MCS Raptor

for the MCS Eagle Printer

January, 2014 - Version 1.1

Contents

1. Introduction

This manual is intended for equipment operators with a basic knowledge of Microsoft Windows operating system. Some basic experience with the Eagle Printer's setup is assumed.

This manual includes information about the physical printer and how the user can set up print jobs. This manual will also cover the basics of printer maintenance, both software and hardware.

1.1 Convention

This manual uses specific terms at times. You may sometimes see directions written out like this: **File>Save**. When you see this, it means to go to the "*File*" menu in the toolbar by hovering your mouse over the name in the toolbar and then select the second item in the list (such as "*Save*").

1.2 Inks

Replacement ink is available from Think Ink Inc. Getting your ink from Think Ink entitles you to free technical support and great ink prices.

1.3 Technical Support

If you need assistance, you can use the MCS On-Line Connection through the MCS Eagle software at any point. Just click the MCS logo in the bottom right corner of the MCS Eagle software window.

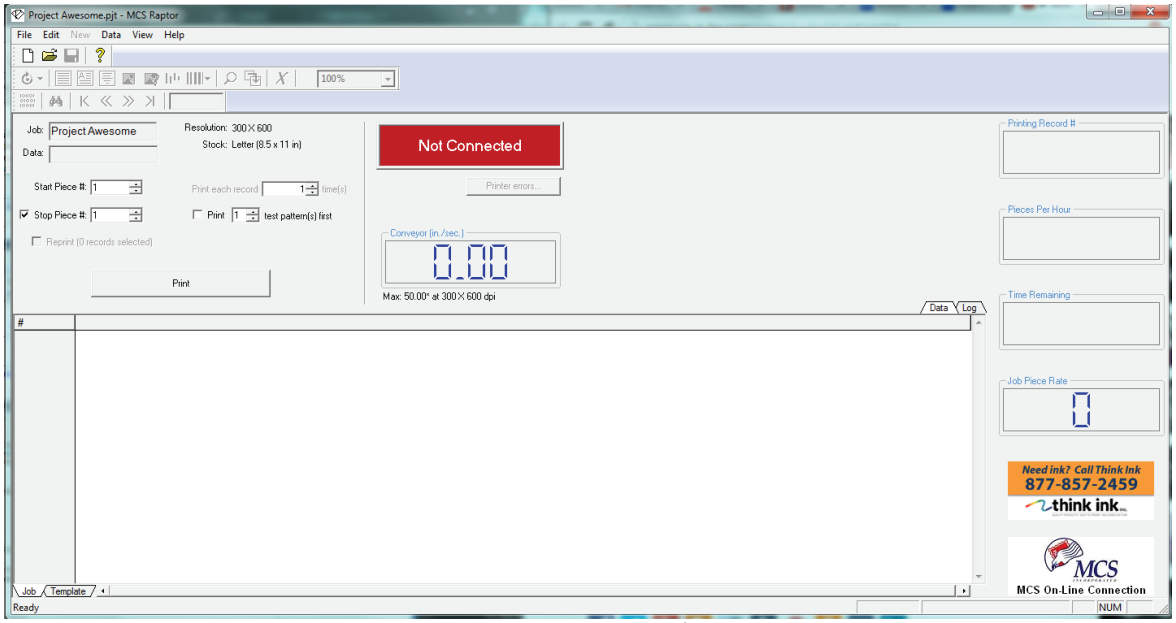

Image 1.3: Main Window

If furthur assistance is needed, contact MCS at support@mcspro.com or call MCS toll free at 1.800.768.0154 Monday through Friday 8:30AM to 6:30PM EST.

If you do call, you may be asked for a software version number. To view the program's version number, in the software, go to **Help>About**.

1.4 MCS Eagle Printer and MCS Raptor

The MCS Eagle software (also referred to as Raptor) is designed to work with the MCS Eagle Printer. This manual will detail how to use the software. The software runs on Windows and can load templates, print data sets, and even help with maintenance for the MCS Eagle Printhead. This manual will explain each of these steps.

2. Installing MCS Eagle Software

The MCS technician should have set up the computer for you. If, for whatever reason, the software needs to be reinstalled, then the necessary files are in the HASP files you were given. Should you need to reinstall your software, install the provided version of the MCS Eagle software, update to the current version, and install the dongle software.

Should you just need to update your software, simply follow the instructions for updating in *section 2.2*.

2.1 Installing Software

The original installation program should be included in the HASP files you were provided with upon installation.

Steps for installing software:

1. Disable antivirus software.
2. Run "Setup.exe" for the version you would like to install.
3. Follow setup steps.
4. Open program.
   - » Note: You may need to "*Run as administrator*" to complete installation. From the start up menu, right click the program and select "*Run as administrator.*"
5. Verify software version.
6. Re-enable antivirus.

2.2 Updating Software

Software updates are up to the user.

Go to [url] to find the updates.

Steps for upgrading software:

1. Uninstall currently installed version
   - » This can be done by going to the control panel in Windows, selecting Programs, and then double-click the program to uninstal. Follow the Window prompts for unistalling.
2. Disable antivirus software.
3. Run "Setup.exe" for the version you would like to install.
4. Follow setup steps.
5. Open program.
   - » You may need to "*Run as administrator*" to complete installation. From the start up menu, right click the program and select "*Run as administrator.*"
6. Verify firmware version.
7. Re-enable antivirus.

2.3 Dongle Installation

The USB dongle is the software key. Neither the equipment nor the software will work properly without the dongle. A "*Printer Setup Error*" will occur if there is no dongle detected.

To install the dongle simply open the file "*Dongle Installation*" from the provided HASP file and install "*DongleReader.exe.*"

3. Getting Started

The MCS Eagle Software is an application for Windows that will allow you to lay out fixed or variable data that includes text, numbers, barcodes, and graphics.

Before you begin, you must make sure the printer is up and running.

3.1 System Power Up

The system needs to be powered up in the correct order.

The proper power up order is:

1. Power up the PC and log into Windows.
2. Power up the controller and IO Sort Box.
3. Run MCS Raptor Software.
4. Wait until LED on Controller turns solid green.
5. Check ink supply.

3.2 Printing

The MCS Eagle Software is a powerful tool that will help you print. The printing process contains three main sections: the print job, the template, and data.

The basic steps for most print jobs are:

1. Import data.
2. Perform print setup.
3. Create a template.
4. Create a print job.
5. Print the job.

4. Understanding the Software Interface

To open the application, simply double click the MCS Eagle icon on your desktop.

» Please note: You may need to open the application as an administrator. *Right-click* the icon and select "*Run as administrator*."

The MCS Icon will appear on the screen and the main window will open.

4.1 The Main Window

The main window consists of eight main sections. Each section is described below.

1. Display Window
2. Toolbar
3. Menu Bar
4. Title Bar
5. Status Bar
6. Tab Selection
7. Order Ink
8. Technical Support

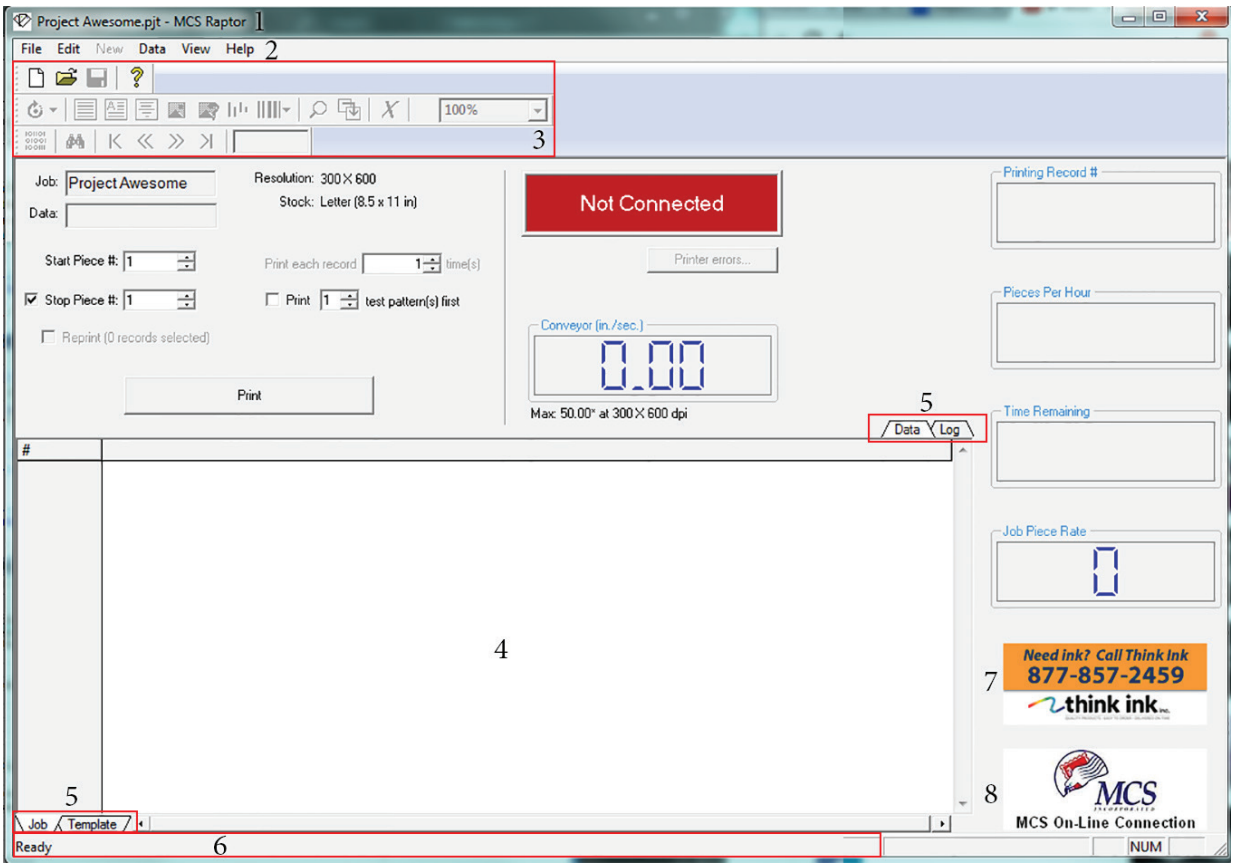

Image 4.1: Main Window Display

4.1.1 Title Bar

The title bar simply displays the name of the program and project. Like other Windows programs you can use the buttons on the upper left to close, hide, and resize the window.

4.1.2 Toolbar

The toolbar looks like the toolbar from many other programs. It consists of "*File*," "*Edit*," "*New*," "*Data*," "*View*," and "*Help*."

4.1.3 Menu Bar

The menu bar consists of a "*Job Tab*", a "*Template Tab*" and a "*Data Tab*" shown in the screenshoot (*refer to page Image 4.1*).

4.1.4 Display Area

This display area (*refer to item 4 in Image 4.1*) will display the data if on the "*Data*" tab and the template if on the "*Template*" tab.

4.1.5 Tab Selection Area

The "*Job*" and "*Template*" tabs are located on the bottom and left of the display window. The job tab has "*Log*" and "*Data*" tabs located above and to the right of the display window. These tabs allow you to change the data of the specific job (*refer to item 5 in Image 4.1*).

» Please note: If "*Template*" tab is selected, you will not see the "*Data*" tab.

4.1.6 Status Bar

The staus bar is located at the bottom of the window and lets you know if the system is ready to print. Please *refer to item 6 in Image 4.1* to see where the status bar is located.

4.2 Other Helpful Windows

4.2.1 Data Entry Font

This window is found under **View>Data Entry Font** and will allow you to adjust the font type style and size (*refer to Image 4.2.1 below*).

4.2.2 Customize Menu Bar

The customize menu bar is located under the "*View*" menu. Go to **View>Customize Menu**. This option allows you to customize which options you might like to add or remove from your menu bar.

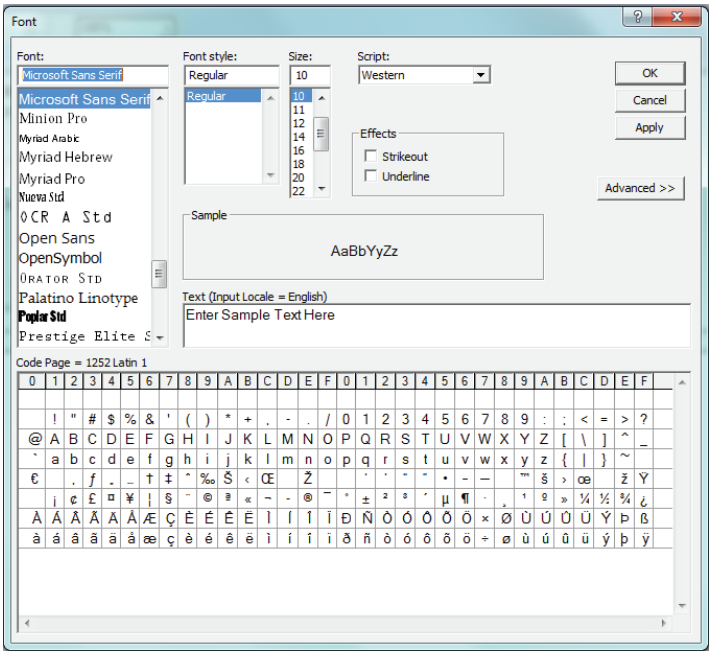

Image 4.2.1 Font Options Window

4.2.3 Options

The options menu is available under the "*View*" menu. Go to **View>Options.** This window allows you to specify some general preferences like if you would like the data to scroll as the system prints.

