



INSTRUCTION MANUAL

For

ACxIS

Apogee Labs, Inc. Controller Interface Software

WARRANTY

TO THE CUSTOMER

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WARRANTY

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TABLE OF CONTENTS

1	Overview.....	1
2	Definitions.....	1
3	Requirements	1
4	Installation.....	2
4.1	Installation Location	4
4.2	Installation Files.....	4
4.3	Desktop Shortcuts	5
5	Menus.....	6
5.1	Drop Down Menus.....	6
5.1.1	File	6
5.1.1.1	Advanced Configuration.....	7
5.1.2	Remote	8
5.1.3	Options.....	10
5.1.4	Matrix Size.....	11
5.1.5	Help.....	11
5.2	Menu shortcut keys	12
6	Setup	13
6.1	Inputs.....	13
6.2	Outputs.....	14
6.3	IP Configuration.....	14
6.4	Save/load.....	14
6.5	Files On Switch.....	14
7	Matrix.....	15
7.1	Editing Connector Colors	16
7.2	Editing Color Legend.....	18
7.3	Managing connector colors for multiple switches	18
7.4	Editing Connections.....	19
7.4.1	Lock/Unlock the Matrix.....	19
7.4.2	Add Connections.....	19
7.4.3	Delete a Single Connection.....	20
7.4.4	Delete All Connections to an Input.....	20
7.4.5	Delete All Connections	20
7.4.6	Move Input.....	21
7.5	Partial File Interface.....	22
7.5.1	Partial File Window	22
7.5.2	Preview Partial File.....	22
7.5.3	Load Partial File.....	23
7.5.4	Unload Partial File	23
7.5.5	Save Partial File	23
7.5.6	Hide Loaded Lines	23
7.5.7	Creating Partial Files.....	23
7.5.8	Partial File Conflicts and Modifications	24
7.6	Showing and Hiding Connection Lines	26
7.6.1	Hide All / Show All	26

7.6.2 Toggle Line(s) Right Click Option	26
8 Connections.....	27
9 Status.....	28
9.1 BER Status	28
9.2 Self Test	29
9.3 System status.....	29
10 Saving configurations	30
11 Opening configurations.....	33
12 Loading and transferring configuration files	34
13 DMS/CFG vs PCF Files.....	35
14 Printing Views	36
15 Troubleshooting	37

TABLE OF FIGURES

Figure 1: Windows ACxIS Installation Welcome Screen	2
Figure 2: End-User License Agreement	3
Figure 3: Windows ACxIS Installation Ready to Install	3
Figure 4: Windows ACxIS Installation Complete	4
Figure 5: Shortcut Properties	5
Figure 6: File Menu	6
Figure 7: Advanced Configuration Menu	7
Figure 8: Remote Menu	8
Figure 9: Connection Options.....	9
Figure 10: Options Menu	10
Figure 11: Matrix Size Menu	11
Figure 12: Help Menu	11
Figure 13: ACxIS Setup Screen	13
Figure 14: Matrix Setup Screen	15
Figure 15: Edit Connector Colors - Enable Edit Mode.....	16
Figure 16: Edit Connector Colors - Click to Highlight.....	16
Figure 17: Edit Connector Colors - Right Click to Select Color	17
Figure 18: Edit Connector Colors - Disable Edit Mode	17
Figure 19: Edit Color Legend	18
Figure 20: Delete Connection Right Click Option	20
Figure 21: Move Input Right Click Option.....	21
Figure 22: Partial File Interface	22
Figure 23: Conflicts Message	24
Figure 24: Conflicts List Message	24
Figure 25: Modifications Message.....	25
Figure 26: Modifications List Message	25
Figure 27: Hide All & Show All Buttons	26
Figure 28: Toggle Lines Right Click Option	26

Figure 29: Connections List..... 27
Figure 30: Status Page 28
Figure 31: Uninstall Board..... 29
Figure 32: Save Menu Option..... 30
Figure 33: File Save As Dialog..... 30
Figure 34: File Open Dialog 33
Figure 35: File Format Error..... 33
Figure 36: Loading File 34
Figure 37: Transferring File..... 34
Figure 38: Printed Setup 36

1 OVERVIEW

ACxIS is a Java based, OS-independent program which controls the Apogee Labs AL2273 Digital Switch and the Apogee Labs AL2202 Analog Switch via Ethernet remote control. ACxIS provides an intuitive interface for making and breaking connections as well as added features for building complex configurations.

2 DEFINITIONS

ACxIS – Apogee Labs, Inc. Controller Interface Software

ACK – Successful command issued to Node or Module, response contains: '>'

NACK – Unsuccessful command issued to Node or Module, response contains: '?'

3 REQUIREMENTS

Operating System:	O.S. Independent - Windows XP, Linux
Minimum Resolution:	1024x768
Java:	1.6.0 or higher (The ACxIS installation program will install if missing or a prior version.)
Processor:	1 GHz or higher
Ram:	256 MByte minimum
Hard Drive:	100 MBytes free space minimum
Remote Interface:	Ethernet

4 INSTALLATION

To install ACxIS on a Windows system, place the ACxIS CD into the computer's CD or DVD reader. If the computer is not configured to automatically open a file browser for the CD, open a file browser to view the CD's contents. Locate the *ACxISInstaller.exe* file and double click on it. The installation can be launched also by typing in the command line the CD directory and "*ACxISInstaller.exe*", ex. D:\ACxISInstaller.exe

The ACxIS installation process will begin by checking the version of Java which is installed on the system. If there is either no Java installed or the Java installed is a version prior to 1.6.0, Java 1.6.0 will be installed on the system. Once the Java installation is verified, the installation program will start the installation of the ACxIS software.

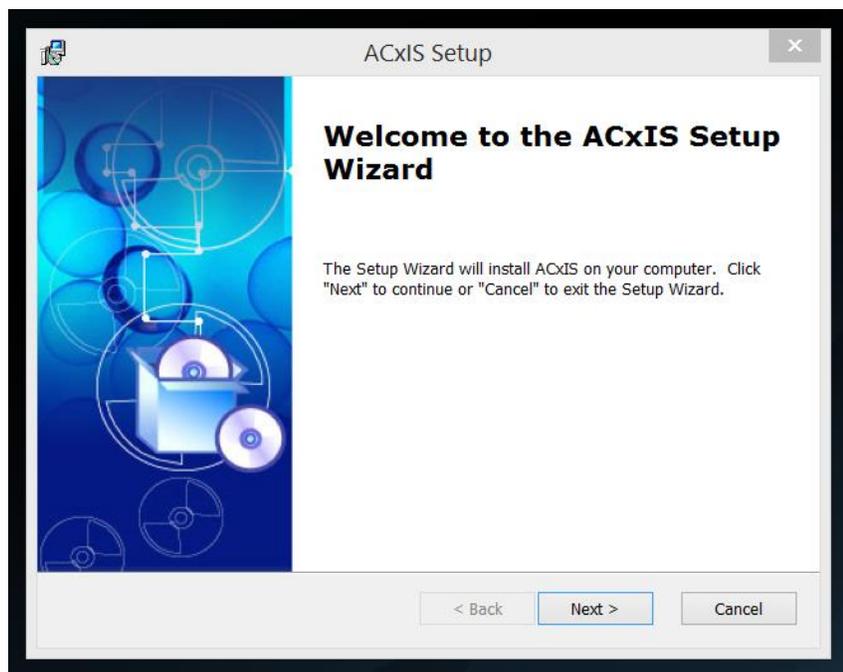


Figure 1: Windows ACxIS Installation Welcome Screen

After this dialog appears, click next for installation or cancel to abort the installation. There are no other settings beyond this point and clicking next will begin installing files on the computer.

To continue installation, you must select the “I accept the terms in the License Agreement” option from the End-User License Agreement dialog to enable the Next button at the bottom of the window.

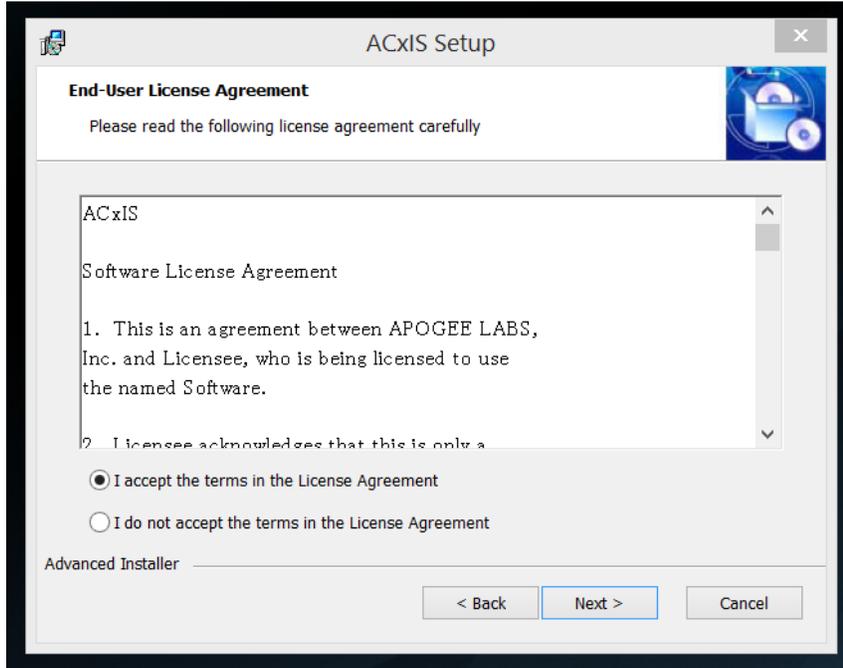


Figure 2: End-User License Agreement

Next, click on the Install button that appears on the next screen to begin the installation.

