3D Commerce Summary

Eric Chadwick, Co-Chair, Asset Creation Technical Sub Group
3D Commerce: 3D in Online E-Commerce

Use of 3D in e-commerce can lower costs, increase sales, reduce returns and increase customer satisfaction and loyalty.

Deployment at industrial scale we need industry cooperation.

Streamline the design, distribution and deployment of millions of realistic and reliable 3D assets through 100s of companies onto multiple consumer platforms.
State of the Industry Before 3D Commerce

Products don’t come with 3D data - and I can’t physically scan them all fast enough!

CAD tools don’t let me easily generate the data I need for E Commerce!

I wish I had high quality, realistic 3D models for virtual promotional photoshoots!

Everyone defines their product data for sizes and colors differently - nothing is consistent!

I need the materials in my 3D models to look completely realistic!

The green couch looks blue on some devices - lots of product returns are expensive!

Many 3D products on my ecommerce website first appear upside down! I have to hand-tune 1000s of models!

Complex retail pipeline with hundreds of companies and thousands of products

Many friction points - tooling, technical, commercial
Diverse Technology and
E-commerce Companies Working Together
3D Commerce Deliverables

**Material Variants**
Efficient transmission of many e-commerce products

**Metadata**
Supports for XMP Extensible Metadata Platform ISO 16684-1 to hold consistent data for product discovery, dimensions, how a virtual product interacts with the physical world, defining variants, etc.

**PBR Materials**
- Transmission
- Clearcoat
- Sheen
- Refraction
- Specular Color
- Color Attenuation
- Volumetric Properties

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**Iridescence, subsurface scattering, anisotropy, interactivity & behaviors**

**Next Steps**
- Iridescence, subsurface scattering, anisotropy, interactivity & behaviors
- Open-source asset checker tool in design to guide creation and assess compliance of reliable e-commerce 3D assets
- Certification to go beyond testing rendered pixels and achieve ecosystem consistency around tone mapping and display calibration

**End User Experiences**
- On the Web and in Apps
- Desktops and mobile

- Retailer Web Store Fronts
- Non-Retailer Web use cases Social, Ads, Search ...
- Brands / Manufacturers
- Future Experiences Web, Apps, Mobile, AR ...

**3D Commerce Viewer Certification Program**

**Consistent Asset Creation**

Free guidelines for tools and product designers to create high-quality real-time 3D models for e-commerce

How to use KTX 2.0 supercompressed textures for minimized glTF download size at high quality

**Rendering Technologies**
- Retailer 3D Viewers
- Open-Source 3D Viewers
- Non-retailer 3D Viewers

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**Certification**
- Viewers certified to accurately display 3D products
- Consistent deployment in a wide variety of end-user experiences: Web, social media, ad platforms, apps etc.

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