



HP Point of Sale (POS) Peripherals Configuration Guide – Receipt Printer

**Document Version 3.23
November 2010**

© Copyright 2007-2010 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice.

Microsoft, MS-DOS, Windows, WEPOS, POSReady and Windows NT are trademarks of Microsoft Corporation in the U.S. and other countries.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

HP Point of Sale (POS) Peripherals Configuration Guide – Receipt Printer
Document Version 3.23.0006

November 2010

Contents

1	OPOS Name for HP Point of Sale Peripherals	5
2	Peripherals Connection and Software Installation	6
2.1	Cash Drawer and Flip-Top Cash Drawer	6
2.1.1	Key lock position	6
2.1.2	Connection	7
2.1.3	Windows Drivers for the Cash Drawer Drivers.....	10
2.1.4	Cash Drawer Decimal Commands.....	10
2.1.5	Dual Cash Drawer Connection.....	11
2.1.5.1	Cash Drawer Cable Info.....	11
2.1.6	OPOS Drivers for the Cash Drawer	12
2.1.7	OPOS Test Applet for the Cash Drawer	12
2.1.7.1	Cash Drawer Only Utility	12
2.1.7.2	Cash Drawer and Printer Utility.....	16
2.1.8	Cash Drawer Signal	19
2.1.9	Cash Drawer Signal Change.....	19
2.1.10	JPOS Drivers for the Cash Drawer Drivers.....	20
2.2	Receipt Printer.....	24
2.2.1	Connection	24
2.2.2	Powered USB Cable	26
2.2.3	NATIVE mode	28
2.2.4	PRINTER CLASS Mode.....	29
2.2.5	COMM CLASS Mode	29
2.2.6	USB Mode Selector Utility	31
2.2.6.1	Set printer to NATIVE mode.....	33
2.2.6.2	Set printer to PRINTER CLASS mode (default).....	34
2.2.6.3	Set printer to COMM CLASS mode (virtual serial port)	35
2.2.7	Serial Printer.....	36
2.2.8	Windows Drivers for the Receipt Printer Drivers.....	37
2.2.8.1	Install Windows Printer Driver (USB)	37
2.2.8.2	Install Windows Printer Driver (Serial)	42
2.2.8.3	Test Receipt Printer in Windows Environment (non-OPOS)	48
2.2.9	Knife Cut Commands	50
2.2.10	OPOS Drivers for the Receipt Printer	51
2.2.10.1	OPOS Installation - USB.....	51
2.2.10.2	OPOS Installation – Serial Port.....	54
2.2.10.3	OPOS Test Applet for the Receipt Printer	59
2.2.10.4	Receipt Printer and Cash Drawer Utility – Receipt Printer Testing.....	59
2.2.10.5	Bitmap / Barcode Testing.....	66
2.2.10.6	Receipt Printer and Cash Drawer Utility – Cash Drawer Testing	69
2.2.11	OPOS Test Applet for the MICR	73
2.2.12	OPOS Test Applet for the CheckScan	81
2.2.13	Receipt Printer Cash Drawer Signal	93
2.2.13.1	Cash Drawer Signal	93
2.2.13.2	Cash Drawer Signal Change.....	93
2.2.14	JPOS Drivers for the Receipt Printer Drivers – Serial Port Setting.....	94
2.2.15	JPOS Drivers for the Receipt Printer Drivers	95
2.2.16	JPOS Drivers for the Receipt Printer Drivers - CheckScanner.....	103
2.2.17	JPOS Drivers for the Receipt Printer Drivers - MICR	112
2.2.18	JPOS Drivers for the Receipt Printer Drivers - Slip.....	122
2.2.19	JPOS Drivers for the Receipt Printer Drivers – Slip Printing.....	132

2.2.20	ASIAN Font Download – Single Station (A799) Printer	142
2.2.20.1	Asian Font Download Utility	142
3	Q & A.....	147
3.1	HP Cash Drawer	147
3.2	HP USB Receipt Printer	148

1 OPOS Name for HP Point of Sale Peripherals

The following are the OPOS logical names for the HP Point of Sale Peripherals:

Device	OPOS Logical Name
HP POS Pole Display	HP POS Pole Display
HP ap5000 Line Display (VFD)	HPap5000LineDisplay
HP USB Barcode Scanner	HP_USBSCANNER (underscore between each word)
HP USB Mini-MSR	HPUSBMiniMSR
HP ap5000 MSR	HPap5000MSR
HP POS Keyboard	HPPOSKeyboard
HP POS Keyboard with MSR	HPKBMSR
HP CheckScanner	A776
HP MICR	A776
HP USB Receipt Printer (A794)	A794
HP Cash Drawer or Flip Top Cash Drawer attached to (A794)	A794-1 (first cash drawer or first flip top cash drawer)
HP Cash Drawer or Flip Top Cash Drawer attached to (A794)	A794-2 (second cash drawer or second flip top cash drawer)*
HP USB Receipt Printer (A799) – USB and Serial model(s) of the printer	A799
HP Cash Drawer or Flip Top Cash Drawer attached to (A799)	A799-1 (first cash drawer or first flip top cash drawer)
HP Cash Drawer or Flip Top Cash Drawer attached to (A799)	A799-2 (second cash drawer or second flip top cash drawer)*
HP USB Receipt Printer (A776 - Hybrid Printer MICR)	A776
HP Cash Drawer or Flip Top Cash Drawer attached to (A776)	A776-1 (first cash drawer or first flip top cash drawer)
HP Cash Drawer or Flip Top Cash Drawer attached to (A776)	A776-2 (second cash drawer or second flip top cash drawer)*
HP USB Receipt Printer (A776 - Hybrid Printer MICR with Imager)	A776
HP Cash Drawer or Flip Top Cash Drawer attached to (A776 - Hybrid Printer MICR with Imager)	A776-1 (first cash drawer or first flip top cash drawer)
HP Cash Drawer or Flip Top Cash Drawer attached to (A776 - Hybrid Printer MICR with Imager)	A776-2 (second cash drawer or second flip top cash drawer)*

* Requires a Y-Adapter and the second cash drawer requires a separate cash drawer cable.

2 Peripherals Connection and Software Installation

The USB peripherals should be installed after the Windows operating system has been unbundled. Installing one peripheral at a time, will help determine which peripheral has an issue if a peripheral does not function. By installing one peripheral at a time, Windows may install the native drivers with very little user interaction needed during the native driver installation.

Please note the drivers for the HP peripherals can be located on the HP.COM web site as well as the HP Point of Sale System Software and Documentation CD that comes with each of the peripherals. The CD contains the drivers for all the HP POS peripherals; use the latest version of the CD if you have multiple copies of HP Point of Sale System Software and Documentation CD.

In the following sections substitute “Compaq” or “SWSetup” for “xxxxx” when reference are made to the HP Windows image. For example when one sees “C:\xxxxx\Point of Sale\Receipt Printer\Cash Drawer” one would use “C:\Compaq\Point of Sale\Receipt Printer\Cash Drawer” for Windows XP Pro operating system and “C:\SWSetup\Point of Sale\Receipt Printer\Cash Drawer” for Vista / WEPOS / POSReady / Win7 operating system.

2.1 Cash Drawer and Flip-Top Cash Drawer



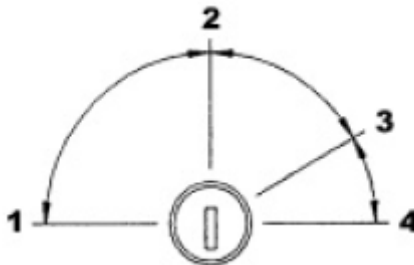
or

In the reminder of this document “cash drawer” will be used to refer to both cash drawers that are shown above.

2.1.1 Key lock position

The follow shows the key lock position for the HP cash drawer and flip-top cash drawer.

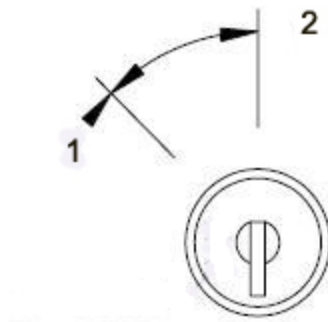
Heavy Duty Cash Drawer



Lock Option	Description
1	Prevents the cash drawer from being opened by

(Locked Closed)	electrical signal from the printer.
2 (Online)	Operation of the cash drawer is driven electronically by the printer.
3 (Manual Open)	Allow manual access to the contents of the cash drawer.
4 (Locked Open)	Prevents the cash drawer being latched closed.

Flip Top Cash Drawer (below)



Lock Option	Description
1 (Manual Open)	Allow manual access to the contents of the cash drawer.
2 (Online)	Operation of the cash drawer is driven electronically by the printer.

2.1.2 Connection

The cash drawer is attached to the back of the printer using a RJ12 type connector (the smaller connector).

The smaller connector connects to the back of the printer, the larger connector connects to the bottom of the cash drawer. The following are the cash drawer cable connectors:



The following is the bottom of the cash drawer where the bigger end of the cash drawer cable connects into:



The following is the back of the printer with the cover closed:



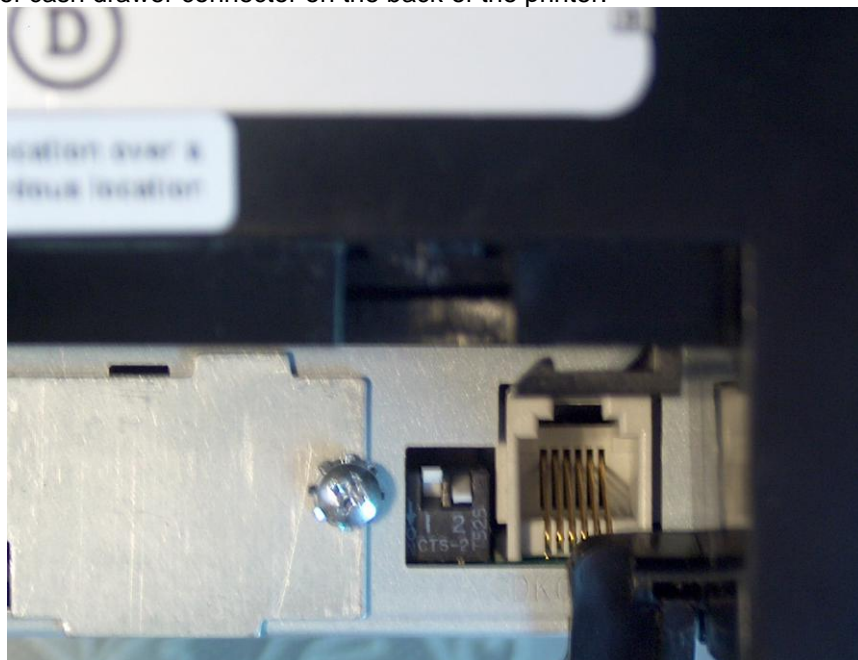
The following is the back of the printer with the cover open:



Close-up of powered USB connector on back of the printer:



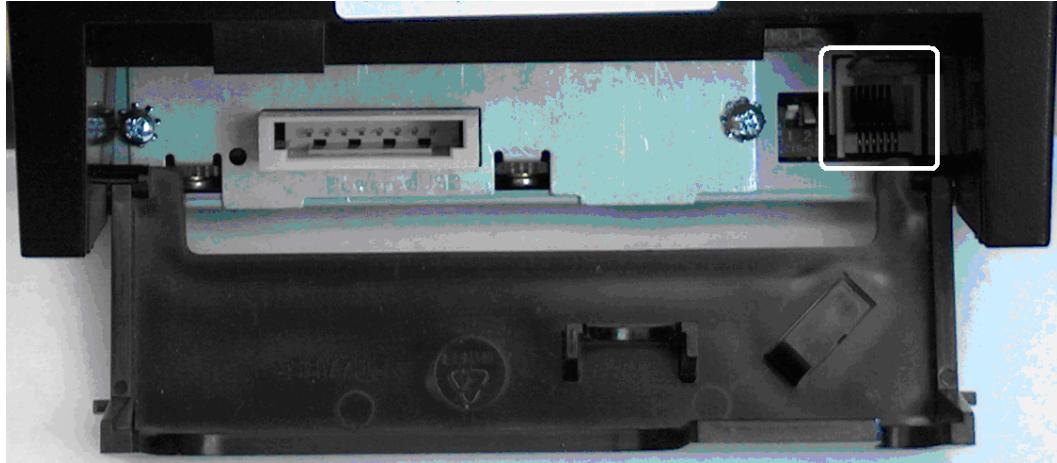
Close-up of cash drawer connector on the back of the printer:



2.1.3 Windows Drivers for the Cash Drawer Drivers

There are no Windows drivers for the cash drawer. The cash drawer is controlled by the printer Windows mini-drivers thus the printer drivers need to be installed to electronically open the cash drawer.

Confirm that the cash drawer is connected to the back of the printer via the cash drawer cable.



2.1.4 Cash Drawer Decimal Commands

Some POS application that use the Windows mini-drivers request the cash drawer open command so the application can open the cash drawer (i.e. No Sale). The following the decimal commands:

Cash drawer 1	Cash Drawer 2
27 112 0 8 8	27 112 1 8 8

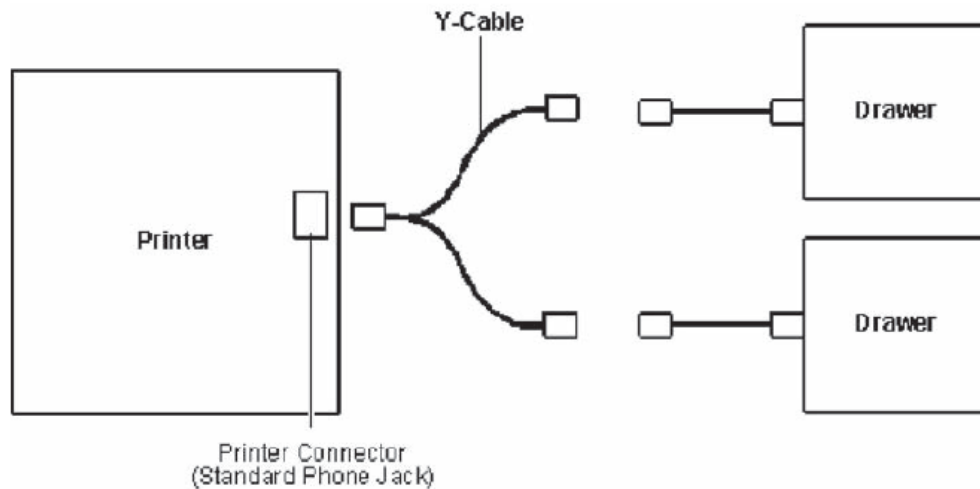
Detail explanation of the cash drawer command:

Generate pulse to open cash drawer

ASCII	ESC p n p1 p2
Hexadecimal	1B 70 n p1 p2
Decimal	27 112 n p1 p2
Value of n:	00, 48 (Decimal) = Drawer 1; 01, 49 (Decimal) = Drawer 2
Value of p1:	0-255
Value of p2:	0-255

2.1.5 Dual Cash Drawer Connection

Dual cash drawer is possible with the HP Receipt printer. In order to have dual cash drawer configuration a Y-Cable is needed, and with this cable both the cash drawers are attached to the printer.



2.1.5.1 Cash Drawer Cable Info

In order to use dual cash drawer, one will need a Y-Adapter attached to the printer and will need to exchange one of the cash drawer cable with the 2nd cash drawer cable.

The following is the cash drawer cable part numbers for single cash drawer configuration:

1st Drawer**
CD-001A

The following are the cash drawer cable part numbers for dual cash drawer configuration:

1st Drawer**	2nd Drawer	Y-Adapter
CD-001A	CD-001B	CD-D1D2 or CD-D1D2EP

** This cable is shipped with the HP Cash drawer.

CD-D1D2EP will allow one to obtain the open status of the cash drawer.

CD-D1D2 will NOT allow one to obtain the open status of the cash drawer.

2.1.6 **OPOS Drivers for the Cash Drawer**

The OPOS drivers for the cash drawer are included in the printer OPOS driver installation. Confirm that the cash drawer is connected to the back of the printer via the cash drawer cable.

2.1.7 **OPOS Test Applet for the Cash Drawer**

The cash drawer may be tested with one of two utilities. The first utility will only test the cash drawer; the second utility will allow you to test both the cash drawer and the printer.

2.1.7.1 **Cash Drawer Only Utility**

The following is overview of the steps to test the cash drawer followed by details steps:

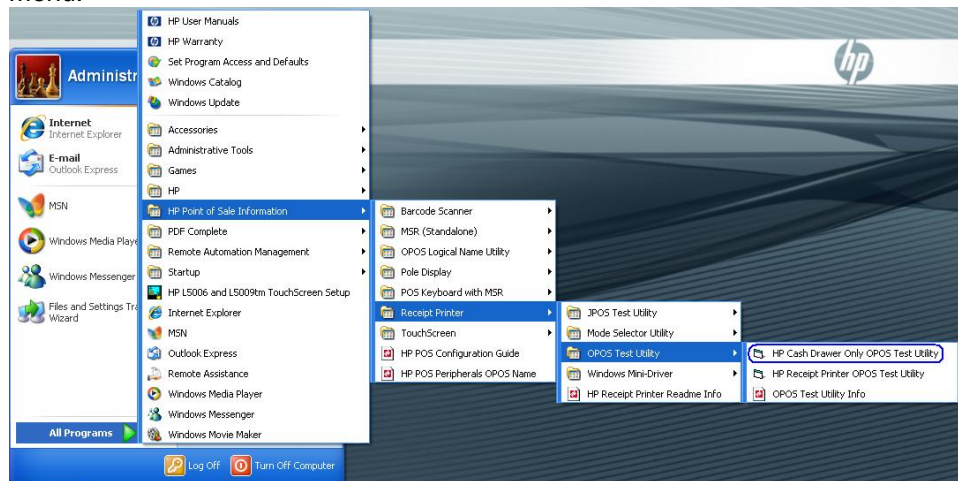
1. Start the “HP_OPOS_SampleApp.exe” application.
2. Enter name for the cash drawer in the GUI.
3. Click on “Open Cash Drawer”
4. Close the cash drawer and the GUI should give the status that the cash drawer is closed.
5. To exit the application click on the EXIT button.

Starting the OPOS printer sample application

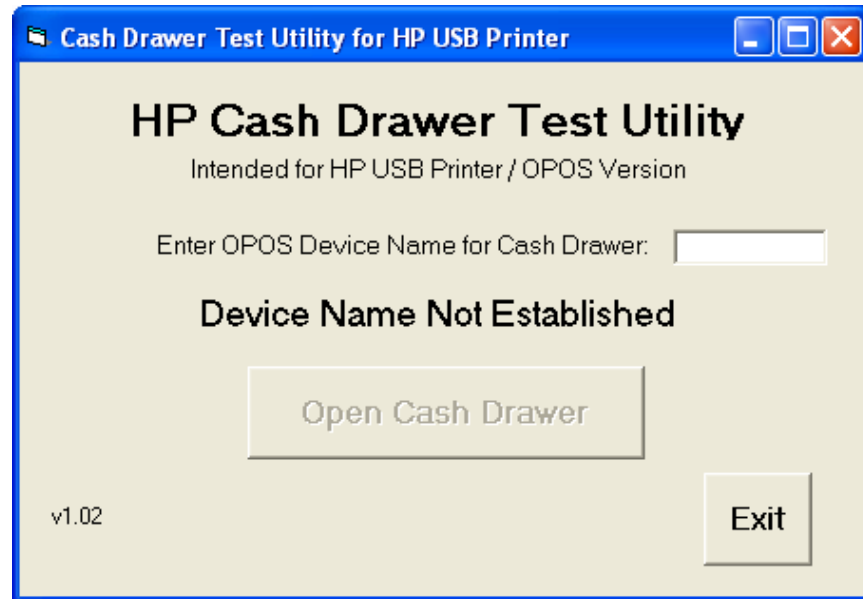
The cash drawer installation may also be tested using the OPOS printer sample application which is covered later in this document.

Details

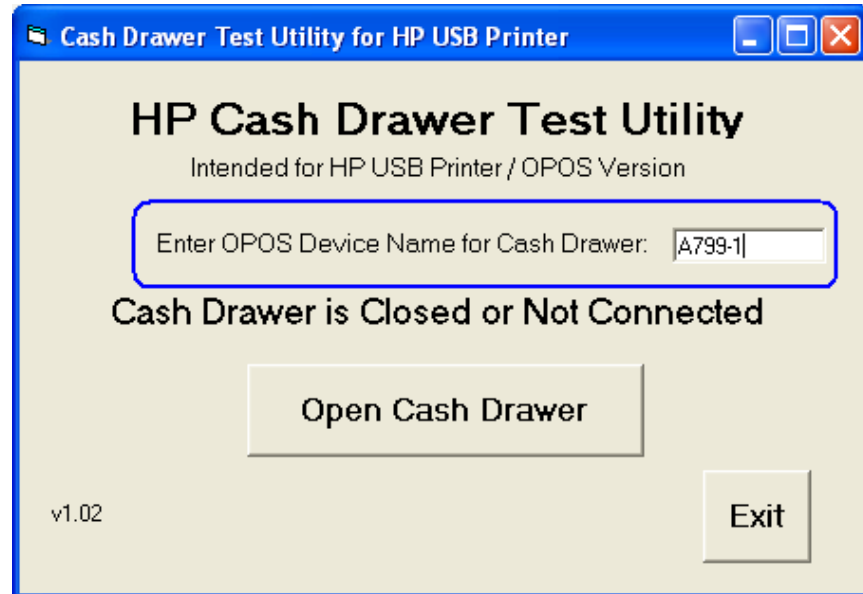
1. Start the “HP_OPOS_SampleApp.exe” application that can found in the start menu:



The following is the main GUI of the HP_OPOS_SampleApp application when it is launched:



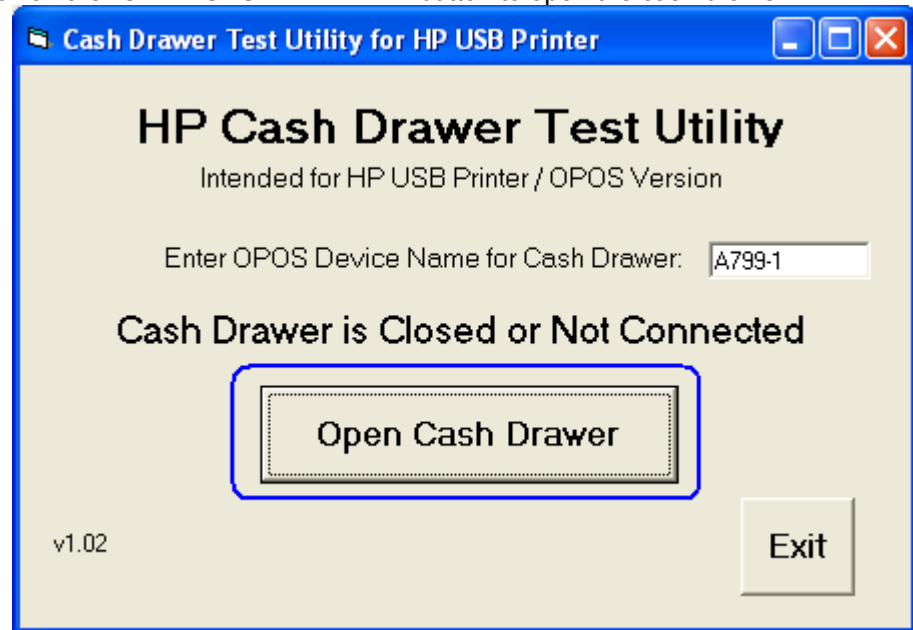
2. Enter name for the cash drawer in the GUI:



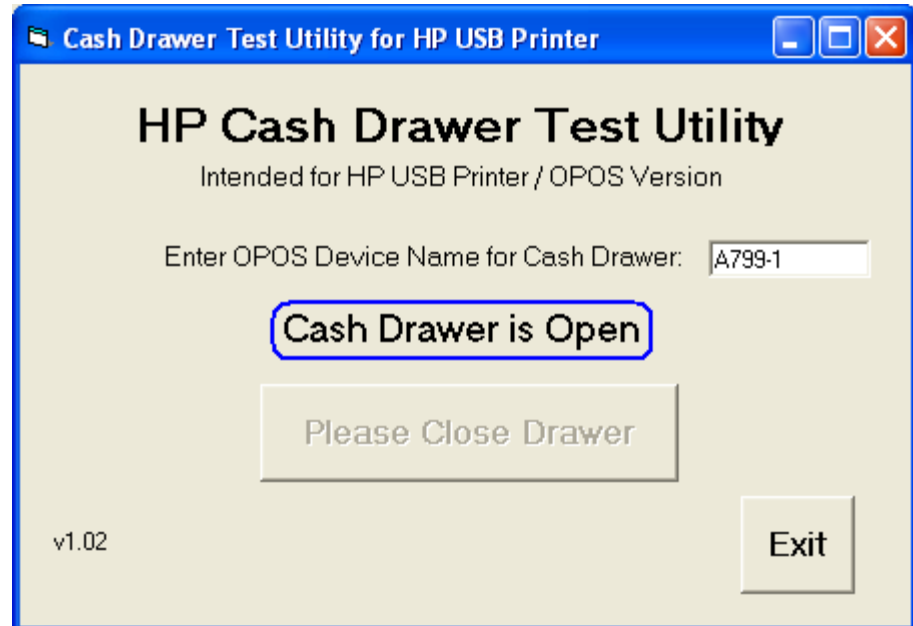
The following are the valid OPOS names for the cash drawer:

OPOS Name
A794-1 (first cash drawer or flip top cash drawer)
A794-2 (second cash drawer or flip top cash drawer)
A799-1 (first cash drawer or flip top cash drawer)
A799-2 (second cash drawer or flip top cash drawer)
A776-1 (first cash drawer or flip top cash drawer)
A776-2 (second cash drawer or flip top cash drawer)
A776-1 (first cash drawer or flip top cash drawer)
A776-2 (second cash drawer or flip top cash drawer)

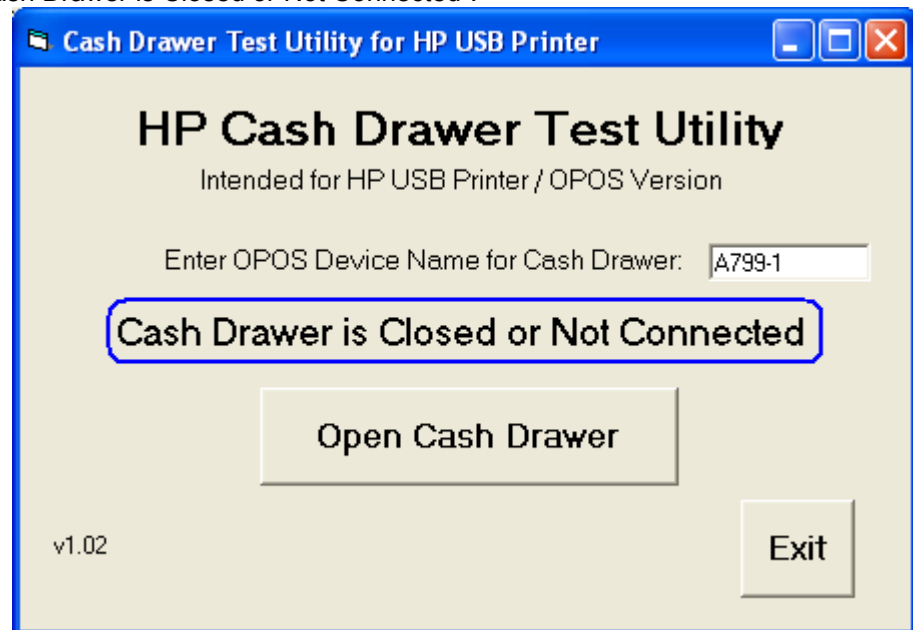
3. Click on the "OPEN CASH DRAWER" button to open the cash drawer.



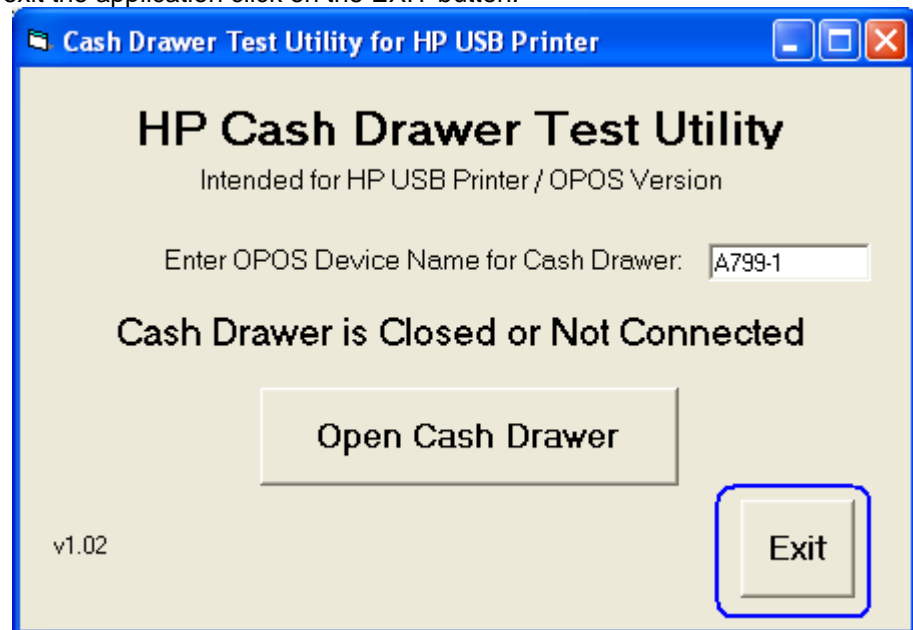
After clicking "OPEN CASH DRAWER" button the utility should open the cash drawer and show the status of "CASH DRAWER IS OPEN":



4. After closing the cash drawer the utility will show the status of the cash drawer as “Cash Drawer is Closed or Not Connected”.



5. To exit the application click on the EXIT button:



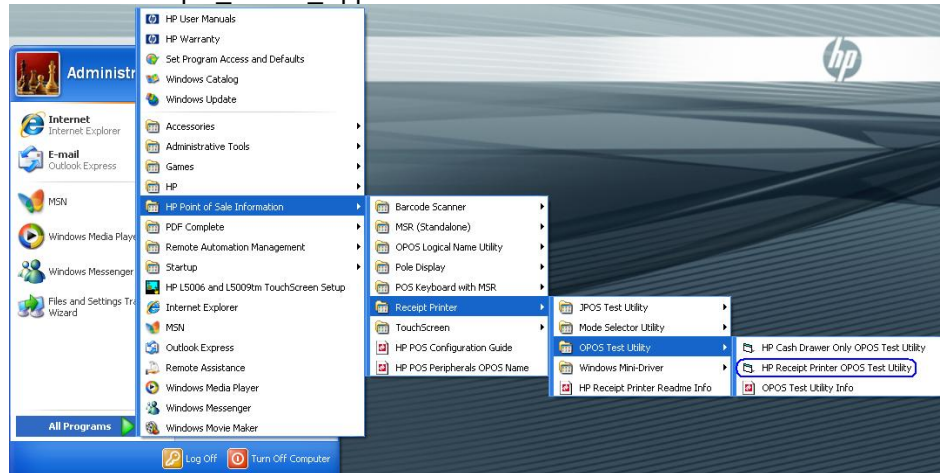
2.1.7.2 Cash Drawer and Printer Utility

The following is overview of the steps to test the cash drawer followed by details steps:

1. Start the “Sample_OPOS_Application.EXE” that can be found in the start menu or in the program file folder.
2. Click “CashDrawer”
3. Select correct device name for the cash drawer to be tested.
4. Click “OPEN”
5. Click “ENABLE”
6. Click “OPEN Drawer” and the cash drawer should open. The GUI should also show status that the cash drawer is open.
7. Close the cash drawer and the GUI should give the status that the cash drawer is closed.
8. Exit the test utility.

Details

1. Start the “Sample_OPOS_Application.EXE” that can be found in the start menu

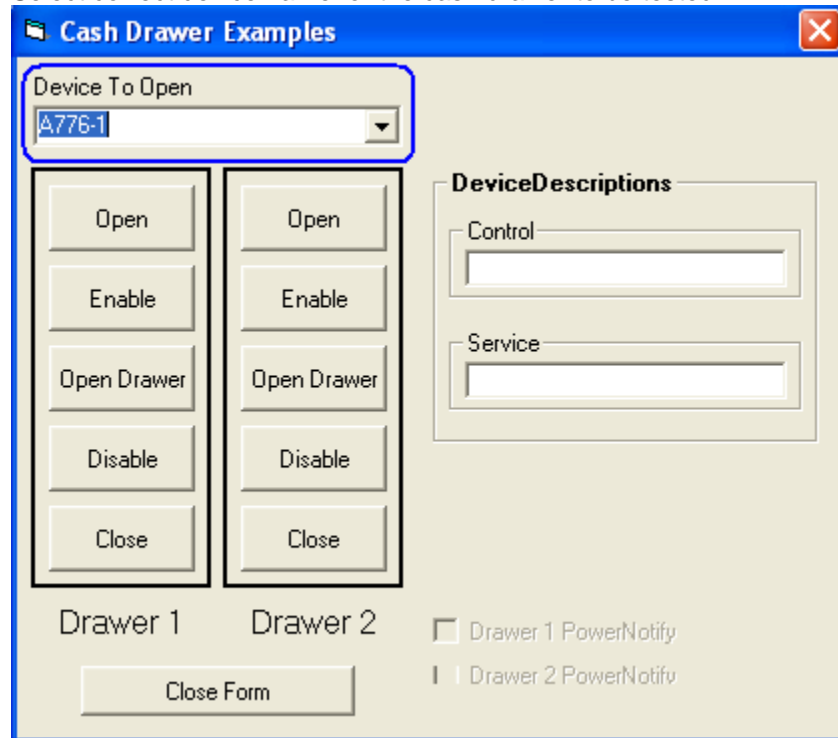


or in the “C:\xxxxxx\ Point of Sale\Receipt Printer\OPOS Test Utility” subfolder.

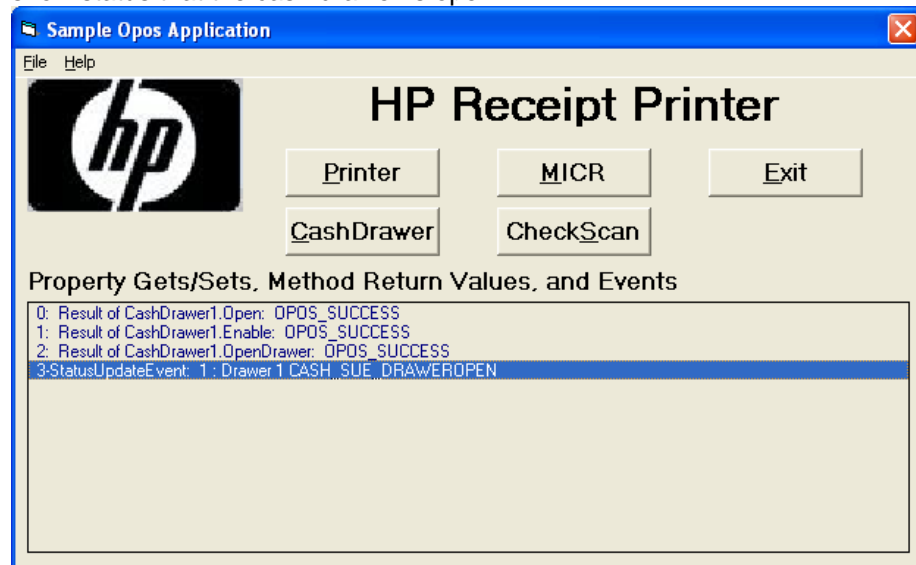
2. Click “CashDrawer”. The following is the main GUI of the “Sample_OPOS_Application” when it is launched:



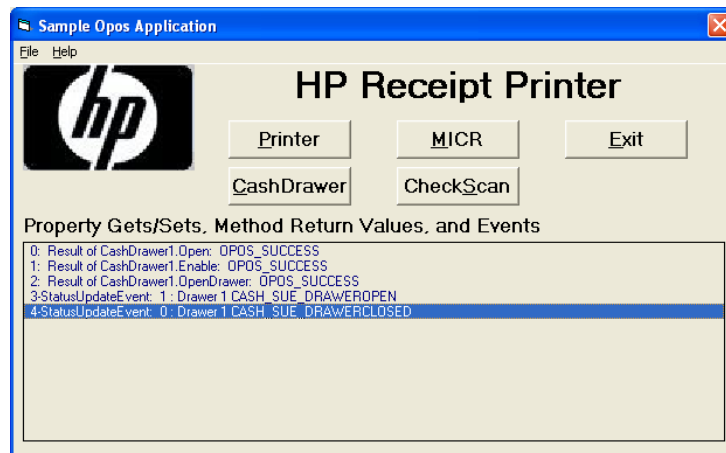
3. Select correct device name for the cash drawer to be tested.



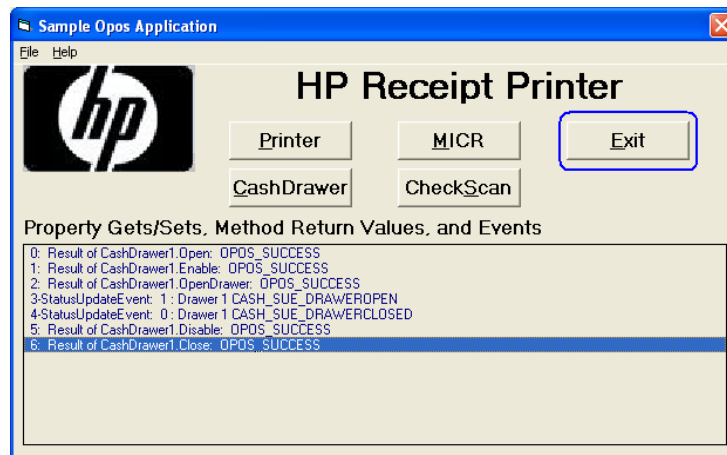
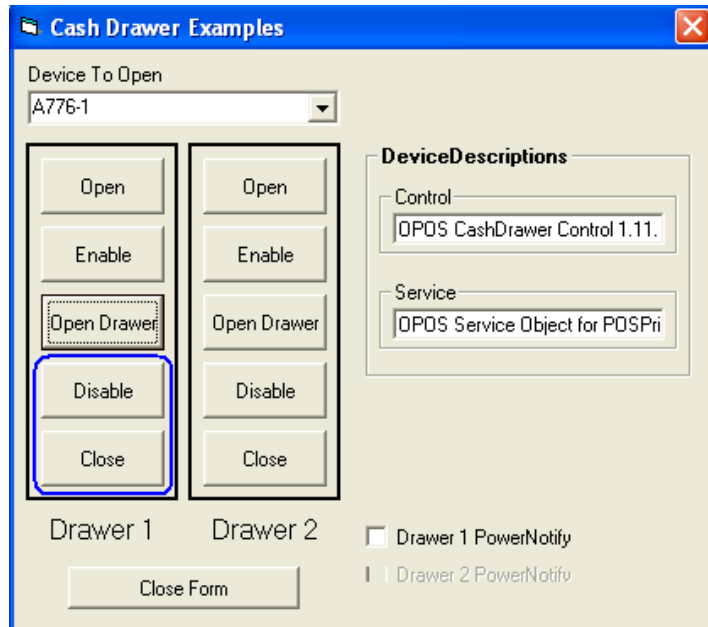
4. Click "OPEN"
5. Click "ENABLE"
6. Click "OPEN Drawer" and the cash drawer should open. The GUI should also show status that the cash drawer is open.



7. Close the cash drawer and the GUI should give the status that the cash drawer is closed.



8. Exit the test utility by clicking on DISABLE/CLOSE/CLOSE FORM and then click on EXIT.



2.1.8 **Cash Drawer Signal**

The cash drawer is attached to the back of the printer using an RJ12 or similar connector (the smaller connector). On HP cash drawers, this connector sends a HIGH signal from the printer to open the cash drawer. The HIGH signal is the default setting for the HP OPOS receipt printer drivers installation.

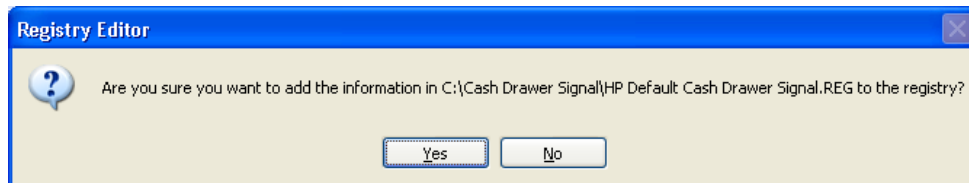
However, there are other cash drawers that may be using an opposite LOW signal to open the cash drawer. In this case, a user may need to configure the driver to also send a low signal in order for the cash drawer to open correctly (steps provided later). If the user has tried both settings and the cash drawer is still not opening, a different cash drawer cable may be needed. Check with the cash drawer vendor or the cash drawer vendor's documentation in regards to the LOW and HIGH signal setting.

2.1.9 **Cash Drawer Signal Change**

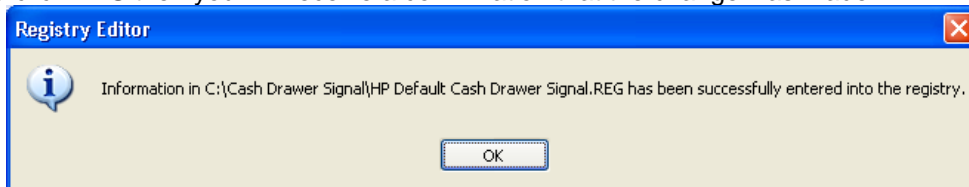
There is a folder called "Cash Drawer Signal" that contains the registry files needed to change the cash drawer signal option. The "Cash Drawer Signal" folder can be found on the "HP Point of Sale System Software and Documentation CD" in the receipt printer folder. The following is the description of the files:

- "HP Default Cash Drawer Signal.REG" file will change the cash drawer registry value to HIGH which is the default value when the OPOS drivers are installed and the value that is needed when the HP cash drawer is attached to the HP Receipt printer.
- "HP Non-Default Cash Drawer Signal.REG" file will put the cash drawer registry value to LOW which may be tried for non-HP cash drawer if default HIGH option does not open the cash drawer.

You must have administrator right in order to make the change. When you double click on the file you will receive a prompt for confirmation that you want to make the changes.



If you click YES then you will receive a confirmation that the change was made.



2.1.10 JPOS Drivers for the Cash Drawer Drivers

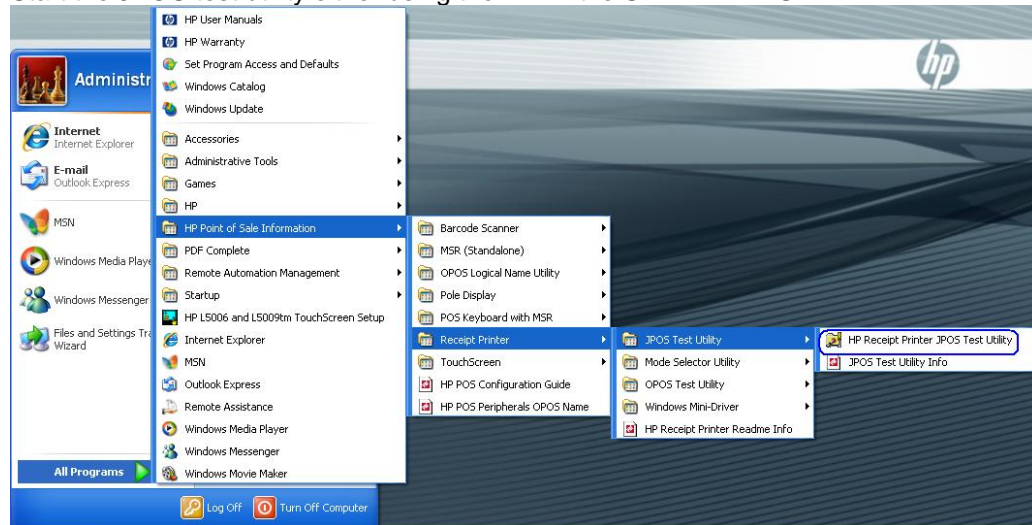
The JPOS drivers are included in the HP Point of Sale image or can be obtained from HP POS Drivers and Documentation CD or from the HP.COM web site.

The following is an overview of the steps to test the receipt printer followed by detailed steps:

1. Start the JPOS test utility.
2. Click on the "CASH DRAWER" tab.
3. Select the "CashDrawer" model in the profile drop down box:
4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.
6. Click on the "ENABLE" button.
7. To exit the application:
 - a. Click on "DISABLE"
 - b. Click on "RELEASE"
 - c. Click on "CLOSE"
 - d. Click on the "X" in the upper right hand corner of the application.

Detail Steps

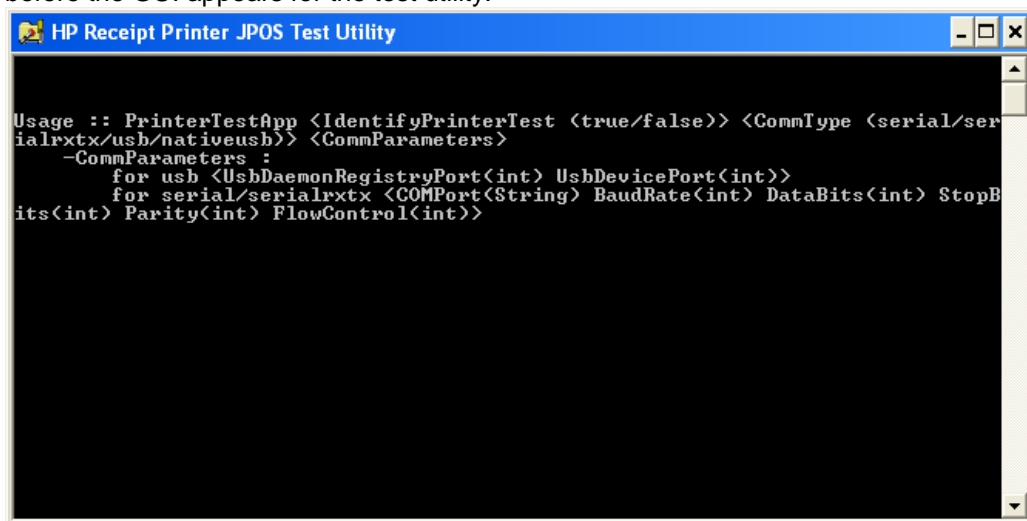
1. Start the JPOS test utility either using the link in the START MENU:



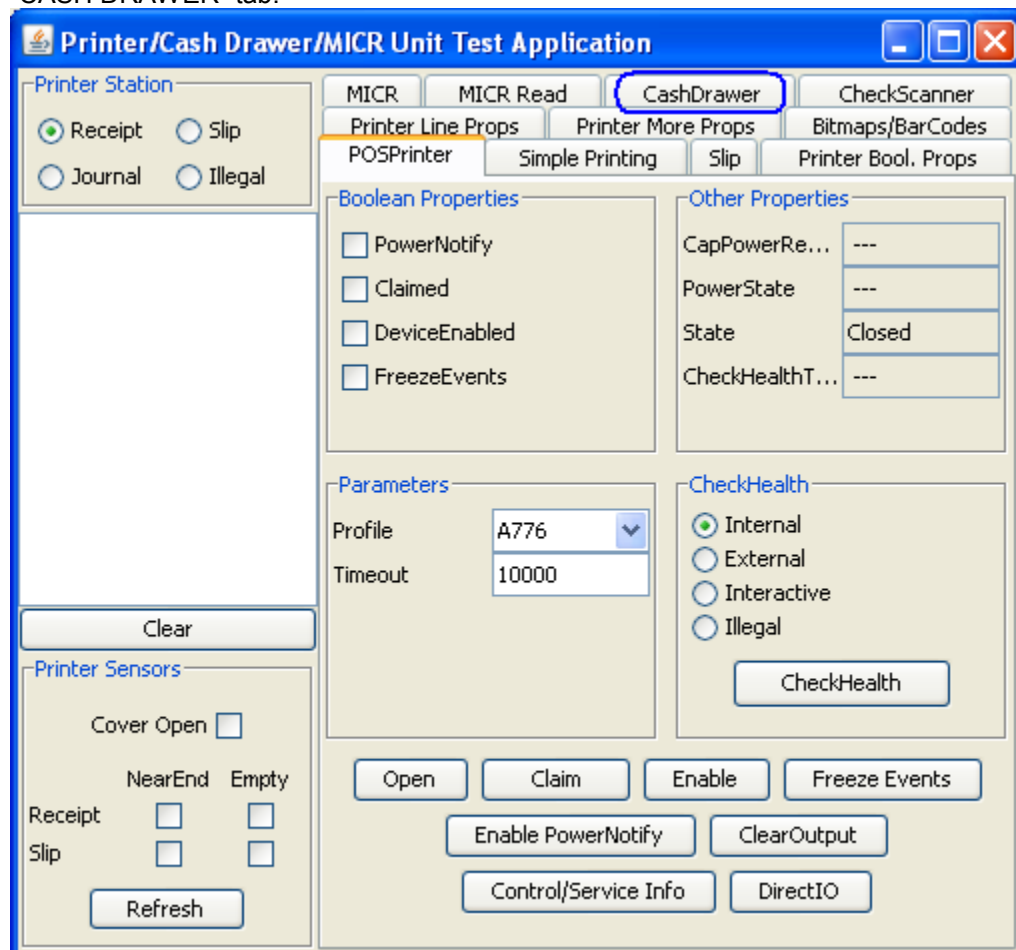
or

by launching the POSTEST.BAT file that is located in the JPOS folder within the receipt printer folder.

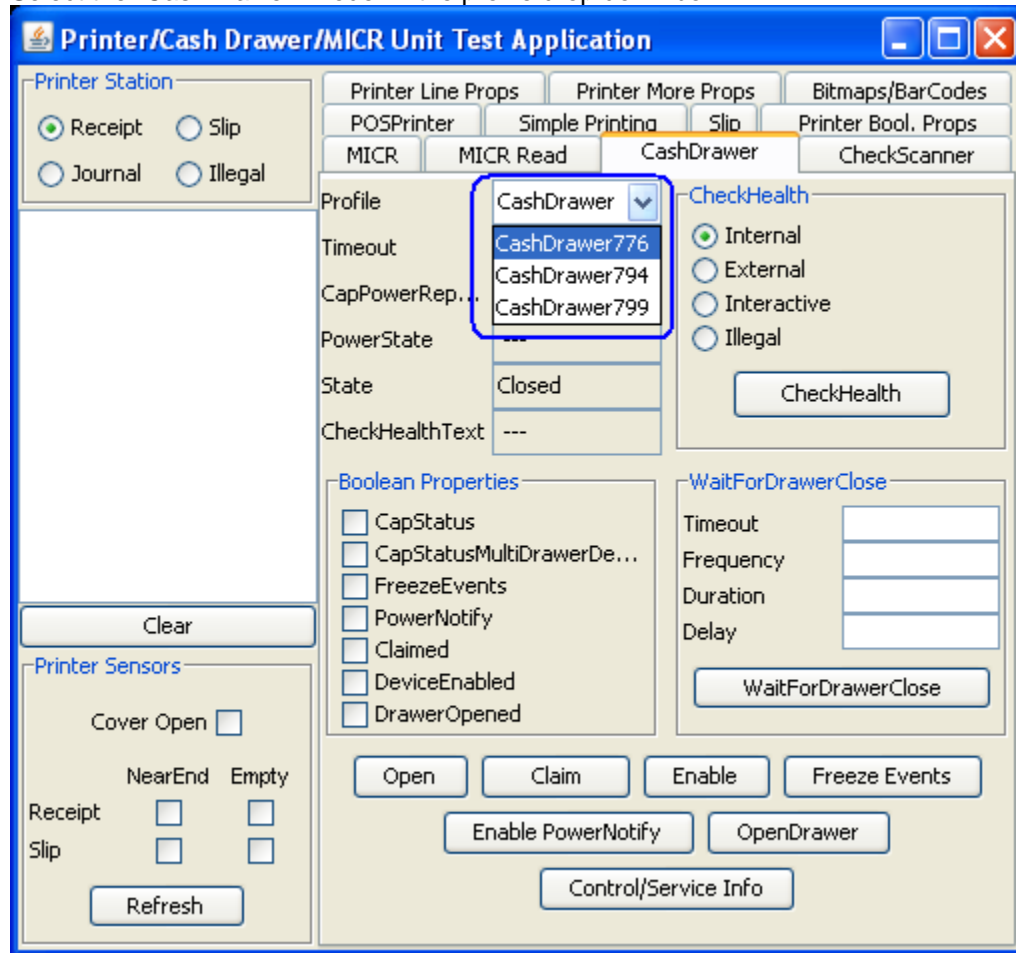
Depending on your screen resolution the following screen will be in the background before the GUI appears for the test utility:



- After a few seconds the JPOS test utility GUI will appear as shown below; click on the "CASH DRAWER" tab.

