
Scan and Upload Tasks

Taskmaster Web employs Scan tasks of two types: scanner-based and image-based.

A scanner-based **rScan task** uses physical scanners to process paper. The task converts each page to an Image file (.tif); sets up a new processing batch, places the Image files in the new batch folder, and puts the folder in the **Scan** sub-directory of the **Datacap** directory. Concurrently, the task inserts a corresponding, nearly empty batch folder in the application's **batches** directory.

An **iVScan** task processes the images of previously scanned pages. The task places the images in a new batch folder; puts the folder in the **Scan** sub-directory of the **Datacap** directory; and adds a nearly empty folder to the application's **batches** directory.

This chapter shows you how to set up and operate tasks of both types.

Chapter 4 also investigates the **Upload** task. This task transfers Image files from the batch folder in the **Scan** sub-directory to the corresponding batch folder in the application's **Batch** directory.

The chapter begins with an introduction to *Taskmaster Web* tasks, and reviews the task details of a Web Site's **apps.ini** file. The chapter then covers these topics

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- ➔ The chapter uses the *1040EZ* training application for illustrations. Do not hesitate to experiment freely with this indestructible application: Page 4 shows you how to access *1040EZ* in a *Taskmaster Web* environment.

4.1 Introduction

The attachment of an application such as the *1040EZ* training application - or *your* application - to *Taskmaster Web* occurs when you add settings about the application to the Web Site's **app.ini** file. The *Taskmaster 7.5 Installation and Configuration Guide* describes these settings and shows you how to add or edit them in the **apps.ini** file.

The file has a separate section for each application: the portion dealing with *1040EZ* has values similar to:

```
[1040EZ]
TMServer=127.0.0.1

Port=2402

AdmDSN=PROVIDER=MSACCESS;DSN=C:\Datacap\1040EZ\process\1040Adm.mdb;CATALOG=;DBNTA=;

EngDSN=PROVIDER=MSACCESS;DSN=C:\Datacap\1040EZ\process\1040Eng.mdb;CATALOG=;DBNTA=;

RptDSN=PROVIDER=MSACCESS;DSN=C:\Datacap\1040EZ\process\Rptview.mdb;CATALOG=;DBNTA=;

DateTimeSeparator=#
Delay=10

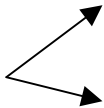
Retries=3

BatchSelectionCustomFields=

Debug=0

Oracle=0
```

Connection
Strings

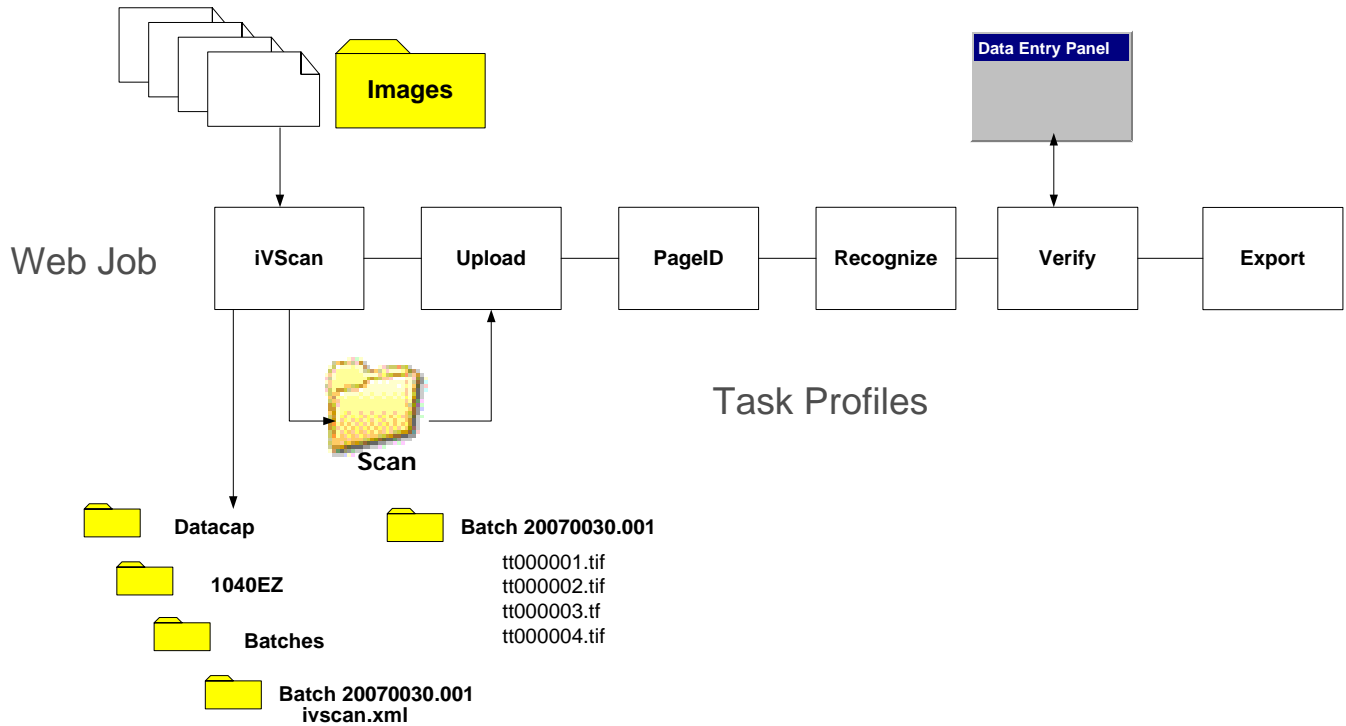


- ✓ Pay particular attention to the Connection Strings that link the *Taskmaster Web* Site to the application's Admin database and its Engine database:
 - The Admin database contains details of the application's workflow and security definitions.
 - The Engine database accumulates processing information as a workflow's jobs and tasks create and process batches and their contents.

Important! Appendix A of the *Taskmaster Administrator's Guide* lists and describes all Connection Strings.

A Scan task almost always starts the principal job of a *Taskmaster Web* workflow.

How to Access Tasks of a Web Job



Above, the iVScan task begins when it:

- Processes existing images of scanned pages.
- Creates a new batch folder as a container for the Image files.
- Sets up a **Scan** folder as a wayside location for this batch and other batches waiting for the Upload task.
- Adds the batch to the **Scan** folder.

(For a more complete view, see the chart on Page 13.)

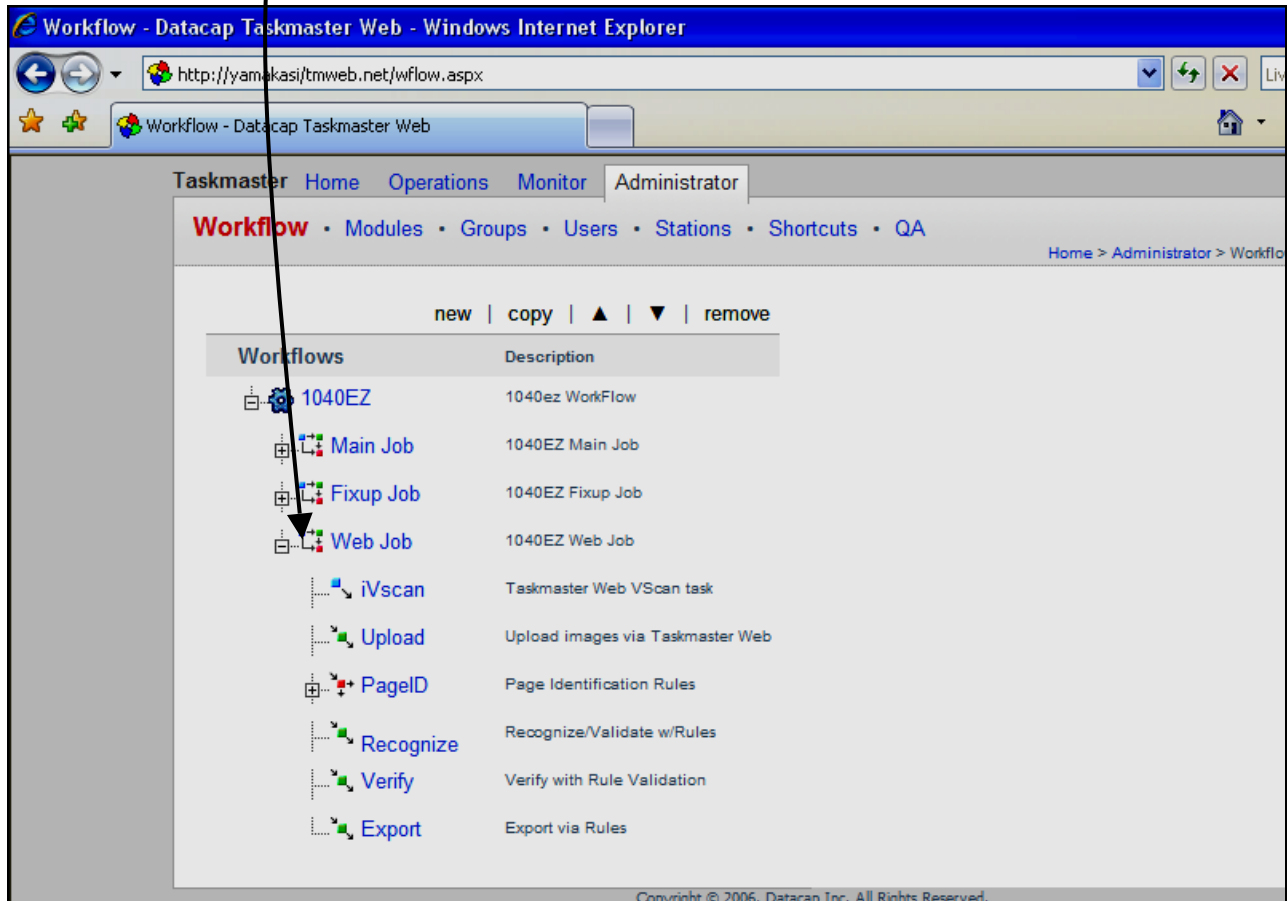
4.1.1 How to Access Tasks of a Web Job

For a closer look at the tasks of the *1040EZ* application's Web Job, including the iVScan task, take the following steps:

Step	Action
1.	Access the Home page of the Taskmaster Web Site.
2.	Use your Administrative Security code to log on.
3.	Open the Administrator page's secondary Workflow page.
4.	Open the Web Job's task hierarchy.

Workflows	Description
1040EZ	1040ez WorkFlow
Main Job	1040EZ Main Job
Fixup Job	1040EZ Fixup Job
Web Job	1040EZ Web Job

1040EZ Workflow – Web Job



Tasks of the 1040EZ Web Job

To Access Tasks of the 1040EZ Web Job (continued)

Step	Action
5.	Highlight a Task ID – <i>iVScan</i> , for example.
6.	When the task’s Properties appear on the right, pay <i>particular attention</i> to the Module ID. The Task Module links a task to its set up parameters or to its rules.

How to Access Tasks of a Web Job

The screenshot shows the Taskmaster Administrator web interface. At the top, there are navigation tabs: 'Taskmaster', 'Home', 'Operations', 'Monitor', and 'Administrator'. The 'Administrator' tab is active. Below the navigation, there are links for 'Workflow', 'Modules', 'Groups', 'Users', 'Stations', 'Shortcuts', and 'QA'. A breadcrumb trail reads 'Home > Administrator > Workflow'. On the left, a list of workflows is shown, with 'iVscan' selected. An arrow points from the 'iVscan' workflow to a 'Selected task details' dialog box. This dialog box contains the following fields: 'Name' (iVscan), 'Description' (Taskmaster Web VScan), 'Module' (iVScan), 'Queue to' (None), and 'Store' (Station ID). A 'Save task' button is at the bottom of the dialog. Two arrows point to the 'Help!' and 'Module' labels on the right side of the image.

Properties of the iVScan Task

To Access Tasks of the 1040EZ Web Job (continued)

- | Step | Action |
|------|--|
| 7. | Continue to explore the properties of other tasks. |
| 8. | Note that the Page ID task has a <i>Requires FixUp</i> processing condition. |
- ✓ A task's properties may include **Store** and **Queue to** values. For a complete explanation, see Chapter 3 of this text – or press the Help button when you are in the **Workflow** page.

4.2 iVScan Tasks

This section focuses on the set up and operations of *Taskmaster Web*'s iVScan tasks.

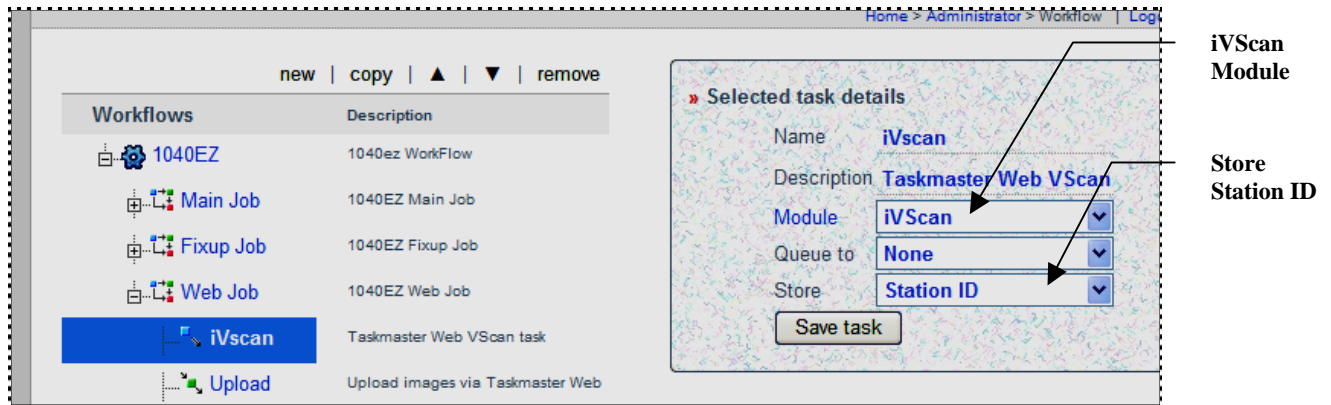
4.2.1 iVScan Tasks – Set Up

The iVScan task processes *virtual* pages – often from a remote location. A virtual page represents paper that has been scanned, converted to an Image file (.tif), and identified as a *Taskmaster* page (*TM000001.tif*, for example).

The task:

- Establishes a new processing batch.
- Sets up a **Scan** sub-directory of your configuration's **Datacap** directory. (Note that it is not a sub-folder of the application itself.)
- Adds the Image files to the new batch.
- Places the batch folder in the **Scan** folder to wait for the attention of the Upload task.
- Prepares a **twin** batch folder for the application's **batches** directory.

