



Unified Utility Manual

SPP-R410

Mobile Printer
Rev. 1.00

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1. Notice

This Unified Utility Manual provides information on the utility program used to set printer operation conditions and add functions.

The utility program consists of two functions.

- 1) A function that sets printer operation conditions via non-hardware control, software-based virtual switches (**VMSM: Virtual Memory Switch Manager**)
- 2) A function that facilitates the downloading of image files, such as logos, intended for repetitive printing (**NV Image Download Manager**)

We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

2. Operating System (OS) Environment

The following operating systems are supported for usage.

- Microsoft Windows XP (32bit/64bit)
- Microsoft Windows Server 2003 (32bit/64bit)
- Microsoft Windows VISTA (32bit/64bit)
- Microsoft Windows Server 2008 (32bit/64bit)
- Microsoft Windows Server 2008 R2(64bit)
- Microsoft Windows 7 (32bit/64bit)
- Microsoft Windows 8 (32bit/64bit)
- Microsoft Windows Server 2012 (64bit)
- Microsoft Windows CE 5.0
- Microsoft Windows CE 6.0 (supported after building with custom SDK)
- Microsoft Windows Mobile 5
- Microsoft Windows Mobile 6

3. Virtual Memory Switch Manager Usage

3-1 When Using on a PC

1) Connect the printer and the PC via the interface cable (USB or Serial type).
If using WLAN or Bluetooth, a cable connection is not necessary.

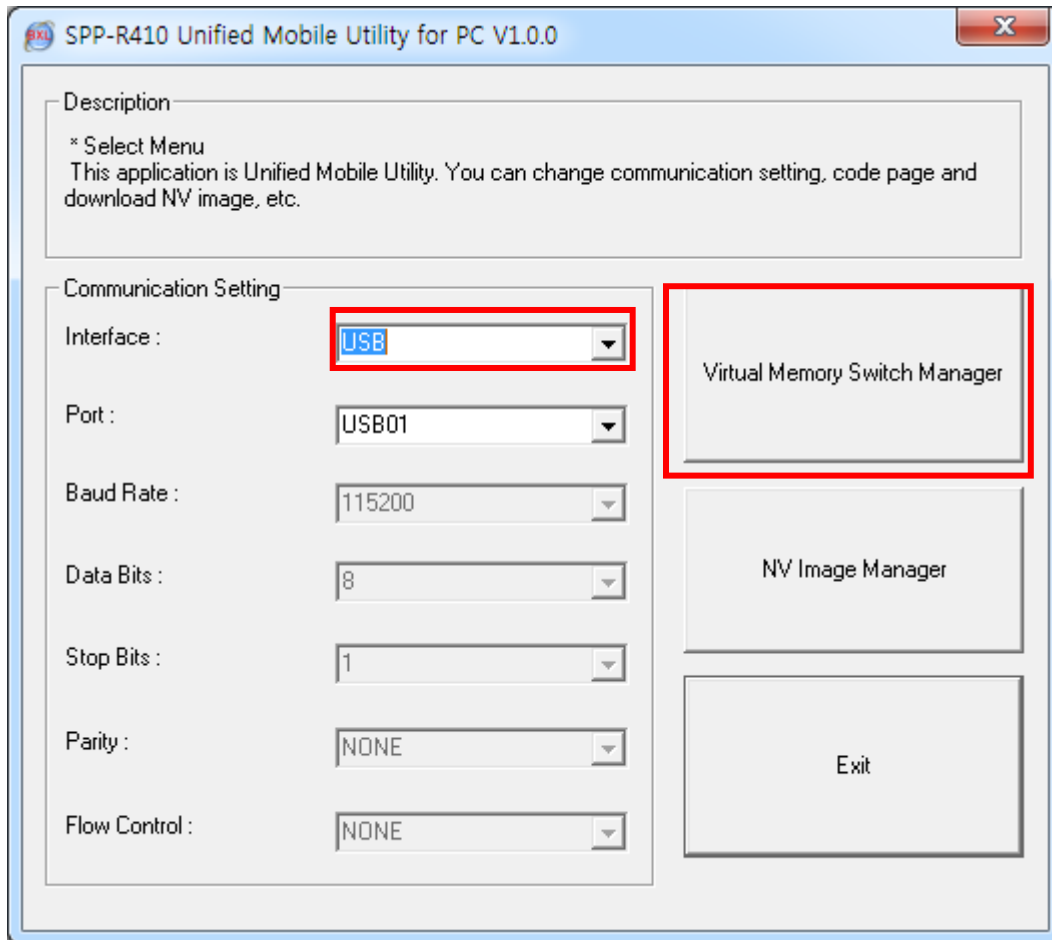
2) Turn on the printer power.

