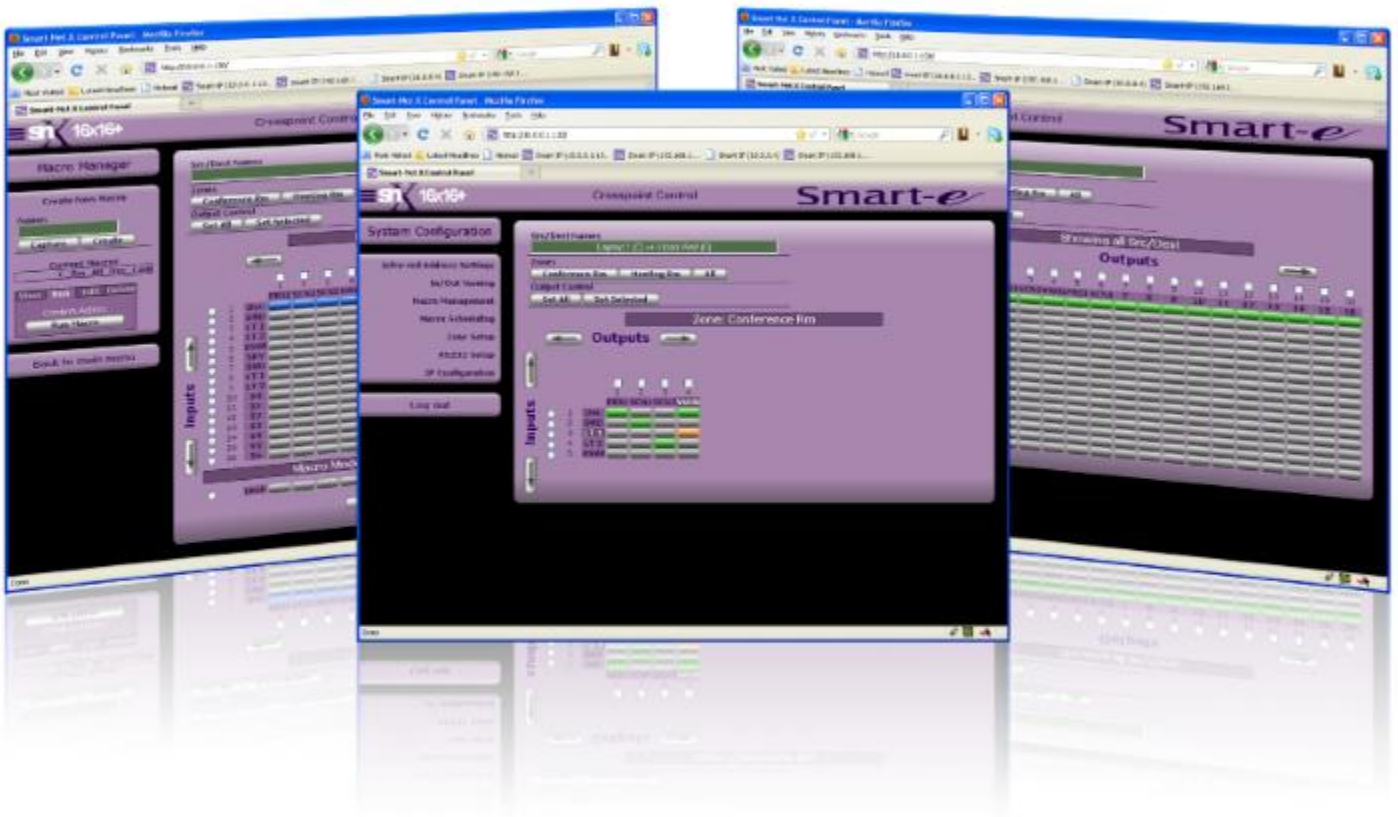


# SmartIP

Comprehensive software control

## User guide



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## 1.0 Revision History

Version	Release Date	By	SmartiP Firmware Version(s)	Comment
1.0	29/05/2009	CC	<b>V0.2b Beta</b>	Initial Release
1.1	23/06/2009	CC	V0.3b <b>Beta</b> IPServer  V.04b <b>Beta</b> Web Server	Updates to reflect additions, changes and corrections since V1.0
1.2	25/06/2009	CC	V0.3b <b>Beta</b> IPServer  V.04b <b>Beta</b> Web Server	Minor updates
1.3	15/07/2009	CC	V0.4b <b>Beta</b> IPServer  V.05b <b>Beta</b> Web Server	Updates to IP configuration that allow configuration of;  IP Addresses and Subnet masks also Default Gateway
2.0	30/11/2009	CC	V1.0 IPServer  V1.0 Web Server	Major update – New images, New features including zones and RS232 control of screens.
3.0	26/01/2011	JS	V1.3 IPServer  V1.4 Web Server	Multi User system implemented. Users have zone based access to the matrix and can only run macros associated with their user account as set by an administrator.
4.0	27/01/2012	JS	V1.4 IPServer  V1.5 Web Server	Crosspoints are now remembered by the SmartiP system through a power cycle. New images to represent a new look and feel of the web gui
5.0	07/03/2013	JS	V1.5 IPServer  V1.5 Web Server	Administrative feature added

## 2.0 Introducing SmartiP

Thank you for purchasing SmartiP. SmartiP allows control of our Smart Net X series matrices using TCP/IP based commands and a web browser front end GUI.

### 2.1 What's in the box?

SmartiP is available as both 'integrated' and 'standalone/external' solutions. The integrated solution is an integral part of the product you have ordered. The standalone solution is a small external box that can be retro-fitted to existing installations.

