



J2 Virtual Serial Ports

Software Manual

June 2009

Contents

Overview	3
Devices Supported	3
Remove Old Drivers	4
Installing Virtual Port Drivers	5
Uninstalling Virtual Port Drivers	5
Port Configuration	6
Cash Drawer Virtual Serial Port	7
iButton.....	8
On Screen Keyboard.....	9
MSR	10
Virtual Serial Customer Display	11
UPS	11

Overview

A number of Point of Sale software packages on the market support serial port peripherals but do not necessarily support OPOS drivers or Keyboard Wedge devices. To take advantage of this fact J2 has developed a number of virtual serial port drivers to allow the use of this serial port software support.

The J2 virtual serial ports drivers will make a non serial device act the same as the serial port version of that device. With a virtual serial port driver installed all communications to the devices supported is through standard Windows Serial Port API calls. As an example, if the virtual serial port driver for a J2 POS onboard cash drawer port is loaded then a COM port is created for that cash drawer. The cash drawer can be opened by sending a command to its COM port rather than say make a call to an OPOS driver.

Devices Supported

The virtual serial port drivers' works on a number of J2 intergraded touch screen computers including the J2 520, 560, 580, 615 and the 650 models. The same software package is used for all models in will install the correct software for each type.

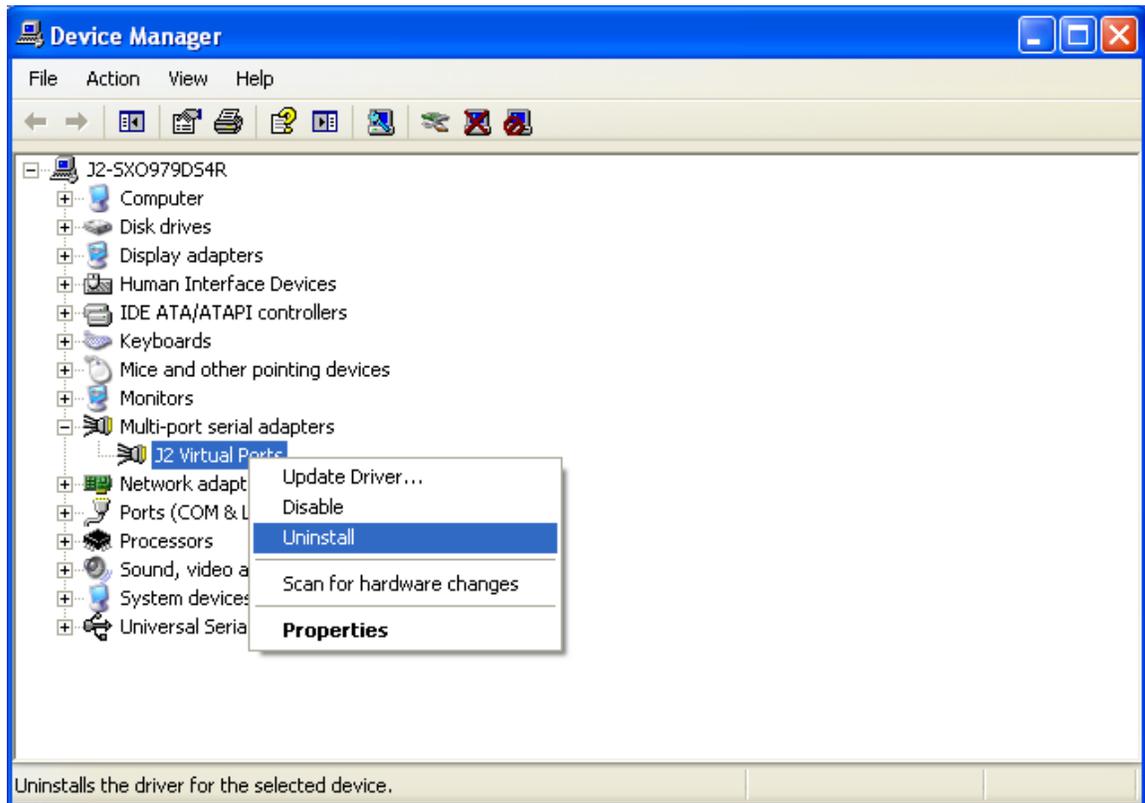
The devices that can be supported by the driver are:

- Cash Drawer 1
- Cash Drawer 2
- UPS
- Virtual 2x20 Customer Display on Secondary Monitor
- MSR
- iButton (sometimes called a Dallas Key or FOB)

The drivers for the Cash Drawers, MSR and iButton are fully contained within this driver package. For the UPS and Virtual 2x20 Customer Display additional software is needed. It should be noted the UPS driver is an extended UPS driver and not needed for normal UPS operation and the virtual UPS serial port driver is not normally used.

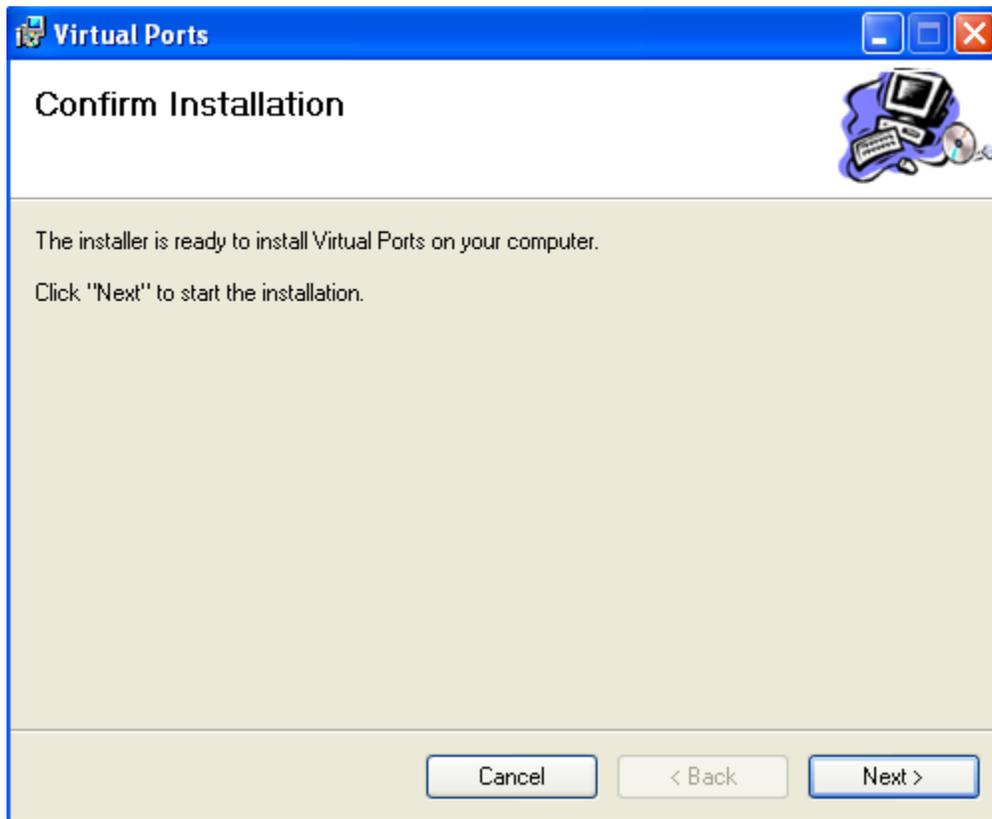
Remove Old Drivers

The J2 virtual port driver has recently been completely rewritten and any older version of the drivers needs to be uninstalled before installing the new version. To uninstall any old drivers use control panel, device manager and remove the driver for manager > multi-port serial adapters > J2 virtual ports (right-click and uninstall; after uninstalling, reboot computer).



Installing Virtual Port Drivers

Download the latest version of the Virtual Serial Port driver from the J2 web site. Be sure .NET framework is installed then unzip the setup program and run. The drivers will install.