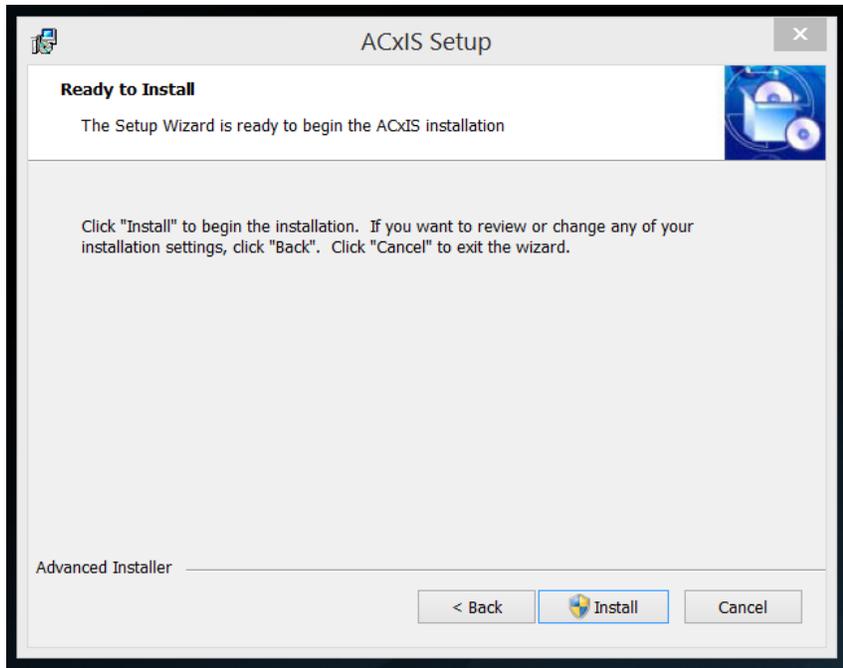


Figure 3: Windows ACxIS Installation Ready to Install

Once the installation is finished, the final dialog presents you with two options. The first option is to

View the readme file (which displays a copy of the Manual) and the second option is to Launch ACxIS which starts the program.

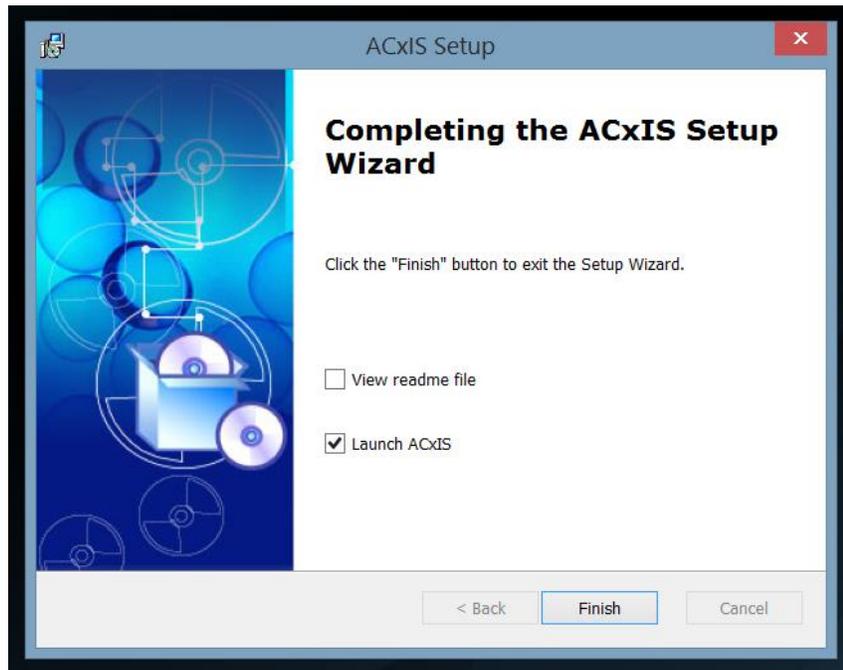


Figure 4: Windows ACxIS Installation Complete

4.1 INSTALLATION LOCATION

The installation files will be installed under the *C:\Program Files\ACxIS* or *C:\Program Files (x86)\ACxIS* directory.

4.2 INSTALLATION FILES

The installation consists of the main ACxIS binary file, all required graphic images, and the supporting documentation.

4.3 DESKTOP SHORTCUTS

During installation a desktop shortcut will be automatically created. If controlling multiple switches, you can create multiple desktop shortcuts that link directly to each switch. Copy and paste the original shortcut, renaming the new copy for your specific device. In order to configure your shortcuts to point to a specific switch, you need to modify the shortcut properties to pass the IP Address and (optionally) NNAT Port number to the ACxIS program.

In order to make the required changes: (see Figure 5)

- Right click on your new shortcut
- Select the “*Properties*” entry.
- Move your cursor to the field labeled “*Target:*”
- After the program name (e.g. “*C:\Program Files\ACxIS\ACxIS.exe*”) add the IP address of the device that you want to connect with, and then optionally the NNAT port.

Example: “*C:\Program Files\ACxIS\ACxIS.exe*” 192.168.0.111

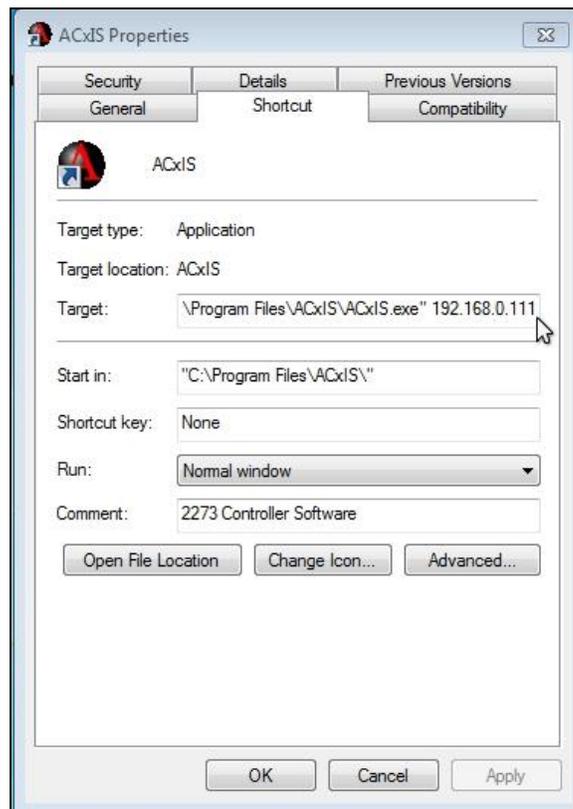


Figure 5: Shortcut Properties

The application’s connector colors, color legend, matrix size, enabled options and application window size are associated with the IP Address, enabling you to customize the setup for each shortcut that you create.

5 MENUS

5.1 DROP DOWN MENUS

The menu bar for the Remote GUI has drop down menus with the following options:

5.1.1 File

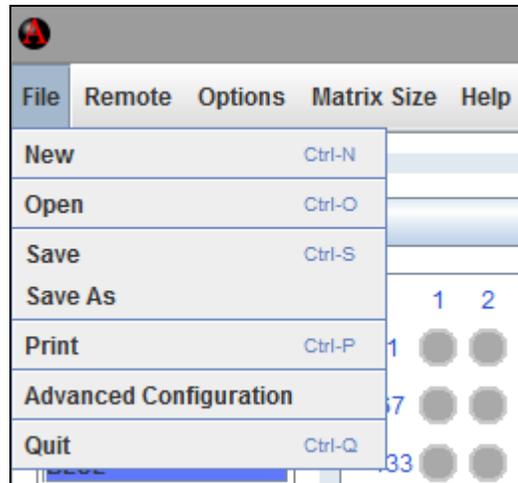


Figure 6: File Menu

New: This option closes the current configuration and creates a new configuration with default settings. If the current configuration was modified and not saved, a dialog will appear with the options to either save the configuration or to discard the changes.

Open: This option opens a file chooser dialog that allows for the selection of a configuration file to open.

Save/Save As: This option opens a save file dialog that allows the current configuration to be named and saved.

Print: This option prints the currently displayed page.

Advanced Configuration: This option opens the Advanced Configuration window which allows the user to specify where program settings files are stored, and other advanced configuration options.

Quit: This option closes the program.

5.1.1.1 Advanced Configuration

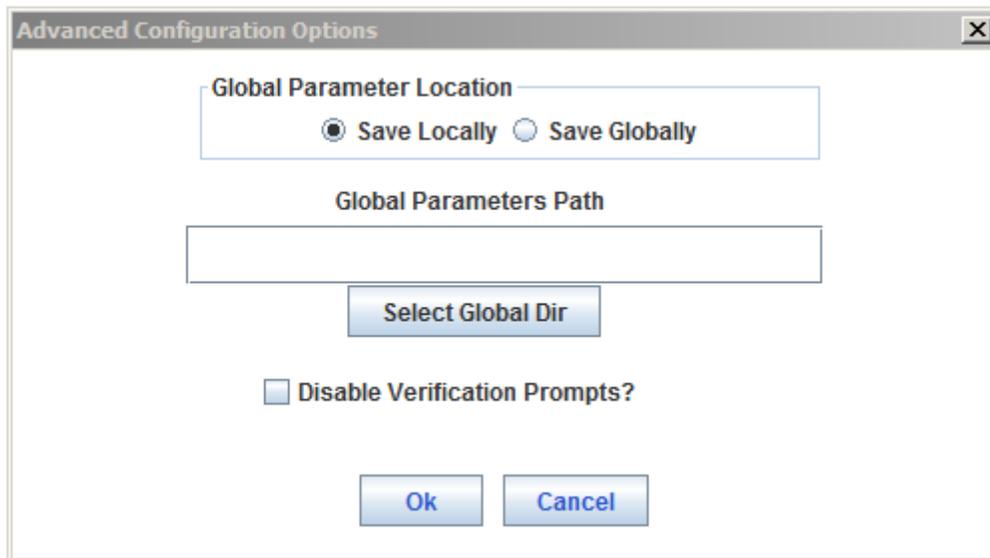


Figure 7: Advanced Configuration Menu

This dialog window provides the user some advanced configuration options. The first two entries are related to the location in which ACxIS configuration files are stored. These configuration files save the options, IP configuration and BNC colors for switches, referenced by each switch's IP address. The last entry is related to suppressing confirmation prompts for certain activities.

Global Parameter Location:

There are two choices for the option: **Save Locally** and **Save Globally**.

Save Locally:

This choice is the default operational mode, and how earlier versions of ACxIS used to operate. Choose this selection if you do not have the need to share configuration files and setups with other users. The files will be stored in a hidden directory named *.ACxIS* which is located in the user's directory.

