FabSoft Demo Manual

Tag Doc Order Entry

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Introduction

Document Flow

Document flow describes the path documents take throughout a company. For the cases described in this document, it shows how a purchase order is processed and the steps that follow, ending with the delivery of the ordered items.

About This Document

This manual describes the steps in a demonstrative document flow for a purchase order. To start, a purchase example is given, and from it, a description of the document flow is shown. Then, the steps of the demonstration of a product order are described in detail. Finally, it discusses how the demonstration uses Form Properties, Form Linking, Tag Doc, and barcodes.

Terms & Definitions

- Tag Doc: Reform feature that allows the addition of barcodes to documents, store the document contents as text, scan the documents in as an image file (TIF) and retrieve the document details in real-time.
- Form Linking: Allows multiple overlays to be used on the same text file. Also allows document routing to multiple locations.
- Form Overlay: Overlays are created using the Reform Designer.
- SavetoFile: A Reform script which copies the current file to a specified directory.
- OCR Overlay: Overlays text recognized by the OCR (Optical Character Recognition) engine onto a PDF to allow searching scanned documents.

For other information regarding Reform, Tag Doc, or if you have any questions or comments, please feel free to contact us via our website: http://www.fabsoft.com.

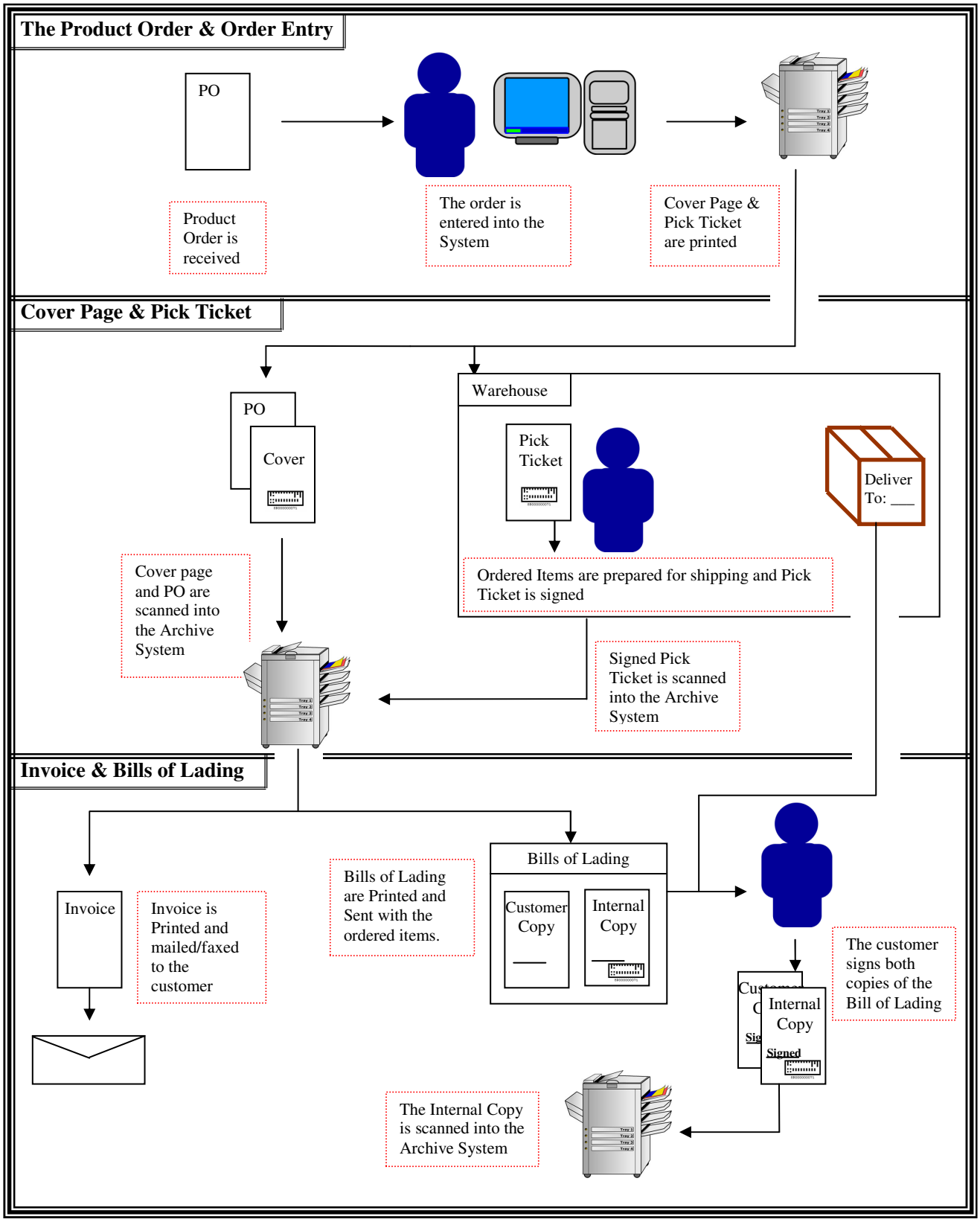
Example of a Purchase

Let's imagine you work for a furniture company. A customer places an order for 2 leather chairs, a table, and a desk. This starts the documentation flow through your company. First, someone must enter the order information into the computer system. Then, a Pick Ticket is sent to the warehouse. The pick ticket tells the workers what items are in the order, so that the chairs, table, and desk can be prepared for shipment. Once they are ready, the Pick Ticket is signed and saved for company records. Next, an invoice is printed and mailed to the customer. At the same time, a Bill of Lading is sent with the delivery to the shipping address. As the delivery is completed, the customer signs the bill, keeping one copy, while a second copy is saved for company records.

