

Help me, Obi-Wan Kenobi; you're my only hope. [static] Help me, Obi-Wan Kenobi; you're my only hope.

Star Wars 1977 (Star Wars: Episode IV – A New Hope)

As Star Wars fans will surely recognize, this is the message that Leia Organa sends to Obi-Wan Kenobi in the first hologram ever shown in a Star Wars movie. Holograms have also had other pivotal roles in the Star Wars saga since then. They have evolved to become interactive and

even telekinetic, for example, when Snoke drags General Hux across the floor via a hologram in The Last Jedi (Star Wars: Episode VIII - The Last Jedi).

Similarly, building information modeling (BIM) software now offers capabilities that go beyond those of conventional design and project management software. In several ways, they even surpass Star Wars holograms. LoadSpring offers a range of BIM cloud integration solutions and managed cloud services to help you enhance each of the four major phases of modern construction and engineering projects described below: plan; design; build; and operate.



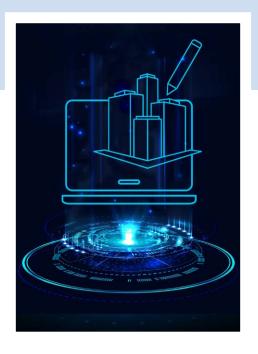
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## WHAT IS BIM AND BIM SOFTWARE?

Building information modeling turns the conventional construction process on its head. Instead of first building and delivering a project and then finding out about problems afterwards, BIM focuses on eliminating those problems as part of the planning and design process. BIM does this through model creation, visualization, and simulation. It uses all the information about the project and its deliverables, including structure, materials, interdependent subsystems, costs, and time.

BIM software is the IT encapsulation of this BIM project management approach. The change in process means a corresponding change in workflow. You spend more time in conceptualization with BIM software, but less time in fixing problems during construction or after delivery. Overall, BIM and BIM software enable you to save both time and money.







## 4 WAYS THAT BIM SOFTWARE CAN BE A STAR IN ANY PROJECT

#### 1. Plan in 5 dimensions

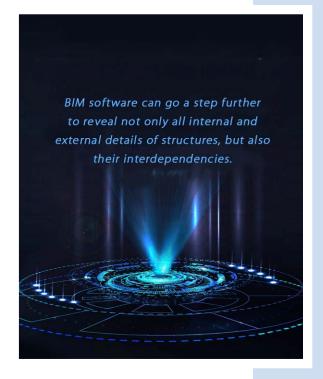
Conventional computer-aided design (CAD) software operates in 2 or 3 dimensions, like Star Wars holograms with their secret messages and calls to action. By comparison, BIM software extends beyond the physical world of height, width, and depth by adding additional dimensions like cost and

time. You can use reality capture and real-world data to generate models of existing environments, ensuring that project plans and designs start from realistic premises. Then, you can compare what you design and build with budget required as you go, and project into the future to forecast items like energy savings, maintenance needs, and extensions and upgrades.

#### 2. Design with built-in clash/conflict detection

In *Return of the Jedi (Star Wars: Episode VI – Return of the Jedi),* the design of the second Death Star is revealed to the rebel attack force via a hologram. BIM software can go a step further to reveal not only all internal and external details of structures, but also their interdependencies. As part of the design process, you can position intelligent elements like walls, doors, and windows. BIM software can then generate floor plans, elevations, 3D projections, and more, to

show you views from inside and outside, taking the transparency of windows and the opacity of doors and walls into account. It can assess design choices for suitability. For example, it can check that plumbing and wiring layouts are compatible with floor, door, window, and elevator layouts, while assisting in the optimization of building performance over time.







## 4 WAYS THAT BIM SOFTWARE CAN BE A STAR IN ANY PROJECT (continued)

#### 3. Build, while you integrate and apply BIM across teams

As the use of holograms progresses in the Star Wars saga, they become more interactive. However, users must still manually apply or re-transmit instructions or plans that arrive via a hologram.

BIM improves on this by offering an environment for team members and stakeholders to easily

exchange and work together on enhancing BIM designs. Shared knowledge and digital collaboration keep all stakeholders up to speed and aware of requirements, opportunities, and decisions. On the LoadSpring Cloud Platform, the BIM environment can also connect to and interwork with other project applications for estimating, scheduling, and project and portfolio management.

