Autodesk 360 for BIM
Collaboration, Data & Lifecycle Management for AEC

Market and industry forces are driving an increasing need for collaboration and data management capabilities in the architecture, engineering, and construction (AEC) industry. Digital tools are driving the creation of higher volumes of data; AEC businesses and project teams are more dispersed and more complex; and economic pressures are forcing higher project velocities and efficiencies.

The Challenge

It used to be that architecture, engineering, and construction teams could take care of their collaboration and data management needs on an ad-hoc basis using whatever tools were at hand, such as file naming schemes, open firewall ports, VPN, FTP, or unmanaged file sharing services. But these methods no longer scale to serve the burgeoning needs of the industry.

AEC businesses are also finding that current solutions to these problems can be cumbersome and expensive to implement and administer—often resulting in extended deployment schedules and unsatisfactory results.

At the same time, rapidly developing network, cloud, and mobile technologies have created new ways to deploy collaboration and data management capabilities across the entire project team.

A new approach is needed—an approach using the right technologies for the problem at hand. An approach that helps provide AEC project teams with a complete, accurate, digital view of their project, with access to information across the project lifecycle from wherever they need it—the office, the web, or the field.

Autodesk 360 for BIM

Autodesk® 360 for BIM is Autodesk's vision for collaboration and data management in AEC, which is exactly the new approach described above: provide AEC project teams

with a complete, accurate, digital view of their project, with access to information across
the project lifecycle from wherever they need it—the office, the web, or the field. Autodesk
360 for BIM delivers three key benefits:

Decisions that improve project quality and outcomes

By getting the right information to the right people at the right time, multi-discipline teams
can make better decisions and minimize mistakes and rework. Bringing stakeholders and
disciplines together with more accurate information and analysis, can yield fully informed
decisions and higher quality outcomes throughout the project lifecycle

Insight and predictability that help enable timely, profitable delivery

Facilitating early multi-discipline collaboration in design and construction planning through
model exchange, multi-discipline model aggregation, clash detection and review, means
that projects are more fully understood before construction begins.

Improved operational reliability and efficiency

With a single source of truth and up-to-date information and model aggregation, efficiency
can be increased throughout the project lifecycle—from concept to design, construction,
and operation.

Autodesk 360 for BIM brings the best of Autodesk® technologies together with new
capabilities to deliver the right collaboration and data management solution for
architecture, engineering, and construction professionals. Autodesk has the broad cross-
industry experience and technology to meet this challenge and the AEC industry know-
how to do it successfully.

Delivering Autodesk 360 for BIM

AEC businesses require straightforward, easy-to-consume ways to meet their needs. In
talking to our customers, we hear that most solutions available today are difficult and
cumbersome to implement. They tell us there is no reason to use a solution that takes 6
months to deploy on projects they need to mobilize in days or weeks.

What AEC businesses really need are flexible levels of implementation, starting with a
lightweight, ad-hoc, bottoms-up way for a team to collaborate easily; a more formal but
still accessible project-based solution to include both internal and external team members;
and, finally, robust, enterprise-strength, network-based data management for managing
the information essential to BIM processes with flexible deployment options. Our Autodesk
360 for BIM solution provides flexible, scalable options for collaboration and data
management needs.

First, we offer streamlined, project-focused communication based on social and mobile
technologies that helps keep dispersed project teams in touch and aware of project
progress, issues to be resolved, and the status of design documents and models.

Additionally, we offer on-demand, centrally managed, cloud-based project collaboration and the ability to more quickly and securely include both internal and external team members in the project.

And finally, we add a robust, scalable, network-based data management solution for managing the information essential to BIM processes, coupled with flexible deployment options ranging from home users and regional offices to enterprise-wide deployments that connect major offices across the globe.

Autodesk 360 for BIM Technologies

Autodesk 360 for BIM integrates both well-established technologies and new capabilities to help deliver collaboration and data management—across the project, across the team, and across the enterprise. At the heart is technology from our Autodesk® Vault data management solution. With a large existing user base, the Autodesk Vault family is an established technology that architecture, engineering, and construction professionals may count on for security, accountability, and reliability. We have extended this technology specifically for AEC in the following key areas:

Direct integration with AEC workflows

For data management to succeed, it needs to happen naturally as part of the current workflow. For this reason, Vault is integrated with over 35 design and modeling applications, including both Autodesk and third-party tools. For AEC teams and projects, Vault is now integrated with AutoCAD®, AutoCAD® Civil 3D®, and Autodesk Navisworks® software products, as well as Autodesk® Revit® applications and our Autodesk® Buzzsaw® cloud for more secure external information exchange and mobile access.

Scalability across globally distributed networks

AEC businesses and teams can be distributed across multiple offices and sites and multiple time zones. Autodesk delivers a solution that scales from single-office, single-server implementations to globally distributed, and fully replicated servers— delivering LAN-like performance over wide area networks. Depending on the needs of the team, Vault supports:

- direct file access from remote sites
- full file replication to remote sites for accelerated performance
- full database replication to remote sites for robust, standalone performance even if the network connection is lost
- synchronizing data between the enterprise network and the cloud for access by team members outside the firewall

These capabilities can be mixed and matched according to the needs of the site and the project to deliver exactly the right level of performance, reliability, and access.

Connection to the cloud

AUTODESK® 360 FOR BIM: COLLABORATION, DATA & LIFECYCLE MANAGEMENT
FOR AEC

This is a critical piece, allowing for the quick connection of external team members to the project without the need for creating holes in firewalls. Every AEC team extends beyond a single enterprise, so a secure way to connect across businesses is a critical capability.

By selectively and automatically mirroring data between the network-based Autodesk Vault and the Autodesk Buzzsaw cloud, project teams can more securely share information and better maintain accountability beyond the enterprise.

Conclusion

The Autodesk 360 for BIM vision is to provide architecture, engineering, and construction project teams with a complete, accurate, digital view of their project, with access to information across the project lifecycle whenever and wherever they need it—from the office, the web, or the field.

We are delivering on this vision now with the launch of our Autodesk Vault Collaboration product for AEC, which includes new capabilities specifically for the industry, an Autodesk Buzzsaw entitlement included with current Vault Subscription, and integration with Autodesk Navisworks, Autodesk Revit and AutoCAD Civil 3D software.

Our customers can begin realizing this vision through Autodesk® Vault Collaboration AEC software, beginning in May 2011. For more information, contact your reseller or Autodesk representative today.