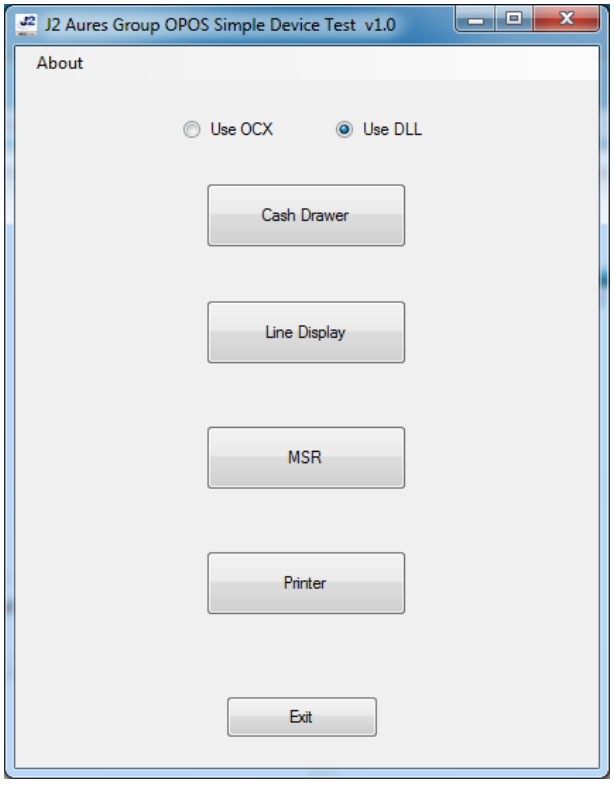
J2 OPOS Device Test with Source Code

Software Manual



October 2013

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Change history

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Overview

The J2 OPOS Simple Device Test was written with two purposes in mind. The first was to provide a convenient and simple way to check to see if an OPOS (UPOS) driver was installed correctly and working. The second objective was to provide and simple example of how an OPOS driver could be used from an application.

The use of and OPOS driver can look on the surface to be more complicated that it is. The source code for this test program is made available to hopefully simplify the software implementation of an OPOS driver into a software application. Though the code was written in VB.NET with Visual Studio 2010 is could easily be allied to any software language.

When used as a test program the software was design to work with any OPOS driver from any vendor, not just Aures/J2. The test was designed to be as simple as possible and still test the functions of the OPOS device. The test currently supports OPOS devises for Cash Drawer, Line Display, MSR and Printer. Others may be added at a later date.

The test and source code is available from J2 web site and can be freely used with no copyright restriction. The code is provided as is.

Software Design

The J2 OPOS Simple Devise Test is written in VB.NET using Visual Studio 2010. The source code is self-explanatory in most cases. Even a non VB programer should be able to read it without a problem.

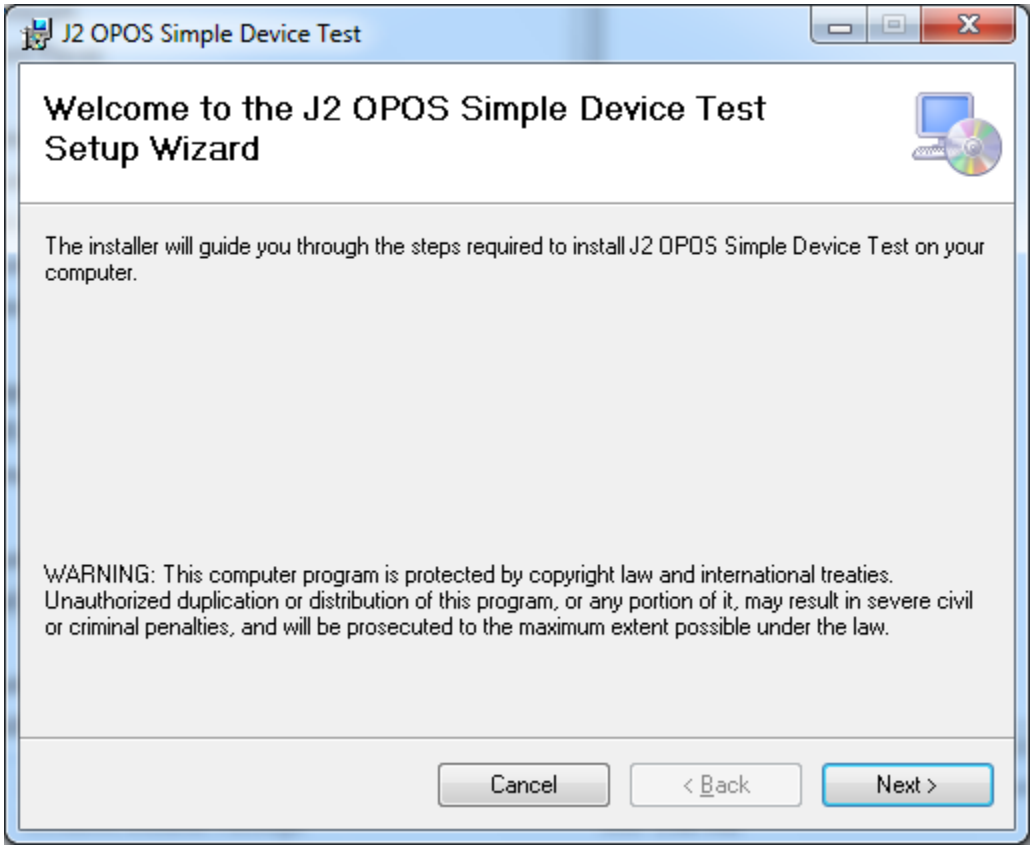
The OPOS drivers can be address in two ways, one using the older OCX modules and the new and preferred way using a .dll file. But methods are covered in the software.

