



ETAP TIP – No. 004

## Project View (Part 3 - Study Cases)

Applicable ETAP Versions: 5.5.0, 5.5.5, 5.5.6

(For lower versions, some of the descriptions and procedures below may differ in some ways)






This is the continuation of ETAP TIP No. 002 & 003.

As usual, you may Run Etap program and open the “Example-ANSI.oti” project located at C:\ETAP 55X \Example-ANSI folder (where C: is the drive where you installed Etap program and ETAP 55X is the version of the software) to easily follow the explanations below. In addition, you may refer to “Toolbars’ Map” on page 8 of ETAP TIP No. 003 to map out the toolbars that will be identified in the succeeding procedures.

### III. Study Cases

Prior to running a particular study type like Short Circuit, Load Flow, Motor Acceleration, etc. for the first time, you may need to modify the default settings of a Study Case inherent on the project. The settings refer to the study solution and parameters that will be used in the calculation process when you run a particular study. In other words, a Study Case is where the study solution and parameters are controlled and managed for a given study type. Moreover, for each study type, you can create unlimited number of Study Cases independently in line with the “What-If” scenario in terms of varying settings (study solution and parameters).


To see how the Study Cases work, let’s do the following exercise using the Example-ANSI project along with the pre-created Study Cases:

- a) Open the Example-ANSI.OTI project
- b) On the “Systems” toolbar, click the “One-Line Diagram” icon  to access the network system.
- c) On the “Mode” toolbar, click the “Short Circuit Analysis” icon  to activate the Short Circuit Analysis Mode. Notice that the “Study Case” toolbar is displayed above the “Mode” toolbar (default location). See Fig. 1.
- d) Select the study case “IEC-Duty” from the “Study Case” drop-down list. On this example project, the “IEC-Duty” study case was pre-set based on the IEC Standard calculation methodology. You may verify the solution and parameters setting by clicking the “Edit Study Case” icon  to display the “Short Circuit Study Case” dialog box where you will find various tabs for various settings.
- e) Adjacent to the right of the “Edit Study Case” icon  is the “Output Report” drop-down list. Select the “IEC-Duty”. ETAP will write the output report on this file when you initiate “Run” calculation that is associated with the Study Case selected in step “d”, the active Configuration Status (discussed in ETAP-TIP-003) and the active Revision Data (engineering properties of the elements). Also, from this drop-down list, you can access the report files generated from the previous calculations and open the selected report by clicking the “Report Manager” icon  on

the same toolbar or the same icon  on “IEC Short Circuit Study” toolbar located vertically at the right side of the window.

Notes:

1. If you want to generate a new report file, select the “Prompt” in the “Output Report” drop-down list. ETAP will ask you for a filename when you run the calculation.
2. The rest of the icons to the right of “Output Report” drop-down list are explained in Fig. 1.

f) Now you are ready to make a run. Click the “Run 3-Phase Device Duty (IEC 909)” icon  on the “IEC Short Circuit Study” toolbar located vertically at the right side of the window.

g) Try to make a run based on another Study Case (for example “ANSI-Duty”) at your convenience to familiarize the function.

The above procedure is done similar to the rest of the Study types when performing a “Run” calculation.

