



# HP Point of Sale (POS) Peripherals Configuration Guide – ap5000 VFD (OPOS)

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## 1 HP Point of Sale Peripherals

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### 1.1 HP ap5000 VFD (Vacuum Fluorescent Display)



#### 1.1.1 Connection

The VFD on the HP ap5000 system is connected via serial interface. When attached at the HP factory the VFD is installed on COM2 as the default location. The HP ap5000 VFD can be connected either on COM2 or COM1 on the ap5000 unit; it **cannot** be used on COM3.

If the VFD is moved to factory default location, please go into the BIOS and enable 5V on the COM2 and disable 5V on COM1.

	ap5000 VFD
Port	COM2 (default) or COM1
Baud Rate	38400
Data Bit	8
Parity	None
Stop Bit	1
Flow Control	Hardware

#### 1.1.2 Windows Drivers for the HP ap5000 VFD

Windows operating system supports serial port COM1/COM2, so no extra drivers are needed to be installed.

#### 1.1.3 OPOS Drivers for the HP ap5000 VFD

The HP ap5000 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 reference the drivers are located "C:\xxxxx\Point of Sale\VFD HP ap5000\ap5000 VFD OPOS" sub-directory.

## **1.1.4 Testing HP ap5000 VFD**

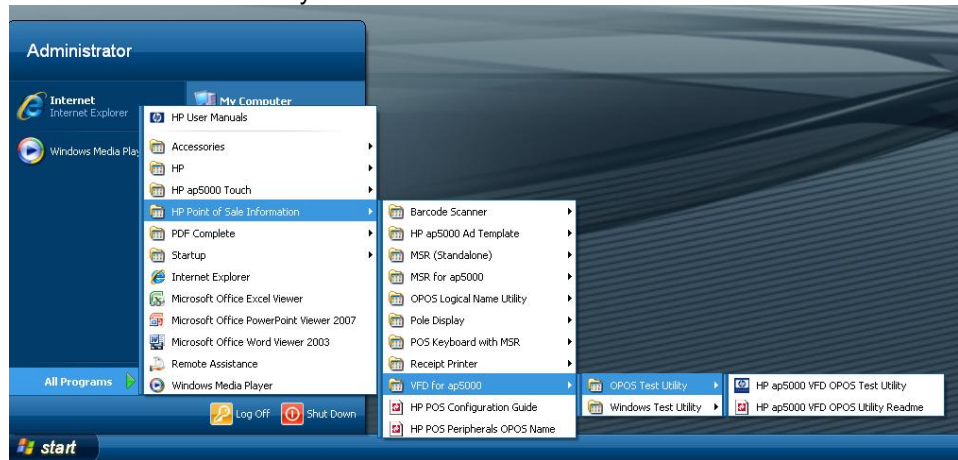
### **1.1.4.1 Testing HP ap5000 VFD in OPOS mode**

The following is overview of the steps to test the ap5000 MSR followed by details steps:

