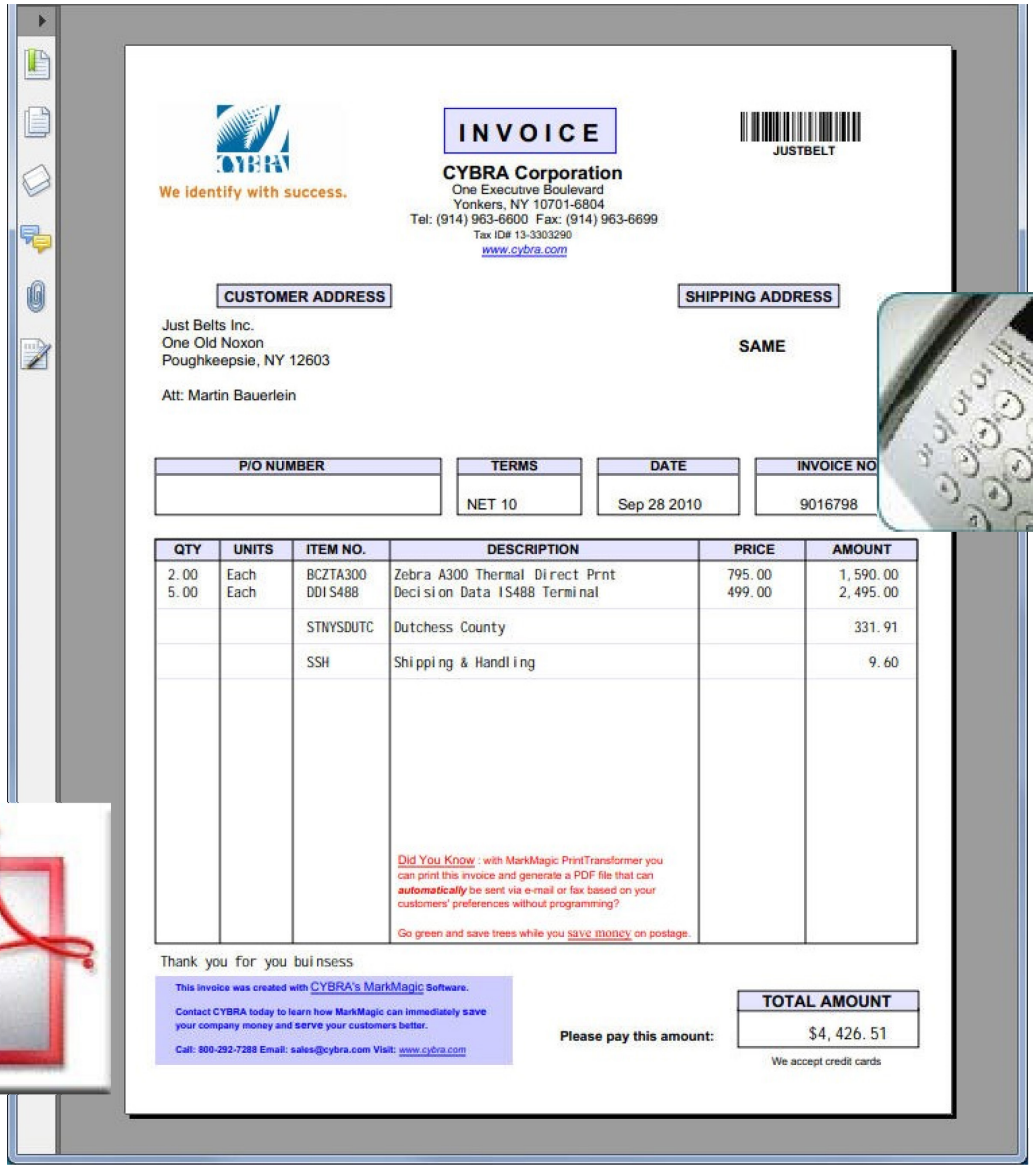
MarkMagic

Bar Code Label, RFID Tag, and SM@RT Forms Software for IBM System i



Tutorial: MarkMagic PDF / Email / Fax Add-on Option

We identify with success.

CYBRA Knows Bar Code

help@cybra.com

Welcome

Welcome to Part 5 of the CYBRA Corp. tutorials! This tutorial will introduce you to the MarkMagic PDF, Fax and Email add-on option. There will not be any JMagic steps in this tutorial, due to the fact that this add-on option is used on the "green screen" side of MarkMagic.

Before we begin we are assuming:

1. You have completed the "Basic Concepts" and "Intermediate Concepts" tutorials and/or understand what was introduced. (Creating formats, creating variable text and barcode fields, printing from label files and spooled files, etc.)
2. You have System i navigator (iSeries Navigator) and a suitable PDF viewer installed on your PC.
3. That you already have an application where you are printing from MarkMagic successfully. (This tutorial will not explain how to print from MarkMagic.)
4. You own IBM Facsimile (FAX400) for System i. IBM Fax400 is only needed if you plan to fax using MarkMagic. If you are only going to be creating PDFs and/or emailing, then you do not need IBM Fax400.
5. You have a valid authorization key that unlocks the PDF/Fax/Email Add-on option. This can be a MarkMagic Development Rental code (code used during 30 day trial), a PDF/Fax/Email specific rental code or permanent code.

In this tutorial, you will learn:

1. What a PDF file is.
2. How to create a PDF file of your MarkMagic forms and labels.
3. How to setup the MarkMagic email option to work with your email servers.
4. How to automatically email your PDF file when it is created.
5. How to fax your output instead of printing to a printer.
6. How to use a MarkMagic format as a Cover Page.

<u>Before you begin…</u>

1. IBM Operating System version V5R2 or higher is *REQUIRED* to use the MarkMagic PDF option. If you are not at that IBM OS version, you must update your Operating System.

2. Portable Application Solution Environment (PASE) must be installed. To check if you have it installed, do GO LICPGM, option 10 to display installed license programs, and then look for "OS/400 - Portable App Solutions Environment".

3. MarkMagic version and mod level requirements for the different add-on option features:

MarkMagic v7.2 or v7.7 mod level 110324

Although, PDF /Email can be used in earlier builds of MarkMagic 7.x, it is recommended that users upgrade to our latest version **7.2** or **7.7** mod level **110324** if they plan on utilizing the PDF / Email and Fax option in production applications.

If you would like to upgrade, please visit www.cybra.com and there you will be able to find information on upgrading your version of MarkMagic.

If you are running previous versions of MarkMagic (6.1, 5.1), please reference the tutorials for those versions also available at www.cybra.com.

4. TCP must be configured correctly: (The system administrator may need to help you with this step.)

a) At the command line enter **CFGTCP** and choose **Option 12**.
b) Ensure the values for *Host name*, *Domain name* and *Domain name server* are correct.
c) Return to the Configure TCP/IP screen and choose **Option 10**.
d) Make sure there are entries for *Internet Address* and *Domain name* and that they are correct.

5. For faxing, you must own IBM Facsimile Support for System i: http://www-03.ibm.com/servers/eserver/iseries/fax400/

6. You must have a Fax Profile already created in order to use SNDMMFAX fax. If you do not have one, you should be able to create one for yourself by using the following command: **CRTFAXPRF.** Please consult with your system administrator before doing this though.

7. The AFPDSFX device must be present in the printer devices list. To access the list, type the following at a command line: **MRKMAG70/SETMMPRM** and press Enter. Example screenshot:

If your list says ***ALL**, you are safe. This means every printer type is activated. If you see a list of printers not including AFPDSFX, please type AFPDSFX in an available position and press Enter to add it to the list.

8. If your fax output is not scaled to the correct size (IE: fax output is approx. 70% smaller than your normal printed output.), then follow these steps to resolve that problem:

```
Rename the existing wscsts, QFFFINE and QFFNORM.
     RNMOBJ OBJ(QFAX/QFFFINE) OBJTYPE(*WSCST) NEWOBJ(AFFFINE)
     RNMOBJ OBJ(QFAX/QFFNORM) OBJTYPE(*WSCST) NEWOBJ(AFFNORM)
```

```
      Copy the new wscsts, QFFFINE2 and QFFNORM2, to QFFFINE and
      QFFNORM.
           CRTDUPOBJ OBJ(QFFFINE2) FROMLIB(QFAX) OBJTYPE(*WSCST)
                     TOLIB(QFAX) NEWOBJ(QFFFINE)
           CRTDUPOBJ OBJ(QFFNORM2) FROMLIB(QFAX)
OBJTYPE(*WSCST)                          TOLIB(QFAX)
NEWOBJ(QFFNORM)
```

What is PDF?

PDF (Portable Document Format) is special file format created by **Adobe Systems Inc.** Documents in this format can be distributed electronically across the web and on a variety of platforms all the while retaining their original look.

With the use of Adobe's PDF reader program, documents originally created by any number of programs (word processors, spreadsheets, desktop publishing programs, and in this case, MarkMagic) appear on the screen exactly as they were meant to look. These facsimiles can be viewed electronically or printed.

Adobe's PDF reader is called **Adobe Acrobat Reader** and can be downloaded free of charge. ***For best results, use the latest version of Acrobat***.

