2

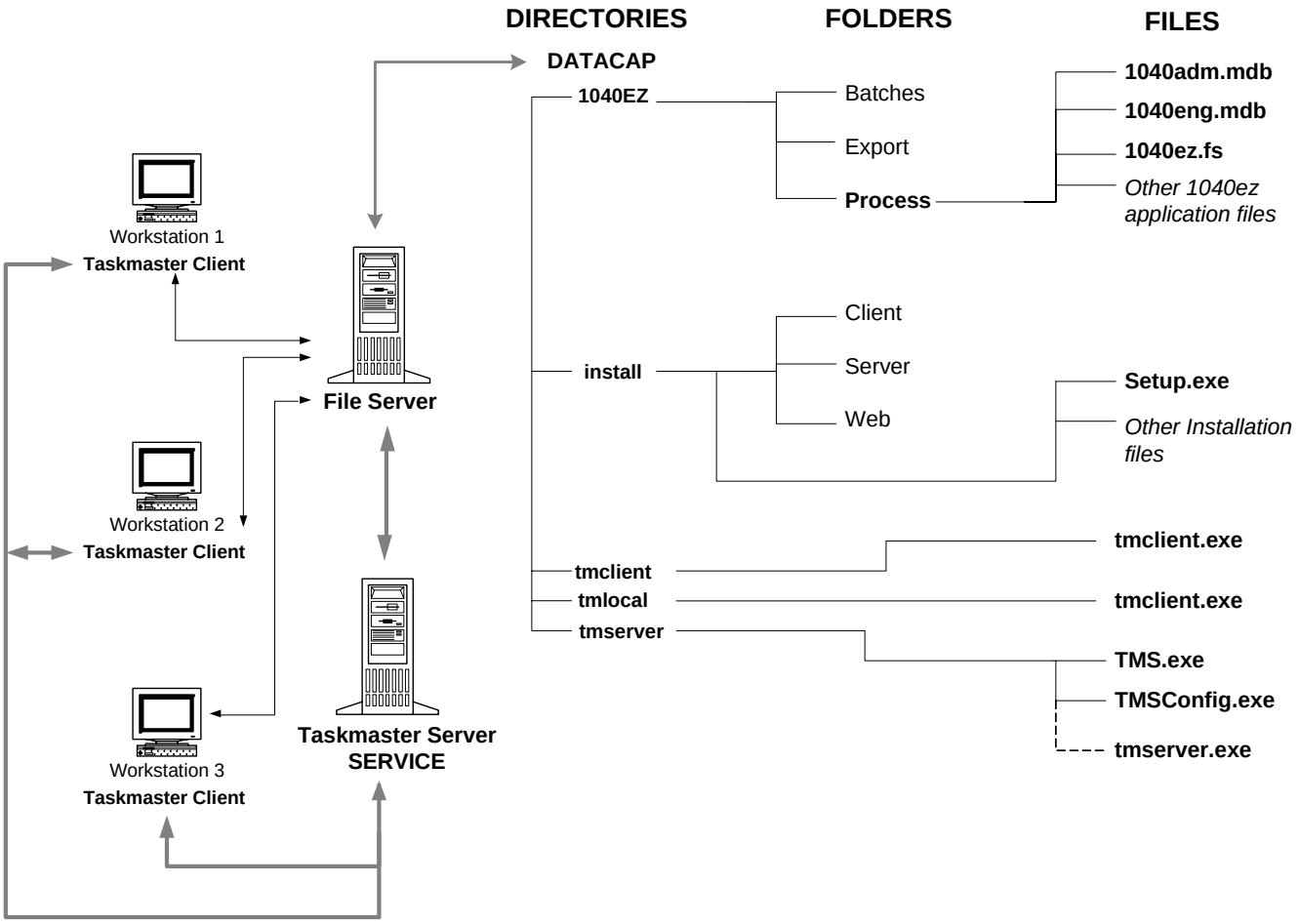
Taskmaster Server Service/Server

This chapter examines the structure, components and operations of the ***TMS Configuration*** dialog…and the ***Taskmaster Server*** window.

- The ***TMS Configuration*** dialog sets up and manages the Taskmaster Server Service. This **service** is a standard component of all versions since *Taskmaster 6.2* – and replaces the Taskmaster **Server** component of earlier releases.

- For the benefit of those who continue to use Taskmaster Server, the second section describes the elements and tools of the ***Taskmaster Server Window***.

The chapter's contents include:

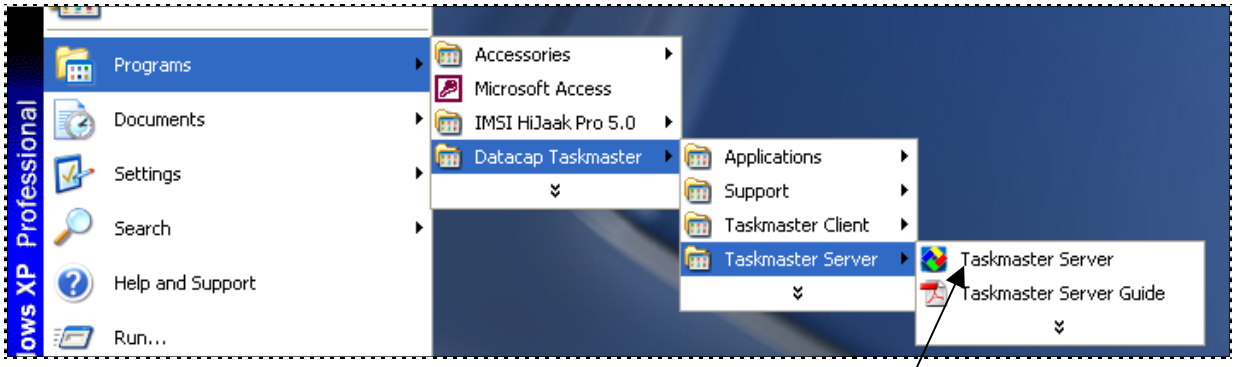


Taskmaster Server Service

The **Datacap Taskmaster Server** Installation process installs the **Taskmaster Server Service**. For complete installation and configuration instructions, see the *Taskmaster 7.5 Installation and Configuration Guide*.

How to Access Taskmaster Server Service Components

Shortcut to the Taskmaster Server Service and the *Taskmaster Server Guide* are in two locations. In the illustration below, the path to these shortcuts begins when you click on the Windows Start button of the computer that is your **Datacap** configuration's File Server, and select the **Programs** options. You can find the same shortcuts if you open the **Datacap Taskmaster** folder on the computer's desktop.



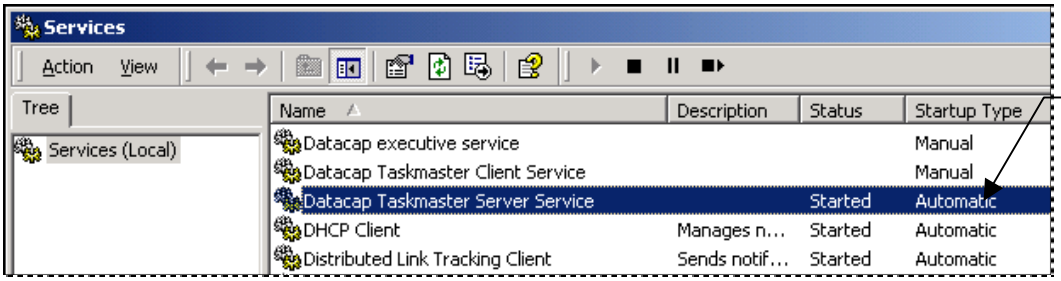
✓ ***Very important!*** Selecting the **Taskmaster Server** shortcut opens the ***TMS Configuration*** dialog (Page 6) - not the service itself. *Taskmaster 6.5* does not provide a comparable shortcut for the Taskmaster Server used by releases before Taskmaster 6.2. Page 13 shows you how to access this server.

The Taskmaster Server Service (TMS) is a required component of Taskmaster in all versions after Taskmaster 6, Release 5.

Important Preliminary Considerations

➔ Because Taskmaster Server Service ***is*** a service, installation produces an item for *Datacap Taskmaster Server Service* in the host computer's list of local services. To display this list:

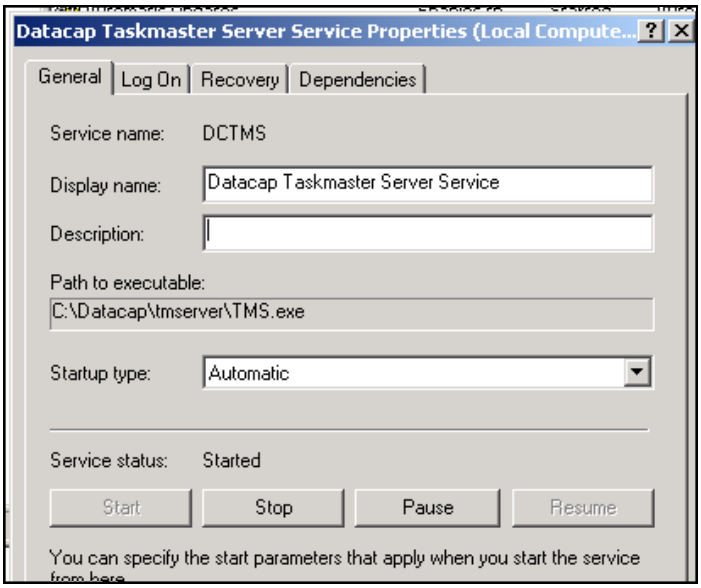
- Open the computer's ***Control Panel***.
- Select **Services** from the **Administrative Tools**.
- Highlight **Services (Local)** under the *Tree* tab.



Settings/Control Panel/Administrative Tools/Services

➔ You can right-click on the listing for *Datacap Taskmaster Server Service* and select **Properties** from the options to open ***Service Properties*** dialog. The fields and features of this dialog support and extend those of the ***TMS Configuration*** dialog (Page 6). The **Service status** field, for example, displays the service's current operating status. And the **Startup Type** drop-down list lets you choose between *Manual*, *Automatic* and *Disabled*… choices that are not available in the ***TMS Configuration*** dialog.

