7

Scan Tasks: vScan, kScan, iScan

This chapter reviews the steps you take to set up and run *Taskmaster's* Scan tasks: vScan, iScan and kScan:

The chapter's contents include:

Introduction

A **Scan task** opens the Main and Demo **jobs** of most workflows. A typical Scan task…

- Creates a processing batch.
- Scans paper or images.
- Generates an Image file (.tif) for each new page.
- Places the Image files in the batch folder.
- Generates a Page file (**<scantask>.xml)** with information about batch contents, and adds it to the batch folder.

Taskmaster features three kinds of Scan tasks:

vScan tasks scan images for Demo jobs and, often, for the Main jobs of a *Taskmaster Web* application.

iScan tasks use a physical scanner equipped with an **ISIS** driver to scan paper.

kScan tasks use a physical scanner and a **Kofax** driver.

✓ The previous chapter described the steps you take to define any new task. This chapter concentrates on the setup of the Scan tasks, and their operation, in these sections:

vScan Setup (Page 4) vScan Operation (Page 8).

kScan Setup (Page 9) kScan Operation (Page 21).

iScan Setup (Page 35). iScan Operation (Page 56).

Scan Task Setup and Datacap Support

The successful setup of kScan and iScan tasks depends on accurate and complete definition of the Kofax or ISIS driver that determines how a task's physical scanner will process paper and images.

This documentation assumes that these drivers have been defined and tested before you begin setting up the task. If you do encounter difficulties when you are setting up and testing a task configuration, we recommend that you take these steps to help solve your problem:

- Be sure you can "reproduce" the problem.
- Thoroughly document the nature of the difficulty.
- Contact Kofax or ISIS Support.
- Contact Datacap Support (www.datacap.com/support or 914-259-1300.)

vScan Tasks

After it sets up a new **batch**, a *virtual* Scan task processes existing Image files – usually .tif files.

Unlike iScan and kScan tasks, vScan is a *RuleRunner* task…that is, it responds exclusively to rules you define, and to the actions of these rules. Furthermore, the setup of a vScan task complies with the setup procedures of any *RuleRunner* task. (For a complete explanation of *RuleRunner* tasks, please see Chapter 7.)

Operation of a vScan task is simple and swift.

✓ The following explanations use the pre-configured *1040EZ* application for examples.

- To open the application's ***Taskmaster Window***, select **Datacap Taskmaster** from your Windows Start button's list of **Programs**. Open the **Applications** folder and the **1040EZ** sub-folder. Double-click on **1040EZ Client** and enter your Administrative security codes.
- To access the application's *Rule Manager*, double-click on **1040EZ Rule Manager**.

To explore all sides of a vScan task, you'll need both interfaces – as well the ***Batch Pilot Window.***

vScan Setup

Chapter 6 showed you how to construct a Task Definition, and Chapter 8 reviews the attributes of every *RuleRunner* task. The following paragraphs highlight the setup features which are unique to a vScan task.

vScan Task Definition

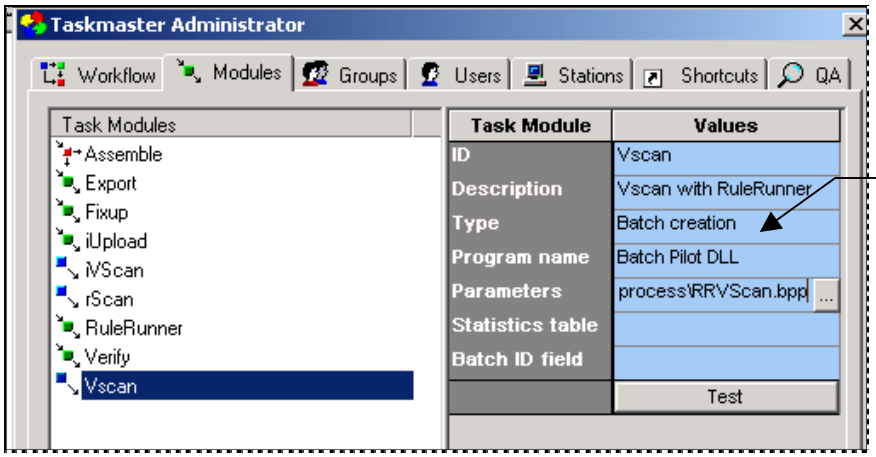
Task Project

An application's vScan Task Project (**RRVScan.bpp**, for example)) resides in the application's **Process** directory and uses the *RuleRunner* ***setup*** and ***runtime*** forms. (The Taskmaster Application Wizard automatically sets up a vScan Task Project and provides it with default parameters.)

Task Module

The default **VScan** module must link the Task Definition to the vScan Task Project (.bpp).

✓ ***Very important!*** Be sure that the Task Module's properties closely resemble those in the illustration on the next page. The **Type** value must be *Batch Creation*, and *Batch Pilot DLL* must be the **Program Name** value.

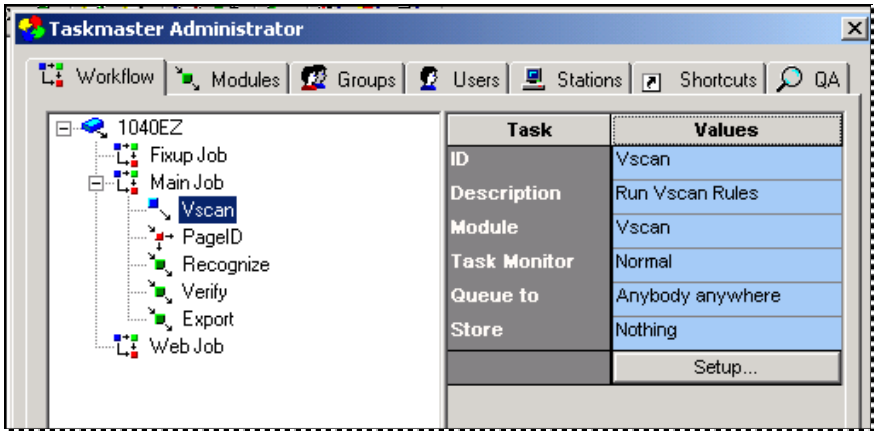


1040EZ Taskmaster Administrator – *Modules tab*

Task Identity

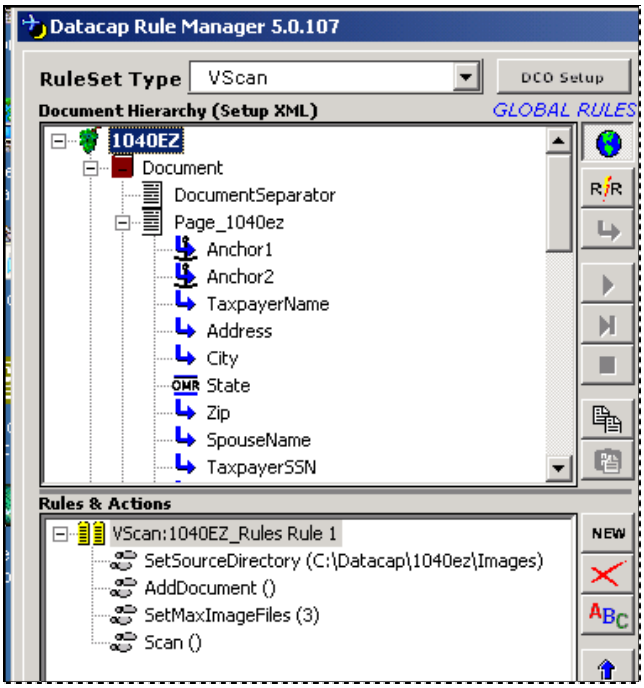
The illustration below shows that there is nothing unusual about the vScan Task Identity, ***except*** its placement within a particular job. In your *Taskmaster* application, the vScan task is probably part of a Demo job. However, because *1040EZ* is a training application, the vScan task has been assigned to the Main job.

Remember, too, that a *Taskmaster Web* application's Main job may use a vScan task.



1040EZ Taskmaster Administrator – *Workflow tab*
vScan Task Identity

✓ Note the brief but important **Description**: "Run VScan Rules" is a reminder that this task cannot operate without rules and actions. So, before reviewing the specifications in the ***Task Setup*** dialog (Page 7), open the *Rules* panel of the application's ***Rule Manager Window***.



1040EZ Rule Manager Window – *Rules panel*

vScan Rules

Although the library of the default **vScan** RuleSet Type contains a number of actions, the single rule in the example above, with its four actions, when applied to the **Batch** object (*1040EZ*), will have this impact on the vScan task:

- vScan will find the images it is to process in the application's **Images** directory.
- The task will introduce a single **document** to hold all **pages**.
- The task will process no more than three Image files. (This is a helpful limit for a Demo job.)
- vScan will commence scanning!

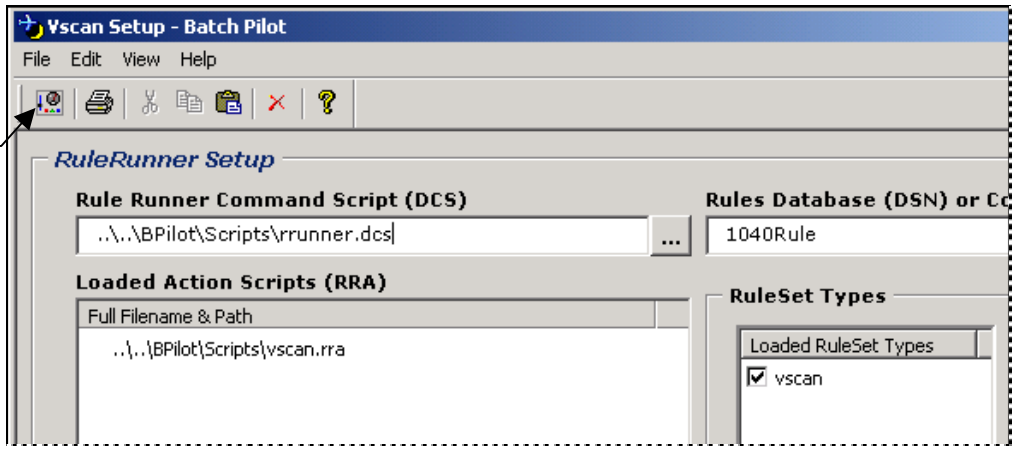
✓ If you do not include the third action, vScan will process all files in the source directory.

Task Setup

The task cannot operate until the **VScan** RuleSet Type has been assigned to the Task Definition.

When you highlight the applicable Task ID in the ***Taskmaster Administrator's*** *Workflow* tab, and press the Setup button, the ***Task Setup*** dialog will appear in the ***Batch Pilot Window***:

Click here for Task Settings



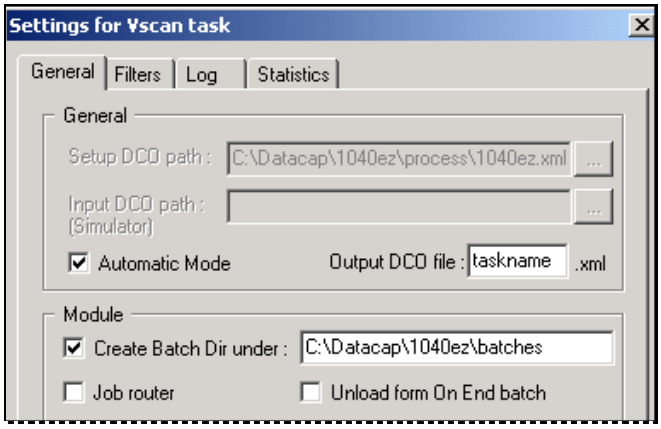
vScan Task Setup dialog – *1040EZ*

For a vScan task, specifications in the dialog's fields are intentionally brief. Be sure they load the *vscan* **RuleSet Type.**

Task Settings

Chapter 6 describes a Task Definition's ***Task Settings*** dialog and the contents of its four tabs. (To access this dialog, select **Task Settings** from the **File** menu of the ***Batch Pilot Window***.)

Alert! When you define a vScan task, one parameter in the *General* tab is especially important. In the **Module** area, check the **Create Batch Dir** option and supply the name and path of the application's **batches** directory:

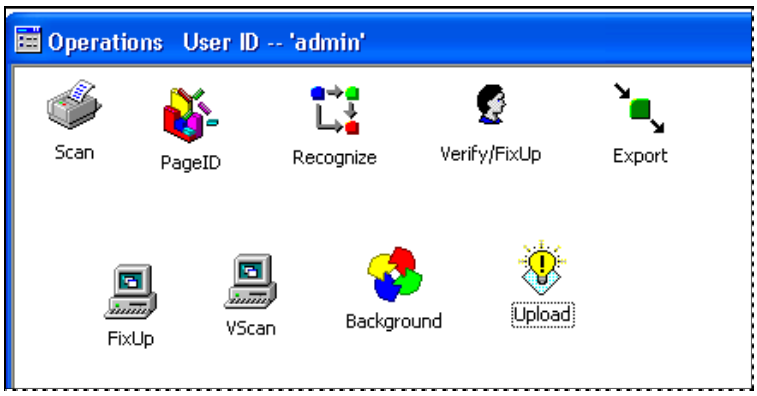


Task Settings dialog – *General tab*

- ✓ ***Alert 2!*** The task can set up new batches only if you select this option and enter the Batch Directory name and path – ***and*** if the Task Module's **Type** is *Batch Creation* (Page 4).
- ✓ ***Alert 3!*** Selecting **Automatic Mode** means that the task runs "*unattended*"… that it creates a new batch and document, processes images and generates new Image files, and adds the Image files to the batch without operator participation. This is a ***required*** setting of the vScan task.

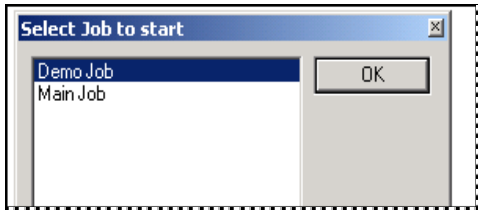
vScan Operations

The *1040EZ* application's vScan task runs when an operator double-clicks on the **Scan** icon in the ***Taskmaster Window's*** secondary ***Operations*** window.



Taskmaster Window – *Operations window*

✓ If an application has assigned Scan tasks to multiple jobs - and if the **Scan** icon is authorized to launch any of these Job/Task Combinations, the ***Select Job to Start*** dialog will appear. The operator highlights the job with the vScan task, and presses the OK button.



The task begins and ends almost immediately, unless the **Image** directory has many files and the **vScan** rule's **SetMaxImageFiles** action has a high parameter.

The new batch will contain a scanned and cleaned Image file (**tm00000*n*.tif**) for each page. In addition, a new **Page file (vscan.xml)** will list the contents of the new **batch** as a series of *Other* pages. (In the case of the *1040EZ* application, the subsequent PageID task has not yet had a chance to identify pages according to their Page Types.)

Troubleshooting vScan

If vScan does not perform, check these settings (in this order):

- Actions of the **VScan** RuleSet –especially, the parameter of the **SetMaxImages** action.
- The Task Module's **Type** value (Batch Creation)
- The **Batch Dir** parameters in the *General* tab of the ***Task Settings*** dialog.

kScan Tasks

kScan is often the opening task of a workflow's Main job. It is a powerful task, with these features:

- kScan operates in response to the settings of a **Source Device** you define. The Source Device links your physical scanner to a specific **Kofax engine** - software which allows kScan to take advantage of the scanner's strengths.
- The task's **Setup** procedures introduce a full range of specifications (see the next page). These settings govern form and page detection; image generation and enhancement; image processing and endorsement; and image storage.
- During kScan **Operations** (Page 21), the ***Scanning*** dialog displays a visual stream of newly-generated images as the task adds **pages** to a new **batch**. In addition, the ***Review & Repair*** dialog (Page 23) provides tools the operator can use to review individual pages or the contents of the batch itself – and to add or remove pages.

kScan Task Setup – Structure

A kScan task has four setup components:

- The Task Project (**kScan.bpp**) provides the task with its ***setup*** and ***runtime*** forms.
- The kScan Task Definition establishes a kScan Task Identity; links the Task Definition to its Task Module; and connects the Task Module to the kScan Task Project (.bpp).
- The ***kScan Task Setup*** dialog selects a previously defined **Source Device** and links it to the task. It then assigns a wide range of settings to govern the scanner's operations, and the task's Image Management procedures. This dialog also identifies and locates important secondary files – a script, a Settings file and two User Interface forms.
- The ***Task Settings*** dialog contains specifications that govern the task's operations as part of a *Taskmaster* workflow.

✓ Chapter 6 described basic task development and testing procedures. The following sections focus on those elements that are unique to a kScan task.

☛ ***Related Documentation***. Because many of the setup specifications of a kScan task or an iScan task (Page 35) are **scanner-specific**, the *Users Manual* for the scanner's make and model will contain information that supports and clarifies the explanations which follow.

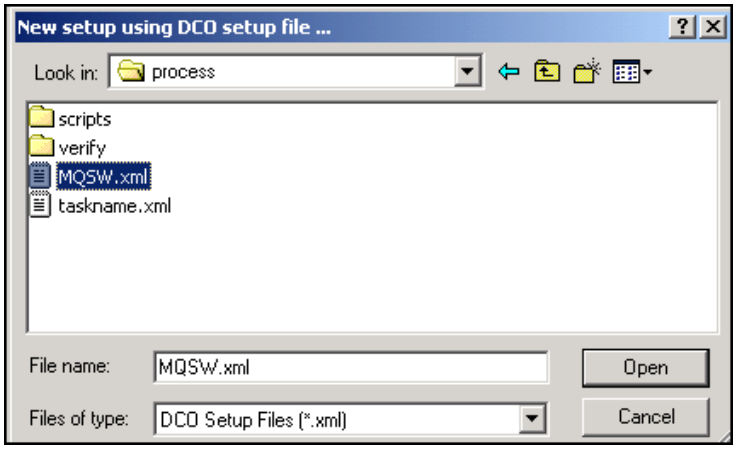
kScan Task Project

To put together a kScan Task Definition, you first have to define a kScan Task Project (.bpp). Here is a summary of the steps you take:

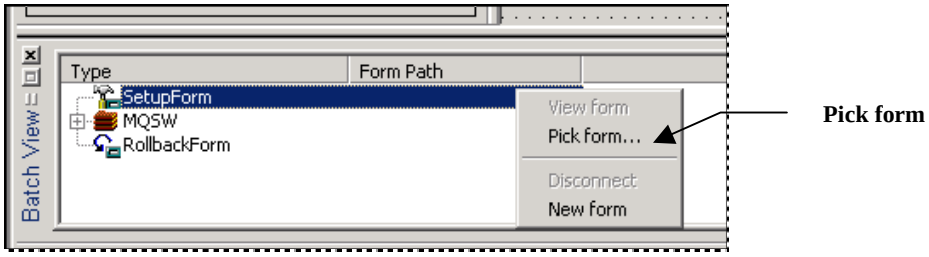
Step	Action

1. Open *Batch Pilot*. Select **New Project** from the ***Batch Pilot Window's*** **File** menu.

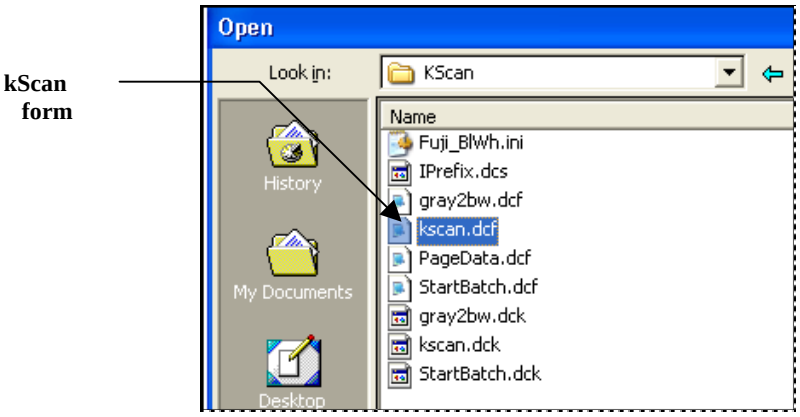
2. When *Batch Pilot* asks you to designate the **setup DCO** file, select the file that contains details of your application's Document Hierarchy (Chapter 3).



3. In the **Batch View** area at the bottom of the window, right-click on **Setup form** and select the **Pick form** option.



