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Agile Handover

Asset Digitization: A Conversation with Mark McKinley

2019 Building Automation FM Forum

Thursday, 26 September 2019

Francis Rabuck, CWNA, RFID+
Chief Strategy Officer, Agile Handover

- Francis (Fran) Rabuck is a technology evangelist, explorer and trail blazer. He discovers trends, connects people, beta-tests things – and then builds early prototypes of a mashup of ideas. He shares his findings in the classroom, workshops, presentations, articles and keynotes at a variety of international conferences. Additionally, he helps launch startups, leads teams to create new products and develops visionary strategies for organizations.

- He supports work and advancement in the STEM area to improve and encourage the younger generation to consider careers in technology. Join him at CES2020 at the amazing presentation of winners at The Young Innovators to Watch Competition.

Linkedin: linkedin.com/in/francisrabuck
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Agile Handover

Mark McKinley - Facilities Engineering Manager, HHMI Janelia Research Campus

- Manage engineering and coordinate information systems
  - building information modeling (BIM) implementation
  - electronic document management
  - computerized maintenance management (CMMS)
  - building automation and controls (BAS)
- Over 35 years experience of design, construction, and facilities management
  - Mechanical, Electrical, Plumbing
- History:
  - High Performance Building Team Leader for AECOM
  - Commissioning Project Manager for Sebesta Blomberg

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Janelia Research Campus

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Research Campus

A state of the art medical research campus dedicated to developing game-changing advances to move science forward.

The campus is housed on 281 acres in Ashburn, Virginia, which is composed of around 1 million sq. ft. of living, office, and state-of-the-art research lab space.

The Facility Management Team is responsible for managing mission critical systems.

Asset Digitization

Asset Digitization is a ***strategy*** that involves standards, systems, tools, asset knowledge, and a well trained workforce with the right expertise. It is more than a bar code or RFID label.

It goes beyond scan, store and cataloging information on assets. It includes work processes and analytics to measure and continuously monitor data in real time. It involves synchronization of multiple, incompatible system silos.

In the Industry 4.0 world it is a necessity before you can begin work with IoT, Building Automation, Artifical Intelligence and Predictive Maintenance in your Facility.

The bottom line - Asset Digitization is the first step to transform the Facility Management break-fix image of today to a real contributor to an organization's bottom line.

Facility Management Focus

CAFM
Computer –Aided Facility Management

BAS
Building Automation

Standards
CAD, Autodesk 360/Revit, COBie, IFC

IWMS
Integrated Worlplace Management System

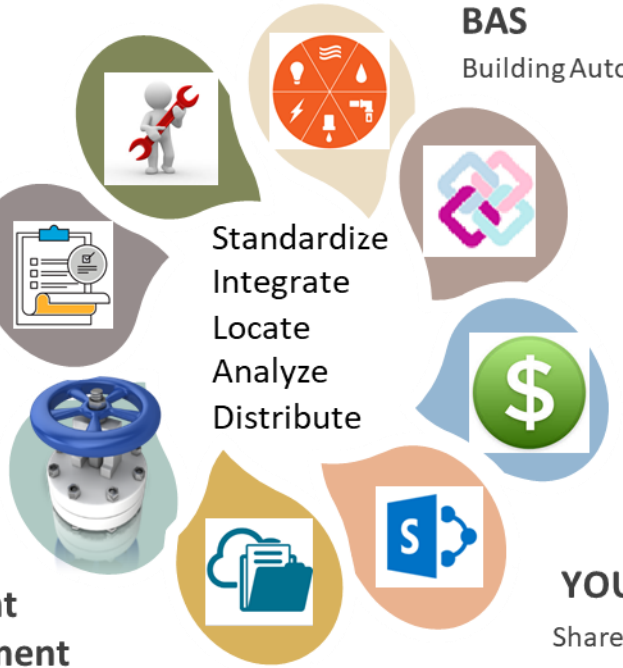
Standardize
Integrate
Locate
Analyze
Distribute

