

ARCHIBUS® – The Enterprise Solution

To Raise Your Environmental Profile,
Increase Collaboration, and Reduce Costs



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A comprehensive solution like ARCHIBUS addresses the broad array of real estate, infrastructure, and facilities management functions with a fully integrated approach – to reduce costs, mitigate risk, and optimize service levels



Introduction

The latest version of ARCHIBUS® represents a significant evolution of the world’s #1 real estate, infrastructure and facilities management software solution. ARCHIBUS introduces a new Run Anywhere architecture that enables all ARCHIBUS users to effectively communicate and collaborate using Web Services.

The Run Anywhere architecture of ARCHIBUS lets multiple work sites and service providers interact directly with enterprise workflows – eliminating the need to extract, duplicate, or e-mail data and files. The new architecture supports the working requirements of both workgroup-level and enterprise-wide users, improving collaboration and operational efficiency.

Taking advantage of this Run Anywhere architecture, ARCHIBUS offers access to new or enhanced Smart Client software applications that give organizations the tools to help improve their environmental stewardship as well as their bottom lines.

These include the new Web-based Green Building, Environmental Sustainability Assessment, Energy Management, Hoteling, and Asset Portal applications, as well as new Smart Client Extensions for AutoCAD® and Revit® to improve workflows and increase efficiency. The new



applications and extensions will help organizations reduce their carbon footprint and space needs, improve asset utilization, and ultimately, lower the overall cost of occupancy.

The Case for Adopting a “Run Anywhere” Web Services Environment

The reason for adopting a Run Anywhere Web Services environment is rooted in how users’ needs and expectations have changed. One important change resides at the single-user and the workgroup level. Even small workgroups now use the Web to eliminate e-mail and phone calls by having their internal customers “get it themselves” – submit requests, check status, download reports, and interact with floor plans.

By becoming “Web-enabled workgroups,” Real Estate, Infrastructure, and Facilities (RE/IM/FM) departments can grow their deployments “bottom-up”—reaching out to internal customers and enabling their service providers to become active business-process participants. These departments have a large and important need for additional Web-facing features.

Another change is at the enterprise level. Within larger organizations, RE/IM/FM departments are not just running their own applications, but are also operating mission-essential segments of their ERP (enterprise resource planning) systems. These departments need collaborative software applications, high-end scalability, and centralized security.

Moreover, the demographics of the workforce are changing. The workforce is much less a set of people sitting together in a centralized office and much more a network of providers and enablers linked by service agreements. These users all require broad access to a solution. And they need all features to run...everywhere. They need it accessible—whether they work on a single-user workstation, in a department workgroup, at an outsourced vendor’s office, or on a thin client throughout a global enterprise. They need to work on mobile devices or PDAs. And they need to work in every place where there is a cable, a Wi-Fi connection, or a 3G signal.



Additionally, the connection may not be to a person but to a system—such as the HR, RE, or Finance ERP Systems, Building Automation Systems, or self-service kiosks in building lobbies. All of these systems need to be networked with the same personalized, secure, real-time information that the RE/IM/FM department accesses.

