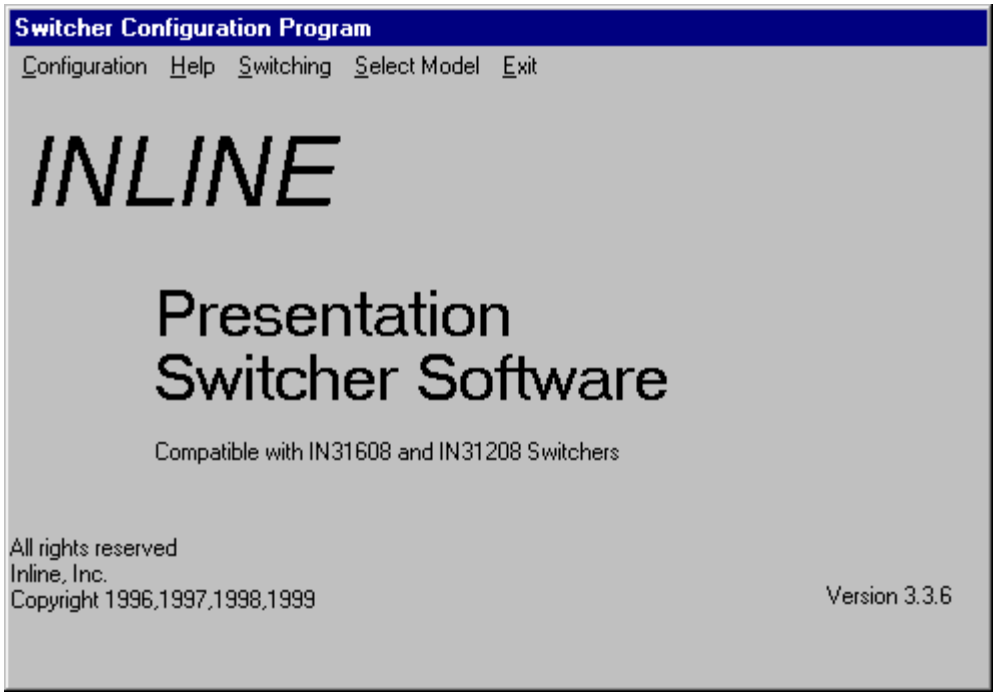
SOFTWARE MANUAL



MATRIX SWITCHER Presentation Switcher Configuration Software V3.3.6

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INSTALLATION

Windows 95/98 & NT 3.5/ 4.0

1. Insert Disk # 1 into 3.5" floppy drive.
2. Click on the START button and then click on the RUN option.
3. Type A:\Setup and click OK. (A: refers to the drive letter of your 3.5" drive.
4. Follow the on screen prompts for disks 2 & 3

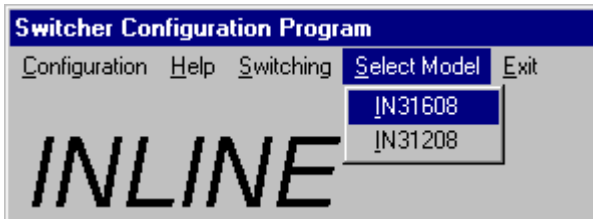
OVERVIEW OF SOFTWARE FEATURES

The **MATRIX SWITCHER** Configuration Software is designed to let the user take full advantage on the RS-232 options of the **MATRIX SWITCHER** Presentation Switcher. Some of the Features include:

Model Selection:

The Matrix Switcher Configuration Software can operate two similar models of the switcher; they are: 1.) IN31208 and
2.) IN31608

Make the selection from the main menu under Select Model and "right click" the model of choice.



Com Port Configuration:

This function lets the user easily select the RS-232 Baud Rate settings which the **MATRIX SWITCHER** will use in being controlled by a computer or other third party control device.

I/O Configuration

The powerful Direct Mode switching requires that the user define which inputs will be switched to outputs 1-4. The I/O Configuration allows the user to define the input to output(s) configuration of the **MATRIX SWITCHER** in **three user modes**: 1) Matrix Mode, 2) Breakaway Audio Mode and 3) Direct Mode. Simply click an input and then click the outputs that will activate that output.

The I/O Configuration can then be saved to a database allowing up to 10 configurations to be saved and loaded.

Program Projector Code

Each button on the **MATRIX SWITCHER** can be programmed to output codes to control projectors or other serially controlled audiovisual devices. Whenever a button is pressed the corresponding code will be sent out to the projector. An unlimited number of Projector Control Code files (PCC) can be saved to the hard disk allowing for multiple configurations to programmed ahead of time.

The **MATRIX SWITCHER** Software allows the user to input the codes into the **MATRIX SWITCHER** Switcher. The projector code configuration can then be written to a file and retrieved later.

Remote Matrix Switching

Remote Matrix Switching is done through one of three switching panels that are selected as described below. These switching panels are: **Direct Mode, Matrix Mode** and **Matrix Breakaway Audio Mode.**

Rename Output and Input Select Buttons

The Output and Input buttons can be renamed to describe the video source. Clicking the right mouse button will bring up a text box in which the new name can be entered. Press Ok and the name will appear as the new button name.

USING THE MATRIX SWITCHER CONFIGURATION SOFTWARE

The following is the recommended procedure to use the **MATRIX SWITCHER** Configuration Software to properly program your **MATRIX SWITCHER** Presentation Switcher:

Reset to Factory Default:

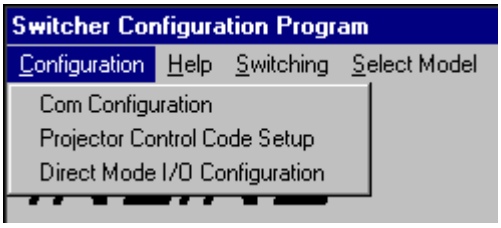
If the **MATRIX SWITCHER** is brand new and this is the first time you are using it, you can skip this step as the unit is set to the Factory default before shipping from the factory. Resetting the unit to factory default puts the **MATRIX SWITCHER** into a known state to ensure the **MATRIX SWITCHER** Configuration Software will operate correctly.

