Computerized payroll system to be implemented in coming year

By Douglas Wu
Lantern staff writer

OSU's Office of Human Services and University Systems is developing a computerized payroll system to be implemented in 1993.

Steve R. Basford, Human Services' assistant director of compensation, said the new system will allow each university department to enter the employee's time sheet data directly into the university's mainframe computer.

He said the university has three payroll categories: monthly, regular classified and wages payroll.

"Wages payroll is the one we are working on," said Basford.

Once the system is ready and all departments have access to the system, he said Human Services will mail out letters informing departments of the changeover.

Basford said the new system will streamline the operations of Human Services, University Systems and university departments.

"Leadership (of Human Services) has decided to bring this department into the 1990s."

Presently, university departments bring their time sheets to Human Services for processing.

He said once the time sheets have been "checked with a calculator twice," they are shipped to University Systems and entered into the computer.

Basford, who is now training departmental personnel on how to use the system, said departments need to establish SONNET computer network links with the mainframe in order to use the system.

To establish a SONNET computer network link with the mainframe, departments need a terminal or a personal computer with terminal emulation software and a hard wire link with the mainframe.

He said Academic Computing is in charge of helping departments establishing SONNET computer network links with the mainframe.

Basford said Human Services is currently surveying how many departments have the ability to link with the mainframe via SONNET.

Bob Kearns, an accountant with the Lantern Business Office, said Human Services originally scheduled a department-wide test of the system Jan. 9 and have the system in place by the next payroll cycle.

"Right in the middle of the training session, a woman stood up and said, 'I don't have a computer, what kind of computer do I need?'" Kearns said.

Annita Myer, a customer representative at University Systems, said many, if not all, of the departments have computers that can communicate with the mainframe.

"It's not that they don't have computers," Myer said, "Everybody has computers."

She also emphasized that departments must, "be prepared to use their computers for a different purpose (telecommunication tasks) than they are used to."

Kears, who maintains the Lantern Business Office's computers, said he had trouble establishing a SONNET computer network link between the office's computers and the mainframe. He mentioned that he had to talk to six or seven people in Academic Computing and elsewhere before the link would work properly.

Kearns believes he would have had an easier time adopting to the system if Human Services, University Systems and Academic Computing would coordinate their actions.

"Presently, there isn't any one person in charge (of the changeover)," said Kearns.

He wonders if the new system will work at all once it's in place.

"It's not an easy system to learn," Kearns said. "I think it's going to be a disaster."
A call to ARMS

OSU to launch 3-year program for updating computer systems

By David Tull

For the last part of the past 20 years, two of the University’s important data retrieval systems have become like two cowpaths along the information superhighway.

Now the University has unveiled a three-year plan to replace the two systems — general ledger accounting and the human resource information systems — with a single system that is up to date. The result will be less duplication, massive reductions in paperwork, greater and faster access, and a thoroughly integrated system serving the entire University.

Perhaps more important than running data faster and better, developing the new system will require administrators “to ask at every turn why we are doing what we are doing at all,” said Penn O’Neill, co-chair of the University steering committee for the new Administrative Resource Management System (ARMS).

O’Neill, assistant vice president in human resources, shares the chair with Janet Achtermann, University controller.

The Human Resources Council heard a full report on the plan from O’Neill at its Sept. 14 meeting. Earlier in the day the University Staff Advisory Committee heard a brief report on the ARMS project.

The two current systems were written 20 years ago as “stand alone” systems, said O’Neill. They are not integrated and require huge duplication of information and routines. "The University warehouses a wealth of data but has no information," she said. "If we need special reports, it takes two months and $2,000 to get it.

Meanwhile many departments have developed “shadow systems” — separate computerized records so that they have easier access to needed information. This results in further duplication. Moreover, strained budgets make it more difficult to maintain these systems.

The University systems have been “patched over and over again so that their integrity is at risk,” O’Neill said.

“For the whole financial operation this is going to make a tremendous difference,” said Achtermann. “The goal of the project is to streamline the processing that we do.”

The present systems are “very paper and labor intensive,” Achtermann said.

“People in the departments enter accounting and budgeting transactions on pieces of paper. The information is put into an envelope and then a courier walks it over to Lincoln Tower, where we open the envelope and send it to where it is key punched. And then every two months, we generate a monthly report back out to the fiscal officers.”

On these shadow systems, many fiscal officers throughout the University maintain their own accounting records, Achtermann said. Using their own desktop computers, they enter duplicate data so that they can have a running account, comparing their own totals with the monthly reports.

“The new system should eliminate all of that duplicate entry and all of the paper processing in the University,” Achtermann said. “The goal is that a fiscal officer can turn to his computer on the desk, call up the screen and enter in a budget transaction or an accounting transaction and have the system automatically update their financial accounts on an on-line, real-time basis.”

That information would then be immediately available to anyone needing it, such as government agencies or University committees. And the system would save time and resources.

From page 1

“We will move the University’s human resources from doing a lot of ‘non-value-added’ activity, like processing paper and entering data, to more ‘value-added’ activity — analyzing that data, making it into information and using that information in decision making,” Achtermann said.

The steering committee has 21 members from throughout the University, O’Neill said. Even so, “the project is so big that we need to hire a consultant to partner with us in developing (the system).” The committee expects to hire a consulting firm soon.

Management of the project will be shared by a project director from the consulting firm and a project director from Ohio State.

The first phase, the next six to nine months, will be devoted to needs assessment for the general ledger and human resources systems. In addition, a cost-benefits and financial data into the general ledger will be conducted.

The purpose of this analysis will be to determine whether it is more cost effective to modify the feeder systems to adapt to the new general ledger, or to replace them. The committee will examine customer needs, policies and procedures, costs and benefits, equipment needs and possible software.

The second phase, about three months, will focus on technology — evaluating hardware, software and developing cost estimates for the system.

The final phase, covering about two years, will be implementation. A portion of that phase will be devoted to training.

The three-year time frame is important, because needs and technology are changing so fast. "If we do not get it done in three years, we might as well forget it," said O’Neill.

The University has committed funds to hire a consultant for the first phase of the project. The Board of Trustees will hear a progress report this winter.

About 150 people will be involved in the project, as full- or part-time staff.

