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BIM NEWSLETTER
(AEC NEWS & STORIES)

Role of Connected **BIM** in AEC Industry

BIM Standards and Benefits

The global AEC industry has recognized the immense value that Building Information Modelling (BIM) can bring to project delivery and asset management. As we look into a broader scenario, standardization is a key driver for BIM adoption globally. Establishing common BIM standards ensures seamless collaboration and interoperability among diverse stakeholders.

Highlights

- BIM Standards and Benefits
- Future of BIM in Construction
- Hodari Africa connects remote teams with Autodesk Build
- BIM Interoperability: The Glue That Binds the AEC Industry
- IFC 4.3 Formally Approved and Published as an ISO Standard
- The Benefits of Using AI in Construction

The global AEC industry has recognized the immense value that Building Information Modelling (BIM) can bring to project delivery and asset management. As we look into a broader scenario, standardization is a key driver for BIM adoption globally. Establishing common BIM standards ensures seamless collaboration and interoperability among diverse stakeholders.

International Organization for Standardization (ISO), who are actively working on developing, validating, and updating BIM standards to meet the evolving needs of the AEC industry. Their commitment to creating a robust framework for BIM implementation is crucial in realizing the full potential of this transformative technology.

The standardization of BIM processes, data structures, and information exchanges empowers project teams to work cohesively, share information seamlessly, and make informed decisions throughout the entire asset lifecycle. This not only enhances efficiency and productivity but also fosters a culture of trust and collaboration within the industry.

Moreover, BIM has revolutionized communication and collaboration among project teams. With all stakeholders working from a single, centralized source of information, the exchange of data and decision-making processes have become significantly more efficient. This enhanced collaboration has been instrumental in accelerating and optimizing construction workflows, ultimately leading to more successful project outcomes.

Future of BIM in Construction

The future of BIM in construction appears highly promising, and we should feel appreciative of the advancements that are shaping the industry. The shift toward cloud-based BIM solutions is particularly exciting, as it facilitates real-time collaboration among dispersed teams, empowering them to work together more efficiently than ever before.
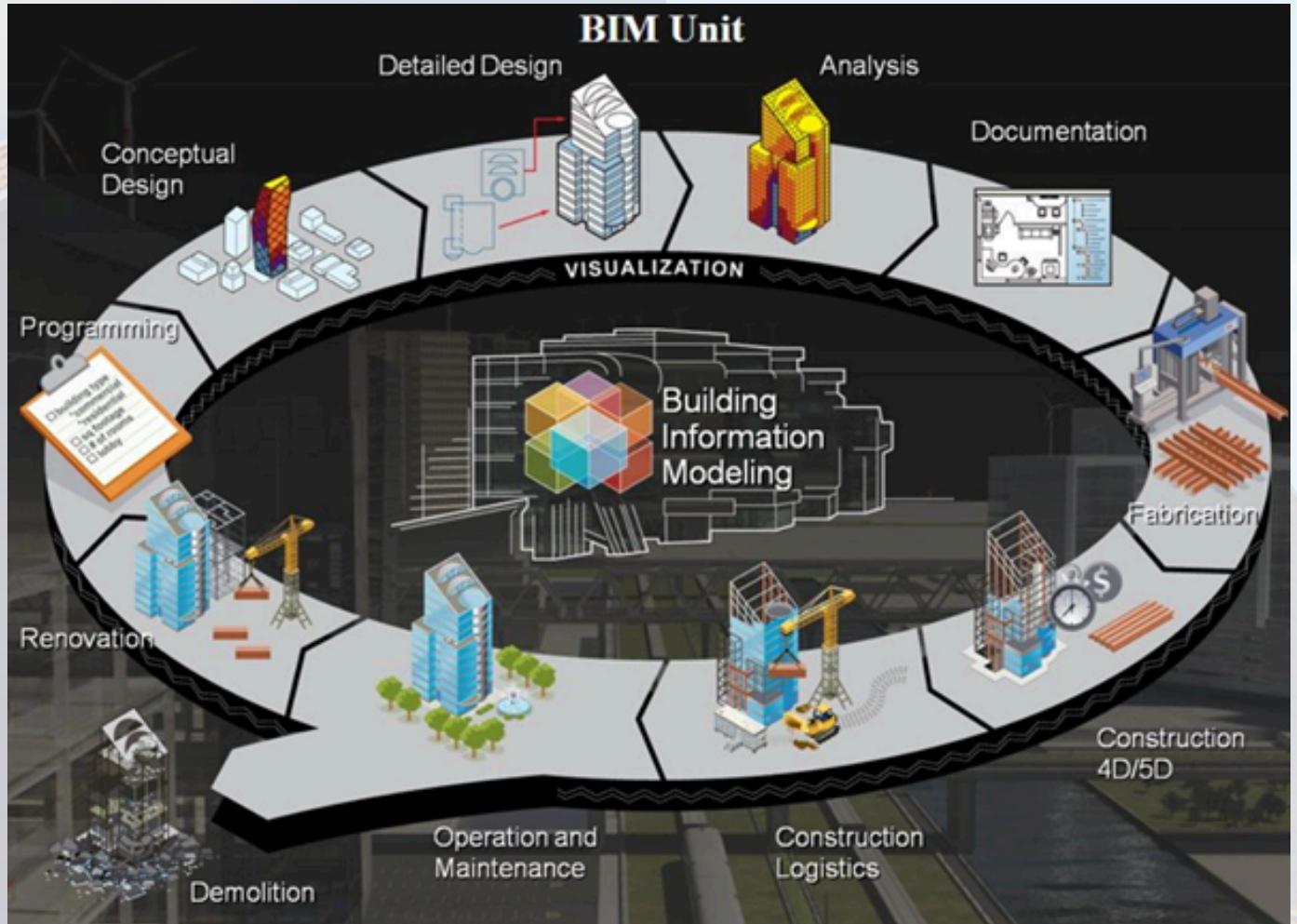
Moreover, the industry is witnessing remarkable progress in augmented reality (AR) and virtual reality (VR) technologies, which are poised to enhance the visualization and simulation capabilities of BIM. These advancements will offer stakeholders truly immersive experiences during the design and construction phases, revolutionizing the way projects are conceived and executed.