To reset the unit to factory defaults: Turn off the power switch, press and **hold the F1 button, turn on the power switch** while continuing to hold the F1 button. The unit is now set to factory defaults.

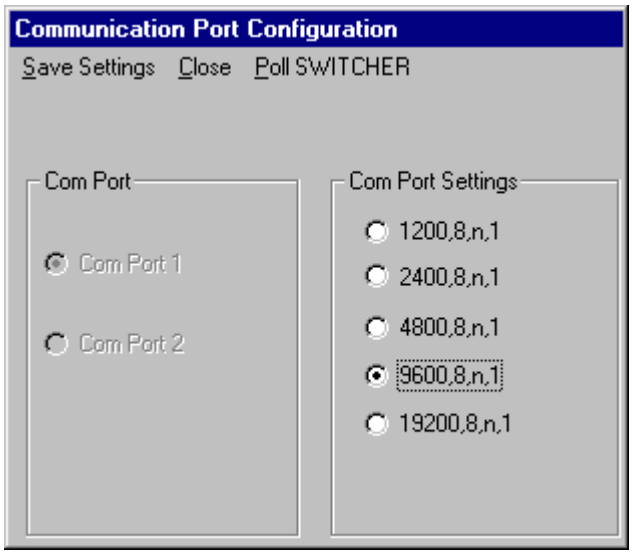
Configuring Com Port and Baud Rate:

In controlling the **MATRIX SWITCHER** from a PC or a third party control device, the RS-232 baud rate of the two devices must be the same. Version 3.3.6 automatically polls the **MATRIX SWITCHER** for the baud rate at power up. This software also allows you to set the baud rate of the **MATRIX SWITCHER** and additionally sets the baud rate of your PC to that baud rate so that it can communicate with the **MATRIX SWITCHER** to configure other parameters:

1. From the Title Screen select the **Configuration** Menu.
2. Select the **COM Configuration** option. This will open the Communication Port Configuration Window.



3. Select the COM Port that the **MATRIX SWITCHER** is attached to on your computer. COM 1 is usually a Female 9 Pin and COM 2 is usually a Male 25 Pin.

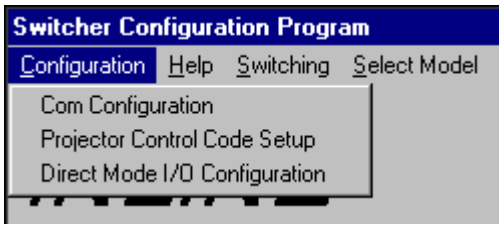


4. Select the Baud Rate, which will be used to control the **MATRIX SWITCHER**.
5. Select **Save Settings** at the top of the window. This will send the appropriate code to the **MATRIX SWITCHER** to set it's baud rate and will set your PC to that baud rate.
6. Select Poll SWITCHER to get the current Baud rate setting.
7. Select **Close** at the top of the Communication Port Configuration Menu.

Configuring Direct Mode I/O Configuration:

If you are going to use the **MATRIX SWITCHER** in the Matrix mode, you can skip this section.
In the Direct Mode, every input is pre-assigned to an output or outputs and is automatically sent to the output(s) when selected. All other outputs are disconnected (only one input can be active at a time.) The software allows you to assign the inputs to outputs as follows:

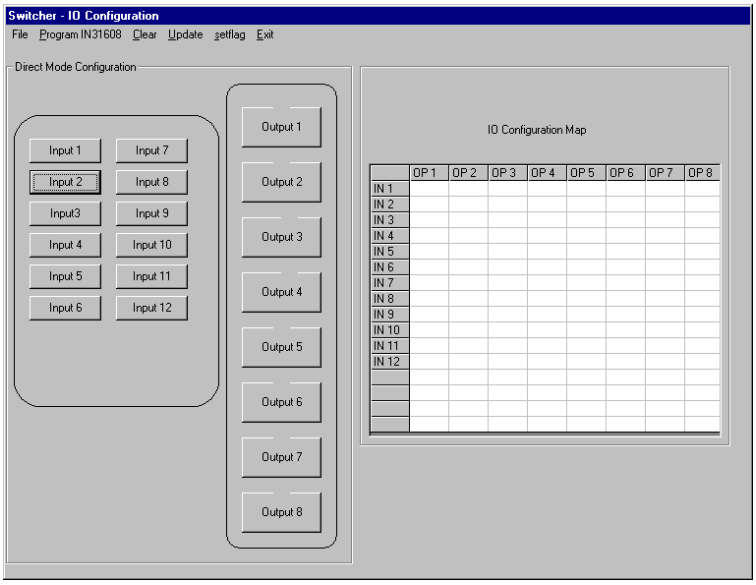
1. From the MATRIX SWITCHER Configuration Software title screen select the D**irect Mode I/O Configuration** under the **Configuration** Menu.



This will open the **SWITCHER** - IO Configuration Window.

2. Click one of the Output buttons. The "LED" turns blue to identify the selected output.
3. Click the buttons on the Input(s) to be assigned to the selected Output. The "LEDs" of the selected input(s) turn blue to indicate they are selected. In addition, the IO Configuration Map shows the input(s) assigned to each output. To de-select an input, click the button again.
4. Repeat steps 2 & 3 for all outputs. Select **Clear** to clear all of your IO settings and start over.
5. When done, select **Program MATRIX SWITCHER** to set the **MATRIX SWITCHER** into the Direct Mode and program the I/O Configuration.