➔ The ***TMS Configuration*** dialog requires Microsoft's **.NET Framework**. If the .NET Framework has not been set up on the service's computer, **Datacap Taskmaster** Installation will install it automatically. For more information, see the Taskmaster 7.5 Installation and Configuration Guide.



Taskmaster Server Service Properties dialog

How to Access the TMS Configuration Dialog

To access this dialog, click on the host computer's Windows Start button. Select the **Datacap Taskmaster** option from **Programs** options. Open the **Taskmaster Server** folder and double-click on the **Taskmaster Server** icon.

✓ ***Remember!*** The "Taskmaster Server" icon opens Taskmaster Server Service only.

Alternatively, you can open the **Datacap Taskmaster** folder on the computer's desktop and the **Taskmaster Server** sub-folder – then double-click on the **Taskmaster Server** icon.

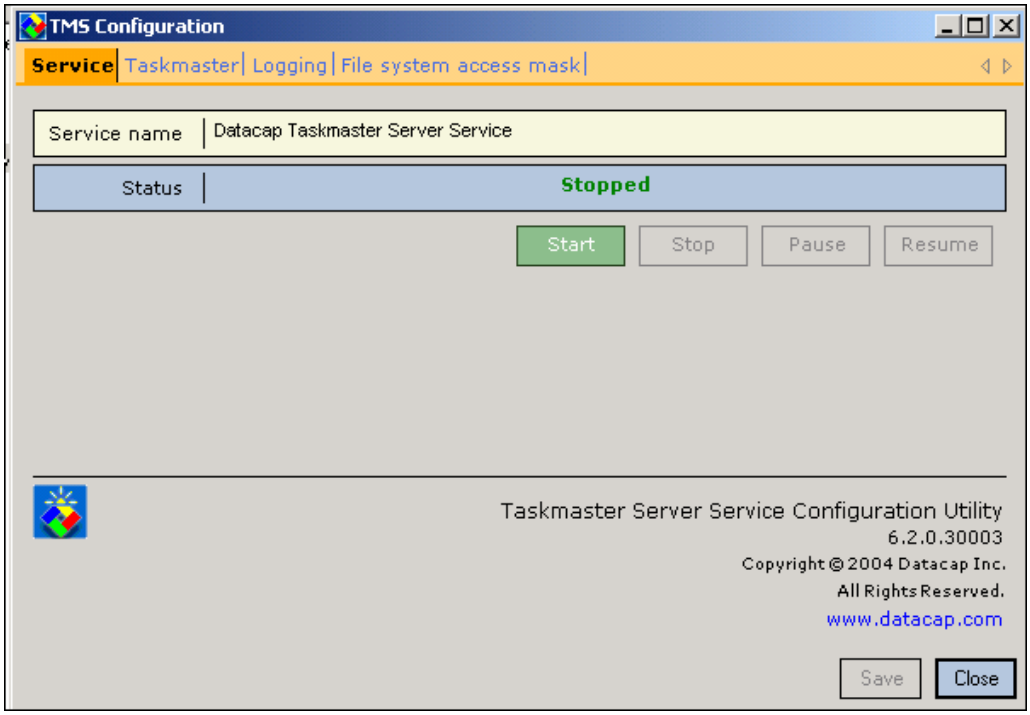
Both approaches open the *TMS Configuration* utility and its ***TMS Configuration*** dialog.

TMS Configuration Dialog

Titles of the ***TMS Configuration*** dialog's four tabs are arrayed along the top; clicking on a title opens the tab and its settings.

At the bottom of the dialog:

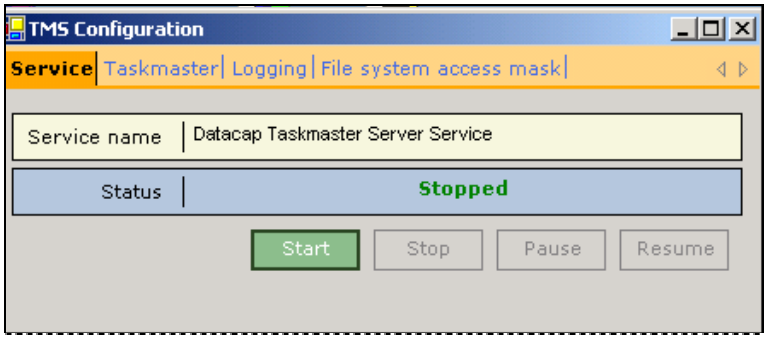
- The Save button saves any changes you've made to the service's settings.
- The Close button closes the *TMS Configuration* utility.



TMS Configuration dialog – *Service tab*

Service Tab

This introductory tab displays the service's **Name** and its processing **Status**. The tab's four buttons determine the all-important **Status** condition.



TMS Configuration dialog – *Service tab*

Service tab - Start and Stop Buttons

These buttons toggle the service in and out of two statuses: *Running* and *Stopped.*

Stop. Clicking on this button stops the Taskmaster Server Service.

Start. Clicking on this button starts the Taskmaster Server Service.

Note: you can make changes to the Taskmaster Server Service settings while the service is running, but changes to settings marked "Requires Restart" will not take affect until the service is stopped, then re-started.

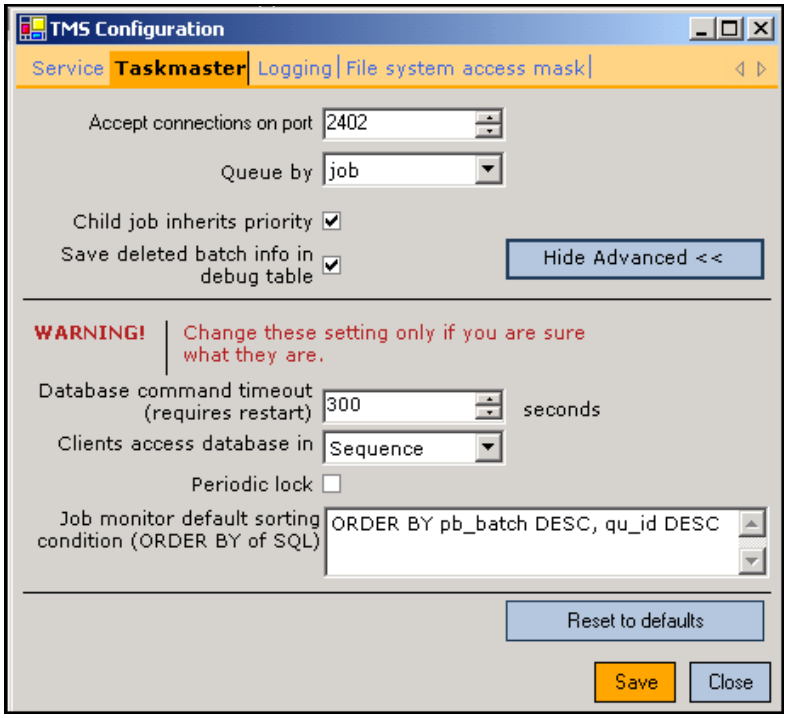
☛ ***Be careful.*** Make sure all Taskmaster Client stations or other server-dependent programs are logged out before stopping the Taskmaster Server Service. Otherwise, these programs will lose connections to the application databases, and no longer process batches (see Page 11).

Service tab - Pause and Resume Buttons

You can use the Pause button to interrupt the service. Although the service ceases its activities, you cannot work with settings in this or other tabs. Clicking on the Resume button begins *Service* operations.

Taskmaster Tab

Settings in this tab configure the service.



TMs Configuration dialog – *Taskmaster tab*

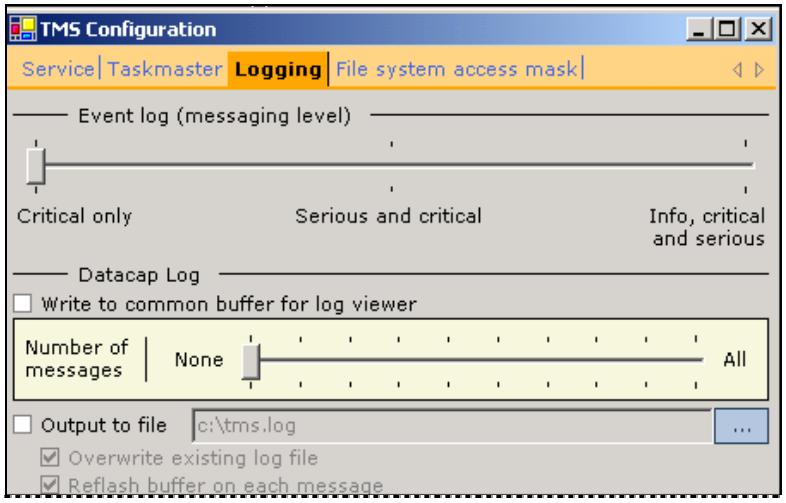
The table below describes the tab's fields and functions. ***Alert!*** The Show Advanced button displays additional settings in the tab's bottom area.

Field/Setting/Function	Description
Accept Connections on Port	Designates the TCP/IP port that the service will accept connections from.
Queue by	Determines if connected Taskmaster Clients will process batches queued first according to job (*by Job*), or according to task (*by Task*).
Child job inherits priority	If checked, stipulates that the **Priority** property of a ***child*** job (such as FixUp) will be the same as that of its parent job.
Save deleted batch info in debug table	Ensures that information from deleted batches will be stored in the **Debug** table of the application's Engine database.
Hide Advanced button	Hides the tab's advanced section.
Database command timeout (requires restart).	Specifies the maximum time (in seconds) that the service can hold a database open after the most recent client access.

Field/Setting/Function	Description
Clients access database in…	Determines how clients will access databases monitored by the service: *Sequence* means that clients must access a database one by one. *Parallel* allows multiple clients to access a database concurrently.
Periodic lock	If checked, directs Taskmaster Server Service to "lock" each database occasionally, as a Security measure. The locking procedure cannot last longer than the **Database Command Timeout** value (above).
Job Monitor default sorting condition (ORDER BY – SQL)	Indicates how an application's ***Job Monitor*** will sort listings in its Batch Information Table. Example: ORDER BY pb_batch DESC, qu_id DESC
Reset to Defaults	Resets the tab's specifications to default values.

Logging Tab

This tab contains criteria the service can use to generate two logs of its activity:



TMS Configuration dialog – *Logging tab*

The **Event** log records Windows events. Your placement of the indicator in the **Messaging Level** section determines the nature and volume of the log's messages.

