

Selected Articles Edition 1

Deification of Plans

From *Winning at Project*

Management

by Robert D. Gilbreath

Planning enthusiasts, sometimes called “cultists,” may promote an aura of sanctity regarding their plans. They may present them to the project or company organizations as untouchable, unchanging and therefore not to be tampered with. They do this by (1) seeking and achieving high management endorsement of plans, (2) strict or prohibitive revision procedures, or (3) creating detailed, *rote plans* which do not allow room for individual or management judgment and situational application.

A goal of any planning organization should be flexible, risk-oriented plans, plans capable of being implemented. The more stable, strict, and unchangeable they become the less value they have for the project. Plans are tools, means to an end, not objectives of the project. They should always be subservient to project expectations. To that end, they need not contain extraneous restrictions, prescribe Byzantine processes, or promote petty jurisdictional disputes; often the result of people using plans to solidify power.

Plans exist to accomplish project goals, and anything else they promote only serves to weaken their influence or contribute to their abandonment. Plans containing embedded “power elements” should be stripped down to their cores, exposing only what is needed to perform, understand or control. The rest is excess, and often fatal. The offspring of plans, what we call *procedures*, are even more susceptible to this tampering.

Two Approaches to Die Engineering: Early Versus Wait

From *Product Development Performance*

by Kim B. Clark and Takahiro Fujimoto

.... Japanese projects compress the die engineering cycle by quickly constructing prototypes and dies and by boldly overlapping product and process design and die construction. The sharp contrast between U.S. and Japanese patterns of overlapping is clearly in evidence in the timing of die design and cutting, major milestones of resource commitment. Japanese firms use an “early design, early cut” approach; U.S. practice is essentially “wait to design, wait to cut.” That Japanese projects employ a “tooling release order” prior to final release reflects the willingness of Japanese firms to make an early start in die construction.

“U.S. car makers reported spending as much as 30 - 50 percent of original die cost on rework due to engineering changes”

Because it entails making resource commitments while the body design is still subject to frequent changes, the Japanese early design, early cut approach entails significant risks of waste and duplication of resources. Even in Japanese firms, many engineering changes occur after final release of blueprints. At peak, hundreds of changes are ordered per month. The popular belief that Japanese firms freeze product designs early is a myth.

Behind the wait to design, wait to cut approach in U.S. projects is a desire to avoid expensive die rework and scrappage, which we would expect to be an inevitable consequence of the bold overlapping that characterizes Japanese projects. However, our study revealed a quite different reality. U.S. firms, despite their conservative approach to overlapping, were spending more on engineering changes than Japanese firms. U.S. car makers reported spending as much as 30 - 50 percent of original die cost on rework due to engineering changes, compared to a 10 - 20 percent margin allowed for engineering changes by Japanese producers.

Given these findings, effective management of overlapping is clearly much more than simply modifying the timing chart. Properly managed, the overlapping approach, even in the presence of numerous engineering changes, can simultaneously reduce lead time *and* lower the cost of engineering changes. This relies.... on relationships and skills that facilitate intensive cross stage communication. A close look at the outstanding performers in die development conforms the

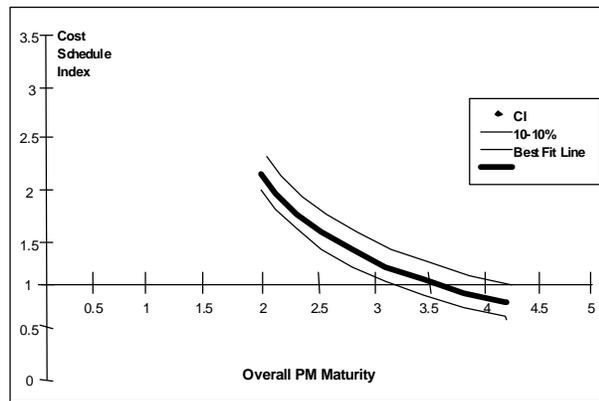
importance of relationships and skills.... Effective management of overlapped engineering problem solving results partly from early release of preliminary information from upstream and partly from downstream's efficient use of those cues to make a flying start. This process is not just a paper exercise; die engineers and tool makers act on the information they receive and make commitments before upstream work is officially complete.

... But there is more to integration than good feelings and face-to-face discussion; there is also skill. Die shops in high-performing companies develop know-how and techniques for absorbing engineering changes at minimum cost by using cutting margins, build-up welding, and block replacement. There is something of an art involved, for example, in leaving a slightly thicker cutting margin in an area of the die more likely to be effected by design changes, or in recognizing that the location of holes in a door panel change more frequently than the anticipated shape and therefore making the drawing die first and the pierce die last. In each of these situations, the key is to make subtle trade-offs between the cost and benefit of starting die making early.

... In companies in which die development takes a long time and changes are expensive, the engineering change process is quite different. Consider the context in which changes occur. In extreme versions of the traditional U.S. system, tool and die makers are selected in a competitive bidding process that treats "outside" tool shops as providers of a commodity service. The relationship with the die maker is managed by the purchasing department, with communication taking place through intermediaries and drawings. The individuals who design the dies and body panels never interact directly with the people who make the dies.

Project Management Maturity

Preliminary results of research sponsored by the Project Management Institute Educational Foundation have been released. The research measured the relationship between project management maturity and investment return and improvements in the application of project management tools, practices, and processes. Organizational maturity level and actual project cost and schedule performance were found to be correlated.



The research developed and applied a five-level project management process maturity (PM)² model to better understand levels of project management sophistication. The five-level (PM)² model illustrates a series of steps to help an organization incrementally improve their overall project management effectiveness.

The goal of the model is to motivate people to accomplish higher and more sophisticated project management process maturity by a systematic and incremental approach.

According to the study, the average cost of project management services as a percentage of project management spending

was 6 percent. This result is higher than had been previously thought.

The study found that higher levels of project management maturity were associated with better cost performance on projects. This relationship is shown below.

Project management maturity was found to statistically relate to better project cost and schedule performance. The payoff for moving to higher levels of project management from a low starting point is greater than the payoff for moving from a higher starting point.

This research also showed a lack of strong correlation between the levels of project management investment and the cost and schedule indexes.

A key point of the study's business findings is that even the highest scoring industries achieved only two-thirds of the total points possible in project management practices. This single statistic more clearly summarizes the

opportunity for the best to improve and for the rest to gain mightily.

This study demonstrated the value of project management, regardless of the level of sophistication at which it is practiced. It also illustrated that improved levels of project management maturity yield improved project results. Fortune magazine identified project management as the "career of the nineties". *In this world, many organizations are reaching out to the 'next level' of project management--that of truly providing demonstrative business value from project management practices, processes, and tools. In this endeavor, some will succeed, but many will fail.*