



3D Commerce Working Group BOF

SIGGRAPH
August 2019

Active Khronos Standards

HIGH PERFORMANCE 3D GRAPHICS



3D ASSET AUTHORIZING AND DELIVERY



PORTABLE XR – VIRTUAL AND AUGMENTED REALITY



PARALLEL COMPUTATION, VISION, MACHINE LEARNING AND INFERENCE



3D Commerce Working Group

Announced at SIGGRAPH!

KHRONOS
GROUP

Khronos is an **open**, member-driven industry consortium developing
royalty-free standards, to harness the power of **silicon acceleration** for
demanding **graphics rendering** and **computationally intensive applications**

Khronos 3D Commerce Initiative

IKEA Communications AB 

 wayfair

The Opportunity

Retailers have been experimenting with 3D product representations on the Web, and in Virtual and Augmented Reality applications, to enable users to view and interact with products. The results have been exciting, but thus far

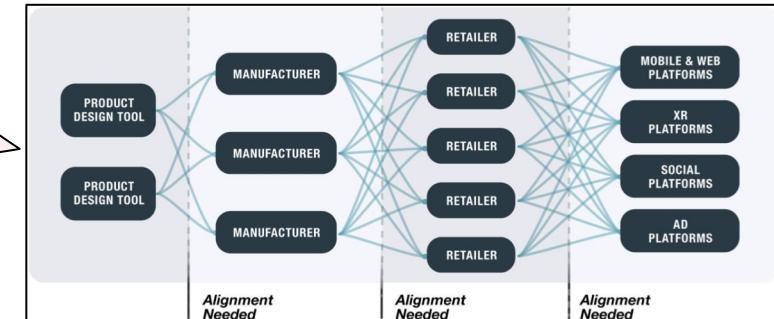
NOT ACTIONABLE at an INDUSTRIAL SCALE



IKEA & Wayfair use augmented reality to give a virtual preview of furniture in a room

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!



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

Many models on my e-commerce web-site first appear upside down! I have to hand tune everything!

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!

Khronos New Initiative Process

Proposal March 2019

A group of companies including Google, Unity, IKEA, Wayfair and Target identify the need for industry cooperation and makes proposal to Khronos



K H R O N O S[®]
GROUP

Exploratory Group March-July 2019

Khronos invites any company to join an Exploratory Group to drive industry consensus on what is the problem, and what how can we work together to fix it?



Working Group Announced SIGGRAPH 2019

Detailed design work to execute SOW will start by Khronos Members

<https://www.khronos.org/3dcommerce/>



Broad Industry Participation

Over 70 retail AND technology companies creating an agreed Scope of Work

Open to any company under NDA, no membership fee or IP commitment



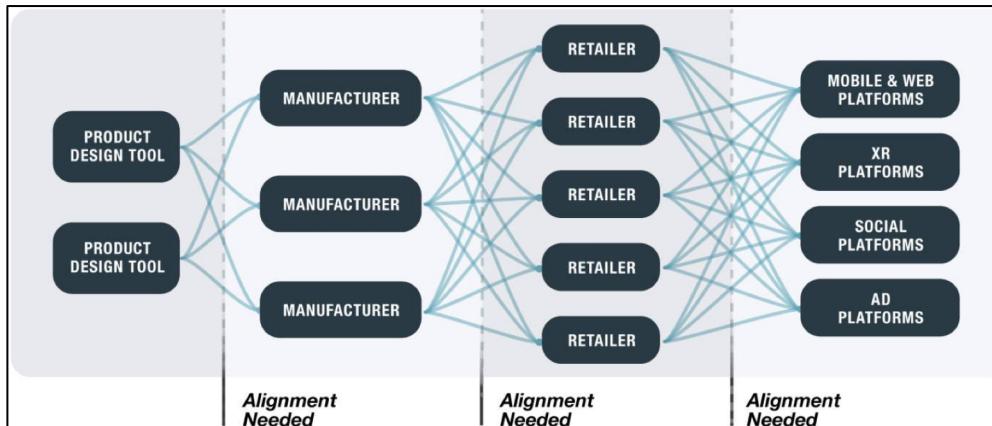
Khronos 3D Commerce Goals

Create specifications and guidelines to align the 3D asset workflow from product design through manufacturing, through each stage of retail to end-user delivery platforms

