

Friendly Ghost Language Ticket Designer

Introduction:

The ***Friendly Ghost Language Ticket Designer*** is an add on module for your ***Tick-It!*** software, designed to make modifying tickets for your thermal printer a snap. Friendly Ghost Language (FGL) is used to communicate with many of the thermal ticket/label printers on the market today. These thermal printers are the recognized standard of the ticketing industry. FGL is not a very user friendly language, so if you need to modify your ticket design, you need the ***Friendly Ghost Language Ticket Designer***.

This booklet will detail how you can get the most out of your ***Friendly Ghost Language Ticket Designer*** software module. Below is a quick key to the various sections of this booklet

Program Installation	2
An Overview of Friendly Ghost Language	3
Ticket Size and DPI	5
Setup	6
Sample Tickets	17
Designing Your Own Ticket	18
Command Key	49
List of Available <i>Tick-It!</i> Fields	51
Troubleshooting	52
Obtaining Help/Technical Support	54
Where to find Printers and Ticket Stock	55
Sample FGL Programs	59
Example Ticket Design from Start to Finish	75

Program Installation

1. Close any other programs currently running on your computer
2. Insert the Tick-It! CD ROM
3. Click on Start
4. Click on Run
5. Click on Browse and select the drive containing your CD ROM
6. Browse to the FGLUTIL Directory
7. Double click on the SETUP.EXE file and off you go. The setup process will walk you through the installation. The program will automatically select a default directory of C:\PROGRAM FILES\FGL DESIGNER, which you can accept and continue or change if you wish.

Font Installation

The program ships with special True Type Fonts that help simulate FGL printer text on your screen. These fonts are NOT automatically added to your font list, as you may not wish to use them, depending upon your printer model. However, we do suggest installing them anyway. After installing the program using the steps above, do the following:

1. From the Windows Control Panel, open up the FONTS folder
2. From the Fonts folder, select the File Menu, and Install New Font
3. Browse to the directory where you installed the FGL Designer
4. Click on the SELECT ALL Fonts Button
5. Click on OK to install them

You will now be ready to use the FGL Designer!

An Overview of Friendly Ghost Language

Friendly Ghost Language (FGL) is the means by which you tell your printer where you want things printed, and how they are to look. It is an effective means of “talking” to your printer.

All FGL commands that you will ever use with this module are ALWAYS enclosed in angle brackets (the “greater than” and “less than” signs) as shown here:

<COMMAND>

In addition these commands will almost always be typed in all capital letters.

This module lets you enter FGL and ***Tick-It!*** commands in the lower half of the display and then processes them, showing you their approximate results on the graphic window in the upper half of the display. This way, you should be able to see the product of your FGL instructions right away, before you waste valuable ticket stock.

This module DOES NOT behave EXACTLY like an FGL printer, but it will help you see the results of your FGL instructions if you keep the following things in mind:

- A “real” printer will accept carriage returns to advance to the next line on your ticket. This utility expects that EVERY element placed on a different line on your ticket will be preceded by the appropriate Row/Column <RCx,y> command. (By using numbers in place of the x and the y this command will tell the printer what row and column to start printing at.)
- A “real” printer has a buffer limit which should not be exceeded when sending commands. So, the utility will display your entire format, but only half of it might actually print. You must use either the @CR or the @SYNC command in your format instructions to force the printer to process then flush the command buffer. The utility simply ignores @CR and @SYNC commands, but depending upon the length and complexity of the format you are sending, you might need several in your instructions.
- A “real” printer uses internal fonts that are composed of a fixed matrix of dots. This utility uses Windows True Type fonts to

An Overview of Friendly Ghost Language

simulate the printer's fonts. The methods used by Windows to scale and rotate these fonts will produce variations from the exact size used by the printer. So printed text and its placement on the display will be approximations only. You may adjust which fonts are used for simulation on the screen from the SETUP menu.

- A "real" printer will accept and process ALL Friendly Ghost Commands. This utility will recognize only the commands listed in the Command Key section, all others are simply ignored.
- A "real" printer might allow you to rotate and scale logo images that have been downloaded into the printer's memory. This utility does not. So, prior to printing any logos, be sure to issue the "no rotation" <NR> and standard scaling <HW1,1> commands, so what you see is what you'll get.

Ticket Size and DPI

Most of the commands you will use require the user to define a starting point or a row/column. To understand how to correctly place information on the ticket, you need to be aware of the size of your ticket (physical dimensions) and how to define placement (starting points or row/column). You will also want to know the dots per inch (dpi) used by your printer. This will help you select the correct sample tickets to use. Printing a 100 dpi sample ticket on a 300dpi printer, will not work. Here is a quick example of why.

DPI Example:

A printer that runs 300dpi, prints very small dots very close together. If the printer runs 200 dpi, the dots are bigger and a little further apart. A printer running 100 dpi has dots that are bigger yet. Below is a crude example, that is NOT to actual dpi scale.

300 dpi
200 dpi ●●●●●●●●●●
100 dpi ●●●●●●●●●●

Each lines above contain 10 dots, but each one takes up a different amount of space across the page. In FGL, each dot represents a row/column intersection on the ticket. Like so,

	<u>COLUMNS</u>
	1 2 3 4 5 6 7 8 9 10
Row 1	●●●●●●●●●●
Row 2	●●●●●●●●●●
Row 3	●●●●●●●●●●

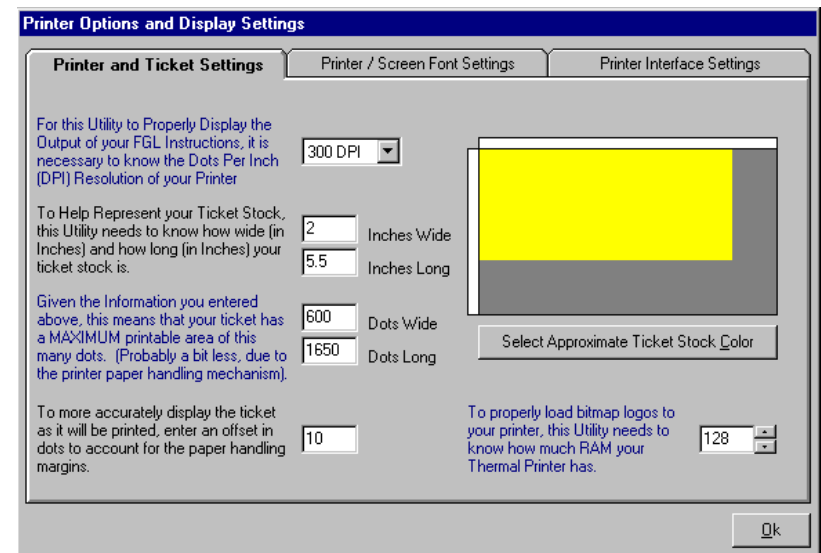
Now in this example the dot in the very middle is the intersection of row 2 and column 5. If a line started at that row/column position (2,5) and was 10 dots long, it would be a different length depending upon the printer's dpi, 300, 200 or 100.

Setup

Before you begin to use any program it is always a good idea to set up the parameters or options for that program. By properly setting up your options you are assured the best results possible. This section details setting up your options for the **Friendly Ghost Language Ticket Designer**.

Printer Options:

1. Click on **Setup** from the main menu bar or press **Alt S**.
2. Click on **Printer Options** from the drop down menu or press **P**.
3. Under the first tab Printer and Ticket Settings you will define the parameters for your printer and your ticket stock. This screen looks like this



Printer and Ticket Settings

- Select the dpi used by your printer.
- Inches Wide - Input the width of the ticket in inches.
- Inches Long - Input the length of the ticket in inches.
- Dots Wide - The program will automatically calculate the number of dots wide. No input is needed for this field.
- Dots Long - The program will automatically calculate the number of dots long. No input is needed for this field.

Setup

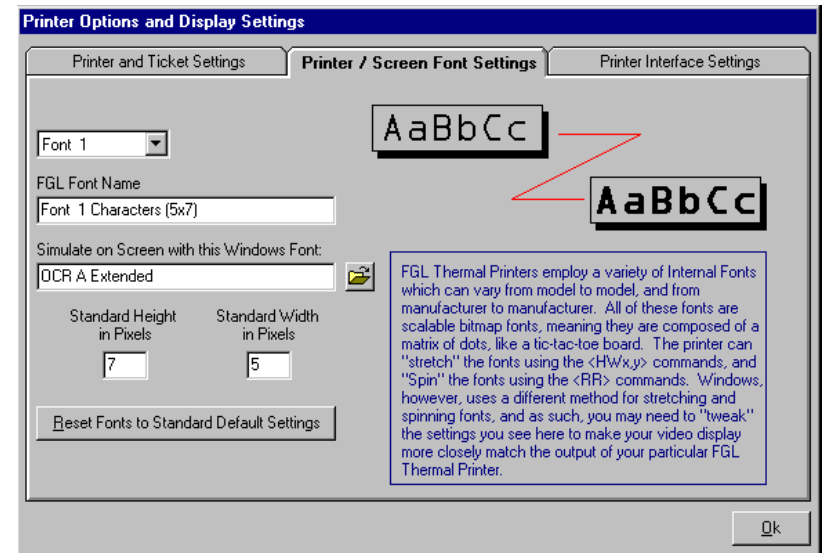
- The next field you will use to identify the Paper Handling Margin. This number represents the number of dots that are set aside on the edges of the ticket for the margin. The default is 10.
- On the right hand side of the screen is a window that allows you to select the approximate color of the ticket. The color selected here will appear on the preview section of the design screen and will give you a better feel for how your ticket will actually look. To set the color click on the **Select Approximate Ticket Stock Color** or press **Alt C**. Then click once on the color that comes closest to the color of your ticket stock and then click the **OK** button.
- The last field on this screen is used to enter the amount of RAM that the buffer in your thermal printer is capable of handling. Please consult your printer manual for this number.

Setup

Print Screen/Font Settings

The next tab under Printer Options is the Print Screen/Font Settings. This section is used to tweak the fonts on the screen to more closely match the actual output that the thermal printer will produce. This is necessary because the printer will interpret fonts differently from the way Windows interprets fonts. Use the fields under this section to tweak the font as they are presented on your screen, so that they will look closer to the fonts on the printed ticket.

Below is a picture of what the Print Screen/Font Settings screen looks like.



Remember – Your choices here effect the display of the ticket preview only. They will in no way effect how the ticket will look when it is printed. The selection here will help reconcile the preview with the printed output. The Standard Default Settings will work well with most printers and you may wish to just leave these settings in place. If you wish to tweak the default settings, here is how it's done.

- The first choose on this screen is to select a font. Use the drop down arrow to display a pick list.
- FGL Font Name – This is the name of the font according to FGL. This field is automatically filled in for you. No input needed.

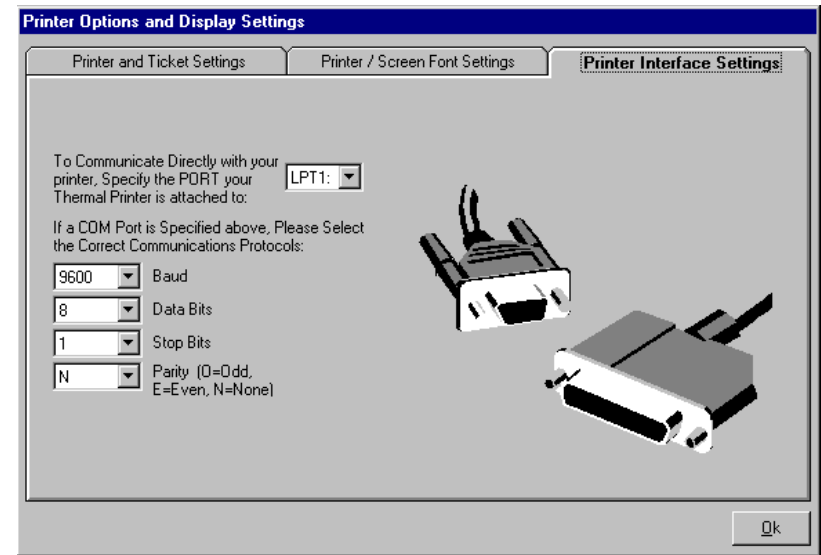
Setup

- Simulate on Screen with this Windows Font – Select the Windows font you which to simulate in FGL.
- Standard Height in Pixels – FGL printer fonts are each composed of a fixed grid of dots. Windows, however, will use scalable TrueType fonts to represent them on the screen. Depending upon the font you have chosen to emulate the FGL font selected, you may find it necessary to adjust the height of the font to achieve a better preview image. It does not in any way effect the actual output of the printer.
- Standard Width in Pixels - FGL printer fonts are each composed of a fixed grid of dots. Windows, however, will use scalable TrueType fonts to represent them on the screen. Depending upon the font you have chosen to emulate the FGL font selected, you may find it necessary to adjust the width of the font to achieve a better preview image. It does not in any way effect the actual output of the printer.
- If all else fails and you are not pleased with the results of your choices, click on the **Reset Fonts to Standard Default Settings** button or press **Alt R**. You will be asked **Restore ALL Font Emulation Settings to their Default Values**, click on **Yes** (or press **Alt Y**)to change the settings back or click on **No** (or press **Alt N**)to leave your custom settings. If you select **No**, you will be returned to the Print/Screen Font Settings screen. I you select **Yes** you will be told **Screen Font Emulation Settings have been restored to their Default Values**, click on the **OK** button to return to the Print/Screen Font Setting Screen.

Setup

Printer Interface Settings

This section of the Printer Options tells the program how your printer is connected to the PC. Click on the **Printer Interface Settings** tab and you will be looking at a screen similar to this.



- Your first selection on this tab is the port. Click on the drop down arrow and select the port to which your printer is attached. If you selected an LPT port you are all done and may exit the screen by clicking on the **OK** button. If you selected a COM port, please continue on.
- For users connecting to a printer via a COM port the program will need to know the baud rate of the connection. Use the drop down arrow to select the correct rate.
- For users connecting to a printer via a COM port the program will need to know the Data Bits used to make the connection. Use the drop down arrow to select the number.
- For users connecting to a printer via a COM port the program will need to know the Stop Bits used to make the connection. Use the drop down arrow to select the number.

Setup

- For users connecting to a printer via a COM port the program will need to know the Parity used to make the connection. Use the drop down arrow to select the correct Parity (O for Odd, E for Even or N for None).

Once you have completed the set up of all of the Printer Options click on the **OK** button or press **Alt O** to save all of the information and leave the Printer Options window.

Setup

Downloading Logos to Printer:

This option allows you to hold and send up to 8 downloadable graphic images to your printer. When selecting a file for downloading to your printer, there are some things to keep in mind:

- (1) Use only bitmap type files. A file extension of .BMP
- (2) Only 2 color (black and white) images are permitted. Even if there are only two colors, but the bitmap file is set for storing more, you cannot use that file without first reducing it to 2 colors.
- (3) It is MUCH BETTER if the width of the picture is evenly divisible by 8. For example, a picture that is 256 pixels wide is preferred to a picture that is 260 pixels wide.
- (4) It is prudent to keep your pictures somewhere in the neighborhood of 300 dots by 300 dots, or you risk using up too much memory in your printer's buffer, or using too much space on your ticket.