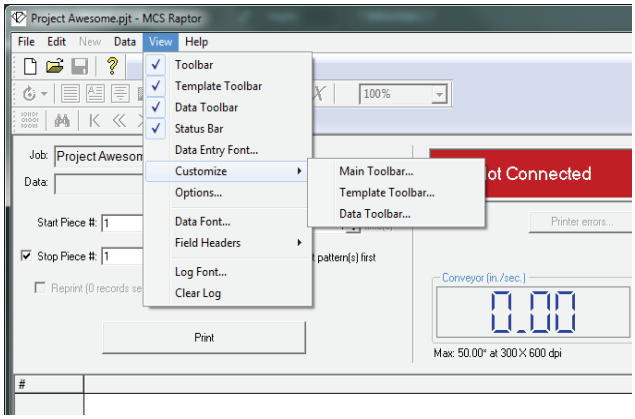

Image 4.2.2a: Customize Menus

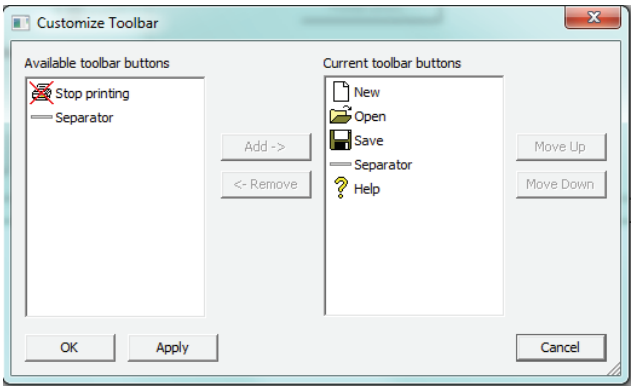

Image 4.2.2b: Customize Toolbar Window

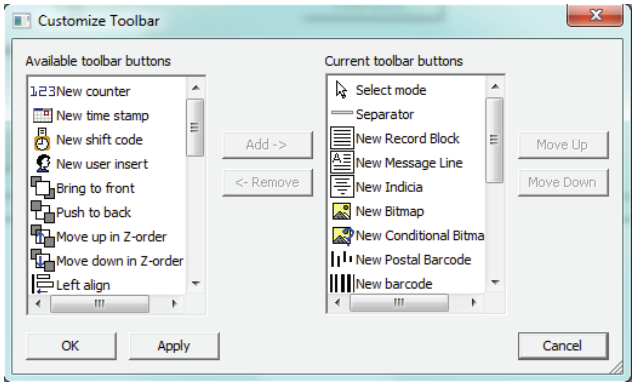

Image 4.2.2c: Customize Template Toolbar Window

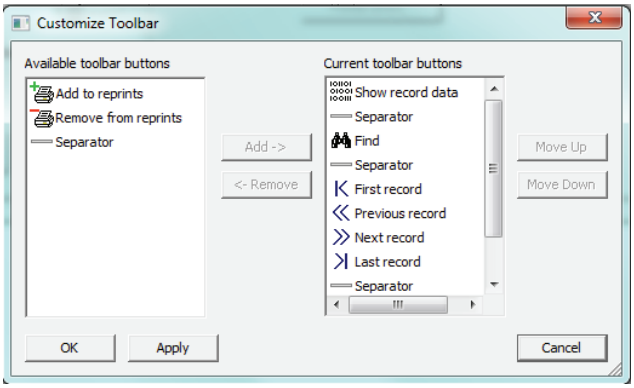

Image 4.2.2d: Customize Data Toolbar Window

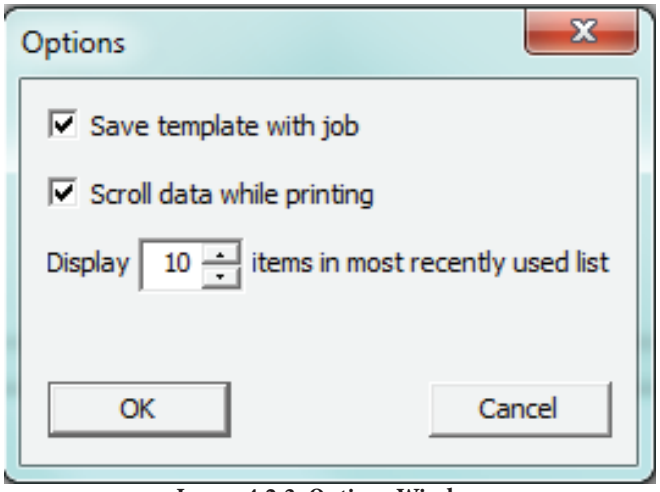

Image 4.2.3: Options Window

5. Importing Data

To load your data set, you will need to first set the data file options. Then you can import the file.

5.1 Data File Options

Data file options allow you to specify how data should be imported. It also allows you to specify the file type. Supported file types are listed in the table below.

To enter data file options, go to **File**>**Data File Options**. The following window (*refer to Image 5.1*) will appear.

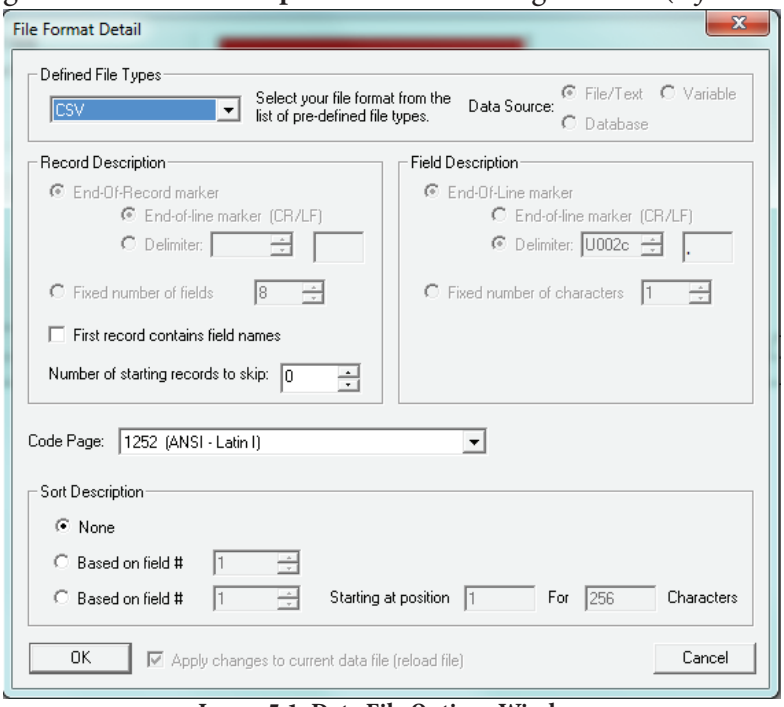

Image 5.1: Data File Options Window

Select the desired file format presets from the "*Defined File Types*." The supported file types and their descriptions are *below*.

File Type	Description
Custom	Allows you to specify custom file format definitions for fields and records
1 Up Format	"*Postal Barcode*" and "*Code Page*" fields are available.
Text I	"*Postal Barcode*" and "*Code Page*" fields are available. You can also enter a fixed number of fields in the record description.
Text II	"*Postal Barcode*" and "*Code Page*" fields are available.
CSV	CSV stands for Comma Separated Value. This format is typically exported from spreadsheet programs like Microsoft Excel. You can enter the number of fields in the "*Record Description*" section.
SCITEX	SCITEX is a proprietary file format. "*Postal Barcode*" and "*Code Page*" fields are available. You can also enter a fixed number of fields in the "Record Description" section.
Database Files	These files are typically from database software like Microsoft Access. "Postal Barcode" and "*Code Page*" fields are available. You can also enter "*Database Parameters.*"
Variable	Enter variable record and field descriptions. "*Postal Barcode*" and "*Code Page*" fields are available.

5.2 Custom Data Files

Custom data files require the most configuration because the program can make no assumptions about file type.

To enter custom data file options:

1. Open the "*Data File Options*" window by going to **File>Data File Options**.
2. Select "*Custom*" from the "*Defined File Types*" pulldown section.
3. Click the radio button for the data source type (i.e. File/Text, Variable, or Database).
   - » Please note: Only select Variable of Database if you know the file is of those types.
   - » For Database files, enter the Database Parameters selection statement only if your database has multiple tables.
4. Enter the Record Description.
   - » For File/Text source type, select the end-of-record marker, end-of-line marker, or end-of-record delimiter. The end-of-line marker can be a carriage return (CR) or line feed (LF). A record delimiter is the hexadecimal value for a specific character, like a comma (, = U002C) or pipe (| = U007C).
   - » For Variable source type, use the "*Add/Modify*" field definition button to add field level definitions. Enter "*field number,*" "*starting*" and "*ending*" positions, and "*field length*" for each field.
5. Enter the Postal Barcode Description.
   - » Please note: Postal barcodes are 12 digits long and include the zipcode with four digit extension, deliver point, and a check digit.
   - » If you select "*None*," then the software will not look for this value.
   - » If you choose "*Select From Data*," then the software looks at all fields for this data. You may also specify a field number along with a specific amount of characters to look at.
6. Select the Code Page from the pulldown.
   - » These options select the standard used to display text.
   - » Note: ANSI-Latin is most often used for the American alphabet.
7. Click "*OK*" to save your settings.

5.3 Opening Data Files

Data files cannot be created in MCS Eagle Software and must be made in other software. The data file settings need to be updated if you have not already done so (see *Custom Data Files section 5.2*). Data files must then be opened and reviewed before they can be attached to jobs.

To open the file:

1. Make sure "*Tab*" is selected in the tab selection area.
2. Go to **File>Open** Data Files or click the open file icon on the menu bar.
3. Navigate to the file's location and click open.
4. The file will be displayed in the display area under the "*Data*" tab.

5.4 Viewing Records

Navigating through large groups of data is made easy with data menu options. Use the navigation icons on the toolbar to go to the "*First Record*," "*Previous Record*," "*Next Record*," "*Last Record*," "*Go to Record...*," and "*Find...*" The find function is described in more detail in the *Finding Records section 5.5* (See *image 5.5 on page 9*).

5.5 Finding Records

To find a record:

1. Under the "*Job*" tab and "*Data*," you can find the "*Find...*" icon.
2. Select "*Find...*" from the Data menu.

3. Enter the desired criteria.
4. Enter a value to find (such as a name, number, etc.).
5. Select current location or whole file.
6. Click "*Find*."
   » You can navigate through multiple occurrences with the "*Find next*" button.
7. If you use the find feature while printing, you can click the "*Add to Reprints*" button to reprint the highlighted data (for more information see *Reprints section 8.4*).

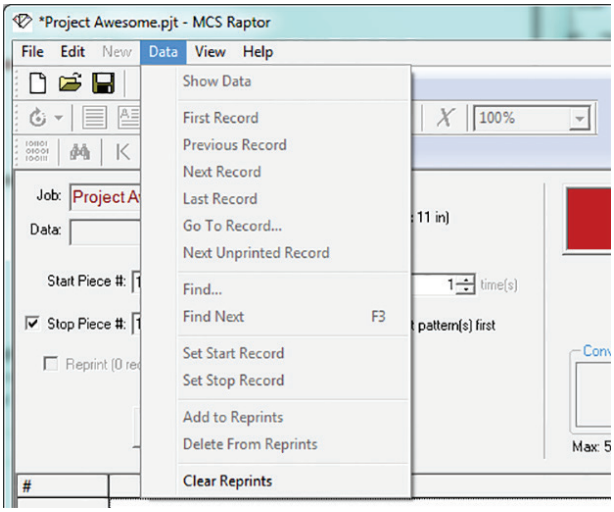

Image 5.5: Data Menu for Finding Records and Reprints

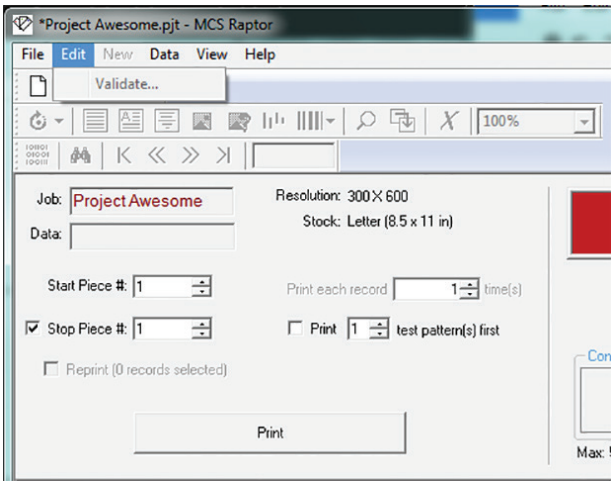

Image 5.6: Edit Menu for Postal Barcode Validation

5.6 Validating Postal Barcodes

If the data file contains barcodes and you have placed barcodes in the template, you can check to see if those barcodes are valid. If the barcode does not validate, the error will be listed in the "*Log*" tab under "*Job*" in the Tab selection area.

To validate postal barcodes:

1. Make sure the data file contains postal barcodes.
2. Specify the field containing the barcode in the "*Data File Options*" window.
3. Select the "*Job*" tab and then "*data*" in the Tab selection area.
4. Go to **Edit**>**Validate**.

Please *refer to image 5.6 above.*

5.7 Setting Start and Stop Records

You can choose where to start and stop a print job within your data file.

To choose where to start and stop printing:

1. Make sure you are under the "*Job*" and "*Data*" tabs to view your data.
2. Select the desired row you want to start at by clicking on it.
3. Right-click the row and select "*Set start Record.*"
4. Select the desired row you want to stop printing at by clicking on the row.
5. Right-click the row and select "*Set stop Record.*"

[image 9: Right-click Options and Image 9b: Data Options Menu]

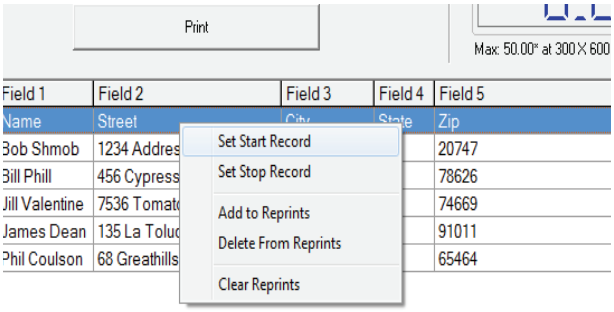

Image 5.7a: Right-click Options

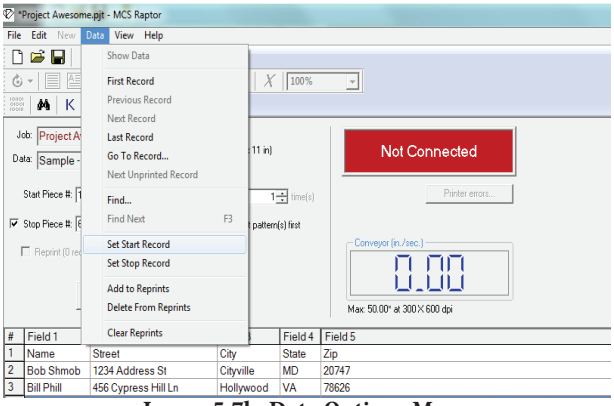

Image 5.7b: Data Options Menu

5.8 Changing the Data Font

You can change the font style, size, etc. easily. The font change is reflected in your data table.

» Note: Only Open Type fonts with Truetype outlines are recognized by the MCS Eagle software. Please keep this in mind when you install your own fonts.