Guidelines for tools and product designers to create assets with consistent data to be used through the 3D Commerce pipeline

Structured metadata for product management and configurability of viewing

Visual realism and consistency no matter where the model is displayed



Reduce production, distribution and marketing costs

Product display configurability with consistency and authenticity

3D Commerce Khronos Synergy

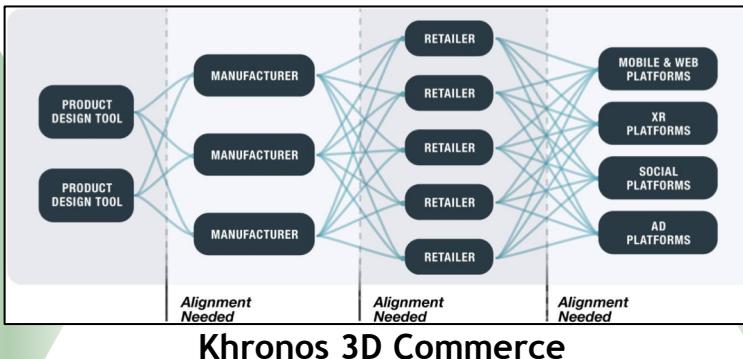


3D Asset Format



Interactive 3D on the Web

K H R O N O S
G R O U P



Portable AR and VR Apps



High-performance
cross-platform 3D graphics



Vision processing and
inferencing for AR and scanning

Resources

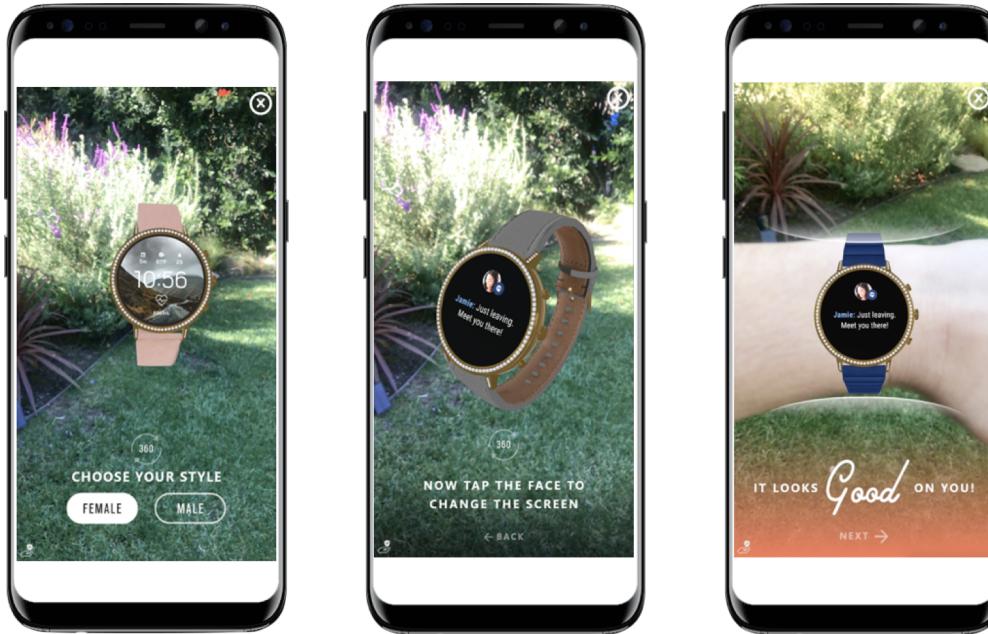
- Khronos 3D Commerce Working Group
 - <https://www.khronos.org/3dcommerce/>
- glTF Home Page
 - <https://www.khronos.org/gltf/>
- More Information
 - 3dcommerce-feedback@khronos.org

