ACCUFAST®
LPX Printer
Printing Guide

Printing Overview

The first step in printing a file is loading that file. The GUI has a number of features that allow it to read a large number of different file types, but it is always a good idea to know something about the file prior to trying to print it. Discovering what the record and field delimiters are if there are, or the length of a fixed field file pays big dividends. Once the data is loaded, the form may be designed. Many design tools exist and are explained. After the data and form are ready, printing can begin with the click of a mouse.

Loading Data

1. Start the Software and make sure that the introductory screen is correct. This usually entails selecting top for the paper orientation.

2. Click on the Print manager tab to open an empty data screen.

3. Click on the Data Tab

4. Select Load Data and find the file that you want to print.

5. If the data is in a readable form, it will pop up in preview mode on the screen, If it isn't, you will have to change a few things to match the GUI to the data. Let's assume that the data doesn't load immediately.

6. An error message will pop up. Go back to the Load Data Tab and select Modify Schema

7. This is where the answers to the basic data questions come in handy. Start on the left and supply the answer to the Record, and Field delimiter questions. Click OK.

8. If you get it right, the data file will be open in the GUI. If you get it wrong, keep trying.

9. Now you can name the fields in the data. Go back to Load data, Modify Schema.

10. Click on each field in the Field Properties Box. When you select a field, you can Define it, Edit it or Delete it. Click on Edit and type in a name for the field. Continue until you have given all of the fields a relevant name (screen below has named only one field). When finished, click OK. Your file is loaded.

Screen as it will look when your file in when loaded properly (in Print Screen Manager).

About Print Screen Manager

1. There is not much that you can do from this screen. Basically, you select auto scroll and watch the job run. As the Printer runs, numbers appear in the Speed, Pieces/hr and Time remaining boxes. The counter increments and other counts are kept. When you select auto scroll, the list advances up the screen as it prints.

2. Selecting Stop on Error will stop printing when a bad record is detected. It is usually best to not select this option. Bad records will be highlighted in RED and can be dealt with at the end of the run. Records with errors do not print.

Layout Tools Overview

Each of the following tools creates a block, or area of printing. Each of these areas has similar characteristics while each has a significantly different use and purpose. To fully understand the strength and flexibility of the GUI, one must understand the use of each of these items. To print addresses, the operator needs to understand a record block. Each icon on the Menu Bar links to one of the following tools.

Field Block   Record Block   Message Line

Indicia   Number Generator

Bitmap   Variable Bitmap
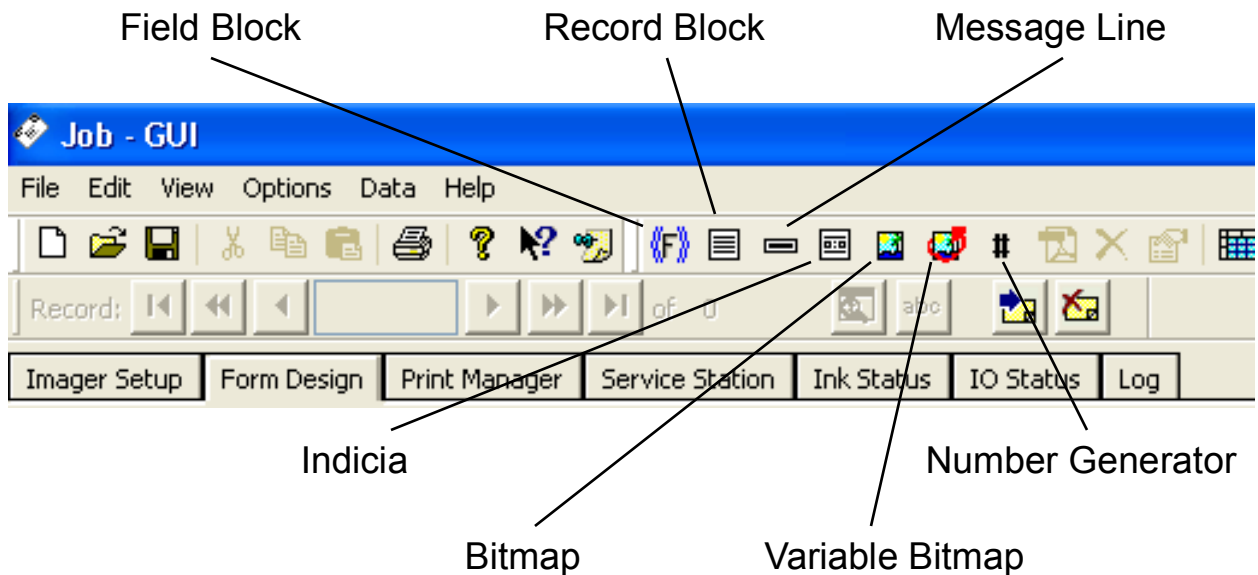
Layout Tools Defined

Bitmap – Creates an area of text dedicated to a bitmap graphic. The most common format is .bmp. No text is allowed in this box unless that text has been converted to a bitmap format.

Message Line – Creates an area of text that is operator defined. The operator may type in a fixed message or enter cues to have variable data messages printed in the block.

Record Block – Creates an area of print that actually duplicates fields in the data on a line-by-line basis. Where each data base column represents a line in the record. No rich text features are available.

Field Block – Creates an area of print that can be user defined based on the fields in the individual records. Some rich text features can be applied to elements in the field block.

Number Generator – Creates an area of text dedicated to a number, usually sequential. The operator can select various numbering criteria and apply it to each record printed.

Indicia – Creates an area of text that is dedicated to USPS postage payment indicia. The operator may change text attributes and indicia formats, but can not insert data from the data base.

Variable Bitmap – Creates an area of text that contains a bitmap that is specific to the addressee. The operator can set up bitmap selection criteria and different bitmap graphics will be printed with different addresses.

Mail Piece Layout

Let's review. The machine is hooked up and running, the data base is loaded and the job is open. All that remains is to tell the printer what to print where. This section will give you the basics of mail piece design and layout. You'll be able to perform entry level printing tasks that will satisfy a customer's needs. After the skills outlined in this section are mastered, we can get into some of the more intricate design features and capability.

Blank Form Design Screen
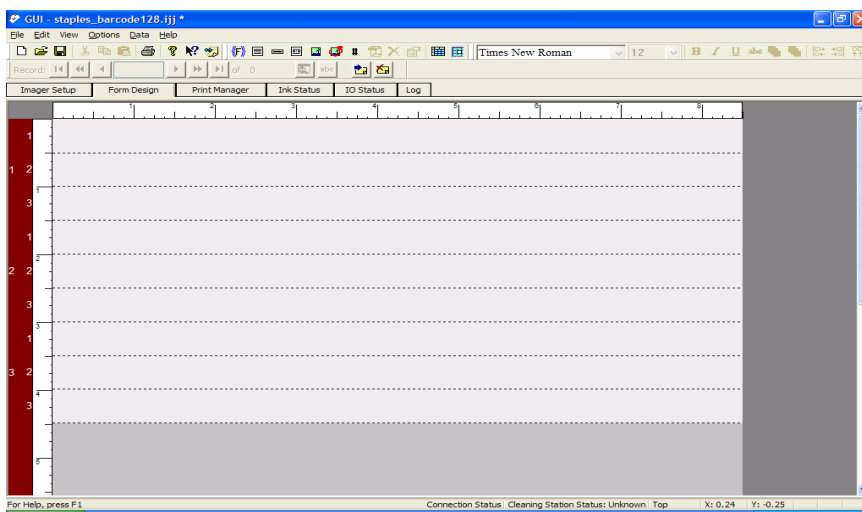
1. Click on the Form Design Tab. The empty design screen comes up. If it doesn't, you may not have selected the top of the paper in the initial Imager Setup screen.

2.   In the left margin from top to bottom are the imagers and pens. Check to be sure that this agrees with the actual number of imagers in the machine.

3. The ruler across the center of the screen represents the width of the form selected. If this isn't correct, return to the Imager Setup screen and select the proper size for the form. In the example above, we have 4.5 inches of print across an 8.5 inch wide (letter) sheet.

4. There is a Menu Bar across the top of the screen (font selection is in this bar). The icons in the center section are the most commonly used form design tools. The following is a summary of those icons and their use. (See Layout Tools)

5. Click on the Record Block icon. An area of text equal to a 1.5 x 1.5 inch square block is opened in which as many as nine lines are displayed. This block opens under the assumption that three pens are being used to print as many as three lines of data per pen. In the case below, the Record Block has been dragged and dropped to a location 4 inches from the left of the paper on imager 2. When you click on a block, you make it active so that you can work on it. Active blocks are known by the square grab handles around the perimeter of the block and by the dark blue registration line on both margin rulers.

6. To manipulate the Record Block, either double click on it or right click on it to open a menu box and select properties.

Form Design Screen with Record Block

7. Record Block Properties are simple. Choose the number of lines, starting with a particular line. Recall that each line is a field, or column in the database. Identify whether the data is to be printed as a text or barcode.

