WELCOME TO THE

Era of Connection

BUILDING DESIGN
1. Designers are conceiving of buildings differently.
2. Building designs can be realized differently.
3. Building owners expect a lot more from designers and contractors.
4. The physical building can now be deeply interconnected by digital systems.
New ways of adding value to buildings, structures, and mechanical, engineering, and plumbing (MEP) systems. ... based on outcomes rather than price
Decisions can no longer be made in silos, with limited insight into the social, environmental, and economic systems that surround people and buildings.

In the future, buildings will generate streams of data throughout their lifetimes. The ideas and objects you create today become connected insight.
1. Shared Data
In siloed collaborative approaches, data must be exported and files must be exchanged. This creates massive version control problems as multiple parties provide key data at various points in the process.

2. Document Continuity
The design team creates design intent drawings, ultimately leading to permit drawings.
Detailers and fabricators then redesign the drawings for their own purposes, sometimes using 2D processes.
The construction team creates sequence documents based on top-down estimates.

3. Project Handoff
Design revisions are happening so fast that contractor change information is always behind.
The contractor spends significant resources processing RFIs, submittals, and change orders.

Obstacles to new opportunities are due to the inherent handoff and rework processes among siloed teams.
But, ready or not, the work you do is changing. A new era of connected technology is disrupting the way buildings and infrastructure are designed, built, and used.

Designers and engineers will be able to see the larger impact of each decision — in design, in construction, in operations — and the potential for higher profits, expanded services, and winning more work.

But, because compute power is nearly infinite and a massive amount of information is available and connected, these opportunities will be available to any company, regardless of type, size, or location. The barriers to access will be low.

Success depends on how you set course toward the future.
And the future is amazing!

Architects and engineers will better understand how spaces and structures can perform against environmental, economic, and social objectives through connected outcomes, like generative design.

Owners and occupants will have more insight and control from any place, anytime, to operate more efficiently and effectively.

We can all develop our social ambitions in more responsive spaces.
Embrace the future

Are your current processes ready for the era of connection?

Complex projects require **connected teams** – enhance collaboration and data continuity.

Better informed decision making relies on **connected insight** – design, engineer, and manage in context.

Innovation demands **connected outcomes** – explore ideas and discover the best solution.

Faster, higher-quality, lower-impact execution comes from **connected projects** – smoothly integrate design and build processes.
There are no silos in the era of connection…

Architects no longer “just design,” engineers no longer “just engineer,” builders no longer “just construct”.

The roles of designers and builders will be more closely linked, with rapid feedback loops and merging of project delivery stages.

Technology is the vehicle that makes this change possible, opening doors for designers to extend their services.
Technology is charting a course to the future

Project phases will become more connected as technology becomes more connected.

**EVALUATE** - How ideas are simulated, tested, and analyzed for implications: Includes analysis tools, scripting, optimization, benchmarking, and dashboarding, which will enable generative and iterative processes.

**REPRESENT** - How ideas are defined, documented, and memorialized for use: Includes models, materials, documents, and reality capture for refinement.

**REALIZE** - How ideas are translated from abstraction to physical reality: Includes products for commissioning, 3D printing, reality computing, and robotics to produce more efficient buildings.

**COLLABORATE** - How ideas are captured, managed, and shared by teams for better decision making: Includes data management, storage, viewing, workflows, and social context.
Now is the time to embrace Building Information Modeling (BIM).

The intelligent model–based design process is a critical foundation that will help designers, builders, and owners gain competitive advantage with the ability to access, share, and effectively use enormous amounts of information throughout the lifecycle of building and infrastructure projects.
For building designers, Autodesk offers an interconnected workflow from the earliest stage of a project right through to fabrication.

**BIM + Autodesk.**

**Your Future is Connected**

Sketch, collaborate, analyze, and iterate early-stage design.

Create visual logic to explore parametric conceptual designs.

Create building models for architecture, structure & MEP.

Connect the design model to detailing and fabrication.
Connect to your future

Take advantage of connected BIM workflows from Autodesk to help you innovate, collaborate, deliver added value, and open doors to new business – and the future.

Innovate  Collaborate  Deliver added value

To learn more, visit www.autodesk.com/bim
Autodesk helps people imagine, design, and create a better world. Everyone—from design professionals, engineers, and architects to digital artists, students, and hobbyists—uses Autodesk® software to unlock their creativity and solve important challenges. With Autodesk BIM solutions, connected teams of architects, engineers, contractors, and owners can realize building projects with better environmental, economic, and social impact.

Learn more about Autodesk, BIM, and our connected solutions for Building Design at: www.autodesk.com/BIM

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