



**DOCUMENT  
LOGISTIX**  
MAKING WORK FLOW

# Screen Scrape Guide

For Document Manager

12 July 2013

---

## Trademarks

Document Manager and Document Manager Administration are trademarks of Document Logistix Ltd. TokOpen, TokAdmin, TokImport and TokExRef are registered trademarks of Document Logistix Ltd. All other trademarks acknowledged.

## Copyright Statement

Copyright © 1999 to 2013 by Document Logistix Ltd. All rights reserved. Screen Scrape Guide, 2013.

No part of this document may be reproduced, copied or transmitted in any form or by any means without the written permission of Document Logistix Ltd.

Document Logistix Ltd believes that the information in this document is accurate at the date of release but accepts no responsibility for any loss arising from omissions or inaccuracies contained herein. Information within this document is subject to change without notice.

For more information on this or other Document Logistix products, please contact Document Logistix Ltd.

## Contact Details

Document Logistix Ltd – UK	
Main Address:	8 Copperhouse Court Caldecotte Milton Keynes MK7 8NL United Kingdom
Telephone Main Lines:	(United Kingdom) (+44) (0)1908 366388
Telephone Support Lines:	(United Kingdom) (+44) (0)1908 366722
Email Information:	<a href="mailto:info@document-logistix.com">info@document-logistix.com</a>
Email Support:	<a href="mailto:support@document-logistix.com">support@document-logistix.com</a>
Fax:	(United Kingdom) (+44) (0)1908 367700
Web:	<a href="http://www.document-logistix.com">www.document-logistix.com</a>
Document Logistix LLC – USA	
Main Address:	3616 Far West Boulevard Suite 117-309 Austin TX 78731 USA
Telephone Main Lines:	(USA) 1-512-345-4600
Email Information:	<a href="mailto:us.sales@document-logistix.com">us.sales@document-logistix.com</a>
Email Support:	<a href="mailto:support@document-logistix.com">support@document-logistix.com</a>
Fax:	(United States) (+1) (512) 233-2351

## Software

This guide describes the Screen Scrape feature used with the Document Manager software from Document Logistix Ltd.

As the software evolves, this guide may not reflect exact screen layout changes, but core functionality remains the same.

# Contents

<b>1</b>	<b>PREFACE.....</b>	<b>1</b>
1.1	About this Guide .....	1
1.2	Intended Audience .....	1
1.3	Related Documents .....	1
1.4	Conventions .....	1
1.4.1	Definitions .....	2
<b>2</b>	<b>SCREEN SCRAPE OVERVIEW .....</b>	<b>3</b>
2.1	Defining a 'Hotkey' .....	4
2.2	Producing Black and White OCR Images.....	6
<b>3</b>	<b>SCREEN SCRAPE PROFILES.....</b>	<b>7</b>
3.1	Creating an Example Screen Scrape Profile.....	7
3.1.1	Step 1: Selecting the Drawer to Search.....	9
3.1.2	Step 2: Specifying the Search Type.....	9
3.1.3	Step 3: Choosing the Window Data Capture Method.....	9
<b>4</b>	<b>WINDOWS OBJECTS EXAMPLE PROFILE .....</b>	<b>11</b>
4.1	Step 4: Identify the Window .....	12
4.2	Step 5: Selecting the Application Data to be Scraped .....	15
4.3	Step 6: Mapping the Application Data to Document Manager Index Fields .....	15
4.4	Step 7: Map Additional Fields .....	16
4.5	Step 8: Defining Special Commands (Optional) .....	17
<b>5</b>	<b>DOS/TEXT SCREEN SCRAPE EXAMPLE .....</b>	<b>18</b>
5.1	Step 4: Identify the Window .....	19
5.2	Step 5: Selecting the Application Data to be Scraped .....	21
5.3	Step 6: Mapping the Application Data to Document Manager Index Fields .....	22
5.4	Step 7: Map Additional Fields .....	23
5.5	Step 8: Defining Special Commands (Optional) .....	24
<b>6</b>	<b>GRID/CELLS SCREEN SCRAPE EXAMPLE .....</b>	<b>25</b>
6.1	Step 4: Identify the Window .....	26
6.2	Step 5: Selecting the Application Data to be Scraped .....	28
6.3	Step 6: Mapping the Application Data to Document Manager Index Fields .....	28
6.4	Step 7: Map Additional Fields .....	29
6.5	Step 8: Defining Special Commands .....	30

---

<b>7</b>	<b>OCR SCREEN SCRAPE EXAMPLE PROFILE .....</b>	<b>32</b>
7.1	Step 4: Identify the Window .....	33
7.2	Step 5: Selecting the Application Data to be Scraped .....	37
7.3	Step 6: Mapping the Application Data to Document Manager Index Fields .....	38
7.4	Step 7: Map Additional Fields .....	39
7.5	Step 8: Defining Special Commands (Optional) .....	40
<b>8</b>	<b>TESTING SCREEN SCRAPES .....</b>	<b>41</b>
<b>9</b>	<b>SOME ADVICE ON OCR SCREEN SCRAPES .....</b>	<b>42</b>
<b>10</b>	<b>MODIFYING AN EXISTING SCREEN SCRAPE PROFILE .....</b>	<b>43</b>
	<b>INDEX.....</b>	<b>44</b>

# 1 Preface

This section provides an introduction to this guide.

## 1.1 About this Guide

This guide describes the Screen Scrape feature in Document Manager.

## 1.2 Intended Audience

This guide is intended for users of the Document Manager software, specifically those who use the Screen Scrape feature.

Readers should have a basic knowledge of Document Manager.

## 1.3 Related Documents

For more information on installing, administrating and using Document Manager, refer to the following:

- *Document Manager Installation Guide*
- *Document Manager Administration Guide*
- *Document Manager User Guide*

## 1.4 Conventions

Throughout this manual, a number of conventions are used. The list below details these conventions:

- On-screen items, including buttons, tabs, menu items, field names and dialog box names are shown in bold, for example, click the **Save** button.
- Keys or key combinations that you have to press on the keyboard are shown in upper case and in angled brackets, for example: <CTRL> + <X>.
- User input (information that you have to enter), object names and references to completed fields are in single quotation marks, for example, enter the value '%PROMPT'.
- Cross-references are in italics; for example, see *1.4 Conventions* on page 1 for more information.

Additional information is provided using icons to draw attention to them:



**NOTE:** Notes are used to give supplemental or important information about the subject matter.



**WARNING:** Warnings are used to provide important pieces of information.



**TIP:** Tips are used to suggest shortcuts or things to do to make using Document Manager products easier.

### 1.4.1 Definitions

The following terms are used in this guide:

- **Document Manager:** The Document Manager program from Document Logistix. See the *Document Manager User Guide* for more information.
- **Document Manager Administration Module:** The Document Manager Administration Module enables system administrators to configure the Document Manager system. This has been abbreviated to the 'Administration Module' in this guide. See the *Document Manager Administration Guide* for more information.
- **Screen Scraping:** This is the action of reading information from an external application (for example, data displayed in fields), which is then used as the search criteria in a Document Manager search for documents or folders.
- **Hotkey:** A hotkey is a keyboard key or combination of keys that initiates the Screen Scrape process. It is defined in **User Settings**.
- **OCR:** Optical Character Recognition (OCR) is an automatic electronic process to read information from an image or scanned document, used typically to automate data entry.
- **Screen Scrape Profile:** A profile holds the settings to enable users to perform a Screen Scrape, typically for a particular application and using a specific data capture method. The Document Manager administrator usually defines Screen Scrape profiles.

Additional Document Logistix products are available to further enhance the document management process. For more information about them, please refer to our Website, [www.document-logistix.com](http://www.document-logistix.com) or speak to an authorised reseller.

## 2 Screen Scrape Overview

Screen Scraping is a method for automating a search based on the information displayed in another application. Screen Scraping is a shortcut for searching, as Document Manager automatically retrieves the folder, sub-folder, or document you require.

Instead of using the search tools in Document Manager, you can save time by having Document Manager read all the search criteria from an external application. Search criteria can include text searches, all fields and even document type.

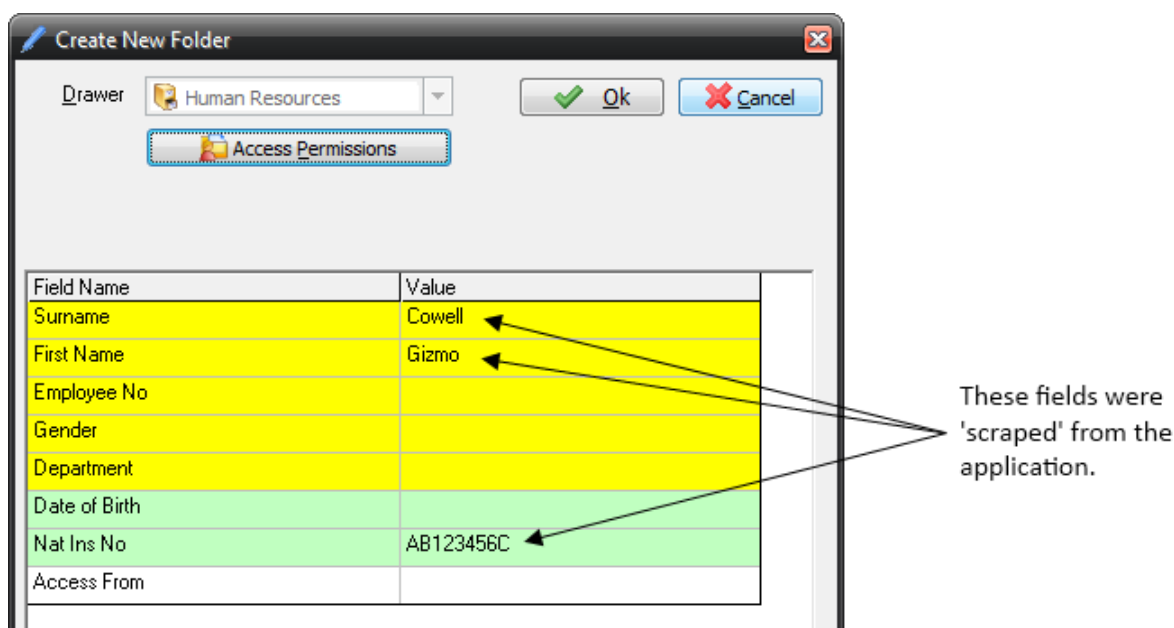
For example, you can conduct a search in Document Manager for an invoice based on the information displayed in a Finance application program, or an employee folder based on information displayed in a Personnel Records application.

If Screen Scraping has been configured by the local System Administrator, the search can be initiated by simply pressing a 'hotkey' while using an external application. The hotkey is defined on the **Integration** tab in **User Settings** (see 2.1 *Defining a 'Hotkey'* on page 4 below).

To activate the 'Screen Scrape' feature, the relevant screen in the external application must be the active window (e.g. viewing the details of an invoice in a Finance application). Press the predefined hotkey (for example, <ALT> + <F3>) and Document Manager searches for the related document(s) or folders(s). The hotkey **Search in Progress** dialog box may display while the search is in progress.

When the search finishes, Document Manager displays the search results in a new tab or window.

If the search type configured is a Folder Search, and no matching folders are found, an option to create a new folder is displayed. The **Create New Folder** dialog box displays with index fields prefilled with data from the application that was the basis of the search (as shown in Figure 1):



Field Name	Value
Surname	Cowell
First Name	Gizmo
Employee No	
Gender	
Department	
Date of Birth	
Nat Ins No	AB123456C
Access From	

Figure 1: Create New Folder from Screen Scrape



Document Manager's Screen Scrape feature provides rapid integration with most applications without requiring any software development.

Setting up Screen Scrape is relatively simple. It requires no programming or database knowledge. A typical Screen Scrape profile can be defined in just a few minutes, and is available to all Document Manager users.

Other document management products integrate with other applications using coded database links. Screen Scrape requires no code-level integration; therefore, the integrity of the target application is not in question. This allows Document Manager to safely integrate with both the simplest and most sophisticated applications, such as SAP.

The types of application with which Document Manager can integrate using Screen Scrape include:

- Conventional Windows Applications with 'Forms' type layouts
- Database/Spreadsheet Applications with rows and columns of data
- Legacy DOS Text-based Applications
- Terminal emulation sessions to Mainframe/Mini applications
- Web and/or Java applications
- Terminal Services/Citrix Sessions

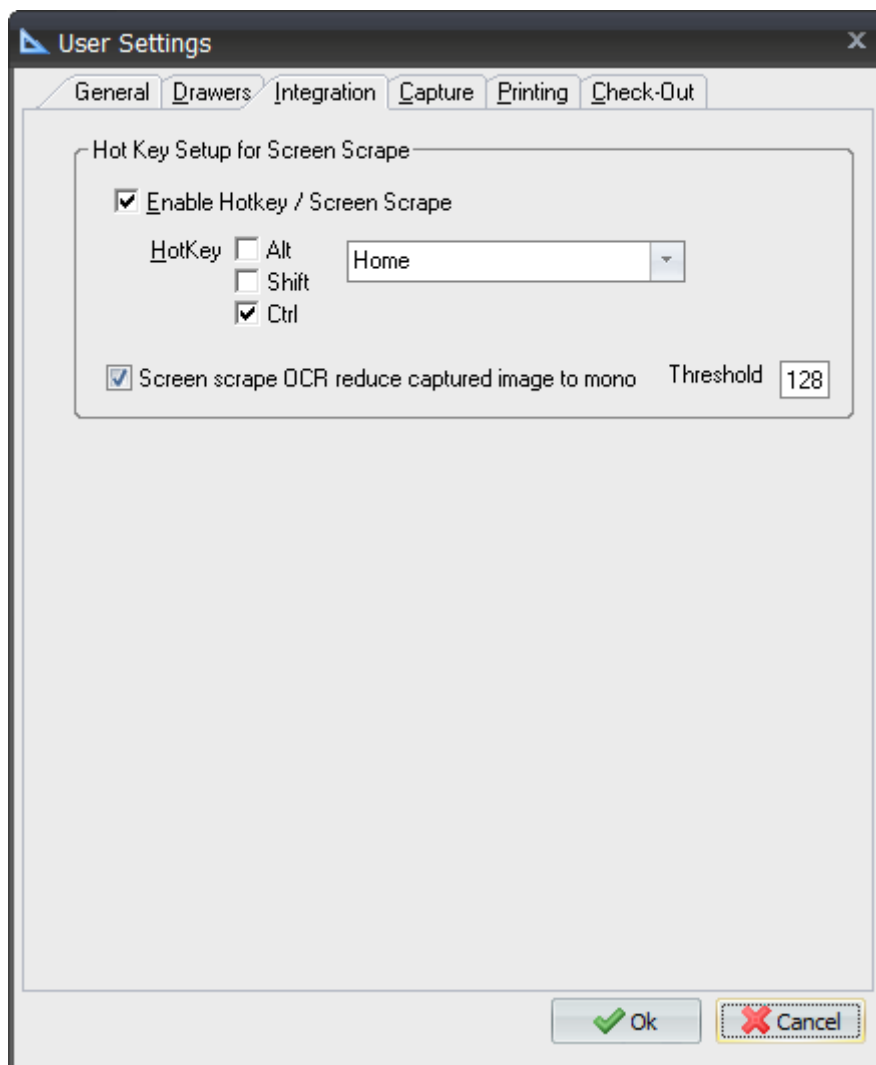
All Screen Scrape profiles apply system-wide to all users of Document Manager. Each user may decide if he/she wishes to use the Screen Scrape feature or not and define what hotkey to use. The hotkey can be a combination of keystrokes that is not used by any of a user's other programs.

## 2.1 Defining a 'Hotkey'

**To define a Screen Scrape hotkey:**

1. Click the **File** tab and select **User Settings**. The **User Settings** dialog box displays. Click the **Integration** tab.
2. Select the **Enable Hotkey / Screen Scrape** checkbox (to turn off the Screen Scrape feature, clear this box).
3. When setting the hotkey, it is recommended that you select one or more of the control keys (<ALT>, <SHIFT> or <CTRL>) in addition to an item from the drop-down list. This will require the selected control key(s) to be held down while the hotkey is pressed, preventing the user from accidentally activating the Screen Scrape feature.