8. The Rotate tab is easily explained and rarely used with a record block of text. It is often used with a record block of bar code data. You can rotate the block through 360°s in 90° increments, or select custom and enter the number of degrees of rotation in single degree increments.
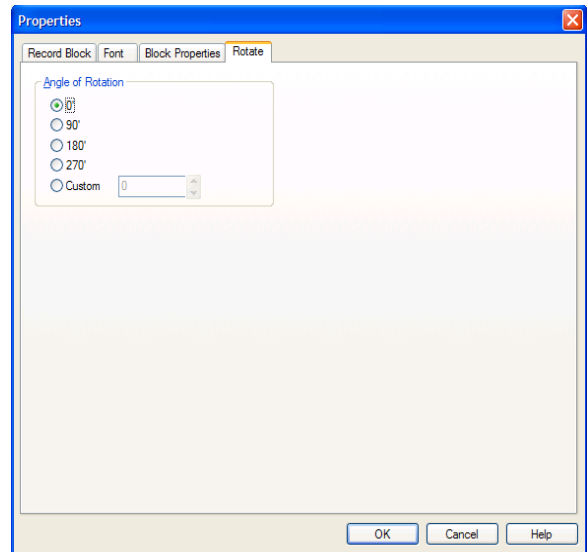
9. Selecting the Font tab opens up standard font selection windows. In which all fonts available to the operator are shown along with a sample of the font as it will print.
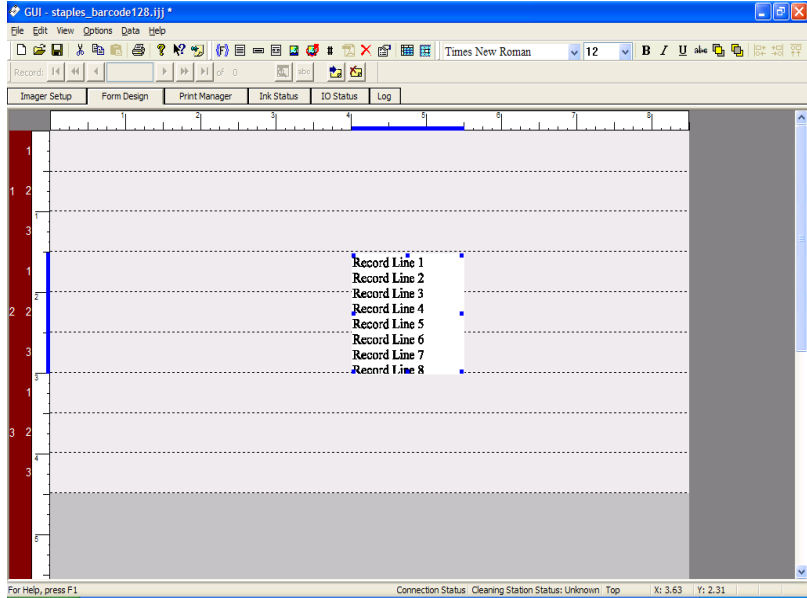
Block Description Screen
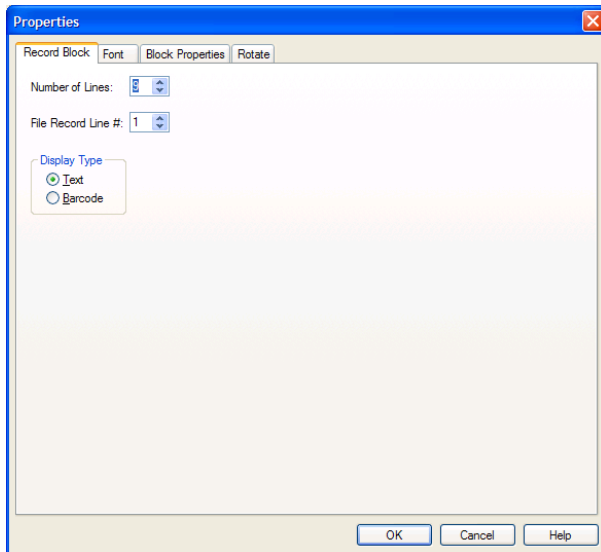
Rotate Screen

Block Properties

The Block Properties Tab is quite common to all blocks and needs to be explained in detail.

Word Wrap - this is a default selection that causes trouble in addresses. It is often better to cut off part of a name than to have it wrap into the next line down.

Transparent – Each block is rectangular. This rectangular block takes up space on the piece equivalent to its dimensions, but data is often not in the full rectangular space. In other words there is non-printing space assigned to the block in which another block can not print. Making the block transparent will delete the white space around a block. It shows up on the screen without this white space.

Position is Locked – Self explanatory. Enter the dimensions from the left edge and top of form in the space provided, and the record block will stay right there. The only way to move it is to change the actual measurements from the edges of the form.

Resize text when Box Size changes – This allows you to stretch the box and make the text larger inside it.

Generate Error If text Exceeds Borders – This will either cause the machine to stop printing if the text is too big for its box or it will keep the record from printing. In addressing applications, it is best to leave this one unchecked and to make boxes long enough for the records.

Rectangle Type and Pen Width – This puts a line around the box. The higher the pen width, the thicker the line.

Note: **The vertical line of selection boxes must be checked prior to printing to be sure that the correct settings are made.**

Block Properties

Using Record Blocks

The GUI is equipped with viewing tools. In the header, on the third line down (starting with record:) we find a button marked abc. Toggling this button previews the image that will be printed. Using the VCR controls lets you move through the data base from start to end and back.

This record block represents the first record to be printed. It consists of 4 lines of data printing in Arial 10 point font. The left edge is about three inches and the block is approximately 5 inches long. The block is not transparent and space has been left to allow for longer addresses and endorsement lines to be printed. The record is printing on the second and third pens of Imager #2.
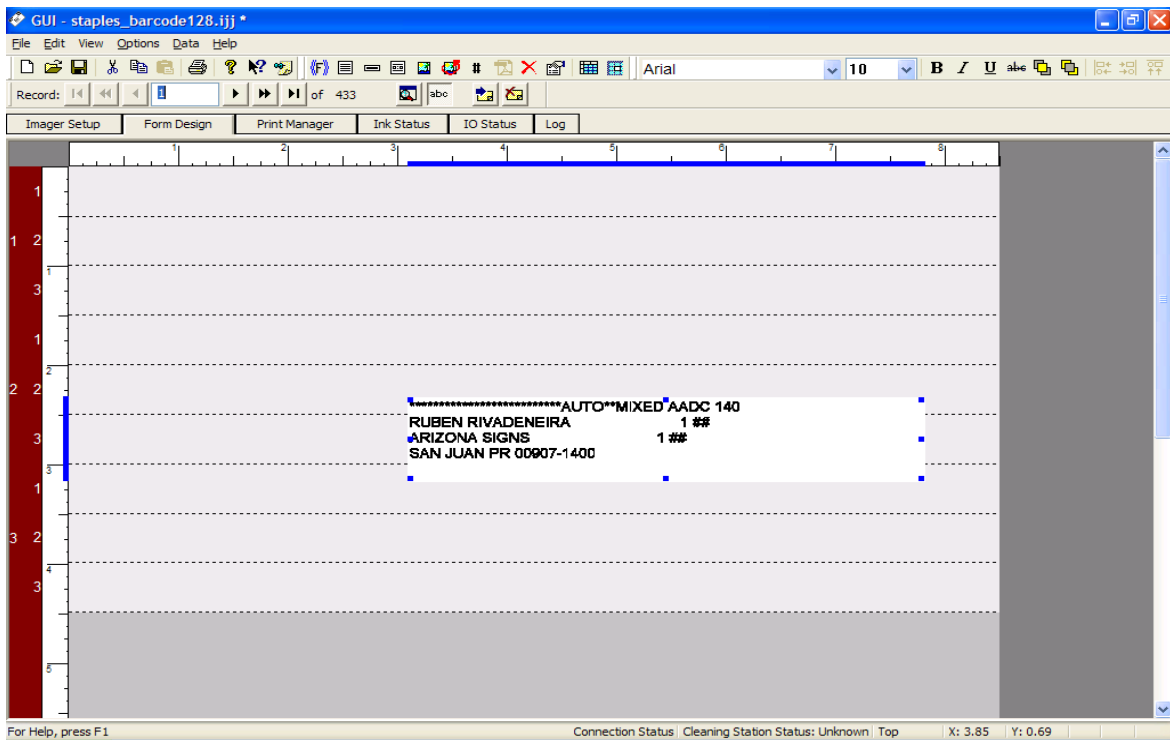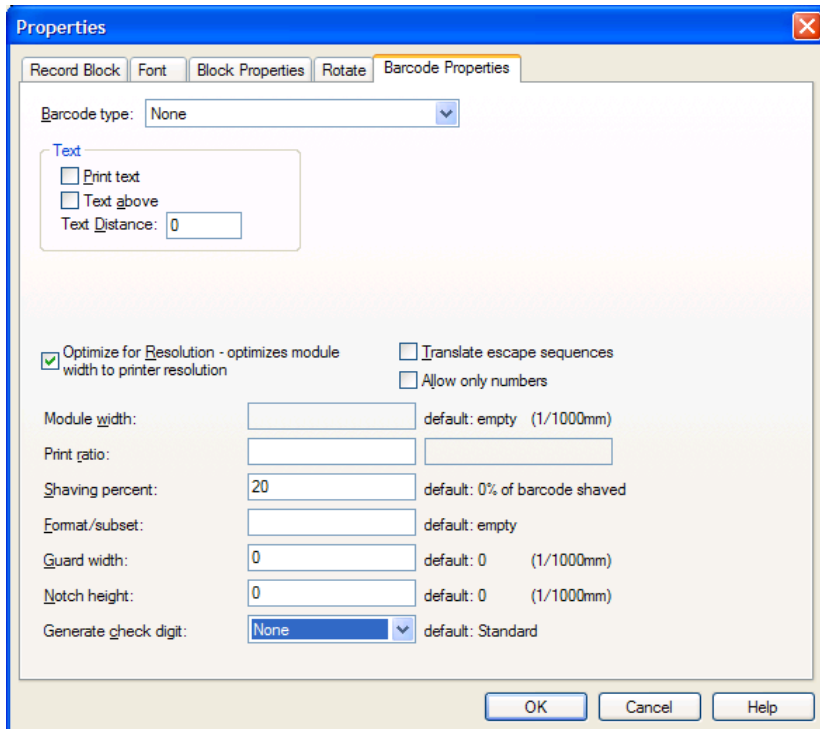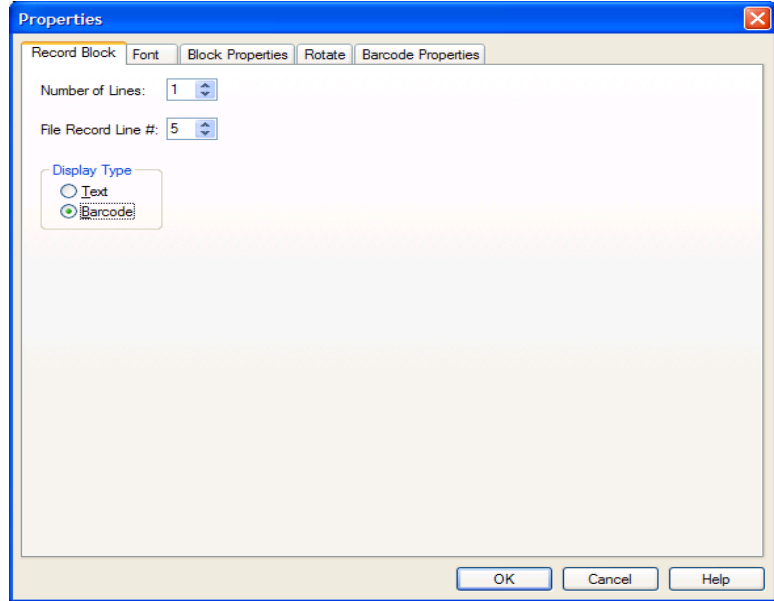
Printing a PostNet Bar Code using a Record Block