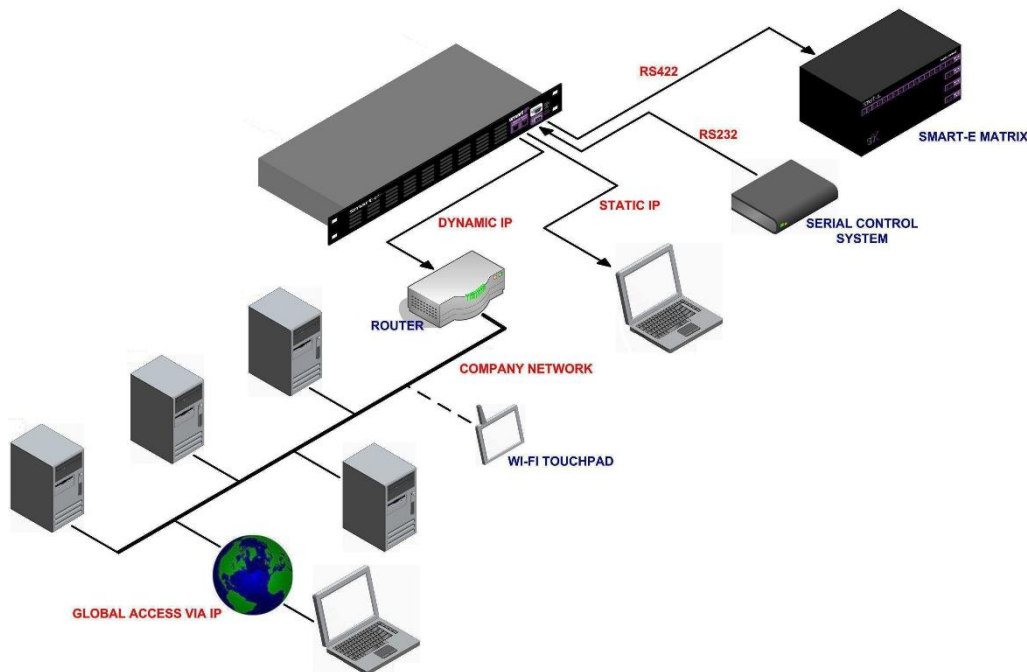
SmartiP ships with all of the required cabling.

If you are still unsure please contact Smart-e directly.

**Tel: +44 (0)1306 628264 or e-mail: [support@smart-e.co.uk](mailto:support@smart-e.co.uk)**

## 3.0 Installation and Configuration

### 3.1 Installation



**Note: Before applying power to SmartiP, please ensure your matrix is powered and that the RS422 serial comms is connected.**

## 3.2 TCP/IP Configuration

### 3.2.1 Factory Default Configuration.

When shipped from Smart-e, SmartiP is configured as detailed below;

#### 3.2.1.1 Static TCP/IP Ethernet port

SmartiP ships with its static port configured to use the IP address and subnet mask below;

**IP Address:** 10.0.0.1

**Subnet mask:** 255.255.255.0

#### 3.2.1.2 Dynamic TCP/IP Ethernet port

The Dynamic TCP/IP port is configured with Dynamic Host Configuration Protocol (DHCP) enabled. This means that at power up SmartiP will attempt to obtain its TCP/IP configuration from a DHCP server. This ensures SmartiP is allocated a free IP address and that the subnet mask is set correctly. We strongly recommend that you do not change this.

In the event SmartiP cannot find a DHCP server the TCP/IP address of the dynamic port will not function.

To determine the dynamic port IP Address please refer to section 3.2.1.3 below.

#### 3.2.1.3 Determining Dynamic Port IP Address

There are a number of methods that can be used to obtain the TCP/IP address of the Dynamic IP port.

Once you have determined the Port IP Addresses please make a note of them below.

#### **SmartiP Ethernet Port IP Addresses**

**Static Port**    \_\_\_\_ . \_\_\_\_ . \_\_\_\_ . \_\_\_\_

**Dynamic Port**    \_\_\_\_ . \_\_\_\_ . \_\_\_\_ . \_\_\_\_

### 3.2.1.3.1 Serial Port

Connect to SmartiP using the serial port.

Using a Terminal application of your choice configure it as detailed below;

- Baud rate: 115200
- Start bits: 1
- Data bits: 8
- Parity: None
- Stop Bits: 1
- Flow Control: None

And press 'Enter' key. You will receive the prompt '**SNX\_COM>**'.

Enter the command '**[ip,dynamic]**' to display the TCP/IP address of the dynamic port.

Enter the command '**[ip,static]**' to display the TCP/IP address of the static port.

### 3.2.1.3.2 Fixed IP Port (recommended)

To determine the Dynamic Port IP Address when allocated by DHCP, connect to the Static IP port of SmartiP, open a web browser window and enter the following URL into the web address bar.

<http://10.0.0.1:130>

Your web browser will connect to SmartiP and open its home page.

Click the 'Admin Login' option located in the Configuration panel. When prompted, enter the Log in details as detailed in section 4.4.1 below.

Now, click the 'IP Configuration' option in the displayed menu and the IP configuration panel will be updated.

The current IP configuration can be seen at the top of the IP Configuration panel as shown in Figure 1.



Figure 1: IP Configuration Page

## 4.0 Operation

### 4.1 Serial & Telnet

SmartIP can be controlled by sending it commands via two control interfaces. The same command protocol is implemented over both the Serial and Telnet interfaces.

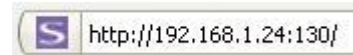
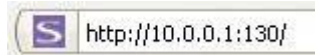
For more information regarding this protocol please refer to Appendix B. 'Smart IP Protocol Document (Application Mode) V1.1'

### 4.2 Web GUI

The web browser interface to SmartIP provides a user friendly GUI to allow the user to configure and control the Switch.

To access the SmartIP web interface simply open the web browser of your choice and enter the following into your browser address bar.

i.e. **http://<IP Address>:130**



Where <IP Address> is either **10.0.0.1** If you are connected to the fixed IP port or the IP Address allocated by your networks DHCP server. Please see section 3.2.1.3 for more information on how to find out what IP Address has been allocated.