EAM
Enterprise Asset Management

CMMS
Computerized Maintenance Management System

YOUR Systems
Sharepoint and others

Document Management

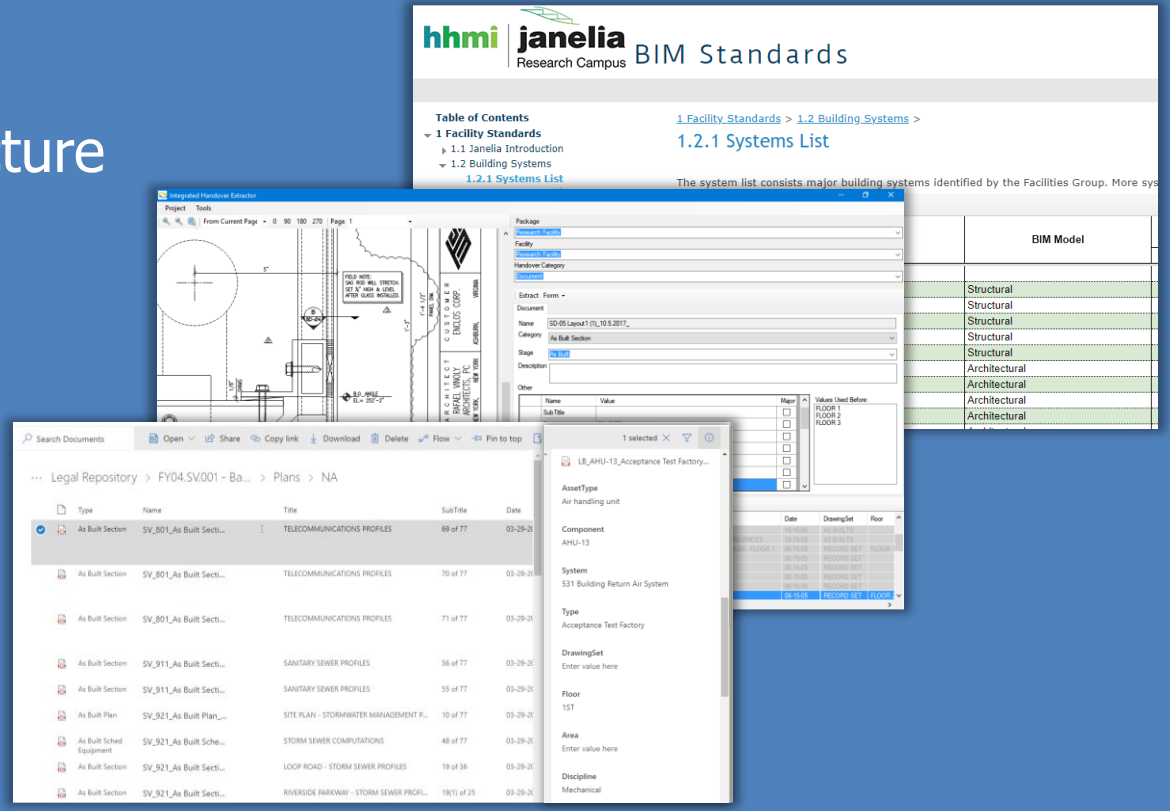


Facilities O&M Information System Utilization

- Building Information Models for Facility Management
  - Understanding systems' configuration and geometry
  - Locating equipment, wayfinding, and evacuation planning
  - Conveying safety information to field teams
- Electronic Document Management
  - Field access to current equipment documentation
  - Standard operating procedures and safety requirements
- Computerized Maintenance Management (CMMS)
  - Technical equipment information and maintenance procedures
  - Preventative maintenance, warranty verification, service history

Capture and Standardize

1. Determine data structure
2. YOUR format
3. Capture data
4. Utilize data
5. File re-naming
6. File re-organization



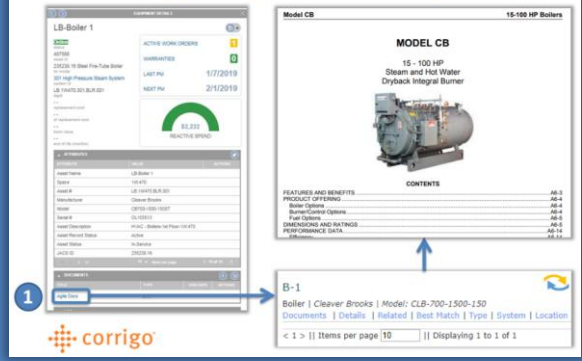
Key driver: data consistency and/or mapping across systems