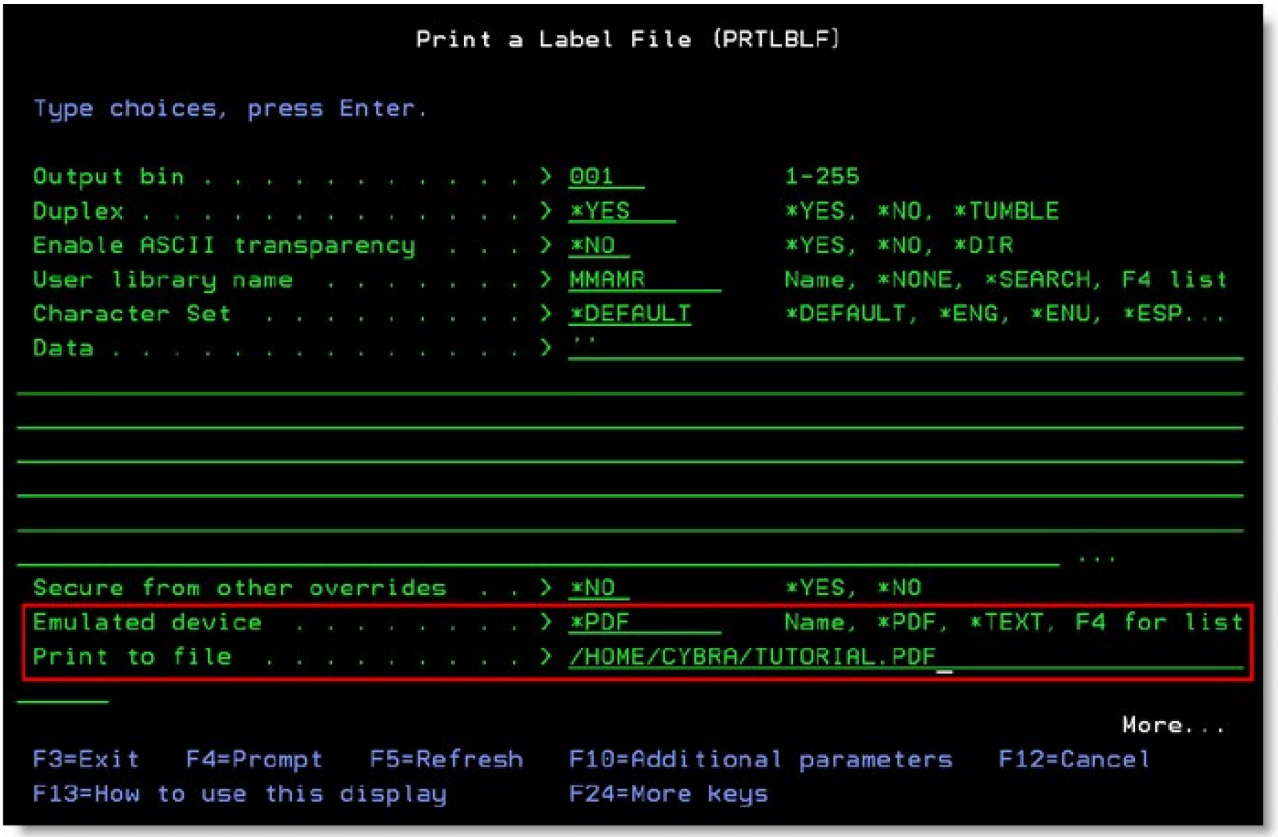
Read more about **PDF** at Adobe's website:

http://www.adobe.com/products/acrobat/adobepdf.html

Creating a PDF of your Form or Label

In this tutorial, you are going to first start out by creating a PDF of the format that was created during the "Basic Concepts" tutorial. If you have not completed that tutorial, it is recommended that you do so. If you know how to create a simple HPPCL5 format with some *HEADING text fields, please do so and use it in this tutorial. We are simply going to show you how to "flip the switch" in the *Print a Label File* (PRTLBLF) command to enable PDF creation. There will be no emailing involved in this first section.

At the MarkMagic main menu, press **P** for *Print*, then **F** for *Format layout*. Choose the HPPCL5 format that you have made for this tutorial or choose the HPPCL5 / LEARNXXX format that you made in the "Basic Concepts" tutorial and press ENTER. The PRTLBLF command is displayed with ***LAYOUT**, the format name and device already entered for you. The goal with creating a PDF is, instead of physically printing to your printer, a PDF file is made on the IFS that matches what normally would print. To do this all you must do, in the PRTLBLF command, is set the *Emulated device* parameter to ***PDF** and provide a path and file name in the *Print to file* parameter.



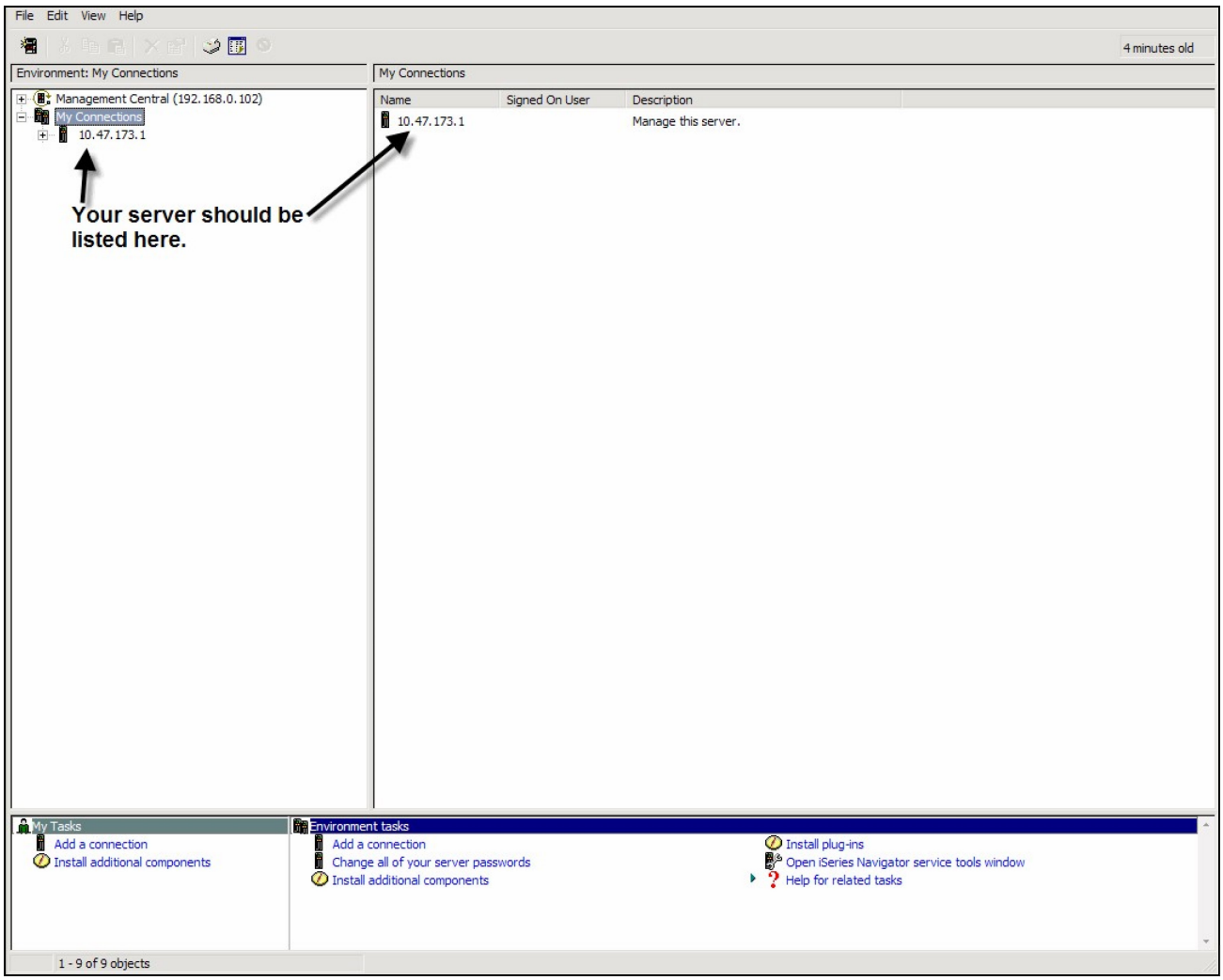
The other parameters displayed in the screenshot may not match what you currently use, so focus on the *Emulated device* and *Print to file* parameters only. If you are matching the path and file name used in the above screenshot for your PDF file, then the PDF file will be created in the "cybra" folder, located in the folder "home" which is, itself, located in the root of the IFS. The PDF file will have the name "tutorial.pdf". You can specify a path to any folder you want, as long as it resides somewhere on the IFS.

Once the *Emulated device* and *Print to file* parameters are set, press ENTER (your printer and out queue information will be ignored since PDF was selected as the emulated device). Instead of printing to your printer, the application will create a PDF in the IFS directory you specified. That's all there is to creating a PDF of your MarkMagic label or form.

