ExtendSim 10



Not just an upgrade!

ExtendSim 10 (ES10) is a complete rewrite of ExtendSim using an industry standard IDE (integrated development environment) and a cutting-edge cross-platform application framework.

This major release has a whole new look and feel plus it is packed with enhancements designed to simplify and accelerate your modeling experience. Its modern interface incorporates the newest ideas and most up-to-date features. Its 64-bit, multi-threaded simulation engine can handle the largest modeling tasks

We've rebuilt ExtendSim from the ground up focusing on how you use ExtendSim to create, run, and analyze models. ExtendSim has always offered the best balance between ease-of-use, flexibility, and scalability from the simplest to the most complex systems. And now it does that even better. We've added features with the future in mind and that are tailored to the way you work so you can master complexity of any modeling challenge.

People accustomed to using ExtendSim will find in ES10 many new features and changes that will impact how they build models and use the application, reducing development time.

User Interface

- Complete rewrite of the ExtendSim application using an industry standard IDE (Integrated Development Environment) and a cross-platform framework
- Tear-off notebooks, model worksheets, etc.
- Multiple Undo/Redo
- Improved graphic objects new color selector, free rotation (Alt-click on resize box), transparency/translucency, properties
- Tear off menus e.g. Connection Line Style, Tools, etc.
- Incremental zoom in/out
- Improved text: edit while scaled, rotate, select in groups to change style, vertical, transparent background, etc.
- Tile and Cascade windows commands (Window menu)
- Consistency of UI between worksheet, notebook, block structure, etc.
- Improved search capabilities with regular expressions capability
- Window size and position memory
- Refreshed toolbar and block icons
- Two Run Modes accessed by toggling the Run Mode button in the Model toolbar:
- Fastest Run Mode * to run a single model as fast as possible, even if you run it multiple times

• Multi-threaded Run Mode # IN to run multiple models at the same time, taking advantage of the ExtendSim multi-threading capability -- the user interface is processed in one thread and the processing for each model occurs in separate threads

Model Building

- Worksheet and notebook are tabs in model window that can be torn off
- Multiple notebooks per model; even hierarchical blocks have notebooks
- Docking library windows; tear off to float
- Point and Click to place blocks (rather than drag and drop); Alt key to add multiple blocks
- Right-Click Connect to add blocks and connect them at the same time
- Libraries are database-based; library size is only limited by your RAM
- Scrollable popup menus (combo box)
- Improved Data Import Export; import an entire database; import/export with Oracle database
- Connection lines:
 - 4 styles, including Smart and Free Form

• Point and Click to connect (or Smart Blocks – bump connect, right click, etc)

- Easier to customize: right click to stylize one line, shift-click on a segment adds/removes points
- Right-click on a free-form segment then toggle Bezier Curve for custom connection lines
- Up to 20 "Recent Files"
- 64-bit allows bigger models and libraries; multi-threading

New libraries and blocks

• New Chart library with Bar Chart, Line Chart, DB Line Chart, Scatter Chart, etc. each with up to 20 inputs

- New Reports Manager block the primary interface in ExtendSim for creating reports from simulation runs for blocks, events, items, and resources. This block's dialog provides filtering conditions to specify which blocks, events, items, and resources to generate reports for; data is stored in an internal ExtendSim database for ease of access and export
- Automatic Executive block placement on new DE and DR models
- Updated Rate module for modeling discrete rate processes for the evaluation of high speed, high volume systems



• New Reliability module combining process simulation with reliability block diagramming

For developers

• New source code (text) editor similar to Notepad++. Choose colors for keywords, cause the script to word wrap, us brace matching, auto indent, word/line wrap, zoom/reduce in the script window, show end of line characters, show white space, and more.

• Alt+O in the Script tab of a block's structure opens the Edit > Options > Script window to customize the script





Bar Chart

- Improved dialog editor and structure windows
- Code completion improvements
 - User customizable (add a text .ini file in Extensions folder), call tips
 - When you type the first letters for a ModL function or message handler in the block's Script tab, code completion pops up a window with a list of functions that start with those letters. Scroll through the list and double-click to select the desired function.
- Graphic objects in dialogs
- Progress bar column tag
- Improved search and find capabilities

ExtendSim Product line and Maintenance

- Full model developer versions for industry and academia: *ExtendSim CP*(continuous systems), *ExtendSim DE* (adds Item library for discrete events models), *ExtendSim Pro* (adds discrete rate modeling with the Rate library and LP Solver and reliability block diagramming (RBD) with the new Reliability library, + Excel Add-In)
- Limited versions: Trial, Analysis RunTime, Player RunTime, Student
- An annual ExtendSim Maintenance and Support Plan (MSP) is required for all products except Trial and Player RunTime.
- The cost of the MSP is included in the purchase price for the first year after purchase.
- As long as the MSP is kept current you can:
 - Get help with installation issues, basic usage questions, and troubleshooting.
 - Download free ExtendSim minor and major release updates.
 - Move your ExtendSim license from one device to another (if allowed by the EULA).
 - Obtain replacement or updated Activation Keys.
 - Experience, evaluate, and influence future products and features.
- For the benefits to continue in subsequent years, the MSP must be renewed by the anniversary of the license activation.