3) Prepare the Unified Utility executable file to be used on the PC.
The executable file can be found on the enclosed CD.

(SPP-R410 Unified Mobile Utility for PC ver 1.x.x.exe)

※ Latest file versions can be downloaded from the BIXOLON website
(www.bixolon.com).

- 4) Run the Unified Utility executable file.
- 5) Select "Interface" and click the "Virtual Memory Switch Manager" button.
Refer to the Network or Bluetooth Connection Manual regarding the Interface (may vary according to device).



6) The Virtual Memory Switch settings information of the printer appears on screen.

Virtual Memory Switch Manager (fw:V00.13 STOba 122916)

Printer Setting 1 | Printer Setting 2 | Printer interface

Printing Density: print density 100%

Printing Speed: 90mm/s

Default Code Page: PC437 - USA, Standard Europe

Default Font Type: ☒ Font A (12 x 24) ☐ Font B (9 x 17) ☐ Font C (9 x 24)

Double Byte Font Mode: ☒ Off ☐ On

Default Save Cancel

Virtual Memory Switch Manager (fw:V00.13 STOba 122916)

Printer Setting 1 | Printer Setting 2 | Printer interface

Printer Service: Receipt

tear off position: 164 units (0~320)

Beep For Roll Paper End: Off

Beep Mode For Low Battery End: On

Auto Power Off Time (Not Connected): 0 min (0~90 ex> 30)

Auto Power Saving Time (Connected): 10 sec (0, 10~255 ex> 100)

MSR Configuration

MSR Trigger: Not used MSR trigger

Advance

Default Save Cancel

Virtual Memory Switch Manager (fw:V00.13 STOba 122916)

Printer Setting 1 | Printer Setting 2 | **Printer interface**

Serial Interface Configuration

Baud Rate: 115200 Parity: None

Data Bits: 8 Stop Bits: 1

☐ Enable Bluetooth Setting ☐ Enable BLE Mode

Bluetooth Interface Configuration

Authentication Encryption: Enable Connection Mode: Mode 2

PIN Code: 0000 Printer Name: SPP-R410

Default Save Cancel

7) After setting the desired function(s), click the “Save” button to store settings.
The functions per category are as follows.

Function	Description
Printing Density	Sets printing density Value range is 80~150%
Printing Speed	Sets printing speed Value range is 50 or 90 mm/s
Printer Service	Printer Service change receipt mode or label mode.
Tear Off Position	In a label mode printing, Tear off position adjustment is available
Default Code Page	Sets the default code page (Refer to the Code Page Manual for more detailed information on the Code Pages supported.)
Default Font Type	Sets default font type and size
Beeps for Low Battery	Sets beeping when reaching low battery capacity
Beeps for Paper Roll End	Sets no beeping or beeping when reaching paper roll end
Double Byte Character Mode	Sets double byte language usage mode
Auto Power Off Time	Sets time interval between absence of printer use and automatic turning off of printer power
Auto Power Saving Time	Sets time interval for automatic entering into power saving mode while the printer is in use
MSR Trigger	Sets MSR data scanning mode, 7 modes supported (Refer to “GS (E” in the Control Commands Manual.)
Serial Interface Configuration	Changes the serial Interface setting *Printer must be reset after change for changed setting to take effect
Authentication & Encryption	Sets or cancels Authentication & Encryption mode when connecting via Bluetooth * If Authentication & Encryption mode is disabled, connection to a device can be done without a PIN Code.
Connection Mode	Sets Mode1, Mode2, or Mode3 when connecting via Bluetooth. - Mode1: connection possible only with the first device with which connection succeeds - Mode2: connection with all Bluetooth enabled devices possible via use of a PIN Code - Mode3: connection possible only with the first device with which connection succeeds and searching or use of connected device possible
PIN Code	Changes the PIN Code required for Bluetooth connections (maximum 12 characters long)
Printer Name	Changes the device name produced when establishing a Bluetooth connection (maximum 12 characters long)