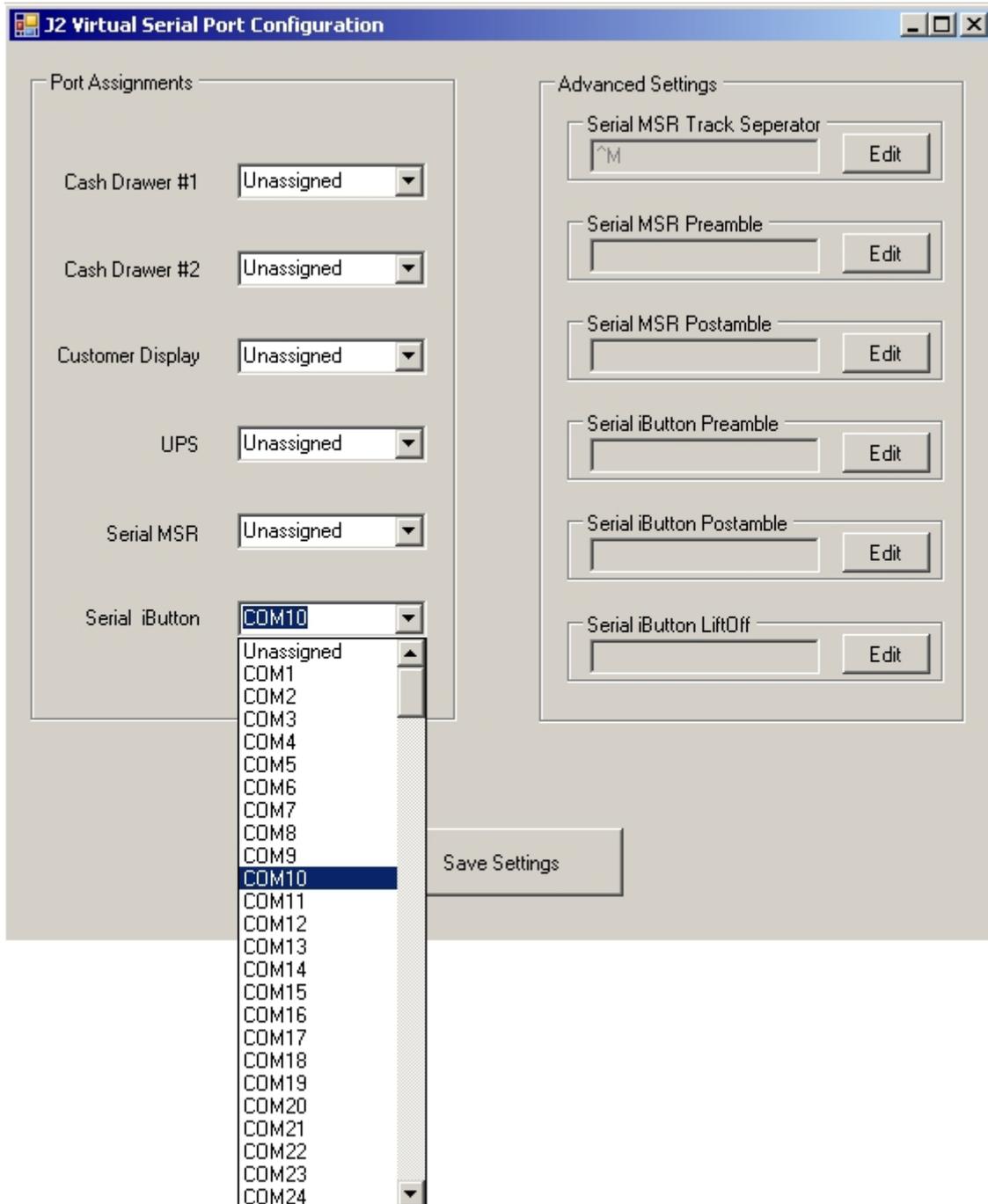


Uninstalling Virtual Port Drivers

The Virtual Serial Drivers can be uninstalled any time by running its uninstall program which is located under All Programs, J2 Retail Systems, Uninstall Virtual Ports.

