Based on the use of a learning exercise over almost two decades, the first article in this series (pgs. 32-37, MAINTENANCE TECHNOLOGY, December 2007) described how individuals tend to subtly side-step discussing costly errors and mistakes in their organizations.

Practice makes perfect when it comes to harnessing the "tools" that help optimize equipment and human performance.

In the first installment of this series, the author discussed the underlying assumptions of cultures-in-action and how human reasoning and resulting decisions impact performance and reliability. This month, Dr. Becker discusses how functional Collaborative Design tools contribute to creating a culture-of-reliability.

Not surprisingly, at first blush, many participants have been uncomfortable with what this learning exercise has revealed. Everyone likes to believe that they "walk the talk." Their experiences illustrate that they believe healthy cultures foster alignment among organizational goals, processes and peoples' behavior and personal values; very noble goals. However, the learning exercise asks people to dig below what is discussable and to make a distinction between what is espoused and what is actually produced in action. The level of alignment typically highlights compliance to goals rather than commitment, and how that compliance impacts decision-making and costs.

When it comes to equipment and business processes, decisions often are supported by rigorous data collection, including leading and lagging key performance indicators (KPIs) like return on investment (ROI) or schedule compliance. Yet, organizations typically do not apply the same data collection rigor to decision-making-in-action. Instead, as decisions are examined and accountability is invoked, people can fall into subtle defensive patterns in an effort to cope with systemic error and performance interdependencies in hopes of not being seen as incompetent or lacking team skills. The fear of being unfairly judged leads to distrust. These defensive patterns can limit the implementation of changes in equipment and business processes and feed a self-fulfilling fad loop. Based on their own illustrations, participants conclude that the full range of business value is restricted according to the level of discussability and trust.

Collaborative design

Webster's Collegiate Dictionary defines reliability as "suitable or fit to be relied on: trustworthy." For anyone working in a process-oriented industry, reliability is a key word in the Holy Grail of performance. Equipment and human decision-making form a complex performance platform that is essential to producing a competitive product. That's why collaboration is so important.

At the close of the referenced learning exercise, someone (either participant or leader) will ask

how to alter the self-fulfilling loop of distrust we have uncovered— and how to do it without continuing the same old pattern of espousing continuous learning, collaboration, accountability etc. It's a difficult question to answer; if it weren't, participants would already be implementing the answer in their organizations.

Working over the past 18 years with people's internal dialogues, (i.e. what they think, but don't necessarily say), I have collaboratively field-engineered a compact set of communication-based tools that I have come to call "Collaborative Design." The vision of Collaborative Design is to maximize organizational performance while simultaneously enhancing human dignity. These tools productively expand discussability and measure the business impact of doing so. Their fundamental premise is based on invitation as a way to create psychological safety for discussing issues.

Like any tool, Collaborative Design skill application is learned through practice. Great golfers, musicians, tennis players and executives, for example, understand the importance of repeatable processes for improving one's swing, sound, ground stroke or decision-making process. Collaborative Design is no different, except with one distinction—the current decision-making culture is unconsciously put in place to prevent the expansion of discussability, which is the very goal of Collaborative Design.

Collaborative design performance criteria
Collaborative Design is driven by a set of functional tools. Functional tools are any set of actionable tools with these performance criteria:

- **Defineable.** A clear definition and purpose exists and can be verified in action.
- **Measureable.** Any tool or cluster of tools can be assessed for its business impact.
- **Integratable.** Any tool or cluster of tools can be taught and applied in the field and used with other applications.
- **Repeatable.** Any tool or cluster of tools can be applied over and over with the same end result; skill improves.
- **Sustainable.** Any tool or cluster of tools endures over time.
- **Self-correcting.** Any tool or cluster of tools will endure because unintended consequences are uncovered.
- **Ethical.** Given their self-correcting nature, any tool or cluster of tools is non-manipulative, maintaining business value and human dignity.

Fig. 1. Collaborative Design functional tool set

[redacted] actions [redacted] control, hence [redacted]

Table I. The 4 Domains of Invitation

True invitation matched with true acceptance—this is informed choice for both team members.	**True invitation matched with false acceptance**—this is public acceptance and silent resistance.
False invitation matched with true acceptance—this is a setup and likely to undermine trust. False invitation often is masked with a mixed message. "I trust your work on the income statement, but let me review it before you send it anywhere."	**False invitation and false acceptance**—the struggle for control marked by little trust, public posturing and private deals.

[redacted]

Table II. Continuous Invitation Production Script

Continuous Invitation

What To Do:	How To Say It:
1. Statement of what you want.	" I'd like to discuss..."
2. Value statement, why you think it would be important for them to engage.	"I think the value to you would be..."
3. Right to pass (decline).	"You can decline if you want."
4. Trade-offs to the inviter.	"Without the discussion I have to..."
5. Inquire and wait.	"Are you interested?"

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