There are a number of steps to go through. Start by recognizing that a record block can not mix text and bar code data. It is one or the other. Thus, to print a bar code in a Record Block, that block must be assigned exclusively to the bar code data field in the record.

Properties Screen

1. In the Form Design screen, select Record Block. Double click on the Record Block to get the Properties Screen seen here.

2. Enter 1 for the number of lines. Enter the line column number from the database where the barcode information is found. In this case 5.

3. Select Barcode for the Display Type.

4. Click Bar Code Properties.

5. Select resolution Optimization.

6. Select a Shaving percentage. Barcode shaving is the reduction in bar width to make the barcode more easily read. The USPS Merlin system has driven this effort to allow the supervisor to set up bar code printing details on a per job basis. When you print, you may wish to shave more or less depending on the output.

7. If your data contains a barcode with check digit calculated, check none. Make sure that your choice here is consistent with the data.

8. Click in the Barcode Type box and select the type of barcode being printed.

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9. Choosing a Postnet bar code will open the Postnet options box. Again, Merlin is at work. Issues of bar spacing and shaving are revisited. If the bars are already being shaved, select 0. To widen or narrow bar spacing, make the appropriate selection. Custom isn't much of an option as the range is only from 21 – 23 bars per inch.

10. Click OK to return to the Forms Design screen.
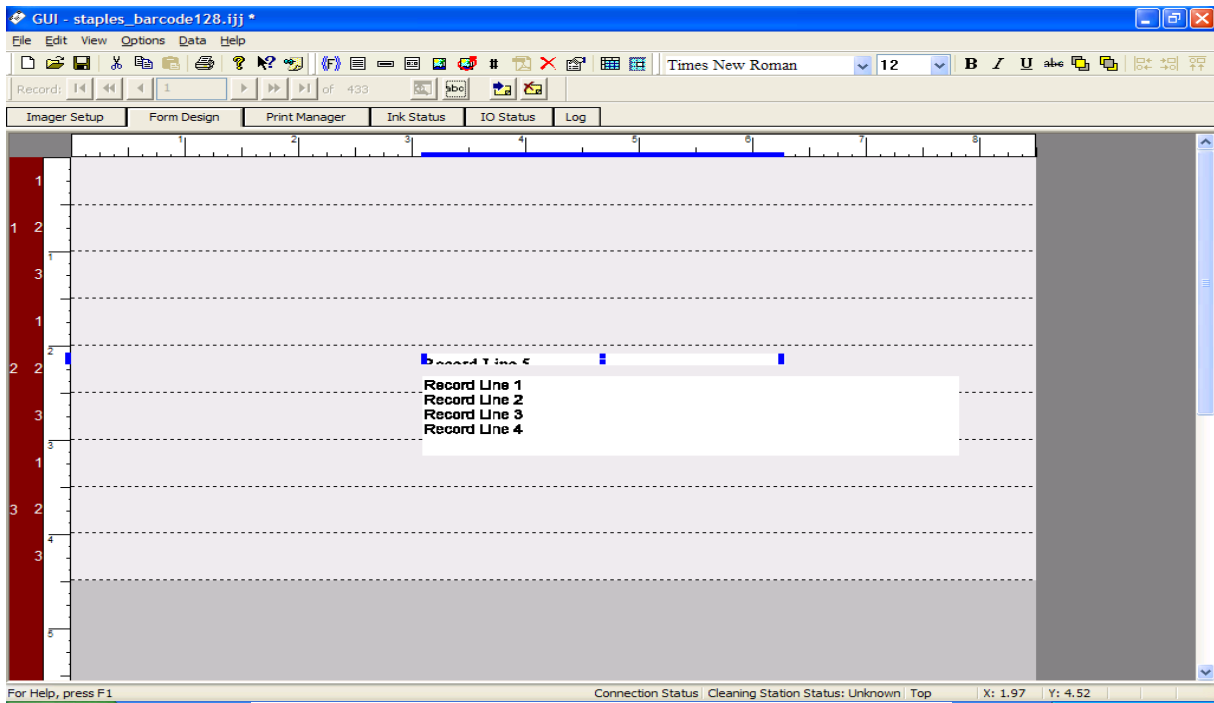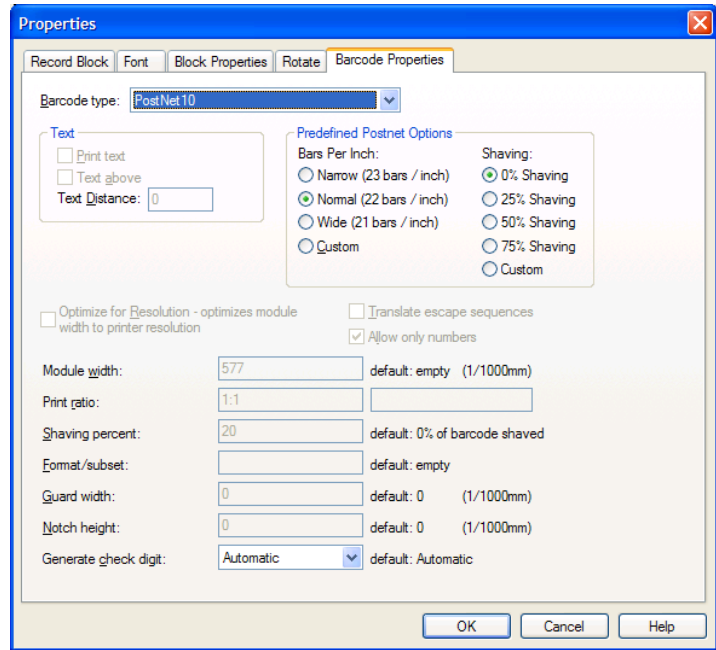
**POSTNET Barcode as a Record Block above Address**

Printing Graphics

The jet.engine GUI accepts and prints Bitmap graphics. When you select the Bitmap Tool, a list of .bmp files is displayed. You may use standard Windows searches to find the appropriate Bitmap file.

