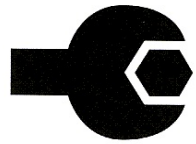
INTEGRAL INSIGHTS

NEWS FOR INTEGRAL CLIENTS

OCTOBER 1994 • VOLUME 5 • NO.3

Tools of the Trade

Companies use business models to make reengineering efforts a reality



This article is the second in a two-part series about Business Process Reengineering. In this issue, how business models are used to implement reengineering is explained.

Business modeling is a method used in Business Process Reengineering (BPR) in which organizations track critical information and its flow throughout the enterprise as they redesign business processes.

The key benefit of using a business model as a re-engineering tool is that the business's essential tasks, who performs them, the data associated with those tasks and where it goes next are grouped together at the same time, which means you can take that information and use it as the basis for developing an information system.

Alcoa, a $11 billion global aluminum and plastics supplier, used a business model when the company decided to make the human resources department a strategic part of its organization. As part of the effort to turn the department from simply administrative to a strategic function, making it a valuable resource that would fully support the company's key business objectives, Alcoa formed a multidisciplinary BPR team composed of HR functional experts and information systems specialists.

This team worked under the direction of a steering committee which included four business unit presidents, as well as functional leadership. The BPR team was charged with, among other things, automating and streamlining HR processes while finding a way to provide valuable data directly to decision-makers in Alcoa's 20 separate businesses around the world.

Business modeling was a perfect method to accomplish this goal, says Lori Leonard, Director of Human Resources at Alcoa. "There had been efforts in the past at Alcoa to do continuous improvement. Business modeling is very different. It's a real in-depth look at your business. It means starting with a blank sheet of paper, identifying strategic objectives that link to your business objectives and then determining what kinds of recurring activities we need to perform that will accomplish these objectives. The whole intent is to use your business model as a foundation and then use information technology as an enabler, a way to automate recurring activities, and easily give us information to make strategic decisions."

HR's strategic objectives were determined after interviews with Alcoa executives and division managers, and benchmarking other companies. Once data was gathered, the BPR team put the data into a logical business model, a computer-based graphical representation of the information used and functions performed by Alcoa's HR department.

"Business modeling gave the team a common language and a common way of looking at people management. We now have a good picture of how we want to manage people," Ms. Leonard says.

Once the BPR team developed a business model depicting Alcoa's ideal HR processes, the next step was to decide how to apply information technology to implement the processes. The team developed a set of architectural criteria for their dream information system. The criteria embrace both functional and technical aspects, Ms. Leonard points out. For instance, the technical side listed specific features, such as a graphical user interface, client/server and distributed architecture. The functional aspects came directly from the business model and included things like support for teams and more flexible organization structures, and capturing data about knowledge and skills to support competency-based human resource management.

The next step was to decide whether to build this dream HRIS or buy one that would meet all the requirements defined in the business model and architectural criteria.

Enter Integral. Out of fifty-two vendors, Integral was the only company building applications by using business models. Additionally, Integral's models matched Alcoa's evaluation criteria.

"Other vendors said they had models, but they derived them only after they had built their applications. That's not a models-based approach," Ms. Leonard says.

The reason Integral's models matched Alcoa's evaluation criteria is in some part due to the fact that both firms' work is based on the proprietary modeling methodology touted by Naomi Lee Bloom, a leading business systems analyst.

Integral started application development by looking at the business needs of HR first, then developed applications to meet those needs. Integral hired business analysts with expertise in HR to gather HR requirements. As the requirements multiplied, the analysts began building a logical business model to track their information. Logical, in this case, means creating a model that has no preconceived system constraints, like hardware barriers or processing time. The model is built on what logically has to happen in a business area to perform work.

The analysts attended Joint Application Design (JAD) sessions with Integral

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clients. In these sessions, they brainstormed about what software of the future should look like and how it should perform. "The JAD sessions allowed them to hear about requirements from different perspectives," says Lee Klein, Vice President of InPower Applications Development. "That's really important. We want flexible applications that work for everybody with few modifications, so we need to hear different viewpoints."

After Integral's analysts gathered the requirements, they divided them into data (people, places, things, concepts and their characteristics) and events (changes in a business environment that create multiple tasks driven by work-related procedures that a computer application must respond to and record).

The team then mapped each piece of data to the event that uses, creates or updates it.

At this point the business analysts had created a model that told them not only how the data was used by a given event, but why the event was developed that way. Just to make sure they'd kept themselves true to fulfilling customers' requirements, the business analysts brought in customers, like Alcoa, to participate in Rapid Application Design (RAD) sessions. During the session, clients, developers and the business analysts sit down at a computer and design system prototypes based on the business analysts' model. The model and prototypes are given to developers who code the ideas into software.

"Models let us analyze the product conceptually even before there's a product. We can quickly see if it meets our business requirements. If there's not an exact fit, we know we'll either have to customize our process or the software, and we'll be able to quickly determine which would be easier," Ms. Leonard says.

"Integral's detail-rich models provide a bridge between the high-level business analysis and the detailed information systems analysis that is necessary in reengineering. It's a service that few software companies offer today," adds Ms. Bloom. ❖