Pedestrian Dynamics Release Notes

Pedestrian Dynamics 4.7

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What's new

Pedestrian Dynamics release notes

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

Release Note - Pedestrian Dynamics 4.7

Includes Engine 10.7.1 and ED.7.2. Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 4.7.

Key features of this release of the Pedestrian Dynamics 4.7 release:

- **Improved BIM Integration**
  Build models faster and more accurately with automatic unit conversion and escalator import from IFC files.
- **More Flexible and Efficient Modeling**
  Save modelling time with more flexible Activity Location grouping, automatic stair and escalator tilt updates, and easier comparison of label values with the Monitor Labels tool.
- **Enhanced Output and Analysis**
  Customize simulation outputs with Fruin colors, imperial units, inverted density representations, and user-defined percentiles.
- **More Realistic Pedestrian Visualization**
  Represent a diverse range of pedestrian characteristics with new wheelchair and pedestrian carrying a suitcase.
- **Improved License Management**
  Benefit from a more intuitive and reliable licensing workflow, with improved license borrowing and release, easier offline activation, and better support for automated workstation licensing.
- **New Profiler Tool for Developers**
  Identify performance bottlenecks in your models and use profiling insights to improve model execution speed.

New Feature

PED-386 Show configurable percentile in activity output

PED-967 Add characters with wheelchairs and suitcases

PED-994 Make a Profiler available

PED-1008 Create a button to sort Height layers on z-loc

PED-1017 New example model: writing output \(number of waiting people in queue\) to user table during simulation run.

ED-1132 License borrowing

ED-1569 Create the function 'hslColor'

ED-1706 Second change in function editor is not indicated by asterisk *

Task

PED-1014 Add IFC BIM preparation document to the Help

PED-1033 Indicative corridor visualization not changing with clearance change via the interact

PED-1054 Add an example model using multiple groups

Improvement

PED-720 Automatically update Atom Labels when selecting different agents

PED-750 Add automatic import of IfcTransportElement used for escalators & moving walk in BIM Models

PED-759 Hide output except color maps

PED-760 Multiple groups per activity location

PED-890 Make it possible to input the number of seats of stands \(or stand section\)

PED-900 Create a demo model of a small stadium

PED-943 Add 95th percentile to Activity Route Output histograms

PED-953 Elevator Controller GUI Improvement Suggestions

PED-973 Local Obstacle GUI: disable 'blocking side' for disks

PED-978 Experiment Wizard should check if Result path exists

PED-987 Create example model for choosing between stairs and escalator.

PED-988 Add text size setting for Flow Counters

PED-993 Auto-update stair/escalator tilt when departure/landing tilt changes

PED-998 Fill in default point indices in Combine Polygons GUI

PED-1003 Add availability/enable setting for user events

PED-1004 User Event GUI should not be editable while an individual User Event GUI is open for editing

PED-1013 Support US/Imperial units in outputs graphs

PED-1021 Activity Route Output: Show group name in Route overview

PED-1024 Stands: Extra width and lower discomfort factor for particular rows

PED-1027 Agent_DetermineTransportElementWaitingLocation should allow tilted edges

PED-1028 When editing a polygon shape, it should not immediately deselect when clicking just outside it

PED-1031 Save/retain layer settings

PED-1032 Textbox: Allow line breaks

PED-1037 PD_Model_ShowElements function does not take windows display scaling into consideration

PED-1038 Change default colors of density norms

PED-1039 Support inverse density legend in outputs

PED-1044 Create reset button in Transportation Input

PED-1046 BIM Import GUI improvements

ED-1257 LicenseSelector.xml file stored in local appdata instead of roaming appdata

ED-1332 Starting debugger on code

ED-1606 Make it easy to place text in the headers of a table.

ED-1650 Improvements LicenseManager

ED-1656 Borrow license

ED-1659 Make Sleep 4DScript function visible for specific Engine application

ED-1662 Inherited attributes hard to read in Atom Editor

ED-1664 Improved socket functionality

ED-1667 Improved license activation messages

ED-1668 Remove whitespace from license keys

ED-1689 More borrow information in license manager

ED-1691 Add device variables to license backend

ED-1692 Upgrade LicenseSpring SDK to .NET SDK 7.42.1.0

ED-1696 Enable automated licensing with automated (silent) installation

ED-1698 Registration free LicenseSpring

ED-789 Allow ED preferences to be get/set by 4dscript functions

ED-795 Allow scale dependent zooming speed

ED-1398 Profiler only in Visual Studio code available

ED-1636 New ProfilerViewer

ED-1693 Clearer access violation errors

ED-1699 Multiple groups per activity location in PD

ED-1709 New default 3D camera viewpoint

Feature or Improvement Request

PED-965 Add Visualization of Side Opening doors to the elevators

PED-997 Shortcut keys for editing primitives \(insert, remove, add, cut\)

PED-1051 Add a wheelchair profile

Bug

PED-682 Movement of IndicativeCorridor is inverted when copied.

