

Pedestrian Dynamics Release Notes

Pedestrian Dynamics 4

Written by: INCONTROL Simulation Software

Jaap Bijzerweg 21A

3446 CR Woerden

The Netherlands

www.incontrolsim.com

Date: 11/01/2022 17:28

Version: 4



What's new

Pedestrian Dynamics release notes

More detailed information can be found online by clicking on the relevant link.

Release Note - Pedestrian Dynamics 4.1

Includes Engine 10.4.1, 10.4.1.1 and 10.5.0 Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 4.1

Pedestrian Dynamics 4.1 release has the following improvements

- Several user friendliness improvement. For example, stop the execution of an experiment making sure the output files of the current experiment are saved. Improvements for BIM import increasing the speed of the import and giving you control the height of the height layers. Be aware when you close Pedestrian Dynamics you are now asked if you want to save the model before closing the application instead of just checking if you would like to quit.
- Easily apply physical distancing rules for stand element.
- New documentation: How to guide ""How to record a video of your simulation."" and ""Handbook density calculation in Pedestrian Dynamics"".

A complete list of all the bug fixes and improvements can be found below.

Bug

[PED-823](#) Set default button for density norms in the density map GUI does not work

[PED-818](#) odd visualization circle obstacle

[PED-817](#) Bug in elevator when using it as an intermediate activity

[PED-815](#) Agent Route Counter is incorrect after leaving an elevator that was added as intermediate activity

[PED-814](#) Strange behavior of agent profile GUI and skeleton movement

[PED-758](#) General settings Snap to grid is not taken into account

[PED-687](#) Experiment names in the experiment wizard do not allow "." and a space at the end.

[PED-667](#) Transferring a flow splitter to a another height layers leads to a change of geometry

[PED-662](#) Order of channel connections of queuing corridor changes when you open the GUI of the activity location and then click apply

[PED-636](#) BIM: Zloc of height layers should the original Zloc and not 0 as this is an input for the elevator

[PED-634](#) Stack underflow error when searching atoms in the model in the searching form GUI

[PED-631](#) Error displayed when jumping to specific time in PD (00:00:00) in the result player

[PED-590](#) Nr times to repeat to 4DScript combo box

[PED-583](#) "Move to active heightlayer" not functioning correctly on Flow Splitters with "Move lines separate"

[PED-582](#) "Output" help item shows page containing #define

[PED-464](#) Transfer and stand portal element only work with direction bidirectional

[PED-394](#) Setting Transfer area to one-directional is closing it in all directions.

[ED-1489](#) Text in Cells look unreadable in Windows 11

[ED-1488](#) ED used all system allowance of handles for Window Manager objects

[ED-1470](#) Creating a duplicate (F6) is not reconnecting atoms in the same way as the original

[ED-1461](#) ED 10.4 closes without asking for saving after locking of laptop (Windows + L)

[ED-1457](#) The OnDestroy of a GUI is not executed when the closing cross is used to close of a GUI.

[ED-1455](#) Several Draw commands cannot be drawn static

[ED-1454](#) Replace All in Editor is not always replacing everything.

[ED-1448](#) PD crashes when accessing a specific windows directory when opening a model

[ED-1445](#) Transparency in material editor is too aggressive.

[ED-1439](#) The pictured box (di3DBox) is drawn inside out.

- [ED-1434](#) Using UnregisterDim and then creating a Dim with the same name gives strange behavior
- [ED-1433](#) ED (in FRISO) is not responsive when visualization is frozen
- [ED-1429](#) CopyTable with using a selection is not working.
- [ED-1428](#) Please add the number to the enumerations for the PrimitiveType_ to the help
- [ED-1427](#) TransparentColor not working with DrawCircle
- [ED-1425](#) MultiVectorFieldsSize is a non updatable variable
- [ED-1424](#) Copying of functions results in access violations
- [ED-1419](#) Registericon parameter e8 and e9 don't work and lead to crash
- [ED-1415](#) Strange behaviour of SoftStartED
- [ED-1411](#) Do not change InvStatic and value inheritance when scrolling
- [ED-1408](#) HashMap editor doesn't work properly
- [ED-1405](#) Function editor - Updating parameter settings is not user friendly
- [ED-1397](#) Datacontainers
- [ED-1396](#) Labels placed on products are not copied by the source due to CreateAtom
- [ED-1394](#) Error when opening BIM file
- [ED-1384](#) Change function editor window name when changing/setting the function name
- [ED-1368](#) Add support for XOR and XAND logical operators
- [ED-1367](#) Duplicate-atomname error when creating a daughter of an atom with content
- [ED-1363](#) 3D models in ED and their materials are not working well
- [ED-1362](#) Errors when loading 3D-models with textures.
- [ED-1361](#) Hint is not clear in preferences.
- [ED-1360](#) Very slow Reset when table is open (and updated on reset)
- [ED-1355](#) Not all the Text in the 2D animation is sharp.
- [ED-1349](#) Order of 3D meshes is not clear
- [ED-1344](#) SkyBoxFogEnabled seems not to be doing anything.
- [ED-1329](#) Error monitor does not show the full stacktrace
- [ED-1327](#) Not able to copy attribute name in AtomEditor from a mother attribute
- [ED-1326](#) Updating of attribute name affects loading older models and results in error messages.
- [ED-1324](#) Variable can't be marked as 'output'
- [ED-1323](#) ED crashes under specific circumstances setting a TextAtt
- [ED-1322](#) Using the debugger randomly freezes the application
- [ED-1321](#) Model3DNode_Translate changes not reflected in Properties.
- [ED-1320](#) Missing Help for Model3Dxxx commands
- [ED-1319](#) The "Properties" sheet of the 3D Model Editor does not work properly
- [ED-1301](#) Destroying Hashmaps results in an access violation
- [ED-1300](#) Anti-aliasing enabled produces poor 2d visualisation of simple shapes
- [ED-1298](#) Atom Speed and Location is incorrect
- [ED-1296](#) Seed generator creates seeds in a range that is too small.
- [ED-1293](#) Horizontal scroll bar in GUI table, while there is no need.
- [ED-1291](#) Experiment report generation crashes when reporting confidence interval with 44+ runs
- [ED-1287](#) Icon in 3D is too dark

- [ED-1284](#) Editing mother atom in library does not correctly affect daughter atom
- [ED-1282](#) Copying local variable loses autocomplete to first variable
- [ED-1275](#) GUI Table OnSelectCell incorrect ActiveRow and ActiveColumn
- [ED-1269](#) The 3D visualization of ED 10.2 is slower than before.
- [ED-1255](#) 3DS file seems to require Microsoft Visual C++ 2015 Redistributable
- [ED-1244](#) Loading 3DS file error
- [ED-1239](#) dbExpress execution disturbs the execution of the rest of the code.
- [ED-1238](#) 3D animation as slowed down with the upgrade to Enterprise Dynamics 10.2
- [ED-1232](#) dbExpress in combination with SQLite
- [ED-1207](#) Selecting a different layer than Model for an imported CAD Icon does not show all expected parts
- [ED-1203](#) When SetMaterialWireFrame is switched on, DrawPlane draws a wire too many
- [ED-1190](#) In the model lay-out I see always (when nothing is selected) a closing bracket in the status bar
- [ED-1186](#) Many issues in the 3D visualization of textured materials
- [ED-1171](#) Enable users to draw SVGs in function StaticIcon
- [ED-1162](#) GUI component SmartEdit has no Events
- [ED-1160](#) Execution creation trigger
- [ED-1148](#) 2D3D is not referring to the last active animation window
- [ED-1144](#) AbsRotationAs seems not to work
- [ED-1104](#) AutoComplete list erases too voraciously with double Variable Names
- [ED-1101](#) Changes to atoms in the library are not tracked by the library's version number
- [ED-981](#) Searching in help while Model Layout is visible takes way too long
- [ED-951](#) Strange behaviour of 3D material handling
- [ED-949](#) Target camera not working properly
- [ED-1490](#) Placing your cursor on a 4Dscript command and opening the Help in the interact using F1 places a return on the cursor position
- [ED-1268](#) When moving the animation window at the time the debugger is activated, nothing is working any longer.
- [ED-1262](#) ADOCopyAtomTableToDBTable is no longer working
- [ED-1393](#) Runtime Error on search dialog within Atom Editor Function
- [ED-1317](#) Sorting a table with two rows does nothing
- [ED-1272](#) Gui with timer event gets frozen when scroll bar is used
- [ED-1235](#) dbExpress stack underflows cause ED to freeze and in the end crash.
- [ED-1230](#) Enterprise Dynamics hangs when using code completion form the Interact window

Feature or improvement request

- [PED-575](#) Make selected object show above others

Improvement

- [PED-819](#) Skeletons should not be loaded during the run as standard setting
- [PED-776](#) Add help file for Camera Positions
- [PED-770](#) Create documentation of how to analyze densities in Pedestrian dynamics
- [PED-769](#) Rename and make accessible "Quick starts" help documentation folder

