Script: Heath Care FM 12/07/92

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Accugraph Logo and Facility Management title

Hi, my name is Tom Chavez and I'm with Accugraph corporation. I would like to welcome you to this facility management presentation. Accugraph's facility management software effectively combines words, numbers and graphics to give you maximum control of all of your facility management functions. This is done through a set of integrated tools that allow you to view graphical and non-graphical data.

Accugraph Corporation has been in business for 21 years providing premier solutions in the areas of architecture, engineering, telephony, configuration management and facility management which is what we will cover in this demonstration.

According to the international facility managers association the facility management process is broken down into 4 major phases:

Planning, design, implementation and monitoring. Even though these activities may not be performed by the same individual or department, they remain the back bone of a successful facility management process.

We're going to divide this presentation into two sections:

First we will discuss the individual components, or toolset, that makes up the facility management application.

Second we will demonstrate MountainTop in an industry specific environment and show how it addresses each phase of the facility management process. Let's get started.

MountainTop's Component Set

In this section we're going to discuss the individual components that make up the facility management application:

CG: Graphic Engine

The graphic engine, a sophisticated drafting system is the core of the MountainTop package. This engine allows for up to 256 layers and over 2,000 functions, on-screen editing, an intelligent calculator, and a full set of 2-dimensional drafting tools that are geared for maximum productivity. Graphic elements can be assigned to individual layers, streamlining the management process. This graphic engine is also fully integrated with graphic and alpha numeric database management and communication devices.

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CG: User Interface

The powerful user interface enables you to create and customize your work menus and drawing environment. Your on-screen working area may be arranged to provide efficient entry and viewing of graphic and textual information.

Customized navigational paths can be easily created to give many people access to important information.

CG: Integrated Spreadsheets

The integrated spreadsheets link calculations to design drawings instantly providing updated values, material take-offs and cost estimates, as drawings are revised. You can use these spreadsheets to generate information, like area calculations, space forecasting data, budgeting calculations and inventory lists. You can also output this data to other popular spreadsheets, like Lotus 1-2-3, for even more functionality.

CG: Integrated Word Processor

The integrated word processor allows the creation, editing and viewing of any text information including schedules, bill of materials and other reports.

Any text in this systems can be placed on a drawing.

This tool can also read ASCII files produced by other systems like Word Perfect. Files created in this system can also be saved in ACCII format and transferred to other systems.

CG: Database

The database component provides a unique integration between database management systems and MountainTop. This tool supplies a transparent graphical link to the database allowing users access to sophisticated database technology.

For example, a user could point to drawing on the screen, or any element in that drawing, and bring up all the information in the database related to that item.

This user friendly interface can also eliminate the need for complex SQL commands.

CG: Scanning Capability

In addition, MountainTop provides a powerful scanning capability that allows the user to scan existing drawings, up to "E" size, into the CAD system. The scan drawing acts as a template from which a MountainTop CAD drawing can be created and modified.

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A powerful feature of this tool is the auto zoom function which allows rapid, precise placement of lines on the scan template.

Photographs may also be scanned and attached to any drawn element.

CG: Stacking and Blocking

Stacking and blocking analyzes space and relationship data to present the best layout for your facility.

This can be done for an entire building, either for the vertical view of the space, known as stacking, or for the horizontal view of the space, referred to as blocking.

This tool helps you organize objects, like office spaces, equipment and machinery into a set of defined spaces.

Review

As you can see the MountainTop facility management application is made up of a set of powerful and integrated tools. Let's take a minute to review what we have just discussed.

CG: The graphic engine offers a full set of intelligent 2 dimensional drafting tools

CG: The common user interface enables you to customize your work environment and provides consistency throughout all integrated components.

CG: Embedded spreadsheets linked to drawings automatically recalculate variables when drawn elements are modified.

CG: Word processing documents may be imported and exported and easily placed on drawings.

CG: An intelligent graphical link to relational database management systems is also provided.

CG: Drawings and photographs may be imported and attached to elements.

CG: Stacking and Blocking allows you to optimize space layout.

In the next section we' ll provide an industry specific demonstration utilizing these powerful components.

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Industry Specific Demonstration

In this section we're going to take the components that we just discussed and apply them to an industry specific demonstration. We're going to cover the different elements that make up the facility management process. We're going to talk about planning, design, implementation and monitoring of a specific facility.

- Planning
- Design
- Implementation
- Monitoring

The Planning Phase

Let's begin with the planning phase. Since the facility management process is cyclical the planning process can start from conception, as in a new organization, or more likely from an existing set of conditions.

