

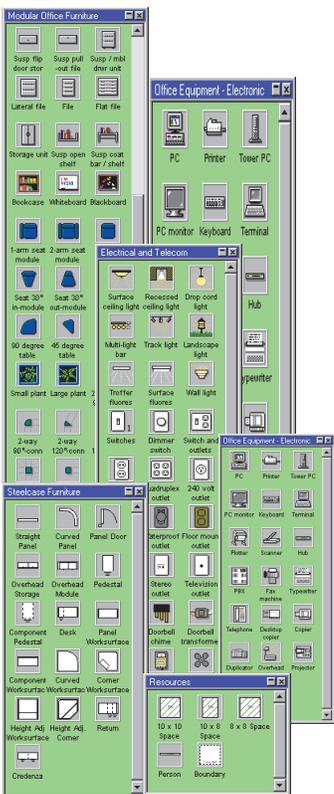
Microsoft[®] **Visio**2000[®]

Microsoft[®] Visio[®] 2000 Technical as a Facilities Management Solution

White Paper

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A sample of the more than 1,000 facilities management SmartShapes symbols that are part of the Visio 2000 Technical Edition's Facilities Management Solution.

Simply drag and drop furniture and other assets onto the drawing page to create detailed space plans.

Traditionally, facilities managers have relied on computer-aided drawing (CAD) and proprietary, computer-aided facilities management (CAFM) tools to create space plans, conduct move management, and track and manage physical assets. Such tools often cost thousands of dollars per seat, require extensive training, and afford little if any means for sharing files or facilities data with co-workers, such as department managers and executive staff.

Facilities managers have long felt their companies could benefit from a broadly deployable, efficient, affordable, CAD-compatible tool. CAFM vendors, too, have been struggling with inappropriate and inflexible technologies in trying to craft custom solutions with an intuitive drawing component.

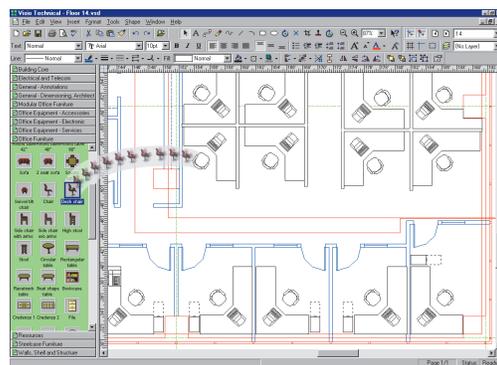
Microsoft® Visio® 2000 Technical Edition is an easy-to-use facilities management product that combines aspects of CAD- and database-oriented tools around a core of Microsoft technologies. It is now recognized as the ideal tool for addressing the needs of facilities managers and CAFM vendors. What's more, Visio 2000 Technical Edition software's affordability, wide-scale use in the corporate setting, minimal training requirements, and compatibility with other standard business applications make this facilities management solution much easier to deploy on a large scale than CAD-based or proprietary solutions.

This paper describes how Microsoft Visio 2000 Technical Edition functions as an effective solution for facilities managers and their co-workers, and how CAFM vendors can customize Technical Edition to meet virtually any enterprise-specific application.

Understanding the basics: a solution overview

Developing a truly useful facilities management tool requires understanding how facilities managers and their colleagues analyze and interact with facilities data. That the ideal solution must give customers multiple ways to view facilities data: spatially (as in a drawing) and within a relational framework. In addition, to facilitate ongoing management needs, the solution also must provide easy access to the data associated with individual assets and the overall plan. The Visio 2000 Technical Edition Facilities Management Solution provides all of these features.

For starters, the Microsoft Visio 2000 Technical Edition Facilities Management Solution includes more than 1,000 SmartShapes® symbols specifically designed to create a facility plan and track facilities data. These intelligent objects represent everything from spaces (offices, departments, and so on) to items within each space (such as people, desks, and computers).



