
Data Entry Tasks

The operator of a *Taskmaster Web* Verify task uses an interactive *Data Entry* panel to process data in either of two modes:

- The **Verify** mode allows the operator to observe and assess *recognized* values and make necessary changes.
- The **Index** mode is “blind:” the operator locates a value in a field on an image, and enters the value directly into a corresponding field in the *Data Entry* panel.

Chapter 5 shows you how to set up Data Entry tasks in both modes. It also explains the steps you take to assemble and modify a *Data Entry* panel for your application.

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5.1 Introduction: Verify and Index Modes

The chart on the next page shows how *Taskmaster Web* identifies the **pages** in a batch; recognizes data in the fields of each **page**; and submits the data in certain fields to Verification or Indexing procedures.

Verification uses a **Data Entry** panel to give an operator a chance to review and, if applicable, modify *recognized* data, data previously entered or otherwise filled in. When each page or document has been entered, Validation rules can ensure that the data conforms to applicable business rules.

Indexing also provides a **Data Entry** panel for the operator to enter and validate data, but all the data fields are initially blank, without any recognized or pre-filled data.

The chart emphasizes the following closely related elements associated with the *Taskmaster Web* application:

Document Hierarchy. The application's Document Hierarchy in this very simple example has a **Page** object with five **Field** objects: *Date*, *ZIP*, *Amount*, *Account*, and *Name*. (The Document Hierarchy has objects at other levels, as well.)

Web Job: Task Profiles. The Web Job in the example has six tasks.

The iVScan and Upload tasks produce a batch and Image files, and add the images to the batch. These are *Taskmaster Web* tasks, and each generates a Page file (.xml) with details of the batch. In this early stage, the contents of the pages are unknown, and they are assigned the Page Type *Other* (Chapter 4).

PageID is a *Taskmaster* "thick client" task rather than a *Taskmaster Web* task. It distinguishes pages according to their Page Types and provides this information to the Recognize task. In this brief example, the PageID task informs the Recognize task that the three pages in the batch are *source* pages.

As a result, *Taskmaster's* Recognize task puts together a file trio for each **page**. For example:


- * **TM000001.tif** is the page's Image file.
- * **TM000001.cco** is an Information file with details of field names, locations and recognition parameters.
- * **TM000000.xml** is the page's Data file, which contains data the Recognize task has captured in each field

Application Document Hierarchy

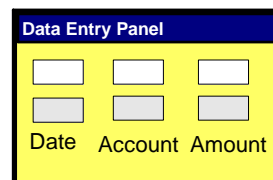
- Batch Object
- Document Object
- Page Object – **Source** Page
- Field Object: Date
- Field Object: ZIP
- Field Object: Amount
- Field Object: Account
- Field Object: Name

Page Object – *Other* Page

Page Image
TM000001.tif

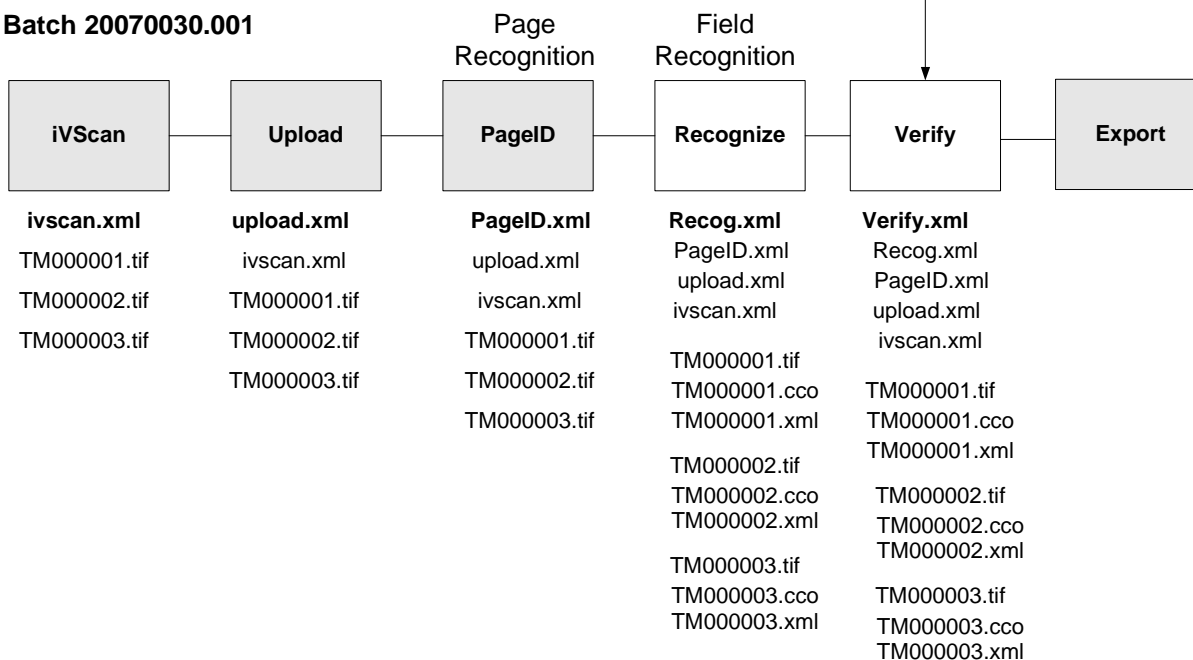
	Account 321-aa4
	Name Parsons
	ZIP 06894
	Date 02/22/2007
	Amount 2333.99

Page Information: TM000001
TM000001.tif TM000001.cco TM000001.xml



Web Job: Task Profiles

Batch 20070030.001



Taskmaster Web's Verify task uses a **Data Entry** panel to combine three features of a processed **page**.

Fields *you have selected* from the Document Hierarchy appear in the panel in pairs:

- * At the top, a **Snippet** shows the image of a field and of its *recognized* or pre-filled value.

- * Below the Snippet, a **Data Edit** field is an interactive display of the *recognized* or prefilled value. The background color of this field changes to indicate a problem with recognition values. After comparing values in the two fields, an operator can change the value in the **Data Edit** field.
- * The page's complete image is also available.

The chart on the previous page focused on the structure of a *Taskmaster Web* Data Entry task in the *Verify* mode – a **Verify** task. The chart on the following page represents a task in the *Index* mode – an **Index** task.

In this case, there is no Recognize task to recognize data or generate a Data file (**tm00000n.xml**) for each page. Instead, the Index task creates these files later in the job, and populates them with data entered by the operator in the interactive Data Edit fields of the *Data Entry* panel.

- ✓ **Very important!** In both cases, the Document Hierarchy's **Page** object has five **Field** objects. However, the panels show only three corresponding fields: *Date*, *Account* and *Amount*.

The Verify task on Page 3 retrieves information from four sources:

- The Page file produced by the preceding Recognition task (**recognize.xml**) provides details about each **page** such as its Page Type, Status and overall Recognition Confidence. This file also
- An Image file – **TM000001.tif**, for example – is the complete image of the current **page**.
- An Information file (**tm000001.cco**) locates the fields on the image of the current page.
- The Data file (**TM00000.xml**) contains recognized values – typically, for all fields on the **page**...even for those fields that are not on the panel. The Page file of the Recognize task or Verify task has links to the Data file of each page.

A *Taskmaster Web* job with an Index task, in contrast, may include an Assemble task to identify the types of pages in the batch. It does **not** include a Recognition task because the recognition is a human rather than an electronic activity.

Verify and Index operations are not mutually exclusive, so a Web Verify task can present some pre-filled fields and some empty (non-pre-filled) fields for the operator to enter.