Your browser window will update and look similar to that shown in Figure 2.

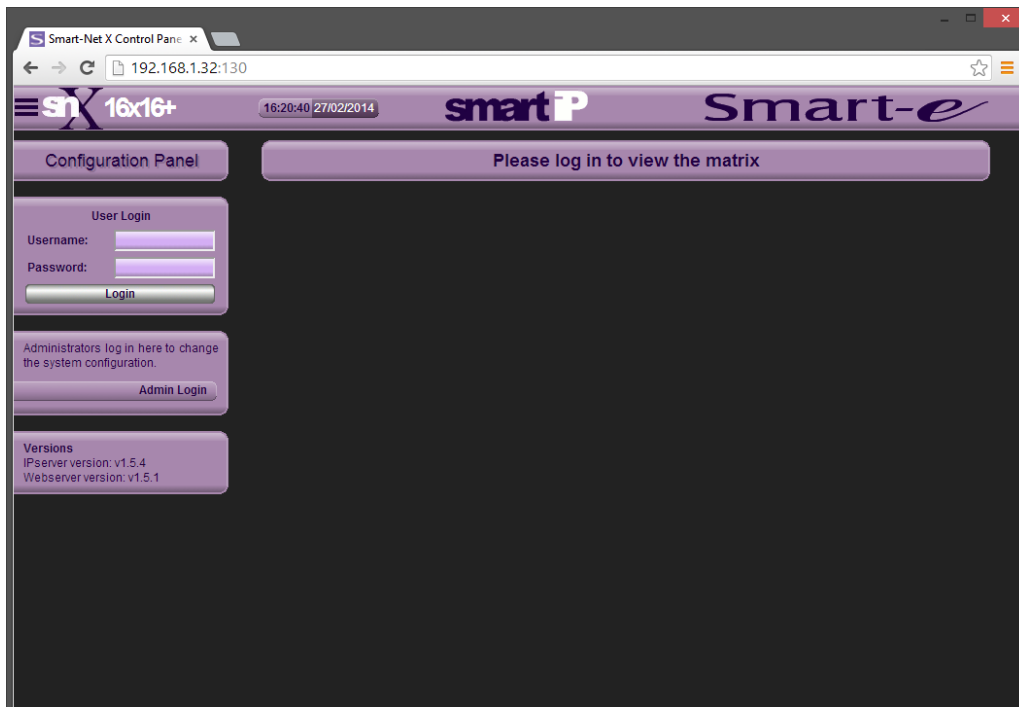


Figure 2: First Page

### 4.2.1 About The Window

The browser window is broken into three frames;

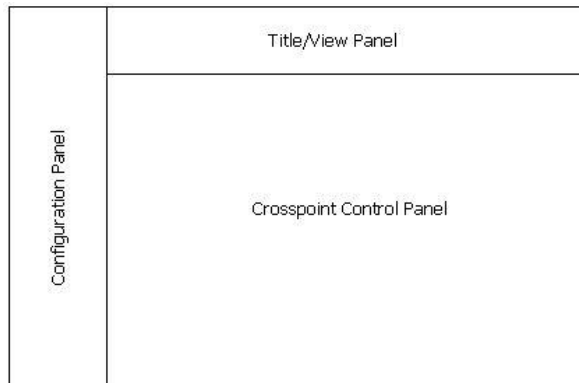


Figure 3: Browser Sections

- The Configuration Panel is on the left hand edge of the window. It is this panel that is used to configure the switch and create and schedule macros.
- The Title/View Panel is at the top edge of the window. This panel is used to change the switch view between Married and Split Crosspoints.
- The Crosspoint Control Panel is where manual crosspoint changes are made and custom macros are configured.

The Crosspoint control panel shows a grid of inputs against outputs. Inputs are listed vertically and outputs horizontally.

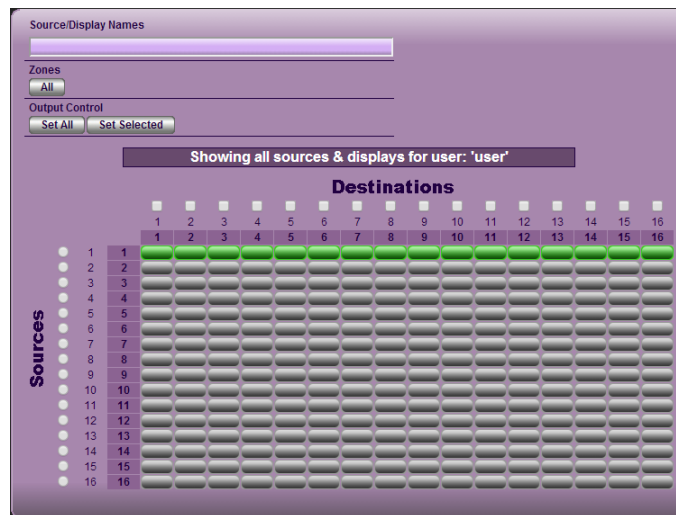
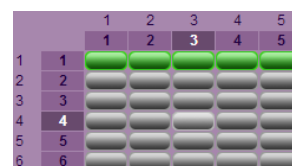


Figure 4: Crosspoint Panel

Crosspoints are shown as green blocks at the intersections of inputs with outputs.

As the mouse cursor is moved around the Crosspoint Grid intersections, the corresponding input and output labels will be highlighted. As shown opposite.





