

# IBM TRIRIGA: The power of true integration in workplace management solutions



## Introduction

In today's increasingly instrumented and interconnected world, the distinction between physical infrastructures and the IT systems that organizations depend upon is increasingly blurred. Where once the first was composed of concrete, wires and steel and the second of bits, chips and bandwidth, the physical and digital infrastructures are now merging into a smarter global infrastructure. Connected sensors and systems combine with advanced analytics to turn unparalleled volumes of data into insights and actions that make our systems, processes and infrastructures more efficient, more productive and more responsive.

And as digital and physical infrastructures continue to converge, those executives and managers responsible for real estate and facilities find themselves in a position to deliver more value to their organization through increased operational effectiveness and improved financial and environmental performance.

Today's buildings and workplaces are major generators—and consumers—of data. Through the capture and analysis of this data, organizations can gain improved understanding of their operational effectiveness, accelerated ability to react to change and increased returns from real estate-related decisions. Improved insights and control can create positive impacts in all aspects of real estate performance, from lease accounting and capital projects to facility maintenance, space utilization and energy consumption.

How can you manage facilities efficiently, for instance, when an increasingly flexible and home-based workforce changes the frequency and pattern of their use? How confident are you that you can execute lease renewals that benefit your organization? Would the savings associated with an enterprise-wide change to more energy-efficient lighting outweigh the cost of the change itself?

The secret to answering such questions is integration. Increased instrumentation supplies the data but the interconnectedness of that data with analytics and process automation enables

authentic intelligence to be delivered. Only through integration, between real estate and workplace management processes and with other enterprise systems and processes, can organizations create smarter global infrastructures.

Consider the following example: A real estate executive is considering several scenarios to consolidate underutilized facilities within a city. An ideal system compares details of each option such as the facility utilization rate, financial cost and energy reduction achieved against status quo, planned goals and alternatives to identify the highest return scenario. It then automatically generates required move orders and routes these to appropriate internal and external service providers upon the executive's approval.

IBM's solution for workplace data integration is IBM® TRIRIGA®. IBM TRIRIGA delivers an integrated workplace management system (IWMS) that integrates functional models across real estate, capital projects, facilities space management, facility maintenance, and environmental and energy management within a single technology platform. This brochure explains how IBM TRIRIGA increases visibility, control and automation within each of these five areas.

## Real estate management

CFOs and financial executives continue to place increased emphasis on real estate as a key strategic asset. Senior executives use real estate to generate top-line improvement in their financial performance by opening new locations, as a source of capital to fund revenue growth, and consolidate or dispose of underperforming locations to bring about significant expense reduction.

In addition, pending changes to lease accounting rules that will place operating leases on the balance sheets of public companies in the U.S., Europe and many other countries will increase the impact of real estate on financial performance.

With IBM TRIRIGA real estate management solutions, finance and real estate executives can make faster, more informed decisions that bring increased value to their organizations through identification of high-return real estate transactions, consistent pre-built lease accounting controls and automated lease payment reconciliation.

IBM TRIRIGA's integrated processes and analytics open up new opportunities for improved real estate life cycle management in three key areas:

#### Transaction management

In today's economic climate, an organization's real estate portfolio needs to align with its core business strategy to perform at its best. IBM TRIRIGA provides the decision support organizations need in order to manage building acquisition and disposal more effectively. Through real-time visibility of current performance and modeling different future scenarios, IBM TRIRIGA generates significant financial gains. One global manufacturing client, for instance, reports an estimated saving of \$925 million by using IBM TRIRIGA to improve its decision-making capabilities.

#### Lease administration

Real estate costs represent a top-four cost for most organizations, and rent costs typically constitute the greatest portion of these. In many instances, however, landlords fail to comply with lease terms and overcharge for maintenance, utility and other expenses. Through automated tracking and notification of significant dates and the validation of invoices against contract terms, IBM TRIRIGA streamlines lease renewals and avoids erroneous overpayments to unlock significant cost reductions and increase effectiveness of lease administration.

#### Lease accounting

Whereas today companies account for operating leases on the income statement, under pending accounting regulations typical large companies will need to account for thousands of these real property and equipment leases as new assets on the balance

sheet. This places new onus on companies to deliver new lease accounting and financial reports with a higher degree of accuracy, or risk the need for financial restatements. Through its advanced compliance and modeling capabilities, IBM TRIRIGA helps real estate and finance executives manage and audit the hundreds of thousands of financial assumptions, approvals and data changes they make and ultimately make sure that the balance sheet best reflects both commercial obligations and strategic direction.