The **Datacap** log tracks the progress of Taskmaster Server Service.

The indicator in the **Number of Messages** continuum selects messages according to the seriousness of their content. A shift from left to right results in more messages, but messages of a less critical nature.

Selecting the **Write to common buffer** directs the service to place the log's entries in a "common buffer" so they will available to *Taskmaster's Log Viewer.*

Output to file is an option which, if checked, generates a single Log file covering the service's activity. Be sure to enter the file's name and path in the accompanying field.

If you select the **Overwrite Existing Log File** option, the service will replace the current file each time it generates a new file. If you intend to append messages to the existing Log file, do ***not*** select this option

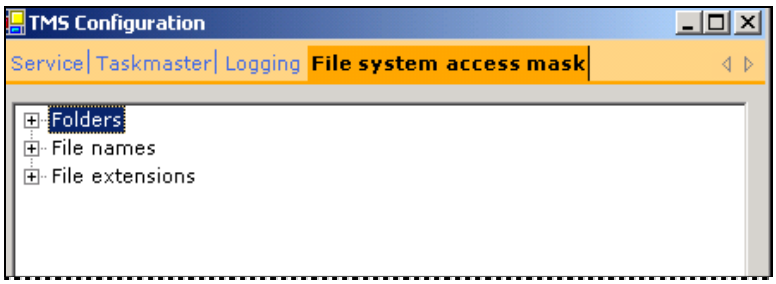
Reflush buffer on each message, if checked, means that the service will continuously transfer messages from a mid-stream buffer to the log as the service's operations proceed.

If you do ***not*** select this feature, *Taskmaster* will store messages in a buffer for a particular period. This alternative may increase processing speed but compromises safety: if *Taskmaster* crashes, you lose the messages in the buffer.

✓ ***Be careful.*** A **Datacap** log can grow steadily and quickly, until it becomes cumbersome. Therefore, we recommend that you limit the use of this tool to testing.

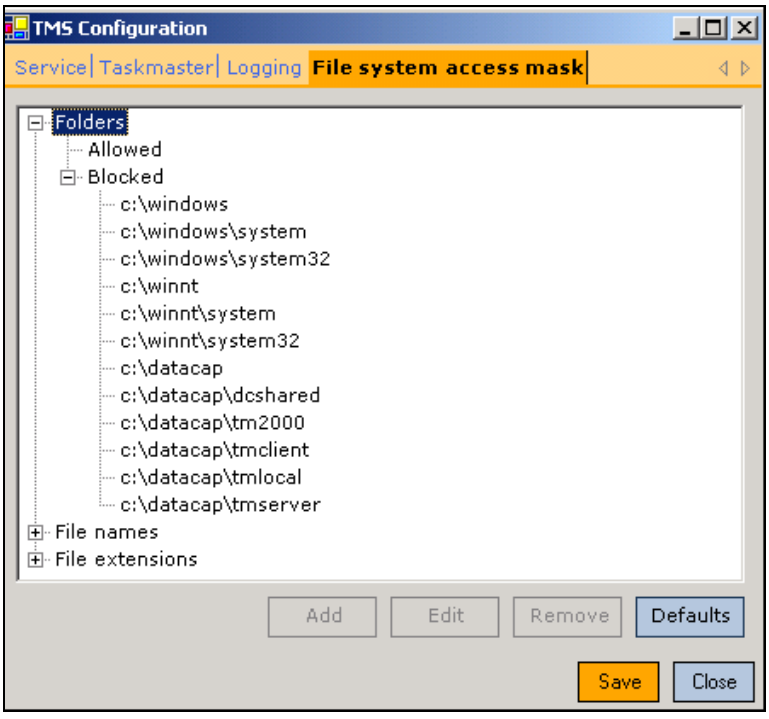
File System Access Mask Tab

This tab gives Taskmaster Server Service access to specific folders, individual files (by name), or file categories (according to extension) – or denies such access.

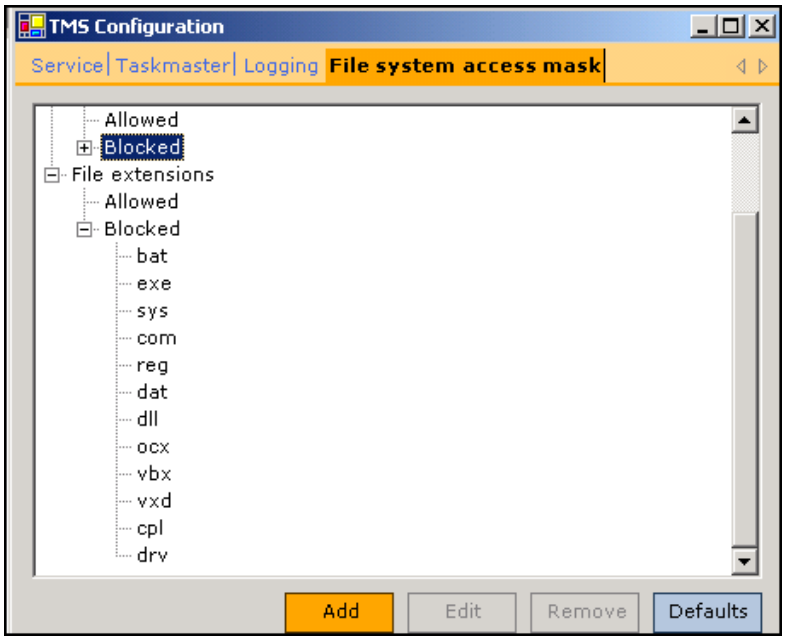


TMS Configuration dialog - *File System Access Mask tab*

When you click on **Folders** and press the Defaults button at the bottom of the tab, there are no **Allowed** folders – but there are a number of **Blocked** folders. This is because ***all*** folders in the **Datacap** configuration are *allowed* unless they have been *blocked*.



The **File Names** and **File Extensions** hierarchies have the same structure.



Taskmaster Configuration dialog – *File System Access Mask tab*

How to Modify Configuration Settings

After you have set up the service, you can change specifications in the tabs of the ***TMS Configuration*** dialog at any time - ***unless*** a setting is marked *Requires Restart*. In this case, you have to stop the service after you make the change, and start it, before the change takes effect.

To reduce the possibility of confusion, we ***strongly recommend*** that you stop the service before you make any changes except those of the *Logging* tab (Page 10): just click on the *Service* tab's Stop button.

Be careful. Make sure all Taskmaster Client stations or other programs that are dependent on Taskmaster Server Service are logged out before stopping the service. Otherwise, these programs will loose their connections to the application databases, and can no longer process batches.

Taskmaster Server (Taskmaster 6.0 and Earlier)

Releases of *Taskmaster* before *Taskmaster 6, Release 2* included a ***server*** (Taskmaster Server) rather than a ***service*** (Taskmaster Server Service.) *Taskmaster 6.2* provided both but strongly favored the use of the service.

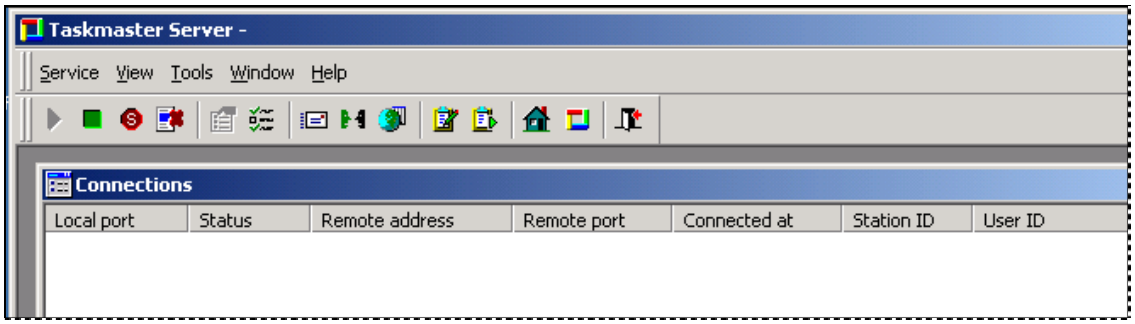
- ✓ The *Windows & Dialogs Reference* that accompanied the earlier releases fully documented the many features and functions of the ***Taskmaster Server*** window itself. The ***current*** edition of the *Windows & Dialogs Reference* does not go to this level of detail. Instead, it highlights the key points of the earlier documentation.
- ✓ ***Very important!*** The descriptions which follow are addressed to those who use Task Master Server rather Taskmaster Server Service.

Accessing Taskmaster Server

For users of *Taskmaster 6.0* and earlier releases, Application Security (Chapter 6) places strict limits on personal access to Taskmaster Server and to the computer on which it resides. If you have proper authorization, however, you can activate the server from your Windows Start button or from the **Datacap Server** folder on your desktop. (***Remember!*** These descriptions apply only to *Taskmaster* releases before *Taskmaster 6.2*.)

To Access Taskmaster Server from the Start Button….

Step	Action
1.	Click on the Start button in the lower left-hand corner of your Windows screen.
2.	Select **Datacap Server** from the **Programs** directory.
3.	Click on the **Server** option. This step engages Taskmaster Server and readies it for connections with Taskmaster Clients.
4.	When the ***Taskmaster Server*** window appears with an empty ***Connections*** window (illustrated on the next page), press the Minimize button in the upper right-hand corner: the window will disappear from your screen and the **Taskmaster Server** icon will appear in your Windows taskbar: 
5.	Select **Datacap Client** from the **Programs** directory, then click on the **Applications** option.

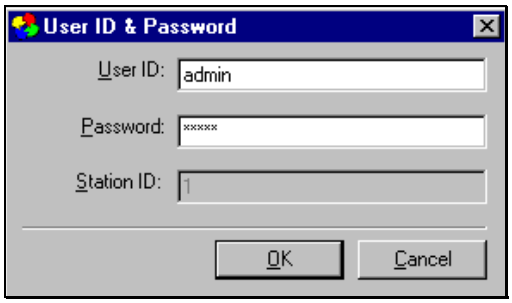


To Access Taskmaster Server from the Start Button (continued)

Step	Action

6. Double-click on the **Client** option of your application, or of a training application such as *1040EZ.* This step will connect your administrative Taskmaster Client with Taskmaster Server, with this application's databases, ***and*** with the application's Security program. **Note:** Do ***not*** select the **Serverless** option.