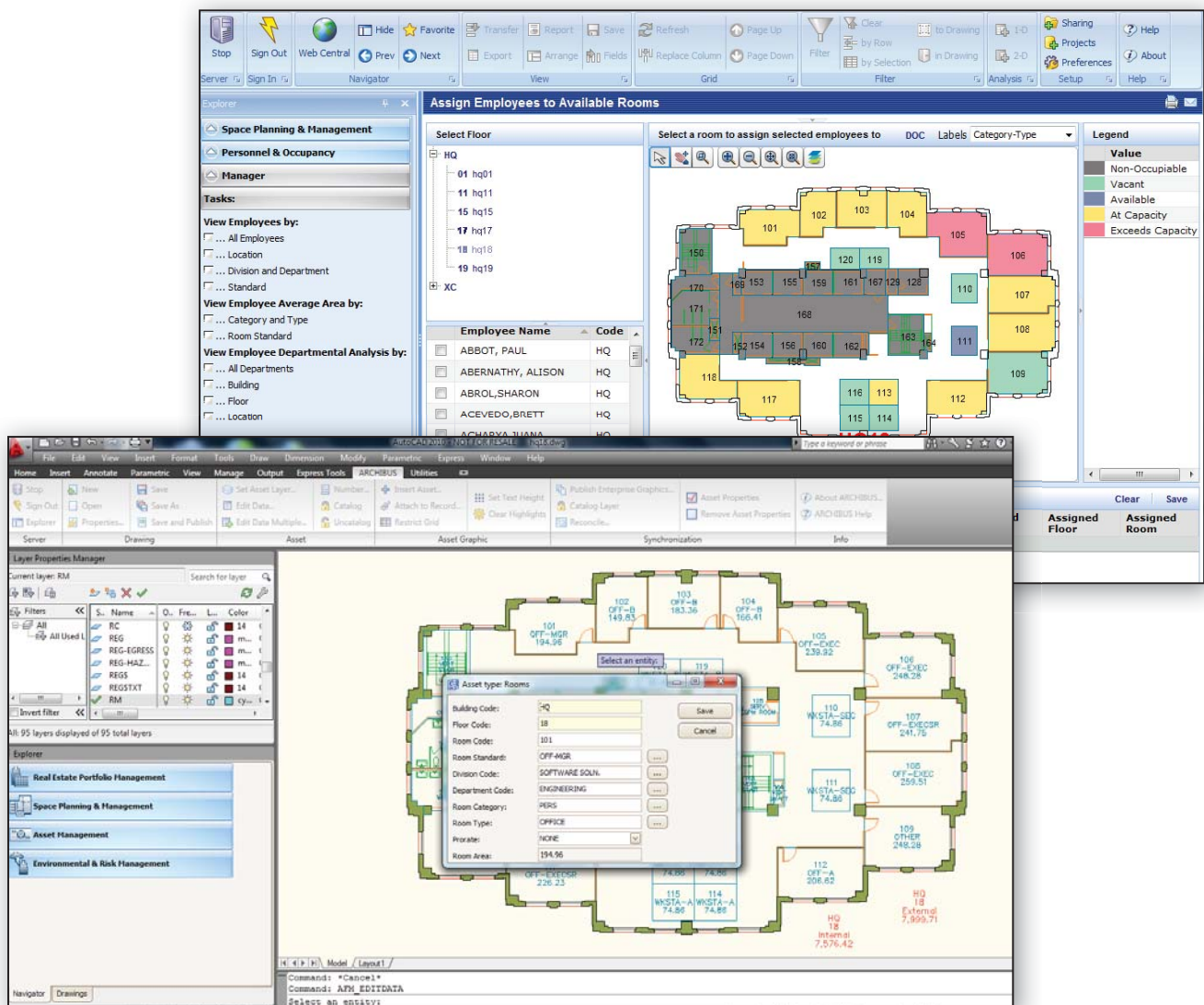
This Web Services connection allows remote invocation, so even work tasks that require intensive data aggregation and calculations can happen entirely on the servers. They send back only the results – with the outcome that all business rules can be centralized and network traffic can be dramatically reduced. The Web Services infrastructure dovetails consistently with the infrastructure needed to network Building Automation Systems (BAS), Building Information Modeling (BIM), Enterprise Information Modeling (EIM) and other Enterprise Resource Planning (ERP) systems.

So now even “power users” performing CAD and BIM tasks or parsing through massive amounts of data on a grid can be connected with other users, offices, vendors, and systems through a simple “thin pipe” Web connection... anywhere.

ARCHIBUS, with its Run Anywhere architecture, opens up an entire range of new opportunities:

- Reduce duplication and errors by connecting remote offices, work sites, and outsourced providers to centralized servers – even for high-end functions like Building Information Modeling (BIM)

- Improve visualization and interaction capabilities for all users by using the built-in enterprise graphics and Flash-based charts and dashboards, without the need for extra plug-ins or protocols
- Use Cloud-based servers for ARCHIBUS Web deployments and still use workstation products such as AutoCAD and Revit
- Centralize security, user management, and software updates for all users – “power users” on workstations, users at remote offices, off-site contractors, and outsourced vendors
- Reduce training costs by using Web-based interfaces for applications and Microsoft fluent-style interfaces for high-performance, back-office tools
- Speed commissioning by allowing architects to interact directly with the rich lifecycle data needed to operate buildings efficiently



Highlight rooms by availability and type, overlay space data on AutoCAD drawings, so planners can assign and reallocate space efficiently and accurately

The Run Anywhere Application Suite Provides Power and Flexibility

The Run Anywhere suite has the full range of applications that most organizations need to successfully manage their real estate, infrastructure, and facility management functions and workflows.

Within the Run Anywhere suite, users can access and run ARCHIBUS applications either within a Web browser or within the new Smart Client interface using Microsoft Windows. The Smart Client provides everything needed to run Web-based applications in one convenient package. This is true even on single-user and small workgroup workstations. The Smart Client also has a wide variety of bulk data editing, visualization, CAD and BIM features as well.

Run Anywhere Application Suite	
Functional Domain	ARCHIBUS Run Anywhere Applications
Real Estate Portfolio Management	<ul style="list-style-type: none"> • Portfolio Management • Lease Administration • Cost Administration • Cost Chargeback & Invoicing • Portfolio Forecasting • U.S. Federal Property Registry
Capital Project Management	<ul style="list-style-type: none"> • Capital Budgeting • Project Management • Condition Assessment
Space Planning & Management	<ul style="list-style-type: none"> • Space Inventory & Performance • Personnel & Occupancy • Space Chargeback
Move Management	<ul style="list-style-type: none"> • Enterprise Move Management
Asset Management	<ul style="list-style-type: none"> • Asset Portal
Environmental & Risk Management	<ul style="list-style-type: none"> • Green Building • Environmental Sustainability Assessment • Energy Management • Emergency Preparedness
Building Operations	<ul style="list-style-type: none"> • On Demand Work • Preventive Maintenance • Condition Assessment
Workplace Services	<ul style="list-style-type: none"> • Reservations • Service Desk • Hoteling

The distinguishing benefit of the Run Anywhere suite of business applications is that all products within the suite use the ARCHIBUS Web Services to connect, in real-time, different business applications, work teams, and remote offices. The Web Services enable coordination of their efforts and speed their collaboration.

