
Report Viewer

Report Viewer is a *Taskmaster* utility you can use to assemble, review and print statistics detailing the activity of a particular task - a task such as Scan, Recognition, Verification and Export – or the history of a batch as it moves through the workflow.

Chapter 6 introduces you to the nature and structure of *Report Viewer*. The chapter then guides you through the steps you'll take to plan and generate reports covering every aspect of your *Taskmaster* application.

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- ✓ *Report Viewer* generates standard reports for each task, and additional reports containing batch statistics. The section that begins on Page 58 provides explanations of each report.

Introduction

Report Viewer retrieves, organizes and displays an application's task and batch statistics.

Date	Time	Operator	Station	Job ID	Task ID	Batch ID	Status	Docs	Pages
5/4/2005	8:25:54AM	scan1	2	Main Job	Vscan	20050124.001	finished	0	3
5/4/2005	8:25:59AM	scan1	2	Main Job	Vscan	20050124.002	finished	0	3
5/4/2005	8:26:02AM	scan1	2	Main Job	Vscan	20050124.003	finished	0	3
5/4/2005	8:26:04AM	scan1	2	Main Job	Vscan	20050124.004	finished	0	3
5/4/2005	8:26:07AM	scan1	2	Main Job	Vscan	20050124.005	finished	0	3
5/4/2005	8:26:10AM	scan1	2	Main Job	Vscan	20050124.006	finished	0	3
5/4/2005	8:26:12AM	scan1	2	Main Job	Vscan	20050124.007	finished	0	3
5/4/2005	8:26:15AM	scan1	2	Main Job	Vscan	20050124.008	finished	0	3
5/4/2005	8:26:17AM	scan1	2	Main Job	Vscan	20050124.009	finished	0	3
5/4/2005	8:26:20AM	scan1	2	Main Job	Vscan	20050124.010	finished	0	3
Operator Summary:		scan1	05/04/2005			10		0	30

Report Viewer – Sample vScan Task Report

These statistics track the performance of a workflow's jobs and tasks as they assemble and process the contents of a batch – moving the batch from one task to the next until the data on every page has been read and recognized, verified and exported.

Report Viewer can present results on a terminal's screen or on paper, or save the results to a file such as an Adobe PDF file. Coverage can be complete, or "filtered" according to parameters you provide. You can call upon *Report Viewer* for spur-of-the-moment details, or for a stream of information generated according to a schedule you define.

Report Viewer's standard output comes in three forms:

Job/Task Detail. These are diaries of task activity during a specified period. A *Scan Report*, for example, identifies every batch created by all Job/Task combinations responsible for scanning paper forms. A *Verify Report* details Verification results for all batches processed during a period you specify, by individual Data Entry operators. *FixUp Reports* list results of FixUp activities for each FixUp operator. *Background Reports* detail the activity of tasks operating in the processing background – Recognition and Export tasks, for example.

Task Summaries. These reports consolidate a task's statistics for a particular period. A *Verify Summary*, for example, identifies each workstation and operator with Verification activity during the period; compiles batch, document and page totals for the

station and operator; and generates totals for each type of “problem” field encountered by the station. In contrast, a *FixUp Summary* might assemble totals according to operator rather than station.

Batch Information. There are three reports in this category. The *Workflow Audit Report* lists certain processing **events** affecting each batch that enters the workflow during a specified period. The *Batch Aging Report* locates each batch within the workflow, and tells you how long it has been there. The *Batch Productivity Report* lists results for batches that have been **completely** processed by a **parent** job or a **child** job.

In addition, you can use these standard reports as templates for custom reports that you design and add to your inventory.

Chapter 6 reviews the content of the standard reports (Page 58) and shows you how to modify a report's format to meet your needs (Page 52). The chapter begins, however, with a discussion of *Report Viewer's* structure and its relationship to *Taskmaster*; an investigation of the **Report Viewer Window** and its components; and a look at the steps you'll take to set up *Report Viewer* as part of your application.

- ✓ For descriptions of *Report Viewer's* standard reports, see Page 58. For explanations of terms and titles you'll encounter in the reports, see the special *Reports Glossary* on Page 66. If you need an immediate answer to a question, click on the Help button in the **Report Viewer Window**.

Report Viewer's Structure

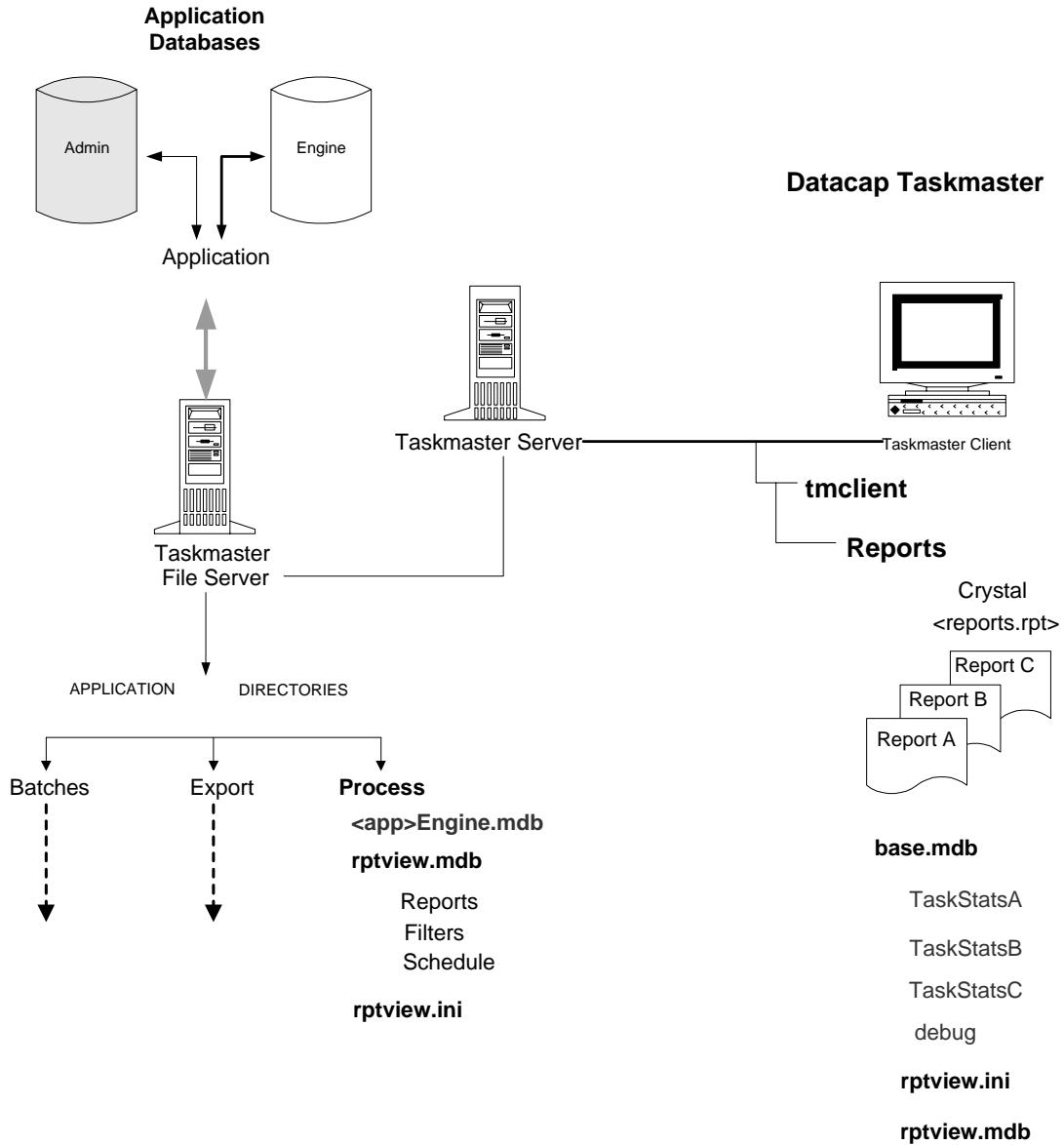
Report Viewer is an independent *Taskmaster* utility. The **Datacap Taskmaster Client** Installation process **automatically** includes *Report Viewer* components for foundation and sample applications. For applications you create, *Report Viewer* can operate only after you link it to your application and its **Engine** database (Page 13).

To get a sense of the way in which *Report Viewer* interacts with the other elements of your application, study the diagram on the next page. Look first at the representation of your **Datacap Taskmaster** configuration's Taskmaster Client on the right-hand side, and at two folders in the File Server's **Datacap** directory:

The **tmclient** folder contains the code a client **must** have if it is to run *Report Viewer* (**rptview.exe**).

The **tmclient** folder has a **Reports** sub-directory with over twenty files. One is an Access database: **base.mdb**. As *Report Viewer* prepares to generate reports, it copies data from your application's Engine database into corresponding tables of **base.mdb**, then uses this database for its reports. The other files in the **Reports** sub-directory are Crystal Reports templates (.rpt). *Report Viewer* uses these templates to organize, display and print its output. The **Reports** sub-directory has a separate **.rpt** template for each standard report.

Taskmaster Application



The left half of the chart deals with your application. At the top, the application’s Engine database supplies most (but not all!) of the data *Report Viewer* needs to generate a report. As a result, the link between *Report Viewer* and the Engine database is essential.

You’ll specify it first in the **Process** directory’s **rptview.ini** file when you set up *Report Viewer* as part of your application (Page 13). And, again, the **Reports** table of the application’s **rptview.mdb** database connects the application’s Report Definitions with individual templates in the **tmclient** folder. Once you’ve established these links, *Report Viewer* will have no difficulty extracting data from the application and its Engine database, formatting it according to the guidelines of the applicable report template, then displaying or printing the results.

Signing On

The **Filters** table of the **rptview.mdb** database contains the parameters of any filters you define for individual reports (Page 35). The **Schedule** table has details of any report production schedules you establish (Page 54).

- ✓ There is a **rptview.ini** Settings file on both sides of the chart. The file in the **tmclient** directory's **Reports** folder has default *Report Viewer* specifications used by all *Taskmaster* applications – unless values in the application's **rptview.ini** file override those in the overall configuration's file.

Signing On

Report Viewer deals with the data of a single application.

One result is that the **Process** directory of each *pre-configured* application - *1040EZ* or *Taskmaster for Medical Claims*, for example- includes a Settings file (**rptview.ini**) with complete and accurate *Report Viewer* specifications (Page 13) and a similarly up-to-date Reports database (**rptview.mdb**) with information about that application's reports.

Another result: the **Process** directory of *your* application includes both a Settings file and Reports database, and each has default specifications. During setup, you'll modify these default specifications. This will link *Report Viewer* directly to your application and its data.

- ✓ The *New Application Wizard* described in Chapter 4 automatically links *Report Viewer* to the application you set up with the wizard.

In the meantime, why not use the *1040EZ* application's *Report Viewer* to practice some very simple sign-on procedures, and to take a first look at the **Report Viewer Window**.

To sign on to the *1040EZ Report Viewer*, take these steps:

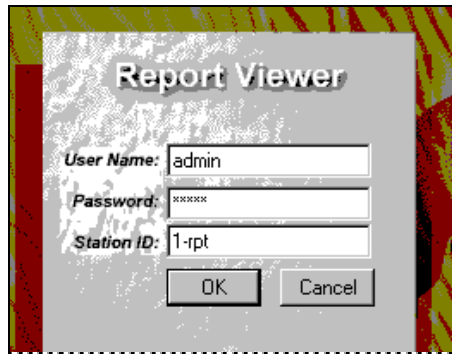
Step	Action
1.	Be sure Taskmaster Server Service is up and running.
2.	Open the Datacap Taskmaster folder on your desktop (or via the Programs options of your Windows Start button), then open the Applications folder.
3.	Open the 1040EZ sub-folder.
4.	Double-click on the Report Viewer icon.



Double-click here.

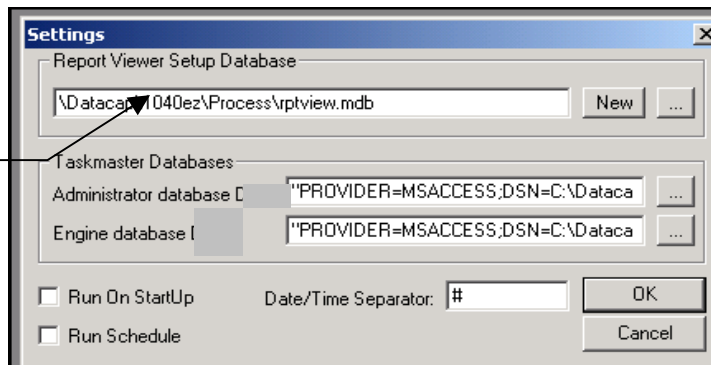
To Access Report Viewer (continued)

- | Step | Action |
|------|---|
| 5. | Enter your Administrator's User ID and Password . <i>Important! Report Viewer uses these Security Codes to determine whether you – and any other user - can access and work with this utility. (Access to Report Viewer is an Administrative Privilege in the Client(s) category: for details, see Chapter 5.)</i> |



- Pay close attention to *Report Viewer's* **Station ID** as well. You can only access *Report Viewer* from an authorized workstation (Chapter 5). Although you *cannot* operate *Report Viewer* from the current station if it is running *Taskmaster* concurrently, you can use a second “virtual” station operating on the same computer. (Chapter 5 also explains virtual workstations.)
- Press the OK button to connect *Report Viewer* to the *1040EZ* databases, in this case.
- When the *Report Viewer Window* appears (illustrated on the next page), select **Settings** from the **View** menu.
- Confirm the application's identity in the **Report Viewer Setup Database** field of the *Settings* dialog. (For more about this dialog, see Page 13).

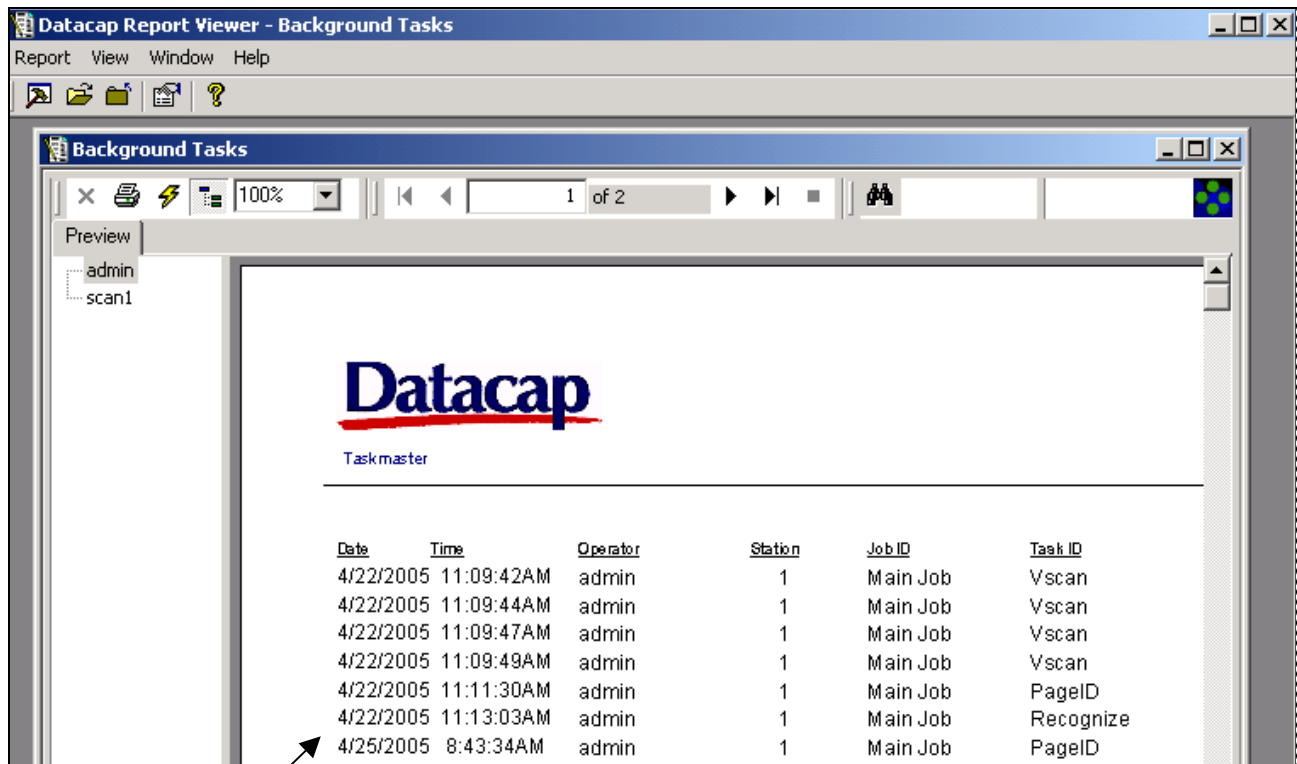
1040EZ!



Report Viewer Window

The *Report Viewer Window* is a workbench with two components.

- The *Report Viewer Window* itself features the menus and toolbars you'll use to define and run your reports.
- The secondary *Preview* window displays a report, its pages and its data for your consideration. This window's navigation tools move you instantly from page to page or value to value; change magnification; and print the report.



Report Viewer Window - with secondary Preview window

Preview Window

- ✓ To prepare to investigate the properties of the *1040EZ Report Viewer*, use the application's **Main Job** to create and run a number of batches. To get started, open the application and double-click on the **Scan** icon. When the VScan task has finished and asks if you would like to continue, press the Yes button. Repeat this sequence until you have ten or fifteen batches.



Features of the Report Viewer Window

The table below describes the menus and toolbar icons of the *Report Viewer Window*. Page 10 explores the secondary *Preview* window.

Feature	Description
Report Menu	Items in the Report menu access the dialog you'll use to define, modify and run reports.
Manager	Accesses the <i>Report Manager</i> dialog (Page 20). You can use the <i>Report Manager</i> to modify or delete existing reports; define new reports; and construct Report Filters.
Open	Accesses the <i>Open Report</i> dialog. This dialog generates reports according to your guidelines.
Close	Closes the report displayed in the Data Area of the <i>Report Viewer Window</i> .
Properties	Accesses the <i>Report Settings</i> dialog for the report displayed in the secondary <i>Preview</i> window. This dialog displays a full set of properties for the active report (Page 21).
Exit	Shuts down <i>Report Viewer</i> .
View Menu	In addition to standard Windows items, this menu connects you to the essential <i>Settings</i> dialog, and to a <i>Schedule</i> dialog which assembles report production schedules (Page 54.)
Toolbar	A toggle switch to display or hide the window's toolbar.
Status Bar	A toggle switch to display or hide the Status Bar at the bottom of the window.
Settings	Retrieves the <i>Settings</i> dialog. The specifications in this dialog link <i>Report Viewer</i> to an application and to its data. <i>Report Viewer cannot</i> successfully generate reports for your application until you have provided this information (Page 13).
Schedule	Retrieves the <i>Schedule</i> dialog. This dialog uses parameters you provide to schedule the generation of one or more reports (Page 55).
Window Menu	These standard Windows options determine how multiple reports are displayed in the Data Area of the <i>Report Viewer Window</i> .
Help Menu	Accesses <i>Report Viewer</i> Help topics.

Report Viewer Window (continued)

Field/Feature	Description
Toolbar (illustrated below)	The icons on the left half of the toolbar duplicate items of the Report and View menus. The icons on the right help you move through a report, or change its magnification.
Manager	Accesses the <i>Report Manager</i> (Page 20).
Open	Accesses the <i>Open Report</i> dialog (Page 28).
Close	Closes the report displayed in the Data Area of the secondary <i>Preview</i> window.
Properties	Accesses the <i>Report Settings</i> dialog for the report displayed in the secondary <i>Preview</i> window (Page 10).
Help	Accesses <i>Report Viewer</i> Help.



