• Historic VR at Ford
• Flavors of Enterprise XR
• XR in Design and Product Development
• Outlook
Why?

Virtual / Extended Reality has the potential to become the next interface to directly experience your creations and collaborate digitally with others.
EVOLUTION OF THE DIGITAL DESIGNER/ENGINEER
HISTORIC “VR” AT FORD
1990’s IMMERSIVE LABS AND POWERWALLS

Interactive Powerwalls [Infitec stereo]  

Ergo Lab [Jack]
2000-2010 FORD IMMERSIVE VEHICLE ENVIRONMENT

Head-mounted display-based

Projection-based

FiVE lab

4-sided CAVEs
2010-TODAY: 2ND GENERATION XR AND HIGH-END VISUALIZATION

Presentation [4k Powerwall]  immersive review [HMD or 4k CAVE]
2015 AND ONWARD: CONSUMER XR DEVICES - PERVERSIVE

low-cost HMD

Mixed Reality wearables
FLAVORS OF FORD ENTERPRISE XR
Fully Immersive Vehicle
Fully Immersive Factory Layout
XR IN DESIGN

https://www.youtube.com/embed/WZQ_DQD7F3U
Design Engineering Visualization

- Review character lines and other surface information
- Quickly and accurately overlay new designs on an existing car to evaluate changes.
- Save time and money by easily toggling between different designs or see a split view to look at multiple designs at same time.
- Allows data owner to maintain better visibility and access control for their designs

Collaboration

- Annotations (voice or text) are created which include gaze to issue noted
- Tour mode for exploration of current vehicle status at any point in time
- Share content with multiple virtual users (or non-users via projected view)
Create Tomorrow  not just creating new designs, but the tomorrow we will design in
Be Curious  how can we do this differently, and get to the good stuff faster?
Put People First  become the customer, live with the design before they do

An immersive 3D design, for creating, iterating and communicating three-dimensional ideas between designers, engineers and decision makers.
NEW OPPORTUNITY WITH GRAVITY SKETCH

Transforming digital creation by developing an interface that puts the user at the center of the creation process, bringing back craft into the digital world.

- Fast, intuitive, and fun.
- Gives the Designer creativity with control
- No mystery in a 3D curve, if it looks good... it is good.
- Instant evaluation from any angle, any scale
- Enable collaboration in the same virtual space, from within studios around the globe (7), in real time!
- A change of behavior, start in 3D... stay in 3D ... we sell 3D cars not 2D drawings!

Go Further
‘Things are only impossible until they are not.’
Jean Luc Picard
Thank You.

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