Countries in the Middle East, including the United Arab Emirates and Saudi Arabia, are embracing BIM to support ambitious urban development projects. BIM adoption in this region is driven by the desire to enhance project efficiency, mitigate risks, and ensure the delivery of high-quality infrastructure.

Hodari Africa connects remote teams with Autodesk Build

Hodari Africa provides bespoke development management and project management solutions to real estate and infrastructure clients across Africa. With offices in Cape Town, Hilton, Johannesburg, Mauritius and Nairobi, Hodari's growth directly results from accelerated change across the built environment.

In the past, project managers and contractors could mark up plans but might do so by email or on different versions of a PDF, meaning they didn't see each other's mark-ups. This meant project productivity suffered due to duplication of efforts.

Read our blog to uncover how Hodari connected their remote teams, improved transparency, and saved valuable time by establishing a Common Data Environment with Autodesk Build.

READ THE BLOG

BIM Interoperability: The Glue That Binds the AEC Industry

BIM Interoperability is the remarkable ability for various teams and organizations to share the same data on a single project. This means that all the critical information about a construction project is stored in one centralized location, accessible to different disciplines using a wide range of specialized tools. This level of interconnectivity is truly a marvel of modern construction technology.

BIM interoperability is a true marvel, allowing architects, engineers, construction professionals, and facility managers to work together on a single, integrated digital model.

This shared understanding of the project not only improves coordination but also reduces errors, enhances decision-making, and ultimately delivers better outcomes for clients.

The ability to access, exchange, and leverage data across different software platforms is a testament to the power of BIM. It empowers teams to work more efficiently, make informed decisions, and deliver projects that meet or exceed expectations. As the AEC industry continues to evolve, the importance of BIM interoperability will only grow, solidifying its position as a critical driver of progress and innovation.

