SQL Server Databases

Generally, a *Taskmaster* application is set up with Microsoft Access databases (.mdb). This document shows you how to configure your application to work with **SQL Server** databases.

✓ ***Important!*** This guide assumes that the reader has a working knowledge of SQL Server 2000 database software. Please consult SQL Server documentation for any questions you may have regarding its setup and operation.

Introduction

A *Taskmaster* application employs three primary databases:

- The **Admin** database contains definitions of the application's Workflow Hierarchies (workflows, jobs and tasks), and definitions of security parameters for the application's Users, User Groups, Stations and Job-Task Shortcut icons.
- The **Engine** database stores current and historical processing information about each batch and its contents.
- The **Rules** database maintains details of the application's RuleSets, rules, actions and fingerprints.

The next few pages show you how to create SQL Server databases for your application. The section that begins on Page 5 lists the SQL Server Connection Strings that connect Datacap Taskmaster components to an application's databases.

Before you begin, however, ***be sure*** to review the brief discussion of prerequisites on the next page.

Prerequisites

The steps you take to provide your application with SQL Server databases will be effective only if you first:

- Install a **Datacap Taskmaster** configuration, using *Taskmaster 6.0* or above.
- Set up Taskmaster Server Service (see Chapter 8 of the *Taskmaster Administrator's Guide*.)
- Set up at least one Taskmaster Client station.

✓ These discussions also assume that SQL Server 2000 is fully installed, and that you are familiar and comfortable with this database management system.

Database Creation

You'll use the process outlined below to create your SQL Server databases.

Step	Action
1.	Place the folder provided with the Datacap **SQL Server Database Option** into your existing **Datacap** directory. This folder contains a utility (**SQLServerDB.exe**) that will be used to generate a **.sql** file that will construct your database.
2.	Double-click on the **SQLServerDB.exe** utility to open the dialog that will generate SQL script files; these scripts will construct your SQL Server databases. This utility allows you to create blank databases, or import records from an existing Access or SQL Server database. In addition, any custom ***Job Monitor*** columns in your existing Engine database will be included in the **.sql** file.
3.	Use the **SQLServerDB.exe** utility to create scripts for your Admin, Engine and Rules databases. When creating the script files, ***be sure*** to enter **.sql** as the file's extension.
4.	On the computer that hosts your SQL Server databases, open SQL Server ***Enterprise Manager***.
5.	Create a set of new, empty **databases.** Usually, a database name combines an application's name with an "Adm", "Eng", or "Rule" suffix (without the quotation marks!).
6.	Run each .sql file created in Step #3 using ***Enterprise Manager's*** SQL Query Analyzer.
7.	Confirm that ***SQL Query Analyzer*** did not encounter any errors.

How to Create a Database (continued)

Step	Action
8.	Place the folder provided with the Datacap **SQL Server Database Option** Establish the Connection Strings that will link components of your **Datacap Taskmaster** configuration to an application's databases.

Connection Strings

There are four types of Connections Strings: OLE SQL SERVER (Windows Authentication), OLE SQL SERVER (SQL Server Authentication), ODBC SQL SERVER (Windows Authentication), ODBC SQL SERVER (SQL Server Authentication). The section that begins on Page 5 describes the syntax of Connection Strings in each category, for the following components:

Shortcut Icons

Rules database DSN Entries

Apps.ini settings

Open Connection actions

Lookup properties of the Document Hierarchy

Enu.ini settings

Troubleshooting SQL Server Databases

Important: Make sure that the user has appropriate permissions to Select, Update, Delete, and Insert from all appropriate SQL Server Databases.

Symptom	Remedy
You receive the following error msg when running **SQLServerDB.exe**: *"Component 'Brws32x.ocx' or one of its dependencies not correctly registered: a file is missing or invalid."*	Make sure you run **SQLServerDB.exe** on a machine with a fully installed Taskmaster Client configuration. **SQLServerDB.exe** requires that **brws32x.ocx** be registered on the same machine.

You receive a message similar to this when you try to log into your *Taskmaster Web* page:
 	
"Unable to connect to AdminDB – ODBC; DSN=1040Eng"
	Open up **apps.ini** on your *Taskmaster Web Server* computer and make sure that the Connection Strings for your Admin and Engine entries include valid connection string syntax. For example:
	
	`AdmDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;`
	
	`DBNTA=yes`
	
	`or`
	
	`AdmDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;`
	
	`DBNTA=;UID=Admin;PWD=Admin;`

An **OpenConnection** action fails to make a connection to your SQL Server database.	Make sure that the action's parameter includes a valid connection string. For example: OpenConnection(PROVIDER=ODBCMSSQL;DSN=1040Look;CATALOG=; DBNTA=;UID=Admin;PWD=Admin;)

SQL Server Connection String Syntax

Important Formatting Considerations

The layout of the Connection Strings below has been organized for clarity, and the values include default references. As you review these examples and prepare your own Connection Strings, ***be sure*** to keep these guidelines in mind:

- Unlike the examples, a Connection String occupies a ***single*** line.
- The underscore character ("_") in the examples indicates a space. Do ***not*** use this character – enter a space, instead.
- Values such as "C", 1040Adm" and "Sheila" are illustrative. Be sure to replace them with ***your*** application's drive letters, DSN's, database names and paths and machine names.
- Replace the **UID** and **PWD** values with values appropriate for your application.

