

# BSC-100

**boland** System

---

**Controller**

---

**User Manual**

---

Copyright© 2014

# 1. Introduction to the Boland System Controller

This PC program is designed to be a user friendly method for controlling a large number of Boland broadcasting monitors through RS-232C or TCP/IP interface.

## 1). Program Functions & Features

- Create & Edit the Boland broadcasting monitor System Controller Map.

This is available to save the layout of the System Controller Map as a file format.

- Control a Large Number of Monitors.

By using the Control Panel it is possible to control one or more monitors.

- Status Display

The status of each Monitor can be displayed.

- Designate Names for Each Monitor

Each monitor can be given a name & ID. Each monitor can show its channel name on screen.

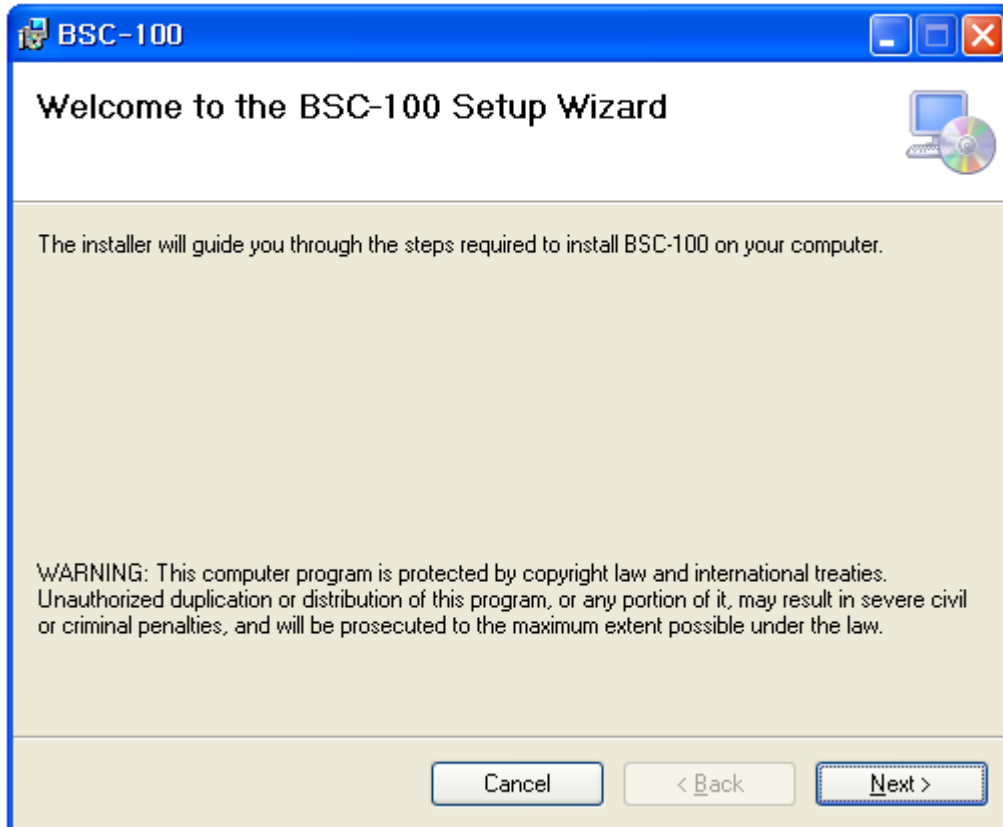
## 2). System Specifications Required for Operation

- This program only runs on Windows XP sp2 or above.
- Microsoft .NET framework 4.0 or later.

System Spec and Program version can be revised at any time to upgrade the program.

## 2. Installation of Boland System Controller

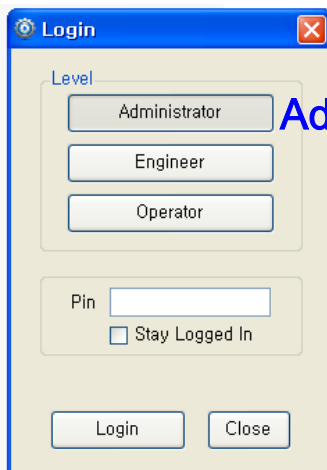
- To install the program on a pc, select “System Controller.msi” file, and follow the “Boland System Controller Setup Wizard” instructions.



After installation is completed, a shortcut button will appear on the desktop and in the Start menu.