In addition to using the Run Anywhere applications from within a Web browser and ARCHIBUS Smart Client applications in Windows, it can also be used from within the Revit building information modeling environment. As a result, ARCHIBUS and Revit users never have to re-enter information, extract it, cut-and-paste it, or e-mail it because the information is captured as a by-product of their normal workflows.

Best of all with ARCHIBUS, individuals and work teams are always working from each other's most recent changes, because the Run Anywhere technology delivers the updates within all environments seamlessly and simultaneously.

“Going Green” —Rhetoric Versus Reality

Most professionals engaged in real estate, infrastructure, and facility management are concerned about environmental stewardship, and want to make a real difference in their own organizations. And they know that any initiative they undertake must not only drive results to the bottom line, but must also be:

Substantive –There tends to always be a long list of projects that require both time and money. Addressing only those priority items that will truly make a difference can help generate success and the subsequent support to undertake additional projects.

Measureable – If an organization cannot measure the results of its actions, senior management has no way of knowing whether the actions taken produced the desired results. This in turn will make it more difficult to justify and fund future initiatives.

Funded – Organizations are facing too many vague green standards, checklists, and initiatives that give no direction as to the likelihood of remediation success, and no structure for funding them. If there is not a realistic budget or identification of funding source, it is unlikely the project will be implemented.



New ARCHIBUS Applications—Making a Real Difference in Going Green

In moving from the ideal of “going green” to actually achieving results that make a real difference, ARCHIBUS has introduced five new applications that substantively reduce the 30% of carbon that is produced by buildings. They include the following Web-based applications:

Green Building delivers a centralized, consolidated information framework to specify environmental criteria and protocols, calculate net greenhouse gas equivalent impact for buildings, report on carbon footprint change over time, and manage the certification and recertification process.

Environmental Sustainability Assessment helps prioritize environmental remediation actions to the most substantive projects with the greatest potential for management attention and funding.

Energy Management can help lower costs by at least 5% through reduced overall energy consumption and decreased peak-time usage.

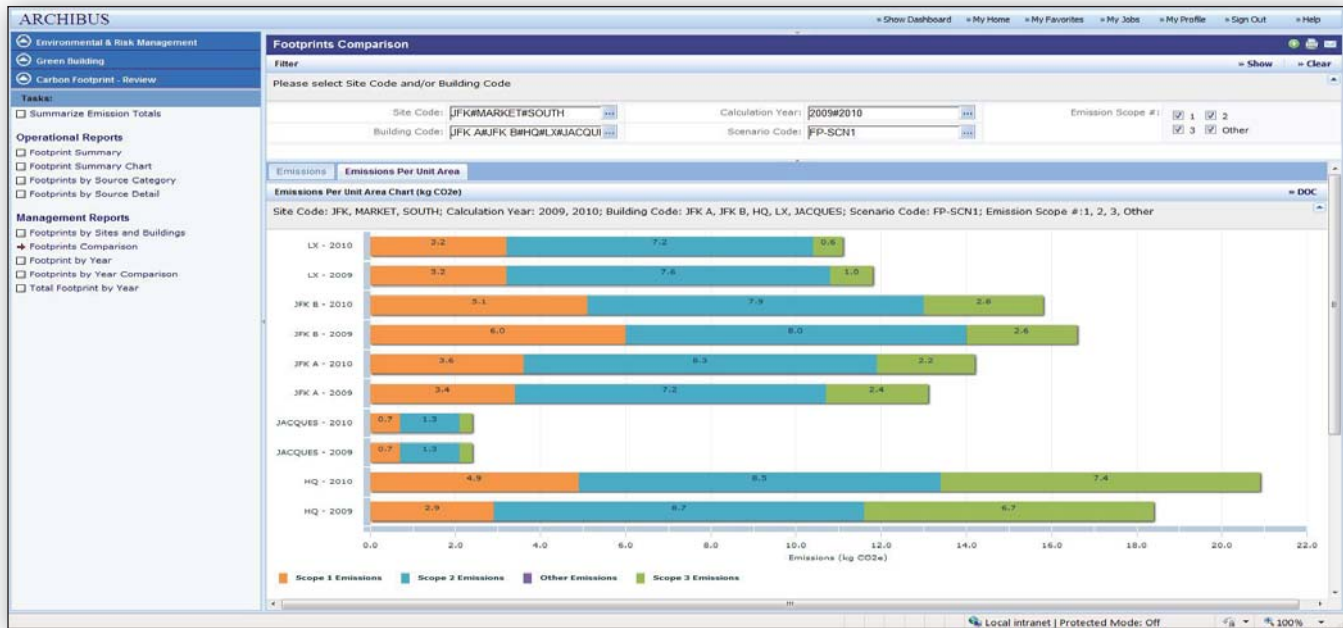
Hoteling drills to the root of the problem: using too much space. Reducing space reduces energy costs as well as the carbon footprint of the building, and decreases the emissions associated with commuting.

Asset Portal answers the need to increase asset utilization, and optimize acquisition and/or disposition practices. Improvement in these practices helps reduce unnecessary consumption of resources, which is both harmful to the environment and to an organization’s financial results.

All together, these applications are focused on reaping real results for the forward-looking organization hoping to improve its environmental profile and competitive advantage.

