BIXOLON

Installation Manual

Java POS Driver

Ver. 4.29

www.bixolon.com

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BIXOLON Co., Ltd. maintains ongoing efforts to enhance and upgrade the functions and quality of all our products.
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Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the printer “OFF”, before you connect or remove the cables on the rear side, in order to guard the printer against the static electricity. If the printer is damaged by the static electricity, you should turn the printer “OFF”.

Introduction

This manual provides information on the BIXOLON Java POS driver as well as on the usage POS printer products offered by BIXOLON.

The following are terms contained in this manual.

- JDK: Java Development Kit
- JRE: Java Runtime Environment
- Java POS: Java Point of Sale
- JCL Utility: Java POS Configuration Loader Utility

[Reference Websites]
http://www.javapos.com: Java POS committee website
http://java.com: Official Java website
http://www.bixolon.com: BIXOLON printers website

1. Usage Environment

1-1 Features

Using standard API functions, the POS System can be developed more quickly and easily, and applications can be developed independently from the operating system.

1-2 Supported Operating Systems

- Windows Server 2008(32/64bit)
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019
- Windows 7 (32/64bit)
- Windows 8 (32/64bit)
- Windows 8.1 (32/64bit)
- Windows 10 (32/64bit)
- Windows 11 (64bit)

- OpenSUSE 11.3 (kernel 2.6.34) 32/64bit
- Red Hat Enterprise Linux 7.3 (kernel 3.10.0-514) 64bit
- CentOS 6.6 (kernel 2.6.32-504) 32/64bit
- CentOS 7.0 (kernel 3.10.0-123) 64bit
- SUSE Linux Enterprise Desktop 12.0 (kernel 3.12.28-4.6) 64bit

1-3 Java Environment

- JRE (Java Runtime Environment) 32bit Version 1.5 or higher

1-4 Supported Interface

1) POS Printer

Model	S	U	E	B	W
STP-103III / SPP-300	O	O	X	X	X
SRP-275 / SRP-275II / SRP-275III	O	O	O	X	X
SRP-330 / SRP-330II / SRP-332II SRP-330III / SRP-332III SRP-E300 / SRP-E302	O	O	O	X	X
SRP-340II / SRP-342II	O	O	O	X	X
SRP-350 / SRP-350II / SRP-350III / SRP-352III SRP-350V / SRP-352V SRP-350plus / SRP-352plus SRP-350plusII / SRP-352plusII SRP-B300 / SRP-B300II SRP-S200	O	O	O	X	X
SRP-350plusIII / SRP-352plusIII SRP-350plusV / SRP-352plusV SRP-380 / SRP-382 / SRP-383 SRP-F310II / SRP-F312II SRP-F313II / SRP-S300 SRP-Q200 / SRP-S320 SRP-380plus / SRP-382plus SRP-S300II	O	O	O	O	O
SRP-F310 / SRP-F312 / SRP-S3000	O	O	O	X	O
SRP-Q300 / SRP-Q302 / SRP-Q300II	X	O	O	O	O
SRP-QE300 / SRP-QE302	X	O	O	X	X
SPP-R200	O	O	X	O	X
SPP-R200II / SPP-R200III SPP-R300 / SPP-R310 SPP-R400 / SPP-R410	O	O	X	O	O
SPP-R210 / SPP-R220 / SPP-R230	X	O	X	O	O
SPP-C200 / SPP-C300	X	O	X	O	X
G30	O	O	O	O	O
BK3-3	O	O	O	X	X
BK3-2 / BK5-3 / BK5-4	O	O	X	X	X
SRP-G300	X	O	X	X	X

*** S: Serial, U: USB, E: Ethernet, B: Bluetooth, W: Wireless LAN**

2) MSR (Magnetic Stripe Reader)

Model	S	U	E	B	W
SPP-R200_MSR	O	O	X	O	X
SPP-R200II_MSR / SPP-R200III_MSR	O	O	X	O	O
SPP-R210_MSR / SPP-R220_MSR	X	O	X	O	O
SPP-R300_MSR / SPP-R310_MSR SPP-R400_MSR	O	O	X	O	O

*** S: Serial, U: USB, E: Ethernet, B: Bluetooth, W: Wireless LAN**

3) Line Display

Model	Serial	USB
BCD-2000	O	O
BCD-3000	X	O

BCD-2000/3000 are supported by USB interface, but it's Connected via Virtual COM port.

4) Label Printer

Model	S	U	E	B	W
SLP-TX400 / SLP-TX403 SLP-TX220 / SLP-TX223 SLP-TX420 / SLP-TX423 SLP-DX220 / SLP-DX223 SLP-DX420 / SLP-DX423 SLP-DL410 / SLP-DL413	O	O	O	O	O
XT5-40 / XT5-43 / XT5-46 XT6-40 / XT6-43 / XT6-46 XD5-40d / XD5-43d XD5-40t / XD5-43t XD5-40IId / XD5-43IId XD5-40IIt / XD5-43IIt XD7-20d / XD7-23d XL5-40CT / XL5-43CT XM7-40 / XM7-20 XT3-40 / XT3-43 XT6-60 / XT6-63 BT3-40/BT3-43 BT5-40/BT5-43/BT5-46 BD5-40d/BD5-43d BD5-40t/BD5-43t XC5-40d/XC5-43d	O	O	O	O	O
SRP-S3000_LABEL	O	O	O	X	O
SPP-L310 / SPP-L410 SPP-L3000 / XM7-30	O	O	X	O	O
XC3-40d	X	O	X	O	X

*** S: Serial, U: USB, E: Ethernet, B: Bluetooth, W: Wireless LAN**

A cradle is required to use the Ethernet interface on the XM7-40/20. (optional)

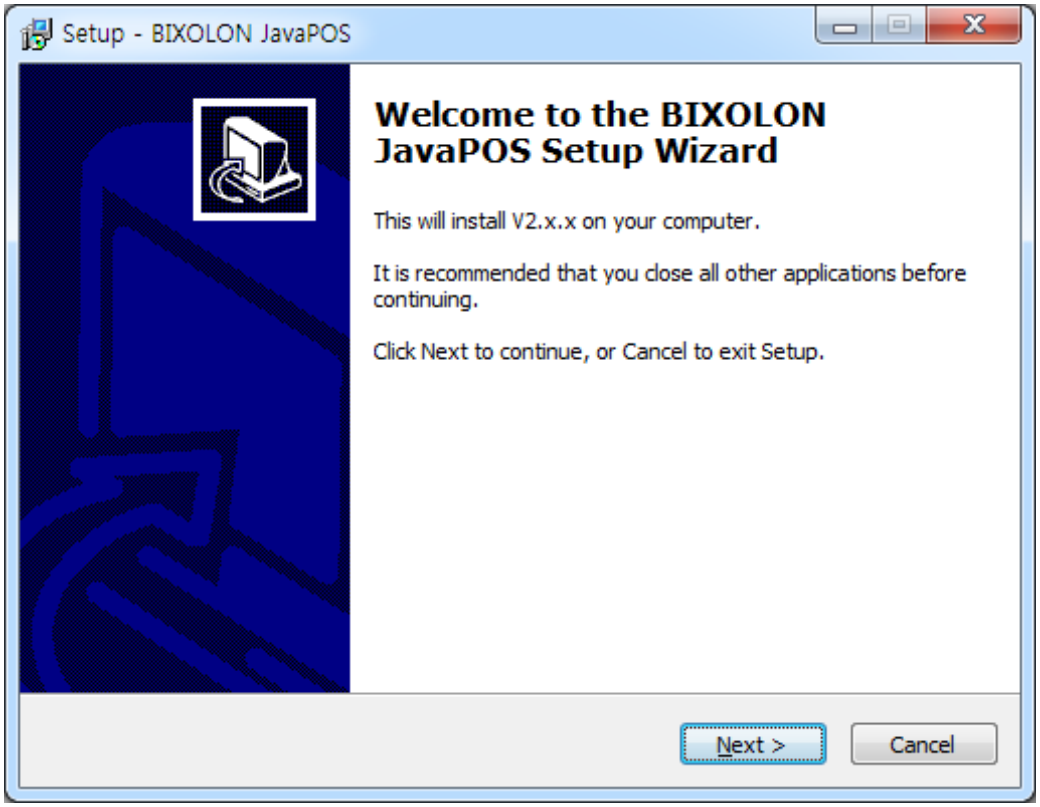
2. Installation - Windows OS

The BIXOLON Java POS driver includes the Java POS Device Control, Java POS Device Service, JCL (Java Configuration Loader) Utility, manual, test program, sample source, etc.

2-1 Java POS Driver Installation

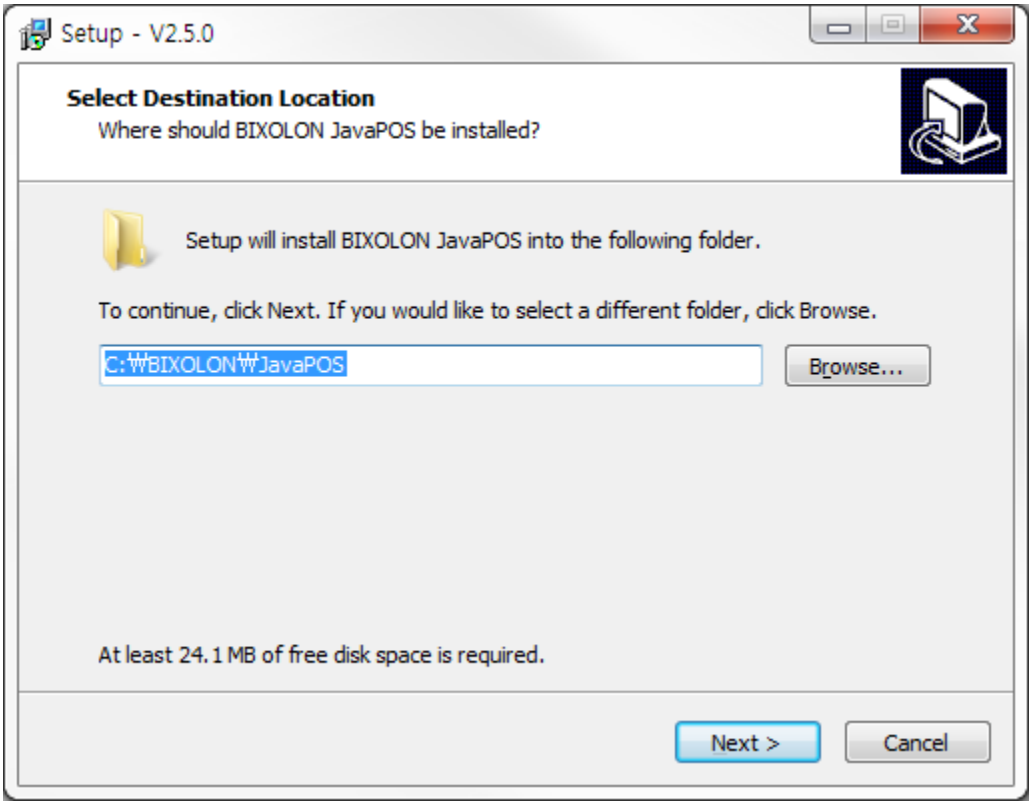
1) Java Installation
Download the 1.5 or higher version of the Java.
http://java.sun.com/javase/downloads/index.jsp

2) “Welcome” dialog is displayed.

