

RSLogix 5000 Source Protection

The RSLogix 5000 Source Protection feature allows you to protect the contents of your routines from being altered by anyone who does not have the source key required for accessing them.

In order to use the Source Protection feature, you must activate it via a registry entry. For your convenience, RSLogix 5000 software includes .reg files you can click to add the required registry key.

To configure the Source Protection feature select: *Security* → *Configure Source Protection* from the RSLogix 5000 *Tools* pull-down menu.

What is Protected?

Once a routine is protected, users without the source key are prevented from altering the logic of the routine. This affects the following features:

- Editing - the Language editor does not open and the Controller Organizer's edit menus are disabled. In addition, the routine icon is disabled.
- Printing - attempting to print a protected routine displays the message: "Unable to print the routine. Source not available."
- Exporting - no entry appears in the export file for the protected routine. A warning message appears in the Results window stating the routine was not exported.
- Routine Properties - All controls on the Routine Properties dialog are disabled for a protected routine. The message "Source not available" appears at the bottom of the dialog, as well as in its title bar.
- Search and Replace - The only search type that is allowed to look into a protected routine is Find All. Find Next, Replace All, and Replace Next all skip the protected routine. When the protected routine is skipped, the following message appears on the status bar:

Unable to search the routine <Routine Name>. Source not available.

Note: This message is also logged to the search results tab when perform a Replace All search.

Since you cannot view protected routine's logic, the Find All search results items do not navigate to the found locations.

- Navigation - You cannot navigate to a protected routine.
- Verification - You cannot navigate to an error in a protected routine.

- Cross Reference - cross reference information is displayed for items referenced within a protected routine, but you are not allowed to navigate to the location within the protected routine. Double clicking to navigate to a protected routine beeps and displays the following message on the status bar.

Unable to edit the routine <Routine Name>. Source not available.

The Go to Location menu item is disabled.

- Go To - There is no edit item in the Go To dialog for a protected routine.
- Cut/Copy/Paste - You can copy, paste, and drag and drop protected routines from the Controller Organizer.

Protection using the RSLogix 5000 Source Protection feature

The RSLogix 5000 Source Protection feature allows you to protect your routines using a source key. Using this feature, you can open your RSLogix 5000 project files. With the desired project open, all of the routines in the project are displayed, organized by program. If a routine is already protected, its source key is displayed to the right of the routine name.

To protect a routine, simply select the desired routine and click the Protect button on the Source Protection Configuration dialog.

If no source key file location is specified, you are prompted to confirm that you would like to configure this location. You can also:

- click the Specify button to configure the source key file location

Clicking on this button launches the Apply Source Key dialog, from which you can enter or select the path for the sk.dat source key file. If you enter a location that does not contain this file, you will be prompted to confirm that a new file should be created.

- click the View button to view the source key file
- click the Clear button to remove the reference to the file's location.

Tip

If you wish to remove source protection from the routine, simply click the Unprotect button.

View a Protected Routine

To view a protected routine, you must have the Source Key for the routine. All source keys are stored in the Source Key file (sk.dat). By default, RSLogix 5000 looks for the source key file in the same directory in which the programming software application is installed. You can also store this file in a different location if you choose.

About the Source Key

Source keys are text strings that follow IEC-1131 naming conventions. Specifically, this convention states that an identifier must be a string of letters, digits, and underline characters which begins with a letter or underline character. Underlines are significant in identifiers (e.g., A_BCD is interpreted differently than AB_CD). Multiple leading or multiple consecutive embedded underlines are not allowed, trailing underlines are not allowed, and letter case is not considered significant. The source key can be any text string that follows these rules and consists of up to 40 characters.

Each routine can have the same source key or a unique source key, but multiple source keys cannot protect an individual routine. Thus, each routine has only one source key protecting it.

Specify the Source Key File Location

If you attempt to assign a source key to a routine, and you have not yet specified a source key file location, the system will prompt you to create a new file.

If you have previously specified a location, and you wish to change it, then you can click the Specify button on the Source Protection Configuration dialog to change the location.

Note that you can check the Allow viewing of routine checkbox on this dialog to allow a routine to be viewed, but not edited. If you leave this box cleared, the source is not viewable.