Locate

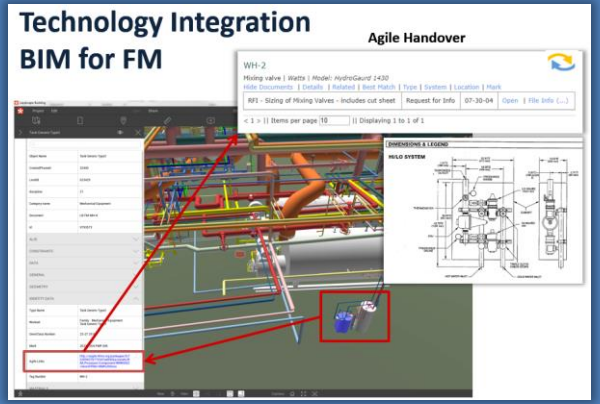
- How do you locate the object
  - Different people think differently and use different tools
  - Locate by: System, Location, Project, Memory
  - Locate with: BIM FM, CMMS
- People
  - Space planning to contact people impacted by change
  - Contact information
- Assets on the move
  - Future Development

Current Locate Methods for Different Roles

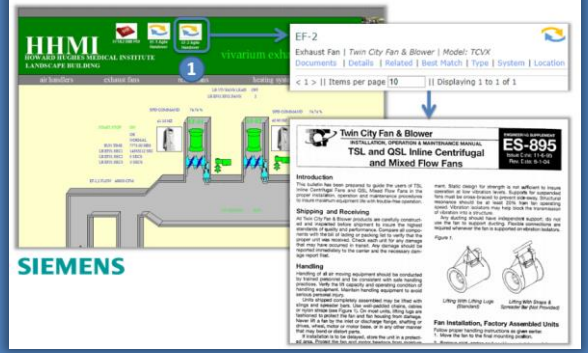
Technology Integration – Corrigo CMMS



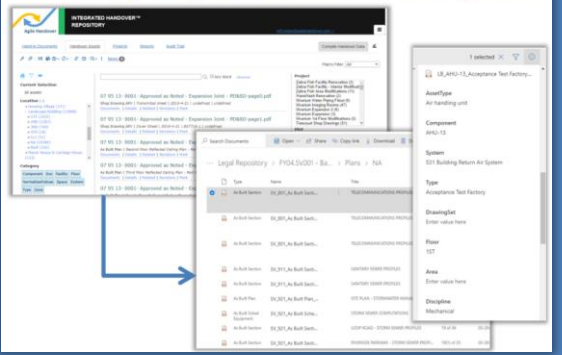
Technology Integration
BIM for FM



Technology Integration – Siemens BAS

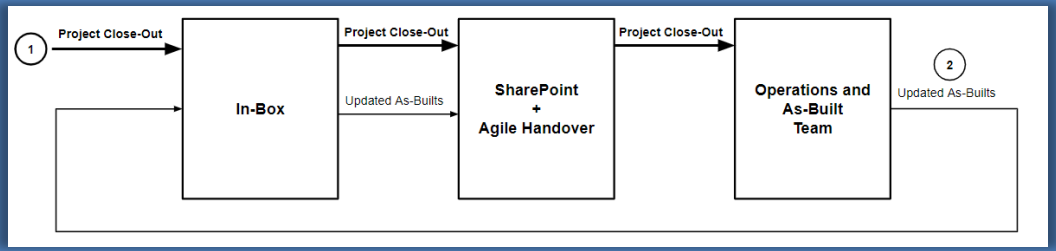


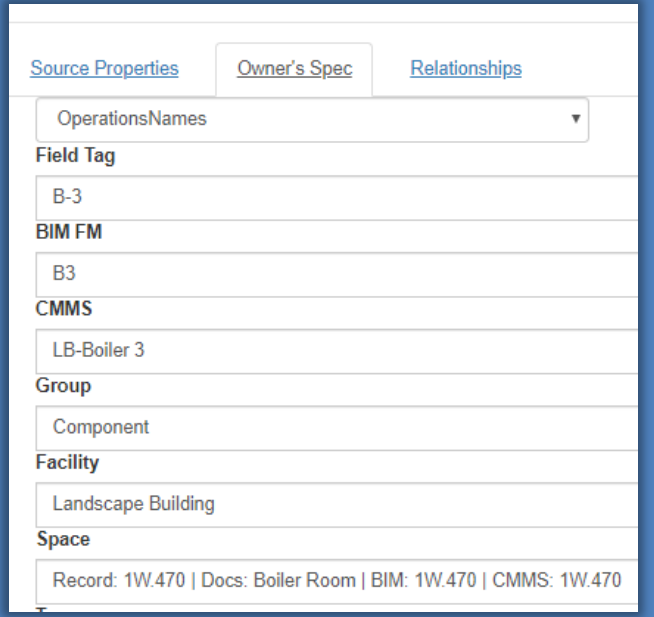
Technology Integration – Document Management