PED-709 PD Viewer: static analysis tool cannot be fully used

PED-866 Model name is not set when opening a model via Windows Explorer instead of via PD

PED-932 In the Activity Route Output, if a groupname is a value rather than a string, the activity route group is not properly saved.

PED-954 Rotate handle of Trapezoid shaped elements does not work correctly

PED-980 Indicative corridor "group" is not shown in the multi edit tool

PED-989 Access violation when TransportNonWaiting area overlaps with Stairs that don't have a transfer connection

PED-990 Change internal direction of infrastructural elements

PED-991 PD_Sim_IsActionAreaOnAgentRoute does not work anymore

PED-992 Fences and stanchions show only under Obstacle type in the Filter tool

PED-999 Stand obstacles and stairs move incorrectly in rotated stands

PED-1000 Elevator shows no doors at certain height layer

PED-1001 Single BIM IfcStairFlight import creates multiple stairs and handrails

PED-1002 BIM import: IfcSlab displayed as black walkable area in 2D instead of usual white fill

PED-1007 3D visualization of elevator is incorrect for height layers where it does not halt

PED-1010 ECM creation fails after copying Transfer

PED-1012 Certain ifc elements like IfcSpaceType causes BIM import failure in PD

PED-1015 Fix coloring override of characters

PED-1018 AgentActivityRoute_DetermineNextActivity: Invalid mother atom while requesting attribute

PED-1022 Logging/output is incomplete for the last activity of an agent

PED-1023 Activity Route Output: 'Stacked Aggregate' is incorrect when 'break down row' is used

PED-1025 Stands GUI 'Remove section' removes wrong section

PED-1034 Non-existing cell is called when opening Activity Route Output GUI if you have a First/Last log route

PED-1036 Passageway GUI does not open from the GUI builder

PED-1042 Runtime Error 231 loop after adding/editing text in GetDistributions function

PED-1045 Wrong index in Agent_GetVisitedTransportInfo

PED-1047 Incorrect z loc for BIM imported elements in intermediate height layers

PED-1048 Feet-based IFC geometry is imported as meters without conversion

PED-1052 Unchecking "Use custom selection" checkbox is not saved in Agent Profile GUI when multiple characters are selected.

PED-1053 Issues with character selection filters in Agent profile GUI

PED-1055 Incorrect LayerID after copying Height Layer

PED-1056 Issues selecting multiple characters

ED-1284 Editing mother atom in library does not correctly affect daughter atom

ED-1425 MultiVectorFieldsSize is an non updatable variable

ED-1495 Odd visualization of attributes table in atom editor

ED-1560 Debugger shows contents of locals of stack-top, instead of selected stack frame

ED-1566 Pressing 'escape' on the keyboard closes the function-editor without warnings

ED-1614 Function editor is too sensitive for function changes

ED-1621 Function changed symbol (*) is shown when function is not changed

ED-1652 Auto-release after fixed-time borrowing License

ED-1653 Manually Releasing makes license (slot) available to other environment

ED-1660 The function version returns 0 instead of the version number of an atom

ED-1661 Find Replace (CTRL+H), Button 'Replace All' only replaces first occurrence

ED-1665 Debugger can't step and crashes when changing stack frame

ED-1672 Msg with information dialog icon no longer displays icon

ED-1675 Prevent perpetual licenses run product versions outside maintenance period

ED-1679 Floating point precision problems

ED-1680 Changing seed value in Run Control does not change the seed immediately

ED-1684 Closing a function editor does not destroy the form

ED-1688 Disable OpenGL4 4.0 setting throws Access Violation

ED-1419 Registericon parameter e8 and e9 don't work and lead to crash

ED-1618 Progressbars have a tendency to bring the entire application to the front

ED-1638 Character animation not shown correct

ED-1669 When WorkDir is incorrect, ED is not starting and RegEdit must be updated

ED-1695 Runtime error 231 after editing a function

ED-1705 Different behavior of labels between 10.5 and 10.7.1

ED-1707 Engine2D clears polygon visual selection when clicking just outside the polygon in PD

Release Note - Pedestrian Dynamics 4.6

Includes Engine 10.6.4 and Engine 10.7.0 Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 4.6.

This release has a new license manager LicenseSpring.

Pedestrian Dynamics 4.6 includes features to improve the user friendliness of the software. Key features of this release:

- New larger character set with verity in ethnicity and filtering options to select which characters to use for a certain profile.
- Improved user event capabilites. Allorwing different schedules for different events.
- You can easly model variable capacity using the elevator.