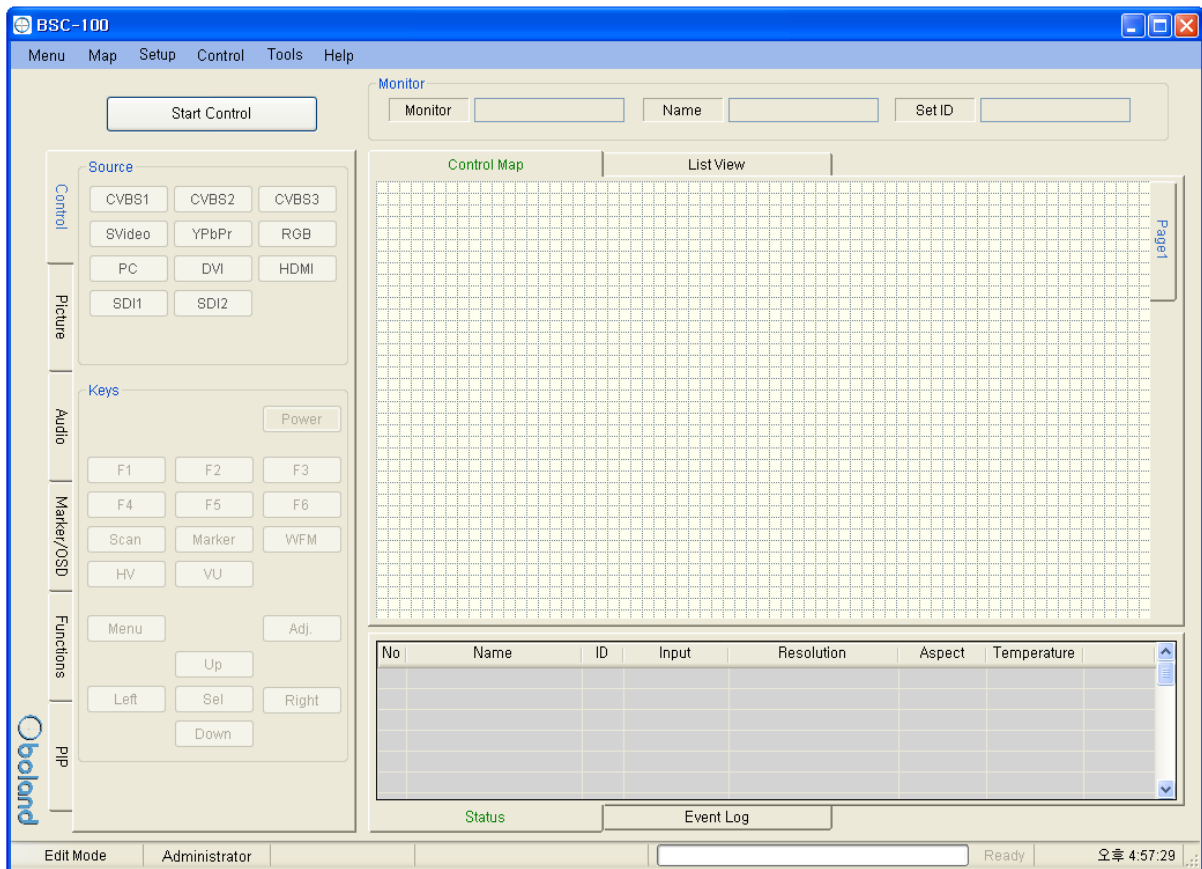
## 3. User Login

- Administrator: Can access all items
- Engineer: Engineer can access all items except FPGA & Firmware update menus
- Operator: is able to use Mode, Start & Stop, Control/Open, Map/Exit/Help/About menus



Administrator PIN: vboland

## 4. Main Page contents of Boland System Controller



### 1). Main Menu (Windows menu strip at top)

#### a) Menu: New, Open Map, Save as...

- New: start a new Map.
- Open Map: Load a control map from a saved file.
- Save as...: Save the control map to file.

#### b) Map: Control Map Wizard, Add Monitor, Delete Monitor, Add Page, Delete Page

#### c) Setup: User Level, Shortcuts, Network connection parameters

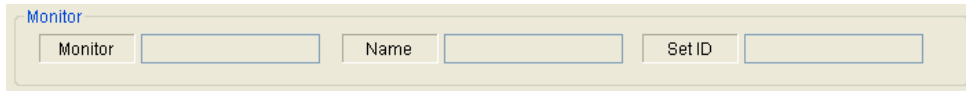
#### d) Control: Select Function Key and GPI assignments

#### e) Tools: Firmware Updates: FPGA, F/W. (ISP=In Circuit Programming)

#### f) Help: About

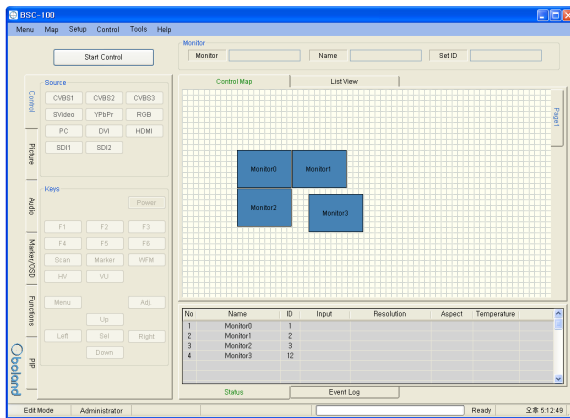
## 2). Monitor Properties Group (strip across top of box)

- Displays the selected monitor's model, name and ID.

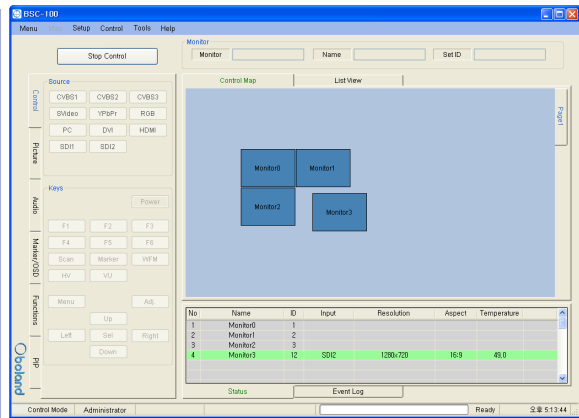


## 3) Control Map

- Displays currently opened control map.
- User can edit the control map and control the monitors in this box.
- This box is changed according to the mode chosen below.



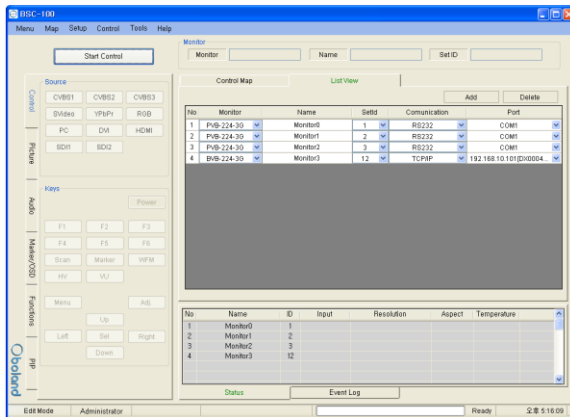
(Edit Mode)



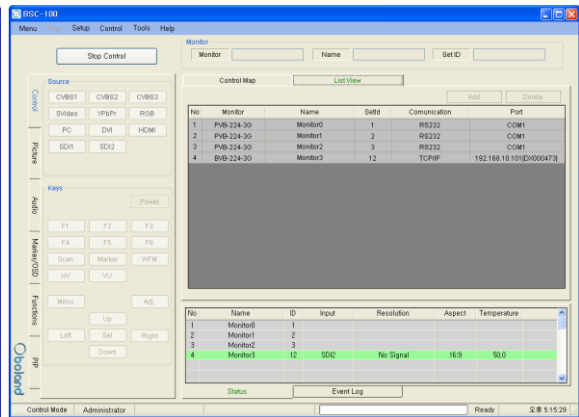
(Control Mode)

## 4) List View

- Display list of currently opened control Map.
- User can edit and control each monitor.



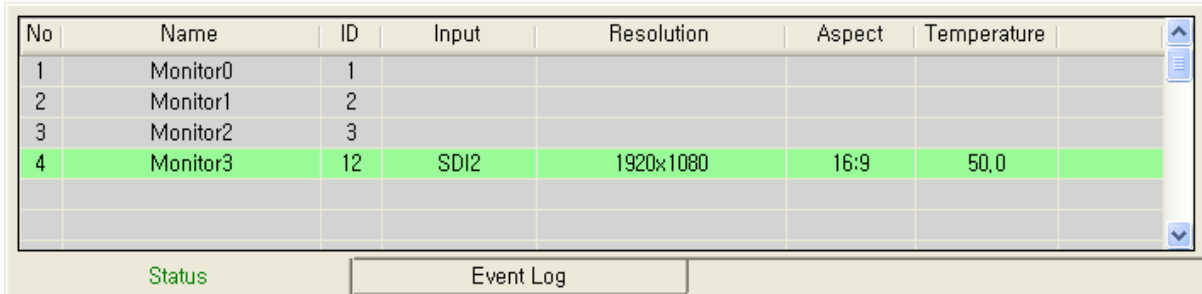
(Edit Mode)



(Control Mode)

## 5) Information

- Displays each monitor's information which is added on control table.
- User can see the Monitor ID, Signal Locking status, Input resolution, Aspect and Board temperature.

