

Datacap Taskmaster

Datacap Application Wizard

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

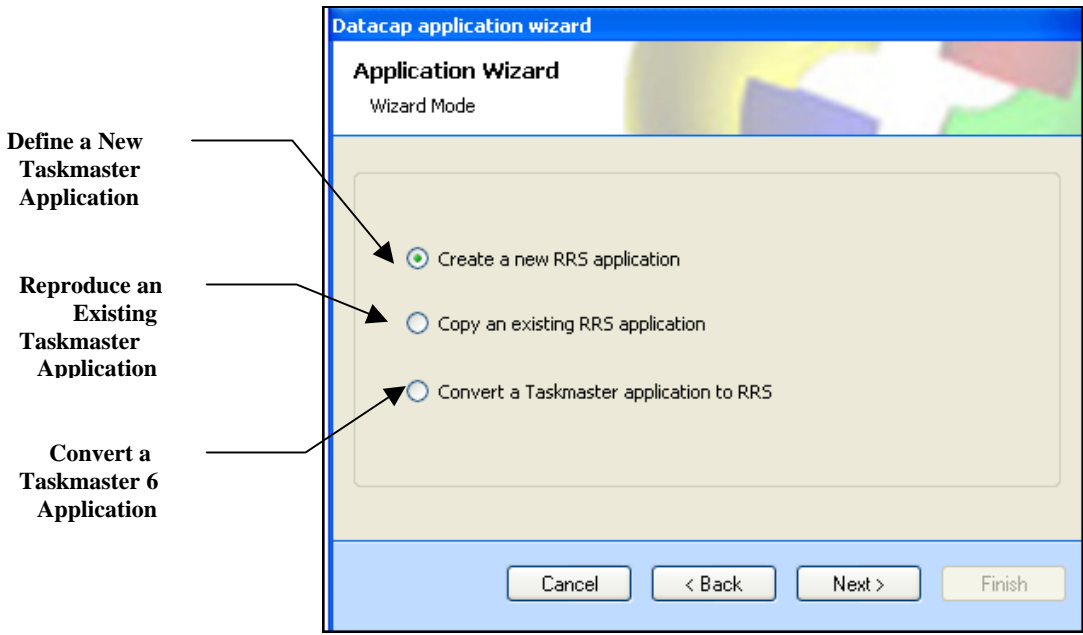
You can use the Datacap Application Wizard to:

- ◆ Set up and test a new *Taskmaster* application to meets your requirements – without confusion or delay.
- ◆ Copy an existing application to set up a new application, or to transfer a copy between alternative sites and environments.
- ◆ Convert an application of an earlier release to a current release that uses a Rulerunner Service (RRS or WRRS) to design, develop and implement rules-based tasks.

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

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Datacap Application Wizard – Mode screen

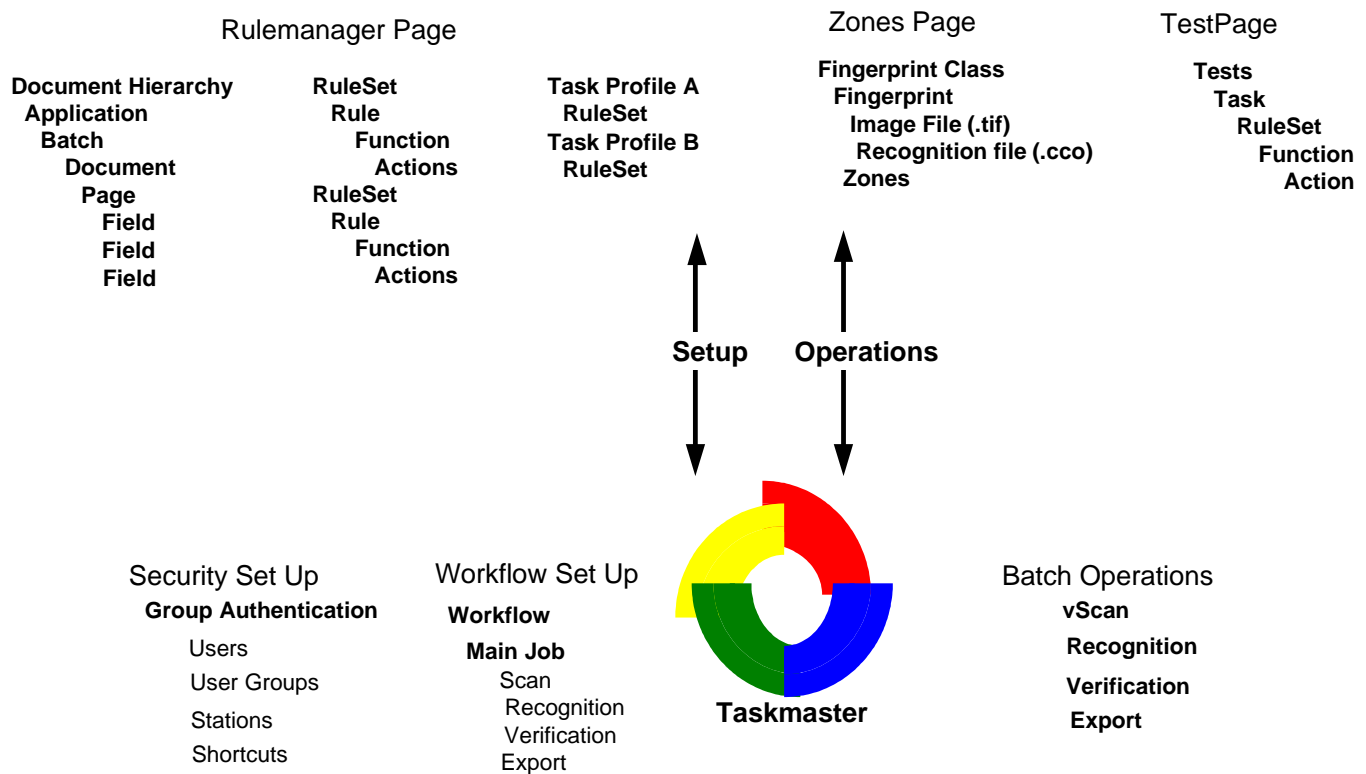
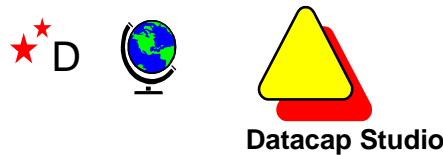
Introduction to the Datacap Application Wizard

The Datacap Application Wizard guides you through the steps you take to define and install a completely new *Taskmaster* application; reproduce an existing application; or convert an earlier *Taskmaster 6* application to a *Taskmaster 7* application.

- ✓ The illustration on the previous page shows how the wizard presents these options in its *Mode* screen:
 - ◆ **Create a new RRS application** launches a sequence of screens that
 - Assemble the basic structure of a new application that employs *Taskmaster's* Rulerunner Service (RRS) or Rulerunner Web Service;
 - Help you define the application's Document Hierarchy;
 - Assemble Ruleset/Rule combinations and bind them to objects of the Document Hierarchy;
 - Put together the application's Fingerprint Classes and fingerprints;
 - Provide the application with a fully-configured set of Task Profiles that include *Taskmaster Web* capabilities;
 - Determine the controls and layout of the application's default *Data Entry* panel;
 - Supply the application with Security components and parameters;
 - Help you run tasks of the application's Main Job without delay.
 - ◆ **Copy an existing RRS 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.
 - ◆ **Convert a Taskmaster application to RRS** uses conversion utilities to
 - Update a *Taskmaster 6* (or older) application to an application with all the features of *Taskmaster RRS*.
- ✓ Because the Datacap Application Wizard's procedures differ 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 10; explanations of duplicate applications begin on Page 47; the exploration of the wizard's conversion procedures begins on Page 50.

Getting Started

Very important! The Datacap Application Wizard originates within **Datacap Studio** and concentrates on satisfying the requirements of the new or updated application's Datacap Studio.



Datacap Studio's requirements are represented in the upper half of the chart above. And although you will certainly have to take care of the essential *Taskmaster* features depicted in the chart's lower half, you will find it hard to work with the Application Wizard until you are comfortable with Datacap Studio (also known as **DStudio**.)

Alert! Because the Datacap Application Wizard originates within Datacap Studio, the wizard is only available after the **Datacap Taskmaster Client Installation** process is complete and you have configured Datacap Studio on your computer. For installation and configuration instructions, see the Taskmaster 7.5 Installation and Configuration Guide.

How to Learn about Datacap Studio

Datacap Studio is the development and testing workshop for every current *Taskmaster* application – including the instantly accessible and *indestructible* 1040EZ application.


- ✓ In addition, the *Guide to Datacap Studio* shows you how to use DStudio as you set up and modify an application's fundamental components, such as its:
 - Document Hierarchy (Chapter 5).
 - Rulesets, rules, functions and actions (Chapter 6)
 - Task Profiles (Chapter 6).
 - Fingerprint Classes, fingerprints, and zoned fields (Chapter 7)

Chapter 8 reviews the steps you take to test an application's design and components.


Datacap Studio documentation is in the **DStudio** folder of the **Docs** sub-directory of your **Datacap** directory.

Important! Don't hesitate to experiment freely with the features and contents of the 1040EZ application's Datacap Studio – or to contact Datacap Support if you experience difficulty.

Here is the number for Datacap's technical support:

 **914-259-1300**

Please note that if you need to **fax** Datacap technical support, the fax number is:

 **914-366-0500**

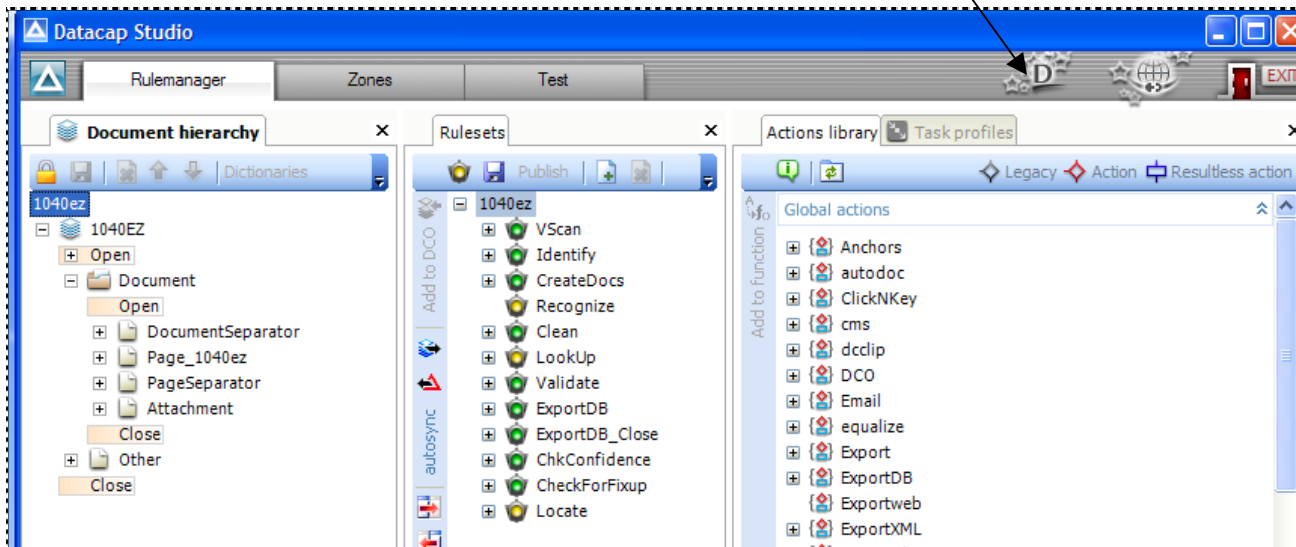
If you want to **e-mail** Datacap technical support, here is the e-mail address:

 support@datacap.com

How to Construct a New Application

The path to the Application Wizard begins with the **Datacap Studio** icon on your desktop and leads to the **D** icon at the top of the *Datacap Studio Window*.


Application Wizard



Datacap Studio Window

Accessing Datacap Studio

To reach Datacap Studio and the Application Wizard, take the steps below. (Complete explanations of DStudio's Select Application Wizard are in Chapter 3 of the *Guide to Datacap Studio*.)

Step	Action
1.	Be sure that Taskmaster Server Service is up and running. (<i>Important!</i> After you install <i>Taskmaster</i> , this step is easy to overlook!)
2.	Double-click on the Datacap Studio icon on your desktop. Remember: this icon will appear only if you have directed Datacap Installation to install and set up Datacap Studio.
	
3.	When DStudio's Select Application Wizard appears, check the settings of the <i>Taskmaster Server</i> screen and press the Next button at bottom.

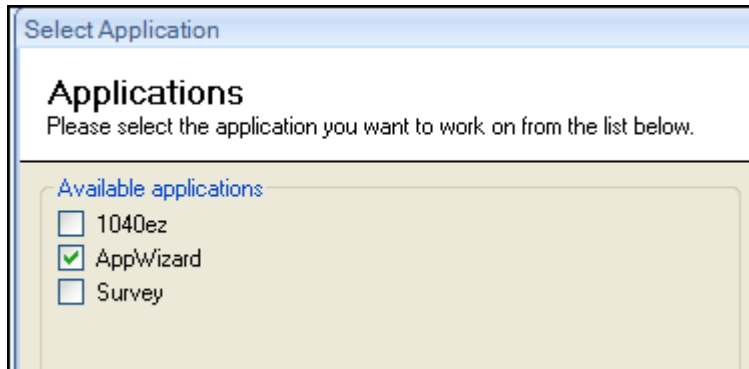
The screenshot shows a dialog box titled "Select Application" with a light blue header. Below the header, the title "Taskmaster Server" is displayed in bold. Underneath, a message reads: "Please provide Taskmaster Server details to which you want to connect below." The main area has a light beige background and contains a text input field labeled "Server name or address" with the value "127.0.0.1" entered. Below the input field is a dark grey button labeled "Advanced settings" with a downward-pointing chevron icon.

How to Access the Datacap Application Wizard (continued)

Step	Action
4.	Select the option that indicates if DStudio's <i>Rulerunner Service</i> (RRS) runs on a local network or is connected to the internet using the Rulerunner Web Service.

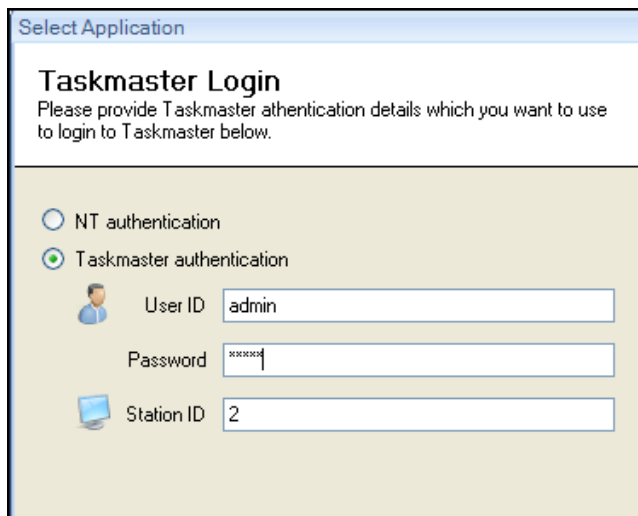
The screenshot shows a dialog box titled "Select Application" with a light blue header. Below the header, the title "Rulerunner Service" is displayed in bold. Underneath, a message reads: "Please provide Rulerunner service details to which you want to connect below." The main area has a light beige background and contains two radio button options. The first option, "Connect to a Rulerunner Web service", is selected with a green dot. Below this option is a text input field labeled "Service URL:" with the value "http://yamakasi/rrs" entered. The second option, "Work offline. Internal Rulerunner service.", is unselected with a white dot.

- Select the application in the *Applications* screen, illustrated on the next page. (If you are practicing with Datacap Studio, try the *1040EZ* application. If not, your choice is not important!)