7. To meet the initial requirements of the Security program, enter your Administrator's **User ID** and **Password** in the ***User ID & Password*** dialog, and press the OK button.



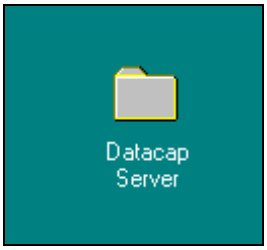
8. When the application's ***Taskmaster Window*** appears, press the Minimize button in the upper right-hand corner: the **Taskmaster Client** icon will join the **Taskmaster Server** icon in your taskbar:

9. Click on the **Taskmaster Server** icon to return to the ***Taskmaster Server*** window. Note that the secondary ***Connections*** window now has one row, with details of the connection between your client and Taskmaster Server (see the illustration on Page 17).

To Access Taskmaster Server from your Desktop….

Step	Action

1. Double-click on the **Datacap Server** folder on your Windows desktop.

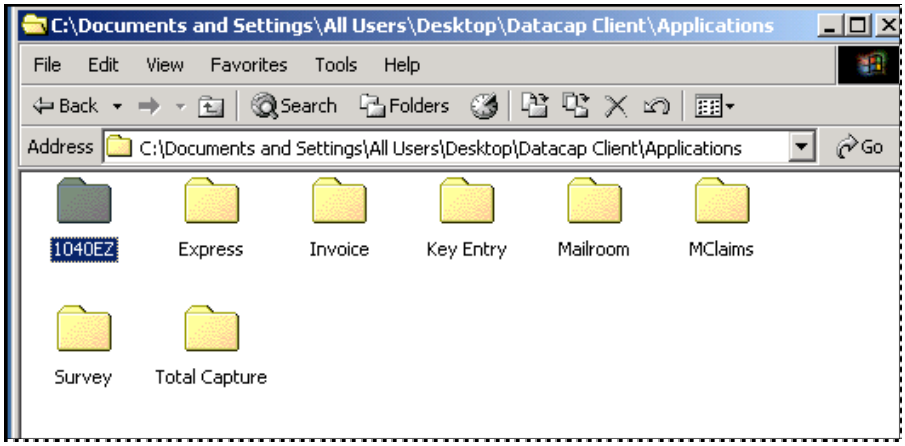


2. Double-click on the **Server** icon. This step engages Taskmaster Server and readies it for connections with the application's Taskmaster Clients

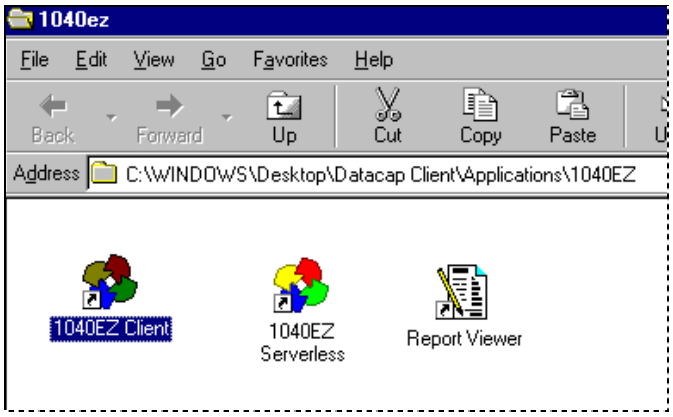
3. When the ***Taskmaster Server*** window appears with an empty ***Connections*** window, press the Minimize button in the upper right-hand corner: the window will disappear from your screen but the **Taskmaster Server** icon will appear in your Windows taskbar

4. Close the **Datacap Server** folder (but not Taskmaster Server!) and open the **Datacap Client** folder.

5. Double-click on the **Applications** folder.



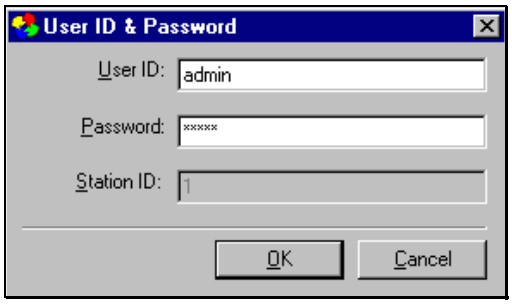
6. Double-click on the appropriate application, then on the application's **Client** icon.



To Access Taskmaster Server from your Desktop (continued)

Step	Action

7. When the ***User ID & Password*** dialog appears, enter your Administrator's **User ID** and **Password**, and press the OK button.



8. When the ***Taskmaster Window*** appears (Chapter 3), press the Minimize button in the upper right-hand corner: the **Taskmaster Client** icon will join the **Taskmaster Server** icon in your Windows taskbar:

9. Click on the **Taskmaster Server** icon to access the ***Taskmaster Server*** window (illustrated on the next page). Note that the secondary ***Connections*** window now has one row, with details of the connection between your client and Taskmaster Server.

Upcoming pages briefly examine each of the ***Taskmaster Server*** window's elements and settings. As an introduction, however, take a moment to review the following components of its overall structure.

Menus. Items in the menus of the ***Taskmaster Server*** window support your network administration activities; these are described on Page 18.

Toolbar. The toolbar icons duplicate the functions of most menu items (Page 18).

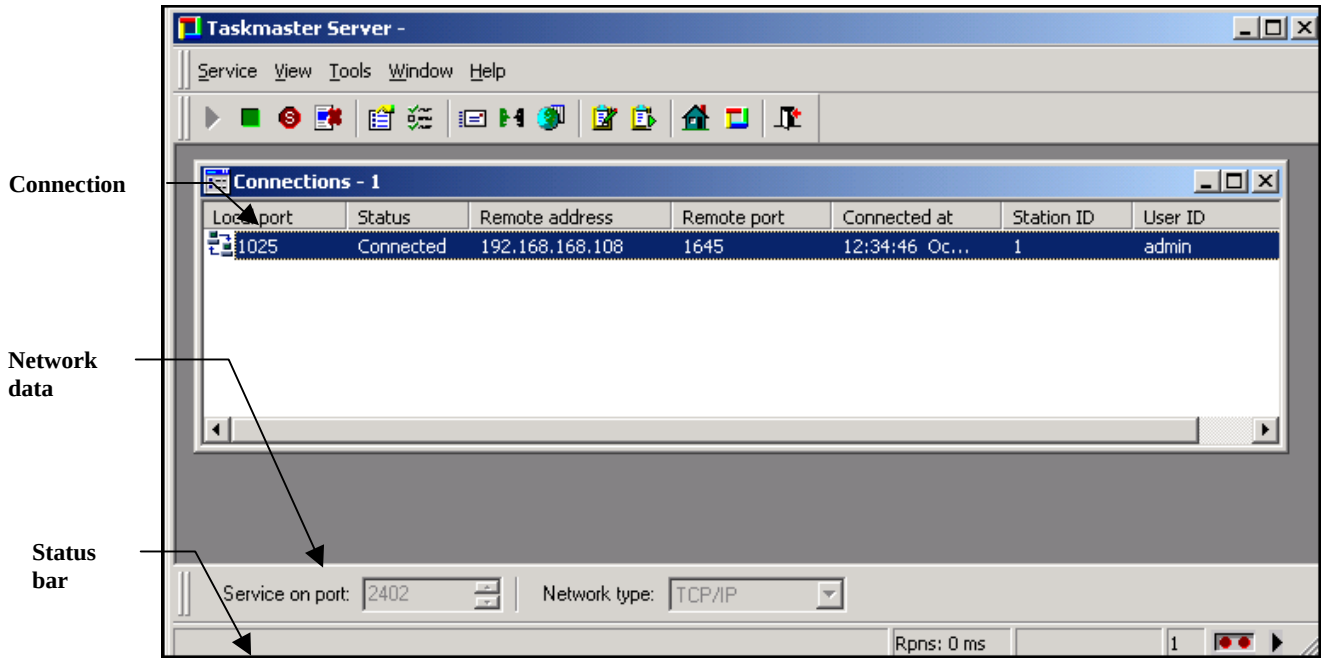
Data Area. The Data Area of the ***Taskmaster Server*** window contains the secondary ***Connections*** window. This window displays information about Taskmaster Clients currently connected to the Taskmaster Server (Page 21).

Network Data. The fields in this bar identify the server port providing service to the clients and the server's network protocol. These fields are unavailable unless you need to modify the structure of the Datacap network (Page 18).

Status Bar. The Status Bar is a dynamic display of statistics covering connections between the server and its active clients. Data in the Status Bar changes constantly as the server responds to the inquiries of each client (Page 21.)

Remember! A Taskmaster Client cannot connect to an application's Taskmaster Server until ***all*** of the following conditions are met:

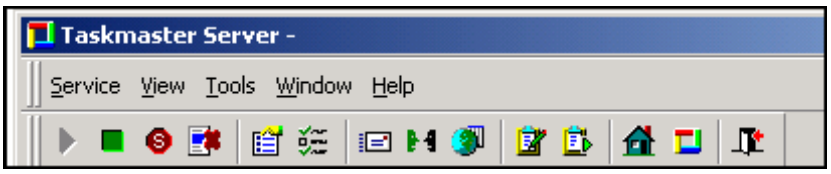
- The Taskmaster Client has been properly installed, and set up as part of a Datacap network.
- The server has been equipped with an ODBC driver and Data Source Names (DSN) giving the client access to the application's Admin and Engine databases (Page 28).
- The client resides on an authorized workstation (Chapter 6).
- The client's user (Operator, Supervisor or Administrator) signs on with an authorized Password and User ID (Chapter 6).



Taskmaster Server Window–*with secondary Connections Window*

Taskmaster Server Window–*Menus and Toolbars*

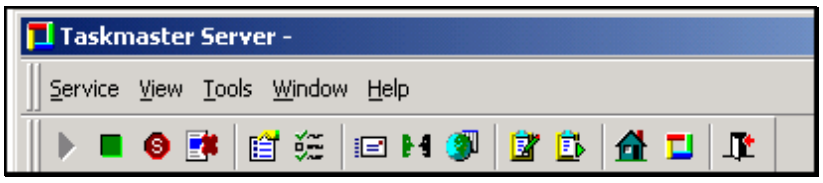
Items in the menus of the ***Taskmaster Server*** window help you manage the network's services and connections; communicate with users; and administer an application's databases. The table below summarizes each menu.



