

Datacap Taskmaster

Taskmaster Application Wizard

This documentation describes the features and operation of the **Taskmaster Application Wizard**.

You can use the Taskmaster Application Wizard to:

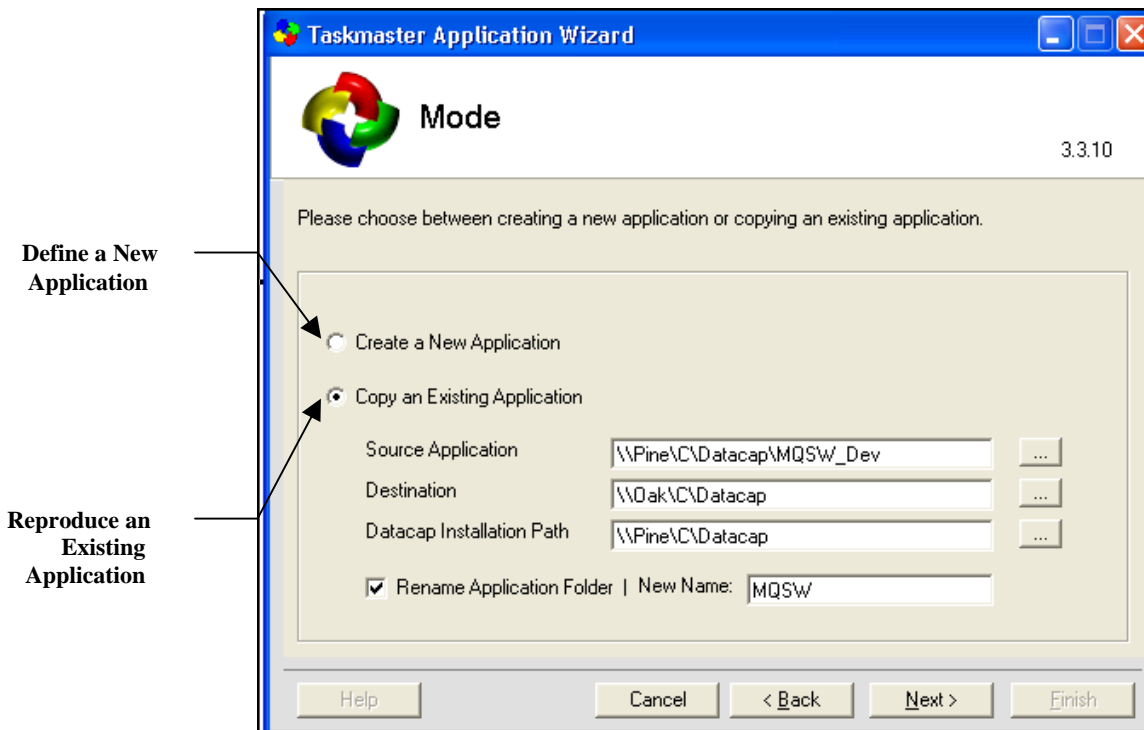
- ◆ Set up and test a new *Taskmaster* application to meets your requirements – without confusion or delay.
- ◆ Copying an existing application to set up a new application, or to transfer a copy between alternative sites and environments.

The documentation describes both approaches as it covers the following topics:

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How to Locate and Start the Taskmaster Application Wizard

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Taskmaster Application Wizard – Mode screen

Introduction to the Taskmaster Application Wizard

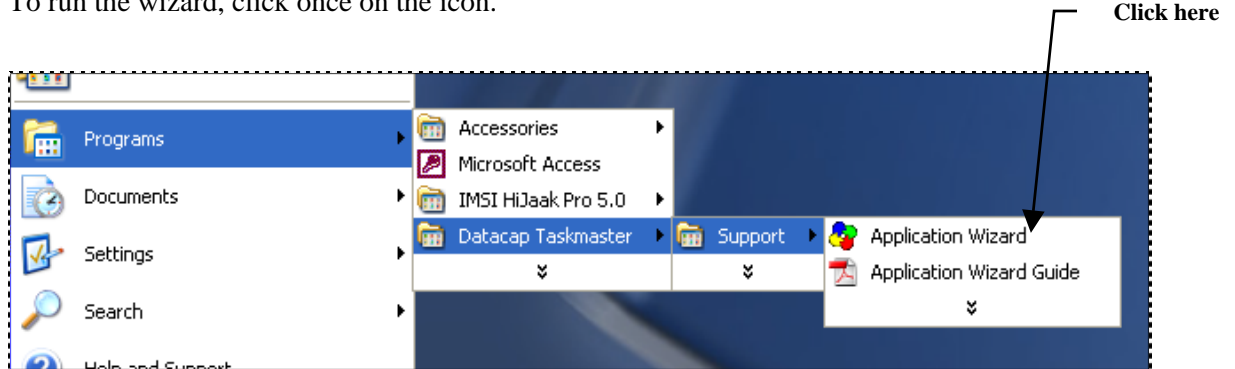
The Taskmaster Application Wizard guides you through the steps you take to define and install a completely new *Taskmaster* application, *or* reproduce an existing application.

- ✓ The illustration on the previous page shows you how the wizard presents these options in its *Mode* screen:
 - ◆ **Create a New Application** launches a sequence of screens that
 - Assemble the basic structure of a new application;
 - Help you as you define the application's Document Hierarchy;
 - Provide the application with a fully-configured set of jobs and tasks that include *Taskmaster Web* capabilities;
 - Determine the controls and layout of the application's *Data Entry* panel;
 - Supply the application with Security components and parameters;
 - Allow you to run tasks of the application's Demo job without delay.
 - ◆ **Copy an Existing Application** moves almost instantly to
 - Duplicate the *Taskmaster* application you specify;
 - Place the application in any location you designate;
 - "Point" the application to an existing **Datacap** directory on a File Server you select;
 - Optionally, give the duplicate application a new name;
 - Update names and paths in settings and parameters throughout application, where appropriate.
- ✓ Because the Taskmaster Application Wizard's procedures are different, according to the mode you select, separate sections of this documentation cover each approach. The discussion of the wizard's approach to setting up a new application begins on Page 6; explanations of duplicate applications begin on Page 46.

How to Locate and Start the Taskmaster Application Wizard

The Application Wizard is a component of your **Datacap Taskmaster** configuration: you'll find its shortcut icon in the **Support** sub-folder of your **Datacap Taskmaster** folder, among the Windows Start button's **Programs** options. (The icon is also in the **Support** sub-folder of the **Datacap Taskmaster** folder on your desktop.)

- ✓ To run the wizard, click once on the icon.



Supporting Documentation

This document shows you how to use the Taskmaster Application Wizard, and reviews the features of the wizard's screens. It does *not*, however, examine details of application setup and operation, or rule definition

Standard **Datacap Taskmaster** documentation does cover these important topics, and is available as PDF files in the **Docs** folder of your **Datacap** directory.

The table below identifies chapters in specific texts that will particularly helpful as you prepare to fill out your new application.

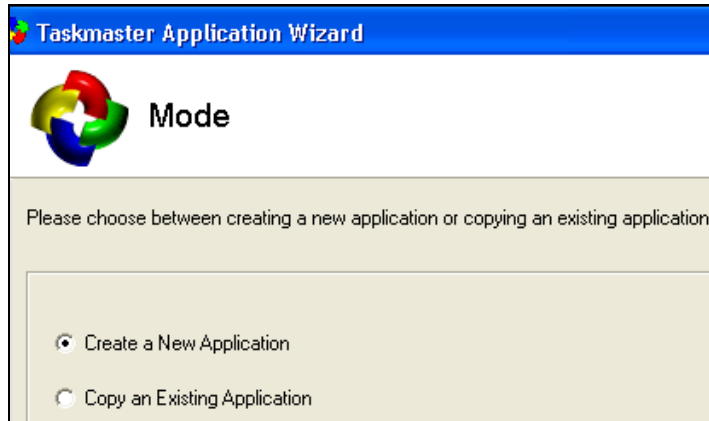
Docs folder:	Chapter	Topic(s)
Taskmaster_Rules: <i>Guide to Taskmaster Rules</i>	2	The nature and components of a new application
	3	The Document Hierarchy – Levels, Objects and Properties; the <i>Document Hierarchy Setup</i> window
	4	Fingerprints and zones; <i>Fingerprints & Zones</i> panel of the <i>Rule Manager Window</i> ; new fingerprints; zoning fields; defining OMR fields
	5	RuleSets, rules and actions; <i>Rules</i> panel of the <i>Rule Manager Window</i> ; RuleSet Types and their libraries; Actions files and actions; binding rules to objects of the Document Hierarchy

Supporting Documentation (continued)

Docs folder:	Chapter	Topic(s)
	6	Workflows, jobs and tasks; Task Projects; Task Modules; Task Settings; processing conditions and child jobs
	7	Scan tasks: vScan, iScan (ISIS) and kScan (Kofax)
	8	<i>RuleRunner</i> tasks: PageID, Recognize, and Export
	9	Verification tasks and their <i>Data Entry</i> panels
	10	FixUp tasks
Rule Manager Reference: Rule Manager Reference	3	Panels of the <i>Rule Manager Window</i>
	4	Actions reference – descriptions of all <i>Rule Manager</i> actions
Guide to Taskmaster Web	3	Setting up a new <i>Taskmaster Web</i> application
<i>Taskmaster Help</i>		When running the application, you can press your keyboard's F1 key to access Taskmaster Help and complete explanations of the current window or dialog – and of all <i>Taskmaster</i> topics.
<i>Taskmaster Web Help</i>		Each page of the Taskmaster Web Site has its own Help page.
<i>Actions Help</i>		The ? icon in the <i>Rules</i> tab of the <i>Rule Manager Window</i> provides explanations of all <i>Rule Manager</i> actions.

Application Wizard: How to Construct a New Application

This section shows you how to use the Taskmaster Application Wizard to set up a fully-formed *Taskmaster* application.



If you opt for the wizard's **Create a New Application** mode, the wizard will use specifications you provide to build a new application with the following unique components:

- A Document Hierarchy that defines the application's processing and recognition structure in terms of its batches, documents, pages and fields.
- Fingerprints of the application's *source* pages...pages with fields containing data that is to be recognized, verified, validated and exported.
- Rules that determine how individual tasks process documents and their pages, and fields and their data.
- A Verification task's *Data Entry* panel.
- Workflow Hierarchies consisting of a workflow and its jobs, and the tasks assigned to each job.
- Default Security parameters that include User ID's, Station ID's, etc.
- A *Report Viewer* that generates reports on task operations.

✓ **Important!** This documentation shows you how to use the Taskmaster Application Wizard, *Version 3.3.10* and reviews the features of the wizard's screens. It does *not*, however, examine details of application setup and operation, or rule definition.

Standard **Datacap Taskmaster** documentation does cover these important topics, and is available as PDF files in the **Docs** folder of your **Datacap** directory. Page 4 identifies chapters in specific texts that will particularly helpful as you prepare to create your new application.

Preliminary Steps: Preparing for the New Application

In this mode, the Application Wizard will solicit information directly from you and use that information to build a completely new *Taskmaster* application.

To be effective, the Application Wizard will rely on specifications you supply concerning the following components of the application:

Source Page(s). A *source* page is a page with fields – fields that contain the user-entered data that the application’s tasks will recognize, verify, validate and export. Before you launch the Application Wizard, you must be thoroughly familiar with details of the nature and layout of the *source* page, and with each **critical field** - a field with data to be processed.

Fingerprints. Set aside a folder with a single scanned image of a *source* page, displaying data in each of its critical fields. These images will serve as sample fingerprints (Page 13).

Images. Set up a second folder and insert at least four scanned images of the *source* page, with data in the image’s critical fields. During testing (Page 39), the new application will process these sample image(s).

Document Hierarchy. A **Document Hierarchy** is an application’s core structure. The Application Wizard will ask you to designate objects at the hierarchy’s four levels: **Batch, Document, Page** and **Field**. To be sure that the information is accurate and complete, you will need a thorough understanding of the makeup of a processing batch; the composition of documents within the batch (the number and mix of pages of various types in a document); and a list of the critical fields in the *source* page.

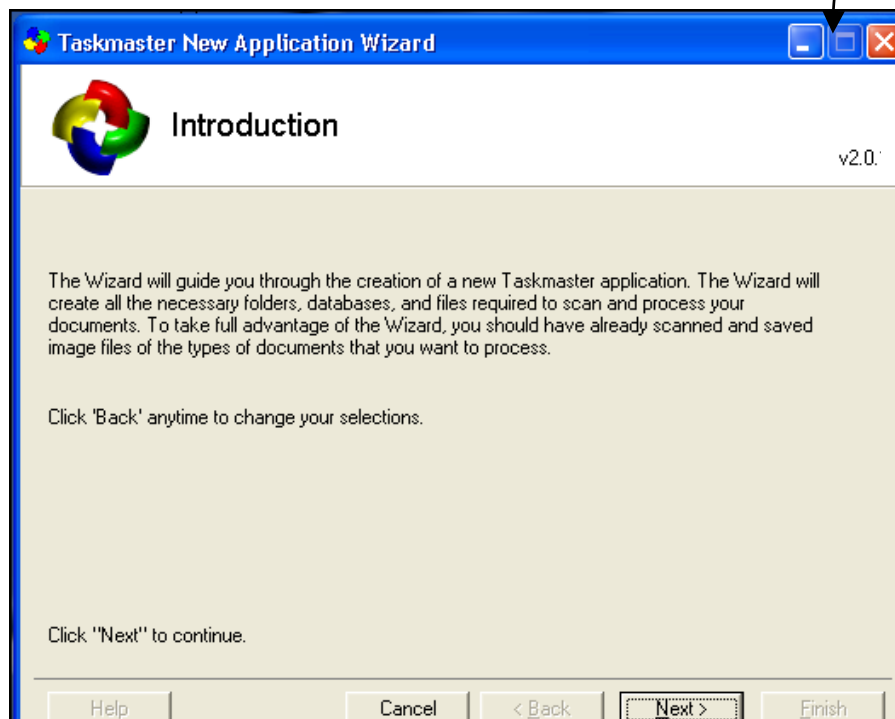
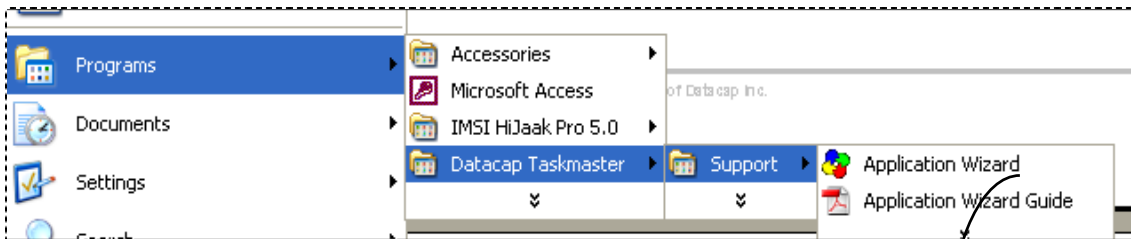
- ✓ The Application Wizard gives you a chance to set up multiple test applications – each with a different set of components. The setup process is simple, fast and friendly – and encourages you to practice, without penalty.

Running the Application Wizard

- The following sections explore details of the sequential screens used by the Application Wizard to construct a new application. For a streamlined, step-by-step description of this procedure, see Page 24.

To launch the Application Wizard:

- Select **Datacap Taskmaster** from the **Programs** options of the Windows Start button;
- Open the **Support** folder and select the **Application Wizard** to open the wizard's *Introduction* screen.



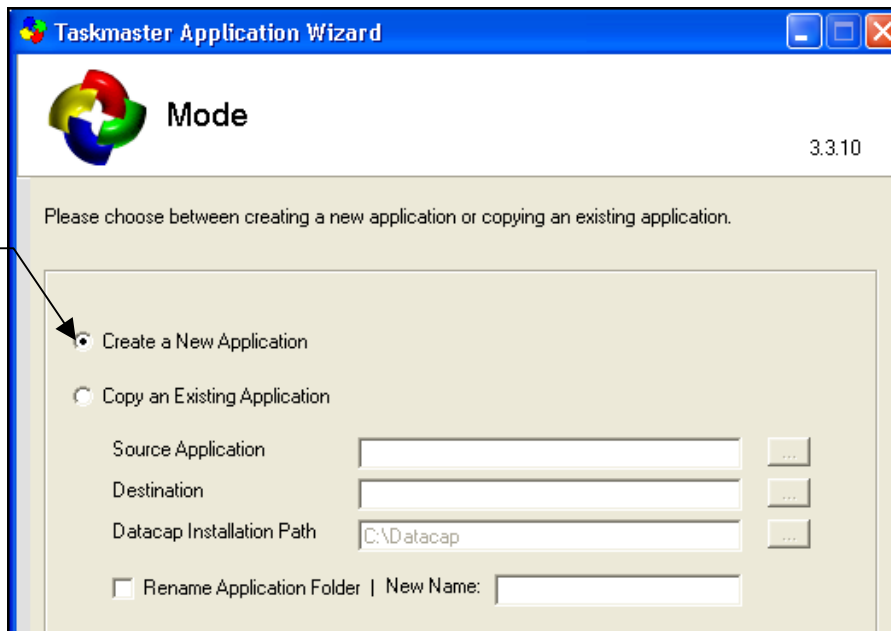
Taskmaster Application Wizard – *Introduction* screen

Read the instructions in the *Introduction* screen. Press the Next button to move to the *Mode* screen (illustrated on the next page.)

Mode Selection and Application Identification

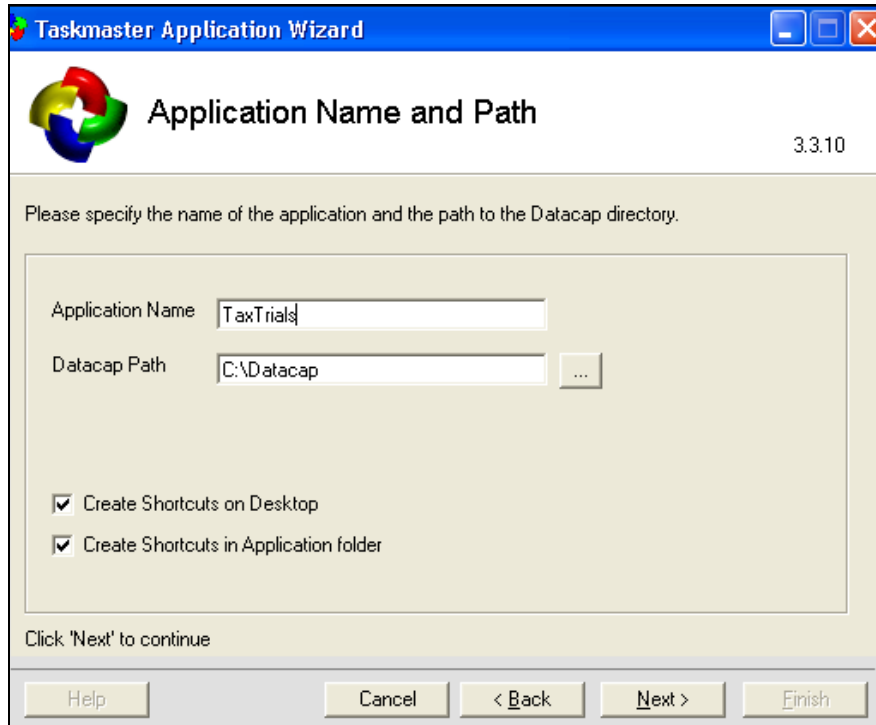
- ✓ Select the *Mode* screen's **Create a New Application** option.