Using IBM Operations (System i) Navigator

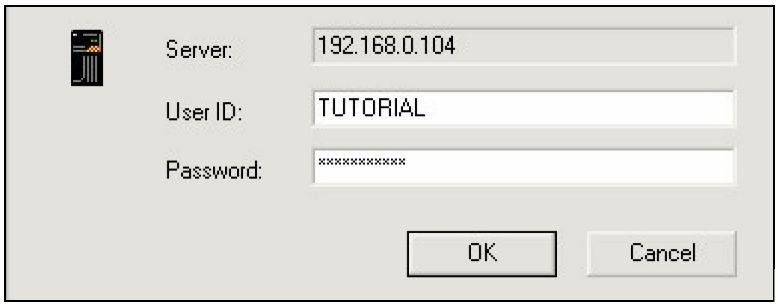
If you know how to access the IFS to retrieve the PDF file you just made, please skip this section. If not, then please read on. We are assuming you have installed IBM Operations (System i) Navigator with the default options. The Tutorial.pdf file is in ROOT/home/cybra folder of the IFS. We are going to use System i navigator to grab the PDF file and bring it down to your computer.

Start System i Navigator by double clicking the icon on your desktop or finding it in your Start menu. Usually found under "IBM System i Access for Windows"

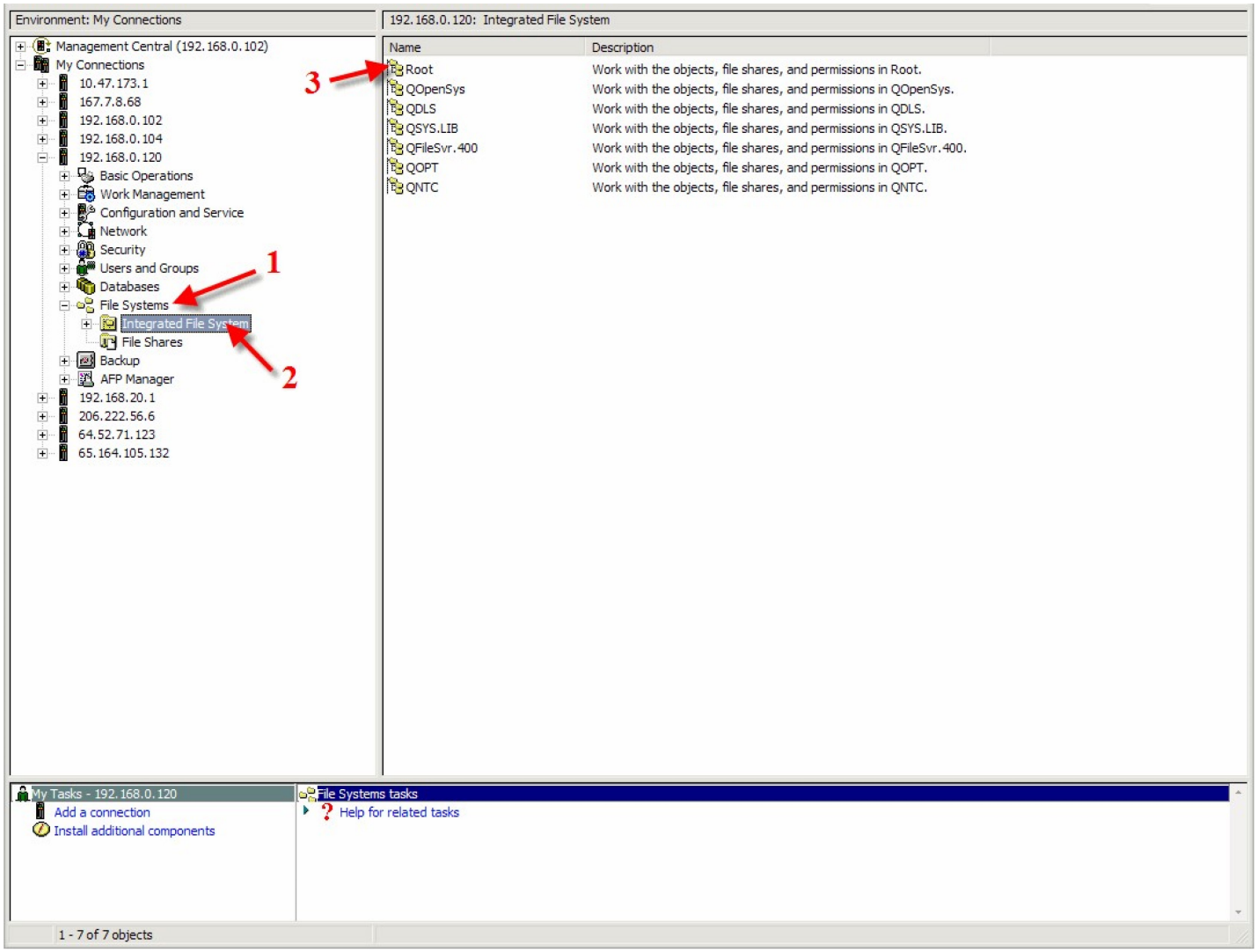


If you do not see your server listed, you will need to add a new connection using the button at the top-left. Ask your system administrator if you have trouble with adding and connecting to your server.

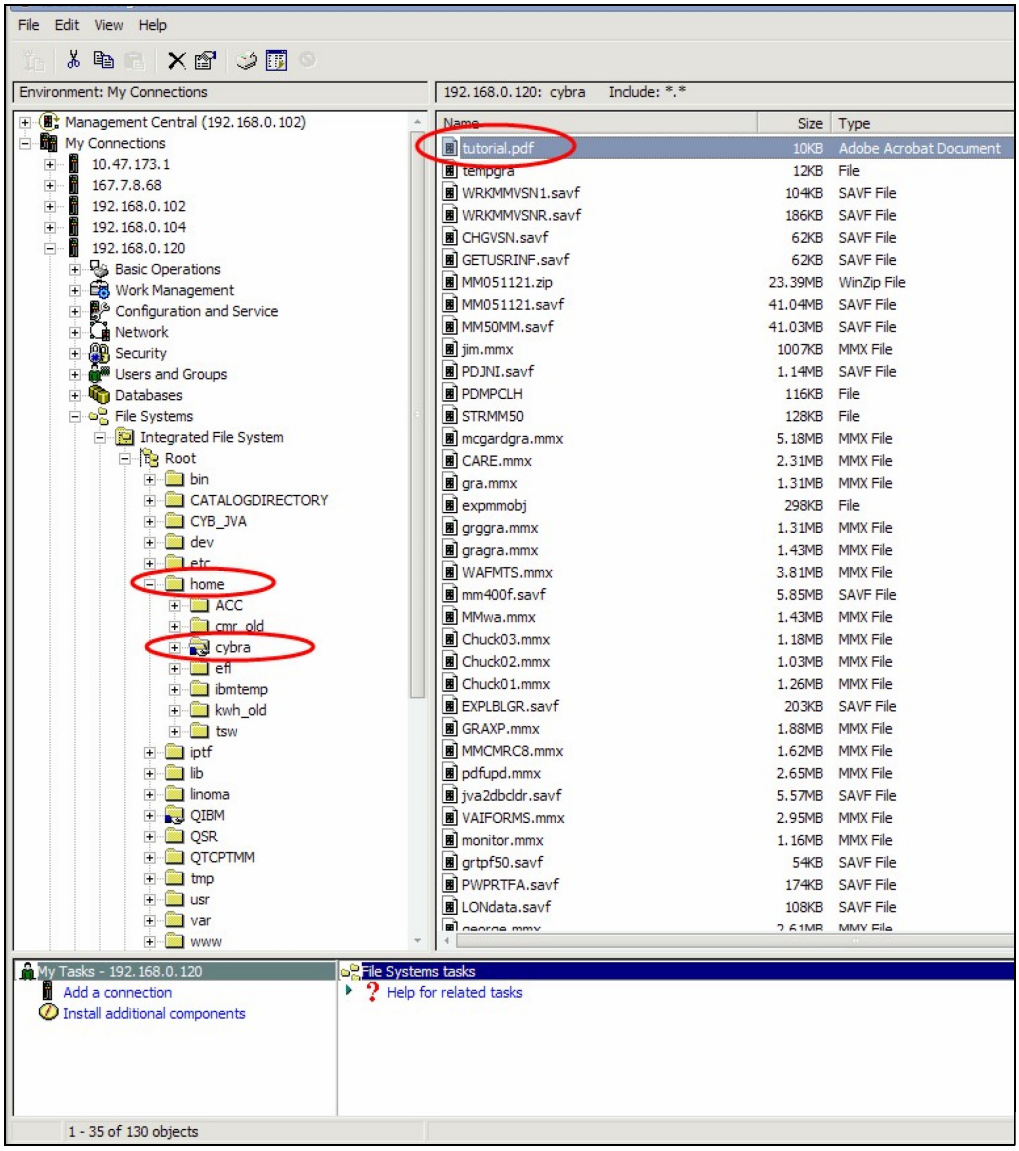
You will be asked to log on to the server. Supply the same user/password as you would if you were logging on to a "green screen" session.



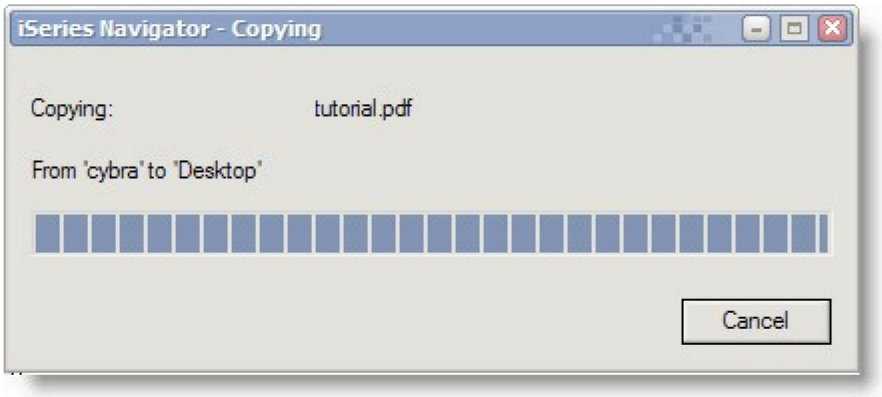
Once logged on, you will be shown a list of things you can manage/do on the server. You want to choose *File Systems>>Integrated File System>>Root*.