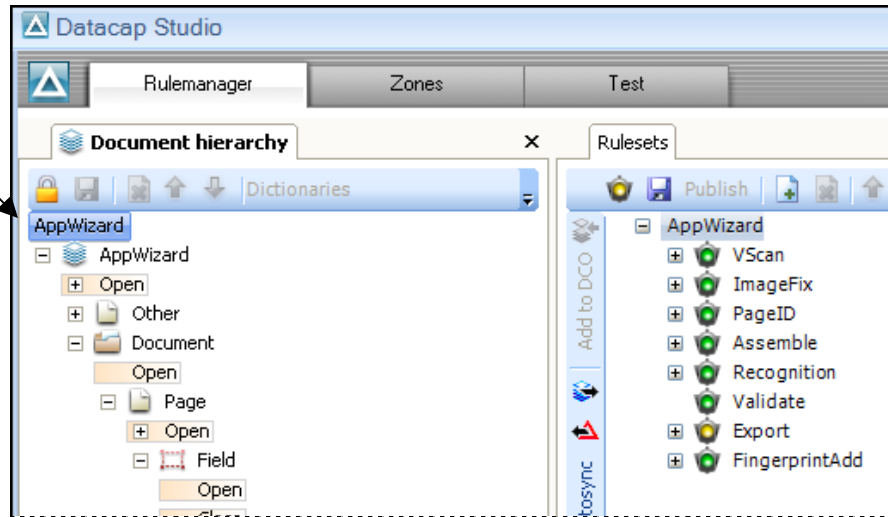
How to Access the Datacap Application Wizard (continued)

Step	Action
6.	Select the <i>AppWizard</i> option in the <i>Applications</i> screen. (This option automatically establishes the skeleton of a new <i>Taskmaster</i> application if you decide to take that route.)
7.	Press the Next button to go to the <i>Taskmaster Login</i> screen. Enter your Security codes to open Datacap Studio's Rulemanager page.

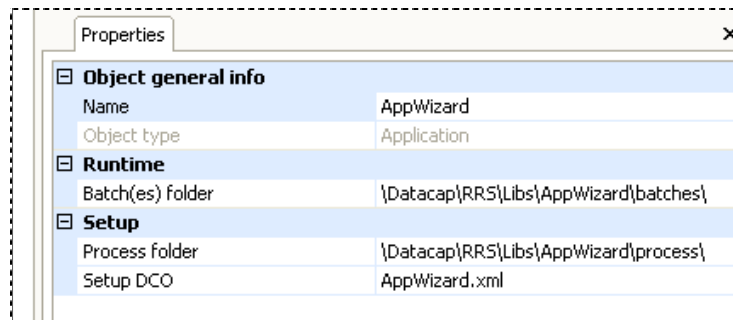


8. Take a moment to review the objects in the default Document Hierarchy on the left, and the Rulesets in the middle of the page.
9. Look, too, at the settings in the *Properties* dialog in the lower right-hand corner. These settings tell you where you will find the superstructure of any new application before you actually set one up: in an **AppsWiz** folder in the **Libs** sub-folder of your **Datacap** directory.
10. Press the **D** icon in the upper right-hand corner of the *Datacap Studio Window* to initiate the wizard.

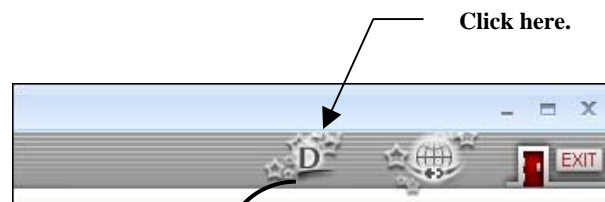
Document Hierarchy



Datacap Studio



Properties of the AppWizard Application

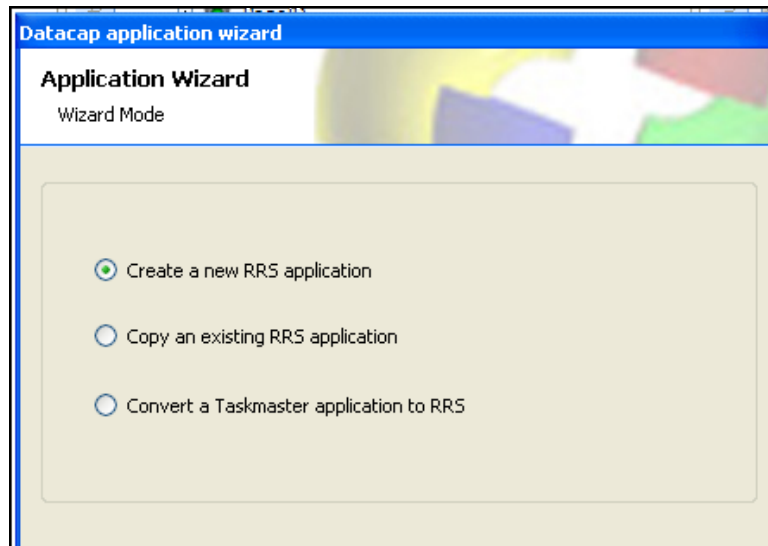


Datacap Application Wizard – Overview screen

Application Wizard: How to Construct a New Application

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

- ✓ **Please note:** Page 25 provides a step-by-step summary of this procedure.



The *Wizard Mode Screen* (above) appears after you click on the *Overview* screen's Next button .

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

- A Document Hierarchy that defines the application's processing and recognition structure in terms of objects at four levels: **Batch, Document, Page and Field**.
- Ruleset/Rule combinations bound to objects of the Document Hierarchy and assigned to Task Profiles. (Task Profiles form the basis for rulerunner tasks that process documents and their pages, and fields and their data.
- Fingerprints of the application's *source* pages...pages with fields containing data that is to be recognized, verified, validated and exported.
- A Verification task's *Data Entry* panel.
- Workflow Hierarchies consisting of a workflow and its jobs, and the tasks assigned to each job.
- Security parameters covering Users and Users groups, stations and Job-Task shortcut icons.
- A *Report Viewer* that generates reports covering task operations.

Warning! Setting up a new application is simple and brief. You cannot, however, close the wizard mid-stream and return to the wizard until you have finished (Page 21).

Preliminary Steps: Preparing for the New Application

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

- ✓ Just as you entered the Application Wizard via Datacap Studio, the wizard will return to DStudio to assemble many features of the new application: these features are illustrated at the top of the chart on Page 4.

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 entered data that the application’s tasks will recognize, verify, validate and export. Before you launch the Application Wizard, be sure that you are 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. Identify or set up a folder with one or more scanned images of the *source* page, displaying data in each of its critical fields. These images will serve as sample fingerprints (Page 17).

Images. Identify or 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.

- ✓ **Please note:** The Application Wizard gives you a chance to set up multiple test applications – each with a different set of components. The set up 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 25.

To launch the Application Wizard:

- Access DStudio by selecting the *AppWizard* application (Page 8). Click on the **D** icon at the top of the *Datacap Studio Window*.
- Review the contents of the *Overview* screen.

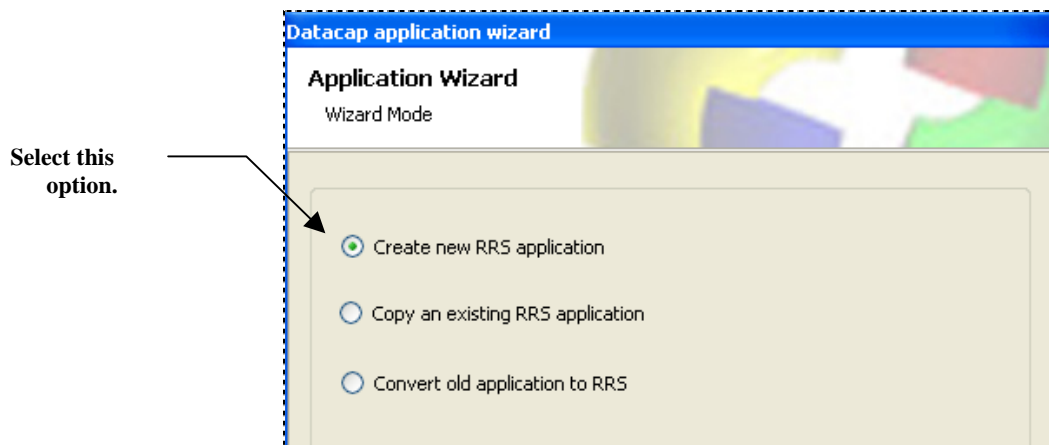


Datacap Application Wizard – Overview screen

Press the Next button at the bottom to move to the *Mode* screen (illustrated below.)

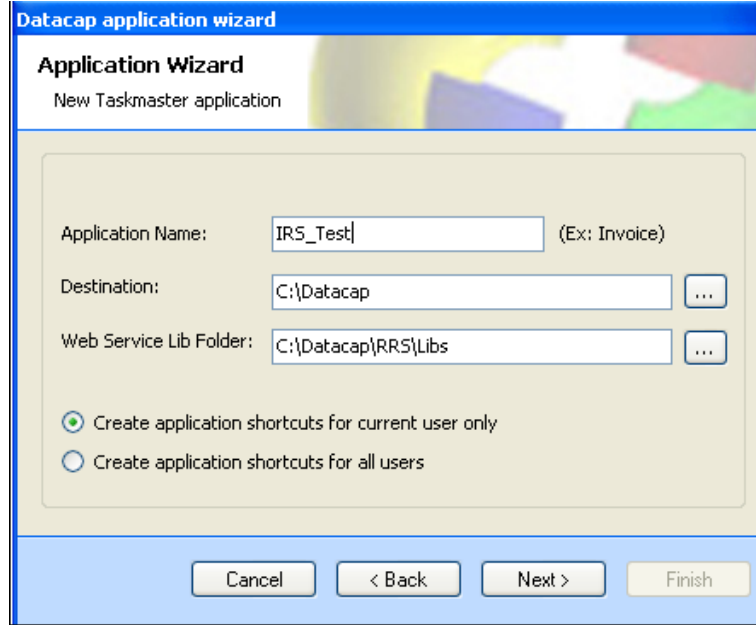
Mode Selection and Application Identification

- ✓ Select the *Mode* screen's **Create a New RRS Application** option. (“RRS” refers to *Taskmaster* applications that employ Datacap’s Rulerunner Service.)



Datacap Application Wizard – Mode screen

Press the Next button to open the *New Taskmaster Application* screen:



**Datacap Application Wizard -
Create New Taskmaster Application screen**

Complete the screen's fields:

Application Name: enter a brief but descriptive name. *Important!* This name will also identify the **Batch** object of the Document Hierarchy (Page 15), and *Taskmaster's Workflow* component.

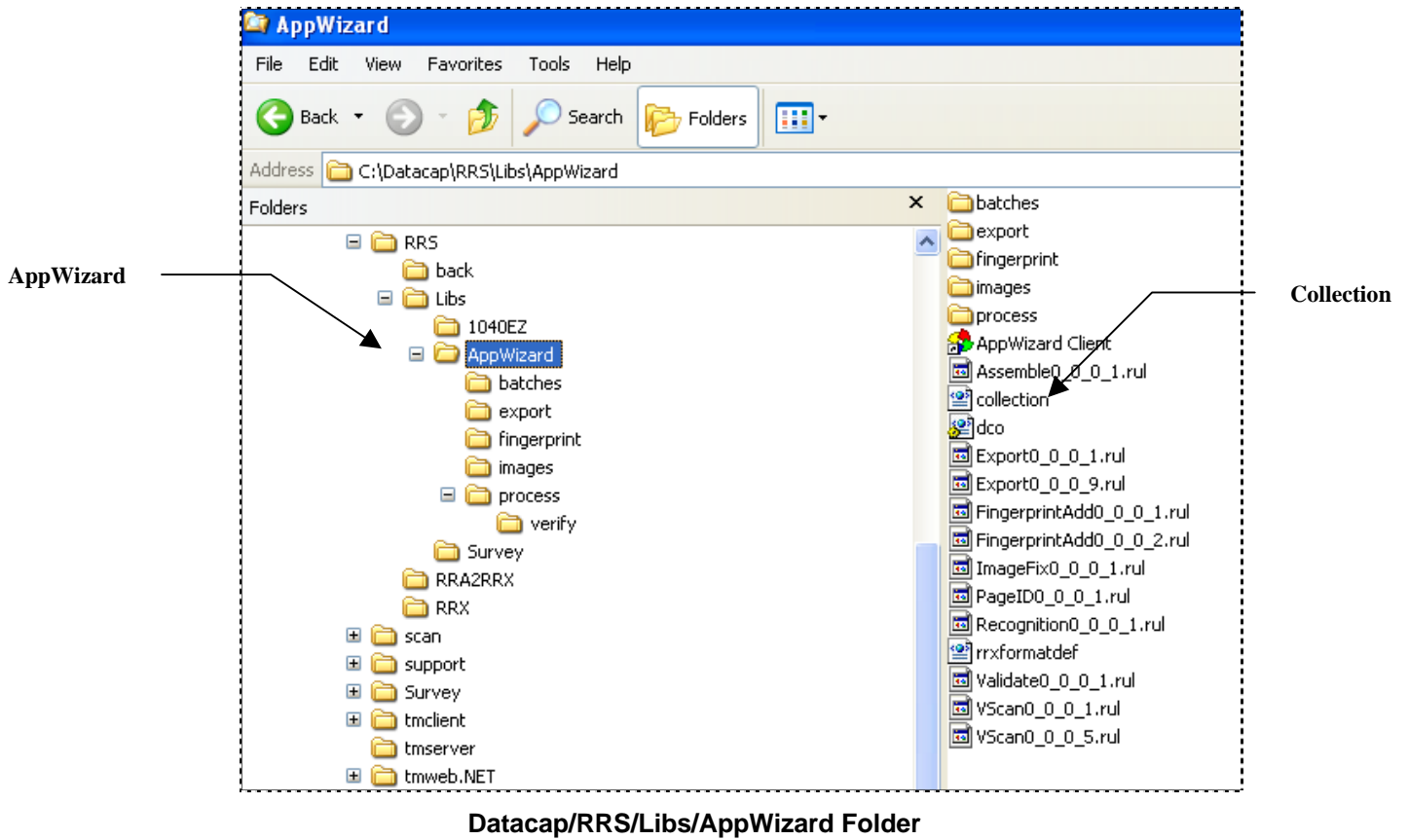
Destination: a typical application consists of folders and files that belong to the **C:\Datacap** directory. If you would like to assign the application's contents to another location, be sure to consult with your Implementation Specialist or Datacap Support first.

Web Service Lib Folder: after you have put together the new application, the wizard needs a place to put files (.rul) with information about the Ruleset/Rule combinations you have defined, as well as a place for the summary Collections file (**collection.xml**). The example on the next page shows the contents of the default *AppWiz* application files: take a moment to use a Text Editor such as *Notepad* to review the contents of a Rules file and the Collections file.

If you are not going to use **C:\Datacap\RRS\Libs** , be sure to consult with your Implementation Specialist or Datacap Support.

Create Applications Shortcuts are radio buttons that specify if the application's shortcut icon is to be available only to you, or to any *Taskmaster* user.

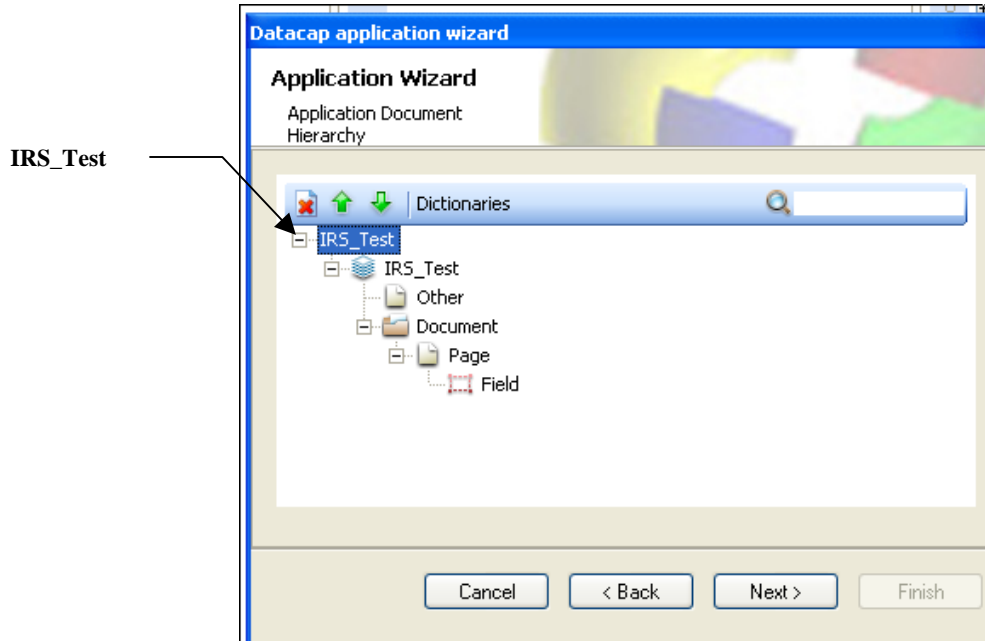
Running the Application Wizard



Press the *Create New Taskmaster Application* screen's Next button to open the *Application Document Hierarchy* screen (on the next page.)