Report Viewer Window - Toolbar

Features of the Preview Window

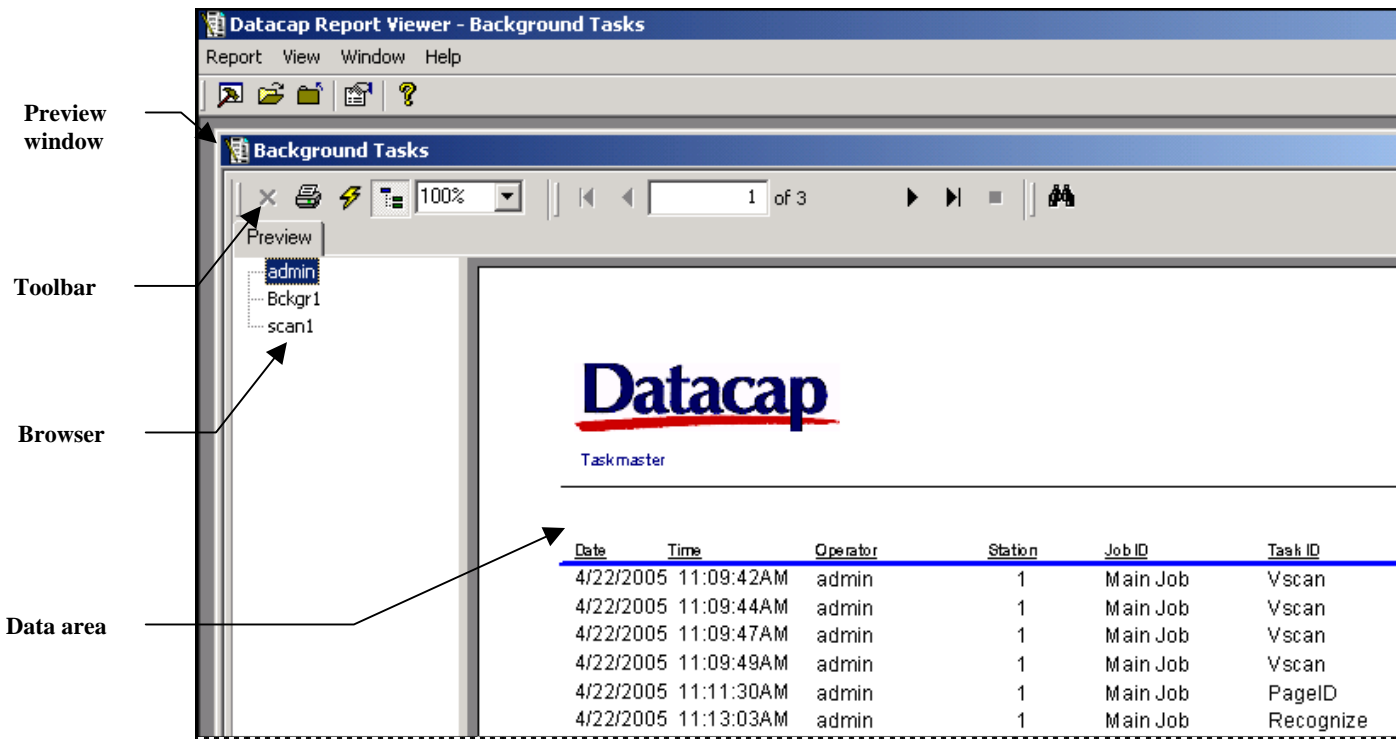
The *Preview* window opens inside the *Report Viewer Window*'s Data Area as soon as you launch a report.

Although the *Preview* window has no menus, it does have a full set of tools. Some appear prominently on the window's toolbar; others are not quite as obvious:

Field/Feature	Description
Title bar	Displays the report's Title (<i>Background Tasks, Scan</i> or <i>Scan Summary</i> , for example.) Alert! If you maximize this window, the Title bar disappears. Instead, you'll find the name of the current report in the Title bar of the <i>Report Viewer Window</i> .
Toolbar	The toolbar has the icons described below.
Close current view	Closes the current window.
Print	Retrieves <i>Report Viewer</i> 's Print dialog (Page 33).
Refresh	Updates the current report with any new data.

Preview window (continued)

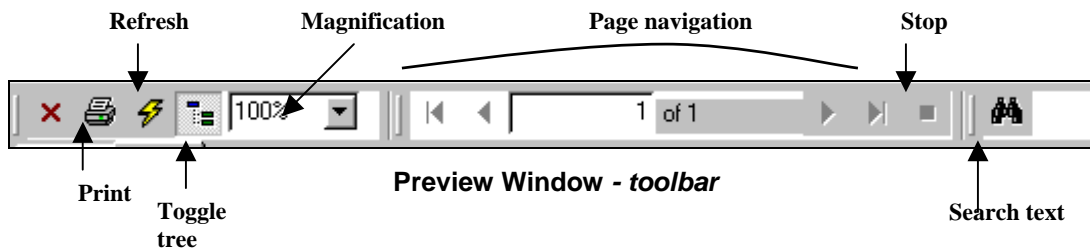
Field/Feature	Description
Toggle Group Tree	Alternately displays and hides the preview section along the window's left-hand side. The preview section has two selection levels: Date , and Operator or Workstation ID (Page 12).
Magnification	A drop-down list of options governing the way a page is displayed within the <i>Preview</i> window's Data Area.
Previous Page (<)	Displays the previous page of a multiple page report. <i>Alert!</i> These navigation tools are very helpful but easily overlooked.
<i>n</i> of <i>n</i>	Identifies the current page of a multiple page report.
Next Page (>)	Displays the next page of the report.
Previous Page (<)	Displays the last page.
Search text	Locates incidences of text values you specify.



Preview Window

A close-up illustration of the *Preview* window's toolbar is on the next page.

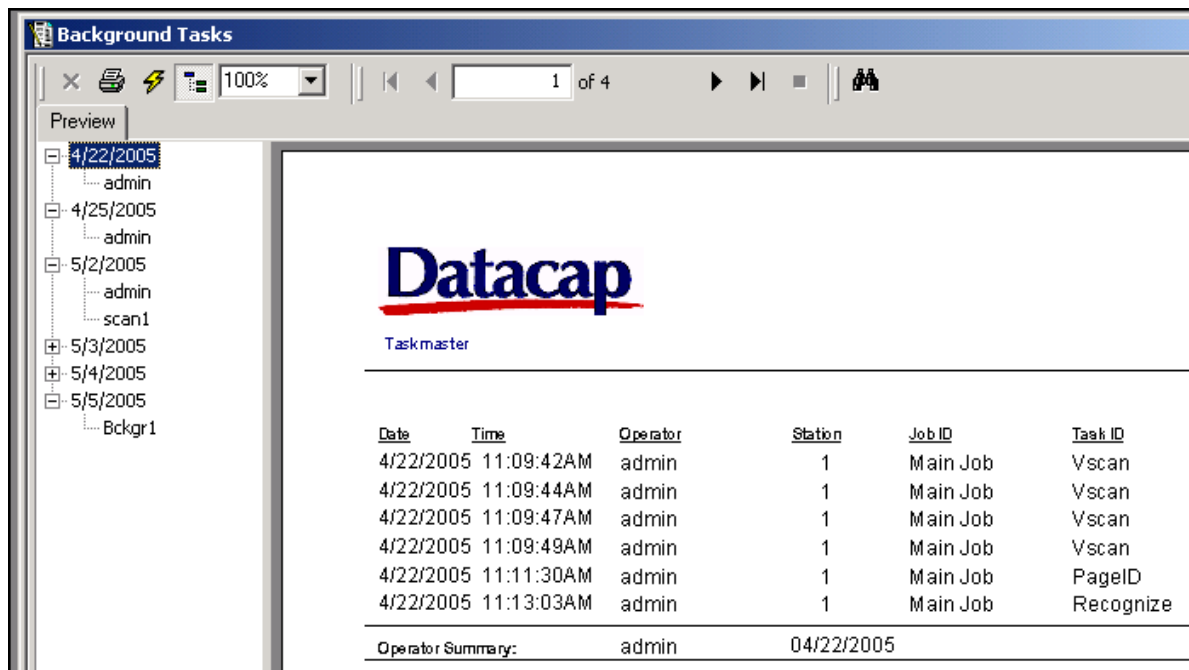
Features of the Preview Window



Navigation Pane

When you generate a typical task report, a tree control with two levels appears in the Navigation pane on the *Preview* window's left side. The **Date** of a task's operation occupies the first level; an **Operator ID** or **Station ID** (depending on the nature of the report) occupies the second. When you highlight a first-level **Date**, the window lists all task activity for that date. When you highlight a second-level parameter, the window displays the day's transactions for the operator or workstation you've selected.

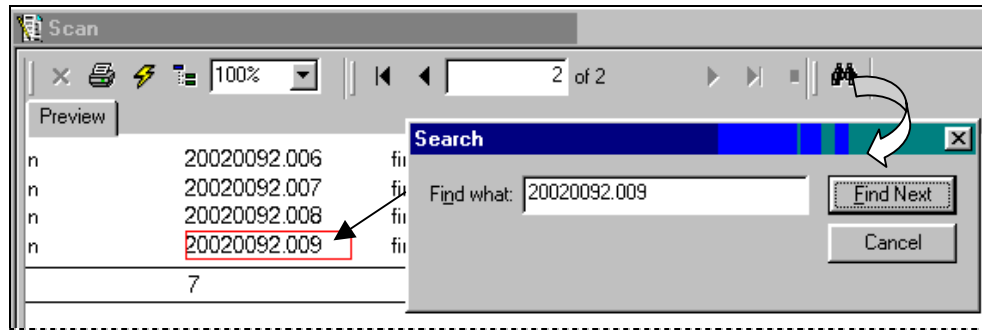
The **Toggle Group Tree** icon alternately includes or hides the Navigation pane.



Preview Window – with active Navigation pane

Text Search

The toolbar's Search Text icon opens the *Search* dialog. If you enter a value in the **Find What** field and click on the Find Next button, *Report Viewer* will locate successive instances of the value throughout the report.



Preview Window - with Search Dialog

- ✓ Page 32 illustrates other tools of the *Preview* window and shows you how to print a report.

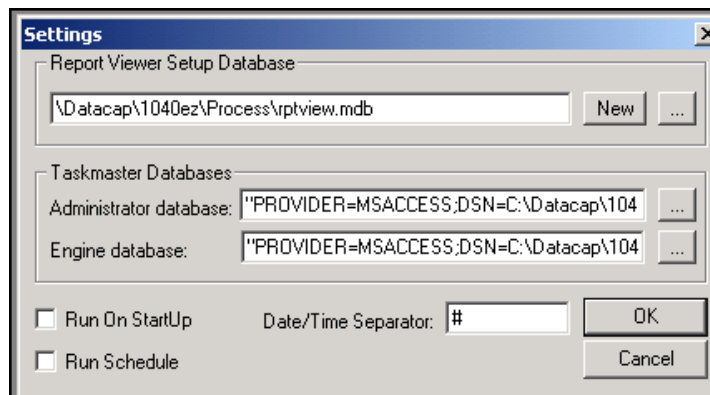
Setting up Report Viewer

Report Viewer cannot operate until you connect it to your application. This occurs in two, nearly seamless phases. First, you'll provide the *Settings* dialog with specifications connecting *Report Viewer* directly to the application's databases. If necessary, you can then set up a desktop shortcut.

A step-by-step description of the full process begins on Page 18.

Application Settings and RptView.ini

To review and possibly modify *Report Viewer's* specifications, select **Settings** from the *Report Viewer Window's* **View** menu. Here are settings for the *1040EZ* training application, for example.



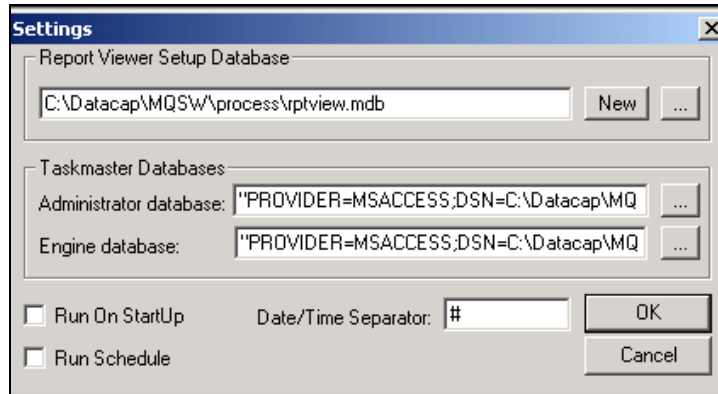
Settings Dialog

Report Viewer, however, needs specifications exclusively for *your* application. These will be displayed in the fields of the *Settings* dialog but stored in your application's **rptview.ini** file. This file resides in your application's **Process** directory.

Application Settings and RptView.ini

The table below introduces you to these specifications, and shows you how to use the special-purpose buttons of the *Settings* dialog.

- Important!** The *New Application Wizard* (Chapter 4) provides default *values* for a new application's *Report Viewer* settings (below). If you have used this utility to set up your application, be sure to review to review its *Report Viewer* settings and their values carefully.



**Settings Dialog – after Set Up
MQSW Application**

Settings Dialog

Field/Function	Description
Report Viewer Setup Database	<p>The name and location of the Report Viewer database for <i>your application</i>.</p> <p>The application set up process (Chapter 4) places the rptview.mdb database in the application's Process directory, and you'll specify its location as one of the last steps when you define a shortcut (Page 17). This is a <i>critical</i> specification: be sure that the database name and path are accurate.</p> <p>Don't forget, too, to spend a few moments with the Reports table of the database. This table lists certain standard reports and the paths of their templates. When you add, delete or modify a report <i>Report Viewer</i> automatically adjusts the table.</p> <p>Similarly, when you first implement <i>Report Viewer</i>, the database's Filter and Schedule tables are nearly empty, until you introduce these highly productive modules.</p>
New button	<p>Copies the default Report Viewer database.</p> <p>You can then give it a new name, leave it in the Process directory, or move it to a different site.</p>
Ellipsis button (...)	<p>Accesses the Open File dialog.</p> <p>During set up, you can use this button to find the rptview.mdb file within the Process directory of your new application, then enter the complete path in the Setup Database field (Page 18).</p>

Settings Dialog (continued)

Field/Function	Description
Taskmaster Databases	Connection Strings that link <i>Report Viewer</i> to <i>your</i> application's Admin and Engine databases (below). Alert! Be sure that your entries adhere to the syntax described in Appendix A (for Access, Oracle and SQL Server databases.)
Administrator Database	The connection string that links <i>Report Viewer</i> to your application's Admin database. In the case of the <i>1040EZ</i> example that employs Access databases, this value is: "PROVIDER=MSACCESS;DSN=C:\Datacap\1040EZ\process\1040Adm.mdb;CATALOG=;DBNTA=;"
Engine Database	The connection string linking <i>Report Viewer</i> to your application's Engine database. For example: "PROVIDER=MSACCESS;DSN=C:\Datacap\1040EZ\process\1040Eng.mdb;CATALOG=;DBNTA=;"
Run on Start Up	A check box which, if activated, automatically starts up <i>Report Viewer</i> whenever your host computer runs.
Run Schedule	A check box which, if activated, generates reports automatically, according to schedules you define (Page 54). Alert! <i>Report Viewer's</i> scheduling procedures do not work unless you select this option.
Date/Time Separator	Punctuation that is to separate Date and Time values in each report. If your engine database uses SQL Server or Oracle, replace the default # character with an apostrophe (').
OK button	Confirms the entries in the <i>Settings</i> dialog and updates the rptview.ini file in your application's Process directory.
Cancel button	Closes the <i>Settings</i> dialog without incorporating new data or modifications.

- Remember.** Clicking on the OK button instantly updates the settings in your application's **rptview.ini** file. This file resides in the application's **Process** directory and supplies parameters for a *Report Viewer* **desktop shortcut** (Page 17).

Additional Settings: rptview.ini

Values in the *Settings* dialog are stored in an application's **rptview.ini** file. This file also has specifications in these categories:

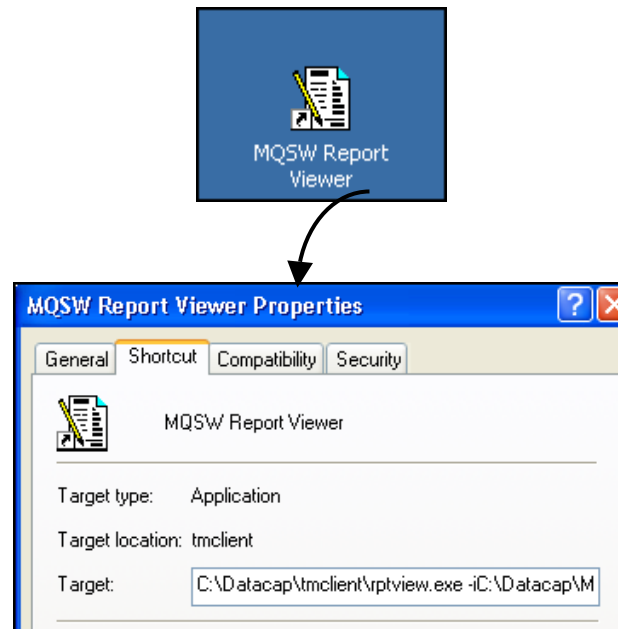
- **[NetTM]**: specifications for your *Taskmaster* network configuration.
- **[Station]**: UserID and Station ID sign-on values.
- **[Settings]**: settings from fields of the *Applications Settings* dialog.
- **[Bars-Summary]**: the placement of bars in the *Report Viewer Window*. You can assign these values only in the **rptview.ini** file.
- **[Statistics Time Intervals]**: the timing of *Report Viewer* responses. You can assign these values only in the **rptview.ini** file.
- **[Options Log]**: specifications for an optional *Report Viewer* log. To assign these values, select **Log File** from the *Report Viewer Window's View* menu.
- **Interface Settings**: settings governing the placement and format of reports during report generation. You can assign or modify these values only in the **rptview.ini** file.

Shortcuts Icons

Datacap Taskmaster's pre-configured applications – *1040EZ*, *Express*, *Invoice*, *Medical Claims* and *Survey* – all come with their own *Report Viewers*, and with **Report Viewer** shortcut icons.

An icon is in the application's folder, and you can copy it without difficulty to your Windows desktop.

The *New Application Wizard* (Chapter 4) automatically sets up icons on your desktop and in the application's folder in the **Datacap** directory of the Windows Explorer,



Report Viewer Icon - Properties

- ✓ If you right-click on the icon and select **Properties** from the options, the *Shortcut* tab of the **Report Viewer Properties** dialog will appear on your screen. This shortcut – and any other *Report Viewer* icon – contains a **Target** Connection String that should resemble this value:

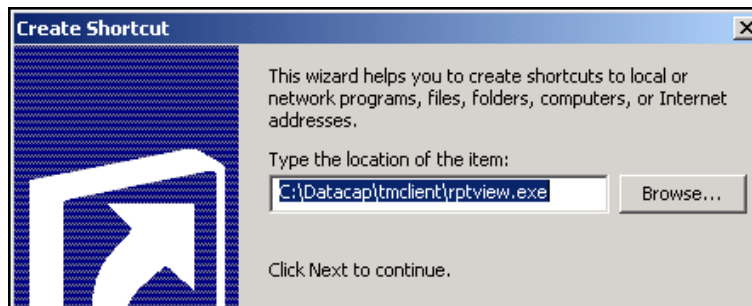
```
C:\Datacap\tmlclient\rptview.exe -iC:\Datacap\MQSW\process\rptview.ini -ad"PROVIDER=MSACCESS;DSN=C:\Datacap\MQSW\process\MQSWAdm.mdb;CATALOG=;DBNTA=;" -ed"PROVIDER=MSACCESS;DSN=C:\Datacap\MQSW\process\MQSWEng.mdb;CATALOG=;DBNTA=;"
```

- ✎ The example above contains the syntax of the Connection String for the *default MS-Access* method. Appendix A lists the syntax that should be used for SQL Server and Oracle databases.