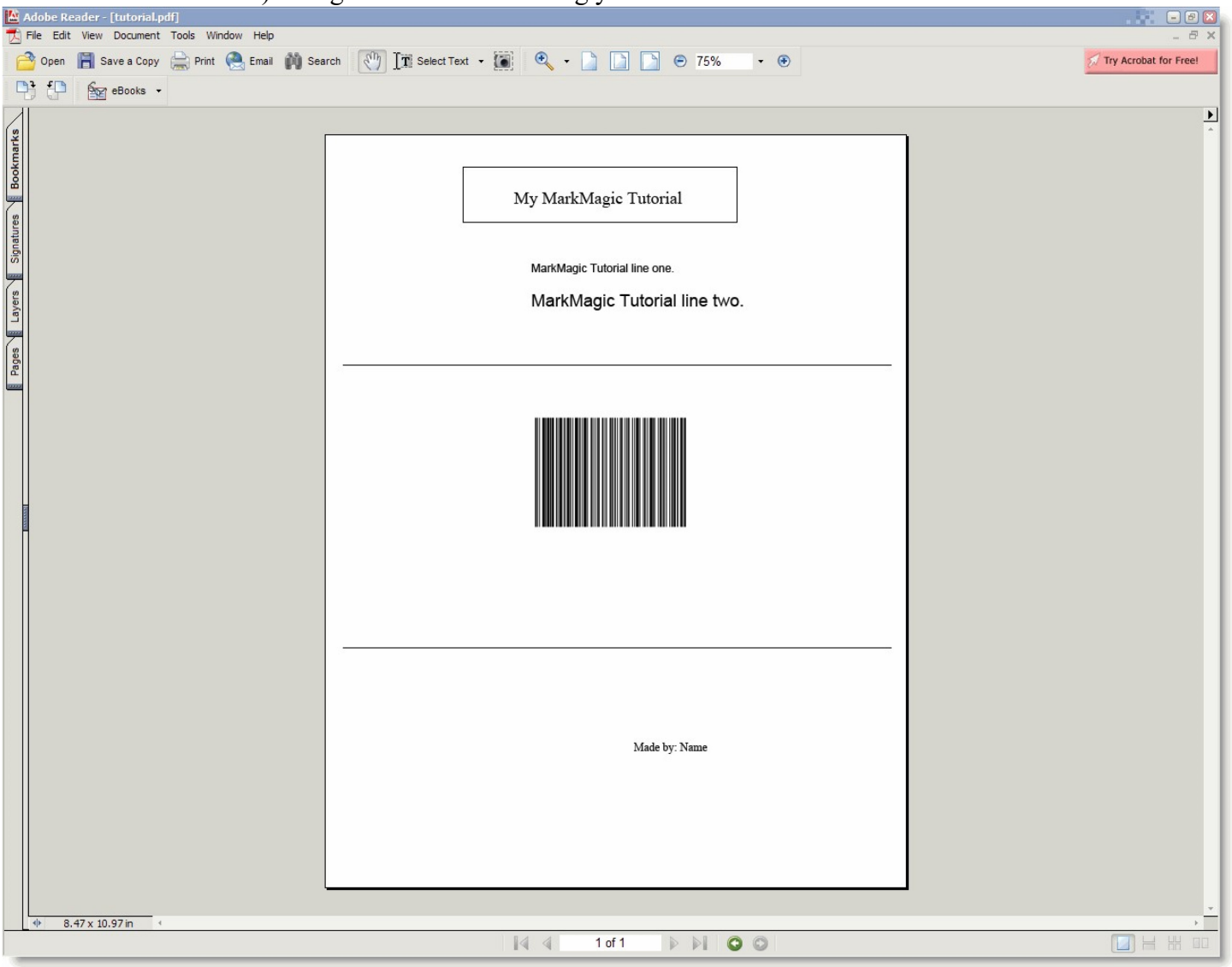
After that, it is as simple as navigating your PC for files. Just find the folder where you created the PDF. This tutorial created the PDF file in /home/cybra, see below (ignore the rest of files seen here. This is one of CYBRA's test systems):



Simply drag-and-drop the tutorial.pdf file to your desktop. You will see the copy progress window briefly and the file will be placed on your desktop.



Double click the PDF file to view it in your default PDF viewer program. (This program would typically be Adobe Acrobat reader.) Congratulations on creating your first PDF file!



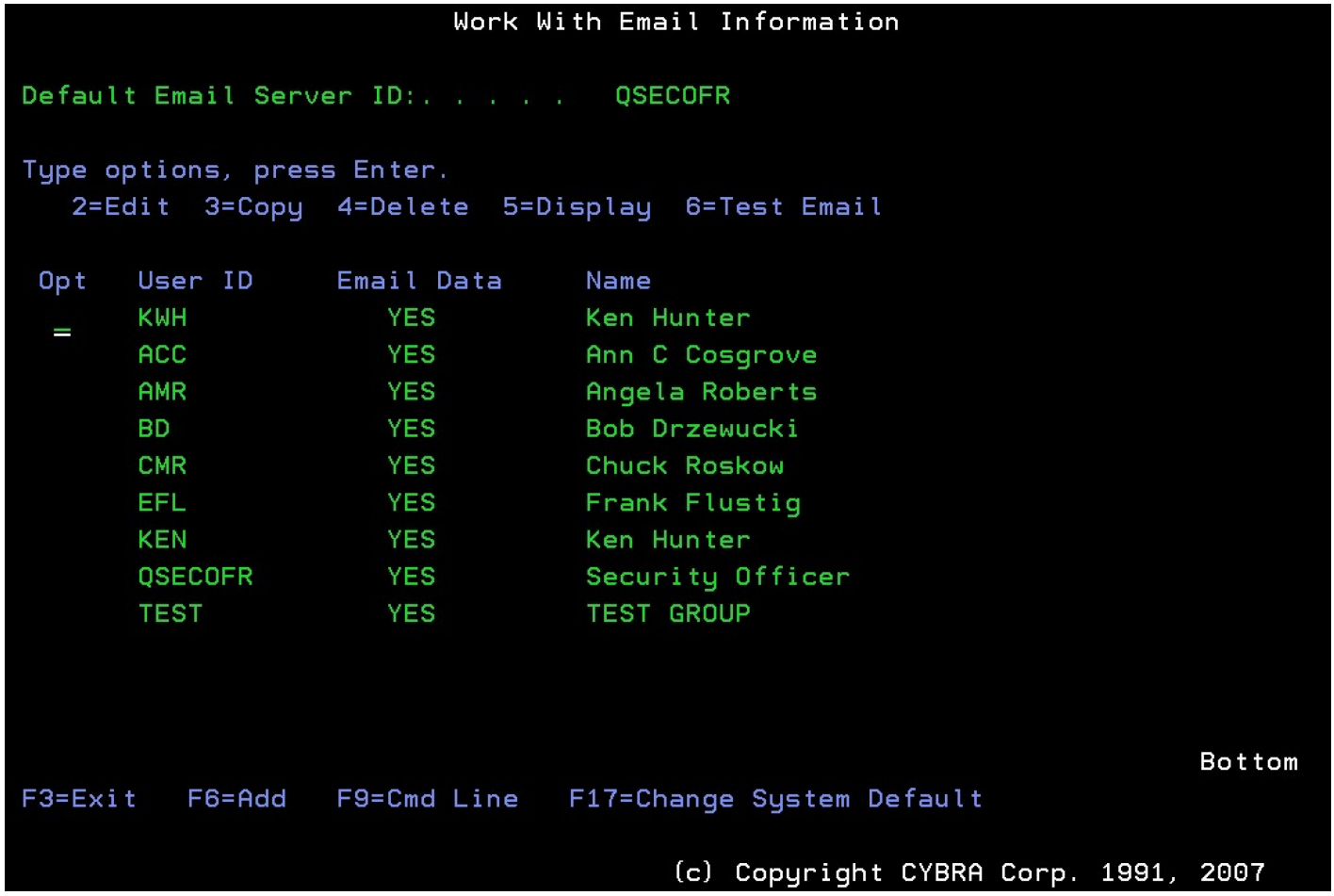
You have witnessed only half of the power that the MarkMagic PDF Emailing option can bring to your application. Read on to learn how to email and/or fax this file automatically, straight from the System i server….

