FUJITSU Workstation CELSIUS

Ebook: Virtual Reality

Start here →

Create. Innovate. We Are (VR) Ready.

For more information, visit: www.fujitsu.com/fts/products/computing/pc/vr

shaping tomorrow with you

Why To Jump On The Virtual Reality Train?

Virtual Reality as an aid to design, engineering, architecture and manufacturing has been around for decades. But it is only now that this exciting technology is set to explode.

2016 will go down as the year when everything changed. VR not only became more powerful, but the technology became affordable.

It is no longer the preserve of large automotive and aerospace firms. Even small architectural practices can now get on board.

There are more possibilities than you think. Be inspired by this new technology.

Workstation Graphics Power Fuel Innovations and Drive Digitalization

Pen

- Drawings per hand
- On paper

2D Data

- Computer generated data
- Increase in graphical needs

3D Data

- 3-dimensional models displayed on 2-dimensional monitors
- Data explosion
- Design, simulation, calculation and visualization

3D Realities

- Augmented Reality
- Virtual Reality
- Mixed Reality

- Product Development
- Planning
- Testing
- Assembly
- Maintenance
- Training
- Marketing

Reality Spectrum

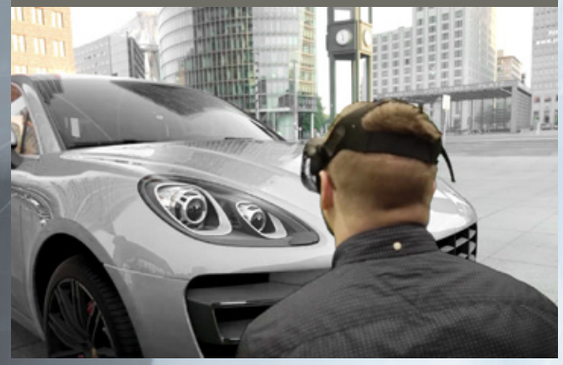
MIXED REALITY (MR)

Mix of reality and digital, computer generated content

Real Environment	Augmented Reality (AR)	Augmented Virtuality (AV)	Virtual Reality (VR)
Reality	Real world with digital information & data overlay	Merging of real world objects into virtual worlds	Computer generated world simulating the real world