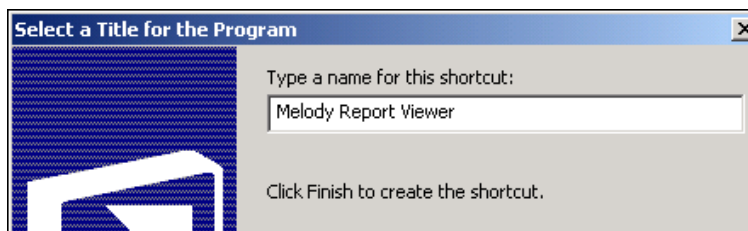
How to Set Up a New Report Viewer: Step-by-Step

To set up an entirely *new Report Viewer*, take these steps:

Step	Action
1.	Use Window Explorer to access your Datacap directory and the folder for your application.
2.	Open your application's folder.
3.	Right-click anywhere on the right side of the Explorer's divide.
4.	Select New from the list of options, then Shortcut .
5.	When the <i>Create Shortcut</i> wizard appears, use the Browse button to locate the rptview.exe file in the Datacap\tmlclient directory, and to place a complete and accurate path to this file in the Type the Location field.



6. Press the wizard's Next button.
7. Provide the wizard with the shortcut's name, and press the Finish button to move the shortcut to your application's folder.

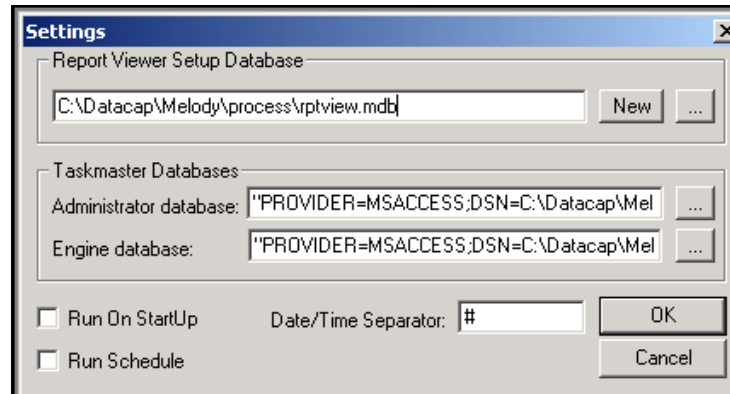


8. Right-click on the shortcut and select **Send to Desktop** to display the shortcut in your Windows desktop.



To Set Up a New Report Viewer (continued)

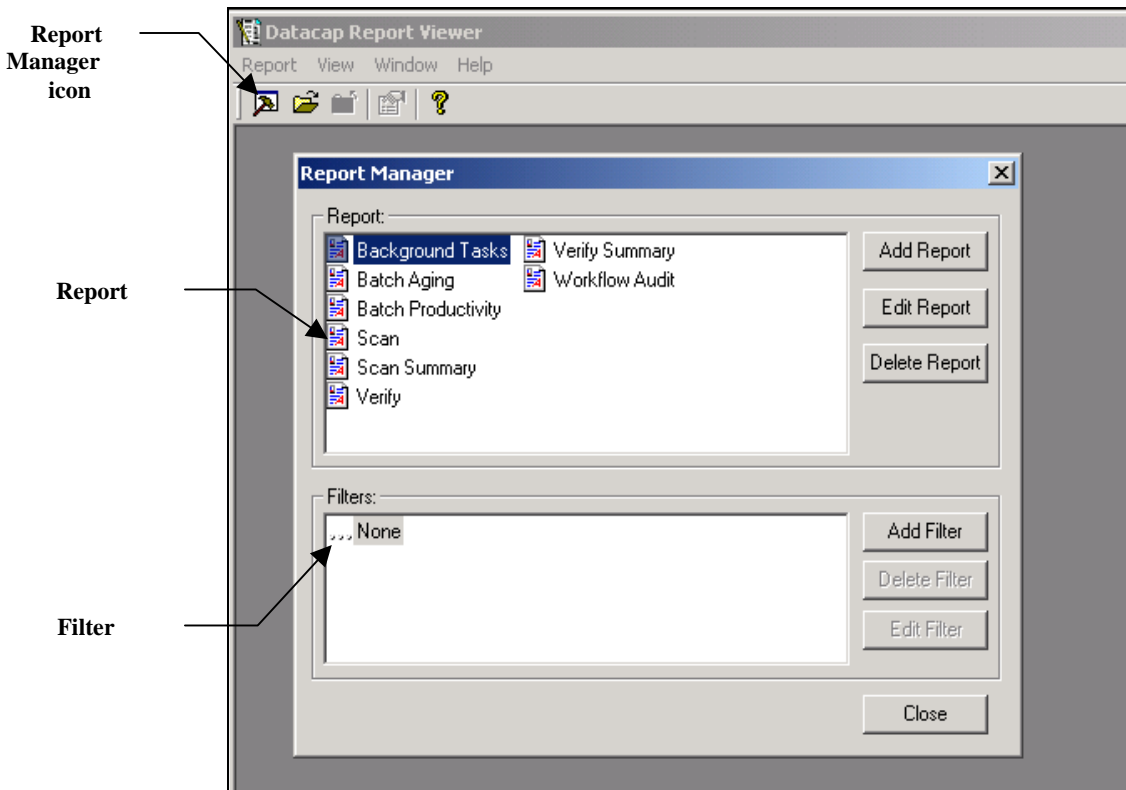
- | Step | Action |
|------|--------|
|------|--------|
9. Double-click on the new icon.
 10. After you enter your **User ID** and **Password**, select **Settings** from the **Report Viewer Window's View** menu. The **Settings** dialog will appear with the path to the **Report Viewer** database and a full set of Connection String entries for your application **only**.



11. Add any other specifications to the **Settings** dialog, then click on the OK button.

Standard Reports: the Report Manager

Report Viewer produces reports covering the processing activity of an application’s jobs and tasks, and the status of its batches. For a closer look at the definition of each report, select **Manager** from the **Report** menu of the *Report Viewer Window*: the *Report Manager* will appear on your screen. For descriptions of these reports, see Page 58.



**Report Viewer Window – with Report Manager
MQSW Reports**

The *Report Manager* lists each standard report, and any filters you have defined for the report (Page 35). It also contains the tools you’ll use to define a new report or delete an existing report (Page 52).

The table below describes the fields and features of the *Report Manager*.

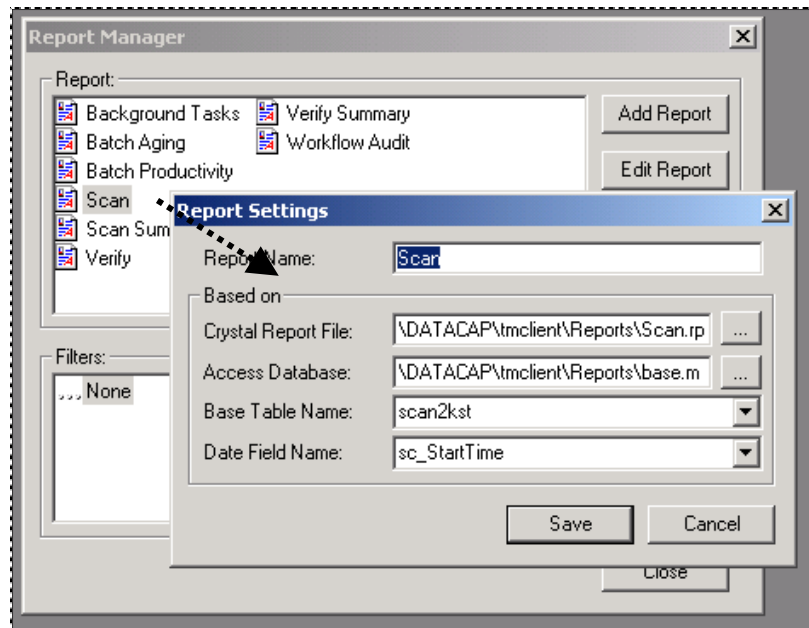
Field/Button	Description
Report	A list of Report ID’s representing standard reports, and other reports that you have formally defined. If you highlight a report in the list and click on the Edit button, the corresponding <i>Report Settings</i> dialog will appear (see the next page.)

Report Manager (continued)

Field/Button	Description
Add Report button	Retrieves a blank <i>Report Settings</i> dialog and initiates the Report Definition process (Page 52).
Edit Report button	Accesses the <i>Report Settings</i> dialog—and the Report Definition—of a report you’ve highlighted in the Report field.
Delete Report button	After an appropriate warning, deletes a Report Definition you’ve highlighted in the Report field.
Filter	A list of ID’s representing filters you’ve defined for the report you’ve highlighted in the Report field. (For more about filters, see Page 35.)
Add Filter button	Retrieves a blank <i>Filter Properties</i> dialog and initiates the Filter Definition process.
Delete Filter button	After an appropriate warning, deletes a Filter Definition you’ve highlighted in the Filter area.
Close button	Closes the <i>Report Manager</i> .

Properties of a Standard Report

To review the properties of a standard report, highlight its title in the **Report** field and click on the Edit button to retrieve the *Report Settings* dialog for this report.



Report Settings dialog

Report Settings Dialog

Settings of the *Report Settings* dialog (illustrated on the previous page) define a report, and include:

Field/Button	Description
Report Name	A unique code that identifies this Report Definition.
Based on	The specifications in this area identify the settings that define the current report.
Crystal Report File	<p>The name and location of the Crystal Reports file (.rpt) containing the template for this report.</p> <p>In the illustration on the previous page, the <i>Scan</i> report uses specifications in the Scan.rpt template file. This file and the other Crystal Reports templates are <i>not</i> application-specific. Instead, they reside in the Reports folder of the Datacap directory's tmclient sub-directory.</p> <p>As a result, the templates are available to any application you set up - and to <i>pre-defined</i> applications such as <i>1040EZ</i>.</p>
Access Database	<p>The name and location of the client database (.mdb) that will be copied for temporary report processing.</p> <p>As Page 4 explains, the base.mdb database extracts data from your application's Engine database during report generation and stores it temporarily for the report. This template database is usually located in the Reports folder of the tmclient sub-directory.</p> <p>The base.mdb database has a separate Statistics table that captures data for each task.</p>
Base Table Name	<p>The Statistics table in the base.mdb database that collects data for this report.</p> <p>In the illustration on the previous page, the <i>Report Settings</i> dialog specifies the scan2kst table for the <i>Scan</i> report.</p>
Date Field Name	A code identifying the Date column of the Base Table you've specified above.
Save Button	Adds a new Report Definition (or any modifications) to your <i>Report Viewer</i> database and returns you to the <i>Report Manager</i> .
Cancel Button	Closes the <i>Report Settings</i> dialog without adding new information to your <i>Report Viewer</i> database.

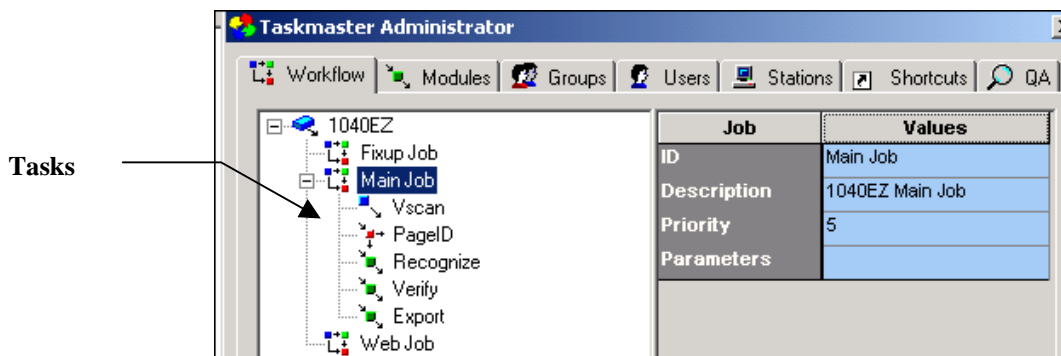
The list below summarizes the properties of *Report Viewer's* standard reports for the new *MQSW* application, as an example:

Title	Report Template	Base Database Table
Background Tasks	BackgroundTasks.rpt	taskstats
Batch Aging	BatchAge.rpt	JobMonitor
Batch Productivity	BatchProd.rpt	JobMonitor
Scan	Scan.rpt	scan2kst
Scan Summary	ScanSum.rpt	scan2kst
Verify	Verify.rpt	De2kst
Verify Summary	VerifyS.rpt	De2kst
Workflow Audit	Debug.rpt	debug
FixUp	FixUp.rpt	FixUp2kst
FixUp Summary	FixUpS.rpt	FixUp2kst

- ✓ Descriptions of these reports begin on Page 58.

Background Tasks Reports – a First Look

The majority of tasks in a *Taskmaster* job may well be **background** tasks that operate in the processing background as they apply **rules** you've defined. The Main job of the pre-configured *1040EZ* training application, for example, has the tasks illustrated below. Here, every task **except** Verify is a background task.



1040EZ Taskmaster Administrator – Workflow tab
Tasks of the Main Job

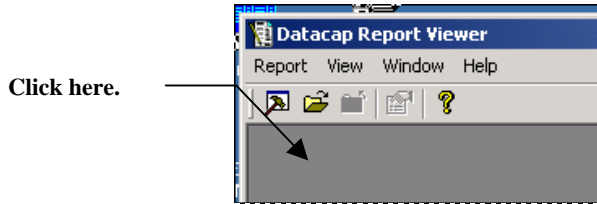
- ✓ One practical and very important result is that you'll use the **BackgroundTasks.rpt** template – along with filters you define (Page 35) – to design and generate reports for individual background tasks.

Properties of a Standard Report

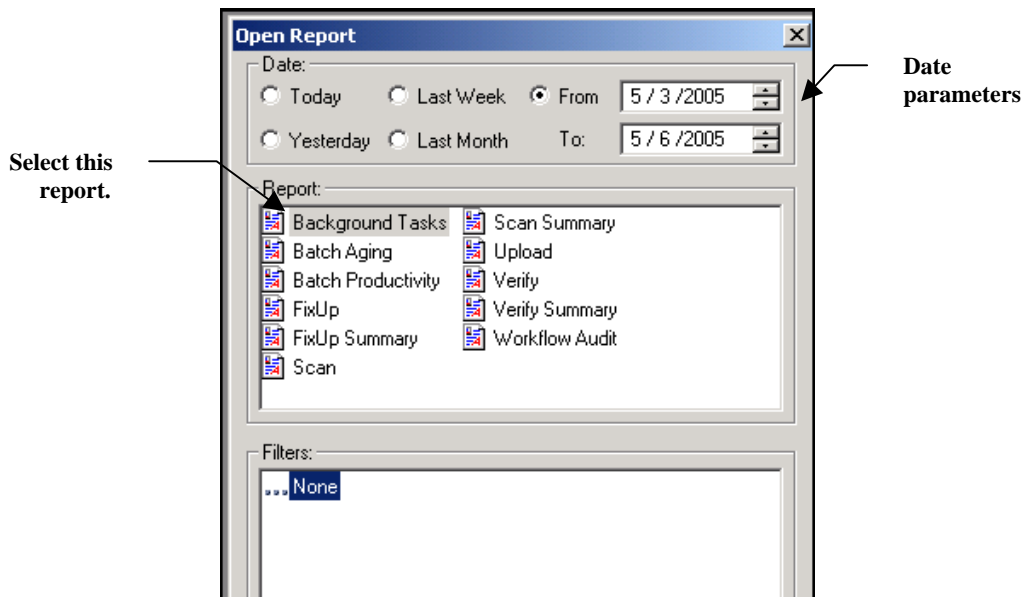
For an early, close-up look at the broad composition of a *Background Tasks Report*, take these steps *after* you have created a number of *1040EZ* batches with the Main job's VScan task (Page 8):

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

1. Double-click on the *1040EZ* application's **Report Viewer** icon to open *Report Viewer* (Page 6).
2. Click on the **Open Report** icon in the *Report Viewer Window*.



3. Select the **Background Tasks** option and specify the report's **Date** parameters.



4. Select *None* as the *Filter* and press the Open button to generate a report covering all *1040EZ* background tasks. **Important!** So far, you've only run the application's vScan task. However, the **BackgroundTasks.rpt** template is equipped to report on every background task in the *1040EZ* Main Job, including: vScan, PageID, Recognize, and Export!

- Take plenty of time to explore the format and content of a *Background Tasks Report* as it appears within the *Report Viewer Window*: you'll use this template over and over to produce the task reports you need.

Date	Time	Operator	Station	Job ID	Task ID	Batch ID
5/3/2005	1:32:35PM	admin	2	Main Job	Vscan	20050123.001
5/3/2005	1:32:45PM	admin	2	Main Job	Vscan	20050123.002
5/3/2005	1:32:50PM	admin	2	Main Job	Vscan	20050123.003
5/3/2005	1:32:52PM	admin	2	Main Job	Vscan	20050123.004

Background Tasks Report – Left Columns

Task ID	Batch ID	Status	Docs	Pages	Elapsed Time
Vscan	20050123.001	finished	0	3	0:00:04
Vscan	20050123.002	finished	0	3	0:00:01
Vscan	20050123.003	finished	0	3	0:00:01
Vscan	20050123.004	finished	0	3	0:00:01

Background Tasks Report – Right Columns

A preliminary glance reveals key attributes of the report, and may result in some questions:

- The Report ID (*Background Tasks*) appears in various places.
- The Date range appears beneath the prominent Report ID at the top of the report.
- However, to generate a report on a single background task - the PageID task, for example – you would need a filter (Page 35). The Filter's name is next to the Date range and would uniquely identify the report.

Properties of a Standard Report

- The browser on the left has two levels: Level 1: Batch Creation Date; Level 2: Operator(s).
- The Page Counter in the toolbar is a helpful navigational tool – but *easily overlooked!*
- In this report, every column *except Docs* has a value other than “0”. This is because the 1040EZ application’s Main Job uses the Recognize task to organize the batch into a series of documents. In the example below, the Recognize task has processed only one batch in the group.

Page navigation

Job ID	Task ID	Batch ID	Status	Docs	Page	Elapsed Time
1	Main Job	Vscan	finished	0	3	0: 00: 01
1	Main Job	Vscan	finished	0	3	0: 00: 01
1	Main Job	Vscan	finished	0	3	0: 00: 01
1	Main Job	Vscan	finished	0	3	0: 00: 01
1	Main Job	PageID	finished	0	3	0: 00: 12
1	Main Job	Recognize	finished	3	3	0: 00: 10
4/22/2005		4		3	18	0: 00: 26

1040EZ Report Viewer – Unfiltered Background Tasks Report

- ✓ *Don't hesitate* to experiment with 1040EZ reports. The application and its *Report Viewer* are indestructible and encourage your enthusiastic participation in report design and production.

Generating Reports without Filters

Report Viewer produces three kinds of reports: Batch Activity, Task Detail and – for some tasks - Task Summary.

Study the portion of the *Scan Report* below. This is a **detail** report. Like all reports, it has a fixed format, and its format has a direct impact on its content. A typical *Scan Report*, for example, arrays data under the same eleven headings (nine are shown below):

Scan Report

<u>Operator</u>	<u>Station</u>	<u>Job ID</u>	<u>Task ID</u>	<u>Batch ID</u>	<u>Status</u>	<u>Docs</u>	<u>Pgs</u>	<u>Elapsed Time</u>
scan1	sc1	WebMain	Scan	200500262.012	finished	0	50	0:01:10
scan1	sc1	WebMain	Scan	200500262.013	finished	0	50	0:01:00
scan1	sc1	Main	Scan	200500262.014	finished	0	44	0:00:58
scan2	sc2	Main	Scan	200500262.015	finished	0	50	0:01:07
scan2	sc2	WebMain	Scan	200500262.016	finished	0	48	0:01:10
				4/02/05	5	0	242	0:05:25

Scan Report – Right-side columns

Nevertheless, within these confines, *Report Viewer* offers considerable flexibility in the form of **filters** you can use aggressively and repeatedly to determine a report's contents.

In the brief example above, the Administrator might filter the report according to *Job ID* or *Task ID*. As a result, the Scan Report would show only those batches processed by:

- A *Main* or *WebMain* **job**
- A *scan1* or *scan2* **operator**, or both
- A *sc1* or *sc2* **station**, or both
- A mix of parameters in the three categories.