1. Select a Bitmap. Open it.

2. It appears on the Form Design Screen in a small box.

3. By grabbing the image, it may be enlarged and moved on the screen. When the block is selected, arrow keys may be used to move the whole block in small increments.

4. Double Click on the block to access the Properties tab. Bitmap properties are limited to Fixed Bitmap information and rotation.
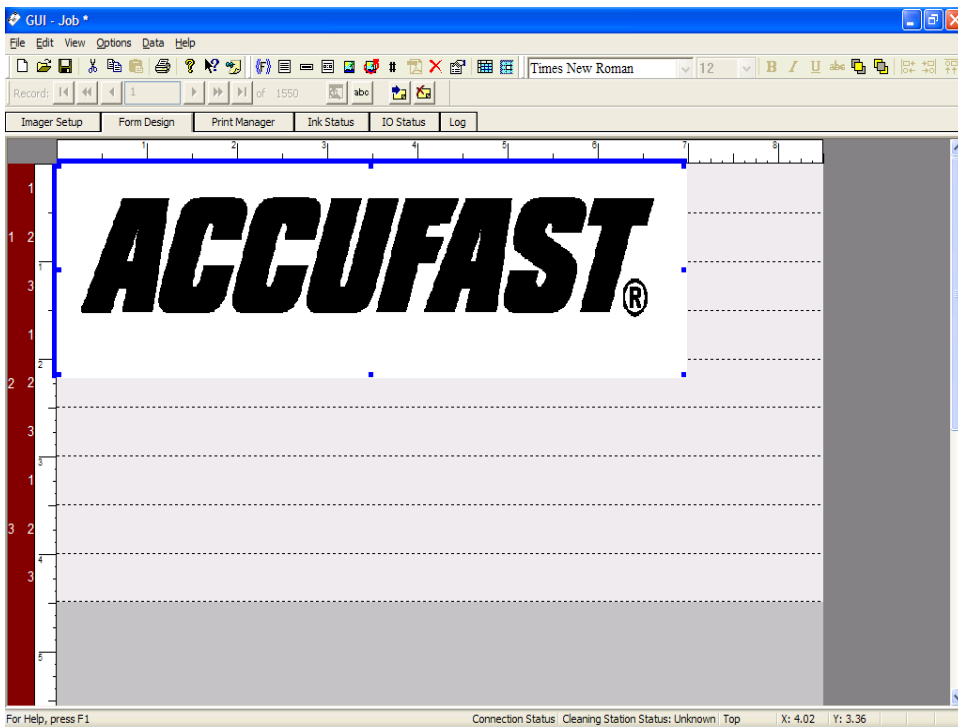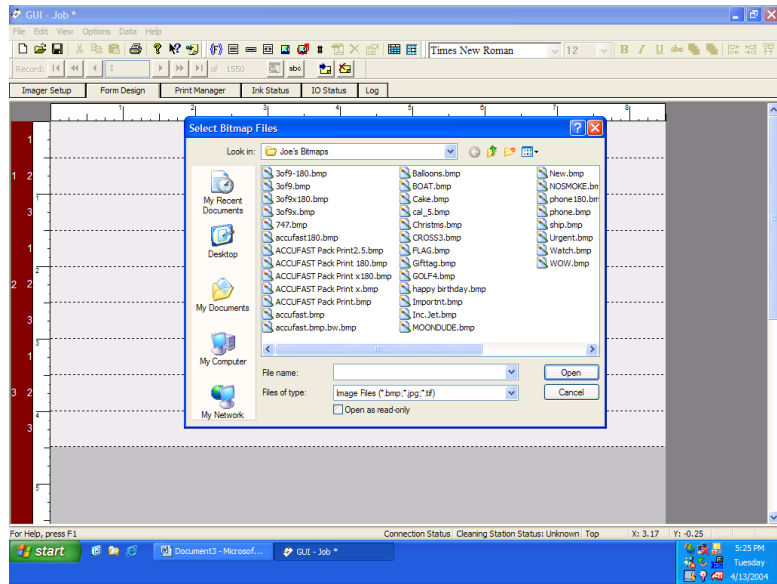
5. The controls are apparent. You can fix a bitmap in its location and lock its size to specific specifications. Usually, bitmaps are dragged and dropped and sized by eye during the design process. Locking the aspect ration is usuful for logos and particularly sized graphics. Locking the aspect ratio will not allow you to increase width without changing height automatically and accordingly.
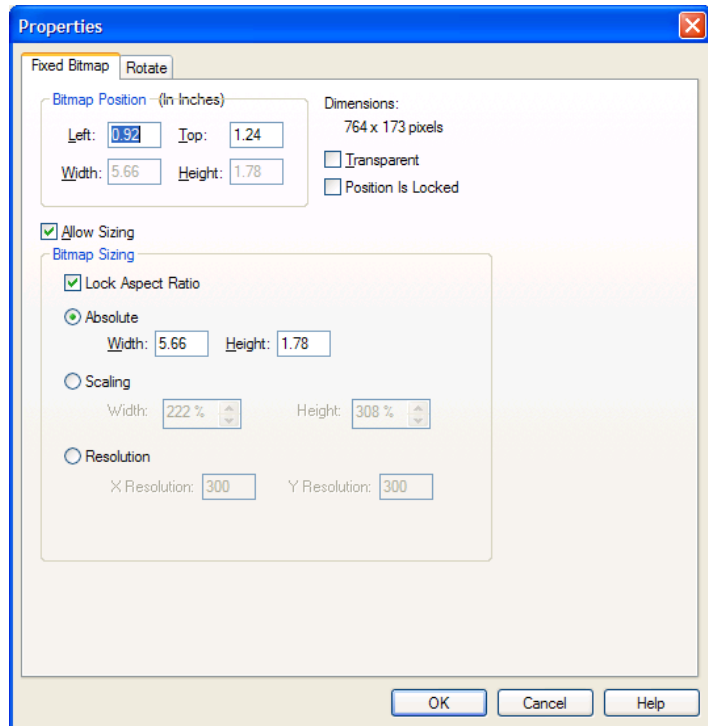
Indicia

The Indicia tab is dedicated to mailing applications. The jet.engine GUI is set up to automatically print a postal indicia by using this tool.

1. Click on the Indicia Icon.

2. A Dummy Indicia comes up on the Form Design Screen.

3. Double Click on it to get to the standard Properties Screen

4. High lighted text may be edited.

5. Changes to the block may be made as with other blocks.

6. Particular attention may be paid to the Rectangle Type box in the Block Properties Tab.

7. Selecting a rectangle surrounds the text with a printed box. Selecting various line weights, makes that box darker as the line weight increases.

8. No rectangle eliminates the Box. Check with USPS regulations to create the appropriate Indicia.
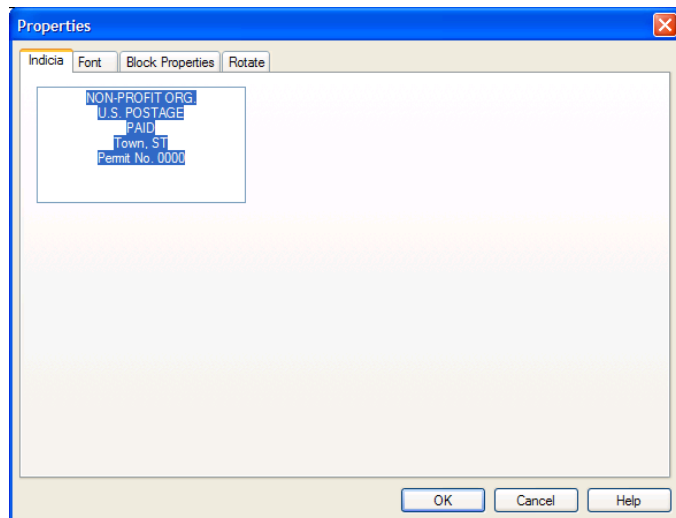
Number Generator

The number generator is a potent tool. The GUI will print consecutive numbers in any of a variety of ways. Click on the Tool, and double click the Box to reveal the Properties screen
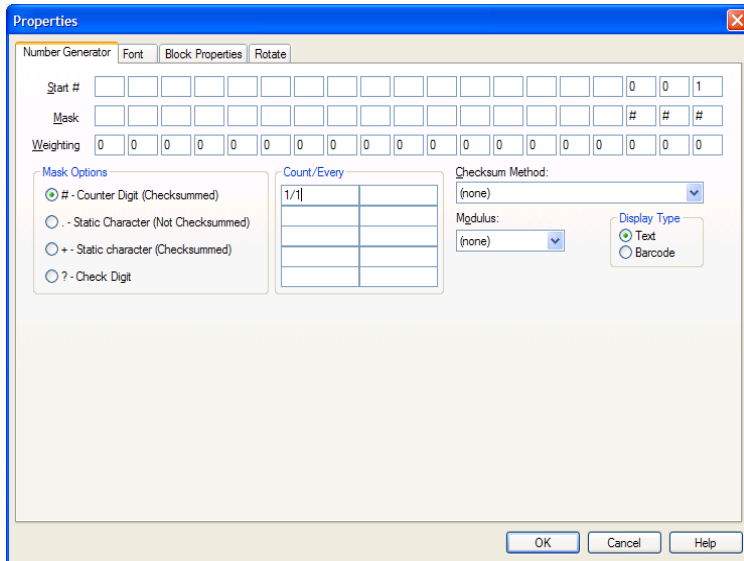
1.   A common application is to print consecutive numbers on each item printed. The number will appear in the block outlined on the Design Screen.

