

EPIC 950[®]

THERMAL TICKET PRINTER

Software Reference Guide



TRANSACT

www.TRANSAC-TECH.com

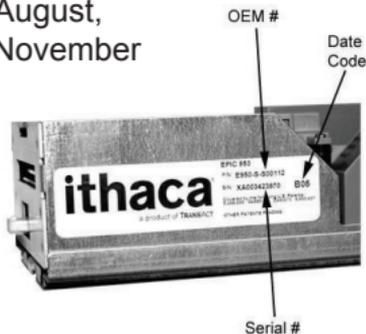
Contacting Information / Serial Plate Info

- **TransAct Technologies Incorporated** is the manufacturer of Ithaca brand POS, Banking, and Food Safety, receipt printers and Epic brand Gaming printers. 877.748.4222 - www.transact-tech.com
- When calling the toll free number above enter option 2 for Parts and RMA's or enter option 3 for Technical Support
- E-mail Technical Support at:
TechSupport@transact-tech.com
- Online RMA form:
www.transact-tech.com/tsg/rma.html
- Additional product support information can be found on our website under **Support > Product Info > Epic 950**.
- TransAct also maintains an FTP site for downloading documentation, utilities and firmware files:
<ftp://ftp.transact.com>
USER ID: **gaming**
PASSWORD: **CAs1no123**
or at <ftp://gaming:CA1no123@ftp.transact-tech.com>

Serial Plate Information

Date Code Identification:

- The first letter denotes the month built, as follows:
A= January, B= February, C= March, D= April
E= May, F= June, G= July, H= August,
I= September, J= October, K= November
L= December
- The two numbers denote the last two digits of the year built, as follows:
04= 2004
05= 2005...



Note: Standard Warranty: 2 years from the build date

Software Tools

Firmware Download Utility - Version 2.18

The Download tool is designed to replace/update the firmware image in the printer on a single printer.

Master Programmer Utility - Version 1.20b

The Master Programmer tool is designed to be used in conjunction with our Master Programmer hardware, and allows the replacement/update of firmware image on multiple printers at once.

POSjet Terminal Utility - Version 1.7.2

The POSjet Terminal tool is designed for an easy way to allow commands to be sent to the printer for testing communication. You can also use this tool to send a script file (a text file containing commands with .dmo as the extension) for testing and developing.

Demo and Comm Analyzer Utility - Version 2.0.12

The Demo and Comm Analyzer tool allows demo scripts to be sent to the printer to test communication and functionality of a printer. The tool also has a debug mode which allows you to monitor the communication to and from the printer and PC for testing and developing.

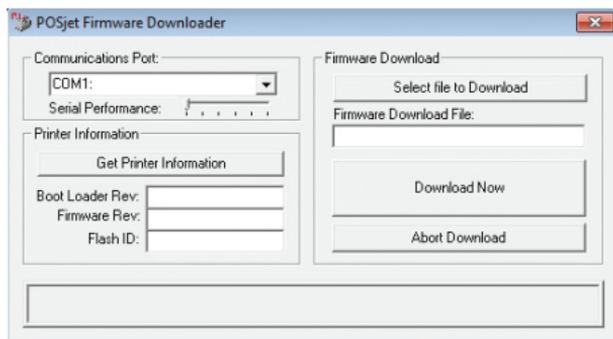
File Download Utility - Version 1.12a

The File Download tool is designed to view the Epic 950's Flash memory and to transfer files between the printer and a PC. The tool is most commonly used to transfer specific files present on the EPIC 950.

—Please check with our website for latest version of these tools.

Firmware Download Utility

The Firmware Download Utility is designed to replace/update the firmware in the printer.



Prepare Printer for Firmware Download:

1. Verify the printer is on and ready, no error LEDs.
2. Verify no Windows drivers are currently on the same port you will be using with the Download Utility. If so, temporarily move the Windows driver of this port until you are done.
3. Load the paper.
4. Un-Rack the printer slightly from the chassis.
5. Open the front lid
6. Power off the printer.
7. Press and hold the Feed button.
8. Power the printer back on while holding the Feed button.
9. Let go of the button when you see the solid red Fault LED and blinking green Ready LED.
10. You are now in Bootload mode.
11. Connect printer to PC using a serial null modem cable and our Download Adaptor.

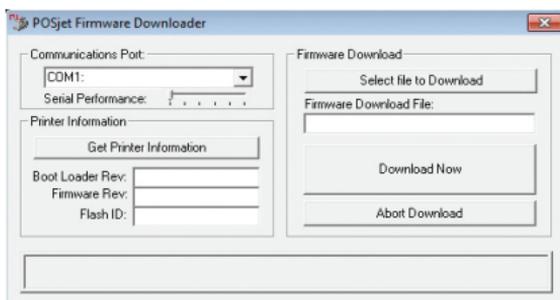
Note: The Serial null-modem cable (part#10-2020L) should be connected to the Download Adaptor. Then plug the Download Adaptor into the printer's Download Port. Adaptor Part# 95-05438L_WITH LED's = Can be used with both Download Utility and Master Programmer.

Adaptor Part# 95-05026L_WITHOUT LED's = Can ONLY be used with Download Utility.

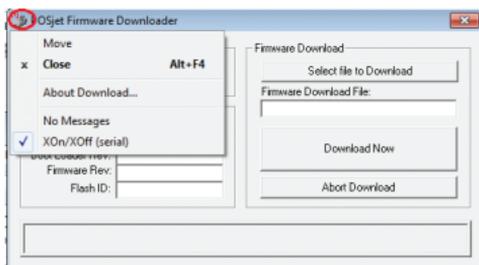
Firmware Download Utility

Using the Firmware Download Utility

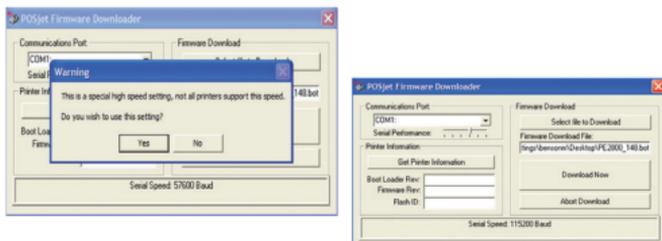
1. Run the Download program.a
Select or Type in the communication port being used.
(Example: COMx)



2. Left click the top left PJ printer icon and check Xon/XOff(serial).



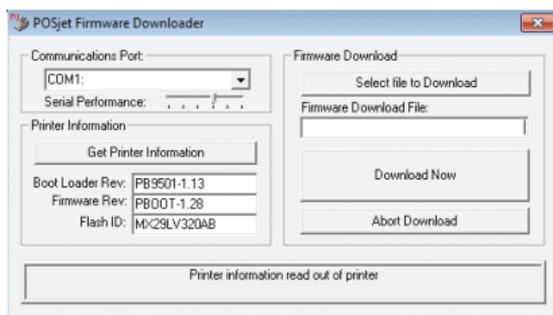
3. Slide Serial Performance Slider to 115200 baud rate.
Note: When sliding the Slider to Baud Rates higher than 57600 Baud, a Warning Box will come up. Select Yes and it will set to 115200. Once setup, settings are saved for the next time you open the program.



