the "Download Free Trial" button and the Thank You page appears.

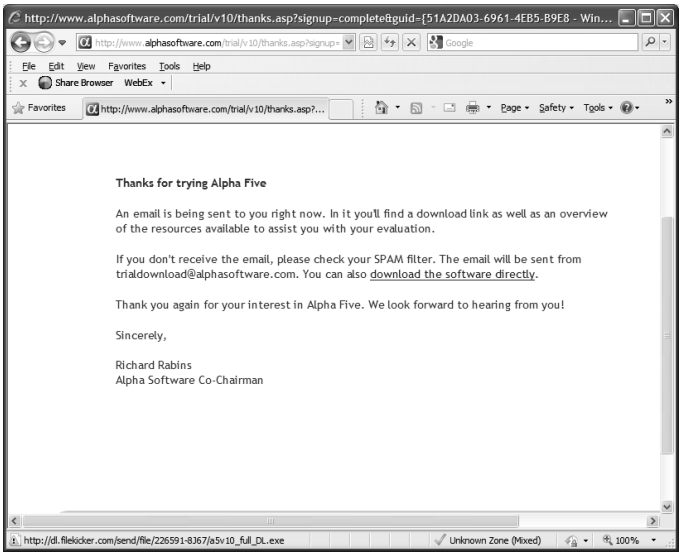


FIGURE 1-2: Thank you page for Alpha Five Version 10

Now you can download and save the V10 installer by clicking on the download link. Exactly how you do that depends on your browser. In the Internet Explorer, it'll look something like this:

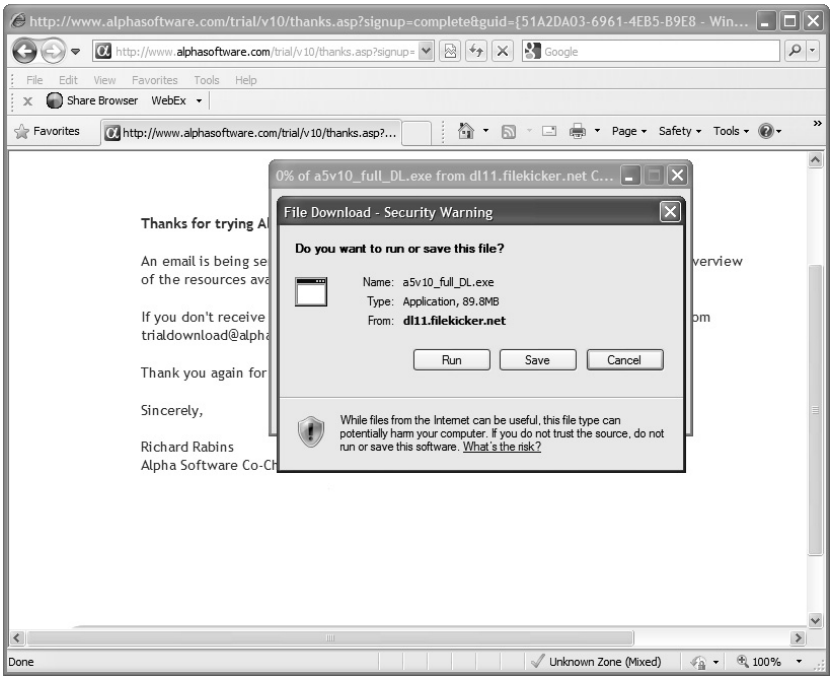


FIGURE 1-3: Download as seen on Internet Explorer

With Firefox, it'll look something like this:

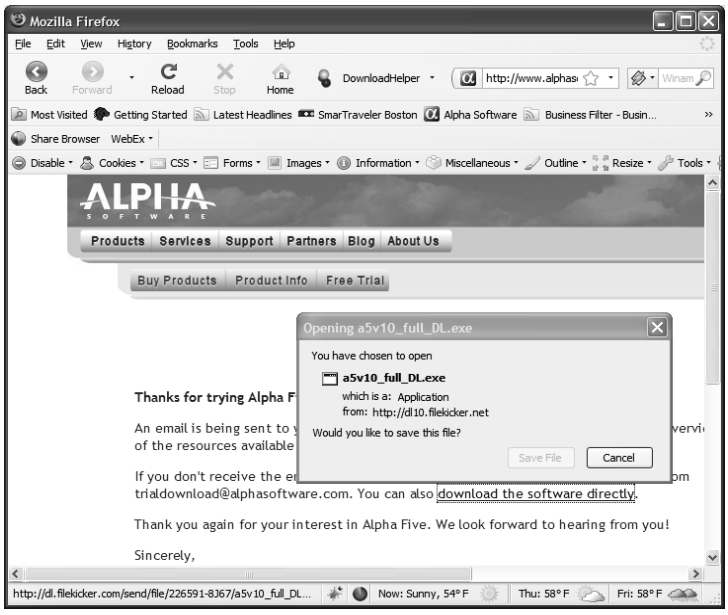


FIGURE 1-4: Download as seen on FireFox

If you're using a different browser, such as Chrome, Safari, or Opera, you probably already know how to download and install a program.

When the download completes, run the saved installer. If you are installing on Windows Vista or a later version of Windows, you will probably have to accept a dialog that makes sure that you really want to install Alpha Five Version 10: Yes, you do.

Finally, you should see the Alpha license screen:

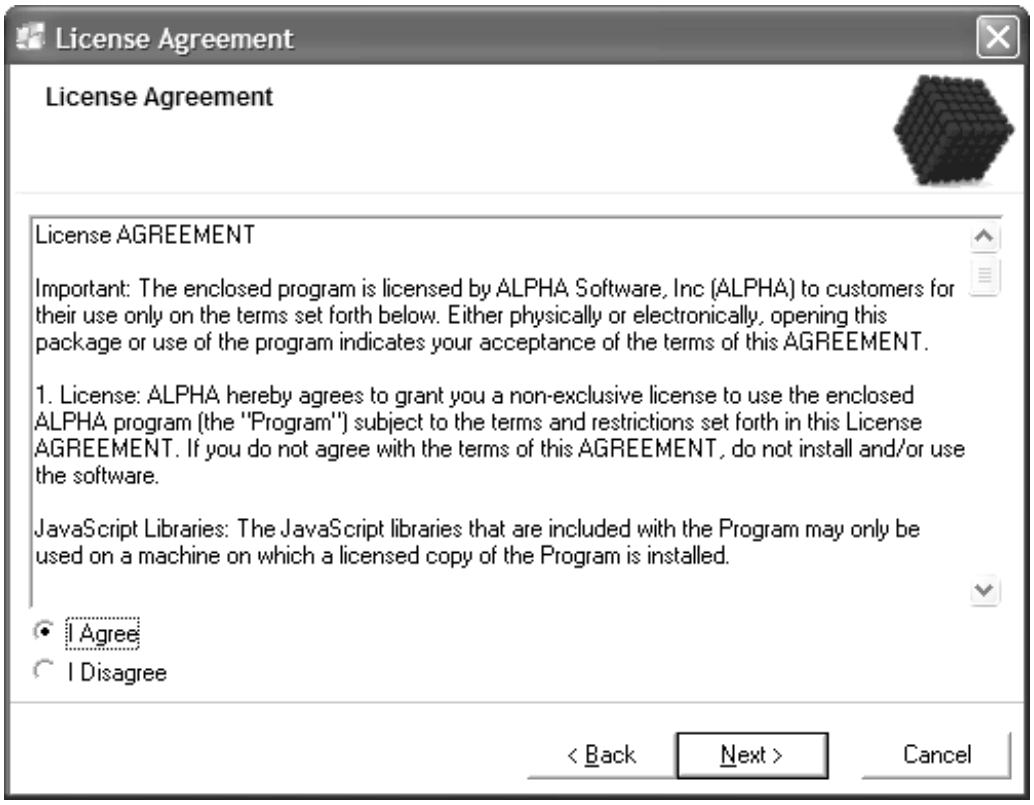


FIGURE 1-5: Alpha Five License Agreement screen

If you already have a V10 license, enter it when you start Alpha Five. Otherwise, use the 30-day free trial option. You'll be able to enter the license whenever you've obtained it.

If you are given the opportunity to activate your license, please do so. We recommend using the Internet activation option.

Introduction to Databases

Before you start working with Alpha Five Version 10, you'll need to understand a few basic concepts. Let's start by talking about databases.

Kinds of Databases

DEFINITION - DATABASES

As we're using the term, a *database* is primarily a collection of related records organized using a *database management system* or *DBMS*. A secondary meaning for Alpha Five is that a database is also the highest-level organizing point for a group of one or more Web projects. We'll say more about this secondary meaning later on in this chapter.

You may also have heard the term database used to mean an online collection of content, typically a bibliographic database for a library, an index of journal articles, or a collection of similar documents, such as patents or copyrights. We won't talk about that kind of online database in this book, although it's a possible Web application of Alpha Five.

For our purposes, databases can reside on a desktop, or on a server. The database management systems we'll consider can organize the records one of two ways: with navigation or with relations. There are other kinds of DBMS, such as online transaction processing (OLTP), hierarchical, network, analytical, business intelligence, data warehouse, and so on. Don't worry about them right now.

Historically, Alpha Four and early versions of Alpha Five relied on a navigational database management system using DBF files that was pioneered by dBase II. (There was no dBase I: don't ask.) Alpha Five Version 10 still supports DBF databases, but for the purposes of this book that's academic.

Almost every database we'll use in the book will be a relational database that supports *SQL* (Structured Query Language). The major exception to this is that the Alpha Five security system is implemented with DBF files.

You've probably heard of Microsoft Access, Microsoft SQL Server, IBM DB2, MySQL, and Oracle. All of these are relational databases that support SQL queries, and all are supported by Alpha Five V10. (There are more, but we won't list them.) Unfortunately, each database has its own dialect of SQL.

One of the great strengths of Alpha Five with respect to relational databases is that it can adapt to the different dialects of SQL without your involvement. A second great strength is that in the most common cases Alpha Five can either generate the SQL itself or help you to build the necessary SQL query expressions graphically. A third great strength is that once Alpha Five has a query expression to retrieve data, it can figure out from that the correct expressions to create, update, and delete that data automatically. A fourth great strength is that if you migrate your data from one kind of SQL database to another, all you have to change in your V10 application is something called a *connection string*.

DEFINITION – WHAT IS SQL

We've mentioned SQL several times now, but we haven't really explained it. The general idea of SQL is that the client -- in this case, V10 -- creates a string to describe what it wants to do, send it to the database management system, and the database management system then parses the command, optimizes the query, runs the operation, and returns the result.

The four basic database operations are referred to fondly as CRUD: **Create**, **Retrieve**, **Update**, and **Delete**. The CRUD operations are performed in SQL using INSERT, SELECT, UPDATE, and DELETE statements. These statements can be modified in scope by a WHERE clause, and the data returned can be sorted using an ORDER BY clause. Queries and sorts are speeded up by maintaining *keys* and *indexes* on the data; every table needs a *primary key*.

When you need to operate on more than one table at a time, you take advantage of the relation between the tables and JOIN them; joins are speeded up by using foreign keys. SQL can also express more complicated actions: creating and dropping tables, returning only unique values, calculating aggregated statistical quantities based on the data, and much more.

This book does not assume that you already know SQL. In the few cases where SQL is required, we will show you how to generate the SQL using a visual tool. When SQL concepts that you need to understand come up, we will explain them.

On the other hand, as someone who wants to work with databases, you will eventually find it extremely useful to learn SQL. An excellent (free) resource for this can be found at: **http://www.w3schools.com/sql/default.asp**.

DEFINITION – CONNECTION STRING

Because a SQL database engine runs in a different process than Alpha Five, and possibly on a different computer, Alpha Five needs to know how to find the database and make a connection. That information is contained in a *connection string*.

The connection string specifies the kind of database being used, the location of the database, the database credentials to use, and some options.

Kinds of Alpha Database Connections

V10 supports *named* and *ad hoc* connections. In this book we will only use named connections, because they can easily be changed at publication time from your development database to your production database.

Alpha Five supports two SQL database connection protocols, *ADO* and *AlphaDAO*. ADO (ActiveX Data Objects) is a widely used Microsoft technology allowing access to relational databases (such as SQL Server, Oracle, MySQL, and Access .mdb files) and to other non-relational data sources (such as Excel and text files).

AlphaDAO is an alternative to ADO provided in Alpha Five. AlphaDAO supports "Portable SQL", which allows you to use the same SQL statement syntax on all

databases. AlphaDAO has an Object Mode that is much easier to work with than ADO, and AlphaDAO is more efficient than ADO for remote databases.

