

Developing a “Best in Class” Business Process Management System

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With improved productivity becoming a benchmark for success in today’s challenging economic environment, business process management (BPM) is a critical business function. BPM involves, among other things, finding ways to improve customer focus and satisfaction while eliminating unnecessary time, material, and effort. In the case of businesses like United Defense’s Armament Systems Division (ASD), BPM also means generating the greatest possible return on investment (ROI) from every asset within the organization. These processes require the ability to create a high level of alignment with business objectives, as well as the seemingly contradictory ability to respond rapidly to changing circumstances.

Change can be difficult, and ASD, an organization with roughly 2,000 employees located at four major sites and five smaller support sites, experienced first hand the struggles of creating and instituting a BPM system that employees could embrace and use. After several false starts over the past decade, the division finally developed the formula for success. The result has been extremely rewarding, and ASD is now experiencing operational improvements few employees would have imagined just a few years ago.

The deployment of ASD’s business process model has been accompanied by improved profitability, increased productivity, and a greater focus on customer service and satisfaction. The management team has become more aligned and focused on attainment of critical customer objectives, and it demonstrates a dramatic ability to shift

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gears in response to newly emerging customer needs. The problems and successes United Defense experienced while creating its business process model provide valuable lessons for other organizations challenged with developing a more process-oriented business culture.

The Emergence of ASD’s “Top Down” Business Process Team

Significant business improvements are often driven by compelling operational needs. Before commencing ASD’s BPM initiative, significant business issues were identified that constituted a critical need for change:

- Customer satisfaction problems were becoming increasingly evident, and at times, appeared difficult to resolve.
- Some segments of the business were not meeting profitability targets.
- Internal conflicts between departments, programs, and key personnel were increasing and showed evidence of poor definition of and alignment to overarching business objectives.

Leadership team discussions of the essential business processes were held to more clearly address the business deficiencies. These discussions revealed the need for improving the division’s “business process understanding” in virtually all areas. The leadership team determined that the business—and particularly business processes—had become extraordinarily complex. Many new and emerging customer needs resulted in programs and operations that were difficult to understand, much less to effectively manage and measure.

The team decided to postpone a planned ASD reorganization in the near term and focus on the development of a process-based understanding of the business before tak-

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ing any further action. This led to the establishment of the ASD top down business process team, which included both functional and program directors.

The mission of the top down business process team, which came to be known as the top down team (TDT) was to:

- Identify and define the division’s key business processes
- Determine clear ownership of those processes, including definition, control, execution, and accountability
- Determine the interrelationships, boundaries, and hand-offs between the processes.

Immediate Impacts of TDT’s Efforts

As the TDT began dissecting the division’s process problems, it began to generate both immediate and long-term positive impacts. One of the immediate impacts was changing the monthly operations review format to a new concept called the “execution excellence review” (EER). The new format was built on a distinctive, process-based measurement approach to operations and included customer “scorecards.” This mandatory internal customer satisfaction reporting system put real teeth into the accountability of internal customer/supplier relationships. Directors had to identify the goods and services they needed from other internal suppliers in order to be successful in delivering their products and then rate those suppliers. If they rated suppliers as “satisfactory” and then failed to meet any objective, there was clearly no one to blame but themselves. This process initially led to a rash of “unsatisfactory” and “marginal” scorecard ratings—but it also led to a great deal of focus on fixing broken processes and communications, not just putting bandages on them.

After developing the EER review process, the TDT invited the local Defense Contract Management Agency (DCMA) to join its senior-level executive reviews and discussions and submit scorecards for its interactions with division suppliers.

As the EER process matured, TDT integrated the entire ISO 9001 quality management system review (QMSR) into it. This addition brought more focus on product and process quality as well as corrective and preventive actions. The method used to integrate the QMSR into the monthly EER didn’t appreciably increase the time required for EER but certainly increased the focus on quality, customers, and measurability; at the

same time, it eliminated the time required for QMSR at separate stand-alone meetings. The process had the added benefit of immediately reducing the amount of executive meeting time required.