Document Hierarchy Setup

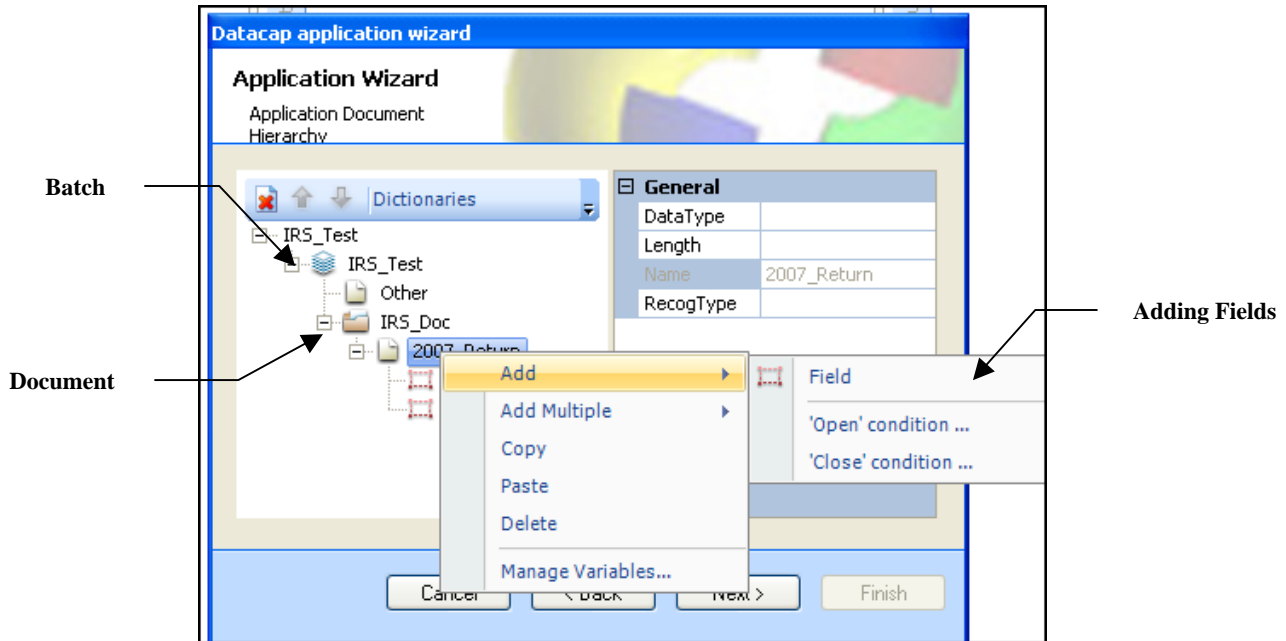
At this point, the wizard has placed you in the new application's Datacap Studio so you can set up the application's all-important Document Hierarchy. **Important!** Chapter 5 of the *Guide to Datacap Studio* investigates every aspect of the Document Hierarchy.



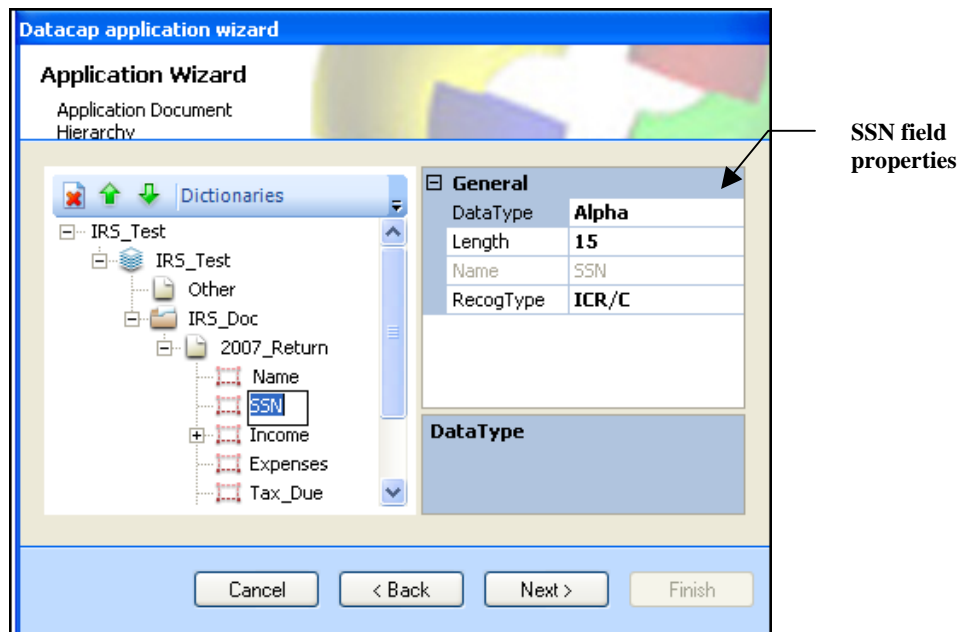
Application Document Hierarchy screen

- ✓ 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 gave the application a name (Page 13), the wizard assembled 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: a subsequent recognition 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.)
 - Right-click on a **Page** object to add child **Field** objects.

Running the Application Wizard



Document Hierarchy – adding critical fields



Assigning Field Properties

The *Application Document Hierarchy* screen gives you a chance to assign values to a few properties of a **Field** object. In the example above:

- **Data Type** is a drop-down list with these options: Alpha, Currency, Data, Numeric.
- **RecogType** is a drop-down list of six recognition engines: Bar/X, ICR/C, ICR/K, ICR/P, OCR/A, and OCR/S

- **Length** is the maximum length of the field’s value.
- **Name** is the Field ID you have assigned.

You can also use the Dictionaries button to define a “dictionary” of acceptable values for a specific field. Later, when the Document Hierarchy is used to construct the application’s **Data Entry** panel, this field will provide the operator a list of these values.

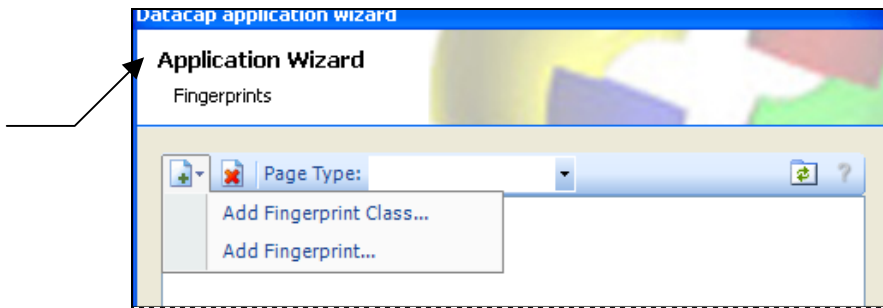
- ✓ You use the wizard’s *Application Document Hierarchy* screen to define the new application’s basic structure; to clearly identify a **source** page; and to designate certain **critical fields** within the **source** page – fields with data that that will be processed during testing (Page 39), and will be included in the prototype of the **Data Entry** panel (Page 35).

Important! Although you can use the *Document Hierarchy* screen to assign values to these properties of the new **Field** objects of the Document Hierarchy, you may want to wait until the wizard has completed its work and the application’s foundation is firmly in place. You can then use the descriptions in Chapter 5 of the *Guide to Datacap Studio* as you review default properties and assign new variables.

Application Fingerprint Definitions

After you have assembled the Document Hierarchy, press the Next button at the bottom of the *Application Document Hierarchy* screen to move to the *Fingerprints* screen. This screen asks you for the name of a **Fingerprint Class**; and the name and location of the Image file for the **fingerprint** (Page 10).

Fingerprints screen



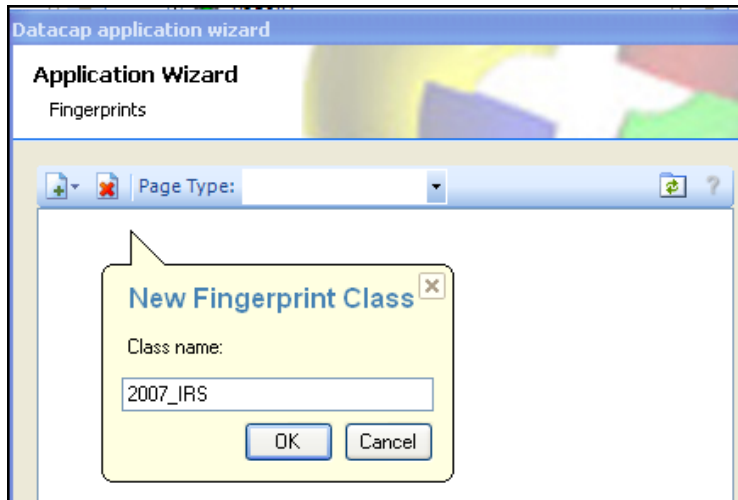
Fingerprint Class

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

Be very careful: This procedure has four independent steps. Be sure to take each in the following sequence.

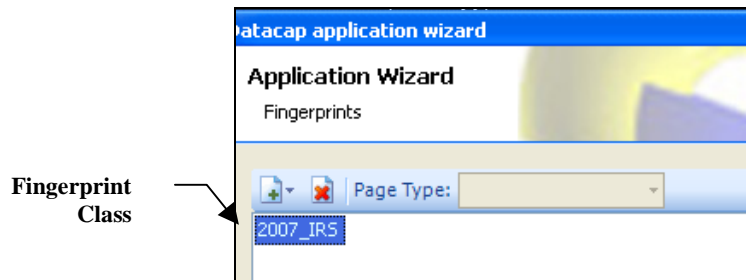
When you click on the screen’s **+** icon, the *New Fingerprint Class* dialog will ask if you want to define a new Fingerprint Class. Enter its name, and press the OK button (see the illustration on the next page.)

Running the Application Wizard



New Fingerprint Class Name dialog

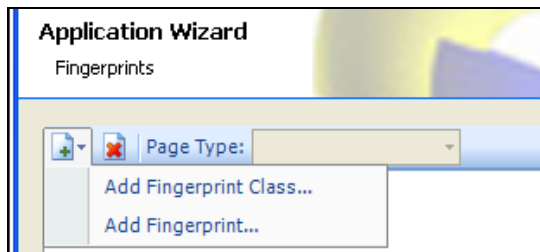
Confirm that the wizard has added the Fingerprint Class Name to the *Fingerprints* screen.



Fingerprints

After the Fingerprint Class is in place:

- ◆ Highlight the new Fingerprint Class ID.
- ◆ Press **+** icon on the screen's toolbar (again!)
- ◆ Select the **Add Fingerprint** option.



- ◆ When the *Open* dialog appears, specify the name and path of the Image file(.tif) that is to serve as the fingerprint (Page 10).



- ◆ Press the *Open* dialog's OK button.
- ◆ To begin a process to enhance the fingerprint's image, press the Yes button of the *Image Enhancement?* Message Pad; press the No button if you want to skip this procedure. (Chapter 7 of the *Guide to Datacap Studio* explains how Image Enhancement works.)

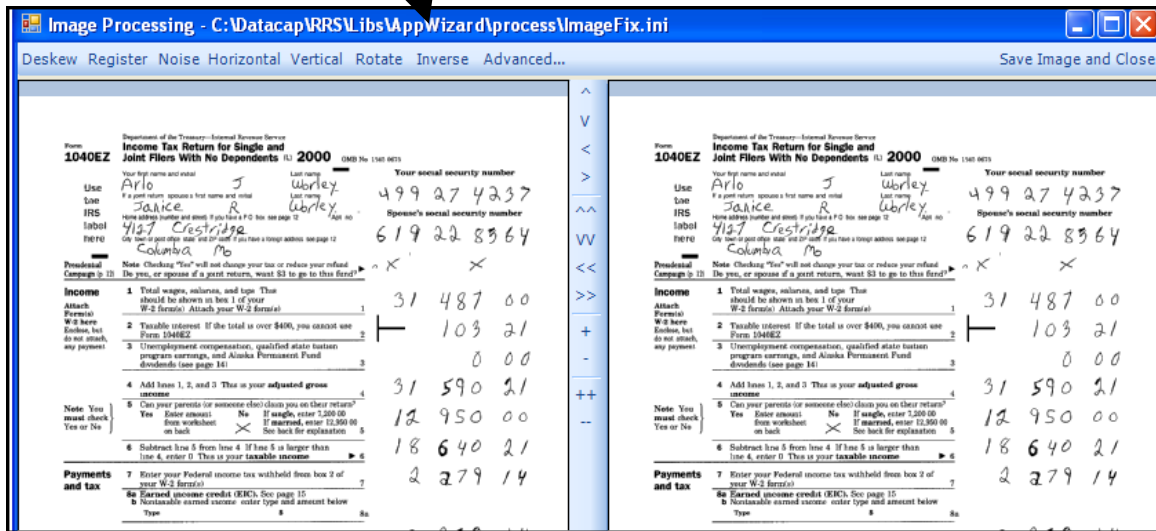
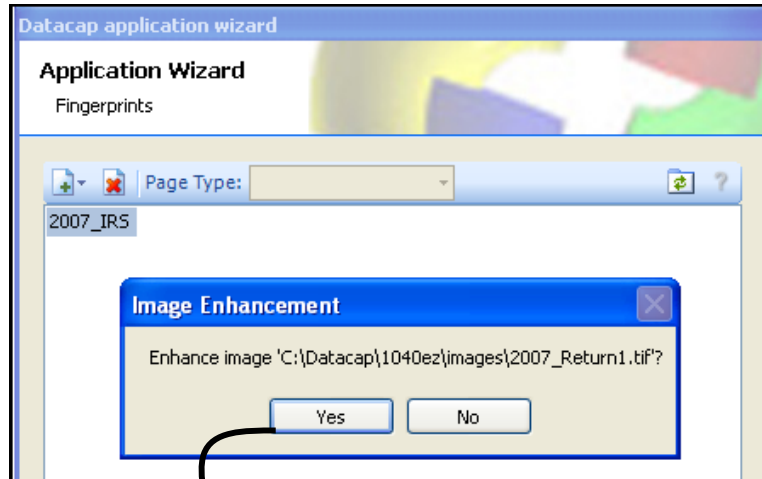
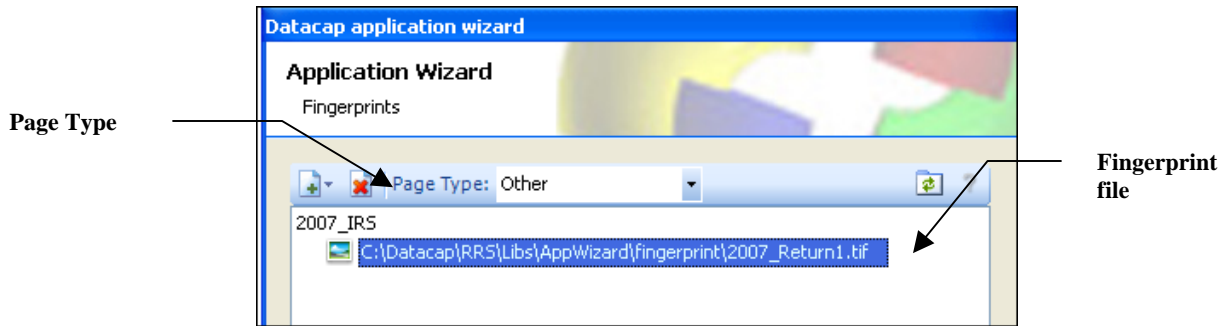


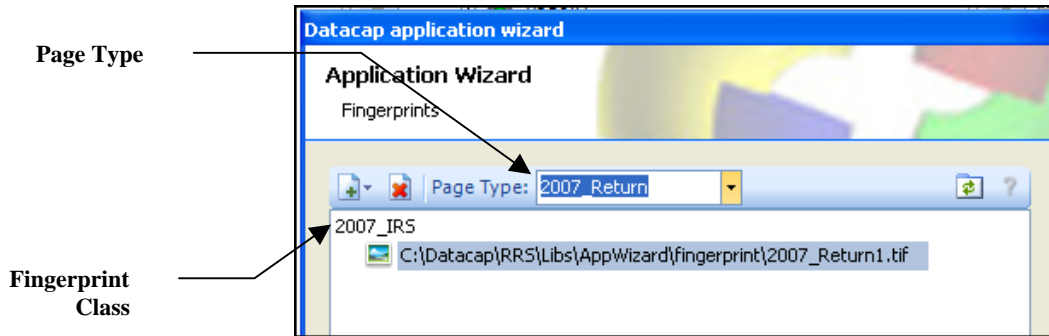
Image Enhancement Window

Running the Application Wizard

- ◆ Check that the *Fingerprints* screen has the correct name and path of the Fingerprint file. (Note, too, that the **Page Type** value is *Other*.)



