VS0102 / VS0104 / VS0108

2/4/8-Port VGA Splitter with Audio

RS-232 Control Tool

V1.0.061

User Manual

www.aten.com
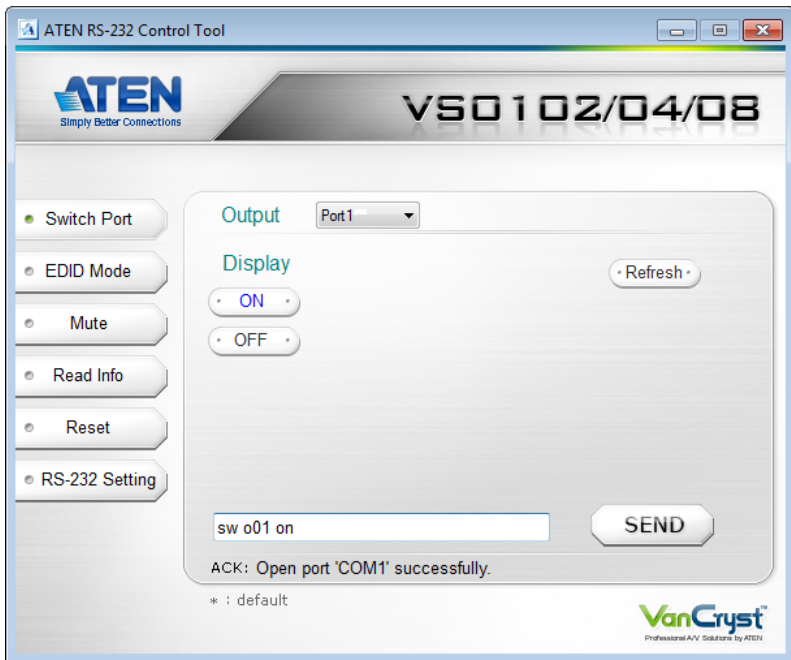
FCC Information

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

◆ Reorient or relocate the receiving antenna;

◆ Increase the separation between the equipment and receiver;

◆ Connect the equipment into an outlet on a circuit different from that which the receiver is connected;

◆ Consult the dealer or an experienced radio/television technician for help.

RoHS

This product is RoHS compliant.

SJ/T 11364-2006

The following contains information that relates to China.

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 （Hg）	镉 （Cd）	六价铬 (Cr(VI))	多溴联苯 （PBB）	多溴二苯醚 （PBDE）
电器部件	●	○	○	○	○	○
机构部件	○	○	○	○	○	○

○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T 11363-2006规定的限量要求之下。

●: 表示符合欧盟的豁免条款，但该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。

✕: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。

RS-232 Control Tool Operation

Overview

The VS0102 / VS0104 / VS0108's built-in bi-directional RS-232 serial interface allows system control through a high-end controller, PC, and/or home automation / home theater software package. The RS-232 Control Tool is an application used to send operational commands from your PC – to the VS0102 / VS0104 / VS0108 through a serial (RS-232) interface connection. RS-232 serial operations to and from the VS0102 / VS0104 / VS0108 can be managed using ATEN's Graphical User Interface (GUI) on computers that are running the Microsoft Windows operating system. In order to use the RS-232 Control Tool, two separate programs must be installed on the PC- .NET Framework 2.0 and the RS-232 Control Tool. The procedure for installing and operating the RS-232 Control Tool is detailed in the following sections.