Document Flow for a Purchase

1. A purchase order is received by the company from a customer. This starts the document flow for this order.
2. This order is then entered into the company's computer system.
3. When the order is printed, a Cover Page and a Pick Ticket are created by Reform
    a. The Cover Page contains the Date, Customer Name, Purchase Order #, and Order Information.
    b. The Pick Ticket contains all of the order information. It is sent to the warehouse so that the ordered items can be collected and prepared for shipping.
4. The Cover Page is saved with the original Purchase Order for company records.
5. The Pick Ticket form is completed by the warehouse manager. It is then dated and signed after all the items are ready for delivery.
6. The a customer's copy of Bill of Lading, an internal copy of the Bill of Lading for records, and an Invoice are now made.
    a. The Invoice is faxed or mailed to the customer.
    b. Both Bills of Lading are taken with the order to the customer, and are signed by the customer upon delivery of order.
7. The internal copy of the Bill of Lading is saved for company records.
8. This order is now complete.

Document Flow Chart



Tag Doc Document Automation

FabSoft's Tag Doc is a complete document management solution for file indexing, distribution, search and retrieval. Distribution of an important document to multiple destinations or to different company departments is a common occurrence within an organization's workflow. Hand-filing and manually searching for documents are cumbersome and time consuming processes that are hard to track and organize. These are processes that most organizations would like to eliminate. FabSoft's Tag Doc eradicates frustrating problems associated with unwieldy paperwork operations. Tag Doc efficiently automates the archival of document sets by combining barcode tagging with the scanning utility of any MFP or scanner. When bar-coded documents are printed, Tag Doc stores the text information and assigns a barcode to the document. When the document is scanned back into the system, Tag Doc will read the barcode and use the associated stored information to automatically route to printers, fax, email or archive - ensuring delivery and resulting in an extensive archive of important document information.

Tag Doc is 100% accurate and replaces OCR or Zonal OCR type processes, which have limitations to their accuracy. Tag Doc removes the potential of errors due to manually filing documents and enables file content to be fully searchable, which frees up time and allows business productivity levels to rise.

The Distinguishing Benefits of Tag Doc

- Tag Doc stores the actual content of your documents allowing you to have accurate, reliable search results and quick, easy document retrieval. Many document imaging solutions rely solely on scanning and unreliable
    - OCR (Optical Character Recognition); which has many disadvantages: OCR is not guaranteed to accurately recognize characters.
    - Document appearance is vital to OCR, and errors could easily be caused due to issues such as an unrecognized or colored font, or when the image is faint or misaligned due to inaccurate scanning.
    - When inaccuracies occur, they must be thoroughly examined and altered, which takes up large amounts of time.
- Original and processed documents are automatically stored together in one file, allowing information to be referenced effortlessly.
- Elimination of manual filing and search leads to reduced departmental workload and operational costs.
- Tag Doc provides you with the ability to share your important document information with ease. Digital files are easily accessible through any network terminal or remote computer, and can be sent to any device in the department or company; such as e-mail systems, fax systems etc.

Demonstration Overview

The Product Order

First, to create a sample purchase order, run the "Create sample purchase order" shortcut by clicking on:

Start > Programs > Reform > Tag Doc > Order Entry Process > Create sample purchase order

A window will appear with the default values. Once the sample information is ready, Click Print. (This will be our sample order that would normally be sent from a customer.)

Order Entry

Once the Purchase Order is received, the order must be entered into the computer system. To do this, run "Order Entry" by clicking on:

Start > Programs > Reform > Tag Doc > Order Entry Process > Order Entry

A window will appear with the default sample values. Once the order information is correct, click Print.

Cover Page and Pick Ticket

When you print the order entry, it will print a Cover Page, as well as a Pick Ticket. The Cover Page is archived with the original Product Order for company records. This Pick Ticket is sent to the printer located at the warehouse, so that the items can be collected and prepared for shipping. The warehouse manager will then fill out the "Picked" section, date, and sign the Pick Ticket.

Invoice and Bills of Lading

The Invoice is then made. To create a sample invoice click on

Start > Programs > Reform > Tag Doc > Order Entry Process > Invoice Screen

Enter the sample purchase order number, and click "Next." You will now see the Invoice screen with sample data as shown below. Once the order information is completed click "Print." Now that the invoice has been printed, it can be mailed or faxed to the customer. At the same time, two bills of lading are printed. There is a customer and an internal copy. When the order is delivered, the customer signs for the items, and keeps his copy of the bill. The internal copy is archived for company records.

