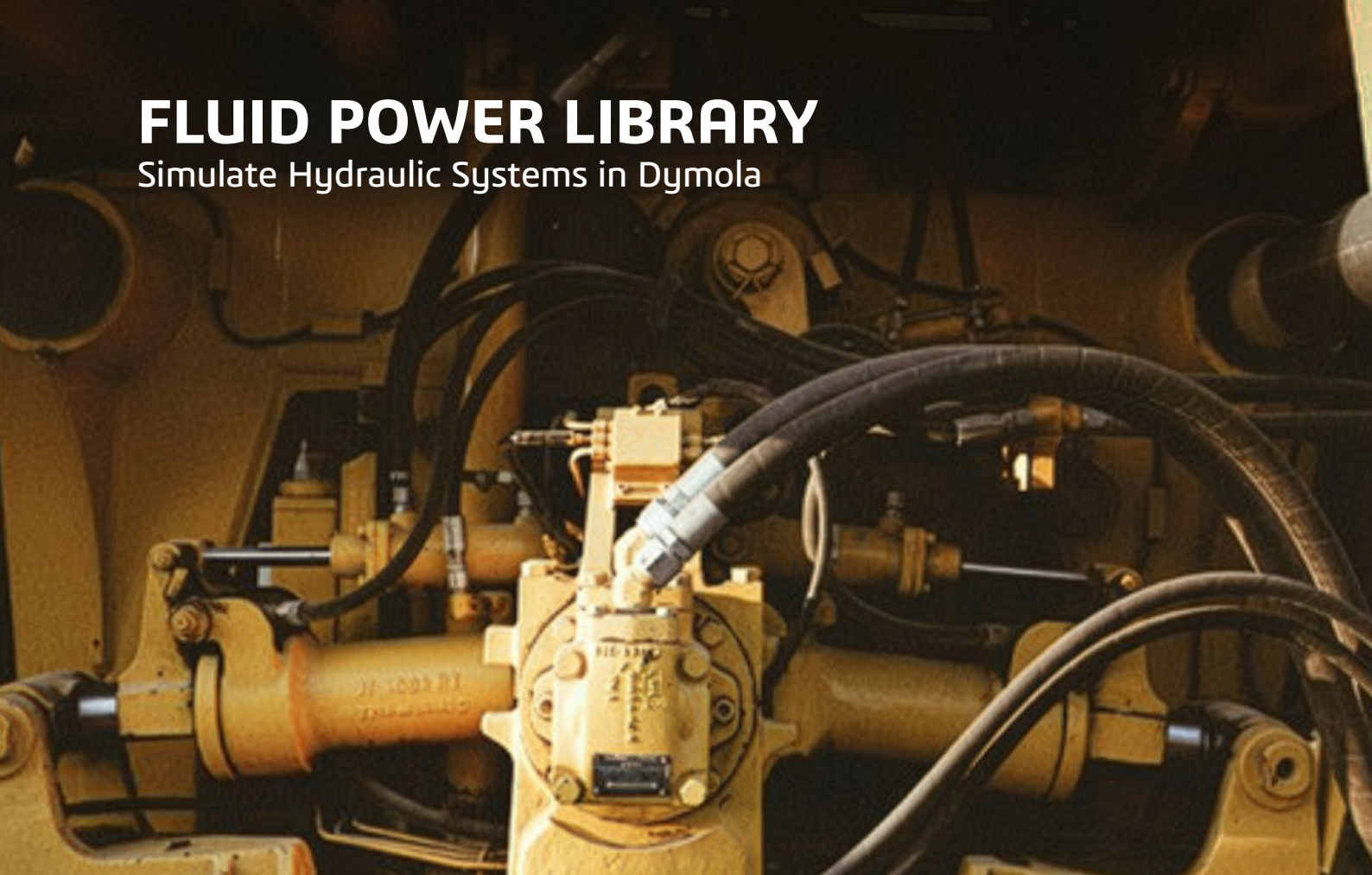


FLUID POWER LIBRARY

Simulate Hydraulic Systems in Dymola



Simulate Hydraulic Systems in Dymola

The Fluid Power Library enables the simulation of complex hydraulic systems in Dymola. Aircraft, cars, excavators and many other types of hydraulic machinery can all be modelled with the Fluid Power Library.

