KCE ThermoFluidProperties

Hochschule Zittau/Görlitz
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Calculation of the Thermodynamic Properties
for Working Fluids in Simulations of Power Engineering Processes
Properties Calculation Software

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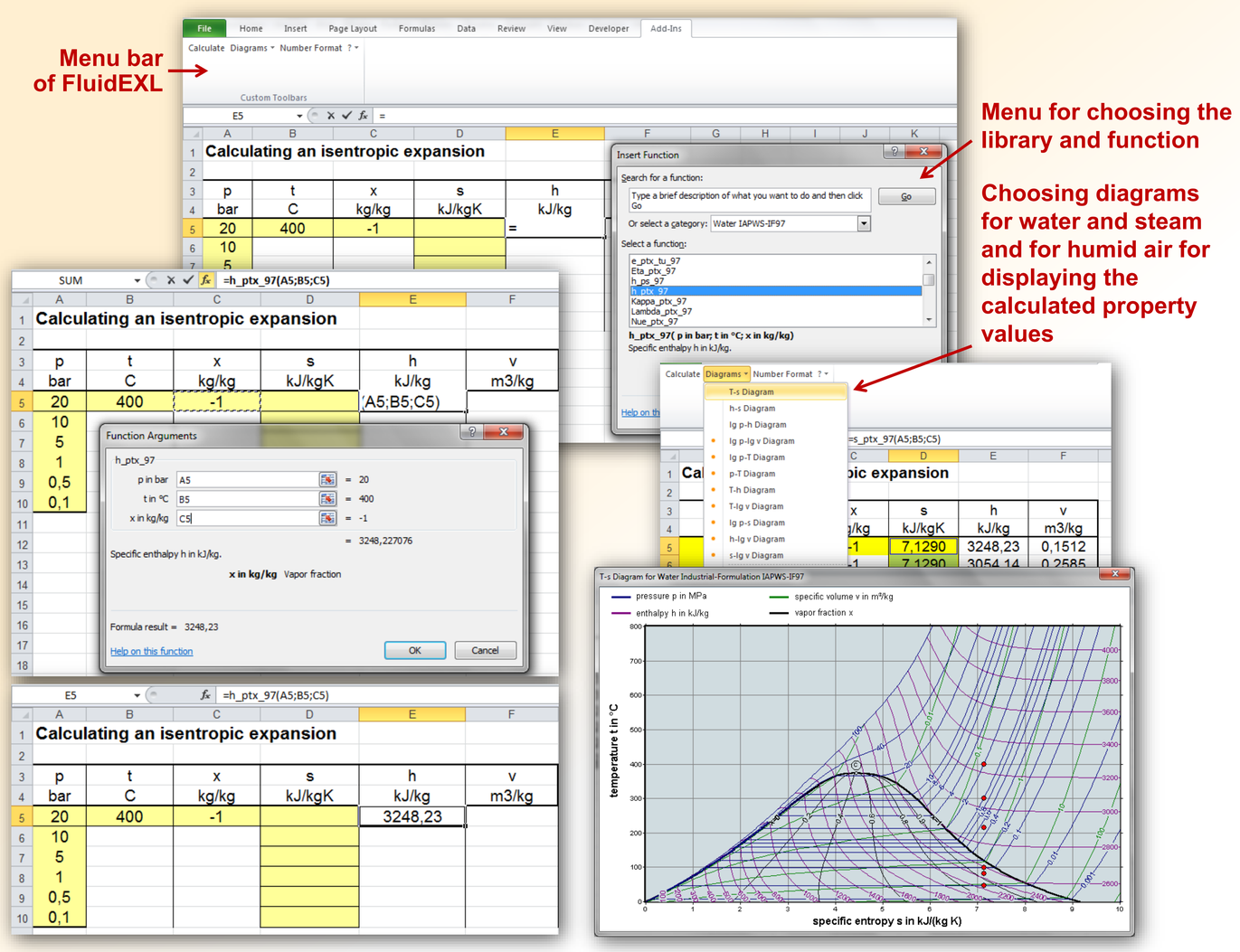
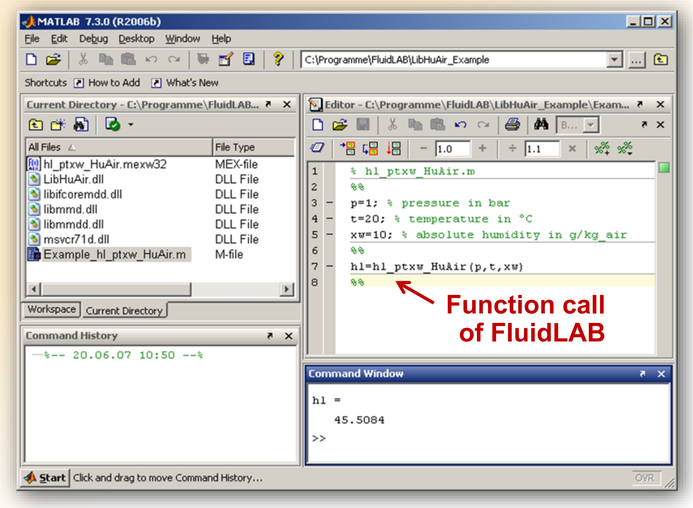
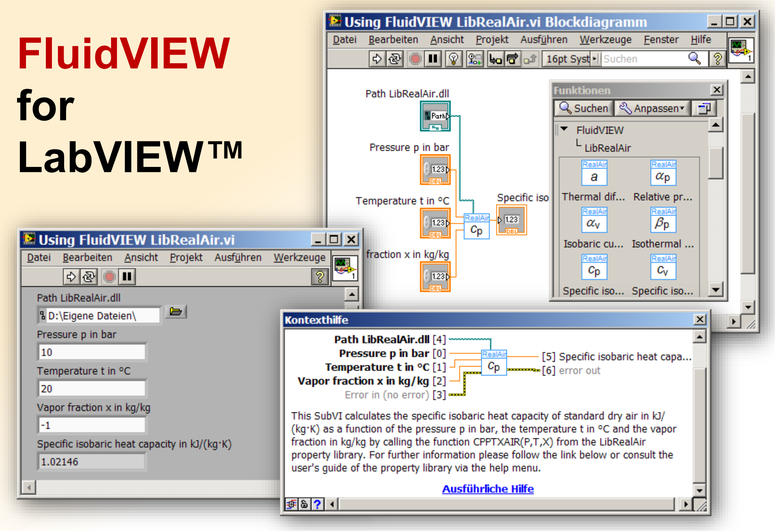
FluidEXL *Graphics* for Excel® incl. VBA