Professional Usage Areas

Engineering



Retail

Healthcare

Media & Entertainment

Architecture

Defense

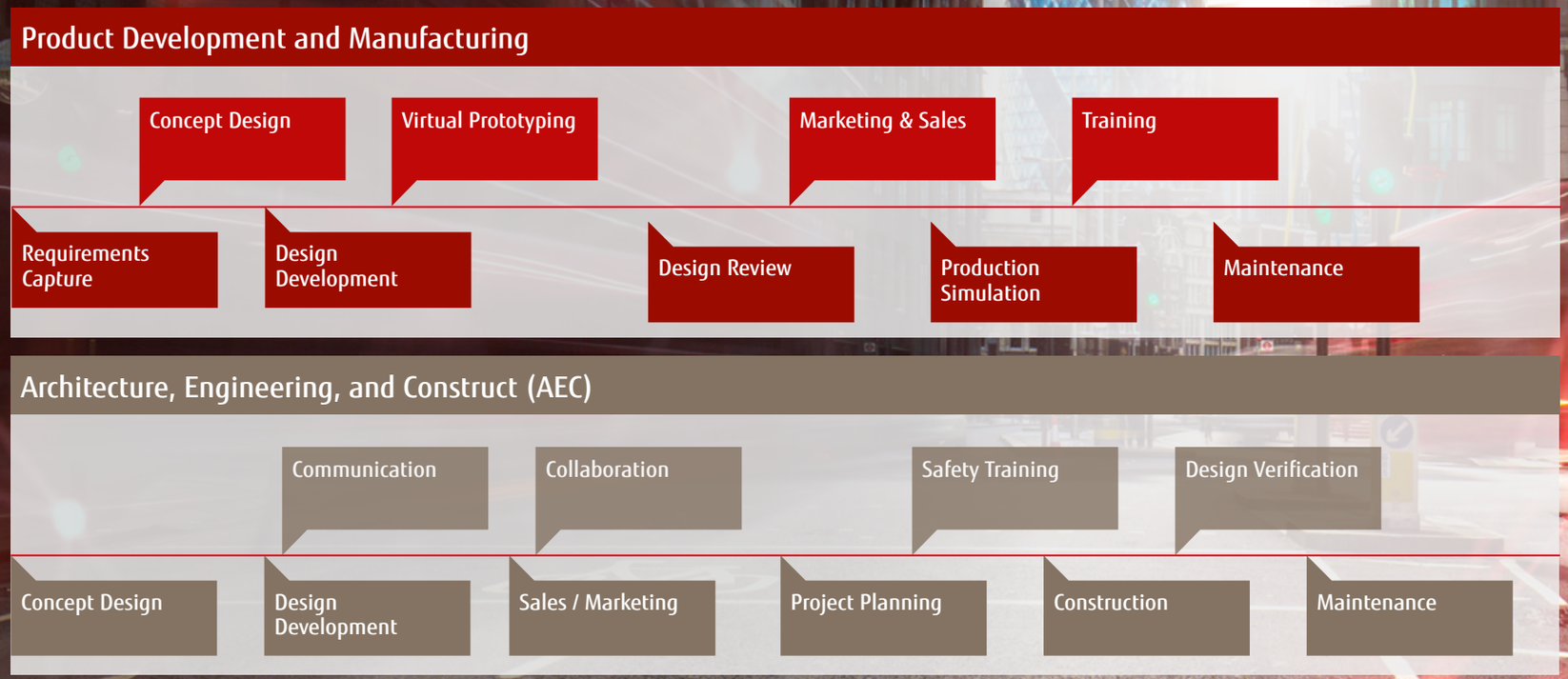
Aerospace

Show & Tell

Mixed Reality:
For Design And Beyond

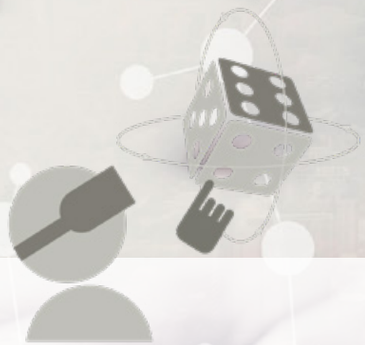
"VR can evoke a visceral response that simply cannot be matched by viewing a 3D CAD model or realistic rendering or animation on a 2D screen."

Fujitsu Mixed Reality Brochure – sponsored by NVIDIA



The Virtual Reality Ecosystem

Are You Aware Of What It Takes To View Your Data In VR?



Data pipeline

Take your existing 3D data or enrich it due to missing information (manual or semi-automated)

Import data into a VR engine (Unity, Unreal, Autodesk VRED, ESI IC.IDO, etc.)

Bake lighting into scene for a more realistic experience (ray tracing)

Define your storyline, i.e. the interaction in the VR scene (animation, teleportation, walk-around, etc.)

Choose hardware

VR-ready graphics and maximum frequency processor

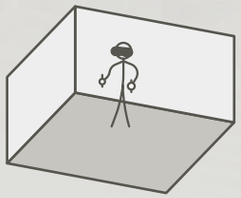
Highly recommended in order to ensure a smooth operation and a future proof investment (e.g. for collaborative scenes).

Choose a professional head-mount display (HMD) like the HTC Vive, Oculus Rift or a Mixed Reality Headset

Test your VR scene upfront!

Choose the experience

Seated:
good for jumping between CAD and VR



Room scale:
good for design review or customer presentations

Professional Virtual Reality Experience with VR-READY Certified Workstations

	CELSIUS H7510 and H780	CELSIUS W5010	CELSIUS M7010	CELSIUS R970	CELSIUS C780
	Most secure 15.6-inch mobile workstations	World's smallest VR-ready desktop workstation	Cable-free and whisper quiet	Up to 56 cores / 112 threads	1U rack workstation
Head-Mount Display (HMD)	Fujitsu recommends HMDs with a minimum of 90 frames per second				
Processor	Up to Intel® Core™ or Intel® Xeon® processor with maximum frequency				
VR-Ready Graphics	AMD Radeon Pro WX or NVIDIA Quadro professional, VR-ready graphics cards				

Fujitsu Offers A Future Proof Virtual Reality Experience:

- → High-fidelity visuals
- → High interactivity / tracking
- → Stereo real-time rendering
- → Fully immersive
- → Ultra-high frame rate
- → Ultra-high resolution
- → Ultra-low latency

Virtual Reality in Higher Education
Imagine the Unthinkable

Some Food For Thought

Oceanography professor – field trip to the bottom of the North Sea
Engineering students – designing their first prototype
Design students – creating their first games
Chirurgic training – in an virtual operating room
Law lecture – simulated courtroom
Physics students – interacting with other students on different continents on the same project
Tours to virtual campuses

"Our students used Unreal to design a virtual reality Ethiopian village environment to explore using Oculus Rift within the dedicated VR lab in order to promote the charity WaterAid. It's that type of ingenuity – as well as experience with the best technology – that will serve them well as they enter the job market."

London Design & Engineering UTC

Autodesk's VR Center of Excellence Powered By Fujitsu Workstations

Background

In January 2017 Autodesk opened its VR Center of Excellence at its European headquarters in Munich, Germany. The VR Showroom gives customers from the automotive, design and architectural communities the opportunity to get hands-on with the very latest VR / AR and MR technologies. The state of the art facilities, which show off the latest Autodesk VRED and Autodesk Stingray professional VR software tools, are being powered by FUJITSU CELSIUS workstations.

For more information see:
youtu.be/E5H3c1euX9o

Powered by FUJITSU CELSIUS workstations

- 3x CELSIUS M740 with 2x NVIDIA® Quadro® P Series GPU
- 1x CELSIUS R940 with 72 CPU cores for CGI ray tracing
- 1x STYLISTIC R726 tablet for Media control via Blackmagic Multiview

Testimonials
Here's what our customers say:

Manufacturing

"If we miss an error during the materials assembly stage, it leads to rework in subsequent stages abd delays in the final construction schedule. Our objective was to ensure we could catch every error by harnessing the power of ICT in the inspection of assemblies"

Hiro Nishihara
Executive Director and Factory Manager, Oyama Factory,
TOMOE Corporation

M&E
Media & Entertainment

"To meet computational requirements, we needed hardware at the highest level. The significant benefits that Fujitsu's powerful graphics workstations give us include primarily the ability to accelerate the implementation of projects and the effective implementation of these changes."

Dominik Koziarski
New Business Manager,
i3D Network S.A.

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For more information visit:
http://www.fujitsu.com/fts/products/computing/pc/vr