- [PED-768](#) Color type to visualize agents does not make sense (General settings / Visualization - GUI)
- [PED-767](#) Add meaningful color to skeletons
- [PED-765](#) Add documentation/tutorial BIM import
- [PED-764](#) Separate import tool for BIM import
- [PED-761](#) Exclude agent from ECM but not from action area
- [PED-753](#) Add social distance options at stands
- [PED-749](#) Add separate BIM import button
- [PED-748](#) Seating according to physical distancing rules
- [PED-747](#) Add help file for Stands section overview/occupancy
- [PED-740](#) Transportation: make it easy for users to attach a 3Dmodel to a transportation subtype (train wagon or bus)
- [PED-724](#) Video Record: Add extra documentation of how to properly record a video and set up valid default settings
- [PED-719](#) Add destroy trigger in Agent Generator
- [PED-710](#) Allow the user to choose what information is visualized when an agent is selected in the 2D model layout
- [PED-676](#) Create new setting to display or not clock in 2D & 3D
- [PED-665](#) Stop execution of experiment wizard logging the results simulated so far
- [PED-651](#) Automatically translate BIM files or give extra info to users in the help
- [PED-637](#) BIM: improve import speed
- [ED-1485](#) Update products to reflect new house style
- [ED-1474](#) MultiVectorCompareByField help entry is mentioning a FieldValue option, which is not existing
- [ED-1472](#) GuiFindAtomByGuiInstance help entry appears twice, but the second one contains the help of GuiInstance
- [ED-1471](#) GUI 2D/3D visualization element could use a refresh at the end of the visualization cycle
- [ED-1466](#) Add MonitorCount to the Help
- [ED-1464](#) GuiTreeNode example mentioned "[Caption]" as e2 parameter, which is not allowed. Should be "[Text]".
- [ED-1463](#) What is the difference between GuiTreeNode and GuiResourceNode (which mainly seem to exist in the help)?
- [ED-1462](#) Help is missing for MemoryAllocated and MemoryFree
- [ED-1460](#) Inheritance attributes
- [ED-1459](#) GuiTableDeleteRow exists, but GuiTableDeleteCol doesn't exist, which would be handy though.
- [ED-1453](#) License error message displayed in developed MessageDialog
- [ED-1449](#) When Help is not returning a valid topic, make it search in the 4Dscript list (F2).
- [ED-1447](#) oglMakeCurrent 0x0 error in Mac Virtual machines
- [ED-1440](#) Less popups in function editor
- [ED-1438](#) Hide atom indices in model/library tree
- [ED-1420](#) Close tab in dockwindow using middlemousebutton
- [ED-1418](#) Improve accessibility of docked windows in a multipage
- [ED-1406](#) Comments in combination with a quotation mark is not working correctly
- [ED-1402](#) GUI attribute list is not scrollable. Only dragging by mouse is working
- [ED-1401](#) Function editor with details on the right

- [ED-1400](#) Dynamic filling parameters
- [ED-1399](#) Show windows in taskbar and alt-tab
- [ED-1398](#) Profiler only in Visual Studio code available
- [ED-1391](#) Make it possible to Run Enterprise Dynamics via Parallels
- [ED-1383](#) BIM: wrong Zloc of nodes resulting in a wrong Zloc of atoms after import
- [ED-1380](#) BIM: classify nodes in the resource manager based on ifcClass
- [ED-1379](#) Function to clean up and structure your code based on 4ds script official style guide
- [ED-1364](#) Remember in Atom editor where in the code the cursor was standing
- [ED-1359](#) Improve docking functionality
- [ED-1357](#) Add a thickness to 3D PointsPlane
- [ED-1354](#) Add filter to Function editor headers to easily make a sub-selection of interesting functions
- [ED-1341](#) Drag fields in multivector to new position
- [ED-1339](#) Make the error monitor user friendly
- [ED-1338](#) SaveModel allow a parameter, but it is not stated what for or what type
- [ED-1332](#) Starting debugger on code
- [ED-1331](#) Enlarge the channel area
- [ED-1315](#) Code highlighting in tracer/error screen
- [ED-1310](#) Temporarily turn off updating of table
- [ED-1309](#) DIFFUSE_AND_AMBIENT_COLOR documentation incomplete and not same as DIFFUSE_COLOR and AMBIENT_COLOR
- [ED-1307](#) Enable users to set the compare fields of a multivector in the atom tree.
- [ED-1289](#) Add possibility for functions to refer to the atom they are described in
- [ED-1288](#) Preferences - Defaults should delete settings from the registry that are not listed as preference
- [ED-1273](#) Improve ED memory usage for atoms and datacontainers
- [ED-1264](#) ADOCopyAtomTableToDBTable is slow.
- [ED-1263](#) 4Dscript code for interact is not described in the help.
- [ED-1259](#) Add an automatic trace to the stop
- [ED-1258](#) Dependency C++ 2015 Redistributable
- [ED-1257](#) LicenseSelector.xml file stored in local appdata instead of roaming appdata
- [ED-1240](#) Option to define more than 1 polygon per atom.
- [ED-1237](#) First frame is always black when recoding a movie
- [ED-1231](#) StaticDrawInvalidate on "Snap to Grid"
- [ED-1227](#) Speeding up reset when Model Tree is open
- [ED-1223](#) Node selection in 3D Model Editor
- [ED-1221](#) Save and load atom references in variables and datacontainers
- [ED-1217](#) New attribute calls are missing option to enforce the return of a string or value
- [ED-1202](#) Draw line stippling independent of viewer distance
- [ED-1192](#) Improve texture quality by using mipmapping as a standard and implementing anisotrope filtering
- [ED-1178](#) Support for Kadaster GML files
- [ED-1170](#) New color scheme of licensing seems to indicate that an error is made
- [ED-1166](#) Show type/autocompletion-info on mouse-over in 4dscrip-editor

- [ED-1163](#) Improve selection of input and output channels
- [ED-1157](#) Native Matrix- and Vector-Calculations in ED
- [ED-1154](#) Set color of cell in GUI table
- [ED-1153](#) Remove differences between 2d and 3d visualisation(functions)
- [ED-1149](#) Run-function for parallel replications
- [ED-1135](#) Give notice to user that OpenGL version is too low and exit
- [ED-1125](#) Function Stoptime on reset
- [ED-1098](#) Compile error for setting local function scope variables within parallel for loop
- [ED-1089](#) Add the name of the atom on which the error "Changing the name of inherited attributes is not possible." is given
- [ED-1080](#) Autosaving of interact window
- [ED-1079](#) Debug DLL-callbacks
- [ED-1074](#) Save comments in SmartEdit boxes in GUIs
- [ED-1071](#) Run Control should save Measurement setting
- [ED-1061](#) Upgrade TeeChart to latest version
- [ED-1043](#) Saving content of Interact Window
- [ED-1040](#) Improve online check for updated versions of ED
- [ED-1035](#) Improve performance of refreshing the modeltree for large models
- [ED-1033](#) Add Breakpoints functionality to debugger
- [ED-1032](#) Add support for OpenGL Multiview rendering
- [ED-1030](#) Support for high resolution screens (4K)
- [ED-993](#) Shading, Lighting, Shadows and Ambient Occlusion
- [ED-991](#) Redesign Atom Editor to IDE
- [ED-966](#) Autofit GUI table should not move or it should show a scrollbar
- [ED-952](#) Difficult way to work with 3D models
- [ED-920](#) Create distributed help systems for engine and applications
- [ED-916](#) Review xxUsrMsg.ini
- [ED-909](#) The help of the packages is not incorporated into the main help.
- [ED-896](#) Rotate models in 3D Model Editor rather than observer
- [ED-807](#) Wordwrap description field in atom editor
- [ED-795](#) Allow scale dependent zooming speed
- [ED-789](#) Allow ED preferences to be get/set by 4dscript functions
- [ED-738](#) Add compiletime typechecking
- [ED-717](#) Create Delphi functions to quickly read and write a whole block of Excel data through an ActiveX Workbook connection.
- [ED-515](#) Add attributes and behaviour to GUI SmartEdit control
- [ED-448](#) Cannot move scrollbox bar in design mode
- [ED-1465](#) Enterprise Dynamics runs slow when in the preferences => Editor => Allow model atom references is checked.
- [ED-1456](#) Upgrade Codemeter version capable of using the latest Codemeter Runtime (7.2 and up)
- [ED-1295](#) Allow for copying header in CopyTable
- [ED-1270](#) The dot. attribute referencing is only working for library atoms and their attributes.

[ED-1261](#) Help of some of the ADO-commands is not that clear

[ED-1250](#) Call to help should display the help topic location in the Contents tab

New feature

[PED-686](#) Create functions on the Activity location for the number of agents entered and exited

[ED-1477](#) Quartic function solver for FRISO

[ED-1469](#) It would be nice to have, next to a RegisterIcon, also an option to unregister a single Icon

[ED-1452](#) It would be good when you can also define to where the CopyTable is copying the data.

[ED-1414](#) Functionality to notify user when using deprecated functionality

[ED-1395](#) Automatically comment all selected text in 4dScript editor

[ED-1381](#) New ECM network creation for PD based on BIM

[ED-1377](#) Automatically delete labels starting with tmp

[ED-1376](#) Checking names of atoms in library when loading

[ED-1373](#) Quite some Model3D... system functions are missing in the help

[ED-1334](#) (ED+PD) A simple application to manage installations and remember which version to use for models

[ED-1314](#) Debugger: add option to simulate to event

[ED-1286](#) Add a delete button for attributes

[ED-1278](#) Implement Scope for attributes and functions

[ED-1277](#) Debug features

[ED-1245](#) 4DScript commands for retrieving dimensions of individual meshes

[ED-1188](#) vbBoolean variable

[ED-1143](#) Add 4dscript functions to retrieve the memory available/used by ED and processor count

[ED-1137](#) Function to get "Functionname"

[ED-1132](#) License borrowing

[ED-1109](#) Remember the window layout when Enterprise Dynamics is closed

[ED-1097](#) Allow block scope local variables

[ED-1086](#) Update attribute and datacontainer info for derived atoms

[ED-1070](#) Automated generation of technical documentation from library code

[ED-1037](#) Add support for instancing of 3D models

[ED-1036](#) Snap-to-CAD of atoms

[ED-1031](#) ED Development Kit (ED API)

[ED-1017](#) Function to retrieve the current callstack

[ED-1013](#) Possibility to collapse functions in editor

[ED-1012](#) Multithreaded 4DScript

[ED-996](#) Automated generation of ED Help from code

[ED-995](#) Simulation application development

[ED-990](#) Add support for records

[ED-989](#) Add support for inline functions

[ED-988](#) New GUI Builder

[ED-926](#) Set accessibility of 4DS functions, attributes, and data containers

[ED-924](#) Compound assignment operators in 4DScript

[ED-914](#) Suggest recent models

[ED-913](#) Ask for 'save model' when user made changes or model has not been saved yet before closing the software

[ED-895](#) Variable Parameters

[ED-894](#) Alembic export capabilities

[ED-883](#) Copy and paste atoms via clipboard

[ED-880](#) New smartedit

[ED-822](#) Error and Tracer intercept

[ED-625](#) Resizing atoms in 3D

[ED-388](#) DateTimePicker component GUI Builder

Task

[PED-793](#) Communicate the changed close software and save model routines.