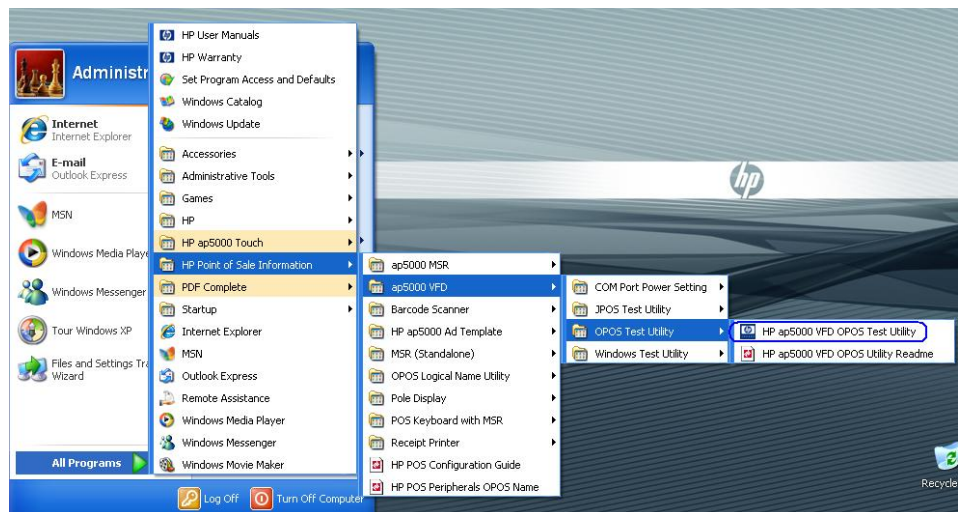
1. Start the OPOS test utility.
2. Click on "Clear Text" to clear the text on the pole display. To display a test message on the pole, enter a message in the text box or use the default message that appear "Display this text" and click on "Display Text"
3. To blink a test message:
  - a. Enter the test message.
  - b. Check the "Blink" box
  - c. Click "Display Text" button.
4. To "Reverse" a test message:
  - a. Enter the test message.
  - b. Check the "Reverse" box
  - c. Click "Display Text" button.
5. To display a test message on different ROW or Column:
  - a. Enter the test message.
  - b. From the drop down menu select the column and row where you would like the message to be displayed.
  - c. Click "Display Text At" button.
6. To cause message to scroll (test #1):
  - a. Click on "Scrolling Text Test #1" button. The pole will scroll a message and the following message "Scrolling" appears on the VFD bottom line.
7. To cause message to scroll (test #2):
  - a. Click on "Scrolling Text Test #2" button. The pole will scroll a message and the following message "Longer scroll message (37 characters)" appears on the VFD bottom line.
8. To display a test message with delayed character appearing:
  - a. Enter different value (if so desired) for the delay time.
  - b. Click "Set CharacterDelayTime" button.
  - c. Enter a text message and click "Display Text" button.
9. To exit the OPOS test applet, click on the "EXIT" button or click on the "x" in the upper right corner of the test applet.

### Detail Steps

1. Start the OPOS test utility.



or

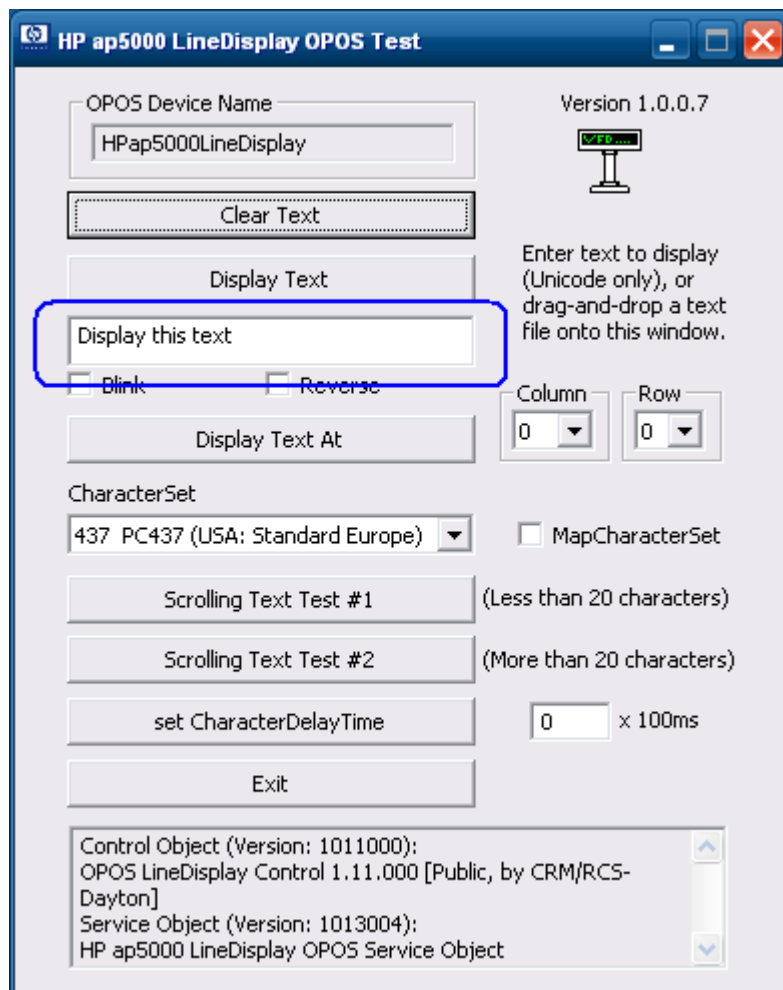


or from “C:\xxxxx\Point of Sale\VFD HP ap5000\ap5000 VFD OPOS Test Program” folder.