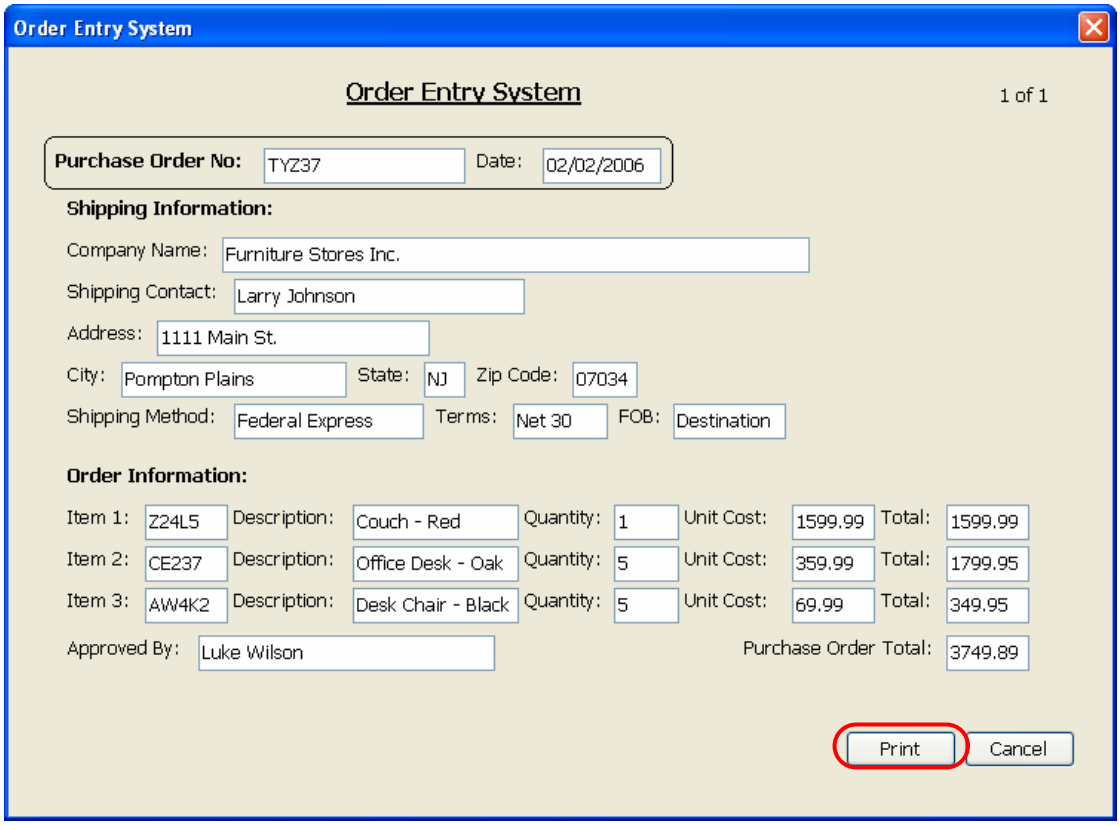
Detailed Demonstration Information

The Product Order

1. First, to create a sample purchase order run the "Create sample purchase order" shortcut by clicking on:

   Start > Programs > Reform > Tag Doc > Order Entry Process > Create sample purchase order

2. A window will appear with the default sample values as shown below.



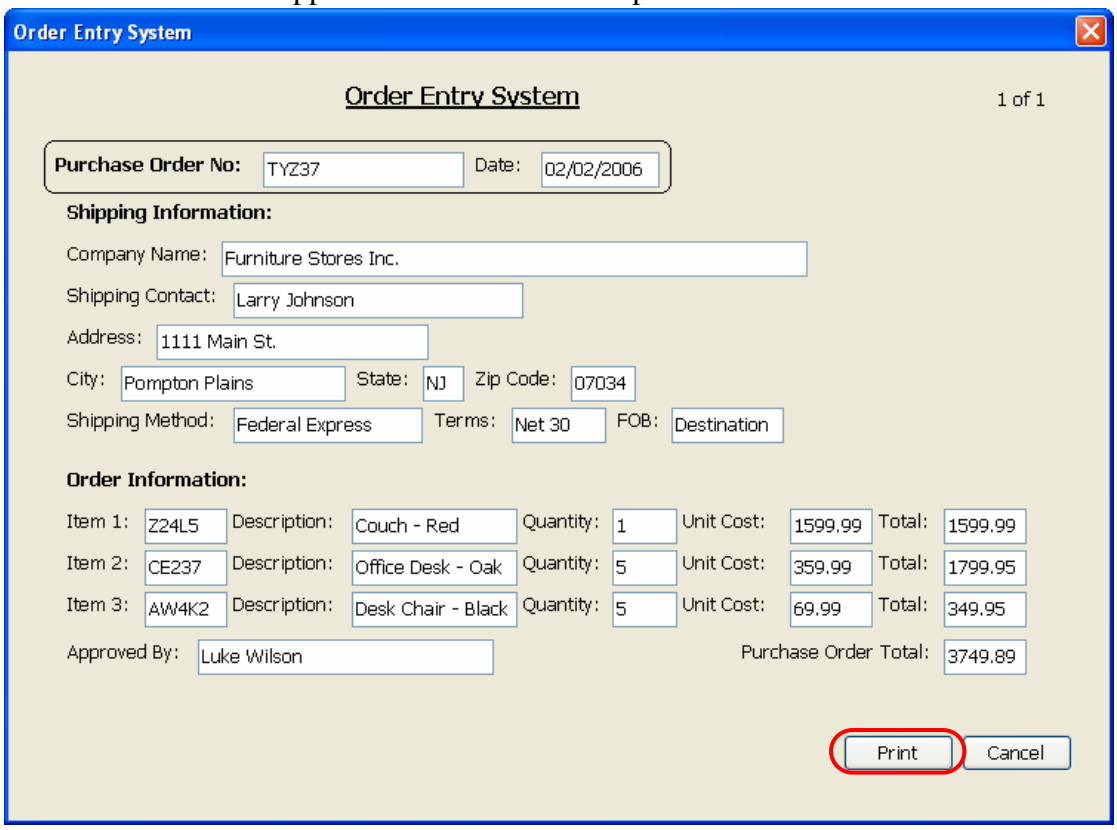
3. Once the sample information is ready, Click Print. (This will be our sample order that would normally be sent from a customer.)