"There will be upfront costs associated with this project; there’s no question about it," said Achtermann. "But this is a long-term investment for this institution, just like a classroom facility or a research facility. In the long run, it will save us money."
ARMS reach out
Project seeks wide input for major improvements

By David Tull

John Ellinger's vision for the future is of a University where the complex day-to-day processes of managing finances and human resources are as easy and straightforward as possible.

It will be an environment in which necessary information can be extracted quickly from linked databases, using desktop computers. The information may be required by outside agencies — such as the IRS and the Board of Regents — or it may be needed for departmental decision making.

Ellinger is not looking to a far-off Utopia, but to the Ohio State of 1999.

And that future is on its way, sparked by the start of the Administrative Resource Management System project, of which Ellinger — former assistant vice president of agricultural administration — is director. Ellinger is not alone with his vision.

Unveiled in September, the ARMS project is up and running. It is based on the fifth floor of the Camera Center, 2200 Kenny Road. The staff includes nine people from OSU and eight from Andersen Consulting, an international firm with a Columbus office.

The Andersen employees are not just "consulting" but are active members of the team, Ellinger points out. In addition, a project steering committee of 17 members oversees the process.

According to its mission statement, "The ARMS Project Team is to assess needs, to recommend solutions and to implement as soon as possible chosen processes and systems that establish an effective, efficient and flexible University Administrative Resource Management System."

ARMS' four goals are to:

* Identify and implement better ideas and ways to do business, based on the best practices of public and private sectors.
* Empower people to obtain the information they need — where, when and how they need it.
* Develop one set of rules and processes, on a variety of interconnected state-of-the-market technologies.

The ARMS project grew from a recognition that two of the University's most complex and pervasive systems — general ledger accounting and human resources' information systems — needed to be modernized and coordinated.

Both were devised 20 years ago as separate systems. At present, these main systems have more than 70 feeder and down-line systems that channel and output data.

"These two systems are the backbone of the business function of the University," Ellinger said.

Meanwhile, the demands for information in these areas have multiplied. Requests for precise information come from many sides, including state and federal agencies as well as college deans and department chairs.

The first step for ARMS is a needs assessment, Ellinger explained. He and his staff have met with 45 top administrators and groups and will meet with at least 60 more by the end of the month.

Some of the initial findings are revealing. For example, virtually all budgeting is done on paper. One flow chart developed by the ARMS project shows nearly 27 steps in a common financial entry process, many of them requiring hand delivery. A change of address requires five different pieces of paper.

"It's not all bad news," Ellinger said. For example, the Office of Human Resources automated the University's wage system two years ago. This year, Human Resources has begun placing University employee policies on MAGNUS, accessible to anyone with a computer.

See ARMS, page 9

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ARMS staff have identified 29 separate procedures, with many tasks in the financial and human resources areas, and will flow charts of each of these for "process groups" of 15-20 people from the campus community to review.

There will also be "vision groups" of 15-20 people, to look at how these processes should be carried out, he added.

A third entity, called "challenge groups," will be formed from colleges, from staff and users, managers and department chairs. These will study the needs of users so that any new systems will be user friendly and meet the users' needs for information, Ellinger said.

"We are trying to involve as many people as possible. People must feel comfortable with what is happening and must feel part of the process of creating a new business environment. One of our goals is to make their jobs easier."

The ARMS project is about change, he added. "It will change the way we do business at Ohio State, change the processes, change the technology and change the rules of how we do things."

A common question has been something like: "Are we reinventing the wheel?"

In response, Ellinger has surveyed universities and industries from coast to coast, including other Big Ten schools.

He has found that Ohio State's project is a groundbreaking one. Although some have instituted human resources or financial package, only two — the Oregon State and the University of California systems — have both. The two have some applications that Ohio State can use, Ellinger added.

Many institutions have been considering changes for up to 10 years. All of them are interested in the outcome of Ohio State's work.

The ARMS project will not be done overnight, Ellinger stressed.

Timelines call for the needs assessment to be done by June, a study of possible technology from June 1995 to January 1996, and implementation to take 18-24 months, beginning January 1996.

A crucial part of implementation will be training and updating users, Ellinger said. But he hopes that key faculty and staff will be involved throughout the process. "We have an opportunity to be on the forefront of what's coming. We need everybody to help."

Ellinger can be reached by e-mail at ellinger.2@osu.edu or at 688-3315.
A.R.M.S.: A project whose time has come

The A.R.M.S. Project Team was formed in November, 1994, and it is anticipated that the project will take approximately three years. To understand where we need to go in the future, we must first examine where we are today.

The Environment in Which We Must Succeed

In today's environment, there is an ever increasing demand for accurate, timely information. Administrators and managers need to have data and reports in various formats at specific times. The University must also provide a variety of information to the federal and state government. Legislation is passed every year that requires additional reporting requirements but does not provide funding to meet these requirements. Staff members spend many hours compiling data manually because it is not in automated form. Ohio State must provide a great deal of information to a variety of individuals and entities, and we do not have the tools to perform this task in the most efficient manner.

Old, Predominantly Manual, Paper-based Systems

We now have a Financial Accounting System (FAS) that is close to 20 years old. Many departments operate "shadow systems" because FAS does not provide them with the information when or how they need it. The current accounting system is predominantly manual and paper-based, as exemplified by these statistics:

- It takes an average of three weeks to route accounting forms through appropriate approvals and to recognize a financial entry in the system.
- Financial information is available only monthly in pre-determined formats.
- 6000-8000 paper financial data entry documents are manually prepared and processed each month.
- 250 reams of paper are used monthly to produce financial reports for University departments.

A good example of how cumbersome it is to get a financial entry into FAS is to summarize the metrics for an "income and expenditure transfer":

- Average processing time: 3 weeks
- Average number of people involved: 17
- Number of departments involved: 4
- Number of manual worksteps: 26
- Number of different forms used: 5

Some of the Human Resources systems have been in use even more than 20 years.

Many have been modified or revised and are independent, non-integrated systems. There is not one system database that provides all the employee information. Just like FAS, the Human Resources systems are predominantly manual and paper-based.

For example:

- 20 people are involved in establishing a newly hired employee's information in the Human Resource, Payroll and Benefits systems.
- A newly hired employee signs his/her name an average of 16 times, travels five miles and enters six different buildings on his/her first day of employment.
- 27 forms are used in hiring a new employee.
- 46,000 hours are expended annually sorting and distributing paychecks.