To change the data font:

1. Go to **View>Data Font**
   » The font window will open (*refer to Image 5.8*).

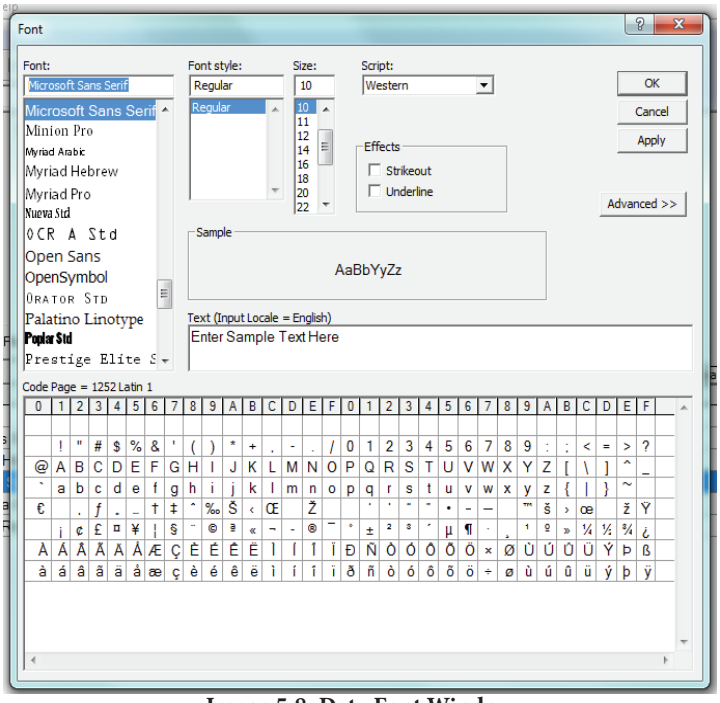

Image 5.8: Data Font Window

2. Select the desired font type, size, weight, etc.
   » A sample of the font will be displayed in the sample box.
3. Click "*OK*."

6. Using Templates

The template contains all of the layout information for your piece. Templates are useful in that they allow you to arrange the data from similar files.

You can create a new template, open an existing template, and save a template. Template file names are displayed in the job window, but cannot be edited there.

6.1 Open Existing Templates

If you want to print from a pre-existing template or make modifications to a pre-existing template, you will first need to open the template.

To open a template:

1. Click the "*Template*" tab in the tab selection window.
2. Go to **File**>**Open** template.
   - » The file location should have been stored previously and will open from the previously saved location unless the file has been moved or renamed.
   - » Templates have a .ptl extension.
3. Locate your template and click on it.
4. Click "*Open.*"
   - » The template will open in the display area. The template name, data file, and template file will be listed here.

6.2 Creating New Templates

A new template provides a blank sheet for you to lay out direct mail items.

Make sure that the clocks, time stamps, shift definitions, and user inserts are set before you enter items in templates. See print setup.

To create a new template:

1. Click the "*Template*" tab in the tab selection bar.
2. Go to **File**>**New Template.**
   - » If an existing template is open, you will be prompted to save that template or not before the new template is opened.
   - » The new template's title will be "*Untitled*" until you save the template.
3. Import data (*refer to section 5*) and print settings (*refer to section 7*).
4. Save the template by going to **File**>**Save template**.
5. Enter in the template name and click "*Save.*"

6.3 Saving Templates

You can save a template at any point by going to **File**>**Save** template and clicking "*Save.*"

You can also use the "*Save As*" option to save the template under a new name.

6.4 Understanding the Template Display Area

When setting up a print job, it is important to see how the print will look before you start printing. The template display area displays the print area of the number of printheads activated. Please note that each printhead is 4.25" wide.

6

The white area on the screen (in *screenshots of Image 6.4a and Image 6.4b*) is the printable area of the printhead. This process will provide the framework for laying out data.

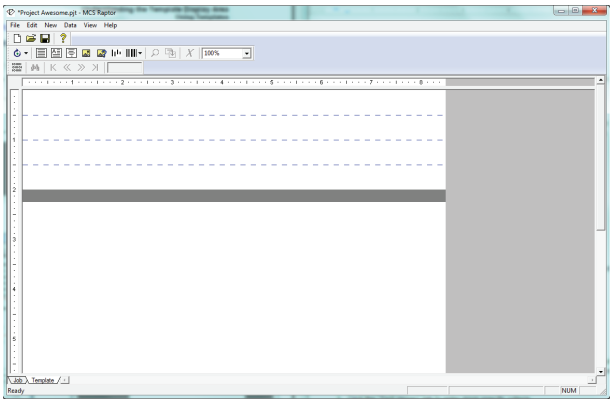

Image 6.4a: Template Window in Portrait

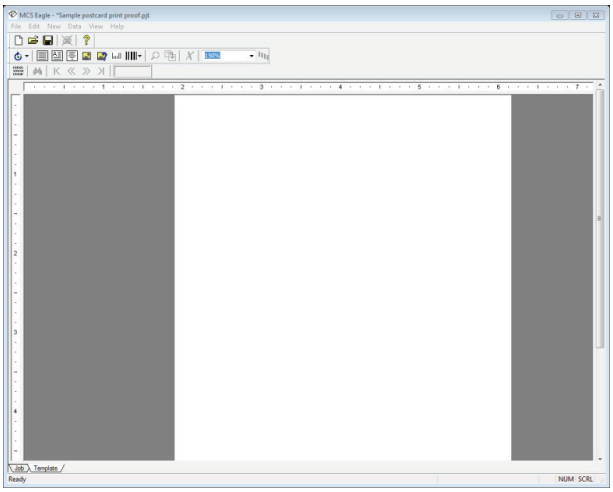

Image 6.4b: Template Window in Landscape

The settings for this are located in Print Setup under **File>Print Setup** (*refer to section 7*).

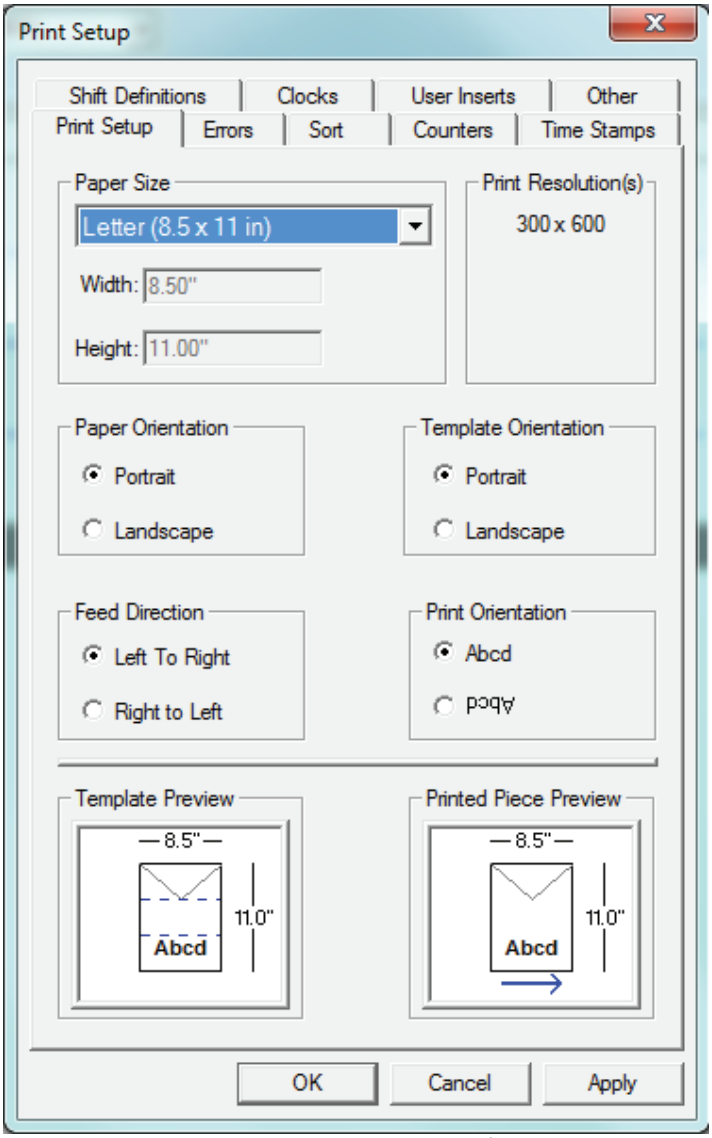

Image 6.4c: Print Setup Window

6.5 Placing New Items

You can place a variety of items in your template. For the best results, data should be imported before placing blocks.

6.5.1 Record Blocks

Record blocks are groups of text generated from your data. Each field of data is treated as a separate line in the block. Field numbers are shown when the record block is placed.

If you wish to see the actual data, click the "*Show Record Data*" icon in the menu bar.

To place a record block:

1. Select the "*Template tab*" on the Tab selection bar.
2. Go to **New>New record Block**.
   - » The default tab is the "*Text*" tab (*refer to image 6.5.1a*).
   - » Here you can add or delete fields, add counters, timestamps, shifts, and user inserts by scrolling to the bottom of the field lists, apply text effects such as bold, italic, strikethrough, size, font, and word wrap, add or remove line spacing, and adjust font width.

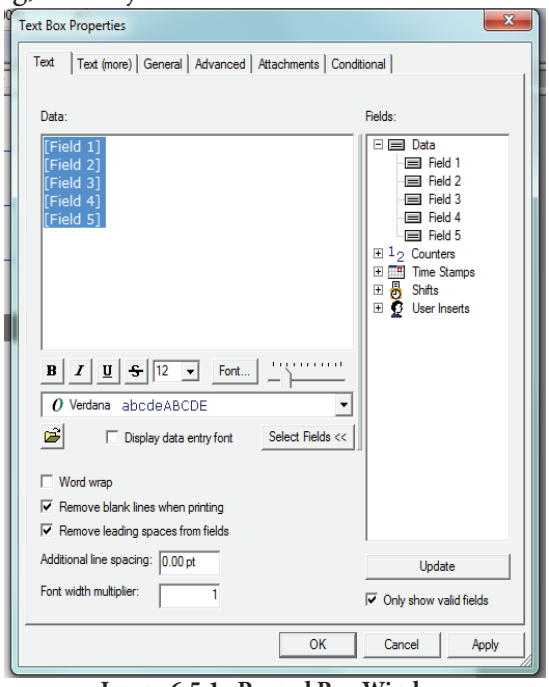

Image 6.5.1a Record Box Window

3. Click the "*Text (more)*" tab to enter more specific criteria.
   - » *Refer to Image 6.5.1b.*
   - » In this tab, you can tell the software when to add new lines, adjust upper case, remove characters between fields, and extend height fonts.
4. Click the "*General*" tab to enter more specific criteria.
   - » *Refer to Image 6.5.1c.*
   - » Under this tab, you can adjust the placement for printing.
5. Enter position and size values, decide if you want to allow resizing, keep data natural size, or force square.
   - » Most resizing keeps the image constrained to its original proportions.
   - » Forced square will force the image to fit in a perfect square.
6. Click the "*Advance*" tab to enter more specific criteria.
   - » This tab allows you to adjust borders, margins, alignment, and anchor positions. There is also an option for making text transparent.

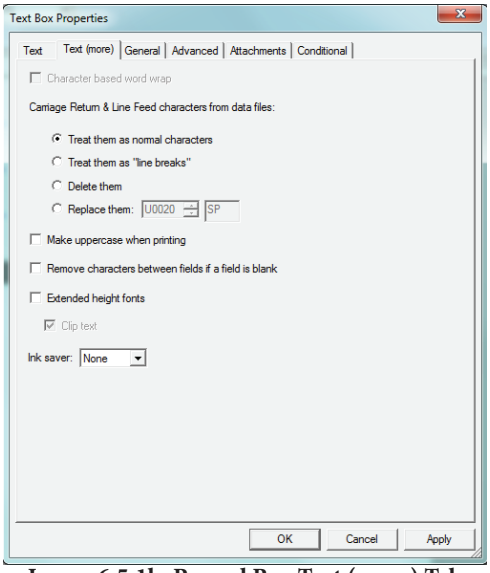

Image 6.5.1b: Record Box Text (more) Tab

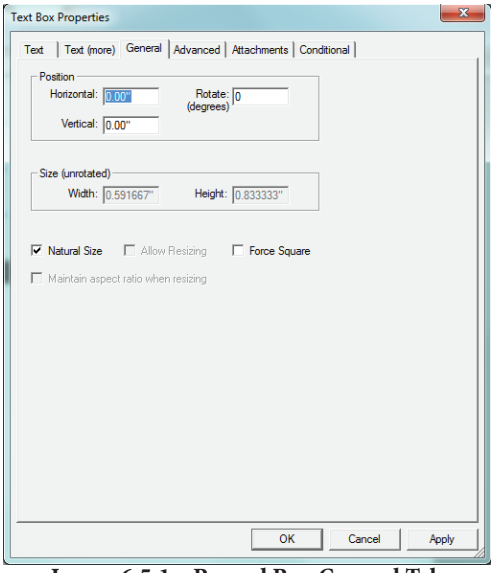

Image 6.5.1c: Record Box General Tab

7. Click "*OK*" to save.
   - » Move the item to where you want to place it on the template.
   - » Refer to Editing Options (*section 6.6*) for more information on editing placement.

6.5.2 Message Lines

Message lines are typically used for fixed text and can be created in a similar manner as "*record blocks.*"

To use message lines:

1. Go to **New**>[*Message Line*].
2. Highlight "*Fixed Text*" in the Data box and write out your personalized message.
   - » This window is almost identical to that of the "*record blocks*" window.
   - » Here you can also choose to add a word wrap and remove unnecessary spacing.
   - » *Refer to Image 6.5.2 on the next page.*

6.5.3 Conditional Message Lines

Conditional message lines are just like message lines, but you can better choose when that specific message should be printed. Individual messages can be printed based on the conditions you set.

- » Please note: The key to proper conditional message line operation is to have identical location placement for both the trigger and the location of the individual message.