IFC 4.3 Formally Approved and Published as an ISO Standard
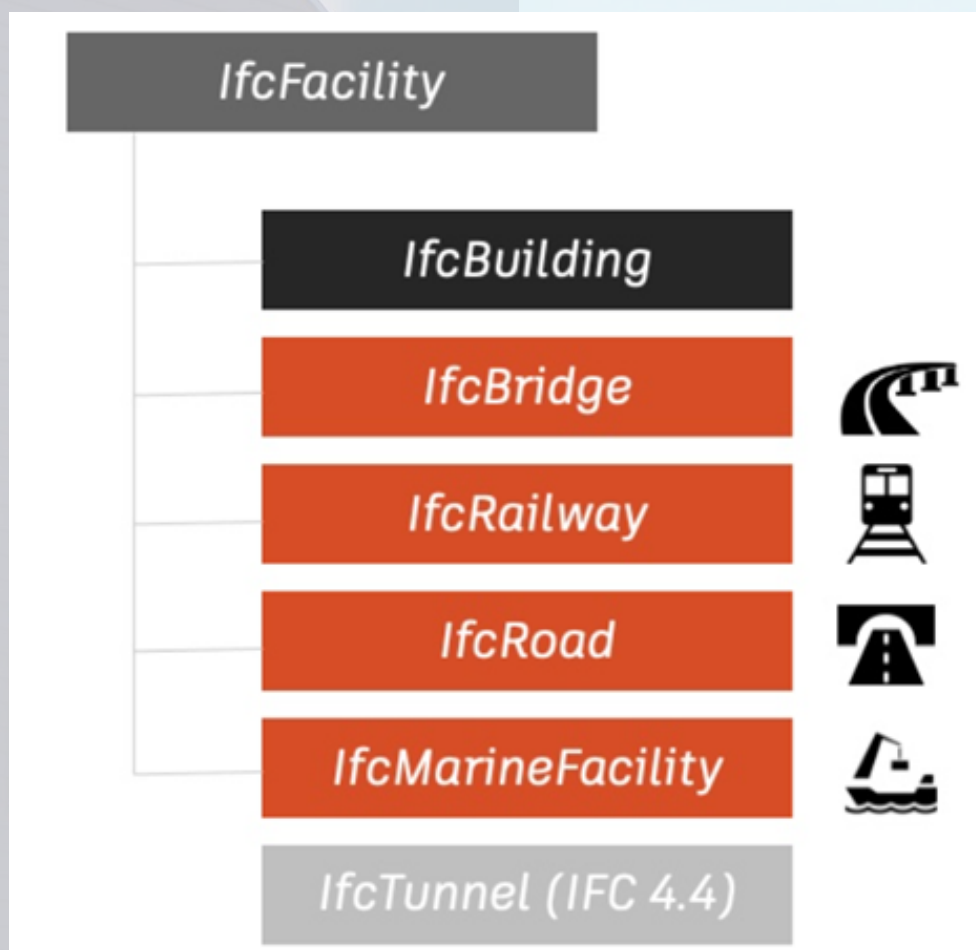
London, (April 2, 2024) – buildingSMART International is delighted to announce that IFC 4.3 is now formally approved and published as an international standard by the International Organization for Standardization (ISO). This accreditation solidifies IFC 4.3 as the latest iteration of the successful ISO 16739 standard, marking a major step forward for the built environment.

https://www.buildingsmart.org/ifc-4-3-formally-approved-and-published-as-an-iso-standard/

The Benefits of Using AI in Construction

AI-powered tools are enhancing safety on construction sites, using computer vision and sensors to monitor workers, equipment, and the overall environment. With the ability to detect potential hazards in real-time, construction firms can take proactive measures to mitigate risks and protect their most valuable asset - their people. This not only saves lives, but also reduces costly delays and liabilities associated with on-site incidents.

Reducing administrative processes. AI may be able to help reduce and automate administrative processes using handwriting recognition algorithms and natural language processing to review work orders and other paperwork. These types of technologies can potentially reduce construction costs by up to 15%.

Improved site productivity. AI solutions can automate workflows and repetitive tasks, making teams more efficient and scaling back project completion times.

Better project planning. AI systems can streamline scheduling and resource allocation, optimizing the profitability and timeliness of large projects. Artificial intelligence can also recognize structural and functional issues in models, allowing for early course correction and reducing the risk of reworks and waste.

Lower construction costs. Shorter project timelines made possible by AI-powered automations reduce labour costs, and better planning optimizes the use of materials.

Safer work sites. Artificial intelligence can identify and flag safety issues. For example, AI applications can scan video footage and sensor data for signs of equipment malfunctions or unsafe working conditions, and alert site managers to take corrective action in real-time.

Sustainability. AI tools can optimize the use of resources and reduce waste, helping construction companies adopt more sustainable construction practices. For example, artificial intelligence can help optimize the use of energy and water, reducing the environmental impact of construction projects.

AI and digital transformation are the future of the Design and Make industries.

Autodesk President and CEO Andrew Anagnost discusses AI and the digital transformation of the Design and Make industries in 2024—and what the future holds for them.

Autodesk Video, May 20, 2024, 1:42 min. video

https://www.autodesk.com/design-make/videos/ai-and-digital-transformation

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Incorporated in 1984, MicroCenter is an award winning group of technology companies in the Kingdom of Bahrain, which provides IT Business Solutions, Geographic Information Systems (GIS), Utility Network GIS Surveys, LIDAR Technology, BIM modeling, Smart card& Digital Solutions and highly specialized GIS &Autodesk Training. With over 100 qualified staff & branch in Saudi Arabia, it aims to refine its capabilities in developing& integrating innovative IT, GIS & Engineering solutions and expand the expertise in different corners of the GCC.

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