Save Globally:

This choice is used if you wish to share configuration files and setups with other users. You need to have a systems administrator configure a directory that is accessible by all users who wish to access these files. This directory must then be entered into the *Global Parameters Path* field.

Global Parameters Path:

This field contains the directory that will be used for the ACxIS configuration files, if you select the *Save Globally* option above. You can manually enter the path into this field, or use the *Select Global Dir* button to open a file chooser dialog to select the directory.

Disable Verification Prompts:

This option is used to disable verification / confirmation prompts that normally occur when configuring a switch. When this option is unchecked, the system operates as normal. When this option is checked, the user will no longer be prompted for confirmation for certain operations, such as when moving connections, overwriting connections, deleting connections, or exiting the application. This is an advanced option and should not be enabled unless the user is an experienced ACxIS user.

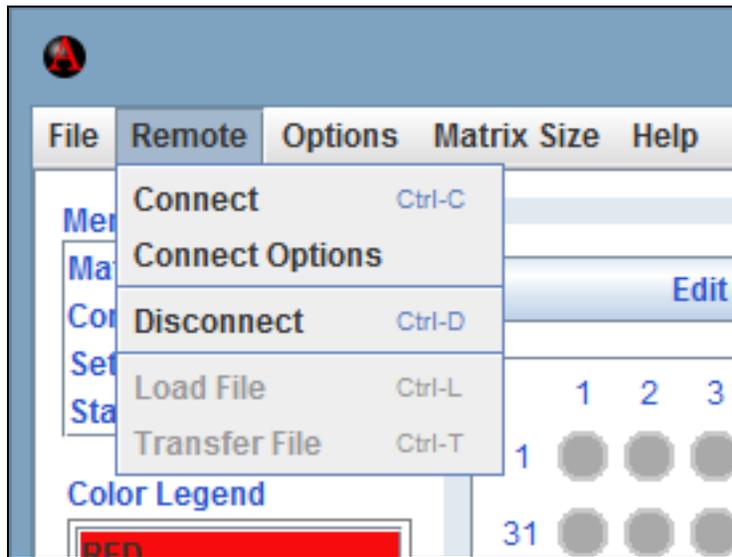
5.1.2 Remote

Figure 8: Remote Menu

Connect: This option will connect to the switch as configured by the Connection Options. If connecting to a switch which requires a login, make sure the User Name is set under the Connection Options. Also, when connecting to a switch which requires a login, a popup will appear requesting the password for the user.

Connect Options: This will display a popup window showing the IP Address, Port Number, and User Name that will be used to connect to the switch.

The user name is needed when connecting to a switch which requires a login, such as the AL2273-203 and the AL2202. (*The AL2273-203 and the AL2202 also need to have telnet enabled. See the troubleshooting section for additional information.*) The checkbox next to the Save Password field will store the entered password if enabled.

If controlling multiple switches, see Section 4.3 for information on creating multiple desktop shortcuts.



Figure 9: Connection Options

Disconnect: This option will disconnect from the switch.

Load File: This option will load a local configuration onto the switch, but will not save the configuration on the switch.

Transfer File: This option will transfer a local configuration onto the switch without modifying the current configuration of the switch.

***Note:** The *Load File* and *Transfer File* options are not available for the AL2202. Please see section 7.5 Partial Files for comparable upload options.

5.1.3 Options

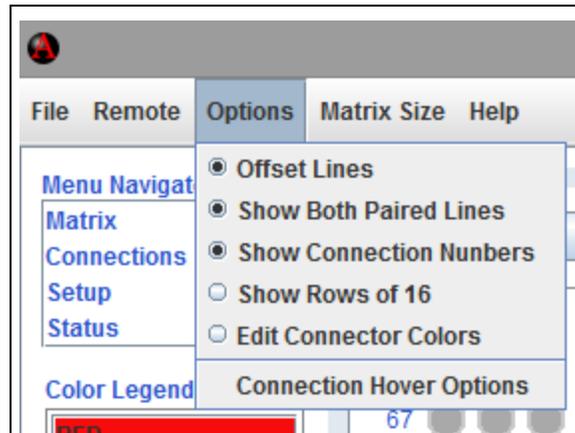


Figure 10: Options Menu

Offset Lines: This option when selected will display connection lines to be offset by row when the Matrix page is expanded to have at least 64 connectors in each row. If the program cannot be expanded to that extent the connection lines will be drawn from the center of each connector.

Show Both Paired Lines: This option when selected will display both lines of a paired connection. If this option is not selected only the line between the odd numbered connectors will be displayed for a paired connection.

Show Connection Numbers: This option when selected will display the connection number and name in the connection popup that appears when hovering over a connector. If this option is not selected only the connection names will be displayed.

Show Rows of 16: This option when selected will display the connectors in rows of 16. The window will allow scrolling for displays that cannot display all 32 rows.

Edit Connector Colors: This option when selected will allow the user to edit the background colors of connectors in the matrix.

Connection Hover Options: This option opens a dialog window that allows the user to modify the font size for the text in the connection popup that appears when hovering over a connector.

5.1.4 Matrix Size

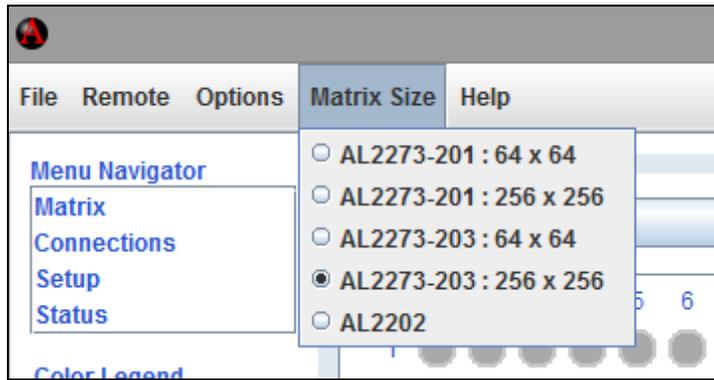


Figure 11: Matrix Size Menu

This menu option allows the user to configure ACxIS to show the correct number of input and output connections to correspond to the hardware that you are connecting to. After switching modes, a restart of the application is required to reconfigure the interface.

5.1.5 Help

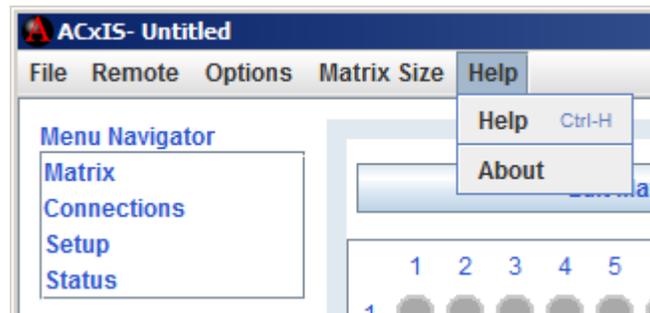


Figure 12: Help Menu

Help: This option displays this Instruction Manual.

About: This option displays contact information for Apogee Labs and the current version number of ACxIS.

5.2 MENU SHORTCUT KEYS

In addition to selecting the menu options with the mouse, there are control-key shortcuts available for certain options. Here is a list of the available shortcut keys:

- Ctrl + c:** Shortcut to connect to the switch.
- Ctrl + d:** Shortcut to disconnect from the switch.
- Ctrl + l:** Shortcut to open the load configuration file dialog.
- Ctrl + t:** Shortcut to open the transfer configuration file dialog.
- Ctrl + n:** Shortcut to create a new configuration.
- Ctrl + o:** Shortcut to open a configuration file.
- Ctrl + p:** Shortcut to print the current view.
- Ctrl + s:** Shortcut to save the current configuration file.
- Ctrl + h:** Shortcut to display the Help file.
- Ctrl + q:** Shortcut to quit the program.

6 SETUP

The setup page provides access to modify the input and output names, modes and pairs. It also provides access to the IP configuration of the unit and the ability to save and load files which reside on the switch.

