

TSI

*Techno Software
International - Kochi –India*

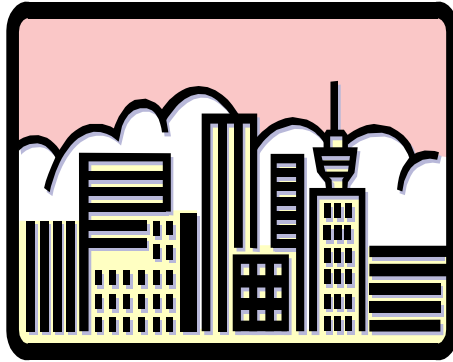
Product and Services Information

List of Industrial Application Software



TSI products are designed to improve

- **Productivity**
- **Performance**
- **Profitability and**
- **Quality of Products and Services of your organization**



Techno Software International (TSI in short) is a private Technical Consultancy cum Software Development Organization set up in Chennai, Tamilnadu in 1990 and TSI has four branch offices at Kochi, Bangalore, Mumbai and New Delhi.

TSI comprises of a group of expert professional engineers, management scientists and computer professionals of outstanding experience and expertise (25 to 35 years) in fertilizer, petroleum, petrochemical and power generation industries in India and abroad.

Software developed by us are of International Standard in performance and we undertake developing Computer Aided Management Information systems for any type of Industry. We also undertake training executives in Computer applications.

Our contact address:

Techno Software International
Hari Sree (Oppt Verma Studio)
Sanskrit College Road
Tripunithura
Ernakulam Dist—Kochi— 682301
email: ggr@md3.vsnl.net.in
URL: <http://business.vsnl.com/ggrtech>
Phone :0091 484 2782158
Cell : 98470 45158

Table of Contents

Production Planning and control (Techno Plan)	4
Energy Management (Techno Therm / Techno Therm plus)	4
Energy Auditing (Technical Audit)	5
Profit Maximization (Profimax)	5
Corrosion Monitoring & Control (Techno Corr)	5
Maintenance Management (Techno Maint)	6
Project Appraisal and alternates selection (Technopas)	6
Scientific Modeling (Scimod)	6
Quality Management (Techno Blend)	7
Process Models	7
Management Software	7

**For more details visit our web site given in the opposite page.
For detailed brochures on each software and a Demo please
write to us stating your requirement and email address.**

Industrial Management Software from TSI

Techno Plan



Techno Plan is a Production Planning cum Control software and forms part of our ERP system. This is a versatile package that simplifies production planning and control activities of very large and complex industries such as power generation, refining, gas processing, petrochemical or fertilizer plants. This is a prelude to LP production models.

This software optimizes feed mix, process mix and operating parameters for meeting the production targets within the imposed constraints such as feed availability, utility availability, operational, metallurgical limits etc. This is used for diagnosing plant problems and carrying out production analysis for re-vamping / retrofitting decisions. Simple Pay back of the software few days to months.

Techno Therm 2.02 / Techno Therm Plus

Techno Therm is a cost effective and comprehensive Energy Management Software designed by TSI technocrats with 'hands-on' experience exclusively for Process, Power and Energy Intensive industries with the sole objective of Energy efficiency improvement and cost reduction. Unique feature of this software is its performance modeling and trouble-shooting capability. Covers energy efficiency evaluation tools for heaters, boilers, turbines, pumps, compressors, heat exchangers etc as per BIS/ASTM/ASME standards and generates MIS report for immediate action. System analysis module is capable of monitoring the total system performance and used for energy cost reduction activities.



Techno Therm Plus is a Macro / Corporate level Energy management software for large organizations for taking right energy management decisions at the right time and cost. National / State Thermal Power Stations, Refining / Fertilizer / Petroleum / Petrochemical units may use this IT linked package from a centralized location. The in-built powerful processing engine evaluates the energy performance of individual units to generate a consolidated performance report automatically. This may be used for taking National level Energy Management decisions and could save millions of dollars per annum based on the energy data analysis and alternates generated by the program.

Software from TSI...

These are cost effective and the simple pay back is between three to six months.

Technical Audit 2.01.

This software is designed to carry out the Energy Audit of the total system and could be used by process, power, fertilizer and energy intensive industries like paper/glass/steel/electro chemical units. This comprises of modules such as walk-through audit, Detailed audit, Electrical Systems audit, Loss evaluation and control, Energy conservation project evaluation , alternates selection etc. This software is capable of reducing energy consumption and costs and also the auditing costs. Pay back period of this software just a couple of months.