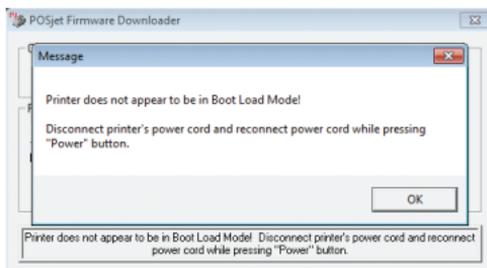
Firmware Download Utility

Using the Firmware Download Utility

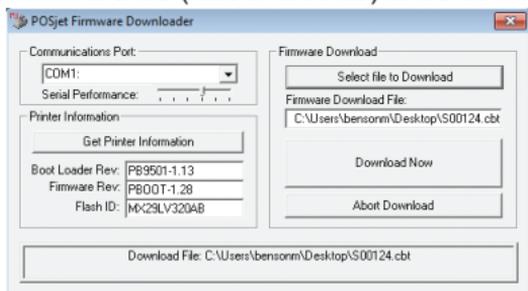
- Click the “Get Printer Information” button.
- Program should display information in the fields below the button.



Note: If you receive the below error, click OK, and click “Get Printer Information” button again. If you still get the below error, please verify you have followed all the steps on the previous two pages.

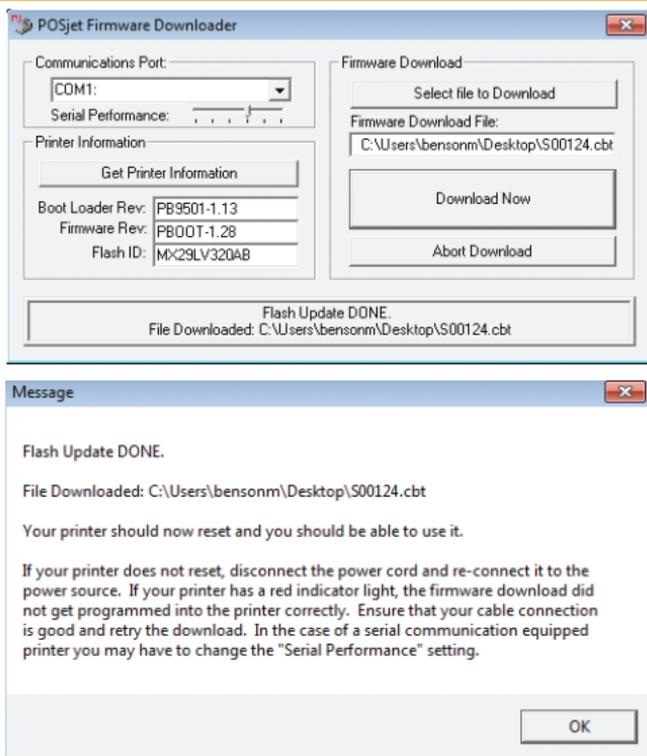


- Click the “Select file to Download” button.
- Select the firmware file (.cbt or .bot file) to be downloaded.



- Click “Download Now’ button.
- Wait until flash process completes.

Firmware Download Utility



11. Message that Flash Update Done appears.
12. Click Ok.
13. Wait for the Green Ready LED to flash quickly on the printer to indicate firmware download is complete.
14. Close Program.
15. Rack the printer back into the chassis.
16. Close the lid.
17. Power the printer off and on.
18. A test ticket will print.
19. Verify firmware on ticket matches firmware downloaded.
20. Disconnect Program Adaptor from the printer.

Note: You can also print a test ticket whenever you wish by following the step on the next page.

Firmware Download Utility

Print a test ticket using the printer's self-test procedure:

- Press and hold the FEED button for approximately 5 seconds, then release and the self-test ticket will then print.
- OR -
1. Un-rack the Inner Chassis
 2. Open the Ticket Cover. Do not remove the currently loaded ticket.
 3. Press and hold the FEED button until the Open LED goes out, then release the button.
 4. Now close the Ticket Cover and the self-test ticket will then print.
 5. Close the Inner Chassis to resume normal operation.

NOTE:

Provides useful information regarding loaded firmware version and configured Baud Rate settings in addition to performing mechanical testing.

Self-Test
Ticket

INSERT THIS SIDE UP

Model : Epic 950™ - SP.3
Firmware : S00187
UFST Rev : 6.2.1
System CRC : 78B1
Date : Nov 12 2012
S/N : Epic 950

Baud Rate: 9600 BPS
8 Bit No Parity
1 Stop Bit

Handshaking : XON/XOFF
Receive Error : Prints '?'
Smoothing : Enabled.

Mono Paper : Custom Black
Gray Eo : 0.12 mJ/sq.mm
Black Eo : 0.20 mJ/sq.mm

Color Paper : Custom Color
Color : Black/Red
Color Eo : 0.20 mJ/sq.mm
Black Eo : 0.38 mJ/sq.mm

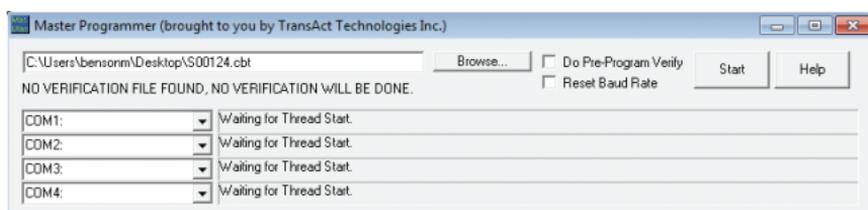
Density : 0
PreHeat : Off
Unicode Mode : ascii
Dip Switch : 02

6501-TICKETS 1000 . * . N US Pat. No. 6006127, 7006292, 7110314, 7005646

INSERT THIS SIDE UP

Master Programmer Utility

The Master Programmer Utility is designed to be used in conjunction with our Master Programmer hardware, and allows the replacement/update of firmware image on multiple printers at once. The utility can also be used without the Master Programmer Hardware for single printer downloading using the Program Adaptor.



Master Programmer Utility



Master Programmer Hardware



Program Adaptor (single printer download)

Master Programmer Utility

Single Printer Download (using Program Adaptor)

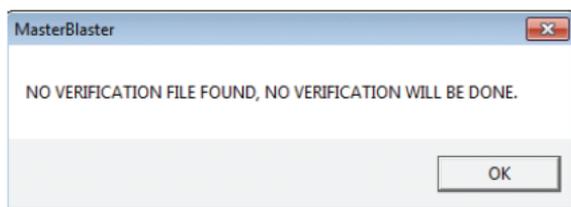


Using the Master Programmer Utility to load a firmware file to one Epic 950 printer:

1. Make sure printer is on and ready, paper loaded.
2. Run the Master Programmer Utility.
3. Use the Browse function to select a firmware (.cbt) file to download.



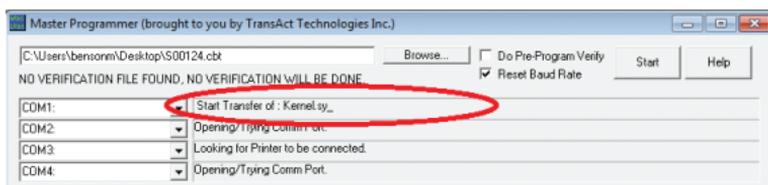
4. Click OK if you receive the popup below. Note: A verification file is not needed to download firmware.