We'll use AlphaDAO throughout this book: we don't really have a choice. AlphaDAO is better than ADO for the reasons just mentioned, but the clincher for our purposes is that AlphaDAO is *required* for enabling Ajax in Grids built against SQL databases.

Creating your first Alpha Five project

If you have been so absorbed in reading this book that you haven't yet downloaded and installed V10, please do so now, as described in **Downloading and installing Alpha Five Version 10**. The section that follows is intended as a hands-on introduction to Alpha Five, and you won't get the full benefit of it unless you try each step yourself on your computer.

Starting Alpha

To start V10, either double-click on the red Alpha on your desktop [Alpha Desktop Icon image] or use the Windows Start menu **Start|All Programs|Alpha Five V10|Alpha Five V10**.

FIGURE 1-6: Starting Alpha from the Start menu

You will see a welcome screen as V10 loads:

FIGURE 1-7: Welcome Screen of Alpha Five version 10

Then you'll see the opening **Select Database** dialog, which has two tabbed panes: **News & Updates**, and **Databases & Tasks**. Typically, **News & Updates** will display first on the first time you start Alpha in any given day; if you reopen Alpha later in the day, **Databases & Tasks** will display first.

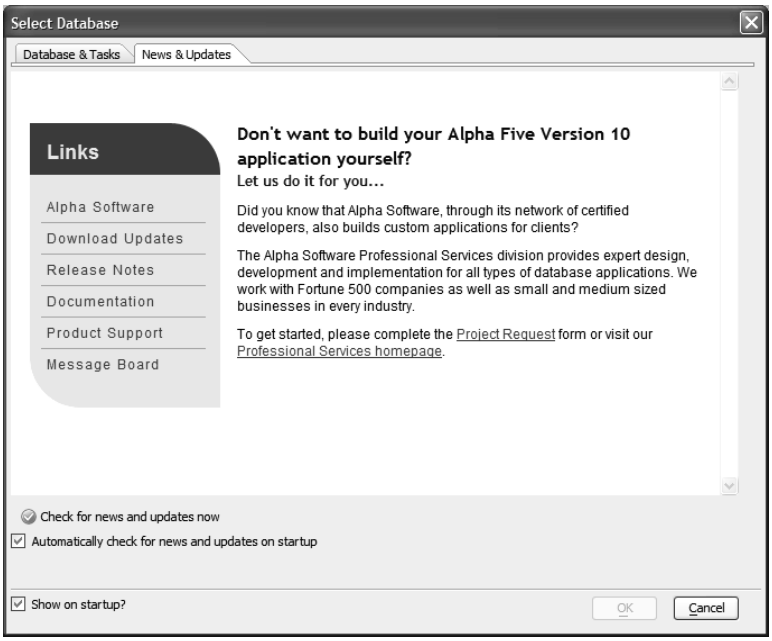


FIGURE 1-8: Select Database Dialog

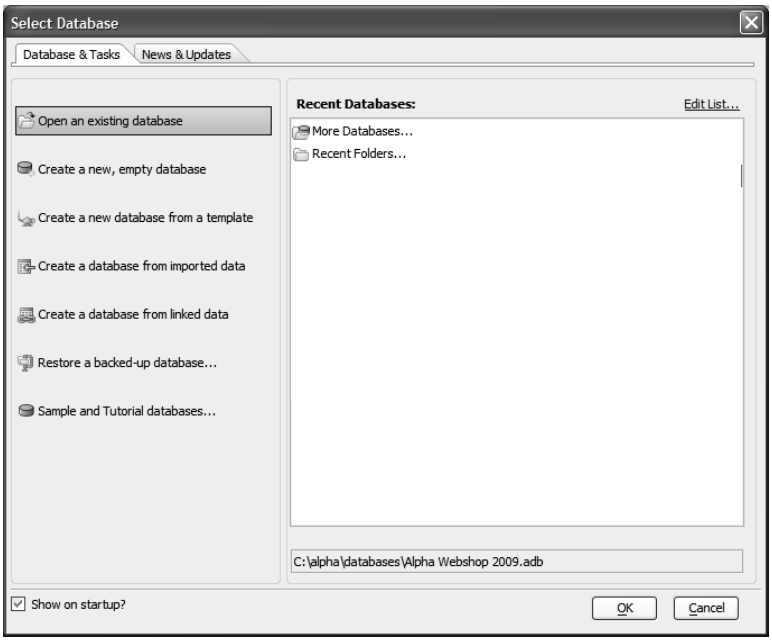


FIGURE 1-9: Databases and tasks

Creating a new, empty database and project

Before we actually create our first project, we need to discuss how projects are structured in Alpha.

Alpha projects live inside the Windows file system, and may use many subfolders. By default, V10 projects are created under **C:\Users\<username>\Documents\Alpha Five V10** or **C:\My Documents\Alpha Five V10\,** depending on which version of Windows is running. We recommend creating a new folder for each master project.

Inside the top-level project folder, Alpha will create a project database, with file types of .ADB, .ALB, .ALM, .ALX, and .MUF. In the course of development, Alpha will create additional files with types of .WCP_SETTINGS and .HISTORY. All of these files will have a common name, referred to as the database name, so the pattern for the files is <database name>.ADB, <database name>.ALB, and so on. (We are using the <database name> notation to specify a substitutable parameter.) The .ADB file is the one you can double-click to bring up a specific project in Alpha Five.

If you add "native" tables, indexes, and sets to your project, more files will be added to the same directory as the .ADB file. In this case, there will be files of type .DBF, .DDD, .DDM, .CDX, and so on. SQL databases are considered

"external" by Alpha. As we mentioned earlier, in this book we will use "external" SQL databases almost exclusively.

Underneath the top-level project folder, Alpha will create your Web projects in a folder. The Web project folder will be called <database name>.WebProjects. Individual Web projects will have their own folders underneath that; when you first create a Web project, it will be called Default.WebProject. There can be one or more Web projects in each master project or "database"; each Web project can have 0 or more subdirectories.

On your computer, you should now switch to the **Databases & Tasks** tab if it is not already displayed.

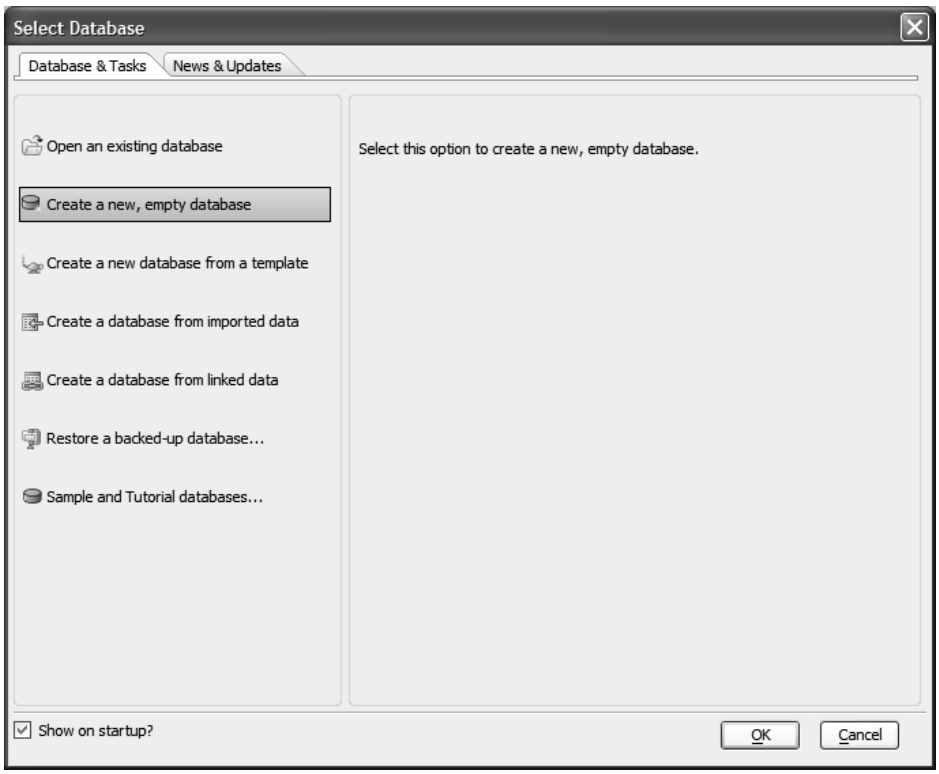
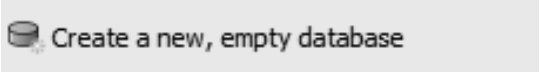


FIGURE 1-10: Create a new, empty database

Click on 

Create a new, empty database and then click the OK button.

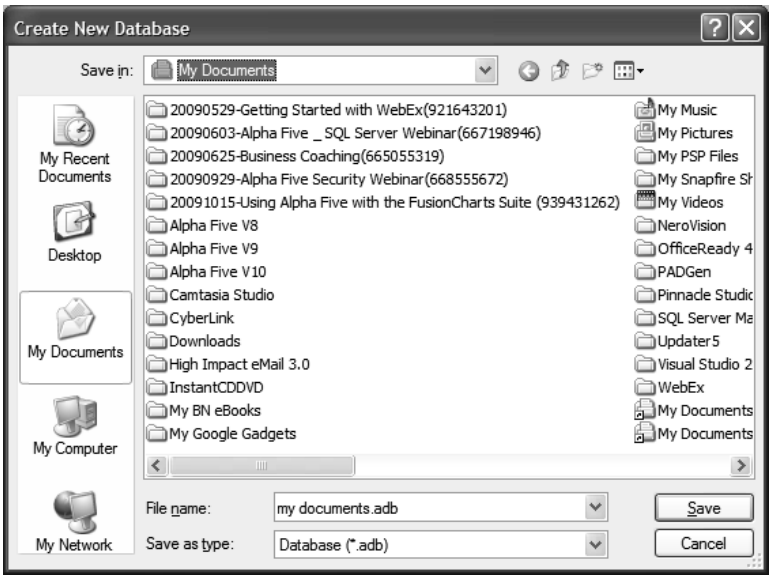


FIGURE 1-11: My Documents tab: Creating a New Directory

Navigate to "My Documents\Alpha Five V10" in the **Create New Database** dialog, and create a new directory under "My Documents\Alpha Five V10." You can do this by clicking the New Folder button. Name the new folder "V10 Web Tutorial".

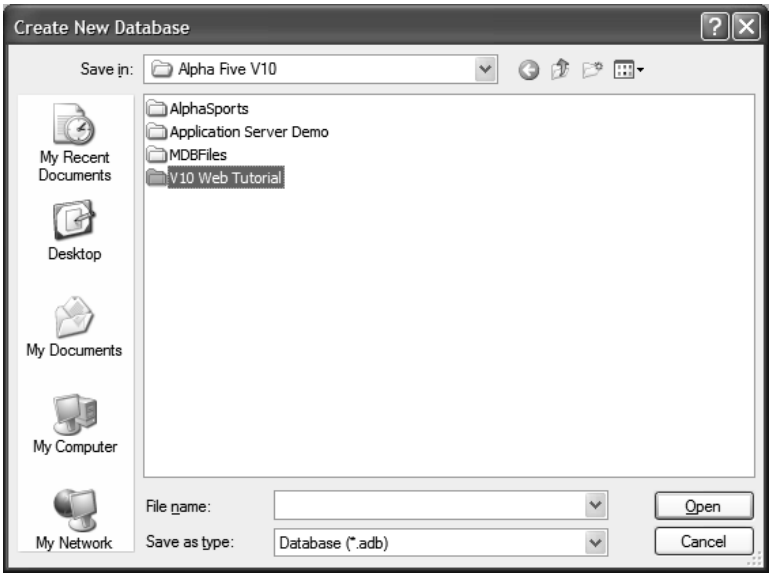


FIGURE 1-12: Creating a New Folder

Now navigate into the new directory and create a new (project) database "Web Tutorial"