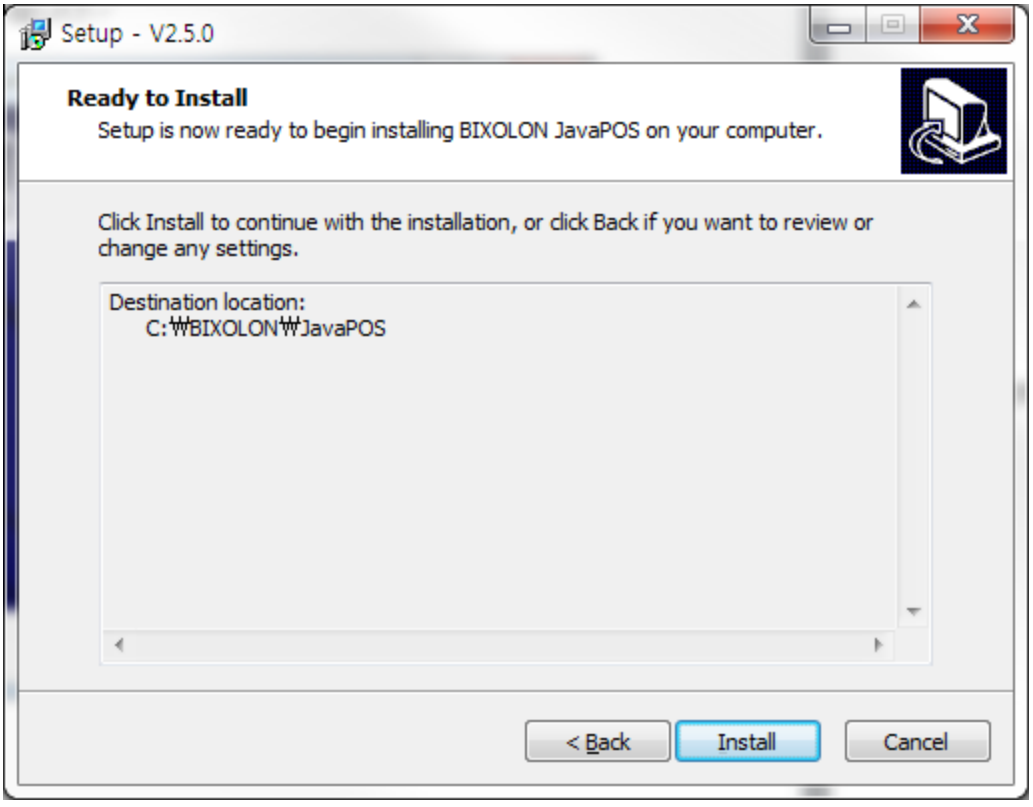


3) Select the installation folder.

The default folder: “C:\BIXOLON\JavaPOS\”



4) Ready to Install.



2-2 JDK & JRE installation

1) JDK & JRE Installation
Download the 1.5 or higher version of the JDK for Windows 32bit from
http://java.sun.com/javase/downloads/index.jsp

2) Run “jdk-XXX-windows-i586-X.exe” and install the JDK.



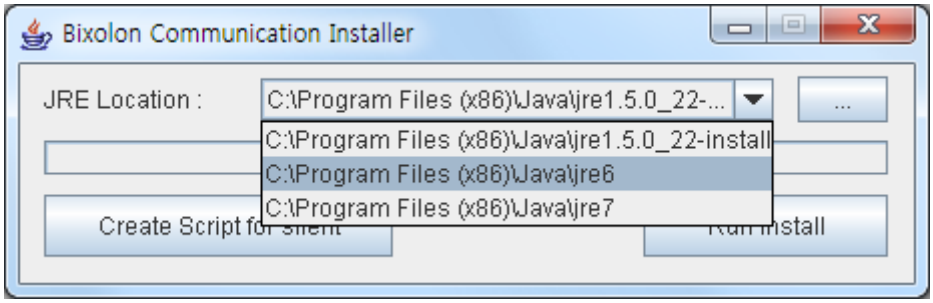
The JRE is installed automatically during JDK installation and thus, no separate JRE installation is required.

2-3 Java communication files installation

1) Run “CommInstaller.exe” file on installation path.

Run as administrator.

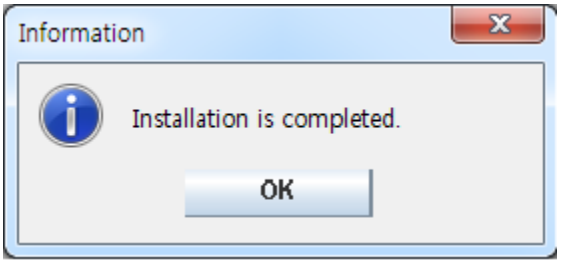
2) Check the JRE (Java Runtime Environment) location.



- JRE location will be displayed. In case of various JRE installation, select one of the JRE location in Combo-box as above image.
- Unless JRE location does display in Combo Box, Click “Change install location” button. Then assign the correct JRE location.

3) Click “Run Install” button.

4) As soon as installation is complete, "Installation is completed" dialog message will be displayed.

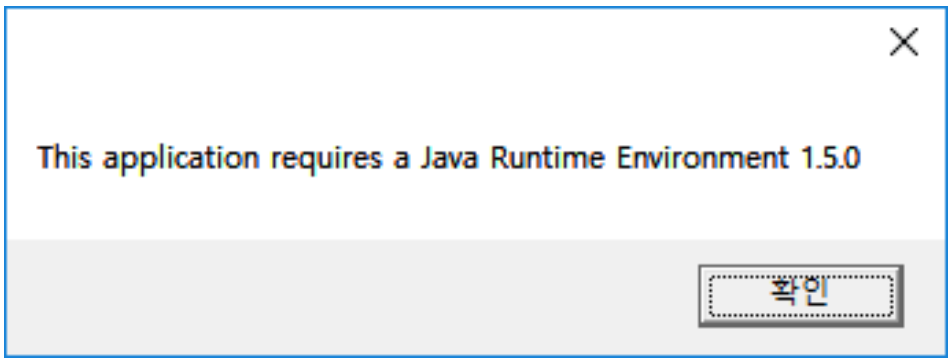


In case that "Installation is failed" message will be popped up, installation doesn't complete correctly.
Java POS driver cannot be worked properly.

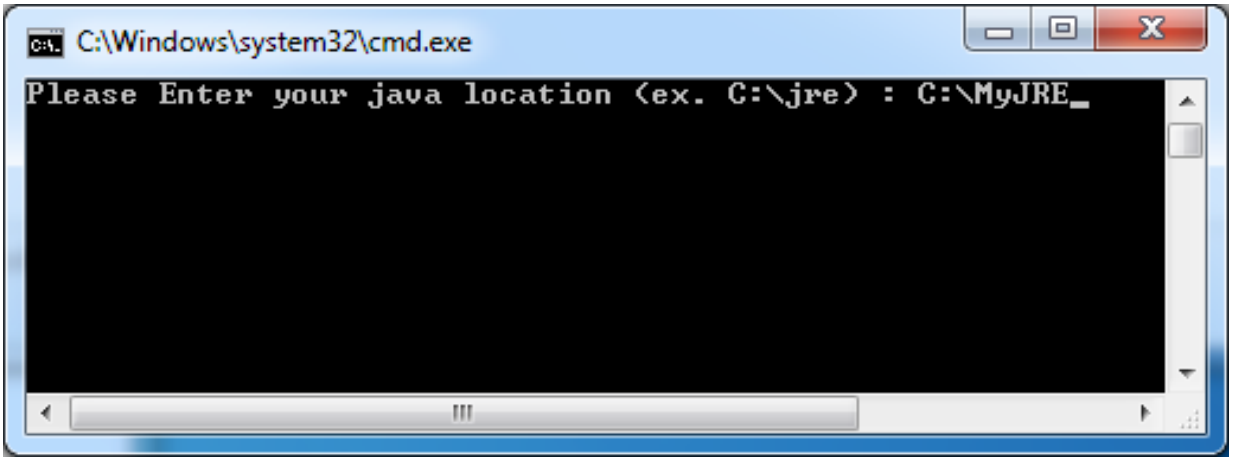
5) 1 file below will be installed in a folder which includes CommInstaller.exe file.
- bixolon-jclutility.bat: batch file for running Java POS Configuration Loader

2-4 Troubleshooting, when Comm Installer does not work

1) If the JRE/JDK installation information cannot be found, following message is displayed and, Comm installer fails to run.



2) Execute "Comminstaller-cmd.bat" file that exists in the installation folder and type JRE/JDK installation path in as shown in below picture.



3) When the installation is completed, "Installation is Completed" appears and following one file is created in the installation folder.
 - bixolon-jclutility.bat: batch file for running Java POS Configuration Loader

2-5 Environment Variables configuration

1) Select Start -> Settings -> Control Panel -> System.

- You can use bixolon-jclutility.Bat and bixolon-testprogram.Bat In BIXOLON Java POS Driver without the setting of the environment variables.
- System may not appear if using Windows XP. In such cases, click “Switch to Classic View” at the top left of the Control Panel, and the System icon should appear.

2) In the Advanced tab, click the “Environment Variables” button.

