

VSM Manager

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Overview

The VSM Manager is a Windows GUI that can be installed to serially control Genesis Matrixes with a firmware of version 2.5 or later.

Getting Started

The VSM Manager is recommended to run on PC with Windows XP or later version. The .NET Framework 2.0 is required prior to installing the VSM Manager. Most new PCs running with Windows XP or later version come with Microsoft .NET Framework 2.0 installed. If .NET Framework 2.0 is not installed on your PC, you can install it from a folder called Framework 2.0 or download it from the Microsoft website.

Once the VSM Manager installation is completed, its icon should appear on your desktop as well as under **Programs\Hall Research**.

To run the VSM Manager by double clicking its desktop icon or its program menu selection, the main screen in Figure 1 will be displayed as below.

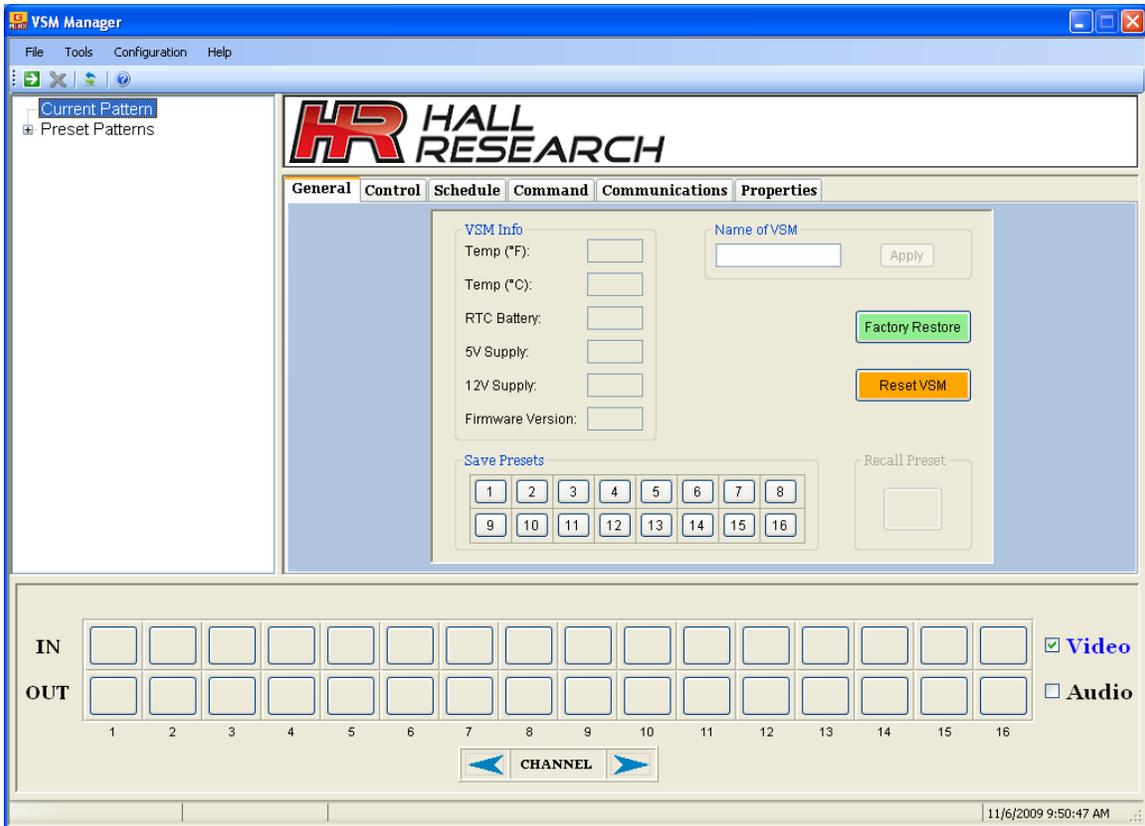


Figure 1 – Main

Toolbar

The VSM Manager has a Toolbar menu as shown in Figure 2, which allows users to quickly access the most commonly used functions in addition to the menus.

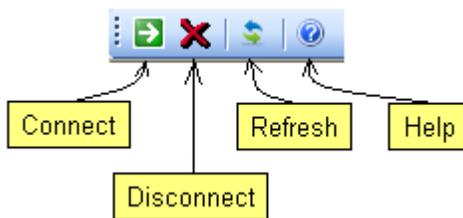


Figure 2 – Toolbar Menu

Serial Connection

In order to control the matrix switch, the VSM Manager must be first connected to the unit through your PC serial port. Click the **Communications** tab or **COM Settings** selection under the **Configuration** menu to select your PC available COM port and press the **Connect** button to make a connection.

If a known COM port has been selected, you can press the  button from the toolbar menu to make a serial connection.

Once the connection between the VSM Manager and the matrix unit has been established, the VSM Manager will have the matrix unit's info and its current video & audio connection ties as shown in Figure 3.