An iVScan Task Definition has two significant properties: **Module** and **Store** .(Page 9).



Properties of the iVSan Task

4.2.1.1 The iVScan Task Module

In this example, the iVScan task uses the *iVScan* Task Module. To find out more about this module, go to the **Administrator's** page's **Module's** secondary page – and select the *iVScan* Module ID.

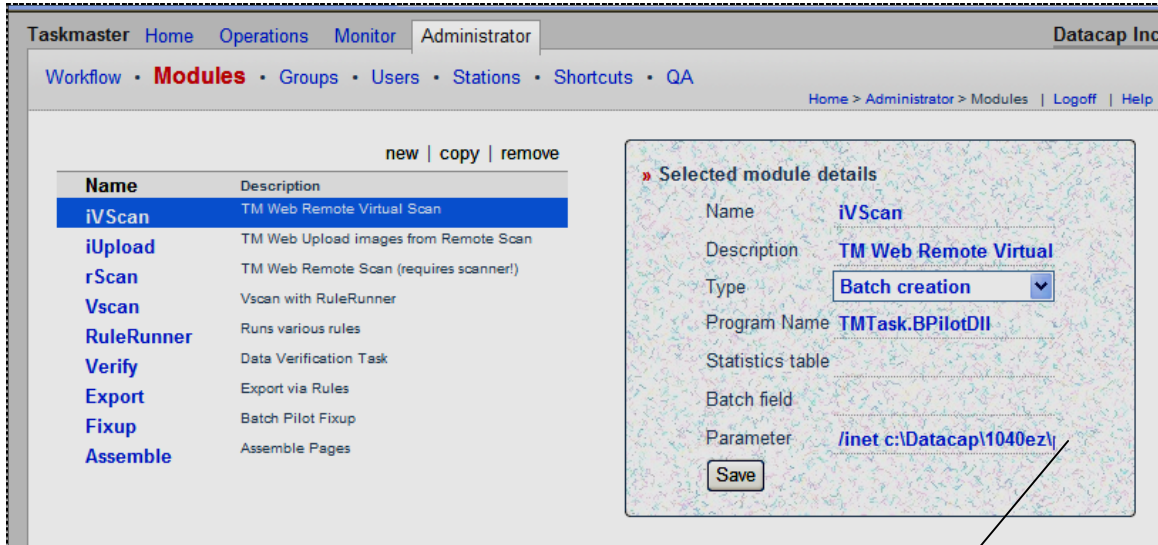
In addition to a **Name** and brief but important **Description**, the Module Definition includes the following *required* information (see the example on the next page):

- ◆ **Type.** A Scan task of any sort is a *Batch Creation* task. Be sure to select this option from the drop-down list.

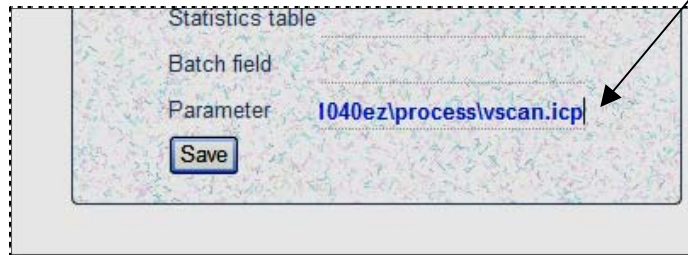
iVScan Tasks – Set Up

- ◆ **Program Name:** Enter “TMTask.Bpilot.DLL” (without the quotation marks!”)
- ◆ **Parameter:** Indicate the name and path of the **ICP file** with settings to guide the task. **Alert!** The entry’s syntax is critical, particularly its opening /inet value (which links the module and task to the internet Overall, an entry should resemble this value:

```
/inet c:\Datacap\1040ez\process\vscan.icp
```



iVScan Task Module (Parameter value – start)



iVScan Task Module (Parameter value – end)

4.2.1.2 Store Station ID

The value of the iVScan task's **Store** property must be: *Station ID*. This is because the Upload task that moves images from the



Properties of the iVScan Task

4.2.1.3 iVScan Settings: vscan.icp

Here are the settings of the *1040EZ vscan.icp* file, which you will find in the application's **Process** directory. (You can use a text editor such as *Notepad* to explore the file yourself.) The table on the next page describes each setting.

```
[iCap]
Enabled=1
Page=vscancl.asp
Page1=vscancl.aspx
ProcessDir=c:\datacap\1040ez\process
Hold=1

[General]
CreateDir=1
RootBatchDir=c:\datacap\1040EZ\batches

[Scan]
LocalProc=0
ScanDir=c:\datacap\scan
;For jpg: FileExt=jpg, FileType=13
;For tif: FileExt=tif, FileType=10
FileExt=tif
FileType=10
HoldEnabled=1
StartPanel=0

;;; End of entries
```

The *1040EZ* application’s iVScan task’s default ICP settings include:

Setting	Description
[iCap]	Identifies the task as a <i>Taskmaster Web</i> task, and the specifications below as <i>Taskmaster Web</i> settings.
Enabled=1	“1” (<i>Yes</i>) activates the task; “0” (<i>No</i>) de-activates the task.
Page=vscancl.asp	The identity of the Active Server Page responsible for the page which occupies the Web Site when iVScan runs during earlier versions of <i>Taskmaster Web</i> .
Page1=vscancl.aspx	The identity of the Active Server Page responsible for the <i>Taskmaster Web</i> page which occupies the Web Site when the current version of iVScan runs. Alert! Be sure that your vscan.icp file has this setting.
ProcessDir=c:\datacap\1040ez\process	The name and location of the <i>1040EZ</i> application’s Process directory (This setting will indicate the location of your application’s Process directory.) This directory contains essential files such as the application’s Document Hierarchy, and its Admin and Engine databases.
Hold=1	If the Batch Selection mode of a Job-Task shortcut that launches this task is <i>Prompt/Web Select</i> : Hold=1 displays the Batch Finished page followed by the Waiting for Next Batch page when the task finishes processing a batch. Hold=0 suppresses the Batch Finished page. “1” is the default value. For a full explanation of this setting, see the discussion of the Shortcuts page in Chapter 3.

Settings of the vScan ICP File (continued)

Setting	Description
[General]	Designates specifications with a broader scope – specifications governing the task’s relationship with the <i>Taskmaster Web</i> workflow.
CreateDir=1	<p>“1” (<i>Yes</i>) directs the task to provide a Batch Folder for each batch it creates. “0” (<i>No</i>) prevents the task from setting up Batch Folders.</p> <p>Important: Although the iVScan Task Module includes a “batch creation” property (Page 7), the task will not establish a folder for the batch and its files unless this setting is “1”.</p>
RootBatchDir=c:\datacap\1040ez\ Batches	<p>The location of the application’s batches directory.</p> <p>If <code>Createdir=1</code> (above), the iVScan task will place new batch folders in this directory. The task will not, however, add image files to the folders...that is the responsibility of the ensuing Upload task (see the chart on Page 13.)</p>
[Scan]	Settings governing the virtual scanning process
LocalProc=0	Indicates if remote scanning will use the internet (“0”) or a local network (“1”). Important! For the iVScan task, the setting must be “0”.
ScanDir=c:\Datacap\ scan	<p>The location of the batch folders containing Image files after scanning is complete.</p> <p>The default location is the catch-all Scan sub-directory of the Datacap directory. For simplicity, you can use Windows Explorer to add a comparable sub-directory to your Datacap directory – or to your application’s directory. For example:</p> <p style="text-align: center;">ScanDir=c:\Datacap\1040EZ\scan</p>
<pre> ;For jpg: FileExt=jpg, FileType=13 ;For tif: FileExt=tif, FileType=10 FileExt=tif FileType=10 HoldEnabled=1 StartPanel=0 </pre>	<p>Alternative File Types and extensions for the scanned images. (Lines beginning with a semicolon (;) are comments.)</p> <p>The default File Type is “10”, and the extension is “tif”.</p>
HoldEnabled=1	Determines if the “Hold” button is visible on the task’s processing page. (1=visible, 0=not visible)

Settings of the vScan ICP File (continued)

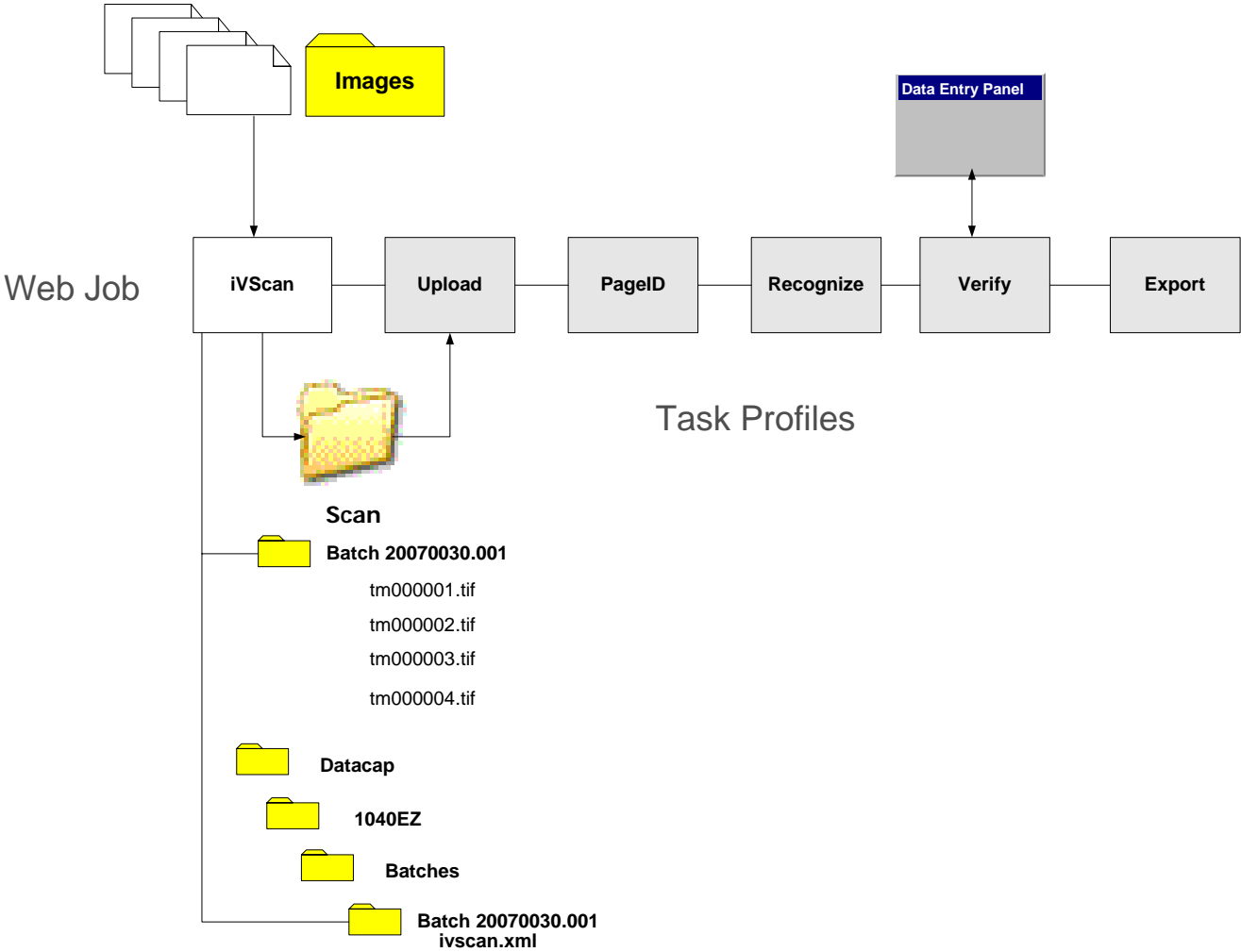
Setting	Description
StartPanel= startscandat.asp	The identity of the Active Server Page responsible for the task's <i>StartBatch Panel</i> (Page 13).
;;; End of entries	Settings that link this task to rules you define in <i>Rule Manager</i> specifically for this task.

4.2.2 iVScan Operations

As you prepare to run the *1040EZ* application’s iVScan task, look at the modified depiction of the Web Job. Here, the sample iVScan task sets up a single batch (20070030.001) and selects four images.

The task gives the images standard *Taskmaster Web Page ID*’s; places them in the new batch folder; and adds the batch and its contents to the **Scan** folder it has set up to hold the batch.

At the same time, the iVScan task adds a duplicate but nearly empty batch folder to the application’s **Batches** directory. The batch does contain one important file: the task’s Page file (**ivscan.xml**). A Page file lists details of a batch after the task has processed it, and is used for reference by the next task in line. In this example, the Page file tells you exactly where the new pages are - in the **Scan** folder! – and supplies information about Page Types and Page Statuses (see Page 45).



4.2.2.1 How to Prepare for iVScan Operations

Preparing for iVScan operations has two phases: Image Selection and Security.

- ✓ **Very important!** Security is required for every task. The following section reviews Task Security procedures.

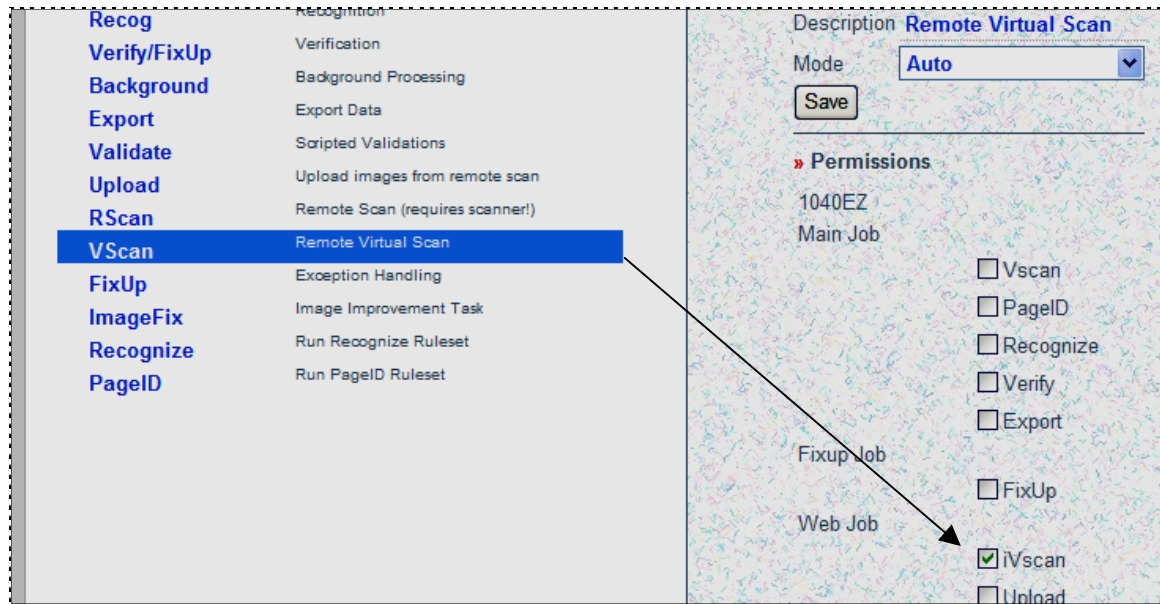
4.2.2.1.1 Task Security Procedures

Task Security involves settings in four secondary pages of the **Home** page's **Administrator** page (Chapter 3). These settings determine if an individual can run the iVScan task – after he or she has successfully logged on to *Taskmaster Web*.