To create conditional messages:

1. Open the Message lines text box by going to **New>Message Line**.
2. Enter the desired text for the message.
3. Click the "*General*" tab.
4. Enter the position of the text.
   - » This will ensure you have consistent placement of message text.
5. Select the "*Conditional Box.*"
   - » This section operates much like a programming language. It will ask if a certain field is or is not equal to a specified value. It will create your trigger.
   - » *Refer to Image 6.5.3 on next page.*
6. Enter the source for the condition in the drop down menu.
7. Select the condition either "*equal*" or "*not equal.*"

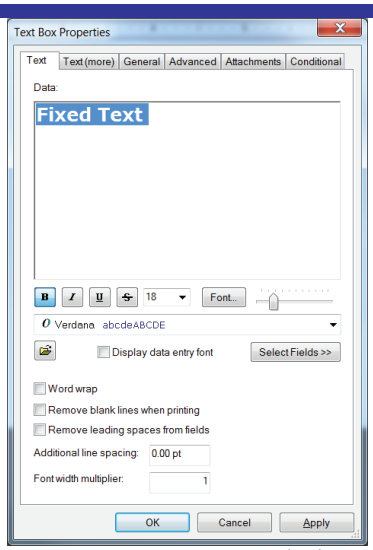

Image 6.5.2: Message Block

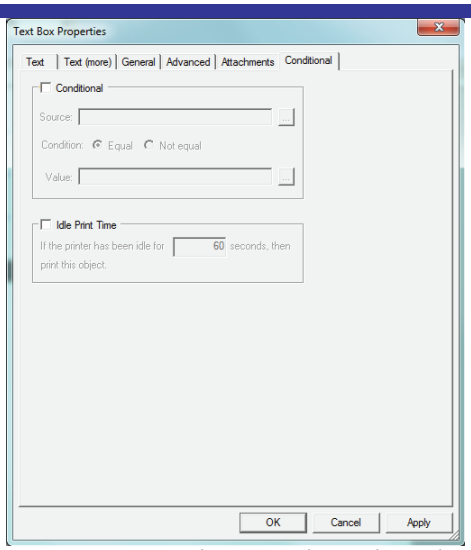

Image 6.5.3: Record Box Conditional Window

8. Enter the trigger (the value the field must or must not be equal to).
   - » For example, if you wish to send a message of "Friend" to a person named "Joe," you would enter the "first name" list as the source and "Joe" as the value with the condition of "equal". Then on each instance of "Joe" the message will print.
9. Click "*OK*" to save and close the window.

6.5.4 Indicia

The Indicia feature allows you to print your postage. The input settings for Indicia is similar to the input settings of "*Record blocks.*"

To use indicia:

1. Go to **New>Indicia**.
2. Select the "*Advanced*" tab.
3. Check the "*Transparent*" checkbox.
4. Select the "*Data*" tab.
5. Highlight the text in the "*Data*" field and replace it with your desired text.
   - » You can add record fields to this text to personalize the message.

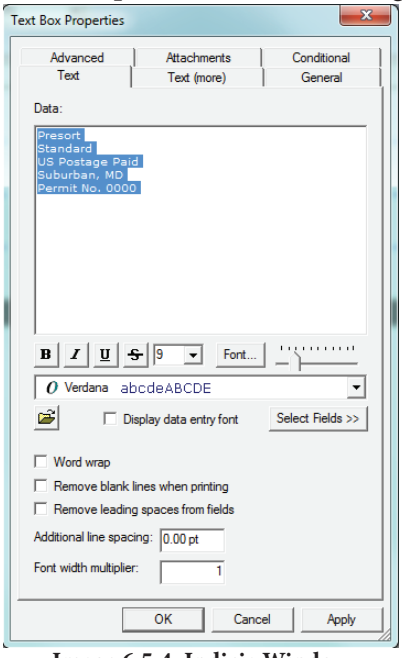

Image 6.5.4: Indicia Window

6.5.5 Bitmaps

Bitmaps (*BMP*) are graphics files. Imported bitmaps can be both conditional or unconditional and can be placed or resized (*refer to Editing Options in section 6.6*).

» Please note: The MCS Eagle software will only import monochrome (single color) bitmaps. The BMP files must be converted to monochrome before being imported.

Importing Unconditional Bitmaps

1. Under the Template tab, go to **New>Bitmap**.
2. A dialog box will open.
3. Navigate to where the BMP file is located.
4. Click "*Open*" once you have selected the BMP file.
   » The Program will ask for the Bitmap resolution (*refer to Image 6.5.5a below*).
   » A "*Bitmap Properties*" window will appear. Changes can be made by entering information in the tabs of this window (*refer to Image 6.5.5b below*).

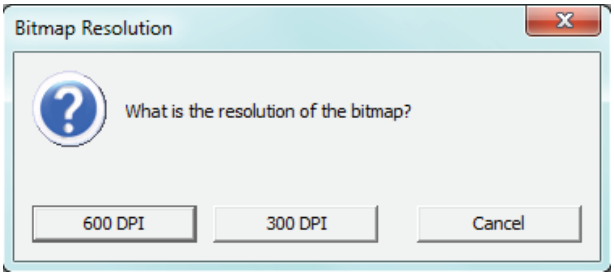

Image 6.5.5a: Bitmap Resoultion Window

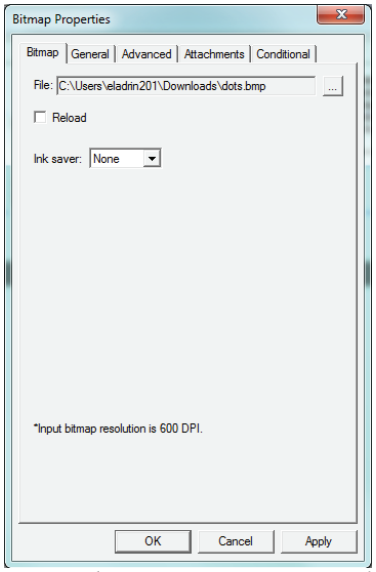

Image 6.5.5b: Bitmap Properties Window

5. Click the "*General*" tab and enter the desired position and size information (*refer to Image 6.5.5c below*).
6. Click the "*Advanced*" tab and enter the desired border and alignment information.
   » This step is also where you can designate the BMP as transparent (*refer to Image 6.5.5d below*).

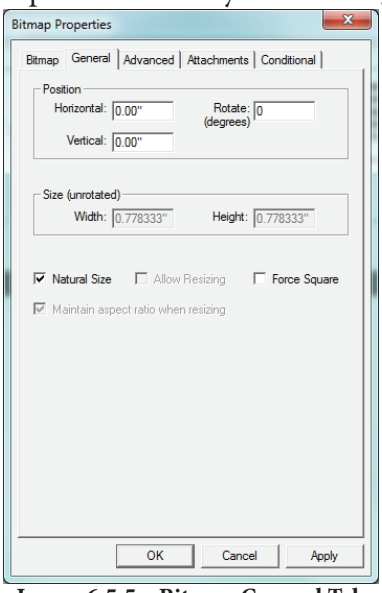

Image 6.5.5c: Bitmap General Tab

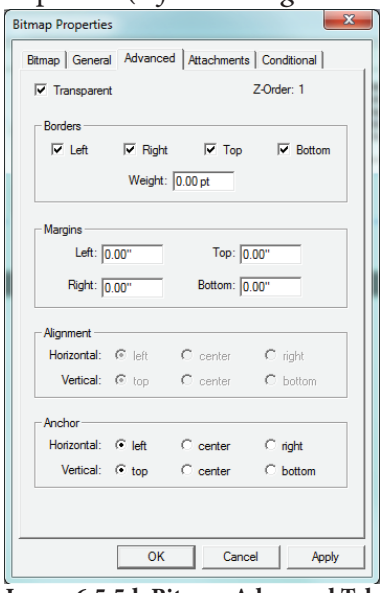

Image 6.5.5d: Bitmap Advanced Tab

7. Click the "*Attachments*" tab if you wish to modify the attachment options (*refer to Image 6.5.5e below*).
8. Click "*OK*".

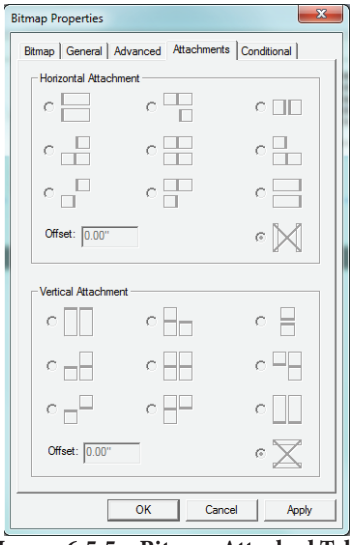

Image 6.5.5e: Bitmap Attached Tab

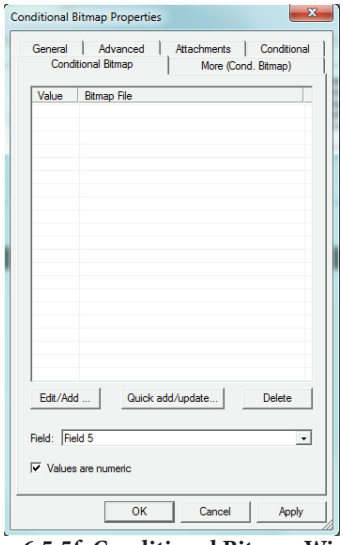

Image 6.5.5f: Conditional Bitmap Window

Importing Conditional Bitmaps

Much like conditional message lines, you can upload bitmaps to print only under certain circumstances.

- » Please note: The data file must have a field containing conditional bitmap values to use this feature.
- » Please note: If you have a large amount conditions (e.g. 1000 or more), it is recommended that you have additional RAM (about 1GB extra).

To import a conditional bitmap:

1. Under the "*Template*" tab, go to **New>Conditional Bitmap**.
   - » The Program will ask for the Bitmap resolution (*refer to Image 6.5.5a*).
   - » The conditional Bitmap Properties dialog box will appear (*refer to Image 6.5.5f*).
2. Click "*Edit/Add*" or "*Quick Add/Update*".
   - » "*Edit/Add*" should be used when you have bitmaps with alphanumeric names or numeric names that are not in ascending numerical sequence.
   - » A new window will appear to allow you to enter each bitmap individually (*refer to Image 6.5.5g*).

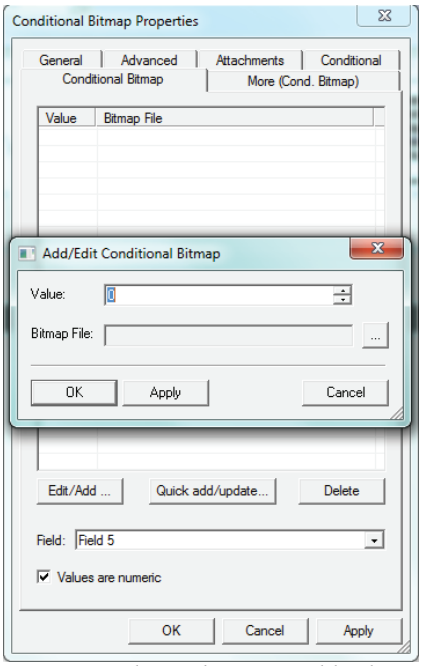

Image 6.5.5g: Conditional Bitmap Add/Edit Window

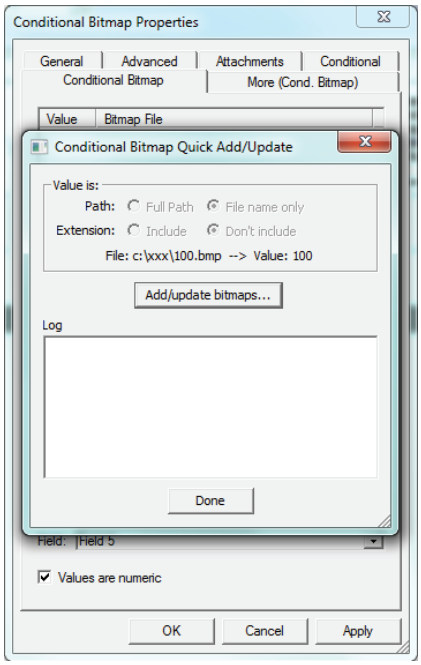

Image 6.5.5h: Conditional Bitmap Quick Add Window

3. Enter the bitmap numeric value or browse to select the filename.
   - » "*Add/Update*" is used when all bitmap files have a numerical value in ascending order (i.e. if you have a number for each state).
   - » A new window will appear (*refer to Image 6.5.5h on the last page*).
4. Click "*Add/Update*" and navigate to select all the numbered files.
5. Click "*Open*."
   - » The values that appear will be shortcuts specified for the path to the files.
6. Click "*OK*" or "*Done*" to close the window.
7. Click "*Conditional Bitmap*" tab.
   - » Please *refer to Image 6.5.5i below.*
   - » Check the "*Conditional*" box if values are numerical and select the field in the data file that contains the bitmap number.
8. Click the "*General*" tab to enter more specific criteria.
   - » Under this tab you can adjust the placement for printing (*refer to Image 6.5.5j below*).
9. Enter position and size values, decide if you want to allow resizing, keep data natural size, or force square.
   - » Most resizing keeps the image constrained to its original proportions.
   - » Forced square will force the image to fit in a perfect square.
10. Click the "*Advance*" tab to enter more specific criteria.
    - » This tab allows you to adjust borders, margins, alignment, and anchor positions. There is also an option for making text transparent.

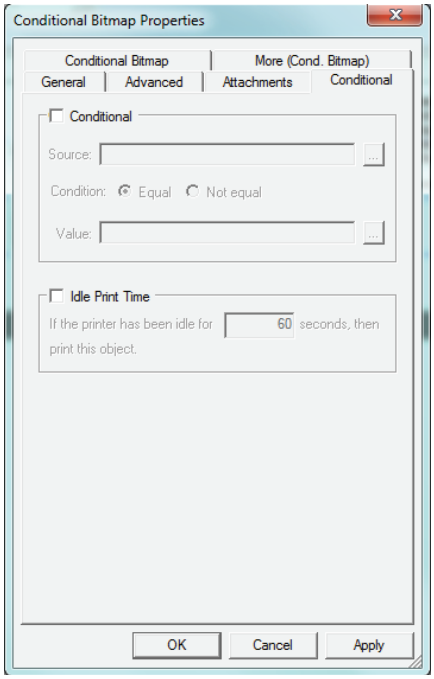

Image 6.5.5.i: Conditonal Bitmap Conditional Tab

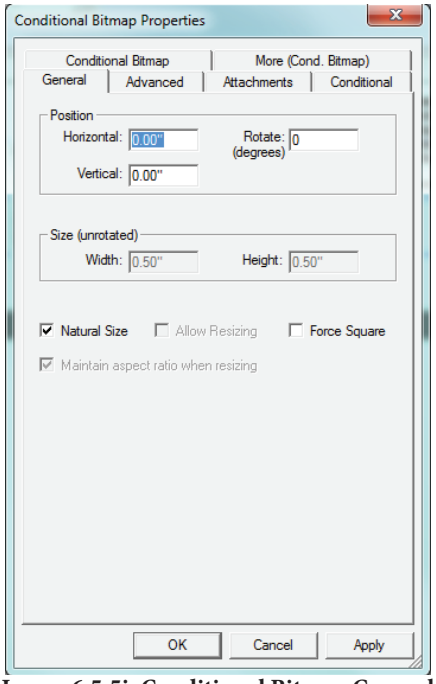

Image 6.5.5j: Conditional Bitmap General Tab

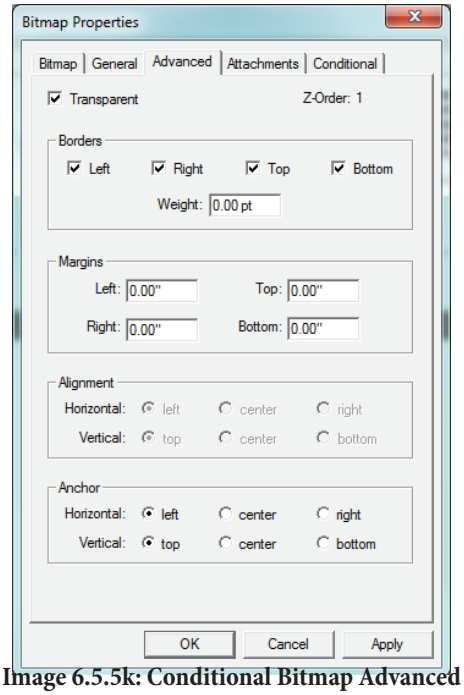

Image 6.5.5k: Conditional Bitmap Advanced Tab

11. Click "*OK*" to save.
12. Edit the size and position of the bitmap.
    - » Move the bitmap by dragging and dropping it.
    - » Resize the bitmap by moving your cursor over a corner of the object, clicking and dragging.
    - » Delete bitmap by right clicking bitmap and selecting "*Delete*" or select the item and hit the "*Delete*" button on your keyboard.
    - » Refer to Editing Options (*section 6.6*).

