Important Changes in the Version 9.0 Library

Many new features have been added to relays and low voltage SST's in EasyPower 9.0. These include integrating multiple instantaneous trips in solid state relays, support for wide band solid state relays such as the Cutler Hammer DT 1150, zone selective interlocking (ZSI), and relay maintenance mode settings for arc flash protection.

In order to incorporate these added features efficiently, the EasyPower library required modification for some relay and SST units. Some of the devices in the V9.0 library may have new style or device function names as listed in section "Relay and SST Name Changes". The name changes may prevent your database from recognizing the device. This will require you to review your database and manually update the equipment types with the corresponding new equipment in the EasyPower V9.0 Library to access the new functionality, or you can link your database to the V8.0 Library and run without the new added features. We sincerely apologize that the database update could not be automated.

Both options are described below.

Steps to follow to update the database:

1. When you open the one-line file using EasyPower 9.0, you can check if any device data in the library has changed that could affect your database. Go to the Tools ribbon in EasyPower and choose the button "Verify Lib Data". This will create a spreadsheet report of all devices that could not be located in the library. Print the spreadsheet for your records.

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Example Report

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	Equipment	ID Name	Manufacturer	Type	Style	Frame/Sensor	Model	Size	Function ID
1	Fuse	FS-6	GE	(Std)	EJO-1/ 9F62		Size DD	175E	
2	Relay	R-6_A	Basler	BE1-851					51/50
3	Relay	R-6_A	Basler	BE1-851					51N
4	LV Breaker	BL-2FA	GE	MVT-Plus	LVPCB	3200			
5	LV Breaker	BL-2FB	GE	MVT-9	LVPCB	800			
6	LV Breaker	BL-2FC	GE	MVT-9	LVPCB	800			
7	LV Breaker	BL-2FD	GE	MVT-9	LVPCB	1600			
8	LV Breaker	BL-2A	GE	MVT-Plus	LVPCB	3200			
9	LV Breaker	BL-2B	GE	MVT-9	LVPCB	800			
10	LV Breaker	BL-2C	GE	MVT-9	LVPCB	800			
11	LV Breaker	BL-2D	GE	MVT-9	LVPCB	1600			
12	Fuse	FS-3_A	GE	(Std)	EJO-1/ 9F62		Size DD	150E	
13	LV Breaker	MCC-2A - Row 1	GE	J600	THJK6	600A (400AT)			
14	LV Breaker	MCC-2B - Row 1	GE	J600	THJK6	600A (400AT)			
15	LV Breaker	MCC-2AF - Row 1	GE	J600	THJK6	600A (400AT)			
16	LV Breaker	MCC-2BF - Row 1	GE	J600	THJK6	600A (400AT)			

2. Next, create a Database Report by clicking on the EasyPower " **e** " button and choosing Database Report. Print the spreadsheets for Relays and LV Breakers so that you have a record of the settings.
3. Then review and enter the data for the affected devices based on the spreadsheets.

Steps to follow to use your old library:

1. Go to File Properties by clicking on the EasyPower "**e**" button and choosing Properties. Select Specified radio button and choose the patch of the "old" Library
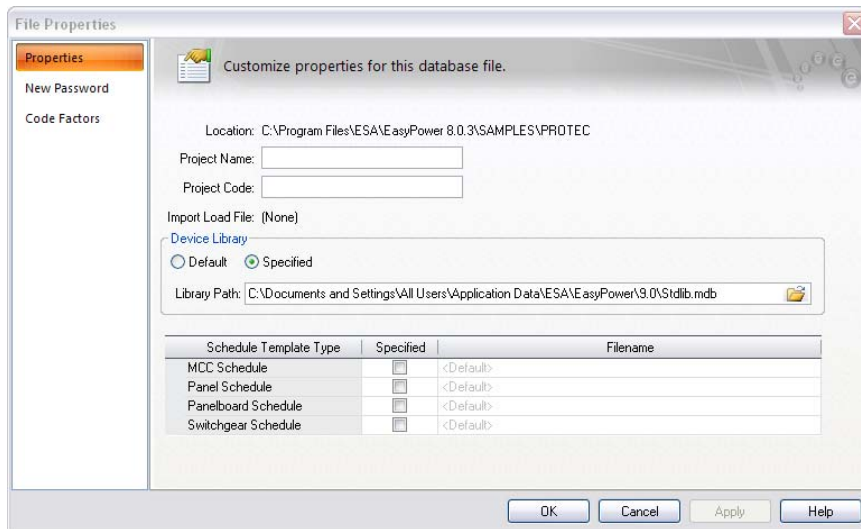
2. Select Specified radio button and choose the path of the "old" Library. This library will now be linked with your database whenever you open it. It will not be linked with other files unless you choose the V8.0 library to be the default.

Relay and SST Name Changes

A list of protective devices is provided in this download in Excel File "V9.0 Release Library Name Changes – Modified Devices.xls" for which there were changes in the device function name or the style name. For relays the two major changes are as follows:

1. A second instantaneous (also referred to as short time, or I>>) was added. Previous libraries had the ST and Inst functions in different device functions preventing a composite curve on the TCC. Now composite curves can be plotted with the long time, short time and instantaneous using the same device function interface.

2. We now model HV SST (solid state trip) or "wide band" trips as relays. The TCC includes the breaker opening time and the tolerance band like a LV breaker.

We have also modified some MCCB's to allow for proper nomenclature so that the thermal magnetic trip type and frame sizes are clear from the Style names.

Important Notice
Arc Flash Calculation Changes

The following changes may affect your arc flash hazard results as compare to V8.0.

