
Job Monitor and Station Monitor

Chapter 5 examines two *supervisory* tools of the *Taskmaster Window*: the *Job Monitor* and the *Station Monitor*. This chapter also explores the role of *Taskmaster's Job Monitor Manager*.

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Introduction

The *Taskmaster Window* supplies an authorized user with two *supervisory* tools:

- The **Job Monitor** (Page 4) is a comprehensive guide to an application's batch processing activity. It is also a powerful device Administrators and Supervisors can use to initiate and manage a workflow's Job/Task Combinations. Multiple **Job Monitors** can be set up and administered by an application's **Job Monitor Manager** (Page 60).
- The **Station Monitor** (Page 53) tracks the processing activity of workstations on which Taskmaster Clients reside, and of the users (operators, Supervisors and Administrators) who are working from these workstations.

A principal focus of both tools is this data triad:

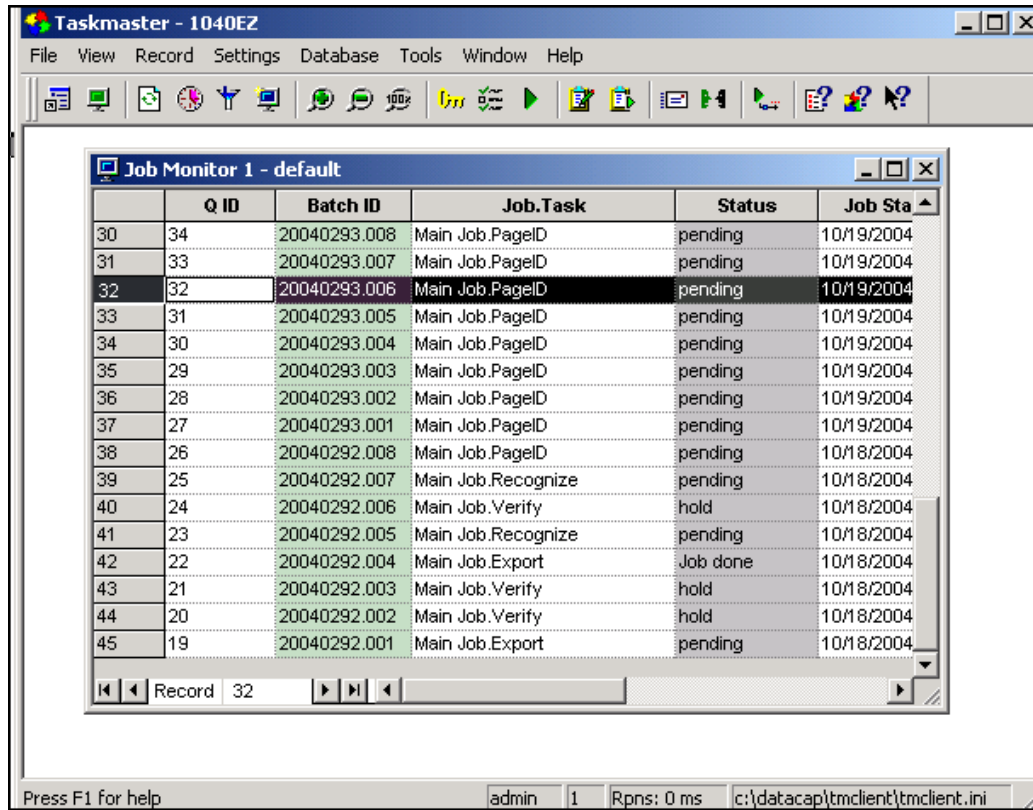
Job. A job is a processing unit with a single objective and a set of tasks to accomplish that objective. A "Main" job first scans a page and its data, then recognizes and verifies the data. The job closes by adding the data to an Export file or database. Although Main jobs are the backbone of most workflows, they are often assisted by special-purpose, remedial **child jobs**. In addition, most applications have a "Demo" job that starts off with a "virtual" scanning task. Because this task processes images rather than paper, the Demo job runs swiftly and is an excellent testing and training tool.

Task. A task is a procedure designed to accomplish one phase of the job's overall objective. Once a task has been formally defined, it is assigned to a job: in fact, a task cannot carry out its work *unless* it is part of a job. To be precise, therefore, the workflow's processing unit is not a task alone but a **Job/Task Combination**. The Job/Task Combination is *Taskmaster's fundamental processing entity*.

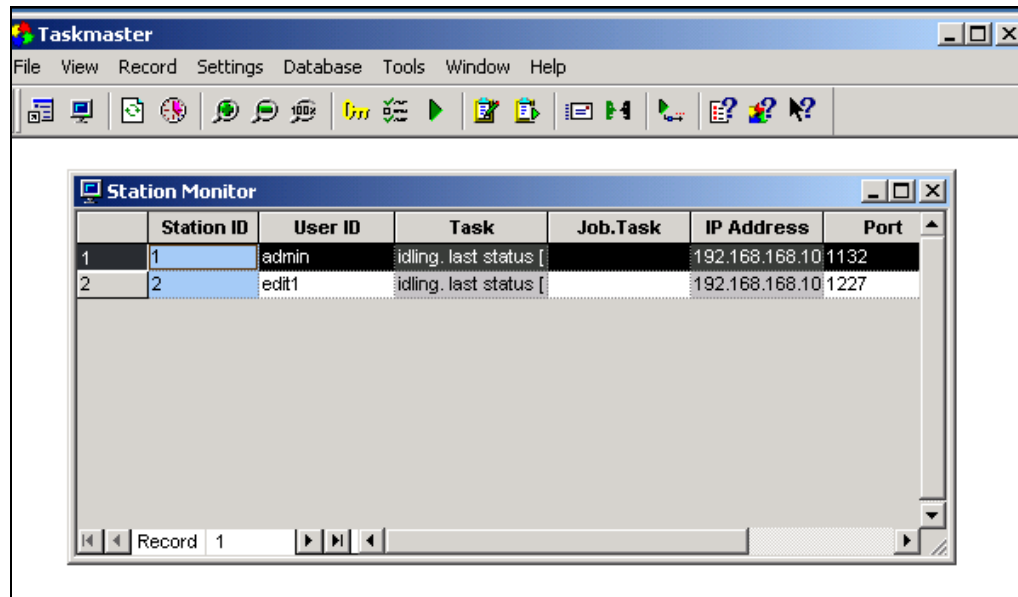
Batch. A batch is the processing vehicle that conveys the images and data of a document's pages from task to task until the job is finished. A batch is created by the Scan task at the beginning of the workflow; its contents grow as it moves from task to task.

This information comes together in the form of a **Batch Transaction Record** which links a specific batch to a particular Job/Task Combination. For details of the Batch Transaction Record, see Page 6.

- ✓ Chapter 6 of the *Guide to Taskmaster Rules* explains the nature and components of a batch, and shows you what happens when the batch moves from one task in a job to the next – and even back and forth between a *parent* job and a *child* job.
- ✓ The **Station Monitor** and **Job Monitor** are tools of the *Taskmaster Window*. Chapter 3 fully explains all aspects of this essential window and its environment.



Taskmaster Window – with Job Monitor

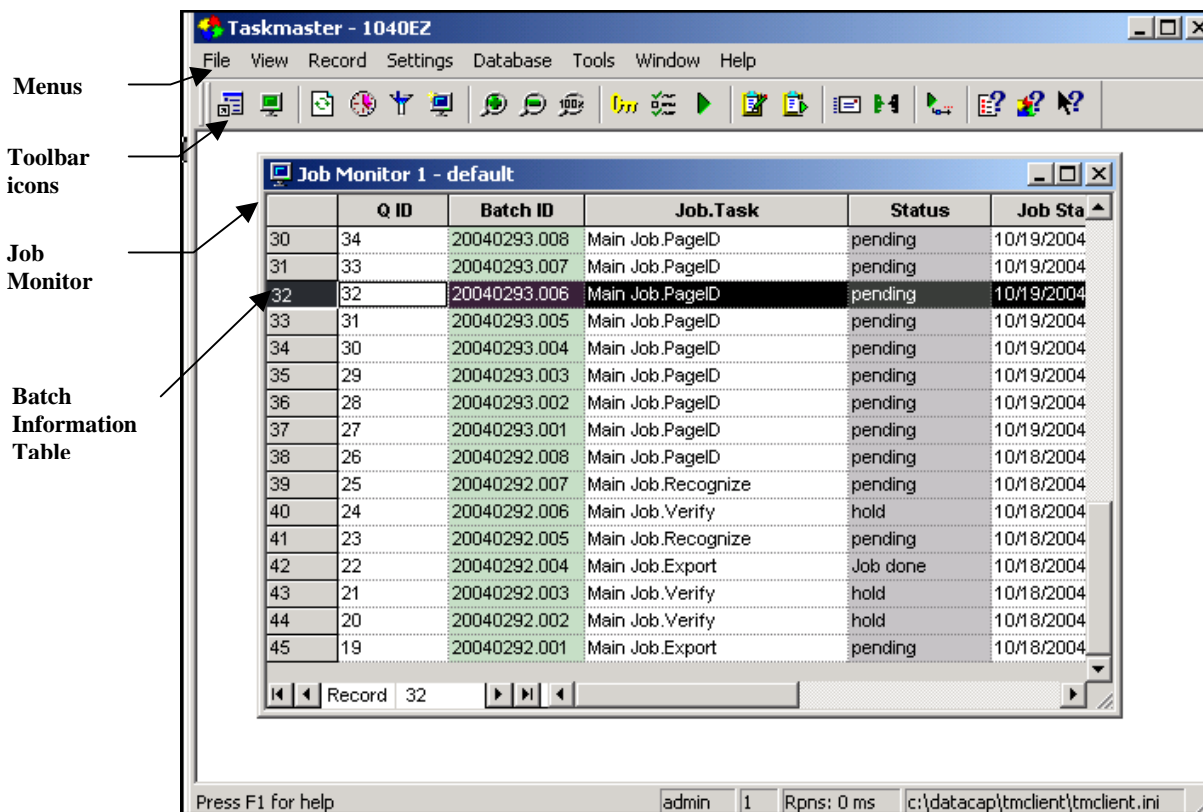


Taskmaster Window - with Station Monitor

Job Monitor

Taskmaster's Job Monitor continuously generates up-to-the minute batch processing information, and gives you tools you can use to isolate, diagnose and solve problems.

- ✓ To access the **Job Monitor**, select **Job Monitor** from the **View** menu, or click on its icon in the *Taskmaster Window* toolbar.
- ☛ **Alert!** Because of the nature of its data and procedures, the Security Programs of most applications (Chapter 6) limit access to the **Job Monitor** to Administrators and Supervisors.



Taskmaster Window—with Job Monitor

As you can see in the example above, the rows and columns of the **Batch Information Table** form the central component of the **Job Monitor**. The majority of other components, including menu items and toolbar icons, assist or expand the Batch Information Table – and, if appropriate, allow an Administrator or Supervisor to initiate a listing's Job-Task activity.

Before examining the details of individual components of the **Job Monitor**, spend a moment with its overall structure.

Structure

The *Job Monitor* has these features:

Title Bar. The Title bar identifies the window. It can also specify a **Refresh Rate**...just how often *Taskmaster* regularly updates the Batch Information Table. (For more about the Refresh Rate, see Page 21.)



	Q ID	Batch ID	Job.Task	Status	Job Start
11	53	20040294.001	Main Job.PagelD	pending	10/20/2004 08:19:51 AM
12	52	20040293.026	Main Job.Verify	hold	10/19/2004 01:20:26 PM
13	51	20040293.025	Main Job.Verify	hold	10/19/2004 12:37:21 PM

Batch Information Table. Each row in this table identifies a batch that is: waiting to be processed by a specific Job/Task Combination; in a temporary holding position; or no longer the object of the job's attention. The data for each listing spreads across 14 *default* columns; a full explanation of these columns begins below. In addition, *Taskmaster* helps you define and install **custom columns**: Page 49 investigates this procedure.

Status Bar. The Status bar identifies the row of a listing you've highlighted.

Menus. When the *Job Monitor* is active, the menus of the *Taskmaster Window* serve the *Job Monitor* exclusively. Page 12 describes the items in these menus.

Toolbar icons. When the *Job Monitor* is the active component of the *Taskmaster Window*, the icons in the toolbar are dedicated to the *Job Monitor*. Page 19 reviews the role of each icon.

Window Aids. Clicking once on the icon at the left end of the Title bar reveals a mini-menu with aids to help you with the window itself. Buttons at the right end of the Title bar duplicate the actions of four menu items: **Minimize**, **Maximize**, **Restore** and **Close** (the Restore button appears only if you minimize the *Job Monitor*.)

Selecting **Move** lets you move the *Job Monitor* around the Data Area of the *Taskmaster Window* but using your cursor to drag it is easier and just as effective. If multiple secondary windows are open in the Data Area of the *Taskmaster Window*, selecting the **Next** item brings the "next" window to the foreground.

Navigational Aids. Scroll bars along the *Job Monitor's* lower and right edges move you quickly column to the column and row to row within the Batch Information Table. In addition, action arrows within the Status bar move you from row to row, or to the first row or to the last row. Items in the **Record** menu duplicate these actions.

Supervision. The *Job Monitor Manager* has administrative responsibility for the single *Job Monitor* you use – and for all additional monitors. Page 60 explains the features of the *Job Monitor Manager*.

Batch Information Table

A portion of the Batch Information Table is illustrated below. You can use standard formatting tools to modify the table's appearance (Page 55). The *Job Monitor's Filter* mechanism can expand or contract its content according to parameters you provide (Page 23).

Descriptions of the table's fourteen *default* columns begin on the next page. For each row, the information in these columns combines to form a single **Batch Transaction Record**. Again, the data in three columns provides the record with its primary focus:

- **Batch ID.** This is the identifying code provided by the Scan task when it created the batch (Chapter 4).
- **Job.Task.** Usually, this is the Job/Task Combination next in line to process the batch. However, if the status of the batch is *Aborted* or *Hold*, or *Done*, this column lists the Job/Task Combination that produced the status.
- **Status.** This column indicates the current processing status of the batch.

	Q ID	Batch ID	Job.Task	Status	Job Start
35	29	20040293.003	Main Job.PagelD	pending	10/19/2004 07:
36	28	20040293.002	Main Job.PagelD	pending	10/19/2004 07:
37	27	20040293.001	Main Job.PagelD	pending	10/19/2004 07:
38	26	20040292.008	Main Job.PagelD	pending	10/18/2004 12:
39	25	20040292.007	Main Job.Recognize	pending	10/18/2004 12:
40	24	20040292.006	Main Job.Verify	hold	10/18/2004 12:
41	23	20040292.005	Main Job.Recognize	pending	10/18/2004 12:
42	22	20040292.004	Main Job.Export	Job done	10/18/2004 12:
43	21	20040292.003	Main Job.Verify	hold	10/18/2004 12:
44	20	20040292.002	Main Job.Verify	hold	10/18/2004 12:
45	19	20040292.001	Main Job.Export	pending	10/18/2004 12:

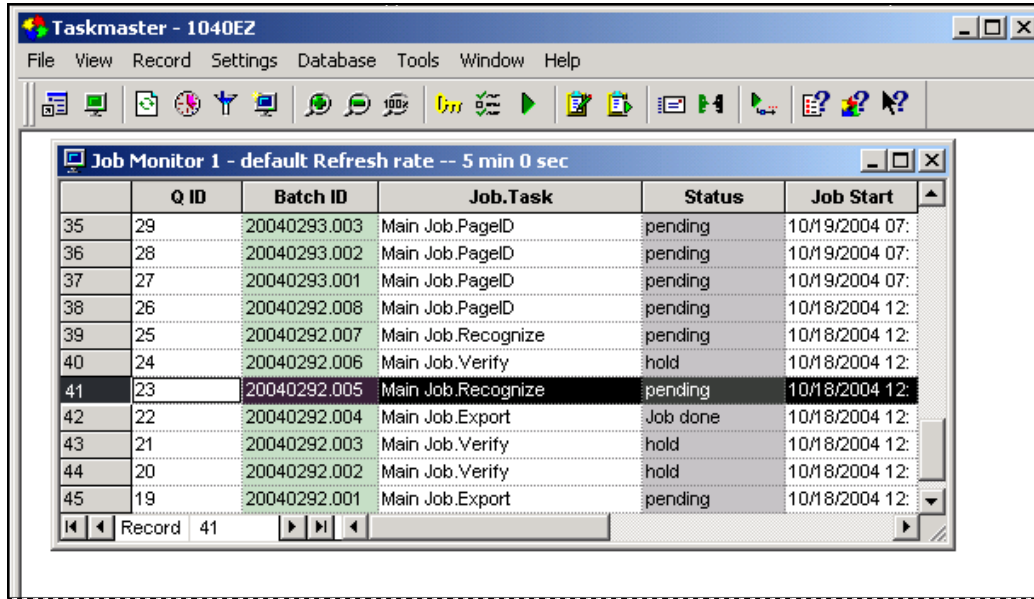
**Job Monitor–
Batch Information Table (left columns)**

The columns of the Batch Information Table include:

Column	Description
<Record ID>	<p>The number of a row in the table; also the Record ID for a specific Batch Transaction Record.</p> <p>This row number also appears in the Status bar's Record ID field.</p> <p><i>Taskmaster</i> adds new Batch Transaction Records to the bottom of the list. If you delete a listing (Page 46), the lower listings move up a row.</p> <p>Alert! If you <i>double-click</i> on a Record ID, <i>Taskmaster</i> highlights the listing and launches its Job/Task Combination if the processing Status of the batch is appropriate (<i>Pending</i>, for example).</p>
Q ID	<p>A number indicating the position of the batch within the <i>Taskmaster</i> processing queue.</p> <p><i>Taskmaster</i> assigns a Queue ID to a batch when the Scan task first assembles it: in general, lower numbers indicate earlier batches. The position of the batch within this overall queue, along with its Priority and current Status, determine its order within the processing queue of a specific <i>Operations</i> window Job-Task shortcut (Chapter 4 and Chapter 6).</p> <p>A Queue ID remains with the batch throughout each phase of its involvement with a specific job. <i>Taskmaster</i> might assign Batch 20040200.004 to two queues – one queue for a <i>parent</i> Main job's Recognition task, the other for a FixUp <i>child</i> job's FixUp task.</p> <p>Alert! If you <i>double-click</i> on a Queue ID, <i>Taskmaster</i> launches the Job/Task Combination if the processing Status of the batch is appropriate (<i>Pending</i>, for example).</p>

