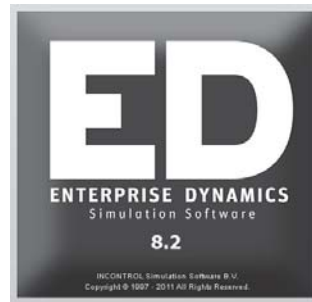


# Enterprise Dynamics 8.2 Highlights



**INCONTROL**  
Simulation Solutions

## Enterprise Dynamics 8.2



With the introduction of Enterprise Dynamics 8.2 we continue to offer a simulation product that is developed for you: the user. We have implemented a lot of new features and expanded existing functionalities based on user requests. The “What’s New” list comprises functionalities in the simulation engine itself, the atoms that you use to develop your simulation models and the introduction of the free Enterprise Dynamics Viewer.

Visit our website <http://community.incontrolsim.com> to join the Enterprise Dynamics Community. The ED Community is the source for users to share experiences, ask questions to your peers and to us, and a source of many examples.

Enterprise Dynamics 8.2 is not just software. Enterprise Dynamics offers you a simulation product that is widely used in industry and academic institutes worldwide. We offer simulation training programs that go beyond the level of knowing the function of each button; we train in gaining simulation knowledge. Our JIRA support system is a knowledge base for people searching for information on specific functionalities with our response attached to it (including solution, work-around, fix version, etc.). To top all that our first class ED Community allow users to discuss Enterprise Dynamics between peers. We encourage simulation professionals to participate in the discussions and to share their best practices.

Students and academics are invited to visit our targeted academic website <http://www.incontrolsim.com/academy> which contains many resources of information, test cases, and tutorials.

### Join the Enterprise Dynamics® Community

The Enterprise Dynamics simulation community is for all our users. Register today to get started.

### ED Academy

Read about the latest developments of ED Educational and get inspired by the simulation projects performed by students and researchers around the world.

## Free Enterprise Dynamics Viewer

Sometimes you just want to share your simulation model with other users. The obligation to purchase a license when you want to share your model with somebody can sometimes prohibit this wish.

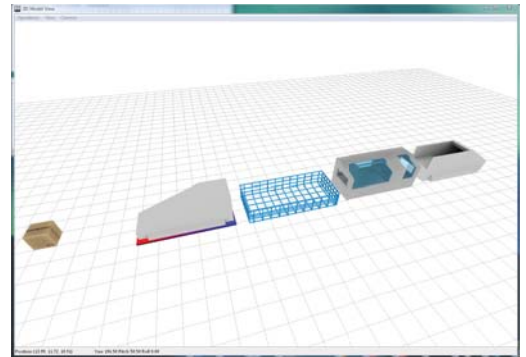
Enterprise Dynamics now has a free viewer version available. This version allows a user to load and run a simulation model. No new atoms can be added to the model and model parameters cannot be changed, but the viewer allows you to see the simulation run in 2D and 3D. It allows the user to zoom in on specific parts of the simulation model and see and analyze the results. The viewer even allows you to load your own customized atoms that are used in your simulation model.

Download the free Enterprise Dynamics Viewer from: <http://www.incontrolsim.com/viewer>

## 3D Modeling

Enterprise Dynamics 8.2 allows you to develop or change your simulation model from the 3D environment. This will allow users to fit the 3D visualization of the simulation model exactly to reality with much more ease.

You can still hover through the 3D visualization like in previous versions of Enterprise Dynamics, but by pressing the CTRL button or CTRL+SHIFT buttons you enter the atom-positioning mode. For easy modeling we have also added a dynamic grid that will always be in the center of your modeling viewpoint. This will make positioning atoms as easy as possible.



## GUI Builder

The Enterprise Dynamics GUI Builder allows the simulation designer to develop his or her own user forms. These forms can be used as input forms for atoms or serve as status windows, monitors, model wizards, etc.

With each version of Enterprise Dynamics we add functionalities to the GUI Builder based on user needs and industry standards. In Enterprise Dynamics 8.2 we have added a new 3D Icon component with which you can display a preview of 3D models.

With this 3D icon control in combination with some new 4DScript commands to check width, height, depth and many other 3D object properties you are able to develop your own customized 3D resource manager. We have also added more properties and events for specific controls that you can use for further customization of your user forms.