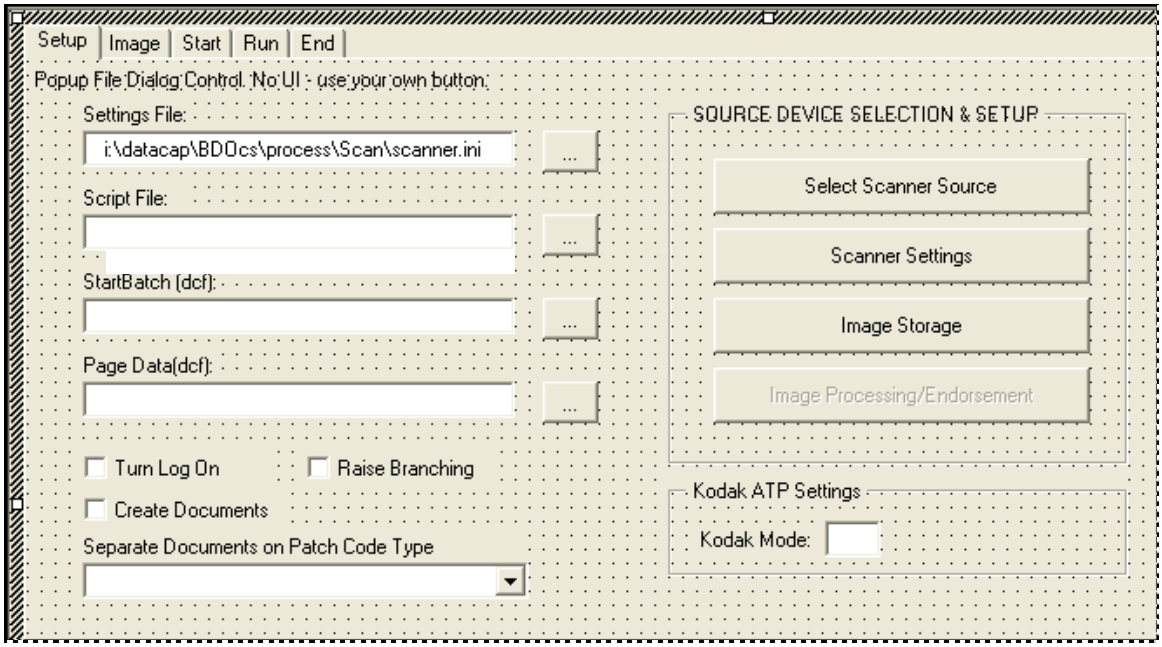
4. Use the tools of the ***Open*** dialog to access the kScan form (**kscan.dcf**) in the **kScan** sub-folder of the **Datacap** directory's **BPilot** folder.



To Prepare the kScan Task Project (continued)

Step	Action

5. When the form's *Setup* tab appears on your screen, use the **Save as** item in the ***Batch Pilot Window's* File** menu to save the kScan Task Project (.bpp) in your application's **Process** directory.



kScan Task Project – *kScan form*

✓ ***Alert!*** The kScan form is a ***multi-tab*** form, with a ***setup*** tab and various ***runtime*** tabs. Each tab appears as an individual dialog when you are setting up or running a task.

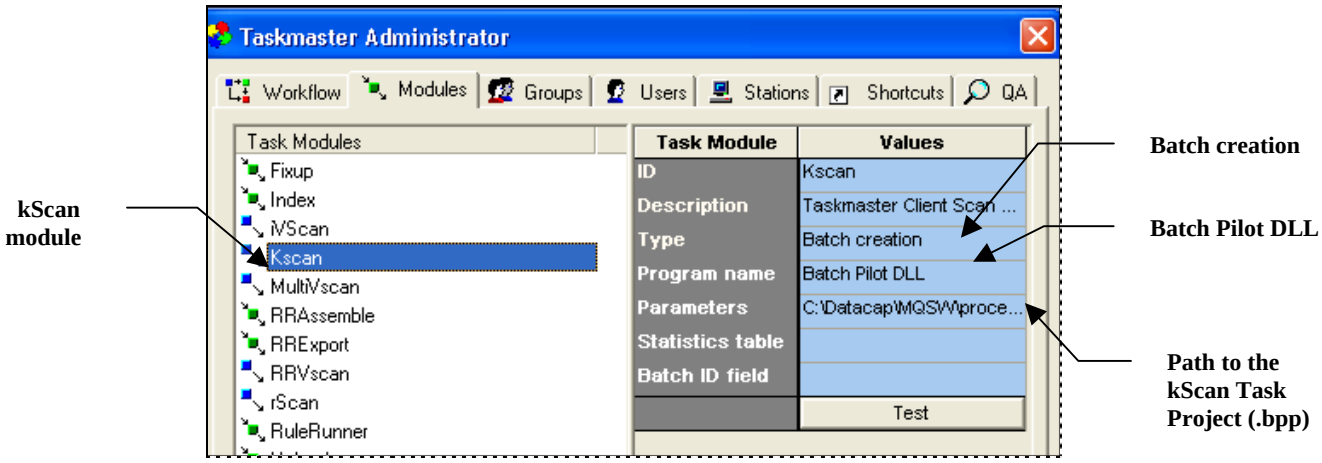
kScan Task Identity

As soon as the kScan Task Project is in place, you can assemble a Task Identity with the following components:

Task Module

You need a Task Module to link the kScan Task Definition to the kScan Task Project (illustrated on the next page).

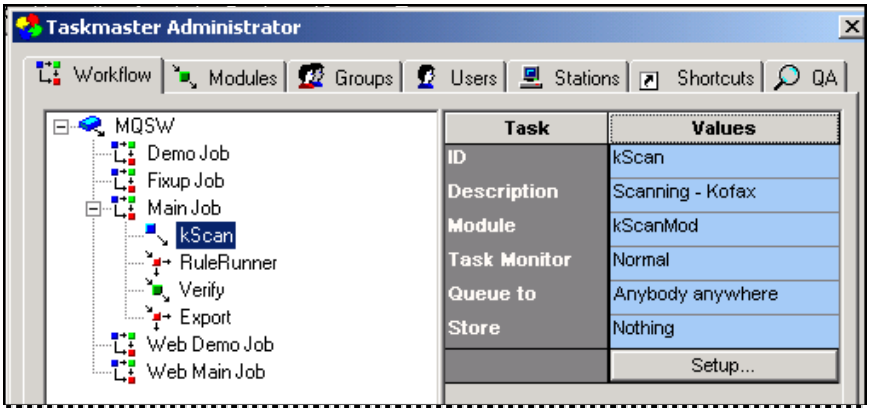
✓ Be sure that the module's definition stipulates *Batch Creation* as its **Type**; that the **Program Name** is *Batch Pilot DLL;* and that the **Parameters** field has the name and path of the kScan Task Project file (.bpp).



MQSW Taskmaster Administrator – *Modules tab*

Task Properties

When you assign the kScan task to a job, its properties will resemble those in the example below:



MQSW Taskmaster Administrator – *Workflow tab*

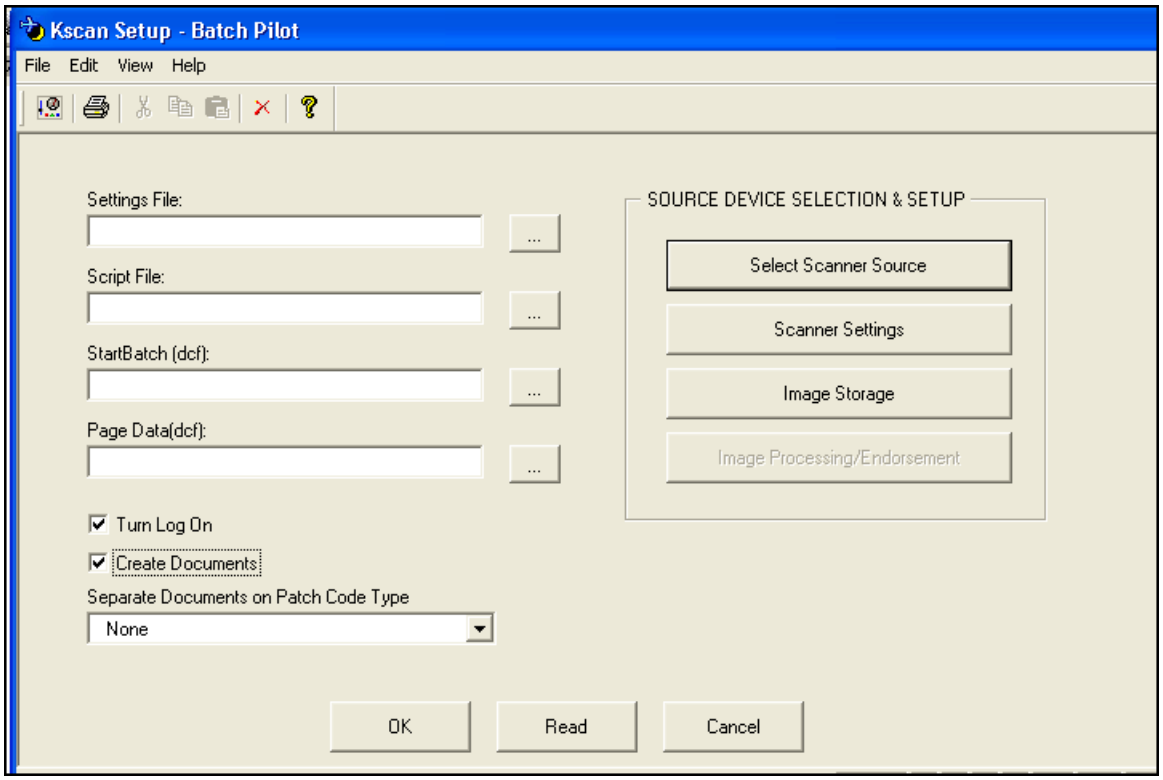
✓ You can highlight the Task ID and click on the Setup button to begin the Task Setup procedures. ***Alert!*** Task Setup provides direct access to specifications of the ***kScan Task Setup*** dialog and the ***kScan Task Settings*** dialog (Page 20) for this Task Definition ***only.***

☛ ***Very important!*** As one of its first steps, kScan Task Setup will ask you to identify a **Source Device** you have ***previously defined*** for the scanner you're using, the Kofax driver it employs and, if appropriate, a Kofax SCSI card.

kScan Task Setup - Specifications

When you open the ***kScan Task Setup*** dialog, the dialog occupies most of the ***Batch Pilot Window's*** Data Area.

➔ ***Warning!*** Be sure to initiate kScan Task Setup procedures from a workstation that is both host to your application's Taskmaster Client ***and*** is connected to the scanner that will process your forms. Be sure, too, that you have installed the applicable **Kofax driver** on the workstation – and that the scanner is "On."



kScan Task Setup dialog

The ***kScan Task Setup*** dialog combines tools and menus of the ***Batch Pilot Window*** with fields and settings you can use to define or modify a kScan task.

Setup of the kScan task requires entries in each field on the dialog's left side:

- **Settings File.** This file contains numerous settings associated with your scanner and its Source Device. When you click on the Select Scanner Source button to select ***your*** Source Device, *Taskmaster* will automatically update this file with the correct scanner information.

  Alert! Datacap supplies Settings files for certain scanners. If we do not have a file for ***your*** scanner, you can insert the name and path of a blank file. The Task Setup process will add settings and their values automatically.

- **Script File.** This file contains settings and algorithms for image addresses, as well as endorser and scan strings. It is located in the **kScan** sub-folder of the **Datacap** directory's **BPilot** folder.
- **StartBatch.** This *optional* setting identifies and locates the form for the ***StartBatch*** dialog, which appears on the operator's screen as soon as he or she initiates the task (Page 22).
- **Page Data**. You can use this *optional* setting to identify the form that kScan uses to count re-scanned or inserted pages.

The ***kScan Task Setup*** dialog has two check boxes:

- **Create Documents**. Selection of this option permits document separation during the Scan task's operations, based on patch codes…***if*** you have activated a **Patch Code Detection** value in the Settings file and ***if*** you select a **Patch Code Type** from the drop-down list that appears when you select this option.

  If the box is checked and ***no*** patch codes are detected, the task will create ***one*** document. If the box is ***not*** checked and ***no*** patch codes are detected, the task will place all pages in the batch without a document.
- **Turn Log On**. If you select this option, the task will generate a Log file for each batch. Specifications in the *Log* tab of the ***Task Settings*** dialog (Chapter 6) determine the nature of the file and its contents.

The OK button saves any additions or changes, and closes the window; the Cancel button closes the window without saving modifications.

✓ The Read button allows you to load the Scanner Settings file (.ini) you designate in the **Settings File** field. During the setup of a kScan task, you can load alternative settings by entering the file's name and location, and pressing the Read button.

The buttons in the **Source Device Selection and Setup** area open a broad range of additional specifications: the exact nature of these specifications depends on the properties of the Kofax Source Device you have defined. The section which begins on Page 17 explores these settings.

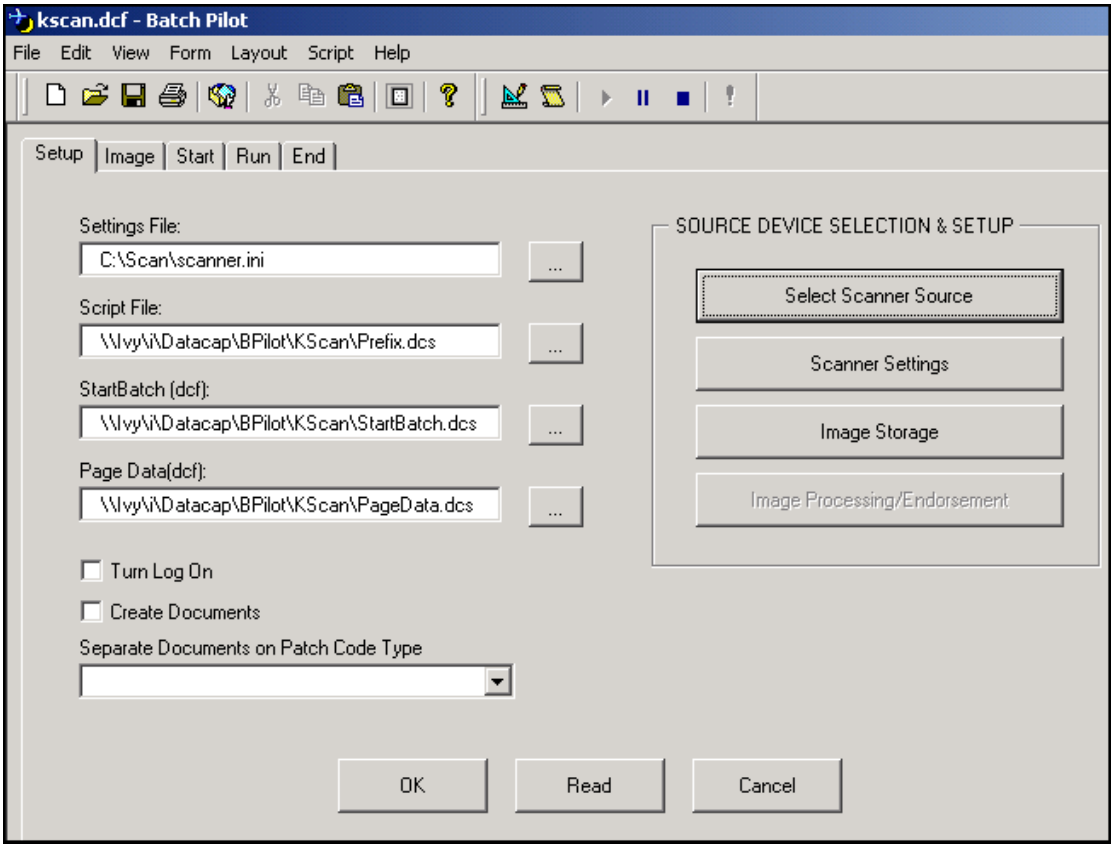
kScan Settings File

The kScan task's Settings file (<**scanner**>**.ini**) contains details of the Source Device that the task is using; the additional scanner and image management specifications you've assigned; as well as supporting task information.

✓ The Settings file is ***scanner-specific*** and is usually saved in a folder of the local drive of the computer which serves as the task's scanning station.

If the application employs only one scanner, this Settings file can reside in an application's **Process** directory, on the **Datacap Taskmaster** File Server.

In the illustration below, the **scanner.ini** file is in the "C" drive's **Scan** directory:



kScan Setup Specifications window - *Project Components*

✓ ***Important:*** There is a one-to-one correspondence between specifications in the various Source Device dialogs on the previous pages and items in the kScan Settings file. However, the file contains other properties which do ***not*** have equivalents in the dialogs. These include the "custom" Adaptive Contrast Enhancement (ACE) settings of scanner manufacturers such as Fujitsu, Kodak and Bell & Howell.

kScan Source Device Specifications

When you set up a kScan task, you'll use the buttons in the **Source Device Selection & Setup** area, and their corresponding dialogs, to assign properties to a **Source Device** you have ***previously defined***.

- The Source Device links a physical scanner to a Kofax scanning engine, and supplies the device with basic properties.
- Source Device configuration supplies the device with numerous, additional scanning and image management attributes.

The steps you take to assemble the task's Source Device will vary according to the scanner you select, and the engine you pair it with. Alternatively, you can define multiple devices and set up a kScan task for each.

Because the details of Source Device definition depend heavily on the components of a particular scanning configuration, this documentation does not thoroughly explore the definition process.

Instead, the section below explains how to link your kScan task to a Source Device you have ***previously defined*** (Page 16). It then identifies and explains the specifications you'll assign to the device.

How to Provide the kScan Task with an Existing Source Device

Remember: A kScan task can operate only if it has a Source Device that designates the task's scanner and scanning engine.

☛ To supply your kScan task with a Source Device, you'll take the steps below. However, you cannot proceed until you have configured the device, connected the scanner to your computer and have turned on the scanner.

Step	Action
1.	Follow the instructions on Page 9 to open the ***kScan Setup Specifications*** window (illustrated on the previous page.) *Kofax* will alert you if the scanner and your computer are not connected, or if the scanner is not running.
2.	Click on the Select Scanner Source button: the ***Select Scan Source*** dialog will appear.
3.	Select the applicable Source Device from the drop-down list. ***Alert!*** Be sure the Source Device you choose includes the scanner you're working with as a component.
4.	Click on the OK button at the bottom of the ***Select Scan Source*** dialog: *Kofax* will assign the device to the task ***and*** will update the task's Scanner Settings file (.ini) with device information. (For an explanation of this file, see Page 16).

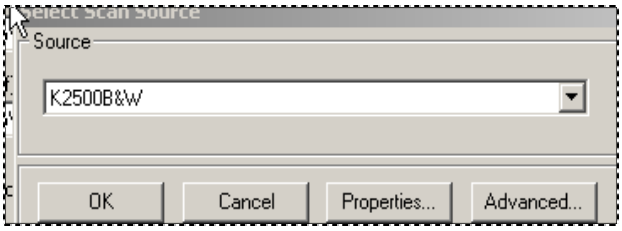
Providing a kScan task with a Kofax Source Device (continued)

Step	Action

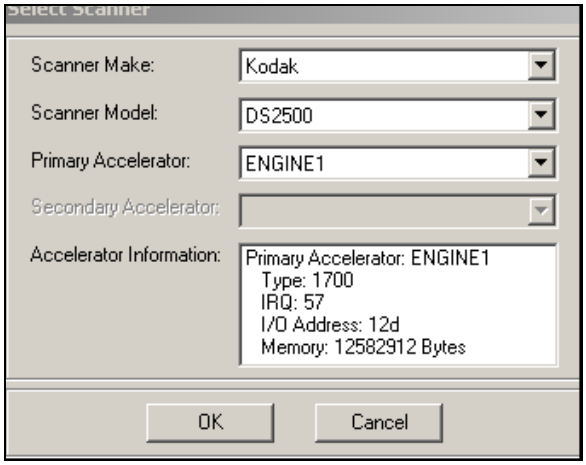
5. Click on the OK button at the bottom of the ***kScan Setup Specifications*** window. When the ***Taskmaster Administrator's*** *Workflow* tab appears on your screen, press the Apply button, and the Done button.

At this point, if you re-open the ***kScan Task Setup*** dialog and click on the Set Device button, the ***Select Scan Source*** dialog will automatically display the device name in its drop-down list. If you press the Properties button, a read-only edition of the ***Select Scanner*** dialog will appear, with information about the scanner and engine.