The following metrics are for just the "day of hire" for an OSU employee:

- Average processing time: 3 weeks
- Average number of people involved: 20
- Number of departments involved: 4
- Number of manual worksteps: 61
- Number of different forms utilized: 27

Systems, Systems Everywhere and Not a Byte Among Us

The financial and human resources systems at the University are supported by at least five separate technology systems and groups. Our current systems limit flexibility and do not take advantage of more cost-effective technologies. There are an estimated 450-500 shadow systems that have been developed by individual University departments to support financial and human resource information requirements. Maintaining these systems requires a significant investment of time and effort. In addition, managing our business with diverse, independent, non-integrated computer systems results in the inability to share data across the University for decision-making and reporting, and the inconsistent application of management policies.

By Popular Demand

Perhaps the most compelling case for A.R.M.S. is exemplified in the results of an A.R.M.S. Project Survey distributed to the system users in each University department in January, 1995. Below is a summary of the responses to five basic statements concerning the current systems and the need for a new system. These figures are based on responses from 81% (281) of the departments that were mailed the survey. The results indicate that the majority of people who work the closest with financial and human resources information agree that there is a need for, and that they will support, the re-engineering of the University's business processes and the development of new systems:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree or agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The existing financial and human resources systems are not sufficient to meet our needs.</td>
<td>77%</td>
</tr>
<tr>
<td>2. It is time to change the existing manual and systems processing.</td>
<td>90%</td>
</tr>
<tr>
<td>3. We believe significant benefits can be obtained by changing the existing manual and systems processing.</td>
<td>89%</td>
</tr>
<tr>
<td>4. We will support changes to the existing manual and systems processing.</td>
<td>90%</td>
</tr>
<tr>
<td>5. We support the A.R.M.S. Project effort to redesign and implement processes and systems to replace the current University financial and human resources systems.</td>
<td>90%</td>
</tr>
</tbody>
</table>
Dear Colleagues,

As we prepare The Ohio State University for the future, it is imperative to examine every aspect of how we operate. Our human and financial resources need to be used in the most efficient and effective manner possible. We need to offer our students a competitive education and a high quality of life while attending Ohio State.

The current human resource and general ledger accounting systems being used by the University are antiquated and inefficient. We do not have timely, accurate information to use for decision making, nor are we giving our faculty and staff the technical tools they need to perform the many job responsibilities they have been assigned. State and federal governments are demanding more specific and frequent reports, and we do not have the systems capable of providing this information in an efficient manner.

The Administrative Resource Management System (A.R.M.S.) will redesign the human resources and general ledger accounting systems. We are excited about the major step this will be towards improving the operation of Ohio State, and we are anxious to work with the administrative office, faculty, staff, and students in the development and implementation of A.R.M.S.

Edward J. Ray
Sr. Vice President and Chief Information Officer

William J. Shinkurt
Vice President, Finance

Linda Tom
Vice President, Human Resources

More information to follow....

This is the first edition of A.R.M.S. Time & Change, which will be published periodically in onCampus. The next A.R.M.S. Time & Change, will appear in the May 25 edition of onCampus and will cover the mission and goals of the A.R.M.S. Project, the plan for the project, and a project status report. More information about A.R.M.S. can be located on:

Bulletin Board — OASIS - OSU Administration

News groups — OASIS
osu.bus-proc-receiv.financial
osu.bus-proc-receiv.general
osu.bus-proc-receiv.haarengine
osu.bus-proc-receiv.technology

Please feel free to ask questions or add your input to the news groups listed above.

E-mail — arm@stan hosting.arms.ohio-state.edu
Fax — 688-3330
Phone — 688-3322

Thanks for your census information

The A.R.M.S. Project Team would like to thank those individuals throughout the University who took the time to complete the census distributed in January. We know that many hours were spent gathering information that is critical to the success of this project, and we sincerely appreciate it. If you have any additional information or comments, please let us know.

COMMENTS AND SUGGESTIONS ARE WELCOME

TO: John Ellinger, A.R.M.S. Project Director
5th Floor - J. Leonard Camera Center
2000 Kenny Road
Columbus, OH 43221

FROM:

DEPARTMENT:

re: A.R.M.S. Project

______________________________________________

______________________________________________

or e-mail comments to arm@stan hosting.arms.ohio-state.edu
A.R.M.S. Project to provide effective, efficient and flexible systems

"The mission of the A.R.M.S. Project Team is to assess needs, to recommend solutions to the A.R.M.S. Steering Committee and to implement as soon as possible chosen processes and systems that establish an effective, efficient and flexible University Administrative Resource Management System."

Steering Committee guides A.R.M.S. Project

For several years, the external auditor's report for the University has cited deficiencies in the current information systems. In addition, one of the recommendations of the University's Managing for the Future Task Force report issued in 1992 was to improve information systems. To address these concerns, the Information Systems Steering Committee (I.S.S.C.) was formed. This committee is composed of eight Vice Presidents and the University's Chief Information Officer. The I.S.S.C. provides leadership for the development of management information for the University as a whole. An initial project the I.S.S.C. has endorsed is the creation of an improved human resources and financial accounting system. To guide this project, faculty and student members from colleges and academic support units throughout the University were appointed to the A.R.M.S. Steering Committee. This committee started meeting in April, 1994 and last November it brought together the A.R.M.S. Project Team, who, with the assistance of Andersen Consulting, has developed a three-phased plan for the A.R.M.S. project.