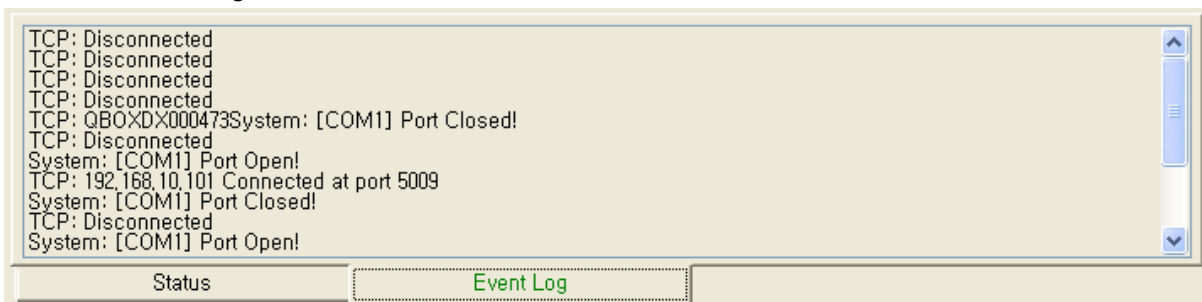


No	Name	ID	Input	Resolution	Aspect	Temperature
1	Monitor0	1				
2	Monitor1	2				
3	Monitor2	3				
4	Monitor3	12	SDI2	1920x1080	16:9	50,0

Buttons: Status, Event Log

## 6) Log

- It shows the major events that occurred in system controller.
- Clear: Clear the log window.

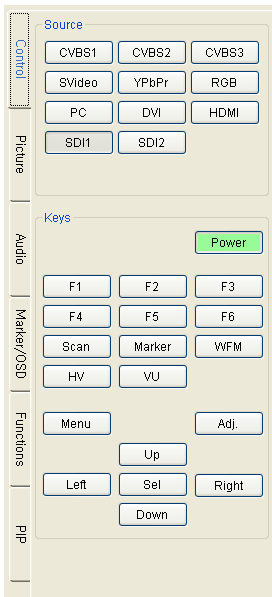


```
TCP: Disconnected
TCP: Disconnected
TCP: Disconnected
TCP: Disconnected
TCP: Q80XD000473System: [COM1] Port Closed!
TCP: Disconnected
System: [COM1] Port Open!
TCP: 192.168.10.101 Connected at port 5009
System: [COM1] Port Closed!
TCP: Disconnected
System: [COM1] Port Open!
```

Buttons: Status, Event Log

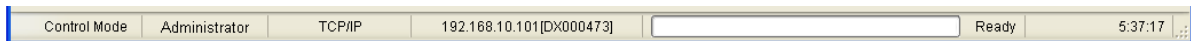
## 7) Controller Tap

- User can control the monitor easily through this tap.
- Controller Tap is only available when monitor is selected in the control mode.



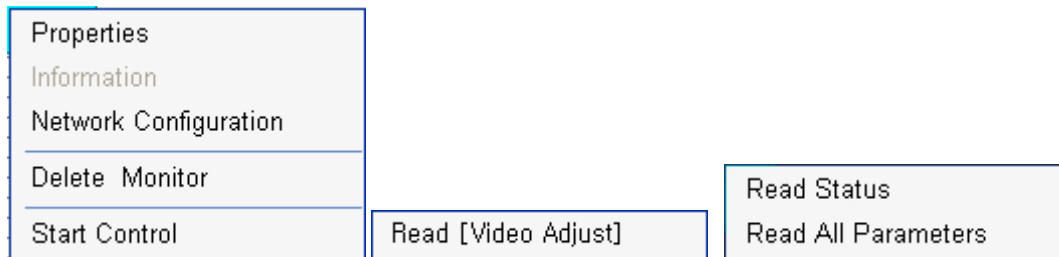
## 8) Status Bar

- It displays Mode, User Level, Com port or Target IP address, Progress bar and current time.



## 9) Context Menu

- Right-clicking or Double-clicking on Control Table or Controller Tap will bring up the commands used to control.

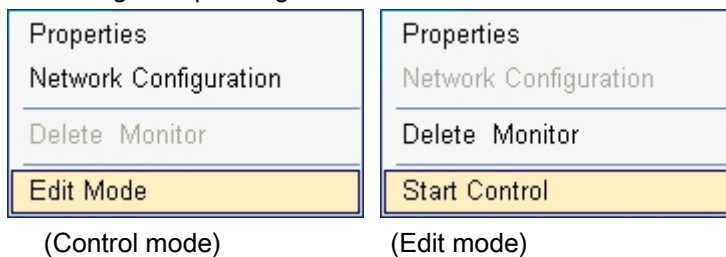


## 5. Edit Control Map

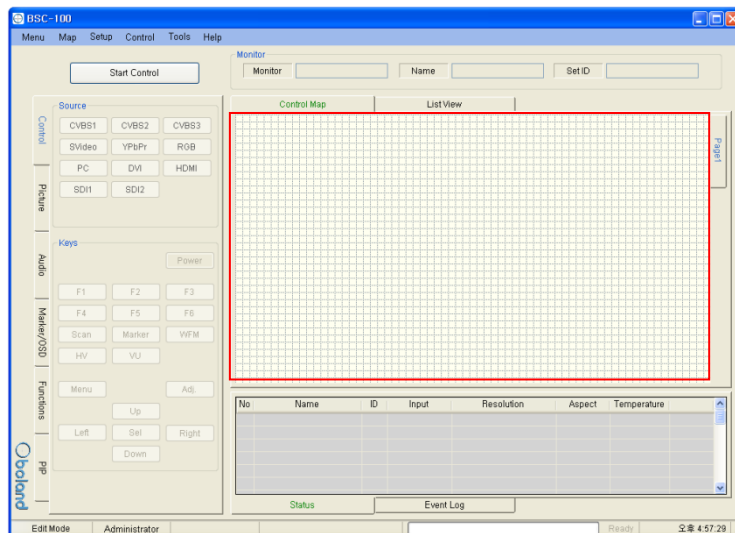
- User can edit the control map in EDIT MODE.
- Edit mode is only to use the Editing map. User cannot control any monitor in this mode.