Installation

To install the J2 OPOS Simple Device Test please download the setup software from the J2 Support web site. The source code can also be downloaded from the web site.

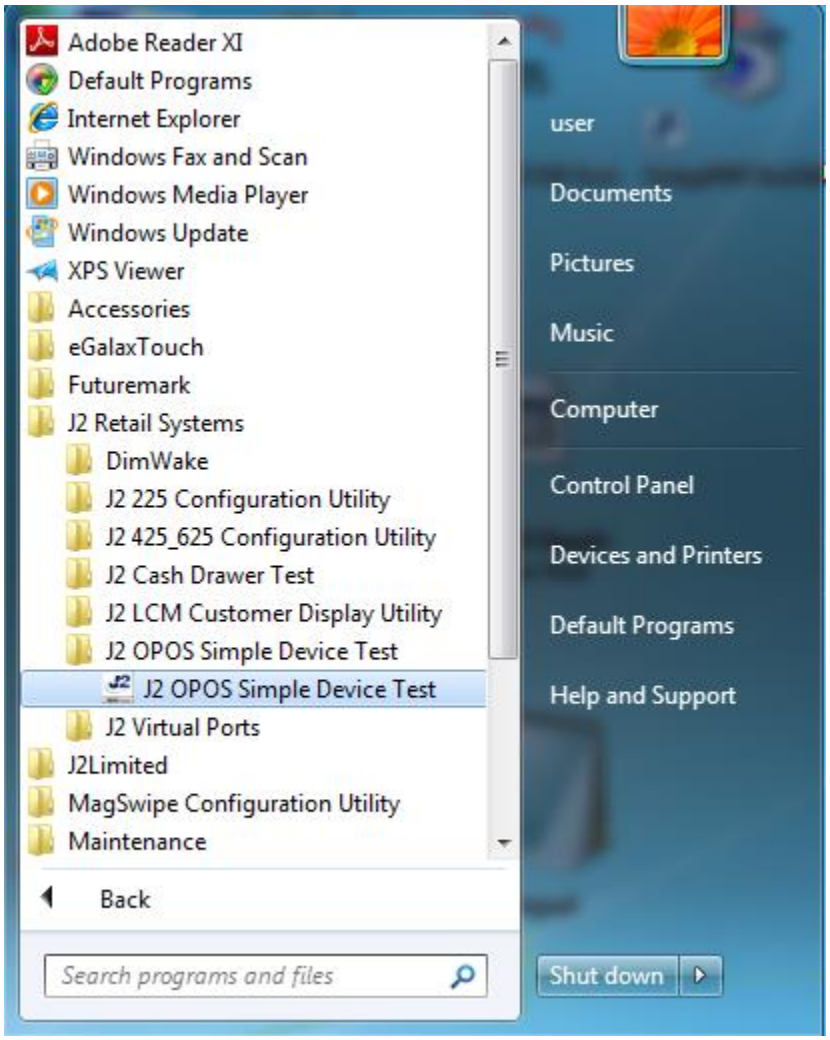
The web sites address is: http://support.j2rs.com/

Once the software has been downloaded, run Setup to install the J2 OPOS Simple Device Test software.