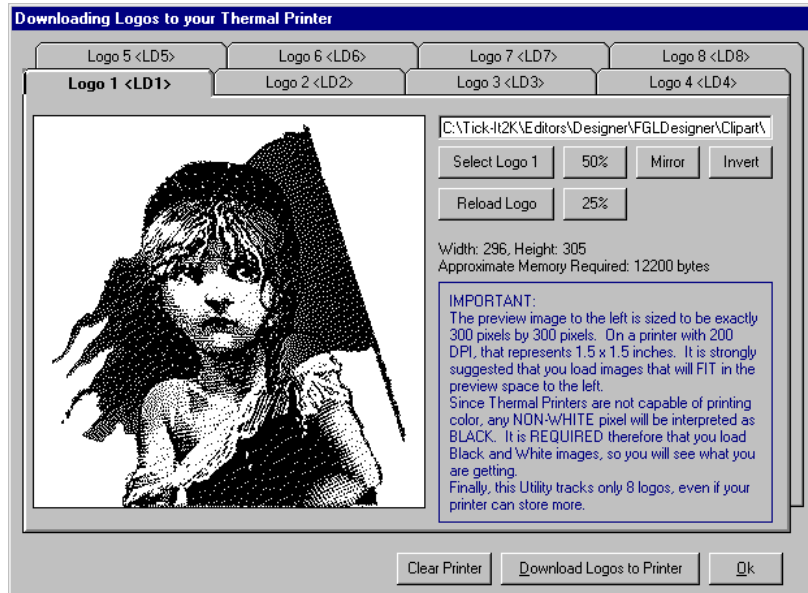
This program comes pre-loaded with dozens of bitmap images that meet the above criteria. You may want to review these images, before you try one of your own, as these pre-loaded logos are already correctly formatted.

Some of the sample clipart images are slightly larger than 300 dots in height or width, so you might get a warning when loading them. They are all OK to use, however.

To set up your logos, follow these steps.

1. Click on **Setup** from the main menu bar or press **Alt S**.
2. Click on **Download Logos to Printer** from the drop down menu or press **D**. You will now be looking at a screen similar to this.

Setup



3. You may load up to 8 different logos into the program and then over to your printer. It is a good idea to only load as many as you need. To start off click on one of the 8 Logo tabs and then click on the **Select Logo** button to bring the image into the program. Clicking on the **Select Logo** button will open the standard file selection dialog box. Find the image you wish to download. If you wish to use one of the pre-loaded logos that comes with the program, you will find it in the **FGLDesigner\ClipArt** subdirectory.

Setup

- Once you have the image loaded there are several things you can do to tweak the appearance of the image before downloading it as a logo to your printer. First you can turn the image into a mirrored version of itself by clicking on the **Mirror** button. To return the image back to its original state just click on the **Mirror** button once again.



Normal to Mirrored

- Another thing you can do is invert the image (reverse the black and white). To invert the image just click on the **Invert** button. If you do not like the way the image appears when it is inverted, just click the **Invert** button again.



Normal to Inverted

- If the image appears too dark or too intense for your liking you can click on the **50%** button or the **25%** button to lighten the

Setup

image. If you click on the **50%** button your image will appear a ghostly half of its former self. If you click on the **25%** button the image will dim to only **25%** of its former intensity. It may use both the **50%** and the **25%** buttons to really dim the image.



Normal to 50%



Normal to 25%

7. If you have played with one or more of the buttons for changing the display of the image and you decide you don't like it, just click on the **Reload Logo** button to reload the image in its original form.

8. Once you have all of the images (between 1 and 8) set on the screen the way you like you will need to download them to your printer. First, be sure you are connected to the printer correctly and that the printer is turned on. Downloading the logos to the

Setup

wrong printer, like a laser printer, will take a long time and then finally bomb out. It will also screw up the printer, which will need to be re-set. So now that you are attached to your thermal printer and it is turned on, you may suspect that there are other logos already loaded that you wish to clear out before you download your new logos, just click on the **Clear Printer** button. This will clear out any logo's currently in the printers memory. Then simple click on the **Download Logos to Printer** button or press **Alt D** to load your new logos into the printer's memory. The logos should remain in the printers memory even if the printer is powered off. Just remember that you will need to re-download the logos to the printer every time you change a logo or add a new one to the program.

9. Once you are done loading images into the program and downloading logos to the printer, click on the **OK** button or press **Alt O** to save the information and exit the screen.

Sample Tickets

Friendly Ghost Language Ticket Designer comes preloaded with several sample tickets. These sample tickets are a wonderful place to start. By now you should have selected your printer and your ticket stock. Based on the capabilities of your printer (primarily the dpi) and the ticket stock you selected (physical size), you can pick the correct sample to use. These sample tickets are found under the program file directory **FGLDesigner\Samples** then the appropriate sub-directory **100dpi**, **200dpi** or **300dpi**.

Once you are in the correct samples sub-directory you will want to look at the samples that are available. Pick one that is close to what you want. Before you start modifying the sample ticket, **SAVE IT USING ANOTHER NAME!** This way if you mess it up too badly, you will always have the original sample to go back to. To save a sample ticket using another name simply click on the word **File** from the menu bar (or press **Alt F**) then select **Save Format As** (or press **A**). This will open the standard Windows dialog box for saving files. Select the directory you wish to save the format to and then name it. The only requirement is that the format name end in an **.F97** extension. (The program does not allow you to save the format using any other extension.) This extension makes the format available to be used by **Tick-It!**.

Now you have reviewed the samples and found one that comes close to what you need. Let's go to the next step and design a ticket to specifically meet your needs.

Designing Your Own Ticket

This section covers the nuts and bolts of using the menu bar and tool bar for modifying and designing your ticket.

File Maintenance:

New Format – To open a new format and start with a blank ticket, click on **File** from the menu bar (or press **Alt F**) then click on **New Format** from the drop down menu (or press **N**). If you prefer to use icons, just click on the first icon on the tool bar. The one that looks like a sheet of paper with the upper/left corner folded. Either way you will have a cleared preview window and new ticket format to start with.

Open Format – If you would prefer to start with a ticket that has already been designed, which is a good idea, just click on **File** from the menu bar (or press **Alt F**) then click on **Open Format** from the drop down menu (or press **O**). This will bring up the Open File dialog box and allows you to pick an existing format. If you prefer to use the icon, just click on the second icon from the left off the tool bar. The one that looks like a file folder opening up. If you have a previously loaded format up, that you have made changes to, you will be asked if you would like to save the changes prior to loading in the new file.

Save Format – Once you have completed the design of a new format or the modification of an existing format, you will want to save it. Click on **File** from the menu bar (or press **Alt F**) then click on **Save Format** from the drop down menu (or press **S**). If you prefer to use the icon, just click on the third icon from the left off the tool bar. The one that looks like a diskette. **Save Format** will overwrite the original format and save your modifications in its place with the same file name.

Save Format As – If you have just finished modifying an existing design and you wish to save your changes and still leave the original as is, you will need to do a **Save Format As**. This will leave the original format unchanged with its original name and create a new format with a new name. Click on **File** from the menu bar (or press **Alt F**) then click on **Save Format As** from the drop down menu (or press **A**). This will bring up the standard Windows dialog box for saving files and will allow you to save the file in the directory of your choice with the name of your choice. Just remember that all ticket formats must be saved with the extension of **.F97**.

Designing Your Own Ticket

Print Preview – As you are making changes to the ticket format you will want to preview, from time to time, how those changes look. The ticket preview on the top half of the screen does not automatically update. To update the preview and view your changes you will need to do a **Print Preview**. There are two ways to refresh the **Print Preview**. The easiest way is to just click anywhere on the preview section of the screen. This will automatically refresh the view. The other method is to use the menu bar. Click on **File** from the menu bar (or press **Alt F**) then click on **Print Preview** from the drop down menu (or press **V**).

Print Sample – Once you have your ticket formatted the way you want it and the preview looks good, you will need to print a sample ticket to verify that the printed output will also look good. To print a sample ticket click on **File** from the menu bar (or press **Alt F**) then click on **Print Sample** from the drop down menu (or press **P**). If you prefer to use the icons, just click on the symbol of a printer (fourth one from the left) on the tool bar.

Exit – When you are finished using *FGL Ticket Designer* and have saved your work you can leave the program by clicking on **File** from the menu bar (or press **Alt F**) then click on **Exit** from the drop down menu (or press **X**). If you did not remember to save your work first, you will get a warning “Do You Wish to Save Your Changes.” Click on **Yes** (or press **Alt Y**) to save the changes or **No** (or press **Alt N**) if you do not wish to save your changes. If you are working with an existing format and you have clicked on **Exit** you will no longer have the ability to do a Save As. The program will just overwrite the original format, so be careful to save your changes before exiting the program!

Designing Your Own Ticket

View:

The view menu item has one simple task, to turn the gridline display on and off. The default is to leave the gridlines off. When you preview a ticket format without gridlines you see the ticket pretty much how it is going to look when printed. If you turn the gridlines on, your ticket preview is going to have ghost lines draw across and down every $\frac{1}{4}$ of an inch. Gridlines are for display only and do not effect the ticket format in any way. For some people using gridlines makes the preview more cluttered and cumbersome, for others it helps to clarify the preview and define placement. Using or not using gridlines is strictly a personal choice. Here are the steps for turning gridlines on and off.

1. Click on **View** from the main menu or press **Alt V**.
2. Click on **Gridlines** or press **G**. If the gridlines were previously off, clicking on **Gridlines** will place a check mark by the word and turn the gridlines on. If the gridlines are on, clicking on **Gridlines** will turn them off and remove the check mark.

Note: Gridlines are automatically turned off every time you exit the program, even if you saved the format with the gridlines turned on.

Designing Your Own Ticket

Edit:

The editing section of the menu bar and tool bar are the most detailed part of the program. This is where you go to draw lines and boxes, insert logos, ticket counters and printer commands, and set positioning. This section will detail the functions of editing a ticket format. Please keep in mind that the samples contain all of these functions and it is often easier to understand the function if you are looking at a sample at the same time.

Copy – As with any Windows program you have the ability to copy and cut items to the clipboard and then paste them to another part of the format or into different format. So, if you find a piece of a ticket format that you particularly like and would like to paste that into your format you can do so. When copying and pasting you will be working with the commands on the lower half of the screen. To start you will highlight the section you wish to copy. Then click on **Edit** from the menu bar (or press **Alt E**). Click on **Copy** from the drop down menu (or press **C**). You have now copied the commands to the Windows clipboard. You can also perform a copy by highlighting the section and pressing **Ctrl C**.

Paste - Once you have a section of commands copied to the clipboard you will probably want to paste them somewhere. You can paste the commands back into the same format or close that format and paste the commands into a different format. Once you have copied something to the clipboard it will stay there until something else is placed in the clipboard to replace it. This means you can open and close formats, or programs for that matter, without losing what is in the clipboard. To paste from the clipboard, just place your cursor where you want the commands to start and then click on **Edit** from the menu bar (or press **Alt E**). Next, click on **Paste** from the drop down menu (or press **P**). You can also perform a paste by pressing **Ctrl V**.

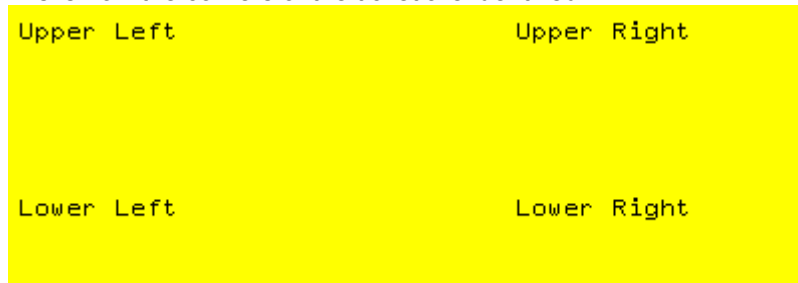
Inserting FGL Commands

Naming a position, drawing lines, defining printer commands, all of these commands have to be written in FGL, so that the thermal printer can understand them. One of the biggest advantages of this program is that the user can insert commands without knowing how to program in FGL or even knowing the command format. **FGL Ticket Designer** does not perform all FGL commands, but it does do quite a few (see the Command Key for a complete listing). Many of the commands performed by **FGL Ticker Designer** can be accomplished by using the icons on the tool bar and the rest can be accomplished by using the drop down menus under Edit. Just click on **Edit** off the main menu bar (or press **Alt E**) then click on **Insert FGL Commands** from the drop down menu (or press **F**). This will get you started.

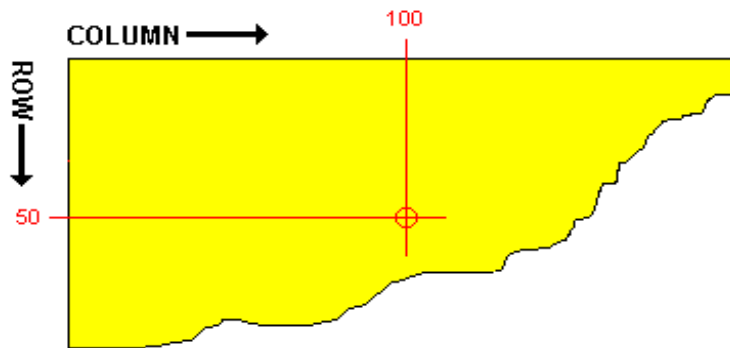
Designing Your Own Ticket

Row Column Position – Clicking on **Row Column Position** from the drop down menu (or pressing **R**) will insert the `<RCx,y>` command into your format. This command tells the format where to place things on the ticket. The placement is done in pixels and the numbers you use for x and y should not exceed the number of pixels available on your ticket. Once again it is important to know the dpi of your printer and the size of your ticket. Below are some illustrations to help details the concept of the `<RCx,y>` command.

This is how the corners of the ticket are identified.



This diagram illustrates how the command `<RC50,100>` would be positioned on the ticket.



Designing Your Own Ticket

Now that you understand positioning on the ticket (the <RCx,y> command) you will need to know how many pixels are used based on your thermal printer's dpi and the size of your ticket stock. This diagram should help.



**Then there are this many
dots in this distance:**

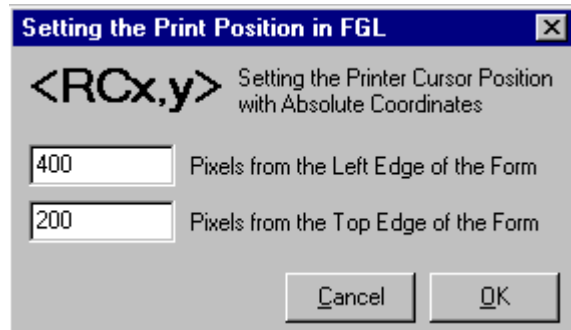
**If your Printer has a
Printhead Density of:**

	1/8 inch	1/4 inch	1/2 inch	1 inch
100 DPI	13	25	50	100
200 DPI	25	50	100	200
300 DPI	38	75	150	300

Designing Your Own Ticket

With this understanding, you are now ready to insert <RCx,y> commands where ever you need them into your format.

1. Click on **Edit** from the main menu bar or press **Alt E**.
2. Click on **Insert FGL Command** from the drop down menu or press **F**.
3. Click on **Row Column Position** or press **R**. You will now be looking at the following window.



Note: If you would like to use the icon on the tool bar instead of the menu bar, just click on the fifth icon from the left, the one that looks like a target. Clicking on this icon replaces steps 1-3.

4. The first number represents x or the number of rows from the top of the ticket. Type in the appropriate number.
5. The second number represents y or the number of rows from the left edge of the ticket. Type in the appropriate number.
6. Once you have the x and y positions entered, click on the **OK** button or press **Alt O** to insert the command into the format. If you decide against inserting this command at this time, click on **Cancel** or press **Alt C**.

Designing Your Own Ticket

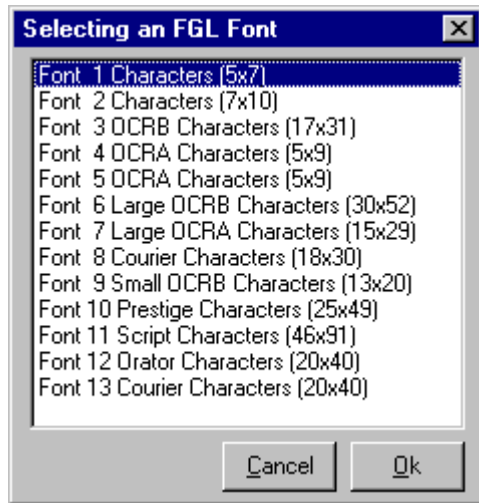
Note on Fonts: This next part talks about fonts and what you can do with them. Fonts are a way of displaying text, so throughout this section the words fonts and text will be used interchangeably.