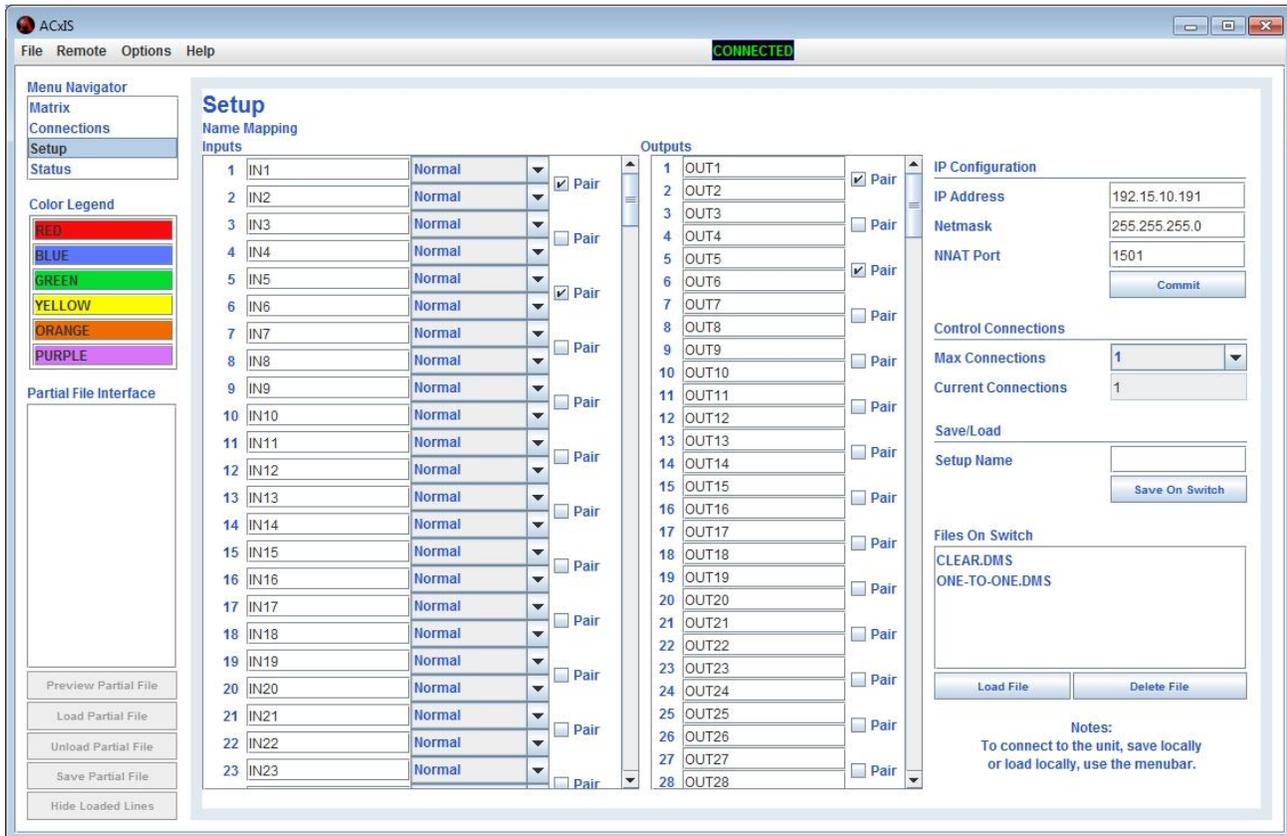


Figure 13: ACxIS Setup Screen

6.1 INPUTS

Under the Inputs view, ACxIS provides the ability to rename, set the mode and pair inputs. Names can be 1 to 16 characters in length. The modes for inputs are Normal, Test PRN Data and Test PRN Clock. Even numbered inputs can be set to either Test PRN Data or Normal. Odd numbered inputs can be set to either Test PRN Clock or Normal.

Consecutive inputs can be paired so that they follow the same path along the backplane to the paired outputs. This reduces the amount of latency between the two outputs.

***Note:** Test modes are only available for AL2273-201 controller chassis.

6.2 OUTPUTS

Under the Outputs view, ACxIS provides the ability to rename and pair outputs. Names can be 1 to 16 characters in length. Consecutive outputs can be paired so that they follow the same path along the backplane to the paired inputs. This reduces the amount of latency between the two outputs.

6.3 IP CONFIGURATION

The IP Configuration is populated when connected to the switch. To modify the IP Configuration of the switch, enter the IP Address, Netmask and NNAT Port and click the Commit button. If the IP address changes, ACxIS will be disconnected from the unit and the *Remote->Connection Options* will need to be modified to reconnect to the switch.

6.4 SAVE/LOAD

When connected, this field is used to save the current setup in the switch's memory to the switch's configuration files. Enter the name to save and click on the *Save On Switch* button. The newly saved file will be added to the *Files On Switch* list.

6.5 FILES ON SWITCH

This field will display the configuration files which are saved on the switch. To delete a configuration file, click on the configuration file and click the Delete File button. To load a configuration file, select the file and click on the Load File button. This will load the configuration as the current configuration.

7 MATRIX

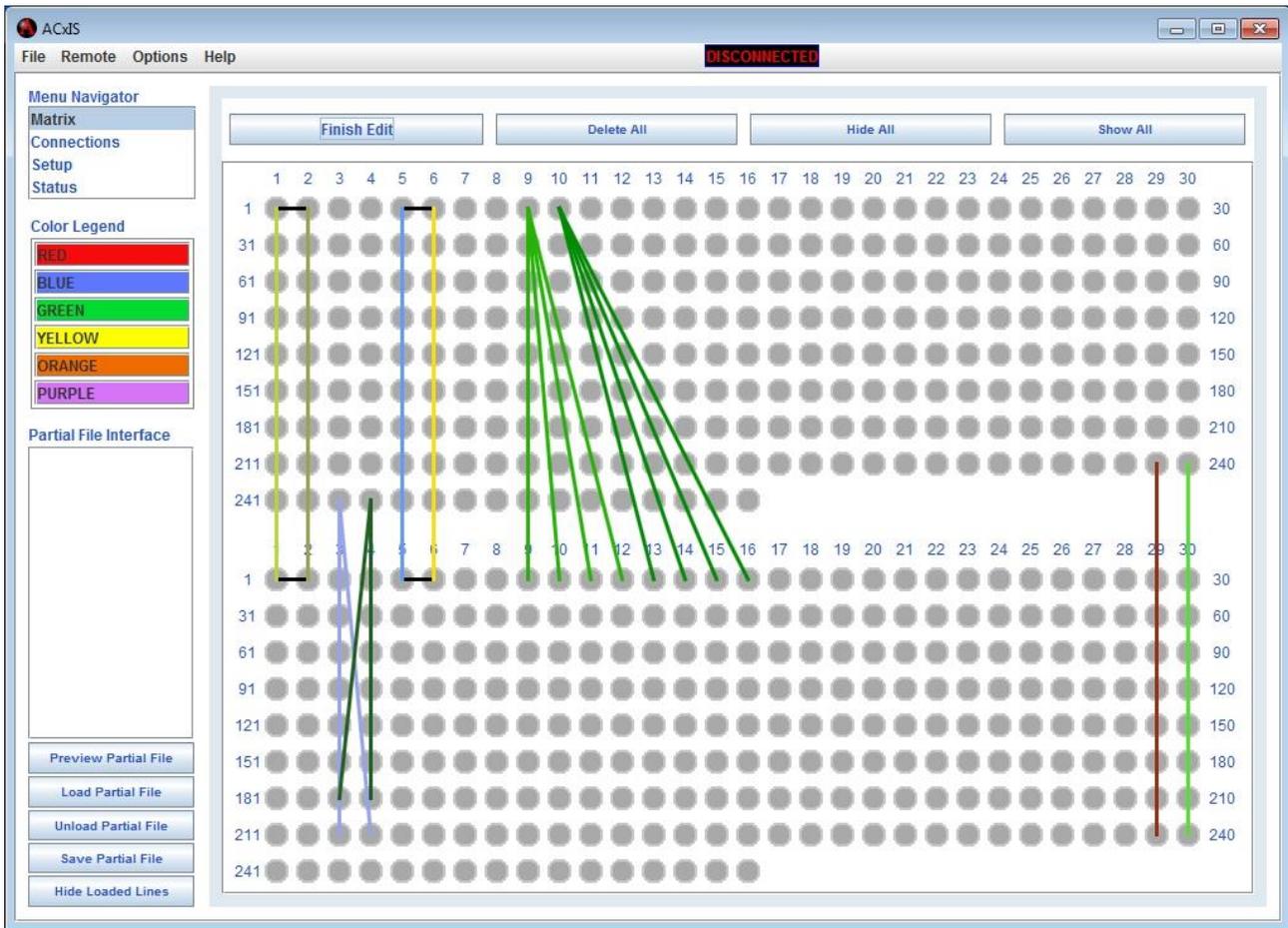


Figure 14: Matrix Setup Screen

The Matrix setup page provides access to the switching matrix. It allows users to make and break connections by utilizing a point and click interface to make connections between inputs and outputs. Once a connection is made a line is drawn between the corresponding input and output. Every connection from a particular input will have the same colored line if an input is connected to more than one output.

7.1 EDITING CONNECTOR COLORS

To edit the background colors of the connectors follow the procedure outlined below:

1. Under Options menu, enable “Edit Connector Colors”

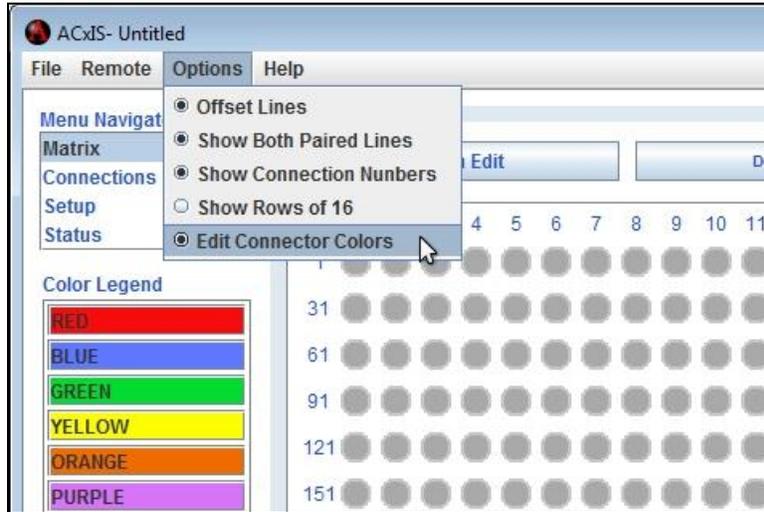


Figure 15: Edit Connector Colors - Enable Edit Mode

2. When in “Edit Connector Color” mode, you will not be able to set connections. Every connector you click on will become highlighted.



Figure 16: Edit Connector Colors - Click to Highlight

- Once you have a bank of connectors selected, right click and choose the color to change to (Red, Blue, Green, Yellow, Orange, Purple).

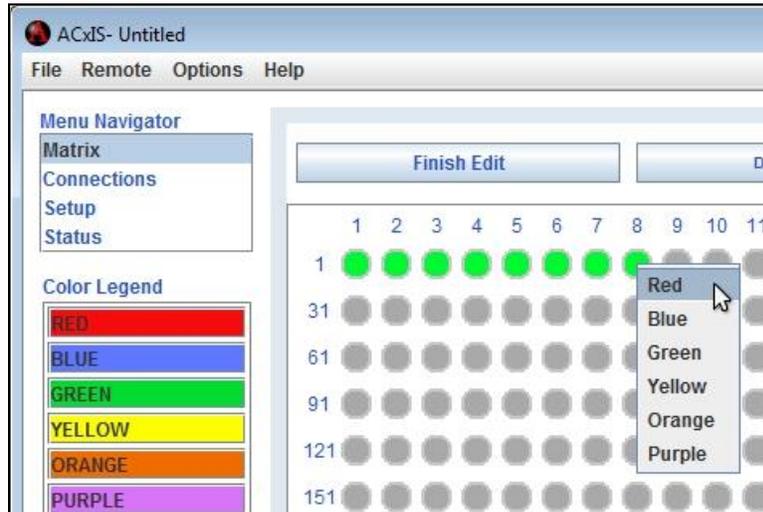


Figure 17: Edit Connector Colors - Right Click to Select Color

- To change the connector back to white, double click the desired connector while in Edit Connector Colors mode.
- To leave the “Edit Connector Colors” mode, simply disable it under the Options menu.