With IBM TRIRIGA, organizations get the alerts and information needed to identify high performing locations, avoid overpayment and comply with new financial reporting requirements.

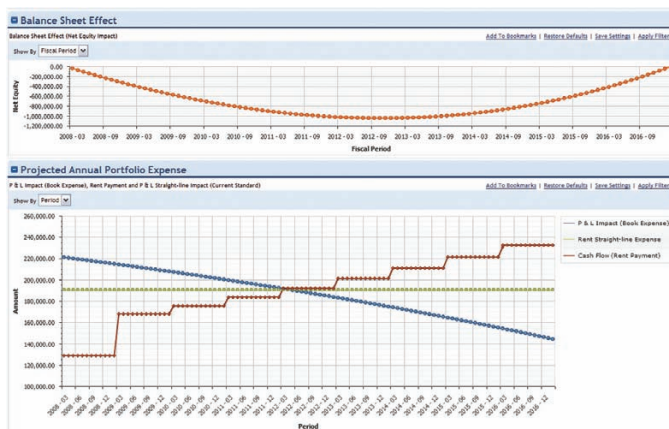


Figure 1: Financial analysis within IBM TRIRIGA identifies balance sheet and income statement impact of leases that result from new lease accounting rules

#### Capital project management

In a capital-constrained economy, many organizations face limited financial resources and cannot afford wasteful programs and projects that fail to meet planned outcomes and do not produce measurable business improvements.

IBM TRIRIGA delivers capital project management solutions to improve the quality of capital, facility and environmental projects and accelerate project schedules. IBM TRIRIGA identifies funding priorities within capital programs, analyzes project risks and financial benefits, and automates project management controls and alerts essential to deliver ad-hoc projects and complex programs of any size in an effective manner.

Through integrated data analytics and automated processes, IBM TRIRIGA improves an organization’s capital project management capabilities in three key areas:

**Project portfolio management**

Whether an organization is considering infrastructure investments, operations and production, or facility energy efficiency projects, a comprehensive analysis of the operational, financial and environmental benefits of each request must be compared to alternative uses of the available capital to generate the highest returns.

IBM TRIRIGA provides project management metrics that objectively determine and prioritize project funding requests to select a project portfolio that is optimally aligned with your organization’s business strategy.

**Project planning**

To ensure that they use their limited capital funds to deliver strategic goals and near-term objectives, capital planners and program managers must determine which projects to fund—and then ensure they are managed through to successful completion to deliver the returns they promise.

To optimize project portfolios, IBM TRIRIGA evaluates the risks and financial and environmental impacts associated with project planning across various investment scenarios. IBM TRIRIGA delivers the project management analysis that program executives and project managers need to compare project plans, make more informed project planning decisions and create higher-efficiency projects.

**Project schedule management**

Having committed to projects that are aligned with core objectives, organizations must do everything possible to ensure that the delivery of those projects meets even the tightest budget and time constraints.

IBM TRIRIGA delivers advanced project execution and control capabilities required to effectively complete projects on time, within budget and with the planned quality. With its comprehensive selection of critical path scheduling, risk mitigation and contractor management tools, IBM TRIRIGA increases on-time and early delivery of projects, and improves compliance to defined budgets. Using IBM TRIRIGA, a major U.S. food services retailer accelerated its project bidding process to reduce store construction schedules by several weeks.

In short, IBM TRIRIGA maximizes the return on your capital project investment.

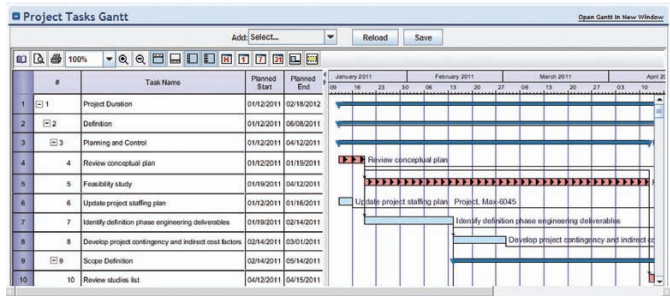


Figure 2: Critical-path schedules within IBM TRIRIGA focus resources to deliver programs and projects on-time

## Facilities management

More than 20 million people in the U.S. now work outside of the traditional workplace at least two days a week; external factors drive new changes within the workplace all the time as organizations confront the realities of downsizing, relocation, mergers and acquisitions, and rapid growth. Facilities executives must deliver a dynamic combination of people, process, technology and space to support these changes.