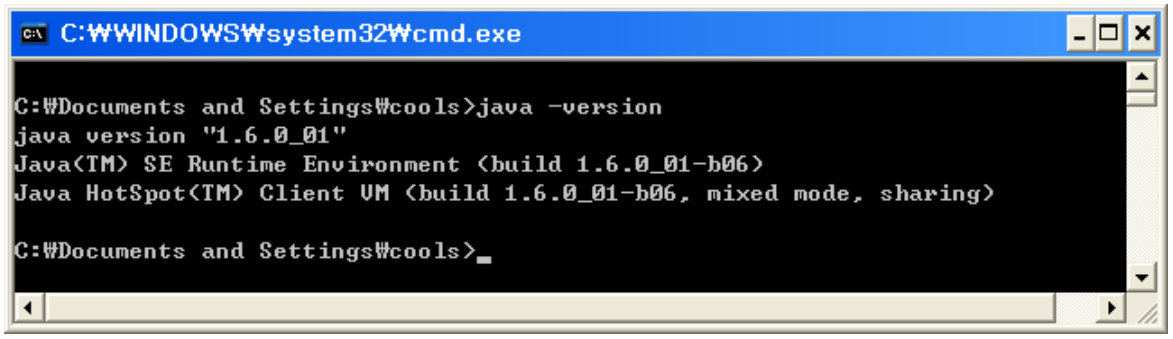
3) Add the following content in the path value of both the user environment variables and the system environment variables.
To Be Added: <JRE Location on Comm Installer>\bin
Ex) C:\Program Files\Java\jre1.6.0\bin

4) Reboot the computer.

5) Select Start -> Programs -> Accessories -> Command Prompt.

6) Enter “java –version” in the command prompt window.

7) If the following appears, installation has been completed successfully.



3. Installation - Linux OS

The BIXOLON Java POS driver includes the Java POS Device Control, Java POS Device Service, JCL (Java Configuration Loader) Utility, manual, test program, sample source, etc.

3-1 Java installation

Referring below link, install JAVA.
https://java.com/en/download/help/linux_install.xml

3-2 Java POS driver installation

1) Copy the Java POS driver file (.tgz) to the installation path.
   >> cp Software_BIXOLON_JavaPOS_Setup_EN_Vx.x.x.tgz /opt/bixolon/javapos

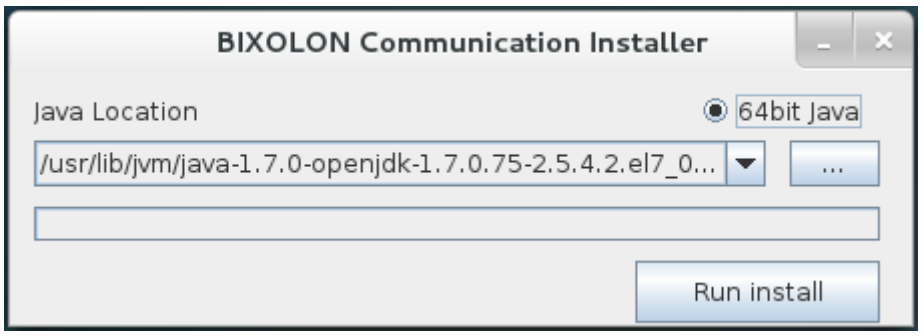
2) Move to the installation path.
   >> cd /opt/bixolon/javapos

3) Unzip JavaPOS driver file(.tgz).
   >> tar –xvf Software_BIXOLON_JavaPOS_Setup_EN_Vx.x.x.tgz

- Following example installs the driver at **/opt/bixolon/javapos**
- If the installation path is different, only change the installation path.
- The exemplified path requires root authority

3-3 Java POS Communication Files installation

1) If x-windows is accessible
>> ./comminstaller-ui.sh



The currently configured java path is displayed.
If a different Java version is needed to be installed or a different path for Java installation is required, set it to another java via the 'update-alternatives' command and then run comm installer again.
>> update-alternatives –config java

2) If x-windows is not executed
>> ./comminstaller-cmd.sh
When the following message appears, enter the path to java installed on your PC.
Enter your java location: /usr/lib/jvm/jre6 (Example)

3) If x-windows is available to run, yet comminstaller-ui does not run
Comminstaller-ui might fail to run, if the java information is not found.
Please refer to "2) If x-windows is not executed" enter an appropriate Java installation path.

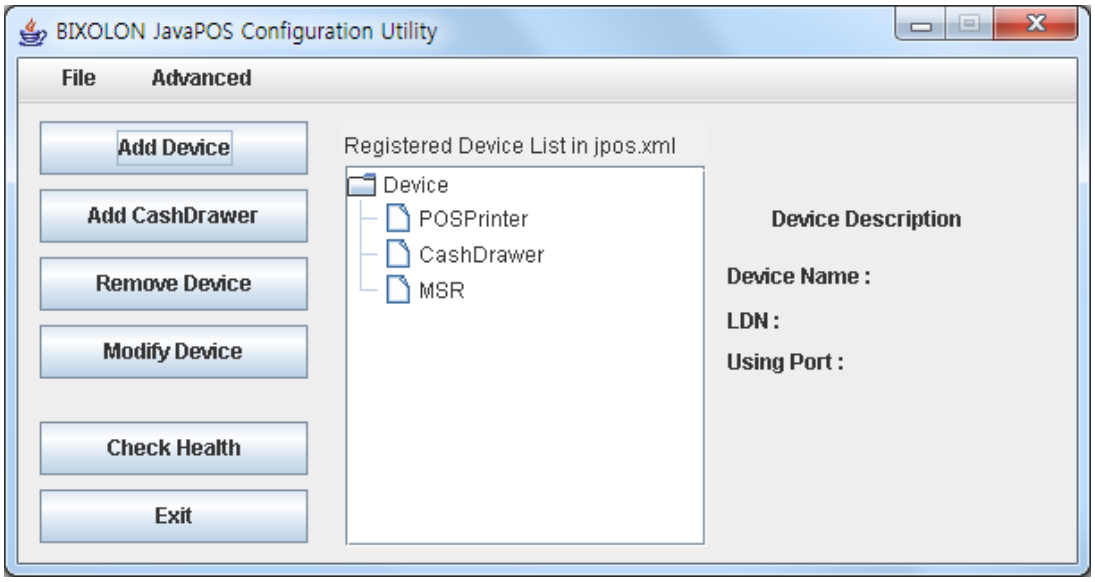
4) When the communication file installation is completed, two files are created.
- bixolon-jclutility.sh: Java POS Configuration utility executing file
- bixolon-testprogram.sh: Java POS Test program executing file

* When setting the class path of the jar file in the program, refer to the path of class path set in bixolon-testprogram.sh file.

- Above procedure requires root authority
- If root authority is not be obtained, communication module files required for Java POS cannot be installed.

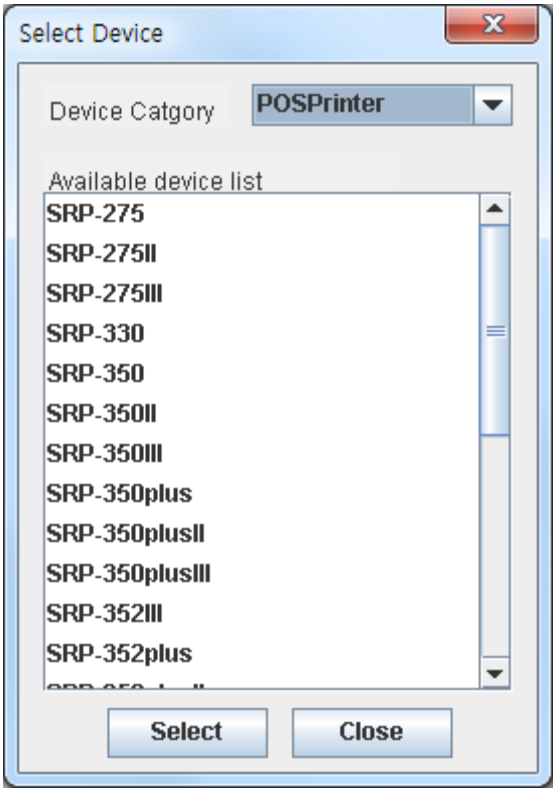
4. Java POS Configuration Utility Setting

Double click “bixolon-jclutility.bat”.
The Java POS Configuration Utility begins.



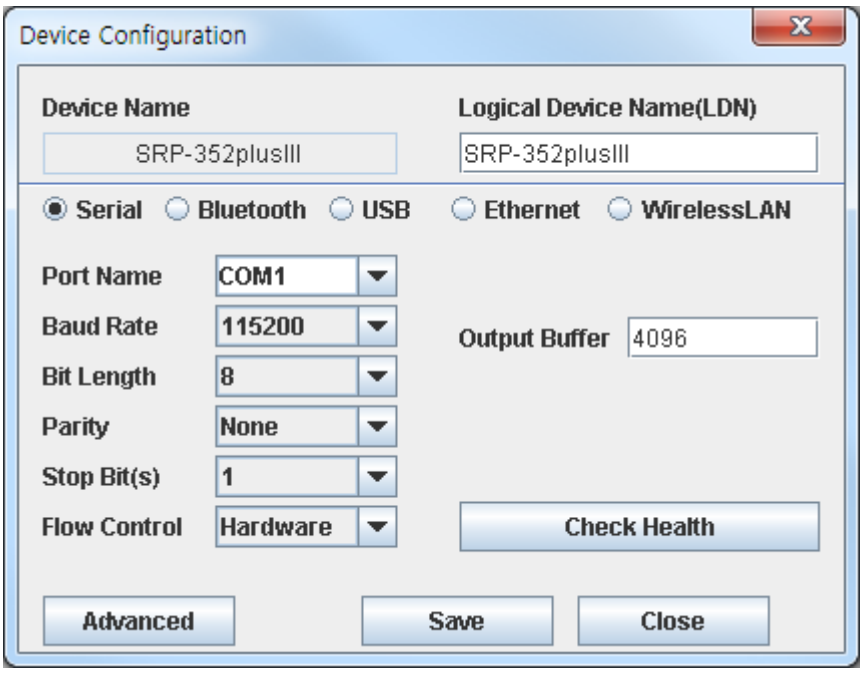
4-1 POS Printer Registration

1) Click “Add Device” button and select ‘POS Printer’ in Device Category.