Before You Begin

Installing .NET Framework 2.0

To install .NET Framework on your PC, do the following:

1. Download the executable file from the ATEN website or the Microsoft Download Center online, and run it.

2. Follow the instructions on the screen. The installation applet will automatically detect the operating system and install the correct drivers

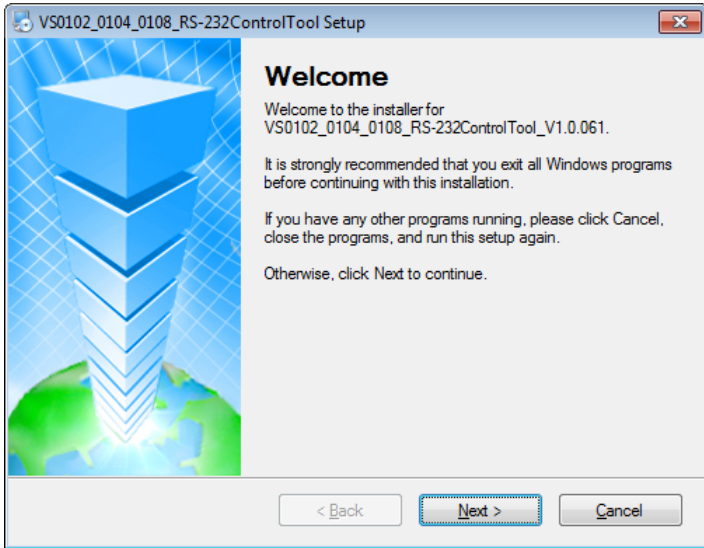### Installing the RS-232 Control Tool

To install the RS-232 Control Tool, do the following:

1. Download the RS-232 Control Tool from the Download or VS0102 / VS0104 / VS0108's *Resource* page on our website:
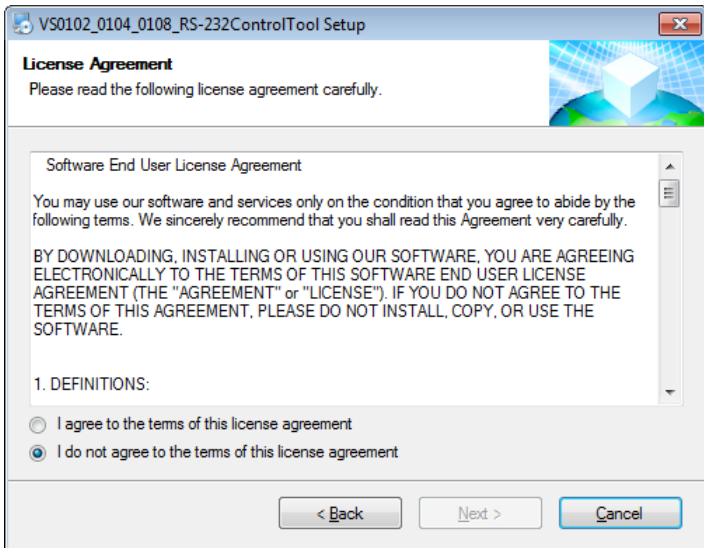
   www.aten.com

2. Save the file to a convenient location.

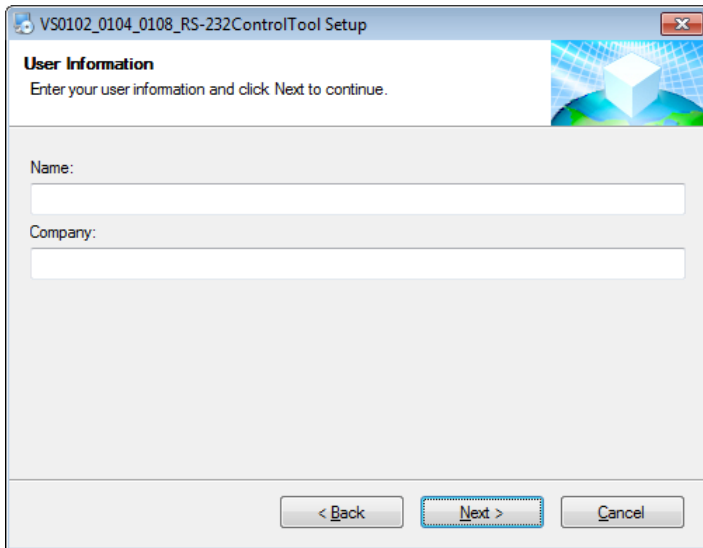3. Double click the file to run setup. The Welcome screen appears:

   Click **Next**.