In the example below, <CTRL> + <Home> has been selected to be the hotkey combination:



4. Once the hotkey has been set, click **OK**.

This is the only instance a user will need to define the hotkey, except if the user decides to change the hotkey or combination. Once defined, the hotkey is automatically enabled whenever Document Manager is launched.

Each user can configure their own hotkey, so different users may be using different hotkeys but they will activate the same Screen Scrapes.

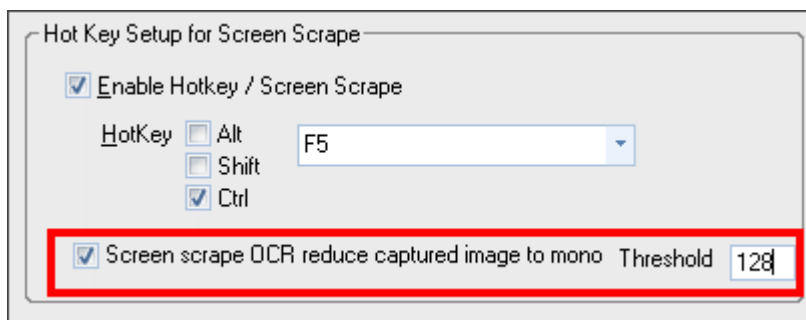
**i NOTE:** The hotkey operates system-wide; Document Manager will respond to the hotkey no matter which application the user has open when it is pressed.

## 2.2 Producing Black and White OCR Images

If you are having difficulty generating an image that can be read by Optical Character Recognition (OCR), for example when setting up an OCR Screen Scrape profile, you can generate a black and white image to try to improve the OCR process. This may improve the accuracy of the OCR process when dealing with colour or complex images.

### To generate Black and White OCR Images:

1. Click the **File** tab, select **User Settings** and click the **Integration** tab.
2. Select the checkbox **Screen scrape OCR reduce captured image to mono** to generate black and white images for OCR Screen Scrapes:



3. Enter a **Threshold** value to determine whether colour or greyscale pixels become black or white. The value 0 equates to a black pixel and 255 equals white.
4. Click **OK** to save your changes and close the **User Settings** dialog box.

## 3 Screen Scrape Profiles

Once a hotkey is defined, you can set up Screen Scrape profiles. Multiple profiles can be created for the hotkey for different applications, or for separate windows within a single application. Before you define Screen Scrape profiles, you need to consider from which screens you are going to Screen Scrape in an external application and identify the information on those screens that is going to be used for the document or folder search.

Are the screens presented the same way to all users of the application? If not, you may need to configure different Screen Scrape profiles to be used by different users, providing the relevant screens are sufficiently different to be identified separately, so that the different profiles can be triggered by each user's own hotkey.

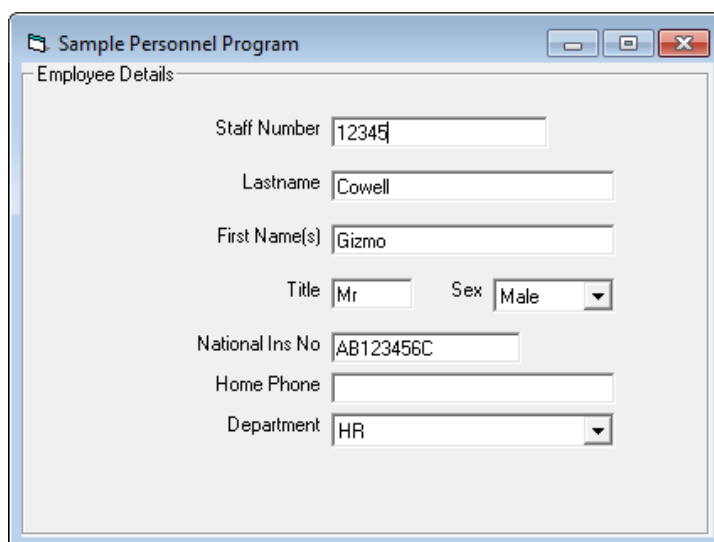
Users need the correct permission to configure Screen Scrapes, which is set within the Document Manager Administration Module (see the *Document Manager Administration Guide* for more information). Ensure the users that need to define Screen Scrape profiles have permission to do so.

### 3.1 Creating an Example Screen Scrape Profile

The best way to understand how Screen Scraping works is to create and use an example profile; there is a 'dummy' application called *Employee.exe* in the Document Manager program directory.

This is not a real application; it is used purely to illustrate the concepts of Screen Scraping.

- Locate the **Employee.exe** program in the Document Manager program directory and run it. This should display a dialog box similar to the one shown in Figure 2:



The screenshot shows a window titled "Sample Personnel Program" with a tab labeled "Employee Details". The form contains the following fields and values:

Field	Value
Staff Number	12345
Lastname	Cowell
First Name(s)	Gizmo
Title	Mr
Sex	Male
National Ins No	AB123456C
Home Phone	
Department	HR

Figure 2: Sample Personnel Program

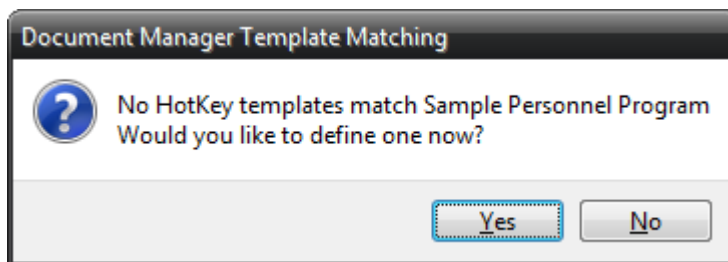
Imagine this is your Human Resources (HR) application displaying the HR details of one of your employees. You can change the details in the fields if you wish.

**To start creating a Screen Scrape profile:**

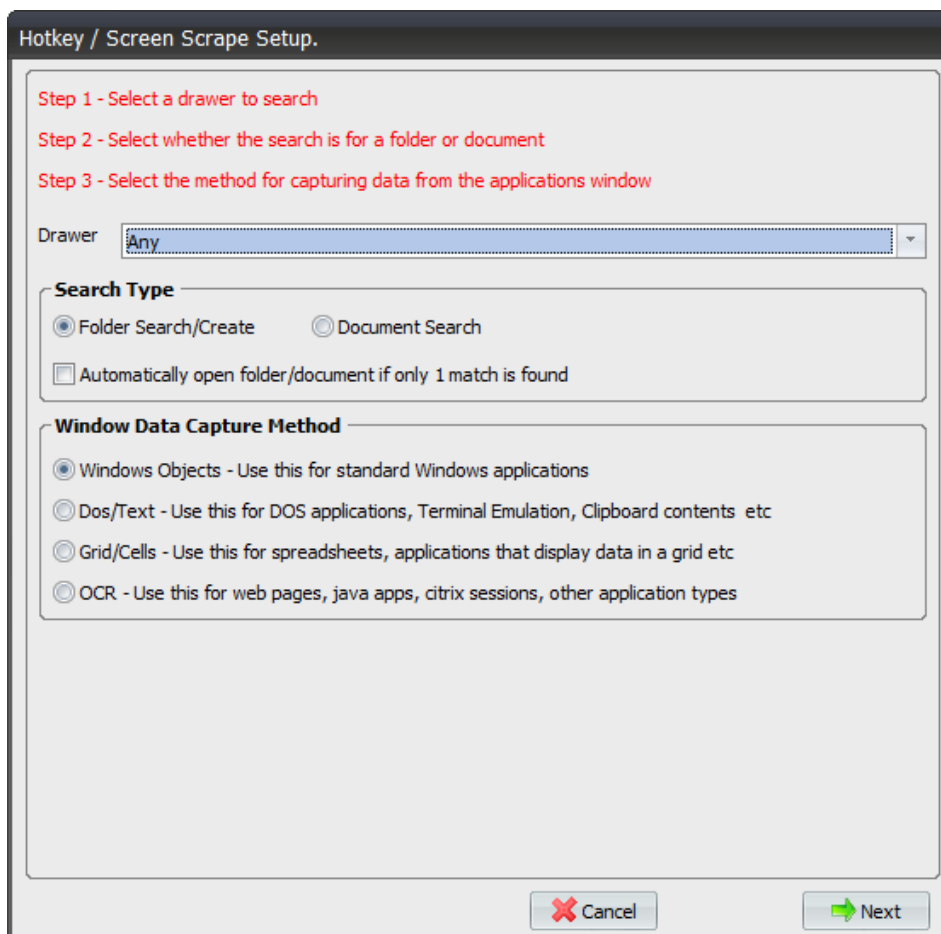
1. Make sure the **Sample Personnel Program** is the active application, press the **Hotkey** (for example, <CTRL> + <F3>) and the **HotKey Capture in Progress** message displays:



Following which, if there is no existing Screen Scrape Profile that matches this application, you will be prompted to create a new profile:



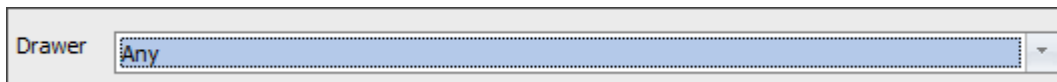
2. Click **Yes** and the Screen Scrape Setup wizard will be presented:



This wizard guides you step-by-step through creating the Screen Scrape profile. Each step gives you directions at the top of the screen and you can click **Next** to move forward to the next step.

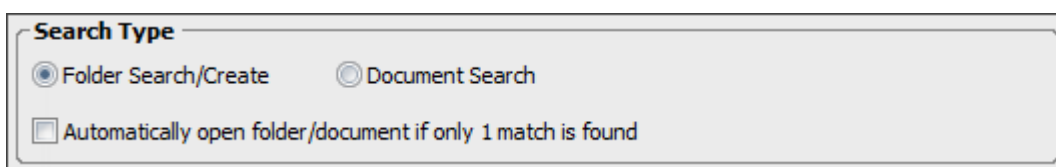
### 3.1.1 Step 1: Selecting the Drawer to Search

**Step 1** is to specify the drawer in Document Manager that contains the documents that relate to the application from which you will 'scrape' data:

A screenshot of a software interface showing a dropdown menu labeled 'Drawer'. The menu is open, displaying a list of options with 'Any' selected at the top. The dropdown is contained within a rectangular box with a light gray border.

### 3.1.2 Step 2: Specifying the Search Type

**Step 2** is to determine if you are searching for a folder or a document:

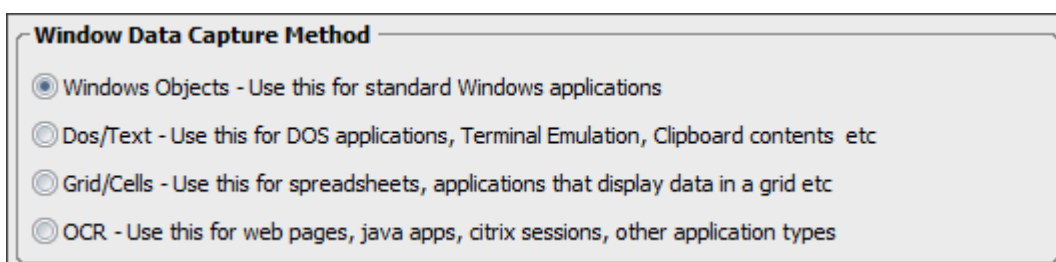
A screenshot of a software interface titled 'Search Type'. It contains two radio button options: 'Folder Search/Create' (which is selected) and 'Document Search'. Below these options is a checkbox labeled 'Automatically open folder/document if only 1 match is found', which is currently unchecked. The entire section is enclosed in a rounded rectangular box with a light gray border.

For the *Sample Personnel Program* example, we would be looking at an employee record so would probably want to find the employee's folder. This means it would be a Folder Search. (If we were looking at Invoice details in the external application, we would probably want to find the actual invoice; so it would then be a Document Search.)

If the search returns only one result, you have the choice of displaying the search list with only one document or folder, or opening the document/folder. This is your preference; however, the option to open the document/folder is typically selected. It can be changed later.

### 3.1.3 Step 3: Choosing the Window Data Capture Method

**Step 3** is to define the data capture method for the external application window:

A screenshot of a software interface titled 'Window Data Capture Method'. It contains four radio button options: 'Windows Objects - Use this for standard Windows applications' (selected), 'Dos/Text - Use this for DOS applications, Terminal Emulation, Clipboard contents etc', 'Grid/Cells - Use this for spreadsheets, applications that display data in a grid etc', and 'OCR - Use this for web pages, java apps, citrix sessions, other application types'. The entire section is enclosed in a rounded rectangular box with a light gray border.

There are four options to choose from and your selection depends on the nature of the program you are trying to scrape from. Here are some guidelines:

- **Windows Objects** – This option is usually selected when the program is a conventional Windows form-based program that runs on your desktop (not in a browser) and has information displayed in fields, with buttons etc., similar to our Sample Personnel Program. About 70 percent of such programs will screen scrape using this method, and for those that

do, this is probably the most reliable method. See *4 Windows Objects Example* on page 11 for how to define a profile for Windows Objects using the *Sample Personnel Program*.



**NOTE:** Do not use this method for Web applications or applications running on remote sessions like Citrix or Terminal Services.

- **Dos/Text** – This option is usually selected when the program displays its information in conventional rows of text, such as old-style terminals or even legacy DOS applications. Use this option if the application is a legacy DOS application or a terminal emulation session. See *5 DOS/Text Screen Scrape Example* on page 18 for more information on DOS/Text profiles.

This option could also be used where no other data capture method will work, but data from the application being scraped can be copied to the Windows Clipboard.

- **Grid/Cells** – This option is typically used when scraping from spreadsheets such as Microsoft Excel. It uses the Windows Clipboard for transferring information from the application to Document Manager. Use this option when selecting data from rows, columns or cells in the application being scraped. Refer to *6 Grid/Cells Screen Scrape Example* on page 25 for more on configuring profiles for Grids/Cells.
- **OCR** – This is usually used for any application that presents its data in a consistent layout and where the information being scraped is in a consistent position relative to the top left of the application window. It will not work well where screen layouts vary as the window is resized. Use this option for Web applications, Java applications or applications running in remote sessions like Citrix. See *7 OCR Screen Scrape Example* on page 32 for how to create an example OCR profile using the *Sample Personnel Program*.



**NOTE:** While this option will work for most applications, it does use OCR to read the screen contents, and so can be prone to occasional OCR errors. It is recommended that you test the Screen Scrape Profile with a selection of different screen data before deploying to users in a live environment.

The following sections 4 to 7 describe the steps to take in the Screen Scrape Setup wizard to configure a profile for your chosen data capture method (selected in step 3 in the wizard).

## 4 Windows Objects Example Profile

This example profile is for the **Windows Objects** data capture method using the *Sample Personnel Program*. Follow the steps below to create the example profile.

### To create a Windows Objects profile:

1. Navigate to the Document Manager program directory and double-click **Employee.exe** to launch the *Sample Personnel Program*.
2. Ensure the *Sample Personnel Program* is the active window and press your defined hotkey. Click **Yes** in the message prompt displayed to create a new profile. The **Hotkey/Screen Scrape Setup** wizard displays:

Hotkey / Screen Scrape Setup.

Step 1 - Select a drawer to search

Step 2 - Select whether the search is for a folder or document

Step 3 - Select the method for capturing data from the applications window

Drawer: Any

**Search Type**

☒ Folder Search/Create ☐ Document Search

☐ Automatically open folder/document if only 1 match is found

**Window Data Capture Method**

☒ Windows Objects - Use this for standard Windows applications

☐ Dos/Text - Use this for DOS applications, Terminal Emulation, Clipboard contents etc

☐ Grid/Cells - Use this for spreadsheets, applications that display data in a grid etc

☐ OCR - Use this for web pages, java apps, citrix sessions, other application types

Cancel Next

3. Select the 'Human Resources' Drawer and ensure the **Folder Search/Create** option is selected.



4. Ensure the **Windows Objects** option is selected and click **Next**. Step 4 displays:

Hotkey / Screen Scrape Setup.