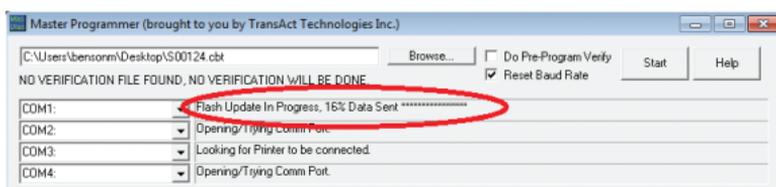
5. Select the COM port to be used for each connection as required. Example: If your system uses COM7, change to COM7.
6. Select Reset Baud Rate check box. This is used when the old firmware has a baud-rate different from the baud rate of the new firmware.
7. Connect the printer to the PC. Use a serial null modem cable (part#10-2020L) with Program Adaptor (part#95-05438L) to connected the PC to the printer's side imPort™.
8. Press the "Start" button when everything is ready.

Master Programmer Utility

9. Download will start once the “Start” button is pressed.



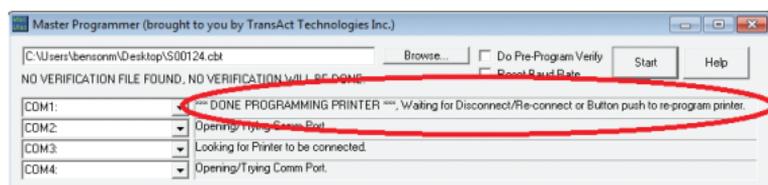
10. Flash update will continue until all data is transferred 100%



11. Printer will continue to program the flash memory. Please wait.



12. DO NOT disconnect until the program shows: *****DONE PROGRAMMING PRINTER***** message shown below.



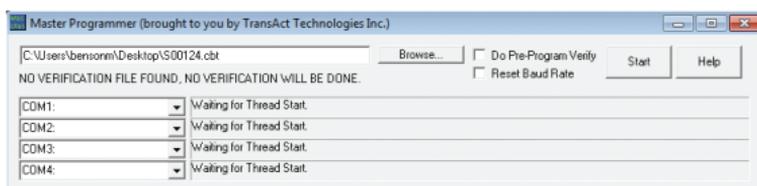
13. Printer will reset and the Adaptor LEDs will blink fast alternating red and green to indicate the printer is done downloading.
14. Printer can now be disconnected.

Master Programmer Utility

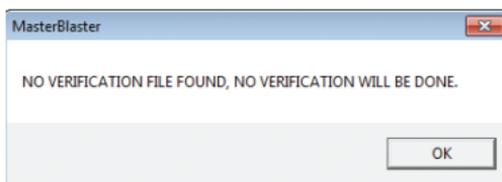
Master Programmer Hardware Download



1. Make sure the power switch on the master programmer hardware is on.
2. Run the Master Programmer Utility.
3. Use the Browse function to select a firmware (.cbt) file to download.



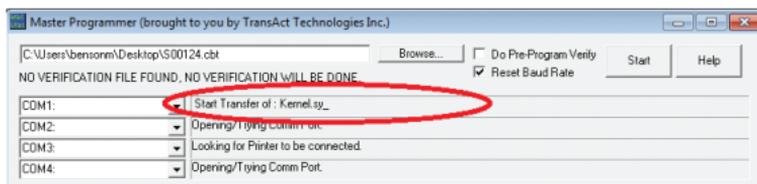
4. Click OK if you receive the popup below. Note: A verification file is not needed to download firmware.



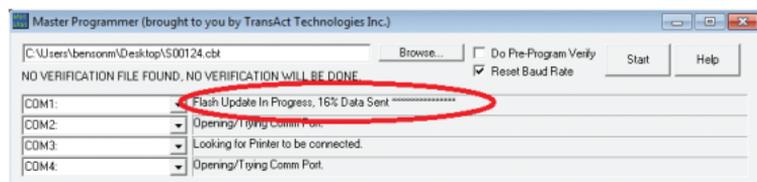
5. Select the COM port to be used for each connection as required.
Example: If your system uses COM7 thru COM10, change to COM7 thru COM10.
6. Select Reset Baud Rate check box. This is used when the old firmware has a baud-rate different from the baud rate of the new firmware.
7. Press the "Start" button when everything is ready.

Master Programmer Utility

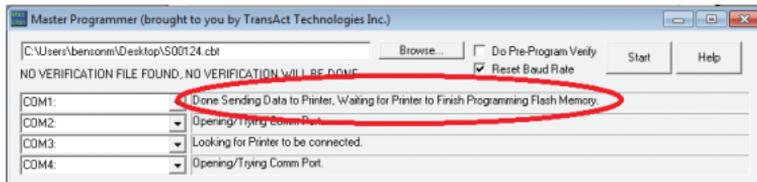
8. Printer downloads will start as soon as printers are attached to the Master Programmer and the imPort™ connection is made.



9. Flash updates will continue until all data is transferred 100%.



10. Printers will continue to program the flash memory. Please wait.



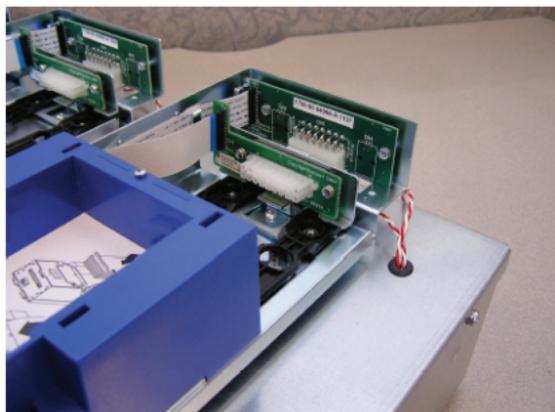
11. DO NOT disconnect until the program shows: ***DONE PROGRAMMING PRINTER *** message, see below.



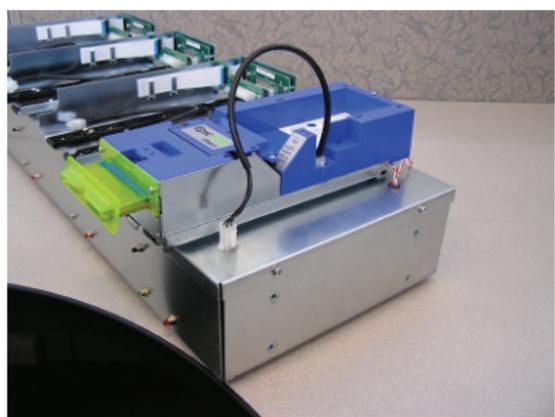
12. Printers will reset and the LEDs on the Master Programmer Hardware will blink fast alternating red and green to indicate the printer is done downloading.
13. Printer can now be disconnected.

Master Programmer Utility

1. Slide an Epic 950 printer into the master programming module as shown. Make sure it is fully seated into the connector.



