Public SSB Fact Sheet: Universal Scene Description (USD)

Projects

Exported on 12/19/2023
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## Universal Scene Description (USD)

**Short description/Transmitted information**
- Open and extensible ecosystem for describing, composing, simulating, and collaborating within 3D worlds.

**Normative document**
- Current state of the source code ([https://github.com/PixarAnimationStudios/OpenUSD](https://github.com/PixarAnimationStudios/OpenUSD)) and documentation ([https://openusd.org/release/index.html](https://openusd.org/release/index.html)).
- USD is planned to be standardized within the Alliance for OpenUSD ([https://aousd.org](https://aousd.org)).

**Version/Release state**
- Version 23.11 ([https://github.com/PixarAnimationStudios/OpenUSD/releases/tag/v23.11](https://github.com/PixarAnimationStudios/OpenUSD/releases/tag/v23.11))

**Release date**
- 26. October 2023

**Application scope**
- Data Exchange
- Collaboration

**Goals**
- Provide a rich, common language for defining, packaging, assembling, and editing 3D data, facilitating the use of multiple digital content creation applications.
- Allow multiple artists to collaborate on the same assets and scenes.
- Maximize artistic iteration by minimizing latency.

**Promoting bodies**
- Pixar, NVIDIA, Alliance for OpenUSD

**Type**
- Open-Source development

**IT Standard classification**
- Interoperability Standard

**Data format**
- Software

**Additional available resources**
- [https://openusd.org/release/index.html](https://openusd.org/release/index.html)
- [https://aousd.org](https://aousd.org)
- [https://openusd.org/release/usb_products.html](https://openusd.org/release/usb_products.html)
Relevant prostep ivip project groups

- Collaborative Digital Twins (CDT)
- JT
- FDX
- SmartSE

Development is currently somehow coupled to NVIDIA and its Omniverse software platform. This may change if USD is transferred to the Alliance for OpenUSD.

• Hierarchical data model for scene description, incorporating concepts and APIs for geometry, shading, models and assets
• Matured and proven in movie production

General  Details  Positioning on the V-Model
Relevance and benefit for collaborative systems engineering  Additional Resources

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<tbody>
<tr>
<td>USD.png¹</td>
<td>Dez. 14, 2023 by Peter Tabbert²</td>
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¹ https://intranet.prostep.org/download/attachments/130580481/USD.png?api=v2
² https://intranet.prostep.org/display/~petertabbert