Order Entry

4. Once the Purchase Order is received, the order must be entered into the computer system. To do this, run "Order Entry" by clicking on:

   Start > *Programs* > *Reform* > *Tag Doc* > *Order Entry Process* > *Order Entry*

5. A window will appear with the default sample values as shown below.

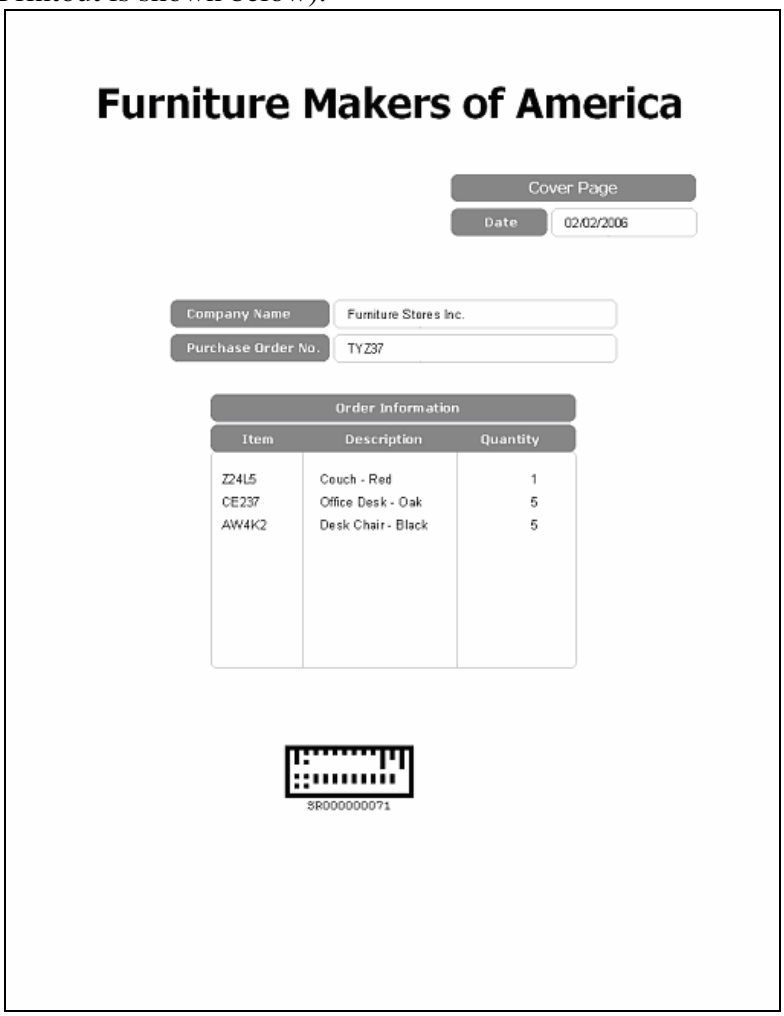


6. Once the order information is correct, click Print. Reform will then create a file in the *Reform\Spooler* Directory. (Ex. Filename : "OrderEntryInformation.U3442EZ0TMVZW")

Cover Page and Pick Ticket

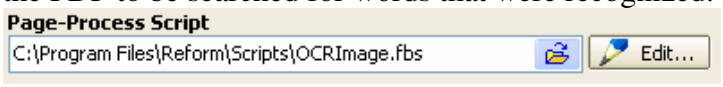
7. The Reform Spooler detects the file, and attempts to find a form to match. Since there is no form with the same file name prefix, it looks in the file for a FormKey to decide which form should be used.
"Demo_OrderProcess_PurchaseOrderCoverPage" is found and Reform matches the file with the corresponding form.

8. The cover page form contains some of the order information as well as a Tag Doc Barcode. (Printout is shown below).

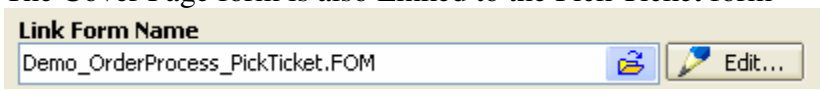


9. The Tag Doc script that is included with this form connects to the SQL database and retrieves the next possible ID number. The barcode uses "SR" and the ID padded with 0's to create a unique bar. The information in the Order Entry as well as the Barcode is then added to the database.

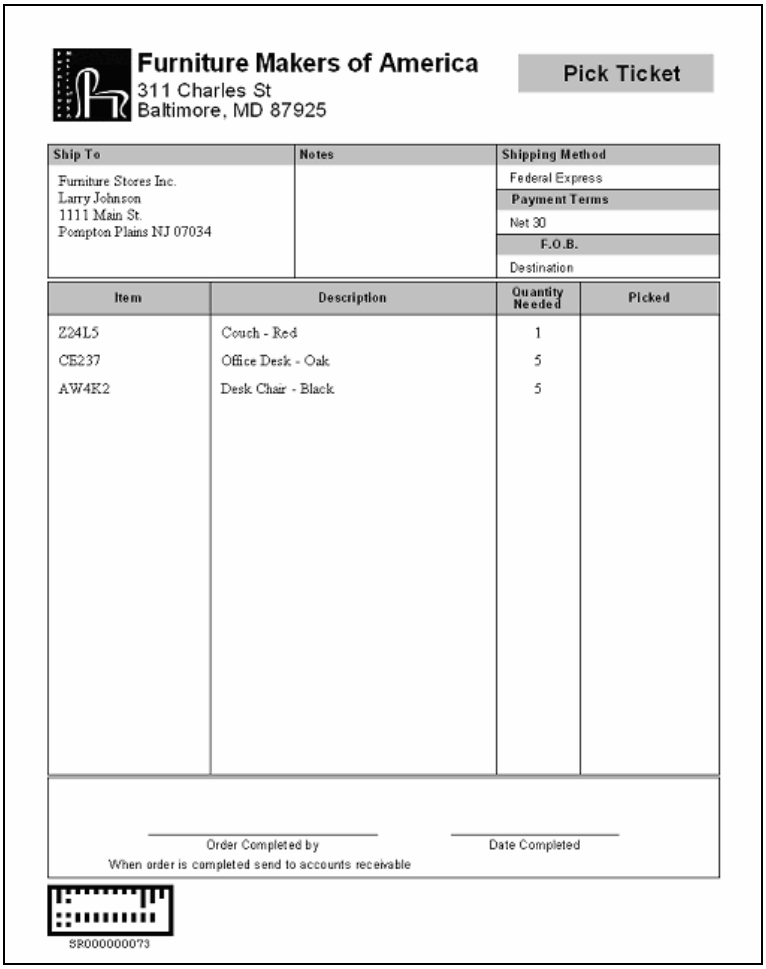
10. The order entry is then sent to the printer with the cover page overlay applied. This form will be scanned into the system with the original Purchase Order to be digitally archived. (For more information on scanning documents, please see "Scanning Forms and Barcodes" on page 16)
    a. The scanned pages use the OCRImage page process script. This script creates the OCR text and lets Reform overlay it onto a PDF. This allows the PDF to be searched for words that were recognized.