Application Document Hierarchy

Batch Object

Document Object

Page Object – **Source Page**

Field Object: Date

Field Object: ZIP

Field Object: Amount

Field Object: Account

Field Object: Name

Page Object – *Other Page*

Page Image

TM000001.tif

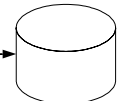
Account
321-br5
Conway
Name
ZIP 12789
Date 02/01/2007
Amount 300.00

Data Entry Panel

Date Account Amount

Submit

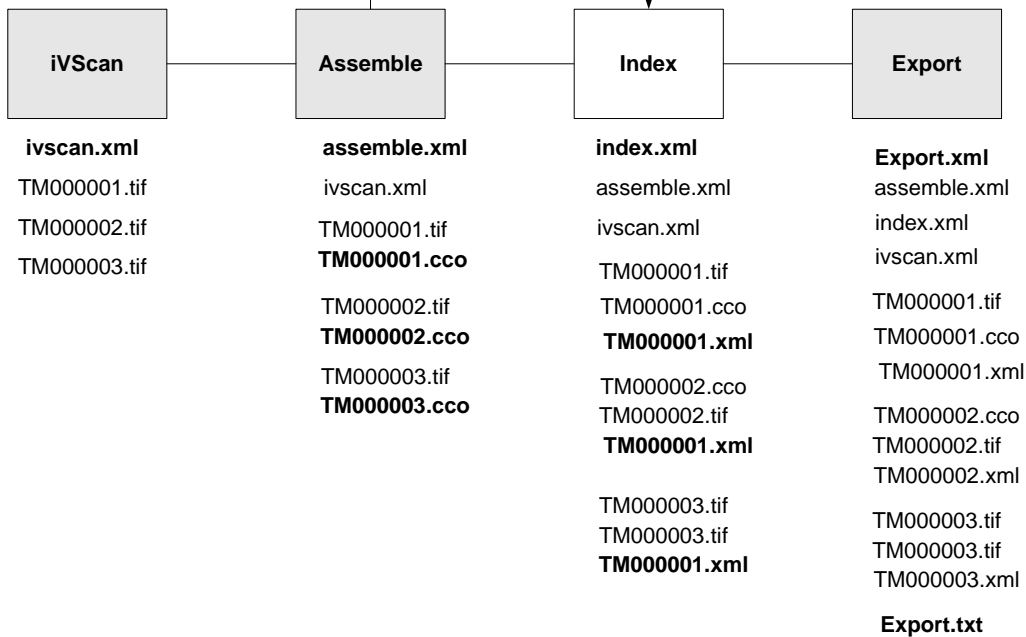
Validation Database



Account,
Name/Address

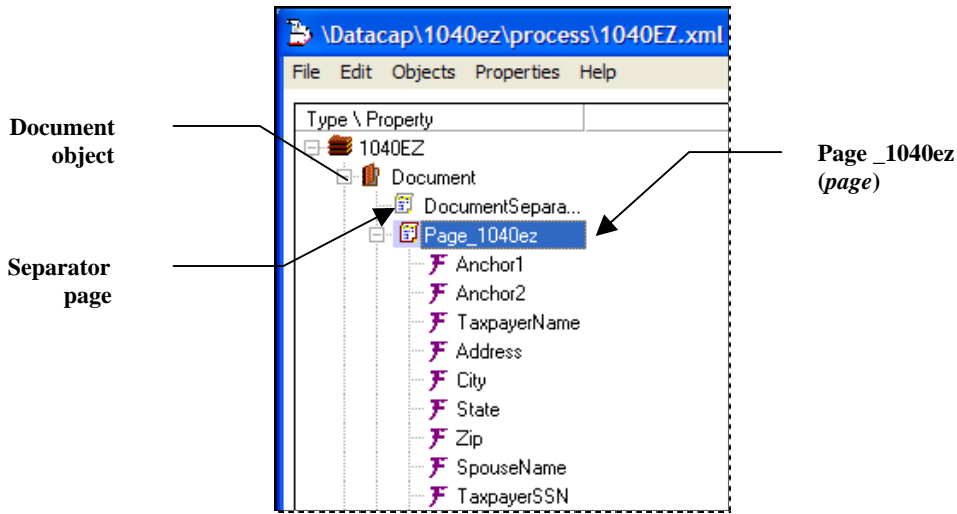
Web Job: Task Profiles

Batch 20070033.051



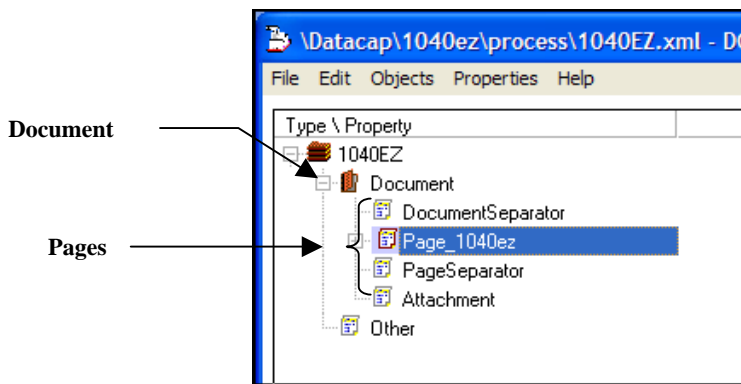
5.1.1 Documents with Multiple Pages

The very limited Document Hierarchy in the previous charts has one **Document** object with a single **page** object. The actual *1040EZ* training application's Document Hierarchy appears to have a similar structure.



1040EZ Document Hierarchy (partial)

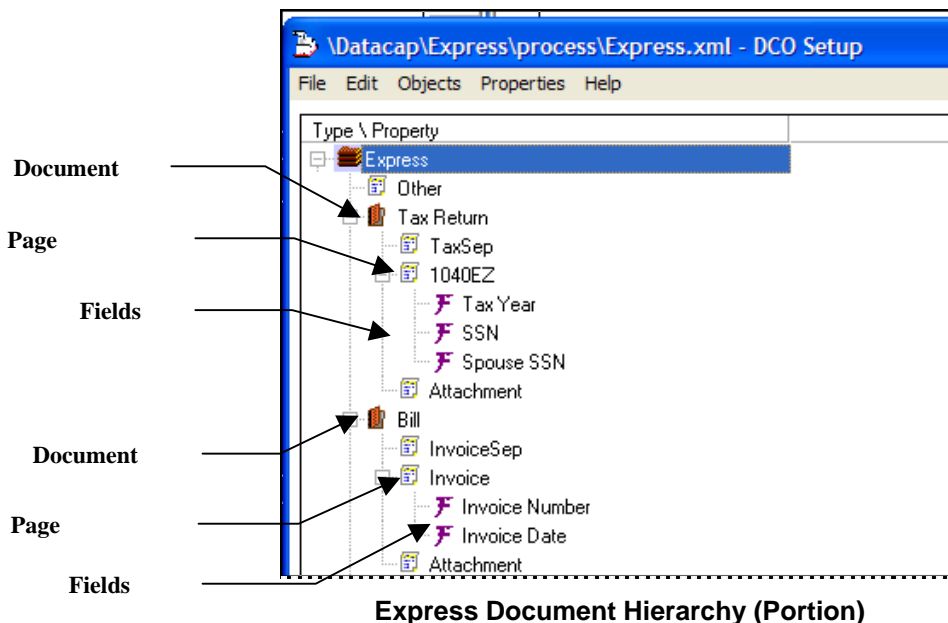
However, a closer look reveals that *1040EZ*'s parent **Document** object has other child **Page** objects. Here is the full complement:



Pages of the 1040EZ Document

- ✓ **Very important!** A typical *Data Entry* panel allows verification and manual corrections to the Page Types and document structure of the each document, not only its **data**.

In this example, there are two **Document** objects: *Tax Return* and *Bill*. Each has two **pages**: *1040EZ* and *Invoice*, respectively. Below, the *1040EZ* page has three **Field** objects; the *Invoice* page has two **Field** objects:



The *1040EZ* Verify task uses a specially designed **Data Entry** panel (below) to process *1040EZ* batches. The preceding Recognize task has organized the batch into a series of documents, each with one **page**.

- ✓ The contents of this batch are displayed interactively in the *runtime* Document Hierarchy area in the lower right-hand corner of the panel:
 - 20070054.003 is the Batch ID
 - 20070054.003.02 identifies the second document in the batch
 - TM000002 is the second page in the batch...the second page produced by the opening Scan task.
 - **Very important!** TM000002 is also the **page** of the second document (Document 20070054.003.02). *Page_1040ez* is the Page Type that has been assigned to Page TM000002, using the **Page Type** drop-down list in the *runtime* Document Hierarchy area.
 - This area does not display fields or their values. That is the responsibility of the **Image** area on top, and the **Fields** area below it.

Introduction: Verify and Index Modes

The screenshot displays the '1040EZ Data Entry Panel' in Datacap Studio. The top section shows a tax form with the following items:

Item	Description	Page ID
1	Total wages, salaries, and tips. This should be shown in box 1 of your W-2 form(s). Attach your W-2 form(s).	66 666 66
2	Taxable interest. If the total is over \$400, you cannot use Form 1040EZ.	[Redacted]
3	Unemployment compensation, qualified state tuition program earnings, and Alaska Permanent Fund dividends (see page 14).	[Redacted]
4	Add lines 1, 2, and 3. This is your adjusted gross.	66 666 66

Below the form is a 'Fields' section with input boxes for TaxpayerName (Helen Leslie Os...), Address (1743 W. Main), City (White Plains), State (NY), Zip, and SpouseName. A 'Page ID' label points to the 'TM000002' field.

On the right, a document hierarchy tree shows folders for '20070054.003' and '1040EZ'. A 'Page Type' label points to the 'Page_1040ez' document type.

Buttons at the top include 'SuBmit', 'Next', 'Stop', and 'Problems only'.

