

# Upsize Your Database with Microsoft Access Upsizing Tools

*The new Upsizing Wizard and SQL Server Browser are powerful tools for Access and VB+JET developers migrating apps to Microsoft SQL Server.*

By Scott Fallon



The new Microsoft Access Upsizing Tools help you turn an Access application into a client/server application. They include the Upsizing Wizard and the SQL Server Browser. The Upsizing Tools are also useful for upsizing databases created in the Microsoft Access database engine (JET) for Visual Basic applications.

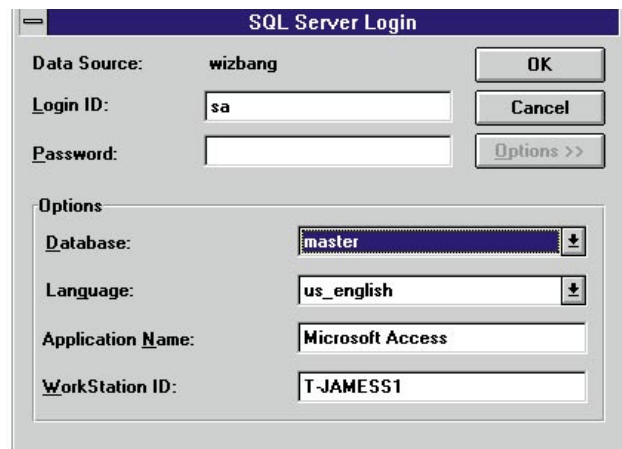
The Upsizing Wizard simplifies, and to some degree automates, the process of transforming an Access application or database to the Microsoft SQL Server platform. You have the choice of moving all or a portion of your application to the SQL Server platform, but to preserve relationships between tables, you must upsize all tables at the same time. If you choose to upsize only a portion of your database, you can upsize the remainder of your application at any time in the future. The Upsizing Wizard translates your Access tables, relationships, indexes, rules, counters, and defaults to SQL Server tables and triggers, and optionally attaches the upsize tables to your Access database.

The SQL Server Browser Tool provides an Access object to manipulate and view a SQL Server database. The SQL Server Browser allows you to modify and attach to SQL Server tables directly from Access. You can also run stored procedures in and ad hoc SQL queries against a SQL Server database and view the results from within Access.

## Upsizing to Microsoft SQL Server

The Upsizing Wizard is selected from the Add-ins menu option on the File menu. The Upsizing Wizard first asks you to choose whether you want to create a new database or upsize to an existing database. If you choose an existing database, the Upsizing Wizard prompts you to select the SQL database to which you want to upsize. You are then logged in to that database. If you choose to create a new SQL Server

Figure 1—SQL Server Login dialog.



database, the Upsizing Wizard logs you in to the master database (figure 1). The Upsizing Wizard then steps you through the process of selecting an existing device or creating a new device and creating the new database on the selected device. If you have set one or more devices as your default devices on your SQL Server, the Upsizing Wizard includes a default entry in the list of available devices. This default device is used if no other device is specified.

SQL Server creates a transaction log for your database that maintains a history of all changes made to it. With the Upsizing Wizard, you can select a device on which this transaction log will reside. If you have multiple physical

devices, it's a good idea to place the transaction log on a different physical device from the one used for your database.

After the devices and databases are created or selected, the Upsizing Wizard presents you with a list of possible tables for upsizing (figure 2). The Upsizing Wizard lets you specify

**Figure 2—Upsizing Wizard dialog to select tables to export to SQL Server.**



which features of your database tables to upsize. You can choose whether you want Indexes, Validation rules, Defaults, Table relationships, and other options carried over to your upsized database. You also have the option of upsizing only the table structures without the associated table data (figure 3).

**Figure 3—Upsizing Wizard dialog to specify objects other than tables to export to SQL Server.**



Finally, the Upsizing Wizard gives you the option of attaching your newly upsized tables to your Access database. The Upsizing Wizard doesn't replace your original tables, but renames them. It creates aliasing queries so that all of your queries, forms, and reports use the data in your new SQL Server tables, rather than the data in the local Access database. No objects are deleted or modified (except renaming) during the upsizing.