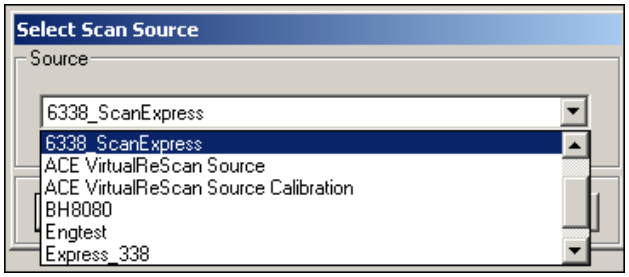
If you press the Advanced button, the ***Advanced Source Properties*** dialog will appear. (**Note:** You can also reach this dialog when you first define Source Device.)



Select Scan Source Dialog



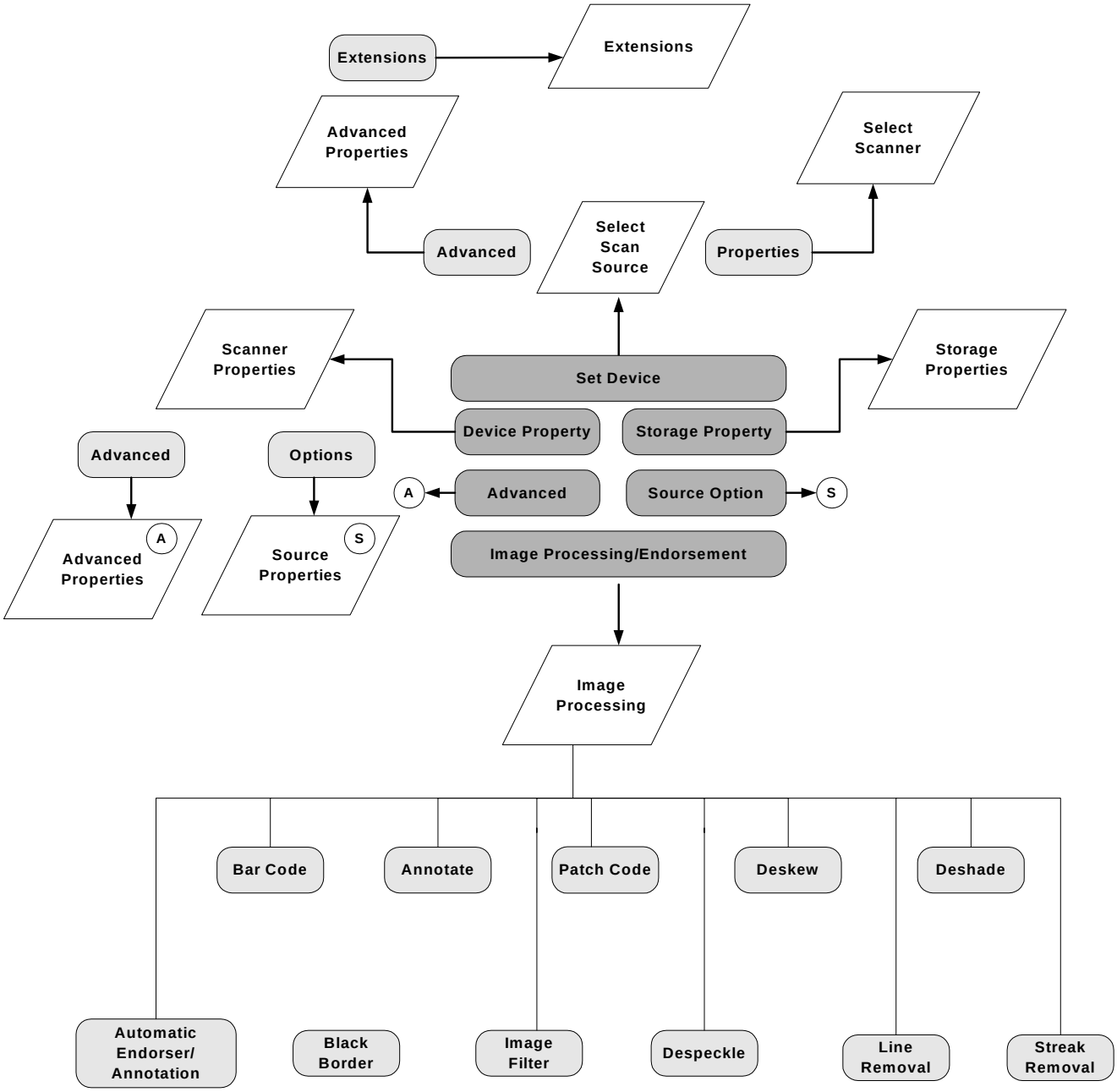
Select Scanner Dialog – *Kofax Source Device Parameters*



Select Scan Source dialog – sources

✓ ***Remember!*** A Source Device is a **Kofax e**ntity…and defining the Source Device is a **Kofax** procedure. If you experience difficulties, consult your Kofax documentation or contact Kofax Support.

☛ The chart below maps many of the dialogs that contain Kofax Source Device specifications. Details of the specifications ***you*** use depend on the make and model of your scanner, and on the parameters of the Source Device itself.



kScan Task Setup – Task Settings

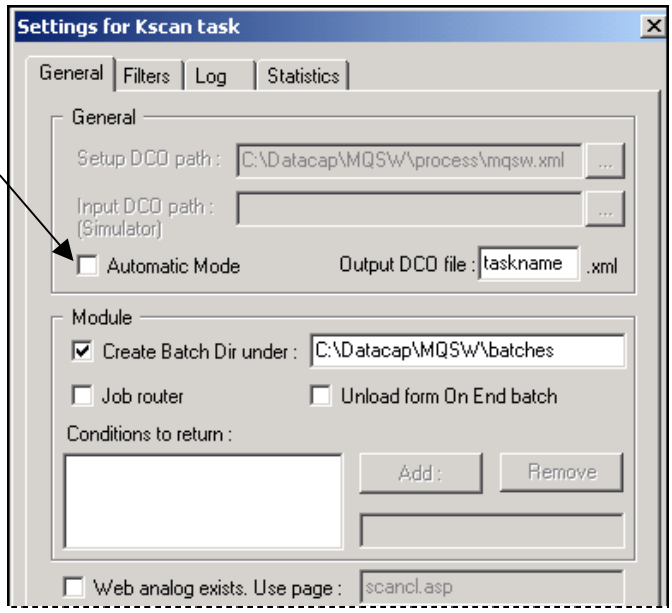
The setup of a kScan task is not complete until you assign values to certain settings in the ***Task Settings*** dialog.

✓ To access this dialog, highlight the kScan Task ID in the *Workflow* tab of your application's ***Taskmaster Administrator –*** and click on the Setup button. When the task's ***Setup*** dialog appears in the ***Batch Pilot Window***, select **Task Settings** from the **File** menu.

The *General* tab of the ***Task Settings*** dialog needs two, very important values:

- In the **Module** area, select the **Create Batch Directory** option;
- Enter the name and path of the **Batch Directory** that will contain your application's batches.

Do not select this option.



kScan Task Settings – *General tab*

✓ ***Alert!*** A kScan task ***cannot*** create new batches unless you select the **Create Batch Directory** option and assign *Batch Creation* as the Task Module's **Type** property (Page 12).

Be sure that you do ***not*** select **Automatic Mode**. If the kScan task runs in Automatic Mode, the operator will not have an opportunity to review scanned pages; rescan problem pages; or revise batch content.

☛ Chapter 6 describes all aspects of the ***Task Settings*** dialog.

kScan Operations

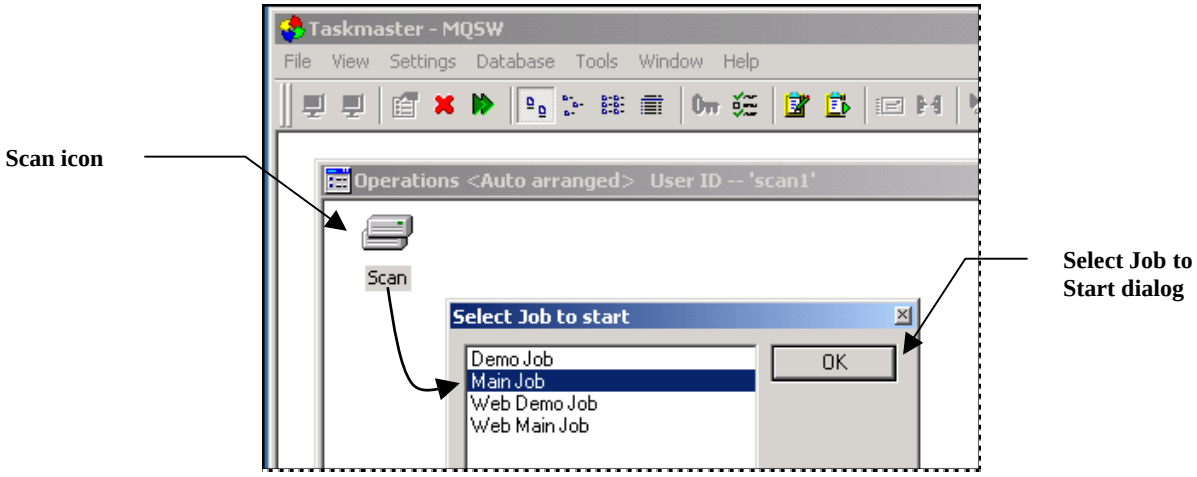
Operations of a kScan task take place in two, closely connected phases: **Scan** (below) and **Review & Repair** (Page 23). ***Don't forget!*** For both phases, your scanner ***must*** be connected to the computer that is host to the Taskmaster Client responsible for Scanning procedures.

Scan

The opening phase begins ***after*** the Scan operator has assembled the pages to be scanned and has placed them in the scanner's tray. He or she can then double-click on the Scan icon in *Taskmaster's* ***Operations*** window. If your application has more than one job with a Scan task, this step will open the ***Select Job to Start*** dialog so that the operator can choose the applicable Job/Task Combination.

This dialog will ***not*** open if the *Sequential Job Creation* option in the *Advanced* tab of the ***Taskmaster Settings*** dialog has been checked. You can access this dialog by selecting **General**, then **Advanced,** from the **Taskmaster Window's Settings** menu. For details, see the *Taskmaster Windows & Dialogs Reference*, or Taskmaster Help.

✓ ***Alert!*** Application Security usually limits the scope of a Scan task operator and a Scanning station to tasks in the Scanning category (see Chapter 5 of the *Taskmaster Administrator's Guide*.) As a result, when the operator signs on to the application, the ***Operations*** window may display a single **Scan** icon:



Taskmaster Window

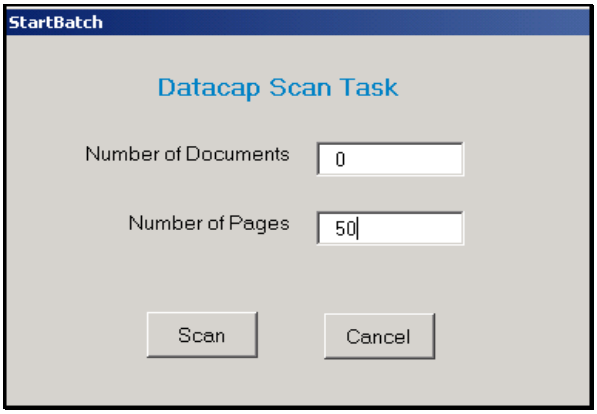
Although the operator can launch the Scan tasks of four jobs (in this example), the Main job may be the only one that scans paper rather than images – and employs a kScan task.

The kScan task goes into full operation after the operator selects a job from the list in the ***Select Job to Start*** dialog and presses the OK button.

☛ As Administrator, you can establish a Job-Task shortcut icon that launches just ***one*** Scanning Job/Task Combination. In such a case, the ***Select Job to Start*** dialog will not appear when operations begin. For details, see Chapter 5 of the *Taskmaster Administrator's Guide*.

StartBatch Data

If the kScan task's ***setup*** parameters designate a **StartBatch form** (Page 14), the ***StartBatch*** panel will appear immediately after the operator clicks on the **Scan** icon and, if applicable, selects a job to run:



StartBatch Panel

The operator can enter the **Number of Pages** in the tray: this becomes the *expected* number of pages in the batch. During processing, the kScan task will come up with a *actual* count, and report any discrepancies (Page 24).

If you selected the **Create Documents** option in the ***Setup*** dialog (Page 14), the kScan task will create ***at least*** one document for the current batch. If the batch contains pages with **Patch Codes** that match your selection from the **Separate Documents by Patch Code Type** drop-down list – ***and*** if you are using a high-end scanner that detects Patch Codes and supports this feature - the kScan task will construct a new document each time it encounters a page with a specified Patch Code.

Altogether, the kScan task's count may equal the *expected* **Number of Documents** that the operator enters: discrepancies are reported in the **End Tasks Options** area of the ***Review & Repair*** dialog (Page 24). In addition, this feature can help enforce the document structure of batches containing poor-quality images.

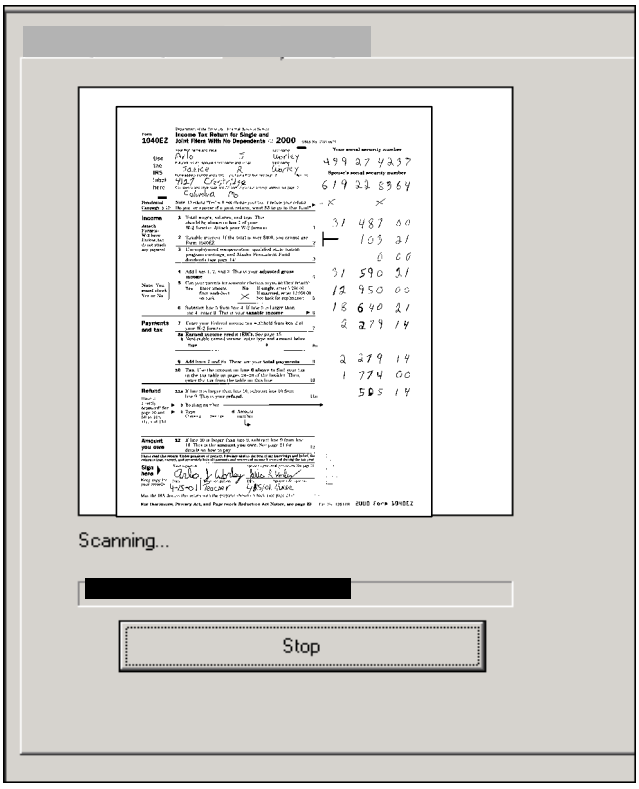
✓ Usually, this is a short-term benefit. Later, a Recognition task will compare *expected* volumes to *actual* volumes – and will probably divert a "problem" batch to a FixUp job for further review - and any necessary repair or adjustments to the number of pages or documents (Chapter 10).

☛ The example above shows the default makeup of the ***StartBatch*** panel. You can use the tools of the *Batch Pilot* workshop to add fields to the panel and alter its format. For further information, consult Datacap Support or your Datacap Solutions Provider.

Scanning

During scanning, kScan display its progress ***and*** the current image (see the illustration below.)

At any point, the operator can halt the task's actions by pressing the Stop button: *Taskmaster* will assign a *Hold* status to the batch. ***Alert!*** This means that no one except the current operator can resume processing this batch.



kScan Processing

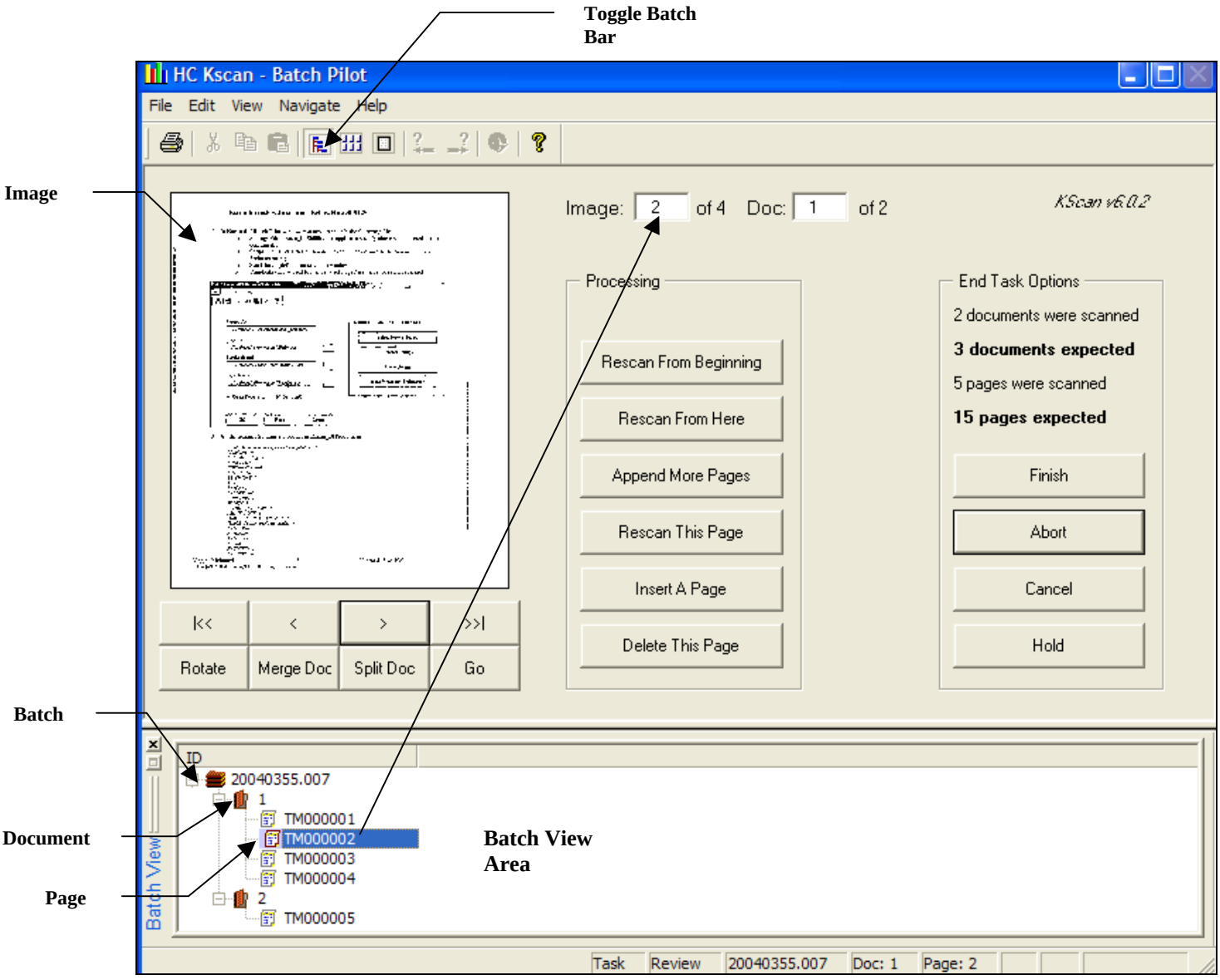
In the case of high-speed scanners, the operator may want to intervene by stopping the scanner before he or she clicks on the Stop button.

Review & Repair

Most – but not all – portions of the ***Review & Repair*** dialog appear on the operator's screen when kScan finishes with the batch.

✓ ***Very important!*** An essential tool and information source remains hidden until the operator selects **Batch Tree** from the ***Batch Pilot Window's*** **View** menu (or clicks on the **Toggle Batch Bar** toolbar icon). This preliminary step displays a hierarchical listing of scanned batch contents in the **Batch View** area at the bottom of the window.

When the operator highlights a Page ID in this area, its image appears in the **Image** area. At the same time, the **Image:** and **Doc:** fields at the top specify the page's location within the batch's Document and Page sequence.



kScan Review & Repair

Features of the Review & Repair Dialog

The ***Review & Repair*** dialog has all the tools an operator needs to examine and restore pages jammed as a result of double-feed or other scanner failures. The operator can use page images to locate the last "good" page – and restart scanning from that point.

The operator can also use these tools to carry out basic batch re-organization procedures. The table on the following page describes these tools.