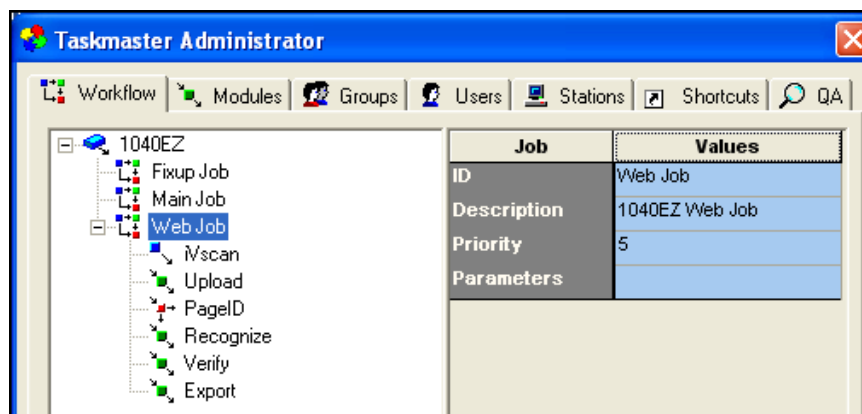
☛ **Alert!** Building a Data Entry task in either mode – *Verify* or *Index* – requires a thorough understanding of the application’s *setup* Document Hierarchy.

☛ Chapter 5 of the *Guide to Datacap Studio* provides a full description of Document Hierarchies and their elements.

5.2 Data Entry Tasks – Verify Mode

A *Taskmaster Web* job that includes a Data Entry task in the *Verify* mode has the structure illustrated on Page 3.

As an example, the *Verify* task of the *1040EZ* application's *Web Job* has six tasks.



1040EZ Taskmaster Administrator – *Web Job*

This Job has six tasks. **Important!** Only three are *Taskmaster Web* tasks. You must use *Taskmaster Client* to run the job's *rulerunner* tasks: *PageID*, *Recognize* and *Export*.

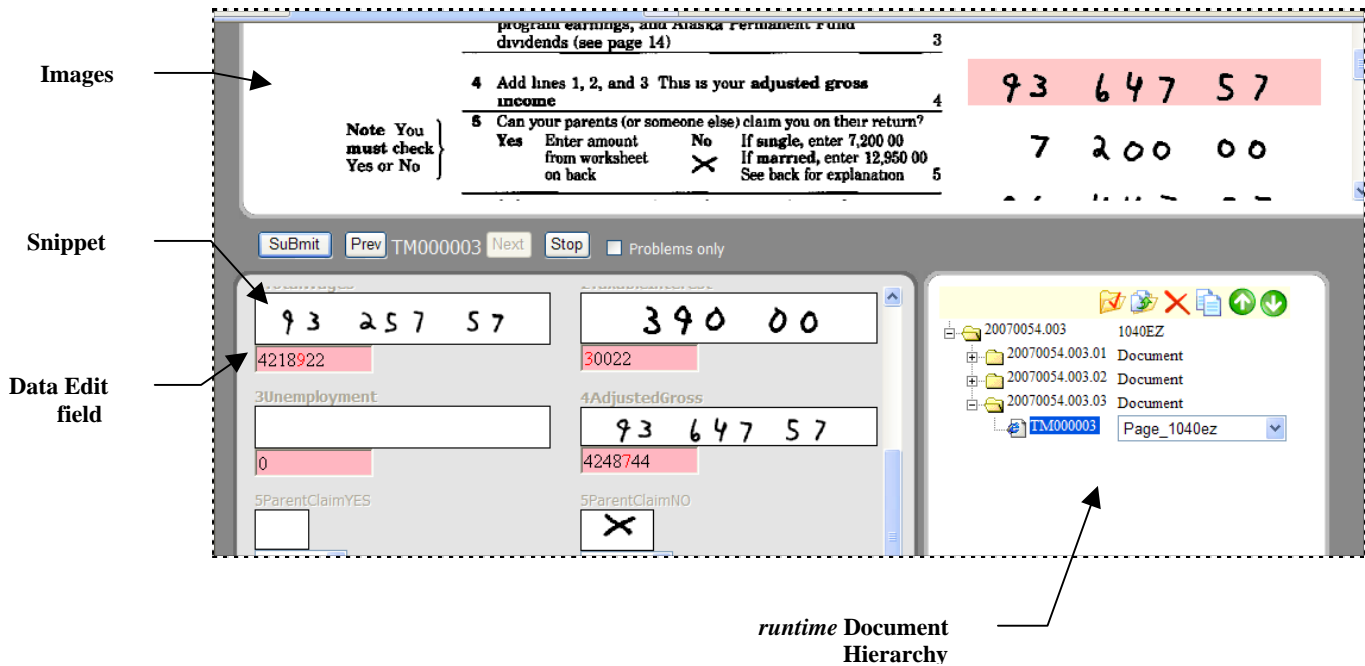
The *Recognize* task supplies the *Verify* task with information from the following files:

- The Page file (**recognize.xml**) lists the contents of the batch at the highest levels of the Document Hierarchy: **Batch**, **Document** and **Page**. The Page file contains a link to the Data file for each **page**.
- A **page's** Data file (**TM000001.xml**, for example) lists each field on the page; the coordinates that specify the field's position within an image; and the field's recognized value and other criteria – its status, for example. (You can use an Internet browser or XML editor to view any .XML file.)
- An Image file (.tif) supplies the *Verify* task with the scanned image of the **page**. The *Verify* task also uses this file to construct **snippets** – images of individual fields. **Important!** There is an Image file for every page.
- A CCO file (**TM000001.cco**, for example) contains geometric information about the page's image, such as characters, words, and lines that were found on the image. It is used for fingerprint matching (*Autodoc* actions), *click-n-key*, and *Locate* actions.

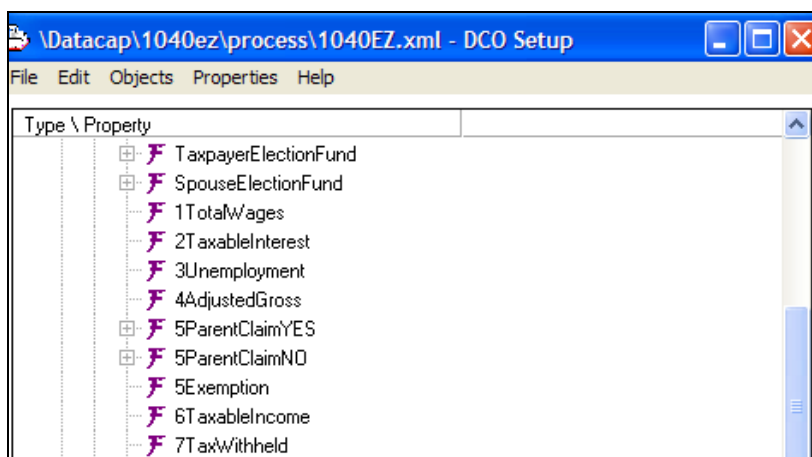
5.2.1 Static and Dynamic Verify Data Entry Panels

Below is a close-up of a portion of the *1040EZ Data Entry* panel. The Data Entry area consists of image Snippets and Data Edit controls. The panel’s designer placed these controls and associated labels in specific locations, and the layout is “static”.

Alternatively, without a static layout, the Web Verify task can automatically determine the layout of image Snippets and Data Edit controls in the Data Entry area: this is called a “dynamic” panel.



- ✓ There are two ways to build a static *Data Entry* panel: both involve the use of *Autoform* technology.
 - ◆ You can use Datacap’s *Batch Pilot* design function to create, modify and test the panel after you have assembled the application’s Document Hierarchy. This approach is described in Chapter 5 of the *Guide to Batch Pilot*.
 - ◆ The **Taskmaster Application Wizard** automatically generates a *Data Entry* panel if you use this utility to set up a new application. The *Application Wizard Guide* shows you how to take these steps.



1040EZ Document Hierarchy (portion)

5.2.1.1 Settings of Verify.bpp

This file is in your application's **Process** directory: you can review it with a Text Editor such as *Notepad*.

Most settings involve the appearance of the panel and the placement of its controls. However, the settings below deserve your attention.

Setting	Description
[General]	
RootBatchDir=..\batches	Specifies batches as the application's Batch directory: Datacap\1040EZ\batches , for example. The Verify task will find batches and their contents in this directory
DCOSetup=1040ez.xml	The name of the <i>setup</i> Document Hierarchy with which the Verify task will work. This must be the same Document Hierarchy used throughout the workflow.
TaskDCOFile=verify.xml	The name of the Page file to be generated by the Verify task.
StopOnConfidence=8	A minimum Recognition Confidence Rating assigned by the Recognition task to a field (and its page.) The Verify task will automatically process a page with any field that fails to meet this standard.