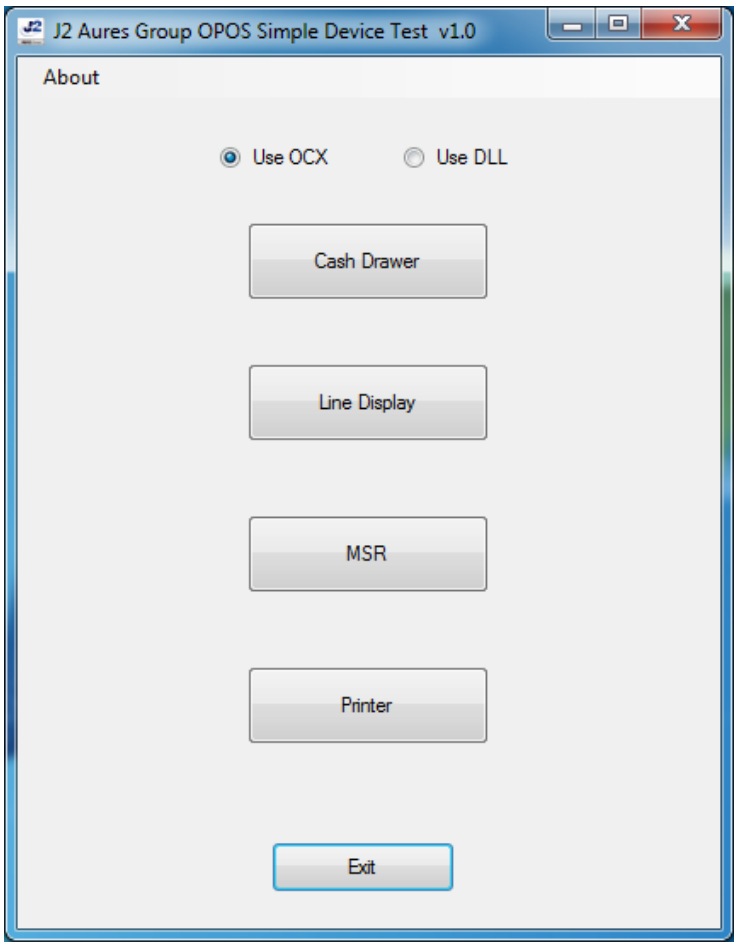
J2 OPOS Simple Device Test

Once the software is installed it can be found under \Programs\J2 Retail Systems\J2 OPOS Simple Device Test as shown below.



Running Test

When the test is run the following screen will display.



At this screen you can select to test using the OCX method or the DLL method.