Configuring MarkMagic's Email Option

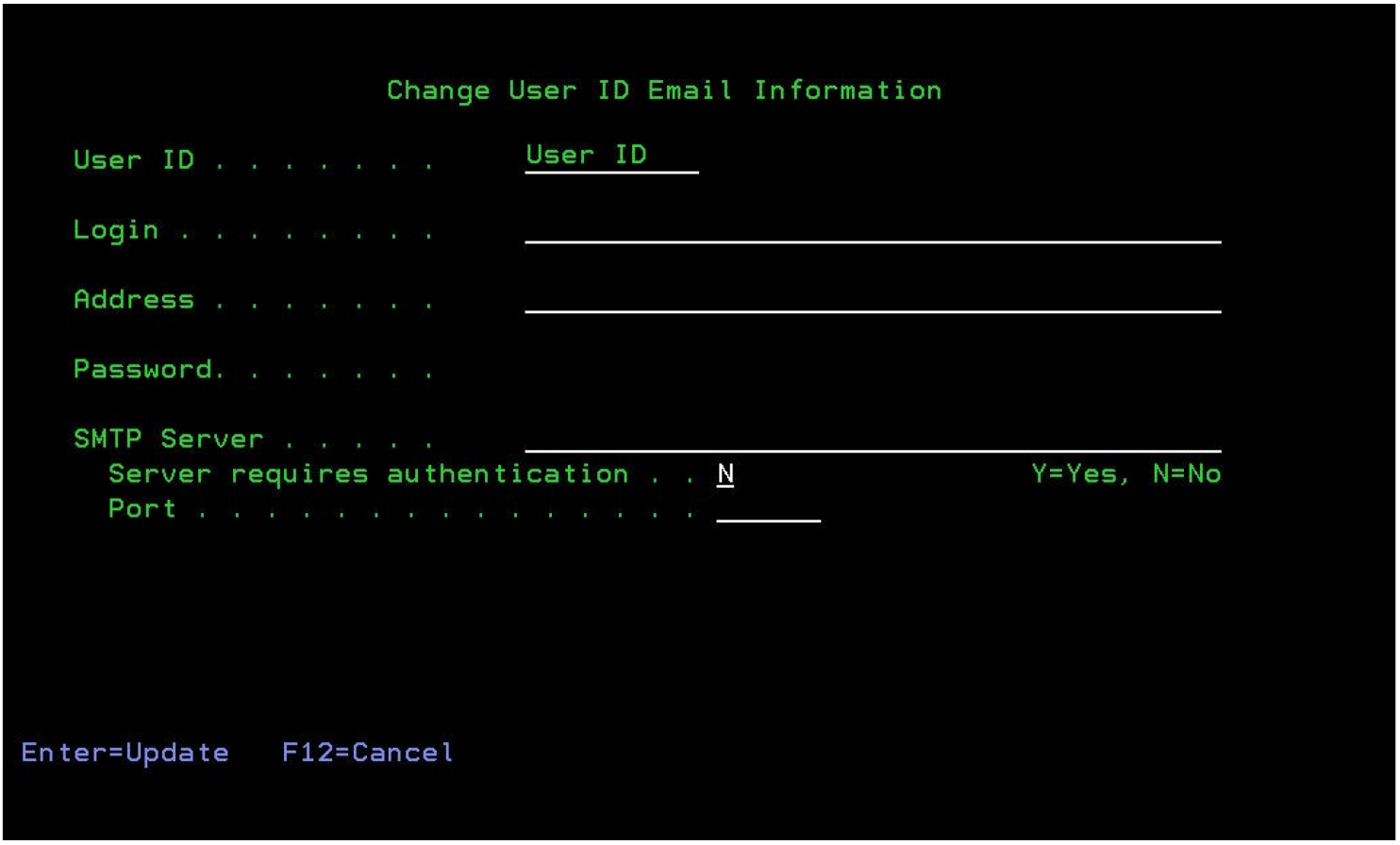
Before you email PDF files directly from your System i, the QSECOFR profile must be configured using the *"Work With MarkMagic Email Information"* tool. This program stores your login, password, email address, and the SMTP server's address. Currently, the only profile that needs to be configured is QSECOFR. If your individual user profile does not have a MarkMagic email profile of its own, then it will default to using QSECOFR's email configuration.

If you can log on as QSECOFR, please do so and follow this portion of the tutorial to add email settings. If you cannot, it is acceptable to carry out this section using your profile, but remember only your profile will be able to email, no one else.

At a command line, type **MRKMAG70/WRKMMEML** and press ENTER. You will be brought to the following screen:



(Obviously yours will look different as this lists users on our system.) Type a "2" before your User ID so you can edit your email information. This will bring up the following screen:



Here is where you configure your email settings. Your User ID will automatically be filled in. The *Login* parameter is the username that you use to sign on to your SMTP server to check or send email. (Typically it is the email address *without* the @company.com portion. Sometimes, it is the full email address.) The *Address* parameter is your full email address. Type your password in the *Password* parameter. (You will not see it entered in, so be careful.)

The *SMTP Server* parameter is where you type the address of your outgoing (SMTP) email server. This can be the domain name such as mail.company.com or the IP address such as 123.123.123.123.

If your SMTP server requires authentication, you can fill in a letter **"Y"** for *Server requires authentication*. Leave it at **"N"** if it does not require authentication.

If your SMTP server uses a different port from the default SMTP Port 25, then you can type the port in *Port*.

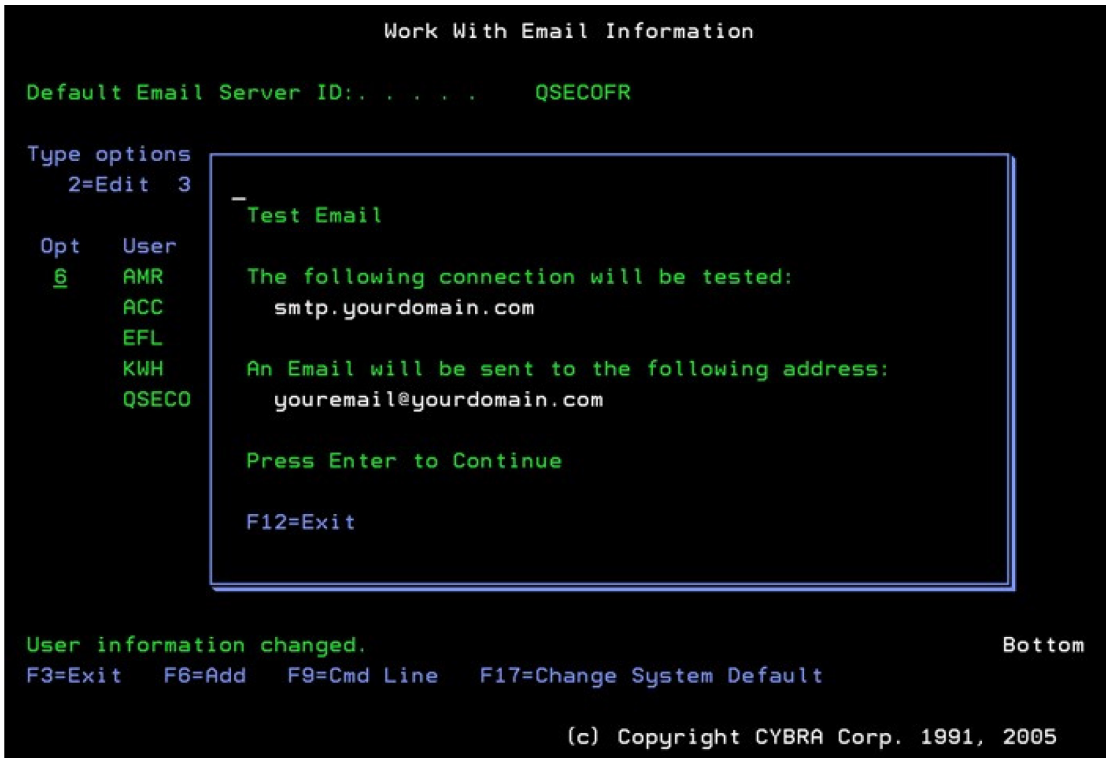
→If you are unsure about any of these parameters, please ask your administrator for assistance!

```
                  Change User ID Email Information

   User ID . . . . . .     KWH

   Login . . . . . .       youremail@domain.com

   Address . . . . . .     youremail@domain.com

   Password. . . . . .

   SMTP Server . . . . .   smtp.domain.com
     Server requires authentication . . N                 Y=Yes, N=No
     Port . . . . . . . . . . . . . . . 00025



Enter=Update   F12=Cancel
```