Review & Repair Dialog

Feature or Function	Description
Batch Pilot Window	kScan is a *Batch Pilot* task that operates within the data area of the ***Batch Pilot Window***. The *Guide to Batch Pilot* describes the window's elements and functions. Batch Pilot Help provides similar explanations. The operator can access Batch Pilot Help by clicking on the window's Help button.
View menu	Three items in this menu can be especially helpful to the Scan operator: • **Batch Tree** (Ctrl+Alt+S) opens the Batch Contents hierarchy at the bottom of the ***Batch Pilot Window***. The **Toggle BatchBar** Toolbar icon opens and closes this hierarchy. • **Image View** (Ctrl+Alt+I) adds a large field to the dialog's left-hand side and inserts the current page's image in the field. The operator can right-click on the image to take advantage of image magnification and rotation procedures for greater clarity. However, new rotation coordinates are retained **only** if the operator uses the dialog's Rotate button (below). The **Toggle ImageBar** Toolbar icon opens and closes this field. • **Thumbnail** displays thumbnail images of all pages, in an field on the dialog's right side. Tools at the field's edge display the thumbnails in different modes. The **Toggle Thumbar** Toolbar icon opens and closes this field.
Image Display	This field, on the dialog's upper left-hand side, displays the scanned image of a page the task's operator has selected. By default, the field displays the first image in the batch. A ***different*** image will appear if the operator: • Highlights a Page ID from the Batch Contents hierarchy in the Batch View area. • Presses a directional **Image Navigation** button (explained below).

Review & Repair Dialog (continued)

Feature or Function	Description
Batch View	This ***very important*** area contains the **Batch/ Document/Page** hierarchy. • The Batch ID occupies the hierarchy's first level. • Document ID's may be at the second level if the task's Setup specifications (Page 14) authorize document creation. • Page ID's occupy the third level.
Image/Doc Counters	These fields, just above the **Processing** buttons, indicate the location of the currently displayed image - within a document, if applicable, or within the overall batch.
Image Navigation buttons	The buttons just below the **Image Display** area present the: • First image in the batch: I<< • Last image in the batch: >>I • Previous image in the batch: < • Next image in the batch: > We recommend that an operator can use these buttons after highlighting an image in the **Batch View** area. After the operator clicks on a button, the **Page/Doc** counters (below) adjust their figures. ***Alert!*** These buttons access **images** within the **batch**…they do ***not*** access **documents** within the batch.
Rotate button	Clicking on this button rotates the *current* image – the image in the **Image View** area – by 90^0.
Merge Doc button	Merges a document containing a highlighted image with the document that is above it in the Batch/Document/Page hierarchy (Page 31).
Split Doc	Splits the document that contains the highlighted image into two documents (Page 31).
Go	Retrieves the image of a selected page.
Processing buttons	Buttons in this area permit the operator to repair the contents of the newly scanned batch. Page 28 describes the techniques associated with these buttons.
End Task Options	Data and buttons in this area combine to help an operator complete his or her involvement with the current batch.

Review & Repair Dialog (continued)

Feature or Function	Description
End Task Data	After kScan has processed the batch, this field provides summary information such as: 1 documents were scanned **6 documents expected** 12 pages were scanned **12 pages expected** These are kScan figures. The *expected* counts come from the ***StartBatch*** panel (Page 22); the actual counts result from task operations. At this early stage in the workflow, a comparison of *actual* to *expected* volumes may identify a problem batch if the operator was certain about the size of the batch when scanning began. For most applications, however, these comparisons become critical later, when a Recognition task such as RuleRunner identifies each page according to its Page Type; uses this new information to re-organizes the batch into a series of documents; and looks carefully ate each document to be sure it has the correct number and type of pages.
Finish button	A click on this button ends the kScan task's involvement with the current batch. Usually, this results in the following: • kScan assigns a *Finished* status to the batch; • The task generates a Page file (**kscan.xml**) that lists the contents of the batch (Page 32). • A dialog asks the operator if he or she is finished with the batch. • A follow-up dialog asks if the operator would like to "continue" by initiating the next batch without delay. • The application's ***Job Monitor*** lists the current batch with a *Pending* status in the processing queue of the job's next task.
Abort button	This button terminates the task's involvement with the batch and gives the batch an *Abort* status.
Cancel button	Closes the batch and the ***Review & Repair*** dialog. The application's ***Job Monitor*** does not continue to list the batch and the task does not generate a Page file for the batch.

Review & Repair Dialog (continued)

Feature or Function	Description
Hold button.	This button assigns a temporary *Hold* status to the batch. As a result: • The ***Job Monitor*** lists the batch. • The batch cannot be processed until an Administrator or Supervisor changes the status. • The same operator must re-launch the batch after its status has changed.

Processing Buttons of the Review & Repair Dialog

The paragraphs below show you how to use the buttons in the **Processing** area of the ***Review & Repair*** dialog (illustrated on Page 24).

☞ ***A word about endorsements.*** The maps of a Kofax Source Device on Page 19 and Page 33 show a central **Image Processing/Endorsement** button that leads to **Automatic Endorser/Annotation** settings. If your task responds to these settings by endorsing the images in a batch, the use of most buttons below will re-apply the endorsements. (For more about endorsements, see Page 33.)

Rescan from the Beginning

This button removes all Image files in the batch. It then rescans paper, add the new Image files to the current batch but does ***not*** create a new batch. If applicable, the button re-endorses the images.

Step	Action
1.	Place all pages in the scanner's tray.
2.	Press the Rescan from Beginning button.
3.	Check the listings in the **Batch View** area and the numbers in the **End Task Data** area.

Rescan from Here

This button rescans a portion of the current batch, starting after the page that you highlight in the **Batch/Document/Page** hierarchy. ***Alert!*** This procedure deletes all pages (and documents) that come after the highlighted Page ID – and replaces them with the pages you scan when you click on this button. If applicable, this button re-endorses the pages' images.

Step	Action

1. Load the scanner's tray with replacement pages.
2. Select a Page ID in the Batch View area's **Batch/Document/Page** hierarchy
3. Press the Rescan from Beginning button.
4. Check the listings in the **Batch View** area and the numbers in the **End Task Data** area to be sure that the procedures has deleted all pages that originally followed the page you selected – and has replaced them with the new-scanned pages.

Append More Pages

This button adds one or more new pages to the ***end*** of the batch. Clicking on this button will generate documents if there are new pages with Patch Codes ***and*** the kScan task can create documents (Page 14). It will also endorse the pages' images, if endorsing is included.

Step	Action

1. Load the scanner's tray with the pages you want to append.
2. Press the Append More Pages button.
3. Check the listings in the **Batch View** area and the numbers in the **End Task Data** area.

Rescan this Page

This button rescans a ***single*** page. (It does ***not*** re-endorse the page's image.)

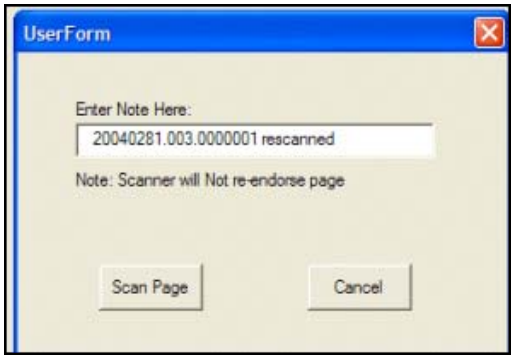
Step	Action

1. Load the scanner's tray with the ***single*** page that is to be re-scanned.
2. In the **Batch View** area's **Batch/Document/Page** hierarchy, highlight the applicable Page ID.
3. Press the Rescan this Page button.
4. When the ***Rescan Options*** dialog appears, you can press the Change Settings button to modify settings that determine how the scanner processes the page.

Rescan this Page (continued)

Step	Action

5. Press the Start Rescan button in the ***Rescan Options*** dialog: the ***Userform*** dialog will appear on your screen. The dialog's **Enter Note Here** field displays Page Data (if any) from the task's Page file (see Page 32). The field is empty if the Source Device is not configured for endorsements.



6. Optionally, you can enter a brief notation to be included with the Page file's data for this page (Page 32).

7. Click on the Scan Page button.

8. Check the listings in the **Batch View** area and the numbers in the **End Task Data** area to be sure the page has been replaced.

Insert a Page

This button inserts a new page ***after*** the page you've highlighted in the **Batch/Document/Page** hierarchy. If applicable, the button endorses the new page, and re-endorses subsequent pages.

Step	Action

1. Load the scanner's tray with the ***one*** page that is to be inserted.

2. In the **Batch View** area's **Batch/Document/Page** hierarchy, highlight the Page ID of the page that is to precede the inserted page.

3. Press the Insert a Page button to access the ***UserForm*** dialog and add an entry that is to be included in the Page Data for this page, in the task's Page file. (Alternatively, you can add a suffix that will be appended to the Page Data for the inserted page.)

4. Optionally, you can enter a brief notation in the dialog's **Enter Page Data Prefix** field.

5. Press the Scan Page button.

Insert a Page (continued)

Step	Action

6. Check the listings in the **Batch View** area and the numbers in the **End Task Data** area to be sure that page has been properly inserted.

Delete this Page

This button deletes a page in the batch.

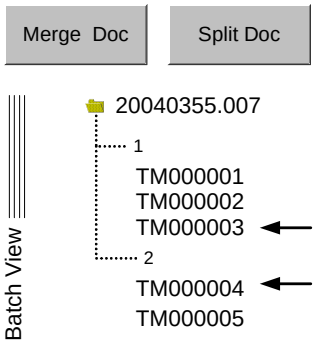
Step	Action

1. In the **Batch View** area's **Batch/Document/Page** hierarchy, highlight the Page ID of the page to be deleted.
2. Press the Delete this Page button.
3. Click Yes in the ***Warning*** dialog.
4. Check the listings in the **Batch View** area and the numbers in the **End Task Data** area to be sure the page has been physically removed.

✓ If kScan is processing both sides of a page concurrently (double-sided scanning), you may have to delete images representing the *front* and *back* sides to retain an accurate count of the number of pages.

Merging and Splitting Documents

This depiction of the lower left-hand side of the ***Review & Repair*** dialog features two additional techniques.



If the kScan task has organized the batch into a series of documents – each with its own pages – you can **merge** a document with the document ***above*** it in the **Batch/Doc/Page** hierarchy. In the example, if you select the **TM000004** page and click on the Merge Doc button, kScan will merge the first two documents into one.

Alternatively, you can split a document into two. In the example, if you highlight *TM0003* and press the Split Doc button, kScan will re-organize the batch into three

documents. Document 1 will have two pages; Document 2 will have one; and Document 3 will have its original two pages.

kScan Page Files

At the conclusion of its work with a batch, the kScan task produces a Page file – **kscan.xml** - and places it in the batch.

The Page file contains general information about the batch and it contents…how many documents are there, and how many pages.

The Page file then lists information about each document, if applicable, and about the pages in a document.

Key items in the kScan Page file include:

kScan.xml

Item	Example
B (Batch Line)	**20050356.001**
TYPE:	1040EZ *(Document Hierarchy value)*
ED: *(Expected Documents)*	1
AD: *(Adjusted Documents)*	0
EP: *(Expected Pages)*	3
AD: *(Adjusted Pages)*	0
D *(Document Line)*	**20050356.001.01**
TYPE:	
STATUS:	0 *(No problem)*
P *(Page Line)*	**TM000001**
TYPE:	Other *(Document Hierarchy value)*
STATUS:	49 *(ScanOK)*
IMAGEFILE:	TM000001.tif
PD: *(Page Data)*	20050356.001.0001 *(Prefix+ Counter. Prefix = Batch ID. Counter = nnnn).*

kScan.xml (continued)

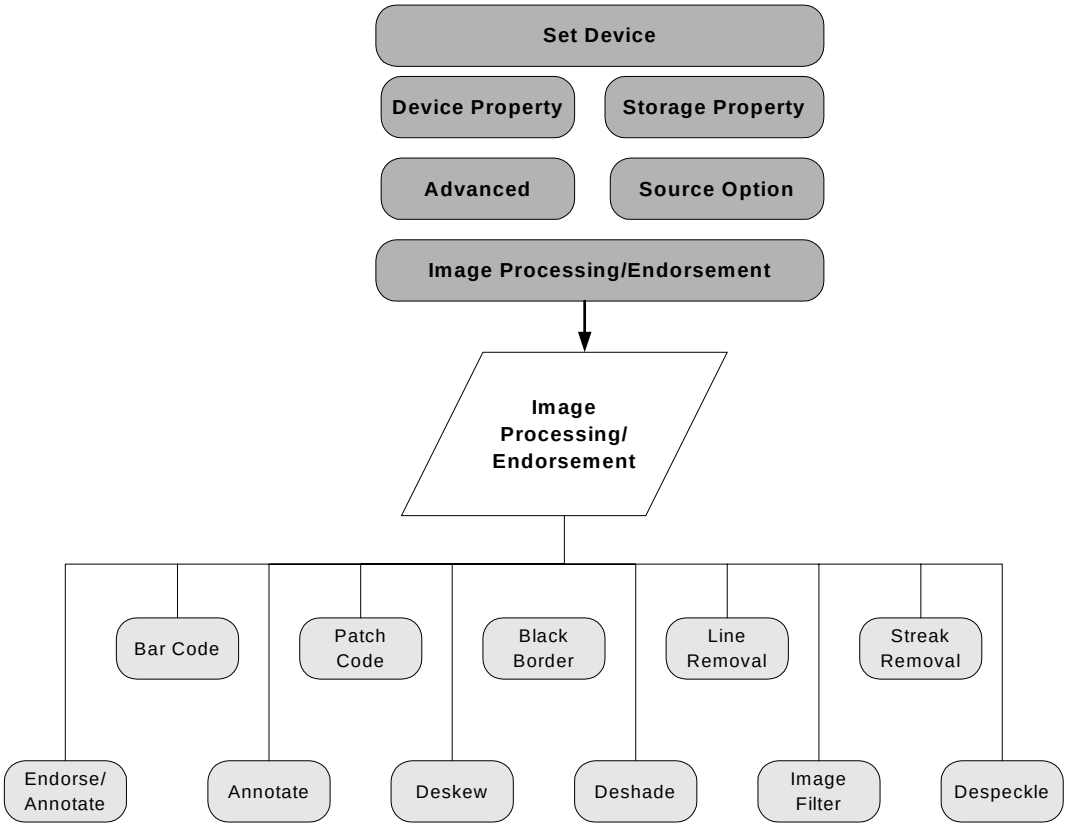
Item	Example
P *(Page Line)*	**TM000002**
TYPE:	Other *(Document Hierarchy value)*
STATUS:	49 *(ScanOK)*
IMAGEFILE:	TM000002.tif
PD: *(Page Data)*	20050356.001.0002 *(Prefix+ Counter. Prefix = Batch ID. Counter = nnnn).*
P *(Page Line)*	**TM000003**
TYPE:	Other *(Document Hierarchy value)*
STATUS:	49 *(ScanOK)*
IMAGEFILE:	TM000003.tif
PD: *(Page Data)*	20050356.001.0003 *(Prefix+ Counter. Prefix = Batch ID. Counter = nnnn).*

Endorsements, Page Data and Document Data

When you press the Image Processing/Endorsement button in the **Scanner Settings** area of the ***kScan Setup Specifications*** window, the ***Image Processing*** dialog appears, armed with eleven buttons (see the chart on the next page.)

Each button leads to a dialog with a singular set of parameters. The Bar Code button, for example, reveals numerous specifications the task uses if it is to process forms with bar codes. The ***Despeckle Properties*** dialog, in contrast, determines what constitutes a "speckle" and how the task removes them.

The Automatic Endorser/Annotation button opens the ***Automatic Endorser/Annotation Properties*** dialog. You can use the settings in this dialog to distinguish between *electronic* and *mechanical* endorsement of images, and assign properties to an endorsement's prefix, text and counter components.



☛ An endorsement typically includes values at the **Batch** and **Page** level. In this example, the example, the first twelve digits identify the batch; the last four are a sequential counter that identifies succeeding pages within the batch.

```
20050046.002.0001
```

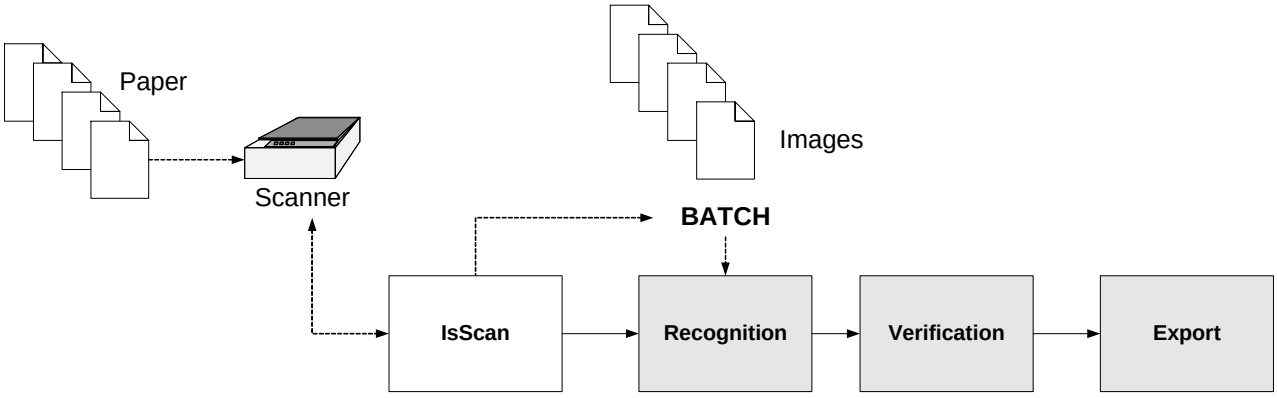
Alternatively, if kScan setup permits the use of Patch Codes (Page 15), the endorsement of a page can designate the current document rather than the current page. In the example below, ***every*** page in the document will have this endorsement:

```
20050046.002.001
```

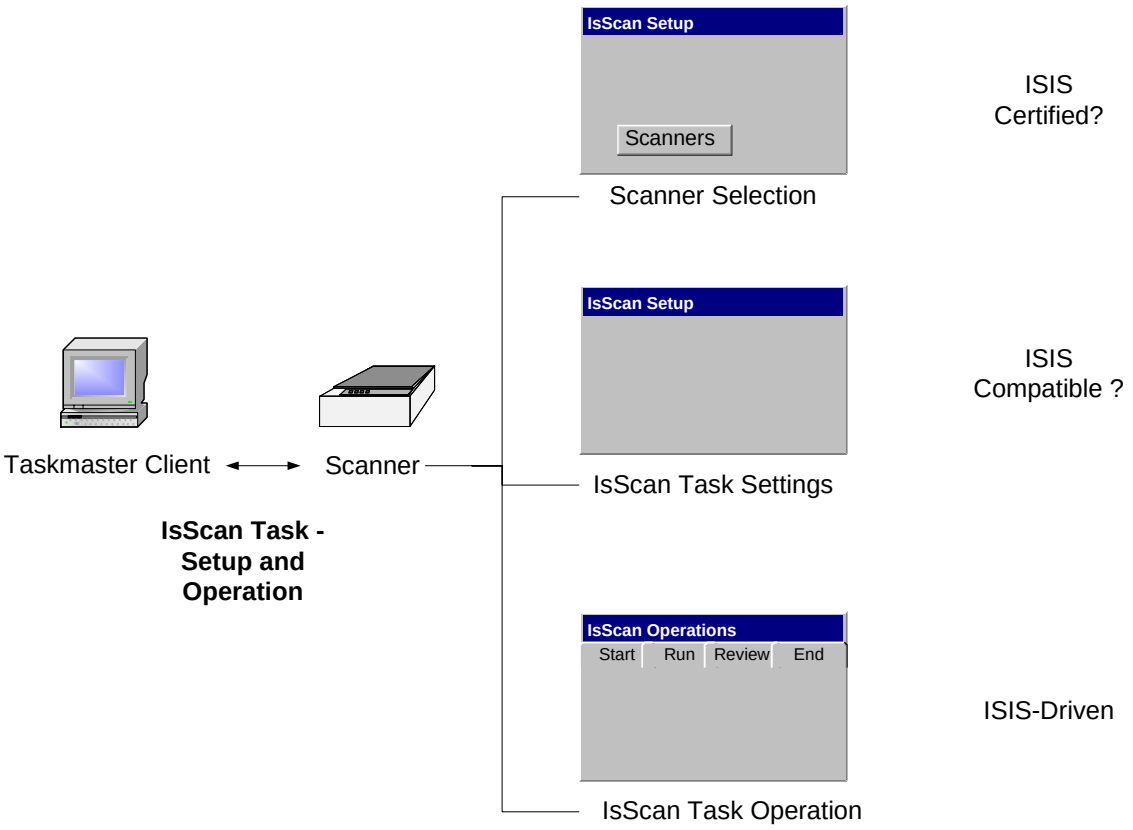
The endorsement values appear on the **PD** (Page Data) line of the kScan Page file. (For details, see Page 32.)

iScan Tasks

An iScan **task** typically comes at the beginning of a **workflow's** Main **job**. The task operates in response to Pixel Translations' **I**mage and **S**canner **I**nterface **S**pecification (ISIS) – and to the specifications of the task itself.