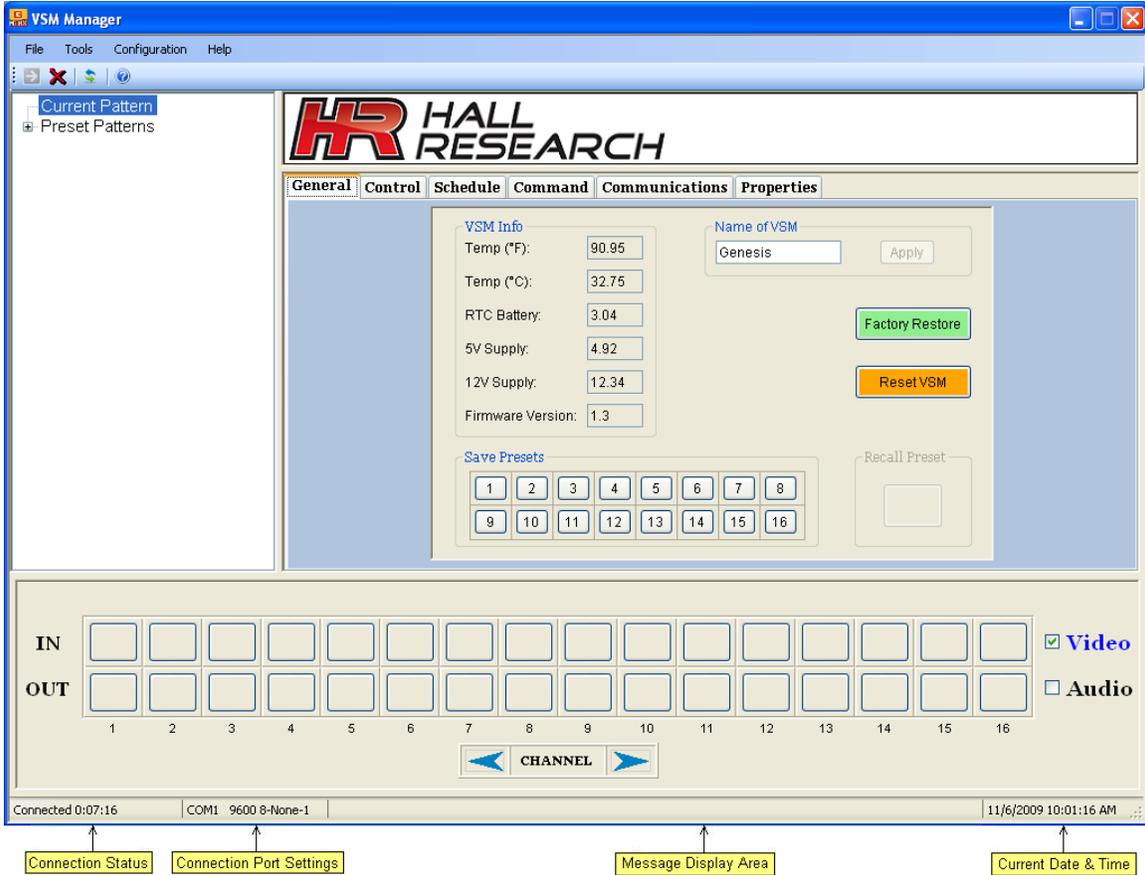


Figure 3 – Main

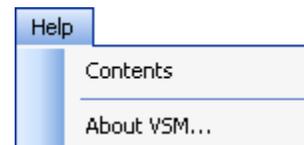
To abort the serial connection, you can press the **X** button from the Toolbar menu at any time, or you can click the Disconnect button in the Communications tab.

Refresh

Press the  button at any time to update the status of your current selection. Your current selection can be the **General** tab page, the **Control** tab page, the **Schedule** tab page, the **Communications** tab page, or the **Properties** tab page. If your last selection is one of the patterns, then pressing the  button would update the video & audio status of that pattern.

Help

Press the  button from the Toolbar menu or **Contents** from the **Help** menu to open a help file on VSM Manager. This help file is in pdf format. An Acrobat Reader is required to view it.

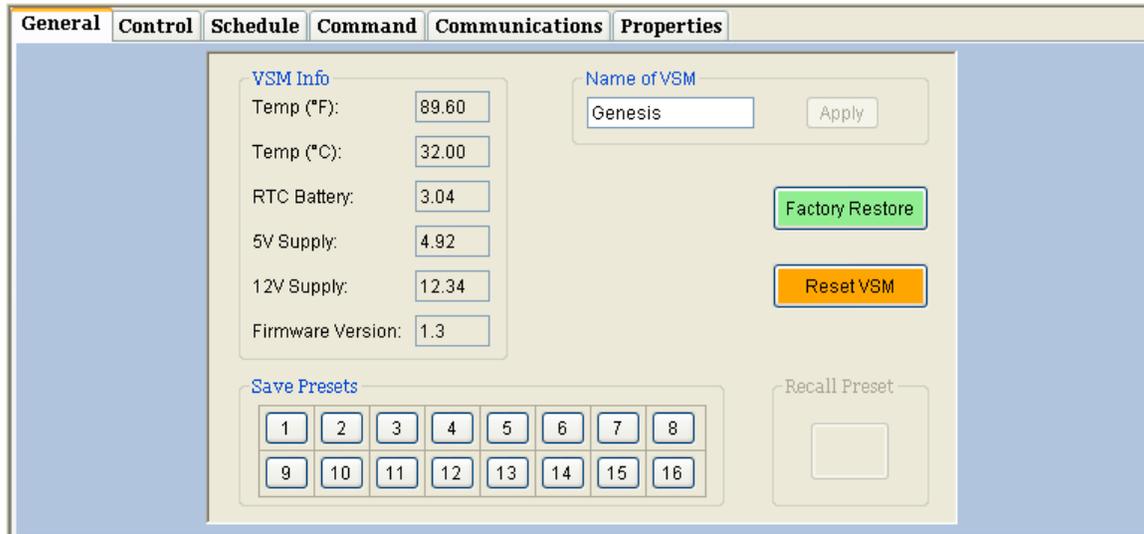


Tab Pages

The VSM Manager consists of many status and control screens in a tabular format, which makes it easy for you to perform a specific request.

General

The **General** tab page provides you a general info of your matrix unit such as its temperature, real time battery voltage, +5V supply voltage, +12V supply voltage, current firmware version, and unit name.



The screenshot displays the 'General' tab page of the VSM Manager. At the top, there are five tabs: 'General', 'Control', 'Schedule', 'Command', and 'Properties'. The 'General' tab is active. The main content area is divided into several sections:

- VSM Info:** A list of status parameters with their values in input fields:
 - Temp (°F): 89.60
 - Temp (°C): 32.00
 - RTC Battery: 3.04
 - 5V Supply: 4.92
 - 12V Supply: 12.34
 - Firmware Version: 1.3
- Name of VSM:** A text input field containing 'Genesis' and an 'Apply' button.
- Factory Restore:** A green button.
- Reset VSM:** An orange button.
- Save Presets:** A grid of 16 numbered buttons (1-16) arranged in two rows of eight.
- Recall Preset:** A button with a dropdown menu.

Figure 4 – General

As shown in Figure 5, the **General** tab page also allows you to change its unit name, save presets, recall presets, restore factory defaults, or reset (reboot) the system.