Step 4 - Select the features that uniquely identify the application window. E.g button names, window captions etc

Window Title: Sample Personnel Program

ClassName: ThunderRT6FormDC

☐ Ignore Class Name

☐ Use Machine Name

Object	Ref	Matches
--------	-----	---------

+ Add - Remove

Window Objects

☐ Use NonObjectId field identification

- Employee Details || ThunderRT6Frame || 1 || 0\1

Cancel Previous Next

## 4.1 Step 4: Identify the Window

**Step 4** is to tell Document Manager how to identify this window from any other that may be active when the hotkey is pressed. By default, this is done using the window title; however, frequently this may not be enough. If there is only one screen layout for the program (as in the *Sample Personnel Program*), the window title may suffice on its own.

If there are multiple screen layouts for the program (for example, a Finance program may have a 'list of suppliers' window, or a 'list of transactions' window etc.), you need to identify which window the program is displaying.

It is possible to define multiple Screen Scrape profiles for an application (like a Finance application) but only one Screen Scrape profile per window (such as a supplier details form).

If only the window title is needed to identify the window, you can simply click **Next**. For more complex programs, you need to add some information about what the window is showing.

On the bottom half of the screen for step 4, expand the top-level object to display a list of **Windows Objects**. This is a list of all objects read from the target application and consists of text boxes, combo boxes, lists etc. For the *Sample Personnel Program*, it is a small list but in more complex applications this list will be many levels deep.

The format of the list is the actual data contained within the control separated by '||', then the name of the control followed by '||' and the object ID of the control. Sometimes the object ID of the control on the form changes and this makes it unreliable to use.

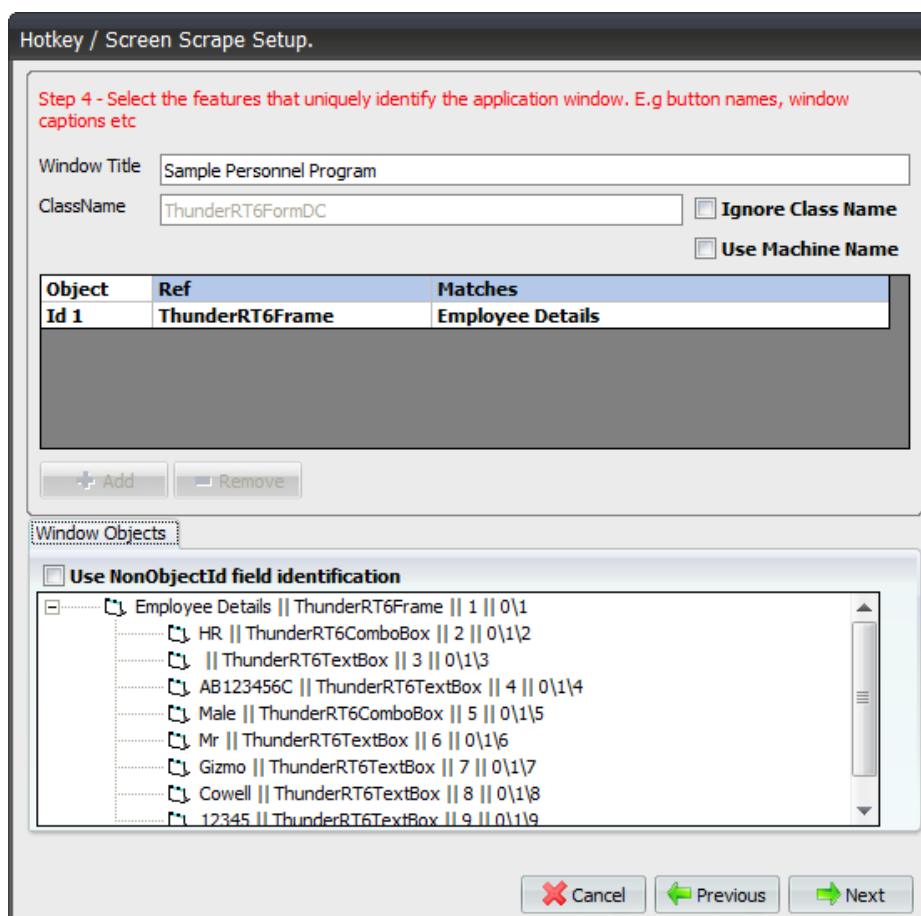
- If this is the case, tick the box **Use NonObjectId field identification** and this will cause the process to ignore the IDs when performing a match.

You need to identify items that differentiate the window from others that the program may display. These items include the captions on the form, titles of fields etc. In the *Sample Personnel Program* example, you could use the panel title 'Employee Details' or the field names, such as 'Department'.

You would not use field values to identify the window, such as 'Mr' or 'Cowell', because these will change depending on the window displayed (for example, an employee record). Field values are used to provide the data to be searched and are defined in the next step, but now you need to identify the correct window.

### To identify the Sample Personnel Program window:

1. Highlight the first field 'Employee Details' and click the **Add** button to add it to the list of features used to identify the window. The result should look something like this:



Hotkey / Screen Scrape Setup.

Step 4 - Select the features that uniquely identify the application window. E.g button names, window captions etc

Window Title: Sample Personnel Program

ClassName: ThunderRT6FormDC ☐ Ignore Class Name ☐ Use Machine Name

Object	Ref	Matches
Id 1	ThunderRT6Frame	Employee Details

+ Add - Remove

Window Objects

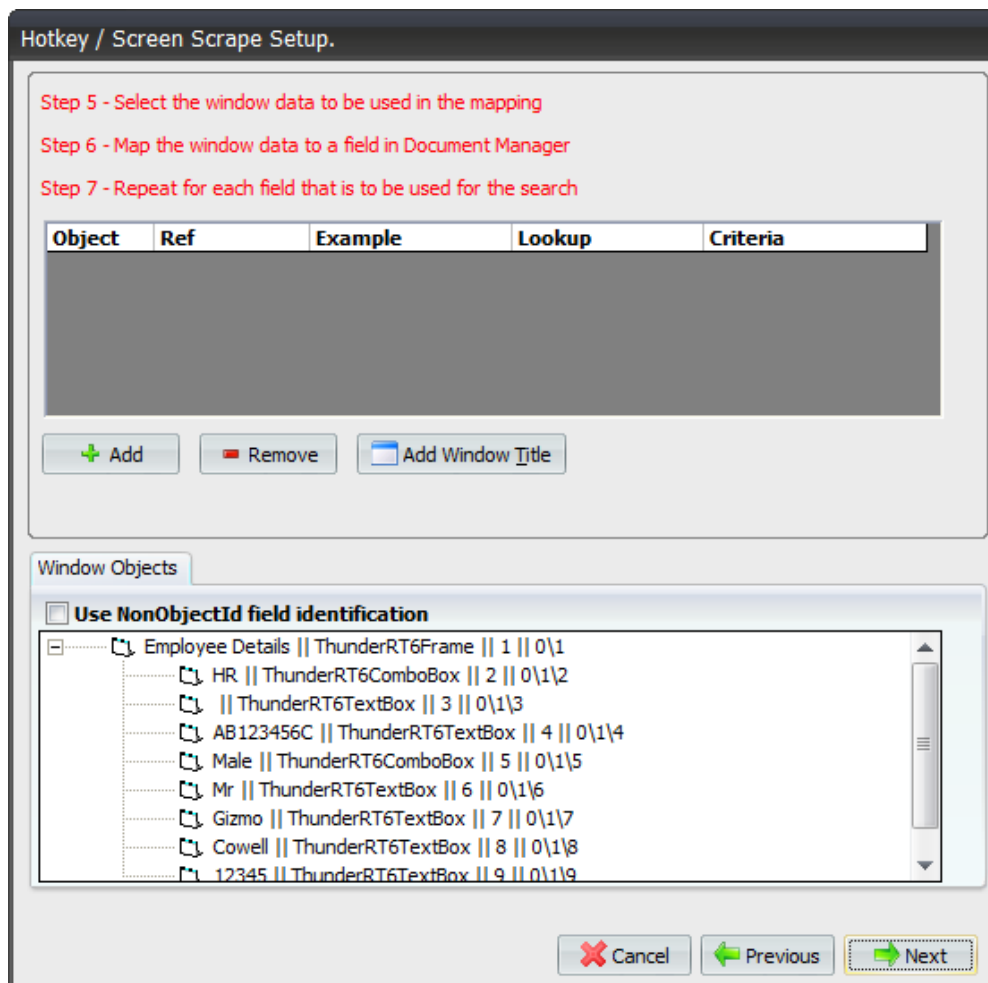
☐ Use NonObjectId field identification

- Employee Details || ThunderRT6Frame || 1 || 0\1
- HR || ThunderRT6ComboBox || 2 || 0\1\2
- || ThunderRT6TextBox || 3 || 0\1\3
- AB123456C || ThunderRT6TextBox || 4 || 0\1\4
- Male || ThunderRT6ComboBox || 5 || 0\1\5
- Mr || ThunderRT6TextBox || 6 || 0\1\6
- Gizmo || ThunderRT6TextBox || 7 || 0\1\7
- Cowell || ThunderRT6TextBox || 8 || 0\1\8
- 12345 || ThunderRT6TextBox || 9 || 0\1\9

Cancel Previous Next

It is possible to define multiple identification features but usually just one will suffice, as long as it is unique to that window.

- A **ClassName** is part of the way Windows identifies the window, for example, as an application window as opposed to a Windows Explorer window. By default, this is also used to identify the window to prevent mistaking a Windows Explorer window of the same name in the Screen Scrape process. Sometimes, however, applications change their ClassName, so if your Screen Scrape does not reliably work, check to see if the ClassName changes. If it does, tick the **Ignore Class Name** option. However, this situation is quite unusual.
2. When the Window identification features have been defined, click **Next** to continue to steps 5, 6 and 7:

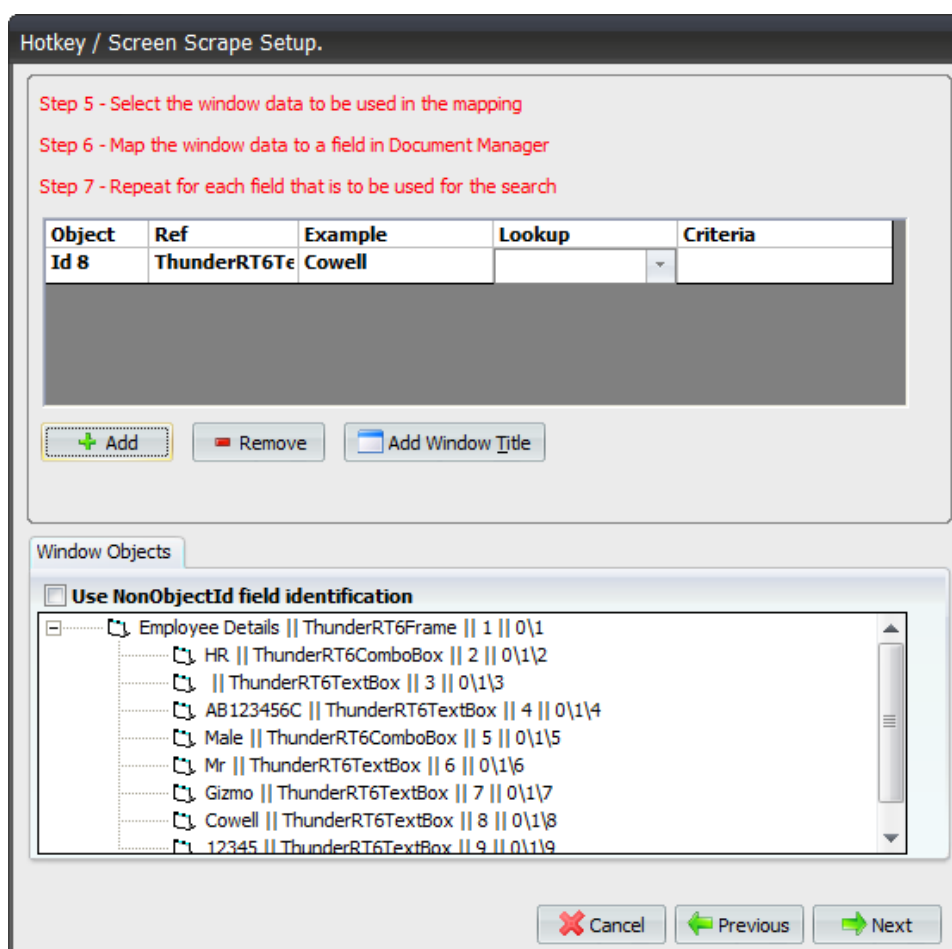


## 4.2 Step 5: Selecting the Application Data to be Scraped

Now you need to define the fields in the application that you want to use to locate the documents in Document Manager.

**To select the data to be scraped:**

1. Using the list of **Windows Objects** at the bottom of the screen, choose an object that contains the data you want to search on. In an HR application, this would be something like employee number, or in an Accounts Payable application, it could be invoice number. In this example, choose the object that contains the data 'Cowell'.
2. Click **Add** to add the object data to the list in the top half of the screen:



The object data will be added to the list in the top half of the screen.

## 4.3 Step 6: Mapping the Application Data to Document Manager Index Fields

You need to map the field just read from the application window to a field in Document Manager.

### To map the application data to a Document Manager field:

Lookup
▼
Surname
First Name

1. Click in the **Lookup** column to display a drop-down list of the available fields in the 'Human Resources' drawer. Select the field that relates to our search data: in this case, 'Surname'.

2. Click in the **Criteria** column to display a drop-down list of filter criteria. Select 'Equal To' from the list: this will tell Document Manager to locate a folder with the Surname field 'Equal To' the value read from the selected field in the application.

Criteria
Equal To
Equal To
Not Equal To
Contains

Other filter criteria may be selected, for example, 'Contains' or 'Starts With'. See the *Document Manager User Guide* for more information on searching for folders and using these filters.

## 4.4 Step 7: Map Additional Fields

Additional fields can be defined in the Screen Scrape profile by repeating the above process from Step 5. For the *Sample Personnel Program* example, this is not necessary. In the Windows Objects profile, the Screen Scrape Setup should look like the one below:

Hotkey / Screen Scrape Setup.

Step 5 - Select the window data to be used in the mapping

Step 6 - Map the window data to a field in Document Manager

Step 7 - Repeat for each field that is to be used for the search

Object	Ref	Example	Lookup	Criteria
Id 8	ThunderRT6T	Cowell	Surname	Equal To

+ Add   - Remove   Add Window Title

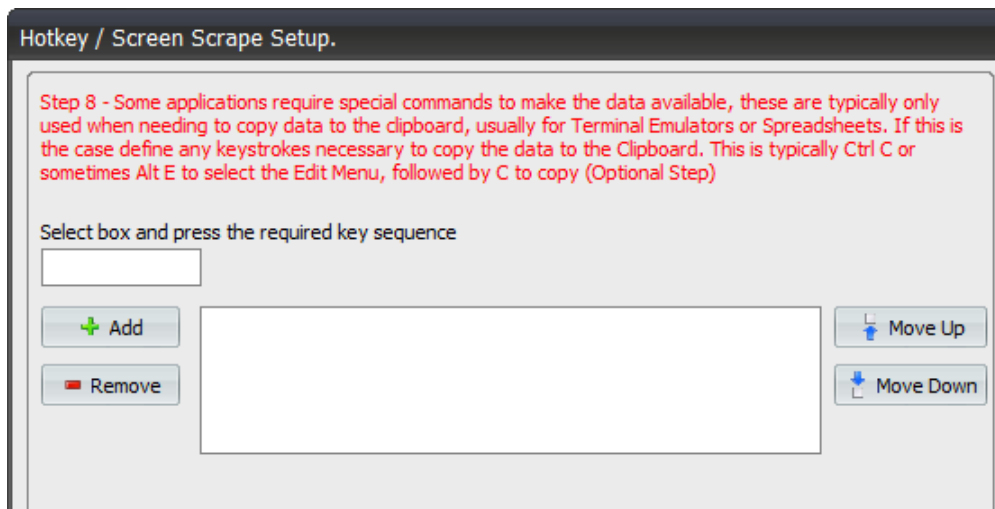
Window Objects

☐ Use NonObjectId field identification

- Employee Details || ThunderRT6Frame || 1 || 0\1
  - HR || ThunderRT6ComboBox || 2 || 0\1\2
  - || ThunderRT6TextBox || 3 || 0\1\3
  - AB123456C || ThunderRT6TextBox || 4 || 0\1\4
  - Male || ThunderRT6ComboBox || 5 || 0\1\5
  - Mr || ThunderRT6TextBox || 6 || 0\1\6
  - Gizmo || ThunderRT6TextBox || 7 || 0\1\7
  - Cowell || ThunderRT6TextBox || 8 || 0\1\8
  - 12345 || ThunderRT6TextBox || 9 || 0\1\9

Cancel   Previous   Next

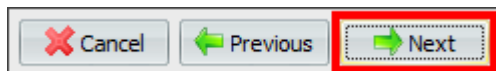
- Click **Next** to display step 8:



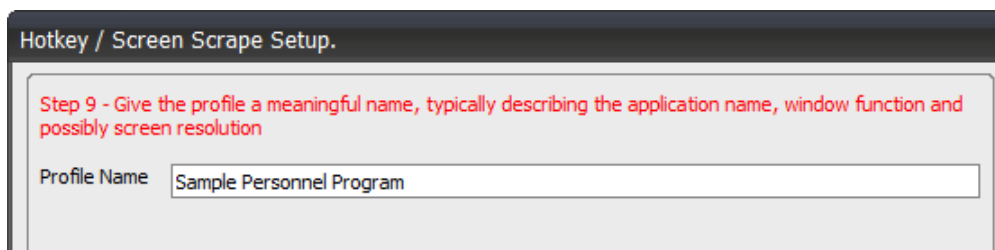
## 4.5 Step 8: Defining Special Commands (Optional)

This step is usually only for Terminal Emulation sessions and Spreadsheets, and is used to define any key presses the application needs in order to paste data to the Windows Clipboard.

