



FRONTIER ASSOCIATES, INC.
MANAGEMENT CONSULTANTS

Case Study #4

The Case of the Split Software

The Situation

Mechanical engineers at Gamma Manufacturing Enterprises¹ had been permitted to use whatever mechanical computer-aided design (MCAD) software package they wanted. For years Gamma engineers typically gave as their reason for selecting a particular package that it and only it contained the features their current project required. The result of this approach was that about 40% of the engineers used Package A, another 40% used Package B, and the remaining 20% used a variety of other packages.

Using multiple MCAD packages doubled or tripled the cost of purchase, maintenance, and support. To eliminate these excess costs, the company had for at least eight years been striving to achieve agreement by the engineers on a standard MCAD package. Numerous panels formed to study the issue had made a variety of recommendations, all to no avail. Each engineer continued to find sufficient justification to use his or her preferred package.

Now, however, there was urgent need to reach agreement. Gamma's entire design function was undergoing reengineering; one of the goals was an integrated set of design software. Although the set was to consist of off-the-shelf commercial packages, the interfaces between packages would have to be written by Gamma. As designing such interfaces is expensive, it was important to minimize the number of packages used for each function. In the case of MCAD, there was now a critical need for agreement on a single standard package.

Among the mechanical engineers, several packages had strong advocates. Various groups had made significant investments in software licenses and training, and their existing designs were stored in their preferred packages. Moreover, the reengineering project itself had selected one MCAD package and had invested over \$1M in related development.

Sixty percent of the mechanical engineers, however, opposed the package selected by the reengineering project. In the years since the decision had been announced, they had devoted much time and energy to attacking the choice and the reengineering effort itself. This put the reengineering effort and investment at risk and had a negative impact on the engineers' productivity.

The Goals

¹ Names have been changed to preserve anonymity.



Frontier Associates, Inc. (FAI) was engaged to help Gamma produce a solution that would be supported by all the engineers and other stakeholders, and that met the budgetary concerns of the organization and of the reengineering effort. The reengineering project's budget and subsequent operating costs had been based on the use of a single MCAD software package. The cost of building the reengineering software around multiple packages was deemed unjustifiable.

The FAI Solution

We helped the organization identify suitable representatives for all of the primary stakeholder groups. This resulted in a 35-person team representing design engineers, the reengineering group, the project managers for whom the engineers worked, and the line managers responsible for mechanical design. An FAI consultant facilitated the meetings using FAI's process for producing breakthroughs. Agreement was reached that there were no preconditions other than the following:

- The solution had to be supported by everyone in the room as being the best solution (consensus).
- The solution either had to meet the current budget or include a supportable reason for additional expenditures.

Initially, the group was split about evenly between two major packages. We conducted a process during which the group created a common and powerful commitment to a solution that met the only two preconditions. As a result of this commitment, the group developed a common set of decision criteria and proceeded with the analysis not as antagonists, but as a team. They were able to envision new possibilities.

An example of the new approach is illuminating. Near the end of the process, previously hardened advocates of each package requested that they be given a "show and tell" of the other package, so they could learn enough to make an informed choice. Until then, the engineers had focused on advocating the advantages of their choice.



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The Results

After 18 hours of “big group” meetings spread out over four months, the group reached consensus on a configuration of a single primary MCAD package with a limited set of multiple smaller, specialized packages. Because the participants were the prime influencers regarding this issue, everyone else at Gamma quickly adopted the group’s decision. Today, over six years later, the issue has never resurfaced, showing that a genuine consensus was reached and the problem was truly resolved.

Summary

By applying the right process, seemingly intractable disagreements and conflicts can be resolved.