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Today, 3December 2021, Blender Foundation announces the release of Blender 3.0, to mark the beginning of a new era for open source 2D/3D content creation. Released 3 December, 2021 The Freedom to Create, V3 Cycles GPU kernels have been rewritten for better performance, rendering between 2x and 8x faster in real-world scenes. Render time with an NVIDIA Quadro RTX A6000 and OptiX. Unit: seconds Enjoy a more responsive viewport due to new scheduling and display algorithms. OpenImageDenoise was upgraded to version 1.4, with improved detail preservation. A new pre-filter option was added to control the denoising of auxiliary albedo and normal passes. New option to reduce shadow artifacts that often happen with low poly game models. Offset rays from the flat surface to match where they would be for a smooth surface as specified by the normals. The Geometry Offset option works as follows: 0.0: Disabled 0.001: Only terminated triangles 0.1: Default 1.0: All Triangles Affected Generally, using one or a few levels of subdivision can get rid of artifacts faster than before. Say hi to the new shadow catcher, completely rewritten for Blender 3.0 New features include: Indirect and environment light support, for more accurate compositing. Option for lights to be considered included or excluded, that is if they are real or synthetic objects. New Shadow Catcher pass to fully handle coloured indirect light and emission. Coloured shadows and precise reflections make blending 3D with real footage much easier. Subsurface scattering now supports anisotropy and index of refraction for Random Walk. Realistic skin has an anisotropy around 0.8. The first milestone of the Asset Browser project is here!Your workflow is about to get much more organized. Materials, Objects, and World datablocks are supported as part of the first milestone, with more planned to come on the next releases. Download this Cube Diorama .blend file to play with the new Asset Browser. AND MORE The procedural system introduced in 2.92 has been extended with a re-imagined method for designing node groups, a new attribute system, around 100 new nodes for interaction with curves, text data, instances, and more. Discover a new concept for passing around data and functions. Introducing: Fields. Operations can be built from basic nodes and simply connected together, removing the need for named attributes as a way to store intermediate data, and removing the need for special “Attribute” nodes for simple operations. Fields Workflow Named Attributes Workflow “With fields it’s much easier to build node groups for higher level concepts that work together better than before.” AHEAD OF THE CURVE Native curve data joins the Geometry Nodes party. Resample, fill, trim, manipulate the handles, set spline type, convert to mesh, or get started with the included curve primitives. The Geometry Nodes modifier is now supported on Curve and Text objects with full support for the attribute system. Splines have resolution and cyclic builtin attributes. Control points have position, radius, tilt, handle_left and handle_right built-in attributes. Attributes with any name or data type can be created or removed on splines or control points. Attributes can be interpolated between the two curve domains. MORE THAN WORDS Got something to say? Use Geometry Nodes! Blender 3.0 brings the first milestone in Text Nodes. The way geometry nodes works with instances has been improved, to make it more intuitive and much faster. Geometry can now be instanced directly. Mesh modifiers after geometry nodes no longer implicitly realize instances. Instances are now exposed properly to nodes, and aren’t converted to real geometry implicitly. The Realize Instances node can explicitly convert instances into real geometry. Mesh attributes are no longer a Cycles exclusive, Eevee now fully supports attributes including those generated by Geometry Nodes. WHAT YOU SEE IS WHAT YOU GET The Video Sequencer now supports thumbnail previews! Enable it via the Overlay popover. Works with Image and Video strips. Preview while transforming. Threaded loading for performance. It is now possible to transform strips directly in the preview region, just like in the 3D Viewport. New transform tools and gizmos. Press G, R, S for quick transforms. Supports axes snapping. All pivot points supported. Use the new 2D Cursor as pivot. Loading and saving compressed .blend files is now magnitudes fasterthanks to using the Zstandard algorithm instead of gzip. Loading compressed .blend files. Unit: seconds Saving .blend files with compression. Unit: seconds Interoperability takes a leap forward in 3.0 with the support for importing Pixar’s Universal Scene Description and improvements to Alembic. The first milestone for importing USD files is here: Meshes with UV coordinates, Vertex Colors and Subdivision. Cameras, perspective and orthographic. Curves including USD Basis and NURBS. Volumes as OpenVDB field assets. Materials, including an experimental feature to convert shaders to Principled BSDF. Lights, does not include USD Dome, Cylinder, Geometry. Support for exporting animated UV maps. Import per vertex UV maps. Import and export support for generated mesh vertex coordinates (ORCOs). New Render and Viewport evaluation modes. Back to top Toggle Light / Dark / Auto color theme Toggle table of contents sidebar Blender is a public project hosted on blender.org, licensed as GNU GPL, owned by its contributors. For that reason Blender is Free and Open Source software, forever. Learn more Blender is a member of ASWF, Khronos, Linux Foundation and OIN. It’s also well supported by major hardware vendors such as AMD, Apple, Intel, and NVIDIA. The Ecosystem Countless communities and thriving businesses are built around Blender.Together, these tutorial makers and content creators, add-on developers and global marketplaces form an ever-expanding ecosystem. Blender is a community project coordinated by the Blender Foundation, primarily funded by donations. At its core is the Blender software, to which thousands of people have contributed, and that millions use daily. Get the world’s best 3D CG technology in the hands of artists as free/open source software. Vision Everyone should be free to create 3D CG content, with free technical and creative production means and free access to markets. As a community-driven project under the GNU General Public License (GPL), the public is empowered to make small and large changes to the code base, which leads to new features, responsive bug fixes, and better usability. More help is always welcome! From developing and improving Blender to writing documentation, etc, there are a number of different things you can do to get involved. What: Contributions to Blender Modules, technical and user documentation design, code, testing and QA, demo files. Who: Individuals and organizations with any background, from all over the world. Where: Online on blender.org websites What: Contributions to Blender Modules, technical documentation, design, code. Strategic projects and initiatives. DevOps and infrastructure. Product leadership. Communication. Who: Blender Institute: developers, engineers, project managers, designers. Where: Blender HQ Amsterdam. Online. Funding: Donations at fund.blender.org What: Creative projects focused on pushing Blender development, developing and sharing Blender-centric professional production knowledge, such as training and documentation. Who: Blender Studio: a team of artists, TDs, developers and producers. Where: Blender HQ Amsterdam. Online. Funding: Subscriptions at studio.blender.org How does Blender make money? Blender’s main income is via the Development Fund memberships and one-time donations. The funds are collected by Blender Foundation, which allocates them towards activities and operations aligned with Blender’s mission and vision. Next to that, Blender Studio offers subscription-based access to production knowledge and assets available through studio.blender.org. Blender Foundation is a recognized partner for many big corporations in the technical/creative industry. This not only via the membership of the Development Fund, but especially as official member of: Blender is Free Software. 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