4. The License Agreement appears:

   If you agree with the License Agreement, select *I agree with the terms of this license agreement,* and click **Next**.
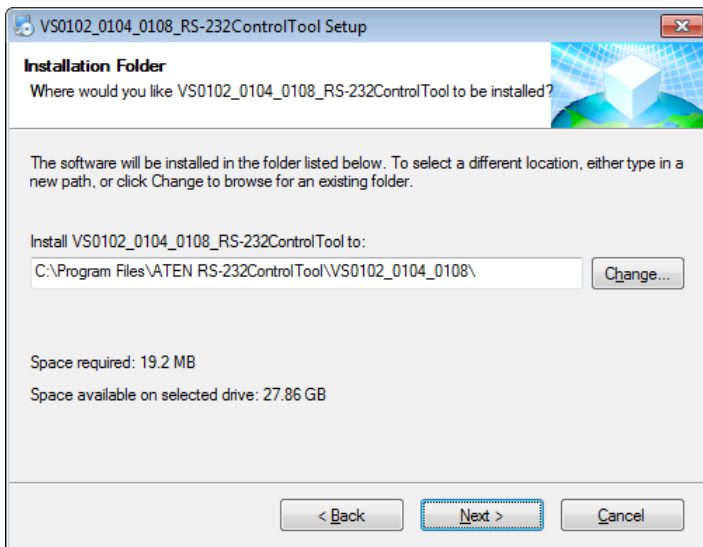
5. The User Information screen appears:

Fill in your *Name* and *Company*, then click **Next**.

6. When the Installation Folder screen appears, you can select where you want to install the program by clicking **Change**, or use the default installation location provided, then click **Next**.

7. From the Shortcut Folder screen type in or use the drop-down menu to enter the folder where you want to install the shortcuts.
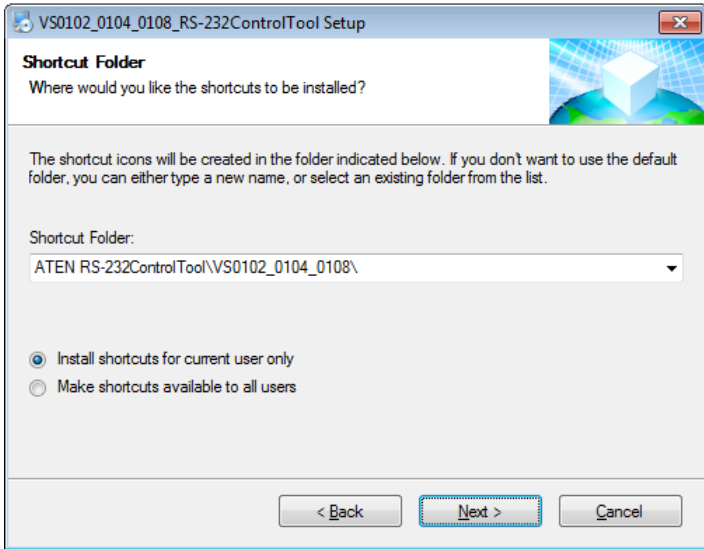
Then select *Install shortcuts for current user only*, or *Make shortcuts available to all users*, and click **Next**.