6. Select Exit from the menu to quit the Direct Mode I/O Configuration.



Saving an I/O Configuration to a File:

You can save the IO configuration you have just programmed to a file as follows:

1. Select **Save Configuration** under the **File** Menu
2. Enter a name for the configuration file.
3. Click the **Save** Button

Loading an I/O Configuration File:

You can load a previously saved IO configuration as follows:

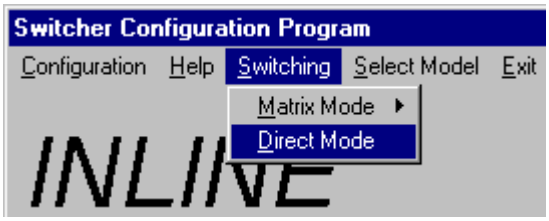
1. Select **Load Configuration from Disk** under the **File** Menu
2. Type the name of the desired file name or select it from the list.
3. Click the **Load** Button
4. If you would like to program the MATRIX SWITCHER with the new file now, click **Yes** at the prompt. If not, click **No**.

Remote Switching

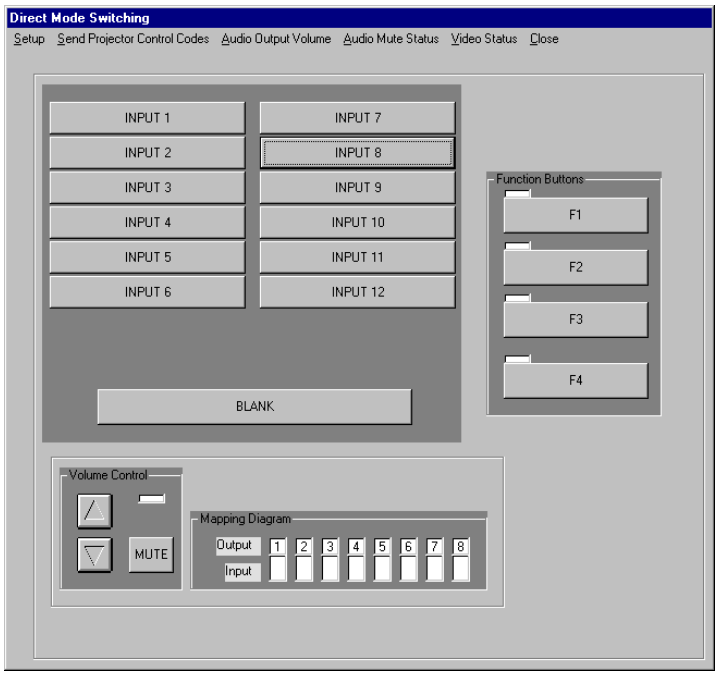
Remote Switching while in Direct Mode:

Enter the **Direct Mode Switching** menu by:

1. Select Switching from the **MATRIX SWITCHER Configuration Program** menu**.**
2. Select the **Direct Mode** to enter the **Direct Mode Switching** menu.

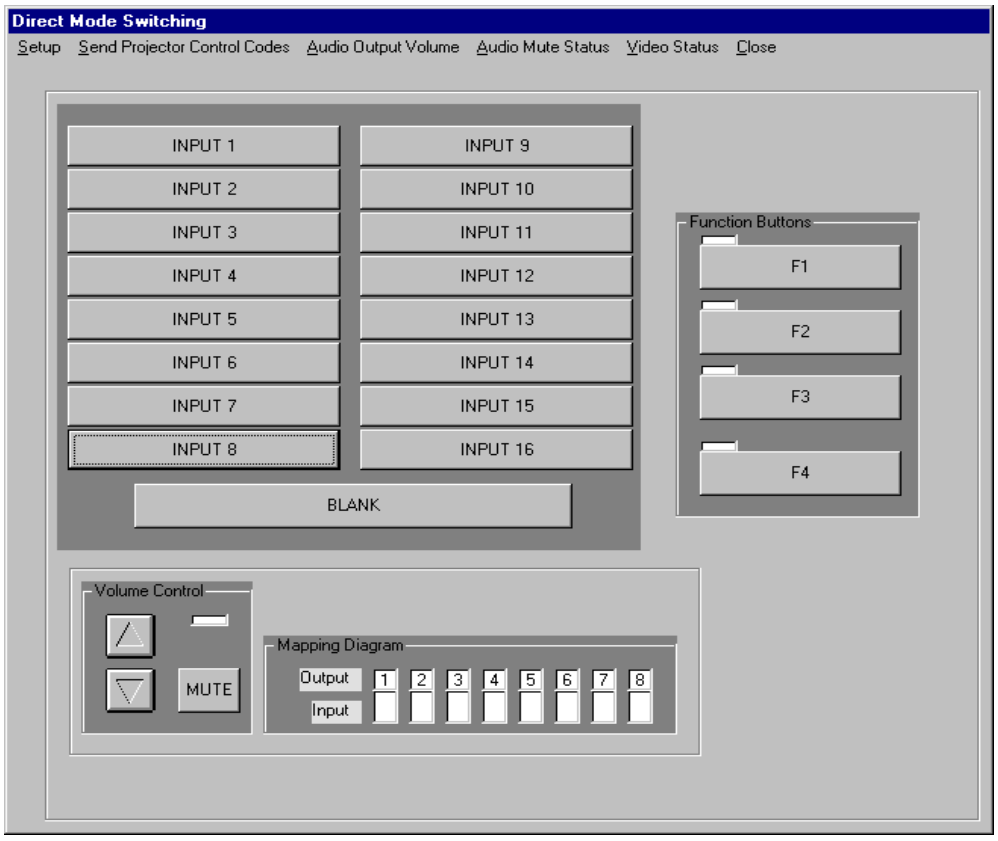


The Remote Switching menu for the Direct Mode for the IN31208 appears, as shown below.



The Remote Switching menu for the Direct Mode for the IN31608 appears, as shown below.

