

# SPAJ 140C



## 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**

## Toolbar



Exit button

Exit simulator program



Power Switch button

Simulates the switching on/off of the power supply to the SPAJ 140 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 or 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 140 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 140 C manual button

Show SPAJ 140 C manual



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

<b>View Clipboard -</b>	Display the contents of the clipboard
<b>Copy to Clipboard -</b>	<p>Copy selected area to the clipboard. Upon selecting this option, the cursor is restricted to the SPAJ 140 C relay area. <i>To select the required area</i></p> <ul style="list-style-type: none"><li>• Press and hold left mouse button at top left hand corner of required area.</li><li>• Move mouse to bottom right hand corner of required area. (a rectangle box is display to show the selected area)</li><li>• Release the mouse button.</li></ul> <p>Note: Click once anywhere to cancel the copy command</p>
<b>Print Simulator Window -</b>	Print the contents of the SPAJ 140 C window
<b>Print Setup -</b>	Change the printer configuration
<b>Exit -</b>	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 -** 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.
- Forced Output Activation -** Places the simulator in the *Forced Output Activation* 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
- Turn on/off power switch -** Simulates the switching on/off of the power supply to the SPAJ 140 C relay

## Menu Commands - Preferences

- Show Toolbar/Show Status Bar -** Displays/removes the toolbar on the screen depending on whether it is currently removed/shown respectively.
- Change LED colours -** Change the colours of the background and LED's to suit individual screens and preferences  
Click on the appropriate box to change the corresponding colour  
Click on the "Apply changes to Simulator" button to confirm the changes made  
Click on the "Apply default colours" button to set all colours to permanently set defaults  
Click on the "Cancel all color changes" button to cancel all changes made
- Change simulator speed -** 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  
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.  
  
Click OK to confirm the changes made or click CANCEL to ignore any changes
- Change background -** Changes the background colour of the window.
- Change to default settings -** 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.
- Change to Customized Settings -** All settings are automatically saves to file when:  
1. Power is turned off  
2. Program exits  
These (current) settings are also automatically loaded when the program is restarted.  
  
Another (separate) set of settings can be saved by using the SAVE AS CUSTOMIZED 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.

### **Save as Customized Settings -**

All settings are automatically saved to file when:

1. Power is turned off
2. Program exits

These (current) settings are also automatically loaded when the program is restarted.

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

## **Menu Commands - Help**

<b>Help on simulator -</b>	See this help window
<b>Show SPAJ 140 C manual -</b>	Show the online manual
<b>How to use help -</b>	Learn how to use this help window
<b>Getting started tutorial -</b>	Runs the tutorial on some basic functions
<b>About SPAJ 140 C -</b>	Information about the simulator and system resources