The un-edited *OLE SQL Server (Windows Authentication)* Connection String for the *1040EZ* application's **TM Client** shortcut might look like this:

```
k:\Datacap\tmclient\tmclient.exe -ad"PROVIDER=MSSQL;DSN=
Sheila;CATALOG=1040Adm;DBNTA=yes" -ed"PROVIDER=MSSQL;DSN=
Sheila;CATALOG=1040Eng;DBNTA=yes"
```

OLE SQL SERVER (Windows Authentication)

Shortcuts

TMClient: OLE SQL SERVER (Windows Authentication)

C:\Datacap\tmclient\tmclient.exe_
-ad"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=yes"_
-ed"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=yes"

Report Viewer: OLE SQL SERVER (Windows Authentication)

C:\Datacap\tmclient\rptview.exe -iC:\Datacap\1040EZ\process\rptview.ini_
-ad"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=yes"_
-ed"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=yes"

AutoDelete: OLE SQL SERVER (Windows Authentication)

C:\Datacap\tmclient\tmbatdel.exe_
-ad"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=yes"_
-ed"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=yes"_
-iC\Datacap\1040ez\process\tmbatdel.ini

Rules Database DSN Entries

ICP File - RuleDSN Entry: OLE SQL SERVER (Windows Authentication)

PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Rule;DBNTA=yes

Rule Manager Setup: OLE SQL SERVER (Windows Authentication)

PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Rule;DBNTA=yes

Rule Runner Setup: OLE SQL SERVER (Windows Authentication)

PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Rule;DBNTA=yes;

Verify Setup: OLE SQL SERVER (Windows Authentication)

PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Rule;DBNTA=yes

Additional Connection Strings

Apps.ini: OLE SQL SERVER (Windows Authentication)

AdmDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=yes
EngDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=yes

Open Connection Action: OLE SQL SERVER (Windows Authentication)

OpenConnection(PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Look;DBNTA=yes)

Tags – Setup DCO: OLE SQL SERVER (Windows Authentication)

<SQL dsn="PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Look;DBNTA=yes">

ENU Settings: OLE SQL SERVER (Windows Authentication)

AdminDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=yes
EngDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=yes
RuleDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=ENURule;DBNTA=yes

ODBC SQL SERVER (Windows Authentication)

Shortcuts

TMClient: ODBC SQL SERVER (Windows Authentication)

C:\Datacap\tmclient\tmclient.exe_
-ad"PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;"_
-ed"PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;"

Report Viewer: ODBC SQL SERVER (Windows Authentication)

C:\Datacap\tmclient\rptview.exe -iC:\Datacap\1040EZ\process\rptview.ini_
-ad"PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;"_
-ed"PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;"

AutoDelete: ODBC SQL SERVER (Windows Authentication)

C:\Datacap\tmclient\ tmbatdel.exe_
-ad"PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;"_
-ed"PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;"_
-iC\Datacap\1040ez\process\tmbatdel.ini

Rules Database DSN Entries

ICP File - RuleDSN Entry: ODBC SQL SERVER (Windows Authentication)

PROVIDER=ODBCMSSQL;DSN=1040Rule;CATALOG=;DBNTA=;

Rule Manager Setup: ODBC SQL SERVER (Windows Authentication)

PROVIDER=ODBCMSSQL;DSN=1040Rule;CATALOG=;DBNTA=;

Rule Runner Setup: ODBC SQL SERVER (Windows Authentication)

PROVIDER=ODBCMSSQL;DSN=1040Rule;CATALOG=;DBNTA=;

Verify Setup: ODBC SQL SERVER (Windows Authentication)

PROVIDER=ODBCMSSQL;DSN=1040Rule;CATALOG=;DBNTA=;

Additional Connection Strings

Apps.ini: ODBC SQL SERVER (Windows Authentication)

AdmDSN=PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;
EngDSN=PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;

Open Connection Action: ODBC SQL SERVER (Windows Authentication)

OpenConnection(PROVIDER=ODBCMSSQL;DSN=1040Look;CATALOG=;DBNTA=;)

Tags – Setup DCO: ODBC SQL SERVER (Windows Authentication)

<SQL dsn="PROVIDER=ODBCMSSQL;DSN=1040Look;CATALOG=;DBNTA=;">

ENU Settings: ODBC SQL SERVER (Windows Authentication)

AdminDSN=PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;
EngDSN=PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;
RuleDSN=PROVIDER=ODBCMSSQL;DSN=ENURule;CATALOG=;DBNTA=;