Establishing ASD’s Business Process Model

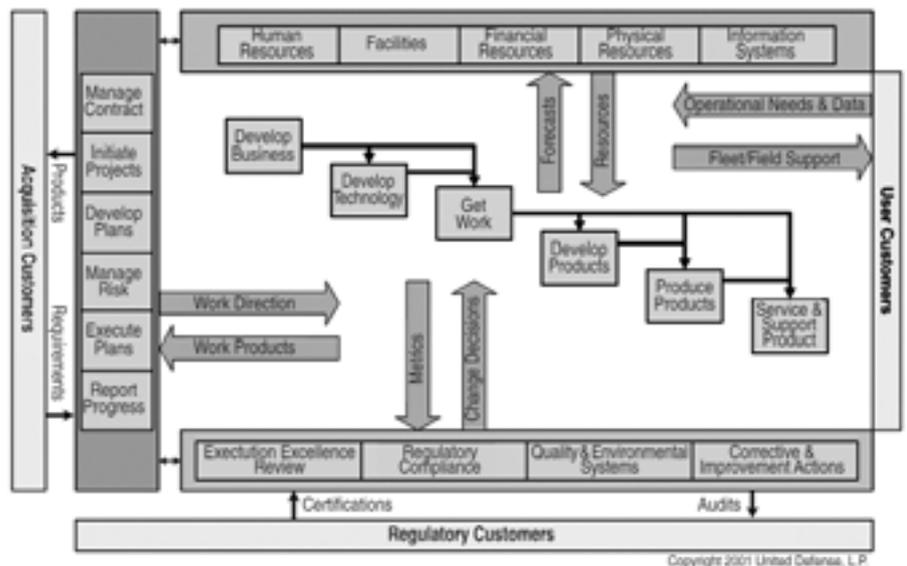
While the TDT was continuously refining the EER process, it was also establishing a new business process model (Figure 1), and the synergy between the two processes was inescapable. In order to avoid the pitfalls of previous efforts, the TDT developed a unique, hybrid process improvement approach. The approach uses some of the best practices evolved through various proven methodologies, such as Total Quality Management, Value Stream Mapping, Re-Engineering, Six Sigma, Baldrige, Lean, IDEF (Integrated Computer-Aided Manufacturing (ICAM) DEFinition), and others.

The United Defense model is different from all of these because ASD rejected the canned solutions approach and created a tailored process that used only best practices that clearly supported the business process model. The model is available to all employees on the ASD intranet home page. It incorporates numerous features to ensure simplicity, consistency and user friendliness, for example:

- A help menu, glossary, and built-in training modules
- Web page-style “drill down,” where a simple click on a process feature opens the underlying process
- A drop-down menu on the left margin for faster access to lower-level processes
- Direct links to thousands of lower-level process and procedural documents.

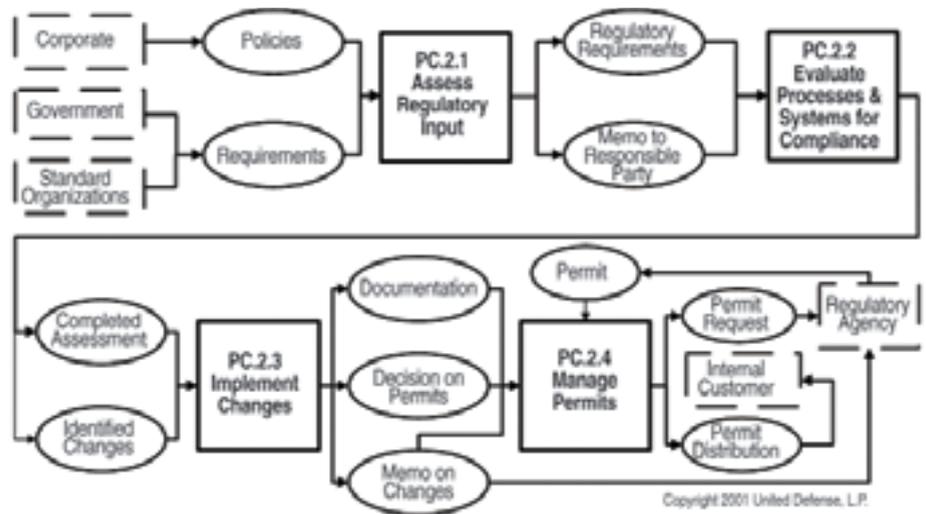
A key feature of the ASD business process model is the clear recognition that “customers” can be very different

FIGURE 1. ASD Business Process Model.



depending on where your process is identified in the model. For example “acquisition customers” are identified at the left edge; “regulatory customers” are identified at the bottom; “user customers” are on the extreme right edge; and “internal customers” are implicitly identified between each major process group. Each of these customers has clear inputs and outputs through defined interfaces in the model. Imposing this clarity of “who are your customers?” and “how do you satisfy their needs?” is critical in achieving process understanding and, more important, true customer satisfaction.