6.5.6 Barcodes

Postal or standard barcodes may be placed in your template. Barcodes can be conditional and unconditional. Please note: All barcodes are limited to 90 degree rotations.

Postal Barcodes/Intelligent Mail Barcodes

The MCS Eagle software has tools built-in for creating USPS barcodes.

To add a postal barcode:

1. Under the "*template*" tab go to **New>Postal Barcode** or **New>Barcode>Intelligent Mail**.
   - » The barcode window will appear (*refer to Image 6.5.6a below*).
2. Load field data or counter by clicking the "..." box in the "*Data*" box.
3. Click the "*General*" tab to enter more specific criteria.
   - » Under this tab you can adjust the placement for printing.
   - » Enter position and size values, decide if you want to allow resizing, keep data natural size, or force square.
   - » Most resizing keeps the image constrained to its original proportions.
   - » Forced square will force the image to fit into a perfect square.
4. Click the "*Advance*" tab to enter more specific criteria.
   - » This tab allows you to adjust borders, margins, alignment, and anchor positions. There is also an option for making text transparent.
5. Click the "*Attachments*" tab to enter more specific criteria.
   - » This tab includes options for the layout of the barcode.
   - » Please note: This will only be available if you have data from a specific field.
6. If you want to make the barcode conditional, click the "*Conditional*" tab.
   - » Check the "*Conditional*" box and enter the source of the trigger, choose "*Equal*" or "*Not Equal*" and then enter a value for the trigger.
7. Click "*OK*" to save and close the window or click "*Apply*" to just save your settings, but keep the window open.
   - » Move the barcode around by simply dragging it to where you want to place it.
   - » Delete the barcode by selecting it and hitting the "*Delete*" key or *right-click* and select "*Delete.*"

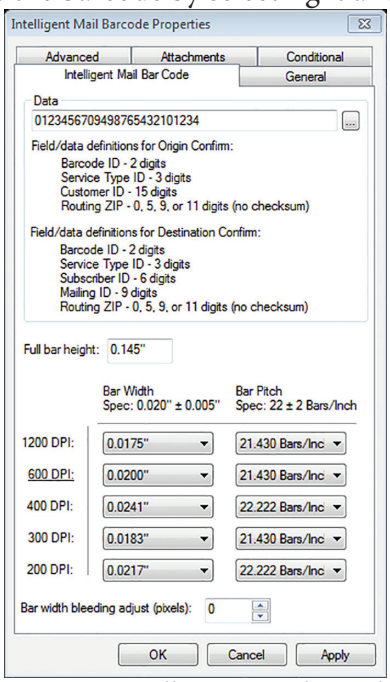

Image 6.5.6a: Intelligent Barcode Window

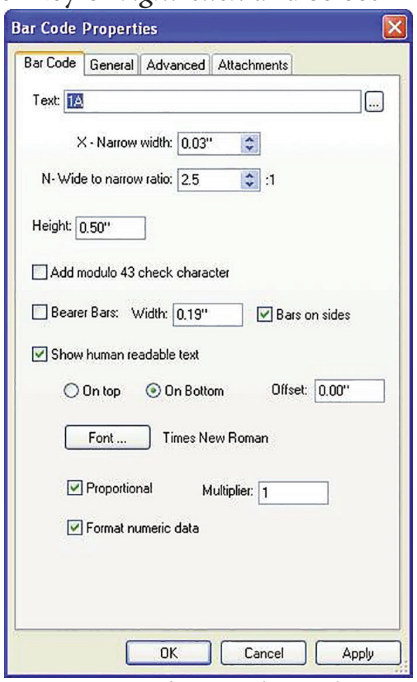

Image 6.5.6b: Barcode Window

Other Barcodes

There are a variety of other barcodes you can add to your template.

To add a standard barcode:

1. Under the "*template*" tab go to **New>Barcode>** [**desired barcode type**].
   - » The barcode window will appear (*refer to Image 6.5.6b on previous page*).
2. Load field data or counter by clicking the "..." box in the "*Data*" box.
3. Click the "*General*" tab to enter more specific criteria.
   - » Under this tab you can adjust the placement for printing.
   - » Enter position and size values. Decide if you want to allow resizing, keep data the natural size, or force square.
   - » Most resizing keeps the image constrained to its original proportions.
   - » Forced square will force the image to fit in a perfect square.
4. Click the "*Advance*" tab to enter more specific criteria.
   - » This tab allows you to adjust borders, margins, alignment, and anchor positions. There is also an option for making text transparent.
5. Click the "*Attachments*" tab to enter more specific criteria.
   - » This tab includes options for the layout of the barcode.
   - » This option will only be available if you have data from a specific field.
6. If you want to make the barcode conditional, click the "*Conditional*" tab.
   - » Check the "*Conditional*" box and enter the source of the trigger, choose "*equal*" or "*Not equal*" and then enter a value for the trigger.
7. Click "*OK*" to save and close the window or click "*Apply*" to just save your settings, but keep the window open.
   - » Move the barcode around by simply dragging it to where you want to place it.
   - » Delete the barcode by selecting it and hitting the "*Delete*" key or *right-click* and select "*Delete.*"

6.5.7 Counters

You can add counters to your template. Please note that a clock and counter need to be created in print setup first (*sections 7.4 and 7.5*).

To add a counter:

1. Under the "*Template*" tab go to **New>Counter**.
   - » A window will open (*refer to Image 6.5.7 on next page*).
2. Choose the desired counter field by double-clicking the desired counter field in the "*Fields*" list.
3. Click the "*General*" tab to enter more specific criteria.
   - » Under this tab, you can adjust the placement for printing.
   - » Enter position and size values, decide if you want to allow resizing, keep data natural size, or force square.
   - » Most resizing keeps the image constrained to its original proportions.
   - » Forced square will force the image to fit into a perfect square.
4. Click the "*Advance*" tab to enter more specific criteria.
   - » This tab allows you to adjust borders, margins, alignment, and anchor positions. There is also an option for making text transparent.
5. Click "*OK*" to save.
   - » Move the counter around by simply dragging it to where you want to place it.
   - » Delete the barcode by selecting it and hitting the "*Delete*" key or *right-click* and select "*Delete.*"

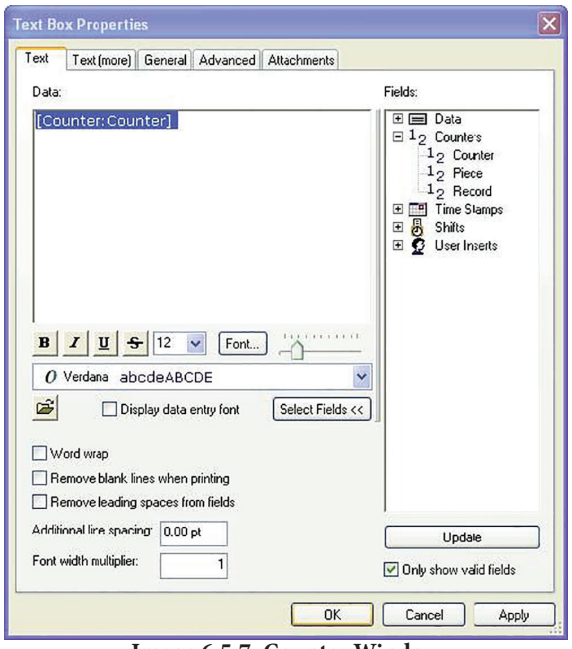

Image 6.5.7: Counter Window

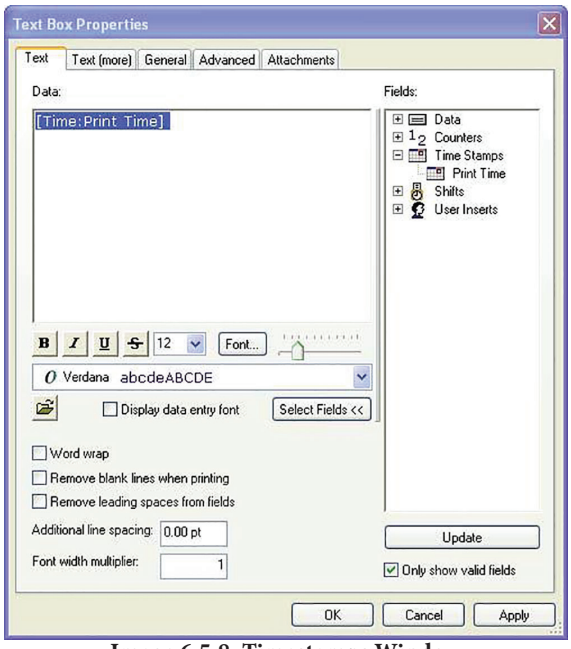

Image 6.5.8: Timestamps Window

6.5.8 Timestamps

Timestamps can also be placed in your template. Please note that a clock and timestamp need to be created in print setup first (*sections 7.4 and 7.6*).

To add a timestamp:

1. Under the "*Template*" tab, go to **New>Time Stamp**.
   - » A window will open (*refer to Image 6.5.8 above*).
2. Choose the desired counter field by double-clicking the desired counter field in the "*Fields*" list.
3. Click the "*General*" tab to enter more specific criteria.
   - » Under this tab, you can adjust the placement for printing.
   - » Enter position and size values, decide if you want to allow resizing, keep data natural size, or force square
   - » Most resizing keeps the image constrained to its original proportions.
   - » Forced square will force the image to fit in a perfect square.
4. Click the "*Advance*" tab to enter more specific criteria.
   - » This tab allows you to adjust borders, margins, alignment, and anchor positions. There is also an option for making text transparent.
5. Click "*OK*" to save.
   - » Move the counter around by simply dragging it to where you want to place it.
   - » Delete the barcode by selecting it and hitting the "*Delete*" key or *right-click* and select "*Delete.*"

6.5.9 Shift Code

Please note that a clock and shift code need to be created in print setup first (refer to sections 7.4 and 7.7).

To add a shift code:

1. Under the "*Template*" tab go to **New>Shift Code**.
   - » A window will open (*refer to Image 6.5.9 on the next page*).
2. Choose the desired counter field by double-clicking the desired counter field in the "Fields" list.
3. Click the "*General*" tab to enter more specific criteria.

» Under this tab, you can adjust the placement for printing.
» Enter position and size values, decide if you want to allow resizing, keep data the natural size, or force square.
» Most resizing keeps the image constrained to its original proportions.
» Forced square will force the image to fit into a perfect square.

4. Click the "*Advance*" tab to enter more specific criteria.
   » This tab allows you to adjust borders, margins, alignment, and anchor positions. There is also an option for making text transparent.
5. Click "*OK*" to save.
   » Move the counter around by simply dragging it to where you want to place it.
   » Delete the barcode by selecting it and hitting the "*Delete*" key or *right-click* and select "*Delete.*"

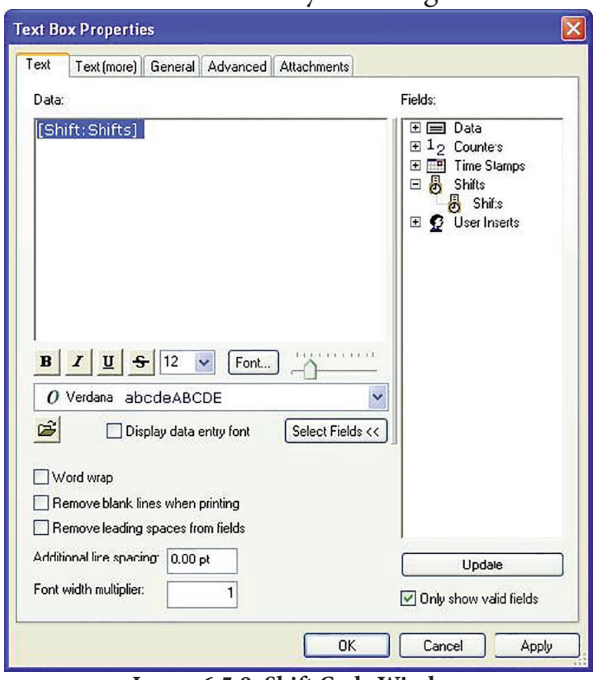

Image 6.5.9: Shift Code Window

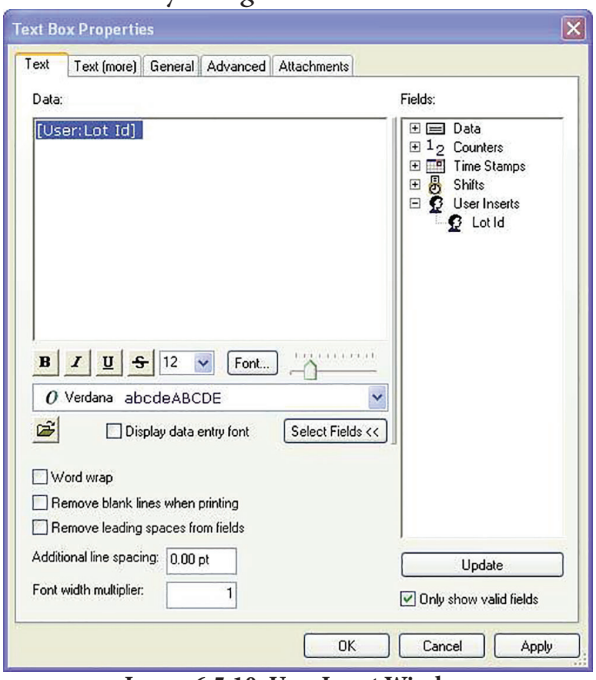

Image 6.5.10: User Input Window

6.5.10 User Input

To add a user input:

1. Under the "*Template*" tab go to **New>User Insert**.
   » A window will open (*refer to Image 6.5.10*).
2. Choose the desired counter field by double-clicking the desired counter field in the "*Fields*" list.
3. Click the "*General*" tab to enter more specific criteria.
   » Under this tab you can adjust the placement for printing.
   » Enter position and size values, decide if you want to allow resizing, keep data the natural size, or force square.
   » Most resizing keeps the image constrained to its original proportions.
   » Forced square will force the image to fit into a perfect square.
4. Click the "*Advance*" tab to enter more specific criteria.
   » This tab allows you to adjust borders, margins, alignment, and anchor positions. There is also an option for making text transparent.
5. Click "*OK*" to save.
   » Move the counter around by simply dragging it to where you want to place it.
   » Delete the barcode by selecting it and hitting the "*Delete*" key or *right-click* and select "*Delete.*"

6.6 Editing Options

Editing items in a template is simple and similar to most layout programs. This section will detail in what ways you can edit items in the MCS Eagle software.