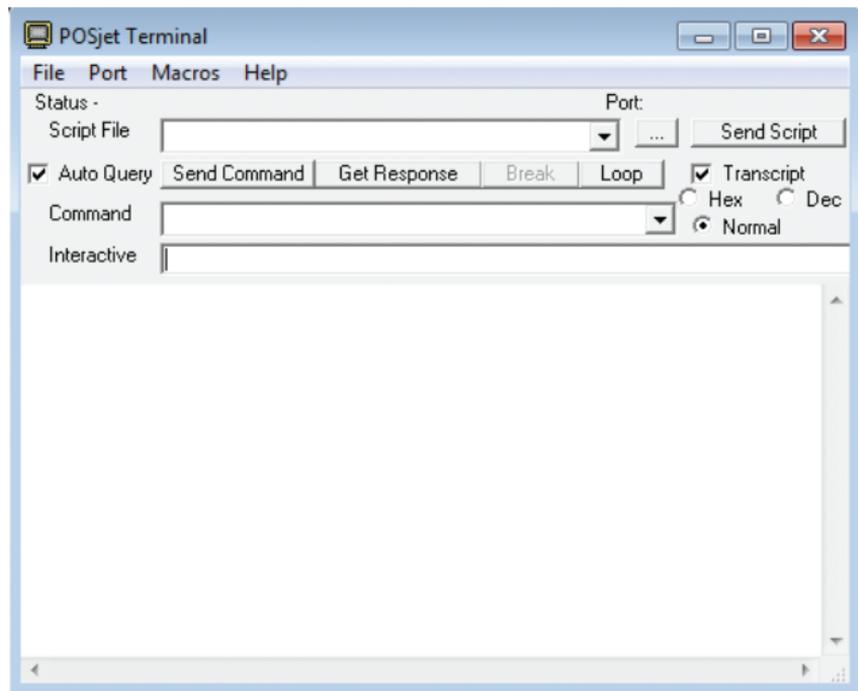
2. Connect the Epic 950 Master Programmer download cable into the imPort™ connection on the printer.



3. Once you have connected the Programming Adaptor and a firmware file has been selected in the application, the firmware will automatically start to download to the Epic 950 printer.

POSjet Terminal Utility

The POSjet Terminal Utility is designed for an easy way to allow commands to be sent to the printer for testing communication. Also can be used to send a script file (a text file containing commands with a .dmo as the extension) for testing and developing.



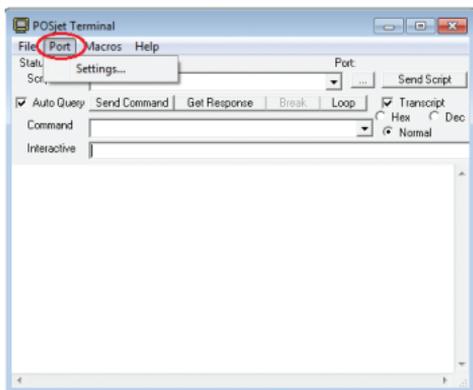
Prepare Printer for POSjet Terminal Utility:

1. Verify the printer is on and ready, no error LEDs, load paper.
2. The serial null modem cable(part#10-2020L) should be connected to the printer with the Power Comm Adaptor (part#95-05027L).
3. Verify no Windows drivers are currently on the same port you will be using with the POSjet Terminal Utility. If so, temporarily move the Windows driver of this port until you are done.

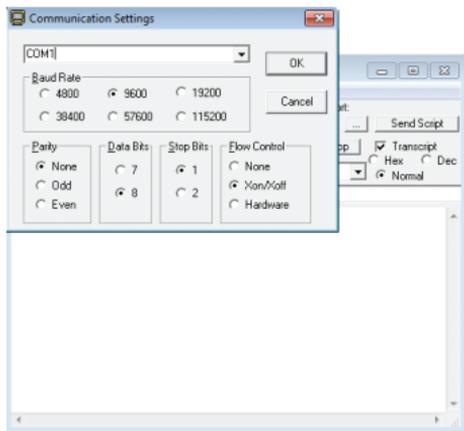
POSjet Terminal Utility

Using the POSjet Terminal Utility:

1. Open/Run the POSjet Terminal program.
2. Select Port, then Settings from the Top menu.



3. Select or Type in the communication port and select settings to match the printer. (Example: COMx)
(Baud rate and other settings can be determined by printing a test ticket from the printer.)



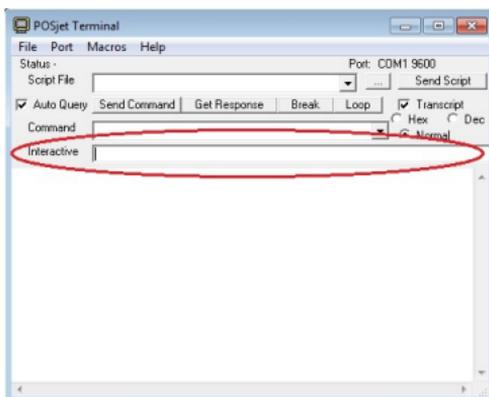
4. Click Ok.

Note: Once setup, these settings are saved for the next time you open the program.

POSjet Terminal Utility

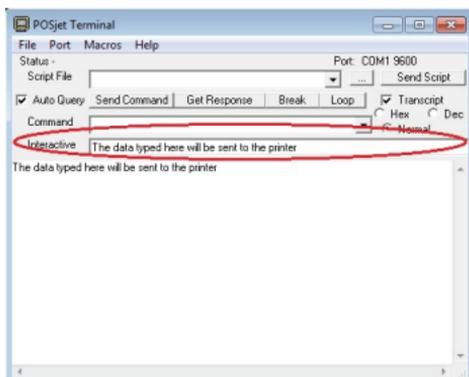
Interactive Box:

1. Place the cursor in the Interactive box.
2. Position the cursor in this box and press the ENTER key.
3. The program will send a [CR][LF] to the printer, and the printer should feed paper.



Or

1. Place the cursor in the Interactive box.
2. Type data in the Interactive box and hit the ENTER key.
3. The data typed is sent to the printer immediately.
4. Press the Feed button to eject ticket to see data printing on ticket.

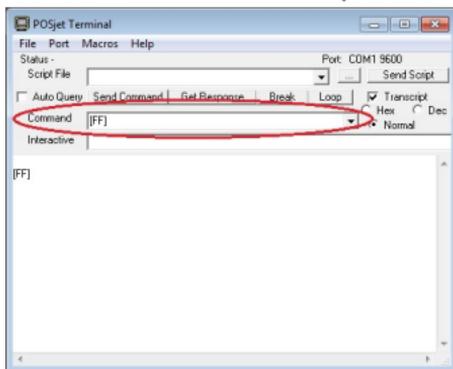


Example: Enter "The data typed here will be sent to the printer" in the interactive box, and press Enter key. "The data typed here will be sent to the printer" is printed on the ticket. Press the Feed button to eject ticket and see this data printed on the ticket.

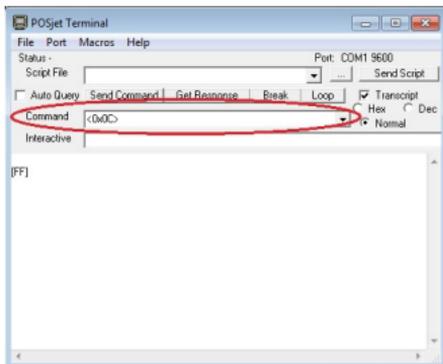
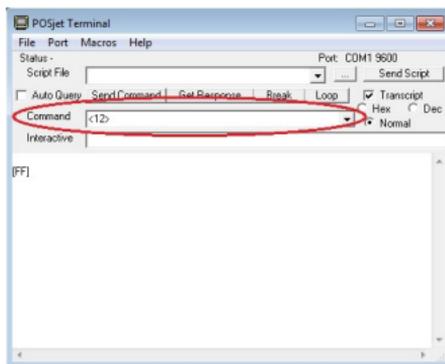
POSjet Terminal Utility

Command Box:

1. Place the cursor in the Command box.
2. Enter commands in this box and click the "Send Command" button to send these commands to the printer.