- A unit name can be up to 10 characters long.
- When choosing factory restore or VSM reset, you are given 5 seconds to click the **Yes** or **No** button; otherwise, it will be cancelled.
- **Save Presets** option is only enabled when the **Current Pattern** is selected. You can save video, audio, or both video & audio patterns into one of the sixteen preset memory locations depending on the selection of **Video** and **Audio** check boxes.
- **Recall Presets** option is only enabled when one of the sixteen preset patterns is selected. You can recall video, audio, or both video & audio patterns from one of the sixteen preset memory locations depending on the selections of **Video** and **Audio** check boxes.

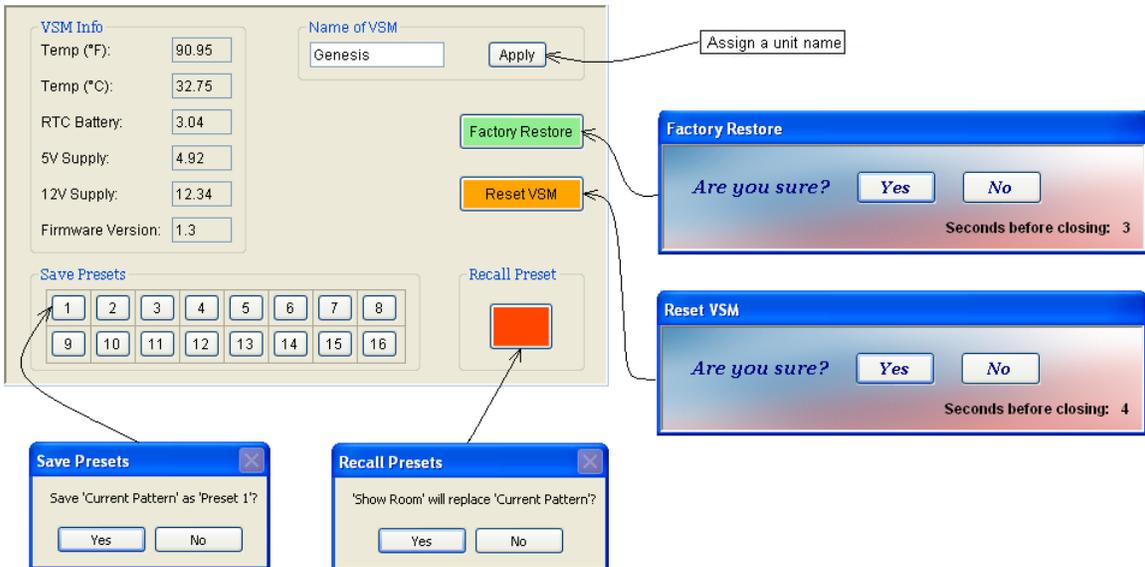


Figure 5 – General

Control

The **Control** tab page allows you to adjust the video compensation and audio volume of an individual input or all inputs. However, the audio volume adjustment is only used for matrixes with a Pro-Audio option, and the video compensation adjustment is only enabled when there is a matrix with RJ45 inputs.

To adjust an individual video or audio input, you just need to select a specific input in the drop-down menu and move the track bar to a desired position. If all inputs need to be adjusted, you can check the **All Inputs** check box and click the **Apply** button.

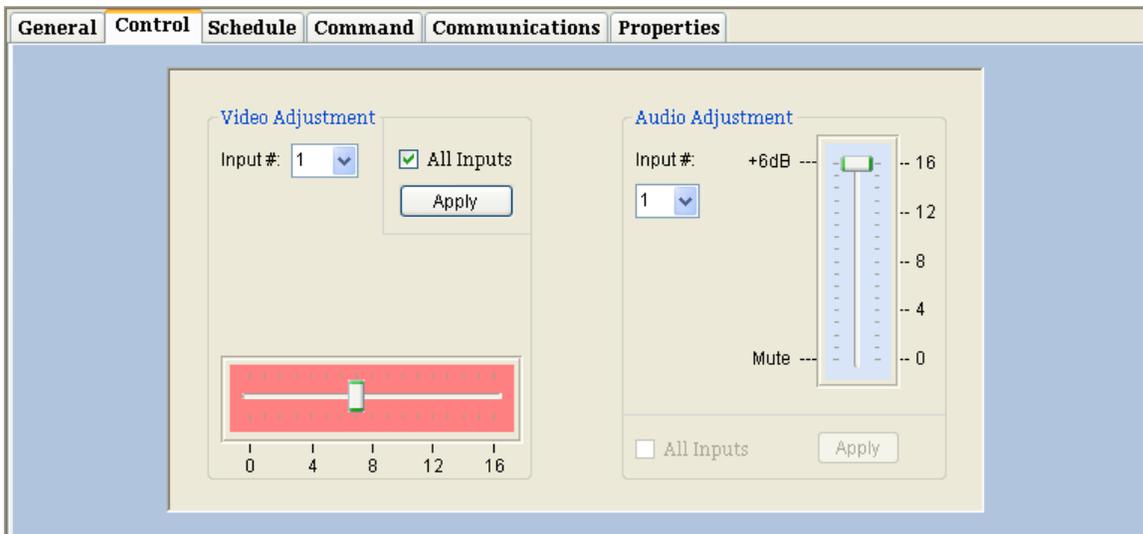


Figure 6 – Control

Schedule

The **Schedule** tab page is used to schedule auto recall of preset patterns up to 4 specific times during the day. You can set the same schedule every day (daily) or a different schedule for weekdays and weekends. Preset patterns 1 to 16 are those you can use to save your desired video and audio connection ties, and preset pattern 0 disconnects all video and audio outputs. In addition to schedule setting, this page also provides you an ability to read and set the current date & time of the matrix.