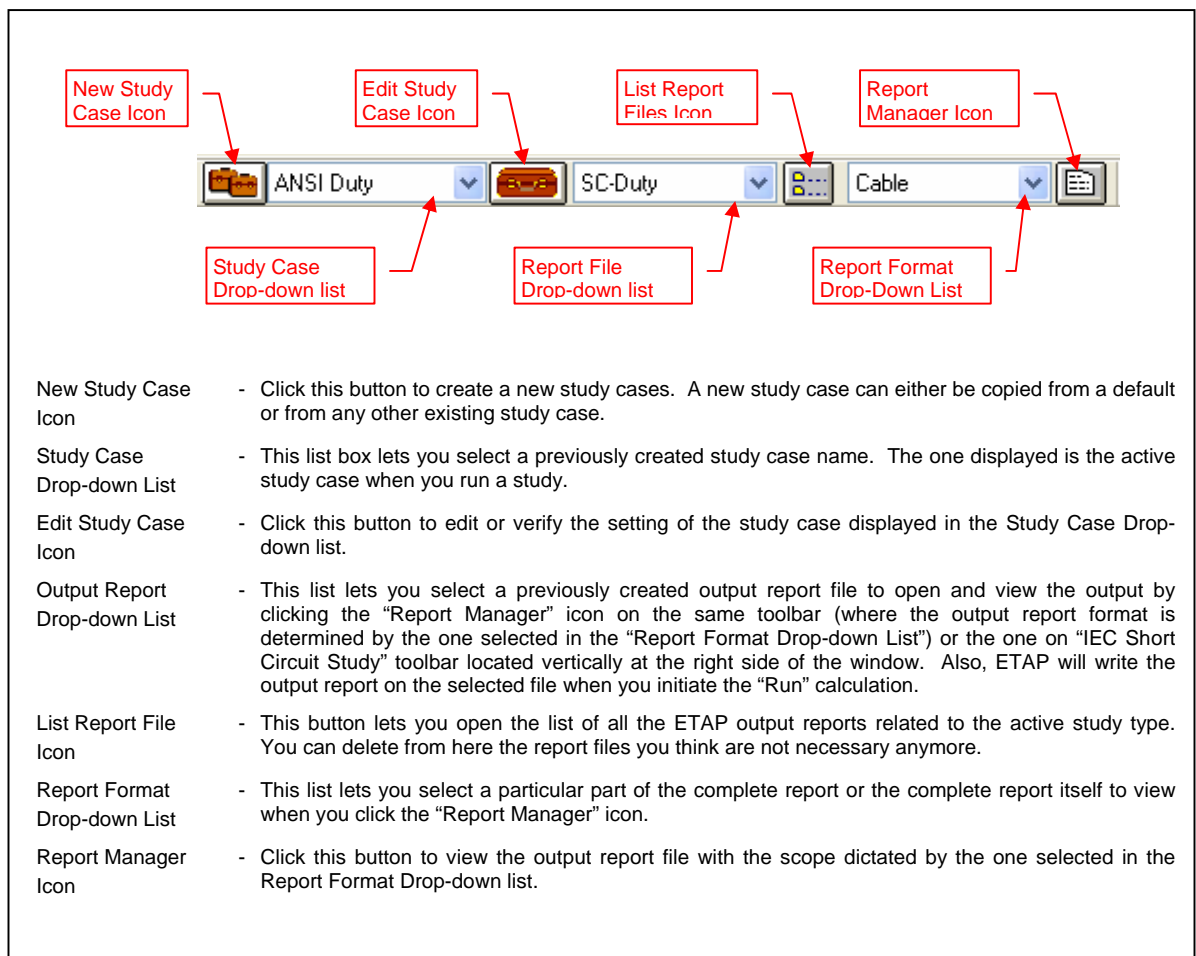



Fig. 1

There are two access points to create and set-up a study case. One; from the “Project View” window which is the focus of discussion here. Two; from the “Study Case” toolbar partially discussed in the above exercise which is displayed and accessible when one of the Study modes (Load flow Analysis, Short Circuit Analysis, etc.) is active. However, to delete a Study Case can only be done in the “Project View” window.

You can manage all of the study cases of all the study type i.e. to Create, Edit, and delete in the “Study Cases” folder of the “Project View”. The following procedures emphasize the Load Flow study type. Nevertheless, the same procedures are alike to another study types:

• **To Create a Study Case**

- (a) Click the “Project View” icon  from the System Toolbar.
- (b) Expand the “Study Cases” folder.
- (c) Right-click the study type folder (e.g. Load Flow) and select the “Create New” pop-up command. See Fig. 2.

Notes:

- (i) The integer adjacent to the Study Type folder indicates the number of existing study case(s) for that category.
- (ii) The newly created study case is a replica of the default study case and assumes an ID same as the default appended with an integer starting with the number one and increasing as the number of study cases increase.