### 1) Start Edit Mode

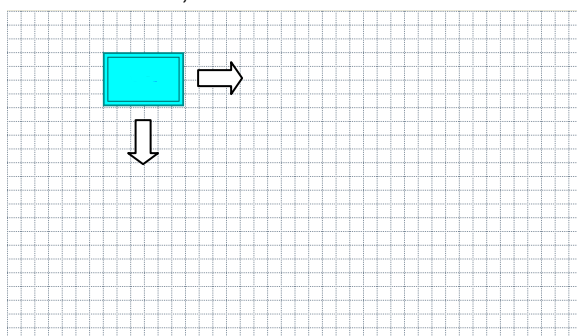
- User can change to edit mode through Mode items on menu strip, context menu on control table or mode changing button on control table.
- Below Context menu strip is opened by mouse right-clicking on the Control Table.
- It is changed depending on status of mode.



- If mode is edit state, Control table is grid pattern as below.



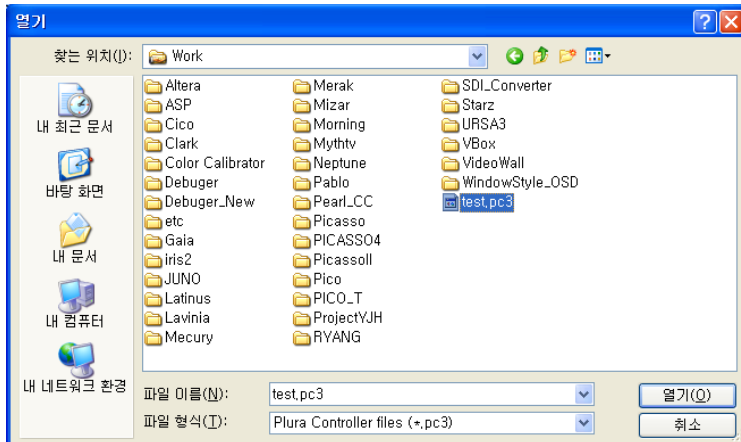
- In control table, user can locate the monitor icon any place.





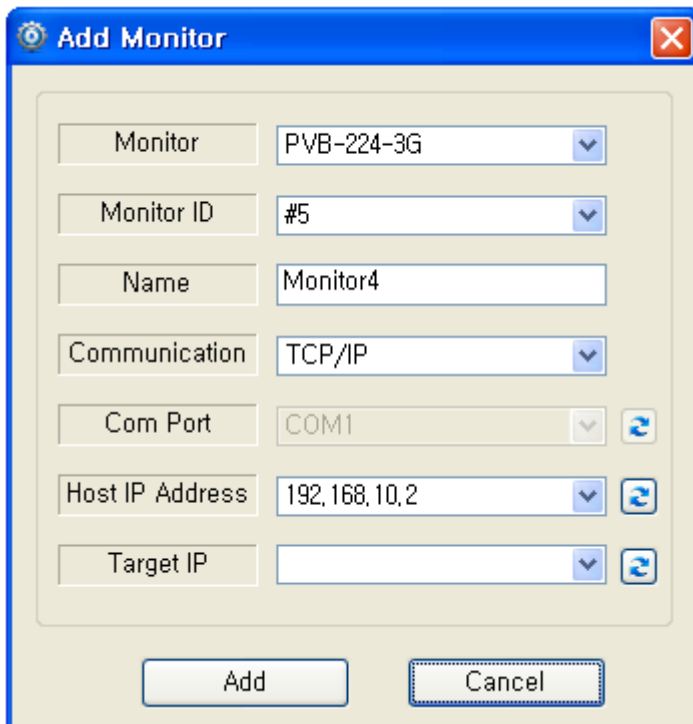
## 2) Open and Save Map.

- User can save the control map and open the saved one.
- Filename extension is .pc3.



## 3) Add and Delete monitor

- User can add the monitor for use in control table by Add Monitor form as below.

A screenshot of the 'Add Monitor' dialog box. The dialog has a title bar with a gear icon and the text 'Add Monitor'. It contains several input fields and dropdown menus: 'Monitor' (PVB-224-3G), 'Monitor ID' (#5), 'Name' (Monitor4), 'Communication' (TCP/IP), 'Com Port' (COM1), 'Host IP Address' (192,168,10,2), and 'Target IP' (empty). Each dropdown menu has a refresh icon to its right. At the bottom, there are 'Add' and 'Cancel' buttons.

- User can open the Add Monitor form by the Edit menu or context menu strip on control table.

a) Monitor: Select the target model. Icon size is changed by model.

b) Monitor ID:

- **Set each monitor's ID number to match BSC's Set ID.**
- IDs must match, or monitor cannot be controlled.
- Cannot reuse same ID on another monitor.

c) Name:

- It appears in the center of the monitor icon.
- Must use a unique name for each monitor.

d) Communication: choose a communication interface between RS232 and TCP/IP.

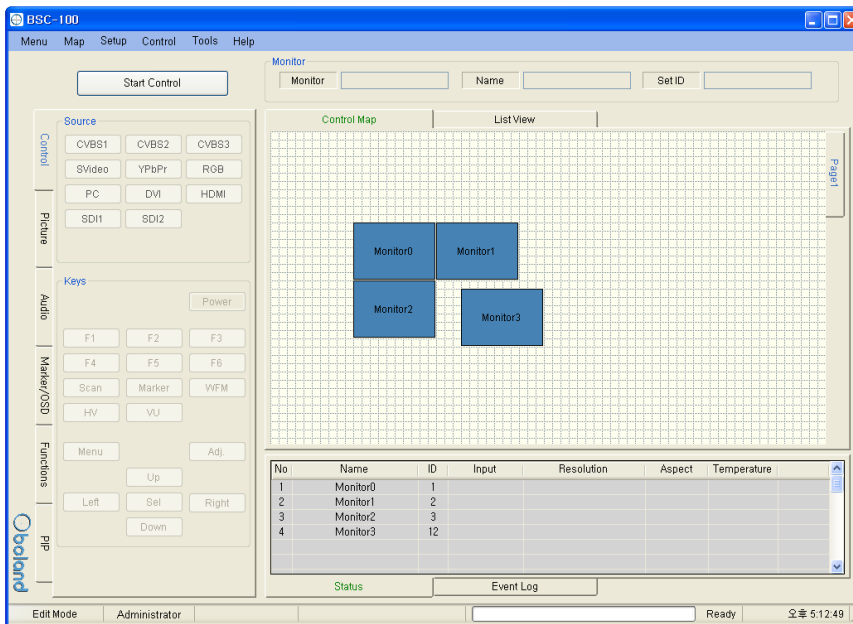
e) Com Port: select RS232 Comport of the PC.

f) My IP Address: select PC IP address of the PC..

g) Target IP: select IP address of the linked monitor.

h) Add and Cancel buttons: Add monitor or cancel the monitor from the map.