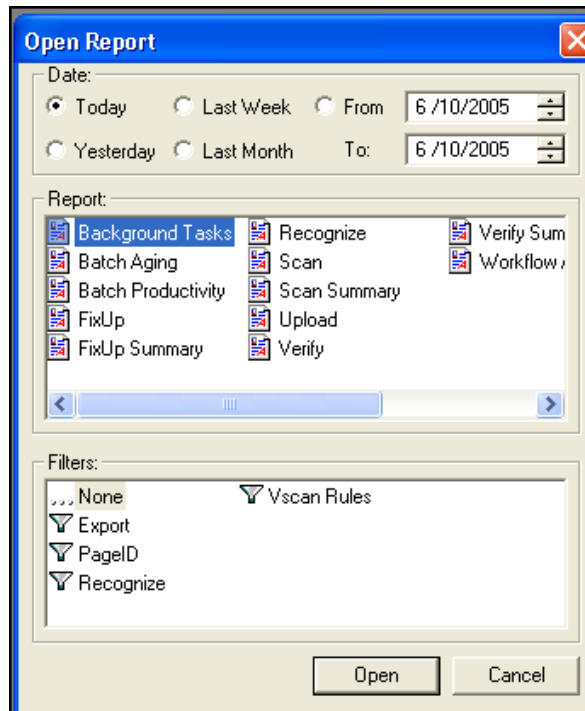
As Page 35 explains, criteria in 10 categories can form the basis for a Scan task's **filter**. Once you define the filter, you can use it over and over...or not at all.

Reports covering other tasks use some of the same criteria for their filters, and add criteria of their own. The scope of a *Background Tasks Report* can be filtered by selections in numerous categories, including that most important category: **time**.

Once you've connected *Report Viewer* to your application and its data (Page 18), running a default report is simple.

Open Report Dialog

To begin, select **Open** from the *Report Viewer Window's* **Report** menu, or click on the **Open** toolbar icon. The *Open Report* dialog will appear on your screen:



Open Report Dialog

The table below describes the fields and functions of the *Open Report* dialog.

Field/Button	Description
Date Area	The selections in this area provide <i>Report Viewer</i> with the date(s) of the batches to be included in the report.
Date Options	These radio buttons represent alternative time periods. You <i>must</i> select a Date option: if you select From , you must also specify a range in the From and To fields.
Today	The report will include information about batches processed so far today. <i>Alert!</i> “Today” is the date on which you have signed on to <i>Report Viewer</i> .
Yesterday	The report will include information about batches processed on the <i>calendar</i> day preceding today’s date.

Open Report Dialog (continued)

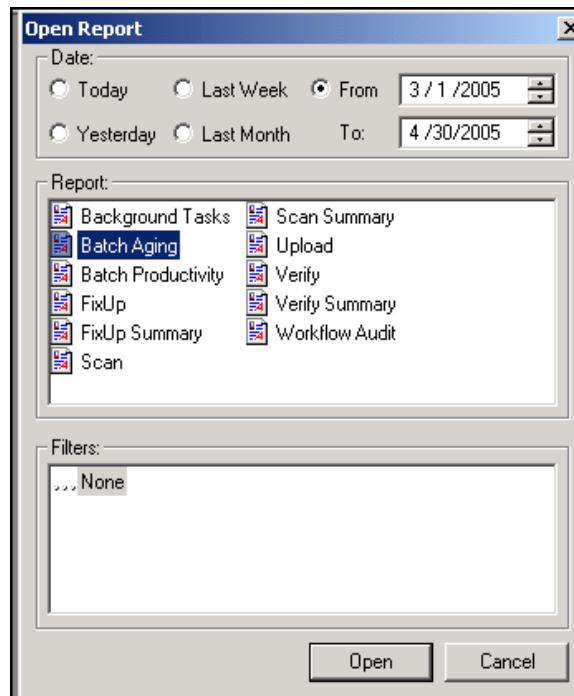
Field/Button	Description
Last Week	The report will cover batches processed during the previous <i>Sunday-Sunday</i> week.
Last Month	The report will cover batches processed during the previous <i>Julian</i> month.
From/To	The report will cover batches processed by tasks in this category, during a period you specify.
From	The first date in a range. If you have activated the From option (above), you <i>must</i> enter a date in this field.
To	The closing date of the range. If you have activated the From option (above), you <i>must</i> enter a date in this field.
Report	The names of active Report Definitions.
Filter	A list of codes representing available Filter Definitions for the report you've selected (Page 35).
Open Button	Generates the report and displays the results in the <i>Report Viewer Window's</i> Data area.

How to Generate a Report without a Filter: Step-by-Step

To generate a report that does not use a Report Filter, take the steps outlined below.

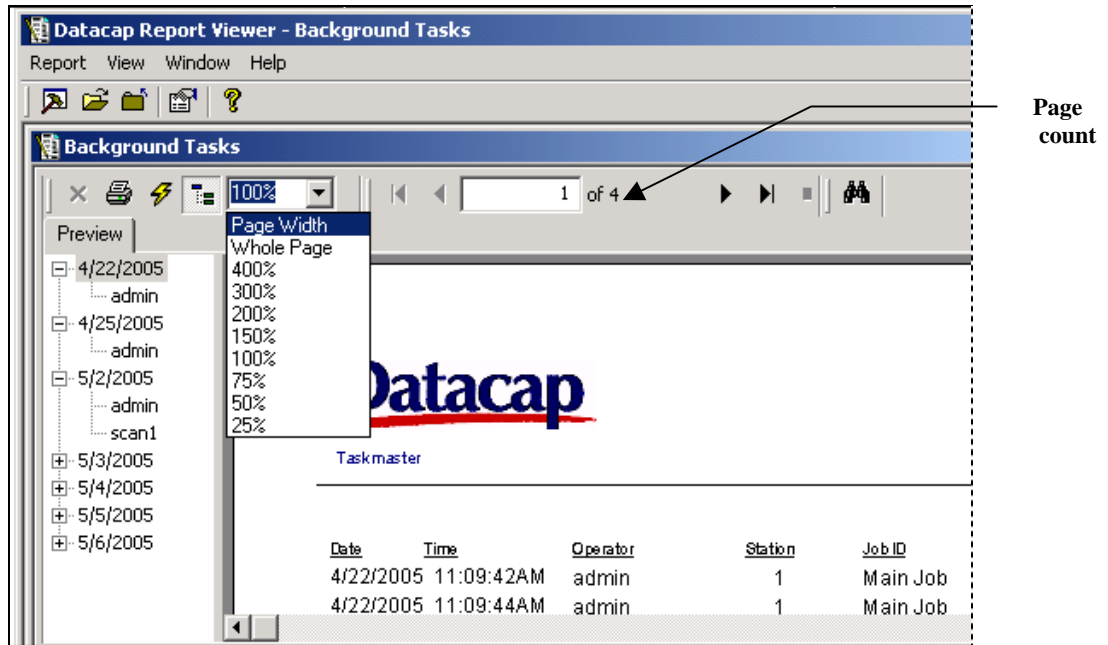
Step	Action
------	--------

1. Select **Open** from the **Report** menu of the *Report Viewer Window*: the *Open Report* dialog will appear on your screen.



2. Select a Report Definition name from the **Report** list.
3. Select a **Date** parameter.
4. If you select **From**, enter the first date of the range in the accompanying date field and the closing date of the range in the **To** date field.
5. Click on the Open button: *Report Viewer* will process your request and display the results for your review.

The numbers in the toolbar of the secondary *Preview* window (illustrated on the next page) indicate the report's total pages and the currently displayed page. The buttons allow you to go from page to page in either direction, or from beginning to end.



Preview window – Background Tasks Report

The **Magnification** drop-down list is a series of settings you can use to change the display's format and magnification. At the top of the list, percentages from 400% to 25% reduce the size of the report within the Data Area of the **Preview** window. *Full Page* and *Page Width* further modify a report's display.

The **Browser** on the left gives you instant access to batch activity on a particular date – and to individual operators and their batch activity on that date.

A word of caution. Give yourself plenty of time to practice with a report's batch and date detail. If multiple background tasks process the same batch on the same day, an **unfiltered Background Tasks Report** might contain listings that resemble the example on the next page, where the three batches are processed by two different tasks on the same day (4/25/2005).

How to Generate a Report without a Filter: Step-by-Step

Date	Time	Operator	Station	Job ID	PageID
4/22/2005	11:11:30AM	admin	1	Main Job	20050112.006
4/22/2005	11:13:03AM	admin	1	Main Job	Recognize 20050112.006
Operator Summary:		admin	04/22/2005	4	
4/25/2005	8:43:34AM	admin	1	Main Job	PageID 20050112.009
4/25/2005	8:44:32AM	admin	1	Main Job	PageID 20050112.007
4/25/2005	8:44:57AM	admin	1	Main Job	PageID 20050112.008
4/25/2005	8:45:21AM	admin	1	Main Job	Recognize 20050112.009
4/25/2005	8:45:45AM	admin	1	Main Job	Recognize 20050112.007
4/25/2005	8:46:02AM	admin	1	Main Job	Recognize 20050112.008

Freeze Pane and Other Tools

You might want to practice, too, with the **Freeze Pane** feature of the *Preview* window.

After you generate a report, you can *freeze* columns or rows so that the data they contain remains in view when you scroll to the right or down. In this illustration, the grid freezes the values in the columns on the left *and* the row of column titles.

Taskmaster				
Date	Time	Operator	Station	Job ID
4/22/2005	11:09:42AM	admin	1	Main Job
4/22/2005	11:09:44AM	admin	1	Main Job
4/22/2005	11:09:47AM	admin	1	Main Job
4/22/2005	11:09:49AM	admin	1	Main Job
4/22/2005	11:11:30AM	admin	1	Main Job
4/22/2005	11:13:03AM	admin	1	Main Job
Operator Summary:		admin	04/22/2005	

Frozen Pane

To freeze a pane, right-click near the conjunction of the rows and columns that form the target pane and select the **Freeze Pane** option. To un-freeze the pane, right-click in the same area and select **Unfreeze Pane**.

- ✓ **Alert!** Dimensions and behavior of the “frozen” pane are valid only for a single page of the report.

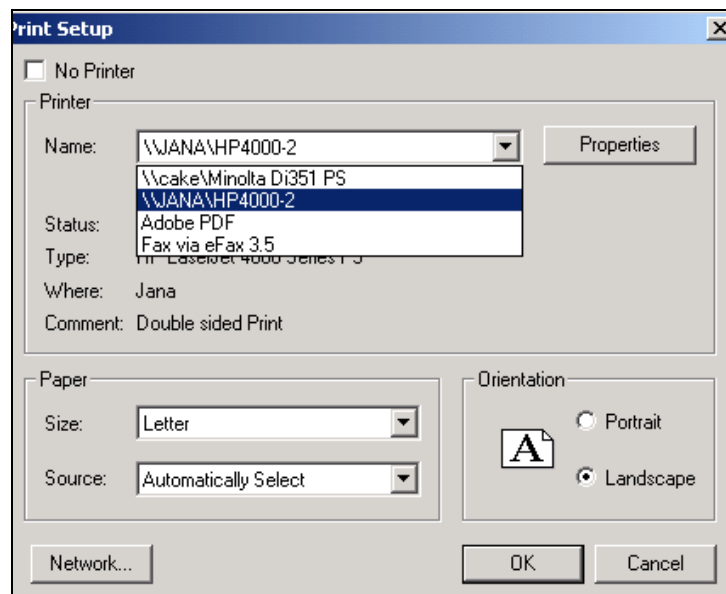
Printing Reports

Printing has two phases: setup and production.

Printing - Phase 1: Printer Selection and Setup

This phase uses the Window's *Print Setup* dialog to select the printer driver that will link *Report Viewer* to a printer that will generate paper copies of the report, or to software such as *Adobe Acrobat* that will produce the report in electronic format.

- ✓ **Important!** This is a required first step. To proceed, select **Print Report** from the *Report Viewer Window's Report* menu: the *Print Setup* dialog will appear on your screen.



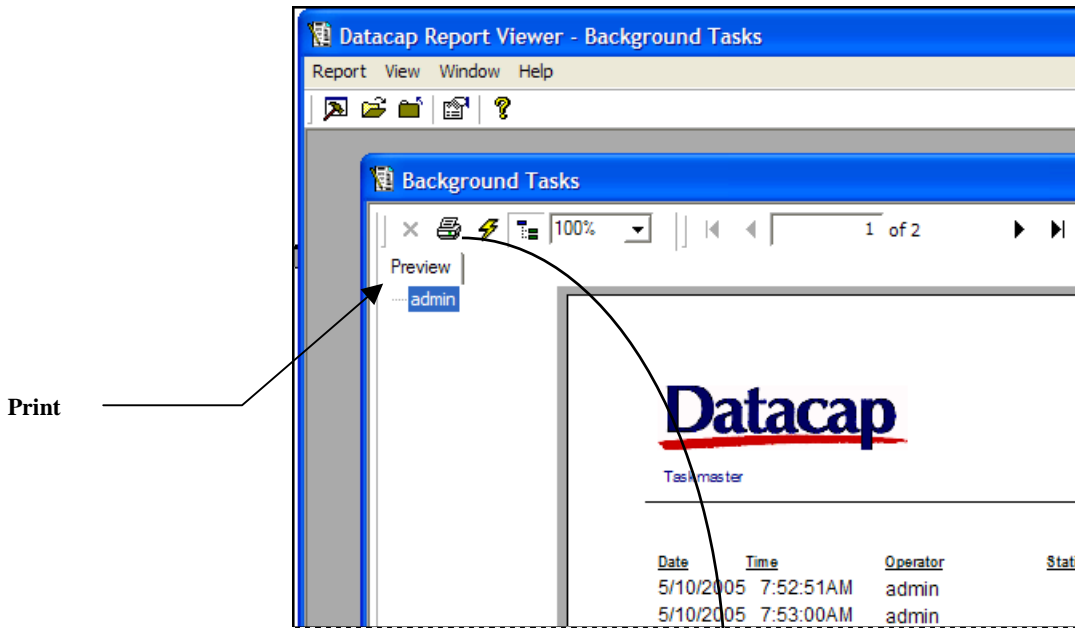
Print Setup dialog

This is a standard Windows printing mechanism: the printer “driver” which appears in the **Name** drop-down list identifies your system printer or a driver such as *Adobe PDF*. After you select a printer driver, the printer or software becomes your **System Printer**.

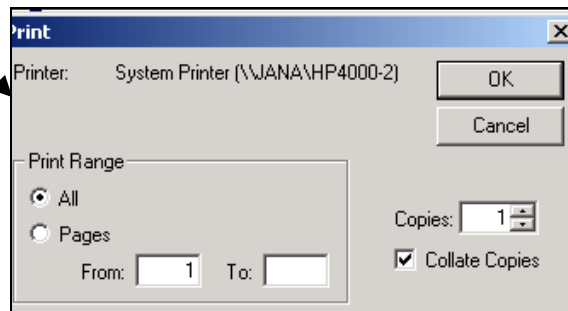
- ✓ Be sure to select other settings such as the **Orientation** option (*Report Viewer* works best with *Landscape*.)
- ✓ **Alert!** As a default, standard report prints in **Landscape** format.

Printing - Phase 2: Printing

As soon as you open a report, the **Print** icon appears in the *Preview* window toolbar. When you click on this icon, the **Report** dialog prepares to print the report according to the printer setup parameters you entered in the Phase 1, and in response to the additional parameters you enter at this point.



System Printer

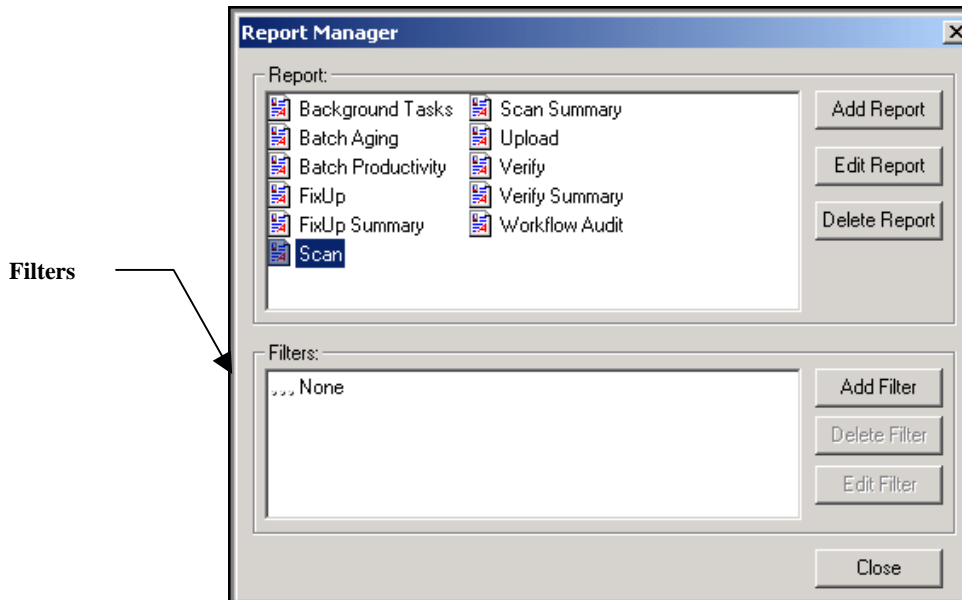


Print dialog

Report Filters

Below is an illustration of the *1040EZ* application's **Report Manager** with a highlighted *Scan* report.

When you first install **Datacap Taskmaster**, most standard tasks do not include a filter other than the browser's *Date* and *Operator* parameters (Page 21).



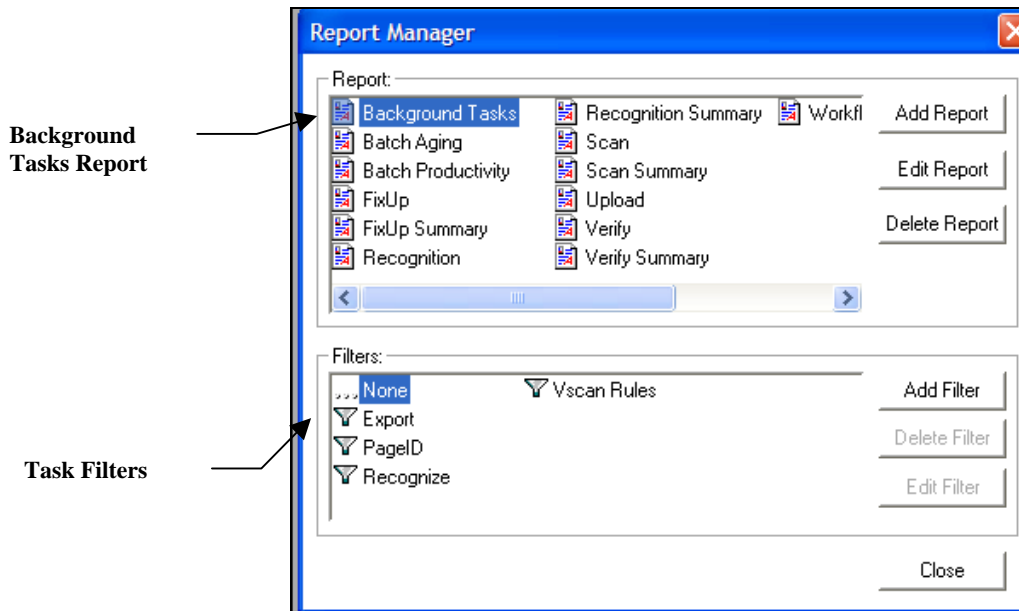
Report Manager

However, *Report Viewer*'s Filter mechanism can play an important role in the generation of a report. Often, the number of batches associated with a particular task is large, and a report listing all batch data can be unwieldy.

To establish more rigorous boundaries for a report, you can add a filter to the Report Definition. Then, when you generate the report, *Report Viewer* will use these additional criteria to glean pertinent information from the applicable task's Statistics table in the Engine database. (This is the table you specify when assembling the Report Definition. For details, see Page 52.)