Improvement

PED-509 Easily connect activity location to indicative corridors for queuing purposes with multiple select

PED-624 Elevator: capacity now adapts based on agent profile attributes

PED-704 User events: allow setting repeat times independently for each event row

PED-913 Add multiple characters with skeleton animations to reflect different cultures

PED-958 Add Agent color type dropdown in the 3D model view

PED-961 Automatically recreate Agent Activity tables after adding Activity Locations

PED-964 Perform 'NIST 2.7 Elevator usage' verification test and update the validation & verification document

PED-966 Allow filtering which characters are used in the model

PED-968 Apply destination likeliness to all Height Layers of the elevator

PED-974 Create code examples for the filter tool and add a checkbox

PED-983 Add an additional light source

ED-916 Review xxUsrMsg.ini

ED-1625 Activate Debugger by 4D-script

ED-1645 Student's t distribution

ED-1646 Migrate to new Licensing Framework

ED-1647 Upgrade IDE Enterprise Dynamics Engine

Feature or Improvement Request

PED-824 Ignore stop time setting when pressing the Run button

Bug

PED-608 FlyTo function: yaw rotation direction now rotates logically

PED-951 Elevator Controller GUI no longer prompts to 'apply the changes' after clicking 'Apply'

PED-957 Adjusting tilt for a line-type obstacle now tilts only the intended side

PED-959 Agents now correctly leave the Indicative corridor when calling Agent_Reroute_UpdateActivityRoute

PED-962 Fix duplicate-not-allowed error when loading the model

PED-963 Time display above map now retains correct colors and data after scaling changes

PED-969 Elevator door position now remains correct when modifying 'Height Layers'

PED-970 Elevator color changes now apply to the correct elevator

PED-975 Elevator now determines next location only once

PED-976 Filter tool does not show group names

ED-1609 F1 does not open the help when focused on 4DScript code

ED-1639 Search functionality in Help is not working

ED-1640 Yaw Rotation direction of FlyTo function does not rotate logically

PED-977 Elevator door displayed at both right and bottom positions by default

PED-981 Multiple Character selection in the Agent Profile visualization does not work as expected.

PED-982 Weird skeleton visualization while characters walk down the stairs

PED-984 Error in default code: Stands: Use the capacity of the stand sections

ED-1589 Incorrect examples in Help for functions MatrixLIFO, MatrixFIFO

ED-1640 Yaw Rotation direction of FlyTo function does not rotate logically

ED-1651 Borrow License in FRISO

ED-1655 ActiveX registration not happening without license

Release Note - Pedestrian Dynamics 4.5

Includes Engine 10.6.2 and Engine 10.6.3 Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 4.5

Pedestrian Dynamics 4.5 includes features to improve the user friendliness of the software. Key features of this release:

- A Filter tool to easily select all element of a specific type or group.
- The elevator is now capable of setting the elevator availability. Allowing you to easily make different scenarios with elevator usage.
- New function PD_SIM_IsActionAreaOnAgentRoute has been added that allows you to determine which corridor an agent is using to its destination.
- Autosaving option of the tabs of the interact window has been added in the preferences.

Improvement

PED-482 Option to know which corridor route agents are using

PED-726 Add the seat assignments property of a Stand section to the multi edit

PED-879 A LocalObstacle cannot be rotated by hand, only via the rotate selection gui.

PED-899 Add the properties of the TextBox atom to the 'edit properties of multiple selected elements' tool

PED-914 Add the 'wall' and 'wall width' settings of (poly)line obstacles to the 'edit properties of multiple selected elements' tool.

PED-918 Improvements for stairs setting 'Show Layer IDs in 2D'

PED-941 Ask for confirmation when deleting a user function

PED-955 Stairs/Escalators/Passageways should have default Reset Code options

ED-1080 Autosaving of interact window

ED-1500 The help entry for the SolveAssignmentMatrix is missing

ED-1507 Syntax check makes line red, but then comments (in red) cannot be read anymore

ED-1539 Any string can be set as Datatype or Direction of a function parameter

ED-1555 Reading DateTime database-fields as string using format

ED-1579 Merge conflicts as a result of numbering SetLoadAtomID

ED-1590 When hoovering over a global variable container a string, all text after a pipe "|" is not shown.

ED-1598 Panel with new property VisibleDockClientCount for docking

ED-1610 Do not focus error-monitor too often

ED-1507 Syntax check makes line red, but then comments (in red) cannot be read anymore

ED-1599 Option to be able to move a GuiForm into the background

ED-1602 Extra engine functions for quick value comparison

New Feature

PED-894 Add a filter tool to make a selection of elements

ED-1604 Gui Panel - add additional events OnDock and OnUnDock

ED-1593 Allow the ability to disable the right mouse click to open an atom edit window

ED-1596 Get GuiControl name from its GuiControl reference

ED-1611 Analog clock for the Docked Environment

Feature or Improvement Request

PED-950 Add an option to set an elevator to unavailable

PED-952 Create function to determine current destination in case of least effort

Bug

PED-572 ECM drawn outside of walkable area

PED-687 Experiment names in the experiment wizard do not allow "." and a space at the end.

PED-820 Skeleton visualization is not standing still when generated in a waiting area (initial fill)

PED-860 A location approaching that does not set a point, gives no error (or a strange error)

PED-915 Setting agent rotation on activity location

PED-920 Show Location tool does not work anymore

PED-921 Error calls form action area are cleared too early.

PED-924 Suggested adaption of Stands default logic at 'Nr of agents' in Agent Generator is unclear/incorrect.

PED-925 Non-existing cell is called when adding points to Indicative Corridor

PED-926 IndicativeCorridor_TriggerAllWaitingAgents 'forgets' input parameter

PED-929 When copying an Obstacle, the Wall attributes are not set correctly

PED-930 Fence, Stanchion and Roadblock are in Main layer instead of Obstacle layer

PED-937 Primitives_DetermineHeightOfPoint contains unwanted EnterDebugger statement

PED-938 Handrails are drawn incorrectly for trapezoid stairs with transfer connection.

PED-940 First row of agent table is not the activity location that the agent is currently routing towards

PED-944 Opening an Activity Location GUI takes too long when having many Indicative Corridors

PED-947 Obstacles with points very close together cause an incorrect ECM to be generated

PED-948 Skeleton import tool does not work.

ED-1601 XMLNodeGetChildByName fails

ED-1620 Using arrow keys in function-editor, parameter description throws errors

ED-1397 Datacontainers

ED-1488 ED used all system allowance of handles for Window Manager objects

ED-1538 FRISO/ED is allowed to start with an encrypted library without a valid security license

ED-1600 Context help (F1) doesn't show requested topic.

ED-1615 (Multi)VectorCount gives wrong results

Release Note - Pedestrian Dynamics 4.4

Includes Engine 10.6 and Engine 10.6.1 Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 4.4

Pedestrian Dynamics 4.4 includes features to improve the user friendliness of the software. Key features of this release:

- Performance improvements
- Functionality added to import and export user functions.
- Movie recorder improvements to automatically split large files and add a suffix to the name.
- Changed the default colors of the Frequency and time above density map.
- New drawing tools.

Improvement

PED-882 Movie recorder overwrites existing movies without warning

PED-883 ActionTimer: Add option to update all passageways of a specific group

PED-886 Make sure all example and tutorial models have the simulation clock shown.

PED-891 Different default colors for frequency map

PED-892 Add split polylines functionality to the left toolbar when selecting a polyline

PED-893 Add functionality to split a polygon

PED-895 Improve selection tab model Builder: Add Combine elements functionality.

PED-896 Performance increase: parallel agent update scheduling

PED-909 Frequency maps and travel time maps for a selection of height layers

PED-910 Make import and export functionality for user functions

ED-1391 Make it possible to Run Enterprise Dynamics via Parallels

ED-1472 GuiFindAtomByGuiInstance help entry appears twice, but the second one contains the help of GUIinstance

ED-1071 Run Control should save Measurement setting

ED-1170 New color scheme of licensing seems to indicate that an error is made

ED-1331 Enlarge the channel area

ED-1440 Less popups in function editor

ED-1529 Show fewer edit popup-boxes in function editor and atom editor

New Feature

ED-1530 Input validation for run control Stop Time

Feature or Improvement Request

PED-193 Automatically split large movie recording files

Bug

PED-500 3D Density map - black and offset

PED-881 'Move into active height layer' does not work for Textbox and Ruler

PED-884 No proper value set for currency in output route value of time

PED-885 Visualization of flow shifter is not shown in 2D and 3D

PED-897 Agents in activity locations with non-zero zLoc are visualized at the wrong z-position

PED-898 Stop Condition of Indicative Corridor is not executed for agents heading towards a Flow Splitter destination

PED-901 PD crashes because TextBox does not check for compile errors

PED-904 Destroy Trigger of Agent (Generator) is never executed

PED-905 Legend values of Frequency Map are sometimes incorrect

PED-907 Model throws error messages related to stands, StandSection_GetSeatLocation

PED-908 Model loads skeleton many times when opening Result Player

PED-911 Primitives_SplitPoly breaks corridor width table of the indicative corridor

PED-917 If you change default color of the time occupied map the map changes in a frequency map

ED-1384 Change function editor window name when changing/setting the function name

ED-1424 Copying of functions results in access violations

ED-1428 Please add the number to the enumerations for the PrimitiveType_ to the help

ED-1522 Both tables and multivectors allow calls to cells/fields/items with non-integer row/column numbers without error

ED-1541 Error monitor does not restart after being stopped due to efficiency reasons

ED-1550 GuiInstance in Help (F1) shows GuiFindAtomByGuiInstance

ED-1565 Installing Enterprise Dynamics gives an error when installing the example mod files

ED-1542 Interact - saving several pages without loss

ED-1551 The internet option reachable over the preferences in Enterprise Dynamics seems a risk

ED-1565 Installing Enterprise Dynamics gives an error when installing the example mod files

ED-1566 Pressing 'escape' on the keyboard closes the function-editor without warnings

ED-1568 Clearing the 'maximum number of parameters' field gives a messagebox with a warning

ED-1570 Function editor window doesn't have responsive rescaling

Release Note - Pedestrian Dynamics 4.3

Includes Engine 10.5.3 Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 4.3

> We discovered issues that have been resolved before but are not included in previous release notes. We will list them here under version 10.4.3, but these have been available in previous versions.

Pedestrian Dynamics 4.3 includes features to improve the user friendliness of the software. Extra functionalities have been added for data analysis, with an easy excel import / export tool. The communication power of your models are also enhanced by the new elements added to the Pedestrian Dynamics interface, which includes bike racks, stanchions, road blocks and different types of staff.

Key features of this release:

- Added Excel import Export functionality to the user tables.
- New elements BikeRack, Stanchion, Road block and staff elements to improve the communication value of the model.

Bug

PED-864 Elevator with different door sides causes agents to be placed in non-walkable area.

PED-869 Non-existing cell is called by Walkable Area with large slope

PED-870 Non-existing cell is called by Activity Route Output GUI

PED-872 Predefined code '"closest Height Layer" of the elevator property "destination likeliness' does not work.

PED-873 Error opening skeleton importer

PED-874 Opening Skeleton Importer gives error called cell on table that is non existent

PED-880 Non-existing cell is called by Apply button of StandSection

ED-1536 Atom Editor hangs in specific situation

ED-1524 New Splash Screen is flickering a lot

Feature or improvement request

PED-875 Add checksum protection to installer files for download for extra security

Improvement

PED-432 Travel times activity route output map give unclear message

PED-733 Density maps for a selection of height layers

PED-742 Add offset time to elevator

PED-775 Disable the DrawInterior of an obstacle when a 3D model is attached to it

PED-857 Easy to use import tool to import data from Excel to a User table

PED-871 Skeletons are quite tall (>1.9m) especially in smaller venues

PED-876 Default location distribution of the ElevatorWaiting activity is Uniform, more ideal would be UserDefined.

New Feature

PED-448 Standard functions to import data from Excel and/or Access.

PED-868 Easily add fences/barriers and staffing to the model.

Release Note - Engine 10.4.3

Bug

ED-373 OpenGL error crashes ED

ED-377 Error opening 2D/ 3D window: nvoglnt.dll because of not updated graphic card driver

ED-413 Cannot set .> combination in label

ED-429 Children attribute does not work in groupbox

ED-501 DbSql: empty recordset returned when querying table (SQL server) varchar column with more than 255 characters

ED-512 Round function does not behave correctly

ED-518 moverequest is always based on rank!

ED-526 unexpected behavior in model with lock and unlock and lock level 1

ED-675 OPCDeleteDataChangeEvent function does not work

ED-676 OPCWrite function does not work as described in manual

ED-677 Buttons do not stop showing the selection square when button is not selected anymore (mouseover)

ED-753 GuiBuilder Focus Erratic

ED-827 Rounding to a fixed number of digits goes wrong

ED-934 Static visualisation

ED-1000 StaticDraw failure after 1 hour

ED-1003 ED10 Trial doesn't open PDF files anymore

ED-1008 GetLayerOptions is not working/clear.

ED-1024 MovieCreator neemt geen filmpjes meer op

ED-1028 Changing name of layer doesn't work

ED-1053 Tekst attribuut kan niet gezet worden

ED-1110 Shader bug with Rain

ED-1111 StaticText 3D messes up all following draws

ED-1119 The order of events in the event list is different between ED9 and ED10

ED-1152 Shortcuts stopped working

ED-1302 Vector itemname not Preregistered

ED-1311 Error Monitor doesn't show error description

ED-1312 Taborder in 2d tab of library tree incorrect

ED-1313 salconContour changes to False when selecting an atom in the atomtree

ED-1336 Datetime does not work as expected

ED-1387 Sorting multivector on atompointer gives undefined behavior

ED-1421 Syntax highlighting bugs when comments contain an quotation mark

ED-1432 Access violation exceptions when sorting (multi)vector containing INF values

ED-1435 Renaming function to name of removed function causes save-error

Improvement

ED-420 Atom remembers IC and OC

ED-609 InputNum followed by cancel also returns the value

ED-681 Workdir preferences defaults

ED-767 Enable 64 bit build configuration for FRISO

ED-796 A descriptionfield for attributes

ED-797 Accessing Datacontainers by index

ED-979 Searching the TreeAtom to given AnimAtom with Ctrl+T shows wrong atom

ED-1130 Write text files to ANSI or UNICODE?

ED-1242 Lightweight atom

ED-1389 Once a stack underflow occurs, the work with ED cannot continue and the last option is the Task Manager

ED-1442 dbeCopyResultSetToMultiVector should support adding resultsets to the multivector

New Feature

ED-449 query works in database but not via ADO

ED-457 Several tables on one atom

ED-481 TableClose

ED-507 Monitor state changes of atom

Task/Question/Problem Report

ED-955 static Visualization

ED-956 Debugger

ED-957 Example model: Round robin with content check

ED-958 Database model

Release Note - Pedestrian Dynamics 4.2

Includes Engine 10.5.1 and 10.5.2 Release notes - Pedestrian Dynamics - Version Pedestrian Dynamics 4.2

Pedestrian Dynamics 4.2 release has the following improvements

User friendliness improvements

- Agent input now has reset button
- Added Sleep modus to avoid Pedestrian Dynamics® to close down
- Update of the written tutorial.

Improvements

- Miniature map: A miniature layout of your model for easy navigation in your model.
- TextBox element: Enhance your model showing text or output in your 2D or 3D Visualization.
- Show location in your 2D/3D model layout directly from the points/routes reported in the Error monitor.

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

Bug

PED-58 Textures problems in PD

PED-475 Save Atom error

PED-563 Delay time of a transport element is not added to the departure time

PED-567 Saving functions becomes impossible since it is currently 'active'

PED-580 Drawing Stand initially allows polygon shape

PED-678 Search_DisplayAtomIn2Dmodel function does not work when atom is outside the screen

PED-682 Movement of IndicativeCorridor is inverted when copied.

PED-698 Social Distance: Agent get stuck behind local obstacles

PED-700 Social Distance: No repelling force is used when an agent that is pushed from behind

PED-706 Social Distance: Agents get stuck trying to find a final location (activity or IC)

PED-711 With physical distance it can occur that agents walk around the stop position at the end of the indicative corridor

PED-756 Message "No active layer selected " stays displayed when active height layer is reactivated

PED-821 Agent Profile - Exact Skeleton does not work

PED-822 Agents get stuck when doing a curve inside indicative corridor

PED-832 No default primitive selected when selecting an activity location

PED-833 PDF version of the Tutorial is missing section Activity Location of chapter "Building a pedestrian flow model"

PED-836 It is possible to create primitives with not enough points. These elements are not visible and can only be found in the Model tree.

PED-837 Stand stairs are drawn incorrectly in 3D

PED-839 Pedestrian Dynamics tutorial still refers to tab areas instead of Activity tab

PED-842 4DS code boxes do not work in Transport Arrival List

PED-843 Error when applying Transportation SubType

PED-844 Adding agent generator gives an error

PED-850 'Keyword help' (F1) in 4DS does not function properly

PED-851 Tutorial button does not function properly

PED-855 Same agent being triggered twice to leave activity location

PED-856 Indicative route incorrect in last node especially visible in indicative corridor.

PED-858 Cell Function is being called to an non existing cell in a tab.

PED-859 Having a Stand Section with 0 seats raises error on Reset and when opening Stand Sections Statistics GUI

ED-1526 NextEventOfAtom does not check involved atom correctly.

ED-1527 3D models from OBJ-files no longer loaded in ED

ED-1483 When scrolling with the mousewheel and moving the mouse at the same time it can select some fields without clicking

ED-1489 Text in Cells look unreadable in Windows 11

ED-1491 NextEventOfAtom when checking all involved atoms results in an error.

ED-1498 GuiDestroy (used on almost every OK-button) is no longer closing the GUI

ED-1513 The function StaticText is not autocompleted and highlighted in blue.

ED-1520 Floor does not function properly for large values

Feature or improvement request

Improvement

PED-547 Reset numbering of agents and transport elements

PED-695 Show location in your 2D/3D model layout directly from the points/routes reported in the Error monitor

PED-834 Create reset button in Agent Input

PED-845 Transportation section of tutorial uses old predefined logics

PED-849 Documentation of Location Deviation property

PED-852 Make it possible to show info (text/numbers) during simulation and result player

PED-854 Update introduction validation and verification document

ED-1478 Uitbreiding hsvColor

ED-1484 Value function returns zero when input already is an value

ED-1506 GuiInstance is not shown in the help.

ED-1515 For connecting to a SQL server database, the machine name is needed.

ED-1516 Calling cell on table for non existent cells does not produce error

New feature

PED-209 Make the Size parameters change in real time when modeling

PED-376 output of 1 activity location in travel time graphs

PED-512 Easily display data such as labels destination(s), arrival location other data of an agent

PED-861 Add miniature overview of model to visualization window + navigation

ED-1499 Add CallLibraryByVectors function

Task/Question/Problem Report

PED-598 Strange default exit trigger access control update side preference

PED-847 Cancelling the creation of an elevator in the middle of drawing still creates the controller

PED-598 Strange default exit trigger access control update side preference

PED-762 Escalator/moving walk is overruled by passageway

ED-1476 DateTime is truncating a number, instead of rounding it

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PED-58 Textures problems in PD

PED-475 Save Atom error

PED-563 Delay time of a transport element is not added to the departure time

PED-567 Saving functions becomes impossible since it is currently 'active'

PED-580 Drawing Stand initially allows polygon shape

PED-678 Search_DisplayAtomIn2Dmodel function does not work when atom is outside the screen

PED-682 Movement of IndicativeCorridor is inverted when copied.

PED-698 Social Distance: Agent get stuck behind local obstacles

PED-700 Social Distance: No repelling force is used when an agent that is pushed from behind

PED-706 Social Distance: Agents get stuck trying to find a final location (activity or IC)

PED-711 With physical distance it can occur that agents walk around the stop position at the end of the indicative corridor

PED-756 Message "No active layer selected " stays displayed when active height layer is reactivated

PED-821 Agent Profile - Exact Skeleton does not work

PED-822 Agents get stuck when doing a curve inside indicative corridor

PED-832 No default primitive selected when selecting an activity location

PED-833 PDF version of the Tutorial is missing section Activity Location of chapter "Building a pedestrian flow model"

PED-836 It is possible to create primitives with not enough points. These elements are not visible and can only be found in the Model tree.

PED-837 Stand stairs are drawn incorrectly in 3D

PED-839 Pedestrian Dynamics tutorial still refers to tab areas instead of Activity tab

PED-842 4DS code boxes do not work in Transport Arrival List

PED-843 Error when applying Transportation SubType

PED-844 Adding agent generator gives an error

PED-850 'Keyword help' (F1) in 4DS does not function properly

PED-851 Tutorial button does not function properly

PED-855 Same agent being triggered twice to leave activity location

PED-856 Indicative route incorrect in last node especially visible in indicative corridor.

PED-858 Cell Function is being called to an non excisiting cell in a tab.

PED-859 Having a Stand Section with 0 seats raises error on Reset and when opening Stand Sections Statistics GUI

ED-1526 NextEventOfAtom does not check involved atom correctly.

ED-1527 3D models from OBJ-files no longer loaded in ED

ED-1483 When scrolling with the mousewheel and moving the mouse at the same time it can select some fields without clicking

ED-1489 Text in Cells look unreadable in Windows 11

ED-1491 NextEventOfAtom when checking all involved atoms results in an error.

ED-1498 GuiDestroy (used on almost every OK-button) is no longer closing the GUI

ED-1513 The function StaticText is not autocompleted and highlighted in blue.

ED-1520 Floor does not function properly for large values

Feature or improvement request

Improvement

PED-547 Reset numbering of agents and transport elements

PED-695 Show location in your 2D/3D model layout directly from the points/routes reported in the Error monitor

PED-834 Create reset button in Agent Input

PED-845 Transportation section of tutorial uses old predefined logics

PED-849 Documentation of Location Deviation property

PED-852 Make it possible to show info (text/numbers) during simulation and result player

PED-854 Update introduction validation and verification document

ED-1478 Uitbreiding hsvColor

ED-1484 Value function returns zero when input already is an value

ED-1506 GuiInstance is not shown in the help.

ED-1515 For connecting to a SQL server database, the machine name is needed.

ED-1516 Calling cell on table for non existent cells does not produce error

New feature

PED-209 Make the Size parameters change in real time when modeling

PED-376 output of 1 activity location in travel time graphs

PED-512 Easily display data such as labels destination(s), arrival location other data of an agent

PED-861 Add miniature overview of model to visualization window + navigation

ED-1499 Add CallLibraryByVectors function

Task/Question/Problem Report

PED-598 Strange default exit trigger access control update side preference

PED-847 Cancelling the creation of an elevator in the middle of drawing still creates the controller

PED-598 Strange default exit trigger access control update side preference

PED-762 Escalator/moving walk is overruled by passageway

ED-1476 DateTime is truncating a number, instead of rounding it

Release Note - Pedestrian Dynamics previously released

> We discovered issues that have been resolved before but are not included in previous release notes. We will list them here under Engine version 10.4.3, Pedestrian Dynamics 3.4 and Pedestrian Dynamics Training Environment 1.0 but these have already been available in previous versions.

The list of all the issues can be found below.

Bug

PED-19 Hold CTRL and SHIFT down while drawing a trapezoid gives errors:

PED-40 Agents walking back and forth

PED-107 When building models, Ctrl-Z does not work when just deleted an obstacle/walkable area etc.

PED-132 Mother of a selected waypoint in model is not same pointer value as 'atmmotherWaypoint'

PED-140 Background changes color when creating an opening.

PED-145 When loading an escalotor model transfer settings are lost

PED-149 Stairs and escalators placing

PED-152 Agents are re-created in non-walkable areas

PED-159 Moviemaker gives errors unexpectedly

PED-161 A lot of 'PD stopped working' errors when using the result player in combination with the multilog option and the movie recorder

PED-166 Select-mode for resizing doesn't work properly with certain stand elements.