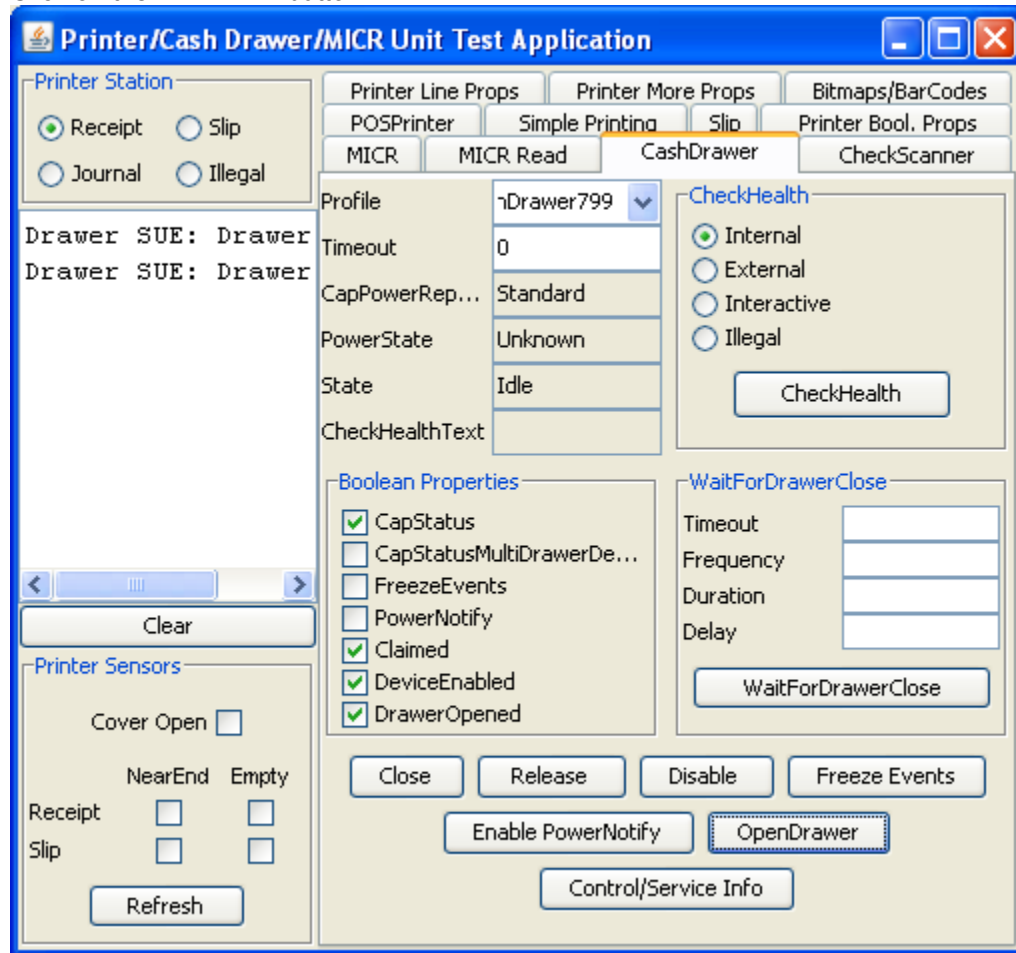


3. Select the "CashDrawer" model in the profile drop down box:



4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.

6. Click on the “ENABLE” button.



When you click on the “OpenDrawer” button the cash drawer should pop open. When the “Timeout” value set to “0”, if the cash drawer is not closed within 10 seconds a “JPOSEXCEPTION CAUGHT” error message will appear, this is OK since the cash drawer is open.

7. To exit the application:
- Click on “DISABLE”
 - Click on “RELEASE”
 - Click on “CLOSE”
 - Click on the “X” in the upper right hand corner of the application.

2.2 Receipt Printer



2.2.1 Connection

The HP receipt printer is installed in the 24V powered USB port on the HP POS system. The following show the back of the various HP POS units showing where the 24V power USB port is located.

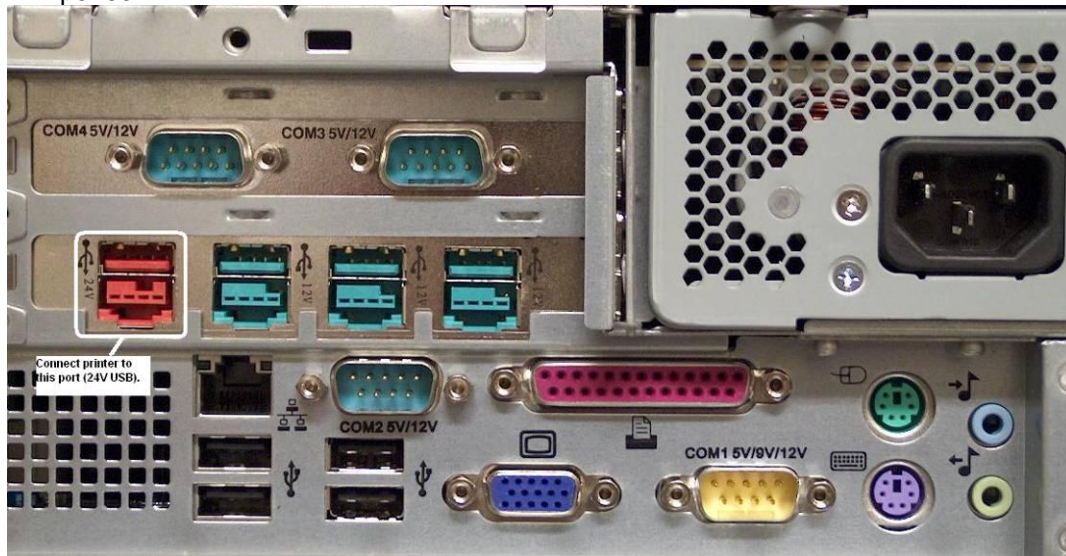
HP ap5000:



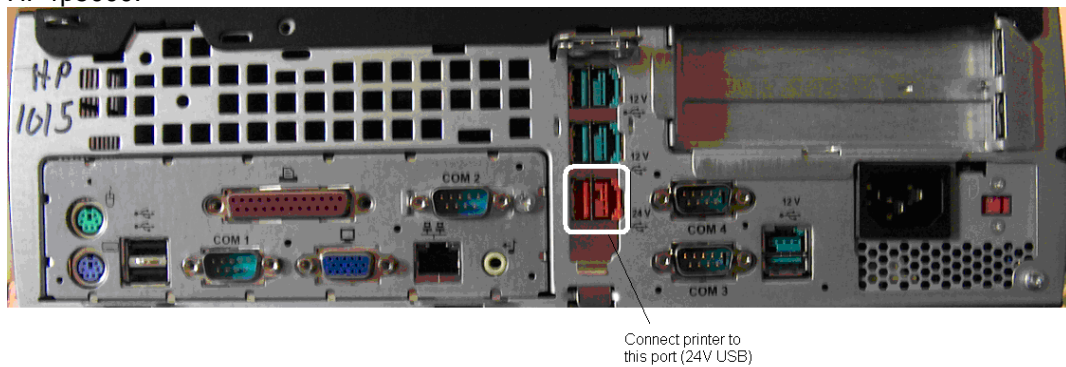
HP rp3000:



HP rp5700:



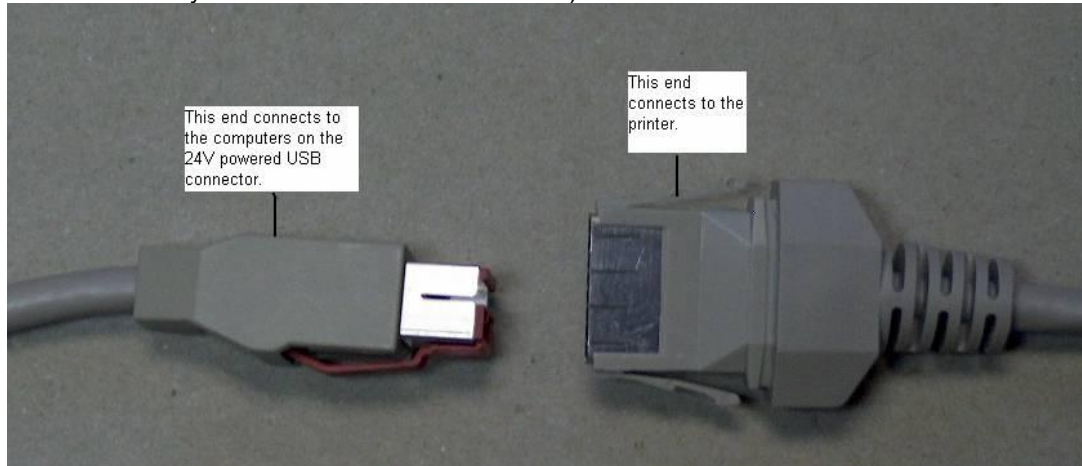
HP rp5000:



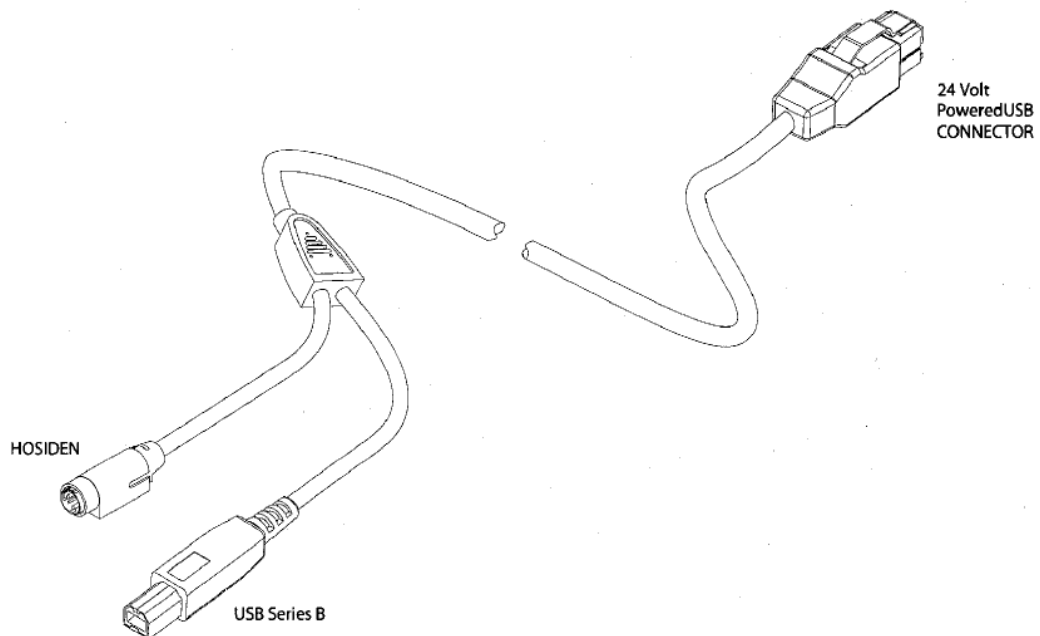
Note: The 24V powered USB port and cable are keyed differently than 12V powered USB connector, as well as the color.

2.2.2 **Powered USB Cable**

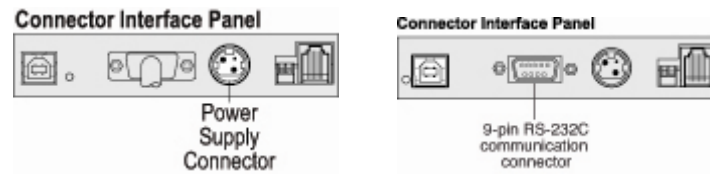
The following is the powered USB cable for single station printer and the hybrid printer (color of the cable maybe different then what is shown):



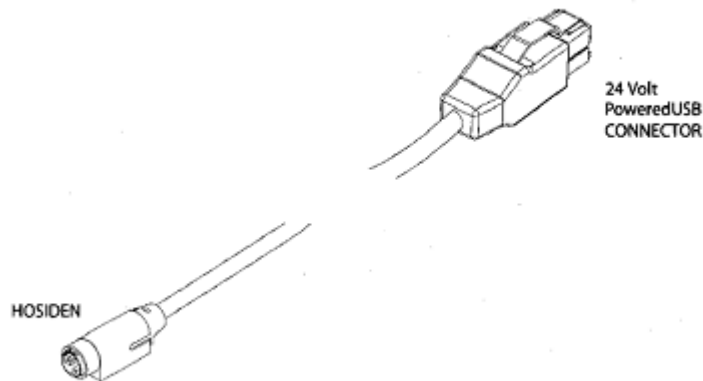
The following is the powered USB cable for the hybrid printer with imager:



The single station printer with serial interface requires two cables: power (hosiden) and serial data cable.



The following is the powered (hosiden) cable for the single station printer with serial interface:



The serial data cable is standard null modem cable and the following is the pin out of the cable:

Pin #	Pin #
1	NC (no connect)
2	3
3	2
4	6
5	5
6	4
7	8
8	7
9	NC (no connect)
Shield	Frame Ground

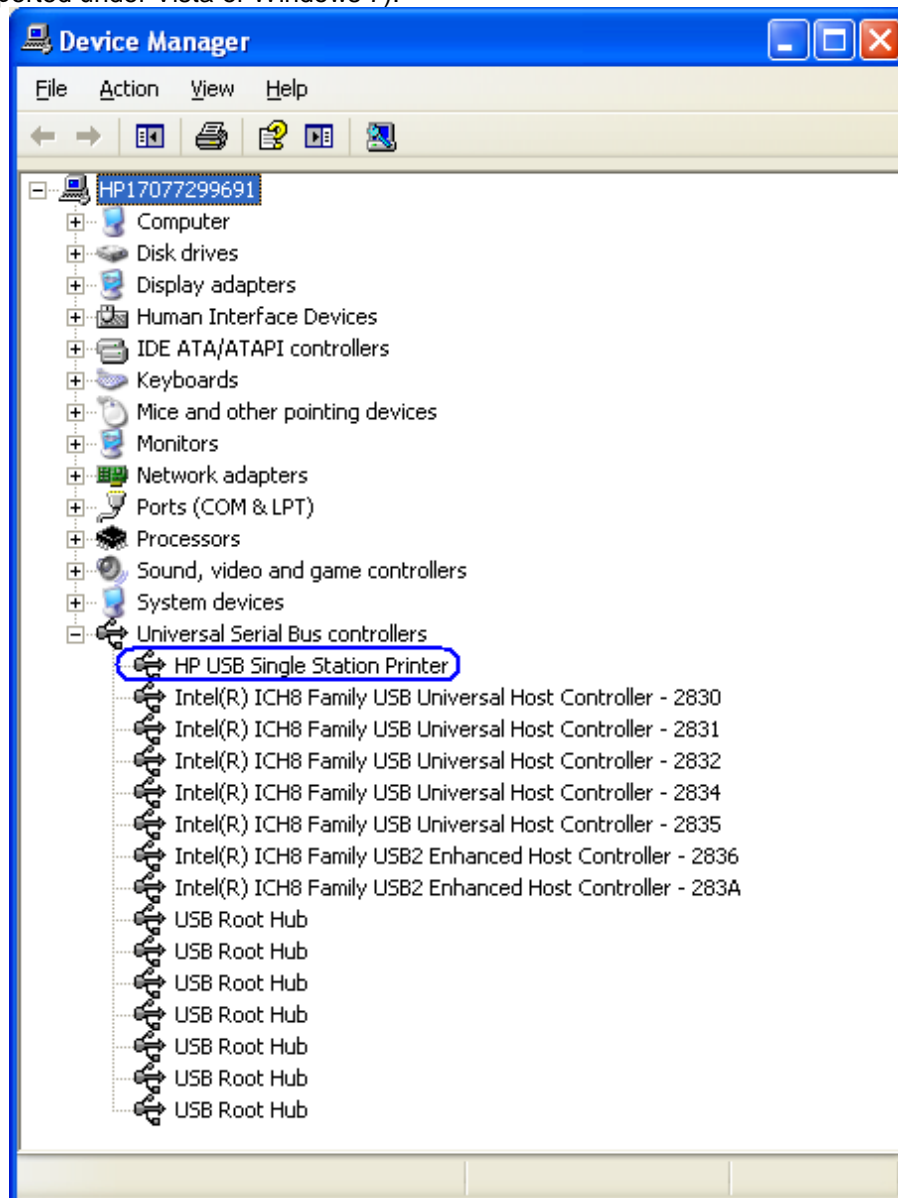
2.2.3 **NATIVE mode**

Please note that PRINTER CLASS is the default mode of the printer; please see next section for more details on PRINTER CLASS.

On the HP Point of Sale units with Windows operating system, the drivers for Windows device manager are installed on the image from the HP factory. When the printer is attached to the unit via the powered USB connection, Windows will load the drivers for the HP POS printer.

If the Windows USB drivers are needed for Device Manager when the printer is in native mode they can be found on the “HP Point of Sale System Software and Documentation CD” included with the peripherals.

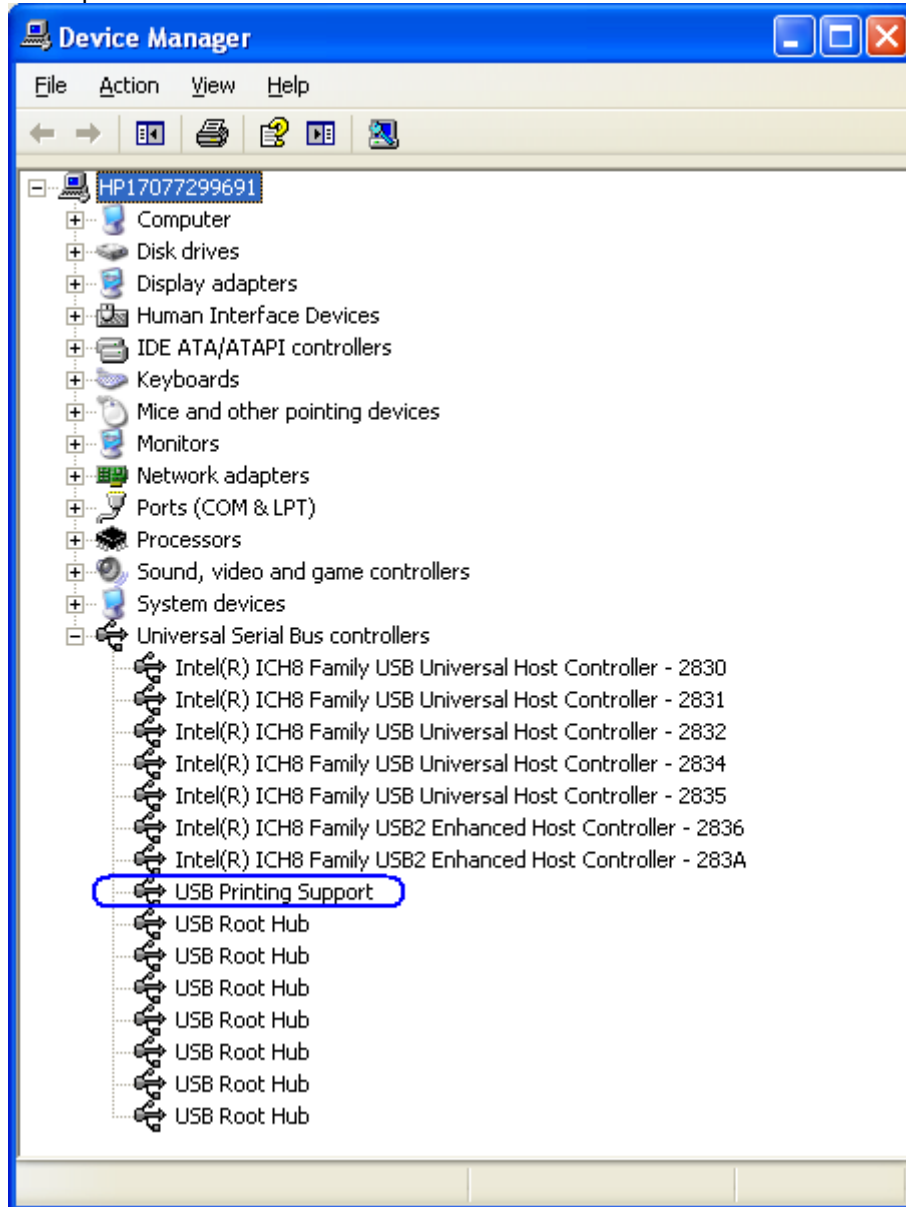
The following is showing what appears in Windows Device Manager after the driver has been loaded for the printer in NATIVE mode (under XP / WEPOS / POSReady; NATIVE mode is not supported under Vista or Windows 7):



2.2.4 **PRINTER CLASS Mode**

When the printer is in PRINTER CLASS mode, the Microsoft Windows native drivers are loaded by operating system for device manager. PRINTER CLASS mode must be used when the POS application does not use OPOS driver to communicate the receipt printer.

The following is showing what appears in Windows Device Manager after the driver has been loaded for the printer in PRINTER CLASS mode:



2.2.5 **COMM CLASS Mode**

If the correct boot and flash firmware level are present on the printer (see table below) the printer can be put into COMM CLASS. When the printer is in COMM CLASS mode a virtual COM port is assigned to the printer USB interface for application that only communicate to the printer via serial port. One can look in Windows Device Manager → PORTS to determine the virtual com port that Windows assigned to the virtual printer COM port. Steps to change COMM class are covered in [USB MODE SELECTOR](#) section of the document).

Note: The COMM CLASS option is available only on the A799 powered USB model and A776 printer. The following are minimum version of the firmware that supports the COMM CLASS option:

Firmware Version	A776	A799
Boot Firmware Version	1.25	1.06
Flash Firmware Version	2.00	1.08

Note: If the printer has later versions then what is listed in the above table, the printer firmware does not need to be downgraded to the version in the table.

In order to obtain the firmware that is installed on the printer, perform the following steps when you are in front of the printer:

1. Open the printer cover that holds the thermal receipt paper.
2. Hold down the printer form feed button and close the printer cover.
3. Release the form feed button on the printer and a diagnostics printout will be printed.

The following are examples of the diagnostics printout:

HP Single Station Printer (A799)

```

*** A799 - Diagnostics Form ***
ReceiptWare Enabled

Model number       : A799-C40W-HN00
Serial number      : K084602682

Boot Firmware
Revision           : V1.06
CRC                : 2E66
P/N                : 189-7940248A

Flash Firmware
Revision           : V1.08
CRC                : 35DB
P/N                : 189-7940253B

H/W parameters
Flash Memory Size  : 4 Mbytes
Flash Logos/Fonts  : 64 kbytes
Flash User Storage : 64 kbytes

```

HP Hybrid Thermal Printer (A776)

```

*** A776 / B780 - Diagnostics Form ***
ReceiptWare Enabled

Model number       : A776-C21W-H000
Serial number      : K084905284

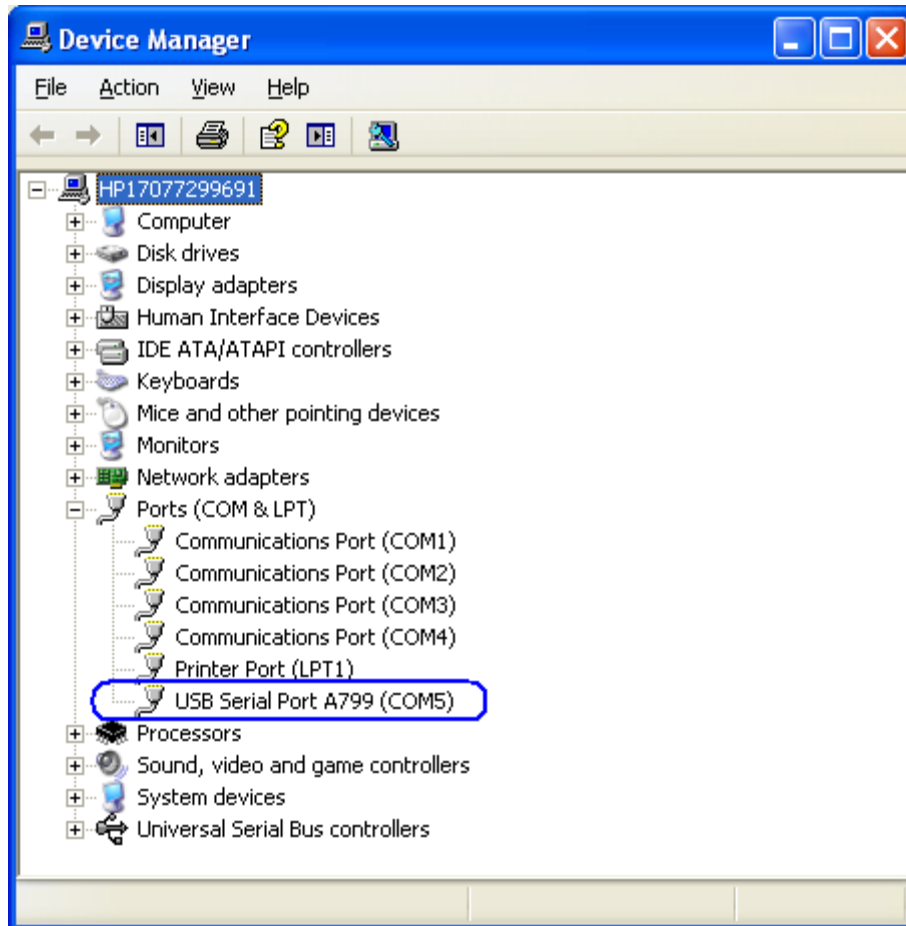
Boot Firmware
Revision           : V1.25
CRC                : FC97
P/N                : 189-7760899A

Flash Firmware
Revision           : V2.00
CRC                : 8910
P/N                : 189-7760897A

H/W parameters
Flash Memory Size  : 2 Mbytes
Flash Logos/Fonts  : 896 kbytes
Flash User Storage : 64 kbytes

```

The following is showing what appears in Windows Device Manager after the driver has been loaded for the printer in COMM CLASS mode:

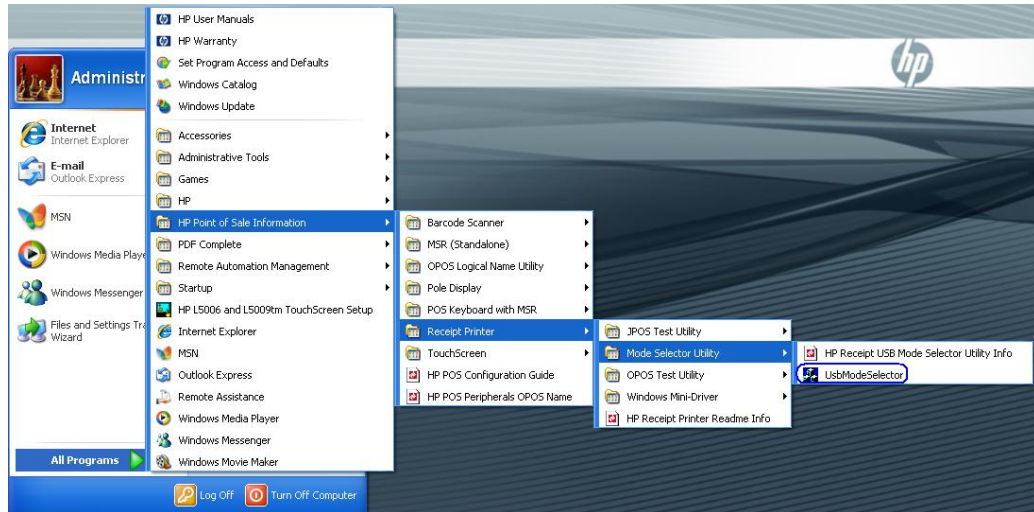


2.2.6 **USB Mode Selector Utility**

If the proper level of firmware is present on the receipt printer the USB MODE SELECTOR utility can be used to switch the printer between NATIVE / PRINTER / COMM Class mode. The HP USB receipt printer must be attached to the desktop computer and all Microsoft Windows device drivers must be loaded (no yellow exclamation marks in Device Manager) in order for the utility to work correctly.

The following is an overview of the steps to use the USB Mode Selector Utility:

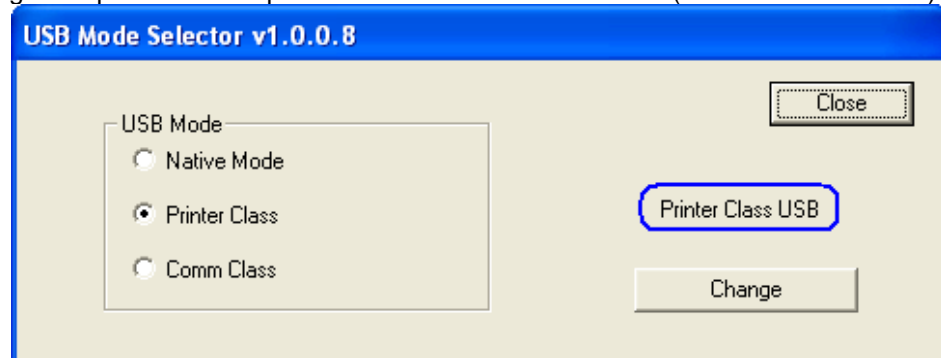
1. Launch the UsbModeSelector.exe program from the START MENU. The utility can be found in the HP image in the "C:\xxxxx\Point of Sale\Receipt Printer\HP Receipt Printer USB Mode Selector Utility" folder or on the "HP Point of Sale System Software and Documentation CD" in the "x:\Receipt Printer\HP Receipt USB Mode Selector Utility" folder.



2. A dialog appears which reflects the mode the printer is currently set to.
 - a. Select the desired mode of the printer. If the printer is in COMM CLASS mode, the GUI will display the virtual com port that is assigned to the printer on the unit that utility is run on.
 - b. Click on the change button.
 - c. Exit the utility.

Note: The first time the printer is changed to a different mode, Windows may take a few minutes to completely load and enable the driver for the selected mode.

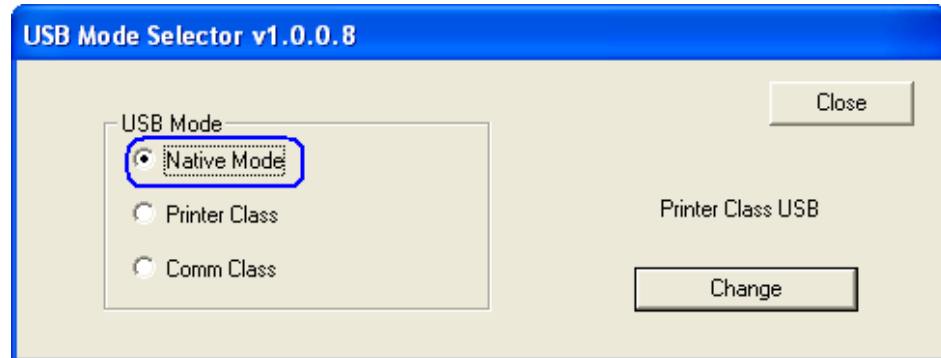
The following example shows the printer in PRINTER CLASS mode (item is circled in blue):



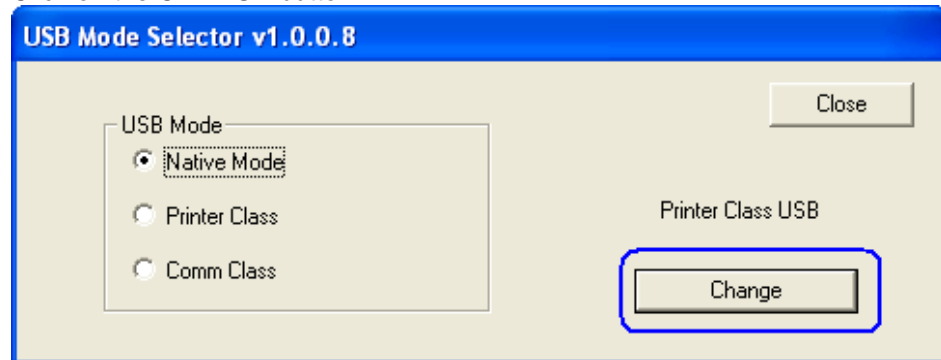
2.2.6.1 Set printer to NATIVE mode

The following are the steps to switch the printer to NATIVE MODE (not supported in Vista or Windows 7 operating system):

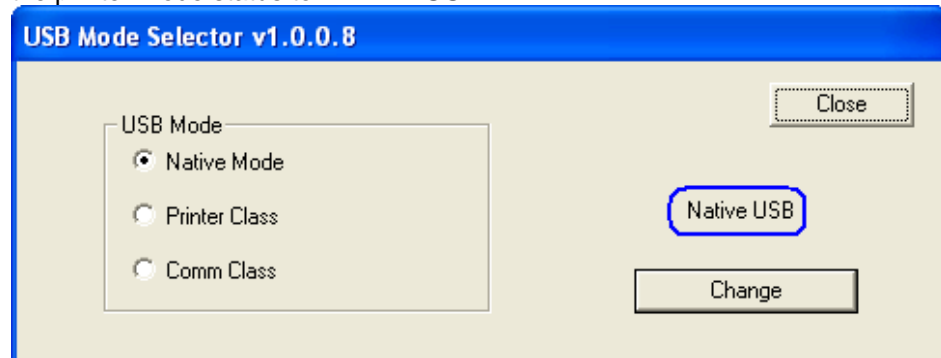
1. Select NATIVE MODE in the GUI.



2. Click on the CHANGE button.



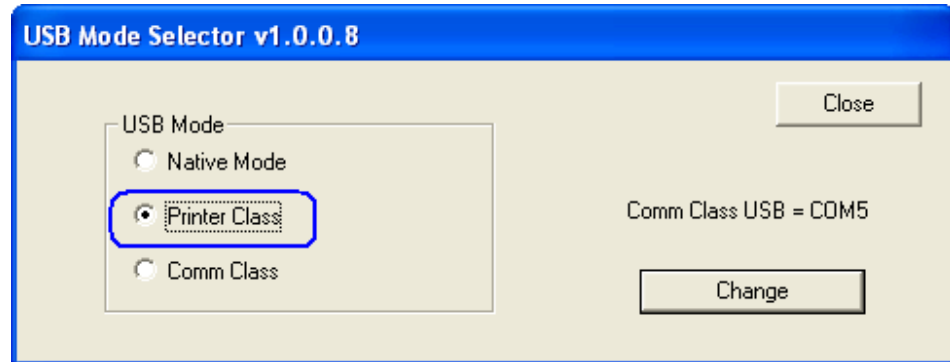
3. Once the printer has loaded the drivers and changed modes, the GUI will change the printer mode status to NATIVE USB.



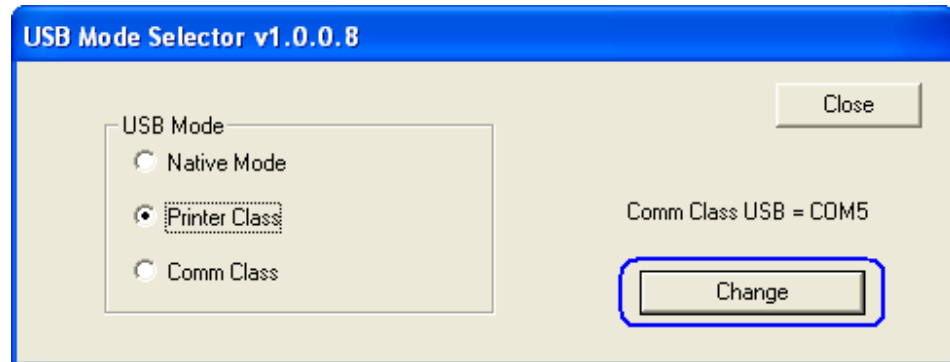
2.2.6.2 Set printer to PRINTER CLASS mode (default)

The following are the steps to switch the printer to PRINTER CLASS MODE (printer default):

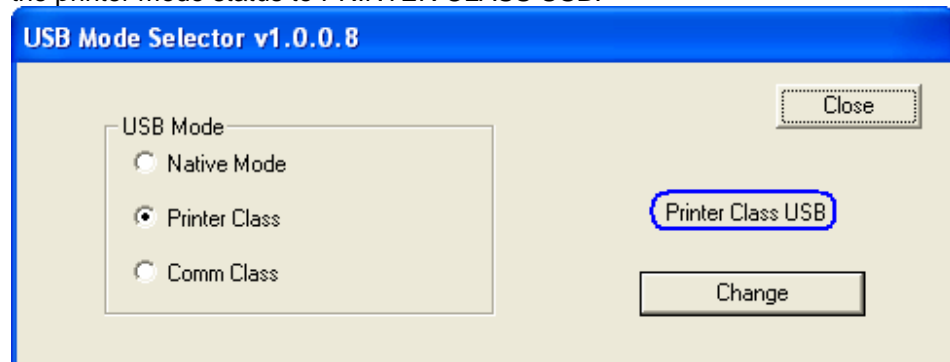
1. Select PRINTER CLASS in the GUI.



2. Click on the CHANGE button.



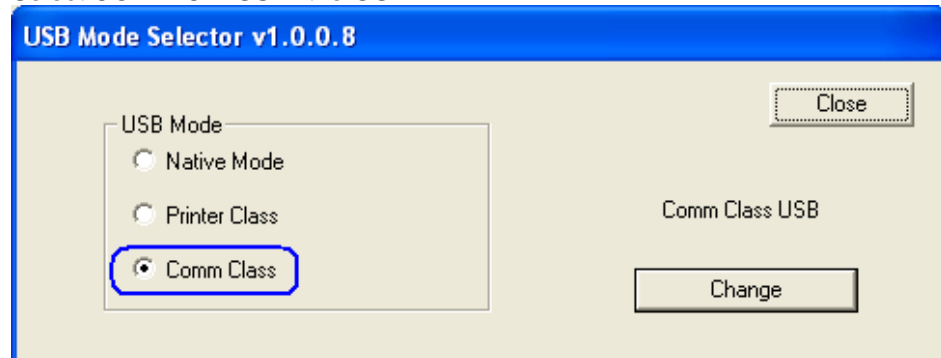
3. Once the printer has loaded the drivers and changed modes, the GUI will change the printer mode status to PRINTER CLASS USB.



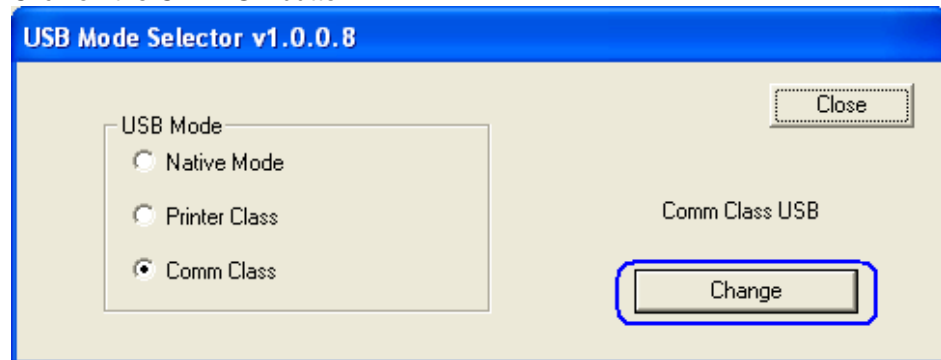
2.2.6.3 Set printer to COMM CLASS mode (virtual serial port)

The following are the steps to switch the printer to COMM CLASS MODE:

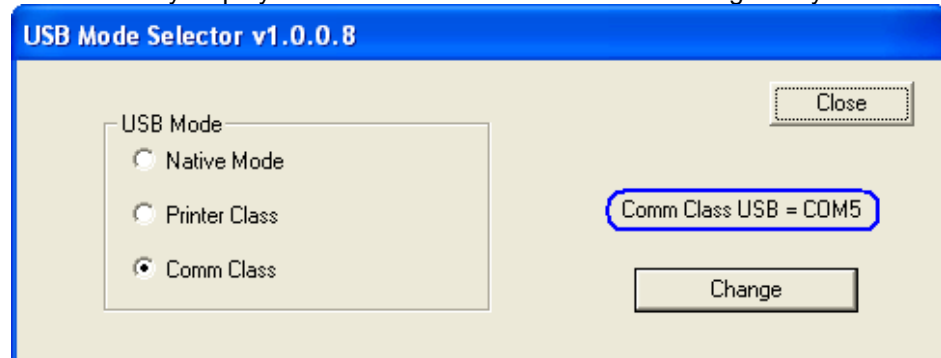
1. Select COMM CLASS in the GUI.



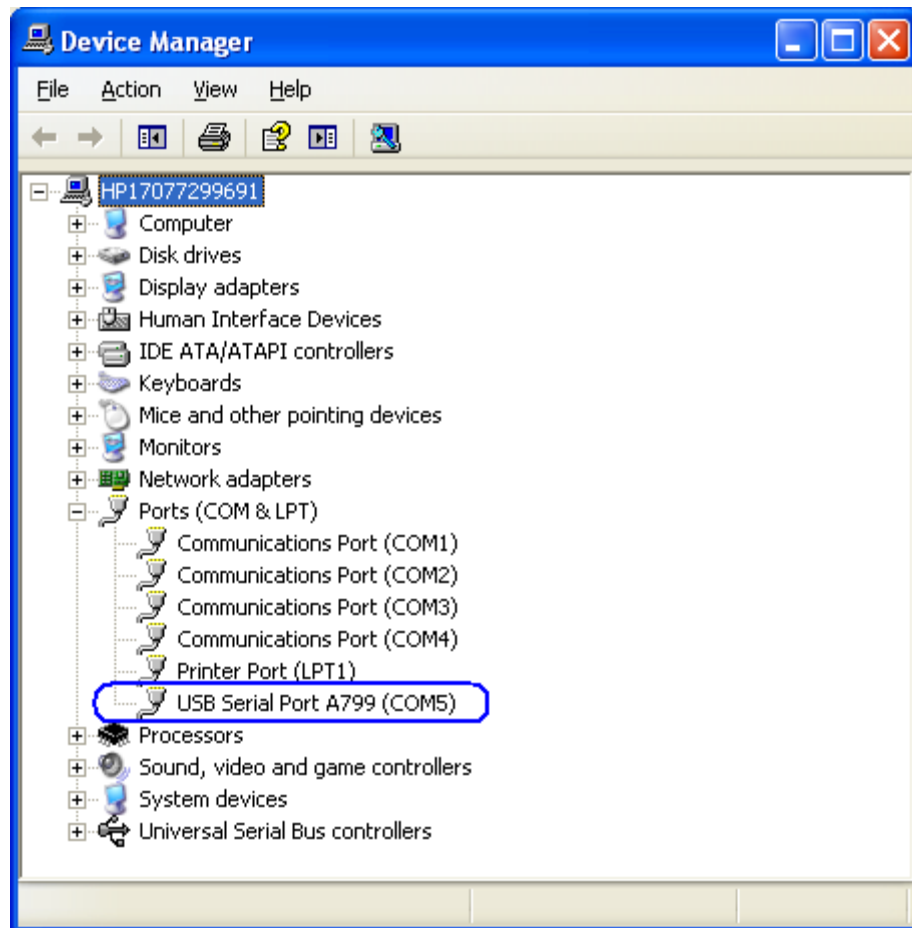
2. Click on the CHANGE button.



3. Once the printer has loaded the drivers, close and re-launch the utility in order to have the utility display the virtual COMM PORT that was assigned by Windows.



One may also look in Windows Device Manager → PORTS to see the virtual COMM PORT assignment.



2.2.7 Serial Printer

The serial version of the printer will not show as a unique device in Windows device manager. Ensure that the serial port in device manager is present and does not have yellow bang.

2.2.8 Windows Drivers for the Receipt Printer Drivers

The printer has two modes: NATIVE and PRINTER CLASS. PRINTER CLASS is the default mode of the printer.

The PRINTER CLASS mode is used with POS application that use Windows printer driver to print, they do not use OPOS to communicate to the printer.

Note: The Windows mini-drivers and the OPOS drivers cannot be set to the same COM port.

2.2.8.1 Install Windows Printer Driver (USB)

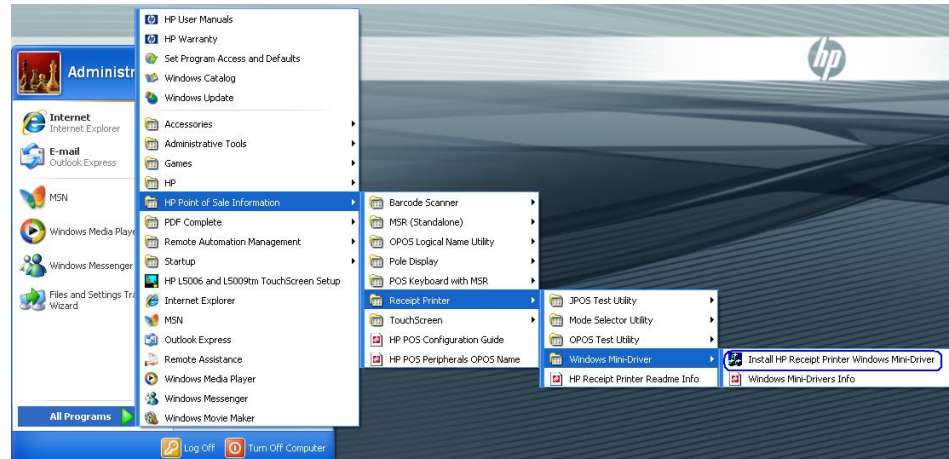
The following is an overview of the steps to test the receipt printer followed by detailed steps:

1. Start the setup program for the Windows mini-drivers by launching the “HPSETUP.EXE” program and click “OK” on the main GUI (graphical user interface).
2. Select if running 32-Bit or 64-Bit operating system.
3. Select the printer model that you wish to install.
4. Select the printer driver option that you wish to install from the drop down menu.
5. Select the USBxxx (Virtual Printer Port of USB) printer port from the drop menu (towards the bottom of the menu).
6. Click “OK” to install the printer driver and a small test print out will occur if the option was selected.

Detail Steps

1. Start the setup program for the Windows mini-drivers by double clicking on “HPSETUP.EXE” file and click “OK”.

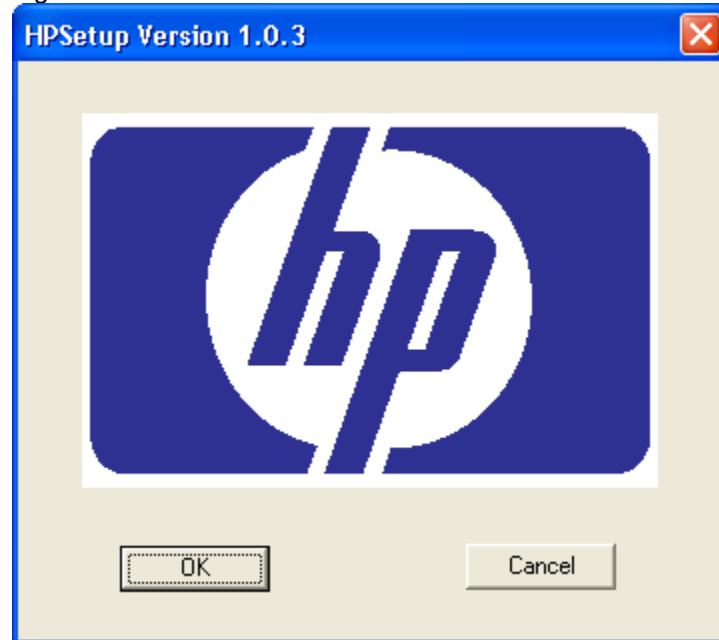
One can launch the “HPSETUP.EXE” file from the start menu:



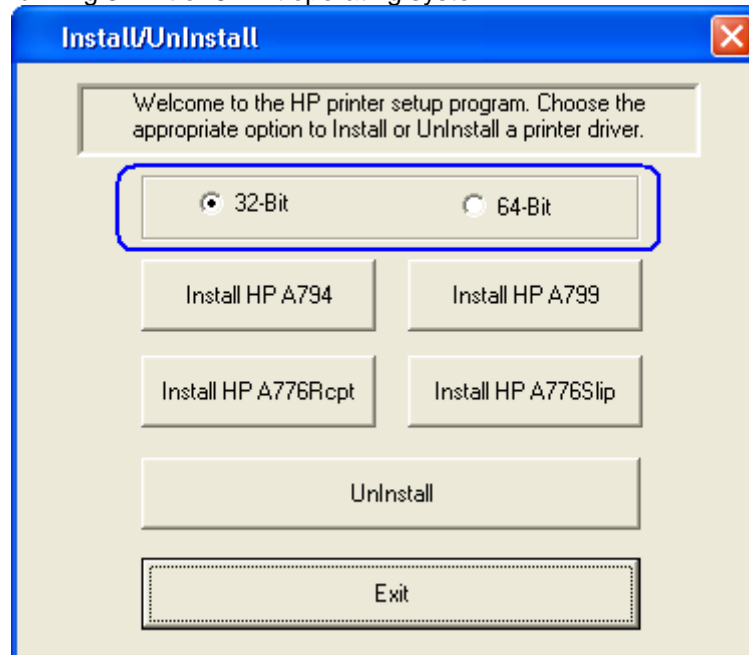
or

go to the “C:\xxxxx\Point of Sale\Receipt Printer\Windows Receipt Printer Drivers” folder and double click on the “HPSETUP.EXE” file.

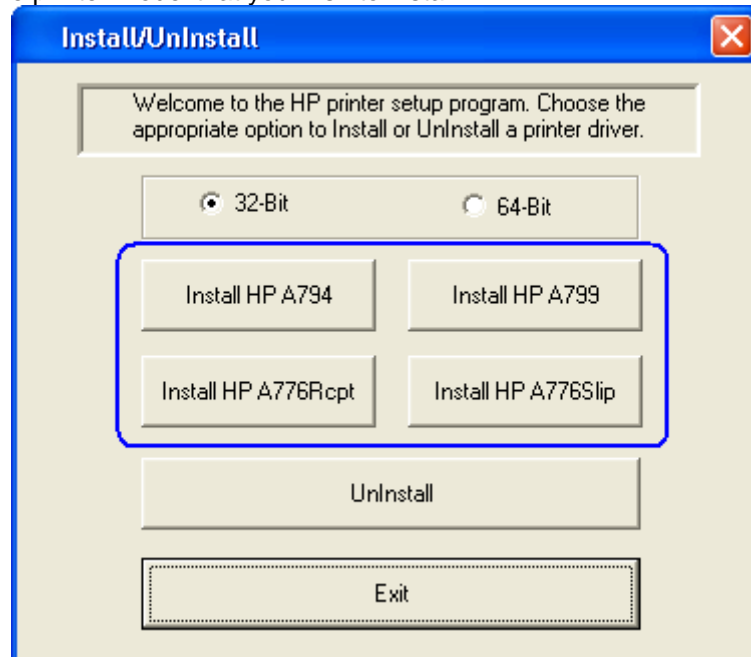
The following is the GUI that one will see when the “HPSETUP.EXE” is launched:



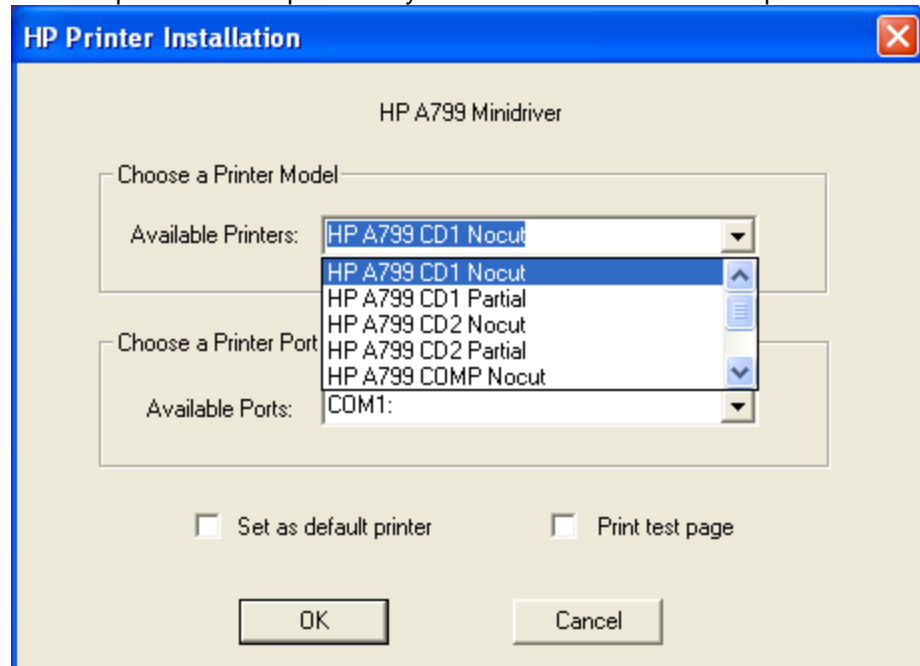
2. Select if running 32-Bit or 64-Bit operating system.