A.R.M.S. Steering Committee

| Catherine Bruno | Phyllis Newman | College of Humanities |
| University Hospitals |
| Larry Buell | Randall Olsen | Center for Human Resources Research |
| University Systems |
| Eric Busch | Penelope O’Neill, Co-Chair | Office of Human Resources |
| Student Affairs |
| Helen DeSantis | Joan Patton | College of Medicine |
| Business Management |
| James DeStefano | Gary Rine | University Budget and Space Planning |
| OSURF |
| Leslie Fleisch, Co-Chair | Alvin Rodak | Office of the Treasurer |
| Office of Finance |
| David Greenberger | Gena Russell | Office of the Controller |
| Fisher College of Business |
| Elizabeth Hart | Richard Schroek | University Hospitals |
| University Budget and Space Planning |
| Mark Hillegas | R. Eugene Schuster | University Registrar |
| Office of the Controller |
| Chuck Morrow-Jones | Judith Vertikoff | Physical Facilities |
| Academic Technology Services |

Three phases, three years

Phase I - Needs Assessment

Phase 1, Needs Assessment, started in November, 1994. The purpose of Phase I is to develop a clear, concise and complete statement of the requirements of the University's Administrative Resource Management System. These requirements will be based on process and visitus sessions with the University's administration, input from employees, analysis of current business processes, and review of "best practices" from other organizations. The A.R.M.S. Project Team has met with more than 2,000 employees and has evaluated the primary human resources and general accounting processes. As a result of these efforts, an initial draft of the A.R.M.S. conceptual design has been written. The conceptual design will continue to be refined throughout the next phase. The conceptual design is the vision of what the A.R.M.S. will look like and what tools it will provide to enable University employees to more easily and efficiently perform their job responsibilities. It will address solutions to the issues and problems raised in Phase I. Using the conceptual design as a guideline, the Project Team will define the process requirements in order to request proposals from software vendors.

Phase II - Technology Selection

The purpose of Phase II, Technology Selection, will be to detail the business processes recommended in Phase I and to evaluate a number of packaged software products or proposals for customized solutions. One or more of these solutions will be selected to serve as the basis for meeting the A.R.M.S. requirements that were defined in Phase I. A Request for Proposals (RFP) will be issued this summer to software vendors and the responses will be reviewed by late fall. The target date for selecting the appropriate technology to meet the A.R.M.S. requirements is between November 30, 1995 and January 1, 1996.

Phase III - Implementation

By January, 1996, the implementation phase of the A.R.M.S. Project is scheduled to begin. Implementation will take approximately 24 months. This phase will consist of developing an implementation plan, revising business processes, converting data, and installing the systems technology selected as a result of phases I and II. Before any changes are made, an extensive employee education program will take place. Also, a solid A.R.M.S. performance support structure will be built to assist in all aspects of the implementation plan. A.R.M.S. is scheduled to be operational by January 1, 1998.
Four components within A.R.M.S. Project

Human Resources
By Anna Sudduth
Human Resources Team Manager

The Human Resources team is responsible for creating support for the human resource processes for the entire University. The team described the human resource processes around the employment "life cycle" - pre-employment, day of hire, engagement, and post-employment - and "behind the scenes." By using that breakdown, the team was able to look at how the current processes could be improved or changed to focus on customer service.

Phase I included several activities. During January, the human resources project team hosted process groups. The purpose of the process groups was to identify and confirm the work flow steps surrounding the current human resource processes. These groups involved more than 100 representatives from colleges and academic support departments. The team also met with the Vice Presidents, key administrative staff, faculty and individuals in the departments who usually use the human resource system. Each meeting provided opportunities to make people part of the A.R.M.S. Project. Meetings enabled the team to listen to employee feedback and experience with the current processes and workflows and to collect ideas for potential changes. In all, approximately 430 ideas were received from the University community regarding human resource processes. The human resource team concluded that the existing processes and systems are paper-intensive, dominated by manual efforts and do not provide employees with the tools to effectively and efficiently perform the tasks required.

The final task of Phase I is to compile the information gathered into a cohesive document, called a conceptual design, which is a more detailed vision of what the human resource portion of A.R.M.S. should be. It incorporates the ideas received as well as best practices from other organizations outside the University.

The Office of Human Resources staff and the system users throughout the University will have the opportunity to help develop the details of the conceptual design during Phase II.

Technology
By Tom Stanfill
Technology Team Manager

The Technology Team is primarily responsible for establishing the technology context in which an A.R.M.S. solution will be selected and implemented. This includes technology as it relates to A.R.M.S., it will use the information gathered in Phase I and address the key technical architecture design questions to identify an appropriate solution.

Business Process Re-engineering (BPR)
By Dan Allen
BPR Team Manager

The Business Process Re-Engineering Team is primarily responsible for "change integration." A change integration team is proactively building a gradual and do not provide employee feedback as to ideas for changes and issues related to the financial and human resource systems. All of the nearly 1,000 ideas and ideas derived from these sessions were put into the ideas database for tracking and for consideration into the A.R.M.S. conceptual design.

In January, a survey was distributed throughout the University to gather information about financial and human resource staff, technology and support from each department. We received back 90 percent of the surveys sent out. The responses have been entered into a database system to be used in the designing of A.R.M.S.

The BPR Team is responsible for coordinating communications for the A.R.M.S. Project. A communications infrastructure was developed and implemented during Phase I. This includes a system that enables the A.R.M.S. team to communicate with faculty and staff who have direct involvement or interest in the human resource and financial functions. We also established four new groups, a gather group, and put information on the OASIS and World Wide Web in order to share A.R.M.S. Project information throughout the University community. A world-wide BPR listserve was established so staff from organizations all over the globe can share "best practices." Education and performance support is another responsibility of BPR. A strategy for education and performance support is being developed with the assistance of an education and training focus group consisting of 15 faculty and staff members from throughout the University. This group examined the current training environment, performed a high-level training needs analysis, and determined training and performance support strategies and reviewed evaluation strategies.

The BPR team's conclusions from Phase I activism focused on the essential need for a good communication structure for keeping the University community informed about the A.R.M.S. Project and for adequate training for staff and faculty during and after the implementation phase of A.R.M.S.
ARMS is scanning vendor proposals

By David Tull

The Administrative Resource Management System project this summer took another step toward the goal of putting University financial and human resources information on-line.

ARMS has been reviewing a conceptual design with University administrators and user groups. The design contains a summary of Phase I, which assessed the financial and human resource systems to determine University needs.

Initiated in November 1994, the ARMS project is a three-phased effort to take Ohio State’s human resources and financial processes out of the paperwork age and into the age of on-line computing. New systems are scheduled to be operational by January 1998.

ARMS staff members are reviewing vendor software packages and proposals as part of Phase II, technology selection.

“We are one step closer to moving the vision into reality,” said John Ellinger, director of the ARMS project.

Selection of the software packages for the new systems will permit ARMS staff to “check our vision for OSU against what software vendors are providing for others in the market — both in higher education and private industry,” Ellinger said.

Further, it now will be possible for the campus community to see what the software can do for the University, he added.

