caused by the interdependence of individual systems and files, and insuring that the systems developed more closely meet the expectations and requirements of management.

A DATA MODEL APPROACH TO BUSINESS SYSTEMS PLANNING AND CONTROL—Daniel S. Appleton

The management problem is to establish a viable Business Systems Plan based on the basic business mission. The MIS problem is to implement the Business System Plan. To do this, MIS must create a system structure in the business which will respond to constant changes. MIS must understand the fundamental structure and keep that structure flexible in response to the business.

At Byron Jackson Pump (BJP) we first developed a data model of our business structure.* Next, we tested this model conceptually to determine how it would respond to various changes: e.g., decentralization, product standardization, new product development, productivity improvement, cost reduction.

The data model of the business was then established as our basic Management Systems Technology and placed under control of what we call the Storage and Processing Control System (SPCS). The SPCS provides centralized, standardized control over all data elements, internal processing routines, minimum edits, security routines, and physical file structures. It defines the basic management technology which can be customized to the requirements of the various BJP manufacturing locations and DP Service Centers worldwide. It handles the basic spectrum of manufacturing systems, from process control through job shop control, including any hybrid mix of the two, and accommodates fluctuations based on product mix changes and strategic plans.

The level of management technology of the SPCS is controlled by the MIS Steering Committee, which funds major modifications. Minor modifications required to customize for efficiency or effectiveness at a given location are controlled by the location's System Management Team.

BJP’s two other MIS control systems, i.e., the Input and Output Control Systems, provide the basic tools for distribution, implementation, and customization of the management technology of the SPCS at individual locations. The I/O Control Systems are managed by DP Service Centers in coordination with local Systems Management Teams in each location.

All three control systems taken together comprise BJP’s Functional Network (FN) concept. FN is an approach to distributed data processing which concentrates on improving the efficiency and cost-effectiveness of the three basic DP functions: (1) Storage and Processing, (2) Input, and (3) Output. Its advantages over the traditional Applications Network concept include:

1. Lower DP marginal costs
2. Increased compatibility with business growth and dynamics
3. Better control over DP technology
4. More efficient use of DP overhead
5. More effective use of direct DP expenditures
6. Easier to customize
7. Reduced implementation time
8. Higher quality systems
9. Easier to maintain systems.

In summary, the data model describing BJP’s management system technology provides a consistent, comprehensible foundation for development of the business system structure. Through BJP’s Functional Network, the development, maintenance, implementation, customization and distribution of that management systems technology is controlled based on the specific needs of individual locations.

INFORMATION SYSTEMS PLANNING IN THE NON-PLANNING ENVIRONMENT—Michael J. Kirrene

Avco Financial Services (AFS) is the third largest consumer finance company in the U.S. with sizable operations in Canada and Australia and footholds in Puerto Rico, Great Britain, and Japan. The management team is young and aggressive, operations oriented, and determined to be number one. By any measures AFS is a successful company.

From a planning point of view, however, AFS represents the “typical” organization as defined by John Zachman. Corporate planning and controlling efforts are focused upon individual projects. The formal Business Systems Plan as defined in the literature does not exist, and attempts to develop one would be viewed as bureaucratic endeavors designed to further delay addressing immediate data processing needs. While a company can obviously exist without a formal plan, the Information Systems Department must have a plan tied to the business goals in order to maximize its contribution to the welfare of the company it serves. It is even possible with today’s operations support systems that data processing activities (or lack of activities) can be detrimental to the business.

The challenge is how to develop effective planning in a non-planning environment. Our Information Systems Department has taken a unilateral approach, including senior management whenever and wherever possible, but always taking the initiative. The results have been mixed. Although we do not have a Business Systems Plan, we at least have projects plans reviewed by senior management on a quarterly basis and, more importantly, have taken that first crucial step of planning together with the company.

Intellectually, it is easy to accept the need for a Business Systems Plan properly derived from a careful analysis of the functional processes and information flow of the business. In the real world, however, it appears that rather than attempting to sell the typical company on Business Systems Planning, the Information Systems Department should be acting as a catalyst, developing business planning sponsors, aligning data processing more and more with the business objectives by learning more about the business it serves, and aggressively participating in the evolution from project planning to Business Systems Planning.