MarkMagic

Barcode Label, RFID Tag, and Smart Forms Software for IBM System i
MarkMagic Basic Concepts

Welcome

Welcome to MarkMagic and JMagic! In this tutorial we will introduce to you the basic concepts of our software. This will be a combined tutorial showing you the methods used in both MarkMagic and JMagic to accomplish the same task. The steps are split up and in different colors so you can focus only on the ***MarkMagic*** or ***JMagic*** steps separately.

Before we begin we are assuming:

1. You have MarkMagic and JMagic installed and ready for use.
2. You have a Hewlett Packard PCL compatible Laser Printer available at your location that is configured for printing on the System i server. (If not, we can use our PDF option to produce your output.)

In this tutorial, you will learn:

1. How to start MarkMagic and JMagic.
2. How to navigate the various menus in MarkMagic and JMagic.
3. What a format is and how to define a new format.
4. What a field is and how to add new fields.
5. How to edit existing fields.
6. How to print your format using MarkMagic.

Starting the Programs

MarkMagic
At an OS/400 command line, type **STRMRKMAG** and press the F4 key to prompt the command. Leave the option for *User Library Name* as *NONE. Make sure the option for *Printer Type* is *ALL. Lastly, for *Version,* , type your current MarkMagic Version (example 9.0, 8.6). and press the ENTER key. (If you do not please fill in the latest version you see in the list of possible choices.) You should now see the MarkMagic main screen.

```
MAIN                        OS/400 Main Menu
                                                 System:    CYBRA7
Select one of the following:


       1. User tasks
       2. Office tasks
       3. General system tasks
       4. Files, libraries, and folders
       5. Programming
       6. Communications
       7. Define or change the system
       8. Problem handling
       9. Display a menu
      10. Information Assistant options
      11. iSeries Access tasks


      90. Sign off


Selection or command
===> STRMRKMAG


 F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
 F23=Set initial menu
```

```
              Start MarkMagic application (STRMRKMAG)

 Type choices, press Enter.


 User library name . . . . . . . .   *NONE        Name, *NONE, F4 for list
 Printer type . . . . . . . . . .    *ALL         Name, *ALL, F4 for list
 Version  . . . . . . . . . . . .    7.1          *DEFAULT, 7.1, 6.1, 5.1




                                                                    Bottom
 F3=Exit    F4=Prompt    F5=Refresh    F10=Additional parameters    F12=Cancel
 F13=How to use this display        F24=More keys
```

```
  Version . . . :  7.1          MarkMagic          Mod lvl . . . :  091229

  =                                      =                  =
  Format                                 Print             Utilities

                   User library . . . :   MRKMAGDTA


                            M a r k M a g i c 7



 Enterprise
 Edition


 F3=Exit     F4=Prompt     F9=Cmd line     F10=List View
                             (c) Copyright CYBRA Corp. 1991, 2009
```

JMagic
On your windows taskbar, click *Start*, then *All Programs* or just *Programs* (older versions of Windows).

Choose CYBRA Corporation and then click the *JMagic* icon. You will be asked to log on to your System i server. Type the IP address or domain name of your System i server along with your user name and password. Also, make sure Database Type is set to AS400.
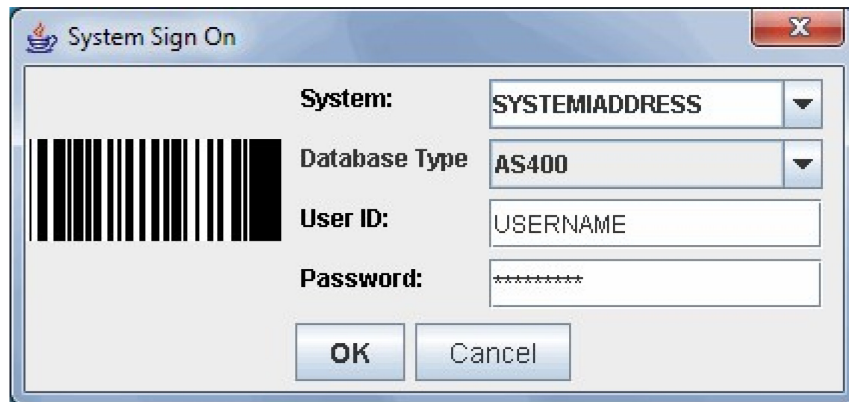
After logging on, JMagic will ask you for your logon preferences, for the purposes of this tutorial please leave the default values. Press OK to continue. JMagic is now started.
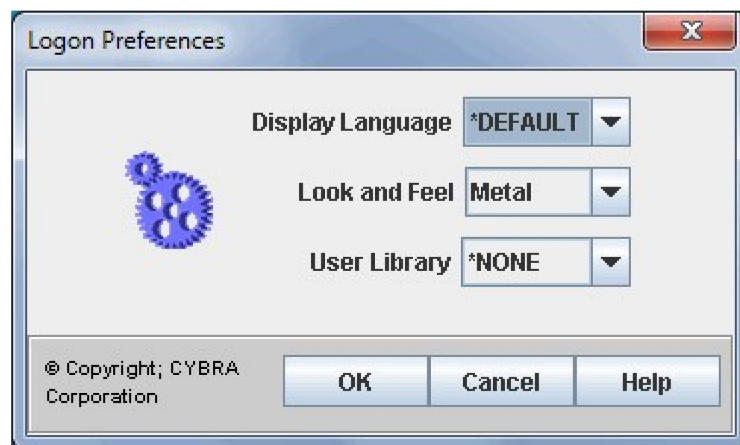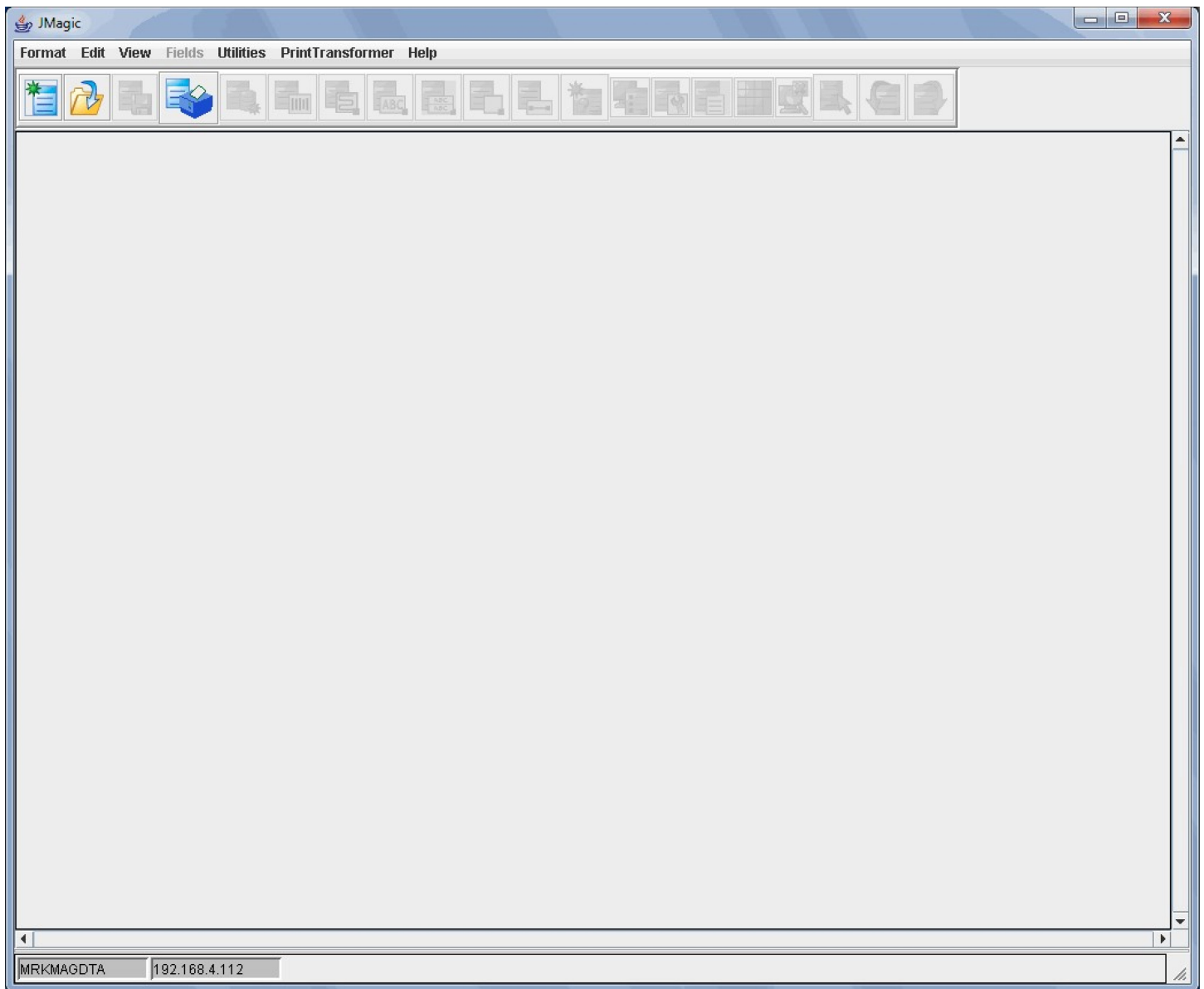
Navigation

MarkMagic

Navigating the menus in MarkMagic is very simple. MarkMagic's main menu is located at the top of the screen in white. The letter in uppercase on the menu and any submenu option is the key to press to access that option. For example, to check your setup, you can press "U" (**U**tilities) then "S" (**S**etup). F12 will back out of most MarkMagic windows and menus if you are lost. You may also use the arrow keys to move the cursor around and press enter on the menus and options you wish to select.

JMagic

Navigate using your mouse in JMagic just like any other windows application. This is what makes Jmagic so easy to use.

Creating a New MarkMagic Format

Making a format is the first step in creating labels and forms in MarkMagic and JMagic. Formats define information such as the type of printer, the size of your label or form, placement of text, lines, boxes, graphics, and the type and size of barcodes to be used.

MarkMagic

At the MarkMagic main menu press "F" (Format) and then "N" (New). The *Create a Format* dialog window is displayed. For this tutorial, we are going to be designing a label for the HP laser printer so we must tell MarkMagic what device to use. Type **HPPCL5** in the *Device* field. HPPCL5 is one of MarkMagic's standard laser printer drivers. Tab down to the *Format Name Field*, and name your format **LEARNXXX** (replace **XXX** with your initials), then press ENTER.

```
  Version . . . :   7.1              MarkMagic            Mod lvl . . . :   091229
  F                                              _                  _
  Format                                      Print             Utilities
  N
  New
  Open          Create a format
  Copy
  Rename
  Edit        Device . . . .  HPPCL5       Name, F4 for list
  Delete      Format . . . .  LEARNXXX     Name
  Generate.
  eXit        F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel

  F12=Cance




  Enterprise
  Edition



  F3=Exit      F4=Prompt      F9=Cmd line     F10=List View
                                         (c) Copyright CYBRA Corp. 1991, 2009
```

 The *Work with Format Definition* screen will be displayed. Enter a description for the new format (for example, 'Tutorial Format'), then tab down to the *Unit of Measure* field. Type **IN** for inches as the unit of measure.

In this tutorial we will create a format that takes up the whole 8.5"x11" sheet of paper. Type **11** for the length and **8.5** for the width. Use these same values for the Forms length and width, too. Set the top and side margins to 0. Everything else can be left with the default values. Press ENTER and ENTER again to accept. The MarkMagic *Design a Format* screen is displayed.

```
                          Work with Format Definition

      Device . . . . :      HPPCL5
      Format . . . . :      LEARNXXX

      Type choices, press Enter.

        Description . . . . . . . . .     Description of your format

        Unit of measure . . . . . . .     IN           IN=Inches, MM=Millimeters
        Length  . . . . . . . . . . .     11.00        .50 - 14.00
        Width . . . . . . . . . . . .      8.50        .50 - 14.50




        Forms length  . . . . . . . .     11.00        .50 - 14.00
        Forms width . . . . . . . . .      8.50        .25 - 14.50
        Measure from  . . . . . . . .     B            T=Top, B=Bottom
        Top margin  . . . . . . . . .          0       .00 - 9.00
        Side margin . . . . . . . . .          0       .00 - 7.00
        Rotation  . . . . . . . . . .      0           0, 90, 180, 270
                                                                      More...

      F3=Exit     F4=Prompt     F5=Refresh     F12=Cancel
```

```
       Device:   HPPCL5            Design a Format          Format:   LEARNXXX

       Format          fielDs         Options        Print          Utilities
                       0.50      1.00      1.50      2.00      2.50      3.00      3.50
             ....+....!....+....|....+....!....+....|....+....!....+....|....+....!..
     11.00  _
     10.90  _
     10.80
     10.70
     10.60
     10.50
     10.40
     10.30
     10.20
     10.10
     10.00
      9.90
      9.80
      9.70
      9.60

      F2=Edit          F3=Exit        F4=Revert       F5=Undo         F6=Create
      F7=Copy          F8=Delete      F11=Move        F12=Cancel      F24=More keys
                                        (c) Copyright CYBRA Corp. 1991, 2005
```

Notice the coordinates to the left and top of the screen. These values represent actual distances on the final printed page. Use these values to guide you when adding new fields to your format. They will give you a general idea of where your field will be located when your form prints.