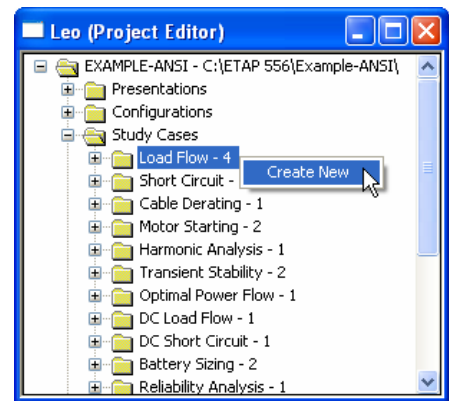
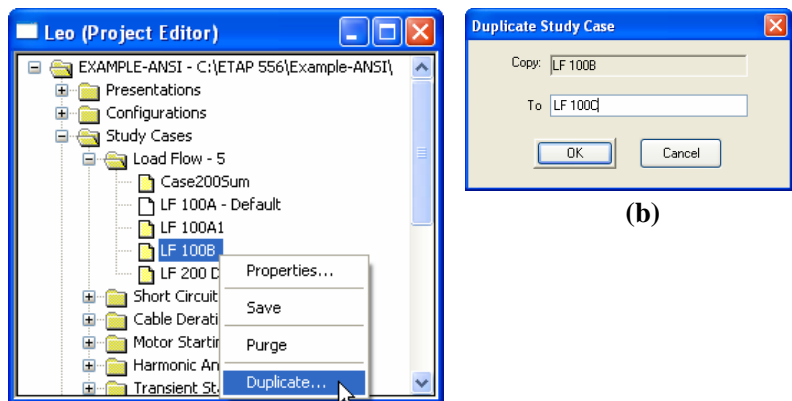


Fig. 2

• **To Copy a Study Case**

- (a) Do steps (a) and (b) illustrated in “To Create a Study Case” above.
- (b) Expand the “Study Cases” folder.
- (c) Expand the study type folder (e.g. Load Flow) and right-click the Study Case you wish to copy and select the “Duplicate” pop-up command. In this exercise, do the said actions to “LF-100B”. See Fig. 3a.



(a)

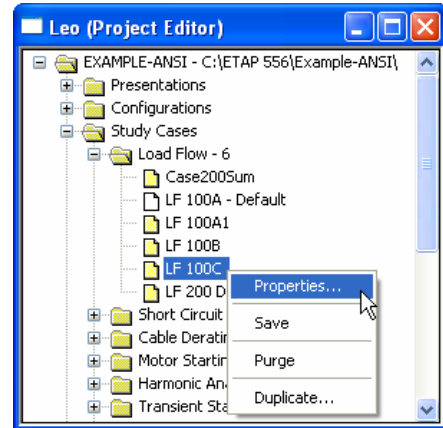
(b)

- (d) On the “To” textbox, key-in “LF-100C” and press “OK” button. See Fig. 3b

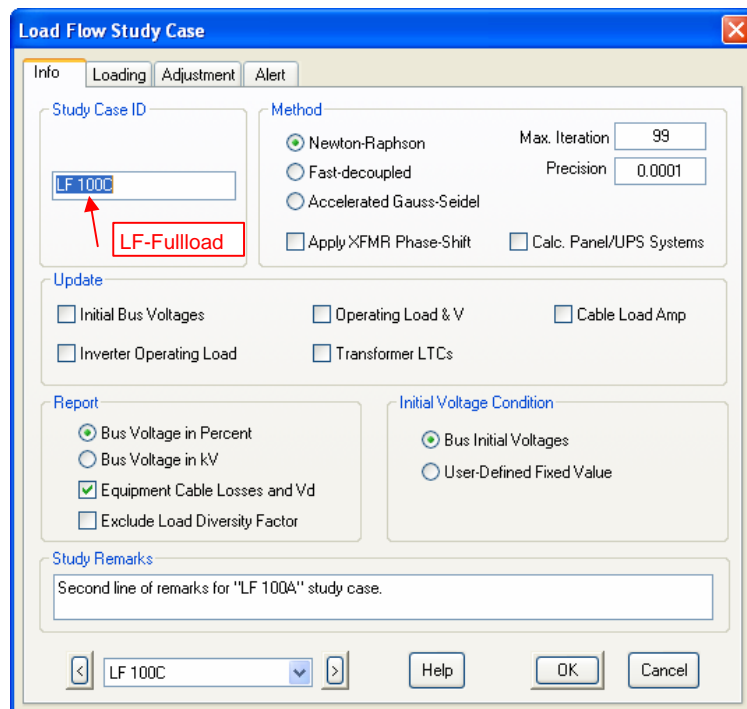
Fig. 3

• **To Edit (Rename) a Study Case**

- (a) Do steps (a) and (b) illustrated in “To Create a Study Case” on page 3.
- (b) Expand the “Study Cases” folder.
- (c) Expand the study type folder (e.g. Load Flow) and right-click the Study Case you wish to rename and select the “Properties...” pop-up command. In this exercise, do the said actions to “LF-100C”. See Fig. 4.
- (d) On the “Load Flow Study Case” dialog, key-in the new ID in the textbox inside the “Study Case ID” frame. Let’s key-in “LF-Break1” and press “OK” button. See Fig. 5.