Select this option.



Taskmaster Application Wizard – Mode screen

Press the Next button to open the *Application Name and Path* screen:



Taskmaster Application Wizard – Application Name and Path screen

Running the Application Wizard

Enter a simple but descriptive **Application Name**, and indicate the path to its **Datacap** parent folder.

Shortcut Icons

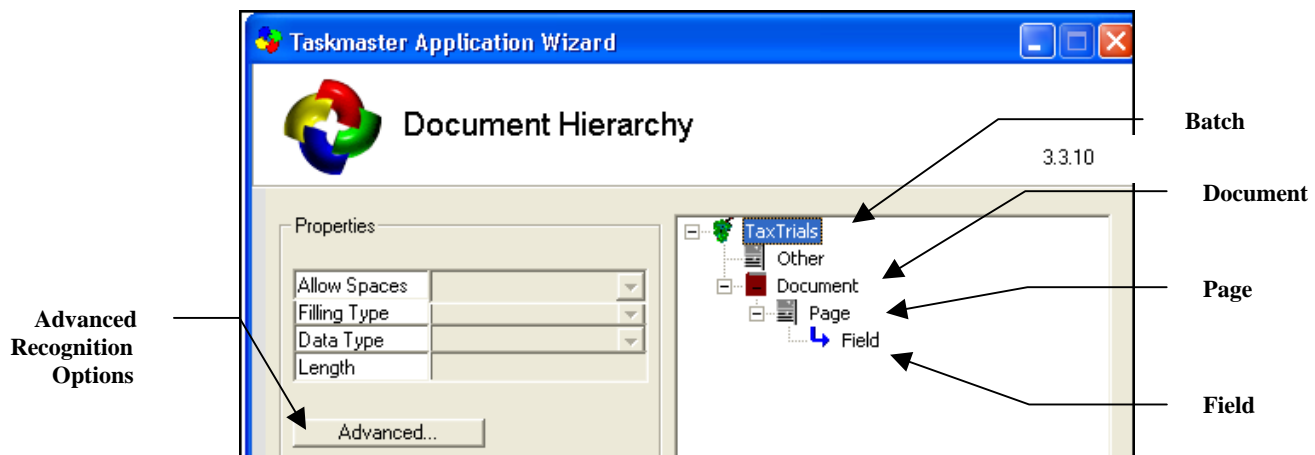
The Application Wizard will automatically produce **Shortcuts** to the new application's

- ◆ Taskmaster Client
- ◆ *Report Viewer*
- ◆ *Rule Manager*

Your selection of one or both checkboxes at the bottom of the *Application Name and Path* screen determines the location(s) of a set of shortcuts.

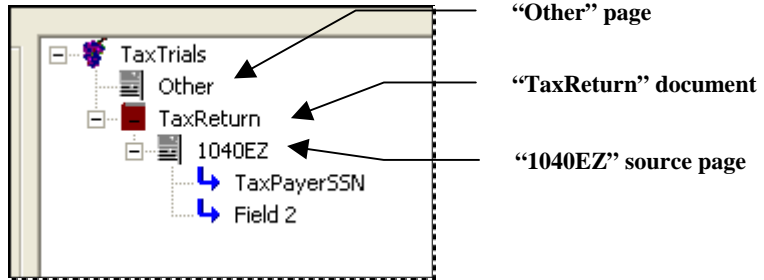
Document Hierarchy Setup

Press the *Application Name and Path* screen's Next button to access the *Document Hierarchy* screen:

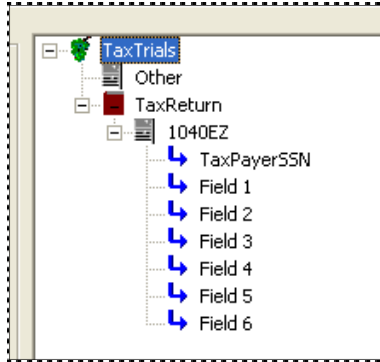


Taskmaster Application Wizard – Document Hierarchy screen

- ✓ A Document Hierarchy is an application's structural and processing foundation, and consists of objects at four levels: **Batch**, **Document**, **Page** and **Field**. After you give the application a name (Page 9), the wizard will assemble a prototype of the Document Hierarchy, with "placeholder" objects at each level.
 - You can click on an object at any level *except* the **Batch** level to re-name the object, or right-click on a level to add one or more objects.
 - Do not remove or re-name the *Other Page* object. *Other* is the Page Type assigned by the opening Scan task to every page in a new batch: the subsequent RuleRunner task will then identify the *source* pages in the batch and assign applicable Page Type values (*1040EZ*, in the example illustrated on the next page.)

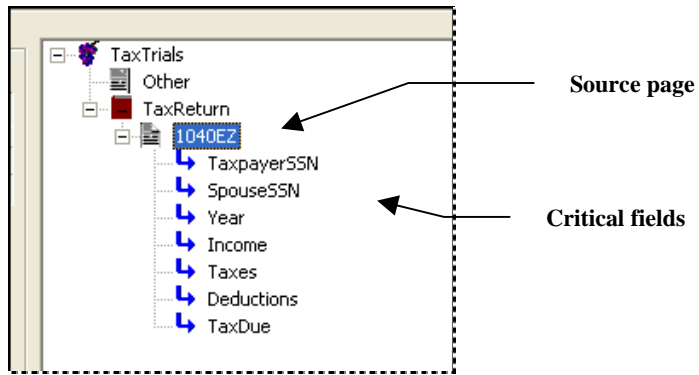


Adding a Single Object



Adding Multiple Objects

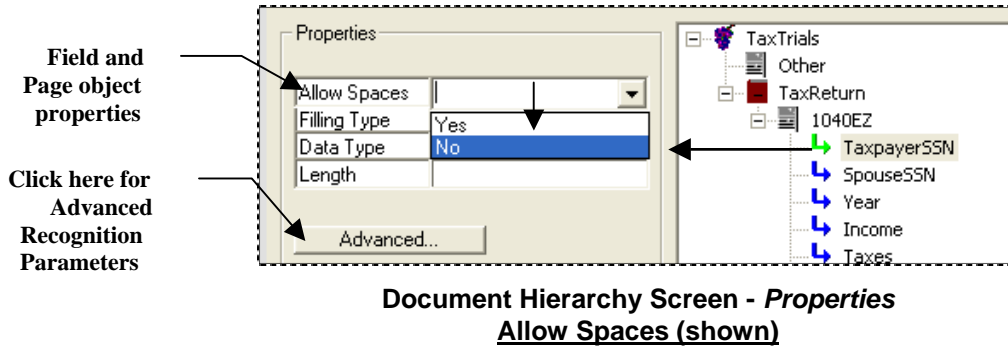
- ✓ **Important!** The *Document Hierarchy* screen gives you a chance to define the new application’s basic structure; to clearly identify a *source* page; and to designate certain **critical fields** within the *source* page – fields with data that that will be processed during testing (Page 39), and will be included in the prototype of the *Data Entry* panel (Page 36). For example:



Document Hierarchy – TaxTrials Application

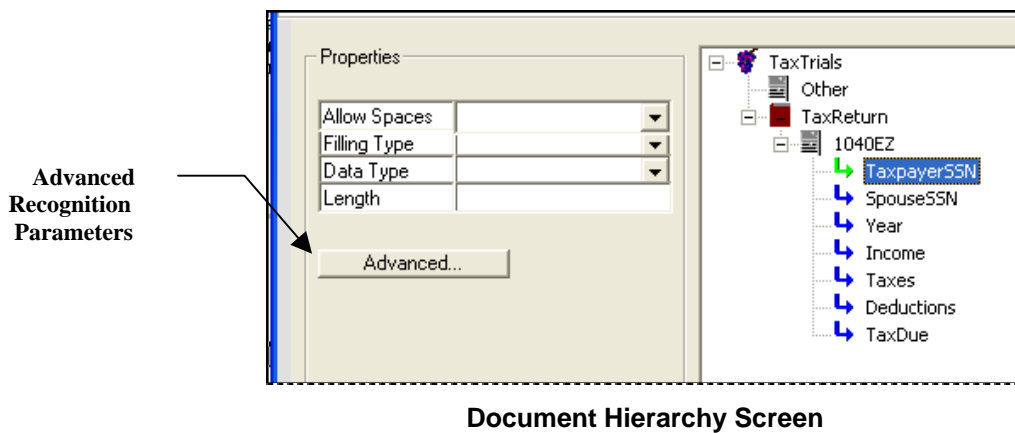
You can also use the *Document Hierarchy* screen to assign values to four distinct properties of a **Field** object – and a property of a **Page** object. In addition, when you select a **Field** object and press the **Advanced** button, the *Advanced Recognition Parameters* dialog gives you a chance to provide the field with special recognition criteria. (The next page describes the four options in the screen’s **Properties** area, and the role of the *Advanced Recognition Parameters* dialog.)

Running the Application Wizard



Field and Page Properties

You can use the **Properties** area of the *Document Hierarchy* screen to assign values to four properties of a **Field** object, and one property of a **Page** object. In addition, the Advanced button accesses settings of the *Advanced Recognition Parameters* dialog. These are special recognition settings that you can link to a **Field** object that you have highlighted in the hierarchy.



Properties of a **Field** object include:

Allow Spaces. A *Yes* or *No* drop-down list to indicate if the field's overall value can include spaces between its elements.

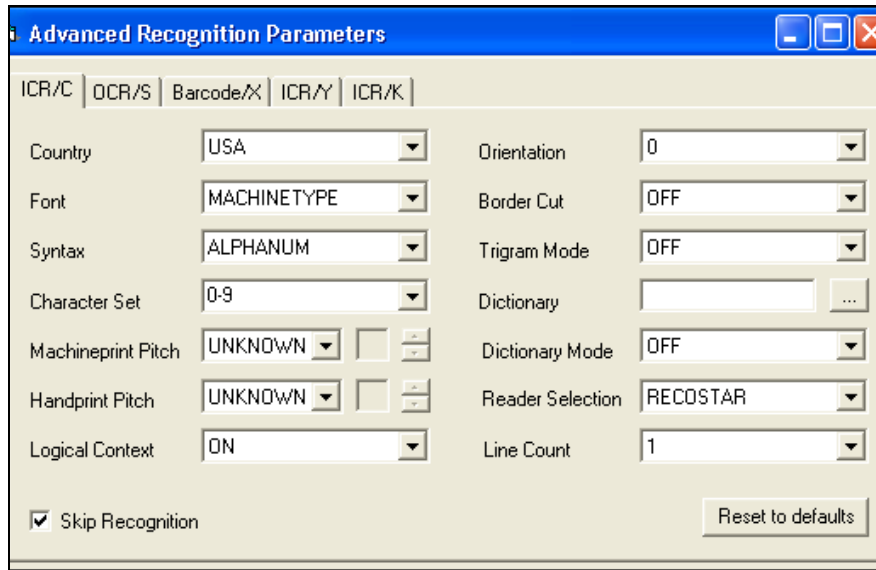
Filling Type. A drop-down list of three optional recognition engines that could process values in the highlighted field: *ICR*, *OCR* and *Barcode*.

Data Type. *Alpha*, *Numeric*, *AlphaNumeric* and *Date*.

Length. A value you can enter to specify the maximum length of a field's value.

Filling Type can also be a property of a **Page** object: selecting *ICR* or *OCR* determines what kind of full-page recognition will be carried out by the application's RuleRunner task (Page 41).

The *Advanced Recognition Parameters* dialog consists of recognition parameters that you can assign to a particular field...parameters that will be picked up by the RuleRunner task when it runs. Here is the dialog's *ICR/C* tab:



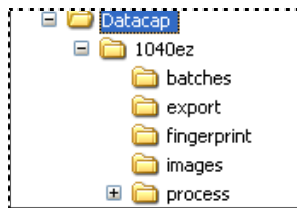
Advanced Recognition Parameters dialog – ICR/X tab

Chapter 3 of the *Rule Manager Reference* describes the settings in each tab of this dialog. (Page 4 lists and describes the Application Wizard's supporting documentation.)

Application Fingerprint Definitions

After you have assembled the Document Hierarchy, press the Next button at the bottom of the *Document Hierarchy* screen to move to the *Fingerprints* screen. This screen asks you for the location of the Image file (.tif) you've chosen to serve as a **fingerprint** - a clear representation of the *source* page and its critical fields.

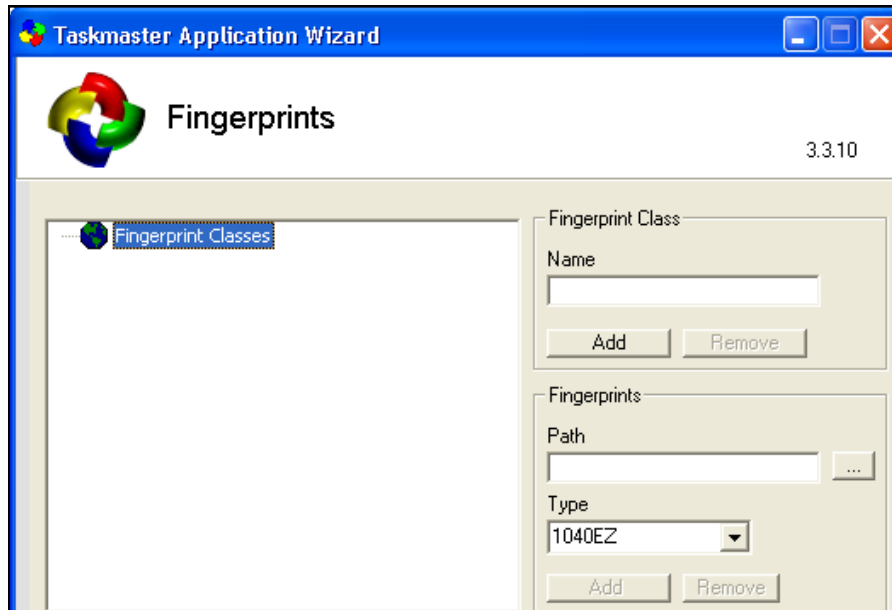
- These explanations of the Application Wizard “borrow” files of the *1040EZ* training application to help build a sample new application. Folders and files of this pre-configured application are in your **Datacap** directory:



1040EZ Application

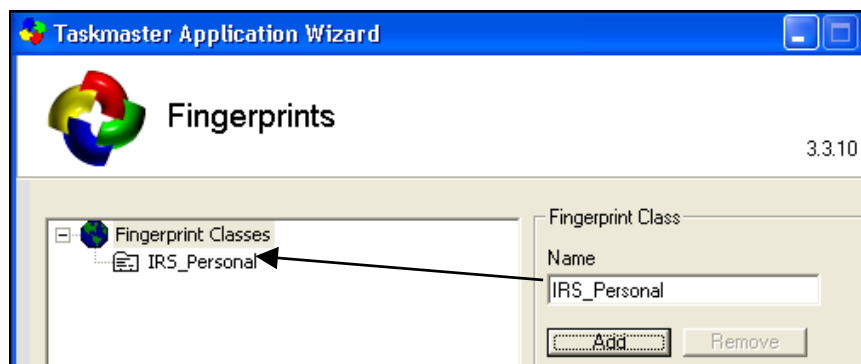
Fingerprint Class

Because a fingerprint belongs to a **Fingerprint Class**, you first use the *Fingerprints* screen to define a Fingerprint Class for the new fingerprint.



Taskmaster Application Wizard – Fingerprints screen

- ◆ Enter the name of the Fingerprint Class in the **Name** field on the right.
- ◆ Click on the Add button.
- ◆ Confirm that the new Fingerprint Class name is in the list on the left.

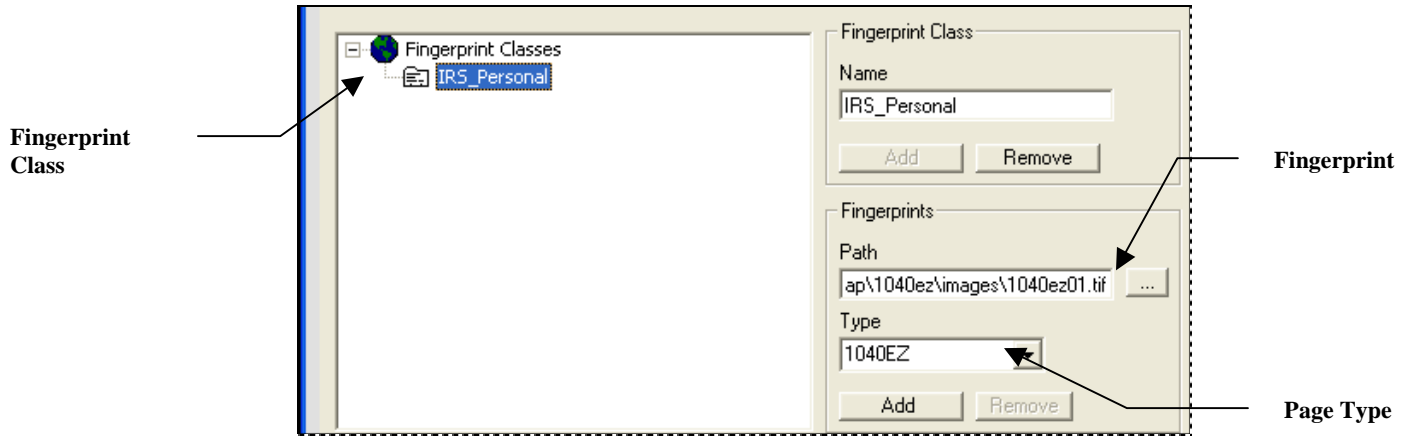


Taskmaster Application Wizard – Fingerprints screen
Fingerprint Class

- ✓ You can add multiple Fingerprint Classes if your application can process *source* pages with varying formats that can be grouped by “class”. Datacap’s *Taskmaster for Invoices* application, for example, establishes a different class for each vendor – and separate fingerprints for a particular vendor’s distinctly different invoices.