8. At the Ready to Install screen confirm your settings, click **Back** if you need to make changes, or click **Next** to begin the installation.
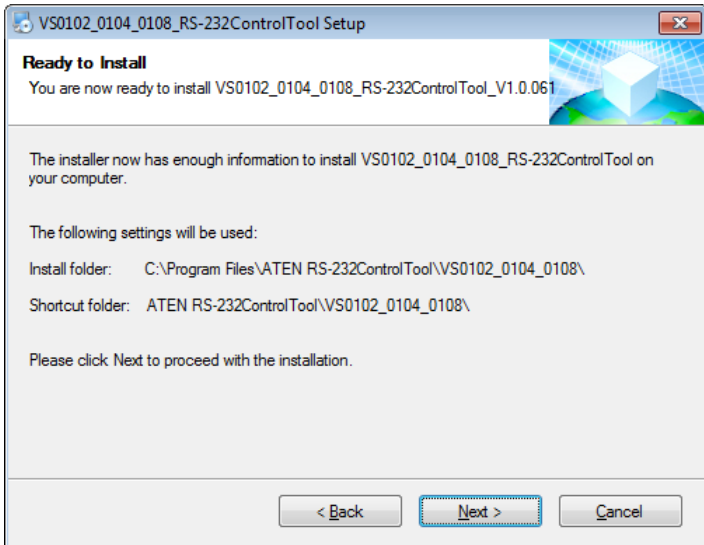
9. When the installation has completed successfully, the following screen will appear:
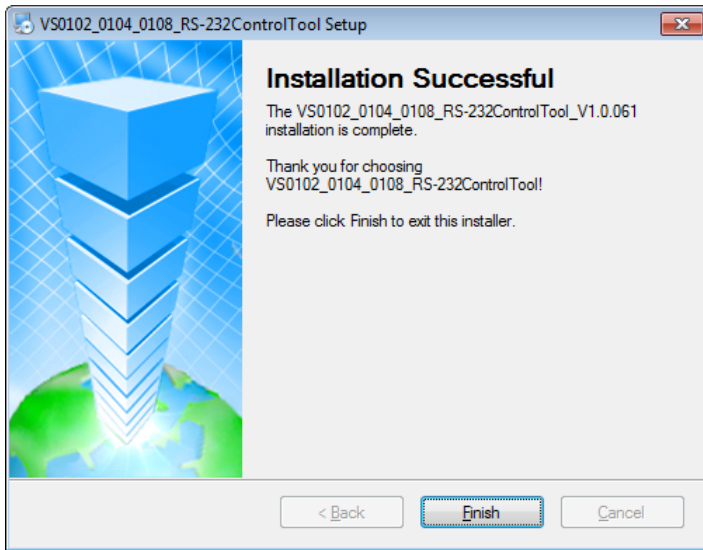
Click **Finish**. You are now ready to use the RS-232 Control Tool.

GUI Main Page

The RS-232 Control Tool is a convenient and intuitive application to send RS-232 commands to your VS0102 / VS0104 / VS0108. The various elements of the GUI are described in the following sections. For detailed information about the function of each RS-232 command, see the VS0102 / VS0104 / VS0108's user manual.

To invoke the GUI, simply click the RS-232 Control Tool shortcut. The interface opens on the *Switch Port* page by default, as shown below:
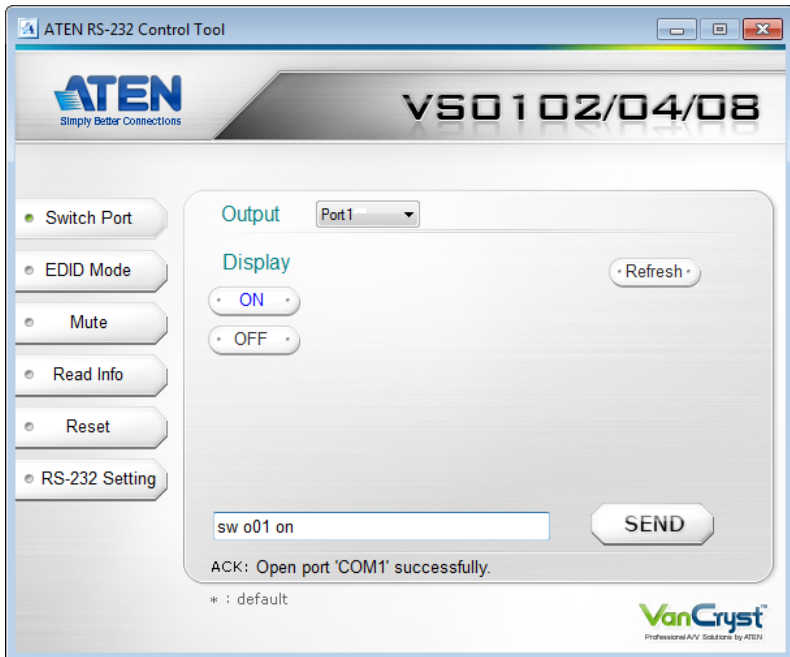
Switch Port

The Switch Port page is used to connect the Video/Audio source to the display ports, and to power on/off displays.

