





```

/// <summary>
/// Adds a list of products added
/// </summary>
/// <param name="ProdGuidList"></param>
public void AddRangeProducts(List<Guid>
    ProdGuidList)
{
    ProdGuidList.AddRange(ProdGuidList);
}
public void FromXML(XElement parentNode) CompanyGuid = new
    Guid(parentNode.
    
```

T*SOL® Powerful and Easy-to-Use Program for the Design, Optimization and Simulation of Residential, Commercial and District/Citywide Solar Thermal Systems

The Software Versions

To address the needs of different users, T*SOL® is available in two different versions - T*SOL® Pro and T*SOL® Expert. The Pro version is the most common version used by installers and solar developers. The Expert version is primarily used by system designers and manufacturers who want to customize components within systems, and for research and development.

Program	Software Users	Main Features
 <p>T*SOL Pro</p>	<p>Designers, installers, engineers, planners and architects</p>	<p>Design and optimization of residential, commercial and industrial thermal systems for DHW, space heating, swimming pool and process applications</p>
 <p>T*SOL Expert</p>	<p>Expert designers, planners, consultants, researchers and manufacturers</p>	<p>Component and system optimization, monitoring and investigation of changes in the physical state of thermal systems. Design of large scale, district and city-wide systems</p>

T*SOL® Pro

T*SOL® Pro is the simulation program for the planning and design of solar thermal systems. The standard module contains over 80 system configurations for domestic hot water supply, process heating and space heating. This dynamic simulation program, with its easy to use Design Assistant, has been developed for designers, engineers, planners, installers and heating or building technicians. After entering just a few parameters for the project location and system consumption, select one of the system configurations and the collector and storage tank are sized.

The Design Assistant allows the user to select the optimum system configuration. T*SOL® Pro also includes the Swimming Pool Module for indoor or outdoor residential or commercial pools and the SysCat Module to support large scale commercial and industrial projects that include large solar buffer storage tanks, external heat exchangers and the use of anti-legionnaires' disease switching.



Example of a System Configuration in T*SOL®

Climate Data

Climate data for irradiation and air temperature in hourly intervals for a period of one year is provided with the program. Data is included for over 2 000 locations in the US and worldwide. MeteoSyn, included as an integrated module, can be used to produce global meteorological data for use with T*SOL®.

```

/// <summary>
/// Adds a list of products added
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public void AddRangeProducts(List<Guid>

```

The Company

Valentin Software has been providing solar professionals with industry leading design, simulation and sales software programs for over 20 years. Founded in 1988 in Berlin Germany, the company has been committed to expand the adoption of solar and support the growth of the solar industry by developing powerful, yet easy-to-use, software tools for solar professionals. The company's software is used by customers in over 70 countries throughout the world for the development of residential, commercial, industrial and utility scale projects. In 2009, Valentin Software has launched a U.S. based subsidiary to support the expansion of the growing North American market.

Component Database

T*SOL® includes an extensive component database with detailed data on tanks, heat exchangers, boilers and over 1 200 flat-plate and evacuated tube collectors.

T*SOL® Expert

T*SOL® Expert is the simulation program for advanced designers and experts wishing to investigate changes in the physical state of a solar thermal system. It serves research and scientific purposes as well as expert planners, developers and consultants in the monitoring and optimization of components and systems.

T*SOL® Expert's project tree is user-friendly, allowing components and system variants to be easily copied. T*SOL® Expert includes the full program capabilities of T*SOL® Pro plus a number of additional advanced features.

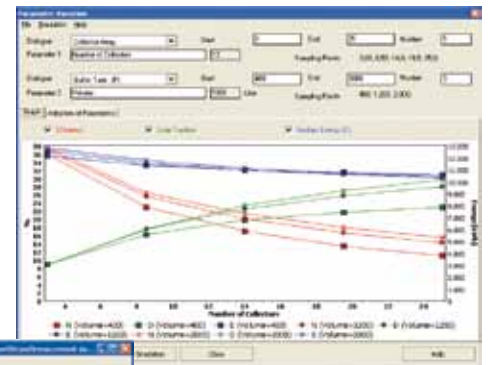
T*SOL® Expert Additional Features

Parameter Variation

The user is able to run an automatic parameter variation and, through simulation, observe and determine the influence of the different parameters on target values such as the solar fraction, efficiency and the auxiliary power requirement. In this way it is possible to optimize the individual component parameters (e.g. the position of the storage tank sensors) for different solar system operating modes.

Monitoring

Measurement data can be processed, evaluated and converted into T*SOL®-format via data import. This makes it possible to simulate solar systems using actual system data and compare the simulation results with the actual system output.



Time	Solar Radiation	Temperature	...
01.01.2010 00:00	0.0	10.0	...
01.01.2010 01:00	100.0	11.0	...
01.01.2010 02:00	200.0	12.0	...
01.01.2010 03:00	300.0	13.0	...
01.01.2010 04:00	400.0	14.0	...
01.01.2010 05:00	500.0	15.0	...
01.01.2010 06:00	600.0	16.0	...
01.01.2010 07:00	700.0	17.0	...
01.01.2010 08:00	800.0	18.0	...
01.01.2010 09:00	900.0	19.0	...
01.01.2010 10:00	1000.0	20.0	...
01.01.2010 11:00	1100.0	21.0	...
01.01.2010 12:00	1200.0	22.0	...
01.01.2010 13:00	1300.0	23.0	...
01.01.2010 14:00	1400.0	24.0	...
01.01.2010 15:00	1500.0	25.0	...
01.01.2010 16:00	1600.0	26.0	...
01.01.2010 17:00	1700.0	27.0	...
01.01.2010 18:00	1800.0	28.0	...
01.01.2010 19:00	1900.0	29.0	...
01.01.2010 20:00	2000.0	30.0	...
01.01.2010 21:00	2100.0	31.0	...
01.01.2010 22:00	2200.0	32.0	...
01.01.2010 23:00	2300.0	33.0	...

Dialogs for Parameter Variation and Data Import

Optional Add-On Module

Solar District Heating Module - makes it possible to design and simulate solar thermal district heating systems incorporating multiple collector arrays that support a variety of distributed loads such as domestic hot water, space heating and industrial process heat. Design applications can include housing developments, multi-tenant buildings and industrial complexes. Only available for use with T*SOL® Expert.



T*SOL Pro



T*SOL Expert

T*SOL® Pro and T*SOL® Expert are available in multilingual versions including English, French, German, Italian and Spanish

FREE demos and tutorials
at www.valentin.de