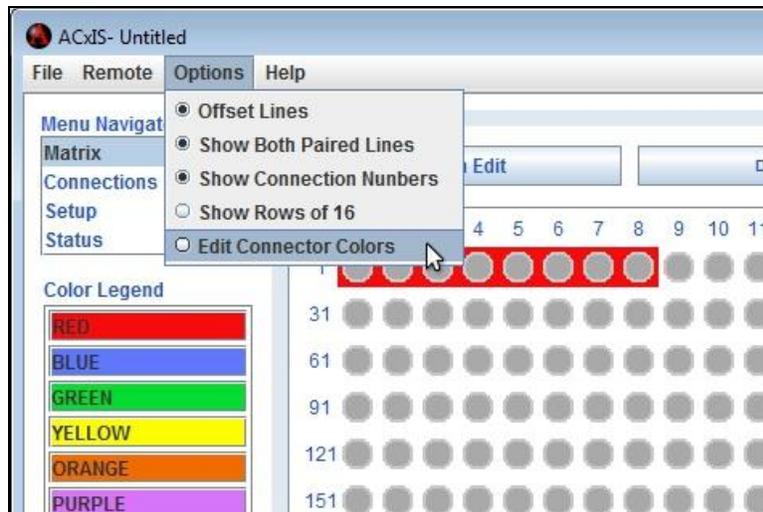


Figure 18: Edit Connector Colors - Disable Edit Mode

7.2 EDITING COLOR LEGEND

To edit the Color Legend, simply click on the color you want to edit and type in the window. Modified entries are saved when the program closes and will be re-populated the next time the program is started.



Figure 19: Edit Color Legend

7.3 MANAGING CONNECTOR COLORS FOR MULTIPLE SWITCHES

The connector colors, color legend, matrix size, enabled options, connection options and application window size are associated with the currently configured IP Address. If the current IP Address is changed under the *Remote->Connection Options* menu, the settings associated with the new IP Address will be loaded.

If the user configures the *Global Parameter Location* (on the *Advanced Configuration Options* dialog) to be *Save Locally*, the configuration files containing the setup information will be located in flat text files located in the current user's home directory under the *.ACxIS* directory (*C:\Users\<user_name>\.ACxIS*). If the user configures the *Global Parameter Location* (on the *Advanced Configuration Options* dialog) to be *Save Globally*, the configuration files containing the setup information will be located in flat text files located in the directory that is selected in the *Global Parameters Path* field.

The color settings are located in files named **bncColors_<ip_address>.txt** , the IP settings are stored in files named **IP.setup_<ip_address>.txt** and the other settings are in the files named **options.saved_<ip_address>.txt** . If the user wants to migrate settings from one IP Address to another, the <ip_address> portion of the files can be modified to match a different IP Address. The contents of these files can also be copied and pasted into other files as a basis for modification.

7.4 EDITING CONNECTIONS

7.4.1 Lock/Unlock the Matrix

To begin editing the connections, click on the *Edit Matrix* button. When finished modifying the connections, click on the *Finish Edit* button and the connections will again be locked out from accidental modifications. When editing is locked out, the *Hide All* and *Show All* buttons are still active, as well as the toggle lines option when right clicking on a connector with an active connection.

7.4.2 Add Connections

To add a connection, click on the input then click on the output. A new line between the input and output will appear to indicate the input and output are connected. To connect multiple outputs to a single input, the input does not have to be clicked between outputs. For example, clicking on input 1 then outputs 1, 2, 3, and 4, will connect input 1 to outputs 1 through 4. If the inputs and outputs are paired, the consecutive input and output are also connected. For example, if input 1 and 2 are paired and output 1 and 2 are paired, clicking on input 1 then output 1 will connect the two inputs and outputs.

Note: Paired inputs cannot be connected to un-paired outputs and vice-versa.

As the matrix view begins to fill with connections, it may become difficult to see which inputs are connected to which outputs. Clicking on the *Hide All* button will place draw all connections as thinner grey lines. To view an input's connection lines as normal, right click on the input and select *toggle lines*. Another method to view connections is to click on the leading input number text field of each row of BNCs. This will display all connections contained in the selected row of input connectors.

[7.4.3 Delete a Single Connection](#)

To delete a single connection, right-click on the output and select the *Delete Connection* option. A popup message will be displayed asking for confirmation of the deletion, unless you have the advanced configuration option of Disable Verification Prompts enabled.

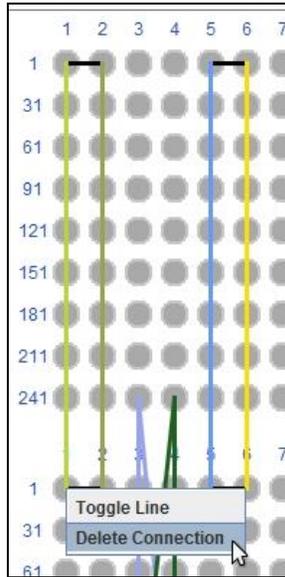


Figure 20: Delete Connection Right Click Option

[7.4.4 Delete All Connections to an Input](#)

To delete all connections to an input, right click on the input and select the *Delete Connections* option. A popup message will be displayed asking for confirmation of the deletion, unless you have the advanced configuration option of Disable Verification Prompts enabled.

[7.4.5 Delete All Connections](#)

To break all connections on the switch, click on the *Delete All* button at the top of the window. A popup message will be displayed asking for confirmation of the delete all action, unless you have the advanced configuration option of Disable Verification Prompts enabled.

7.4.6 Move Input

To move an established connection or group of connections from one input to another, right click on the desired input and select the *Move Input* option. To complete the move operation, click on another input connector. A popup message will be displayed asking for confirmation of the move, unless you have the advanced configuration option of Disable Verification Prompts enabled.

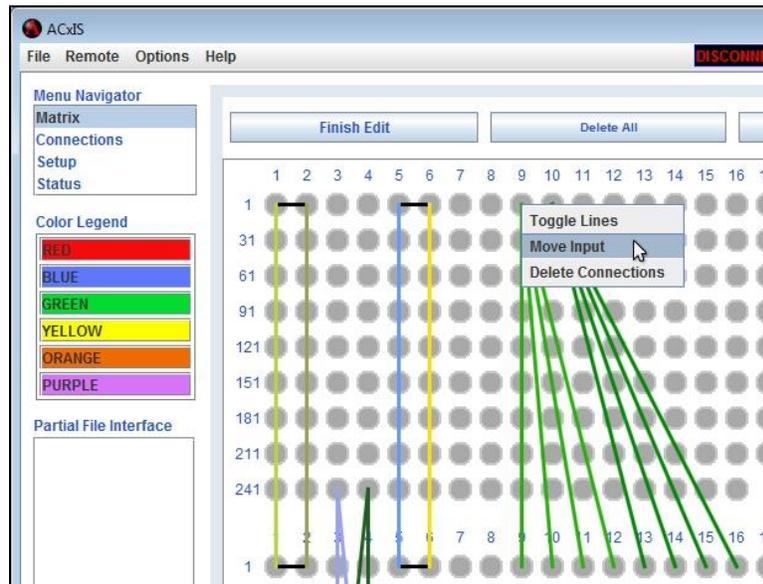


Figure 21: Move Input Right Click Option

7.5 PARTIAL FILE INTERFACE

The Partial File Interface allows users to load multiple PCF (*.pcf) files on top of an existing loaded DMS or CFG file. DMS and CFG files contain setup information about all input and output names, all input and output pairs, and all connections. PCF files only contain information about connections and contain anywhere from 1 to 256 connections. If utilizing the Partial File Interface the best practice would be to save all input and output names and pairs in a DMS or CFG file and to save all connections in PCF files as needed.



Figure 22: Partial File Interface

7.5.1 Partial File Window

The Partial File Window displays all currently loaded partial files. Clicking on a loaded file will show all the connections that are contained in that file and hide all other lines. Multiple loaded files can be selected at the same time by pressing SHIFT or CTRL while clicking on files in the Partial File Window.

7.5.2 Preview Partial File

The *Preview Partial File* button opens a file chooser dialog that allows for the selection of a partial file to preview. After a file is selected, that file will be displayed as visible lines on the Matrix and a confirmation will be displayed asking if the user wants to finish loading the partial file. If No is selected the lines will be erased and no connections will be made. If Yes is selected the lines will remain and the partial file will be loaded as normal.

7.5.3 Load Partial File

The *Load Partial File* button opens a file chooser dialog that allows for the selection of a partial file. After a file is selected, that file will be loaded into the partial file window and all connections contained in the file will be made and displayed on the Matrix.

7.5.4 Unload Partial File

The *Unload Partial File* button will unload the currently selected partial file in the partial file window. Before the file is unloaded a confirmation message will be displayed and will only continue if Yes is clicked. If more than one file is selected in the partial file window a confirmation message will be displayed for each file before they are unloaded.

7.5.5 Save Partial File

The *Save Partial File* button will open a save file dialog that allows the user to enter a name for the partial file to be saved. Only the lines that are visible will be saved as connections in the newly saved partial file. Lines can be hidden and shown using the Hide All and Show All buttons, by clicking on the *Hide Loaded Lines* button, or by right clicking on input or output connectors and choosing the *Toggle Line(s)* option.

If there are no lines visible when the *Save Partial File* button is clicked an error message will be displayed. When a partial file is saved, it automatically gets loaded into the Partial File Window.

7.5.6 Hide Loaded Lines

The *Hide Loaded Lines* button hides all the lines in the Matrix that are contained in the currently loaded partial files and shows any lines that are not part of the currently loaded partial files. This button is particularly useful if building new partial files on top of already loaded partial files. Instead of manually hiding and showing lines using the *Toggle Line(s)* option, the *Hide Loaded Lines* button will automatically show the newly added connections and hide all lines contained in the currently loaded partial files.

