3DEXCITE DELTAGEN
RELEASE NOTES

R2023x

DELTAGEN 2023x Release

The following pages list the new features and enhancements as well as minor version changes of the DELTAGEN 2023x release. In addition you can find the hardware requirements, support contact and licensing information in this document.

NEW FEATURES

Save for distribution

New option to export scenes to the USD format.

Considered scene properties:

- Structure
- Visibility
- Geometries as polydata including normals and UVs (material and shadow)
- Metadata of scene objects
- Materials as USDSurfacePreview
- Scene object animations
- Variants (Switch, Geometry set, Object set, Look set, Code state set, Package)

Supported formats:

- .usda (ASCII)
- .usdc (binary)
- .usdz (archive)

File structuring options:

- Monolith
- By linked files
- By metadata

DELTABATCH configurator

- Auto scroll showing always the most recent message in the log window

Scripting

- Location of scripts on disk can be opened directly
- Separate log window for messages printed during script execution

Search and replace

- Option to copy the search results to the clipboard
- Additional preset to delete patterns from a found string occurrence

GPU GI with Stellar renderer

- Lower GPU memory consumption due to support of compressed textures
- Support of metadata in ambiences
- Configurable shadow intensity of ambiences ground
- Support of Ground shadow pass in the active viewer and in Render export
- Enhanced clamping to reduce fireflies

DStellar Batch rendering

- Better time-to-quality using adaptive sampling with denoising

Mesh light material

- New rotation parameter for IES profiles
- New option to align the IES profile with the local normal of the surface

AxF

- New AxF 1.8 material type "Transmissive Layered" (only volumetric based)
- New sheen parameters for material type "EP SVBRDF" introduced with AxF 1.9

Colors

- Easy transfer of color properties via copy and paste
- Definition of colors of point-, spot-, directional- and rectangular lights based on their temperature

Pixel sampler

- New sampling mode "Picked pixel"
- New sampling mode "Selected rectangle" with multiple aggregation functions (min, max, average)
- Display of alpha channel for raw data
- Magnified view of picked and neighboring pixels
- New option to copy a picked color to the clipboard

Look rendering

- Increased stereo performance with Multi-View rendering
- Support of compressed shadow textures

Connector to 3DExperience

Publishing of additional asset types:

- Turntables as 2.5D images

New operations applicable for assemblies and parts:

- Saving of individual linked files
- Lock / unlock
- Modification of maturity
- Reload from server
- Replace by revision

History window

- Window showing the entire history of operations triggered by the user
- Bulk undo of multiple operations

Approach detection

- Assignment of activators per sensor instead of a global list, taken into account for all sensors

Analyzer

- New hemisphere environment with configurable vertical position in vista check

DIRECT MAYA® Plugin

Version Support: The DIRECT MAYA Plugin 2023x supports the current Autodesk® Maya release as well as the previous 3 major releases:

Qualified	Compatible
Autodesk® Maya 2023	Autodesk® Maya 2019, 2020 and 2022

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.

ENHANCEMENTS

- The version reader supports both csb and 3xf files (since 2022x RF1)
- The Stellar renderer can be restarted to release unused memory (since 2022x RF1)
- Improved presets for GPU GI rendering in Stellar mode (since 2022x RF1)
- Lower bandwith required for offline rendering with DStellar (since 2022x RF1)
- Improved DStellar initialization time on large clusters (since 2022x RF1)
- Infiniband support for interactive rendering with DStellar
- Improved conversion of Linear Light Scanner and Metallic paint to DSPBR
- Physical glow also during interaction
- Support of cubemap dds files assigned to ambiences and local surroundings in Look and Stellar
- Improved autocompletion for editing Code state sets finding matches also within names of available actors
- Context menu option to copy and paste texture slot properties

VERSION CHANGE AND COMPATIBILITY

Rendering

- Newly created ambiences have Background set as "FromLighting"

- Interactive shadow has been dropped as available shadow texture mode

- Changed presets of color temperatures after alignment with new option to select the RGB color by its temperature

- Factor of goniometric lights is set to 1.0 by default (since 2022x RF2)

- Intensity multiplication factor and multiple light bulbs contained in IES files are correctly considered

- The shadow baking presets use existing UVs by default

- Multiplication / addition values set for DSPBR textures are ignored if the texture slot is disabled

- The appearance of ambiences with a reflective ground created with DELTAGEN 2022x has changed

SolidWorks import

- Imported SolidWorks parts are integrated as soon as they are used by multiple configurations (since 2022x RF2)