Fingerprints

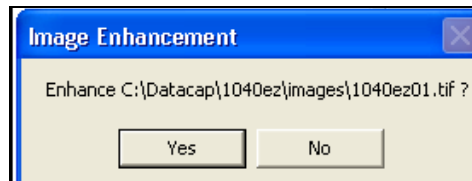
After a Fingerprint Class is in place, you'll use fields and buttons in the screen's **Fingerprints** area to set up a new fingerprint and assign it to the Fingerprint Class.



Taskmaster Application Wizard – *Fingerprints* screen
Fingerprint ID

To define the fingerprint:

- ◆ Highlight the applicable Fingerprint Class on the left.
- ◆ In the **Path** field, specify the name and path of the Image file(.tif) that is to serve as the fingerprint (Page 7). For the purposes of illustration, the example above identifies an Image file that belongs to the *1040EZ* training application.
- ◆ Confirm that the **Type** field's value accurately specifies the fingerprint's **Page Type**...the name of the **Page** object that is the Document Hierarchy's *source* page.
- ◆ Press the Add button.
- ◆ To begin a process that will immediately enhance the fingerprint's image, press the Yes button of the *Image Enhancement?* Message Pad; press the No button of you want to skip this procedure. (Page 16 explains how enhancement works.)

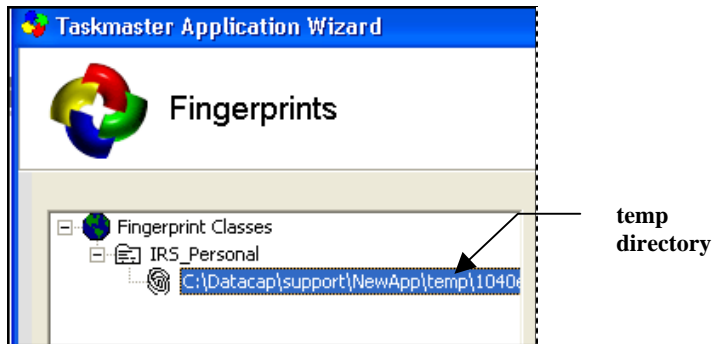


- ◆ Check to be sure that the new fingerprint's name and path are listed under its Fingerprint Class (illustrated on the next page.)

Running the Application Wizard

Alert! Do not overlook this brief but important examination of the fingerprint's name and path as you confirm its placement immediately below the Fingerprint Class you have highlighted.

- If you have *not* enhanced the image, the syntax of this complete specification must be: `C:\Datacap\1040EZ\images\1040EZ01.tif [1040EZ]`.



- If you have enhanced the fingerprint's image, the syntax will resemble the example above because the wizard places the enhanced image in its **temp** folder until its work is complete.

In either case, be sure that the specification's final element identifies the fingerprint's Page Type... [1040EZ], in this case.

New Fingerprints - Image Enhancement

If you press the Yes button of the *Image Enhancement?* Message Pad, when asked if you intend to enhance the image you've selected to for the new fingerprint, the *Image Enhancement* dialog will appear on your screen. You can use the settings in this dialog to enhance the current fingerprint's image, or to modify default image enhancement settings. (If you are confident that the image is clean and de-skewed, you can select *No* and go right to Page 19.)

- ✓ Chapter 3 of the *Rule Manager Reference* describes the settings and use of the closely-related *Image Processing Setup* dialog. The paragraphs on the next page summarize the dialog's settings and explain the role of each button.

Note, first, the side-by-side images. The *before* image is on the left; the *after* image is on the right, and shows the results of any enhancements you select from the list of options.

Before

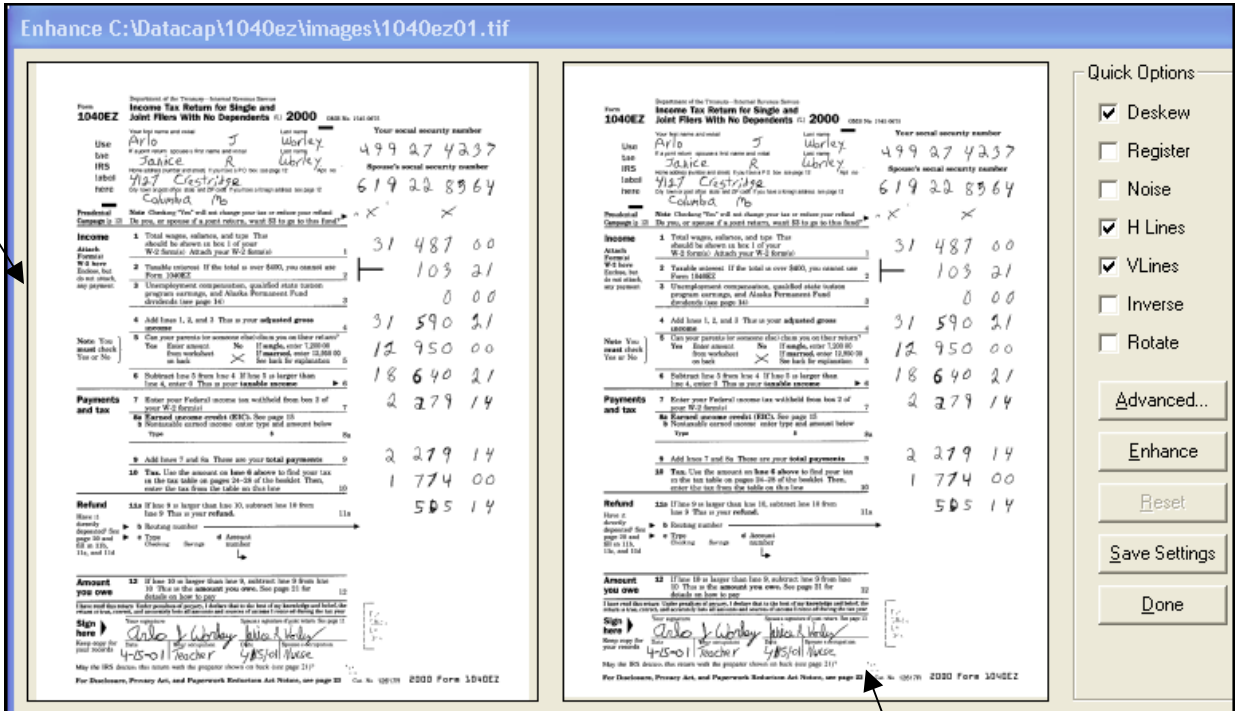


Image Enhancement dialog

After

Quick Options of the Image Enhancement Dialog

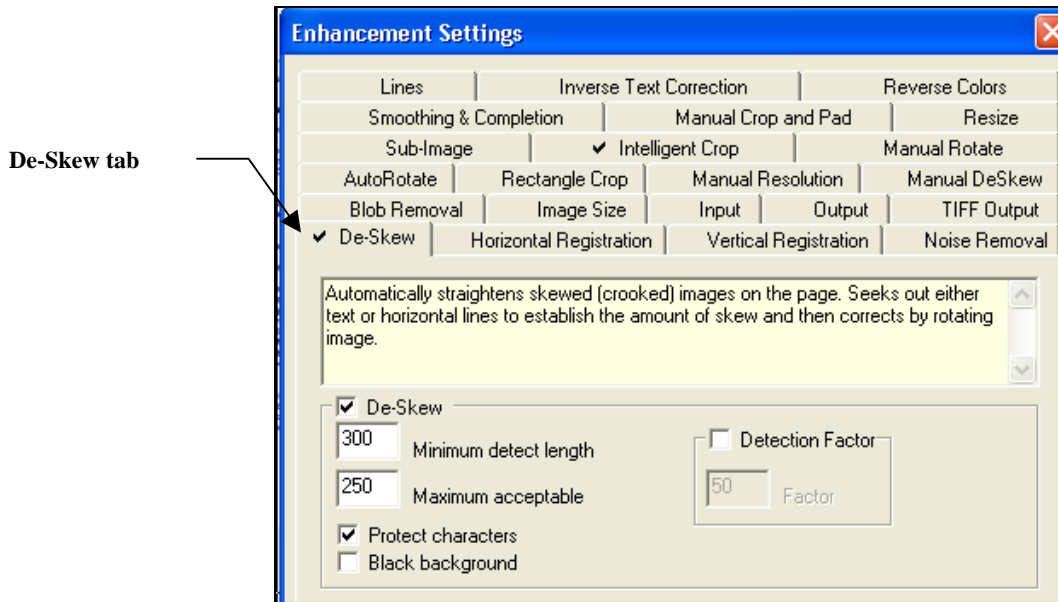
Among the enhancement settings in the **Quick Options** list on the right:

- ◆ **Deskew** straightens the image. *Alert!* The de-skewing parameters and a further explanation of this process are in the *De-skew* tab of the *Enhancement Settings* dialog (illustrated on the next page.)
- Important!* The *Enhancement Settings* dialog features a tab for each **Quick Option** setting. To access the correct tab, select a setting and click on the **Advanced** button.
- ◆ **Register** eliminates black borders and excessive white margins.
- ◆ **Noise** removes small spots.
- ◆ **H Lines** and **V Lines** remove long horizontal or vertical lines.
- ◆ **Inverse** displays white text in a black background as black text in a white background.
- ◆ **Rotate** checks whether the image needs rotation.

✓ **Remember:** When you select an option and press the **Advanced** button, the corresponding tab of the *Enhancement Settings* dialog will appear on your screen.

Buttons of the of the Image Enhancement Dialog

Advanced: Accesses the tabs of the *Enhancement Settings* dialog.



Enhancement Settings dialog

Enhance: Uses the selected settings to enhance the fingerprint's image. After you click on this button, modifications to the *original* image will appear on the right, as an *enhanced* image. You can use this button, along with the Reset button, to test and re-test new settings. **Alert!** The fingerprint is not created until you press the dialog's Done button (described below).

Reset: Returns an *enhanced* image to its *original* state.

Save Settings: Saves the dialog's settings to an **ImageFix.ini** file. The Application Wizard will add this file to the application's **Process** directory. Later, you can use the application's *Rule Manager* (Page 32) to modify the enhancement settings.

Done: Closes the *Image Enhancement* dialog and enhances the fingerprint you've selected, according to your specifications.

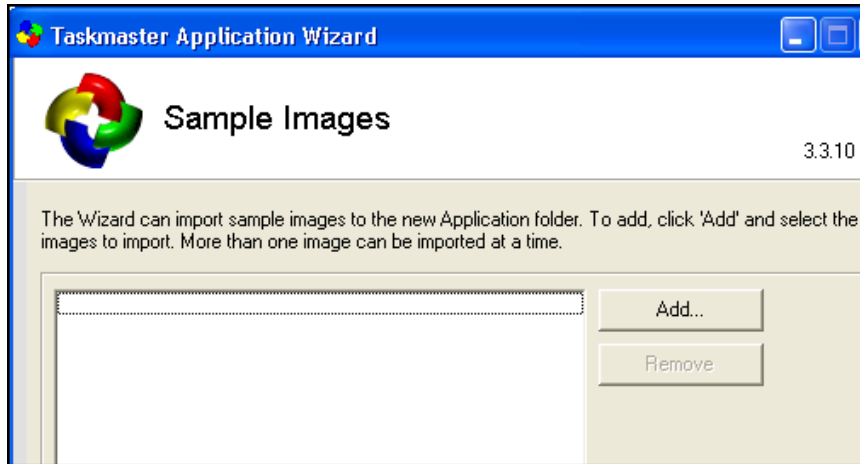
- ✓ You can repeat these steps if you add more than one fingerprint. **Remember:** You can modify the enhancement settings after the new application is in place, using tools of the application's *Rule Manager* (Page 32).

After you have defined a Fingerprint Class and provided it with one or more fingerprints, press the Next button at the bottom of the Application Wizard's *Fingerprints* screen to move to the *Sample Images* screen.

Selecting Sample Images

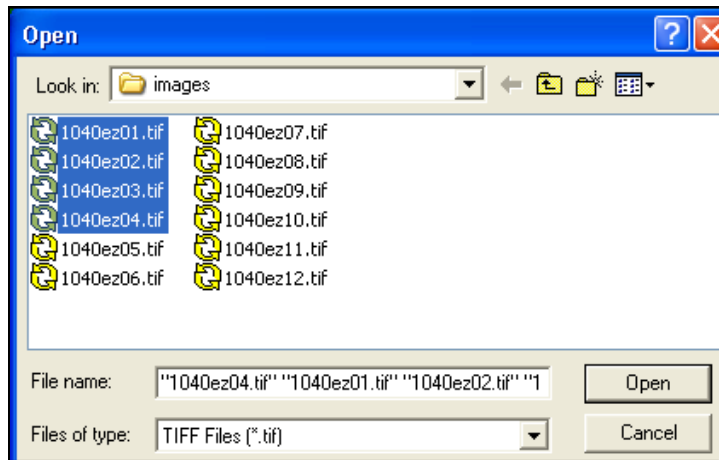
You use the *Sample Images* screen to select one or more of the images that you set aside before you launched the Application Wizard (Page 7).

The wizard places these images in the new application's **Images** folder, where they are available for testing and training (Page 39).



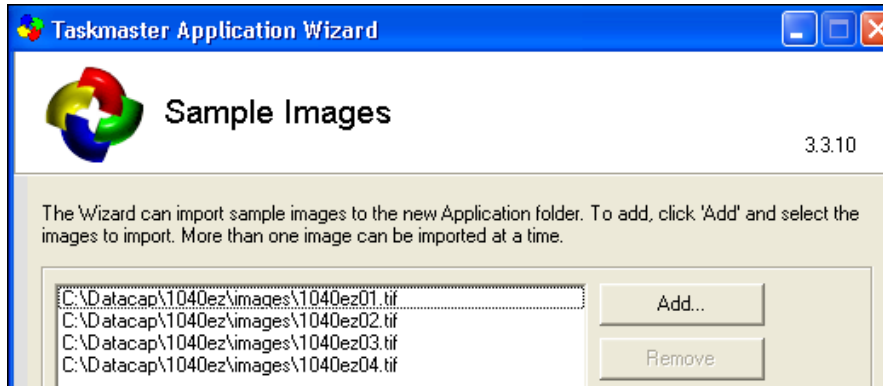
Taskmaster Application Wizard – *Sample Images* screen

- ✓ **Important!** Default parameters of the **VScan** rules that govern the Demo job's VScan task direct the task to process four images. Be sure to use this screen to select at least four images, as you take the following steps:
 - ◆ Press the screen's Add button.
 - ◆ Use the tools of the **Open** dialog to locate the folder that currently holds the images.
 - ◆ Highlight the images that the wizard is to supply to the new application, and press the Open button.



Running the Application Wizard

- ◆ Be sure that the *Sample Images* screen correctly lists the images you designated. (Pay close attention to the example below: here, the source of the images is the 1040EZ application's **images** folder.)

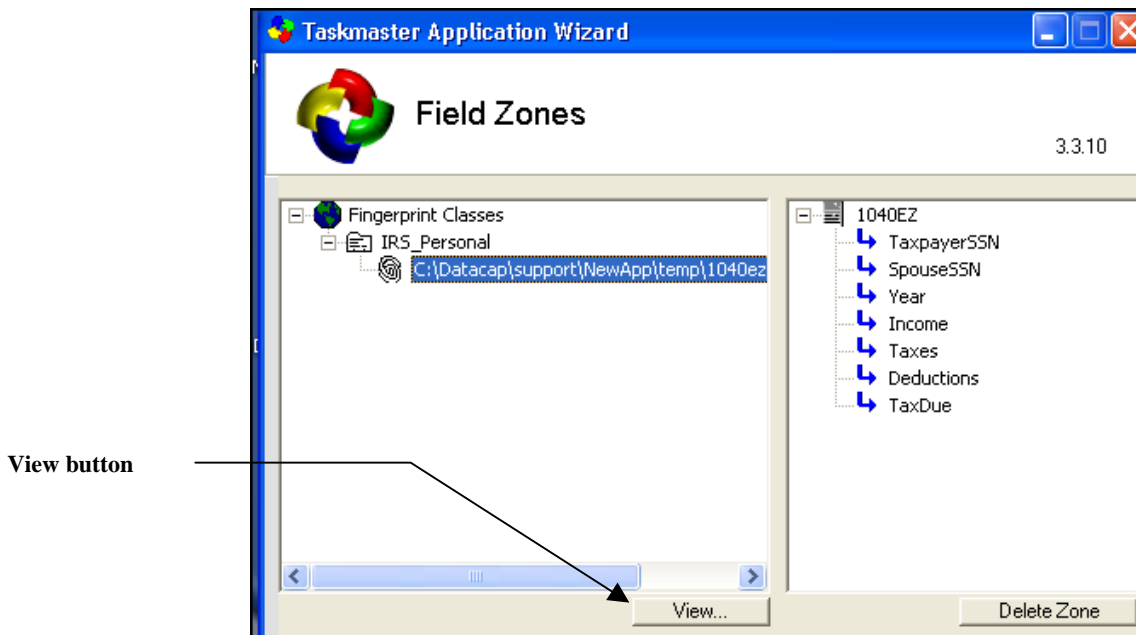


Press the Next button at the bottom of the screen to access the *Field Zones* screen.

Zoning a Fingerprint's Fields

The *Field Zones* screen gives you a chance to “zone” certain fields on a fingerprint's image – fields that are represented by **Field** objects of the Document Hierarchy you set up previously (Page 10).