Example: The command for Form Feed is [FF] in ASCII.
Enter [FF] and Click Send Command. The printer should Form Feed.



The same command can be entered in the decimal format: <12>, or the hex format: <0x0C> as well in the Command Box.

3. Click the Get Response button to get the return values from a command sent that would generate a response.

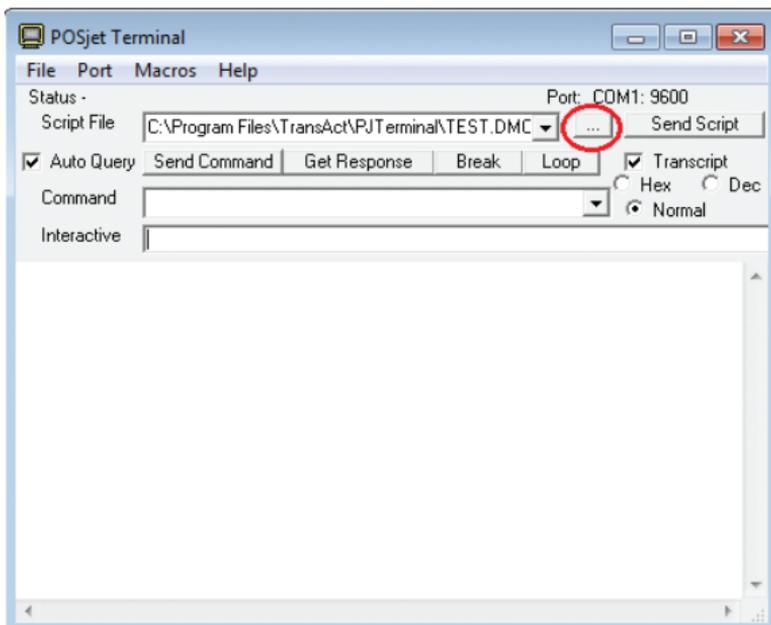
Example: Type [GS]z, a request status command. Click the Send Command button. Click the Get Response button. The return status will be returned. (Note: Auto Query should be off if using this button. If on, the status will return automatically, and the Get Status button would not need to be used.)

NOTE: Please see the programmer's manual for additional commands.

POSjet Terminal Utility

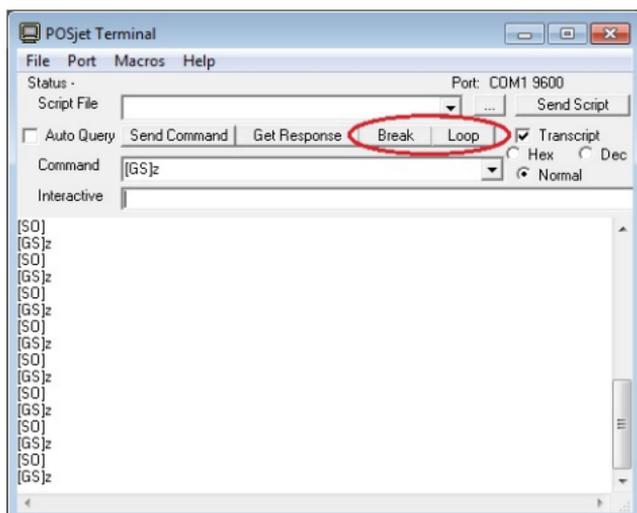
Script File Box:

1. The Script File box is used to select a script to send to the printer.
2. A script is simply a text file saved with a .dmo file extension that contains data and commands to be sent to the printer.
3. Use an external text editor (Example: NotePad), and enter data and commands.
4. Save the file as a text file with a .dmo file extension. See programmer's guide for commands. Note: A script sample can be found in the C:\Program Files\TransAct\PJTerminal folder. (TEST.DMO)
5. Click the "... " button to select a .dmo file. Or, select a recently used .dmo file from the drop down box.



6. Click Open after selecting .dmo file.
7. Selected file will be listed in the Script File dropdown box.
8. Click "Send Script" button to send the data and commands in the selected .dmo file to the printer.

POSjet Terminal Utility



Break and Loop Buttons

The Loop button will allow you to repeat a command entered in the Command box continually. If the command sent gets a response, it will also be displayed underneath as well. (Auto Query should be unchecked when using the Loop button.)

The Break button will stop the repeated command.

Output Area:

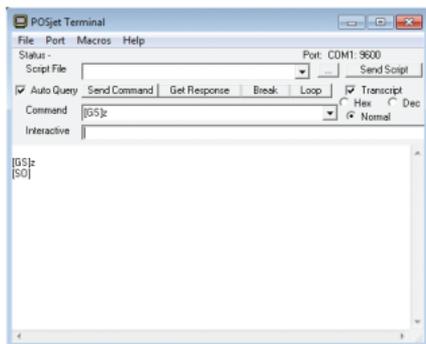
Data sent and status returned will appear in the bottom output area. The data displayed will be in ASCII. The status returned can be formatted as Hexadecimal, Decimal, or ASCII depending on your preference.

1. Click the Hex, Dec, or Normal radio button to select which format you would like the response data to be seen in. (Normal = ASCII)
2. Check the Auto Query checkbox if you wish to have status automatically returned after commands are send.
3. Check the Transcript checkbox, if you wish to record a text file with the output. Click File, Open Log file to set the name and location of this output file.

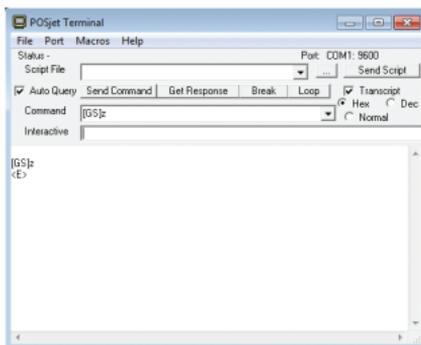
POSjet Terminal Utility

Example of Return/Response Value Formats

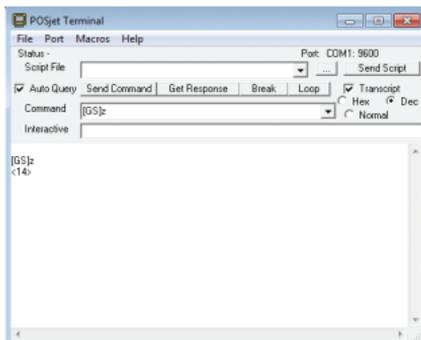
Normal
(ASCII):



Hexadecimal:



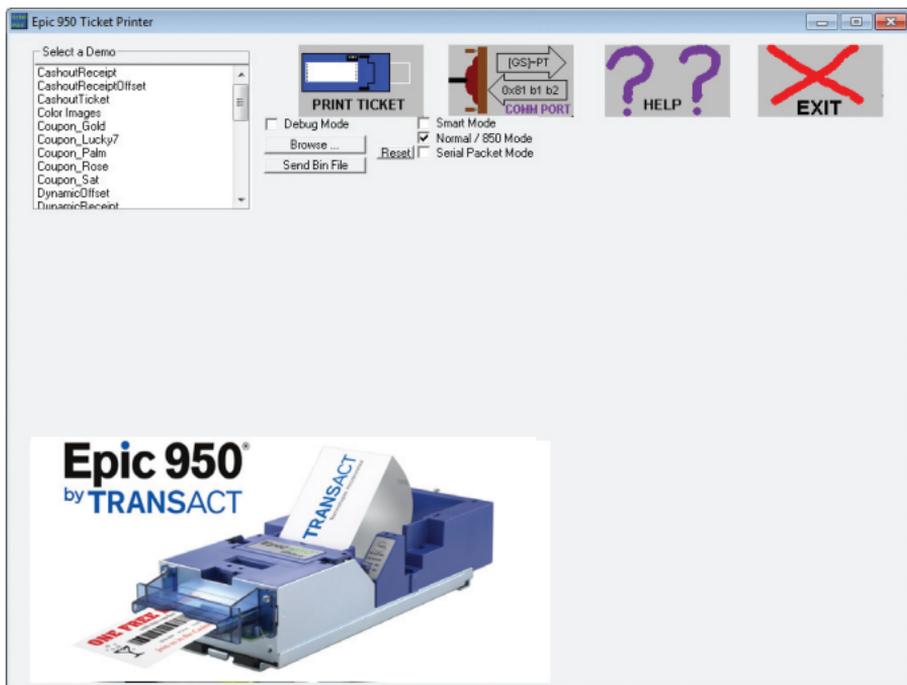
Decimal:



ASCII: [SO] = HEX: <E> = DEC: <14>

Demo and Comm Analyzer Utility

The Demo and Comm Analyzer Utility allows demo scripts to be sent to the printer to test communication and functionality of a printer. The tool also has a debug mode which allows you to monitor the communication to and from the printer and PC for testing and developing.



Prepare Printer for Demo and Comm Analyzer Utility:

1. Verify the printer is on and ready, no error LEDs.
2. Verify no Windows drivers are currently on the same port you will be using with the Demo and Comm Analyzer Utility. If so, temporarily move the Windows driver of this port until you are done.
3. The serial null modem cable(part#10-2020L) should be connected to the printer with the Power Comm Adaptor(part#95-05027L).

Demo and Comm Analyzer Utility

Using the Demo and Comm Analyzer Utility:

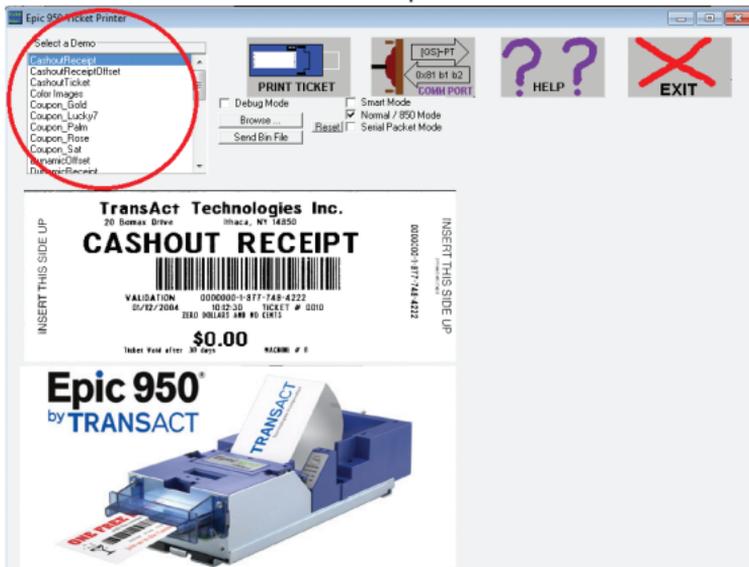
1. Run the Demo and Comm Analyzer program.
2. Click the Comm Port button to Select or Type in the communication port being used. (Example: COMx)
3. Click the Setup serial port button to set communication settings for the port. (Baud rate and other settings can be determined by printing a test ticket.)
4. Click Ok. Click Ok.

Note: Once setup, these settings are saved for the next time you open the program

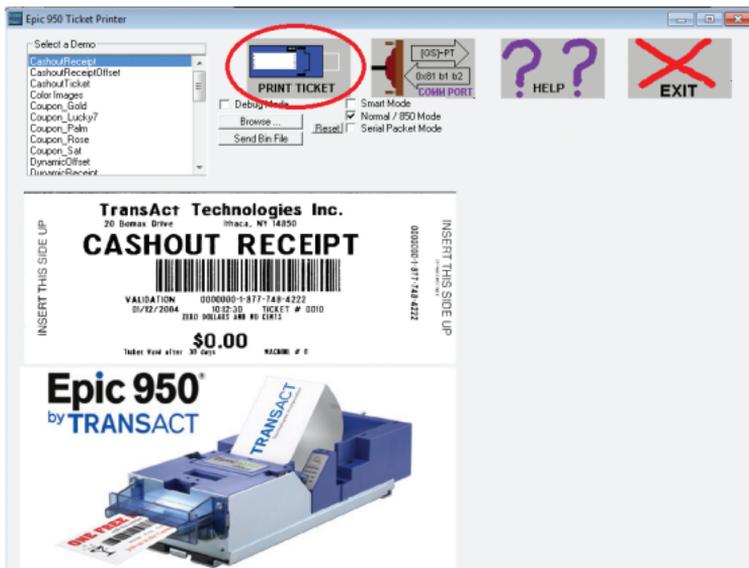


Demo and Comm Analyzer Utility

4. Select a demo ticket to send to the printer.



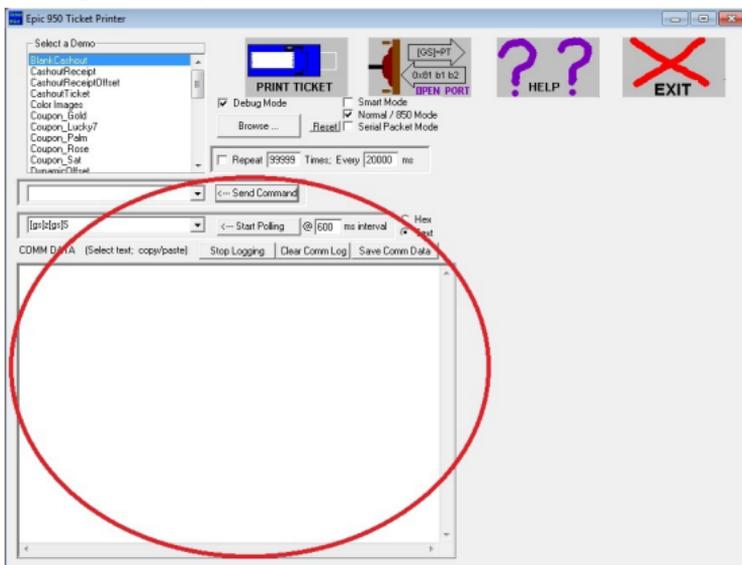
5. Click Print Ticket to send the select demo to the printer.