Port Configuration

After the drivers have installed the port configuration screen will appear. For any device you wish to enable select the COM port you wish to use. After selecting the ports “Save Settings” the selected virtual ports drivers will be enabled.



If your software requires a specific port like COM1 you can use COM1 if you first remap the hardware serial port using COM1 to another COM port. This can be done with the control panel device manager. Select the hardware COM port you wish to remap, and then select properties, advanced. The COM port number may be changed there.

If you wish to disable a previously enabled virtual port driver you can do this by selecting “Unassigned” in the drop down list and “Save Setting”. This will disable the driver for this device.

The Virtual Serial Port Configuration can be run any time and is located under All Programs / J2 Retail Systems / Virtual Ports.

Cash Drawer Virtual Serial Port

Software applications may address the Cash Drawer ports in a number of ways. They are:

- 1) Using the J2 supplied OPOS drivers for Vista, XP, WEPOS and XP Embedded.
- 2) Using the J2 supplied Virtual COM port for CE.NET, XP, WEPOS and XPe.
- 3) Direct access to the I/O ports

This section addresses using the virtual serial port driver. Please refer to the system manual of the relevant product when using OPOS drivers or direct I/O

The Virtual COM port driver maps the cash drawers to the COM port selected in the configuration screen.

To open a Cash Drawer send a bell character to the COM port selected for it. (The bell character is the ASCII 07 hex character “Control G.”) The open/close status of the drawer may be obtained by reading the status bits of its COM port. The drawer open/close status will be reflected on the CTS.

This virtual COM port driver is designed to work the same as external serial cash drawers that are currently on the market and will work with drivers written for them.

iButton

When using the default settings, when the iButton is touched to the reader the driver will send the iButton serial number to the serial port selected. No code is sent when the iButton is released

Example: *00000E5ACB48*

If a release (LiftOff) code, preamble code or postamble code is needed they can be added in the virtual serial configuration setup. See the *On Screen Keyboard* section of this manual on how to enter code strings.

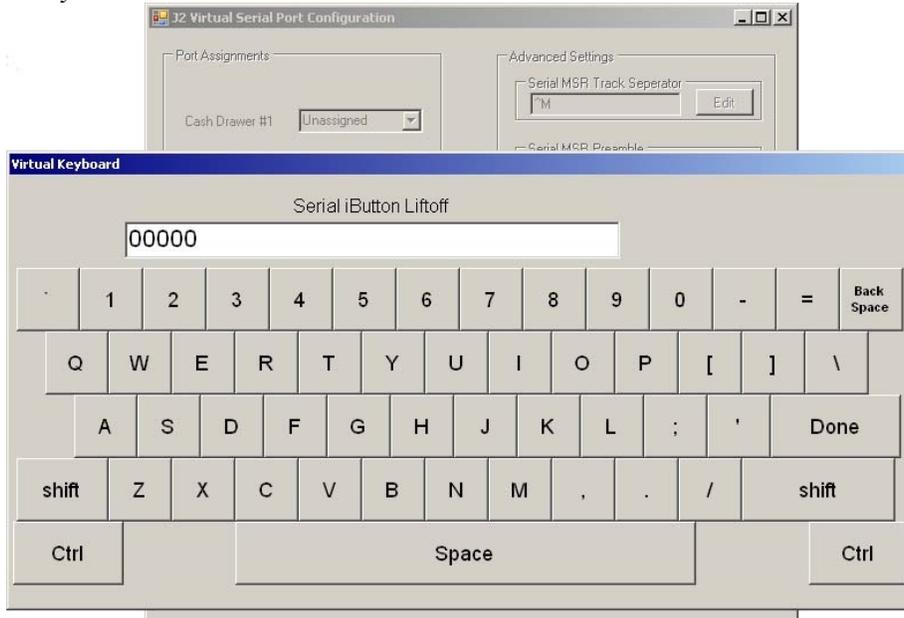
Serial iButton Pre/Postamble and Lift off codes

The screenshot shows the 'J2 Virtual Serial Port Configuration' window. It has a title bar with standard window controls. The main area is split into two panels. The left panel, 'Port Assignments', lists various hardware components with dropdown menus, all currently set to 'Unassigned'. The right panel, 'Advanced Settings', provides fields for configuring serial communication parameters. The 'Serial iButton Preamble', 'Serial iButton Postamble', and 'Serial iButton LiftOff' fields are highlighted with a red rounded rectangle. A 'Save Settings' button is located at the bottom center.