FIGURE 2. Business Process Model Drill-down View: Manage Regulatory Compliance.



An example of drilling down in the model is provided by looking at the level one “Manage Regulatory Compliance” process found at the bottom of the model. By simply clicking the process title, the next level process is revealed (Figure 2).

The process display technology used in the model is not revolutionary but composed of commercial off-the-shelf tools; but clearly, the process content, when correctly organized and linked with the right tools, is extraordinarily useful. This process content did not prove easy to develop, and the challenges in doing so are worth understanding.

Business Process Improvement Challenges

The challenges faced by the TDT can be broken into three broad categories: teams, tools, and techniques. Each of these areas poses special challenges and must be critically assessed and uniquely tailored to the environment in which it is expected to operate. If any of these critical change drivers is missing or misaligned with needs, program success is at risk.

Teams

The TDT included a small number of senior executives charged with defining the process vision. They needed to get the process experts at middle levels to not only accept the process vision, but also take the time to broaden it and sell it at the working levels. These mid-level managers were expected to build the teams at the next level, as well as lower levels, and to ensure the process vision was understood and communicated.

Since most managers simply did not have the time available to devote to extensive process development tasks, and many of them lacked the process development experience to address the project’s needs, the TDT went in search of expert process consultants. The search focused on finding local resources willing to adopt the TDT’s vision for ASD business processes and then supplement it with the necessary process skill and administrative support.

ASD hired Dashe & Thomson Inc., an experienced Minneapolis-based firm that provided capable and flexible support, especially in providing on-demand process analysts who interviewed and documented the “as is” process baseline required by the project. Dashe & Thomson maintained an on-site project lead and brought in additional resources as workloads required it.

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It is a common phenomenon that people resist change. This project was no exception. One of the challenges the project team faced was both overt and covert resistance to development of the process model. Much of the resistance was overcome by persistent use of verified milestones, deadlines, and accountability. In addition, it was necessary to devise tests of “process realism,” so any smoke-and-mirror approaches would be exposed. In this environment, process measures and audits became the norm. By simply adding model requirements to the existing internal ISO 9001 quality audit program, ASD realized a highly effective, low-cost approach to process verification.

This proved extremely helpful in ferreting out those who might be tempted to look for process shortcuts that fell short of the objectives.

The ASD approach to dealing with resistance was to focus on behaviors, not personalities, and to regularly assess performance in attaining the process objectives. With this approach, resisters—those failing to actively engage in the process—were invariably exposed through process performance measures and milestones, and so isolated themselves.

Tools

With the TDT focusing on simplicity and usability, the tools to build and use the business process model had to be proven Web-based technologies that offered user simplicity and cost effectiveness. A sub-team, which included Dashe & Thomson process consultants, reviewed a number of possible solutions before selecting a combination of software technologies that satisfied the essential tool requirements:

- User-friendly with low learning curves
- Commercial off-the-shelf products
- Low risk and low entry cost
- Web-based and highly scalable
- Open architectures and simple interfaces.

Microsoft Visio® was selected for process diagram documents because it is fairly robust, widely understood, and relatively inexpensive. The Visio diagrams are checked in to the intranet and linked using Stellent® Universal Content Management, a flexible, user-friendly, Web-based content management suite that proved to be a high-value choice because of its low initial cost and risk. It was fully deployed in a very short time with the help of technical expertise from Fishbowl Solutions, a local Stellent distributor. Once installed, the software required only minimal user training.

As the team gained experience with these tools, the TDT's vision of simplicity and user-friendliness proved well founded: very few software

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glitches emerged, allowing the process teams to stay focused on the business of defining and documenting processes. As the business process model emerged, the tools became almost transparent to the users—a sure sign the TDT had met its goals.