OLE SQL SERVER (SQL Server Authentication)

Shortcuts

TMClient: OLE SQL SERVER (SQL Server Authentication)

C:\Datacap\tmclient\tmclient.exe_
-ad"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=;UID=Admin;PWD=Admin;"_
-ed"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=;UID=Admin;PWD=Admin;"

Report Viewer: OLE SQL SERVER (SQL Server Authentication)

C:\Datacap\tmclient\rptview.exe_- iC:\Datacap\1040EZ\process\rptview.ini_
-ad"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=;UID=Admin;PWD=Admin;"_
-ed"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=;UID=Admin;PWD=Admin;"

AutoDelete: OLE SQL SERVER (SQL Server Authentication)

C:\Datacap\tmclient\ tmbatdel.exe_
-ad"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=;UID=Admin;PWD=Admin;"_
-ed"PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=;UID=Admin;PWD=Admin;"_
-iC\Datacap\1040ez\process\tmbatdel.ini

Rules Database DSN Entries

ICP File - RuleDSN Entry: OLE SQL SERVER (SQL Server Authentication)

PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Rule;DBNTA=;UID=Admin;PWD=Admin;

Rule Manager Setup: OLE SQL SERVER (SQL Server Authentication)

PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Rule;DBNTA=;UID=Admin;PWD=Admin;

Rule Runner Setup: OLE SQL SERVER (SQL Server Authentication)

PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Rule;DBNTA=;UID=Admin;PWD=Admin;

Verify Setup: OLE SQL SERVER (SQL Server Authentication)

PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Rule;DBNTA=;UID=Admin;PWD=Admin;

Additional Connection Strings – OLE SQL SERVER (SQL Server Authentication)

Apps.ini: OLE SQL SERVER (SQL Server Authentication)

AdmDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=;UID=Admin;PWD=Admin;
EngDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=;UID=Admin;PWD=Admin;

Open Connection Action: OLE SQL SERVER (SQL Server Authentication)

OpenConnection(PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Look;DBNTA=;UID=Admin;PWD=Admin;)

Tags – Setup DCO: OLE SQL SERVER (SQL Server Authentication)

<SQL dsn="PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Look;DBNTA=;UID=Admin;PWD=Admin;">

ENU Settings: OLE SQL SERVER (SQL Server Authentication)

AdminDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Adm;DBNTA=;UID=Admin;PWD=Admin;
EngDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=1040Eng;DBNTA=;UID=Admin;PWD=Admin;
RuleDSN=PROVIDER=MSSQL;DSN=Sheila;CATALOG=ENURule;DBNTA=;UID=Admin;PWD=Admin;

ODBC SQL SERVER (SQL Server Authentication)

Shortcuts

TMClient: ODBC SQL SERVER (SQL Server Authentication)

C:\Datacap\tmclient\tmclient.exe_
-ad"PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;"_
-ed"PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;"

Report Viewer: ODBC SQL SERVER (SQL Server Authentication)

C:\Datacap\tmclient\rptview.exe -iC:\Datacap\1040EZ\process\rptview.ini_
-ad"PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;"_
-ed"PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;"

AutoDelete: ODBC SQL SERVER (SQL Server Authentication)

C:\Datacap\tmclient\ tmbatdel.exe_
-ad"PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;"_
-ed"PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;"_
-iC\Datacap\1040ez\process\tmbatdel.ini

Rules Database DSN Entries

ICP File - RuleDSN Entry: ODBC SQL SERVER (SQL Server Authentication)

PROVIDER=ODBCMSSQL;DSN=1040Rule;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;

Rule Manager Setup: ODBC SQL SERVER (SQL Server Authentication)

PROVIDER=ODBCMSSQL;DSN=1040Rule;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;

Rule Runner Setup: ODBC SQL SERVER (SQL Server Authentication)

PROVIDER=ODBCMSSQL;DSN=1040Rule;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;

Verify Setup: ODBC SQL SERVER (SQL Server Authentication)

PROVIDER=ODBCMSSQL;DSN=1040Rule;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;

Additional Connection Strings

Apps.ini: ODBC SQL SERVER (SQL Server Authentication)

AdmDSN=PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;
EngDSN=PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;

Open Connection Action: ODBC SQL SERVER (SQL Server Authentication)

OpenConnection(PROVIDER=ODBCMSSQL;DSN=1040Look;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;)

Tags – Setup DCO: ODBC SQL SERVER (SQL Server Authentication)

<SQL dsn=”PROVIDER=ODBCMSSQL;DSN=1040Look;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;”>

ENU Settings: ODBC SQL SERVER (SQL Server Authentication)

AdmDSN=PROVIDER=ODBCMSSQL;DSN=1040Adm;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;
EngDSN=PROVIDER=ODBCMSSQL;DSN=1040Eng;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;
RuleDSN=PROVIDER=ODBCMSSQL;DSN=ENURule;CATALOG=;DBNTA=;UID=Admin;PWD=Admin;