

# HRMS PLANNING PAYS OFF

## *Down-To-Earth Strategies For Your System's Success*

**T**he process of translating human resources management objectives and constraints into a successfully implemented human resources management system is often doomed to failure before it begins. Many human resources management system (HRMS) projects are misdirected toward a nonproblem, a poorly defined or misunderstood problem, or a problem better solved without automation.

A strategic approach ensures that automation dollars are directed toward high payoff projects, that each automation effort builds upon a solid foundation of consistent and agreed upon data and process definitions. But it also ensures that efficient use is made of computing and staff resources.

Strategic planning is an important yet frequently ignored first step in the life cycle of a new or substantially upgraded HRMS. The goal of such planning is to create a conceptual framework within which individual automation projects (including system upgrades and maintenance) can be logically and, where appropriate, technically integrated. Such a goal is achieved by:

- Developing a model of the business to be supported
- Determining which business functions and data would benefit most from various levels of, and approaches to, automation
- Integrating these automation priorities into a realistic concept of the target system
- Developing a plan for transforming today's system into the desired system.

The first step in developing a strategic HRMS



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plan is to understand the business objectives, processes and data the system must support. There are many analytical tools and techniques for developing and documenting this business model, some of which are also automated.

Because the business functions of an HRMS are data intensive, a good starting point is to define the relevant data entities and their relationships, perhaps using an entity-relationship (E-R) diagram. In this context, a data entity is a uniquely identifiable person or thing about which the organization has a continuing interest in collecting, storing, analyzing and/or disseminating data.

Although each organization's E-R diagrams are unique, there is considerable similarity in the relevant data entities and their relationships between organizations. This similarity in E-R diagrams suggests that generic or packaged software may address many human resources information management needs. However, be aware of packages whose entities and relationships are different from what is needed — changing these relationships in packaged software usually involves very risky and costly modifications. Even with relational data-base technology, care must be paid to properly define these relationships.

The E-R diagram, when combined with information about the volumes of unique occurrences of each entity, can be used to help identify those entities that might benefit from automation. For example, a single union contract can be filed manually, but administering 315 separate HMO schedules benefits from automated support. Collecting volumes about such events as promotions or grievance filings that affect these entities also helps identify automation targets.

**A** second analytical technique focuses on the business processes that transform data, rather than focusing solely on the data. When complex business processes are involved, data-flow diagrams are useful graphic devices for exploring and documenting the underlying business processes. These diagrams describe business processes as a series of manufacturing steps in which each process receives, transforms and either stores for later use or passes on bundles of data. Using them decomposes each business process until the lowest level process can be described simply.

Regardless of the analytical tools used, the purpose of defining the business model is to provide a basis for identifying automation targets. Therefore, it's critical that the business model is described in logical terms of what must be done and not just how it is done today.

This analysis is just as relevant when enhancing current systems as when undertaking a full-scale systems replacement project. In fact, strategic systems planning is often the best way to avoid an expensive replacement project when a carefully focused upgrade would suffice.

In searching for targets of automation, and then defining priorities among them, the systems staffers are always searching for ways to improve and/or reduce the costs of the underlying processes or information management.

There are several characteristics of the human resources business model that prove the underlying processes or data, if automated, would improve service levels and/or lower costs, including:

- Occurrences/volumes — the more frequently a business process is performed or the more occurrences of a datum or group of data, the more persuasive the case for automation. Computers and communications technology are usually faster, more reliable and cheaper than many types of many processes.
- Repetitiveness — similar to frequency, but with greater emphasis on contiguous (in time or by the same person) process performance and highly repetitive processes are also good targets for automation.
- Tight processing windows — when a number of essentially serial activities must be completed in a very short time span. Automation makes possible what humans cannot do. Although payroll calculations are an obvious example of this, rapid data access for impatient managers also creates a tight processing window.

- Geographic decentralization — electronic document transfers, voice and electronic mail, distributed computer processing and many other automation techniques help eliminate geographic distance as a barrier to communication and/or to shared responsibilities. Using the computer to route a personnel action for review or approval permits early and continuous data capture, eliminates lost paperwork and provides useful workload statistics.

- Strategic necessity — the company's competitors do it, so it must do it also. If unions use computer models to evaluate contract proposals and prepare their responses, or competitors employ sophisticated health care cost containment procedures to reduce their fringe benefits costs, then it's essential that the organization must be equipped similarly.


- Strategic advantage — the company can gain an advantage on its competitors through automation. High technology firms' use of personal computer-accessible job postings to attract skilled technical staff in a tight labor market is an excellent example of human resource automation for strategic advantage.

These are by no means the only business model characteristics that could be considered, and they must be tempered by a technical perspective. Automation of personnel processes and data becomes much simpler and less costly if it's done within a supportive technical environment. For example, adding the human resources staff to an existing electronic mail network is far easier and less risky, costly and time consuming than setting up a network solely for the human resources organization. It's impossible to successfully envision how to automate a particular process or data without already knowing what works best in the department's technical environment.