* You can check authentication, Encryption mode as well as connection mode of the Bluetooth from self test page.

8) Reset the printers.

- When you change the bluetooth setting, check the LED status if RED LED is turned on

and prints about bluetooth setting information. As soon as this process is completed, reset the printer.

3-2 When Using on a PDA

- 1) Turn on the printer power.
 - 2) Prepare the Unified Utility executable file to be used on the PDA.
The executable file varies according to CPU and can be found on the enclosed CD.
 - **ARMV4: SPP-R410 Unified Mobile Utility armv4 ver 1.x.x.exe**
 - **ARMV4i: SPP-R410 Unified Mobile Utility armv4i ver 1.x.x.exe**
- ※ Latest file versions can be downloaded from the BIXOLON website (www.bixolon.com).
- 3) Run the Unified Utility executable file.
 - 4) Check "TCP/IP Communication" and click the "Virtual Memory Switch Manager" button.
Refer to the Network Connection Manual regarding the TCP/IP setting (may vary according to device).

The screenshot displays a software interface with a light blue background. At the top, there is a section titled "Communication Setting" enclosed in a red rectangular border. Inside this section, the "TCP/IP Communication" option is checked with a blue checkmark. Below this, there are two input fields: "IP :" with the value "192.168.1.4" and "Port :" with the value "9100". Below the "Communication Setting" section is a button labeled "Virtual Memory Switch Manager", also enclosed in a red rectangular border. Below this button are two more buttons: "NV Manager" and "Exit", both in light blue boxes with black text.

- 5) The Virtual Memory Switch settings information of the printer is received and shown on screen.

6) After setting the desired function, click the “Next” button.

(The functions per category are identical to those on the PC.)

* Please click "Default" button to return the printer to default setting.

Printing Speed : 100mm/s ▼ Printing density : print density 100% ▼ Default Font Type ☒ 12x24 A Font ☐ 9x17 B Font ☐ 9x24 C Font	Default Code Page PC437 - USA, Standard Europe ▼ MSR Trigger mode Track 1/2/3 read mode AUTO trig ▼ Advance.. Service : ☒ Receipt ☐ Label tear off position : 302 <0~320 units>
Default Next Cancel	Prev Next Cancel

7) After setting the desired function, click the “Next” button.

(Clicking the “Prev” button returns to the previous screen.)

Beeps for roll paper end ☐ False ☒ True Beep mode for low battery status ☒ On ☐ Off Double byte character mode ☐ On ☒ Off MFI (IOS) : ☐ Enable ☒ Disable	Serial Interface configuration Baudrate : 19200 ▼ Parity : None ▼ Data Length : 8 ▼ Flow control : DTR/DSR ▼ Auto Power Off Time <0~90 min> 15 Auto Power Saving Time <10~255 sec> 10
Prev Next Cancel	Prev Next Cancel

8) After setting the desired function, click the “Save” button.