3. Select the printer model that you wish to install.



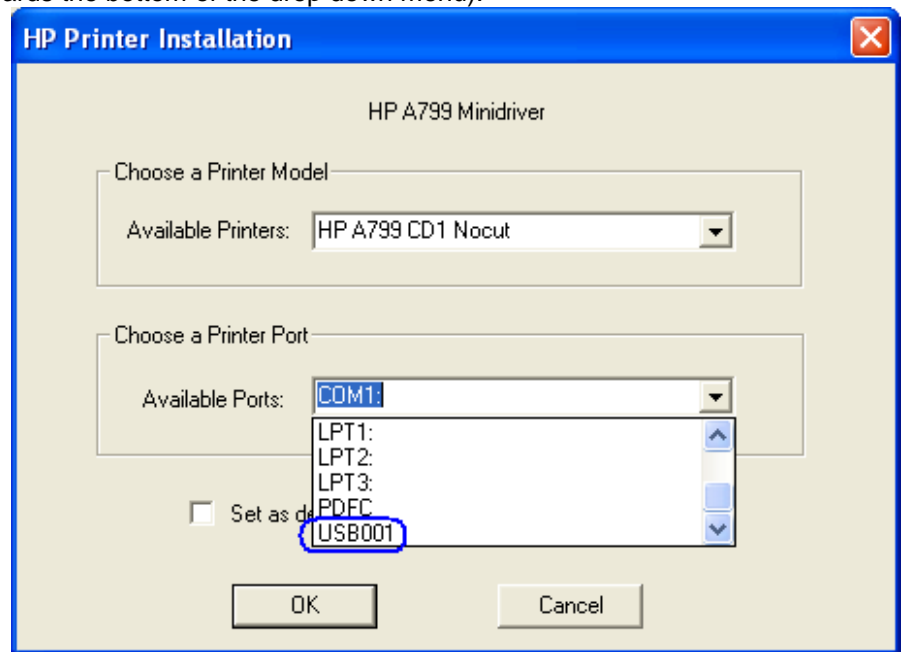
4. Select the printer driver option that you wish to install from the drop down menu.



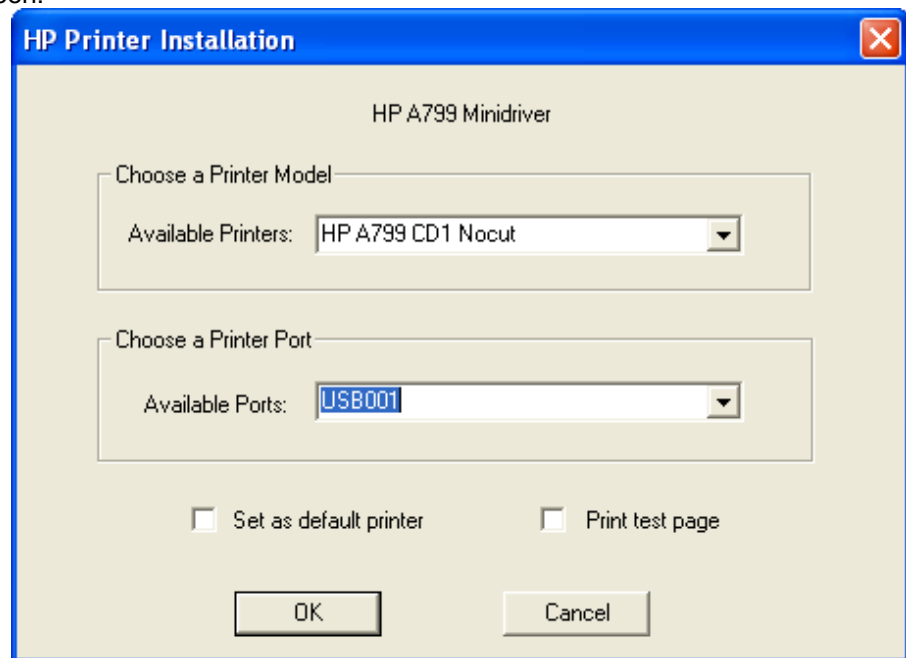
- The HP A7xx CD#1 and HP A7x CD#2 versions generate a pulse to open cash drawer 1 or 2, respectively after each document. The HP A7xx COMP version does not send the reset command at the start of every document.

Note: "xx" is the complete model number of the printer, (i.e. A794 / A799 / A776).

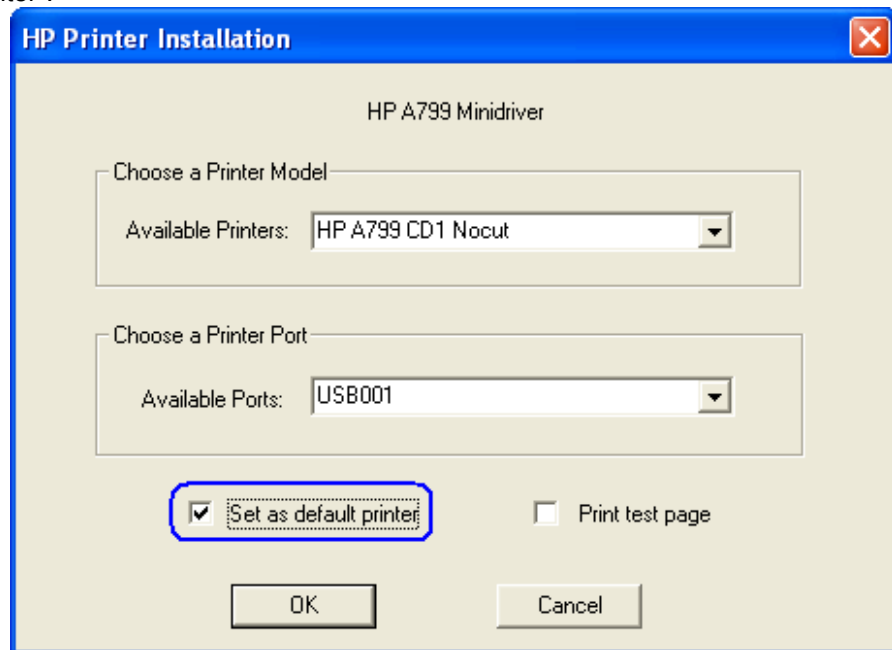
5. Select the USBxxx (Virtual Printer Port of USB) printer port from the drop menu (towards the bottom of the drop down menu).



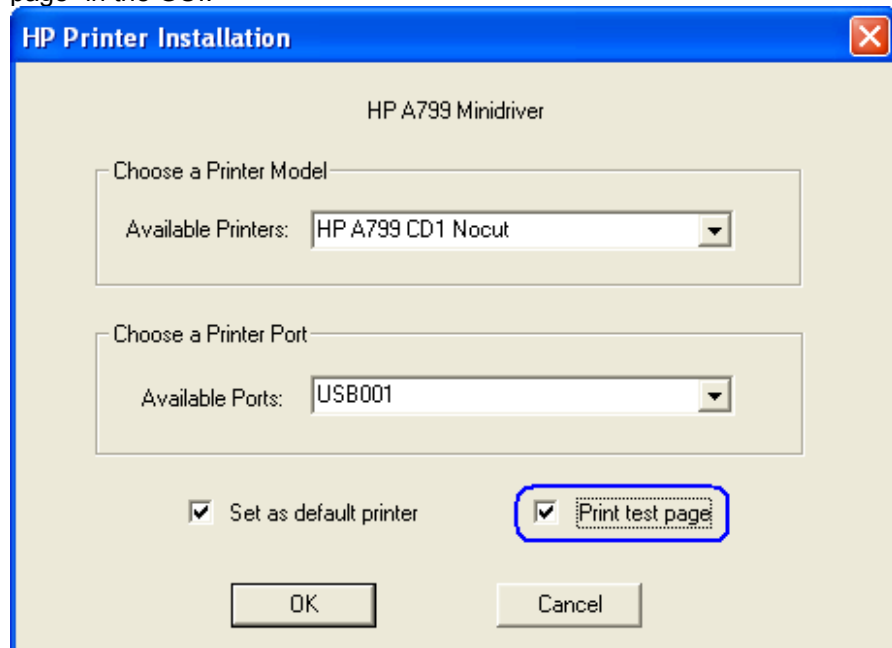
When the selections are made, the selection should be similar to the following screen:



In order to make the printer the default printer select the option “Set as default printer”.



If one wishes to print a very small test page, select the option “Print test page” in the GUI.



6. Click “OK” to install the printer driver and a small test print out will occur if the option was selected.

Note: If the option was selected to install the printer driver with “NoCut” when “Print Test Page” is selected during the driver install process, the test print out will print and it will cut the receipt paper.

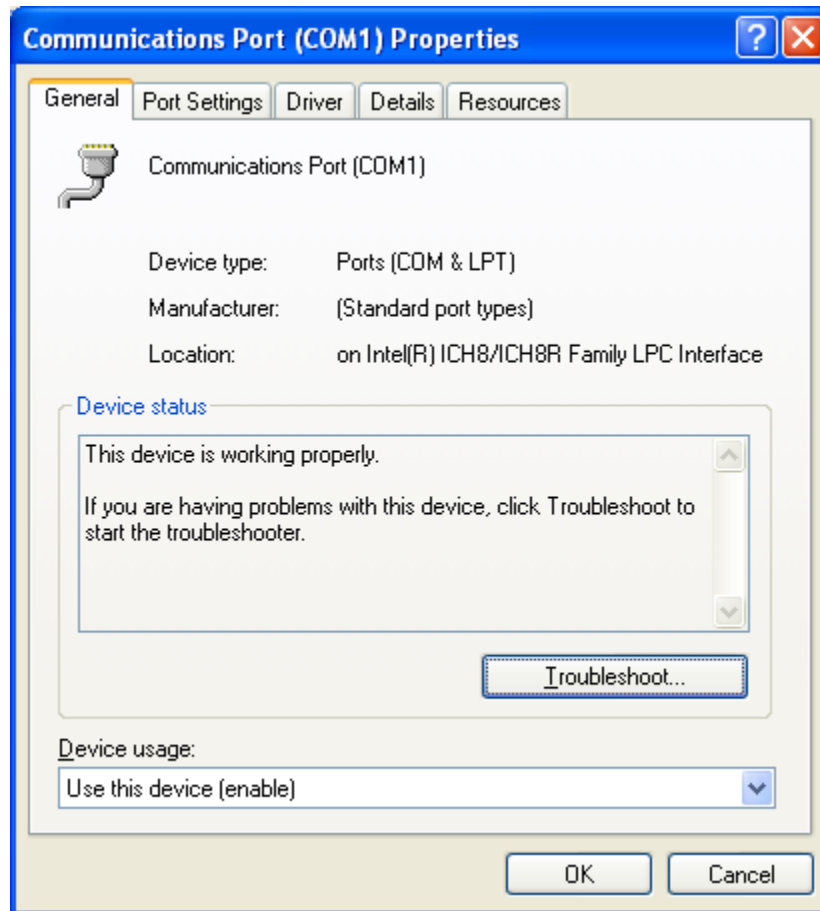
2.2.8.2 Install Windows Printer Driver (Serial)

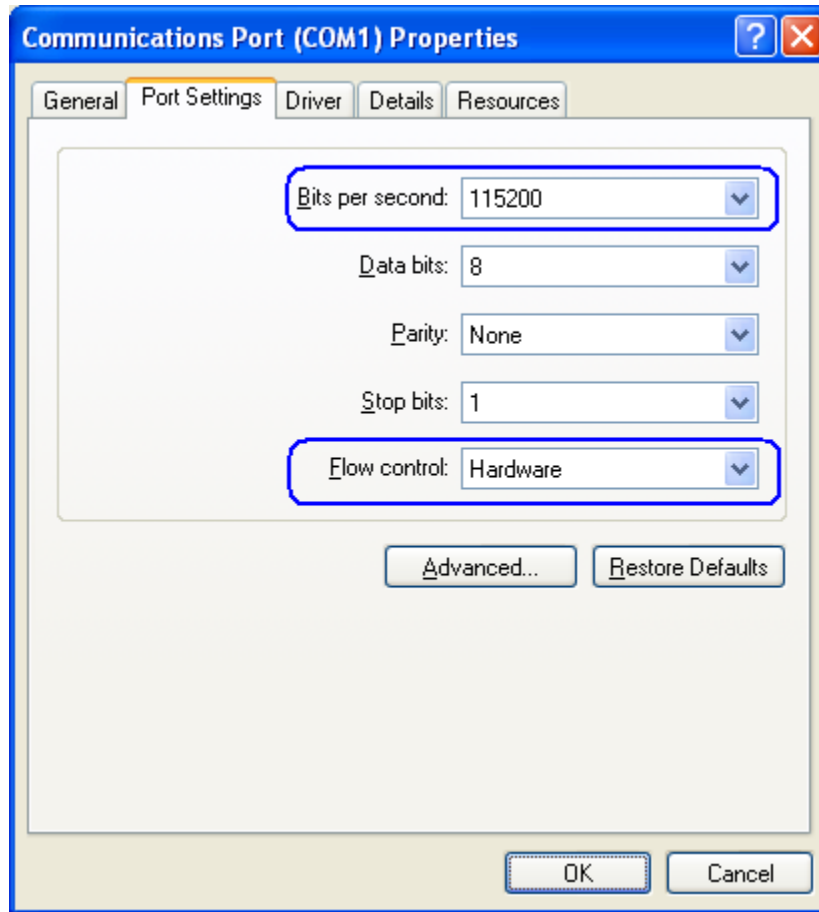
The following is an overview of the steps to test the receipt printer followed by detailed steps:

1. Go into the communication port properties to change the Windows baud rate to the "115200" and flow control to "Hardware" for port that the printer is attached.
2. Start the setup program for the Windows mini-drivers by launching the "HPSETUP.EXE" program and click "OK" on the main GUI (graphical user interface).
3. Select the printer model that you wish to install.
4. Select the printer driver option that you wish to install from the drop down menu.
5. Select the COM (serial) port the printer is attached to.
6. Click "OK" to install the printer driver and a small test print out will occur if the option was selected.

Detail Steps

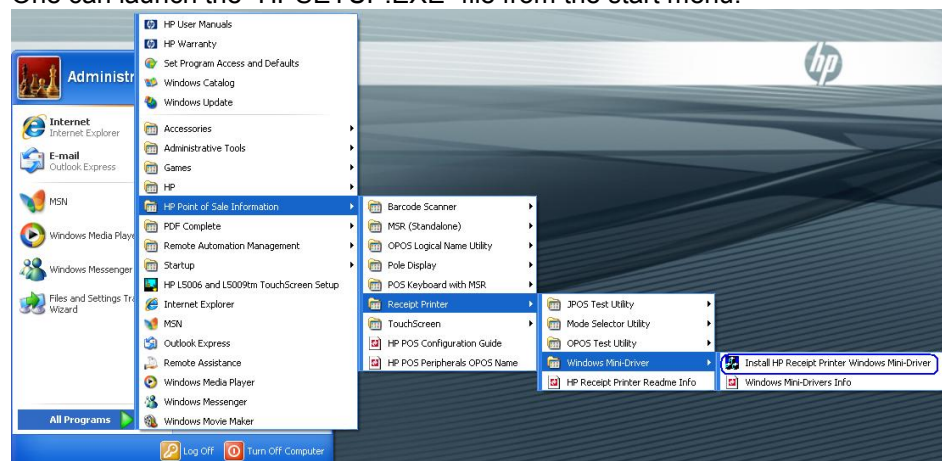
1. Go into the communication port properties to change the Windows baud rate to the "115200" and flow control to "Hardware" for port that the printer is attached.





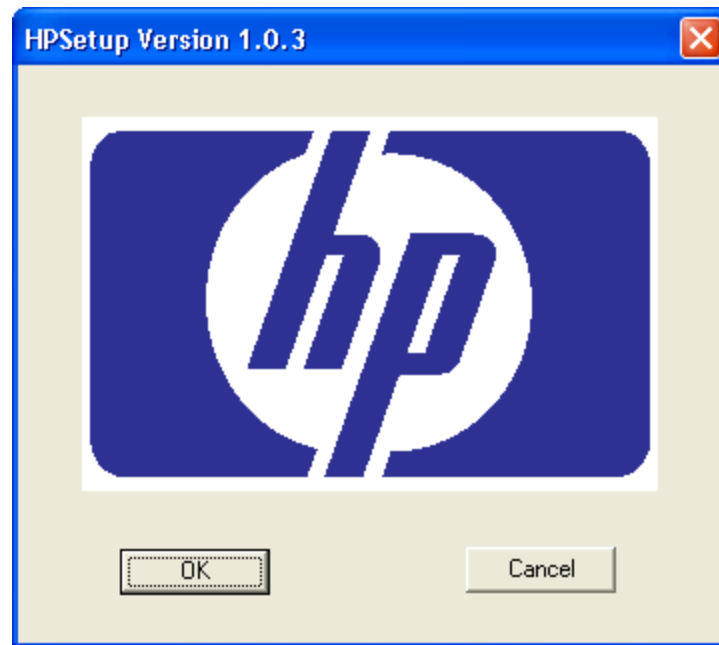
2. Start the setup program for the Windows mini-drivers by double clicking on "HPSETUP.EXE" file and click "OK".

One can launch the "HPSETUP.EXE" file from the start menu:

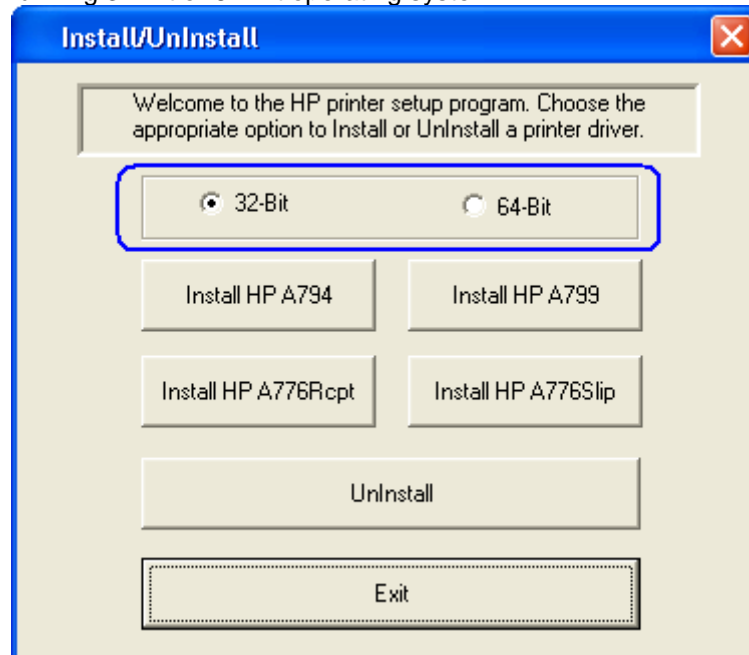


or go to the "C:\xxxxx\Point of Sale\Receipt Printer\Windows Receipt Printer Drivers" folder and double click on the "HPSETUP.EXE" file.

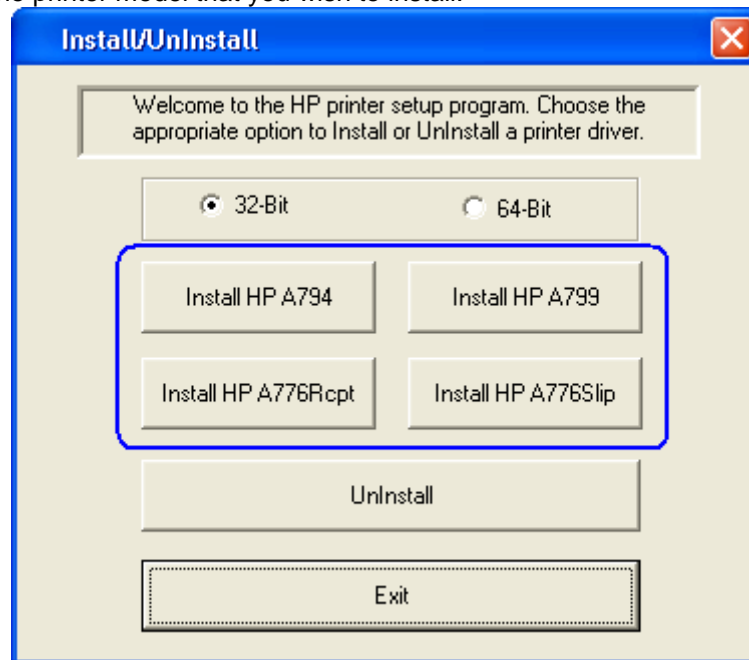
The following is the GUI that one will see when the "HPSETUP.EXE" is launched:



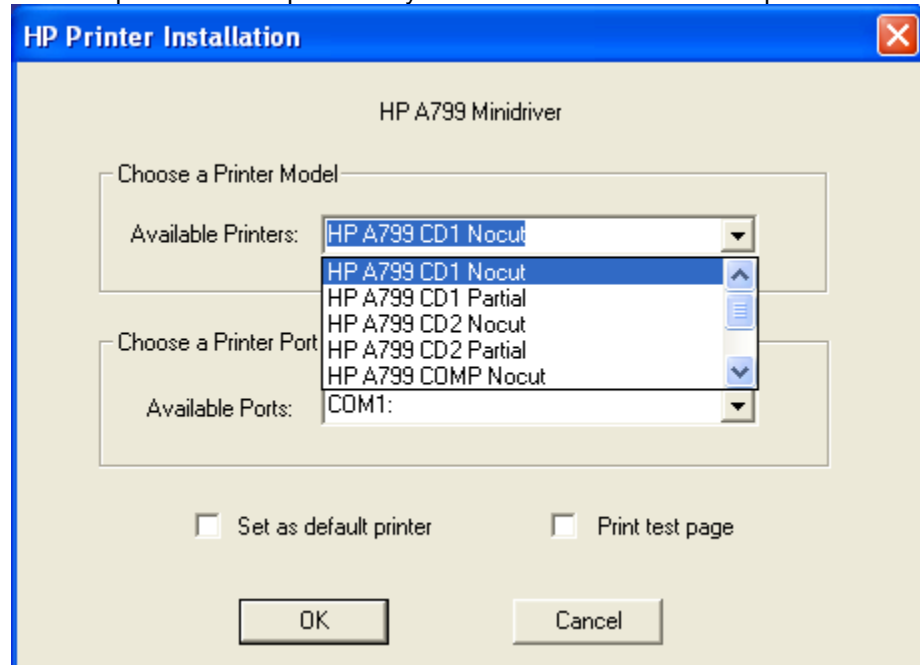
3. Select if running 32-Bit or 64-Bit operating system.



4. Select the printer model that you wish to install.



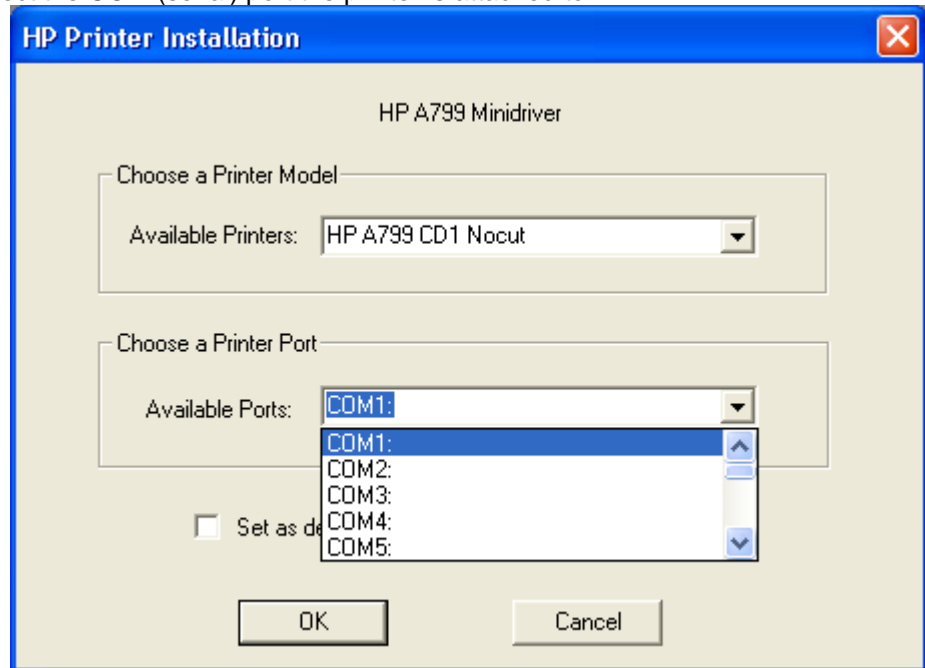
5. Select the printer driver option that you wish to install from the drop down menu.



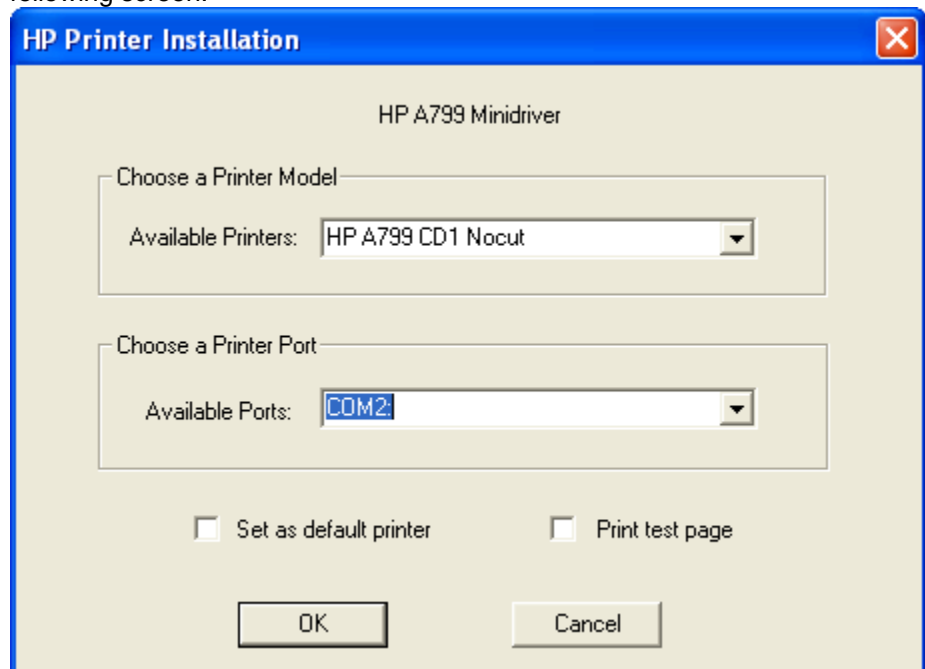
- The HP A7xx CD#1 and HP A7x CD#2 versions generate a pulse to open cash drawer 1 or 2, respectively after each document. The HP A7xx COMP version does not send the reset command at the start of every document.

Note: “xx” is the complete model number of the printer, (i.e. A794 / A799 / A776).

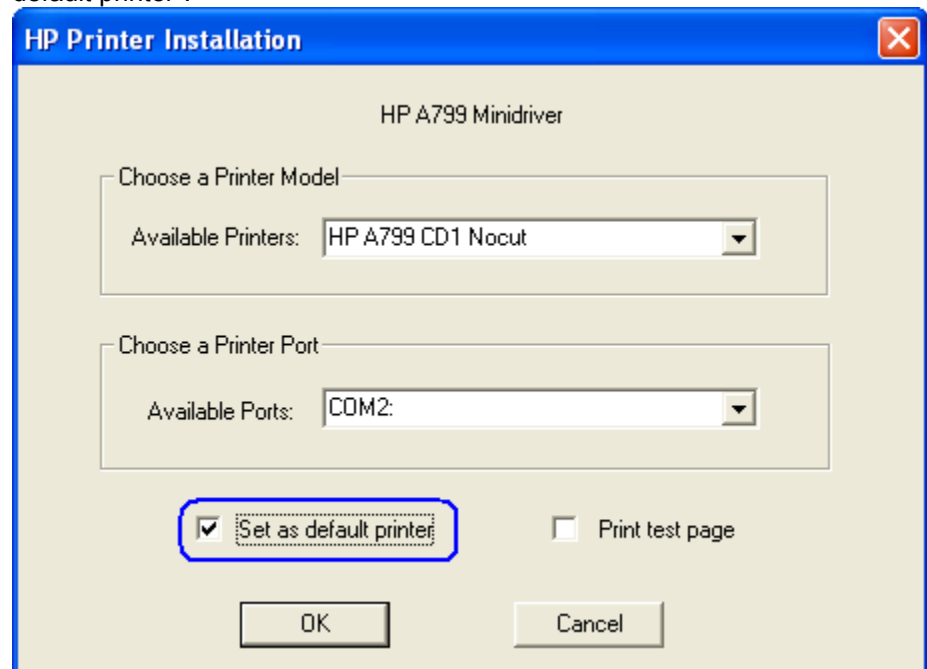
6. Select the COM (serial) port the printer is attached to.



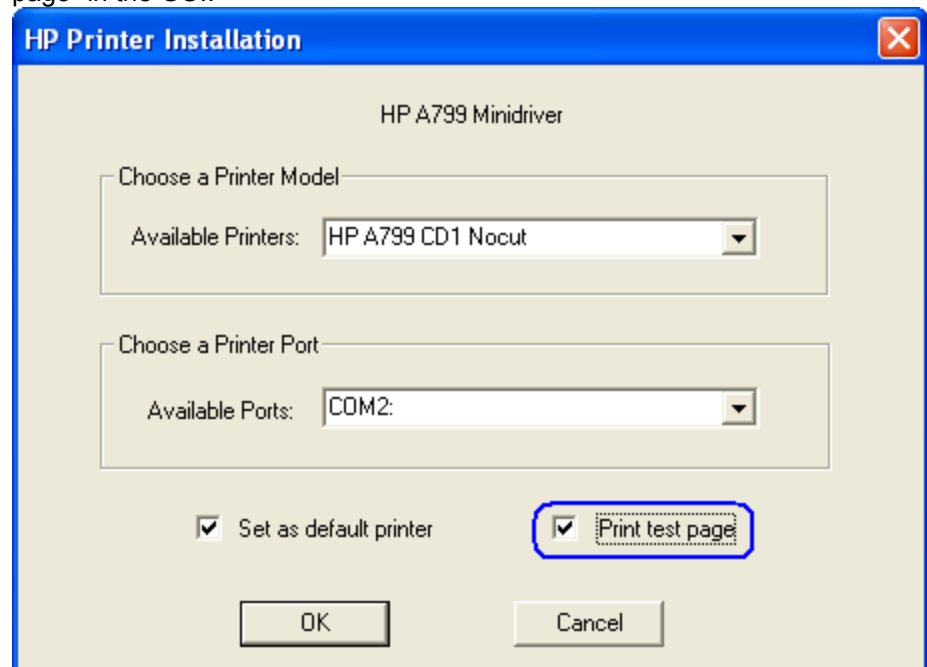
When the selections are made, the selection should be similar to the following screen:



In order to make the printer the default printer select the option “Set as default printer”.



If one wishes to print a very small test page, select the option “Print test page” in the GUI.



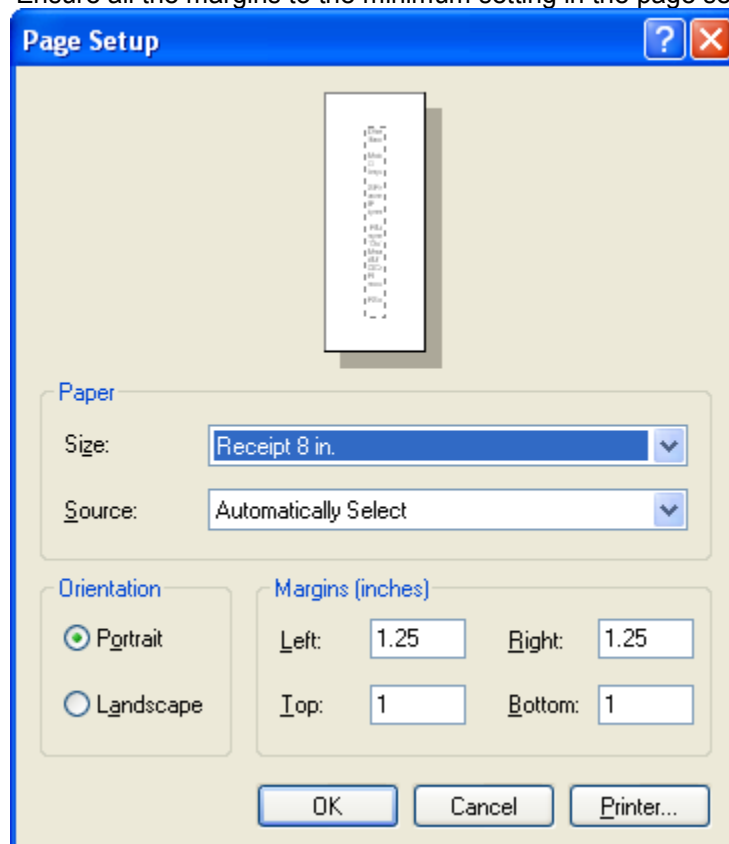
7. Click “OK” to install the printer driver and a small test print out will occur if the option was selected.

Note: If the option was selected to install the printer driver with “NoCut” when “Print Test Page” is selected during the driver install process, the test print out will print and it will cut the receipt paper.

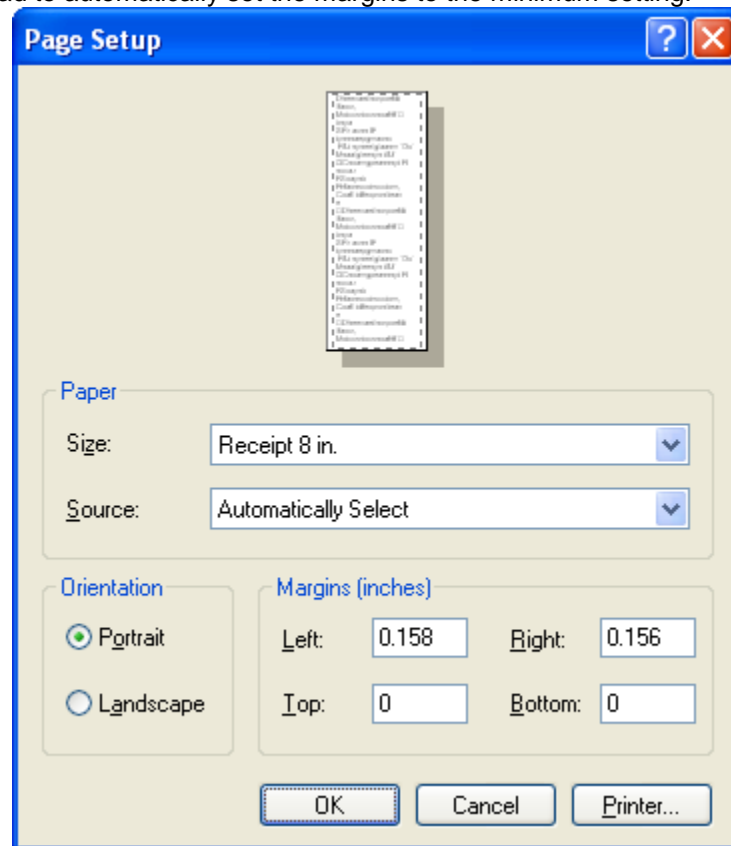
2.2.8.3 Test Receipt Printer in Windows Environment (non-OPOS)

In addition to the test option during the Windows mini-drivers installation, once the printer driver is loaded one may use notepad (or WordPad) to confirm the drivers are loaded and communicating to the printer. Type in a sentence or two in Notepad/WordPad and select the option to print; what was type should appear on the print out. If the Windows mini-driver with “CD#1” was selected, the cash drawer should also open.

Included with the mini drivers is a file that can be used for testing using WordPad; this test file will have barcodes on the printout. The file can be found in the in the following location “C:\xxxxx\Point of Sale\Receipt Printer\Windows Receipt Printer Driver”. Ensure all the margins to the minimum setting in the page setup



or one can set all the margins to zero "0". By setting the margins to zero "0", WordPad to automatically set the margins to the minimum setting.



The following is a partial example of appears on the print out using the file that is included with mini-drivers:

HP A799 Minidriver
Fonts & Barcodes

```
123456789.....12345 tab tab
23456789 12345 tab tab
3456789 12345 tab tab
456789 12345 font change!
56789 12345 height
change
6789 12345 width chg
789 12345 pitch change
89 12345
9 12345
```

Codabar Plain &
HRI:

E0D57+9\$32:A



D57+9\$32:A

Code 39 Plain &
HRI:



0123456789

ITF Plain & HRI:



54810548673912

Jan8 Plain & HRI:



12121212

Jan13 Plain & HRI:



2.2.9 Knife Cut Commands

Some POS application that use the Windows mini-drivers request the knife cut command so the application can perform a cut after something is printed (i.e. No Sale). The following the decimal commands:

Perform full knife cut

ASCII	EM	ESC i
Hexadecimal	19	1B 69
Decimal	25	27 105

Perform partial knife cut

ASCII	SUB	ESC m
Hexadecimal	1A	1B 6D
Decimal	26	27 109

The partial knife cut leaves 5mm (0.20 inch) of paper on the left edge.

2.2.10 OPOS Drivers for the Receipt Printer

The receipt printer OPOS drivers can be found on the “HP Point of Sale System Software and Documentation CD”. On the HP POS factory image the drivers are installed in the image for the USB printer, for reference the drivers are located “C:\xxxxx\Point of Sale\Receipt Printer\Receipt Printer OPOS” sub-directory.

Note: If you are using the serial printer, one will need to uninstall the OPOS drivers and then re-install the OPOS driver (see details below of installation). HP OPOS driver version 1.0.1.34 (or later) supports the serial receipt printer.

OPOS driver 1.0.1.21 (or later) for the receipt printer will work with the printer in either NATIVE or PRINTER CLASS mode. During the installation process of the OPOS driver one will be prompted for which mode the printer is in (PRINTER CLASS is selected by default).

The Windows mini-drivers and the OPOS drivers cannot be set to the same COM port.

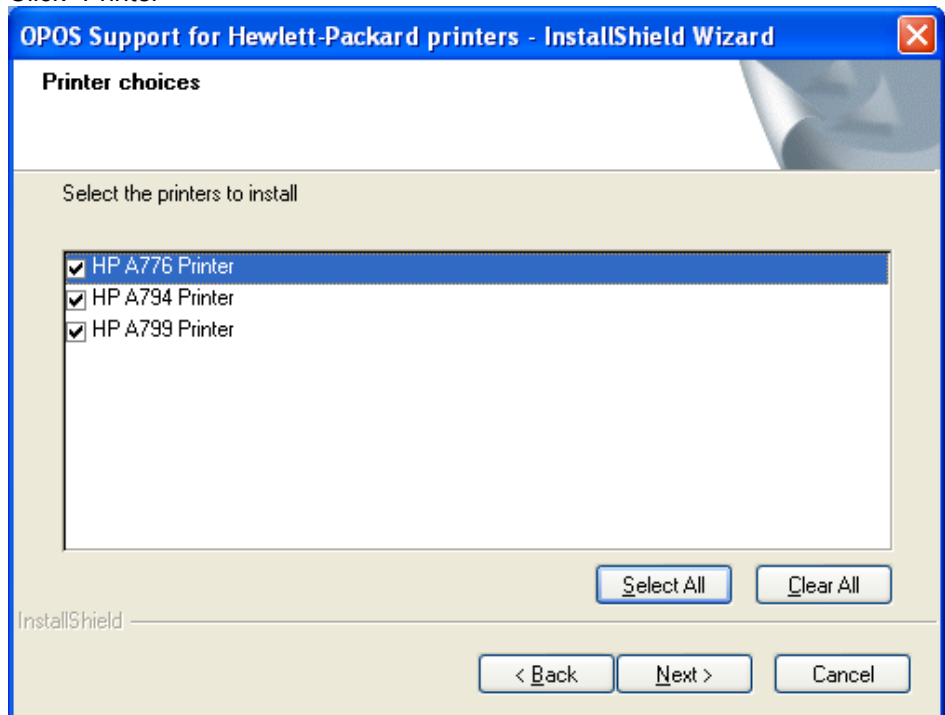
2.2.10.1 OPOS Installation - USB

The following is an overview of the steps to test the receipt printer followed by detailed steps:

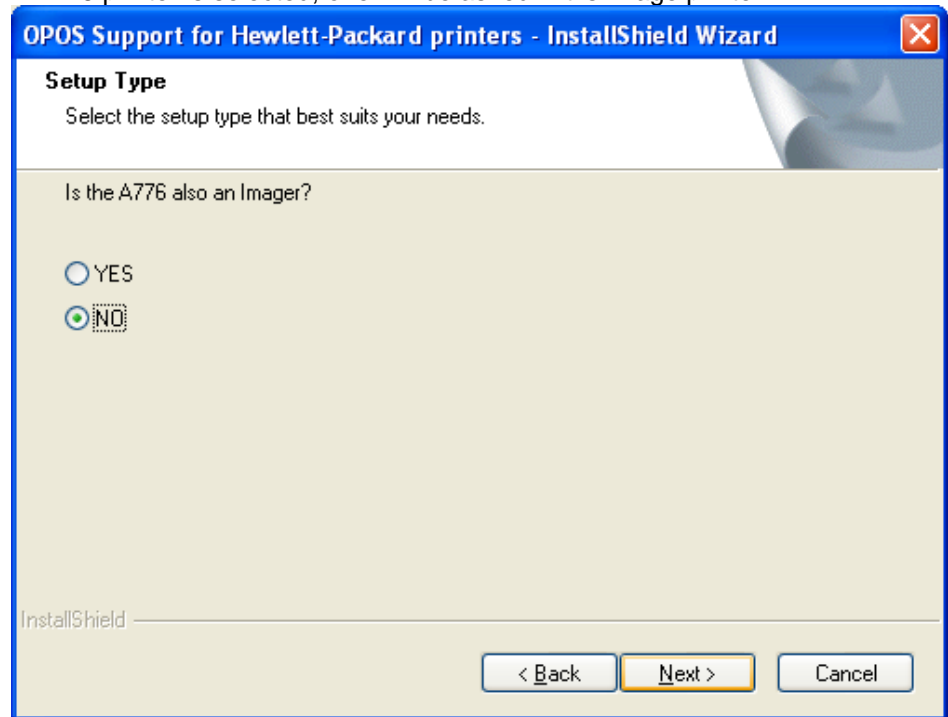
1. Start the HP Receipt Printer OPOS executable.
2. Click “Printer”
3. Select YES or NO to install OPOS control object.
4. Select USB for the communication method.
5. Select the USB connection method (printer class is the default).
6. For the remaining option the default can be used until the installation is complete.

Detail Steps

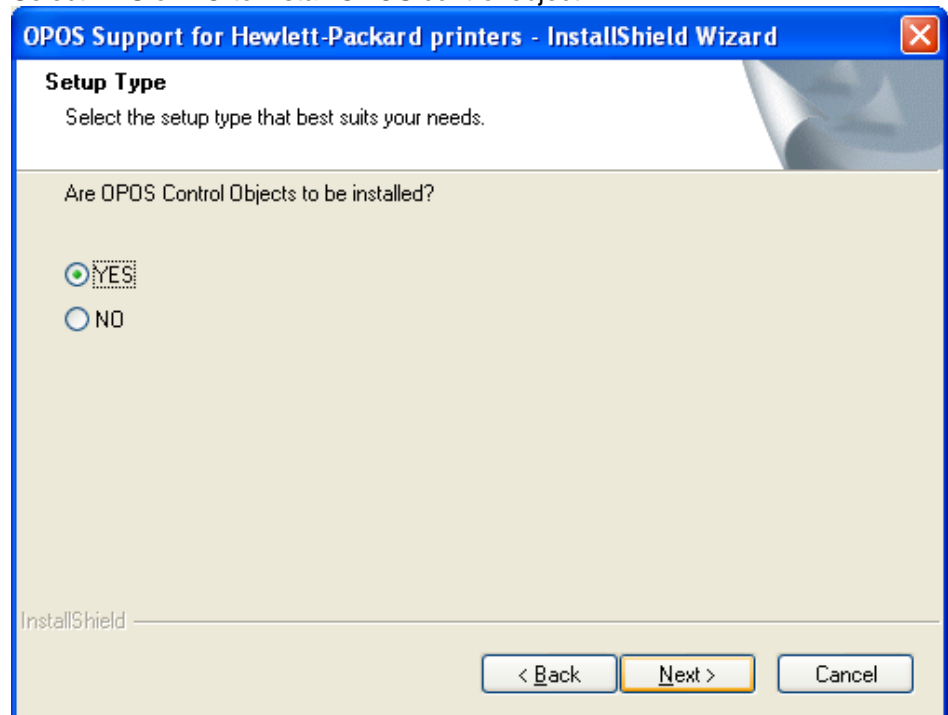
1. Start the HP Receipt printer OPOS executable.
2. Click “Printer”



If A776 printer is selected, one will be asked if it is image printer.

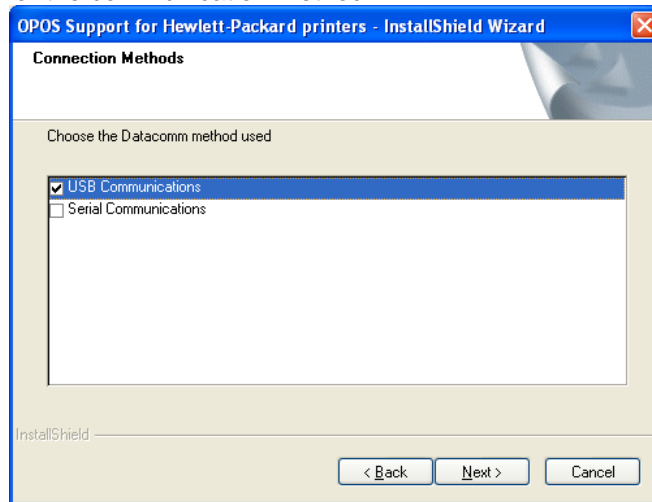


3. Select YES or NO to install OPOS control object.

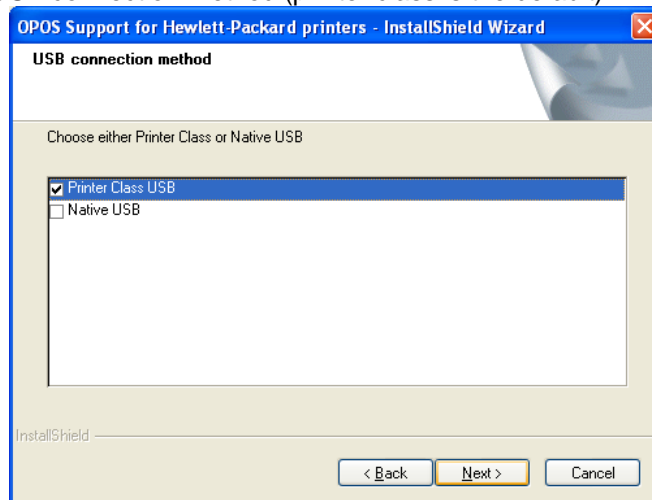


If "NO" is selected for "Are OPOS Control Objects to be installed?" please ensure the CCO driver package is installed prior to using the OPOS test program or a point of sale application. The CCO package can be found on the "HP Point of Sale System Software and Documentation CD".

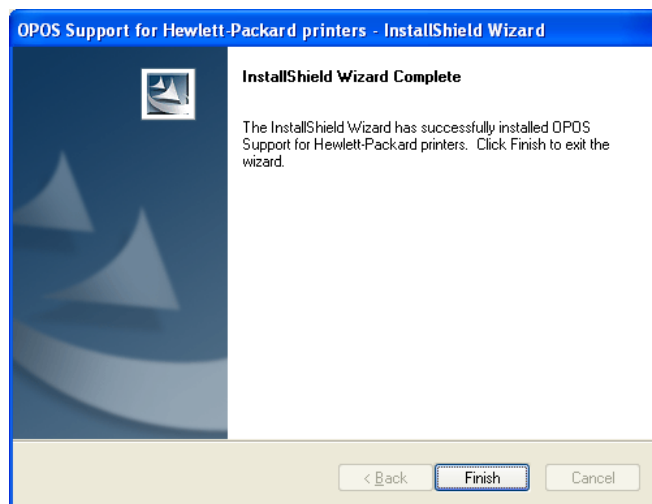
4. Select USB for the communication method.



5. Select the USB connection method (printer class is the default).



6. For the remaining option the default can be used until the installation is complete.



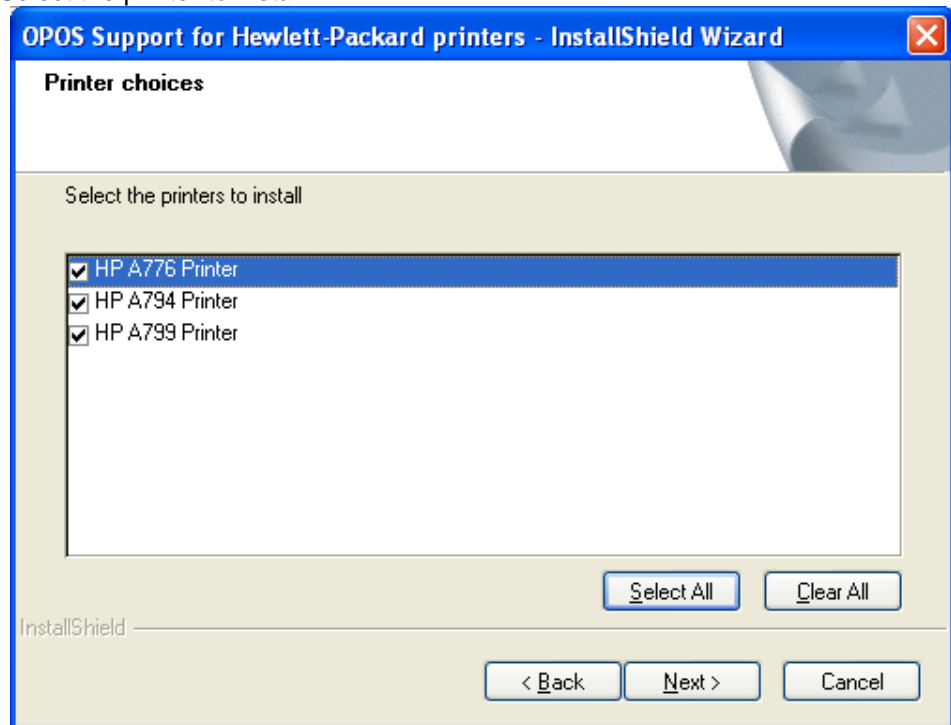
2.2.10.2 OPOS Installation – Serial Port

The following is overview of the steps to test the receipt printer followed by details steps:

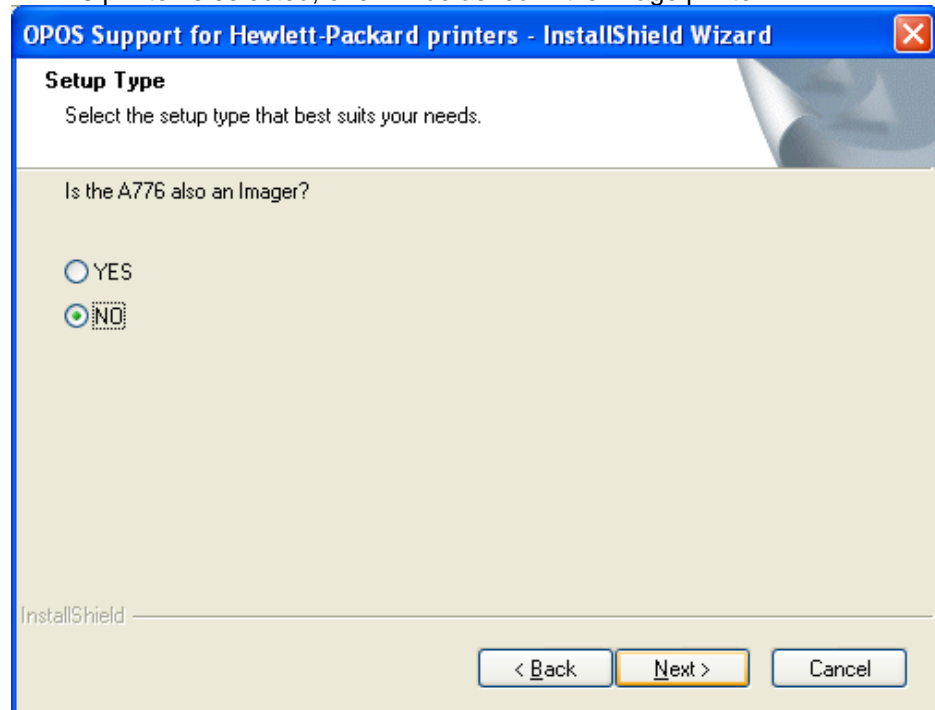
1. Start the HP Receipt printer OPOS executable.
2. Select the printer(s) to install.
3. Select YES or NO to install OPOS control object.
4. Select “Serial Communications” for the communication method.
5. Select the COM (serial) port that the printer is attached.
6. Select the baud rate for serial communications.
7. Select the parity for the serial communication.
8. Select the flow control.
9. For the remaining option the default can be used until the installation is complete.

Detail Steps

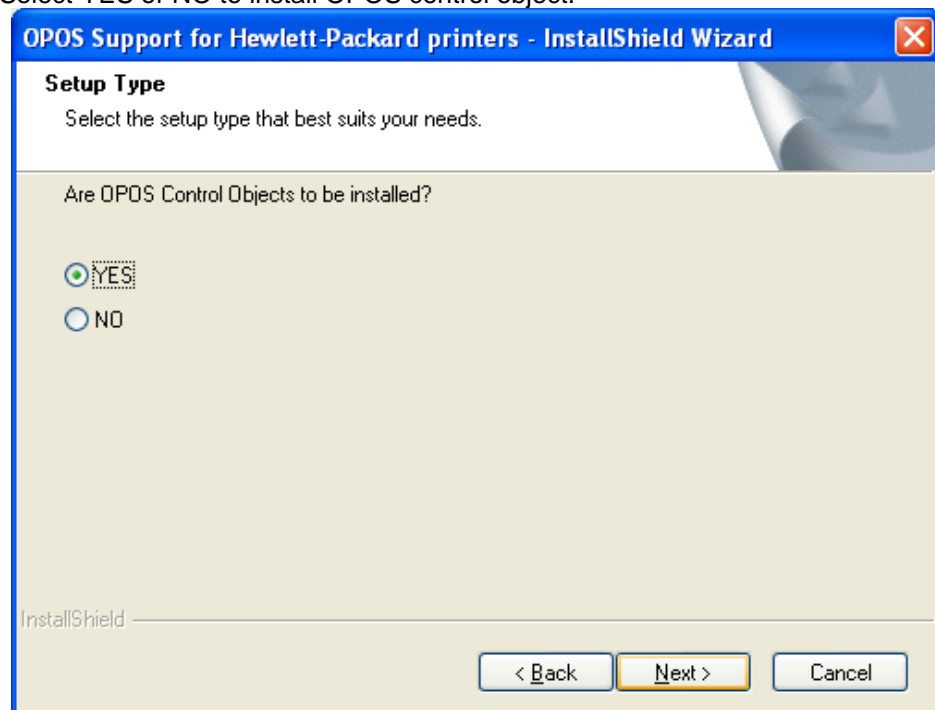
1. Start the HP Receipt printer OPOS executable.
2. Select the printer to install.