11. The Cover Page form is also Linked to the Pick Ticket form



12. The pick ticket form contains all of the order information as well as the next available ID in the database for the Tag Doc barcode. (Sample shown below)



Furniture Makers of America
311 Charles St
Baltimore, MD 87925

Pick Ticket

Ship To	Notes	Shipping Method
Furniture Stores Inc. Larry Johnson 1111 Main St. Pompton Plains NJ 07034		Federal Express Payment Terms Net 30 F.O.B. Destination

Item	Description	Quantity Needed	Picked
Z24L5	Couch - Red	1	
CE237	Office Desk - Oak	5	
AW4K2	Desk Chair - Black	5	

Order Completed by
Date Completed
When order is completed send to accounts receivable

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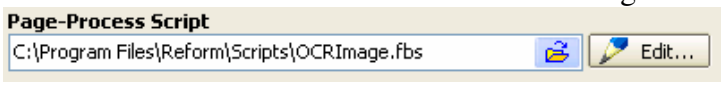
13. This Pick Ticket is sent to the printer located at the warehouse, so that the items can be collected and prepared for shipping.

14. The warehouse manager will then fill out the "Picked" section, date, and sign the Pick Ticket. It is then scanned back into the system and digitally archived. (For more information on scanning documents, please see "Scanning Forms and Barcodes" on page 16)
    a. The scanned pages use the OCRImage page process script. This script creates the OCR text and lets Reform overlay it onto a PDF. This allows the PDF to be searched for words that were recognized.

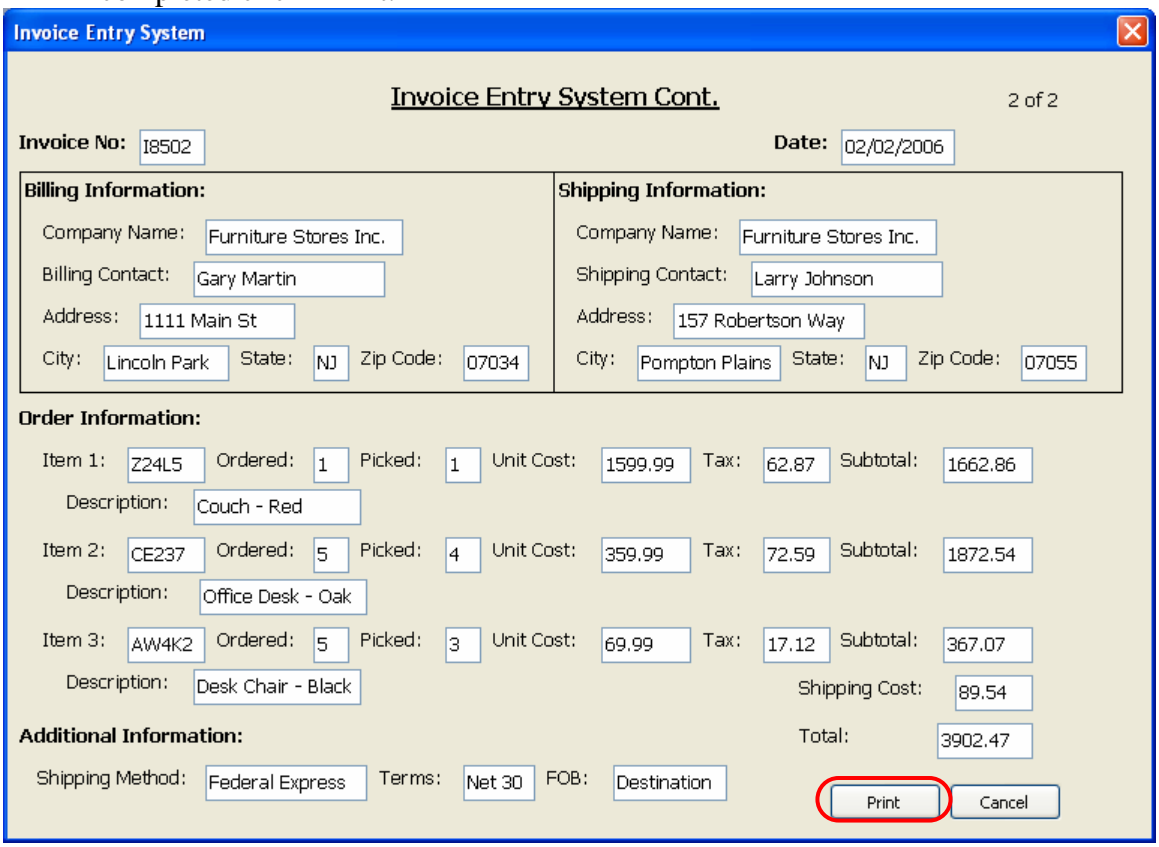


Invoice and Bills of Lading

15. The Invoice is then made. To create a sample invoice click on

Start > Programs > Reform > Tag Doc > Order Entry Process > Invoice Screen

16. Enter the sample purchase order number, and click "Next." You will now see the Invoice screen with sample data as shown below. Once the order information is completed click "Print."