Batch Information Table (continued)

Column	Description
Batch ID	<p>The unique identifying code assigned to the batch, usually by the Scan task (Chapter 4).</p> <p>Alert! If a Batch ID such as 20020200.004 were to appear not only in Record 10 but in Record 13 as well, the apparent duplication would occur because the Recognition task of the Main Job (Main Job.Recognize) had problems with one or more pages in the batch.</p> <p>In this case, Recognition temporarily halted its work with the batch, forwarded it to the FixUp job's FixUp task (FixUp.FixUp), and gave the batch a <i>Waiting</i> status. From the perspective of the FixUp child job (and its FixUp task), the batch is now in <i>its</i> queue and has a <i>Pending</i> status.</p> <p>Double-clicking on a Batch ID retrieves the Batch Attributes dialog (Page 34).</p>
Job.Task	<p>The name of a job and the task assigned to the job.</p> <p><i>Taskmaster's</i> indication of a Job/Task Combination depends on the location of the batch within the workflow and on its status.</p> <p>Typically, a <i>Job Done</i> status indicates that the final task in a job has successfully processed the batch. In contrast, a batch with a <i>Pending</i> or <i>Waiting</i> status awaits processing.</p> <p>Alert! A record with a <i>Job Done</i> status will remain in the Batch Information Table until an Administrator deletes it.</p> <p>Double-clicking on a Job/Task Combination retrieves the Batch History dialog (Page 36).</p>



Job Monitor–Batch Information Table (left columns)

Batch Information Table (continued)

Column	Description
Status	<p>The current processing status of a batch, and a <i>key element</i> of its record. (For definitions of each status, see Page 30.)</p> <p>Most tasks in the workflow <i>cannot</i> process a batch unless it has an acceptable status—a status such as <i>Hold</i> or <i>Pending</i>. To return an <i>Aborted</i> batch to the workflow, an Administrator <i>must</i> first change this status.</p> <p>Double-clicking on a status retrieves the <i>Status Change/Rollback</i> dialog (Page 30). You can use this dialog to change the status of the listing’s batch, or to “roll back” the batch to an earlier Job/Task Combination.</p>
Job Start	<p>The Date and Time when the <i>job</i> in the Job.Task column began working with the batch.</p> <p>For a Main job, this is the point at which the Scan task assembles the batch. In the case of a <i>child</i> job, however, this is the moment when the <i>child</i> job’s first task began processing the batch.</p>
JSec	<p>The cumulative time, in seconds, that the job’s tasks have spent on the batch so far.</p>

Batch Information Table (continued)

Column	Description
Task Start	<p>The Date and Time when the <i>task</i> of the record's Job/Task Combination began processing the batch.</p> <p>This column includes values <i>only</i> if the task has spent time with the batch. If the batch is awaiting the attention of this task – or the task of a child job - there is no entry.</p>
TSec	<p>The cumulative time, in seconds, that the task component of the Job/Task Combination has spent on the batch so far.</p> <p>Again, this column contains a figure only if the task has been involved with the batch.</p>
Op	<p>The User ID of the operator or Administrator who <i>must</i> process this batch.</p> <p>This column contains an entry <i>only</i> if the Task Definition of the preceding task has a Store value of <i>User</i> or <i>User and Station</i>, and the Queue to value of the current task is <i>Same User</i>, or <i>Same Station and Same User</i>. Chapter 6 and <i>Taskmaster Help</i> explain these values.</p> <p>Alert! Double-clicking in this field opens the <i>Change Operator/Station/Priority</i> dialog (Page 37).</p>
Station	<p>The Station ID of the workstation which <i>must</i> process this batch.</p> <p>This column contains an entry <i>only</i> if the Station Definition of the preceding task has a Store value of <i>Station</i> or <i>User and Station</i>, and the Queue to value of the current task is <i>Same Station</i>, or <i>Same Station and Same User</i> (Chapter 6).</p> <p>Double-clicking in this field opens the <i>Change Operator/Station/Priority</i> dialog (Page 37).</p>
Pr	<p>The Priority value assigned to the batch as a job-level default (Chapter 6).</p> <p>Double-clicking in this field opens the <i>Change Operator/Station/Priority</i> dialog (Page 37).</p>
Docs	<p>The number of documents currently in the batch.</p> <p>Alert! This number changes at discrete points in the workflow.</p>
Images	<p>The number of Image files in the batch.</p> <p>This number should <i>not</i> change as the batch moves from task to task unless the Administrator authorizes the deletion of an Image file.</p>

	Q ID	Batch ID	Task Start	TSec	Op	Station	Pr	Docs	Images
29	35	20040293.009	10/19/2004 0	0			5	0	3
30	34	20040293.008	10/19/2004 0	0			5	0	3
31	33	20040293.007	10/19/2004 0	0			5	0	3
32	32	20040293.006	10/19/2004 0	0			5	0	3
33	31	20040293.005	10/19/2004 0	0			5	0	3
34	30	20040293.004	10/19/2004 0	0			5	0	3
35	29	20040293.003	10/19/2004 0	0			5	0	3
36	28	20040293.002	10/19/2004 0	0			5	0	3
37	27	20040293.001	10/19/2004 0	0			5	0	3
38	26	20040292.008	10/20/2004 1	0			5	0	3
39	25	20040292.007	10/20/2004 0	0			5	0	3
40	24	20040292.006	10/20/2004 0	22	admin	1	5	3	3
41	23	20040292.005	10/19/2004 1	0			5	0	3
42	22	20040292.004	10/20/2004 0	2	admin	1	5	3	3
43	21	20040292.003	10/20/2004 0	8	admin	1	5	3	3
44	20	20040292.002	10/19/2004 0	29	admin	1	5	3	3
45	19	20040292.001	10/19/2004 1	0			5	3	3

**Job Monitor–Batch Information Table
(right columns)**

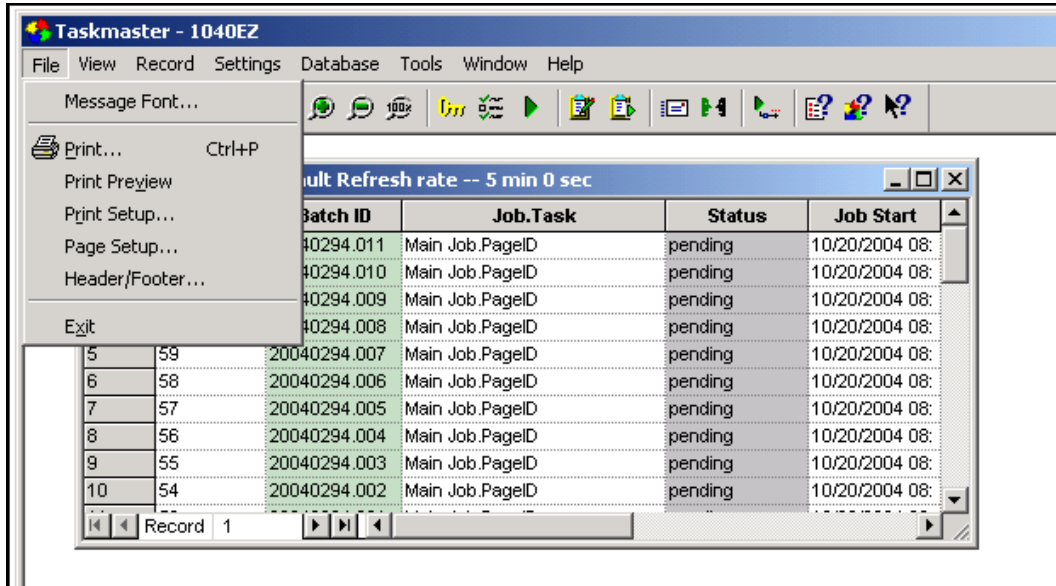
- These are the default columns of the *Job Monitor’s* Batch Information Table, arrayed in a default format. As Administrator, you can add columns (Page 49) but *cannot* remove a column. You can also change the way the Batch Information Table appears when it shows up on a user’s screen (Page 55).

Remember, too, the close relationship between the *Job Monitor* and the *Batch Selection* dialog (Chapter 4): a change to one results in an identical change to the other.

Menus of the Job Monitor

The *Job Monitor*, when it is the active component of the *Taskmaster Window*, employs the menus you see in the illustration below.

File Menu





File Menu – Job Monitor

Item	Accelerator Keys	Description
Message Font	<i>n/a</i>	Accesses the Windows <i>Font Selection</i> dialog. You can use this dialog to modify the <i>Message Pad's</i> font, type size and format.
Printing Items		The menu items in this area help you format and print the contents of the Batch Information Table.
Print	Ctrl + P	Prints selected pages of the Batch Information Table, or the full table. <i>Alert!</i> The table's width usually requires two printed pages to capture the data in all fourteen columns. However, the <i>Job Monitor's</i> formatting options help customize the scope and presentation of this data. For details, see Page 57.
Print Preview	<i>n/a</i>	Accesses <i>Taskmaster's Print Preview</i> dialog. This dialog offers various views of the pages you're going to print, at various magnifications...as well as directs links to the printing process. This is a <i>handy</i> tool: don't overlook it. For more, see Page 57.

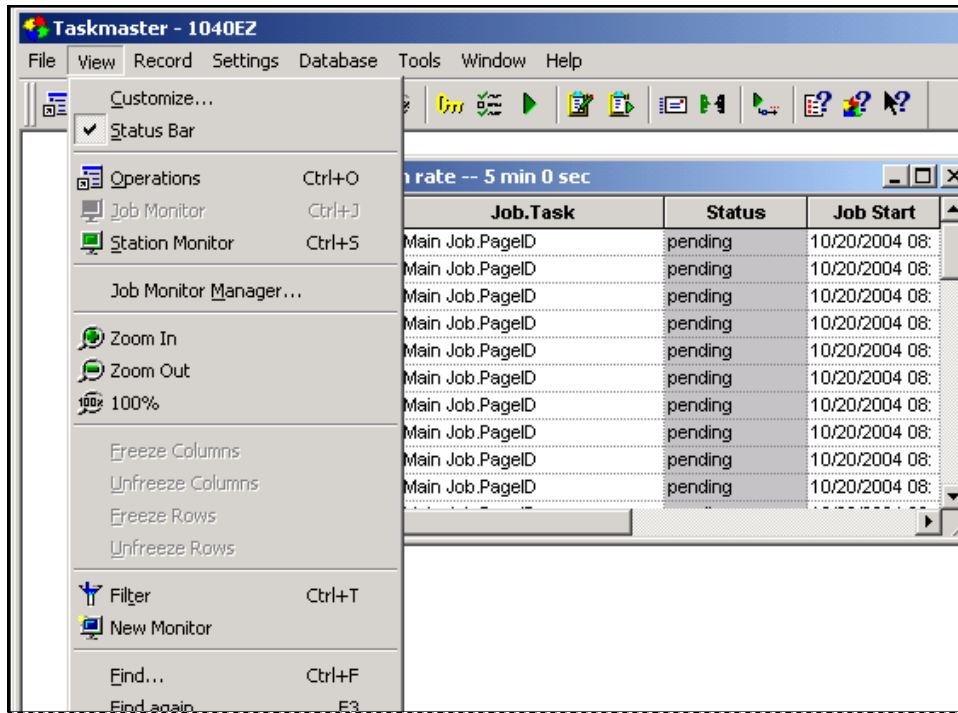
File Menu –active Job Monitor (continued)

Item	Accelerator Keys	Description
Print Setup	n/a	Leads you to a <i>Print Setup</i> dialog that closely resembles the Windows <i>Print</i> dialog. <i>One important difference:</i> You'll use this dialog to specify <i>Portrait</i> or <i>Landscape</i> as the Page Layout.
Page Setup	n/a	A specialized formatting tool you can use to design, test and implement alternative reporting structures for the <i>Job Monitor's</i> Batch Information Table (and for the <i>Station Monitor's</i> Station Information Table). For a full explanation, see Page 57.
Header/Footer	n/a	Accesses the <i>Header/Footer</i> dialog. You can use the settings in this dialog to specify the titles, page numbers, etc. that are to appear in the "header" or "footer" portion of each page of a report. For details, see Page 57.
Exit	n/a	Closes the <i>Taskmaster Window</i> .

View Menu




Item	Keyboard	Description
Customize	n/a	Accesses the <i>Customize Toolbar</i> dialog. The settings in this dialog determine the configuration of the <i>Taskmaster Window</i> toolbar when the <i>Job Monitor</i> is active, and the makeup of any secondary toolbars. For more information about toolbar assembly, see Chapter 3.
Status Bar	n/a	Toggles the <i>Taskmaster Window's</i> Status bar On and Off (Chapter 3).
Operations	Ctrl + O	Accesses the <i>Operations</i> window (Chapter 4). The  icon duplicates this action.
Job Monitor	Ctrl + J	Unavailable when the <i>Job Monitor</i> is active.
Station Monitor	Ctrl + S	Accesses the <i>Station Monitor</i> (if you are operating in a <i>client/server</i> mode.) The  icon duplicates this action.

Menus of the Job Monitor




View menu – Job Monitor

View Menu – active Job Monitor (continued)

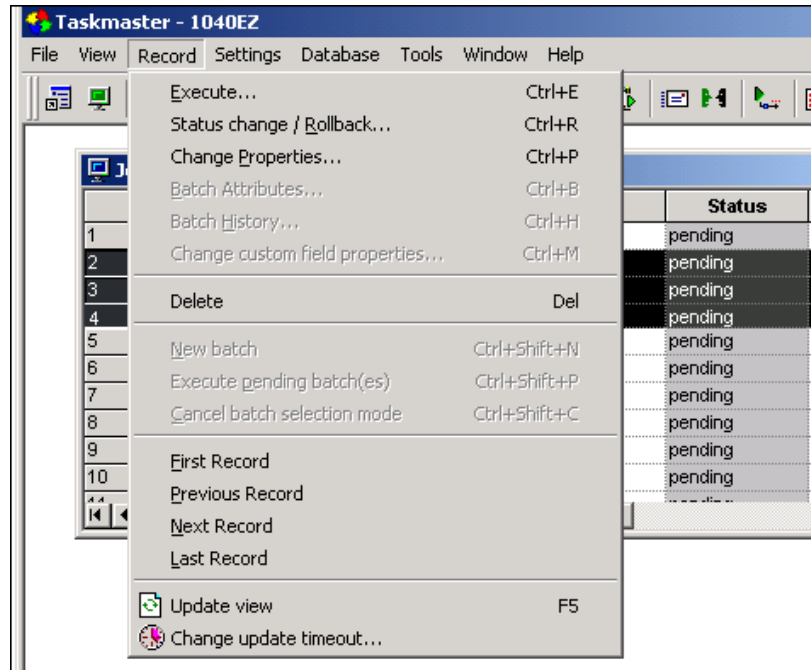
Item	Keyboard	Description
Job Monitor Manager	<i>n/a</i>	Accesses the <i>Job Monitor Manager</i> – a supervisory dialog responsible for the setup and content of an application’s <i>Job Monitor(s)</i> . For details, see Page 60.
Zoom In	<i>n/a</i>	Increases the magnification of rows in the Batch Information Table. The  icon duplicates this action. For more about formatting options, see Page 55.
Zoom Out		Decreases the magnification of rows in the Batch Information Table. The  icon duplicates this action.
100%	<i>n/a</i>	Displays the data in the Batch Information Table at the table’s standard font size. The  icon duplicates this action.

View Menu – active Job Monitor (continued)

Item	Keyboard	Description
Freeze Columns	<i>n/a</i>	<p>“Freezes” one or more <i>columns</i> you highlight in the Batch Information Table.</p> <p>Freezing moves a column (and all its cells) to the left edge of the Batch Information Table, making it the first column in the table. If you freeze multiple columns, they take positions on the left side according to their relative “unfrozen” positions.</p> <p>Freezing also ensures that the column remains in view: as you scroll to the right, other columns will disappear behind this column.</p> <p>You can freeze a single column or multiple, contiguous columns.</p> <p>This is a <i>very helpful</i> tool: be sure to experiment with it freely as you learn to work with <i>Job Monitor</i> and its Batch Information Table.</p>
Unfreeze Columns	<i>n/a</i>	Removes columns from a frozen state and returns them to their proper locations within the table.
Freeze Rows	<i>n/a</i>	<p>Freezes one or more Batch Transaction Records you’ve highlighted.</p> <p>Freezing moves the <i>rows</i> containing these records to the top of the table and ensures that they remain in sight as you scroll downward through the table.</p> <p>Although you can freeze multiple records as a group, you can only freeze <i>one</i> group at a time.</p>
Unfreeze Rows	<i>n/a</i>	Removes records from their frozen state and returns them to their original location in the table.
Filter	Ctrl + R	<p>Accesses the <i>Job Monitor’s</i> Filtering mechanism and the corresponding <i>Filter</i> dialog.</p> <p>In a high-volume operation, the <i>Job Monitor</i> steadily, adds listings to the Batch Information Table. Filtering uses selection parameters <i>you</i> provide to limit the display of batch data. For a full explanation, see Page 23.</p> <p>The  icon duplicates this action.</p>

View menu – active Job Monitor (continued)

Item	Keyboard	Description
New Monitor	n/a	Introduces a second <i>Job Monitor</i> into the Data Area of the <i>Taskmaster Window</i> . With two <i>Job Monitors</i> open, you can take advantage of the Filtering mechanism to view different lists of Batch Transaction Records almost simultaneously. This is a convenient and almost instant procedure. However, we <i>strongly recommend</i> that you use the <i>Job Monitor Manager</i> instead, because of its additional scope (Page 60).
Find	Ctrl + F	Accesses the <i>Taskmaster Find</i> dialog. You can use this dialog to search the <i>Job Monitor's</i> Batch Information Table for a specific listing (Page 44).
Find Again	F3	Conducts a second search using the most recent criteria you entered in the fields of the <i>Find</i> dialog.





