

Manhattan Software, Inc.
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Strategic Portfolio Planning and Management: Synchronizing Real Estate and Facility Management Knowledge Bases with Manhattan Software Applications

Introduction

MANHATTAN - The name evokes images of large high-rise buildings, operations facilities, office workers, remote employees, integration of business processes and communication infrastructure at its most complex. Real Estate; Facilities; Finance; Integration; Globalization: all of these words are important in the understanding of MANHATTAN, the Strategic Portfolio Planning and Management software solution available to support global businesses and manage their corporate real estate (CRE) and facilities.

This is the first in a series of white papers produced to explain how this solution is revolutionizing the way real estate and facility management is being done with this integrated, financially based software system.

Strategic Portfolio Planning and Management (SPPM) requires making decisions on a complete and detailed view of performance across all of the properties and assets in an organization's portfolio. These decisions are both *strategic*, determining where, when and how much capital is deployed for each property (portfolio management) and *tactical*, determining how these facilities are managed and maintained on a daily basis (facility management). These decisions are first of all considered financially as capital expenditures and operating costs.

Peter Linneman of Wharton has stated, "little is known about the financial impact of corporate real estate (CRE) in the United States and Europe. It is clear that it is a substantial asset base."¹ In this same article, Linneman went on to state that a survey of 800 companies in the UK proved that half of these organizations had real estate assets worth at least 30% of their total asset base (in Japan it was 36%). He argued that "Linking real estate and corporate finance, on an on-going basis, is essential in determining the overall performance and success of managing CRE."² Therefore, SPPM also demands a tight integration with Enterprise Resource Planning Systems (ERP), like SAP, PeopleSoft and Oracle,

¹ *Corporate Real Estate*, Wharton Real Estate Review, Spring 2001, p.55.

² Ibid.

to truly have an integrated perspective on CRE, HR and Finance data. In addition, SPPM must reduce costs in today's uncertain economic environment. MANHATTAN software has been designed to both reduce cost while increasing the efficiency and effectiveness of CRE and FM, as well as the existing ERP and HR systems.

The Value of Increasing Integration to Synchronization

In the 1980's and 1990's, most large organizations migrated to packaged Enterprise Resource Planning (ERP) systems. The reason this presented an excellent business case was that the ERP application integrated traditionally disparate business processes (i.e. the corporate financials, production planning and inventory control) into one system implemented around best practices.

Although these systems were extremely expensive to implement, as they not only came with high prices for the software, but had to have a great deal of consulting due to their requirement for integration and business process re-engineering, the benefits were multifold. They reduced maintenance and support costs dramatically, provided consistent business processes, thus eliminating the expense of repetitive processes, and cut the costs of delivering goods and services to customers and employees through imbedded best practices. However, the ERP systems did not adequately address real estate and facility management. Where they attempted to, the result was extremely complex and financially based real estate management applications, with little understanding of the facility management function.

Today, in 2003, we continue to have similar issues in the real estate and facilities world. Disparate systems support discrete processes, such as space inventory, planning and management (CAFM), financial accounting and budgeting, project management (PM), lease administration, and maintenance planning and management (CMMS). Each software application is typically either a commercial off-the-shelf (COTS) product or homegrown and exists in silos of information that are very expensive to maintain and integrate. Data definitions are incompatible. Enterprise reporting is virtually impossible, as is calculating the total cost of operations (TCO).

Due to its deliberate integrated design and external interface capabilities, MANHATTAN offers incredible value in reducing administrative and operating costs for real estate, increasing efficiency and effectiveness of portfolio management and significantly impacting the productivity of employees and vendors. MANHATTAN integrates with ERP systems, Human Resources (HR), Telecommunications and other CRE and FM databases to create a strategic portfolio management information 'dashboard'.

According to Gartner, integrating best of breed solutions with ERP systems is a critical business issue: *"In the complex universe of supplying information*

technology to assist the business processing of corporations, integration is the key to successful execution, optimizing revenue and managing costs.”³ And we argue not only should these systems be integrated, but be synchronized to the tune of the ever changing business strategies.