Green Building

Managers are increasingly being tasked with achieving carbon footprint goals and managing environmental sustainability certification scores for individual buildings or across their entire portfolio. ARCHIBUS Green Building aids those managers by delivering a highly versatile and robust Web-based platform to provide the information framework for reducing greenhouse gas (GHG) emissions, and managing the environmental sustainability certification and recertification process. The application helps guide users through the processes of defining environmental criteria and protocols, collecting portfolio data, and evaluating results to help make informed and cost-effective decisions to achieve sustainability goals.



Compare emissions by building, scope, and year at a glance and drill down to emission scope detail to identify key drivers and areas for improvement

ARCHIBUS Green Building allows users to define any number of carbon footprint scenarios, associate buildings with those scenarios, and configure combinations of carbon footprint emissions factors for each, over one or more years. Users can then proceed through a series of forms for entering or mapping carbon footprint sources like fuel and energy consumption for heat and electricity, hours flown, miles driven, electricity purchased, materials procured, and waste recycled. The result is a monitoring/analysis capability that lowers operating costs by reducing power consumption and greenhouse gases while improving regulatory compliance.

Environmental Sustainability Assessment

An increasing number of organizations are recognizing the strategic value of reducing their carbon footprint to protect the environment and enhance their bottom line. Web-based ARCHIBUS Environmental Sustainability Assessment helps make the concept of environmental sustainability a reality by tracking, ranking, and documenting details on the condition and use of physical assets so remedial action can be taken.

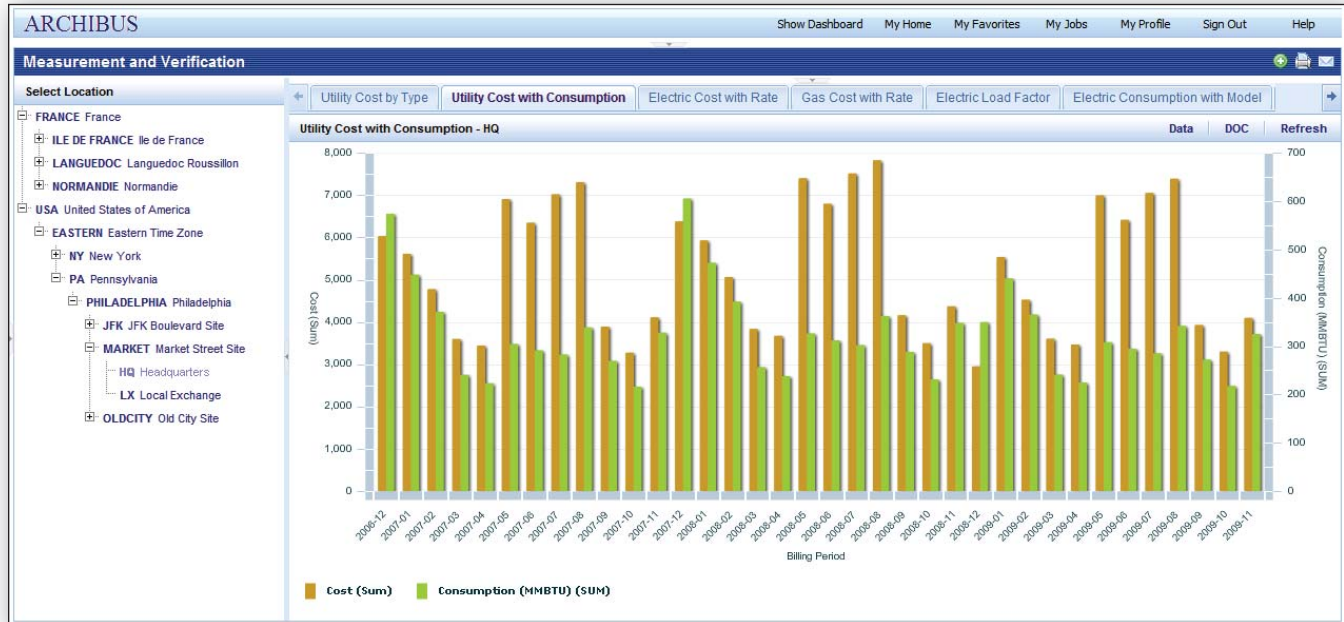
Sustainability Priority		Condition Value						
		Total	Unacceptable	Poor	Fair	Good	Very Good	Not Entered
Total	Estimated Budget	61,320	17,670	26,420	15,030	700	1,500	0
	Count	76	13	13	11	3	4	32
Energy Use	Estimated Budget	53,120	12,350	24,870	14,400	500	1,000	
	Count	20	3	7	6	1	3	
Emission	Estimated Budget	0						
	Count	0						
Solid Waste	Estimated Budget	2,800	2,800					
	Count	5	5					
Hazardous Waste	Estimated Budget	1,750	1,750					
	Count	3	3					
Chemicals	Estimated Budget	1,420	770	650				
	Count	5	2	3				
Water-Save	Estimated Budget	0						
	Count	0						
Indoor Air Qual	Estimated Budget	700		500	200			
	Count	2		1	1			
Recyclables	Estimated Budget	0						
	Count	0						
Nat. Resource	Estimated Budget	0						
	Count	0						
Maintain	Estimated Budget	1,530		400	430	200	500	
	Count	9		2	4	2	1	
Not Entered	Estimated Budget	0						0
	Count	32						32