Menu	Description
Service	Taskmaster Server connects Taskmaster Clients to your **Datacap Taskmaster** network, to an application's files and databases, and to its Security procedures. The items in the **Service** menu help manage these client/server connections.
View	Items in the extensive **View** menu (and its sub-menus) determine the content and layout of the ***Taskmaster Server*** window.
Tools	Items in the **Tools** menu and sub-menus set up informal communications between you and the other "users" of the Datacap network. In addition, this menu generates a log of server activity and a list of the server's components. The menu's ***ODBC Manager*** is the source of database management and maintenance procedures.
Window	These are standard Windows layering selections, and the identities of connected clients.
Help	The **Help** menu contains "legends" explaining the icons in a ***Connections*** window listing and in the Status Bar. The menu also gives you access to the ***Datacap Home Page***, and links you by e-mail directly to our support team.

The toolbar icons of the *Taskmaster Server* window duplicate certain items of the window's menus. The table below explains the menu items and their corresponding icons, while subsequent paragraphs offer additional information about certain of the window's special procedures.

✓ Selecting **Customize** from the **View** menu accesses the ***Customize Connections*** dialog. You can alter the layout and content of the ***Taskmaster Server*** window's menus and toolbar if you modify the settings in the tabs of this dialog



Icon	Menu/ Item	Description
	**Service/** Start	Re-starts the server if you temporarily halt service to the network. This is a toggle switch: when it is on, the **Stop** icon (below) is off.
	**Service**/Stop	Temporarily prevents the server from providing service to connected clients. This is a toggle switch: when it is on, the **Start** icon (above) is off.
	**Service**/Stop All	Terminates service to all connected clients and closes the connections. ***Warning:*** if you use this option, each client must independently re-establish its connection with the server.
	**Service**/Stop Selected	Terminates service to any clients you've highlighted in the ***Connections*** window. (This icon appears ***only*** if the ***Connections*** window is active.) Again, if you use this option, each client must independently re-establish its connection with the server.
	**View/** Properties	Accesses the tabs of the ***Channels Properties*** dialog. These tabs display the properties of a highlighted connection.. Again, this icon appears ***only*** if the ***Connections*** window is active.

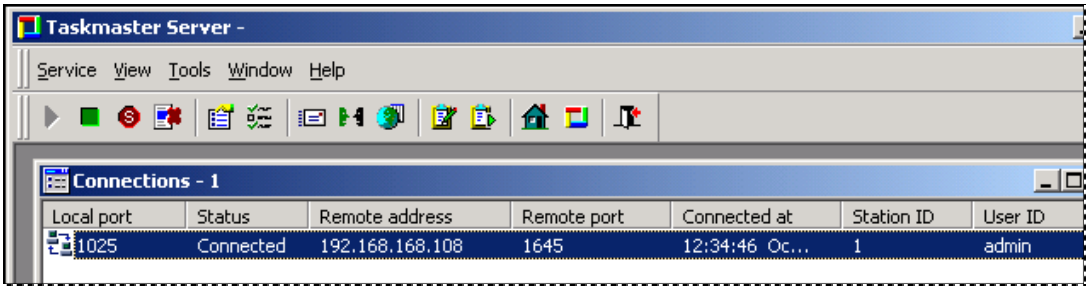
Taskmaster Server Window – Toolbar (continued)

Icon	Menu/ Item	Description
	**View**/Options	Access the three tabs of the ***Options*** dialog. The settings in these tabs govern important functions of Taskmaster Server.
	**Tools**/ Send Message	Accesses the ***Send Messages*** dialog. You can use this dialog to transmit messages from you to the network's connected clients.
	**Tools**/Chat	Accesses the ***Chat*** dialog. You can use the ***Chat*** dialog to set up, monitor and participate in a Chat Room for network users.
	**Tools** /ODBC Manager	Accesses the Windows ***ODBC Data Source Administrator*** dialog. You can use this dialog to carry out an application's database maintenance activities.
	**Tools**/Log Viewer	A toggle switch which opens or closes the server's ***Log Viewer***.
	**Tools**/Log to File	A toggle switch which adds data in the current log (above) to a Log file ***if*** the switch is on.
	**Help**/Datacap on the Web	Accesses the ***Datacap Home Page*** (www.datacap.com).
	**Help**/About Taskmaster Server	Displays Taskmaster Server's version number and Datacap Support information
	**Service**/ Stop All and Exit	Terminates all connections and closes Taskmaster Server.

Taskmaster Server Window–*Connections Window*

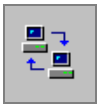
The ***Taskmaster Server*** window operates in one of two modes–with or without the secondary ***Connections*** window. When the ***Connections*** window is active, it occupies the Data Area of the ***Taskmaster Server*** window.

Each row contains information about the connection between one client and the server.



Taskmaster Server Window–*Secondary Connections Window*

The table below explains the data in the rows of the secondary ***Connections*** window.

Column	Description
 ***or***	An icon indicating that a channel is open between the client and server but that the client is not actively connected to the server.
	An icon indicating that a channel is open and the client is connected. **Note:** If you right-click on one of these icons, *Taskmaster* displays a legend explaining the role of each.
Local Port	The port on Taskmaster Server to which the client is connected.
Status	The status of the connection between the client and the server.
Remote Address	The TCP/IP address of the connecting client.
Remote Port	The port on the Taskmaster Client to which the server is connected.
Connected at	The time and date of the current connection.
Station ID	An authorized Station ID assigned to the connecting workstation.
User ID	The User ID assigned to the individual who is signing on to the application from this workstation and Taskmaster Client.

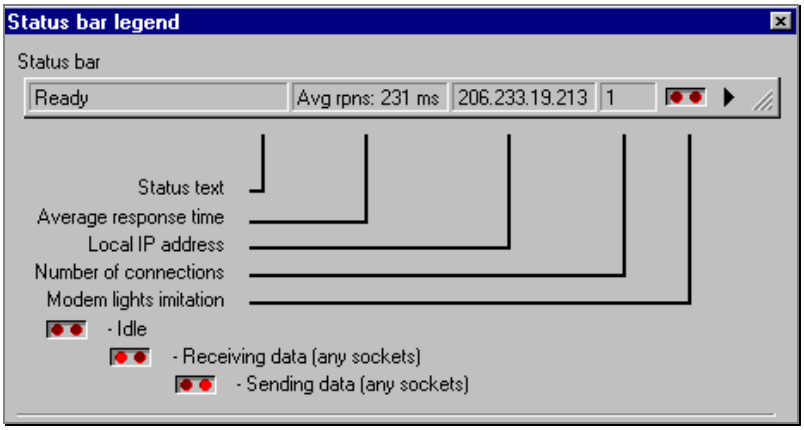
☛ If your configuration uses *Taskmaster Web* technology to link remote clients to an application by way of the Internet, the ***Connections*** window will list ***all*** clients – central and remote.

Taskmaster Server Window–*Status Bar*

Additional information about current client/server connections appears in the Status Bar at the bottom of the ***Taskmaster Server*** window:

Taskmaster Server Window–Status Bar

For a convenient explanation of the Status Bar, click on the arrow at the right end of the bar to retrieve a legend that uses sample data ***rather than*** actual data for illustrations:



Status Bar Legend

At the left end, the Status Bar displays text describing the status of a connection and, often, full addresses of the connection between server (127.0.0.1:2402 in the *actual* example above) and client (127.0.0.1:1034).

Average Response Time (**Rpns**) is a measure of the average time (in milliseconds) required to maintain the connection between this client and the server during this session.

This is followed by the **IP Address** of the server (127.0.0.1, in the *actual* example).

The Status Bar then indicates the number of open channels. (In both examples, there is "1" open channel connecting a client to the server.)

The two signal lights at the right end of the Status Bar turn on and off in response to the state of the server's modem:

- **Both off**: the modem is idle.
- **Left on, right off:** the server is receiving data from a client.
- **Left off, right on:** the server is sending data.

Service on Port, Network Type: Starting and Stopping Service

If a client is running without any apparent difficulty, the **Service on Port** and **Network Type** fields above the Status Bar are ***unavailable***, and the text field of the Status Bar notes that the server is *Ready* or *Listening on Port nnnn.*

From time to time, you may want to adjust the **Service on Port** specification (below) while one or more clients are connected. Although, technically, you can select a different network protocol, most *Taskmaster* applications use TCP/IP and we ***strongly recommend*** that you change this setting only ***after*** you consult your network administrator.

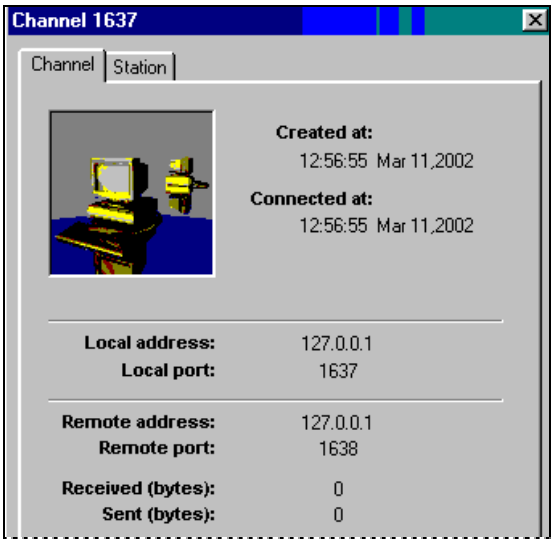
✓ To change a setting, highlight the client's listing in the ***Connections*** window and select **Stop** or **Stop All** from the **Service** menu: the **Service on Port** and **Network Type** fields will become available to you.

If you then select **Start** from the **Service** menu, Taskmaster Server will restore the connection and continue its operations.

☛ ***Be Careful:*** Selecting **Stop** or **Stop All** closes the connection completely between a client and the server. To restore the connection, the user ***must*** sign-on again.