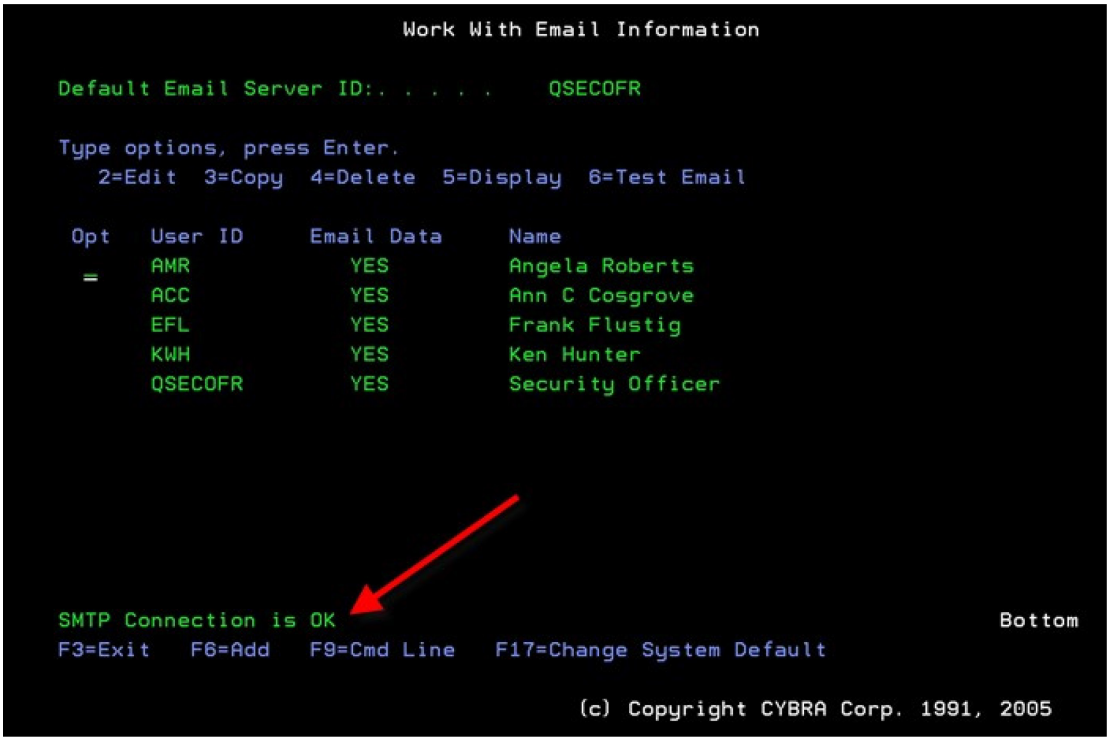
Be aware that there are unique security settings on every SMTP server that may prevent MarkMagic from successfully emailing PDF files. MarkMagic has no control over these settings, so if there are problems, you must consult your SMTP system administrator to resolve these issues. The most common being "Unable to Relay" errors.

When you press ENTER after typing all of the information in, you will eventually be brought back the command line and you should see a message at the bottom of the screen saying "user information changed."

It is recommended that you test your email configuration before attempting to email your PDF file. On the *Work With Email Information* screen, place a "6" next to your User ID. This will bring you to the Test Email screen.



Press ENTER, and if everything you provided is correct, you will get the following message:



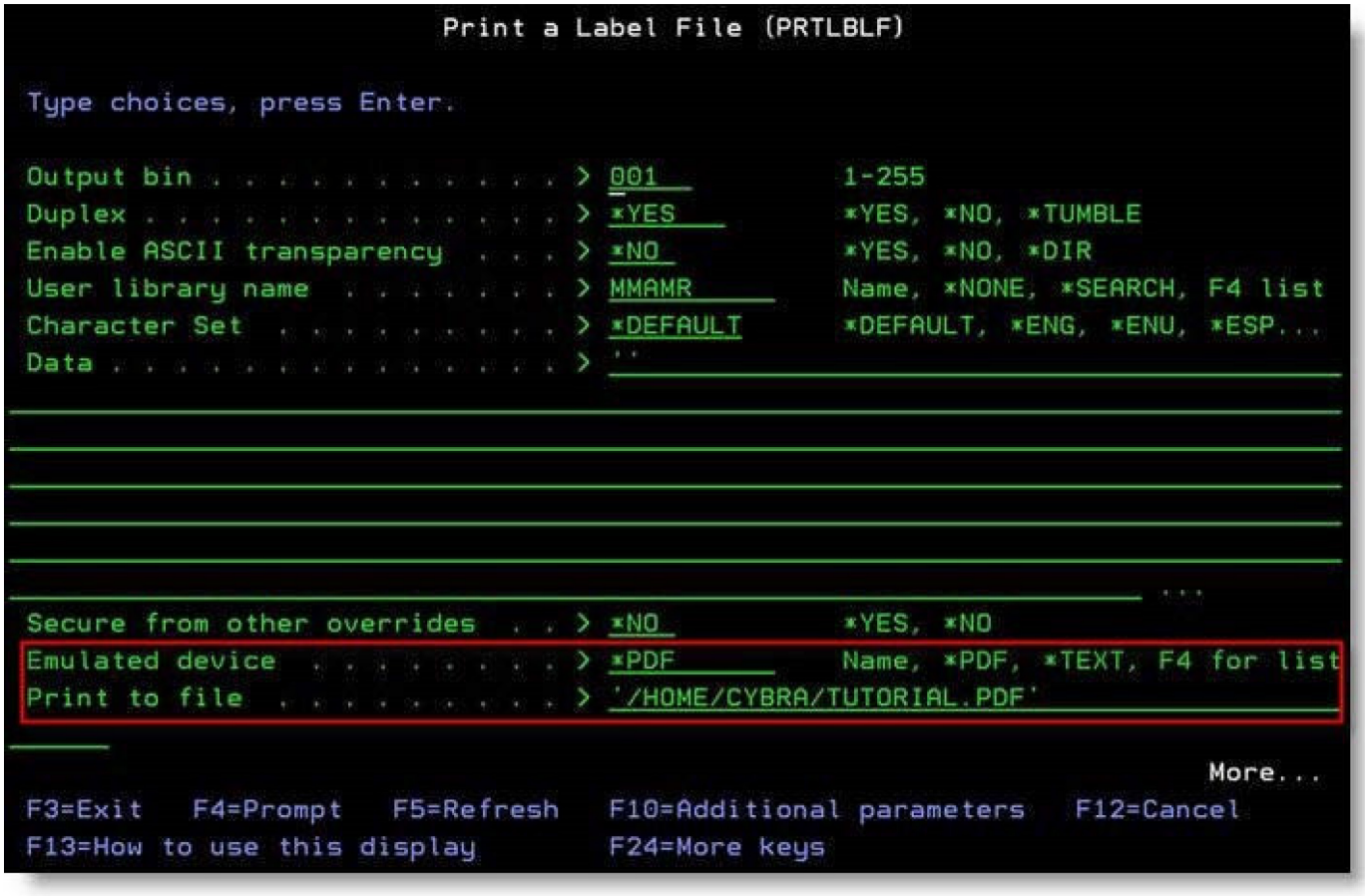
Once you are satisfied with your changes and the email tests successfully, Press F3 to exit the WRKMMEML program. You will be returned to the command line. MarkMagic is now configured to email from your System i.

Emailing a PDF File Using MarkMagic

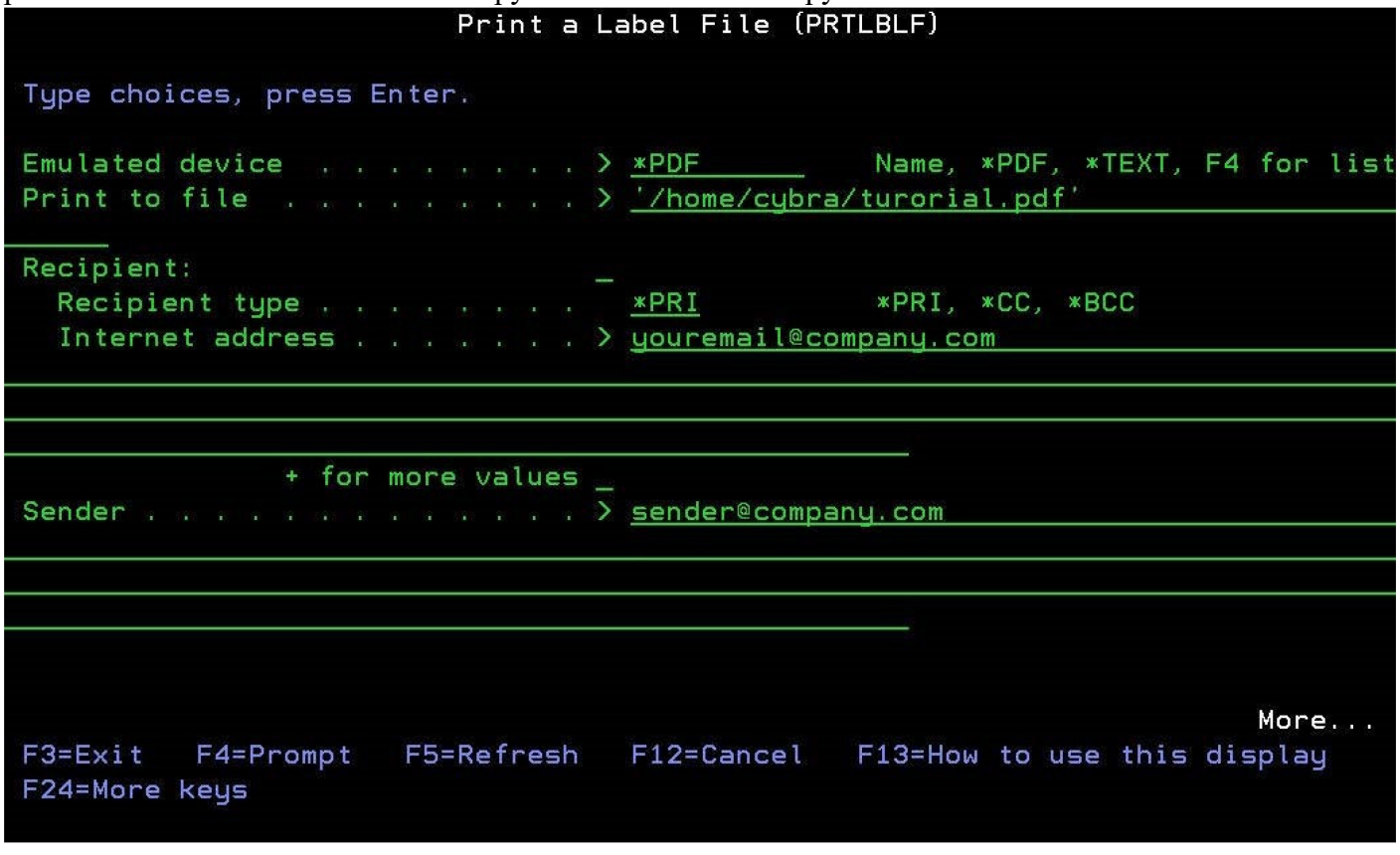
This portion of the tutorial will be very similar to the first section, except, now, you will fill in extra parameters in the command that will now email the PDF at the same time that it is created.