The screenshot shows a settings menu for the SPP-R410 printer. At the top, there is a checkbox labeled "Enable to change BT Setting" which is currently unchecked. Below this is a section titled "Authentication & Encryption" with two radio button options: "Disable" and "Enable". The "Enable" option is selected. Underneath is the "Connection mode" section with three radio button options: "Mode1", "Mode2", and "Mode3". "Mode2" is selected. Below these are two text input fields. The first is labeled "PIN code <Max 12 chars>" and contains the value "0000". The second is labeled "Printer Name <Max 30 chars>" and contains the value "SPP-R410". At the bottom of the menu are three buttons: "Prev", "Save", and "Cancel". The "Save" button is highlighted with a black border.

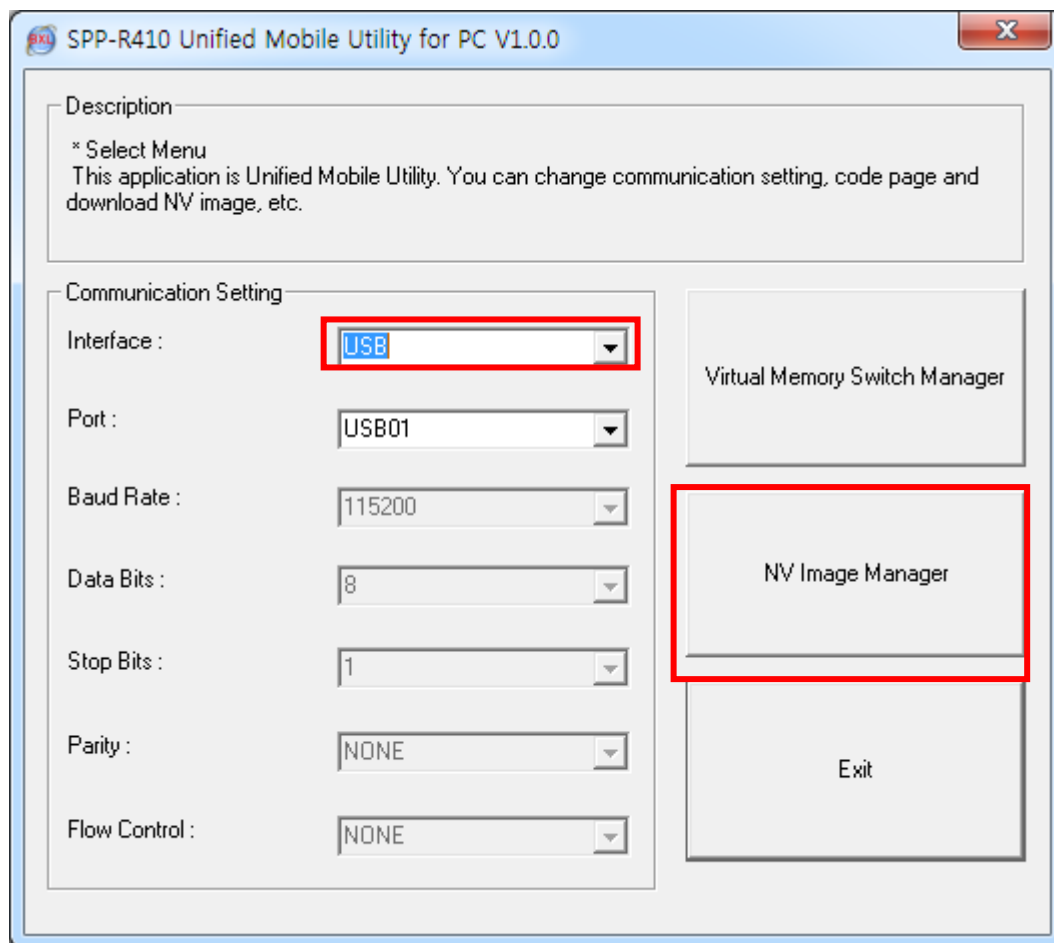
9) Reset the printer.