✓ ***Important!*** The explanations in this section assume that you have previously installed the appropriate **Adaptec** or **Adrenaline** card - and **Pixel** software - on the computer that will run the iScan task and the physical scanner. If applicable, the task/scanner configuration can also run with **Kofax**, **Adrenaline** or**Firewire** software.

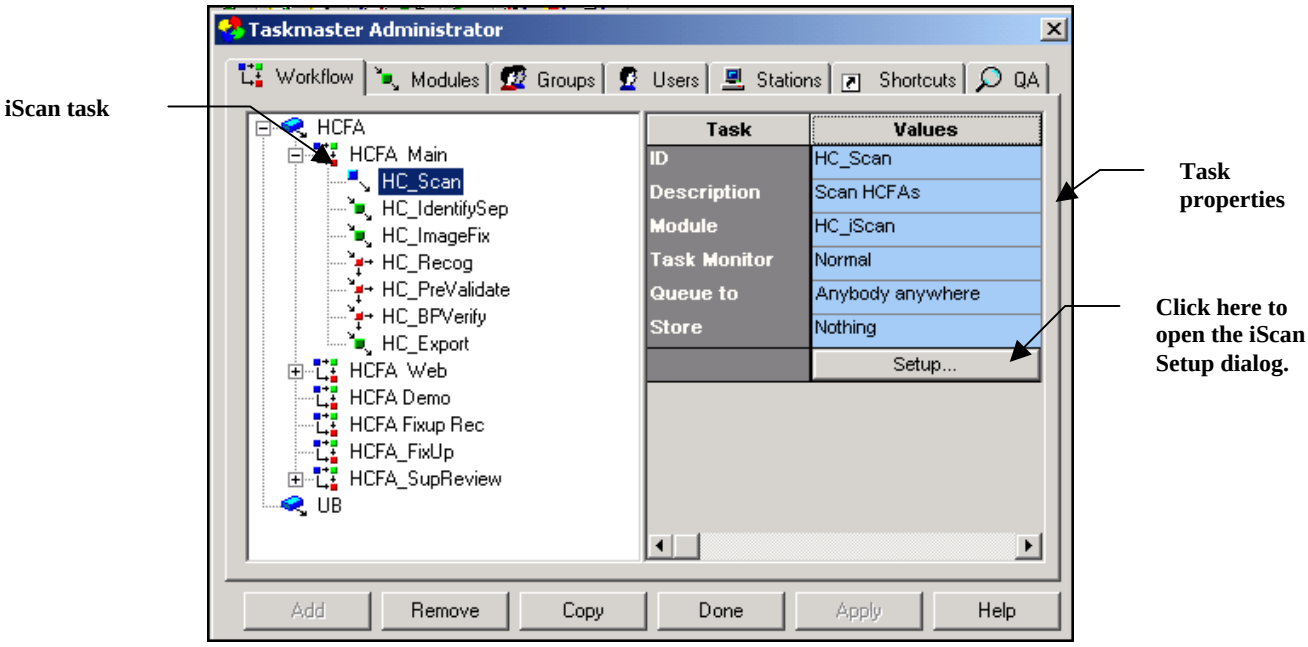


The section that begins on Page 39 examines the steps you take to set up a ***new*** iScan task, or to modify the settings of an existing Task Definition to meet your needs.

First, however, take a moment to review an iScan Task Definition that belongs to the pre-configured *Taskmaster for Medical Claims* application.

✓ To access *Medical Claims*, check to be sure your Taskmaster Server Service is up and running. Then:

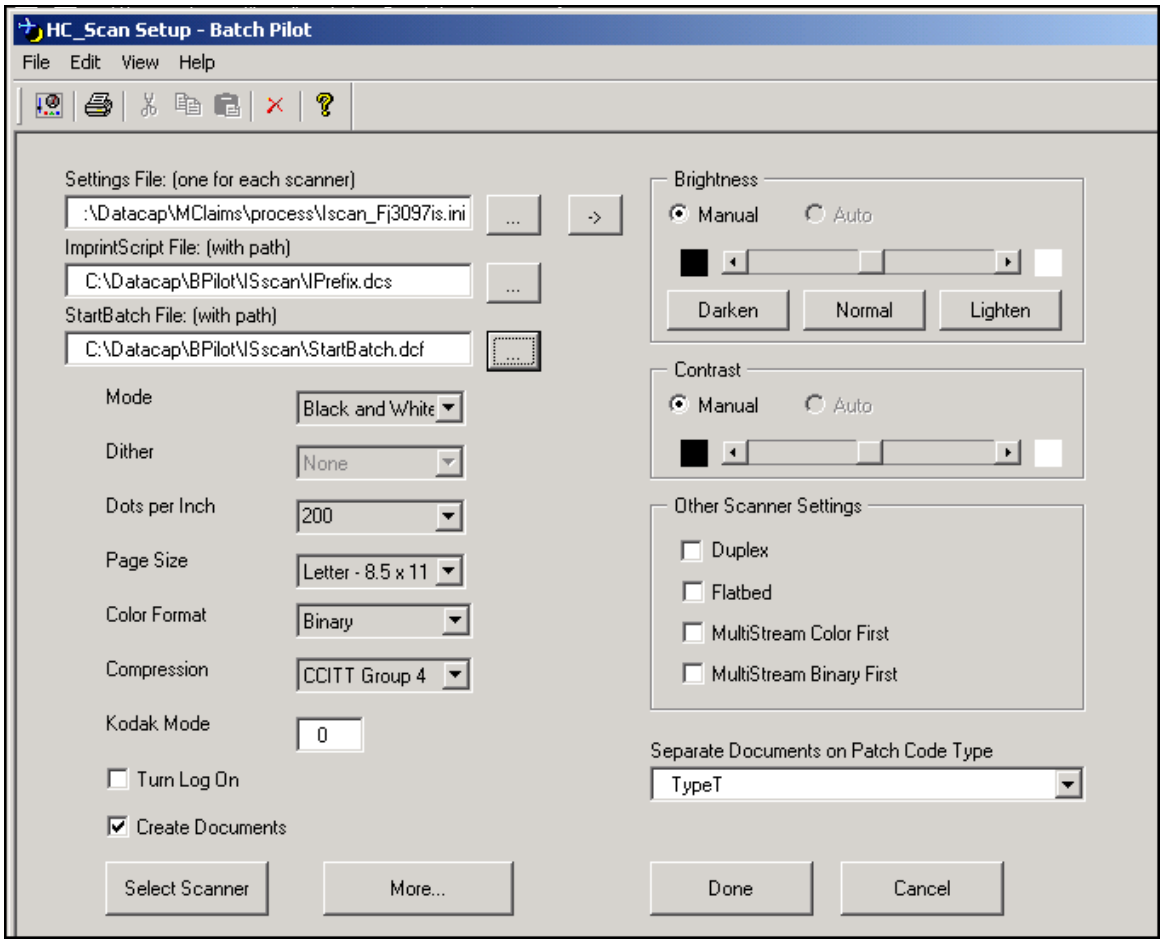
- Select **Datacap Client** from your Windows Start button's list of **Programs**.
- Select **MClaims** from the available **Applications**, and **MClaims Client**.
- When the **Taskmaster Window** appears, select **Workflow** from the **Settings** menu to access the *Workflow* tab of the ***Taskmaster Administrator***.



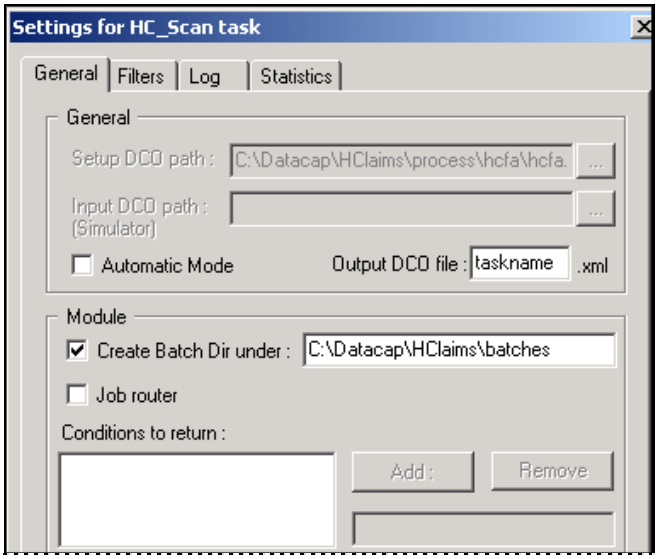
Medical Claims Taskmaster Administrator – *Workflow tab*

In this example, *HC_Scan* is an iScan **task** that belongs to the *HCFA Main* **job** – a job that processes *HCFA-1500* medical claims. This job, in turn, is part of the *HCFA* **workflow**:

- When you highlight the Task ID in the **Components** area on the left, properties of the *HC_Scan* Task Definition appear automatically in the **Values** list on the right.
- Clicking on the Setup button opens the ***iScan Setup*** dialog (Page 48). At this point, the dialog contains a default set of specifications for the Task Definition. However, the Task Definition cannot retain these values – or any others – until your computer is connected to the task's scanner ***and*** the scanner is equipped with an ISIS driver.
- You can explore the few ***default*** Task Settings of the HC_Scan task by selecting **Task Settings** from the **File** menu of the ***Batch Pilot Window***. You can add to these settings when you set up your own HC_Scan task – or define a new task (Page 54).



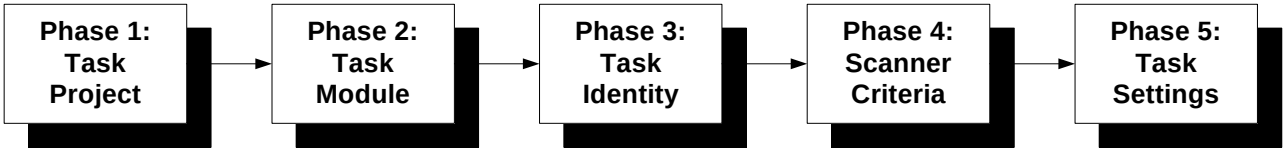
iScan Setup dialog - *HC_Scan Task*



Task Settings dialog – *General tab*
HC_Scan Task

iScan Task Setup - Structure

The configuration of a new iScan task is a process with five phases. ***Alert!*** Chapter 6 describes details of this process. This section examines those elements of task configuration that are associated with the setup of iScan tasks.



Phase 1 (below) adds an iScan **Task Project** (.bpp) to your application's **Process** directory.

During Phase 2 (Page 43), you'll define the **Task Module** that will connect your iScan task to the Task Project you established in Phase 1.

Phase 3 provides the iScan Task Definition with a formal identity and assigns key properties to the task itself (Page 46).

Phase 4 uses the ***iScan Setup*** dialog to assign an ISIS-certified scanner to the task, and a series of scanning criteria to both the scanner and to the task (Page 48).

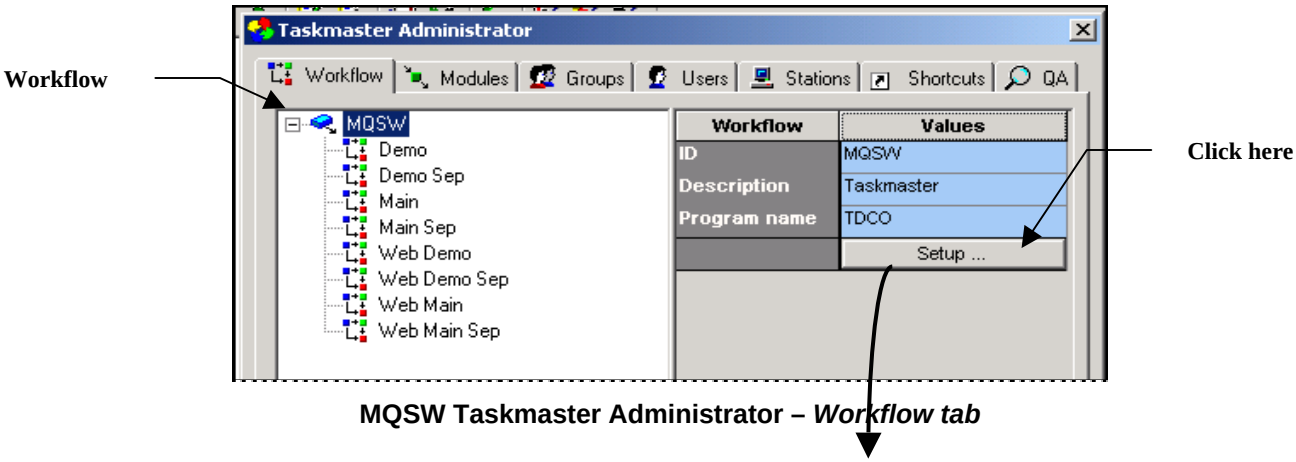
Phase 5 reviews and, if applicable, modifies values in the tabs of the ***Task Settings*** dialog (Page 54).

iScan Task Project

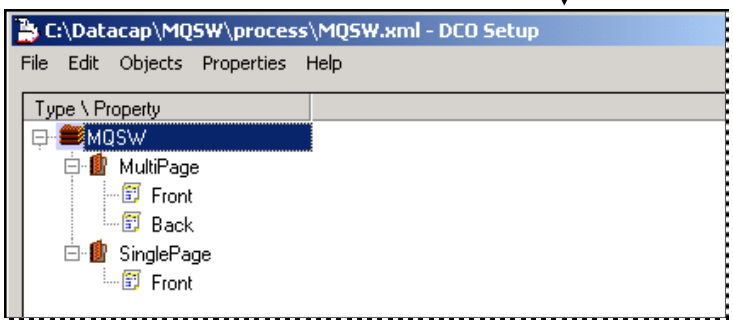
An iScan task needs a **Task Project.**

The Task Project contains the task's ***setup*** and ***runtime*** forms – as well as the software that runs the task. The Task Project is also a file (.bpp) – a file that includes the criteria and settings you assign in Phase 4 and Phase 5, as well as the forms.

✓ ***Important!*** As an ***essential*** preliminary step, be sure that the **workflow** component of the Workflow Hierarchy that will contain the task includes a Document Hierarchy as a ***key*** property. In the illustration on the next page, the Administrator of the fictional *MQSW* application has defined an **MQSW** workflow, and plans to add an iScan task to the workflow's **Main** job. First, however, she has to define the workflow's Document Hierarchy – in this case, **MQSW.xml**. (For a complete explanation of Document Hierarchies, see Chapter 3.)



MQSW Taskmaster Administrator – *Workflow tab*



Document Hierarchy Setup Window
MQSW.xml

To Assemble an iScan Task Project

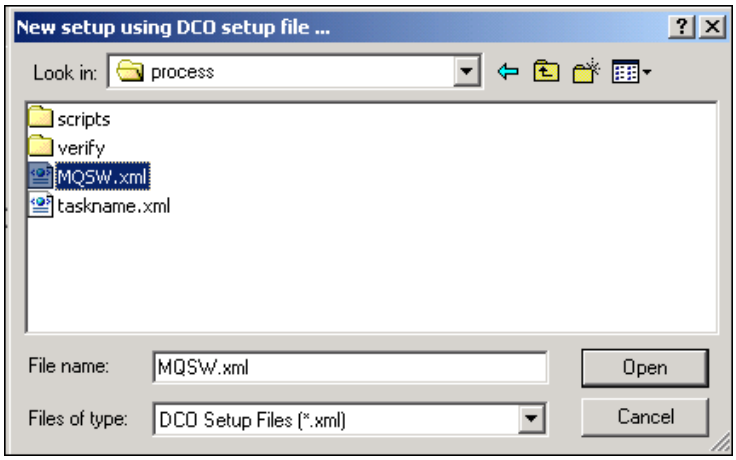
Step	Action

1. Be sure that the **Workflow** component of the Workflow Hierarchy that will contain the task includes a Document Hierarchy file (.xml).

2. Select **Datacap Taskmaster** from your Windows Start button's **Programs** options.

3. To open the ***Batch Pilot Window***, double-click on the **Batch Pilot** icon in the **Batch Pilot** folder. (*Batch Pilot* is the workshop you'll use to put together the Task Project in this phase, and assign task properties in Phase 4 and Phase 5.)

4. Select **New Project** from the window's **File** menu. *Batch Pilot* will instantly ask you to enter the name and path of the Document Hierarchy file in the ***Open File*** dialog (illustrated on the next page.) Use the window's **Form** menu to be sure the project is ***not*** in **Design** mode.)



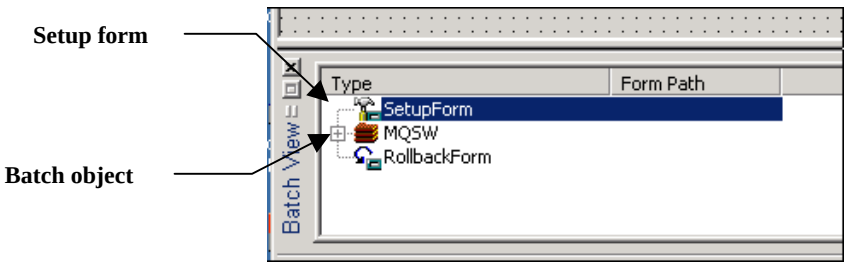
New Project Setup -
Document Hierarchy file

To Assemble an iScan Task Project (continued)

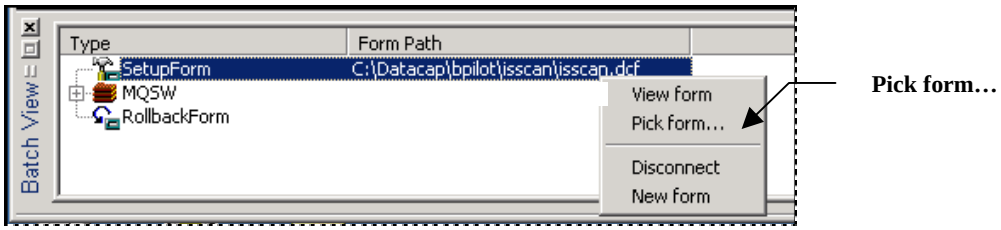
Step	Action

5. Select the application's Document Hierarchy file (.xml) from your application's **Process** directory, and click on the Open button to return to the ***Batch Pilot Window***. (For thorough explanations of *Batch Pilot* and the ***Batch Pilot Window***, you can click on the Help button at the top of the window, or refer to the *Guide to Batch Pilot*.)

6. Confirm that the **Batch View** area at the bottom of the window displays a **Setup** form item in the **Type** column, as well as the **Batch** object of the Document Hierarchy you've specified (*MQSW* in the example below.)



7. Highlight the *SetupForm* listing and right-click in the **FormPath** column.. Select the **Pick form**…option.

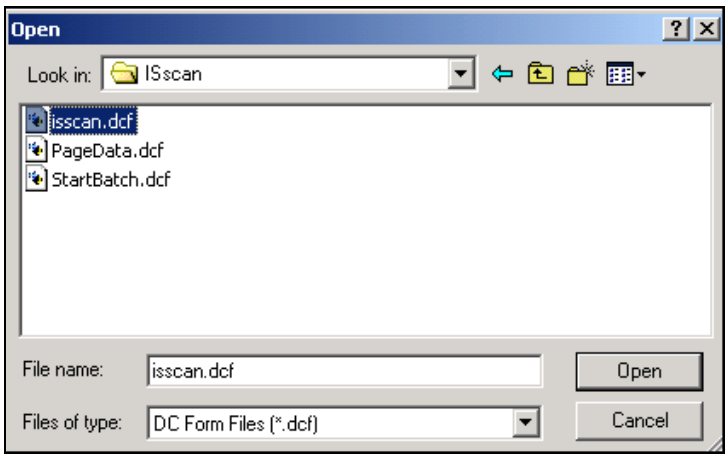


To Assemble an iScan Task Project (continued)

Step	Action

8. Use the ***Open File*** dialog to navigate to the **Datacap** directory's **BPilot** folder.

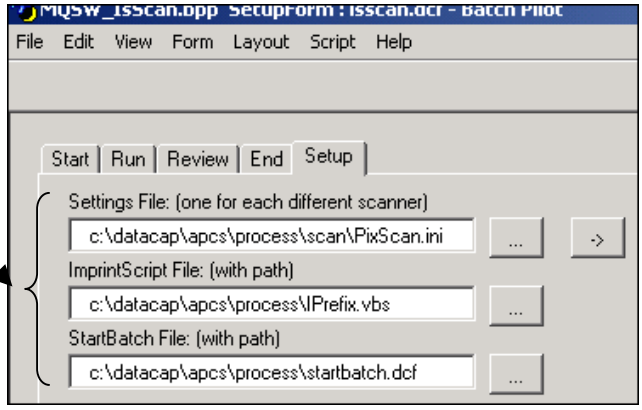
9. Select **isscan.dcf** from the **iScan** folder and press the dialog's **Open** button.