The Assessment Scoreboard provides users with a graphical approach to evaluate high-priority environmental sustainability items objectively and then drill down for more detailed information on individual items

Unlike spreadsheets and other manual processes, the application provides a truly objective and systematic method of identifying and prioritizing facility replacements, upgrades, and renovations, based on environmental sustainability criteria while leveraging other ARCHIBUS facilities data from its central repository. ARCHIBUS Environmental Sustainability Assessment delivers an objective methodology for creating a balance among people, infrastructure, facilities and their effect on the environment. Organizations can now establish proactive processes that are both environmentally and economically defensible.

Energy Management

With energy costs and carbon output an executive-level concern, many businesses and government agencies have issued top-priority directives to reduce energy consumption. With typically 15% of their budget spent on energy, the facility management function often undertakes this mission-essential challenge. Yet the facilities team often finds they do not have the information at-hand to make informed choices concerning remediation programs, or the tools to objectively measure the results.



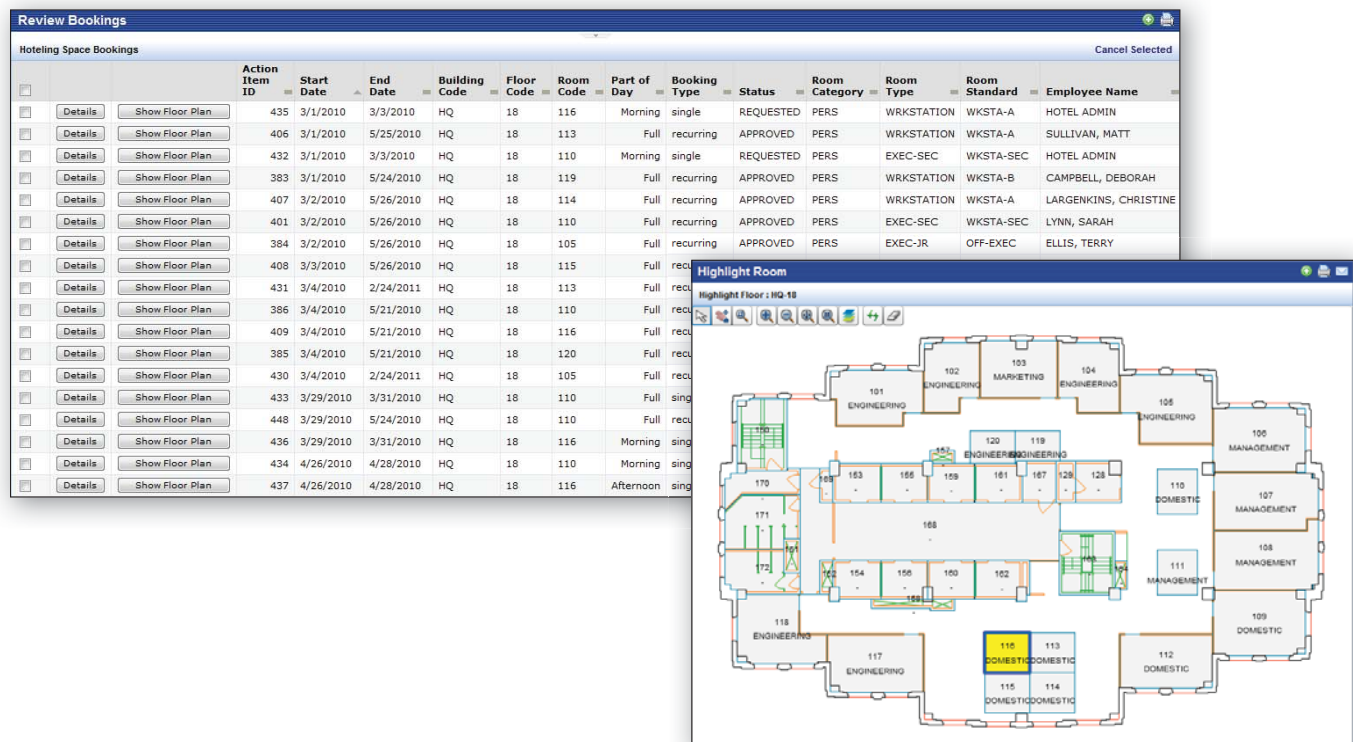
Graphical dashboard views, such as Utility Cost with Consumption (by building and billing period) shown above, simplifies visualization and analysis while improving decision support for energy management strategies

New ARCHIBUS Energy Management is a Web-based application that fills this void. It provides the means to easily aggregate, evaluate, and optimize energy and utility spending decisions to reduce unnecessary consumption and costs. It correlates portfolio information, such as space and leases, with energy, weather, billing, and building operations data in a unique way. And it can map current usage, project “what-ifs” on different remediation scenarios, and measure the year-to-year effectiveness of changes according to objective benchmarks.

Organizations who have implemented a pre-release edition of Energy Management have achieved savings of \$0.10 to \$0.20 per square foot each year, as well as meeting aggressive carbon reduction objectives.