During the coming month, staff will evaluate the software with demonstrations both at vendors’ operations and on campus.

As a starting point, the University furnished vendors with descriptions of real-life cases describing the ways Ohio State will function in the future. These cases assisted vendors in tailoring their proposals.

For example, employees in the future may be able to update their own addresses in the personnel database, using self-service technologies such as kiosks and interactive voice response systems.

Staff members, instead of using multiple printed forms to complete financial transactions, could accomplish the same tasks on-line from desktop computers.

These concepts grew from the needs assessment phase, Ellinger said. The process involved meetings with more than 2,000 faculty and staff to solicit ideas and hear concerns. It involved surveys of all University departments to identify their needs and procedures. ARMS staff also reviewed what are considered to be the best practices of industry and other universities.

Since ARMS produced the conceptual design, Ellinger has discussed it in 23 group sessions with department chairs and directors. He calculates he also is about halfway through group meetings with 1,200 University staff members who will be the primary users of new systems.

Highlights of the report, available through Gopher, are being updated as the process continues. The highlights are listed under the headings of OSU Administration, Administrative Resource Management System, ARMS Project, Phase I, and Desired Operating Improvements/Vision for the Future.

ARMS also will issue updates on e-mail. To be added to the update list, contact Diane Beall at beall.2@osu.edu or 688-3328.

“This is very much a ‘sidewalk in progress,’” said Ellinger.

“We’ve done the survey, ripped up the grass and pounded in the stakes. But we’ve not yet poured the concrete.”

David Tull retired as managing editor of onCampus on Oct. 1.
A.R.M.S. is for everyone

For every OSU faculty and staff member, A.R.M.S. will:

- Provide the capability to update benefits information using interactive voice response systems or desktop computers
- Reduce the number of human resource forms employees will have to complete
- Provide access to human resource and financial policies and procedures online

For OSU faculty and staff who have human resource job responsibilities, A.R.M.S. will:

- Reduce processing time by more than 50% for the more than 100,000 annual appointment, pay, benefit and other personnel transactions
- Reduce the time required to submit faculty and staff vacancy information by up to 50%
- Provide capability to enter new hire information into the system electronically
- Allow online approval of human resource transactions via electronic workflow capabilities
- Provide the capability to produce customized human resource reports by each department
- Provide online help and help desk services

For OSU faculty and staff who have financial job responsibilities, A.R.M.S. will:

- Provide access to online financial information
- Provide the capability to create up-to-date, customized financial reports in days not weeks
- Eliminate more than 250,000 pages of paper financial reports printed and distributed yearly
- Validate and verify fund balances immediately
- Reduce by up to 50% the time required to perform the mechanical budgeting tasks
- Provide the option to do scenario-based financial planning and modeling
- Provide for online approval of financial transactions
- Provide online help and help desk services

For OSU administrators/managers, A.R.M.S. will:

- Improve online access to information needed for management decisions
- Provide the capability to produce customized financial and human resources reports by each department
- Provide the option to do scenario-based financial planning and modeling
- Validate and verify fund balances immediately
- Provide for online approvals of financial and human resource transactions

Questions & Answers

Q: Is there any information available about A.R.M.S. online?
A: A.R.M.S. is maintaining a World Wide Web page at http://www.armos.ohio-state.edu. A summary of project activities also can be found on OASIS under OSU Administration. Additional information can be found and requested using the four A.R.M.S. electronic newsgroups: osu.armos.general, osu.armos.financial, osu.armos.humanres and osu.armos.technology.

Q: What is interactive voice response and how will it be used with A.R.M.S.?
A: Interactive voice response is a telephone system that will provide OSU faculty and staff members the ability to make changes from any touch tone phone to various benefit options.

Q: When will I receive monthly income, and expense and balance sheet information for my department once the A.R.M.S. is implemented?
A: You will be able to produce financial reports at any time on the A.R.M.S. Standard reports will be available or you can customize your own ad hoc reports. End of the month financial information will be available after updates from "feeder" systems such as Stores or UNITS have been input to A.R.M.S.

A.R.M.S. Solutions

A.R.M.S. Solutions is a feature of Time & Change. Each issue will highlight a job challenge that was shared by a university staff member using the current financial or human resources systems. A.R.M.S. Solutions will also explain how the new financial and human resource systems will address the challenge and will summarize the resulting benefits.

<table>
<thead>
<tr>
<th>Challenge</th>
<th>A.R.M.S. Solution</th>
<th>Results</th>
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<tbody>
<tr>
<td>Even though I have attended training sessions, I sometimes have questions about how to fill out forms that I do not use on a regular basis. There doesn't seem to be a quick and easy way to get my questions answered.</td>
<td>First of all, many of the financial and human resource forms will no longer be used because processes will be online. The new system will provide faculty and staff with online help and online policies and procedures. A help desk also will be set up for employees to call for assistance.</td>
<td>OSU faculty and staff will have immediate access to electronic or personal assistance to help them complete human resource or financial transactions using A.R.M.S. The combination of online help and help desk services will provide quick and easy answers to your questions.</td>
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People Go to See PeopleSoft

More than 500 OSU faculty and staff members attended presentations of the PeopleSoft Inc. software held in late January.

The software, which is currently undergoing acceptance testing by the A.R.M.S. project team, was demonstrated in its basic form without any customization for Ohio State.

The three-day presentations included one session that highlighted the software's technical aspects and four sessions that focused on the software's human resource and financial functions.

Those attending the presentations offered the following reactions to PeopleSoft's financial and human resource software programs:

"It seems like there is nothing these PeopleSoft Human Resource and General Ledger programs can't do. It's just a question of whether we will be able to fully utilize all the options they have to offer," said Kathy Edwards, senior accountant, Division of Accounting.

"I just attended the PeopleSoft demonstration this morning and am quite impressed by the software's capabilities. I'm anxiously waiting to have that capability at my fingertips!" said Linda Johnson, business manager, OSU Extension.

Please direct comments or questions to Dane Beall, A.R.M.S. Communications Coordinator, at Beall.2@osu.edu or 614-292-3328.
Computing technology has been a component of The Ohio State University in one form or another since 1947, when the Cryogenics Laboratory purchased a card punch, a card sorter, and two IBM 650A calculators to use for a Research Foundation project. This early style computational monster had much in common with the brontosaurus: it was overly large, operated using primitive systems, and was doomed to extinction; nonetheless its presence was the groundbreaking for the growth of information technology at the university.

