IFMA: TECHNOLOGY PANEL REVIEW: TECHNOLOGY REALITY CHECK

IFMA Presentation Series #6
IFMA is the world’s largest and most widely recognized association for facility management professionals.

<table>
<thead>
<tr>
<th>By the Numbers:</th>
<th>Cost:</th>
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<tbody>
<tr>
<td>24,000 Active IFMA Members</td>
<td>IFMA membership is an affordable investment with meaningful payoff</td>
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<tr>
<td>104 Countries have IFMA Presence</td>
<td>Professional &amp; Associate Membership........ $219</td>
</tr>
<tr>
<td>6 Worldwide IFMA Communities</td>
<td>Young Professional Membership.................. $139</td>
</tr>
<tr>
<td>134 Global Chapters</td>
<td>Retired Membership................................. $100</td>
</tr>
<tr>
<td>16 Industry Councils</td>
<td>Student Membership................................ $10</td>
</tr>
</tbody>
</table>

- 16 Industry Councils
- 10,000+ Credentialed FM Professionals
- 84% of employers state that IFMA education increases the collective FM knowledge of their organization
- 74% of employers feel that their reputation is improved by having employees complete IFMA credentials

IFMA is the world’s largest and most widely recognized association for facility management professionals.
Join the IFMA iTC Community Today! $55.00

For more information visit:  it.ifma.org or ifma.org

or contact Daniel Stonecipher at dstonecipher@immersivx.com
The goal of the 2nd edition of The Facility Manager’s Guide to Information Technology is to provide current best practices content and extend distribution to membership, interested parties and universities with FM Programs.

Win or Buy a Good Reference Tool!
Kindle or Hard Cover

Thanks for attending
The IFMA Sessions at AEC Next 2019!
IFMA Track Presentations

• It’s All About the Data – From Many Sources to One Strategy
• Minding the Gap: Connecting AEC to Owner for New Construction, As-Built and Handover
• Bridging the Gap: Data Transformation & Location Intelligence
• Practical Planning, Programming, Rapid Test Fitting, VR Design & Machine Learning for Corporate Office Space
• Practical Management; End-To-End Transparency for Owners – Controls & Risk Mitigation During Construction Projects
IFMA: It’s All About the Data – From Many Sources to One Strategy

IFMA Presentation Series #1
What do owners really need?

Owners need BIM data more than graphics.

Life cycle BIM level set

Building Information Modeling

The importance of the “I” (Information) in BIM

Design

Construct

Operate

Graphics

Attribute Data

Attribute Data

Attribute Data

Owners need BIM data more than graphics

Presented by:

AECNext SPAR3D

Technology Expo & Conference
Lifecycle BIM level set

Please keep in mind!

- “Facilities Portfolio Mindset”
- Many owners are still in “hybrid environments”
- Data security and integrity are paramount
- Supports all downstream FM and RE workflows
- Can’t be disruptive
Lifecycle BIM level set

Potential BIM Lifecycle participants

- Space Planners
- Facility Managers
- BIM/CAD Technicians
- Maintenance Technicians
- Human Resources and Accounting
- AEC Professionals

Move Managers
Lease Administrators
Sustainability Managers
How are you going to capture the data?

- **When** is the data available in the process? (Design? Construction? Commissioning?)
- What **stakeholder** can best capture that data?
- How do we aggregate the data?
Once data is collected, there are multiple options for moving it downstream

- Simple Import and Export can support many use cases
- Richer data transfer can be achieved using open data formats such as COBie
- Software Tools that enable bi-directional data exchange
BIM Design Models
Developed by the design team with a level of development to relay design intent and generate documentation and details used during construction.

BIM Construction Models
Contains a high level of detail used before and during actual construction to reduce uncertainty, improve safety, eliminate conflicts and simulate real world outcomes.

BIM As-Built Model
Contains both construction and fabrication data with detailed geometry and multiple disciplines that facilitates turnover from AEC to owners.

BIM FM Model
Is derived from the BIM As-Built model removing details, sheets, and other extraneous information, and defining rooms, spaces, assets by unique identifiers. The BIM FM model is then linked with the facility management system for ongoing management.

End with the Beginning in Mind
IFMA: Minding the Gap: Connecting AEC to Owner for New Construction, As-Built and Handover

IFMA Presentation Series #2
Expectations & Responsibilities

- Design
- Construction
- Handover
- Operation

*HERE!* BEFORE THE PROJECT STARTS!
Publish Your Standard!

- Two places for publication – internal SOP’s or Policies and contracts for design and construction teams

- Quite challenging to change contractual terms on a project once started so make that part of your contract

- Standards are normally about what information to provide, not who provides it making contract language difficult
IFMA: BRIDGING THE GAP: DATA TRANSFORMATION & LOCATION INTELLIGENCE FOR SMART BUILDINGS

IFMA Presentation Series #3
What is Location Intelligence

What is it, why is it important, who is using it and how does it relate to Geospatial and other tools such as GIS, Business Intelligence (BI), Analytics and IoT.
Location Intelligence Helps Us Understand . . .