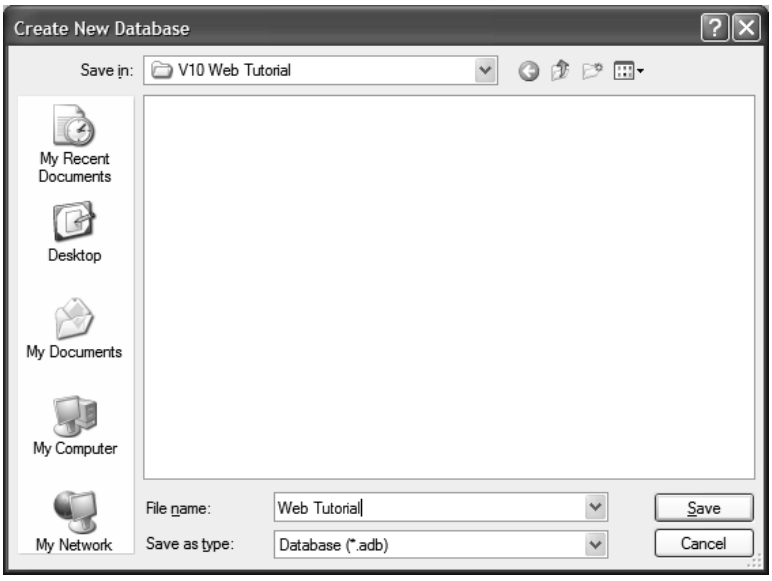


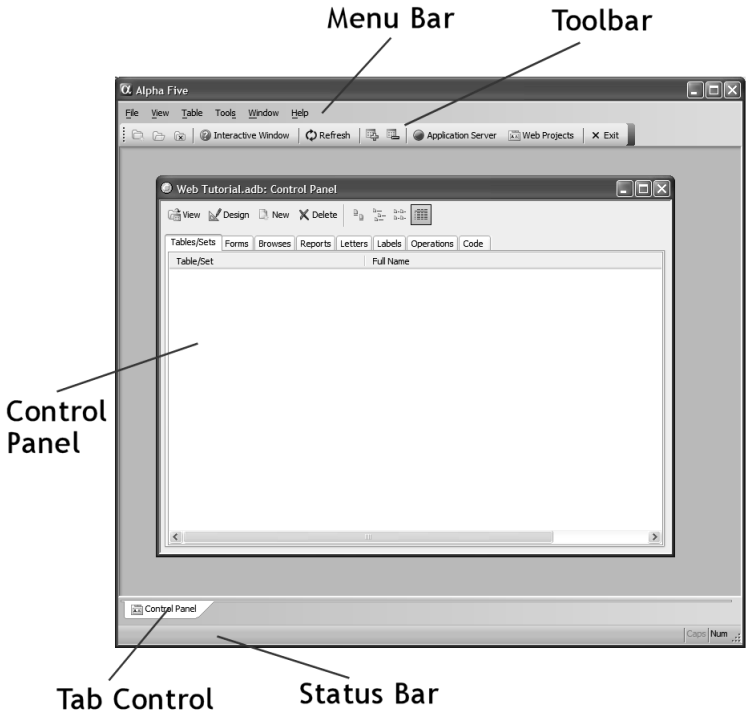
FIGURE 1-13: Creating a New Folder called "Web Tutorial"

Navigating the V10 IDE

Before we start building our first component, let's briefly explore the Alpha Five Version 10 integrated development environment.

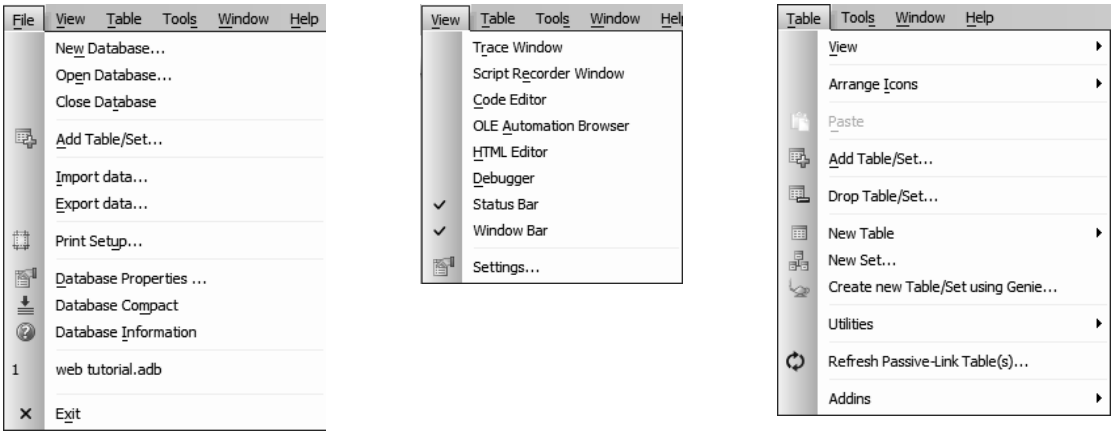
Working from the top to the bottom, we initially see five major parts of the user interface: the menu bar, the tool bar, the Control Panel, a tab control, and a status bar.

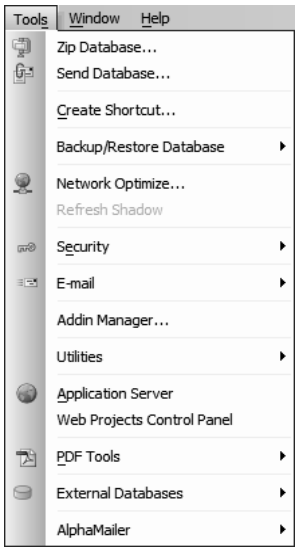
FIGURE 1-14: Navigating the Alpha V10

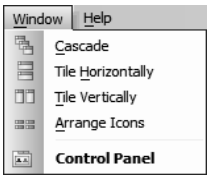


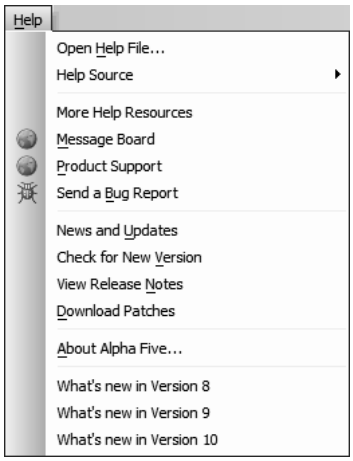
In this view, we have six top-level menus. If drop each of them down, we can see its items:

FIGURE 1-15: Six top - level Menus



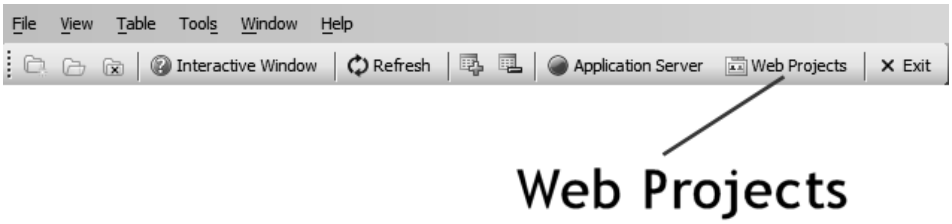






Now let's click on the Web Projects toolbar item to start the Web Projects Control Panel.

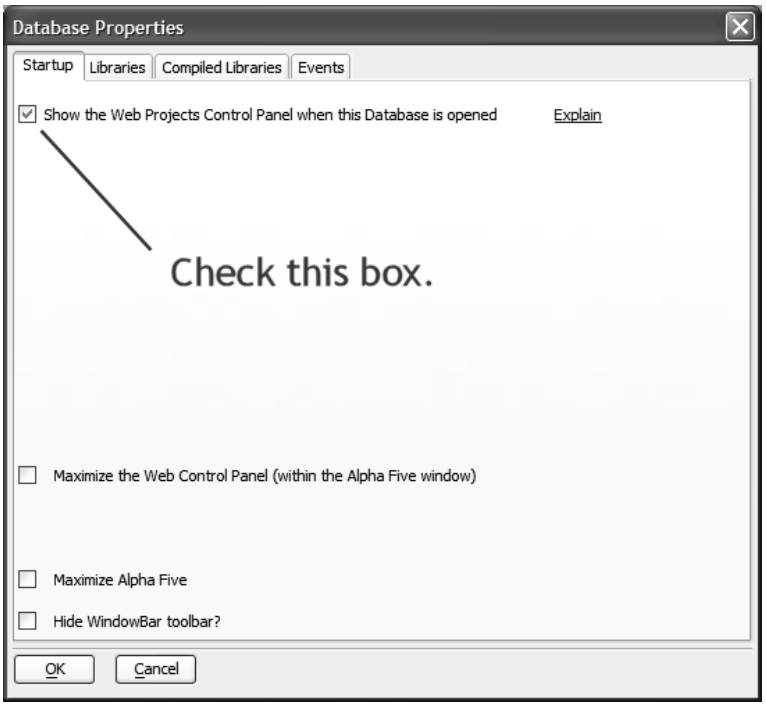
FIGURE 1-16: Web Projects Control Panel



Since this is the first time that you've started the Web Projects Control Panel for this database/project you'll be asked if you want to open the Web Projects Control Panel whenever the database is loaded.

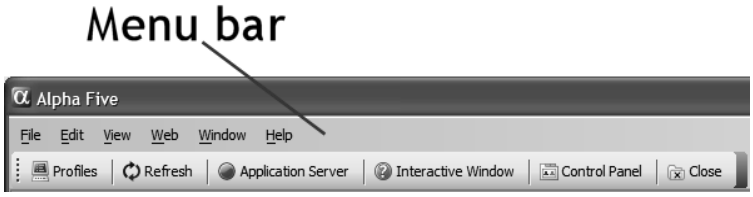
For this project, and for everything we'll do in this book, the Web Projects Control Panel should always be started when the database is loaded, so check the indicated box and click on OK. As the dialog says, if you change your mind, you can change the setting at any time by picking the **File|Database Properties** menu when the Control Panel has focus.

FIGURE 1-17: Checking the box "Show the Web Projects Control Panel"



Notice how the menu bar changes when the Web Projects Control Panel has the focus. We still have six top-level menu items, but two items are different, and the order of the items is different.

FIGURE 1-18: Menu Bar with six top-level menu items



In the Web view we can again drop each menu down to see its items:

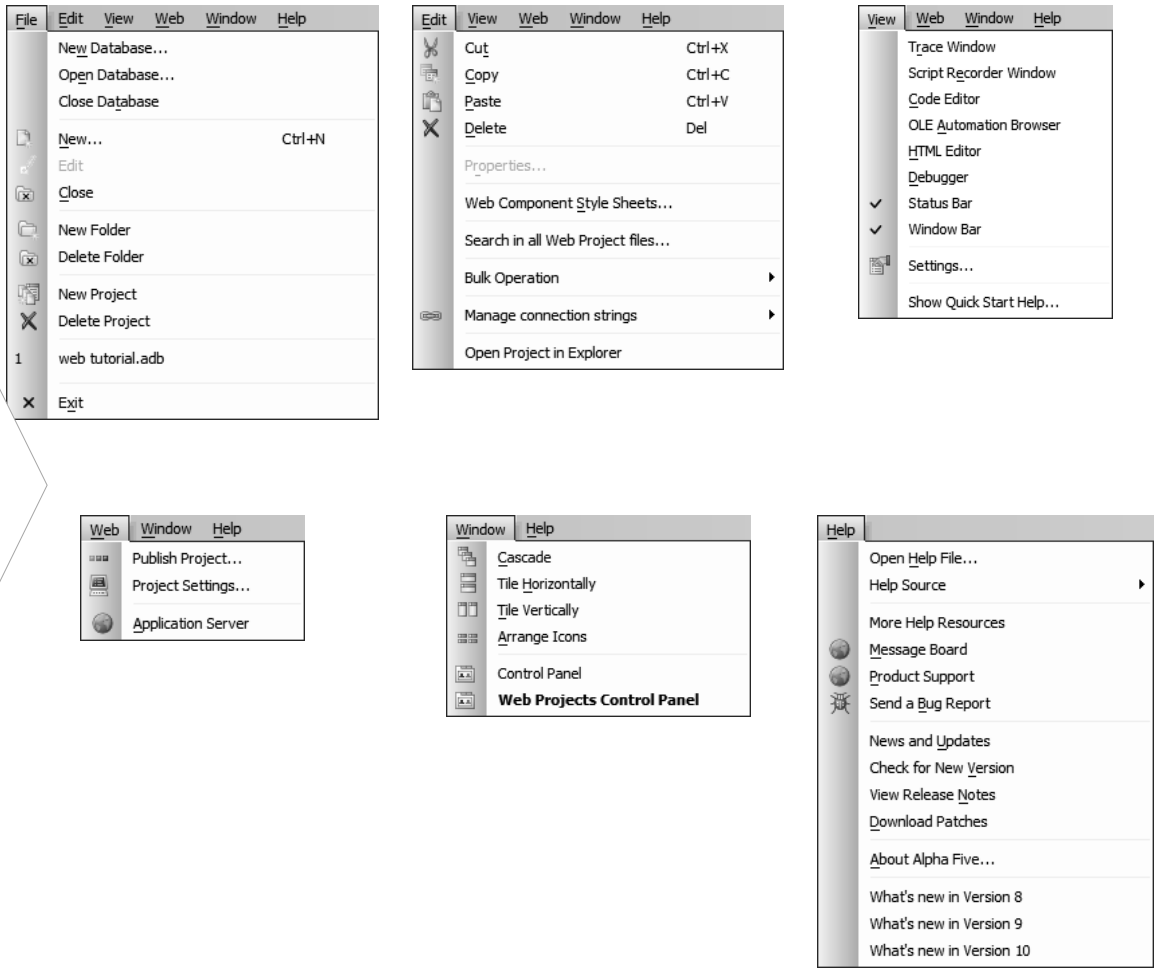


FIGURE 1-19: Web View of the six top-level menu items

That should be enough to help you get your bearings.