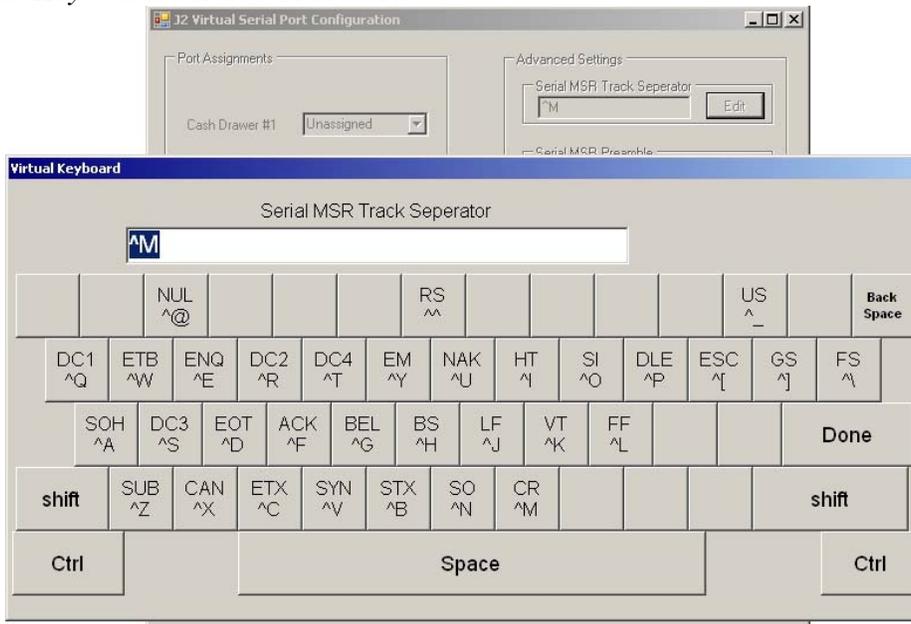
On Screen Keyboard

When the Edit button is selected an onscreen keyboard will appear. You may enter data from the onscreen keyboard or via an attached keyboard.