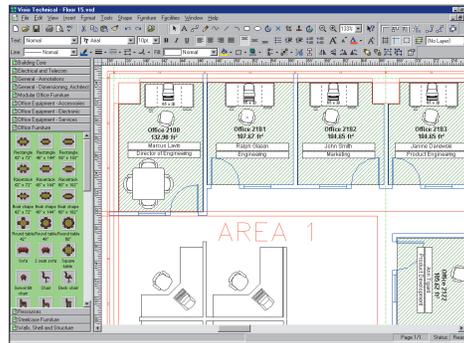
As you drag and drop SmartShapes symbols to create a facilities plan in Microsoft Visio 2000 Technical Edition, you're simultaneously building and managing a database that stores asset information and associations between the spaces in your drawing and the items within each space. Creating associations between spaces and items is as easy as dragging and dropping SmartShapes symbols onto your space plan.

The database can contain much more than simple associations between spaces, people, and objects.

You can also assign specific properties to each shape. For example, a computer might have a model number, serial number, and model name; similarly, each person might have a name, title, telephone extension, and so on. All of this data can come from a variety of sources. You can enter the data manually as you add shapes to the drawing. Or, you can link to information already stored in the database.

The underlying database is a data repository that utilizes the latest Microsoft Repository and Microsoft Access technologies. This repository stores unique information about the drawing, as well as links to external data.

To define floor plan areas you wish to track, simply drag and drop space shapes onto the floor plan, or convert existing boundaries from CAD files to intelligent space shapes.

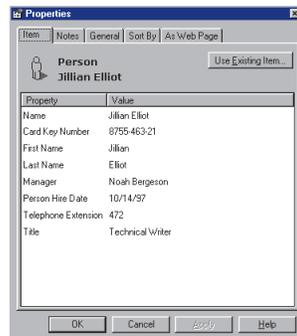


Next, you populate the spaces with shapes representing people and objects.

In addition to the facilities shapes, Microsoft Visio 2000 Technical Edition includes more than 3,000 shapes for documenting HVAC systems, electrical schematics, fire and security systems, and more. The product also includes a database representing the Steelcase Series 9000 furnishings and equipment catalog. For details, see [Configuring office furniture](#) below.

Edit and modify the properties associated with facility shapes. Custom properties can be added and tracked in the database as needed.

Assigning properties to objects in the drawing



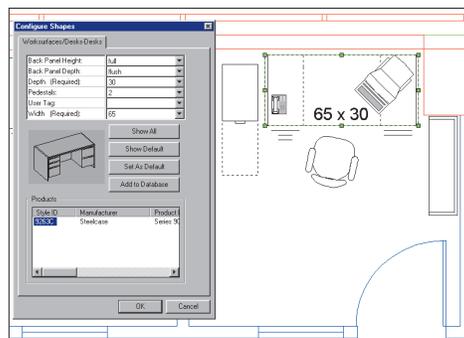
As you populate the drawing with spaces and the spaces with objects, Microsoft Visio 2000 Technical Edition uses a series of object categories and base properties (data fields) to build the underlying database for your facilities plan. Although the properties are predefined, you can easily add or customize them to fit your organization's requirements.

The repository is designed to store data (properties) associated with the drawing, making day-to-day facilities management faster and easier. You can enter these properties manually by double-clicking any object and filling in fields in a dialog box. Visio 2000 Technical Edition stores this data in the repository. You can also link to information already stored in the database. For example, if a person has an office in two

locations, you only need to link to the existing information rather than re-enter it. Each time you view the data associated with a specific object, Visio 2000 Technical Edition displays the most current information from the database.

Quickly specify office furniture using the Equipment Selector. Choose from thousands of shapes representing office equipment and furnishings from the Steelcase Series 9000 furniture system.

Configuring office furniture



In addition to the general facilities management shapes, Microsoft Visio 2000 Technical Edition includes an Equipment Selector utility and a database representing the Steelcase Series 9000 furnishings and equipment catalog. The Equipment Selector makes it easy to locate specific items from the catalog and place them in the drawing. For example, you can search the selection of Steelcase 9000 desks to find only those that measure a specific dimension, use a particular back panel, or include a certain number of pedestals.

To use the Equipment Selector, you drag a shape from the Steelcase Furniture stencil and drop it onto the drawing. Each shape represents a class of objects, such as desks. Once you drop the shape, a dialog box displays a list of the various properties associated with that shape: height, width, length, and so on. Simply choose the height or any other property from the list. As you assign values to successive properties, a list box dynamically updates to show all the Steelcase Series 9000 pieces that match your requirements. When you click the name of the desk that matches your criteria, a preview window displays the desk type before adding it to the drawing.