- Filters play a different but equally important role with *Background Tasks Reports*, because individual **filtered** reports can cover specific types of tasks – vScan, PageID, Recognize, and Export, in the case of the pre-configured *1040EZ* application illustrated on the next page. Or vScan, Recognize and Export for applications assembled by the *New Application Wizard* (Chapter 4).

How to Define a Report Filter



1040EZ Report Manager

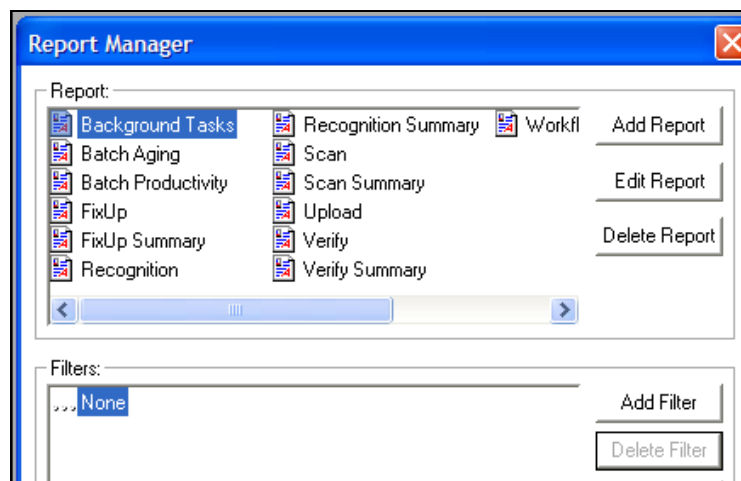
How to Define a Report Filter

- ✓ **Important!** Settings of the *Filter Properties* dialog change according to the nature of the task you're working with. Descriptions of these settings begin on Page 40.

To define a filter for a particular Report Definition, you'll take the steps below.

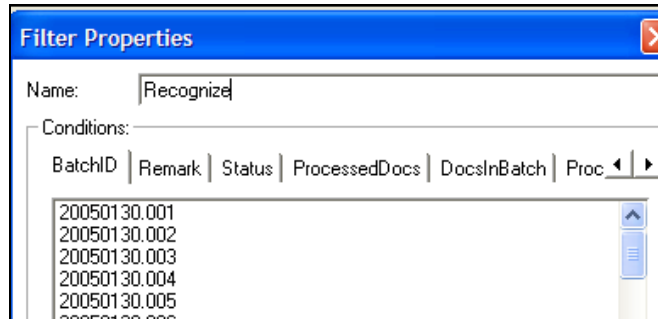
Step	Action
------	--------

1. Highlight the Report Definition's identifying code in the **Report** area of the *Report Manager*.

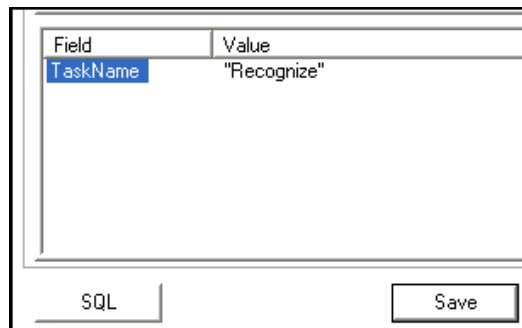


To Define a Report Filter (continued)

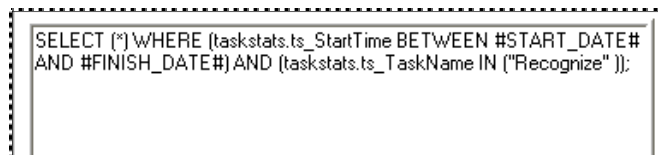
- | Step | Action |
|------|--|
| 2. | Click on the Add Filter button in the Filter area: the <i>Filter Properties</i> dialog will appear on your screen. Very important! Detailed filter criteria appear only if they result from actual batch processing. In the illustration below, the <i>Filter Properties</i> dialog automatically displays the contents of its <i>BatchID</i> tab – the Batch ID's of batches that have been previously processed. |



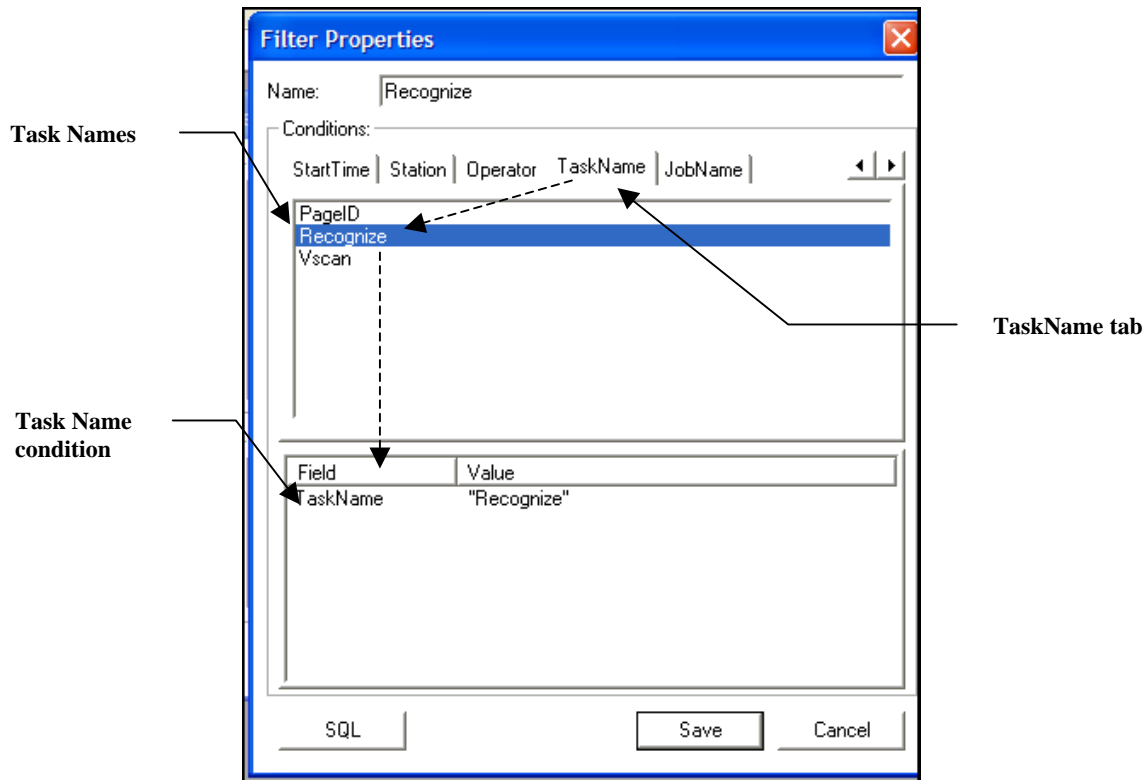
- Provide the new filter with a unique **Name**. The *Recognize* filter in the example will be used to limit the scope of a *Background Tasks* report to the *1040EZ* application's *Recognize* task.
- Select the applicable filter criteria in the tabs of the *Filter Properties* dialog.
- After each selection, press the Save button at the bottom of the dialog.
- For a different look at the parameters, highlight a condition you've defined, and click on the SQL button.



- If you have experience with SQL, *don't hesitate* to modify the SQL code.

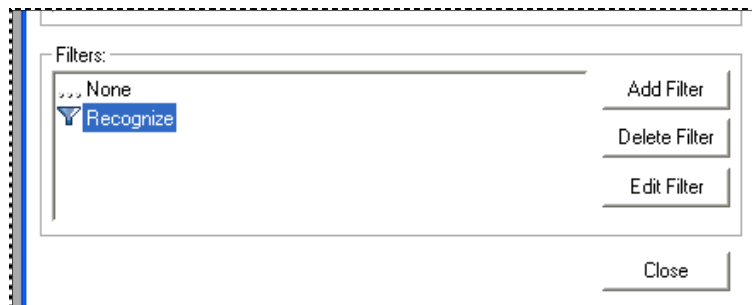


How to Define a Report Filter



To Define a Report Filter (continued)

- | Step | Action |
|------|--|
| 8. | When you are satisfied with the filter and its conditions, press the Save button to return to the <i>Report Manager</i> . Be sure the filter's name is listed in the Filters field. To modify the filter, press the Edit Filter button. |



Now, if you were to you run the *Background Tasks Report* - and select the *Recognize* filter – the report's right-hand columns would contain information similar to the example on the next page.

Background Tasks Report						
04/10/2005 - 05/10/2005 ; Filter: Recognize						
Job ID	Task ID	Batch ID	Status	Docs	Pages	Elapsed Time
Main Job	Recognize	20050130.001	finished	3	3	0: 00: 12
Main Job	Recognize	20050130.002	finished	3	3	0: 00: 08
Main Job	Recognize	20050130.003	finished	3	3	0: 00: 08
Main Job	Recognize	20050130.004	finished	3	3	0: 00: 08
Main Job	Recognize	20050130.005	finished	3	3	0: 00: 08
Main Job	Recognize	20050130.006	finished	3	3	0: 00: 08
Main Job	Recognize	20050130.007	finished	3	3	0: 00: 08
Main Job	Recognize	20050130.008	finished	3	3	0: 00: 08
		8		24	24	0: 01: 08
		8		24	24	0: 01: 08

Background Tasks Report – Recognize Filter

- ✓ **Alert!** The report includes batch data even though the filter did not select individual batches from the *BatchID* tab. This apparent contradiction results from specifications of the **BackgroundTasks.rpt** file that is a component of the Report Definition (Page 52).

Report Settings

Report Name: Background Tasks

Based on:

Crystal Report File: mclient\Reports\BackgroundTasks.rpt ...

Access Database: \DATACAP\mclient\Reports\base.m ...

Base Table Name: taskstats

Date Field Name: ts_StartTime

Save Cancel

Report Settings – Background Tasks

How to Define a Report Filter

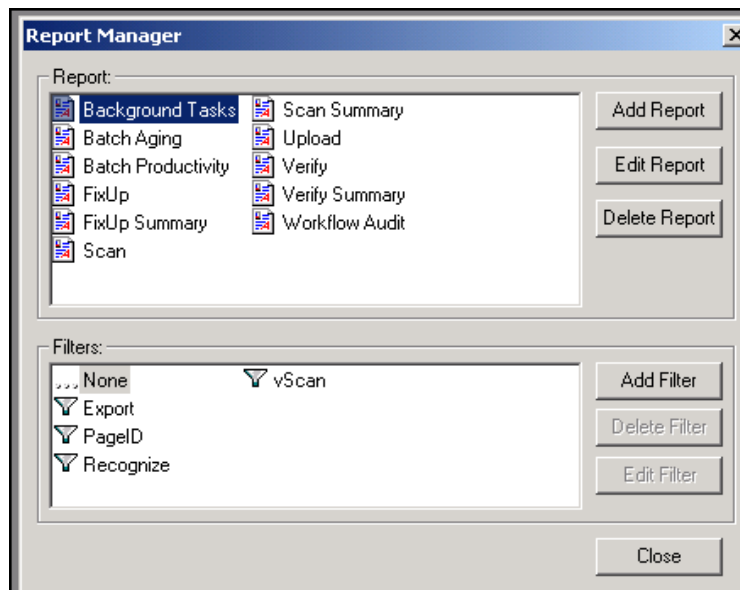
The format of the **Filter Properties** dialog changes according to the nature of the task specified in the Report Definition. The sections which follow describe the tabs available when you prepare a filter for reports in each standard report category.

- ✓ **Keep in mind that...** The tabs for a particular task category identify **all** columns in that category's Statistics table. This table, in turn, is part of an application's Engine database. The descriptions below cover the columns of Statistics tables in a standard Engine database. If your configuration has added or removed tables or columns, the tabs of the **Filter Properties** dialog will change as well.
- ✓ **Remember this, too...** The values listed in a tab's **Available Criteria** area are **current** values retrieved from the appropriate column of the Statistics table. To expand the scope of a filter to include values **not** currently available, press the SQL button. You can then modify the filter's SQL statement.

Background Tasks Reports

A Background task is a **rules-based** task such as RuleRunner or Export – a task that operates in the processing background in response to rules applied to objects of your application's Document Hierarchy (Chapter 2).

- ✓ A **Background Tasks Report** for a single task can be generated only if you first create a filter that clearly identifies that task. In fact, the **default** configuration of the **1040EZ** application uses Background Task filters to produce reports on four tasks of the Main job: vScan, PageID, Recognize and Export.



Filters of the 1040EZ Background Tasks Report

The *Filter Properties* dialog for *Background Tasks Reports* has these tabs:

Tab	Description
BatchID	The identifying codes of batches listed in the Engine database.
Remark	<i>String</i> values of operator comments about individual batches.
Status	Processing statuses of individual batches.
ProcessedDocs	The number of documents in a batch that have been fully processed by a Recognition task (see the explanation below.) Alert! Processed Document and Processed Page counts are not available as selection parameters until a batch with those counts has been processed by a Recognition task. (For more about the Document and Page counts and parameters, see the next page.)
DocsinBatch	The number of documents added to a batch as part of the batch re-organization process that is carried out by a Recognition task.
ProcessedPages	The number of pages in a batch fully processed by a Recognition task.
PagesinBatch	The number of pages added to a batch by an opening Scan task.
ElapsedSec	Elapsed Processing Times (in seconds) for these batches.
StartTime	The time that the background task started.
Station	The ID of the station that ran the background task.
Operator	Codes representing operators who have initiated batch activity.
TaskName	The names of tasks that have processed batches and qualify as background tasks. This is a primary selection parameter for the <i>Background Tasks Reports</i> .
JobName	The names of jobs with tasks that have processed batches and qualify as background tasks.

Selection Parameters: Batch Page and Batch Document Counts

A Scan task creates a batch, scans paper or images, and adds the resulting Image files to the new batch. In a typical application, however, the Scan task does *not* organize the batch into a series of documents with pages assigned to each document. That's usually the work of a Recognition task, which also recognizes the data on each document's *source* page.

In terms of tabs with selection parameters for a *Background Tasks Report* filter:

- **Pages in Batch** is the number of pages (Image files) that the Scan task adds to a new batch. Because a Scan task can't put together an empty batch, this tab does not list "0" as a parameter. Instead, it might list 50, 75, 100, etc. Selecting 50 would limit a report to batches with 50 *scanned* pages. **Important!** If you do not select a value from this list, the report will include batches of all sizes unless the filter employs other criteria.
- **Processed Pages** is the number of pages in a batch that have been *fully processed* by a Recognition task such as the 1040EZ Recognize task. This task identifies each page according to its Page Type, recognizes the data in the *source* pages of the batch, and add a page's *recognized* values to a Data file it sets up just for that page. Immediately after scanning, a batch will have a **Pages in Batch** count of 50 (for example) and 0 as its **Processed Pages** count. If you do not select values from this list, the filter (and report) will not discriminate according to batches with specific **Processed Pages** counts.
- **Documents in Batch** is the total number of documents that a Recognition task assembles during its batch re-organization efforts, in response to the rules that govern the task.
- **Processed Documents** is the number of documents in a batch that have been *fully processed* by a Recognition task as it assigns pages to each batch, and checks the batch for the correct number and type of pages. Unless separate tasks organize and audit documents, the **Documents in Batch** and **Processed Documents** counts are almost always the same.

Here is a sample of selection parameters:

PagesinBatch	ProcessedPages	DocsinBatch	ProcessedDocs
50	0	0	0
75	50	25	25
80	100	40	40
100		50	50
150			

In the table at the bottom of the previous page, values in one column may or may not be related to values in other columns. The **PagesinBatch** column contains *alternative* batch sizes - five parameters indicating the number of pages in a batch when the Scan task first created the batch.

The **ProcessedPages** column has only three parameters: *0* takes care of those batches that have yet to be processed by a Recognition task...batches with *80* or *100* pages, in this example. **Remember!** These are selection parameters: at any time, an application may have numerous batches with 50, 80, or 100 pages.

The five **DocumentsinBatch** alternatives in this example indicate that *document size* is not a fixed value – or that the Recognition task is not performing properly!

Verify and Verify Summary Reports

These reports focus on the productivity of the Data Entry operators who are responsible for a workflow's Verification tasks. A filter can include these parameters:

Tab	Description
BatchID	The identifying codes of batches processed by an application's Verification task - the <i>1040EZ</i> Verify task, for example. Important! Although a typical application employs one Verification task, the task might be used by multiple jobs – a Main job and a Demo job, for example.
Start Time	The dates and times on which the Verification task ran.
Status	The ending statuses of batches processed by the Verification task.
JobID	The names of jobs using Verification task(s).
TaskID	The names of the application's Verification task(s). Often, this tab displays a single entry such a <i>Verify</i> . It is possible, however, that multiple tasks have been defined, and run during the reporting period.
Operator	The ID's of operators responsible for processing the tasks' batches.
Station	The ID's of all workstations responsible for processing the tasks' batches.

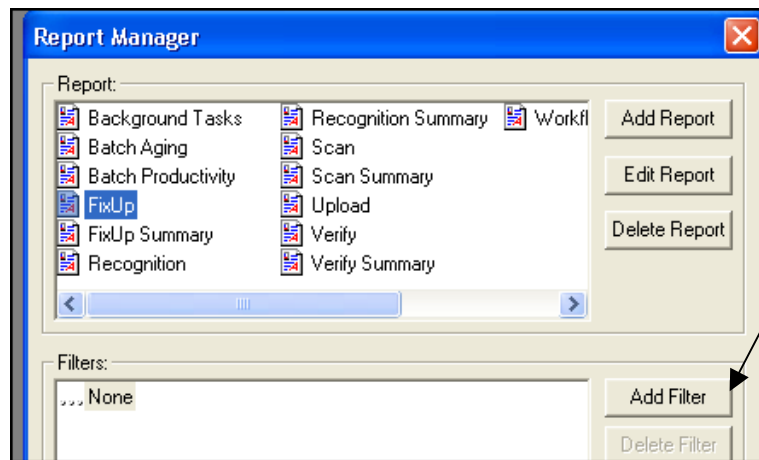
FixUp and FixUp Summary Reports

FixUp Reports provide information about “problem” batches that were diverted from a task of a **parent** Main job to a **child** FixUp job and its FixUp task for review and possible repair. Typically, the batch returns to the **parent** job after the problem has been resolved. (Chapter 10 of the *Guide to Taskmaster Rules* describes FixUp jobs and tasks.)

- ✓ Depending on its configuration, a FixUp task can correct problems with the identities of individual pages within the batch; with the organization of a batch into a series of documents and pages; or with the quality of one or more images. In addition to standard Filter parameters, *FixUp Reports* can use special Filter parameters to designate **processing modes**:
 - *ModeVerify* indicates data review and modification.
 - *ModeFormID* involves the modification of Page Types and Page Statuses.
 - *ModeRescan* indicates the re-scanning of individual pages.

To study the Filter parameters available to FixUp Reports, open the *1040EZ* application’s *Report Viewer* (Page 6) – and the **Report Manager**.

Click on the Add Filter button:



1040EZ Report Manager

Continued on the next page →

How to Define a Report Filter

The filter's tabs allow you to select the following parameters:

Tab	Description
BatchID	The identifying codes of batches processed by an application's FixUp task - the <i>1040EZ</i> FixUp task, for example.
TaskID	The names of the application's FixUp task(s). Often, this tab displays a single entry such as <i>FixUp</i> . It is possible, however, that multiple tasks have been defined and run during the reporting period.
JobID	The names of jobs with FixUp task(s). Usually, a FixUp job is a <i>child</i> job directly related to a Demo or Main <i>parent</i> job.
Station	Identifying codes of all workstations responsible for processing a FixUp task's batches.
Operator	Identifying codes of operators responsible for FixUp procedures.
ModeVerify	Discrete values representing volumes of pages in various batches that have been subject to data verification and modification. A <i>ModeVerify</i> parameter combines with <i>ModeRescan</i> and <i>ModeFormID</i> parameters to define a FixUp filter's modality criteria (see the explanation of modality after this table.)
ModeRescan	Discrete values representing volumes of pages in various batches that have been subject to the physical re-scanning of pages.
ModeFormID	Discrete values representing volumes of pages in various batches that have been subject to the modification of Page ID and Page Status values.
Start Time	The dates and times on which the FixUp task ran.

