

About FluidSIM

FluidSIM-H is a teaching tool for simulating hydraulics basics and runs using Microsoft Windows ©. It can be used in combination with the **Festo Didactic GmbH & Co. KG** training hardware, but also independently. FluidSIM was developed as a joint venture between the University of Paderborn, **Festo Didactic GmbH & Co. KG**, and Art Systems Software GmbH, Paderborn.

A major feature of FluidSIM is its close connection with CAD functionality and simulation. FluidSIM allows DIN-compliant drawing of electro-hydraulic circuit diagrams and can perform realistic simulations of the drawing based on physical models of the components. Simply stated, this eliminates the gap between the drawing of a circuit diagram and the simulation of the related hydraulic system.

The CAD functionality of FluidSIM has been specially tailored for fluidics. For example, *while drawing*, the program will check whether or not certain connections between components are permissible.

Another feature of FluidSIM results from its well thought-out didactic concept: FluidSIM supports learning, educating, and visualizing hydraulic knowledge. Hydraulic components are explained with textual descriptions, figures, and animations that illustrate underlying working principles; exercises and educational films mediate knowledge about both important circuits and the usage of hydraulic components.

The development of FluidSIM included special emphasis on both an intuitive and easy-to-learn user interface. The user will quickly learn to draw and simulate electro-hydraulic circuit diagrams.

Contents

The Windows Online Help of FluidSIM ties up with the handbook within large parts; it describes both the full version of FluidSIM and the restricted student version. The topics listed below can be chosen by mouse click. If you click on a word that is underlined normally, a jump to the topic's page will be performed.

FluidSIM-H is the result of a joint research venture between the Measuring and Control Technology Department of Duisburg University and the Knowledge-based Systems Department of the University of Paderborn.

Concept and development of FluidSIM-H is based on research work carried out by Dr. Daniel Curatolo, Dr. Marcus Hoffmann, and Dr. habil. Benno Stein. Mechanical Engineering contributions by Dr. Ralf Lemmen.