Invention Machine Corporation’s

TechOptimizer 3.5

Public Seminars

"Enhance your innovative skills by orders of magnitude"

"Build a sustainable, competitive, and technological advantage"

June 14-15, 2001
Portland, Oregon

June 26-27, 2001
September 18-19, 2001
Livonia, Michigan
(15 minutes from Detroit Metro Airport)

Fall 2001 (Date T.B.D.)
Carlsbad, California
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About This Course

TechOptimizer 3.5 represents a new category of engineering software: Knowledge-Based Innovation. This course will cover the complete suite of Invention Machine’s seven software modules. These modules are designed to help engineers define, understand, and solve their engineering problems to enhance your company’s intellectual property. TechOptimizer 3.5 significantly reduces the technical problem solvers dependency on their own knowledge, experience, and education. The software is based on the idea that most of the underlying “root” problems that engineers face contain elements that have already been solved, often in a completely different industry, on a totally unrelated product, that may use an entirely different technology to solve the fundamental problem. Even Engineers who are not particularly creative can quickly, & creatively develop “innovative” solutions to some of their most difficult challenges. In brief, TechOptimizer provides an efficient, effective, & inexpensive way of tapping into knowledge from a number of different industries, branches of technology and fields of engineering to solve problems and advance your corporation’s intellectual property.

This is a comprehensive course on Invention Machine’s TechOptimizer 3.5 Suite of Innovation tools. Attendees will learn how to maximize the power and utility of TechOptimizer through “hands-on” instruction.

Here is a list of the 7 modules of TechOptimizer 3.5. All seven modules are briefly explained on the next few pages.

In-house, customized training is also available.
Who Is This Course Designed For?

- Those who own TechOptimizer but never had comprehensive training or just need a "refresher".
- Those who own an older version of TechOptimizer and want to learn the new features, functions, and power of Version 3.5.
- Those who DO NOT own TechOptimizer but want to learn and evaluate the power of the methodology.
- Those who are responsible for the development of new technology.
- Those who are responsible for solving engineering or manufacturing problems.
- Those interested in powerful tools to enhance your Six Sigma, DFSS (Design for Six Sigma), Lean Manufacturing, Kaizen, TRIZ, QFD, FMEA, VA/VE, and other Product Development Initiatives.

- Bottom line . . . . This course will benefit any Engineering, R&D professional, project leader, designer, researcher, engineering consultant, inventor, or patent lawyer who is responsible for solving engineering problems, research, or developing next-generation products or processes.

- Satisfaction Guaranteed or a 100% refund in Course Fee is granted.
The 7 Modules of TechOptimizer 3.5

Product Analysis
(A “Problem Formulation” Tool)

- Forces you to think “Functionally”, which is the most important aspect of any engineering system.
- Helps to build a graphical Function Model, then analyzes a product/system by documenting components and evaluating “functional” interactions and difficulties.
- Prioritizes components and “correct” problem statements, and then proposes ways to increase the “Value” of the system through the “Trimming Technique”.
- Creates a common language for engineering analysis.
- Builds a framework for breakthrough thinking.
- Helps to generate and prioritize system problems.
- Helps to communicate in a common language.
Process Analysis
(A “Problem Formulation” Tool)

- Models & analyzes a manufacturing or technological process. As in Product Analysis, this module incorporates value, cost, and function analysis to effectively describe and prioritize manufacturing problems.
- Creates a common language for manufacturing analysis.
- Builds a framework for breakthrough thinking.
- Helps to generate and prioritize correct problem statements, then suggests ways to eliminate operations from the process. (The Trimming Technique)
- Helps the user to build a graphical functional model of a manufacturing or business process.

Feature Transfer
(Combine & Synthesize Alternative Ideas)

- Improves technological systems by transferring desirable features from one engineering system to another.
- Shows which features of alternative systems are better compared to the chosen system and therefore should be transferred.
- An invaluable tool for benchmarking analysis of competing technologies.
Effects
(Concept Generation tool)

- An impressive cross-industry and cross-disciplined knowledge base of Scientific Effects and Engineering Examples that is organized by function and can be easily searched.
- Over 7,500 animated engineering and scientific effects & industry examples.
- Offers the ability to automatically “link” Scientific Effects for unique concepts and idea paths.
- Provides different filters to find the relevant effects for a certain problem. The filters sort out effects and examples based on the function they perform.
Principles
(Concept Generation tool)

- Helps to solve technical and physical engineering conflicts.
- Allows users to produce breakthrough solutions for engineering conflicts by applying 40 “Inventive Principles” to the problem.
- This electronic “Contradiction Matrix” is based on an evaluation of over 400,000 patents across many different industries and fields of science and engineering.
- Four (4) “Separation Principles” can be used for solving Physical Contradictions.

