Real-Time Design Review and Configuration

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AGENDA

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About the speaker

Nicholas John

Nick provides an exceptional consultancy service to his clients in the automotive and industrial design sector. Using his extensive knowledge of design, surfacing, VR, AR, manufacturing and visualisation, Nick develops implementation strategies for his clients which aim to exceed their objectives. Nick believes that tailoring the right traditional and emerging technologies, together with the right expertise and software, delivers real business benefit.

“I enjoy assisting clients plot a route an ever-changing digital landscape to successfully incorporate new technology and processes into their existing design pipelines.”
About the speaker

Michael Timmis

“With over 10 years working in the Autodesk Value added reseller channel, Michael provides outstanding advice and consultancy across the Autodesk product portfolio, regularly delivering Tailored training on Inventor, VRED, Factory Design Utilities and many more. As a Manufacturing Solutions Manager at Majenta Solutions, Michael offers an exceptional range of services from tailored workflows to content creation and visualisation.”
Why Real-Time Design Review?
Why a Configurator?
Why Now?
Why VRED?
What is a Real-Time Design Review?

- **Real-Time Visualisation** allows a viewer to explore any camera angle and interrogate data to the discretion of the user. If traditional images and animations are pre-rendered and provide fixed experience, *real-time gives you back the freedom*

- A **Design Review** is a milestone within a product development process whereby a **design is evaluated against its requirements** in order to verify the outcomes of previous activities and **identify issues** before committing to - and if need to be re-prioritise - further work.
What is a Configurator?

- A **product design configurator** is a software application for designing products exactly matching a reviewers needs.

- A **good** design configurator should allow a reviewer to choose between product features, options and quickly access and explore technically viable combinations.

- The **best** design configurators allows the wisdom of the experts involved in a given project can be made immediately available.

- In an era of increasing complexity and variation the possibility of costly miscommunication increases.
Why Now?

• Product complexity and customer expectation is increasing exponentially.
• Specialist knowledge and tools to evaluate kinematics, UX, CMF, electrical, IOT data etc. are required.
• Disparate tools generate disparate information. Disparate information creates limited...
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Why Now?

It is increasingly important to have an agile platform to collate and present data perfectly.
Don’t just improve your Design Review

Improve the EXPERIENCE of Reviewing your Design
Why VRED?

- Proven presentation platform to collate data from multiple sources
- Proven to handle extremely large data sets and various formats
- Promotes discussion because any information can be overlaid and evaluated in real-time
- Can be updated right up until delivery the presentation
- VRED is fundamentally presentation tool (just happens to be able to create static and animation assets)
What does a typical design review look like?

This is a one way process, once the presentation begins there is **no flexibility** in PPT to explore ‘what if’ scenarios.
VRED based Real Time Design Reviews can be delivered with the required logic to enable exploration of ‘what if’ scenarios.
What a VRED Real-time design review looks like

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Improve the EXPERIENCE of Reviewing your Design further using VRED
Where can a Design Review go next?

Webcam Based
Facial recognition

Advanced Digital Sciences Centre (ADSC) in Singapore
Or
https://github.com/sushant3095/RealtimeFacialEmotionRecognition
Where can a Design Review go next?

Webcam Based Object Recognition

AUTODESK® VRED® PROFESSIONAL

+ python

+ HTML

+ =

Thumbs Up
Where can a Design Review go next?

Autodesk VRED Professional

+ Python

+ HTML5

+ Webcam

= Webcam Based Object Recognition
Where can a Design Review go next?

AUTODESK®

VRED® PROFESSIONAL

+ python

+ HTML5

+ Voice Assistant / Microphone
driven design reviews

Amazon Echo
Make anything.