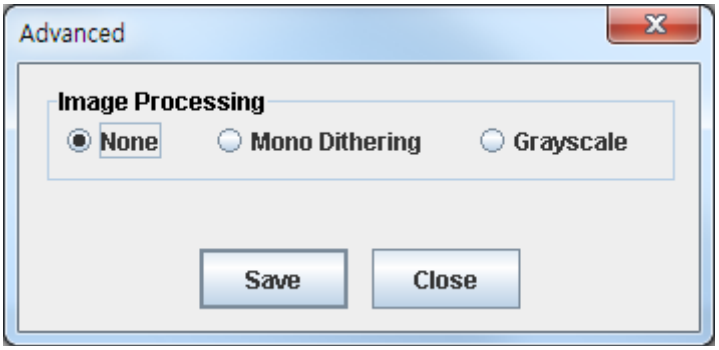
2) Click the “Select” button after choosing one of the available device lists.

Certain models are classified according to CPL settings.
For example, "SRP-B300" model is distinguished from "SRP-B300(42CPL)", and appropriate model should be selected and registered depending on theprinter's CPL settings.
* CPL (Characters Per Line): Number of characters that can be printed on a line.



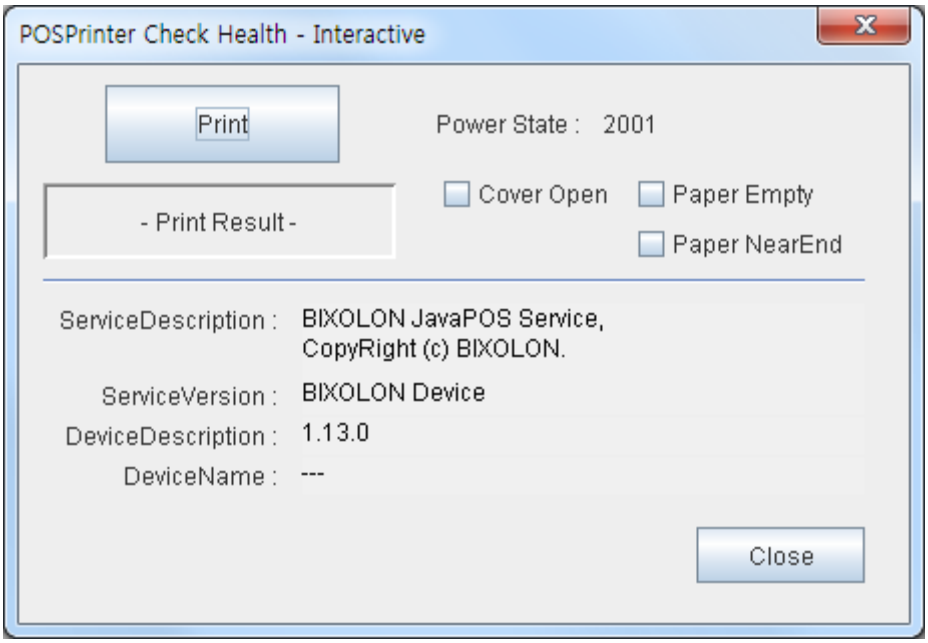
3) Set the communication environment of the connected printer and click “Save” button.

4) To apply the dithering or grayscale printing when you want to print the image, please select the following Advanced dialog.



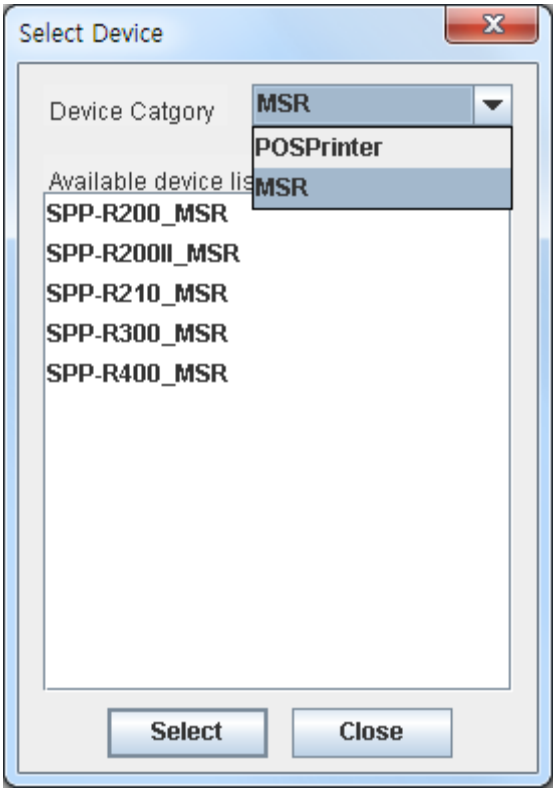
- The image processing options can only be applied to "Print Bitmap" function.
- Grayscale printing is only supported model.

5) Click “Check Health” to see if the printer operates properly.

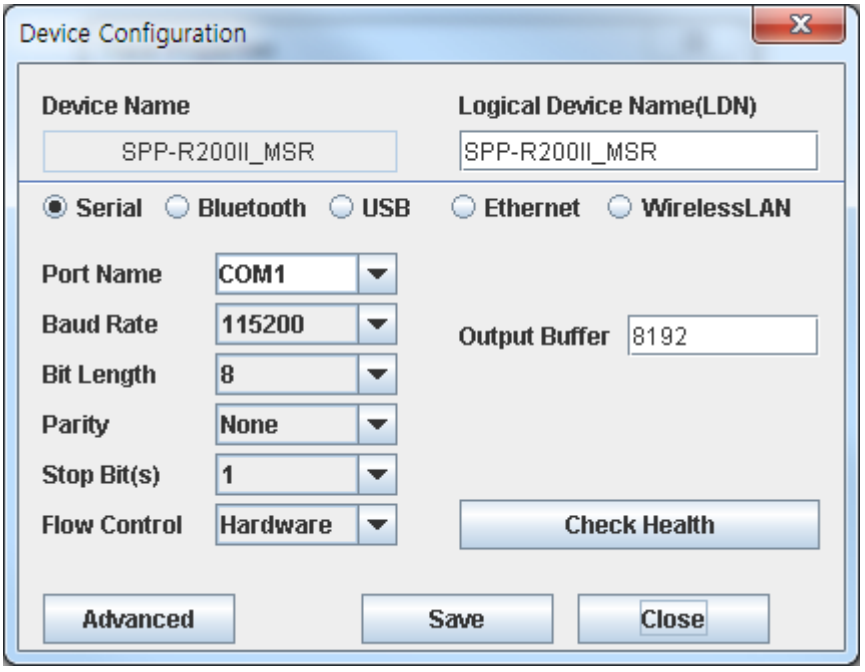


4-2 MSR Registration

1) Click “Add Device” button and select ‘MSR’ in Device Category.

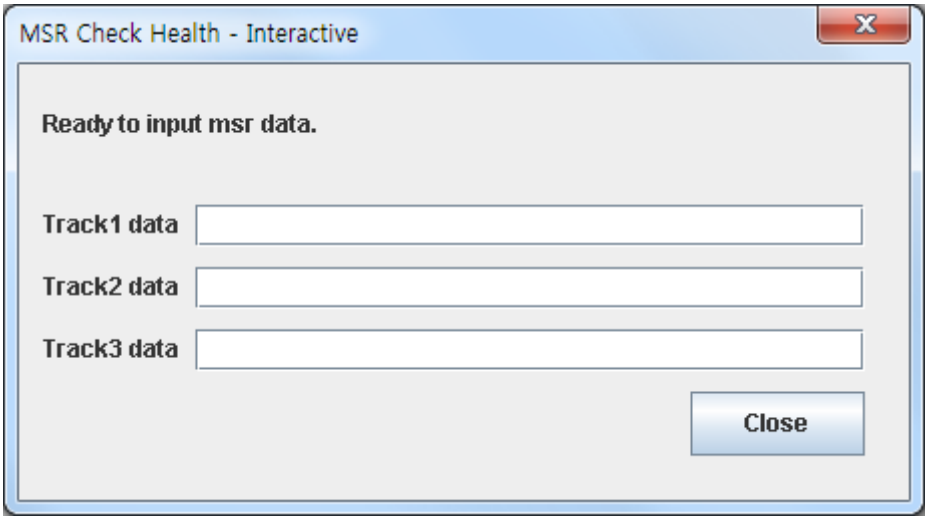


2) Click the “Select” button after choosing one of the available device lists.

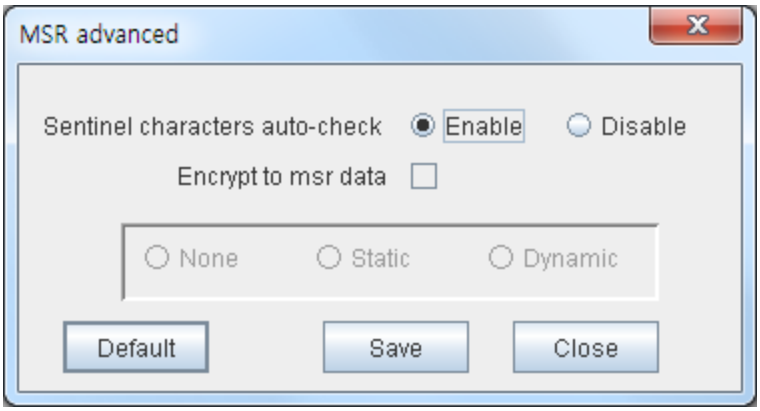


3) The communication environment of the connected device and click “Save” button.

4) Click “Check Health” to see if the device operates properly.