Real world use-cases & challenges

Consumer Journeys

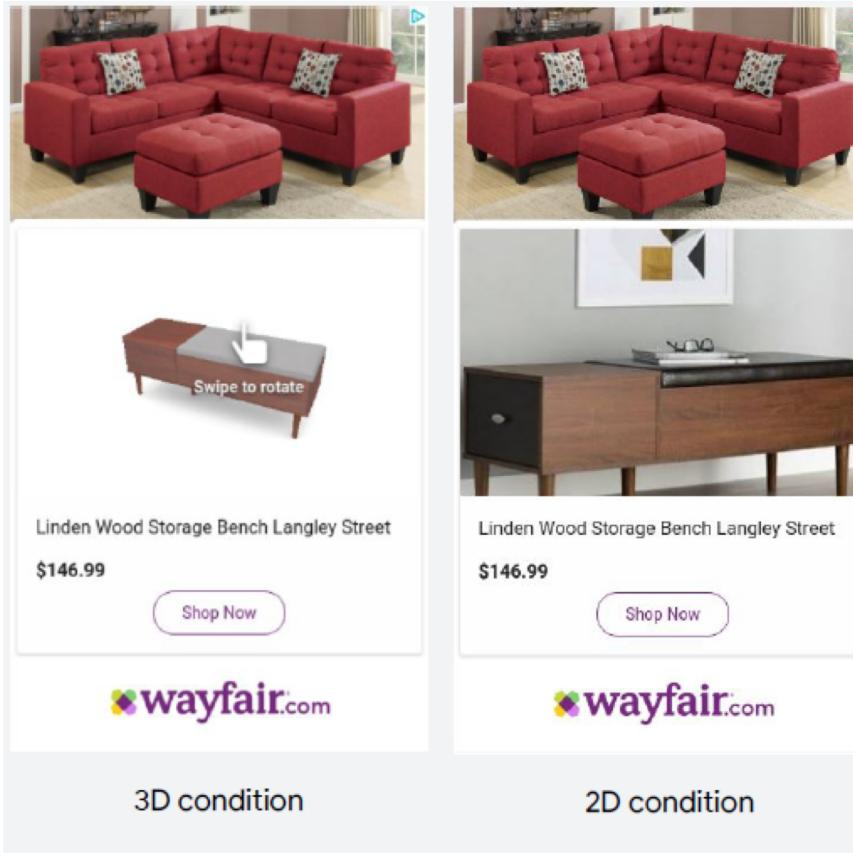
1. Discover
2. Engage
3. Personalize
4. Purchase!
*and ideally...
don't return it*

Advertising



Unity in-app ads show
3D products, launch
AR try-ons

Advertising



Google 3D PLAs

The image shows a comparison between two Google Product Listing Ad (PLA) formats for a "Linden Wood Storage Bench Langley Street".

3D condition: The left PLA includes a 3D image of the bench, a "Swipe to rotate" callout, and a "Shop Now" button. The text "Linden Wood Storage Bench Langley Street" and the price "\$146.99" are also present.