**Note: Matrices larger than 16x16**

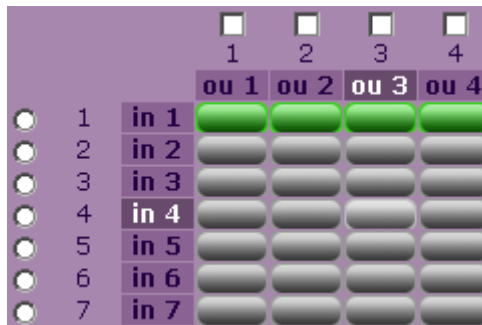
*In the event your SmartNet X switch is larger than 16x16 some extra controls will appear in the Crosspoint Configuration Panel. Use these to scroll around the matrix in blocks of 16.*

### 4.3 Changing a switch crosspoint

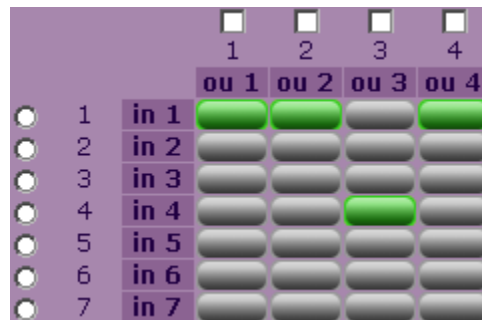
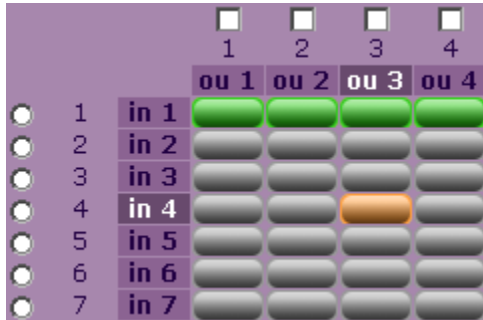
#### 4.3.1 Married Crosspoint

A married crosspoint is where both the output Video and Audio layers of the switch are set to the same input layers. i.e. The video and audio are coming from the same input.

To set a married crosspoint move the mouse cursor to the intersection of the crosspoint to be set. The button underneath the mouse on the grid is shown lighter and the in/out names are highlighted.



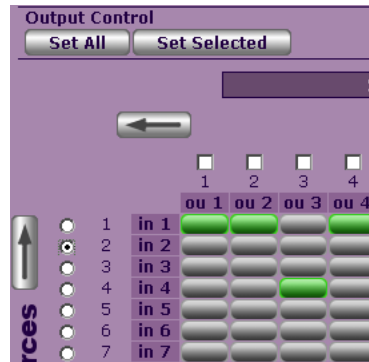
When ready to set the crosspoint click the left mouse button. The lighter button will become first orange to show that the command has been sent, second green once the crosspoint has been set.



### 4.3.2 Setting all outputs to one input

To set all matrix outputs to one input. Click the 'Radio' button next to the input required and click the 'Set All' button.

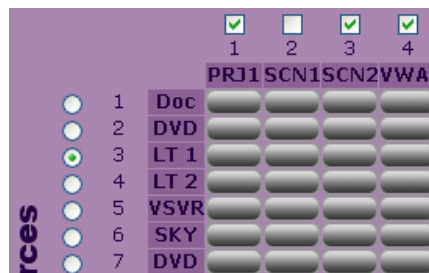
In the example shown below input two is to be switched to all outputs.



**Note:** Only 'Married' crosspoints can be set using this method

### 4.3.3 Setting one input to selected outputs

To set selected matrix outputs to the same input. Click the 'Radio' button next to the input required. Next, click the check boxes above the outputs you wish to use. Now click the 'Set Selected' button.



In the example above, input three is to be switched to outputs one, three and four.

**Note:** Only 'Married' crosspoints can be set using this method

## 4.4 SmartiP Configuration

To configure SmartiP the Configuration Panel must be used. The Configuration Panel allows users to configure the switch, create and schedule macros. To access these control features the user must login.

### 4.4.1 Logging In

To Login, click on the 'User Login' link displayed in the configuration panel. A small Login dialog box will be displayed.



Enter the Username and Password and then click the OK button.

**Note:** User Name and Password are fixed as detailed below;

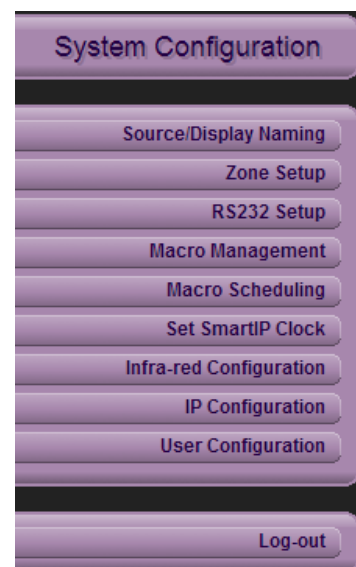
**User Name:** testUser      **Password:** test

Later versions of firmware will allow the creation and editing of users and passwords.

Once the user name and password have been correctly entered the SmartiP system configuration menu will be displayed.

The System configuration menu provides the user with the ability to;

- Source/Display Naming – is used to change switch input and output descriptive and short names.
- Zone Setup – is used to create zones within the switch
- RS232 Setup – is used to configure RS232 control of destination serial devices. Typically Displays or Projectors.
- Macro Management – is used to create and edit macros
- Macro Scheduling – is used to schedule macros
- Set SmartiP Clock – Used to set the clock on the title panel
- Infra-red Configuration – is used to edit the switch output RC5 infra-red addresses.
- IP Configuration – is used to configure SmartiP TCP/IP addresses



- User Configuration – Used to set up new users, required to view the matrix status.

The following paragraphs discuss the use of each of these menu options.

### 4.4.2 Infra-red (IR) Address Settings

In some installations it may be necessary to connect multiple switch outputs to the same zone or room. On these occasions it is possible for the IR from one user to be seen by all outputs in that zone. This will cause multiple crosspoints to be set. This behaviour is usually undesirable.

To stop this happening it is possible to configure the switch so that each output responds to a different IR RC5 address.

