

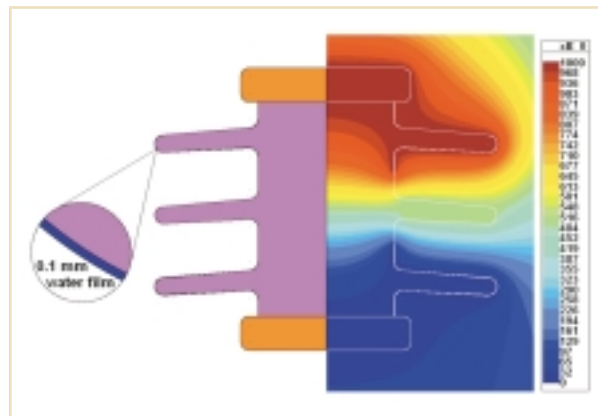
# electro\*

## 2D/RS electrostatic design software

Since its inception in 1985, the ELECTRO 2D/RS field simulator from Integrated Engineering Software has set the standard for electrostatic design software. ELECTRO, based on Integrated's innovative Boundary Element Method, has proven to be a superior technology over conventional Finite Element Analysis for applications requiring exact modeling of geometry, and/or requiring large open field analysis. ELECTRO offers design engineers, researchers and scientists a powerful desktop design and analysis tool with unparalleled ease of use, accuracy and performance.

Design engineers depend on ELECTRO for the design and analysis of electric/electronic equipment and components such as:

- insulators, bushings, grounding electrodes
- microelectromechanical systems (MEMS)
- high voltage shields
- power transmission lines
- telecommunication cables
- microstrip and integrated circuits
- high voltage switchgears
- Xerographic process modeling
- parts and assemblies subject to electrical fields



Axisymmetric model of high voltage insulator. The top and bottom sheds are covered with a 0.1 millimeter water film.



Streamline analysis for charged particles released within a channel of a microfluidic chip for electrophoretic movement of charged compounds.

(MEMS application)

Image courtesy of Aclara Biosciences

"ELECTRO is by far the best electrostatic software I have used. It incorporates user-friendly graphics with a rigorous analysis method to produce output that can be graphically or numerically displayed."

Mr. Jose Chavez  
Electrical Engineer  
NRAD Laboratory  
San Diego, California, USA

Speed, accuracy...  
**plus reduced costs**

ELECTRO maximizes productivity by allowing for the simulation of virtual prototypes on the computer. ELECTRO significantly reduces design and prototype costs and provides engineers far greater insight into design optimization and verification.

 **INTEGRATED**  
ENGINEERING SOFTWARE

[www.integratedsoft.com](http://www.integratedsoft.com)

## electro at a glance

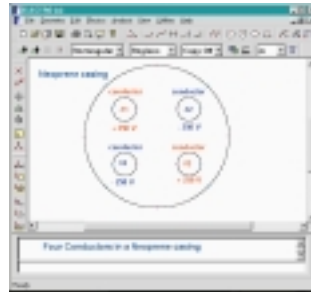
- Electrostatic/Quasi-static 2D and rotationally symmetric field solvers for a diverse range of applications
- Powerful Windows® native tool bar interface for easy data and geometry manipulation
- A wide array of post processing options for design evaluation and optimization
- Industry standard CAD import/export utilities offering time saving convenience for model design creation
- Comprehensive technical support services from the best in the industry

As easy as  
**one, two, three**

ELECTRO provides fast, accurate results, exact modeling of boundaries, and easy analysis of open region problems. No finite element mesh is required. Unlike other packages, a special training program is not required. ELECTRO delivers an easy-to-use, powerful electrostatic field analysis tool right to your desktop.

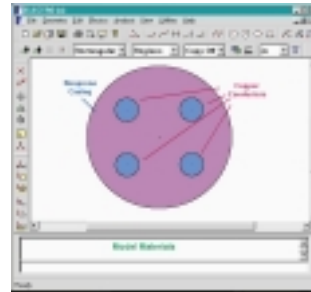
ELECTRO goes to work in just three easy steps.

**Step 1**



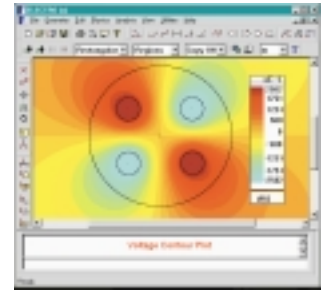
Create your design through our geometric modeler or import from your CAD program.

**Step 2**



Assign the physical attributes of the model.

**Step 3**



Analyze the model, display the results and optimize for performance.

## ELECTRO'S advanced technical features

- Intuitive and structured tool-bar interface maximizes productivity for experts and beginners
- Static and phasor analysis modes
- Static electric field and electrical conduction analysis and quasi-static analysis of lossy dielectrics
- Simulation of non-linear conductivity and permittivity
- Ability to assign constant or non-uniform charge distributions to surfaces
- Electro-static force and torque, transmission line parameter and capacitance calculations
- A variety of display forms for plotting scalar and vector field quantities including, graphs, contour plots, arrow plots, color maps, 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 function allows for unattended solution of multiple files
- Powerful parametric feature allows definition of variable parameters to be stepped through allowing the analysis of multiple "what-if" scenarios and facilitating design optimization

Try ELECTRO  
**for 30 days!**

Discover how easy ELECTRO is to learn and use. All full version software is available for a 30-day evaluation. Verify and compare the results. Call for an ELECTRO evaluation and start improving productivity today.

(ELECTRO)\*



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