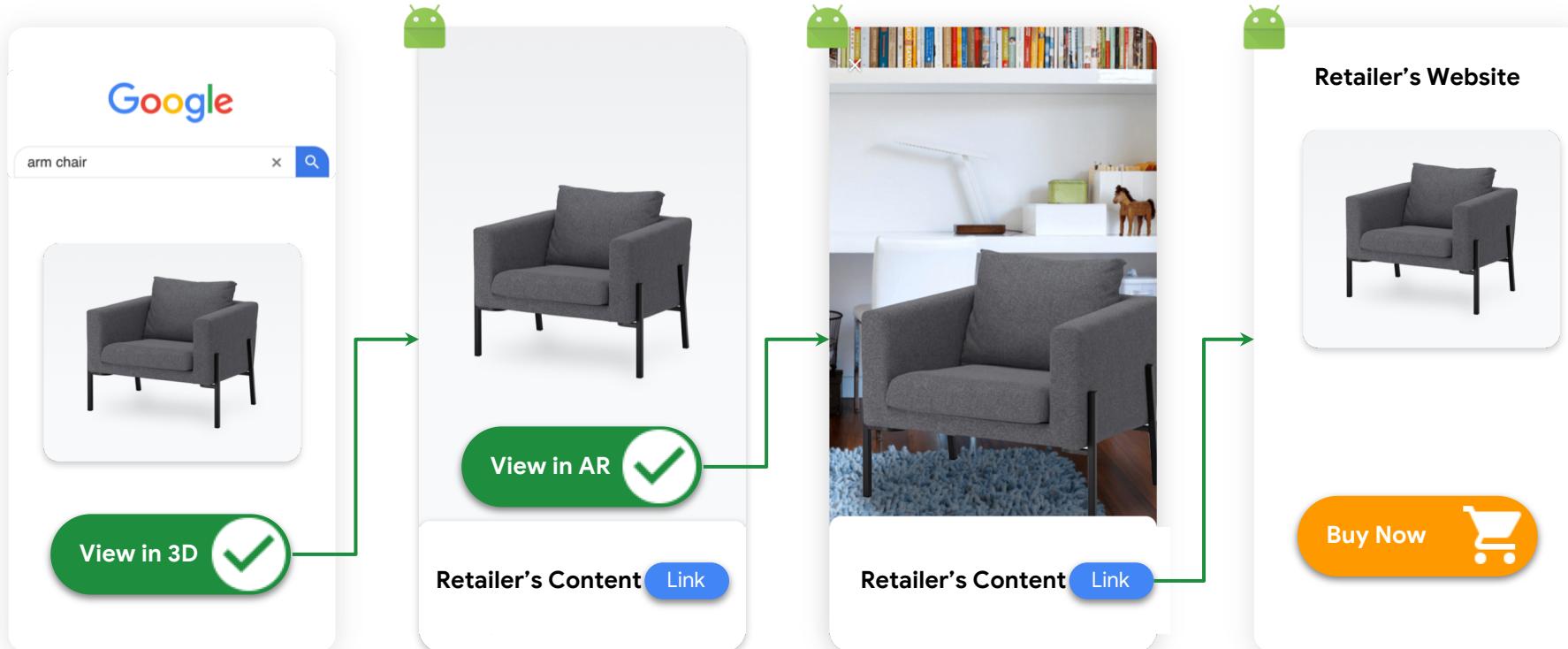
2D condition: The right PLA includes a 2D image of the bench, a "Shop Now" button, and the text "Linden Wood Storage Bench Langley Street" and the price "\$146.99".

wayfair.com

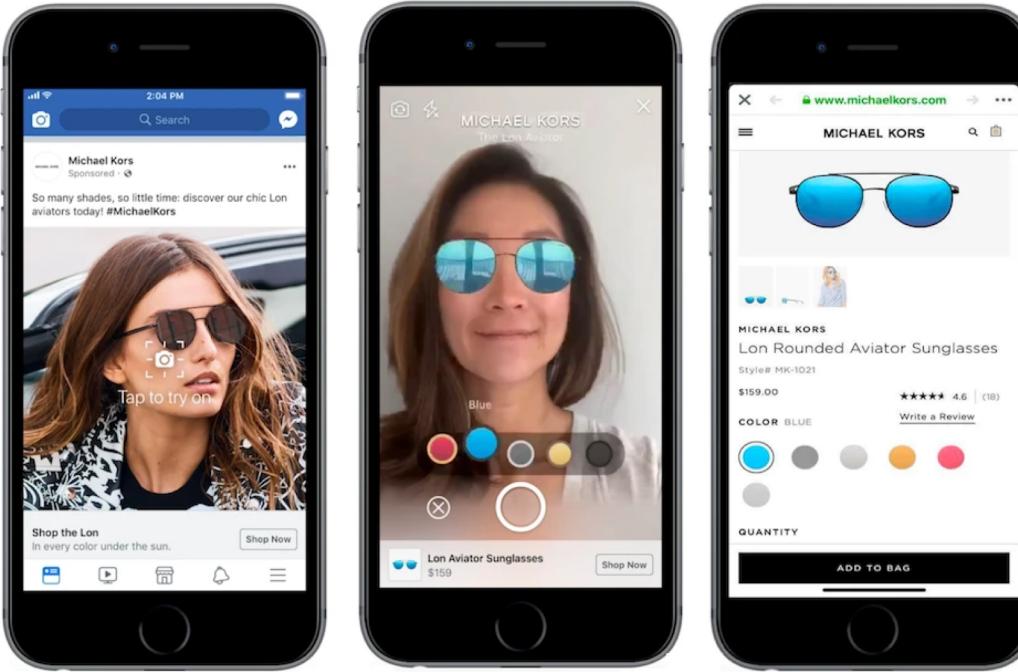
3D condition 2D condition

Search

Google Search now enables 3D and AR experience directly from the Search results



Social



Discover products in
FB feed;
tap to try on in AR



Target

Pick a piece to see how it looks in your home, before you commit, with our augmented reality preview. Available today in our guest facing iOS mobile app and soon to be on Android.