If A776 printer is selected, one will be asked if it is image printer.

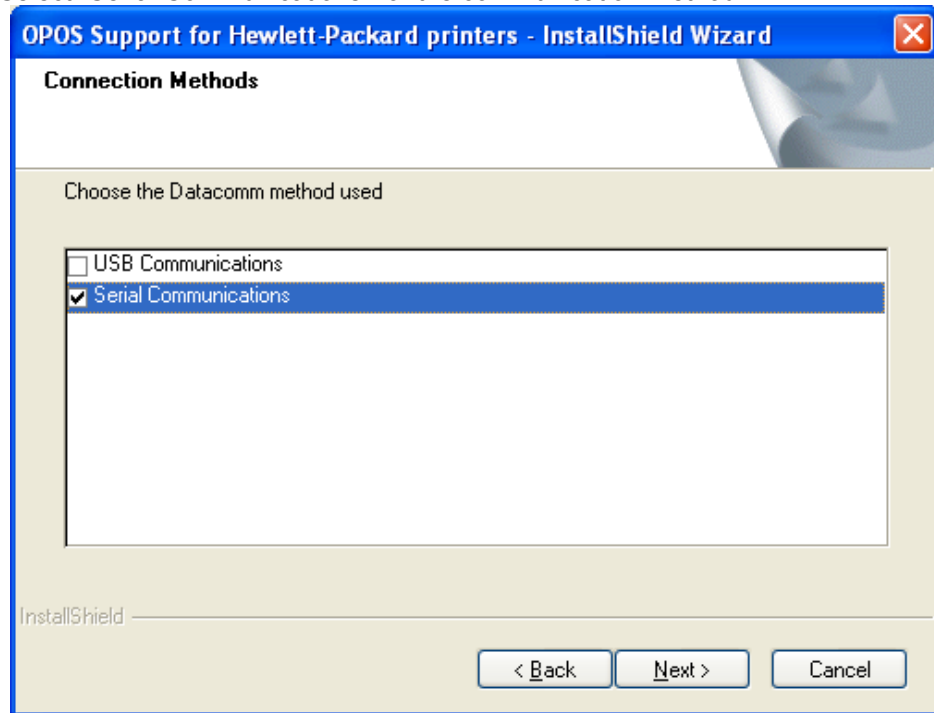


3. Select YES or NO to install OPOS control object.

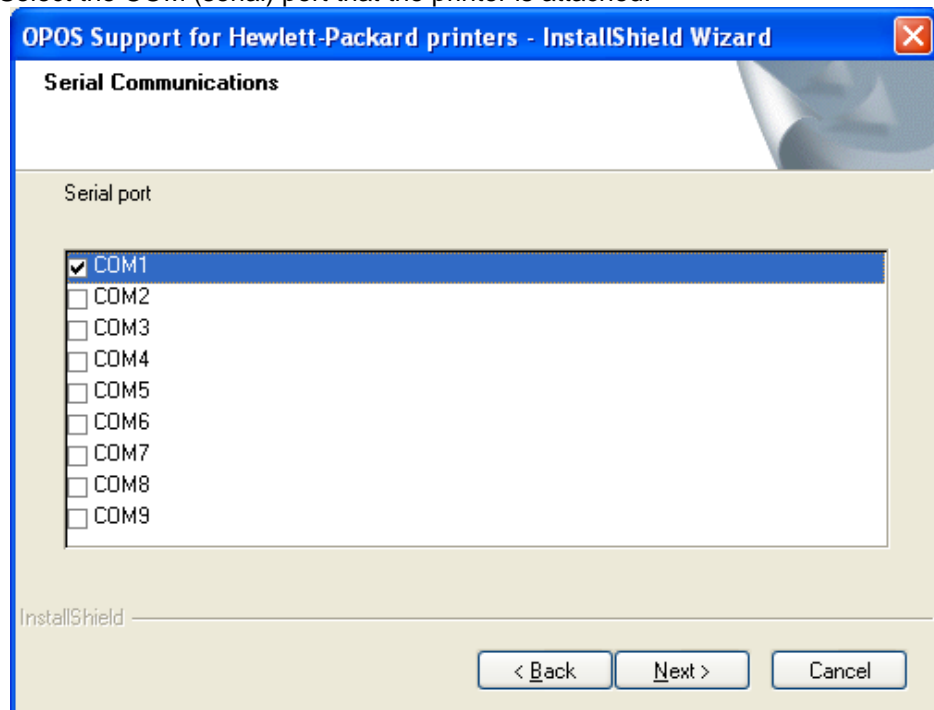


If "NO" is selected for "Are OPOS Control Objects to be installed?" please ensure the CCO driver package is installed prior to using the OPOS test program or a point of sale application. The CCO package can be found on the "HP Point of Sale System Software and Documentation CD".

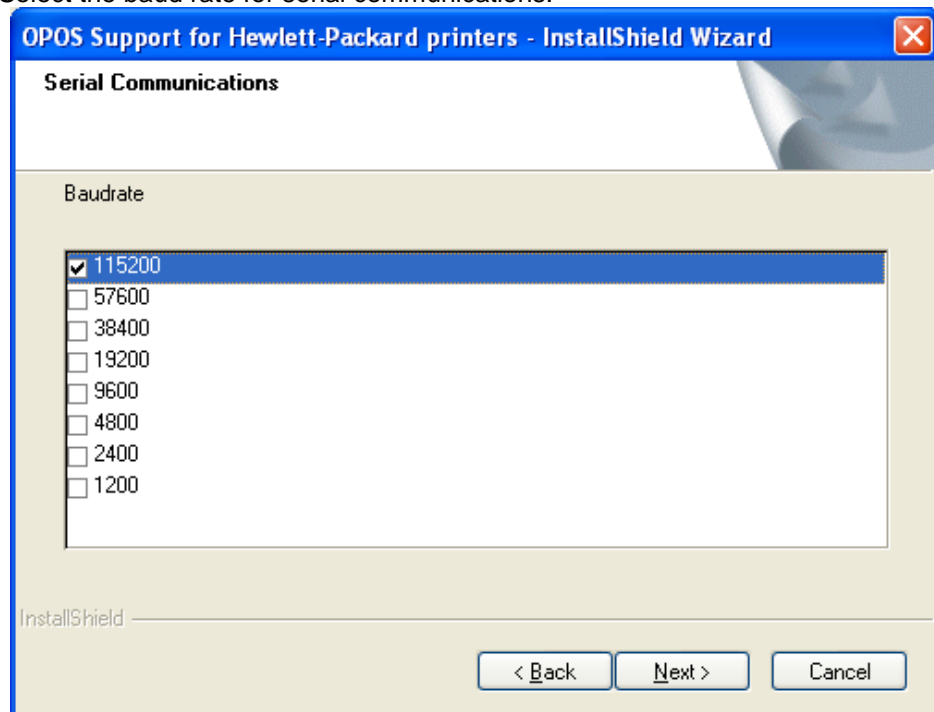
4. Select "Serial Communications" for the communication method.



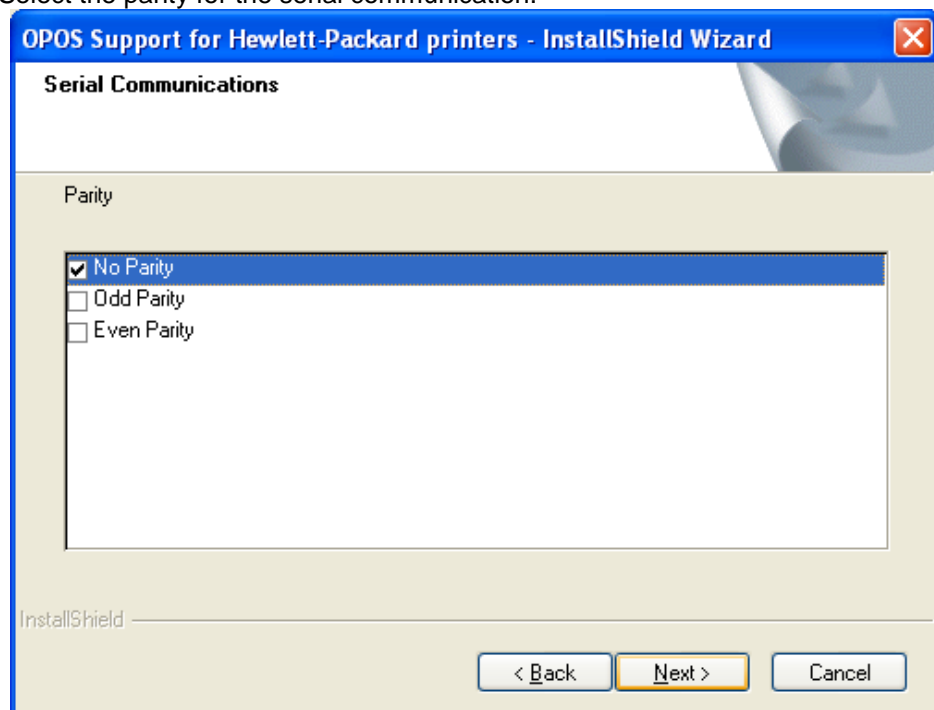
5. Select the COM (serial) port that the printer is attached.



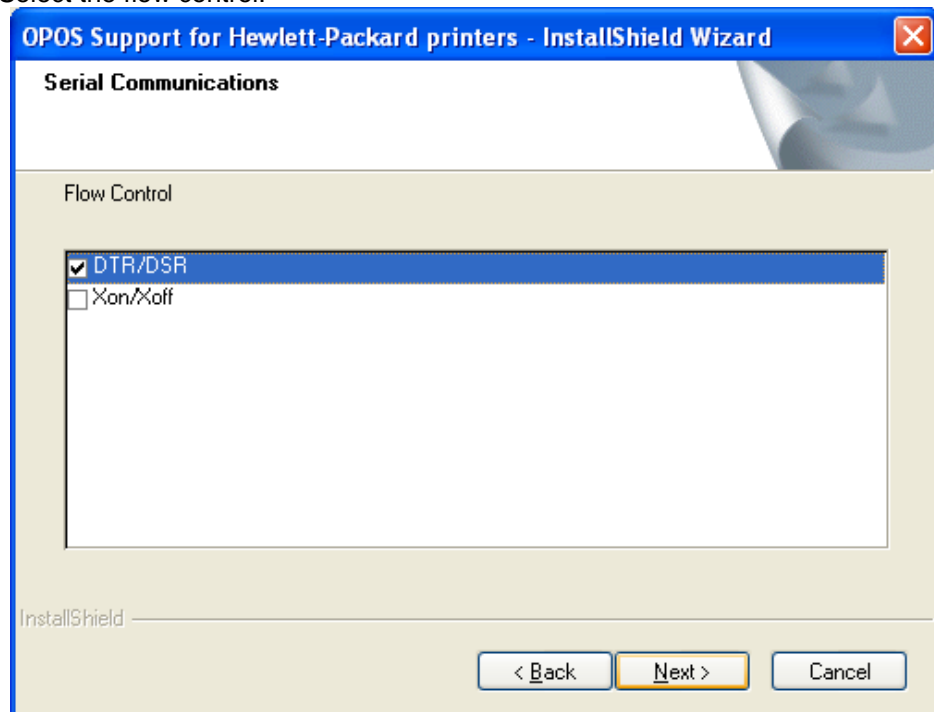
6. Select the baud rate for serial communications.



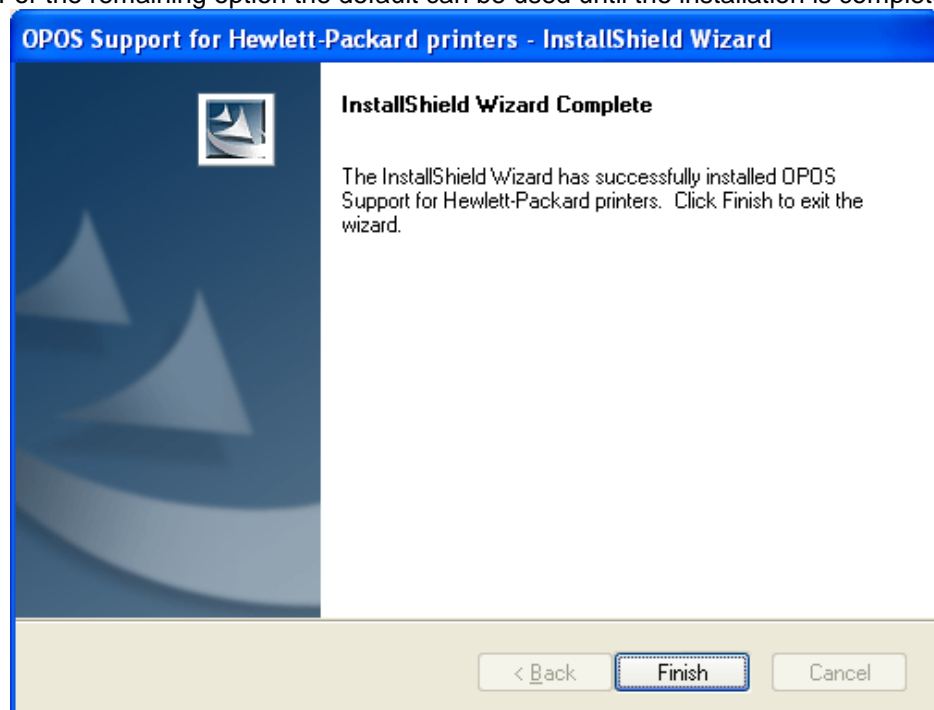
7. Select the parity for the serial communication.



8. Select the flow control.



9. For the remaining option the default can be used until the installation is complete.



2.2.10.3 OPOS Test Applet for the Receipt Printer

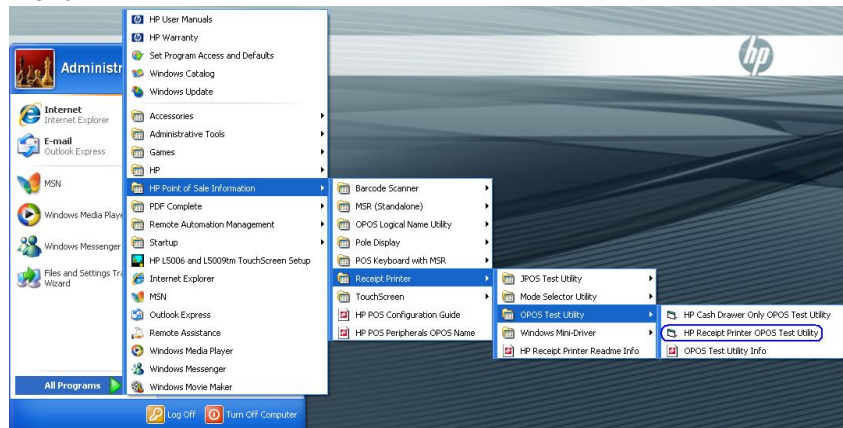
2.2.10.4 Receipt Printer and Cash Drawer Utility – Receipt Printer Testing

The following is overview of the steps to test the receipt printer followed by details steps:

1. Start the “Sample_OPOS_Application.EXE” that can be found in the start menu or in the program file folder.
2. Click “Printer”
3. Select printer from the drop down menu.
4. Click “Open Printer”
5. Click “Claim Printer”
6. Click “Enable Printer”
7. What is type in the sample text to print box will be sent and printed on the receipt printer when one clicks “PRINT”.
8. Click “Feed” to advance the paper in the receipt printer.
9. Click “Cut” to cut the receipt.
10. Exit the test application.

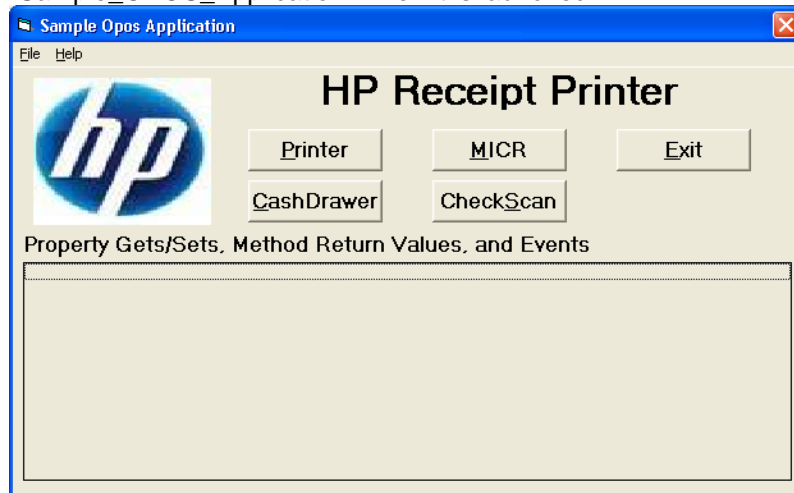
Detail Steps

1. Start the “Sample_OPOS_Application.EXE” that can be found in the start menu:



or in the “C:\xxxxxx\ Point of Sale\Receipt Printer\OPOS Test Utility” subfolder.

2. Click “Printer”. The following is the main GUI of the “Sample_OPOS_Application” when it is launched:



3. Select printer from the drop down menu.

The screenshot shows a Windows-style application window titled "Printer Examples". At the top, there's a "Device:" label followed by a dropdown menu currently showing "A776". The dropdown is open, displaying a list with "A776" selected, and "A794" and "A799" below it. To the left of the dropdown are buttons for "Open", "Claim Printer", "Enable Printer", "Disable Printer", "Release Printer", and "Close Printer". To the right are buttons for "End Insertion", "Begin Removal", "End Removal", "Rotate Left", and "Rotate Normal". Further right is a "Select Station" section with three radio buttons: "Receipt" (selected), "Slip", and "Journal". Below that is a text input field containing "10000" and a button labeled "Print OPOS Properties". Below the text field is a button labeled "Bitmap & BarCode Tests" and a checkbox labeled "AsyncMode". Below these is a section for character sets, including a dropdown menu, buttons for "Set Character Set" and "Print Character Set", and a list of "Available Char Sets". The character sets listed are: "Trad. Chinese CP 950", "Simp. Chinese CP 936", "Thai CP 874", "Kanji (Japanese) CP 932", and "Hangul (Korean) CP 949". Below the character sets is a "PRINT" button and an "Add Asian Data" button. Below these are buttons for "Cut", "Feed", and "Clear". Below the "PRINT" button is a "Print Data" section with a text area containing "Type something here\0a". At the bottom, there are checkboxes for "Scanner" and "Enable Power Notify", and a "Close Form" button.

4. Click "Open Printer", in the main GUI one will receive status. If successful the status will say SUCCESS.

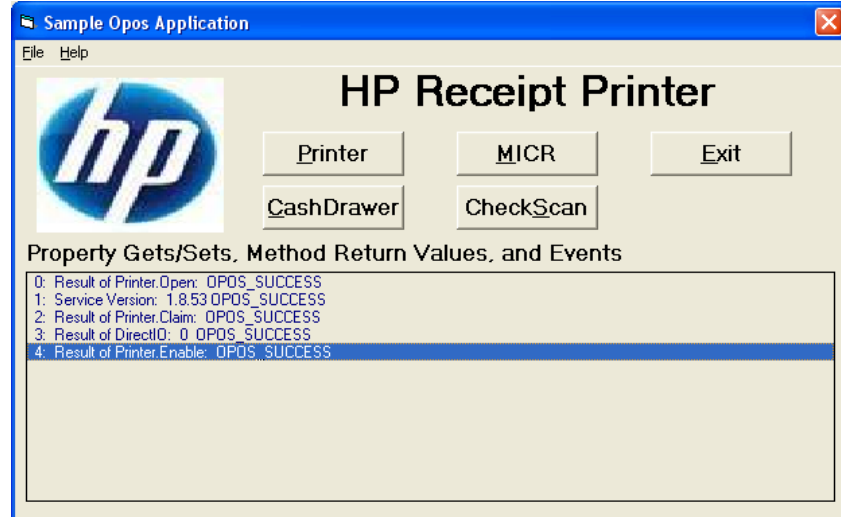
If failure occurs at this point make sure the printer is plugged in and the LED is on solid and the OPOS drivers are installed on the computer.

5. Click "Claim Printer", in the main GUI one will receive status. If successful the status will say SUCCESS.

If failure occurs at this point confirm that the CCO 1.9 (or later) files are installed on this unit. If the CCO file needs to be installed they can be found on the “HP Point of Sale System Software and Documentation CD”. On the HP POS factory image the CCO installation package can be found at the following location “C:\xxxxx\Point of Sale\Common Control Object (CCO)” sub-directory.

6. Click “Enable Printer”, in the main GUI one will receive status.

If successful the status will say SUCCESS as shown below for “Open Printer” / “Claim Printer” / Enable Printer”.



7. What is typed in the sample text to print box will be sent to the printer to be printed on the receipt printer when one clicks on “PRINT” button.

Printer Examples

Device: A799

Select Station

- ☒ Receipt
- ☐ Slip
- ☐ Journal

10000

Print OPOS Properties

Bitmap & BarCode Tests

☐ AsyncMode

Open Printer

Claim Printer

Enable Printer

Begin Insertion

End Insertion

Begin Removal

End Removal

Disable Printer

Release Printer

Close Printer

Rotate Left

Rotate Normal

Set Character Set

Print Character Set

Available Char Sets

- ☒ Trad. Chinese CP 950
- ☐ Kanji (Japanese) CP 932
- ☐ Simp. Chinese CP 936
- ☐ Hangul (Korean) CP 949
- ☐ Thai CP 874

PRINT

Add Asian Data

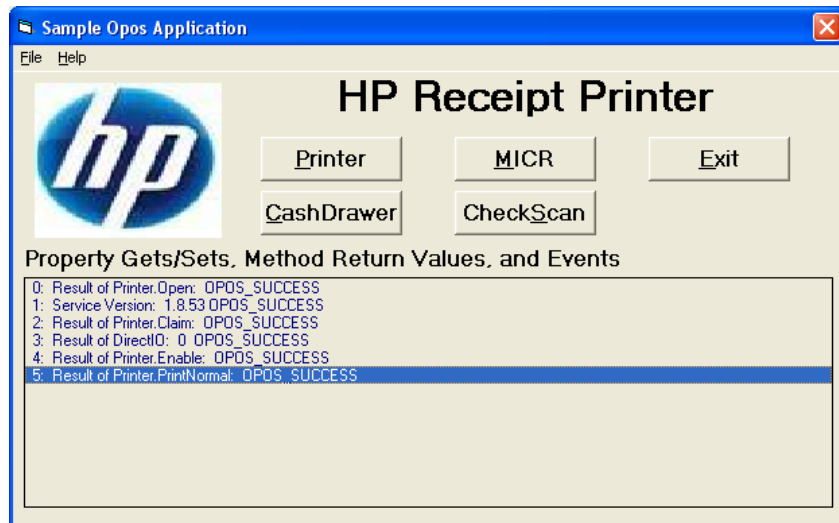
Print Data

Cut Feed Clear

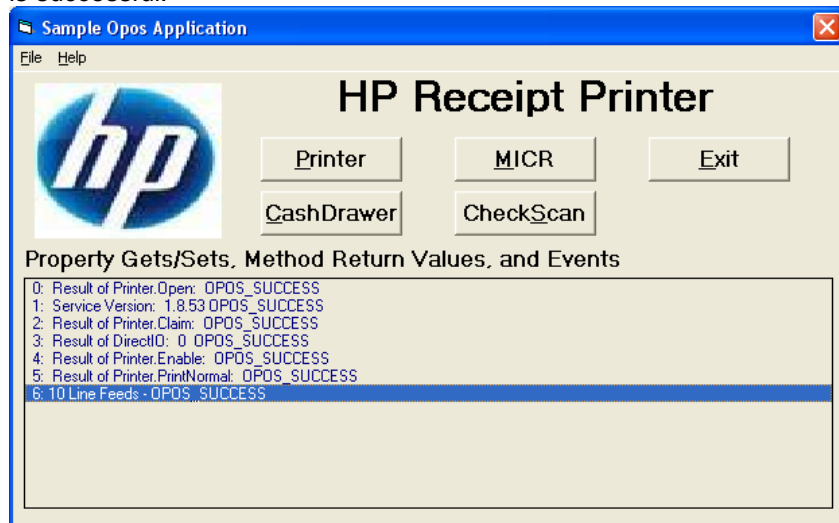
Type something here\0a

☐ Scanner ☐ Enable Power Notify

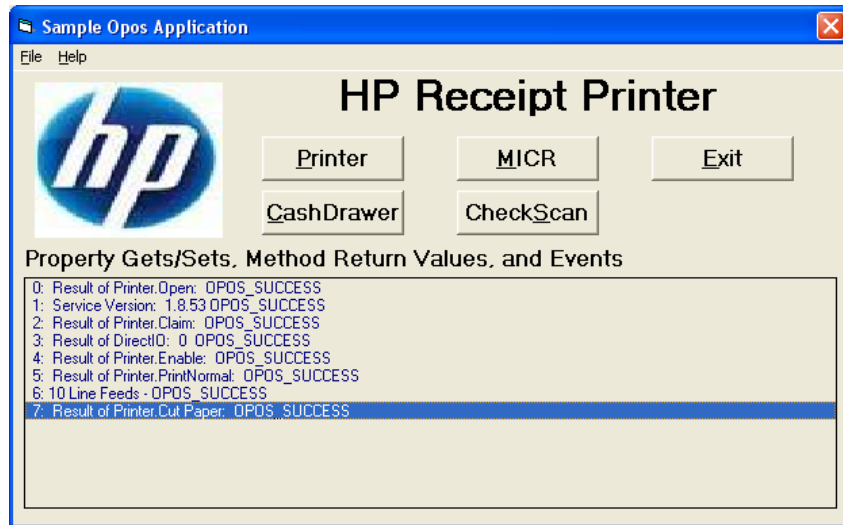
Close Form



8. Click “Feed” to advance the paper 10 line feed that is in the receipt printer. In the GUI success status should appear after the “Feed” button is successful:



9. Click “Cut” to cut the receipt. In the GUI success status should appear after the “Cut” button is successful:



10. To exit the application clicking on “DISABLE PRINTER” / “Release Printer” / “Close Printer” and “Close Form”.

Printer Examples

Device: A799

Open Printer
Claim Printer
Enable Printer

Begin Insertion
End Insertion
Begin Removal
End Removal

Select Station
☒ Receipt
☐ Slip
☐ Journal

10000

Print OPOS Properties

Bitmap & BarCode Tests

☐ AsyncMode

Disable Printer
Release Printer
Close Printer

Rotate Left
Rotate Normal

Set Character Set
Print Character Set

Available Char Sets

☒ Trad. Chinese CP 950
☐ Kanji (Japanese) CP 932
☐ Simp. Chinese CP 936
☐ Hangul (Korean) CP 949
☐ Thai CP 874

PRINT
Add Asian Data

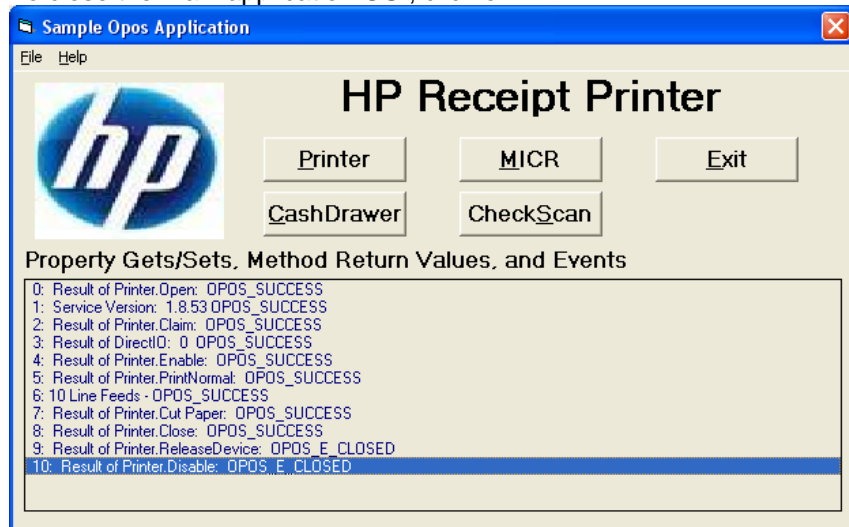
Cut
Feed
Clear

Print Data
Type something here\0a

☐ Scanner
☐ Enable Power Notify

Close Form

11. To close the main application GUI, click on EXIT.



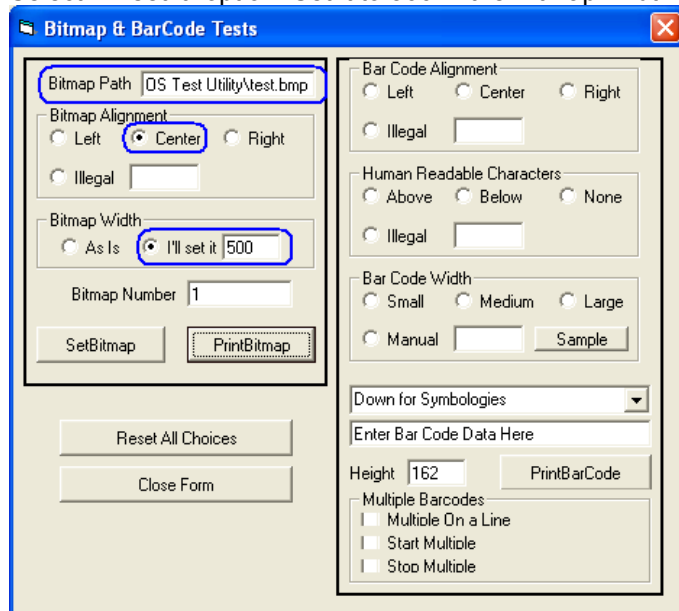
2.2.10.5 Bitmap / Barcode Testing

1. The following are the steps to test bitmap or barcode on the receipt printer:

- If you have not enabled the printer, please complete steps in the previous section.
- Click on “Bitmap & Barcode Tests”

Bitmap

- There are three test bitmaps (GRID.BMP / HP.BMP / TEST.BMP) that can be used. These bitmaps are located in the “C:\xxxxx\Point of Sale\Receipt Printer\OPOS Test Utility.”
- Select the bitmap alignment (left / center / right).
- Select “I’ll set it” option. Set it to 500 in the Bitmap Width.



- Click on “PrintBitmap” button. The printer should have printed the selected bitmap.

Bitmap & BarCode Tests

Bitmap Path: OS Test Utility\test.bmp

Bitmap Alignment:
☐ Left ☒ Center ☐ Right
☐ Illegal

Bitmap Width:
☐ As Is ☒ I'll set it: 500

Bitmap Number: 1

SetBitmap PrintBitmap

Bar Code Alignment:
☐ Left ☐ Center ☐ Right
☐ Illegal

Human Readable Characters:
☐ Above ☐ Below ☐ None
☐ Illegal

Bar Code Width:
☐ Small ☐ Medium ☐ Large
☐ Manual Sample

Down for Symbolologies

Enter Bar Code Data Here

Height: 162 PrintBarCode

Multiple Barcodes:
☐ Multiple On a Line
☐ Start Multiple
☐ Stop Multiple

Reset All Choices

Close Form

- v. Click on "CLOSE FORM" button.

- vi. Click on DISABLE PRINTER / RELEASE PRINTER / CLOSE PRINTER and CLOSE FORM button.

Printer Examples

Device: A799

Open Printer
Claim Printer
Enable Printer
Disable Printer
Release Printer
Close Printer

Begin Insertion
End Insertion
Begin Removal
End Removal
Rotate Left
Rotate Normal

Select Station
☒ Receipt
☐ Slip
☐ Journal
10000
Print OPDS Properties
Bitmap & BarCode Tests
☐ AsyncMode

Set Character Set
Print Character Set

Available Char Sets

☒ Trad. Chinese CP 950
☐ Kanji (Japanese) CP 932
☐ Simp. Chinese CP 936
☐ Hangul (Korean) CP 949
☐ Thai CP 874

PRINT
Add Asian Data
Cut Feed Clear

Print Data
Type something here\0a

☐ Scanner ☐ Enable Power Notify
Close Form

Barcode

- i. Select the bar code alignment (left / center / right).
- ii. Select "Human Readable Characters" (Above / Below / None).
- iii. Select Bar Code Width (Small / Medium / Large)
- iv. Select Interleaved 2 of 5 in the drop down box.
- v. Type in the text.
- vi. Click on "PrintBarCode". The printer should have printed the barcode.

2.2.10.6 Receipt Printer and Cash Drawer Utility – Cash Drawer Testing

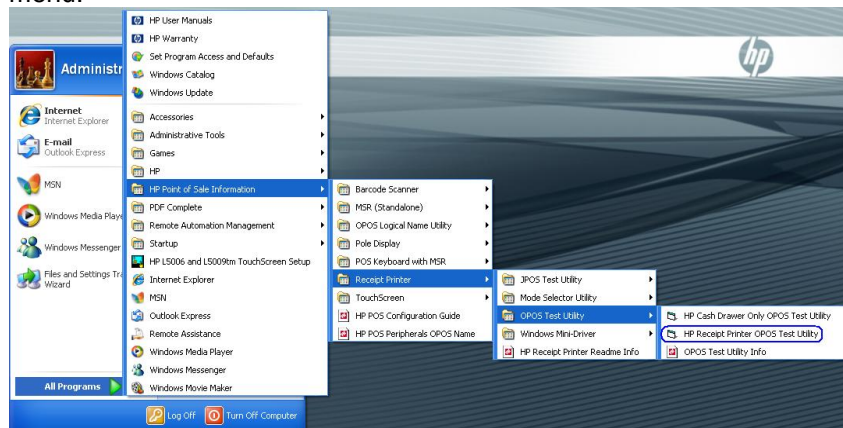
The following is an overview of the steps to test the cash drawer followed by details steps:

1. Start the "Sample_OPOS_Application.EXE" that can be found in the start menu or in the program file folder.
2. Click "CashDrawer"
3. Select correct device name for the cash drawer to be tested.
4. Click "OPEN"
5. Click "ENABLE"
6. Click "OPEN Drawer" and the cash drawer should open. The GUI should also show status that the cash drawer is open.
7. Close the cash drawer and the GUI should give the status that the cash drawer is closed.
8. Exit the test application.

Detail Steps

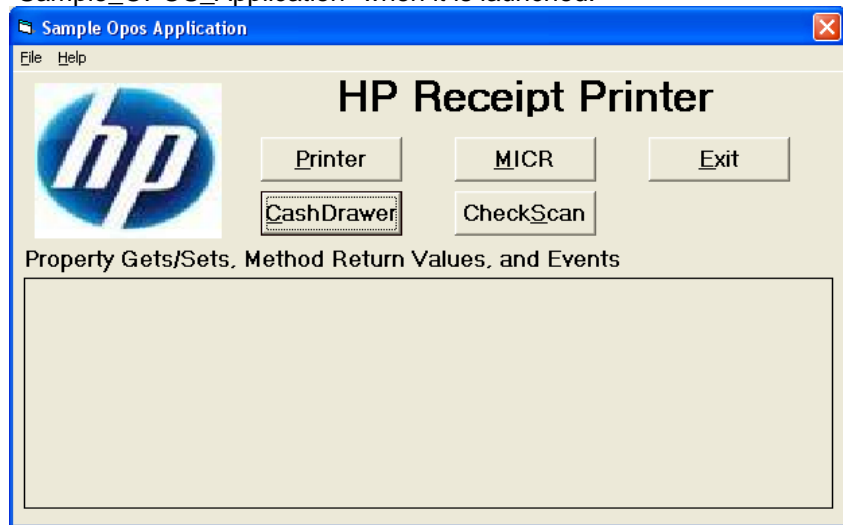
Starting the OPOS printer sample application

1. Start the “Sample_OPOS_Application.EXE” that can be found in the start menu:

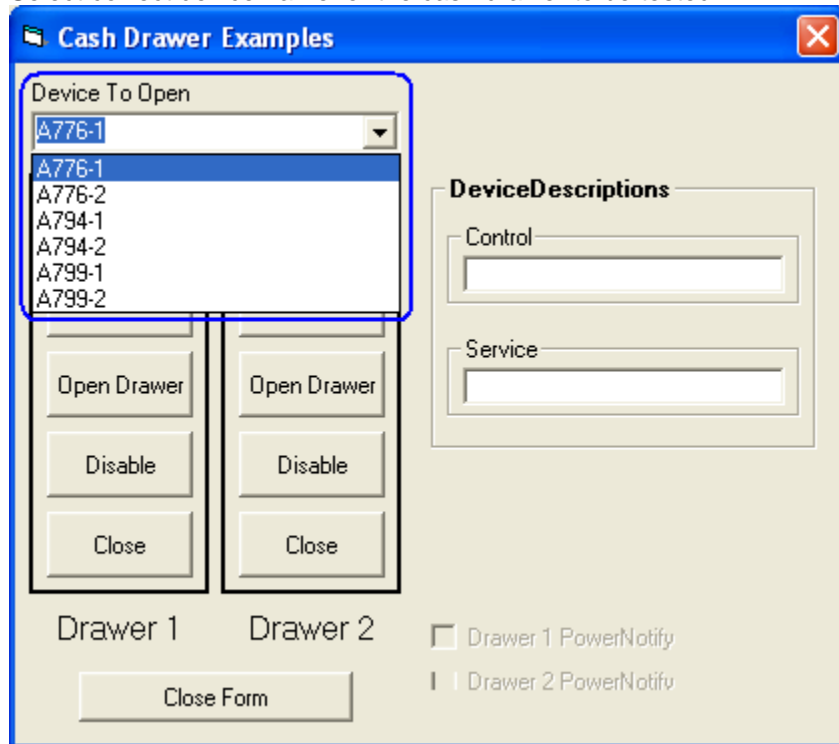


or in the “C:\xxxxxx\ Point of Sale\Receipt Printer\OPOS Test Utility” subfolder.

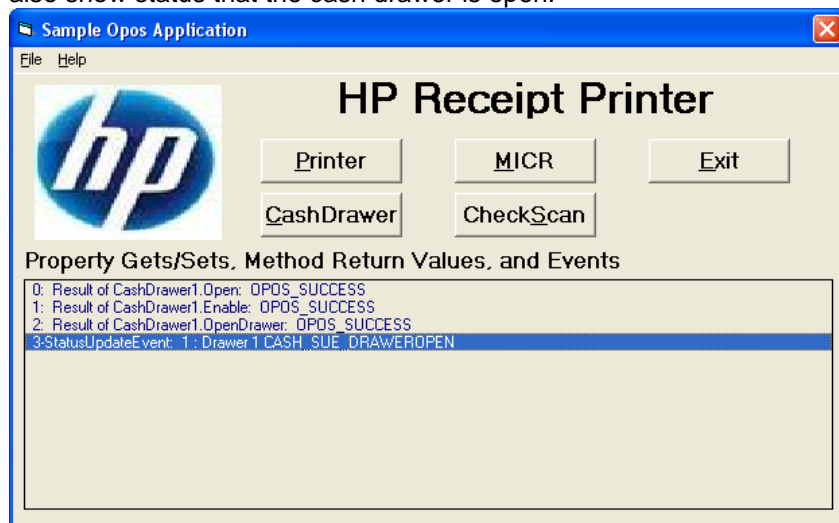
2. Click “CashDrawer”. The following is the main GUI of the “Sample_OPOS_Application” when it is launched:



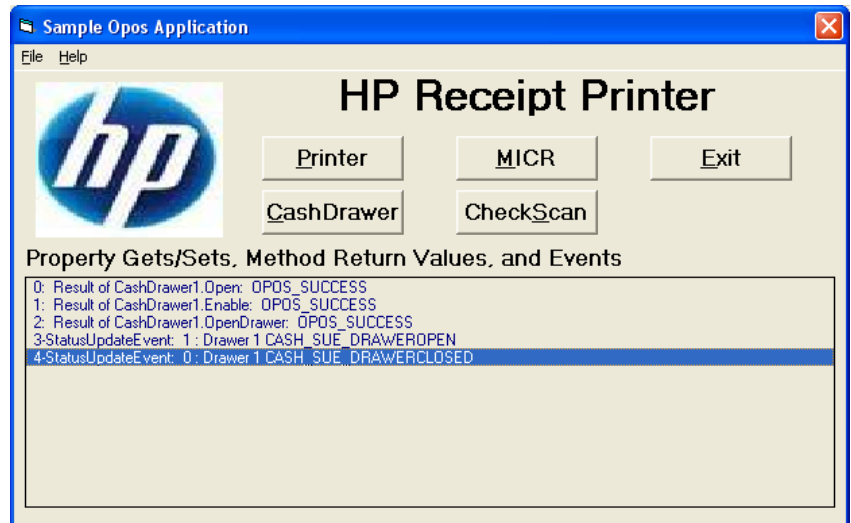
3. Select correct device name for the cash drawer to be tested.



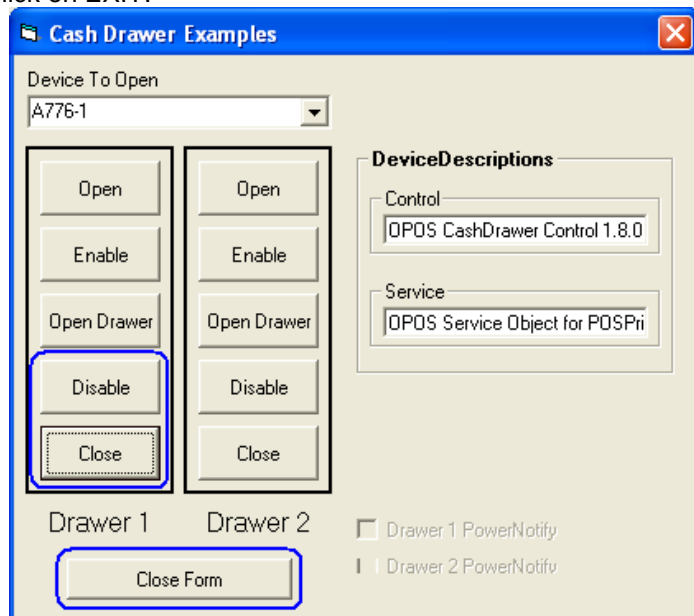
4. Click "OPEN"
5. Click "ENABLE"
6. Click "OPEN Drawer" and the cash drawer should open. The GUI should also show status that the cash drawer is open.

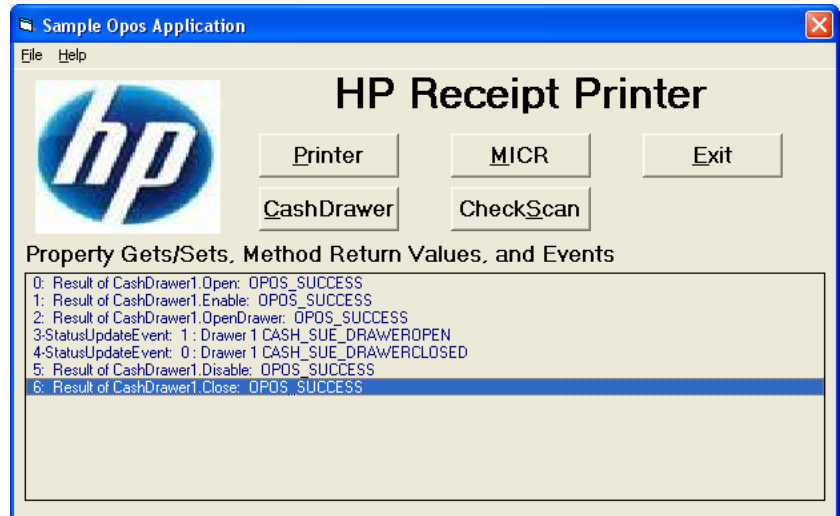


7. Close the cash drawer and the GUI should give the status that the cash drawer is closed.



8. Exit the test utility the clicking on DISABLE/CLOSE/CLOSE FORM and then click on EXIT.





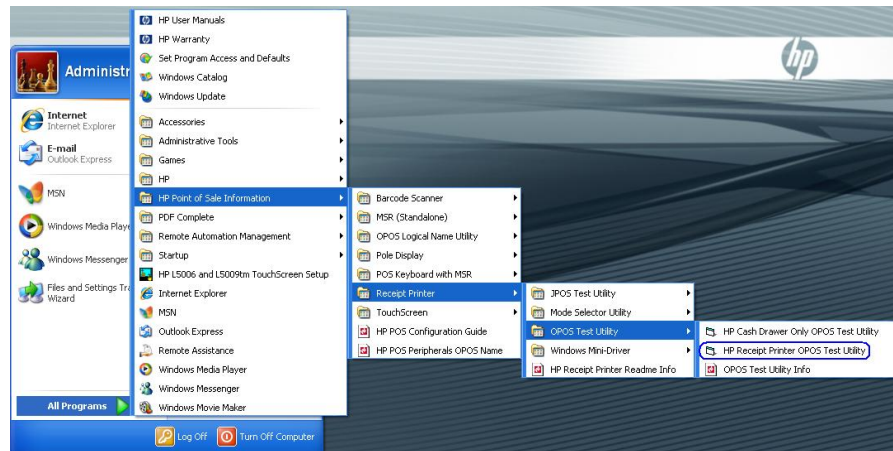
2.2.11 **OPOS Test Applet for the MICR**

The following is overview of the steps to test the receipt printer followed by details steps:

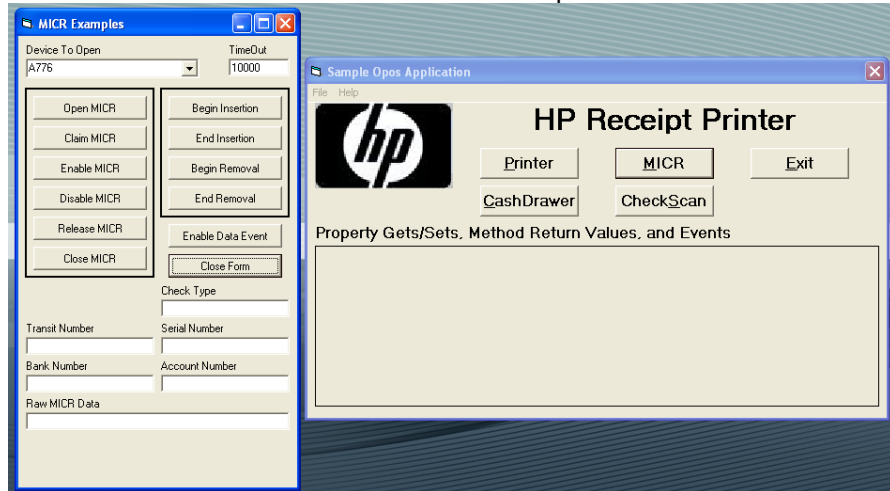
1. Start the "Sample_OPOS_Application.EXE".
2. Click the "MICR" button.
3. Click the "Open MICR" button.
4. Click the "Claim MICR" button.
5. Click the "Enable MICR" button.
6. Insert the check in the front of the printer until the front LED comes on.
7. Click the "Begin Insertion" button.
8. Click the "End Insertion" button. At this point the printer will perform the MICR operation; the document should come out the front and then will be returned back to the bottom portion of the printer.
9. Click the "Enable Data Event". The data from the check scan should appear in the bottom of the GUI.
10. Click on "Begin Removal" and remove the check from the printer when it has been ejected.
11. Click on "End Removal" button.
12. Close the MICR.
13. Close the form.

Detail Steps

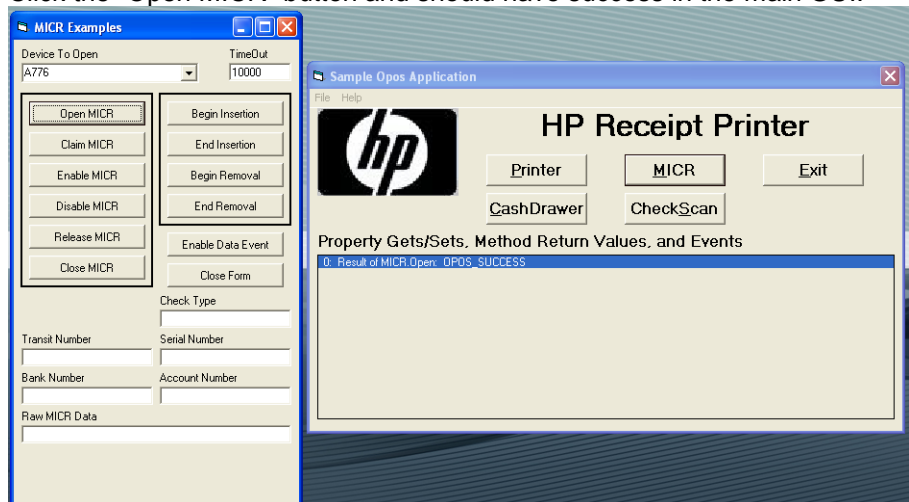
1. Start the "Sample_OPOS_Application.EXE" that can be found in the start menu or in the "C:\xxxxxx\ Point of Sale\Receipt Printer\OPOS Test Utility" subfolder.