Profimax



Profimax is an innovative Profit Maximization software designed by our professionals based on the proprietary resources analysis technique developed by TSI. This concept has won the first prize in an All India competition on 'Cost effectiveness in the Refining Sector' conducted by Petroleum India International, Bombay in 1998. This may be used by almost all organizations such as process, power, petroleum and consultancy organizations to improve productivity and profitability multifold. This uses LP/NLP/EORT models using the actual resource utilization data for profit maximization decisions. Unique feature of the software is it's 'scenario building ' capability and dynamic decision models.

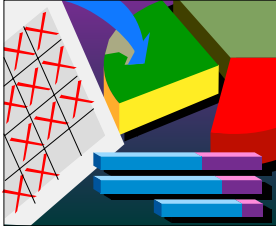
Techno Corr

This is a computer-aided corrosion monitoring and control software exclusively developed for process, gas processing, refining and power industries to predict corrosion levels and monitor the condition of pipes, tanks, vessels, columns, spheres etc from the non-destructive test data such as ferrography, iron count, conductance, thickness measurements etc. Equipment / pipe failure prediction may also be carried out with reasonable accuracy using the built-in models. Useful for identifying the impact and cost effectiveness of using corrosion inhibitors and other techniques.



TSI Software

Technomaint



Technomaint is a very powerful total computer aided maintenance management software that may be used effectively for total maintenance applications. It covers rotating as well as non rotating equipments, vessels, columns, boilers, pipes, heaters, heat exchangers, condensers etc. The most important application of this software is failure prediction, corrosion monitoring & performance monitoring of energy / cost intensive equipments, trouble shooting & identification of critical equipments for maintenance & monitoring. This application software may be of extreme use for the complex process industries and thermal / nuclear power plants. This may be also useful for taking timely equipment maintenance or replacement decisions.

Technopas

Technopas is a total computer aided project appraisal system .This software may be used for product demand analysis, financial returns such as Internal Rate of Return, Net present Value, Profitability Index of projects, selection of alternatives, Project Costing by index method, synthesis method etc. This may be used for existing as well as new projects . Cost-Benefit analysis of various schemes may also be analyzed in one run. Project performance analysis, impact of time and cost over-runs on return, effect of inflation , choice of process, equipment, technology, site, vendors etc by attribute analysis are also in-built into this software.This may be very useful for rehabilitation of sick industries also.



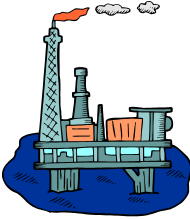
Scimod

Scimod is a Scientific Modeling Software that may be used for general modeling applications such as Catalyst Evaluation, Inhibitor Evaluation, Parametric Behavioural Studies etc.

TSI software....

Techno Blend:

Techno Blend is a *Quality Management software for Petroleum Industries*. This may be used for determining the characteristics of product blends such as the density, viscosity, ASTM /TBP distillation conversions, EFV / ASTM conversions, calorific values, boiling points such as Volumetric Average Boiling Points, Cubic Average Boiling points, Mean Average Boiling Points, Blend Economics , etc of various fractions. This may be useful for the refining and product blending/marketing agencies for Product Quality control and optimal product blends.



Process Models:

Following Process models are available for the process industry. These models are system specific and shall be given to the users after an investigation of the system. These models almost work like mini simulators and give material balance, conversion, catalyst life etc and are amenable to 'what-if' analysis. These models may be updated and converted into user-defined parametric models for performance monitoring of the process.

* FCTECH	Fluid Catalytic Cracker model
* CRUTECH	Catalytic Reforming Model
* HCRTECH	Hydro Cracker Process Model.
* HTRTECH	Hydro treater model
* VBRTECH	Thermal Cracking model
* DCTECH	Delayed Coking Process Model
* AMMTECH	Ammonia Conversion Model
* URETECH	Urea Conversion model
* UTTECH	Utilities Management model
* SHIFTECH	Shift Conversion model.

Management Software:

TSI has developed the following management software for taking right decisions at the right time.

* SMIS	Sales Management Information System
* TECHNOMARK	Marketing Research Software
* INFOTECH	Information Management Software for technical personnel

**Techno Software International -
Kochi –India**



**Dr.G.G.Rajan, CEO
Hari Sree - Sanskrit College Road
Tripunithura.
Ernalulam.Kerala.682301
India
Ph (91)-484-2782158
Email:ggr@md3.vsnl.net.in**