

ACCOMPLISHING TOTAL ASSET MANAGEMENT

by Alan Edgar and Eric Teicholz

Facility assets have a significant effect on the financial and operational performance of every organization. Because these effects and the need to manage facility assets exceed the normal scope of individual functional managers, a new paradigm of enterprise cooperation is needed. Total Asset Management represents the philosophical approach, tools and methods the next generation will need to manage the enterprise.

What is Total Asset Management?

Within individual business units of the FM organization, “facility assets” often have different definitions, units of description and measure, valuation methods, and information management and transaction standards. As a result, efficient and accurate inventory, planning, analysis, fulfillment and reporting are difficult or impossible at both the business unit and corporate levels. In best-in-class organizations facility asset management is treated as a supply-chain issue worthy of the same attention given to end products or services.

Total Asset Management (TAM) is a holistic, inclusive and coordinated approach to facility asset management. It promotes both a philosophy and a set of best practices intended to overcome limiting conditions by coordinating asset-related business processes across multiple business units, integrating asset-related information systems, and adopting best-in-class practices for maintaining and using the information resource.

TAM Requires an Enterprise Philosophy

The first guideline for accomplishing TAM is to establish an enterprise-oriented facility asset management philosophy. “Think globally, act locally” is the basis for this philosophy. Individuals must recognize that while they are acting to accomplish the mission of their business unit, they are also acting to accomplish the missions of other business units and the organization as a whole.

What Is a “Facility Asset”?

TAM requires a shared language. Use of the label ‘facility asset’ can vary significantly within an organization and the problem can be amplified further when services are outsourced. But in the TAM environment, *a facility asset is any facility-related physical resource that is significantly important to the organization and requires management.* Using this definition, facility assets typically include:

- Property –land parcels including natural features
- Buildings –occupied and/or unoccupied structures; whether leased, owned, or donated
- Infrastructure – roads, bridges, tunnels, etc.
- Building Equipment - permanent equipment such as environmental, power and lighting systems, elevators and escalators, etc.
- Office Equipment – computers, furniture, significant office equipment and tools
- Vehicles - cars and trucks as well as self-powered ride-on implements.

- Grounds and plant materials - significant hardscape, trees and landscape materials
- People – employees, contractors, consultants, customers and visitors.

Scope of Facility Assets to Manage

The scope of individual or aggregate assets maintained within these categories is directly dependent upon accounting rules and operating needs (which determine significance) but a general guideline is to include all facility elements that:

- Must be identified and tracked individually to comply with legal, fiduciary, policy or operational requirements.
- Are significant for achieving the mission, even though they may be borrowed, rented or leased.
- Are maintained (monitoring, service, repair/replacement) by members of the organization or by a contracted vendor and especially when a maintenance history is required.
- Are important for other than financial or operational reasons such as historically significant assets.

Granularity and Currency

Finally, the definition of facility assets must address the issues of granularity and frequency of information updates. Asset resources can be managed individually or in aggregate depending on the needs and capabilities of the organization. *The guiding principle should be a balance between the usefulness of the information and the ability of the organization to maintain the information in a current state.* Whatever the determination, TAM requires that *all assets of the same type must be maintained across the organization at the same level of granularity, quantified using the same units of measure and refreshed at the same interval.*

Mini case study – Granularity and Units of Measure:

In one organization, capital assets, according to the business processes and accounting rules of the organization, were listed such that a single record in the capital inventory included multiple physical assets. This happened when, for example, an entire funded project with a site, a parking structure and a building addition were recorded as a single capital asset. However, in a separate inventory maintained by the Real Property group, the building - including the addition but not the site or parking structure - were listed as a single property record for the purposes of space management (i.e.: - occupancy, organizational ownership and chargeback). Furthermore, the Maintenance Department used a different definition of the property record that included the parking garage but not the landscaping. This situation made calculating asset performance time consuming, labor intensive and imprecise.

Coordinating Asset Management Across Multiple Business Units

TAM involves a wide range of facility assets not usually controlled by a single business unit. In addition, subject matter business units such as Finance, Real Estate, Design, Engineering and Maintenance must interact with support units such as Personnel, Purchasing and Information Systems. At the same time, each unit must provide for inventory, valuation, legal and physical maintenance and renewal in order to protect the asset and assure its availability to the organization. These combinations of factors form the most significant risk to the TAM approach.

The following strategies and tactics have proven useful for motivating and integrating multiple individual business units, departments, employees and outsource service providers. Furthermore, they will mitigate complications caused when organizations evolve, assignment of responsibility migrates or, in the case of outsourcing, functions are moved out of the company.