When the HP Pole Display OPOS test applet has successfully established communication with the pole display, the following message will appear on the pole:

HPap5000LineDisplay  
OPOS Test OK!

2. Click on “Clear Text” to clear the text on the pole display. To display a test message on the pole, enter a message in the text box or use the default message that appear “Display this text” and click on “Display Text”.



3. To blink a test message:
  - a. Enter the test message.
  - b. Check the “Blink” box
  - c. Click “Display Text” button.

HP ap5000 LineDisplay OPOS Test

OPOS Device Name: HPap5000LineDisplay

Version 1.0.0.7

Clear Text

Display Text

Display this text

☒ Blink ☐ Reverse

Display Text At

Enter text to display (Unicode only), or drag-and-drop a text file onto this window.

Column: 0 Row: 0

CharacterSet: 437 PC437 (USA: Standard Europe) ☐ MapCharacterSet

Scrolling Text Test #1 (Less than 20 characters)

Scrolling Text Test #2 (More than 20 characters)

set CharacterDelayTime: 0 x 100ms

Exit

Control Object (Version: 1011000):  
OPOS LineDisplay Control 1.11.000 [Public, by CRM/RCS-Dayton]  
Service Object (Version: 1013004):  
HP ap5000 LineDisplay OPOS Service Object



4. To “Reverse” a test message:
  - a. Enter the test message.
  - b. Check the “Reverse” box
  - c. Click “Display Text” button.

HP ap5000 LineDisplay OPOS Test

OPOS Device Name: HPap5000LineDisplay

Version 1.0.0.7

Clear Text

Display Text

Display this text

☐ Blink ☒ Reverse

Display Text At

Column: 0 Row: 0

Enter text to display (Unicode only), or drag-and-drop a text file onto this window.

CharacterSet: 437 PC437 (USA: Standard Europe) ☐ MapCharacterSet

Scrolling Text Test #1 (Less than 20 characters)

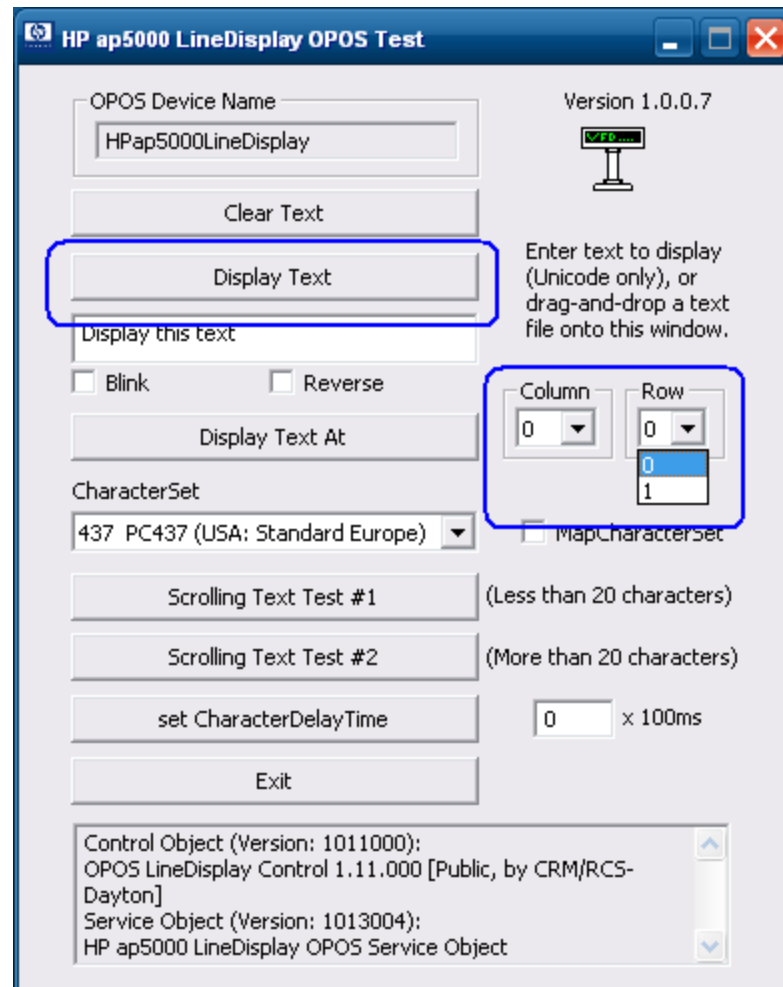
Scrolling Text Test #2 (More than 20 characters)

