

# Cinema 4D R17 (SP3.5)

Change List – Cinema 4D / BodyPaint 3D – Service Release 17.055

## New Improvements in This Release

### **OTHER**

- Fixed an issue with Hair/Grass and Ambient Occlusion

## Older Improvements in Previous Updates

The Houdini Engine Bridge has been integrated, Python was updated to version 2.7.9 and the Team Render Server web interface got some enhancements.

### **Animation**

- Fixed an issue with tangents
- Fixed an issue with Euler filter and track types
- Fixed an issue with default selection linking of Timeline and Object Manager.
- Fixed an issue in Timeline cycling with shortcut keys.
- Fixed an issue with converting motion layer to keyframe animation.

### **BiRender**

- Sketch and Toon is now available in hardware render settings
- Fixed an issue with artefact on overlapping Sketch and Toon lines
- Fixed an issue with Hair in secondary specular multi-pass
- Fixed an issue with Sketch and Toon multi-passes.
- Fixed an issue with Hair specular pass.
- Fixed an issue with rendering splines in Cloner as Hair.

### **BodyPaint 3D**

- Fixed a stability issue with UVs
- Improved brush size adjustments.
- Fixed a stability issue with selections.

### **C++ API**

- Fixed an issue with Blocksize 128 AES File

### **Camera Reconstruction**

- Fixed an issue with transparent images

### **Character Animation**

- Fixed an issue with Protection tag
- Fixed several issues in CA templates
- Fixed an issue with Binding in CA object
- Fixed an issue with undo/redo in CA object
- Fixed an issue with console errors with Character Builder
- Fixed an issue with Muscle object
- Fixed an issue with Clamp Constraint
- Fixed several issues in Weight Manager
- Fixed an issue after scene load
- Fixed an issue with weight transferring
- Fixed an issue with Collision deformer memory usage
- Fixed an issue with console errors with Character Builder

- Fixed an issue with Weight effector naming
- Fixed an issue with Aim Constraint.
- Fixed a constraint issue upon scene load.
- Fixed an issue with constraint not refreshing.
- Fixed an issue with commander invoked Weight tag.
- Fixed an issue with dynamics in Bird template.
- Fixed an issue with constraint axis orientation.
- Fixed an issue with constraints and zero scale objects.
- Fixed an issue with snapping and drawing joints.
- Fixed an issue with UpVector constraint refresh.

## **CineRender Nemetschek**

- Fixed a performance issue
- Fixed several issues with Reflectance channel
- Fixed several issues with Grass rendering
- Fixed an issue with Physical Render
- Fixed an issue with Update and Selection tags
- Fixed an issue with Update Merge material update
- Fixed an issue with Update Merge and Sky object
- Fixed an issue with Update Merge material update and UVW tags
- Fixed an issue with Update Merge and materials
- Fixed an issue with Update and selection tags

## **Collada**

- Fixed several issues with scene import

## **Color Chooser**

- Fixed an issue in Analogous mode
- Fixed several issues in Spectrum mode
- Fixed several issues in HSV mode
- Fixed an issue with Autokeying in HSV mode
- Fixed several issues in the Color Chooser Interface
- Fixed an issue with short link to the tex folder
- Fixed an issue with Save Preset
- Fixed an issue with Reload Default Group option
- Fixed an issue with Color Distribution for the Monochromatic mode
- Fixed an issue with swatch preset drag & drop from catalog
- Mode of the Color Chooser is now passed to the pop-up when clicking on the current color
- Fixed an issue with loading multiple swatch
- Fixed an issue with Color Chooser pan in image mode
- Fixed an issue with double-click on color value slider in Color Chooser
- Fixed an issue with color swatches in Color Chooser
- Fixed a typo in the name of "Complementary" mode in Color Chooser
- Fixed an issue with saturation when working in Color Wheel mode
- Fixed an issue with reordering color swatches in Color Chooser
- Fixed an issue with Monochromatic mode in Color Chooser
- Fixed an issue with Color From Picture.
- Fixed an issue with changing color for multiple objects.