To effectively define automation priorities for human resources management, it must be under-

stood what technical tools and facilities can do. Only by synthesizing an understanding of the business model, communications and computer technology, and the relevant costs and benefits can the staff realistically identify automation targets.

**T**HE FIRST  
STEP IS TO UNDERSTAND  
THE BUSINESS OBJECTIVES,  
PROCESSES AND DATA THE  
SYSTEM MUST SUPPORT.



Systematically identifying the human resources automation targets in an organization usually produces too many possibilities to tackle at one time. A quick glance at the marketing literature of major payroll/personnel software package vendors merely hints at the range of possibilities for which these vendors perceive a market.

Defining the universe or the solar system of possible automation targets, now the staff must decide how best to group these targets and define priorities among them to obtain the maximum return on the automation investments.

**FIGURE WHICH GROUP WILL  
PRODUCE THE GREATEST RETURN ON  
INVESTMENT**

Grouping possible automation targets and defining priorities among them should be based on which automation projects or sensibly arranged groups will produce the greatest return on the required investment.

To do this analysis, returns should be defined to include both direct and indirect cost savings, as well as many less tangible benefits, such as better employee morale. The required investment, which must at least be guesstimated, also should be broadly defined to include the direct costs, as well as such negative impacts as organizational disruption and business risks.

A certain proportion of personnel's automation resources may be unavailable for new initiatives because of forced priorities. For example,



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changing tax laws force related changes to existing systems, and an employee class-action suit might force automation of accident or workplace hazards reporting. Other priorities emerge from primarily technical considerations, such as conversion of an existing, yet obsolete, automated HRMS to a new technical environment.

Once these forced priorities have been accommodated, some combination of the following factors should guide the organization's selection of automation priorities:

- Rescue clerical burden/cost/risk and/or improve data accuracy. Look for an obvious and easily calculated return on your automation investment if there are large numbers of clerical human resources support staffers that are costly, error-prone, hard to hire and retain, and difficult to manage.

Automation of payroll calculations, basic employee record keeping (including dependent, beneficiary, applicant or retiree), government regulatory data collection and reporting, routine telephone follow-ups or intraorganizational routine phone calls, the maintenance of policy and procedure manuals and many other similar functions can often be justified on the basis of expected clerical savings and/or data quality improvements. The most common, payroll and required record keeping, are already automated in most organizations, but these existing systems may warrant further attention to achieve other automation objectives.

- Improve strategic planning/decision making. If a computer model is perceived to help reduce the cost of negotiating and/or executing a new union contract, then the dollar value of that model can be estimated. But the return on most investments in decision-support, management information, and/or planning-oriented automation are not so easily quantified.

Health care cost containment analyses, management succession planning, benefits package evaluations and even the ability to do *ad hoc* inquiries on work force attributes can be high priority automation targets when the organization accepts more qualitative arguments for these investments.

- Improve work force productivity. Computer-based training is a clear winner here and is rapidly replacing more expensive and often less effective classroom training programs.

But automation can often be justified on this basis for less obvious possibilities, including computer-based counseling, attrition-reducing morale boosters, such as annual benefits reports and timely vacant job postings and accident/injury analyses to support hazard reduction efforts. Another justification involves the productivity of the human resources organization itself. High on the automation target list for fairly large human resources organizations are a broad range of case management or tracking applications, such as EEO and OSHA injuries and accidents.

Although this is a very simplified explanation of how personnel automation targets are identified and the priorities among them set, in actual practice, developing a fairly concrete list of automation projects with defined man/machine boundaries, data/process scope and at least cost/benefit guesstimates is:

- An interactive process. Because the costs and benefits are guesstimates, and very qualitative and highly subjective at this stage, there is a consensus building, as well as analytical purpose to these iterations.

- Best done by seasoned systems analysts and user executives. Quickly moving from business models to automation targets requires considerable experience with what works, how technically it could be done and the relative difficulty and benefit of various types of automation.

- Subject to rigorous but not scientific methods

- A mirror to corporate culture.

The effects, however, on today's human resources management processes and data of corporate strategic planning activities and related human resources strategic planning activities have not yet been addressed. A key element in planning an HRMS is to consider what changes in corporate direction and related changes in overall human resources management strategy must be accommodated.

Today, most large organizations have a fairly formal strategic planning cycle in which organizational goals and objectives, as well as strategies for

achieving them, are defined for a three-to-five-year period. In such organizations, it is typical for the human resources organization to take the organization's strategic plan and translate it into a strategic plan for human resources management. Although new tax laws and other external events do force changes in such processes and/or data, thereby requiring changes to existing systems, strategic planning focuses on broader issues, such as the likely impact on an organization's benefits programs on the changing demographics of its work force.