[ED-1486](#) Redesign Splash & about screen reflecting new house style

[ED-1173](#) Define Application

[ED-1476](#) DateTime is truncating a number, instead of rounding it

[ED-1206](#) The Add function window of the atom editor is missing help

[ED-1196](#) Changing interfaces breaks the downward compatibility of model files

[ED-1055](#) Rearrange SVN code repositories

[ED-1039](#) Create Online ED help webpage

[ED-1038](#) Investigate Vulcan, successor of OpenGL

[ED-1018](#) The help entry for "AviChooseCompressor" is missing

Release Note - Pedestrian Dynamics 4.0

Includes Engine 10.4.0 Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 4.0

Pedestrian Dynamics 4.0 release has three major features

- Algorithms and output to model physical distancing regulations.
- Skeleton animation to create realistic crowds and movements.
- An elevator object.

A complete list of all the bug fixes and improvements can be found below.

Bug

- [\[PED-594\]](#) - Width of Local Obstacle GUI is bigger than other modelling objects GUI
- [\[PED-599\]](#) - Output travel times map: agents are not positioned to the right output height layer
- [\[PED-602\]](#) - Agents at indicative corridor serving different activities are not triggered when updating activity route (Agent_Reroute_UpdateActivityRoute)
- [\[PED-611\]](#) - Remove colinear points in Model Layout only works if one element is selected
- [\[PED-623\]](#) - Example model: check in.mod channels connected illogical
- [\[PED-625\]](#) - Output: Legend travel time output map does not include last value
- [\[PED-627\]](#) - bug in function Agent_StartRoutingIntermediate
- [\[PED-635\]](#) - Bugs in the beta elevator
- [\[PED-647\]](#) - Any change in the coordinate tab of the GUI of a modelling element should automatically force the creation of a new ECM
- [\[PED-658\]](#) - Action Timer: agents triggered in Indicative corridors are not removed from the list leading to stack overflows or to wrong model behaviour
- [\[PED-666\]](#) - Copying multiple atoms connected by channels results in a wrong channel connection of new atoms
- [\[PED-680\]](#) - Automatically rebuild ECM when required
- [\[PED-681\]](#) - The spiral staircase's turning circle cannot exceed 180 degrees
- [\[PED-688\]](#) - Typo in predefined logic Activity Location Activity time
- [\[PED-693\]](#) - Reset code of flow splitter is not executed
- [\[PED-694\]](#) - Activity location predefined user assignment gives error message: `{**Least number of assigned agents**}`
- [\[PED-697\]](#) - Physical distance visible in result player
- [\[PED-699\]](#) - Social Distance: Agents to not walk completely to the front of the indicative corridor
- [\[PED-713\]](#) - Delete "trace" in Apply button of advance simulation settings GUI
- [\[PED-721\]](#) - Tutorial model 'metro station' does not do what it is supposed to
- [\[PED-725\]](#) - Transport non-waiting areas are positioned in a wrong layer
- [\[PED-731\]](#) - Incorrect height of agents in tilted activity locations
- [\[PED-734\]](#) - Rotate Selection Form - buttons Apply and OK result in 2 rotations
- [\[PED-737\]](#) - When selecting skeletons in a running simulation PD produces errors
- [\[PED-738\]](#) - "LocationTo" of ElevatorControler-Positions does not combine with rotated elevators
- [\[ED-1228\]](#) - Math functions like Gamma, Student, etc. should be tested thoroughly
- [\[ED-1328\]](#) - DispatchErrorWithCallStack when performing a Cut|Paste on a function
- [\[ED-1333\]](#) - Bitwise or logical AND
- [\[ED-1340\]](#) - "see also" links are not visible in the help when generating only the 4DScript help
- [\[ED-1350\]](#) - Strange Stack underflow after I close some screens in combination with a search
- [\[ED-1351\]](#) - Copying and renaming function gives errors when saving
- [\[ED-1356\]](#) - Performing a multi-select in the 2D animation gives a black selection box, instead of a transparent one.
- [\[ED-1369\]](#) - Debugger skips ending bracket result
- [\[ED-1384\]](#) - Change function editor window name when changing/setting the function name
- [\[ED-1388\]](#) - Using a database which name starts with digits gives errors at executing (some) stored procedure

- [\[ED-1422\]](#) - Option to store DNS servername for LicenseSelector
- [\[ED-1423\]](#) - Invalid handle error windows randomly pop up
- [\[ED-1426\]](#) - 4DScript appears as comment outside curly brackets
- [\[ED-1431\]](#) - The copy-paste of a set of atoms is not connected correctly after the paste.
- [\[ED-1437\]](#) - In debug mode Delphi gives memory leak warning for skeletons
- [\[ED-1441\]](#) - Restore systemwindow gives access violation
- [\[ED-1443\]](#) - ClearCell is not working on headers?
- [\[ED-1446\]](#) - dbExpress function dbCopyResultSetToAtomTable returns -11, what is the meaning of the -11

New Feature

- [\[PED-35\]](#) - Elevator
- [\[PED-613\]](#) - Implement the possibility to make use of skeleton animation
- [\[PED-669\]](#) - Add function that can be called to send agent to perform a specific Agent activity
- [\[PED-689\]](#) - Functionality to model Physical distancing
- [\[PED-690\]](#) - Add relaxation time parameter of the routing model to the agent profile and make it updatable
- [\[PED-691\]](#) - Add predefined logic to conditionally let groups of agents leave and activity location at the same time
- [\[PED-692\]](#) - Add example to arrival pattern examples with an experiment parameter Number of Visitors
- [\[PED-703\]](#) - Social Distance: Output proximity analysis
- [\[PED-712\]](#) - Make violation in physical distance visible
- [\[ED-994\]](#) - Add support for Skeletal animation
- [\[ED-1372\]](#) - Add ED-colors to the list of pre-defined colors in ED
- [\[ED-1374\]](#) - Add the "4DScript Syntax Highlighting in Notepad++" to the installer,
- [\[ED-1375\]](#) - Mention the existence of the "4DScript Syntax Highlighting in Notepad++" in the 4Dscript tutorial.
- [\[ED-1451\]](#) - Functionality to check which atom is linked with an open GUI

Improvement

- [\[PED-513\]](#) - Separate animation from foot-step calculation
- [\[PED-593\]](#) - Set x-size and y-size in Rectangle Primitive walkable areas and obstacles
- [\[PED-595\]](#) - easily attach 3d models to local obstacles
- [\[PED-629\]](#) - "Snap all elements in the active layer to grid" should ask for a confirmation
- [\[PED-630\]](#) - Difficult to know whether a functionality in the 2D model layout is toggled or not (snap to grid)
- [\[PED-668\]](#) - BIM: Add automatic import of stairs and ramps
- [\[PED-674\]](#) - Set specific seed in the experiment wizard
- [\[PED-677\]](#) - Add OnReset code at Users function GUI
- [\[PED-701\]](#) - Social Distance: Implement groups where social distance has no effect to model family/household members
- [\[PED-707\]](#) - Place agents according to social distance in static analysis fill areas tool
- [\[PED-714\]](#) - LicensingRestrictionInfo mentions Student Starter license where limitation applies to more products
- [\[PED-715\]](#) - Create function to scale primitives in the model layout
- [\[PED-723\]](#) - Allow extra seat assignments at stand section
- [\[PED-732\]](#) - Add function to get atom reference to Height Layer based on the ID
- [\[ED-1058\]](#) - Upgrade CAD to latest version
- [\[ED-1220\]](#) - Movie Creator codecs produce errors or wrong resolutions
- [\[ED-1371\]](#) - Creating functions for (Multi)VectorAny, (Multi)VectorAll, (Multi)VectorMin and (Multi)VectorMax
- [\[ED-1382\]](#) - When using Ctrl+F to search in the tracer or error window, the search window is placed inconveniently.

- [\[ED-1386\]](#) - Implement MultiVectorSortBy
- [\[ED-1403\]](#) - Auto complete is not always working with tab
- [\[ED-1413\]](#) - Add new interface to GUI treeview component for adding/deleting TreeNodes
- [\[ED-1416\]](#) - Warnings (Errors?!) for writing cells outside a table, show in the tracer. This can hide "more serious" errors.
- [\[ED-1417\]](#) - Show location of cell when selected
- [\[ED-1430\]](#) - Help entry of ExecString only handles the first parameter. What does the second?
- [\[ED-1436\]](#) - Give internal 'int0..' 4Dscript functions meaningful names
- [\[ED-1444\]](#) - 4Dscript command to get the bit versions of ED.

Task

- [\[ED-917\]](#) - EULA

Release Note - Pedestrian Dynamics 3.3

Includes Engine 10.3.0 Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 3.3

New Feature

- [\[PED-620\]](#) - Example & Tutorial models downloadable as package
- [\[PED-646\]](#) - Create Pedestrian Dynamics Student licenses
- [\[PED-664\]](#) - Add example model for agent generation
- [\[ED-1124\]](#) - Color picker with alpha color
- [\[ED-1252\]](#) - BIM (Model3DImport) new engine functions
- [\[ED-1283\]](#) - Allow the atom memory pool size to be set
- [\[ED-1304\]](#) - Possibility to check whether a field is equal to NULL in a dbExpress result set
- [\[ED-1308\]](#) - 4DScript to reference nodes by name and retrieve node name
- [\[ED-1366\]](#) - Sign Installers & Executables with a certificate
- [\[ED-1392\]](#) - String separation for FRISO
- [\[ED-1409\]](#) - Modify Splash and About to reflect INCONTROL Simulation Software over ED and PD

