

SPAJ 135 C



Contents for How to Use the Simulator Program

This manual describes the various items you see in the simulation program. To choose a Help Topic, click on the underlined topic to view the text.

Toolbar

Menu Commands

File

Options

Preferences

Help

Other functions

Potentiometer

Toolbar



Exit button

Exit simulator program



Power Switch button

Simulates the switching on/off of the power supply to the SPAJ 135 C relay



Factory Settings button

Change all settings to the defaults set when the relay is shipped from the factory.
WARNING: Selecting this option results in the lost of all current settings.



Factory settings button

Disabled when power supply is OFF



Simulate Current and Voltage Injection

This window allows the simulation of current or voltage injection into the relay. Select the required module for which the current or voltage is to be injected.
Inject preset current command button simulates the one time (static) injection of the input current into selected input of the relay.



Simulate Current Injection

Disabled when power supply is off or when display is not in main menu



Forced Activation

Enable the force activation mode. This will place the user at Register 0.



Forced Activation

Disabled when power supply is off or during initial test routine.



Change Simulator Colour

This option allows the user to change the colour of the various relay items like the LED, Dipswitches, etc..



Change Simulator Speed

The scrolling speed of the LEDs can be controlled using this option



Copy button

Copy selected area to the clipboard.
Upon selecting this option, the cursor is restricted to the SPAJ 135 C relay area.

To select the required area

- Press and hold left mouse button at top left hand corner of required area.
- Move mouse to bottom right hand corner of required area. (a rectangle box is display to show the selected area)
- Release the mouse button.

Note: Click once anywhere to cancel the copy command



View Clipboard

This button will launch the clipboard viewer. It allows the user to view the items copied to the clipboard.



Print Simulator Window

This function sends the current screen image to the printer attached.



SPAJ 135 C manual button

Shows the SPAJ 135 C manual and reduces the window size of the simulator. Both windows are adjusted to sit side by side on the screen.

See Also **Full Screen** menu option

The Full Screen menu option is only shown when the **Show SPAJ 135 C manual** option is chosen.

When the **Show SPAJ 135 C manual** option is chosen, the area of the simulator window is reduced so that the user can adjust the manual window and the simulator window to be side by side on the screen.

When the **Full Screen** option is chosen, the simulator window is maximized to the screen size and the position of the relay is readjusted.

The relay has an internal clock which resets the relay to blank position if there is no activity for 5 minutes. In this simulator, the internal clock is deactivated when the **Show SPAJ 135 C manual** is chosen



Help on Simulator

Displays the help manual on how to use this simulation program



Getting Started Tutorial

A step by step guide on how to use the program



About

Display program information, version number and copyright information.

Menu Commands - File

View Clipboard -	Display the contents of the clipboard
Copy to Clipboard -	<p>Copy selected area to the clipboard. Upon selecting this option, the cursor is restricted to the SPAJ 135 C relay area. <i>To select the required area</i></p> <ul style="list-style-type: none">• Press and hold left mouse button at top left hand corner of required area.• Move mouse to bottom right hand corner of required area. (a rectangle box is display to show the selected area)• Release the mouse button. <p>Note: Click once anywhere to cancel the copy command</p>
Print SPAJ 135 C window -	Print the contents of the SPAJ 135 C window
Printer Setup -	Change the printer configuration
Exit -	Stop running the simulator program

Menu Commands - Options

Clear All Registers -	Resets all readings in registers (1 to 9) to zero
Simulate current or voltage injection -	<p>This window allows the simulation of current or voltage injection into the relay. Select the required module for which the current or voltage is to be injected. <i>Inject preset current</i> command button - Simulates the one time (static) injection of the input current into selected input of the relay.</p>
Forced Output Activation -	<p>Places the simulator in the <i>Forced Output Activation</i> position (i.e. "forced" trip mode). Note: In the relay, this position is reached by running through the relay positions to position zero (with the reset button) and then pressing the program button down for more than 5 seconds</p>
Main/Second Settings -	Toggles the selection of Main vs. Second Setting. This option is only allowed when the power switch is turned off.
Turn on/off power switch -	Simulates the switching on/off of the power supply to the SPAJ 135 C Relay