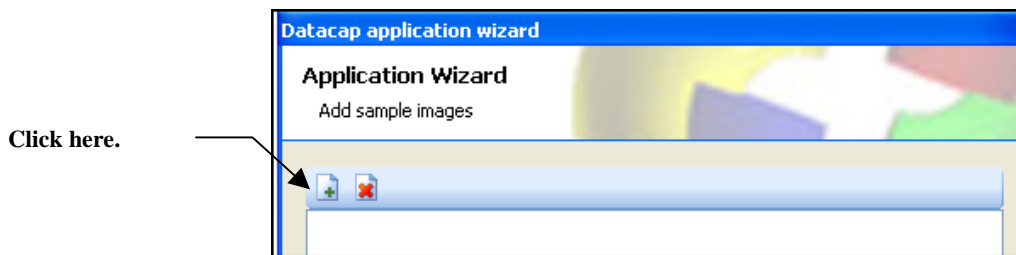
- ◆ Highlight the fingerprint's listing and select the Page Type of the *source* page in the drop-down list.



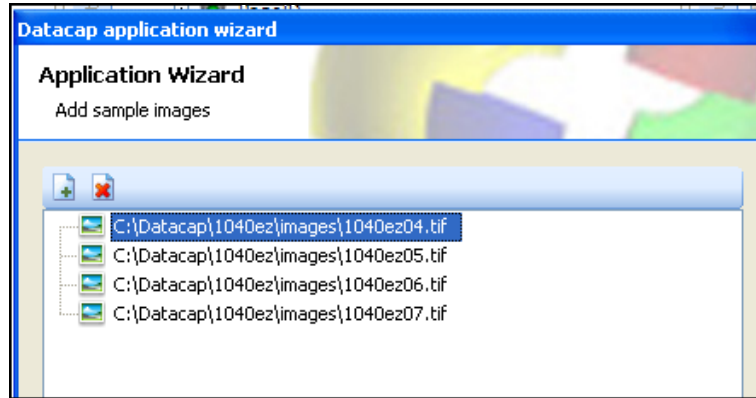
Chapter 7 of the *Guide to Datacap Studio* discusses the role of fingerprints, and DStudio techniques for defining and testing new fingerprints.

Images

Press the Next button at the bottom of the *Fingerprints* screen to access the *Add Sample Images* screen.



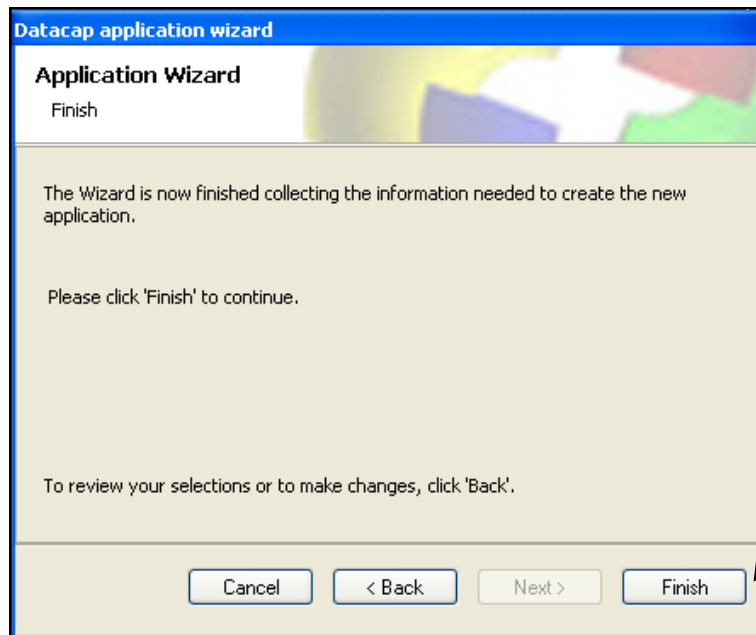
Use the + button to select one or more Image files (.tif) for the application's **images** folder (Page 31).



Add Sample Images screen

Finishing Up

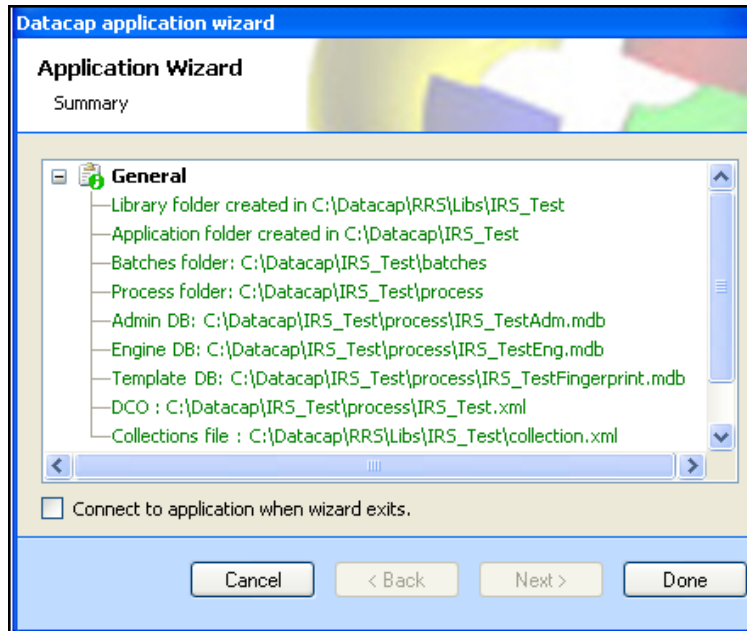
After you have set up a Fingerprint Class with a sample fingerprint, and have supplied your application with images, click on the Next button to open the *Finish* screen:



If you're ready, click on the screen's Finish button to move to final stage – and to the closing screens.

Running the Application Wizard

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



Summary Screen

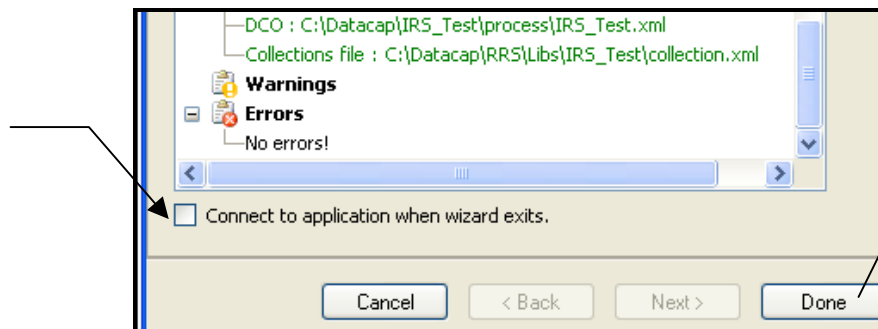
The *Summary* screen lists these folders and files for the new *IRS_Test* application, placed in an **IRS_Test** directory under your **Datacap** directory:

Folder/File	Description
<p><i>Library folder created in</i> C:\Datacap\RRS\Libs\IRS_Test</p> <p>Note that this folder is not part of the Datacap/IRS_Test application folder.</p>	<p>This folder will soon contain the new application's Rules files (.rul) and its summary Collection file (.col).</p> <p>Important! At this early stage, the folder does not contain Rules files.</p>
<p><i>Application folder created in</i> C:\Datacap\IRS_Test</p>	<p>This is the principal folder for the new application, and should be immediately available to you.</p> <p>Consult Datacap Support or your Implementation Specialist if the folder is not included in the Datacap directory.</p>
<p><i>Batches folder:</i> C:\Datacap\IRS_Test\batches</p>	<p>The new application's Scan task establishes new batches and places them in this folder. Follow-up tasks process the contents of each batch.</p>
<p><i>Process folder:</i> C:\Datacap\IRS_Test\process</p>	<p>This folder contains essential structural and processing files such as the application's Document Hierarchy (.xml), Admin database (.mdb), Engine database (.mdb), Lookup database (.mdb), and Settings files (.ini).</p> <p>Important! At this early stage, the folder does not contain a full set of files.</p>

Folders and Files of the New Application (continued)

Folder/File	Description
<i>Admin DB: C:\Datacap\IRS_Test\process\IRS_TestAdm.mdb</i>	The name and path of the application's Admin database. This <i>Taskmaster</i> database contains details of Workflow, Job and Task Definitions – and of the application's Security parameters. By default, this is an Access (.mdb) database.
<i>Engine DB: C:\Datacap\IRS_Test\process\IRS_TestEng.mdb</i>	The name and path of the application's Engine database. This <i>Taskmaster</i> database accumulates the application's batch processing information. By default, this is an Access (.mdb) database.
<i>Template DB: C:\Datacap\IRS_Test\process\IRS_TestFingerprint.mdb</i>	The name and path of the application's Fingerprint database. This Datacap Studio database has information about the application's Fingerprint Classes and fingerprints. By default, this is an Access (.mdb) database.
<i>DCO: C:\Datacap\IRS_Test\process\IRS_Test.xml</i>	The name and path of the new application's Document Hierarchy file (.xml). Very important! Pay special attention to this file at each stage in the application's development and eventual modification.
<i>Collections File: C:\Datacap\RRS\Libs\IRS_Test\collection.xml</i> (Note that this folder is not in the IRS_Test application directory.)	The name and path of the file that accumulates details of the application's Ruleset/Rule combinations – and its Task Profiles.

Connect to Application?



Press this button

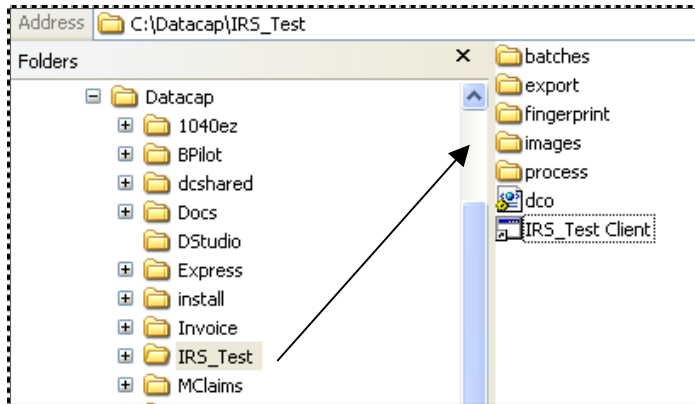
Summary Screen – Lower

- ✓ Although you can go right to your new application's Datacap Studio by selecting the **Connect to Application** option before you press the *Summary* screen's Done button, we

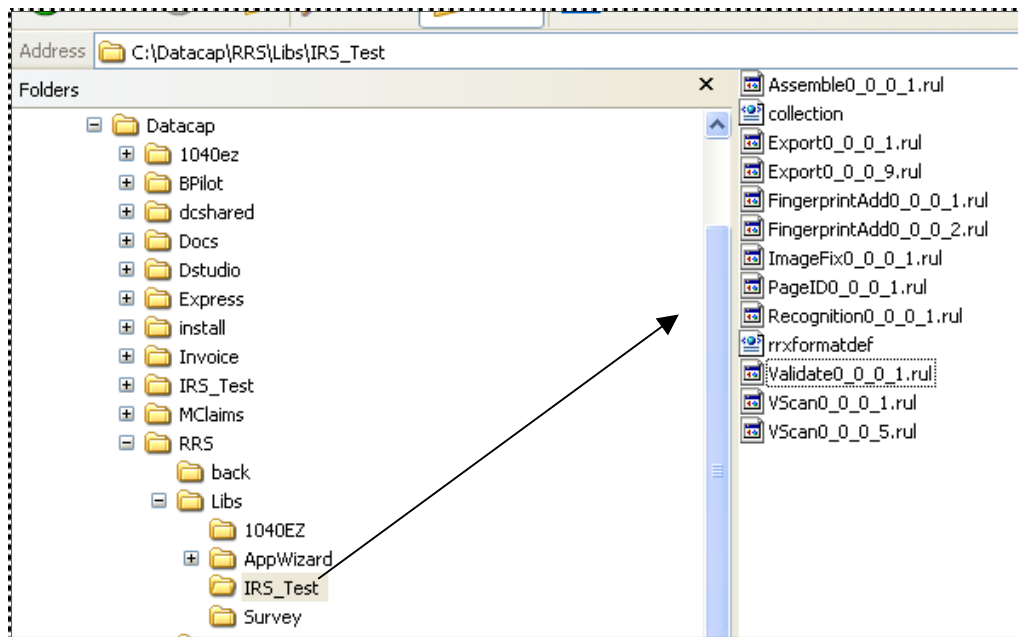
Running the Application Wizard

recommend that you close the wizard and review the contents of your **Datacap** directory first to be sure the new folders and files are in place.

Below, for example, are the application folders of the new *IRS_Test* application. Take a few moments to open the **process** directory to confirm that it has the files designated in the *Summary* screen.



Datacap/IRS_Test – Application Folders



**Datacap/RRS/Libs Folder
IRS_Test Application**

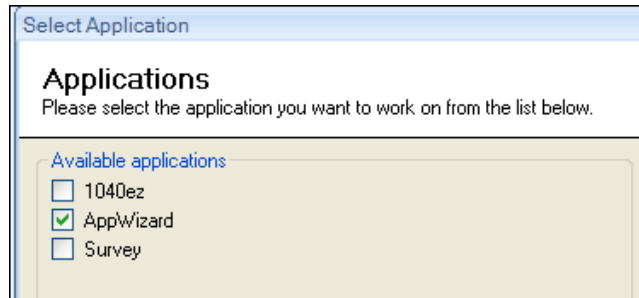
Building a New Application: Step-by-Step

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

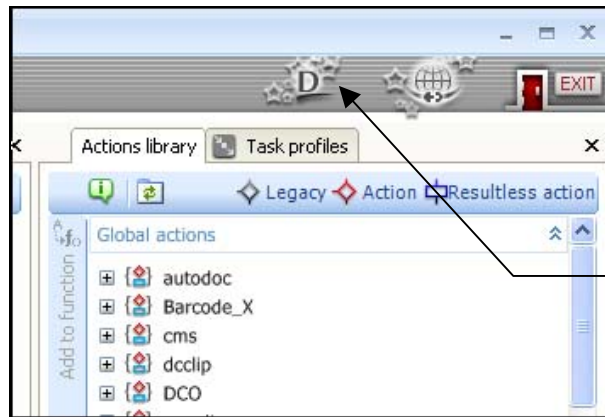
- ✓ As soon as you are familiar and comfortable with the Datacap Application Wizard’s screens and procedures, you can put together multiple sample applications just by following the steps below.

To assemble an application:

Step	Action
1.	Carry out the essential preliminary steps outlined on Page 10.
2.	Use your Datacap Studio desktop icon to launch DStudio’s Select Application wizard.
3.	Select the <i>AppWizard</i> option in the <i>Applications</i> screen’s Available Applications list.



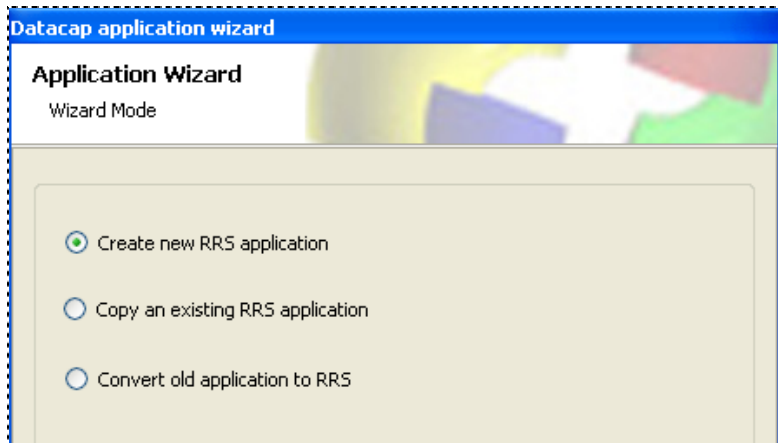
4. Use your Administrative Security codes to log on to Datacap Studio – and its skeletal **Rulemanager** page.
5. Press the **D** icon in the upper right-hand corner of the *Datacap Studio Window*. This step initiates the Datacap Application Wizard.