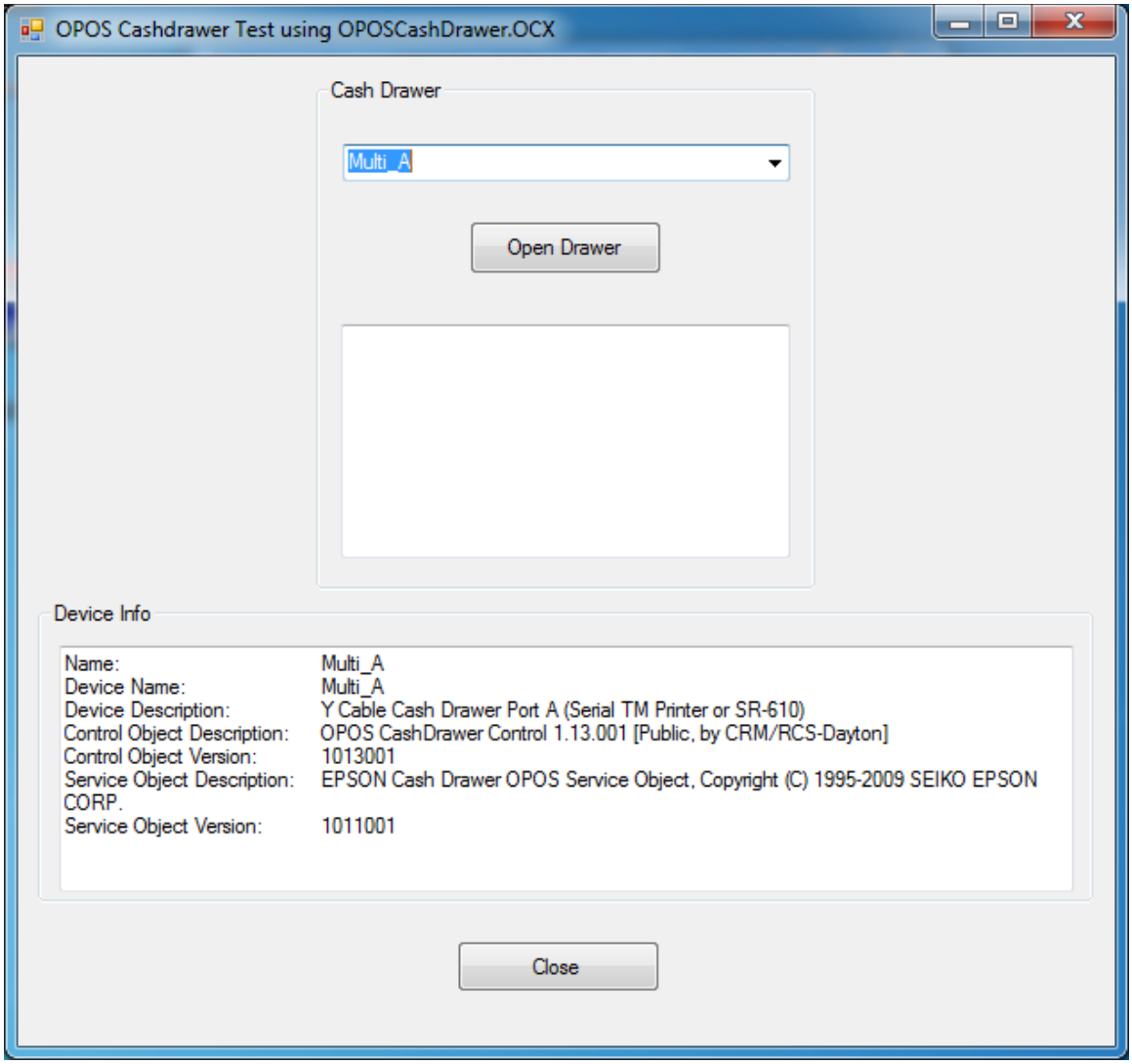
OPOS drivers comes in two parts, the actual driver (service object) and the Common Control Objects (CCO). The driver which is a .ddl file is specific to each vendor. Most vendors use the public domain CCO that can be downloaded from this web site.

http://monroecs.com/oposccos_current.htm

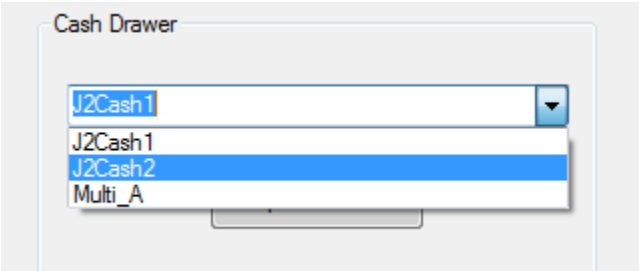
The vendors supplied OPOS driver most likely installs some version of the CCO but this can be overwritten with the most current version from the above web site, this is recommend. It is suggested the newest CCO is installed after all OPOS driver are install so you are using the latest CCO.