Key Settings of Verify.bpp (continued)

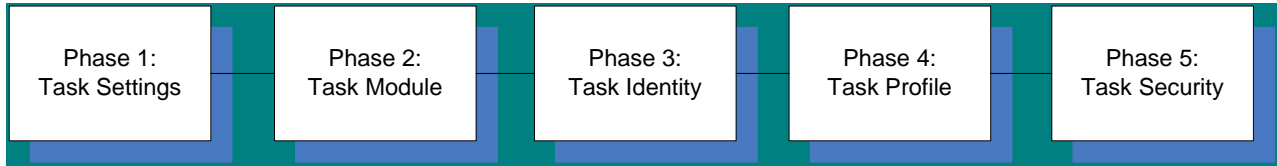
Setting	Description
UnloadFormOnEndBatch=0	Indicates if the Verify task should close the Data Entry panel when it finishes with a batch (1) or keep the panel open to process the next problem batch (0).
RunRRSRules=True	A Web Verify task can optionally validate data by running business rules called validation actions, either in a Rules database (RunRRSRules=False), or in a Rulerunner Service Task Profile (RunRRSRules=True).
[iCap]	Taskmaster Web settings
Enabled=1	“1” permits the Verify task to run in Taskmaster Web.
Page=Averify.asp	<i>This setting is no longer used.</i> It specifies the web page (ASP) for earlier versions of <i>Taskmaster Web</i> .
Page1=prelayout.aspx	The web page (ASP) that represents this task in <i>Taskmaster Web</i> .
Static=1	The setting that determines how the Verify task lays out or formats the Data Entry area of the panel. Static=0 directs the task to automatically format the panel based on the fields on each page. Static=1 uses fixed layout(s) for display of the Data Entry area - one for each page type. The Src0= must indicate the pre-defined custom Data Entry panel to use. Page 27 outlines steps you can take to put together your own panel.
Types=1	Indicates that the task can process multiple Page Types (1 or more) – or only one page Type (0).
Type0=Page_1040ez	The type of the first page .
Src0=layout.ascx	The layout of the Verify task’s Data Entry panel of the first page type – applicable if Static=1. Page 27 illustrates this version of the panel.
IPS=72,74,0	Numbers representing Page Statuses the task should ignore (IPS), i.e. which should be skipped and not shown to an operator. For example: 72 (Page on Hold), 74 (No Data), 0 (Done). See Chapter 4 for a list of Page Statuses.

Key Settings of Verify.bpp (continued)

Setting	Description
DPS=0	Numbers representing status of “done” pages, i.e. pages that were already displayed to an operator, corrected, and passed any required validations.
IFS=-1	Numbers representing the Field Statuses of fields that are to be ignored.
DFS=0	Numbers representing status of “done” fields..
RuleDSN	The Data Source Name of the application’s Rules or Fingerprint database, if any.
[Page]	
Type0=Page_1040ez	The identity of the page (again!)
[RRC]	Rulerunner Service settings
Application=1040ez	The application’s name. <i>Important.</i> This value must match the Application ID in <i>Taskmaster Web’s</i> Application Settings file (app.ini). This file is in the tmweb.NET folder of your Datacap directory.
TProfile=Verify	The identity of the Task Profile that supplies the task with RuleSet/Rule combinations responsible for database lookup and validations (Page 16).
httpWRRS=http://127.0.0.0.1/RRS/	The http:// address of Datacap’s Rulerunner Web Service. The Verify task can use this service to access and apply rules and actions of the Lookup and Validations RuleSet Types.
RRSType=LocalRRS	The method currently used by the task to retrieve its RuleSets: <i>LocalRRS</i> indicates that the task is using a local Rulerunner Service rather than internet connection.
ExecMode=0	
[HotKeys]	Shortcut key definitions
Quantity=0	Indicates that no “hot keys” are associated with the <i>Taskmaster Web Data Entry</i> panel.

5.2.2 How to Define a Verify Task

Defining a Data Entry task in the Verify mode – a Verify task – takes place in five phases:



- ✓ **Important!** Although you can use *Taskmaster Web* to handle some of these procedures, other procedures require that you work within the *Taskmaster* environment, using *Taskmaster's* “thick” client.

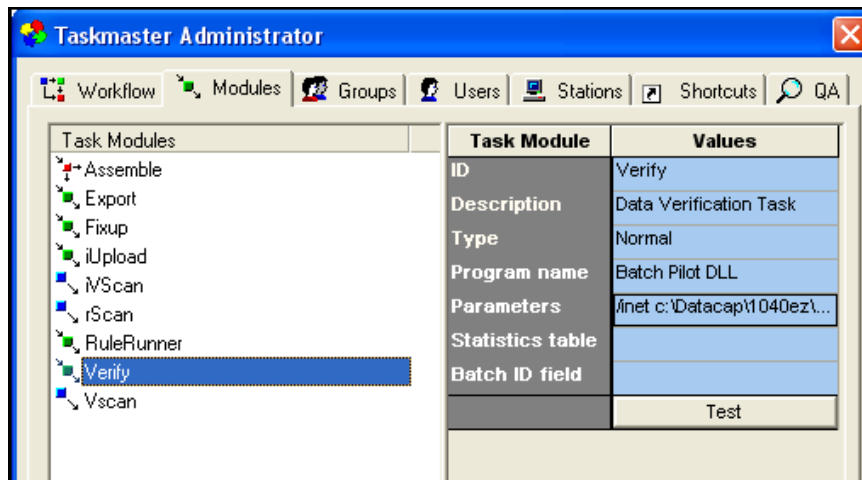
5.2.2.1 Phase 1: Review and Modify Task Settings

This phase requires a thorough investigation of the Task Settings file (**Verify.bpp**).

Because the file contains numerous settings (Page 11), we recommend that you consult your Datacap Implementation Specialist as you perform this review.

5.2.2.2 Phase 2: Define the Verify Task's Module

A Task Module connects the Verify Task Definition to its Task Project (.bpp) – a “new” Task Project if you followed the recommendation on Page 13. As a result, the task cannot operate until you have provided it with a module.



1040EZ Taskmaster Administrator -Modules tab

Chapter 3 shows you how to define a new Task Module. In the example on this page, values in the following fields in the **Modules** page are especially important:

Type specifies the processing role of tasks based on this module. The selection for a typical Verify task is *Normal*.

Program Name must be *Batch Pilot* or *Batch Pilot DLL*.

Parameter must be a value similar to: `/inet c:\Datacap\1040ez\process\Verify.bpp`.

Caution: this value must begin with `/inet`.

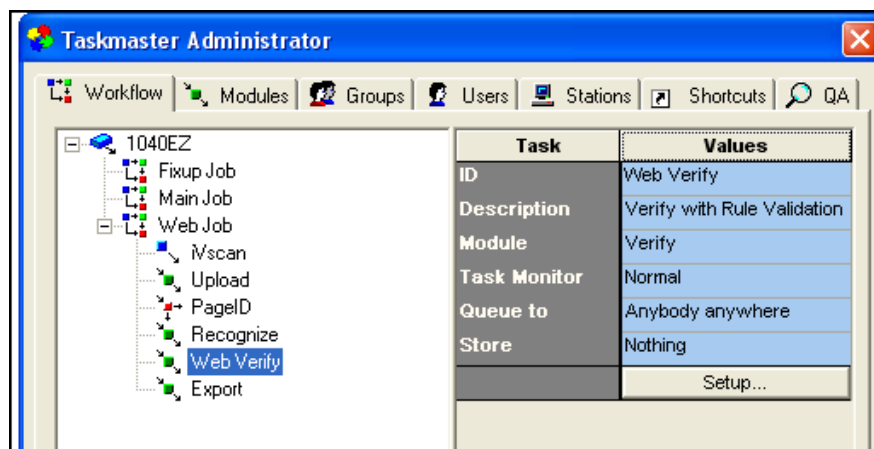
Please note. Phase 2 is unnecessary if you are not making changes to the roles of Verify tasks within your application and its *Taskmaster* and *Taskmaster Web* environments.

5.2.2.4 Phase 3: Establish the Task’s Identity

Phase 3 provides the Verify task with its identity. To avoid confusion, we recommend that you assign a name that clearly distinguishes this task from any other Verify tasks in the workflow (see the example below.)

When you set up the task’s identity, be sure to:

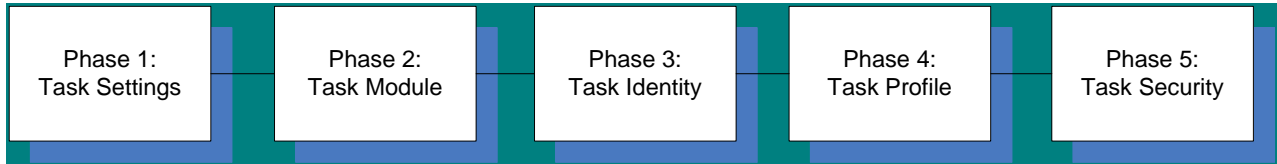
- ◆ Assign the applicable Task Module (Page 14).
- ◆ Enter correct **Queue to** and **Store** values. Chapter 3 explains the use of these parameters.