Record Menu – Job Monitor

Record Menu

Item	Keyboard	Description
Execute	Ctrl + E	<p>Launches the listing's Job/Task Combination if the processing Status of the batch is acceptable.</p> <p>You can double-click on the listing's Record ID or Queue ID to initiate the same procedure.</p>
Status Change/Rollback	Ctrl + R	<p>Accesses the <i>Status Change/Rollback</i> dialog for a listing you've highlighted (Page 30).</p> <p>This dialog also appears if you double-click on the listing's Status field.</p>
Change Properties	Ctrl + P	<p>Accesses the <i>Change Operator/Station/Priority</i> dialog for a listing you've highlighted (Page 37).</p> <p>You can also double-click on the listing's Op field, Pr field, or Station field to retrieve this dialog.</p>
Batch Attributes	Ctrl + B	<p>Accesses the <i>Batch Attributes</i> dialog for the listing you've highlighted (Page 37).</p> <p>You can also double-click on the listing's Batch ID to retrieve this dialog.</p>
Batch History	Ctrl + H	<p>Accesses the <i>Batch History</i> dialog for the batch you've highlighted.</p> <p>You can also double-click on the listing's Job.Task specification to retrieve this dialog.</p>
Change Custom Field Properties	Ctrl + M	<p>Opens the <i>Custom Field Properties</i> dialog for a "custom" field in the listing <i>if</i> you have added a "custom" column to the Batch Information Table (Page 49).</p> <p>To enter data into the field, an authorized user must access this dialog. You can also reach it by double-clicking on the field itself.</p>
Delete	Del	<p>After a series of warnings, deletes the listing from the Batch Information Table and, if appropriate, the batch and all its contents.</p> <p><i>Alert!</i> This is an extreme measure – usually, a "privilege" granted to Administrators and Supervisors only (Chapter 6).</p>
New Batch, Execute Pending Batches, Cancel Batch Selection Mode	n/a	<p>The options in this section are available only when the <i>Batch Selection</i> dialog rather than the <i>Job Monitor</i> is the active component of the <i>Taskmaster Window</i> (Chapter 4.)</p>

Record menu – active Job Monitor (continued)

Item	Keyboard	Description
First Record	n/a	Moves your cursor to the table's first Batch Transaction Record.
Previous Record	n/a	Moves your cursor to the listing above the current record.
Next Record	n/a	Moves your cursor to the listing below.
Last Record	n/a	Moves your cursor to the Batch Transaction Record at the bottom of the table.
Update View	n/a	Instantly updates the Batch Information Table. The  toolbar icon duplicates this action.
Change Timeout	n/a	Accesses the <i>Change Timeout</i> dialog. You can use this dialog to modify the timing of updates to the Batch Information Table (Page 21). The  icon duplicates this action.

Settings and Database Menus

The items in these menus are administrative but have no direct relationship to the *Job Monitor*. The **Settings** menu retrieves the tabs of the *Taskmaster Administrator* (Chapter 6), while the **Database** menu gives the Administrator additional tools to test user access to an application's Admin and Engine databases (Chapter 3).

Tools Menu

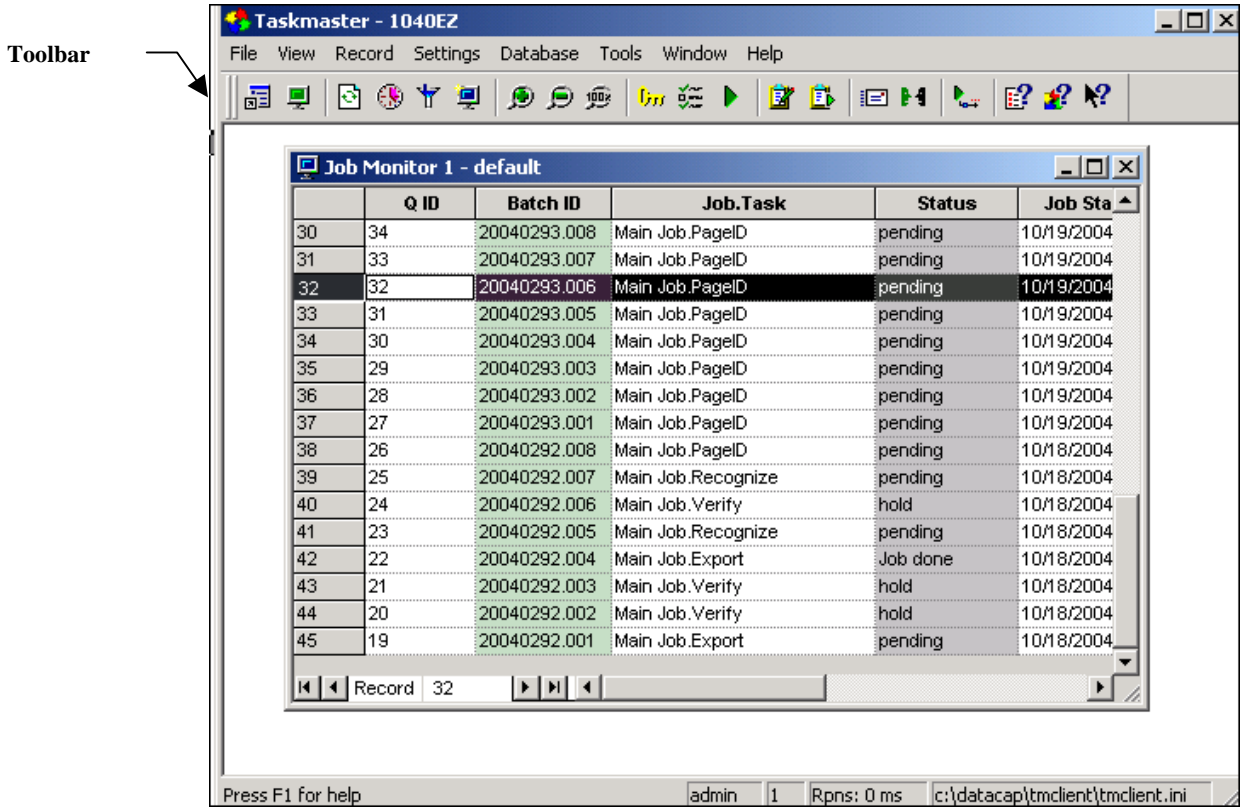
The items in this menu are administrative aids covered in Chapter 3.

Window and Help Menus

These menus contain standard Windows items and Help retrieval selections.

Toolbar Icons of the Job Monitor

In the *1040EZ* training application, the toolbar of the *Taskmaster Window* contains numerous icons when the *Job Monitor* is the active component of its Data Area.



Two are core icons of the *Job Monitor* (Chapter 3). The icon on the left in the illustration below accesses the *Job Monitor Filter* (Page 23), while the icon on the right opens a second *Job Monitor* inside the *Taskmaster Window*'s Data Area.



Core Icons–Job Monitor

The core icons are joined by five icons from the **Monitor** group...icons shared by the *Job Monitor* and *Station Monitor*, and by the *Batch Selection* dialog (Chapter 4). On the left, the **Refresh** icon instantly updates the Batch Information Table. The clock next to it accesses the *Change Timeout* dialog (Page 21). On the right are three magnification tools; they duplicate the **View** menu's **Zoom In**, **Zoom Out** and **100%** items:

Toolbar Icons of the Job Monitor



Monitor Icons

Icons in Taskmaster's **File** category fill out this toolbar configuration. The table below describes the role of each icon essential to the *Job Monitor's* operations.

Title	Icon	Menu Item?	Description
Operations		View/Operations (Ctrl + O)	Accesses the <i>Operations</i> window (Chapter 4).
Station Monitor		View/Station Monitor (Ctrl + S)	Accesses the <i>Station Monitor</i> (Page 49).
Refresh		Record/ Update View	Updates the Batch Information Table.
Change Timeout		Record/ Change Timeout	Accesses the <i>Change Timeout</i> dialog. You can use this dialog to change the amount of time between automatic updates to the Batch Information Table (Page 21).
Filter		View/Filter (Ctrl + R)	Accesses the <i>Job Monitor Filter</i> . By providing the filter with search and selection criteria, you can limit the scope of the Batch Information Table's listings (Page 23).
Second Job Monitor		View/New Monitor	Places an auxiliary <i>Job Monitor</i> in the Data Area of the <i>Taskmaster Window</i> .
Zoom In		View/Zoom In	Increases the magnification of the Batch Information Table.
Zoom Out		View/Zoom Out	Decreases the magnification of the Batch Information Table.
100%		View/ 100%	Returns the default magnification.
Settings		Settings	Accesses the tabs of the <i>Taskmaster Administrator</i> (Chapter 6).
General		Settings/General	Retrieves the three tabs of the <i>Taskmaster Settings</i> dialog (Chapter 3).
Run Task		Database/Run Task	Accesses the <i>Run Task</i> dialog (Chapter 3). Administrators use this dialog to test a new or modified application or workflow configuration.

Refreshing Batch Information

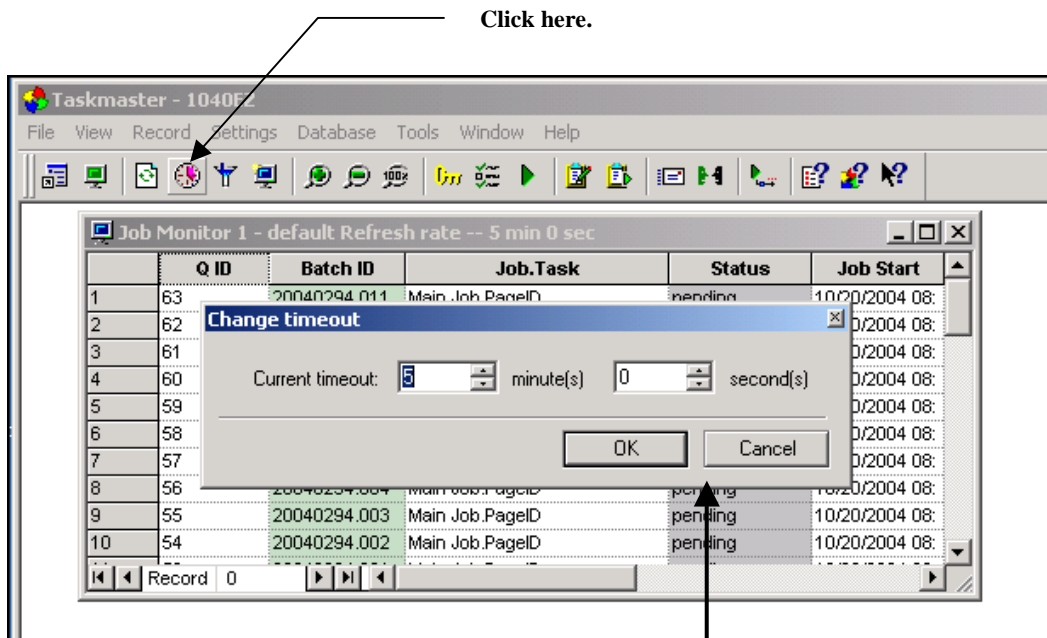
Taskmaster automatically updates the *Job Monitor*'s Batch Information Table every *x* minutes, *y* seconds.

Alternatively, you can click on the **Refresh** icon, or select **Refresh** from the **View** menu for a nearly instant update.

Still, most Administrators search for a comfortable **Refreshment period** which is short enough to ensure timely data but long enough to keep listings manageable. Achieving just the right interval requires a little experimentation.

The *Change Timeout* dialog lets you re-set the *Job Monitor*'s clock.

- ✓ To access this dialog, press the **Clock** icon on the toolbar or select **Change Timeout** from the **Refresh** sub-menu of the **Record** menu.



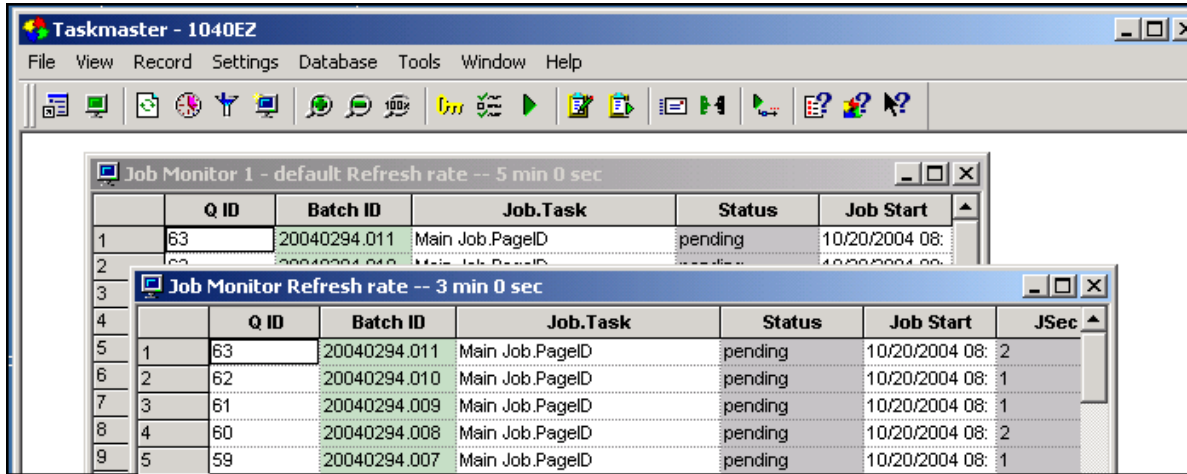
Change Timeout Dialog

The fields and buttons of the *Change Timeout* dialog include:

Field/Button	Description
Current Timeout: <i>n</i> Minutes	The number of minutes between updates of the Batch Information Table...the Refreshment period. You can enter a new value directly or use the arrows to select a value.
Current Timeout: <i>n</i> Seconds	The number of seconds in the Refreshment period.

Change Timeout Dialog (continued)

Field/Button	Description
OK Button	Confirms a change to the Minutes or Seconds of the Refreshment period (or both), and updates the clock.
Cancel	Closes the <i>Change Timeout</i> dialog without changing the Refreshment period.



Multiple Job Monitors - with different Refreshment Periods

To change the amount of time between automatic updates of the *Job Monitor's* Batch Information Table, take these steps:

Step	Action
------	--------

1. Select **Refresh** from the **Record** menu, and **Change Timeout** from the **Refresh** sub-menu...or press the Refresh icon on the *Taskmaster Window* Toolbar.
2. If the revised Refreshment period will last long than 60 seconds, enter the number of **Minutes**.
3. If the Refreshment period will be less than a minute or will be *n* minutes plus *n* seconds, enter the number of **Seconds**.
4. Click on the OK button.

☛ **Alert!** If you do change the Refreshment period, be sure to inform everybody who has access to the *Job Monitor* about the new timing. Remember, too, that the *Job Monitor* and *Batch Selection* dialog employ the same Refreshment period. (Chapter 4 examines all facets of the *Batch Selection* dialog.)

If you set up multiple *Job Monitors*, each can have a different Refreshment period (Page 60).

Job Monitor Filter

Taskmaster's Job Monitor is a powerful tool: informative, helpful and reliable.

In a busy operation, however, the Batch Information Table grows quickly and, until you learn how to control its size, can be overwhelming.

Two procedures help manage the scope of the Batch Information Table:

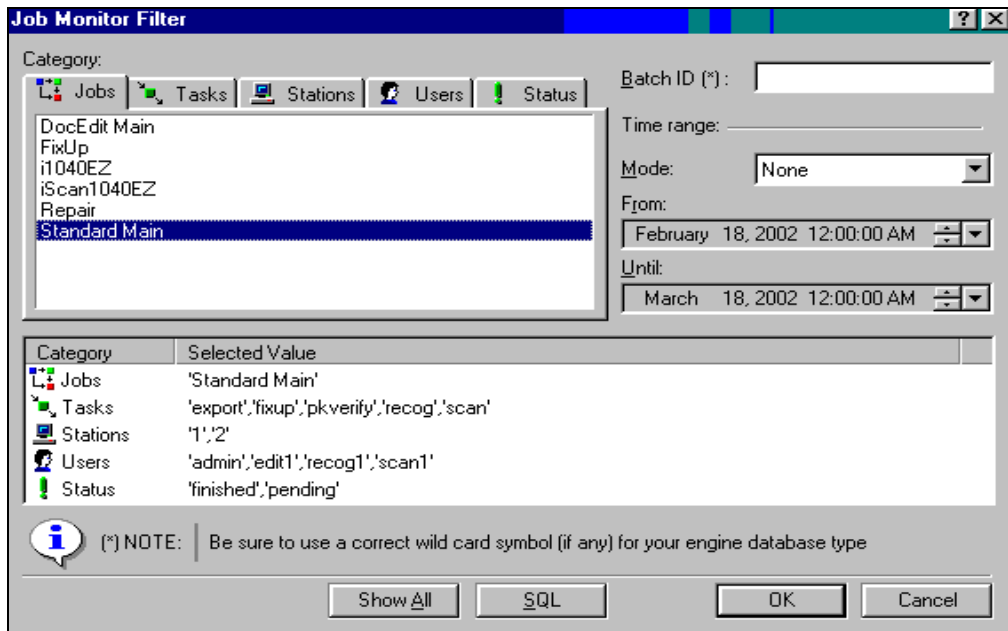
Filtering uses search parameters you supply to find and display only those records which meet your criteria. This section examines the *Job Monitor's* Filtering mechanism.

AutoDelete automatically deletes Batch Transaction Records (and the batches they represent), according to a schedule you define. In most cases, these are batches with a *Job Done* status: *Taskmaster* has successfully exported their data, and the batches are no longer needed. For a full explanation of the *AutoDelete* utility, see the *Taskmaster Administrator's Guide*.

A third procedure can help, too. The **View** menu's **Find** and **Find Again** options search the Batch Information Table, looking for Batch Transaction Records with an identifying code or title you supply. For more about this procedure, see Page 44.

To use the filter, open the *Job Monitor* by clicking on its toolbar icon. Then, take one of these steps to access the *Job Monitor Filter*:

- Select **Filter** from the **View** menu; or
- Use the *Ctrl + R* keyboard combination; or
- Click on the **Filter** icon in the toolbar.