To change the IR address settings click the 'Infra-red Address Settings' option on the 'System Configuration' menu. The contents of the Configuration Panel will change to show the image opposite.

To change the IR Addresses to be used, select the required IR addresses for each output and then click the 'Submit' option.

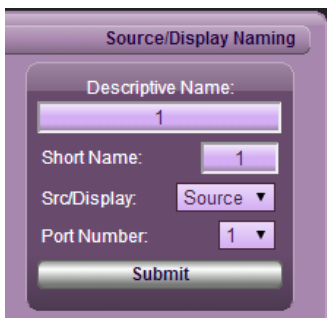
To restore the factory default IR address of 10 to each output click the 'Restore Defaults' option. (This can take some time...Please be patient)

Whilst the IR addresses are updating the caption on the 'Restore Defaults' button will change to 'Working'.



### 4.4.3 Source/Display Naming

To ease the use of the switch it is possible to name the sources and displays. Each source and display can have two names configured.



▪Short Name

e  
i  
s  
t  
h  
e  
4  
c  
h  
a  
r  
a  
c  
t  
e  
r  
l  
a  
b  
e  
l  
  
a  
r  
o  
u  
n  
d  
t  
h  
e  
o  
u  
t  
s  
i  
d  
e  
o  
f  
t  
h  
e  
c  
r  
o  
s  
s  
p  
o

- **Descriptive Name**

The Descriptive Name is the 30 character label seen when the mouse is hovering over the short name.

To edit the Descriptive and Short names click the 'Source/Display Naming' option of the System Configuration menu. The contents of the Configuration panel will change to display the image shown above.

Follow the procedure below;

- i) Select whether editing an source or display using the 'Src/Display' drop down list.
- ii) Select the source/display port number to edit using the 'Port' drop down list
- iii) Enter both the Descriptive and Short names.
- iv) Click the 'Submit' button. Whilst the change is being made the submit button caption will change to 'Working'.

**Note:** Names can take a little while to update on the web page.

#### 4.4.4 Macro Management

Macros are collections of crosspoints or commands grouped together to provide users with the ability change more than one crosspoint or command with a single click.

To Create, Edit, View or Edit a macro click the 'Macro Management' option in the System Configuration menu.

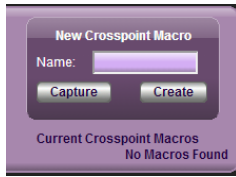
The contents of the Configuration Panel will now show the image opposite.

##### 4.4.4.1 Crosspoint Macro Creation

Macros can be created using the two distinct methods.

- **Capture**

This creates a macro from the switches current crosspoint configuration. **All** crosspoints are captured.



To create captured macros first enter a macro name into the 'Name' text box displayed. Next set the matrix crosspoints as required as detailed in section 4.3 above. Now click the 'Capture' button to save the current switch configuration as a macro.

The newly created macro is now listed in the 'Current Crosspoint Macros' section of the Configuration Panel. An example is shown below.

**CAVEAT:** When viewing a Zone. The Capture function will still record **All** current crosspoints.

- **Create**

This creates a macro offline. That is to say, it does not require the user to change the current switch configuration during the creation of a macro. A created macro contains only crosspoints setup when the macro is created.

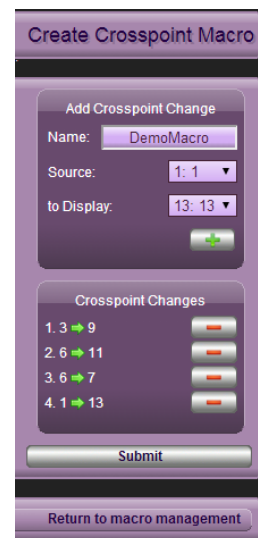
Once again, to create a macro, first enter a macro name into the 'Name' text box displayed. Next click the 'Create' button and a new screen will appear shown

Now add crosspoints to the custom macro as if setting crosspoints in section 4.3 above. The Blue crosspoint blocks will move from the 'Unchanged' or 'Unch' row to the clicked location.

To remove a crosspoint from a Macro click on the 'Unchanged' row for the destination you wish to remove the crosspoint for.

Crosspoints located on the 'Unchanged' row remain unchanged when the macro is run.

Once complete click the 'Create Macro' button to save the macro. The Crosspoint Control Panel will re-display the current crosspoint configuration. Once again the newly created macro is now listed in the 'Current Macros' section of the Configuration Panel.

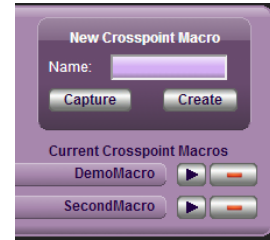


**Note:** When the main crosspoint window is displaying a Zone and a macro is created, only crosspoints associated with the zone will be added to the macro.

#### 4.4.4.2 Selecting A Macro

To view the contents of a macro click the macro name to view. It will be highlighted with a white rectangle. A small sub-menu will appear below the list of macros. It can be seen in the image opposite.

It is this smaller sub menu that is used to View, Run, Edit and Delete macros.



#### 4.4.4.3 View Macro

To View the contents of the selected macro click the 'View' tab of the sub-menu.

The contents of the Configuration Panel will now look similar to the image opposite. It shows all crosspoints to be set when the macro is run, listing Video and Audio layers by output.

#### 4.4.4.3 Run Macro

To run the selected macro click the 'Run' tab of the sub-menu. The contents of the Configuration Panel will change to show a Run button.

Click the 'Run' button and the macro will be executed.

After a short period of time the Crosspoint control region of the browser window will update to show the new crosspoint configuration.

#### 4.4.4.4 Edit Macro

To edit the contents of the selected macro click the 'Edit' tab of the sub-menu. The contents of the Configuration Panel will change to show an Edit button.

Click the 'Edit' button and the Crosspoint Control Panel will be updated to show the Macro creation table seen in section 4.4.4.1 above.