Taskmaster Web – Workflow Page

5.2.2.5 Phase 4: Create a Task Profile for the Task's Set Up

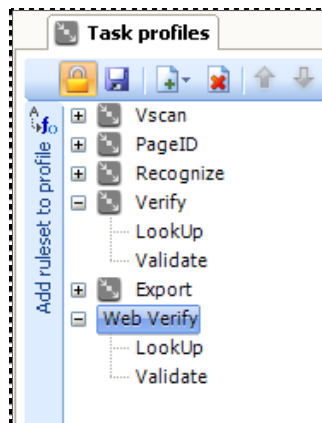
Technically, Phase 4 is optional. However, if the Verify task will be applying rules of RuleSets/Rule combinations for areas such as Validations, you will need to assemble the RuleSets first, and assign them to a Task Profile that you prepare in the Datacap Studio workshop.



- ✓ **Alert!** Refer to the **TProfile** setting in the [RRC] section of the Task Project Settings file (**Verify.bpp**) described on Page 11.

Chapter 6 of the *Guide to Datacap Studio* explains how you define RuleSets and rules. This chapter also examines the steps you take to set up Task Profiles with specific RuleSets.

Below, the “new” **Web Verify. Web Job** Task Profile has two RuleSets:



1040EZ Web Verify Task Profile

- **Lookup** checks recognized values against values in the tables of specific databases.
- **Validate** carries out procedures to be sure that the values in certain fields satisfy established criteria.

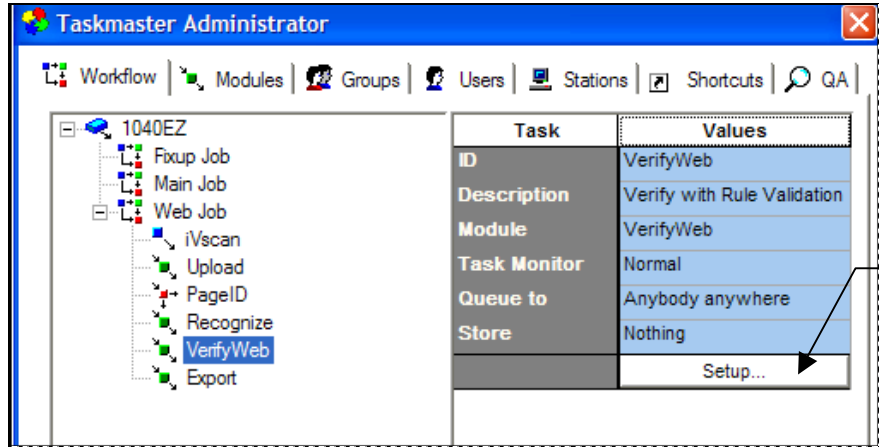
If the rules of either RuleSet discover a problem, the task will halt until the operator takes further action.

Very important! After you have defined the Task Profile, you link it to the Verify task (the new “Web Verify” task, in this example.) **Alert!** You must use the *Workflow* tab of Taskmaster Client’s *Taskmaster Administrator* as you take the steps outlined on the next page.

How to Assign a Task Profile

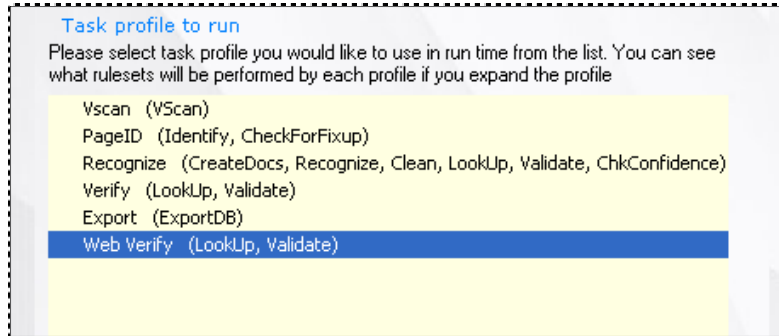
Action	Description
--------	-------------

1. Open the *Workflow* tab of Taskmaster Client's *Taskmaster Administrator*.
2. Highlight the Verify task's Task ID.



Press this button.

3. Press the Setup button to open the *Task Profile Selection* dialog (illustrated below).
4. Select your **Application** from the drop-down list.
5. Select your Verify task's Task Profile from the list in the **Task Profile to Run** field.
6. Close the dialog.



Task Setup: Task Profile RuleSets

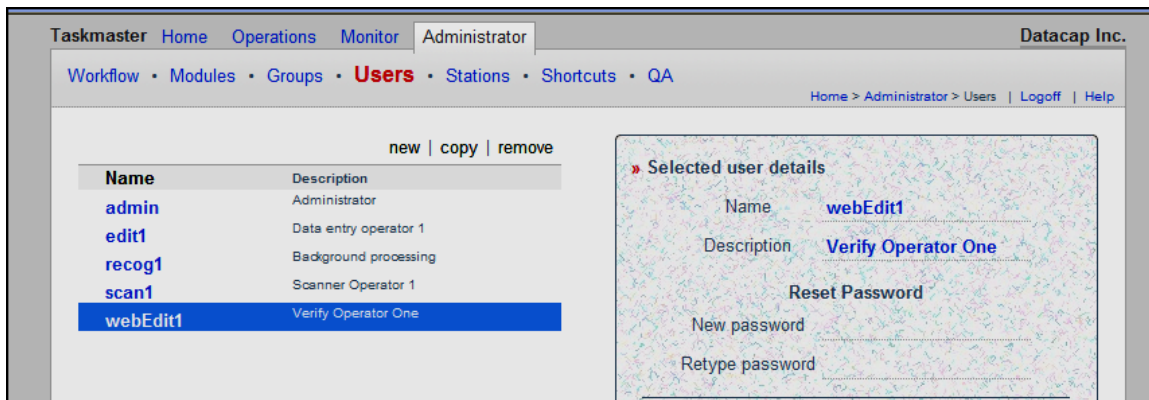
This procedure ensures that the Verify task will apply the data validation rules that belong to the Web Verify Task Profile RuleSet(s).

5.2.2.6 Phase 5: Install Task Security

Task Security determines who can:

- ◆ Operate the Verify task.
 - ◆ Supervise Verify task operations.
- ✓ Chapter 3 describes all aspects of Task Security.

Because *Taskmaster Web's* Verify procedures are often run by trained operators working from remote locations, be sure to review the definitions of the operators' User Definitions and the applicable Station Definitions. For example:



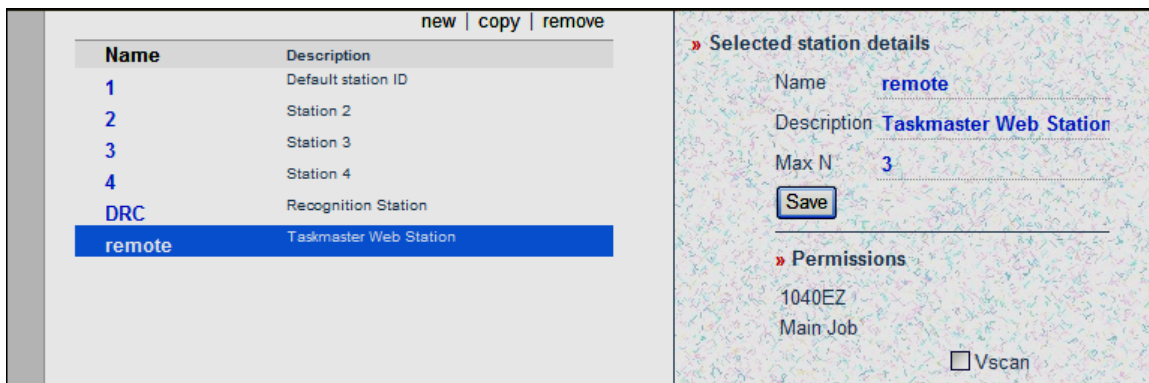
The screenshot shows the Taskmaster Administrator interface. The breadcrumb trail is Home > Administrator > Users. A table lists users, with 'webEdit1' selected. The right panel shows details for 'webEdit1', including a 'Reset Password' section with input fields for 'New password' and 'Retype password'.

Name	Description
admin	Administrator
edit1	Data entry operator 1
recog1	Background processing
scan1	Scanner Operator 1
webEdit1	Verify Operator One

Selected user details:

Name: webEdit1
Description: Verify Operator One
Reset Password
New password: _____
Retype password: _____

Verify Task – User Definition



The screenshot shows the Taskmaster Administrator interface. The breadcrumb trail is Home > Administrator > Stations. A table lists stations, with 'remote' selected. The right panel shows details for 'remote', including a 'Save' button and a 'Permissions' section with a checkbox for 'Vscan'.