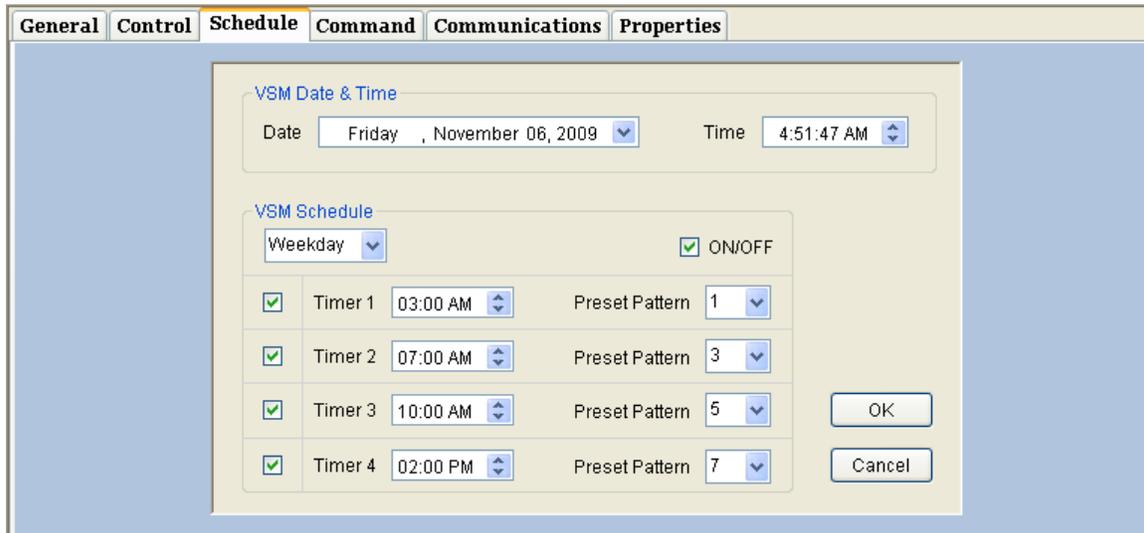


Figure 7 – Schedule

NOTE: When a timer is off, its time will be 12:00AM.

Command

The **Command** tab page allows you to send serial commands to the matrix. You can type a command in the serial command text box field and press the **Send** button. All commands should be the same as those sent by using the Microsoft HyperTerminal to control the matrix. In the HyperTerminal, a carriage return <CR> is required at the end of the command; whereas, the VSM Manager automatically sends a carriage return once you press the **Send** button.

NOTE:

There are command shortcuts, such as **ESC**, **Quit**, or **Clear** under the **Tools** menu that can be very useful when working with the **Command** tab page.

| Tools | |
|---------------------|-----|
| ESC or Quit command | F1 |
| Clear Command | Del |
| Refresh | F5 |

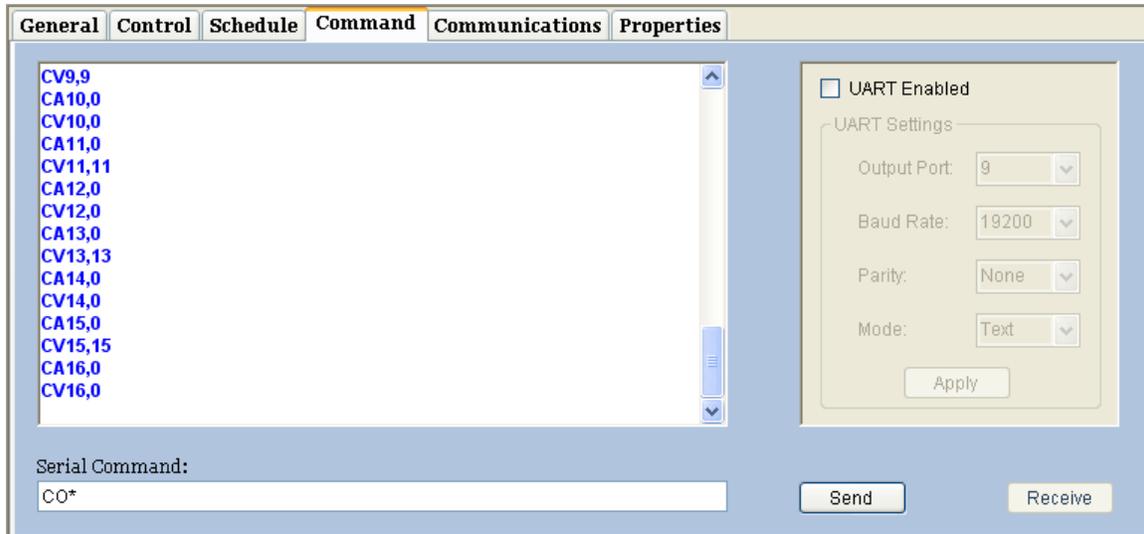


Figure 8 – Command

Also, in this **Command** tab page, you can also send serial commands to remote devices connected to the matrix's outputs if the matrix comes with the `-JR` option.

To send serial commands to remote devices:

- Check **UART Enabled** box.
- Select the **Output Port** to send commands to.
- Set the **Baud Rate** at which the matrix output port communicates to remote devices.
- Select the **Parity** for transmission, such as None, Odd, and Even.
- Select the **Mode** for data transmission, such as text or hex.

Since the UART communication is bi-directional, you can view the data received by pressing the **Receive** button.