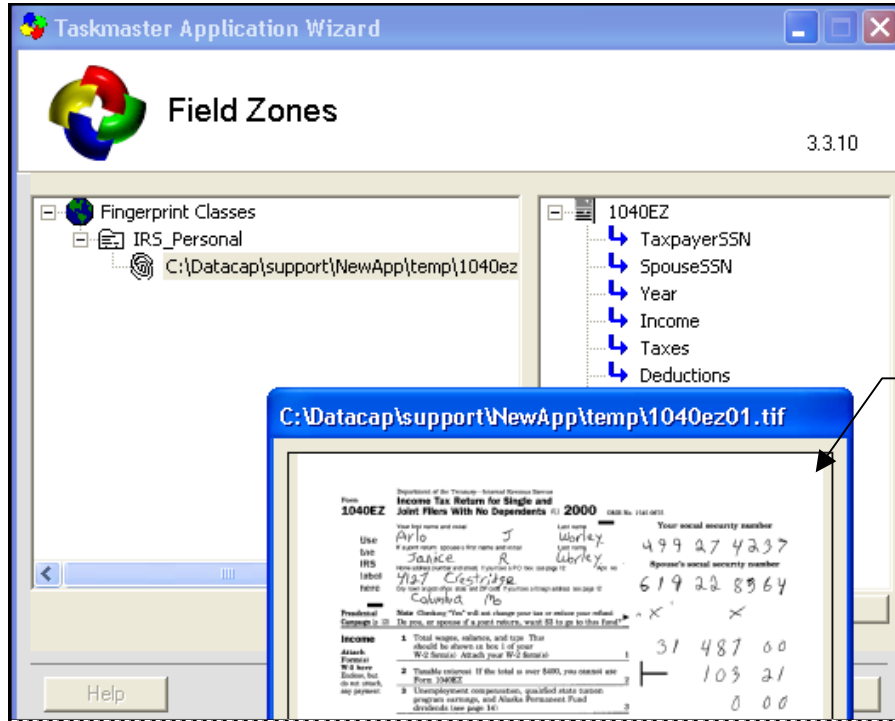
- ✓ Zoning determines the location of a field's value within the fingerprint. It is an *optional* procedure that you might carry out later, using tools of the application's Rule Manager. For a complete explanation of this process, see Chapter 4 of the *Guide to Taskmaster Rules*.



Taskmaster Application Wizard – *Field Zones* screen

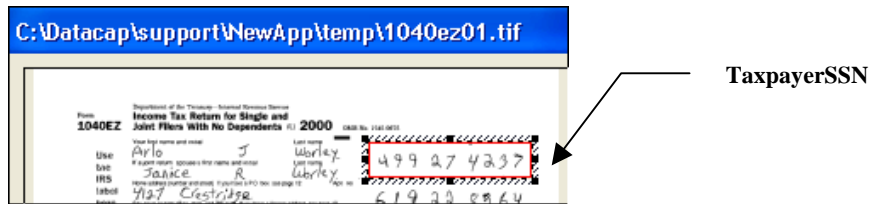
To zone fields on a fingerprint's image:

- ◆ Highlight the image's name and path in the list on the left. (In this example, the fingerprint's image still resides in the wizard's **temp** directory.)
- ◆ Press the screen's View button to display the fingerprint's image:



Fingerprint Image file

- ◆ Highlight a **Field** object of the Document Hierarchy that you intend to zone in the Fingerprint's image.
- ◆ Use your cursor to surround the field's value in the image:



- ◆ Repeat these steps for any other field in the image that is represented by a **Field** object in the Document Hierarchy – and that you would like to zone. (In the illustration on the next page, the seven fields of the new application's **1040EZ Page** object have been zoned.)

- ✓ If you are setting up multiple fingerprints, you can zone the fields in the image of each fingerprint.

Running the Application Wizard

C:\Datacap\support\NewApp\temp\1040ez01.tif

Department of the Treasury - Internal Revenue Service
Income Tax Return for Single and Joint Filers With No Dependents, 2000

Use: Arlo J Warley
Date: JANU 10 2000
IRS label: 1040EZ
Name: Arlo J Warley
Address: 1127 Chestnut
City: Columbia, MD

Your social security number: 499 27 4237
Employer's social security number: 619 22 8964

1 Total wages, salaries, and tips: 31 487 00
2 Taxable interest: 103 21
3 Unemployment compensation, qualified state tuition program earnings, and Alaska Permanent Fund dividends (see page 14): 0 00
4 Add lines 1, 2, and 3. This is your adjusted gross income: 31 590 21
5 Can your parents or someone else claim you as their dependent? Yes (four copies) No (transfer over 1,000.00 from worksheet) If married, enter 12,000.00 on each: 12 950 00
6 Subtract line 5 from line 4. If line 5 is larger than line 4, enter 0. This is your taxable income: 18 640 21
7 Enter your Federal income tax withheld from box 3 of your W-2 (see page 1): 2 279 14
8 Federal income tax (see page 15): 2 279 14
9 Add lines 7 and 8. These are your total payments: 2 279 14
10 Tax. Use the amount on line 8 above to find your tax in the tax table on page 24-25 of the booklet. Then, enter the tax from the table on this line: 1 774 00
11a If line 9 is larger than line 10, subtract line 10 from line 9. This is your refund: 505 14

Zoned fields

Fingerprint Image with Zoned Fields

Finishing Up

After you zone fingerprint fields and click on the Next button at the bottom of the *Field Zones* screen, the *Selection Completed* screen will announce that the Taskmaster Application Wizard has the information it needs to produce the new application:

Taskmaster Application Wizard

Selection Completed 3.3.10

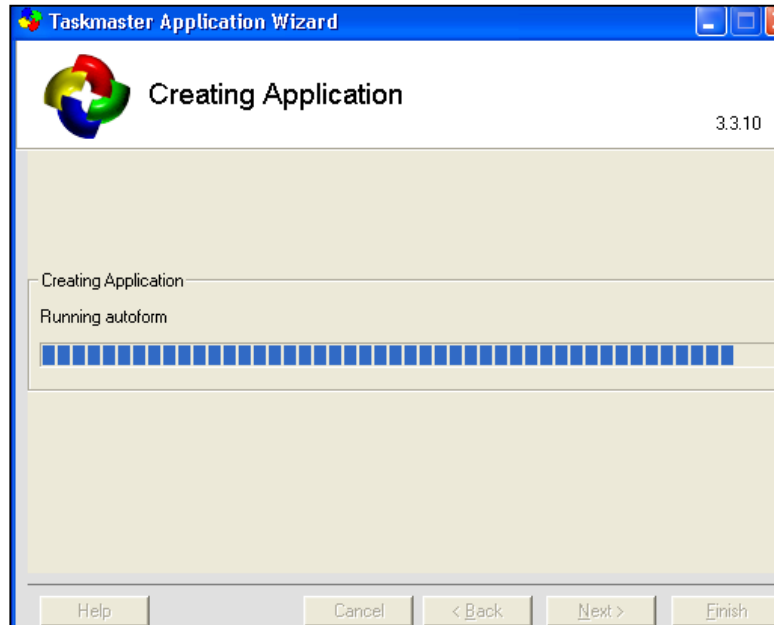
The Wizard is now finished collecting the information needed to create the new application. Please click 'Finish' to continue.

To review your selections or to make changes, click 'Back'.

Taskmaster Application Wizard – Selection Completed screen

Click on the screen's Next button to move to final stage – and to the closing screens.

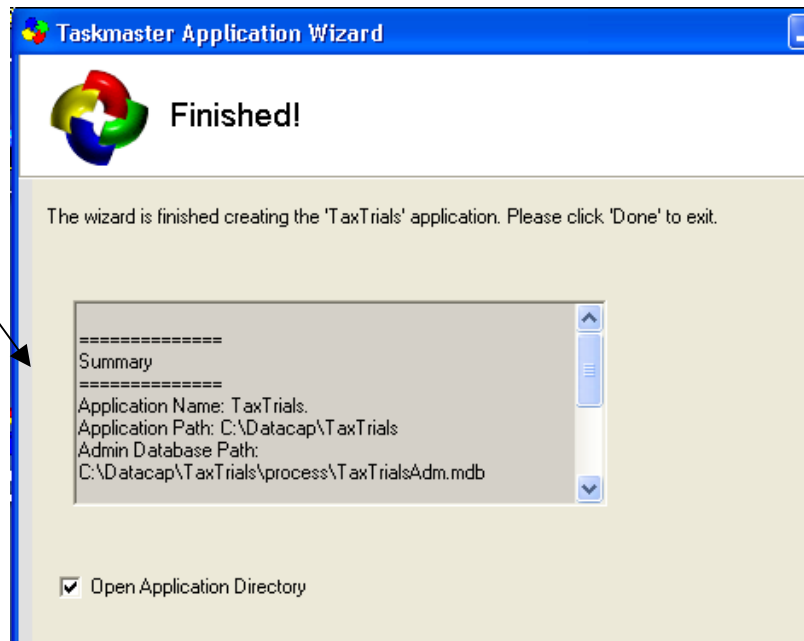
The *Creating Application* screen displays the wizard's progress as it assembles the new application:



Taskmaster Application Wizard – *Creating Application* screen

The **Summary** portion of the *Finished* screen (below) lists the new application's databases and identifies the Datacap form (.dcf) that will serve as the *Data Entry* panel (Page 36). If you select the **Open Application Directory** option, the wizard will immediately display the folder, files and shortcut icons of the new application.

Summary



Taskmaster Application Wizard –*Finished* screen

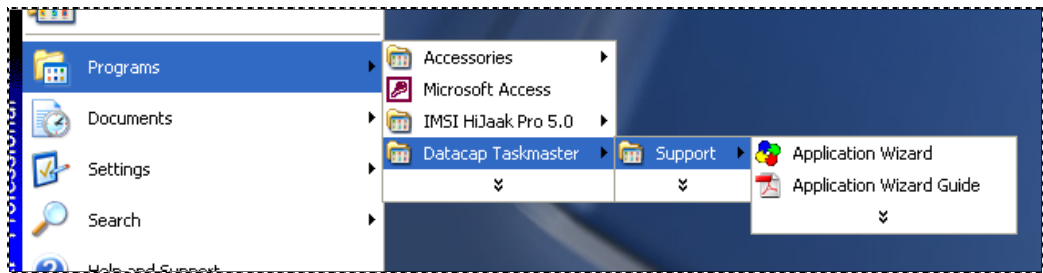
Building a New Application: Step-by-Step

The following pages summarize the wizard's New Application procedures, in a step-by-step format.

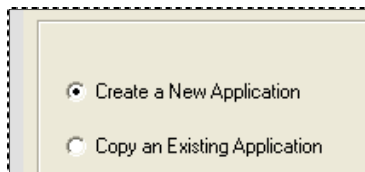
- ✓ As soon as you are familiar and comfortable the Taskmaster Wizard's screens and procedures, you can put together sample new applications by following the steps below repeatedly.

To assemble an application:

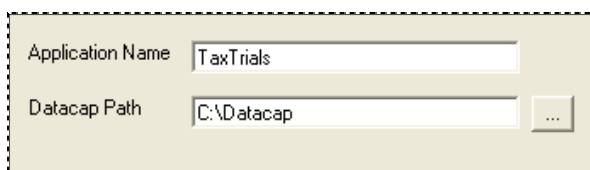
Step	Action
1.	Carry out the essential preliminary steps outlined on Page 7.
2.	Select Datacap Taskmaster from your Windows Start button's Programs options.
3.	Open the Support folder.
4.	Double-click on the Application Wizard .



5. Read through the text of the wizard's *Introduction* screen and click on the Next button.
6. In the *Mode* screen, select the **Create a New Application** option and press the Next button at the bottom of the screen.



7. Enter the new application's name in the **Application Name** field of the *Application Name and Path* screen. (See Page 9 for a full explanation of this screen.)

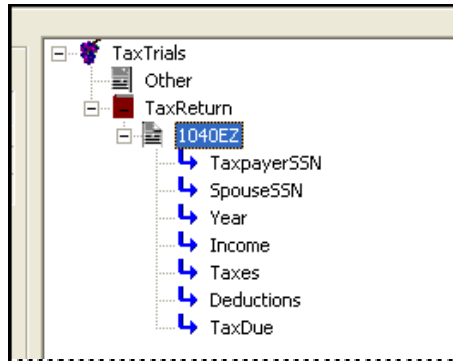


To Assemble a New Application: Step-by-Step (continued)

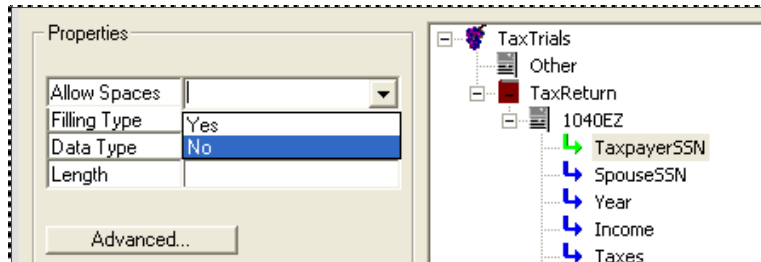
Step	Action
8.	Confirm or modify the path to your Datacap directory.
9.	If applicable, select the Create Shortcuts on Desktop and Create Shortcuts in Application folder options.



- Press the Next button to access the *Document Hierarchy* screen. (Page 10 explains the role of this screen, and reviews procedures for defining the new application's Document Hierarchy.)
- Check to be sure that the prototype of the new application's Document Hierarchy on the screen's right side has a **Batch** object with an ID that is the same as the name you assigned in Step #7.
- Expand the Document Hierarchy by adding objects at three levels: **Document, Page and Field**. (Do *not* remove or change the name of the *Other* page.)

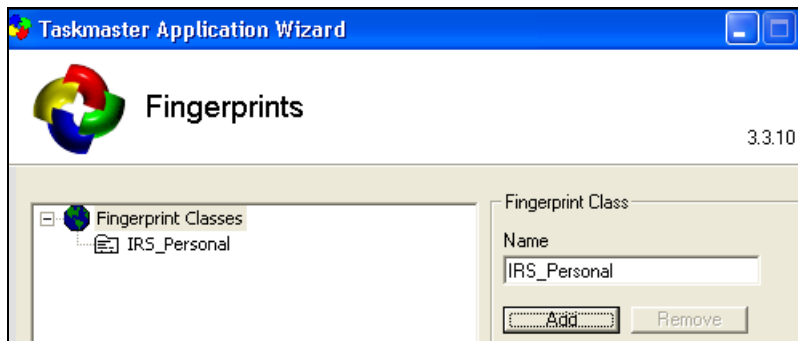


- If appropriate, use the **Properties** settings on the left to assign values to properties of specific **Field** objects, or to the **Filling Type** property of the **Page** object representing the new application's *source* page (*1040EZ*, in the example.)

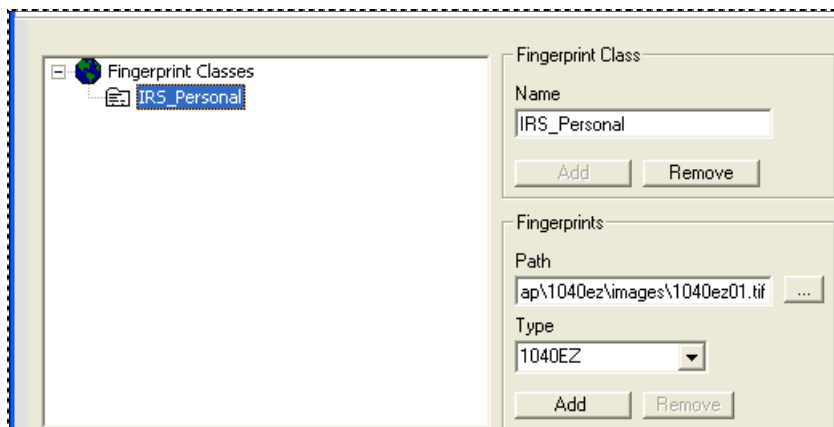


To Assemble a New Application: Step-by-Step (continued)

- | Step | Action |
|------|--|
| 14. | If appropriate, apply special settings in the <i>Advanced Recognition Parameters</i> dialog to specific Field objects of the Document Hierarchy (Page 20). To access this dialog, highlight the applicable Field object in the hierarchy on the right, and press the Advanced button in the Properties area. |
| 15. | After you have put together the new application's Document Hierarchy, press the Next button to open the <i>Fingerprints</i> screen. (For more about this screen, see Page 13). |
| 16. | Because a fingerprint must belong to a Fingerprint Class, first enter the Name of the Fingerprint Class in the Fingerprint Class area. |
| 17. | Be sure to press the Add button to insert this name in the Fingerprint Classes hierarchy on the left. |



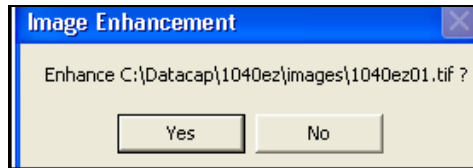
18. To create a fingerprint and assign its image to the new class, use the Ellipsis button (...) in the **Fingerprints** area to locate and select the image.



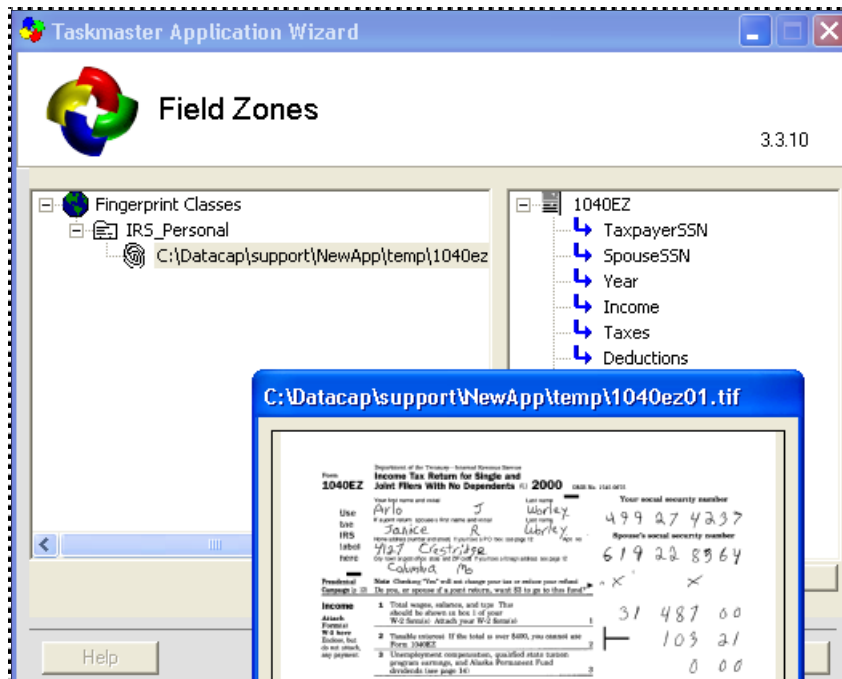
19. Confirm that the value of the **Type** field is the name of the **Page** object of the Document Hierarchy that represents the *source* page.

To Assemble a New Application: Step-by-Step (continued)

- | Step | Action |
|------|--|
| 20. | On the left, highlight the new fingerprint's Fingerprint Class . |
| 21. | Click on the Add button in the Fingerprints area to assign the new fingerprint to the highlighted Fingerprint Class. |
| 22. | If you want to enhance the fingerprint's image, click on the Image Enhancement? Message Pad's Yes button; if not, press the No button. (Page 16 summarizes Image Enhancement procedures.) |

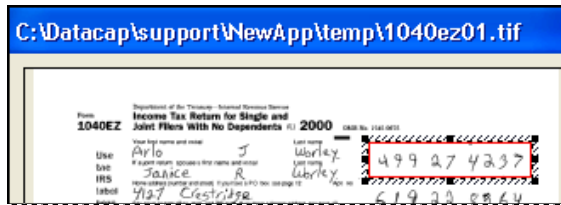


23. Press the *Fingerprints* screen's Next button to open the *Sample Images* screen.
24. Click on the Add button and use tools of the *Open* dialog to locate and select at least four images of the new application's *source* page.
25. Press the Next button to open the *Field Zones* screen. If you intend to zone certain fields of a fingerprint (Page 20), take the steps below. If not, go to Step 32.
26. Highlight a fingerprint that you defined in Steps 16-22.