Make the changes required and click the 'Submit Changes' button to save the edited macro.

To remove a crosspoint from the current macro configuration click the corresponding block at the bottom of the screen in the row labelled 'N/A'.

#### 4.4.4.5 Delete Macro

To delete the selected macro click the 'Delete' tab of the sub-menu. The contents of the Configuration Panel will change to show a Delete button.

Click the 'Delete' button and the macro will be deleted.

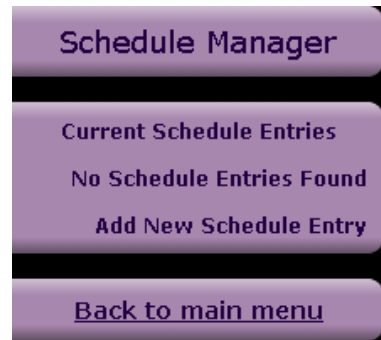


### 4.4.5 Macro Scheduling

Scheduling is used to automate the execution of Macros. This allows un-attended crosspoint changes.

To create or edit a schedule entries click the 'Macro Scheduling' option in the System Configuration menu.

The contents of the Configuration Panel will now look similar to the image shown opposite.



#### 4.4.5.1 Adding A Schedule Entry

To add a new schedule entry click 'Add New Schedule Entry' the contents of the Configuration Panel will change to show the 'Edit Schedule Entry' panel shown below.

First enter a schedule name into the 'Schedule' text box.

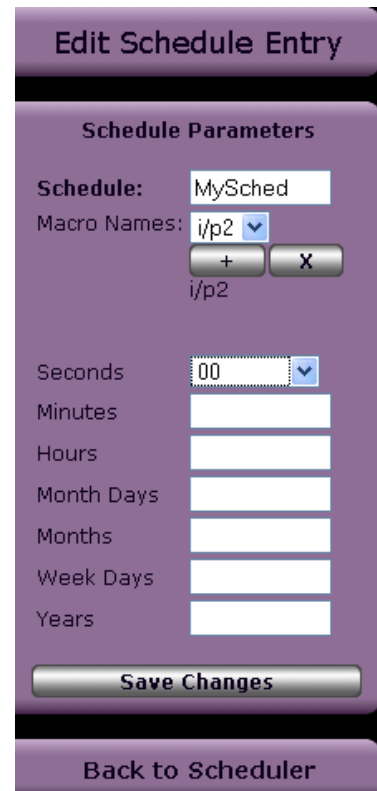
Next add the macros to be executed at the specified time.

Do this by selecting the macro from the drop down list and clicking the '+' button.

As macros are added they will appear below the '+' and 'X' buttons.

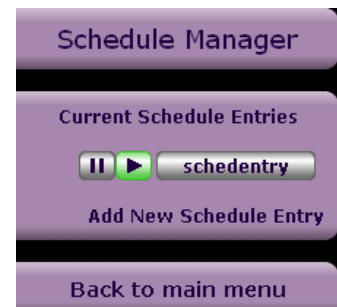
If a mistake is made click the 'X' button and **ALL** macro entries will be removed.

All that remains is for the schedule entry date and time to be configured. Please refer to section 4.4.5.6 below for more detailed information regarding this.



To save a schedule entry, click the 'Save Changes' button. The Configuration Panel will be re-displayed and now list the new schedule entry.

The 'play' button highlighted indicates that this schedule entry is active. An In-active schedule entry will display a highlighted 'pause' button.



#### 4.4.5.2 Editing a Schedule Entry

To edit an existing schedule entry click the schedule Entry name and the Configuration Panel will show the 'Edit Schedule Entry' panel as above. The schedule entry fields will be populated with the selected schedule entries configuration.

To save a schedule entry click the 'Save Changes' button. The Configuration Panel will be re-displayed and once again list the schedule entries.

#### 4.4.5.4 Deleting a Schedule Entry

To delete a schedule entries click the 'Delete' option next to the schedule entry's name. The Configuration Panel will be re-drawn listing the remaining schedule entries.

#### 4.4.5.5 Active/In-Active Schedule Entry

To change the active state of a schedule entry click the character in brackets that is next to the schedule entry name.

An '(a)' indicates that the schedule entry is active. An '(i)' indicates that the schedule entry is in-active.

#### 4.4.5.6 Schedule Dates and Times

The configurations of the Schedule date and time fields can at first glance appear quite daunting. However, with practice it is possible to create some very powerful scheduling.

There are seven fields used in the scheduling that define the date and time that a schedule entry will run:

- i) **Seconds** – Number of seconds into the minute the schedule entry is to run (range 0-59)
- ii) **Minutes** – Number of minutes into the hour the schedule entry is to run (range 0-59)
- iii) **Hours** – Number of hours into the day a schedule entry is to run (range 0-23)
- iv) **Month Days** – the day of the month the schedule entry should run (range 1-31)
- v) **Months** – the month in the year that the schedule entry should run (range 1-12)
- vi) **Week Days** – the day in the week that the schedule entry should run (range 1-7)
- vii) **Years** – the year that the schedule entry to run (no range)

#### Possible Parameter Values

- i) **Wild card (\*)** – The wild card value is used when it doesn't matter what that particular parameter is set to. Fields left blank will automatically use the Wild card.
- ii) **Range of Values (x-y)** – A range is used to run a schedule entry for a specific period of time.
- iii) **Run every x (\* / x)** – This notation is to be used when running a schedule entry continuously with a set delay between running times.

To help clarify the use of these parameters please study the examples below;

- i) To schedule an entry that needs to occur every day at 15:20:00 enter the following information into the stated fields. Leave all others blank.

**Hours: 15, Minutes: 20, Seconds: 00**

- ii) To schedule an entry that needs to occur at 17:30:00 but only at the weekend enter the following information into the stated fields. Leave all others blank.