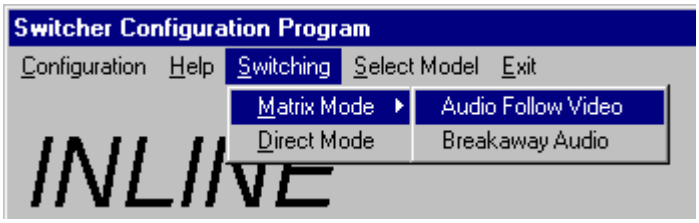
3. Make an output connection path by clicking the desired input.
4. Diagram will take a few seconds to update the while polling the **MATRIX SWITCHER.**

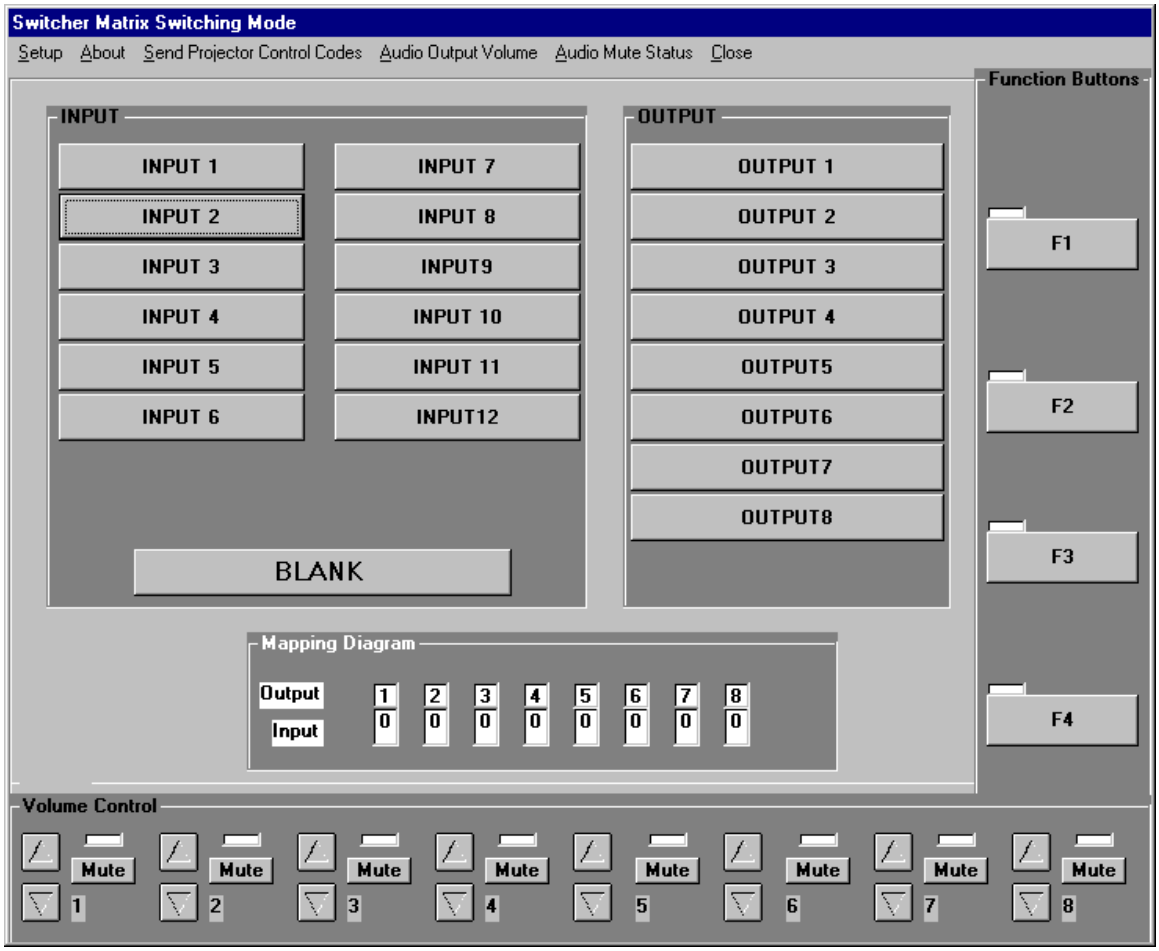


Remote Switching while in Matrix Mode:

Enter the **Matrix Mode Switching** menu by:

1. Select Switching from the **MATRIX SWITCHER Configuration Program** menu**.**
2. Select **Matrix Mode: Audio Follow Video** to enter the **Matrix Switching Mode** menu.





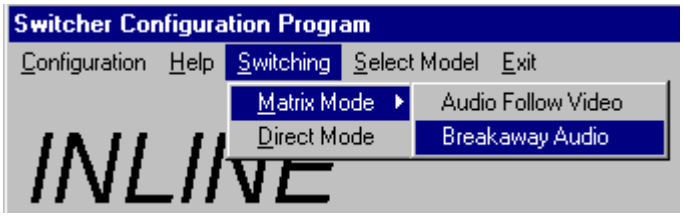
The Remote Switching menu for the Matrix Mode for the IN31208 appears, as shown above.

3. Make an output connection path by clicking the desired input and then clicking the desired output. The Mapping Diagram will take a few seconds to update while polling the **MATRIX SWITCHER.**
4. The audio associated with the selected input will be automatically routed to the selected output.

Remote Switching while in Breakaway Matrix Mode:

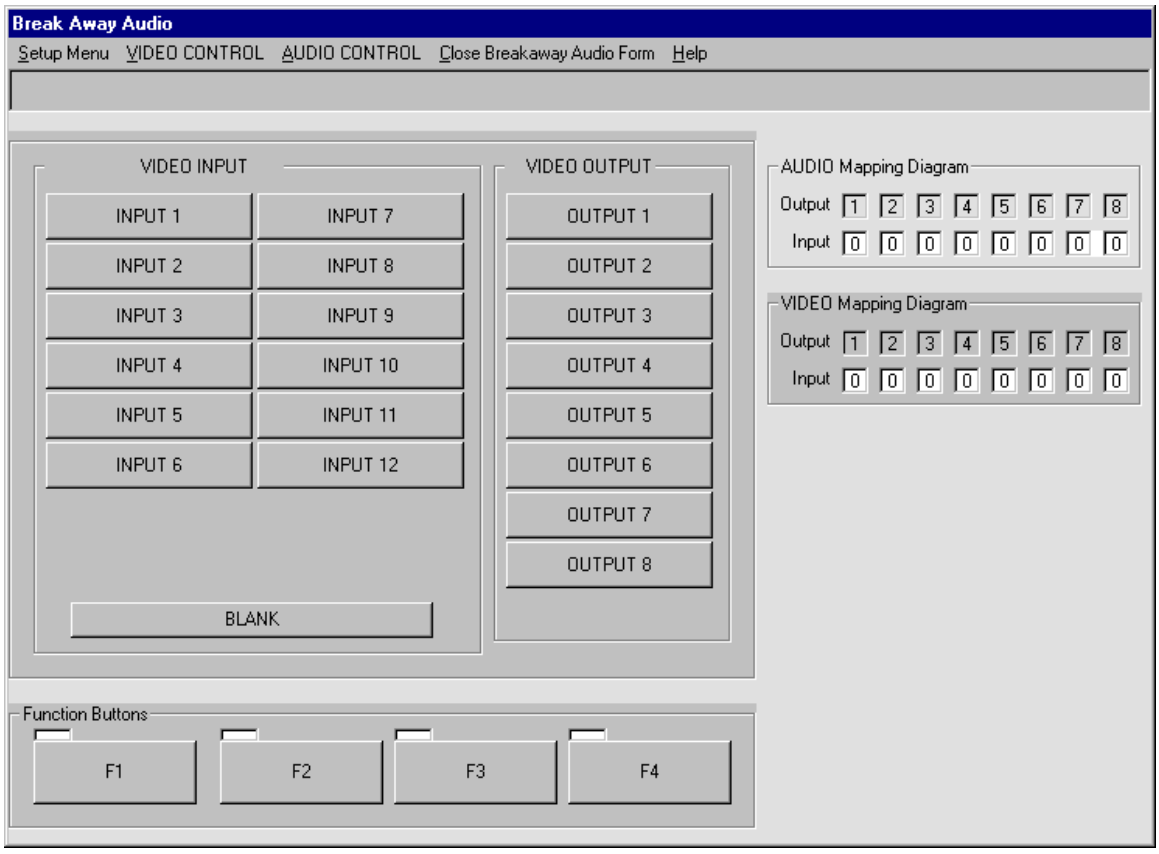
Enter the **Matrix Mode Switching** menu by:

1. Select Switching from the **MATRIX SWITCHER Configuration Program** menu**.**
2. Select **Matrix Mode: Breakaway Audio** to enter the **Breakaway Audio Mode** menu.

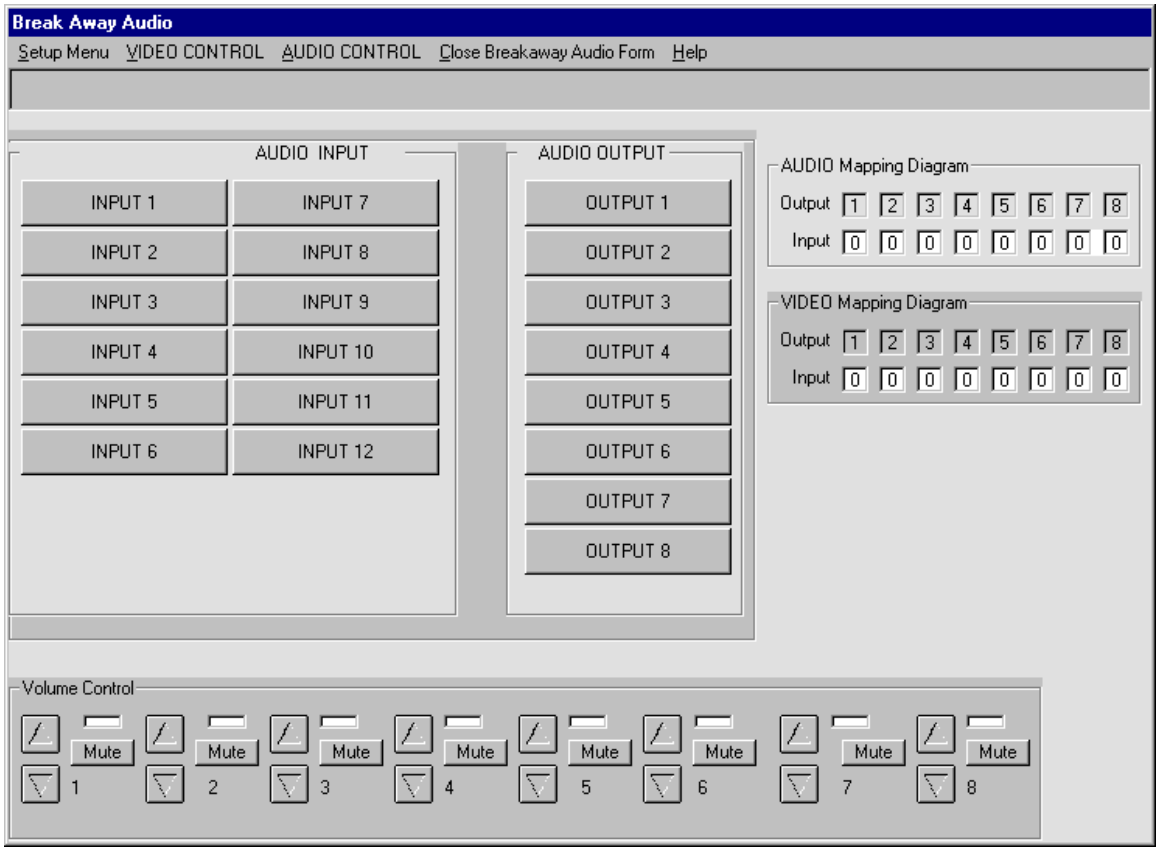


3. Make an output connection path for video by clicking the desired input and then clicking the desired output. The Mapping Diagram will take a few seconds to update while polling the **MATRIX SWITCHER.**

4. The audio path is selected as a separate connection path from the video. To make Audio connection paths, select the **AUDIO CONTROL** option from the menu