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

Selected station details:

Name: remote
Description: Taskmaster Web Station
Max N: 3
Save
Permissions:
1040EZ
Main Job
 Vscan

Verify Task – Station Definition

5.2.3 Verify Task Operations

A Verify task can be run if all of the following have permission to run the Job/Task combination:

- The logged-in operator
- The logged-in station.
- The selected shortcut icon in the **Operations** page

5.2.3.1 Data Entry Panel: Default Format

If the Task Project (Page 11) contains the setting `Static=0`, information will appear on an automatically generated form, with the four sections in the example on the next page.

The *runtime* Document Hierarchy in the lower right-hand corner moves the operator through the contents of the batch. The drop-down list confirms the Document Type or Page Type of a document or page you have highlighted. In the example, highlighting page *TM000001* automatically selects *1040ez_page* from the *runtime* object drop-down list.

This is because the preceding Recognition task organized the batch into a series of documents - each with only one page: a *1040ez_page* **page**. As a result, you cannot change the Page Type of a page assigned to any document. Nevertheless, you can see the other Page Types just by opening the drop-down list.

Similarly, when you highlight a document, the drop-down list takes its place next to the Document ID. In this example, however, you have no real choice: the *1040EZ* Document Hierarchy contains only one **Document** object: *Document*. It is the only option in the list.

- ✓ **Remember:** To take full advantage of the *runtime* Document Hierarchy and its tools, you need to understand the valid batch and document structures permitted by your application's *setup* Document Hierarchy (Page 8).

Form **1040EZ** **Income Tax Return for Single and Joint Filers With No Dependents (L) 2000** OMB No 1545 0675

Use the IRS label here

Your first name and initial
Arlo J

Last name
Worley

Your social security number
499 27 4237

If a joint return spouse's first name and initial
Janice R

Last name
Worley

Spouse's social security number
619 22 8364

Home address (number and street) If you have a P.O. box see page 12
4127 Crestridge

City town or post office state and ZIP code If you have a foreign address see page 12
Columbia Mo

Submit Prev TM000001 Next Stop Problems only

City: Columbia State: MO Zip: 65201 SpouseName: Janice R. Worley TaxpayerSSN: 499 27 4237 SpouseSSN: 619 22 8364

Document Hierarchy:

- 20070067.003 1040EZ
 - 20070067.003.01 Document
 - TM000001 Page_1040ez
 - 20070067.003.02 Document
 - 20070067.003.03 Document
 - 20070067.003.04 Document
 - 20070067.003.05 Document
 - 20070067.003.06 Document

Page

Default Panel
Static = 0





Document Hierarchy:

- 20070067.003 1040EZ
 - 20070067.003.01 Document
 - TM000001 Page_1040ez
 - 20070067.003.02 Document
 - 20070067.003.03 Document
 - 20070067.003.04 Document
 - 20070067.003.05 Document
 - 20070067.003.06 Document

Document

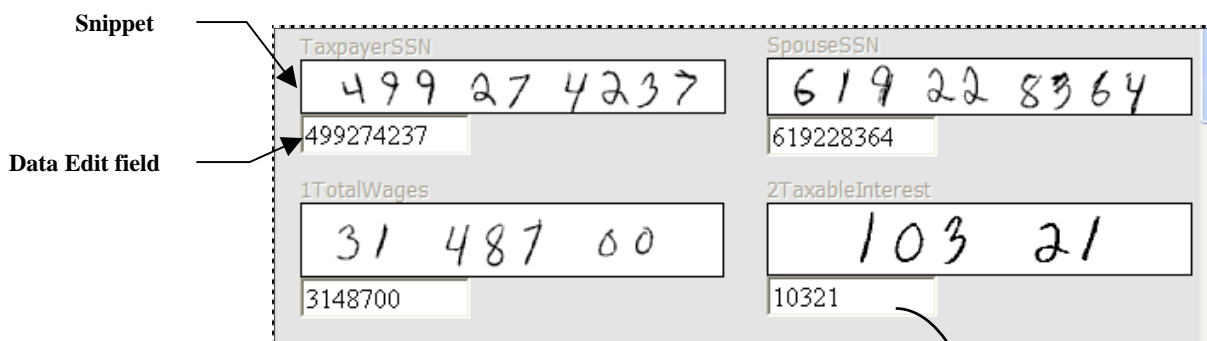
1040EZ Runtime Document Hierarchy

The icons in the *runtime* Document Hierarchy's toolbar include (from left to right):

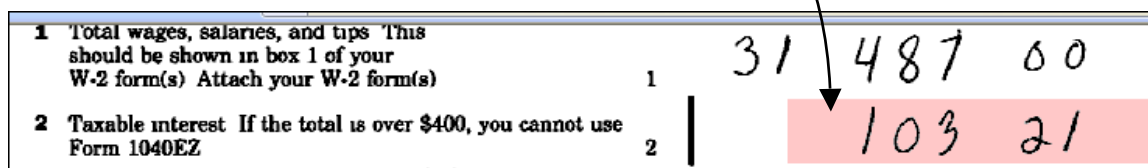
- ✓ Splits a document with multiple pages into two or more documents.
-  Joins two documents into a single document.
-  Deletes a page, or a document and its pages.
-  Inserts a page in the current document.
-  Moves a document up or down within the batch, or a page up or down with a document.

The **Image** area occupies the top of the panel:

- You can scroll up and down to review the complete image of a page you have selected in the *runtime* Document Hierarchy
- If you click once in a Data Edit field (such as the **2 Taxable Interest** field in the example), the panel immediately highlights that field's image in the **Image** area.
- You can right-click on an Image and select **Zoom** for a list of magnification options. *20%* modifies the page's size slightly, while *50%* displays the complete image without sacrificing clarity. Any change, retains a field.



1040EZ Data Entry Panel – Fields area



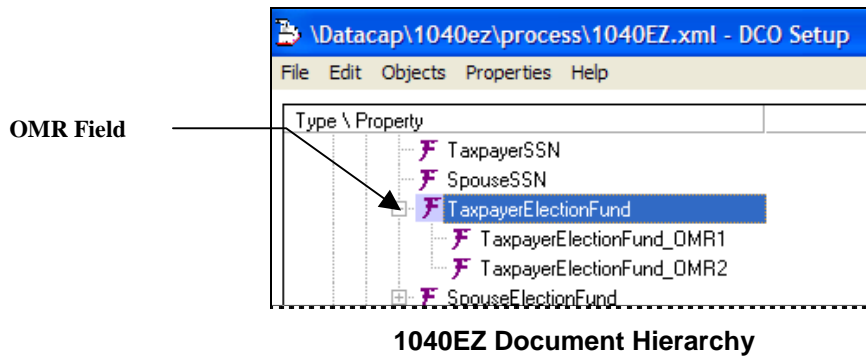
The **Fields** area in the lower left-hand corner features pairs of fields for each **Field** object in the **page** object of the Document Hierarchy that can contain *recognized* data:

- ◆ A **Snippet** is the image of the field and any value it may contain.
- ◆ An interactive **Data Edit** Field contains the field's *recognized* value. If the operator discovers a difference in the two values, he or she can modify the value in the Data Edit field.
- ◆ The Verify task fills in the Data Edit field's background with an offsetting color – yellow, for example – if one or more characters in a field cannot be clearly recognized and, therefore, does not satisfy the minimum, required Confidence Rating set in the **Verify.bpp** file (Page 11). To solve this problem, the operator must re-enter a value in the Data Edit field.

Data Entry Tasks – Verify Mode

Based on the RuleSet/Rule combinations of the Verify task's Task Profile (Page 16), the task may check values in certain fields against those in a database; calculate the correct amount in a field; or conduct other Validation procedures. In the case of a problem, the task will highlight all fields which fail validations in red or pink. If the field validations can be "overridden", the operator is given a warning and opportunity to accept the data despite the errors.

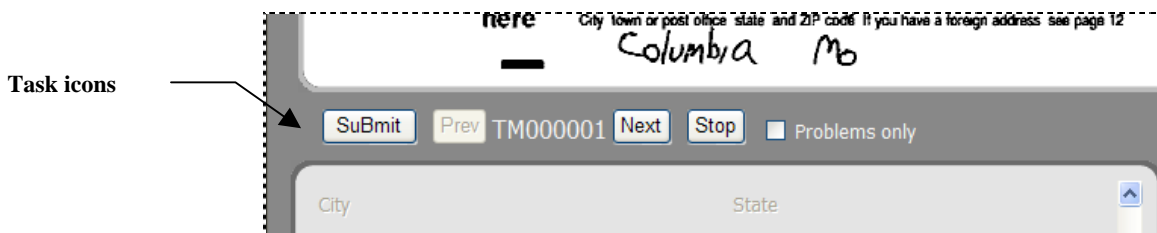
- ◆ The 1040EZ application Data Entry panel contain a number of text fields. Others are Optical Mark Recognition (OMR) fields that allow an operator to make a choice from a dropdown list. Below, for example, is a **Field** object that ends up in the panel as a *Yes/No* drop-down field.