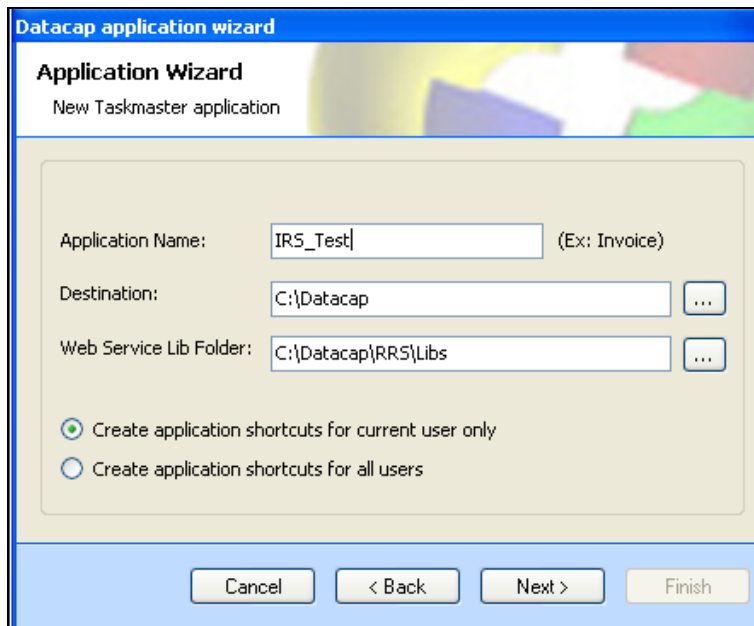
Click on this icon.

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

- | Step | Action |
|------|---|
| 6. | Read through the text of the wizard's <i>Overview</i> and click on the Next button. |
| 7. | In the <i>Mode</i> screen, select the Create a New RRS Application option and press the Next button at the bottom of the screen. |



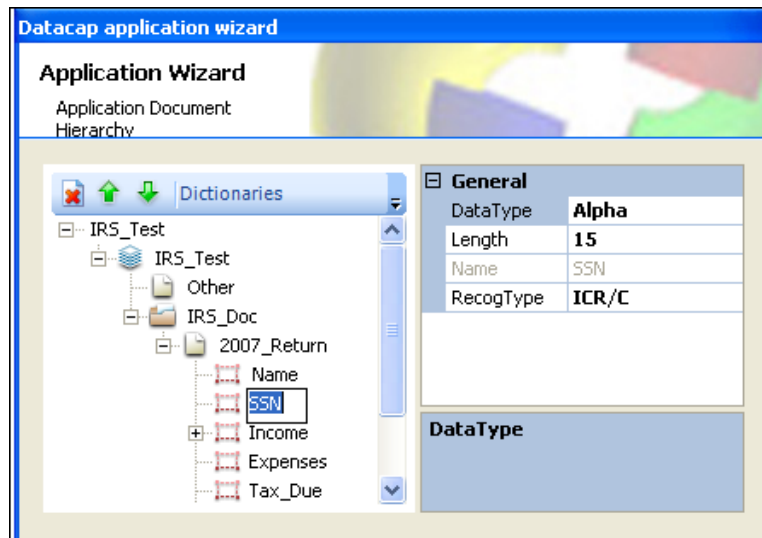
8. Enter the new application's name in the **Application Name** field of the *Application Name and Path* screen. (See Page 12 for a full explanation of this screen.)



9. Enter the application's **Destination** – the location of its root **Datacap** directory.
10. Enter the name and path of the application's **Libs** folder.

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

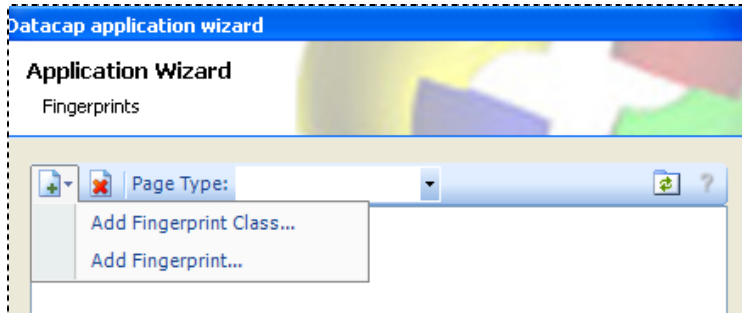
- | Step | Action |
|------|---|
| 11. | Press the Next button to access the <i>Application Document Hierarchy</i> screen. (Page 15 explains the role of this screen, and reviews procedures for defining the new application's Document Hierarchy.) |
| 12. | Check to be sure that the prototype of the new application's Document Hierarchy on the screen's left side has a Batch object with an ID that is the same as the name you assigned in Step #8. |
| 13. | Expand the Document Hierarchy by adding objects at three levels: Document, Page and Field. (Do <i>not</i> remove or change the name of the <i>Other</i> page.) |



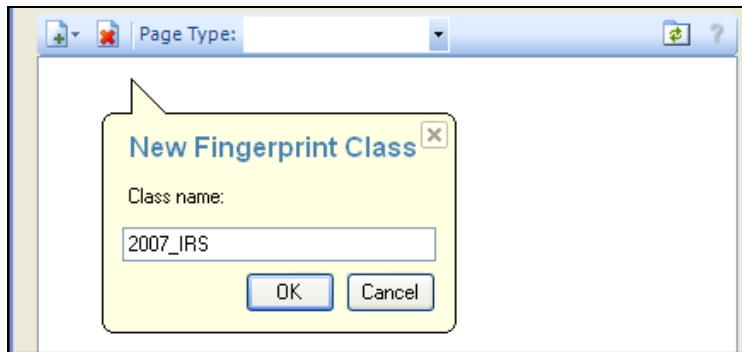
14. If appropriate, use the **Properties** settings on the right to assign values to properties of specific **Field** objects.

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

- | Step | Action |
|------|--|
| 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 17). |
| 16. | Press the + icon in the screen's toolbar. |



17. Because a fingerprint must belong to a Fingerprint Class, first select the **Add Fingerprint Class** option.
18. Enter the Fingerprint Class Name in the *New Fingerprint Class* dialog; press the OK button.

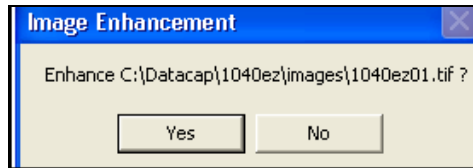


19. Highlight the new Fingerprint Class ID.
20. Click on the *Fingerprint* screen's **+** icon – again.
21. Select the **Add Fingerprint** option (illustrated in Step #16).
22. Use the tools of the *Open* dialog to locate the Image file (.tif) that will serve as the fingerprint.

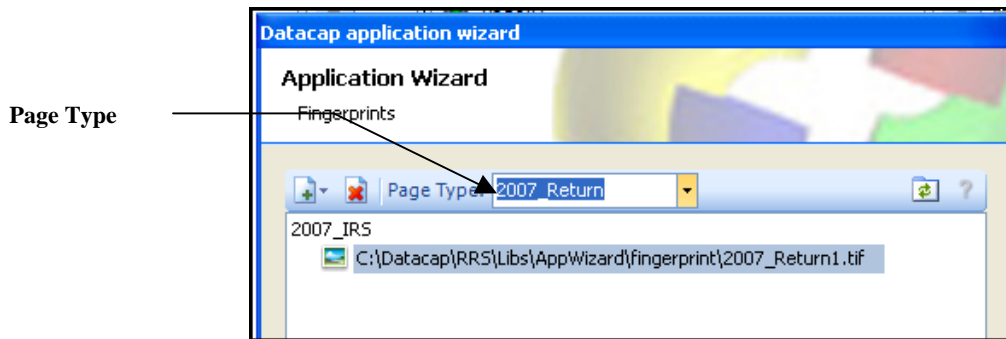
To Assemble a New Application: Step-by-Step (continued)

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

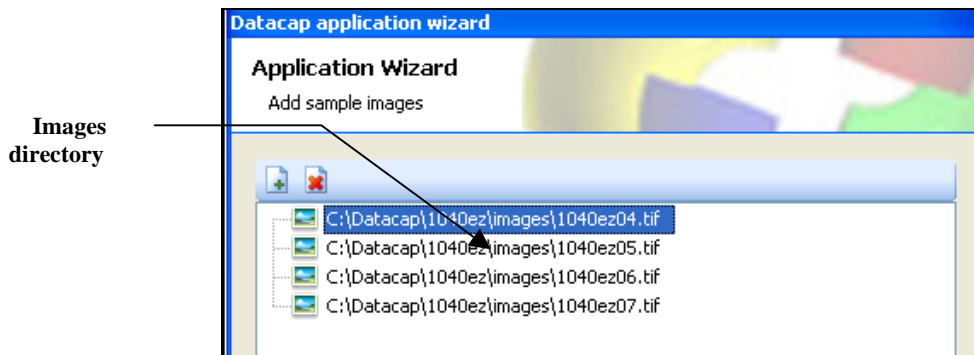
23. If you want to enhance the fingerprint's image, click on the *Image Enhancement?* dialog's Yes button; if not, press the No button. (Chapter 7 of the *Guide to Datacap Studio* describes Image Enhancement procedures.)



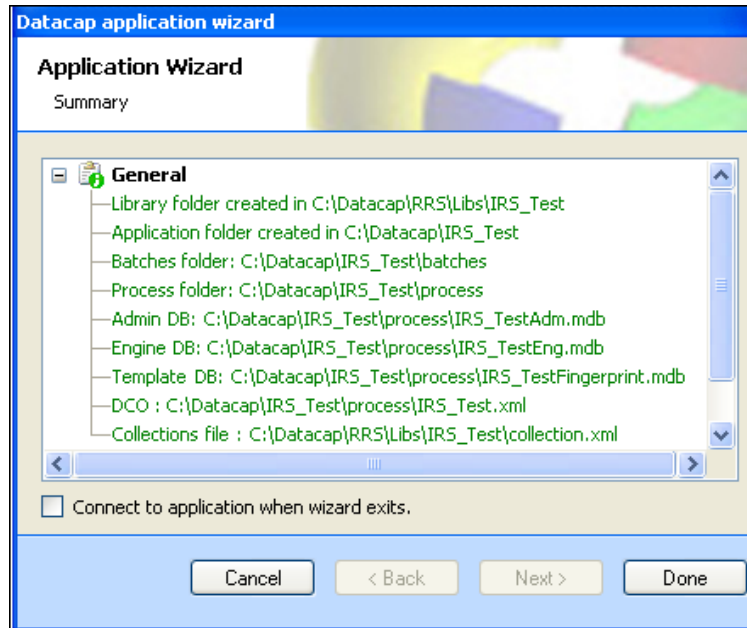
24. Highlight the fingerprint's listing and select its Page Type from the *Fingerprints* screen's **Page Type** drop-down list.



25. Press the *Fingerprints* screen's Next button to open the *Add Sample Images* screen.
26. Use the screen's + icon and tools of the *Open* dialog to add one or more images to the application's **images** folder.



27. Press the *Add Sample Images* screen's Next button to go to the *Finish* screen.
28. Press the Finish button of the *Finish* screen to conclude the wizard's activity and display the *Summary* screen (Page 22).



Datacap Application Wizard – Summary Screen

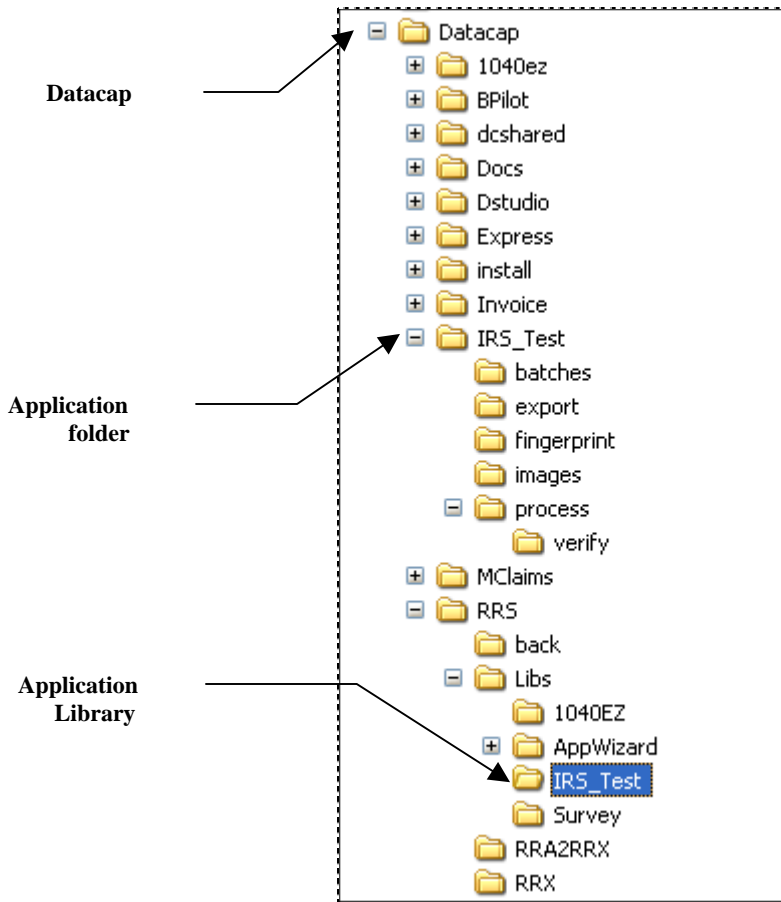
To Assemble a New Application: Step-by-Step (continued)

Step	Action
29.	In the <i>Summary</i> screen, check the Connect to Application option if you want the wizard to open your new application's Datacap Studio without delay when you press the Done button. Otherwise, the wizard will open the default <i>AppWizard</i> application's DStudio.

How to Review the New Application

As its concluding gesture, the Application Wizard *must* display the contents of the application's folder as a member of the **Datacap** directory. A second sub-folder must be part of the **RRS** directory's **Libs** folder.

Alert! If comparable components of your new application are not included, be sure to consult your Implementation Specialist or Datacap Support.



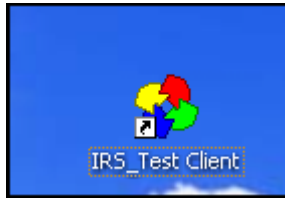
Datacap directory – New Application folder

The application folder – **IRS_Test**, in this case – has these sub-folders:

- The **batches** and **export** sub-folders are processing containers for the application's batches and Export files, but they 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 17 and Page 20, respectively.)

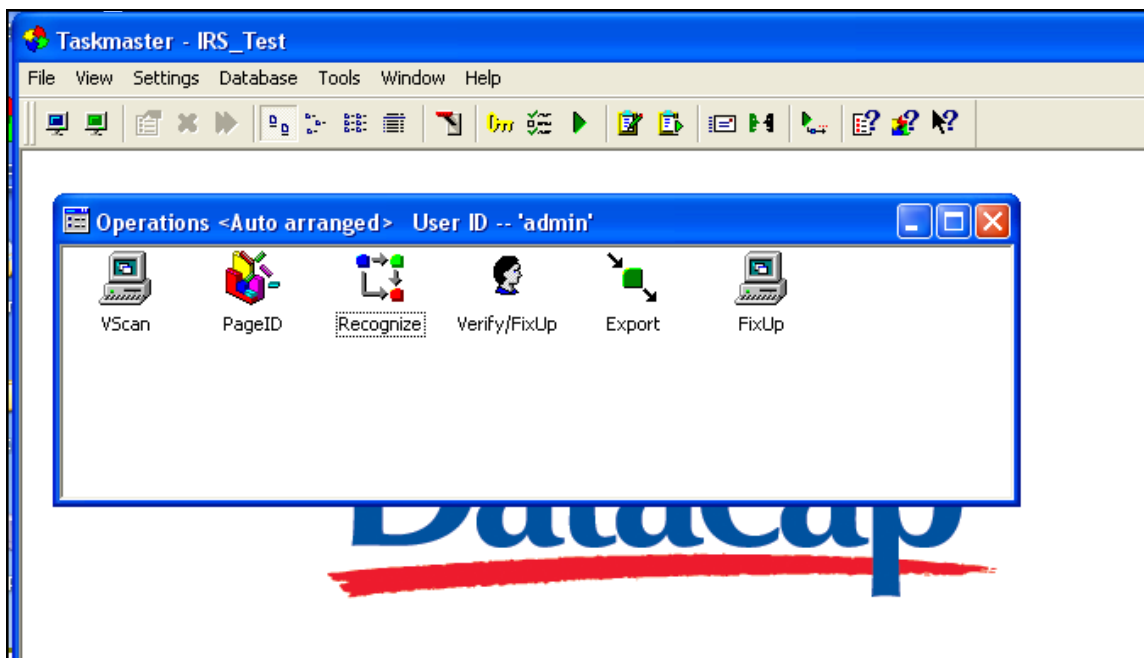
How to Review the New Application

- ✓ You'll also find a shortcut icon on the computer's desktop. This icon represents the application's Taskmaster Client and opens its *Taskmaster Window*.