Job Monitor Filter

Job Monitor Filter

The top half of the *Job Monitor Filter* presents selection criteria you can use independently *or* in combination to isolate the listings you want. There are three sectors:

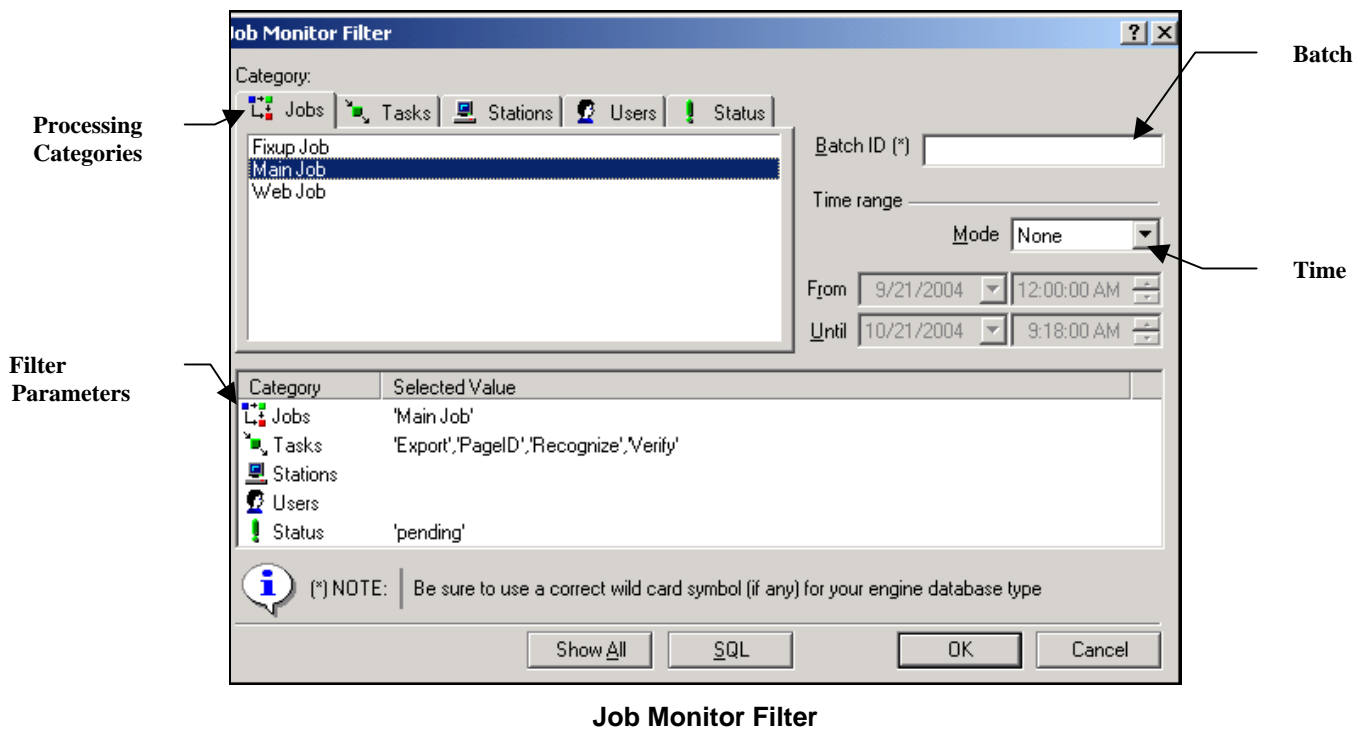
Category is a field with five tabs. Each tab holds processing options; within a tab, you can choose one or more options as selection parameters.

Batch lets you specify a Batch ID as your criteria or enter a “wildcard” value to select a range of batches.

Time Range limits the scope of the Batch Information Table to Batch Transaction Records with a **Job Start** or **Task Start** within a period you designate.

The *Filter’s* middle portion displays the parameters you’ve selected from tabs of the **Category** area.

Along the bottom row are three actions buttons (Show All, OK and Cancel), and a SQL button leading to the **SQL Server** field. This field contains the filtering “expression” *Taskmaster* will use to find and display the records you’ve asked for.



The table at the top of the next page describes the fields and functions of the *Job Monitor Filter*.

- ✓ The *Job Monitor Manager* employs an identical filtering mechanism. See Page 60 for details.

Job Monitor Filter

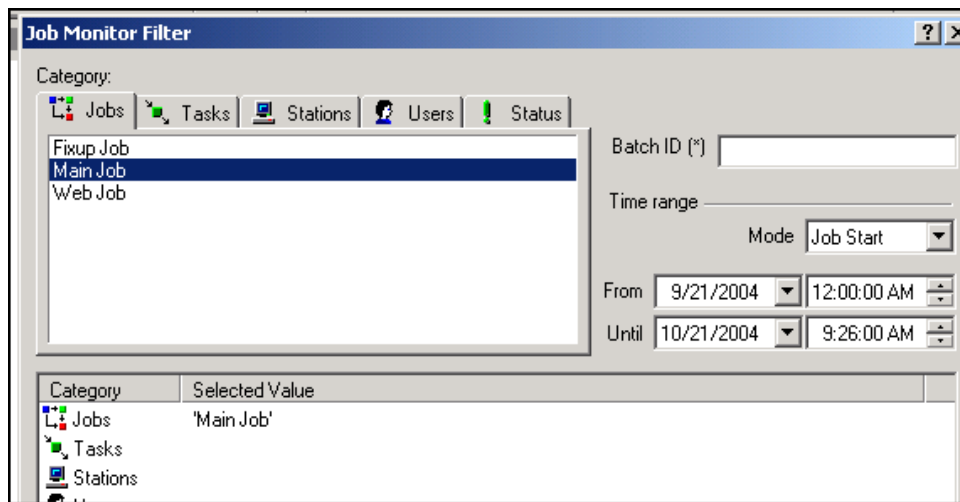
Field/Function	Description
Category Area	<p>The five tabs of this sub-dialog list parameters that closely reflect the structure of your application, and of the job and task components of its workflows.</p> <p>When you select an item from a tab in this area, it appears in the Filter Parameters area <i>and</i> as an element in a SQL Server expression.</p> <p>Alert! To remove a parameter from the Filter Parameters area, hold down your Ctrl key and select the item.</p>
Jobs	<p>A list of Job IDs for all jobs in all workflows throughout the application.</p> <p>Selection of a Job ID limits the listings in the Batch Information Table to those with this value as the job component in the Job.Task field (Page 6).</p> <p>You can, however, select <i>multiple</i> jobs. To select a second (or third or fourth!) job, hold down the Ctrl key as you move from Job ID to Job ID.</p>
Tasks	<p>A list of all Task IDs representing all tasks assigned to all jobs in the application.</p> <p>You can select one task or, using your Ctrl key, select multiple tasks.</p> <p>If you select a task but do not select a job, the table will list all Batch Transaction Records with that Task ID in the Job.Task column.</p> <p>If you select a Task ID in combination with a Job ID, the table will contain listings with that Job/Task Combination only.</p> <p>Similarly, selecting a Task ID (or Job ID) with any other parameter automatically limits the scope of the table to listings satisfying <i>both</i> criteria.</p>
Stations	<p>A list of workstations formally authorized to process the jobs and tasks of this application.</p> <p>Station IDs <i>may</i> appear in the Station column of the Batch Information Table (Page 9 and Page 37).</p>
Users	<p>A list of individuals authorized to process the jobs and tasks of this application.</p> <p>User IDs <i>may</i> appear in the Op column of the Batch Information Table (Page 9 and Page 41).</p>

Job Monitor Filter (continued)

Field/Function	Description
Category Area (continued)	
Status	<p>A list of all active Batch Statuses.</p> <p>These include: <i>Aborted, Batch Stopped, Canceled, Deleted, Finished, Hold, Job Done, Off Line, Pending, Running and Waiting.</i></p> <p>Alert! Status is a critical batch attribute. Using Batch Status as a filter can generate a list with exceptional focus and usefulness. For definitions of the Batch Statuses, see Page 30.</p>
Batch ID	<p>Search and selection parameters: Batch IDs.</p> <p>You can use this field alone, or in company with other criteria, to identify the Batch IDs of listings that are to appear in the table.</p> <p>In an extreme case (for testing, perhaps), you could enter one Batch ID and press the OK button. The resulting table would contain the record for that batch only.</p> <p>If, instead, you were to use the % symbol to enter a wildcard value such as</p> <p style="text-align: center;">20000130%</p> <p><i>Taskmaster</i> would list all batches with Batch IDs starting with “20000130.”</p>
Time Range Area	<p>Date and Time information that the Filter can use as selection criteria (Page 44):</p> <p>JStart indicates the Time and Date on which a <i>job</i> began processing a particular batch.</p> <p>TStart indicates the Time and Date on which a <i>task</i> began processing a particular batch.</p> <p>The fields in this area allow you to specify a range of dates and times. As a result, the table will contain only Batch Transaction Records with Job Starts <i>or</i> Task Starts within the period.</p> <p>Note: These criteria can be especially effective in combination with Job and Task selections from the Category area (above).</p>

Job Monitor Filter (continued)

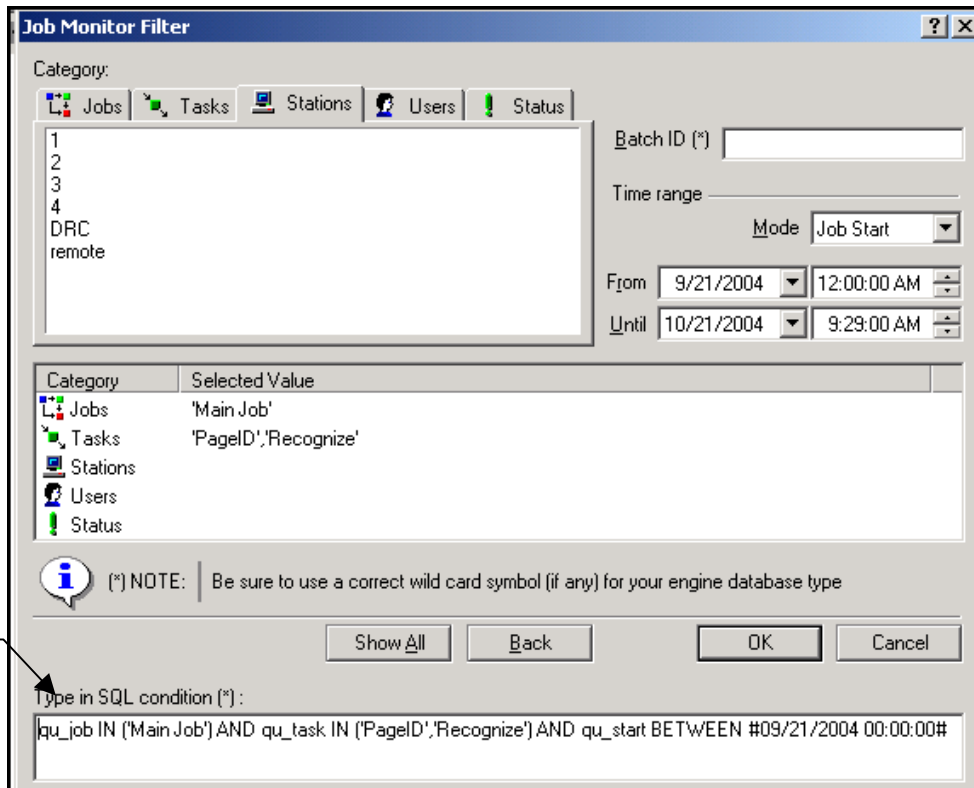
Field/Function	Description
Time Range Area (continued)	
Mode	<p>Three options:</p> <p><i>None</i>: Does not permit Date and Time criteria.</p> <p><i>Task Start</i>: Uses the From and Until fields to designate a Task Start period to be covered by the table.</p> <p><i>Job Start</i>: Uses the From and Until fields to designate a Job Start period to be covered by the table.</p>
From	<p>Date and Time of the beginning of the period.</p> <p>This field is active only if <i>Task Start</i> or <i>Job Start</i> is the Mode (above).</p>
Until	<p>Date and Time of the end of the period.</p> <p>Again, this field is active only if <i>Task Start</i> or <i>Job Start</i> is the Mode (above).</p>
Filter Parameters Area	<p>This area displays criteria you've selected from the tabs of the Category area above.</p> <p>In the example below, values in this sector direct the Filter to select those batches being processed by the Standard Main job, with a <i>Pending</i> status.</p>



Job Monitor Filter – Date parameters

Job Monitor Filter (continued)

Field/Function	Description
Show All button	Removes all settings of the <i>Job Monitor Filter</i> .
SQL button	Displays the SQL command containing the filter's selection criteria. <i>Taskmaster</i> will use this command to generate the filtered Batch Information Table. If you are <i>familiar and comfortable</i> with SQL, you can use this field to sharpen the <i>Filter's</i> focus. The button becomes a "Back" button after the SQL command line appears.
OK button	Uses the parameters you've specified to filter the content of the <i>Job Monitor's</i> Batch Information Table.
Cancel	Closes the <i>Filter</i> without taking any action.



Job Monitor Filter

- ✓ The next page outlines the steps you can take to limit the scope of the Batch Information Table. **Be sure** to experiment freely with different parameters, alone and in combination.

How to Use the Job Monitor Filter

To filter the content of the *Job Monitor's* Batch Information Table, take these steps:

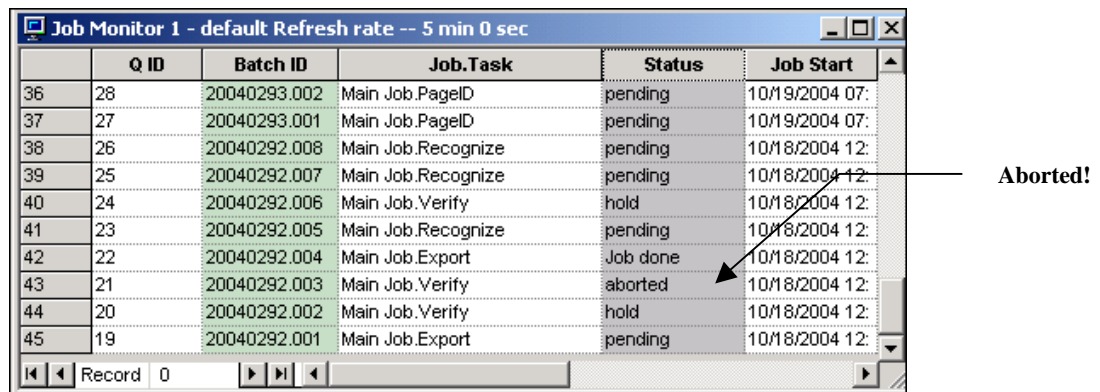
Step	Action
1.	Review the table's unfiltered content to decide selection criteria you can use to generate one more filtered lists of Batch Transaction Records.
2.	Select Filter from the View menu, or click on the Filter icon: the <i>Job Monitor Filter</i> will appear on your screen.
3.	If your selection parameters include an item from a tab of the Category area, click on the applicable tab, then on the item. Be sure that the item appears as a Selected Value next to the category's listing in the Filter Parameters area. (<i>Remember:</i> Use the Ctrl key to select multiple items from the same tab.)
4.	Repeat Step # 3 for criteria in any other Category .
5.	To specify Batch ID criteria, enter a portion of a Batch ID followed by "%". This will limit the number of Batch Transaction Records in the table to those that fall within this range.
6.	To include Date and Time criteria, select <i>Task Start</i> or <i>Job Start</i> from the Mode drop-down list in the Time Range area. Enter Dates and Times in the From and Until fields.
7.	Review the criteria in the Filter Parameters area.
8.	If you wish, press the SQL button for a look at the SQL command that will filter the table.
9.	Click on the OK button to generate the filtered Batch Information Table.

Batch Status

In the illustration below, batches have a variety of processing statuses.

Those with a *Pending* status are waiting to be processed by the Job/Task Combination indicated in the **Job.Task** column.

One batch with a *Job Done* status because the Main Job's Export task and all preceding tasks have successfully processed the batch.



	Q ID	Batch ID	Job.Task	Status	Job Start
36	28	20040293.002	Main Job.PageID	pending	10/19/2004 07:
37	27	20040293.001	Main Job.PageID	pending	10/19/2004 07:
38	26	20040292.008	Main Job.Recognize	pending	10/18/2004 12:
39	25	20040292.007	Main Job.Recognize	pending	10/18/2004 12:
40	24	20040292.006	Main Job.Verify	hold	10/18/2004 12:
41	23	20040292.005	Main Job.Recognize	pending	10/18/2004 12:
42	22	20040292.004	Main Job.Export	Job done	10/18/2004 12:
43	21	20040292.003	Main Job.Verify	aborted	10/18/2004 12:
44	20	20040292.002	Main Job.Verify	hold	10/18/2004 12:
45	19	20040292.001	Main Job.Export	pending	10/18/2004 12:

Job Monitor

The *Aborted* status for Batch **20040292.003** reveals a problem.

Often, a task aborts because of mechanical difficulty. Perhaps the scanner has jammed. There's little you can do to help a batch in this kind of trouble: you're probably best off re-scanning the forms, creating a new batch and deleting the old.

In other circumstances, the outlook may not be so grim. Suppose a batch aborts when a Look-up database becomes temporarily unavailable. As soon as the database is back in place, the Administrator can change the status of the batch from *Aborted* to *Pending*, and *Taskmaster* can resume processing.

Before reviewing the steps an Administrator or Supervisor takes to change a Batch Status, spend a moment with the meaning of each status and its impact on a batch in the workflow.

STATUS	EXPLANATION
<i>Pending</i>	<i>Taskmaster</i> automatically assigns this status when a batch has been successfully processed by the workflow's previous task, and is ready to be processed by the task identified in the Job.Task column. Once a workflow is running smoothly, most batches carry a <i>Pending</i> status.
<i>Running</i>	This interim status appears briefly in the <i>Taskmaster Window</i> to indicate that the task is indeed processing the batch.
<i>Waiting</i>	When a batch is diverted from a task in the Main workflow to the task(s) of a <i>child</i> job, the <i>Job Monitor's</i> Batch Information Table lists <i>two</i> Batch Transaction Records. One identifies the Job/Task Combination of the Main (<i>parent</i>) job and assigns <i>Waiting</i> as the Batch Status. The other identifies the applicable Job/Task Combination of the <i>child</i> job and specifies <i>Pending</i> as the Batch Status.
<i>Finished</i>	<i>Taskmaster</i> uses this status to mark the successful completion of a task's work with the batch. When the <i>Task Operations Message Page</i> announces Batch Completion (Chapter 4), the wording of the message indicates a <i>Finished</i> status. This status shows up only briefly, however, in the listings of the Batch Information Table.
<i>Job Done</i>	<i>Taskmaster</i> assigns this status when a batch reaches the end of a job...either a <i>parent</i> job <i>or</i> a child job. In the case of a <i>child</i> job, this status indicates that the batch is ready to return to the <i>parent</i> job (usually, a Main job.)
<i>Hold</i>	<i>Hold</i> is a transition status assigned by an operator, Supervisor or Administrator, to halt processing <i>temporarily</i> . When placing a batch on <i>Hold</i> status, <i>Taskmaster</i> enters the individual's User ID in the Op field of the Batch Transaction Record. Until the Batch Status changes, <i>only</i> this user can resume processing the batch.
<i>Aborted</i>	An <i>Aborted</i> status can result from the <i>automatic</i> intervention of <i>Taskmaster</i> , or from the <i>manual</i> intervention of an operator. The status alerts you to a problem of considerable importance: a job <i>cannot</i> process a batch with an <i>Aborted</i> status.
<i>Batch Stopped</i>	If an application uses a task such as Recognition to split a primary batch into secondary batches, the task will assign <i>Batch Stopped</i> to the primary batch. This step immediately halts the processing of the primary batch.
<i>Cancelled</i>	A Scan task operator assigns this status when terminating a batch prematurely. <i>Taskmaster</i> then changes the status to <i>Aborted</i> .