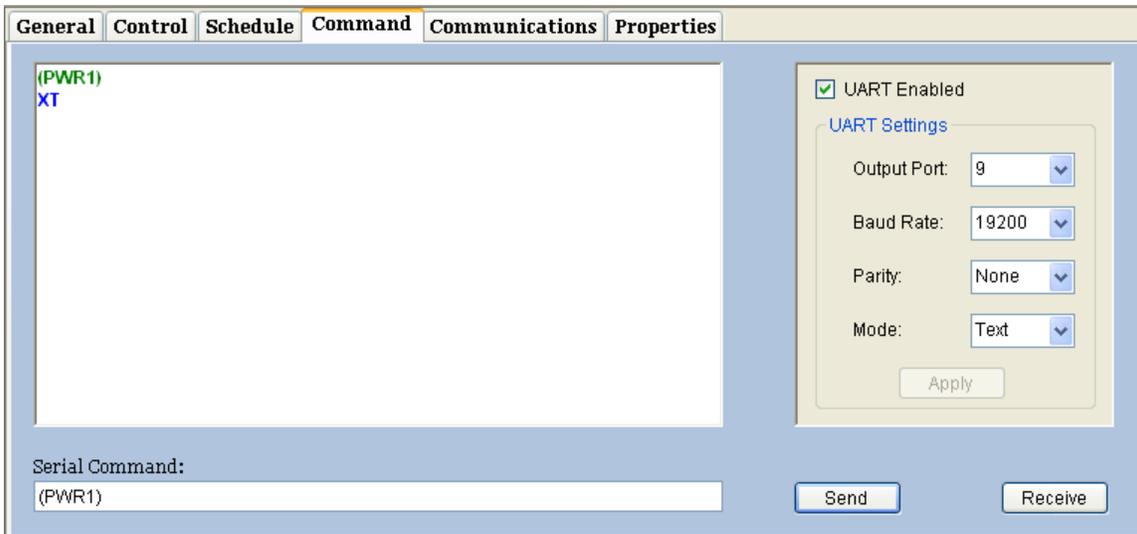


Figure 9 – Command

Communications

This **Communications** tab page can be used to select a COM port of your PC to talk to the matrix unit. Once, the preferred COM port is selected, pressing the **Connect** button to make a serial connection. The connection can also be done by selecting the  button in the toolbar menu.

Since the Genesis matrixes' real serial port communicates at a fix baud rate of 9600, no parity, 1 stop bit, and 8 data bits, those drop-down selections will be disabled. The COM port is the only selection that needs to be set.

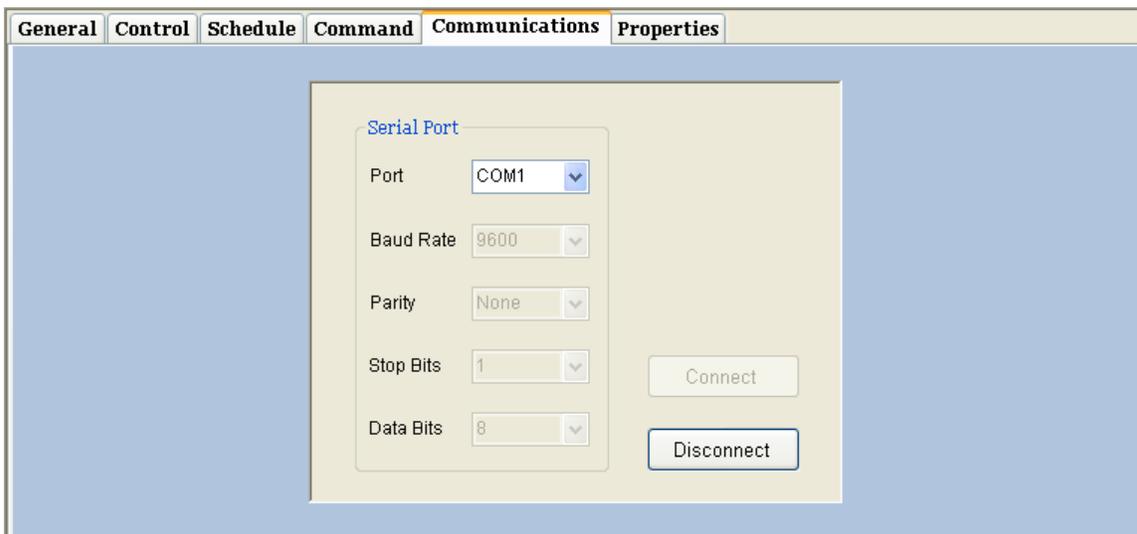
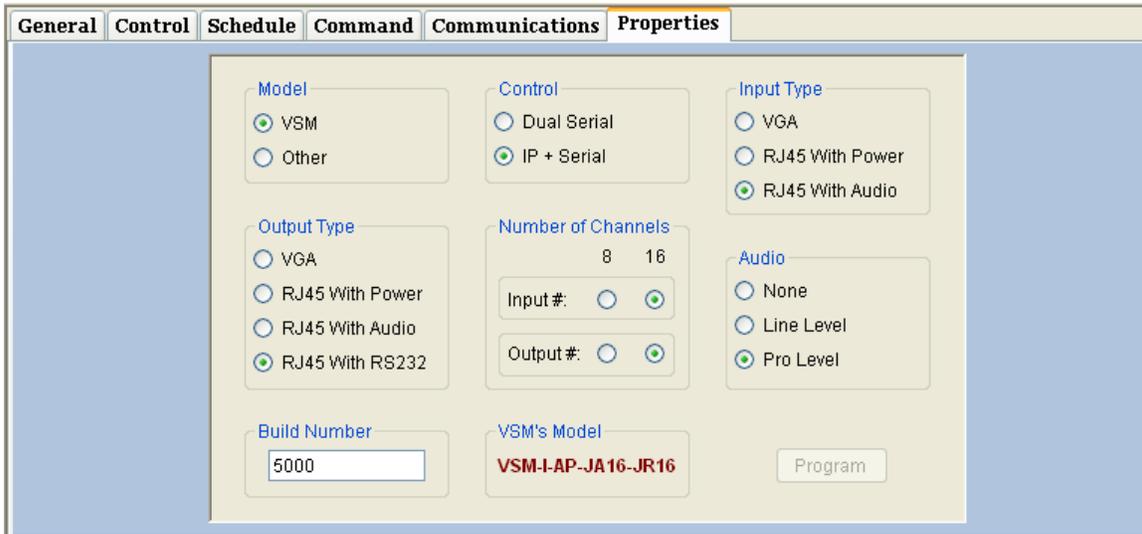


Figure 10 – Communications

Properties

The **Properties** page is only used to program the matrix configuration by the manufacturer; therefore, its **Program** button will be always disabled as shown in Figure 11. However, you can view the current configuration of your matrix model in discrete details from this page.