7.5.7 Creating Partial Files

To create partial files (PCF file) follow the example procedure outlined below:

1. Ensure that there are no active connections by clicking the *Delete All* button if connected or *File->New* if not connected.
2. Make desired connections and ensure that all lines are visible by clicking the *Show All* button.
3. Click the *Save Partial File* button and enter a name for the new file. Note that the newly saved file gets loaded in the partial file window.

4. To create another partial file on top of the last file, add more connections to the Matrix.
5. Click the *Hide Loaded Lines* button. Note that the last saved files lines get hidden and only the new connections are visible.
6. Click the *Save Partial File* button and enter a name for the new file. Note the newly saved file gets loaded in the partial file window.
7. Click on each filename in the partial file window and notice that when each file gets clicked the lines corresponding to the connections in each file become visible while the other lines become hidden.

7.5.8 Partial File Conflicts and Modifications

When loading or unloading partial files ACxIS checks the current configuration against the partial file that is being loaded or unloaded and reports any configuration conflicts or modifications that are present.

When there is a conflict between an established connection and a connection contained in a partial file that is being loaded a popup message will be displayed, unless you have the advanced configuration option of Disable Verification Prompts enabled.

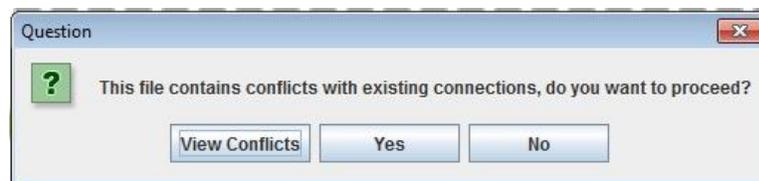


Figure 23: Conflicts Message

If the user selects Yes the partial file takes precedence over any existing connections and any conflicts will be overwritten. If the user selects No, the partial file will not be loaded. If the user selects *View Conflicts* another popup message will be displayed containing more information about the conflicts.

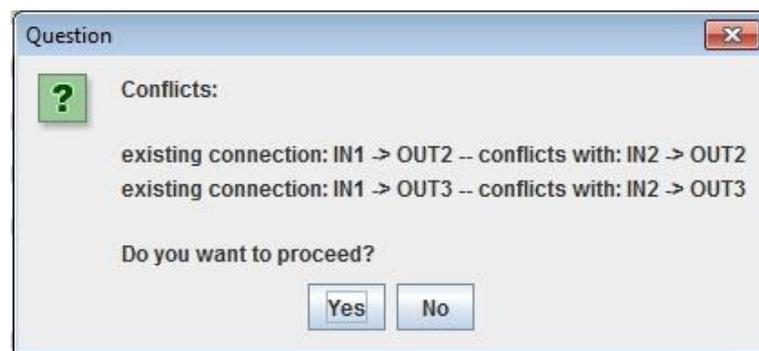


Figure 24: Conflicts List Message

The conflicts list contains the existing connection and the connection contained in the partial file. If the user selects Yes the conflicts will be overwritten by the partial file. If the user selects No, the partial file will not be loaded.

When modifications have been made to connections contained in an already loaded partial file and a user wants to unload the partial file an error message will be displayed.



Figure 25: Modifications Message

If the user selects Yes, the partial file takes precedence over any existing modifications and any connection contained in the partial file will be deleted. If the user selects No, the partial file will not be unloaded and no changes will be made. If the user selects *View Mods* another popup message will be displayed containing more information about the modifications, unless you have the advanced configuration option of Disable Verification Prompts enabled. If you have the advanced configuration option of Disable Verification Prompts enabled, it will automatically perform the *Delete Valid* action.

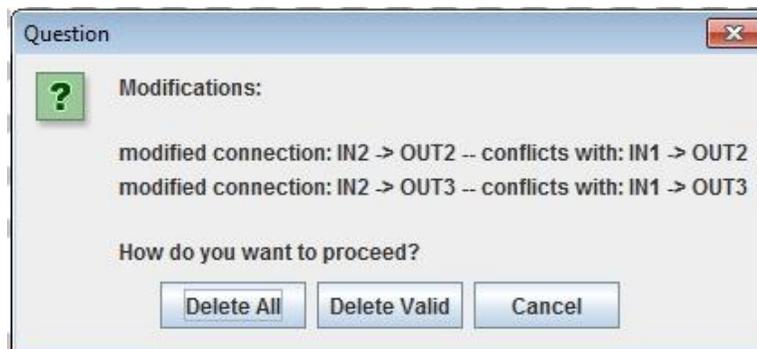


Figure 26: Modifications List Message

The modifications list contains the modified connections and the connections contained in the partial file. If the user selects *Delete All*, the modified connections and connections contained in the partial file will be deleted. If the user selects *Delete Valid*, only the connections contained in the partial file that have not been modified will be deleted. If the user selects *Cancel*, the partial file will not be unloaded and no changes will be made.

7.6 SHOWING AND HIDING CONNECTION LINES

7.6.1 Hide All / Show All

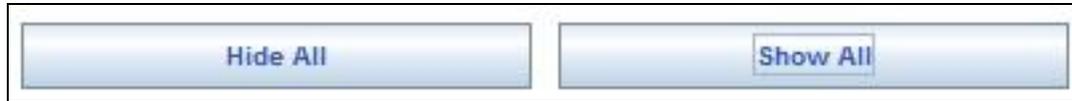


Figure 27: Hide All & Show All Buttons

The *Hide All* and *Show All* buttons located at the top right of the Matrix screen allow the user to hide all lines or show all lines by clicking on the appropriate button.

7.6.2 Toggle Line(s) Right Click Option

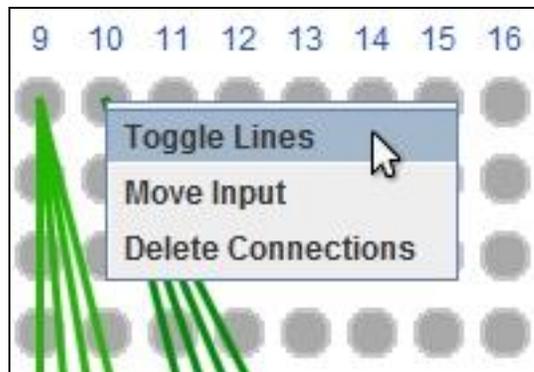
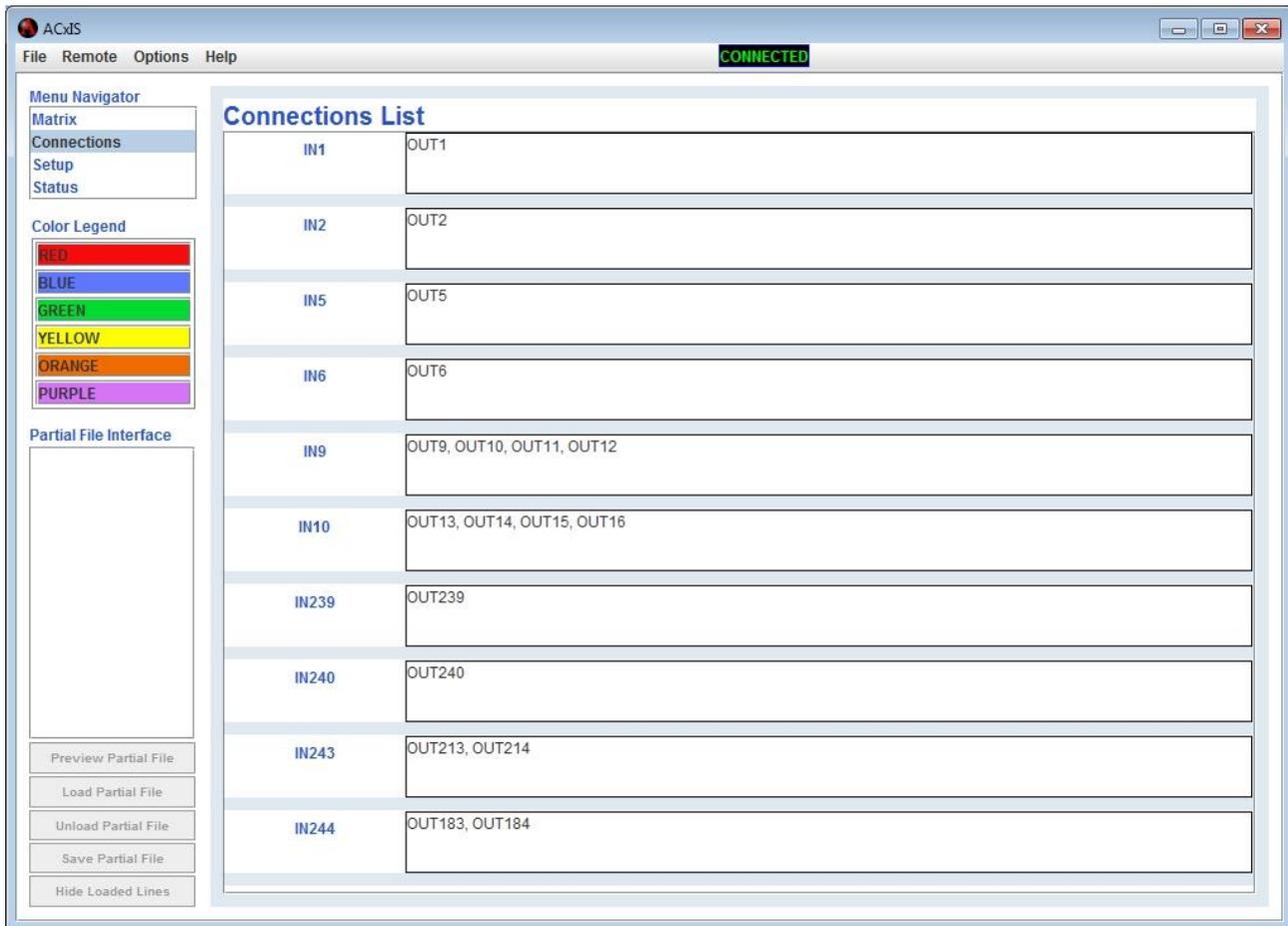


Figure 28: Toggle Lines Right Click Option

The *Toggle Line(s)* option allows individual lines or groups of lines to be toggled between hidden and showing. To access the *Toggle Line(s)* option simply right click on an input or output connector that has an active connection.