Hoteling

At many organizations, office space is frequently underutilized by 50% or more, resulting in a larger than necessary real estate and carbon footprint, along with their associated costs. Web-based ARCHIBUS Hoteling enables organizations to more fully utilize existing space, potentially reduce leased/owned space in their portfolios, as well as decrease carbon emissions and workspace operating costs. It supports temporary allocation of on-site workspace to dynamic, project-based teams and makes implementation of increasingly popular telework initiatives possible. Additionally, Hoteling simplifies implementation of shared space chargebacks, which further encourages space efficiency and a mutual responsibility for reducing space costs among both department and facility managers.



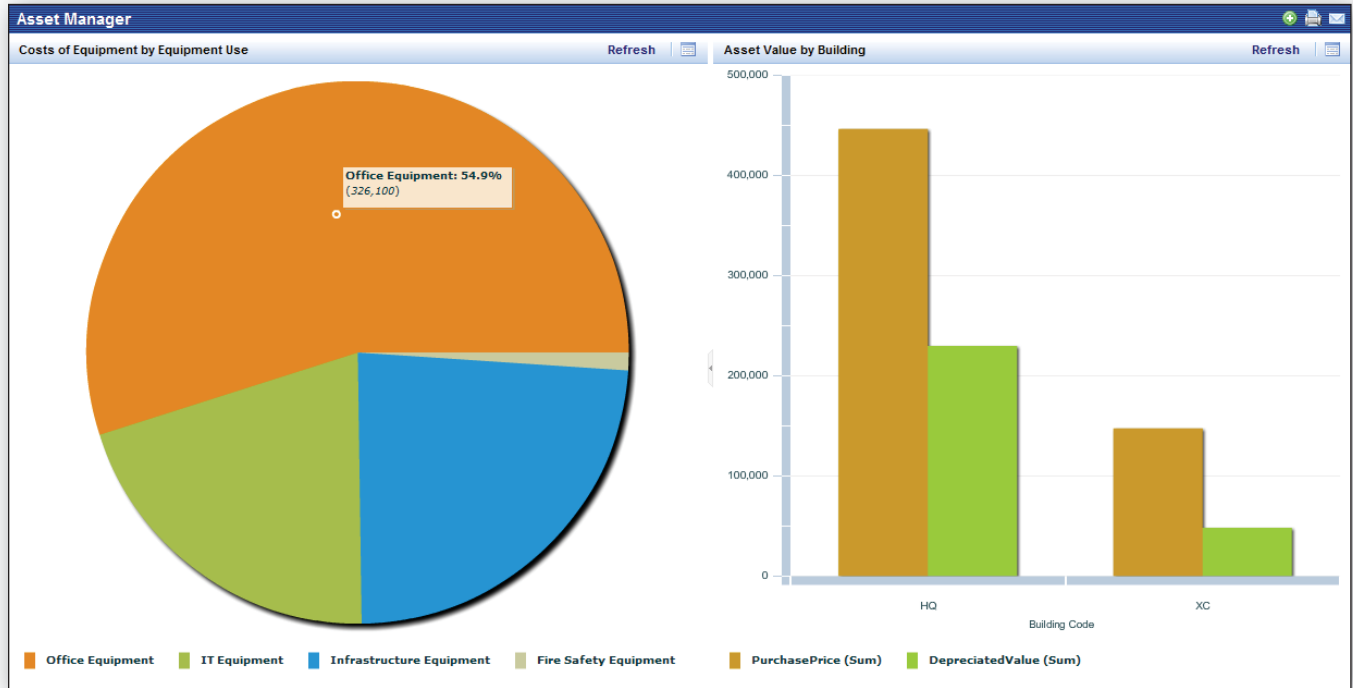
	Action Item ID	Start Date	End Date	Building Code	Floor Code	Room Code	Part of Day	Booking Type	Status	Room Category	Room Type	Room Standard	Employee Name	
<input type="checkbox"/>	Details Show Floor Plan	435	3/1/2010	3/3/2010	HQ	18	116	Morning	single	REQUESTED	PERS	WRKSTATION	WKSTA-A	HOTEL ADMIN
<input type="checkbox"/>	Details Show Floor Plan	406	3/1/2010	5/25/2010	HQ	18	113	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	SULLIVAN, MATT
<input type="checkbox"/>	Details Show Floor Plan	432	3/1/2010	3/3/2010	HQ	18	110	Morning	single	REQUESTED	PERS	EXEC-SEC	WKSTA-SEC	HOTEL ADMIN
<input type="checkbox"/>	Details Show Floor Plan	383	3/1/2010	5/24/2010	HQ	18	119	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-B	CAMPBELL, DEBORAH
<input type="checkbox"/>	Details Show Floor Plan	407	3/2/2010	5/26/2010	HQ	18	114	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	LARGENKINS, CHRISTINE
<input type="checkbox"/>	Details Show Floor Plan	401	3/2/2010	5/26/2010	HQ	18	110	Full	recurring	APPROVED	PERS	EXEC-SEC	WKSTA-SEC	LYNN, SARAH
<input type="checkbox"/>	Details Show Floor Plan	384	3/2/2010	5/26/2010	HQ	18	105	Full	recurring	APPROVED	PERS	EXEC-JR	OFF-EXEC	ELLIS, TERRY
<input type="checkbox"/>	Details Show Floor Plan	408	3/3/2010	5/26/2010	HQ	18	115	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	431	3/4/2010	2/24/2011	HQ	18	113	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	386	3/4/2010	5/21/2010	HQ	18	110	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	409	3/4/2010	5/21/2010	HQ	18	116	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	385	3/4/2010	5/21/2010	HQ	18	120	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	430	3/4/2010	2/24/2011	HQ	18	105	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	433	3/29/2010	3/31/2010	HQ	18	110	Full	single	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	448	3/29/2010	5/24/2010	HQ	18	110	Full	recurring	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	436	3/29/2010	3/31/2010	HQ	18	116	Morning	single	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	434	4/26/2010	4/28/2010	HQ	18	110	Morning	single	APPROVED	PERS	WRKSTATION	WKSTA-A	
<input type="checkbox"/>	Details Show Floor Plan	437	4/26/2010	4/28/2010	HQ	18	116	Afternoon	single	APPROVED	PERS	WRKSTATION	WKSTA-A	