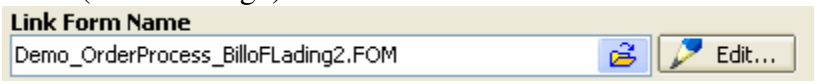
17. When the Invoice is printed, Reform takes the information and creates a file in the *Reform\Spooler* directory. (Ex. Filename: InvoiceEntry.U344DEJS9ALK8)

18. The Reform Spooler detects the file, and attempts to find a form to match. Since there is no form with the same file name prefix, it looks in the file for a FormKey to decide which form should be used. **"Demo_OrderProcess_invoice"** is found and Reform matches the file with the corresponding form.

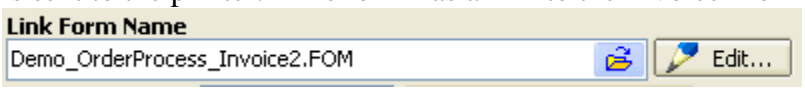
19. The invoice information is sent to the printer with the correct overlay applied. This is then mailed or faxed to the customer.

20. The invoice form is linked to the Bill of Lading form.

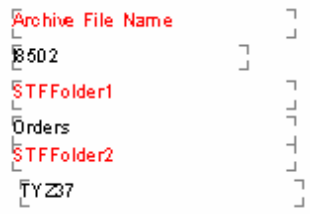
21. This form contains the overlay to create a Client copy of the Bill of Lading and is sent to the printer. The BillofLading form is linked to a second Bill of Lading form. (BillofLading2)



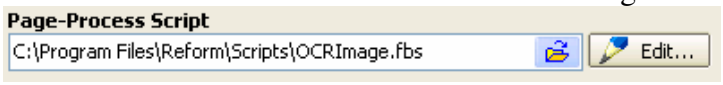
22. The BillofLading2 form creates the Internal Copy of the Bill of Lading. This form also has a Tag Doc barcode with the next available ID from the database. It is sent to the printer. This form has a link to the Invoice2 form.



23. The Invoice2 form takes advantage of the SavetoFile script. By setting the directories and filename, this form saves a digital copy of the invoice in the specified folder. (Ex: Filename = I8502, Directory = Reform\Data\Orders\TYZ37 .)