**Hours: 17, Minutes: 30, Seconds: 00, Week Days: 6-7**

- iii) To schedule an entry to occur every 30 minutes between 09:00 and 18:30 on every Wednesday in April enter the following into the stated fields. Leave all others blank.

**Hours: 9-18, Minutes: \*/30, Seconds: 00, Week Days: \*/3, Months: 4**

## 4.4.6 Zones

A zone is defined as a subset of the full matrix and can usually be considered, but is not necessarily, as the Matrix inputs and output available to a room or area. i.e. Video sources and Display devices available to perhaps a TV or Meeting room.

They simplify the operation of large matrices by different users.

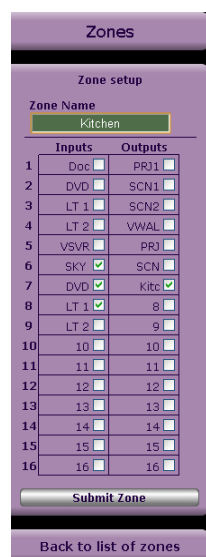
### 4.4.6.1 Defining a Zone

To define a zone click the 'Zone Setup' option of the menu in the Configuration panel. The Configuration panel contents will update and display the 'List of Zones' panel. It will look similar to the image similar opposite.



Click the 'Create new zone' button.

Once again the Configuration panel will update and display the Zone input/output table. See the image opposite.



Enter a name for the new Zone into the 'Zone Name' text box.

Next select the Matrix Inputs and Outputs that are to be available to the zone by clicking the appropriate check boxes.

Next, click the 'Submit Zone' button.

The Configuration panel will update again update and re-display the 'List of Zones' panel. The new Zone is now listed.

In addition, the Crosspoint Configuration panel will also update and the 'Zones' area will now display a button with the Zone name as shown below;



Click the new zone button and the Crosspoint Configuration panel will update to display just the inputs and outputs associated with the new zone as shown below;



To view the status the entire matrix status click the 'All' button.

#### 4.4.6.2 Editing a zone

To edit a zone, click the 'Zone Setup' option of the menu in the Configuration panel. The Configuration panel contents will update and display the 'List of Zones' panel.

Click the name of the zone you wish to edit and the Zone input/output table will be displayed.

Make the required changes and click the 'Submit Zone' button to save.

#### 4.4.6.3 Deleting a zone

To delete a zone, click the 'Zone Setup' option of the menu in the Configuration panel. The Configuration panel contents will update and display the 'List of Zones' panel. Click 'Delete' next to the Zone you wish to delete.

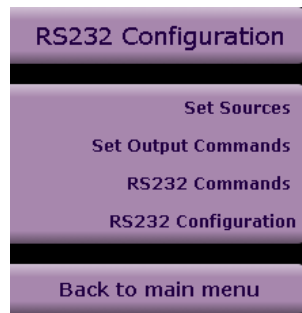
### 4.4.7 RS232 Setup

RS232 Setup allows the configuration of RS232 routing, configuration and control of destination devices like Displays and Projectors.

Examples;

- i) Automatically make a display device change it's input source as crosspoints are changed.
- ii) Power Up/Down display devices.

To enter the RS232 setup menu click the 'RS232 Setup' menu option on the Main menu. The menu below will be displayed.

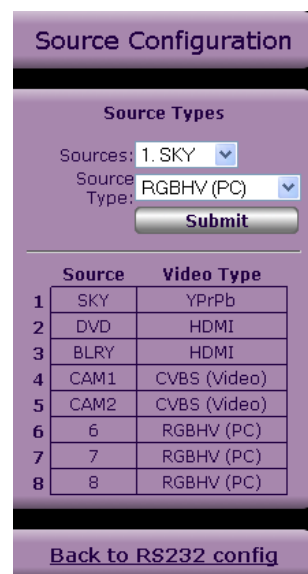
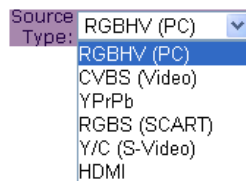


#### 4.4.7.1 Set Sources

Set Sources is used when you require SmartIP to automatically change the display device input as you select different matrix inputs.

The 'Set Sources' menu option allows you to configure the source video format connected to the inputs of the matrix.

Select the Source you wish to change the video format for from the 'Sources' drop down list.



Next, select the input video format from the 'Source Type' dropdown list.

Then, click the 'Submit' button.

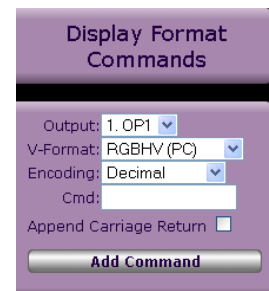
The table will be updated.

#### 4.4.7.2 Set Output Commands

Setup Output Commands is used to configure the commands sent to the attached display device for specific matrix inputs. The commands configured generally force the display device to change its input video channel.

To configure the commands that are sent to a specific output for each input type follow the procedure below;

- i) Select the output you wish to configure the commands for from the 'Output' drop down list.



- ii) Select the video format for the command you are about to configure. i.e. the Device input selection command for a specific video format.
- iii) Select the 'Encoding' method for the command.
- iv) Enter the command, using the Encoding method selected in iii) above.
- v) Click the 'Add Command' button.

Examples;

In the example above, whenever an input configured as HDMI is selected the ASCII command "INP\_HDMI[CR]" will be sent to output 1.

In the example above, whenever an input configured as CVBS is selected the Hexadecimal command "BE,EF,00,00,5,56" will be sent to output 2.

#### 4.4.7.3 RS232 Commands

#### 4.4.7.4 RS232 Configuration

The RS232 configuration option is used to configure the RS232 communications parameters for each matrix output.

It is where Baud rate, Number of Data Bits, Parity and Number of Stop Bits are specified.

Select the required communications parameters and then click the 'Submit' button.