2.   Select a start number with as many zeros in front of it as you will need. Here we will count from 1 to 100.

3.   Determine whether you want the number to be text or barcode. If text is selected, a font tab is available. Selecting Barcode will add a bar code properties tab where bar code information is requested.
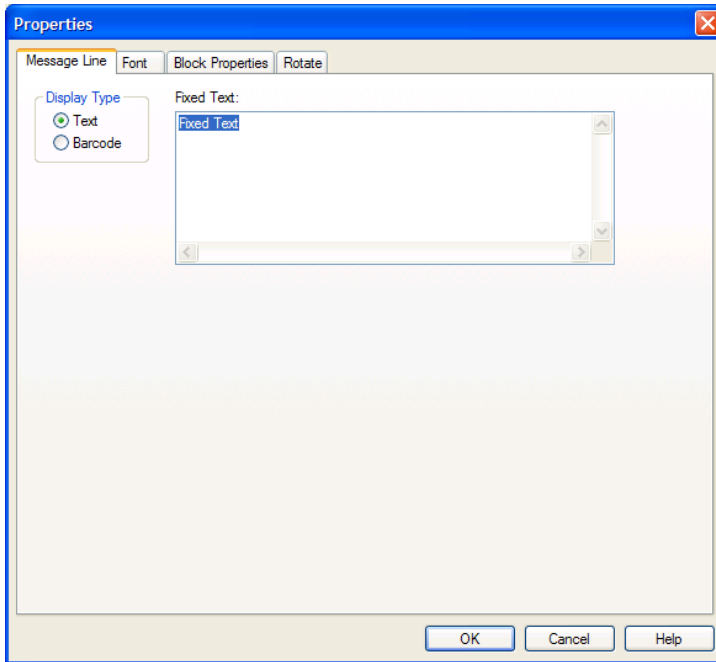
4. The mask automatically fills in.

5. Count/Every here means count 1 for every 1 as we're counting singly up to 100.

6. No check sums or other modifiers are selected.

Using Message Lines

The Message line Tool is used to print fixed text over and over again. For an explanation of the Block Properties and Rotate Tab, see Record Blocks.

1. Click On the Message Line Tool in the Menu Bar.

2. A block appears on the Form Design Screen

3. Double Click the block to bring up the Properties Screen.

4. Replace the words "Fixed Text" with your message.

5. This Properties screen is the same one that is used for other blocks. An important item in the Message Line is font selection.

6. Select a font from the list on the left.

7. Select a style if the font has various styles available

8. Pick a font size.

9. Check underline or strikeout.
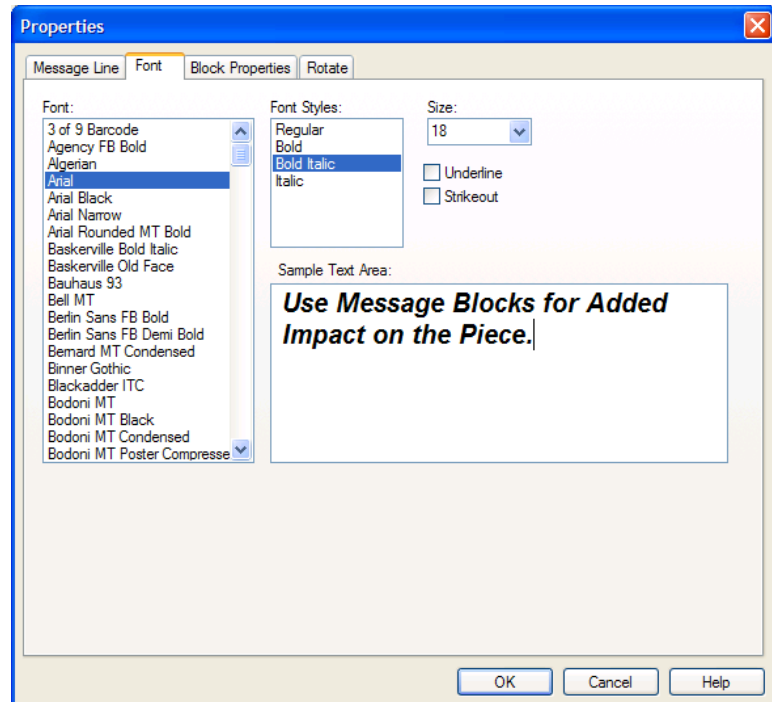
Mail Piece Layout – Review

We have the four line address with a bar code on lower right. Both are record blocks.

    a. ACCUFAST is a bitmap graphic in a transparent block

    b. The return address is a message line fixed message printing on all pieces

    c. The Indicia is an indicia block with a full, narrow rectangle applied.

    d. We are previewing address number 6 of 433 (field block).

    e. The appropriate bar code is being printed in the lower right corner of the piece as a record.
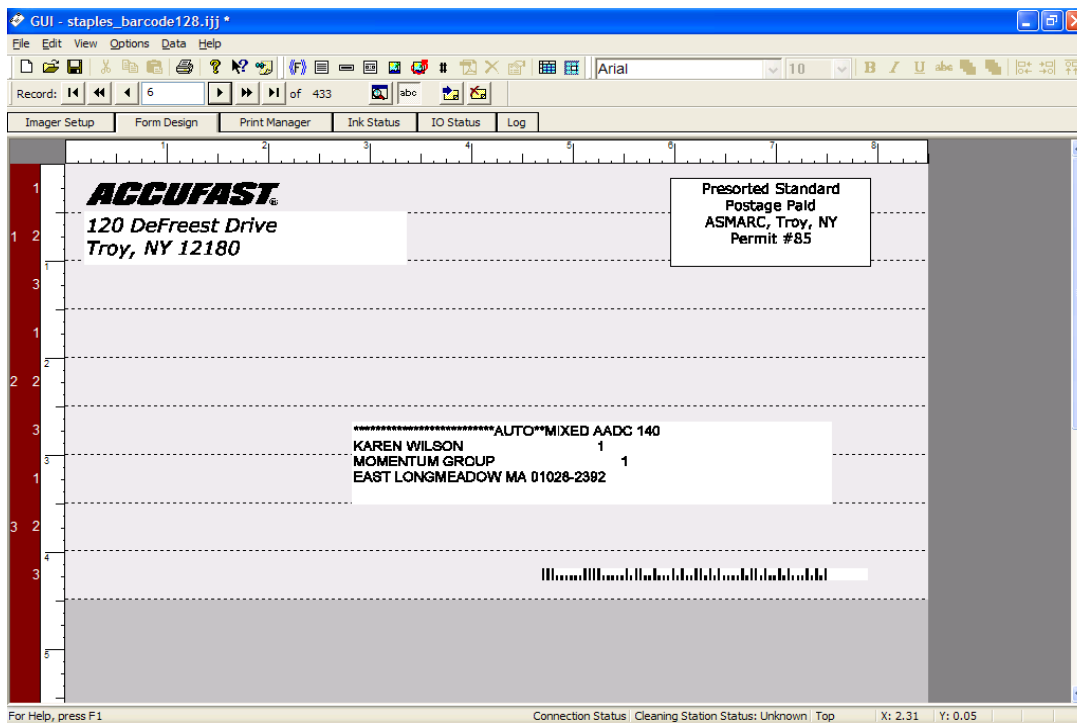
Using Field Blocks