Bug

- [\[PED-586\]](#) - Move selection form title not visible
- [\[PED-606\]](#) - Trace([drawing fences]) in on3DDraw stands atom
- [\[PED-614\]](#) - Using indicative corridors with a given group in Activity Routes of the output does not work
- [\[PED-615\]](#) - show location gives access violations
- [\[PED-616\]](#) - Removing elements inside does not work in some cases
- [\[PED-622\]](#) - seed value not updated on reset
- [\[PED-628\]](#) - Problem for agents finding their way to start of indicative corridor
- [\[PED-633\]](#) - Help buttons are not redirecting to the right help page
- [\[PED-642\]](#) - Exclude obstacle from Network should automatically force the creation of a new ECM
- [\[PED-644\]](#) - function CADImport_RemoveLastImport removes everything regardless of user specified condition
- [\[PED-645\]](#) - help button on Activity Route Output sends to Activity route help
- [\[PED-648\]](#) - When changing Parameters of a polygon obstacle error "You didn't specify a value for the field "Radius" This field requires a real number greater than 0. Pops up.
- [\[PED-649\]](#) - Error pops up when opening PD 3.3.0.3087: Not found icon in licensing atom.
- [\[PED-650\]](#) - error in function Agent_RegisterAndAssignTransportElement
- [\[PED-653\]](#) - Output: average travel time over time graph shows the max average in seconds instead of [hh:mm:ss]
- [\[PED-657\]](#) - List of typos in documentation
- [\[PED-661\]](#) - PD gets frozen when open any 4ds script editor or interact while simulating
- [\[PED-663\]](#) - the legend of the maps such as the density, frequency map and travel time maps are not visualized
- [\[ED-1218\]](#) - Setting a function with DefineFunction to private is not working
- [\[ED-1234\]](#) - dbExpress parallel replications MS access freezes after 50+ replications
- [\[ED-1251\]](#) - InViewField is no longer working?
- [\[ED-1260\]](#) - DestroyEventsOfAtom not consistent with help
- [\[ED-1266\]](#) - When ED is busy (both 8.2 and 10.2) under Windows 10, the ribbons are depicted in a strange manner
- [\[ED-1276\]](#) - Autocomplete results in a %-sign, instead of the desired code
- [\[ED-1294\]](#) - Loading older model with custom attributes gives errors
- [\[ED-1297\]](#) - Closing FRISO/ED throws an exception
- [\[ED-1299\]](#) - DrawSphere maximum sides angle parameter fails
- [\[ED-1303\]](#) - 4D-script reference to inherited datacontainer not given in code-completion
- [\[ED-1306\]](#) - Sorting tables 2 times in sequence on columns containing strings is returning an unexpected order

- [\[ED-1318\]](#) - Like MultiVectorFieldName also add a VectorFieldName
- [\[ED-1330\]](#) - Watches does not display results
- [\[ED-1333\]](#) - Bitwise or logical AND
- [\[ED-1335\]](#) - Help missing for DataContainer functions
- [\[ED-1337\]](#) - Polygon help incorrect
- [\[ED-1340\]](#) - "see also" links are not visible in the help when generating only the 4DScript help
- [\[ED-1343\]](#) - ShowAtomTree(Treeatom) not working
- [\[ED-1345\]](#) - SetFogEnd is not accepting parameters
- [\[ED-1348\]](#) - InList provides incorrect result value
- [\[ED-1352\]](#) - ToolTip in 4Dscript is only working once.
- [\[ED-1353\]](#) - Collapse and Expand in function editor
- [\[ED-1358\]](#) - 3D window needs an continuously growing amount of memory and doesn't release it. ED Crashes in the end.
- [\[ED-1365\]](#) - FileOpen always creates Unicode files
- [\[ED-1370\]](#) - Error when loading a (seemingly) correct 4DSi in the interact
- [\[ED-1378\]](#) - Edittable is not working - at random - in both ED and PD
- [\[ED-1404\]](#) - Animation engine error: EOGLGlobals
- [\[ED-1407\]](#) - Copy-Paste of two atoms throws access violation on exit
- [\[ED-1410\]](#) - Allow Model Atom References in Code Completion - checkbox stalls application when editing 4DScript during run.
- [\[ED-1412\]](#) - AtomDataContainer handles non existing containers inconsistently.

Improvement

- [\[PED-587\]](#) - OMBB directionality add alignment with slope of polygon
- [\[PED-601\]](#) - show height layer ID in height layer list
- [\[PED-609\]](#) - Improving performance when showing many agents at once in 2D
- [\[PED-652\]](#) - License selector: documentation or automatic pop up
- [\[PED-655\]](#) - improve predefined logics of the indicative corridor
- [\[ED-1199\]](#) - Improve search option 4DScript list
- [\[ED-1216\]](#) - Determine absolute screen dimensions in multi screen environment
- [\[ED-1233\]](#) - Help is missing for dbecDS..., dbecTransaction, FunctionParameter
- [\[ED-1249\]](#) - Creating/changing Attributes name only by mouse click. Not by Enter
- [\[ED-1279\]](#) - Add function to retrieve the datatype of a field defined on a datacontainer
- [\[ED-1316\]](#) - Inc does not work with Cell
- [\[ED-1342\]](#) - ImportIcon help refers to png as pgn
- [\[ED-1346\]](#) - CAD reader implementation
- [\[ED-1347\]](#) - Return true when FileOpen(A) succeeds and false otherwise
- [\[ED-1385\]](#) - Open definition and find all references need other way of printing function-names in error monitor
- [\[ED-1398\]](#) - Profiler only in Visual Studio code available
- [\[ED-1406\]](#) - Comments in combination with a quotation mark is not working correctly

Feature or Improvement Request

- [\[PED-571\]](#) - Create a Pedestrian Dynamics Viewer license
- [\[PED-656\]](#) - Add predefined logics to activity location
- [\[ED-917\]](#) - EULA

Release Note - Pedestrian Dynamics 3.2

Includes Engine 10.2.0 & 10.2.1

Bug

- [\[PED-396\]](#) - Visualization of escalators not working when opening existing models in PD3.x
- [\[PED-405\]](#) - AgentStatistics_CalculateOverallOutputStatistics uses wrong replications if user chooses a subset
- [\[PED-473\]](#) - Rotation of a walkable area is set to 0 in output layout when density map is created
- [\[PED-474\]](#) - possible wrong reference in function indicativecorridor_triggeralwaitingagents
- [\[PED-478\]](#) - 3D Model View Access Violation error
- [\[PED-485\]](#) - Cancelling deleting a height layer does not work
- [\[PED-488\]](#) - Selecting lower bound of level A for density info output route gives different graph than selecting lower bound of 0.
- [\[PED-489\]](#) - User Defined Location Assignment option checking on numbers in connected corridor contains wrong reference
- [\[PED-502\]](#) - 3rd parameter for Agent_UpdateSidePreference does not work properly
- [\[PED-503\]](#) - Moving transfer stairs to another height layer causes unwanted behaviour
- [\[PED-508\]](#) - Use Points_SetLength(AnimAtom, 10) to set number of points of indicative corridor gives errors
- [\[PED-517\]](#) - drawing a tape measure line gives errors
- [\[PED-518\]](#) - error when loading example model
- [\[PED-520\]](#) - Drawing a selection polygon gives an error
- [\[PED-521\]](#) - Attribute references are incorrect
- [\[PED-522\]](#) - visualization of local obstacle not correct when disabled
- [\[PED-523\]](#) - graph of selected breakdown row not correct
- [\[PED-524\]](#) - Agents which leave model while in Action Area are not removed from Agent Array of this Action Area
- [\[PED-525\]](#) - 3d model view crashes on code on3ddraw runclock (access violation)
- [\[PED-526\]](#) - fix to cypypaste: bug in script of function Agent_GetVisitedTransportInfo
- [\[PED-530\]](#) - Visualization of background disabled when a new drawing is selected
- [\[PED-531\]](#) - updating coordinates in polyline action area not working
- [\[PED-533\]](#) - Compile error: "atmMotherStaticAnalysis" is not a valid expression
- [\[PED-539\]](#) - Agents sitting in stands get rotated for stands at certain coordinates
- [\[PED-541\]](#) - Pedestrians sitting in the stands are not visible in 3D
- [\[PED-548\]](#) - reset code not saved in element standsection
- [\[PED-550\]](#) - option Add action area on stand portal not working.
- [\[PED-556\]](#) - Activity groups with values are not set correctly while adding an activity in Agent Input
- [\[PED-558\]](#) - Not working "Open definition" in the 4dscript environment
- [\[PED-560\]](#) - CAD import for height layers does not calculate the correct obstacles
- [\[PED-569\]](#) - Agents are not assigned correctly to new seat after using StandSection_UnassignSeat
- [\[PED-574\]](#) - bug in function agent_getvisitedtransportinfo
- [\[PED-577\]](#) - Incorrect or missing help references
- [\[PED-592\]](#) - Output Delay Time is shown with a lot of decimals
- [\[PED-603\]](#) - Error when opening 2D Builder windows after opening 2D Output windows.
- [\[ED-974\]](#) - Using help after running parallel replications causes ED to freeze
- [\[ED-1082\]](#) - Turkish 'i' not handled correctly in Unicode case conversion
- [\[ED-1108\]](#) - Updating of table results (momentarily) in strange headers.
- [\[ED-1121\]](#) - Defined functions on the Model atom are lost by saving the model
- [\[ED-1123\]](#) - Command line handling of parameter 2 fails
- [\[ED-1127\]](#) - ADO cannot read comma value
- [\[ED-1128\]](#) - Debugger gets into infinity loop when adding watches
- [\[ED-1131\]](#) - AtomByName has become slower.
- [\[ED-1133\]](#) - Content of inherited attributes is not overridden properly