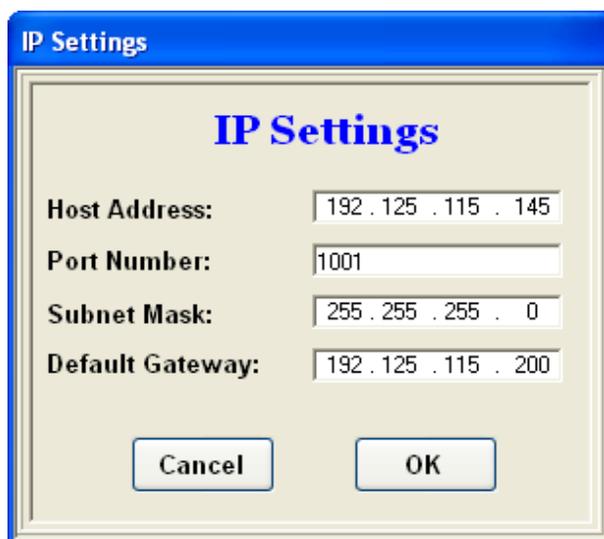
The screenshot shows the 'Properties' tab of a configuration interface. It contains several sections for setting up the matrix configuration:

- Model:** Radio buttons for 'VSM' (selected) and 'Other'.
- Control:** Radio buttons for 'Dual Serial' and 'IP + Serial' (selected).
- Input Type:** Radio buttons for 'VGA', 'RJ45 With Power', and 'RJ45 With Audio' (selected).
- Output Type:** Radio buttons for 'VGA', 'RJ45 With Power', 'RJ45 With Audio', and 'RJ45 With RS232' (selected).
- Number of Channels:** A section with '8' and '16' options, and sub-sections for 'Input #' and 'Output #' with radio buttons for '8' and '16'.
- Audio:** Radio buttons for 'None', 'Line Level', and 'Pro Level' (selected).
- Build Number:** A text input field containing '5000'.
- VSM's Model:** A text field displaying 'VSM-I-AP-JA16-JR16'.
- Program:** A disabled button.

Figure 11 – Properties

IP Settings

Even though the VSM Manager communicates with the matrix switch serially, it can be used to read and set the unit's IP address, port number, subnet mask, and default gateway address. The **IP Settings** dialog window as seen in Figure 12 can be opened by selecting **IP Settings** under the **Configuration** menu.



The screenshot shows the 'IP Settings' dialog window with the following fields and values:

- Host Address:** 192 . 125 . 115 . 145
- Port Number:** 1001
- Subnet Mask:** 255 . 255 . 255 . 0
- Default Gateway:** 192 . 125 . 115 . 200

Buttons for 'Cancel' and 'OK' are located at the bottom of the dialog.

Figure 12 – IP Settings

This **IP Settings** selection is only available for matrixes with an IP option.

Customize Input Button

The VSM Manager provides you an option to customize input buttons with an icon, a name or both which makes it easier for you to visually identify an input source.

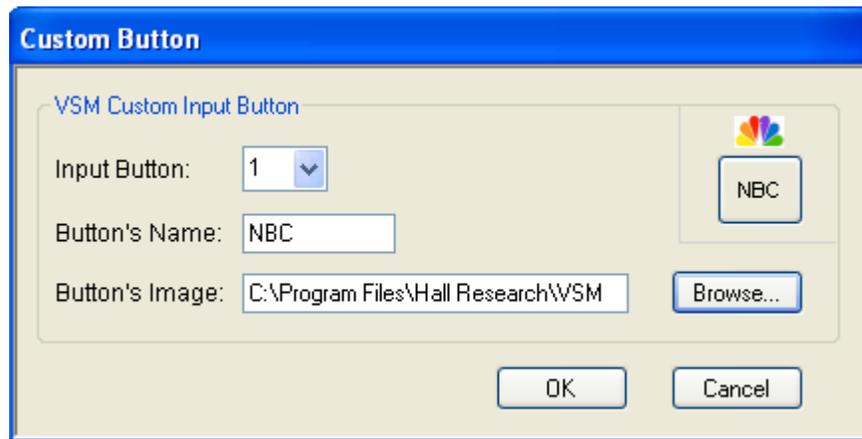


Figure 13 – Custom Button

To open the **Custom Button** dialog window in Figure 13, you can either select the **Customize Input Button** option in the **Configuration** menu or right click the mouse on a specific input button and select customizing that input button in the pop-up menu as shown in Figure 14.