- When you change the bluetooth setting, check the LED status if RED LED is turned on and prints about bluetooth setting information. As soon as this process is completed, reset the printer

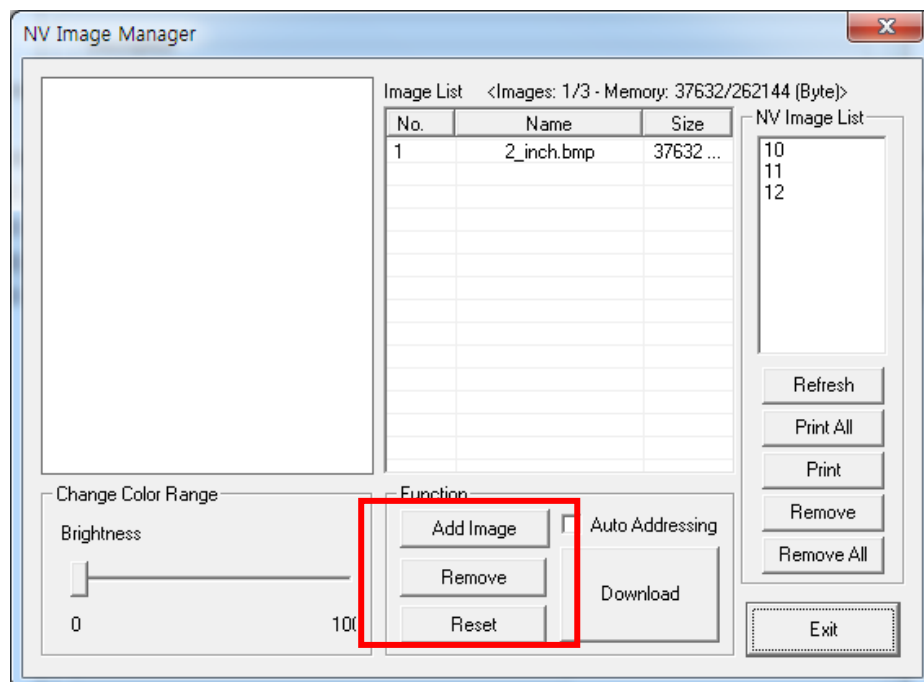
4. NV Image Download Manager Usage

4-1 When Using on a PC

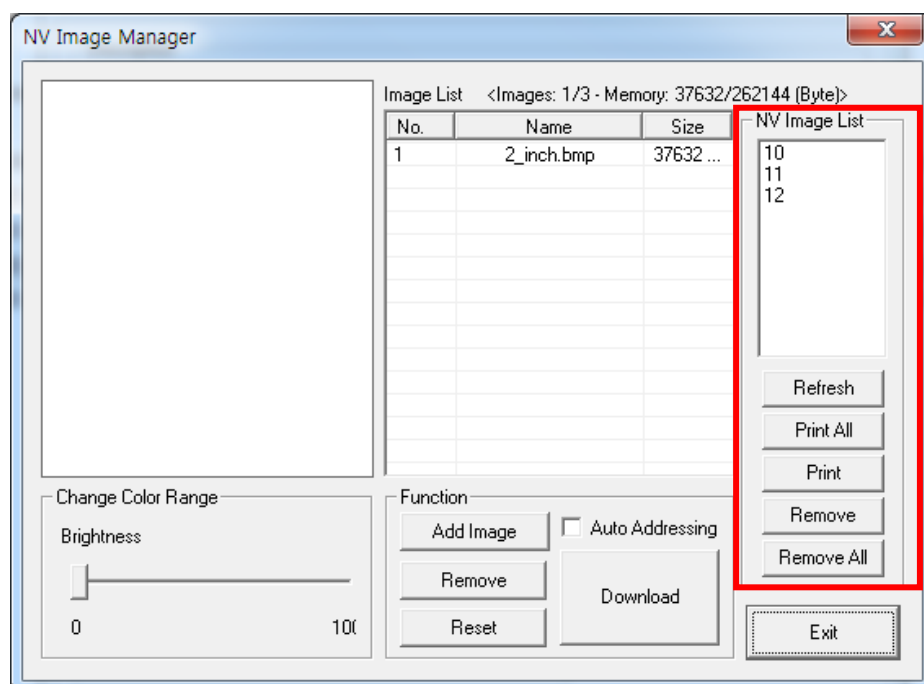
- 1) The printer connection method and instructions for running the Unified Utility executable file are identical to those provided in "3. Virtual Memory Switch Manager". Refer to the aforementioned section.
- 2) Prepare the image file on the PC (e.g. Logo.bmp)
- 3) Select "Interface" and click the " NV Image Manager " button.
Refer to the Network or Bluetooth Connection Manual regarding the Interface (may vary according to device) “