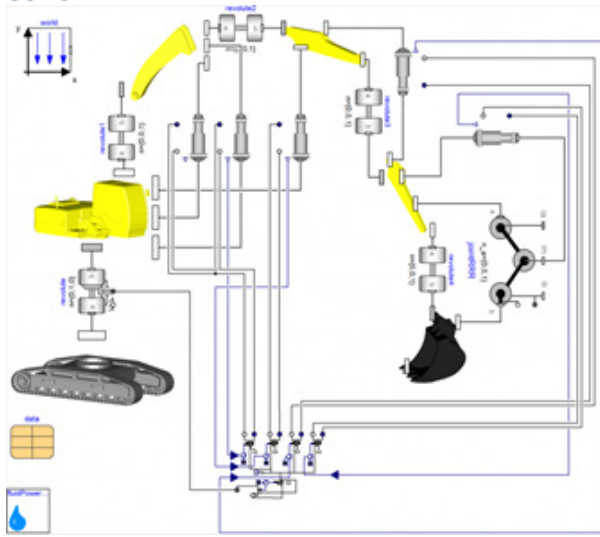
Usability is at the heart of the Fluid Power Library. It features a novel Modelica connector designed to allow components to be arbitrarily coupled to each other, alleviating modeling challenges associated with traditional approaches. ISO1219 compliant icons help to make system models developed with the Fluid Power Library instantly recognizable to Hydraulic engineers.

APPLICATION

The Fluid Power Library is designed to be an intuitive tool for developing hydraulic system simulation models.

Traditional approaches to the simulation of hydraulic systems in the Modelica language have the drawback of requiring port volumes between components. Within the Fluid Power Library, a novel Modelica connector allows arbitrary connection of components. Concerns about the model structure are alleviated. With ISO1219 compliant icons and components designed to be parameterized from typical manufacturer data, system models built using the Fluid Power Library are recognizable to hydraulic design engineers.

USAGE



With the Fluid Power Library, complex systems can be built up as recognizable systems quickly and efficiently. The process is as simple as:

1. Create a system model as per the layout of the actual system
2. Parameterize components with manufacturer data

The volume/orifice relationship of the model layout is handled by the novel Modelica connector featured in the library.

BENEFITS

Easily recognizable diagram layers

- Components connected to components, mimicking the real system
- ISO1219 standard icons

Simplified modelling approach

- No need to consider volume/orifice relationships
- Build the model as per a real system

Library of components

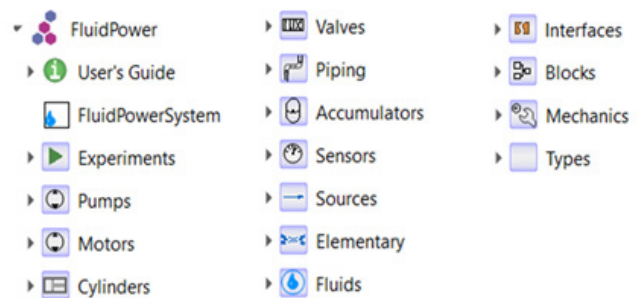
- Pre-made commonly used components
- Spend time building systems, not creating common off the shelf componentry

Integration with other VeSyMA suite libraries

- Connect easily into other VeSyMA suite Libraries
- Deploy hydraulic systems in complete systems (vehicles, UAVs etc)

KEY FEATURES

- Novel Modelica connector design
- Simplified parameterization of components
- Recognizable diagram layers
- Integration of fluid models including compressibility, cavitation, viscosity and temperature effects



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