Select Font - FGL thermal printers use 13 different internal fonts that are all different from the fonts that Windows uses. The internal fonts of an FGL printer are fixed bitmap fonts. The availability and actual appearance of these fonts may vary from manufacturer to manufacturer, and from model to model. (For a complete list of these fonts see the Command Key section.)

The command to specify a font is **<Fn>**, where **n** is a number from 1 to 13. Once you insert a font into the format, that font will remain in effect until a different font is inserted. So, if your ticket uses just one size font, you need only insert the **<Fn>** command into the format one time. If, however you would like your ticket format to contain multiple font sizes, you will need to insert the **<Fn>** command every time the font size changes.

1. Place your cursor in the format commands (bottom half of the screen) where you would like the command inserted.
2. Click on **Edit** from the main menu bar or press **Alt E**.
3. Click on **Insert FGL Command** from the drop down menu or press **F**.
4. Click on **Select Font** or press **S**. You will now be looking at the following window.

Designing Your Own Ticket



Note: If you would like to use the icon on the tool bar instead of the menu bar, just click on the seventh icon from the left, the one that looks like a capital A. Clicking on this icon replaces steps 2-4.

5. Select the font you wish to insert into your format by clicking on it. Then click on the **OK** button or press **Alt O** to insert the command. If you decide against inserting this command at this time, click on **Cancel** or press **Alt C**.

Designing Your Own Ticket

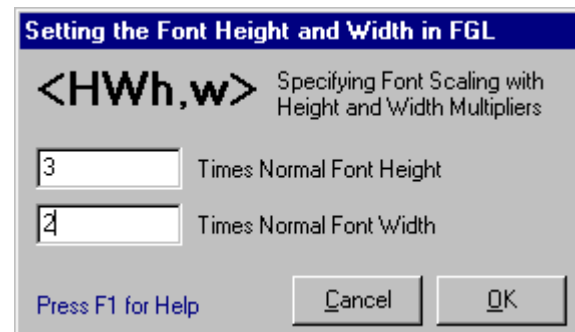
Font Effect – Deciding on which font to use is only part of the font story. There are several things you can do to effect the way any of the given fonts displays itself.

The first thing you can do with a font is stretch it. You can “stretch” the font that makes up your text simply by giving a Height/Width multiplier command to the printer. This stretching can be done horizontally, vertically or **both**.

To stretch text you will need to insert a Height/Width ratio which is done by using the **<HWn,m>** command. In this command **n** and **m** are numbers from 1 to 5 or so. Using larger numbers tends to distort the text too much making it hard to read. Once you insert the **<HWn,m>** command into your format it will stay in effect until either a new **<HWn,m>** command is inserted or a new font command (**<Fn>**) is inserted.

To insert Height/Width commands into your format follow these steps.

1. Place your cursor where you want to insert the Height/Width command.
2. Click on **Edit** from the main menu bar or press **Alt E**.
3. Click on **Insert FGL Command** from the drop down menu or press **F**.
4. Click on **Font Effects** or press **F**.
5. Click on **Height and Width** or press **H**. You will now be looking at the following window.



Designing Your Own Ticket

6. Enter the scaling factors for Height and Width of the text. If you decide against scaling your text, just click on the **Cancel** button or press **Alt C** to cancel the command.

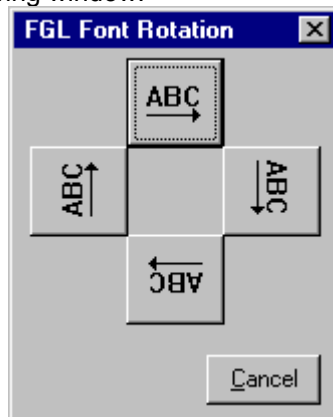
Font Rotation – Text (fonts) can be rotated to any one of four different orientations. Each orientation has it's own command. They are:

- <NR> No Rotation Printing (0 degrees)
- <RR> Rotate Right (90 degrees positive)
- <RU> Rotate Up (180 degrees positive)
- <RL> Rotate Left (90 degrees negative)

Once you insert a rotation command it will stay in effect until you specify another.

To insert rotating commands into your format follow these steps.

1. Place your cursor where you want to insert the rotating command.
2. Click on **Edit** from the main menu bar or press **Alt E**.
3. Click on **Insert FGL Command** from the drop down menu or press **F**.
4. Click on **Font Effects** or press **F**.
5. Click on **Font Rotation** or press **R**. You will now be looking at the following window.



Note: If you would rather use the icons on the tool bar to rotate the font, just click on the eighth icon from the left. The one that looks like ABCD in a circle. Clicking on this icon replaces steps 2 – 5.

Designing Your Own Ticket

6. Click on the picture that represents the direction in which you want your text rotated. Once you click on a direction the correct rotating command will be inserted in your format. If you decide against rotating your text, just click on the **Cancel** button or press **Alt C** to cancel the command.

Enable Inverse Printing – FGL thermal printers will let you modify any font into an Inverse Font, which simply means that the background for the letters becomes black, instead of the ticket stock color.

The command to enable inverse printing is: **<EI>**

The command to disable inverse printing is: **<DI>**

Whatever print mode is last specified, normal or inverse, stays in effect until you specify another mode.

Designing Your Own Ticket

To insert the command to enable inverting text follow these steps.

1. Place your cursor where you want to insert the command.
2. Click on **Edit** from the main menu bar or press **Alt E**.
3. Click on **Insert FGL Command** from the drop down menu or press **F**.
4. Click on **Font Effects** or press **F**.
5. Click on **Enable Inverse Printing** or press **E**.

Or if you would rather use the icons, click on the last icon on the tool bar, the one that says TEXT in white on black.

To insert the command to disable inverting text follow these steps.

6. Place your cursor where you want to insert the command.
7. Click on **Edit** from the main menu bar or press **Alt E**.
8. Click on **Insert FGL Command** from the drop down menu or press **F**.
9. Click on **Font Effects** or press **F**.
10. Click on **Disable Inverse Printing** or press **D**.

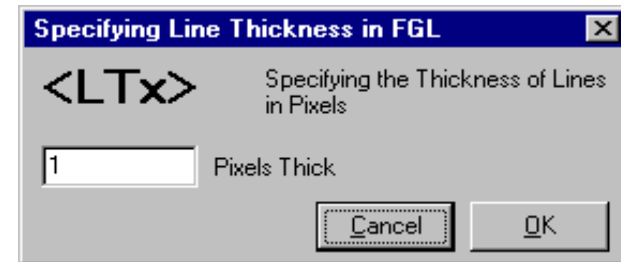
Or is you would rather use the icons, click on the second to the last icon on the tool bar, the one that says TEXT in black on white.

Designing Your Own Ticket

Boxes/Line/Graphics – Often you will want to put boxes or lines in your ticket format to help break up the different sections of the ticket. You may also wish to put a logo on your ticket. When drawing a boxes, lines or logos on a ticket you will need to define starting points, sizes and possibly rotation. This next section details how to place boxes, lines and logos on a ticket.

Drawing a Box – The following steps will detail how to place a box in a ticket format.

1. Place your cursor in the format (bottom half of the screen) where you wish to start the box.
2. Insert a positioning command (**<RCx,y>**) to mark off the starting point for the box. (See the section on Row/Column Positioning for complete instructions on this step.)
3. Next we will want to define the line thickness (how fat or thin the lines of the box will be). Click on **Edit** or press **Alt E** from the main menu bar.
4. Click on **Insert FGL Command** or press **F** from the drop down menu.
5. Click on **Boxes/Lines/Graphics** or press **B**.
6. Click on **Line Thickness** or press **L**. You will now be looking at a screen similar to this one.

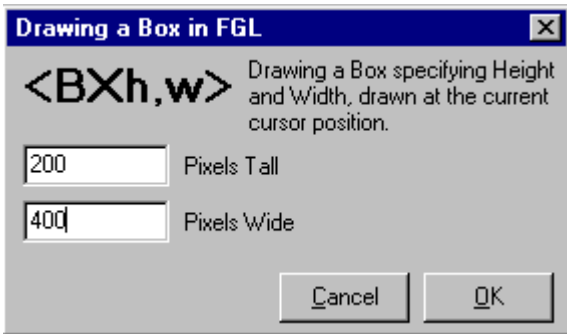


Note: If you would prefer to use the icon on the toolbar as opposed to the menu bar, just click on the fifth from the right side. The one that looks like several lines of different thickness. Clicking on this icon will replace steps 3-6.

7. Type in a number that will define the thickness of the. The higher the number the thicker the line. Click on the **OK** button or press **Alt O** to insert the line thickness command (**<LT,x>**) into

Designing Your Own Ticket

- your format or click on the **Cancel** button or press **Alt C** if you wish to cancel this command.
- Now that we have positioned the box and defined both the font and the line thickness, it is time to draw the actual box. Click on **Edit** or press **Alt E** from the main menu bar.
 - Click on **Insert FGL Command** or press **F** from the drop down menu.
 - Click on **Boxes/Lines/Graphics** or press **B**.
 - Click on **Draw Box** or press **B**. You will now be looking at a screen similar to this one.



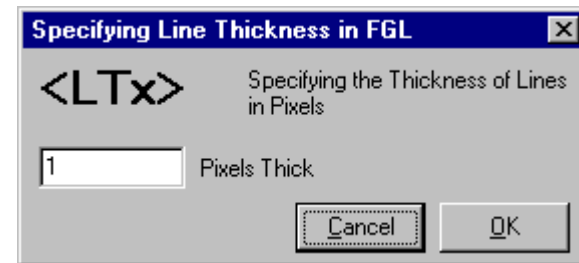
Note: If you would prefer to use the icons on the tool bar as opposed to the menu bar, just click on the icon forth over from the right, the one that looks like a bunch of boxes. This will replace steps 8-11.

- Enter in a number for how tall you would like the box to be. This is measured in pixels.
- Enter in a number for the width of the box, in pixels. Click on the **OK** button or press **Alt O** to insert the box size command (<BXh,w>) into your format or click on the **Cancel** button or press **Alt C** to cancel this command.

Designing Your Own Ticket

Drawing a Line – The following steps will detail how to place a line in a ticket format.

1. Place your cursor in the format (bottom half of the screen) where you wish to start the line.
2. Insert a positioning command (**<RCx,y>**) to mark off the starting point for the line. (See the section on Row/Column Positioning for complete instructions on this step.)
3. Next we will want to define the line thickness (how fat or thin the line will be). Click on **Edit** or press **Alt E** from the main menu bar.
4. Click on **Insert FGL Command** or press **F** from the drop down menu.
5. Click on **Boxes/Lines/Graphics** or press **B**.
6. Click on **Line Thickness** or press **L**. You will now be looking at a screen similar to this one.

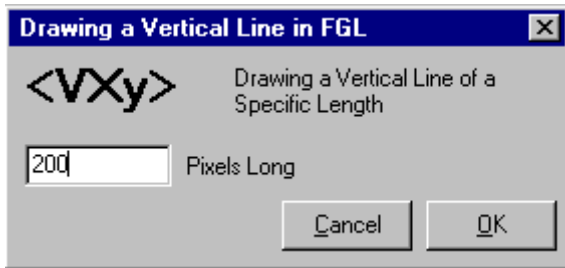


Note: If you would prefer to use the icon on the toolbar as opposed to the menu bar, just click on the fifth from the right side. The one that looks like several lines of different thickness. Clicking on this icon will replace steps 3-6.

7. Type in a number that will define the thickness of the. The higher the number the thicker the line. Click on the **OK** button or press **Alt O** to insert the line thickness command (**<LT,x>**) into your format or click on the **Cancel** button or press **Alt C** if you wish to cancel this command.
8. Now that we have positioned the line and defined both the font and thickness, it is time to draw the actual line. Click on **Edit** or press **Alt E** from the main menu bar.
9. Click on **Insert FGL Command** or press **F** from the drop down menu.
10. Click on **Boxes/Lines/Graphics** or press **B**.

Designing Your Own Ticket

11. Click on either **Draw Vertical Line** (or press **V**) or **Draw Horizontal Line** (or press **H**) depending on which type of line you need. You will now be looking at one of these two screens.



Note: If you would prefer to use the icons on the tool bar as opposed to the menu bar, just click on the icon seventh over from the right, the one that says VERT and looks like a vertical line. This will replace steps 8-11.



Note: If you would prefer to use the icons on the tool bar as opposed to the menu bar, just click on the icon six over from the right, the one that says HORZ and looks like a Horizontal line. This will replace steps 8-11.

12. Enter in a number for length of the line in pixels. Click on the **OK** button or press **Alt O** to insert the line command (either **<Vx>** or **<Hx>**) into your format or click on the **Cancel** button or press **Alt C** to cancel this command.
13. **Drawing a Logo** – This section will detail the steps for inserting a logo into your ticket format.

 1. The first thing you need to do before attempting to insert a logo into a ticket format is to load the logos into the program and

Designing Your Own Ticket

- download them to the printer. (See the section above on Setup – Downloading Printer Logos for complete directions on how to do this step.)
2. Place your cursor in the format (bottom half of the screen) where you wish to start the line.
 3. Type in a positioning command. For logos this command is **<SPx,y>** to mark off the starting point for the line. This command is very similar to the row/column command **<RCx,y>**, where x identifies the number of rows down and y identifies the number of columns across. This command must be manually typed into your format.
 4. Click on **Edit** or press **Alt E** from the main menu bar.
 5. Click on **Insert FGL Command** or press **F** from the drop down menu.
 6. Click on **Boxes/Lines/Graphics** or press **B**.
 7. Click on **Draw Logo** or press **L**. You will now be looking at a screen similar to this one.



Note: If you would prefer to use the icons on the toolbar as opposed to the menu bar, just click on the icon that looks like a cactus, the eighth one from the right. Clicking on this icon will replace steps 4-7

8. Type in the number of the pre-loaded logo you wish to use. Click on the **OK** button or press **Alt O** to insert the logo into you format. If you wish to cancel the command, click on the **Cancel** button or press **Alt C**.

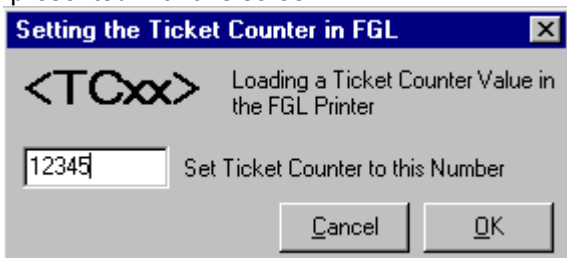
Ticket Counter - Your FGL thermal printer maintains its own internal ticket counter, which you can access for printing or resetting. This counter simply counts each ticket image produced, no matter what it is for, either an actual show, paid or not, or just a sample ticket, like spitting out one of these sample tickets from **FGL Ticker Designer**. This counter is completely independent of the counters maintained by **Tick-It!**, but it still has uses. If all you want is a unique number to

Designing Your Own Ticket

print on all tickets produced, say for a raffle or identification purposes, then this counter is great. There are two commands for utilizing the internal ticket counter the first is **<TC#>**, where # is the starting number you want to load. Once loaded, the ticket counter will increment each time a ticket is printed, for whatever reason. However, if you have a **<TC#>** command embedded in your ticket format, the counter will continue to be reset to the number specified in that command, so only that number would print on every ticket you produce, so generally you will not be inserting the **<TC#>** command into your ticket format. The command you are more likely to use is the **<PC>** command which tells the printer to print the ticket counter on the ticket. This command will print numbers sequentially on each ticket

To insert either of the ticket counter command into a format, just follow these steps.