- ✓ If you encounter any difficulty with a page, click on the **Help** icon in the upper right-hand corner for a description of the page and instructions on its use.

Job-Task Shortcuts

The administrative **Shortcuts** page must assign permission for the Job/Task combination to the shortcut icon that will appear on the secondary **Run Shortcut** page of the **Operations** page.



VScan Shortcut – Web Job/iVScan Task

Station

The station which is currently running *Taskmaster Web* must have also have permission to run the Job/Task combination- in this case, the Web Job's iVScan task (illustrated on the next page.).

Taskmaster Home Operations Monitor Administrator

Workflow • Modules • Groups • Users • Stations • Show

new | copy | remove

Name	Description
1	Default station ID
2	Station 2
3	Station 3
4	Station 4
DRC	Recognition Station
remote	Taskmaster Web Station

Taskmaster Web Station ID

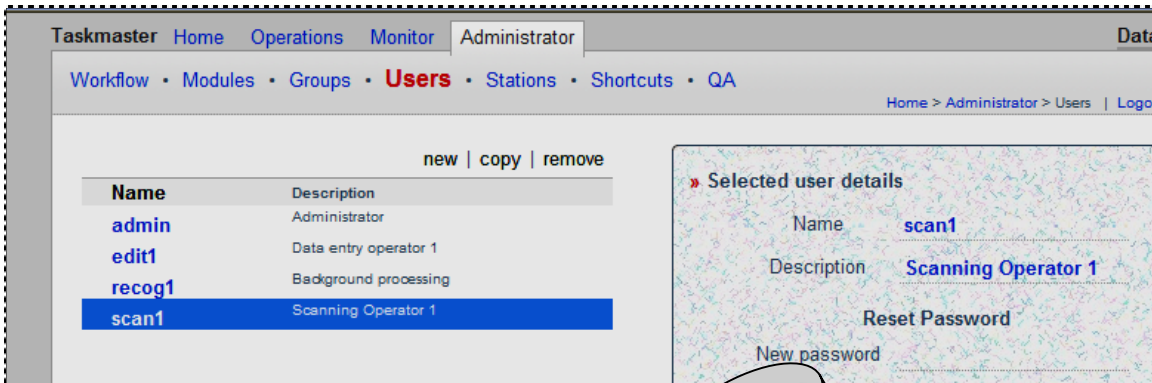
Web Job

<input type="checkbox"/>	FixUp
<input checked="" type="checkbox"/>	iVscan
<input type="checkbox"/>	Upload
<input type="checkbox"/>	PageID
<input type="checkbox"/>	Recognize
<input checked="" type="checkbox"/>	Verify
<input type="checkbox"/>	Export

Job-Task Permissions

User and User Group

The individual's User Definition must include the same Job-Task Permission:



Taskmaster Home Operations Monitor Administrator Data

Workflow • Modules • Groups • **Users** • Stations • Shortcuts • QA

Home > Administrator > Users | Log

new | copy | remove

Name	Description
admin	Administrator
edit1	Data entry operator 1
recog1	Background processing
scan1	Scanning Operator 1

Selected user details

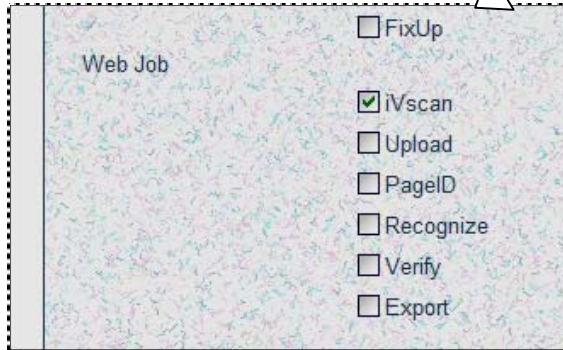
Name scan1

Description Scanning Operator 1

Reset Password

New password

Scan1: User Definition

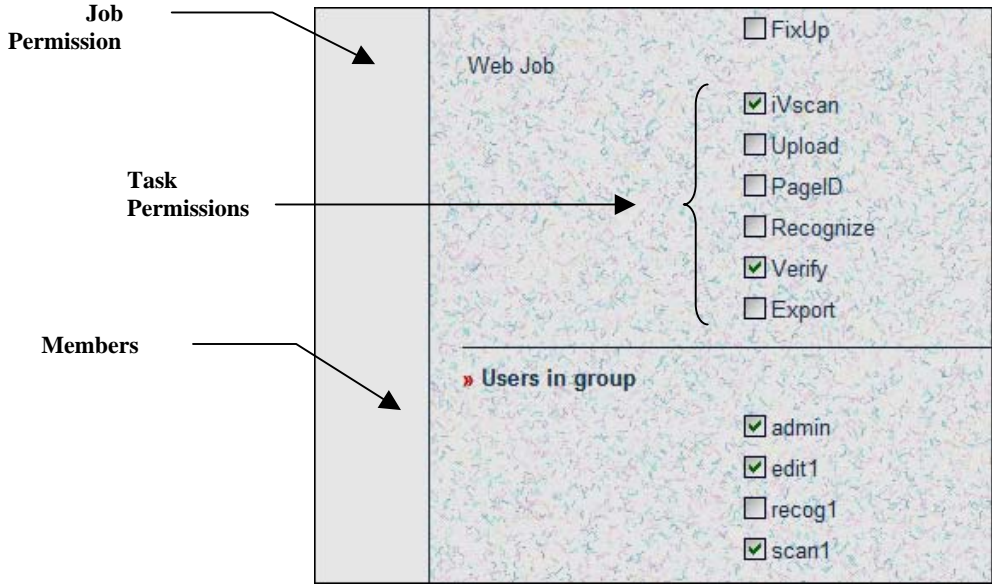


Web Job

- FixUp
- iVscan
- Upload
- PageID
- Recognize
- Verify
- Export

Web Job.iVScan Job/Task Combination

At the same time, the user must belong to a User Group with comparable Job-Task Permissions.



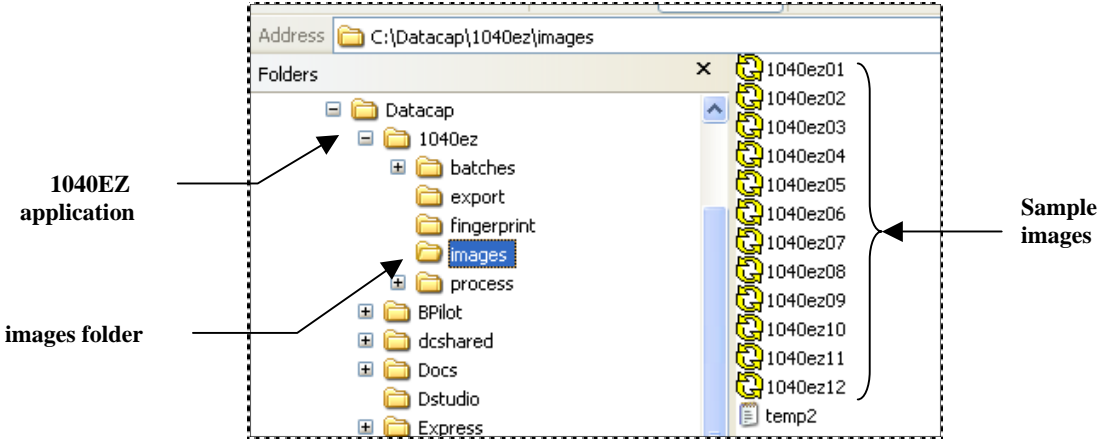
Members and Job-Task Permissions of a Data Entry Group

☞ These Task Security parameters apply to the operations of most *Taskmaster Web* Job/Task Combinations.

4.2.2.1.2 Image Selection

Because the iVScan task will process existing Image files (.tif), the task begins by asking the operator to select those files. For convenience the Image files should in a clearly identified folder, easily accessed by the task’s operator.

Here is a an example:



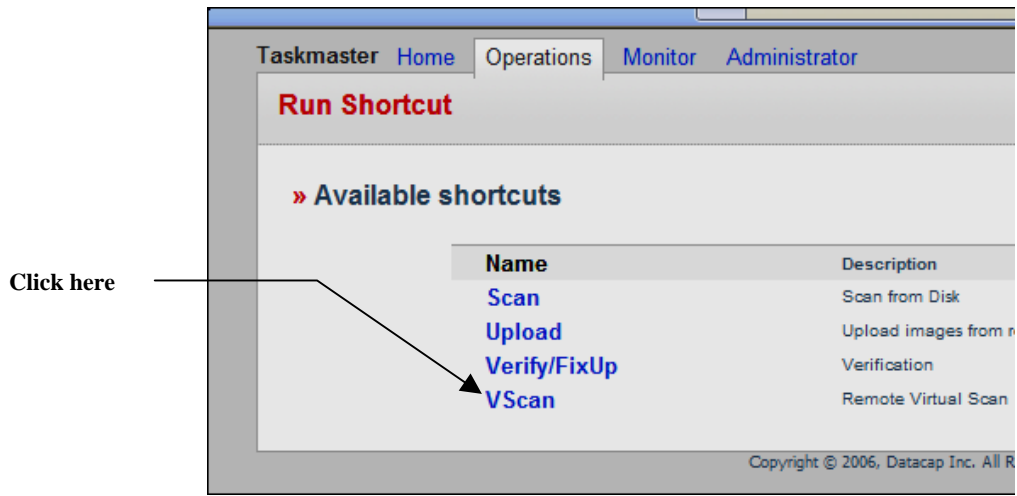
1040EZ Application – images folder

4.2.2.2 How to Run the iVScan Task

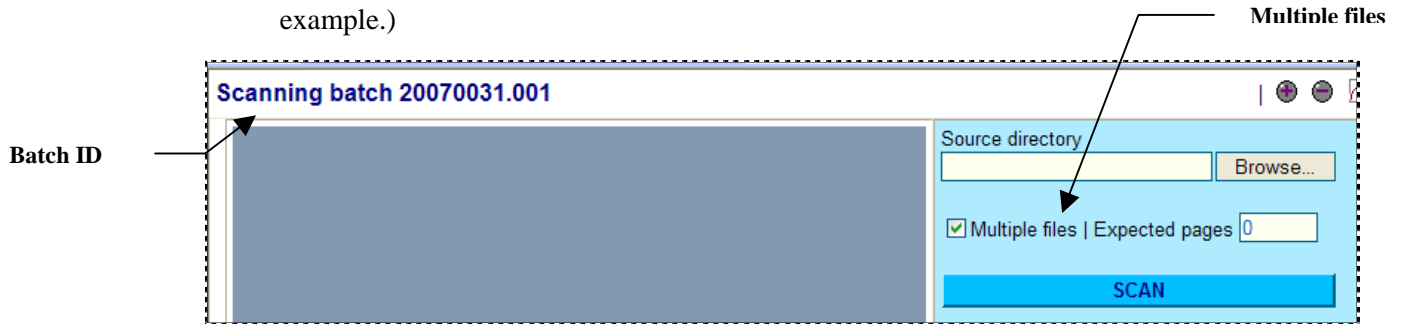
The steps below show you how to run the iVScan task of the pre-configured *1040EZ* application. **Alert!** Before you attempt to run the task, be sure that its settings are correct and complete (Page 9) and that the operator's Task Security parameters are in order (Page 14).

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

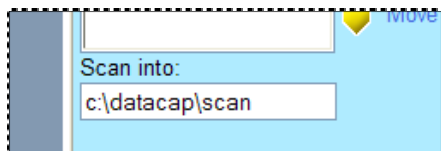
1. Click on the **VScan** icon in the list of *Available Shortcuts*, in the secondary **Run Shortcut** page of the **Operations** page.

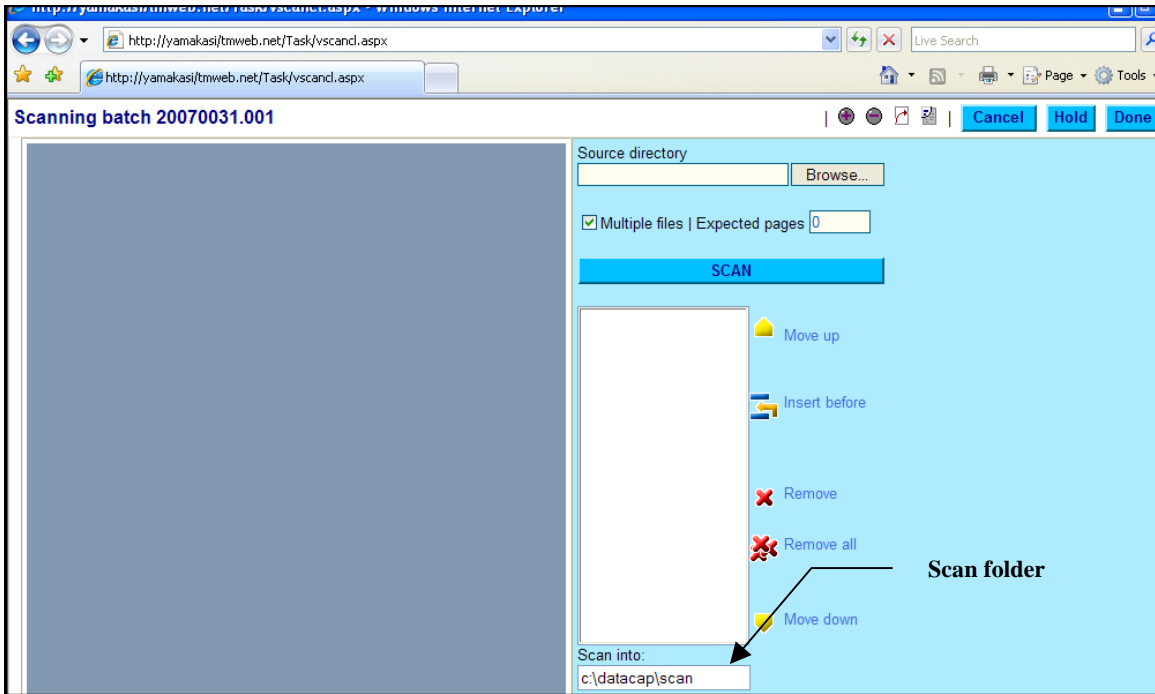


2. When the *ScanBatch* dialog appears, take a moment to review its overall content and layout (illustrated on the next page).
3. Confirm the Batch ID in the upper left-hand corner (*20070031.001*, in the example.)