STATUS	EXPLANATION
<i>Deleted</i>	The <i>Deleted</i> status reminds you that you have deleted the Image files associated with a batch but have <i>not</i> removed other files (such as Page files) and the batch itself. For more about deletions, see Page 46.
<i>Off Line</i>	This status indicates that <i>Taskmaster</i> is unable to connect with the drive holding the applicable Batches directory.

Changing the Status of a Batch...or its Task

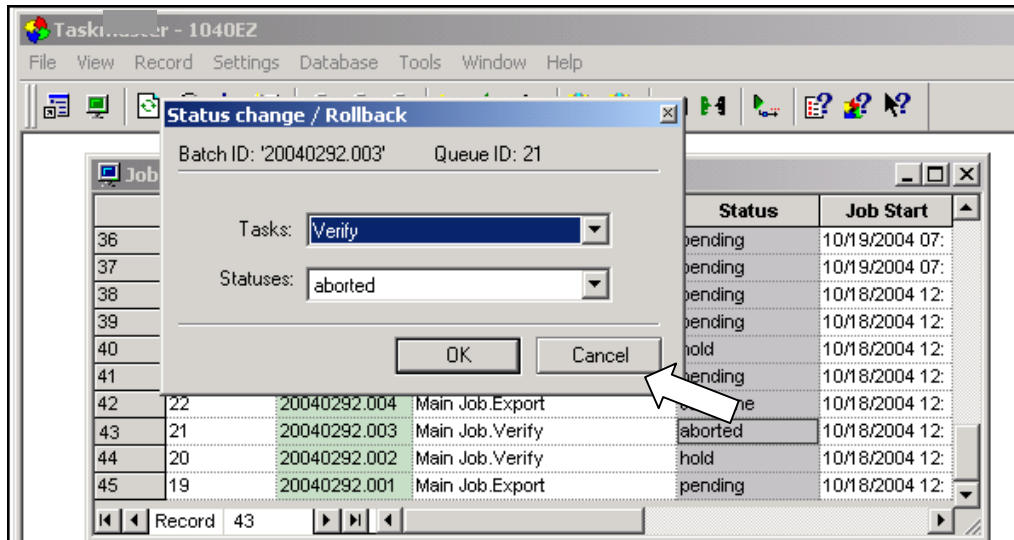
Batch Status serves as an essential indicator of the condition of a batch as it completes one task and moves to the next. After a workflow is firmly in place, you'll have little reason to change a status manually. In most cases, problems that surface will require an investigation of the batch and its contents rather than of the workflow's jobs and tasks.

During installation and testing, however, you'll have numerous opportunities to change the status of a batch—or even “roll back” the batch to a previous task. Some applications employ tasks that abort batches automatically if they cannot find the correct look-up table for internal validation procedures. This sort of disruption is likely to occur, if it occurs at all, during the implementation and testing of a new *Taskmaster* application.

Let's assume again that once the look-up table is back in place, the Administrator is going to test the updated procedures, using the *Aborted* batches as sample transactions. But because *Taskmaster* cannot process an *Aborted* batch, the Administrator will rely on the **Status Change/Rollback** dialog to assign a new status to each *Aborted* batch (see the illustration on the opposite page).

- ☛ To access this dialog, double-click in the **Status** field of the applicable Batch Transaction Record, or select **Status Change/Rollback** from the **Record** menu (Ctrl + R). The dialog's fields and functions include:

Field/Function	Description
Batch ID	The identifying code of the batch you have selected.
Queue ID	The Queue ID assigned to the batch during scanning.
Tasks	A drop-down list containing the current task and all tasks preceding this task in the job. You can use this field to assign a different task to the batch, and thus roll back the batch to an earlier stage in the job.
Statuses	A drop-down list of Batch Statuses (described above). Selecting a status and pressing the OK button assigns a new status to the batch.
OK button	Confirms the settings in the fields above and closes the dialog.
Cancel button	Closes the Status Change/Rollback dialog.

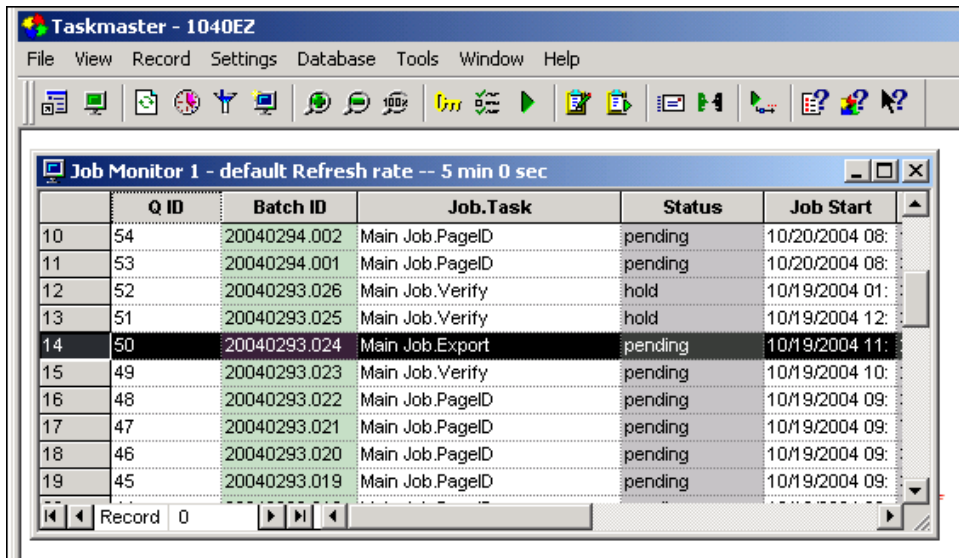


To change a Batch Status *or* roll back the batch to an earlier task, take these steps:

- | Step | Action |
|------|---|
| 1. | Select the applicable Batch Transaction Record from the <i>Job Monitor's</i> Batch Information Table. |
| 2. | Double-click in the listing's Status field or select Status Change/Rollback from the Record menu to retrieve the <i>Status Change/Rollback</i> dialog. |
| 3. | To assign an earlier task to process the batch, select the task from the Tasks drop-down list. |
| 4. | To provide the batch with an acceptable processing status (usually <i>Pending</i>), select the status from the Statuses drop-down list. |
| 5. | Press the OK button. |
| 6. | When the <i>Message Pad</i> asks "Are sure you want to change the selected entries?" press the Yes button. |
| 7. | After a pause, <i>Taskmaster</i> will update the listing. Be sure that the data is correct. |

Batch Attributes

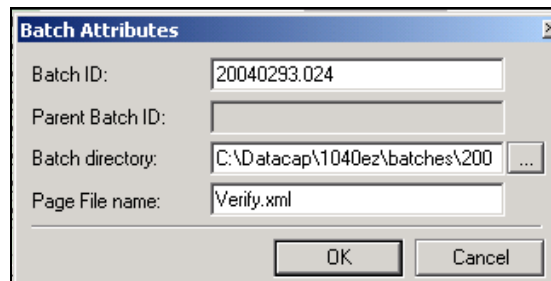
In the illustration below, Batch **20040293.024** has completed the Verification process and is ready for the Export task of the *1040EZ* application's Main Job (*Main Job.Export*).



	Q ID	Batch ID	Job.Task	Status	Job Start
10	54	20040294.002	Main Job.PagelD	pending	10/20/2004 08:
11	53	20040294.001	Main Job.PagelD	pending	10/20/2004 08:
12	52	20040293.026	Main Job.Verify	hold	10/19/2004 01:
13	51	20040293.025	Main Job.Verify	hold	10/19/2004 12:
14	50	20040293.024	Main Job.Export	pending	10/19/2004 11:
15	49	20040293.023	Main Job.Verify	pending	10/19/2004 10:
16	48	20040293.022	Main Job.PagelD	pending	10/19/2004 09:
17	47	20040293.021	Main Job.PagelD	pending	10/19/2004 09:
18	46	20040293.020	Main Job.PagelD	pending	10/19/2004 09:
19	45	20040293.019	Main Job.PagelD	pending	10/19/2004 09:

Job Monitor

If you were to double-click in the listing's **Batch ID** field, the *Batch Attributes* dialog would appear with the information below. (Alternatively, you could highlight the listing and select **Batch Attributes** from the **Record** menu.)



Batch ID:	20040293.024
Parent Batch ID:	
Batch directory:	C:\Datacap\1040ez\batches\200 ...
Page File name:	Verify.xml

OK Cancel

Batch Attributes Dialog

- This dialog contains key batch specifications *and* allows you to modify those specifications. Before you make a change, however, be sure to consider its full impact.

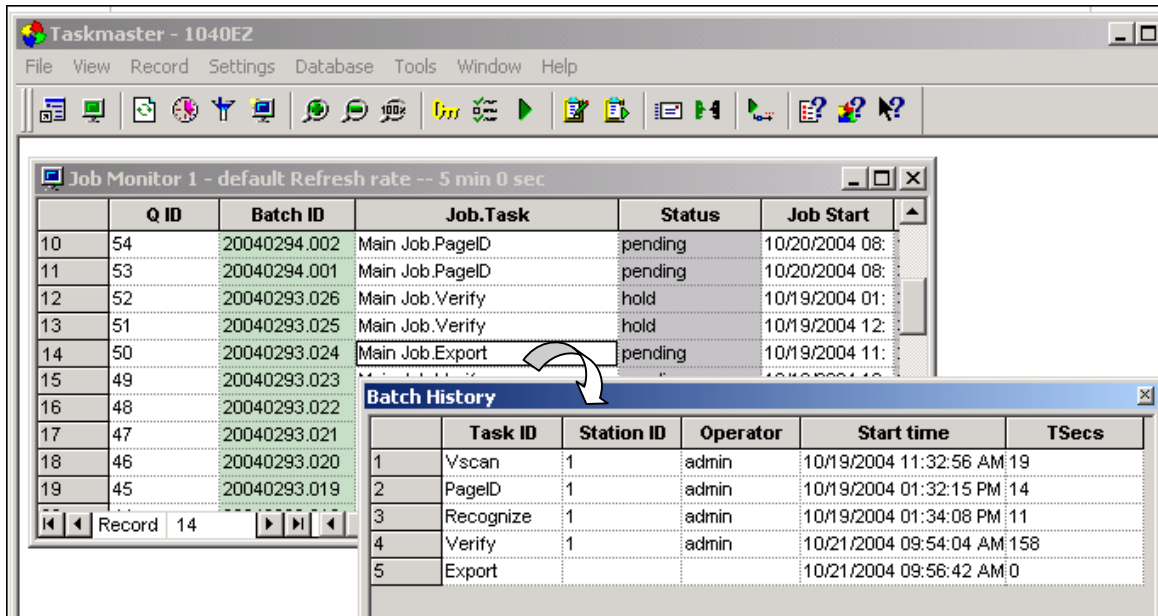
The table below describes the fields and functions of this dialog.

Field/Function	Description
Batch ID	The unique identifying code assigned to the batch. You can enter a new Batch ID. However, be careful that you do not use an ID assigned to another batch.
Parent Batch ID	If the batch you've selected is a segment of a larger batch and has been split from a parent job's batch, this field identifies the "parent" batch.
Batch Directory	The location of the batch and its files. Sometimes, when you are setting up and testing a new application, a task will be unable to find a batch in the location you've specified in the Task Definition. One short-term solution is to use this field to update the address of the batch. Keep in mind, however, that this is a remedy for one batch only. The underlying problem is probably pervasive and needs a more basic solution.
Page File Name	The name of the Page file (.xml) generated by the last task to process the batch . If you rollback a batch for processing by a task earlier in the workflow (Page 32), you'll use this field to identify the Page file generated by the previous task. For a full explanation of rollback procedures, see the <i>Workflow Development and Operations Manual</i> .
OK button	Confirms any changes you've entered in the Batch Attributes dialog, and closes the dialog.
Cancel button	Closes the Batch Attributes dialog without saving changes.

- ✓ **Be careful:** Only a few circumstances justify changes to specifications in the fields of the **Batch Attributes** dialog. Before making such changes, consult Datacap Support or your Datacap Implementation Specialist.

Batch History

For a look at the same batch from an historical perspective, you could highlight the record and select **Batch History** from the **Record** menu, press the Ctrl + H keyboard combination, or double-click in the listing's **Job.Task** field



Batch History Dialog

This is an *information-only* dialog: its table outlines the progress of the batch through workflow, right up to its current position.

As you can see, the batch above has successfully negotiated four out of five tasks in the Main Job; the last row is almost empty because the job's Export task has yet to begin its work.

Information in the **Batch History** dialog includes:

Data	Description
Row ID	The number of a row in the Batch History Table, often corresponding to the position of a task in the workflow.
Task ID	The identity of a task that has processed the batch or is next in line. The listing does not include a Job ID because all tasks in the table belong to the same job.
Station ID	The identifying code of the workstation running the task.

Batch History Dialog (continued)

Data	Description
Operator	The User ID of the operator responsible for the task when it processed this batch.
Start Time	The task's starting Date and Time.
Tsec	The number of seconds the task has spent on the batch.
OK button	Closes the <i>Batch History</i> dialog.

Changing Operator, Station and Priority Values

The *Change Operator/Station/Priority* dialog lets you change three properties of a batch you've selected from the *Job Monitor's* Batch Information Table:

- You can raise or lower the **Priority** rating the Scan task assigned (Chapter 4).
- You can assign or re-assign an **Operator** to a batch – or remove an Operator assignment.
- You can assign or re-assign a **Station** to the batch - or remove a Station assignment.

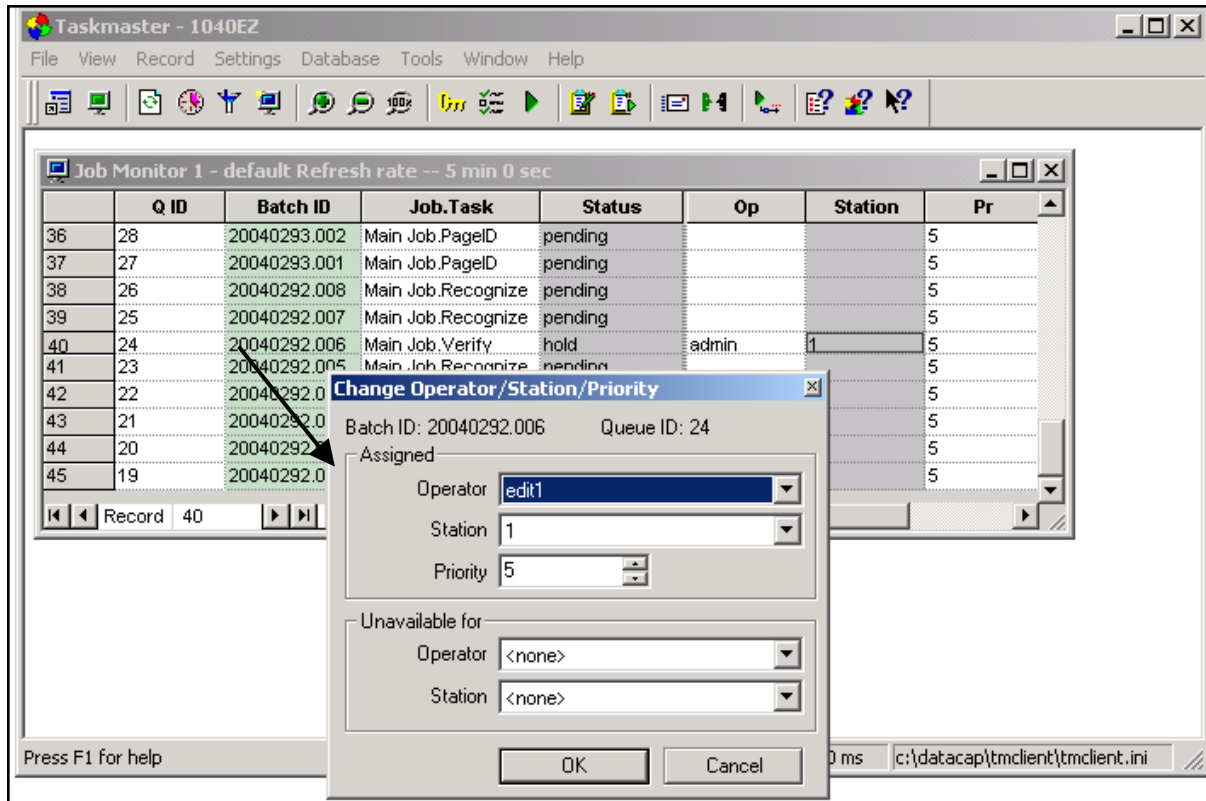
- ✓ In addition, fields in the **Unavailable for** section at the bottom of the *Change Operator/Station/Priority* dialog oversee any **Operator** and **Station** values that result from a Task Definition's **Queue to** and **Store** properties.

To access this dialog, double-click in a listing's **Op**, **Pr** or **Station** field, or highlight the batch and select **Change Properties** from the **Record** menu (Ctrl + P on your keyboard).

The illustration on the next page is revealing because it lists a **Priority** value for every batch – probably a default value that is a property of the *Main Job's* Job Definition and has been picked up by each task (Chapter 6).