The Field Block in used when data is organized by fields, not lines. Typically, mail processing software has a similar step in which the user creates a "label lay-out". In this step, data is placed by field into a line- by – line layout. The layout is build step by step, field by field until the finished "label" is inspected and stored.
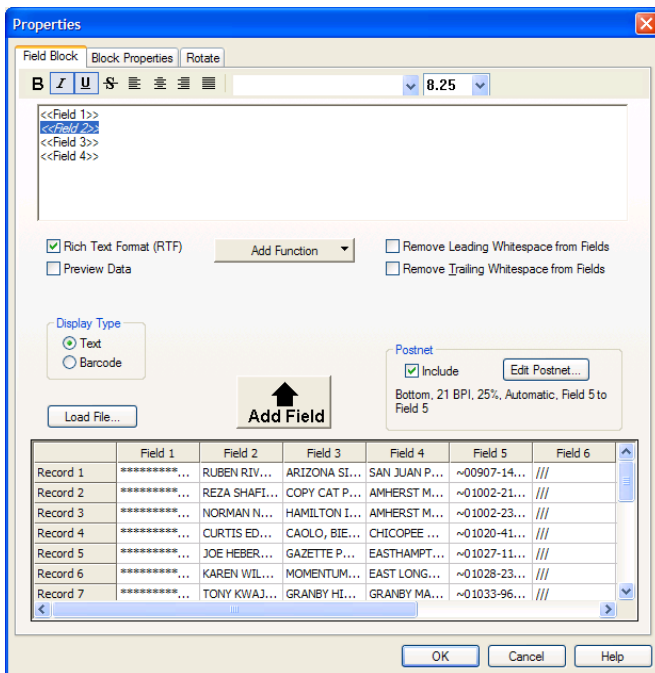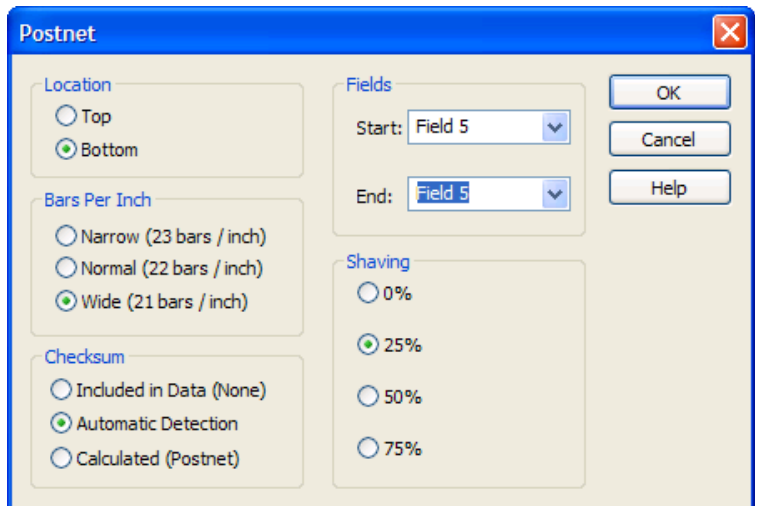
Field blocks have an additional advantage in that a few Rich Text features (Bold, Underline, Italic , etc) may be applied on a per field basis.

1. Load. Or check to be sure that a data base is loaded.

2. Go to Form Design and click the Field Block icon

3. The Field Block window will come up. Double click on the window, or right click and select Properties to open the Field Block Properties window.

4. The Properties window displays an empty layout box at the top, several se-lection boxes in the center and the data base to be printed in a box on the bot-tom.

5. Click on the header for the field that you want at the beginning of the layout. Identify whether this is to be a text or barcode label and select display type.
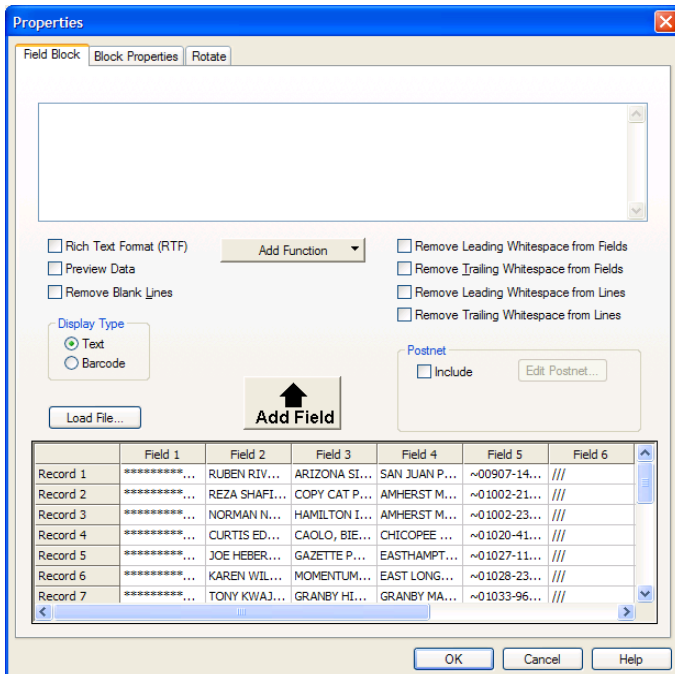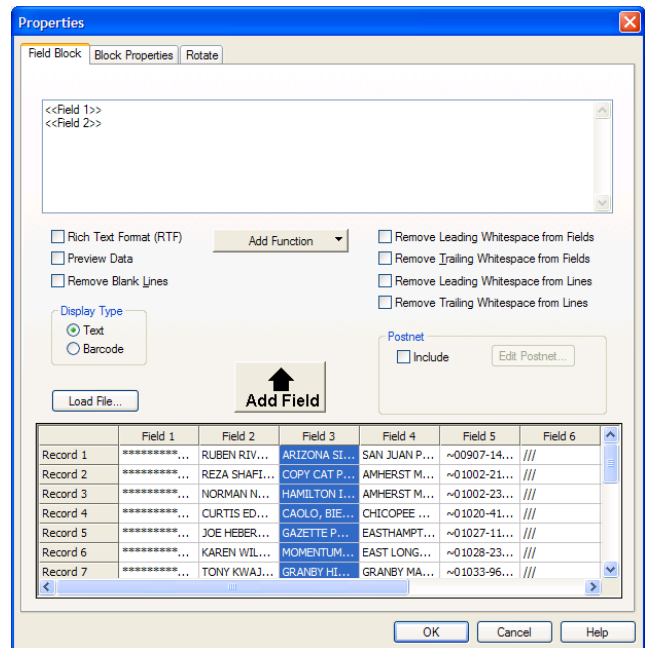
6.   Click Add Field.

7.   Move the Cursor to the point where you want the next field to be and select it by clicking on that field's header.

8.   Repeat the process until you have finished.

9.   To add a PostNet barcode to a typical mailing label, click include in the Postnet box. This will automati-cally add the Postnet by opening the barcode window.

10.   A box will open in which you click edit barcode.

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11. This brings you to the Postnet Barcode box. Here, make selections relative to where the barcode is to print. In the Field Block, the barcode can only be printed in the address block. You can choose the shaving percentage, the bar spacing, checksum method, and the data fields to use for barcode calculation. In our example, the barcode data is in field 5, so the answer to the start and end questions is field five. The bar-code data both starts and ends in field 5. In some data bases, the barcode data is spread out over several fields. When that happens, answer with the beginning and end of the barcode. Note, the barcode data must be in consecutive fields.

12. Click on Preview data, and that is what you'll see. Data only, no barcode.

13. To use the Rich Text Features, click on the Rich Text feature box, select the field in the data to which you wish to apply the feature, select the feature. Here, we've chosen underline and italics applied to Field 2, the addressee. When satisfied, click OK.

14. Return to the Form Design Screen and select the preview mode to view exactly what will be printing on the piece.

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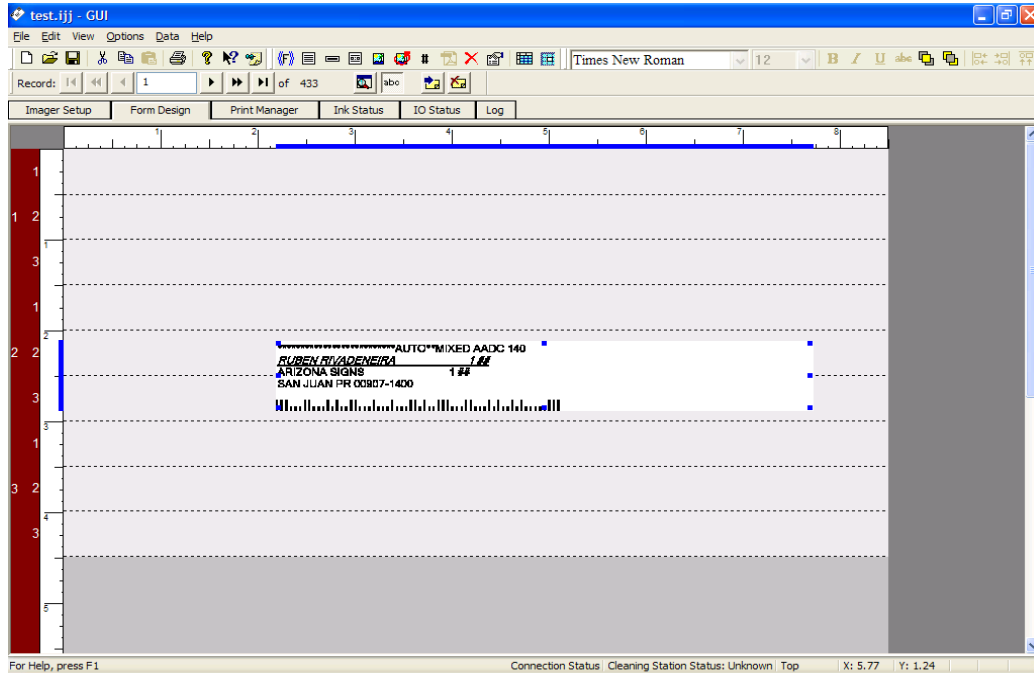
**Address and Barcode in one Field Block with underline
and italics applied to Name**

To Begin Printing

1. Check that the printer is ready and an envelope layout is complete

2. Click on the Start Print Box.

3. Notice that the Speed of the belt is being continually monitored. This speed must be within the data processing capacity of the system or the speed number will turn red and printing will stop. Variable speed printers must be set by the operators to run in the black. The determining factor is print resolution. Use the following speed chart as a guideline.