1. Place your cursor in the format commands on the bottom half of the screen where you wish to insert the command.
2. Click on **Edit** or press **Alt E** from the main menu bar.
3. Click on **Insert FGL Command** or press **F** from the drop down menu.
4. Click on **Ticket Counter** or press **T**.
5. Select either **Set Ticket Counter** (or press **C**) or select **Print Ticket Counter** (or press **P**). If you select **Print Ticket Counter** the program will simple insert the **<PC>** command into your format. (Note: If you prefer to use the icons on the tool bar as opposed to the menu bar, to insert the **<PC>** command, just click on the icon third from the right, the one that says **9876**.) If you select **Set Ticket Counter** to insert the **<TCx>** command you will be presented with this screen.



6. Enter the number you wish to set the ticket counter to and click on the **OK** button or press **Alt O**. If you no longer wish to insert

Designing Your Own Ticket

the ticket counter command click on the **Cancel** button or press **Alt C**.

Designing Your Own Ticket

Printer Control - There are several command that you can send to the printer to give it specific instructions. These instructions do not effect what prints on the ticket. They do, however, effect how the printer behaves. To insert printer control commands into your format, follow these steps.

1. Place your cursor in the format commands, on the bottom half of the screen, where you wish to insert the printer control command.
2. Click on **Edit** or press **Alt E** from the main menu bar.
3. Click on **Insert FGL Command** or press **F** from the drop down menu.
4. Click on **Printer Control** or press **C**.
5. From the next menu select the printer control command you wish to use by clicking on the command or by typing in the letter within the command that is underlined. This will inserted the command into your format and sent it to the printer along with the other formatting commands. Below is a summary of what each of the printer control commands does.

Clear Buffer – This command will remove any information in the printers buffer. Giving you a clean start, this is usually the first command in a ticket format file.

Repeat Command – This command will repeat the last command sent to the printer. Rarely, if ever used with Tick-It!.

Print Only – This command tells the printer to print the ticket without ejecting or cutting it. Rarely, if ever used with Tick-It!.

Print and Eject – This command tells the printer to print the ticket and then eject it. Rarely, if ever used with Tick-It!.

Print and Hold – This command tells the printer to print the ticket and hold it in place. Rarely, if ever used with Tick-It!.

Print No Cut – This command tells the printer to print the ticket, eject it, but not cut it. Rarely, if ever used with Tick-It!.

Transparent Mode On – All data sent by this command will be transmitted out of the CRT #1 port without being processed by the printer. Rarely, if ever used with Tick-It!.

Designing Your Own Ticket

Transparent Mode Off – Returns the printer to normal operations. Stops the Transparent Mode On command. Rarely, if ever used with Tick-It!

Designing Your Own Ticket

Insert *Tick-It!* Field – There are times when you want a specific bit of data from the *Tick-It!* program to print on your ticket. For example, when you want the program to fill in the name of the event or the price of the ticket. To do this, you must use a *Tick-It!* **@FIELD** command. *Tick-It!* **@FIELD** commands are NOT a part of the FGL language. They are instead a part of the language used by *Tick-It!* to describe how tickets are to appear. What happens is this: *Before* the commands are sent to your printer, *Tick-It!* interprets the **@FIELD** commands and replaces them with the ACTUAL DATA VALUES in effect when the ticket is printing. By the time they are sent to the thermal printer, they are converted to ordinary text containing the proper values, so the printer just treats them like any other text to print.

@FIELD command must be on a separate line, there can be no spaces in front of the command, and the **@FIELD** command must be the ONLY command on the line. The command should appear in ALL UPPERCASE LETTERS. Additionally, it is usually good practice to specify the position with an **<RCx,y>** command on the line just prior to the **@FIELD** command. Here is how the **@FIELD** command works.

The format for the **@FIELD** command is as follows:

@FIELD NAME,LENGTH,JUSTIFICATION

This is what each piece of the command does.

NAME – Required parameter - The name of Ticket or Receipt Field.

LENGTH - Required if Justification is Used - The maximum number of characters to allow to print.

JUSTIFICATION - Not Required - Omitted or use **C** for centered or **R** for right aligned.

Examples of how the **@FIELD** command may be used.

To print the Event Name, clipped and centered in 40 characters

@FIELD EVENT,40,C

To print the Total, clipped and right justified in 10 characters

@FIELD TOTAL,10,R

To print the Section Name, clipped to 20 characters, left justified

@FIELD SECTION,20

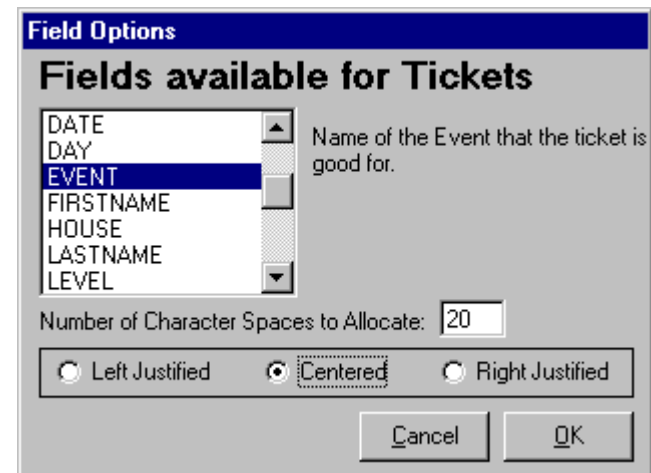
To print the Ticket Date, without clipping, left justified

@FIELD TICKDATE

Designing Your Own Ticket

The following steps detail how to insert the **@FIELD** command into your format.

1. Place your cursor in the format commands, on the bottom half of the screen, where you wish to insert the field command.
2. Insert the **<RCx,y>** command to position the location of the field. (See the discuss on Row/Column Positions for complete detail on how to do this step.)
3. Go to the next line, as the **@FIELD** command must always on a line by itself.
4. Click on **Edit** or press **Alt E** from the main menu bar.
5. Click on **Insert Tick-It! Field** or press **I** from the drop down menu. You will now be looking at a screen similar to this one.



Note: If you would prefer to use the icon on the tool bar as opposed to the menu bar, just click on the sixth icon from the left, the one that looks like a bar of xxx's. Clicking on this icon will replace steps 2 and 3.

6. Select the field by clicking on it. Use the scroll to move up and down, so that you can see the complete list of available fields.
7. Enter the number of spaces to allocate for this field.
8. Select your justification, by clicking on the circle next to your selection.
9. Click on the **OK** button or press **Alt O** to insert the **@FIELD** command into your format. If you do not wish to insert the

Designing Your Own Ticket

command at this time, click on the **Cancel** button or press **Alt C** to cancel the command.

Designing Your Own Ticket

@SYNC Command – This command sets an absolute printer position for thermal printers, and forces the input buffer to be processed by the printer. Thermal printers, such as Practical Automation or Boca Ticket Spitters, require special commands for positioning the print cursor.

When using your thermal printer in FGL mode with a Generic / Text Only printer driver, the only thing you really need to know about the **@SYNC** command is that you may have to periodically insert this command into your format file in order to “break it up” into “chunks” small enough for your printer to digest. In addition to specifying a cursor location, the **@SYNC** command also forces the thermal printer to process its command buffer. If your ticket format is long and complex, it could over-run this buffer, causing your printer to not print your entire ticket, or to skip it completely. Using the **@SYNC** command (with any coordinates) forces the printer to process all commands received since the last **@SYNC** command.

The format for the **@SYNC** command is **@SYNC X,Y**

X – (required) is the horizontal location

Y (required) is the vertical location

Examples of using the **@SYNC** Command.

To locate the printer cursor to (300,200)

@SYNC 300,200

To locate the printer cursor to (1000,12500)

@SYNC 1000, 12500

If you wish to use this command it must be manually typed in.

Designing Your Own Ticket

@CR Command – This command sends a hard carriage return to your printer, causing the command buffer to be processed. This is very useful for long and complex ticket format files, where you need to “break up” your formatting instructions into smaller “chunks” more easily processed by your printer.

When using your thermal printer in FGL mode with a Generic / Text Only printer driver, the only thing you really need to know about the **@CR** command is that you may have to periodically insert this command into your format file in order to “break it up” into “chunks” small enough for your printer to digest. The **@CR** command forces the thermal printer to process its command buffer. If your ticket format is long and complex, it could over-run this buffer, causing your printer to not print your entire ticket, or to skip it completely. Using the **@CR** command forces the printer to process all commands received since the last **@CR** command.

The format for the **@CR** command is **@CR**

Example of using the **@CR** Command.

@CR

If you wish to use this command it must be manually typed in.

Designing Your Own Ticket

Non-Command Text – Anything you type into the ticket format that is not a command will be read by the printer as just what it is, text.

Example: If you want to have the words ADMIT ONE print on the top your ticket, all you would need to do is decide on the position of the text (<**RCx,y**> command), a new font if you wish (<**Fn**> command) and if you wish a height/width multiplier (<**HWn,m**> command).

Below is the coding to insert the text AMIT ONE with a new font and a height/width multiplier

```
<RC20,1370><F3><HW2,3>ADMIT ONE
```

You can also insert additional commands if you like, such as inverted text (<**EI**>).

Designing Your Own Ticket

Bar Coding - Your FGL thermal printer can produce a variety of bar codes to print on your ticket. Bar coding commands are actually put together with several options, depending upon what bar code type you wish to print. Here is the general form of a bar code command:

<AB#>something to print

Now, you will NOT use the letters "AB" ever, they are just placeholders representing command options here.

Instead, you will replace the "A" with:

- U if you want to print UPC and EAN8 codes
- E if you want to print EAN-13
- N if you want to print code 39 (3 of 9, this is the most popular)
- F if you want to print 2 of 5
- C if you want to print uss-codabar
- O if you want to print code 128

And you will replace the "B" with:

- P if you want the barcode printed horizontally (Picket Fence)
- L if you want the barcode printed vertically (Ladder)

You will replace the # with a number that indicates how "wide" the barcode is to be, in units of 8 dots each. For example, if you use "4", then the barcode will be 32 dots tall. ($4 \times 8 = 32$)

You will replace the "something to print" with whatever it is you want written in barcode.

For example, if you wanted to print the number "***89887***" in code 39 barcode, vertically, 64 dots wide, the command would be **<NL8>*89887*** (*the asterisks are the start and stop symbols for code 39*)

Most times, you will want the printer to also produce a human readable text version of the data being printed in barcode, just in case an operator ever has to do something with the data manually. The command to do this is **<BI>** and it is ONLY IN EFFECT for the barcode command that IMMEDIATELY FOLLOWS IT. So, adding that to the example above would be: **<BI><NL8>*89887***

On printers with very fine print head resolution (200 dpi or greater) you may need to make the individual lines of the barcode "thicker" so

Designing Your Own Ticket

that they are easier and more reliable to scan. The command to “thicken up” the barcode lines is: **<X#>** where **#** is a multiplier of how many times thicker you want the barcode to be. For example, **<X2>** would make the minimum barcode line two dots thick. The command **<X5>** would make it 5 dots thick. Adding that to our example we get... **<BI><X2><NL8>*89887***

If you wish to use bar code commands, they must be manually typed in.

Command Key

The following is a listing of the FGL commands recognized and processed by this Utility.

Positioning Commands

<RCx,y> Row/Column (x,y are numbers marking a point)
<SPx,y> Starting Point used for logo's only.
(x,y are numbers that mark the starting point)

Font Commands

<F1> Font 1 Characters (5x7)
<F2> Font 2 Characters (7x10)
<F3> OCRB Characters (17x31)
<F4> OCRA Characters (5x9)
<F5> Self Styled ASCII Font – Non-Rotating Only (5x9)
<F6> Large OCRB Characters (30x52)
<F7> OCRA Characters (15x29)
<F8> Courier Characters (18x30)
<F9> Small OCRB Characters (13x20)
<F10> Prestige Characters (25x41)
<F11> Script Characters (25x49)
<F12> Orator Characters (46x91)
<F13> Courier Characters (20x40)
<NR> No Rotation Printing
<RR> Rotate Right - Plus 90 Degrees
<RU> Rotate Up – Plus 180 Degrees
<RL> Rotate Left – Minus 90 Degrees
<EI> Enable Inverted Text (White on Black)
<DI> Disable Inverted Text (Black on White)
<HWh,w> Font Height Width
(h=height multiplier w=width multiplier)

Graphics Commands

<BXx,y> Draw Box (x,y are numbers that define a start point)
<VXn> Draw Vertical Line (n is a number defining length)
<HXn> Draw Horizontal Line (n is a number defining length)
<LTn> Line Thickness (n is a number defining thickness)
<LDn> Print Downloadable Logo (n is a number ?)

Command Key

Barcoding Commands (utility simulates barcodes only)

<Xn>	Barcode Expansion (n is a number defining ?)
<BI>	Barcode Interpretation
<ULn>	UPC Ladder Barcode (n is a number defining barcode height)
<ELn>	EAN-13 Ladder Barcode (n is a number defining barcode height)
<NLn>	Code 39 Ladder Barcode (n is a number defining barcode height)
<FLn>	2 of 5 Ladder Barcode (n is a number defining barcode height)
<CLn>	USS Codabar Ladder Barcode (n is a number defining barcode height)
<OLn>	Code 128 Ladder Barcode (n is a number defining barcode height)
<UPn>	UPC Picket Fence Barcode (n is a number defining barcode height)
<EPn>	EAN-13 Picket Fence Barcode (n is a number defining barcode height)
<NPn>	Code 39 Picket Fence Barcode (n is a number defining barcode height)
<FPn>	2 of 5 Picket Fence Barcode (n is a number defining barcode height)
<CPn>	USS Codabar Picket Fence Barcode (n is a number defining barcode height)
<OPn>	Code 128 Picket Fence Barcode (n is a number defining barcode height)

Other Commands

<CB>	Clear Buffer
<PC>	Print Ticket Counter
<TCx>	Set Ticket Counter

Please consult the programming guide for your specific model of thermal printer for a complete reference for FGL commands.

List of Available *Tick-It!* Fields

The following is a list of Ticket fields that are available for inserting into your ticket format using the ***Friendly Ghost Language Editor***.