Modality Parameters

A FixUp task may correct one kind of problem with the structure or content of the batch itself – the makeup of its documents, for example - or problems with individual pages within the batch.

You can use a **mode parameter** to structure a filter that produces a report limited to batches with pages that have been re-scanned, by selecting one or more numbers from the

alternatives listed in the *ModeRescan* tab. You can limit a report to batches with pages containing data that has been modified (*ModeVerify*), or batches with pages that require new Page ID's and Statuses (*ModeFormID*).

- ✓ However, the operator of a FixUp task may have to take steps involving multiple modes to remedy the difficulties within a batch. One practical result is that the three tabs might have values similar to:

ModeVerify	ModeRescan	ModeFormID
4	0	1
6		2
7		3
12		6
ModeVerify 4, 6 ModeRescan 0 <i>ModeFormID</i>		

In the construction of the *FixUp Task Report* filter in the example above:

- ◆ The filtered report will cover *all batches* in which:
 - 4 pages contained data that was verified by a FixUp task; and
 - 6 pages contained data verified by a FixUp task.
 - 0 pages were re-scanned. **Alert!** Often, this is an important parameter because an application may use a FixUp task that does not re-scan pages. Selecting “0” may expand the filter’s scope to

Although the example shows four *FormID* parameters, the filter ignores this category. As a result, the scope of a report governed by this filter will be determined by the *ModeVerify* and *ModeRescan* values (in addition to parameters in other tabs.)

Batch Aging and Batch Productivity Reports

These reports present information about the status of batches currently in the workflow (*Batch Aging*), and about the effectiveness of the workflow in processing completed batches (*Batch Productivity*). The **Filter Properties** dialog for these reports contains several tabs. Although any can provide selection criteria, you'll probably end up using just a few.

Tab	Description
pb_batch	The identifying codes of batches listed in the Engine database.
qs_elaps	Elapsed Processing Times for these batches.
qs_stop	Job Stop dates and times.
qs_start	Job Start dates and times.
qs_op	Codes representing operators who have initiated batch activity.
qs_station	Codes representing stations responsible for the batch activity tracked in the Engine database.
qs_torder	The order of tasks within a job.
qs_taskid	Task IDs of tasks with batches in their processing queues.
qs_qid	The Queue IDs of batches tracked in the Engine database.
qu_counter	A sequential count of current batches.
qu_admDB	The identity of the application's Admin database.
qu_lock	The name of the field used for implementation of critical section locking.
qu_spawnstype	Types of <i>child</i> jobs currently processing batches tracked in the Engine database.
qu_elaps	Elapsed processing times for the batches in the queues of child jobs.
qu_batch	Batch IDs of batches in the queues of child jobs.
qu_parent	Job IDs of "parent" jobs with batches currently being processed by child jobs.
qu_source	Task IDs of tasks assigned to parent jobs with batches currently being processed by child jobs.

Tab	Description
qu_priority	Priority ratings of batches being processed by child jobs.
qu_done	Date and times of batches which have completed child job processing
qu_start	Starting dates and times for batches being processed by child jobs.
qu_status	Statuses of batches being processed by child jobs.
qu_tsorder	The order of the current task in the job.
qu_task	Task IDs of child job tasks that have processed batches during the report period.
qu_job	Job IDs of the child jobs that have processed batches during the report period.
qu_id	The Queue ID for the batch.
pb_StationID	The ID of the station that ran the task.
pb_needMeet	Determines whether the batch is a parent who needs to meet its children, or if it is a child who need to meet its parent.
pb_parentbatch	Batch IDs of batches with split batches.
pb_adjustdocs	<i>Adjusted document</i> counts of the batches tracked in the Engine database.
pb_expectdocs	<i>Expected document</i> counts of batches tracked in the Engine database.
pb_adjustpages	<i>Adjusted page</i> counts of the batches tracked in the Engine database.
pb_pages	<i>Actual page</i> counts of the batches tracked in the Engine database.
pb_pagefile	The page file name.
pb_headertable	The table name where batch header info is stored.
pb_batchdir	The name and location of the application's Batches directory.
pb_mrdate	Date that the task received the batch.
pb_ndocs	<i>Actual document</i> counts of batches tracked in the Engine database.
pb_expectpgs	<i>Expected page</i> counts of the batches tracked in the Engine database.

Workflow Audit Report (Taskmaster Web)

The *Workflow Audit Report* lists processing events associated with each batch processed in an application's *Taskmaster Web* environment.

Filter criteria of the *Workflow Audit Reports* include:

Tab	Description
Operator	Security codes for individuals (“operators”) who have initiated batch processing activity <i>from Taskmaster Web</i> during the report period.
BatchID	Batch IDs for all batches with <i>Taskmaster Web</i> processing activity during the report period
Station	Workstation IDs of stations initiating <i>Taskmaster Web</i> batch activity during the report period.
Status	Processing statuses of batches subject to <i>Taskmaster Web</i> processing during the report period.
Start Time	Starting dates <i>and</i> times for batch processing events.
JobID	Job IDs of jobs with tasks responsible for batch activity during the report period. Important! The list may include jobs that are not launched in by Taskmaster Web, but which process batches that have been created or processed by <i>Taskmaster Web</i> tasks.
TaskID	Task IDs of tasks carrying out batch activity during the report period. Important! The list may include tasks that are not launched by <i>Taskmaster Web</i> , but which process batches that have been created or processed by <i>Taskmaster Web</i> tasks.

How to Generate a Report with a Filter

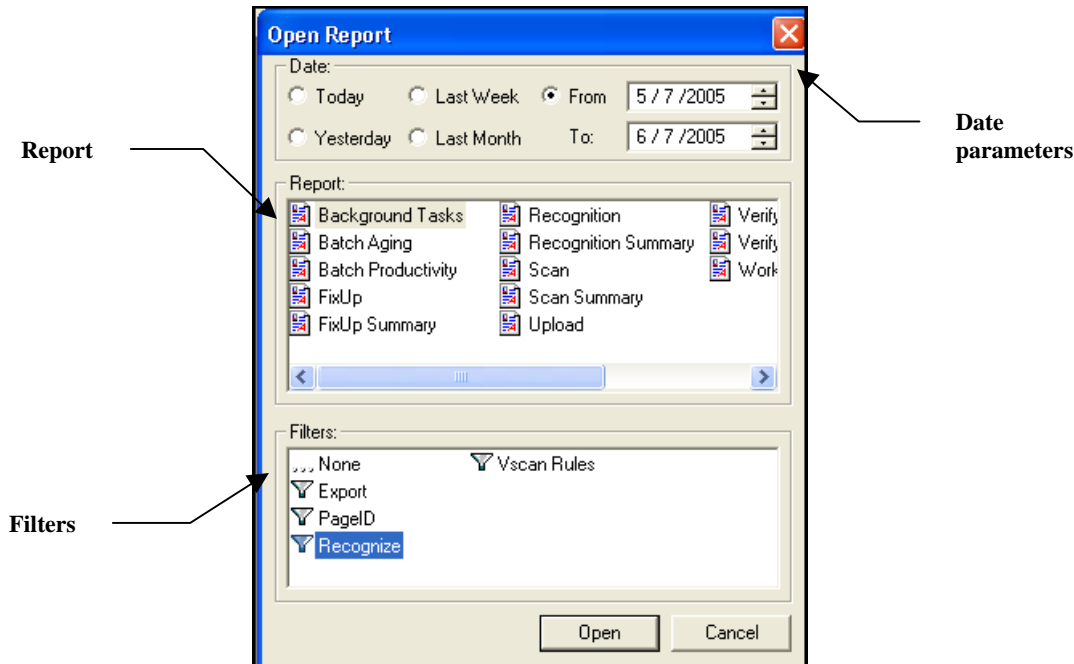
The steps you take to generate a report *with* a Report Filter do not differ significantly from those you took to produce a report *without* a filter.

Again, begin by selecting **Open** from the **Report** menu: the *Open Report* dialog will appear on your screen. As you can see from the example below, however, the *Open Report* dialog now lists active Report Definitions in its **Report** area and—if you select a Report Definition with one or more filters—a list of those filters in the **Filter** area.

To generate a report that *includes* a filter, take these steps:

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

1. Select **Open** from *Report Viewer Window's* **Report** menu: the *Report Manager* will appear on your screen.



2. Activate your **Date** parameter(s).
3. If you select **From**, enter the first date of the range in the accompanying date field and the closing date of the range in the **To** date field.
4. Highlight the Report Definition's ID in the **Report** area: *Report Viewer* will list the Report Definition's filter(s) in the **Filter** area.
5. Highlight the applicable filter.
6. Click on the Open button: *Report Viewer* will process your request and display the *filtered* results for your review.

Defining a New Report

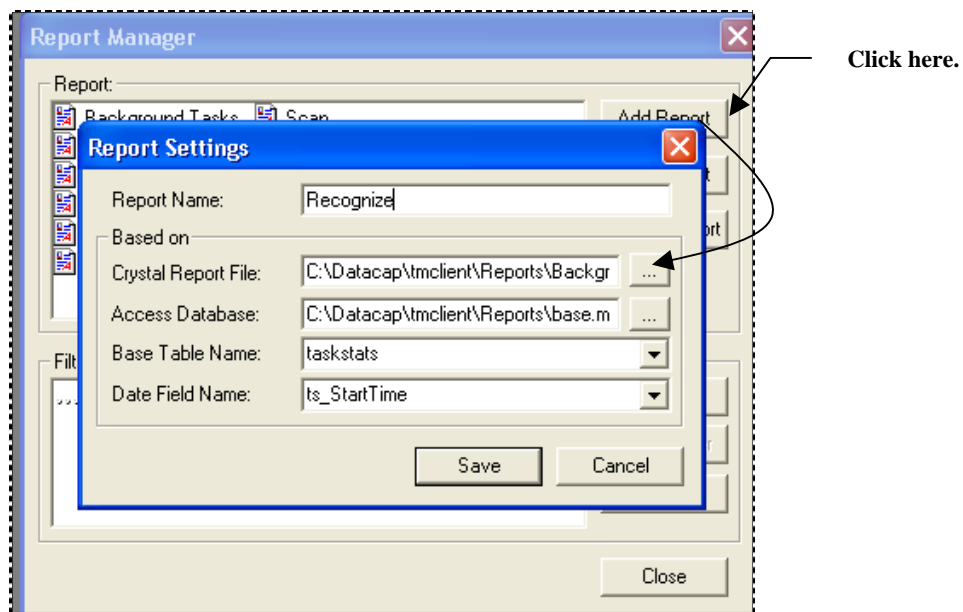
The definition of a new report is a straightforward process – whether or not you include filters as part of the Report Definition.

- Keep in mind two important aspects of the process. First, the foundation of any new report **must** be one of the *Crystal Reports* templates (.rpt). These can be found in the **Reports** subfolder of the **Datacap/tmclient** directory. Secondly, the new report needs a data source – a Statistics table in *Report Viewer's* Base database. Be sure to locate this source before you start defining the report.

To define a new report, take these steps:

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

1. Select **Manager** from the **Report** menu: the *Report Manager* will appear on your screen.
2. Press the Add Report button to open the Report Settings dialog.



3. Provide the report with a unique **Report Name**. **Alert!** In the example above, the Administrator is creating a separate report for Recognition task activity rather than rely on a filter of the standard *Background Tasks Reports* (Page 59).
4. Indicate the name and path of the **Crystal Report File** (.rpt) that will organize and format the report's data (the example uses specifications of the **Background.rpt** file.)
5. Enter the name and path of the **base.mdb** database file that will accumulate information for the report.

To Define a New Report (continued)

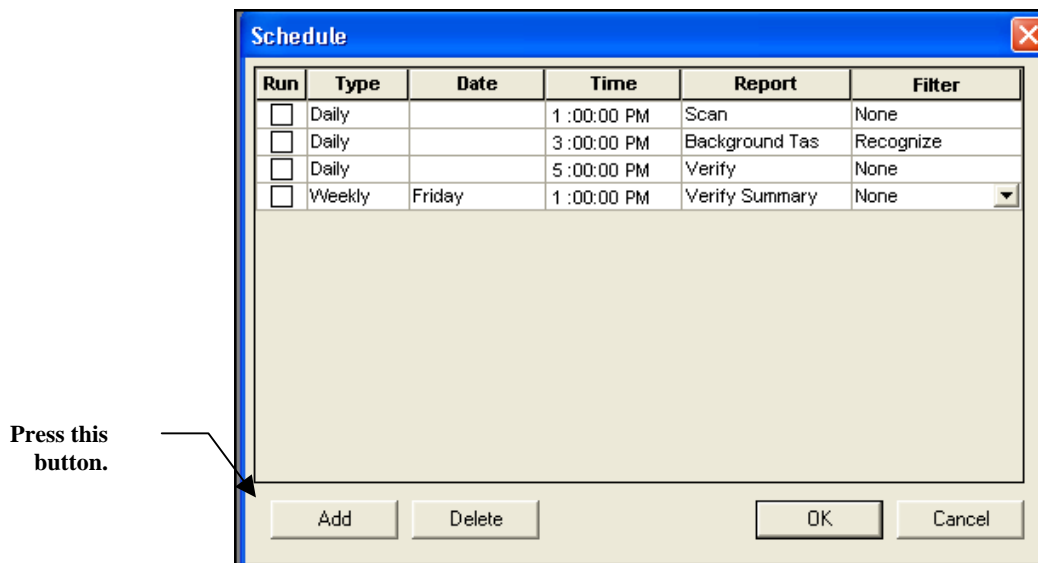
Step	Action
6.	Select Manager from the Report menu: the <i>Report Manager</i> will appear on your screen.
7.	Select the applicable Base Table Name from the drop-down list, and the identity of the column in the Base table that will hold Date/Time data (Date Field Name).
8.	Press the Save button to retain the new Report Definition.
☛	To determine if this as yet unfiltered report will produce data, take the steps outlined on Page 30.

Scheduling Reports

Report Viewer can generate reports on an *ad hoc* basis—on the spur of the moment, whenever you need the information.

Report Viewer can also produce reports on a *scheduled* basis—regularly, according to a schedule you draw up.

You'll enter the details of the schedule in the fields of the *Schedule* dialog. To access this dialog, select **Schedule** from the **View** menu of the *Report Viewer Window*. Clicking the Add button at the bottom of the dialog produces a blank row ready for your scheduling criteria.



Scheduling Dialog

The table at the top of the next page describes the fields and features of this dialog.

- ✓ **Very important!** To run reports according to a schedule you set up requires another, important setting – *be sure* to activate the **Run Settings** option in the *Settings* dialog (Page 13).

Schedule Dialog

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

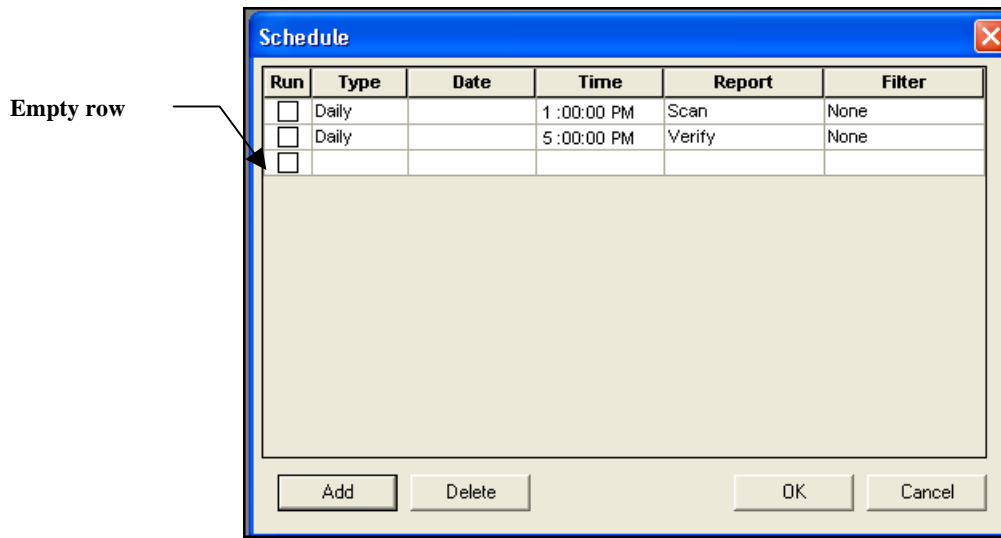
Field/Function/Button	Description
Scheduling Table	<p>Each row in this table contains a set of scheduling parameters for a specific report and, if appropriate, an associated Report Filter.</p> <p>You can use these rows to set up multiple sets of scheduling parameters for a single report.</p>
Run	A check box which, if activated, includes the data in this row in <i>Report Viewer's Report Production Schedule</i> .
Type	A drop-down list of alternative time bases: <i>Once</i> , <i>Daily</i> , <i>Weekly</i> and <i>Monthly</i> .
Date	<p>Additional time specifications. The specific nature of the items in the list depends on your selection of a Type (above).</p> <p>If the Type is <i>Once</i>, this is a calendar field: enter the date on which the report is to be generated.</p> <p>If the Type is <i>Daily</i>, this field is not used.</p> <p>If the Type is <i>Weekly</i>, the Date field lists the days of the week (Monday-Friday).</p> <p>If the Type is <i>Monthly</i>, this field is a list of numbers from 1 to 31: select the day of each month on which the report is to be generated.</p>
Time	The time of the report's generation.
Report	A drop-down list of ID's representing Report Definitions you have set up (Page 52).
Filter	<p>A drop-down list of Report Filters associated with the Report Definition you have selected (Page 35).</p> <p>The list includes <i>None</i> as the default specification.</p>
Add Button	Adds an empty row to the Scheduling Table.
Delete Button	Deletes the row in which your cursor sits.
OK Button	Confirms the information you have added or modified in the Scheduling Table and returns you to the <i>Report Viewer Window</i> .
Cancel Button	Returns you to the <i>Report Viewer Window</i> .

How to Define a Report Production Schedule

To set up a new schedule, take these steps:

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

1. Select **Scheduling** from the **View** menu of the *Report Viewer Window*: the *Schedule* dialog will appear on your screen.



2. Click on the Add button to insert a blank row into the Scheduling Table.
3. Click on the **Type** heading and place your cursor in the field.
4. Select a time basis from the **Type** drop-down list: *Once, Daily, Weekly* or *Monthly*.
5. Click on the **Date** heading and place your cursor in the field.
6. Select the applicable date, day or month specification from the **Date** drop-down list. (**Remember:** If you have selected *Daily* as the **Type**, this field will be unavailable.)
7. Click on the **Time** heading and place your cursor in the field.
8. Specify the time of the report's production.
9. Click on the **Report** heading and place your cursor in the field.
10. Select a Report Definition from the **Report** drop-down list.
11. If the report's information is to be filtered (Page 35), click on the **Filter** heading and place your cursor in the field - then select the applicable Filter Definition.