ARCHIBUS Hoteling lets organizations book rooms, and display their locations, to support visiting teleworkers and dynamic, project-based teams

The ARCHIBUS Hoteling application enables an increasingly mobile workforce to easily find and schedule available space on an “as-needed” basis. Its self-service Web forms reduce data entry to almost zero, while producing utilization reports that allow managers to identify and release under-utilized space and drive down their total cost of occupancy.

Asset Portal

Tracking and optimizing physical assets are both a managerial challenge as well as an opportunity to increase organizational accountability. Similarly, the reduction of excess procurement and unnecessary consumption helps both the environment and the bottom line.

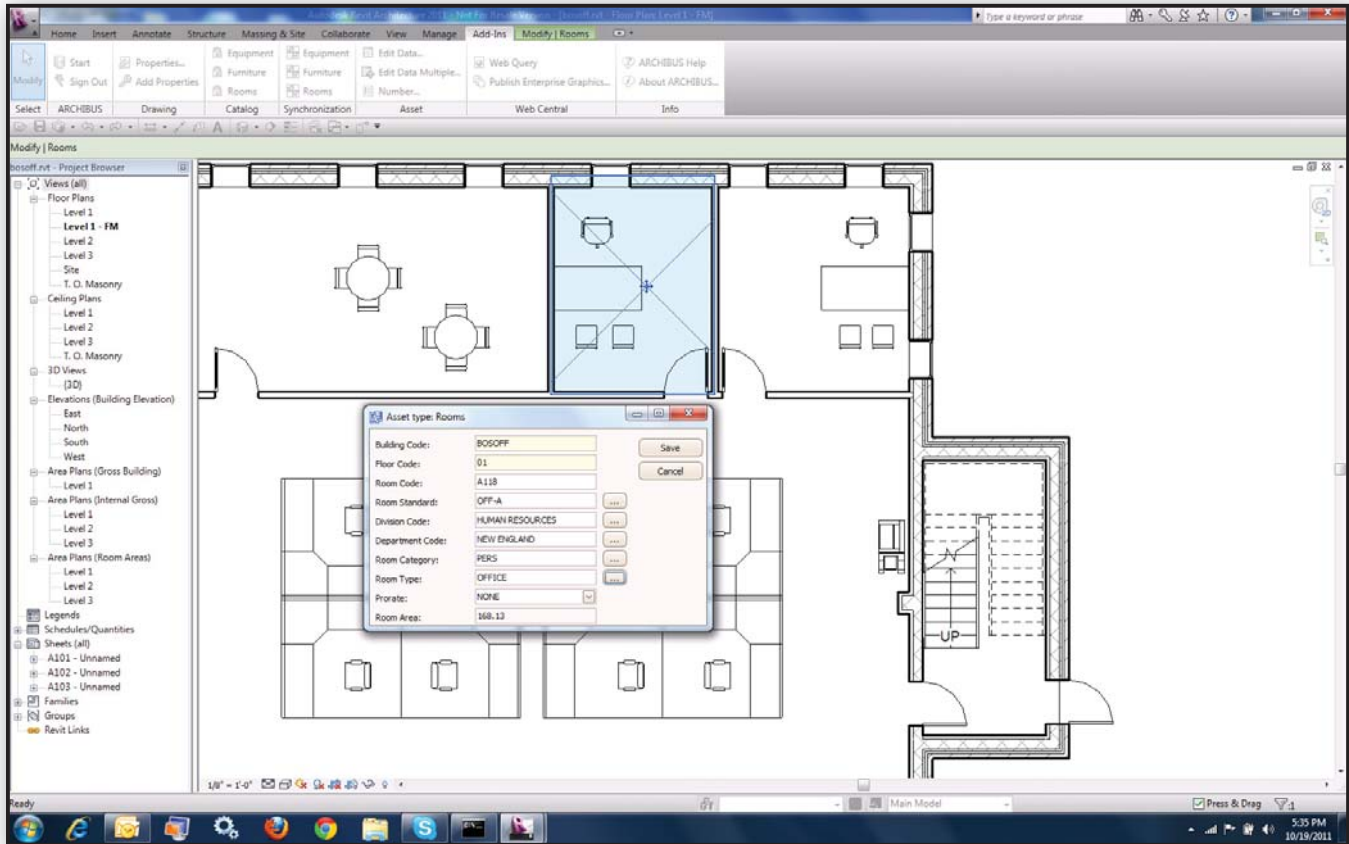


Asset Portal establishes such important metrics as cost-versus-use analyses to aid in justifying asset investments