- [\[ED-1134\]](#) - CameraPosition, CameraDirection produce access violation in 64bit
- [\[ED-1136\]](#) - Closing the help window via Windows Task Bar closes ED completely without warning
- [\[ED-1139\]](#) - Preregistering MultiVectors seems to go wrong
- [\[ED-1140\]](#) - Passing atom references to functions seems to go wrong
- [\[ED-1141\]](#) - Creation of some ChartSeries impossible with GuiChart_SeriesAdd
- [\[ED-1142\]](#) - Using "Restore(2D3D)" on a minimized model layout (2D & 3D) results in a gray, unavailable non working 2D/3D engine.
- [\[ED-1144\]](#) - AbsRotationAs seems not to work
- [\[ED-1146\]](#) - The average and standard deviation in the report preview are always zero instead of showing the correct values
- [\[ED-1150\]](#) - TextAtt is not settable and SetTextAtt also is not working
- [\[ED-1151\]](#) - The Help of the MoveAtom is not clear
- [\[ED-1155\]](#) - Sort functions in atom editor on: name, category, min, max and description no longer available.
- [\[ED-1158\]](#) - After changing the name of a GUI object, it is not directly available under that name.
- [\[ED-1159\]](#) - Gui component Icon behaves different then other Gui components
- [\[ED-1161\]](#) - When resizing the "Code area" in the function editor, the User information is not scaling.
- [\[ED-1164\]](#) - Parts of 4ds code is interpreted incorrectly when loading FRISO library
- [\[ED-1167\]](#) - Setting the GuiComponent ScriptEdit to "enabled = false", shows no gray out.
- [\[ED-1168\]](#) - SetPolygonStipple and DrawStatic3D don't work together
- [\[ED-1169\]](#) - The GUI control "label" rescales the moment the caption changes
- [\[ED-1172\]](#) - A lot of vr functionality is no longer available (vrlcon, vrSound).
- [\[ED-1174\]](#) - Error when loading City GML file in the resource manager
- [\[ED-1176\]](#) - When entering new code in the Events (atom editor), this is not visible after pressing "Apply"
- [\[ED-1179\]](#) - Improper behaviour of attribute's TStringGrid component in atom editor
- [\[ED-1180\]](#) - 3D Visualization while using drawing command is incorrect
- [\[ED-1181\]](#) - 3D performance drops down drastically between ED 10.1.0.2641 and 10.2.0.2813
- [\[ED-1182\]](#) - ADOBuildConnectionString does not work
- [\[ED-1183\]](#) - Visualization of Virtual Reality is not working
- [\[ED-1185\]](#) - Trying to open 3D Builder window gives error and doesn't show up
- [\[ED-1187\]](#) - freeLibrary does not free unmanaged DLLs
- [\[ED-1191\]](#) - OpenGL engine creates 1282 (invalid operation) errors after changing back to legacy code (before OpenGL 4.0)
- [\[ED-1193\]](#) - Button "Treatom in 2D" activates 3D model view instead of 2D model layout window
- [\[ED-1194\]](#) - SelectAtom does not return valid atom reference
- [\[ED-1195\]](#) - Using the Move (atom) option in Model Layout window causes an error
- [\[ED-1197\]](#) - Not possible to declare MultiVectors
- [\[ED-1198\]](#) - There seems to go something wrong with the ParallelLockSection function
- [\[ED-1201\]](#) - CAD import behaves different to previous ED versions
- [\[ED-1204\]](#) - Virtual Windows does not load application
- [\[ED-1205\]](#) - Round on .5 does not work correct
- [\[ED-1208\]](#) - Claim "Can not apply changes to "On3dDraw" since it is active" although all viewers are inactive.
- [\[ED-1209\]](#) - Clock is smaller then before, so it is no longer clear that you can change the Show Time and refresh rate.
- [\[ED-1224\]](#) - DrawCircle parameter 9
- [\[ED-1200\]](#) - Function MatrixMinPick not working with parameters for label search
- [\[ED-1222\]](#) - DrawModel3DMesh for 3DS files does not work correctly
- [\[ED-1225\]](#) - Decimal stoptime
- [\[ED-1226\]](#) - GuiList([Items], [Add], e3) returns e3 instead of index number of the new item
- [\[ED-1229\]](#) - Incorrect reference c in involved atom property of the user events atom
- [\[ED-1243\]](#) - OpenGL error 1073283066

- [\[ED-1247\]](#) - Debugger makes ED slower, also after it is turned off again
- [\[ED-1253\]](#) - HashMap throws error "Duplicates not allowed" if field type of key is vbString
- [\[ED-1265\]](#) - Save history seems not to be working. Gives I/O 103 error.
- [\[ED-1271\]](#) - IndexMatchRank is not stopping once it's found its target.
- [\[ED-1300\]](#) - Anti-aliasing enabled produces poor 2d visualisation of simple shapes
- [\[ED-1305\]](#) - Lines in tables in general (also in Atom Editor - Data Containers) are very vague and this is unhandy
- [\[ED-1312\]](#) - Taborder in 2d tab of library tree incorrect

Feature or Improvement Request

- [\[PED-169\]](#) - Fence height adjustable for stands
- [\[PED-452\]](#) - would like to have a user friendly option to see surface of an area (no scripting..)

Improvement

- [\[PED-29\]](#) - Default primitives
- [\[PED-381\]](#) - Improved performance visualization
- [\[PED-479\]](#) - Activity route output: Allow single activity arrival-departure
- [\[PED-481\]](#) - option to set the side clearance factor for a network path
- [\[PED-484\]](#) - Every negative value for Activity Time means wait until triggered
- [\[PED-505\]](#) - When an action area is of type poly line with several points. The direction of the feet icon do not indicate the trigger direction and can even be misleading.
- [\[PED-514\]](#) - An easier way to change the direction of passageways etc.
- [\[PED-515\]](#) - Also allow stop time to be in hours or minutes
- [\[PED-528\]](#) - Add button for video tutorials on Startmenu Pedestrian Dynamics
- [\[PED-534\]](#) - Improve support section on fulfillment ticket
- [\[PED-538\]](#) - Improve Error message of Blocked top prec of escalator and stairs. When sum with Perc. Blocked bottom is <100 it is difficult for customers to understand.
- [\[PED-566\]](#) - Improved editing tools for building the infrastructure
- [\[PED-581\]](#) - Change Rotate Selection button to allow for rotating all objects around the same point
- [\[ED-406\]](#) - Runcontrol random generators settings improvement
- [\[ED-889\]](#) - StaticModel3D
- [\[ED-918\]](#) - Add support for Oculus Rift v2
- [\[ED-919\]](#) - Upgrade to Codemeter 6
- [\[ED-940\]](#) - Support static visualization with old OpenGL versions.
- [\[ED-973\]](#) - Save model in ED9 compatibility mode
- [\[ED-987\]](#) - Create a single installer for all producttypes
- [\[ED-1034\]](#) - Add transactions to DBExpress interface
- [\[ED-1041\]](#) - Smart Edit box has no "behaviour"
- [\[ED-1056\]](#) - Map old drawing functions to new static implementation
- [\[ED-1059\]](#) - Upgrade Assimp to latest version
- [\[ED-1060\]](#) - Upgrade FreeImage to latest version
- [\[ED-1078\]](#) - Don't allow special characters in atom names
- [\[ED-1112\]](#) - Changes on properties of the TeeChart component get lost when closing the Graph
- [\[ED-1113\]](#) - Write attribute names instead of indices in atom and model files
- [\[ED-1115\]](#) - Show error when invalid attribute names or indices are used
- [\[ED-1116\]](#) - Register function, atom name, or attribute renames
- [\[ED-1117\]](#) - 4DScript editor only for expression attributes
- [\[ED-1118\]](#) - Improved transparency drawing in 3D
- [\[ED-1122\]](#) - 4DScript Sqrt with negative parameter does not throw error
- [\[ED-1126\]](#) - Allow Coordinates System manipulation outside Draw event
- [\[ED-1129\]](#) - Model3DNode_Visible implementation as Resource Manager
- [\[ED-1138\]](#) - Why not use Ctrl F for searching?
- [\[ED-1145\]](#) - Add scroll bars to the summary report

- [\[ED-1147\]](#) - Support "Pan and Drag" in SetPreference
- [\[ED-1156\]](#) - Allow SetLineStipple to be used on single drawing command
- [\[ED-1177\]](#) - Limit the number of error messages
- [\[ED-1184\]](#) - New 4DScript functions GetSystemFont and FontExists
- [\[ED-1210\]](#) - LabelNameByIndex with a 0 or -1 gives an access violation.
- [\[ED-1211\]](#) - Combo box setting DataType in function editor is not always working and help is not clear what to expect
- [\[ED-1212\]](#) - When I change an attribute name on the mother, the children are not updated
- [\[ED-1213\]](#) - Editing attributes with F2 is not working smoothly
- [\[ED-1214\]](#) - Updating attributes is not updating children
- [\[ED-1215\]](#) - Would it be possible to paste values in the Run Control?
- [\[ED-1236\]](#) - Let break function return a nonzero value
- [\[ED-900\]](#) - Have RegisterSearchHook also enabled in (Error)Tracer
- [\[ED-1219\]](#) - Event list in debugger sorting is reset when list is refreshed
- [\[ED-1241\]](#) - Add Delphi sample implementation code to help for Mersenne Twister
- [\[ED-1248\]](#) - Allowing decimal in stop time run control
- [\[ED-1254\]](#) - Add natural sort on output of SearchFile
- [\[ED-1256\]](#) - Would like to be able to search with Ctrl+F in the tracer window.
- [\[ED-1267\]](#) - AnalyseHistory/TimeForStatus is very slow
- [\[ED-1274\]](#) - Add floor function
- [\[ED-1285\]](#) - Add AutoCompleteDelay property on GUI ComboBox component
- [\[ED-1292\]](#) - Combobox/Listbox autocomplete - Add function to set duration of typing time

New Feature

- [\[PED-387\]](#) - Activity output per interval
- [\[PED-450\]](#) - option to add your own 3D models in PD studio
- [\[PED-463\]](#) - Average waiting time graph over time
- [\[PED-486\]](#) - Model3D/BIM import
- [\[PED-487\]](#) - Add custom 3D models to obstacles
- [\[PED-506\]](#) - Add a Graph that shows the average waiting times over the given time period.
- [\[PED-527\]](#) - A Quickstart how to import a geometry needs to be added explaining the 3D model and CAD import
- [\[ED-467\]](#) - Possibility to use a different random generator, for example the Mersenne Twister.
- [\[ED-856\]](#) - 2d Transparency
- [\[ED-992\]](#) - Add BIM support
- [\[ED-1022\]](#) - Open specific page of resource manager
- [\[ED-1025\]](#) - Support for Xbox one controller
- [\[ED-1044\]](#) - New functions GuiChart save functions
- [\[ED-1084\]](#) - New 4DS data types and type declaring of function parameters
- [\[ED-1086\]](#) - Update attribute and datacontainer info for derived atoms
- [\[ED-1100\]](#) - License expiration warning
- [\[ED-1165\]](#) - Add 4DScript commands to read out the dimensions of 3d models
- [\[ED-970\]](#) - Request Environment Variable
- [\[ED-1280\]](#) - Option to read events of atom

Task

- [\[ED-1075\]](#) - Update OPC package
- [\[ED-1175\]](#) - Coveragepage for Tutorials, Quickstart and Guides
- [\[ED-1189\]](#) - DisplayFunctionEditor function

Release Note - Pedestrian Dynamics 3.1.1

Bug

- [\[PED-465\]](#) - Unstable visualization of the density map.
- [\[PED-466\]](#) - 4Dscript error in predefined next agent strategy
- [\[PED-470\]](#) - invalid expression in last tab of EditElements.4dsi
- [\[PED-471\]](#) - Density maps not correct when height layers are revisited