- For this example, **Step 8** is not required, so click **Next**:

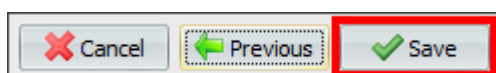


- Step 9 in the wizard displays:



Finally, you need to give the Screen Scrape profile a name so it can be identified later. This is usually the same as the window title, but sometimes you need to add some more information, typically to identify with which form in the application the profile works.

- Enter a unique and recognisable **Profile Name**, and then click **Save** to save the Screen Scrape profile:



It is now ready to be tested and used.

Congratulations; you have just defined your first Screen Scrape profile. With practice the whole process will take just a few minutes.

## 5 DOS/Text Screen Scrape Example

Performing a Screen Scrape from a DOS Window is similar to Screen Scraping from a spreadsheet (as shown in the *6 Grid/Cells Screen Scrape Example* on page 25). The displayed window's contents are copied to the clipboard during both scrape processes; however, for a DOS/Text scrape, it is not necessary to force the copy using a sequence of key presses.



**NOTE:** DOS applications can only be Screen Scraped when running in a reduced window. The scrape cannot be performed when running full screen.

The example used in this section will be with a legacy database written for MS-DOS using Clipper.

Figure 3 below represents a product specification sheet. From this specification sheet, a user may access related documents, such as service manuals, user guides, and so on.

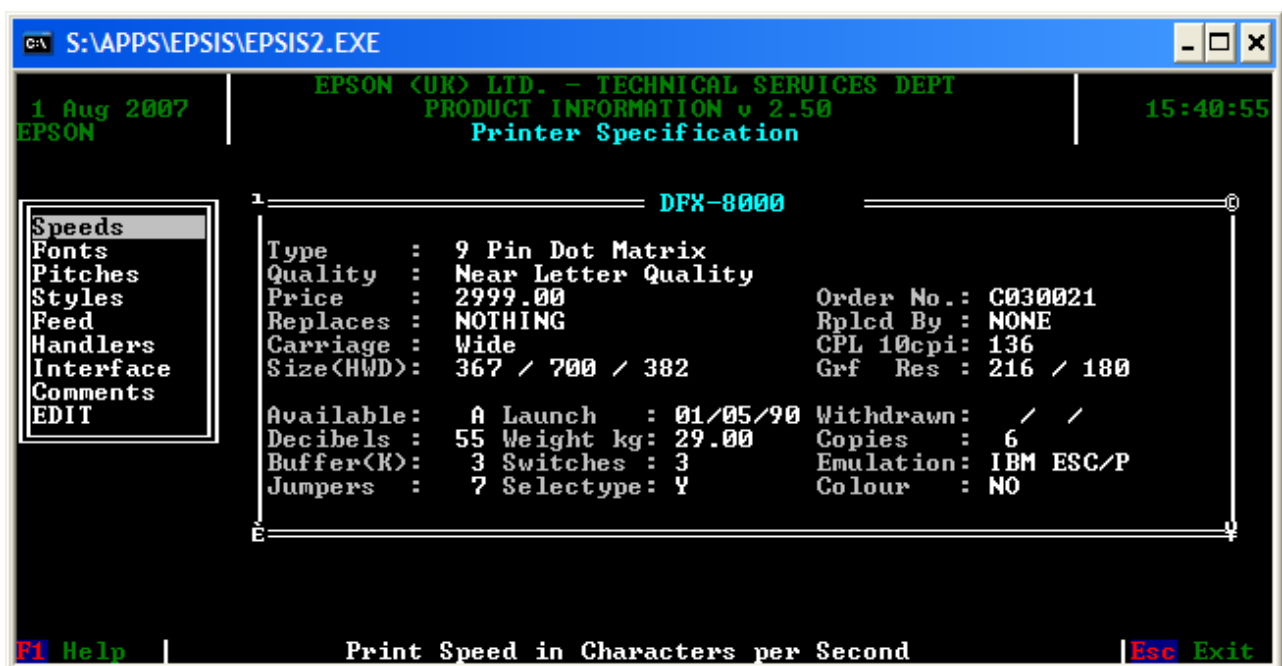


Figure 3: Example DOS Window

The steps below describe how to set up a Screen Scrape profile for the example DOS window in Figure 3 above.

### To create a DOS Screen Scrape profile:

1. Open the DOS Window and run the required command.
2. Ensure the DOS Window is the active window and press your defined hotkey. Click **Yes** in the message prompt displayed to create a new profile. The **Hotkey/Screen Scrape Setup** wizard displays.

3. Select your required **Drawer**, for example 'Human Resources' and choose the **Dos/Text** option under **Window Data Capture Method**:

**Window Data Capture Method**

☐ Windows Objects - Use this for standard Windows applications  
☒ Dos/Text - Use this for DOS applications, Terminal Emulation, Clipboard contents etc.  
☐ Grid/Cells - Use this for spreadsheets, applications that display data in a grid etc  
☐ OCR - Use this for web pages, java apps, citrix sessions, other application types

4. Click **Next** to display step 4:

Hotkey / Screen Scrape Setup.

Step 4 - Select the features that uniquely identify the application window. E.g button names, window captions etc

Window Title: C:\Users\STEVE~1\ADA\Desktop\EPSIS\EPSIS2.EXE

ClassName: ConsoleWindowClass ☐ Ignore Class Name

Object	Ref	Matches

+ Add - Remove

Dos / Text

```

00          | EPSON (UK) LTD. - TECHNICAL SERVICES D
10 Sep 2009 |      PRODUCT INFORMATION v 2.50
EPSON       |      Printer Specification
  
```

DFX-8000	
Speeds	
Fonts	Type : 9 Pin Dot Matrix
Pitches	Quality : Near Letter Quality
Styles	Price : 2999.00

Order No

Cancel Previous Next

## 5.1 Step 4: Identify the Window

**Step 4** is to tell Document Manager how to identify this window from any other that may be active when the hotkey is pressed. By default, this is done using the window title; however, frequently this may not be enough. If there is only one screen layout for the program (as in the Database Program example), the window title may suffice on its own.



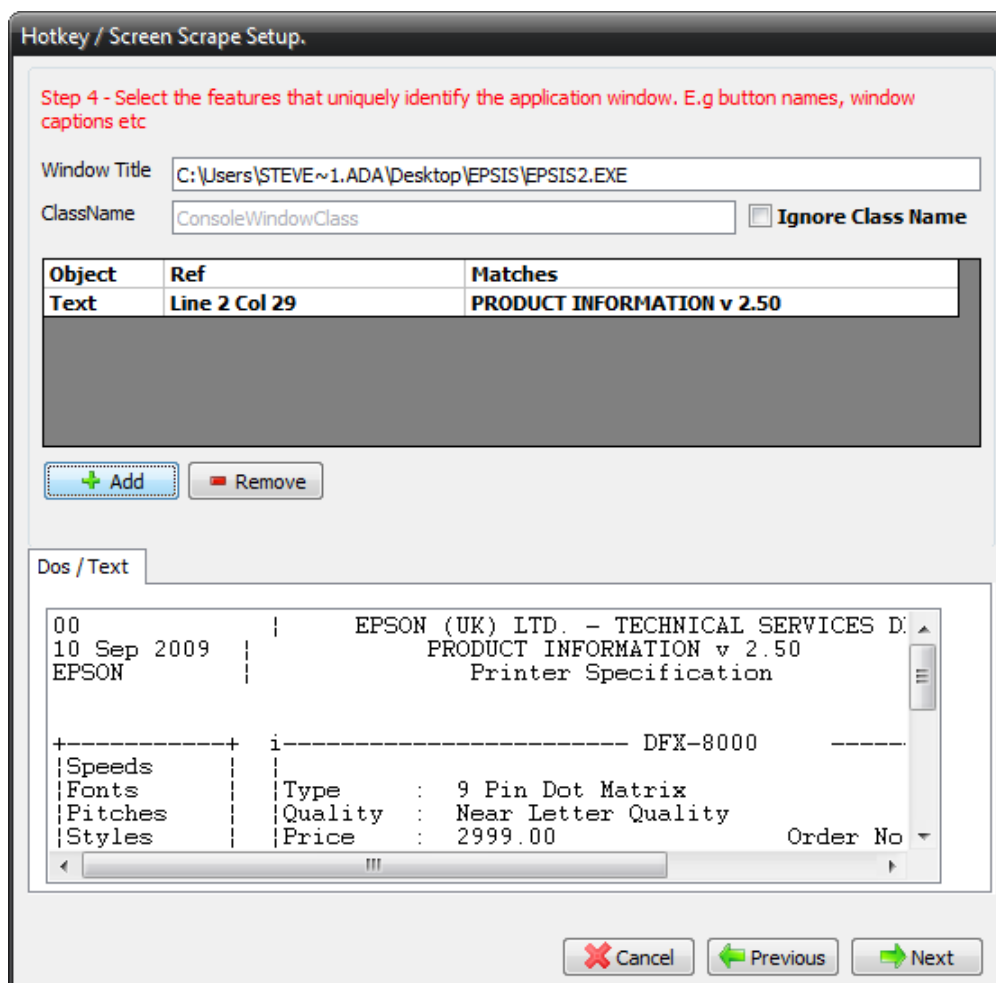
If there are multiple screen layouts for the program (for example, a Finance program may have a 'list of suppliers' window, or a 'list of transactions' window etc.), you need to identify which window the program is displaying.

It is possible to define multiple Screen Scrape profiles for an application (like a Finance application) but only one Screen Scrape profile per window (such as a supplier details form).

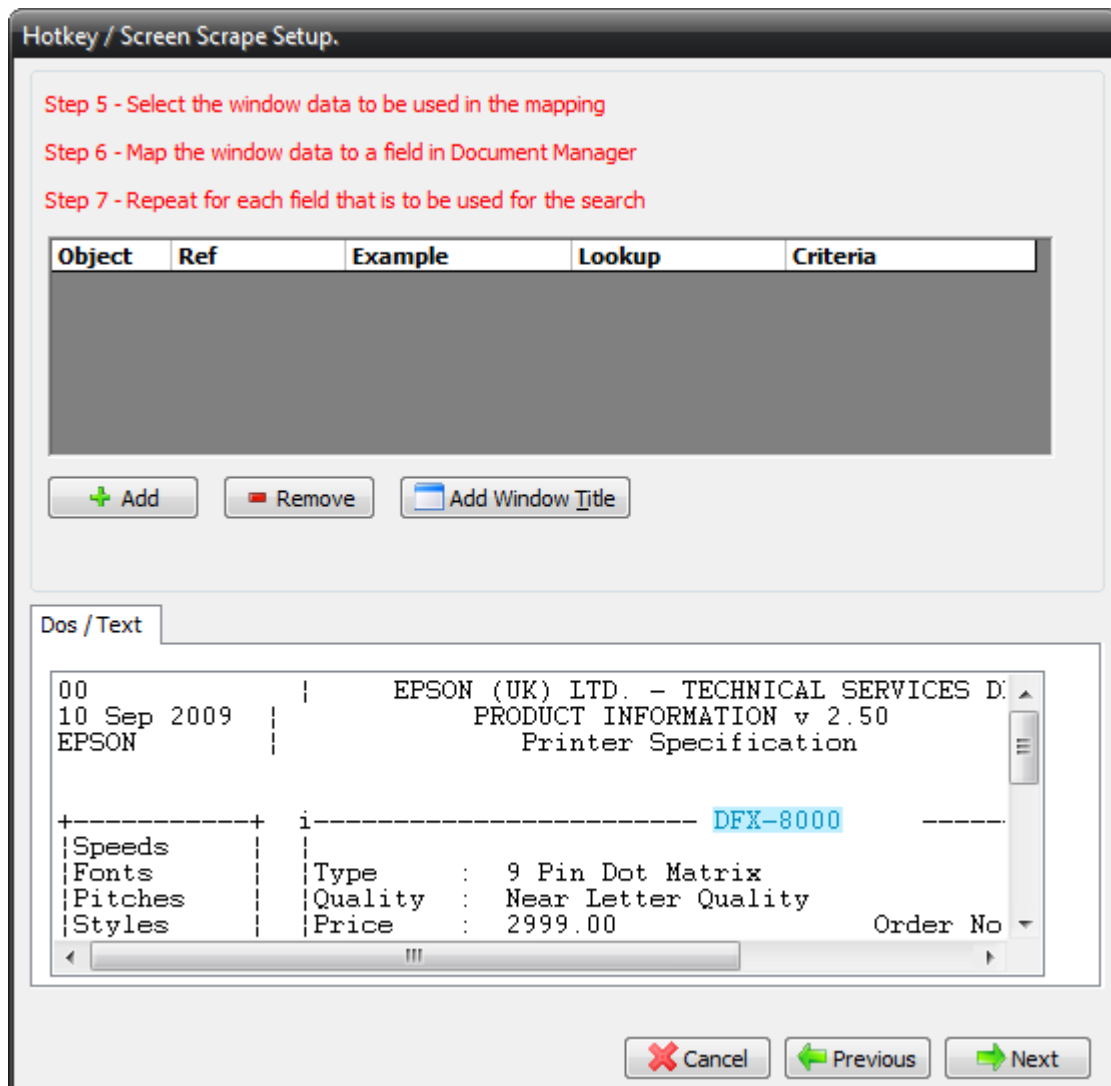
If only the window title is needed to identify the window, you can simply click **Next**. For more complex programs, you need to add some information about what the window is showing.