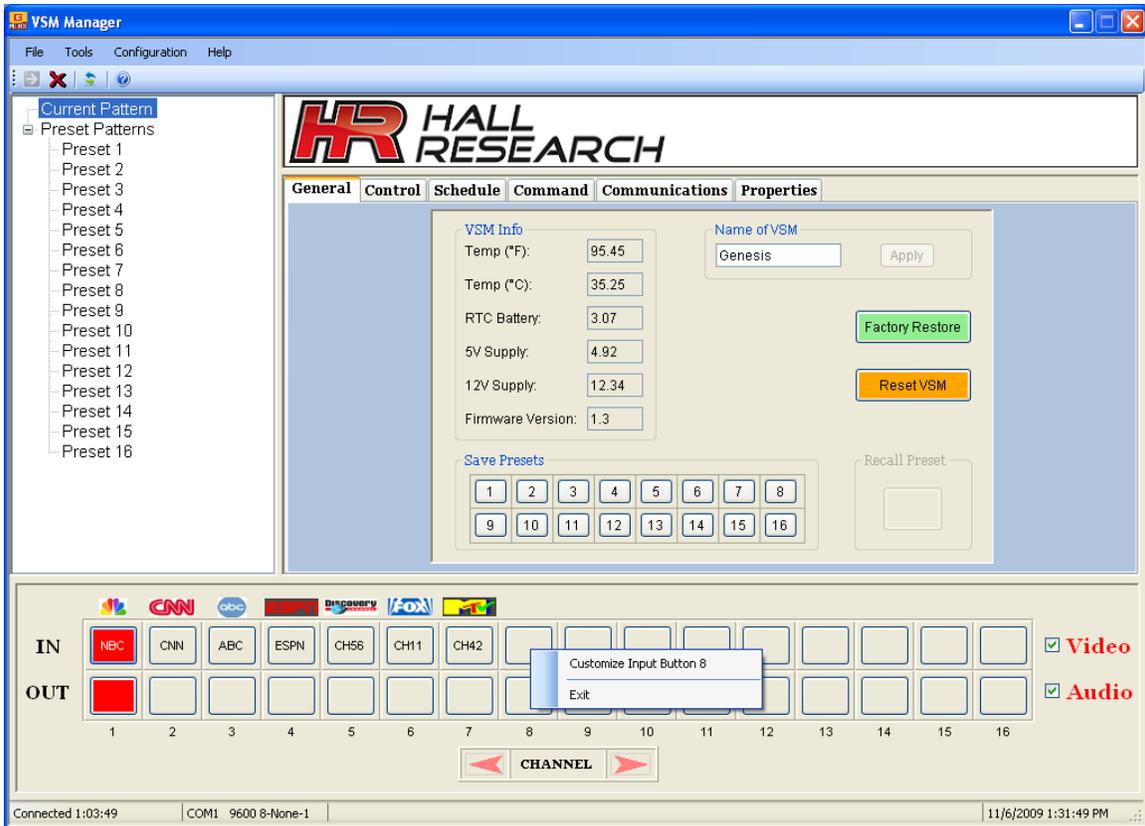


Figure 14 – Custom Button Quick Menu

Customize VSM's Picture

The VSM Manager also provides you an option to customize your VSM Manager to display any desired picture such as a company logo, an office or a branch picture ...etc...

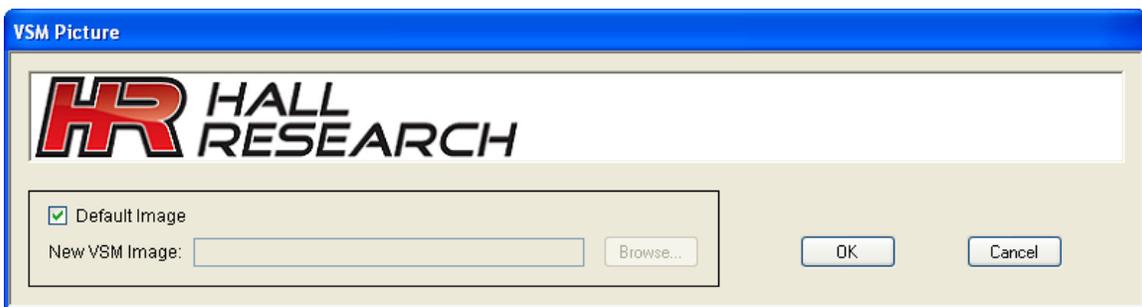


Figure 15 – VSM's Picture

Name Patterns

The VSM Manager allows you to rename any video or audio pattern that best describes the video or audio connection ties either at a particular location or for specific use.

Figure 16 shows the **Name Patterns** dialog window, which can be opened by selecting the **Name Patterns** option in the **Configuration** menu.

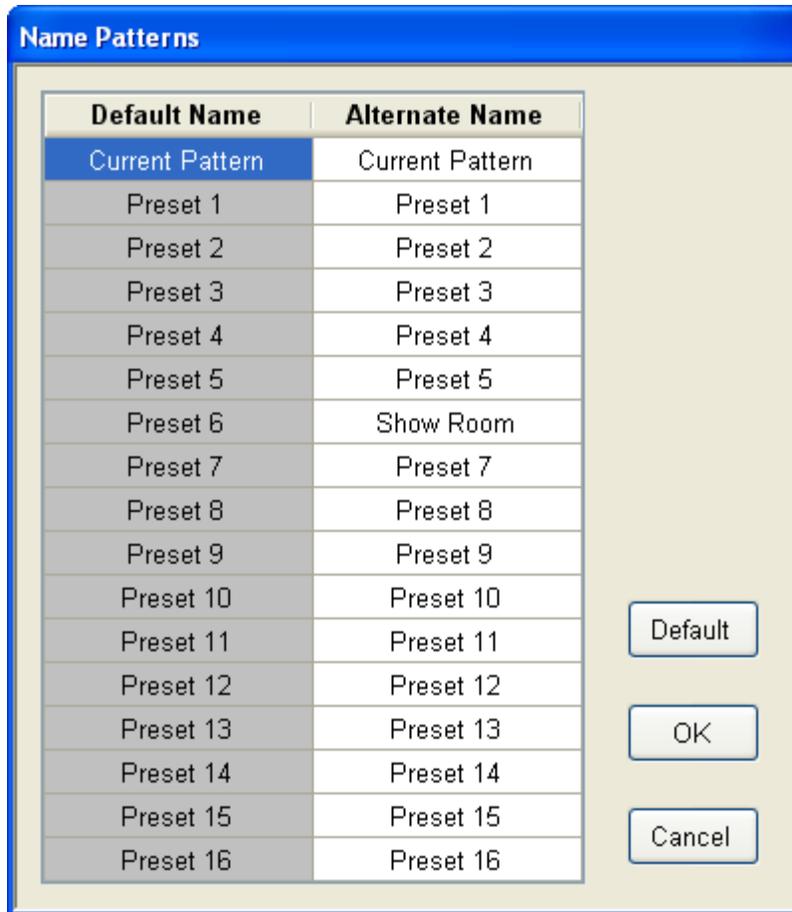


Figure 16 – VSM’s Picture

In the **Name Patterns** dialog window above, an **alternate** name is the name that will be displayed in the main screen. It can be re-named up to 20 characters long. The **default** name is fixed and only used by the VSM Manager internally.

- The **Default** button is used to set all **alternate** names back to **default** names.
- The **Cancel** button is used to exit this **Name Patterns** dialog window without saving any changes.
- The **OK** button is used to save current changes when exit.