- If the monitor is successfully added, you will see the monitor icon on the map below

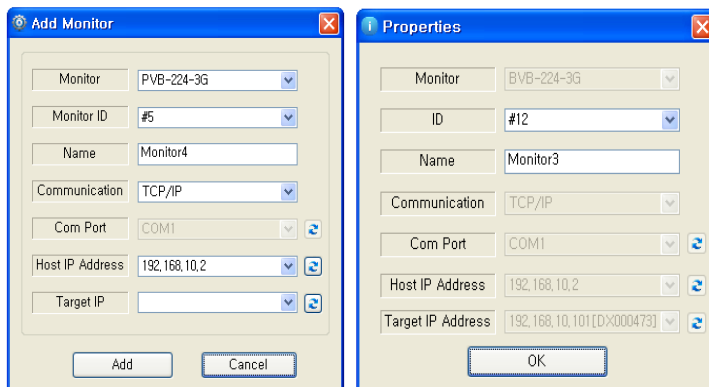


- You can delete the selected Monitor by Editing the item on the menu or context menu of control table.

#### 4) Properties

- User can change all properties of selected monitor that already added on control table.
- User can open the properties dialog box of the selected Monitor by Edit on menu or context menu of control table.

- It changes depending on the mode:



( Edit Mode)

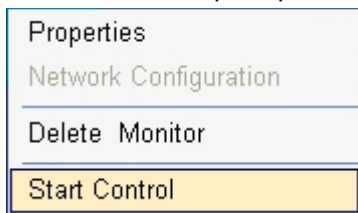
( Control Mode)

## 6. Control Mode

- User can control the selected monitor in this mode.
- Used only for control, cannot edit here.

### 1) Start Control

- User can select the control mode items in menu strip, context menu strip or mode changing button on control table.
- Context menu strip is opened by mouse right-clicking on Control Table.



- If mode is Control, Control table is displayed like below.

The screenshot shows the BSC-100 software interface in Control Mode. The window title is 'BSC-100' and the menu bar includes 'Menu', 'Map', 'Setup', 'Control', 'Tools', and 'Help'. A 'Stop Control' button is located at the top left. The main area is divided into 'Control Map' and 'List View'. The 'Control Map' shows four monitors (Monitor0, Monitor1, Monitor2, Monitor3) arranged in a 2x2 grid. The 'List View' table below it provides details for each monitor.

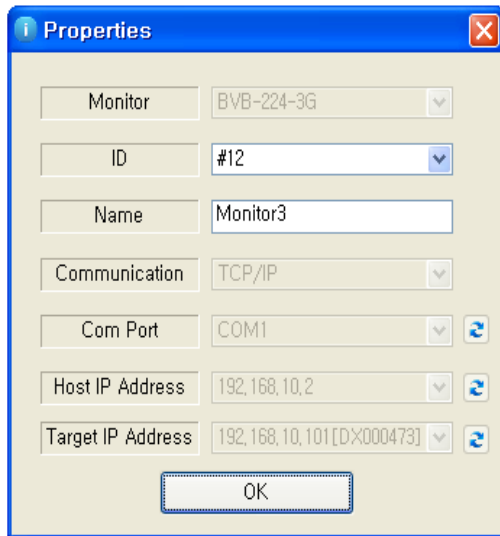
No	Name	ID	Input	Resolution	Aspect	Temperature
1	Monitor0	1				
2	Monitor1	2				
3	Monitor2	3				
4	Monitor3	12	SDI2	1280x720	16:9	49.0

The interface also includes a 'Source' section with buttons for CVBS1, CVBS2, CVBS3, SVideo, YPbPr, RGB, PC, DVI, HDMI, SDI1, and SDI2. A 'Keys' section includes buttons for F1-F6, Scan, Marker, WFM, HV, VU, Menu, Adj., Up, Left, Sel, Right, and Down. The status bar at the bottom shows 'Control Mode', 'Administrator', 'Ready', and the time '오후 5:13:44'.

## 2) Properties

- User can only change ID and name in this box.

Properties box is opened by the Edit menu or context menu.



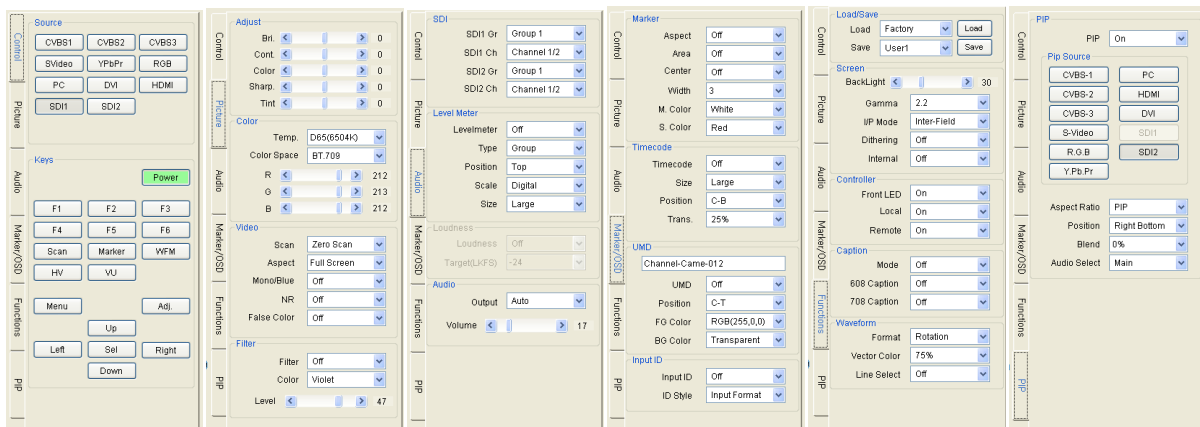
## 3) Controller Tab

- User can control the monitor through this tab.