To Assemble a New Application: Step-by-Step (continued)

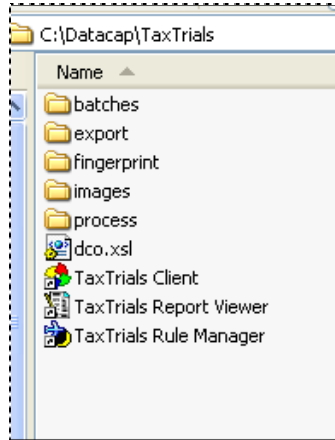
- | Step | Action |
|------|--|
| 27. | Click on the View button to display the fingerprint's image. |
| 28. | Highlight a Field object of the Document Hierarchy that represents a field you are zoning in the image. |
| 29. | Use your cursor to surround the field's value in the image. |



30. Repeat Steps 28-29 for other fields you are zoning in the fingerprint's image.
 31. Repeat Steps 26-29 to zone fields in the images of other fingerprints.
 32. Click on the Next button at the bottom of the *Field Zones* screen.
 33. Click on the Finish button at the bottom of the *Selection Completed* screen.
 34. Scroll through items in the **Summary** section of the *Finished* screen – and select the **Open Application Directory** option.
 35. Click on the Done button, and take a moment to consider the contents of your new application's directory (illustrated on the next page.)
- ✓ **Very important!** You can run the Application Wizard in its **New Application** mode repeatedly without penalty. Feel free to borrow images from the *1040EZ* application's **images** directory to get started.

Reviewing the New Application

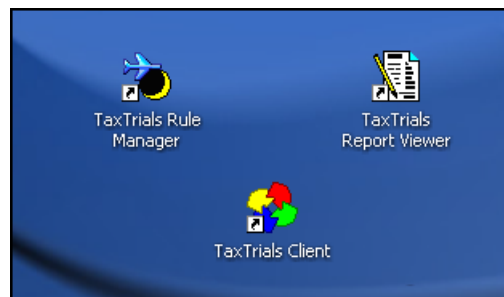
As its concluding gesture, the Application Wizard displays the contents of the application's folder as a member of the **Datacap** directory.



Datacap directory – New Application folder

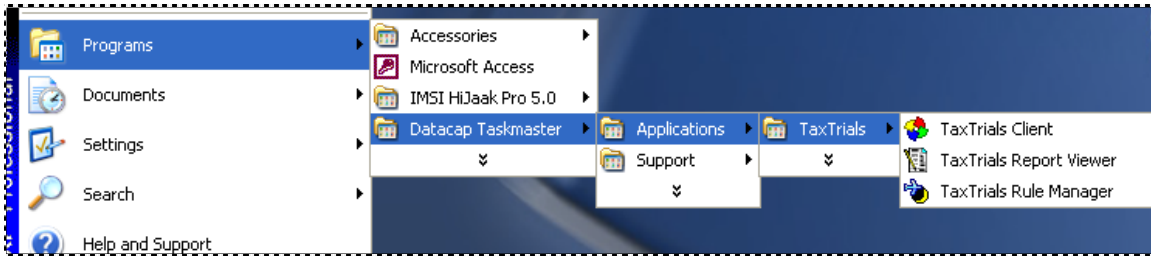
The application's folder – **TaxTrials**, in this case – has these sub-folders and icons:

- The **batches** and **export** sub-folders are processing containers that will contain the application's batches and Export files but are empty (for now!)
 - The **fingerprint** and **images** sub-folders hold files immediately related to the Image files you assigned in the *Fingerprints* and *Images* screen (Page 13 and 9, respectively.)
 - **TaxTrials Client**, **TaxTrials Report Viewer** and **TaxTrials Rule Manager** are shortcut icons that link authorized users to these components of the new application.
 - **dco.xls** is a style sheet that governs the layout and appearance of certain processing files.
- ✓ You'll also find shortcut icons on the computer's desktop *if* you selected the **Create Shortcuts on Desktop** option in the *Application Name and Path* screen (Page 9).



Reviewing the New Application

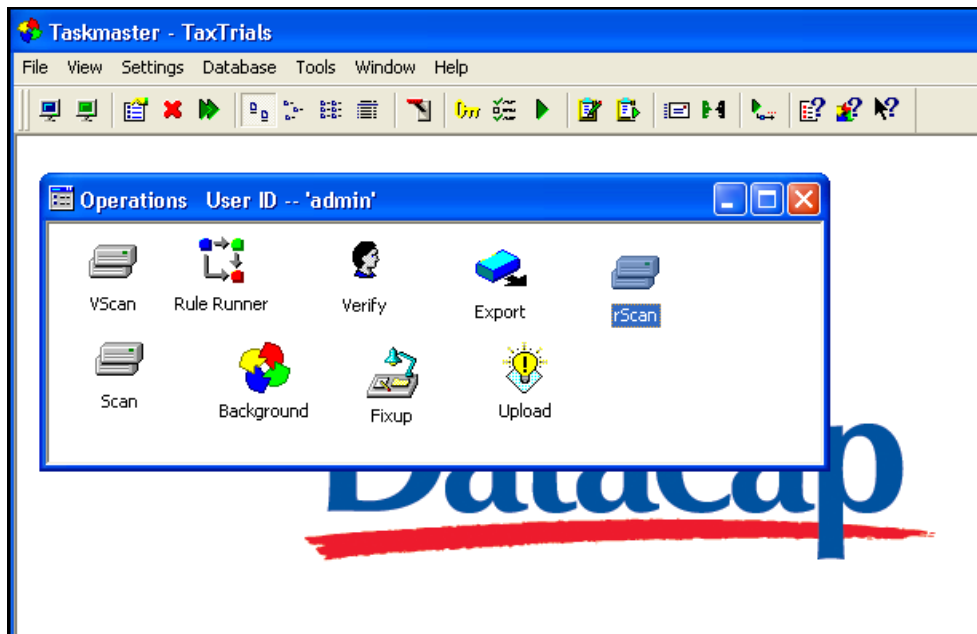
The wizard places another set of shortcuts in the Windows Start button's list of **Programs** options:



You can use these shortcuts to conduct a brief tour of your new application.

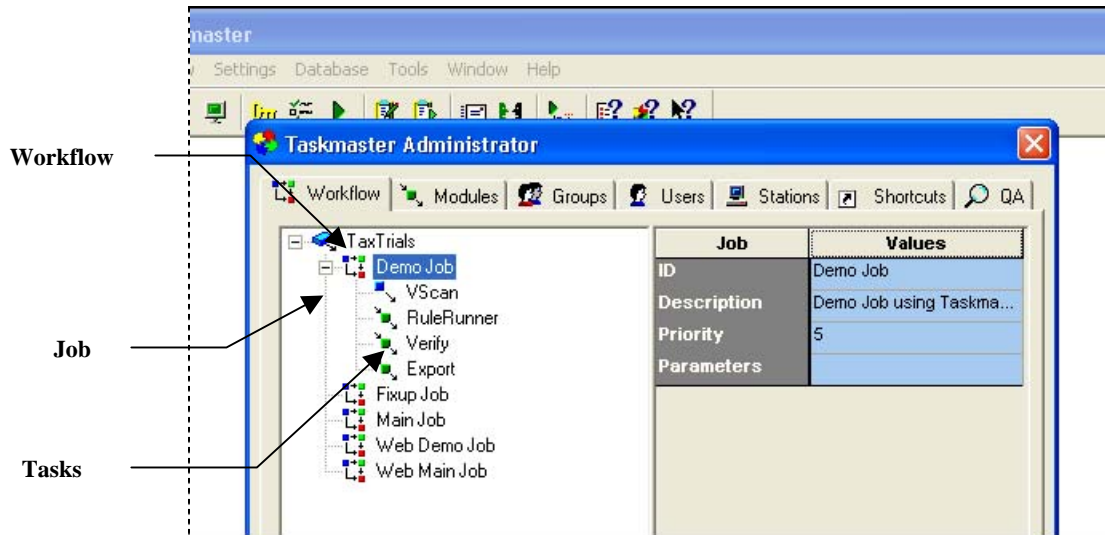
Taskmaster Client

After you have confirmed that your **Datacap Taskmaster** configuration's *Taskmaster Server Service* is up and running, double click on the new application's **Taskmaster Client** icon to open the application's *Taskmaster Client Window* and its secondary *Operations* window:



Taskmaster Window - with Operations window

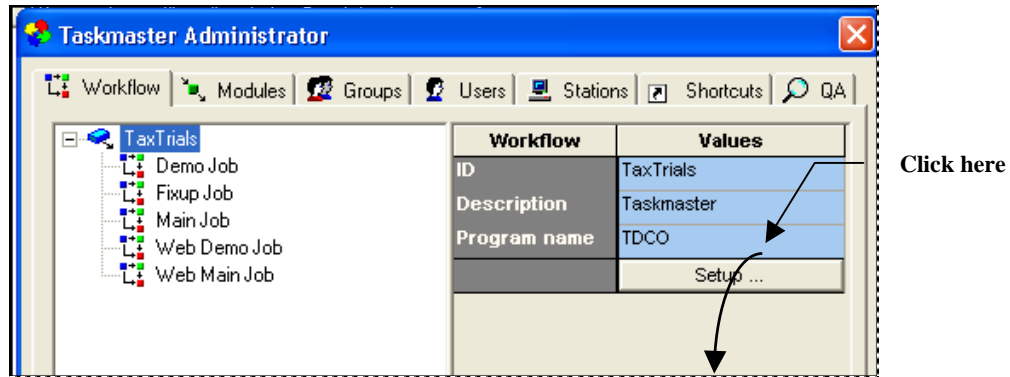
Select **Workflow** from the **Settings** menu to review the jobs and tasks that make up the application's workflow:



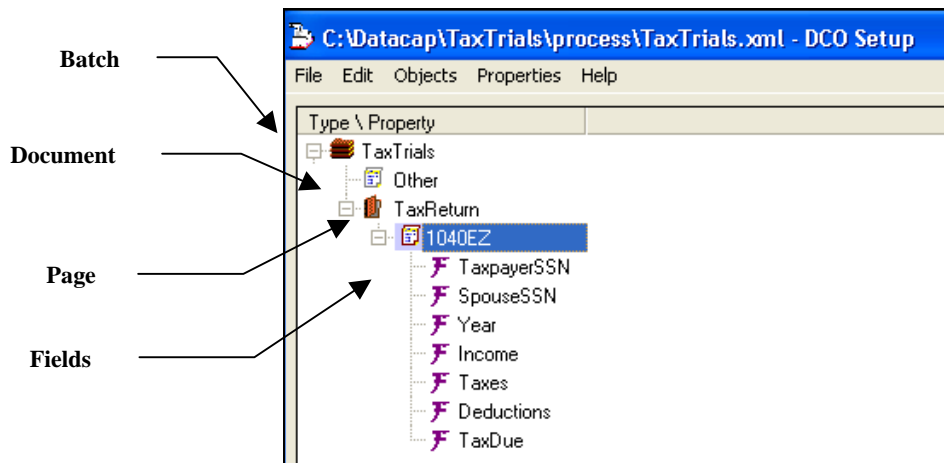
Taskmaster Administrator – Workflow tab

Document Hierarchy Setup Window

If you highlight the application's Workflow ID (*TaxTrials*, in the example) and press the *Workflow* tab's Setup button, the application's **Document Hierarchy Setup** window will appear on your screen. Later, you will use this window to expand the Document Hierarchy, and add properties to its objects.



Taskmaster Administrator – Workflow tab



Document Hierarchy Setup Window

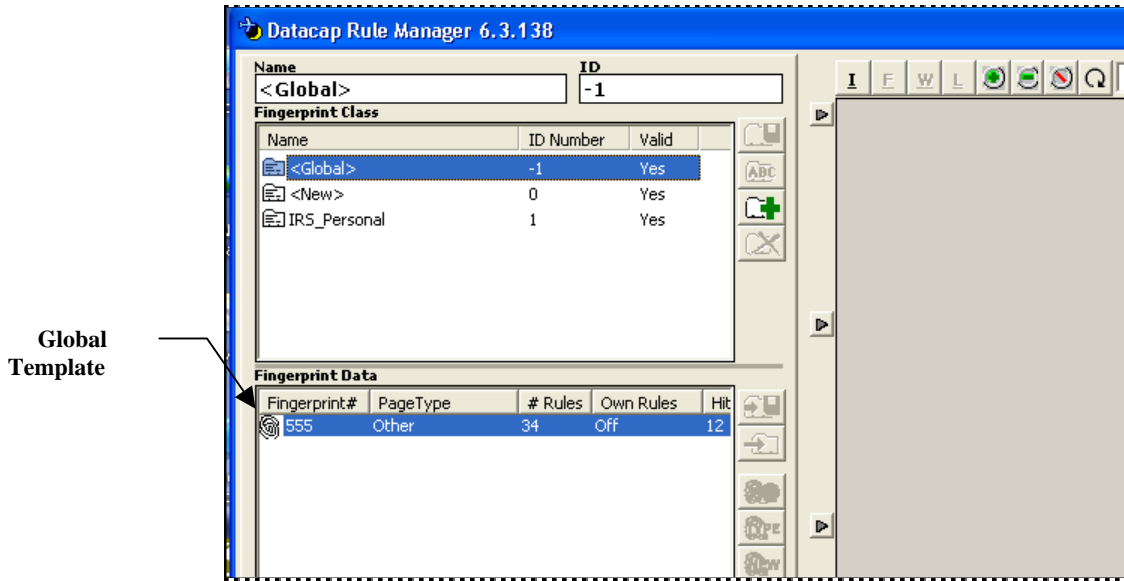
- ✓ The structure and contents of the Document Hierarchy in this window duplicates the Document Hierarchy that you set up in the Application Wizard's *Document Hierarchy* screen (Page 10).

Rule Manager

The new application's *Rule Manager* constructs the rules that determine how *RuleRunner* tasks recognize pages and data; validate and export data; and organize batches into a series of documents.

The Application Wizard sets up the application's *Rule Manager*, inserts the fingerprint(s) you designated in the wizard's *Fingerprints* screen into the *Fingerprints & Zones* panel of the *Rule Manager Window*, and includes a working set of rules in the *Rules* panel.

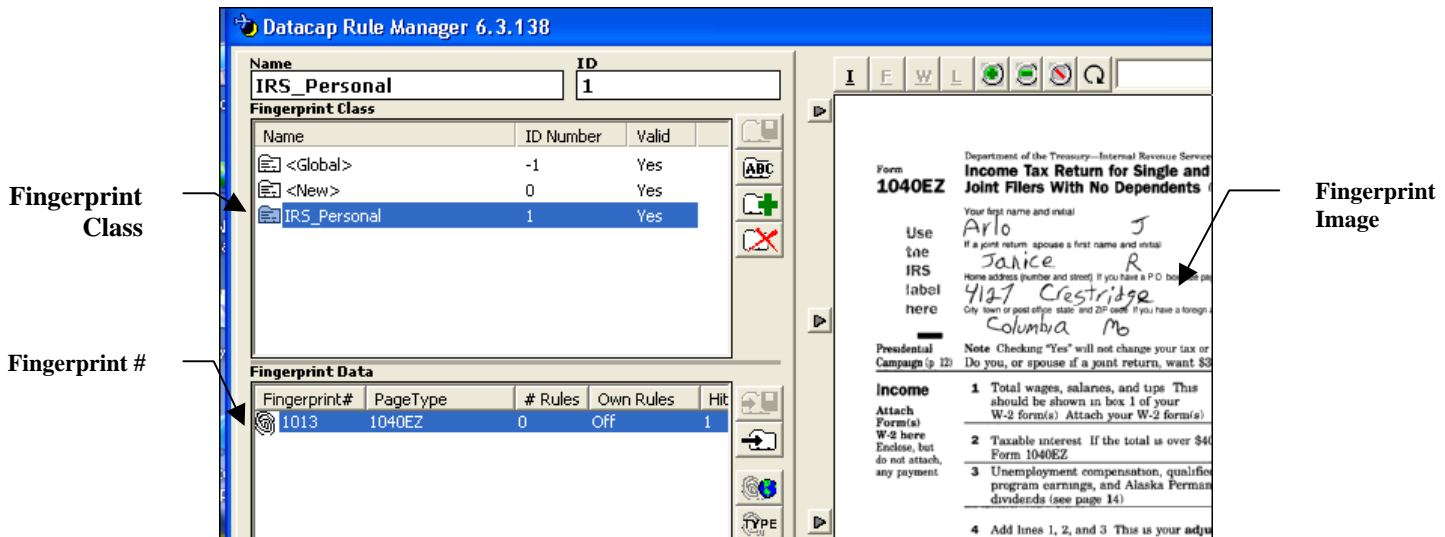
- ✓ To access the new application’s *Rule Manager* and its *Rule Manager Window*, double-click on the **Rule Manager** icon that belongs to the new application. The window’s *Fingerprints & Zones* panel will appear on your screen.



TaxTrials Rule Manager Window – Fingerprints & Zones Panel

By default, the **Fingerprint Class** area highlights a **Global Template** that is used to define *global* rules that apply to every fingerprint – in this case, to *TaxTrials* templates of all sorts.