Release Note - Pedestrian Dynamics 3.1

Bug

- [\[PED-373\]](#) - CAD preview image doesn't repaint immediately when changing layer visibility
- [\[PED-378\]](#) - Line action area not always triggered when network is dense
- [\[PED-380\]](#) - Header in travel time output greater than 1 hr does not display hours
- [\[PED-390\]](#) - Agent_MoveToDestination triggers entry of activity twice when exclude option is set to no
- [\[PED-391\]](#) - Pedestrian drawn below the walk able area they are walking on
- [\[PED-392\]](#) - Random crashes when many indicative corridors are used
- [\[PED-395\]](#) - Height of ECM vertices and nodes not shown for opening with a z-loc
- [\[PED-401\]](#) - Cannot draw in output visualization
- [\[PED-403\]](#) - wrong option in dropdownlist network id of transport generator
- [\[PED-404\]](#) - CLONE -Problem with agents and stand portals
- [\[PED-411\]](#) - Stop time seems to influence replicability
- [\[PED-424\]](#) - density maps --> height maps not working
- [\[PED-425\]](#) - y-axis density graph over time not correct for higher densities
- [\[PED-426\]](#) - user defined color maps --> not working for all height layers
- [\[PED-434\]](#) - Agents walking back next to local obstacles
- [\[PED-435\]](#) - Not possible to select group names in output routes
- [\[PED-438\]](#) - problem with function AgentStatistics_CalculateOverallOutputStatistics
- [\[PED-441\]](#) - Loaded Output file is not displayed anymore
- [\[ED-950\]](#) - Material Editor doesn't work right
- [\[ED-998\]](#) - IndexMin incorrect help description
- [\[ED-999\]](#) - Starting ED when run speed was set to Custom: sec/real sec gives pop-up screens.
- [\[ED-1001\]](#) - Lighting in 3D for a Lightwave object seems to be off
- [\[ED-1005\]](#) - Problems loading a model, when the model atom is selected in both the atom editor and the model tree.
- [\[ED-1006\]](#) - Model is loaded in library tree
- [\[ED-1011\]](#) - Dragging an atom from a freshly opened library, into the model gives strange result
- [\[ED-1014\]](#) - Syntax hints become unreadable when changing font size
- [\[ED-1016\]](#) - Security Package displays code on user side
- [\[ED-1020\]](#) - OleTest.exe has an old logo (ED-7)
- [\[ED-1021\]](#) - hqueuefreq gives wrong results
- [\[ED-1023\]](#) - StaticText3D doesn't show text
- [\[ED-1026\]](#) - "Display drivers stopped responding" with internal Intel Video Card, OpenGL 4.0, and old Intel drivers
- [\[ED-1029\]](#) - Silent uninstall does not work
- [\[ED-1042\]](#) - GuiInstance function does not return the correct return value when used with two parameters
- [\[ED-1046\]](#) - Preference Save encrypted, encrypts without license and without encryption key
- [\[ED-1047\]](#) - Functie AttType geeft Access Violation voor sommige attributen in FRISO 64bit
- [\[ED-1050\]](#) - Silent assumptions of the active atom "a" lead to undefined behaviour
- [\[ED-1051\]](#) - Scenario Manager misses atoms
- [\[ED-1062\]](#) - Saving an atom with Constant Var cannot handle 64bit
- [\[ED-1065\]](#) - Delayed creation of functions and variables
- [\[ED-1067\]](#) - Prevent atom to move into or connect to itself
- [\[ED-1069\]](#) - Make TravelEventCode and Socket functions thread safe
- [\[ED-1072\]](#) - Named datacontainer do not open help at correct location
- [\[ED-1073\]](#) - Progressbar hangs when opening large models
- [\[ED-1077\]](#) - Error in model run with OPC connection
- [\[ED-1081\]](#) - Multiple destroy atom by using atom reference
- [\[ED-1085\]](#) - Clearing the assigned material in the material editor
- [\[ED-1087\]](#) - ProductName 4DScript has changed

- [\[ED-1088\]](#) - Selecting using cursor keys behaves strange
- [\[ED-1094\]](#) - Update help with constants of atomsettings
- [\[ED-1095\]](#) - DestroyAtom of content gives error on reset
- [\[ED-1096\]](#) - Pressing delete in cell of table (when standing at start of text) removes the complete text instead of the first character
- [\[ED-1099\]](#) - Incorrect deletion of Atom from library
- [\[ED-1102\]](#) - Splashscreen transparency becomes black with recent window update
- [\[ED-1120\]](#) - Using an undefined function goes unnoticed

Improvement

- [\[PED-202\]](#) - Texture scale <0 possible?
- [\[PED-377\]](#) - If agent is routed to intermediate destination from within an indicative corridor then don't trigger stop condition and don't send approaching from corridor message to activity location
- [\[PED-379\]](#) - Update initial line destination goal when the agent side preference is updated
- [\[PED-429\]](#) - Improved capacity of cross flows
- [\[ED-833\]](#) - "Tapping home -> Jumping to first character of line" would be nice
- [\[ED-872\]](#) - Debugger only working after setting check boxes in the Debug window
- [\[ED-875\]](#) - When debugger is triggered in a large function show the active line in the middle of the debugger screen instead of at the bottom
- [\[ED-986\]](#) - Help of CreateEvent can be improved
- [\[ED-997\]](#) - FillGData 64bit support
- [\[ED-1002\]](#) - Code highlighting is slow on some computers
- [\[ED-1004\]](#) - Finding an atom from the 2D animation in model tree is slow
- [\[ED-1007\]](#) - Error count doesn't increase when the error monitor is set to silent
- [\[ED-1009\]](#) - When the 3D animation is frozen, the camera can be moved (although the screen is outside the light not updated).
- [\[ED-1010\]](#) - Help AvgContent
- [\[ED-1015\]](#) - Help still contains numbers where to conversion from the last help file didn't go correctly
- [\[ED-1043\]](#) - Saving content of Interact Window
- [\[ED-1054\]](#) - Replace dialog incorrect english
- [\[ED-1057\]](#) - Upgrade SAP to latest version
- [\[ED-1064\]](#) - (Some) global variables are pre-registered since ED-10
- [\[ED-1066\]](#) - Add too large parameter number to syntax check
- [\[ED-1076\]](#) - Enterprise Dynamics is causing the default apps to be constantly reset.
- [\[ED-1083\]](#) - Installation on virtual machines goes unnoticed
- [\[ED-1090\]](#) - No warning is given when a named attribute or datacontainer function is only preregistered
- [\[ED-1093\]](#) - Double click on words separated by a point, selects all words
- [\[ED-1103\]](#) - Transparency for SVG image
- [\[ED-1105\]](#) - NULL delimiter in 4DScript file Datacontainers is impracticable
- [\[ED-1106\]](#) - Error for too many parameters used in a data container function indicates confusing number of parameters
- [\[ED-1107\]](#) - Fixed atom saveld's in .mod file

New Feature

- [\[PED-437\]](#) - Option to edit settings of multiple selected atoms
- [\[PED-370\]](#) - new options for meso simulation
- [\[PED-371\]](#) - possibility to simulate macro mode
- [\[PED-372\]](#) - user defined door location for transport elements
- [\[PED-375\]](#) - Possibility to edit AND save layout and texts of flow counter graphs.
- [\[PED-382\]](#) - Cumulative mean density
- [\[PED-383\]](#) - Cumulative high density
- [\[PED-384\]](#) - Selected density area, also show max density, mean content and max content
- [\[PED-385\]](#) - Space utilisation map

- [\[PED-388\]](#) - Social costs output
- [\[PED-410\]](#) - Save footstep log as readable file
- [\[PED-412\]](#) - Agent generator demand profile
- [\[PED-413\]](#) - ODMatrix in agent activity
- [\[PED-415\]](#) - Spiral stairs
- [\[PED-419\]](#) - Default agent profiles
- [\[ED-854\]](#) - Local variables of the debugger updating to the shown function
- [\[ED-1063\]](#) - Delete/unregister global variables
- [\[ED-1068\]](#) - IsChildOfAtom function

Release Notes - Pedestrian Dynamics 3.0

Bug

- [\[PED-76\]](#) - "Open with" does not launch PD correctly
- [\[PED-162\]](#) - When trying to alter width of stand stairs via its GUI, the stairs gets extreme sizes
- [\[PED-208\]](#) - Choose random point inside complex concave polygon not correct
- [\[PED-217\]](#) - The Locations table for Agent Activities does not update automatically.
- [\[PED-221\]](#) - Saving while the Result Player is active leads to the agents being saved in the model file
- [\[PED-250\]](#) - Network problem with transfer connections: too much "sideways" deleted.
- [\[PED-252\]](#) - The function ActionArea_GetCurrentContent returns negative numbers.
- [\[PED-253\]](#) - Error when clicking the Help button in an activity location GUI
- [\[PED-258\]](#) - Undoing after moving an atom does not restore its original location
- [\[PED-263\]](#) - Action Timer trigger stops the result player from working properly
- [\[PED-278\]](#) - polygon wall and combine drawing
- [\[PED-282\]](#) - Activity locations can delete connected atoms unexpectedly
- [\[PED-293\]](#) - Interact - Fails to load .atm from disk
- [\[PED-303\]](#) - It should be impossible for users to use input channels of activity locations.
- [\[PED-309\]](#) - incorrect destination in indicative corridor
- [\[PED-313\]](#) - Network in moving walk not correct
- [\[PED-337\]](#) - Invalid start location with transportation elements
- [\[PED-339\]](#) - IndicativeCorridor_TriggerAllWaitingAgents doesn't take stop condition into account correctly
- [\[PED-341\]](#) - Stand section id not updated when copy pasting
- [\[PED-349\]](#) - Visualization tape measure tool not correct
- [\[PED-350\]](#) - Experiment wizard doesn't finish run when output is auto loaded and a new experiment is started
- [\[PED-352\]](#) - coordinates tabs not working for stand stairs and stand portal
- [\[PED-354\]](#) - location approaching and leaving switched when using while editing multiple selected elements
- [\[PED-355\]](#) - incorrect Help buttons
- [\[PED-357\]](#) - Transport passengers wait on the platform on the stairs area
- [\[PED-360\]](#) - Agent not in correct height layer when route is updated while the agent is crossing a transfer line
- [\[PED-361\]](#) - Prix for trapezoid transfer is not correct
- [\[PED-367\]](#) - Stands activity visualization in the result player is not always correct