View Patterns

The VSM Manager is capable of reading or storing all 16 preset patterns from or to a matrix switch at once. Figure 17 shows a table of preset patterns being read from a matrix switch.

| Preset Pattern Database Table | | | | | | | | | | | | | | | | | |
|-------------------------------|----------------|--|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Preset Name | Alternate Name | In 1 | In 2 | In 3 | In 4 | In 5 | In 6 | In 7 | In 8 | In 9 | In 10 | In 11 | In 12 | In 13 | In 14 | In 15 | In 16 |
| Preset 1 Audio Out | Preset 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 2 Video Out | Preset 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 2 Audio Out | Preset 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 3 Video Out | Preset 3 | 1 | 0 | 3 | 0 | 5 | 0 | 7 | 0 | 9 | 0 | 11 | 0 | 13 | 0 | 15 | 0 |
| Preset 3 Audio Out | Preset 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 4 Video Out | Preset 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 4 Audio Out | Preset 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 5 Video Out | Preset 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 5 Audio Out | Preset 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 6 Video Out | Preset 6 | <i>Start reading all preset patterns</i> | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | |
| Preset 6 Audio Out | Preset 6 | <i>Start reading all preset patterns</i> | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | |
| Preset 7 Video Out | Preset 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 7 Audio Out | Preset 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 8 Video Out | Preset 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 8 Audio Out | Preset 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 9 Video Out | Preset 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 9 Audio Out | Preset 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Preset 10 Video Out | Preset 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

* To store all preset patterns into VSM, click **Store**. To read all preset patterns from VSM, click **Read**
 * Press **OK** to save all preset patterns into Database. To exit without saving, click **Cancel**
 * To cancel the reading process, click **Stop**

Connected 0:03:21 | COM1 9600 8-None-1 | *Reading all preset patterns from VSM ...*

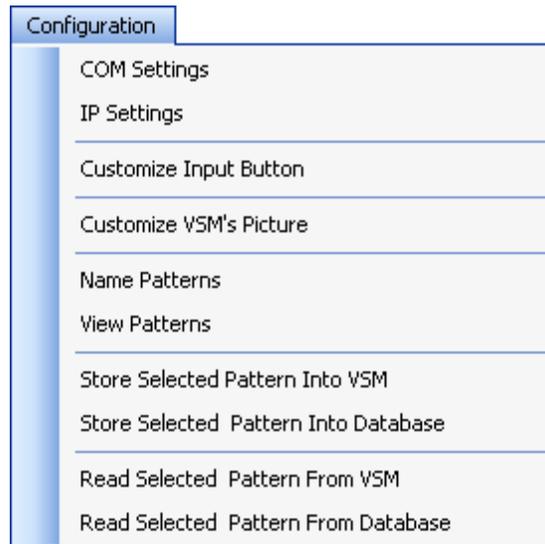
Figure 17 – Preset Pattern Database Table

In addition, the VSM Manager allows you to transfer a specific preset pattern or all preset patterns from one matrix switch to another. The steps of transferring a preset pattern or all preset patterns are described below.

- Read a specific preset pattern or all preset patterns from a matrix switch **A**.
- Store a preset pattern or all preset patterns just read from the matrix switch **A** in the above step into the VSM Manager Database.
- Connect a matrix switch **B** with the VSM Manager and read a specific preset pattern or all preset patterns from the VSM Manager Database.
- Store that preset pattern or all preset patterns into the matrix switch **B**.

NOTE:

The dialog window in Figure 17 only provides you an ability to read or store all preset patterns from or into a matrix switch. To read or store a specific preset pattern, you can either use the **Configuration** menu or a pop-up menu as shown in Figure 18.



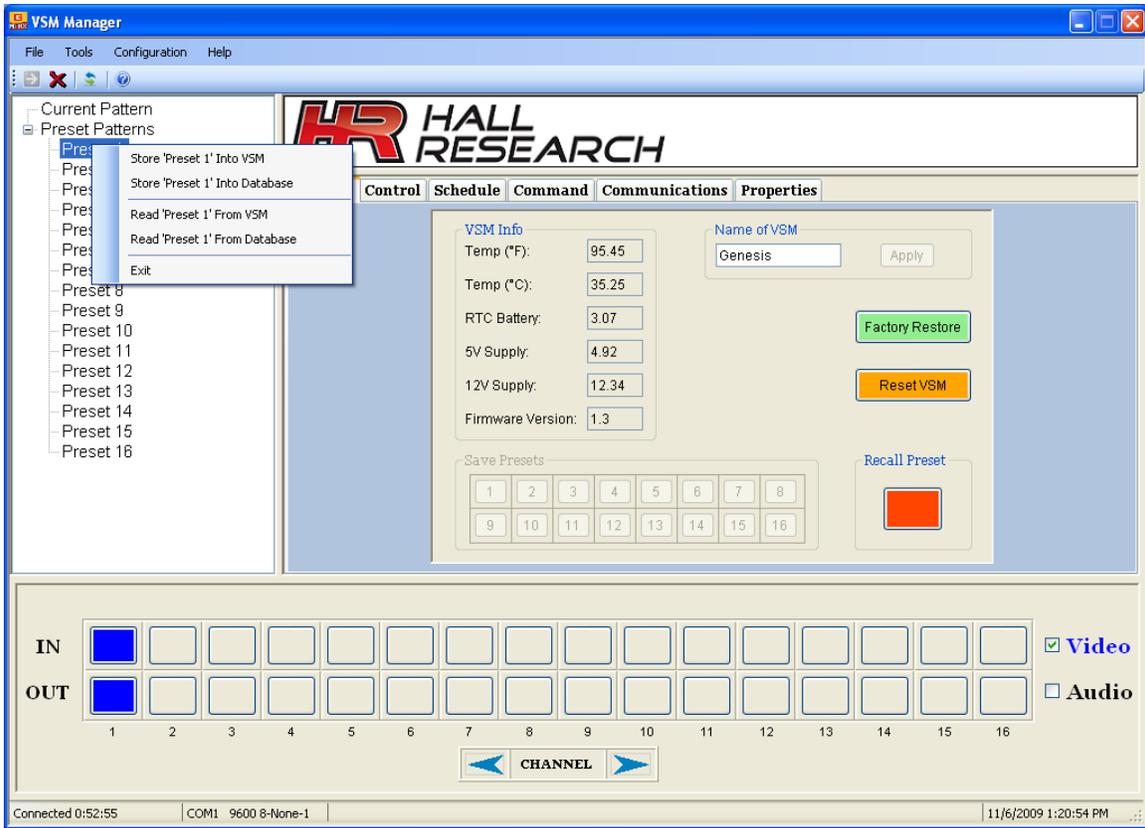


Figure 18 – Preset Pattern Pop-up Menu