- ✓ The **Fingerprint Class** area also lists the fingerprint(s) you designated in the wizard’s *Fingerprints* screen (Page 13). If you highlight the Fingerprint Class ID in the **Fingerprint Class** area and select the **Fingerprint #** in the **Fingerprint Data** area, the fingerprint’s image will appear in the **Image** area on the right:



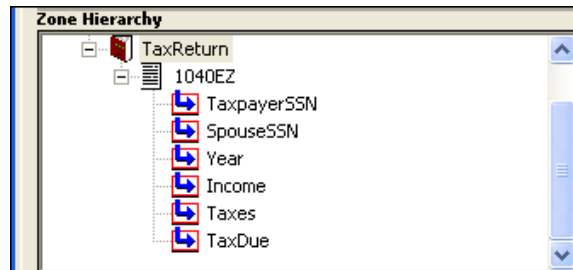
TaxTrials Rule Manager Window – Fingerprints & Zones Panel

Reviewing the New Application

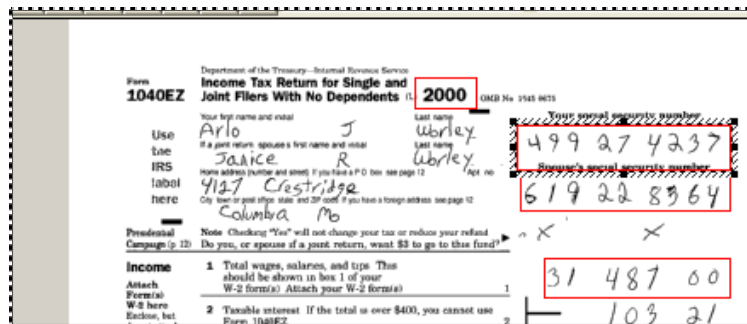
Zoned Fields

To be sure that a fingerprint contains zones for the fields you selected (Page 20):

- ◆ Highlight the Fingerprint ID in the **Fingerprint Data** area of the *Rule Manager Window's Fingerprints & Zones* panel.
- ◆ Expand the Zone Hierarchy in the panel's lower left-hand corner.
- ◆ Confirm that a red rectangle is appended to the names of the fields you zoned:



- ◆ Select a zoned field and check the fingerprint's image to be sure that the field's value is surrounded by a thick rectangle...and that rectangles with thinner lines surround the other zoned fields in the image.



The screenshot shows a 2000 IRS Form 1040EZ. Several fields are highlighted with red boxes: the year '2000', the taxpayer's SSN '499 27 4237', the spouse's SSN '619 22 8364', and the total income '31 487 00'. The form includes fields for name, address, and income, with handwritten entries.

The New Application’s Rules and Actions

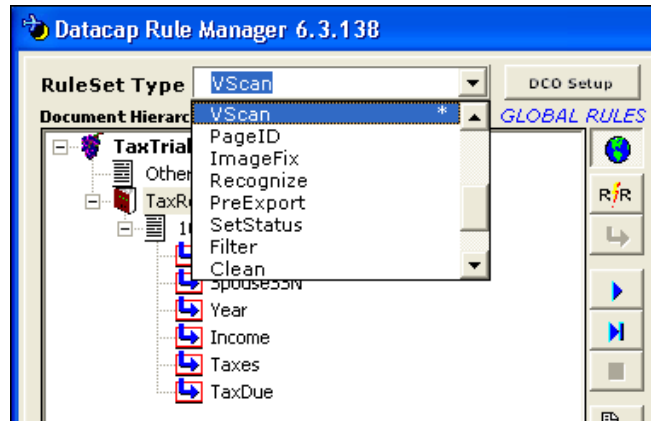
The Application Wizard provides the wizard with a *default* set of rules. The actions assigned to these rules determine the ways specific tasks process batches, document, pages, fields – and data.

You can review the definitions of these rules by accessing the *Rule Manager Window’s Rules* panel.

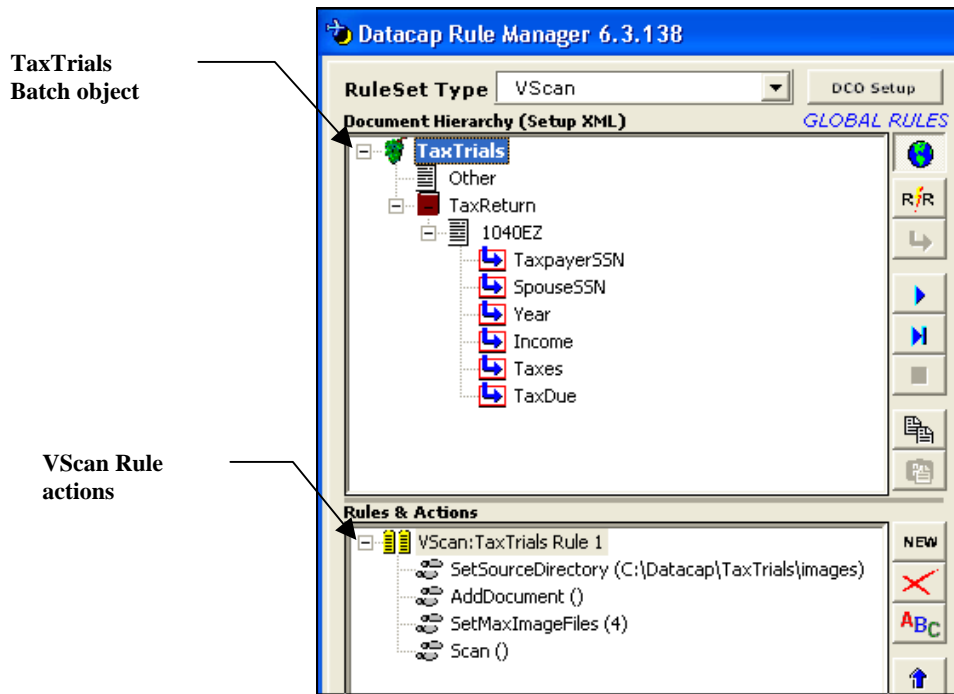
For example, actions of a **vScan** rule create a new batch; process a certain number of the images you identified in the *Sample Images* screen (Page 19); and add the resulting Images files to the batch.

To review the structure and content of the **vScan** rule (as an example):

Step	Action
1.	Open the <i>Rules</i> panel of the new application’s <i>Rule Manager Window</i> .
2.	Scroll down through the RuleSet Type drop-down list, and highlight VScan .
3.	Note that the Batch object at the top of the Document Hierarchy is in bold type.
4.	Highlight the Batch object (<i>TaxTrials</i> , in the example.)
5.	Take a look at the actions that make up the vScan rule (see the example below):



TaxTrials Rule Manager Window – Rules panel
Active RuleSet Types



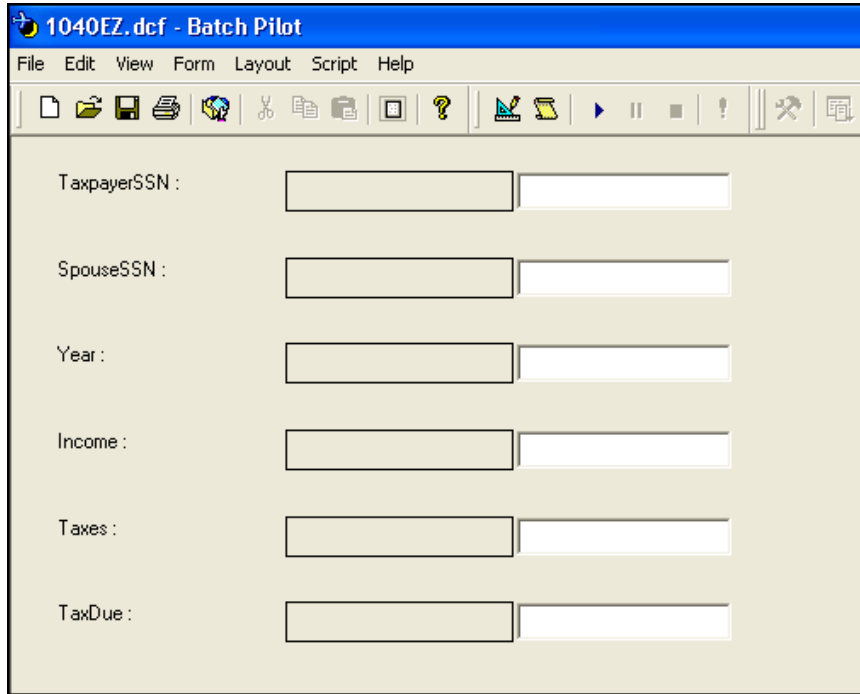
TaxTrials Rule Manager Window – Rules panel
VScan RuleSet

- ✓ **Don't forget!** Page 4 lists supporting documentation that explains all aspects of a *Taskmaster* application – including its rules and actions.

The New Application's Data Entry Panel

The Application Wizard automatically constructs a *Data Entry* panel for operators of a workflow's Verification tasks. The limited scope of the *TaxTrials* application – just six critical fields – has resulted in a *Data Entry* panel with six field pairs (illustrated on the next page):

- A **Snippet** on the left will display the image of the field's value, as it appears in the *source* page that is currently being verified.
- The **Data Edit** field on the right will display the field's *recognized* value. (See Page 43 for a look at the panel in action.)

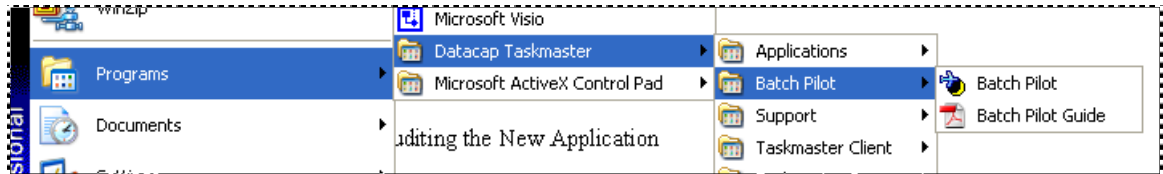


Data Entry Panel – TaxTrials Application

To investigate the contents of the *your* application’s **Data Entry** panel, take these steps:

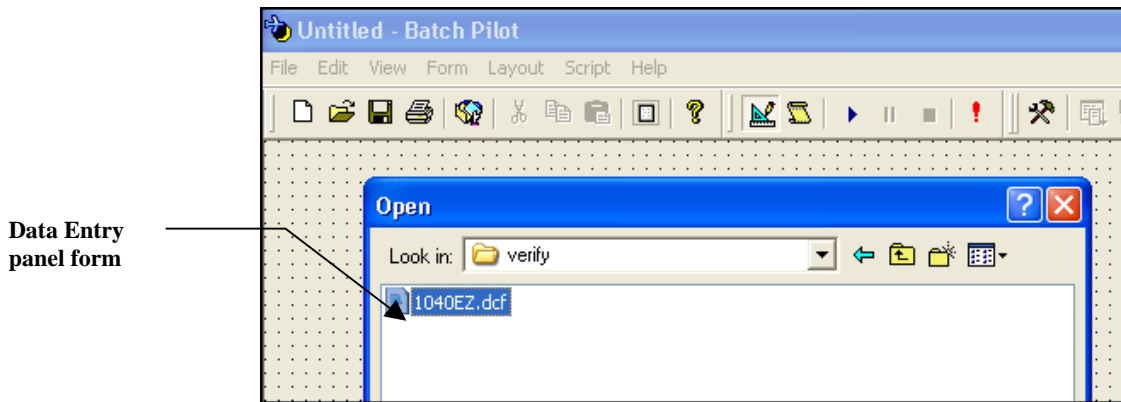
Step	Action
------	--------

1. Select **Datacap Taskmaster** from your Windows Start button’s list of **Programs**.
2. Open the **Batch Pilot** folder and double-click on the **Batch Pilot** icon.



3. When the **Batch Pilot Window** opens, select **Open Form** from the **File** menu.

Reviewing the New Application



Batch Pilot Window – Open File dialog

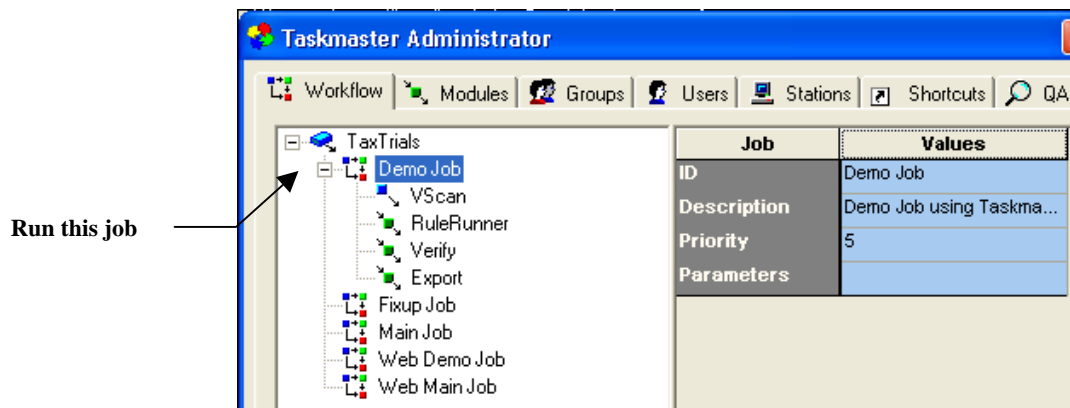
To Review the New Application's Data Entry Panel (continued)

Step	Action
4.	The Application Wizard places the Datacap form (.dcf) that is the basis for the <i>Data Entry</i> panel in the Verify folder of the application's Process directory. Use the tools of the <i>Open File</i> dialog to retrieve and open this form.
5.	Because <i>Batch Pilot</i> will display the panel in <i>Design</i> mode, you can un-toggle the Design item in the window's Form menu for a look at the panel as it will appear during a Verify task's operations (Page 43).
✓	Chapter 9 of the <i>Guide to Taskmaster Rules</i> examines the steps you take to modify the format and controls of an application's <i>Data Entry</i> panel.

Testing the New Application

This section shows you how to conduct elementary tests to be sure that the application will successfully:

- ◆ Create a new batch and add a **batch** folder to the application's **Batches** directory.
- ◆ Use the Demo job's VScan task to scan one or more of the images you designated in the wizard's *Sample Images* screen (Page 19)
- ◆ Add the resulting Image files to new batch.
- ◆ Generate a **Page file** – **vscan.xml**- that lists the contents of the new batch, and add the Page file to the new batch.
- ◆ Launch the Demo job's RuleRunner task to:
 - Recognize individual pages according to their Page Types;
 - Recognize the data in the critical fields of each *source* page in the batch;
 - Create a **Data file** (.xml) with *recognized* values for each *source* page;
 - Generate a Page file – **RuleRunner.xml**- with details of the batch after processing by the RuleRunner task, and add the file to the batch.
- ◆ Run the Demo job's Verify task, using the application's **Data Entry** panel to review and, if necessary, update recognized values in the fields of a *source* page, and in the page's Data file
- ◆ Generate a **Page file** – **verify.xml**- that lists the contents of the new batch, and add the Page file to the batch.
- ◆ Run the Demo job's Export task, ensuring that the task sets up an independent **Export file** (.txt) for the current batch; fills the file with verified and validated values from the Data files of the *source* pages; and adds the Export file to the application's **Export** directory.
- ◆ Generate a **Page file** – **export.xml**- and add it to the batch.



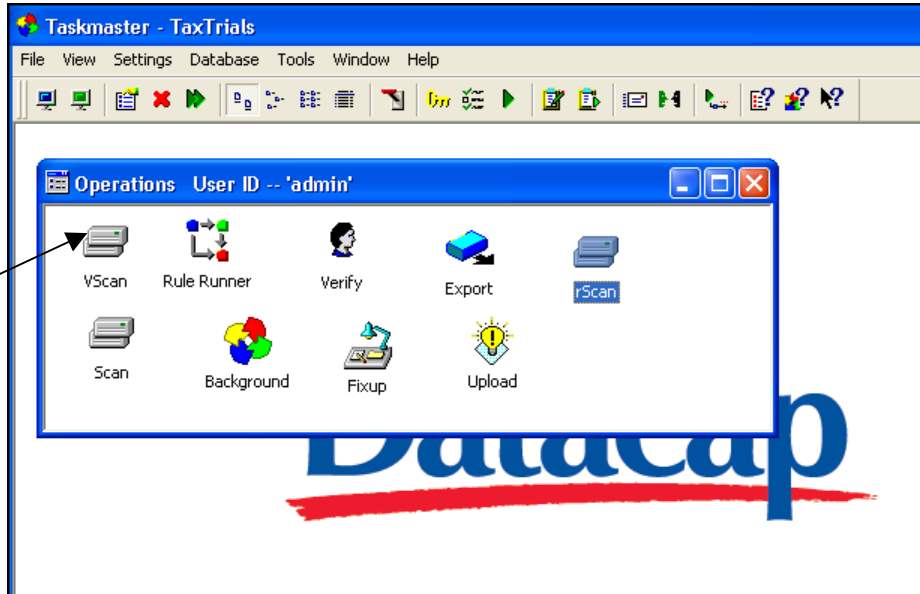
TaxTrials Taskmaster Administrator – Workflow tab
Demo Job

Testing the VScan Task

The VScan task of the Demo job is set up to process up to four images in the directory you designated in the Application Wizard's *Sample Images* screen (Page 19).

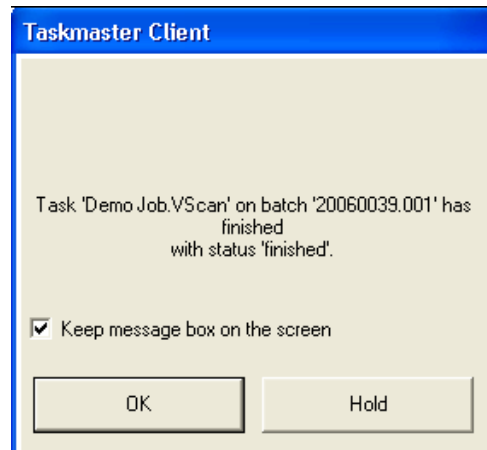
- ✓ To begin the Testing sequence, double-click on the VScan icon in the application's *Operations* window:

Double-click here.



Taskmaster Window – with secondary Operations Window

Working quickly behind the scenes, Vscan will generate a new batch, process the Images files and add them to the batch. When the task is complete, the *Message Box* illustrated on the next page will identify the new batch, and let you know that the task is *Finished*.

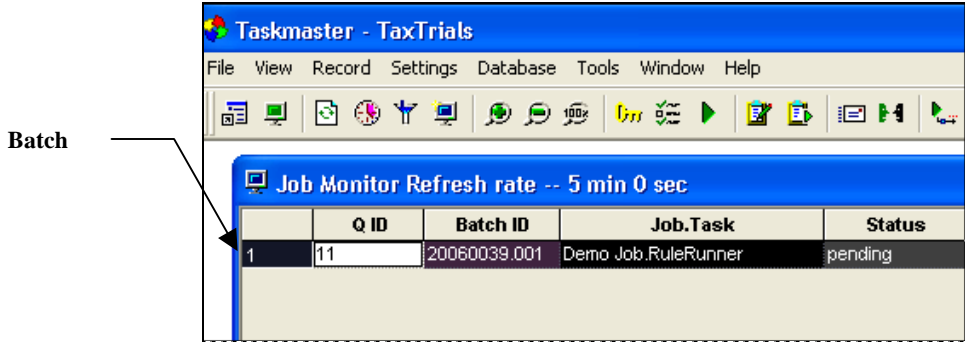


Taskmaster Message Box – Batch Finished

After you press the Ok button, the *Message Box* will re-appear to ask if you intend to run the vScan task again. Press the No button.