The most critical information required in the planning process is the forecast of space required, since both people and equipment can be equated to space.

(begin industry specific section)

Let's take a look at an example in a Health Care environment.

This floor plan illustrates how MountainTop can be used in the planning process. It consists of information drawn in MountainTop or imported from another CAD system through standard filters such as DXF, IGES, TIFF, or HPGL.

This graphical model includes walls and openings that define areas.

These intelligent symbols represent pieces of equipment, in this case surgical fixtures.

This information could have been developed through the collaboration of architects, engineers, internal clinical and administrative staff and health care consultants.

Notice that the square footage for each space is displayed.

We can use this information to define critical zones and compare them to available space. The facility manager uses this building model to plan and allocate space for facility layout including the special needs of new technology.

MountainTop automates facility planning by allowing relational databases to be interfaced with the architectural environment to translate non-graphical data to a graphical format.

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This non-graphical information can also be imported from other systems.

- Is your space being utilized efficiently for patient or lab use?
- Can you graphically identify restricted areas?
- How much unused space do you have throughout your facility?
- What is the best way to configure existing hospital units including the placement of new technology?
- What is the best way to make cost effective moves and expansions to meet a 3 to 5 year plan?

With MountainTop's Facility Management module all of these questions are easily answered.

Once we have the required space defined we can begin forecasting growth projections. By looking at this data we can see, that based on today's requirements, this much square footage is required. Since community demand and technological breakthroughs are variables we now have a tool to help calculate "What if" scenarios, and how each of these might affect our future requirements.

Being able to visualize this information graphically makes forecasting much easier.

Review

We're able to use MountainTop to provide visual aids, either through floor plans or integrated spreadsheets, to address key issues in the planning process. This includes evaluation of the physical structure for expansion and renovation to match:

- Special needs for new technology
- Growth projections
- Environmental services and considerations
- Major moves from a primary facility to a satellite location

The Design Phase

Now, let's discuss the design phase. Once the required space has been obtained, the facility manager is ready to design and allocate the appropriate space for each department or region. The facility management module provides a facility database to guide you throughout this process.

This module can also assist the facility manager in determining if the specific department, region or structure require walls, windows, doors or other permanent structures to be built or removed.

(begin industry specific)

In a health care environment the space management process relies on the proper utilization of space standards and design flexibility.

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By utilizing as built drawings the stacking and blocking function can provide space relationship information when determining the placement of wards and stations within a hospital environment.

In this case each work place is represented by a different color.

This tool can provide accurate projections of fluctuations in patient loads to create a cost effective implementation strategy.

We have defined the areas required by the different wards on this floor plan. Pre-defined standards may be loaded as symbols to design areas to specification.

For example, the joint commission provides standards for the accreditation of hospitals that cover all aspects of a hospital's operations and environment. Required maintenance of fire prevention equipment can be performed by accessing as-built drawings.

This drawing is integrated with spreadsheets and relational database information that provide attribute information by clicking on the symbol.

In addition, MountainTop provides a tool to visualize expansions or renovations before construction begins so that costly design errors and differing site conditions can be avoided.

We are able to take inventory of items on our floor plan by using a simple function, in this case all the symbols that have been placed on this drawing are listed.

If changes need to be made in the design process, for example, if you needed to add another room to an existing structure, we can access the powerful drafting tools provided within MountainTop to draw a new wall.

Let's draw a wall from here to here, and place an opening at this location. As you can see the process is very easy.

Review

You can see that MountainTop contains the necessary tools to assist you in the design phase of health care facility management:

- Create new and/or renovated facility layouts
- Track fire and safety code compliance
- Verify of existing and proposed space allocation
- Placement of equipment

These are a few of the tasks the facility management module provides.

The Implementation Phase

The implementation phase brings together the interior planning, budgeting, and installation re-

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quirements for effective space and asset management.

The facility manager may allocate appropriate space, furniture and elements required by each staff member or occupant.

Cost estimating spreadsheets can calculate related project costs. The budgeting process incorporates results obtained from previous phases.

(industry specific demo)
In the health care environment graphical and non-graphical data take on an entire new dimension in the implementation phase.

Bed counts by patient type and by location

Plan location and location summaries of beds in use vs. those converted for other uses

Drawing on this information customized spreadsheets can be developed to indicate current space usage and function by service space deficiencies, or excesses with respect to the space planning criteria, and projected space needs.

Proper interior installation as a result of this data can reduce excessive requests for new furniture and an large amount of excess of non-functional furniture.