### To identify the DOS screen:

1. Select some text that is always present on the screen. To do this, position the mouse cursor immediately before the required text in the **Dos/Text** tab at the bottom of the window. Holding the <SHIFT> key down, move the cursor to the right to highlight the desired word(s). In the above example, 'PRODUCT INFORMATION v 2.50' is highlighted.
2. Once you have highlighted the required area, click the **Add** button to add this to the list of features used to identify the window. The result should look something like this:



- When the identification features have been defined, click **Next** to go to steps 5, 6 and 7:



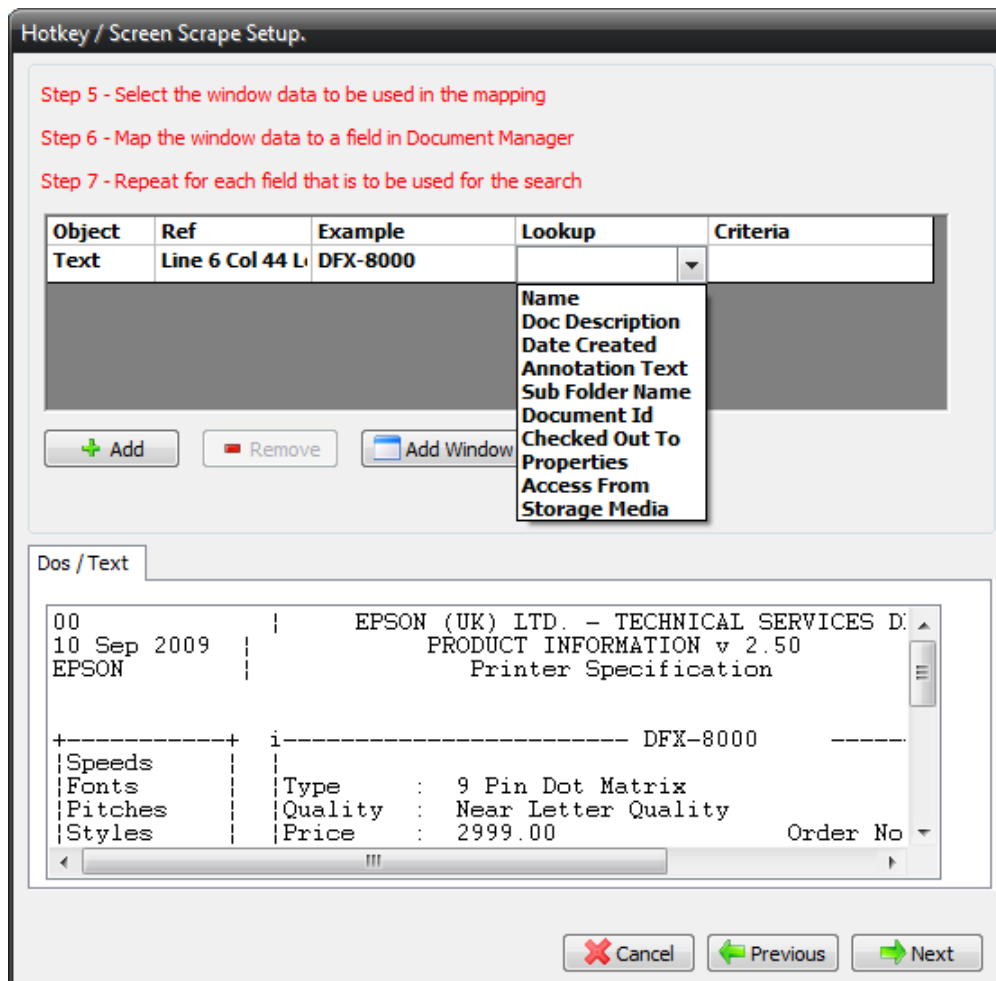
## 5.2 Step 5: Selecting the Application Data to be Scraped

Now you need to define the fields in the application that you want to use to locate the documents in Document Manager.

### To select the data to be scraped:

- In the same way as in step 4, select some text that is always present on the screen. To do this, position the mouse cursor immediately before the required text in the **Dos/Text** tab. Holding the <SHIFT> key down, move the cursor to the right to highlight the desired word(s). In the above example, 'DFX-8000' is highlighted.

- Click **Add** to add the object data to the list in the top half of the screen:

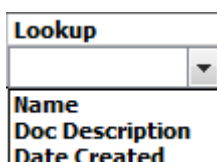


The DOS data will be added to the list in the top half of the screen.

## 5.3 Step 6: Mapping the Application Data to Document Manager Index Fields

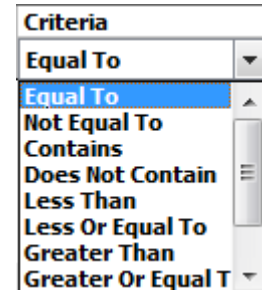
You need to map the field just read from the application window to a field in Document Manager.

**To map the application data to a Document Manager field:**



- Click in the **Lookup** column to display a drop-down list of available fields in the selected drawer. Select the field that relates to our search data: in this example above, this is 'Name'.

- Click in the **Criteria** column to display a drop-down list of filter criteria. Select 'Equal To' from the list: this will tell Document Manager to locate a folder with the Name field 'Equal To' the value read from the selected field in the application.

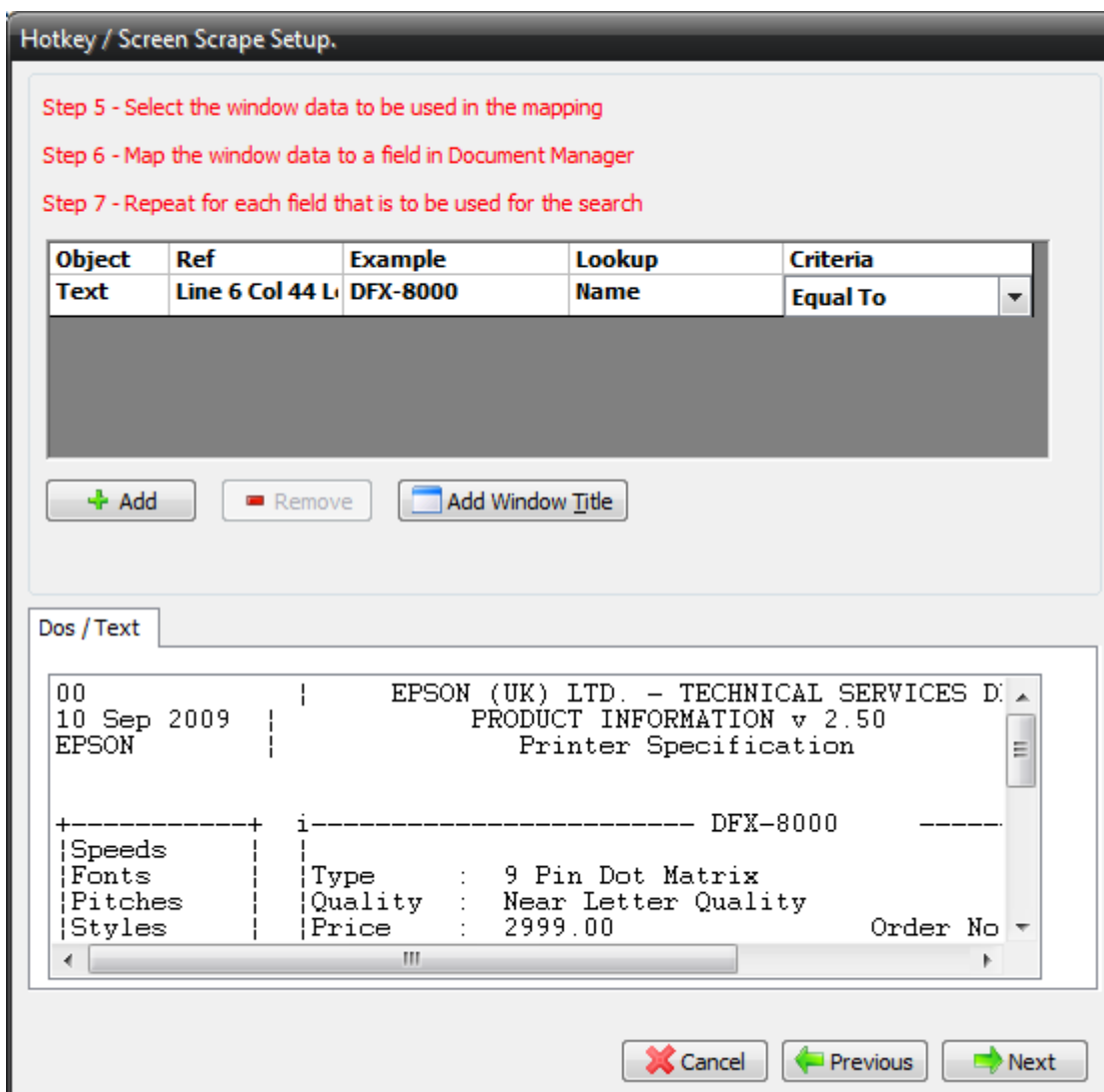


Other filter criteria may be selected, for example, 'Contains' or 'Starts With'. See the *Document Manager User Guide* for more information on searching for folders and using these filters.

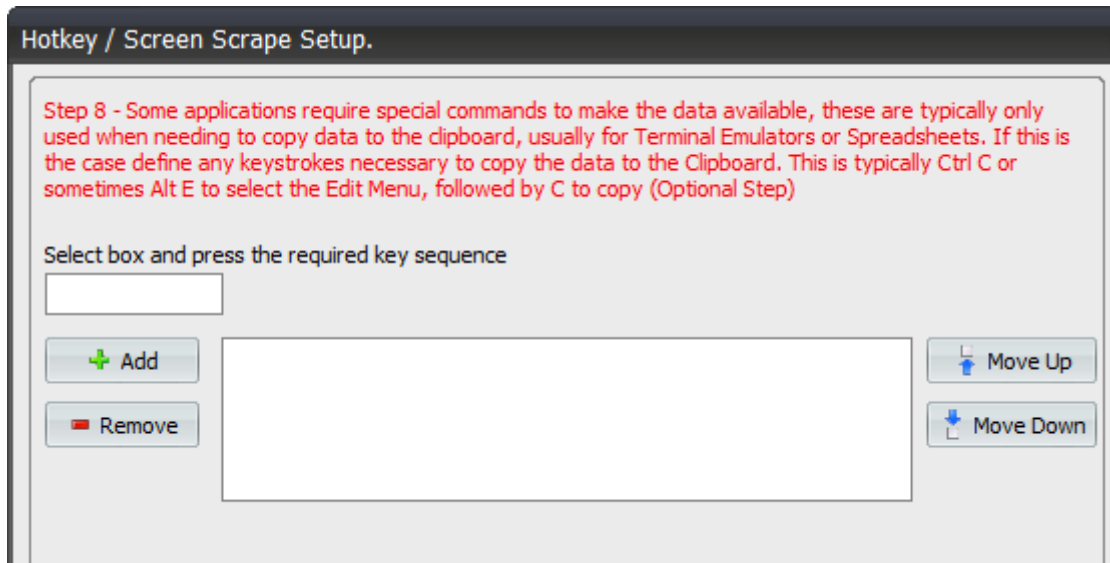
## 5.4 Step 7: Map Additional Fields

Additional fields can be defined in the Screen Scrape profile by repeating the above process from Step 5. For the *DOS Window* example, this is not necessary.

The Screen Scrape profile for a DOS Window should look like the example below:



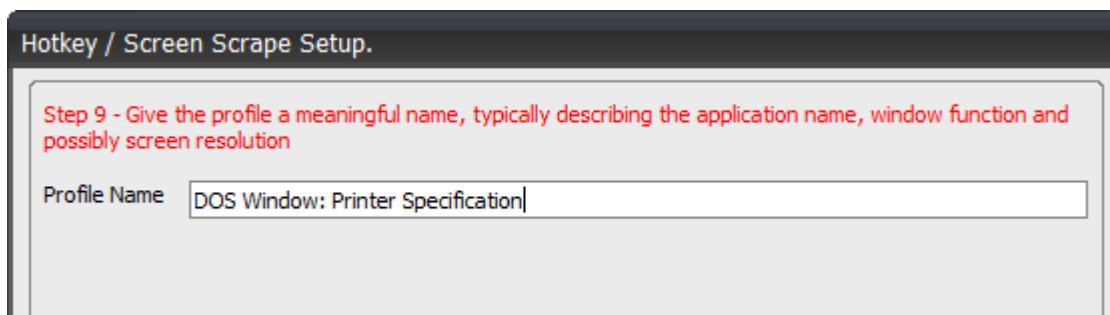
- Click **Next** to display step 8:



## 5.5 Step 8: Defining Special Commands (Optional)

This step is usually only for Terminal Emulation sessions and Spreadsheets, and is used to define any key presses the application needs in order to paste data to the Windows Clipboard.

- For the DOS Window example, **Step 8** is not required, so click **Next**:



Finally, you need to give the Screen Scrape profile a name so it can be identified later. This is usually the same as the window title, but sometimes you need to add some more information, typically to identify with which form within the application the profile works.

- Enter a unique and recognisable **Profile Name**, and then click **Save** to save the Screen Scrape profile. It is now ready to be tested and used.

## 6 Grid/Cells Screen Scrape Example

Running a Screen Scrape from a grid or cells is similar to scraping from a DOS Window, as described in *5 DOS/Text Screen Scrape Example* on page 18. In the example shown in this section, a spreadsheet of 'Personnel Records' in Microsoft Excel is used (see Figure 4 below). The steps below describe how to set up a Screen Scrape profile for the example 'Personnel Records' spreadsheet.

### To create a Grid/Cells Screen Scrape profile:

1. Open the required application, for example, a spreadsheet (as shown in Figure 4).
2. Select the cells containing the relevant fields. In the example below, the entire row has been selected:

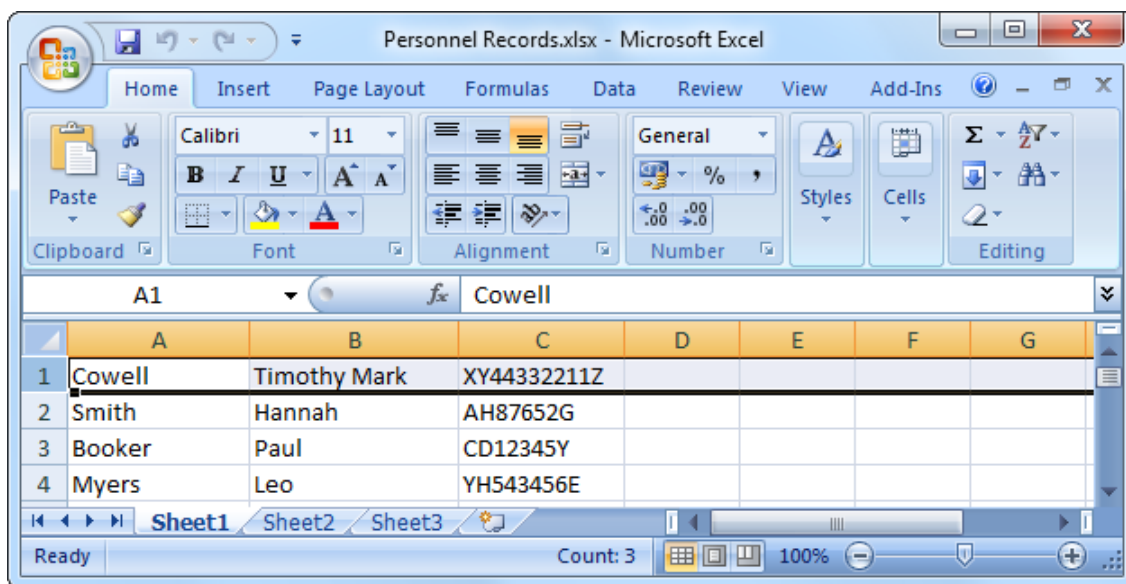



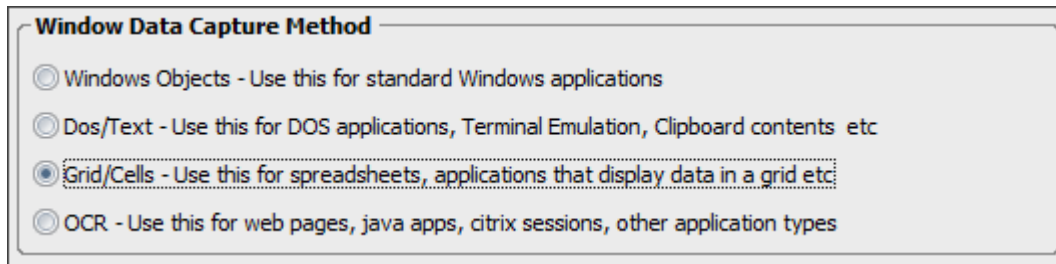
Figure 4: Example Personnel Records Spreadsheet

3. When defining the Screen Scrape profile, the row of data must be copied to the clipboard (this will not be necessary once the template has been defined). To do this in Excel, depending on your version, select **Edit** and then **Copy** or click the copy button  on the **Home** tab.

**i NOTE:** <CTRL> + <C> is common to most Windows applications for copying selected data to the Clipboard and is always a good starting point if unsure what keys to use. <CTRL> + <A> is common to many Windows applications for selecting all items in a Window prior to the 'Copy to Clipboard' action. Make a note of the keys used (these will be needed later when defining the screen scrape template).