Using your mouse, at the top, click *Format* then click *New.*
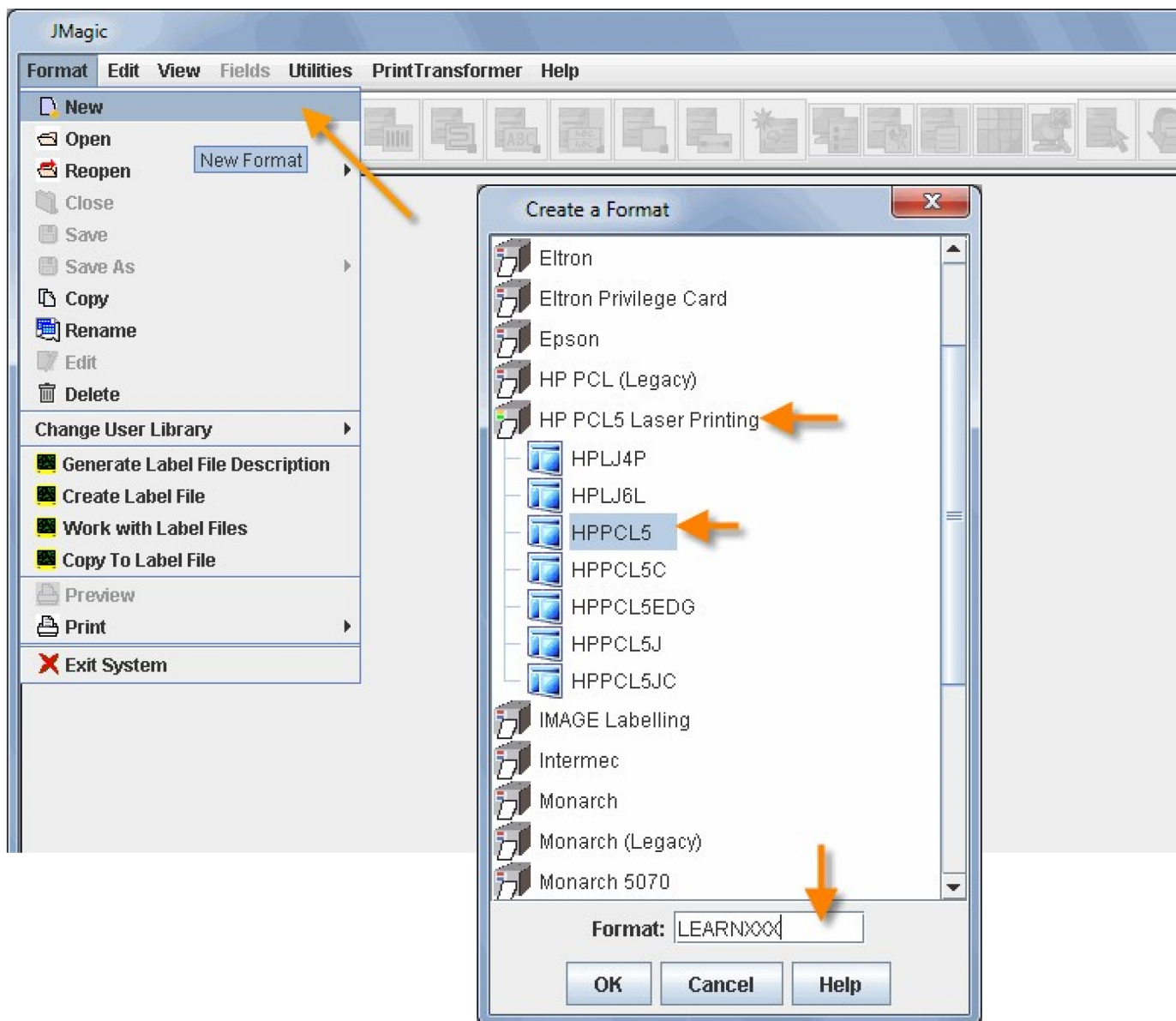
You are provided with a list of device types by category. First, choose HP PCL5 Laser Printing. Then choose HPPCL5. Place your cursor in the *Format* field and name your new format **LEARNXXX** (replace **XXX** with your initials). Press OK to proceed to the *Create a New Format* window.

Create a New Format

Device
Name: HPPCL5
Description: Hewlett Packard

Format
Name: LEARNXXX
Length: 0.0"   Width: 0.0"
Description: [   ]   Rotation: A 0°

Properties | Options | Batch

General

Description: Description of your format

Unit of Measure: ● Inches ○ MM

Measure From: ○ Top ● Bottom

Rotation: A ● 0° ○ 90° ○ 180° ○ 270°

Size

Format
Format Length: 11.0"
Format Width: 8.5"

Forms
Forms Length: 11.0"
Forms Width: 8.5"

Letter (8.5 x 11")

Form Settings

Margins
Top Margin: 0.0"
Side Margin: 0.0"

Parts
Parts Across: 1
Parts Down: 1

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OK | Cancel | Help

Make sure the *Unit of Measure* is inches and provide a description for your format. On the right, choose "Letter" from the pull down menu to automatically set the page size to 8.5" width and 11" length. Leave everything else with the default values and click **OK**. The format will be created and you will be brought to the JMagic main design screen. The white area is your format design "canvas."
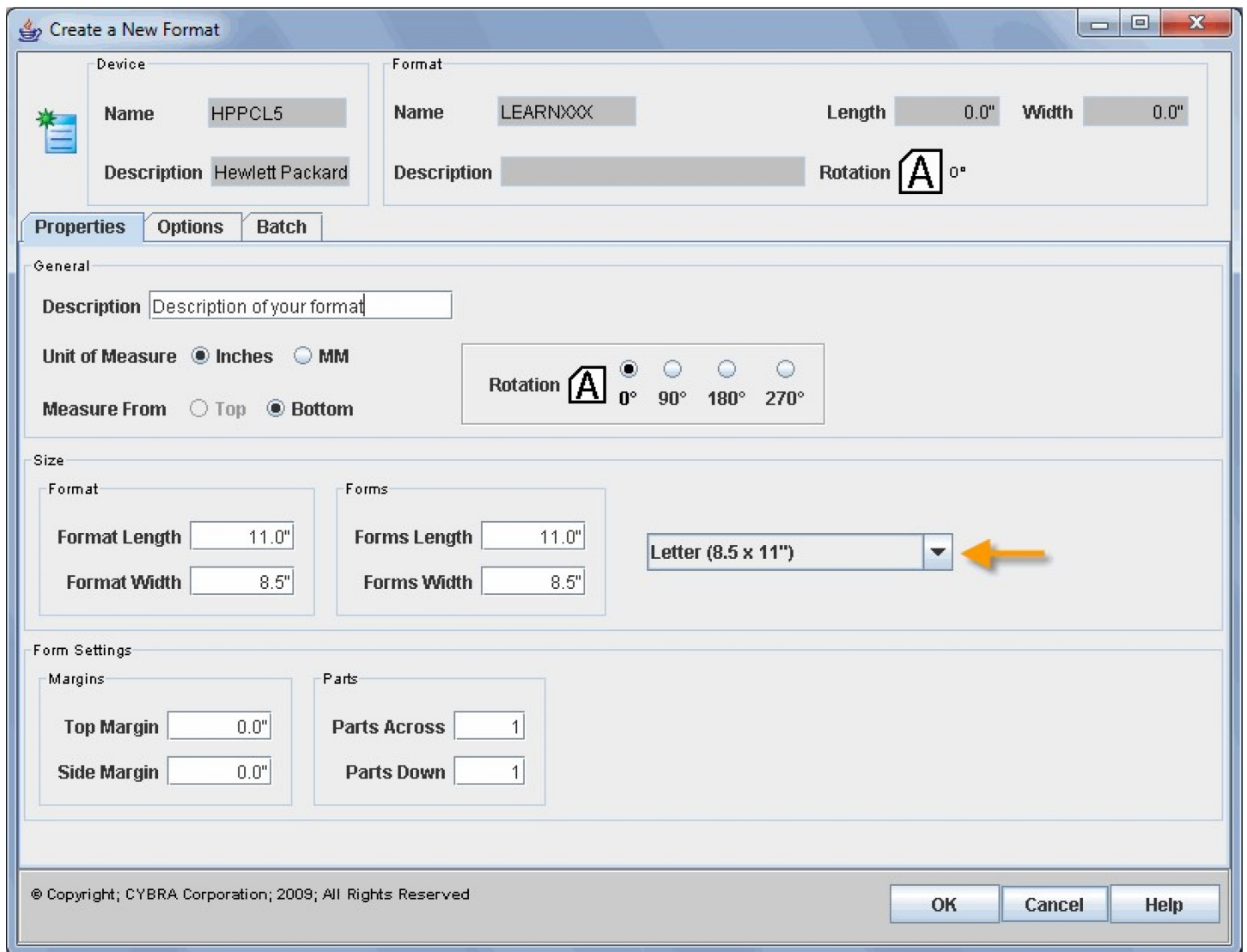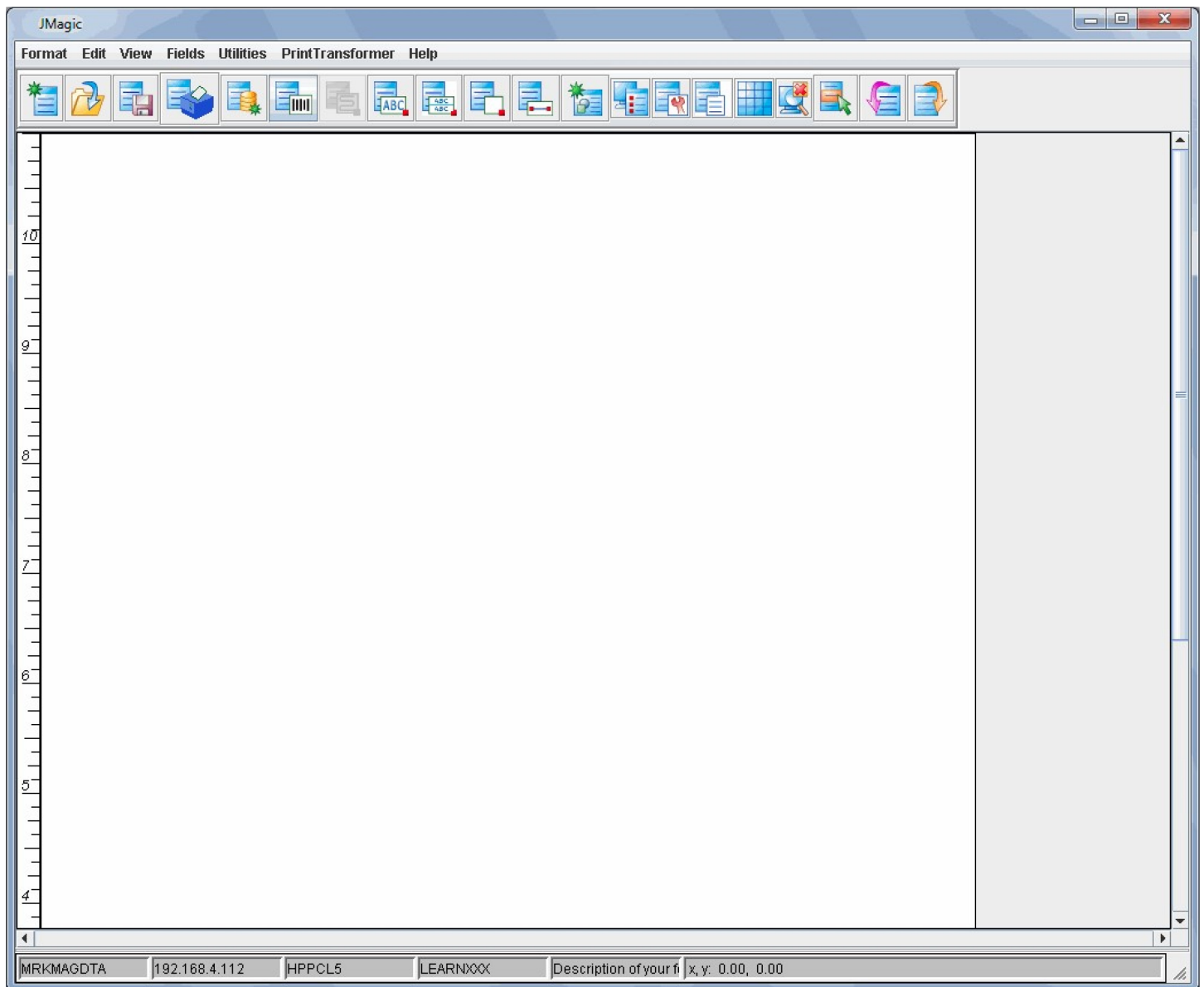
Notice the coordinates to the left and bottom of the screen. These values represent actual distances on the final printed page. Use these values to guide you when adding new fields to your format. They will give you a general idea of where your field will be located when your form prints.

Designing Your Format

We will be designing the format as seen on the following page. All it takes is 8 easy steps. Each step is numbered so you can locate the explanation for it in the tutorial. For simplicity, we are going to use *HEADING fields where appropriate. (*HEADING fields are Data and text that do not change from page to page or record to record.) Dynamic data retrieved from spool files and database records will be introduced in a later tutorial.

> *NOTE:* Once in the MarkMagic design screen, you may not be able to view your entire format on the screen. You can scroll the format up and down with the PageUp and PageDown keys. You can scroll the format left and right using F19

(Shift+F7) and F20 (Shift+F8).

NOTE: When adding fields, MarkMagic provides coordinate, length and height values, etc. based off where you had your cursor on the screen at the time. We will override these values in most of the steps in this tutorial to ensure that lines, text fields, etc. are placed exactly where we want. JMagic takes it once step further and provides a "WYSIWYG" (What you see is what you get.) view. This lets you see what the format will look like before you print it.

PRINTING NOTE: If you wish to print the format before you've completed the tutorial, you can press F21 (Shift+F9) to execute the MarkMagic PRTLBLF (Print a Label File) command at any time. Fields are automatically saved in MarkMagic as they are added. When adding fields with JMagic, you must save the format each time you wish to print it. If you try to print the fields without saving the format, the printed page will not have the most recent changes made to your format. If you exit JMagic without saving the format, you will lose all unsaved changes.

Sample

¹ — content labeled with numbered markers

2

1 My MarkMagic Tutorial

3 MarkMagic tutorial line one.

4 MarkMagic tutorial line two.

5
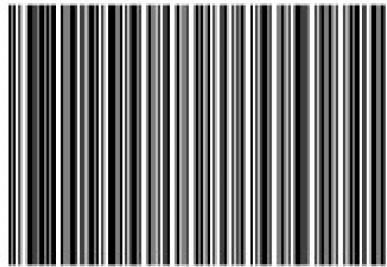
7

6

8 Made by: Your Name

Field #1 – Text: "My MarkMagic Tutorial"