From the Switch Port page, the following actions are possible:

◆ Select an **Output** port from the drop-down menu.

◆ Select **ON** or **OFF** to turn the selected display port on or off

◆ Use the **Refresh** button to update the Output port list

◆ Use the text box to manually enter the command.

◆ Click **SEND** to send the command.

Switch Port Commands

The actions can also be performed by keying the command into the text box, and clicking **SEND** or pressing the **[Enter]** key, as described below.

The available formulas for Switch Port commands are as follows:

1. Switch Command + Output Command + Port Number + Control

For example, to turn on output port 02, type the following:

> **sw o02 on**

> *-or-*

For example, to turn off output port 01, type the following:

> **sw o01 off**

Possible Values

The following table shows the possible values for the Switch Port commands:

Command	Description
sw	Switch command.

Output Command	Description
o	Output command.

Port Number	Description
yy	01-08 port (default is 01).
*	All output ports.

Control	Description
on	Turn on the display.
off	Turn off the display.

Switch Port Commands Table:

Command	Input	Port	Control	Enter	Description
sw	o	yy	on	[Enter]	Turn on display port *yy.*
sw	o	yy	off	[Enter]	Turn off display port *yy.*
sw	o	*	on	[Enter]	Turn on all displays.
sw	o	*	off	[Enter]	Turn off all displays.

After commands are sent acknowledge messages are returned.

Ack	Description
Command OK	Command is correct and function executed.
Command Incorrect	Unavailable command or parameters.

Note: 1. Each command string can be separated with a space.

2. The **Port Number** command string can be skipped, and the default value will be used.

Switch Command for Cascaded Splitters

Serial port commands for cascaded splitters require identifying the chain of ports to which the target device is connected. The formula for Switch Port commands in a cascade are as follows:

Switch Command + Output Command + Port Number (at first stage) + Port Number (at second stage) + Port Number (at third stage) + Control

Target Output

Third Stage Unit

Second Stage Unit
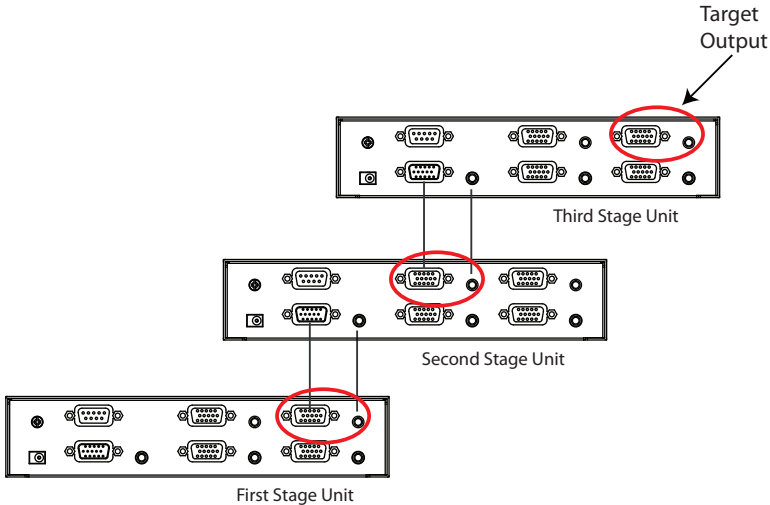
First Stage Unit

For the example above, the command for switching off the *Target Output* **Port 4** of the splitter connected to **Port 3** at the second stage of the cascade, which, in turn, is connected to output **Port 4** at the first stage unit, is as follows:

sw o04-03-04 off

This cascade command format is applied to Mute Commands, page 17, Read Info Commands, page 20, and Reset Commands, page 23. However, the cascade commands are not applicable for the Version or EDID commands, which are only applied to the first stage unit.