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Finally, the HRMS strategic planning effort must be integrated with the strategic planning efforts of the information systems organization. Until recently, it was unusual for that organization to develop a strategic information systems plan, such as an overall scheme for integrating and managing corporate information resources.

If no strategic plan currently exists in the organization, the human resources staff must proceed independently. However, if there is an ongoing effort by the information systems organization to perform strategic systems planning for the organization as a whole, such as developing standards for data definitions and for the use of subject data bases to represent those data entities in which multiple organizational components have an interest, then the staff should participate in and fully support the strategic information systems plan.

In addition to considering the organization's other strategic planning activities, human resources must also refine its automation priorities as follows:

- The current automated systems might have to be maintained, enhanced and/or replaced just

to provide current levels of support, as well as to achieve the desired level of automation. Consider such issues as the previously spent and ongoing costs of current systems, the egos and inertia of current system advocates, the costs and risks of conversions and the constraints on creativity of older technologies.

- The organization may lack experience in automating human resources processes and data. Human resources systems project failures are often the result of naively unrealistic expectations, inexperienced project staff and/or lukewarm management commitment.

- The world in which the HRMS must operate is a moving target, including changing demands for functionality, as well as changing technical demands. It seems as soon as the user requirements are frozen, the tax laws wreak havoc on benefits programs, top management initiates a new compensation plan or the implementation date gets moved up one year with the same project scope.

- Commercially available human resources software cannot do everything well. Available software cannot be all things to all organizations at acceptably low costs and risks.

### **TRANSLATE CURRENT OBJECTIVES INTO THE AUTOMATION PRIORITIES OF THE HRMS**

Having reconsidered the human resources targets of automation against all previously discussed factors, the planning staff should now have a refined vision of its desired long-term direction for automating human resources processes and data.

This vision, or target system, should build on where the company is today in human resources systems, as well as in technical, organizational and functional sophistication. This vision must also clearly define the state of desired human resources automation after each carefully planned investment.

Independent of the various analytical and documentation techniques that are used, the HRMS strategic planning process can be summarized as follows:

- Translate current human resources business objectives, information problems, current data and process views, as well as broad planning assumptions into the automation priorities for the company's HRMS



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- Generate alternative visions of a target system that would meet these automation priorities
  - Use an assessment of technological possibilities to identify those alternative visions best able to meet the company's objective subject to constraints (including resource and risk constraints)
  - Use an assessment of the organization's preparedness for change and for pulling off a major system project(s) to temper the staff's visions of the future with a heavy dose of pragmatism
  - Evaluate the best target systems for their degree of fit to assumptions, objectives and constraints
  - Develop broad cost and benefit estimates for the most promising visions
  - Select the target HRMS.

### **I**NTEGRATE THE HRMS STRATEGIC PLANS WITH THE PLANS OF THE INFORMATION SYSTEMS ORGANIZATION.

Generating alternative HRMS visions must be done by analysts who have broad and insightful experience with many HR systems. They must be familiar with how different HR automation targets were addressed, such as different human resources business processes and/or data, as well as different levels of organizational and technological sophistication.

This planning process absolutely relies on staff experience. The alternatives must be real alternatives that have worked in analogous settings, and that are variations on known themes or departures from proven approaches that can be cost and risk justified. Similar to all strategic planning efforts, each subsequent planning cycle draws its improved validity from the experience gained by the planners in their previous efforts.

To achieve success, management support and a strong consensus among the system's users is

imperative before launching a major HRMS project. To secure approval of the plan and investment strategy, a formal, strategic HRMS plan must be developed, presented and sold.

Although the outline, style and format of such a document will vary by organization, the following is a list of topics that should be addressed:

- The company's key planning assumptions, objectives and constraints
- The company's automation objectives and constraints
- A description of the target HRMS
- An explanation of how and why the target HRMS was selected
- The proposed approach for implementing the target HRMS.

This report should explain where the system is at this time and why it needs to change. It should also say in which direction the project needs to move and why the company needs to get there, as well as the solution to the problem.

Whether considering modest maintenance of an existing system to comply with changing tax legislation, the addition of a few simple reports, the automation of some function that has not been previously automated or a massive overhaul of the HRMS, the strategic plan will be the contract between those responsible for its implementation and management's commitment to fund it.

This plan is, in addition, the mechanism for adapting ongoing activities to changes in the planning assumptions. Therefore, the company's investment in strategic HRMS planning should be proportional (about 5-10%) to the overall HRMS investment and be reviewed periodically as a quality control over the execution of the HRMS plan. ■

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- There are many excellent books on the art and science of systems analysis that are not necessarily related to automated systems. Author Gerald Weinberg's books are readable by non-mathematicians.

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