10. ***Important!*** Be sure to repeat Step #7 – Step #8, selecting the **Batch** object (*MQSW*, in the example.)

11. When you return to the ***Batch Pilot Window***, delete any values in the fields at the top of the *Setup* tab (the **apcs** folder is only a placeholder!)

Remove these values

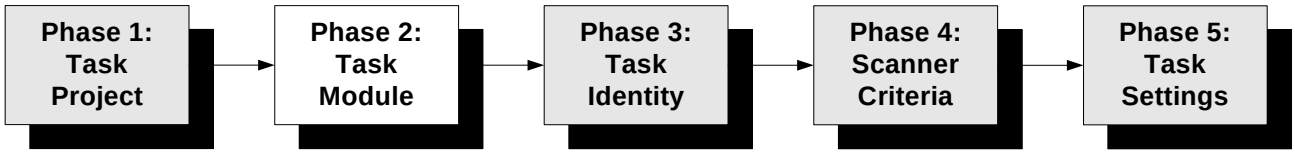


12. Select **Save** from the **File** menu to save this Task Project and make it instantly available to an iScan Task Definition (Page 46).

✓ ***Important!*** Phase 4 (*Scanner Criteria* – Page 48) enters essential values in the fields above. The **Settings File** field, for example, ***must*** identify a Scanner Settings file (.ini) that resides in the application's **Process** directory. Take a moment now to be sure that this file – **Fj49isG.ini**, for example - is in place.

iScan Task Module

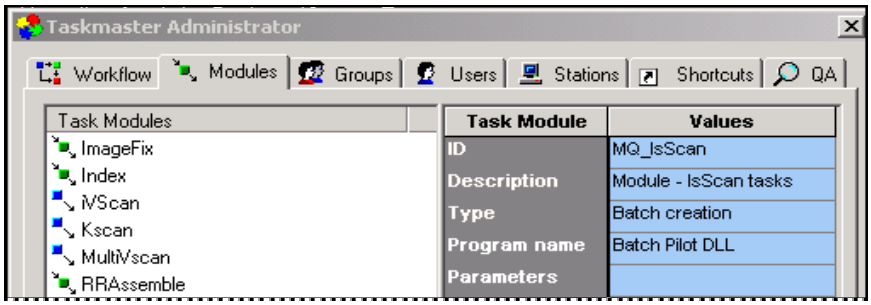
A Task Module connects the iScan Task Definition to its Task Project (Page 39), and assigns a property to ensure that the task will create new batches.



If you are setting up a new iScan task – and do not yet have a Task Module – you'll take the steps below steps to define it. ***Remember!*** You cannot define a Task Module until a Task Project is firmly in place (Page 39).

Step	Action

1. Open the *Modules* tab of your application's ***Taskmaster Administrator***.
2. Click on the Add button to clear the fields in the **Values** area on the right.
3. Enter a unique Module **ID** and a brief but important **Description** of the module.

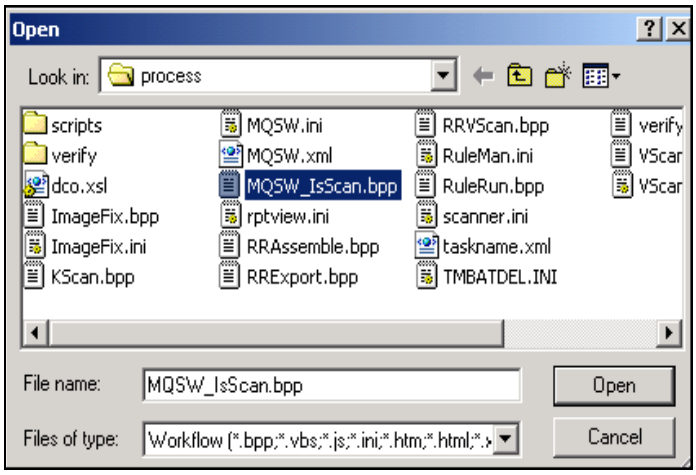


4. Select *Batch creation* from the **Type** drop-down list; this will enable tasks based on this module to create new batches when they run. (An iScan task can be set up to divert batches to a ***child*** job for review and repair if the task confronts unusual processing conditions. The **Type** value for the Task Module would then be *batch creation router*.)
5. Select *Batch Pilot DLL* from the **Program Name** drop-down list.
6. Click once in the **Parameters** field to display the field's Browse button.

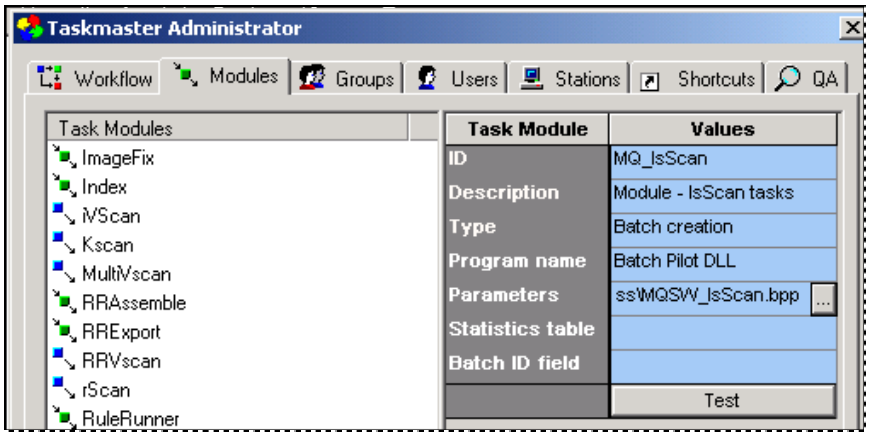
To Define an iScan Task Module (continued)

Step	Action

7. Click on the Browse button to retrieve the ***Open File*** dialog. Select the Task Project file (.bpp) you assembled in Phase 1 (Page 39).



8. Press the Open button to enter the file's name and path in the **Parameters** field.

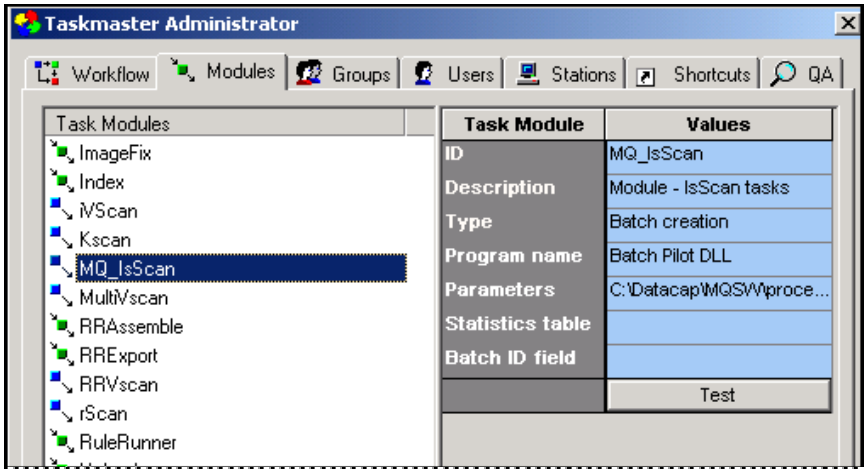


Taskmaster Administrator – *Modules tab*

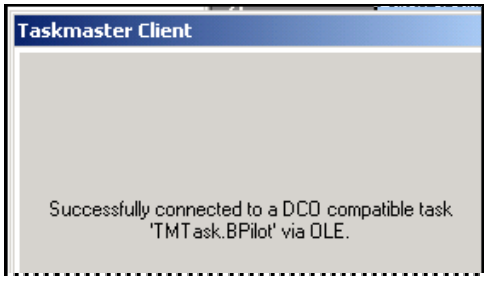
To Define an iScan Task Module (continued)

Step	Action

9. Press the Apply button at the bottom of the ***Taskmaster Administrator.*** Confirm that the new module's ID is now part of the **Task Modules** list on the left-hand side.

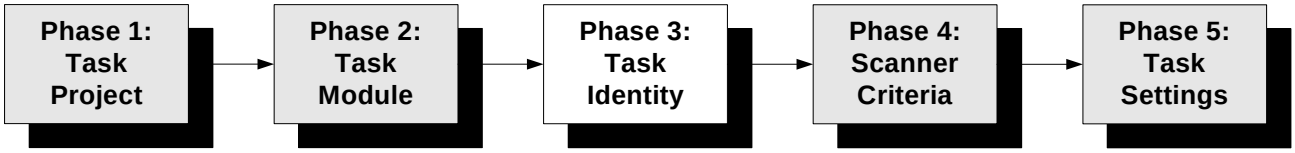


10. Press the Test button. If the connection between the Task Module and Task Project is secure, you will receive this technical message:



iScan Task Identity

Phase 3 assembles the iScan task as a *Taskmaster* component, and assigns the Task Module (Phase 2) that will connect the Task Definition to its Task Project (Phase 1).



To provide an iScan task with its identity:

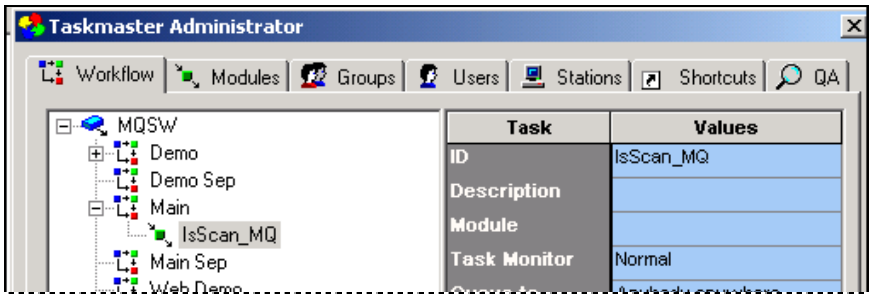
Step	Action

1. Open the ***Taskmaster Administrator's*** *Workflow* tab.

2. Right-click on the job which will contain the iScan task (*Main*, in this example.)

3. Select **New** and **Task** from the options.

4. Enter a ***unique*** Task ID in the open space below the Job ID. Be sure this value appears in the **ID** field of the **Values** area as well.



To Provide a Task Identity (continued)

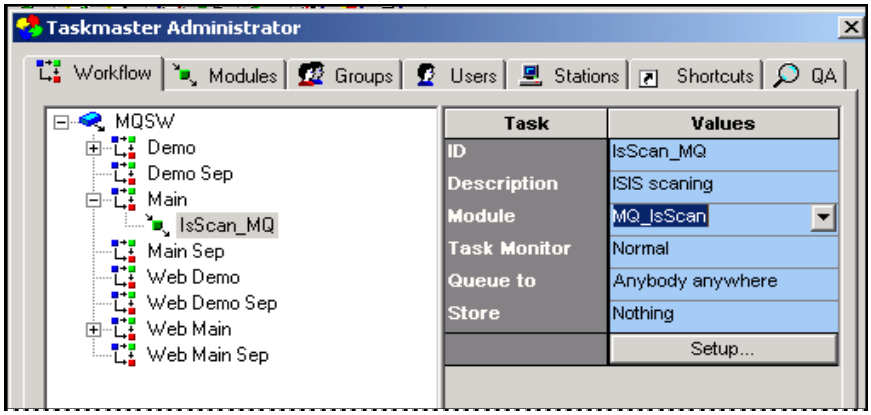
Step	Action

5. In the **Values** area, enter a brief but important **Description** of this iScan task.

6. From the **Module** drop-down list, select the ID of the Task Module you decided on - or defined - in Phase 2 (Page 43).

7. Do not modify the default values of the **Task Monitor** and **Queue to** properties.

8. Select a value other than *Nothing* from the **Store** field if this iScan task is to "store" the ID's of the station and/or operator for reference by upcoming tasks.



11. Press the ***Taskmaster Administrator's*** Apply button to save the identifying properties of the iScan Task Definition.

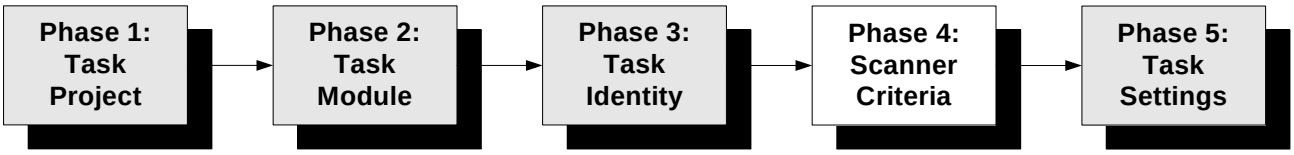
✓ You'll find complete explanations of the Task Identity procedures in Chapter 6, or by pressing your F1 key when you are in the *Workflow* tab. This opens the set of *Taskmaster Help* topics that covers all aspects of the tab…including the elements of a Task Definition and its **Queue to** and **Store** properties.

iScan Task Setup - Specifications

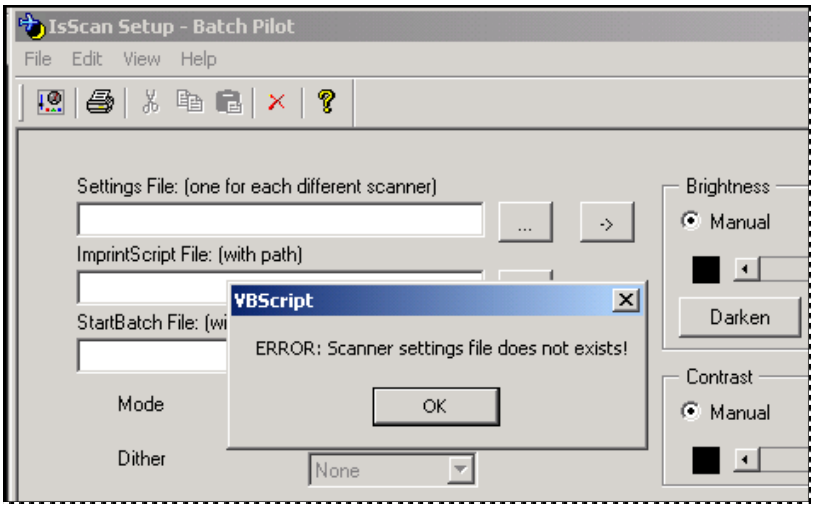
After the iScan Task Definition is complete…after the task has a Task Project and Task Identity (complete with a Task Module!), highlight the new Task ID in the **Components** area of the ***Taskmaster Administrator's*** *Workflow* tab and click on the Setup button in the tab's **Properties** area. The ***iScan Task Setup*** dialog will appear on your screen.

✓ ***Alert!*** This dialog will appear only if the computer you're working with – the computer that is host to your administrative Taskmaster Client - is connected to the scanner that has been ***previously*** configured with an ISIS driver. And don't forget to add the appropriate Scanner Settings file (.ini) to your application's **Process** directory.

The ***iScan Task Setup*** dialog provides the iScan task with detailed scanner criteria – and additional setup parameters for the task. Some are ***required*** by the ISIS specification, some by the task. Certain specifications are ***optional.***

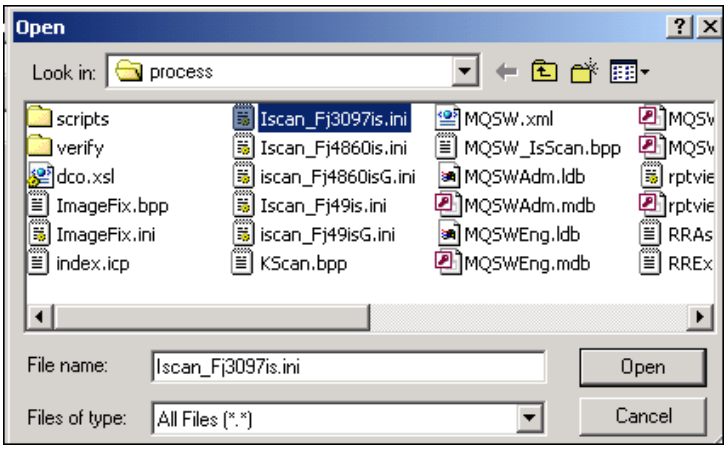


This message will pop up when you first access the dialog:



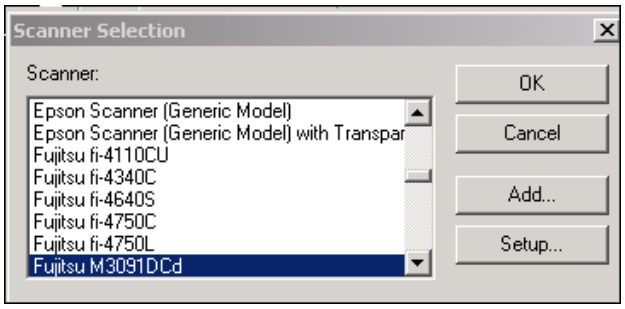
iScan Task Setup

Click on the OK button, locate the correct Settings file, and be sure its name and path appear in the **Settings file** field.



Open File dialog

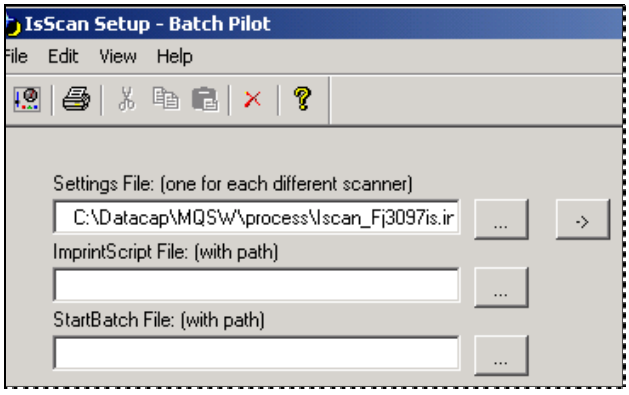
Move to the bottom of the ***iScan Setup*** dialog and click on the Select Scanner button to access the ***Scanner Selection*** dialog. Highlight your scanner's ID and press the OK button.



Scanner Selection

Close the ***iScan Setup*** dialog. When the *Workflow* tab of your ***Taskmaster Administrator*** returns, press the Apply button at the bottom – and the Done button.

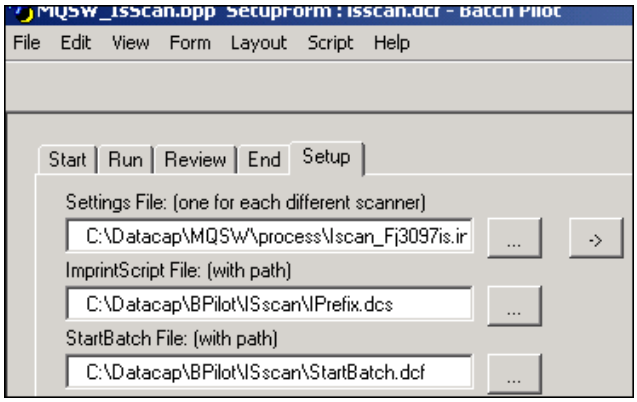
Open the ***iScan Setup*** dialog again to confirm the specification in the **Settings File** field.



iScan Setup

File Designations

When complete, entries in the ***required*** fields of the dialog's upper left-hand corner should resemble those in this example:



iScan Setup

The **Settings File** value is the name and path of the Settings file prepared specifically for the scanner you're using. It should be located in your application's **Process** directory.

The **->** button to the right of the field assigns values in the file to the dialog's settings.

The **Imprint Script File** contains settings for features such as Page Endorsement (Page 64.) The file is in the **IScan** sub-folder of the **Datacap** directory's **BPilot** folder.