6.6.1 Selecting Objects

You can select a single object by simply clicking on the object. If you want to select multiple objects, you can hold down *Ctrl* while clicking the desired objects. If you want to select all objects, then hit *Ctrl+A* or going to **Edit>Select All**.

6.6.2 Moving or Rotating Objects

Once you have selected an object or objects, you can move or rotate them.

To move a single object, you can simply hover your mouse over the object and click on it. While you are still holding down the mouse button, drag the object to where you want to place it.

To move several objects, you select the objects and then click and drag the objects. Please note that the objects will keep their orientation and distance from each other. They will move as a unit.

To rotate an object, hover the mouse over one of the three corners with a red dot. The mouse icon will change to a circle with arrows. Click and move the mouse clockwise to rotate the object clockwise. Click and move the mouse counterclockwise to rotate the object counterclockwise.

6.6.3 Undoing and Redoing Changes

At any point, if you want to go undo what you have just done, hit *Ctrl+Z* or go to **Edit>Undo**. To redo what you have done, hit *Ctrl+Y* or go to **Edit>Redo**.

6.6.4 Duplicating Objects

You can duplicate objects to make an exact copy. Simply select the object or objects you want a duplicate of and go to **Edit>Duplicate**. Alternatively, you can *right-click* the object and select "*Duplicate*."

You can also select the object or objects and hit *Ctrl+C* to copy and *Ctrl+V* to paste.

6.6.5 Deleting Objects

Deleting an object is simple. Select the object and hit "*Delete*" on your keyboard. You can also *right-click* and select "*Delete*" or go to **Edit>Delete**.

If you deleted an object you did not mean to, undo the delete with **Edit>Undo**.

6.6.6 Object Properties

You can also edit an object's properties easily in the MCS Eagle software. This feature will allow you to edit the object's displayed information, field information, text sizing and weight, word wrap, attachments, conditionality, etc.

You can edit an object's properties by *double-clicking* the object, right-clicking the selected object and selecting "*Properties...*" or selecting the object and go to **Edit>Properties**.

6.6.7 Aligning Objects

You can have the MCS Eagle software align objects for you to make sure they are on the same line or edge.

There are many types of alignment the program can do for you. You can choose to align items on the left, right, top, bottom, horizontal center, vertical center, and side by side.

To align objects:

1. Select the objects you wish to align.
2. Use *Ctrl+Left-Click* to select multiple objects.
3. Go to **Edit**>**Align**>[**desired alignment type**].

Remember, you can undo unwanted changes with *Ctrl+Z* or go to **Edit**>**Undo**.

6.6.8 Move to Print Area

You can move selected objects to different print areas. Print areas are separated by the gray areas. Each print area represents a board or group of boards and are numbered from the top of the template to the bottom.

To move objects to a different print area:

1. Select the desired object or objects.
2. Go to **Edit**>**Move to Print Area** or *right-click* and select "*Move to Print Area.*"
   » A window will pop up (*refer to Image 6.6.8 below*).
3. Select the print area from the drop down menu.
4. Click "*OK.*"

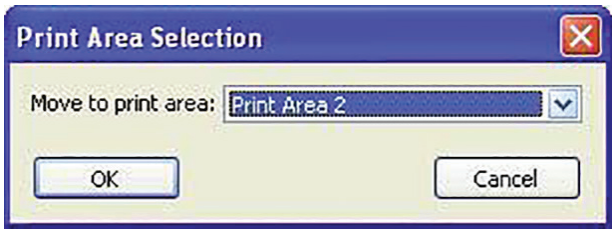

Image 6.6.8: Move to Print Area Window

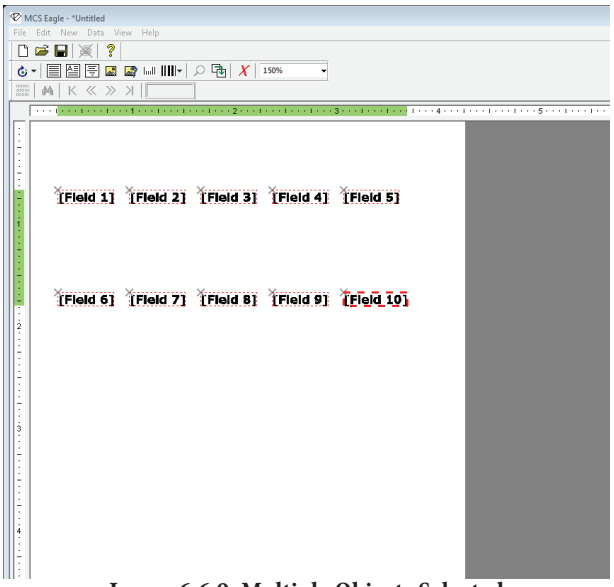

Image 6.6.9: Multiple Objects Selected

6.6.9 Layering Objects

Objects can be laid on top of each other. Please note that this will only work for transparent objects. Please make sure the transparent box is checked under the object's "*Advanced*" tab.

You can create a stack by simply moving objects on top of each other. This action will create a Z-order or a layer of order for objects. Please *refer to Image 6.6.9* for an example of selecting mulitple objects.

You can change the layer of objects by moving objects to the front or to the back. You can also move objects up or down in the stack with "*Move up*" and "*Move down*" commands.

To move an object:

1. Select the object.
2. Make sure you have selected the correct one.
3. Go to **Edit>[Select move option: Bring to Front, Push to Back, Move up, or Move Down]**.

You can also find these features when you *right-click* the object.

6.6.10 Set Background

The MCS Eagle Software allows you to put an image in the background. When you set a background, the original printed piece is placed at the back of the stack of objects and will not be editable or moveable.

» Please note: Background files can only be bitmap, JPG, or GIF images.

To load a background image:

1. Go to **Edit>Set Background**.
2. Navigate to the image you want.
   » BMP, JPG, or GIF only!
3. Click "*Open*."
   » The file will be placed in the background, but it will not be visible yet.
4. Go to **View>Show Background Image** to display the image while you are editing the template.

6.6.11 Scanning Data

While laying out your template, it may be necessary to space items according to your longest or largest entry. The MCS Eagle Software has a tool for this process.

To scan data:

1. Click the desired object for spacing.
2. Go to **Edit>Scan Data**.
   » The longest record will be displayed in the record block.
   » If you do not see the longest record, make sure the "*show record data*" button is selected on the toolbar.

6.7 Viewing Options

A variety of options are available under the "*View*" menu. This manual has already mentioned you can show record data and show background images. Under the view menu, you can also opt to see guidelines, show colors, show zoom level, show anchor points, show Z-order (layerd order of objects), show attachments and dock markers, and show pen colors (spot color editing).

6.8 N Up Option

Objects can be selected for a N Up repeat feature which allows labels to be created quickly. Please note that this feature does not increment counters.

To use the N Up feature:

1. Select the object you want to make a label on.
2. *Right-click* and select "*Make N Up Label*" or go to **Edit>Make N Up Label**.
   » *Refer to Image 6.8* for N up right-click menu.
3. Enter the desired number of labels left to right.
4. Enter the desired number of labels top to bottom.
5. Enter the distance from the anchor left to right.
6. Enter the distance from the anchor right to left.

7. Click "*OK.*"

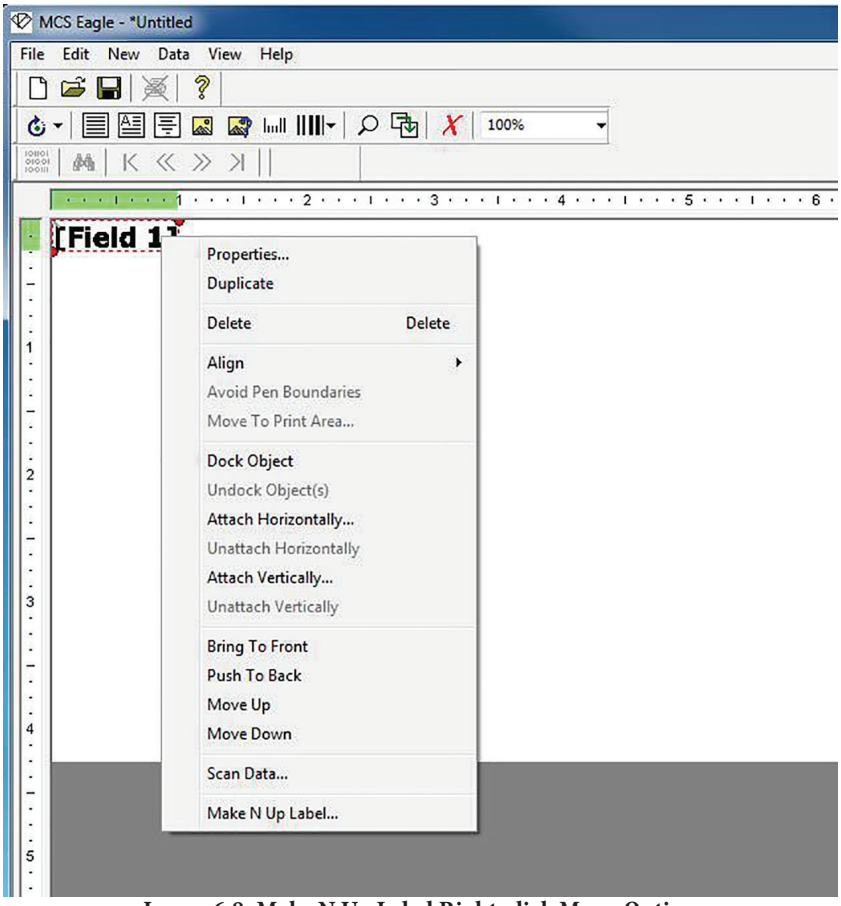

Image 6.8: Make N Up Label Right-click Menu Option

6.9 Print Proof

You can choose to print to a regular office printer to review the template layout. This type of printing will not reflect any job settings, just the layout.

To print a print proof:

1. Go to **Edit>Print Proof**.
   » A window will pop up that will allow you to select specific records or scale the proof.
2. Edit printing options.
3. Click "*Print.*"
4. Select desired printer.
5. Click "*OK.*"

7. Print Setup

Each print job has specific needs of the printer. The print setup window has many tabs of varying settings.

To open the print setup window:

1. Go to **File>Print Setup**.
   - » A window will pop up (*refer to Image 7.1 below*).
   - » Please note: At any point, you can click "*Apply*" to save your settings. Click "*OK*" to save and close the window.

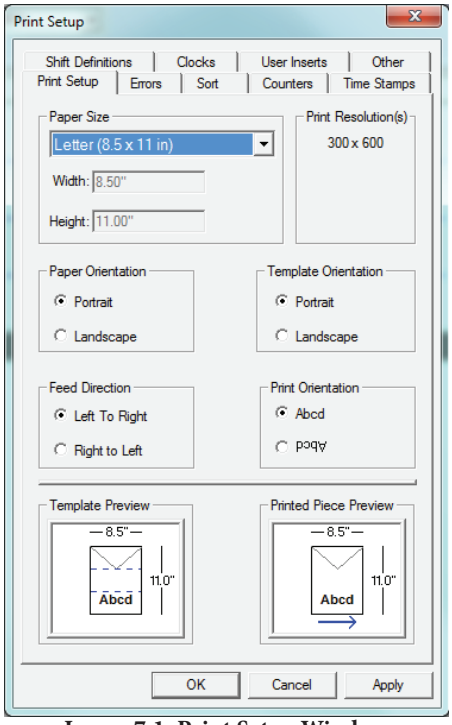

Image 7.1: Print Setup Window

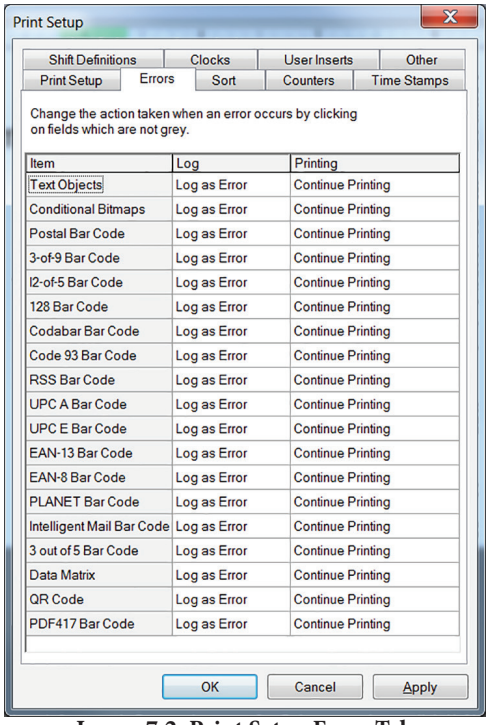

Image 7.2: Print Setup Error Tab

7.1 Print Setup Tab

The "*Print Setup*" tab is where you can input the paper orientation and setup (*refer to Image 7.1 above*).

While you are on this tab you can:

1. Select the paper size and paper orientation.
2. Height information is needed only if you use landscape orientation.
3. Select the print resolution.
   - » 600 x 600 pixels is the highest quality available.
4. Enter the template orientation.
   - » This dimension should be the same as paper orientation.
5. Verify your changes in the "*Template*" and "*Printed Piece Preview*" boxes.

