



Innovation WorkBench® (IWB) Software

Introduction

The IWB software implements an entirely new approach to problem solving -- the Ideation TRIZ Methodology (also called I-TRIZ). Using the methodology's most powerful analytical and knowledge-base tools, the IWB assists engineers through a rigorous process of exploration and definition of the technological challenge being faced. The user is then guided in developing of an exhaustive family of innovative "directions." These directions are expanded into realizable design concepts using the IWB's extensive knowledge base of engineering/scientific principles, effects, and phenomena. This knowledge base has been drawn primarily from the world's patent libraries and other sources of technological knowledge proven useful by the successful results of previous inventors.

The IWB software is the flagship of the entire TRIZSoft® family supporting Ideation Office of Innovation. Since its first introduction to the US market in 1993, IWB had multiple versions, each making an improvement targeting becoming more user-friendly and easier to early adapters.

IWB was designed as a tool to help any technical individual overcome the most difficult technological challenges. Prior to the start of IWB development, a research was conducted to study thinking patterns of the most experienced inventors. This research has provided the core for development of the structured process with user-friendly modules, each of those having its own function and value in guiding the user's mind to think creatively and coming up with inventive solutions that are difficult to come up otherwise. There are thousands of individuals that were trained and have been utilizing IWB to date. The latest version available is IWB 3.x.

The IWB structure

The main sections of the IWB are as follows:

- Innovation Situation Questionnaire®(ISQ)
- Problem Formulation and Brainstorming
- Concept Development
- Evaluation of results



How the IWB works

The IWB software models the successful techniques of skilled innovators through the use of analytical and knowledge-base tools. In short, it stimulates and directs your thinking in solving complex, inventive problems. The result is that you are able to create unique solutions to the challenges that confront your organization. As you gain this ability, keep in mind that innovation is more than invention -- innovation means bringing inventive ideas to reality through successful implementation.

When you use the IWB you are, in a sense, emulating the experienced innovator. But why do this? Much of the information about how inventors perform their work is undocumented or simply unknown. This is unfortunate, for as one researcher on problem solving has noted, "The paradox of expertise is that the experts can't tell you how they do what they do."

Who should use the IWB?

This software is useful for any specialist in any technological area where non-standard, complex problems occur, in particular, to:

- Improve or eliminate problems with:
 - existing product designs
 - manufacturing process designs
 - measurement processes
 - system performance
 - system quality
 - system reliability
 - unit manufacturing cost
 - patent protection
- Help synthesize new manufacturing or measurement processes
- Improve an organization's competitive edge
- Improve the features and benefits of a product or process
- Provide the comprehensive technical information necessary for confident decision-making

The IWB is particularly effective for:

- Design engineers
- Manufacturing engineers



- Quality engineers
- Reliability engineers
- Warranty engineers
- Patent agents/attorneys
- Engineering consultants
- Students