ELA
ELECTRICAL LOADS ANALYSIS SOFTWARE

Codarra Advanced Systems has developed software this is designed to model electrical loads of complex systems. Based on the MIL-E-7016F standard for aircraft, the software can be used on the full range of aerial, ground and naval systems.

With this software you can
- Analyze how much electricity you can use on your vehicles against the generating capacity of the system
- Find out where all that power is going
- Find the limitations to growth of your system
- Report on the imbalance of electrical load across up the three phases
- Build and maintain a database that allows you to maintain a history of electrical load design for systems
- Add charge and discharge graphs to battery parts and analyze state of charge during operating modes
- Batteries graphs can consider temperature dependent battery effects.
- Baseline and derive designs
- Merge modifications from derived designs to other derivatives.
- Check time to trip for circuit breakers in overload conditions to ensure failures can be contained
- Reuse part design data as you analyze new circuits.
- De-rate or re-rate parts based on experimental data.
- Cope with uncertainty in values with error propagation though all calculations.
- Flag parts for later review
- Define temperature-dependent loads to model cooling and heating elements.
- Attach notes anywhere
GRAPHICAL USER INTERFACE

You can draw the circuit you want to analyze by dragging and dropping devices onto the workspace. Connections between devices can be made with individually specified wires or buses. If a potential overload is identified, warnings are immediately generated and displayed. View sub-trees, source paths and either bus-level or whole diagrams.

REPORTS

The reports include easy to read images of the circuit charts that let you easily identify that a power source is reaching its rated capacity.

- Electrical bus wiring diagrams
- AC and DC connected load charts.
- AC and DC load analysis charts
- AC and DC power source utilization charts and graphs
- Power utilization pie charts by operating conditions
- Notes on the model
- Operating Condition summaries

Multiple Operating Conditions

You can generate a host of operating conditions. For aircraft you can easily create conditions to represent the standard G1 - G11 conditions:

- Ground Maintenance
- Calibration
- Loading
- Taxi
- Takeoff and Climb
- Cruise
- Cruise-Night
- Launch
- Hovering
- Ground Alert
- Engine out
- Mission Completion

You can create as many operating conditions as you need to analyze the vehicle. Even using hundreds of conditions is fully supported.

IMPORT AND EXPORT DATA

ELA can import data from most kinds of delimited files, or it's own XLS format.

ELA can export report data as CSV format and export and import as XLS

- Part data
- Operating Conditions
- Notes
- Connection Data
- Circuit Layout
- Project snapshots
- Complete projects with full revision history

TECHNICAL BASICS

- Client-Server software
- MS-SQLServer back-end database
- Multiple concurrent users limited only by licensing.
- Production instances reliably run in a virtual machine.
- Local or remote database servers.

EVALUATION COPIES

- Bootable CDROM
- Usable Bootable USB Stick
- Installable time-limited demo version
- Preinstalled laptop (call)

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