Cash Drawer Test

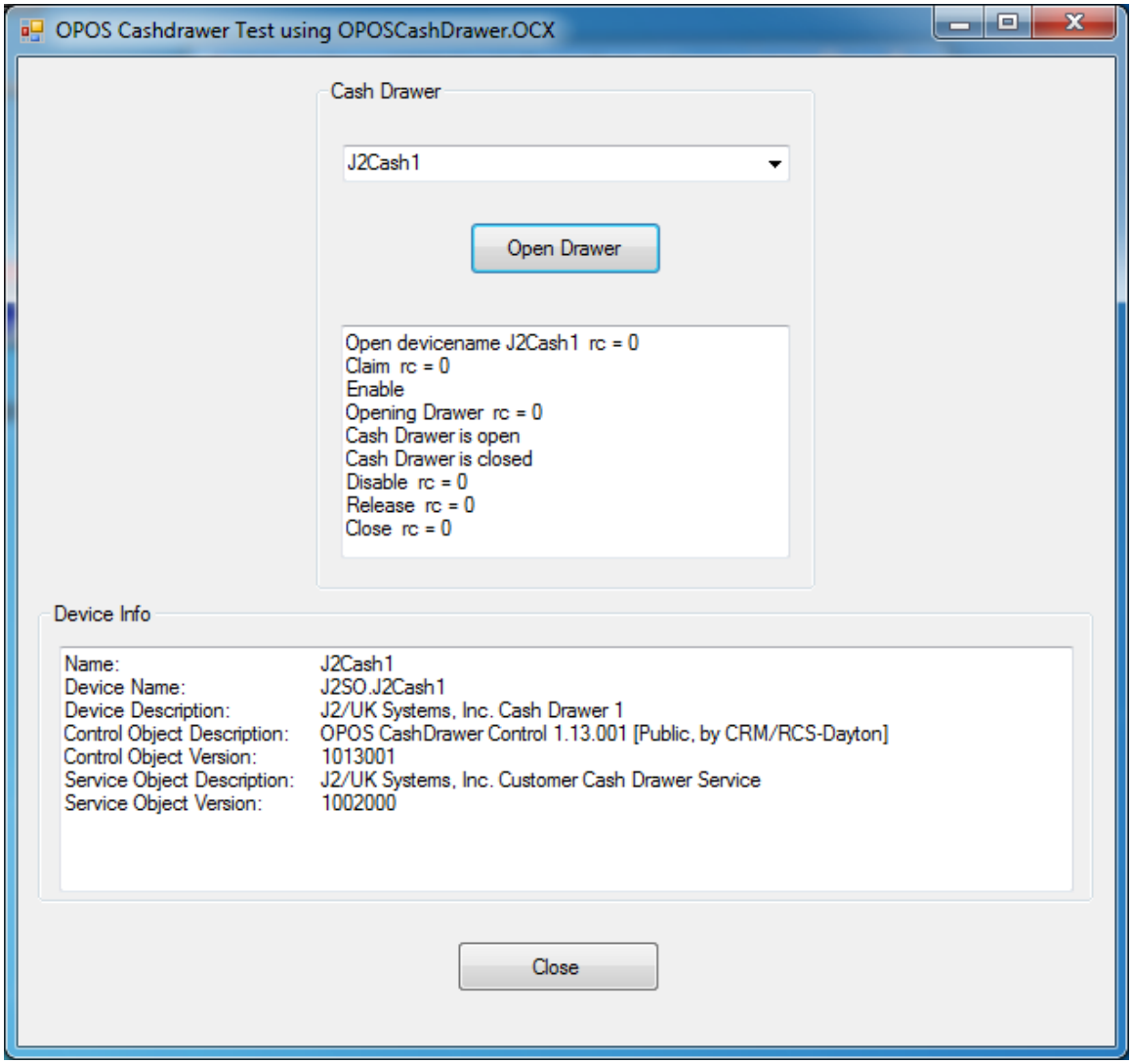
When run, the cash drawer test screen displays. It shows information about the current OPOS cash drawer driver selected from the drop down menu. If the device has a Logical Device Name (LDN), that will also be displayed in the Device Info window.



By using the drop down menu you can select from any cash drawer OPOS driver that is installed.