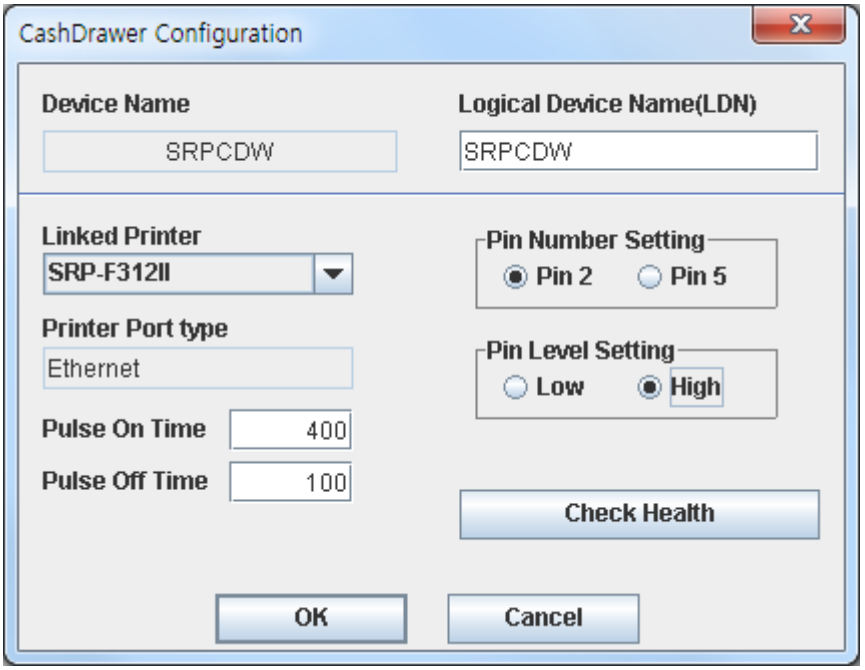
5) Click the “Advance” button for setting MSR Data Encryption mode, Sentinel Character Auto-check mode.



MSR data can be recognized when MSR advanced setting option is same as printer actual setting.
If not MSR data can not be recognized.

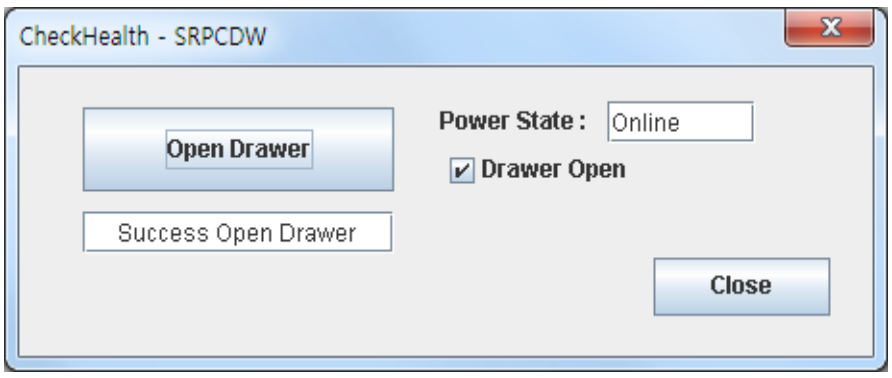
4-3 Cash Drawer Registration

1) Click “Add Cash Drawer” button.



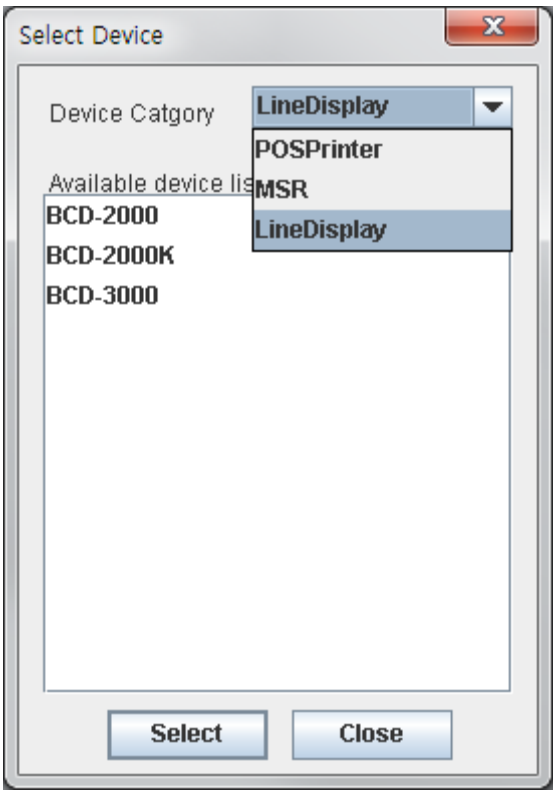
2) Select the Printer which works with Cash Drawer in ‘Linked Printer’ Combo-Box and set the Pin Number and Pin Level.

3) Save the settings by “OK” button click or check if communication status through the Cash Drawer is normal by “Check Health” button.



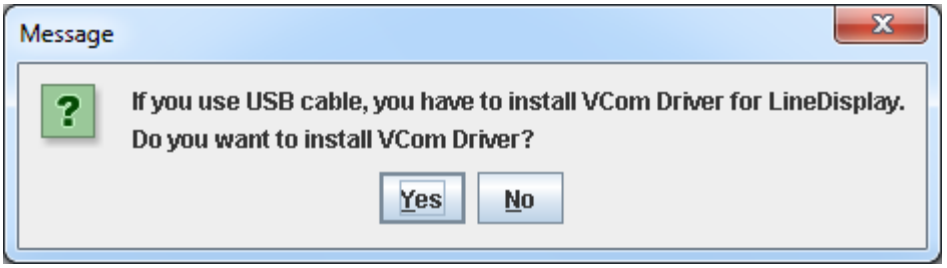
4-4 Line Display Registration

1) After selecting “Add Device” button on the main screen, select “Line Display” in Device Category.

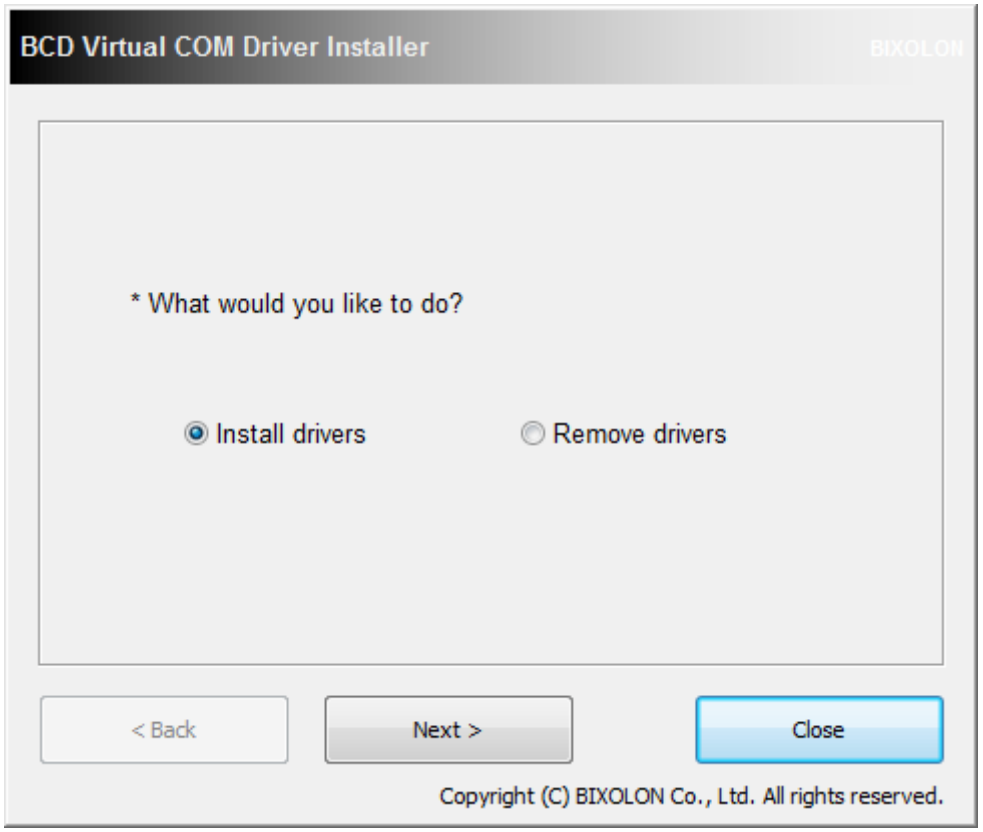


2) Select a device to add in Available Device List and click “Select” button.

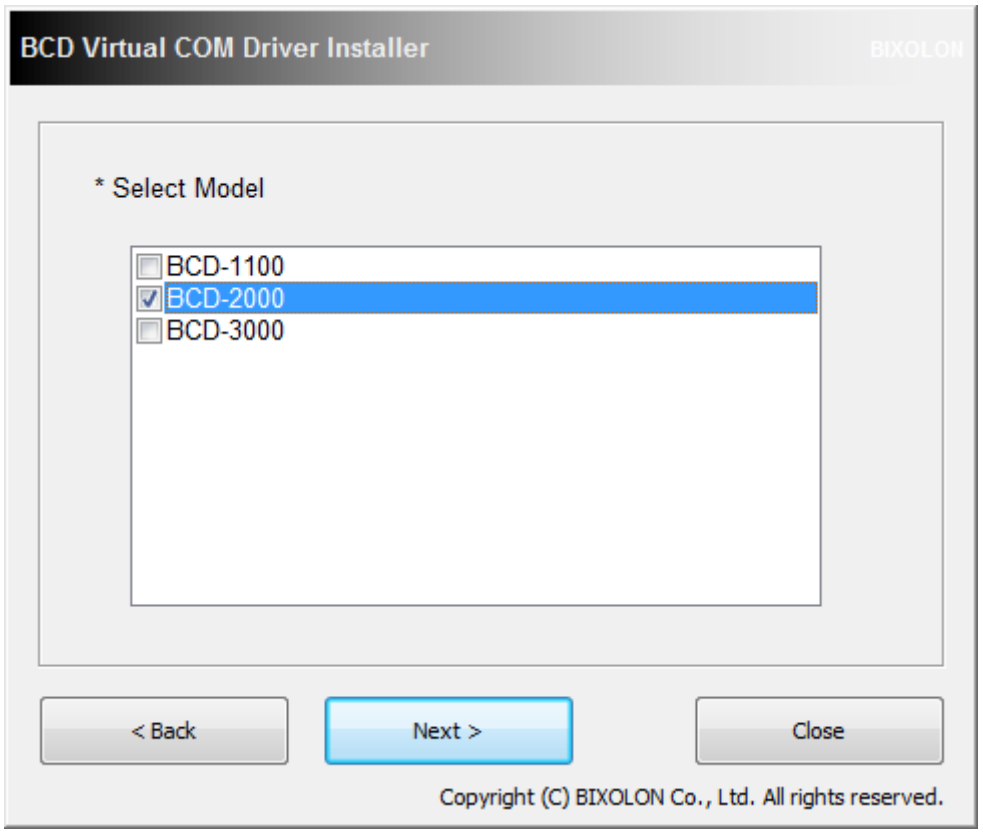
3) In case of connection by using a USB cable, it is necessary to install VCOM (Virtual COM) Driver. In case of connection by using a serial cable, select No (Only Windows OS supported).