MarkMagic

Place the cursor on green design screen in the general area where the "M" in "My" would begin. Don't worry about getting the placement exact, we can do that in the next screen.) Press **F6** to bring up the *Select a Field Type* menu. Press **T** for *Text.* You are now on the *Work With Text Field* screen.
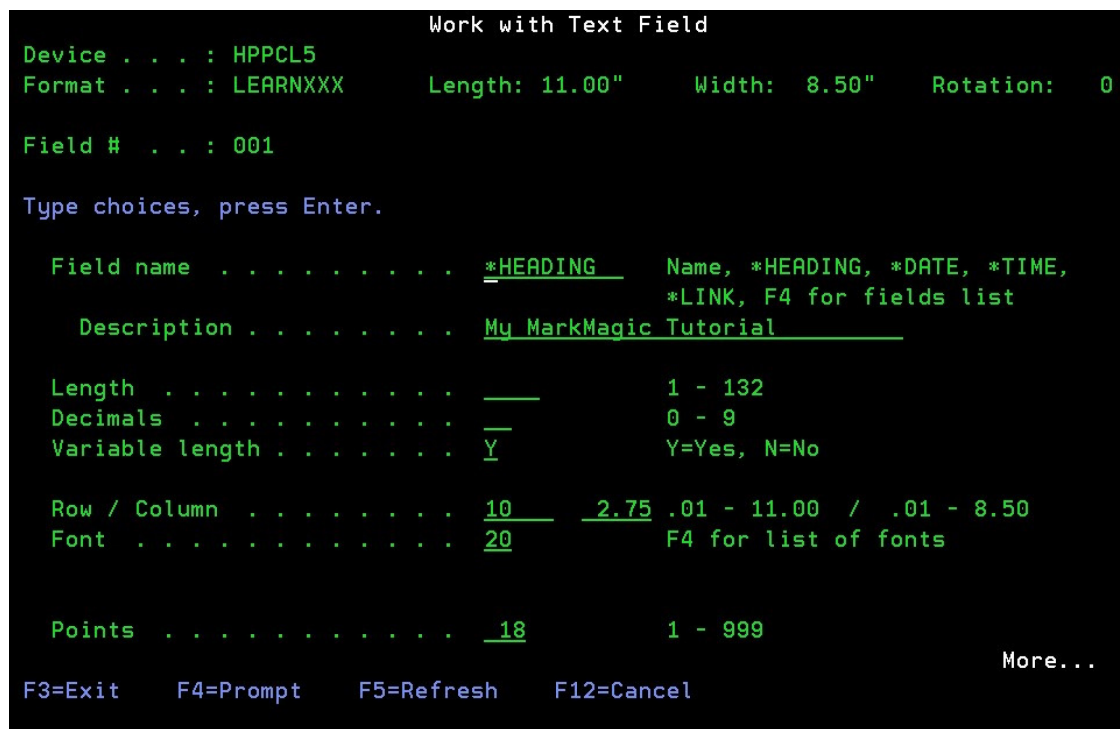
```
Select a Field Type

=
B     Bar code field
D     Data field
G     Graph field
L     Line field
T     Text field
K      Text Block
X     Box field



F10=Sort by descr
F12=Cancel
```

```
                        Work with Text Field
Device . . . : HPPCL5
Format . . . : LEARNXXX     Length: 11.00"     Width:  8.50"     Rotation:   0

Field #  . . : 001

Type choices, press Enter.

  Field name  . . . . . . . . .    *HEADING      Name, *HEADING, *DATE, *TIME,
                                                 *LINK, F4 for fields list

     Description . . . . . . . .   My MarkMagic Tutorial

  Length . . . . . . . . . . .    ____           1 - 132
  Decimals . . . . . . . . . .    __             0 - 9
  Variable length . . . . . . .   Y              Y=Yes, N=No

  Row / Column . . . . . . . .    10     2.75 .01 - 11.00  /  .01 - 8.50
  Font . . . . . . . . . . . .    20             F4 for list of fonts


  Points . . . . . . . . . . .     18            1 - 999
                                                               More...
F3=Exit    F4=Prompt    F5=Refresh    F12=Cancel
```

Leave *HEADING as the *Field Name*. This means whatever is typed in the *Description* field below will be printed on the document. Type **My MarkMagic Tutorial** in the *Description* field. Change *Row/Column* to 10 and 2.75 respectively. (Field will be placed 10 inches from the bottom and 2.75 inches from the left edge.) Leave the *Font* as number 20. And change the *Points* to 18. Press ENTER and then ENTER again to confirm. You should now see an area on the design screen showing you where your text is placed.

```
    Device:   HPPCL5           Design a Format           Format:   LEARNXXX

    Format         fields          Options        Print          Utilities
          2.00        2.50      3.00      3.50      4.00     4.50      5.00
       ...|....+....!....+....|....+....!....+....|....+....!....+....|....+...
11.00
10.90
10.80
10.70
10.60
10.50
10.40
10.30
10.20
10.10
10.00              My MarkMagic Tutorial
 9.90
 9.80
 9.70
 9.60

    F2=Edit        F3=Exit       F4=Revert     F5=Undo        F6=Create
    F7=Copy        F8=Delete     F11=Move      F12=Cancel     F24=More keys
```

JMagic

Click the "Create a Text Field" button at the top. Your mouse cursor now becomes a + to indicate that it wants you to click somewhere in the workspace. Click once towards the top of the canvas where the text should be placed. The "Create a New Text Field" window pops up.

Create A New Text Field dialog box
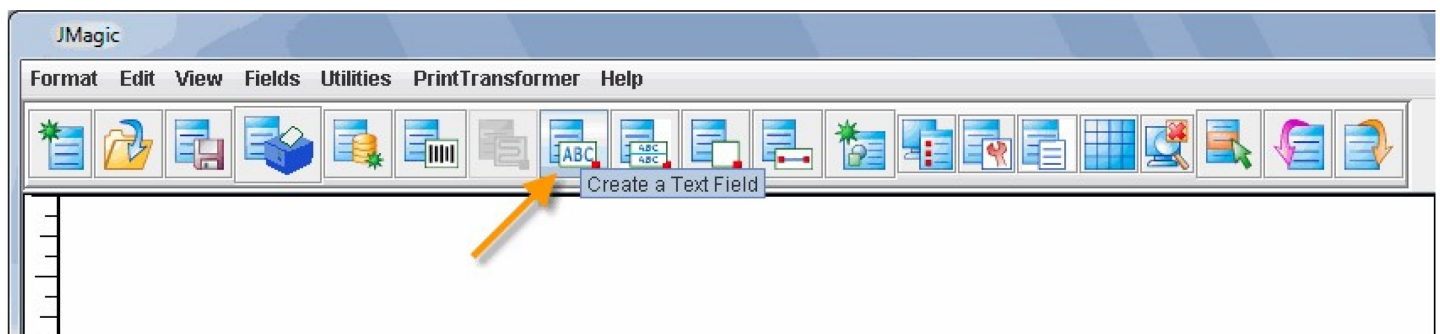
Leave *HEADING as the *Field Name*. This means whatever is typed in the *Description* field below will be printed on the document. Type **My MarkMagic Tutorial** in the *Description* field. Change *Row* and *Column* to 10 and 2.75 respectively. Leave the *Font* as number 20. And change the *Points* to 18. Press OK to create the text field. You should now see your text on the JMagic workspace, properly formatted and placed.
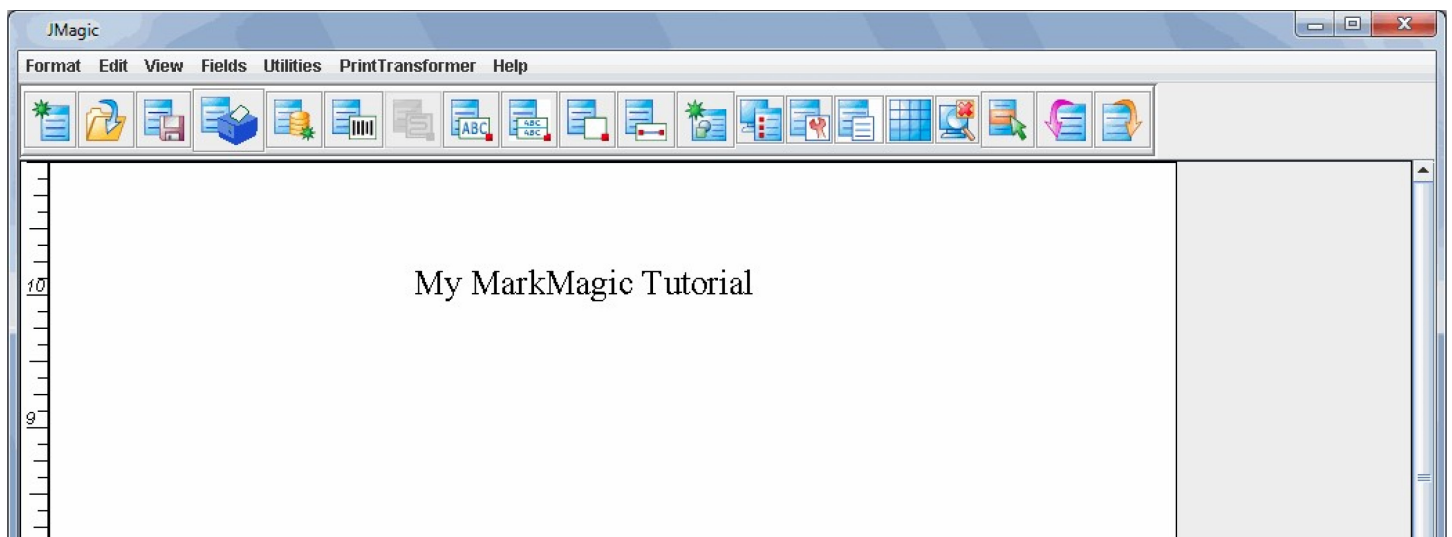
Field #2 – A Box

MarkMagic-

To create a box, you must specify a start corner and an end corner. However, in the MarkMagic design view, the text is not shown actual size and drawing a box around just the white text area does not necessarily mean you are completely surrounding your text with the box. With that in mind, we must override the start and end corners with custom values within the *Work With Box Field* screen. Place the cursor below and to the left of the text you just created. Press **F6** then **X** for box. Now, move the cursor to the opposite corner (top right of the text field) and press ENTER. The *Work With Box Field* screen is now shown.

```
     Device:  HPPCL5              Design a Format              Format:   LEARNXXX

      Format          fieldDs          Options          Print          Utilities
          2.00        2.50       3.00       3.50       4.00       4.50       5.00
         ...|....+....!....+....|....+....!....+....|....+....!....+....|....+...
 11.00
 10.90
 10.80
 10.70
 10.60
 10.50
 10.40
 10.30
 10.20
 10.10
 10.00                    My MarkMagic Tutorial
  9.90
  9.80
  9.70  +
  9.60

  F12=Cancel      F14=Rotate           F15=Zoom in      F16=Zoom out
  F17=Top         F18=Bottom           22=Rulers
  Move the cursor to opposite corner of box field and press Enter.
```
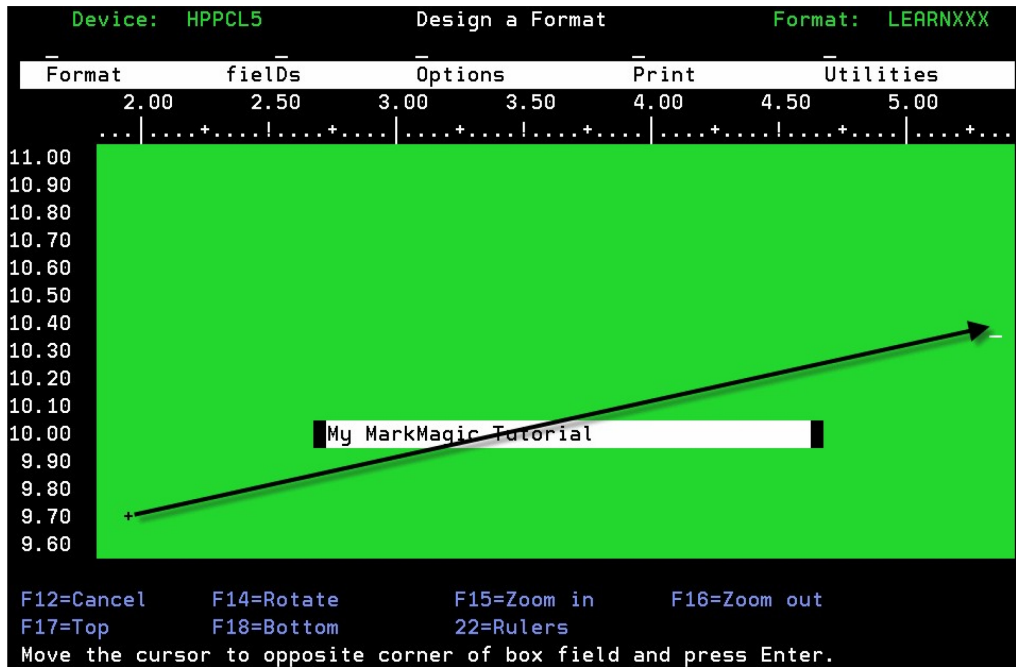
Type **Box1** as the *Field Name*. You may leave *Description* blank. Set the *Start Row/Column* to **9.7** and **2.0** set the *End Row/Column* to **10.5** and **6.0**. Press ENTER and then ENTER again to accept. You should now see a box on your design screen surrounding the text we made earlier.

```
                        Work with Box Field
Device . . . : HPPCL5
Format . . . : LEARNXXX      Length: 11.00"     Width:  8.50"   Rotation:   0

Field #  . . : 001

Type choices, press Enter.

   Field name . . . . . . . . .     BOX1_____     Name
      Description . . . . . . . .   _____

   Start Row / Column  . . . . .    _9.70   2.00 .01 - 11.00  /  .01 - 8.50
   End Row / Column  . . . . . .    10.50   6.00 .01 - 11.00  /  .01 - 8.50

   Thickness . . . . . . . . . .      _1          1 - 99

   Style . . . . . . . . . . . .     N_           F4 for list




F3=Exit     F4=Prompt     F5=Refresh     F12=Cancel
```

```
   Device:  HPPCL5            Design a Format            Format:   LEARNXXX

  Format          fielDs          Options          Print          Utilities
       2.00       2.50       3.00       3.50     4.00      4.50       5.00
     ...|....+....!....+....|....+....!....+....|....+....!....+....|....+...
11.00
10.90
10.80
10.70
10.60
10.50  -BOX1
10.40
10.30
10.20
10.10
10.00                     My MarkMagic Tutorial
 9.90
 9.80
 9.70
 9.60

 F2=Edit        F3=Exit        F4=Revert      F5=Undo        F6=Create
 F7=Copy        F8=Delete      F11=Move       F12=Cancel     F24=More keys
```

JMagic

Creating boxes in JMagic, because it gives you a "WYSIWYG" view, is very simple. Click on the "Create a Box Field" button at the top. Move your + cursor to an area that is to the bottom left of the text. Click and hold your mouse button and drag the box (you'll see it being created) to the opposite corner of the text and let go of the button. The box is created.