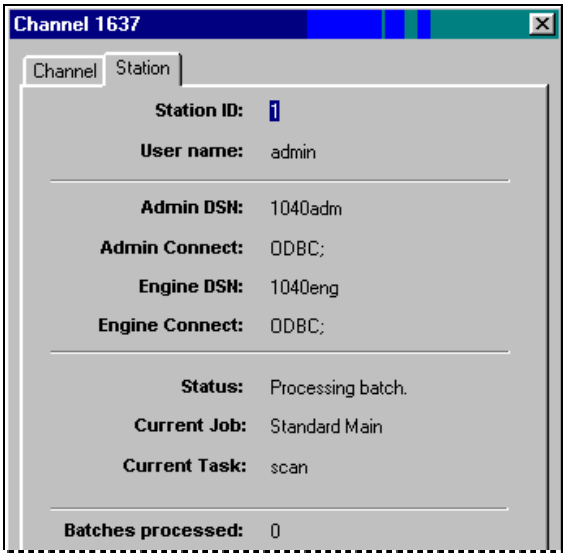
Channel Dialog: Properties of a Client/Server Connection

If you highlight a client/server connection in the secondary ***Connections*** window and select **Properties** from the **View** menu, the *Channel* tab of the ***Channel*** dialog will appear on your screen. This tab supplies details of the connection–timing, IP addresses and port numbers–and the connection's status (*Idle* in the example below).



Channel Dialog–*Channel Tab*

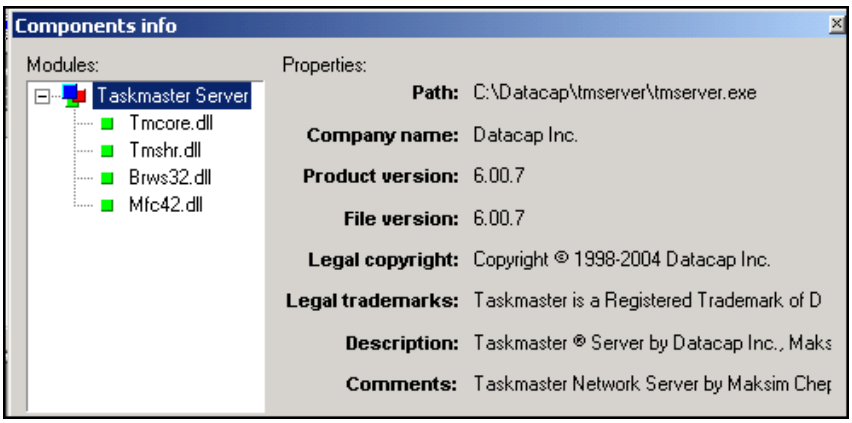
The *Station* tab displays the identifying codes of the workstation on which the connecting Taskmaster Client resides, and the user. This tab also identifies the client's Data Source Names, and generates current workflow data covering **Job**, **Task** and **Batch** production.



Channel Dialog–*Station Tab*

Components Information Dialog: Properties of the Server

Selecting **Components Information** from the **Tools** menu results in a partial list of the server's properties:



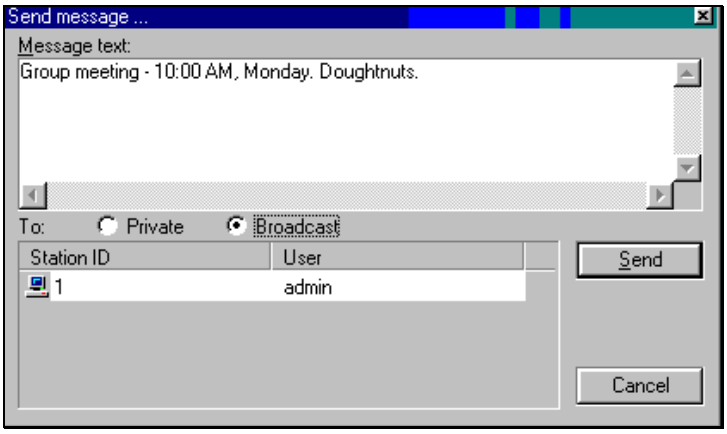
Components Information Dialog

Communicating with Users

The ***Taskmaster Server*** window has tools you can use to send a message to one or more connected Taskmaster Clients, or to open a temporary Chat Room for everyone's benefit. (As Chapter 3 explains, you can also send *Taskmaster* e-mails or open a Chat Room directly from the Administrator's Taskmaster Client, using similar features in the ***Taskmaster Window***.)

Network E-mail (Datacap)

To compose and send a message to one or more connected clients, select **Send Message** from the **Tools** menu (or click on the **Send Message** icon) to access the ***Send Message*** dialog.

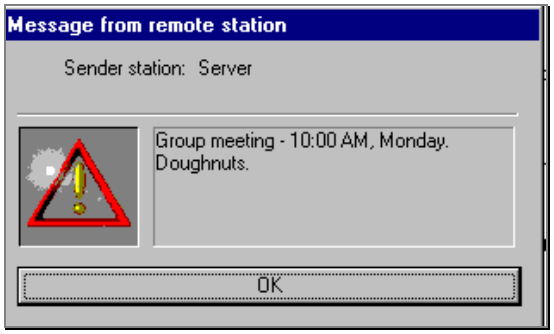


Send Message Dialog

When the ***Send Message*** dialog appears, enter the wording of the e-mail in the **Message Text** field.

- To distribute the message to all connected users, click on the **Broadcast** radio button and press the Send button.
- To limit distribution to one or more users, first activate the **Private** radio button. Then highlight the applicable connections and press the Send button.

✓ The message will appear automatically on the screen of the targeted users (see the illustration on the next page.)



Message Alert!

Chat Rooms

The ***Chat*** dialog is a give-and-take bulletin board for messages from members of the network. Although you can open such a discourse right from the ***Taskmaster Server*** window, others can use the tools of the ***Taskmaster Window*** to initiate a chat or to participate (Chapter 3).

To Open a Chat Room

Step	Action
1.	Enter the message in the **Outbound** area
2.	Select the **Private** option and highlight Chat Room participants in the list of signed-on stations; or **Broadcast** your thoughts to everybody on the network.
3.	Press the Send button.

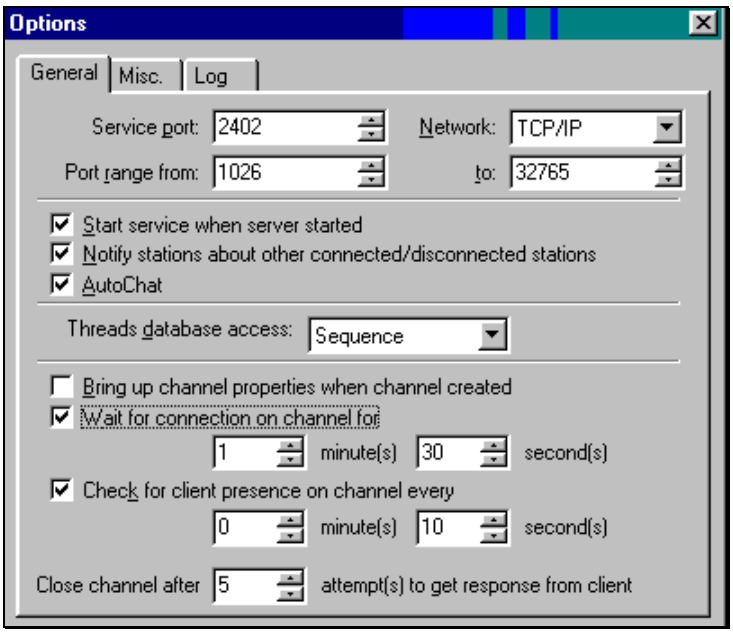
Server Options

General Settings

The installation of a **Datacap Taskmaster** configuration sets up Taskmaster Server on a computer you designate. It also sets up one or more Taskmaster Clients, and mechanisms to link the clients to the server.

Settings in the *General* tab of the ***Options*** dialog determine certain aspects of the server's operations and its interactions with clients. Although these are default settings, be sure to consult your Datacap Implementation Specialist before making any changes.

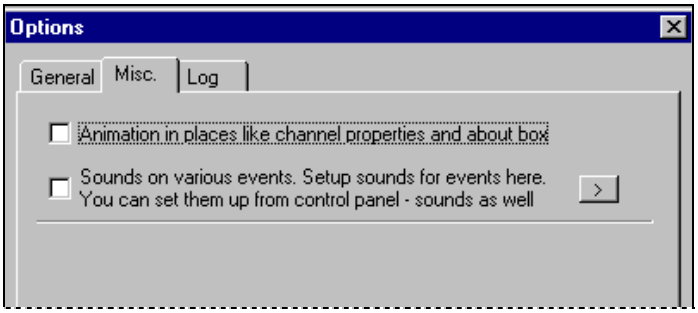
To access this tab, select **Options** from the **Tools** menu, and click on the *General* tab.



Options Dialog–*General Tab*

Miscellaneous Settings

Taskmaster Server's ***Options*** dialog has a *Miscellaneous (Misc.)* tab.



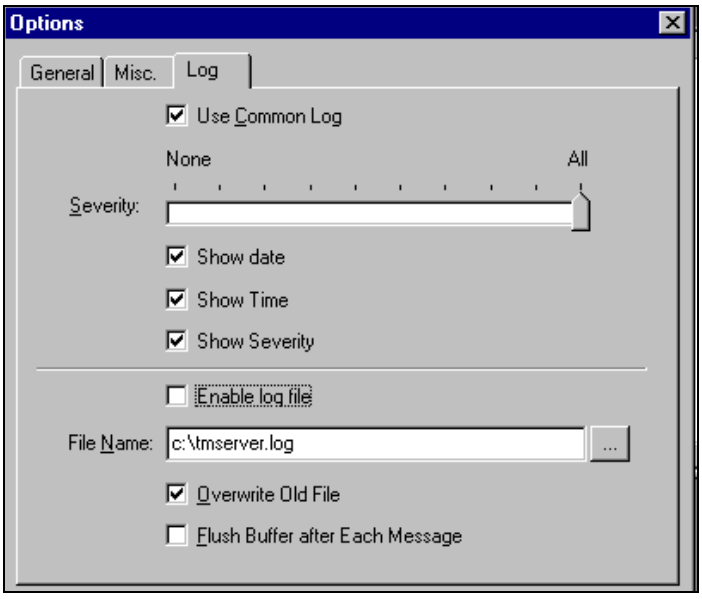
Taskmaster Server Window–*Options Dialog*
Miscellaneous Tab

This tab has two settings:

- Selecting the **Animation** option adds background animation to displays in the ***Channel Properties*** dialog (Page 24) and the ***About Taskmaster Server*** dialog (Page 18).
- Activating **Sounds on Various Events** gives you access to the ***Sounds Properties*** dialog.

