FM TECHNOLOGY ON CAPITOL HILL

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The Capitol is synonymous with the history of the United States of America. Beneath the corridors of power, a new revolution is taking place.

As the Architect of the Capitol, Alan Hantman's vision is to make the AOC accountable for all its work and to enhance a professional facilities organization that can respond to the unique requirements posed by the Hill. The unusual schedules for the House and Senate, the rotating doors and changing seniority of members based on elections and the historic fabric of the property portfolio puts tremendous demands on this facility management (FM) organization. The jurisdictions comprised of the House Office Buildings, Capitol, Senate Office Buildings, Supreme Court and Library of Congress had operated as independent business units each with its own work processes. To achieve Alan Hantman's vision all jurisdictions are now required to follow a common set of standards within the Computer Aided Facility Management (CAFM) and Computerized Maintenance Management System (CMMS) applications.

Mr. Alan Hantman's View – The core vision for the AOC's FM Technology is to provide a common source of information across the jurisdictions. This will allow senior management the ability to track the performance of the staff at a macro level with the ability to drill down to the detail to understand the anomalies.

The challenge was great. The AOC maintains 14 million square feet of space, much of it historic. There are over 800 owners along with their staffs to support. The AOC has five main jurisdictions, the Capitol, the Senate Office Buildings, the House Office Buildings, the Supreme Court and the Library of Congress. The AOC is building on a progressive investment in technology. Under George White (the previous Architect), the AOC had developed a CAD database of all its property. The AOC had taken the initiative to develop proprietary tools to support the buildings. Six separate systems were used, which were not implemented consistently and used in differing degrees. A work order and preventive maintenance program had been written on a VAX (text-based terminal computer system). Its primary problem was that it did not provide an integrated solution. This program and a several other commercial off the shelf (COTS) products did not meet the Y2K test.

The AOC recognized that the management of approximately 1900 employees required further investment in technology. A CAFM consultant was hired to help develop a strategic needs assessment creating a plan for introducing an integrated FM technology solution to the Hill. The Capitol Superintendent and the AOC's point person for the CAFM/CMMS implementation, Amita Poole, already had experience in implementing CMMS and CAFM solutions. A key ingredient to the success of any technology project is support from senior management. Mr. Hantman's personal focus on the project proved invaluable in meeting the project challenges. Senior management input in many important

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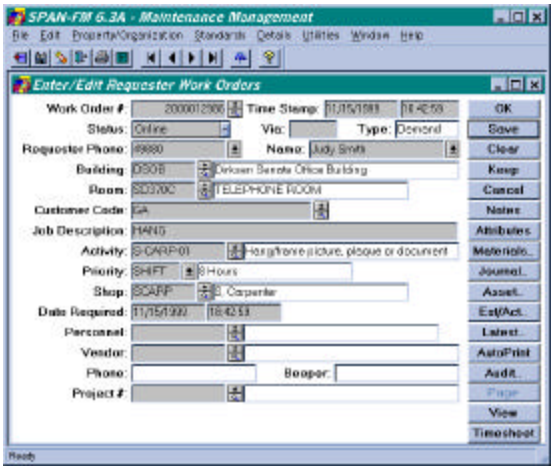
decisions on how to proceed to implement the recommendations in the strategic plan helped drive the project.

Work Management

Tasks that are automated in CMMS include:

- Work Order Processing;
- Accounting functions for labor and material management;
- Central Help Desk;
- Purchasing links;
- Scheduling and Project Management links;
- Preventive Management systems;
- Equipment/Inventory Data management;
- Maintenance Procedures (SOPS) and standards.



CMMS Work Order Screen

Several existing stand alone work management systems did not meet the Y2K test. This set priorities for the implementation. Numerous commercial off the shelf vendors were reviewed to determine the best application that integrated with the existing CAD database. The first effort was to develop an occupancy database in support of the 1998 elections. Next on the agenda was to implement Demand Work Orders for the Senate with the intention of rolling out the application in subsequent phases to the other jurisdictions. For the first time all jurisdictions had to agree on a common set of standards.

Both a CAFM Steering Committee and a Standards Group were created to guide the entire project. The latter was charged with developing consensus on a list of codes used to define the types of work, the activity codes and the outcome of the work, the resolution codes along with other key decisions along the way. The CAFM consultant worked closely with both the Steering Committee and Standards Group filling three important duties. First, the initial role of the consultant was to provide both the technical and business knowledge for implementing the CMMS system. Second, the consultant had the experience to assist in the development of a consistent set of data standards to support the vision set out to allow for the roll up of information across all jurisdictions. Third, the consultant assisted in the implementation of the directives from each of these meeting sessions.

The consultant's view – The installation of the software and technology components was straightforward. The real work was to make the system work with the AOC's real-life business processes. The objective was to work with the five jurisdictions to agree on the standards and protocols. The CAFM Standards group was the essential source of the agreements.