Create a Box Field

Field #3 – Text: "MarkMagic tutorial line one"

MarkMagic

Place the cursor on green design screen in the general area where the beginning of the text should be. Press **F6** and then **T** for text. Type **MarkMagic tutorial line one.** in the *Description* field. Change the *Row/Column* to 9 and 3 respectively. This time, place the cursor in the *Font* field and press **F4** to prompt it. Choose a new font by paging up or down and pressing ENTER on the one you want. Font 36 (Arial) is used in this example. Set the *Points* to 12 and press ENTER twice to create your text field. You should see your new text field on the design screen.

```
                         Work with Text Field
 Device . . . : HPPCL5
 Format . . . : LEARNXXX      Length: 11.00"    Width:  8.50"    Rotation:   0

 Field #  . . : 002

 Type choices, press Enter.

   Field name  . . . . . . . . .  *H
                                       ┌──────────────────────────────┐
     Description . . . . . . . .  Ma   │ Select a Text Font            │
                                       │ =                             │
   Length  . . . . . . . . . . .  __   │ 31   Univers                  │
   Decimals  . . . . . . . . . .  _    │ 32   Antique                  │
   Variable length . . . . . . .  Y    │ 33   Garamond                 │
                                       │ 34   Albertus                 │
   Row / Column  . . . . . . . .  9    │ 35   Marigold                 │
   Font  . . . . . . . . . . . .  20   │ 36   Arial   ◄──────          │
                                       │                    More...    │
                                       │ F10=Sort by descr   F12=Cancel│
   Points  . . . . . . . . . . .  1    └──────────────────────────────┘
                                                                    .
 F3=Exit     F4=Prompt     F5=Refresh     F12=Cancel
```

```
                         Work with Text Field
 Device . . . : HPPCL5
 Format . . . : LEARNXXX      Length: 11.00"     Width:  8.50"     Rotation:   0

 Field #  . . : 002

 Type choices, press Enter.

   Field name  . . . . . . . . . .  *HEADING      Name, *HEADING, *DATE, *TIME,
                                                  *LINK, F4 for fields list
     Description . . . . . . . .    MarkMagic tutorial line one.

   Length  . . . . . . . . . . .    ____          1 - 132
   Decimals  . . . . . . . . . .    __            0 - 9
   Variable length . . . . . . .    Y             Y=Yes, N=No

   Row / Column  . . . . . . . .    9.00   3.00  .01 - 11.00  /  .01 - 8.50
   Font  . . . . . . . . . . . .    36            F4 for list of fonts


   Points  . . . . . . . . . . .    12            1 - 999
                                                                    More...
 F3=Exit     F4=Prompt     F5=Refresh     F12=Cancel
```

```
    Device:  HPPCL5              Design a Format              Format:  LEARNXXX

     _                 _                  _                  _                  _
    Format           fielDs           Options            Print            Utilities
          2.00         2.50       3.00         3.50       4.00       4.50       5.00
       ...|....+....!....+....|....+....!....+....|....+....!....+....|....+...
 10.30
 10.20
 10.10
 10.00                         My MarkMagic Tutorial
  9.90
  9.80
  9.70
  9.60
  9.50
  9.40
  9.30
  9.20
  9.10
  9.00                         MarkMagic tutorial line one.
  8.90

 F2=Edit          F3=Exit         F4=Revert       F5=Undo         F6=Create
 F7=Copy          F8=Delete       F11=Move        F12=Cancel      F24=More keys
```

JMagic

Click on the *Create a Text Field* button at the top of the window. Click on the design area in the approximate location of the start of the text line. The *Create a New Text Field* window appears.
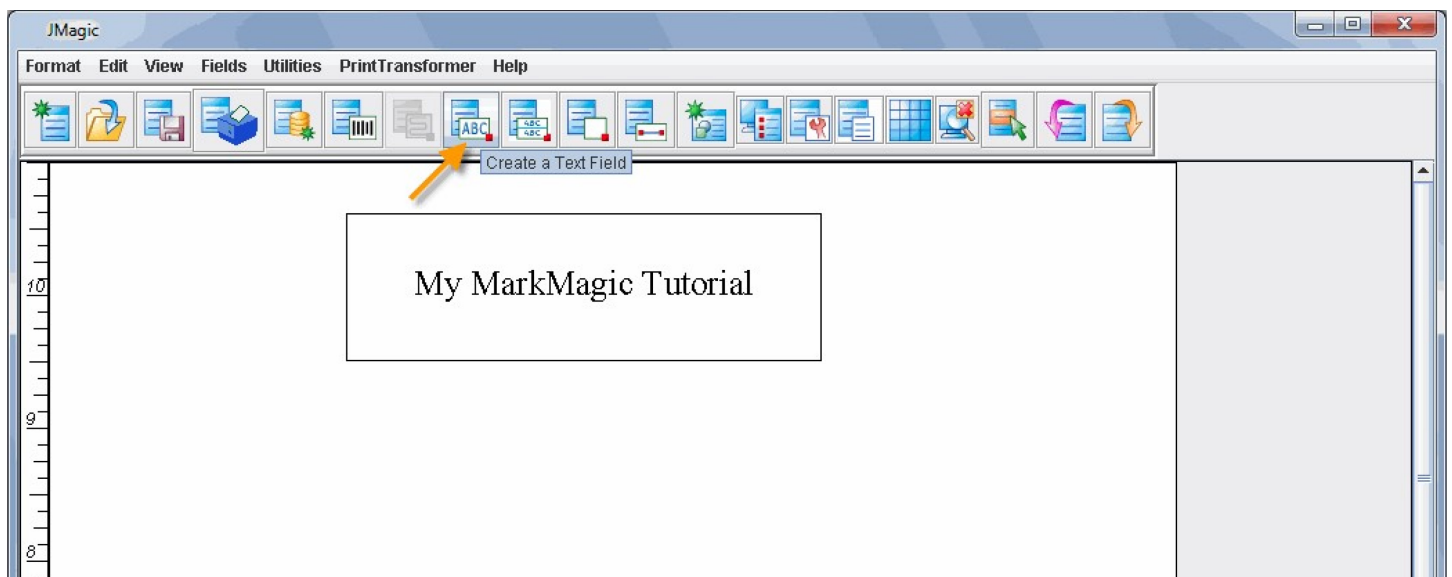
Type **MarkMagic tutorial line one.** in the *Description* field. Change the *Row* to 9 and the *Column* to 3. Next, for the font, click the down arrow to reveal the drop down menu and choose Arial. The rest of the fields can be

left with the default values. Press OK. You should see your new text field on the design screen with the proper formatting.

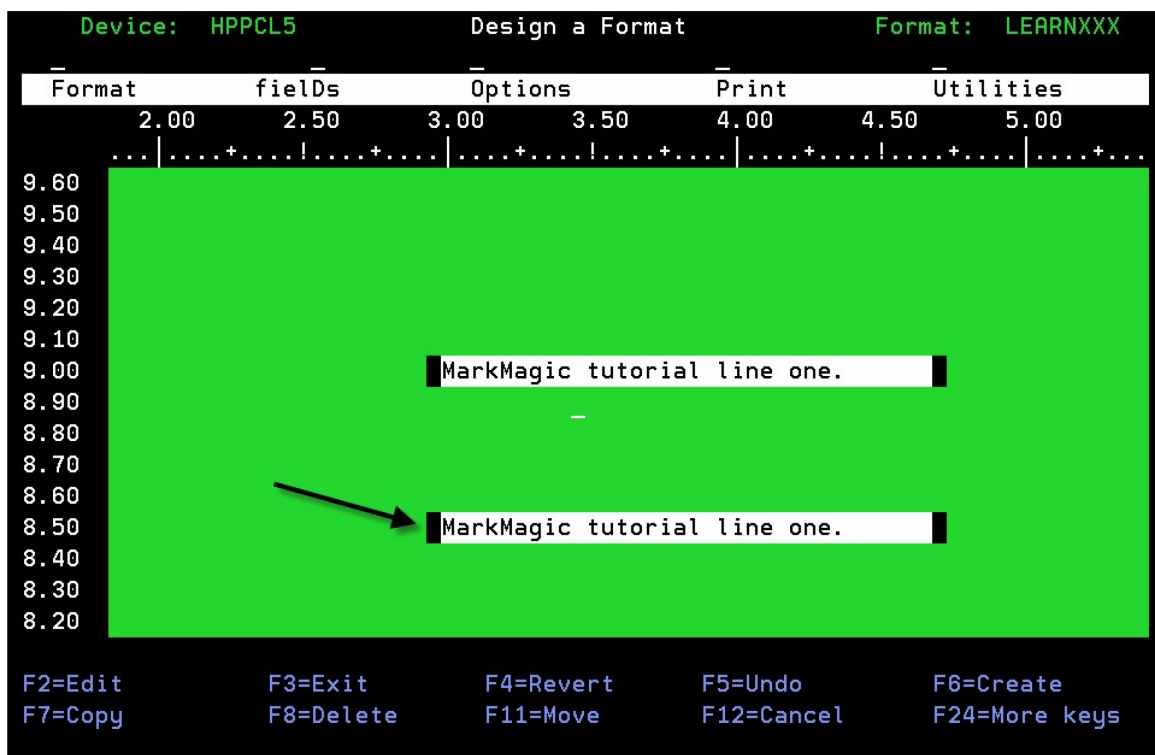**Field #4 – Copy/Edit: "MarkMagic tutorial line two"**

MarkMagic

Place your cursor within the white area of your previously created text field. Press **F7** on your keyboard for *Copy*. You could have also use the Copy command in the menu above. (Press **TAB** to get to the top, then **D** for fields, then **C** for copy.) MarkMagic will ask you where you want the newly copied field to be. Move your cursor down a few lines and press ENTER. The *Copy a Field* window appears.

```
 Copy a Field

 Number of copies . . . .    1      1 - 99
 Vertical offset  . . . .    50-
 Horizontal offset  . . .     0

 F5=Refresh      F12=Cancel
```

This is where you specify the number of copies and the offset distance from the one before it. Set *Number of Copies* to **1**, *Vertical Offset* to **50-** (This value is in hundredths of and inch and is negative so this means down one half inch.) and set the *Horizontal Offset* to **0** (we want to keep the copied field aligned on the same column as the source field.) Press ENTER and you will see a duplicate text field created directly below your original text field. We want to make this field look a little different than the last, so we must edit it.

```
     Device:   HPPCL5            Design a Format           Format:   LEARNXXX

     Format         fielDs          Options          Print           Utilities
        2.00       2.50       3.00       3.50       4.00       4.50       5.00
     ...|....+....!....+....|....+....!....+....|....+....!....+....|....+...
9.60
9.50
9.40
9.30
9.20
9.10
9.00              MarkMagic tutorial line one.
8.90                        _
8.80
8.70
8.60
8.50              MarkMagic tutorial line one.
8.40
8.30
8.20

 F2=Edit          F3=Exit         F4=Revert        F5=Undo          F6=Create
 F7=Copy          F8=Delete       F11=Move         F12=Cancel       F24=More keys
```

Place your cursor in the white space of your new text field and press **F2** to Edit. The *Work With Text Field*

screen appears. Change the "**one**" to a "**two**" in the *Description* field. Prompt (F4) the *Font* field and select 33 (Garamond). Also, change the *Points* to 18. Press ENTER twice to accept your changes.

```
                        Work with Text Field
Device . . . : HPPCL5
Format . . . : LEARNXXX      Length: 11.00"     Width:  8.50"     Rotation:   0


Field #  . . : 003


Type choices, press Enter.

   Field name  . . . . . . . . .   *HEADING      Name, *HEADING, *DATE, *TIME,
                                                 *LINK, F4 for fields list
     Description . . . . . . . .   MarkMagic tutorial line two.

   Length  . . . . . . . . . . .    28          1 - 132
   Decimals  . . . . . . . . . .    __          0 - 9
   Variable length . . . . . . .   N            Y=Yes, N=No

   Row / Column  . . . . . . . .    8.50    3.00 .01 - 11.00  /  .01 - 8.50
   Font  . . . . . . . . . . . .   33            F4 for list of fonts


   Points  . . . . . . . . . . .    18          1 - 999
                                                                     More...
F3=Exit     F4=Prompt     F5=Refresh     F12=Cancel
```

```
     Device:  HPPCL5            Design a Format         Format:   LEARNXXX
     _              _              _              _              _
   Format         fielDs        Options         Print         Utilities
        2.00         2.50     3.00         3.50     4.00      4.50      5.00
     ...|....+....!....+....|....+....!....+....|....+....!....+....|....+...
 9.60
 9.50
 9.40
 9.30
 9.20
 9.10
 9.00             MarkMagic tutorial line one.
 8.90
 8.80
 8.70
 8.60
 8.50             MarkMagic tutorial line two.
 8.40
 8.30
 8.20

 F2=Edit        F3=Exit       F4=Revert     F5=Undo       F6=Create
 F7=Copy        F8=Delete     F11=Move      F12=Cancel    F24=More keys
```
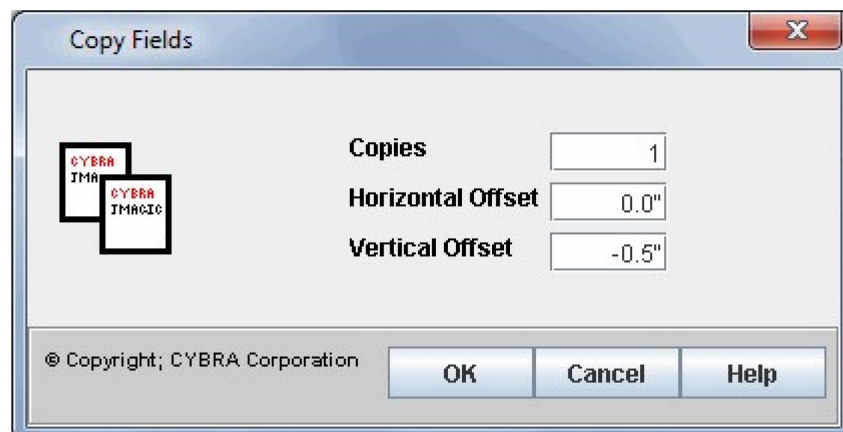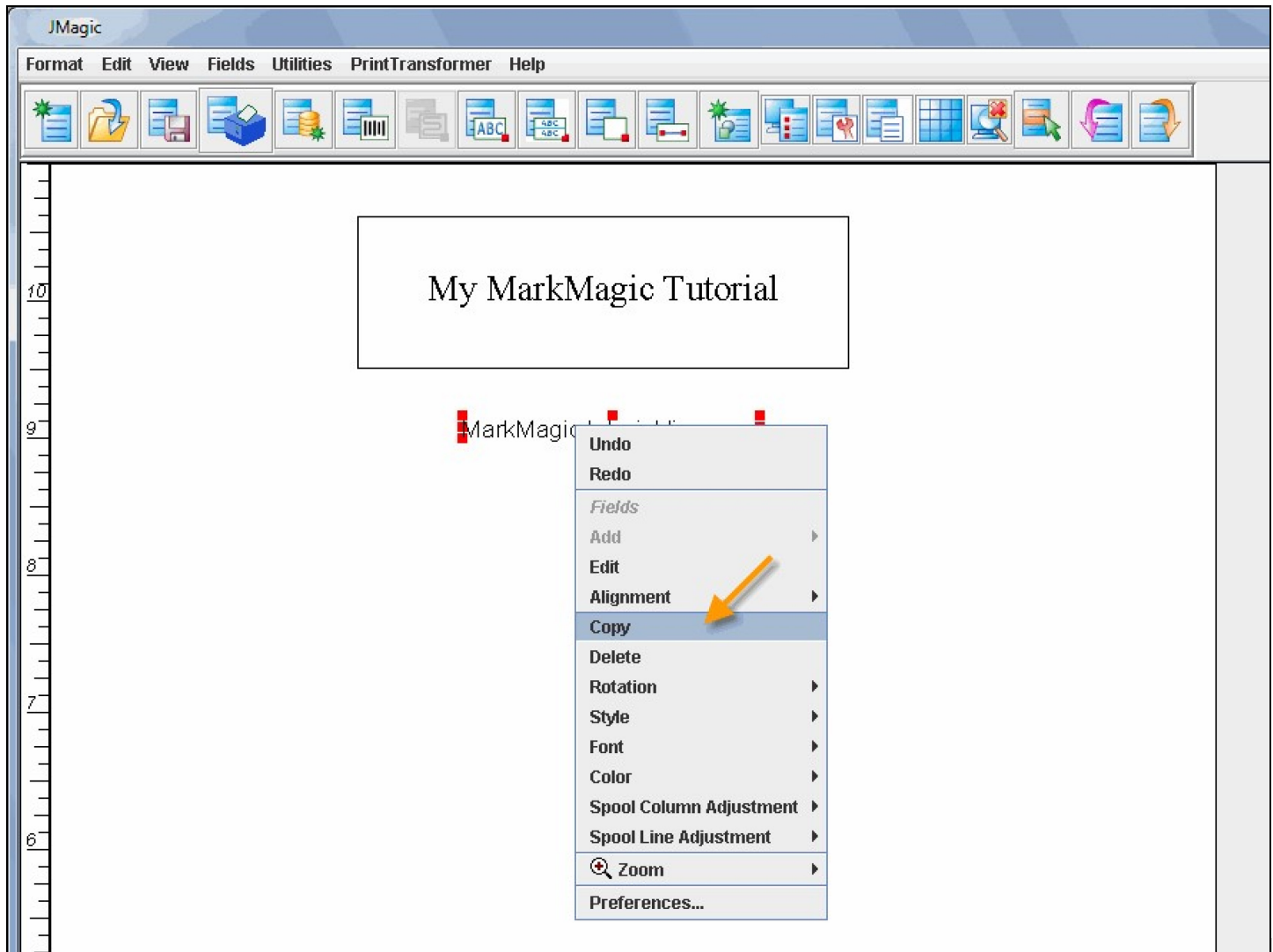
Set *Copies* to **1**, *Horizontal Offset* to **0** and Vertical offset to **-.5** (Down one half inch.) Press OK. You will see a duplicate text field created one half inch below your first text line.