Log Settings

Settings in the *Log* tab of the ***Options*** dialog determine whether or not Taskmaster Server will generate a log of its activities. If there is to be a log, these settings determine its nature and content.



Data Source Management

The database configuration of a *Taskmaster* application is uncomplicated:

- The **Admin** database contains settings that determine the makeup and operation of an application's workflow, and details of Application Security.
- The **Engine** database contains the results of the workflow's activity- job-by-job, and task-by-task.
- The **Rules** database holds details of an application's rules and their actions.
- The **Lookup** database contains values used by an application's Validation procedures.

Often, an application includes other **data sources**…a secondary database, for example, that stores data for export. Or maybe a list of authorized values an application uses to validate the data a particular field.

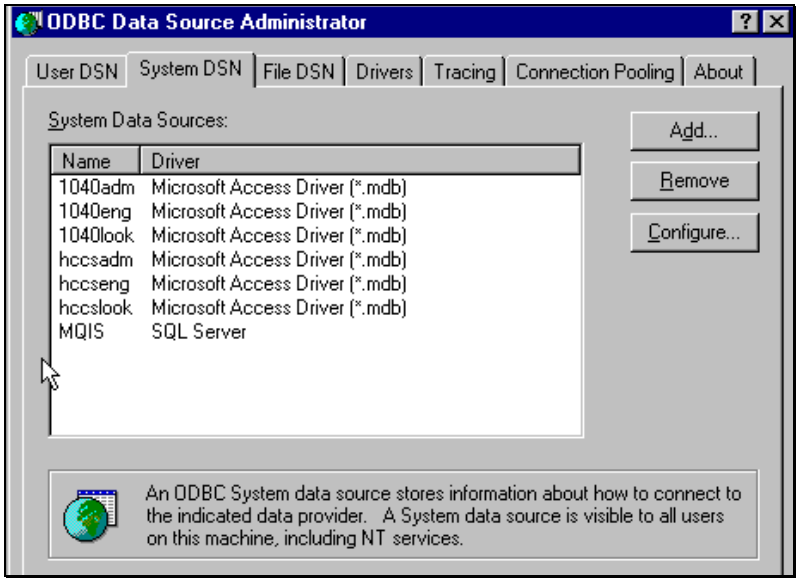
To be part of a *Taskmaster* application, a data source may require two administrative components:

- **Open Database Connectivity (ODBC) driver**. The assignment of an ODBC driver ensures that your *Taskmaster* application can read the information in a database or other data source and, if applicable, write data to the database.
- **Data Source Name (DSN)**. A **D**ata **S**ource **N**ame is a set of specifications. These specifications identify a specific data ***source***–usually a database such as the Engine or Admin database–and its corresponding ODBC driver.

Taskmaster comes equipped with a full set of ODBC drivers, and the tools you'll use define a Data Source Name. Together, these features allow you to add a data source to an application, or modify the specifications of an existing Data Source Name.

Taskmaster Server's ***ODBC Data Source Administrator*** is the scene of an application's data source management procedures - and a vital source of data source information. To access this dialog, select **ODBC Manager** from the **Tools** menu of the ***Taskmaster Server*** window.

✓ ***Very Important!*** *Taskmaster 6.2* employs Connection Strings to link various components to individual databases. Appendix A of the *Taskmaster Administrator's Guide* explains the use of Connection Strings for Access, SQL Server and Oracle databases, and carefully defines the syntax for each string.



ODBC Data Source Administrator–*System DSN Tab*

How to Define a Data Source Name

Remember…a *Taskmaster* Data Source Name has two elements: a data source (such as an Access database), and an ODBC driver.

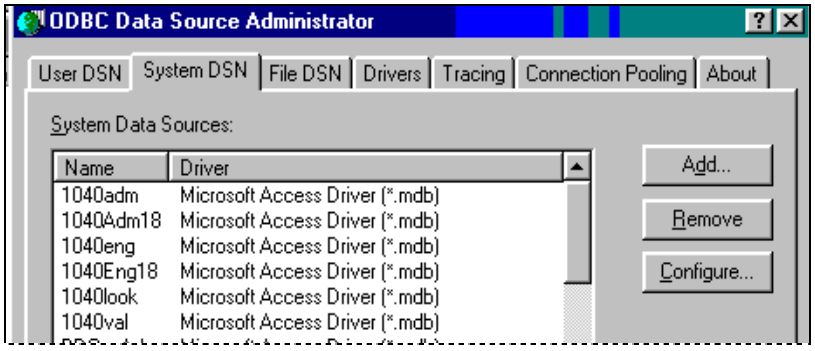
The steps below show you how you might establish a DSN for an Access database in the *1040EZ* training application. The procedure assumes that you have previously defined the database (**validate.mdb**) and placed it in the application's **Process** directory.

To define a DSN for this database:

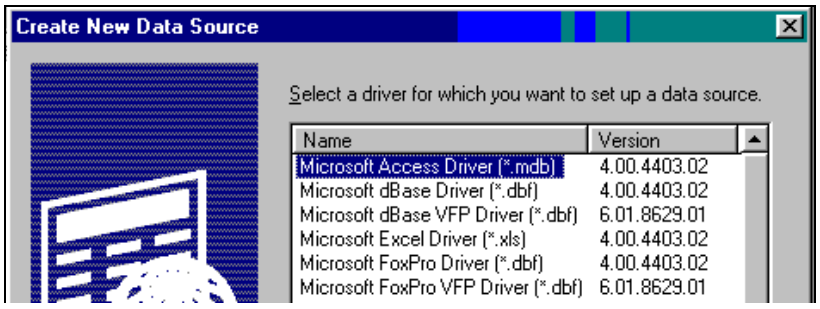
Step	Action

1. Select **ODBC Manager** from the **Tools** menu: the ***ODBC Data Source Administrator*** will appear on your screen.

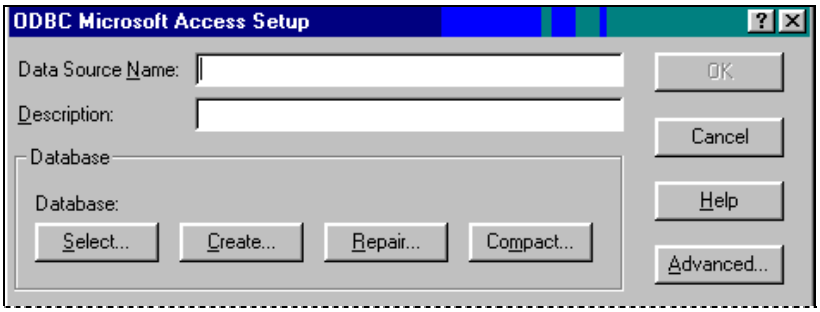
2. Access the *System DSN* tab.



3. Press the Add button to retrieve the ***Create New Data Source*** mini-wizard.



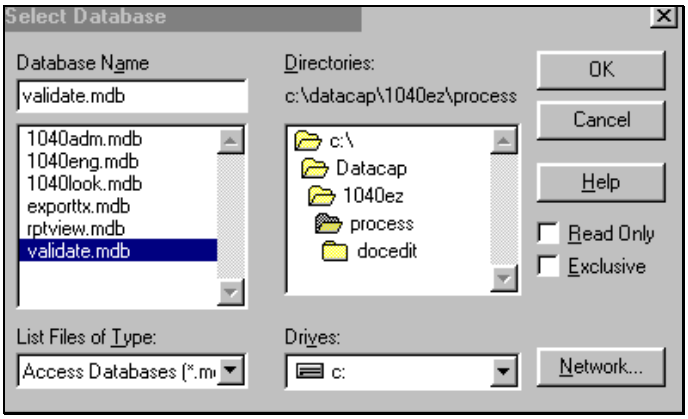
4. Select the **Name** of the applicable ODBC Driver – in this case, the *Microsoft Access Driver* – and press the Finish button at the bottom. An empty ***ODBC Microsoft Access Setup*** dialog will appear (see the next page.)



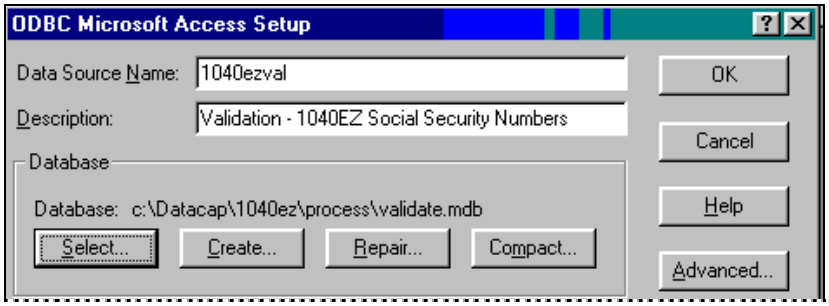
To Define a DSN (continued)

Step	Action

5. Click on the Select button to access the ***Select Database*** dialog.



6. Highlight the **Name** of the Data Source - in this example, the Access database – to which you are assigning the DSN. Press the OK button to return to the ***ODBC Setup*** dialog.