PED-168 incorrect density maps. translated densities for Stairs elements

PED-226 Runtime error: Divide by zero (KernelFnc)

PED-389 Text not readable in 2D Builder en output windows

PED-397 Unclear coloring of female 3D model

PED-472 Unstable visualization of the density map 2

PED-476 Save Layer error

PED-477 Save Model

PED-638 Strange behavior when clicking imported stairs from BIM

PED-223 Agents are generated outside the entry polygon

PED-267 error message when deleting elements in 2D

ED-373 OpenGL error crashes ED

ED-377 Error opening 2D/ 3D window: nvoglnt.dll because of not updated graphic card driver

ED-413 Cannot set .> combination in label

ED-429 Children attribute does not work in groupbox

ED-501 DbSql: empty recordset returned when querying table (SQL server) varchar column with more than 255 characters

ED-512 Round function does not behave correctly

ED-518 moverequest is always based on rank!

ED-526 unexpected behavior in model with lock and unlock and lock level 1

ED-675 OPCDeleteDataChangeEvent function does not work

ED-676 OPCWrite function does not work as desribed in manual

ED-677 Buttons do not stop showing the selection square when button is not selected anymore (mouseover)

ED-753 GuiBuilder Focus Erratic

ED-827 Rounding to a fixed number of digits goes wrong

ED-934 Static visualisation

ED-1000 StaticDraw failure after 1 hour

ED-1003 ED10 Trial doesn't open PDF files anymore

ED-1008 GetLayerOptions is not working/clear.

ED-1024 MovieCreator neemt geen filmpjes meer op

ED-1028 Changing name of layer doesn't work

ED-1053 Tekst attribuut kan niet gezet worden

ED-1110 Shader bug with Rain

ED-1111 StaticText 3D messes up all following draws

ED-1119 The order of events in the event list is different between ED9 and ED10

ED-1152 Shortcuts stopped working

ED-1302 Vector itemname not Preregistered

ED-1311 Error Monitor doesn't show error description

ED-1312 Taborder in 2d tab of library tree incorrect

ED-1313 saIconContour changes to False when selecting an atom in the atomtree

ED-1336 Datetime does not work as expected

ED-1387 Sorting multivector on atompointer gives undefined behavior

ED-1421 Syntax highlighting bugs when comments contain an quotation mark

ED-1432 Access violation exceptions when sorting (multi)vector containing INF values

ED-1435 Renaming function to name of removed function causes save-error

Feature or improvement request

Improvement

PED-16 Landing platform at stairs

PED-67 "Show ECM" icons are not very representative

PED-68 Move "Show ECM" options to the 2D/3D view

PED-77 Automatic replanning may cause agents to respond to incidents too early

PED-165 When trying to get a 'good' network, you have move objects a little bit to get the network you want

ED-420 Atom remembers IC and OC

ED-609 InputNum followed by cancel also returns the value

ED-681 Workdir preferences defaults

ED-767 Enable 64 bit build configuration for FRISO

ED-796 A descriptionfield for attributes

ED-797 Accessing Datacontainers by index

ED-979 Searching the TreeAtom to given AnimAtom with Ctrl+T shows wrong atom

ED-1130 Write text files to ANSI or UNICODE?

ED-1242 Lightweight atom

ED-1389 Once a stack underflow occurs, the work with ED cannot continue and the last option is the Task Manager

ED-1442 dbeCopyResultSetToMultiVector should support adding resultsets to the multivector

New feature

PED-38 Uni-directional edges

PED-71 Advanced user should also be able to create User function.

ED-449 query works in database but not via ADO

ED-457 Several tables on one atom

ED-481 TableClose

ED-507 Monitor state changes of atom

Task

PED-117 When tilting polygons over one axis, this can result in a tilted 'end' edge (see pictues)

ED-955 static Visualization

ED-956 Debugger

ED-957 Example model: Round robin with content check

ED-958 Database model

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 than 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 TransparantColor not working with DrawCircle

ED-1425 MultiVectorFieldsSize is an 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 looses 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 disturbes 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 editer 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 4dscript-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 perfomance 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 - Ouput 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 dbeCopyResultSetToAtomTable 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 updatabele
- 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 visulalized
- 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 continously 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...., dbeTransaction, 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 predifined 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 copypaste: 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 overriden 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 (vrIcon, 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 "Treeatom 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 negetive parameter does not throw errror
- 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 - Coverpage 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 unreadible when changing font size
- ED-1016 - Security Package diplays 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 - Incorrrect 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 saveId'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 utilitsation 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: to 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 prix when the stairs are partly outside the stands
- PED-364 - Insert, add or remove mutliple 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 repetative 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 destiation
- 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 acvity 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 visting 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 evacutation 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 though 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 then 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 - Runclock 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