set CharacterDelayTime: 0 x 100ms

Exit

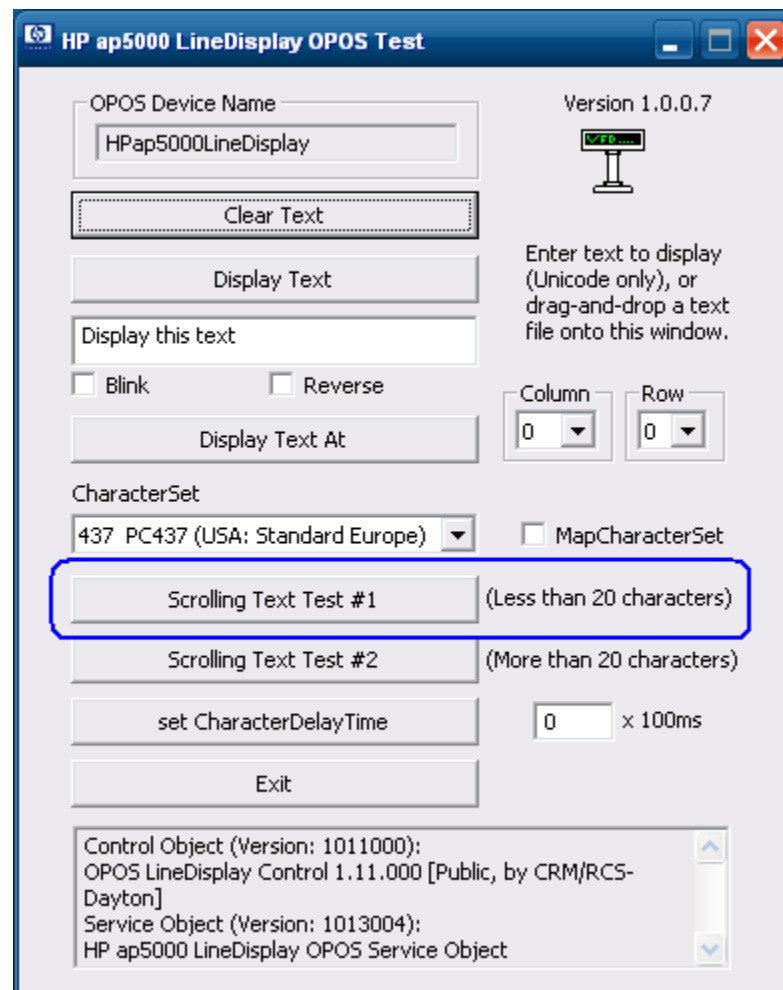
Control Object (Version: 1011000): OPOS LineDisplay Control 1.11.000 [Public, by CRM/RCS-Dayton]  
Service Object (Version: 1013004): HP ap5000 LineDisplay OPOS Service Object

5. To display a test message on different ROW or Column:
  - a. Enter the test message.
  - b. From the drop down menu select the column and row where you would like the message to be displayed.
  - c. Click “Display Text At” button.