7. Confirm the **Database** name and pathway information

8. Enter the **Data Source Name** for this database – *1040ezval*, in the example.

9. Add a brief but important **Description** of the Data Source Name.

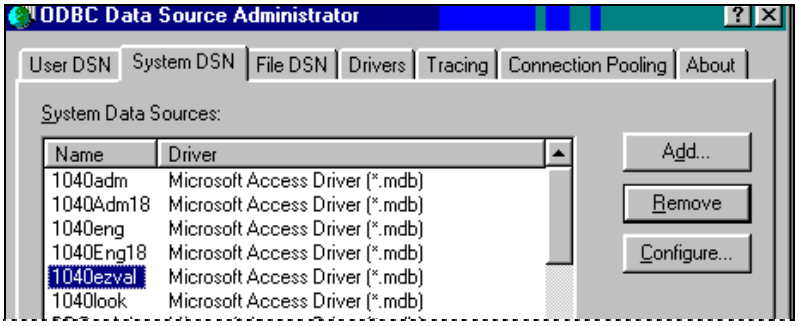
To Define a DSN (continued)

Step	Action

10. Check your settings.

11. Click on the OK button to return to the *System DSN* tab of the ***ODBC Data Source Administrator.***

12. Be sure the new Data Source Name appears in the tab's list of **System Data Sources.**



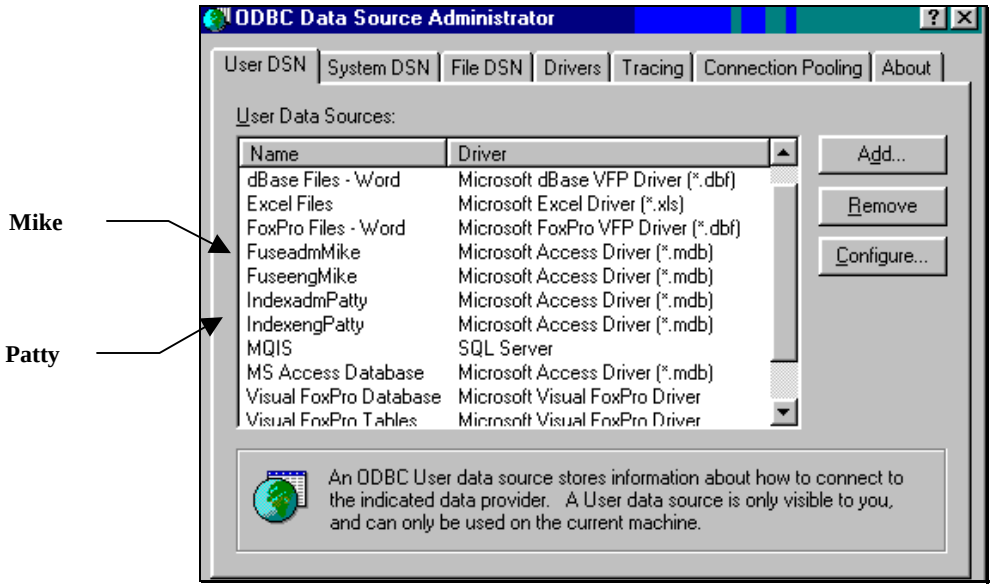
13. Close the ***ODBC Data Source Administrator.***

✓ Setting up a new DSN is an important but "forgiving" procedure. Don't hesitate to experiment with different data source types and their drivers. Once you've installed a DSN, you can remove it easily with a click of the Remove button.

ODBC Data Source Administrator: User DSN Tab

A "user" DSN is a Data Source Name for a Data Source associated with the computer on which the ***ODBC Data Source Administrator*** is running. These DSN's can also include the identity of a *Taskmaster* user.

To access this tab, select **ODBC Manager** from the **Tools** menu of the ***Taskmaster Server*** window…then click on *User DSN*.



ODBC Data Source Administrator–*User DSN Tab*

User DSNs are effective when a Datacap network provides access to multiple users from a ***single computer.*** The User DSNs you define then determine which applications a user can access…and which data sources within the application. In the illustration above, Mike can work with the *Fuse* application, while Patty has access only to the *Index* application.

The steps you take to define the User DSN are identical to those you take when defining a System DSN (Page 32).

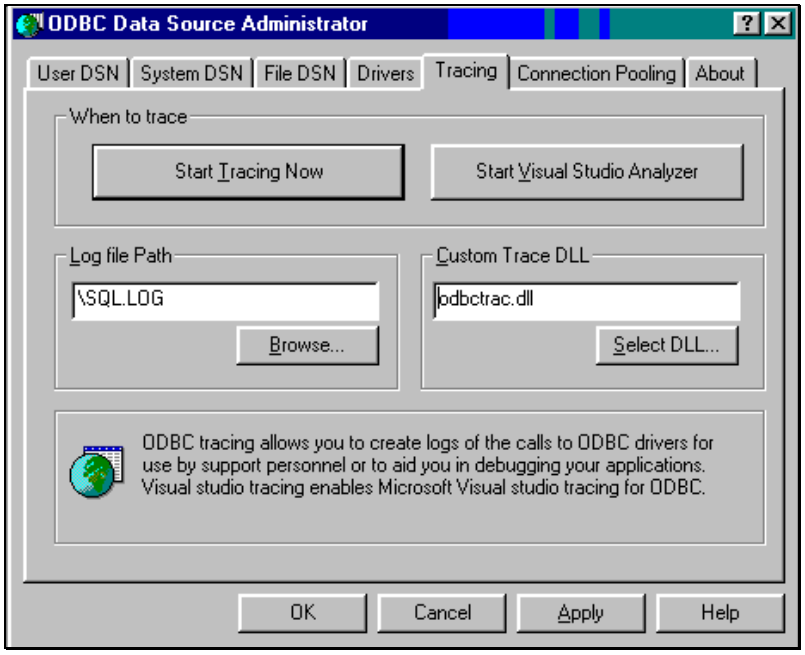
✓ Each User DSN requires the definition of a corresponding **Windows User Profile**; after you assemble the User DSN, you'll include it in the User Profile.

ODBC Data Source Administrator: File DSN Tab

Taskmaster applications do not use the standard specifications of the File DSNs. As a result, the options in this tab are ***not*** available.

ODBC Data Source Administrator: Tracing Tab

The *Tracing* tab gives you an opportunity to track "calls" from Taskmaster Clients to the server's ODBC drivers. To access this tab, select **ODBC Manager** from the **Tools** menu of the ***Taskmaster Server*** window…then click on *Tracing*.



ODBC Data Source Administrator–*Tracing Tab*

This aspect of Data Source Management is entirely diagnostic: the result is a log with the minutiae of every event involving each Taskmaster Client's use of any ODBC driver. Here are the details of just one such event:

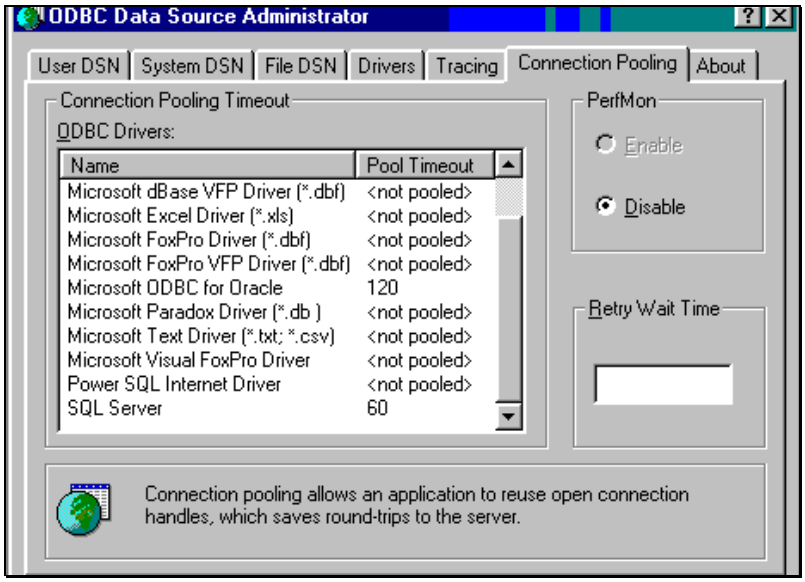
```
            SDWORD *            0x007ef3d8

TMDB            fff6eda3:fff613c7   EXIT  SQLGetData  with return code 0 (SQL_SUCCESS)
            HSTMT               0x00912020
            UWORD                       17
            SWORD                        1 <SQL_C_CHAR>
            PTR                 0x00805bb4 [      34] "\datacap\hccs\batches\19990342.002"
            SDWORD                     129
            SDWORD *            0x007ef3d8 (34)
```

ODBC Data Source Administrator: Connection Pooling Tab

Settings in the *Connection Pooling* tab allow multiple Taskmaster Clients to take advantage of a single gateway to Data Sources employing a particular ODBC driver.

In the illustration below, as soon as one client opens a database with a SQL Server or Oracle driver, the database remains open and available to other clients until the **Pool Timeout** period expires.

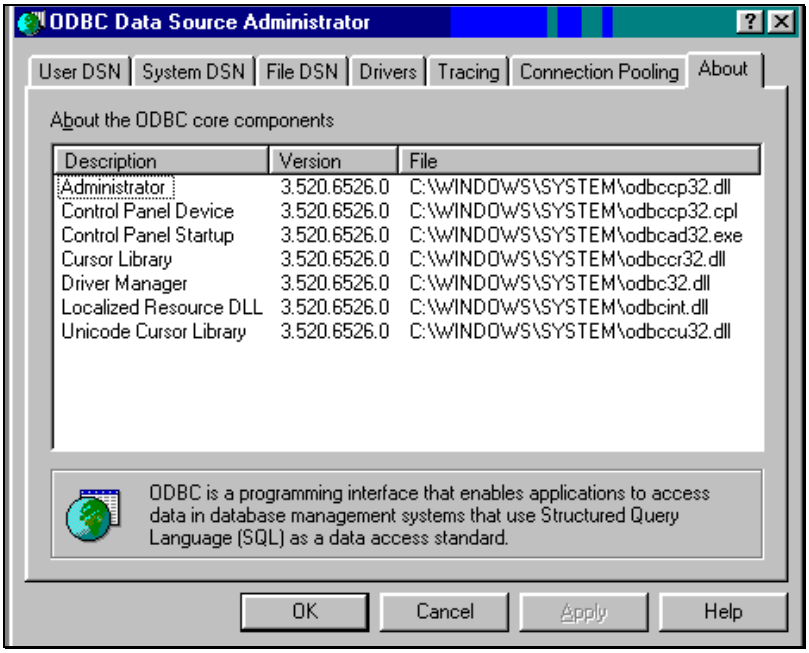


ODBC Data Source Administrator – *Connection Pooling Tab*

✓ Connection Pooling can be a productive database management technique. Be sure to consult the applicable Microsoft documentation for a complete explanation.

ODBC Data Source Administrator: About Tab

Unlike most *About* tabs, the *About* tab of the ***ODBC Data Source Administrator*** has useful information.



ODBC Data Source Administrator–*About Tab*

Taskmaster operates only with a 32-bit Windows operating system. To be sure that your host system's ODBC components are compliant, check the titles of the files in the list. Each file name except **odbcint.dll** should include a "32" designation.