## **Command Manager**

- Fixed an issue with commander added tags and user set default values.
- Fixed an issue with commander added tags and de-selection.

## **Content Browser**

- Fixed several issues with the Preview
- Fixed a stability issue
- Fixed an issue with renaming of folders

## **Deformer**

- Fixed an issue with Collision deformer threading
- Fixed an issue with Shrink Wrap deformer and SDS

## **Demo Version**

- Fixed a stability issue
- Fixed the URL to order the full Cinema 4D out of the demo version

## Dynamics

- Fixed an issue with soft body dynamics when object is far away from world center
- Fixed a stability issue
- Fixed an issue with Dynamics caches.

## Exchange

- Fixed several cosmetic issues
- Fixed several stability issues
- Fixed an issue with Alembic (Merge)
- Fixed several issues with Alembic (relative, absolute path)
- Fixed an issue with Alembic (Thinking Particles)
- Fixed an issue with OBJ Export (Effectors)
- Fixed an issue with OBJ Export (Render Instances)
- Fixed an issue with OBJ Export (Cloner object)
- Fixed an issue with OBJ Export (additional material)
- Fixed an issue with OBJ Export (duplicate vertices)
- Fixed several issues with OBJ Scale
- Fixed several issues with OBJ Import
- Fixed several OBJ Import performance issues
- Fixed an issue with BVH Import
- Fixed several issues with Sketchup Import
- Fixed an issue with VRML2 Import
- Fixed an issue with Alembic Polygon selections
- OBJ now exports the texture in the Color reflectance layer
- Fixed an issue with DXF Export when objects have a "." in their name
- OBJ now optionally adds and exports randomly colored materials for objects without materials
- OBJ: Alpha texture will now be imported to the Alpha channel
- Fixed an issue with wrongly disabled materials channels on OBJ import
- Fixed an issue with FBX export stability
- Fixed an issue with component instance texture UVs in SketchUp import
- Fixed an issue with texture paths and SketchUp import
- Fixed an undo issue when changing Alembic settings
- Fixed distorted UVs on OBJ export
- Fixed an issue with the scale option in case the axis are flipped or swapped on OBJ export
- Fixed an issue with Alembic and Instance Object - Render Instances
- Fixed an issue with broken UVs if Flipped UV option is used on OBJ export
- Adapted the OBJ exporter to overcome some limitations of 3ds Max and Maya OBJ importers
- The OBJ import options Flip and Swap axes do not flip the faces anymore.
- Fixed an issue with OBJ export option Duplicate Vertices
- Fixed an issue with the default preset for OBJ Exporter
- Fixed an issue with Physical Sky import and SketchUp
- Adapted OBJ for the future Maya versions
- Fixed an issue when making Alembic splines editable
- Fixed an issue with Alembic "update PSR" option being active when it shouldn't
- Fixed an issue with the distribution of the materials while exporting complex hierarchies to OBJ
- Fixed an undo issue when bulk changing Alembic objects
- Fixed an issue with the ID of FORMAT\_OBJEXPORT
- Fixed an issue in OBJ exporter with UVs being outside of the canvas
- Fixed a hierarchy issue when importing certain alembic files
- OBJs exported out of CATIA can now be imported
- Fixed an issue with broken geometry on import of a specific OBJ file.
- Fixed an issue with Alembic transform resetting.
- Fixed an issue with wrong normal direction on OBJ import.
- New option allows to export duplicate points as an OBJ file.
- Import of the OBJ files is now much faster.
- Default OBJ preset now helps to avoid flipped objects on import.
- Fixed Ngon handling for OBJ importer.
- Flip Normals option doesn't break textures on OBJ import.
- Fixed an issue with broken materials on OBJ import.
- Fixed an issue with loading changed Alembic scene.
- Fixed a crash on OBJ import.
- Fixed an issue with Alembic closed curves import from Maya.

- Fixed an issue with Alembic open curves export.
- Fixed an issues with the exchange to the BodyPaint 3D Plugin in other applications.
- Fixed an issue with UV tag and an empty object making an OBJ exporter fail.
- Fixed issues with broken import presets on first use.
- Fixed an issue with Alembic UVs assignment.
- Added a new option to overcome a problem with the OBJ importer in 3ds max.
- Fixed the link between OBJ export settings and the help.
- Fixed an issue with import of some special OBJ files.
- Fixed an issue with the Export Name and Default option of the OBJ exporter.
- Fixed an issue with Alembic import.
- Fixed an issue with disappearing GUI.
- Fixed an issue with Alembic import preferences.
- Fixed an issue with UVs in an OBJ file making it impossible to import it.
- Fixed an issue with an OBJ file making the import fail.

## **FBX**

- Updated FBX to SDK version of 2016
- Fixed an issue with FBX Export (lost material)
- Fixed an issue with FBX Import (material)
- Fixed an issue with FBX and animated MoInstances
- Fixed an issue with FBX and Take System
- Fixed an issue with merging FBX file
- Upgrading FBX SDK to version 2016.1
- Fixed an issue with FBX and animated textures
- Fixed an issue with FBX and rotation order
- Fixed an issue with FBX and joint falloff
- Fixed an issue with multiple UV sets and smoothing groups
- Fixed an issue with baking deformations
- Fixed an issue with FBX and normals
- Fixed an issue with FBX and camera export
- Fixed an issue with FBX and camera fov
- Fixed an issue with FBX and Clean Tracks option
- Fixed an issue with FBX and animated takes
- Fixed an issue with FBX stability
- Fixed an issue with garbled meshes upon import.
- Fixed an issue with multiple content browsers and FBX files.

## **Hair**

- Fixed an issue with Hair and Ambient Occlusion
- Fixed an issue with Grass and Ambient Occlusion
- Fixed an issue with shadow density.
- Fixed an issue with backlit color default values.
- Fixed an issue with Hair Light tag and disabled shadows.
- Fixed an issue with ambient light.
- Fixed an issue with hair Comb tool.

## **Houdini Exchange**

- Fixed several stability issues
- Fixed several cosmetic issues
- Upgrade to Houdini Build 15.0.313
- Fixed an issue with Remove Unused Materials
- Fixed several issues with Houdini Engine and XPresso
- Fixed several issues with Houdini Engine and Physical Render
- Fixed several issues with Houdini Engine and Motion Blur
- Fixed several issues with Houdini Engine and Team Renderer
- Fixed an issue with Undo performance loss
- Updated Houdini Engine plugin to run Houdini Engine version 15.0.244.16
- Fixed an issue with creation of Houdini asset parameters on load
- Fixed an issue with selection inputs of Houdini assets
- Fixed an issue with a license mismatch warning
- Fixed an issue the caused Houdini asset parameters to be reset on load when one was keyframed

## **Interface**

- Fixed several stability issues

- Fixed several cosmetic issues
- Fixed an issue with HUD control settings
- Fixed an issue with reset of several Viewport settings
- Fixed an issue with ToDo tag
- Fixed an issue with Spline GUI and Preset window
- Fixed an issue with Xpresso Tag (Priority Type)
- Fixed an issue with Sky and Date/Time
- Fixed an issue with SDS Object and Compatibility option
- Fixed an issue on Windows with Navigation Keys and ALT modifier
- Tokens drop-down now supports the cursor position in the file path field
- Fixed an issue with empty script pasting
- Adding tokens no longer modifies the render path unnecessarily
- Added Material override to Attribute Manager render settings
- Fixed an issue with saved layout with search field open in Take Manager
- Fixed an issue with the display of the reflectance stack.
- Fixed an issue with the tab key behavior of the Script Manager.
- Fixed an issue with deletion of scripts without Script Manager open.

## License Server

- Fixed an issue with lease license on OS X
- Fixed an issue with "check for updates" command not showing.

## Matchmoving

- Fixed an issue with Manual Tracking and Default Pattern and Search Size
- Fixed an issue with scroll wheel zoom in Graph View
- Fixed an issue with lens distortion post effect that caused objects to render slightly too big
- Fixed a stability issue
- Fixed an issue when deleting tracks
- Graph View now zooms to the cursor instead of center.
- Fixed an issue with zooming while cursor is over a track.
- Fixed a stability issue with closing scene while tracking is in progress.
- Fixed an issue with lost track selections.
- Added shortcuts for framing and current frame in Graph View.
- Fixed an issue with scrubbing in Graph View.
- Fixed an issue with deleting lines in Lens Distortion tool.

## Material

- Fixed several cosmetic issues
- Fixed an issue with Reflectance channel and removed layers
- Fixed an issue with Reflectance channel and preview update on shader change
- Fixed an issue with Reflectance channel and Cloth preset
- Fixed an issue with Reflectance channel and thumbnail refresh after undo
- Fixed an issue with Viewport refresh and Seamless Material in Material tag
- Fixed an issue with animated material preview
- Corrected a text string
- Fixed an issue with Variation shaders hierarchy mode
- Fixed an issue with Variation shader and saving with assets
- Fixed an issue with Variation shaders UVW rotation
- Fixed an issue with Variation shader and Object Buffers
- Added Variation Shader options for flipping UVs and quantize rotation.
- Variation Shader: Added an option for UV Tile.
- Fixed an issue with gradient knots distribution.
- Fixed an issue with loading unsupported file formats.
- Fixed an issue with the layer shader.
- Fixed an issue with Variation Shader on Background object.
- Fixed an issue with Variation Shader rendering.
- Fixed an issue with Variation Shader GUI.
- Fixed an issue with Variation Shader UVW rotation.
- Fixed an issue with the preview of animated materials in Material Manager.

## Melange

- Fixed an issue with Texture tag Restriction parameter in Melange
- Fixed an issue with Save Animation for Melange and cache
- Fixed an issue with Update Merge.

## Menu Manager

- Fixed an issue with Customize menus

## Modeling

- Fixed several stability issues
- Fixed an issue with Spline Arc tool
- Fixed an issue with connect Points with Spline Pen
- Fixed several issues with Spline Boolean commands
- Fixed an issue with edge selection
- Fixed an issue with Normal data
- Fixed several stability issues
- Fixed an issue with Spline Pen arc preview
- Fixed an issue with Spline Mask and connect object
- Fixed an issue with Spline Mask conversion
- Fixed an issue with Knife tool rapid usage
- Fixed an issue with Polygon Groups to Objects command
- Fixed an issue with Spline arc segment selection
- Fixed an issue with Spline Mask refresh
- Fixed an issue with Spline Mask transformation refresh
- Fixed an issue with Spline Mask Boolean 'Or' mode
- Fixed an issue with Spline Mask exchanging input splines
- Fixed an issue with Spline Arc incorrect result
- Fixed an issue with Spline Mask and instances recognition
- Fixed an issue with Spline Mask Boolean 'or' resulting spline
- Fixed an issue with Spline Arc generation
- Fixed an issue with Set Point Value naming
- Fixed an issue with Boolean and legacy scenes
- Fixed an issue with Connect+delete command
- Fixed an issue with Poly Pen extrusion and snap precision
- Fixed an issue with Create single object in generators performance
- Fixed an issue with scene loading from File Manager
- Fixed an issue with incorrect mesh being generated
- Fixed an issue with artifacts in mesh
- Fixed an issue with Spline Pen new spline and snapping
- Fixed an issue with Spline Pen snapping to inactive splines
- Fixed an issue with Spline Pen preview on hovering
- Fixed an issue with Spline Pen highlighting inactive splines
- Fixed an issue with Spline Pen RMB menu and previews
- Fixed an issue with Close Polygon Hole naming
- Fixed an issue with Spline Arc slice tweaking
- Fixed an issue with Spline arc 360 angle value
- Fixed an issue with Connect object memory release
- Fixed an issue with Spline Mask unwanted transformations
- Fixed an issue with Spline Mask performance loss
- Fixed an issue with Spline Mask modes and scene orbiting
- Fixed an issue with Spline Mask overall scene interaction
- Fixed an issue with Spline Mask and Alembic assets
- Fixed an issue with Poly Pen strip mode and new object creation
- Fixed an issue with Poly Pen edge removal artefacts
- Fixed an issue with Poly Pen double-click triggering undo
- Fixed an issue with Spline Booleans and Spline deformer
- Fixed a stability issue with edge translation.
- Fixed an issue with triangulation due to swapping Normals.
- Fixed an issue with incorrect Normals upon deletion of faces.
- Fixed an issue with solo and new objects.
- Fixed an issue with Polygon Pen and unwanted face removal.
- Fixed an issue with Sketch spline not respecting workplane.
- Fixed an stability issue with weighted subdivision surfaces.
- Fixed an issue with Polygon Pen preview.
- Fixed an issue with Polygon Pen interrupting rendering.
- Fixed an stability issue with Spline Pen and parent generators.
- Fixed an issue with Spline smooth not applying previewed result.
- Fixed an issue with Bevel solid mode.
- Fixed an issue with Spline union and incorrect tangents.
- Fixed an issue with Polygon Pen Arc being empty.

- Fixed an issue with mode switching in Bevel tool.
- Fixed an issue with Polygon Pen generating multiple meshes.
- Fixed an issue with nested Spline Mask.
- Fixed a stability issue with Spline Booleans.
- Fixed a stability issue with Poly Pen edge convergence.
- Fixed a stability issue with illegal tag and generator conversion.
- Fixed an issue with Mesh check isolated points.
- Fixed an issue with Spline Arc and orthogonal views placement.
- Fixed an issue with Spline sketch tool inconsistency.
- Fixed an issue with Polygon Pen generation incorrect geometry.
- Fixed an issue with Spline Mask Boolean intersection.
- Fixed an issue with Spline Mask Boolean subtraction on multiple splines.
- Fixed an issue with Spline Mask input splines activation.

## MoGraph

- Fixed a stability issue with MoSpline
- Fixed an issue with lost annotation tags when making a cloner editable.
- Fixed an issue with multiple arguments in MoSpline L-system.

## Navigation

- Fixed an issue with Alembic camera switching animation

## NLA

- Fixed an issue with undo in layers
- Fixed an issue with layer conversion undo redo
- Fixed an issue with convert Layer to keyframes

## Object Manager

- Fixed an issue with Connect command used on parametric objects
- Fixed an issue with Connect command used on primitive splines

## Objects

- Fixed a stability issue with Remove Duplicate Materials
- Fixed an issue with Platonic object axis
- Fixed an issue with Hemisphere bounding box
- Fixed an issue with Icosa platonic size
- Fixed an issue with Pyramid missing Phong tag

## Online Updater

- Fixed several cosmetic issues
- Fixed an issue with OSX spotlight index

## OpenGL

- Fixed several stability and performance issues
- Fixed an issue with display of OpenGL capabilities
- Fixed several stability and performance issues

## Picture Viewer

- Fixed an issue with Picture Viewer and frame number (Team Render)
- Fixed an issue with Picture Viewer and drag-and-drop
- Fixed an issue with Picture Viewer stability

## Preferences

- Fixed an issue live refresh and interface colors
- Fixed an issue with the display of OpenGL requirements

## Python

- Fixed several stability issues
- Fixed several cosmetic issues
- Added BaseDraw allocation
- Added third argument of BaseContainer.InsDataAfter()

- Changed returned tuple values order of `TreeViewCustomGui.GetVisibleScrollArea()`
- Added "aliasrans" argument to `CopyData()`
- Added `GetAllTokenEntries()`
- Added `CAPoseMorphTag.SetActiveMorphIndex()`, `GetMorphIndex()` and `GetActiveMorph()`
- Fixed an issue with optional arguments for `SubDialog.AddMultiLineEditText()` and `SubDialog.AddColorChooser()`
- Fixed an issue with wrong class to `Register()` function
- Fixed an issue with `c4d.utils.RangeMap`
- Fixed an issue with `SetSnapSettings()`
- Fixed several issues with `TreeViewCustomGui.GetVisibleLineCount()`
- Fixed an issue with `ToolData.InitTool()/FreeTool()`
- Fixed an issue with `PaintTexture.SetSelected_Texture()`
- Fixed an issue with `LayerShaderLayer` with linked shaders and layers
- Fixed an issue with `BaseTake.GetRenderData()`
- Fixed an issue with `BaseTake.GetCamera()`
- Added `IsTakeRenderRunning()` and `StopTakeRender()`
- Added `CKey.GetAutomaticTangentMode()/SetAutomaticTangentMode()` and `CKey.SetTimeLeftAdjustValue()/SetTimeRightAdjustValue()`
- Added fps Parameter for `CCurve` and `CTrack` `GetValue()`
- Added missing Settings parameter to `GeDialog.AddColorChooser()`
- Added Quaternion class and related functions
- Added `BaseDocument.GetTargetObject()/SetTargetObject()`
- Added optional parameter 'deselectAll' to `BaseSelect.SelectAll()`
- Added `GeGetDummyThread()` and `GeGetEscTestThread()` functions
- Added `DescID.GetHashCode()`
- Added `GvPort.GetUserData()/SetUserData()`
- Added `PaintTexture.SetColorProfile()/GetColorProfile()`
- Added `TreeViewCustomGui.GetVisibleScrollArea()/GetVisibleLineCount()`
- Added `InitSpline()` implementations, `GetLineObject()`, `GetPointMatrix()` and `GetDirty()`
- Added new `c4d_tools` functions
- Added support for `SculptBrush` `MouseData` + `BrushDabData.GetOriginalVertexNormals()`
- Fixed an issue with `GetJointRestState`
- Fixed an issue with `GetOverrideGroups()`
- Fixed an issue with `BaseOverrideGroup.AddTag`
- Fixed an issue with `BaseOverrideGroup.Find()`
- Fixed an issue with `BaseOverrideGroup.GetObjectsInGroup()`
- Fixed an issue with `TakeData.InsertTake()` 'destTake'
- Fixed an issue with `BaseTake.AutoTake()` 'node' and 'undo' parameters
- Fixed an issue with `BaseTake.FindOverride()` 'node'
- Fixed an issue with `BaseTake.DeleteOverrideGroup()` 'og' parameter
- Fixed an issue with `BaseTake.SetCamera()` 'camera' parameter
- Fixed an issue with `BaseTake.SetRenderData()` 'camera' parameter
- Fixed an issue with `BaseTake.Reset()`
- Fixed an issue with `ByteSeq` and operator
- Fixed an issue with `TakeData.InsertTake()`
- Fixed an issue with `BaseDocument.DoUndo()`
- Fixed an issue with `FilenameSlicePath()`
- Fixed an issue with `c4d.Vector` precision of y and z component
- Fixed an issue with `c4d.utils.BooleanSplines`
- Fixed an issue with `c4d.utils.CalcSplineDefaultTangents`
- Fixed an issue with `CKey.GetClone()`
- Fixed an issue accessing `GvNodeManger` data.
- Fixed an issue with nodes inside an `Xgroup` to ports of `Xgroup`.

## Render Queue

- Fixed an issue with texture errors

## Renderer

- Fixed several stability issues
- Fixed an issue with rendering Content Browser file
- Fixed an issue with Radiosity Maps differences across operating systems
- Fixed a stability issue
- Fixed an issue with adding of the Material Transparency Pass
- Fixed an issue with Preview Rendering and QuickTime on OS X
- Fixed an issue with Irradiance Cache and orthogonal views
- Fixed an issue with cylindrical lens and object glow being used at the same time.
- Fixed an issue with GI caches.



- Fixed stability issues while rendering.
- Fixed an issue with SSS preparation.
- Fixed an issue with progressive rendering and starting frame.
- Fixed an issue with SSS preparation.
- Fixed an stability issue while rendering with motion blur.
- Fixed an issue with writing TIF alpha channels.

## Sculpting

- Fixed a stability issue
- Fixed an issue with the Select brush.
- Fixed an issue with Fill modes.
- Fixed an Select brush performance issue.
- Fixed an stability issue in combination with Takes.

## Sketch and Toon

- Fixed an issue with Python command
- Fixed a render issue with the Spot shader
- Fixed an issue with resetting defaults for the Spot shader
- Strokes are now enabled by default for Sketch and Toon materials
- Fixed an issue with Sketch and Toon when rendering extreme camera angles.
- Fixed an issue with HSV color variation.
- Fixed an artifact issue in Sketch and Toon multi-passes.
- Fixed the blending modes for Sketch and Toon lines.
- Fixed an artifact issue with Cel Shader and raytraced shadows.
- Fixed an issue that produced unwanted strokes.
- Fixed an issue with rendering objects with scale 0.
- Fixed an issue with Sketch and Toon stroke caps.
- Fixed an issue with Cel Shader shadows.
- Fixed a stability issue with Sketch and Toon.
- Fixed an issue with missing hidden lines in Sketch and Toon multi-pass.
- Fixed an issue with the noise modifier in Sketch and Toon materials.
- Fixed an issue with python modifier code highlighting.
- Fixed an issue with python modifier and frames.
- Fixed an issue with false hidden lines appearing in Sketch and Toon alpha pass.

## Take System

- Fixed an issue with Material Override
- Fixed an issue with drag & drop animated overridden parameter
- Fixed an issue with lost material shaders
- Fixed an issue with switch between Takes
- Fixed an issue with link selection to other managers
- Fixed an issue with added shaders to Child Takes
- Fixed an issue with Reflectance preview
- Fixed an issue with moving Keyframes
- Fixed an issue with and undo after running Python script
- Fixed an issue with excluding Subsurface Scattering shader in Material Override with Physical Renderer
- Added the possibility to rename the Main Takes
- Fixed an issue with refresh of Take Manager and Group Overrides
- Fixed an issue with QuickTime format and rendering to subfolders
- Fixed an issue with copying of takes including Child takes
- Fixed an issue with the pop-up windows of presets
- Fixed an issue with with keyframing and unlocked Overrides
- Fixed an issue with drag-and-drop of Child takes
- Fixed an issue with line breaks in pasted file names
- Fixed an issue with Material Override and Physical Sky
- Fixed an issue with overridden copied shaders after being changed
- Fixed an issue with multiple warnings in Picture Viewer.
- Fixed an issue with naming in Override Tree mode.
- Fixed an issue with the context menu of settings.
- Fixed an issue with Terrain shader preset.
- Fixed an issue with Team Render commands not being greyed out if disabled.
- Fixed an issue with Tokens and Stage object.
- Fixed an issue with layers and Take Tree display.
- Fixed an issue with drag and drop of Hair materials and group overrides.

- Fixed an issue with material override and GI.
- Fixed an issue with locked color parameters.
- Fixed an issue with editing multiple materials.
- Fixed an issue with switching visibility with Alt key.
- Fixed an issue with color not updating in Take Tree parameter view.
- Fixed an issue with popup window and user Data Color field.
- Fixed an issue with displacer parameters.
- Fixed an issue with animation dots in Auto Take mode.
- Fixed an issue with MoExtrude parameters.
- Fixed issue with take preferences in Team Render Client.
- Fixed issue with global material override not showing in Prime.
- Fixed and issue with the visibility dots of override groups and Python.
- Fixed and issue with resetting override groups and Python.
- Fixed and issue with marked Takes and Team Render in Render Queue.
- Fixed issue with rendering Takes to Picture Viewer with already running rendering.

## Team Render

- Added message about information in the console
- Fixed several cosmetic issues
- Fixed several stability issues
- Fixed an issue with unknown render engine
- Fixed an issue with running client after finish the project
- Fixed an issue with wrong render results
- Fixed an issue with connection test
- Fixed an issue with different Global Illumination render results
- Fixed several stability issues
- Fixed an issue with malformed preferences
- Fixed an issue with Global Illumination caches and animation
- Fixed an issue with rendering Marked Takes and missing assets
- Fixed an issue with rendering Marked/All Takes and subfolders in pathnames
- Fixed an issue with Marked Takes and sub-folder Tokens
- Team Render clients now show the network device IP in their address info.
- Fixed issue with clients skipping a rendering if they have the same job name.

## Team Render Server

- Fixed several cosmetic issues
- Fixed several stability issues
- Fixed an issue with the upload of Global Illumination caches
- Fixed an issue with reordering of jobs
- Fixed an issue with failed assembling
- Fixed an issue with post effects
- Better handling if one client gets an error
- Fixed several issues with Japanese chars in folder name
- Fixed an issue with delete a single render result
- Fixed a performance issue
- Fixed an issue with the repository drive running out of space
- Fixed an issue with blocked webserver port
- Fixed an issue with display of wrong error message when clients go offline
- Fixed an issue with machine list not showing "wrong version"
- Fixed an issue with absolute windows paths and assembling with QuickTime format
- Fixed an issue with clearing results while zipping
- Fixed an issue with the preview image of .mov results
- Fixed an issue with subfolders and QuickTime format
- New improved version of the web interface, especially the Monitor Page got improvements.
- Fixed issue with unzipping files with special characters.
- Fixed issue with files not being rendered when save option is deactivated.
- Fixed issue with frames being overwritten after pause.
- Fixed issue with image preview and special characters.
- Added option for disabling user management.
- Fixed an issue with image preview and subfolders.
- Fixed an issue with tokens and subfolders.
- Fixed an issue with layer naming.

## Template

- Fixed several cosmetic issues
- Fixed several issues with claws control in Insect template
- Fixed an issue with the controller hierarchy in Insect template
- Fixed several issues with thumb control in Biped template
- Fixed several issues with Spine Count in Biped template
- Fixed an issue with layers in Biped template
- Fixed an issue with feet in Biped template
- Fixed an issue with Neck Count in Advanced Biped template
- Fixed an issue with the static head in Fish template
- Fixed an issue with symmetry in MoCap template
- Fixed an issue with wing control in Bird template.
- Fixed an issue with Insect template antenna symmetry.
- Fixed an issue with symmetry in Bird template.
- Fixed an issue with Insect template claws symmetry.
- Fixed an issue with incorrect behavior of wings in bird template.

## Texture Manager

- Fixed an issue with Directory Selection dialog

## Thinking Particles

- Fixed an issue with Alembic Import

## Timeline

- Fixed several cosmetic issues
- Fixed an issue with shortcuts
- Fixed an issue with rearranged of Motion Layers
- Graph scale limit increased in Timeline editor
- Clamp option is turned off by default
- Fixed a display issue of the mini F-Curve
- Fixed an issue with undo and subsequent performance
- Improved the default settings for OM and Timeline linking.
- Fixed an issue with selecting tracks in Timeline.
- Fixed an issue with auto tangent weight not refreshing.
- Fixed an issue with tracks display after change in preferences.
- Fixed and issue with duplicate command in Timeline.
- Fixed an issue with Go to keys commands in Timeline.
- Fixed an issue with framing commands for markers.
- Fixed incorrect entries in Timeline view menu.

## User Participation

- Fixed an issue with Unicode support

## Viewport

- Fixed an issue with gouraud shading and lines
- Fixed an issue with Solo and Subdivision Surface.
- Fixed an issue with floor object and layers.

## XPresso

- Fixed several cosmetic issues
- Fixed an issue with XPresso color preferences

## Other

- Fixed several stability issues
- Fixed several issues with Script Manager
- Fixed an issue with Script Menu
- Fixed an issue with Cineware and purge memory
- Fixed an issue with Revert to Saved
- Fixed an issue with Render Queue log information with TR and Multi-Passes
- Fixed an issue with Update Merge and Vectorworks
- Fixed an issue with ArchiCAD 18 Scene Combine Tool with no object selected
- Fixed an issue with pi2inv and pi05inv constants
- ArchiCAD 18 Scene Combine has been renamed to ArchiCAD 18+ Scene Combine
- Fixed an issue with Windows 10 being displayed as Windows 8 in Team Render Server

- Fixed an issue with connecting clouds
- Fixed an issue with the font preview on OS X
- Fixed an issue with opening .mov files from the Content Browser via Drag & Drop.
- Fixed an issue with importing 3ds animated files.
- Fixed an issue with QuickTime and relative paths.
- Fixed an issue with Send to Allplan command.
- Fixed an issue with the context menu in the Texture Manager.