7.2 Errors Tab

This section allows you to decide before printing what you want the job to do if/when it encounters an error. You can choose how errors are reported and logged (*refer to Image 7.2 above*).

While you are on this tab you can:

1. Enter the desired setting for each type of error by clicking each error.
2. You can choose to either stop printing or continue printing.

7.3 Sort Tab

This tab allows you to set settings for a delay, pulse width and piece offset.

7.4 Counters Tab

This tab allows you to create the counters that are applied in the text properties in templates. Once you have created the counter here, you can use them in templates (*refer to section 6.5.7 on counters in templates*).

While you are on this tab you can:

1. Click "*Add*" to add a new counter.
   » A window will pop up (*refer to Image 7.4a and Image 7.4b*).
2. Enter the counter name.
3. Select the Counter type.
4. Enter start value, increment value, minimum value, maximum value, repeat value (if desired), and start repeat value (if desired).
5. Click "*Apply*" to save and continue, click "*OK*" to save and close.

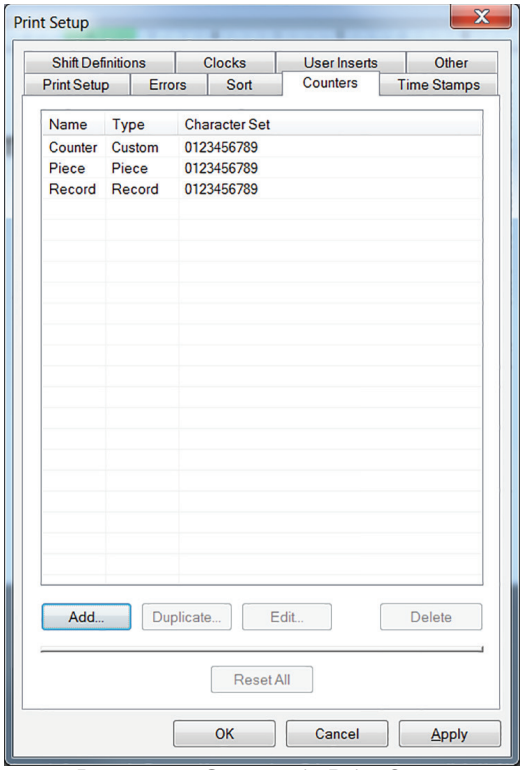

Image 7.4a: Counters in Print Setup

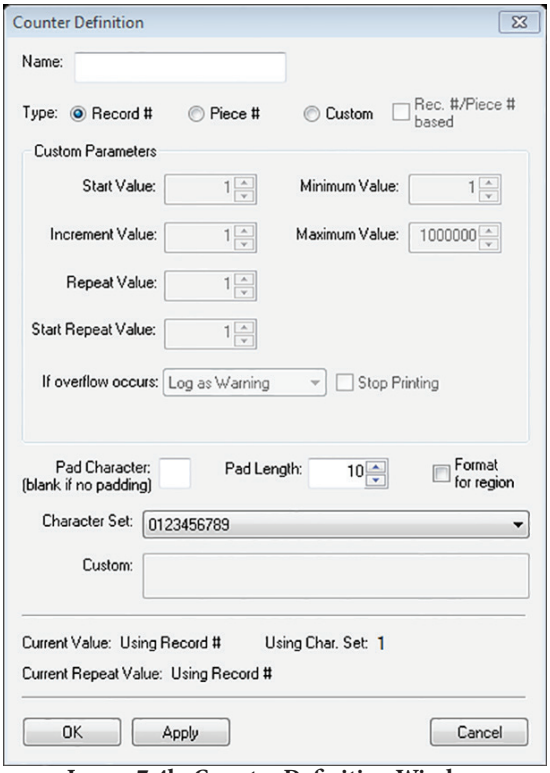

Image 7.4b: Counter Definition Window

7.5 Clocks Tab

The clocks tab allows you to create a clock for the print job. It can be applied to clocks in the template and is necessary for timestamps and shift definitions.

» Please note: A clock must be created before you can create timestamps and shift definitions.

While you are on this tab you can:

1. Click "*Add*" to add a new clock.
   » A window will pop up (*refer to Image 7.5*)
2. Enter the timestamp name and description.
3. Select Type.

» You can print date/time or specify your own.

4. Select Offset.
5. Click "*OK*" to return to the "*Print Setup Window.*"

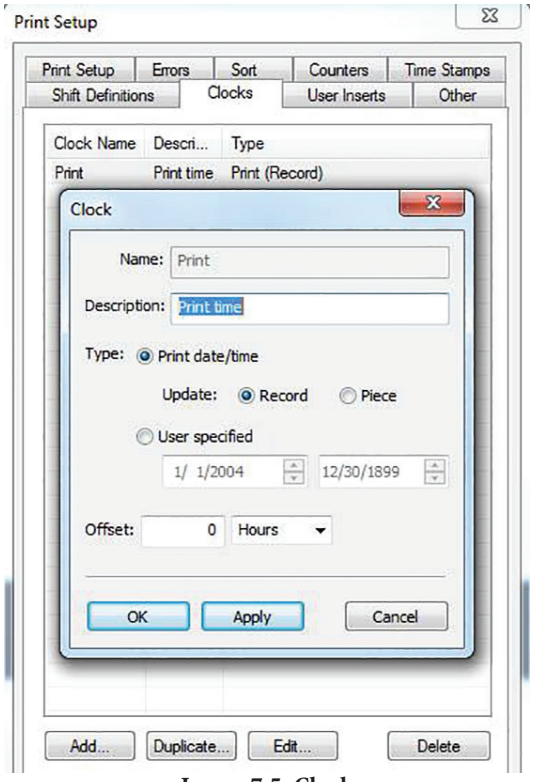

Image 7.5: Clock

7.6 Time Stamps Tab

This tab allows you to create the timestamps that are applied in the text properties in templates. Once you have created the timestamp here, you can use them in templates (*refer to section 6.5.8* on timestamps in templates)

» Please note: Clocks must be created in the "*clocks*" tab (*Section 7.5*) before you can create a timestamp.

While you are on this tab you can:

1. Click "*Add*" to add a new timestamp.
   » A window will pop up (*please refer to Image 7.6a and Image 7.6b*).
2. Enter the timestamp name and description.
3. Select the clock.
4. Select the type of timestamp to enter and click "*Insert.*"
   » The definition field will be populated, but you may change the definition if you desire.
5. Click "*Apply*" to save and continue or click "*OK*" to save and close.

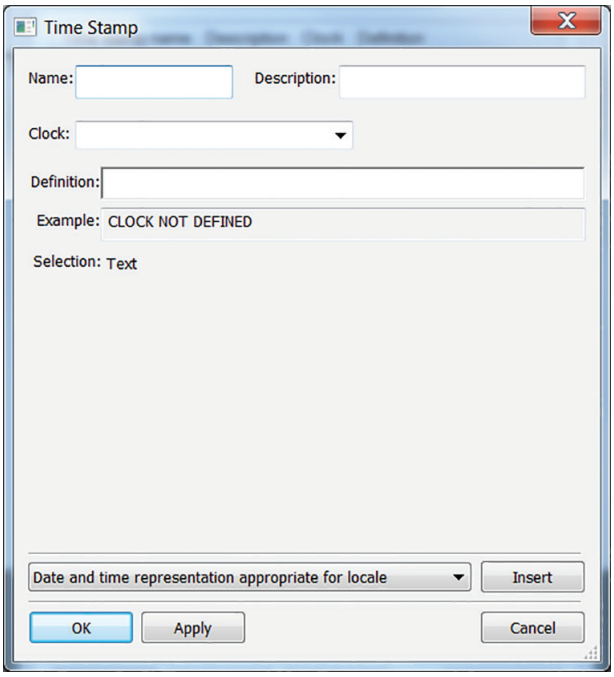

Image 7.6a: Timestamp Window

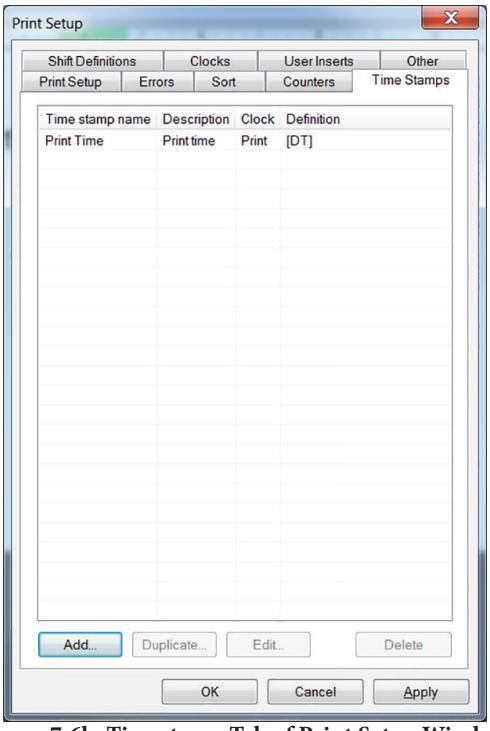

Image 7.6b: Timestamp Tab of Print Setup Window

7.7 Shift Definitions Tab

This tab allows you to create the shift definitions that are applied in the text properties in templates. Once you have created the shift definition here, you can use them in templates (*refer to section 6.5.9 on shift definition in templates*).

» Please note: Clocks must be created in the "*clocks*" tab (*section 7.5*) before you can create a shift definition.

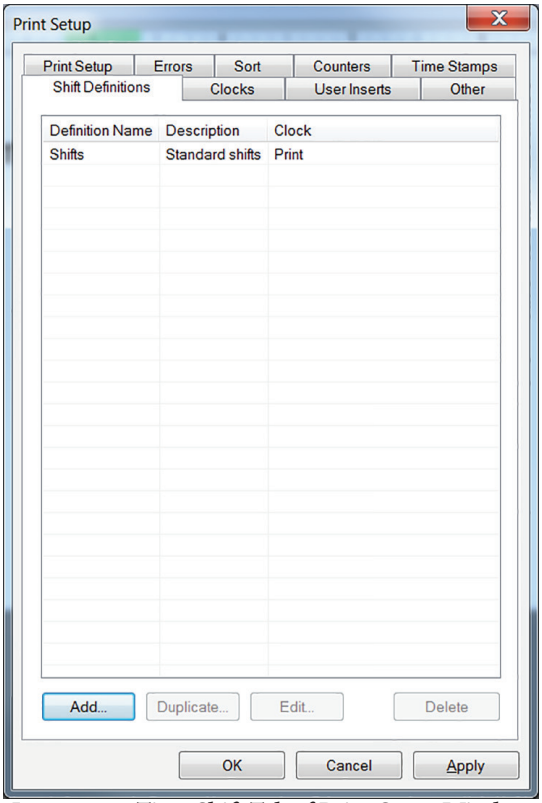

Image 7.7a: Time Shift Tab of Print Setup Window

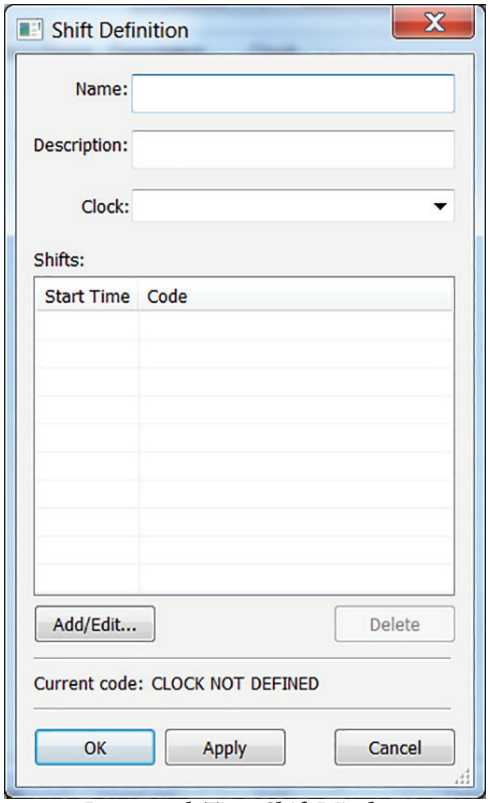

Image 7.7b Time Shift Window

While you are on this tab you can:

1. Click "*Add*" to add a new shift definition.
   » A window will pop up (*refer Image 7.7a and Image 7.7b on page 30*).
2. Enter the shift definition name and description.
3. Select the clock.
4. Click "*Add/Edit.*"
   » A window will pop up (*refer to Image 7.7c right*).
5. Select start time and code.
6. Click "*OK*" and return to "*Shift Definition*" window.
7. Click "*Ok*" to return to the "*Print Setup*" window.

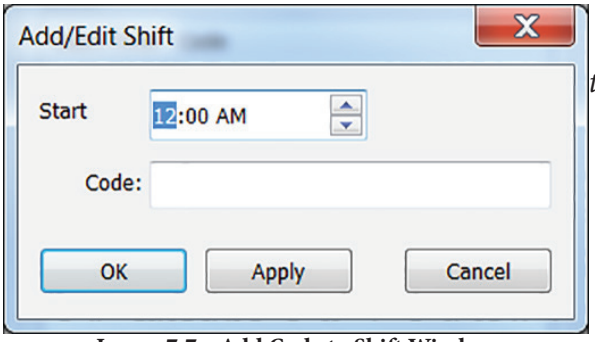

Image 7.7c: Add Code to Shift Window

7.8 User Inputs Tab

This tab allows you to create text inserts that can be applied to text properties in templates.

While you are on this tab you can:

1. Click "*Add*" to add a new shift definition.
   » A window will pop up (*refer to Image 7.8a and Image 7.8b below*).
2. Fill in the "*Insert name*" and "*Description*" fields.
3. Fill in the "*prompt*" users will see when they enter this insert.
4. Enter the default value.
5. Click "*OK*" to return to the "*Print Setup*" window.