Exporting validation rules exports table validation rules, field validation rules, and the Required property settings to SQL Server, where they become part of SQL Server triggers. Exported table relationships also become part of these triggers. Access indexes and defaults become SQL Server indexes and defaults.

After all of the upsizing selections are complete, the Upsizing Wizard offers you the option of creating an upsizing report which documents the objects created on SQL Server and

all renames and additions made to your database (figure 4). Once all the desired options are selected and you press the

**Figure 4—Upsizing Wizard dialog to create an upsizing report.**



Finish button, the Upsizing Wizard upsizes the selected Access tables to SQL Server.

One potential problem is that SQL Server doesn't allow field or table names with SQL reserved words, spaces, or symbols other than #, \$, and \_. The Upsizing Wizard solves this by renaming the problem tables and fields and automatically creating aliasing queries that allow forms, reports, and queries to work properly with the upsized server tables.

The Upsizing Wizard automates a sophisticated process. Then a second part of the Access Upsizing Tools becomes useful, the SQL Server Browser.

## Using the SQL Server Browser

The SQL Server Browser provides an interface for managing a SQL Server database in much the same way as you do an Access database. The SQL Server Browser allows you to view, modify and create SQL Server objects and execute ad hoc SQL queries and SQL stored procedures on the server. The SQL Server Browser also makes it easy to attach SQL Server objects to Access databases. You can use the SQL Server Browser with both your regular SQL Server databases and with upsized Access databases.

To work with the SQL Server Browser, you must first open a database within Access. You activate the SQL Server Browser in the same manner as the Upsizing Wizard, from the Add-ins menu. You then select an SQL Server data source and log in to the database you wish to work with. The SQL Server Browser is then activated (figure 5).

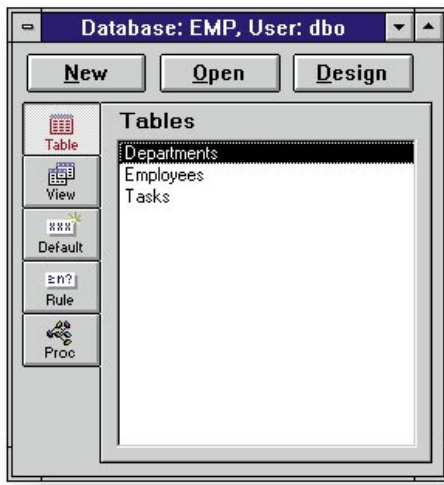
The SQL Server Browser container gives you options for working with tables, views, rules, and stored procedures. It provides you with a complete window into your SQL Server database.

You must have the proper permissions to perform certain tasks. For instance, to create defaults, stored procedures, rules, tables, and views, you must be the database owner, or the database owner must grant you permission to perform these actions. To create indexes and triggers, you must be the table owner. Permission to create these objects can't be granted to another user.

## Client/Server development

The Microsoft Access Upsizing Tools provide two benefits. First, the Access, SQL Server, and Access Upsizing Tools trio give you a scalable solution to your database needs. You are now

Figure 5—SQL Server Browser, part of the Microsoft Access Upsizing Tools.



able to take advantage of the high performance SQL Server platform while preserving your entire Access investment. Also, the upsizing option is available to you whenever you want it. Any time you want to upsize a current Access application and database, you have the tools to do it right the first time.

Second, this trio of tools gives you a new option for developing your client/server applications. You can take advantage of Access' world-class application development environment to prototype your client/server application, then upsize all or a portion of it to the SQL Server platform. You get the best of both worlds—the best database development environment available for creating client applications and the best powerful server platform! They now work together and you have complete flexibility in where your application components reside.

The Access Upsizing Tools don't upsize security features of your Access-based application or database. Also, while databases upsized to SQL Server are ready to run, they are not optimized to take full advantage of the SQL Server platform. The Access Upsizing Tools User Guide documentation provides information on adding security features and optimizing your upsized database application.

### More info

The Microsoft Access Upsizing Tools includes a complete User Guide that provides additional information on optimizing your upsized application for even better SQL Server performance. The User Guide also provides tips on working with both Access and the SQL Server platform.

The Microsoft Access Upsizing Tools are available for US\$99 from Microsoft or your local reseller. The product will also be included on the January 15, 1994 Microsoft Developer's Network CD-ROM. ■