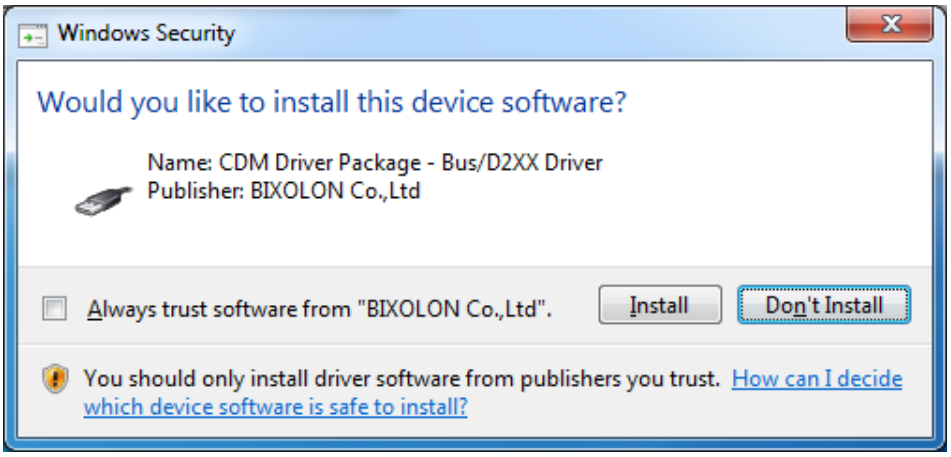
4) When Yes is selected, the following window is popped up. Select “Install Drivers” and click “Next” button.



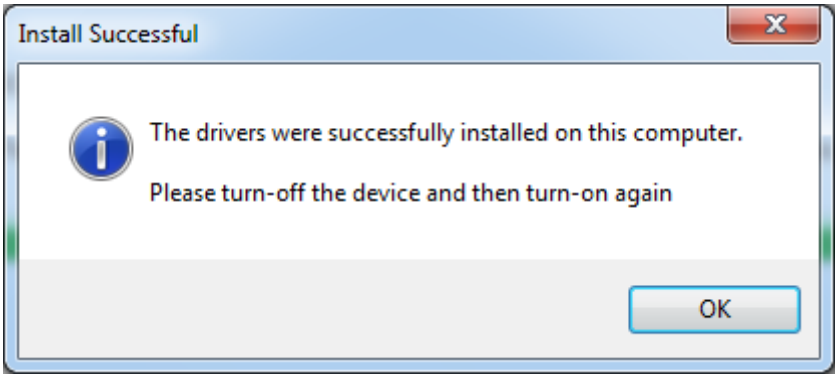
5) Select the name of a connected device and click “Next” button to start installation.



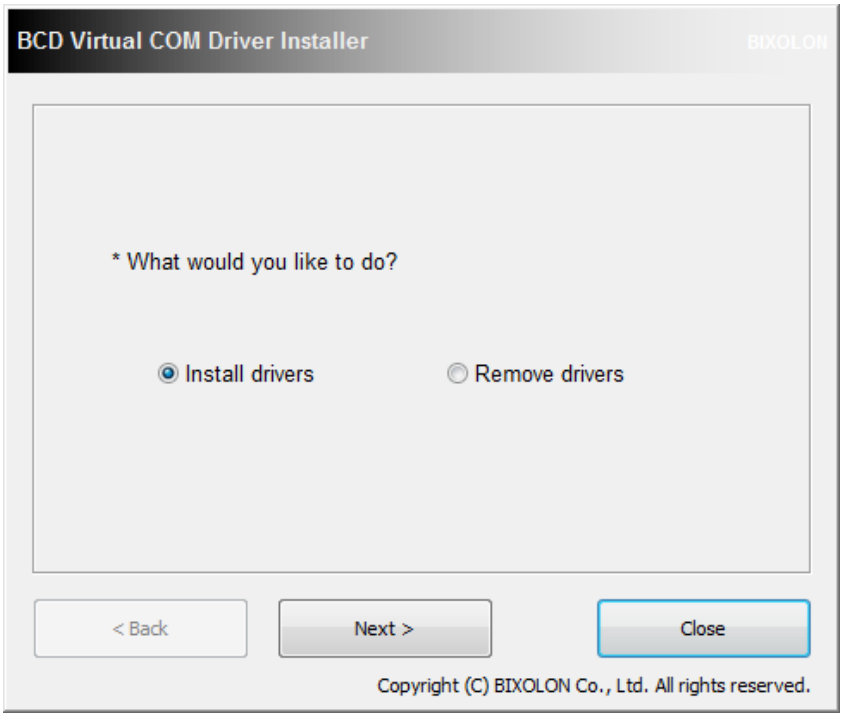
6) When the following window is popped up, select “Install” to proceed.



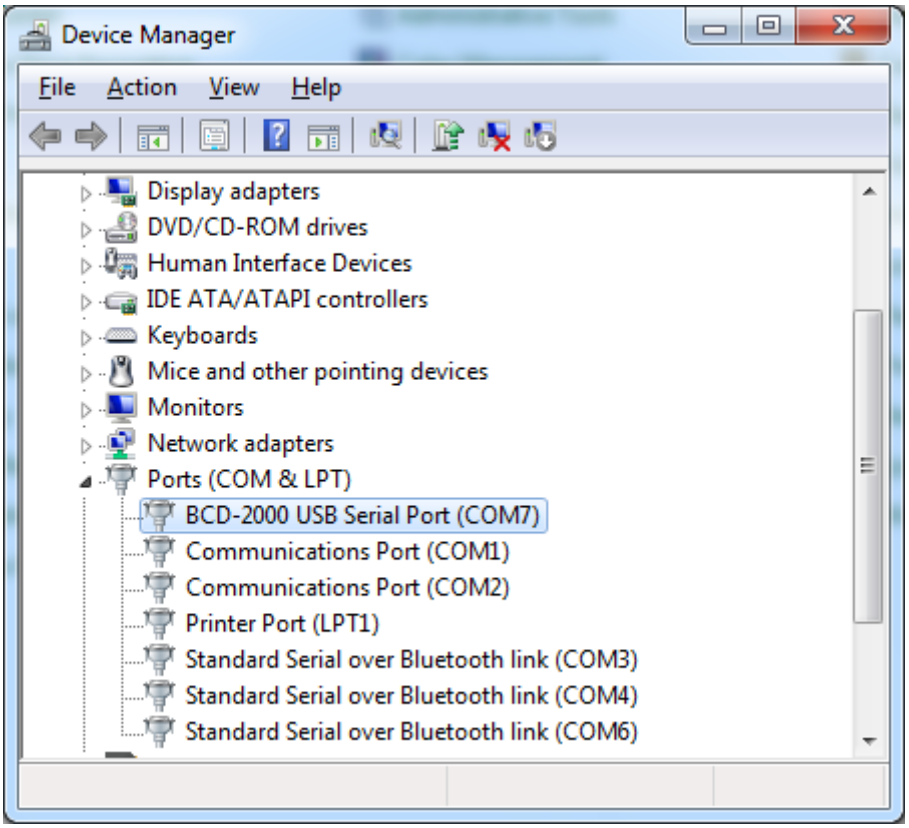
7) When installation completes, the following window is popped up. Select “OK” button and turn off the power and then on again.



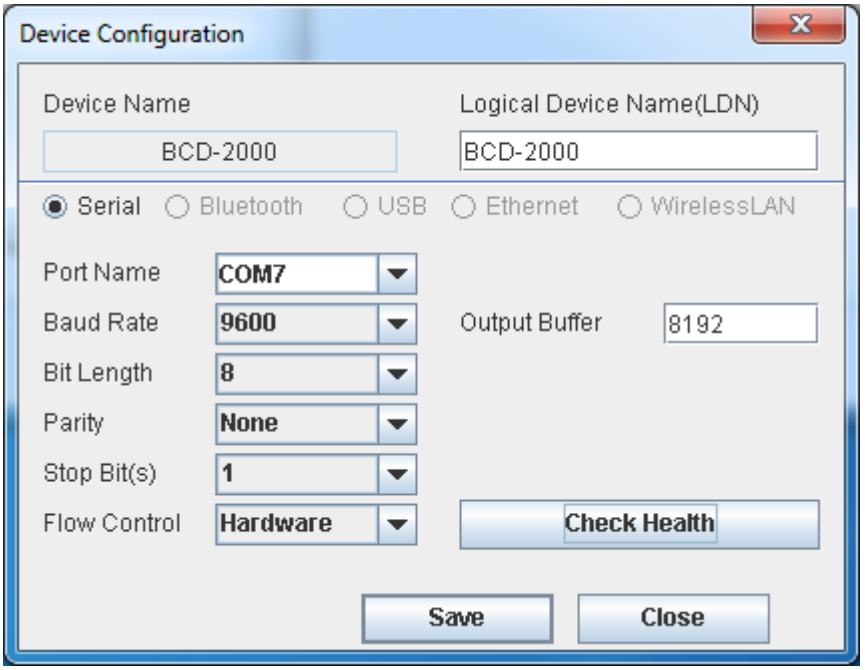
8) Select “Close” button on VCOM Driver installation screen to complete installation.



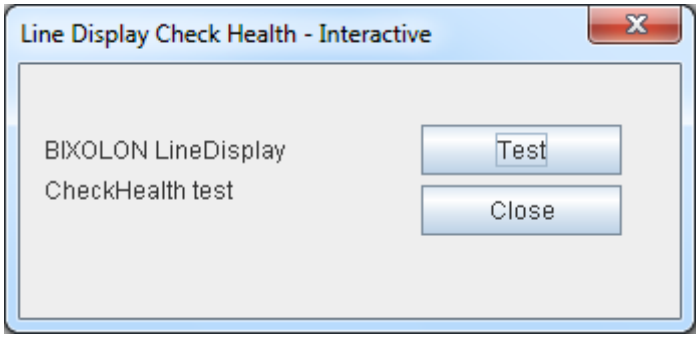
9) Check COM port number assigned in Control Panel – Device Manager.