IBM TRIRIGA centralizes and integrates critical facility management processes to improve the effectiveness of a distributed workforce, increase the utilization of physical facilities and accelerate the configuration of an organization's workplace.

### Strategic facility planning

To achieve high yield strategic facility plans that provide support for core business strategies, many leading organizations utilize a complex decision-support process known as strategic facility planning to understand core business goals and the needs of individual business units—and their occupancy consequences. The greater the complexity and rigor of this decision-support process, the higher the return on facility assets.

To help organizations increase the effectiveness of all types of facilities planning—strategic, master and tactical—IBM TRIRIGA delivers unique features that reveal gaps between business demands and space availability; analyze, rank and recommend best fit facilities planning scenarios; and automate manual and time-consuming processes. Using IBM TRIRIGA, a large European technology manufacturer reduced its global facility portfolio by 17 percent.

### Move management

An increasingly flexible and mobile workforce can mean greater organizational efficiency and improved environmental performance. But it also places new demands on those responsible for managing staff movement and effectiveness.

IBM TRIRIGA improves the efficiency of staff movement through employee self-service and automated processes that route work and update peoples' locations. IBM TRIRIGA provides a single, automated and centralized system for move

requests, approvals, tracking, scheduling and service provider integration. Upon move execution, IBM TRIRIGA automates the capture and allocation of space usage charge-backs to internal departments.

### Reservation and hoteling management

Shared workspaces such as conference rooms and common-use workstations represent valuable assets for organizations. But, in order to deliver effective value to the organization, their utilization must be monitored—and maximized.

IBM TRIRIGA provides a reservation system to eliminate inefficiencies associated with conflicts in common-use space and improve worker productivity in reserving them. It integrates with work order and purchasing capabilities within IBM TRIRIGA to automatically generate and route work tasks and purchase orders to service providers for requested room setup, catering and audio-visual services.

Because they directly integrate with other financial and operational modules IBM TRIRIGA's advanced facility management features ensure your organization's buildings and staff operate at their best, even as the way they operate together continues to change.



Figure 3: Facility demand-supply analysis within IBM TRIRIGA visually identifies costly gaps in the availability of space



## Facility maintenance and operations

Maintenance and operations management are key functions as businesses strive to improve energy efficiency and reduce operating costs while continuing to deliver—and improve—services of the highest quality. This means delivery of maintenance services that actively improve the efficiency of energy-consuming assets, increase the effectiveness of critical assets and extend the life of capital equipment.

IBM TRIRIGA automates demand and preventive maintenance services, and improves service provider management to reduce the cost of maintenance operations. Facility assessment features track and evaluate building and asset deficiencies and help to identify opportunities to improve the environmental condition and extend the life cycle of real estate and facility assets.

### Service life cycle management

Accurate capture of issues and aligning them with warranties and service level agreements (SLAs) can reduce delays and generate significant savings from that result from duplicated effort and unnecessary work.

IBM TRIRIGA improves the performance of service providers both inside and outside the organization. It automates much of the service management process, from capture of service requests via self-service forms to the efficient routing of service calls. A contact center knowledge base also saves costs by preventing unnecessary call-outs, and IBM TRIRIGA matches any service visits that are required to a real-time matrix of leases, warranties and SLAs.

### Preventive maintenance

A key weapon in the fight against inefficiency is preventative maintenance: an ongoing service program designed to keep facilities and equipment in maximum operational condition.

IBM TRIRIGA provides specific capabilities geared towards delivery of peak resource efficiency. Regular maintenance schedules are maintained and work orders automatically issued in accordance with SLAs and warranties. This not only keeps equipment operating closer to its efficient best—which in itself can represent a significant energy saving—it also minimizes costs associated with faults and downtime.

### Condition-based maintenance

Further value can be delivered through regular facilities maintenance when an organization takes a proactive approach to identify possible issues before they have a chance to develop into serious problems. Routine inspections provide a key opportunity to capture additional observational data and incorporate such insights into ongoing maintenance planning.

IBM TRIRIGA improves the value and environmental performance of facility assets through the capture and classification of facility, building system and asset deficiencies. IBM TRIRIGA evaluates the required investment, energy and operating cost savings, and return on investment of each opportunity, then automates the generation of work requests and capital projects to manage the remediation of deficiencies or implementation of environmental opportunities.

The result is confidence that facility assets and infrastructure operate in optimal condition, and that maintenance costs, service delivery and capital investment are balanced in a way that suits the organization best.