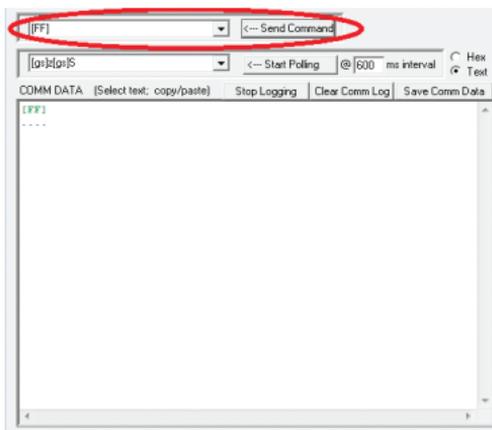
Demo and Comm Analyzer Utility

Using Debug Mode:

1. Click the Debug mode checkbox.
2. The debug area appears for use.



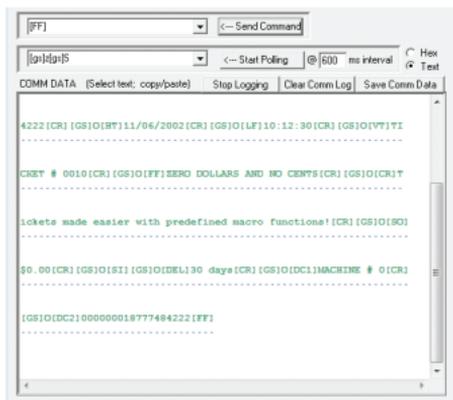
3. Type in a command into the command field, and click the send command button. The communication data is shown in the COMM DATA area below.



Example shows [FF] command being sent. Sending this command will eject a blank ticket from the printer.

Demo and Comm Analyzer Utility

- Send a demo ticket and it will show this communication in the COMM DATA area. Check Hex or Text to format output in COMM DATA area.



- Click the Start Polling button, and a status request command will be sent to the printer at the set interval. The request and the response can be monitored in the COMM DATA area. Click Stop Polling to stop sending.



Note:

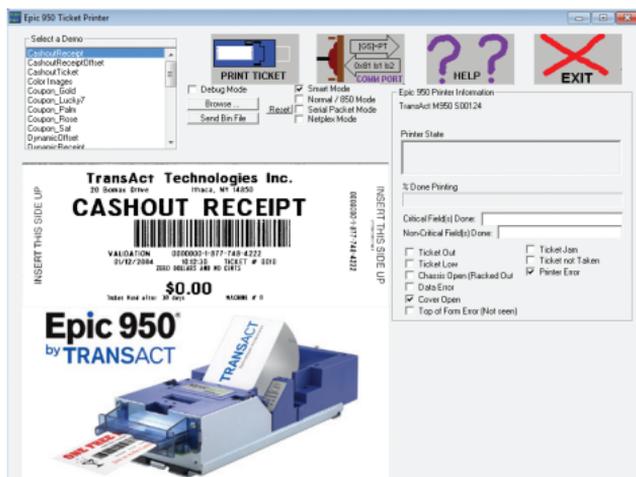
Data displayed in green is data sent to the printer.

Data displayed in blue is data sent from the printer to the host PC.

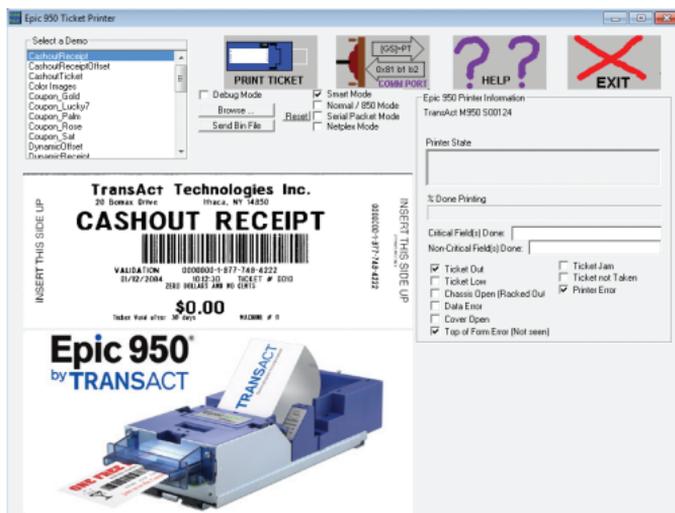
Data displayed in red is for future use, should be disregarded at this time.

Demo and Comm Analyzer Utility

Smart Mode Status Examples:



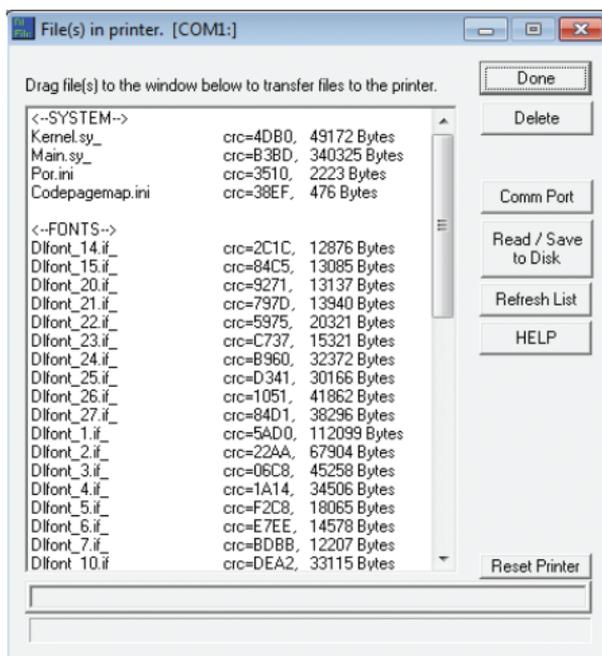
Lifting the front cover will show check mark with the relevant status, Printer Error and Cover Open.



Removing the paper with cover closed marks the relevant status, Printer Error ticket Out, and Top of Form Error (Not seen).

File Download Utility

The File Download Utility is designed to view the Epic 950's Flash memory and to transfer files between the printer and a PC. The tool is most commonly used to transfer specific files present on the EPIC 950.



Prepare Printer for Firmware Download:

1. Verify the printer is on and ready, no error LEDs.
2. Verify no Windows drivers are currently on the same port you will be using with the Download Utility. If so, temporarily move the Windows driver of this port until you are done.

Note: A serial null-modem cable should be used to connect the printer to PC. Cable should be plugged into the download port located on the side of the printer using the download Adaptor.