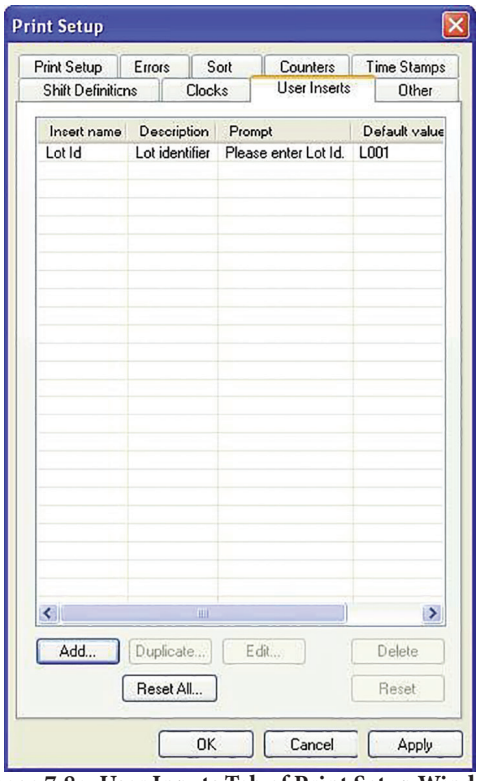

Image 7.8a: User Inputs Tab of Print Setup Window

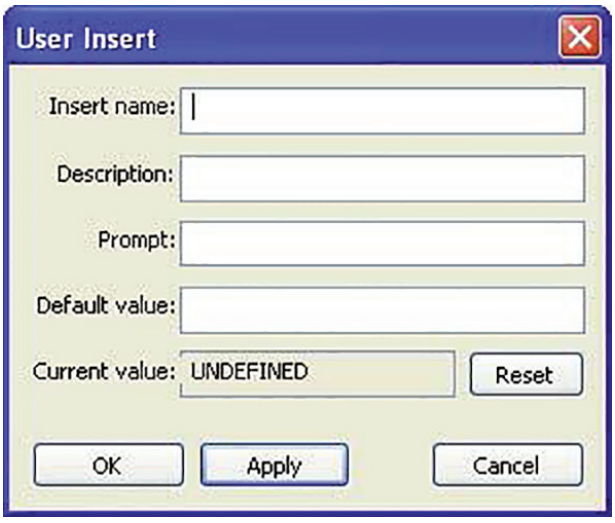

Image 7.8b: User Input Window

7.9 Other Tab

The other tab is used for troubleshooting (please *refer to Image 7.9 below*). It can simulate the encoder or sensor to help identify enoder or sensor problems.

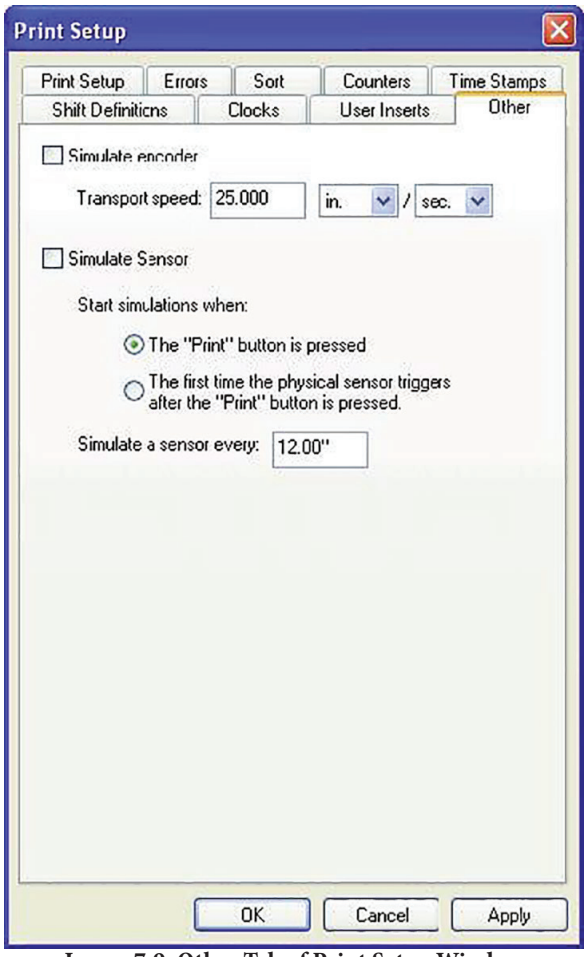

Image 7.9: Other Tab of Print Setup Window

To simulate the encoder or sensor:

1. Check either the "*Simulate encoder*" or "*Simulate Sensor*" check boxes.
2. Enter the desired simulation parameters.
3. Click "*Apply*" to save and continue or click "*OK*" to save and close the "*print setup*" window.

8. Printing

In the MCS Eagle Software, jobs are the control center for printing. The job window shows a variety of status information and allows you to print the print job.

A job consists of data, a template, and all print and system settings. Creating a job is described in this section. *Please refer to Section 7 on Templates and Section 8 on Print Setup.*

8.1 Creating, Opening, and Saving Jobs

With the MCS Eagle software, you can create a new job, open an existing job, and save a job. Job file names appear in red if they have not been saved and an asterisk (*) will appear in the title bar if there are any unsaved changes.

8.1.1 Creating Jobs

To open a new job:

1. Make sure you are on the "*Job*" tab in the tab selection window.
2. Go to **File**>**New Job.**
3. If an existing job is open, you will be asked if you want to save the previous job, open a new job without saving, or cancel.

8.1.2 Opening Existing Jobs

To open an existing job:

1. Make sure you are on the "*Job*" tab in the tab selection window.
2. Go to **File**>**Open** or seelct the "*Open*" icon in the toolbar.
   - » If an existing job is open you will be asked if you want to save the previous job, open a new job without saving, or cancel.

8.1.3 Saving Jobs

To save a job:

1. Go to **File**>**Save** Job or click the "*Save*" icon in the toolbar.
2. Provide a name for the job and click "*Save.*"
   - » Please note: You can also use the "*Save As*" feature to save the job under a new name. All the current changes will be made to the new save as opposed to the previous save.

8.2 Printing Jobs

The entire process for using jobs is as follows:

1. Make sure you are on the "*Job*" tab in the tab selection window.
2. Go to **File**>**New Job** or load a previous job by going to **File**>**Open**.
   - » If an existing job is open, you will be asked if you want to save the previous job, open a new job without saving, or cancel.
3. Import Data (*Refer to Section 5 on Importing Data).*
4. Create a template *(Refer to Section 6 on Templates).*
5. Specify printer settings (*Refer to Section 7 on Printer Settings).*
6. Go to **File**>**Save Job** or click the "*Save*" icon in the toolbar.
7. Provide a name for the job and click "*Save.*"
   - » You can now print the job by going to **File**>**Print**.
   - » Please note: When you are printing a job, all menu items will become unavailable except for "*Stop Printing.*"

8.3 Checking Print Status

The window displays current printing status in a large status box. The status box will display red when there is a problem or when connected but idle. The status box will display yellow if printing and green if printing was completed successfully.

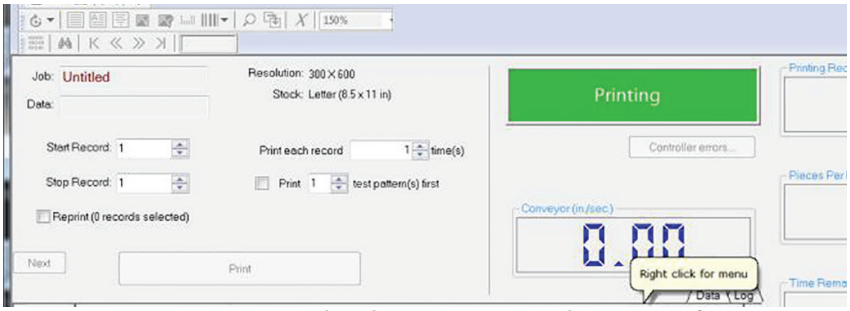

Image 8.3a: Printing Display Shows Printer is in the Process of Printing

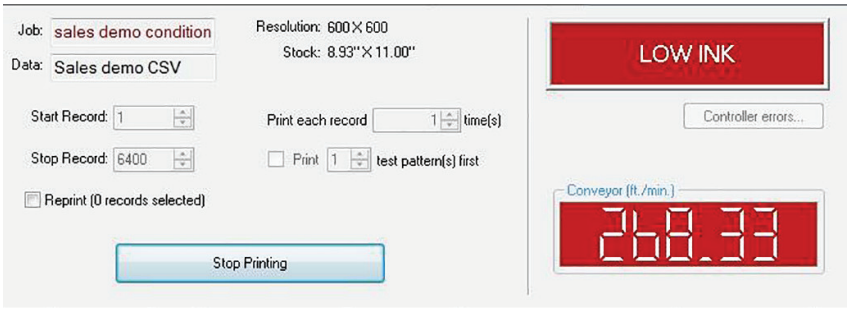

Image 8.3b: Printing Display Shows the Ink is Low and Print Speed is Bad

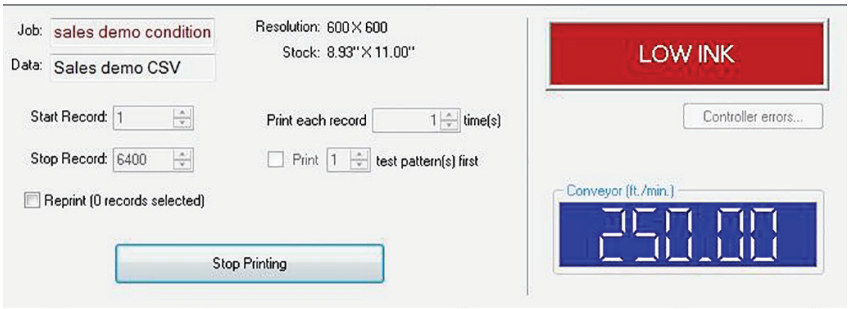

Image 8.3c: Printing Display Shows the Ink is Low and the Print Speed is Good

8.3.1 Viewing the Job Log

The job log displays a variety of information about the printer and the job. You can view the job log by selecting the "*Job*" tab and then the "*Log*" tab.

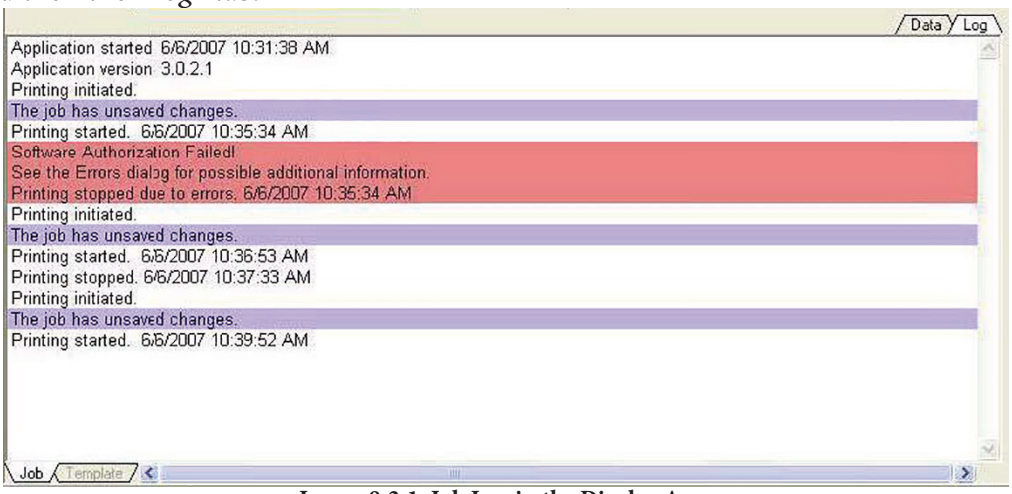

Image 8.3.1: Job Log in the Display Area

8.4 Reprints

This feature is handy for when you are printing and notice an error. When you notice errors, you can use the find options in the data fields to locate which records need to be reprinted.

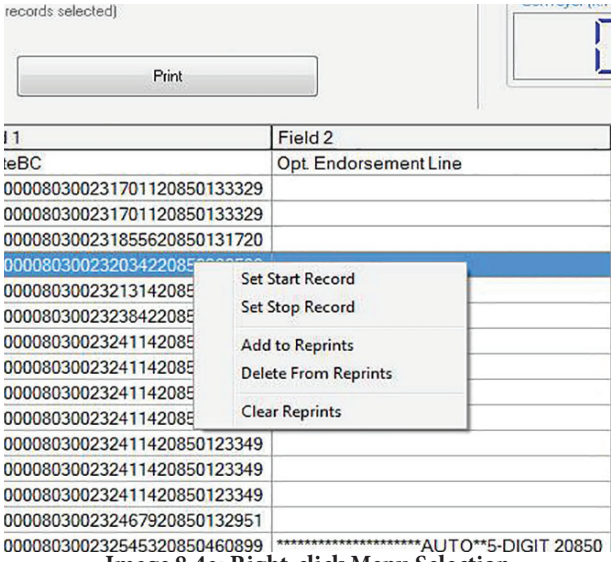

Image 8.4a: Right-click Menu Selection

Image 8.4b: Multiple Entries Selected (in Green)

To locate and reprint records:

1. Click the "*Data*" tab.
2. Use the "*Find*" feature to locate the desired record(s).
   » *Refer to section 5.5 on finding records.*
3. *Right-click* the row and select "*Add to Reprints.*"
   » That data set will be highlighted green and be added to the re-print queue (*refer to Image 8.4b*).
   » You can select multiple entries first with *Ctrl+click (refer to Image 8.4a).*
4. Repeat steps 2-3 for all the records you need reprinted.
5. Click the "*Job*" tab.
6. Confirm the "*Reprints*" number is equal to the number of entries you selected for reprinting.
7. Check the "*Reprint*" box and click "*Print*" (*refer to Image 8.4c below*).
8. Once the records have been reprinted, go to the "*Data*" tab.
9. *Right-click* anywhere and select "*Clear Reprints*".
10. Go back to the "*Job*" tab and unselect "*Reprint.*"

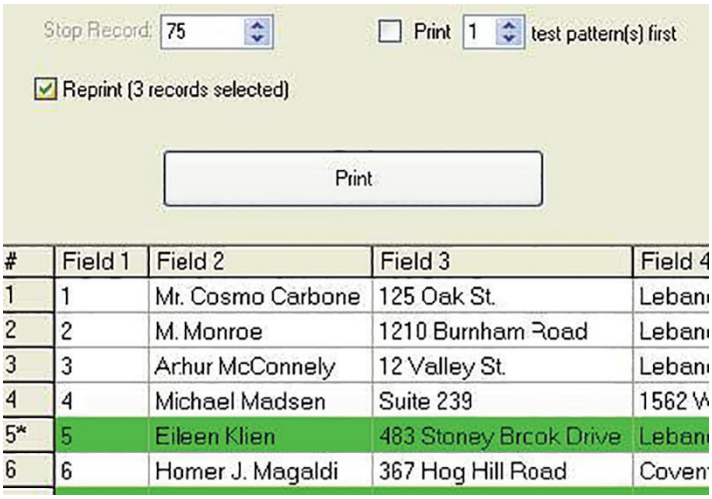

Image 8.4c: Reprint Button