150 dpi	90 ips.
300 dpi	47 ips
600 dpi	22 ips

4. To stop printing, stop the feeder, the transport belt and click on Stop Print.

Sort Breaks

Sort Breaks are non-printing characters that are typically inserted in the data base at the proper place to facilitate mailing. ACCUFAST software recognizes these marks and can send a signal out from the imager to stop the feeder. In order to be successful, the sort mark should be in a separate field in the data and should not be a typically used character in addressing. Double number signs work well (##)
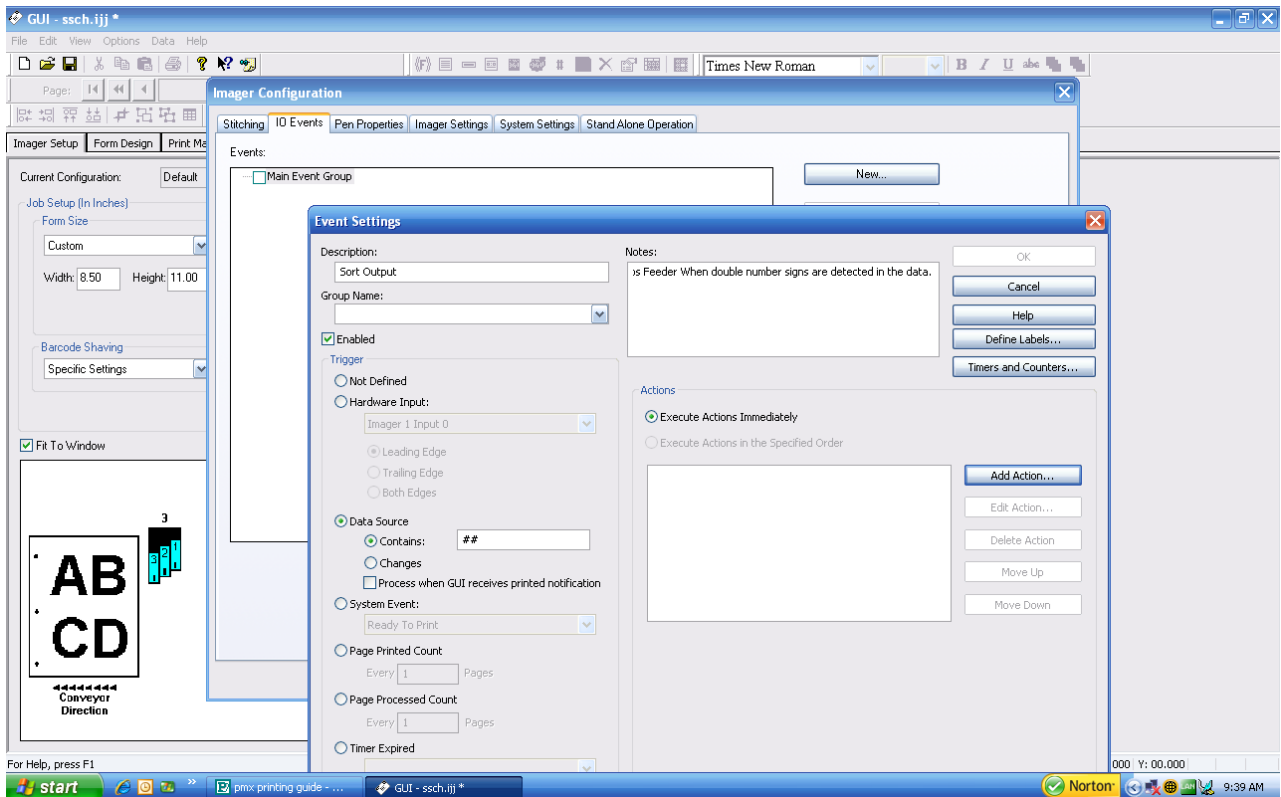

Start by:

1. With the Operating Software (GUI) open, Click Options, Imager Configuration, I/O Events.
2. Click NEW
3. In the Event name box, type sort output, in the Notes box describe what you're doing.
4. Click the Enabled box
5. Select Data Source
6. Click Contains and type ## into the empty box.

You have now told the software what to look for in the data. You can enter any characters that you want, just make sure that the mailing software is sing the same characters. The next step is to describe the action to take.

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You have a choice here. Typically, if you have a short printer or are running it slowly, an immediate stop is in order. If, on the other hand, you are using a longer bed and the feeder is further away from the imager, there will be pieces in cue and you need to recognize the sort break a bit sooner and stop so that the correct piece ends up last.
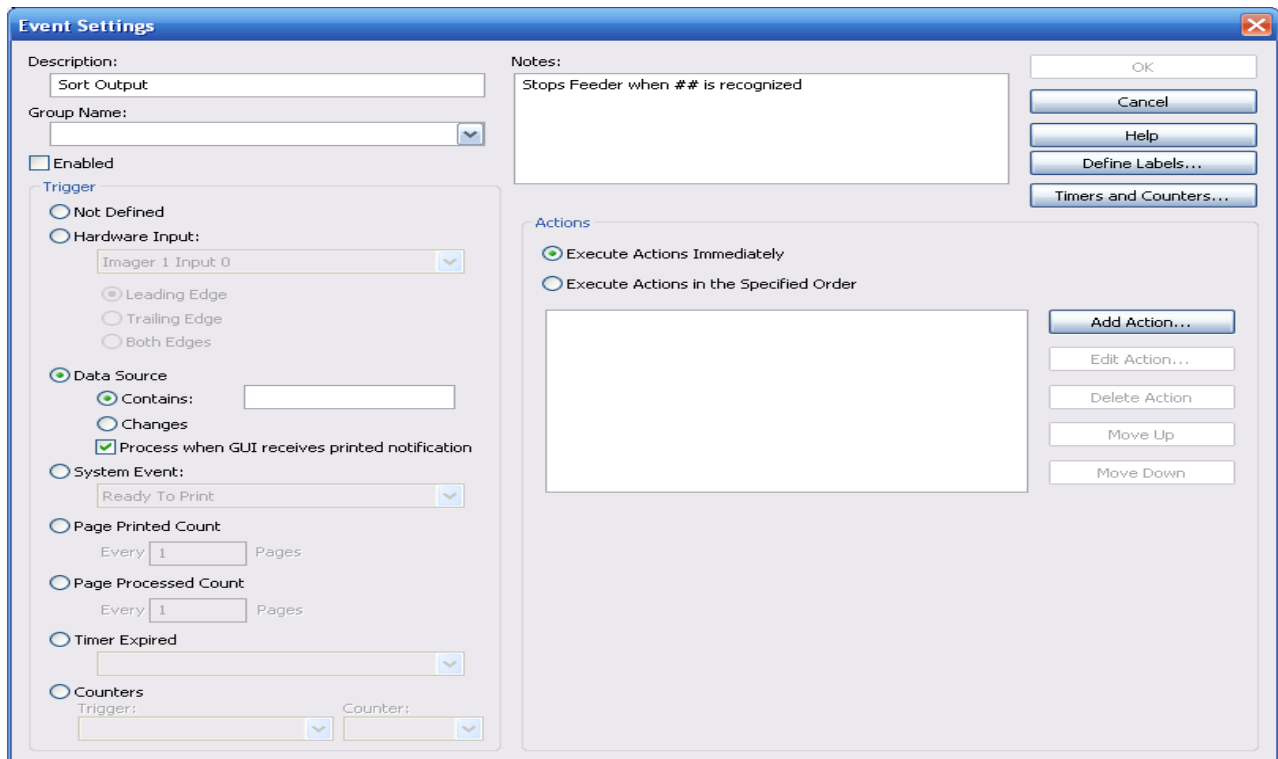

To stop immediately, check the "Process when GUI receives printed notification" … box under Data Source and "Execute Action immediately" under Actions.