Distribute

- Determine Single Source of Truth
  - Provenance to get to the source
  - Populate application systems
- Move data or link the data with connections
  - Eliminate multiple systems data entry
- Data consistency and standard enforcement
  - AHU vs A.H.U vs Air handler vs Air Handling Unit
- Dual Nature of Project Handover
  - Project Integration and As-Built Updates





Integrate

Internal Projects

Major Renovations

Field Verifications

Share CMMS Data
Utilize BIM Data
Access Documents

Standardize
Integrate
Locate
Analyze
Distribute

Access Documents
Utilize CMMS Data
Share BIM Data

Facility O&M Systems

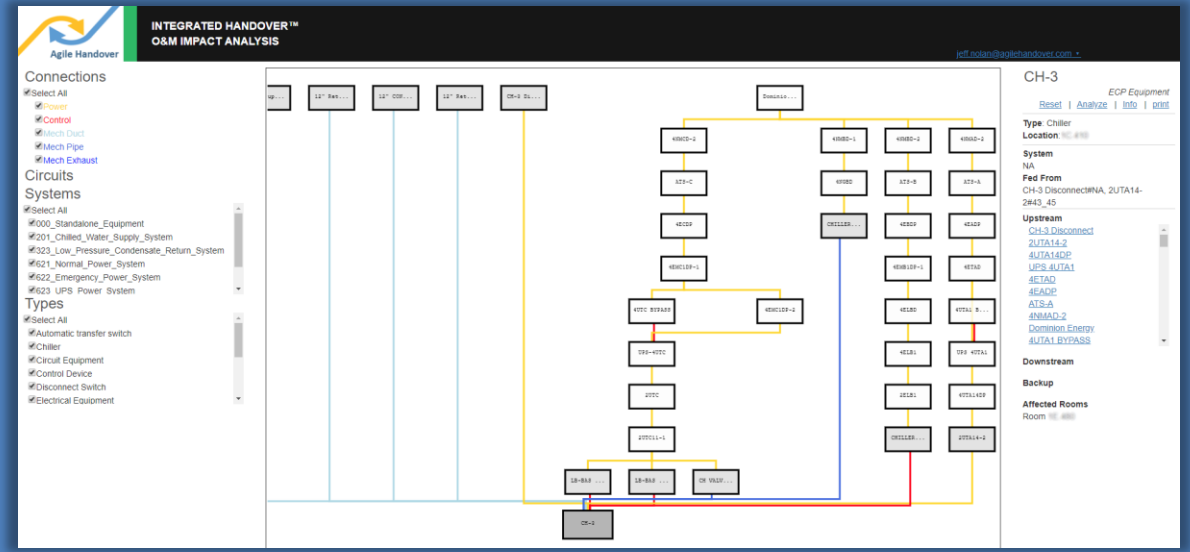
CMMS

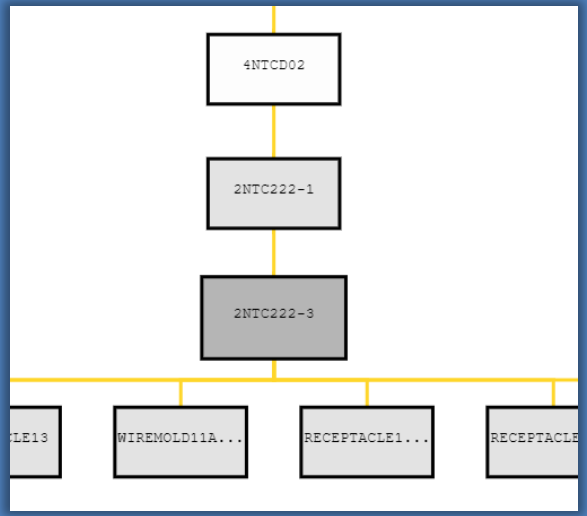
Documents

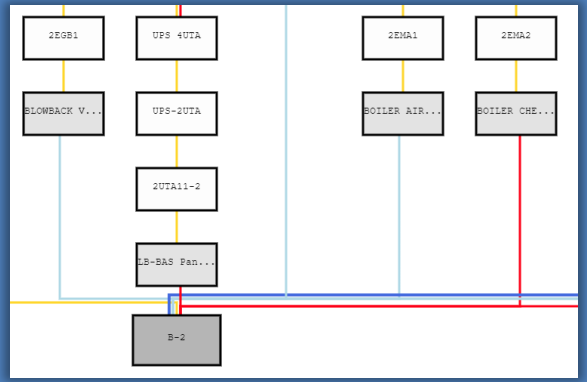
BIM for FM

...and finally ANALYZE

- Impact Analysis – determine effects of change
- Utilize data from all systems







ROI/Improvements

Reduced Time
12 man hours saved per day
Handover of not just data, but institutional knowledge