Managing facilities data

Microsoft Visio 2000 Technical Edition offers you two unique views in which to review and modify facilities data:

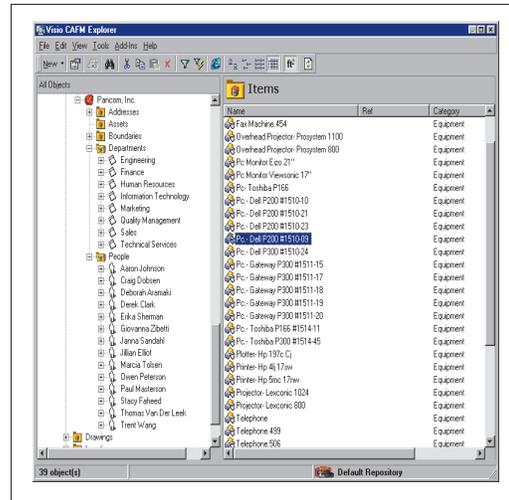
The drawing itself offers a pictorial or spatial view of the facilities data.

The CAFM Explorer window offers a hierarchical or relational view of the data.

To modify the organization or structure of data in either view, you simply drag and drop items from one area to another. Changes you make in the drawing are automatically reflected in the CAFM Explorer window.

Reviewing and editing asset data

Reviewing and editing facilities data is easy. Simply right-click any object in a floor plan or in the CAFM Explorer to reveal the Properties dialog box. Entering or modifying the data will update the drawing and the underlying database.



If you use a CAD-based facilities management tool, you rely on symbols to represent objects in the drawing. Although these CAD symbols can be created to match exacting specifications, it is difficult to store information and review the specific details about the items these symbols represent.

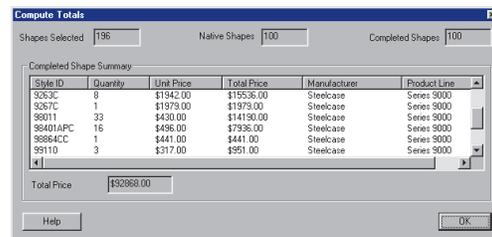
In Microsoft Visio 2000 Technical Edition, data about each shape is stored in the repository. To review or edit the data, you simply right-click the item in the drawing or the CAFM Explorer to reveal the Properties dialog box.

Tracking organizational data using the CAFM Explorer

The Microsoft Visio 2000 Technical Edition software's CAFM Explorer offers an organizational view of your facilities data—structuring information hierarchically or relationally using an interface similar to Microsoft Windows Explorer. Once you set up the departments and organize people within departments, you can quickly view the structure of your company. You can also use the CAFM Explorer to store information that you wouldn't normally track in a facilities drawing, such as a departmental budget. And, you can use it as a holding place for information about resources or assets that haven't been assigned a position in the plan (for example, a new employee who has not yet been assigned an office).

Locating and listing assets and tracking costs

Generate basic cost reports and quantity totals in seconds by selecting items from the drawing or the CAFM Explorer. This image shows the total estimated cost of the furniture items in the floor plan.



One of the best time-saving features of the drawing and the CAFM Explorer views is the ability to search a space plan for specific assets and track their locations in your facility. Once you specify the search criteria, Visio 2000 Technical Edition locates each instance of the item in the facilities plan.

And Microsoft Visio 2000 Technical Edition makes it easy to generate inventory lists. Using the

Property Reporting Wizard, you can write your drawing's data to a spreadsheet or produce a bill of materials in your drawing. You also can use Visio 2000 Technical Edition to quickly compute totals. For example, you can calculate the square footage of a group of offices or track furniture costs with the Compute Totals tool.

Deploying the solution across an enterprise

One distinct advantage Microsoft Visio 2000 Technical Edition offers over CAD-based facilities management tools is its ease of use and Microsoft Windows-based operating environment. Not only can facilities managers learn to use Technical Edition more efficiently and work faster than they can in CAD applications, it's also easier for them to share data and drawings company-wide with human resource managers, security services, real estate managers, operations personnel, IT managers, and other colleagues.