Your shopping &
saving sidekick.
 target app



Download the Target App



Emersya

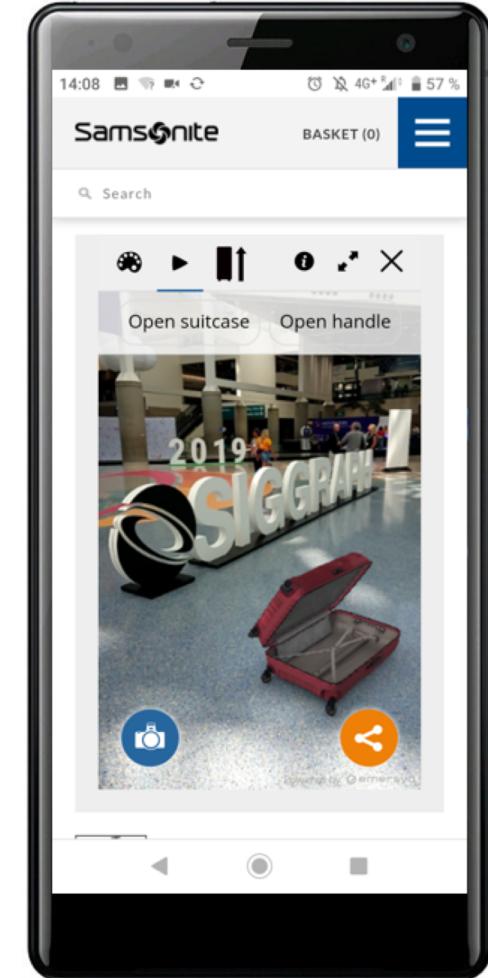
All-in-1 interactive 3D/AR experiences in e-commerce

Samsonite's use case

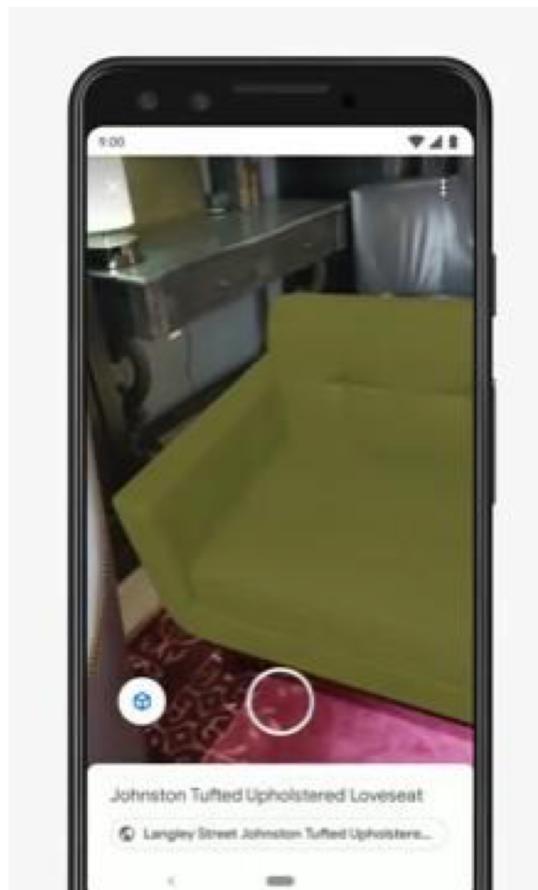
Goal : Increase engagement + Highlight value + Reduce returns

Solution :

- WebGL real-time 3D visualisation
- Multi-level animations
- Story telling with annotations
- Switch between predefined color variations
- Customization
- True to size Augmented Reality with full features
- Easy and seamless integration across desktop and mobiles



Wayfair



Shopify

Bringing 3D support to
800,000+ stores

- 3D on the web
- AR on iOS / Android
- APIs for developers
- Visit tryit.media
for a preview