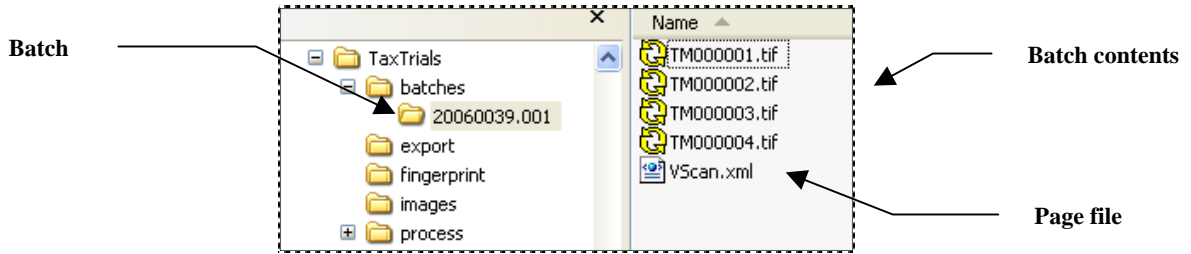
- ✓ There are two ways to check on the new batch and its contents:

If you click on the *Taskmaster Window's Job Monitor* icon, the application's *Job Monitor* will list only one batch:



TaxTrials Job Monitor

In your File Server's *Windows Explorer*, the new application's **Batches** folder should contain one sub-folder for the new batch, and the folder should have four Image files and a Page file.



RuleRunner Operations

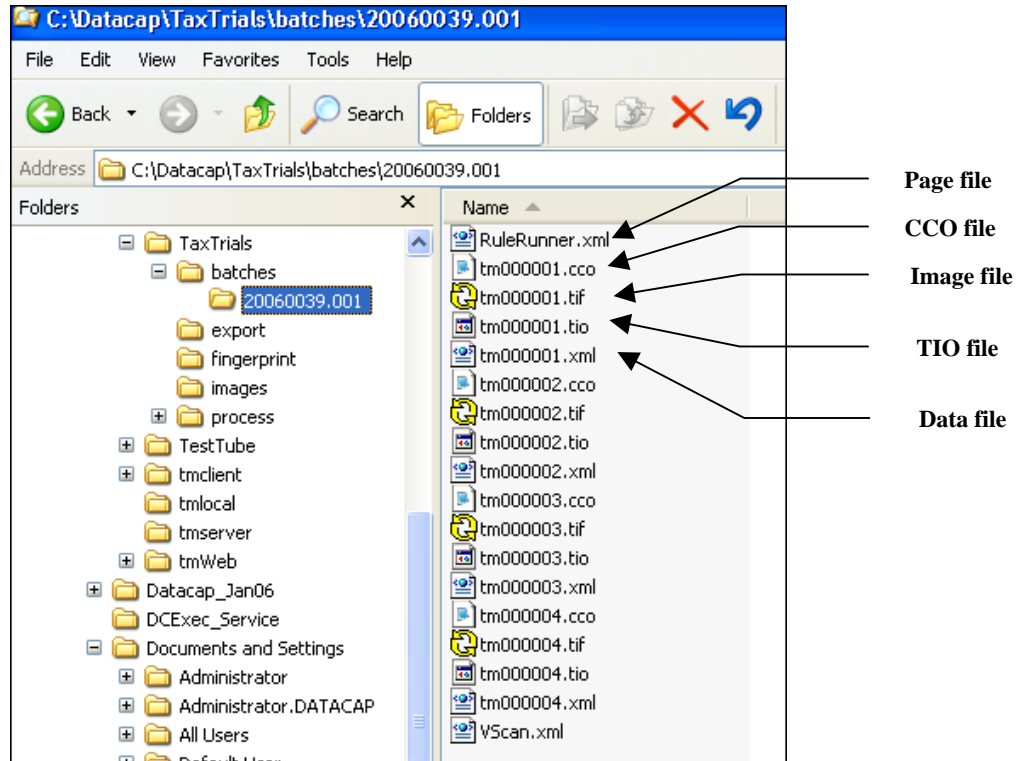
The Demo job's RuleRunner task is second in line and responds to a number of rules as it recognizes pages and data, creates a Data file for each *source* page, and re-organizes the batch into a series of documents and pages.

To run the task, you can double-click on the **RuleRunner** icon in the *Operations* window or on the batch listing in the *Job Monitor's* Batch Information table (illustrated on the previous page.)

This task operates steadily, behind the scenes, and alerts you when it has finished.

The contents of the batch after RuleRunner has processed it resemble the illustration on the next page.

Testing the New Application



Batch 20050151.001

Here, there are four distinct files associated with each page:

- An Image file is the first in a group of files associated with a particular page.
- A Data file contains the page's recognized values.
- The .cco file is a representation of the page.
- The .tio file is copy of the Image file before image enhancement occurs.

At this point, the batch has two Page files: **VScan.xml** and **RuleRunner.xml**.

Verification

When you double-click on the **Verify** Job-task shortcut icon in the *Operations* window, the Verify task may alert you that previous RuleRunner task processed the pages and their data without difficulty...and that Verification is not necessary.

If recognized values in one or more fields are incomplete, unclear, or invalid –the *Data Entry* panel will appear on your screen:

TaxTrials Data Entry Panel – Left side (fields)

TaxTrials Data Entry Panel – Right side (Image)

Testing the New Application

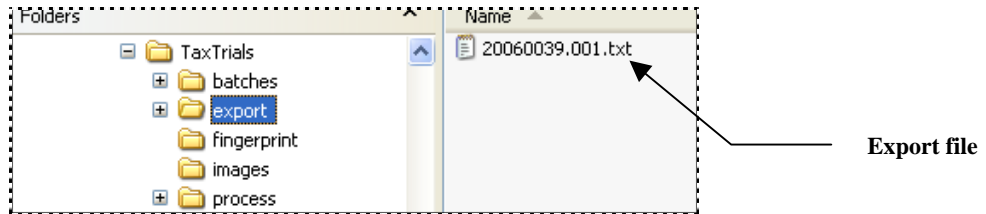
When you have finished working with the panel and its fields, the Verify task will add its own Page file to the batch (**verify.xml**) and, where appropriate, update the Data file of a *source* page.

Exporting

The Export task creates an Export file for the batch, fills it with verified data from the Data files of the source pages, and adds the file to the application's Export directory.

- ✓ To launch the task, double-click on its icon in the *Operations* window.

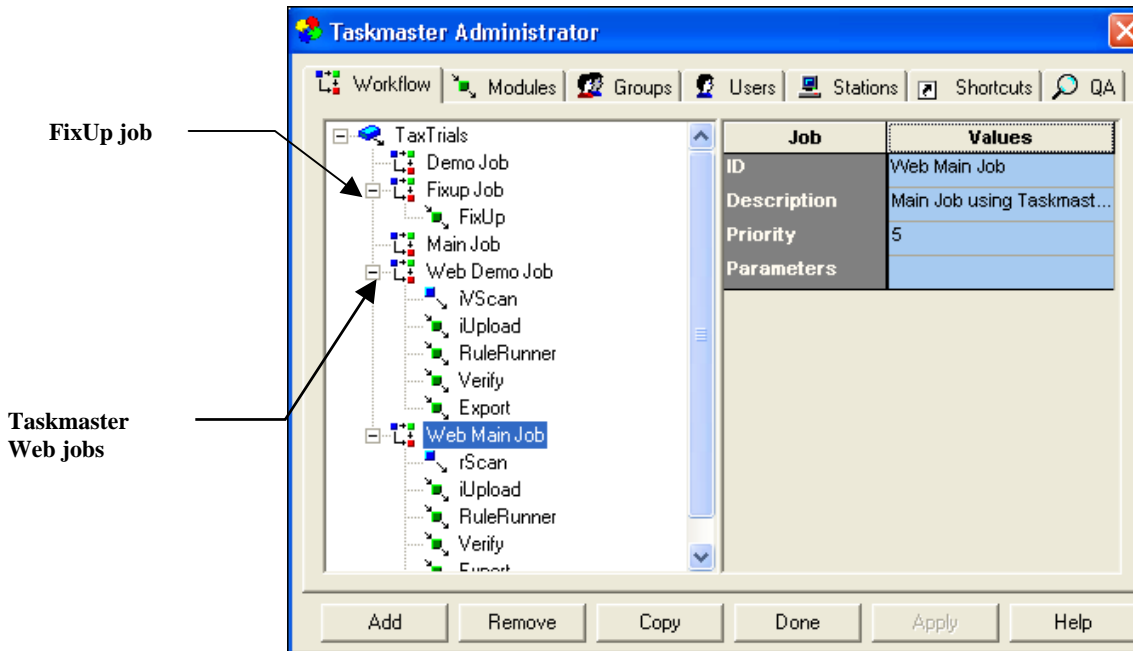
At the task's conclusion, the application's **Export** folder will have a Text file for the batch:



Additional Workflow Considerations

The Application Wizard also sets up a FixUp job, and two *Taskmaster Web* jobs:

- The FixUp task of the FixUp job will take care of “problem” batches – batches with documents that contain the wrong number or type of pages; batches with images that cannot be processed; or pages with data that is hard to recognize. However, this job and its task will be available to your application only *after* you have configured it, according to the guidelines in Chapter 10 of the *Guide to Taskmaster Rules*.
- *Taskmaster Web* jobs and their tasks allow an application to carry out scanning and data entry procedures remotely, over the Internet. These jobs must also be configured separately: Chapter 2 of the *Guide to Taskmaster Web* explains how you link *Taskmaster Web* capabilities to your new application.



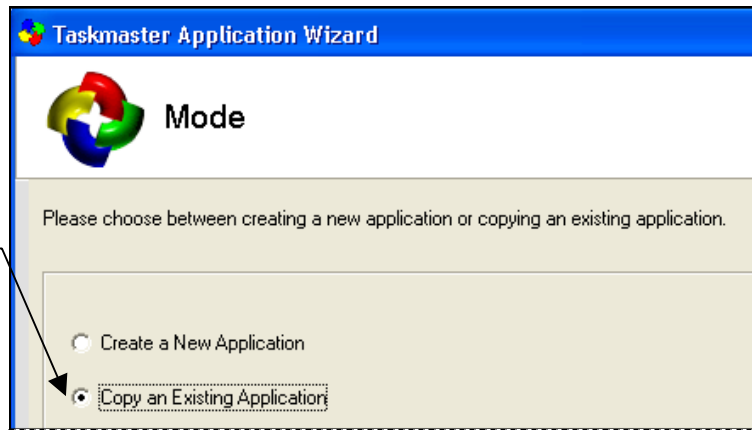
Taskmaster Administrator

Application Wizard: How to Copy an Existing Application

In addition to constructing an entirely new *Taskmaster* application, you can use the Application Wizard to:

- Copy an existing *Taskmaster* application;
- Place the application in any location you designate;
- “Point” the application to an existing **Datacap** directory on a File Server you select;
- Give the application a new name;
- Update paths in settings and parameters throughout application.

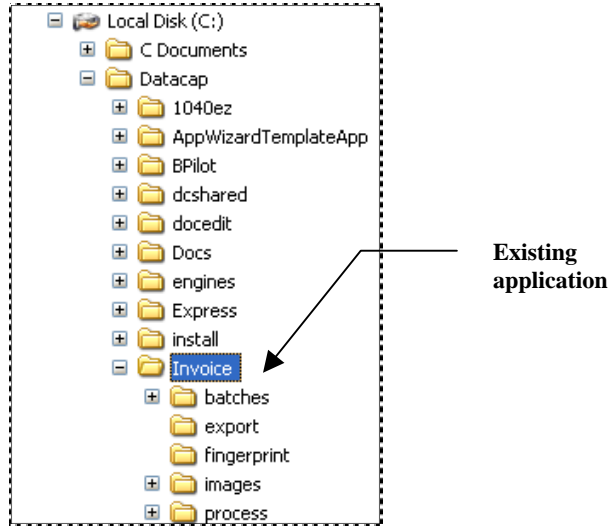
Reproduce an application!



The following pages describe this approach as they show you how the Application Wizard would copy the standard *Taskmaster for Invoices* application...

- to a **Datacap** directory you designate
 - on the computer and drive you specify
 - with a name that you assign.
- ✓ You will end up with two completely independent applications: the original, source application –*Invoices* in the illustration on the next page – and a copy of the source application (*New_Invoices*, for example).
- ☛ **Very important!** This mode is ideal for transferring an application between environments...from a Development to a Test environment, for example, or from a Test Environment to a Production environment.

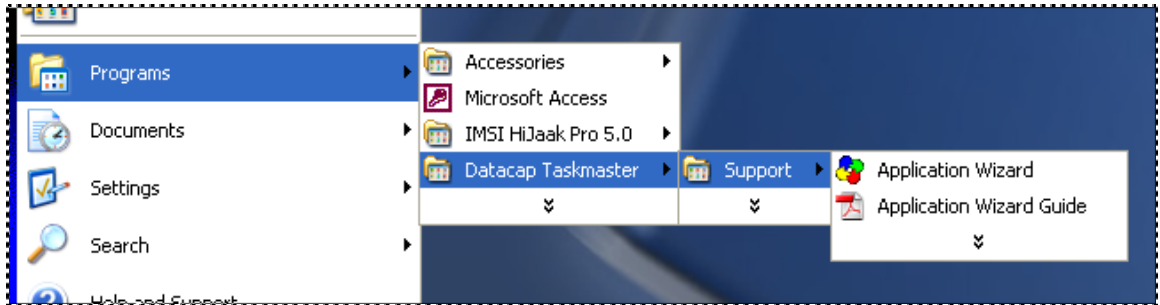
Alert! You cannot copy an application that employs multiple Document Hierarchies. The pre-configured *Taskmaster for Medical Claims* application is an example.



This section first shows you how to use the wizard to add a reproduced application to the **Datacap** directory which contains the source application. Page 56 explains how you place a new application in a different **Datacap** directory, or on another drive.

Running the Application Wizard

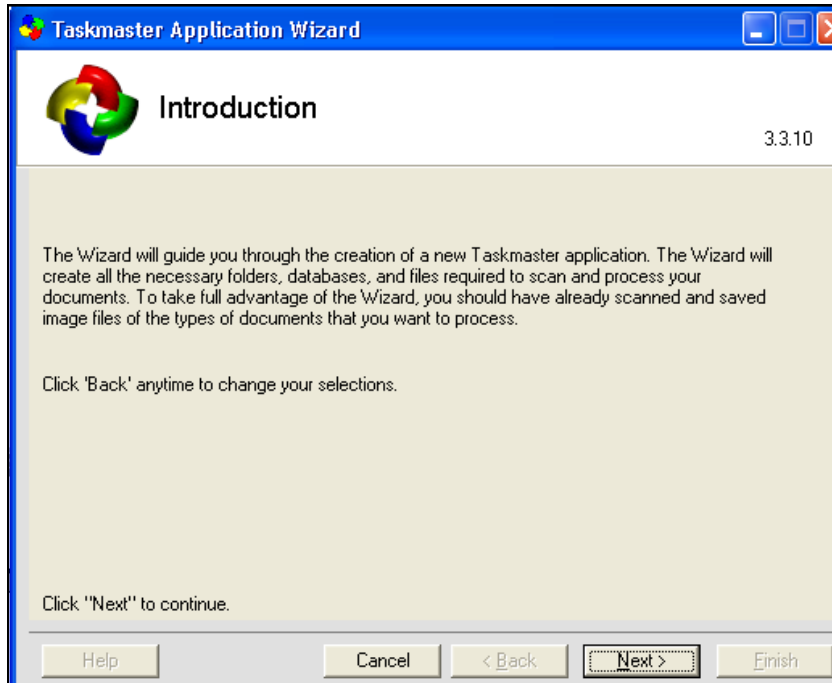
To access the Application Wizard, select **Datacap Taskmaster** from the **Programs** options of your Windows Start button. Open the **Support** folder and select **Application Wizard**.



Introduction

The wizard's *Introduction* screen will appear without delay. Be sure to read through the brief comments at the top.

- ✓ Although the text encourages you to be sure you have scanned and saved Image files, this warning probably *does not apply* because the wizard is reproducing the standard *Invoices* application in this example - an application that already has a complete set of these files.

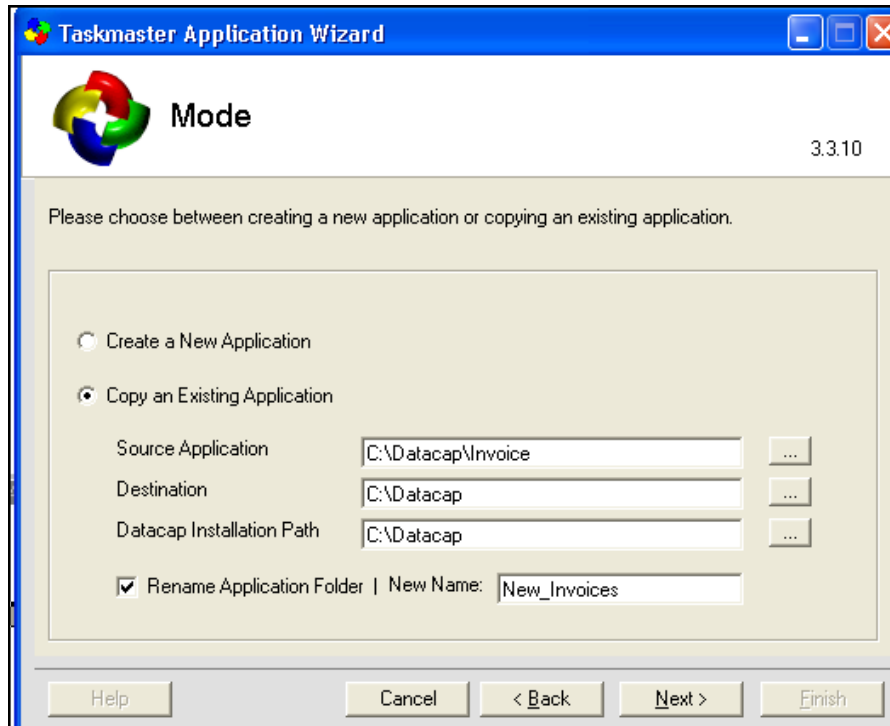


Taskmaster Application Wizard – Introduction screen

Press the Next button to go to the *Mode* screen.

Mode Selection and Application Criteria

When you are replicating an existing application, the Taskmaster Application Wizard's *Mode* screen is the only screen that requires your participation.