4. In the center, at the bottom, note that the iVScan task will place the batch into the **c:\Datacap\scan** folder (see the chart on Page 13.)



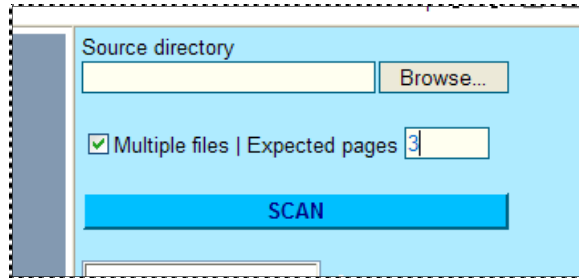


iVScan Task – ScanBatch dialog

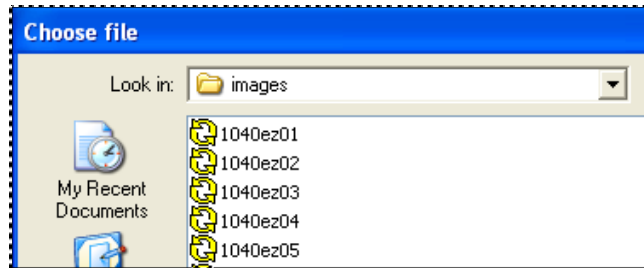
How to Run the iVScan Task (continued)

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

5. Enter the number of **Expected Pages**.



6. Use the Browse button to locate the folder that holds the source images.

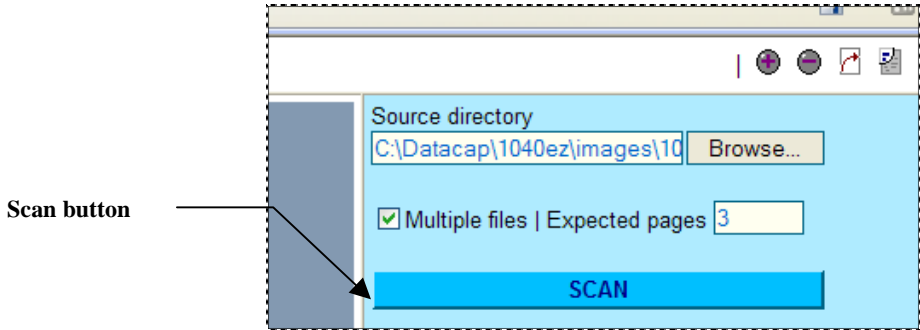


7. Select the first image to be processed, and press the Open button in the *Choose File* dialog.

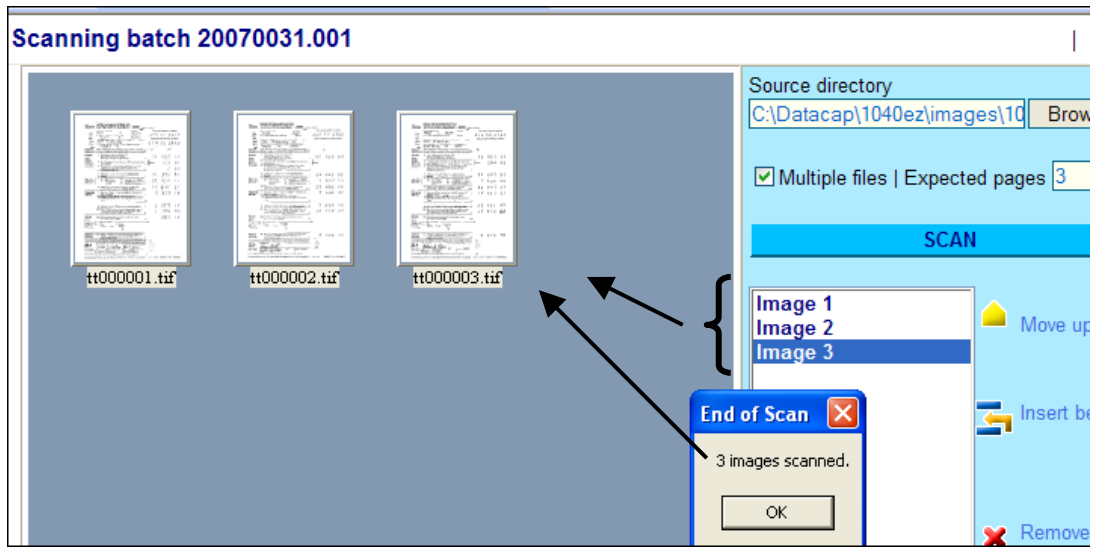
How to Run the iVScan Task (continued)

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

- 8. Confirm the **Source Directory** values, then press the Scan button to initiate task activity!



- 9. After the task is finished, explore the updated contents of the *ScanBatch* dialog.

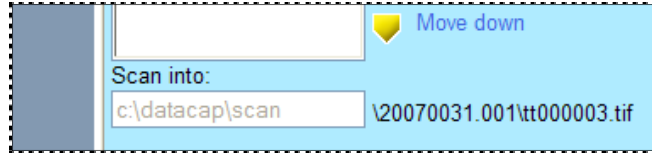


- 10. This very limited example shows just three new “pages” – **tt000001.tif**, **tt000002.tif** and **tt000003.tif**.
- 11. You can double-click on a page in the Image area for a full view – and double-click on it again to return the page to thumbnail size.

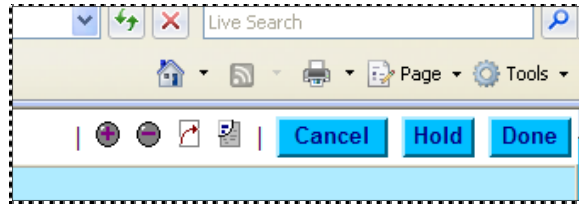
How to Run the iVScan Task (continued)

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

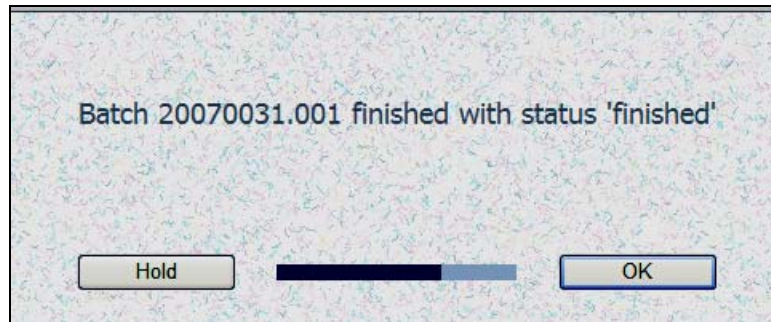
- 12. At the bottom, in the center, the **Scan into** value identifies the new batch in the **Scan** folder - and the final page in the batch.



- 13. Press the Done button in the upper right-hand corner to conclude the task's work with this batch.



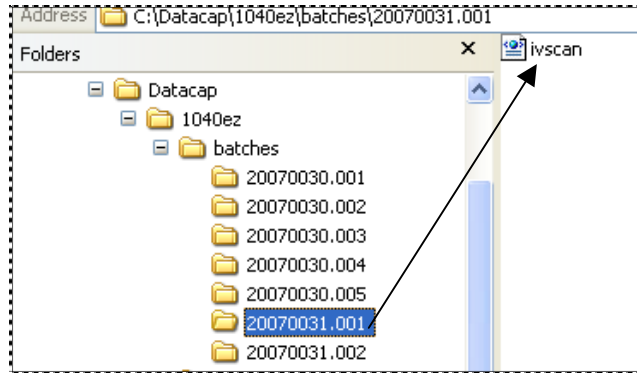
- 14. Depending on the value of the **Hold Enabled** setting in the task's ICP file (Page 9), the task's final stage will display or hide dialogs that give the operator a chance to continue scanning or terminate these procedures altogether.



4.2.2.2.1 Finishing iVScan Task Operations

To fully appreciate the results of the iVScan task's operation, take three simple steps.

You will find the new batch in the **batches** directory of the **Datacap** directory's **1040ez** application folder. However, this batch folder has only file – a Page file: **ivscan.xml**.



Double-click on the Page file to review its contents. This file correctly identifies the batch, establishes a phantom document (20070031.001.01), and provides details about the batch's three pages:

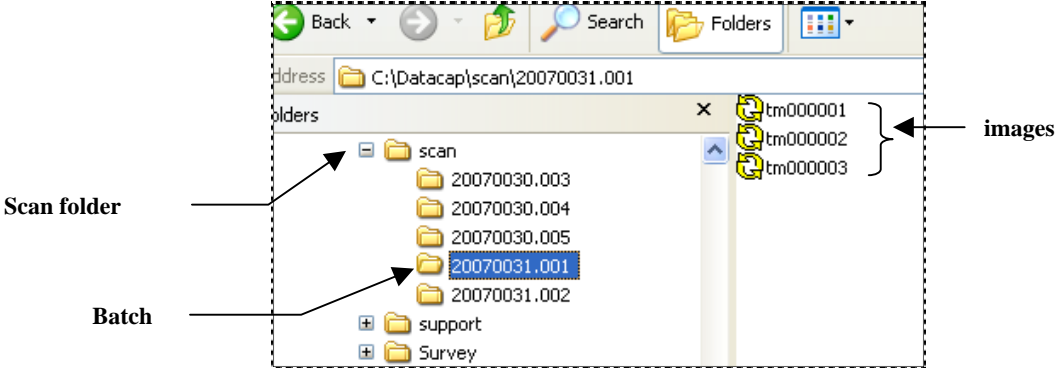
The screenshot shows a window titled "DCO View - 20070031.001". The content is a table with a light blue background and dark blue headers. The table structure is as follows:

B	20070031.001
	ED : 1
	AD : 0
	EP : 3
	AP : 0
	TYPE : 1040EZ
	STATUS : 0
D	20070031.001.01
	TYPE :
	STATUS : 0
P	TM000001
	imagePath : c:\datacap\scan\20070031.001\tm000001.tif
	TYPE : Other
	STATUS : 49
P	TM000002
	imagePath : c:\datacap\scan\20070031.001\tm000002.tif
	TYPE : Other
	STATUS : 49
P	TM000003
	imagePath : c:\datacap\scan\20070031.001\tm000003.tif
	TYPE : Other
	STATUS : 49

In this example, *Other* is the Page Type automatically assigned to all newly scanned pages: “49” is a Page Status that indicates “ScanOK”. (Page 45 provides a complete list of Page Statuses.)

The **Scan** folder belongs to the **Datacap** directory...it does not belong to application.

This folder now has a twin sub-folder for the new batch, with the scanned Image files. The files remain in the sub-folder until the Upload task delivers them to a Recognition task.



Content of the Datacap Directory's Scan Folder

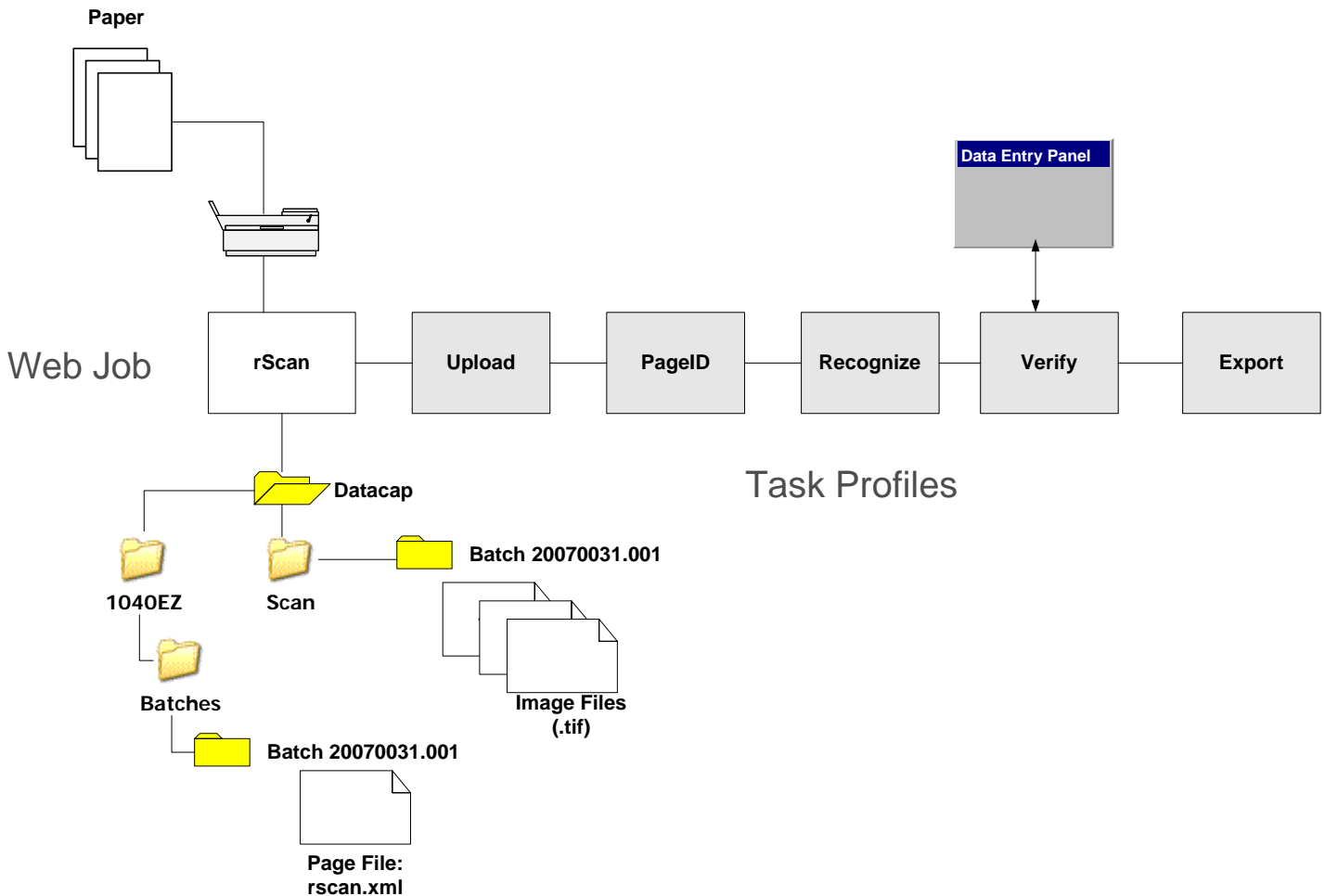
4.3 rScan Tasks

An rScan task uses a physical scanner to scan paper and generate the Image files it adds to a new batch.

