

BUILT – BIM to FM[®] *What Owners Want*



Owners want functional digital assets that increase efficiency and productivity over the life cycle of the facility. Antiquated Design-Bid-Build oriented procurement methods ensure that owners don't get what they want.

This article addresses what owners want—vis-a-vis BIM—and how they can get it. Once owners recognize the value of BIM, they want it all and they want it now. Few, however, know what IT is, how to request IT, or how to achieve IT.

IT is a functional digital asset that accurately reflects the data gathered on behalf of the owner during planning, design and construction in a format compatible with the owner's facilities management (FM) software.

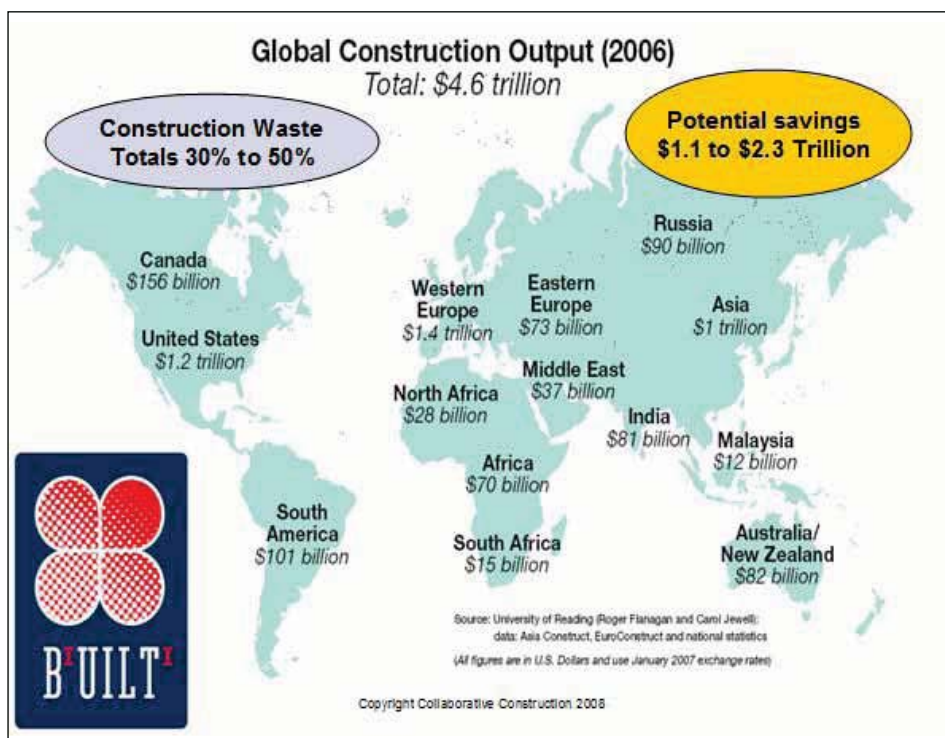
Too few owners realize that planners, designers, constructors, and commissioning agents can deliver digital assets and fewer still know how to request delivery of such assets in a functional format. Those who do are often disappointed, as delivered assets seldom meet expectations.

FUNCTIONAL DIGITAL ASSETS—DAVIDS

Functional digital assets enable Decisions based on Accessible, Valuable, and Informative Data Systems (DAVIDS). Timely intelligent decisions add value to an enterprise. Decision makers with timely access to valuable and informative data make better decisions. Functional digital assets empower

leaders to make quicker, more well-informed decisions. This increases success.

Decisions drive our lives, and good judgment is the hallmark of excellent leadership. Excellent leaders want accurate information more quickly. Providing leaders—on an enterprise level—with access to valuable and informative data is common in the military and manufacturing arenas. Even there, however, tapping facilities or infrastructure-based knowledge while making decisions is not the norm. In the AEC industry, many are just beginning to



recognize the value of functional digital assets and the power those assets have to improve decisions and add value to an enterprise.