We need to change the wording of this field as well as change the font and point size. Sure, we can use the new right click menu to change the font and style etc., but we cannot change the field description text and point size using the right click menu. To make these changes, we *could* double click the field and access the *Edit A Text Field* window, but there is an even easier way
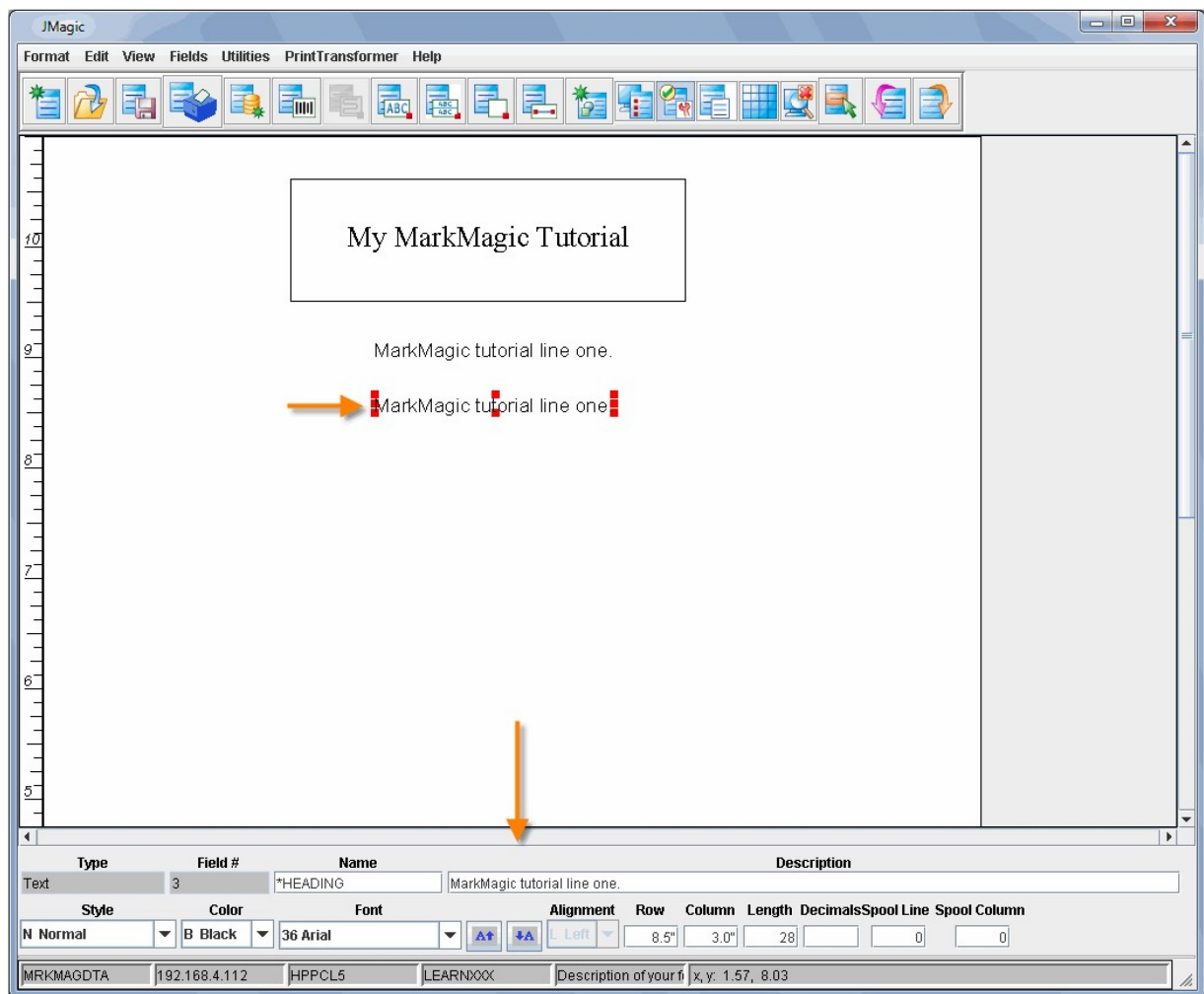
At the top, turn on the "Quick Edit Panel" by clicking the wrench icon:
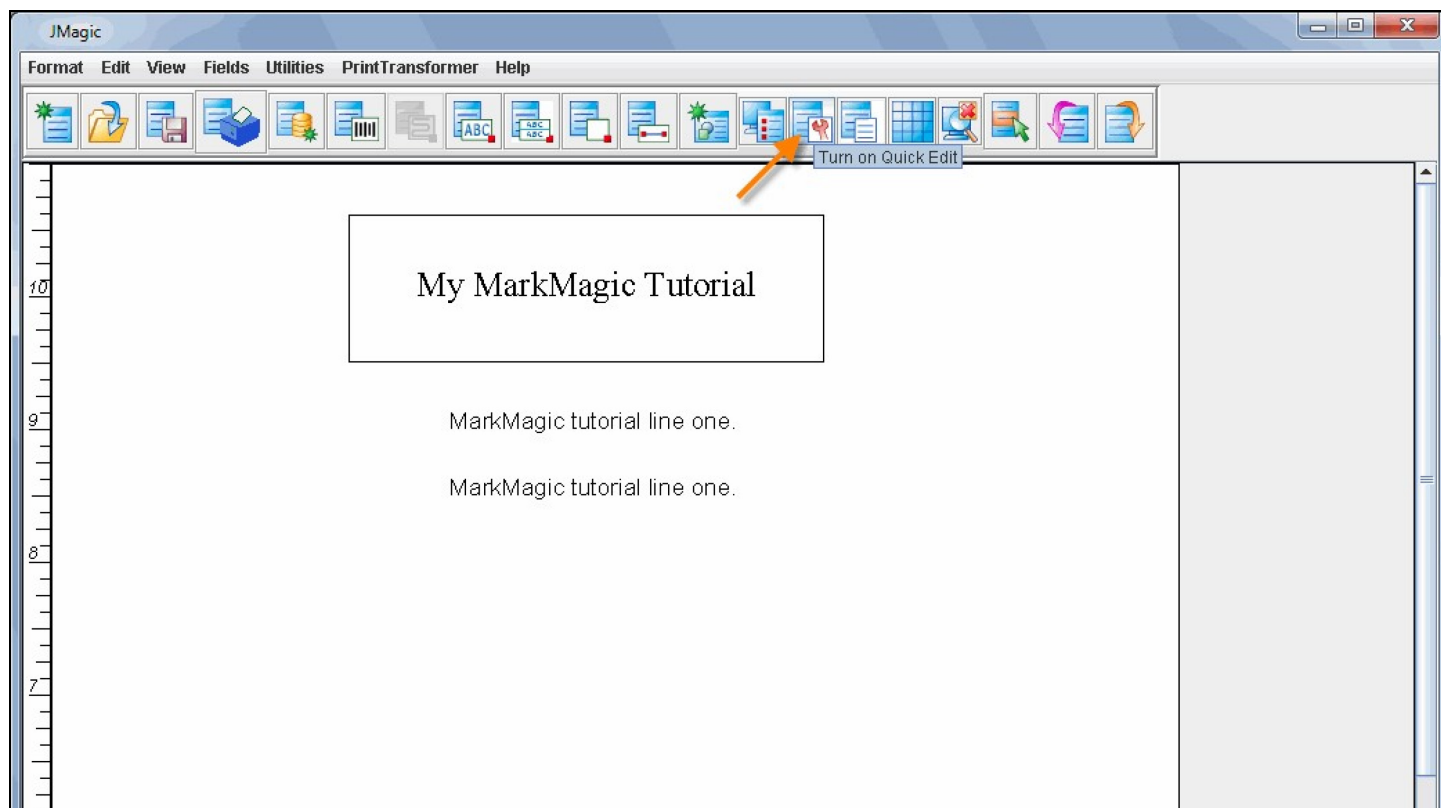
You should now see a new panel opened up at the bottom of the screen:
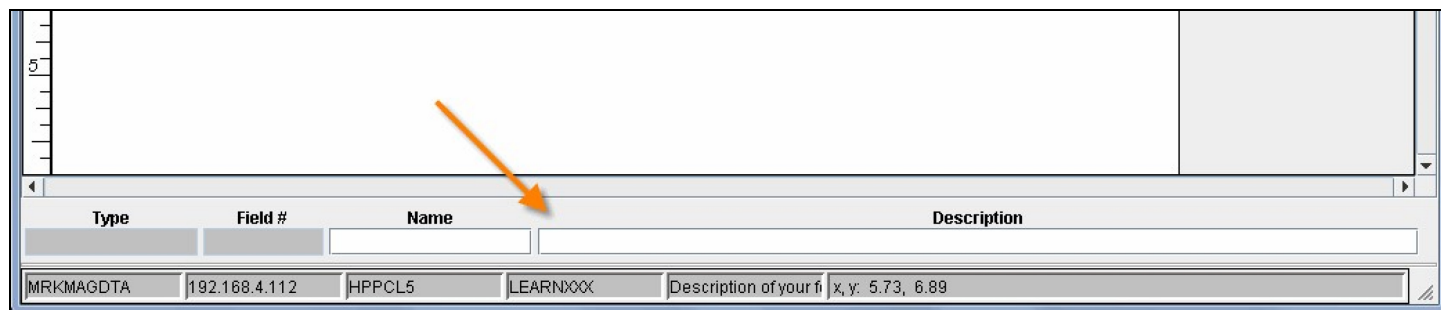
With this panel open, when you click on a field on the JMagic canvas, many of the fields' parameters are easily accessible for editing without the need to double click the field to open its own "Edit a Field" window.

Using the Quick Edit panel, change the description of the text field to read: **MarkMagic tutorial line two.** Also, if you did not already use the right click menu to change the font, use the menu here to change the *Font* to **Garamond.** You can also use the two buttons next to the *Font* to raise or lower the point size in single digit increments. Try raising the point size a few clicks. Your second line of text should now look like this:

Field #5 – Create a Line

```
        Device:  HPPCL5            Design a Format              Format:  LEARNXXX
     _              _              _                _                  _
   Format          fieLDs         Options          Print             Utilities
                 5.50        6.00       6.50       7.00       7.50       8.00        8.
         .|....+....!....+....|....+....!....+....|....+....!....+....|....+....!
   8.90 ┌──────────────────────────────────────────────────────────────────────┐
   8.80 │                                                                        │
   8.70 │                                                                        │
   8.60 │                                                                        │
   8.50 │ ███████████████▌                                                       │
   8.40 │                                                                        │
   8.30 │                                                                        │
   8.20 │                                                                        │
   8.10 │                                                                        │
   8.00 │ ─────────────────────────────────────────────────────────────────►    │─
   7.90 │                                                                        │
   7.80 │                                                                        │
   7.70 │                                                                        │
   7.60 │                                                                        │
   7.50 └──────────────────────────────────────────────────────────────────────┘

   F12=Cancel       F14=Rotate          F15=Zoom in       F16=Zoom out
   F17=Top          F18=Bottom          22=Rulers
   Move the cursor to end of line field and press Enter.                      +
```

```
                         Work with Line Field
 Device . . . : HPPCL5
 Format . . . : LEARNXXX      Length: 11.00"     Width:  8.50"     Rotation:   0

 Field #  . . : 001

 Type choices, press Enter.

   Field name  . . . . . . . . .    LINE1        Name
      Description . . . . . . . .    _____

   Start Row / Column  . . . . .    _7.50   __.25 .01 - 11.00  /  .01 - 8.50
   End Row / Column  . . . . . .    _7.50   8.25 .01 - 11.00  /  .01 - 8.50

   Thickness . . . . . .  . . . .    ___1         1 - 99

   Style . . . . . . .  . . . . .    N_           F4 for list




 F3=Exit    F5=Refresh    F12=Cancel
```

For *Field Name* type **LINE1**. You can press ENTER twice and create a line with the values MarkMagic passed through, or enter in your own custom *Start Row/Column* and *End Row/Column* values if you wish. If you want to place the line in an exact location, change the values for *Start Row/Column* to 7.5 and .25 and change the values for *End Row/Column* to 7.5 and 8.25. Leave everything else at the default values and press ENTER twice to create your new line field.

```
 Format        fielDs        Options        Print         Utilities
            0.50      1.00      1.50      2.00      2.50      3.00      3.50
       ....+....!....+....|....+....!....+....|....+....!....+....|....+....!..
 8.20
 8.10
 8.00
 7.90
 7.80
 7.70
 7.60
 7.50  ▮-LINE1
 7.40
 7.30
 7.20
 7.10
 7.00
 6.90
 6.80

 F2=Edit        F3=Exit        F4=Revert      F5=Undo        F6=Create
 F7=Copy        F8=Delete      F11=Move       F12=Cancel     F24=More keys
```