- ✓ **Very important!** You can set up other specialty **Field** objects for your **Data Entry** panel: dictionaries and database lookup fields, for example. Chapter 5 of the *Guide to Datacap Studio* reviews the steps you take to define specialty fields.

Procedural Icons

The buttons, check box, and information between the **Image** area and **Field Data Entry** area help the operator manage task procedures.



Submit: After reviewing a page, document or batch, the operator presses this button (or type the hotkey equivalent: Alt-B) to validate the data and update the applicable Data File(s). Data validation (if any) is determined by the Rulesets in the Task Profile associated with this task (Page 16). Once validation passes or is overridden, the task goes on to the next page with problems to be corrected.

Prev returns the panel to the previous **page** with a problem in the current document – if the page is available. (In the example, *TM000001* does not have a previous page!)

Page ID. This is the Page ID of the current **page**.

Next selects the next **page** with a problem in the current document, or the first page in the next document.

Stop interrupts the task and places the batch on *Hold* until the operator is ready to continue working with it.

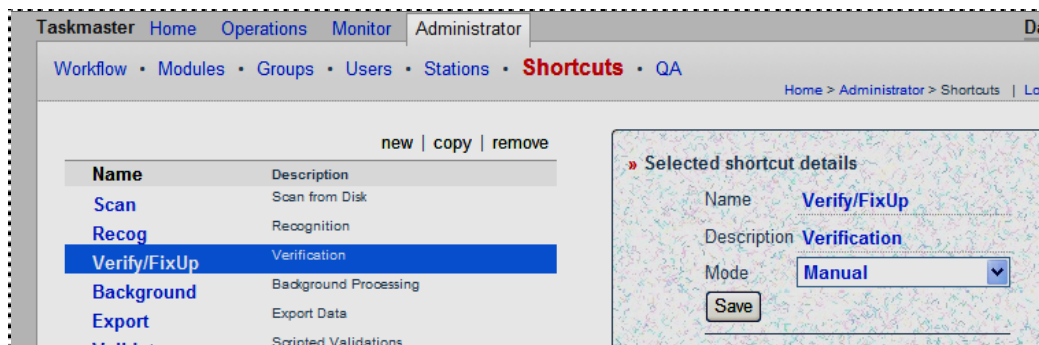
Problems Only, if checked, means that the panel will display only those fields with illegible, low confidence, missing or invalid values. *Important!* This option can significantly increase the efficiency of task operations.

5.2.3.2 How to Run a Verify Task with a Dynamic Data Entry Panel

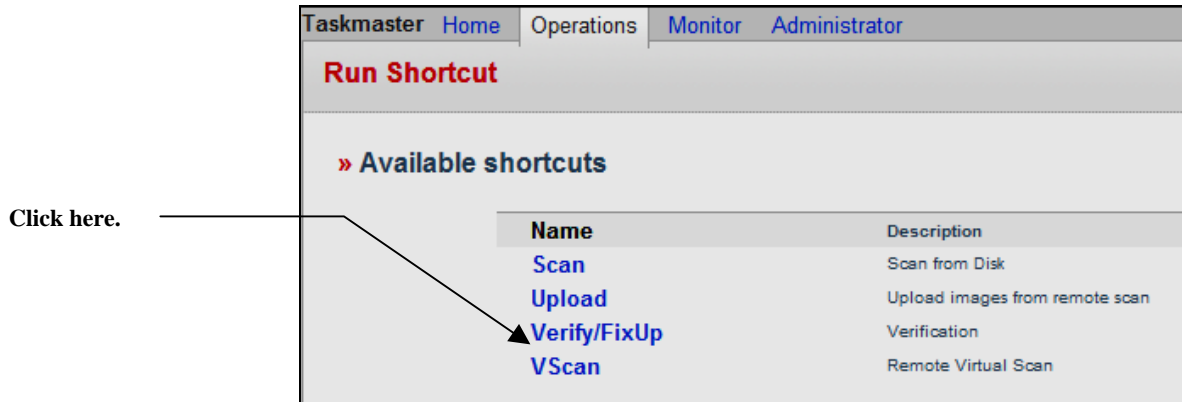
Prepare one or more batches for verification by scanning, uploading, and running PageID and/or Recognition tasks. To run a Verify task that employs the dynamic *Data Entry* panel (*Static=0* in the **Verify.bpp** file), take the steps outlined below

Action	Description
--------	-------------

1. Access the *Taskmaster Web Home* page.
2. Enter your Security codes, log on to *Taskmaster Web*. (These examples use administrative Security codes.)
3. In the secondary **Shortcuts** page of the **Administrator** page, be sure that the **Mode** is *Manual*. This selection will automatically list the batches in the Verify task's queue.



4. Open the **Job Monitor** page within the **Monitor** page. Confirm that there are batches in the Verify task's queue.
5. Open the **Run Shortcuts** page within the **Operations** page.
6. Click on the **Verify/FixUp** shortcut icon.

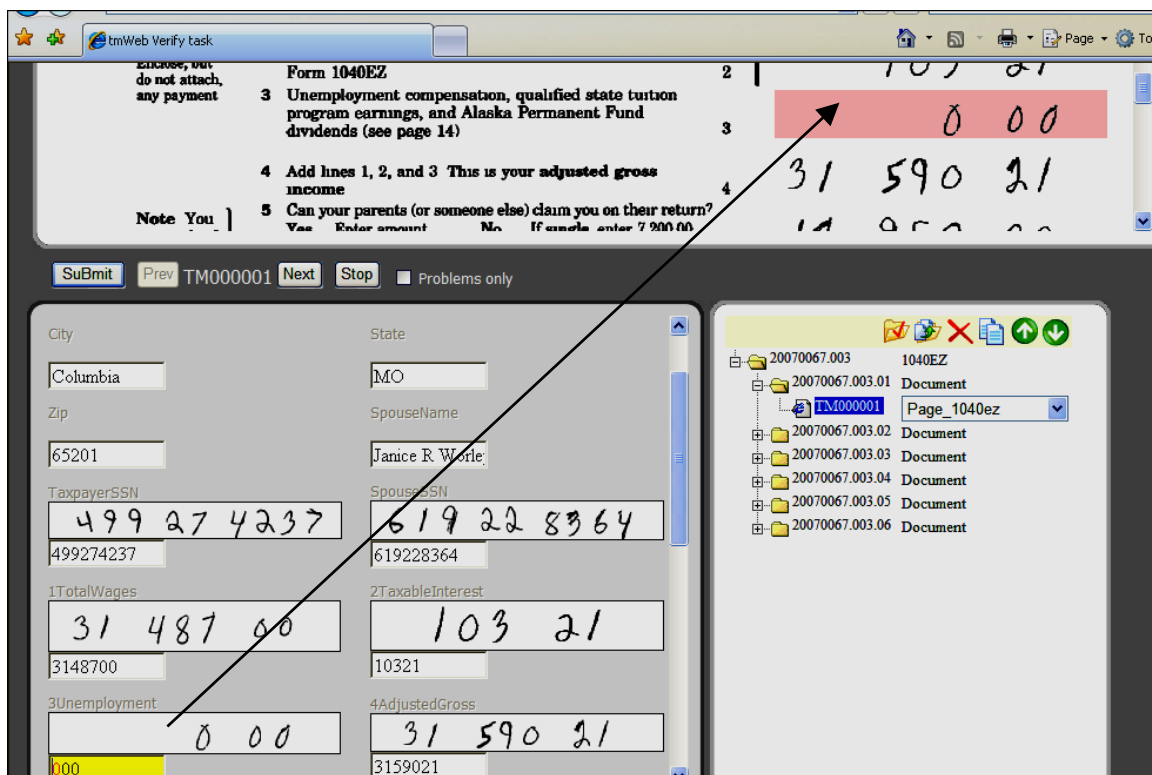


7. When the *Data Entry* panel appears on your screen, check the contents of the *runtime* Document Hierarchy. (Select one or more documents and pages to be sure the “object” drop-down list correctly identifies the document or page you have selected. Check, too, that the **Image** area displays the image of each **page** you select.)
8. Optionally, select the **Problems Only** checkbox to limit the panel’s display to fields with unclear, missing or invalid data.

Check the **Page ID** value in the toolbar: the panel will automatically display the first **page** with a problem field.