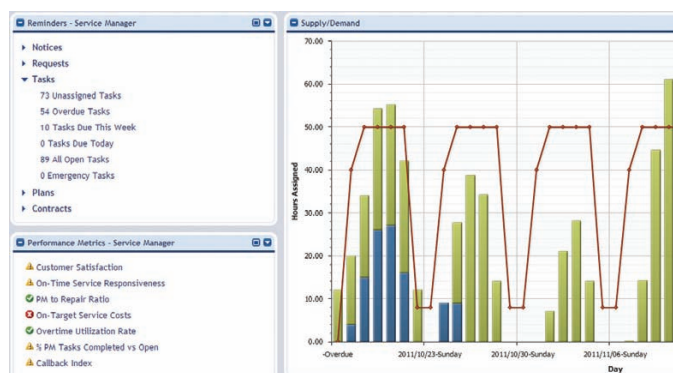


Figure 4: Alerts, metrics and reports within IBM TRIRIGA identify areas that require corrective action

## Environmental and energy management

Reduced energy usage makes sound business sense: energy costs represents 23 percent<sup>1</sup> of the total occupancy cost of facilities, and, as increased global energy demand pushes up overall energy costs, organizations bear the brunt.

Most organizations—in particular those that achieve their energy and environmental goals—recognize the need to optimize the environmental and energy performance of their property assets. An IBM study found that 91 percent of these achievers focus on facility energy efficiency as their primary sustainability strategy<sup>2</sup>.

IBM TRIRIGA delivers accurate energy and environmental tracking and management capabilities via a single, comprehensive repository of an organization's environmental data. This provides the means to measure and track energy and environmental performance, evaluate cost reduction and ROI for opportunities to reduce energy, investigate strategic performance improvements and manage project implementation.

## Environmental and energy analysis

To gain an accurate assessment of an organization's environmental impact—and therefore validate environmental and energy management strategies and their results—energy and other resource consumption data must be collected, centralized and aggregated from across all enterprise locations.

IBM TRIRIGA streamlines the capture of energy, waste and water consumption and greenhouse gas emission data from throughout the enterprise via multiple data integration methods such as direct integration with meters, offline spreadsheets and data exchange with third-party billing systems. IBM TRIRIGA's pre-built performance metrics provide advanced visibility into resource consumption, carbon emissions, operational costs and environmental performance benchmarks.

## Environmental and energy project planning

Identification of retrofit and maintenance projects that generate the most positive environmental—and financial—impact presents a significant challenge for most organizations, particularly across a distributed facility portfolio. Should an organization target its worst-performing buildings, for instance, or undertake a lighting retrofit throughout the organization?

IBM TRIRIGA evaluates opportunities for environmental improvement. It provides integrated analysis tools that analyze and compare potential efficiency measures to optimize the financial and environmental returns from energy reduction investments. Through the use of IBM TRIRIGA, one of the largest cities in the world plans to reduce its energy consumption and greenhouse gas emissions by 30 percent over seven years.

## Integrated facility management

Measurable financial and environmental returns from sustainability-focused projects depend upon an organization's ability to deliver them across complex and globally distributed digital and real estate infrastructure. The key to delivering energy and environmental benefits—and maintaining those benefits over time—lies in the control systems and automated

processes of the implementation support systems. In the case of facility energy efficiency these systems include capital project management for building retrofits, ongoing maintenance management and facility planning for space reduction.

IBM TRIRIGA delivers true integration across operational modules for maintenance, project management and space planning—the three tactics used by a majority of organizations that achieve their environmental and energy reduction goals—to accelerate successful implementation and ensure the projected returns are realized.

Through the delivery of a platform for ongoing monitoring and management across the enterprise, IBM TRIRIGA ensures that energy and environmental improvements represent long-term sustainable gains rather than quick wins.

### For more information

To learn more about IBM TRIRIGA, please contact your IBM marketing representative or IBM Business Partner, or visit the following website: [ibm.com/software/tivoli/welcome/tririga](http://ibm.com/software/tivoli/welcome/tririga)

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<sup>1</sup> International Facility Management Association, "Benchmarks V: Annual Facility Costs", 2008

<sup>2</sup> IBM, "Crossing the sustainability chasm: strategies and tactics to achieve sustainability goals", 2011. Retrieved from [https://www14.software.ibm.com/webapp/iwm/web/signup.do?source=swg-spsm-tiv-am-rp&S\\_PKG=Crossing-the-sustainability-chasm](https://www14.software.ibm.com/webapp/iwm/web/signup.do?source=swg-spsm-tiv-am-rp&S_PKG=Crossing-the-sustainability-chasm)



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