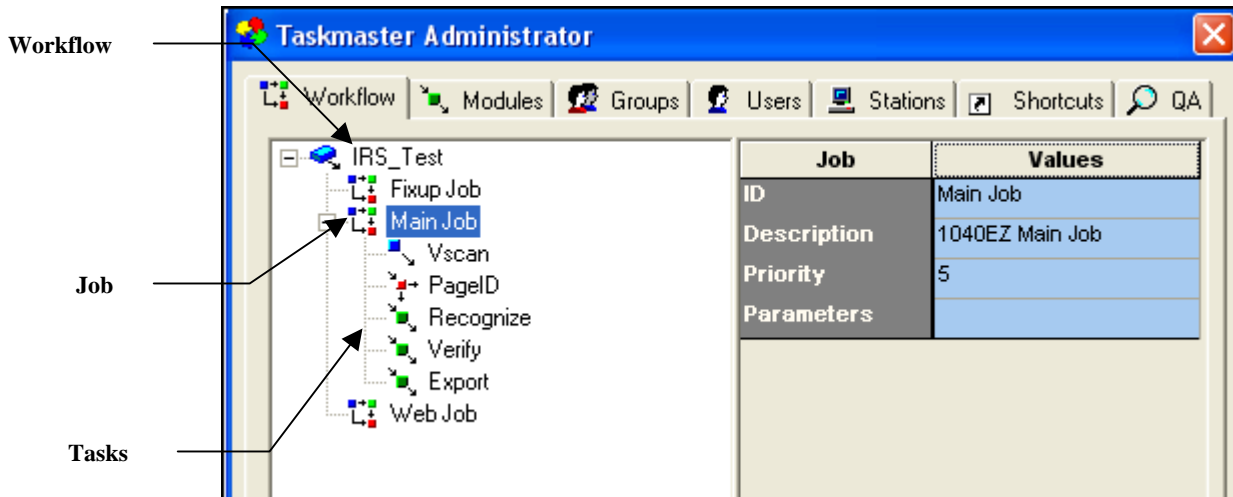
Taskmaster Client

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 (illustrated above) to open the application's *Taskmaster 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

Spend time, too, with three other important tabs:

- *Modules* lists the Task Modules that link the *Taskmaster* tasks to the Ruleset/rule combinations assigned to Task Profiles in Datacap Studio.
- *Users* provides individuals with administrative privileges, and determines exactly who can carry out specific jobs and tasks.
- *Shortcuts* defines the Job-Task shortcut icons of the *Operations* window.

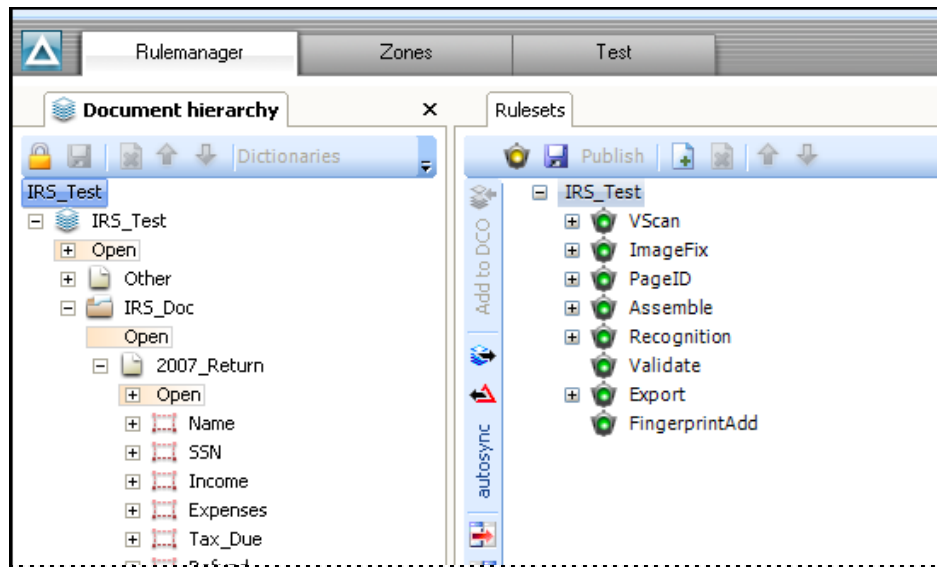
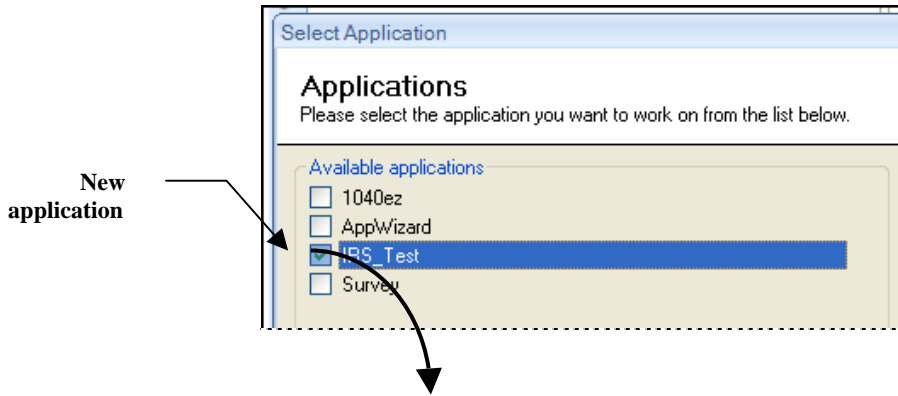
Datacap Studio

The new application’s Datacap Studio is the workshop you use to:

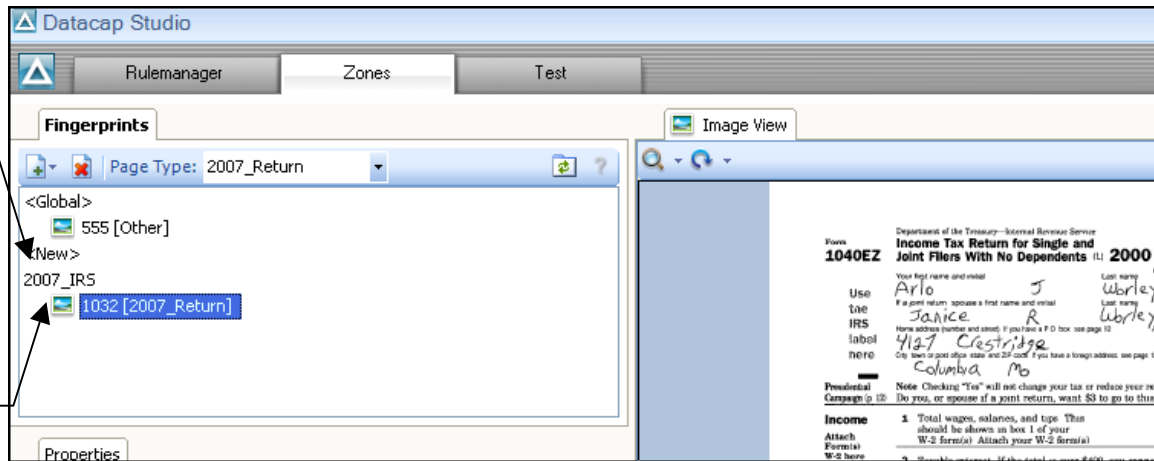
- Expand and manage the application’s Document Hierarchy.
 - Construct the Rulesets and rules that determine how rulerunner tasks recognize pages and data; verify, validate and export data; and organize batches into series of documents and pages.
 - Define and zone the application’s fingerprints.
 - Regularly test the application and its components.
- ✓ The *Guide to Datacap Studio* explains the features and procedures of this essential *Taskmaster* utility.

Remember: To open your application’s Datacap Studio, double click on the **Datacap Studio** icon on your desktop. When the *Applications* screen of the Select Applications wizard appears, choose the new application’s option!

How to Review the New Application



Datacap Studio Window – Rulemanager Page



Datacap Studio Window – Zones Page

Document Hierarchy

The application’s Document Hierarchy occupies the left side of the **Rulemanager** page. Typically, the structure you put together with the wizard (Page 15) is just a beginning. It may need objects at all levels except **Batch**, as well as properties and variables for every object.

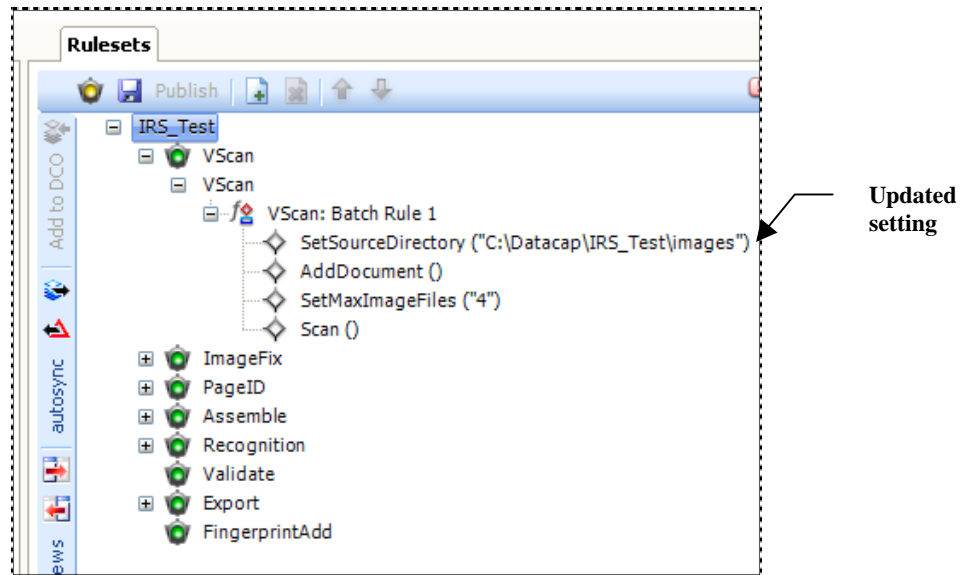
Very important! Further development of the application cannot proceed until you are well underway with the set up of the Document Hierarchy. Much of your attention at this stage may involve the addition of critical **Field** objects to the source **Page** object, and **setup** properties and runtime **variables** to numerous objects.

Chapter 5 of the *Guide to Datacap Studio* explores all facets of the Document Hierarchy, and describes the steps you take to add and remove objects and properties.

Rules and Actions

The Application Wizard updates a default set of Ruleset/Rule combinations for the application. In the example below, the **VScan** rule processes four images it takes from the **images** directory you identified on Page 20.

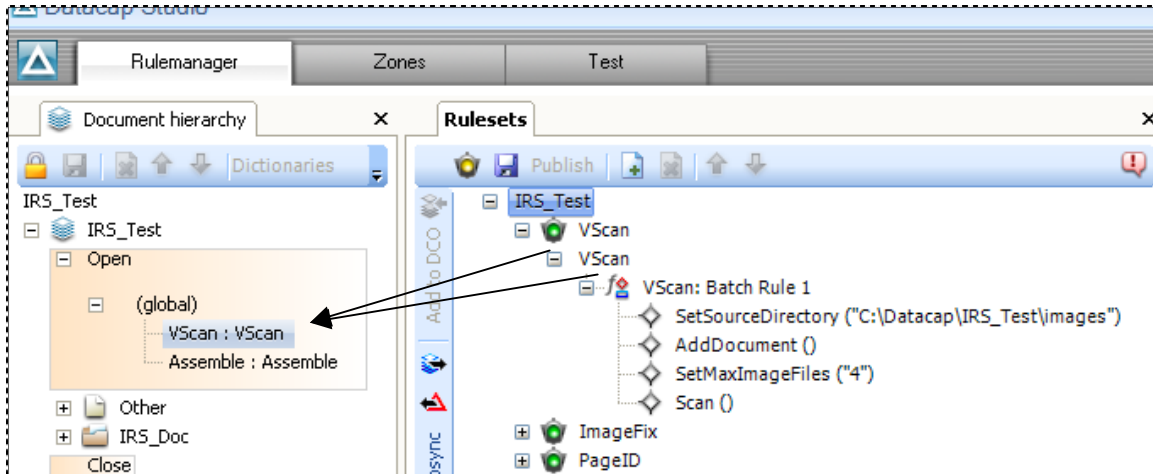
You can review the set up of these rules by accessing DStudio’s **Rulemanager** page.



DStudio Rulemanager Page – Rulesets tab

- ✓ **Keep this in mind.** A Ruleset/rule combination has no real value until it is “bound” to an object of the Document Hierarchy. The **VScan** combination above can set up a batch and process images because it is bound to the *IRS_Test* **Batch** object (illustrated on the next page.)

How to Review the New Application

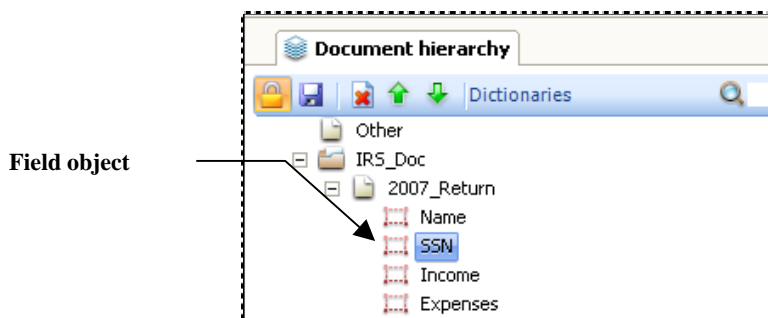
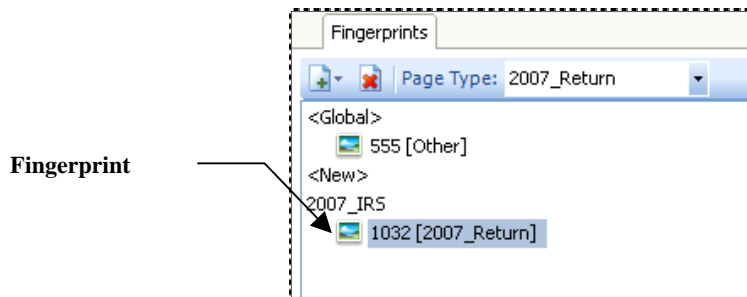


DStudio Rulemanager Page – bound Ruleset/rule Combination

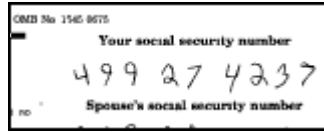
Chapter 6 of the *Guide to Datacap Studio* shows you how to define and bind the Rulesets and rules that determine how a rulerunner task processes the bound object...a batch, document, page or field.

Fingerprints and Zones

You use Datacap Studio's **Zones** page to zone fields of the fingerprint you defined with the wizard (Page 17), and to add new Fingerprint Classes and fingerprints. In the example below, *SSN* is a field of the *2007_IRS* fingerprint and a **Field** object of the Document Hierarchy's *2007_Return Page* object.



Zoning isolates the field represented by the *SSN Field* object on the fingerprint's image. Zoning provides the fingerprint (and the Document Hierarchy) with additional information about the field's location and size as part of the overall image.