About the Northwind database sample

Since this isn't a book about database design, we're going to use a standard existing database for this sample application and for most of the samples in this book. Northwind.mdb is a Microsoft demonstration database that ships with older versions of Microsoft Access; Microsoft explicitly allows other software developers to redistribute northwind.mdb. It happens to be a good demonstration database for a number of reasons.

For the purposes of demonstration, we want to have the convenience of a database that resides in a file without requiring a server, for development. We want to use a file format for which we can be sure we have an installed driver. In

addition, we want to use a SQL database that can later be upsized to a server database, for production. The .MDB file meets all three requirements. In addition, we're going to want to use a database that demonstrates international characters, and the Northwind sample has those in abundance.

As we've mentioned before, when we're ready to publish our application, it will be easy to switch to SQL Server, MySQL, Oracle, or to another server database, simply by changing the connection string.

Creating a connection string for Northwind.mdb

Before we do anything with the Northwind sample, we should back it up. Switch from Alpha to Windows and start Windows Explorer. This is most easily done with the Windows-E key combination.

Now navigate to the "My Documents\Alpha Five V10\MDBFiles" directory in Explorer. We want to make a backup of Northwind.mdb somewhere so that you can muck about with this copy to your heart's content without worrying about "messing up" the data. If you right-click on the Northwind.mdb file and select Copy, you can then navigate to your preferred backup location, right-click, and select Paste. You could also send the file to a compressed directory or add it to a zip archive.

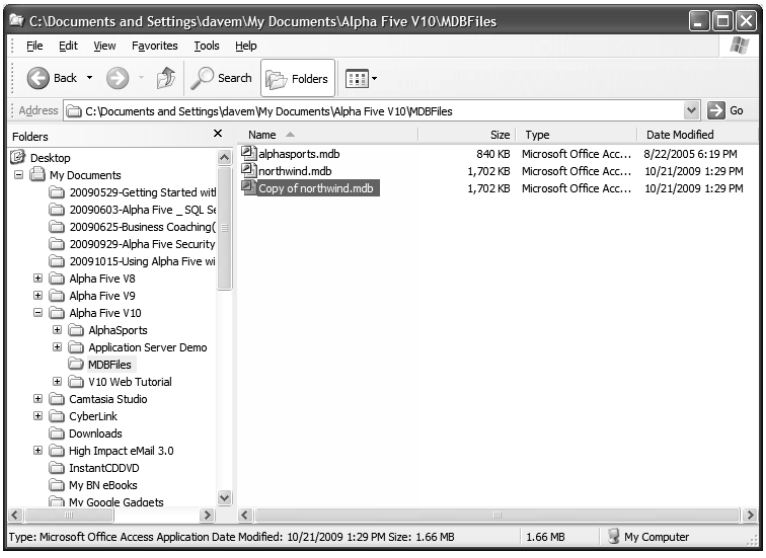


FIGURE 1-20: Backup of Morthwind.mdb

Now switch back to Alpha Five. If the Web Projects Control Panel doesn't have focus, select it. Pick the **Edit|Manage Connection Strings|AlphaDAO Connection strings** menu item.

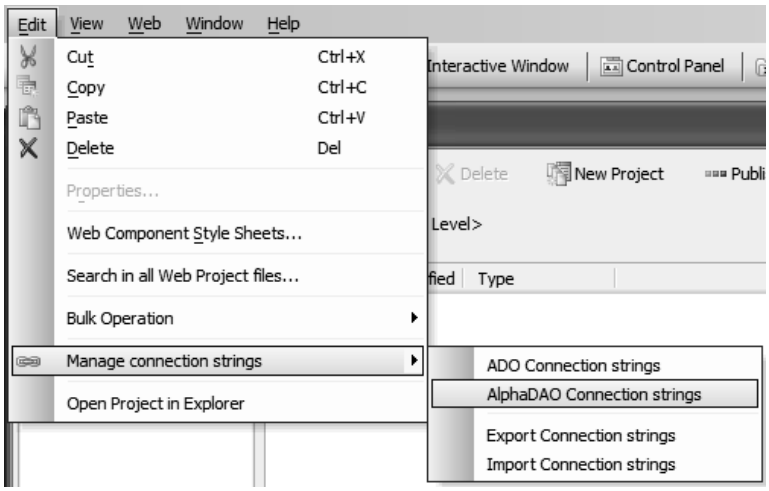


FIGURE 1-21: Edit / Manage Connection Strings / AlphaDAO Connection Strings

You'll see the **AlphaDAO Connections** dialog:

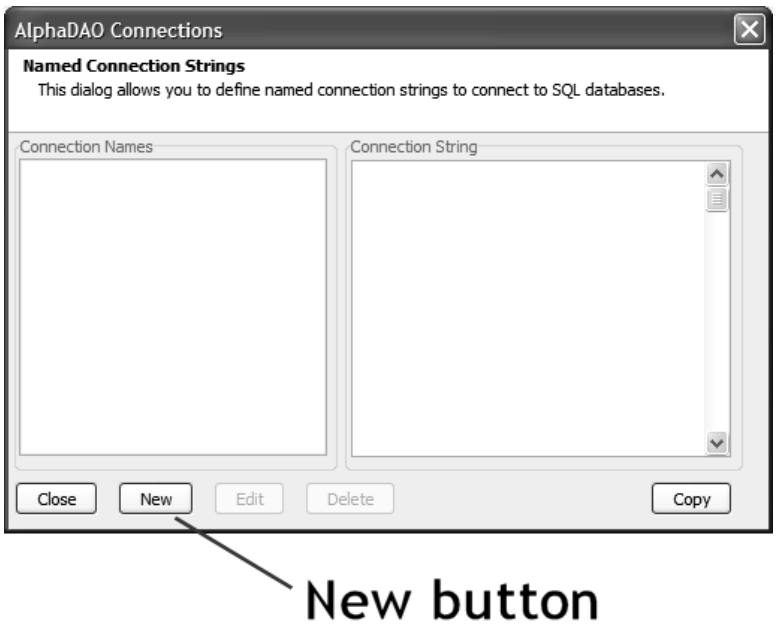
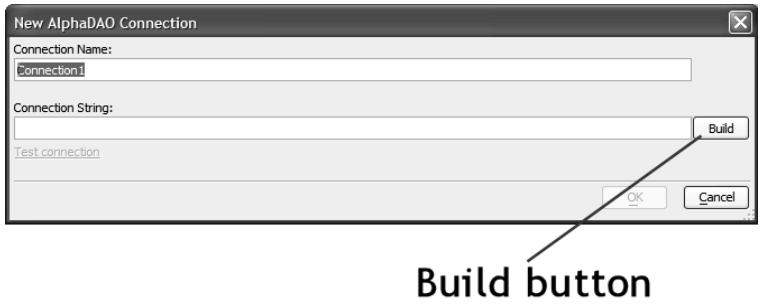


FIGURE 1-22: AlphaDAO Connections Dialog

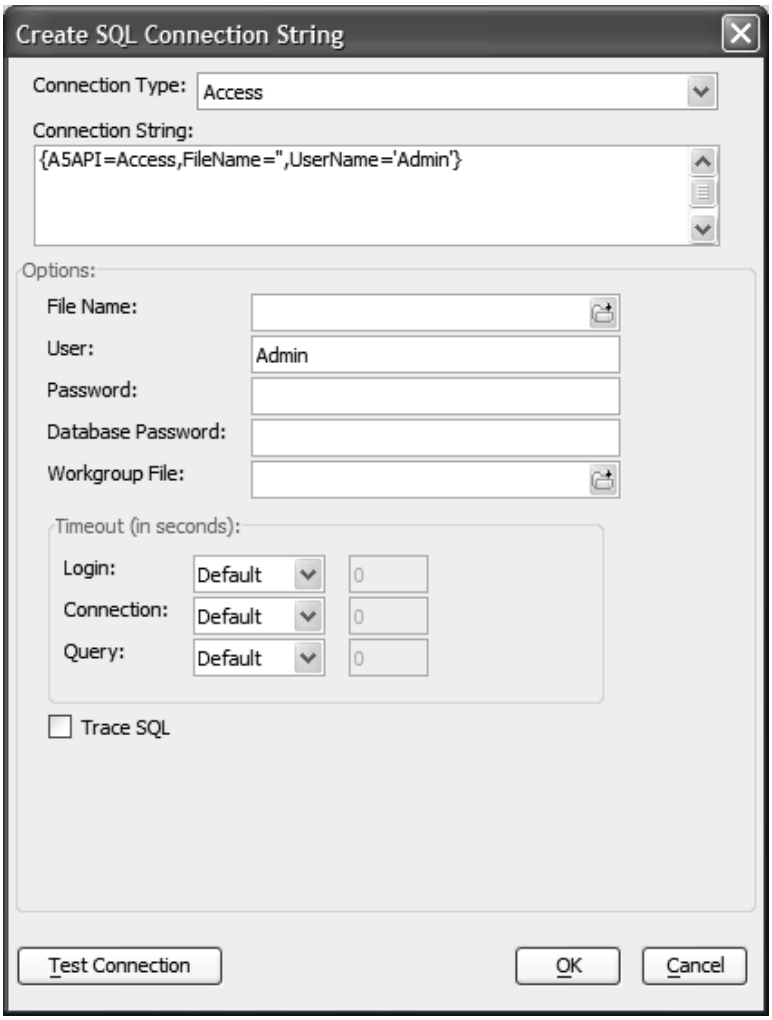
Click on **New** at the bottom of the dialog. You'll see the **New AlphaDAO Connection** dialog:

FIGURE 1-23: New AlphaDAO Connection Dialog



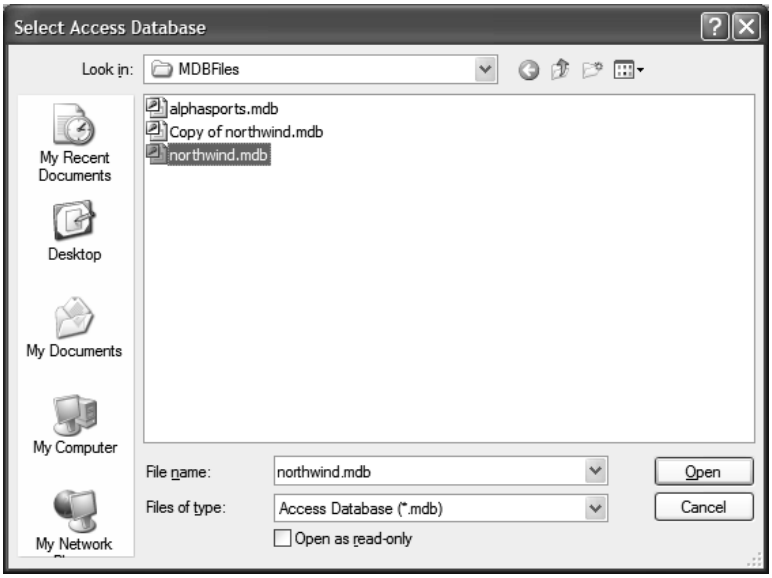
Click on the **Build** button, and you'll see the **Create SQL Connection String** dialog. The Access connection type should be selected by default.

FIGURE 1-24: Create SQL Connection String



Click on the folder icon of the File Name field and navigate to the "C:\My Documents\Alpha Five V10\MDBFiles" directory in the Select Access Database dialog. When you get there, select Northwind.mdb.

FIGURE 1-25: Select Access Database Dialog

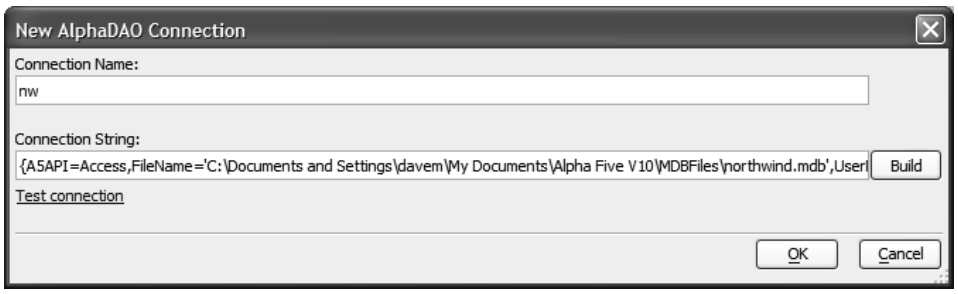


The user should already be **Admin**. Test the connection: it should say **Succeeded**. Click OK to get back to the **New AlphaDAO Connection** dialog.