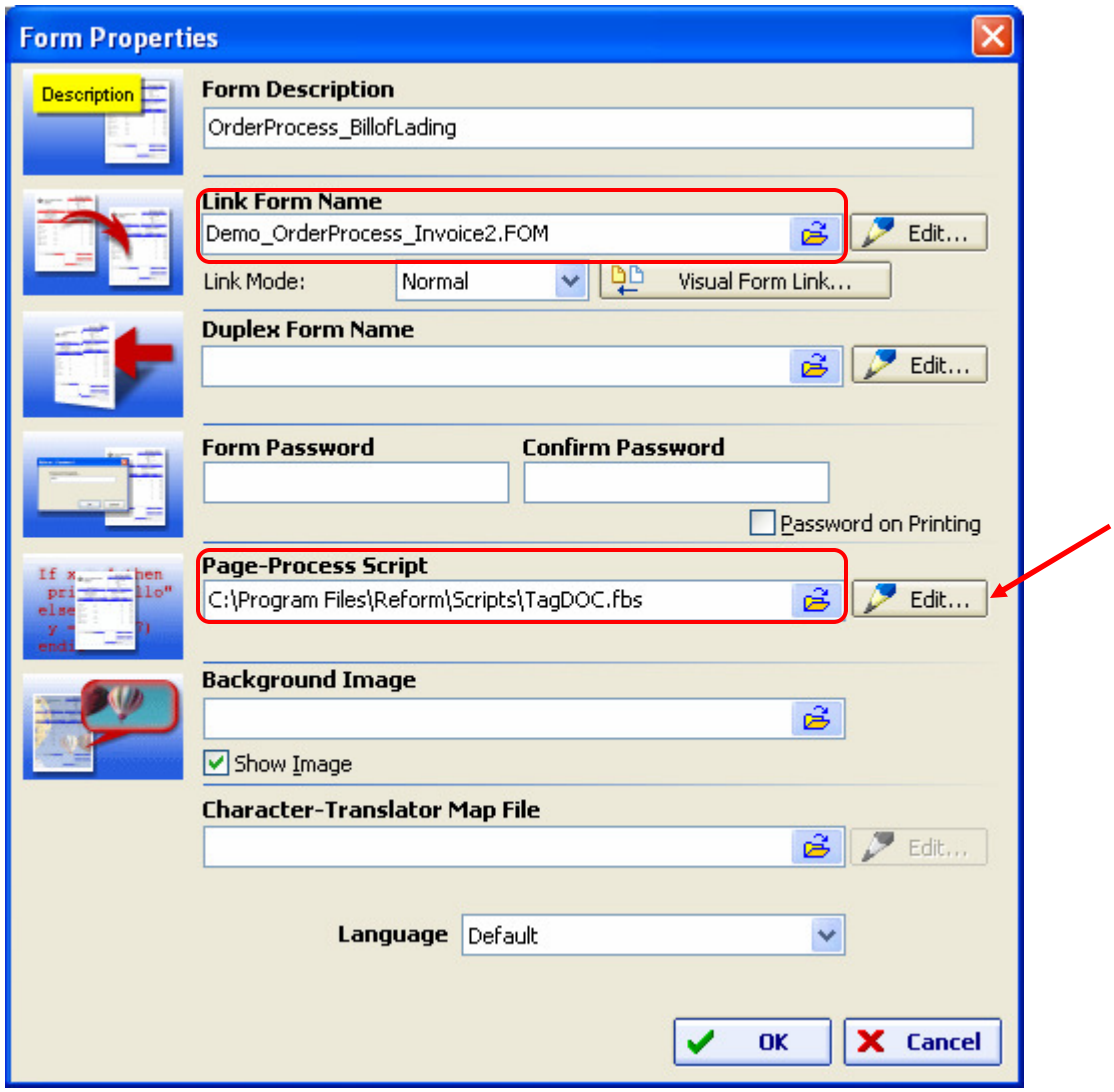


24. Both, the customer and internal copies, of the Bill of Lading are sent with the shipped items. The customer signs for the items and the internal copy returns to the company and is scanned into the system and digitally archived.
    a. The scanned pages use the OCRImage page process script. This script creates the OCR text and lets Reform overlay it onto a PDF. This allows the PDF to be searched for words that were recognized.



For more information on scanning documents, please see "Scanning Forms and Barcodes" at the end of this document. For more information on how OCR Overlay works, please see "OCR Overlay" at the end of this document.

Form Properties



The Form Properties window allows you to access several settings. The sections used in this demonstration are the "Link Form Name" and "Page-Process Script." The "Link Form Name" enables you to have one order entry to print several different forms such as Invoices or Bills of Lading. It also allows you to send the output to different locations such as printers, faxes, or email. The "Page-Process Script" is used in the demonstration in combination with Tag Doc barcodes. The TagDoc.fbs script MUST be selected here to use the Tag Doc barcodes with the SQL database. The Edit button here allows you to customize and edit the selected Page-Process Script.

Form Linking

Form Linking enables you to have one form point to another, allowing several forms to be applied to the same text file. This is useful because each form can only have one destination, and can only have one overlay. By linking forms, it allows sending the output to a printer, fax, email, the hard drive, or database depending on the situation. It also allows you to create multiple overlays for the same text file. By linking forms, it enables you to have unlimited possibilities with document routing.

To help understand Form Linking, imagine some form "CustomerForm" uses "InternalForm" as its "Link Form Name" in the Form Properties window for the following. "CustomerForm" is now linked to "InternalForm."

Now, imagine we print a Bill of Lading, and we want a copy for the customer, as well as a copy for company records. Assume that when we print the bill, Reform will find that it needs to use CustomerForm. Once it is done working with "CustomerForm," it will send it to the printer. Now, Reform follows the "Link Form Name" option and loads the file we selected. This file we previously set to "InternalForm." Reform will now use the same bill as before, but apply the new form to it. Once Reform is done, this page will be sent to the printer.

One text file, created from printing the bill, has let Reform print 2 different copies of the Bill of Lading. One is for the customer to keep, and one for our company's records.

Tag Doc

Tag Doc is a tool used with Reform to create and utilize barcodes. To use a barcode with this script, the barcode's Object Name must be set to "ID." Also, the Page-Process Script must be set to the TagDoc.fbs script file.

The Tag Doc script connects to the database. It then gets the NextID, which is the next unused number for our barcode. Next, it increments the database's NextID by one. It sets _ID = SR + NextID padded by 0's to create the unique barcode. The script then inserts the ID, FormName, Content, and ProcessDate into the database and closes the connection.

ID is the Barcode number for the current form.
FormName describes the page that is being printed.
Content is all the information from the text file.
ProcessDate is the Date the order was processed.

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The Tag Doc barcode

Sometimes typical barcodes can be unrecognizable due to poor quality scans or because document print has faded. The Tag Doc barcode was designed specifically for accurate barcode recognition, no matter what the conditions may be, so documents are always reliably distributed.