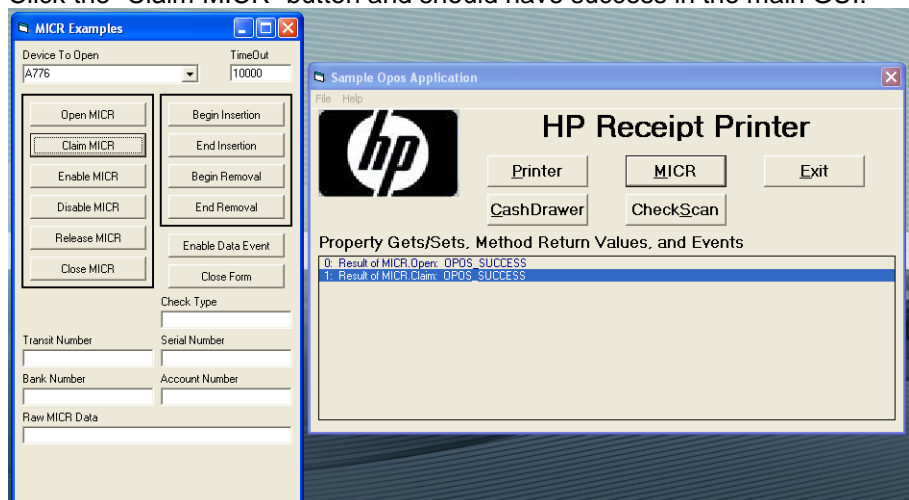
2. Click the “MICR” button and another GUI will open as shown below:



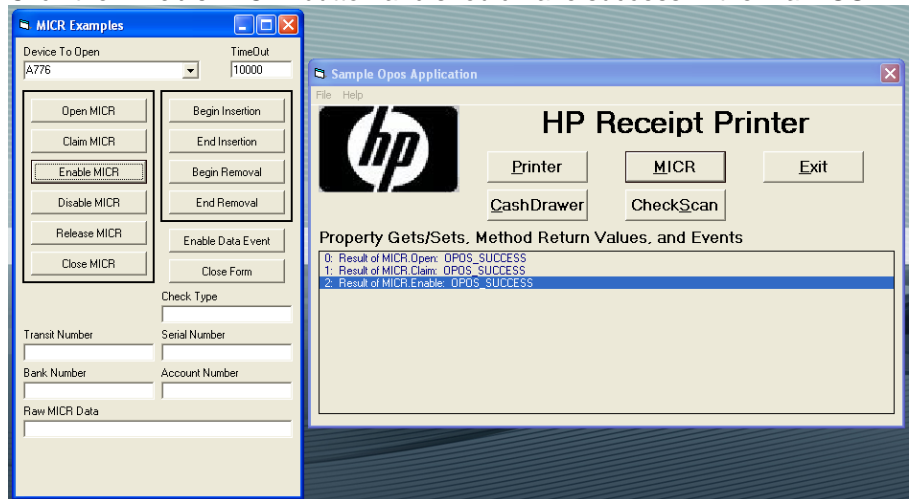
3. Click the “Open MICR” button and should have success in the main GUI:



4. Click the “Claim MICR” button and should have success in the main GUI:

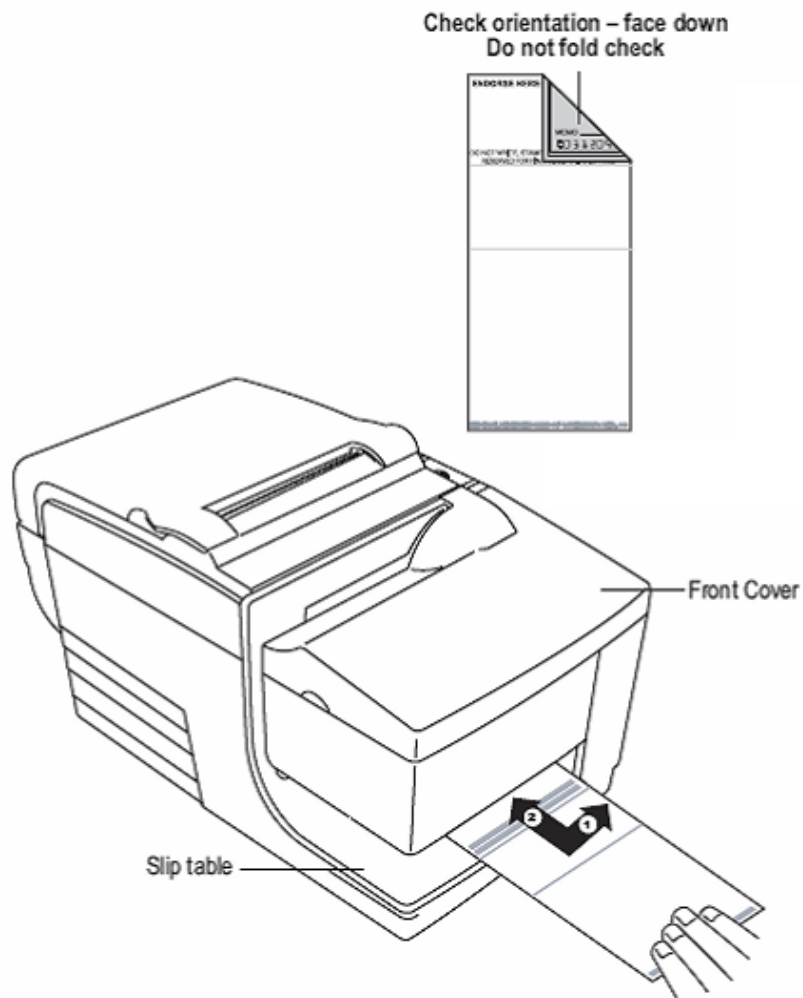


5. Click the “Enable MICR” button and should have success in the main GUI.

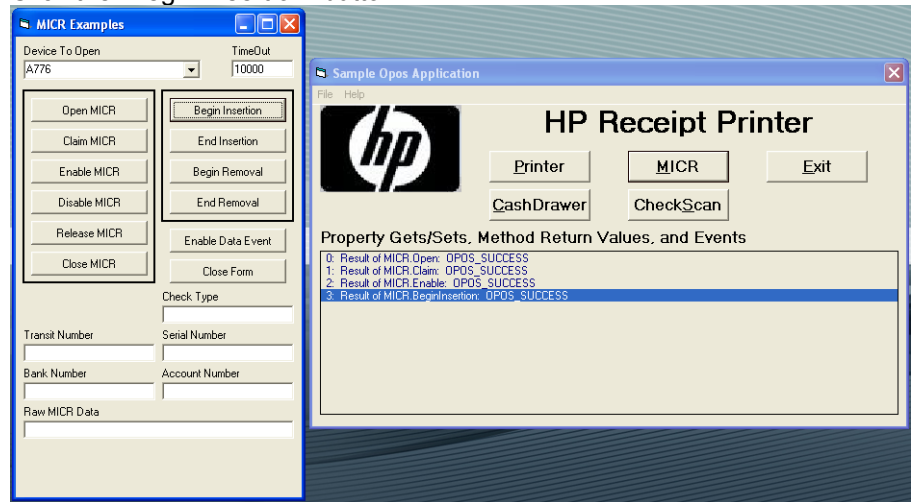


If one receives a message stating “NO Hardware” and the LED is blinking on the printer, please ensure that there is not a paper jam.

6. Insert the check in the front of the printer until the front LED comes on.

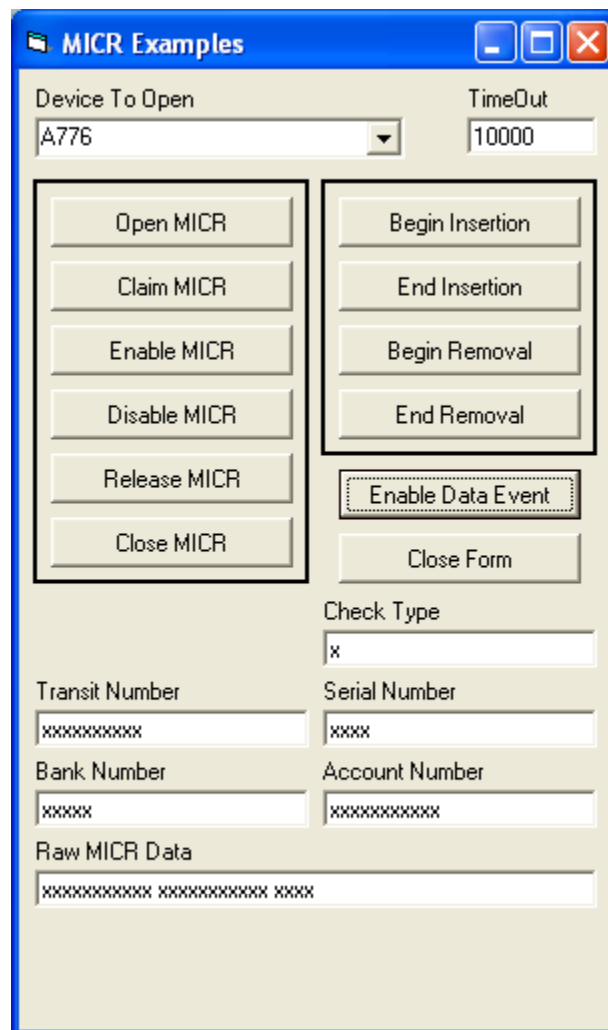
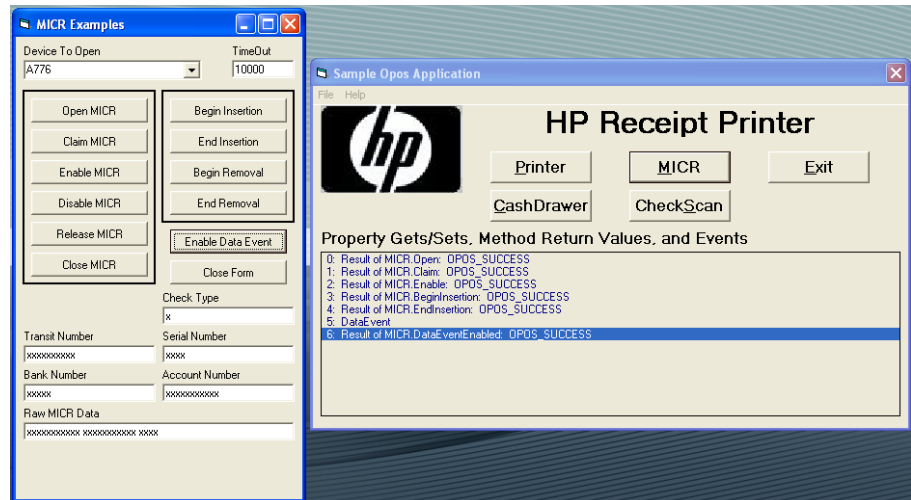


7. Click the “Begin Insertion” button.



8. Click the “End Insertion” button. At this point the printer will perform the MICR operation; the document should come out the front and then will be returned back to the bottom portion of the printer.

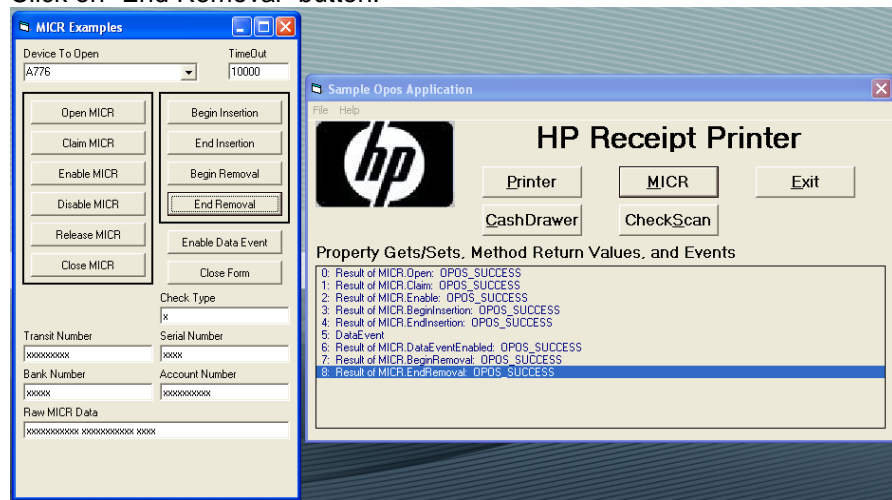
9. Click the “Enable Data Event”. The data from the MICR should appear in the bottom of the GUI.



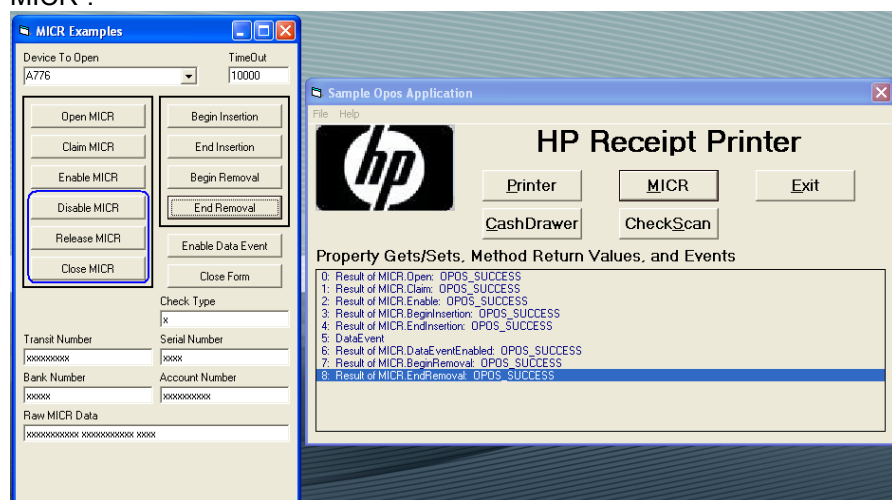
Note in the above example the actual number have been replaced the “x”.

10. Click on "Begin Removal" and remove the check from the printer when it has been ejected.

11. Click on "End Removal" button.



12. To exit the application "Disable the MICR" / "Release the MICR" / "Close the MICR".



13. Click on “Close Form” button.

The screenshot shows a Windows-style application window titled "MICR Examples". It contains several controls for interacting with a MICR device. At the top, there are two fields: "Device To Open" with a dropdown menu showing "A776", and "TimeOut" with a text box containing "10000". Below these are two columns of buttons. The left column contains: "Open MICR", "Claim MICR", "Enable MICR", "Disable MICR", "Release MICR", and "Close MICR". The right column contains: "Begin Insertion", "End Insertion", "Begin Removal", "End Removal", "Enable Data Event" (which is disabled, shown with a dotted border), and "Close Form" (which is highlighted with a red rectangle). Below the buttons, there are four input fields: "Check Type" with "x", "Transit Number" with "xxxxxxxx", "Serial Number" with "xxxx", "Bank Number" with "xxxxx", and "Account Number" with "xxxxxxxxxxx". At the bottom, there is a "Raw MICR Data" section with a text box containing "xxxxxxxxxx xxxxxxxxxxxx xxxxx".

Device To Open	TimeOut
A776	10000

Buttons
Open MICR
Claim MICR
Enable MICR
Disable MICR
Release MICR
Close MICR
Begin Insertion
End Insertion
Begin Removal
End Removal
Enable Data Event
Close Form

Check Type	Transit Number	Serial Number	Bank Number	Account Number
x	xxxxxxxx	xxxx	xxxxx	xxxxxxxxxxx

Raw MICR Data

xxxxxxxxxx xxxxxxxxxxxx xxxxx

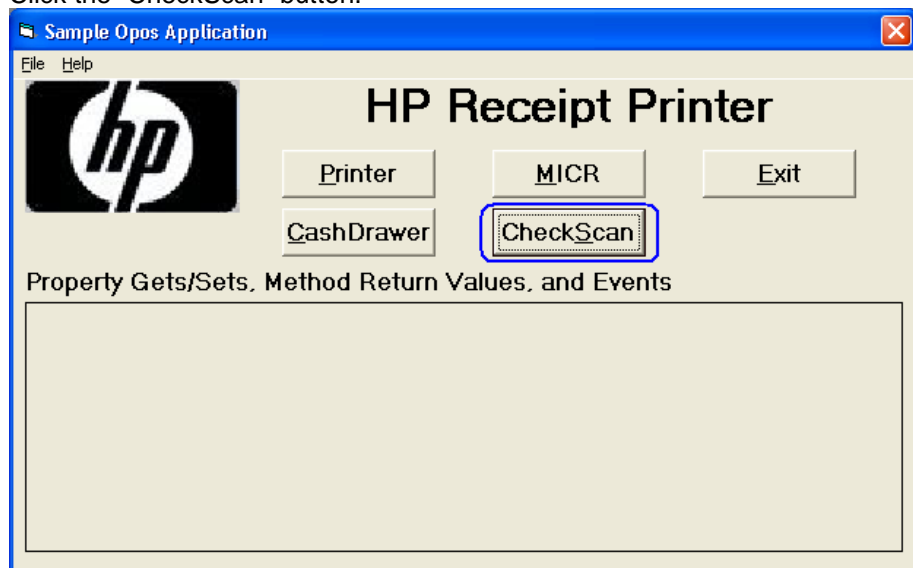
2.2.12 **OPOS Test Applet for the CheckScan**

The following is overview of the steps to test the receipt printer followed by details steps:

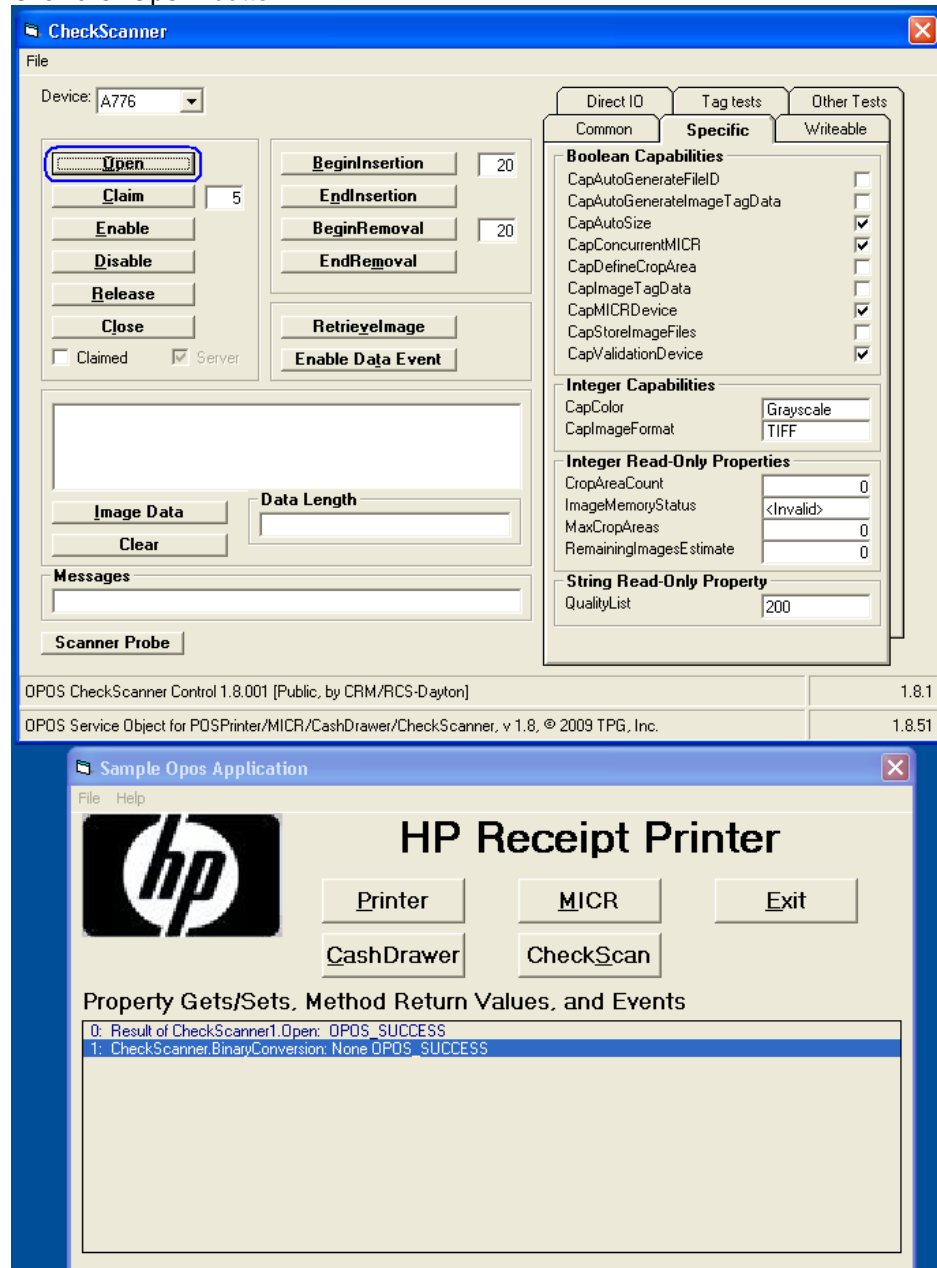
1. Start the "Sample_OPOS_Application.EXE".
2. Click the "CheckScan" button.
3. Click the "Open" button.
4. Click the "Claim" button.
5. Click the "Enable" button.
6. Click the "Begin Insertion" button. You should hear a click noise from the printer.
7. Insert the check face up in the front of the printer until the front LED comes on.
8. Click the "End Insertion" button. At this point the printer will perform the "CheckScan" operation; the document should come out the front and then will be returned back to the bottom portion of the printer.
9. Click the "Enable Data Event" button.
10. Click the "Retrieve Image" button.
11. Click on "SAVE AS" under "FILE" to save the image that was captured. Save the file with "TIF" extension. After the file is save in the message box will state "File Written".
12. Click on "BEGINREMOVAL" button.
13. Click on "EndREMOVAL" button.
14. Close the "CheckScan".
15. Close the form.

Detail Steps

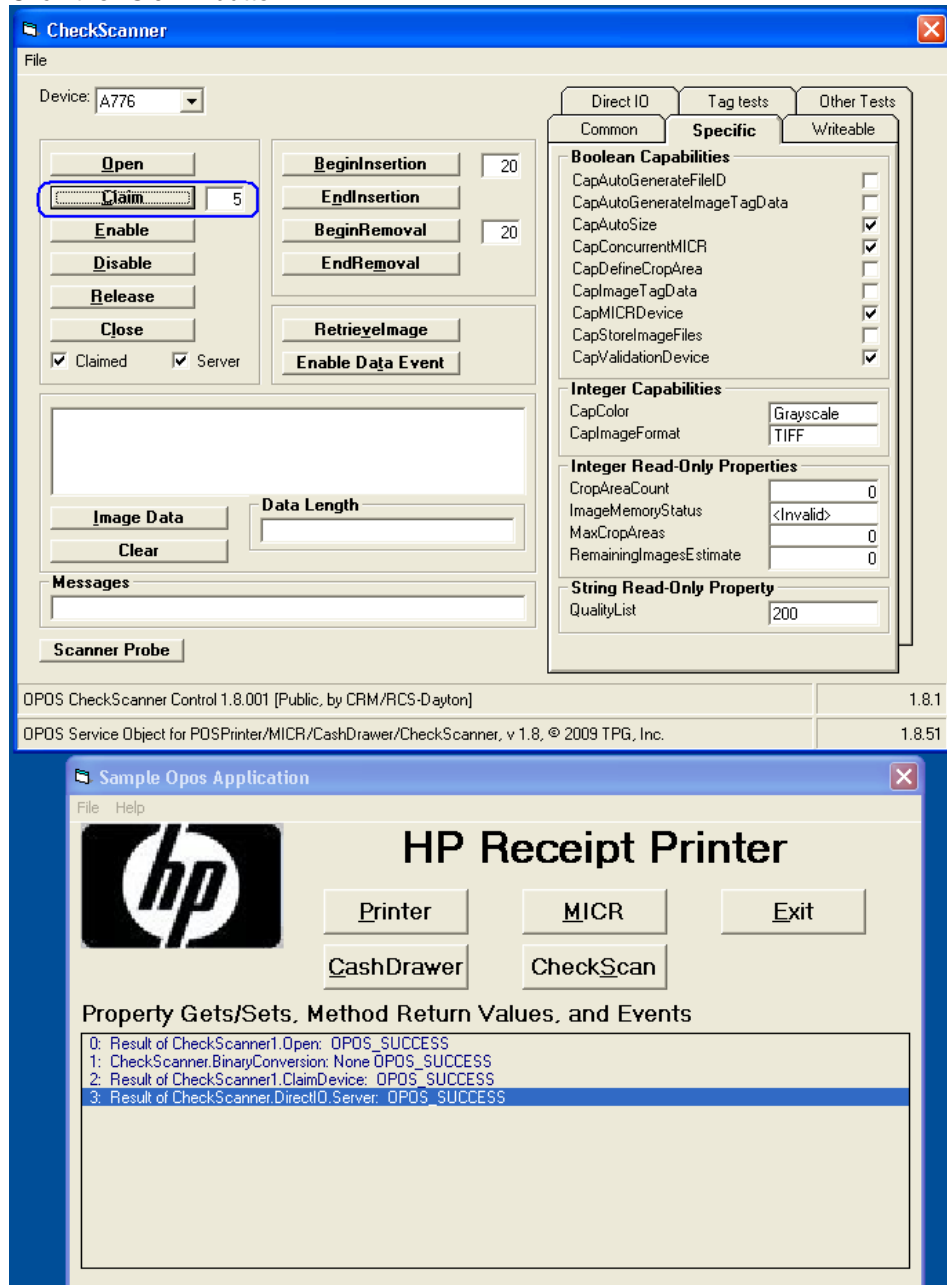
1. Start the "Sample_OPOS_Application.EXE" that can be found in the start menu or in the "C:\xxxxxx\ Point of Sale\Receipt Printer\OPOS Test Utility" subfolder.
2. Click the "CheckScan" button.



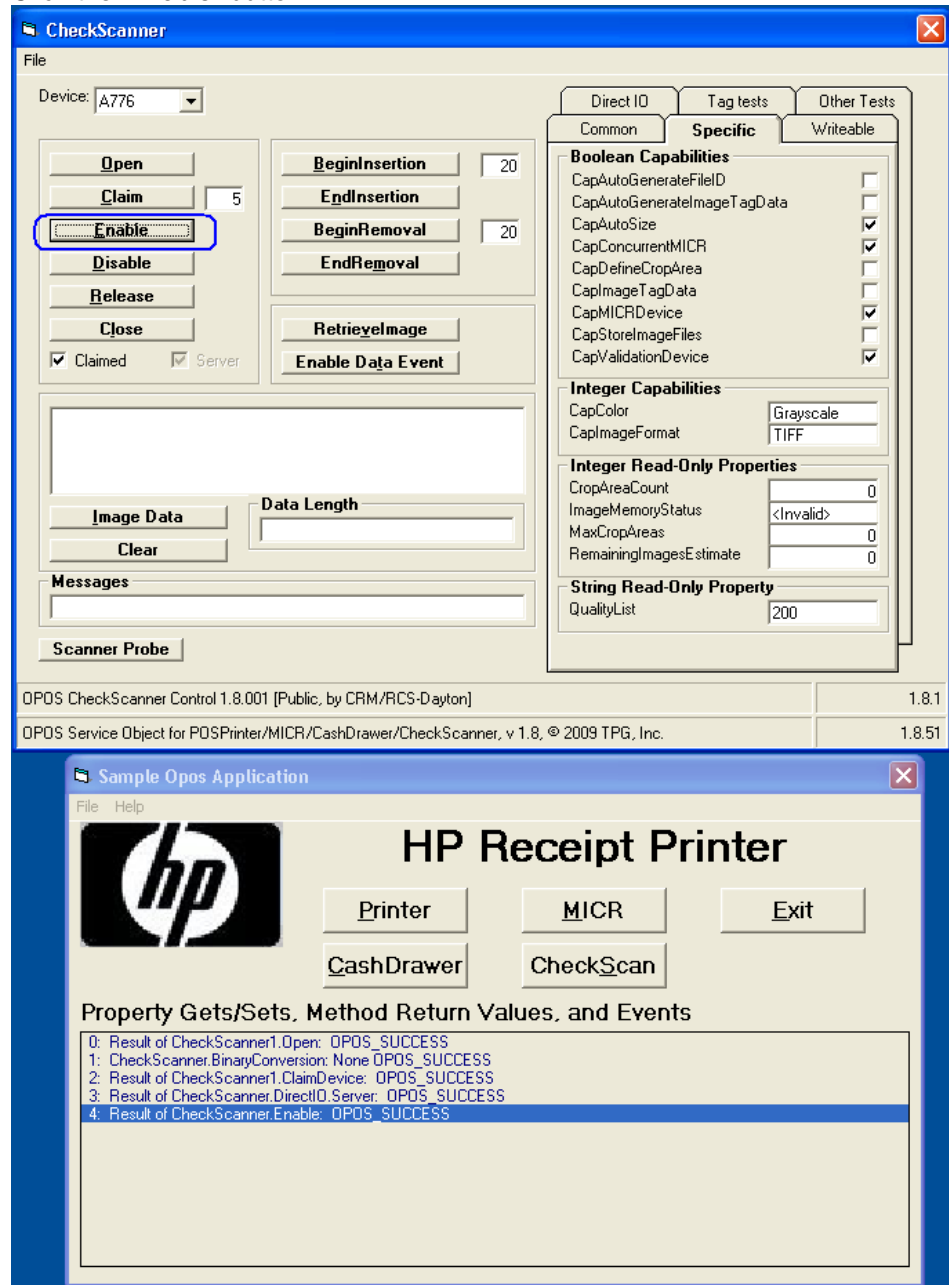
3. Click the “Open” button.



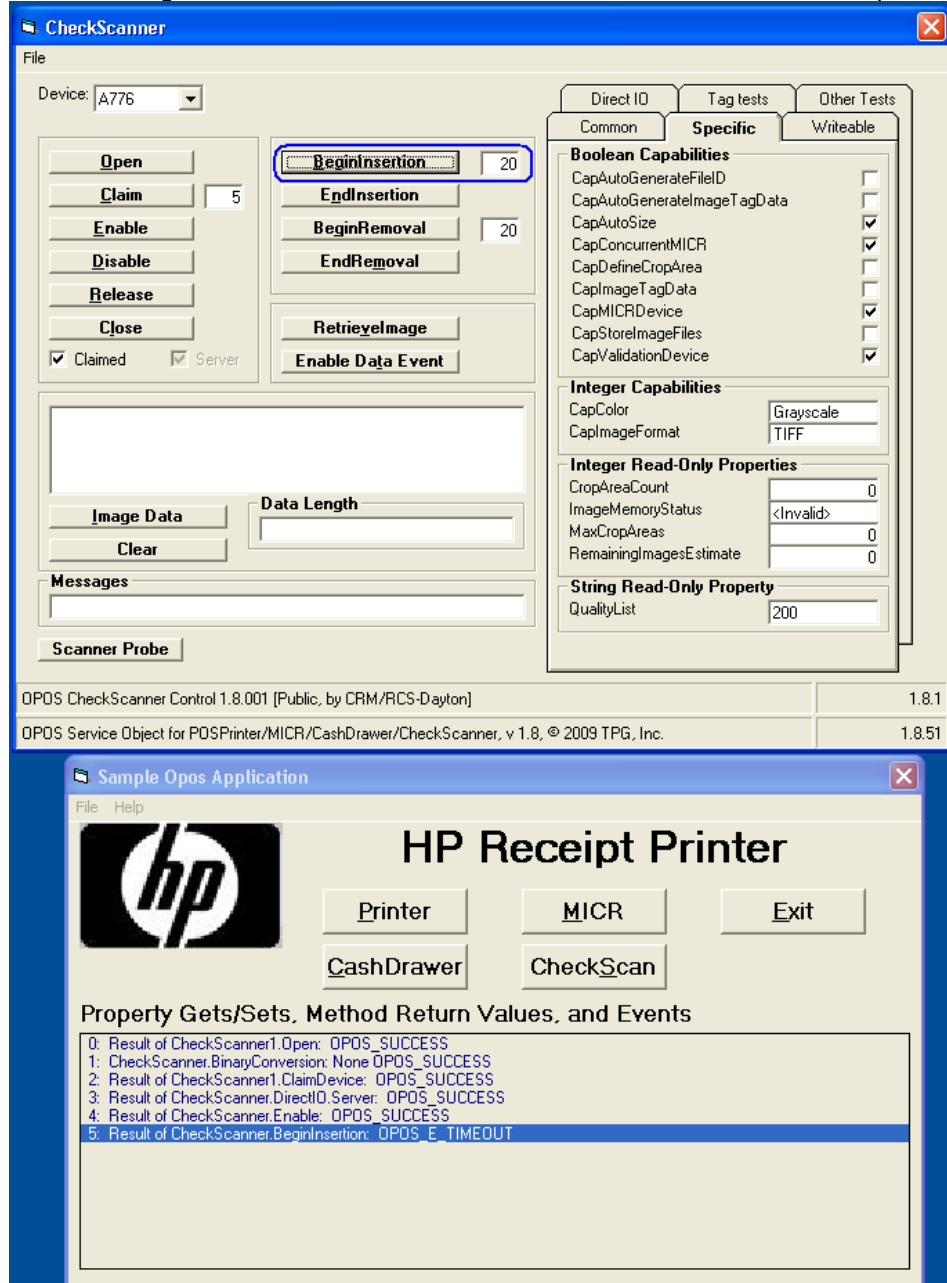
4. Click the “Claim” button.



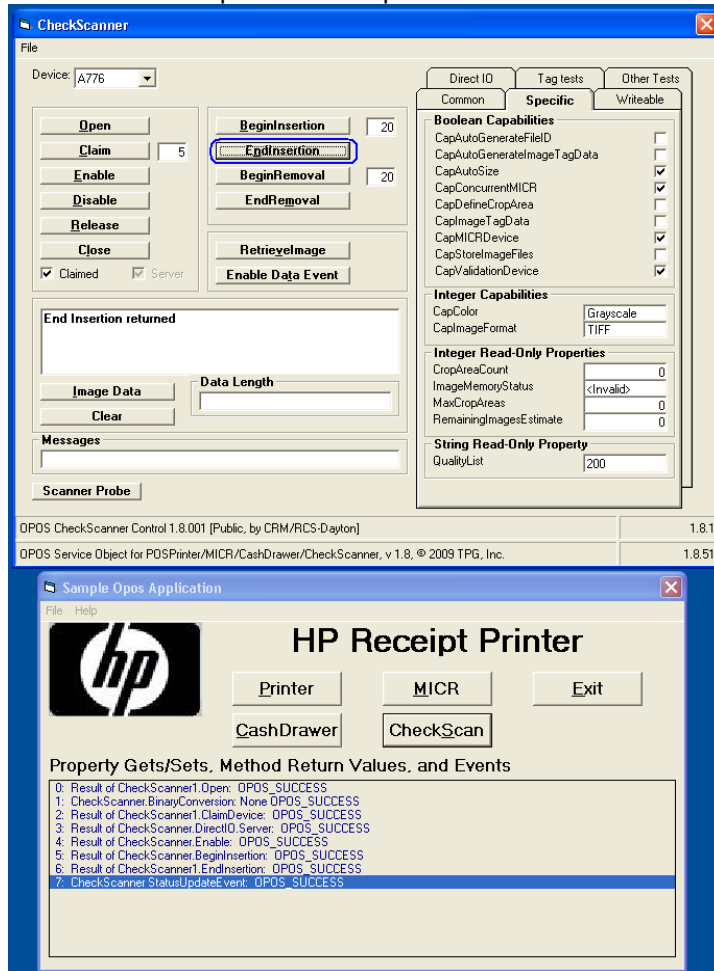
5. Click the “Enable” button.



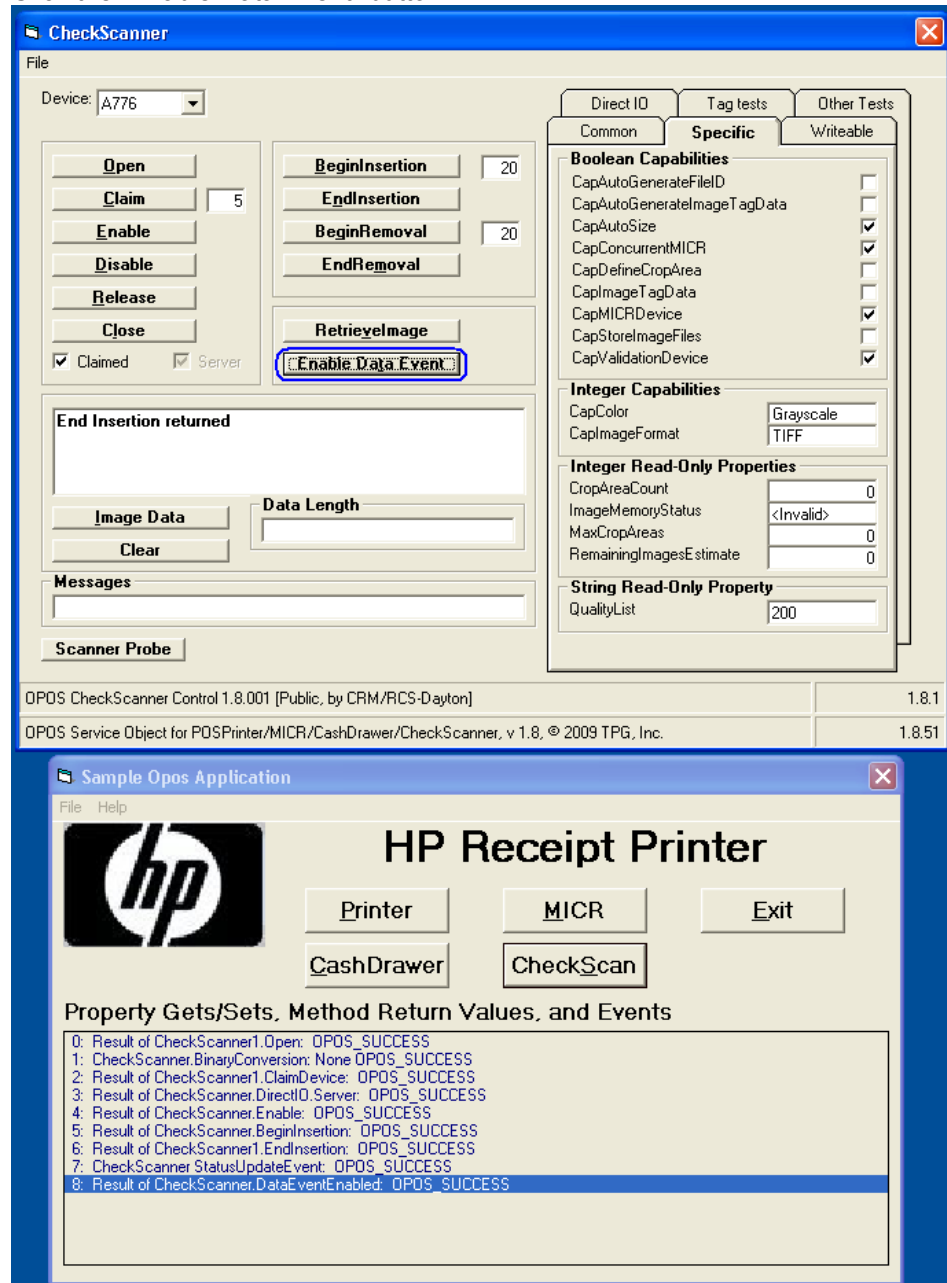
- Click the “Begin Insertion” button. You should hear a click noise from the printer.



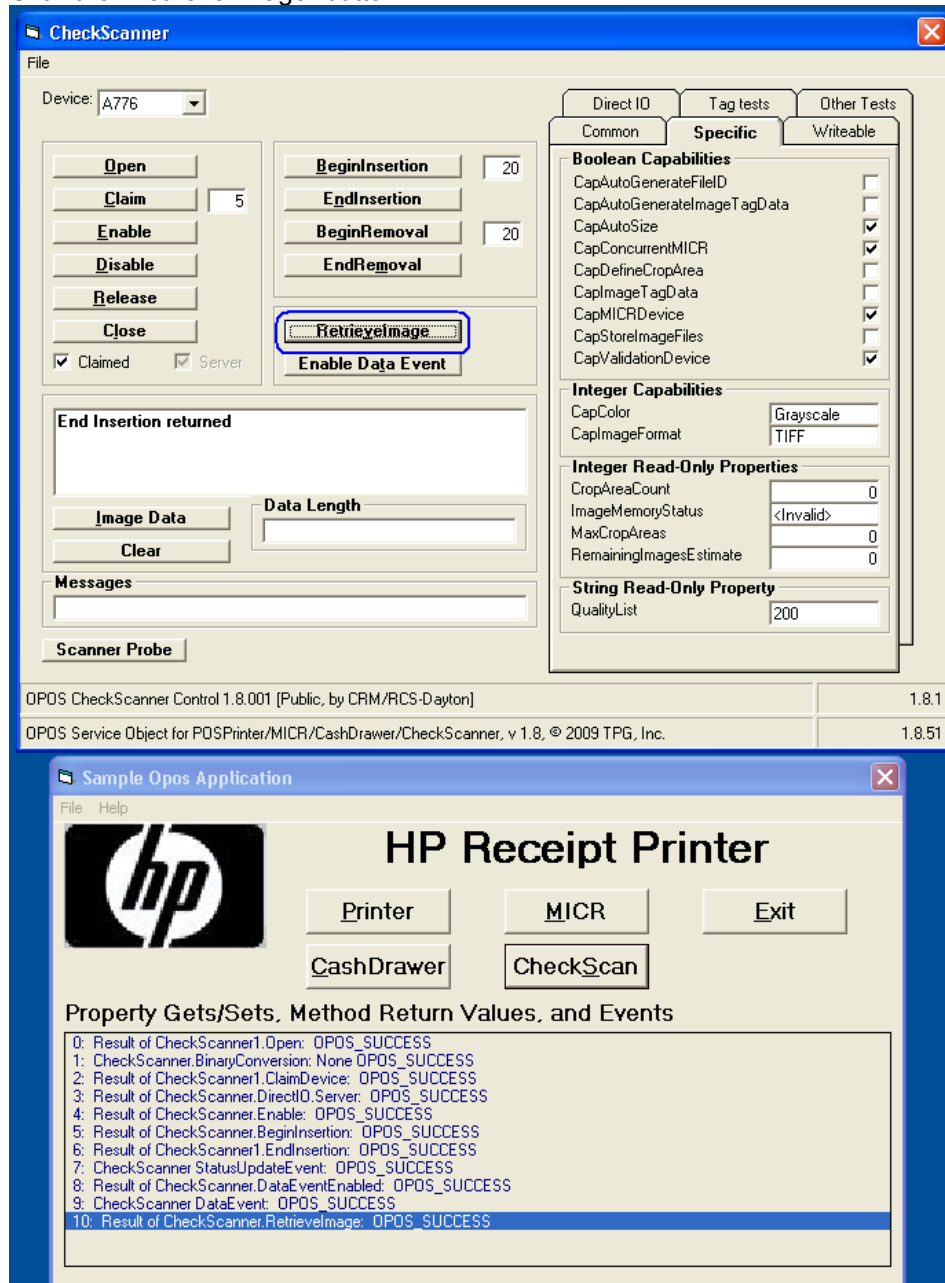
7. Insert the check face up in the front of the printer until the front LED comes on.
8. Click the “End Insertion” button. At this point the printer will perform the “CheckScan” operation; the document should come out the front and then will be returned back to the bottom portion of the printer.



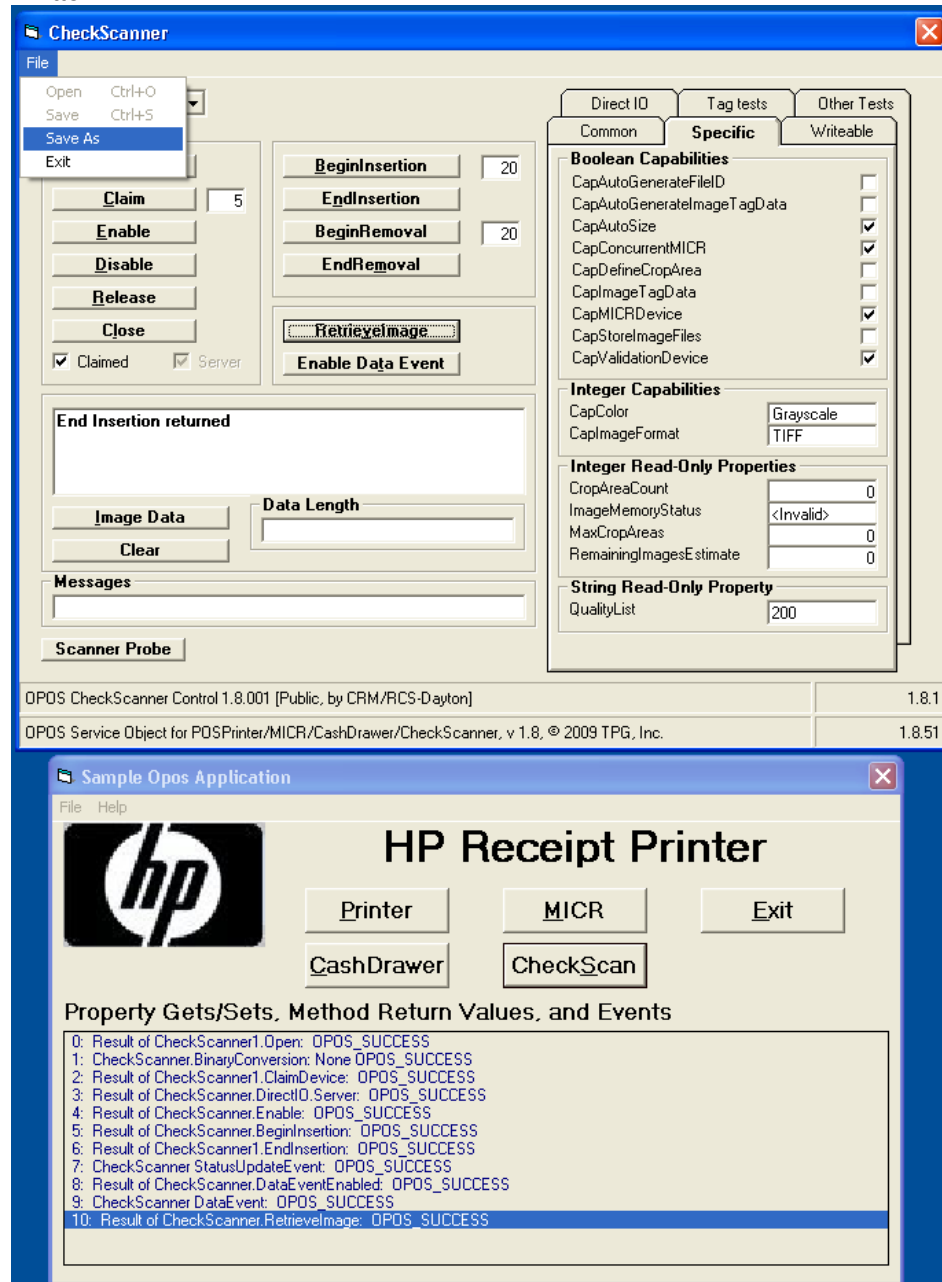
- Click the "Enable Data Event" button.

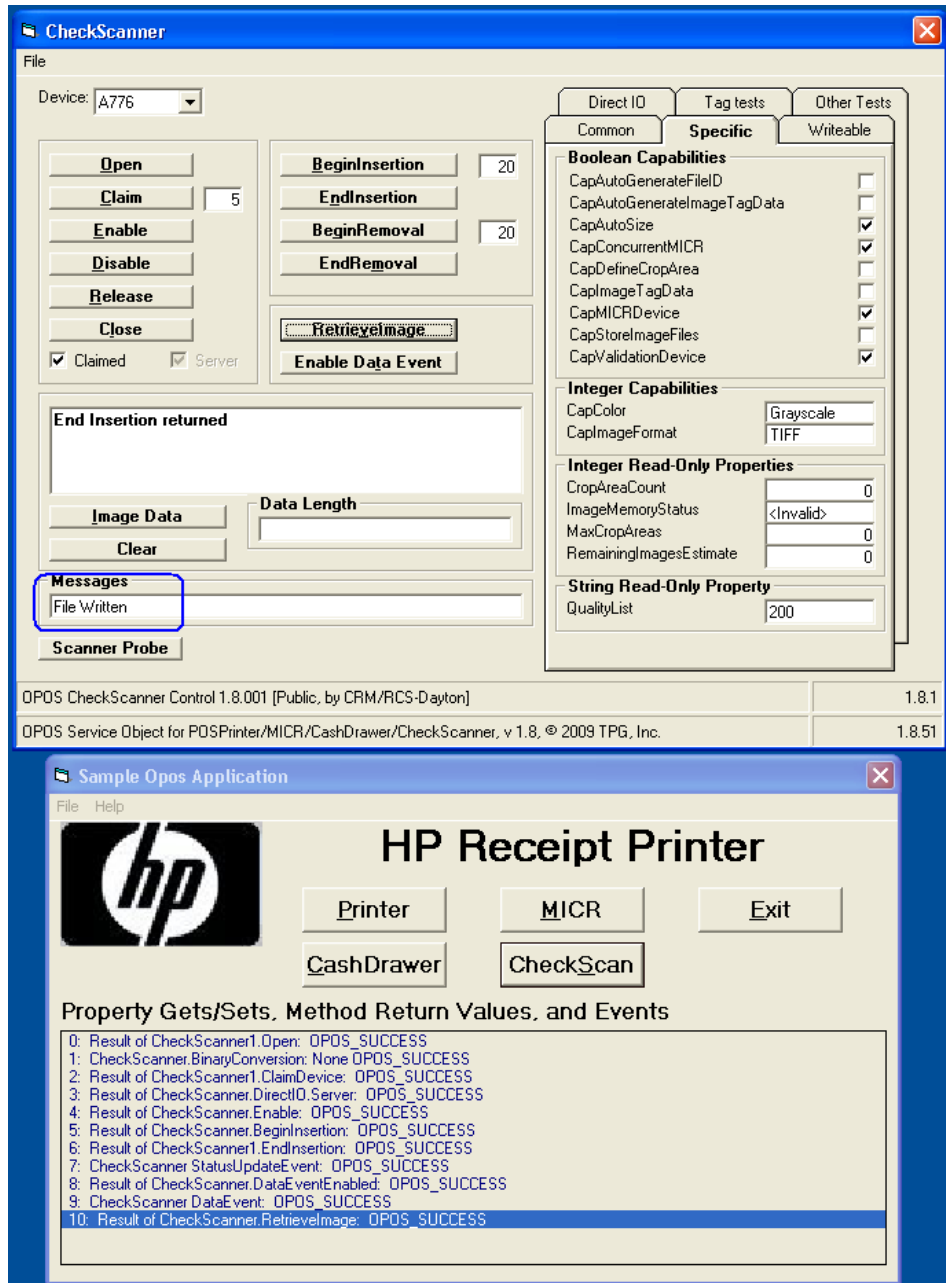


10. Click the "Retrieve Image" button.



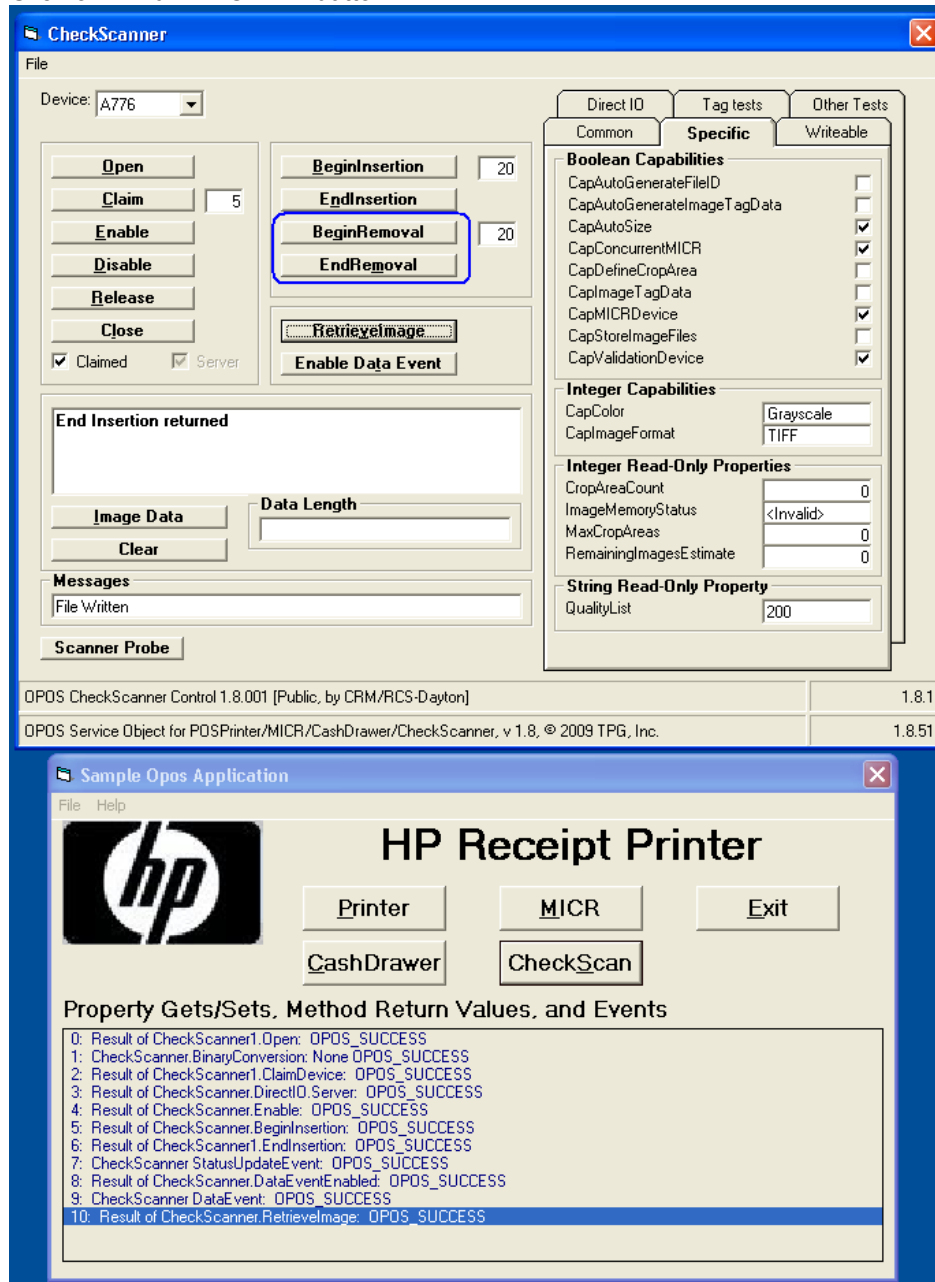
11. Click on “SAVE AS” under “FILE” to save the image that was captured. Save the file with “TIF” extension. After the file is save in the message box will state “File Written”.