## Recording movies

A number of users want to record their 3D visualization in a movie. We have now made it possible to set the recording codec in advance so you don't have to wait anymore to set the codec to the moment the actual recording starts.

This will allow users to prepare a movie in advance. Set the recording start and end time and the fly path and let the high quality recording of the movie run overnight without waiting for the actual start time of the recording to set the codec.

## UDP messages

UDP messages can now be sent and received through a new series of GUI Builder components:

- UDP Client
- UDP Server
- UDP Anti Freeze

These components allow you to respond to UDP messages from external sources. You can set how to respond internally in Enterprise Dynamics and which message you want to send back, if any.

The components work outside the normal event scheduling of Enterprise Dynamics to allow you to respond to these messages at any desired time. You can set host and port where appropriate to have control to which UDP messages you need to respond and you can use the new UDP components parallel from each other to define specific behavior for each host and port combination.

## 2D visualization functions

We have added numerous 4DScript functions and new optional parameters to existing functions to give you more control and freedom in the 2D environment. You can now add 2D polygons, set an inner radius in an ellipse and set the transparency color.

This gives the simulation developer more freedom and flexibility in the creation of an appealing 2D visualization for atoms.

We have also added the possibilities to obtain the properties of registered 2D visualization objects in the resource manager.

## Unique naming in library

Although an atom name does not have to be unique in Enterprise Dynamics we have added a warning when an atom is loaded into the library of which the name is already used by another atom.

This feature is added to accommodate new users and users experienced with other simulation products.

Only atoms loaded in the atom editor or library are checked on existing names. When atoms in a model have the same name the warning is not displayed.

## Atom property forms revised

All atom property forms have had a revision to modernize and standardize them in appearance and use. In this way the atom property forms use the enhancements made in the GUI Builder and enhance the user-friendliness of Enterprise Dynamics.

# Release Notes

A list of all issues covered in the development of Enterprise Dynamics 8.2 can be found below. We have listed them in several categories for easy reference and you can find the details of all these issues in our online support tracking system JIRA. Visit <http://support.incontrolsim.com/> to login to JIRA.

## Major Issues

	New free Viewer engine license available for download at <a href="http://www.incontrolsim.com">www.incontrolsim.com</a>
APP-159	Create 3D Modeling Functionality
ED-392	New GUI properties and events
ED-509	Choose codec when recording .avi in advance
ED-503	Support for UDP Communication
ED-464	Draw polygon in 2D
ED-469	2D ellipse
ED-520	Atom naming collision detection for libraries
APP-226LOG-133	Standard GUI's revision required
APP-252	The new 3D Visualization features for the Status Monitors should be added to the other diagrams

## New Features

APP-248	XML Example misses connect feature
APP-268	CreateExcelActiveX_ReadText and _WriteText functions.
APP-114	Select all atoms in Report atom
APP-143	Create a new atom that displays an image depending on user requirements.
ED-375	Display channel connections in atom editor
ED-430	GUI Component 3Dicon
ED-468	Inner radius parameter drawcircle
ED-471	Shortcut F3 for "search again" and shift F3 for "search previous" in the function editor
ED-472	Interact improvement functions
ED-478	Wish to have the functions: clear cell, clear row, clear column
ED-484	Sorting of two columns at once does not work correctly
ED-497	Obtaining more information from resource manager using 4D script
ED-504	Possibility to convert atoms in a model
ED-516	Refresh View Atom Labels during run.
ED-519	Ability to switch the colors on or off in the editor