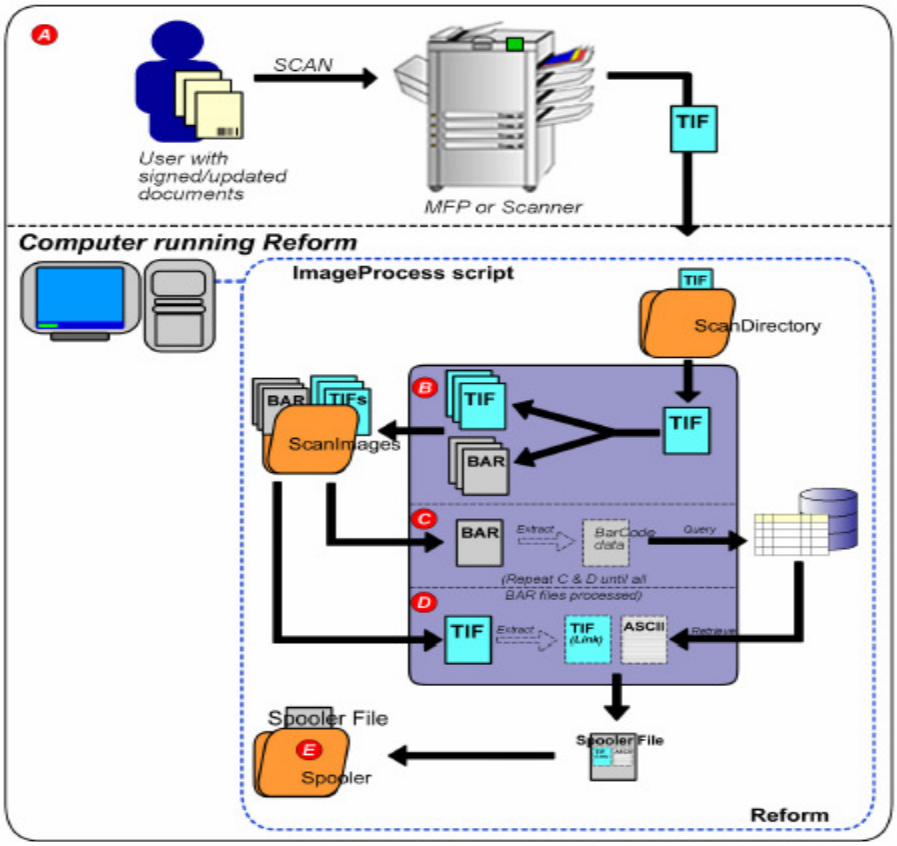
Scanning Forms and Barcodes

If MOST is installed, and available, the FFS tab in the FormFiller + collection can be used to scan any of the pages.

By using Tag Doc barcodes on forms, it enables Reform to sort scanned documents into their associated directories. To do this, the scanner must save the file as a TIFF image into the Reform\ScanDirectory1. (Default is ScanDirectory1, but it can be ScanDirectory2, ScanDirectory3 …). Once the file is created, the Reform spooler detects it, and if it is a multi page image, it will separate it into several single page tiff files. Once separated, Reform executes BarcodeEntry.exe which finds the barcode, and saves the number into a text file. This number is used then with the tiff images of the scanned pages to be added into the archive system. The image below describes the process in detail

For more information on Tag Doc barcodes, please see the Tag Doc manual at our webpage, http://www.fabsoft.com

Scanning Forms with Tag Doc Barcodes



Legend:

Icon	Description
A	The user scans the documents (which have been signed or written on) using a MFP or scanner. Once scanned, the document pages will be saved as one TIF file. The TIF file is dropped into a specified ScanDirectory. For instance, if location 1 is set for ScanDirectory1, all scanned images from location 1 will be saved in the ScanDirectory1 folder.
B	In the ImageProcess script, ScanToReform.exe will pick up and split the large TIF file into two parts: TIF and BAR files. The BAR files will contain the barcode data from the corresponding TIF file. There will be one TIF and one BAR for each page in the large TIF file. The TIF and BAR files will be placed into the ScanImages directory.
C	ImageProcess picks up the BAR file and extracts the document barcode data. The barcode data is the ID of the document (in a string format). Using the ID, ImageProcess will query the database and retrieve the ASCII or text contents of the report page. Once the content has been retrieved, ImageProcess will mark the record as "Processed" to indicate that the document has been returned to the system.
D	ImageProcess will retrieve the directory path of the TIF file associated with the page contents obtained in part C. The TIF file path and page contents are then matched and stored into a Spooler file.
E	The ImageProcess script will repeat C and D until all BAR and TIF files are processed and appended to the Spooler file. The completed Spooler file is saved into the Spooler directory.

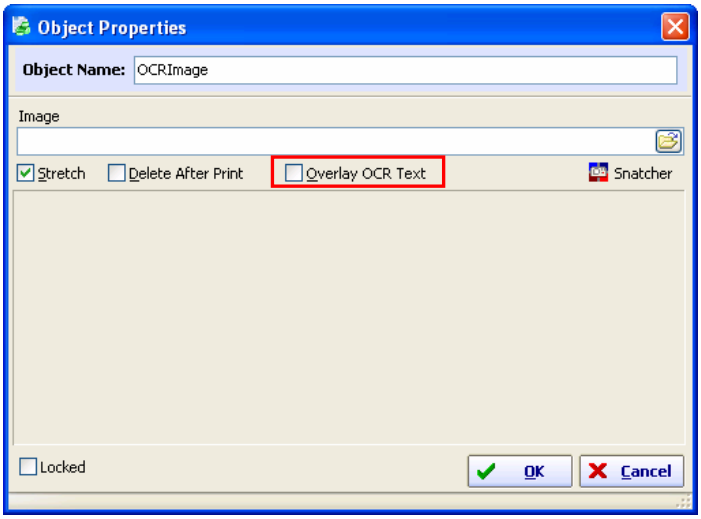
OCR Overlay (Optical Character Recognition)

An OCR engine attempts to scan an image file to determine the letters that are printed on it. In our case, we are using the text read by the OCR engine to be used to search through a PDF file. For this demonstration, we use a Page-Process script to use OCR each page that is scanned. This Page-Process script tells the OCR executable the image file name, output directory for the OCR text, and arguments for to customize the output. This script requires an image in the Reform form to be named "OCRImage" and a design label to be named with "OCR" and contain the text "ON"

For Example: FabsoftOCR.exe "C:\input\test.tif" "C:\ouptut\" –c

In the "C:\output\" folder, there will then be a "test.tif.ocr" and a "test.txt" file.

The .txt file contains all the text that the OCR engine recognized.
The .ocr file contains the positions of the text that was recognized.



When Reform finds these .txt and .ocr files in the same directory as an image that has Overlay OCR Text selected, it will automatically use these files to create searchable text in a PDF (If the selected output is a PDF).