VALENTIN
software

T*****SOL® | Design Software for Solar Thermal Systems

Valentin Software has successfully developed intelligent software solutions for planning, design, dynamic simulation and yield calculation of energy supply in buildings for over 25 years.

Our simulation programs help system designers, engineers, consultants, installers, tradesmen and investors to professionally plan and dimension solar thermal systems.
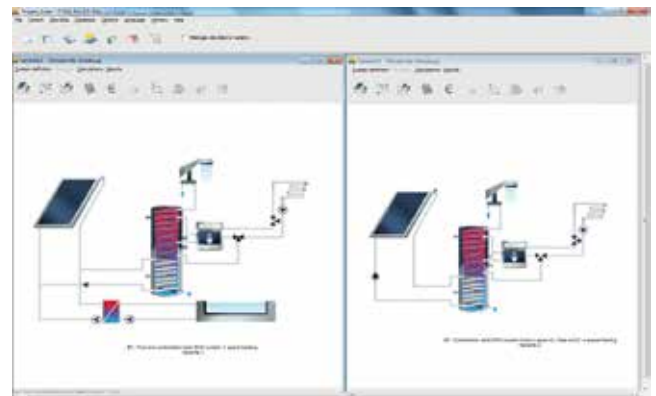
T*****SOL®

T*SOL® is the simulation program that allows you to accurately calculate the yield of a solar thermal system dynamically over the annual cycle. With T*SOL® you can optimally design solar thermal systems, dimension collector arrays and storage tanks, and calculate the economic efficiency. T*SOL® offers around 225 preconfigured systems and extensive automatic design assistance. And you can of course also enter all the technical parameters individually. The dynamic annual simulation calculates temperatures and energy values in intervals of one to six minutes. System parameters such as efficiency and solar fraction are calculated from the simulation results.

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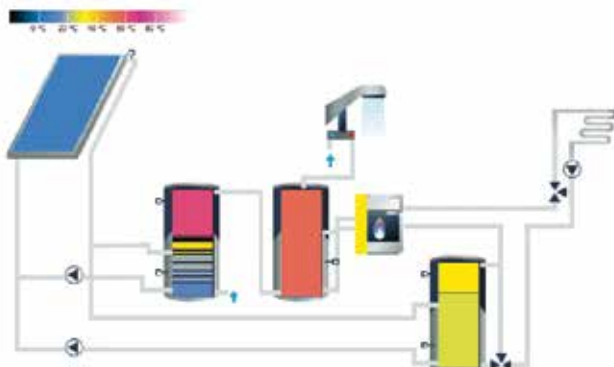
The dynamic annual simulation calculates temperatures and energy values in intervals of one to six minutes

T*SOL® project with multiple variants

! Free 30-day trial versions and webinars, plus further info at www.valentin-software.com

T*****SOL® Features

Component Database

In addition to the preconfigured systems, T*SOL® provides you with an up-to-date database of over 3,500 flat-plate and evacuated tube collectors, 700 storage tanks and 1,100 boilers and auxiliary heaters.

You can create individual collectors by entering the conversion factor, specific heat capacity, heat transfer coefficient and incident angle modifier. A special feature is the simulation of evacuated tube collectors with or without reflectors.

Climate Data

The MeteoSyn climate database contains around 450 data sets from the German Weather Service for Germany with the averaging period 1981-2010, as well as over 8,000 global data sets, based on Meteonorm 7.1 (1991-2010). You can easily select the climate data via an interactive map. Alternatively, you can select the location from a list. You can also create new climate data either by interpolation from existing measured values or on the basis of your own monthly mean values.

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Further T*SOL® Features

New! **Even More Features**
- ► Parameter variation with economic efficiency results
- ► New systems for process heat

Generation of Energy Labels

The energy labeling of heating appliances for space heating and hot water systems is mandatory for all manufacturers, traders and technicians. T*SOL® simulates the energy efficiency of solar thermal assisted heating systems and generates the energy label for you.
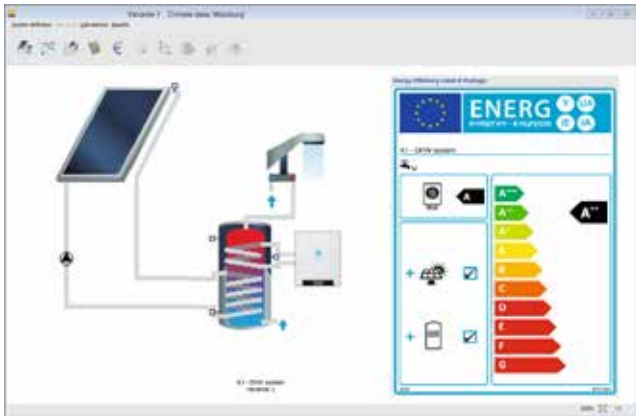
T*SOL® simulates the energy efficiency and generates the energy label

System Types

T*SOL® provides you with preconfigured systems and extensive automatic design assistance. With around 225 system types, including swimming pool, large-scale and air collector systems, most of the commercially available systems are covered.
With the T*SOL® storage tank model, which has been proven over time, you can reliably simulate and investigate many loading and unloading strategies.

Photo Plan

The integrated photo dimensioning program Photo Plan is a tool to quickly and easily visualize your customer's roof using a photo. With a reference dimension, the respective roof and the planned collector array can be presented photorealistically and all the

necessary roof measurements taken. Photo Plan therefore provides real decision support!

Present each customer with their own personalized roof design

Simulation Results

The simulation results are presented in a clear project report. This provides you with data on the solar thermal system energy delivered, the solar fractions (hot water, heating, total), system efficiency and primary energy fuel savings, as well as other key data. Furthermore, the energy balance diagram will give you a quick overview of the occurring energy gains and losses. T*SOL® calculates the economic efficiency according to the recommendation of the German Federal Solar Industry Association (BSW). In addition to calculating the net present value, the amortization period and the solar generation costs, calculations of the modified internal rate of return and profit taking into account the reinvestment assumption are also carried out.

Software Maintenance

Software maintenance includes both program and database updates, as well as our free telephone hotline (English or German). The program price includes six months' software maintenance from the date of purchase.

Program languages: *Project reports also in:*

Visit our website and learn about our other products

TS   **GT**   **PV**   **PV** p
T*SOL   **GeoT*SOL**   **PV*SOL**   **PV*SOL** premium

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