8 CONNECTIONS



Input	Output
IN1	OUT1
IN2	OUT2
IN5	OUT5
IN6	OUT6
IN9	OUT9, OUT10, OUT11, OUT12
IN10	OUT13, OUT14, OUT15, OUT16
IN239	OUT239
IN240	OUT240
IN243	OUT213, OUT214
IN244	OUT183, OUT184

Figure 29: Connections List

The connections page will show the connections in a text-based list. The inputs are listed on the left side by name and the list of outputs are listed next to the inputs.

9 STATUS

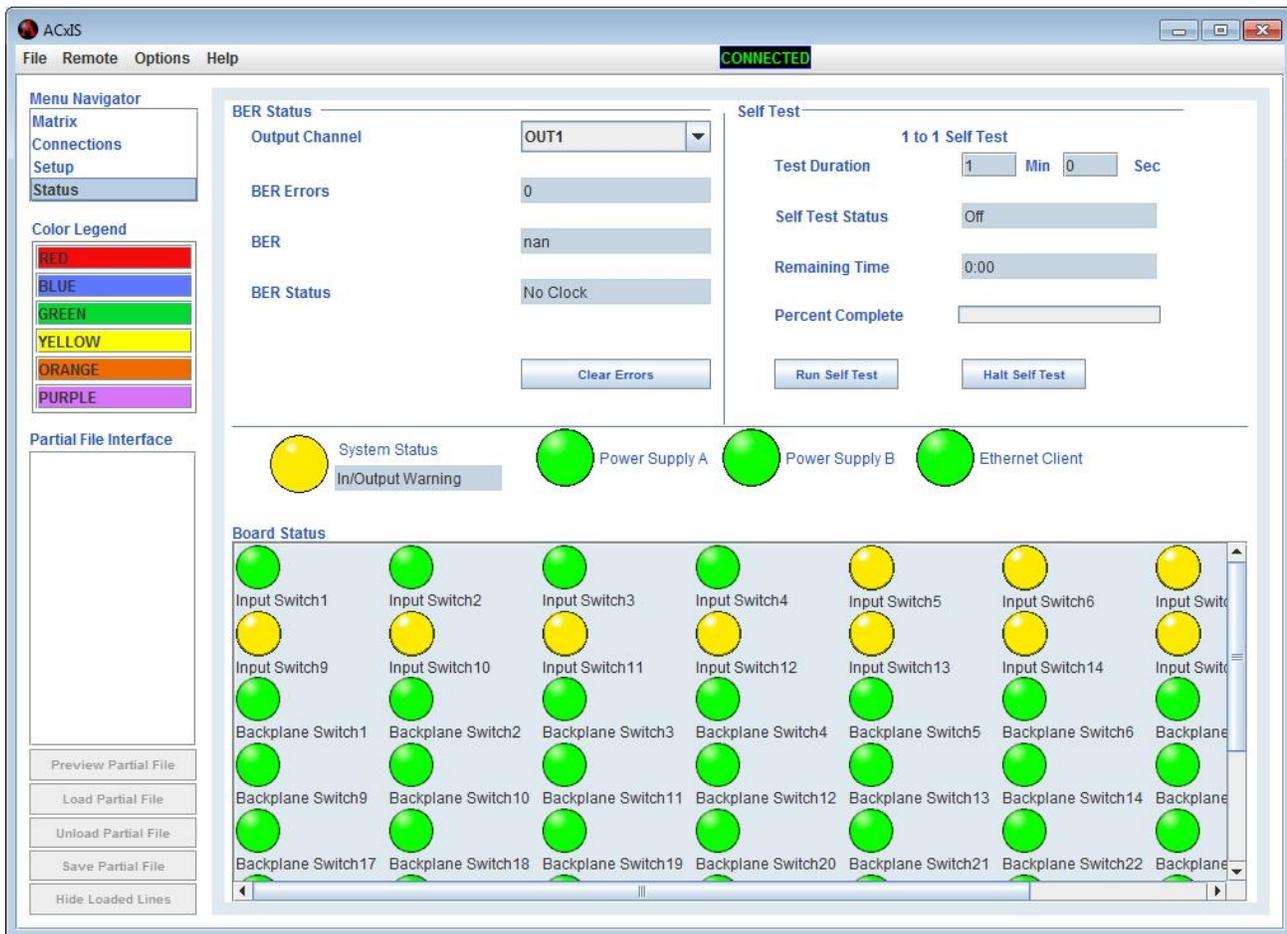


Figure 30: Status Page

***Note:** The Status menu entry and screen is not available when configured for the AL2202 switch.

9.1 BER STATUS

The BER Status shows the results of current and recent single channel tests.

To run a BER test, first connect the input and output channels on the Matrix screen. The input and output channels must be paired and the input channels must be set to Test PRN Data and Test PRN Clock. Next select the output channel under the BER Status section. After the output has been selected, the results will appear showing BER Errors, BER and BER Status. To clear the BER Errors and BER, click on the Clear Errors button.

***Note:** The BER Status features are only supported by the AL2273-201.

9.2 SELF TEST

The Self Test function permits testing the entire switch matrix for the presence of an error condition on any data path. This test may be run for a very long period (up to 1440 minutes and 59 seconds). The minimum time for this test is 8-seconds, which allows a one second test to be performed on each channel pair of a module. While the test is in progress an indication of Remaining Time is presented as well as the Self Test Status. The status indicates Off only if the test has not been executed since the application of power to the unit. Thereafter, the status indicates Halted, Running or Done

The Self Test will configure the switch in a 1 to 1 configuration, i.e. input 1 is sent to output 1, then all of the channels are tested with the BER data and clock. After the test has finished, the switch will return to the pre-test configuration. To prematurely terminate a test sequence, activate the Halt Self Test button. This action terminates the test and no intermediate test results are presented.

***Note:** The BER Status features are only supported by the AL2273-201.

9.3 SYSTEM STATUS

Indication is provided for the health of each of the two power supplies, the connection status of the Ethernet Client port and the ubiquitous general system health LED that includes the combined state of all critical system components. If the system status LED is not green while the power supply status indicators are green, the location of the out of tolerance switch condition is found viewing the Board Status section below the System Status button. This displays the presentation of the individual status for all of the switches.

Should the display indicate that a switch module exhibits a failure mode, it is advisable to remove that module from service, either physically or logically. If a module is failed (Red LED), it may be removed from the status scanning process by clicking on the LED and uninstalling the board via the popup window. A board is seen as uninstalled by a yellow LED.



Figure 31: Uninstall Board

The Ethernet Client LED indicates the existence or absence of a connection to the system from a remote user on the Ethernet connection. When the client is connected, the indicator is green and appears to be illuminated. When there is no connection, the indicator color tends towards black. As long as all LEDs are green no further investigation is needed.

10 SAVING CONFIGURATIONS

To save a configuration file, click on File from the menu bar then Save or Save As.

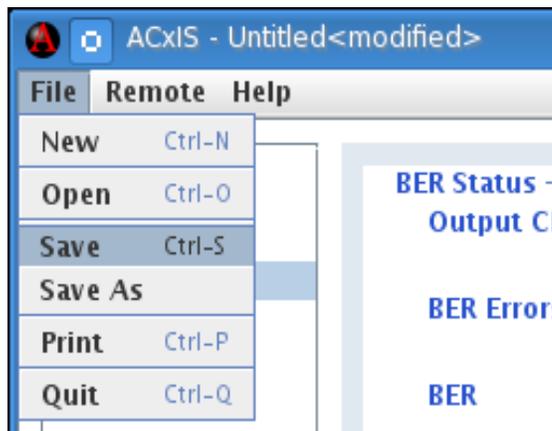


Figure 32: Save Menu Option

If the file has not been saved, or the Save As option has been selected, a Save As dialog will appear providing options to set a file name and save location. Configuration files are saved based upon which controller chassis is being controlled. The AL2273-201 and AL2202 controller chassis save files with a .DMS file extension. The AL2273-203 controller chassis saves files with a .CFG file extension.

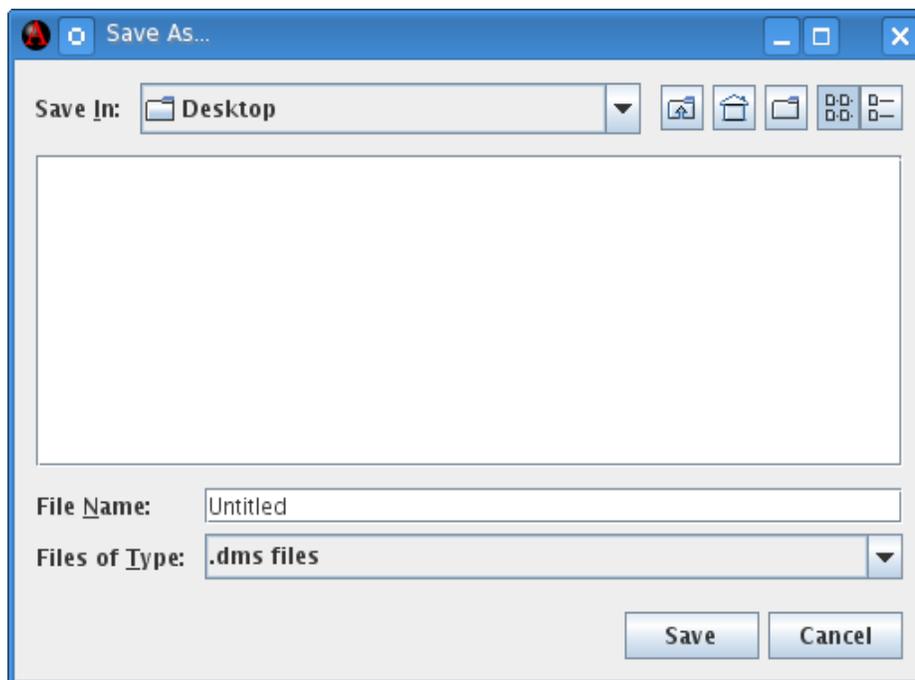


Figure 33: File Save As Dialog

Saving configuration files through the File->Save operation will save the current configuration locally on computer that ACxIS is installed or on a network drive. To save configuration files on the switch itself reference Section 6.4.