Feature or Improvement Request

- [\[PED-191\]](#) - Polygons: Keyboard Shortcuts for : Add and remove node(s/buttons)
- [\[PED-251\]](#) - Option to edit settings of multiple selected atoms
- [\[PED-275\]](#) - output: possibility to change the name of a density area or flow counter
- [\[PED-356\]](#) - Possibility to trigger agents with delay

Improvement

- [\[PED-220\]](#) - Standard availability of Agent Activity Logging in Action Timer
- [\[PED-227\]](#) - Ask for update within the agent generator
- [\[PED-231\]](#) - Queuing functionality
- [\[PED-234\]](#) - Wish for 4Dscript field StandSection FillRate
- [\[PED-237\]](#) - Location approach based on the current side preference
- [\[PED-238\]](#) - Agents picking a stairway or passageway based on their relative position in a corridor
- [\[PED-243\]](#) - Wish: adding an extra stand section automatically sets settings like tilt height etc.
- [\[PED-338\]](#) - Agent_MoveToDestination should move agent to destination location instead of updating destination location to current location
- [\[PED-340\]](#) - Allow non vector images as 3D background on a height layer

- [\[PED-359\]](#) - A button to search atoms in studio version
- [\[PED-362\]](#) - Stand stairs: Add line obstacles to path when the stairs are partly outside the stands
- [\[PED-364\]](#) - Insert, add or remove multiple nodes without re-clicking the related node buttons
- [\[PED-369\]](#) - No error is given when agents board a transport element that is not at a platform or when no valid waiting area is found

New Feature

- [\[PED-34\]](#) - Filtered outputs
- [\[PED-90\]](#) - Show queue length and queue time in output
- [\[PED-170\]](#) - Transportation package
- [\[PED-180\]](#) - Remember selection when changing modes
- [\[PED-182\]](#) - Add copy button to scenarios page of experiment Wizard
- [\[PED-211\]](#) - wish to have the width of the flowcounter included in the graph
- [\[PED-257\]](#) - A function which updates the destination of an agent during a simulation.
- [\[PED-279\]](#) - option to log user tables
- [\[PED-285\]](#) - Travel times for specific agents profiles
- [\[PED-310\]](#) - Option to save output in readable format
- [\[PED-319\]](#) - Trigger code when agent arrives at intermediate destination
- [\[PED-344\]](#) - New route output: Total delay time, total distance and max content
- [\[PED-345\]](#) - Flow shifter
- [\[PED-346\]](#) - Flow splitter
- [\[PED-347\]](#) - Bounding box around single selected atom
- [\[PED-348\]](#) - Output: option to show the flow counters per meter
- [\[PED-353\]](#) - Movie record. Set width, height and record length
- [\[PED-358\]](#) - Create walkable areas from ECM network
- [\[PED-363\]](#) - Option to add nodes to a polyline or polygon besides insert
- [\[PED-365\]](#) - Stand border obstacles
- [\[PED-366\]](#) - Jump to specific time in the result player
- [\[PED-368\]](#) - Dynamically enable or disable local obstacles, action areas, flow splitter or flow shifters

Problem Report

- [\[PED-241\]](#) - It is possible to delete "the last height layer", but not possible to add a new one.
- [\[PED-324\]](#) - Strange behaviour when using densities for routing

Release Notes - Pedestrian Dynamics 2.1 Beta2

Bug

- [\[PED-160\]](#) - When successfully having used the resultplayer and the recording function, PD starts having all kinds of access violations
- [\[PED-216\]](#) - Indicative Corridors can get strange edges
- [\[PED-218\]](#) - For Activity Locations, selecting the Show Name in 2d option does not seem to have any effect.
- [\[PED-230\]](#) - The attribute NumberOfAgents not correct for activitylocations
- [\[PED-236\]](#) - z-loc of stand stairs cannot be edited via gui
- [\[PED-248\]](#) - Deselecting the option "show name in 2D" for activity areas doesn't work
- [\[PED-284\]](#) - Agents "Flying" - loaded from results file
- [\[PED-308\]](#) - deselecting option log output in experiment wizard should disable the option to log footsteps
- [\[PED-311\]](#) - Repetitive mode not working for stands
- [\[PED-312\]](#) - Incorrect view field makes agents stop walking
- [\[PED-314\]](#) - Network for stairs or escalator with create height layer option enabled is incorrect
- [\[PED-315\]](#) - Transparency not correct
- [\[PED-317\]](#) - With tight turns in a route in open areas, agent sometimes walk back and forward
- [\[PED-325\]](#) - Seat for stand stairs with top extension not always correct
- [\[PED-328\]](#) - z-loc of agents on some stands is not correct in result player
- [\[PED-329\]](#) - Rotation of agent can change when the agent leaves an activity
- [\[PED-335\]](#) - Personal distance vs waiting distance
- [\[PED-336\]](#) - Density map not always correct for startTime > 0 and multiple height layers

Feature or Improvement Request

- [\[PED-195\]](#) - gui / Dialogue Box for setting Camera Position also in 2D

Improvement

- [\[PED-70\]](#) - For user events I would like to be able to set repetitive mode per event.
- [\[PED-276\]](#) - Output: visibility density areas and flow counters should match with the visibility of their height layer
- [\[PED-316\]](#) - Add overlapping stands elements to other stands
- [\[PED-321\]](#) - wish to show trains in result player
- [\[PED-330\]](#) - Agent should not stop at activity location when activity time is zero
- [\[PED-332\]](#) - Adjustable assignment of waiting location at transportation platform
- [\[PED-333\]](#) - Simplified queuing before activity locations
- [\[PED-342\]](#) - Wish to have a move record menu in the 2D output view.

New Feature

- [\[PED-318\]](#) - Use action area lines as a dynamic line destination
- [\[PED-320\]](#) - Travel time route break down
- [\[PED-326\]](#) - Include direction of start edge when planning
- [\[PED-327\]](#) - Standportal wall width
- [\[PED-331\]](#) - Use maximum capacity when boarding transport elements
- [\[PED-334\]](#) - Travel experience of output route

Release Notes - Pedestrian Dynamics 2.1 Beta1

Bug

- [\[PED-112\]](#) - Setting handrail characteristics inadequate
- [\[PED-207\]](#) - Action area or indicative corridor exit trigger not triggered when agent reaches a destination while inside the area
- [\[PED-215\]](#) - Disable Snap To Grid button does not seem to have any effect
- [\[PED-222\]](#) - ECM_AddEdge is not saved in network when using multiple layers
- [\[PED-235\]](#) - example model choosing an activity location: closest activity not correct
- [\[PED-242\]](#) - The button Add Profile in Agent input gives an error
- [\[PED-246\]](#) - Problem with agents and stand portals
- [\[PED-254\]](#) - 3D visualisation of a walkable area is incorrect when it is connected to Stairs and/or escalators by using channels
- [\[PED-255\]](#) - Agents start boarding a train when the first door is emptied instead of when their assigned door is available.
- [\[PED-260\]](#) - Repetitive mode not correct
- [\[PED-270\]](#) - Flow counter can count too many agents when activity location is in exclude hide mode
- [\[PED-271\]](#) - Agent Stop Routing after visiting Activity Location
- [\[PED-274\]](#) - Running Experiment error while loading Description File
- [\[PED-283\]](#) - using the action timer to change direction of stairs & escalators doesn't work
- [\[PED-286\]](#) - Stitching not correct in attached model
- [\[PED-287\]](#) - ECM not build for stairs or escalators that are partly outside the height layer
- [\[PED-289\]](#) - Unexpected routing error + spinning agents
- [\[PED-290\]](#) - Blocked percentage on stairs have no effect on ECM
- [\[PED-300\]](#) - Model name changes to untitled

Improvement

- [\[PED-142\]](#) - Add on reset/initialize on user events!
- [\[PED-206\]](#) - Better spread over width of corridor
- [\[PED-213\]](#) - possibility to define evacuation time as a parameter in the wizard.
- [\[PED-269\]](#) - Improvements in routing algorithm
- [\[PED-280\]](#) - Reimplementation of ECM creation
- [\[PED-351\]](#) - Primitives_RandomPoint checks if point is valid in the network

New Feature

- [\[PED-61\]](#) - Local obstacles (barriers)
- [\[PED-261\]](#) - Starting side position of indicative route
- [\[PED-277\]](#) - function agent update radius
- [\[PED-291\]](#) - AutoCad 2015 support
- [\[PED-292\]](#) - CAD import functionality
- [\[PED-294\]](#) - Merge height layers
- [\[PED-295\]](#) - Lock and unlock elements
- [\[PED-301\]](#) - Trapezoid stairs
- [\[PED-304\]](#) - Routing method option shortest distance
- [\[PED-305\]](#) - Influence indicative route
- [\[PED-306\]](#) - Set and store default camera positions

Problem Report

- [\[PED-249\]](#) - changing settings split edge and block sides doesnot make pd rebuild the network

Question

- [\[PED-244\]](#) - In some predefined logics the user needs to edit something. This is not always clear at first sight.