- ✓ In a *Taskmaster Web* environment, one or more rScan tasks (and their scanners) can operate independently from remote workstations.

Like the iVScan task, twin batch folders produced by an rScan task at any location stream directly through the Taskmaster Web Server. One folder contains the task's new Image files and is placed in the **Datacap** directory's **Scan** directory.

The other batch folder is added to the application's **batches** directory and only contains the task's Page file (**rscan.xml**) – see Page 3 for more about a Scan task's twin batch folders..



4.3.1 rScan Tasks – Set Up

During the set up of an rScan task you::

1. Configure the scanner with a scanner card, and one or more compatible scanner drivers – on the computer that will run the rScan task;
2. Assign values to settings in the rScan task's ICP file (**rscan.icp**)
3. Define the rScan task in the secondary **Workflow** page of the Web Site's **Administrator** page.
4. Assign task security parameters to operators, workstations and the Job-Task shortcut icon that launches the task.

4.3.1.1 Scanner. Scanner Cards and Drivers

- ✓ In this preliminary stage, be sure to:
 - ◆ Connect the computer on which the task will run to a physical scanner;
 - ◆ Provide the scanner with a card;
 - ◆ Test the strength of the computer's connection to its scanner;
 - ◆ Install a TWAIN driver for the scanner on the computer.

4.3.1.2 Settings of the rScan.ICP File

Here are the settings of the *1040EZ* application's **rscan.icp** file. (Any line that begins with a semi-colon is a comment.) The table on Page 45 describes each setting.

[iCap]

```
Enabled=1
Page=scancl.asp
Page1=scancl.aspx
ProcessDir=c:\datacap\1040ez\process
Hold=1
```

[General]

```
CreateDir=1
TaskDCOFile=scan.xml
RootBatchDir=c:\datacap\1040ez\batches
```

[Scan]

```
LocalProc=0
```

```
;Specify local or shared directory for scanned images
```

rScan Tasks – Set Up

```
ScanDir=c:\datacap\scan

;Specify extension for the scanned images: tif, jpg, pic,
  bmp
Extension=tif

;Specify pixel type for scanning: 0-B&W, 1-Grayscale, 2-RGB
Type=0

;Specify bitdepth for above image type
Bits=1

;Specify image resolution (X & Y resolution assumed the
  same)
DPI Resolution=200

;Specify compression (only!) for B&W images:
; 0-uncompressed,
; 1-CCITT RLE,
; 2-CCITT Group 3 fax
; 3-CCITT Group 3-2D fax
; 4-CCITT Group 4 fax
Compression=4

;If grayscale or color image has to be compressed using
  other than JPEG file format - specify file type here:
; -1 - no recompression
; 40 - TIFF JPEG
; refer to snowbound manual for other possible values
ResaveType=-1

;Specify extension for images, compressed with ResaveType
  from above if ResaveType<>-1.
ResaveExt=tis

HoldEnabled=1
StartPanel=0
;;; End of entries
```

The rScan task’s default settings include:

Setting	Description
[iCap]	Identifies the task as a <i>Taskmaster Web</i> task, and the specifications below as <i>Taskmaster Web</i> settings.
Enabled=1	“1” (<i>Yes</i>) activates the task; “0” (<i>No</i>) de-activates the task.
Page=scancel.asp	The Active Server Page of the rScan task for earlier <i>Taskmaster Web</i> versions.
Page1=scancel.aspx	The Active Server Page of the rScan task for <i>Taskmaster Web 7</i> . Alert! Be sure to include this setting.
ProcessDir=c:\datacap\1040ez\process	The name and location of the <i>1040EZ</i> application’s Process directory. You would include the name and path for your application’s Process directory. An application’s Process directory contains essential files such as its Document Hierarchy, and its Admin and Engine databases.
Hold=1	If the Batch Selection mode of a Job-Task shortcut that launches this task is <i>Prompt/Web Select</i> : Hold=1 displays the Batch Finished page followed by the Waiting for Next Batch page when the task finishes processing a batch. Hold=0 suppresses the Batch Finished page. “1” is the default value. For a full explanation of this setting, see the discussion of the Shortcuts page in Chapter 3.
[General]	Designates specifications with a broader scope – specifications governing the task’s relationship with the <i>Taskmaster Web</i> workflow.
Createdir=1	“1” (<i>Yes</i>) directs the task to provide a Batch Folder for each batch it creates. “0” (<i>No</i>) prevents the task from setting up Batch Folders. Important: Although the rScan Task Module includes a “batch creation” property (Page 29), the task will not establish a folder for the batch and its files unless this setting is “1”.
TaskDCOFile=scan.xml	The name of the task’s Page file, which lists the contents of the new batch when the rScan task completes its work.

RScan ICP File Settings (continued)

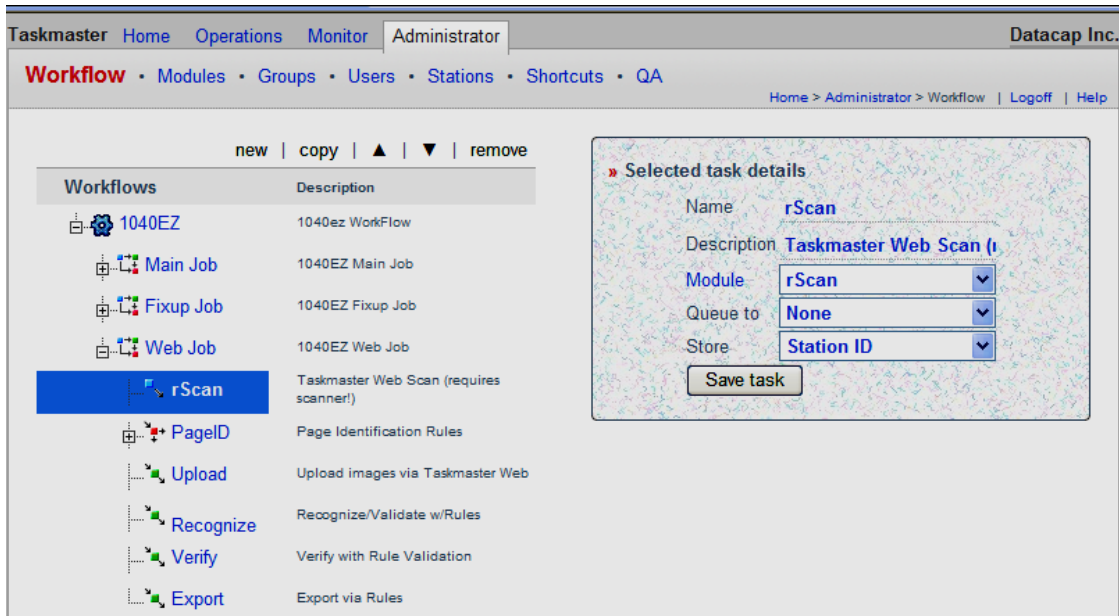
Setting	Description
RootBatchDir=c:\Datacap\1040ez\Batches	The location of the application’s Batches Directory. If Createdir=1 (above), the rScan task will place new batch folders in this directory. The task will <i>not</i> , however, add image files to the folders...that is the responsibility of an ensuing Upload task.
Autofeed=0	Determines if the task will use a flatbed scanner or
[Scan]	Settings governing the virtual scanning process
LocalProc=0	Indicates if remote scanning will use the internet (“0”) or a local network (“1”).
ScanDir=c:\Datacap\scan	The temporary location of Image files <i>after</i> scanning is complete. The default location is the catch-all Scan sub-directory of the Datacap directory. For simplicity, you can use Windows Explorer to add a comparable sub-directory to your application directory – and alter the <i>ScanDir</i> specification accordingly. For example: ScanDir=c:\Datacap\1040ez\scan
Extension=tif	The file extension for scanned images. Alternatives include: tif, jpg, pic, bmp
Type=0	Pixel type for scanning. 0=B&W, 1=Grayscale,2=RGB,
Bits=1	The bit depth for the pixel type you selected above.
DPI Resolution=200	Image resolution
Compression=4	The compression for B & W images <i>only</i> . 0=uncompressed; 1=CCITT RLE; 2 = CCITT Group 3 fax; 3 = CCITT Group 3-2D fax; 4 = CCITT Group 4 fx
ResaveType=1	For G=grayscale and color images that have to be compressed in other than a JPEG file format: -1 = o compression; 40 = TIFF JPEG
ResaveExt=tis	
HoldEnabled=1	Determines if the “Hold” button is visible on the task’s processing page. (1=visible, 0=not visible)

RScan ICP File Settings (continued)

Setting	Description
StartPanel=0	The identity of the Active Server Page, if any, responsible for the task's <i>StartBatch Panel</i> .

4.3.1.3 rScan Task Definition

To define the rScan task, use the **Administrator** page's secondary **Workflow** page:



rScan Task Definition

In this illustration, two values are especially important: **Module** and **Store**.

4.3.1.3.1 RScan Task – Module and Store Values

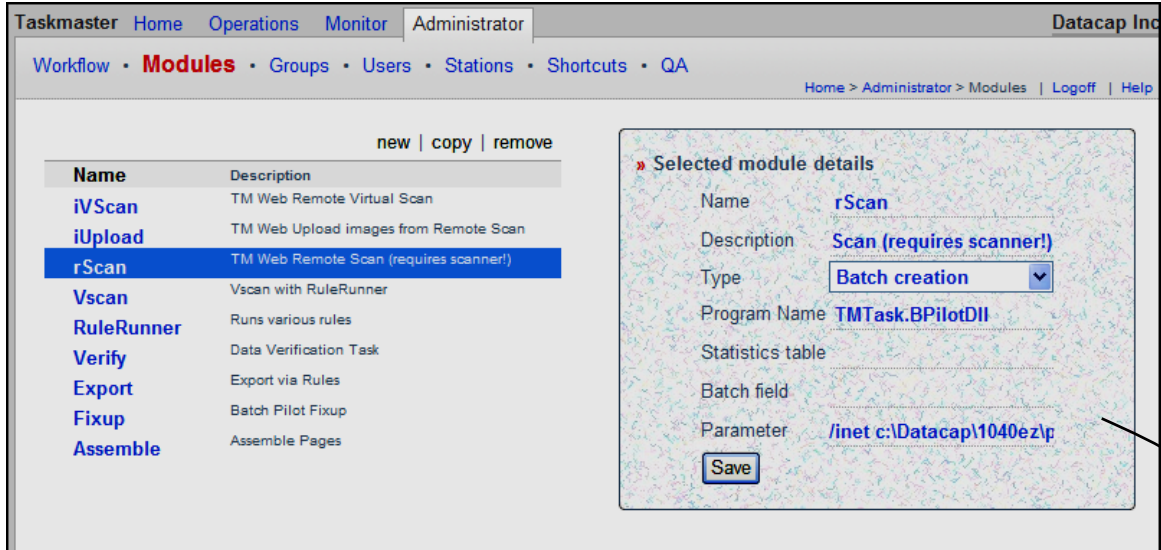
The selection in the **Module** drop-down list identifies a previously defined *rScan* Task Module.

On the **Modules** page, this is a module has three important values (illustrated on the next page):

Type: *Batch Creation* ensures that the task will set up new batches when it runs.

Program Name: *TMTask.BPilotDLL* is a required value for the Task Modules of all *Taskmaster 7* tasks.

Parameter: `/inet c:\Datacap\1040e\process\rscan.icp` permits tasks using this Task Module to operate in the *Taskmaster Web* environment (`/inet`), and locates the rScan task's Settings file (**rscan.icp**.)



Administrator Page – secondary Modules Page



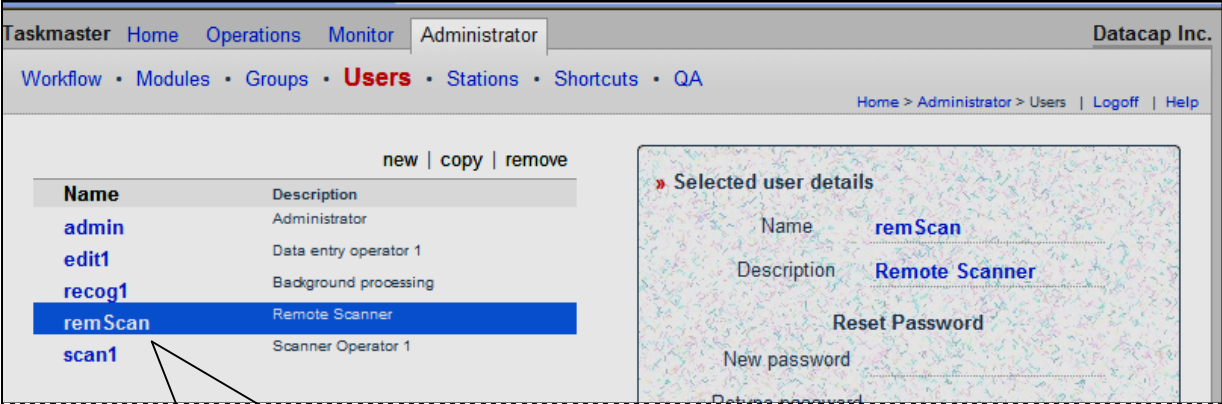
- ✓ Back in the **Workflow** page, the rScan Task Definition's **Store** value should be *Station ID* (see the illustration on the previous page.) When the task runs, it adds its current Station ID (*remote*) to the batch information. If the next task in line has a **Queue to** value of *by Station*, the batch can only be run by an operator working from the same station.

For a complete explanation of **Store** and **Queue to** properties, see Chapter 3 – or click on the Help button when you are in *Taskmaster Web*'s **Workflow** page. Help for this page also shows you how to define new workflows, jobs and tasks.