Value is a key component from every owner's perspective. Owners plan, design, construct, operate, and maintain facilities for a business purpose. Adding value to services or products validates new facilities. Facilities-centric information aligns operational and maintenance goals with the business purpose of the enterprise.

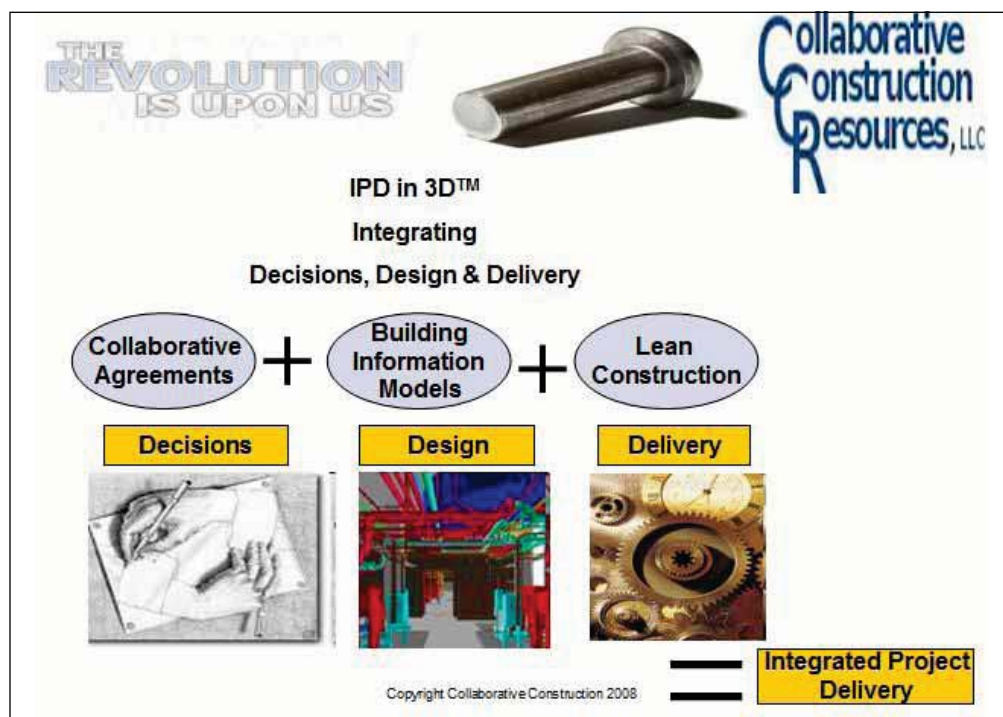
Informative data is data that conveys valuable information to the user. Timely access to such data prompts intelligent, fact-based decisions, which increase efficiency and profits.

Increasing efficiency in the AEC industry puts \$1.1 to \$2.3 trillion in potential savings in play worldwide, creating an industry in and of itself. Separately, operations, energy, and maintenance costs represent several trillion dollars more from which additional savings can be extracted over the life cycle of a facility. IPD, BIM, and lean processes deliver functional digital assets, which empower decisions that drive increases in efficiency and savings on the trillions of dollars spent over the life cycle of facilities and infrastructure worldwide.

PROCURING FUNCTIONAL DIGITAL ASSETS—BUILT

IPD creates functional digital assets suited to this task, but achieving IPD is hard and the task is complicated by antiquated project procurement methods. Design-Bid-Build, in particular, inhibits the collaborative and cooperative behaviors required to produce functional digital assets. The BUILT System™, pioneered by Collaborative Construction as part of its IPD in 3D™ program, provides a process whereby integrated project delivery (IPD), building information modeling (BIM), and lean construction methods can be deployed effectively and intelligently.

