

Multiple possibilities made simple by AR/VR solutions



Marketing Solutions

- ▶ Virtual Reality: present all offerings interactively
- ▶ Augmented Reality: Explains unique Feature and variants in a realistic and simple manner.
- ▶ Product / Service Experience delivered via mobile app



Training Solutions

- ▶ Virtual Reality: Operator Training made simple
- ▶ Augmented Reality: Explains complex components in a realistic and simple manner.
- ▶ DIY Training Platform & Authoring Tool



Maintenance & Repair

- ▶ Virtual Reality: Maintenance & Repair
- ▶ Dial an Expert
- ▶ Augmented Reality: Maintenance Service Manual
- ▶ Aid to fix complex machinery

Common Augmented Reality Platform - CAP

CAP Production

- ▶ Interface with diagnostics, Quality Management, Tele Services

CAP Marketing

- ▶ Ability for high resolution AR rendering

CAP Service

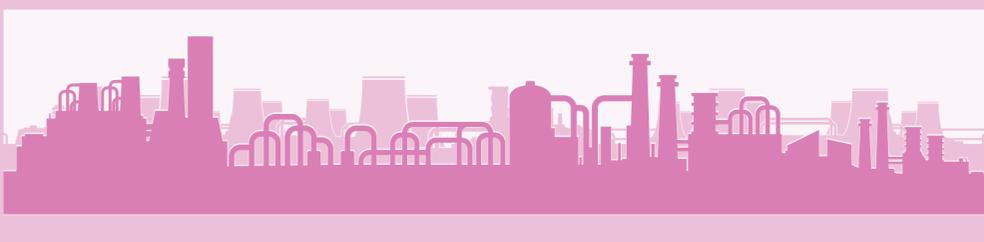
- ▶ Interface with diagnostics, DMS, parts category, labor times

CAP Training

- ▶ AR/VR combined
- ▶ SCORM capable



- ▶ Software Product to **industrialize AR/VR** content and application development
- ▶ **Components** for authoring, delivery and runtime
- ▶ **Integrates third party tools** for tracking and 3D authoring
- ▶ **Offerings**
 - Consulting
 - Licenses
 - Customization
 - Authoring
 - Integration
 - Rollout
- ▶ **Modules** for production, marketing, training and service
- ▶ Authoring and display of **live data**
- ▶ Supports **iOS, Android** and **Windows**
- ▶ Runs on **tablets, smartphones** and **glasses**



Industrial Problems

- ▶ Increasing complexity of information consumed by lower skilled resources
- ▶ High cost involved in training / re-training of resources with limited knowledge retention
- ▶ Experts required to create and maintain AR applications
- ▶ Mass data Creation and Management of AR applications



Product Benefits

- ▶ Content created can be consumed by any skill level without any prior experience
- ▶ Knowledge is not only retained but also represented in an easy to remember visual format.
- ▶ Resources with 3-5 years of experience can create and maintain AR experiences
- ▶ Experiences can be created without any software code.
- ▶ Experience can be created and deployed using templates

AR/VR Marketing



- ▶ AR/VR Marketing can be of 2 types
- ▶ Self operated by consumers
- ▶ Assisted by Sales Executive



- ▶ As per industry reports Augmented Reality
- ▶ Increases Attention time over 85 secs
- ▶ Increases interaction rate by 20%
- ▶ Improve click through rates by 33%

Benefits of using AR/VR for Marketing in B2B scenario

- ▶ Bring concepts to real life
- ▶ Showcase variety of products on the go
- ▶ Build variations as per customer needs
- ▶ Bring large products to the customers
- ▶ Validate fitment at the desired location using measurement capability
- ▶ Shorten the sales cycles
- ▶ High resolution realistic looking content can be created



Augmented Reality Field Service Tool



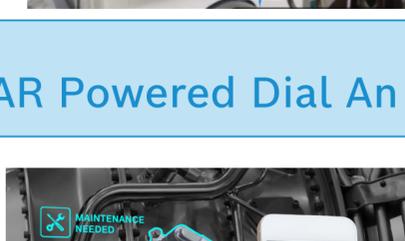
- ### Customer Benefits
- ▶ Right information at the right time
 - ▶ Consistent information across the organization
 - ▶ Reduced expert dependency
 - ▶ Easy visualization assembly and dismantling of complex machines
 - ▶ Notification of Critical points during maintenance procedure

Augmented Reality IoT Integration with 3D CAD Overlay



- ### Customer Benefits
- ▶ Dependency on expert reduced
 - ▶ 24/7 Availability
 - ▶ Ease of maintenance operations
 - ▶ Live sensor data integration enables field technicians to take decisions

AR Powered Dial An Expert



- ### Customer Benefits
- ▶ Affordable solution
 - ▶ Mass market
 - ▶ No special devices required
 - ▶ Annotations for easy understanding
 - ▶ "You see what I see" concept

Competency Landscape



Technology

- ▶ Augmented Reality
- ▶ Virtual Reality
- ▶ Sensor Fusion
- ▶ 360 Degree Video
- ▶ Gesture Controlled Systems
- ▶ 3D Vision



Domain

- ▶ Automotive
- ▶ Manufacturing
- ▶ Industrial Automation
- ▶ Building Technology
- ▶ Retail



Solutions

- ▶ AR Powered Manuals
- ▶ Digital Enterprise Training
- ▶ Remote Assistance
- ▶ AR Powered BIM systems
- ▶ Augmented Showroom



Tools

- ▶ Unity3D | Unreal
- ▶ Autodesk Maya | Blender
- ▶ OpenGL | .NET | Java
- ▶ Vuforia | Wikitude | VisionLib
- ▶ ARCore | ARKit
- ▶ HTC-Vive | Oculus | Vuze