JMagic

Creating a line field in JMagic is, again, very simple. At the top, click the *Create a Line Field* button. Move your + cursor to the approximate start position of the line. (Far left on your design screen just below your second text field.) Click and hold your mouse button and drag the line (you'll see it being created) to the opposite side of the format and let go of the mouse button. The line is created.
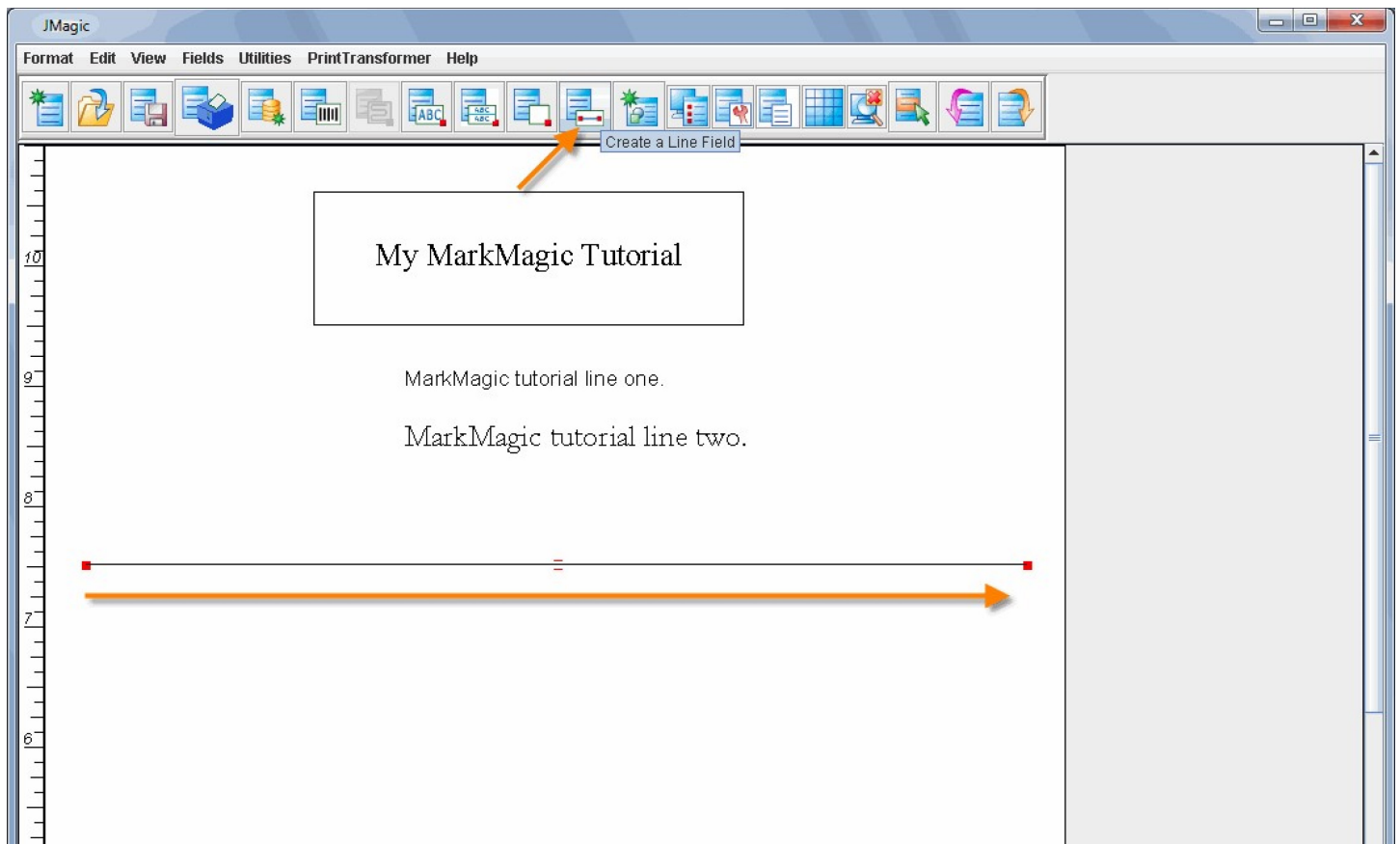
Field #6 – Copy the Line

MarkMagic

Place your cursor within the light blue area of your previously created line field. Press the **F7** key on your keyboard. You could also use the Copy command in the menu above. (Press **TAB** to get to the top, the **D** for fields, then **C** for copy.) MarkMagic will ask you where you want the copied field to be. Move your cursor down a few lines and press ENTER. The *Copy a Field* window appears. This is where you specify the number of copies and the offset distance from the original. Set *Number of Copies* to **1**, *Vertical Offset* to **400-** (This value is in hundredths of and inch and is negative so this means down four inches.) and set the *Horizontal Offset* to **0**. Press ENTER to accept. You may have to *Page Down* a few times in order to see your newly copied line.

Click your previously created line field to select it. If the line is difficult to select, you can use the lasso feature to select the line. If you click an empty area of the canvas and then drag a selection box moving left, you will notice a **red** selection box being drawn. A red lasso means any field *touching* the lasso will be selected.
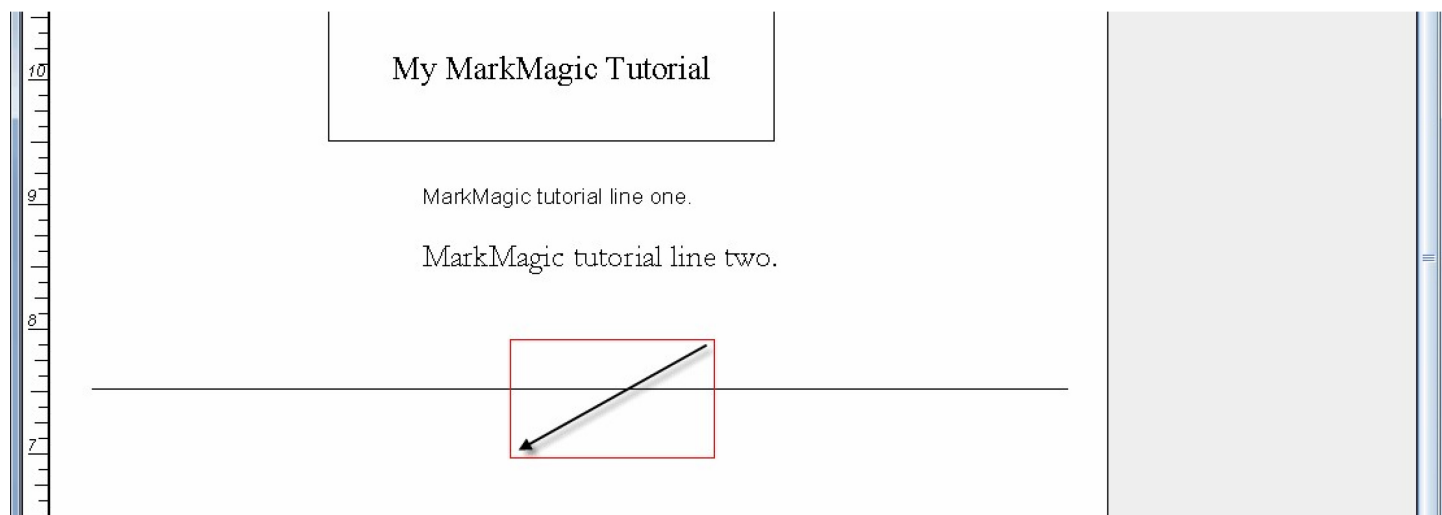
If you click an empty area of the canvas and then drag a selection box moving to the right, you will notice a **blue** selection box being drawn. A blue lasso means that, in order for a field to be selected, it must be entirely contained within the selection box.
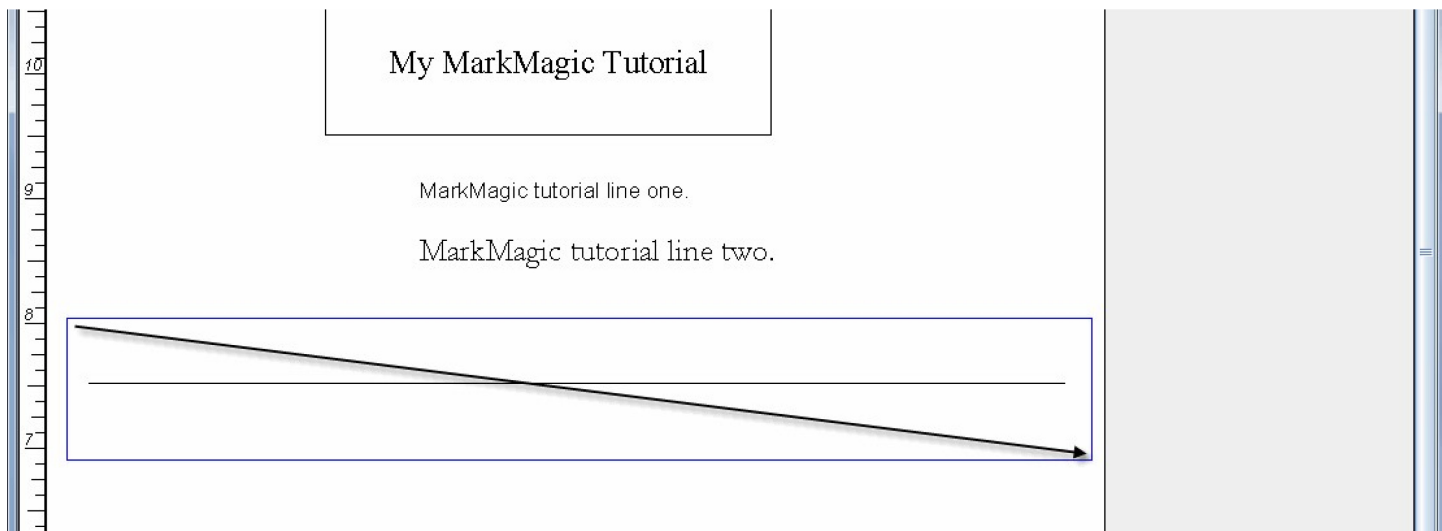
With your new line field selected, at the very top of the JMagic window, click the *Fields* menu and then click *Copy*. Your cursor becomes a + again indicating it wants you to click somewhere. Click below your original line and the *Copy Fields* window appears. Set *Copies* to **1**, *Horizontal Offset* to **0** and Vertical offset to **-4.0** (Down four inches.) Press OK. You will see a duplicate line created four inches below your original line.
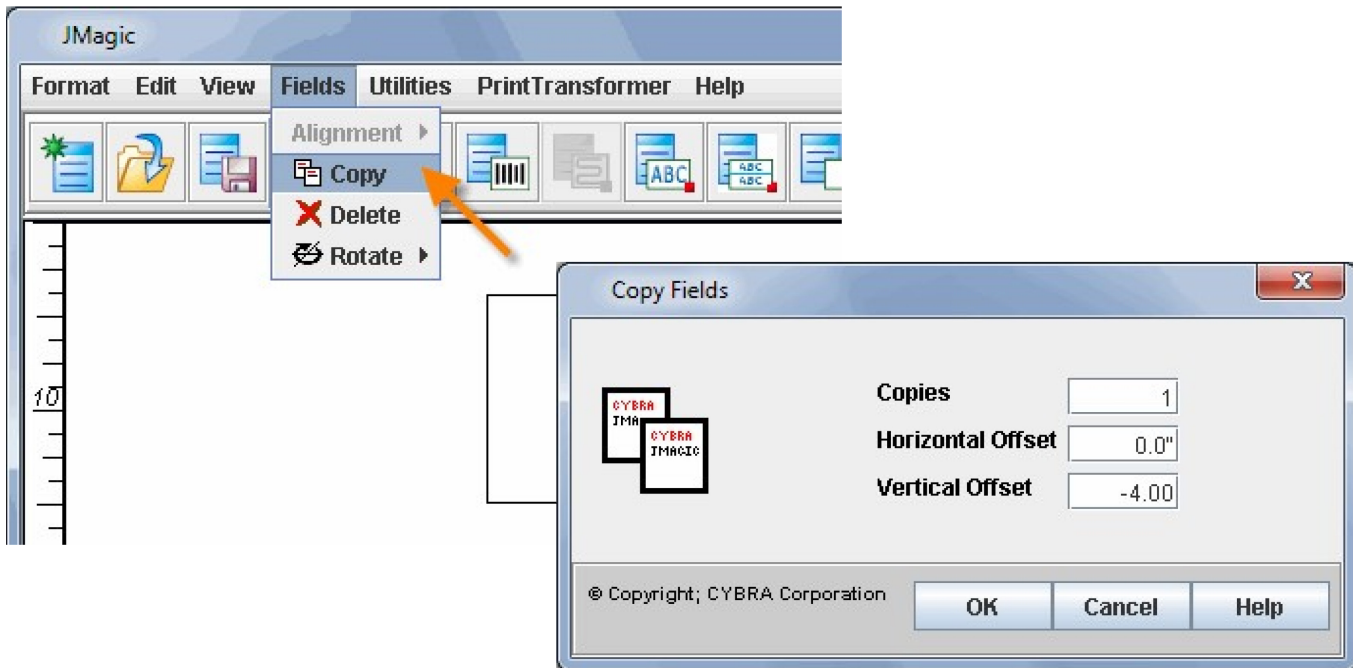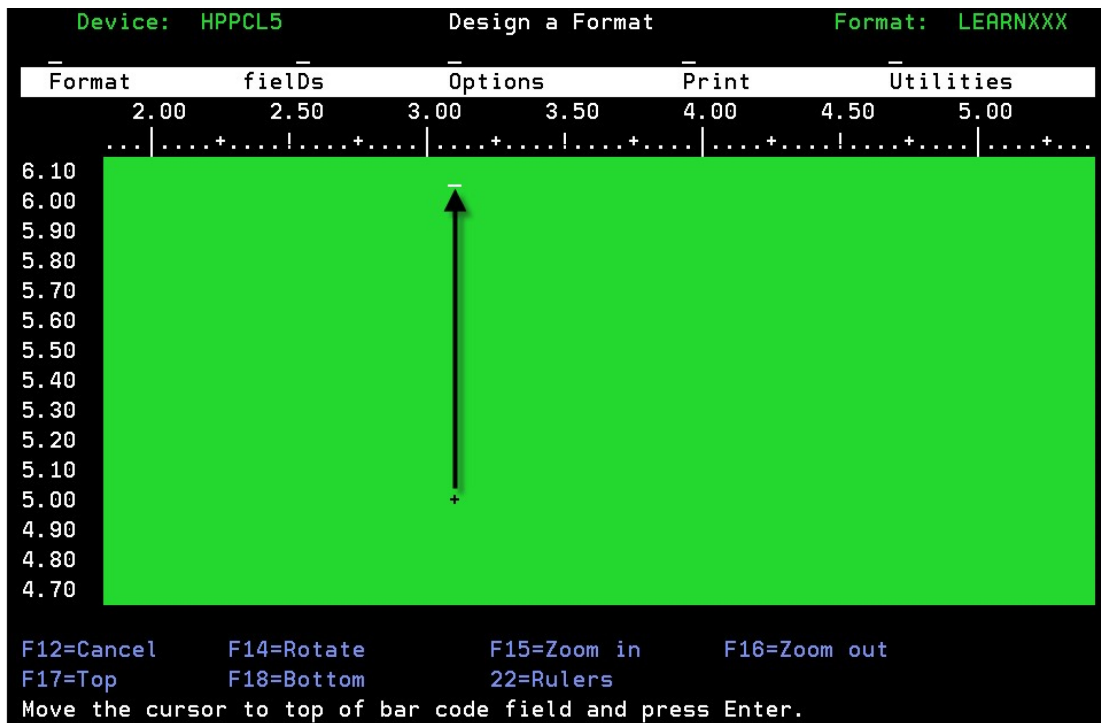
Field #7 – Create a Bar Code