The Value of Reducing Operating Costs

BearingPoint (formerly KPMG Consulting) has asked the question: *What Torments a CEO and Terrifies a CFO?* And they answer this query by identifying out of control operating costs that support the basic corporate infrastructure. As Sun Microsystems has observed, a 4% reduction in operating costs can result in the same profit as a 25% increase in sales.

In the last eight years, the costs to make an employee effective (excluding salary and benefits) have risen from approximately \$5,000 per employee per year to approximately \$45,000. And these employees waste valuable time by not having the basic resources they need to stay productive. Many new employees are idle for weeks after they begin a new job. Companies do not know how to get a handle on these costs (TCO) and often have no way to track and monitor them.

MANHATTAN software was created to provide an application to enable the identification and control of the costs of portfolio ownership and management. It was designed to provide accurate and complete information about enterprise assets to enhance business decisions and release capital back to the business.

At a time when companies are extremely cautious about any investments of capital, management must find the required funds to invest in new technologies that enable the business to eliminate inefficiencies and reduce costs.

Michael Evans from Ernst & Young’s Thought Center™ in his article “Cutting Costs: At What Price?” summed this concept up extremely well:

Managers must recognize the need to utilize innovative tools, processes and approaches that encourage connectivity, collaboration and development of entirely new business models. They must accept that to effect meaningful cost reduction, they have to change the game, create an entirely different cost model and cost culture and move boldly into tomorrow. Enter MANHATTAN.

³ “Positioning for the Future: CRM and ERP Integration,” Sharon Chan. Dataquest Perspective, December 20, 1999. Product Code CARE-WW-DP-0001, p. 2.

The MANHATTAN Solution

The MANHATTAN Software solution set has a series of application modules that can be organized under the following categories (according to the eCRE Initiative sponsored by CoreNet):

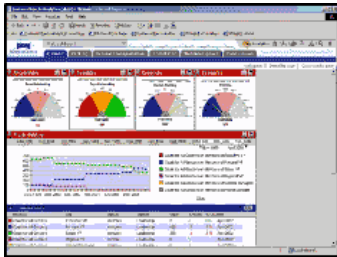
- Leadership and Governance
- Finance
- Planning
- Real Estate
- Construction / Project Management
- Facilities Management

Leadership and Governance

Leadership and Governance refers to Knowledge Management, Change Management and Performance Management. These elements are essential to achieving an integrated SPPM platform. As an organization considers software to manage its tactical and strategic functions, key decisions must be made with respect to:

- Knowledge Management - core business processes and workflows, business rules, tolerance levels, and escalations;
- Change Management – Organizational hierarchies and data views, communications, reporting and feedback; and
- Performance Management – business process improvement and automation, benchmarks and key performance metrics, and scorecards.

These elements are typically overlooked when assessing and selecting software to manage the real estate of a corporation. In fact, many organizations attack this task from the ground up, selecting tactical point solutions that address one aspect of the business without taking into consideration the critical function of providing an executive information perspective for more effective decision-making and strategic planning.



MANHATTAN has an executive business intelligence dashboard that provides a web-based enterprise scorecard to graphically show Key Performance Indicators (**KPI's**). Management can quickly see problem areas and 'drill down' to more detail in the underlying database, as in this example in Business Objects.

The MANHATTAN Organizational Breakdown Structure (**OBS**) is a tool that allows the building of organization business models. It is defined by the organization in order to create a flexible hierarchy of reporting and allow for more realistic 'views' or perspectives on corporate data. One-to-many relationships can be created for both physical and organizational hierarchies, e.g. theater, country, region, state, city, site, building, floor, space and lease related to company, division, department and/or business unit. The key advantage of the OBS concept is that when the organization's structure changes, the OBS links are changed automatically and no renumbering is required. A historic record of the structure can be created and viewed.