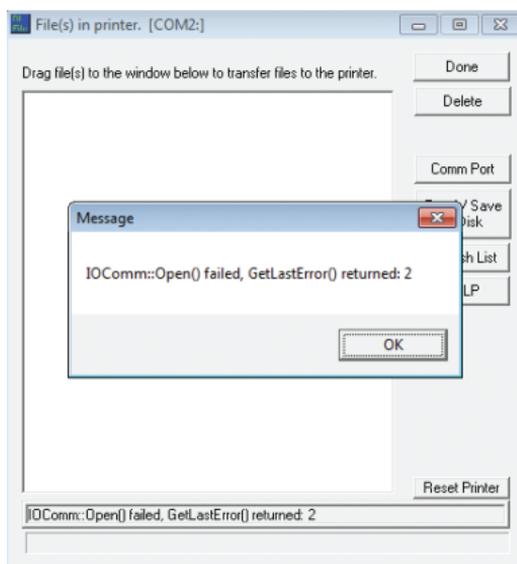
File Download Utility

Using the File Download Utility:

1. Run the File Download program.
2. You will be prompted for a password.
3. Enter "fry" and Click OK.



4. The main windows will load.

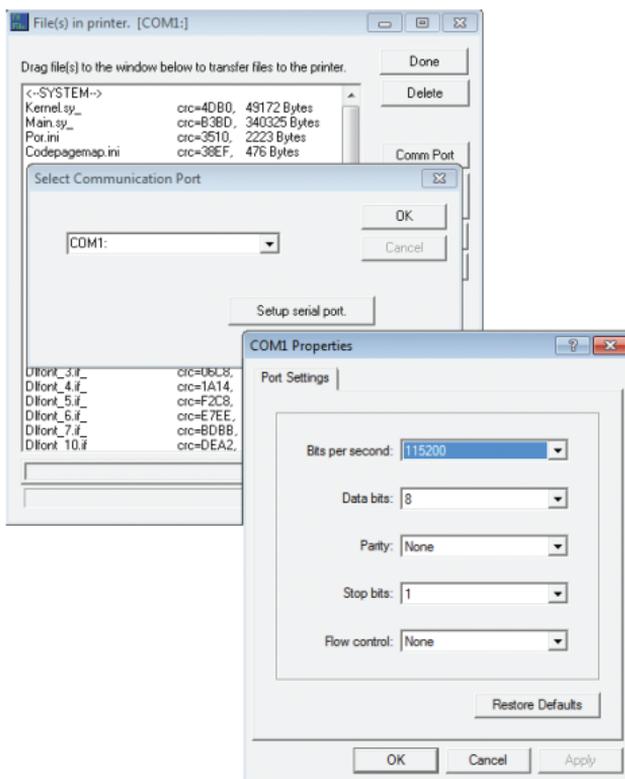


Note: When you first open the program the communication is set to COM2. Click Ok. Then see next steps to setup the communication port.

File Download Utility

5. Click the Comm Port Button to select the correct Comm port you are using.
6. Click the Setup serial port button to set the communication settings.
Settings should be set to: 115200, 8, None, 1, None.
7. Click Ok. Click Ok.

Note: Once setup, these settings are saved for the next time you open the program.

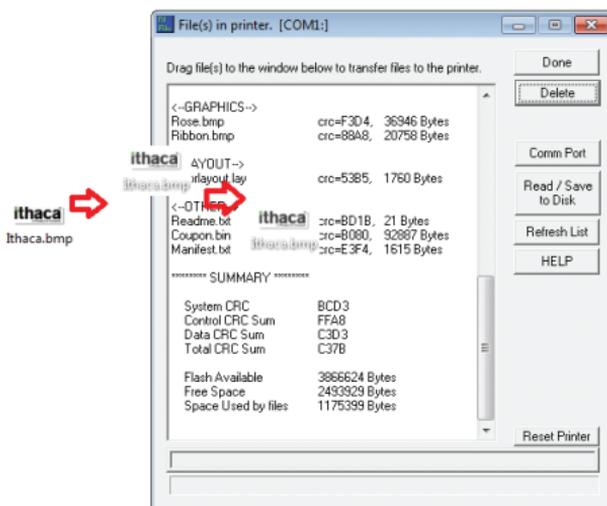


8. Click Refresh List.

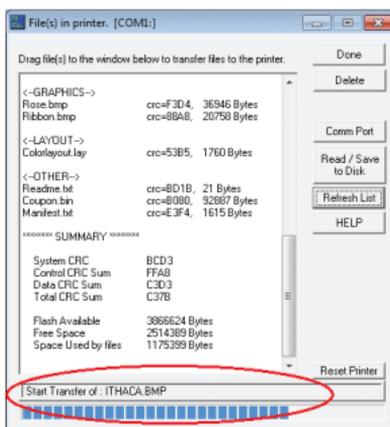
File Download Utility

Transferring a File to the Epic 950 Printer Flash Memory

1. Locate the file you wish to transfer on your PC.
2. Drag and drop it onto the main window of the download utility.

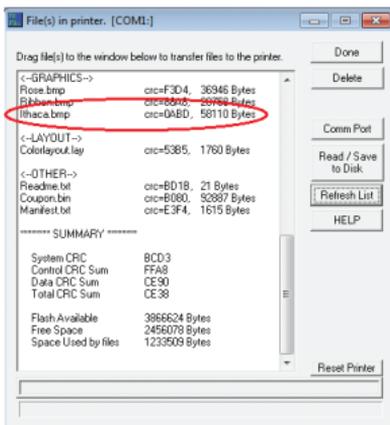


3. The transfer will begin and the progress of the transfer will be indicated at the bottom of the download utilities dialog window.



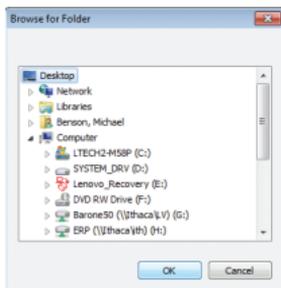
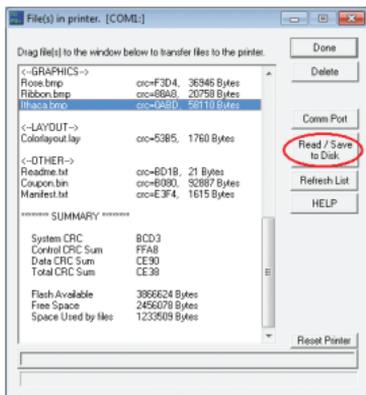
File Download Utility

- At the end of the transfer, the CRC is checked, if there is a discrepancy, you will get an error prompt.



Transferring a File from the Epic 950 Printer to your PC

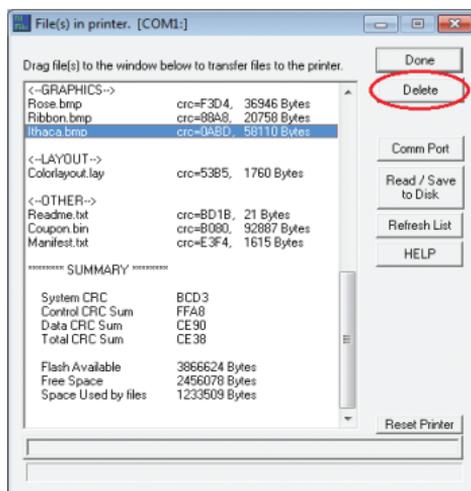
- Locate the file you wish to transfer in the list of files, then highlight the file by clicking on it.
- Click the “Read/Save to Disk” button. The transfer will begin and the progress of the transfer will be indicated at the bottom of the download utilities dialog window. The file will be transferred to the location you select and that location will become the current working directory.



File Download Utility

Deleting from the Printer's FLASH Memory

1. Locate the file you wish to delete in the list of files, then highlight the file by clicking on it.
2. Click the "Delete" button. The file will be deleted and the main window displaying the information list will be refreshed.



Refresh List

1. Click the "Refresh List" button.

Refresh List

Printer Reset

1. Some information change will not take effect until the printer is reset (i.e. changes to "por.ini").
2. Click the "Reset Printer" button.

Reset Printer

Done

1. Click the "Done" button or the "X" to close the program.

Done



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