Click:

1. Add Action
2. Hardware output - make sure it says "Imager 1 Output 0"
3. ON
4. Immediate
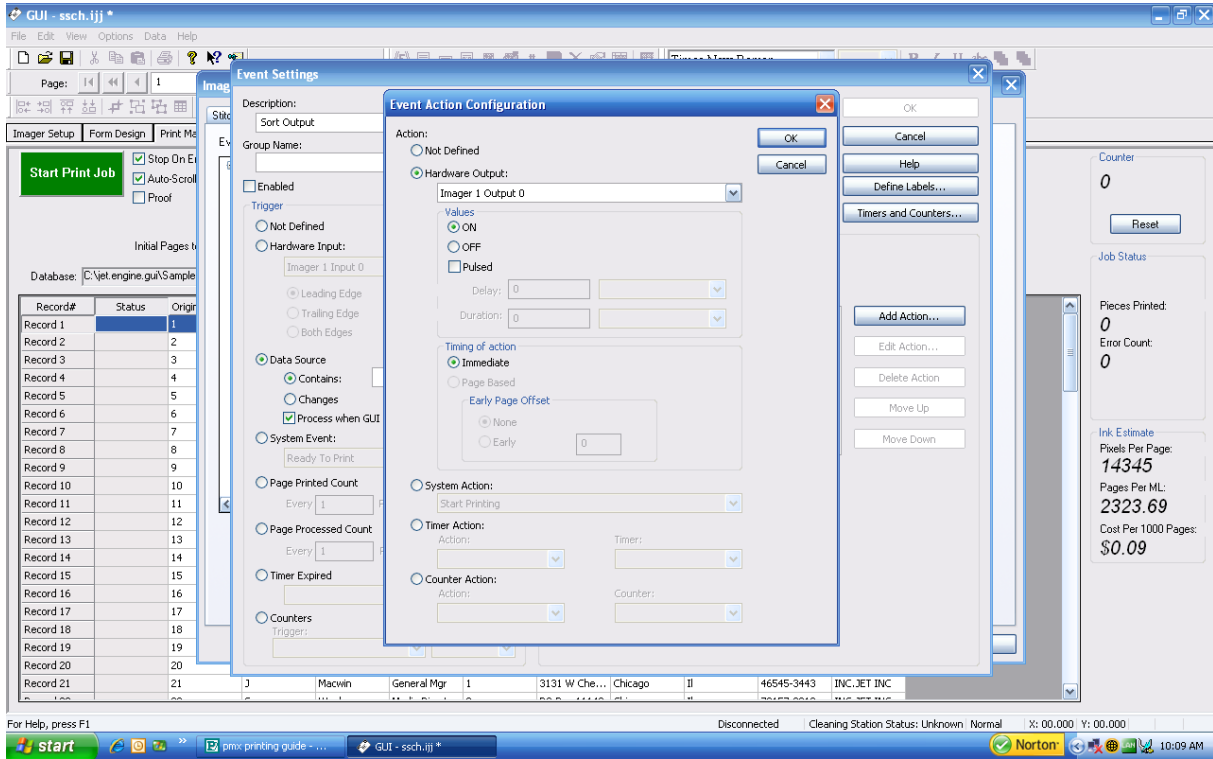
Click OK and OK again to move back to the original I/O screen. You have specified the mark , it's general source and the action that you want to take. All that is left is to specify the field in t he data base where the mark will occur.
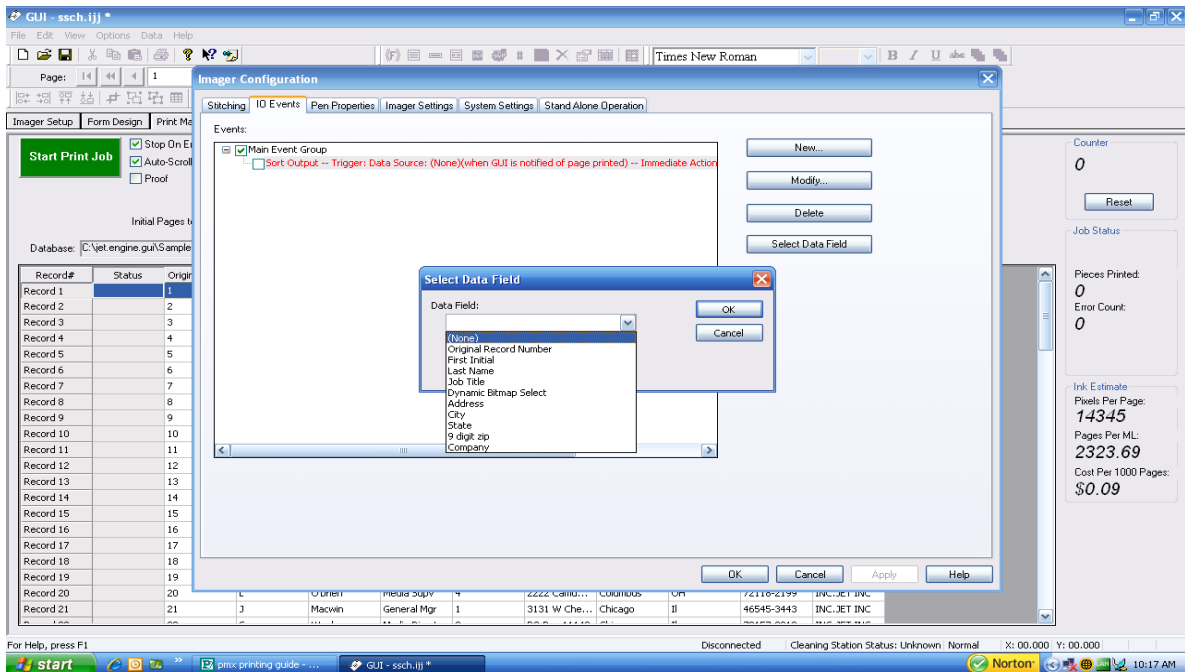
Double Click the Sort Output Event that you just created. This opens up the select data field box., Click on that box. Follow instructions to select a field in which the data occurs.

This step is vital. If there is an error, the event will not be entered or useful.

To activate the Sort event click the enabled box on the I/O screen. To de-activate, remove the check from that box.
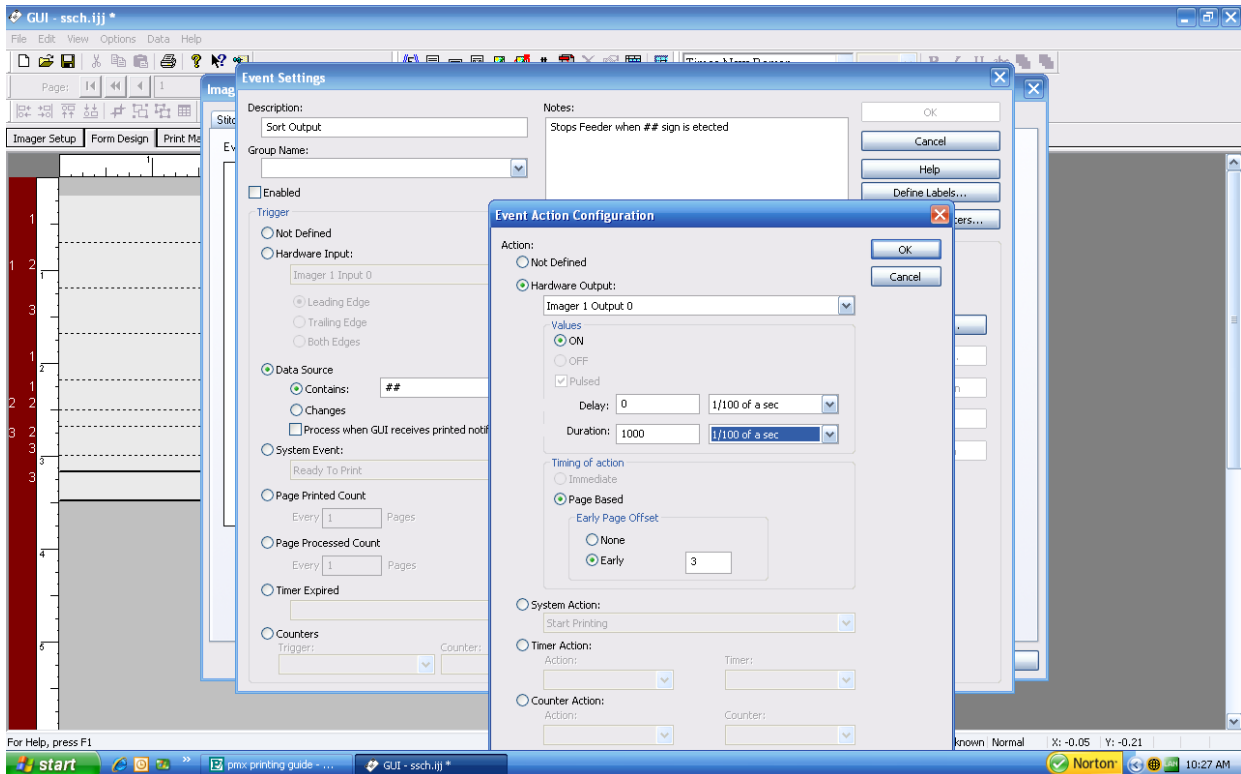
To look ahead and stop when pieces in cue are printed.

1. Do not check the Process When GUI receives printed notification Box
2. Click Action
3. Enter a delay of 0 and a duration of whatever you want
4. Click page based and enter the number of pages to look ahead.

Notes: