3DEXCITE

3DEXPERIENCE®

3DEXCITE DELTAGEN
RELEASE NOTES
R2020x

DASSAULT SYSTEMES

DELTAGEN 2020x Release

The following pages list the new features and enhancements as well as minor version changes of the DELTAGEN 2020x release. In addition you can find the hardware requirements, support contact and licensing information in this document.

NEW FEATURES

Layer Creator

- Fully automatic layer setup for 150% models (based on Z-depth pass)
- Cluster rendering support through Distributed Stellar
- Seamless support for APEXimagegen and other layer compositing engines
- Expert user settings for mask view layers
- Advanced authoring capabilities: layer preview and grouping

Color Space Management

- Color space support for all input and output textures:
  - sRGB (recommended for 8-bit textures)
  - Gamma 1.8 and Gamma 2.2
  - Linear (recommended for HDR textures)
- Automatic identification of color space through metadata; user interaction only necessary to overwrite automatic identification

Quality-Based Sampling

Utilize quality-based sampling to define the desired image quality in decibel; this prevents wasted rendering time caused by too many or too few samples.

Render Region

- Limit Global Illumination convergence to area of interest
- Support of quality-based rendering and denoiser
- Look and Stellar renderer support

Search and Replace

- Search and replace inside the entire scene
- Define the scope on object level for scene objects, materials, variants, animations, logic networks, assignment tables, layer sets or metadata
- Define the scope on property level, for e.g. names, textures filenames, descriptions or queries
- Text search with wildcards
- Search and replace with regular expressions, e.g.:
  - Replace non-ASCII characters
  - Append suffix to search result
  - Change to lowercase or uppercase

Substance by Adobe® Integration

- Import of Substance files (.sbsar)
- Full Substance property support in Material editor
- Re-generated textures on demand – up to 8K
- Lossless conversion to 3DEXPERIENCE PBR material for manual tweaking

Gateways

DIRECT UNITY Plugin:

- Object animation support: Import timelines and variant transitions from DELTAGEN to Unity®
- Partial Update: Reload variants without loading the full model
- Version Support: Unity® 2018.4 LTS

DIRECT UNREAL ENGINE Plugin:

- Material replacement tool to exchange imported DELTAGEN materials with enterprise libraries
- Version Support: Unreal® Engine 4.17, 4.19 and 4.20

DIRECT MAYA Plugin:

- Version Support: see "Version Change and Compatibility"

Python Scripting (Preview Feature)

Automate and customize workflows in DELTABATCH and DELTAGEN:

- Build-up master model and part conversion
- Build-up material library
- Tessellation, UV creation, jacketing and polygon reduction
- Assign metadata, materials and transformations
- Execute pre-defined assignment tables
- Logging
- Reporting

Please note: Python scripting is currently a preview feature. 3DEXCITE cannot ensure full productive readiness, please save all data before testing. Contact 3DEXCITE support in case of any problems or missing features for intended workflows. We appreciate your interest and any feedback you provide.

ENHANCEMENTS

Advanced Render Passes

- New passes: Albedo and Irradiance
- Advanced depth pass with custom range, normalization and option to invert the results
- Interactive pass preview in 3D viewport including camera linking
- New custom light path expression (LPE) pass: Render beauty images and passes limiting light contribution per light

Shadow Baking

- Batch render support with Distributed Stellar
- Preview AO and lightmaps in the viewport

3DEXPERIENCE PBR Material

- Displacement mapping support
- Automatic conversion of Stellar type material properties when switching to 3DEXPERIENCE PBR material
- Consistent enterprise material model across applications: - 3DEXPERIENCE
  - DELTAGEN
  - SOLIDWORKS VISUALIZE
- Consistency across render backends:
  - Rasterizer
  - Global Illumination
  - WebGL

POWER'BY - PBR Material Consistency

Import DELTAGEN models to 3DEXPERIENCE with highest material consistency.

Solidworks Configurations Support

Utilize Solidworks part and assembly-based configurations seamlessly as DELTAGEN variants.

Miscellaneous

- Support for Nvidia RTX graphics cards
- Decoupled progressive sampling in Stellar:
  - Improved time-to-quality by combining sample steps
  - Selection or toggle highlight selection does not restart accumulation
- Multi-layer EXR support
- AXF version 1.7 support

VERSION CHANGE AND COMPATIBILITY

Color Space Management

The new color space option replaces the gamma function. Imported old textures and render jobs are converted automatically if possible.

Color Space Detection

Color space information stored inside texture metadata is evaluated properly now and applied accordingly. Therefore, the appearance may differ compared to older DELTAGEN versions.

Utility Passes

When rendering utility passes with Stellar renderer, GI shadow catcher geometries and local surroundings are now ignored.

New Layer Creator

Legacy files can be imported into the new Layer creator. They are then automatically converted into the new structure. The new Layer creator is part of DELTAGEN and no longer a Plugin that needs to be licensed and loaded separately.

DIRECT MAYA Plugin version support

The DIRECT MAYA Plugin 2020x supports the current Autodesk® Maya release as well as the previous 3 major releases:

Qualified	Compatible
Autodesk® Maya 2019	Autodesk® Maya 2016, 2017 and 2018

Qualified: supported by the DIRECT MAYA Plugin and tested using extensive functional workflows.

Compatible: no functional workflows coverage, but no known technical limitations

For questions regarding other Autodesk® Maya releases contact the 3DEXCITE Support.

DIRECT WIRE Plugin version support

The DIRECT WIRE Plugin 2020x supports the current Autodesk® Alias Studio release as well as the previous 3 major releases:

Qualified	Compatible
Autodesk® Alias Studio 2020	Autodesk® Alias Studio 2017, 2018 and 2019

Qualified: supported by the DIRECT WIRE Plugin and tested using extensive functional workflows.

Compatible: no functional workflows coverage, but no known technical limitations

For questions regarding other Autodesk® Maya releases contact the 3DEXCITE Support.

SYSTEM REQUIREMENTS

The following quotes the required setup specifications for running DELTAGEN and DELTAVIEW and also for processing the 3D scenes that will be loaded.

Only NVIDIA® graphic cards are capable of displaying all visual effects and shaders created with our software. This cannot be guaranteed with graphic cards from other manufacturers. Visit our Software Services website for constantly updated information.

Hardware Requirements

Type	Recommended	Minimum
RAM	16 GB	64 GB
CPU	2 * Intel® Xeon® E5-2680 v4	2 * Intel® Xeon® Gold 5120T

Graphics Cards

Qualified	Validated	Compatible
NVIDIA® Quadro RTX6000, P6000, GV100, M6000	NVIDIA® Quadro RTX5000, P5000, P4000, GP100, M5000, M4000	NVIDIA® Quadro RTX4000, M2000

Qualified: tested using extensive functional workflows.
Validated: tested using basic functional workflows.
Compatible: no functional workflows coverage, but no known technical limitations.

Recommendation for VR experiences: 2 x Quadro RTX6000 in SLI mode (NVLink Bridge required).

Operating System

Component	Recommended	Minimum
DELTAGEN DELTABATCH DELTAVIEW	Windows® 10 x64 Enterprise	Windows® 10 x64 Enterprise

Monitor Resolution

Component	Recommended	Minimum
DELTAGEN DELTABATCH DELTAVIEW	1920 x 1200	1280 x 1024

Recommended Drivers

Component	NVIDIA driver	Certification document
DELTAGEN DELTABATCH DELTAVIEW	Driver recommendations available on our Software Services website support.3dexcite.com	Available upon request

Additional software

Component	Minimum requirements
DELTAGEN DELTABATCH DELTAVIEW	Adobe® Flash Player (for DELTAGEN Flash Video Texture, PICTUREBOOK Connector, XPLORE) Apple QuickTime Player (for QuickTimeVR export) Microsoft® Internet Explorer 10 or higher

SOFTWARE SERVICES WEBSITE

Visit the Software Services website to access video tutorials, the current known and resolved issues as well as a knowledgebase and the latest support news.

SUPPORT CONTACT

In case you have any questions, our support team is happy to help you:
Customers who purchase their software via media order (MO) and obtain their licenses via the Key Management Center (KMC), can report incidents to DS by using the 3DSupport App: https://www.3ds.com/support/contact/call-us/submit-a-request/
All other customer should report incidents per e-mail to:
3DEXCITE.Support.Global@3ds.com

DASSAULT SYSTEMES LICENSE SERVER SUPPORT

In addition to FlexLM, the DS License Server (DSLS) is supported for licensing DELTAGEN. This allows easier maintenance of your systems, especially if other software packages are running with the DS License Server. During the installation process you can choose your preferred license server.

- Please contact 3DEXCITE.Support.Licensing@3ds.com if a FlexLM license is needed for 3DEXCITE products.
- For DSLS licensing please refer to Software License Keys terms. Here you can obtain your new DSLS license directly.

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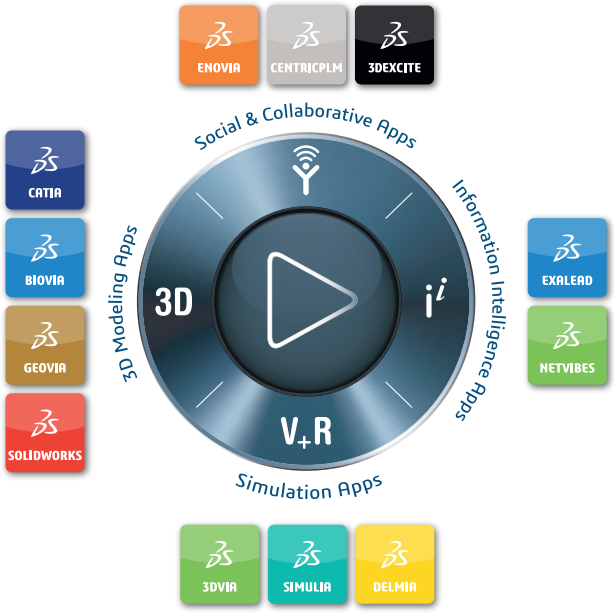

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