At the MarkMagic main menu, press **P** for *Print*, then **F** for *Format layout*. Choose the HPPCL5 format that you have made for this tutorial or choose the HPPCL5 / LEARNXXX format that you made in the "Basic Concepts" tutorial and press ENTER. The PRTLBLF command is displayed with ***LAYOUT**, the format name and device already entered for you. As before, set *Emulated device* to ***PDF** and provide a path and filename in the *Print to file* parameter. For this tutorial, type **/home/cybra/tutorial.pdf**. If there is already a PDF with that name in that directory, it will be overwritten with this new one when you continue.

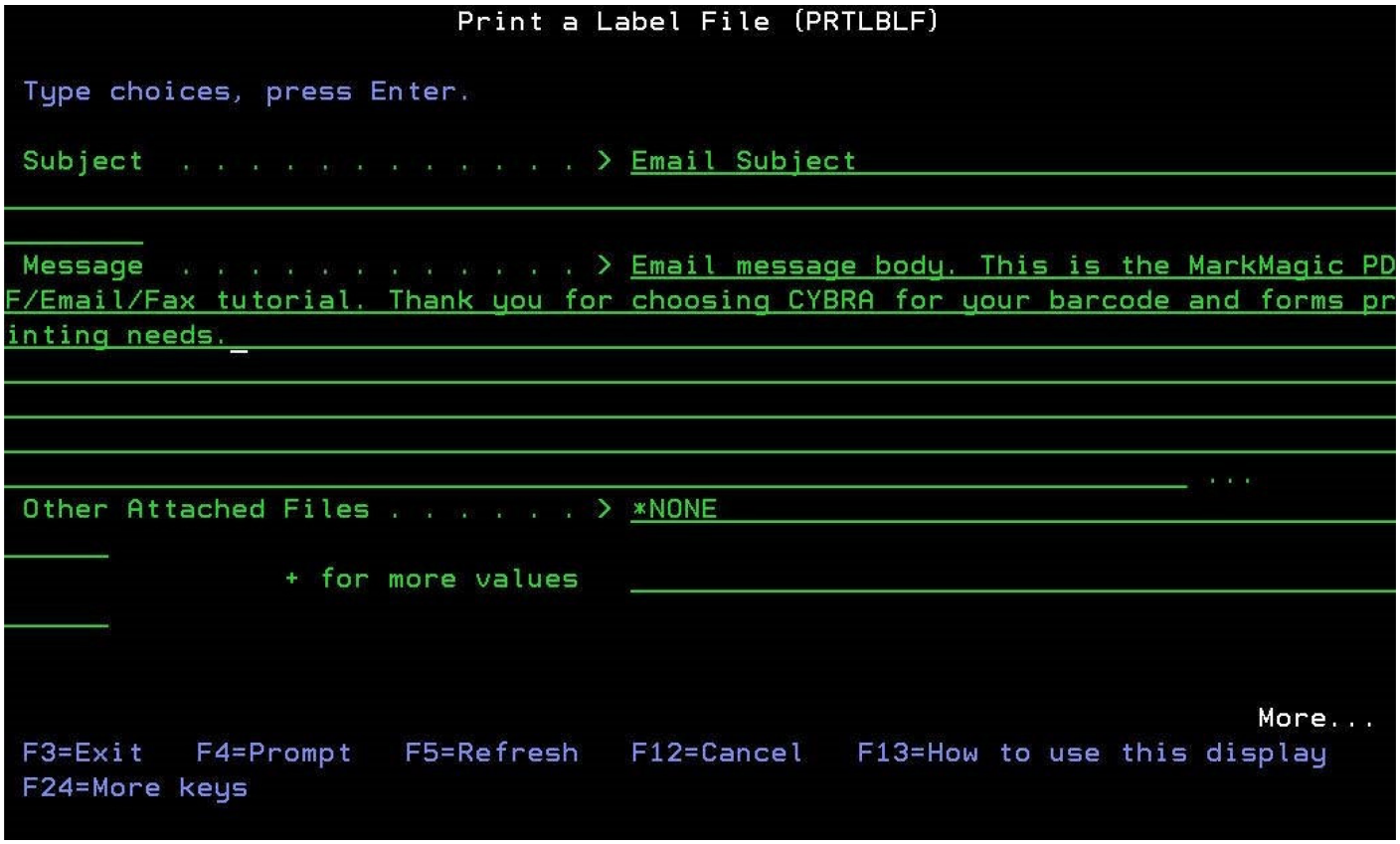
Now, to email the file, you must type a valid email address in the *Recipient* parameter of the PRTLBLF command. (NOTE: you may need to press **F10** to display all parameters.)



Type the recipients email address in the *Internet address* parameter. For this tutorial, type in your email address. This will make testing easier, because you can just check your own email for the PDF files! ***PRI** for *Recipient type* means that the address is a primary recipient's address. If you require multiple recipients, put a + in the space indicated in the following screenshot, and press ENTER. You can also designate these extra email recipients as *CC or *BCC for Carbon Copy and Blind Carbon Copy.



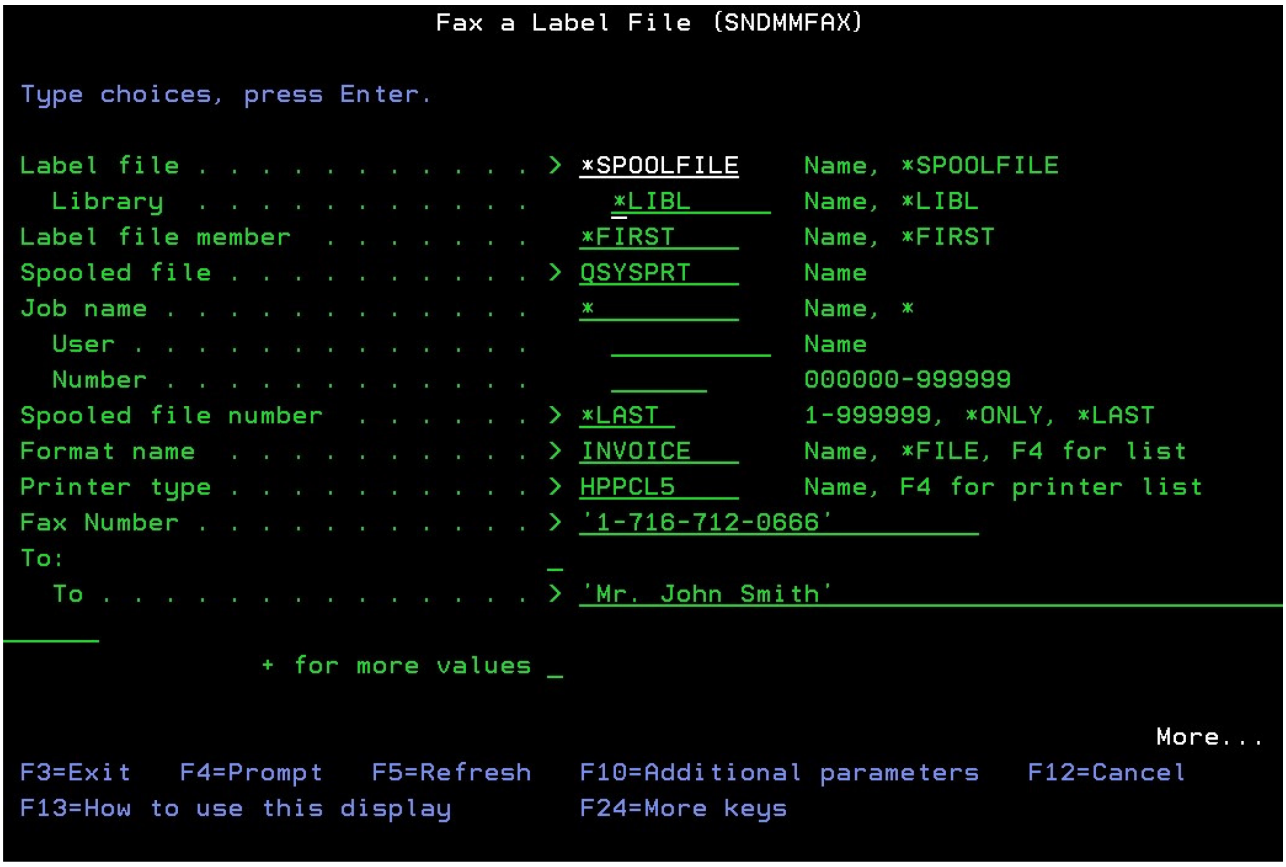
Once you are satisfied with the recipients, press ENTER to be brought back to the PRTLBLF command. Type in a valid address for *Sender*. This can be any address that you want to show up as the sender when the recipients receive their email. If they reply, they will be replying to this address. Lastly, type in a *Subject* and a *Message*. Yes, the email subject and message body are passed a PRTLBLF command parameter.