#### 4. Operate with BIM over entire life cycles

Star Wars film directors have used holograms to create visual links between events happening at different times. For example, Anakin's conversation with a hologram of Palpatine in *Revenge of the Sith* (Star Wars: Episode III - Revenge of the Sith) is a visual echo (or "pre-echo") of the scene between Darth Vader and Palpatine in *The Empire Strikes Back* (Star Wars: Episode V - The Empire Strikes Back). However, whereas these holograms are isolated clips, BIM lets you move forwards and backwards in time in a project to any point you desire,

analyzing past developments and projecting possible future outcomes. BIM designs and BIM project management accompany building and infrastructure projects throughout their entire life cycle, including operations and maintenance after initial delivery.







#### **CHOOSING BIM SOFTWARE**

The growing popularity of BIM has led to an increasingly wide choice of BIM and BIM-related software applications, including the following.

#### **Autodesk 3DS Max**

<u>Autodesk 3ds Max</u> is a 3D computer graphics program used by architectural visualization studios. With its modeling, rendering, and compositing capabilities and its flexible plugin architecture, it is favored by TV studios and motion graphics creators as well.

#### **Autodesk AutoCAD**

<u>Autodesk AutoCAD</u> offers a collection of applications for 2D and 3D design of physical models for enhanced productivity. Professional users include architects, project managers, engineers, graphic designers, and city planners. AutoCAD file formats have become de facto standards in computer-aided design (CAD), and AutoCAD files can therefore be handled by a range of other applications.

#### **Autodesk Revit**

Autodesk Revit is a BIM application used by architects, contractors, designers, landscape architects, MEP (mechanical, electrical, and plumbing) engineers, and structural engineers, among others. Users can design structures in 3D, annotate with 2D drafting elements, and retrieve information from the building model's database to manage life cycles from concept to construction, maintenance, and/or demolition

#### CostX

CostX, or <u>iTWO costX</u> as it is now called, is a 3D/BIM and 2D estimating solution. The solution offers integration of 2D and 3D takeoff, reducing takeoff time by up to 80 percent. Users include quantity surveyors, estimators, and consultants.



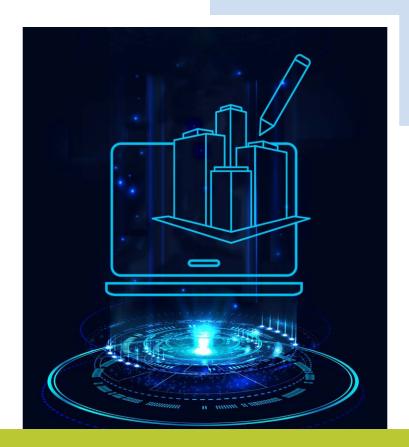




#### CLOUD-BASED BIM SOFTWARE

With a single cloud platform, teams can access your BIM software from any device. LoadSpring Solutions helps your enterprise with cloud solutions specifically designed for the AEC and Engineering industries and sectors, among select others. Using a single, cloud-based platform for organizing, distributing, and sharing files, employees untether their desks and access critical or sensitive data through a secure cloud portal. Regardless of company size, the benefit of a hosted infrastructure for enterprise-class hardware is unparalleled.

As well as other software categories like, <u>business intelligence</u>, <u>estimating</u>, <u>geospatial</u>, <u>project portfolio</u>, <u>scheduling</u> and <u>specialized tools</u> for project-oriented enterprises, LoadSpring hosts applications from different <u>BIM vendors</u>. We can host the BIM application of your choice for you, with our industry-leading application expertise and support and a full range of managed cloud services. On the LoadSpring Cloud Platform, security and reliability go hand in hand with scalability and cost-effectiveness. With our commitment to improving integration between different software on our platform, we also facilitate BIM data sharing for you in the cloud.







#### **CONCLUSION**

BIM cloud software can accelerate and streamline your construction and engineering projects. BIM cloud integration with LoadSpring enables you to connect your BIM software models for even better management over entire project lifecycles.

Which BIM software is right for your business? Find out now. Visit <a href="https://www.loadspring.com/">https://www.loadspring.com/</a> hosted-software/hosted-software-bim/ and don't forget to subscribe to the LoadSpring blog and get the latest posts sent to your inbox.