- **Sponsor TAM philosophy high in the organization.** To be successfully adopted into a corporate culture, a paradigm change must be understood and embraced at least one organizational level above the highest *operational* level.
- **Empower Self-Motivated Participation.** Participation is most productive and longest-lived when it is based on enlightened self-interest. Begin the TAM implementation with a discovery phase to determine business processes, sources and users of information. Canvass the organization to identify opportunities for mutually beneficial initiatives. Conduct focus groups and individual interviews early in the project to not only collect information but, more importantly, to inform the user community, build ownership, and promote a team spirit.

Mini-Case Study: Building an Enterprise Philosophy:

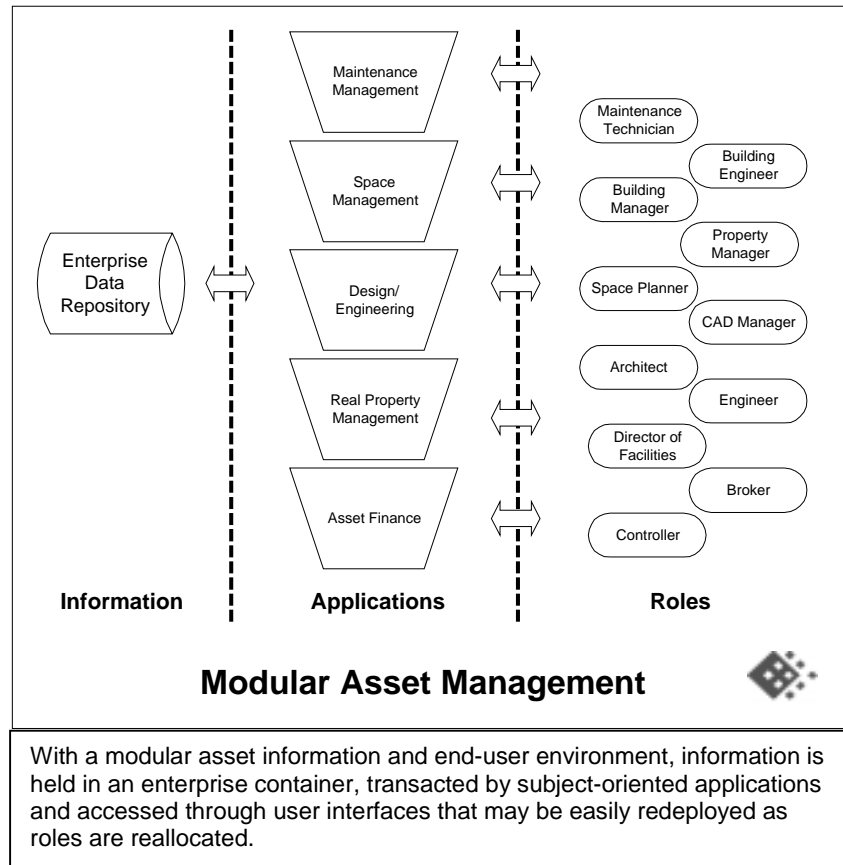
A government agency responsible for several buildings in a complex occupied by essentially independent agencies was faced with the challenge of operating and maintaining the facilities using staff that report to the management of the independent agencies. The facilities management agency formed a steering committee made up of representatives from the independent agencies and initiated an assessment project to develop requirements for an integrated facilities information system. Interviews and focus groups were hosted at all levels of all of the agencies in order to receive input, to give employees a chance to view and discuss potential solutions, and to build familiarity. The results of the assessment included significant recommendations for business process, required information and transaction capabilities as well as options for technology infrastructure and computer-aided facility management systems. However, the most significant result of the study was undoubtedly the team-building effect of the process. Organized now on a sort of 'United Nations' model, the management team continues to work with individual agency staffs to establish consistent standards and practices so that information generated during the management of their facilities contributes effectively to the ability of each agency to be responsive to its customers and to compare its performance to the other agencies and to industry benchmarks.

During implementation of an asset information system it is important to continue to inform the organization as a whole and individual stakeholders through broadcast e-mail, newsletters, web sites, active standards development and review committees, and regular executive briefings.

- **Eliminate 'Desk Drawer Databases' and Build-in Evolutionary Potential.** Before adopting a TAM approach, organizations tend to have internal 'islands of automation' where each business unit responsible for a portion of the facility assets maintains their own information – often in a 'desk-drawer database'. These tend to:
 - (a) Be paper-based or a series of electronic documents. Databases tend to be either developed in-house by members of the unit or highly customized to accomplish the particular business processes of the unit.
 - (b) Use different strategies; making retrieval, interchange, analysis and maintenance difficult.
 - (c) Be available primarily to members of a single business unit. Members of the 'owning' unit must carry out any actions to either add contributions to the resource by other units or to share information from the resource.
 - (d) Be highly personalized and structurally inflexible making functional reassignment of responsibility and/or reorganization difficult.