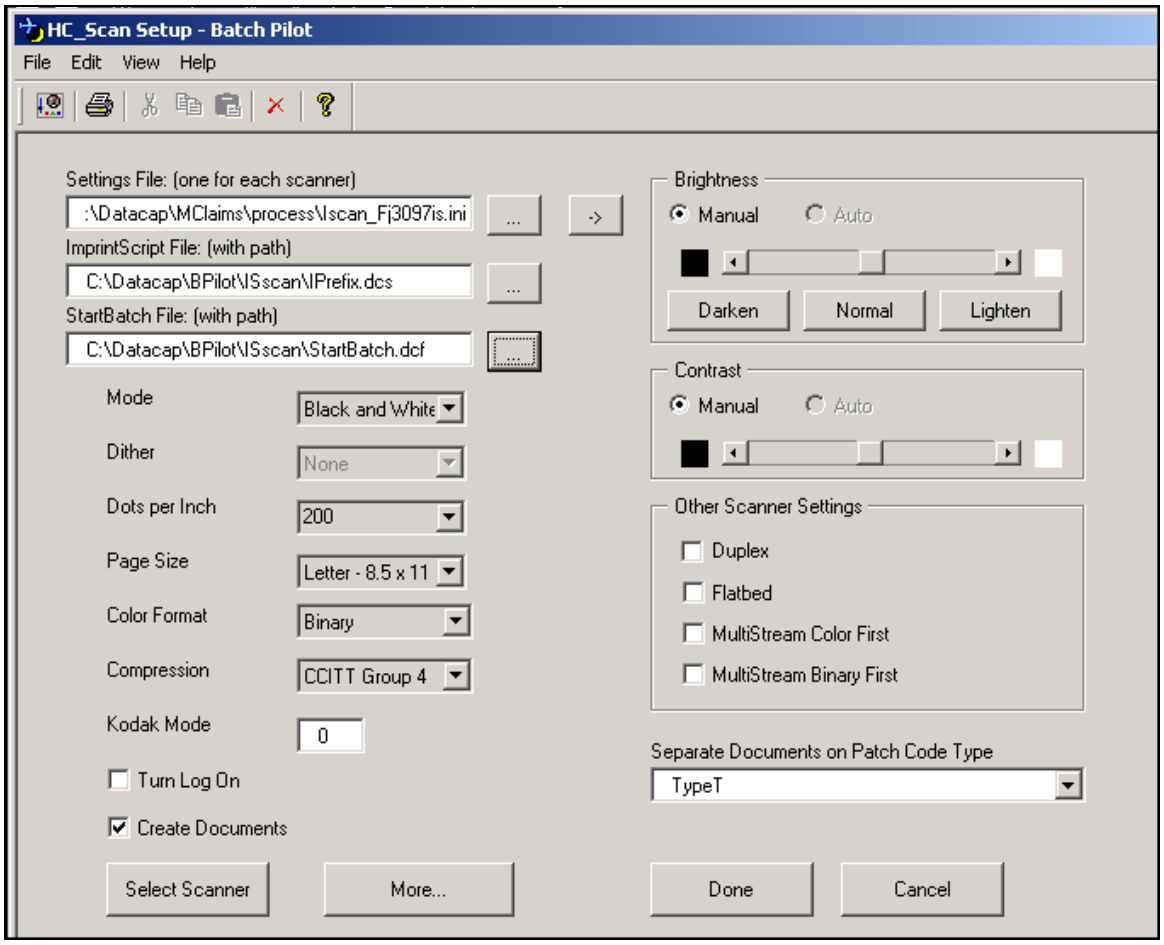
The **StartBatch File** locates the file responsible for the task's ***StartBatch*** panel (Page 56). This file is also in the **IScan** sub-folder of the **Datacap** directory's **BPilot** folder.

Scanner Settings

The ***iScan Setup*** dialog (illustrated on the next page) has a wide range of settings you can use to modify scanner performance.

You can adjust these settings whenever the task is about to process pages with qualities that differ measurably from those in the most recent batch. When you click on the Done button at the bottom of the dialog, the Settings file (ini) retains the latest values.

✓ ***Very important!*** The table on the next page describes the purpose of each setting in the ***iScan Setup*** dialog – along with sample values for that setting. However, the availability of a particular setting, and the values it displays as options, depend entirely on the scanner ***and*** the ISIS driver you have assigned to this iScan Task Definition



iScan Task Setup - Scanner Settings

Scanner Setting	Description
Mode	Alternative scanning modes. **Examples:** *Black and White*, *256 Level* Gray, *24 Bit Color*. ***Important!*** Your choice of scanning **Mode** affects the availability of settings in the **Brightness** area.
Dither	Dither parameters. **Example:** *Bitonal, binary*
Dots per Inch	Dots per inch parameters **Examples:** *50 -600*
Page Size	A range of alternative page sizes **Examples:** *A4* to *Scanner's Maximum*
Color Format	Color format criteria to be applied **.**

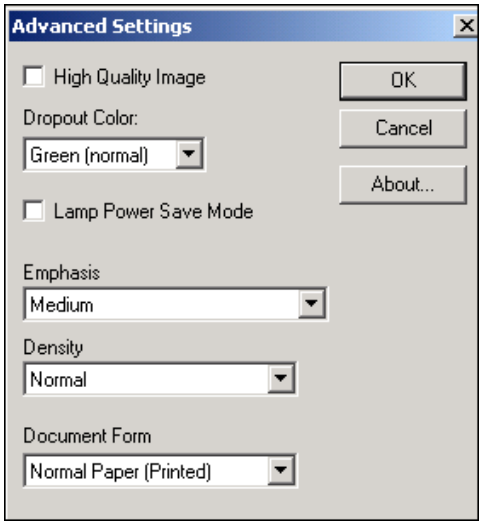
Scanner Setting	Description
Compression	Alternative compression settings **Examples:** *CCITT Group4* to *None*
Kodak Mode	Designates a processing mode for larger Kodak scanners.
Brightness area	According to the combination of scanner and ISIS driver, settings in this area may be used to help govern the brightness of the images produced by the scanner.
Manual/Auto	*Manual* allows you to adjust the scanner's **Brightness** settings**.** *Auto* uses built-in scanner/driver algorithms.
Brightness continuum	Modifies the default **Brightness** setting for each image if the **Manual** radio button is active.
Darken button	Moves a setting on the **Brightness** continuum from a position brighter than *Normal* back to the ***default*** *Normal* setting.
Normal	Moves a setting on the **Brightness** continuum from a position that's brighter ***or*** darker than *Normal* back to the *Normal* setting.
Lighten	Moves a setting on the **Brightness** continuum from a position darker than *Normal* back to the ***default*** *Normal* setting.
Contrast	Settings in this area help govern the contrast of the images.
Manual/Auto	*Manual* allows you to adjust the scanner's **Contrast** settings**.** *Auto* uses built-in scanner/driver algorithms.
Contrast continuum	Modifies the default **Contrast** setting for each image. If the **Manual** radio button is active, you can drag the Contrast button along the continuum to change the setting.
Other Scanner Settings	These additional **scanner** settings that help govern iScan **task** operations.
Duplex	A checkbox which, if selected, permits the scanner to scan both sides of a page simultaneously. ***Alert!*** This procedure creates "front" and "back" Image files for each scanned ***paper*** page – **TM000001.tif** and **TM000002.tif**, for example.
Flatbed	A checkbox which, if selected, limits the scanner to pages placed on its flatbed.

Scanner Setting	Description
MultiStream Color First	A checkbox which, if selected, directs the scanner to create ***two*** different image files for ***each*** page it scans. If you select this option, the Image Type of the first image will be *color*. The second might be black & white or grayscale (for example).
MultiStream Binary First	A checkbox which, if selected, directs the scanner to create ***two*** different image files for ***each*** page it scans. If you select this option, the Image Type of the first image will be *binary*.
Kodak Mode	Designates a processing mode for larger Kodak scanners.

Advanced Scanner Settings

The Advanced Settings button accesses an ***Advanced Settings*** dialog, with parameters you can use to enhance your scanner's performance:

✓ The make-up, settings and alternative values of the ***Advanced Settings*** dialog will depend ***entirely*** on your iScan task's combination of scanner and ISIS driver. The illustration below shows just one example:



Advanced Settings dialog

Other Task Options

Turn Log On

This is a checkbox which, if checked, directs the iScan task to generate a Log file for the current batch, and to add the Log to the batch. This value works in concert with Log specifications of the *Task Settings* dialog (Page 54).

Create Docs

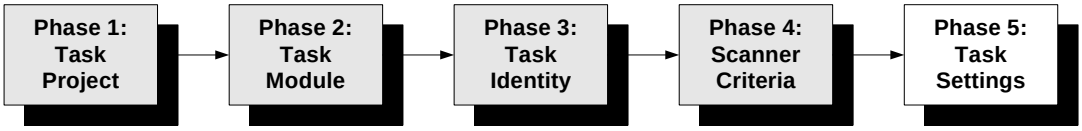
If checked, this option permits document separation during the iScan task's operations, based on patch codes…if you have activated a *Patch Code Detection* value in the Settings file, and if you select a **Patch Code Type** from the drop-down list that appears when you check this option. If the box is checked and no patch codes are detected, the task will create *one* document.

Separate Documents by Patch Code Type

If you select the **Create Docs** option, the iScan task will create *at least* one document for the current batch. If the batch contains pages with Patch Codes that match your selection from the **Separate Documents by Patch Code Type** drop-down list, the iScan task will construct a new document each time in encounters a page with that Patch Code. Altogether, the iScan task's count may equal the estimate.

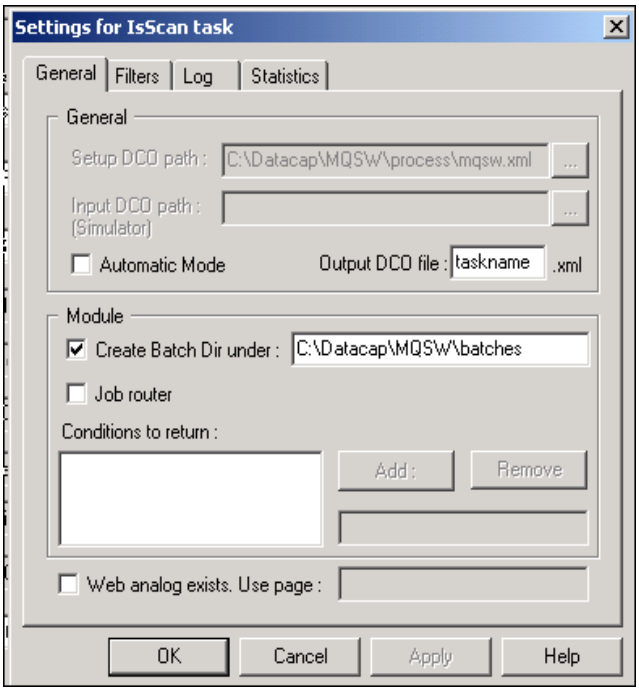
iScan Task Settings

The closing phase of iScan Task Definition assigns values to certain ***required*** Task Settings.



The ***Task Settings*** dialog is a feature of the ***iScan Task Setup*** dialog and can be reached by selecting **Task Settings** from the ***iScan Task Setup*** dialog's **File** menu.

✓ If you click on the **Help** icon at the right side of the menu bar, you can access a full set of topics describing the tabs of the ***Task Settings*** dialog – and their settings. (Chapter 6 also describes the tabs and their settings.) The paragraphs which follow describe specifications that are particularly important for an iScan task.

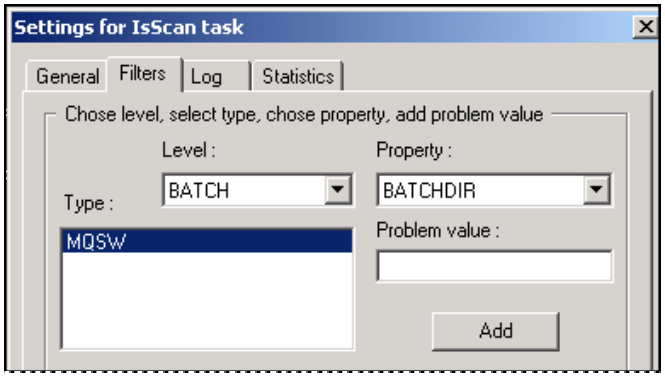


iScan Task Settings dialog – *General tab*

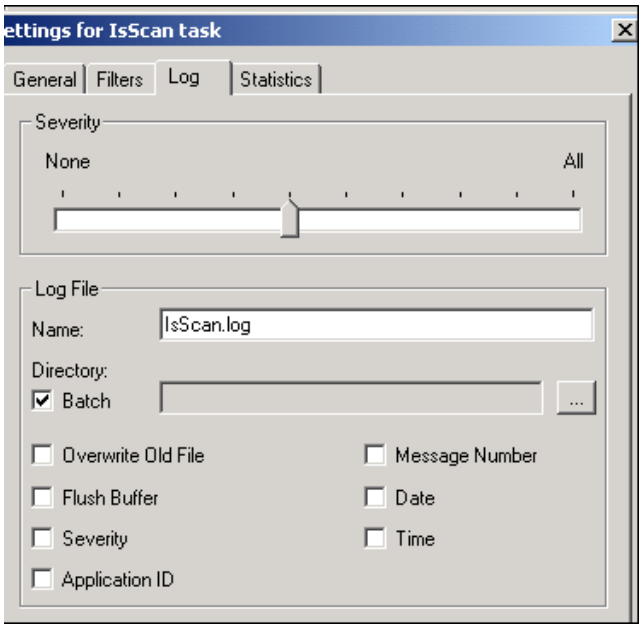
In the *General* tab, do ***not*** select the **Automatic Mode** option: iScan needs an operator's participation.

In the **Module** area, you ***must*** select the **Create Batch Dir** check box ***and*** enter a Batch Directory name and path similar to those in the illustration. This combination guarantees that the task will set up new batches, and determines where the batches will be stored.

Default values in the *Filters* tab limit the task to operations at the batch level.



Filters tab



Log tab

Settings in the *Log* tab determine whether or not the task will generate a Log file each time it runs – and a log's content. (For a complete explanation of the options in this Log, see Chapter 6.)

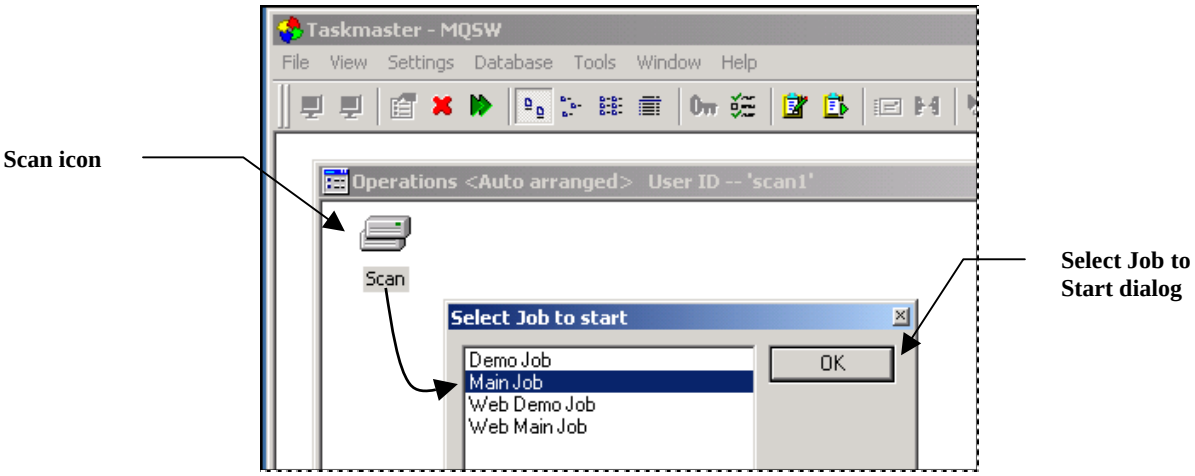
iScan Task Operations

Operations of an iScan task take place in two closely-connected phases. Scan, and Review and Repair. ***Don't forget!*** Your scanner ***must*** be connected to the computer that is host to the Taskmaster Client responsible for Scanning procedures.

Scan

The opening phase begins ***after*** the Scan operator has assembled the pages to be scanned and has placed them in the scanner's tray. He or she can then double-click on the Scan icon in Taskmaster's ***Operations*** window. In a typical application, this step will open the ***Select Job to Start*** dialog so that the operator can choose the applicable Job/Task Combination.

✓ ***Alert!*** Application Security usually limits the scope of a Scan task operator and a Scanning station to tasks in this category (see Chapter 5 of the *Taskmaster Administrator's Guide*.) As a result, when the operator signs on to the application, the ***Operations*** window may display a single **Scan** icon:



Taskmaster Window

Although this operator can launch the Scan tasks of four jobs (in this example), the Main job may be the only one that scans paper rather than images – and employs an iScan task.

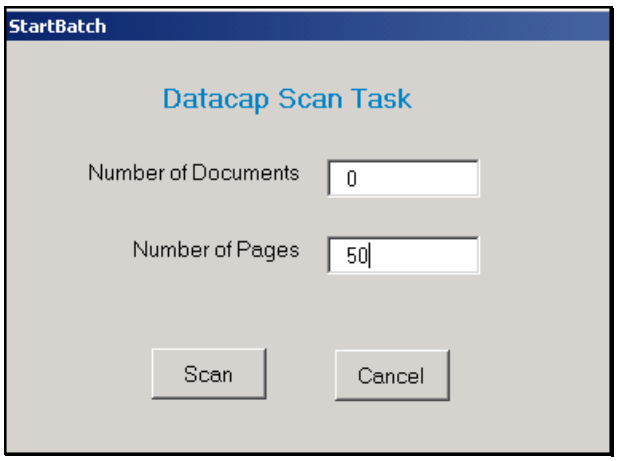
The iScan task goes into full operation after the operator selects a job from the list in the ***Select Job to Start*** dialog and presses the OK button.

> This dialog will ***not*** open if the *Sequential Job Creation* option in the *Advanced* tab of the ***Taskmaster Settings*** dialog has been checked. You can access this dialog by selecting **General**, then **Advanced,** from the **Taskmaster Window's Settings** menu. For details, see the *Taskmaster Windows & Dialogs Reference*, or Taskmaster Help.

☛ As Administrator, you can establish a Job-Task shortcut icon that launches just one Scanning Job/Task Combination. In this case, the ***Select Job to Start*** dialog will not appear when operations begin. For details, see Chapter 5 of the *Taskmaster Administrator's Guide*.

StartBatch Data

If the iScan task's ***setup*** parameters designate a **StartBatch file** (Page 50), the ***StartBatch*** panel will appear immediately after the operator clicks on the **Scan** icon and, if applicable, selects a job to run:



StartBatch Panel

The operator can enter the **Number of Pages** in the tray: this becomes the *expected* number of pages in the batch. During processing, the iScan task will come up with a *actual* count, and report any discrepancies .

If you selected the **Create Documents** option in the ***Setup*** dialog (Page 53), the iScan task will create ***at least*** one document for the current batch. If the batch contains pages with **Patch Codes** that match your selection from the **Separate Documents by Patch Code Type** drop-down list, the iScan task will construct a new document each time in encounters a page with that Patch Code. Altogether, the iScan task's count may equal the estimate.

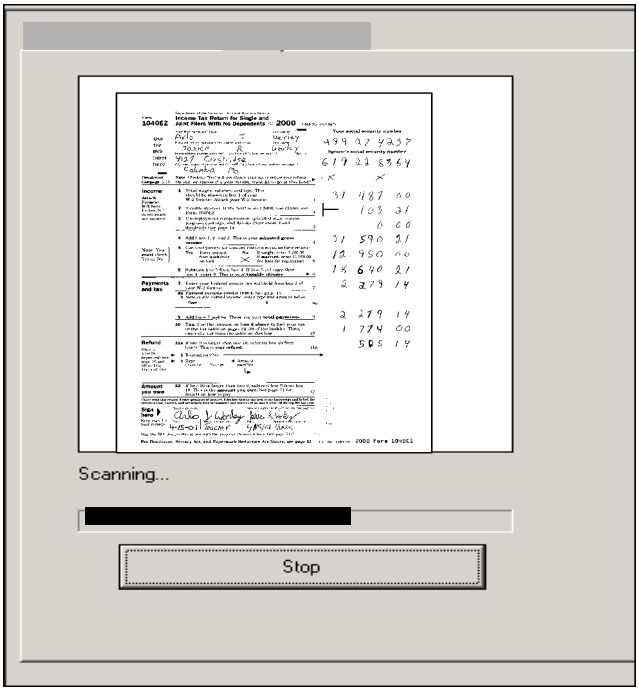
✓ Later, a Recognition task can (optionally) compare *expected* volumes to *actual* volumes – and can divert a batch to a FixUp job for further review and any necessary repair (Chapter 10).

