INTEGRATED ENGINEERING SOFTWARE

www.integratedsoft.com

ELECTRO

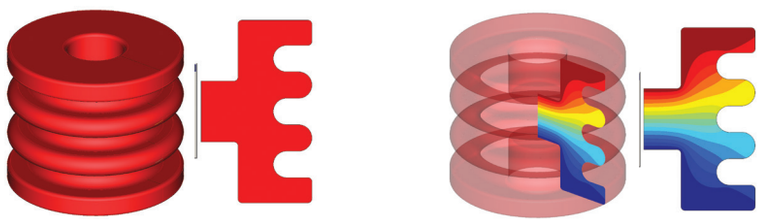
2D/RS Electric Design Software

Since its inception in 1985, the **ELECTRO 2D/RS** field simulator from **INTEGRATED** Engineering Software has set the standard for electric field design software. In one package, with no extra cost for specific features, **ELECTRO** users can take full advantage of comprehensive capabilities to analyze corona ring & partial discharge effects, electric field stress, lightning, transient events, maximum field strength and dielectric breakdown, among others.

ELECTRO is the only clear choice for applications requiring large open region analysis and exact modeling of boundaries. Here **INTEGRATED** takes the lead by providing HYBRID field solutions using Boundary Element Method (BEM) and Finite Element Method (FEM) simultaneously to exploit the strengths of both methods.

Engineers/Scientists depend on **ELECTRO** for the design and analysis of electrical/electronic equipment and components such as:

- transformers
- insulators, bushings, grounding electrodes
- microelectromechanical systems (MEMS)
- high voltage shields
- power transmission lines
- telecommunication cables
- microstrip lines
- high voltage swithchgear
- capacitive transducers
- xerographic process modeling
- parts and assemblies subject to electrical fields



Standoff insulator – ELECTRO can also be used to solve rotationally symmetric models

WE GO BEYOND TRADITIONAL MULTIPHYSICS:

- **ELECTRO** Search Based 2D/RS Electric Design Software NEW
- Metaheuristic approach for optimizing simulation based electromagnetic designs. NEW
- Precise calculation of electrical parameters using our proprietary **Boundary Element Method (BEM) solvers**.
- **Finite Element Method (FEM) in addition to BEM.** This hybrid approach uses the strength of each method while designing an electromagnetic system.
- Built in API, Parametric and/or Scripting capabilities

The **INTEGRATED API** enables the direct control of program functions by utility scripts or macros created in tools such as EXCEL or Visual Studio. Scripting can control the entire process of model creation and testing.

- Direct import of models from CAD Partners including: Autodesk, PTC, Solid Edge and SolidWorks.

MORE BENEFITS:

- Easy-to-use and intuitive interface.
- High resolution 3D graphic representations that can show enhanced tracing of points on model.
- Automatic meshing and removal of intersecting geometries.
- World class support team ready to unlock your ideas.

Hybrid Simulation Tools for Electromagnetic and Particle Trajectory Design Analysis

SOFTWARE THAT LIVES UP TO THE POWER OF YOUR IDEAS

MATLAB Enabled
MathWorks Partner

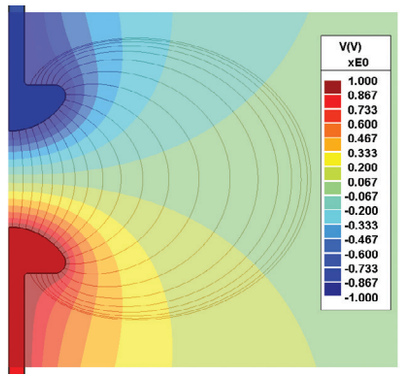
For many systems, it is important for multiple solvers to be combined. INTEGRATED develops comprehensive solutions for scientists modeling prototypes that require multiphysics analysis.

"For our purposes, 'ELECTRO' is actually the preferred software tool for every-day engineering. It is important to have software that is very quick and easy to learn and this product is more than capable of handling the large models we require."

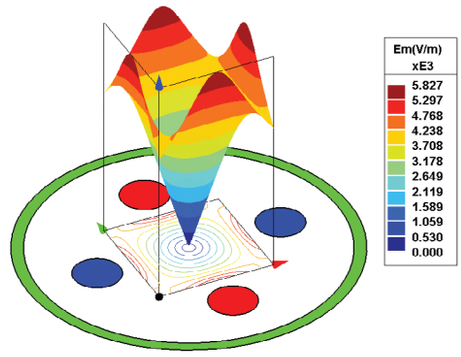
— Dr. Beriz Bakija
SIEMENS AG'S ENERGY SECTOR

Visualize, Analyze, Optimize

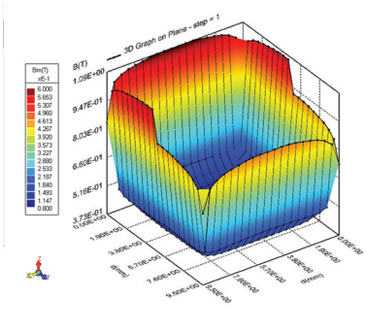
ELECTRO provides outstanding visualization features for detailed analysis of electrical and electronic systems. Automated model creation using built-in **API** and **Parametric Utilities** combined with **Self-Adaptive BEM** and **FEM** solvers enable rapid optimization of designs.



Rotational Symmetric Model of Mushroom Electrodes showing Streamlines and Voltage Contour Plots



2D Model of Electrostatic Quadrupole showing profile plot of electric field



3D graph that can show enhanced tracing of points on model

ELECTRO comes complete and ready to use. Purchase of additional modules or options is not needed; **ELECTRO** is a fully functional CAE tool. A partial list of standard features includes:

- Intuitive and structured interface which maximizes productivity for experts and beginners
- Static, phasor and transient analysis modes
- Simulation of non-linear conductivity and permittivity
- Ability to assign constant or non-uniform charge distributions to surfaces
- Electrostatic force and torque calculations
- Transmission line parameter and capacitance calculations
- A variety of display forms for plotting scalar and vector field quantities including, graphs, contour plots, arrow plots, profile plots, streamline plots and vector loci plots
- High quality graphics and text utility for preparation of reports and presentations
- Data exportable to formatted files for integration with spreadsheets and other software packages
- Batch processing that allows allows for unattended solution of multiple files
- Powerful parametric feature which allows definition of variable parameters to be stepped through for the analysis of multiple "what-if" scenarios, facilitating design optimization
- A wide array of post processing options for design evaluation and optimization
- Self adaptative meshing or optional user refinement
- CAD healing utilities for automatic correction of drafting errors
- Large library of dielectric and conductive materials to which additional materials can be easily added

PUT OUR SOFTWARE TO THE TEST

Don't take our word for it.

Contact us for an evaluation and start improving productivity today. Ask for a live demo.

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