ARCHIBUS Asset Portal provides the means to improve data accuracy of the asset registry, increase asset utilization, and optimize asset acquisition and disposal decisions within an overall capital plan. The application's ability to trace assets to the entity that is responsible for the asset, its physical location, and the cost center or department that depends on the proper function of the asset helps increase accountability and assists in asset redeployment, when appropriate. Ultimately, this accountability will drive improved asset optimization that supports the organizational mission at the lowest cost.

Supporting BIM Models

One mantra of Building Information Modeling (BIM) proponents is that by creating a model of a building, you create a detailed information source that the building owner can leverage for other purposes and for other phases of the lifecycle.



Seamlessly integrate facilities data with industry-standard AutoCAD drawings to support BIM models

While a valuable goal, BIM models alone sometimes have trouble following through, because the BIM model is an island of automation on its own high-end workstation. These models often do not participate in the rich set of communication between enterprise systems, nor plug into existing backbone standards – like building codes, account codes, employee standards, and more. These connections are critical for building owners to take advantage of BIM information. These connections are also important to ensure that data entered across multiple BIM models, in a portfolio, roll up and relate to the business requirements that drive the need for space in the first place.

ARCHIBUS fills the gap. The Smart Client Extension for AutoCAD and Revit plugs directly into Revit to give it Web Services connectivity for the larger real estate and facilities model in ARCHIBUS. ARCHIBUS also lets authorized users publish enterprise graphics from the Revit model to distribute graphics indexes from the model to the enterprise at large. And ARCHIBUS makes backbone data and validation available, right within Revit, to make sure the data is consistent and relevant.

By using just one integrated solution across your Real Estate, Infrastructure, and Facilities Management operations, you can reuse existing data, reduce inconsistent information, and ease the burden of supporting multiple information technology systems. Whether you lease, own, or outsource your facility operations, you can boost productivity and profitability with one integrated, end-to-end solution—ARCHIBUS.



Users can access personalized, intelligent dashboards to drill-down through critical information and 10,000+ reports "out-of-the-box"

In summary, the new ARCHIBUS Run Anywhere architecture and its associated applications, which take advantage of Web Services, helps organizations raise operational efficiency, improve environmental stewardship, while reducing the total cost of ownership. [Contact us](#) to find out more about how ARCHIBUS can benefit your organization.

Got GHG²?

ARCHIBUS eliminates Generally Haphazard Guessing to Reduce Greenhouse Gases

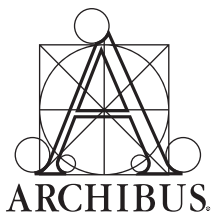
Buildings account for 38% of all greenhouse gas (GHG) emissions in the U.S. annually. And professionals like you are increasingly being tasked with reducing them, but with little more than Generally Haphazard Guessing (GHG) to rely upon.

ARCHIBUS provides you with proven tools for reducing GHG² and achieving Green Facility 2.0. And unlike Johnny-come-lately point solutions, ARCHIBUS provides a cost-effective, integrated approach to managing your entire portfolio.

Proven, integrated ARCHIBUS applications, such as Green Building, Environmental Sustainability Assessment, Energy Management, Hoteling, and Reservations help you go from Generally Haphazard Guessing to improved environmental stewardship.



ARCHIBUS dashboards provide a graphical approach to evaluate high-priority environmental sustainability items objectively



Visit: archibus.com/green2.0
for a Web Services paper—to
raise your environmental profile



The #1 Solution for Real Estate, Infrastructure & Facilities Management in the World
Over 4 million users prove it daily—saving their organizations over \$100 billion annually

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About ARCHIBUS, Inc.

ARCHIBUS is the #1 global provider of real estate, infrastructure, and facilities management solutions and services with the total annual expenditures for ARCHIBUS-related products and services exceeding \$2.0 billion (USD). Through effective innovation and business transformation, ARCHIBUS users save their organizations over \$100 billion (USD) annually. With ARCHIBUS, organizations can use a single, comprehensive, integrated solution to make informed strategic decisions that optimize return-on-investment, lower asset lifecycle costs, and increase enterprise-wide productivity and profitability. ARCHIBUS is the world-wide proponent for the creation of ubiquitous environmental sustainability.

More than 4,000,000 ARCHIBUS enterprise and Web users collectively manage over 5,000,000 properties, with organizations reporting facilities-related cost savings as high as 34%. With over 1,600 ARCHIBUS Business Partners, local and regional support worldwide is available in over 130 countries and more than two dozen languages. Headquartered in Boston, Massachusetts, ARCHIBUS, Inc. has pioneered computer-aided infrastructure and facilities management technologies since 1982. For more information, visit archibus.com.



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The #1 Solution for Real Estate, Infrastructure, and Facilities Management in the World
Over 4 million users prove it daily—saving their organizations over \$100 billion annually