## Improved Atoms

APP-150	Changing "Atom Name" in GUIs of status atoms does not take effect
APP-156	Composition Container incorrectly connects channels on Copy or Daughter
APP-206	Table Atom copy-paste results in lost alias functions of original
APP-229	Continues evaluation of Lock atom does not allow triggering atom reference
APP-240	Condition Control condition not always fires action on true/false
APP-244	Empty setuptime of server results in error that cannot be solved through GUI.
APP-246	ExcelActiveX_Read and ExcelActiveX_Write do not work if you leave out the optional atom reference
APP-247	Socket Send executes 4DS twice
APP-249	Inviewfield points in composition container are not always defined correctly
APP-250	User Events Atom saves in top of Modeltree
APP-258	Initialize atom does not work properly
APP-263	Excel ActiveX Read Block does not read values when the system uses a comma separator
APP-269	Reading empty cells from Excel with the ExcelActiveX atom results in a cell with a space in the table.
APP-279	Predefined logic of the data recorder is incorrect.
APP-253	The new Monitors should be resizable in the 2D Model View using the mouse
APP-254	Modernization of the Monitor atom
APP-256	Source and Sink 2D visualization differs from 3D visualization
APP-262	Add monitoring functionality to Histogram atom and create predefined logics to generate segments.
LOG-32	Advanced transporter and battery charging station: bugs and improvements
LOG-121	Advanced Transporter: access violation with reference to prevatom in function AdvancedTransporter_Event6
LOG-125	Category TRANSPORT: Subcategory RAILBOUD: Transfer Car: Subatom Transfer Stations: Color not changeable

LOG-127 Category TRANSPORT: Subcategory RAILBOUD: Transfer Car: Subatom Transfer Stations: Trigger (Entry and Exit) not active

LOG-128 Category TRANSPORT: Subcategory RAILBOUD: Transfer Car: Subatom TransferCar StorageUnit: Trigger (Entry and Exit) not active

LOG-139 Portal Crane: GUI: Detailed Movements sheet show numbers instead of describing text

LOG-142 Operator GUI component shifted

LOG-143 Conveyor functions cannot distinguish advanced conveyors (from regular conveyors)

LOG-144 ASRS changes in GUI are not saved or directly applied

LOG-145 Conveyor draw supports GUI throws division by 0.

LOG-149 Changing the width and the length of the stations and move forward and backward with the "forward" and "fast forward" buttons fails

LOG-154 Bug when opening the Network Control Gui

LOG-155 Overlapping fonts in Operator Gui

LOG-158 Advanced transporter gives access violation during model save

LOG-126 Category TRANSPORT: Subcategory RAILBOUD: Transfer Car: Subatom Transfer Stations: Place products without movement

LOG-129 Category TRANSPORT: Subcategory RAILBOUD: Transfer Car: Subatom Transfer Car: Add load and unload times

LOG-130 Category TRANSPORT: Subcategory RAILBOUD: Transfer Car: Lock position

LOG-135 Trigger OnReset for Corner Transfer Unit

LOG-151 Transfer Car - Push System - Register orders for products without label "ProductTypeid"

LOG-7 Display the Speedometer multiple instances

NLS-38 Reconstruction of atom "Elevator"

NLS-56 Update-Buttons do not what is expected in TransferCar-atom

#### Improved GUI's

APP-233 Status Bar in 3D animation window missing

APP-239 Attribute controls form returns wrong type when loaded

APP-265 Make "View atom Labels" work in Model Tree as well

APP-277 'Fly To (F7)' in 3D model view takes way control from ED.

APP-278 non-unique naming in Conveyor GUIs

APP-266 Attribute controls form does not refresh tree

ED-426 Statusbar 3D visualization object does not display the statusbar

#### Bug Fixes

APP-185 The German Example models need to be improved. For example old style product Gui's and incorrect code in Breakdown fields of servers and 4DScript bugs.

APP-242 Autofit fails when using table data

APP-280 When running the example model Basic modeling - servers and run the GUI I get an error message

ED-538 When selecting an object in 3D the object is highlighted with the texture on the highlight.

APP-255 Report atom markup incorrect and incomplete

APP-257 Klompen.mod

APP-259 The function clearable doesn't clear.

APP-270 Change in the progressbar settings in the function excelativex\_readblock

ED-91 DiShape with fill color transparent gives problem when 5th parameter is 0

ED-168 4dscript compiler doesn't check number of parameters correctly for the Concat function

ED-258 Access violations with order settings order in GUI builder

ED-417 ed.his i/o error

ED-432 DbRecords gives value -1 after executing DbSql

ED-433 Find atom (match whole word only) in model tree does not work properly

ED-470 GUI table: copy paste on row does not work as expected

ED-475 GeneratorSeed(1) := \*\*\* Doesn't update the run control

ED-476 ColorTransparent is treated as ColorBlack

ED-479 Saved csv tabledata does not load into table

ED-480 Why is it allowed to make function names with spaces?