Only one batch that you can see has **Op** and **Station** values. This is because the batch has a *Hold* status. This batch can be run *only* by the operator that placed the batch on *Hold*, from the same station, unless you use the *Operator/Station/Priority* dialog to intervene and change the **Op** and **Station** values.

Changing Operator, Station and Priority Values



Change Operator/Priority Dialog

Operator and **Station** settings in the dialog's **Assigned** area determine which operator and workstation *must* run the listing Job/Task Combination when it processes the current batch. In the example above, the Administrator is re-assigning this responsibility to the *edit1* operator.

The **Operator** and **Station** settings in the dialog's **Unavailable** area prevent a particular operator or station – or both – from launching the Job/Task Combination.

	Q ID	Batch ID	Job.Task	Status	Op	Station	Pr
1	69	20040295.006	TestTasks.PagelD	pending			5
2	68	20040295.005	TestTasks.Recognize	pending	admin	1	5
3	67	20040295.004	TestTasks.Recognize	pending	admin	1	5
4	66	20040295.003	TestTasks.Recognize	pending	admin	1	5
5	65	20040295.002	TestTasks.Verify	pending	[admin]	[1]	5
6	64	20040295.001	TestTasks.Recognize	pending	admin	1	5
7	63	20040294.011	Main Job.PagelD	pending			5

- ✓ **Very important!** Above, listings for the batches in line for the TestTasks job's Recognize task have **Op** and **Station** values even though they are *Pending* batches. These values, which *require* processing by the *Admin* Operator and Station *1* are not the result of a **Status** such as *Hold*. They result, instead, from the **Store** setting of the vScan Task Definition and the **Queue to** setting of the Recognize Task Definition. Page 42 explains these settings.

In the illustration on the previous page, Batch **20040295.001** has two values with unusual formats. [admin] in the **Op** column and [1] in the **Station** column mean that both the *Admin* user and the “1” station are restricted from launching the *TaskTest.Verify* Job/Task Combination for this batch. These restrictions have been put into place in the **Unavailable** section of the *Change Operator/Station/Priority* dialog.

Processing **Priority** is a property of a Job Definition (Chapter 6) and its value becomes a default (but hidden) property of each of the job’s tasks. The *Change Operator/Station/Priority* dialog let’s you change the value for the Job/Task Combination when it is processing the current batch. Priorities range from “10” (*Low*) to “1” (*High*); “5” is *Taskmaster’s* default.

The table below describes the fields and functions of this dialog:

Field/Function	Description
Batch ID	The identifying code of the batch you highlighted in the <i>Job Monitor’s</i> Batch Information Table.
Queue ID	The placement of the batch in the overall processing queue. Remember (1): the Scan task assigns this placement when it creates the batch. Remember (2): <i>Taskmaster’s</i> batch selection procedures look first for batches with a certain Priority classification, then at the sequence of Queue IDs within that classification.
Assigned area	
Operator	A drop-down list showing the User IDs of all individuals authorized to carry out the application’s tasks (Chapter 6). A User ID typically appears in a listing’s Op field when an operator (or Supervisor or Administrator) has intervened to abort the batch or put it on <i>Hold</i> temporarily—or when the batch completes the workflow of a job or <i>child</i> job. Alternatively, the Op field will include a value in response to a combination of a Queue to value in the definition of the current task, and a Store value in the definition of a previous task (Page 42). If the Op field does not contain a value, this drop-down list will display <None>. When you use this field to designate a different operator, only that operator can access the batch until the batch has completed the task at hand.

Change Operator/Station/Priority dialog (continued)

Field/Function	Description
Station	<p>A drop-down list showing the Station IDs of all workstations authorized to carry out the application's tasks (Chapter 6).</p> <p>A Station ID typically appears in a listing's Station field when an operator (or Supervisor or Administrator) has intervened to abort the batch or put it on <i>Hold</i> temporarily—or when the batch completes the workflow of a job or <i>child</i> job. The Station field can include a value in response to a combination of a Queue to value in the definition of the current task, and a Store value in the definition of a previous task (Page 42).</p> <p>If the Station field does not contain a value, this drop-down list will display <i><None></i>.</p> <p>When you use this field to designate a different station, <i>only</i> that station can access the batch until the batch has completed the task at hand.</p>
Priority	<p>The Priority classification assigned to the batch during scanning.</p> <p>"10" = Low; "1" = High; "5" is the default. <i>Raising</i> this number <i>lowers</i> the Priority of the batch.</p>
Unavailable for area	
Operator	<p>A drop-down list showing the User IDs of all individuals authorized to carry out the application's tasks (Chapter 6).</p> <p>When you select a User ID and click on the dialog's OK button, Taskmaster adds enters a value such as [edit1] in the listing's Op field. This prevents that user – edit1, in this case – from launching the current Job/Task Combination to process the batch.</p>
Station	<p>A drop-down list showing the Station IDs of all individuals authorized to carry out the application's tasks (Chapter 6).</p> <p>When you select a Station ID and click on the dialog's OK button, Taskmaster adds enters a value such as [1] in the listing's Station field. This prevents that user from launching the current Job/Task Combination to process the batch.</p>
OK button	Saves new settings and closes the dialog.
Cancel button	Closes the <i>Change Operator/Priority</i> dialog.

To Change Operator and Station Assignments – or Set a Priority Classification

To assign a particular operator and/or station to a particular batch listing - or to modify its Priority rating - take these steps:

Step	Action
1.	Highlight the batch in the <i>Job Monitor's</i> Batch Information Table.
2.	Double-click in the listing's Op , Station or Pr field: the <i>Change Operator/Station/Priority</i> dialog will appear on your screen.
3.	To specify an operator that <i>must</i> run the current batch, select a value from the Operators drop-down list in the dialog's Assigned area.
4.	To specify a workstation from which the current batch <i>must</i> be launched, select a value from the Operators drop-down list.
5.	To modify a Priority classification, enter a new value in this field.
6.	Review your settings.
7.	Press the OK button.
8.	Confirm the changes in the listing in the Batch Information Table.
9.	To <i>prevent</i> a particular operator from launching the Job/Task Combination that's next in line to process the batch, select an Operator in the Unavailable for area.
10.	To prevent a particular workstation from launching the current batch, launched, select a Station .
11.	Press the OK button at the bottom of the dialog; confirm your additions and modifications in the Batch Information Table.

- ✓ Entries (without brackets) in the **Op** and **Station** columns *require* the involvement of a specific user and workstation. These values appear automatically if, at the conclusion of processing by the previous Job/Task Combination, *Taskmaster* assigned a *Hold* status to the batch.

A value will also appear in one or both columns if the Task Definition of an *earlier* task contains parameters that combine with parameters established by the Task Definition of the current task. Together, these **Store** and **Queue to** parameters determine which operators and stations can run the *current* task when it processes the current batch.

Alert! The mechanics of the task's **Store** and **Queue to** properties can have a significant impact on an application's batch processing. *Be sure* to review the explanations of these properties on the following page.

STORE and QUEUE TO Properties of a Task Definition

The **Store** and **Queue** properties of a Task Definition determine which operators and workstations can process individual batches.

- ✓ The **Store** property looks forward; the **Queue to** property looks backwards.

In the first illustration below, the definition of the *1040EZ* application's VScan task specifies *Station* as its **Store** value. The definition of the Recognition task in the second illustration indicates *by Station* as its **Queue to** property.

The **Store** property of the VScan task means that the batches it produces can only be processed by future tasks launched *from* the same station. The **Queue to** property of the Recognition task (in this example) limits that task to batches previously processed by the same station *and* operator. These restrictions will appear in listings of the Batch Information table.

The screenshot shows the Taskmaster Administrator interface with the Workflow tab selected. The left pane displays a tree view for the 1040EZ application, with the vScan task selected. The right pane shows the task definition table:

Task	Values
ID	vScan
Description	Run Vscan Rules
Module	Vscan
Task Monitor	Normal
Queue to	Anybody anywhere
Store	Station
	Setup...

An arrow points from the text "Store value" to the "Store" field value "Station".

Taskmaster Administrator – Workflow tab

The screenshot shows the Taskmaster Administrator interface with the Workflow tab selected. The left pane displays a tree view for the 1040EZ application, with the Recognize task selected. The right pane shows the task definition table:

Task	Values
ID	Recognize
Description	Recognize/Validate w/Ru...
Module	RuleRunner
Task Monitor	Normal
Queue to	Same station same user
Store	Nothing
	Setup...

An arrow points from the text "Queue to values" to the "Queue to" field value "Same station same user".

Taskmaster Administrator – Workflow tab

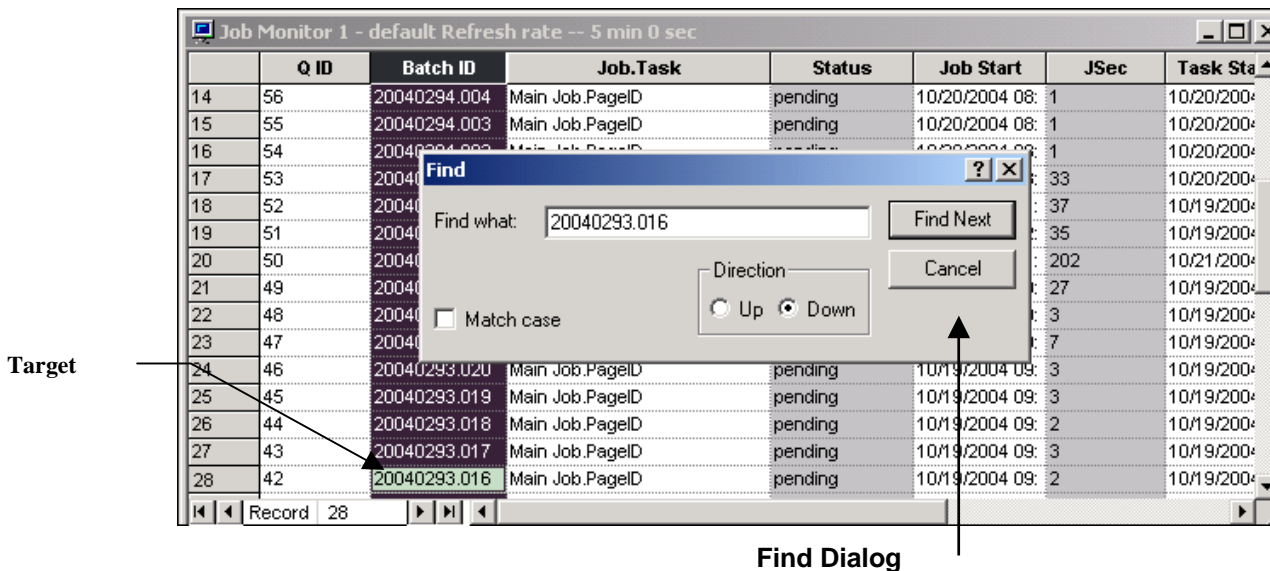
In the *Workflow* tab of the **Taskmaster Administrator** - the **Queue to** and **Store** fields are drop-down lists that display their values when you click once on the field. The table on the next page lists and explains these options.

Store... →	Queue... ←	Explanation
<i>“None” or “Station ID and User ID”</i>	<i>“None”</i>	The <i>None</i> value allows any operator and Station ID to process batches in the task’s queue – and thus overrides the Station ID and User value assigned to an earlier task’s Store property.
<i>“Station ID” or “Station ID and User ID”</i>	<i>“by Station”</i>	The task can process only those batches previously processed from the same workstation ID.
<i>“UserID” or “Station ID and User ID”</i>	<i>“by User”</i>	The task can process only those batches previously processed by the same operator.
<i>“Station ID” or “Station ID and User ID”</i>	<i>“by Other Station”</i>	The task can process only those batches previously processed from a different workstation ID.
<i>“Station ID and User ID”</i>	<i>“by Station and User”</i>	The task can process only those batches previously processed by the same operator, from the same workstation ID.
<i>“Station ID and User ID”</i>	<i>“by Station and other User”</i>	The task can process only those batches previously processed by a different operator, from the same workstation ID.
<i>“Station ID and User ID”</i>	<i>“by User and Other Station ”</i>	The task can process only those batches previously processed by the same operator, from a different workstation ID.
<i>“Station ID and User ID”</i>	<i>“by other Station and other User ID”</i>	The task can process only those batches previously processed by a different operator, from a different workstation ID.

Finding Records

The *Job Monitor's Find* dialog is helpful but limited: you can find a single Batch Transaction Record almost instantly by entering a parameter from one column of the Batch Information Table, and by using the **Find** items in the **View** menu.

In the simplified example below, a *Datacap HCcs Administrator* is looking for the sub-batch that the AutoRouter task broke off from Batch 2000119.003 and sent to the QExport child job.



To conduct the search, you begin by selecting a Starting point—either an individual **field** in a Batch Transaction Record, or an entire **column** - then select **Find** from the **View** menu. (To highlight a column, click on the column's Title field. The *Find* procedure looks for a match in this column only.) In the example, the procedure uses a **Batch ID** value to find the record in Row 28.

The fields and functions of the *Find* dialog include:

Field/Function	Description
Find What	A value that serves as a search parameter. To be effective, the value <i>must</i> include at least a portion of the value in a target field of the column.
Match Case	A check box which, if activated, directs <i>Taskmaster</i> to include Upper Case and Lower Case letters as selection criteria.

Find Dialog (continued)

Field/Function	Description
Direction	Options indicating if <i>Taskmaster</i> is to look for a match in the fields above <i>or</i> below the Starting Point. This is a required specification: you <i>must</i> make a choice.
Find Next button	Initiates the search for the next incidence of the value you've entered in the Find What field.
Cancel button	Closes the <i>Find</i> dialog without initiating a search.

To Search for a Batch Transaction Record

To search for a record in the Batch Transformation Table, take these steps.

Step	Action
1.	Place your cursor in a field of the column you intend to search. This is your Starting Point. (To search the entire column, click on the column's Title field to highlight all fields in the column.)
2.	Select Find from the View menu to access the <i>Find</i> dialog.
3.	Enter a search parameter in the Find What field.
4.	To be sure <i>Taskmaster</i> matches Upper Case and Lower Case characters as part of the search, select the Match Case option.
5.	Indicate if the Direction of the search is to be <i>Up</i> or <i>Down</i> from the Starting Point.
6.	Press the Find Next button.
✓	To conduct a second search from this point, with exactly the same parameters, select Find Again from the View menu.

Table Navigation

After you select a Starting Point - a single field in a column or the entire column - you can use the Navigation items of the **Record** menu to move about the Batch Information Table:

- **First Record** takes you to Row 1 of the Batch Information Table.
- **Previous Record** moves you up one row.
- **Next Record** moves you down one row.
- **Last Record** takes you to the table's final record.

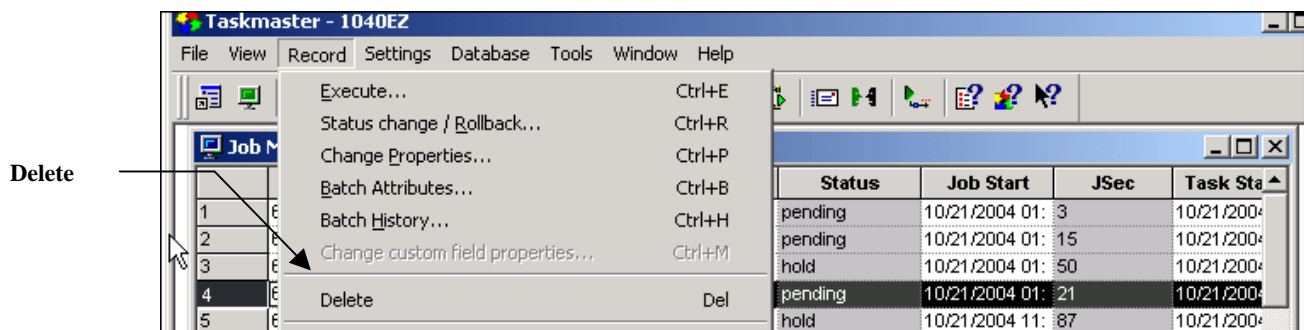
Deleting a Batch

Taskmaster's AutoDelete utility regularly and accurately removes batches and their files from an application's **Batches** directory, and the associated Batch Transaction Records from the *Job Monitor's* Batch Information Table. (

For the most part, these batches have completed the workflow: the data in their documents has been verified, validated and exported. According to instructions you provide, *AutoDelete* can automatically remove other batches as well...those with an *Aborted* status and no recent activity, for example.

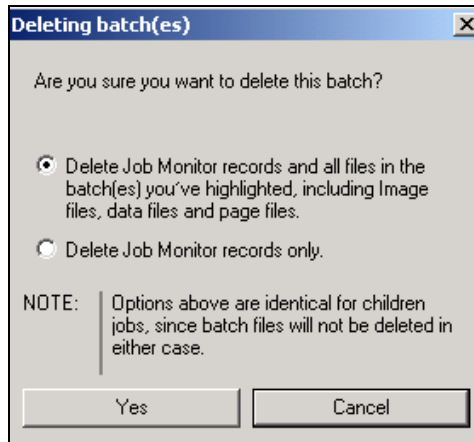
You can also use the *Job Monitor* to delete a batch and its contents from the application's **Batch Directory**. This extreme step can be helpful when you are installing and testing your **Datacap** system or setting up an application. Once an application is up and running, however, using the *Job Monitor* to delete a batch can be disruptive.

- ✓ **Warning!** We strongly recommend that you do *not* use the *Job Monitor* to delete batches after an application has completed its testing cycle and is firmly in place. Chapter 7 of the *Taskmaster Administrator's Guide* explains all aspects of the *AutoDelete* utility.



Taskmaster Window – Job Monitor Deletions

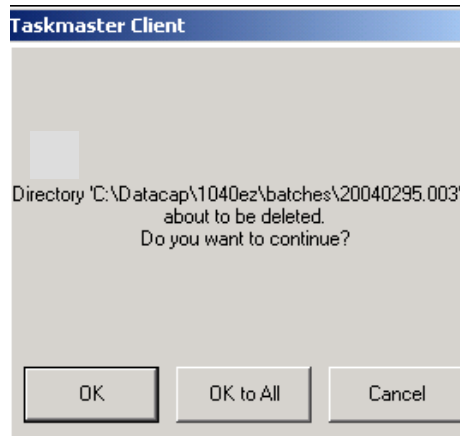
The “deletion” of a batch from the *Job Monitor* occurs when you select **Delete** from the **Record** menu. However, there are two possible results – *Taskmaster's* action depends on your response to one of the two options in the *Deleting Batch(es)* dialog, depicted on the next page.