4. Ensure the spreadsheet is the active window and press your defined hotkey. Click **Yes** in the message prompt displayed to create a new profile. The **Hotkey/Screen Scrape Setup** wizard displays.

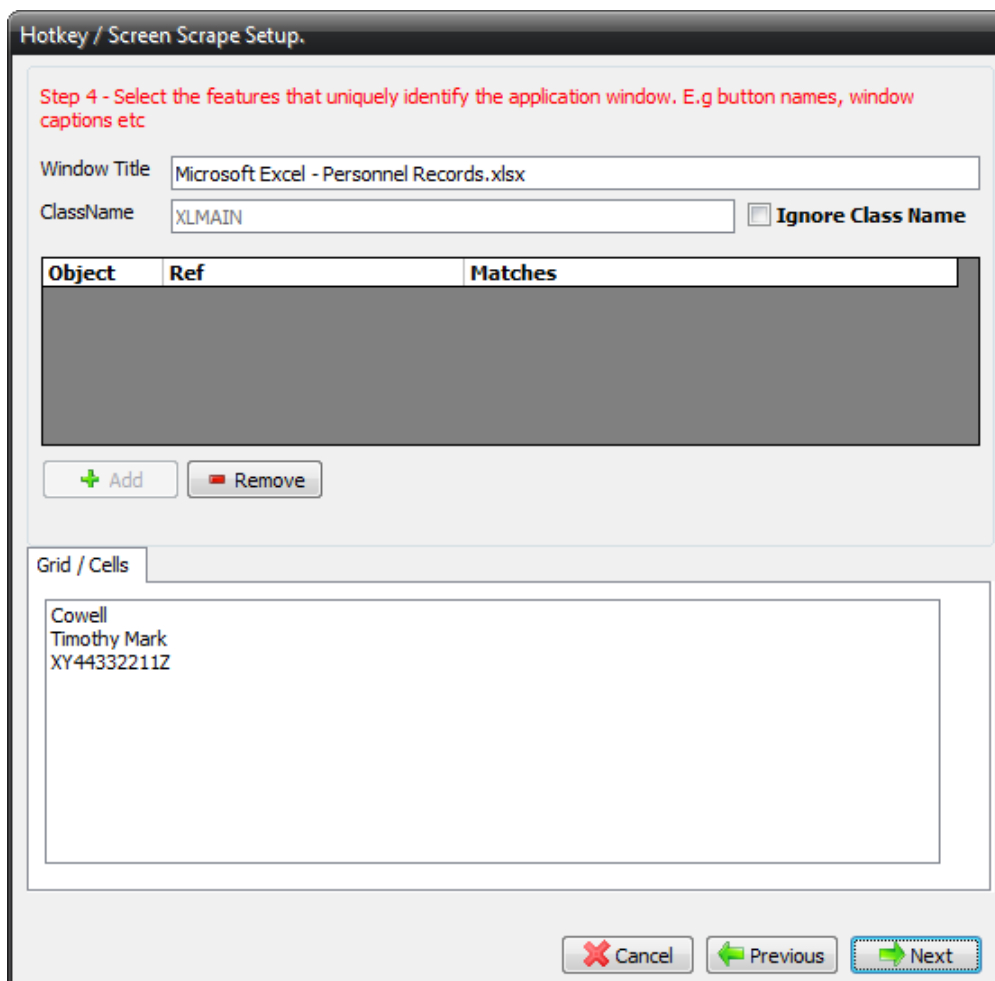
5. Select your required **Drawer** for example, 'Human Resources', and choose the **Grid/Cells** option under **Window Data Capture Method**:



**Window Data Capture Method**

- ☐ Windows Objects - Use this for standard Windows applications
- ☐ Dos/Text - Use this for DOS applications, Terminal Emulation, Clipboard contents etc
- ☒ Grid/Cells - Use this for spreadsheets, applications that display data in a grid etc
- ☐ OCR - Use this for web pages, java apps, citrix sessions, other application types

6. Click **Next** to display step 4:



Hotkey / Screen Scrape Setup.

Step 4 - Select the features that uniquely identify the application window. E.g button names, window captions etc

Window Title: Microsoft Excel - Personnel Records.xlsx

ClassName: XLMAIN ☐ Ignore Class Name

Object	Ref	Matches
--------	-----	---------

+ Add - Remove

Grid / Cells

Cowell  
Timothy Mark  
XY44332211Z

Cancel Previous Next

## 6.1 Step 4: Identify the Window

**Step 4** is to tell Document Manager how to identify this window from any other that may be active when the hotkey is pressed. By default, this is done using the window title; however, frequently this may not be enough. If there is only one screen layout for the program (as in the Personnel Records spreadsheet example), the window title may suffice on its own.

If there are multiple screen layouts for the program (for example, a Finance program may have a 'list of suppliers' window, or a 'list of transactions' window etc.), you need to identify which window the program is displaying.

It is possible to define multiple Screen Scrape profiles for an application (like a Finance application) but only one Screen Scrape profile per window (such as a supplier details form).

If only the window title is needed to identify the window, you can simply click **Next**. For more complex programs, you need to add some information about what the window is showing.

### To identify the Spreadsheet Cells:

1. To reference the spreadsheet cell fields, click the **Grid/Cells** tab in the lower half of the window in **Step 4**. This lists each of the selected cells on a different line. In the case of the Personnel Records spreadsheet, the window title is sufficient to identify the application so no additional identity fields are required.
2. When identification features have been defined, click **Next** to go to steps 5, 6 and 7:

Hotkey / Screen Scrape Setup.

Step 5 - Select the window data to be used in the mapping  
Step 6 - Map the window data to a field in Document Manager  
Step 7 - Repeat for each field that is to be used for the search

Object	Ref	Example	Lookup	Criteria
--------	-----	---------	--------	----------

+ Add - Remove Add Window Title

Grid / Cells

Cowell  
Timothy Mark  
XY44332211Z

Cancel Previous Next

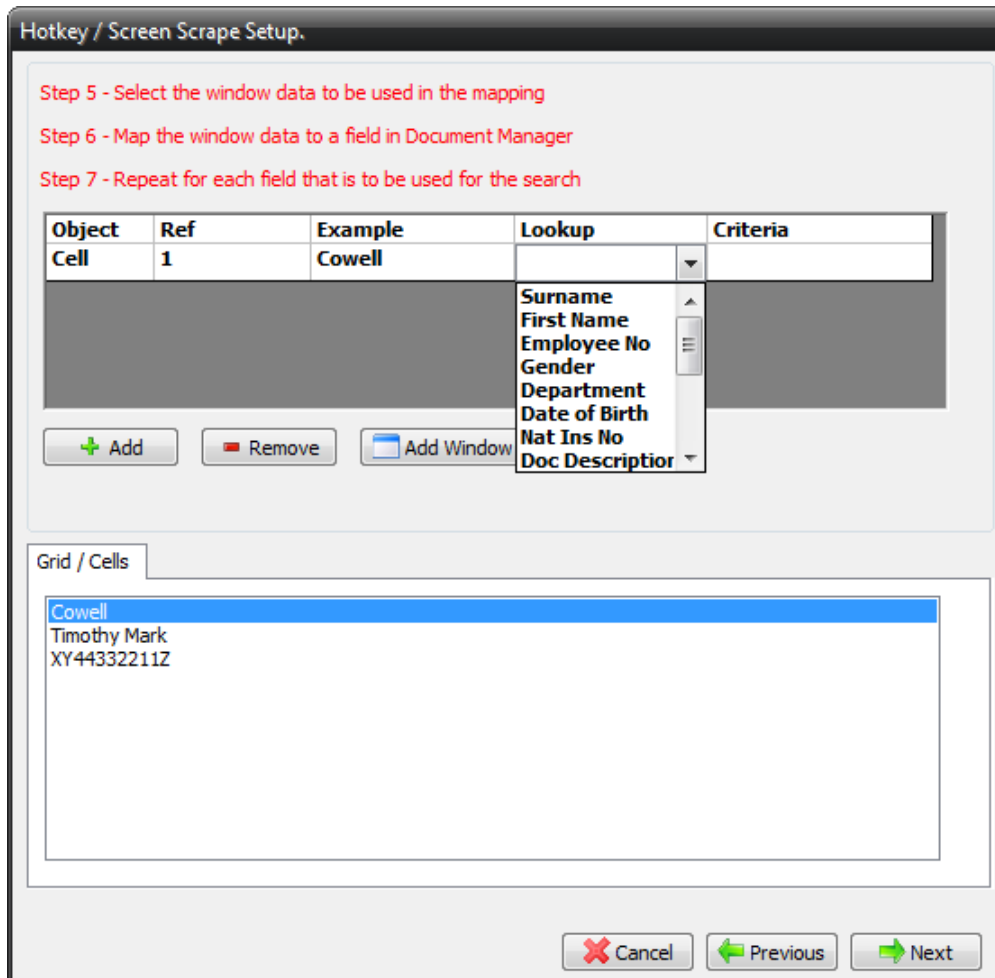


## 6.2 Step 5: Selecting the Application Data to be Scraped

Now you need to define the fields in the application that you want to use to locate the documents in Document Manager.

**To select the data to be scraped:**

1. Select the cell you want to add as a lookup. In this example, select the cell 'Cowell'.
2. Click **Add** to add the object data to the list in the top half of the screen:



The cell data will be added to the list in the top half of the screen.

## 6.3 Step 6: Mapping the Application Data to Document Manager Index Fields

You need to map the field that has just been read from the application window to a field in Document Manager.

### To map the application data to a Document Manager field:

Lookup
Surname
First Name

1. Click in the **Lookup** column to display a drop-down list of the available fields in the selected drawer. Select the field that relates to our search data: in this case 'Surname'.

2. Click in the **Criteria** column to display a drop-down list of filter criteria. Select 'Equal To' from the list: this will tell Document Manager to locate a folder with the Surname field 'Equal To' the value read from the selected field in the application.

Criteria
Equal To
Not Equal To
Contains

Other filter criteria may be selected, for example, 'Contains' or 'Starts With'. See the *Document Manager User Guide* for more information on searching for folders and using these filters.

## 6.4 Step 7: Map Additional Fields

Additional fields can be defined in the Screen Scrape profile by repeating the above process from Step 5. For the *Grid/Cells* example, this is not necessary.

The Screen Scrape profile for Grid/Cells should look like the example below:

Hotkey / Screen Scrape Setup.

Step 5 - Select the window data to be used in the mapping

Step 6 - Map the window data to a field in Document Manager

Step 7 - Repeat for each field that is to be used for the search

Object	Ref	Example	Lookup	Criteria
Cell	1	Cowell	Surname	Equal To

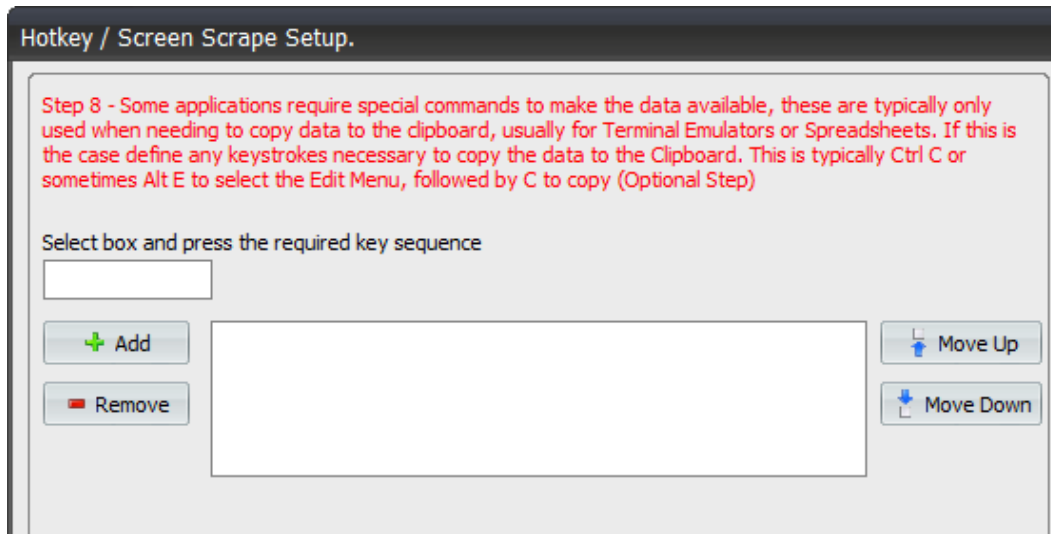
+ Add    - Remove    Add Window Title

Grid / Cells

Cowell
Timothy Mark
XY44332211Z

Cancel    Previous    Next

- Click **Next** to display step 8:

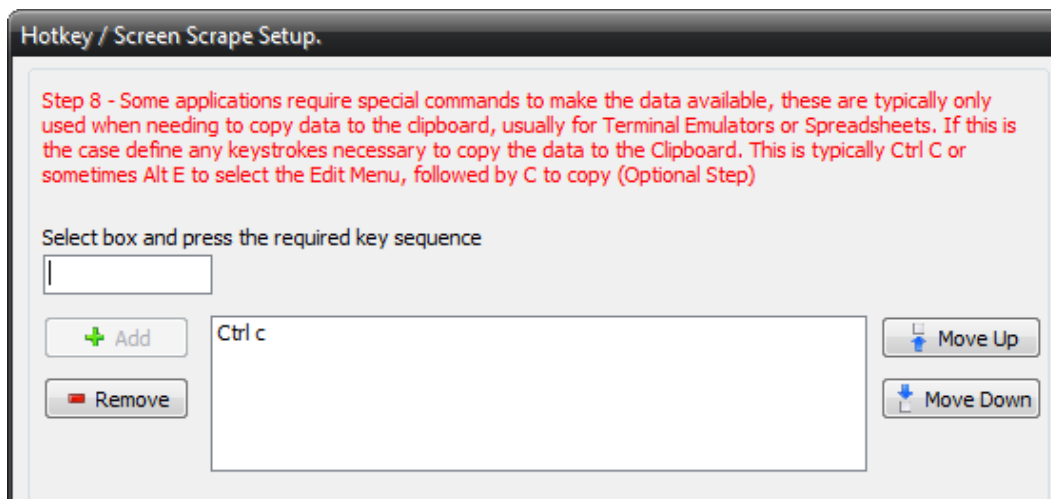


## 6.5 Step 8: Defining Special Commands

The final step in defining the profile is to automate the copying of data to the clipboard. This is performed by defining the key presses Document Manager will perform automatically.

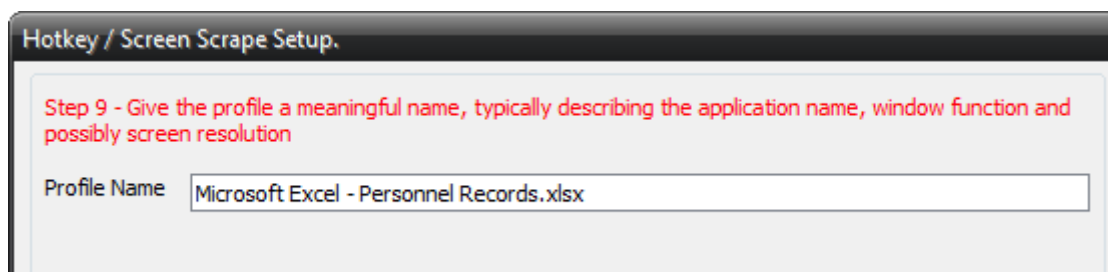
**To define an automatic action to copy to the clipboard:**

1. Position the cursor in the text box at the top left of the screen, and then press <CTRL> followed by <C>. The text window will display a 'Ctrl' with a small 'c':



**TIP:** Sometimes an application appears not to respond to the key presses (e.g. <CTRL> + <C>). If this is the case, try defining the key presses twice; sometimes the application detects the second one. This varies from application to application, but frequently resolves the problem where the key presses initially appear not to work.

2. Click **Add** and the key sequence will be added to the list. Repeat this for each key sequence required to gather the data. The key sequences can be moved up and down the order using the **Move Up** and **Move Down** buttons on the right. Use the **Remove** button to remove any sequences from the list.
3. When finished, click **Next** to display step 9:



Hotkey / Screen Scrape Setup.