ADDRESS1	The First Address Line specified in the HSE file
ADDRESS2	The Second Address Line specified in the HSE file
ADDRESS3	The Third Address Line specified in the HSE file
COMPANY	The Company Field of the Customer Record
CUSTADD	The Address Line 1 Field of the Customer Record
CUSTCITY	The City Field of the Customer Record
CUSTSTATE	The State Field of the Customer Record
CUSTZIP	The Postal Code Field of the Customer Record
DATE	The Date of the Event for the ticket being sold
DAY	The Day of the Event for the ticket being sold
EVENT	The Name of the Event for the ticket being sold
FIRSTNAME	The First Name Field of the Customer Record
HOUSE	The Name of the House the Event occurs at
INVNUM	The Invoice Number associated with the ticket being printed. Prints "000000" for batch printing, and "REPRINT" for ticket reprints.
LASTNAME	The Last Name Field of the Customer Record
LEVEL	The Level Name the ticket is good for
NUM	The Sequential Ticket Number generated by <i>Tick-It! 2K</i> , used DURING SALES AND BATCH PRINTING! Note that this is DIFFERENT than the internally maintained ticket number available when using Thermal Ticket Spitters, such as Practical Automation or Boca.
PATRON	The Patron Type of the Ticket (Adult, Child, etc)
PRICE	The Base Price of the Ticket (no taxes or charges)
ROW	The Row Name the ticket is good for
SEAT	The Seat Number the ticket is good for
SECTION	The Section Name the ticket is good for
SPONSOR	The Name of the Event Sponsor.
TICKSRG	Any PER TICKET Surcharge applied to the ticket price.
TICKTAX1	Any of TAX1, if applicable, applied to the ticket price.
TICKTAX2	Any of TAX2, if applicable, applied to the ticket price.
TICKTOTAL	The total price of the ticket which is the sum of the PRICE, Tax1 and Tax 2, if applicable, and any PER TICKET Surcharge.
TIME	The Time of the Event for the ticket being sold

General Troubleshooting Principles

**FIRST AND FOREMOST, READ AND FOLLOW THE INSTRUCTIONS FOUND IN THE MANUAL TITLED:
*How to Set Up Your Printer for Tick-It! for Windows***

With any complex system, whether electronic, mechanical or software, problems are inevitable. When problems occur, there are a few general rules that will take you fairly far in most situations:

1. Don't Panic! Sure, we know that problems happen at the worst possible time, and 10 people are breathing down your neck to get things running again, but blind hysteria has never solved a problem yet.
2. Think Simple! Think Small! Yup, 95% of all failures occur for very simple and stupid reasons. Check the power cable, check the paper supply, check the ribbon, check the interface cable. By walking through questioning very simple and basic things, you will be rewarded most of the time by finding the simple and inexpensive root cause of your difficulty.
3. Be Methodical. Don't change or alter multiple things at a time, and then check the results. Make one change and observe the results. If it does not have the desired effect, return whatever you changed to its original value, and try something else.
4. Consult the documentation. Read the manual for both the software and the hardware. Often the answer to a common problem can be found there.
5. Consult others in your organization. Often, problems are seen and solved by more than just one person. Find out if anyone else has seen a problem like yours. Find out if anyone else has done anything unusual lately. Too many times we have heard stories where some other user deleting valuable data or alters something that adversely affects another user or program.
6. If you have been calm, and been thinking small, simple and basic, and have been methodical, and you still have not found a solution, there is still one more thing for you to do. You must document and repeat the steps that cause the failure! You **must** do this before calling technical support. If you can not explain your problem in detail **and** re-created it, then technical support will not be able to help you.

Troubleshooting

Printing Problems

The single most common complaint about ALL software comes down to not being able to print or not getting the output you expected. If you are unable to print a ticket or the printed output is not what you expect, then check the obvious first. The following is a list of items you should check, before calling technical support.

1. Is the printer turned on?
2. Is the Printer On Line?
3. Is the Printer Paper Supply OK?
4. Are all the Cables plugged in securely, both at the Printer and the Computer?
5. Does the Printer have a proper Ribbon, or enough Toner or Ink?
6. Is the Computer that controls the Printer turned on?
7. Are you Logged into the Network, if you use one?
8. Do you have rights to use the printer, if you are on a Network?
9. Is the Print Server running, if you are on a Network?
10. Is Background printing enabled in Windows?
11. Is the proper printer port selected in the software?
12. Are you REALLY routing your print jobs to the printer you THINK you are?
13. Are you sending "Empty Jobs" like tickets formatted to be blank?
14. Are the Printer Control settings for the Event set to Print Nothing at all?
15. Is **Tick-It! 2K** the only program affected, or are all your programs failing to print?

If you have checked all these items, and no cause for failure turns up, then you might actually have a printing problem.

Obtaining Help/Technical Support

Obtaining Help/Technical Support:

If you are having difficulty getting the *Friendly Ghost Language Ticket Designer* to work properly or your tickets are just not printing the way you would like them to you should check out your own environment first. Check things out to make sure the problem is not your PC, printer or network. If all of these things check out your next step is to read this booklet or utilize the on-line help screens. The on-line help screens can be accessed by clicking on **Help** from the main menu bar (**Alt H**) or by pressing the **F1** key while in the program.

For those of you with internet access there are also a few direct links to Web sites built right into the program. Just click on **Help** from the main menu bar or press **Alt H** and select one of three Web sites; **New Concepts Software on the Web**, **Boca Systems on the Web** or **Practical Automation on the Web**.

If all else fails and you still have unanswered questioned turn to NCS for help.

1. If you have access to the Internet, visit our web site at WWW:<http://www.ncsoftware.com>. It is open 24 hours a day 365 days a year, and there is never a charge for visiting our web site. The latest and greatest fixes are posted here.
2. Call us. We provide phone support between the hours of 9:00 a.m. and 5:00 p.m. eastern standard time, Monday-Friday. The phone number is (810) 776-2855. Phone support costs \$15.00 for each 15 minutes.

Where to Find Thermal Printers and Ticket Stock

Where to Find Thermal Printers

Thermal Ticket Spitters offer the best of all worlds, combining very high speed printing, excellent graphics capabilities as well as making counterfeiting difficult. Virtually all major venues use thermal ticket printers for these very reasons.

Practical Automation offers a variety of printers with prices and options to suit most every need. If you are interested in the advantages thermal printers offer, by all means, give them a call, and let them know you are using ***Tick-It! 2K***. They will be happy to assist you.

Practical Automation, Inc.

45 Woodmont Road
Post Office Box 3028
Milford, CT 06460
Phone: (203) 882-5640
Fax: (203) 882-5648
www.practicalautomation.com

New Concepts Software, Inc. would like to take a moment and issue a big ***THANK-YOU!*** to the fine folks at Practical Automation. Without their substantial developer support, our product would not be as good as it is today.

Where to Find Thermal Printers and Ticket Stock

Where to Find Printers

BOCA Systems offers a variety of printers with prices and options to suit most every need. If you are interested in the advantages thermal printers offer, by all means, give them a call, and let them know you are using ***Tick-It! 2K***.

BOCA Systems, Inc.

1065 South Rogers Circle
Boca Raton, FL 33487
Phone: (561) 998-9600
Fax: (561) 998-9606
www.bocasystems.com

NOTE: Newer models of Boca Printers are shipped configured to emulate (that is to say, behave as if) they are a Hewlett-Packard HP2 printer. This is so an existing Windows printer driver can be used. This is all fine and it works great, however, since the printer is no longer responding to the older FGL language, you **SHOULD NOT** use ticket formats designed specifically for thermal printers, as they will print "goofy". Use a format such as TICKET.F97 or NCSGEN10.F97 as a starting point for developing your own format, and use the standard DESIGNER utility, not this one.

New Concepts Software, Inc. would like to take a moment and issue a big ***THANK-YOU!*** to the fine folks at Boca Systems. Without their substantial developer support, our product would not be as good as it is today.

Where to Find Thermal Printers and Ticket Stock

Where to Find Printers

DATAMAX offers a variety of printers with prices and options to suit most every need. If you are interested in the advantages thermal printers offer, by all means, give them a call, and let them know you are using ***Tick-It! 2K***.

Datamax World Headquarters

4501 Parkway Commerce Boulevard

Orlando, Florida USA 32808

Phone: (407) 578-8007

Fax: (407) 578-8377 fax

www.datamaxcorp.com

Where to Find Thermal Printers and Ticket Stock

Where to Find Thermal Ticket Stock

Ticket Craft, Inc.

1390 Jerusalem Avenue
Merrick, NY 11566
Phone: 516-538-6200 (outside NYS 800-645-4944)
Fax: 516-538-4860
Web Site: www.ticketcraft.com
E-Mail: tickets@ticketcraft.com

Globe Ticket and Label Company

3435 Empire Blvd.
Atlanta, GA 30354
Phone: 800-523-5968
Fax: 404-762-7019
Web Site: www.globeticket.com
E-Mail: globemel@aol.com

Weldon, Williams & Lick, Inc.

711 North A Street
P. O. Box 168
Fort Smith, Arkansas 72902-0168
Phone: 800-242-4995
Fax: 501-783-7050

National Ticket Company

P. O. Box 547
Shamokin, PA 17872
Phone: 800-829-0829
Fax: 800-829-0888
Web Site: www.nationalticket.com
E-Mail: ticket@nationalticket.com

World Wide Ticket & Label

1673 S.W. 1st Way #A1
Deerfield Beach, FL 33441
Phone: 877-426-5754 or 954-426-5754
Fax: 954-426-5761
Web Site: www.wwticket.com
E-mail: wwticket@bellsouth.net

Sample FGL Programs

The following are little snippets of FGL programs designed to help teach you how to use the language for formatting your own tickets. Each example is deliberately kept small and simple, so that you can understand the building blocks of FGL code.

If you are new to FGL programming, try running each of examples shown. You should find them instructive. The principle command being taught in each example is highlighted in **bold** text.

Specifying Locations on your Tickets	58
Printing Simple Text	59
Printing Tick-It! Data Fields	60
Selecting Printer Fonts and Typefaces	61
Stretching and Scaling Text	63
Rotating Text	64
Inverse Printing	65
Drawing Lines	66
Drawing Boxes	68
Printing Logos	69
Printing Barcodes	70
Using the Internal Printer Ticket Counter	72

Sample FGL Programs

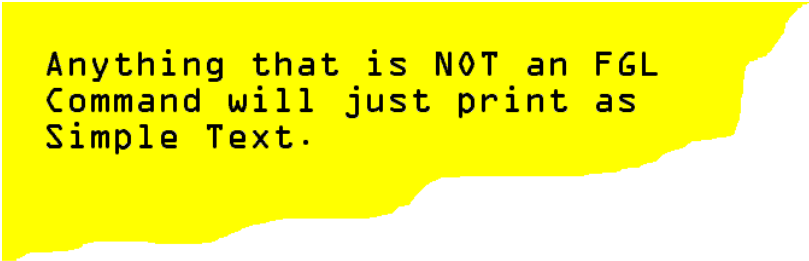
Printing Simple Text

Simply put, anything your printer DOES NOT RECOGNIZE as an FGL command, it attempts to print as plain text. This is just like any other printer would do.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><HW1,1><RC50,50>  
Anything that is NOT an FGL  
<RC80,50>  
Command will just print as  
<RC110,50>  
Simple Text.
```

The output from the above code should look very similar to this:



```
Anything that is NOT an FGL  
Command will just print as  
Simple Text.
```

Sample FGL Programs

Printing Data Fields from Tick-It!

There are times when you want a variable bit of data from the Tick-It! program to print on your ticket. For example, when you want the program to fill in the name of the event, or the price of the ticket. To do this, you must use a Tick-It! **@FIELD** command. Tick-It! **@FIELD** commands are NOT a part of the FGL language. They are instead a part of the native scripting language used by Tick-It! to describe how tickets are to appear. What happens is this: *Before* the commands are sent to your printer, Tick-It! interprets the **@FIELD** commands and replaces them with the ACTUAL DATA VALUES in effect when the ticket is printing. By the time they are sent to the thermal printer, they are converted to ordinary text containing the proper values, so the printer just treats them like any other text to print.

@FIELD command must be on a separate line, there can be no spaces in front of the command, and the **@FIELD** command must be the ONLY command on the line. The command should appear in ALL UPPERCASE LETTERS. Additionally, it is usually good practice to specify the position with an **<RCx,y>** command on the line just prior to the **@FIELD** command.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><HW1,1>  
<RC100,100><EI>    EVENT NAME  
<RC100,500> PRICE  
<RC130,100><BX100,320>  
<RC130,500><BX100,140>  
<HW2,1><DI><RC150,110>  
@FIELD EVENT,15,C  
<RC150,510>  
@FIELD PRICE,6
```

The output from the above code should look very similar to this:



Selecting Printer Fonts

FGL Printers maintain 13 internal fonts that are different than the

Sample FGL Programs

fonts Windows uses. The internal fonts of an FGL printer are fixed bitmap fonts. The availability and actual appearance of these fonts may vary from manufacturer to manufacturer, and from model to model. Here is a list of the Fonts you can specify:

<F1>	Font 1 Characters	(5x7)
<F2>	Font 2 Characters	(7x10)
<F3>	OCRB Characters	(17x31)
<F4>	OCRA Characters	(5x9)
<F6>	Large OCRB Characters	(30x52)
<F7>	OCRA Characters	(15x29)
<F8>	Courier Characters	(18x30)
<F9>	Small OCRB Characters	(13x20)
<F10>	Prestige Characters	(25x41)
<F11>	Script Characters	(25x49)
<F12>	Orator Characters	(46x91)
<F13>	Courier Characters	(20x40)

(yes, Font 5 is missing from the list, as it was not documented in the thermal printer manuals)

The command to specify a font is <Fn>, where n is a number from 1 to 13. The font last selected REMAINS IN EFFECT until a different font is specified. So, if your entire ticket uses just one font face, you need only specify it one time.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<RC30,50><F1>This is Font 1 (it might be hard to see)
<RC50,50><F2>This is Font 2
<RC80,50><F3>This is Font 3
<RC130,50><F6>This is Font 6
<RC180,50><F2>These are simple font selection statements
```

The output from the above code should look very similar to the illustration on the following page:

Sample FGL Programs

```
This is Font 1 (it might be hard to see)
This is Font 2
This is Font 3
This is Font 4
These are simple font selection statements
```

}

Sample FGL Programs

Stretching and Scaling Fonts

You can “stretch” text either horizontally or vertically, or both, simply by giving a Height/Width multiplier command to the printer.

The command to specify the text Height/Width ratio is **<HWn,m>**, when **n** and **m** are numbers from 1 to 5 or so. (Anything larger and the lettering gets too distorted to read well) The Height/Width multipliers last specified REMAIN IN EFFECT until a new set of multipliers is given, or a different font is specified. So, if your entire ticket uses just one font face, scaled just one way, you need only specify it one time.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3>
<RC50,50><HW1,1>Font 3 NORMAL
<RC80,50><HW2,1>Font 3 stretched twice as tall!
<RC150,50><HW1,2>Font 3 stretched twice as wide!
<RC180,50><HW2,2>Font 3 stretched tall and wide!
```

The output from the above code should look very similar to this:

```
Font 3 NORMAL
Font 3 stretched twice as tall!
Font 3 stretched twice as wide!
Font 3 stretched tall and wide!
```

Sample FGL Programs

Rotating Text

Text can be rotated to any one of four different orientations. Each orientation has its own command. They are:

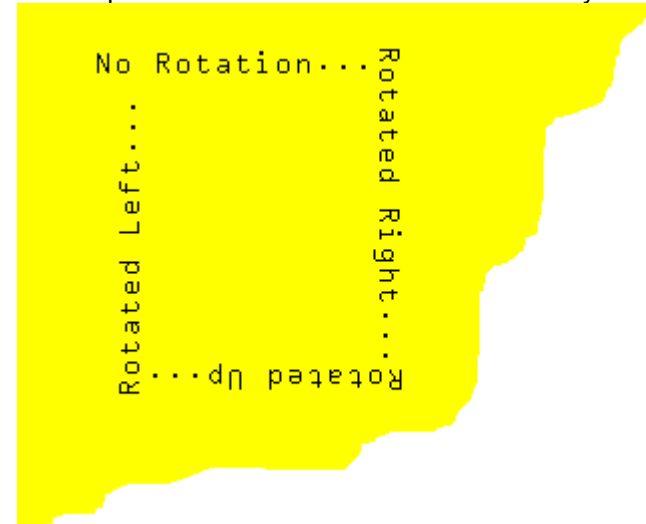
<NR>	No Rotation Printing	(0°)
<RR>	Rotate Right	(+90°)
<RU>	Rotate Up	(+180°)
<RL>	Rotate Left	(-90°)

The LAST orientation specified REMAINS in effect until you specify another. So, if your ticket's text all faces the same direction, you need only specify it one time.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><HW1,1>  
<RC50,150>  
<NR>No Rotation...  
<RR>Rotated Right...  
<RU>Rotated Up...  
<RL>Rotated Left...
```

The output from the above code should look very similar to this:



Sample FGL Programs

Inverse Printing

FGL Printers will let you modify any font into an Inverse Font, which simply means that the background for the letters becomes black, instead of the ticket stock color.

The command to enable inverse printing is: **<EI>**

The command to disable inverse printing is: **<DI>**

Whatever print mode is last specified, normal or inverse, REMAINS IN EFFECT until you specify another mode. So, if all your text is black on a normal background, then you need only specify the mode one time.

A neat formatting trick is to combine inverse printing with boxes to form cool looking field forms.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><HW1,1>  
<RC100,100><EI>  EVENT NAME  
<RC130,100><BX100,320>  
<RC150,180><HW2,1><DI>C-A-T-S!
```

The output from the above code should look very similar to this:



Sample FGL Programs

Drawing Lines

FGL has two different line drawing commands, as well as a command that lets you specify how thick the lines being drawn will be. Here are the commands to draw lines and specify their thickness:

<VXr> Draw Vertical Line. r is a number, such as 45
<HXc> Draw Horizontal Line. c is a number, such as 45
<LT#> Line Thickness command. # is a number, such as 5

Lines are drawn from the last position specified to the printer, either directly by an **<RCx.y>** command, or by the last printer cursor position used by the previous command. The numbers you specify in the **<VXr>** and **<HXc>** commands are the length of the line drawn in dots.