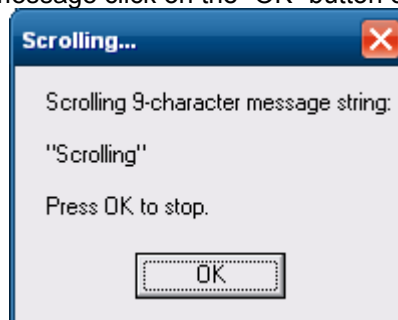


**Note:** In the column drop down box, the option shown are from 0 – 20 which is per the OPOS specification.

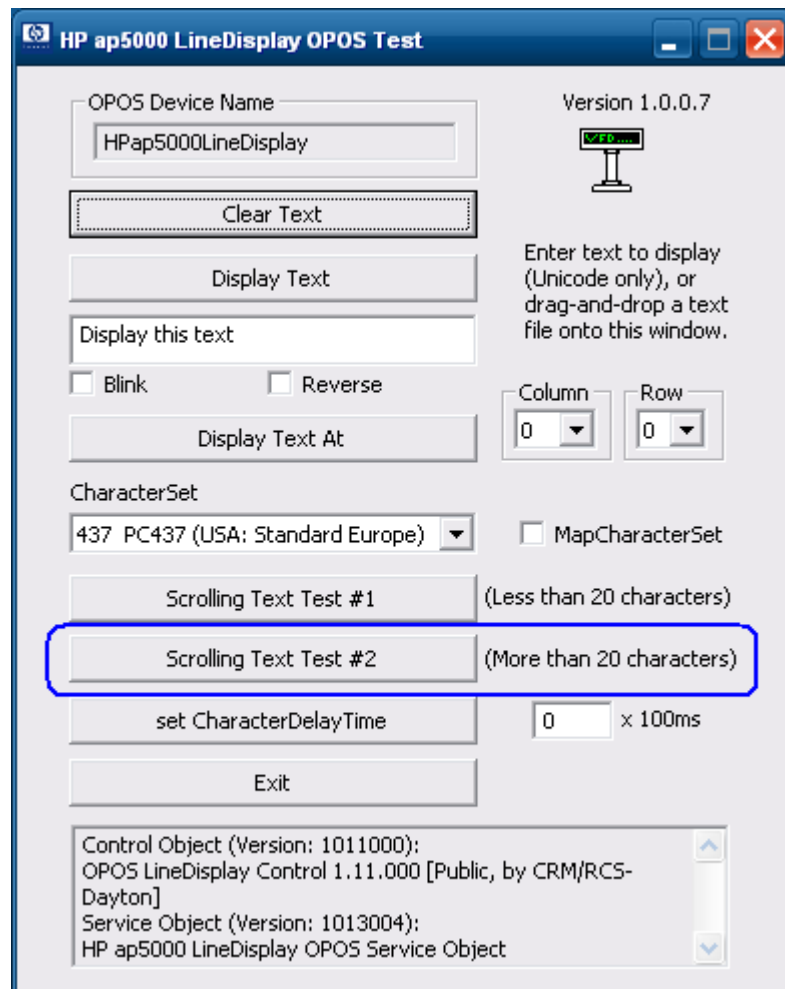
6. To cause message to scroll (test #1):
  - a. Click on “Scrolling Text Test #1” button. The pole will scroll a message and the following message “Scrolling” appears on the VFD bottom line.



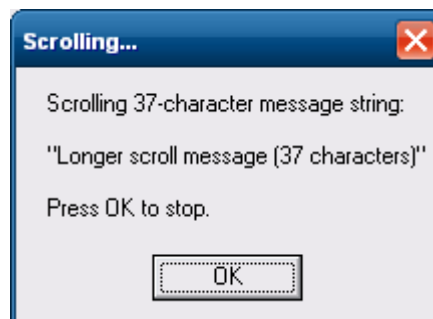
To stop the scrolling message click on the “OK” button on the following box:



7. To cause message to scroll (test #2):
  - a. Click on “Scrolling Text Test #2” button. The pole will scroll a message and the following message “Longer scroll message (37 characters)” appears on the VFD bottom line.



To stop the scrolling message click on the “OK” button on the following box:



8. To display a test message with delayed character appearing:
  - a. Enter different value (if so desired) for the delay time.