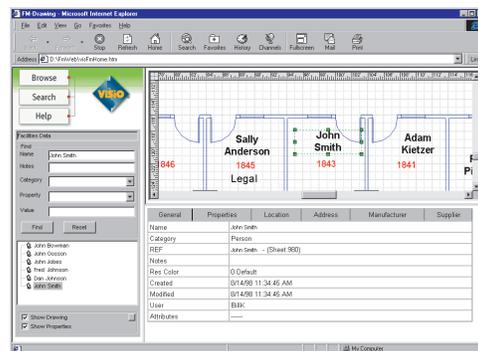
Managing moves and whatif scenarios

In preparing for a move, today's facilities managers routinely provide department managers with a printout of the facilities plan. Using a pen or pencil, each manager marks the printout to show the new locations for staff and equipment. Then, it's up to the facilities manager to enter the revised data and produce a new plan.

With Microsoft Visio 2000 Technical Edition, a facilities manager can provide an electronic copy of the facilities plan drawing and a set of templates to each manager, allowing them to provide the staffing layouts using an intuitive graphic environment.

Creating an online facilities guide

Facilities information can be distributed widely throughout an organization. Using a Web browser, employees can search for a co-worker or an asset, such as a printer.



Microsoft Visio 2000 Technical Edition software's Facilities Management Solution includes an Internet-based browser function that automates the process of posting facilities plans and drawings on a corporate intranet or the Internet, making it easy to share facilities data with a broader audience. What's more, this function enables employees to quickly locate specific people or equipment (for example, the nearest color printer) within the company.

Expanding and customizing functionality

Microsoft Visio 2000 products provide tools that simplify drawing tasks in a variety of industries and professions. By no means, however, do they attempt to address the detailed requirements of each. By opening the product architecture and developing relationships with third-party vendors, the Visio Division of Microsoft Corporation encourages the development of more sophisticated and specific solutions.

In the case of facilities management, Visio 2000 Technical Edition delivers specific functionality to the facilities manager. There are, however, extensions to the basic feature set that can be of value to different customer groups. For example, Visio 2000 Technical Edition enables facilities managers to broadly deploy a tool that enables co-workers to prepare space plans for move management. A CAFM vendor, however, could offer a second level of functionality within Technical Edition by integrating a menu of options for automatically generating move-related work orders and plans. Other customized solutions might include property management tasks (lease-term tracking and tenant accounting); security system management (access control and monitoring); purchase order and contract generation; maintenance management; and so on.

Thanks to the Microsoft Visio 2000 Technical Edition software's open architecture, the opportunities for creating and integrating custom solutions in any industry abound. In addition, vendors can tap into a wealth of standard tools to create those solutions, including Microsoft Visual Basic® for Applications (VBA) (included in the product), Visual Basic, C, or C++.

The Visio Division of Microsoft Corporation offers a full set of support services to help third-party developers get started in creating custom solutions. These services include:

- Knowledge-transfer consulting services that include a strategy session, design workshop, feasibility study, on-site developer training, and quality audit delivered by an expert Visio 2000 solution consultant.

- Developer training held regularly at the Visio Division headquarters in Seattle and in other areas across the country.

- Developer support available by phone or via the Microsoft Visio Web site on a per-incident basis.

- Referrals to Visio 2000 Development Partners who specialize in Visio 2000 solution development and can provide years of experience in your specific problem domain.

Conclusion

For facilities managers and other corporate professionals, Microsoft Visio 2000 Technical Edition offers a faster, easier, and more adaptable tool than CAD-based programs for creating facilities drawings and for tracking and managing assets. Drag-and-drop drawing technology, intuitive SmartShapes symbols, smooth Windows and Internet integration, and a familiar desktop environment enable a company-wide audience to easily create and share drawings and facilities data. In addition, the integrated data repository behind each drawing provides an invaluable tool for keeping asset information accurate and up-to-date.

For CAFM vendors and integrators, the Visio 2000 Technical Edition software's open architecture provides the ideal platform for adding innovative drag-and-drop drawing technology into custom solutions, and for enhancing Technical Edition software's CAFM functions with more sophisticated database and reporting functionality. In addition, the Technical Edition software's built-in tools—such as the CAFM Explorer—allow these vendors and integrators to offer their customers an intuitive, graphical facilities management interface never before available.

For more information about Microsoft Visio 2000 Technical Edition and its use in facilities management, visit www.microsoft.com/office/visio. To order Microsoft Visio 2000 Technical Edition, go to the same Web site and under Evaluation, choose Pricing and Ordering.

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