5. Make an output connection path for audio by clicking the desired input and then clicking the desired output. The Mapping Diagram will take a few seconds to update while polling the **MATRIX SWITCHER.**



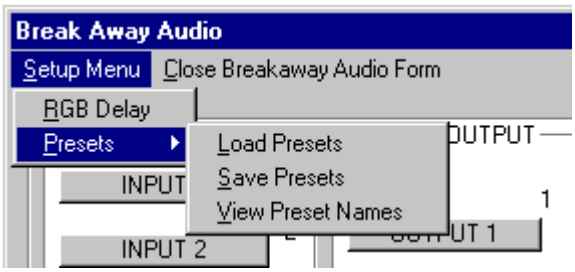
Muting Outputs and Volume Control

Press the "Mute" button for any output in order to mute the audio for that output. When an output is muted, the on-screen LED above the Mute button will turn on (solid green). Press the Mute button again to disable the Mute function for that output.

The volume level may be adjusted by pressing the up or down arrow buttons for each output. The LED above the Mute button will flash momentarily every time you press one of the arrow buttons, indicating that a volume change is occurring.

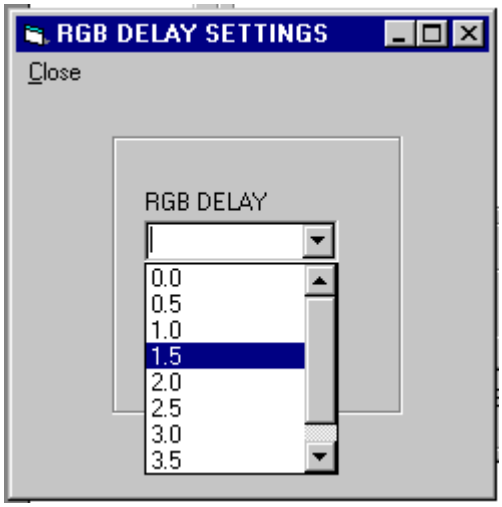
Breakaway Audio Presets

Saving and loading system configurations is easy to accomplish. To configure the **MATRIX SWITCHER** for the video and audio connection paths desired, select the **Setup Menu** and click on **Presets.** A menu will appear with three selections, click the appropriate one and follow the easy visual instructions.



RGB Delay Settings

The RGB Delay settings determine the amount of time that the video sync signal will precede the video signal. The Sync signal is connected first and then the video signal is sent after the selected amount of delay has elapsed. This is done to avoid any flicker or abrupt jump in the video signal as the connection path is switched. From the above menu click on **RGB Delay.** The following menu will appear.



Any selection of delay from 0.0 to 6.0 in 0.100 sec intervals can be chosen by clicking on the appropriate choice. The **Default setting** is 0.0 seconds.

PROGRAMMING MATRIX SWITCHER WITH PROJECTOR CODES

The external communication port can be used to control a piece of equipment via RS-232, or RS-485. The serial format, baud rate, etc. can be set with the software, as well as whether the code to be sent is ASCII or HEX (Hexadecimal). When the **MATRIX SWITCHER** performs certain actions, a code is transmitted out the communication port. Codes are sent as follows:

Matrix Mode:

Input and Output Codes:
Each input and output button can store a code. These codes are sent out whenever a switch is made. If just the input is changed (the output does not change) only the input code is sent. However, if the output and input change, the output code is sent first, followed by the input code.

Function Buttons:
Function Buttons F1, F2, F3 and F4 each hold two codes. One code is sent when the button is activated (the LED turns on) and the other is sent when it is deactivated (the LED turns off).

Recall Codes:
When you recall a memory, a code is sent. Codes can be stored for memories 1 through 9.

Direct Mode:

Input and Output Codes:
Each input and output can store a code. These codes are sent out whenever a switch is made. The input code is always sent, and the output code is sent whenever a different output is activated.

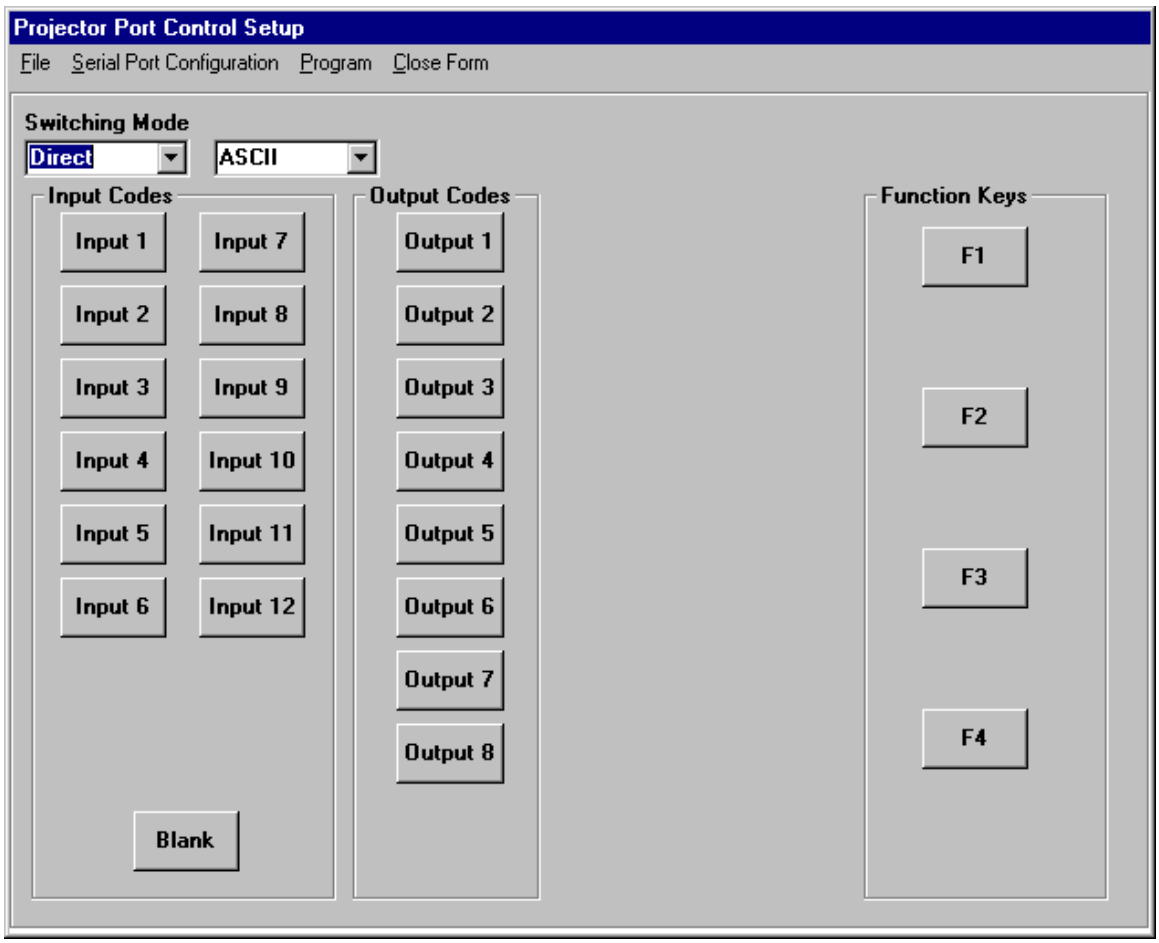
Function Buttons:
Function Buttons F1, F2, F3 and F4 each hold two codes. One code is sent when the button is activated (the LED turns on) and the other is sent when it is deactivated. In addition, since Output buttons 1 through 4 are not needed for switching functions in the Direct Mode, these buttons now operate as Function buttons F5, F6, F7 and F8. Each of these function buttons can also store two codes.