EDID Mode

The EDID Mode page is used to set the EDID setting for all displays. The EDID Mode page provides three options - Port1, Auto, and Default(*), as described below.

- ◆ **Port1**: The EDID from port1 will be passed to the video source for use with all displays.
- ◆ **Auto**: The EDID will automatically be selected and passed to each video source.
- ◆ **Default**: The default EDID will be passed to all video sources.
- ◆ Use the text box to manually enter the command.
- ◆ Click **SEND** to send the command.

EDID Mode Commands:

The actions can also be performed by keying the command into the text box, and clicking **SEND** or pressing the **[Enter]** key, as described below.

1. EDID Command + Control

For example, to change the EDID setting to Auto, type the following:

edid auto

Possible Values

The following table shows the possible values for the EDID commands:

Command	Description
edid	EDID mode command.

Control	Description
port1	Implement the EDID of the display connected to Port 1, and pass it to the video source for use with all displays.
auto	Implements the true EDID remix of all connected displays. The VS0102 / VS0104 / VS0108 uses the best resolution for all displays.
default	Implements ATEN's default EDID.

EDID Mode Commands Table

Command	Control	Enter	Description
edid	port1	[Enter]	The EDID from Port 1 is passed to the video source for use with all displays.
edid	auto	[Enter]	The VS0102 / VS0104 / VS0108 implements the true EDID remix of all connected displays and uses the best resolution for all displays.
edid	default	[Enter]	ATEN's default EDID is passed to the video source.

After commands are sent acknowledge messages are returned.

Ack	Description
Command OK	Command is correct and function executed.
Command Incorrect	Unavailable command or parameters.

Note: 1. Each command string can be separated with a space.

2. The **Port Number** command string can be skipped, and the default value will be used.

Mute
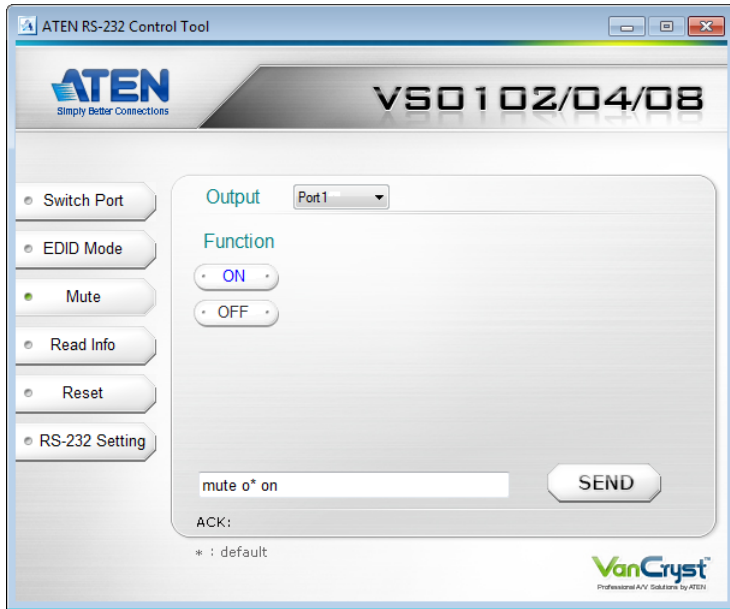
The Mute page is used to turn audio on or off for an output port. On the Mute page, the following actions are possible:

- Select an **Output** port from the drop-down menu.
- Click **ON** to mute the selected port.
- Click **OFF** to enable the audio of the selected port.
- Use the text box to manually enter the command.
- Click **SEND** to send the command.

Mute Commands:

The actions can also be performed by keying the command into the text box, and clicking **SEND** or pressing the **[Enter]** key, as described below.