Saving and naming the connection string

In the **Connection Name** field, type "nw".

FIGURE 1-26: New AlphaDAO Connection Dialog



Now click **OK** to save the named connection string, and **Close** to dismiss the **AlphaDAO Connections** dialog.

Displaying a database table in a Grid

Now that we have defined a connection to a database, let's use it to populate a Grid control. We'll start by creating a Grid component.

Creating a Grid component

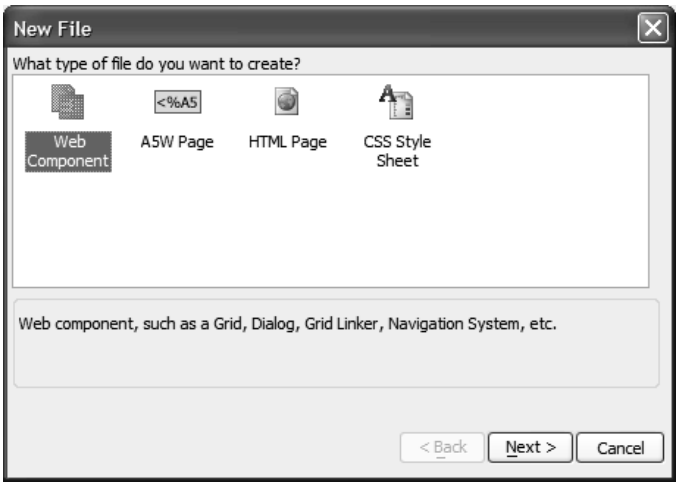
If the Web Projects Control Panel doesn't already have the focus, click on its tab at the bottom of the screen, or click somewhere in the Web Projects Control Panel window.

At the top of the Web Projects Control Panel window, click on

New in the toolbar, and then click on the

Web Component item in the New File dialog.

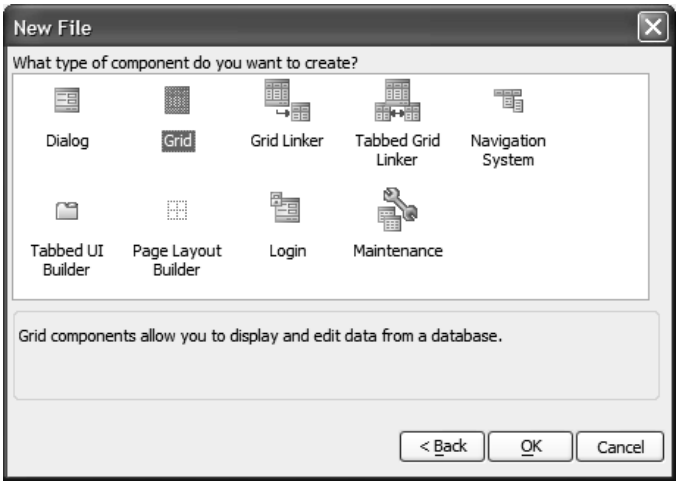
FIGURE 1-27: New File/New Component/ Next



Click **Next>** at the bottom of the dialog, and click on

Grid in the next dialog.

FIGURE 1-28: Grid/OK

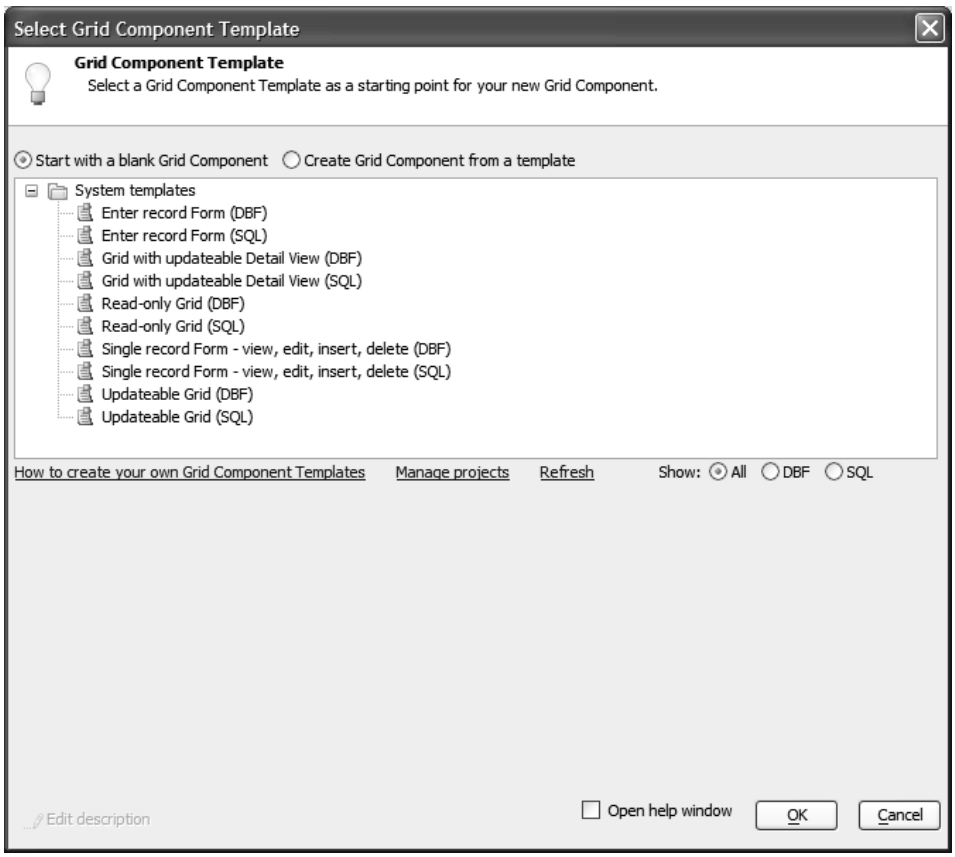


Now click on OK.

Choosing a Grid template

The Select Grid Component Template dialog offers you the choice of starting with a blank Grid component or starting from an existing template.

FIGURE 1-29: Select Grid Component Template Dialog



You'll see 10 templates listed in a tree control. There are five kinds of template provided, and each has a DBF and an SQL version. We only want SQL templates, so click on the **Show: SQL** radio button below the **System Templates** tree control. Now you should only see five templates.

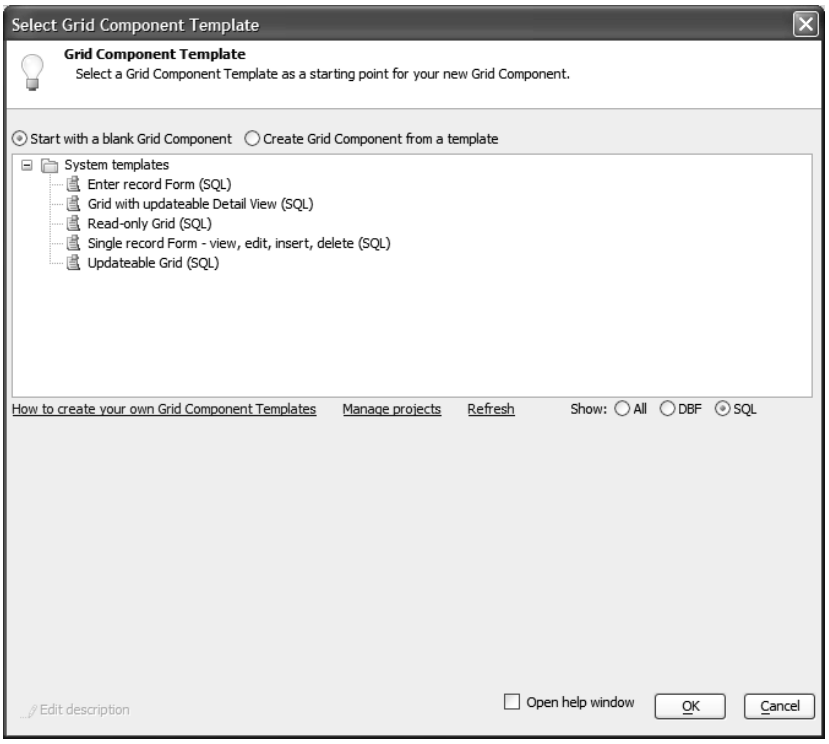


FIGURE 1-30: Five templates on the Select Grid Component Dialog

You can click on each template to see its description. Here's what the **Enter record Form (SQL)** selection will show you:

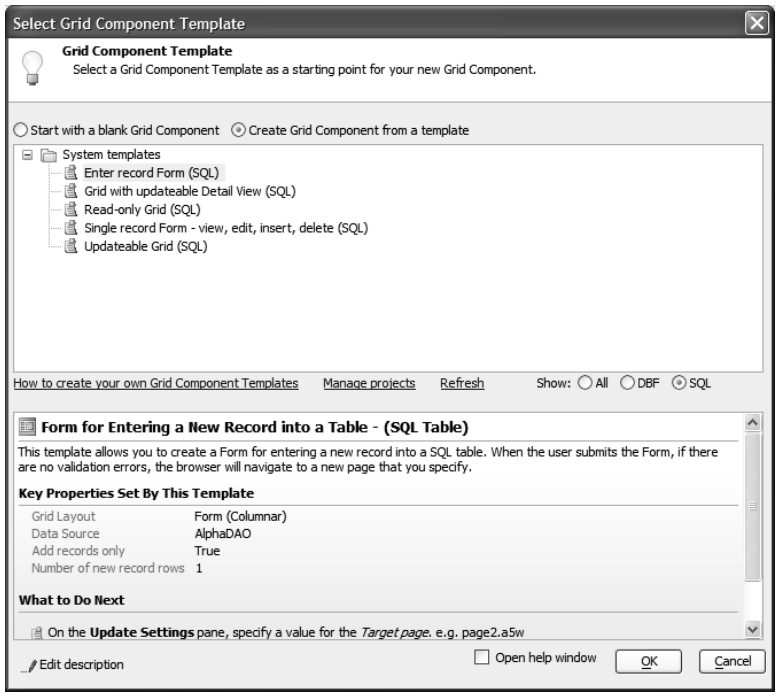


FIGURE 1-31: Enter record Form(SQL) selection

Please look at all five templates.

For this exercise, we're going to pick the **Read-only Grid (SQL)** template:

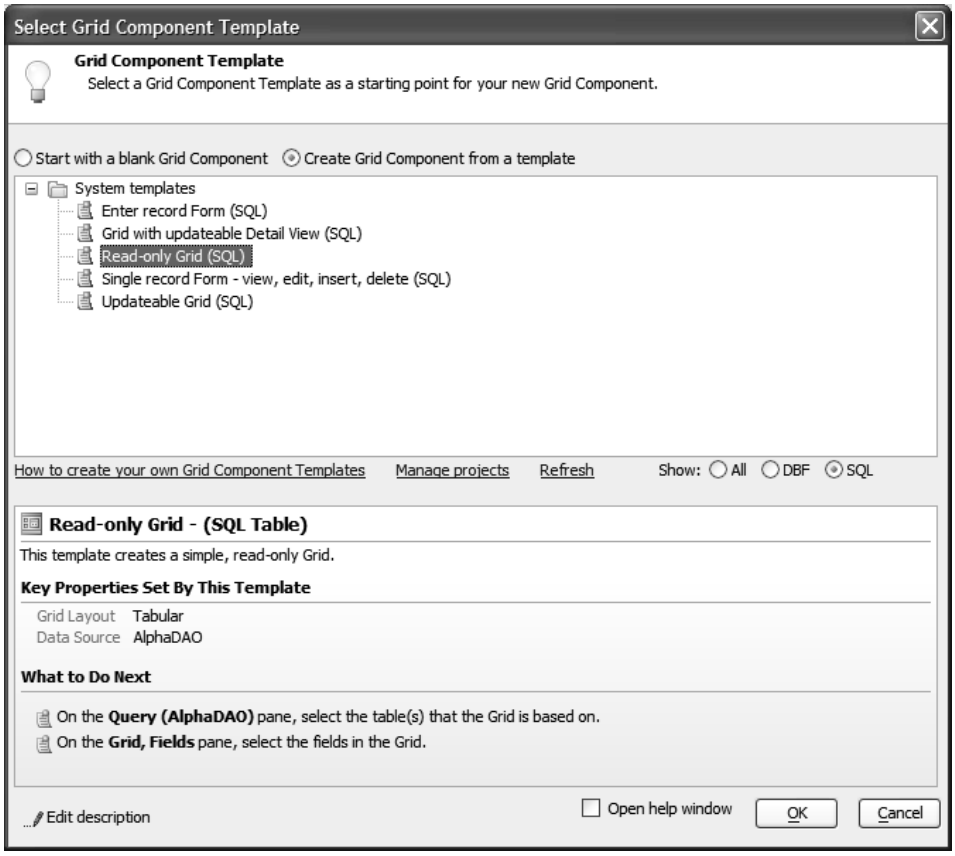


FIGURE 1-32: Read -Only Grid (SQL) template

Click on **OK** to bring up the **Grid Builder**:

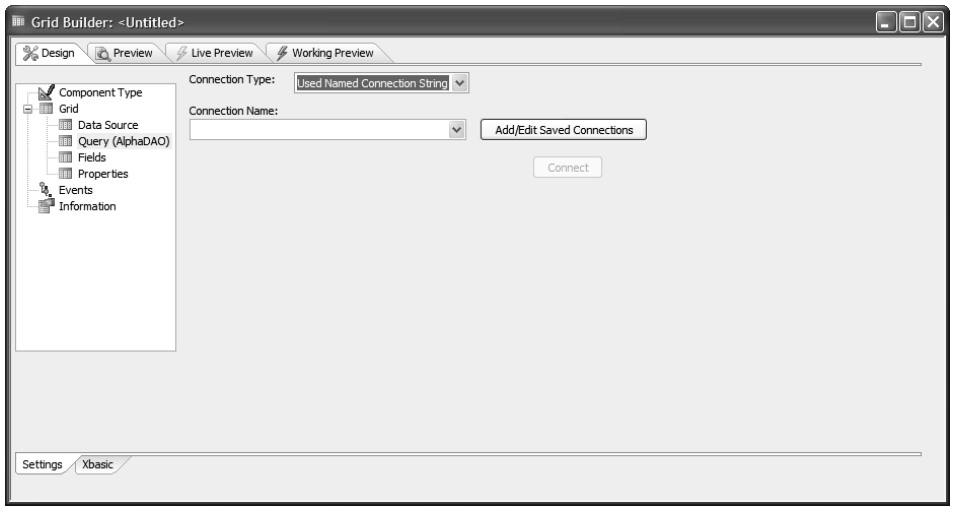


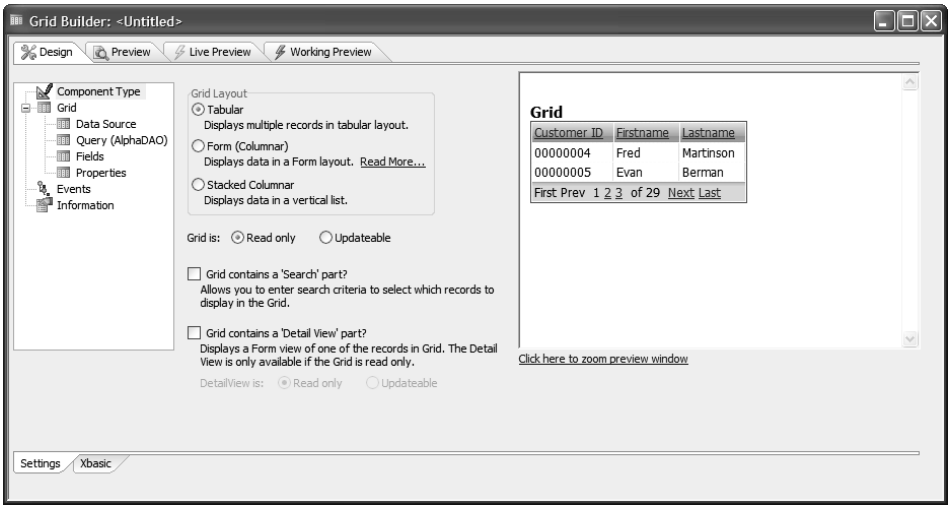
FIGURE 1-33: Grid Builder

If the **Help** pane is in your way, you can move it elsewhere, or dismiss it.

Grid definition forms

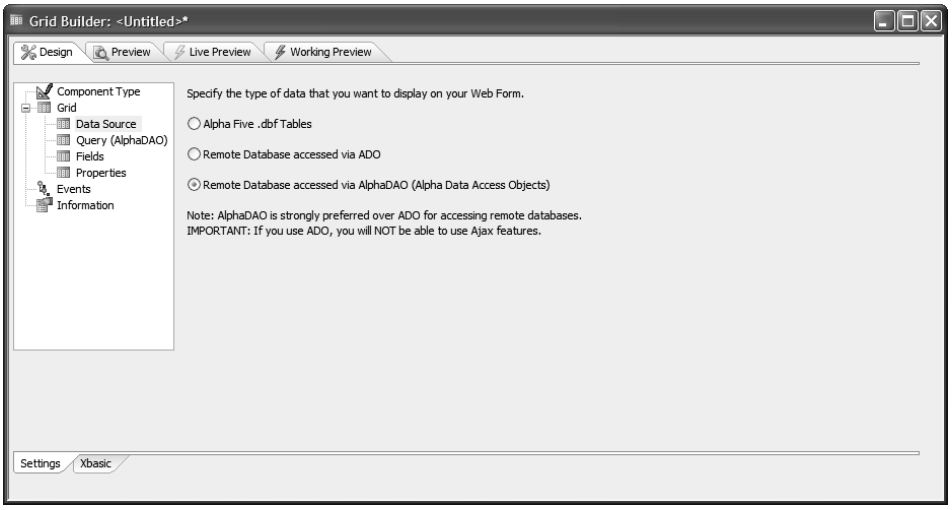
Before we define this Grid, let's go over the choices that were set in the **Grid Builder** by the template. We should be on the **Query (AlphaDAO)** form. If you click on the Component Type **Component Type** item in the tree control at the left, the right-hand part of the form should change to show the **Grid Layout** radio buttons with **Tabular** selected, the **Read Only / Updateable** radio buttons with **Read Only** selected, and the check boxes for the **'Search'** and **'Detail View'** grid parts, both unchecked.

FIGURE 1-34:
Grid Lay-out



Don't change any of these settings. Click on **Data Source** in the tree control, and you should see radio buttons for **Alpha Five .dbf Tables**, **Remote Database accessed via ADO**, and **Remote Database accessed via AlphaDAO** (Alpha Data Access Objects). Select **AlphaDAO** if it has not already been chosen.

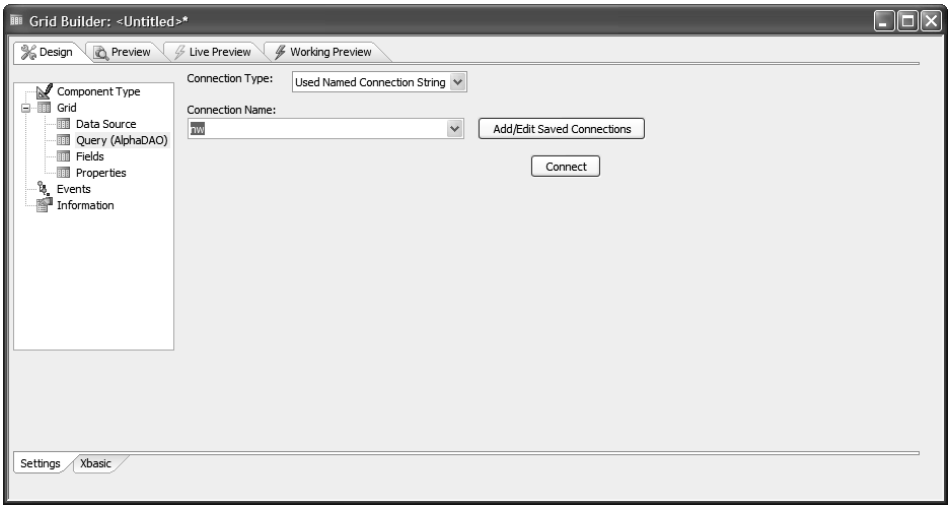
FIGURE 1-35: Data Source in the tree control



Connecting the Grid to the Northwind database

Coming back to the **Query (AlphaDAO)** form, leave the **Connection Type** set to **Use Named Connection String**, drop down the **Connection Name** edit combo control, and select **nw**. Note that you can add more connections at this point, although we don't need to do that because we planned ahead.

FIGURE 1-36: Use Named Connection String/Drop down "Connection Name"/select nw



Click on the **Connect** button which became enabled when we selected **nw**.

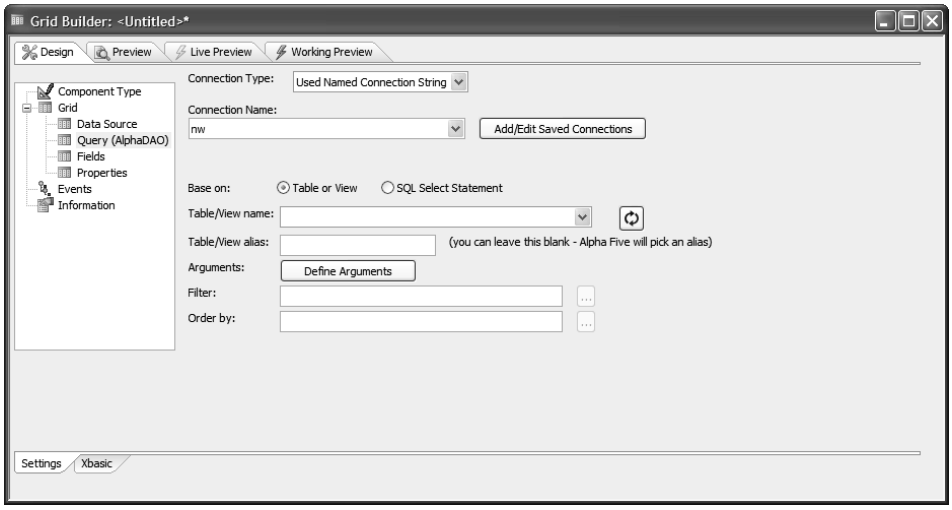


FIGURE 1-37: Connect button

Picking a table

Leave the **Base on:** radio buttons set to **Table or View**. We will cover using SQL select statements in a later chapter. Now drop down the **Table/View name** control, and you'll see a list of the tables and views in the Northwind database.

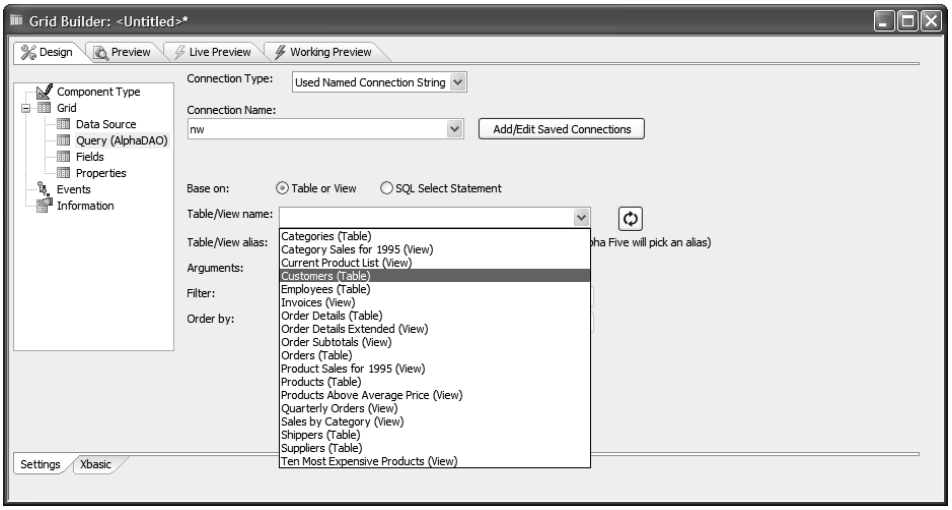


FIGURE 1-38: Tables and Views in the Northwind database

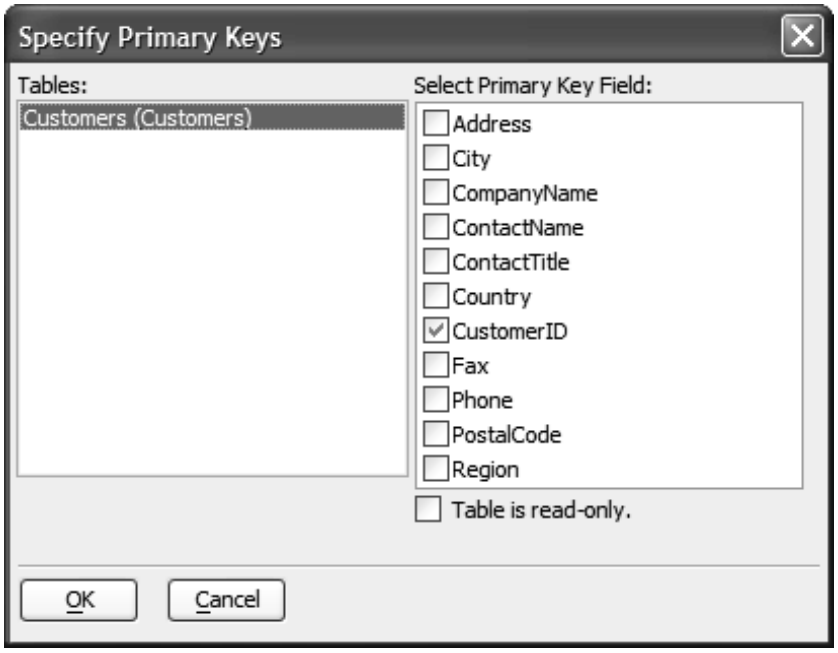
Pick the **Customers** table, which is a good example for our purposes. This table has plenty of fields and data, so we'll be able to see how Grid paging works. Many of the customers are located in Europe, so we'll see the use of extended characters.