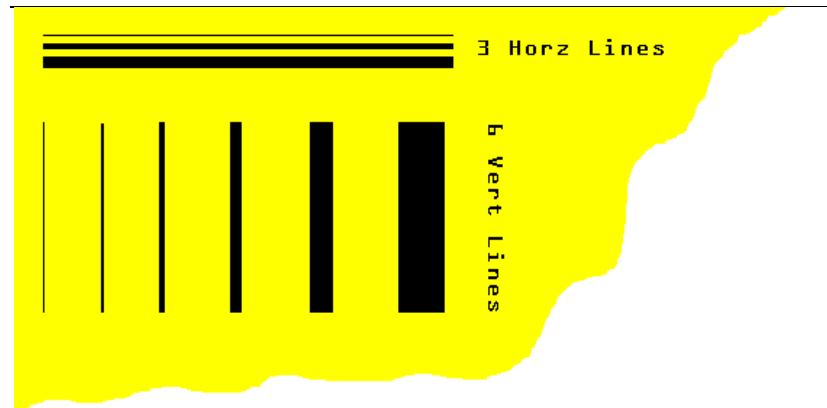
The thickness specified in the **<LT#>** command REMAINS IN EFFECT until you specify another line thickness.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><HW1,1>  
<LT1><RC50,50><HX300>  
<LT4><RC60,50><HX300>  
<LT8><RC70,50><HX300>  
<LT1><RC150,50><VX200>  
<LT2><RC150,100><VX200>  
<LT4><RC150,150><VX200>  
<LT8><RC150,200><VX200>  
<LT16><RC150,250><VX200>  
<LT32><RC150,300><VX200>  
<RC50,400>3 Horz Lines  
<RR><RC150,400>6 Vert Lines
```

The output from the above code should look very similar to the illustration on the following page:

Sample FGL Programs



Sample FGL Programs

Drawing Boxes

FGL has a command to draw boxes, so you do not have to write instructions to draw 4 different lines, as well as a command that lets you specify how thick the lines of the box being drawn will be. Here are the commands to draw boxes and specify their thickness:

- <BXh,w> Draw Box command. h,w are numbers, such as 30,45
- <LT#> Line Thickness command. # is a number, such as 5

Boxes are drawn from the last position specified to the printer, either directly by an <RCx.y> command, or by the last printer cursor position used by the previous command. The numbers you specify in the <BXh,w> commands are the Height and Width of the box drawn in dots.

The thickness specified in the <LT#> command REMAINS IN EFFECT until you specify another line thickness.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><HW1,1>  
<RC100,100><EI>    EVENT NAME  
<RC130,100><LT1><BX100,320>  
<RC150,180><HW2,1><DI>C-A-T-S!
```

The output from the above code should look very similar to this:



Sample FGL Programs

Printing Pre-Loaded Graphics (Logos)

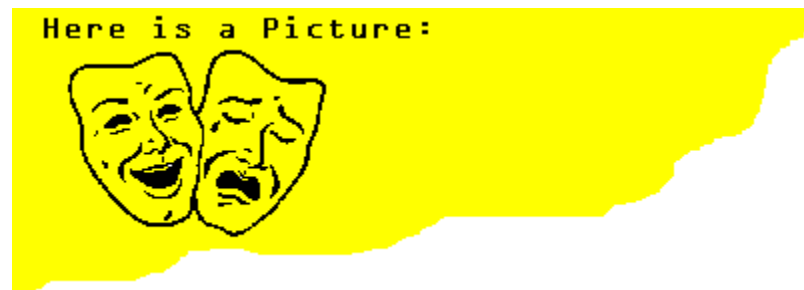
Your FGL Thermal Printer can store graphics images in its temporary memory. While the actual number of images your printer can hold depends upon the size of the pictures and the amount of memory your printer is equipped with, this utility will only track and load a maximum of 8 images. Images downloaded to your printer's memory are referred to as "Logos". There are two commands you need to use in order to print logos. The first command you will use is a positioning command, much like the **<RCx,y>** command, but this one is just used for locating logos. It is **<SPx,y>** where **x** and **y** are dot positions, just like the RC command. The SP stands for "Starting Point". The second command specifies the logo in memory you wish to print. It is **<LD#>** where **#** is a number from 1 to the limit of logos stored in your printer.

<SPx,y> Starting Point for Logos Only. x,y are numbers
<LD#> Print Downloadable Logo. # is a number

Select one of the included bitmap images as logo number 1, and download it to your printer. (we are using the Drama Masks in this example) After you have downloaded the image, copy and paste the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><DI><HW1,1><RC20,50>Here is a Picture:  
<SP50,50><LD1>
```

The output from the above code should look very similar to this:



Sample FGL Programs

Printing Barcodes

Your FGL Printer can produce a variety of barcodes to print on your ticket. Barcoding commands are actually put together with several options, depending upon what barcode type you wish to print. Here is the general form of a barcode command, and we'll explain what each option does as we go...

<AB#>something to print

Now, you will NOT use the letters "AB" ever, they are just placeholders representing command options here.

Instead, you will replace the "A" above with:

- U if you want to print UPC and EAN8 codes
- E if you want to print EAN-13
- N if you want to print code 39 (3 of 9, this is the most popular)
- F if you want to print 2 of 5
- C if you want to print uss-codabar
- O if you want to print code 128

You will replace the "B" above with:

- P if you want the barcode printed horizontally (Picket Fence)
- L if you want the barcode printed vertically (Ladder)

You will replace the # with a number that indicates how "wide" the barcode is to be, in units of 8 dots each. For example, if you use "4", then the barcode will be 32 dots tall. (4 x 8 = 32)

You will replace the "something to print" with whatever it is you want written in barcode.

For example, if you wanted to print the number "**89887*" in code 39 barcode, vertically, 64 dots wide, the command would be **<NL8>*89887*** (the asterisks are the start and stop symbols for code 39)

Most times, you will want the printer to also produce a human readable text version of the data being printed in barcode, just in case an operator ever has to do something with the data manually. The command to do this is **<BI>** and it is ONLY IN EFFECT for the barcode command that IMMEDIATELY FOLLOWS IT. So, adding that to the example above would be: **<BI><NL8>*89887***

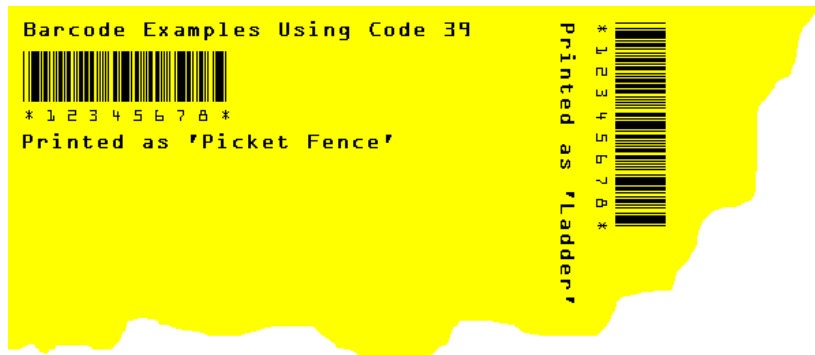
Sample FGL Programs

On printers with very fine printhead resolution (200 dpi or greater) you may need to make the individual lines of the barcode “thicker” so that they are easier and more reliable to scan. The command to “thicken up” the barcode lines is: **<X#>** where **#** is a multiplier of how many times thicker you want the barcode to be. For example, **<X2>** would make the minimum barcode line two dots thick. The command **<X5>** would make it 5 dots thick. Adding that to our example we get... **<BI><X2><NL8>*89887***

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><HW1,1><RC50,50>Barcode Examples Using Code 39  
<RC100,50><X2><BI><NP6>*12345678*  
<RC180,50><F3>Printed as 'Picket Fence'  
<RC50,950><X2><BI><NL6>*12345678*  
<RC50,850><F3><RR>Printed as 'Ladder'
```

The output from the above code should look very similar to this:



Sample FGL Programs

Using the Internal Printer Ticket Counter

Your FGL printer maintains it's own internal ticket counter, which you can access for printing or resetting. This counter just counts each ticket image produced, no matter what it is for, either an actual show, paid or not, or just a sample ticket, like spitting out one of these demonstration tickets. This counter is completely independent of the counters maintained by Tick-It!, but it still has uses. If all you want is a unique number to print on all tickets produced, say for a raffle or identification purposes, then this counter is great. Here are the internal ticket counter commands:

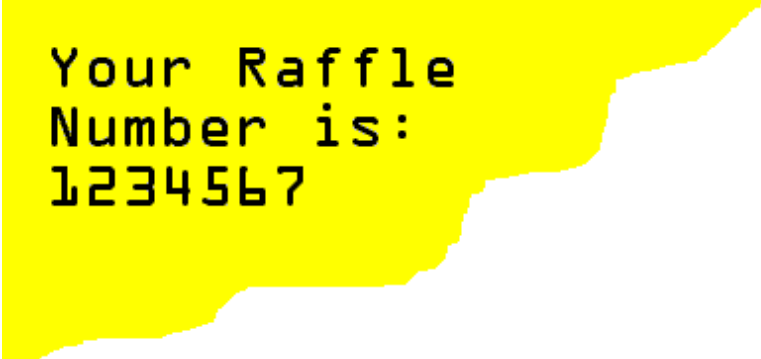
<PC> Print Ticket Count command.
<TC1234567> Load Ticket Count. 1234567 is the number to load.

You generally won't be using the **<TC#>** command in your formats, since if you did, every ticket would print with the same number on it. Instead, using this editor, you'll just send a **<TC#>** command to the printer to initialize the counter to whatever value you want.

Type the sample code below right into the FGL Instruction Window, and print a sample ticket!

```
<F3><HW1,1>  
<RC50,50>Your Raffle  
<RC80,50>Number is:  
<RC110,50><PC>
```

The output from the above code should look very similar to this:



```
Your Raffle  
Number is:  
1234567
```

Example Ticket Design from Start to Finish

There are a few things you need to get worked out before you can dive in and start designing tickets.

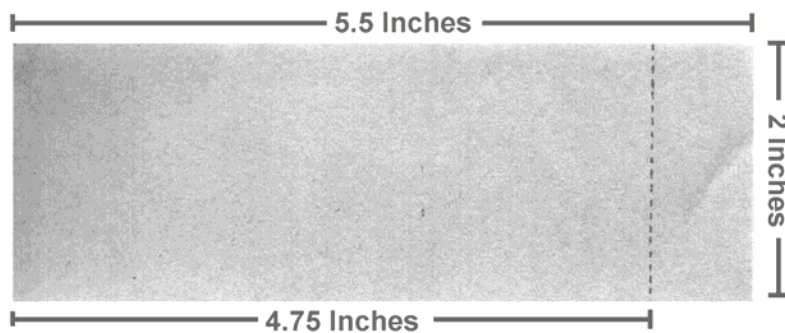
- You will need to select the thermal printer you will use for printing your tickets, and know its printhead density, available memory and other options.
- You need to select the paper stock for printing the tickets on.
- You should take a *BLANK* sample of your ticket stock, and sketch out *BY HAND*, what you want your ticket to look like. This does not have to be perfect by any means, just a draft of your layout to go by. Doing this will help you see what is and is not practical for the style of ticket you are using.

To help you get started designing your own ticket formats, we are going to detail the complete design of a typical ticket from start to finish, explaining each step of the way. Similar steps are detailed just one time, it is expected that you can repeat the remainder. It is **STRONGLY** recommended that before you begin designing your own tickets, that you walk through this example right in the FGL Designer, typing in the commands. This way you will get a very good practice run.

For the purposes of this example, we will assume the following:

- We are using a Boca Thermal Printer, with a 300 DPI printhead. If yours is different, adjust the coordinates in the example.
- We will be using Plain stock, with no pre-printed logos or graphics.

OK, first things first, let's take a look at the stock we are using, and get some overall dimensions:

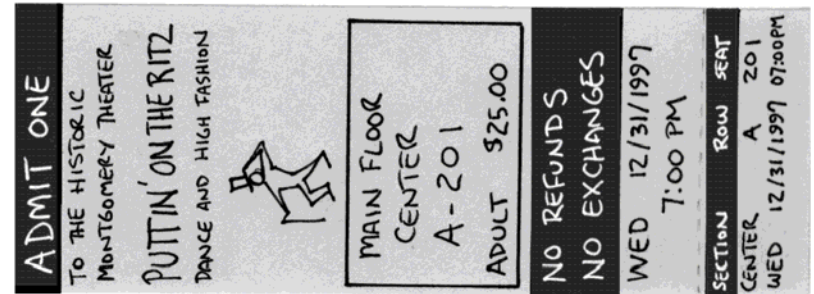


Example Ticket Design from Start to Finish

We see that we have a ticket with an overall dimension of 5.5 inches by 2 inches.

We have a “main body” of the ticket that is 4.75 inches wide, and a single stub that is .75 inches wide. See the illustration on the previous page.

Our next step should be to take a straight-edged ruler and a pen, and mark up the ticket by hand to have an example of what you want the finished product to look like.



Marking a ticket up by hand let's you see just what you can fit where, and helps you get a feel for what works and looks good, and what doesn't. Do not be worried if your penmanship is bad, or that the measurement of boxes is exactly perfect. At this point you are looking for a gross outline of the final ticket.

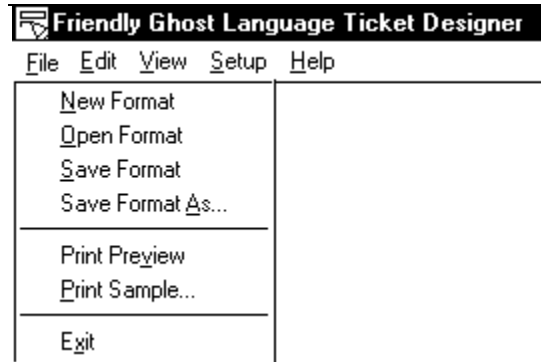
Since our printer can print logos that have been downloaded to it, as well as boxes, let's make the following decisions:

- We want the “dancing tuxedo man” logo to be loaded into memory position #1 in the printer.
- We want to make the usher's life easier by putting a box around the seating information, so he or she can find it quicker.

You may think this is the ugliest ticket ever, but bear in mind, this is just an example to illustrate how to do things.