1. Mute Command + Output Command + Port Number + Control

For example, to mute the audio for output port 04, type the following:

mute o04 on

-or-

For example, to turn on the audio for output port 04, type the following:

mute o04 off

Possible Values

The following table shows the possible values for the Mute commands:

Command	Description
mute	Mute command.

Output Command	Description
o	Output command.

Port Number	Description
yy	01-08 port (default is 01).
*	All ports.

Control	Description
on	Mute on; audio of output port is disabled.
off	Mute off; audio of output port is enabled (default).

Mute Commands Table

Command	Output	Port	Control	Enter	Description
mute	o	yy	on	[Enter]	Mute on for output port *yy* (no audio).
mute	o	yy	off	[Enter]	Mute off for output port *yy* (audio on).
mute	o	*	on	[Enter]	Mute on for all ports (no audio).
mute	o	*	off	[Enter]	Mute off for all ports (audio on).

After commands are sent acknowledge messages are returned.

Ack	Description
Command OK	Command is correct and function executed.
Command Incorrect	Unavailable command or parameters.

Note: 1. Each command string can be separated with a space.

2. The **Port Number** command string can be skipped, and the default value will be used.

Read Info
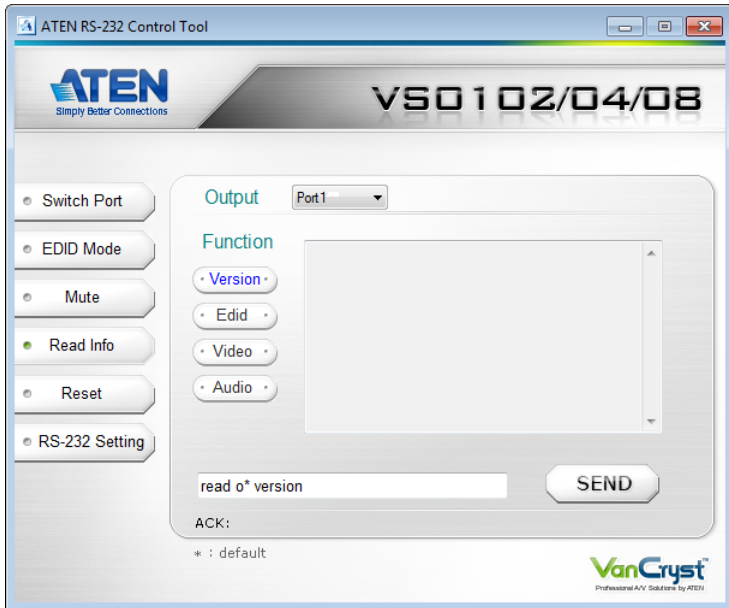
The Read Info page is used to get configuration information from the VS0102 / VS0104 / VS0108, which is displayed in the large text box on the center of the page. On the Read Info page, the following actions are possible:

◆ Select an **Output** port from the drop-down menu.

◆ Select **Version** to display the VS0102 / VS0104 / VS0108's firmware version.

◆ Select **EDID** to display the current EDID setting for all ports.

◆ Select **Video** to display the current on/off video status of a port.

◆ Select **Audio** to display the current on/off audio status of a port.

◆ Use the text box to manually enter the command.

◆ Click **SEND** to send the command.

Read Info Commands:

The actions can also be performed by keying the command into the text box, and clicking **SEND** or pressing the **[Enter]** key, as described below.

1. Read Command + Control

For example, to read the firmware version, type the following:

   read version

2. Read Command + Output Command + Port Number + Control

For example, to display the video on/off status for port 03, type the following:

   read o03 video

Possible Values

The following table shows the possible values for the Read Info commands:

Command	Description
read	Read info command.

Output Command	Description
o	Output command.

Port Number	Description
yy	01-08 port (default is 01).
*	All ports.

Control	Description
version	Read firmware version.
edid	Read EDID information (For port 01 only).
video	Read video on/off status.
audio	Read audio on/off status.