The ensuing years saw the emergence of a number of different models for the delivery and sustenance of computing services to accompany the explosive growth of the Ohio State campus community. Today the university finds itself on the threshold of yet another paradigm shift to even more advanced and efficient systems to meet its computational and information needs. The relatively recent appointment of a Chief Information Officer, Dr. Edward Ray, and the establishment of the A.R.M.S. project, paired with the merger of Academic Technology Services, the Office of Academic Computing, the Center for Instructional Resources, and University Systems are laying the foundations for a consolidated vision of effective use of resources, state-of-the-art technologies, and proactive operational strategies.

The last three years have been a period of unparalleled and exponential rise in the volume of not only users who access technology and computing services, but also in the volume of online sessions, number of electronic mail messages sent per user, and the "bandwidth" per session. Ohio State, along with other colleges and universities, is moving quickly to keep pace with this explosion of the Internet. But as we prepare ourselves to move on to the next milestone of computing, let's look back to where we’ve been over the last 49 years. Seeing how far we’ve come makes the upcoming journey to 1997’s five-year anniversary of computing at Ohio State seem to be a very short trip indeed.

—Article and timeline by Lynda Black

Lynda is a member of the University Technology Services Communications working group, and has worked at OSU for 4 years.

The Changing Face of Technology at Ohio State

1947 The Cryogenics Lab houses its first computing equipment in a Quonset hut on 18th Avenue. The system needs custom hard-wiring for each job, can handle fewer than 100 cards, and requires all of its programs to contain fewer than 12 steps.

1948 Harry Truman defeats Thomas Dewey for the U.S. presidency.

1950 Ohio State wins the Rose Bowl, 17-14 against California.

1952 We like Ike: Dwight David Eisenhower is elected President.

1953 VP of Academic Affairs Fred Heimberger addresses a committee appointed by OSU President Howard Bevis to investigate the feasibility of bringing to campus a larger, more powerful computing device to campus: "It looks like we’re going up against a brick wall trying to get a megalobucks computer;"

1953 Dr. Roy Reeves begins working out of the Mathematics department in the facility that will become the Numerical Computation Laboratory.

1954 The Numerical Computation Laboratory, Ohio State's first computer center, is established with Dr. Reeves as its director.

1956 Ohio State purchases an IBM 650A computer that can store programs.

1958 Alaska and Hawaii join the union as the 49th and 50th states.

1962 OSU purchases an IBM 7090.

1963 Roy Reeves, Theodore Hildebrandt, Dickson Call, and Mary Gong send a letter to OSU's vice president for research, Dr. A.B. Garrett, underscoring the importance of computing to the university.

1967 The university offers its first computing consultation services and "help desk," operating in the Robinson Data Center and Research Center.

1968 Dr. Martin Luther King and Robert F. Kennedy are assassinated in separate incidents.

1970 The Computer Center is renamed the Instruction and Research Computer Center (IRCC).

1972 The student information database is installed.

1974 Buck Aaron hits his 715th home run, passing Babe Ruth's long-standing record.

Computer Braille output can be generated from the IBM 370/165 systems.

1977 The financial accounting system (FAS) is installed.

1978 Overhauled keypunch programs prompt the use of time limits.

1979 The DEC 10 is replaced by a DEC 20; memory is upgraded from 4K to 64K.

1980 "Dallas" fever sweeps the nation: who shot JR?

1981 Computer users on campus must now pay for disk storage.

Keypunch operations are discontinued in Robinson Lab.

1982 A Microcomputing Exhibition is held on campus to answer the question: what is a microcomputer?

1983 Compact discs using laser technology to record and play music are introduced into the marketplace.

A new microcomputer lab opens in Cooklin Hall with 20 Apples IIs.

1986 Controversy erupts when film companies began to colorize old black-and-white films.

1987 We get a Clay supercomputer.

1988 NEWS is added to the DEC-20 services, giving campus computer users access to more than 500 newsgroups.

1989 Computer viruses appear, affecting computer networks worldwide. Lloyd’s of London offers insurance policies indemnifying the loss of electronic data everywhere but in the United States because of the proliferation of viruses here.

1990 The Mail and Global News User System (MAGNUS) computing cluster replaces the DEC-20. Anyone on campus who asks receives an e-mail account.

1991 Ohio State’s campus-wide information system, OASIS, is brought online. Information providers throughout campus, including the President’s office, post information and data electronically for all to read.

Academic Computing Services (ACS) introduces HomeNet using client-server technology to revolutionize the way we connect remotely to campus information systems.

1993 The online wages Payroll Process is put into production.

1994 OSU offers e-mail and news services to the entire campus. The number of accounts soars to nearly 50,000, compared to a few thousand in the early 1990s.

The worldwide web debuts and the number of people accessing sound, pictures, and video interactively skyrocket.

A.R.M.S. is formed to reengineer the financial and human resources information technologies at the university.

1995 Academic, research, instructional, and administrative computing services are consolidated into a single organization, University Technology Services (UTS).

A.R.M.S. and UTS, as well as other departments on campus, begin working cooperatively to effect change and to exploit the paradigm shift in information technologies.

OSU now offers its "Corporate Home Page" on the worldwide web where people can access campus information interactively.

Laptop computers access OSCAR, OSU’s Library catalog, throughout the stacks in the Math and Engineering library using wireless modems.

A joint project with UTS, UNITS, and Residence and Dining Halls offers Ethernet connectivity in Jones Tower, Baker Hall, and Taylor Tower so that residents can link their computers directly to SUNYNET and the Internet.

Implementation Schedule

The following targets have been set for implementation of A.R.M.S.:

February 8, 1997 Personnel components which include applicant processing, position management, job and salary administration, training and career development, affirmative action and equal employment opportunities, and health and safety.

March 1, 1997 General ledger, time and labor distribution, payroll.

July 1, 1997 General ledger, time and labor distribution, payroll.
on receipt

2/2/96
(LO, BT)

A.R.M.S. PROJECT TO COMPLETE COMPUTER SYSTEM DESIGN

COLUMBUS -- The Ohio State University Board of Trustees on Friday (2/2) authorized spending of up to $9 million to complete design of the university's computerized financial and human resource management systems and to do the initial software installation.

