

# CONTROL

F O R T H E P R O C E S S I N D U S T R I E S

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## Justifying Fieldbus II

Last month's column discussed a variety of ways that end users have found to justify investing in fieldbus-capable instruments. If you work for a large publicly traded firm, capital expenditures have to pass some rigorous tests, showing a "return on investment," or ROI, that significantly exceeds the "time value of money"—the base "cost of capital." One's capital budget is not unlimited, so it's likely that worthy projects that involve other expansions or upgrades will compete for the limited pool of money available. Our finance people are going to invest where there's the most promise—that's their job—and

ables of the fieldbus user layer—can unlock funding in land-locked brownfield sites. Many refineries are working overtime to get people out of sensitive areas, but these same sites may have rack rooms crammed with seven-foot monolith rack boxes from legacy DCS days. Even legacy remote IO solutions involve a degree of concentration and shared risk that falls short of the distribution and fault tolerance of fieldbus. As sites relocate their operators to outside the "blast zone," converting to integrated fieldbus-capable smart devices will further



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more than likely what we as shareholders would want them to do.

Smaller and/or privately held firms will have similar hurdles. Perhaps the justification can be less rigorous, but one's personal accountability can be greater. Back in the March issue, Editor

in Chief, Walt Boyes, in his editorial, "Profession Development Kit," ([www.controlglobal.com/articles/2007/043.html](http://www.controlglobal.com/articles/2007/043.html)) mused about the stature and visibility—or the lack thereof of our discipline. Information Services or IT typically have greater visibility and even vice-president status in a non-IT manufacturing company, so budgets and investments can be championed on a very high level. How many millions has your company spent an ERP package? Do you suppose a rigorous ROI justification was needed? If you're part of a smaller firm, you may be the one having to make the sale.

There are other "hot buttons"—aside from ROI—that can be tied to one's proposed fieldbus investment. Consider the following.

- Fieldbus is friendly to the environment. At a certain gas well production network part of the justification for using fieldbus was the small footprint of each installation. Going into an environmentally sensitive area, small size and power consumption meant the endangered wilderness caribou, wolf packs and local ranchers were less affected by the production facility. It may seem trivial, but to the vice president who fears his license to operate can be stalled, or even revoked by local stakeholders, it can be the silver bullet that speeds sanction for the strategy.
- Safety through distributed intelligence. Small footprint and greater distribution of intelligence—distinct deliver-

reduce the need to wander the plant attempting to validate a measurement or verify a control valve.

- Human resources. When the competition for a competent, motivated workforce is keen, having a leading technology that provides the greatest insight and opportunity to the staff can be a significant differentiator. For its new Long Lake upgrader project in the oil sands region of Alberta, OPTI Canada saw Foundation fieldbus as a way to attract the best talent. George Cushon, who spoke at the sold-out Calgary FF Workshop in June, described how OPTI is getting operators involved in the commissioning of the fieldbus devices. I'd consider this as a "best practice," as his staff will emerge from the construction phase with extraordinary insight and familiarity with the control systems infrastructure. Smaller staffs at remote sites will need the skills and empowerment to solve issues without much help from the outside.
- Abnormal Situation Prevention. Abnormal situation prevention is a key deliverable of Foundation fieldbus. Going beyond mining history for statistical correlation, ASP methods use the "noise" normally filtered out of process measurements and are superior for the early detection of impending upsets. If your organization has approved large expenditures for rules-based "operator advisory" programs—normally designed to assist novice operators to "keep out of the weeds" as it were—why can't the same reasoning be applied to support an investment in digitally integrated smart devices?

ISAs technical conference October 3 in Houston will have more end-user stories about fieldbus benefits. Join us! 

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