

Introducing **Matrix 2003**.
New research and a new format for the popular TRIZ tool.
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We are very pleased to announce the publication of **Matrix 2003** by Darrell Mann and Simon Dewulf of CREAM and Boris Zlotin and Alla Zusman of Ideation International. The matrix is an important fundamental element of the TRIZ body of knowledge and as such should be utilized in order to foster a basic understanding of the empirical foundation for some of the TRIZ elements. The use of the matrix has limitations but when those limitations are understood and improved (we think Matrix 2003 does some of both) its functionality is increased.

We will not write a traditional review—the editors of the TRIZ Journal have been at various times friends and collaborators with Simon and Darrell, and student/co-teacher (through the Altshuller Institute) with Alla, and Boris' students, it would be hard to take the traditional position of the unbiased reviewers.

Basic information: **Matrix 2003**. 140 Pages. Published 2003 by CREAM, Ieper Belgium. Price: \$US30 or 29Euros. A portion of each sale will be donated to the Altshuller family. In Canada, US, and Mexico, order from www.ideationtriz.com. The rest of the world should use the order form at www.cream.com in the Books section. There will be volume discounts to encourage TRIZ teachers to use the books in classes. Contact the distributor for your region for details.

The book, and the accompanying large format matrix, are the culmination of several years' research and the analysis of over 150,000 patents issued between 1985 and 2003, undertaken to discover whether new patents follow or diverge from the patterns found in the earlier research by Altshuller and his colleagues. It follows the general format of Altshuller's matrix (see the July 1997 issue of the TRIZ Journal for a basic tutorial and a downloadable copy) with 48 parameters instead of the original 39. The 40 principles familiar to all beginner TRIZ students (and readers of the TRIZ Journal, since we have published 10 sets of examples for a wide variety of fields) have been preserved, and have been supplemented with 37 combinations of principles that occur frequently. One difference is that there are no blank cells, other than the diagonal of the matrix. If there were not enough cases to populate a particular cell, the authors met with experts in that area and developed a consensus set of useful principles.

The emphasis in the structure of the book is on understanding the parameters, and the principles that are frequently used to solve problems involving that parameter. For example, the page on Energy Used by a Moving Object has a very complete definition, a list of synonyms, three principles that should always be considered, ten more principles in decreasing order of frequency that should be considered, and 15 combinations of principles that are likely to be helpful. This lets the user access the principles without defining a contradiction. Then, for cases where the contradiction is well defined, there is

a table listing each of the parameters in the matrix as it relates to improving the energy, and the most frequently used principles for each parameter.

Both CREAM and Ideation International are software developers and suppliers, and users of their products are no-doubt interested in how the new matrix will be introduced into the software. A variety of options are in work—if you are a user of either company’s software, check their website frequently in the next few months. CREAM has developed several combinations of software and the book, and upgrades to existing products. The TRIZ Journal editors commend CREAM and Ideation International for making the information available in a relatively inexpensive book first, before developing the software and combined packages.

We will have an extensive article on the new matrix in the December 2003 issue of the TRIZ Journal. We encourage our readers to get this book, and to use it in real problem solving. We will collect your comments, and publish them along with the authors’ report on the research. Send your comments to matrix@triz-journal.com

Congratulations to the authors and to their unique collaboration. It is easy to see that a major piece of research has gone into this, and how useful it will be to major constituencies

1. TRIZ teachers, who will be able to spend much more time teaching people to use this powerful, beginner-friendly tool, and much less time explaining the deficiencies, work-arounds, etc., of the original matrix.
2. TRIZ practioners, especially beginners, with the definitions of each of the parameters and the inclusion of the synonyms, and the resolution of apparent conflicts (energy vs. loss of energy, amount of information vs. loss of information) in the parameters.
3. TRIZ practioners at all levels, who can use the “Averaged lists of principles” in combination with the definition of the parameters, rather than the matrix, in situations where the need to achieve a function is the paramount issue, rather than a conflict between the desired parameter and an opposing one. Perhaps this is a “soft” entry into the use of what is called Functions or Scientific Effects or Benchmarking. It is a very good way of showing that TRIZ is not a collection of separate tools, but multiple different ways of viewing the human history of solving problems.

We think that this book will start the TRIZ community on a very healthy series of discussions and debates on all the TRIZ tools, and on programs of research, using modern methods of search and semantic analysis, to develop new tools and enhance the usefulness of older tools.

We ask all our readers to study the new matrix, use it on real problems, and let us know what you think!