Deleting Batch(es) Dialog

If you click on the first option and press the Yes button, *Taskmaster* will deliver the message below.

If you then respond to this inquiry by clicking on the *Message Pad's* OK button, *all files* associated with the batch will be removed from the **Batch Directory**. This measure also deletes any trace of batch statistics from the application's Engine database.



Message Pad – Batch Deletions

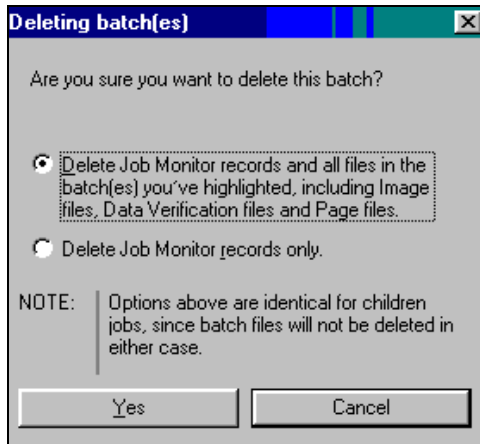
On the other hand, if you select the lower option, *Taskmaster* will simply remove the listing from the *Job Monitor's* Batch Information Table, leaving the batch folder intact.

- ✓ **Important!** *Taskmaster* will not remove the files and statistics of a batch waiting for processing by a child job such as FixUp job. You can, however, removes the batch listing from the Batch Information Table.

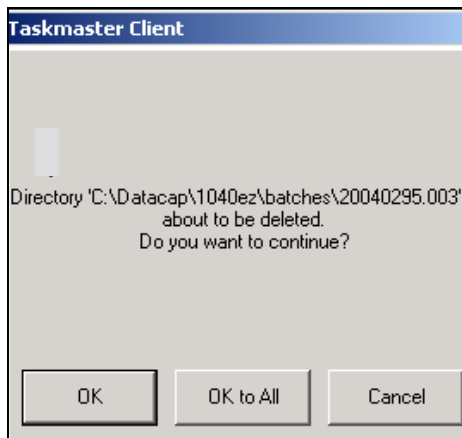
Deleting a Batch

To use the *Job Monitor* to delete a complete batch, or a batch listing, take these steps:

- | Step | Action |
|------|--|
| 1. | Highlight the target batch(es) in the <i>Job Monitor's</i> Batch Information Table. |
| 2. | Select Delete from the Record menu: the <i>Deleting Batch(es)</i> dialog will appear on your screen. |



- To remove the listing(s) from the Batch Information Table **only**, select the lower *Delete Job Monitor Records Only* option and press the Yes button. **Alert!** This is an irreversible step; you receive no further warning.
- To confirm the removal of the listing, click on the toolbar's **Refresh** icon; *Taskmaster* will immediately update the Batch Information Table.
- To completely delete a batch and all its files, select the batch and the *Delete Job Monitor Records and Files* option. Click on the Yes button.
- When the *Message Pad* asks if "you want to continue," click on the OK button.



Adding Custom Columns to the Job Monitor

Information from the **Queue** table of your application’s Engine database combines with information from the **TMBatch** table to form a row in the *Job Monitor’s* Batch Information Table.

In *Taskmaster*, you can add a column to the Batch Information Table and, consequently, a field to each row. You can add one column or many – *as long as* you first add a corresponding source column to the **TMBatch** table of the Engine database.

In the illustration below, the Administrator of the *Survey* training application has added a **Supervisor** column to the Batch Information Table. (This example uses the **View** menu’s **Freeze Columns** option to move the new column and its values close to key identifying columns such as **Queue ID** and **Batch ID**.)

	Q ID	Batch ID	Job.Task	Status	Docs	Images	Supervisor
1	14	20050032.004	Survey Main.RuleRunner	pending	0	6	Sup1
2	13	20050032.003	Survey Main.Verify	pending	3	6	Sup1
3	12	20050032.002	Survey Main.RuleRunner	pending	0	6	Sup2
4	11	20050032.001	Survey Main.Verify	pending	3	6	Sup3

Job Monitor - with Custom Column (“Supervisor”)

The fields in the column are *interactive*: an operator, Supervisor or Administrator with the appropriate credentials (Page 4) can enter data directly into a field. These fields can also display a default value you assign when you define the custom column.

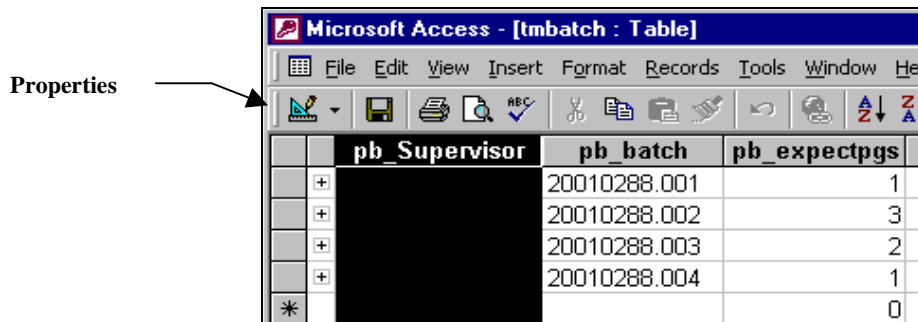
- ✓ As a first step, *be sure* to close your *Taskmaster* application.

Then, using your Microsoft Access or SQL Server interface, open the **TMBatch** table of your application’s Engine database.

You can then follow up with the steps outlined on the next page.

To Define a Custom Column for the Job Monitor

- | Step | Action |
|------|--------|
|------|--------|
1. Use the applicable Access or SQL Server procedure to insert a new column in the TMBatch table. (The examples below depict an Access database.)
 2. Rename the column using a “pb_” prefix. (Later, the *Job Monitor* will drop the prefix from the column’s title.)



3. For an Access database, click on the **Design** icon to retrieve the table’s properties. Confirm these settings: *Data Type = Text; Required = No; Allow Zero Length = Yes.*
4. Save the table.
5. For a SQL Server database:

Confirm that the column’s *Data Type* is *varchar* and select *Allow Nulls*.

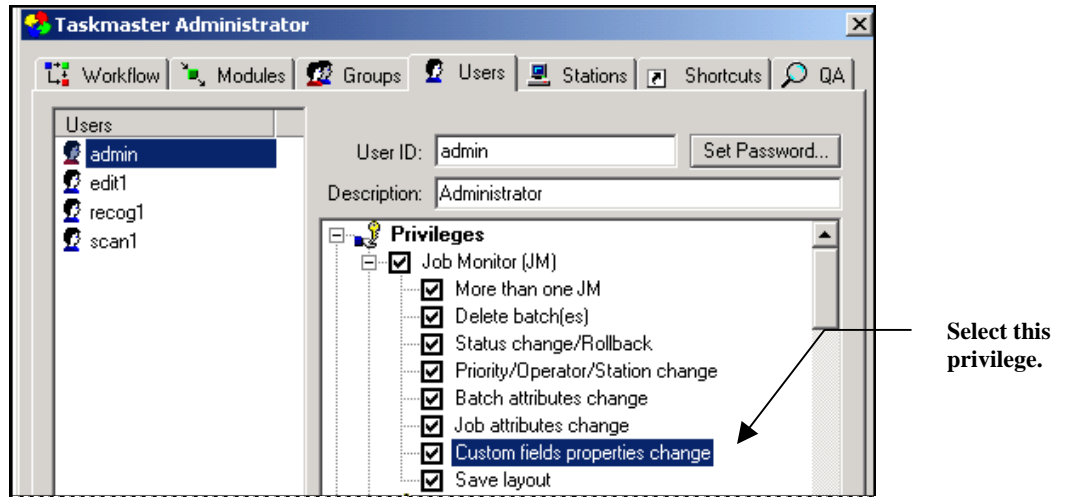
In the *Enterprise Manager*, highlight *JMView* in the **View** section of your database. Right-click and select the **Design View** option to access the *Design* window. Run the view by clicking on the ! icon. Click on the **Save** icon, then exit the window by clicking on the **Close** icon.

Next, highlight *JobMonitor* in the **View** section of your database. Right-click and select the **Design View** option to access the *Design* window. Run the view by clicking on the ! icon. Click on the **Save** icon, then exit the window by clicking on the **Close** icon.

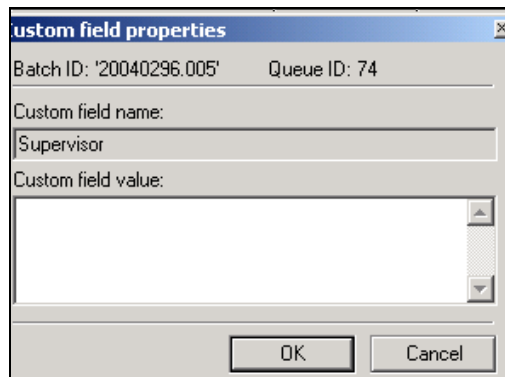
6. Check the TMBatch table to be sure the new column is in place.
7. Open your *Taskmaster* application.
8. Select **Users** from the **Settings** menu to access the *Users* tab of the *Taskmaster Administrator*. Confirm that those who will be using the *Job Monitor* have the appropriate security **Privileges** (Chapter 6).

To Add a Column to the Job Monitor (continued)

- | Step | Action |
|------|--|
| 9. | Be sure that the User Definitions of individuals who can enter or modify data in the fields of the new column include the Custom Field's Properties Change privilege (shown below). |



- Click on the Apply and Done buttons at the bottom of the *Taskmaster Administrator*.
- Run your application in Test Mode to create a sample batch, and a new listing in the *Job Monitor*.
- Confirm that the Batch Information Table includes the custom column *and* that the new listing displays a default value, if applicable.
- To enter a value, double-click on the field to retrieve the *Custom Field Properties* dialog. **Remember:** Only a previously authorized user can access this dialog.



To Add a Column to the Job Monitor (continued)

Step	Action
14.	Check the dialog's identifying data, then enter a Custom Field Value that conforms to the requirements of the Column Definition.
15.	Press the OK button to close the <i>Custom Field Properties</i> dialog.
16.	Click on the <i>Job Monitor</i> 's Refresh icon to update the field with the value you've entered.

✓ **Additional considerations:**

If you are working with a SQL Server database, you must **re-save** two views in the Engine database - **JMView** and **JobMonitor** – after you have added a custom field to the **TMBatch** table:

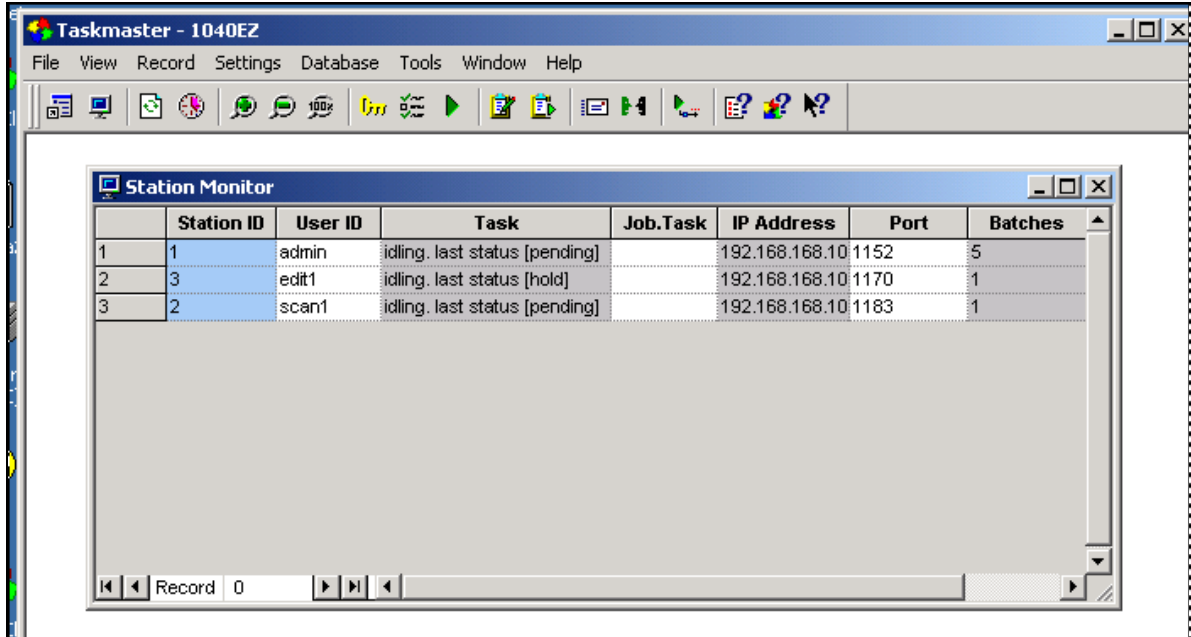
- 1.) Open the view in SQL Server's *Design* mode.
- 2.) Click on the **Save** icon.

Within your **Datacap** directory, the **Reports** folder of the **tm2000** sub-directory contains an Access database (**base.mdb**) used to generate certain reports (Page 57). When you add a custom column to the **TMBatch** table of Engine database, be sure to add the same column to the **JobMonitor** table of the **base.mdb**.

- ✦ *Taskmaster* places few limits on the role of a custom field. Both SQL Server and Access offer a number of basic techniques you can use to refine the definition of a custom column, and the display and validation of its data.

Station Monitor

Taskmaster's Station Monitor provides Administrators and Supervisors with information about workstations with Taskmaster Clients that are currently connected to an application's Taskmaster Server.



Taskmaster Window—with Station Monitor

Like the *Job Monitor*, a table forms the core of the *Station Monitor*. In this case, however, the table's scope is more limited. The fields in a record of the Station Information Table include:

Field	Description
Station ID	A unique code which identifies the workstation. An Administrator assigns this <i>required</i> code when authorizing the workstation to process the application's batches.
User ID	A unique code identifying the individual who has signed on to this <i>Taskmaster</i> application - from this workstation. Like the Station ID (above), the Administrator assigns the <i>required</i> User ID as part of the application's Security Program (Chapter 6).
Task	The processing status of the workstation.

Station Information Table (continued)

Field	Description
Job.Task	The Job/Task Combination that the station is <i>actively</i> processing. For an explanation of Job/Task Combination.
IP Address	A network protocol “address” designating the station’s connection to Taskmaster Server.
Port	The “local” port on the workstation which maintains the connection to the server.
Batches	The number of batches that this workstation has processed since the user signed on.

Menus and Toolbar Icons

The *Station Monitor* and *Job Monitor* share menus and toolbar icons. For a description of each menu item, see Page 12. For explanations of the toolbar icons, see Page 19.

However, if you look closely at the *Taskmaster Window*’s toolbar configuration on the previous page, you’ll see three unique icons. As defaults, the *Station Monitor* includes the magnification icons:

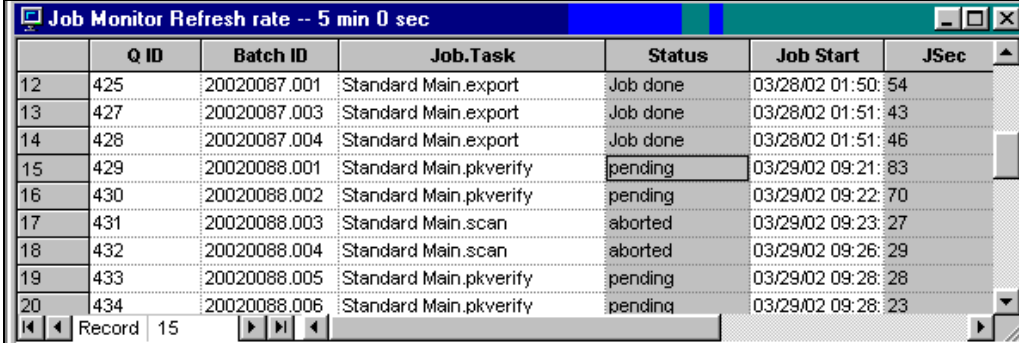


The icons raise or lower the magnification of data in the Station Information Table, or display it at 100% of the default type size.

In addition, the default structure of the *Station Monitor* toolbar configuration includes many of the administrative icons from the **File** category. For explanations of each icon and of the steps you can take to modify this configuration, see Chapter 3.

Formatting Tables

The default format of the *Job Monitor's* Batch Information Table looks something like this.

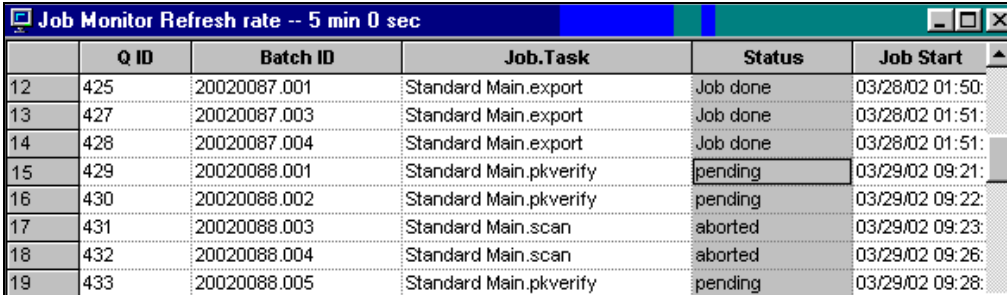


	Q ID	Batch ID	Job.Task	Status	Job Start	JSec
12	425	20020087.001	Standard Main.export	Job done	03/28/02 01:50	54
13	427	20020087.003	Standard Main.export	Job done	03/28/02 01:51	43
14	428	20020087.004	Standard Main.export	Job done	03/28/02 01:51	46
15	429	20020088.001	Standard Main.pkverify	pending	03/29/02 09:21	83
16	430	20020088.002	Standard Main.pkverify	pending	03/29/02 09:22	70
17	431	20020088.003	Standard Main.scan	aborted	03/29/02 09:23	27
18	432	20020088.004	Standard Main.scan	aborted	03/29/02 09:26	29
19	433	20020088.005	Standard Main.pkverify	pending	03/29/02 09:28	28
20	434	20020088.006	Standard Main.pkverify	pending	03/29/02 09:28	23

Batch Information Table

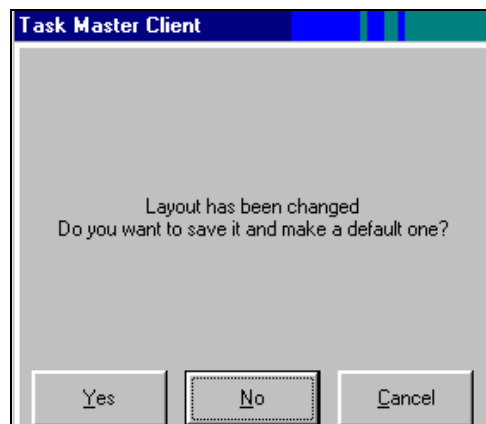
But anyone who is authorized to access the table can change the format, easily and repeatedly. In the example below, the Supervisor expanded certain key columns for a clearer view of their information.