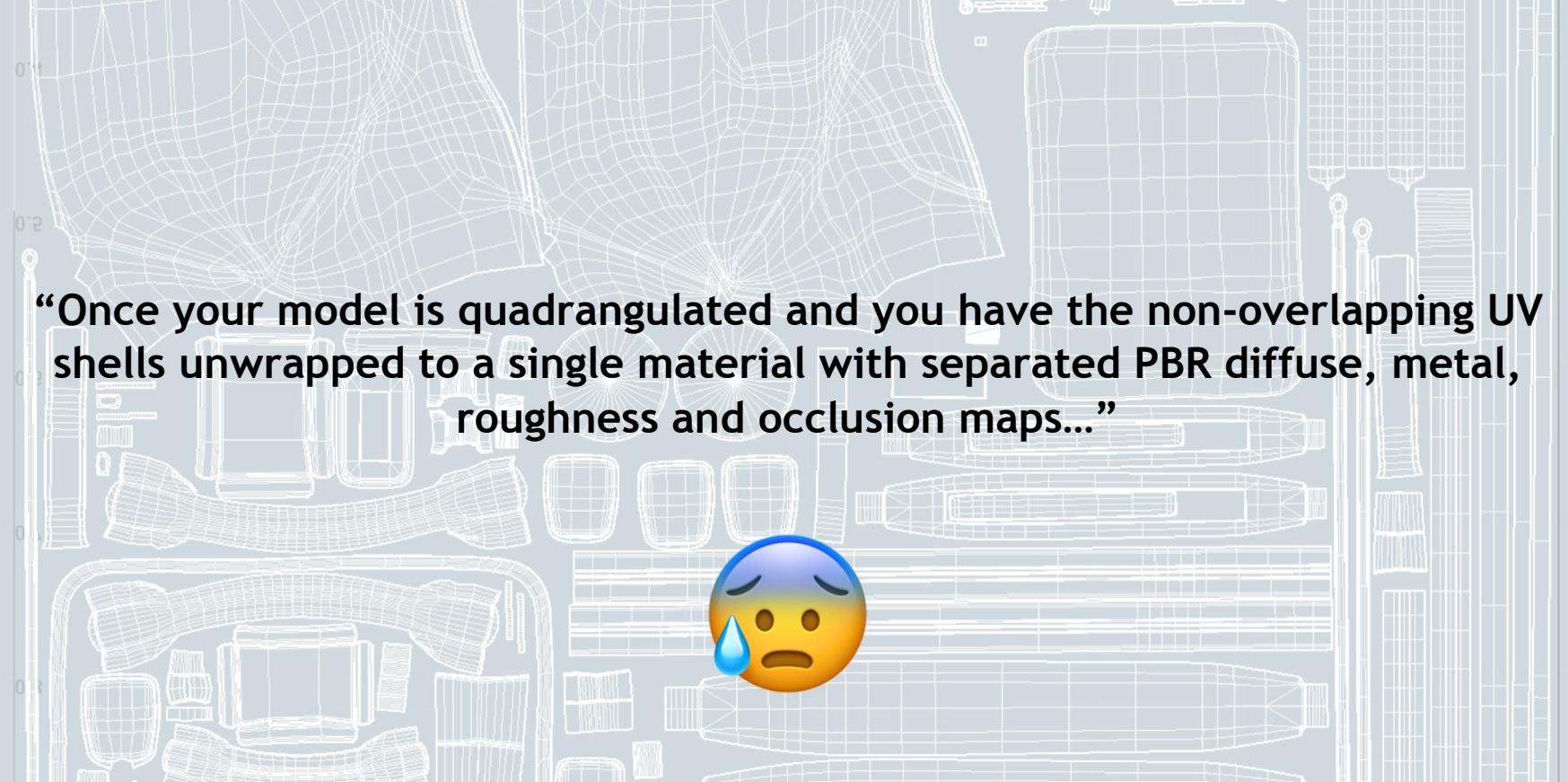
Shopify

Merchants need to:

- Build a brand
- Sell products
- Market
- Fill orders
- Support customers
- Plan for the future...



Shopify



“Once your model is quadrangulated and you have the non-overlapping UV shells unwrapped to a single material with separated PBR diffuse, metal, roughness and occlusion maps...”