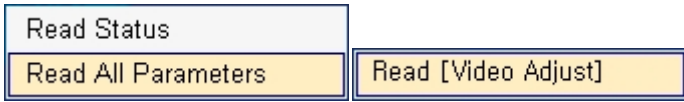
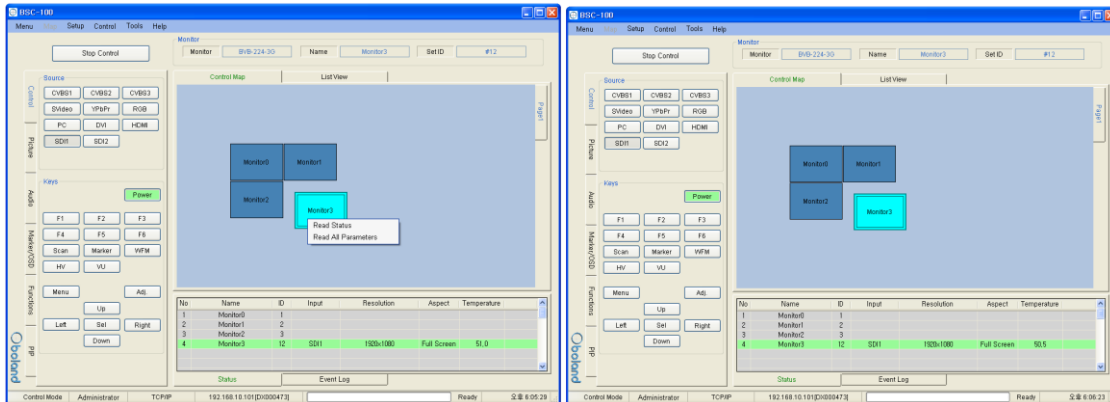
- Controller Tab is only available when monitor is selected in control mode.

- It consists of Control, Video, Audio, Marker/OSD and Functions Tabs.

- Each control is changed depending on model type. SFP module is only available on SFP models.



- Each parameter's value from the chosen monitor is selected with the button in control table or group box. Each menu is opened by mouse right-click or double-click.

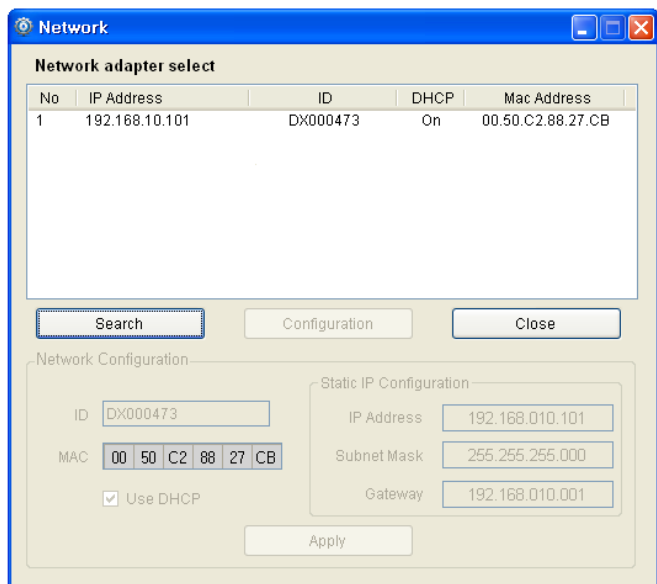


(On Icon of Control Table)      (On Group Box)

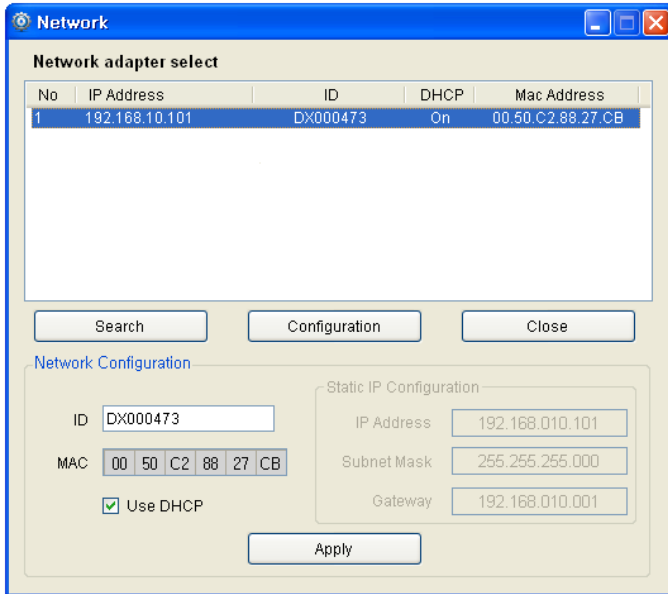
- Read All Parameter: read all the parameters in the system controller for the selected monitor.
- Read [Video Adjust(Group Box name)]: To open this context menu, right click the mouse to access the group box.

#### 4) Network Configuration

- Use this box to configure the network settings.
- Open it in the Setup menu.

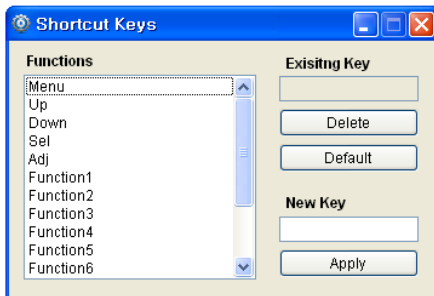


- Click the item on list to connect the PC's network board.
- When connected, the Configuration button is enabled.
- When clicked, the Network Configuration box is displayed.



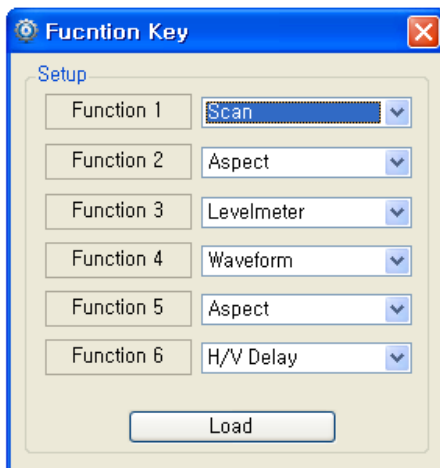
## 5) Shortcut Keys

- Shortcut keys save user having to click thru the menu buttons.
- User can set up the shortcut keys with dialog box in the Setup menu.



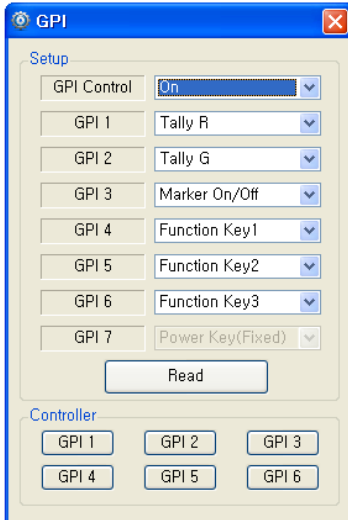
## 6) Function Key

- Open the Function Key dialog box in the Advanced menu.
- Each Button: Corresponds to the function keys on the monitor keypad.
- Dropdown: Select a desired function. It can be chosen depending on the model's available list.