HP ap5000 LineDisplay OPOS Test

OPOS Device Name: HPap5000LineDisplay

Version 1.0.0.7

Clear Text

Display Text

Display this text

☐ Blink ☐ Reverse

Display Text At

Column: 2 Row: 1

CharacterSet: 437 PC437 (USA: Standard Europe) ☐ MapCharacterSet

Scrolling Text Test #1 (Less than 20 characters)

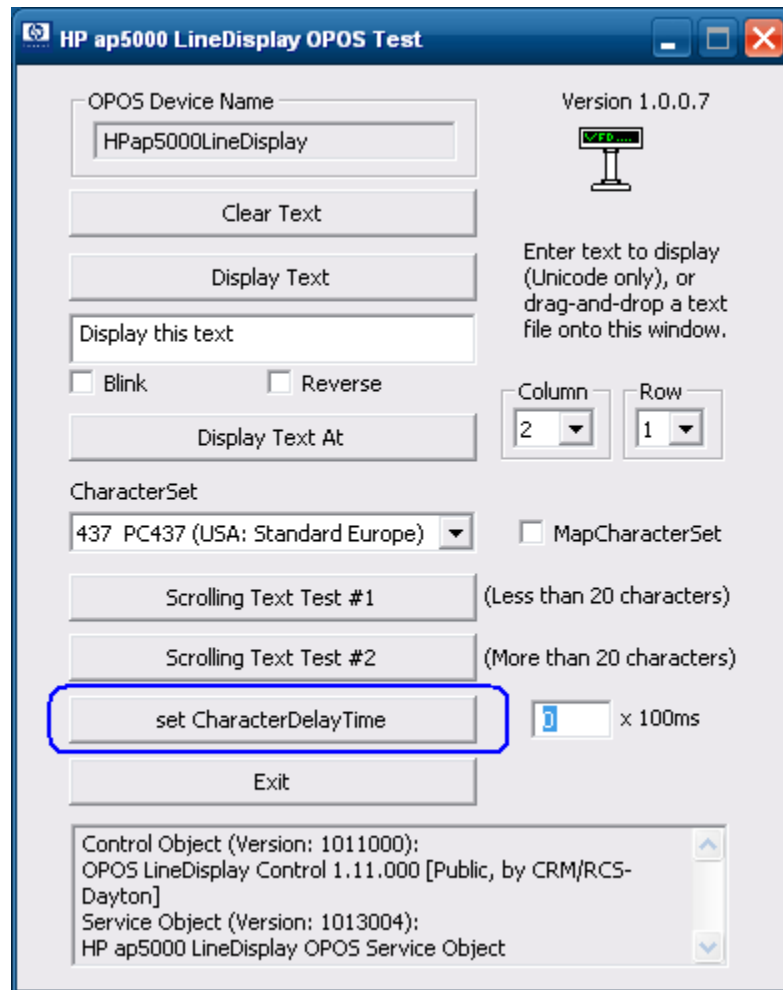
Scrolling Text Test #2 (More than 20 characters)