MANHATTAN also has two-way integration with leading ERP systems, computer-aided designs systems (CAD, i.e. AutoCad and MicroStation), geographic information systems (GIS, i.e. MapInfo and Arcview), portfolio analysis tools (Argus, Cougar, DYNALease) and on-line analytical processing and reporting tools for flexible and visual reporting and performance measurement (OLAP, i.e. Business Objects, Cognos and Crystal).

Finance

The critical areas of finance faced by the CRE executive include Financial Forecasting, Financial Management and Financing. These elements are broad in nature and span day-to-day operations, projects, maintenance and debt management. Finance is an area that is typically overlooked when considering technology to manage the business as it is often handled or managed by the corporate finance and accounting function. However, corporate real estate and facilities have very unique and distinct financial requirements that generally are not consistent with the corporate mandate.

The MANHATTAN system addresses each of these areas in providing and integrated platform for enterprise real estate and facilities management:

- ❑ **Financial Forecasting** – MANHATTAN has comprehensive modules covering budgeting and forecasting, portfolio performance analysis, capital budgeting and forecasting, shareholder value analysis and return analysis.
- ❑ **Financial Management** – this is a core strength of the MANHATTAN solution, with integrated general ledger, payables, receivables, vendor management, budgeting, commitment accounting, audit trails and extensive allocation methodologies.
- ❑ **Financing** – again MANHATTAN supports this function through a series of integrated modules that enable lease versus buy analysis, sale and leaseback, vendor management and structured financing.

The MANHATTAN system ensures competent and thorough accounting practices are followed. There is fully integrated cash and accrual accounting, both at an analytical reporting level and for final accounting, if required. For cash accounting, multiple and analytical cashbooks with full reconciliation allow detailed user-defined analysis at any level, without complicating the final accounts. All costs can be automatically allocated across the system with recoverable costs being allocated in service charge proportion to each tenant. A virtually unlimited number of income, expenditure and recovery codes allow expenditure, for example, to be grouped and sub-grouped to provide detailed analyses.

The Financial data is integrated with the Organization layer and can be consolidated into the portal 'dashboard' view of KPI's with drill down capabilities. This enables management to rapidly spot potential problem areas within the portfolio and drill, for example, from a global overview through a region and department to a space optimization discrepancy or abnormality.

Planning

The Planning function can be broken down into two core areas: Strategic Planning and Space Forecasting & Occupancy Planning. Strategic Planning incorporates many elements that are critical in measuring the overall performance on the portfolio, such as portfolio modeling and analysis, headcount projections, scenario and feasibility modeling, location and capacity analysis, facilities budgeting and funding request management. The data used as inputs to these processes comes from a range of functional areas within the corporation, all using disparate software tools, such as Corporate Accounting, Human Resources and Business Units, as well as external data from market research firms, real estate firms, consultants and the like.

Space Forecasting & Occupancy Forecasting utilizes this data in developing workplace strategies and standards, creating occupancy policies, generating

space adjacency and optimization models, and developing macro and micro space forecast plans.

The MANHATTAN solution enables each of these disparate data sources to be mined and a single data repository formed to support the Planning function. MANHATTAN is fully integrated with CAD and CAFM applications so the macro level plans can be delivered to the building, floor and unit level, then reported on at the Organization level to ensure consistent comparisons and allocations standards. As key data elements change, these can flow through the models and a history of original budget and subsequent changes is maintained. By linking with the OBS module, management can rapidly assess the impact of **MARDS** – mergers, acquisitions, redeployments, dispositions and startup opportunities.

Real Estate

The typical lifecycle of a property in the portfolio begins with acquisition and ends with disposition. According to CoreNet, the major functions that fall under the Real Estate umbrella are:

- ❑ **Market Research** – this includes assessment of global, national, regional and local markets, compilation of real estate analytics and comparables, and appraisals.
- ❑ **Site Acquisition** – this includes site selection, due diligence, negotiation, financing, documentation and closing.
- ❑ **Property Leasing** – typically there are different templates or workflows for varying lease types, negotiations on terms, incentives and conditions, clause definition, and contract execution.
- ❑ **Lease Administration** – although more tactical in nature, this includes critical functions that, if mismanaged, can have immense implications such as critical date and clause management, compliance, refinancing, payment and expense management/reconciliation, insurance compliance, audits and reporting.
- ❑ **Portfolio Management** – incorporates implementation of the Portfolio Plan, performance measurement, conformity with strategic directives, benchmarking, dispositions and general administration.