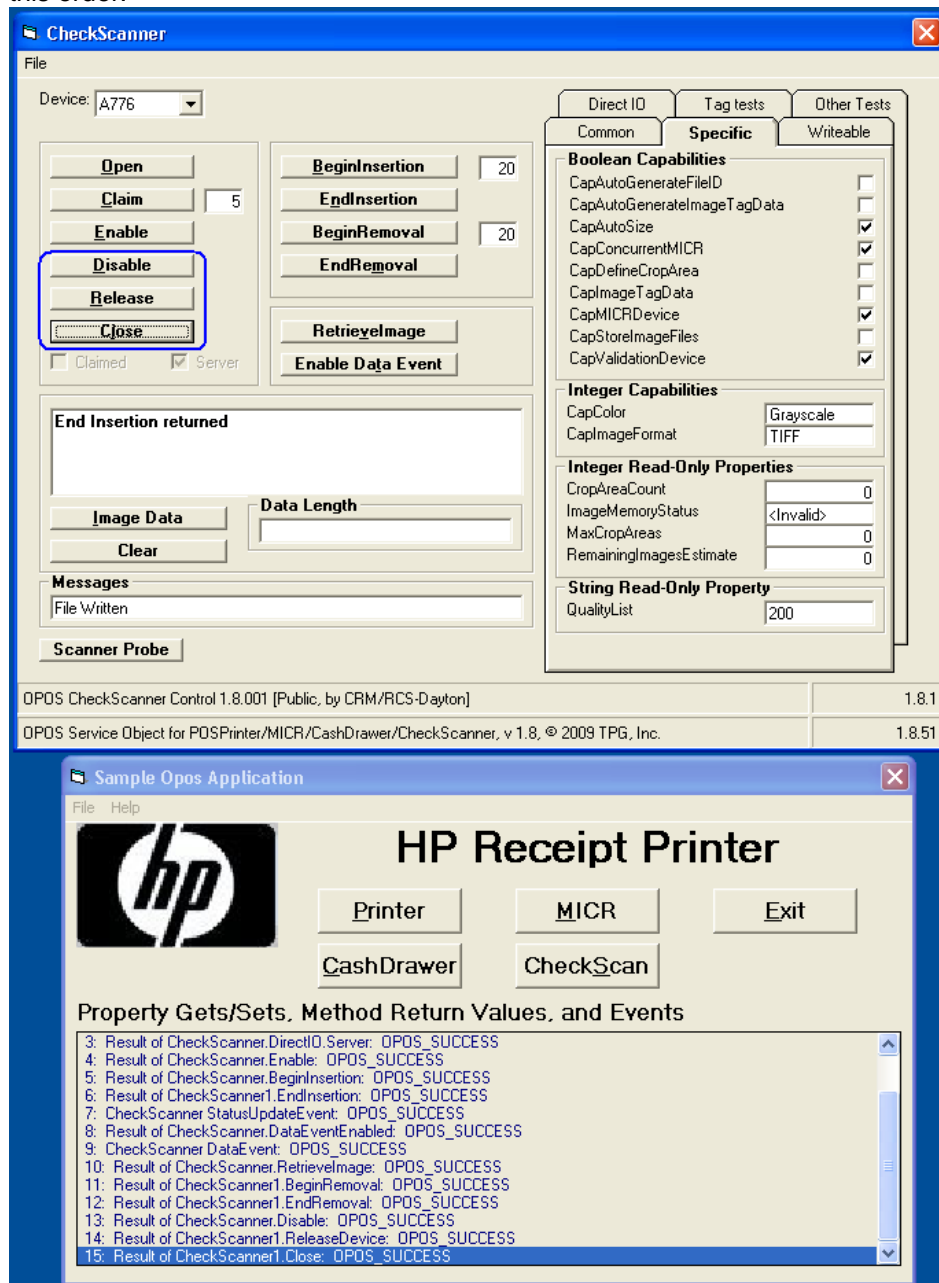


12. Click on “BEGINREMOVAL” button.

13. Click on “EndREMOVAL” button.



14. Close the “CheckScan” by clicking on DISABLE / RELEASE / CLOSE button in this order.



15. Close the form.

2.2.13 Receipt Printer Cash Drawer Signal

2.2.13.1 Cash Drawer Signal

The cash drawer is attached to the back of the printer using an RJ12 or similar connector (the smaller connector). On HP cash drawers, this connector sends a HIGH signal from the printer to open the cash drawer. The HIGH signal is the default setting for the HP OPOS receipt printer drivers installation.

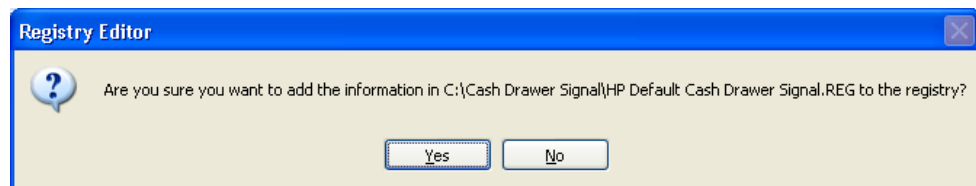
However, there are other cash drawers that may be using an opposite LOW signal to open the cash drawer. In this case, a user may need to configure the driver to also send a low signal in order for the cash drawer to open correctly (steps provided later). If the user has tried both settings and the cash drawer is still not opening, a different cash drawer cable may be needed. Check with the cash drawer vendor or the cash drawer vendor's documentation in regards to the LOW and HIGH signal setting.

2.2.13.2 Cash Drawer Signal Change

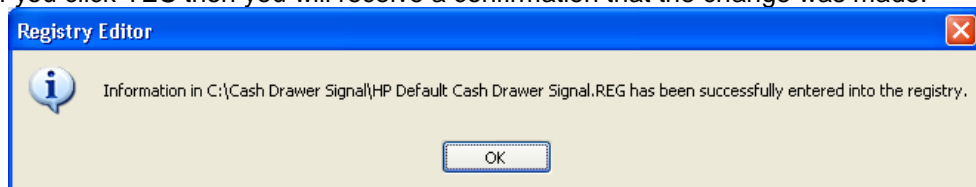
There is a folder called "Cash Drawer Signal" that contains the registry files needed to change the cash drawer signal option. The "Cash Drawer Signal" folder can be found on the "HP Point of Sale System Software and Documentation CD" in the receipt printer folder. The following is the description of the files:

- "HP Default Cash Drawer Signal.REG" file will change the cash drawer registry value to HIGH which is the default value when the OPOS drivers are installed and the value that is need when the HP cash drawer is attached to the HP Receipt printer.
- "HP Non-Default Cash Drawer Signal.REG" file will put the cash drawer registry value to LOW which may be tried for non-HP cash drawer if default HIGH option does not open the cash drawer.

You must have administrator right in order to make the change. When you double click on the file you will receive a prompt for confirmation that you want to make the changes.



If you click YES then you will receive a confirmation that the change was made.

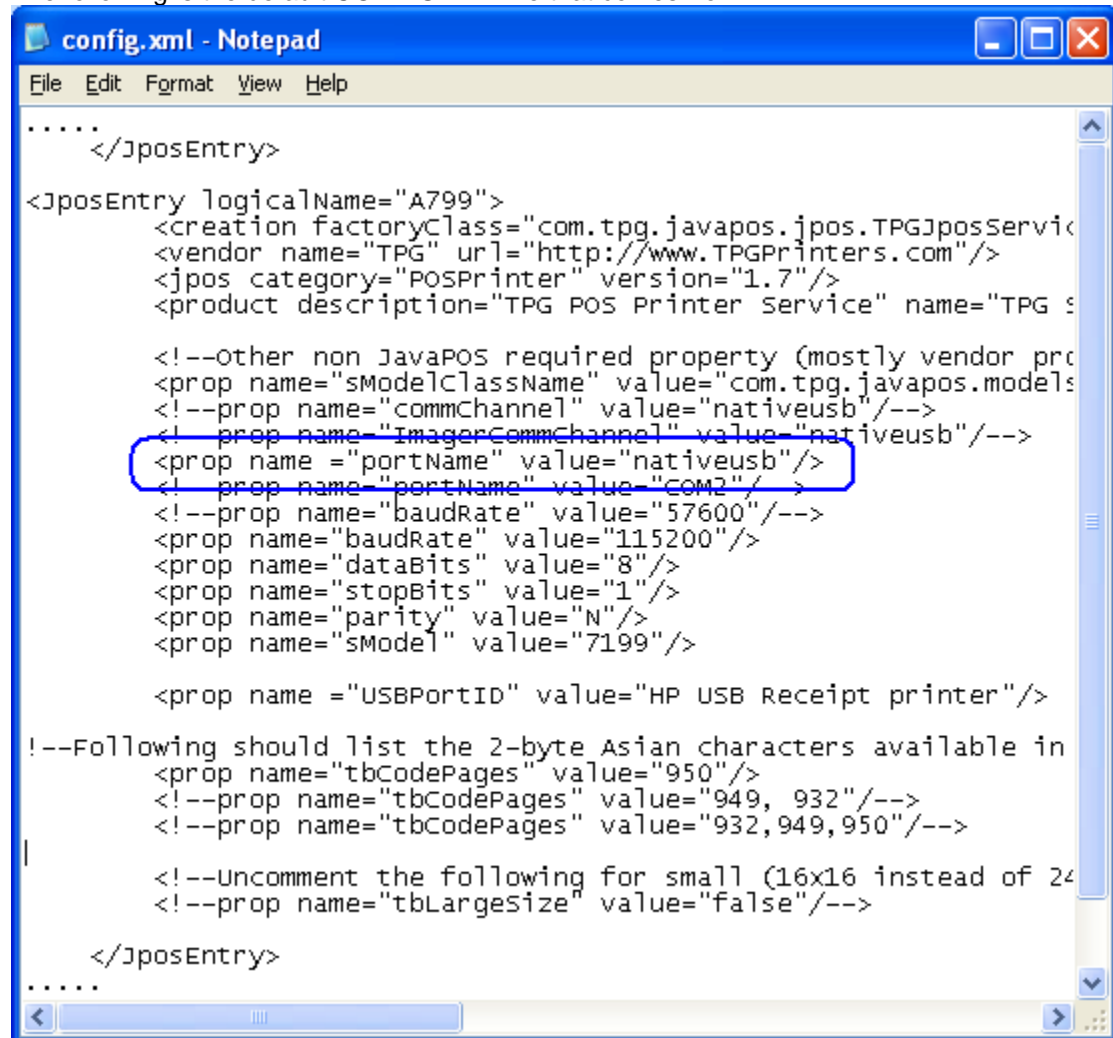


In order to test the signal cash, please refer to the cash drawer test section ([OPOS Test Applet for the Cash Drawer](#)) of this guide.

2.2.14 JPOS Drivers for the Receipt Printer Drivers – Serial Port Setting

If you are using the serial version of the receipt printer, the entry in the CONFIG.XML must be edited to reflect the COM (serial) port to which the printer is attached. The CONFIG.XML from HP is located in the “..\\Receipt Printer JPOS\\JPOS\\jpos\\res” folder, the location will most likely be in a different location for your point of sale application. Please contact your administrator or POS application provider to assist on making changes to the configuration setting.

The following is the default CONFIG.XML file that comes from HP:



```
.....
</JposEntry>
<JposEntry logicalName="A799">
  <creation factoryClass="com.tpg.javapos.jpos.TPGJposService" />
  <vendor name="TPG" url="http://www.TPGPrinters.com"/>
  <jpos category="POSPrinter" version="1.7"/>
  <product description="TPG POS Printer Service" name="TPG :

  <!--Other non JavaPOS required property (mostly vendor pro
  <prop name="sModelClassName" value="com.tpg.javapos.models
  <!--prop name="commChannel" value="nativeusb"/-->
  <!--prop name="ImagerCommChannel" value="nativeusb"/-->
  <prop name="portName" value="nativeusb"/>
  <!--prop name="portName" value="COM2"/-->
  <!--prop name="baudRate" value="57600"/-->
  <prop name="baudRate" value="115200"/>
  <prop name="dataBits" value="8"/>
  <prop name="stopBits" value="1"/>
  <prop name="parity" value="N"/>
  <prop name="sModel" value="7199"/>

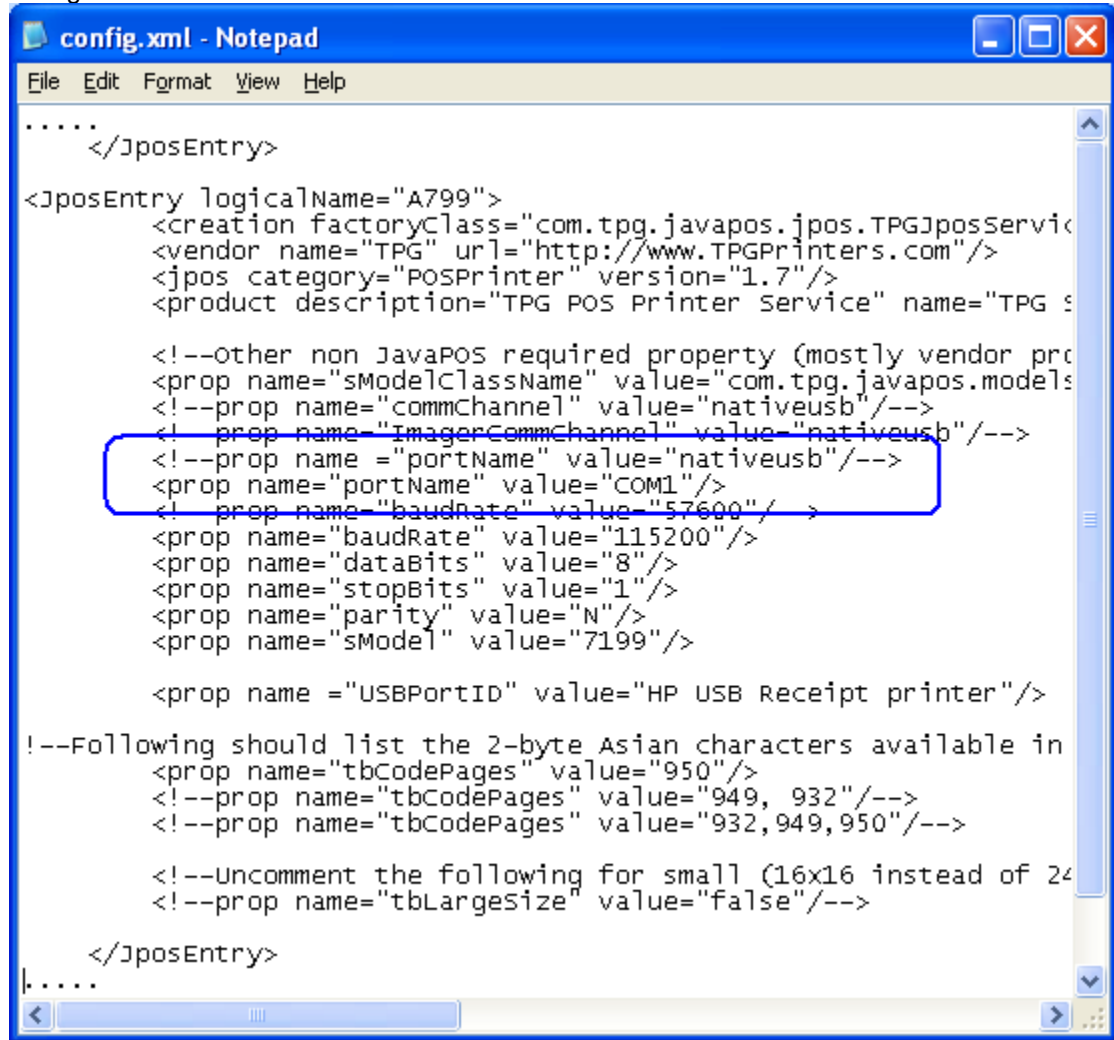
  <prop name="USBPortID" value="HP USB Receipt printer"/>

  <!--Following should list the 2-byte Asian characters available in
  <prop name="tbCodePages" value="950"/>
  <!--prop name="tbCodePages" value="949, 932"/-->
  <!--prop name="tbCodePages" value="932,949,950"/-->

  <!--Uncomment the following for small (16x16 instead of 24
  <!--prop name="tbLargeSize" value="false"/-->

</JposEntry>
.....
```

If the printer is attached to COM1, one needs to comment out the USB entry / enable the COM port entry and enter the correct COM port. The following is an example of what the changes would look like:



```
.....
</JposEntry>
<JposEntry logicalName="A799">
  <creation factoryClass="com.tpg.javapos.jpos.TPGJposService" />
  <vendor name="TPG" url="http://www.TPGPrinters.com"/>
  <jpos category="POSPrinter" version="1.7"/>
  <product description="TPG POS Printer Service" name="TPG POS Printer Service" />

  <!--Other non JavaPOS required property (mostly vendor specific) />
  <prop name="sModelClassName" value="com.tpg.javapos.models.TPGModel" />
  <!--prop name="commChannel" value="nativeusb"/-->
  <!--prop name="imagerCommChannel" value="nativeusb"/-->
  <!--prop name="portName" value="nativeusb"/-->
  <prop name="portName" value="COM1"/>
  <!--prop name="baudRate" value="57600"/-->
  <prop name="baudRate" value="115200"/>
  <prop name="dataBits" value="8"/>
  <prop name="stopBits" value="1"/>
  <prop name="parity" value="N"/>
  <prop name="sModel" value="7199"/>

  <prop name="USBPortID" value="HP USB Receipt printer"/>

  <!--Following should list the 2-byte Asian characters available in the printer />
  <prop name="tbCodePages" value="950"/>
  <!--prop name="tbCodePages" value="949, 932"/-->
  <!--prop name="tbCodePages" value="932, 949, 950"/-->

  <!--Uncomment the following for small (16x16 instead of 24x24) />
  <!--prop name="tbLargeSize" value="false"/-->

</JposEntry>
.....
```

Note: Make sure the other communication parameters (Baudrate / DataBits, etc) all match your Windows setting.

2.2.15 JPOS Drivers for the Receipt Printer Drivers

The JPOS drivers are included in the HP Point of Sale image or can be obtained from HP POS Drivers and Documentation CD or from the HP.COM web site.

The following is an overview of the steps to test the receipt printer followed by detailed steps:

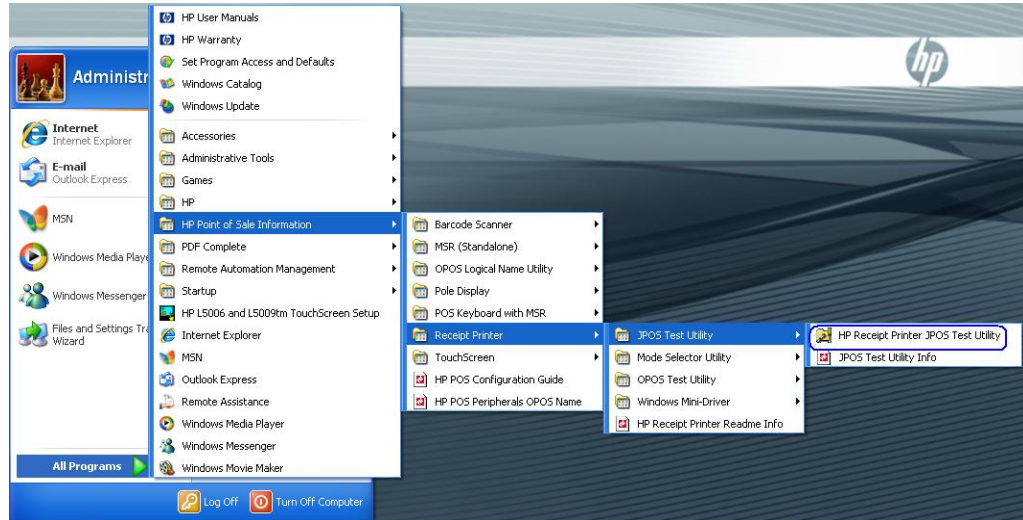
1. Start the JPOS test utility.
2. After a few seconds the JPOS test utility GUI will appear.
3. Select the printer model in the profile drop down box.
4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.
6. Click on the "ENABLE" button.
7. Click on the "SIMPLE PRINTING" tab.
8. Type some text in the "PRINT DATA" area; this is the text that should print on the receipt printer:

- After you have entered the text that you wish to print, click on the “PRINTNORMAL” button and the receipt printer will print the text.

Note: In order to see the text you will need to press the line feed button on the printer unless you added several carriage returns to your text.

Detail Steps

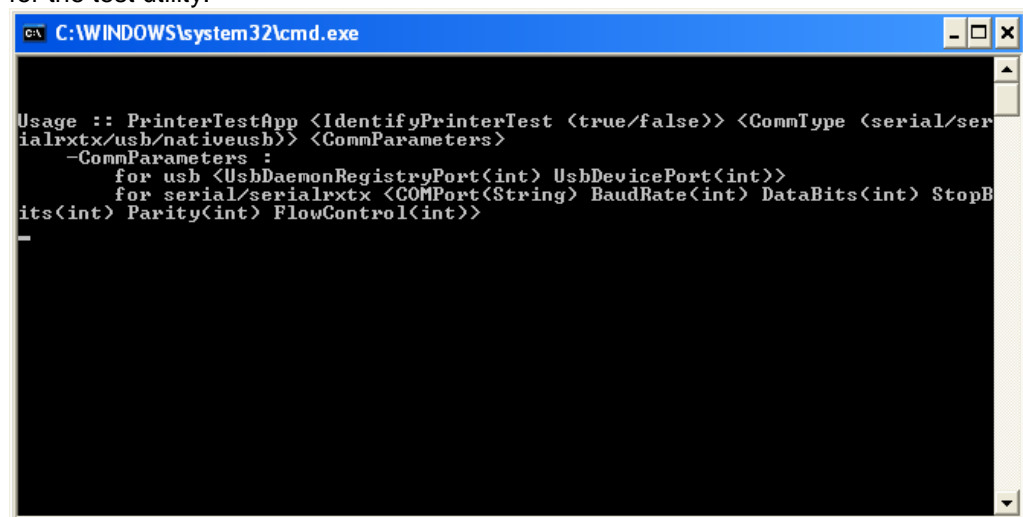
- Start the JPOS test utility either using the link in the START MENU:



OR

by launching the POSTEST.BAT file that is located in the JPOS folder within the receipt printer folder.

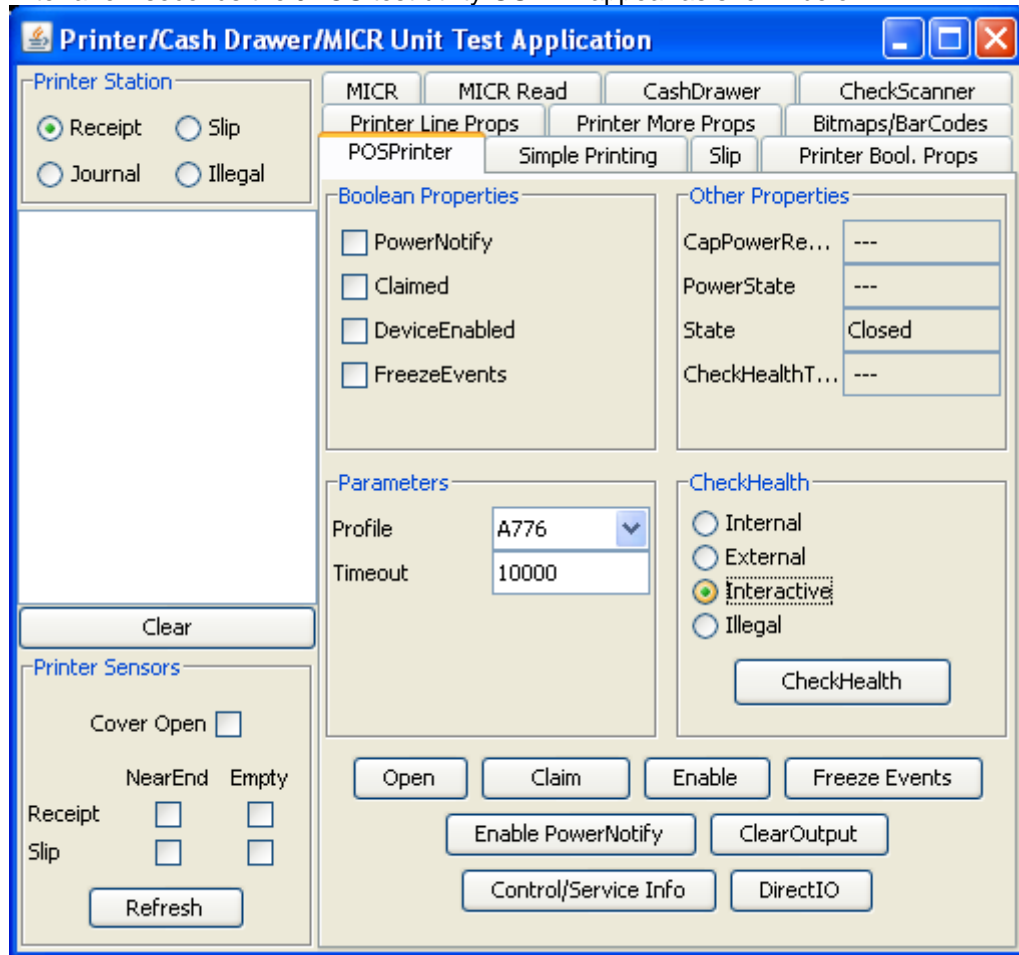
In the location the files were found execute the POSTEST.BAT file. Depending on your screen resolution the following screen will be in the background before the GUI appears for the test utility:



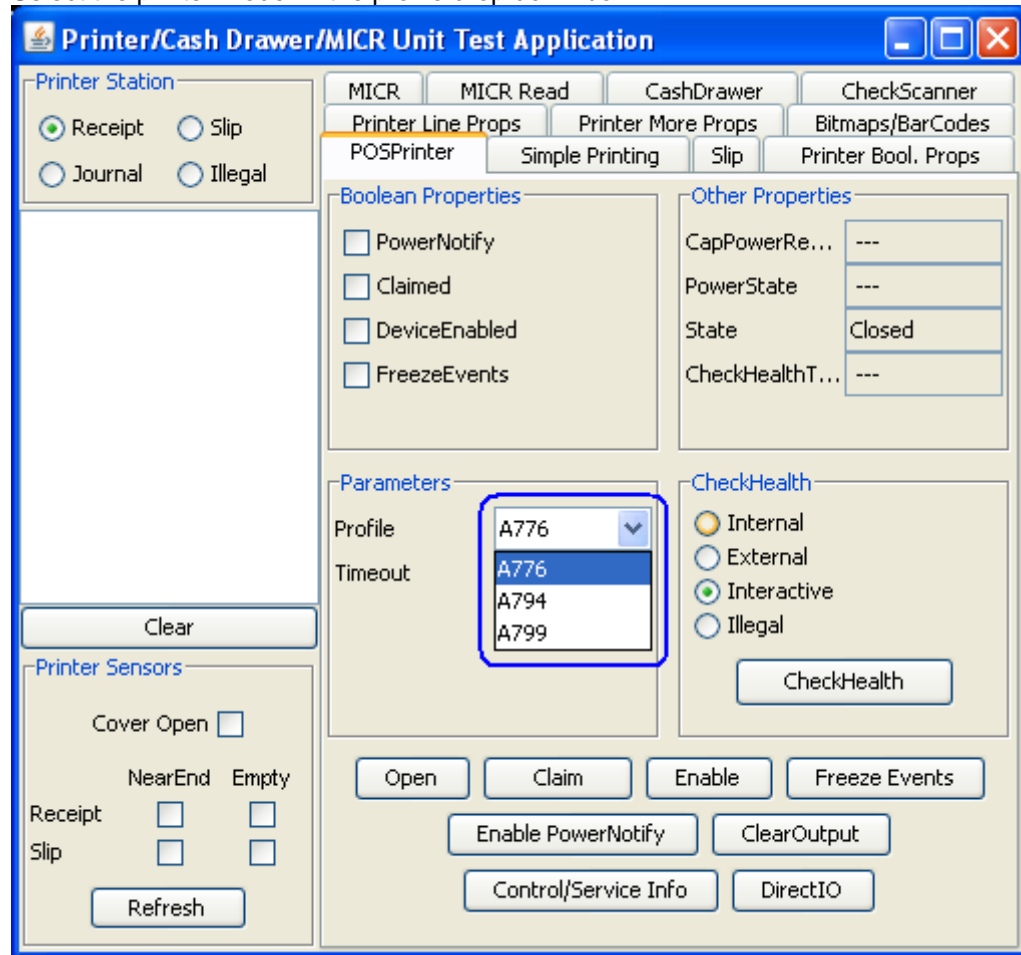
```
C:\WINDOWS\system32\cmd.exe

Usage :: PrinterTestApp <IdentifyPrinterTest <true/false>> <CommType <serial/serialrxtx/usb/nativeusb>> <CommParameters>
        -CommParameters :
            for usb <UsbDaemonRegistryPort<int> UshDevicePort<int>>
            for serial/serialrxtx <COMPort<String> BaudRate<int> DataBits<int> StopBits<int> Parity<int> FlowControl<int>>
```


2. After a few seconds the JPOS test utility GUI will appear as shown below:

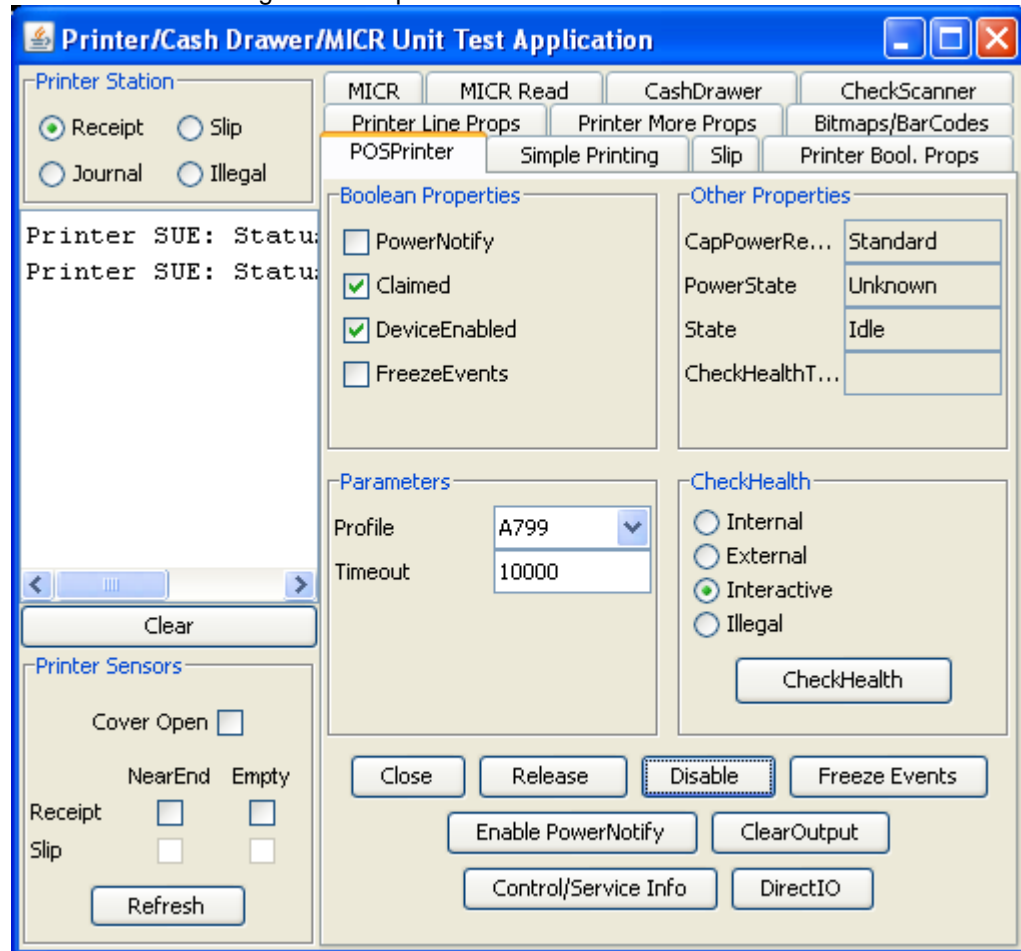


3. Select the printer model in the profile drop down box:

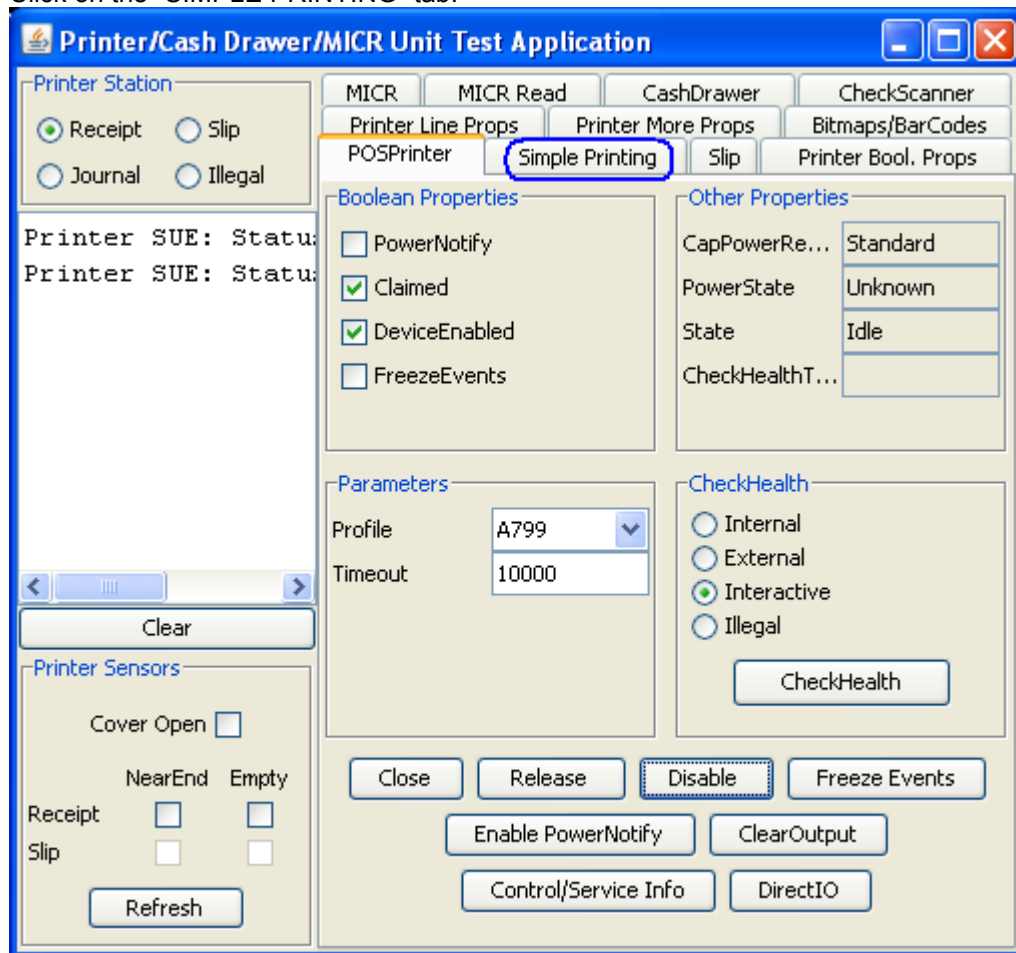


4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.

6. Click on the “ENABLE” button. After all three buttons are clicked the screen will look similar to the following screen capture:



7. Click on the "SIMPLE PRINTING" tab:



8. Type some text in the “PRINT DATA” area; this is the text that should print on the receipt printer:

Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☒ Receipt ☐ Slip
☐ Journal ☐ Illegal

Printer SUE: Status
Printer SUE: Status

Printer Sensors

Cover Open ☐
NearEnd Empty
Receipt ☐
Slip ☐
Refresh

String Data

A-Z

Escape Sequences

Paper cut: ESC|#P

Print Data

Type in the text that you would like to have printed in this box.

☐ AsyncMode
☐ FlagWhenIdle

9. After you have entered the text that you wish to print, click on the “PRINTNORMAL” button and the receipt printer will print the text.

Note: In order to see the text you will need to press the line feed button on the printer unless you added several carriage returns to your text.

Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☒ Receipt ☐ Slip
☐ Journal ☐ Illegal

Printer SUE: Statu
Printer SUE: Statu

Clear

Printer Sensors

Cover Open ☐
NearEnd Empty
Receipt ☐
Slip ☐
Refresh

MICR MICR Read CashDrawer CheckScanner
Printer Line Props Printer More Props
POSPrinter Simple Printing Slip Printer Bool. Props

String Data

A-Z Add Data

Escape Sequences

Paper cut: ESC|#P Parameter Add Seq

Print Data

Type in the text that you would like to have printed in this box.

Clear Add CR Add LF CR LF
AsyncMode FlagWhenIdle PrintNormal PrintImmediate
Validate Data SetLogo (Top) SetLogo (Btm)

2.2.16 JPOS Drivers for the Receipt Printer Drivers - CheckScanner

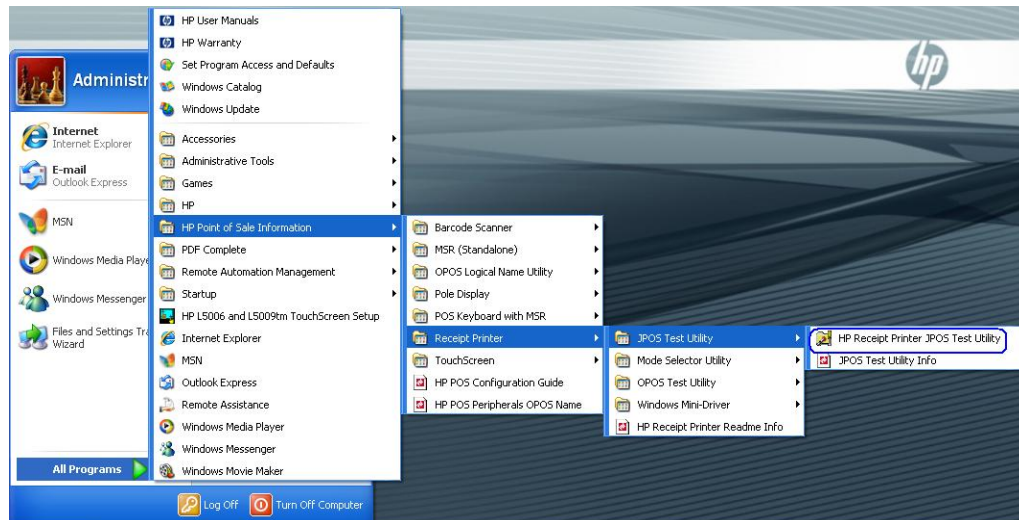
The JPOS drivers are included in the HP Point of Sale image or can be obtained from HP POS Drivers and Documentation CD or from the HP.COM web site.

The following is an overview of the steps to test the receipt printer followed by detailed steps:

1. Start the JPOS test utility
2. After a few seconds the JPOS test utility GUI will appear.
3. Select the "CheckScanner" tab.
4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.
6. Click on the "ENABLE" button.
7. Insert a piece of paper face up that you wish to capture an image of during this test in the front of the printer until the LED comes on. The paper should be inserted face up in the slip portion of the printer. Click on "Begin" button in the left "TransactionPrint" box.
8. Click on "END" button, the printer will make some noise and move the paper through the imager.
9. Enable the "Data Events Enabled" by click on the option in the GUI.
10. Click on the "RetrieveImage" button. After the button is pressed the status will be updated and some information will be filled about the image.
11. To view the image that was scanned click on "DisplayImage" button.
12. To Exit the application one needs to "Disable/Release/Close" the printer and then click on the "X" to close the application.
13. The piece of paper that was inserted in step 7 can be removed from the imager portion of the printer by pulling on the paper; there will be slight force needed when the paper is pulled.

Detail Steps

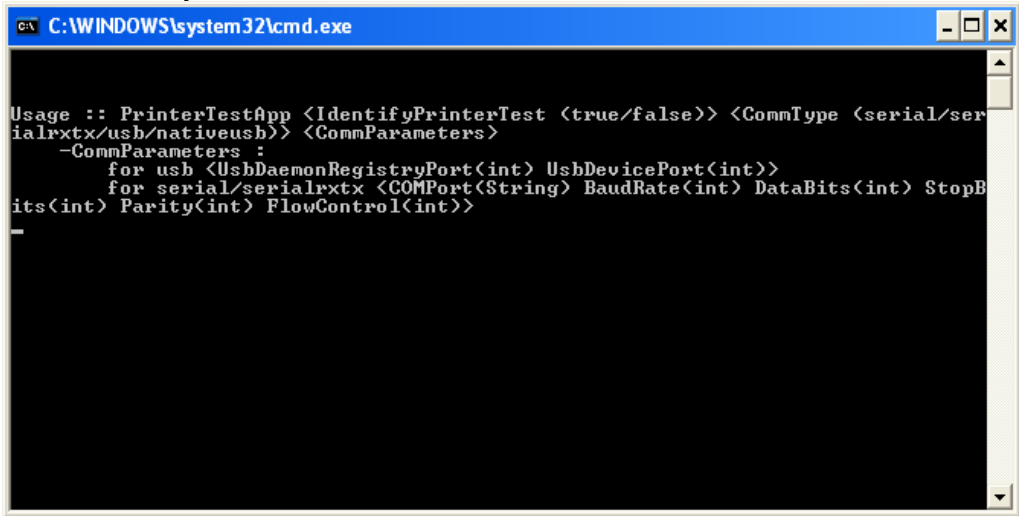
1. Start the JPOS test utility either using the link in the START MENU:



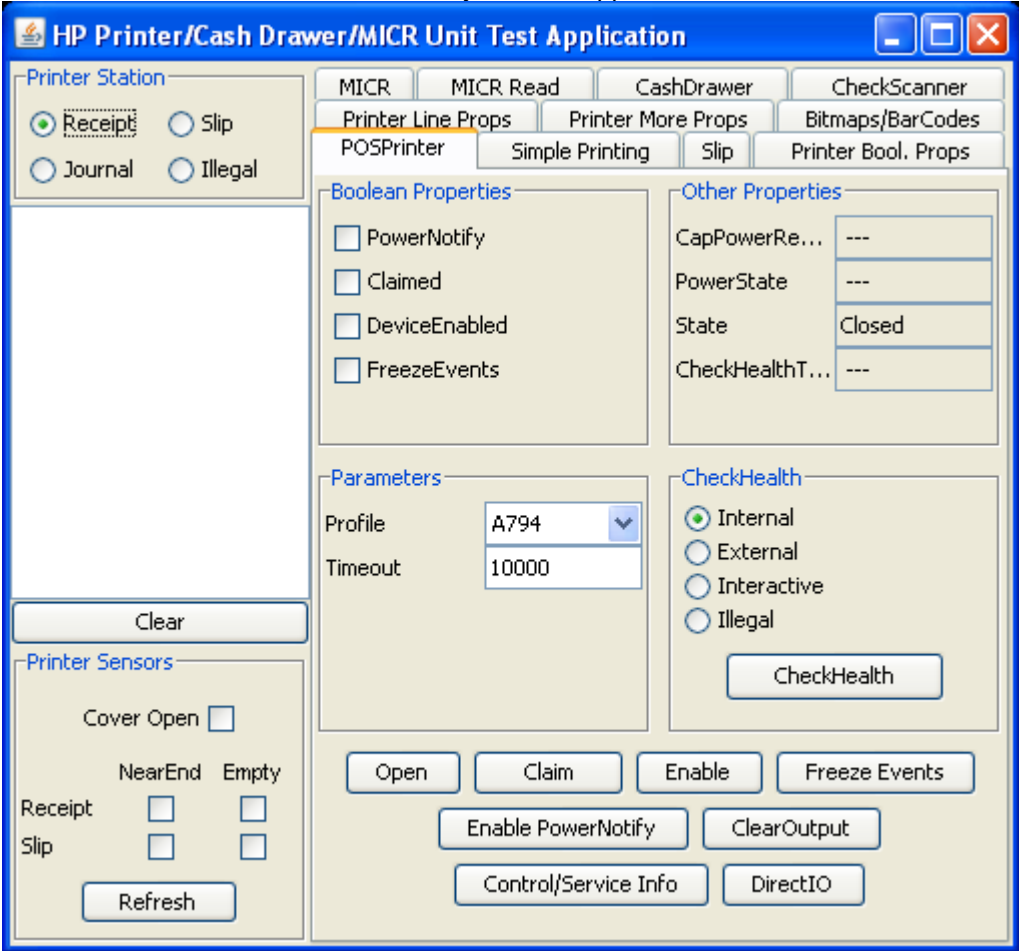
OR

by launching the POSTEST.BAT file that is located in the JPOS folder within the receipt printer folder.

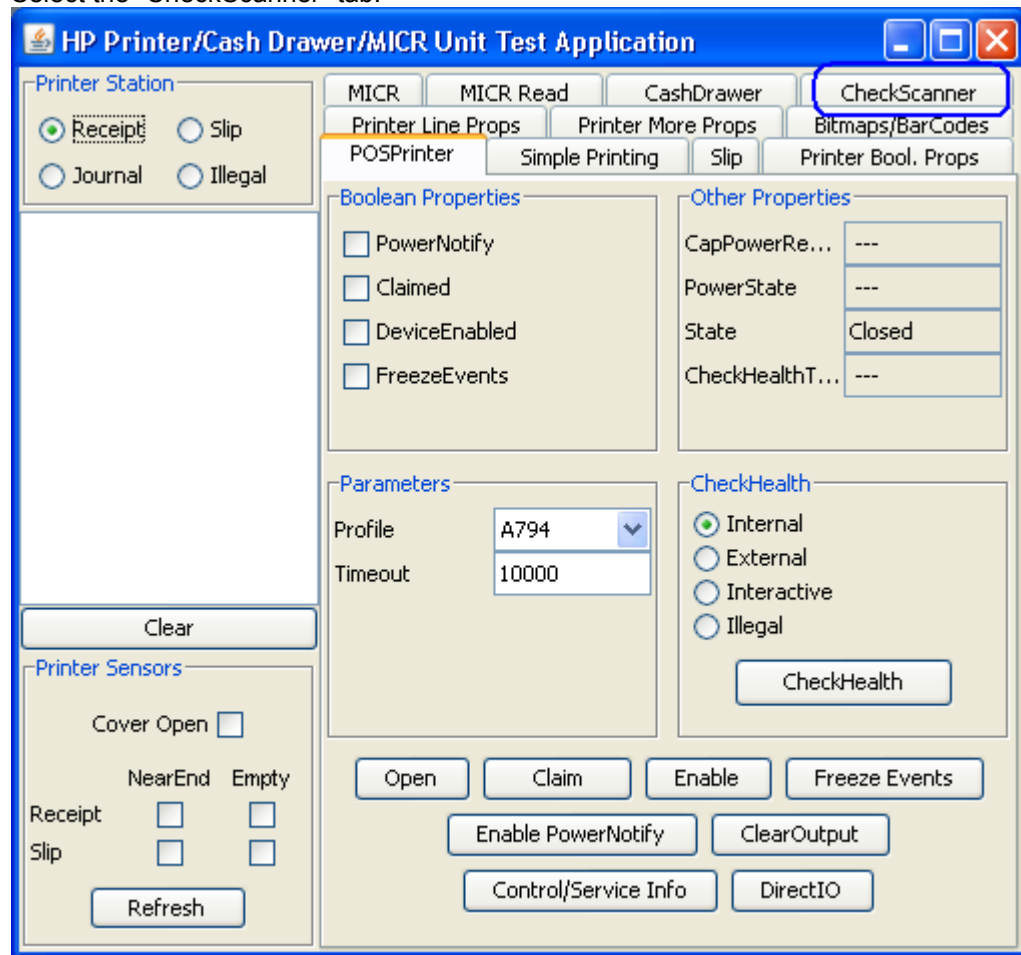
In the location the files were found execute the POSTEST.BAT file. Depending on your screen resolution the following screen will be in the background before the GUI appears for the test utility:



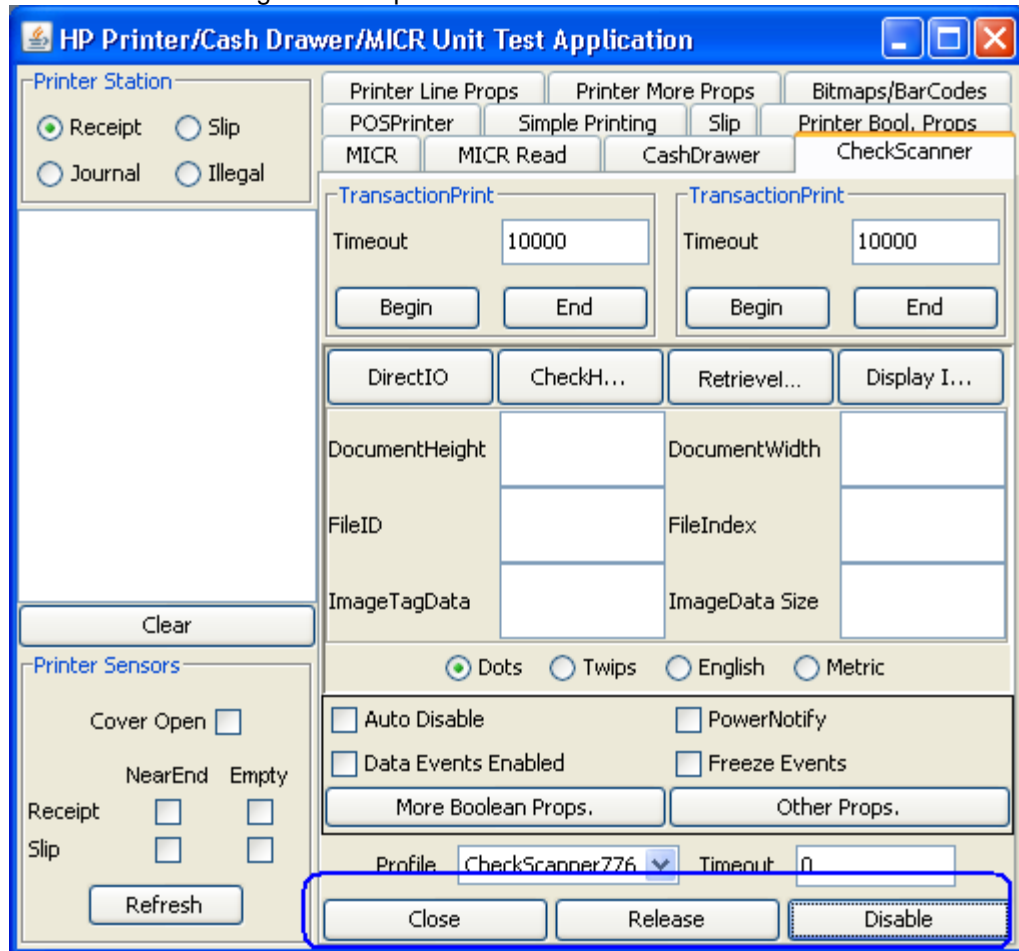
2. After a few seconds the JPOS test utility GUI will appear as shown below:



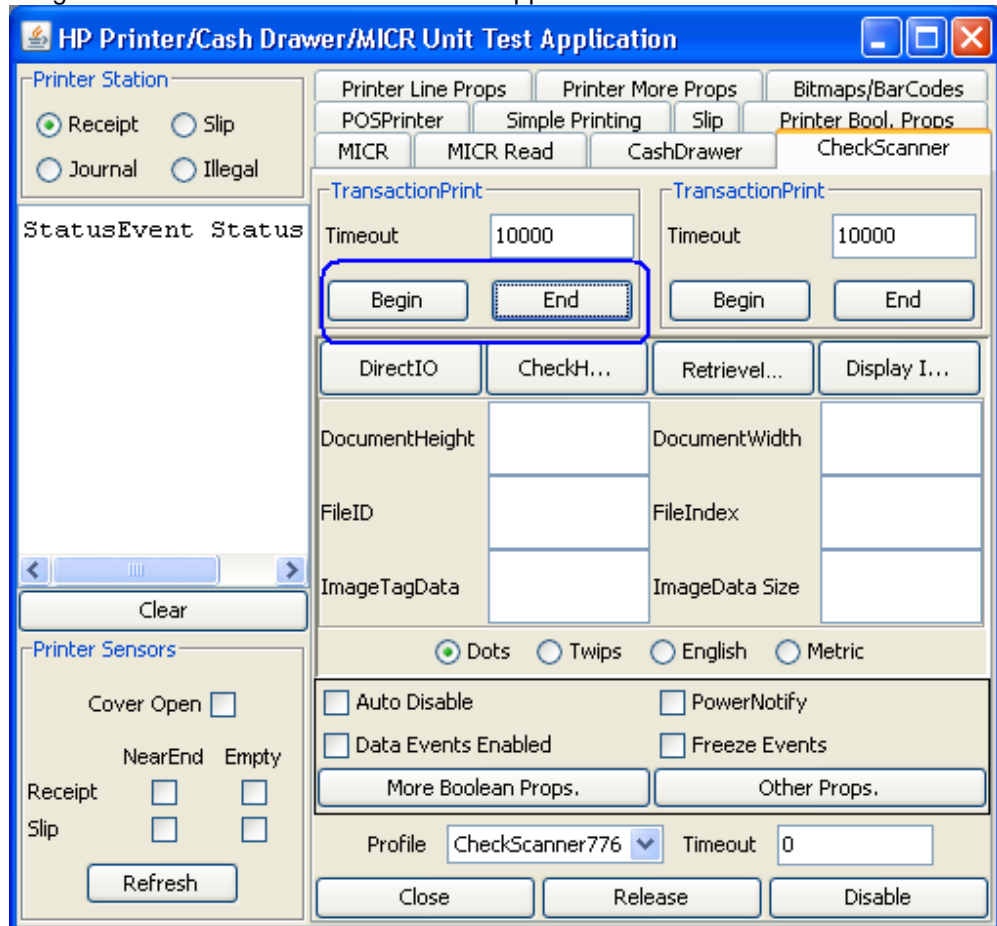
3. Select the "CheckScanner" tab.



4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.
6. Click on the "ENABLE" button. After all three buttons are clicked the screen will look similar to the following screen capture:



7. Insert a piece of paper face up that you wish to capture an image of during this test in the front of the printer until the LED comes on. The paper should be inserted face up in the slip portion of the printer. Click on "Begin" button in the left "TransactionPrint" box.
8. Click on "END" button, the printer will make some noise and move the paper through the imager. After a few seconds a status will appear in the status box.