OK, so in the FGL Designer, we would start a new ticket by pulling down the File Menu, and selecting New Format

Example Ticket Design from Start to Finish



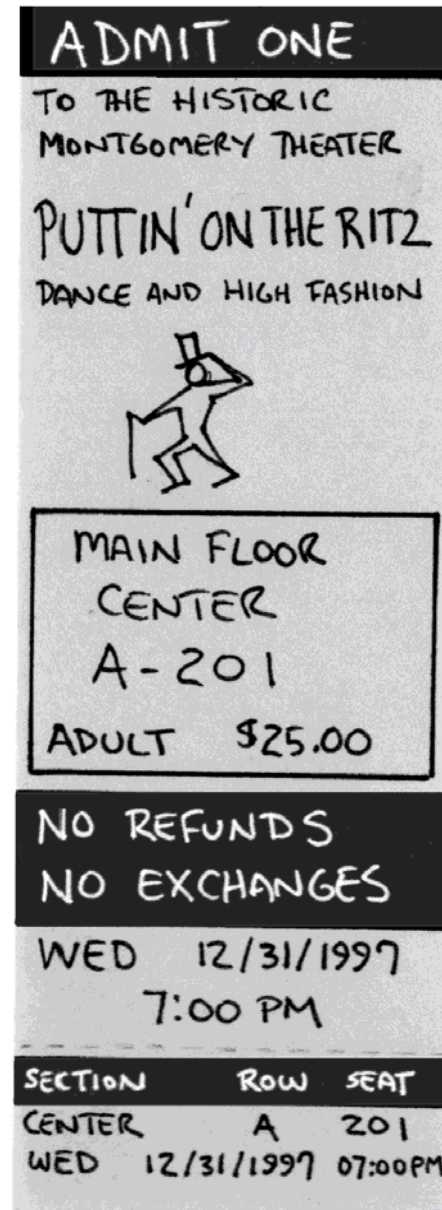
Once you have selected New Format from the File Menu, the preview window will be cleared, as well as the FGL command window in the lower part of the screen.

Now, since we do not know what model of printer you will actually be using while you follow along with this example, we are going to do something here for the sake of compatibility. Thermal Printers have their own “command buffers” which store commands sent to them for processing. The size of these buffers vary from model to model, and from manufacturer to manufacturer. Commands in the buffer are not processed until a “hard carriage return” is received by the printer. If you over-run the buffer with too many command characters, most thermal printers “wig out”, and do goofy things. Sometimes only a portion of your ticket will print. Sometimes nothing will print at all.

For this reason, we are going to issue a hard carriage return command from ***Tick-It!*** frequently, so that we will be fairly certain that the example will run on your printer, as well as the ones in our office at NCS. The command for a hard carriage return from ***Tick-It!*** is **@CR** . You’ll see them placed liberally throughout this example. It does not hurt to use too many **@CR** commands, but your ticket might not print if you use too few.

Also, since we want this ticket to be read while in a “vertical” position, we will have to rotate all the text we print by 90° using the “rotate left” command **<RL>**.

Example Ticket Design from Start to Finish



While we could specify any of the elements printed on the ticket in any order, that would be kind of hard to follow as an example, so we are going to write the ticket formatting instructions from top to bottom, starting with the ADMIT ONE at the top of the ticket, and work our way down to the Day, Date and Time at the bottom of the ticket.

Notice that there are 3 portions of the ticket that we would like to print in INVERSE PRINTING:

ADMIT ONE

**NO REFUNDS
NO EXCHANGES**

SECTION ROW SEAT

Also note that we must avoid the edges of the ticket, as well as the perforation for the stub, as characters and graphics to not print well in these areas.

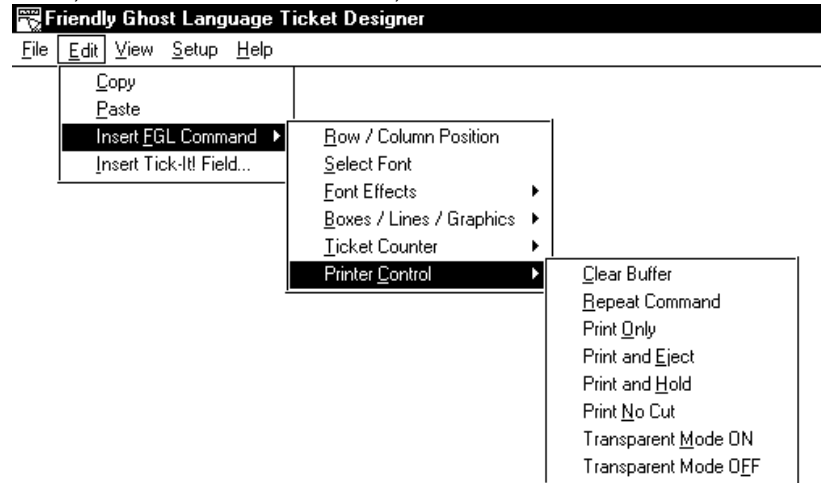
This means that even though the ticket is two inches wide, we will never be specifying a ROW of 600! About 580 is as close as you can get and still print legibly.

Our first set of commands will be to clear the printer's buffer of any leftover garbage, set the location, font and scaling to use, turn on inverse printing, send the

Example Ticket Design from Start to Finish

text ADMIT ONE, then turn off inverse printing. Sounds like a lot, but it really is not. The designer can help, if you don't like typing commands by hand. Here we go:

We can insert a CLEAR BUFFER command by selecting it from the EDIT, INSERT FGL COMMAND, PRINTER CONTROL menu...



Or you could just type in **<CB>**

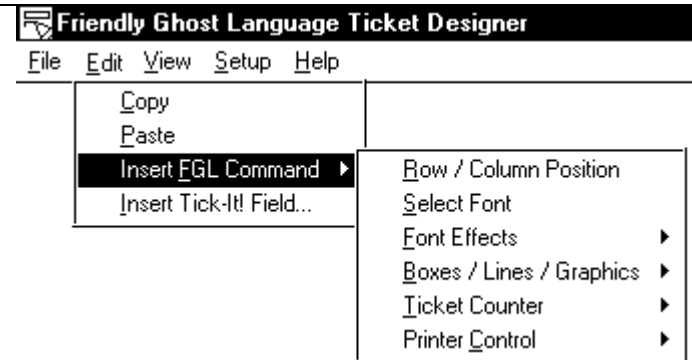
Either way, our ticket format file is started, and at this point looks like this:

<CB>

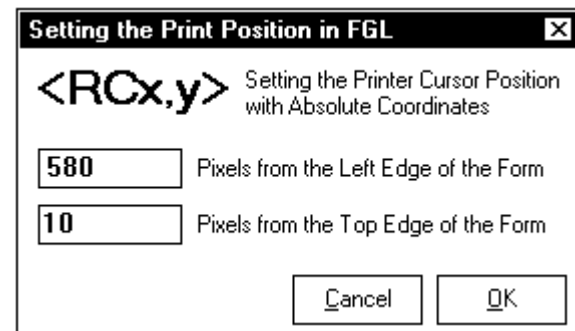
Next we need to specify the location of the first text to print on the ticket, which is the Inverse ADMIT ONE at the top.

To avoid the edges of the ticket, we need to be anywhere from 10 to 20 pixels (dots) away, so we are going to specify a position of 580,10 for the printing of ADMIT ONE. The designer can help. You can pick Row / Column Position from the EDIT, INSERT FGL COMMAND...

Example Ticket Design from Start to Finish



You will be presented with a dialog box like the one below:



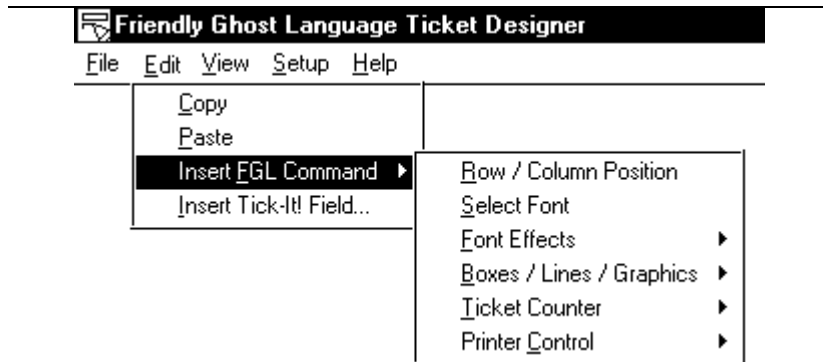
Fill in the coordinates as described. If you don't want to use the form, you could just type in **<RC580,10>** .

Either way, our ticket format file at this point looks like this:

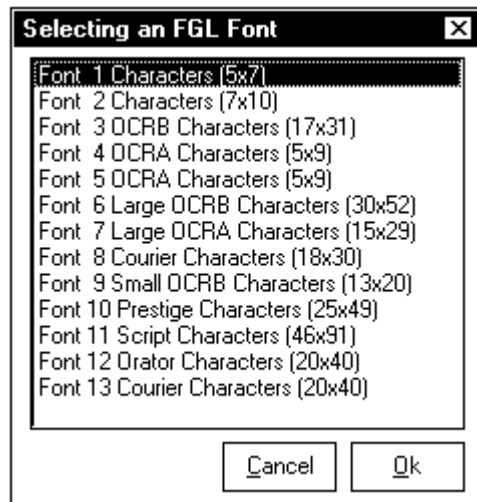
<CB><RC580,10>

Next we will select Font Number 3 of the internal printer fonts available. The FGL Designer can help! You can pick Select Font from the EDIT, INSERT FGL COMMAND...

Example Ticket Design from Start to Finish



You will be presented with a dialog box like the one shown here:

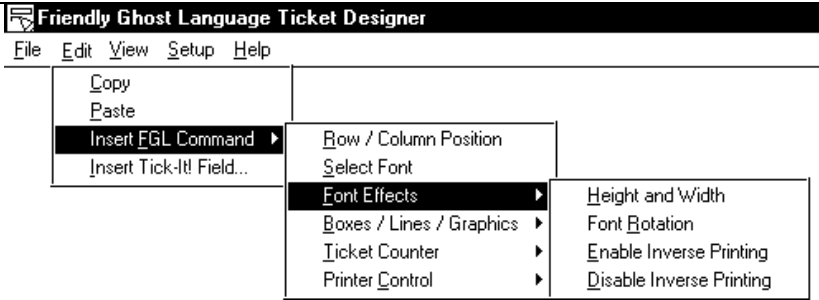


Pick Font 3, the 17 x 31 dot font. If you don't want to use the menus and dialog windows, you could just type **<F3>**. Either way, our ticket format file now looks like this:

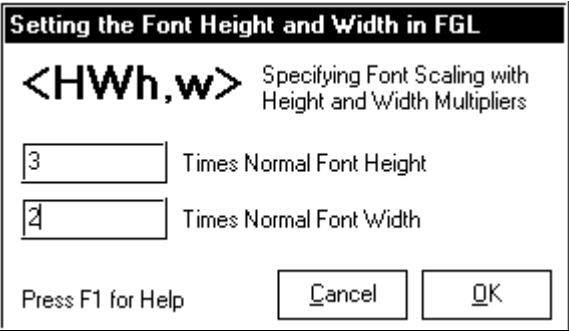
```
<CB><RC580, 10><F3>
```

Now to stretch the font to three times its normal height, and twice its normal width. You can select Height and Width from the EDIT, INSERT FGL COMMAND, FONT EFFECTS Menu...

Example Ticket Design from Start to Finish



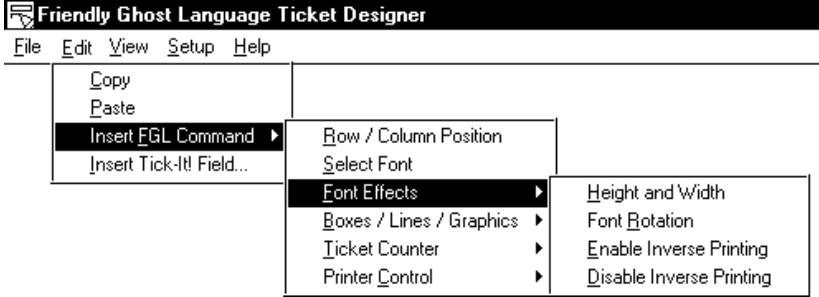
You will get a dialog window like this:



If you don't want to use the menus and forms, you could just type in **<HW3,2>**. Either way, our format file now looks like this:

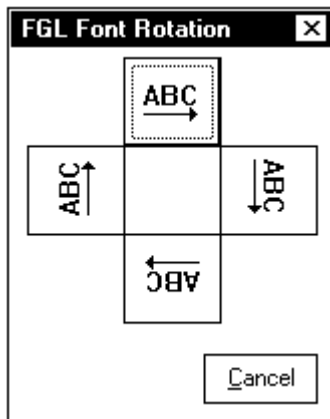
```
<CB><RC580,10><F3><HW3,2>
```

Next, we will want to "rotate" the text, so that it prints in the orientation we desire on our ticket. You can select Font Rotation from the EDIT, INSERT FGL COMMAND, FONT EFFECTS Menu...



A dialog like this will appear:

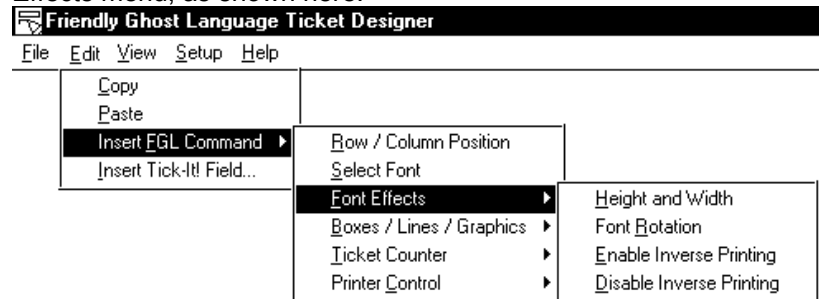
Example Ticket Design from Start to Finish



Select the ABC with the arrow pointing UP. Again, you could just type in **<RL>** directly. Our format file should now look like this:

```
<CB><RC580, 10><F3><HW3, 2><RL>
```

Now to enable inverse printing. You could pick it from the Font Effects menu, as shown here:



Or you could just type **<EI>** into your command window. Now our ticket format file looks like this:

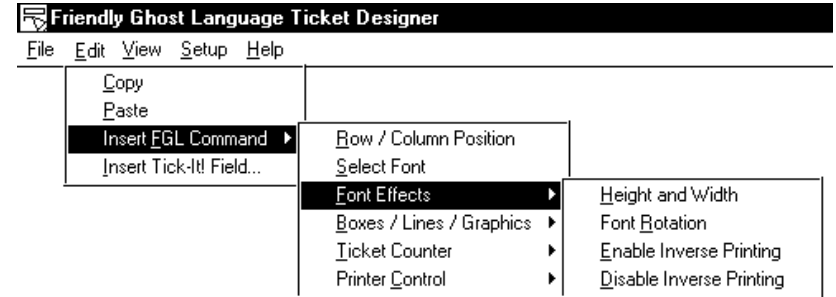
```
<CB><RC580, 10><F3><HW3, 2><RL><EI>
```

Now we are going to type in the text we want. We will enter ADMIT ONE, with two spaces in front, and two spaces behind. Now our ticket format file looks like this:

Example Ticket Design from Start to Finish

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE
```

Now we need to shut off inverse printing, so that the rest of the text following does not appear as white on black. We can disable inverse printing from the menu as shown here:



Or you can just type in **<DI>**. This completes the first line of our ticket format, which looks like this:

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
```

Now, as we mentioned earlier, we are going to issue a lot of hard carriage return commands, to insure that the example given will actually run on your printer, so on the very next line we are going to type **@CR** to force **Tick-It!** to send a hard carriage return. This command needs to be on a line by itself. Our format file now looks like this:

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>  
@CR
```

We are not going to step through the menu selections and typing for similar commands. And as you learn to use FGL commands, you will type them in yourself more and more often, resorting to the menus only for "forgotten" or rarely used commands.

Let's continue with the remainder of our ticket...

To print the lines

TO THE HISTORIC
MONTGOMERY THEATER

Example Ticket Design from Start to Finish

in smaller print just below ADMIT ONE, we add the following lines, which are similar to the first one we stepped through:

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
```