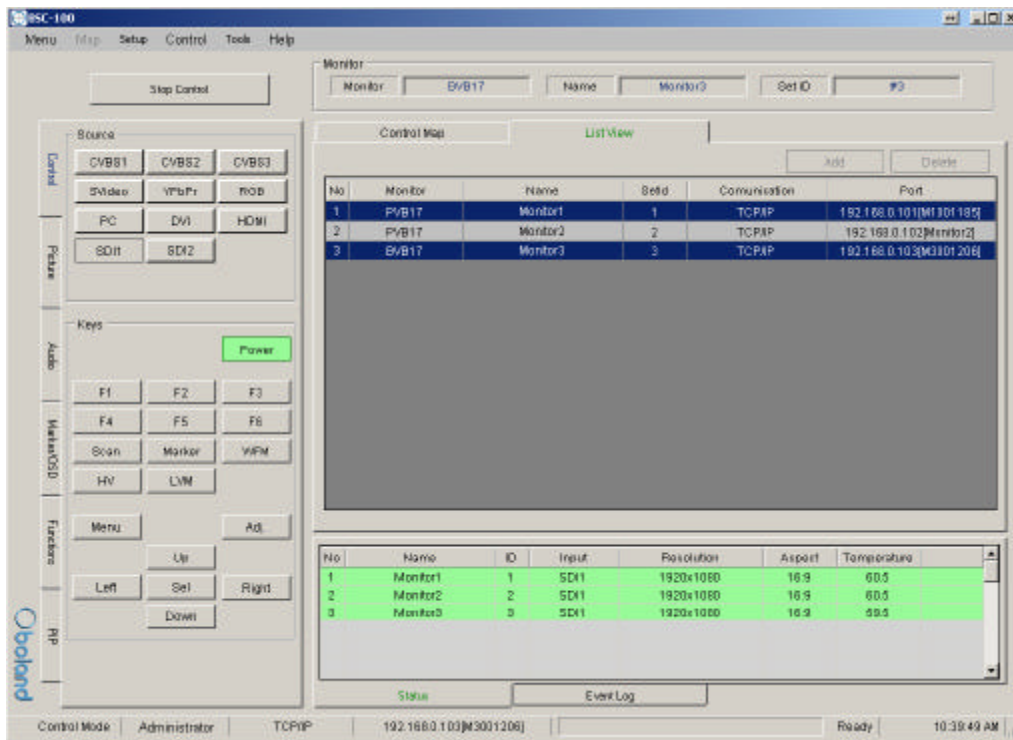
## 7) GPI

- Open the GPI setting box in the Advanced menu.
- Setup: You can select desired GPI function.
- Controller buttons: test the GPI controlled functions.

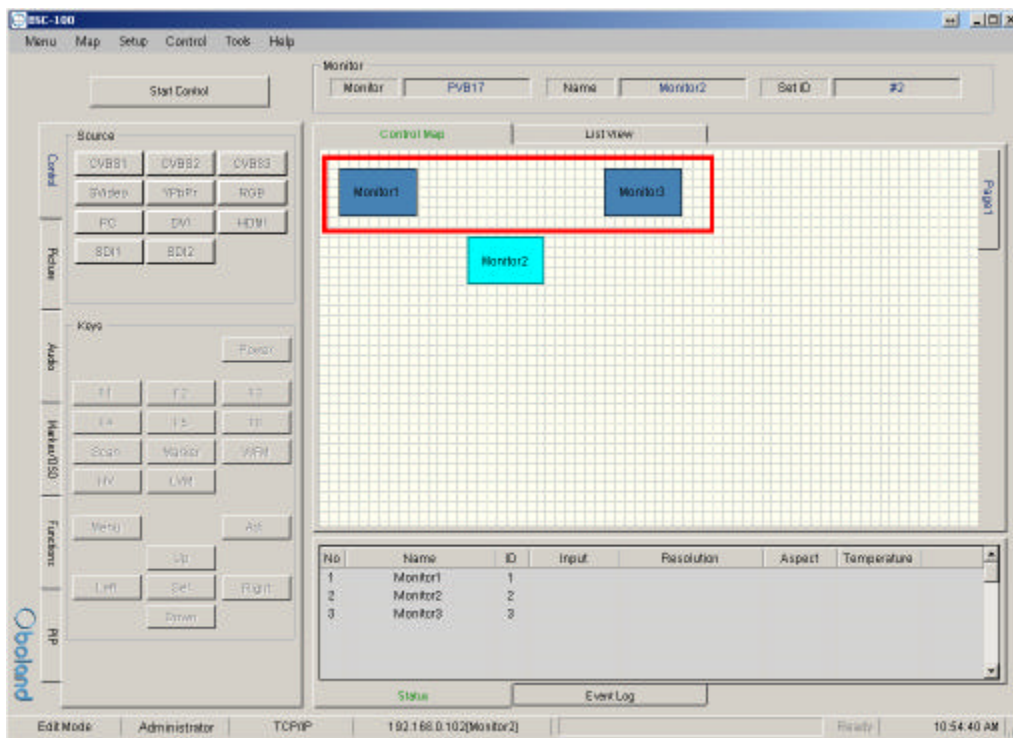


## 8) Grouping

You can group monitors in list by holding ctrl key while clicking and dragging with the mouse.



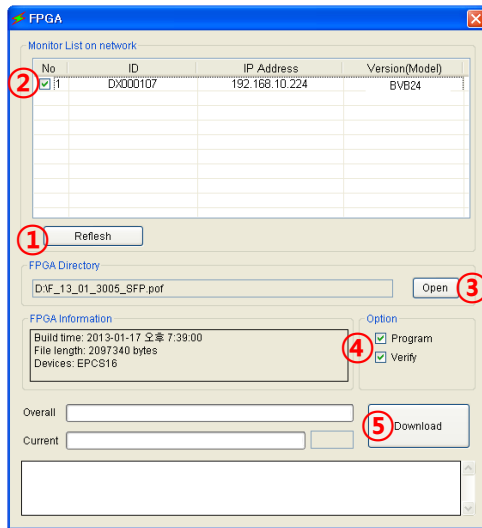
You can group monitors in map by mouse dragging around the screen.