Step 9 - Give the profile a meaningful name, typically describing the application name, window function and possibly screen resolution

Profile Name

Finally, you need to give the Screen Scrape profile a name so it can be identified later. This is usually the same as the window title, but sometimes you need to add some more information, typically to identify with which form within the application the profile works.

- Enter a unique and recognisable **Profile Name**, and then click **Save** to save the Screen Scrape profile. It is now ready to be tested and used.

## 7 OCR Screen Scrape Example Profile

This example uses the *Sample Personnel program* to demonstrate setting up an example OCR Screen Scrape profile. Follow the steps below to create the example profile.

**To create an example OCR profile:**

1. Navigate to the Document Manager program directory and double-click **Employee.exe** to launch the *Sample Personnel Program*.
2. Ensure the program is the active window and press your hotkey. Click **Yes** in the message displayed to create a new profile. The **Hotkey/Screen Scrape Setup** wizard displays.
3. Select a **Drawer** (for example, 'Human Resources') and choose the **OCR** option under **Window Data Capture Method**:

**Window Data Capture Method**

☐ Windows Objects - Use this for standard Windows applications

☐ Dos/Text - Use this for DOS applications, Terminal Emulation, Clipboard contents etc

☐ Grid/Cells - Use this for spreadsheets, applications that display data in a grid etc

☒ OCR - Use this for web pages, java apps, citrix sessions, other application types

4. Click **Next** to display step 4:

**Hotkey / Screen Scrape Setup.**

Step 4 - Select the features that uniquely identify the application window. E.g button names, window captions etc

Window Title: Sample Personnel Program

ClassName: ThunderRT6FormDC ☐ Ignore Class Name

Object	Ref	Matches

**OCR**

Value Read:

OCR Zone: 

Left	Top	Height	Width
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## 7.1 Step 4: Identify the Window

**Step 4** is to tell Document Manager how to identify this window from any other that may be active when the hotkey is pressed. By default, this is done using the window title; however, frequently this may not be enough.

If there is only one screen layout for the program (as in the *Sample Personnel Program*), the window title may suffice on its own.

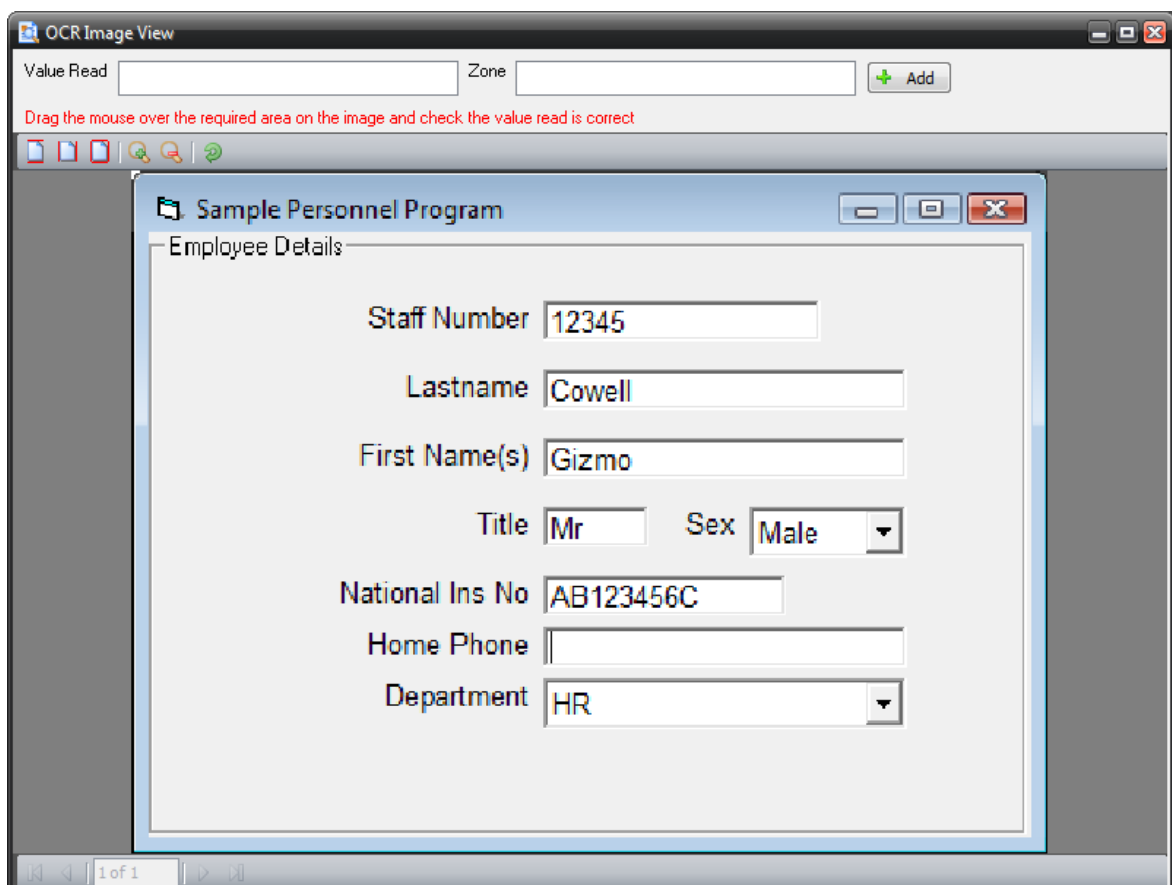
If there are multiple screen layouts for the program (for example, a Finance program may have a 'list of suppliers' window, or a 'list of transactions' window etc.), you need to identify which window the program is displaying.

It is possible to define multiple Screen Scrape profiles for an application (like a Finance application) but only one Screen Scrape profile per window (such as a supplier details form).

If only the window title is needed to identify the window, you can simply click **Next**. For more complex programs, you need to add some information about what the window is showing.

### To identify the Sample Personnel Program window for an OCR profile:

1. On the **OCR** tab in the bottom half of the screen, click the **Select Feature** button to open the **OCR Image View** window, as shown below:

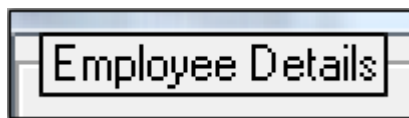


This shows a screenshot of the application window at the time you pressed the hotkey.

You need to identify items that differentiate the window from others that the program may display. These items include the captions on the form, titles of fields etc. In the *Sample Personnel Program* example, you could use the panel title 'Employee Details' or the field names, such as 'Department'.

You would not use field values to identify the window, such as 'Mr' or 'Cowell', because these will change depending on the window displayed (for example, an employee record). Field values are used to provide data to be searched and are defined in the next step, but now you need to identify the correct window.

- Using the mouse, drag a rectangle around the **Employee Details** caption (you can click the magnifying glass icon (🔍) on the toolbar to zoom into the image and more easily select the required area):



- When you release the mouse button, the inside of the rectangle area will be read by OCR and the resulting data displayed in the **Value Read** field at the top of the form.

Value Read	Employee Details	Zone	L:14,T:29,H:13,W:89
------------	------------------	------	---------------------

Check that the value read was correct. If it is not, try selecting a slightly different area around the title. It is possible that other text or graphics interfere with the OCR. Aim to encompass all the text that you are trying to capture without actually touching it.

**i NOTE:** If after repeated attempts, you cannot reliably OCR the field, it is likely the OCR engine is not capable of reading the font or the text, possibly due to layout of the form or colours and shading used. In this case, you can use settings on the **Integration** tab in **User Settings** to generate a black and white (mono) OCR image. This may improve the accuracy of the OCR process. See *2.2 Producing Black and White OCR Images* on page 6 for how to do this.

You could also try one of the alternative Screen Scrape methods. If these do not work, the application may be one of the few that cannot be successfully screen scraped.

4. When you have successfully defined the area and it is read by OCR correctly, click **Add** to close the **OCR Image View** and return to the Screen Scape configuration. The details read will be summarised:

The screenshot shows a window titled 'OCR'. It contains a 'Value Read' field with the text 'Employee Details'. Below this is an 'OCR Zone' table with columns 'Left', 'Top', 'Height', and 'Width'. The values are 14, 29, 13, and 89 respectively. A 'Select Feature' button is located to the right of the table.

Left	Top	Height	Width
14	29	13	89

This indicates what was read and where on the screen it was located.

5. Click **Add** in **Hotkey / Screen Scape Setup** to add the **Employee Details** caption to the list of features used to identify the window. The result should look similar to this:

The screenshot shows the 'Hotkey / Screen Scape Setup' window. It has a title bar and a main area with instructions: 'Step 4 - Select the features that uniquely identify the application window. E.g button names, window captions etc'. Below the instructions are fields for 'Window Title' (Sample Personnel Program) and 'ClassName' (ThunderRT6FormDC). There are checkboxes for 'Ignore Class Name' and 'Use Machine Name'. A table lists the identified features:

Object	Ref	Matches
OCR	16,30,14,84	Employee Details

Below the table are 'Add' and 'Remove' buttons. At the bottom of the window are 'Cancel', 'Previous', and 'Next' buttons.

It is possible to define multiple identification features but usually just one will suffice, as long as it is unique to that window.



- **Ignore Class Name:** A *ClassName* is part of the way Windows identifies a window, for example, an application window as opposed to a Windows Explorer window. By default, this is also used to identify the window to prevent mistaking a Windows Explorer window of the same name in the Screen Scrape process. Sometimes, however, applications change their *ClassName*, so if the Screen Scrape does not reliably work, check to see if the *ClassName* changes. If it does, tick **Ignore Class Name**. However, this situation is quite unusual.
  - **Use Machine Name:** (This option only applies to Screen Scrape OCR profiles.) Typically, not all users in your organisation have the same screen resolutions on their workstations. If users with different resolutions run the same OCR Screen Scrape profile, they will have different results and the correct data may not be read. To prevent this, select the **Use Machine Name** checkbox. This links the profile to the current machine so that when the OCR Screen Scrape is run on that machine, it will use the correct OCR profile. If you select **Use Machine Name**, the profile must be set up on the machine that will run the Screen Scrape. Make sure when you name your profile in step 9, you use a name that can easily identify with which workstation/user the profile is linked.
6. When all the Window Identification features have been defined, click **Next** to continue to steps 5, 6 and 7:

Hotkey / Screen Scrape Setup.

Step 5 - Select the window data to be used in the mapping  
Step 6 - Map the window data to a field in Document Manager  
Step 7 - Repeat for each field that is to be used for the search

Object	Ref	Example	Lookup	Criteria
--------	-----	---------	--------	----------

+ Add   - Remove   Add Window Title

OCR

Value Read: Employee Details

OCR Zone

Left	Top	Height	Width
14	29	13	89

Select Data

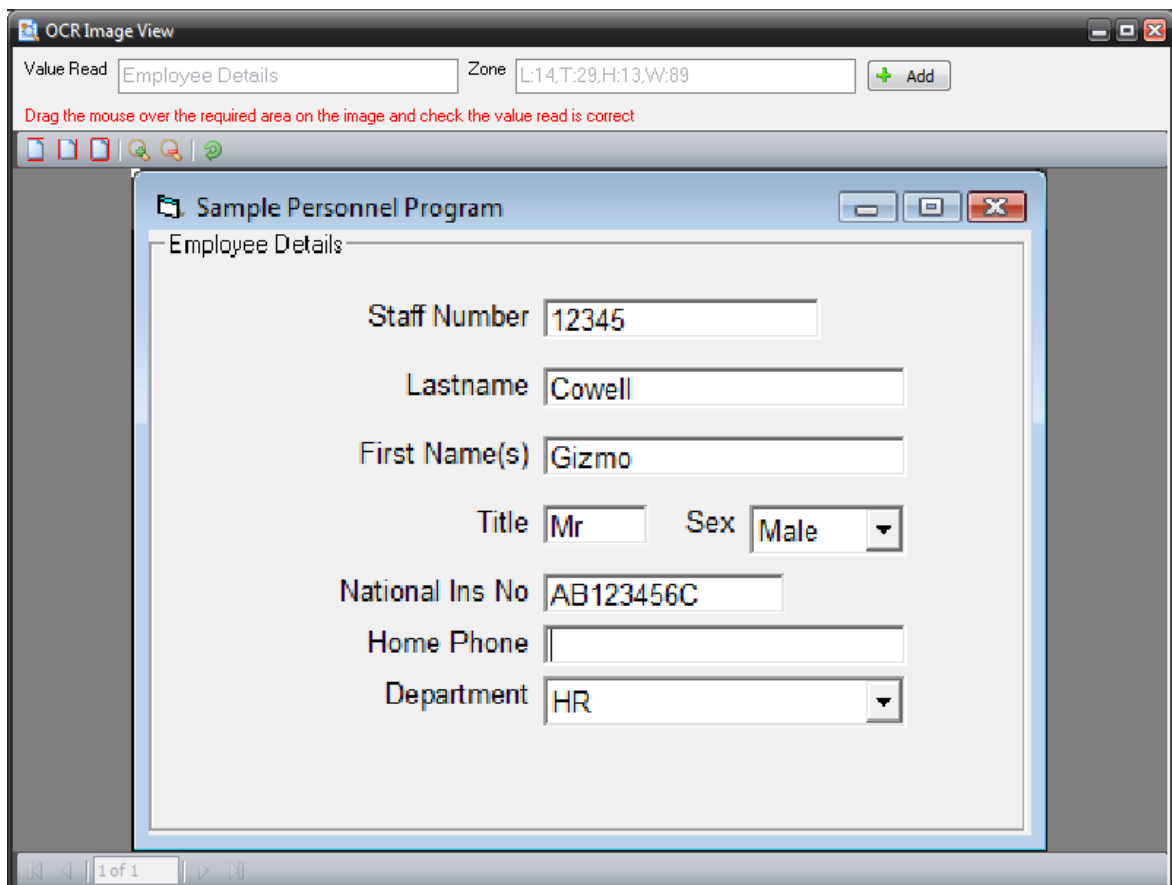
Cancel Previous Next

## 7.2 Step 5: Selecting the Application Data to be Scraped

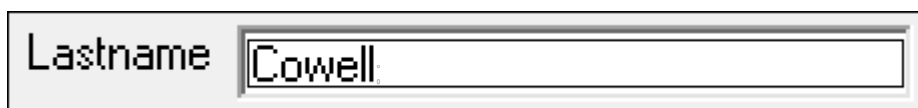
Now you need to define the fields in the application that you want to use to locate the documents in Document Manager.

### To select the data to be scraped:

1. You need to select the field data from the application window, so click the **Select Data** button on the **OCR** tab. The **OCR Image View** window displays again, but this time you are going to select the actual fields that you want to use in our search:



2. Identify the first field you want to perform your search on, which in this example is **Lastname**, and drag a rectangle around the actual field area that contains the data:



Zoom into the image to more easily select the required area. Make sure the rectangle includes the entire possible area where data can be displayed but does not touch the edges or the actual text of the data. Ideally, there should be space between the rectangle and the data being read.

- When you release the mouse, the area will be read by OCR and displayed in the **Value Read** box at the top of the **OCR Image View** window:

Value Read	Cowell	Zone	L:195,T:95,H:13,W:163
------------	--------	------	-----------------------

If the value is incorrect, try selecting a slightly different area around the field.

- When you have successfully read the field, click the **Add** button to return to the **Hotkey / Screen Scrape Setup** screen.
- Click **Add** in the **Hotkey / Screen Scrape Setup** screen to add the OCR zone to the list in the top half of the screen:

Hotkey / Screen Scrape Setup.

Step 5 - Select the window data to be used in the mapping  
 Step 6 - Map the window data to a field in Document Manager  
 Step 7 - Repeat for each field that is to be used for the search

Object	Ref	Example	Lookup	Criteria
OCR	195,96,14,163	Cowell		

+ Add Remove Add Window Title

OCR

Value Read Cowell

OCR Zone	Left	Top	Height	Width
	195	96	14	163

Select Data

Cancel Previous Next

The data read by OCR will be added to the list in the top half of the screen.

## 7.3 Step 6: Mapping the Application Data to Document Manager Index Fields

You need to map the field just read from the application window to a field in Document Manager.