MarkMagic

Place your cursor approximately where the bottom left corner of the bar code would be and press **F6** on your keyboard. Press **B** for *Bar code.* The *Select Bar Code Style* window will appear. Type the letter "S" to create a standard one dimensional bar code style. Next, MarkMagic will ask you to move the cursor to where the top of the bar code would be. Move your cursor up about one and a half inches and press ENTER. The *Work With Bar Code Field* window appears.

```
      Device:   HPPCL5          Design a Format              Format:   LEARNXXX
     _               _              _                  _                _
   Format         fielDs         Options            Print           Utilities
        2.00       2.50       3.00       3.50       4.00       4.50       5.00
      ...|....+....!....+....|....+....!....+....|....+....!....+....|....+...
   6.10
   6.00                                  _
   5.90                                  ^
   5.80                                  |
   5.70                                  |
   5.60                                  |
   5.50                                  |
   5.40                                  |
   5.30                                  |
   5.20                                  |
   5.10                                  |
   5.00                                  +
   4.90
   4.80
   4.70

   F12=Cancel      F14=Rotate        F15=Zoom in       F16=Zoom out
   F17=Top         F18=Bottom        22=Rulers
   Move the cursor to top of bar code field and press Enter.
```
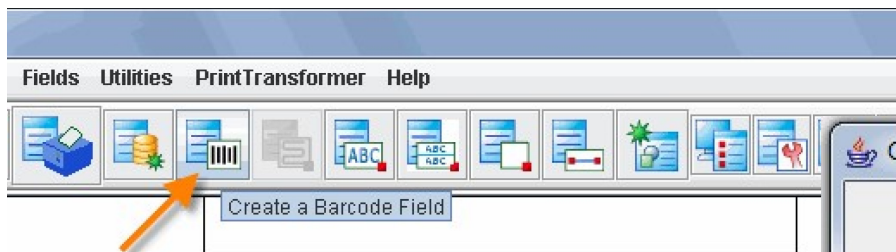
Make this field a heading field by typing ***HEADING** in the *Field Name* field. Remember, this means that whatever is typed in the *Description* field will be printed (or encoded into the barcode). Type **Tutorial Barcode** in the *Description* field. Set the *Row/Column* to **5** and **3** respectively. (The *bottom left corner* of the barcode will be 5 inches up and 3 inches over.) Prompt **F4** the *Bar Code Type* field and choose #22 (Code 128 Autoswitch). Set the *Height* to **1.5** (if it isn't already) and set the *Narrow Bar (Module) Width* to **3**. Press ENTER twice to accept your settings. You should see your new barcode represented by a large blue rectangle.
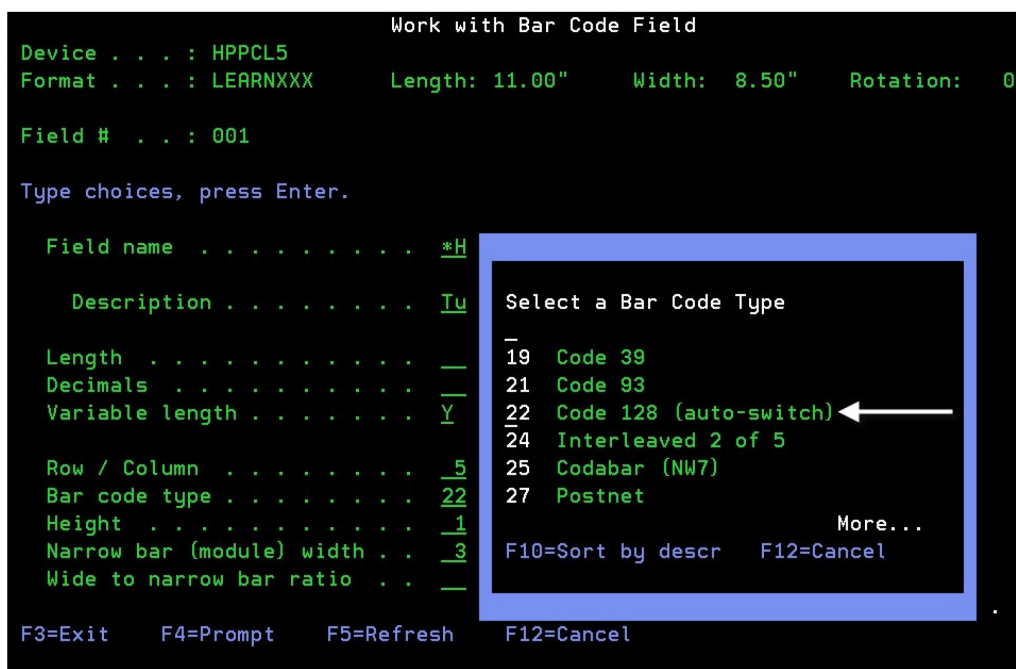
```
                          Work with Bar Code Field
   Device . . . : HPPCL5
   Format . . . : LEARNXXX      Length: 11.00"     Width:  8.50"    Rotation:   0

   Field #  . . : 001

   Type choices, press Enter.

      Field name . . . . . . . . .   *H
                                        ┌─────────────────────────────────────┐
      Description . . . . . . . .   Tu  │ Select a Bar Code Type              │
                                        │ _                                    │
      Length . . . . . . . . . . .  __  │ 19   Code 39                         │
      Decimals . . . . . . . . . .  __  │ 21   Code 93                         │
      Variable length . . . . . . . Y   │ 22   Code 128 (auto-switch) <──      │
                                        │ 24   Interleaved 2 of 5             │
      Row / Column . . . . . . . .   5  │ 25   Codabar (NW7)                  │
      Bar code type . . . . . . . .  22 │ 27   Postnet                        │
      Height . . . . . . . . . . .   1  │                            More...   │
      Narrow bar (module) width . .  3  │ F10=Sort by descr    F12=Cancel     │
      Wide to narrow bar ratio  . .  __ └─────────────────────────────────────┘
                                                                       .
   F3=Exit     F4=Prompt     F5=Refresh     F12=Cancel
```

```
                    Work with Bar Code Field
Device . . . : HPPCL5
Format . . . : LEARNXXX      Length: 11.00"     Width:  8.50"     Rotation:   0

Field #  . . : 001

Type choices, press Enter.

  Field name  . . . . . . . . .   *HEADING      Name, *HEADING, *LINK,
                                                F4 for list of fields
    Description . . . . . . . .   Tutorial Barcode

  Length  . . . . . . . . . . .    16           1 - 50
  Decimals  . . . . . . . . . .    __           0 - 9
  Variable length . . . . . . .    Y            Y=Yes, N=No

  Row / Column  . . . . . . . .    5.00   3.00 .01 - 11.00  /  .01 - 8.50
  Bar code type . . . . . . . .   22            F4 for list
  Height  . . . . . . . . . . .    1.50         .10 - 2.00
  Narrow bar (module) width . .    3            1 - 30
  Wide to narrow bar ratio  . .   ___           2.0 - 4.0
                                                             More...

F3=Exit    F4=Prompt    F5=Refresh    F12=Cancel
```

```
   Device:  HPPCL5            Design a Format              Format:  LEARNXXX

   Format        fielDs         Options          Print          Utilities
       2.00       2.50      3.00      3.50      4.00      4.50      5.00
    ...|....+....!....+....|....+....!....+....|....+....!....+....|....+...
 6.80
 6.70                            _
 6.60
 6.50                         Tutorial Barcode
 6.40
 6.30
 6.20
 6.10
 6.00
 5.90
 5.80
 5.70
 5.60
 5.50
 5.40

F2=Edit         F3=Exit        F4=Revert       F5=Undo       F6=Create
F7=Copy         F8=Delete      F11=Move        F12=Cancel    F24=More keys
```

JMagic

At the top, click the *Create a Barcode Field* button. Click on the design canvas approximately where the *bottom left corner* of the barcode should be. The *Choose Barcode Type* window will appear, please select **22 Code 128 (auto-switch)** from the drop down menu and click **OK**. Next, the *Create a new Bar Code Field* window will be displayed.

Fields   Utilities   PrintTransformer   Help

Create a Barcode Field

MarkMagic tutorial line one.

MarkMagic tutorial line two.

Choose Barcode Type

1 23456 78901 2

01 UPC-A

17 JAN-13 + 2
18 JAN-13 + 5
19 Code 39
21 Code 93
22 Code 128 (auto-switch)
24 Interleaved 2 of 5
25 Codabar (NW7)
27 Postnet
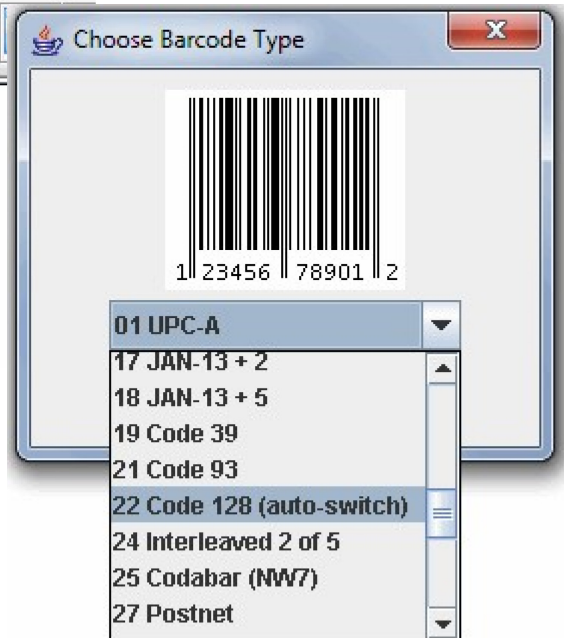
If not already there, use the pull down menu for *Field Name* and set it to *HEADING. Type **Tutorial Barcode** in the *Description* field. *Row* and *Column* should be set to **5.0** and **3.0** respectively (overwrite the numbers that JMagic pulled in for you from where you clicked). In the pull down menu for *Bar code type* you should see **22 Code128 Autoswitch**.

At the top of this window, press the *Display* tab and change the *Height* to **1.5** and the *Narrow Bar Width* to **3**. Press OK and you should see your new bar code on in your design screen.

Create A New Bar Code Field

Device

Name HPPCL5

Description .5 & Compatible

Format

Name LEARNXXX

Description Description of your format

Length 11.0" **Width** 8.5"

Rotation [A] 0°

Properties | **Display** | **Settings**

Appearance

Human Readable | 00 No human readable characters ▼

Alignment | L Left ▼

Rotation

Rotation [A] ● 0°   ○ 90°   ○ 180°   ○ 270°

Attributes

Height | 1.5" ←

Narrow Bar Width | 3 ←

Wide to Narrow BarRatio | 3.0 ▼

Number of Columns | 10

Number of Mils | 14.8

Spooled Data Position

Spool Line | 0   **Spool Column** | 0

Fields Linking to this Field

0 Field(s)

OK | Cancel | Help
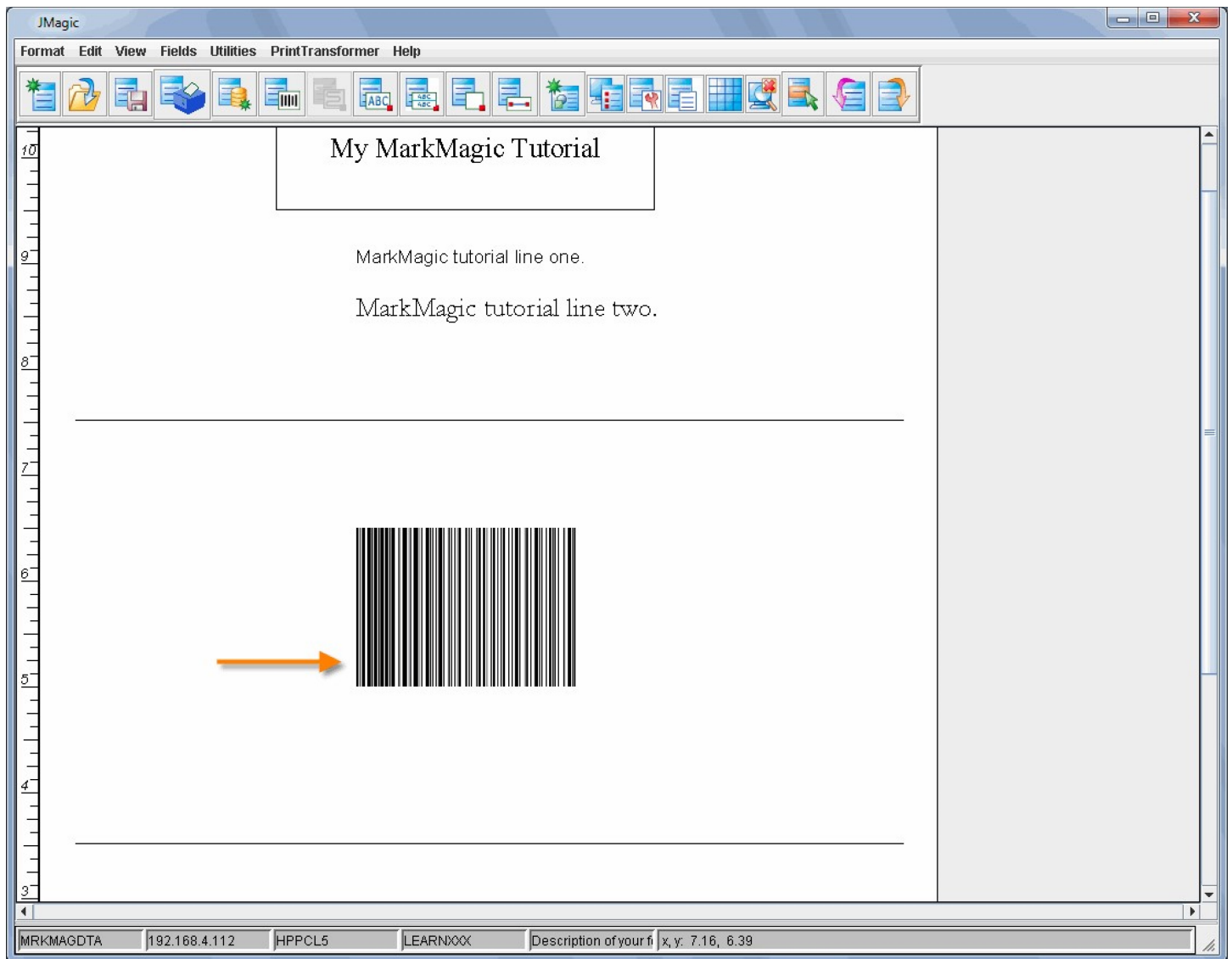
Field #8 – Text: "Made By: *Your Name*"