Procedure:

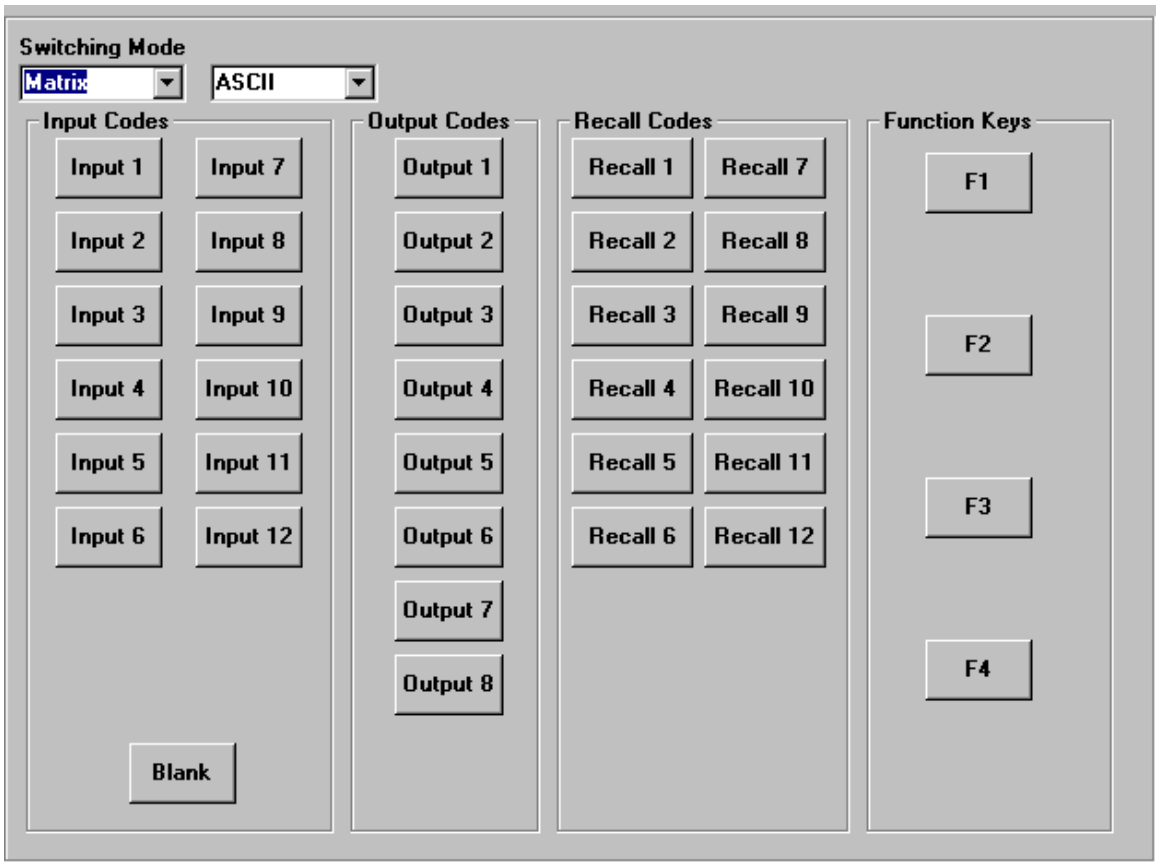
1. From the Title Screen select the **Projector Control Code Setup** option under the **Configuration** Menu.

2. Select **Direct** Switching Mode or **Matrix** Switching Mode from the drop down menu to determine which mode of operation you are using for the **MATRIX SWITCHER**. Each Mode has it's own drop down menu.