Each of these areas is considered a foundation of corporate real estate administration and is managed by the core MANHATTAN module. Unlike many other CRE solutions, MANHATTAN is equally capable managing landlord portfolios as it is corporate portfolios. The strong financial management and budgeting capabilities of the system enable more detailed analysis and reporting to be carried out, tied to KPI's and other performance measures.

MANHATTAN also enables users to develop business unit specific budgets and forecasts, then to prepare quarterly reports that demonstrate performance and savings generated/costs avoided by the CRE team. This is particularly important when demonstrating value added to the business.

Construction / Project Management

As Tom Peters has observed, *“the high-impact project is the gem...the nugget...the fundamental atomic particle from which the new white collar world will be constructed or reconstructed”*.⁴ The key elements of Project Management as laid out in the eCRE Business Process Matrix include:

- **Schematic Design** – this typically includes spatial requirements, site/land use analysis, conceptual design, adjacency requirements and documentation.
- **Design Development** – this includes the detailed specification of standards, codes, models and simulations as well as considerable documentation.
- **Construction Documents** – again, document management is critical along with vendor management, accounting and codes, drawings, specifications, modeling and simulations.
- **Bidding, Negotiating & Procurement** – a mechanism is required to support the tender and bid process, including document preparation, bid collation, bid comparison, contract negotiation, budgeting and document management.
- **Project Administration** – once a project is underway it must be adequately setup and administered with special attention to sub-projects, budget versus actual, commitments, documents and changes, and of course total cost.

No two projects are ever the same. However, there are broad project types enabling the establishment of project templates that define the workflow processes that should be followed when establishing and executing a particular project type. Arguably the most critical aspects to focus on are scope creep, project actuals and the project critical path.

The MANHATTAN **Project Management** module provides the ability to control capital and non-capital projects. These projects could range from new buildings to fitouts to moves from ‘A’ to ‘B’. Full analysis can be carried out of “budget-to-actual” and any timetable delays. The MANHATTAN system is fully integrated with Microsoft Project enabling data to be extracted into a familiar GANNT chart

⁴ Reinventing Work: The Project 50, Tom Peters (New York: Alfred A. Knopf, 1999), p. 6.

format. The eWorkflow module enables specific workflows for recurring project types to be established, thus ensuring a corporate approach across regions or businesses.

There is full integration with the **Help Desk** where any reactive calls are identified and work orders or capital projects result from the problem statement. Information from the **Condition Survey, Budgets/Forecasting, Tenders and Contracts**, as well as AutoCAD can also be linked or fed directly into **Project Management** when required. Multiple budgets can be set up for a variety of projects or a variety of projects can feed into a single budget. **Project Management** has full reporting on expenditure, performance and exceptions as well as general management and pro-forma documents.

Facility Management

The final functional area covered in the eCRE specification is Facilities Management. This area is often serviced in a silo by technical solutions, but is intimately tied to all other functions of the SPPM lifecycle. The primary business activities associated with Facilities Management are:

- ❑ **Workplace Strategy** – this focuses on transformation of the workplace with ergonomic standards, furnishings, adjacency requirements and supporting the agile workforce.
- ❑ **Space Management** – here we focus on space planning and design, allocations, Moves/Adds/Changes, relocations and fitting out space.
- ❑ **Building Operations, Maintenance & Repair** – this is the critical ongoing support function incorporating CMMS, operations management, planned and reactive maintenance, energy management, compliance, repairs, MRO procurement inventory management and the like.
- ❑ **Telecommunications & Cable Management** – this involved planned and reactive maintenance, system configurations, drawing management, network and datacom management, IT Moves/Adds/Changes and cable planning/management.
- ❑ **Site and Employee Services** – here we provide all employee facilities services such as call centers, maintenance, food and beverage service, conference room booking, copy centers, mail services, transportation, health and fitness, day care, concierge and audio/visual services.
- ❑ **Environmental, Health, Safety & Security** – this includes compliance (OSHA, ADA), employee safety training, emergency planning, hazardous materials management, confined space management, first aid, environmental policies and maintenance, security and air quality programs.