University officials told the Board that the Administrative Resource Management System (A.R.M.S.) project, when fully implemented next year, will generate a savings in staff time and labor of $10 million to $15 million per year. The savings will help Ohio State recover the cost of the project within three to four years.

Much of the savings will be in percentages of staff members' time rather than whole positions, said William J. Shkurti, vice president for finance.

"Those kinds of savings are difficult to recapture centrally, so we're leaving a lot of the decisions up to the individual colleges, departments and support units as to how to restructure," he said. "We will use the next several

-- more --
months to engage the University community in a comprehensive planning effort to address these issues."

Although job losses due to the streamlining processes will be minimal, most employees working with human resources and financial systems will face significant changes in what they do and how they do it, said Linda Tom, vice president for human resources.

The Office of Human Resources will assist managers during the two- to three-year A.R.M.S. implementation. Job losses will be minimized by giving careful attention to handling any reduction in positions through attrition and reassignments. In addition, human resources will encourage units to consider opportunities for development, such as examine job sharing and cross training, that will help staff develop more broad-based skills that are transferable from one position or unit to another.

Upgraded human resources and financial technology will be accompanied by a retooling of administrative processing, which will result in other benefits to faculty, staff and students, including:

-- Less bureaucracy: Processing and administrative time will be cut in half for more than 100,000 annual personnel-related transactions for faculty, staff and student employees.

-- More timely decisions: Financial data will be available the next day instead of four to six weeks later.

-- more --
-- Less paper: Documentation will be electronic, which will eliminate more than 250,000 pages per year of paper financial reports.

-- Less duplication: There will be greatly reduced need to enter the same data two and three times as is done now in reconciling information across different systems.

-- Easier access to information: Every unit will have access to central records through a desktop computer.

-- Improved abilities: Deans and chairs will be able to more easily develop budgets, track expenditures and adapt to policy changes.

Once A.R.M.S. is on-line, better academic support systems could be added. An accounts payable system, for example, could provide faster reimbursement for travel expenses, while a new student information system could provide more rapid enrollment and class roster information.

"This project is a significant challenge and opportunity," said Shkurit. "The goal is not just to save money, but to help the University better achieve its academic mission. The second goal is to do this in the most cost-effective manner possible."

Had the university done nothing to upgrade its systems, it would have incurred significant costs because the existing systems are out of date and increasingly expensive to maintain. Even modifications such as reprogramming current databases to accept the year "2000," would have joined with adverse audit findings, systems failures and wasted time to cost Ohio State millions of dollars.

In the spring, university leaders will propose a plan to fund the $20-million to $24-million implementation costs, which include training and equipment. These costs will be recovered through a charge-back to the colleges, the University Medical Center and other general fund and earnings units.

Details are still being worked out, Shkurit said, but charges will be limited to no more than three years and no more than 1 percent of unit budgets on average in any one year.

Continuing costs for hardware, software and training will be between $1.5 million and $2.2 million but "the overall goal is to keep those costs fundable through

-- more --
continuing savings," Shkurti said, so there will be no ongoing cost to colleges and academic support units for central maintenance of the new system.

The funding request on Friday marked the fourth time A.R.M.S. project administrators have appeared before the board. The first request provided for a needs assessment, where more than 2,000 faculty and staff helped to identify such inefficiencies as a three-week average processing time for most financial and human resource forms, up to 14 different forms used for a single type of transaction and up to six approval signatures required on many of these forms. Later requests provided for selection of the technology to be used to implement the system and to begin the design work.

Contact: William J. Shkurti, 292-9232; Linda Tom, 292-4164; Edward Ray, senior vice provost and chief information officer, 292-5881; or John Ellinger, A.R.M.S. project director, 688-3315.
Written by David Bhaerman.
Computer experts look at 2 new areas: student data, purchasing

By David Bhaerman

Following in the footsteps of the Administrative Resource Management Systems project, two new needs assessment teams have begun to examine student information systems and procurement.

The procurement team is examining the operations of accounts payable, equipment inventory, purchasing, receiving, stores and travel.

The student information systems team is taking a look at admissions and financial aid, fees and deposits, University Technology Services, registrar and treasurer, where many of the technology systems were established in the 1970s. Student employment, residence halls, athletics, traffic and parking and Buck¹ID also will be considered.

“We’re analyzing the current processes and will identify potential re-engineering opportunities,” said Diane Owens, who is heading the procurement team. “Then, with customer input, we’ll try to conceptualize design of future processes.”

The teams also may conduct cost-benefit analyses.

Owens and the other members of the teams are on loan from their regular University positions to provide expertise in current processes and offer insight into practices that are in need of improvement. Owens, for instance, is a manager for purchasing, and Brad Myers, who heads the student information systems team, is a senior associate registrar. Each team is being assisted by representatives from Andersen Consulting.

The teams hope to complete their work by June 30 and will return to their regular posts after recommendations are made.

Both teams are under the umbrella of ARMS. They are following the procedures used during the previous assessments of general ledger and human resources systems, said John Ellinger, project director for ARMS.

The teams already are finding clear examples of problems to be addressed. The procurement team, for example, has found that vendor information must be entered into three separate data bases. The student information systems team has found computer systems that cannot accommodate both a quarterly calendar and one for the College of Law’s semesters. They also are faced with resolving the problem of software systems that will not be able to accommodate a change to the year 2000.

“Areas all have totally different data systems that have a real problem “talking” to each other,” Myers said. “In our overall review, we’ll see if a move toward an integrated system is better than making changes piecemeal. We’ll see if improvements can be made by tinkering with what we have or if our needs are better met by moving to a new system.”

The University has made no commitment to proceed past the needs assessment stage of the two areas. Vice presidents will examine the recommendations of the teams and decide whether to proceed.

The teams will meet with many University groups.

Comments also may be addressed to the procurement team at owens.3@osu.edu and the student information systems team at sis@magnus.acs.ohio-state.edu.
ARMS still not perfect; employees being shorted, overpaid

By Eric Olson  
Lantern staff writer

While problems with Ohio State's new payroll system still arise, administrators are trying to iron out the wrinkles.

Since Administrative Resource Management System, or A.R.M.S., began on Sept. 1, staff have been underpaid, overpaid and given incorrect credits for vacation and sick-leave time.