**Fig. 4**



**Fig. 5**

• **To Edit (Change Settings) a Study Case**

- (a) Do steps (a) to (c) illustrated in “To Rename a Study Case” on page 4 except do the action in step (c) to “LF-Fullload”
- (b) On the “Load Flow Study Case” dialog box, select the appropriate options and parameters. For our exercise, click the “Loading” tab and select “Full Load” in the “Loading Category” frame and press “Ok” button. See Fig. 6. This means that when you run load flow and use the “LF-Fullload” study case, the percent loading at “Full Load” loading category of all the loads in the system will be applied in the calculation.

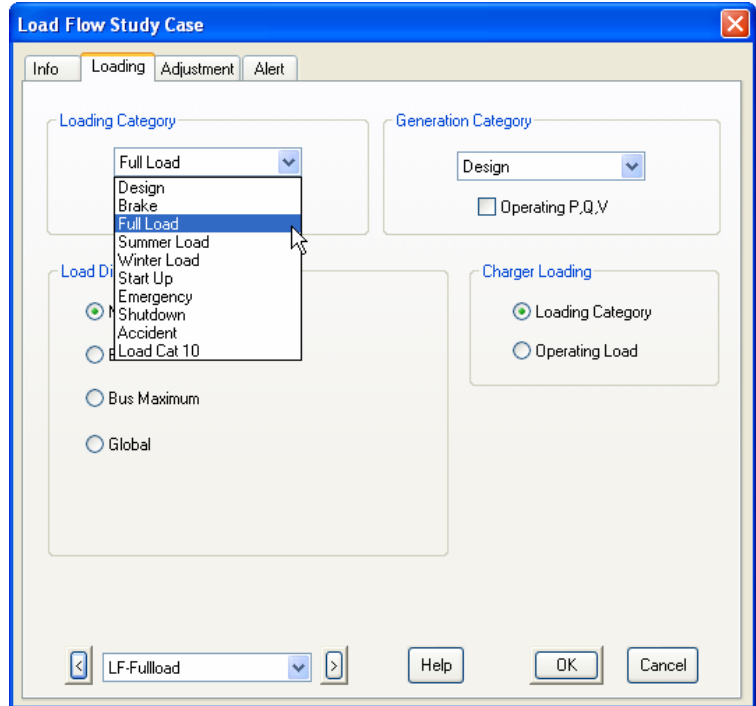
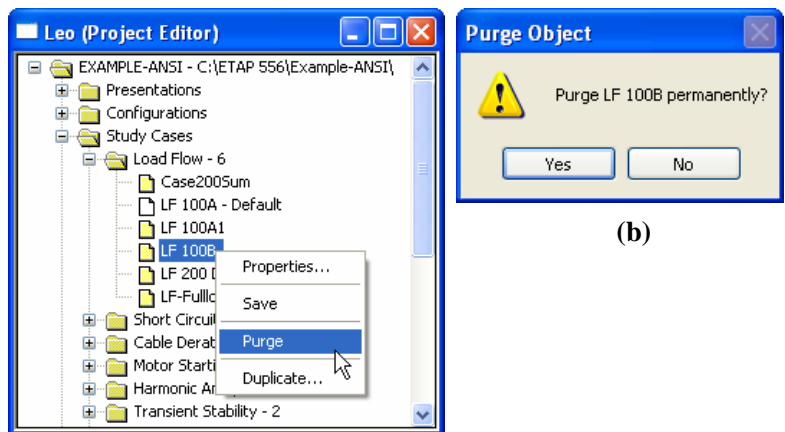


Fig. 6

• **To Delete a Study Case**

- (a) Do steps (a) and (b) illustrated in “To Create a Study Case” on page 3.
- (b) Expand the “Study Cases” folder.
- (c) Expand the study type folder (e.g. Load Flow) and right-click the Study Case you wish to delete and select the “Purge” pop-up command. In this exercise, do the said actions to “LF-100B”. See Fig. 7a.
- (d) Click “Yes” button to confirm the deletion. See Fig. 7b



(a)

(b)

Fig. 7