ABOUT MODELON:
Modelon provides software solutions and expert services to organizations that use model-based simulation tools to design and develop technical systems. Modelon’s Library Suite, Creator Suite, and Deployment Suite are leading products available in the market today for modeling, simulation and optimization. Our products enable companies to focus on delivering a unified picture of product system interaction and performance – from product concept to operation.

Modelon is an industry leader in model-based systems engineering with a goal of advancing open-standard technologies, allowing customers to leverage their tools of choice and share models throughout the product development cycle. Today, we serve a clientele base across a wide range of industry sectors which include some of the largest companies in the world.

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Modelon is the leading provider of model-based systems engineering solutions based on Modelica and FMI technology.
INTEGRATED AEROSPACE SYSTEMS DESIGN

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FUEL SYSTEM
- Inerting
- Thermal analysis
- Flammability
- Fuel management
- Fuel injection

ACTUATION
- Electro mechanical systems
- Local hydraulic packs
- Hydraulic actuation
- Structural flexibility

SECONDARY POWER
- Electrification
- Power plant interaction
- Hydraulics

LANDING GEAR
- Stopping distance
- Shock absorber
- Shimmy
- Kinematics

THERMAL MANAGEMENT
- Heat source integration
- Fuel and ram air interaction
- Environmental control
- Supplemental cooling
- Ice protection

POWER PLANT
- Hybrid propulsion
- Cycle performance
- Engine control
- Secondary power offtakes

INTEGRATED AEROSPACE SYSTEMS DESIGN

ARCHITECTURES
- Configurations
- Parameterizations
- Use cases

CONFIGURATIONS
- Manage product complexity
- Build models rapidly with preconfigured templates and reuse them across the V-cycle

PARAMETERIZATIONS
- Include all domains
- Using multi-domain physical system simulation

USE CASES
- Transform the model
- Based on automatic symbolic transformation, pose the model as simulation, optimization, or realtime problem
- Interact seamlessly
- Collaborate the model-based way, and execute your models on multiple tools using the open standards Modelica and FMI

GET FULL MODEL ACCESS
- To equations in engineering language
- Using reference system transformations to get efficient simulation of electric power systems
- Include thermal effects of oil and other fluids to ensure accurate predictions
- Easily include detailed system elements such as hydraulic or electric actuators.

STEADY-STATE AND SIZING

CONTROL DESIGN
- Human-in-the-loop
- Assess cabin comfort and safety via models of air conditioning and pressurization
- Read data from a wide range of formats
- Integrate third party subsystem models in FMI, Modelica, C/C++,...

MODELICA AND FMI TOOLS
- FMI Toolbox
- FMI Add-in
- OPTIMICA Compiler Toolkit

MODELICA LIBRARIES
- Hydraulics Library
- Pneumatics Library
- Electric Power Library
- Environmental Control Library
- Fuel System Library
- Liquid Cooling Library
- Vapor Cycle Library
- Fuel Cell Library
- Heat Exchanger Library
- Jet Propulsion Library
- Aircraft Dynamics Library
- Electrification Library

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$(\text{Dossier : horizontal FMU logotype})$
$(\text{Date : 26 - 03 - 2015})$
$(\text{Colors : C84 - M19 - Y0 - K0 \quad R0 - G153 - B217 \quad HTML 0099D9 \quad C100 - M100 - Y5 - K38 \quad R34 - G24 - B92 \quad HTML 22185C \quad CMYK FMU logotype \quad CMYK FMI logotype \quad CMYK FMU logotype without shading \quad CMYK FMU logotype for very small size : icon and favicon \quad CMYK FMU logotype black and white})$