Click on the **Read Only?** checkbox to select it. This is not strictly necessary, as we've chosen a Grid template without controls for saving records, but it's good practice.

You can leave the rest of the settings at their defaults.

However, it's useful to click the **Select Primary Key** button to view the dialog it displays. The **CustomerID** field should already be checked in **the Select Primary Keys** dialog box.

FIGURE 1-39: Select Primary Keys Dialog



You can dismiss the **Select Primary Keys** dialog without making any changes.

A *primary key* is a unique identifier for records in a table. In this particular Access table, you'll see that the primary key is a character string. In many other tables in this database, and in most SQL Server databases, primary keys are typically long integers.

Alpha Five grids *must* be able to depend on the primary key for a table being a unique selector. If the primary key is not unique, it's possible that you could overwrite one record with another when you edit the data.

Picking fields

On the tree control at the left of the **Grid Builder**, pick the **Fields** category.

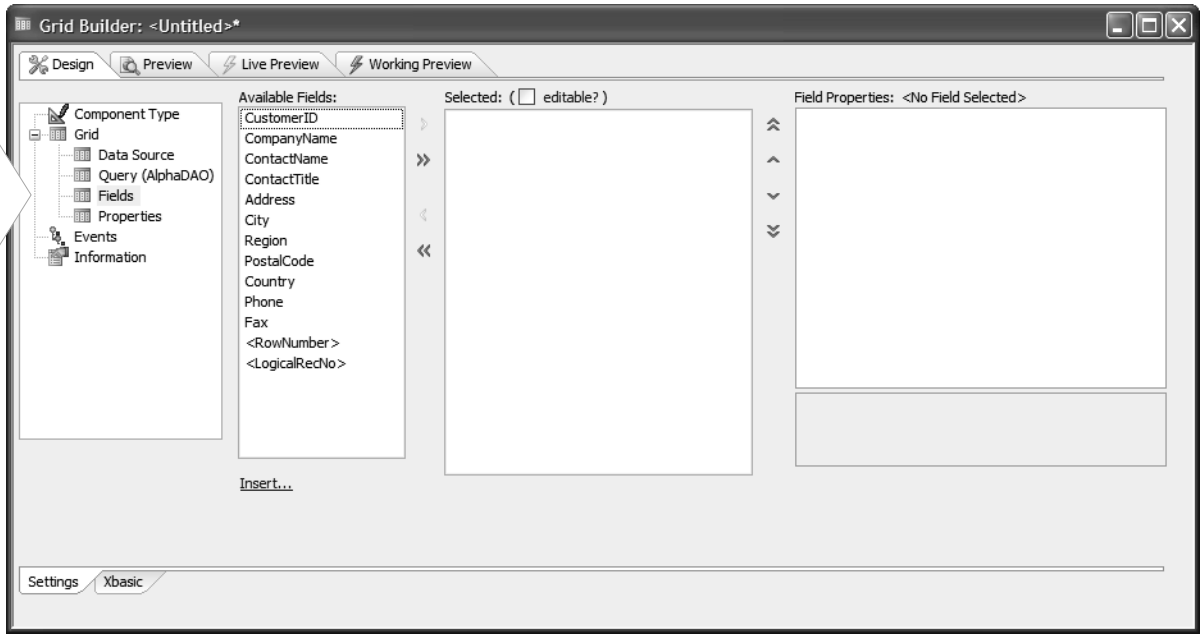


FIGURE 1-40: Grid Builder / fields

Click on **CustomerID**, press and hold the shift key, and click on **Fax**. You should have selected **CustomerID** through **Fax**, and left the two pseudo-fields **<RowNumber>** and **<LogicalRecNo>** unselected.

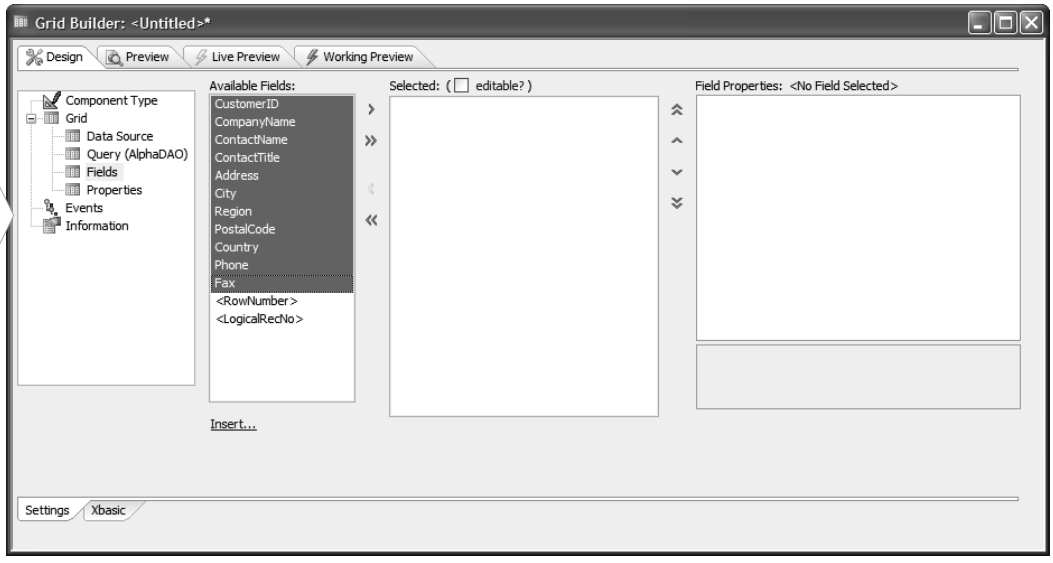


FIGURE 1-41: Customer ID(Press , hold shift key)/Fax

Click on the single right arrow at the top of the right of the **Available Fields:** column to add these fields to the **Selected:** column.

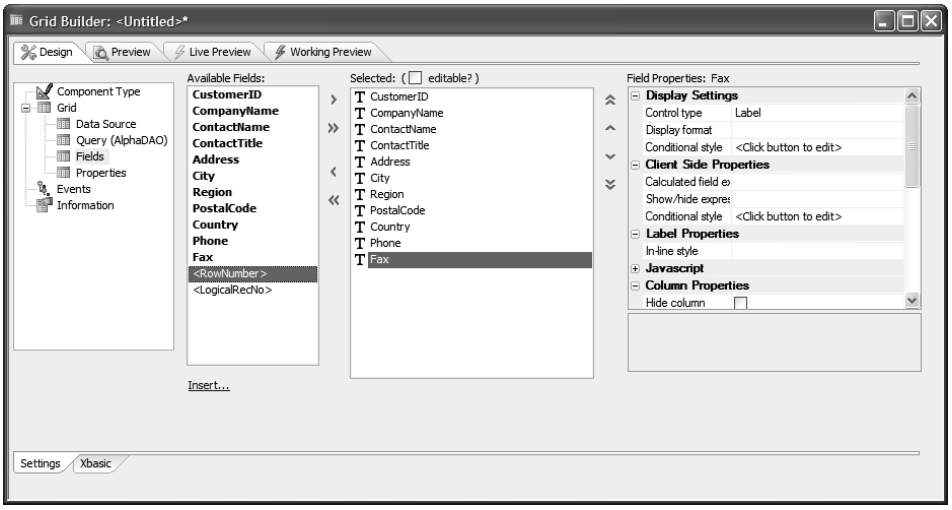


FIGURE 1-42: Adding fields to the Selected: Column

If you click on the **Properties** item in the tree control at left, you'll see that the **Ajax enabled** box is checked by default, and that the default Style name is **GlassBlue**.

Previewing the grid

We have four ways to preview our grid, Static Preview, Live Preview, Preview in a Browser, and Working Preview. We'll go over each in turn.

Static Preview

Click on the **Preview** tab in the grid builder. You should see the following screen:

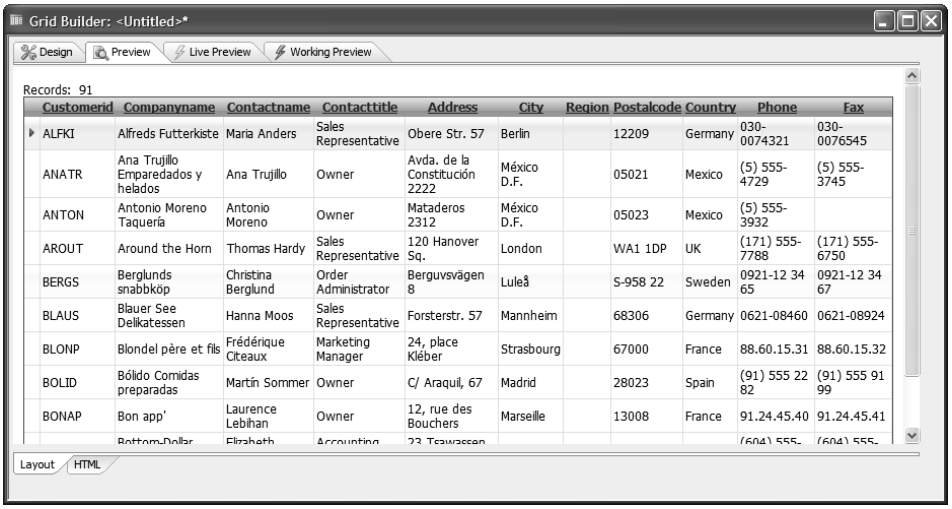


FIGURE 1-43: Preview tab in the Grid Builder

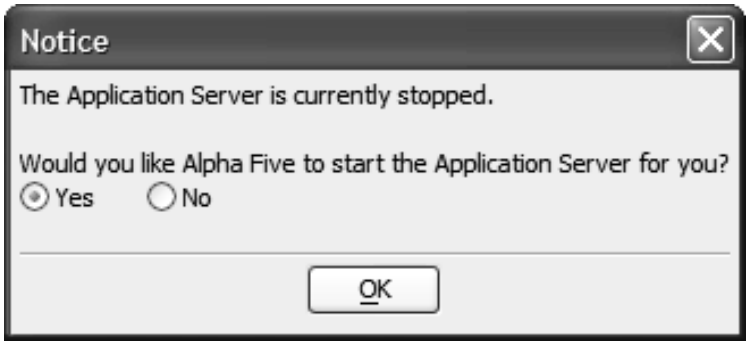
Static preview shows the look of a Grid in the Layout tab. It also shows the HTML generated for the Grid in the HTML tab.

Going back to the **Layout** tab, you'll notice that clicking on the navigation and sorting controls doesn't do anything. Static Preview is just that: a quick snapshot of the Grid with the first few rows of data from the selected table or query.

