# EON 7.5 Release Notes

## New features

- EON Studio
  - Online manual structure has changed and should be more logical.
  - EON Raptor help is included in the Studio Manual.
  - The reference guide contains all nodes no matter which part they belong to (EON Studio, EON Professional, EON Ultra etc) and are clearly marked which part they belong to.
  - Immediate feedback for color selection. When changing a color from any color field in the Property Bar, the selected color is immediately used. This makes it easier to fine tune a color choice.
  - Constant node now has a field SendValueAtStart which is default true. If false then the value will not be sent at start.
  - Property Bar slider control can now give immediate feedback in 3D window. So far some of the fields in the following nodes use this feature:
    - FluidMaterial
    - ShaderMaterial
    - MultilayerMaterial
    - HDRMaterial
    - Material2
    - UltraHDRMaterial
    - SSAOViewportExtension
    - Viewport
  - DOF node is deprecated. It is still available; however we recommend the use of FramePivot and FrameConstraints nodes instead.
  - Removed license for Mesh Builder node.
  - Completely updated Firefox plug in, now supporting Firefox 3.5 or higher for web distributions.
- EON ICatcher
  - Native Support for NaturalPoint tracker system.
  - Native Support for Vicon tracker system.
  - Script that was needed before to convert the coordinate system used in the tracker system to EON is now built into many of the Tracker manager nodes.
- EON CAD
  - Deep Exploration 6.3 is now the (only) supported version for EON CAD 7.5.
  - No EON license is now required for using the plug in, but you will still need a license for running Deep Exploration.
- EON Raptor
  - Interactions can now be created and used to trigger key frame animations.
  - Thumbnails can be generated for use with for example EON Coliseum.

  

## New nodes

| **Group: Base nodes** | |
|---|---|
| **Node Name** | **Description** |
| FramePivot | Extension to the Frame node and is used to define the pivot of a frame. This node represents the pivot part of the former Degree of Freedom (DOF) node that is now deprecated.<br>This node shall be placed as a child to a Frame node and can then change the Pivot point for the parent Frame node. |
| FrameConstraints | Extension to the Frame node which defines constraint limits on position, orientation and scale in the Frame. This node represents the constraints part of the former Degree of Freedom (DOF) node that is now deprecated.<br>This node shall be placed as a child to a Frame node and can then impose constraints on the parent Frame node. |
| MetaData | The MetaData node is used for storing user defined data. The data is stored in a set of fields that are custom defined.<br>The purpose of this node is to be able to store some meta data about the EON file inside a node. This meta data can for example be some text information about 3D objects. |
| Settings | The Settings node can save field data from any nodes in the simulation between sessions.<br>The purpose of this node is to be able to store local settings for a specific EON file, or for the current user. This can for example be stereo settings or ICube settings. |
| SystemInformation | The SystemInformation will provide some system information like number of CPUs, memory etc. In the future we plan a GraphicsInformation and a StatisticsInformation node as well. |
| **Group: Visual nodes** | |
| SkeletonAnimator | The SkeletonAnimator node is part of new functionality for avatar animation. Avatars can be imported from 3DS MAX using EON Raptor. Character animations in 3DS MAX can then be played in EON using vertex skinning.<br>Crossfade animation (blending) between different animations is supported as well.<br>**NOTE**: Skinning has requirements on the graphic card. Depending on the graphic card, the number of bones may be limited. Use gp4vp as VertexShaderCgProfile in Simulation Node.<br>**NOTE**: A script must be used to control the animation.<br>Fields:<br>• Enabled - Works with SetRun.<br>• ClipsFile - This is imported from MAX, contains all animation clips, exported via Raptor, in binary format. Works for one specific skeleton, represented by the Skeleton Node.<br>A clip has a number of animations and each of these can be in loop mode or not. If last Key Frame is same as first, it is not in loop mode from the beginning. Raptor export uses all Key Frames, including last one. If the animation is set to be looping in Max, then EON also sets the looping flag. |

  

| | |
|---|---|
| | • Skeleton - Reference to a skeleton node.<br>• FrameSkeleton - Good for debugging the export, or could be used to animate attachments. If you add links to Frames with correct names as defined in 3DS Max, then these Frame nodes will get position from on the current running animation.<br>• FrameSkeletonType<br>  ° FlatByName - Use same name as in Max.<br>  ° FlatByIndex - Use indexed references.<br>  ° Tree - Must build same hierarchy as in MAX.<br>• MotionApplyMask - Controls the overall movement of the animated object, 3 x matrixes: Position, Orientation, and Scale. Only applicable if the animation also has a motion.<br>• Animations - The animations stored in the ClipsFile.<br>• ActiveAnimations - Shows which animation is currently playing.<br>• SelectedAnimation - Select the animation to be edited by the fields below.<br>• Start - Start the SelectedAnimation.<br>• Stop - Stop the SelectedAnimation.<br>• Layer - Set the layer of the SelectedAnimation.<br>• Rate - Set the playback speed: 1 = normal speed, 2 = double speed, -1 = reversed.<br>• Weight - How to blend two animations (in different layers) together when they are running at same time (0…1). For layer 0 the weight has no relevance, it's always 1.<br>• Duration - How many seconds the animation will play.<br>• AverageSpeed - Calculated average speed of the Motion track of the animation in m/s.<br>• LoopMode -<br>  ° Once - No loop.<br>  ° Loop - Continue to loop over and over again.<br>  ° Swing - Loop back and forth, then restarts etc.<br>  ° ClampForever - Wave will be stuck in last place, fadeout will have no effect.<br>• FadeInTime - How long time it takes from 0 to Weight when animation starts. Default = 0.3s.<br>• FadeOutTime - How long time it takes from Weight to 0 when animation stops. Default = 0.3s.<br>• EndTransition - This animation will be played directly after SelectedAnimation ends. |
| SkinMaterial | Used with name SkeletonAnimator. |
| Skeleton | Used with name SkeletonAnimator. |

  

## Fixes

- SSAO stops working when resizing the window. This now seems to work well on most computers.
- Opacity effect was not changed in runtime if Opacity was 1 when simulation started for shader materials.
- Optimized World transform in Frame node.
- Updated manual regarding KeyFrame node.
- Prototype exported fields no longer change name when going into run mode (uses the internal field name).
- Fixed so that the EON CAD plug in correctly reads the "pivot" information in Deep Exploration and translates it into offset frames.
- Okino import does not have an option to generate scenes with DOF node anymore.
- As ScaleOrientation is now available as a field in the Frame node, the SceneBuilder now maps the ScaleOrientation in the SceneTransform class to this field. This makes it possible to support sheared transformation on the objects in 3dsmax and EON CAD. Previously we just dropped this value, which meant that some scenes were translated incorrectly (although it's rare with sheared transformations in practical cases).
- Improved dialogs when opening EON files/prototypes made with earlier versions in EON 7.
- Component view remembers filter settings when opening new file.
- Removed the GUIAwareMotionModels field in the Simulation node. This field has not been in use for a long time.
- Improved error message when trying to open file in EON Studio or EON Viewer from EON CAD when EON Studio or EON Viewer is not installed.
- Flow nodes now send outevents for OnRunFalse, OnRunTrue and OnRunChanged.
- Iteration task node now handles number of iterations better.
- Flow Nodes bugs fixed.

## Known issues

- If you uninstall 7.0 after you have installed 7.5, some EON icons in the start menu such as **EON Depends** and **License Tool** might get uninstalled as well. Also, you might not be able to run EON Viewer 7.5 or double click on an eoz to launch it. To fix this, rerun the installation of 7.5 and choose Repair.
- If you have used the new fields on the Tracker manager nodes to reverse some of the axis, and the rotation still does not seem to work correctly, it might be necessary to configure additional settings on the Tracker system itself.
- With the EON CAD plug in and Deep Exploration, if you export 3D data that originally comes from CAD files, the material names might differ between what you see in Deep Exploration and in the EON simulation tree. Furthermore, the walk navigation might be difficult to use, as the camera has been rolled.
- The index page of the main EON help file (EON.chm) is empty. Please open the individual chm files to use the index page

  