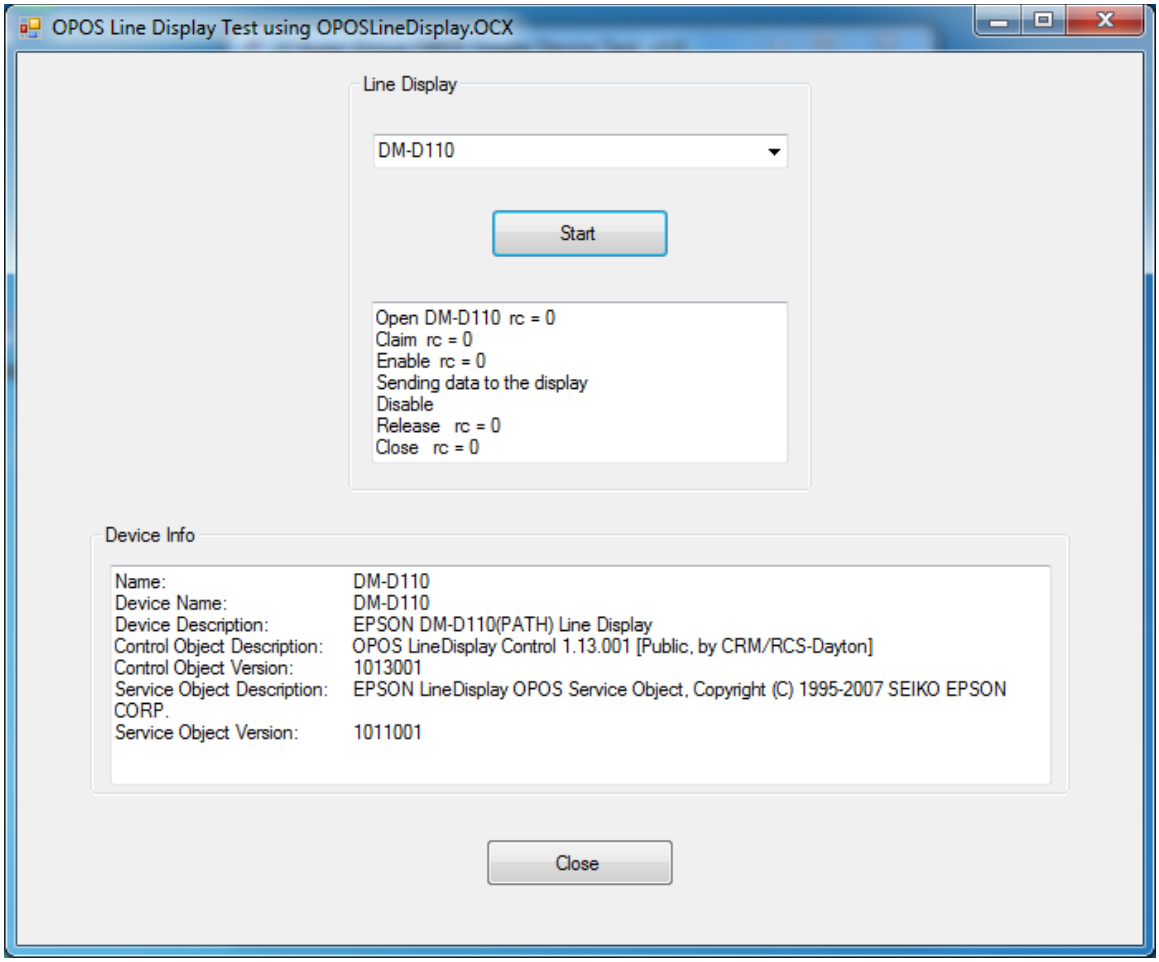
Once the device to be tested is selected the test can be run by selecting the Open Drawer button. The driver will open the cash drawer and wait until the user closes the drawer to complete the test.



The status window displays the steps involved in using the OPOS driver to open the drawer. There are three steps. First the driver is claimed to insure no other application can access this device. Then in step two the device is enabled and in step three the open command is sent. The test software then reads the drawer status until the drawer is closed (or test is closed). Once the drawer is closed the driver first disabled the driver they releases it. This sequence is used by all OPOS devices no matter the function.

Line Display

The Line Display and all other tests work the same as the Cash Drawer test. The drop down menu is used to select the device to be tested, the driver information is displayed in the Device Info windows and test results in the status windows.