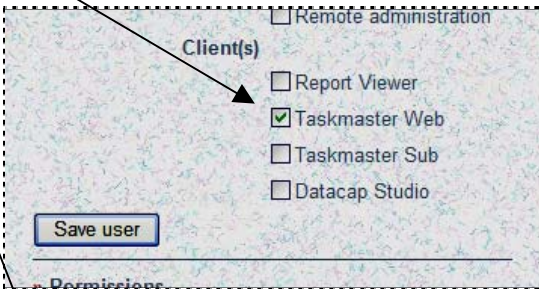
4.3.1.4 rScan Task – Security Parameters

Taskmaster Web security procedures give specific individuals and workstations permission to run an rScan task. These procedures also add an **rScan** operations shortcut icon to the list of Available Shortcuts on the secondary **Run Shortcut** page of the **Operations** page.

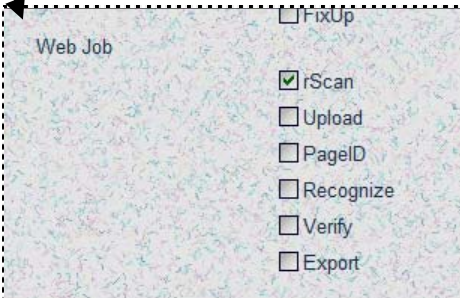
The illustrations on the following pages highlight these criteria:



remScan User (new)

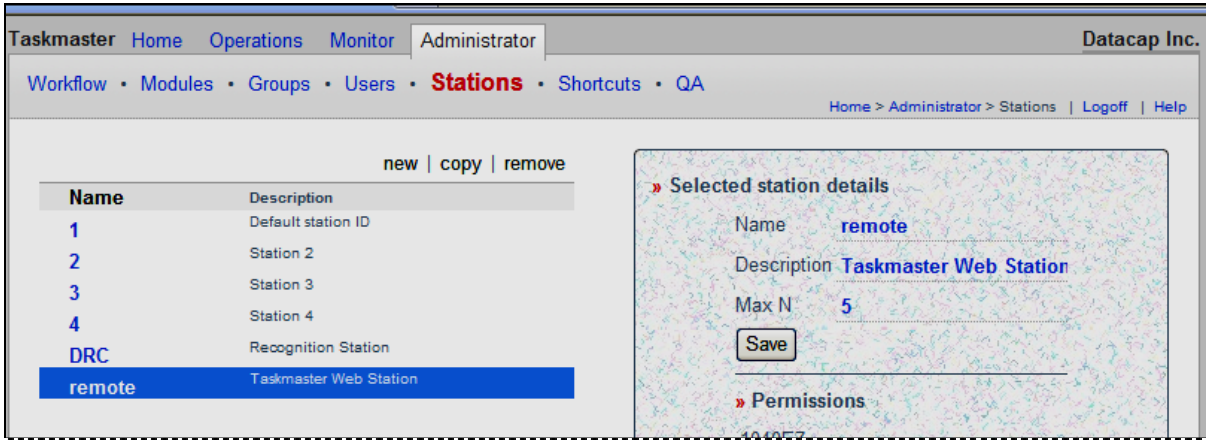


remScan Client Privilege: Taskmaster Web

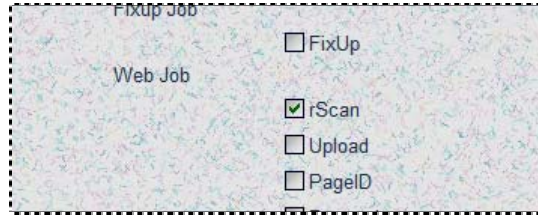


remScan Job-Task Permission: Web Job.rScan

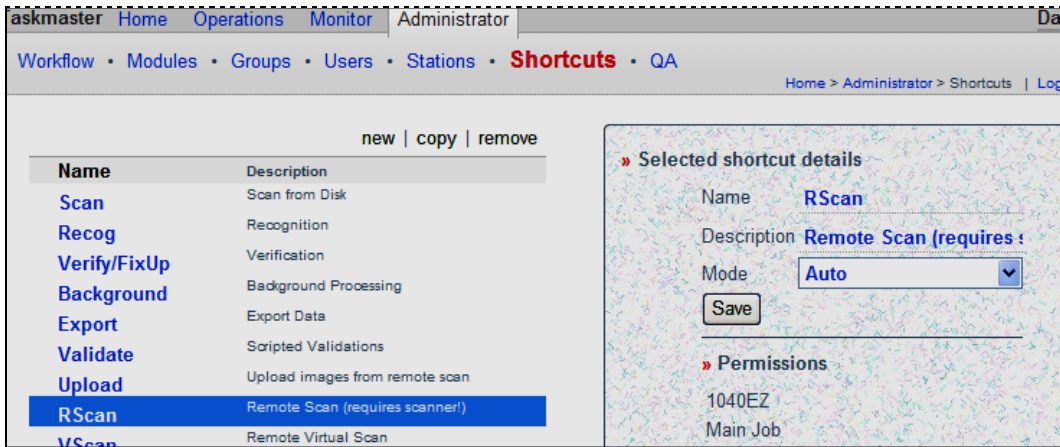
rScan Tasks – Set Up



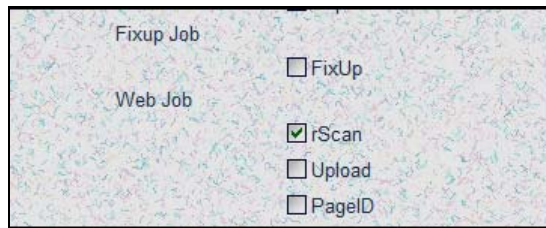
remote Virtual Station



remote Station Job-Task Permission: Web Job.rScan



RScan Operations Shortcut

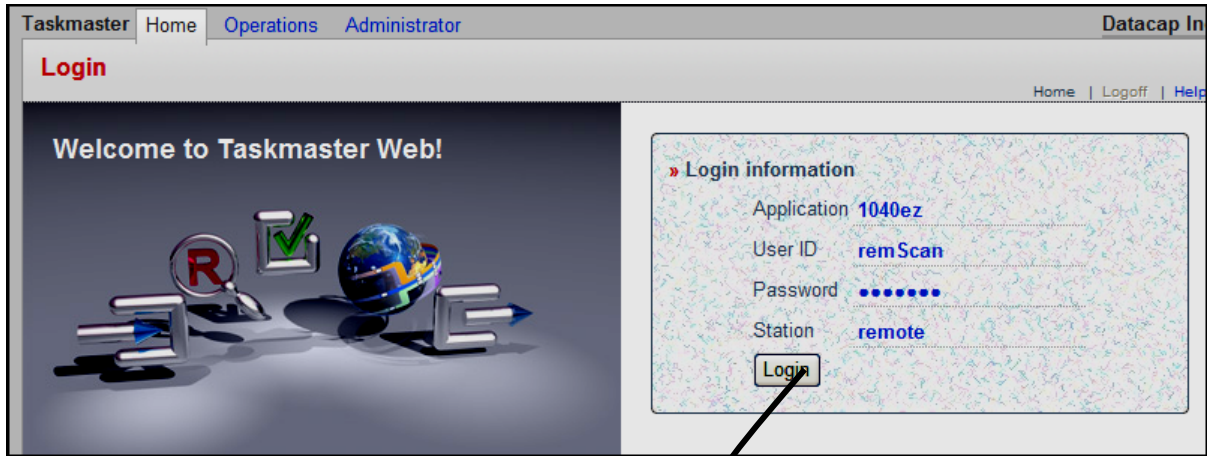


RScan Shortcut Job-Task Permission: Web Job.rScan

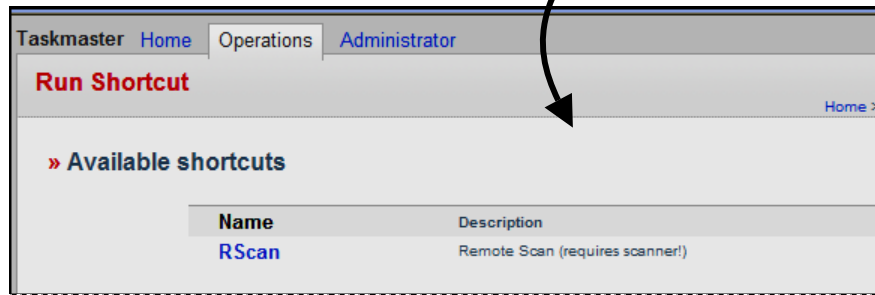
4.3.2 rScan Task Operations

The security limits in the examples on the preceding pages mean that the *remScan* operator can launch only one task: rScan (technically, the **Web Job.rScan** Job/Task combination.) The *remote* station is limited to that task as well so is the **rScan** shortcut!

So when the *remScan* operator logs in from the *remote* station, here is what happens:



Taskmaster Web Login Page



Run Shortcut Page – Available Shortcuts

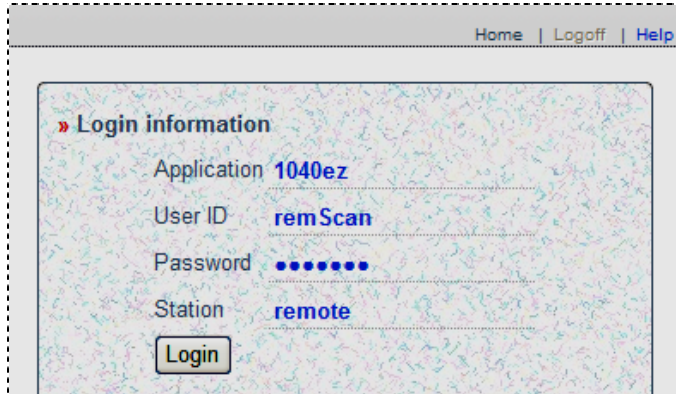
At this point, the operator can click on the **Rscan** shortcut to initiate task's processing.

Alert! The instructions which follow assume that the operator has completed standard preliminary procedures such as loading the scanner's tray.

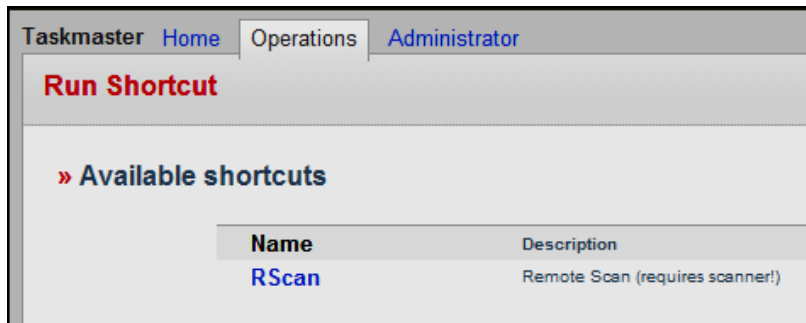
4.3.2.1 How to Run the rScan Task

Take these steps to run the rScan task:

Step	Description
1.	Be sure that your scanner is properly connected to your computer.
2.	Access the Login page of the Taskmaster Web Site.
3.	Enter the Application ID of the application that includes the rScan task

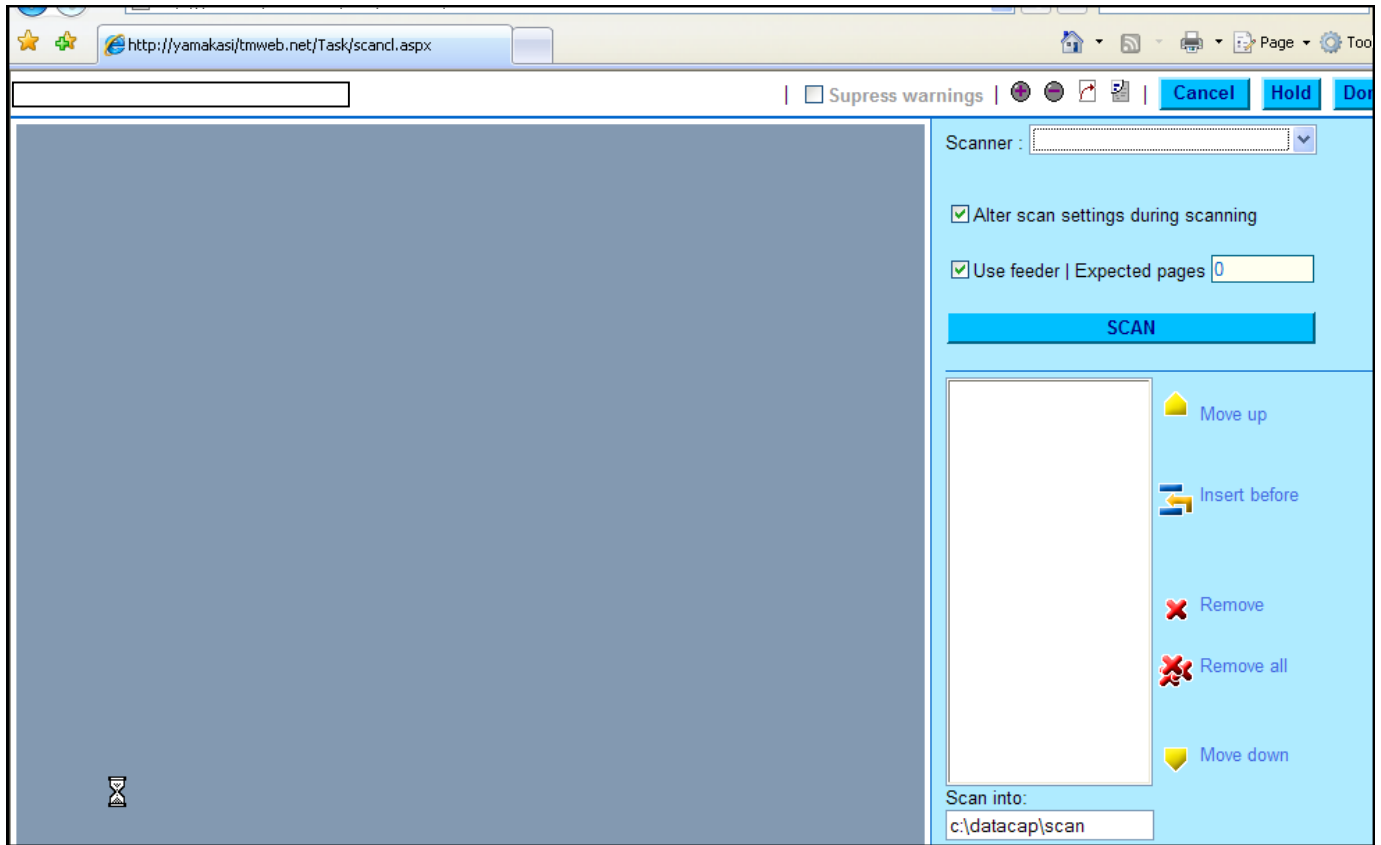


4. Enter your valid **User ID** and **Password**.
5. Enter the **Station ID** of a virtual workstation that has permission to run the rScan task.
6. Press the Login button.
7. When the **Run Shortcut** page appears, click on the shortcut icon you have prepared for this Job/Task combination – the **RScan** icon in the example below.