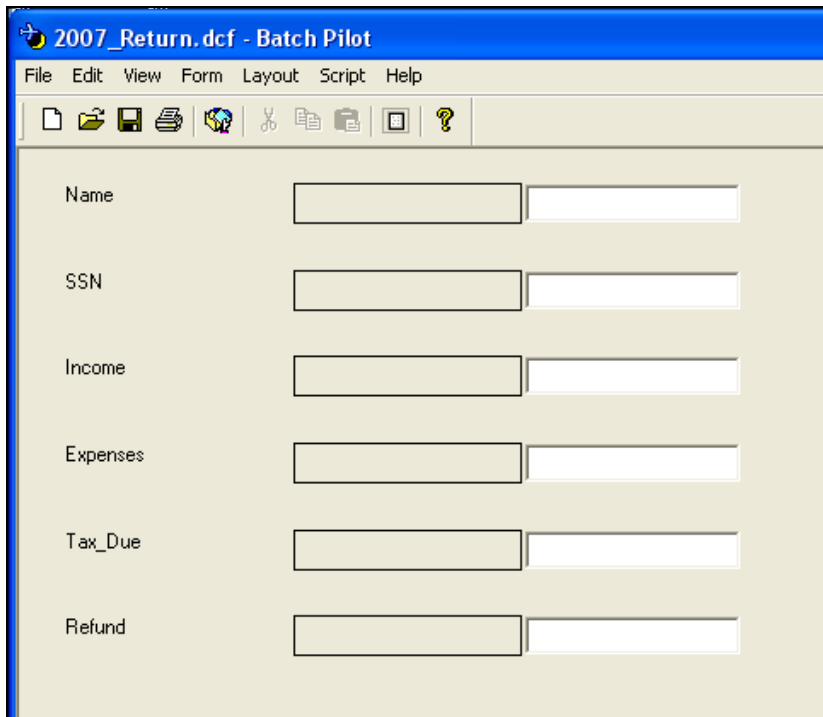


Tools of the **Zones** page can also assign special Recognition parameters to a field or group of fields.

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 *IRS_Test* application – just six **Field** objects in the *2007_Return Page* object of the Document Hierarchy – has resulted in a *Data Entry* panel with six field pairs (illustrated below):

- A **Snippet** on the left will display the image of the field's value, as it appears in the *source* page that is currently begin verified.
- The **Data Edit** field on the right will display the field's *recognized* value. (See Page 44 for a look at the panel in action.)



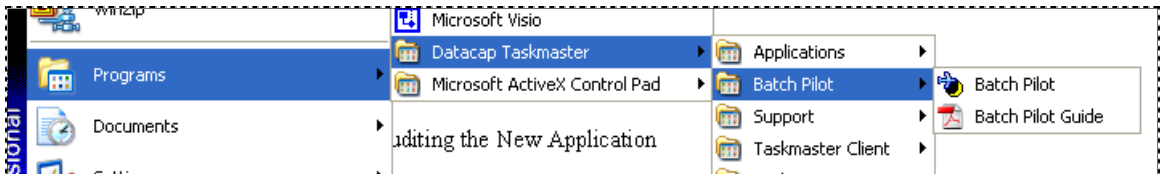
Data Entry Panel – *IRS_Test Application*

How to Review the New Application

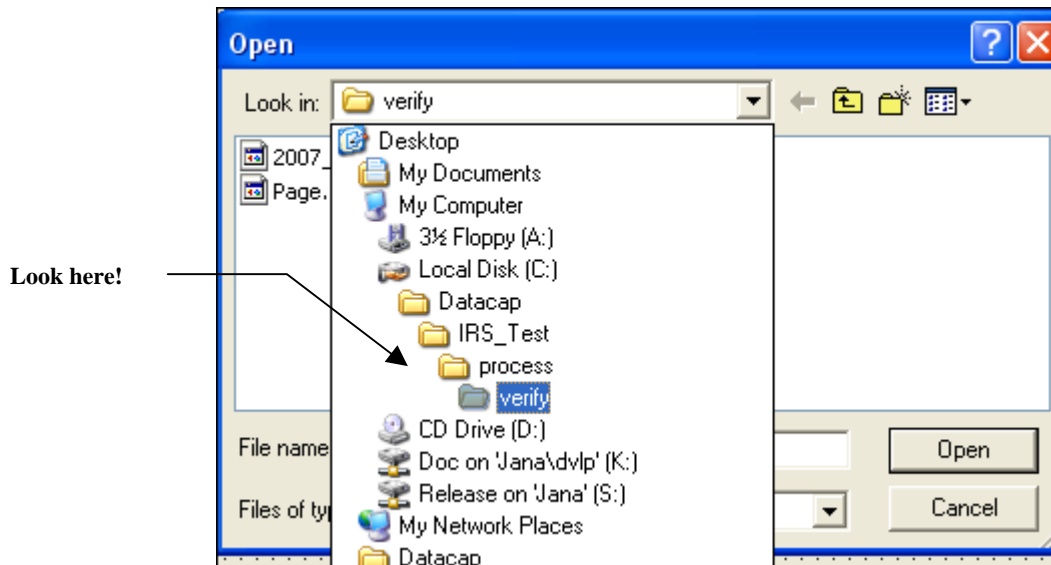
To investigate the contents of the *your* application's **Data Entry** panel, take these steps:

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.



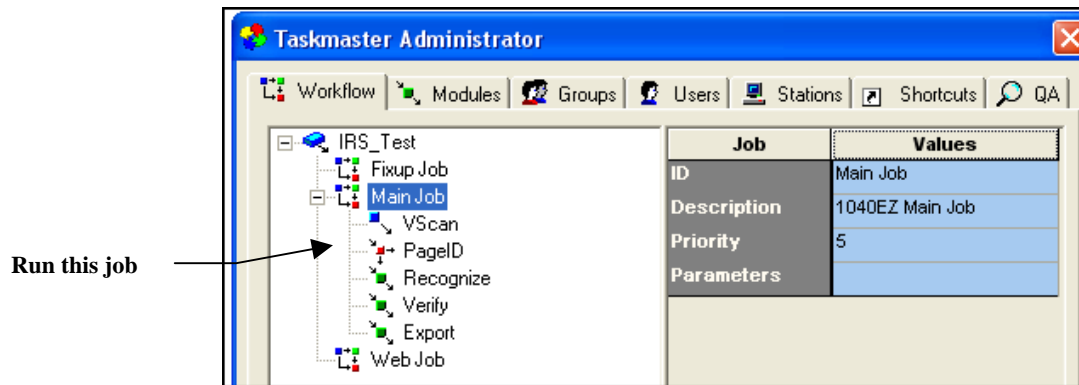
Batch Pilot Window – Open File dialog

4. The Application Wizard places the Datacap form (.dcf) that is the basis for the **Data Entry** panel in the **Verify** folder of the application's **Process** directory. Use the tools of the **Open File** dialog to retrieve and open this form.
 5. Because **Batch Pilot** will display the panel in *Design* 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 44).
- ✓ Chapter 9 of the *Guide to Taskmaster Rules* examines the steps you take to modify the format and controls of an application's **Data Entry** 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 Main Job’s VScan task to scan four of the images you designated in the wizard’s *Sample Images* screen (Page 20).
- ◆ Add the resulting Image files to the new batch as *Other* pages.
- ◆ Generate a **Page file** – **vscan.xml** – that lists the contents of the new batch, and add the Page file to the new batch.
- ◆ Run a PageID task to:
 - Recognize individual pages according to their Page Types;
 - Organize the batch into a series of documents – each with one *source* page.
 - Generate a Page file – **PageID.xml**- with details of the batch after processing by the RuleRunner task, and add the file to the batch.



IRS_Test Taskmaster Administrator – Workflow tab
Main Job

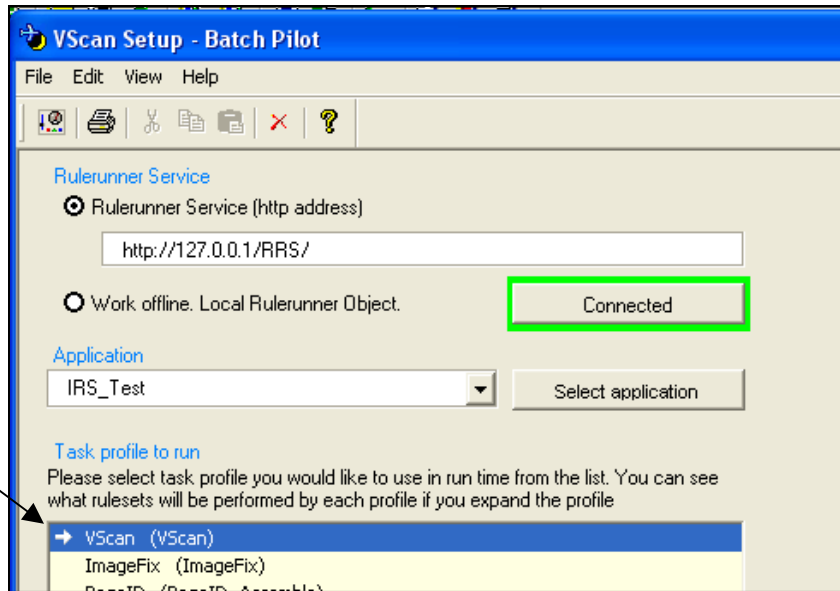
Very important! All tasks of the new application’s Main Job operate in response to Ruleset/Rule combinations prepared in Datacap Studio’s **Rulemanager Page**. Task Profiles defined in Datacap Studio identify the Rulesets that a particular task can run (see Page 35.)

In the first example on the next page, the VScan Task Profile associates one Ruleset (VScan) with the *IRS_Test* application’s VScan task. Rules and actions of this task’s Ruleset give it the ability carry out basic scanning procedures.

- ✓ However, the single Ruleset that belongs to the Recognize Task Profile of the *IRS_Test* application **cannot** possibly handle even the most elementary recognition procedures. In

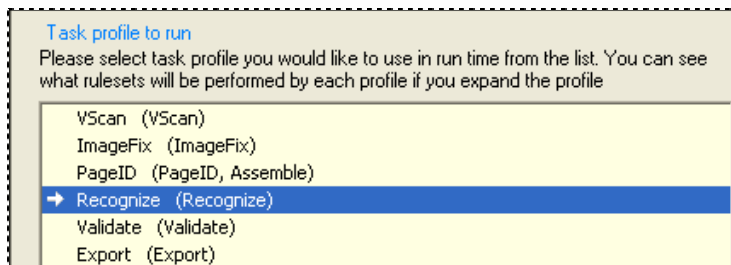
Testing the New Application

contrast, the *1040EZ* Recognize Task Profile benefits from the rules and actions of six RuleSets.

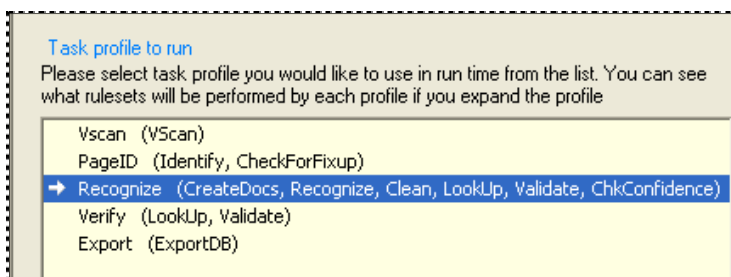


VScan Task Profile

IRS_Test: VScan Task Profile



IRS_Test: Recognize Task Profile

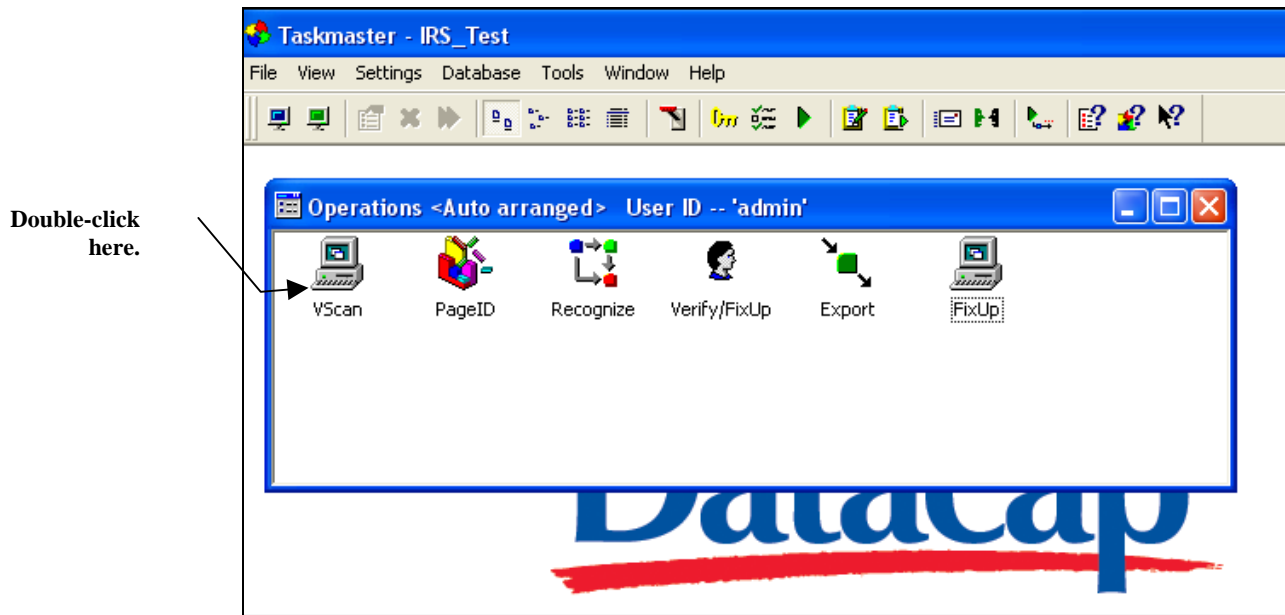


1040EZ: Recognize Task Profile

Testing the VScan Task

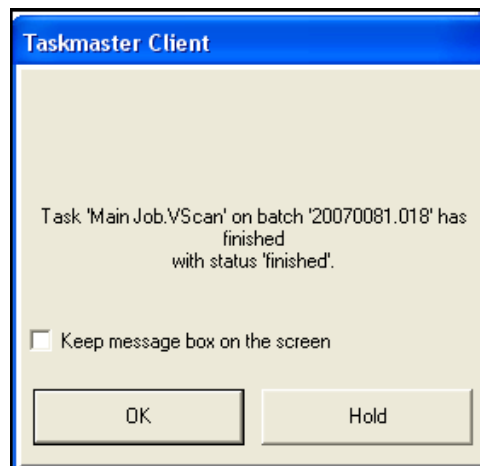
The VScan task of the Main Job is set up to process up to four images in the directory you designated in the Application Wizard's *Sample Images* screen (Page 20).

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



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 task’s *Message Box* will identify the new batch, and let you know that the task is *Finished*.



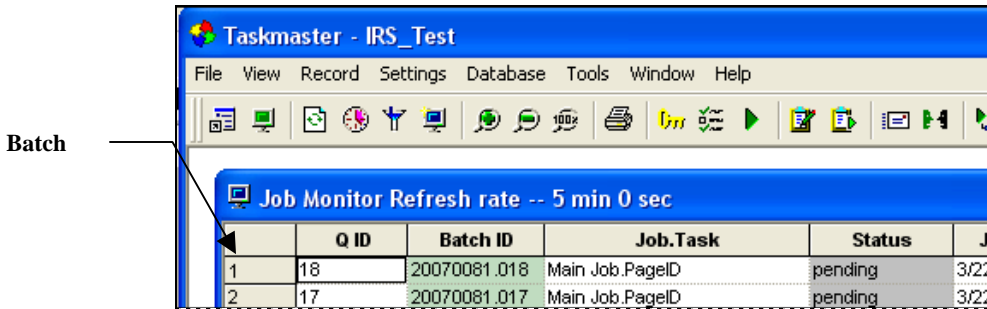
Taskmaster Message Box – Batch Finished

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:

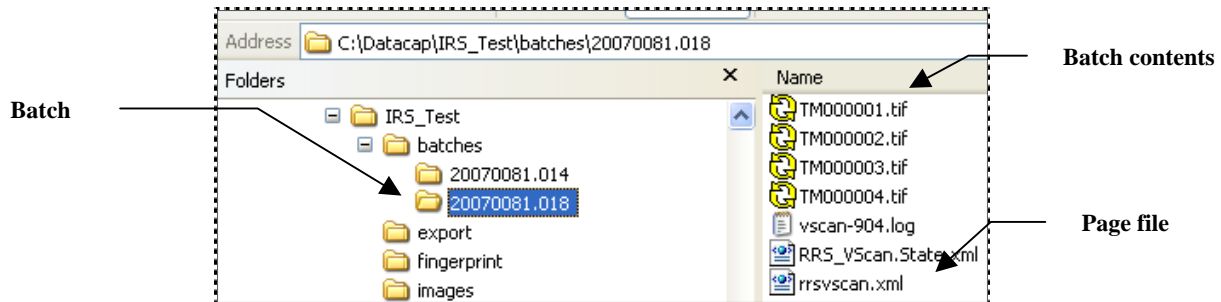
If you click on the *Taskmaster Window’s Job Monitor* icon, the application’s *Job Monitor* will list the new batch:

Testing the New Application



IRS_Test 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.