The system, which was on a 90-day trial period, was designed to quicken business transactions throughout campus administrative offices.

Larry Lewellen, acting vice president for the Office of Human Resources, said that the office had hoped to have all the problems resolved before the trial period had expired.

"Not all of the bugs have been worked out yet," Lewellen said. "We have fewer, but we still have some."

On Oct. 10, 724 campus faculty and staff paychecks came up short, but human resources was able to include supplemental checks to make up the differences, Lewellen said.

"It was still a big brouhaha to have that many checks short even though we rectified the problem," Lewellen said.

A University Communications employee's check stub, received October 31, listed 20 hours of sick leave, but the actual accumulation was 1,000 hours, Lares said.

"I have not talked to one person who says it is great," said Nancy Lares, an administrative associate in University Communications. "Everyone I know dislikes it."

However, not all of the departments on campus have had problems.

"We are optimistic," said Cristal Penn, purchasing coordinator for the College of Pharmacy. "They are listening to us and things are getting better."

Steven Cotter, division administrator for Gastroenterology in OSU Hospitals, has speculated why some departments have problems and others don't.

"I have 16 monthly (paid staff members) and five or six weekly, so that is not a huge number," Cotter said. "I've talked to people with 40 to 50 people paid. I think that makes a difference."

Cotter said that the balances of the year-to-date information in his department have been inaccurate, but otherwise, they are doing fine.

Lewellen said that human resources hopes to have the problems rectified by the end of November.
A.R.M.S. Project
Information Sources

The Administrative Resource Management System (A.R.M.S.) Project has an extensive communications plan that is designed to keep the university community informed about the project. The following is a list of information sources included in the plan and how these sources may be accessed.

1. *onCampus* - Approximately once each quarter, the A.R.M.S. Project publishes a two-page insert in *onCampus*. This publication is being used to reach the university faculty and staff, and it reports current project status, expected benefits and changes that will occur when A.R.M.S. is implemented. *onCampus* is mailed to employees and can be picked up in several campus buildings.

2. *A.R.M.S. UPDATES* - A.R.M.S. UPDATES are periodically sent via electronic mail to individuals in university departments who are involved with the human resources, financial or technical operations in their departments. To be added to the A.R.M.S. UPDATE mailing list, send your name, e-mail address, department name, and phone number to beall.2@osu.edu.

3. *World Wide Web* - A.R.M.S. Project information is maintained on the World Wide Web at http://www.arms.ohio-state.edu. This information provides a report on the activities and results of each phase of the project. Access to the World Wide Web may vary depending on your computer setup, so please check with your department’s technical support person for specific instructions.

4. *College/Department Newsletters* - Once each quarter, a news release is prepared and mailed to vice presidents and deans for consideration in any college or departmental newsletters. The releases report on the A.R.M.S. Project progress.

5. *Newsgroups* - Four electronic newsgroups have been established for faculty and staff members to pose questions and receive answers directly from the appropriate A.R.M.S. team members. These newsgroups can be subscribed to using newsreaders such as Trumpet Newsreader and Newswatcher or via a World Wide Web browser such as Netscape. The newsgroups are as follows:
   - osu.arms.general
   - osu.arms.financial
   - osu.arms.humanres
   - osu.arms.technology

Please check with your department’s technical support person for assistance to subscribe to one or more of the A.R.M.S. newsgroups.

(revised 11/8/96)
A.R.M.S. Facts

WHAT ARE THE OBJECTIVES OF THE A.R.M.S. PROJECT?
- To implement redesigned OSU financial processes and systems (General Ledger, Budgeting, Financial Reporting, Accounts Payable, Equipment Inventory, Purchasing, Receiving, Stores, and Travel)
- To implement redesigned OSU human resources processes and systems (Personnel, Benefits and Payroll)
- To implement technology to support the redesigned financial and human resources systems (hardware, software and networks)
- To provide training for the university community to ensure a successful transition to the new systems
- To establish a technology infrastructure to support future improvements to the university’s information systems

WHY DO THE A.R.M.S. PROJECT?
- To support OSU’s academic mission
- To redesign inefficient, manual, paper-based processes and systems
- To meet increasing demands from federal and state agencies; reduce reporting deficiencies which are putting the university financially at risk
- To eliminate current outdated systems which are expensive to maintain and limit access to information

WHEN IS A.R.M.S. SCHEDULED TO HappEN?
- July 1997-April 1998 - Various Human Resources modules
- July 1997 - Hospital Pilot (General Ledger and Accounts Payable)
- March 1998 - Budget Administration
- April-July 1998 - Procurement
- July 1998 - General Ledger

WHO IS MAKING A.R.M.S. POSSIBLE?
- Strong support from OSU Board of Trustees
- OSU senior administrators
- A.R.M.S. Advisory Committee consisting of OSU faculty and staff
- A.R.M.S. Project Team consisting of employees from OSU, Andersen Consulting and American Information Systems
- Office of Finance, Office of Human Resources and Office of Business and Administration personnel
- University Technology Services personnel
- OSURF and University Hospitals personnel
- Departmental fiscal/human resources personnel

WHAT WILL CHANGE WHEN A.R.M.S. IS IMPLEMENTED?
- Forms and reports will be on-line rather than paper based.
- Time needed to complete human resources and financial processes, such as hiring staff or recording financial transactions, will be reduced.
- Documents will be sent on-line for review and/or approval, as appropriate, instead of manually delivering paper copies for signature.
- Faculty and staff will update personal and benefits information via interactive voice response systems or computers.
- On-line help will be available for faculty and staff members using human resources and financial systems.
- Available university policies and procedures will be on-line.
- A technology infrastructure will be established for future administrative systems.

WHAT WILL THE BENEFITS BE TO OSU FACULTY AND STAFF AS A RESULT OF A.R.M.S.?
- Streamlined financial and human resources processes
- Elimination of many forms due to new on-line processes
- Financial and human resources information will be available in the format needed, when it is needed
- Better accountability for the use of human and financial resources
- Enhanced technology for teaching and research
- Direct and indirect savings of financial resources
- Reduced time to complete human resources and financial processes (i.e. hiring a new employee, recording income and expenses), and more time for supporting the university’s academic mission
- Simplified and less time consuming report preparation for federal and state agencies