On Screen Keyboard



On Screen Keyboard Control Characters



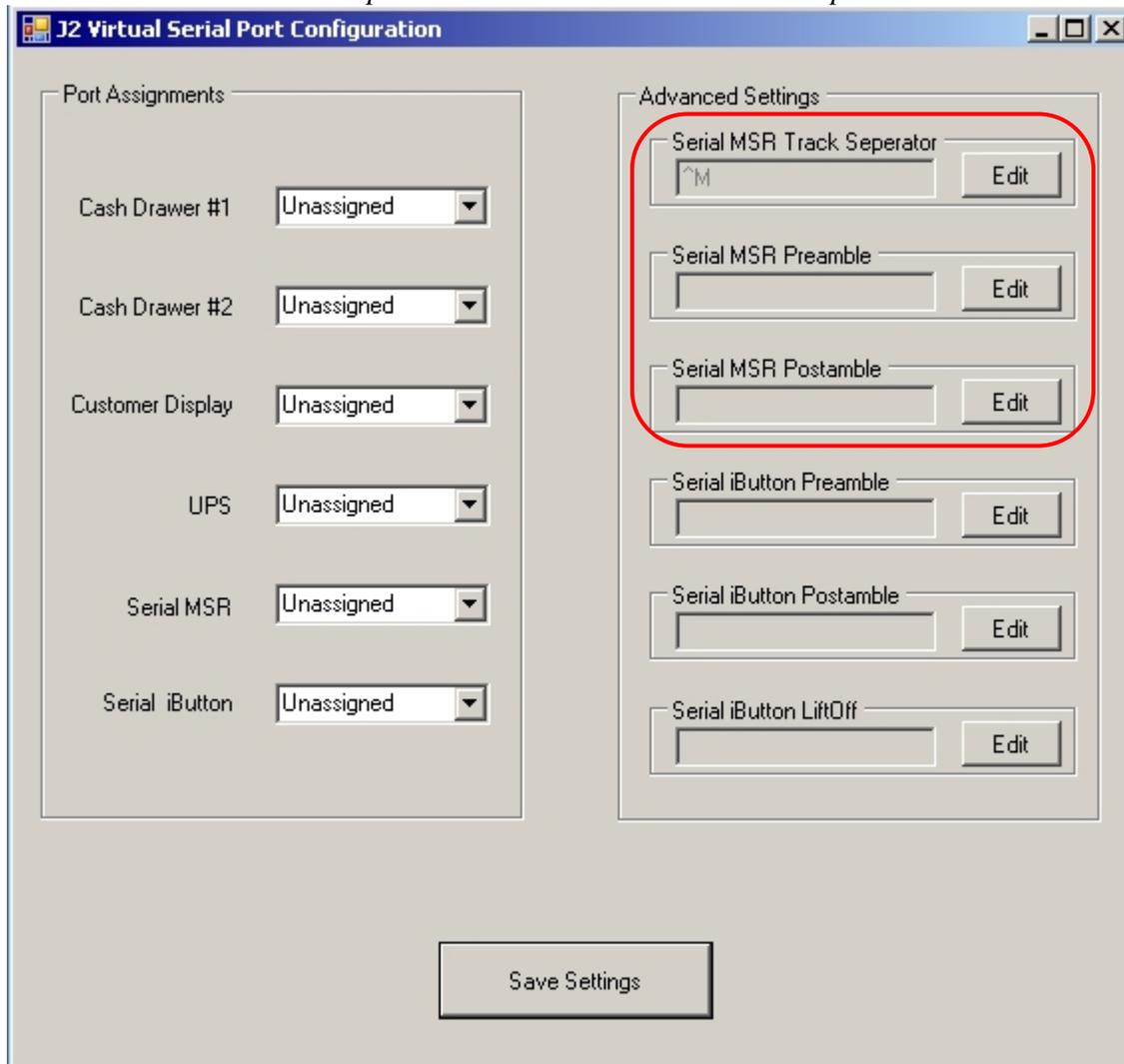
Control characters can also be entered, if needed, by using the on screen board keyboard. These are the ASCII code from 00 hex to 1f hex.

MSR

To use the virtual serial port drivers with the J2 Wedge MSR they first must be programmed to the J2 OPOS mode but with no OPOS drivers, for the MSR, loaded in the system. For the J2 520, 560 and 650 this is done with the MSR setup program. For the J2 580 and 615 this is also done with the MSR setup program but by loading the *j2_opos_idtech.cfs2* file to the MSR. All the MSR setup programs and configuration file can be found on J2 support web page. <http://www.j2retailsystems.com/support.php>

If a MSR Preamble, Postamble or inter track character is required they can be added in the virtual serial configuration setup. See the *On Screen Keyboard* section of this manual on enter code strings.

Virtual Serial MSR Track Separator / Preamble /Postamble setup



Virtual Serial Customer Display

The Customer Display driver is for a virtual 20 character 2 line customer displayed in a window on a secondary customer side VGA panel. This virtual customer display works just like the J2 LCD or VFD displays and responds to the same commands. Software that works on the normal 20x2 line displays should work on the virtual display.

The additional display area for the secondary VGA display could be used for any other purposes like advertizing content. The virtual customer display software is currently in beta test. Please contact J2 sales for further information.

UPS

The virtual serial port for the UPS is currently not used but is included for future use. The current J2 UPS products for the J2 560, 580, 615 and 650 all use Microsoft's standard generic UPS driver that is included with Windows.