PageID Task Operations

The Main Job's PageID task is second in line and recognizes pages according their Page Types.

To run the task, you can double-click on the **PageID** 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.

Recognize Task Operations

After you have prepared a full set of Task Profiles for your Recognize task, the task will:

- Organize the batch into a series of documents and pages.
- Match *source* pages to fingerprints
- Locate fields on each *source* page
- Recognize the data in the fields of a *source* page
- Generate a Data file(.xml) for each *source* page and add the recognized data to the file.
- Optionally, validate the information in certain fields of the Data file.

- ✓ Chapter 6 of the *Guide to Datacap Studio* describes:
 - ◆ Rulesets, rules and actions
 - ◆ Procedures for constructing Ruleset/Rule combinations
 - ◆ Steps you take to bind Ruleset/Rule combinations to objects of the Document Hierarchy
 - ◆ How you assign Rulesets to the Task Profiles you have set up.

Verification

When you double-click on the **Verify Job-task** shortcut icon in the **Operations** window, the Verify task may alert you that previous Recognize 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:

IRS_Test Data Entry Panel

IRS_Test Data Entry Panel – Right side (Image)

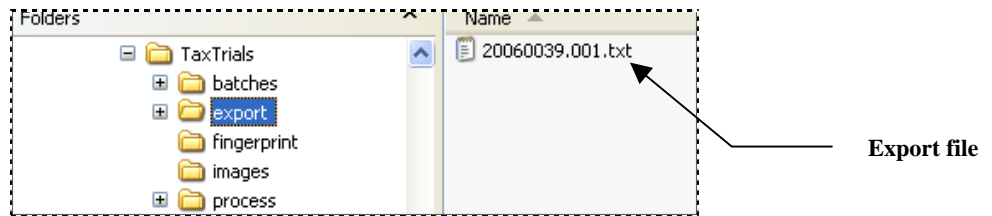
When you have finished working with the panel and its fields, the Verify task will add its own Page file to the batch (**verify.xml**) and, where appropriate, update the Data file of a *source* page.

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 a *Taskmaster Web* job:

- 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.

The screenshot shows the Taskmaster Administrator interface. On the left, a tree view displays the workflow structure for 'IRS_Test'. The 'Fixup Job' is highlighted, and its tasks are listed: FixUp, Main Job, and Web Job. The 'Web Job' is further expanded to show tasks: I/Scan, Upload, PageID, Recognize, Verify, and Export. On the right, a table displays the details for the selected 'Fixup Job'.

Job	Values
ID	Fixup Job
Description	1040EZ Fixup Job
Priority	3
Parameters	

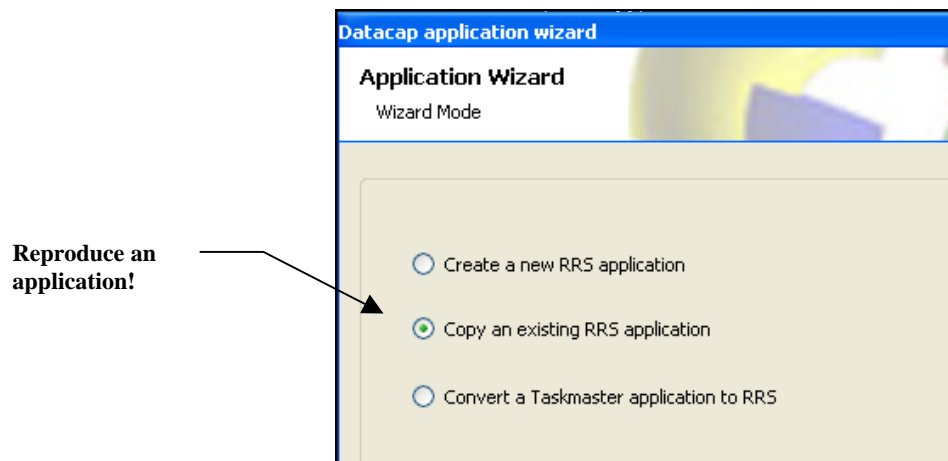
Labels on the left side of the screenshot point to the 'Fixup Job' in the tree (labeled 'FixUp job') and the 'Web Job' (labeled 'Taskmaster Web jobs').

IRS_Test Taskmaster Administrator

Application Wizard: How to Copy an Existing Application

See the Taskmaster Installation and Configuration Guide for more information and instructions on how to use the Application Wizard to copy an application from a workstation to a server.

- Copy an existing *Taskmaster* application with tasks that operate according to the RuleSets of Task Profiles – a **Task Profile 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.

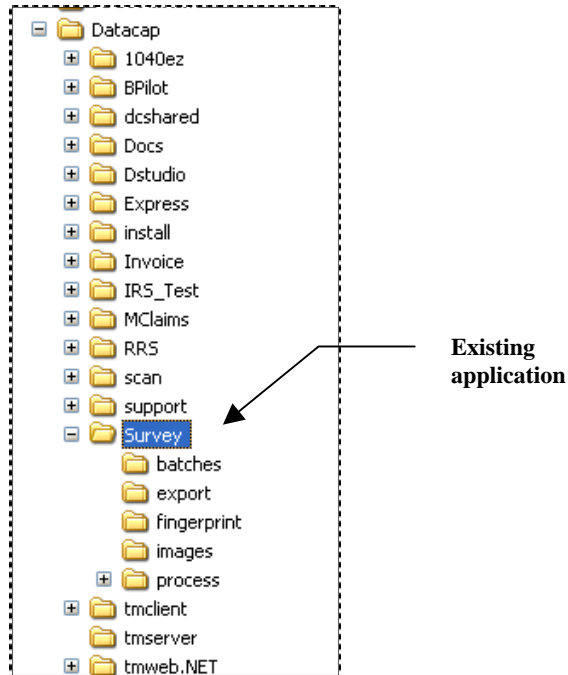


The following pages describe this approach as they show you how the Application Wizard would copy the standard *Survey* application – a pre-configured *Taskmaster* Task Profile application –

- 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 –*Survey* in the illustration on the next page – and a copy of the source application (*New_Survey*, 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.

Running the Application Wizard

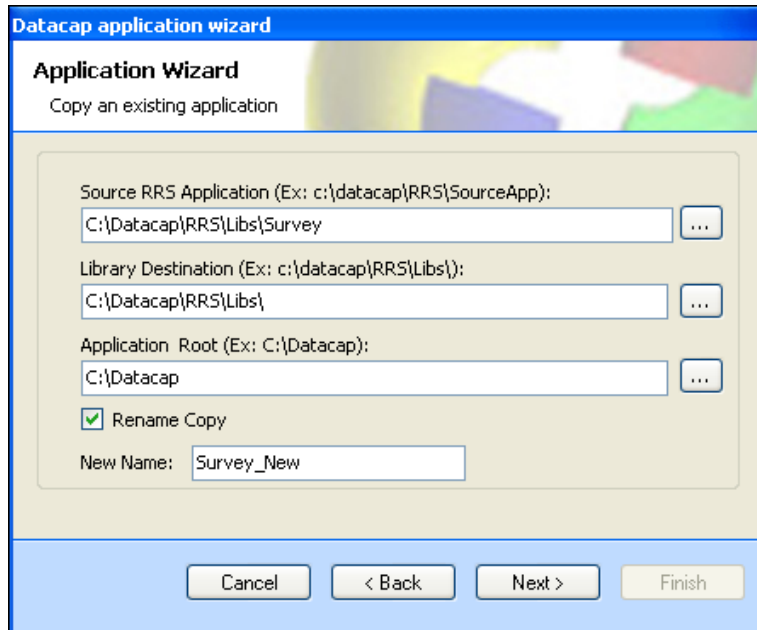


This section first shows you how to use the wizard to add the new (reproduced) application to the **Datacap** directory which contains the old (source) application. Page 49 explains how you place a new application in a different **Datacap** directory, or on another drive.

Running the Application Wizard

To access the Application Wizard:

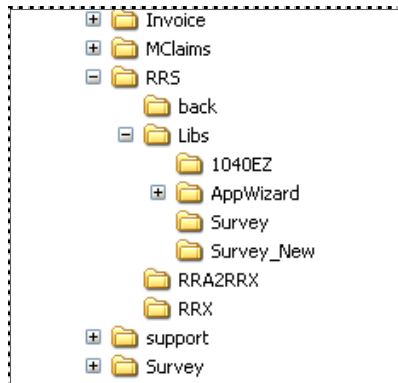
1. Follow the steps on Page 6 to open Datacap Studio.
2. Press the **D** icon in the upper right-hand corner to access the Datacap Application Wizard.
3. Move to the *Mode* screen (illustrated on the previous page.)
4. Select the *Copy an Existing RRS Application* option and press the next button.
5. Enter the name and path of the *source* application's folder in the **Libs** folder of the **Datacap** directory's **RRS** sub-directory (illustrated on the next page.)
6. In the **Library Destination** field, enter the name of the new application and its path to the **Libs** folder.
7. If you are giving the copied application a new name (as you probably are, select the **Rename Copy** option and enter the **New Name**.
8. Click on the Next button to begin the copying process.



Application Wizard: Copying

Important! After copying is complete, locate the copied application and its components:

- ◆ An application folder –**Survey_New**, for example – will be part of the **Datacap** directory after you close and re-open your Explorer.
- ◆ Be sure that the folder has a **Process** directory with the application’s *re-named* Document Hierarchy file: **Survey_New.xml**.
- ◆ Check, too, that there is an application folder in the **Libs** folder of the **RRS** directory



How to Convert an RRA Application to an RRS Application

A *Taskmaster RRA* application uses a **Rulemanager** to:

- Construct the application's Document Hierarchy
- Link the application to a Settings file with details about contents of rules and a Rules database
- Set up and manager a Rules database which contains information about the application's Ruleset Types, Ruleset Type Actions Libraries, rules and actions.
- Set and zone fingerprints.
- Define the Ruleset Type Actions Libraries made up of one or more Actions files (.rra).
- Assign actions to rules that belong to specific Ruleset Types.
- Bind rules of a particular Ruleset Type to an object of the Document Hierarchy.

In addition, the set up of a RuleRunner task is a *Taskmaster* procedure that assigns one or more Rulesets previously defined in Rulemanager to the task. When the task runs, it responds to information in the Rules database as it applies rules to the objects of the Document Hierarchy.

In contrast, a *Taskmaster RRS* application uses Datacap Studio to:

- Set up the application's Document Hierarchy
- Set up and zone fingerprints
- Prepare Actions Libraries made up of one or more Actions files (.rrx).
Important! A *Taskmaster RRS* application can also work with actions taken from a *Taskmaster RRA* Actions file (.rra)
- Define Ruleset/ rule combinations
- Bind Ruleset/rule combinations to the applicable objects of the Document Hierarchy.
- Generate a Rules file(.rul) for with information about each Ruleset/rule combination and the object of the Document Hierarchy to which it is bound...and place the file in the application's **Libs** sub-folder of the **RRS** folder.
- In the same sub-folder, create and maintain an Application Collection file (**collection.xml**) with details of Ruleset/Rule combinations and Task Profiles.
- Establish Task Profiles for the application's tasks, and assign Rulesets to the Task Profiles
- Test the application's structure and components, using Datacap Studio's **Test** page.

A *Taskmaster RRS* application employs services to apply rules, in one of two configurations:

Rulerunner Service (RRS) runs in a local network, and can only apply Ruleset/rule combinations consisting of RRX actions.

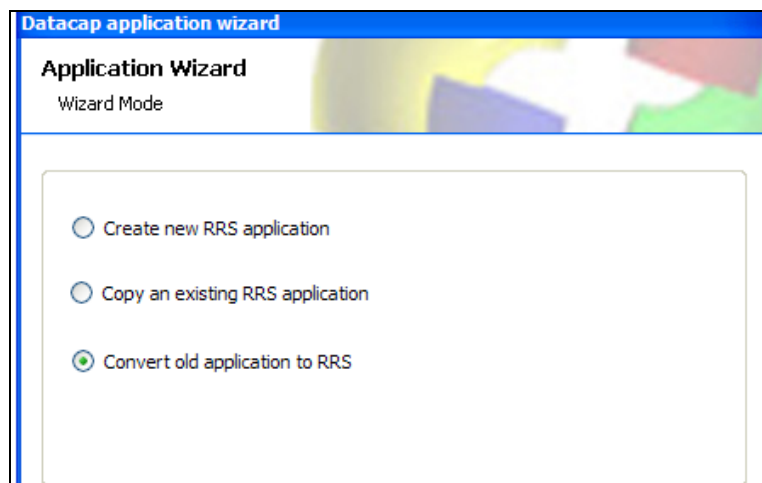
Rulerunner Web Service (WRRS) can run locally or in a web environment. A *Taskmaster WRRS* application can only apply Ruleset/rule combinations consisting of RRX actions.

- ✓ **Important!** Although a *Taskmaster RRS* or *Taskmaster WRRS* application can be modified so that it can work with individual *Taskmaster RRA* actions, we recommend that you consult your Datacap Implementation Specialist or Datacap Support before you add an RRA action to an Actions file.

Datacap Application Wizard: Converting Applications

To convert a *Taskmaster RRA* application to *Taskmaster RRS*:

Action	Description
1.	Add a file for the application to the Libs folder of your Datacap directory's RRS folder. (This is an important, <i>easily overlooked</i> first step.)
2.	Follow the steps on Page 6 to access Datacap Studio.
3.	Press the D icon in the upper right-hand corner of the <i>Datacap Studio Window</i> .
4.	Move to the Application Wizard's <i>Mode</i> screen.
5.	Select the <i>Convert old application to RRS</i> option.



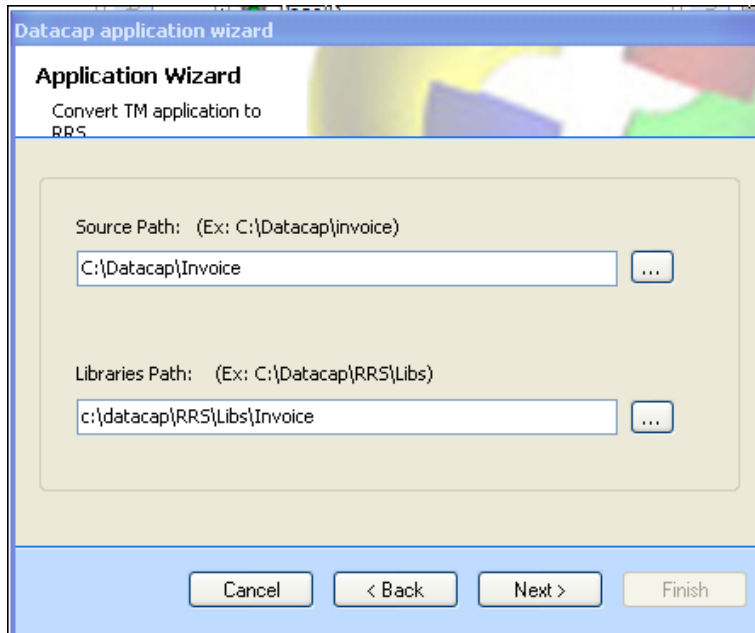
- 6. Press the screen's Next button.

Datacap Application Wizard: Converting Applications

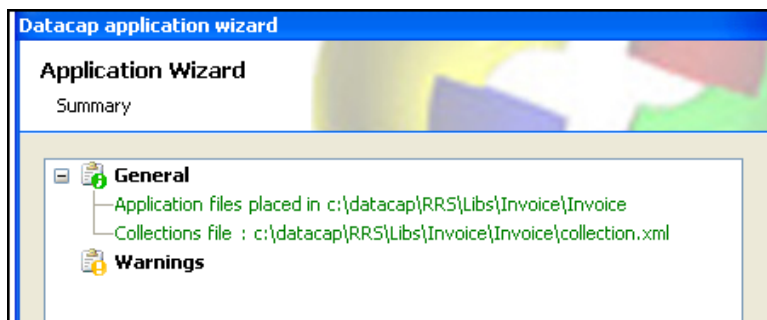
To convert a *Taskmaster RRA* application to *Taskmaster RRS*:

Action	Description
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7. In the *Convert TM Application* screen, enter the name and path of the application you're copying in the **Source Path** field.



8. Enter the name and path of the folder you set up in Step #1.
9. Press the Next button to launch the conversion.
10. Check the information in the *Summary* screen. Check, too, that there is a full complement of files in the **Libs** folder.



11. Finally, be sure that you access the application's Datacap Studio.