In the open CMD box, it will note the amount of time it took to for the image transfer. The following is an example of the box (the time will vary):

```

Usage :: PrinterTestApp <IdentifyPrinterTest <true/false>> <CommType <serial/ser
ialrxtx/usb/nativeusb>> <CommParameters>
-CommParameters :
    for usb <UsbDaemonRegistryPort<int> UsbDevicePort<int>>
    for serial/serialrxtx <COMPort<String> BaudRate<int> DataBits<int> StopB
its<int> Parity<int> FlowControl<int>>
Image Transmission <millisec> = 829
  
```

9. Enable the “Data Events Enabled” by click on the option in the GUI:

The screenshot shows the 'HP Printer/Cash Drawer/MICR Unit Test Application' window. The 'Printer Bool. Props' tab is active. In the 'Printer Sensors' section, the 'Data Events Enabled' checkbox is checked and highlighted with a red rectangle. Other visible elements include the 'Printer Station' section with radio buttons for Receipt, Slip, Journal, and Illegal; the 'TransactionPrint' section with two identical blocks containing a 'Timeout' field set to 10000 and 'Begin'/'End' buttons; the 'Printer Line Props' section with buttons for POSPrinter, Simple Printing, Slip, MICR, MICR Read, and CashDrawer; the 'DocumentHeight' and 'DocumentWidth' fields; the 'FileID' and 'FileIndex' fields; the 'ImageTagData' and 'ImageData Size' fields; the 'Cover Open' checkbox; the 'NearEnd' and 'Empty' checkboxes; the 'Receipt' and 'Slip' checkboxes; the 'Refresh' button; the 'Auto Disable' checkbox; the 'PowerNotify' checkbox; the 'Freeze Events' checkbox; the 'More Boolean Props.' and 'Other Props.' buttons; the 'Profile' dropdown menu set to 'CheckScanner776'; the 'Timeout' field set to 0; and the 'Close', 'Release', and 'Disable' buttons at the bottom.

- Click on the "RetrieveImage" button. After the button is pressed the status will be updated and some information will be filled about the image.

HP Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☒ Receipt ☐ Slip
☐ Journal ☐ Illegal

StatusEvent Status
CheckScanner Image

Printer Sensors

Cover Open ☐
NearEnd Empty
Receipt ☐ ☐
Slip ☐ ☐
Refresh

Printer Line Props **Printer More Props** **Bitmaps/BarCodes**
POSPrinter Simple Printing Slip **Printer Bool. Props**
MICR MICR Read CashDrawer CheckScanner

TransactionPrint Timeout 10000 Begin End
TransactionPrint Timeout 10000 Begin End

DirectIO CheckH... Retrieve... Display I...

DocumentHeight 535 DocumentWidth 1344

FileID FileIndex 2
ImageTagData ImageData Size 26538

☒ Dots ☐ Twips ☐ English ☐ Metric

☐ Auto Disable ☐ PowerNotify
☐ Data Events Enabled ☐ Freeze Events

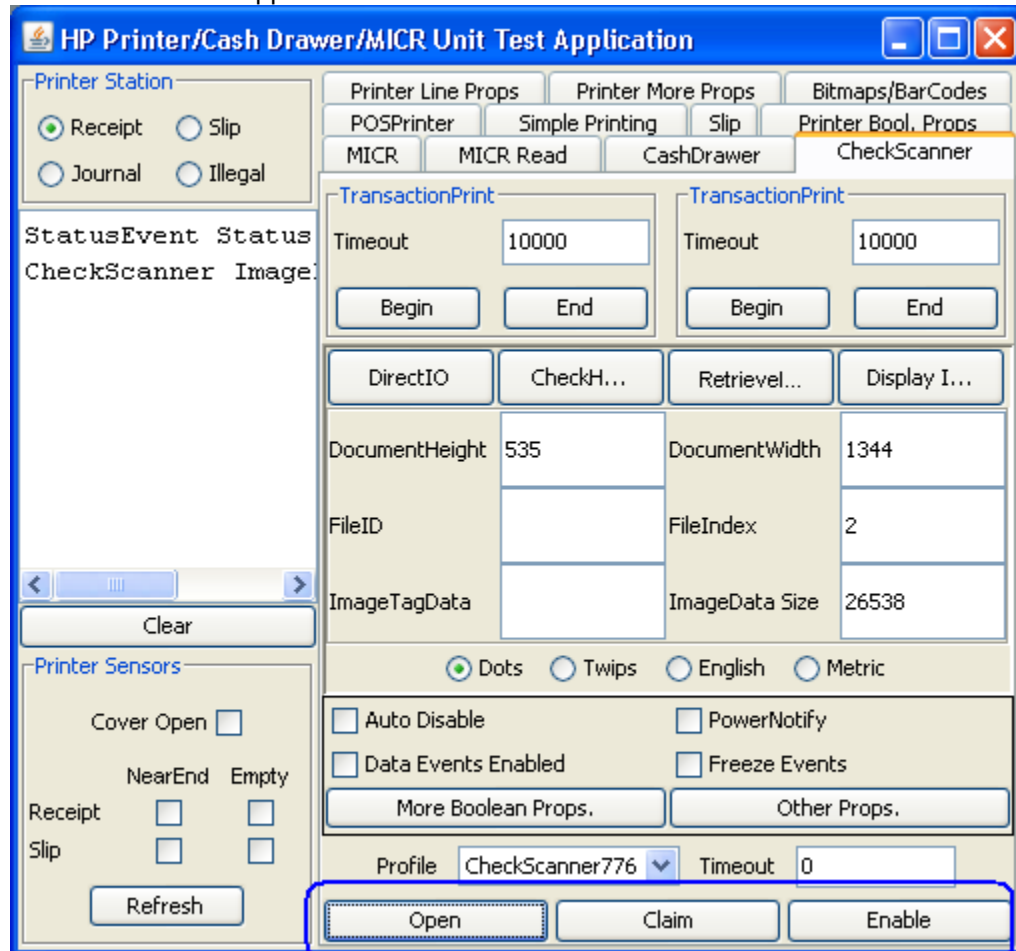
More Boolean Props. Other Props.

Profile CheckScanner776 Timeout 0

Close Release Disable

11. To view the image that was scanned click on “DisplayImage” button.

12. To Exit the application one needs to “Disable/Release/Close” the printer and then click on the “X” to close the application.



13. The piece of paper that was inserted in step 7 can be removed from the imager portion of the printer by pulling on the paper; there will be slight force needed when the paper is pulled.

2.2.17 JPOS Drivers for the Receipt Printer Drivers - MICR

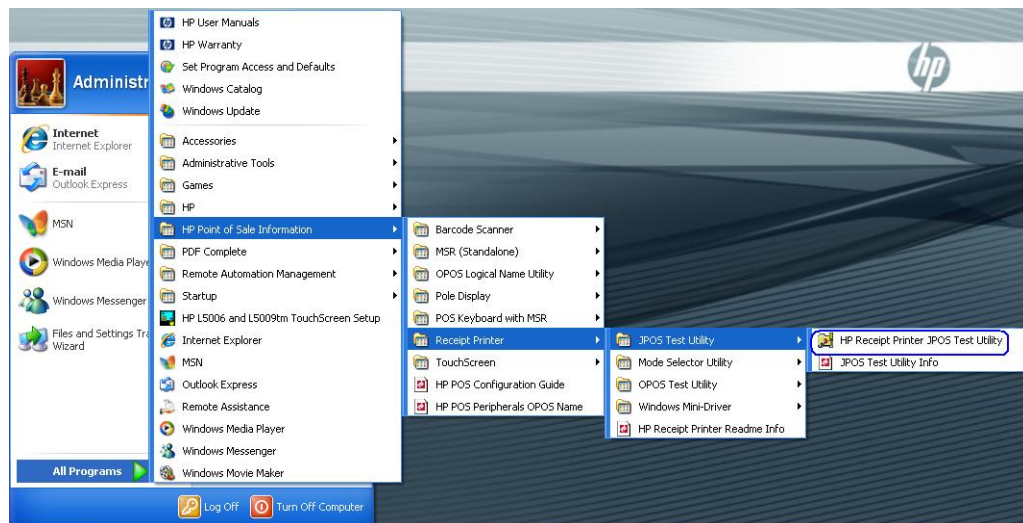
The JPOS drivers are included in the HP Point of Sale image or can be obtained from HP POS Drivers and Documentation CD or from the HP.COM web site.

The following is an overview of the steps to test the receipt printer followed by detailed steps:

1. Start the JPOS test utility.
2. After a few seconds the JPOS test utility GUI will appear.
3. Click on the MICR tab.
4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.
6. Click on the "ENABLE" button.
7. Click on the "MICR READ" tab.
8. Slide the check facing down into the MICR until the LED on comes on.
9. Click on "Enable Data Events".
10. Click on "Begin" in the "Insertion" section of the GUI.
11. Click on "End" in the "Insertion" section of the GUI.
12. Exit the application (ensure the device is closed and released).
13. The piece of paper that was inserted in step 8 can be removed from the imager portion of the printer by pulling on the paper; there will be slight force needed when the paper is pulled.

Detail Steps

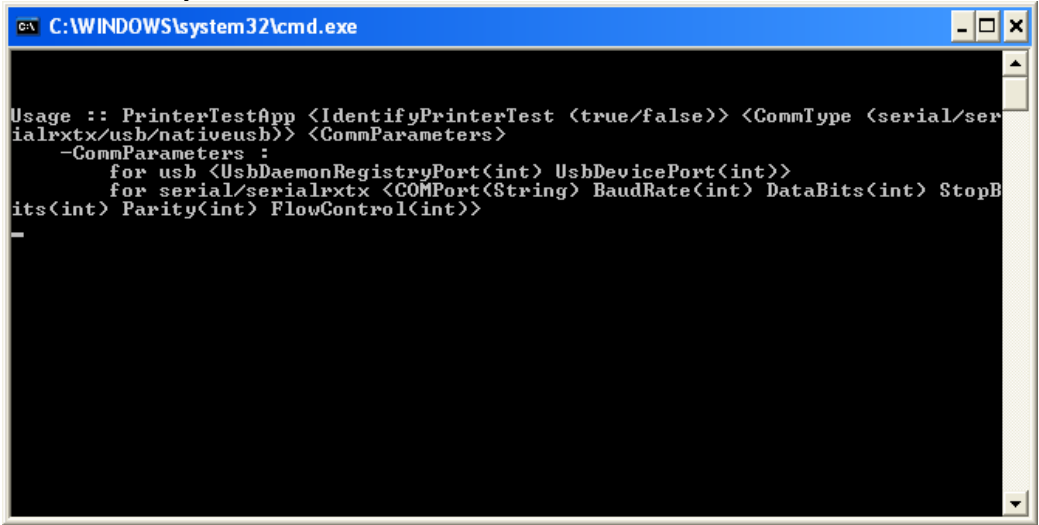
1. Start the JPOS test utility either using the link in the START MENU:



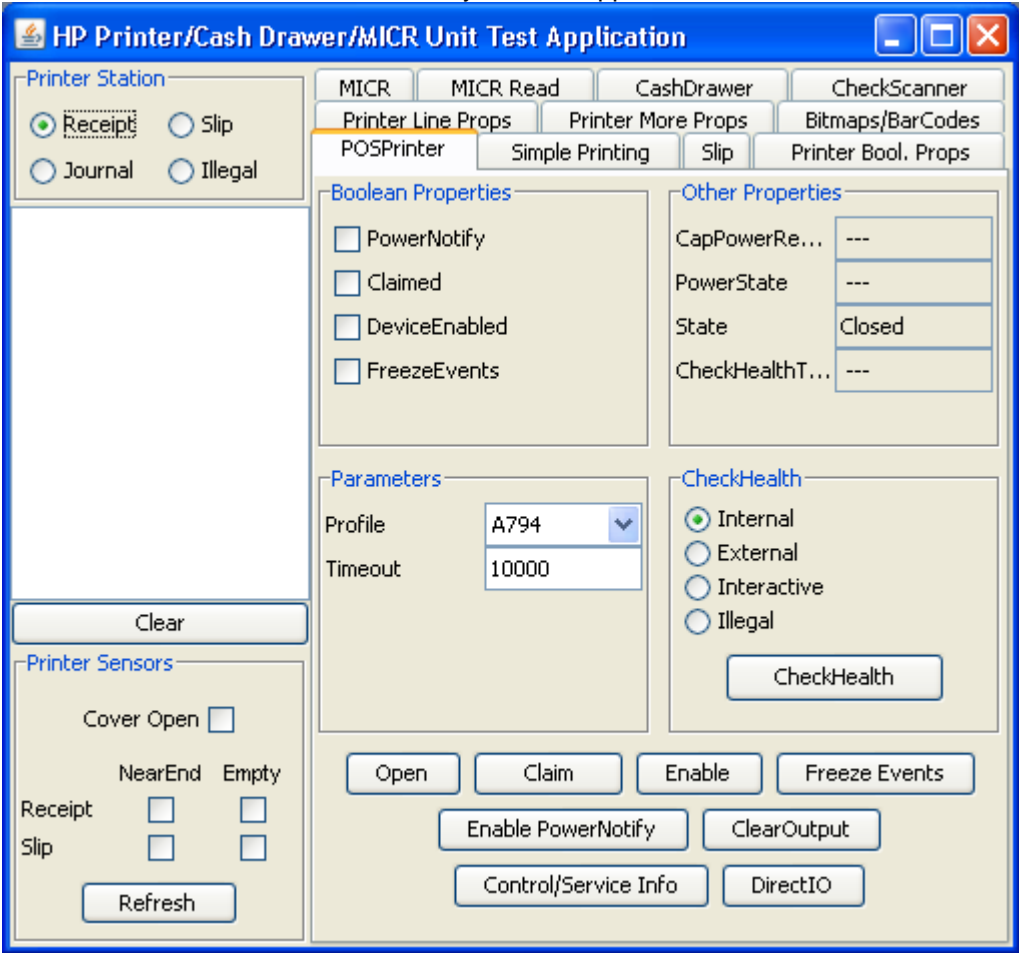
OR

by launching the POSTEST.BAT file that is located in the JPOS folder within the receipt printer folder.

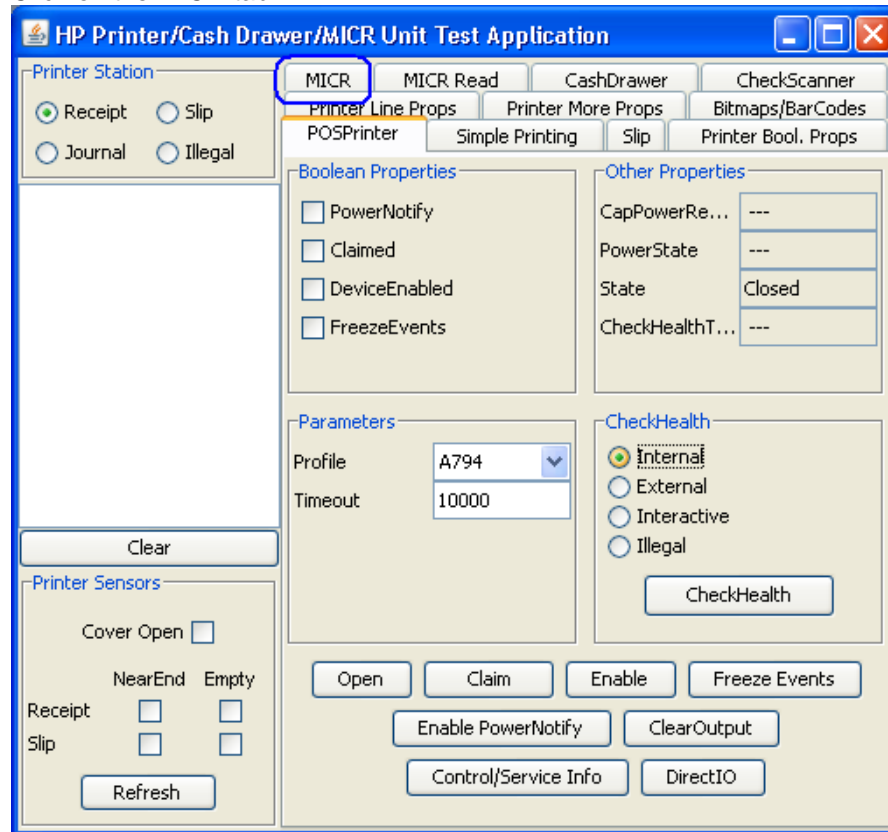
In the location the files were found execute the POSTEST.BAT file. Depending on your screen resolution the following screen will be in the background before the GUI appears for the test utility:



2. After a few seconds the JPOS test utility GUI will appear as shown below:

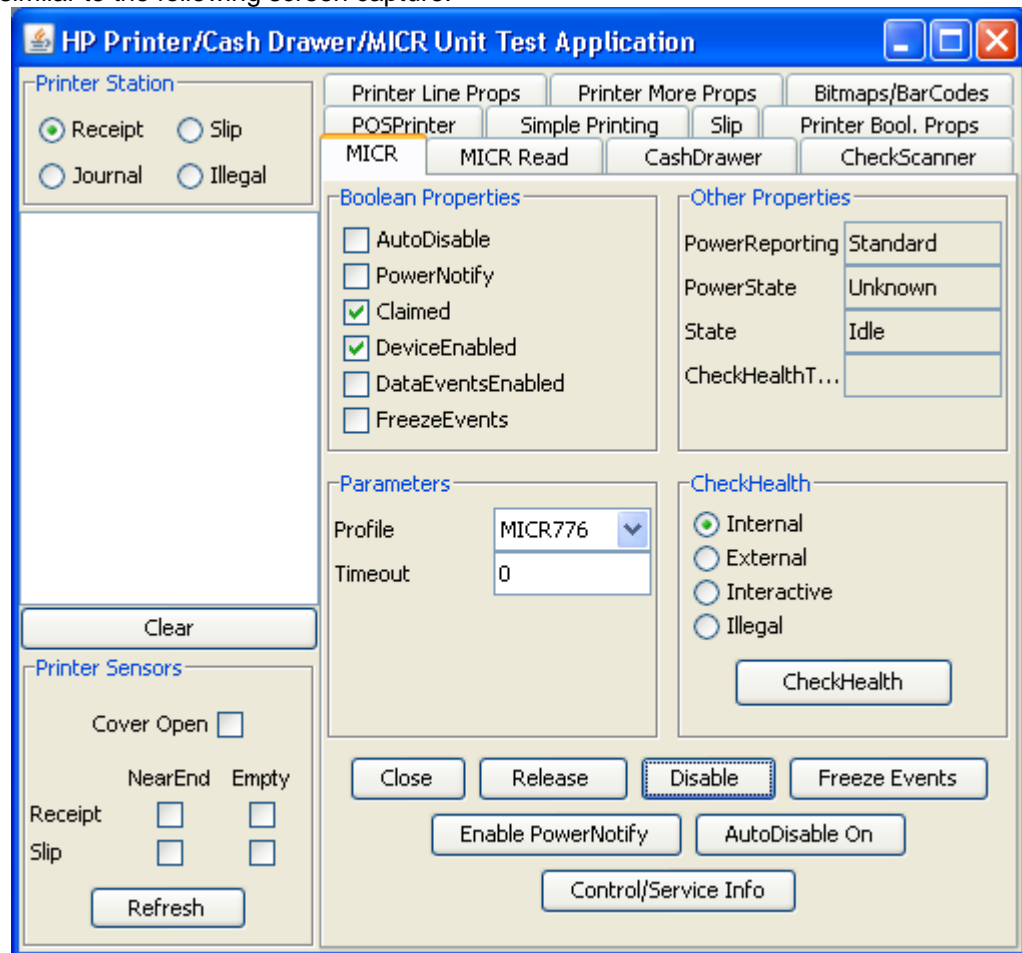


3. Click on the MICR tab:

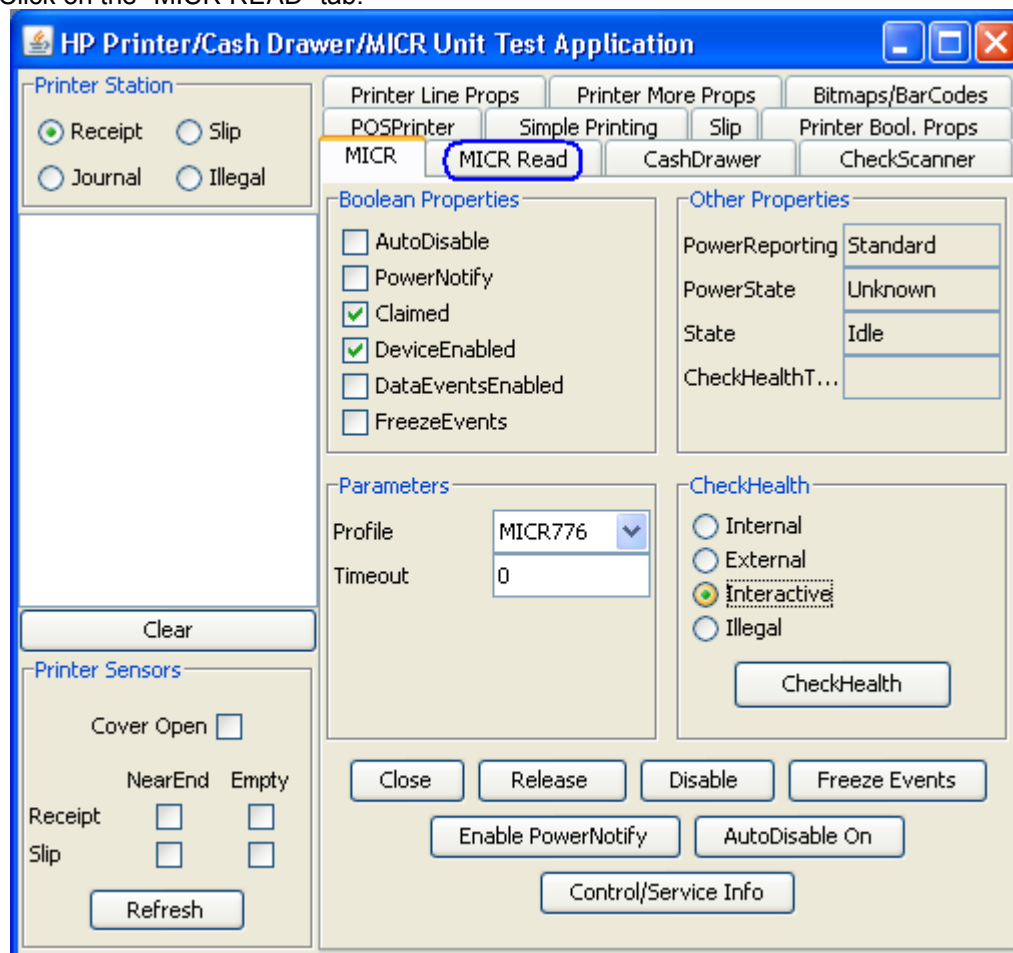


4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.

6. Click on the “ENABLE” button. After all three buttons are clicked the screen will look similar to the following screen capture:



7. Click on the "MICR READ" tab:



8. Slide the check facing up into the MICR until the LED on comes on.
9. Click on "Enable Data Events":

HP Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☒ Receipt ☐ Slip
☐ Journal ☐ Illegal

Printer Line Props **Printer More Props** **Bitmaps/BarCodes**
POSPrinter **Simple Printing** **Slip** **Printer Bool. Props**
MICR **MICR Read** **CashDrawer** **CheckScanner**

Data Handling

DataCount: 0

Enable Data Events **ClearInput**

Capabilities

☒ CapValidationDevice

Insertion

Timeout: 10000

Begin **End**

Removal

Timeout: 10000

Begin **End**

MICR Data

RawData:
AccountNumber:
Amount:
BankNumber:
EPC:
SerialNumber:
TransitNumber:
CheckType: 99
CountryCode: 99

Printer Sensors

Cover Open ☐

NearEnd Empty
Receipt ☐ ☐
Slip ☐ ☐

Refresh

Clear

10. Click on “Begin” in the “Insertion” section of the GUI:

The screenshot shows the 'HP Printer/Cash Drawer/MICR Unit Test Application' window. The interface is divided into several sections:

- Printer Station:** Contains radio buttons for 'Receipt' (selected), 'Slip', 'Journal', and 'Illegal'.
- Printer Line Props:** Includes tabs for 'POSPrinter', 'Simple Printing', 'MICR', 'MICR Read', 'CashDrawer', and 'CheckScanner'. 'Simple Printing' is currently selected.
- Data Handling:** Features a 'DataCount' field with the value '0', and buttons for 'Enable Data Events' and 'ClearInput'.
- Capabilities:** Includes a checked checkbox for 'CapValidationDevice'.
- Insertion:** Contains a 'Timeout' field with the value '10000' and a 'Begin' button (highlighted with a blue rectangle) and an 'End' button.
- Removal:** Contains a 'Timeout' field with the value '10000' and 'Begin' and 'End' buttons.
- MICR Data:** A table displaying various data fields:

MICR Data	
RawData	
AccountNumber	
Amount	
BankNumber	
EPC	
SerialNumber	
TransitNumber	
CheckType	99
CountryCode	99

Additional sections include:

- Printer Sensors:** Features checkboxes for 'Cover Open', 'NearEnd', 'Empty', 'Receipt', and 'Slip', along with a 'Refresh' button.
- Clear:** A button located above the 'Printer Sensors' section.

11. Click on “End” in the “Insertion” section of the GUI:

The screenshot shows the 'HP Printer/Cash Drawer/MICR Unit Test Application' window. The 'Printer Station' section on the left has radio buttons for 'Receipt' (selected), 'Slip', 'Journal', and 'Illegal'. The top navigation bar includes tabs for 'Printer Line Props', 'Printer More Props', 'Bitmaps/BarCodes', 'POSPrinter', 'Simple Printing', 'Slip', 'Printer Bool. Props', 'MICR', 'MICR Read', 'CashDrawer', and 'CheckScanner'. The 'Data Handling' section contains a 'DataCount' field with the value '0', and buttons for 'Enable Data Events' and 'ClearInput'. The 'Capabilities' section has a checked checkbox for 'CapValidationDevice'. The 'Insertion' section features a 'Timeout' field with the value '10000' and buttons for 'Begin' and 'End', with the 'End' button highlighted by a red rectangle. The 'Removal' section also has a 'Timeout' field with the value '10000' and 'Begin' and 'End' buttons. The 'MICR Data' section at the bottom lists fields: 'RawData', 'AccountNumber', 'Amount', 'BankNumber', 'EPC', 'SerialNumber', 'TransitNumber', 'CheckType' (with value '99'), and 'CountryCode' (with value '99'). A 'Clear' button is located above the 'Printer Sensors' section, which includes checkboxes for 'Cover Open', 'NearEnd', 'Empty', 'Receipt', and 'Slip', along with a 'Refresh' button.

When the “End” is clicked, the printer will engage and read the MICR information on the check.

The data that was read will appear in the “MICR Data” section of the GUI (“x” represent where data would appear that is read):

HP Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☒ Receipt ☐ Slip
☐ Journal ☐ Illegal

MICR Data Event oc

Data Handling

DataCount: 0
Enable Data Events
Clear Input

Capabilities

☒ CapValidationDevice

Insertion

Timeout: 10000
Begin End

Removal

Timeout: 10000
Begin End

MICR Data

RawData	xxxxxxxxxx xxxxxxxxxxxx xxxxx
AccountNumber	xxxxxxxxxx
Amount	
BankNumber	xxxxx
EPC	
SerialNumber	xxxx
TransitNumber	xxxxxxxxxx
CheckType	1
CountryCode	1

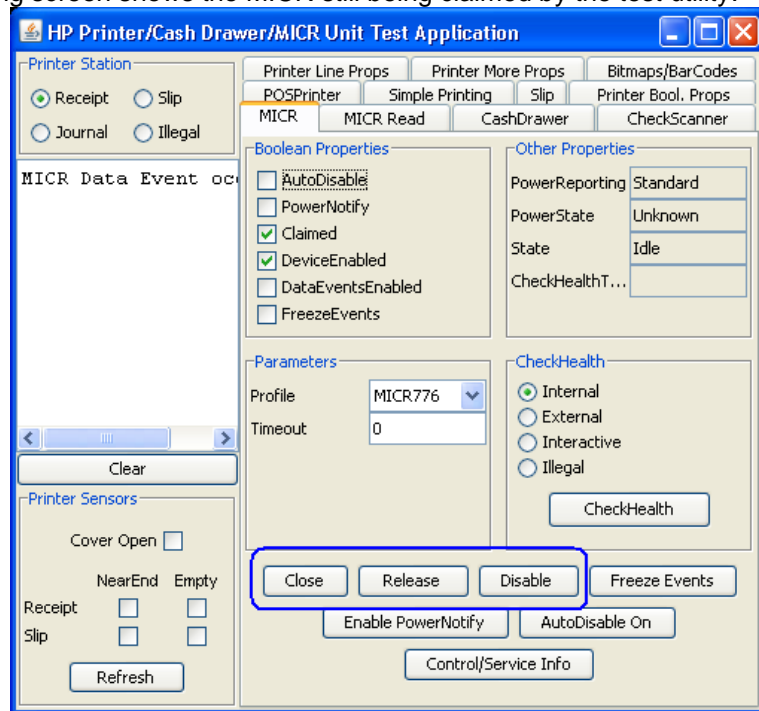
Printer Sensors

Cover Open ☐

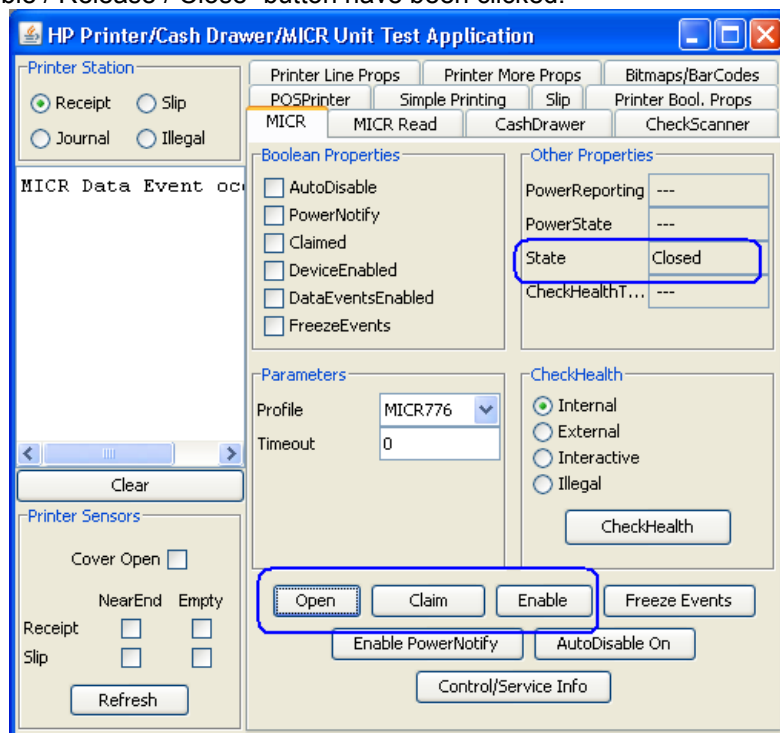
NearEnd Empty
Receipt ☐ ☐
Slip ☐ ☐

Refresh

12. To exit the application, need to disable/release and close the MICR from the MICR tab. The following screen shows the MICR still being claimed by the test utility:



The following shows the device has been released and is available for other application after "Disable / Release / Close" button have been clicked:



13. The piece of paper that was inserted in step 7 can be removed from the imager portion of the printer by pulling on the paper; there will be slight force needed when the paper is pulled.

2.2.18 JPOS Drivers for the Receipt Printer Drivers - Slip

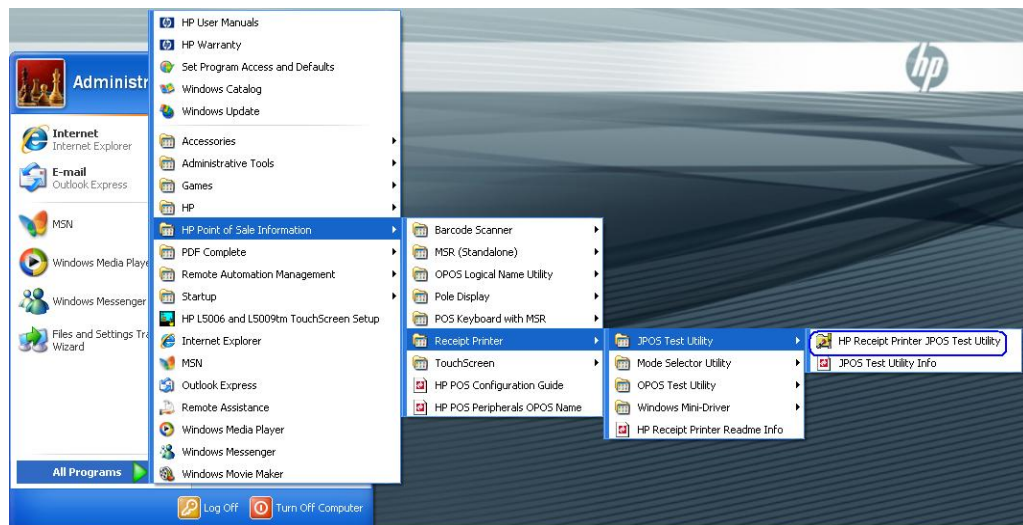
The JPOS drivers are included in the HP Point of Sale image or can be obtained from HP POS Drivers and Documentation CD or from the HP.COM web site.

The following is an overview of the steps to test the receipt printer followed by detailed steps:

1. Start the JPOS test utility
2. After a few seconds the JPOS test utility GUI will appear.
3. Select the A776 printer from the dropdown menu in "POSPrinter" tab.
4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.
6. Click on the "ENABLE" button.
7. Click on the SLIP tab.
8. Select the "SLIP" option in the "Printer Station" section.
9. Click on the "Begin" button in the "Insertion" of the GUI and slide the paper in front of the printer until the LED comes on.
10. Click on "END" button.
11. Click on the "Begin" button in the "Removal" of the GUI.
12. Remove the paper from the printer.
13. Click on the "End" button in the "Removal" of the GUI.
14. Exit the application (ensure the device is closed and released).

Detail Steps

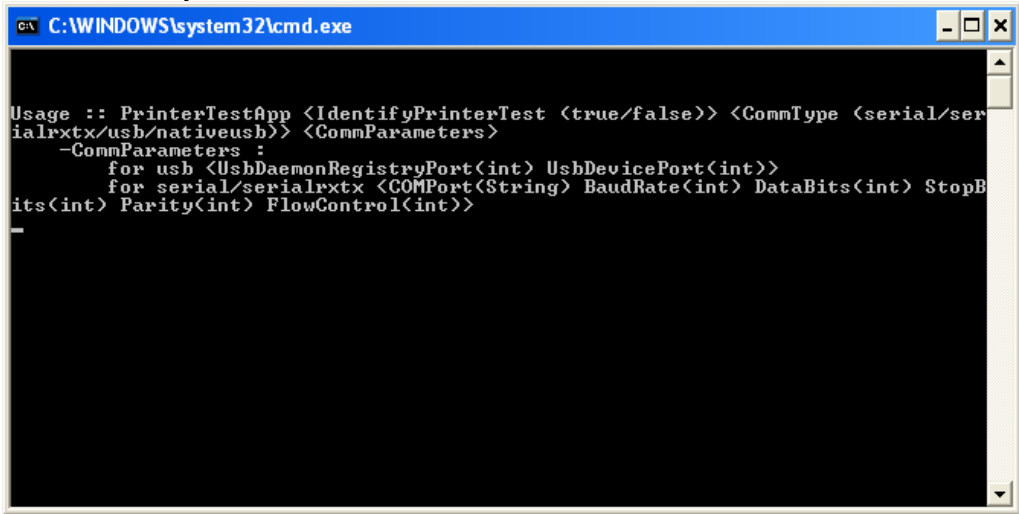
1. Start the JPOS test utility either using the link in the START MENU:



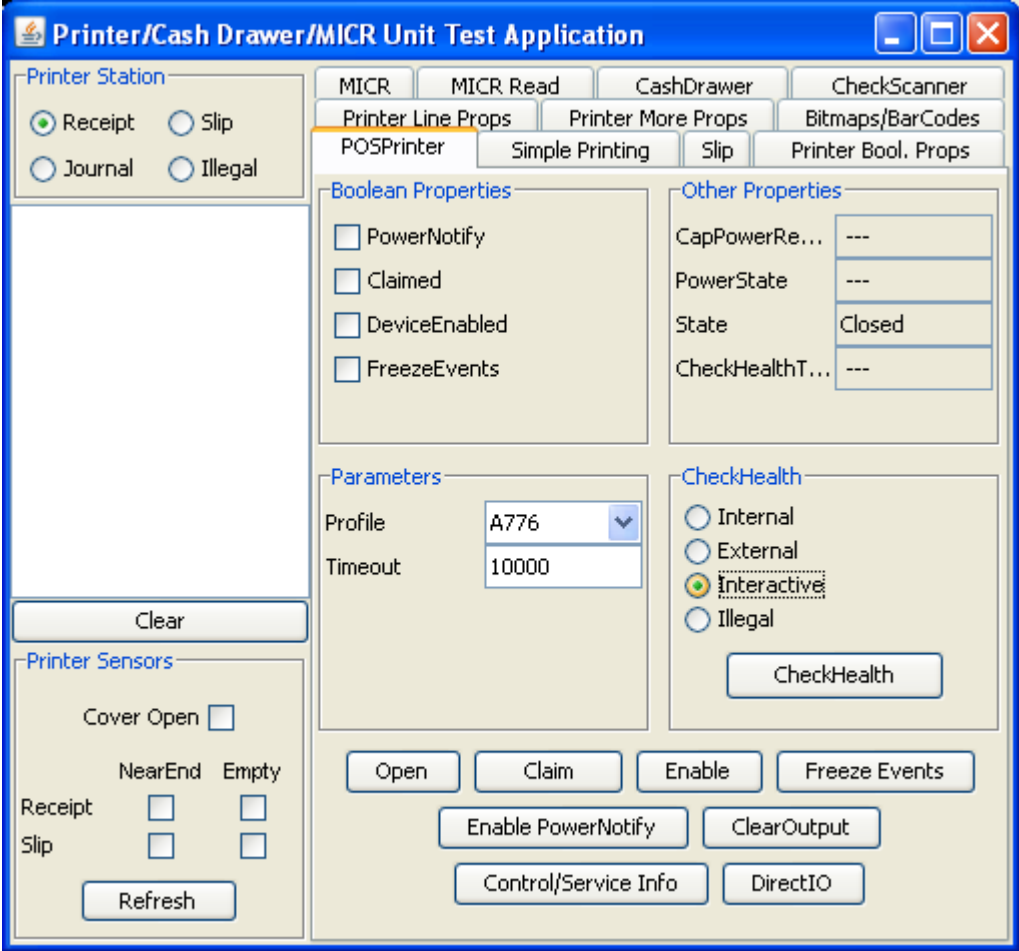
or

by launching the POSTEST.BAT file that is located in the JPOS folder within the receipt printer folder.

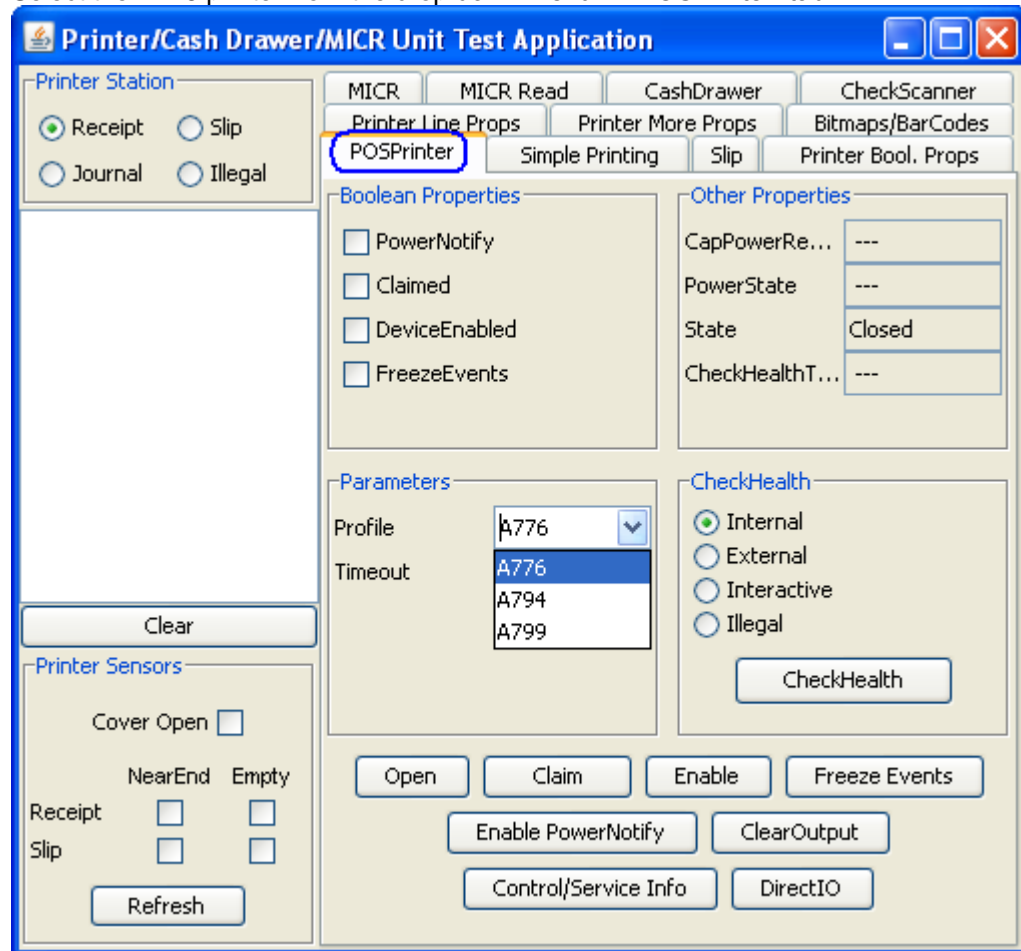
In the location the files were found execute the POSTEST.BAT file. Depending on your screen resolution the following screen will be in the background before the GUI appears for the test utility:



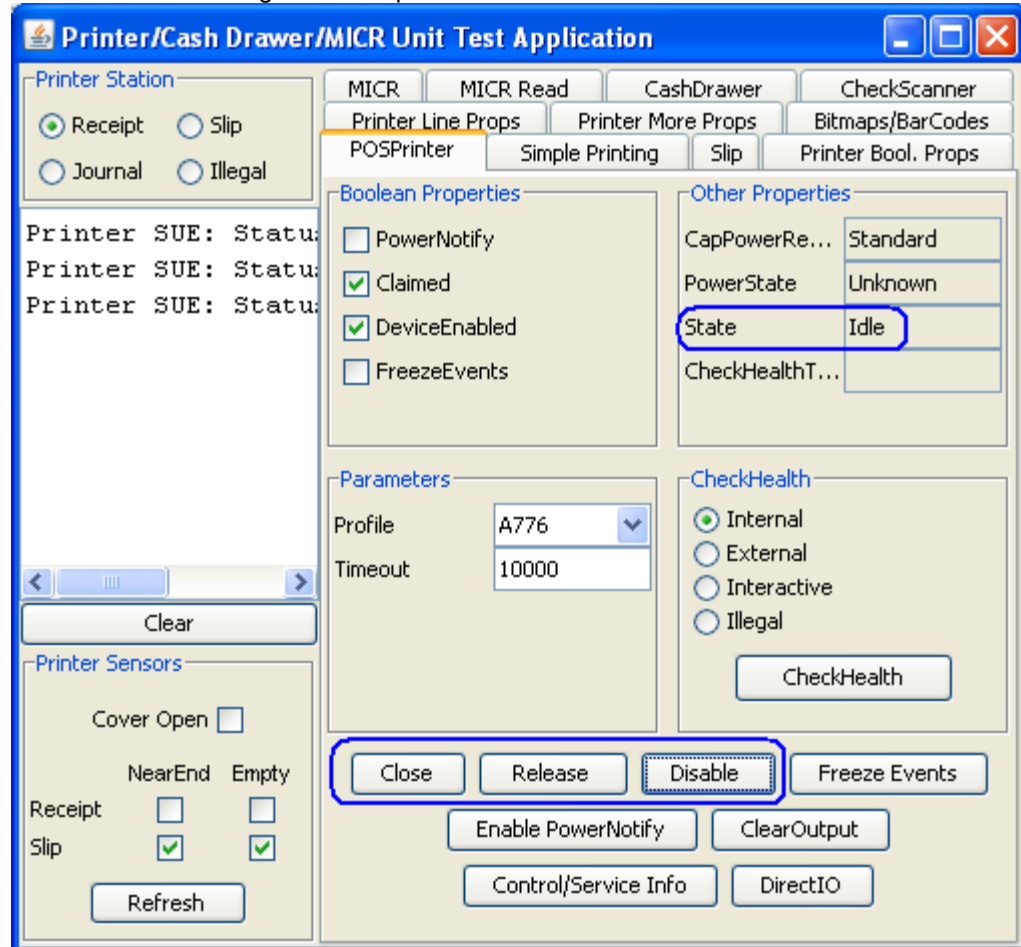
2. After a few seconds the JPOS test utility GUI will appear as shown below:



3. Select the A776 printer from the drop down menu in “POSPrinter” tab.



4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.
6. Click on the "ENABLE" button. After all three buttons are clicked the screen will look similar to the following screen capture:



7. Click on the SLIP tab:

The screenshot shows the 'Printer/Cash Drawer/MICR Unit Test Application' window. The 'Slip' tab is selected and highlighted with a red circle. The window is divided into several sections:

- Printer Station:** Contains radio buttons for 'Receipt' (selected), 'Slip', 'Journal', and 'Illegal'. Below these are three lines of text: 'Printer SUE: Statu...', 'Printer SUE: Statu...', and 'Printer SUE: Statu...'.
- Navigation Tabs:** A row of tabs at the top includes 'MICR', 'MICR Read', 'CashDrawer', 'CheckScanner', 'Printer Line Props', 'Printer More Props', 'Bitmaps/BarCodes', 'Printer Bool. Props', 'Simple Printing', and the selected 'Slip' tab.
- Boolean Properties:** A section with four checkboxes: 'PowerNotify' (unchecked), 'Claimed' (checked), 'DeviceEnabled' (checked), and 'FreezeEvents' (unchecked).
- Other Properties:** A section with four dropdown menus: 'CapPowerRe...' (Standard), 'PowerState' (Unknown), 'State' (Idle), and 'CheckHealth...' (empty).
- Parameters:** A section with two fields: 'Profile' (A776) and 'Timeout' (10000).
- CheckHealth:** A section with four radio buttons: 'Internal' (selected), 'External', 'Interactive', and 'Illegal'. Below them is a 'CheckHealth' button.
- Printer Sensors:** A section with a 'Cover Open' checkbox (unchecked) and two columns of checkboxes: 'NearEnd' and 'Empty'. Under 'NearEnd', 'Receipt' is unchecked and 'Slip' is checked. Under 'Empty', 'Receipt' is unchecked and 'Slip' is checked. A 'Refresh' button is at the bottom.
- Buttons:** A row of buttons at the bottom includes 'Close', 'Release', 'Disable' (highlighted with a red dashed border), 'Freeze Events', 'Enable PowerNotify', 'ClearOutput', 'Control/Service Info', and 'DirectIO'.

8. Select the "SLIP" option in the "Printer Station" section.

Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☐ Receipt ☒ Slip ☐ Journal ☐ Illegal

Printer Line Props **Printer More Props** **Bitmaps/BarCodes**

POSPrinter **Simple Printing** **Slip** **Printer Bool. Props**

Boolean Properties

☐ PowerNotify
☒ Claimed
☐ DeviceEnabled
☐ FreezeEvents

Other Properties

CapPowerRe... ---
PowerState ---
State Closed
CheckHealthT... ---

Parameters

Profile A776
Timeout 10000

CheckHealth

☒ Internal
☐ External
☐ Interactive
☐ Illegal

CheckHealth

Printer Sensors

Cover Open ☐

NearEnd Empty

Receipt ☐ ☐
Slip ☐ ☐

Refresh

Open Claim Enable Freeze Events

Enable PowerNotify ClearOutput

Control/Service Info DirectIO

9. Click on the “Begin” button in the “Insertion” of the GUI and slide the paper in front of the printer until the LED comes on.

The screenshot shows the 'Printer/Cash Drawer/MICR Unit Test Application' window. The 'Insertion' section contains a 'Timeout' field set to '10000' and a 'Begin' button, which is highlighted with a blue dashed box. The 'Removal' section also has a 'Timeout' field set to '10000' and 'Begin' and 'End' buttons. The 'Slip Flip' section has radio buttons for 'Side 1', 'Side 2', and 'Opposite' (which is selected), and a 'Slip Flip' button. The 'Printer Station' section has radio buttons for 'Receipt', 'Slip' (selected), 'Journal', and 'Illegal'. The 'Printer Sensors' section has a 'Cover Open' checkbox, 'NearEnd' and 'Empty' checkboxes for 'Receipt' and 'Slip', and a 'Refresh' button. The 'Printer SUE: Status' section shows a list of status messages.

10. Click on “END” button, the printer will make some noise and move the paper slightly.

Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☐ Receipt ☒ Slip ☐ Journal ☐ Illegal

Printer SUE: Statu
Printer SUE: Statu
Printer SUE: Statu
Printer SUE: Statu
Printer SUE: Statu
Printer SUE: Statu

Navigation Tabs: MICR, MICR Read, CashDrawer, CheckScanner, Printer Line Props, **Printer More Props**, POSPrinter, Simple Printing, Slip, Bitmaps/BarCodes, Printer Bool. Props

Insertion

Timeout: 10000

Begin End

Removal

Timeout: 10000

Begin End

Slip Flip

☐ Side 1 ☐ Side 2 ☒ Opposite

Slip Flip

Slip Info

Side: Side 1

Clear

Printer Sensors

Cover Open ☐

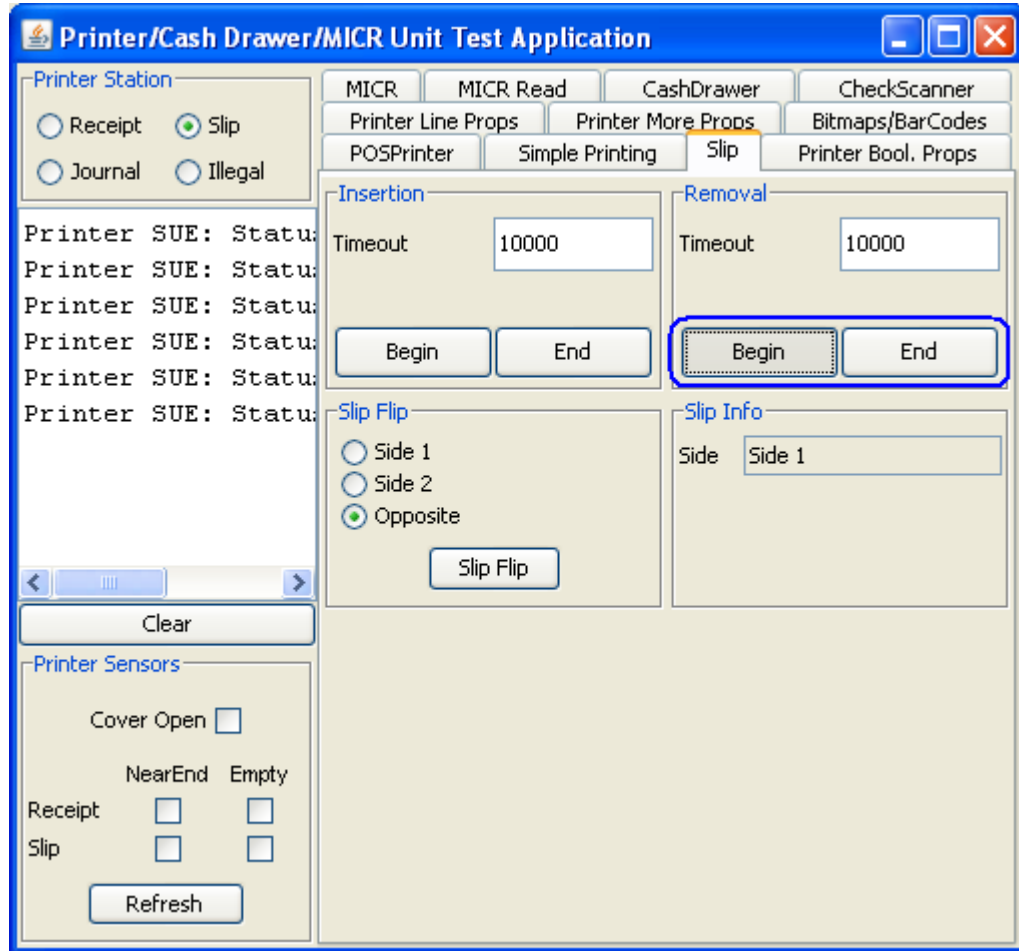
NearEnd Empty

Receipt ☐ ☐

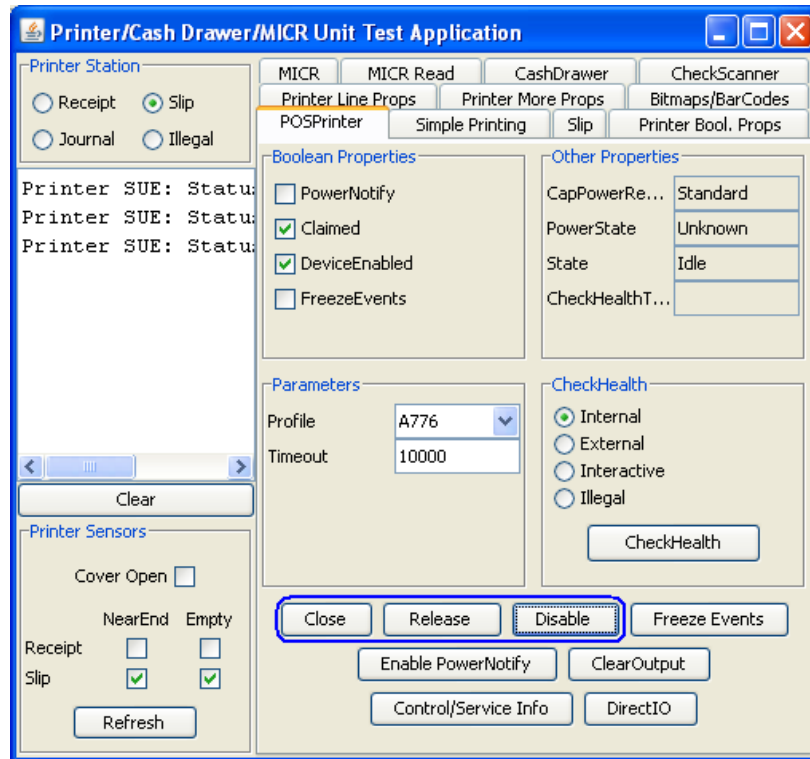
Slip ☐ ☐

Refresh

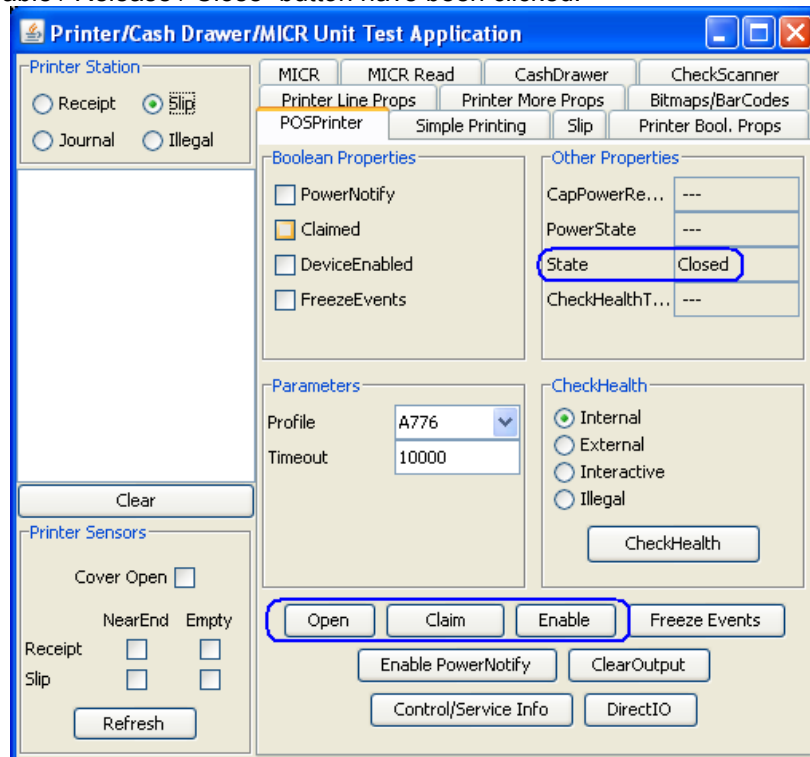
11. Click on the “Begin” button in the “Removal” of the GUI. When the button is pressed the printer will move the paper.
12. Remove the paper from the printer. If the paper is not removed in time, one will receive a JPOSEException error.
13. Click on the “End” button in the “Removal” of the GUI.