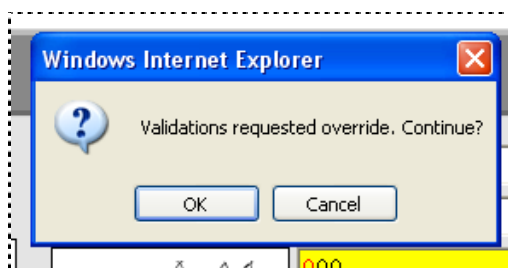
Any Data Edit field with one or more unclear (low confidence) characters has a **yellow** background: any disallowed characters are in **red**. At the same time, the field is surrounded in **pink** in the **Image** area.

A field with a value fails validation rules is shown with a pink background in the Data Edit control and the image area.



How to Run the Verify Task with a Data Entry Panel (continued)

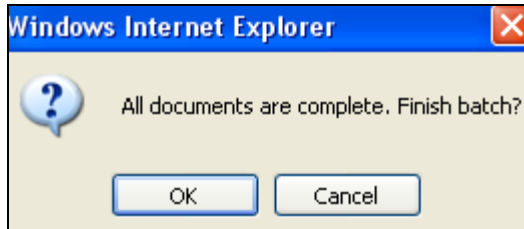
Action	Description
9.	Correct the field's value, tab through the remaining fields making corrections.
10.	When you have finished with the current page, press the SuBmit button.
11.	If the Verify task alerts you that the values in one or more fields were not validated, press the OK button on the <i>Message Box</i> to override the task's validation rules (if appropriate!).



How to Run the Verify Task with a Data Entry Panel (continued)

Action	Description
--------	-------------

12. Press the Next button to access information from the next **page** pending for Verification.
13. After you finish with the last **page** in the batch and press the Submit button, the Verify task will notify you that the batch is complete.



14. Press the OK button to finish verifying this batch and end the session, or select the next batch for verification.

Attach Form(s) W-2 here Enclose, but do not attach, any payment	should be shown in box 1 of your W-2 form(s) Attach your W-2 form(s)	1	31 481 00
	2 Taxable interest If the total is over \$400, you cannot use Form 1040EZ	2	103 21
	3 Unemployment compensation, qualified state tuition program earnings, and Alaska Permanent Fund dividends (see page 14)	3	0 00
	4 Add lines 1, 2, and 3 This is your adjusted gross income	4	31 590 21
	5 Can your parents (or someone else) claim you on their return? Yes Enter amount No If none enter 7 900 00		

Note You

Submit Prev TM000001 Next Stop Problems only

TM000001

3Unemployment

000

5Exemption

1295000

11aRefund

50514

20070067.003 1040EZ

20070067.003.01 Document

TM000001 Page_1040ez

20070067.003.02 Document

20070067.003.03 Document

20070067.003.04 Document

20070067.003.05 Document

20070067.003.06 Document

Data Entry Panel – Problems Only

5.2.3.3 Modifying a Data Entry Panel

The Web Verify task can use a custom *Data Entry* panel if you change *one value* in the *Verify.bpp* Settings file. (This file is in the application's **Process** directory.)

Static=1 means that the tasks will place data for review and possible correction in the custom panel designated by this setting:

Src0=1040ez.ascx.

When the task runs, the panel looks like this. Its organization is different and it does not include a **Problems Only** option:

The screenshot displays the '1040EZ Income Tax Return for Single and Joint Filers With No Dependents (L) 2000' form. The form is filled with handwritten data for Arlo and Janice Worley. The taxpayer's SSN is 499-27-4237 and the spouse's SSN is 619-22-8364. The address is 4127 Crestridge, Columbia, MO. The form includes a 'Snippet' table with tax data and a list of categories on the right.

Snippet:	Data:
31 487 00	3148700
103 21	10321
0 00	000
31 590 21	3159021
12 950 00	1295000
18 640 21	1864021
2 279 14	227914
	0

- 1. Total Wages
- 2. Taxable Interest
- 3. Unemployment
- 4. Adjusted Gross
- 5. ParentClaim
- 5. Exemption
- 6. Taxable Income
- 7. Tax Withheld
- 8. E.I. Credit

1040EZ Static Panel

5.3 Data Entry Tasks – Index Mode

An **Index** task is sometimes called “heads-up data entry”. The operator does not verify *recognized* data in this mode. Instead, the operator views the page image, and enters the appropriate data directly into empty fields.

Application Document Hierarchy

Batch Object

Document Object

Page Object – **Source** Page

Field Object: Date

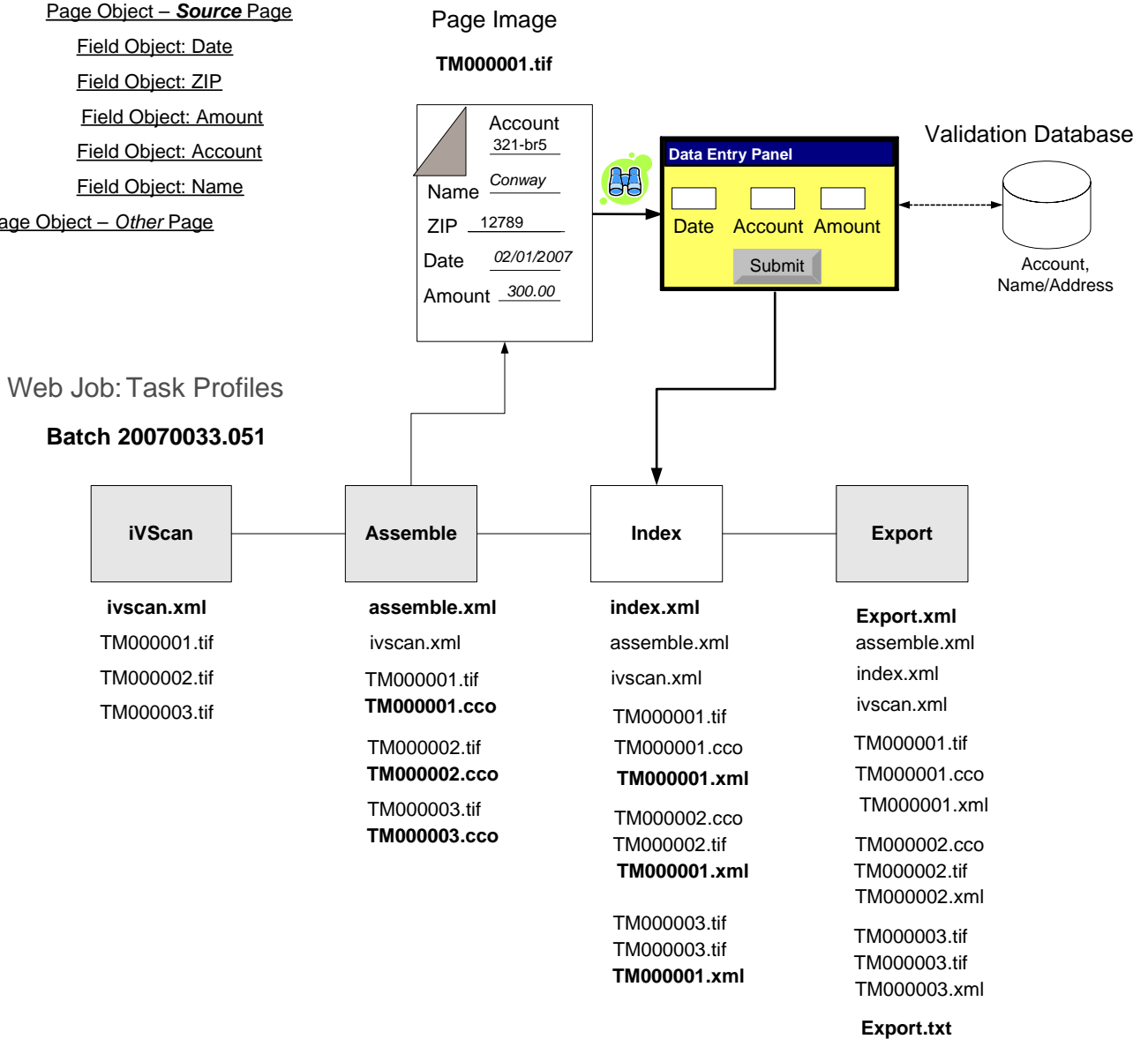
Field Object: ZIP

Field Object: Amount

Field Object: Account

Field Object: Name

Page Object – *Other* Page



When the fields in a **page** are complete, the operator clicks on the **SuBmit** button to create and populate the page’s Data file (.xml).

Because data recognition is unnecessary, a typical Web Job with an Index task does not include a data recognition task (see the chart on the previous page.)

The Assemble task recognizes pages according to Page Types and organizes the batch into a series of documents and pages.

The Index task has a simple but essential role:

- Index places the image of the first **page** in the panel's **Image** area.
 - The operator refers to the image as he enters data directly into the empty fields of the *Data Entry* panel.
 - When the fields are complete, the operator clicks on the SuBmit button.
 - The Index task validates some or all fields.
- ✓ It also produces a Data file (.xml) for the **page** and supplies it with values.