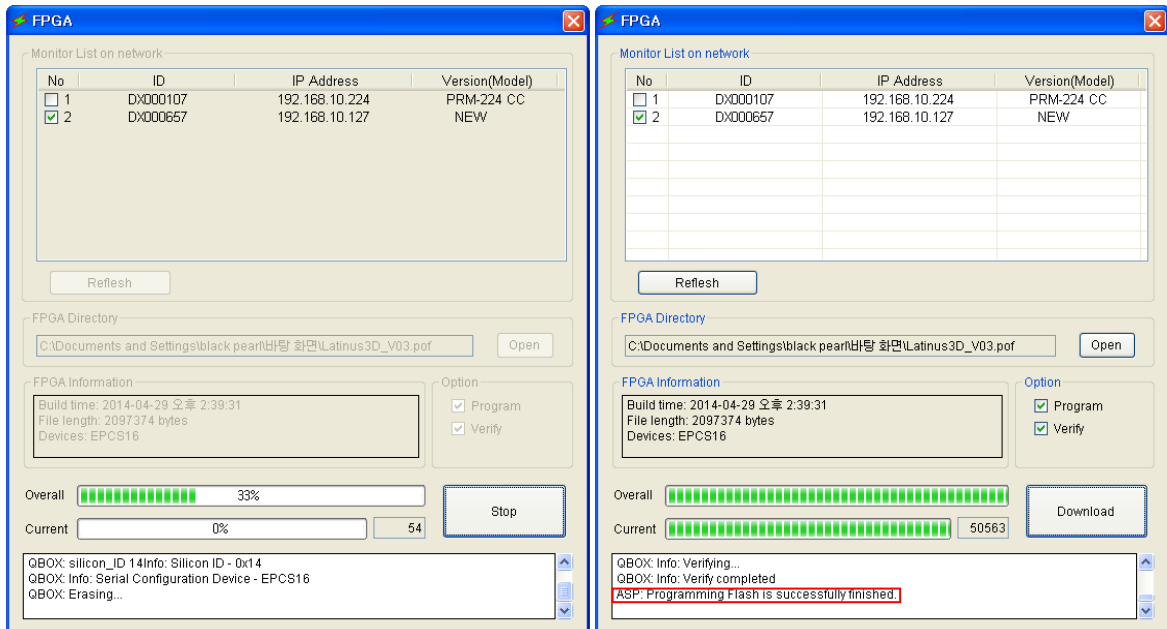


## 7. FPGA Download

- Menu > Tool > FPGA ISP



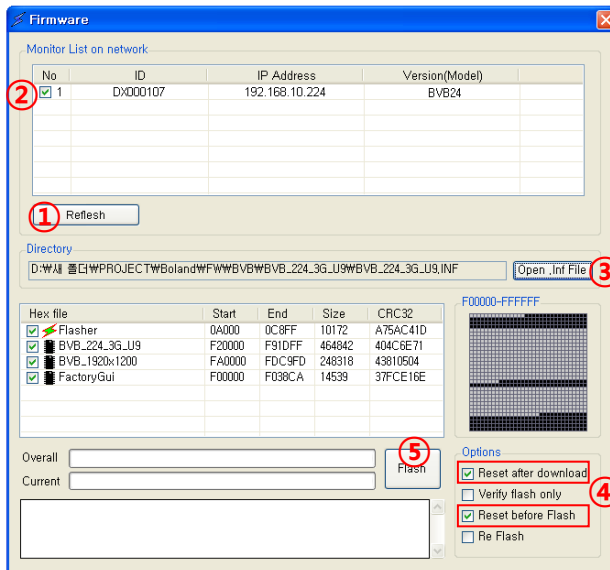
- 1) Click Refresh  
-See the connected monitor in the network list
- 2) Click the Monitor select checkbox.
- 3) Open the FPGA File (\*.pof).
- 4) Click: Program & Verify boxes.
- 5) Click Download to start.



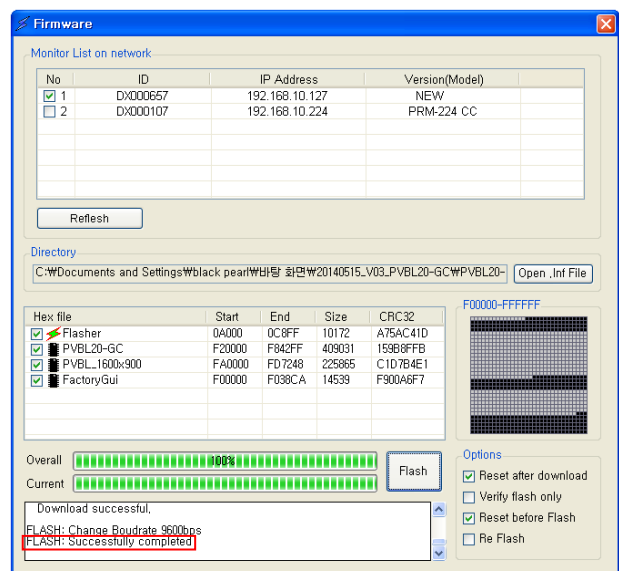
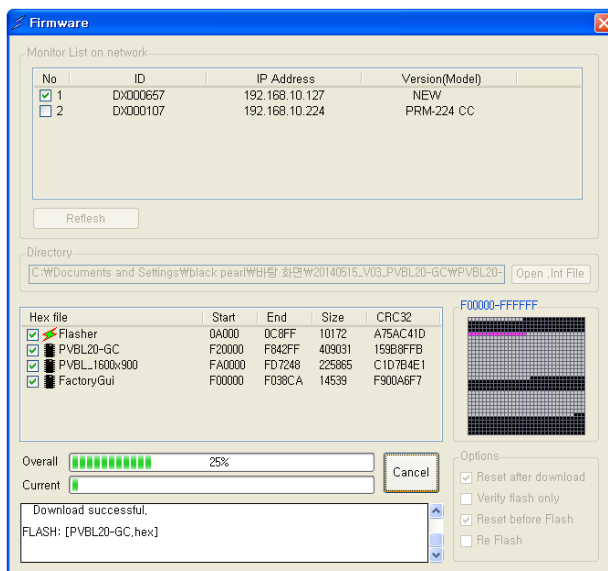
>Down load is finished when the Successfully Completed message appears.

## 8. Firmware Download

- Menu > Tool > F/W ISP



- 1) Click Refresh.
  - See the connected monitor in the network list.
- 2) Click Monitor select checkbox.
- 3) Open the F/W File (\*.inf).
- 4) Click: Reset after download and Reset before Flash boxes.
- 5) Click: Flash button.



>Download is finished when the Successfully Completed message appears.