Direct Mode Projector Port Control Code Configuration Menu

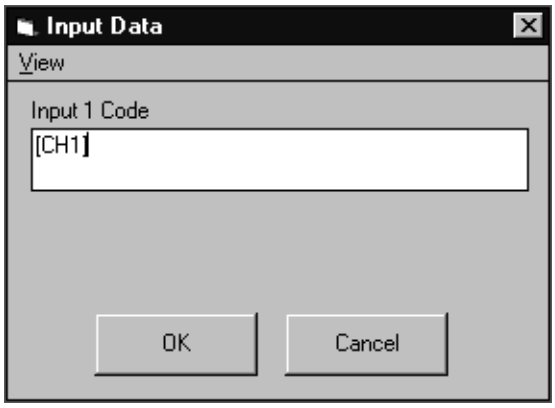


Matrix Mode Projector Port Control Code Configuration Menu

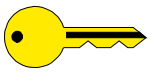


4. Click on the button where you would like to store code.

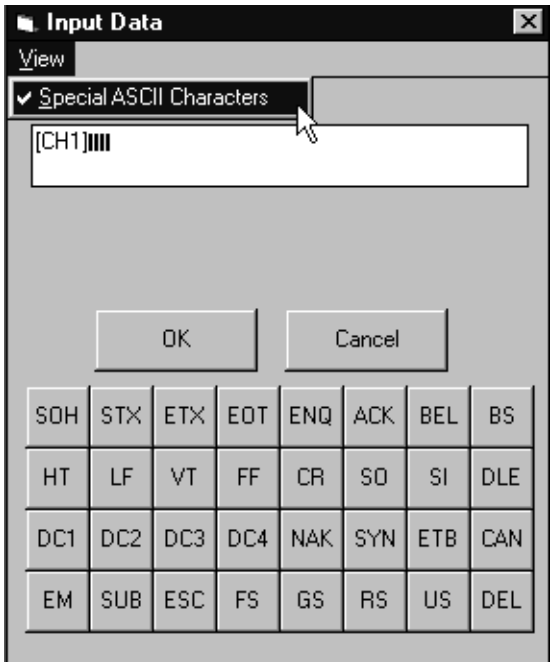
5. The Input Data form will appear indicating the code to be stored. Enter the code and click **OK**.
6. Repeat steps 5 & 6 for all buttons which will send code. All buttons with no code entered will not send out any code.
7. Select **Program MATRIX SWITCHER** under the **Program** menu to program the code into the **MATRIX SWITCHER**.
8. Select **Close Form** to exit the Projector Control Code Setup.



KEY CONCEPT



Some ASCII characters cannot be entered with the keys on your computer keyboard. Some examples are Line Feed and Acknowledge (Hexadecimal numbers 0A and 06.) To enter these characters when entering ASCII codes, select **Special ASCII Characters** under the **View** menu on the Input Data Form as shown in the screen on the right. The codes have no representation other than a line/block.



Saving Projector Codes to a File:

You can save the Projector code you have just entered to a file as follows:

1. Select **Save Configuration** under the **File** menu.
2. Enter a name for the file (Must end in .pcc) or select it from the list.
3. Click the **OK** Button

Loading Projector Codes from a File:

You can load previously saved Projector Codes as follows:

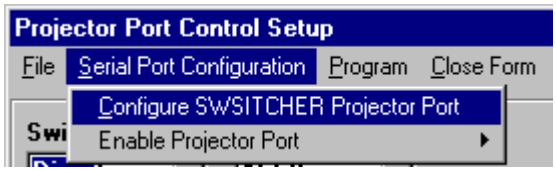
1. Select **Load Configuration** under the **File** menu.
2. Enter the name of the desired file or select it from the list.
3. Click the **OK** Button.

Note: This procedure only loads the information into the software. You must still program the **MATRIX SWITCHER** with the **Program** menu.

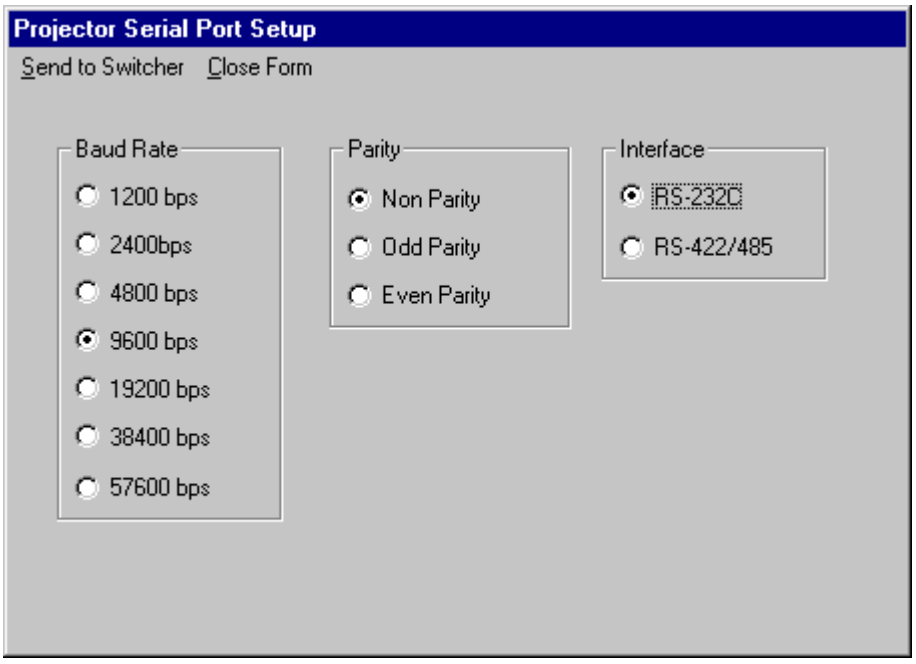
SETTING PROJECTOR PORT PARAMETERS

The **MATRIX SWITCHER** has a serial port designed to communicate with external devices (such as projectors) via RS-232 or RS-485. The parity and baud rate are also selectable and can be configured as follows:

1. From the Title Screen select the **Projector Control Code Setup** option under the **Configuration** Menu.
2. Select **Configure MATRIX SWITCHER Projector Port** under the **Serial Port Configuration** Menu.



3. Select Baud Rate, Parity and Interface type.
4. Click **Send to Switcher** to send the code to the MATRIX SWITCHER and set the Projector Port's parameters.
5. Click **Close Form** to exit this setup.



SERIAL PORT PIN CONFIGURATIONS