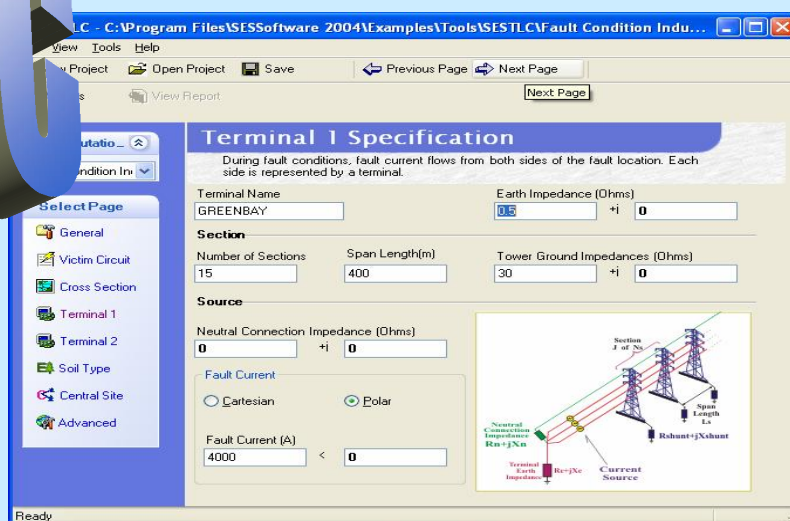# SES-TLC

Quick Line Parameter, Electric Field, Magnetic Field and Inductive & Conductive Interference Analyzer

Users who need rapid estimates of induced voltages in pipelines, railways, communications cables, or other such infrastructure running parallel to power lines, will be pleased with the SES-TLC software tool dedicated for such calculations

The SES-TLC software package is a transmission and distribution line analyzer for rapid line parameter, electric field, magnetic field and steady-state or fault induced voltage estimates caused by inductive and conductive coupling

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Main Features of SES-TLC

The SES-TLC software package is a transmission and distribution line analyzer for rapid line parameter (constants), EMF and steady-state or fault induced voltage estimates (whether inductive and conductive). It can be used to quickly estimate line parameters, electric fields, and magnetic fields associated with arbitrary configurations of parallel transmission and distribution lines. It also estimates voltages and currents generated by electromagnetic interference on other parallel metallic utilities, such as pipelines and railways. The software has been designed with simplicity in mind, providing much useful information with minimal data entry, when applied to simple system configurations. This can be very helpful for preliminary analyses of more complex systems. Keep in mind that for more complex systems or more detailed studies, the Right-Of-Way software package or the MultiFields software package are recommended.

The main functions of SESTLC are:

- ◆ Line parameter calculation;

- ◆ Electric field calculation;

- ◆ Magnetic field calculation;

- ◆ Normal or emergency Load (steady-state) condition inductive interference calculation;

- ◆ Fault condition inductive and conductive interference calculation.

User Interface

The standard screen offers a menu bar, a toolbar and a status bar. Below the toolbar, there are two panels. The left panel gives quick access to the computation types by selecting them from the dropdown menu. The data items (pages) corresponding to each computation type are refreshed when you switch from one type to another. The right panel displays the input data pertaining to the page you have selected. Note that the Project Wizard leads you through each data item (page) in the left panel sequentially. After entry of all the data items, you can go to a specific data item to modify it. To run the program, simply click the Process button.
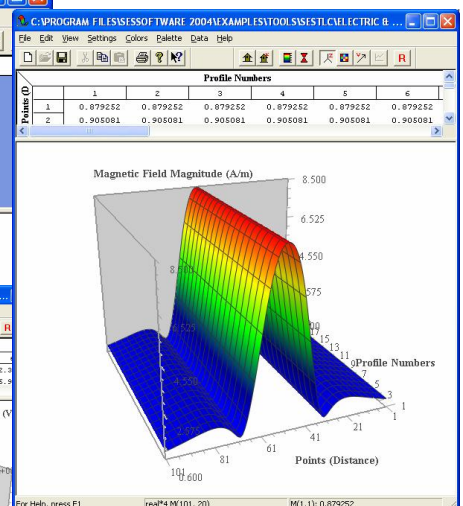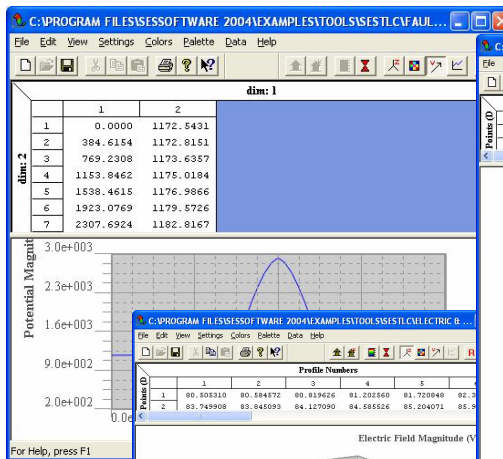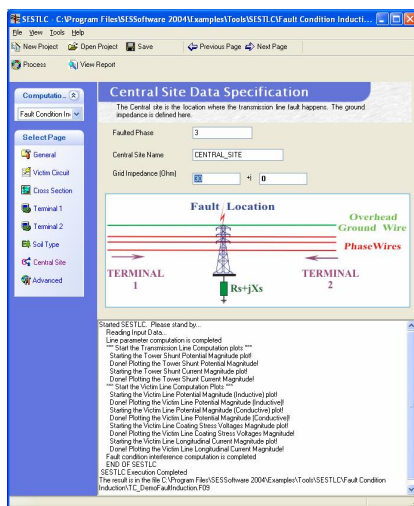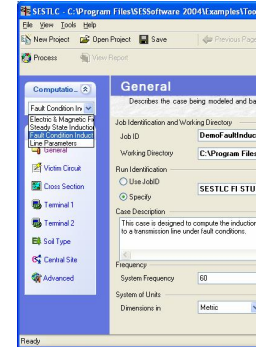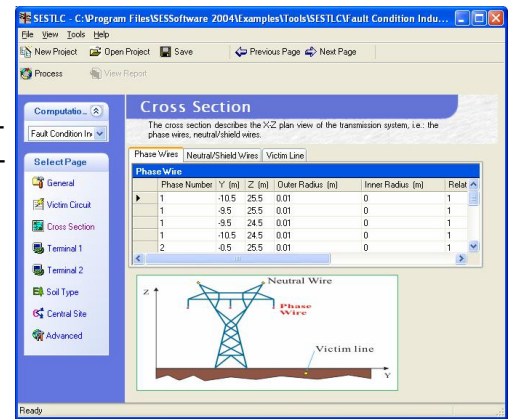
Graphical Results

SESTLC displays computation results in a variety of plots. The plots can be displayed on your screen immediately after the end of the computations or can be saved on your hard-drives to be displayed later. Several 3D plots of the electric field produced by a transmission line near a tower and a 2D plot of the induced potential rise on a pipeline that is parallel to a transmission line are shown here.

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