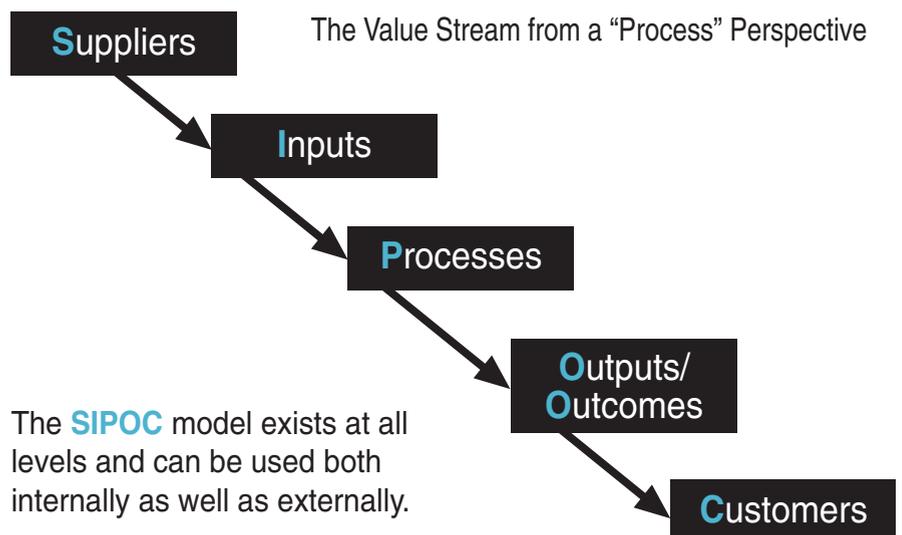
Techniques

Clearly defining the business processes proved more difficult than many expected. The age-old (and expected) issues of unnecessary complexity, administrative burden, turf protection, rice bowls, indifference, and even intransigence all had to be addressed—and solutions had to be viable, not only for the process owner but for the organization as a whole. This last idea was sometimes problematic, since in some cases it proved preferable to sub-optimize a specific process in order to optimize the overall process. Explaining this

idea to those on the receiving end was challenging, since they often had limited visibility and understanding of the organization as a whole. Clearly, individual and measurable performance objectives had to ensure that support of the business process model objectives were communicated and understood.

In the challenging and sometimes charged atmosphere of defining boundaries, inputs, and outputs, the position of the Dashe & Thomson process consultants as neutral agents was important. Using simple concepts like the

FIGURE 3. SIPOC Model: the Value Stream from a Process Perspective.



SIPOC model shown in Figure 3, the process consultants walked ASD employees, managers, and directors through the development of their process models. Then using the defined tools, they assembled the processes into “a system of systems” which became the business process model. As this process was completed, the broken interfaces, missing links, and misaligned priorities were systematically uncovered and addressed.

Business Process Model Pays Off

The business process model has now been established and operating long enough to clearly demonstrate the magnitude of the accomplishment. Processes are regularly measured and reported. Internal conflict and tensions are dramatically reduced. Most important for United Defense stakeholders, ASD has generated record-setting financial performances over the last two years. As the division continues to build and model more advanced processes, continually improved customer focus and execution excellence are expected.

In order to ensure that the business process model would become an enduring foundation for improving process management and future growth, it had to be fully integrated into the continual improvement philosophy of the organization. This was a key lesson learned from previous process improvement efforts, many of which turned into “shelfware” when the implementing teams disbanded. The tendency to reinvent process improvement with new management approaches was replaced with an enduring but flexible continual improvement approach in the business process model. Its architecture has provided a robust and flexible framework for integrating other process improvement initiatives, among them ISO 9001 for quality; ISO 14001 for environmental management; CMMI® for software & systems engineering; P-CMM® for workforce development; and “lean thinking.” Flexible architecture is essential for accommodating new initiatives and evolving customer needs while always providing a baseline from which to measure improvement.

By starting at the top and consistently maintaining a vision of reducing process complexity and giving process champions latitude to define and improve their processes within the defined process architecture, United Defense has built a system that has proved it can meet the challenges of a continually evolving and changing business environment. By augmenting the expert minds that made ASD successful in the past with the expert knowledge embedded in its business processes, ASD has created a solid path for improving business performance and satisfying customers well into the future.

Editor’s note: The author welcomes comments and questions and can be reached at keith.howe@UDLP.com.

PM’s Dilemma Hits the Mark

I liked the article “The Program Manager’s Dilemma” in the May-June 2004 issue of *Defense AT&L* very much. I particularly liked the author’s analogy with “The Prisoner’s Dilemma” and the truth tables that illustrated the consequences of the various combinations of trust and don’t trust.

I was the software team lead on a contract with one of the prime DoD contractors several years ago, and mutual trust worked quite well. We both made mistakes and both forgave each other when it happened. We managed to avoid blame-throwing and letters to the contracting officer. I agree that if a person must pick one side as a default, it is better to err on the side of trusting even if you get burned a few times. Otherwise, you will be always be callous and suspicious and never reap the benefits of a mutual trust relationship.

One thing people in the government often fail to appreciate is that contractors must make money to stay in business. They can’t deficit-spend like the government. Often people view this money-making as greed, when it is only survival. Viewing it as greed leads to mistrust.

Al Kaniss