> "Instead of flipping through mechanical prints or digging through windows folders, using Agile Handover I can click the building name and see them all; organized by floor, room, and revision! This is going to be a huge timesaver" – Mechanical Engineer

"Being able to quickly access the required documents from BIM saves significant time as I don't have to leave my system and try and track down the documents I need." – BIM Systems Owner

> "I used to have to wait until the morning to track down the project management team to find the documents I needed, now I have a direct link from the Siemens Building Automation System." – Night Shift Operations Engineer

Future Direction?

Vendors merge silos into a single “Suite” of products
Adding a module – doesn’t solve the problem

Organizations opt for Best of Breed

Change management – coordination of systems

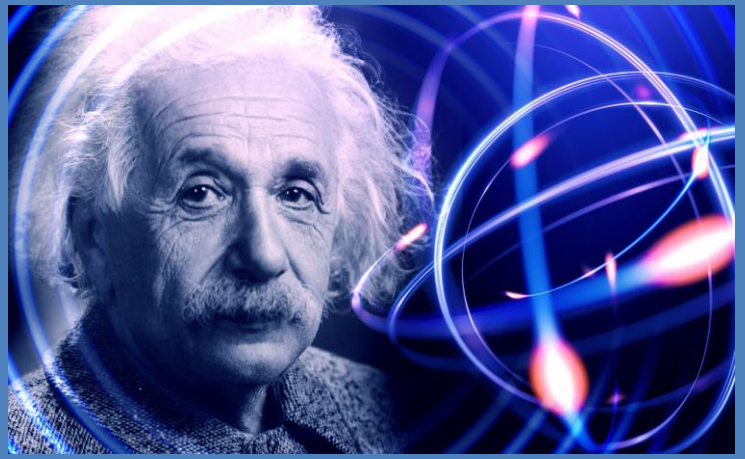
User adaptation – resistant at first, but millennials will save us

Industry 4.0 will accelerate and force changes

Facility Managers have a Choice

Maytag Repairman

Einstein Genius



Choose Wisely

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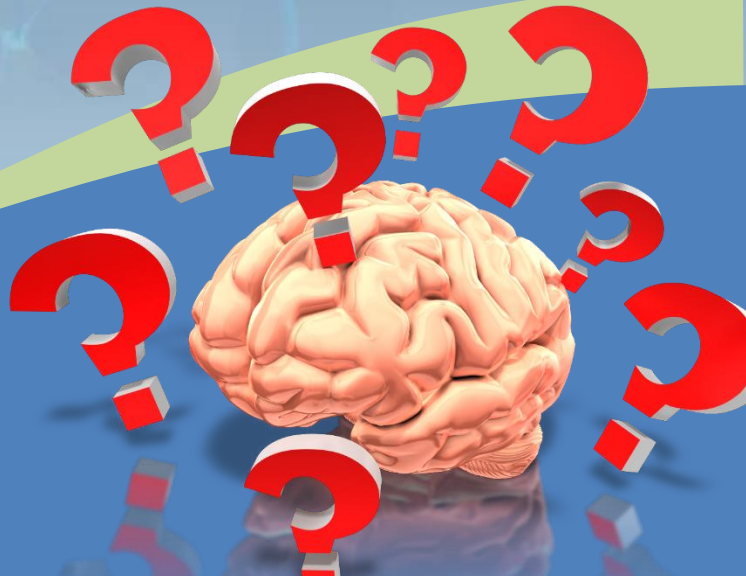
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