Scanning

During scanning, iScan displays its progress ***and*** the current image (illustrated on the next page.

At any point, the operator can halt the task's actions by pressing the Stop button; *Taskmaster* will assign a *Hold* status to the batch. ***Alert!*** This means that no one except the current operator can resume processing this batch.

In the case of high-speed scanners, the operator may want to intervene by stopping the scanner before clicking on the Stop button.



iScan Processing

End Task Data

After scanning is complete, the task's ***End Task Data*** dialog opens. After iScan has processed the batch, this field provides summary information such as:

1 documents were saved

6 documents expected

12 pages were scanned

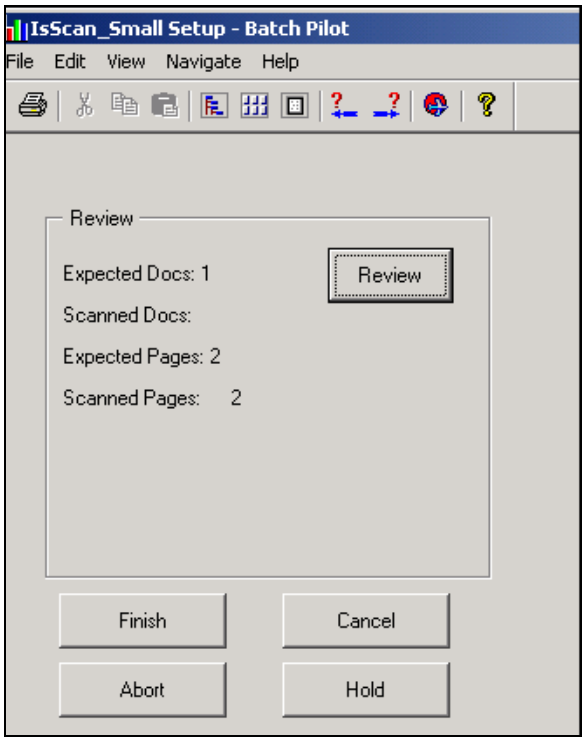
12 pages expected

These are iScan figures. The *expected* counts come from the ***StartBatch*** panel; the actual counts result from task operations.

At this early stage in the workflow, a comparison of *actual* to *expected* volumes may identify a problem batch if the operator was certain about the size of the batch when scanning began.

For most applications, however, these comparisons become critical later, when a Recognition task identifies each page according to its Page Type; uses this new information to re-organize the batch into a series of documents; and looks carefully at each document to be sure it has the correct number and type of pages.

If the operator is satisfied with the **Expected** and **Scanned** amounts, she can press the Finish button to conclude the task's involvement with the new batch.



End Task Data dialog

In addition:

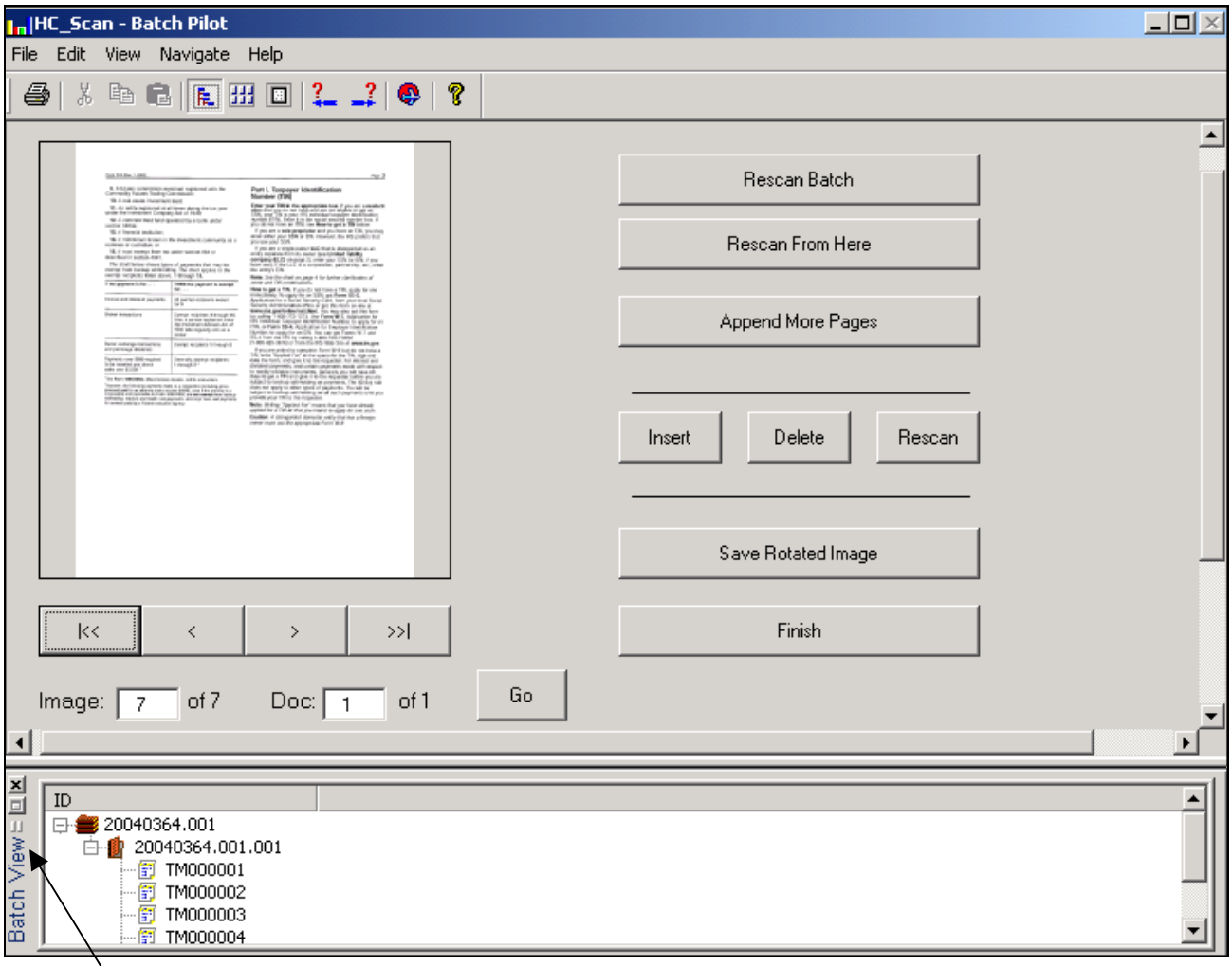
- The Cancel button completely terminates processing and eliminates the batch.
- The Abort button retains the batch but gives it an *Abort* status. This status requires a supervisor's intervention.
- The Hold button places the batch on *Hold* so the operator can examine its contents and use the tools of the ***Review & Repair*** dialog to correct any problems.

Review and Repair

Even if the task has created and processed the batch without difficulty, the operator can explore its contents just by clicking on the ***Review*** dialog's Review button to access iScan's ***Review & Repair*** dialog (illustrated on the next page.)

☛ The **Image Display** area occupies much of the dialog's left side. This area and its buttons give the operator an opportunity to carefully examine the quality of the images in a batch for clarity, color, brightness and contrast – as well as for problems with positioning, "foreign" lines, dirt and other particles. (If the task is processing double-sided pages, the operator must review the images of ***both*** sides.)

The operator can then take any steps that are necessary to rescan a page represented by a faulty image; to rescan the entire batch; or to abort the task itself and start over.



iScan Task - *Review & Repair*

☛ ***Very important!*** When you access the ***Review & Repair*** dialog, be sure to select ***Batch Tree*** from the ***Batch Pilot Window's*** **View** menu. This opens the window's **Batch View** area – and its display of current batch contents.

In the example above, the batch (*20040364.001*) has one document (*20040364.001.**001***)**.** Beneath the document's listing are four of its seven pages (*TM000001-TM000004*). When you highlight a page in this area, its image appears in the dialog's **Image** area.

Features of the iScan Review & Repair Dialog

The ***Review & Repair*** dialog has all the tools an operator needs to examine and restore the pages of the batch. The table below describes these tools:

Feature or Function	Description
Batch Pilot Window	iScan is a *Batch Pilot* task that operates within the data area of the ***Batch Pilot Window***. The *Guide to Batch Pilot* describes the window's elements and functions. Batch Pilot Help provides similar explanations. The operator can access Batch Pilot Help by clicking on the window's Help button.
View menu	Three items in this menu can be especially helpful to the iScan operator: • **Batch Tree** (Ctrl+Alt+S) opens the Batch Contents hierarchy at the bottom of the ***Batch Pilot Window***. The **Toggle BatchBar** Toolbar icon opens and closes this hierarchy. • **Image View** (Ctrl+Alt+I) adds a large field to the dialog's left-hand side and inserts the current page's image in the field. The operator can right-click on the image to take advantage of image magnification and rotation procedures for greater clarity. However, new rotation coordinates are retained ***only*** if the operator uses the dialog's Save Rotated Image button (below). The **Toggle ImageBar** Toolbar icon opens and closes this field. • **Thumbnail** displays thumbnail images of all pages, in a field on the dialog's right side. Tools at the field's edge display the thumbnails in different modes. The **Toggle Thumbar** Toolbar icon opens and closes this field.

iScan Review & Repair Dialog (continued)

Feature or Function	Description
Image Display	This field, on the dialog's upper left-hand side, displays the scanned image of a page the task's operator has selected. By default, the field displays the first image in the batch. A different image will appear if the operator: • Highlights a Page ID from the Batch Contents hierarchy in the **Batch View** area. • Presses a directional **Image Navigation** button (explained below).
Batch View	This ***very important*** area contains the **Batch/Document/Page** hierarchy. • The Batch ID occupies the hierarchy's first level. • Document ID's are at the second level ***if*** the iScan task's Setup specifications (Page 53) authorize document creation. • Page ID's occupy the third level.
Image/Doc Counters	These fields, just above the **Processing** buttons, indicate the location of the currently displayed image - within the overall batch.
Image Navigation buttons	The buttons just below the **Image Display** area present the: • First image in the batch: I<< • Last image in the batch: >>I • Previous image in the batch: < • Next image in the batch: > We recommend that an operator use these buttons after highlighting an image in the **Batch View** area. After the operator clicks on a button, the **Page/Doc** counters (below) adjust their figures. ***Alert!*** These buttons access **images** within the **batch**…they do ***not*** access **documents** within the batch.
Rotate button	Clicking on this button rotates the *current* image – the image in the **Image View** area – by 90^0.
Go button	*Inactive*
Processing buttons	Buttons in this area permit the operator to repair the contents of the newly scanned batch. Te next page describes the techniques associated with these buttons.
Save Rotated Image button	Saves the position of a rotated image.

iScan Review & Repair Dialog (continued)

Feature or Function	Description
Finish button	A click on this button ends the iScan task's involvement with the current batch. Usually, this results in the following: • iScan assigns a *Finished* status to the batch; • The task generates a Page file (**iScan.xml**) that lists the contents of the batch (Page 68) • A dialog asks the operator if he or she is finished with the batch. • A follow-up dialog asks if the operator would like to "continue" by initiating the next batch without delay. • The application's ***Job Monitor*** lists the current batch with a *Pending* status in the processing queue of the job's next task.

Processing Buttons of the Review & Repair Dialog

The sections below show you how to use the buttons in the **Processing** area of the ***Review & Repair*** dialog.

☞ ***A word about endorsements.*** The ISIS Source Device can include settings that determine how the iScan task will endorse the pages in a batch. If task does endorse pages, the actions of most buttons described below will re-apply the endorsements. (For more about endorsements, see Page 68.)

Rescan Batch

This button rescans the current batch but does ***not*** create a new batch. If applicable, the button re-endorses the pages in the batch. (On certain larger scanners, the operator can intervene to turn off the endorsement feature.)

Step	Action
1.	Place all pages in the scanner's tray.
2.	Press the Rescan Batch button.
3.	Check the listings in the **Batch View** area and the numbers in the **End Task Data** area.

Rescan from Here

This button rescans a portion of the current batch, beginning with the page that you highlight in the **Batch/Document/Page** hierarchy. ***Alert!*** This procedure deletes all pages (and documents) that come after the highlighted Page ID – and replaces them with the pages you scan when you click on this button. If applicable, the button re-endorses the pages in the batch.

Step	Action
1.	Load the scanner's tray with replacement pages.
2.	Select a Page ID in the Batch View area's **Batch/Document/Page** hierarchy
3.	Press the Rescan from Beginning button.
4.	Check the listings in the **Batch View** area and the numbers in the **End Task Data** area to be sure that the procedures has deleted all pages that originally followed the page you selected – and has replaced them with the new-scanned paged.

Append More Pages

This button adds one or more new pages to the ***end*** of the batch. Clicking on this button will generate documents if there are new pages with Patch Codes ***and*** the iScan task can create documents (Page 53). If applicable, this button endorses the new pages.

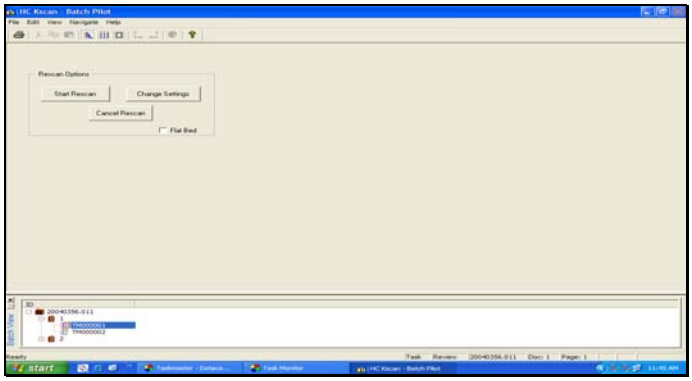
Step	Action
1.	Load the scanner's tray with the pages you want to append.
2.	Press the Append More Pages button.
3.	Check the listings in the **Batch View** area and the numbers in the **End Task Data** area.

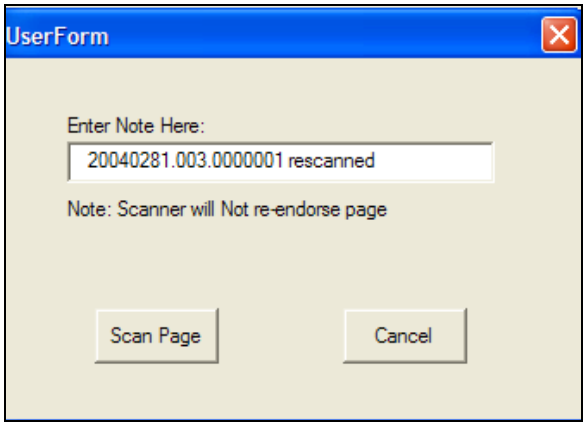
Rescan

This button rescans a ***single*** page.

Step	Action

1. Load the scanner's tray with the page that is to be re-scanned.
2. In the **Batch View** area's **Batch/Document/Page** hierarchy, highlight the applicable Page ID.
3. Press the Rescan button.
4. When the ***Rescan Options*** dialog appears, you can press the Change Settings button to modify settings that determine how the scanner processes the page.



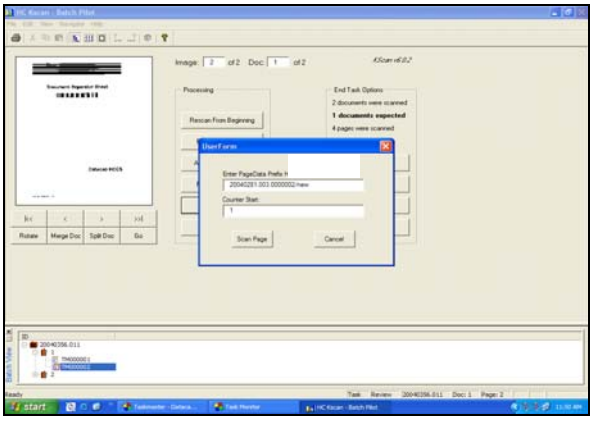


5. Press the Start Rescan button in the ***Rescan Options*** dialog: the ***Userform*** dialog will appear on your screen. The dialog's **Enter Note Here** field displays Page Data (if any) from the task's Page file (Page 68). The field will be empty if the Source Device has not been configured for endorsements.
6. Click on the Scan Page button.
7. Check the listings in the **Batch View** area and the numbers in the **End Task Data** area to be sure the page has not been removed.

Insert

This button inserts a new page ***after*** the page you've highlighted in the **Batch/Document/Page** hierarchy. If applicable, this button endorses the new page, and re-endorses the subsequent pages in the batch.

Step	Action
1.	Load the scanner's tray with the page to be inserted.
2.	In the **Batch View** area's **Batch/Document/Page** hierarchy, highlight the Page ID of the page that is to ***precede*** the inserted page.
3.	Press the Insert a Page button to access the ***UserForm*** dialog (illustrated below)
4.	Optionally, you can enter a different prefix in the dialog's **Enter PageData Prefix** field (see the explanation of prefixes below.)
5.	Press the Scan Page button.
6.	Check the listings in the **Batch View** area and the numbers in the **End Task Data** area to be sure that page has not been deleted.



Delete

This button deletes a page in the batch.

Step	Action

1. In the **Batch View** area's **Batch/Document/Page** hierarchy, highlight the Page ID of the page to be deleted.
2. Press the Delete button.
3. Click Yes in the ***Warning*** dialog.
4. Check the listings in the **Batch View** area and the numbers in the **End Task Data** area to be sure the page has been physically removed.

iScan Page Files

At the conclusion of its work with a batch, the iScan task produces a Page file – **<Task ID>.xml** - and places it in the batch.

The Page file contains general information about the batch and it contents…how many documents are there, and how many pages.

The Page file then lists information about each document, if applicable, and about the pages in a document.

The table below describes ***key*** items in the iScan Page file. (Comments are in *italics.*)

iScan.xml

Item	Example
B (Batch Line)	**20050356.001**
TYPE:	HCFA *(Document Hierarchy value)*
ED: *(Expected Documents)*	1
AD: *(Adjusted Documents)*	0
EP: *(Expected Pages)*	3
AD: *(Adjusted Pages)*	0
D *(Document Line)*	**20050356.001.01**
TYPE:	
STATUS:	0 *(No problem)*
P *(Page Line)*	**TM000001**
TYPE:	Other *(Document Hierarchy value)*

iScan.xml (continued)

Item	Example
STATUS:	49 *(ScanOK)*
IMAGEFILE:	TM000001.tif
PD: *(Page Data)*	20050356.001.0001 *(Prefix+ Counter. Prefix = Batch ID. Counter = nnnn).*
P *(Page Line)*	**TM000002**
TYPE:	Other *(Document Hierarchy value)*
STATUS:	49 *(ScanOK)*
IMAGEFILE:	TM000002.tif
PD: *(Page Data)*	20050356.001.0002 *(Prefix+ Counter. Prefix = Batch ID. Counter = nnnn).*
P *(Page Line)*	**TM000003**
TYPE:	Other *(Document Hierarchy value)*
STATUS:	49 *(ScanOK)*
IMAGEFILE:	TM000003.tif
PD: *(Page Data)*	20050356.001.0003 *(Prefix+ Counter. Prefix = Batch ID. Counter = nnnn).*

Endorsements, Page Data and Document Data

An iScan Source Device includes settings that assign properties to an endorsement's prefix, text and counter components. These properties are part of the **iPrefix.dcs** file that you designated when you set up the task (Page 50).

☛ An endorsement typically includes values at the **Batch** and **Page** level. In the example below, the first twelve digits identify the batch; the last four are a sequential counter that identifies succeeding pages within the batch.

```
20050046.002.0001
```

Alternatively, if iScan setup permits the use of Patch Codes (Page 53), the endorsement of a page can designate the current **document** rather than the current **page**. In the example below, ***every*** page in the document will have this endorsement:

```
20050046.002.001
```

The endorsement values appear on the **PD** (Page Data) lines of the iScan Page file. For details, see the previous section.