## TCP/IP Configuration

Using the SmartiP Web GUI it is possible to re-configure TCP/IP addresses, Sub-net masks and the default gateway.

The screenshot displays the 'IP Configuration' web interface. It features a header 'IP Configuration' and a section 'Current IP addresses' showing dynamic and static IP configurations. Below this, there are two main configuration sections: 'Set new IP address' and 'Set new gateway address'. Each section includes input fields for the new IP and Subnet Mask, radio buttons to select between 'Dynamic' and 'Static' configurations, and a corresponding 'Set IP' or 'Set CW' button. A 'Back to main menu' button is located at the bottom of the interface.

### 4.4.8.1 IP Address and Subnet Configuration.

To change an Ethernet port IP address or Subnet mask, enter the new details into the appropriate text boxes. Select the Ethernet port the new configuration is to be assigned to by clicking either the 'Dynamic' or 'Static' Radio buttons and then click the 'Set IP' button.

If you change the IP Address of the port you are currently connected to you will have to re-connect to the board using the new IP Address.

### 4.4.8.2 Gateway Configuration

To change SmartiP's default gateway configuration enter Gateway IP address into the 'New Gateway' text box provided. Select the Ethernet Port on which the gateway is to connect to the Gateway and click the 'Set Gateway' button.

## Appendix A – Opening a Telnet session with SmartiP

**Note:** For the purposes of the following text we have assumed a Microsoft Windows based machine is being used.

### 1.0 Opening Telnet Session with SmartiP

- i) Click the Windows Taskbar Start Button.
- ii) Click the 'Run' option.
- iii) When prompted to so enter the following command;

**telnet <IP Address> <PORT>**

Where;

**<IP ADDRESS>** Is that configured in section '3.2.1 Factory Default TCP/IP Addresses and Port numbers' above.

**<PORT>** is as follows;

32 for a SmartiP command session

23 for a SmartiP console session

Two types of Telnet sessions can be opened with SmartiP.

- **Console**
- **Control**

### 2.0 Console Session

A console session is used primarily to make changes to the SmartiP TCP/IP configuration.

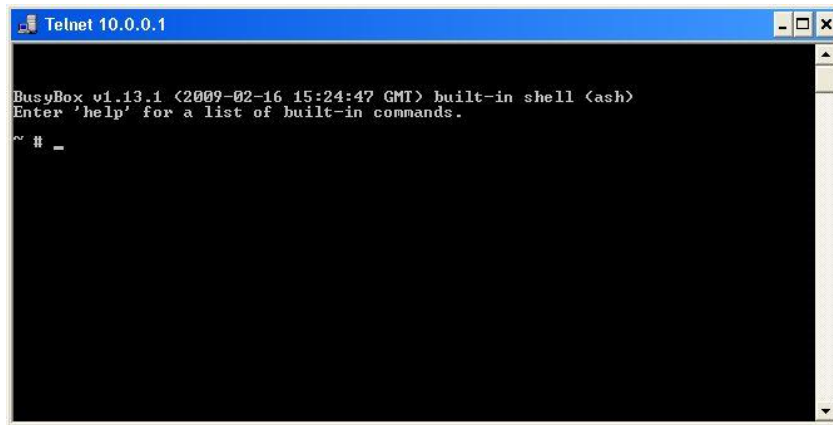
To open a 'console session' with SmartiP using the fixed IP port enter; **telnet 10.0.0.1 23**

**Note:** Port 23 is the industry standard Telnet port number and so need not be specified.

Enter **telnet 10.0.0.1** to open a console session.

A console window similar to the one below will appear.





```
Telnet 10.0.0.1
BusyBox v1.13.1 (2009-02-16 15:24:47 GMT) built-in shell (ash)
Enter 'help' for a list of built-in commands.
~ # _
```

**Note: Using a console session can be VERY DANGEROUS and should only be used by an Expert or under guidance of a Smart-e engineer.**

### 3.0 Control Session

To open a 'control session' with SmartiP using the dynamic port enter the following.

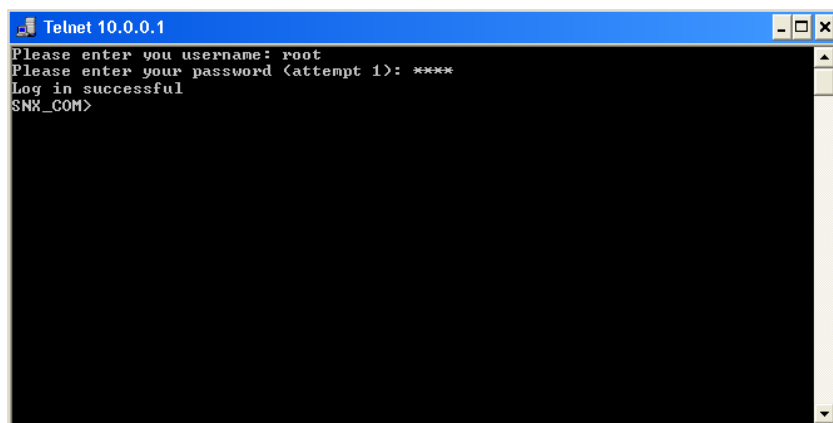
**telnet <IP Address> 32**

**Note:** Where **<IP Address>** is that allocated at power-up by the Network DHCP server. To Determine the Dynamic port IP address, see section 3.2.1.3 above.

When prompted with 'Please enter your username:' enter; **root**

When prompted with 'Please enter your password (attempt 1):' enter; **root**

If successful, the user will receive the following command line prompt 'SNX\_COM>'. The user can now enter SmartiP protocol commands.



```
Telnet 10.0.0.1
Please enter you username: root
Please enter your password (attempt 1): ****
Log in successful
SNX_COM>
```

For more information on SmartiP commands please refer to Smart-e's 'SmartiP Protocol Document'.