. . . Everything
Our Cities Are Facing Massive Challenges
IFMA: Practical Planning, Programming, Rapid Test Fitting, VR Design & Machine Learning for Corporate Office Space

IFMA Presentation Series #4
"I can't find the data I need to make informed decisions. This information either lives in spreadsheets or in someone's head" ~ NYC based Head of Real Estate, Global Residential Real Estate Brokerage Firm

"We're over budget and I don't have insight into why, or how to fix it!" ~ Bay Area based Head of Design & Construction, Professional Social Media Platform

"It is difficult, if not impossible, to enforce our Design Standards across multiple design firms, regions and projects" ~ SF based Head of Workplace Strategy, Fortune 500 CRM Platform

"Designing and building space takes too long" ~ Literally everyone

Given that real estate is the 2nd largest line item on a company's P&L ($360B spent on office fit outs in 2018), solving any of the above has a significant impact to the bottom line.
# MULTIPLE STAKEHOLDERS & PROJECTS HAMPERED BY POINT SOLUTIONS

<table>
<thead>
<tr>
<th>Many stakeholders</th>
<th>Internal</th>
<th>Broker</th>
<th>Designer</th>
<th>Consultants</th>
<th>Contractors</th>
<th>Vendors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Across many types of projects</td>
<td>New Build</td>
<td>Renovation</td>
<td>Retrofit</td>
<td>Refresh</td>
<td>Branding</td>
<td></td>
</tr>
<tr>
<td>Using many tools &amp; disorganized data</td>
<td>Stand-alone</td>
<td>Email</td>
<td>Local files</td>
<td>Generic cloud</td>
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- **New Build**
- **Renovation**
- **Retrofit**
- **Refresh**
- **Branding**

Presented by: AECNext/Spar3D Expo & Conference
• Functional connection between strategy, programming, and design: Single Source of Truth

• Empowered internal RE team: Data-driven decisions, coordinated toolset, activated guidelines

• Engaged Stakeholders: BYOD + Browser-based collaboration, Accessible communications
IT ALL BEGINS WITH DATA

01
Specific, quantitative, scientific
Performance Metrics
Mobility
Density
Benchmarking
Ratios

DESIGN CLOUD

02
Work Setting Standards
Meeting Rooms
Private Offices
Workstations
Shared Spaces
Support Spaces

03
Tactile, qualitative, visual
Planning Principles
Culture
Workstyle
Adjacencies
Circulation
Amenities

04
Design Guidelines
Furniture Systems
Fixture Standards
Finishes
Office Equipment
Key Accessories

Presented by:
CENTRALIZED PLATFORM(S) DRIVE EFFICIENCY AND INSIGHT

DESIGN CLOUD DATABASE
Single Source of Truth

Planning

Test Fit

Collaborative Visualization

Budget & Costing

Analytics & Reporting

Presented by:
AECnext SPAR3D
IFMA: Practical Management; End-To-End Transparency for Owners – Controls & Risk Mitigation During Construction Projects

IFMA Presentation Series #5
In the beginning
What the community told us

How confident are you that you know when an owner funds a draw on a project?

- I feel completely confident all of the time – 13%
- I feel completely confident most of the time – 7%
- I feel completely confident about half the time – 33%
- I feel completely confident some of the time – 7%
- I almost never feel completely confident about that – 40%
A DrawAlert Certified Project supports a transparent, professional and respectful business relationship between all stakeholders on construction projects by increasing efficiency across the life cycle of each project.

We support Document Compliance and Fund Controls for Owners on Construction Projects

Who Benefits from DrawAlert?

Lenders / Bonding  Owners  Prime Contractors  Subcontractors  Lien Services
Save Time
Reduce Costs
Improve Results
The average administrative time savings on a mid-sized TI project is 100 hours for the Owner and the GC.

What does that add up to if you did 10 projects/year?

What if they were large projects?

It’s significant!

It’s simple: If companies know they will get paid in a timely manner, they will bid more aggressively.

The majority of major trade subcontractors we surveyed said DrawAlert would reduce their costs by 1% to 2%.

What would that mean on your next project?

Given the current economy, it makes sense to attract the best resources, in turn getting “A” Teams on your projects.

What’s the motivation?

Money and funding transparency.
Key Features

Robust Project Dashboard
- Visibility of all stakeholders
- Key milestones and financials

Smart Document Portal
- Supporting virtually every document type

Warranty Tracking with Alerts
- Notifications at 60, 30, and 15 days
- All trades and manufacturers

Peer Rated Directory & Project Score Card

Draw Notifications to all Stakeholders
- Prime Contractor payment confirmation
- Sub Contractor payment confirmation

Standard & Tailored Reporting
- Seven standard outputs
- Tailored outputs to meet your needs

Integration
- Accounting and asset management systems

Configurable
- Enabled for multiple Prime Contractors
- Private or local government workflows
- Flexible collaborator options
- Configured for all 50 states and DC

Standard & Tailored Reporting
- Seven standard outputs
- Tailored outputs to meet your needs
PORTFOLIO & CASH FLOW
A simplified roll up of all your projects, grouped by Open, In Close Out or Closed

Integration with Accounting & Asset Management Systems

WARRANTY REPORT
A detailed report of all items under warranty including those responsible.

PAYMENT HISTORY REPORT
A complete report of all payment confirmations during the life cycle of a project.

Easily download project data to Excel

PROJECT DETAILS
Provides you visibility to all stakeholders & associated data points

DRAW vs BUDGET
At a glance view of where your project is at any given point in time

PAY APP VALIDATION
Utilize the data stakeholder provided data to validate each pay application

TAILORED OUTPUTS
We support your business needs and are able to configure specific outputs to meet them.

Integration with Accounting & Asset Management Systems
Thank You