Taskmaster Application Wizard – Mode screen

- ✓ **Very important!** In this example, the *New_Invoices* application produced by the Application Wizard will be a nearly identical copy of the existing *Invoice* application.

Select the *Mode* screen's **Copy an Existing Application** option and assign values to the settings in this area. These include:

- **Source Application:** the name and path of the current application's folder, within a parent **Datacap** directory. The wizard will duplicate the application that is in this location. In the illustration above, the source application is in the **Datacap** directory, on the local computer's C drive.
- **Destination:** the name and path of the **Datacap** directory that will contain the new application. **Alert!** This setting's value does not include the new application's name.
- **Datacap Installation Path:** the name and path of a **Datacap** directory with five files that are essential to any application: **tmclient.exe** runs *Taskmaster*; **BPilot.exe** and **RuleMan.dcf** take care of an application's **Rule Manager Window**; and **rptview.exe** is responsible for the application's **Report Viewer** procedures. Typically, this setting specifies the same **Datacap** directory you

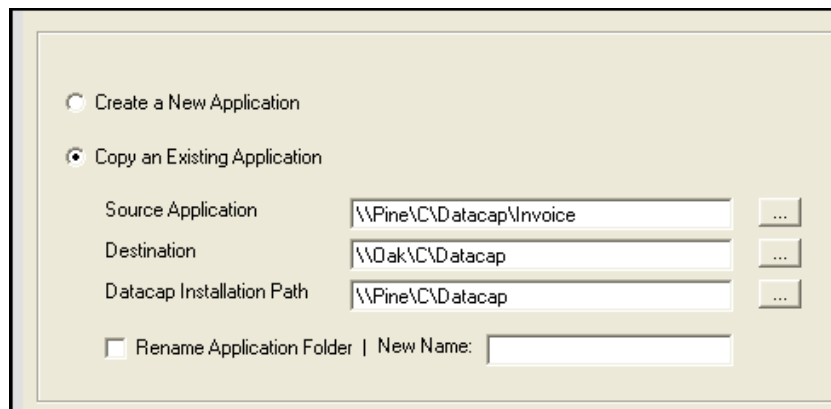
Running the Application Wizard

entered in the fields above. For exceptions, see the illustration below, and Page 56.

- **Rename Application Folder:** an option you must select if you intend to give the new application its own name. If the source application and the new application will be located in the same **Datacap** directory, you must provide the new application with its own name.

Under certain circumstances - if you are copying the source application from a local drive to a network drive, for example - you may benefit from retaining the source application's name. In the illustration below, the Application Wizard will:

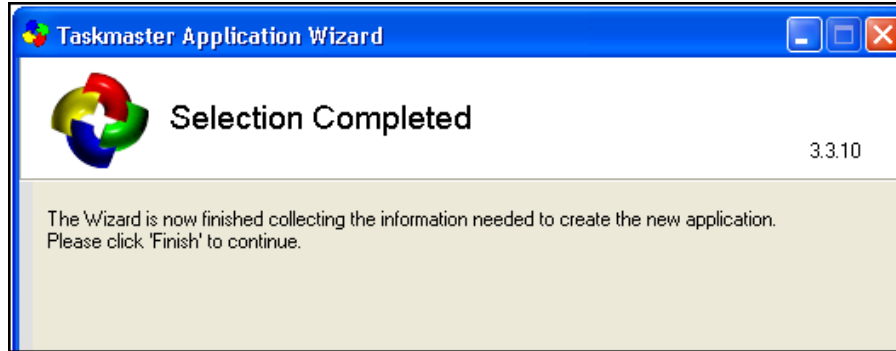
- Replicate the application that resides on the *Pine* computer.
- Place the application on a second computer (*Oak*), **without** a change in its name.
- "Point" the application on *Oak* back to the **Datacap** configuration's File Server on *Pine*.



Taskmaster Application Wizard – Mode screen
Network Paths

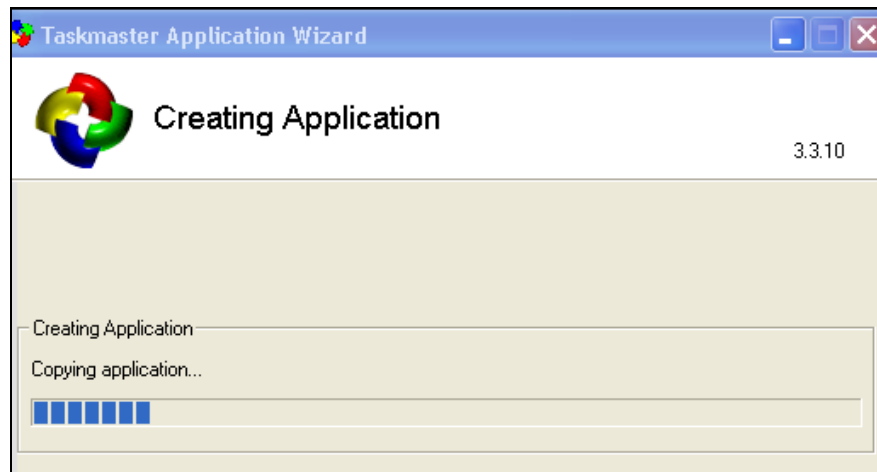
Processing

When you click on the *Mode* screen's Next button, the *Selection Completed* screen announces that the wizard is ready to reproduce the application you have specified.



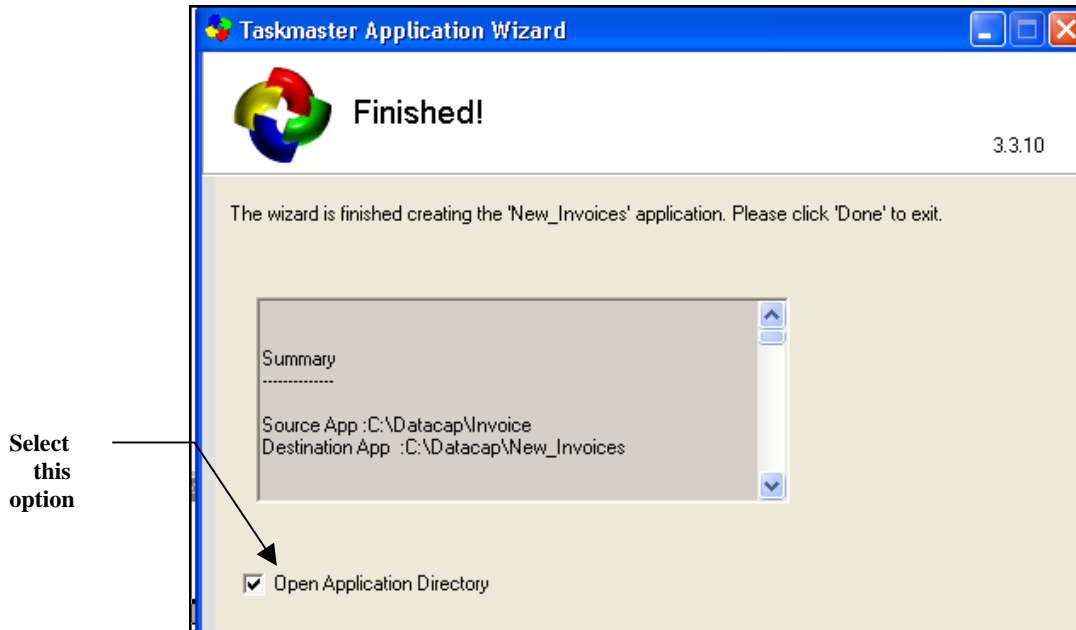
Taskmaster Application Wizard – Selection Completed screen

After you click on the Finish button of the *Selection Completed* screen, the wizard's *Creating Application* screen traces its progress as it generates the new application:



Taskmaster Application Wizard – Creating Application screen

Running the Application Wizard

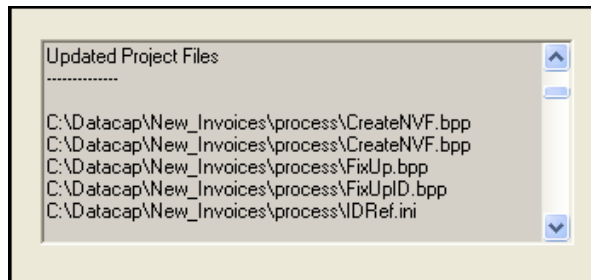


Taskmaster Application Wizard – Finished screen

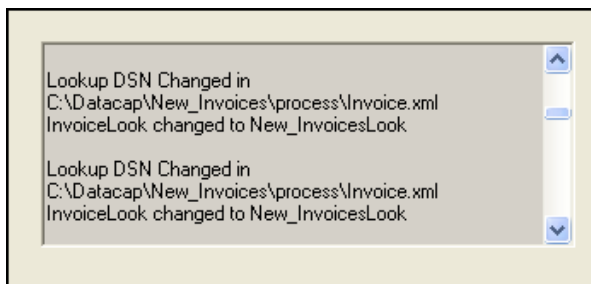
The *Finished* screen includes a **Summary** field with details of important modifications that the wizard has made to settings of the new application.

Take time to scroll through the listings in this field.

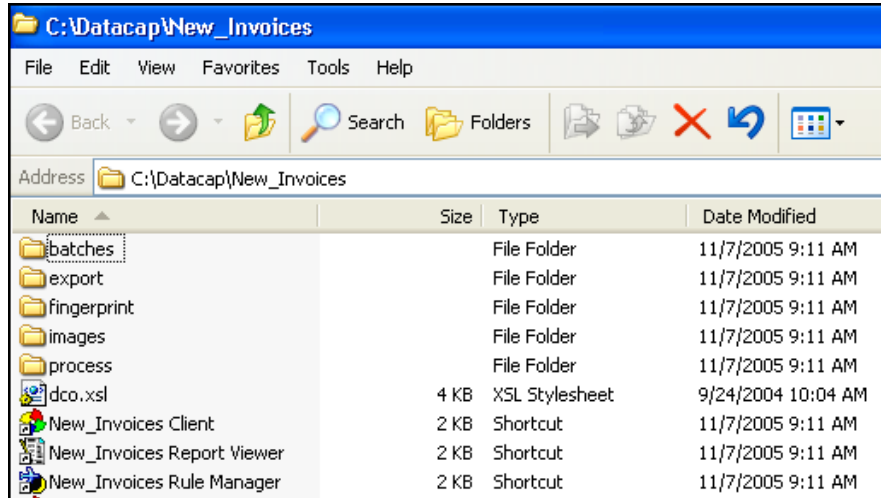
For example, the group below indicates which Task Projects (.bpp) include the name of the new application's Document Hierarchy file.



Another group alerts you to the assignment of the values of the new Data Source Names for the application's Lookup database and other databases:



After the wizard completes its work, the new application's folder will appear as a member of the **Datacap** directory you indicated in the *Mode* screen (Page 49). An Explorer will list the application's folders, a group of shortcut icons which you can move easily to your desktop, and a style sheet (xsl.)



New Invoices Application – Folders and Shortcuts



New Invoices Shortcuts on a Desktop

Modified Paths of the New Application

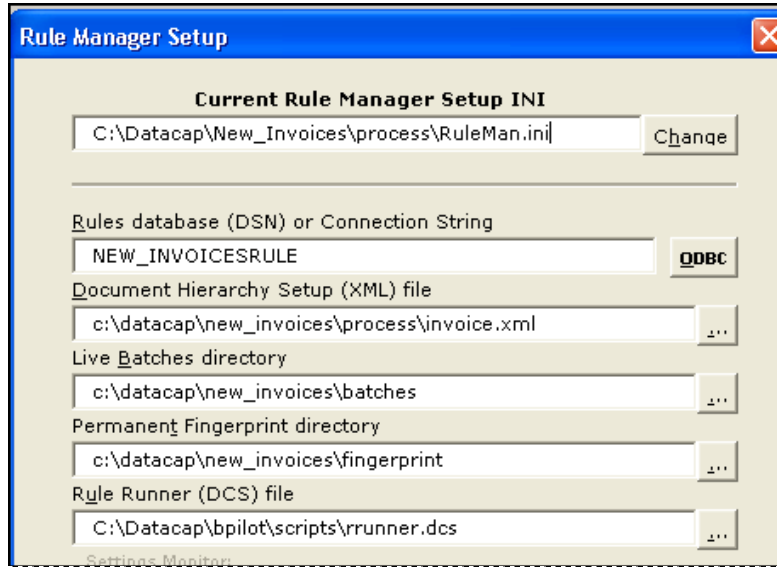
The copying process sets up a new application that is identical to the source application in every way except one:

- Wherever a path specifies `Datacap\Invoices`, the path's value has been automatically changed (in this example) to `Datacap\New_Invoices`. Many revised values point to the Document Hierarchy file (**Invoice.xml**) that is in the new application's **Process** directory:

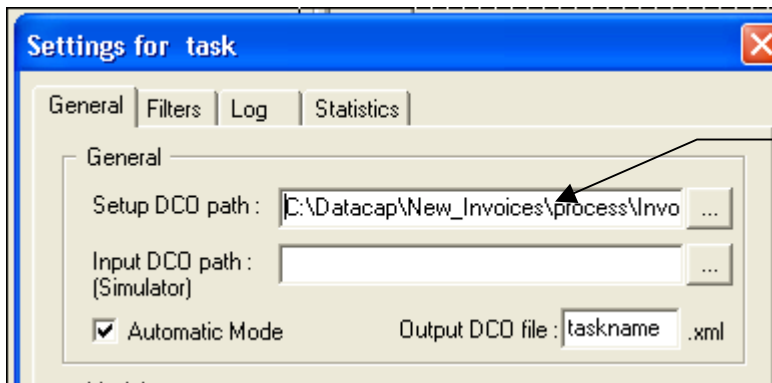
`Datacap\New_Invoices\Process\Invoice.xml`.

The table below identifies the principal paths with modified values that are changed by the Application Wizard (illustrations are on the next few pages.)

Setting	Description
<i>Rule Manager Setup</i> dialog	The applicable settings in this important dialog have been changed to indicate the new path.
Task Projects	The <i>General</i> tab of a Task Project's <i>Task Settings</i> dialog has a required setting that identifies the application's Document Hierarchy file (.xml) and its path. This value is automatically modified for all Task Projects (.bpp).
Task Modules	Task Modules link a Task Definition to a Task Project. Because Task Project files (.bpp) reside in the application's Process directory, the Parameter value in the definition of every Task Module has been modified to specify the correct path.
Batch files	The paths of files in each copied batch have been changed appropriately.
Actions - parameters	Pay particular attention to the parameters of actions that include a path to files within the new application. Not all parameters have been modified to specify the correct path.

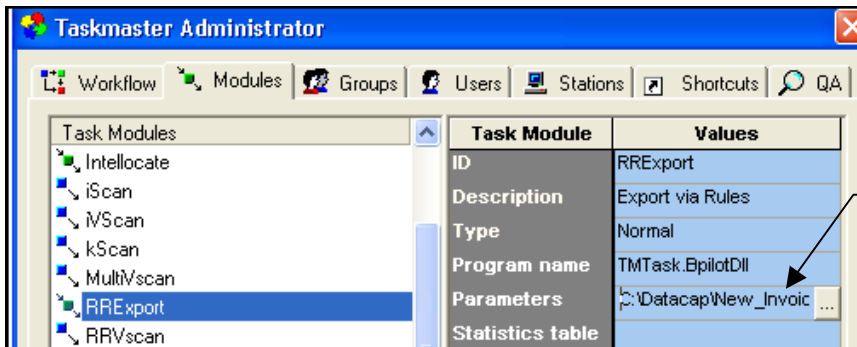


Rule Manager Setup dialog – new paths



New_Invoices application

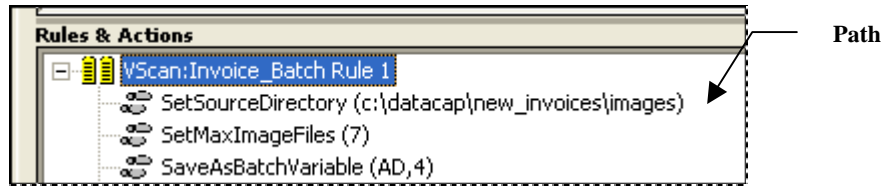
Export Task Project – new path
Invoices.xml



RRExport Task Module

RRExport Task Module

Copying Computer to Computer



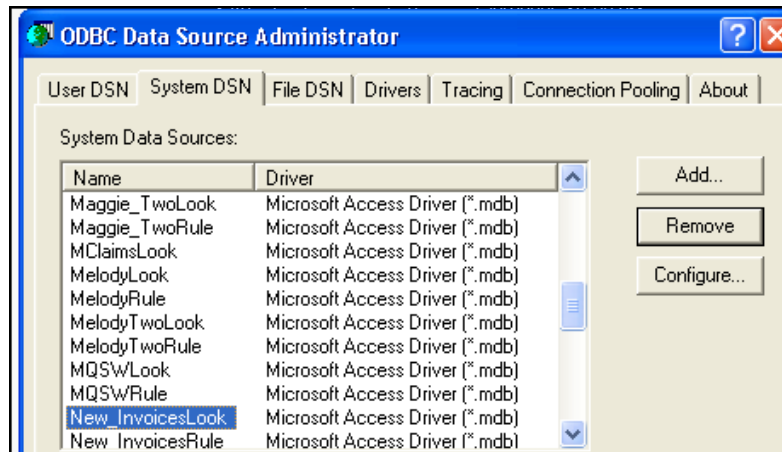
VScan Rule – SetSourceDirectory Action

Copying Computer to Computer

If the **Destination** address in the Application Wizard's *Mode* screen (Page 49) copies the source *Taskmaster for Invoices* application to a **Datacap** directory on the computer on which the Application Wizard is running, the wizard will create new Data Source Names for the Rules and Lookup databases.

If the Application Wizard copies the source application to a drive on *another* computer, the wizard defines required Data Source Names for the Rules and Lookup databases but is unable to assign these DSN's to the target computer's ODBC Data Source Administrator.

- ✓ In this situation, be sure to take two important steps:
 1. Use the *source* computer's **ODBC Manager** to locate the DSN's for the new application's Lookup and Rules databases:



2. Use the *target* computer's *ODBC Manager* to define unique Data Source Names that duplicate those that belong to the source computer. For example:

- *New_InvoicesRule*
- *New_InvoicesLook*

You can use the shortcut icons of the source application to run the new application on another computer if you have:

- ◆ Modified the value in the **Target** field of the shortcut's *Properties* dialog so that it points to the correct drive of the second computer and to the applicable databases or Setting files (.ini) in the **Datacap** directory on that drive.
- ◆ Ensured that Taskmaster Server Service on the new application's host computer is up and running. *Alert!* This step is easily overlooked.