MarkMagic

Place your cursor in the general location where the "M" in "Made" should be and press **F6** on your keyboard. Press **T** for *Text field.* The *Work With Text Field* screen is now shown. Type **Made by:** *your name* in the *Description* field. (Replacing "your name" with your first name.) Change the *Row/Column* to **2** and **4.5** respectively. Since we want this text to stand out, let's change the *Points* to **20**. Also, Page Down once and change the *Style* to **B** for **Bold.** Press ENTER twice to accept your text field.

```
                         Work with Text Field
 Device . . . . : HPPCL5
 Format . . . . : LEARNXXX      Length: 11.00"    Width:  8.50"    Rotation:   0

 Field #  . . : 004
 Name . . . . . : *HEADING      Description: Made by: Your Name

 Type choices, press Enter.

    Edit code . . . . . . . . .  _          F4 for list
    Check digit . . . . . . . .  _0         F4 for list
    Increment type  . . . . . .  I          I=Incr, D=Decr, *=Seq reference
       Increment value . . . . .  ___        0 - 999


    Rotate Field  . . . . . . .   _0        0, 90, 180, 270

    Style . . . . . . . . . . .  B_         F4 for list of styles
    Color . . . . . . . . . . .  B          F4 for list of colors

    Character gap (dots)  . . . .  _0
                                                               More...
 F3=Exit     F4=Prompt     F5=Refresh     F12=Cancel
```

```
     Device:  HPPCL5            Design a Format          Format:  LEARNXXX

    Format         fielDs        Options         Print          Utilities
              4.00      4.50      5.00      5.50      6.00      6.50      7.00
    ..+....|....+....!....+....|....+....!....+....|....+....!....+....|....
 2.90
 2.80
 2.70
 2.60
 2.50
 2.40
 2.30
 2.20
 2.10            Made by: Your Name
 2.00
 1.90
 1.80
 1.70
 1.60
 1.50

 F2=Edit        F3=Exit        F4=Revert       F5=Undo         F6=Create
 F7=Copy        F8=Delete      F11=Move        F12=Cancel      F24=More keys
```

JMagic

Click on the *Create a Text Field* button at the top of the window. Click in the design area in the general location of where the "M" in "Made" should be. The *Create a New Text Field* window appears. Type **Made by:** *your name* in the *Description* field. (Replacing "your name" with your first name.) Change the *Row* to **2** and the *Column* to **4.5**. Since we want this text to stand out, let's change the *Points* to **20**. The rest of the fields can be left with the default values. Press OK. Now, right-click on the new text field, choose *Style* and then choose **Bold** from the menu. You will see the field change to bold on the canvas.
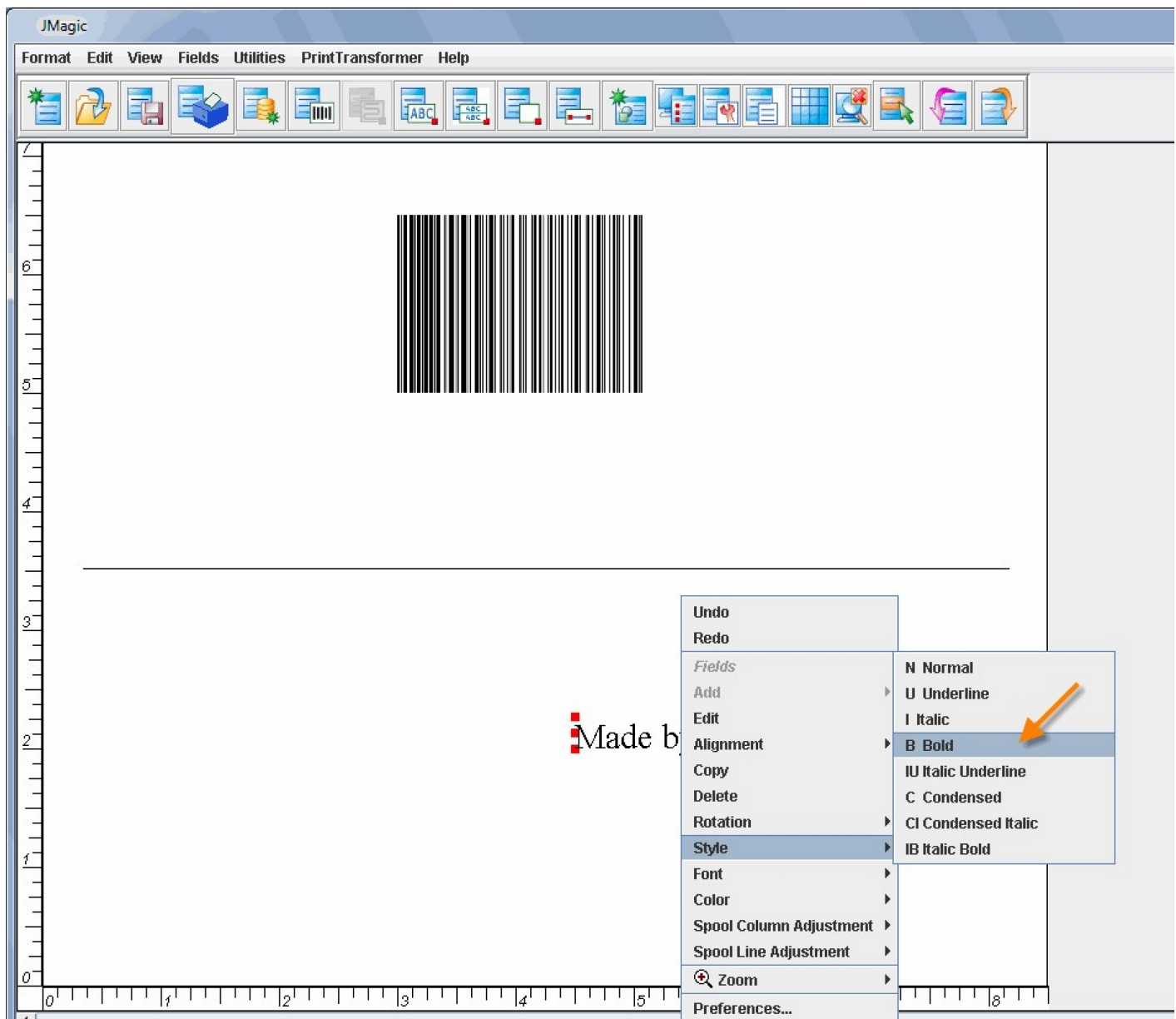
Be sure to save your format as it is now time to print your work. (Format -> Save from the main menu.)

Printing Your Format

Now that we have completed the format, it's time to print it. We are assuming you already have an HPPCL compatible laser printer configured on your System i.

information. If your laser printer is setup as an AS/400 device, you can type the name of the device in the *Printer Device* field:

```
                  Print a Label File (PRTLBLF)

 Type choices, press Enter.

 Label file . . . . . . . . . . . > *LAYOUT      Name, *NONE, *DTAQ...
   Library  . . . . . . . . . .       *LIBL      Name, *LIBL
 Format name  . . . . . . . . . . > LEARNXXX     Name, *FILE, F4 for list
 Printer device . . . . . . . . . > PRTDEVNAME   Name, *JOB, F4 for list
 Form type  . . . . . . . . . . . > *STD         Character value, *STD
 Spooled printer output . . . . . > *YES         *YES, *NO
 Spooled file name  . . . . . . . > *FMT         Character value, *PRTF, *FMT
 Quantity . . . . . . . . . . . . > *DEFAULT     1-9999, *DEFAULT

                    Additional Parameters

 Translate unprintable chars  . . > *YES         *YES, *NO
 Send format  . . . . . . . . . . > *YES         *YES, *NO, *HDG
 Send graphics image  . . . . . . > *YES         *YES, *NO
 Clear graphics buffer  . . . . . > *YES         *YES, *NO
 Print speed (inches/second)  . . > *HIGH        Number, *LOW, *MEDIUM, *HIGH
                                                                    More...
 F3=Exit    F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
 F24=More keys
```

If your printer is setup as a remote output queue without an AS400 device description, then you will have to press **F10** to view additional options (if they are not visible already) then **Page Down** to *Spooled Output Queue* and type the name and library of your remote output queue. Once this information is entered, press ENTER to print your format.

```
                    Print a Label File (PRTLBLF)

Type choices, press Enter.

Forms alignment  . . . . . . . . . > *LEFT      *LEFT, *CENTER, *BACK...
Ribbon . . . . . . . . . . . . . . > *YES       *YES, *NO, *DEFAULT
Heat setting . . . . . . . . . . . > *MEDIUM    Number, *LOW, *MEDIUM, *HIGH
Print sensitivity  . . . . . . .              Character value
RF Network . . . . . . . . . . . . > *NONE      Name, *NONE, F4 for list
Spool copies . . . . . . . . . . . > 001        1-255
Hold spooled file  . . . . . . . . > *NO        *YES, *NO
Save spooled file  . . . . . . . . > *NO        *YES, *NO
Spooled output queue . . . . . . . > OUTQNAME   Name, *DEV, *JOB
  Library  . . . . . . . . . . . . >   OUTQLIB  Name, *LIBL, *USRLIB
Source drawer  . . . . . . . . . . > 1          1-255, *E1, *E2, *E3, *E4
Output bin . . . . . . . . . . . . > 001        1-255
Duplex . . . . . . . . . . . . . . > *NO        *YES, *NO, *TUMBLE
Enable ASCII transparency  . . . > *NO          *YES, *NO, *DIR
User library name  . . . . . . .     *NONE      Name, *NONE, *SEARCH, F4 list
Character Set  . . . . . . . . . . > *DEFAULT   *DEFAULT, *ENG, *ENU, *ESP...
                                                                   More...
F3=Exit    F4=Prompt    F5=Refresh    F12=Cancel   F13=How to use this display
F24=More keys
```
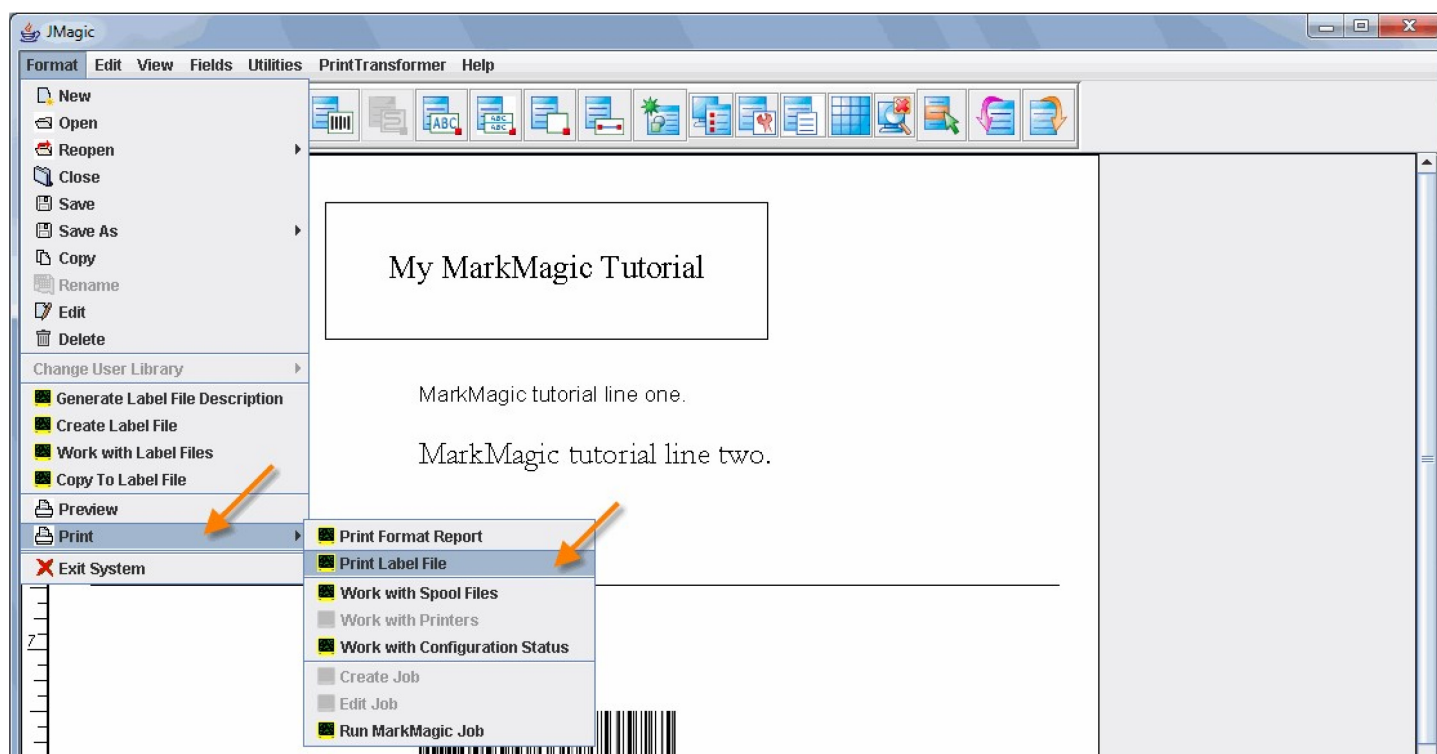
JMagic

To print from JMagic, first save it by clicking *Format* and then *Save.* After the format has been saved, click *Format* then *Print,* and then click "*Print Label File.*" The next window is an exact duplicate of the green screen MarkMagic *Print Label File* command. If you have previously printed successfully using "green screen" MarkMagic, you should be able to print by pressing OK now. (JMagic retrieves all of the previous command parameters that were last used in the green screen to fill in its print command.)

If you have not printed from MarkMagic, there are a few options that need to be set. ***LAYOUT** should be picked as the *Label File* parameter. Your format name, **LEARNXXX**, will need to be entered in the *Format Name* field. You will need to type in your System i printer device name in the *Printer Device* field. Lastly, make sure **HPPCL5** is set as the *Printer Type*.

If your printer is setup as a remote output queue, you will have to press the "*Advanced*" button on the bottom left and scroll down until you see *Spooled output queue* and you're your queue information there. Once all of this is set, press OK to print your format

Congratulations

Congratulations on completing the MarkMagic and JMagic Basic Concepts tutorial! Let's review some of the things we covered:

Topics covered:

1. How to start MarkMagic and JMagic.
2. What a format is and how to create a new format.
3. What a *HEADING field is.
4. How to add new text fields, boxes, lines and barcodes.
5. How to copy and edit a field using the right click and quick edit methods.
6. How to print a format.

You can now continue on with the MarkMagic Intermediate Concepts Tutorials. They you will show you how to define variable fields with data originating from a database (Labels Concepts) or a held spoolfile (Forms Concepts).