1) A bug affecting relay curves w/ Delta CT connections and a CT*Primary tap was corrected. This affects arc flash results if the curves are used for calculation times. The change will lower the hazards, so previous results are conservative.

2) MCCs and panels now default to showing "Excluding Main" results on the one-line when "Both" or "Detailed" is the option. Previously, "Including Main" was defaulted. This is now our conservative default.

3) Bus orientation does not affect open air buses. Previously, the bus orientation calculation was being used regardless of the open air status.

4) We have made a slight modification in how a device is determined to be a "main". Users should see very few differences in results. Specifically, a relay main on either side of a tie are now potentially a "main".

5) Integrated Arc Flash: Finding a relay opening breaker was made to be more consistent with the non-integrated method. In a few cases, the integrated algorithm would "find" a different protective device if the user had not specified one. Note: This change will not affect relays that are set in the file to specifically point to a breaker.

6) Arc Flash Integrated: When the Output option is "Both", duplicates are now filtered out.

7) Arc Flash Labels: Remove MCC "Row #" info when printing Fed By. This cleans up the label output.

8) Corrected a bug where MCC or panel shows blank AF results on one-line when "Both" or "Detailed" and main not coordinated.

9) There are microscopic changes in SC currents (at the 5th significant digit) due to some algorithm changes. This can cause similarly small changes in trip time. This change should be insignificant in most calculations.

NOTE: Please also note the changes logged in the EasyPower protective device library. Any changes made to device curves could potentially affect arc flash results.

Important Notice
Protective Device Changes

The following protective devices in the EasyPower V9.0 Library have had certain sections of their curves changed. The changes are a result of receiving either incorrect information from the manufacturer or insufficient information on the supplied TCC. The changes may or may not have affected your systems protection, selectivity, and arc flash incident energy. We recommend that if you have any of the devices listed in the following table, you re-run your protective device and arc flash hazard study to determine if a change is significant.

Device	Mfr	Type	Style	Comment	
SST	Square D	Micrologic 2.0	MCCB	Inst Clearing Time changed to 0.08 from 0.06; Inst PU Changed from x plug to x LTPU; Removed Inst Pickup 12X from selection list	The Inst Pickup issue is due to conflicting information in the manufacturer's document about whether it is based on Sensor or LTPU. LTPU has been verified as the correct one. Previous Inst Clearing time of 0.06 seconds was an error in data. Inst Pickup 12X is not available in Micrologic 2.0 trip unit so it is removed.
SST	Satin American	etc11	LVPCB	Inst Clearing time revised to 0.05 from 0.09, Breaker opening time already included	
SST	Satin American	etc 11 Old	LVPCB	Inst Clearing time revised to 0.05 from 0.09, Breaker opening time already included	
SST	Satin American	etc11D	LVPCB	Inst Clearing time revised to 0.05 from 0.09, Breaker opening time already included	At first Inst clearing time was modeled as 0.05 seconds. Manufacturer then told us to add 0.04 seconds to include breaker opening time, so it was changed to 0.09 seconds. Later they retracted and told us that 0.05 seconds already includes breaker opening time, so it was revised back to 0.05 seconds.
SST	Satin American	etc11r	LVPCB	Inst Clearing time revised to 0.05 from 0.09, Breaker opening time already included	
SST	Satin American	etc-12	LVPCB	Inst Clearing time revised to 0.05 from 0.09, Breaker opening time already included	
SST	CH	DT 510 Series	R Frame	Frame 1600, 2000, 2500 - Flat Clearing curve changed to decreasing. Frame LS-1600, LS-2000, LS-2500 - Clearing time revised to 0.022 from 0.046	Earlier flat curves were modeled in a conservative approach. Now they are modeled as decreasing curves to match TCC. For the other change, clearing time 0.022 sec is the right value. The previous 0.046 was incorrect.
SST	CH	DT 610	R Frame	Frame 1600, 2000, 2500 - Flat Clearing curve changed to decreasing	
SST	CH	DT 810	R Frame	Frame 1600, 2000, 2500 - Flat Clearing curve changed to decreasing	
SST	CH	DT 910	R Frame	Frame 1600, 2000, 2500 - Flat Clearing curve changed to decreasing	
SST	CH	DT 510	R Frame	Frame 1600, 2000, 2500 - Flat Clearing curve changed to decreasing	Earlier flat curves were modeled in conservative approach. Now they are modeled as decreasing curve to match TCC
MCCB	Terasaki	TemBreak	All the rest	Interrupting rating revised.	Ics was used for Icu (Ultimate Interrupting Rating) in the library. Previous info was incorrect.
MCCB	ABB	Isomax	S7H	Interrupting rating revised to 100/65/50 from 150/65/22	Could not locate source document of old data. Recently revised while verifying breaker data.
Relay	SQD	GFM250JD	51/50	Inst Pickup revised to 2500 from 1200.	Inst Pickup was updated. Previous value was incorrect.
Relay	GEC	MCGG21	51/50, 51/50 DT, 51G/50G, 51G/50G DT	Changed to CT Primary X tap from CT X Tap	Due to mis-interpretation of description and given value.

Non-SST	GE	EC-1B	LS10xI15x, LS5xI9x, LS7xI12x	Long time delay band name Max-1BB changed to Int-1BB	This device has two long time bands. Description in library was Min and Max. The manufacturer's document indicates these are Min and Int, so the names were changed to reflect real description.
Non-SST	GE	EC-1B	LS10xI15x, LS5xI9x, LS7xI12x	LTPU Tolerance changed to -17% +12% from ±15%	Digitized values entered to increase accuracy.