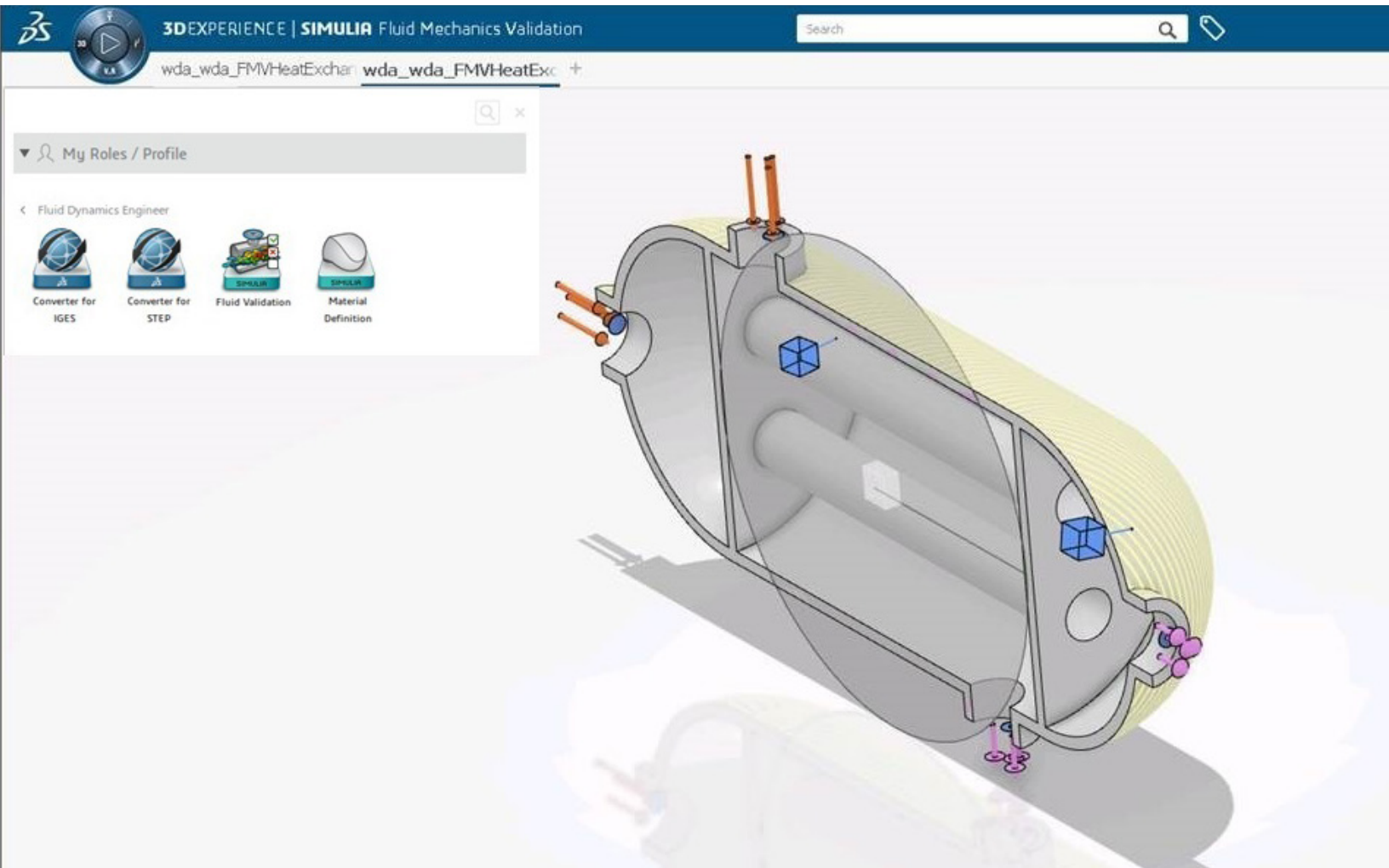




3DEXPERIENCE®

# FLUID DYNAMICS ENGINEER

## 3DEXPERIENCE USER ROLE



### VALIDATE AND IMPROVE PRODUCT DESIGNS

A Simulation Role for Engineers who perform routine fluid calculations to guide design modifications

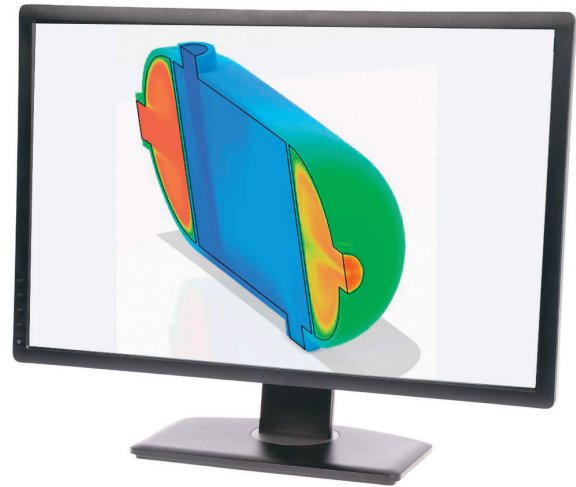
Fluid Dynamics Engineer provides designers and design engineers with the ability to validate fluid performance for internal and external flows. The users can make use of the obtained results to optimize their designs for flow distribution, thermal performance, pressure loss and turbulence. Computational Fluid Dynamics (CFD) technology is employed during the product design process with minimal knowledge of CFD principles and applications.

## Benefits

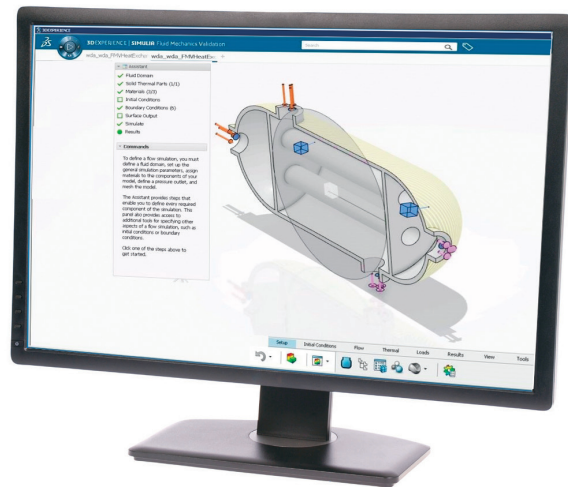
- Designer-level steady state CFD does not require extensive specialist-level simulation knowledge or experience
- Intuitive interface utilizing a dedicated User Assistant for CFD simulation set-up, resulting in shorter learning curve.
- Quickly improve designs to optimize flow distribution, enhance thermal performance, minimize pressure loss and turbulence.

## User Role Highlights

- Reduce complexity for common fluid analyses with dedicated User Assistant
- Analyze internal and external steady state fluid flow with automatically selected turbulence model
- Easy-to-use intuitive interface including an active assistant to guide the user through what to do next
- Trade-off performance to execute faster early in the design
- High performance results visualization and automatic report generation
- Utilize up to 8 cores that may be extended to take advantage of high performance computing to reduce computational time
- Use simulation to validate KPIs and product requirements, and perform trade-offs to execute faster in the early design process
- Select pre-defined rules based on the type of simulation being performed to improve simulation efficiency, robustness and accuracy



Temperature contour plot showing conjugate heat transfer



The Simulation Panel guides the user to create a simulation from start to end

## Our 3DEXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit [www.3ds.com](http://www.3ds.com).

