NEW

SIMION 8.0

A new release of the most widely used particle optics package shipping Oct 1, 2006.

SIMION 8.0 provides the following new features/improvements over SIMION 7.0:

- **Updated user interface:** Native Windows controls and file manager, OpenGL viewing of potential arrays, and incremental improvements in layout and labeling of functionality.
- **Improved performance:** Initial measurements show refine and fly times reduced by ~20-40% from 7.0, largely due to modern compiler optimizations.
- **New integrated Lua and C/C++ programming languages:** This can be used instead of PRG code and has other uses as well, but PRG is still supported for compatibility. Initial estimates show that Lua can run almost as fast as PRG code in 8.0 and faster than PRG in 7.0.
- **New FLY2 and GEM2 formats (Lua integration)** for particle and geometry definition. FLY2 provides substantially more expressibility than FLY. GEM2 provides variable expansion and improved programmability.
- **CAD import and Toolkit features:** Convert 3D CAD models (STL) to PA files. Also includes SL Libraries and other import/export functions incorporated from the SL Toolkit.
- **Increased limits:** Increased PA size from 50M (500MB) to ~200M (2GB). Increased max particles per run from 500 thousand to 10 million (if sufficient RAM available). Increased max fast adjustable electrodes from 31 to 128. Some limits can be expanded upon individual request.
- **Batch mode operation** via command-line or Lua. Call various functions programmatically, e.g. refine GEM→PA, PA, and fly (e.g. for custom geometry optimization routines).
- **Compatibility:** Full compatibility with SIMION 7.0 files. A copy of the SIMION 7.0.x binary is included as well.
- **Free upgrades to SIMION 8.0.x and SIMION 8.1.x versions,** for at least a year, which will be continuously developed and made available for download on simion.com. SIMION 8.1.x versions will provide additional new features and improvements requested by customers. Limited free e-mail, message board, and phone support included.

Ship date: October 1, 2006. Currently under beta testing.
Price: See http://www.sisweb.com/simion/simorder.htm

Available exclusively from Scientific Instrument Services, Inc. and its international distributors, under license from Idaho National Labs. For further details, see < **http://www.simion.com/info/SIMION_8** >.
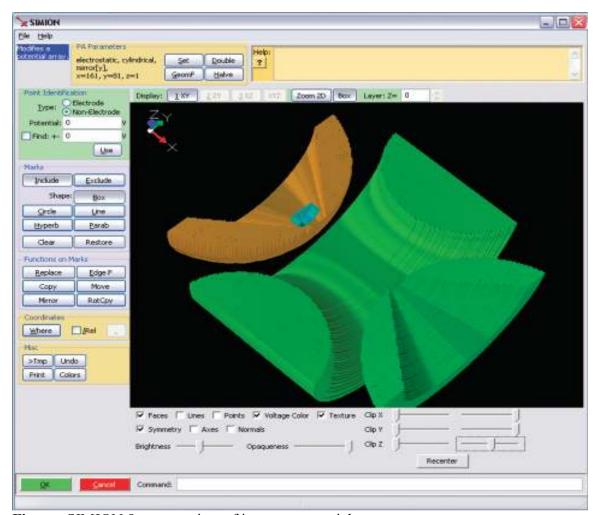
Figure: SIMION 8 cut-out view of ion-trap potential array.

Scientific Instrument Services is also making available new versions of these particle optics packages:

- **SIMION 7.0.3** is available to licensed SIMION 7.0 users as a free download from simion.com. This includes a few bug fixes.
- **SIMION SL Toolkit 1.2.2 and SL Tools 1.1.0** are available to licensed SIMION SL Toolkit users as a free download from simion.com. The new version includes significantly improved 3D viewing of PA/STL files. Parts of SL are incorporated into SIMION 8, so SL is mainly intended for SIMION 6 and 7 users. Price is a few hundred US$.
- **Virtual Device –** An accessory package for graphically building GEM files and analyzing and plotting SIMION output data. Gas dynamics version also available. Developed independently by Dr. Sergei Koltsov at the Russian Academy of Science. Price is a few hundred US$.
- **CPO** – a high-end particle optics package (alternative to SIMION) providing advanced BEM methods of calculation and space-charge handling. Prices typically start at US$2700.

For any questions on your particle optics software needs, please contact David Manura (1-908-788-5550 x831, dm**.**simion[-at-]sisweb.com) at Scientific Instrument Services, Inc. (www.sisweb.com / www.simion.com).