- Import of active configuration does not create unnecessary switches or empty groups (since 2022x RF2)

- Looks are named according to appearance assigned in the SolidWorks file (since 2022x RF2)

Misc

- The PICTUREBOOK Browser Plugin is not delivered anymore as part of the DELTAGEN installer

- The undo stacks of open scenes and look libraries are cleared, when executing a python script

SYSTEM REQUIREMENTS

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

Minimum requirements
- 16 GB RAM
- Intel CPU with AVX2 instruction set support

Recommended requirements
- 64 GB RAM

The CPU recommendations depend heavily on the type of use:

- For Rasterizer and GPU Raytracing:
  - High processor clock speed (increasing the number of cores does not give benefits in these cases)
- For CPU Raytracing and DataPrep:
  - High number of cores

In case of questions, contact our 3DEXCITE Support team.

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.

Graphics Cards

Qualified	Validated	Compatible
NVIDIA® Quadro RTX6000, P6000, GV100, M6000	NVIDIA® Quadro RTX5000, P5000, P4000, GP100, M5000, M4000	NVIDIA® RTX A4000, RTX A5000, RTX A6000, 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	Windows® 11 x64 Enterprise	Windows® 10 x64 Enterprise
DELTABATCH		
DELTAVIEW		

Monitor Resolution

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

Recommended Drivers

Component	NVIDIA driver	Certification document
DELTAGEN	513.46	Available upon request
DELTABATCH		
DELTAVIEW		

Additional Software

Component	Minimum requirements
DELTAGEN	Apple QuickTime Player (for QuickTimeVR export)
DELTAVIEW	
XPLORE DELTAGEN	Web browser, supporting HTML5 (Google Chrome™ browser is recommended)

SUPPORT CONTACT

Visit 3ds.com/support or have a look into our knowledgebase on support.3ds.com/knowledge-base for helpful information.

In case you have further 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 the Software License Key terms (https://www.3ds.com/terms/software-keys/). Here you can obtain your new DSLS license directly.
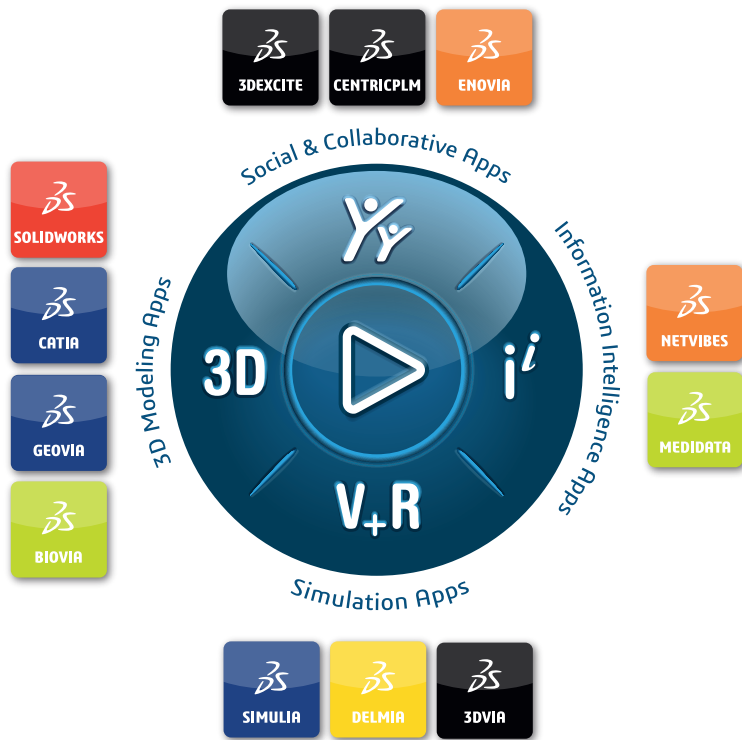
Our **3D**EXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating 'virtual experience twins' of the real world with our **3D**EXPERIENCE platform and applications, our customers push the boundaries of innovation, learning and production.

Dassault Systèmes' 20,000 employees are bringing value to more than 270,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit **www.3ds.com**.

Europe/Middle East/Africa
Dassault Systèmes
10, rue Marcel Dassault
CS 40501
78946 Vélizy-Villacoublay Cedex
France

Asia-Pacific
Dassault Systèmes K.K.
ThinkPark Tower
2-1-1 Osaki, Shinagawa-ku,
Tokyo 141-6020
Japan

Americas
Dassault Systèmes
175 Wyman Street
Waltham, Massachusetts
02451-1223
USA