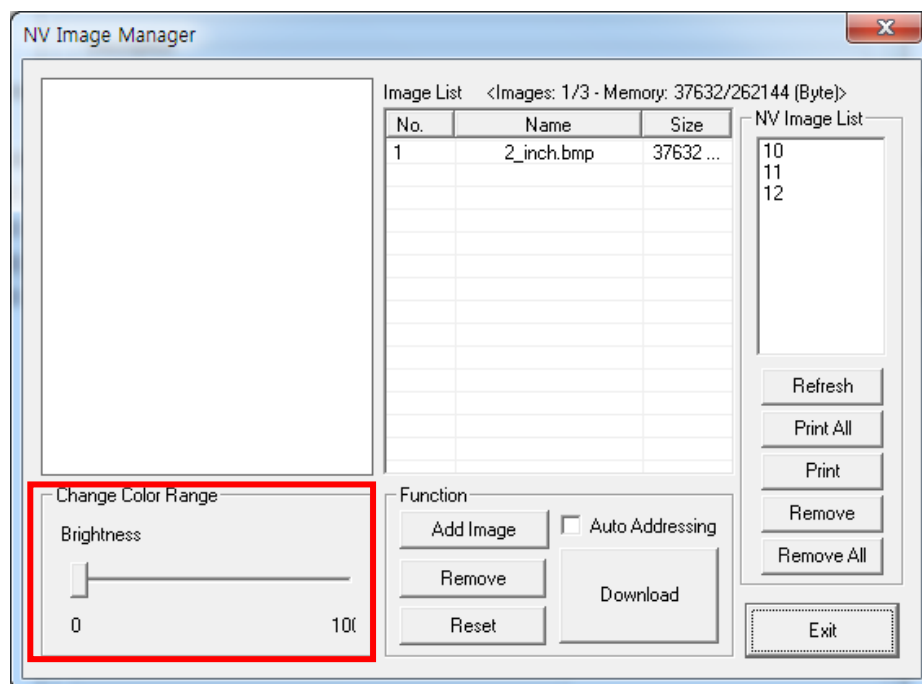
- 4) Click the “Add Image” button to add the desired image(s) to the image list.
Click the “Remove” button to delete selected image(s), and click the “Reset” button to delete the entire image list.