To date, the Senate, House, Capitol, Supreme Court, and The Library of Congress are online with Demand Work Orders. More than 300 staff members have been trained. The CAFM consultant has provided initial support for the jurisdictions after they have gone live. The onsite support has been a key ingredient to building confidence in the technology. One of the major goals of the effort is to train, and then turn over responsibility for implementation to the appropriate AOC staff.

Support is provided through daily rounds of the 50 or more shops for the Senate, House, Capitol, Supreme Court, and Library of Congress. Searching out user problems

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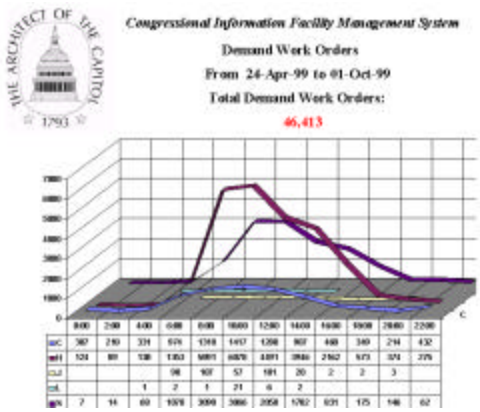
and working one on one helped minimize many of the normal transition issues.

The system has already produced data to allow for key management decisions. The report (see below) showing the time of receipt for requests during the day. The graph indicated where the peak demand was for resources. Based on this information the AOC was able to adjust existing work schedules for several employees instead of hiring additional staff



or paying overtime. Mr. Hantman's vision for a tool to provide efficient use of resources is a reality that will continue to evolve.

In addition to work orders, the Senate's furniture database has been successfully migrated to the CAFM system. The former application was not Y2K compatible, did not work properly with the available scanner equipment and did not provide management with flexible data reporting capabilities. Currently, the Senate has over 100,000 bar-coded items listed. The CAFM software has allowed the development of new and improved processes for the collection of data during the physical inventory.

First, the time to perform the inventory is reduced from eight weeks to three or four weeks. Second, inventory teams used to carry three bulky scanner devices. Now, they only carry one smaller scanner device. Next, the integration of the scanner system with assets will allow for a more effective tracking of assets. In addition, the furniture staff has the ability to track the movement of furniture, which aids in generating the required audit trails. Finally, the historic aspect of the institution requires tracking which Senator used which piece of furniture.

Demand work orders is only a small piece of the FM technology puzzle. The AOC intends to implement a Preventive Maintenance program across all jurisdictions. The program will focus on bringing a common language to all the jurisdictions for the tasks and specific procedures aligned with common schedules. The AOC is upgrading its Human Resources and Financial Systems. These systems will develop a two-way link with the work management system to provide further levels of accountability.

Space Management

The AOC already has a web site supporting the display of CAFM data, drawings and project data. The Suite Selection web site is an example of the AOC's continuing commitment to improve business processes through technology. This web site was designed to help in the reassignment of suites after the 1998 elections. Supported by a database and a combination of room drawings, the web tool allowed for a better decision making process for members and a useful management tool for the House Superintendent. The House members could see where the suites were located and the exact configuration of the room with the associated data (such as square footage). Once selected the room was removed from the list of available suites and the House representative's former suite became free for others to select from. The internal web site received approximately 38,000 hits a day during the two-week process.

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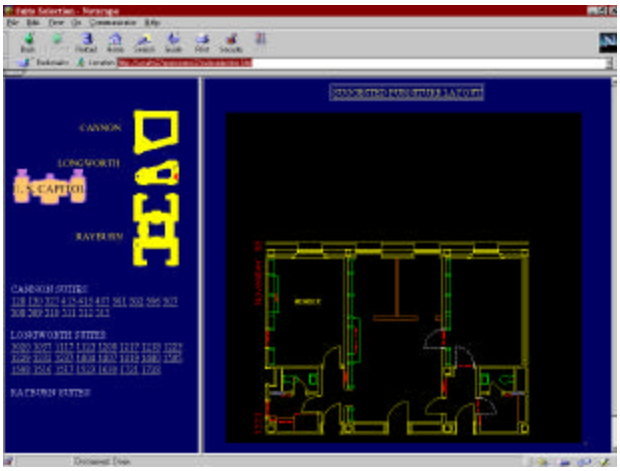

Mr. Hantman sees the long-term goal for the AOC as the creation an integrated application to support the information requirements of the Hill. Whether the application is based on Enterprise Resource Planning (ERP) systems or CMMS does not matter. The application shall have common glue in order for management at all levels to make informed decisions. Current trends and improvements in technology clearly point to the Web as an integrated solution for facilities managers. Due to its collaborative nature, eventually the Web will provide the unifying thread across divisions throughout Capitol Hill.

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