After calculating the individual cost of space, furniture, and projects, projected costs can be forecast for each department with speed and accuracy. The MountainTop facility management module allows the facility manager to compare actual departmental costs with projected costs.

Based on approved budgets and information generated in this process departments may be held accountable for their space related expenses. The projected impact on work productivity for a given department can also be calculated. This will insure proper project management and scheduling.

Design re-evaluations are easily accomplished to make sure that asset assignments will fit into defined spaces. This becomes useful when last minute changes are required.

We can select furniture or fixtures to be installed or moved. For example, let's move this piece of furniture from this department over to this department. Notice that the ownership and department designation are automatically updated. This insures accurate, updated inventory tracking.

Review

As you can see, MountainTop provides the tools to manage your project throughout the implementation phase. This includes:

- Equipment installation and relocation

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- Construction and operating cost management
- Re-evaluation of installed equipment

The benefits include:

- Minimized down time
- Visualization of moves before they happen
- Maximized customer and employee satisfaction

The Monitoring Phase

Monitoring is the last phase in the facility management process. This includes the maintenance and operation of a facility.

The facility management module allows personnel to retrieve and track more accurate information from existing databases.

We demonstrated earlier in the implementation phase that assets could be placed at specific locations throughout the facility.

You can utilize existing database information or input new data as required. This will result in more effective:

- Inventory tracking
- Maintenance schedules
- Equipment lists
- and personnel information

Once you have this information attached to the graphics, MountainTop can assist you in generating preventative maintenance reports. For example, let's determine the equipment that needs to be serviced in the next 30 to 60 days.

This graphical interface provides easy access to the underlying relational database.

The results of our search are listed and the elements are also highlighted graphically.

Any type of information can be attached to symbols. In this case, the symbol attributes list a particular room assignment and recommended temperature for optimal performance.

Each element attached to the database can now be tracked throughout a facility and attributes such as room location, department assignments and security information will be automatically updated.

Finally, by putting all of this information together we can use forms to access database information to determine what equipment needs to be changed or moved to ensure maintenance of a *smart* or *well* building.

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Review

You can see how MountainTop provides an integrated solution to help you monitor your health care facility:

- Tracking material for storage and disposal
- Generate preventative maintenance reports easily
- Monitor access to restricted areas

Section Review

We've demonstrated how MountainTop can be used to take an entire project through the facility management process:

- Planning: Forecasting, Growth projections and facility requirements
- Design: Modification of a floorplan, incorporation of required elements to represent fixtures and furniture within defined spaces.
- Implementation: Attach selected database information to graphical symbols, installation evaluation and review of budgets
- Monitoring: Provide maintenance and operational information for effective management of a building over it's life span.

Conclusion

In a corporate environment, facility management becomes so much easier by utilizing a tool like MountainTop. We have shown some of the benefits of linking graphical and non-graphical information together.

MountainTop is rich in it's ability to integrate with other technologies.

The facility manager is able to communicate with other departments through the comprehensive component set that MountainTop provides.

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We can go one step further in showing how MountainTop can be used to create a facility information management system. This gives a much wider group of people in your organization the ability to access information.

For example, by utilizing a library of icons, like the one you see on the screen, we're able to assign navigational intelligence. This allows us to attach other drawings, programs, sound files, bit maps and even other MountainTop functions.

With this capability we can create customized menus to provide access to different kinds of infor-

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mation needed by different departments in your organization.

So you see that the facility manager is not the only one that benefits from this information. MountainTop becomes a system that shares information throughout your entire organization.

People in administration can have access to information without having to wait 2 or 3 days to receive data using existing processes.

Accounting could have access to this information in a similar way.

The powerful component set that makes up the MountainTop facility management application can address all of the needs of a facility manager. Information can be shared across the entire facility providing valuable decision making data required to manage your facility.

The ability to retrieve accurate information in a timely manner, be proactive instead of reactive can have a major impact on bottom line.

Conclusion

At a time when most organizations are down sizing, or right sizing and the cost of property or space is on the rise, facility managers are continuously being asked to do more with less resources.

With integrated technologies providing decision support data, it becomes paramount that facility managers and supporting entities have the appropriate tools to accomplish their tasks

Accugraph's Facility management module provides a pre-defined application tools

automated solutions for facility management

Accugraph is currently supporting a number of large installations, including Hewlett-Packard, GTE and USAA insurance.

We offer a wide variety of services which allow your organization to leverage our expertise on the area of implementation.

I would like to thank you for joining me today. If you would like to see how Accugraph's facility management application can fit into you environment please contact your local sales representative.

Thank you.

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CG: Copyright screen for Word Perfect and Lotus 1-2-3