### To map the application data to a Document Manager field:

Lookup
▼
Surname
First Name

1. Click in the **Lookup** column to display a drop-down list of the available fields in the selected drawer. Select the field that relates to our search data: in this case 'Surname'.

2. Click in the **Criteria** column to display a drop-down list of filter criteria. Select 'Equal To' from the list: this will tell Document Manager to locate a folder with the Surname field 'Equal To' the value read from the selected field in the application.

Criteria
Equal To
Equal To
Not Equal To
Contains

Other filter criteria may be selected, for example, 'Contains' or 'Starts With'. See the *Document Manager User Guide* for more information on searching for folders and using these filters.

## 7.4 Step 7: Map Additional Fields

Additional fields can be defined in the Screen Scrape profile by repeating the above process from Step 5. Do this now for the **First Name** field by following the instructions in steps 5 and 6.

After completing the steps for the **First Name** field, the Screen Scrape Setup should look like this:

Hotkey / Screen Scrape Setup.

Step 5 - Select the window data to be used in the mapping

Step 6 - Map the window data to a field in Document Manager

Step 7 - Repeat for each field that is to be used for the search

Object	Ref	Example	Lookup	Criteria
OCR	195,95,13,161	Cowell	Surname	Equal To
OCR	195,127,13,16	Gizmo	First Name	Equal To

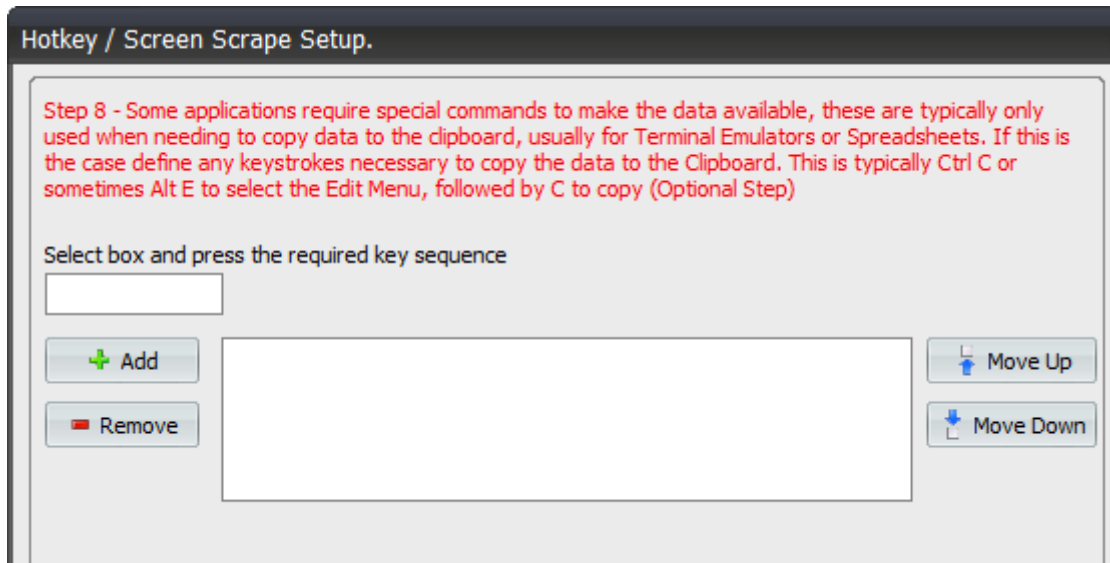
OCR

Value Read: AB123456C

OCR Zone

Left	Top	Height	Width
195	191	13	107

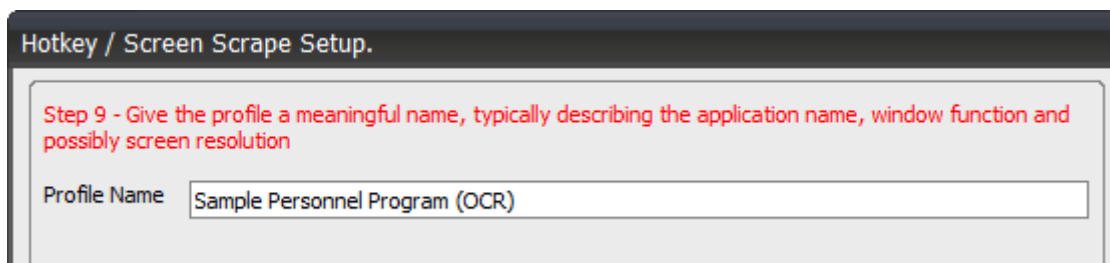
- Click **Next** to display step 8:



## 7.5 Step 8: Defining Special Commands (Optional)

This step is usually only for Terminal Emulation sessions and Spreadsheets, and is used to define any key presses the application needs in order to paste data to the Windows Clipboard.

- For this example, **Step 8** is not required, so click **Next** to display step 9:



Finally, you need to give the Screen Scape profile a name so it can be identified later. This is usually the same as the window title, but sometimes you need to add some more information, typically to identify with which form in the application the profile works.

**i NOTE:** If you selected the **Use Machine Name** option in step 4, ensure you use a name that can easily identify which workstation/user the profile is linked with.

- Enter a unique and recognisable **Profile Name**, and then click **Save** to save the Screen Scape profile. It is now ready to be tested and used.

## 8 Testing Screen Scrapes

Once you have configured a Screen Scrape profile, it is suggested that you test it before making it available to users. Try closing the application, restarting it and testing the Screen Scrape again.

Test the Screen Scrape with the application window at different positions on the screen, and if relevant, at different screen sizes (full screen and normal). You may need to define separate Screen Scrape profiles for each screen size.

- To test the screen scrape, simply open the application window and press the hotkey. The **Hotkey Capture in Progress** message should be displayed briefly:



The folder relating to the employee should then be located and opened in Document Manager.

If the Screen Scrape is for a folder search and the required folder does not exist, you will be prompted with a **Create New Folder** dialog box:


Field Name	Value
Surname	Cowell
First Name	Boris
Employee No	
Gender	
Department	
Date of Birth	
Nat Ins No	
Access From	

Figure 5: Create New Folder Dialog Box from Screen Scrape

The fields that were 'scraped' from the application window will be populated automatically and the remaining required fields (those highlighted in yellow) will need to be completed manually.

It may be possible to 'scrape' all the required fields from the host application so that no fields require manual completion. If this is the case, Screen Scraping can be a useful way of creating folders without having to re-key information from an external application.

## 9 Some Advice on OCR Screen Scrapes

 **NOTE:** When using Optical Character Recognition (OCR) to screen scrape, the position of the fields on the window is very precise. Some applications lay out their windows differently depending on screen resolution, or whether the application is running full screen. Web pages are typical examples of this.

The note above does not mean that OCR screen scraping cannot work; it just means more thought needs to go into its definition.

You may need to define multiple Screen Scrape profiles, one for each window size (800 × 600, 1024 × 768 etc.).

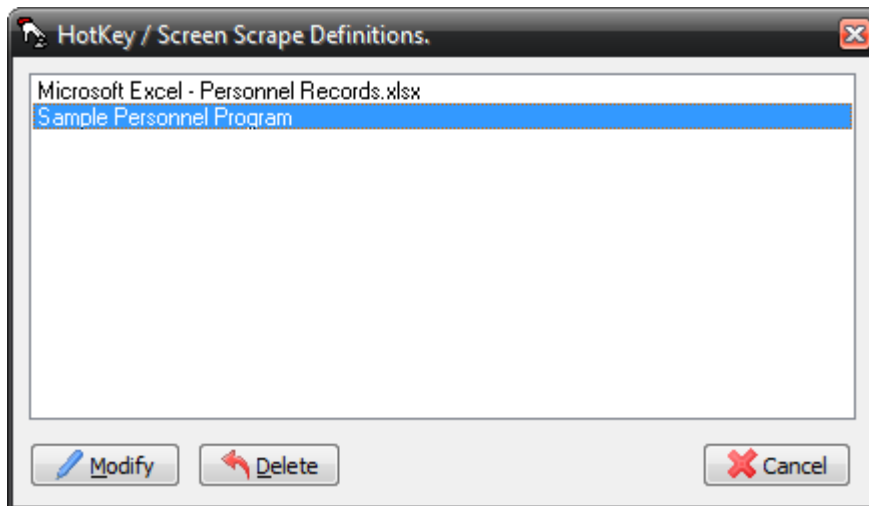
Use Window Identifiers that are going to move when the Window is resized; that way you can define a profile for each commonly-used window size.

If the field being 'scraped' is a data entry field that has a flashing text cursor ( | ) when selected, educate users to ensure that the field is not selected at the time the hotkey is pressed. This is because the cursor ( | ) could be picked up by OCR and therefore interfere with the required data.

## 10 Modifying an Existing Screen Scrape Profile

**To modify a Screen Scrape profile:**

1. Click the **File** tab and select **Screen Scraping**. The **Hotkey / Screen Scrape Definitions** dialog box displays:



2. Select the required profile and click **Modify**. The **Hotkey Screen Scrape Setup** dialog box displays enabling you to modify an existing profile. However, you can only modify some aspects of the profile; some of the options are not available to be changed.

Where the modifications required are extensive, it may be more appropriate to delete the existing profile.

**To delete an existing profile:**

- Select the profile and click the **Delete** button. The profile is then removed from the **Hotkey / Screen Scrape Definitions** dialog box.

To define a replacement profile, refer to *3 Screen Scrape Profile* on page 7.



# Index

## A

Advice on OCR Screen Scrapes.....42

## B

Black and White OCR Images  
Producing ..... 6

## C

Choosing the Window Data Capture Method..... 9  
ClassName ..... 14, 36  
Contact Details.....i  
Conventions in Use ..... 1  
Create New Folder Dialog Box..... 3, 41  
Creating a DOS Screen Scrape Profile.....18  
Creating a Grid/Cells Profile.....25  
Creating a Windows Objects Profile .....11  
Creating an Example Screen Scrape Profile..... 7  
Creating an OCR Profile .....32

## D

Defining a Hotkey..... 4  
Defining an Action to Copy to Clipboard .....30  
Defining Special Commands  
DOS Windows.....24  
Grid/Cells .....30  
OCR.....40  
Windows Objects .....17  
Deleting an Existing Profile.....43  
Document Manager Template Matching ..... 8  
DOS Window Example Profile  
Step 4 .....19  
Step 6 .....22  
Step 7 .....23  
Step 8 .....24  
Step 9 .....24  
DOS Windows  
Defining Special Commands .....24  
Identify the Window .....19  
Map Additional Fields .....23  
Mapping the Application Data to Document  
Manager Index Fields.....22

Selecting the Application Data to be Scraped.....21  
DOS Windows Example Profile  
Step 5 .....21  
Dos/Text.....10  
DOS/Text Screen Scrape Example Profile .....18

## E

Employee.exe ..... 7, 11  
Example DOS Window .....18  
Example Personnel Records Spreadsheet.....25  
Example Screen Scrape Profile  
Creating..... 7

## F

Folder Search/Create Option .....11

## G

Grid/Cells .....10  
Defining Special Commands .....30  
Identify the Window.....26  
Map Additional Fields .....29  
Mapping the Application Data to Document  
Manager Index Fields.....28  
Selecting the Application Data to be Scraped.....28  
Grid/Cells Example Profile  
Step 4 .....26  
Step 5 .....28  
Step 6 .....28  
Step 7 .....29  
Step 8 .....30  
Step 9 .....31  
Grid/Cells Screen Scrape Example Profile.....25

## H

Hotkey  
Defining..... 4  
Hotkey Capture in Progress..... 8, 41  
Hotkey/Screen Scrape Definitions Dialog Box .....43  
Hotkey/Screen Scrape Setup Screen ..... 8  
DOS/Text Step 4 ..... 19, 20  
DOS/Text Step 8 .....24  
DOS/Text Step 9 .....24

DOS/Text Steps 5-7 .....	21, 22, 23	Generating .....	6
Grid/Cells Step 4.....	26		
Grid/Cells Step 8.....	30	<b>N</b>	
Grid/Cells Step 9.....	31		
Grid/Cells Steps 5-7 .....	27, 28, 29	No Hotkey Templates Match .....	8
OCR Step 4.....	32, 35		
OCR Step 8.....	40	<b>O</b>	
OCR Step 9.....	40		
OCR Steps 5-7 .....	36, 38, 39	OCR.....	10
Windows Objects Step 4.....	12, 13	Defining Special Commands .....	40
Windows Objects Step 8.....	17	Identify the Window.....	33
Windows Objects Step 9.....	17	Map Additional Fields .....	39
Windows Objects Steps 5-7.....	14, 15, 16	Mapping the Application Data to Document Manager Index Fields.....	38
		Selecting the Application Data to be Scraped.....	37
<b>I</b>		OCR Example Profile.....	32
Identify the DOS Screen.....	20	Step 4 .....	33
Identify the Sample Personnel Program Window		Step 5 .....	37
OCR.....	33	Step 6 .....	38
Windows Objects .....	13	Step 7 .....	39
Identify the Spreadsheet Cells.....	27	Step 8 .....	40
Identify the Window		Step 9 .....	40
DOS Windows.....	19	OCR Image View Screen .....	33, 37
Grid/Cells .....	26	OCR Screen Scrape	
OCR.....	33	Advice.....	42
Windows Objects .....	12	Mono Image Settings .....	6
Ignore Class Name .....	14, 36	Threshold.....	6
Integration Tab .....	5	Overview .....	3
<b>L</b>		<b>P</b>	
Linking an OCR Profile to Machine Name.....	36	Profiles .....	7
<b>M</b>		<b>S</b>	
Manual Conventions.....	1	Sample Personnel Program .....	7
Map Additional Fields		Screen Scrape	
DOS Windows.....	23	Setting Up Profiles .....	7
Grid/Cells .....	29	Screen Scrape Overview.....	3
OCR.....	39	Screen Scrape Profile	
Windows Objects .....	16	Testing .....	41
Mapping the Application Data to Document Manager		Screen Scrape Profile Setup	
Index Fields		5 DOS/Text Screen Scrape Example .....	18
DOS Windows.....	22	Choosing the Window Data Capture Method .....	9
Grid/Cells .....	28	DOS/Text.....	10
OCR.....	38	Grid/Cells .....	10
Windows Objects .....	15	Grid/Cells Example.....	25
Modifying an Existing Screen Scrape Profile.....	43	OCR .....	10
Mono OCR Images		OCR Example.....	32

Selecting the Drawer to Search.....	9	Grid/Cells .....	30
Specifying the Search Type.....	9	OCR .....	40
Windows Objects .....	9	Windows Objects .....	17
Windows Objects Example.....	11	Step 9 .....	
Screen Scraping.....	3	DOS Windows.....	24
HotKey Setup.....	4	Grid/Cells .....	31
Modifying Existing Profile.....	43	OCR .....	40
Profile Setup.....	7	Windows Objects .....	17
Selecting the Application Data to be Scraped		Support.....	i
DOS Windows.....	21		
Grid/Cells .....	28	<b>T</b>	
OCR .....	37	Table of Contents.....	iii
Windows Objects .....	15	Testing Screen Scrapes.....	41
Selecting the Drawer to Search .....	9	Threshold Setting.....	6
Specifying the Search Type .....	9		
Step 4 .....		<b>U</b>	
DOS Windows.....	19	Use Machine Name Setting .....	36
Grid/Cells .....	26	User Settings Dialog Box	
OCR .....	33	Integration Tab.....	5
Windows Objects .....	12		
Step 5 .....		<b>W</b>	
DOS Windows.....	21	Windows Objects .....	9
Grid/Cells .....	28	Defining Special Commands .....	17
OCR .....	37	Identify the Window.....	12
Windows Objects .....	15	Map Additional Fields .....	16
Step 6 .....		Mapping the Application Data to Document	
DOS Windows.....	22	Manager Index Fields.....	15
Grid/Cells .....	28	Selecting the Application Data to be Scraped.....	15
OCR .....	38	Windows Objects Example Profile .....	11
Windows Objects .....	15	Step 4 .....	12
Step 7 .....		Step 5 .....	15
DOS Windows.....	23	Step 6 .....	15
Grid/Cells .....	29	Step 7 .....	16
OCR .....	39	Step 8 .....	17
Windows Objects .....	16	Step 9 .....	17
Step 8 .....			
DOS Windows.....	24		