14. To exit the application, need to disable/release and close the printer from the “POSPrinter” tab. The following screen shows the printer still being claimed by the test utility:



The following shows the printer has been released and is available for other application after “Disable / Release / Close” button have been clicked:



2.2.19 JPOS Drivers for the Receipt Printer Drivers – Slip Printing

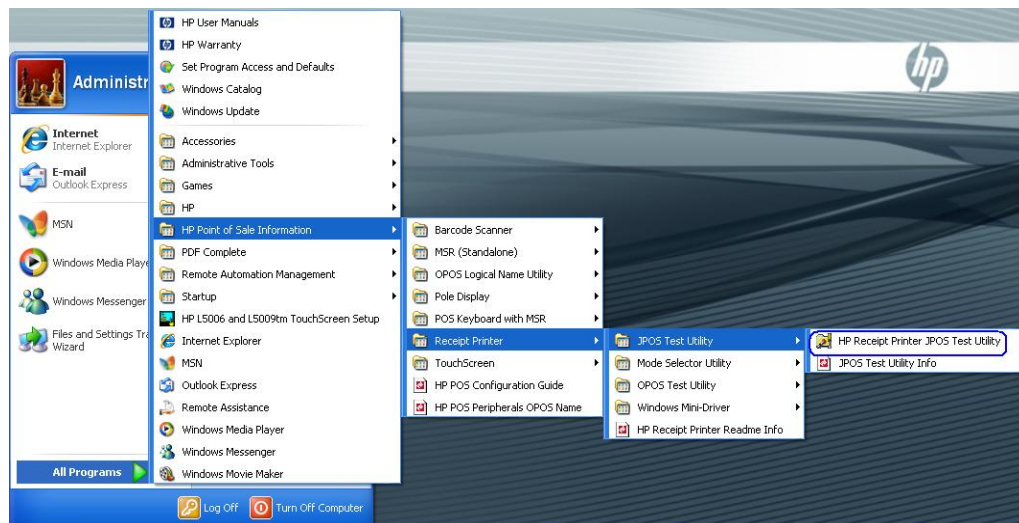
The JPOS drivers are included in the HP Point of Sale image or can be obtained from HP POS Drivers and Documentation CD or from the HP.COM web site.

The following is an overview of the steps to test the receipt printer followed by detailed steps:

1. Start the JPOS test utility.
2. After a few seconds the JPOS test utility GUI will appear as shown below:
3. Select the A776 printer from the dropdown menu in “POSPrinter” tab.
4. Click on the “OPEN” button.
5. Click on the “CLAIM” button.
6. Click on the “ENABLE” button.
7. Select the “SLIP” option in the “Printer Station” section.
8. Click on the “Simple Printing” tab:
9. Slide the paper in the front of the printer until the LED comes on.
10. Type some text in the “PRINT DATA” area; this is the text that should print on the receipt printer and click on the “PRINTNORMAL” button.
11. Click on the SLIP tab:
12. Click on “Begin” then click on “End” button in the “Removal” of the GUI to have the paper ejected.
13. Exit the application (ensure the device is closed and released).

Detail Steps

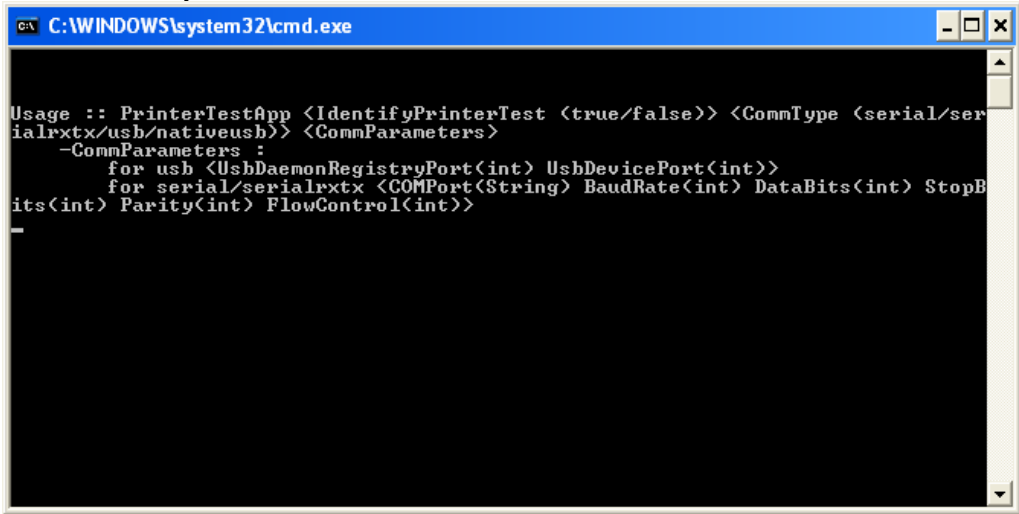
1. Start the JPOS test utility either using the link in the START MENU:



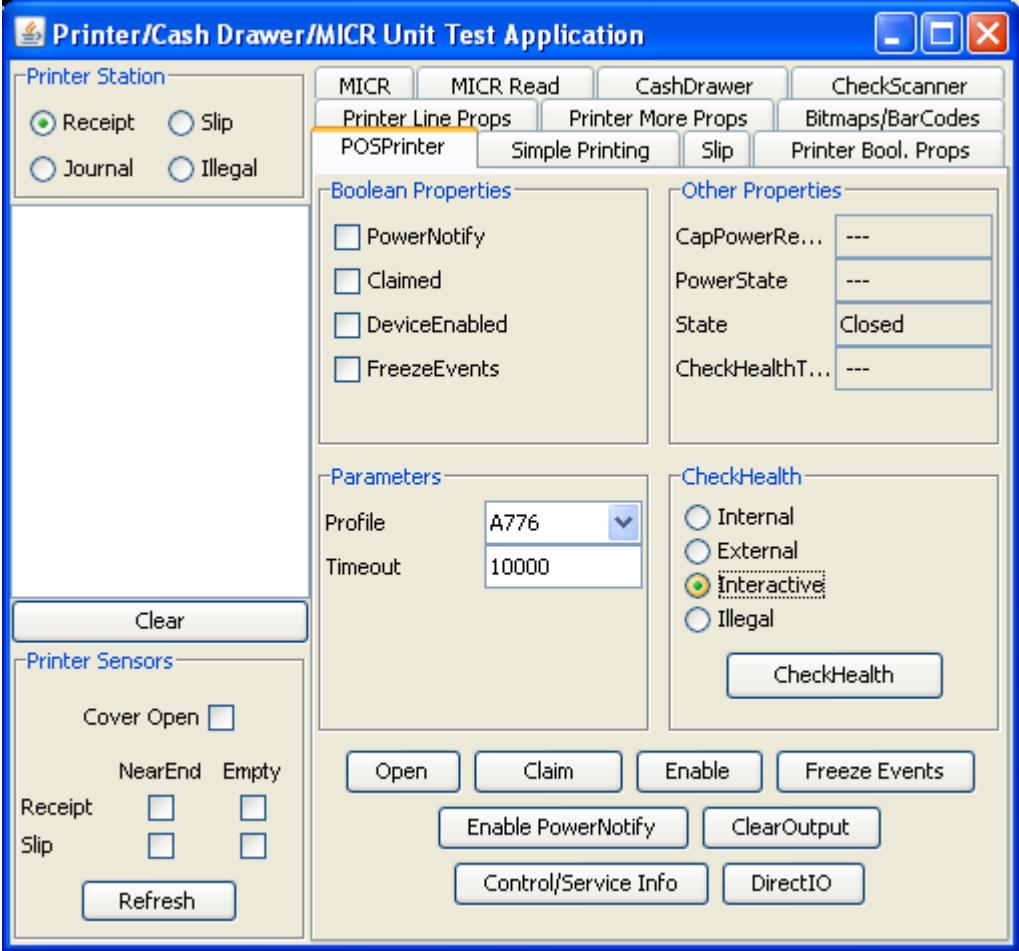
or

by launching the POSTEST.BAT file that is located in the JPOS folder within the receipt printer folder.

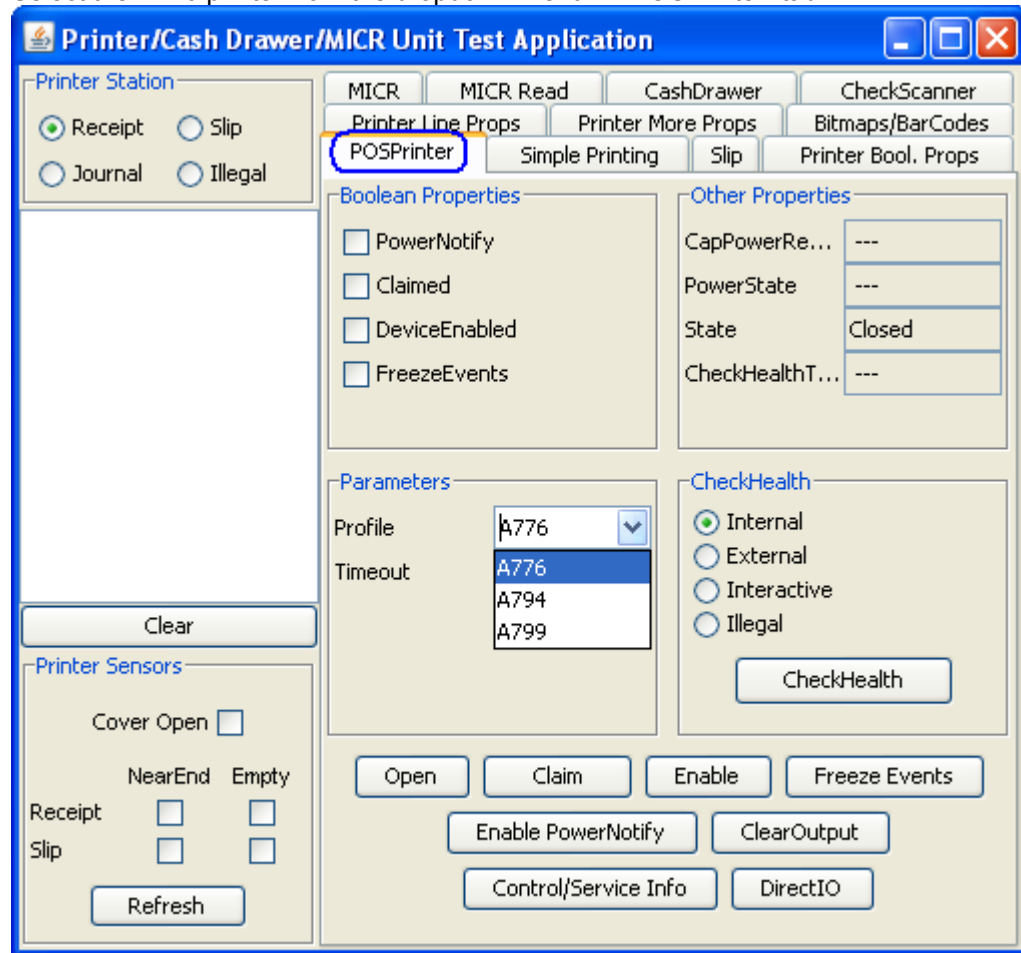
In the location the files were found execute the POSTEST.BAT file. Depending on your screen resolution the following screen will be in the background before the GUI appears for the test utility:



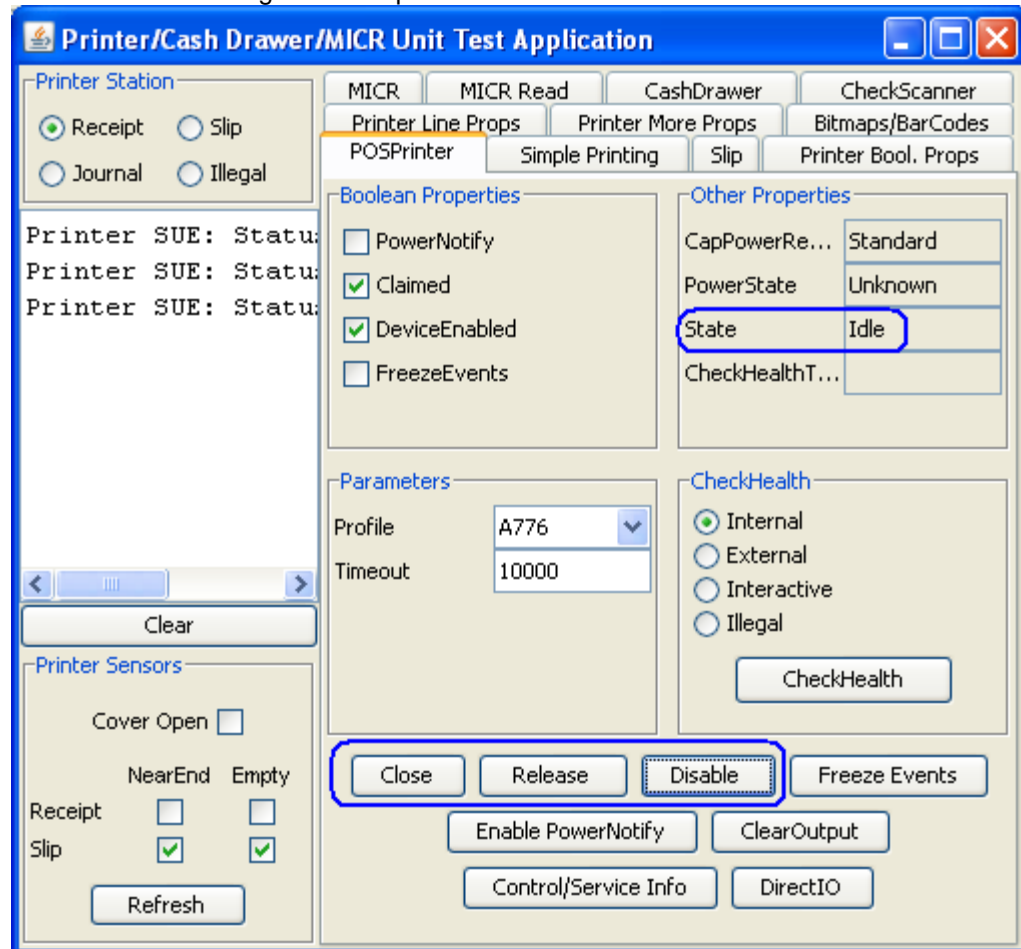
2. After a few seconds the JPOS test utility GUI will appear as shown below:



3. Select the A776 printer from the dropdown menu in “POSPrinter” tab.



4. Click on the "OPEN" button.
5. Click on the "CLAIM" button.
6. Click on the "ENABLE" button. After all three buttons are clicked the screen will look similar to the following screen capture:



7. Select the "SLIP" option in the "Printer Station" section.

Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☐ Receipt ☒ Slip ☐ Journal ☐ Illegal

Printer Line Props **Printer More Props** **Bitmaps/BarCodes**

POSPrinter **Simple Printing** **Slip** **Printer Bool. Props**

Boolean Properties

☐ PowerNotify
☒ Claimed
☐ DeviceEnabled
☐ FreezeEvents

Other Properties

CapPowerRe... ---
PowerState ---
State Closed
CheckHealthT... ---

Parameters

Profile A776
Timeout 10000

CheckHealth

☒ Internal
☐ External
☐ Interactive
☐ Illegal

CheckHealth

Printer Sensors

Cover Open ☐

NearEnd Empty

Receipt ☐ ☐
Slip ☐ ☐

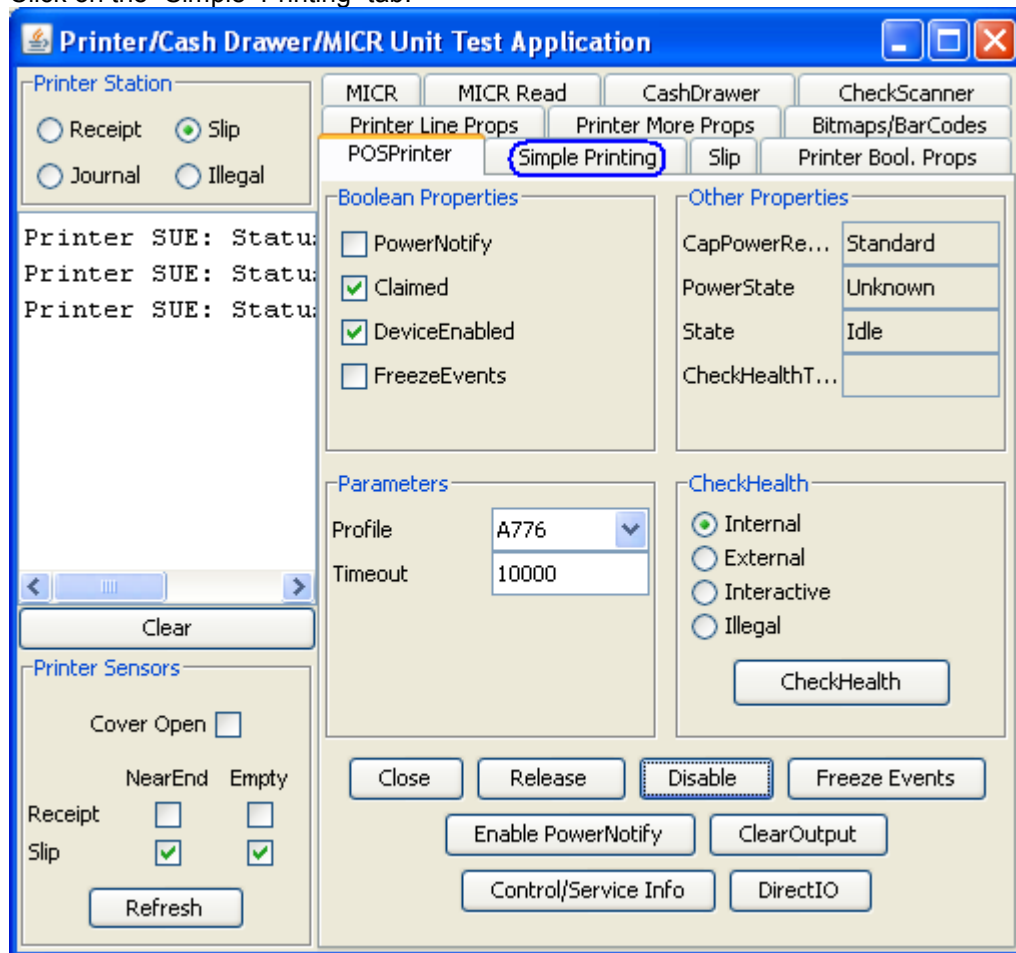
Refresh

Open Claim Enable Freeze Events

Enable PowerNotify ClearOutput

Control/Service Info DirectIO

8. Click on the “Simple Printing” tab:



9. Slide the paper in the front of the printer until the LED comes on.
10. Type some text in the "PRINT DATA" area; this is the text that should print on the receipt printer and click on the "PRINTNORMAL" button.

Printer/Cash Drawer/MICR Unit Test Application

Printer Station

☐ Receipt ☒ Slip
☐ Journal ☐ Illegal

Printer SUE: Status
Printer SUE: Status
Printer SUE: Status

Printer Sensors

Cover Open ☐

NearEnd ☐ Empty ☐

Receipt ☐
Slip ☒

String Data

A-Z

Escape Sequences

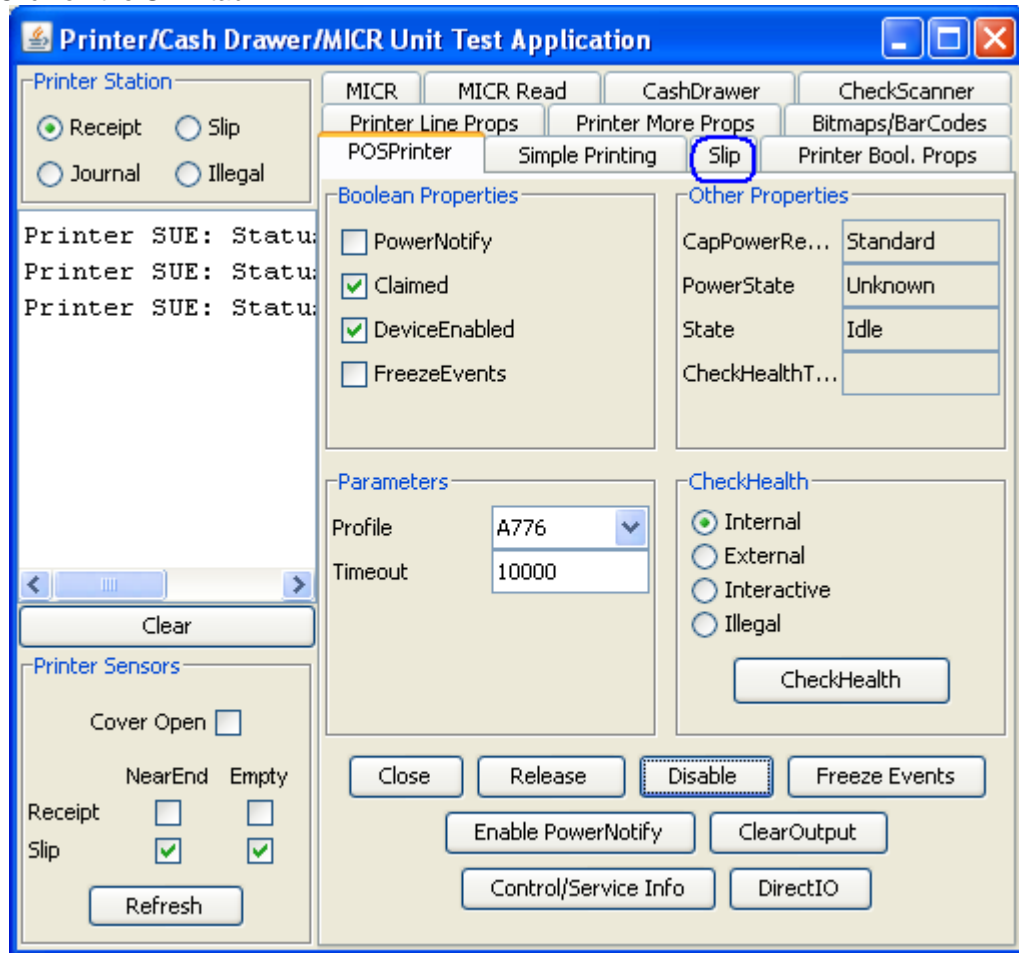
Paper cut: ESC|#P

Print Data

Type in the text that you would like to have printed in this box.

☐ AsyncMode
☐ FlagWhenIdle

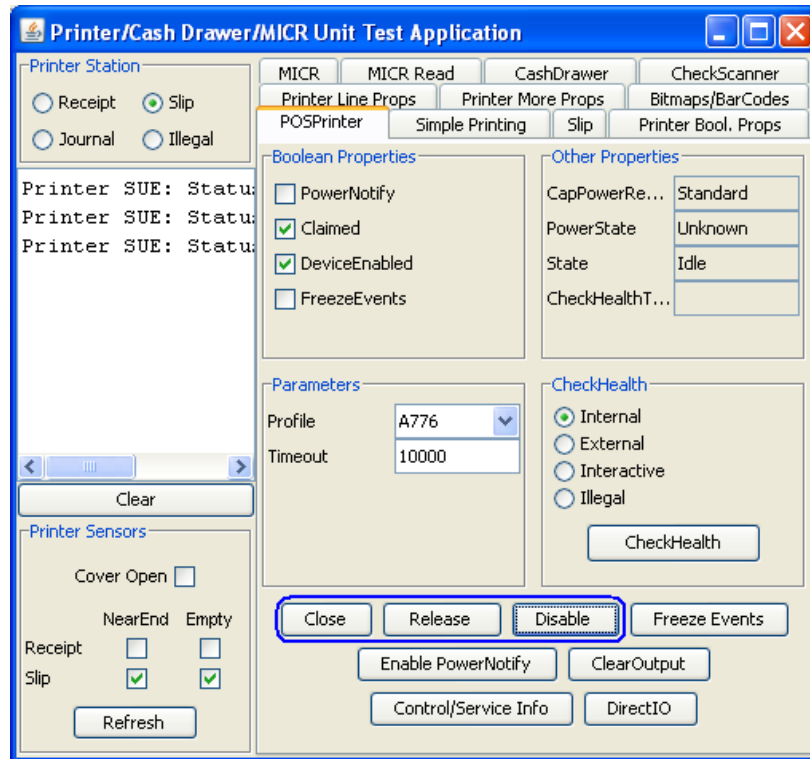
11. Click on the SLIP tab:



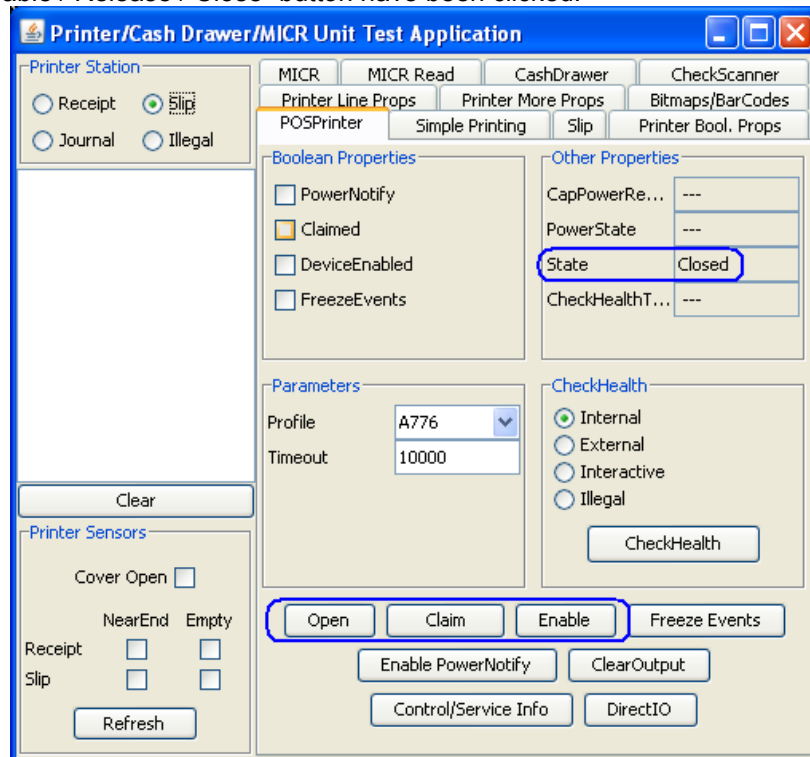
12. Click on “Begin” then click on “End” button in the “Removal” of the GUI to have the paper ejected.

The screenshot shows the 'Printer/Cash Drawer/MICR Unit Test Application' window. The interface includes a top menu bar with options like MICR, MICR Read, CashDrawer, and CheckScanner. Below this is a 'Printer Station' section with radio buttons for Receipt, Slip (selected), Journal, and Illegal. A central text area displays 'Printer SUE: Statu'. To the right, there are tabs for MICR, MICR Read, CashDrawer, and CheckScanner, with 'Slip' currently selected. Below the tabs are sections for 'Insertion' and 'Removal', each with a 'Timeout' field set to '10000' and 'Begin'/'End' buttons. The 'Removal' 'End' button is highlighted with a blue box. Below these are 'Slip Flip' and 'Slip Info' sections. The 'Slip Flip' section has radio buttons for Side 1, Side 2, and Opposite (selected), with a 'Slip Flip' button. The 'Slip Info' section has a 'Side' dropdown menu set to 'Side 1'. At the bottom left, there is a 'Printer Sensors' section with checkboxes for Cover Open, NearEnd, Empty, Receipt, and Slip, and a 'Refresh' button.

13. To exit the application, need to disable/release and close the printer from the “POSPrinter” tab. The following screen shows the printer still being claimed by the test utility:



The following shows the printer has been released and is available for other application after “Disable / Release / Close” button have been clicked:



2.2.20 ASIAN Font Download – Single Station (A799) Printer

The single station printer can have an additional font downloaded to the printer via the HP Font Download utility. The English font will always be present in the printer even when an additional font is downloaded to the printer. The following fonts can be downloaded to the printer: Chinese / Kanji / Korean.

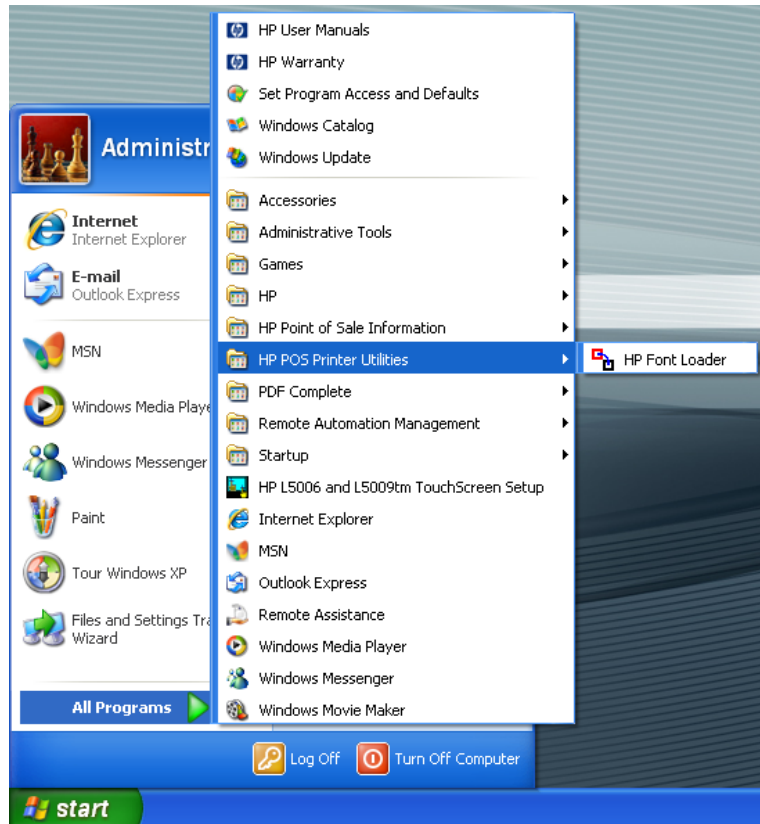
2.2.20.1 Asian Font Download Utility

The following is overview of the steps to test the receipt printer followed by details steps:

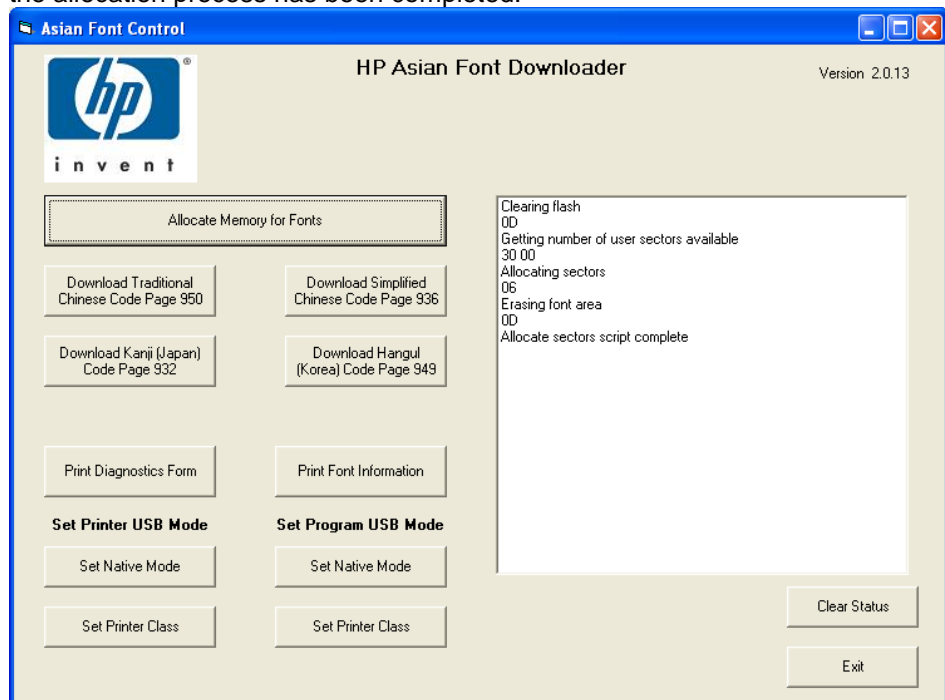
1. Install the HP Asian Font Downloader utility, the SETUP.EXE can be found "C:\xxxxx\Point of Sale\Receipt Printer\Asian Font Utility for A799". After the installation is complete, launch the "HP FONT LOADER" from the Windows START menu.
2. Click on the "Allocate Memory for Fonts" button. The status box will indicate that the allocation process has been completed.
3. Click on the language that you would like to download to the printer. This process can take 10 minutes to complete; during the download process the LED on the printer will blink. When the process has completed downloading, the font the status box will indicate that is it complete.
4. Click on "Print Sample/Diagnostics" to confirm you are able to get a print out after the font download. Note the print out will be in English.
5. Click on "Exit" to leave and close the application.

Detail Steps

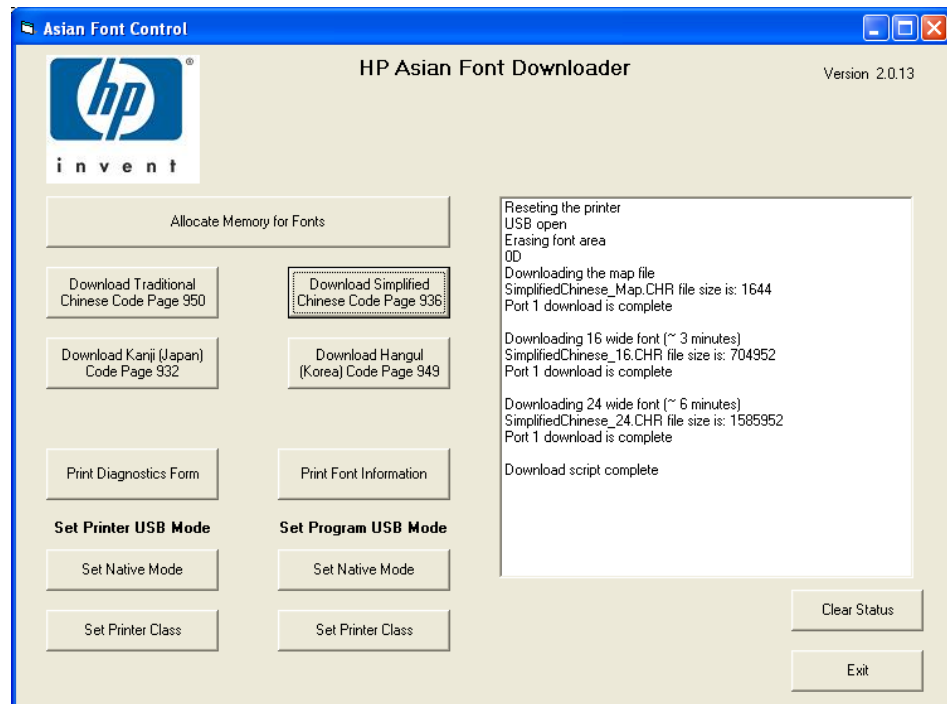
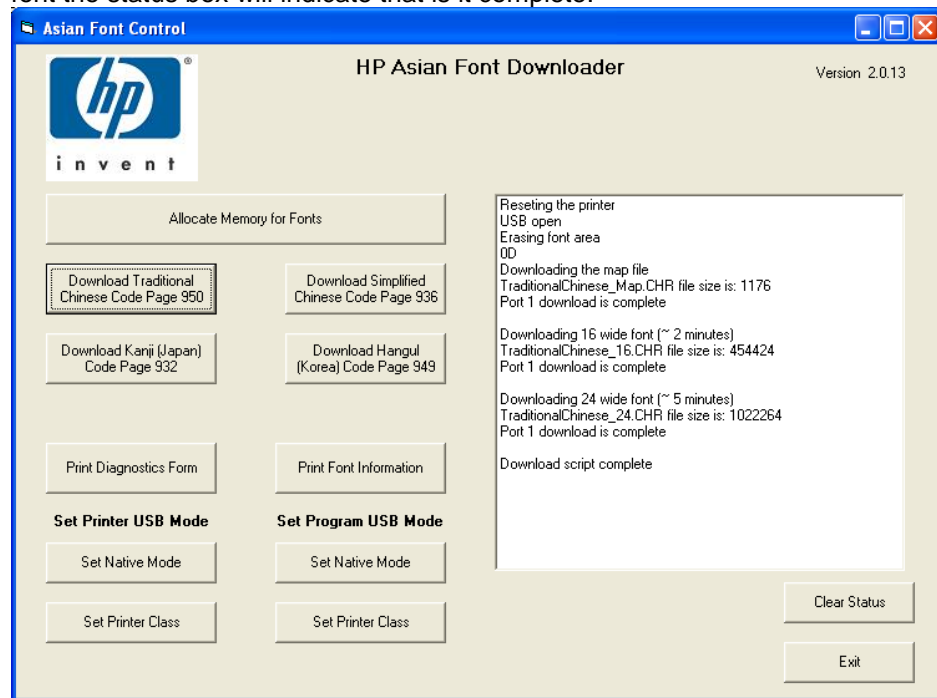
1. Install the HP Asian Font Downloader utility, the SETUP.EXE can be found "C:\xxxxx\Point of Sale\Receipt Printer\Asian Font Utility for A799". After the installation is complete, launch the "HP FONT LOADER" from the Windows START menu.

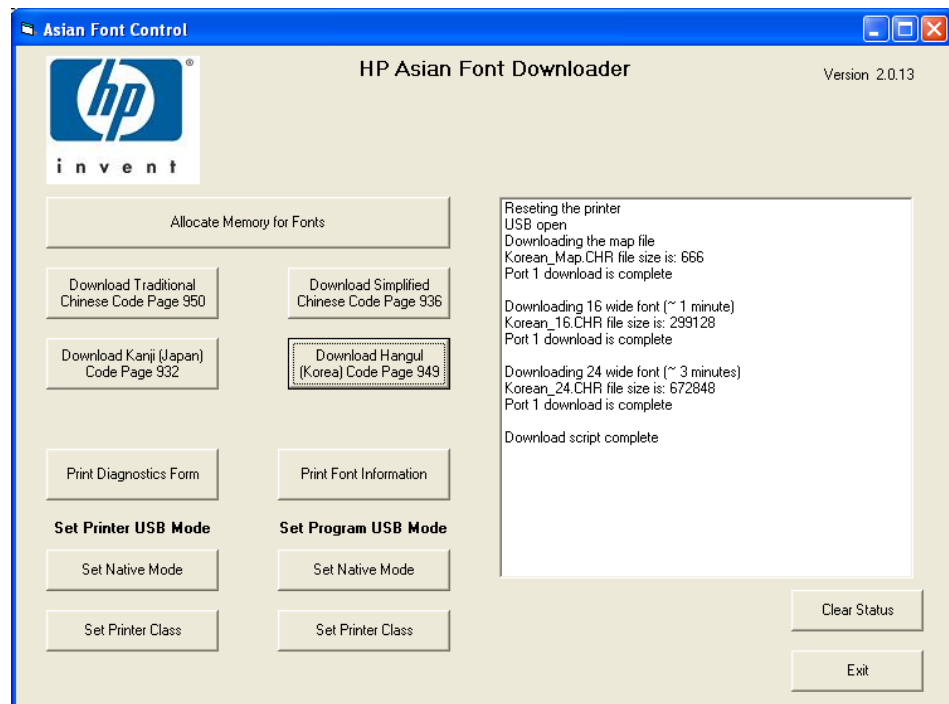
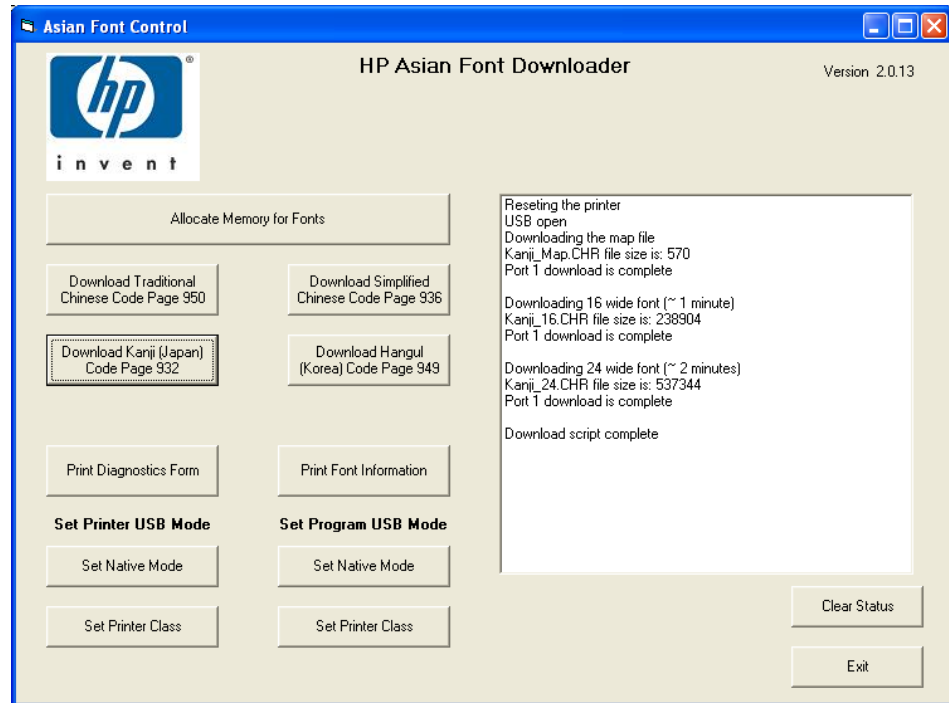


2. Click on the “Allocate Memory for Fonts” button. The status box will indicate that the allocation process has been completed.

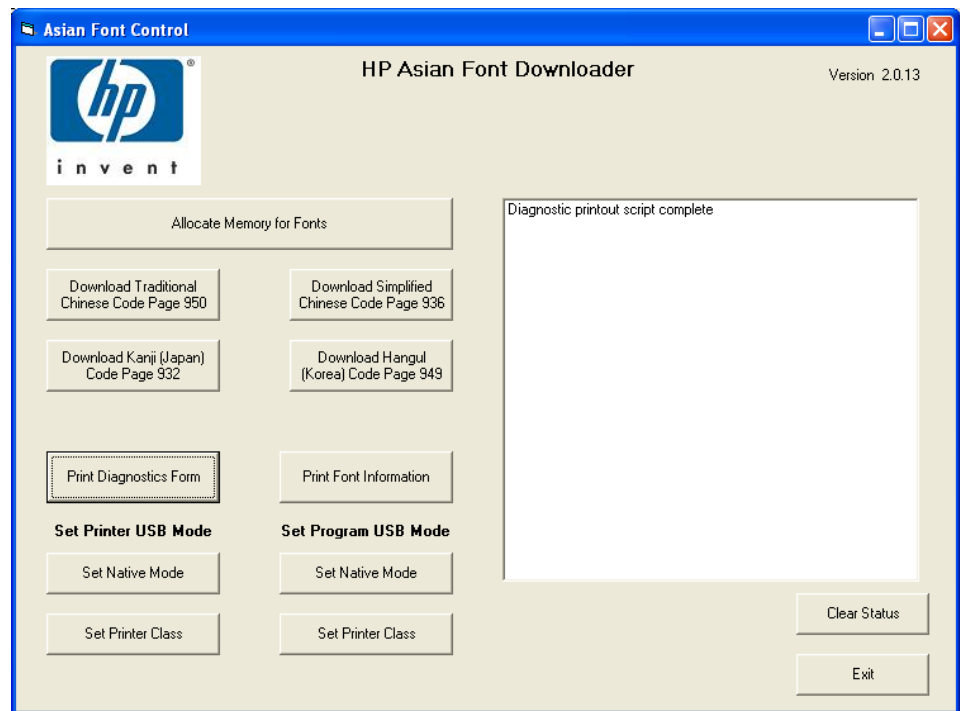


3. Click on the language that you would like to download to the printer. This process can take up to 10 minutes to complete; during the download process the LED on the printer will blink. When the process has completed downloading, the font the status box will indicate that is it complete.





4. Click on “Print Sample/Diagnostics” to confirm you are able to get a print out after the font download. Note that the print out will be in English.



5. Click on “Exit” to leave and close the application.

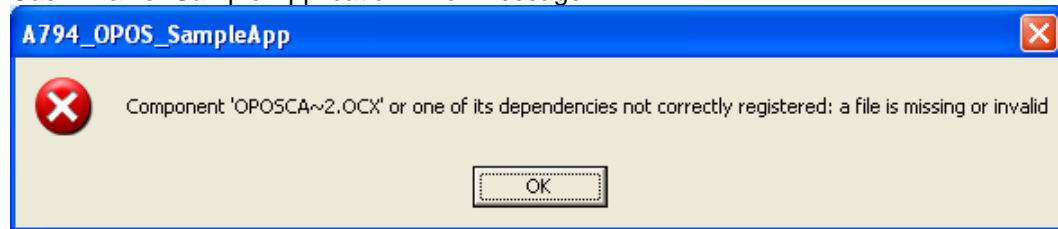
3 Q & A

3.1 HP Cash Drawer

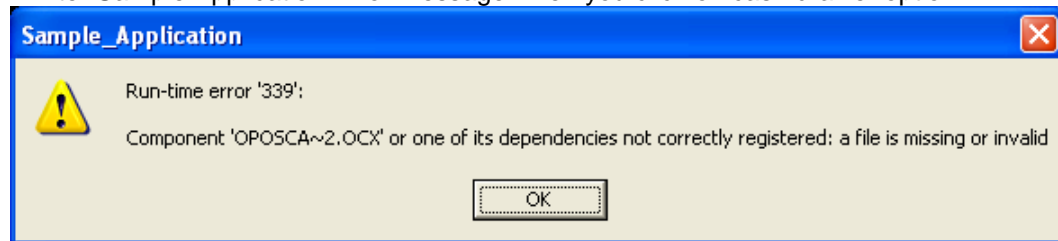
Question: When I run the sample application I receive a message stating dependencies not correctly registered. How do I correct this?

Answer: If you run the cash drawer sample application and receive the following screen, it indicates that either the CCO or the OPOS drivers are not installed and registered. Install the CCO drivers and install the printer OPOS package. After the installation is complete, please restart Windows.

Cash Drawer Sample Application Error message:



Printer Sample Application Error message when you click on cash drawer option



Question: In a dual cash drawer configuration both of my cash drawers are opening at the same time, why?

Answer: This is occurring because both the cash drawer have the same cash drawer cable. In a dual cash drawer configuration a different cash drawer cable is required for the second cash drawer.

Question: What are the ASCII codes to open the cash drawer?

Answer: The ASCII codes to open the cash drawer are:

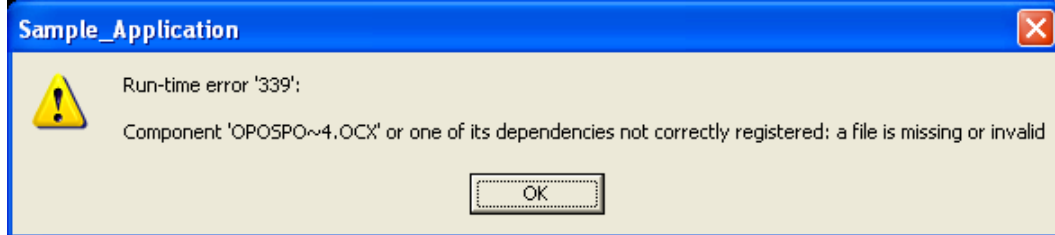
Cash drawer 1	Cash Drawer 2
27 112 0 8 8	27 112 1 8 8

3.2 HP USB Receipt Printer

Question: When I run the sample application I receive a message stating dependencies not correctly registered. How do I correct this?

Answer: If you run the cash drawer sample application and receive the following screen, it indicates that either the CCO or the OPOS drivers are not installed and registered. Install the CCO drivers and install the printer OPOS package. After the installation is complete, please restart Windows.

Printer Sample Application Error message when you click on printer option



Question: What firmware version is required to be able to switch between native and printer class mode on the A794 printer?

Answer: The A794 printer must have firmware 3.48 or later. If the printer has firmware prior to 3.48, there is softpaq available on the HP.COM web site that will allow one to update the firmware.

Question: Can one switch the printer between native and printer class mode?

Answer: Yes, one may switch the printer between native and printer class mode. On the HP.COM web site there is firmware softpaq that may be obtained that has the option to switch the printer between printer class and native mode.

Question: How do I tell if the printer is in NATIVE or PRINTER CLASS mode?

Answer: One can obtain this information in one of two ways:

- 1 ... Print out the diagnostic form on the printer by holding down the form feed button when you close the printer cover. In the COMM. INTERFACE section of the print out see if the USB DRIVER TYPE states NATIVE or PRINTER CLASS.
- 2 ... Look in Windows device manager USB section. If it states HP USB Receipt printer, the printer is in NATIVE mode. If you it has USB PRINTING SUPPORT, the printer is in PRINTER CLASS mode.

Question: Downloaded an updated JAVA from the web site, now the JPOS test utility does not launch?

Answer: The batch file sets the location where the runtime of JAVA folder is located. Need to change the location in the batch file to reflect the update JAVA folder.

Question: Why do I not see an option for “USB001 (Virtual USB Port) in the Windows mini-drivers setup?

Answer: In order for the port to appear, the printer must be attached to the unit AND the printer must be in printer class mode.

Question: What are the ASCII codes to open the cash drawer?

Answer: The ASCII codes to open the cash drawer are:

Cash drawer 1	Cash Drawer 2
27 112 0 8 8	27 112 1 8 8

Detail explanation of the cash drawer command:

Generate pulse to open cash drawer

ASCII	ESC p n p1 p2
Hexadecimal	1B 70 n p1 p2
Decimal	27 112 n p1 p2
Value of n:	00, 48 (Decimal) = Drawer 1; 01, 49 (Decimal) = Drawer 2
Value of p1:	0-255
Value of p2:	0-255

Question: What are the ASCII codes to cut the paper (knife cut)?

Answer: The ASCII codes to cut the paper (knife cut) are:

Perform full knife cut

ASCII	EM	ESC i
Hexadecimal	19	1B 69
Decimal	25	27 105

Perform partial knife cut

ASCII	SUB	ESC m
Hexadecimal	1A	1B 6D
Decimal	26	27 109

The partial knife cut leaves 5mm (0.20 inch) of paper on the left edge.