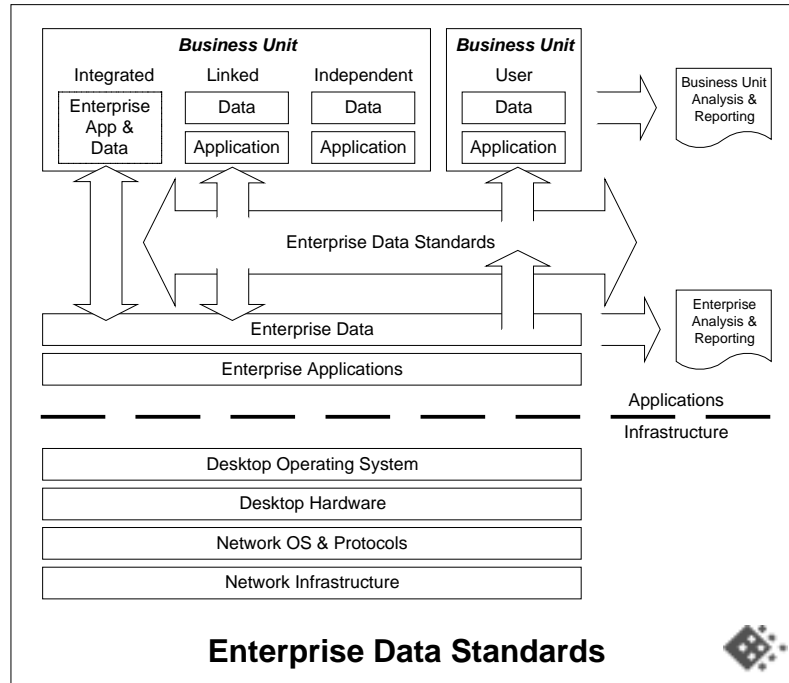
The TAM strategy to combat these conditions is to make the data model modular and enterprise-oriented and to make access and end-user interfaces ubiquitous.

FIGURE 1: MODULAR FM MANAGEMENT



- Broaden the Definition of Control.** Departments no longer have to hold data at their physical location and limit access to their own personnel in order to maintain security and quality control. Departments that make use of granted privileges to extend their information resource out into other units of the organization will be able to enlist the support and assistance of other departments and ease some of the burden on their staff. Rather than limiting the organization by using only the Data Owner role, TAM extends access and usefulness of information by defining Data Owners - which can view, edit, create and delete data; Data Stewards - which can view and edit data; and Data Users which can only view data. This approach allows wider distribution and participation throughout the organization while maintaining control.
- Appropriate Definition of the Role of the Information Systems (IS) Department.** Inappropriately defining the IS role can drive a wedge between the information systems professionals and subject-matter business units. The IS department should be the infrastructure, applications and data standards owner for the enterprise but at some point it becomes counterproductive for IS to micromanage technologies departments use to accomplish their missions.

FIGURE 2: ENTERPRISE DATA STANDARDS



When business units see the IS department’s involvement as meddling and excessive, they become reluctant to follow useful guidelines or involve them on new enterprise issues. At the same time, business units must understand and accept the IS department’s responsibility to protect and optimize the company’s investment.

Integrating Facility Asset Information Systems

At its core, TAM seeks to manage the facility asset from before it is operationally activated until long after it has been deactivated. This is because, in addition to managing the present and active asset, TAM also addresses planning and historical requirements. Currently, no single asset management application can support TAM. There are several reasons for this: it’s hard to get both multiple functions and adequate depth in one application; different facility functions require different units of measure and levels of detail; and organizations cannot implement all aspects of a TAM approach simultaneously.

Mini-Case Study – One Approach to Accomplishing TAM

An international technology company re-invented and re-branded their corporate real estate (CRE) organization by consolidated business units supporting the facility supply chain into a ‘workplace resources’ group. This group includes real estate, leasing, facility management and planning, building maintenance and operations, finance and project management functions.

In order to streamline their organization they defined critical business processes, identified key performance metrics, defined standards and implemented a web-enabled backend environment to support data, communications and a browser-based 'dashboard' for monitoring facility processes and performance. They use a standardized business case methodology to evaluate CRE technology requests. Rather than building a proprietary, monolithic application suite, their strong preference is to purchase web-based COTS (complete off-the-shelf) applications then customize the system to the back-end environment. Their approach uses XML standards to pass data into a data warehouse. Many groups then access this information including HR, IT, Operations, and Asset Management.

Additional Resources

For additional reading and related Websites visit: www.ifma.org.

Corenet – Formerly NACORE, is continuing to develop a standard for defining the taxonomy of business functions involved in corporate real estate organizations. The organizations involved in the Corenet/CRE Interest group are Sun, Microsoft, Sprint and Cisco.

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