Read Info Commands Table

Command	Output	Port	Control	Enter	Description
read			version	[Enter]	Read device firmware version.
read			edid	[Enter]	Read EDID information.
read	o	yy	video	[Enter]	Read output port *yy* video on/off status.
read	o	yy	audio	[Enter]	Read output port *yy* audio on/off status.
read	o	*	video	[Enter]	Read all output ports video on/off status.
read	o	*	audio	[Enter]	Read all output ports audio on/off status.

After commands are sent acknowledge messages are returned.

Ack	Description
Command OK	Command is correct and function executed.
Command Incorrect	Unavailable command or parameters.

Note: 1. Each command string can be separated with a space.

2. The **Port Number** command string can be skipped, and the default value will be used.

Reset

The Reset page is used to reset the VS0102 / VS0104 / VS0108 back to the factory default settings. On the Reset page, the following actions are possible:

◆ Select an **Output** port from the drop-down menu.

◆ Select **Reset** to reset the current port settings back to the factory default settings.

◆ Use the text box to manually enter the command.

◆ Click **SEND** to send the command.

Reset Commands:

The actions can also be performed by keying the command into the text box, and clicking **SEND** or pressing the **[Enter]** key, as described below.

1. Reset Command + Output Command + Port Number

For example, to reset port 02 back to the factory default settings, type the following:

reset o02

Possible Values

The following table shows the possible values for the Reset commands:

Command	Description
reset	Resets command.

Output Command	Description
o	Output Command.

Port Number	Description
yy	01-08 port (default is 01).
*	All ports.

Reset Commands Table

Command	Output	Port	Enter	Description
reset	o	yy	[Enter]	Reset port *yy* back to the factory default settings.
reset	o	*	[Enter]	Reset all ports back to the factory default settings.

After commands are sent acknowledge messages are returned.

Ack	Description
Command OK	Command is correct and function executed.
Command Incorrect	Unavailable command or parameters.

Note: 1. Each command string can be separated with a space.

2. The **Port Number** command string can be skipped, and the default value will be used.

RS-232 Setting
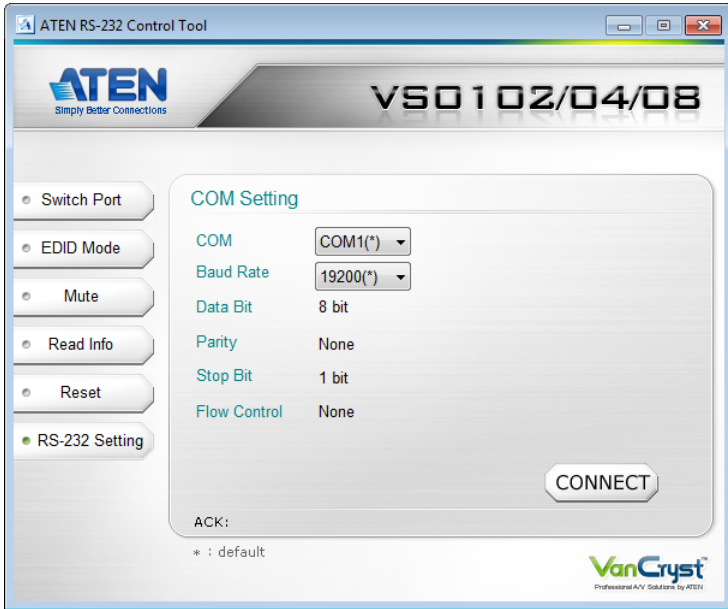
On the RS-232 Settings page, the serial port should be configured as follows:

Baud Rate	19200
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

From the RS-232 Settings page you can set the COM serial port and Baud Rate. To select the options, do the following:

⬥ Select a **COM** port or **Baud Rate** from the respective drop-down menu

⬥ Click **CONNECT**.

If the port connection exists, the *Acknowledgment* message will read:

Open port 'COM1' successfully.