Each of these areas is essential to the economic and efficient operating of a facility or portfolio. Lapses can prove to be not only costly in direct terms, but also cost an organization a significant amount in lost productivity and legal claims. Facilities Management is also one of the most visible services to the operating units of a company and as such extremely important to proactively manage.

For the management of the physical workplace, MANHATTAN has a series of integrated modules that support Facilities and Workplace management while helping to reduce operating costs.

The **Space Management** module has a two-way interface to CAD (AutoCAD, MicroStation and Visio) to allow each space to be categorized, measured and then stored in MANHATTAN. Changes at the CAD level will be reflected in MANHATTAN and vice versa (subject to permissioning). The **Moves Adds Changes (MAC)** module was designed for any alterations to the space or changes in equipment or personnel locations. User-defined workflows detail the move process after a Move Packet has been initiated, and subsequent work orders and schedules. As the Packet moves through the workflow, more information is added, estimates and requirements are identified and line-item details are addressed. The size of the MAC project can vary from a small move to a bulk cascading one involving many groups and multi-locations.

The **Condition Survey** allows the assessment of all of the major building components in the field with the aid of a personal digit assistant (PDA). This assists in the budgeting and forecasting of future maintenance along with the **Planned Maintenance** module. This module gives the user full control of cyclical maintenance with the input of the results of the condition survey and life cycle expectancy schedules. It is also interfaced to the **Purchase Order Processing** module. Another major cost category has a specific module, **Energy Management**. This provides monitoring, meter recordings, statistics and a cost comparison analysis.

The **Help Desk** enables prompt, efficient and effective management of problem resolution. It is designed for any workplace related problem to be recorded, analyzed, resolved and monitored. Full integration is provided with **Purchase Order Processing, Contract Management, Project Management** and **Maintenance**.

Conclusion

When looking at the management of corporate real estate and facilities, it is essential to look at all the functional areas as spokes in a wheel in order to have a true lifecycle perspective. Thus MANHATTAN employs the concept of **Strategic Portfolio Planning & Management**. Manhattan Software is committed to providing the tools to support the CRE and FM professional and is

also committed to the eCRE initiative of CoreNet. The benefits of investing in MANHATTAN include:

- The ability to control life-cycle costs and obtain building operational efficiencies;
- The effective organization of property portfolio information to facilitate review, comparison and optimization to meet business needs at the lowest possible cost;
- The ability to provide CRE and FM professionals with the right data and tools for managing and planning for optimal utilization of the workplace, thus maximizing the value of the existing space;
- Comprehensively and consistently managing reactive and planned maintenance activities to ensure that facilities retain their functionality and value during the entire life cycle of each building in the portfolio;
- Providing the necessary integration technology to integrate module to module, as well as MANHATTAN to ERP, CAD, GIS, HR, Telecom systems and any other existing electronic system within an organization.

A **Strategic Portfolio Planning and Management** solution is essential for:

- A **CEO or CFO** who is concerned with reducing operating costs while increasing productivity;
- A **real estate professional** focusing on financial, contract and portfolio management;
- A **facility management professional** focusing on issues of occupancy and utilization of space, productivity and performance improvements;
- An **operations and maintenance professional** focusing on problem resolution and planned maintenance to preserve and enhance the value of buildings and equipment, as well as extend their lifecycle and improve performance;
- A **managed service provider (MSP) or consultant** who wants to offer their clients strategic portfolio management at an affordable price with excellent performance.

If you are one of the people described above, please contact Manhattan Software, Inc. for more information.

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