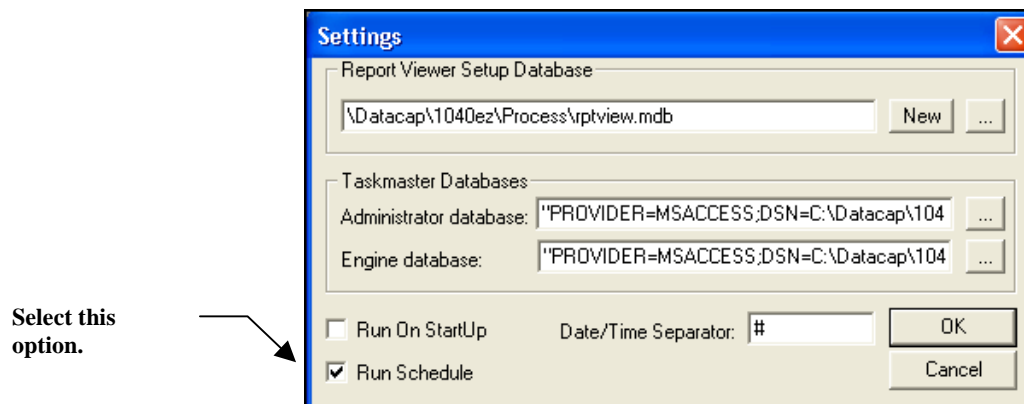
To Define a Report Production Schedule (continued)

Step	Action
12.	To complete additional rows of scheduling information, press the Add button and complete Step #3-Step #11 for <i>each set</i> of scheduling parameters.
13.	Review the information in the Scheduling Table.
14.	Click on the OK button.

Processing Scheduled Reports

Report Viewer will automatically generate and print reports according to your Report Production Schedule *only* if you have activated the **Run Schedule** check box of **Settings** dialog. **Note:** *Report Viewer* must be logged into your application in order for it to generate and print these reports.

To access this dialog, select **Settings** from the **View** menu of the **Report Viewer Window**.



Settings Dialog

Activating the **Run Schedule** check box ensures the production of a report if the scheduled time and date coincide with a time and date on which you 're running *Report Viewer*.

If you also activate **Run on StartUp**, *Report Viewer* will run whenever you start your computer; in most cases, this will significantly expand the time frame during which scheduled reports are actually generated.

Report Content

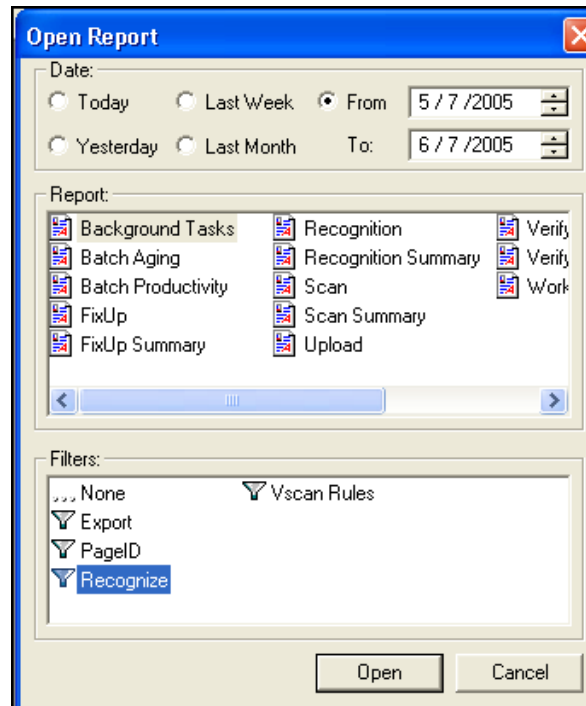
The following pages contain explanations of *Report Viewer's* standard reports.

Report	Description on Page...
<i>Background Tasks</i>	59
<i>Batch Aging</i>	59
<i>Batch Productivity</i>	61
<i>FixUp</i>	61
<i>FixUp Summary</i>	62
<i>Scan</i>	61
<i>Scan Summary</i>	63
<i>Workflow Audit</i>	63

- ✓ A **Reports Glossary** begins on Page 66. The glossary defines the terms you'll find in reports of various kinds – mostly, as headings of a report's columns.

Background Tasks Reports

A *Background Tasks Report* list information about one or more background tasks: a filter limits the report to the activity of a single task (Page 40). In the illustration below, a *1040EZ Background Tasks Report* can cover up to four tasks:



Background Tasks Report

A *Background Tasks Report* identifies each batch that has *completed* the task designated by the filter.

For a **batch**, the report identifies:

- **Date**
- **Time**
- **Job.**
- **Task**
- The **operator** responsible for the closing task
- The **status** assigned to the batch by the closing task
- The number of **documents** in the batch when this Job/Task combination closed.
- The **number of pages in the batch when this Job/Task combination closed.**
- **Elapsed time** as part of this Job/Task combination.

A *Background Task Report* also lists total documents, pages and elapsed time for all batches covered by the report, as well as averages per batch.

Batch Aging Report

The *Batch Aging Report* provides answers to the following questions about batches in a job's processing queue during the report period.

- ✓ A processing **queue** contains every batch associated with a particular job. In the case of a Main job, a batch remains in the job's queue until you delete it using *AutoDelete* (Chapter 7) or the *Job Monitor's* Delete function. In addition, a batch remains in a *child* job's queue until it returns to the *parent* job.

For *each* active batch:

What is its current Job/Task location within the workflow?

How long has it been in this job's queue?

What is its current processing status?

How many documents and pages does it contain?

For *all* active batches:

What is the total number of batches covered by the report?

What is the total number of documents and pages in the batches covered by this report?

What is the average number of documents and pages per batch?

What is the total processing time for all batches covered by the report?

What is the average processing time per batch?

As you can see in the sample report, a number of batches have a *Job Done Status*. This status indicates that the batch has completed the workflow but its data has *not* yet been deleted from the Engine database. As a result, the clock keeps on ticking, increasing the numbers in **Days**, **Hrs** and **Mins** until the batch is deleted.

Batch Productivity Report

The *Batch Productivity Report* identifies each batch that has **completed** a *parent* or *child* job. This means that a batch which has been diverted to a *child* job for additional attention may well appear in this report twice.

For each **batch**, the report identifies:

- **Job.**
- **Job Type** (*parent* or *child*).
- The job's closing **task**
- The **operator** responsible for the closing task
- The **status** assigned to the batch by the closing task
- The number of **documents** in the batch when this Job/Task combination closed.
- The **number of pages in the batch when this Job/Task combination closed.**
- **Date and time** parameters
- **Elapsed time** as part of this Job/Task combination.

The *Batch Productivity Report* also lists total documents, pages and elapsed time for all batches covered by the report, as well as averages per batch.

FixUp Reports

A FixUp task reviews and repairs “problem” batches and their contents. Without a filter, the *FixUp Task Report* sorts fixup activity according to **date** and, within date, by **operator**.

The report then lists the following information about each batch subject to FixUp procedures:

- **Batch ID**
- **Job and Task**
- **Batch Size:** the number of its *processed* documents and its *scanned* pages (Page 42).
- **Split documents:** how many documents were split into two or more other documents.
- **Joined documents:** how many documents result from joining one or more other documents.
- **Changed status:** how many pages in the batch were subject to a change in processing status.
- **Changed type:** how many pages in the batch were subject to a change in Page Type.

- **Anchor Set:** how many pages in the batch contained anchor fields that were newly established or re-set.
- **Pages Rescan:** the number of re-scanned pages in the batch.
- **Pages Insert:** the number of pages added to the batch.
- **Elapsed time** of the batch as part of this Job/Task combination.

FixUp Summary Reports

The FixUp Summary Report compiles data in the FixUp Reports within a specific period, according to **operator**.

The report adds an average of the **Minutes/Seconds** spent by the operator on his or her batches.

Scan Reports

A Scan task, like a Verification or FixUp task, requires substantial operator participation. As a result, the *Scan Report* lists processing events for a particular *operator*, on a specific *day*.

A processing event's data specifies:

- Operator
- Station
- Job and Task
- Batch
- Starting time and date
- Elapsed time
- Number of documents in the batch.
- Number of pages in the batch.
- Status of the batch, assigned by the Scan task.

An operator summary line for the day totals the documents and pages in all batches, and the elapsed time.

A report summary line at the end of the report provides comparable totals for the report period.

- ✓ The Scan task of a typical application sets up one batch-wide document and assigns all pages in the batch to that document. As a result, a processing event's row usually has a "1" in the **Documents** column; the **Pages** column specifies the number of images in the batch.
- ✓ Batch Status is the processing status assigned to the batch by the Scan task.

Scan Summary Report

This report summarizes a Scan operator's activities during the report period. The columns indicate:

- Total batches
- Total documents

Average documents per batch

- Total pages

Average pages per batch

- Total elapsed time

The report's closing line shows comparable totals and averages for *all* operators active during the report period.

Verify Reports

If your Main workflow includes a Verification task, the *Verify Report* is a valuable source of productivity data.

The report is a day-by-day list of processing events associated with any Data Entry operator who has verified batches on that day.

For a particular operator on a specific day, the *Verify Report* answers these questions:

When did each *Verify* processing event occur? How long did it last?

What batch was involved in the event?

Which station initiated the event?

Which Job/Task processed the batch?

How many documents were actually processed during the event ?

How many operator keystrokes were involved in the event?

What was the status of the batch at the end of the event?

How much time was required for the processing event?

For this operator, on this day, the report provides totals for batches, *processed* documents, keystrokes and elapsed time.

The report provides comparable totals for *all* operators involved in *Verify* processing events during the period covered by the report.

Verify Summary Report

The *Verify Summary Report* features two sections with operator statistics:

Totals

For the report period, this section provides totals for each participating operator – and grand totals for all operators. The totals cover batches, *processed* documents, keystrokes and elapsed time.

Averages

This section calculates and displays averages for the report period, by operator and for all operators.

These figures isolate average elapsed time per batch and per *processed* document, and the average keystrokes per *processed* document.

Workflow Audit Report

This is a batch-by-batch list of all processing events for individual batches throughout the report period.

The report begins by identifying a batch. It then displays one or more rows: each row is a batch processing event.

Information about the processing event includes:

- Start time and date
- Operator and workstation initiating the event.
- Queue ID assigned to the batch by *Taskmaster*.
- Job
- The task responsible for the *previous* processing event
- The status assigned to the batch at the conclusion of the *previous* processing event
- The task responsible for the *listed* processing event.
- The status assigned to the batch by the listed processing event.
- An indication of whether or not a change in batch status resulted from operator intervention (“Yes” in the **Manually Changed** column) or automatically (“No”).

When you first work with this report, the presentation of data in the **Original** and **New** sectors can be confusing.

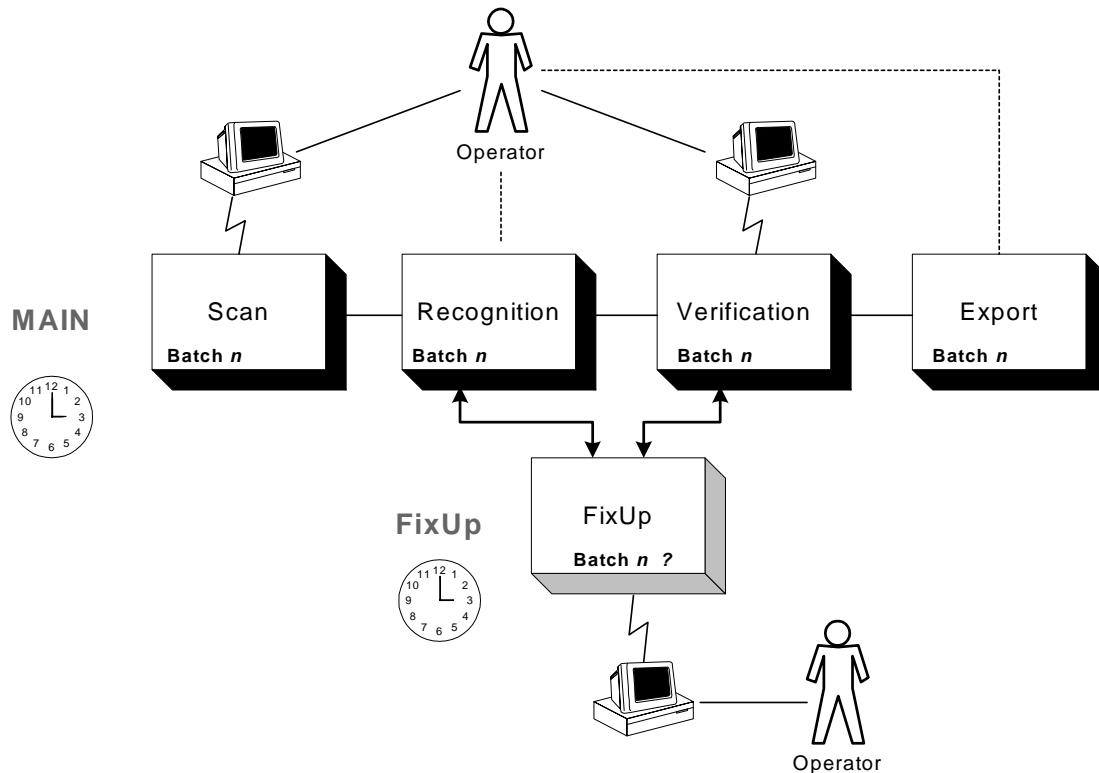
Each row contains data for a single processing event – what we’ll call the *current* processing event. Values in the **New** sector’s **Task ID** and **Status** columns indicate the task responsible for the listed processing event, and the status the task assigned to the batch at the conclusion of the event.

Values in the **Original** sector, on the other hand, apply to the immediately *preceding* processing event...the event first defined on the row above.

One important result: if the report period extends far enough, some batch listings will include at least one processing event without any entries in the **Original** column. This occurs when the Scan task first constructs the batch; at this point, there is no preceding event.

Reports Glossary

The standard reports track batches as they move through an application's workflow. The chart below depicts the stages in this process, while the Glossary defines most terms which appear in the reports, often as titles of a report's columns. (For your convenience, the chart appears repeatedly throughout the Glossary.)



The chart highlights these *Taskmaster* fundamentals:

A **workflow** consists of a **job** and its **tasks**.

Batches are processed by individual **Job/Task combinations**.

A task in a *parent* job can divert a batch to tasks in a *child* job for special attention.

Operators run tasks from **workstations**. Tasks such as Scan, Verification and FixUp require considerable operator participation.

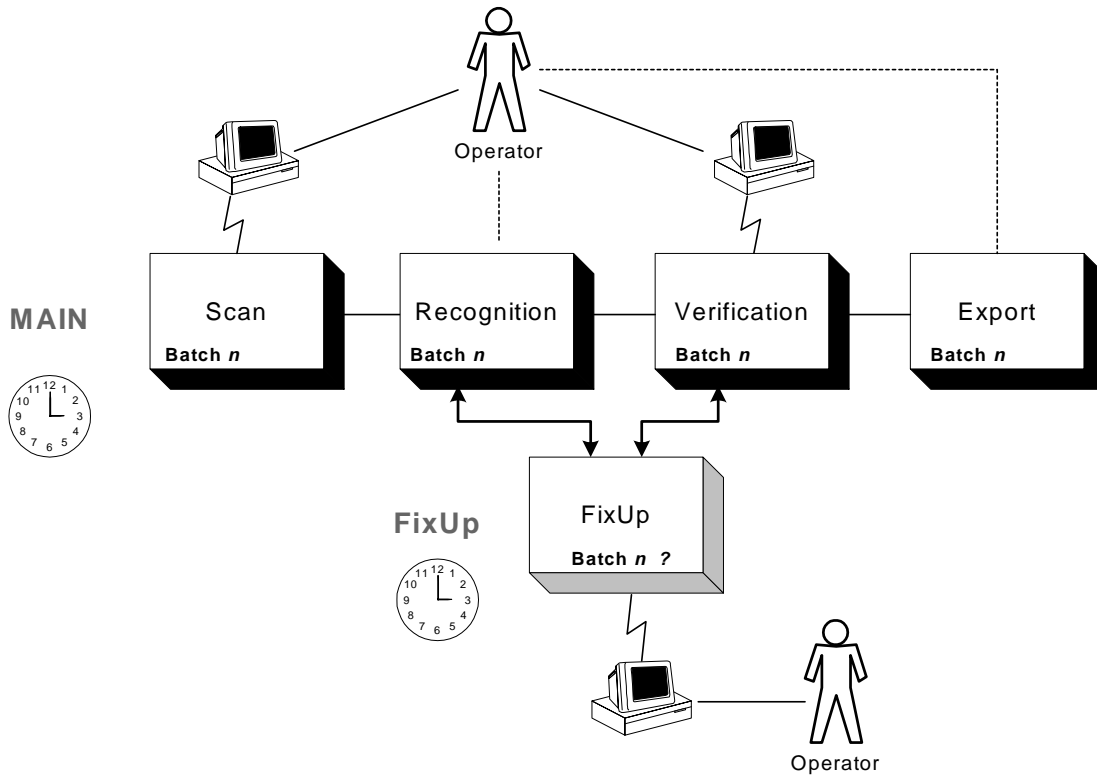
Processing events are the line items of most reports. A processing event begins when a task starts processing a batch and ends as soon as processing stops - *for any reason*.

For full explanations of *Taskmaster* concepts, see Chapter 2.

Term	Explanation
Anchor	A pre-printed mark the Recognition task uses to identify and position the image of a scanned page.
Anchors Set	A statistic in the <i>FixUp Reports</i> , indicating how often the FixUp operator had to re-establish the anchor fields on pages in a batch.
Average Documents per Batch	<p>Statistics in the <i>Scan Summary Report</i> specifying the average number of documents in batches covered by the report.</p> <p>The report includes a figure for each operator, and an average for all operators. Because the typical Scan task sets up one document for each batch, this number is usually “1”.</p>
Average Pages per Batch	<p>A statistic in the <i>Scan Summary Report</i> specifying the average number of pages in each batch covered by the report.</p> <p>The report includes a figure for each operator, and an average for all operators.</p>
Average Time per Batch	A statistic in the <i>Batch Aging Report</i> and <i>Batch Productivity Report</i> indicating an average processing time per batch.
Background Tasks	Task that run in the processing background in response to pre-define rules, with little or no operator participation.
Batch	<p>A set of files first assembled by the Scan task and augmented by each succeeding task.</p> <p>When the Scan task creates it, a batch consists primarily of files (.tif) containing images of scanned pages (Chapter 2). The <i>expected</i> size of a batch (number of pages) is a parameter usually provided by the Scan operator.</p>
Batch ID	<p>The identifying code assigned to the batch by the Scan task.</p> <p>This code is a primary selection parameter for every <i>Task Report</i>.</p>

Term	Explanation
Batch Size	<p>A “super” category in the <i>FixUp Report</i> listing the number of documents and pages in each batch covered by the report.</p>
Batches	<p>Statistics in the <i>Scan Summary Report</i> specifying the total batches created by the Scan task during the period covered by the report.</p> <p>The report includes the number for each operator, and a sum for all operators.</p>
Changed Status	<p>A statistic in the <i>FixUp Task Reports</i> specifying how many pages in a batch (or group of batches) required a change in Page Status.</p> <p>A task automatically assigns a processing status to each page in the batch. However, if the FixUp operator corrects a page, he or she may need to update its Page Status as well.</p>
Changed Type	<p>A statistic in the <i>FixUp Task Reports</i> specifying how many pages in a batch (or group of batches) required a change in Page Type.</p> <p>Like Changed Status, this column is empty unless a FixUp operator (or Administrator) has actually modified the Page Type of one or more pages within the batch.</p>
Child job	<p>A special purpose job with one or more tasks to meet special workflow requirements. The <i>child</i> job branches from a task of its “<i>parent</i>” job.</p> <p>In the chart, the FixUp <i>child</i> job has a single FixUp task. Circumstances encountered by the Main job’s Recognition task or Verification task can divert a batch to the <i>child</i> job.</p> <p>Important: When a batch leaves the workflow of the <i>parent</i> job to enter the <i>child</i> job’s workflow, the <i>parent</i> job gives it a processing status such as <i>Waiting</i> while the <i>child</i> job gives it a different status, perhaps <i>Pending</i>. <i>See also: Status.</i></p>

