

### Do It In Advance/Preliminary Action

We often tell our workshop attendees that the power of the original TRIZ 40 principles, despite their simplicity, is that they apply to so many different situations, technologies, and business situations. This is not to say that there aren't many different kinds of problems, but many people think that their problems are special and have not been addressed or solved before. This is almost never the case and it takes a bit of humility to admit this and restructure the problem definition in a way that is sufficiently generic so that we can step back and match a general problem with a general solution. Then we apply that general solution to our specific case, using the subject matter expertise we have. This is not as easy as it seems and takes mental energy. However, if we do it properly, we'll generally find that our problem's solution already exists.

One of the 40 principles derived from the study of the world's best inventions is "Preliminary Action" or sometimes called "Do It In Advance". In just the past few months, here are just a few examples from the Wall Street Journal, Business Week, New York Time magazine, etc. where this principle has been used. The write-ups would have you believe that these activities or discoveries are brand new, but if framed in a TRIZ sense, they are trivial problems to solve. Examples:

The Wall Street Journal reports that Mercer Consulting assisted (probably at a non-trivial cost) Merrill Lynch and Citigroup in developing succession planning because of all the wasted time and talent. In the 60 year old TRIZ contradiction table, we can look up the feature of the system we want to improve (Duration of Action of a Moving Object, i.e. the organization) and seeing that "Loss of Information" and "Loss of Efficiency" as negatives. Guess what? The number one suggested principle for resolving these contradictions is----you guessed it---Preliminary Action. In Business Week (11/5/2007) we see an article on the newly discovered principle of Preliminary Action as one of the solutions to health care costs---reduce premiums for those who practice a healthy life style, exercise, quit smoking. This

sure does minimize the costs AND the employee lives longer. This contradiction is also found in this old table as "Duration of Action of a Moving Object" (the employee) vs. Productivity, and once again, Preliminary Action is the #1 suggested problem solving principle.

Other examples include LG's new dishwasher that loosens dirt AHEAD OF TIME with steam, a new Alzheimer's questionnaire that identified problems long before typical symptoms are seen, new diabetes drugs that delay onset by arresting, in advance, the attack on pancreatic cells. We could go on and on. The message is to frame your problem in the most general way possible and use some of the basic TRIZ tools to bring forth answers. You may need to go beyond that with complex problems, but the simplest tools can frequently produce "Aha's with minimal expenditure of time and money. You will gain great value in translating your problems and the TRIZ inventive principles.