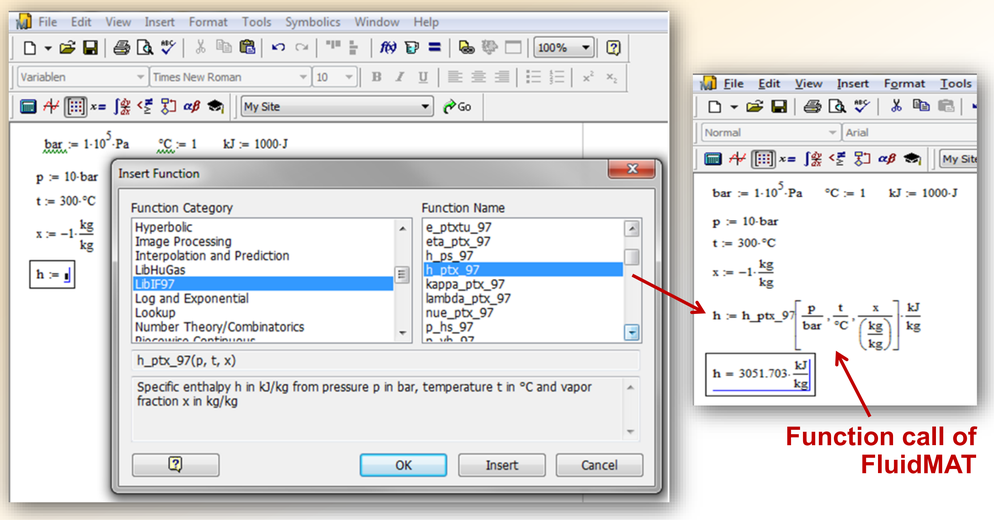
FluidLAB for MATLAB® & Simulink®



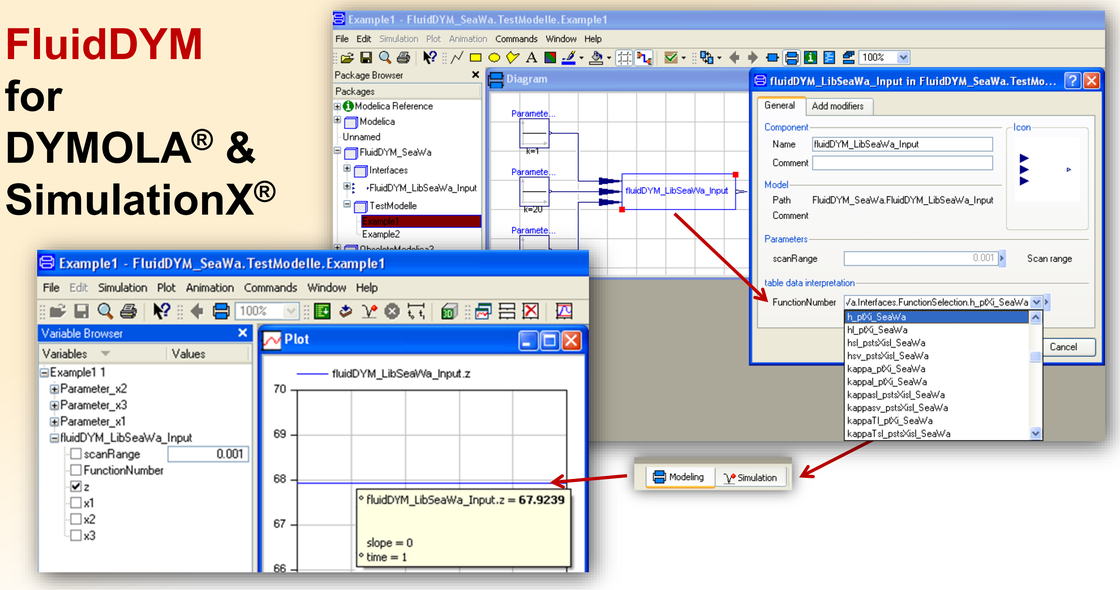
FluidVIEW for LabVIEW™



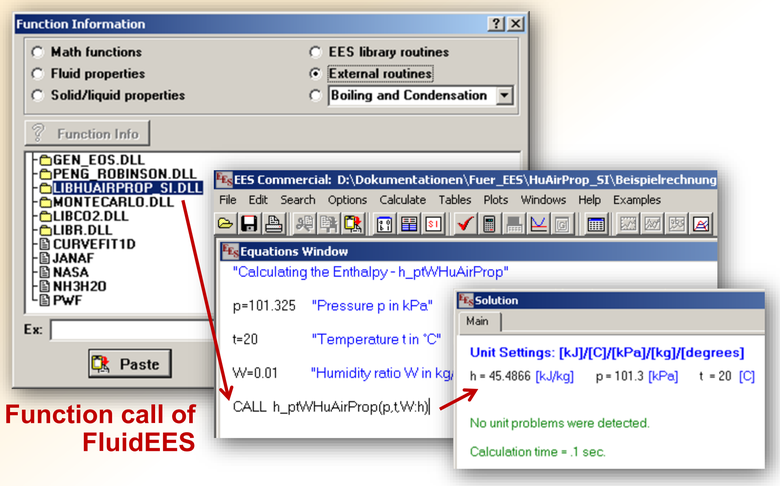
FluidMAT for Mathcad® & Mathcad PRIME®



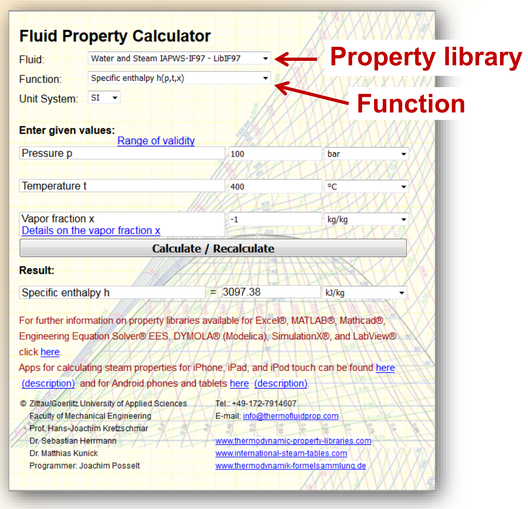
FluidDYM for DYMOLA® & SimulationX®



FluidEES for Engineering Equation Solver®



Online Property Calculator



www.fluid-property-calculator.com

App International Steam Tables for iPhone, iPad, and Android Phones and Tablets

The following thermodynamic and transport properties can be calculated[a]:

Thermodynamic Properties

- Vapor pressure p_s
- Saturation temperature T_s
- Density ρ
- Specific volume v
- Enthalpy h
- Internal energy u
- Entropy s
- Exergy e
- Isobaric heat capacity c_p
- Isochoric heat capacity c_v
- Isentropic exponent κ
- Speed of sound w
- Surface tension σ

Transport Properties

- Dynamic viscosity η
- Kinematic viscosity ν
- Thermal conductivity λ
- Prandtl number Pr
- Thermal diffusivity a

Backward Functions

- T, v, s (p,h)
- T, v, h (p,s)
- p, T, v (h,s)
- p, T (v,h)
- p, T (v,u)

Thermodynamic Derivatives

- All interesting partial derivatives can be calculated.

[a] Not all of these property functions are available in all property libraries listed before.

www.thermodynamic-property-libraries.com