Release Notes - Pedestrian Dynamics 2.0

New Feature

- [\[PED-4\]](#) - Optional flow capacity
- [\[PED-96\]](#) - Output travel time color map
- [\[PED-101\]](#) - Creating a report of the results
- [\[PED-104\]](#) - Basic Queuing
- [\[PED-105\]](#) - Option to exclude a height layer from the network
- [\[PED-120\]](#) - Line as routing destination
- [\[PED-126\]](#) - Button to snap all visible primitives to the grid
- [\[PED-133\]](#) - CityGML support
- [\[PED-135\]](#) - Wall around line and polyline obstacle
- [\[PED-136\]](#) - Action area
- [\[PED-141\]](#) - Indicative Corridors
- [\[PED-143\]](#) - Division of footsteplogfiles (needed when user runs a large model over a large period of time)
- [\[PED-167\]](#) - General entry/exit triggers on agent activities
- [\[PED-172\]](#) - User Tables
- [\[PED-197\]](#) - Visualization of walkable space
- [\[PED-198\]](#) - Adjust ECM network
- [\[PED-199\]](#) - Speedup ECM creation
- [\[PED-200\]](#) - Avoidance side preference for agents
- [\[PED-201\]](#) - Side clearance factor
- [\[PED-205\]](#) - User defined functions

Bug

- [\[PED-36\]](#) - Agents do not leave Entry/Exit when ServerQueues are used.
- [\[PED-51\]](#) - Agents standing in curved rows behind each other
- [\[PED-72\]](#) - PD crashes when two help windows are open
- [\[PED-106\]](#) - Polygon drawing, when adding a single point to an existing polygon, it is added to the wrong linepiece
- [\[PED-108\]](#) - Multiple Select and then Delete does not work
- [\[PED-113\]](#) - Setting GridSize does not work
- [\[PED-114\]](#) - When changing Name of Heightlayer, using the 'Environment Tree' GUI, this new name is not copied to the GUI
- [\[PED-115\]](#) - 'Environment Tree' is extremely slow when multiple Height layers are used
- [\[PED-118\]](#) - Cannot create ECM when multiple stairs transfers are on top of each other
- [\[PED-122\]](#) - Autocad dwg is not drawn correctly
- [\[PED-127\]](#) - Footsteplog frequency doesn't work correctly for models with many layers and/or activities
- [\[PED-128\]](#) - Rebuild network does not work, when, after altering infrastructure, an experiment is started via the experiment wizard
- [\[PED-131\]](#) - Output of non-convex polygon density areas is not always correct
- [\[PED-134\]](#) - Access violation for density area with specific time interval
- [\[PED-139\]](#) - Divide by zero (ultimately ending in a crash) when adding point to polyline to close to an existing point.
- [\[PED-144\]](#) - If I press Height Layer in the Model Layout I get An error
- [\[PED-146\]](#) - Agents have trouble walking through indicative corridor
- [\[PED-147\]](#) - Medial axis are not created correctly.
- [\[PED-148\]](#) - Problem triggering agents with ActionArea_TriggerAllAgents
- [\[PED-150\]](#) - Entry & exit triggers on entries/exits
- [\[PED-151\]](#) - Unselectable flow counters
- [\[PED-157\]](#) - Agents vibrate heavily when walking on aisle to their seat

- [\[PED-158\]](#) - Automatic placement of Portals and stairs in stands is not optimal
- [\[PED-164\]](#) - When you just saved a model, and try to run it, then errors appears. If you then reset and rerun, it all goes well.
- [\[PED-174\]](#) - Select-mode: minor bug when deleting atom
- [\[PED-175\]](#) - Trapezoid Transfer connection ECM fault
- [\[PED-181\]](#) - Viewfield is not always calculated correctly
- [\[PED-183\]](#) - When drawing a polyline obstacle and use close loop line to close the loop is tapered
- [\[PED-185\]](#) - Incorrect ECM
- [\[PED-186\]](#) - Drawing of polygon lines is incorrectly with ATI video card
- [\[PED-187\]](#) - Example model Single queue + multiple gates.mod does not work anymore.
- [\[PED-189\]](#) - Re-route periodically not working
- [\[PED-190\]](#) - ECM Problems: Weird or incorrect lines
- [\[PED-194\]](#) - PD record error: unable to create file because of 'automatic space' after file-extension

Improvement

- [\[PED-28\]](#) - Drawing of stairs
- [\[PED-98\]](#) - Automatically update flow counter when loading new result file
- [\[PED-100\]](#) - Improved output graphs
- [\[PED-103\]](#) - 4GB memory on 32bit machine
- [\[PED-109\]](#) - Selecting 'Rectangle' to easily select multiple objects (to move or delete or etc.) does not exist
- [\[PED-121\]](#) - Creating and loading large XML files is slow.
- [\[PED-129\]](#) - Preprocessing for improving stitching speed and stability
- [\[PED-130\]](#) - Better spread over the aisle width when going around corners for high volume flows
- [\[PED-163\]](#) - Function 'AgentActivity_DetermineFastestLocation' is very slow when using for 40000+ agents!
- [\[PED-176\]](#) - Automatic reset when something relevant changes in the model
- [\[PED-177\]](#) - Let an agent walk straight to its goal when it is visible
- [\[PED-179\]](#) - Draw 3D agents when showing travel time color map instead of circles

Release Notes - Pedestrian Dynamics Beta4

New Feature

- [\[PED-18\]](#) - Snap points to grid and other elements
- [\[PED-73\]](#) - Explanatory text ("white paper") for the ECM framework
- [\[PED-87\]](#) - Environment tree overview
- [\[PED-88\]](#) - Maximum number of created agents per generator
- [\[PED-89\]](#) - Selecting multiple elements
- [\[PED-94\]](#) - General agent statistics
- [\[PED-95\]](#) - Tilting and z-location of primitives

Bug

- [\[PED-19\]](#) - Hold CTRL and SHIFT down while drawing a trapezoid gives errors:
- [\[PED-21\]](#) - Transfer Connection does not work correctly
- [\[PED-37\]](#) - Functions `Agent_CheckVisitedDestination`, `Agent_GetVisitedDestination` do not always work.
- [\[PED-39\]](#) - PD crash when modeling several escalators or stairs above each other
- [\[PED-43\]](#) - Shortest path causes strange behaviour at the corners of the corridor
- [\[PED-44\]](#) - Problems with ECM network creation
- [\[PED-45\]](#) - The problem of the 'Shaking' agents
- [\[PED-46\]](#) - Unexpected rerouting behavior when using incidents at congested areas
- [\[PED-48\]](#) - User friendliness of some settings of PD
- [\[PED-50\]](#) - Agents walking through a door which is closed by an incident
- [\[PED-57\]](#) - If opening is rotated and incident sets opening to unavailable agents still move through closed opening
- [\[PED-60\]](#) - If Location Distribution of exit activity is set to Userdefined and I use the `AgentActivity_DetermineMultipleLocations` function I get the Error No final activity found for agent.
- [\[PED-62\]](#) - Agents get stuck near an opening that is known to be closed
- [\[PED-63\]](#) - Agents are frozen near the edges of escalators/staircases
- [\[PED-65\]](#) - Incorrect escalator/agent animations in 3D
- [\[PED-74\]](#) - Allow polygon activity locations
- [\[PED-75\]](#) - If Userdefined option `LeastEffort` is used for Distribution Location. Agents jump to a different location visually than where they arrived.
- [\[PED-78\]](#) - Agents jump to another `ActivityLocation` when going to the next step in their route
- [\[PED-79\]](#) - Primitives can have too few points
- [\[PED-80\]](#) - Not all help files can be found
- [\[PED-81\]](#) - "Load scenario" on model load does not work if a PRIX file does not exist
- [\[PED-82\]](#) - Center handrail for a staircase is not in the center
- [\[PED-85\]](#) - Result player gives errors with multiple layers
- [\[PED-91\]](#) - Access violation output folder experiment wizard
- [\[PED-97\]](#) - `Runlock` gives divided by 0 access violation

Feature or Improvement Request

- [\[PED-53\]](#) - Rename Opening atom to Passageway; let Opening be a simple opening.
- [\[PED-59\]](#) - Send agent positions from DLL to PD, instead of velocities
- [\[PED-66\]](#) - Make (multi-core) simulations in the DLL reproducible

Improvement

- [\[PED-54\]](#) - split trigger agent setting of Incident element in several settings to improve user friendliness
- [\[PED-69\]](#) - Change 2D Builder icons for Walkable area, Opening and transfer
- [\[PED-84\]](#) - Allow deviation from location point when it is busy
- [\[PED-86\]](#) - Provide better number node scaling
- [\[PED-92\]](#) - Move and rotate the content of height layer

- [\[PED-99\]](#) - Automatically detect if an edge is still available after an ECM update

Release Notes - Pedestrian Dynamics Beta3

Bug

- [\[PED-39\]](#) - PD crash when modelling several escalators above each other
- [\[PED-41\]](#) - PD crash when deliberately closing all stairs so that agents are trapped
- [\[PED-47\]](#) - Agents walking through obstacles
- [\[PED-49\]](#) - Agents pushing each other against the obstacles
- [\[PED-52\]](#) - Agents use closed stairs
- [\[PED-55\]](#) - Agents jump to their goal position when a path cannot be found
- [\[PED-64\]](#) - PD crash when using scenario wizard and footstep logging in combination with large crowds

Improvement

- [\[PED-56\]](#) - Some unnecessary media files are included in the installation of PD

New Feature

- [\[PED-42\]](#) - Add option to change the status of an edge of a path to unavailable without rerouting agents

Release Notes - Pedestrian Dynamics 2.0 Beta2

Bug

- [\[PED-3\]](#) - Temporary spinning agents
- [\[PED-5\]](#) - Add and remove node buttons not visible when left clicking on a polygon
- [\[PED-12\]](#) - Agent activity is not skipped when empirical sum is smaller than 100
- [\[PED-13\]](#) - Frequency map is not shown on stairs or escalator layer
- [\[PED-14\]](#) - Cumulative line of the travel times graph is not correct
- [\[PED-20\]](#) - Movement direction of an agent on an escalator or moving walk not always correct
- [\[PED-21\]](#) - Transfer Connection does not work correctly
- [\[PED-30\]](#) - PD sometimes crashes
- [\[PED-31\]](#) - Run time overflow at 2D&3D run clock
- [\[PED-32\]](#) - Update edge not always found

Improvement

- [\[PED-1\]](#) - Output reading and logging speedup
- [\[PED-11\]](#) - Improved functionality to trigger all agents approaching an activity location
- [\[PED-24\]](#) - Agent walk through circle primitive
- [\[PED-33\]](#) - Exclude an agent from the ECM network but keep him visible at an activity

New Feature

- [\[PED-6\]](#) - Incident creator
- [\[PED-7\]](#) - Result player
- [\[PED-8\]](#) - Manual update of agent position
- [\[PED-9\]](#) - Multiple simultaneous destinations for agents
- [\[PED-15\]](#) - New 4D script functions
- [\[PED-22\]](#) - Define user events
- [\[PED-23\]](#) - Script Interact window
- [\[PED-25\]](#) - Predictive micro simulation based on vision
- [\[PED-26\]](#) - Queuing

Pedestrian Dynamics 2.0 Beta

Beta release