set CharacterDelayTime: 100 x 100ms

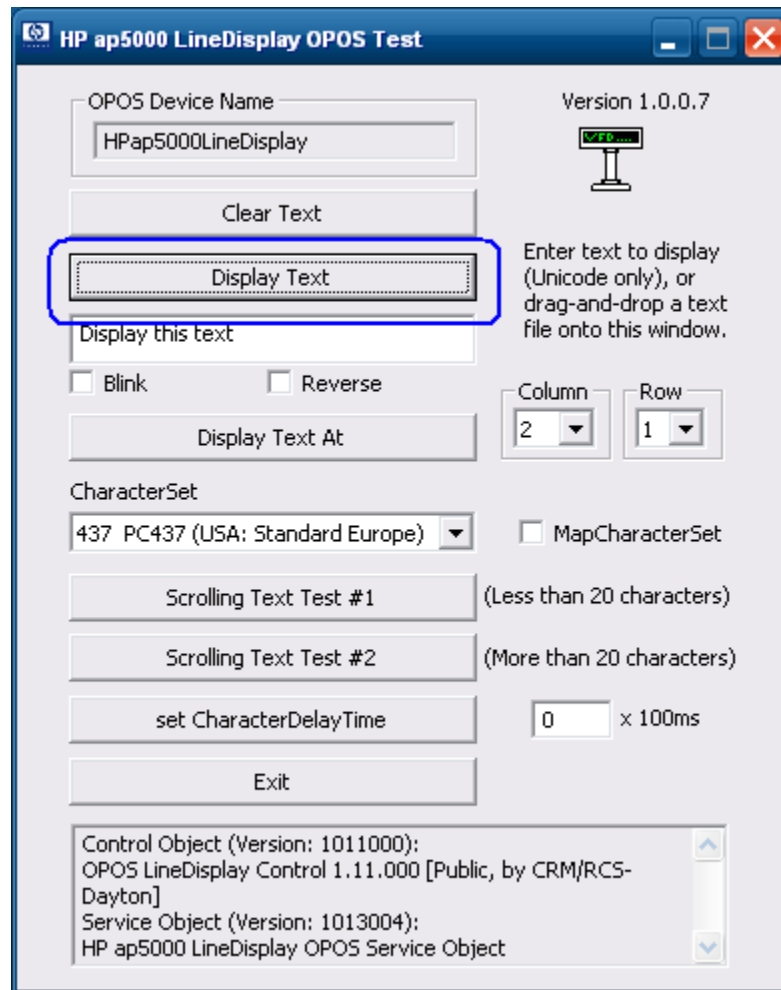
Exit

Control Object (Version: 1011000):  
OPOS LineDisplay Control 1.11.000 [Public, by CRM/RCS-Dayton]  
Service Object (Version: 1013004):  
HP ap5000 LineDisplay OPOS Service Object

- b. Click “Set CharacterDelayTime” button.



- c. Enter the test message and click “Display Text” button.

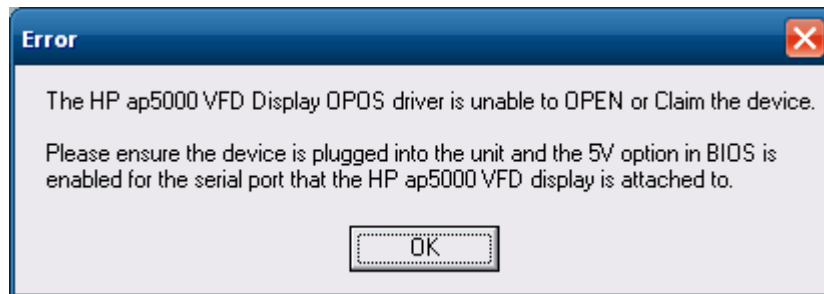
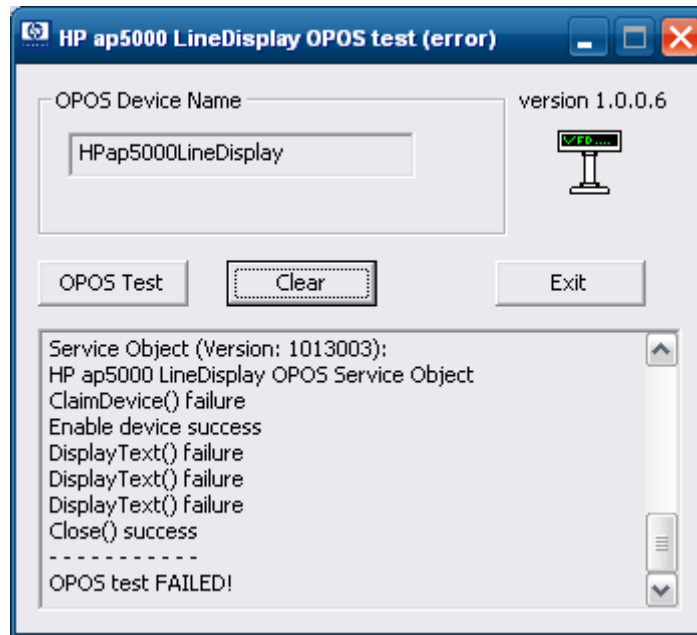


9. To exit the OPOS test applet, click on the “EXIT” button or click on the “x” in the upper right corner of the test applet.

## 2 Q & A

### 2.1 HP ap5000 VFD (OPOS)

**Question:** When launching the OPOS test utility, I receive an error indicating a “FAILED”. How to fix this error?



**Answer:** This error indicates that the utility is not able to find the ap5000 VFD attached to the unit.

Checking the following items:

1. An ap5000 VFD is attached to the unit.
2. The ap5000 VFD is attached on either COM1 or COM2.
3. In BIOS the port (COM1 or COM2) that the VFD is attached is set for "5V" for power instead of "Standard Mode". Please refer to the [HP ap5000 VFD BIOS Power setting](#) section for details on how to enable the power on the serial ports.