Menu Commands - Preferences

Show/Remove Toolbar -	Displays/removes the toolbar on the screen depending on whether it is currently removed/shown respectively.
Change LED colours -	<p>Change the colours of the background and LED's to suit individual screens and preferences</p> <p>Click on the appropriate box to change the corresponding colour</p> <p>Click on the "Apply changes to Simulator" button to confirm the changes made</p> <p>Click on the "Apply default colours" button to set all colours to permanently set defaults</p> <p>Click on the "Cancel all color changes" button to cancel all changes made</p>
Change simulator speed -	<p>Change the speed at which the simulator works. This allows for adaptations to individual hardware configurations. When this option is selected, the following window is shown</p> <p>Use the left mouse button to click on the left (or right) arrow to increase (or decrease) the simulation speed. Alternatively, click (and hold) the flashing box on the slide and drag it to the required position.</p> <p>Click OK to confirm the changes made or click CANCEL to ignore any changes</p>
Change to factory settings -	<p>Change all settings to the defaults set when the relay is shipped from the factory.</p> <p>WARNING: Selecting this option results in the lost of all current settings.</p>
Change to Customized Settings -	<p>All settings are automatically saves to file when:</p> <ol style="list-style-type: none">1. Power is turned off2. Program exits <p>These (current) settings are also automatically loaded when the program is restarted.</p> <p>Another (separate) set of settings can be saved by using the SAVE AS CUSTOMISED SETTINGS option. This allows the user to keep a set of preferred initialization settings, which can be reload at any time using the CHANGE TO CUSTOMISED SETTINGS option. Selecting this option results in the lost of all current settings.</p>
Save as Customized Settings -	<p>All settings are automatically saves to file when:</p> <ol style="list-style-type: none">1. Power is turned off2. Program exits <p>These (current) settings are also automatically loaded when the program is restarted.</p>

Another (separate) set of settings can be saved by using the SAVE AS CUSTOMISED SETTINGS option. This allows the user to keep a set of preferred initialization settings, which can be, reload at anytime using the CHANGE TO CUSTOMISED SETTINGS option. Selecting this option results in the lost of all current settings.

Menu Commands - Help

Help on simulator -	See this help window
Show SPAJ 135 C manual -	<p>Shows the SPAJ 135 C manual and reduces the window size of the simulator. Both windows are adjusted to sit side by side on the screen.</p> <p>See Also Full Screen menu option The Full Screen menu option is only shown when the Show SPAJ 135 C manual option is chosen.</p> <p>When the Show SPAJ 135 C manual option is chosen, the area of the simulator window is reduced so that the user can adjust the manual window and the simulator window to be side by side on the screen.</p> <p>When the Full Screen option is chosen, the simulator window is maximized to the screen size and the position of the relay is readjusted.</p> <p>The relay has an internal clock which resets the relay to blank position if there is no activity for 5 minutes. In this simulator, the internal clock is deactivated when the Show SPAJ 135 C manual is chosen</p>
How to use help -	Learn how to use this help window
About SPAJ 135 C -	Information about the simulator and system resources

Potentiometer



The potentiometer dial can be turned to increase or decrease the input value. In this simulator program, you can use the Left and Right mouse buttons to turn the potentiometer dial. You can also use the LEFT and RIGHT arrow keys to perform the same action.

To turn the dial, you will move the mouse over the potentiometer and when you see a screwdriver, you can press on either the Left or Right mouse buttons to decrease or increase the dial value.

To allow users to move the potentiometer dial positions easily, this simulation program allows you to press the mouse pointer on any of the three-potentiometer values on the relay. For example pressing on 0.5, 1.5 or 2.5 on the relay will turn the potentiometer dial to that particular position.