10) Set communication environment and setting value of the connected device on the device setting screen and select “Save” button.

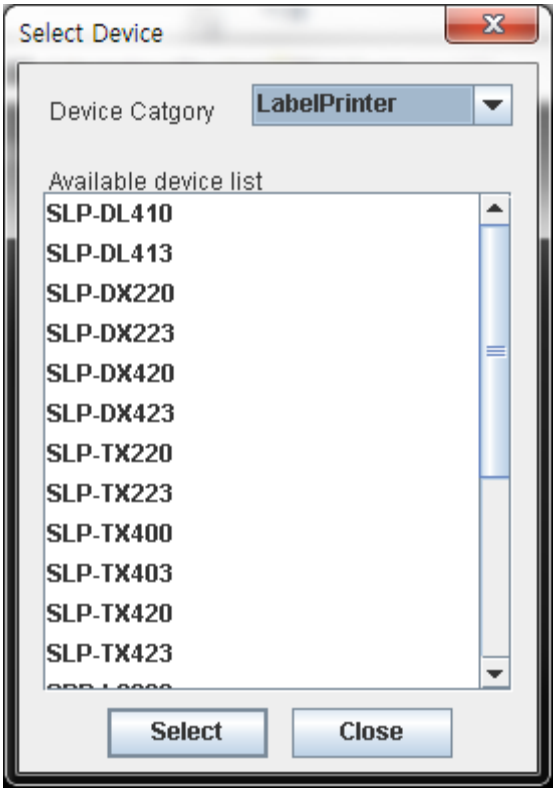


11) Select “Check Health” button and check if communication with Line Display is normally conducted.



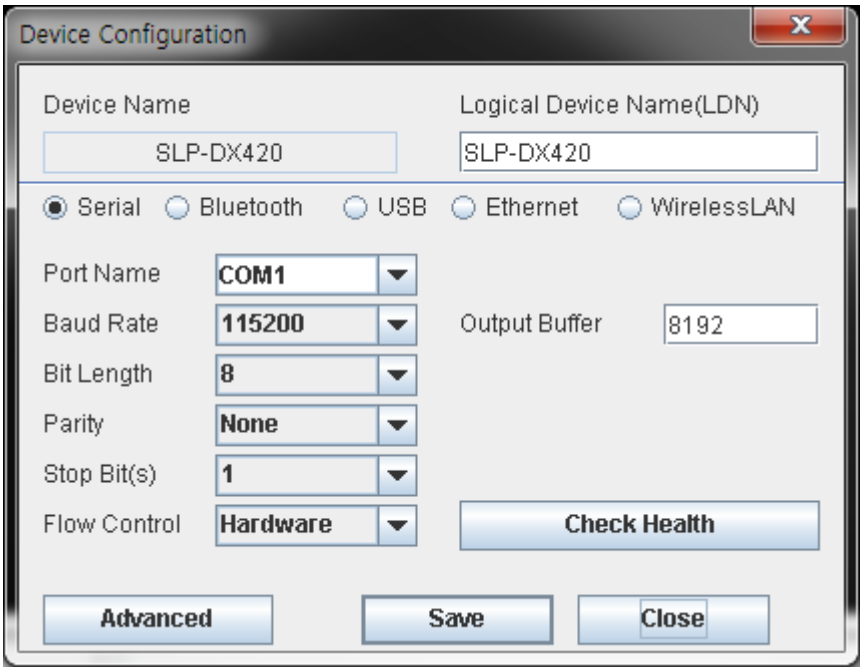
4-5 Label Printer Registration

1) Click “Add Device” button and select ‘Label Printer’ in Device Category.

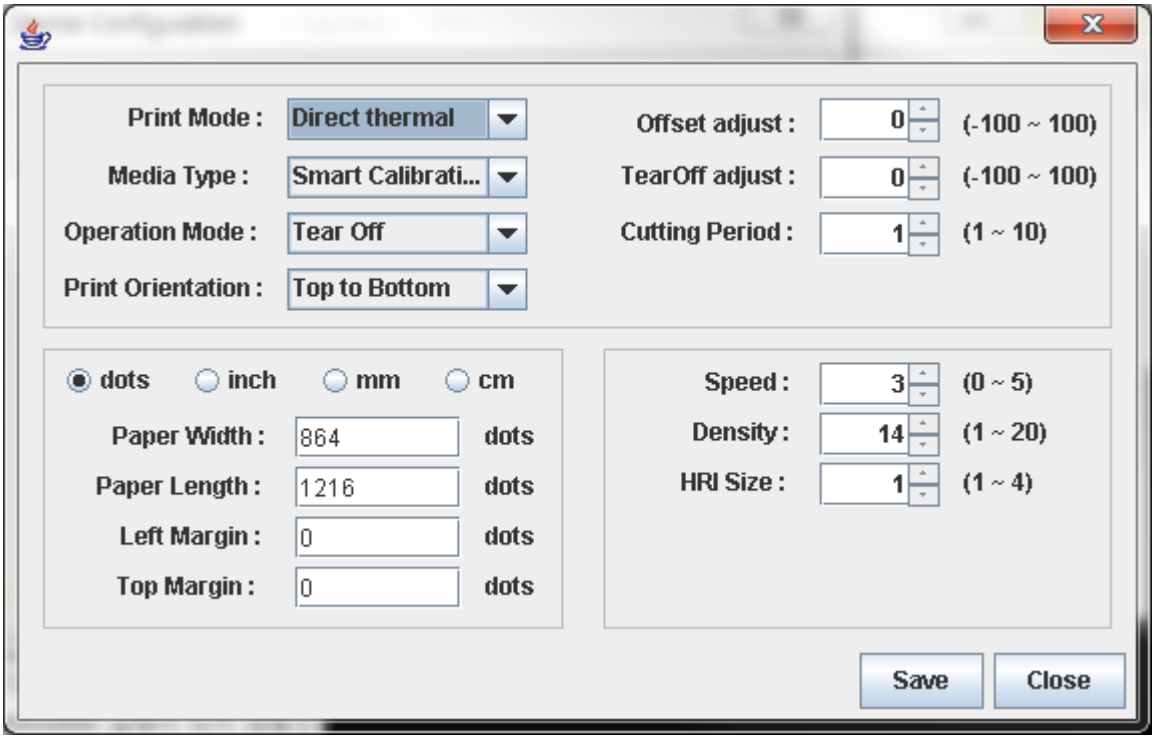


2) Click the “Select” button after choosing one of the available device lists.

3) Set the communication environment of the connected printer and click “Save” button.

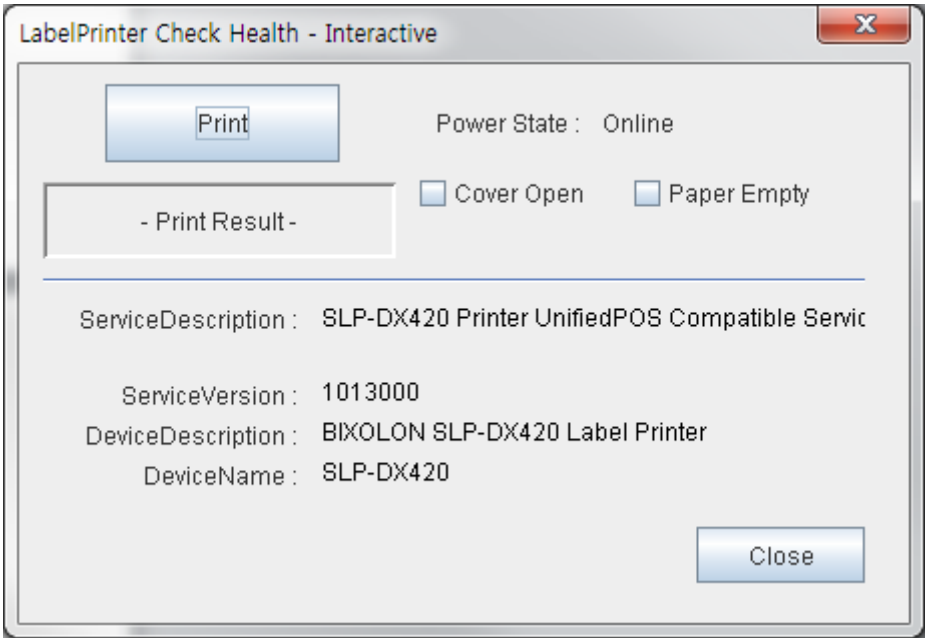


4) To apply the dithering or grayscale printing when you want to print the image, please select the following Advanced dialog.



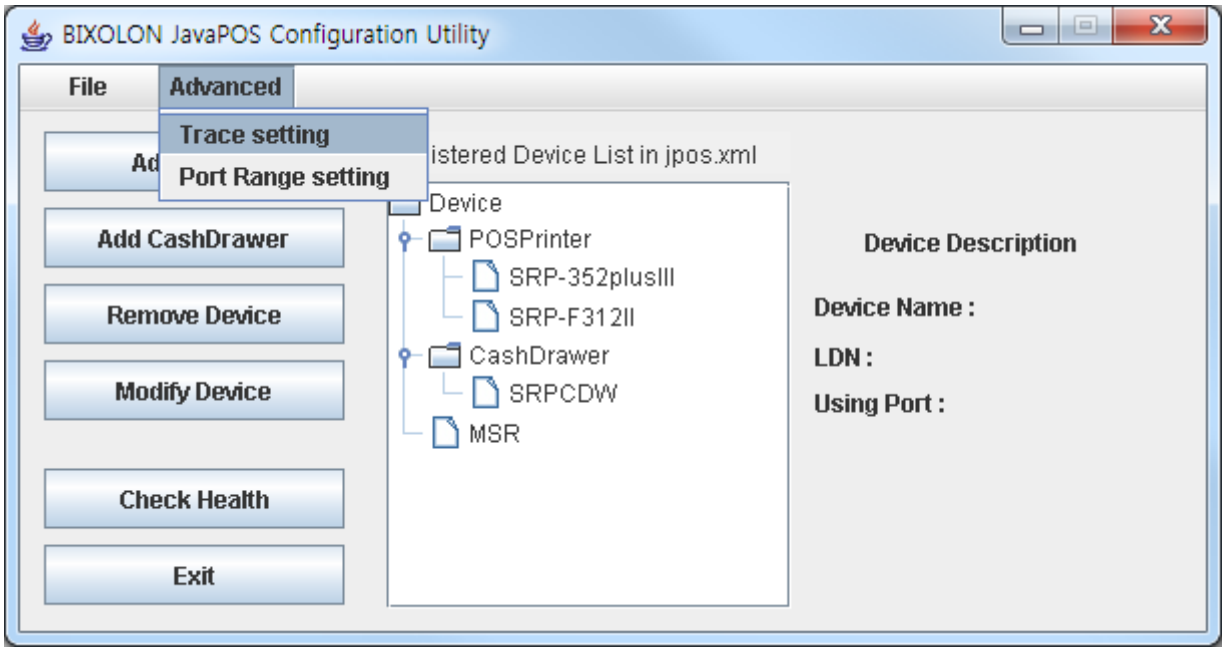
5) You can set the printer and paper size.