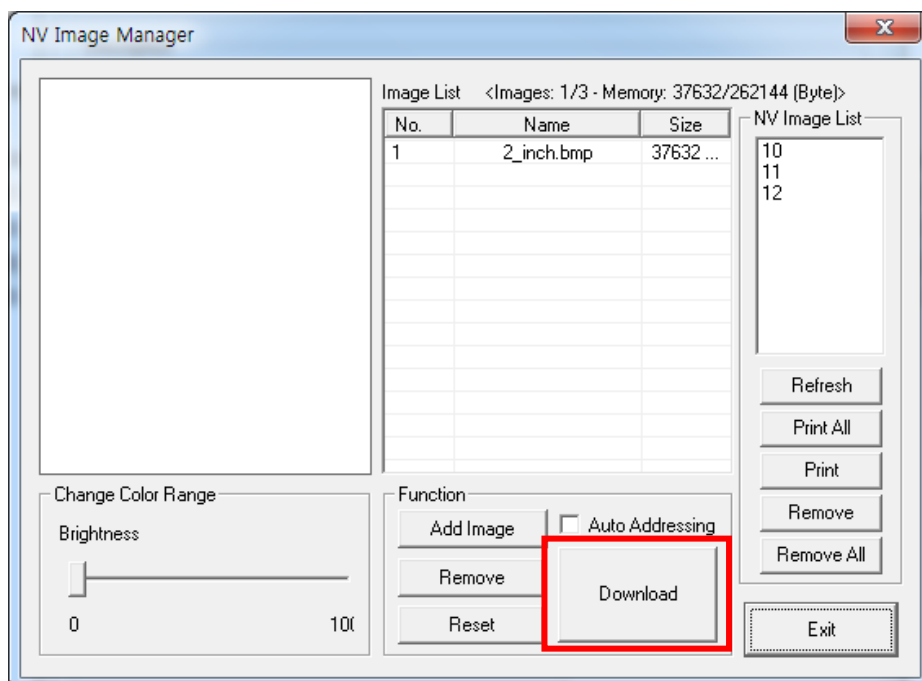
- 5) The “Used address list” contains the address numbers of saved images. The following buttons can be used to handle saved images.
- “Refresh” Button: Update the list of image stored in the printer
 - “Print All” Button: Prints all images in the list
 - “Print” Button: Prints selected image(s)
 - “Remove” Button: Delete selected images in NV memory
 - “Remove All” Button: Delete all images in NV memory



- 6) After selecting an image from the image list, adjust the brightness level to set the brightness of the image to be downloaded.



- 7) Click the “Download” button to download the image(s).
Start address is “00”.



- 8) When downloading is complete, the saved address numbers appear in the “Used address list”.

4-2 When Using on a PDA

- 1) Turn on the printer power.
 - 2) Prepare the Unified Utility executable file to be used on the PDA.
The executable file varies according to CPU and can be found on the enclosed CD.
 - **ARMV4: SPP-R410 Unified Mobile Utility for PPC armv4 ver 1.x.x.exe**
 - **ARMV4i: SPP-R410 Unified Mobile Utility for PPC armv4i ver 1.x.x.exe**
- ※ Latest file versions can be downloaded from the BIXOLON website (www.bixolon.com).
- 3) Prepare the image file on the PDA (e.g. Logo.bmp)
 - 4) Run the Unified Utility executable file.
 - 5) Select "TCP/IP Communication" and click the "NV Manager" button.
Refer to the Network Connection Manual regarding the TCP/IP setting (may vary according to device).

Communication Setting

☒ TCP/IP Communication

IP : 192.168.1.4

Port : 9100

Virtual Memory Switch Manager

NV Manager

Exit

- 6) Click the “Add Image” button to add the desired image(s) to the image list.
Click the “Remove” button to delete selected image(s), and click the “Reset” button to make modifications.

Image File List	Address
Bixelon_logo.bmp	00 01
Add Image	Refresh
Remove	Print All
Reset	Print
☐ Auto addressing	Remove
Download	Remove All
Exit	

- 7) The “Used address list” contains the address numbers of saved images.

The following buttons can be used to handle saved images.

- “Refresh” Button: Update the list of image stored in the printer
- “Print All” Button: Prints all images in the list
- “Print” Button: Prints selected image(s)
- “Remove” Button: Delete selected images in NV memory
- “Remove All” Button: Delete all images in NV memory

Image File List	Address
Bixelon_logo.bmp	00 01
Add Image	Refresh
Remove	Print All
Reset	Print
☐ Auto addressing	Remove
Download	Remove All
Exit	

- 8) Click the “Download” button to download the image(s).
Start address is “00”.

Image File List	Address
Bixolon_logo.bmp	00
	01
Add Image	Refresh
Remove	Print All
Reset	Print
☐ Auto addressing	Remove
Download	Remove All
Exit	

- 9) When downloading is complete, the saved address numbers appear in the “address”.