Live Preview

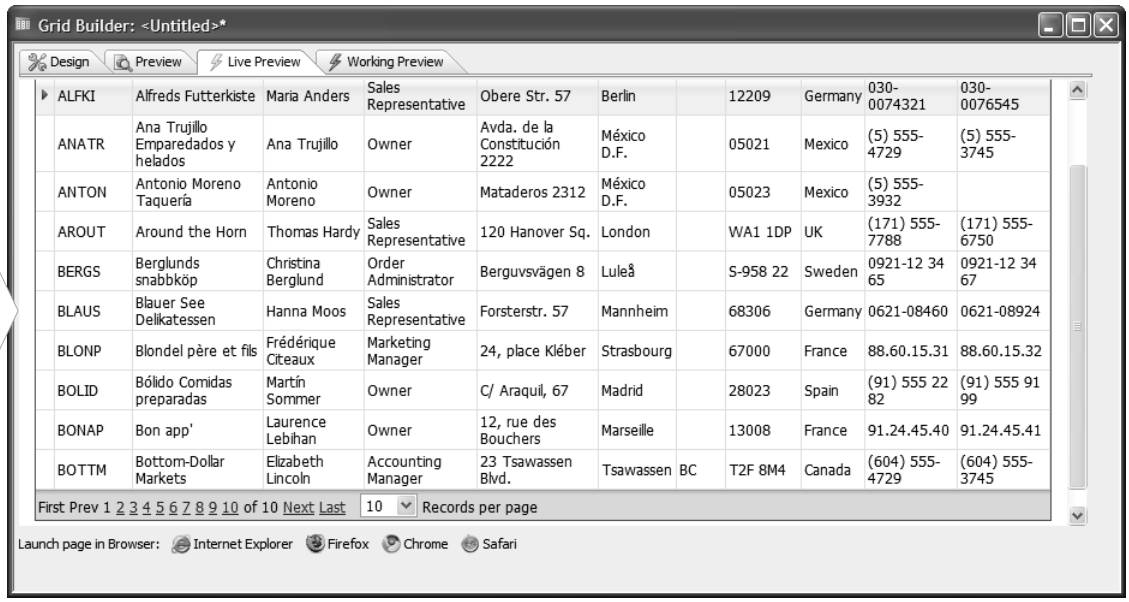
Now click on the **Live Preview** tab in the grid builder. Say yes when Alpha Five offers to start the Application Server:

FIGURE 1-44: Live Preview in the Grid Builder



After a wait while the page is generated, you should see approximately the same display as before -- only now the navigation and sorting controls should work:

FIGURE 1-45: Navigation and Sorting controls activated



ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	Berlin		12209	Germany	030-0074321	030-0076545
ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 2222	México D.F.		05021	Mexico	(5) 555-4729	(5) 555-3745
ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.		05023	Mexico	(5) 555-3932	
AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	London		WA1 1DP	UK	(171) 555-7788	(171) 555-6750
BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå		S-958 22	Sweden	0921-12 34 65	0921-12 34 67
BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim		68306	Germany	0621-08460	0621-08924
BLONP	Blondel père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg		67000	France	88.60.15.31	88.60.15.32
BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	C/ Araquil, 67	Madrid		28023	Spain	(91) 555 22 82	(91) 555 91 99
BONAP	Bon app'	Laurence Lebihan	Owner	12, rue des Bouchers	Marseille		13008	France	91.24.45.40	91.24.45.41
BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729	(604) 555-3745

For the Live Preview, the Grid code is actually running using the Internet Explorer engine to display a page that has been generated in the C:\A5Webroot\LivePreview directory and rendered with the Alpha Five Version 10 Application Server.

Try sorting, picking pages, and changing number of records per page. Everything should work. Notice how quickly and smoothly the grid updates. Do you see any flicker in the page? No? Good! That's the "codeless Ajax" of V10 at work.

Preview in a Browser

At the bottom of the **Live Preview** tab in **Grid Builder** you should see one or more icons to the right of **Launch page in Browser:**

Pick one of the Web browsers listed. Our Grid will now open in a separate browser window.

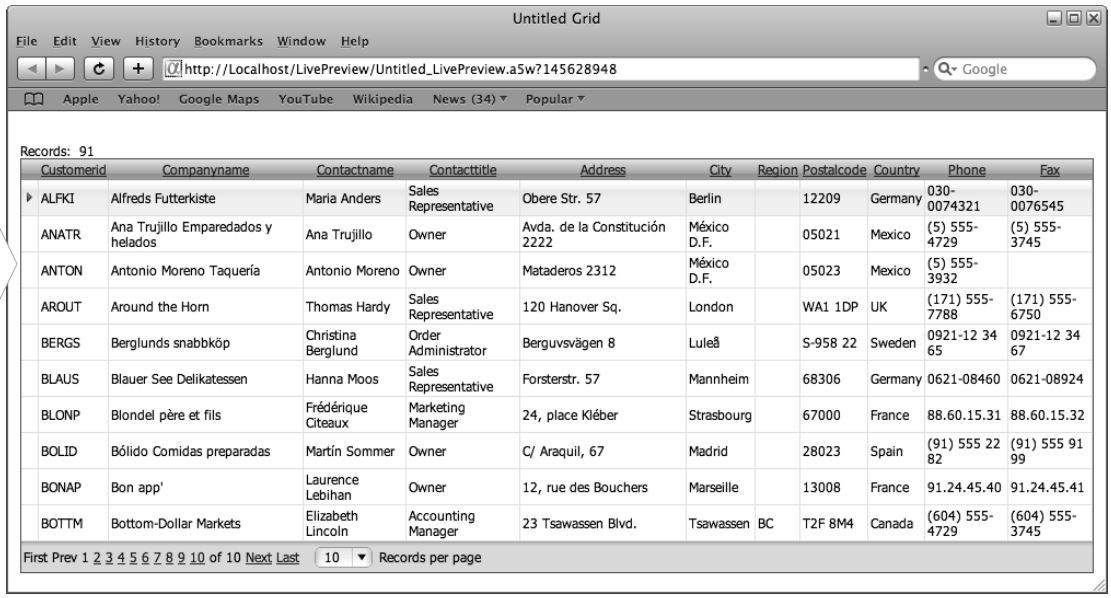


FIGURE 1-46: Grid in a separate Browser Window

The browser page should look identical to the **Live Preview** page in Internet Explorer, because V10 uses the Internet Explorer engine to render the Live Preview. The page might look slightly different in other browsers, because of subtle differences in the rendering engines, but it should still function correctly.

When you're working on an Ajax application, it's very important to test it in multiple browsers, even more important than it is to check the rendering of HTML pages in multiple browsers. The V10 tries to run the correct dialect of JavaScript for each browser, but new browser versions arrive every week.

We recommend five browsers to use for testing: the latest production (not beta test) versions of Internet Explorer, Firefox, Chrome, Safari, and Opera. If you have customers using older versions of any of these browsers, you may have to maintain test setups which have the older browser versions installed. We use virtual PCs for this purpose so that we don't have to clutter our office with dozens of physical computers running old software.

We will discuss using the Firefox browser with the Firebug plug-in later in this book. The Firefox/Firebug combination is especially useful for understanding the Ajax callbacks done by the Alpha V10 grid.

You can close all your browser windows now. Switch back to the V10 **Grid Builder** window, and click on the red X at the top right of the window. The window will close, and you'll have the opportunity to name and save the untitled Grid Builder. Save it as **Customers readonly**.

Working Preview

At the top of the Alpha Five window, click on the **Application Server** button on the tool bar. After you verify that you really want to stop the server, the button will turn red.

Go back to the Web Projects Control Panel and double-click on the **Customers readonly** grid component at the right. Click on the **Working Preview** tab:

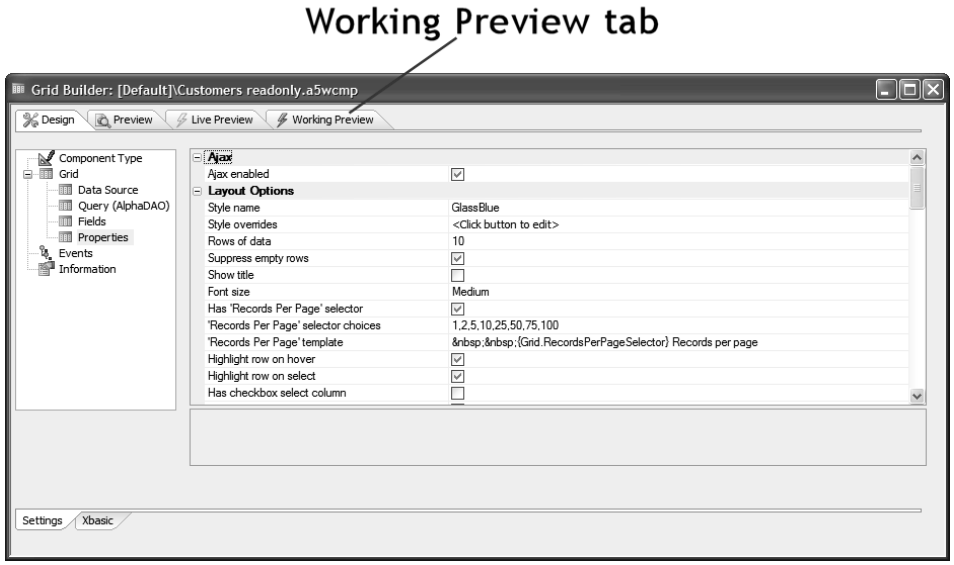
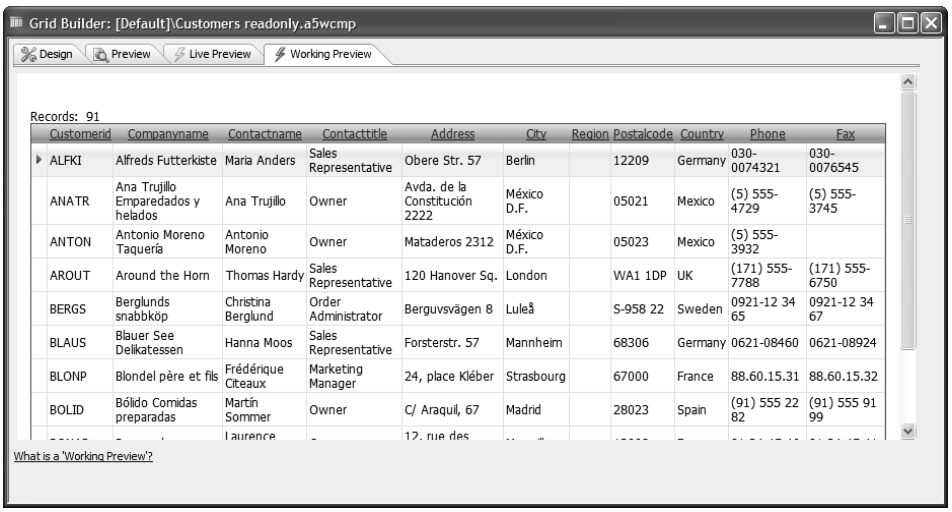


FIGURE 1-47: Working Preview Tab

You will see your grid appear in a **Working Preview** window:



Customerid	Companyname	Contactname	Contacttitle	Address	City	Region	Postalcode	Country	Phone	Fax
ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	Berlin		12209	Germany	030-0074321	030-0076545
ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 2222	México D.F.		05021	Mexico	(5) 555-4729	(5) 555-3745
ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.		05023	Mexico	(5) 555-3932	
AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	London		WA1 1DP	UK	(171) 555-7788	(171) 555-6750
BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå		S-958 22	Sweden	0921-12 34 65	0921-12 34 67
BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim		68306	Germany	0621-08460	0621-08924
BLONP	Blondel père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg		67000	France	88.60.15.31	88.60.15.32
BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	C/ Araquil, 67	Madrid		28023	Spain	(91) 555 22 82	(91) 555 91 99

FIGURE 1-48: Working Preview Window

You'll notice that this looks *almost* like a **Live Preview**, but not quite. Everything should work, however. It should also work quite quickly.

Recall that we have the Application Server turned off! What's happening here is that the grid is running on the desktop, essentially in a dialog box, and calling back directly into Alpha Five's Xbasic language engine for the functions that would normally be performed by the Application Server.

As we'll discuss in the third volume in this series, Working Preview is useful when you're trying to debug code. There are limits on what the Working Preview can do, however. For example, if your grid has a button that displays a report, or another .A5W page, the button will not work in Working Preview mode, even though a button that displays an external Web page will work without a problem.

Throughout the remainder of this book, whenever we suggest that you Live Preview a grid, you may instead view a Working Preview of your grid if you wish.

A note about Web projects

If you use **Windows Explorer** to view your "My Documents\Alpha Five V10\V10 Web Tutorial\Web Tutorial.WebProjects\" directory, you'll find a new Default.WebProject directory, and in that folder you'll most likely find five files:

componentTypeCache

Customers readonly-20091001113145900._a5wcmp_compiled

Customers readonly-20091001113145900._a5wcmp_manifest

Customers readonly.a5wcmp

project.settings

The numbers following **readonly-** will be different in your directory.

So our grid **Customers readonly** was automatically created in a new Default Web project. It is defined in the .a5wcmp file; the ._a5wcmp_compiled and ._a5wcmp_manifest files were generated for the Live Preview.

Remember, for our purposes databases are master projects that can have 0 or more Web projects, and each Web project may have 1 or more folders.

Summary

In this chapter, we installed Alpha Five Version 10 and learned a little about databases. We had a whirlwind introduction to SQL, and we learned about database connections. We defined a Grid that uses an Access database, and previewed that Grid with actual data several different ways. We even got Ajax behavior from the Grid automatically!

In Chapter 2, we'll explore the Grid in more detail, looking at its various layouts and parts.