IPD in 3DT refers not only to integrated project deliver and the three-dimensional virtual design and construction software tools that support IPD, but also refers to the 3Ds associated with IPD: Decisions, Design, and Delivery. Those three concepts—aka integrated project delivery (IPD)—require integrated or collaborative agreements, building information modeling, and lean



- The **B^XUILT^X SYSTEM** delivers projects:
- **B^XUILT^X** by BIM³ Builders
- **U**tilizing
- **I**ntegrated Project Delivery and
- **L**ean Construction Methods and
- **T**echnology Today and Tomorrow
- **B^XUILT^X CERTIFICATION** is for projects that:
- Use the **B^XUILT^X SYSTEM** throughout the life cycle of the facility



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processes for support. The interrelated nature of these concepts is reflected in the graphic above.

The BUILT System extends the IPD in 3D concept beyond projects and enables users to deploy fully integrated business models in support of IPD, BIM, and lean processes. An effective BUILT System ensures owners receive functional digital assets that empower DAVIDS—Decision makers with Access to Valuable and Informative Data Systems—within the organization.

BUILT is an acronym that refers to facilities and infrastructure—i.e., Buildings—Built by BIM Users Utilizing IPD, and Lean processes and Technologies Today and Tomorrow.

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In the BUILT System all stakeholders are BIM users. Planners, designers, and owners use BIM in the planning and design phase to lay the foundation for the creation of functional digital assets. Planners and designers authoritatively collect data related to potential building sites, facility programs, and other aspects of the facility and relevant infrastructure. Owners involve end users in the programming phase to ensure compatibility between the facility as planned and designed and the business purposes reflected in the end users activities.

Contractors, construction managers, trade contractors, specialty designers, suppliers, and others use BIM in the BUILT System as well. Each of these stakeholders access functional digital assets relevant to their particular business purpose throughout the planning, design, and construction of a facility and any associated infrastructure.

Users of the BUILT System are encouraged to think outside the box and identify unique BIM users. Additional potential users of BIM data include lenders, sureties, insurers, and others with a stake in the financial health of the project. Ultimately, the use of BIM on a project delivered under the BUILT System will be limited only by the imaginations of the users of the BIM and the capacity of the internet to connect users to functional digital assets in real time.

RFPS & RFQS ON BUILT PROJECTS

Procurement of planning, design, and construction services under the BUILT System differs greatly from the procurement of such services in a Design-Bid-Build environment, or even in a Design-Build setting. Owners who wish to procure services from integrated teams must formulate their requests for services differently and must request those services from planners, designers, and constructors with a very different skill set than those reflected in the Design-Bid-Build environment.

An owner seeking to procure services under the BUILT System is seeking planning, design and construction services from

an integrated team. Accordingly, requests for proposals must be directed at integrated teams, not individual planners, constructors, or designers. Typically, when such an RFP hits the streets it creates confusion and angst among stakeholders in the local AEC community because it represents a substantive change in the normal way of doing business.

The biggest change is the requirement that planners, designers, and contractors—along with key trade contractors and suppliers—join forces early on in the process to form integrated teams capable of delivering IPD. These RFPs also mandate the use of BIM and entail the use of an integrated form of agreement among the integrated team members. An RFP that calls for bids from integrated teams fundamentally alters the way those teams are formed, what those teams will deliver, and the structure of the teams' legal relationship.

Private owners have a great deal of control over the process and are essentially free to pick the A Team. Public owners are shackled, to a large degree, by public procurement laws and regulations that control the process where by governmental entities procure planning, design, and construction services.

Collaborative workshops at which concepts central to the BUILT System are introduced to the AEC community increase the BIM IQ of all stakeholders. Members of the AEC community interested in pursuing BUILT-oriented projects learn, through such workshops, how IPD, BIM, and lean process support the BUILT System and what skills are required to successfully deliver a BUILT project.

Collaborative Construction offers collaborative workshops designed to build such skills and also provides IPD facilitation services to integrated teams in the throes of crafting, negotiating, and implementing integrated or collaborative agreements on specific projects.

CONCLUSION

Knowledge, innovation, networks, and godly decisions made with access to valuable and informative data systems will enable those who master these tools to overcome immense barriers. The challenges faced by the AEC industry are vast, but our ideas are bigger and better.



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