ED-485 Images in Gui's flicker

ED-487 Form Inspector buttonbar scroll arrows don't work

ED-489 Activating the GUI Builder Form Inspector fails with heavy visualization

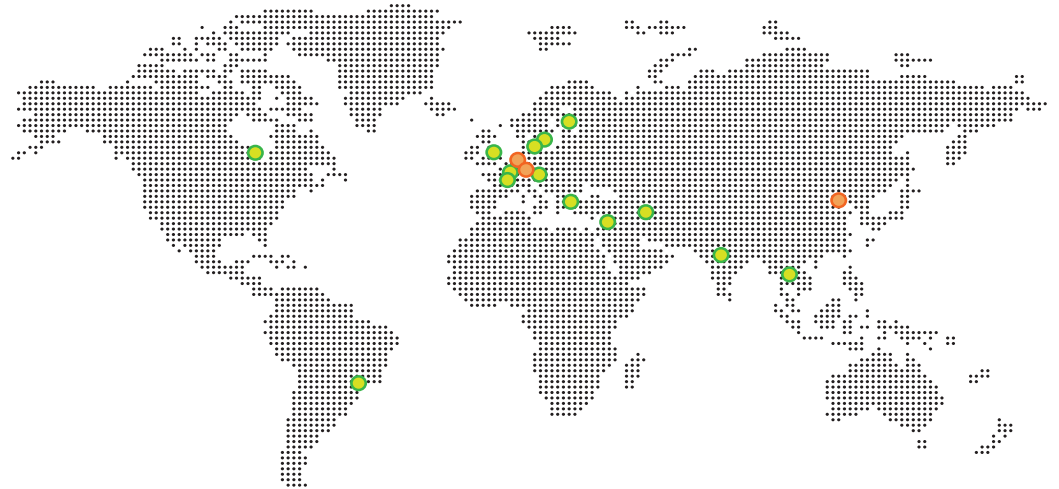
ED-492 Fourth parameter of function StringPos does not work correctly

ED-493 Gui builder gives access violations and crashes on Engine2D in specific cases  
 ED-495 Move command cannot exceed hardcoded window settings  
 ED-502 Value function loses decimals  
 ED-505 Function DrawText does not work properly.  
 ED-508 DrawCone and DrawCylinder copy last selected colour.  
 ED-510 The string returned by GetUserName contains trailing char(0)  
 ED-302 Split and document help on the basic speedbar buttons

#### Smaller improvements

APP-205 Help from ModelTreeAtom does not display  
 APP-260 XMLNodeSetAttribute Help missing  
 APP-264 FreezeScreen Entry in the Help is incorrect  
 APP-267 ExcelActiveX\_Read, \_ReadText, \_Write and \_WriteText functions are not documented in help file.  
 APP-272 Stress that enablestatusmonitor is necessary in help file of statustime  
 APP-241 Exp Wizard calculates wrong PFM results when using the group option  
 APP-23 Update screenshots in Training material  
 ED-333 Can't access German examples from the Example Wizard  
 ED-422 Maximum simulation speed (slider control) differs extremely from 'Unlimited'  
 ED-517 Tab order does not work with ScriptEdit component  
 ED-521 Opening a GUI event by double clicking opens in middle of desktop, not screen  
 ED-522 FileSize returns negative sizes  
 ED-523 ReadTableFromFile fails for unknown reason  
 ED-524 GUI Builder not visible (off screen) and not moveable  
 ED-527 The table size is not updated correctly  
 ED-532 InputNum does not pop up with runtime license  
 ED-534 ED hangs after setting gridsize on 2D visualization component  
 ED-537 Function "Version" returns unexpected value  
 ED-414 Paste location of atom in atomtree  
 ED-437 ADO connect with access 2007 database  
 ED-455 Help file for ED angles- and coordinate- system  
 ED-474 Selection of atoms in 2D  
 ED-483 GUI Smartedit component input verification  
 ED-496 AtomTreeRefresh collapses AtomTree  
 ED-498 When opening the Atom Editor, show the atom currently selected in the model layout  
 LOG-156 Example model Operator 3 does not include the described break behavior

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