Next, we want ***Tick-It!*** to insert the name of the Event that the ticket is printing for. In other words, if we are printing a ticket for Puttin' On The Ritz, we want that to print. If we are printing a ticket for CATS!, we want that to print. Here is how we get ***Tick-It!*** to insert the name of the event for us:

First we specify the font, scaling and location, just as in the previous examples:

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
```

Then we insert a ***Tick-It!*** @FIELD command on the following line. We can do that by selecting Insert Tick-It! Field from the EDIT Menu.



A dialog window will appear as shown here:

Example Ticket Design from Start to Finish

Field Options

Fields available for Tickets

DATE ▲
DAY
EVENT
FIRSTNAME
HOUSE
LASTNAME
LEVEL ▼

Name of the Event that the ticket is good for.

Number of Character Spaces to Allocate: 26

Left Justified Centered Right Justified

Cancel OK

Trial and error with our ticket shows that we can fit 25 characters across the ticket with the font and scaling specified, so we enter 26 and pick centering for the field EVENT. We also add our **@CR** command after the **@FIELD** command. Our ticket format file now looks like this:

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
```

Following the event name, we have some simple text to add to the ticket, and these lines are shown in the following listing:

Our format so far:

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
```

Example Ticket Design from Start to Finish

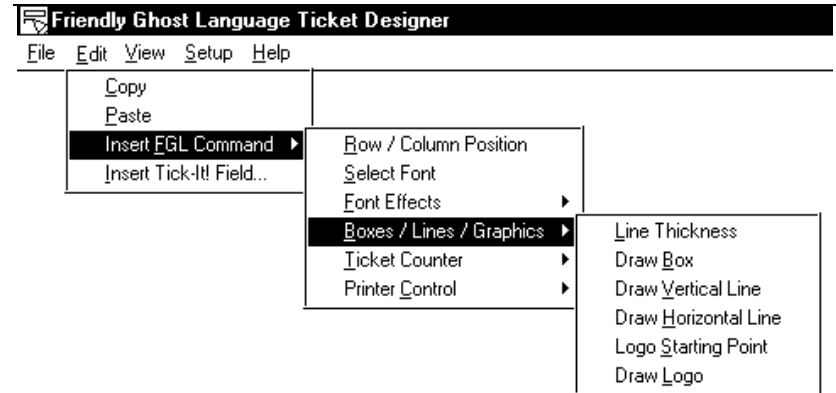
```
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
```

Next, we would like the “dancing tuxedo man” logo to print. This is a logo that is included in the clipart collection of this utility. Presumably, we have already downloaded it to the printer. For instructions on downloading logos to the printer, see page 12. Since we are not certain if the printer you are using allows you to rotate and scale fonts, we will make sure that all rotation and scaling is reset. Our format file now looks like this:

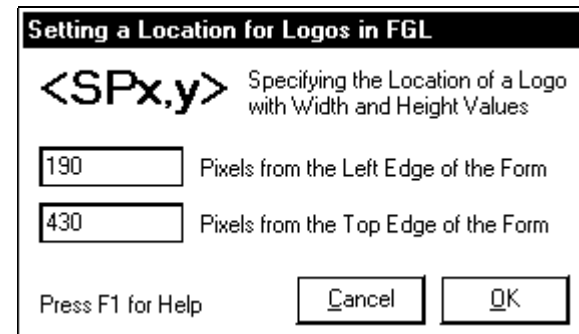
```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
<HW1,1><NR>
```

Next, we will specify the location of the starting point of the logo. We can use the Boxes / Lines / Graphics Menu to help, as shown on the following page:

Example Ticket Design from Start to Finish



We can pick Logo Starting Point, and get the following dialog:



We enter in the coordinates. Again, we could just bypass the menus and type in **<SP190,430>**. Our format file is now:

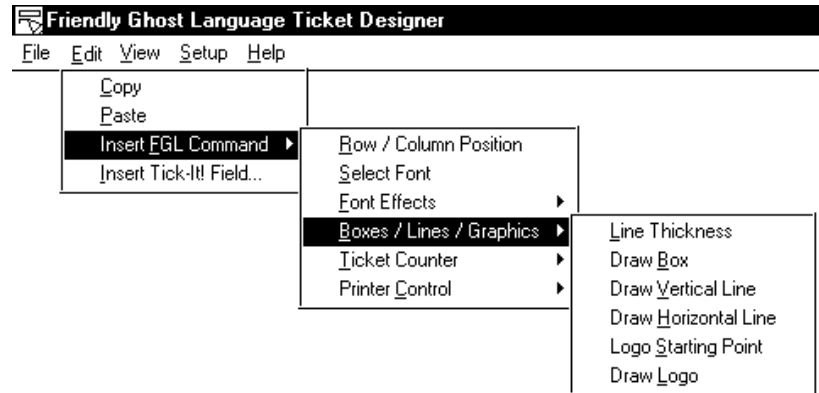
```

<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
<HW1,1><NR><SP190,430>

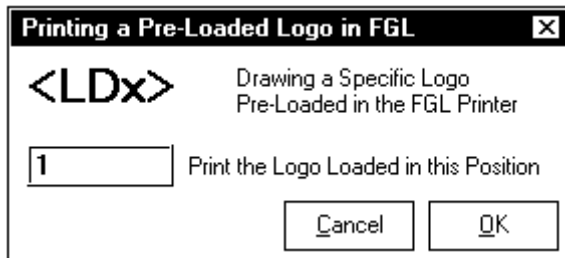
```

Example Ticket Design from Start to Finish

Next we specify that we want to print the logo loaded into the first memory position of the printer. Again we turn to the Boxes / Lines / Graphics Menu, and select Draw Logo...



This dialog window appears:



Enter in 1 as shown. If you would rather, you could just enter in the command directly as **<LD1>**.

Afterwards, we will enter another **@CR** command to make sure that the printer's buffer is not over-run.

Our format file will now look like this:

Example Ticket Design from Start to Finish

Our format so far:

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
<HW1,1><NR><SP190,430><LD1>
@CR
```

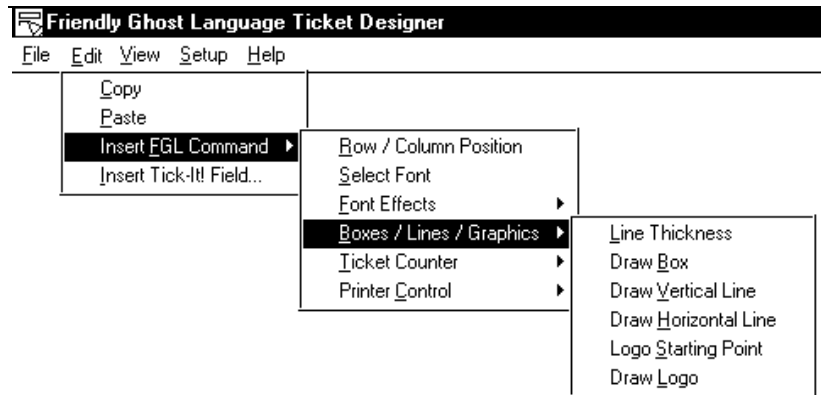
Now we come to the point where we would like to draw a box. We need to specify a location, line thickness and size for the box. Adding the location is easy, as shown earlier:

Our Format File at this point

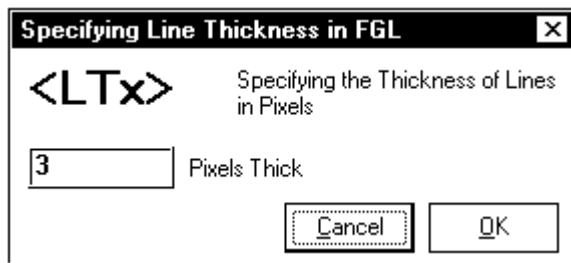
```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
<HW1,1><NR><SP190,430><LD1>
@CR
<RC10,700>
```

To specify a line thickness, we again turn to the Boxes / Lines / Graphics Menu, and select Line Thickness:

Example Ticket Design from Start to Finish



We are prompted with the following dialog:



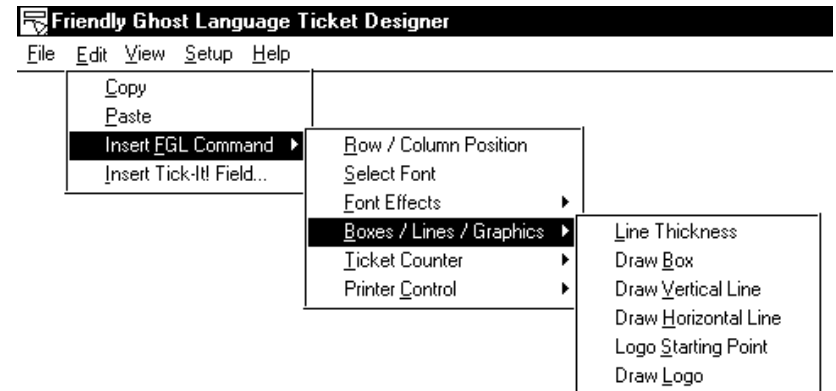
We enter 3 as the desired thickness. Again, we could have simply typed <LT3> in the command window directly.

This brings us to...

Example Ticket Design from Start to Finish

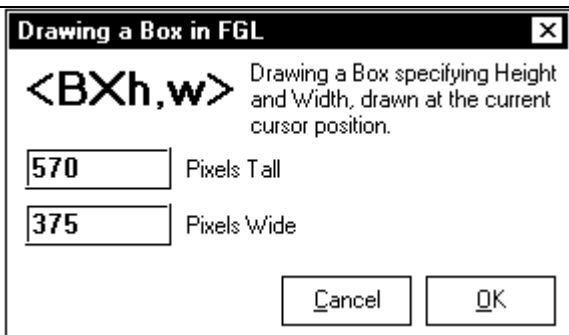
```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
<HW1,1><NR><SP190,430><LD1>
@CR
<RC10,700><LT3>
```

Now to draw a box, again we go the Boxes / Lines / Graphics Menu and select Draw Box:



The Draw Box dialog window appears, prompting us to enter in the dimensions of the box to draw, in this case, 570 by 375 dots...

Example Ticket Design from Start to Finish



Or, if you prefer, you could just enter the command **<BX570,375>** directly into the command window. We'll follow it up with our usual **@CR** command. Our format so far:

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
<HW1,1><NR><SP190,430><LD1>
@CR
<RC10,700><LT3><BX570,375>
@CR
```

Now, frankly, the remainder of the ticket format presents nothing new. It is simply a repetition of the same sort of commands detailed in these earlier examples. Rather than bore you with the same level of detail, we will highlight the commands that follow, and tell you which part of the ticket they are printing...

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
```

Example Ticket Design from Start to Finish

```
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
<HW1,1><NR><SP190,430><LD1>
@CR
<RC10,700><LT3><BX570,375>
@CR
<F3><RL><HW3,1><RC580,700>
@FIELD LEVEL,25,C
@CR
<RC580,790>
@FIELD SECTION,25,C
@CR
<RC400,880>
@FIELD ROW,2,C
-
@FIELD SEAT
@CR
<RC560,970>
@FIELD PATRON,10,L
@CR
<RC240,970>
@FIELD PRICE,10,R
@CR
```

This section fills in the box with the Level, Section, Row, Seat, Patron and Price information, taken as fields passed from the *Tick-It!* program.

...
...

Example Ticket Design from Start to Finish

```
@FIELD PRICE,10,R
@CR
<RC580,1090><F3><HW2,2><RL><EI> NO REFUNDS <DI>
@CR
<RC580,1150><F3><HW2,2><RL><EI> NO EXCHANGES <DI>
@CR
```

This section prints the warning of NO REFUNDS, NO EXCHANGES in inverse printing near the bottom of the ticket.

```
...
...
<RC580,1150><F3><HW2,2><RL><EI> NO EXCHANGES <DI>
@CR
<F3><RC580,1240><HW2,2><RL>
@FIELD DAY,3

@FIELD DATE,10
@CR
<RC440,1300><HW2,2>
@FIELD TIME,8
@CR
```

This section fills in the Day, Date and Time information just above the ticket stub. Again, these are taken as fields passed from the *Tick-It!* program. Note that the line between the DAY and DATE fields actually has one space in it, even though it looks blank printed out here.

```
...
...
@FIELD TIME,8
@CR
```

Example Ticket Design from Start to Finish


```
<RC580,1420>
<F3><HW1,1><EI>SECTION:          ROW:  SEAT: <DI>
@CR
<HW2,1><RC580,1460>
@FIELD SECTION,16,L
@FIELD ROW,6,L
@FIELD SEAT,4,L
@CR
<RC580,1540>
@FIELD DAY,5,L
@FIELD DATE,15,C
@CR
<RC180,1540>
@FIELD TIME,7,R
```

And finally, this section completes the three quarter inch stub at the bottom of the ticket.

This concludes our example of designing a ticket from concept to completion. We hope you have found this informative and helpful. On the following page are two images, the initial example ticket drawn by hand, and one actually printed by a Boca Thermal Printer, so you can see what the finished product actually looks like, and how close we came to our original hand drawn design.

Example Ticket Design from Start to Finish

ADMIT ONE
 TO THE HISTORIC
 MONTGOMERY THEATER
 PUTTIN' ON THE RITZ
 DANCE AND HIGH FASHION



MAIN FLOOR
 CENTER
 A-201
 ADULT \$25.00

**NO REFUNDS
 NO EXCHANGES**
 WED 12/31/1997
 7:00 PM

SECTION	ROW	SEAT
CENTER	A	201
WED	12/31/1997	07:00PM

ADMIT ONE
 TO THE HISTORIC
 MONTGOMERY THEATER
 PUTTIN' ON THE RITZ
 DANCE AND HIGH FASHION



Orchestra
 Center
 B - 107
 Adult \$25.00

**NO REFUNDS
 NO EXCHANGES**
 WED 12/31/1997
 07:00pm

SECTION:	ROW:	SEAT:
Center	B	107
WED	12/31/1997	07:00pm

A complete listing of the example ticket format follows this page:

Example Ticket Design from Start to Finish

```
<CB><RC580,10><F3><HW3,2><RL><EI> ADMIT ONE <DI>
@CR
<F2><RC460,130><HW3,2><RL>TO THE HISTORIC
@CR
<RC480,170>MONTGOMERY THEATER
@CR
<F3><HW3,1><RC580,240>
@FIELD EVENT,26,C
@CR
<F2><RC530,360><HW3,2><RL>DANCE AND HIGH FASHION
@CR
<HW1,1><NR><SP190,430><LD1>
@CR
<RC10,700><LT3><BX570,375>
@CR
<F3><RL><HW3,1><RC580,700>
@FIELD LEVEL,25,C
@CR
<RC580,790>
@FIELD SECTION,25,C
@CR
<RC400,880>
@FIELD ROW,2,C
-
@FIELD SEAT
@CR
<RC560,970>
@FIELD PATRON,10,L
@CR
<RC240,970>
@FIELD PRICE,10,R
@CR
<RC580,1090><F3><HW2,2><RL><EI> NO REFUNDS <DI>
@CR
<RC580,1150><F3><HW2,2><RL><EI> NO EXCHANGES <DI>
@CR
<F3><RC580,1240><HW2,2><RL>
@FIELD DAY,3

@FIELD DATE,10
@CR
<RC440,1300><HW2,2>
@FIELD TIME,8
@CR
<RC580,1420>
<F3><HW1,1><EI>SECTION:          ROW: SEAT: <DI>
@CR
<HW2,1><RC580,1460>
@FIELD SECTION,16,L
@FIELD ROW,6,L
@FIELD SEAT,4,L
@CR
<RC580,1540>
@FIELD DAY,5,L
@FIELD DATE,15,C
@CR
<RC180,1540>
@FIELD TIME,7,R
```