Name	Description
RScan	Remote Scan (requires scanner!)

8. Take a moment to review the layout and controls of the rScan task's *ScanBatch* dialog.

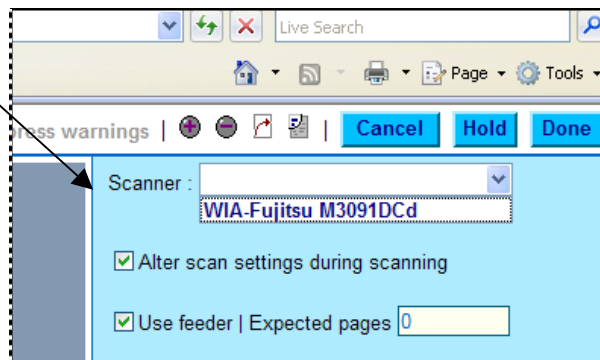


rScan Task – ScanBatch dialog

How to Run the rScan Task (continued)

- | Step | Description |
|------|---|
| 9. | Select your Scanner ID from the Scanner drop-down list at the top. |

Select your scanner

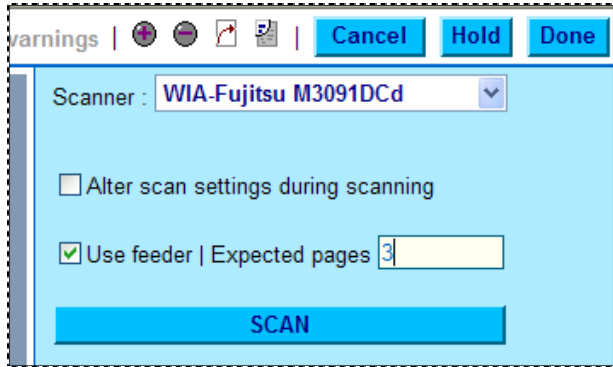


- If you want to modify the scanner's settings when the task runs, select the **Alter Scan Settings** option.
- If the scanner uses a feeder, select the **Use Feeder** option and indicate the number of **Expected Pages**.

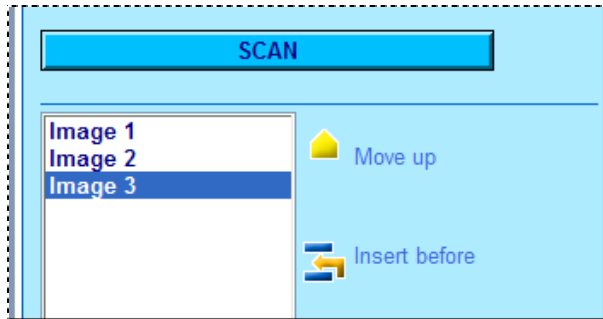
How to Run the rScan Task (continued)

Step	Description
------	-------------

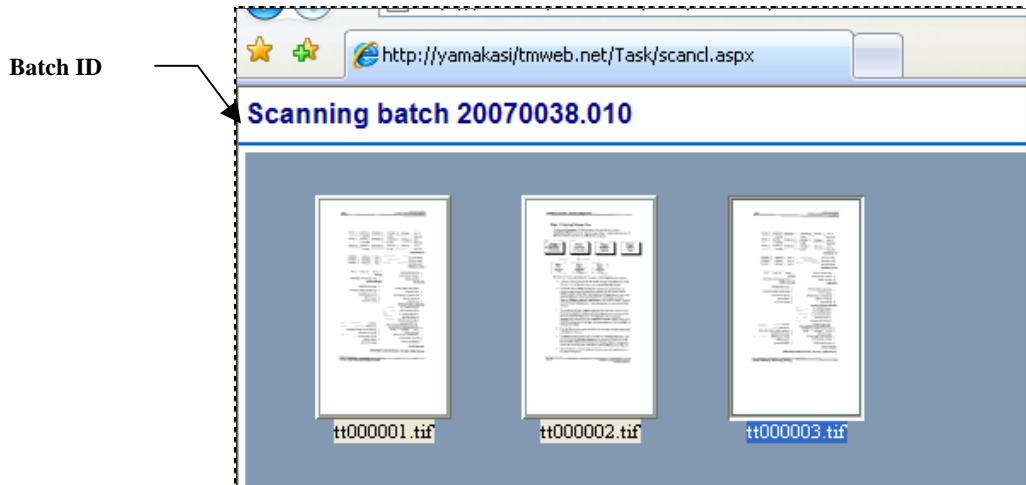
- 12. Press the Scan button to begin scanning (three pages in this test example.)



- 13. When scanning is complete, confirm that there is a complete list of Image files in the field just below the Scan button.

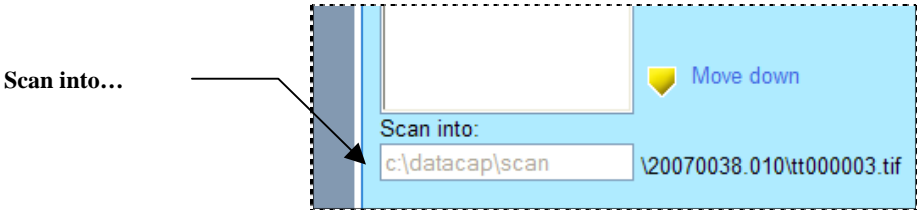


- 14. Check, too, that the Batch ID is prominently displayed in the upper left-hand corner. Below, the **Image** section should contain a thumbnail for each new image – each clearly marked with an Image ID: **tt000001.tif**, for example.



How to Run the rScan Task (continued)

Step	Description
15.	Information in the Scan Into field in the dialog's lower right should identify the location of the twin batch folder containing the Image files. Values to the right indicate the Batch ID and the name of the last Image file in the batch.

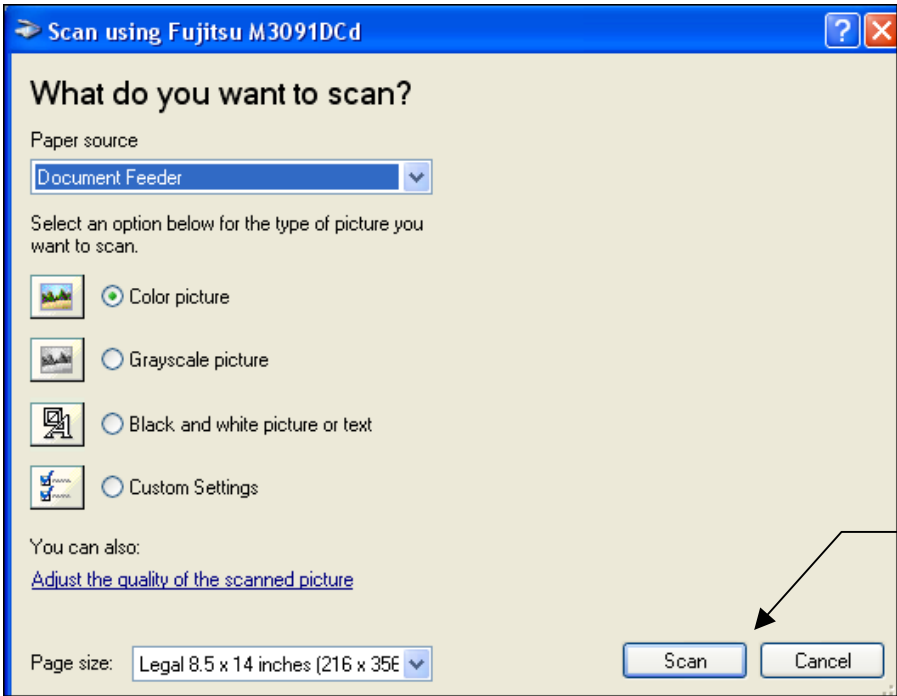


16. When you press the Done button at the top, the rScan task concludes by asking if you would like to continue scanning or close the task entirely.

Additional Considerations

1.) If you select the **Alter Scan Settings during Scanning** option, rScan gives you a chance to modify scanner specifications and certain settings in the **rScan.icp** file before the task runs. (For a review of the ICP file, see Page 25).

Important! Even if you do not make any changes, you must press its Scan button to initiate scanning.

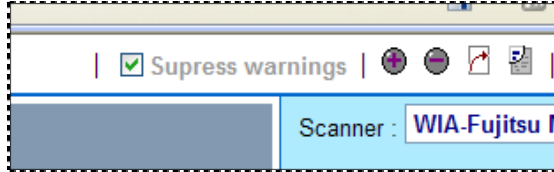


Modify rScan Settings dialog

rScan Task Operations

2.) The toolbar icons above the **Scanner** drop-down list include:

- **Suppress Warnings:** hides warnings about problems with configuration settings when the task runs.
- **Image Handling:** magnify and rotate a selected image



3.) The rScan task places a twin batch folder in the application's **batches** directory (see the chart on Page 24), and provides it one file – the task's Page file (**.rScan.xml**). The file lists the contents of the batch. For example:

B	20070038.010
	ED : 1
	AD : 0
	EP : 3
	AP : 0
	TYPE : 1040EZ
	STATUS : 0
D	20070038.010.01
	TYPE :
	STATUS : 0
P	TM000001
	imagePath : c:\datacap\scan\20070038.010\tm000001.tif
	TYPE : Other
	STATUS : 49
P	TM000002
	imagePath : c:\datacap\scan\20070038.010\tm000002.tif
	TYPE : Other
	STATUS : 49
P	TM000003
	imagePath : c:\datacap\scan\20070038.010\tm000003.tif
	TYPE : Other
	STATUS : 49

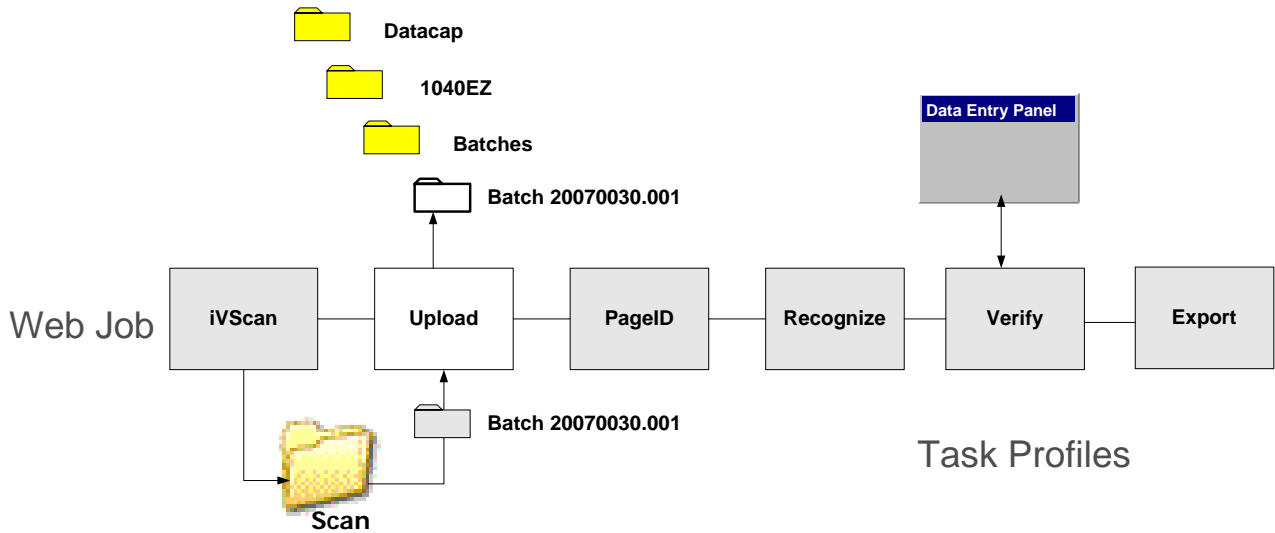
rScan Page File

Page 22 describes the layout and contents of a *Taskmaster Web Page* file. Page 45 lists Page Statuses.

4.4 Upload Tasks

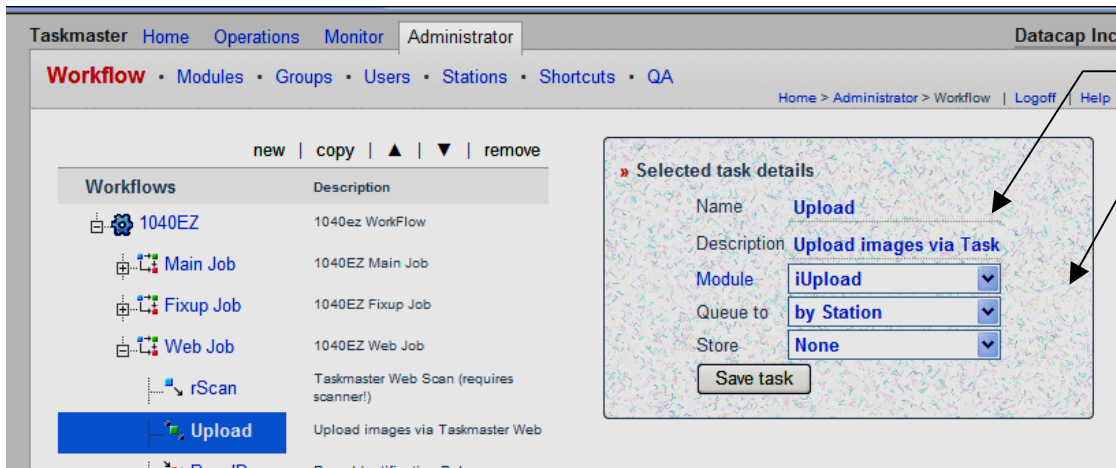
An Upload task removes images that have been consigned to new batch folders in the **Datacap** directory's **Scan** folder, and places them in their corresponding folders in the application's **batches** directory. There they await the attention of the next task in line – typically, a Recognition task that distinguishes pages according to their Page Types.

Depending on settings of the task's Job-Task shortcut icon (Chapter 3), the Upload task will process all batches in the **Scan** folder, or move batches one at a time in response to cues from the operator.



4.4.1 Upload Tasks – Set Up

The Upload Task Definition task has two significant properties: **Module** and **Queue to**:



Properties of the Upload Task

4.4.1.1 The iUpload Task Module

The Upload Scan task uses the *iUpload* Task Module. To find out more about this module, go to the **Administrator's** page's **Module's** secondary page – and select the *iUpload* Module ID.