- ✓ To change a column's width, use your mouse to drag the column's right edge one way or the other.



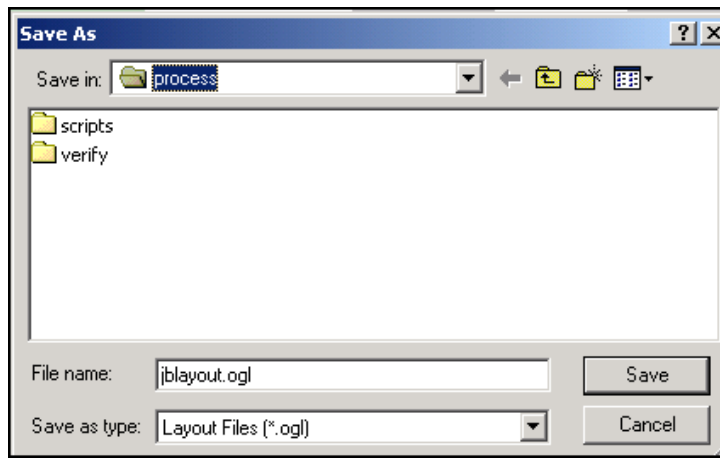
	Q ID	Batch ID	Job.Task	Status	Job Start
12	425	20020087.001	Standard Main.export	Job done	03/28/02 01:50:
13	427	20020087.003	Standard Main.export	Job done	03/28/02 01:51:
14	428	20020087.004	Standard Main.export	Job done	03/28/02 01:51:
15	429	20020088.001	Standard Main.pkverify	pending	03/29/02 09:21:
16	430	20020088.002	Standard Main.pkverify	pending	03/29/02 09:22:
17	431	20020088.003	Standard Main.scan	aborted	03/29/02 09:23:
18	432	20020088.004	Standard Main.scan	aborted	03/29/02 09:26:
19	433	20020088.005	Standard Main.pkverify	pending	03/29/02 09:28:

However, when the Supervisor closed the *Job Monitor*, this message appeared:



Menus and Toolbar Icons

She approved of the new format, so she clicked on the *Message Pad's* Yes button: this retrieved a *Save as* dialog linked directly to our application's **Process** directory:



Save as...

Taskmaster stores the Batch Information Table's *default* formatting parameters in the **jblayout.ogl** file. To retain your new parameters:

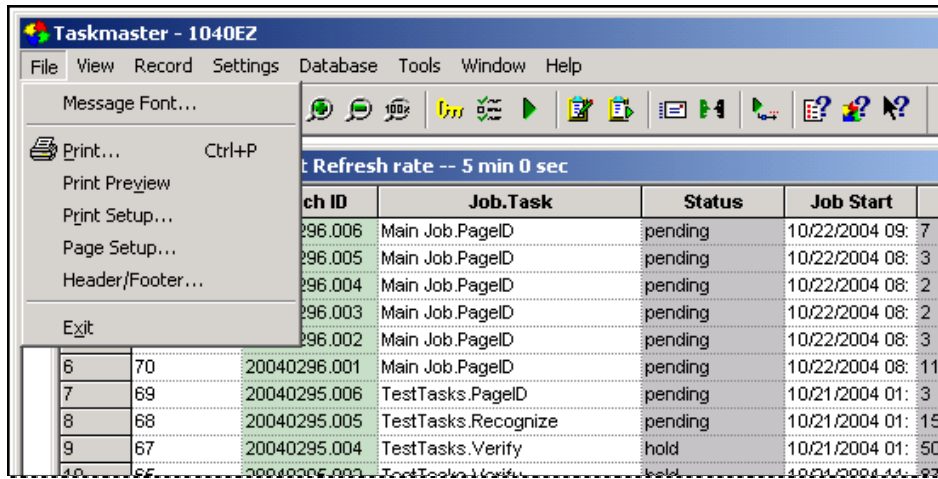
- Save the settings in a different **.ogl** file.
- Click on the Save button.

When you return to the *Job Monitor*, the new format will take over automatically.

Reports

When the *Job Monitor* or *Station Monitor* is the active component of the *Taskmaster Window*, the **File** menu includes five items to help you format and generate reports. These reports extract, format and print the data in the Batch Information Table or the Station Information Table.

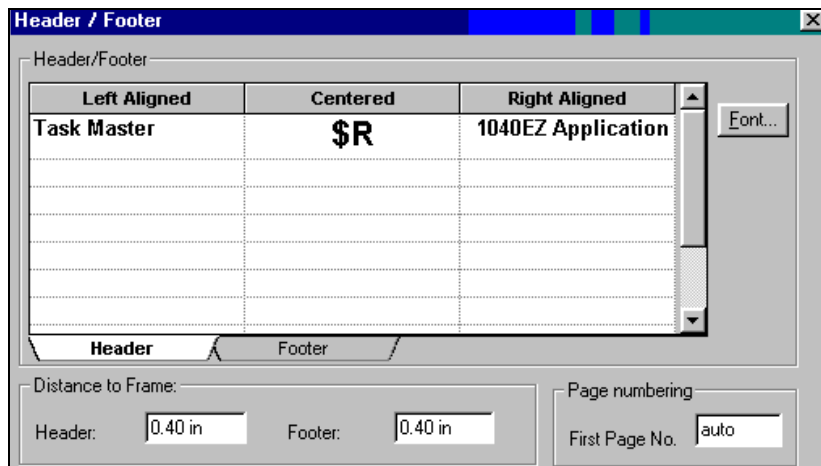
- These menu items access standard Windows dialogs. The paragraphs below introduce the role of each dialog in report generation, but do not examine the details of their fields and functions.



**Taskmaster Window - File Menu
Active Job Monitor**

Header/Footer

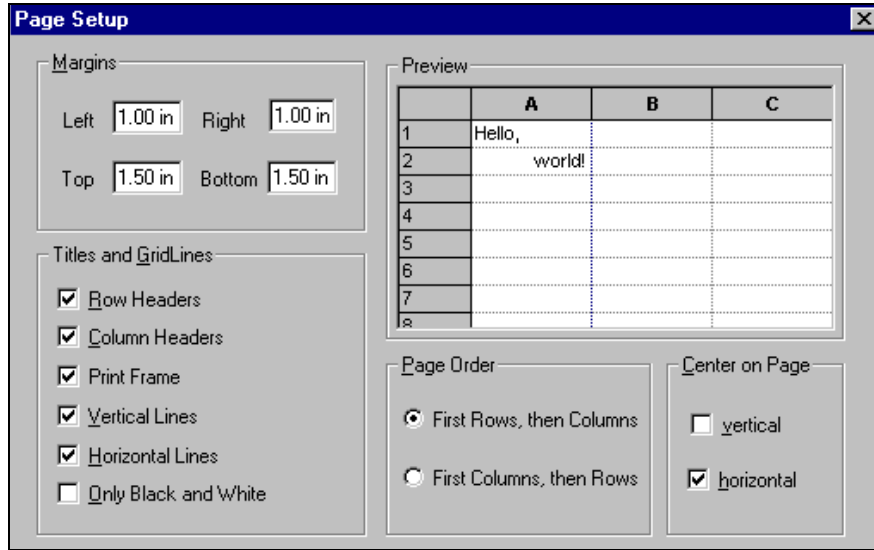
Going first to the last item in the list, the *Header/Footer* dialog gives you a chance to customize the background data that is to appear at the top of each page in the report (*Header* tab) or at the bottom (*Footer* tab).



Header/Footer Dialog

Page Setup

The settings of this dialog determine how the report will print the table's information:



Page Setup Dialog

The **Page Setup** dialog has five areas:

Margins. These measurements specify distances from the edges of the page to the edges of the report's *table*. In the example above, the row with column titles (*Row Headers*) will begin 1.0" from the left side of the page, and 1.5" from the top of the page.

Title and Gridlines. The settings in this area determine the appearance of the table...whether or not, for the example, the report will print the grid's *Vertical Line*, *Horizontal Line* or both. When you select or de-select most options in this list, the **Preview** area displays the change.

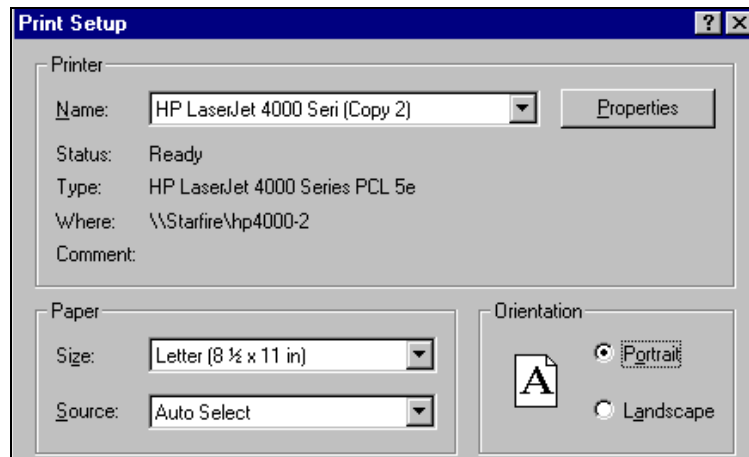
Page Order. Even in *Landscape* layout (see the **Print Setup** dialog on the next page), a report with a full Batch Information Table cannot squeeze all columns onto a single, printed page. A **required** selection in this area decides if a report is to first print data from an initial set of *columns* and all rows on sequential pages, followed by a second set of columns and all rows, etc. This is the *First Rows, then Columns* option. Alternatively, you can direct *Taskmaster* to generate a report showing an initial set of *rows* and all columns on sequential pages, followed by the next set of rows and all columns, etc. This is the *First Columns, then Rows* option.

Center on Page. These settings allow you to place the table in the middle of the printed page. At your direction, *Taskmaster* will find a midpoint from top to bottom (*Vertical*), side to side (*Horizontal*), or both. (To see different results, use the **Print Preview** menu item).

Preview. Displays the probable appearance of a report's table in response to settings you select from the other areas.

Print Setup

This dialog sets up the printing mechanism by specifying a printer (really, a printer *driver*), and the type and location of the report's paper. The Properties button leads to another dialog: the structure and contents of this dialog change according to your selection of a printer driver.



Print Setup Dialog

Each edition of the *Print Setup* dialog asks you to make an important decision: you *must* specify whether the report is to be printed in *Portrait* layout (see the next page) or *Landscape*.

Print Preview

This easy-to-use tool shows you how a report will look when you actually print it. In the example below, the Administrator has selected a *Portrait* layout, and has centered the Batch Information Table *horizontally* on the page. In addition, to save a little space, the Administrator did *not* select the *Row Headers* option in the **Titles & Gridlines** area of the *Page Setup* dialog.

Print

This item (or the Ctrl + P keyboard combination) leads you right to the Windows *Print* dialog. Like the *Print Setup* dialog, the structure and content of this dialog depend on your selection of a printer driver from the **Name** drop-down list.

Pressing the OK button of the *Print Setup* dialog prints the report you've probably previewed in the *Print Preview* dialog.

Job Monitor Manager

You can establish and use multiple *Job Monitors* – each with a Batch Information Table that is filtered to display a unique set of data.

For example, if certain stations are exclusively responsible for specific Job/Task Combinations, you might construct a distinct *Job Monitor* for each. You can then filter a monitor so it shows only listings for that station.

Or, if your application features two, very different Workflow Hierarchies (Chapter 6), you could install two *Job Monitors* – one to list batches being processed by the jobs and tasks of Workflow A, the other for the batch listings of Workflow B.

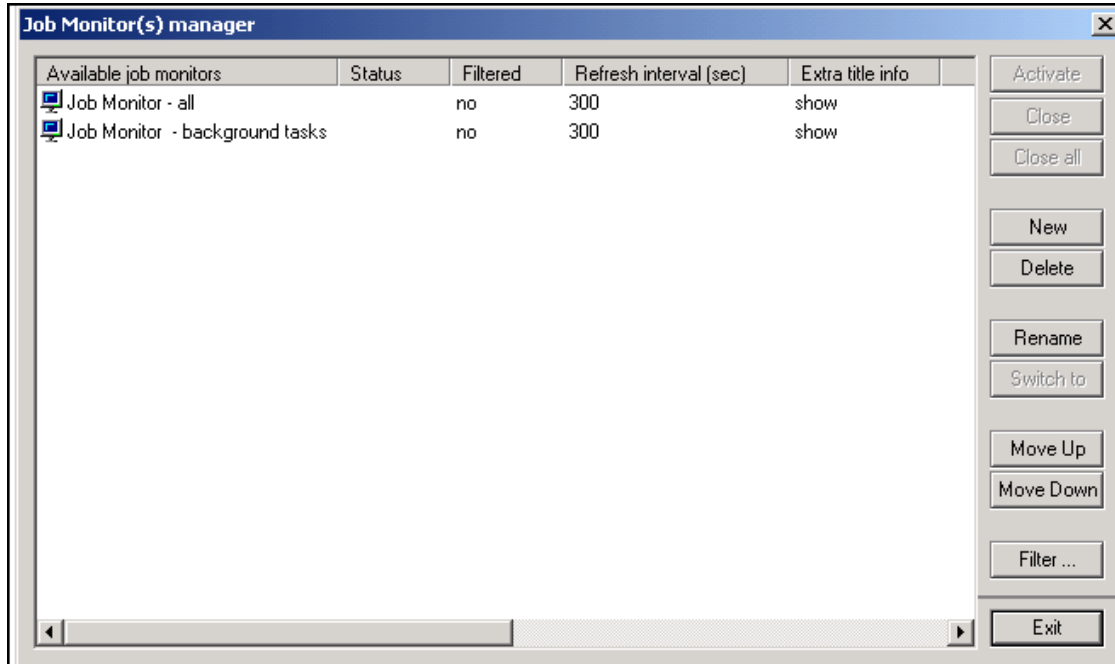
- Although you can use the **New Job Monitor** and **Filter** dialog icons on the *Taskmaster Window* toolbar to construct multiple *Job Monitors*, we *strongly recommend* that you rely on the *Job Monitor Manager* instead. The *Job Monitor Manager* provides tools you can use repeatedly to:

- Assemble multiple *Job Monitors*.
- Provide each with a unique identity.
- Provide each with a unique filter.
- Determine the order in which individual *Job Monitors* will appear in the Data Area of your *Taskmaster Window*.
- Delete *Job Monitors* that you no longer need.

Important! Contents of a *Batch Selection* dialog are *not* determined by the filtering parameters of a *Job Monitor*. Instead, this dialog relies on the selection properties of a Job-Task shortcut (Chapter 4) for its content.

Elements of the Job Monitor Manager

- ✓ To access the *Job Monitor Manager*, select **Job Monitor Manager** from the **View** menu.



Job Monitor Manager

The *Job Monitor Manager's* Job Monitor Table contains the following information:

- **Available Job Monitors** is a list of the *Job Monitors* you have defined - but have not deleted. The table displays the names you have assigned, and is ranked sequentially, according to the order in which you set them up. **Important!** The *Job Monitor* at the top of the list is the default monitor. However, you can use the Rename button to provide it with a new title, and you can use the Move Up and Move Down buttons to revise the order and select a new default.
- **Status** indicates the current status of a *Job Monitor* – and is either <blank> or *Active*.
- **Filtered** specifies *yes* if the highlighted *Job Monitor* has been filtered (Page 23) or *no* if it has not.
- **Refresh Interval (sec)** indicates the number of seconds between automatic updates of a highlighted *Job Monitor's* Batch Information Table. **Alert!** To change this value, click once just to the right of the current value and enter a new value.
- **Extra Title Information** uses the *show* or *hide* value you assign to determine whether the highlighted *Job Monitor* will display the *Refresh Interval* in its Title

Bar. To change this value, click once just to the right of the current value and enter a new value.

The *Job Monitor Manager* features these buttons:

Activate. Places the *Job Monitor* you select from the table into the Data Area of the *Taskmaster Window* - and gives it an *Active* status.

Close. Closes an active *Job Monitor* after you highlight its title in the Job Monitor Table.

Close All. Closes all active *Job Monitors*.

New. Creates a new *Job Monitor* but does *not* place it in the Data Area of the *Taskmaster Window* until you highlight its title and click on the Activate button.

Delete. Deletes the *Job Monitor* you've highlighted in the Job Monitor Table. **Important!** Deleting a *Job Monitor* does *not* delete its batch listings.

Rename. Isolates the value in the **Available Job Monitors** column of a highlighted *Job Monitor* so you can give the monitor a new name. **Important!** When you construct multiple *Job Monitors*, clear but distinguishing names are essential.

Switch to. Brings the *Job Monitor* you select from the Job Monitor Table into the foreground of the *Taskmaster Window's* Data Area.

Move Up. Moves a highlighted *Job Monitor* one row higher in the Job Monitor Table. **Important!** *Job Monitors* open the *Taskmaster Window's* Data Area in the order in which they appear in the rows of the Job Monitor Table. The monitor which occupies the top row appears first when you click on the toolbar's **Job Monitor** icon.

Move Down. Moves a highlighted *Job Monitor* one row down in the Job Monitor Table.

Filter. Opens the *Job Monitor Filter* dialog (Page 23). You can use this dialog to set up a filter for the monitor you've highlighted in the Job Monitor Table.

Exit. Closes the *Job Monitor Manager*.

- ✓ The *Job Monitor Manager* is a powerful tool if you can benefit from more than one *Job Monitor*. Take time to practice setting up additional monitors and installing filters for each.