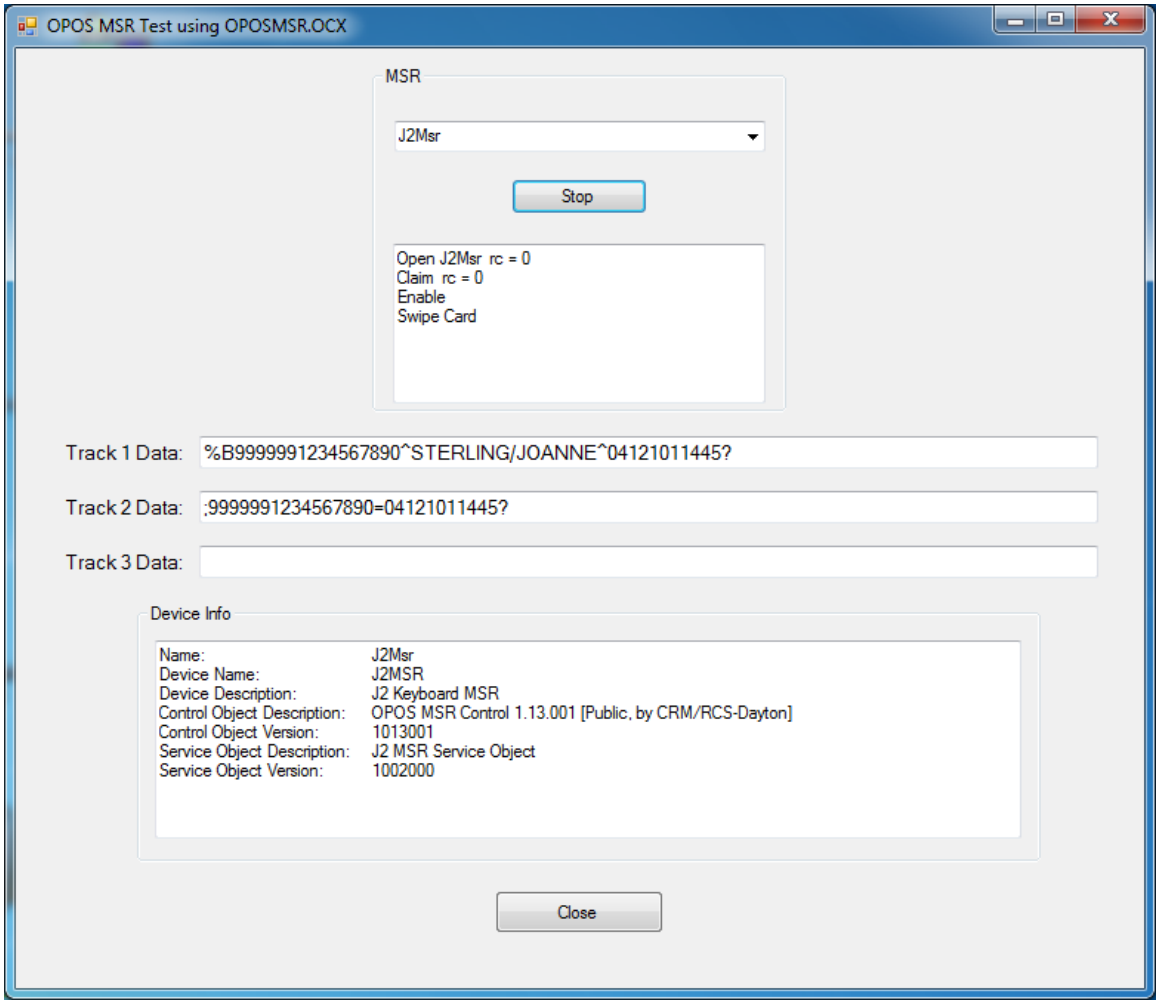
When the Line Display test is run it will display the test message on the display as shown below.



MSR Test

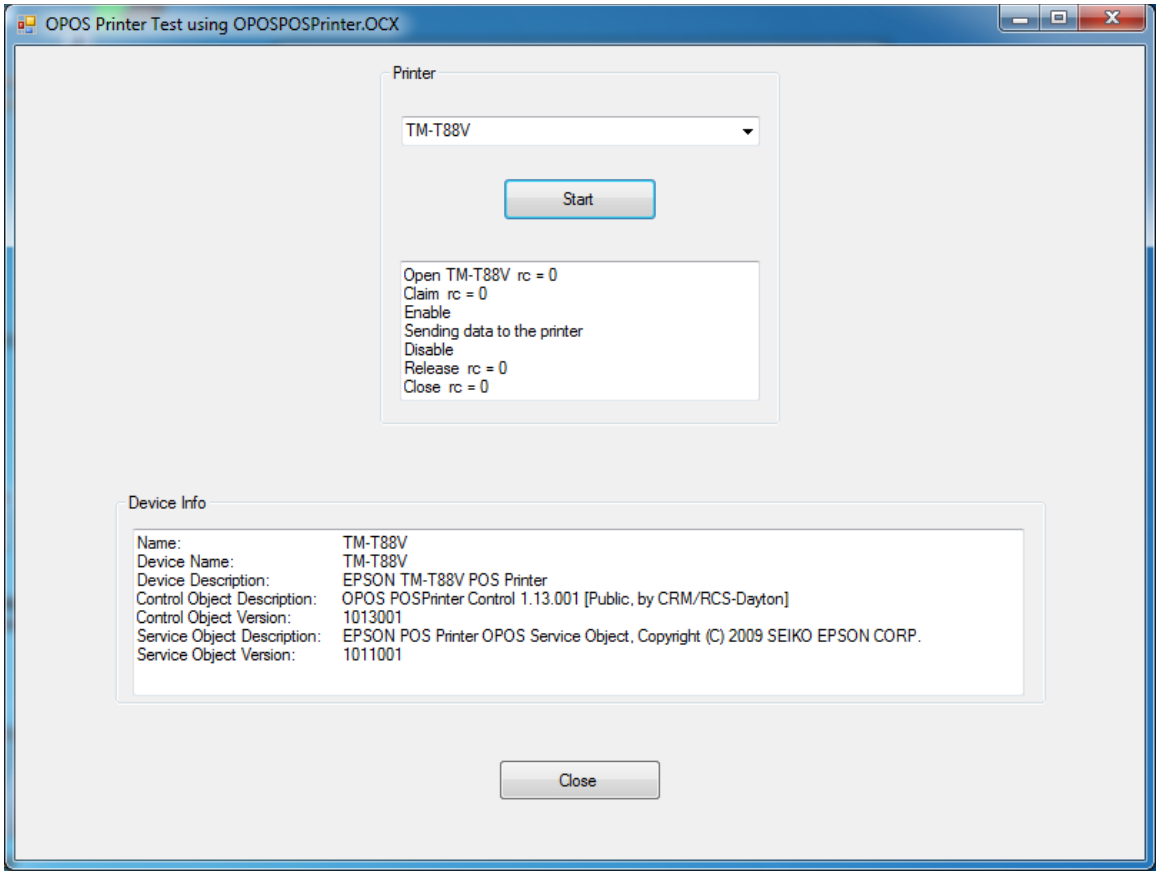
The MSR Test and all other tests work the same as the Cash Drawer test. The drop down menu is used to select the device to be tested, the driver information is displayed in the Device Info windows and test results in the status windows.