In addition to a **Name** and brief but important **Description**, the Module Definition should include this *required* information (see the examples below):

- ◆ **Type.** An Upload task is a *Normal* task. Be sure to select this option from the drop-down list.
- ◆ **Program Name:** Enter “TMTask.Bpilot.DLL” (without the quotation marks!)”
- ◆ **Parameter:** Indicate the name and path of the ICP file with settings to guide the task. **Alert!** The entry's syntax is critical, particularly its opening `/inet` value (which links the module and task to the internet. An entry should resemble this value:

```
/inet c:\Datacap\1040ez\process\upload.icp
```

The screenshot shows the Taskmaster Administrator interface. The top navigation bar includes 'Taskmaster', 'Home', 'Operations', 'Monitor', and 'Administrator'. Below this, there are links for 'Workflow', 'Modules', 'Groups', 'Users', 'Stations', 'Shortcuts', and 'QA'. The main content area is divided into two sections. On the left, there is a table of modules with columns for 'Name' and 'Description'. The 'iUpload' module is selected and highlighted. On the right, there is a 'Selected module details' panel for the 'iUpload' module. The details include: Name: iUpload, Description: TM Web Upload images, Type: Normal (dropdown menu), Program Name: TMTask.BPilotDll, Statistics table, Batch field, and Parameter: /inet c:\Datacap\1040ez\process\upload.icp. A 'Save' button is located at the bottom of the details panel.

Name	Description
iVScan	TM Web Remote Virtual Scan
iUpload	TM Web Upload images from Remote Scan
rScan	TM Web Remote Scan (requires scanner!)
Vscan	Vscan with RuleRunner
RuleRunner	Runs various rules
Verify	Data Verification Task
Export	Export via Rules
Fixup	Batch Pilot Fixup
Assemble	Assemble Pages

Selected module details

Name: **iUpload**

Description: **TM Web Upload images**

Type: **Normal** (dropdown)

Program Name: **TMTask.BPilotDll**

Statistics table

Batch field

Parameter: **/inet c:\Datacap\1040ez\process\upload.icp**

Save

Properties of the iUpload Task Module

This is a close-up view of the 'Parameter' field from the screenshot above. It shows the text '1040ez\process\upload.icp' entered in the field. A 'Save' button is located below the field. An arrow from the main screenshot points to this close-up.

Batch field

Parameter: **1040ez\process\upload.icp**

Save

4.4.1.2 Queue to

The value of the typical Upload task's **Queue to** property is *Station ID* – if the **Store** value of the preceding Scan task (iVScan or rScan) is also Station ID. As a result:

- ◆ the originating Scan task will attach its current Station ID to each batch it creates;
- ◆ the Upload task can only process those batches that were generated by a Scan task running on the Upload task's station.

rScan Task: Store Station ID

Upload Task: Queue by Station

Therefore, if an authorized operator uses the *remote* station to log onto the *1040EZ* application (as an example) and runs the rScan task, the Upload task must process the batch from the same *remote* station.

- ✓ **Very important!** *Taskmaster Web* works with other combinations of **Store** and **Queue to** values. Chapter 3 explains these combinations; see also, Help for the **Workflow** page.

4.4.1.3 The Upload.icp File

Settings in an application's **Upload.icp** file determine how the task performs. You can use a Text Editor such as *Notepad* to review this brief file:

```
[ iCap ]
Enabled=1
Page=uplbfcl.asp
Page1=uplbfcl.aspx

Hold=1

[Upload]
Delay=300

;;; End of entries
```

Upload Tasks – Set Up

This table explains the file's settings.

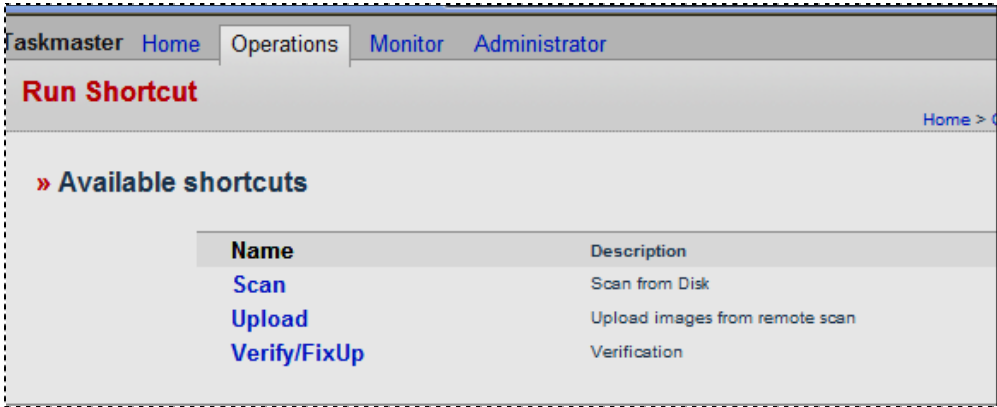
Setting	Description
[iCap]	Identifies the task as a <i>Taskmaster Web</i> task, and the specifications below as <i>Web</i> settings.
Enabled=1	“1” (<i>Yes</i>) activates the task; “0” (<i>No</i>) de-activates the task.
Page=uplbfcl.asp	The Upload task's Active Server Page for earlier versions of Taskmaster Web.
Page1=uplbfcl.asp	The Upload task's current Active Server Page.
Hold=1	If the Batch Selection mode of a Job-Task shortcut that launches this task is <i>Prompt/Web Select</i> : Hold=1 displays the Batch Finished page followed by the Waiting for Next Batch page when the task finishes processing a batch. Hold=0 suppresses the Batch Finished page. “1” is the <i>default</i> value. For a full explanation of this setting, see the discussion of the Shortcuts page in Chapter 3.
[upload]	
Delay=300	The delay in milliseconds between the upload of each Image file. This setting is only applicable when the uplbfcl.asp Active Server Page is used (above).

4.4.1.4 Upload Task – Security Parameters

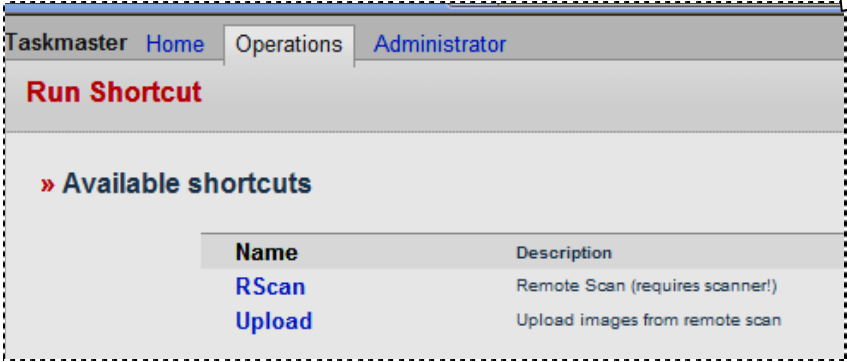
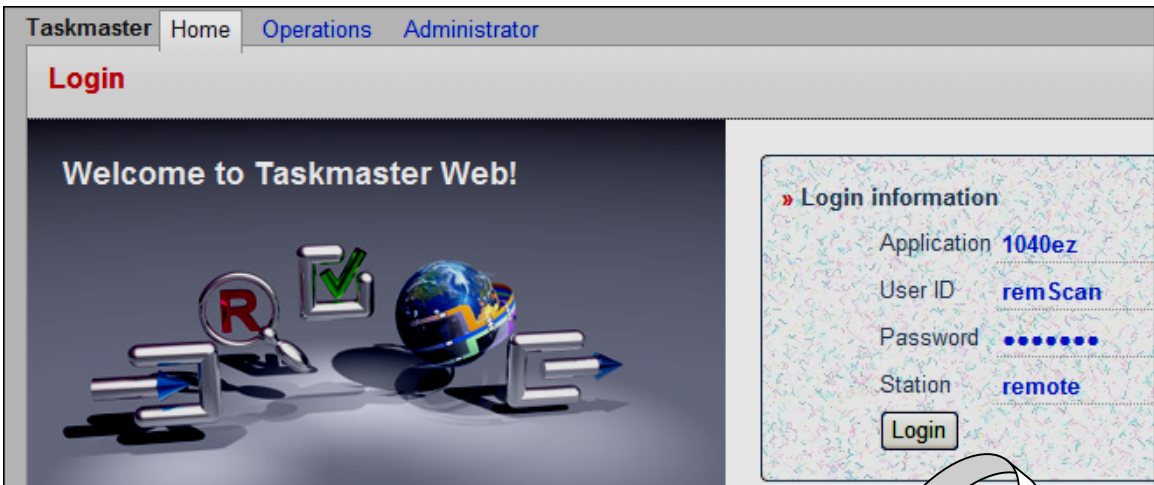
Security for the Upload task gives individuals and workstations access to:

- *Taskmaster Web*
- A specific application
- The operations shortcut icon that launches the Upload task

At the top of the next page, the Administrator can use the three icons that activate tasks of the *1040EZ* application. The *remScan* user, on the other hand, is limited to two. *Note*, however, that the *remote* station can run both the Rscan and Upload tasks, therefore satisfying those tasks' **Store** and **Queue** requirements (Page 41).



Administrator Access to 1040EZ (Station 1)



remScan Access to 1040EZ (remote Station)

4.4.2 Upload Task Operations

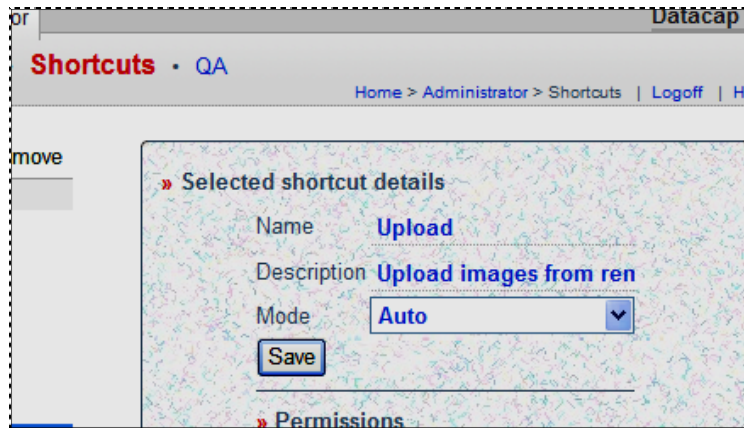
Upload task procedures withdraw Image files from a “twin” batch folder in the **Datacap** directory’s **Scan** sub-directory – and place them in the corresponding batch folder in an application’s **batches** directory.

The task also produces its own Page file (**upload.xml**) and adds it to the batch. Except for its name, this Page file is identical to the Page file of the preceding Scan task.

The Upload task can process multiple batches sequentially, or individually. Typically, the task runs in the *Auto* mode, in the processing background.

If the Job-Task shortcut’s **Mode** value is *Auto*, the task will automatically select the next batch in line after the operator presses the Continue button in the task’s **Batch Finished** dialog.

- ✓ **Remember:** If `Hold=0` in the **Upload.icp** file, the **Batch Finished** dialog will not appear at all.



Upload Job-Task Shortcut Properties

If the Job-Task shortcut’s **Mode** value is *Manual*, the task will display a **Batch Selection** dialog, which lists the dialog in line for the task. Clicking once on a Batch ID launches the task.

4.5 Page Statuses

Below is a list of key Page Statuses and their codes, along with a brief explanation of each status.

Page Status	Code	Description
Cannot Find Anchors	51	Indicates that the workflow's Recognition task has failed to identify the anchor fields of the page.
Deleted Page	75	Marks a page <i>and</i> its parent document for deletion and removes their association with the sponsoring batch. This status does not, however, directly affect the corresponding Image file.
Deletion Approved	77	Indicates that an operator or supervisor has approved the deletion of the page <i>and</i> document.
Does not Need Verification	52	A status usually assigned by the Recognition task to indicate that because the data on a page is complete and accurate, the page can by-pass Verification.
No Data	74	Ensures that none of the data on the page will be forwarded to an Export task – in effect, deleting the page. The assignment of this status to a page, usually by an operator or supervisor, results in a <i>Pending</i> status for the document. Our recommendation: if you are defining a task operating in the <i>FixUp</i> mode, add it to the operator's Page Status menu.
Page on Hold	72	Suspends the processing of a page, often when a page requires special attention, and places its document on <i>Hold</i> as well. If any page remains on <i>Hold</i> after the task processes the other pages in a batch, <i>Taskmaster</i> automatically assigns a <i>Hold</i> status to the batch itself. Our recommendation: flag the status as <i>Both</i> .
Page Overridden	73	The status that a Verification or Validation task assigns if an operator overrides the task's rejection of the page when data in certain fields is incomplete or inaccurate. This status allows the page to move on to the job's next task – usually an Export task.
Process Failed	60	Indicates that a task in the parent job was unable to process the page, and that an operator or supervisor has intervened to assigned this status. This status usually branches the batch containing the page to a <i>FixUp</i> child job.

Page Statuses (continued)

Page Status	Code	Description
Recognition Done OK	48	<p>The Page Status assigned by the Recognition task if it successfully identifies a page according to its Page Type, and correctly links the page to a document within the batch.</p> <p>This status does <i>not</i> guarantee that the task has been able to read and interpret all fields on the page accurately and completely.</p>
Recognition Not Done	65	<p>Indicates that although Recognition successfully identified the anchors on the page, a processing error prevented further Recognition steps.</p>
Remove Page	78	<p>“Removes” the page from the workflow and its data from further consideration.</p> <p>It also removes the document containing the page.</p>
Rescan Page	70	<p>Marks a page for re-scanning.</p> <p>This status usually branches the batch containing the page to a FixUp child job.</p>
Review Page	79	<p>“Branches” any page with this status to a child job.</p> <p>You’ll designate the child job when you define a parent job employing this FixUp task.</p>
Scan Bad	50	<p>Indicates that unsuccessful scanning has resulted in a problem page.</p>
Scan OK	49	<p>Indicates that a FixUp task has evaluated a scanned page, is satisfied that its anchors are in place, and is prepared to send the page to Recognition.</p> <p><i>Taskmaster</i> will automatically assign this status to any page that scans or rescans correctly. Our recommendation: ignore this status.</p>
Verification Done	66	<p>The Page Status assigned by the Verification task when it completes its work with a page.</p>
Verification Failed	71	<p>Indicates that the Verification task was unable to process the page.</p> <p>If a FixUp child job is available, this status usually diverts the page (and its batch) to the child job for further attention.</p>