DMS files are saved in XML format with all Nodes and Modules included in each Node. **NOTE: To avoid corruption of files, configuration files should not be modified outside of ACxIS.**

DMS Configuration File example

Filename: Untitled.dms

```
<DmsConfigData>
  <DmsInputs>
    <DmsInput number="1" name="INPUT-1">
      <Pair>false</Pair>
      <Prn>off</Prn>
      <Output>1</Output>
    </DmsInput>
    ...
    ...
    <DmsInput number="256" name="INPUT-256">
      <Pair>false</Pair>
      <Prn>off</Prn>
      <Output>256</Output>
    </DmsInput>
  </DmsInputs>
  <DmsOutputs>
    <DmsOutput number="1" name="OUTPUT-1">
      <Pair>false</Pair>
    </DmsOutput>
    ...
    ...
    <DmsOutput number="256" name="OUTPUT-256">
      <Pair>false</Pair>
    </DmsOutput>
  </DmsOutputs>
</DmsConfigData>
```

CFG files are saved in a flat text format with all Slot, Names, Pairs, and Connections. **NOTE: To avoid corruption of files, configuration files should not be modified outside of ACxIS.**

CFG Configuration File example

Filename: Untitled.cfg

```
SYSTEM=AL2273-203
SLOT1=Input
1-1 Name=INPUT-1.1
1-1 Paired=Off
1-2 Name=INPUT-1.2
1-2 Paired=Off
...
...
SLOT32=Output
32-1 Name=OUTPUT-32.1
32-1 Paired=Off
32-2 Name=OUTPUT-32.2
32-2 Paired=Off
...
...
SLOTCTX=AL2273-203
CONNECT OUTPUT 256=0
CONNECT OUTPUT 257=1
CONNECT OUTPUT 258=2
CONNECT OUTPUT 259=3
CONNECT OUTPUT 260=4
CONNECT OUTPUT 261=5
CONNECT OUTPUT 262=6
CONNECT OUTPUT 263=7
CONNECT OUTPUT 264=8
...
...
```

11 OPENING CONFIGURATIONS

Clicking on File then Open from the menu bar or Ctrl-o will launch the Open File dialog. The Open File dialog will automatically display files with a .DMS or .CFG extension only. Other files can be viewed by selection “All Files” on the Files of Type dropdown menu. This feature is only available when not connected to a switch.

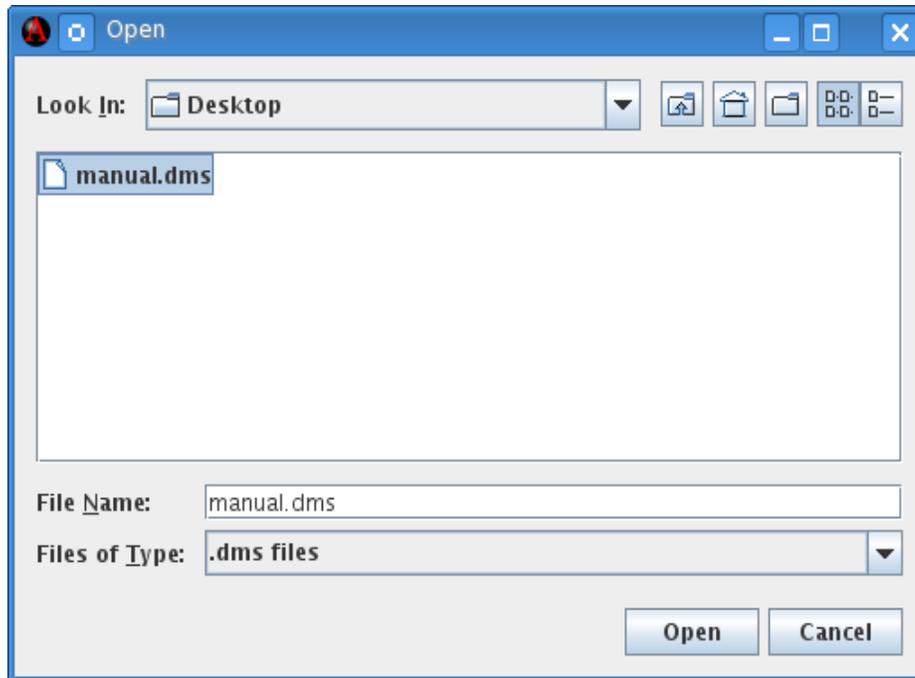


Figure 34: File Open Dialog

Opening a file will only open the file locally and it will not be loaded on the switch. If there are errors in the configuration, a popup will indicate an error and the configuration will not be loaded.

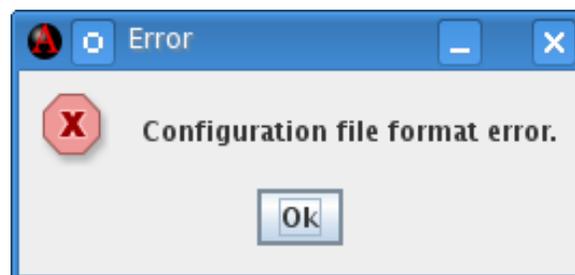


Figure 35: File Format Error

For loading and transferring files to the switch see section 12.

12 LOADING AND TRANSFERRING CONFIGURATION FILES

Loading configuration files from ACxIS will take a local file on the PC and loads it on the switch. When the file is loaded on the switch, it is not saved as a configuration on the switch until it is saved under the Save/Load section on the Setup page. This action is not available when connected to an AL2202 switch.

Clicking on File then Load from the menu bar or *Ctrl-l* will launch the Load File dialog. The Load File dialog will automatically display files with a .DMS or .CFG extension only. Other files can be viewed by selection “All Files” on the Files of Type dropdown menu. When a file has been selected, the Loading File progress will popup.

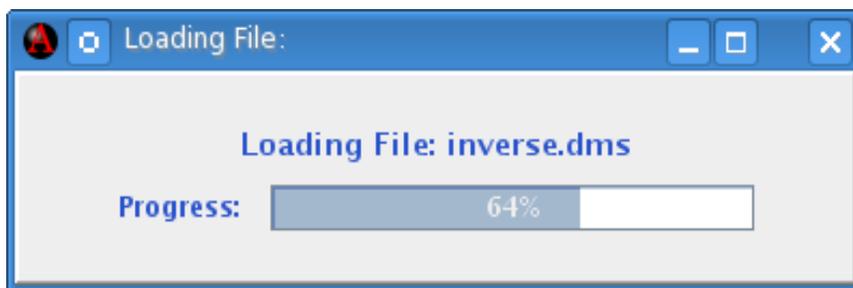


Figure 36: Loading File

Transferring configuration files from ACxIS takes a local file and transmits it to the switch. This file is then saved as a configuration on the switch, but not loaded.

Clicking on File then Transfer from the menu bar or *Ctrl-t* will launch the Transfer File dialog. The Transfer File dialog will automatically display files with a .DMS or .CFG extension only. Other files can be viewed by selection “All Files” on the Files of Type dropdown menu. When a file has been selected, the Loading File progress will popup.

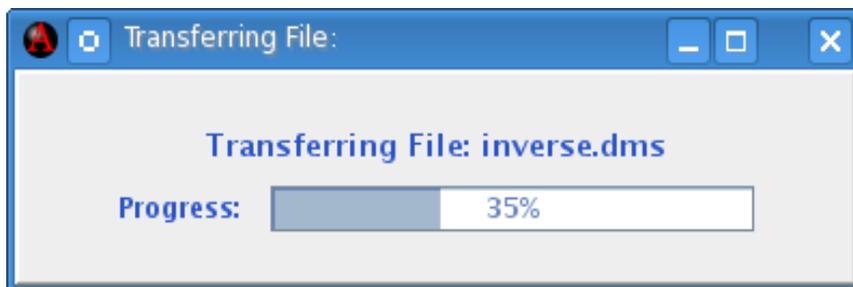


Figure 37: Transferring File

13 DMS/CFG VS PCF FILES

DMS and CFG files contain setup information about all input and output names, all input and output pairs, and all connections. PCF files only contain information about connections and contain anywhere from 1 to 256 connections. The partial file interface that implements PCF files is an added feature of ACxIS that allows users to build complex setups out of smaller setup files. ACxIS uses PCF files to make and break connections on the switch based off the connections contained in each file. The AL2273 controller can only ingest DMS or CFG files and cannot handle PCF files renamed as DMS or CFG files since the content contained in these files are very different. See the below example of a PCF file in comparison to the example of configuration files in Section 10.

PCF Configuration File example

Filename: Untitled.pcf

```
PARTIAL FILE
CONNECT 1=3
CONNECT 1=5
CONNECT 1=7
CONNECT 1=9
CONNECT 1=11
CONNECT 1=13
CONNECT 1=15
CONNECT 2=4
CONNECT 2=6
CONNECT 2=8
CONNECT 2=10
CONNECT 2=12
CONNECT 2=14
CONNECT 2=16
```

14 PRINTING VIEWS

Each of the four views, Matrix, Connections, Setup and Status can be printed as seen at the moment.



Figure 38: Printed Setup

Printing will not expand any scrollable views. As seen in the figure above, printing will only show what is currently visible.

15 TROUBLESHOOTING

Issue: Cannot connect to an AL2202 or AL2273-203.

Solution: Verify that telnet is enabled on the target device. You can enable telnet through the switch's web interface. Using the web interface, navigate to **Module 9** on the left of the screen and then select the **IP Setup** tab from the main frame of the screen. Use the pulldown menu to set **Telnet** to be *Enabled*. Refer to the switch's product manual for additional information.

Issue: Cannot save to a directory in Windows that appears to be writable.

Solution: Open up a command console and navigate to the directory one level above the one that needs to be modified and type: `attrib -r <"directory name">` to permit ACxIS permission to that directory. For example: `attrib -r "My Documents"`

Issue: Cannot open a configuration file.

Solution: Verify that the configuration file is not open in any other application.

Issue: Can open a configuration, but cannot save modifications made to the file.

Solution: Use a file browser or terminal to navigate to the location of the configuration file. Verify that the configuration file is not set to read only and that it's not opened by any other application. After removing the read only flag from the file, try to save the file again.