To run the test select the start button then swipe a MSR card. The raw information on the card will be displayed in the Track1, 2, 3 status windows. You can swipe another card at any time or select the Stop button to stop the test.

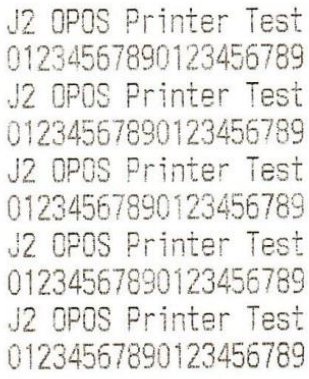


Printer Test

The Printer Test and all other tests work the same as the Cash Drawer test. The drop down menu is used to select the device to be tested, the driver information is displayed in the Device Info windows and test results in the status windows.



To run the test hit the start button, the printer will print 10 lines of test data as show below.



Source Code

Below is the sources code of the test program that opens the cash drawer. As you can see it is quite simple. Open, Claim, Enable, Command.

```
Private Sub Button1_Click(sender As System.Object, e As System.EventArgs) Handles Button1.Click
    If openflag = False Then
        openflag = True
        TextBox1.Clear()
        Device.DeviceEnabled = False
        Device.ReleaseDevice()
        Device.Close()
    End If
    rc = Device.Open(DeviceName) : TextBox1.Text = "Open devicename " & DeviceName & "  rc = " & rc & vbCrLf
    rc = Device.ClaimDevice(500) : TextBox1.Text &= "Claim" & "  rc = " & rc & vbCrLf
    Device.DeviceEnabled = True : TextBox1.Text &= "Enable" & vbCrLf
    rc = Device.OpenDrawer : TextBox1.Text &= "Opening Drawer" & "  rc = " & rc & vbCrLf
    If Device.DrawerOpened = True Then
        TextBox1.Text &= "Cash Drawer is open" & vbCrLf
        Timer1.Start()
    Else
        TextBox1.Text &= "Cash Drawer is closed" & vbCrLf
        Timer1.Start()
    End If
    openflag = False
End Sub
```

This is the code to release the driver once the drawer is closed. An OPOS driver should always be released once a command is completed.

```
Private Sub Timer1_Tick(sender As Object, e As System.EventArgs) Handles Timer1.Tick
    Application.DoEvents()
    If Device.DrawerOpened = False Then
        Timer1.Stop()
        TextBox1.Text &= "Cash Drawer is closed" & vbCrLf
        Device.DeviceEnabled = False : TextBox1.Text &= "Disable" & "  rc = " & rc & vbCrLf
        rc = Device.ReleaseDevice : TextBox1.Text &= "Release" & "  rc = " & rc & vbCrLf
        rc = Device.Close : TextBox1.Text &= "Close" & "  rc = " & rc & vbCrLf
    End If
End Sub
```

The full source code can be downloaded from the J2 support website.

http://support.j2rs.com/

Some excellent sources of information on OPOS (UPOS as it is now called) can be found and these web sites.

http://monroecs.com/index.htm

http://www.nrf-arts.org/content/unifiedpos

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