How metrics cut time-to-market

Using QFD to Develop Your Product

QFD: Applying ‘The 80-20 Rule’
ASK THE MANAGER

Q What is the cost of implementing all Four Houses of Quality?

A QFD’s cost depends on many items, including project size, complexity, the difficulty of obtaining customer requirements, and the number of product variables changing at the same time. One case study involved a manufacturer of paper goods that was designing both a new product and a new manufacturing process for it. The company decided in advance that it would execute all four Houses to completion. It took a team of 10 people one day per week for 8.5 months, plus airplane and travel expenses for four of the members. The effort was an entire success. Product design could be done directly from the QFD documentation and the knowledge that the participants gained from discussion and analysis. Relationships also improved between engineering and manufacturing, where barriers due to geographic distances had existed for some time. Assuming $75 per hour, which is a reasonable burdened hourly rate for engineering time, the resource time cost $222,000. Assuming $1,000 per trip, travel expenses totaled $148,000. Total QFD implementation cost: $370,000.

Q Is the use of QFD as widespread as the publicity would have one believe?

A Probably not. Many leading companies known for their leading products and processes, such as Motorola, have tried QFD. For certain projects or in certain departments where development teams have achieved positive results, QFD is used in an ongoing manner as the approach of choice. One international benchmarking study indicates that QFD may be used in 5%-10% of the projects in companies that have “adopted the methodology.” Many industrial leaders do not use it at all. Higher incidence of use occurs in the automotive and heavy-equipment industries. Many electronics companies have experience with QFD.