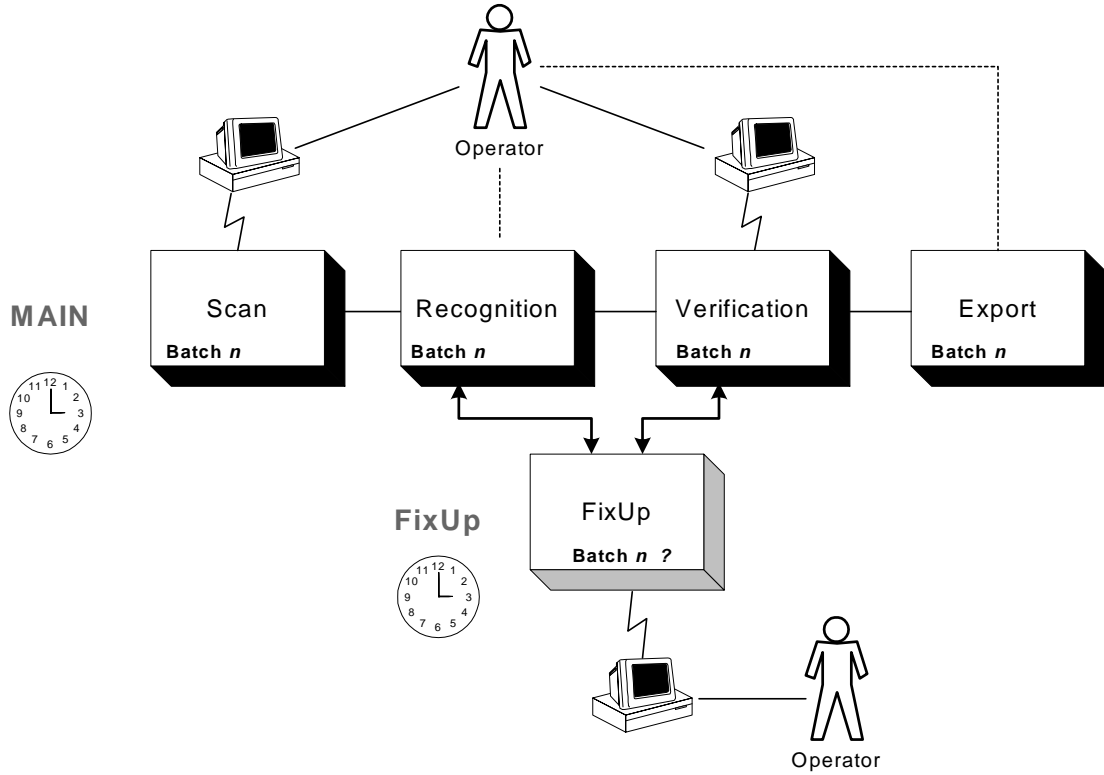
Term	Explanation
Date	<p>The date (Month/Day/Year) on which a processing event occurred.</p> <p>Date is the first column of most <i>Task Reports</i>, and is a useful sorting parameter.</p> <p><i>See also: Elapsed Time.</i></p>
Days/Hrs/Mins	<p>The time required to process a batch.</p> <p>The scope of this figure depends on the nature of the report. The <i>Batch Productivity Report</i>, for example, indicates how long a batch spent in a particular job – from start to finish. The <i>Task Reports</i> tell you how much time was required for a single processing event, or for all processing events.</p> <p>In the <i>Task Reports</i>, this figure appears under the Elapsed Time column. <i>See also: Elapsed Time.</i></p>



Term	Explanation
Document	<p>The primary organizing entity of a batch (Chapter 2).</p> <p>Typically, the Scan task assigns all pages in a batch to one batch-wide document. The Recognition task then re-orders the batch by assembling multiple documents – each with one or more pages.</p>
Documents	<p>A figure in the <i>Scan Report</i> indicating the number of documents in each of the batches generated by a workstation on a specific day.</p> <p>Typically, the Scan task puts together one document per batch.</p>
Documents, joined	<i>See Joined Documents.</i>
Documents, processed	<i>See Processed Documents.</i>
Documents, split	<i>See Split Documents.</i>

Term	Explanation
Elapsed Time	<p>An indication of the time required for a processing event.</p> <p>This is a column in each report; its field usually has a days: hours: minutes format.</p> <p>The <i>Verify Summary Report</i> treats time a little differently. For details, see <i>Run Time</i>, <i>Run Time per Batch</i> and <i>Run Time per Document</i>.</p>
Export Task	<p>The closing task of most Main jobs.</p> <p>An Export task extracts verified data from Data files representing the pages in a batch; uses the data to assemble Export Records; and adds each record to an Export file or database.</p> <p>Important! A batch remains in the processing queue of the Main job <i>after</i> the Export task has completely processed it...until you take steps to delete it.</p>
FixUp Task	<p>A task that repairs “damaged” or incomplete documents and pages.</p> <p>As the chart illustrates, a FixUp task is almost always part of a <i>child</i> job; a task in the Main job will dispatch a batch to the FixUp task (and the FixUp operator) if the batch contains unidentifiable pages, or documents with the wrong mix of pages.</p> <p>Like the Verification tasks, FixUp tasks depend heavily on operator participation. As a result, the <i>FixUp Task Reports</i> provide considerable information about operator productivity.</p>
Inserted Pages	<p>A statistic in the <i>FixUp Reports</i> indicating how many pages were inserted by a FixUp operator into the documents of a batch (or group of batches).</p> <p>If a batch is diverted to the FixUp task of a FixUp <i>child</i> job because one or more documents is missing pages, this strategy – inserting a page – may solve the problem.</p>

Term	Explanation
Job	<p>The principal processing component of a <i>Taskmaster</i> workflow.</p> <p>As the chart suggests, the workflow’s Main job contains its core tasks. Together, a task assigned to a job form a Job/Task Combination.</p> <p>If any of these tasks can “branch” to another job, the Main job is the <i>parent</i> job and the other job is a <i>child</i> job.</p> <p>This is an <i>important distinction</i>; the diversion of a batch from a task of the <i>parent</i> job to a task of the <i>child</i> job can have a significant impact on the content of certain reports. <i>See also: Parent job, Child job.</i></p>
Job Done	<p>The date and time on which a batch has been completely and successfully processed by a job’s closing task.</p> <p>The <i>Batch Productivity Report</i> includes a Job Done value for a batch when the Main job’s Export task is finished with it. By subtracting the Job Start figure from this number, the report shows how long the batch remained in the job.</p> <p><i>Please Note:</i> When a job’s last task completes its work with a batch, the batch does <i>not</i> leave the <i>Taskmaster</i> queue. A batch remains in the queue until you delete it (Chapter 7).</p> <p>At any point, if a batch goes from the Main (<i>parent</i>) job to a <i>child</i> job, the <i>Batch Productivity Report</i> provides a separate Job Done value to help measure the amount of time the batch spends with the <i>child</i> job.</p> <p><i>See also: Queue.</i></p>

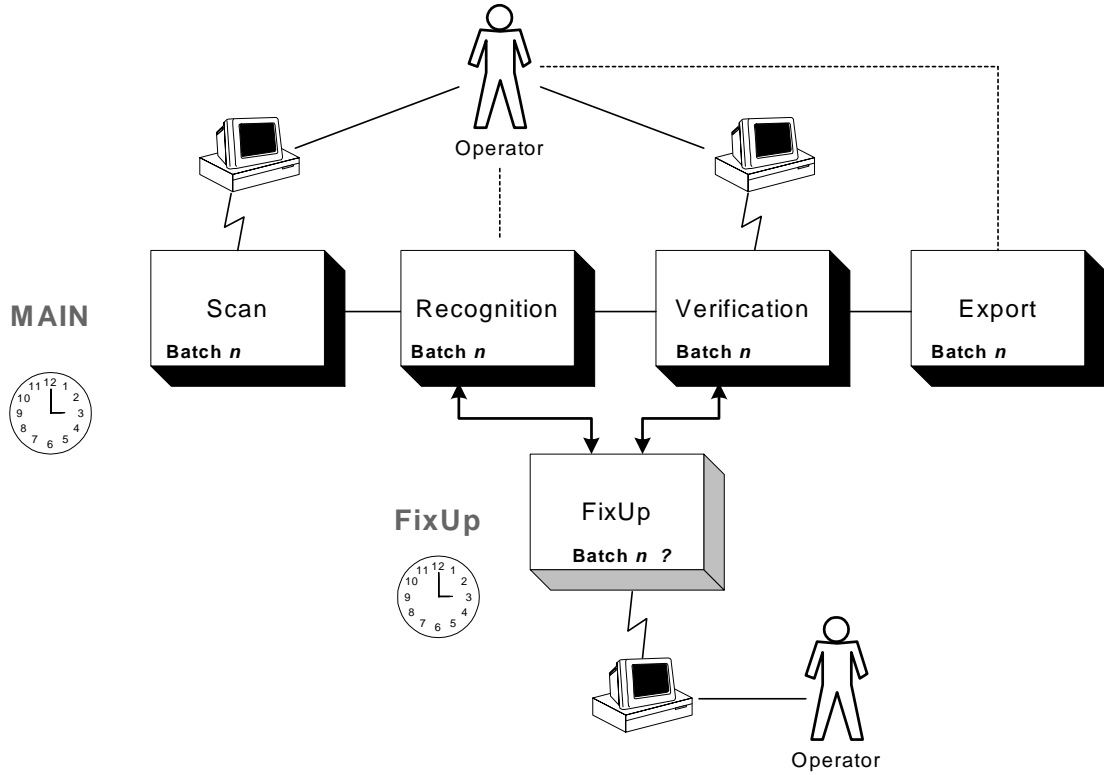


Term	Explanation
Job ID	A job's identifying code. Job ID is a column in most <i>Task Detail</i> reports.
Job Start	The date and time on which a batch entered a job's processing queue. The <i>Batch Productivity Report</i> provides a Job Start value for a Main job – usually the moment when the Scan task creates the batch. By subtracting this figure from a Job Done value, the report shows how long the batch remained in the job. At any point, if a batch goes from the Main (<i>parent</i>) job to a <i>child</i> job, the <i>Batch Productivity Report</i> provides a separate Job Start value to help measure the amount of time the batch spent with the <i>child</i> job.

Term	Explanation
Job/Task Combination	<p>The workflow’s central processing entity, consisting of a job and one of the tasks assigned to it.</p> <p>The chart shows five Job/Task combinations: the Main job has four tasks, while the FixUp <i>child</i> job has one.</p> <p>A task cannot operate unless it is part of a job; for details, see Chapter 2.</p>
Joined Documents	<p>A statistic in the <i>FixUp Reports</i> indicating how many times a FixUp operator has “joined” documents within a batch, or within a group of batches.</p> <p>Joining is a process that combines two or more documents - each with an inadequate structure or number of pages. The result is a single, joined document with the correct page count.</p>
Keystrokes	<p>A statistic in the <i>Verify Task Report</i> specifying the number of keystrokes a Verification operator took to correct problems during a particular processing event.</p> <p>The report also provides a total for the operator, for the day; and a total for all processing events for the period.</p> <p>The <i>Verify Summary Report</i> lists the total keystrokes for an operator during a particular period; the number of documents in the processed batches; and average keystrokes per document.</p>
Keystrokes per Document (average)	<p>A statistic in the <i>Verify Summary Report</i> indicating how many keystrokes – on average - were required by a Verification operator to correct the problems with all documents in all batches he or she processed during the report period.</p> <p>The report provides an average for each Verification operator, and an average for all operators.</p>

Term	Explanation
Manually Changed	<p>A code in the <i>Workflow Audit Report</i> indicating if an Administrator or authorized operator has intervened with the Job Monitor to change the processing status assigned to a batch.</p> <p>In this column, “1” = Yes, “0” = No.</p>
New Task ID and Status	<p>Codes in the <i>Workflow Audit Report</i> indicating the task responsible for a batch at the conclusion of each processing event, and the status of the batch at that point.</p> <p><i>See also: Original Task ID and Status.</i></p>
Operator	<p>The User ID representing the individual who last initiated the batch activity of a specific task assigned to a specific job, or changed the status of the batch.</p> <p>Most reports include a column listing the task’s operators.</p>
Original Task ID and Status	<p>Codes in the <i>Workflow Audit Report</i> indicating the task responsible for a batch at the beginning of a processing event, and the status of the batch at that point.</p> <p><i>See also: New Task ID and Status.</i></p>
Page	<p>An organizational entity within a batch representing a processed paper page and the values it contains. (For details, see Chapter 2.)</p>
Pages	<p>A figure in the <i>Scan Report</i> indicating the number of pages in each batch generated by a workstation on a specific day.</p> <p>Typically, the Scan task creates one Image file per scanned <i>paper</i> page; these Image files then represent pages in the batch. The Recognition task, in turn, prepares a Data file for each page.</p>
Pages, insert	<p><i>See Inserted Pages.</i></p>
Pages, rescan	<p><i>See Rescanned Pages.</i></p>
Page Type	<p><i>See Changed Type.</i></p>

Term	Explanation
<i>Parent Job</i>	<p>A job containing one or tasks that can branch a batch to the task(s) of a <i>child</i> job under certain, very specific circumstances.</p> <p>In the chart, Main is the application's <i>parent</i> job; FixUp is the <i>child</i> job.</p>
Processed Documents	<p>A statistic in the <i>Verify Report</i> indicating how many documents a Verification operator worked with while remedying the problems of a specific batch, on a particular day.</p>
Processing Event	<p>Activity occurring between the time a Job/Task operation opens, and the time it closes for <i>any reason</i> whatsoever.</p> <p>Please note: This important, <i>often overlooked</i> concept helps determine the structure of reports such as the <i>Verify</i> and <i>FixUp Detail Reports</i>. In these reports, each row lists results for a single processing event. This is because a Verification operator (for example) might work with the same batch repeatedly on the same day</p>
Queue	<p>A list of batches awaiting processing by a specific job in the <i>Taskmaster</i> application.</p>
Queue ID	<p>A sequential number assigned to a batch by <i>Taskmaster</i> when a job prepares to process it.</p> <p>This number appears as an identifying code in the <i>Workflow Audit Report</i>.</p>



Term	Explanation
Recognition Task	<p>The “brains” of the workflow, responsible for recognizing documents and pages; for locating and identifying fields; and for interpreting the values in each field.</p> <p>At the conclusion of its work with each page in a batch, the Recognition task generates a Data file (.xml) for the page and adds its interpretations of the page’s values to the file.</p> <p>In response to parameters you provide, the Recognition task may branch batches containing “problem” pages to a <i>child</i> job for further attention.</p> <p>Some Recognition tasks isolate documents with High Confidence pages and send them directly to Export, thus skipping the workflow’s Verification process.</p>
Report Period	The days covered by a report, defined by two calendar settings – a start date and an end date.

Term	Explanation
Rescanned Pages	<p>A statistic in the <i>FixUp Reports</i> indicating how many pages in a batch were re-scanned by a FixUp operator, during a processing event.</p> <p>The <i>FixUp Detail Report</i> provides operator totals for each day, and a column total for all days during the report period.</p> <p>The <i>FixUp Summary Report</i> provides a total for each FixUp operator, and for the report period.</p>
Run Time	<p>A statistic in the <i>Verify Summary Report</i> indicating how long (in minutes and seconds) an operator spent on the batches he or she processed during the report period.</p>
Run Time per Batch (average)	<p>A statistic in the <i>Verify Summary Report</i> indicating the average time an operator spent on each batch processed during the report period.</p>
Run Time per Document (average)	<p>A statistic in the <i>Verify Summary Report</i> indicating the average time an operator spent on each document processed during the report period.</p>
Split Documents	<p>A statistic in the <i>FixUp Reports</i> indicating how many documents in a batch were split into sub-documents by a FixUp operator, during a processing event.</p> <p>The <i>FixUp Detail Report</i> provides operator totals for each day, and a column total for all days during the report period.</p> <p>The <i>FixUp Summary Report</i> provides a total for each FixUp operator, and for the report period.</p>
Station	<p>The Station ID of the workstation from which a particular processing event was initiated.</p> <p>Most reports include a Station column.</p>

Term	Explanation
Status	<p>The processing condition of a batch at a specific point in a job.</p> <p>Typically, the task currently responsible for the batch is also responsible for its status. As a result, when the Scan task completes a batch, it gives the batch a <i>Finished</i> status. Barring any problems, however, the batch moves immediately in the queue to Recognition, and Recognition gives it a <i>Pending</i> status.</p> <p>Usually, the tasks themselves assign and update statuses. Occasionally, however, an Administrator or authorized operator will intervene to change a status.</p> <p>Important (1) When a batch leaves a task in a <i>parent</i> job for the attention of a task in a <i>child</i> job, two statuses mark the event. The task in the <i>parent</i> job will assign a status like <i>Waiting</i>; the task in the <i>child</i> job will assign a sequence of statuses, starting perhaps with <i>Pending</i>, and moving it along until the batch has a <i>Finished</i> status.</p> <p>Important (2) A batch that completes the Main job's workflow and receives a <i>Job Done</i> status remains in the job's queue until you delete it (Chapter 8).</p>
Task	<p>A processing component of a job.</p> <p>Once defined, a task is assigned to a job; together they form a Job/Task combination. Although the titles of the standard reports suggest that the data covers task activity, these reports actually cover Job/Task activity.</p>
Task ID	<p>A unique code representing a particular Task Definition (Chapter 2).</p>
Time	<p>In the <i>Verify Report</i>, this is a processing event's Start Time. <i>See also: Start Time.</i></p>

Term	Explanation
Time in Queue as of:	<p>The date and time of the <i>Batch Aging Report's</i> closing parameter.</p> <p>This report provides information about each batch in the <i>Taskmaster</i> queue <i>as of</i> this date and time.</p>
Total Documents	<p>A statistic in the <i>Scan Summary Report</i> specifying the total documents in the batches covered by the report.</p> <p>Because the typical Scan task sets up one document for each batch, this number is usually equal to the value in the report's Batches column.</p>
Type	<p>An indication in the <i>Batch Productivity Report</i> that a job is participating in a processing event in the role of a <i>parent</i> job or as a <i>child</i> job.</p>
Verification Task	<p>A task that uses a Data Entry panel to provide Data Entry operators with images of the values in the fields on a page, along with the Recognition task's interpretation of those values.</p> <p>Navigation tools move the operator swiftly from one "problem" field to the next, from problem page to problem page, and from document to document.</p> <p>The <i>Verify Reports</i> contain important measures of operator performance.</p>

Troubleshooting Report Viewer

This table lists problems you may encounter when working with *Report Viewer*, and solutions to each problem.

Problem	Solution
Double-clicking on your desktop's Report Viewer icon (Page 17) causes a dialog to appear that asks you to select either an admin or engine database.	In the <i>Shortcut</i> tab of the shortcut icon's Properties dialog, check that the Target textbox has the correct syntax for your database type and that all values are correct.
Inability to login to <i>Report Viewer</i> .	<p>Check that your User ID, Password, and Station ID are all correct, and have permission to run <i>Report Viewer</i>. Make sure that this Station ID is not being used by a different station.</p> <p>Be sure that Taskmaster Server Service is running.</p> <p>Check that your Connection String syntax is correctly pointing to your application's Admin and Engine databases (Page 17 and Appendix A).</p> <p>Check that the current user has permission to access your Admin and Engine database (see Chapter 5 for Security details.)</p>
Reports open, but there is no data.	If your Engine database is SQL Server or Oracle, make sure that the "Date/Time Separator" character (located in the Settings dialog – Page 13) is set to '. The default value is #, which is used for Access databases – <i>not</i> Engine databases.
Reports open, but there is no data.	Be sure you have statistics in your Engine database - that your workflow has processed actual batches.
Reports open, but there is no data.	Make sure you are connected to the correct Admin and Engine databases.
Reports open, but there is no data.	Check that your Date parameter is correct.

Continued on the next page →

Troubleshooting Report Viewer (continued)

Problem	Solution
Reports open, but there is no data.	<p>If your Engine database uses SQL Server or Oracle, and you have custom Job Monitor columns in the tmbatch table of your Engine database, be sure that the “JobMonitor” and “JMView” views reference these added column(s).</p> <p>Open each view in <i>Design</i> mode, run the view, make any necessary changes, and save the view.</p> <p>Note: For SQL Server, make sure that the Alias column is blank for all entries.</p>
Reports will not print.	Make sure that your printer is correctly setup and that <i>Report Viewer</i> is set to use that printer.