Once you are satisfied with these parameters, press ENTER. The PDF is created on the server in the same IFS directory as before except this time, it is also emailed to the recipients provided in the PRTLBLF command. You will eventually be brought back to the MarkMagic main menu. All that is left to do is check your email! You should receive an email from the address that you typed in for *Sender*. Attached should be a PDF file with the name "tutorial.pdf." Congratulations, you have just emailed your first PDF using MarkMagic! In this example, we only printed a format *LAYOUT of a simple form, but the parameters and ideas explained here can be brought over to your production environment. It doesn't matter if you are retrieving data from a spooled file or a database. Just "flip the switch" by setting *Emulated device* to ***PDF** and then provide the other required parameters to begin emailing PDF files of your forms and labels!

Sending a FAX using MarkMagic

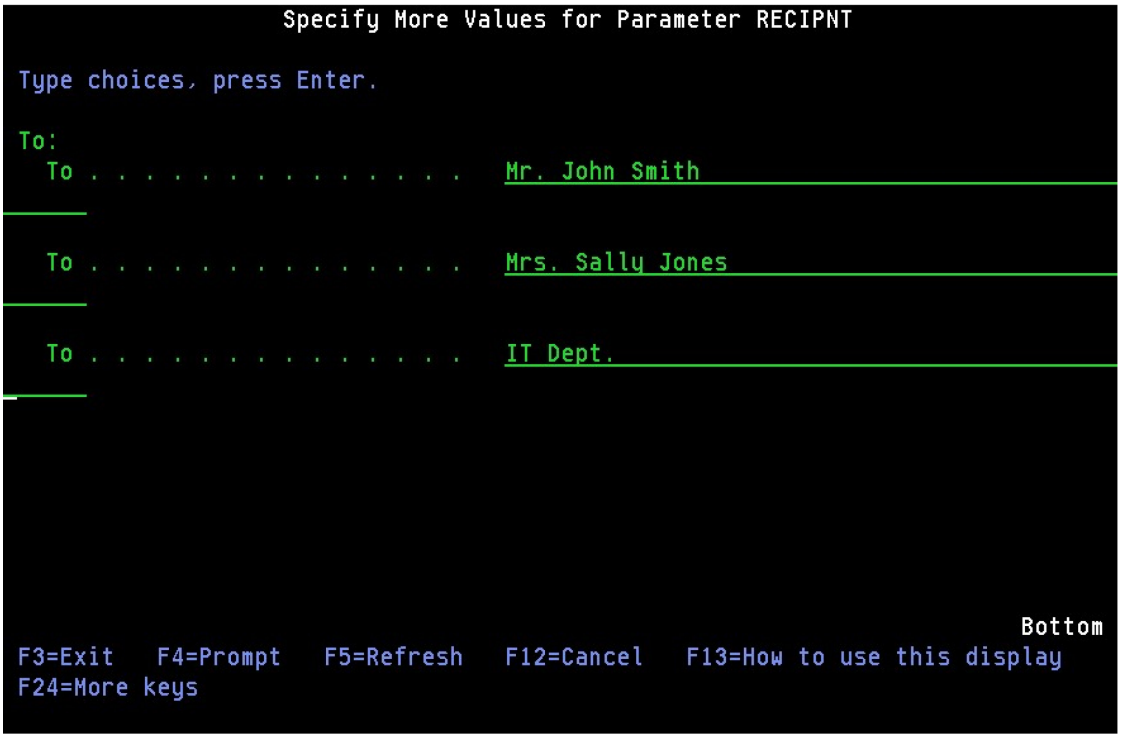
MarkMagic has the ability to not only create and email PDF files of your regular printed output, but fax it as well. If you are familiar with the PRTLBLF command, then you should feel right at home with the new SNDMMFAX. Type the following command at a command line: **SNDMMFAX** and then press **F4** to prompt it. You will be shown a screen similar to this: (this one already has some parameters filled in)



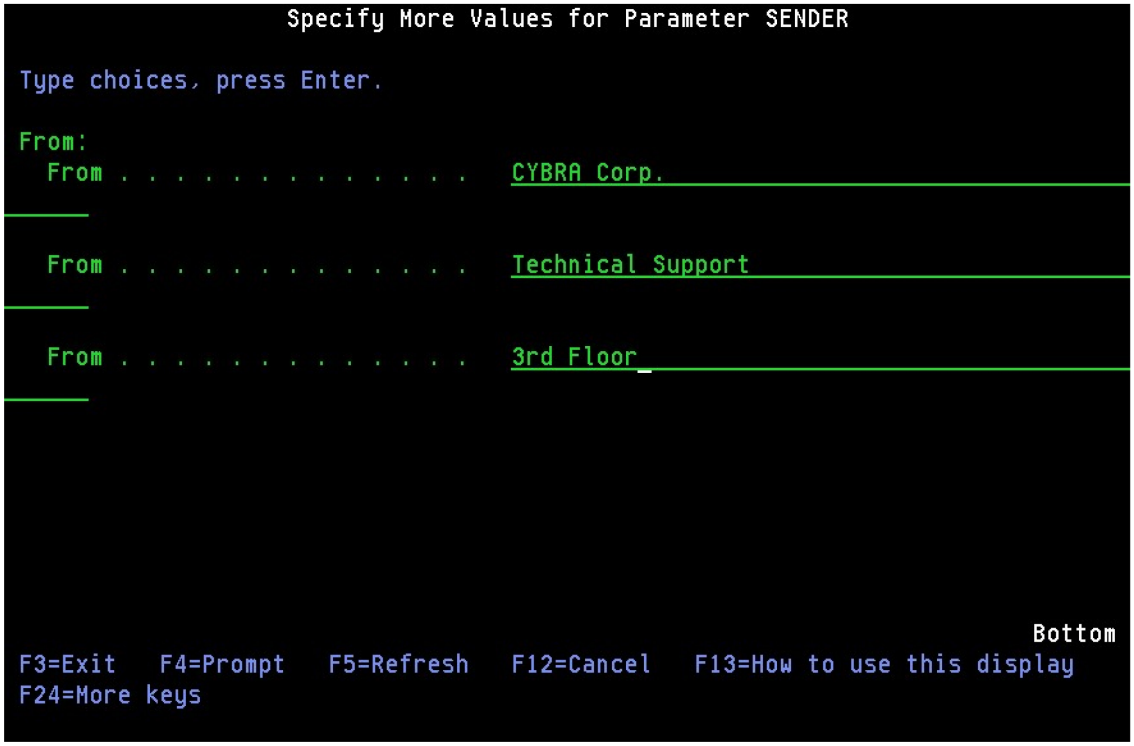
The section of this command that should be immediately recognizable is section starting at *Label file* down to *Printer type*. These parameters are used the same way here as they are in the PRTLBLF command. Please remember that only formats designed using the HPPCL5, HPLJ4P or AFPDS device types can be faxed.

Unlike the PDF example, you cannot Fax ***LAYOUT** print jobs, so we will need some sample live data from a spoolfile or a MarkMagic Label file. Please create a test / sample held spoolfile from your print application for use with one of your forms. We will need to specify a held spoolfile's attributes here so we can print with live data. If you do not have something you can print, please reference our *Intermediate Concepts Tutorial #2B*. It will guide you through creating a form using live data from our STATEMENTS spoolfile.

To Fax your output, simply fill out the beginning of the SNDMMFAX command just as you would if you were going to print your document. Type the recipients fax number in the *Fax Number* parameter. You can specify up to three different recipients in the *To:* parameter. Type a + next to the parameter name to access a screen where you can fill all three out if you wish:



Press Enter to get back to the SNDMMFAX command. It will have all three recipients entered in for you. Next, you can supply up to three different "From" entries. Type a + next to the *From:* parameter to access a screen where you can type these three in.



Press Enter to get back to the SNDMMFAX command. It will have all three "from" entries entered in for you. The next step is providing a Subject and a Fax message. Type the subject of the fax in the *Subject* parameter. Type the fax message in the *Message* parameter. The command can process a message of up to 240 characters in length.

Not only can you fax your MarkMagic forms, but you also use a format designed in MarkMagic as a fax cover page. However, it must be designed properly with all of the needed fields. We won't go into detail on how to design a Fax Cover page format from scratch, though. A sample format is provided with MarkMagic and we will use that in this tutorial. It is designed using the AFPDSFX device and is named FAXCOVER. It can be found in the MMEXAMPLES library.

As you can see in the above screenshot, there is one more parameter to fill in after the cover page. The *User library name* parameter is where you type the name of the library where your MarkMagic HPPCL5, HPLJ4P or AFPDS formats reside.

Everything needed to fax your format along with a cover page is now filled in. Press Enter to send your fax. MarkMagic actually converts your documents to AFP and then hands the output to the IBM Fax/400 program. That program handles all of the fax output, so if there are any issues with faxing after MarkMagic hands off the spoolfile, you will have to consult your system Administrator to ensure Fax/400 is properly configured. If it is, then the fax should have been received the fax at the number you specified. You can use the IBM's **CHKFAXSTS** command to check on the status of your fax.

Thank you for taking the time to read through this tutorial and learn about how MarkMagic can PDF Email and Fax your formats. Please contact us at 914-963-6600 Option #4 if you have any questions on this or any of our tutorials.