Prediction
(Concept Generation tool)

- Provides a variety of "Technology Trends", which helps to predict the next generation of an engineering systems and manufacturing processes.
- Helps to solve technical problems by providing a list of recommendations on how a functional interaction between 2 or more components can be improved.
- Provides a list of recommendations on how measurement problems can be solved.
Internet Assistant with Patent Analyzer

(Information Search and Analysis tool)

- Provides direct access to the World Wide Web.
- Provides direct access to the 6 major world patent offices. (US, Japanese, European, United Kingdom, Ireland, and WIPO the World International Property Organization).
- Using Boolean logic, the user can search & gather Internet information and can extract, graph, and analyze competitive patents with the Patent Analyzer.
- The search results allow you to see patent information that can be used for analysis and can be applied to your engineering inquiries.
Course Topics

- Discussion of Common Barriers, Strategies, and Enablers for Innovation.
- Global Roadmap for Invention Machine's "Innovation Process".
- The "Big Picture" on Innovation and TechOptimizer's suite of 7 Software Modules.
- Function Modeling of Engineering Systems and Manufacturing Processes to help identify, document, and prioritize the "Right Problems" to work on for optimum solvability.
- Cost, Complexity, and Innovation Algorithms.
- Methods to solve problems and increase the "Value" of the system.
- How to search an impressive cross-industry and cross-disciplined knowledge base of over 7,500 animated Scientific Effects and Engineering Examples.
- How to address engineering contradictions in a system. A matrix of "Inventive Principles" derived from an analysis of over 400,000 patents are used to solve common engineering conflicts.
- 19 "Technology Trends and Patterns" to advance your Engineering Systems.
- Divergent and convergent concept generation and evaluation techniques.
- How to "automatically" perform a qualitative or quantitative evaluation of concepts generated.
- Efficiently analyze & extract Patent information from the 6 major world patent offices. Graph and predict technology trends.
- Synthesize and blend design alternatives.
- Sneak preview of the latest in Invention Machines Knowledge Mining and Distribution tools (Knowledgist and CoBrain) See how these tools integrate very well with TechOptimizer 3.5.
- Learn how TechOptimizer compliments and integrates with Six Sigma, DFSS (Design for Six Sigma), Lean Manufacturing, Kaizen, TRIZ, QFD, FMEA, VA/VE, and other Product Development Processes.
- Plenty of "hands-on" interactive exercises and workshops.
About Invention Machine

Invention Machine is the leading provider of Innovation and Knowledge Management Solutions for corporate professionals. Fortune 500 companies are utilizing IMC's technologies to accelerate speed to knowledge and market, while increasing productivity and revenue. Invention Machine is helping engineers innovate and researchers cut through the clutter of information overload: We have created a new paradigm for finding relevant information from multiple electronic sources and intellectual assets. Our newly developed and revolutionary semantic processing technology harnesses the power of linguistic reasoning algorithms to deliver precise solutions to user problems. Visit our web site at www.invention-machine.com to find out more about our powerful technologies.

About the Instructor

David Verduyn joined Invention Machine in early 1998 and has spent the last 3+ years training Fortune 500 companies in Invention Machine’s suite of software technologies, specializing in TechOptimizer. Before joining Invention Machine Mr. Verduyn was the Vice President of American Supplier Institute, a Michigan based consulting firm specializing in Robust Design and Design for Six Sigma curriculums. Mr. Verduyn has over 18 years industry experience in Design and Systems Engineering, Technical Instruction, Product Development Consulting & Technical Course Development. Since 1983 he has trained over 7,500 engineers & product developers in leading methods, which include QFD, TRIZ, FMEA, Value Engineering, and Computer Aided Design methods. He has a broad range of practical experience including Automotive, Consumer and Industrial products, Medical Systems, Defense and Service Industries. Mr. Verduyn's unique and practical approach to education, clear communication skills, background, and "Down to Earth" teaching style, has earned him very high recognition with his industry clients.
Course Registration

Please Call, Fax or E-mail to:
ASI Targeted Training
Contact:  Jodi Caldwell
Phone:  (800) 462-4500
Fax:  (734) 464-1399
E-mail:  Jodi@amsup.com

Office Hours:
8am - 5pm (EST)

Payment Methods:
Check, Invoice PO#, Credit Card

Course Fee:
$895 per person
$750 per person (2 or more from same company).
Includes:  Lunch and Continental Breakfast.

Cancellation Policy
$100 cancellation fee within 2 weeks of course date.  No refund for cancellation within 8 days from course date.  Attendee substitutions will be accepted.

Course Inquiries & Information
Contact:  David Verduyn
Phone:  (248) 524-0477
E-mail:  david_verduyn@invention-machine.com
Ask about our In-house, customized training.

Fax, Phone or E-mail The Following Information

- Course Date
- Course Location
- Name of Attendee(s)
- Position(s)
- Organization
- Address, Suite/Dept.
- City, State, Zip,
- Country
- Phone, Fax, E-mail
- PO# (or)
- Charge Account #
- Exp. Date
- Name on Account

Confirmation mailed upon receipt of payment, if requested.

Class size limited to 20
REGISTER TODAY!