

What is CESE

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CESE is a simulation environment developed by Simulogic to support and advance electrophysiological basic and applied research. Since its release in 2003, CESE has been successfully deployed in university laboratories and pharmaceutical companies across the globe.

CESE is the only simulation platform that combines cross-platform runtime, the ability to run a large set of electrophysiological models, flexible clamping of model variables, and powerful data analysis and visualizations. CESE provides the user the power to perform simulations of action potentials and ionic currents under a variety of relevant conditions.

1 The CESE benefit

- Ease of use - turn key solution for simulations. You can perform your first successful simulation in minutes after install.
- Large collection of well-tested popular models available. Models are packaged with user-friendly variable descriptions and are based on industry standard.
- Simulate action potentials, individual ionic currents, changes in ionic concentrations, and more.
- Export simulated traces as clamping commands for the "action potential clamp" experiments.
- Look and feel of a typical electrophysiology lab software. Spend less time learning new software, and more time doing useful simulations.
- Standardization of variables. By unifying model variable names, CESE allows you to re-use clamping protocols between model systems for direct side-by-side comparison.
- VirtuClamp - flexible clamping system, allowing you to control almost any model parameter. Using VirtuClamp, you have the capacity to "command" unlimited number of model parameters.
- Import-export of data into formats relevant to cell electrophysiology (Axon text files, Microsoft Excel, ASCII tab-delimited files, NetCDF). This allows you to compare and analyze real traces with simulated predictions to better understand the premise behind your experimental data.
- Vibrant user community and [proven results](#).
- Available for Windows, Mac OS X, Linux.

2 Find out more

- [Compare CESE platforms](#)
- [Learn about Simucore models](#)
- [See the key publications utilizing CESE technology](#)