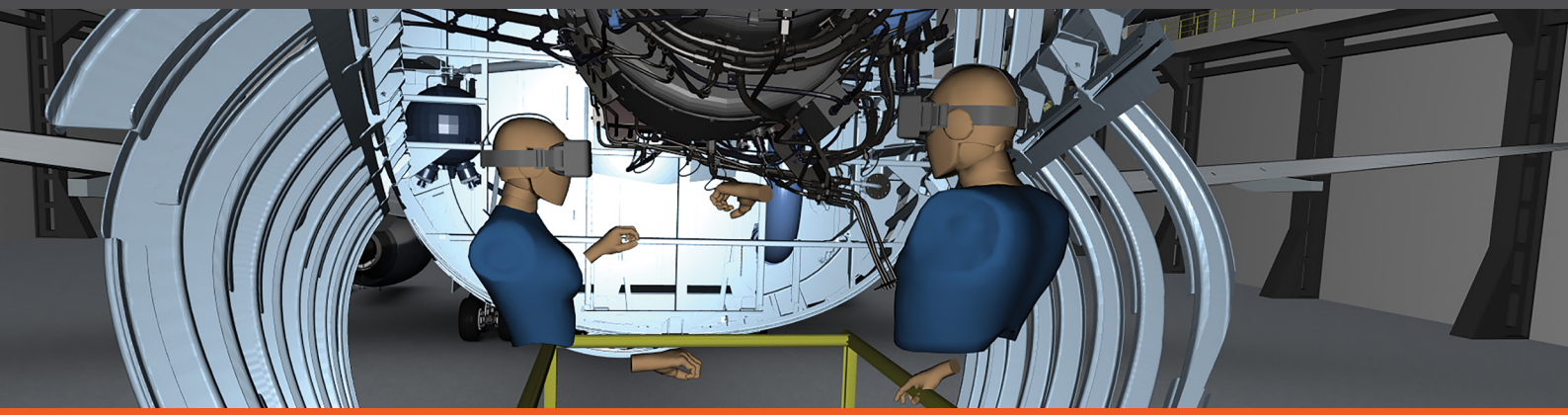
VIRTUAL REALITY SIMULATION SOFTWARE **IC.IDO**



Experience Industrial Processes in Virtual Reality.

By using ESI IC.IDO, engineers in aerospace, automotive, and heavy industries accelerate product development and design the best possible industrial processes.

Take a look at human-centric process validation and product integration

Relying on a physical build, and experience with prototype builds is increasingly difficult if OEMs are to bring innovation to market on time and on budget. It is not sustainable to construct e.g. all different variants of vehicles or pre-production airframes expecting to make design decisions — a practice placing pre-certification prototypes and human workers at risk — nor reliable to apply past methods to first-of-their-kind products. No matter which industry, the ability to experience human interaction with physically reliable virtual, and extended, reality supports early decision-making, earlier than physical build, with fidelity far higher than with on-screen reviews of digital or virtual data.

Not a VR authoring tool, but a Virtual Reality Pilot Process Hall

Many tools claim to deliver Virtual Reality (VR) or Extended Reality (XR) in product designs. However, the valuable work begins AFTER product and process environments are available for exploration in VR or XR - this is where many VR tools fail to inform the conclusions that would come from a physical prototype build, or process piloting review. Not merely a VR application, IC.IDO is relied upon by OEMs and Tier Suppliers as the environment for the evaluation of future products, identification of process planning or product integration issues, communication of engineering, manufacturing, and service issues then validation of corrective actions.

Collaborative Workspaces in IC.IDO

Human-centric Process & Product Validation

VIRTUAL REALITY SIMULATION SOFTWARE **IC.IDO**

Safran Nacelles uses IC.IDO to visualize what doesn't yet exist. They estimate the gain from virtual reality at around 15% of their tooling budget.

Ensure Smooth Product Integration

Validate product integration strategies at the point of decision, before any physical mock-up is built. Define designs agilely with minimum impact on cost and delays. IC.IDO supports the digital evaluation of product packaging and clearances, wiring and cabling integration, as well as buildability and serviceability validations.

Validate Assembly Line & Assembly Cell Processes

Well ahead of production, engineering teams validate tooling with early confidence and anticipate cell layouts, benefiting from realistic physics in the virtual workspace. Digital mannequins, representing diverse anthropometry, let engineers evaluate ergonomics, operator visibility, reachability, and accessibility to ensure safe and efficient assembly processes.

Anticipate Maintenance & Service Processes

Evaluate and validate maintenance and servicing processes, when it is still possible to make design changes without jeopardizing the whole ROI of a product development project. With IC.IDO engineers will be able to evaluate all aspects of the process, from operator comfort and safety to tooling and equipment, workspace optimization, and communication.

"This solution helps us to integrate all our different teams, from various departments (design, engineering, marketing, production) in the same decision-making process. It was a more efficient but also more collaborative process."

Francisvaldo Gomes Aires,
Volkswagen do Brazil

Learn More:

esi-group.com/products/virtual-reality

GOM-22-30A