6) Click “Check Health” to see if the printer operates properly.

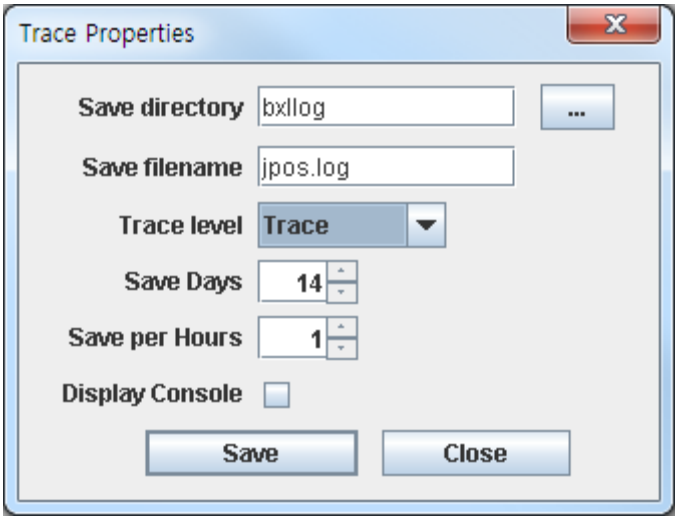


The Label Printer checks the status at the time of printing.

4-6 Trace Setting



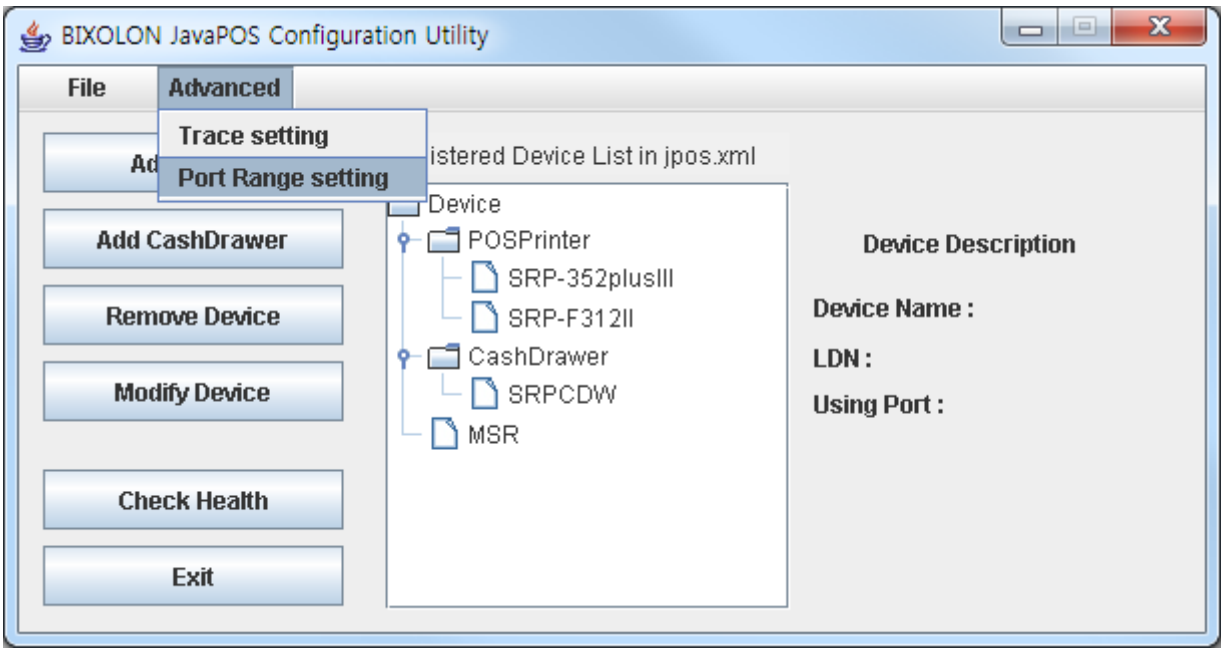
Select the trace level in combo box and click “Save” button.



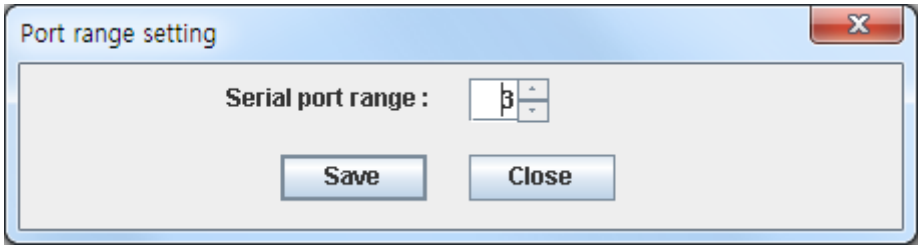
Please set the trace setting when it's necessary only. Otherwise Hard Drive capacity will be lack of containing other files due to the trace functions.

4-7 Port Range Setting

• 'Port Range setting' can be adjustable according to the Serial or Bluetooth Communication setting option. So, adjust the port number if there's no available port in system.



Input the maximum COM port number for Serial or Bluetooth communication.



5. Sample Source

The content of the “Sample Source” folder is as follows.

- sampleimage.bmp: sample image
- *.java: java source file

5-1 POS Printer Samples

1) Print Normal Sample. java	Print Normal function sample source
2) Print Bitmap Sample. java	Print Bitmap function sample source
3) Print Barcode Sample. Java	Print Barcode function sample source
4) Cut Paper Sample. java	Cut Paper function sample source
5) ESC Sequence Sample. java	ESC Sequence sample source
6) Check Health Sample. java	Check Health function sample source
7) POS Printer Event Sampe. java	POS Printer-related event sample source

5-2 Cash Drawer Sample

1) Cash drawer Sample. java	Open drawer function sample source

5-3 Line Display Samples

1) Display Text Sample.java	Display Text function sample source
2) Display Bitmap Sample.java	Display Bitmap function sample source

5-4 Label Printer Samples

1) Print Normal Sample.java	Print Normal function sample source
2) Print Bitmap Sample. java	Print Bitmap function sample source
3) Print Barcode Sample. Java	Print Barcode function sample source
4) Cut Paper Sample. java	Cut Paper function sample source
5) ESC Sequence Sample. java	ESC Sequence sample source
6) Check Health Sample. java	Check Health function sample source

6. Precautions

The BIXOLON Java POS software package that is installed supports devices offered by BIXOLON. Normal operation is not guaranteed when used with other devices.

Errors in operation may occur if installed with another Java POS Driver.

If an unknown issue occurs, either contact the dealer or submit an inquiry at the website below for fast response.
www.bixolon.com

Revision history

Ver.	Date	Description
4.00	11-12-2017	New
4.01	21-08-2018	1. Updated supported OS 2. Add new model 3. Add installation guide for Linux
4.02	22-12-2018	Add Line Display
4.03	06-03-2019	Add model SRP-Q200
4.04	12-07-2019	1. Add Label Printer 2. Add How to run the Comm installer
4.05	24-10-2019	Changing of the label printer model name
4.06	21-11-2019	Add model XD5-40t, XD5-43t, XM7-40
4.07	10-03-2020	Add model XM7-20
4.08	16-09-2020	1. Updated supported OS 2. Add model SRP-B300, SRP-S320, SRP-S3000 3. Add precautions for registering models according to CPL settings
4.09	18-03-2021	1. Change the font in the manual 2. Add model SRP-S200
4.10	26-08-2021	Add model XT3-40, XT3-43
4.11	06-10-2021	Add model SPP-C200
4.12	06-12-2021	Add model SPP-C300
4.13	26-04-2022	Add model XM7-30
4.14	24-05-2022	Add model SRP-330III, SRP-332III
4.15	02-06-2022	Add model SRP-350V, SRP-352V, SRP-350plusV, SRP-352plusV
4.16	21-07-2022	Add model SRP-380II, SRP-382II
4.17	22-03-2023	Add model G30
4.18	11-10-2023	Add model SRP-Q300II
4.19	03-06-2024	1. Updated supported OS 2. Add model SRP-S300II
4.20	10-10-2024	Add model XD5-40IId, XD5-43IId, XD5-40IIt, XD5-43IIt
4.21	26-12-2024	Change model names of SRP-380II, SRP-382II Changed model names: SRP-380plus, SRP-382plus
4.22	17-02-2025	Add model XT6-60, XT6-63
4.23	18-03-2025	Add model XM5-30
4.24	01-04-2025	Add model BK3-2, BK3-3, BK5-3, BK5-4, SRP-G300
4.25	28-04-2025	1. Add model SRP-B300II 2. Add model BT3-40/BT3-43, BT5-40/BT5-43/BT5-46, BD5-40d/BD5-43d, BD5-40t/BD5-43t
4.26	12-08-2025	1. Add model XD7-20d, XD7-23d

		2. Add model XT6-40, XT6-43, XT6-46
4.27	06-11-2025	Add model SPP-300
4.28	05-02-2026	Add model SPP-R230
4.29	26-05-2026	Add model XC3-40d, XC5-40d, XC5-43d