The Brave New World of FM

- No longer just wrench turners in the basement
- No longer keepers of boxes of moldy cut sheets and rolls of drawings
- No longer waiting for commissioning and turnover before starting panicked operations and data entry fat fingering
- No longer a place to cut budgets for preventive maintenance
The Brave New World of FM

- The era of BIM and Information Exchanges
- A seat at the design/build table
- Virtual O&M Operations – the Sandbox
- Mobile and nimble operations
- Life Cycle “As Maintained” Data Source
- Proactive Facility Maintenance
The era of BIM and Information Exchanges

- BIM is not your old drawings that are out of date at turnover.
- BIM is a living model view definition
- BIM is a life-cycle tool
- BIM is an anchor for data
- BIM is the repository for “as maintained” data provided by the FM operation
The era of BIM and Information Exchanges

- A slew of interoperable information exchanges share data throughout the life cycle of the building.
- COBie shares location, equipment, and operational data.
- LCie operates over the life cycle of the structure.
- SPie’s automatically populate equipment records for different industries.
- Omniclass provides a common language for equipment identification and classification.
A seat at the design/build table

- If 80% of the cost of a building to an owner is O&M, shouldn’t the FM be there from the beginning?
- Information exchanges carry over 80% of the data needed for FM before ground is broken
- Input in the design/build/commission phase can standardize the language of spaces, inventory, and equipment
FM operations already have definitions in the CMMS or CAFM environment for:

- Spaces
- Systems
- Inventory (Omniclass, etc.)
- Equipment
A seat at the design/build table

- Current state of the building industry has a growing number of design and build organizations using BIM
- There is still resistance to using information exchanges like COBie, mostly from sub-contractors
- The cost of data lost between design/construction/operations is significant
- O&M is the ultimate recipient of the data and the life cycle repository for equipment location and condition
Virtual O&M Operations – the Sandbox

- Since over 80% of basic O&M data is available after design and engineering, it is possible for the FM to load the data from an IFC or Revit file into COBie, and then into a CMMS.
- Using this as a sandbox, the FM can simulate operations of the new building before ground is broken.
- This can be used to set up or prepare a repair center, plan maintenance staffing and training, and procure parts and special tools.
Mobile and nimble operations

- Most CMMS/ CAFM / IWMS now have mobile capability
- They are populated with equipment location, model, serial, warranty, contact, lockout and shutdown procedures, and, have standard space and equipment specification
- Effective start up building maintenance is almost immediate allowing the FM to concentrate on “punch list” items like temperature balancing, comfort issues, and other occupant-centric needs and still do the required maintenance
Mobile and nimble operations

- Dispatch getting the right tech with the right tools to the right place at the right time
- Data and repair information available at the job site from day one – digitally
- Aggregate data from repairs, modifications, and remodel are collected and available to update the BIM
Life Cycle “As Maintained” Data Source

- Need for “rules” for O&M collected data for information required for the BIM
- Need for CMMS/ CAFM/ IWMS software to be able to identify and report back to COBie to go back into Revit or IFC for building modification/ remodel/ disaster recovery
Proactive Facility Maintenance

- Continuous Improvement, six-sigma process improvement can now be applied to optimize O&M (a small savings of the building life cycle can save a significant fraction of the cost of design and construction)

- Using mobile technology, working off a current BIM, O&M can look at opportunities to do multiple repairs, respond rapidly to requests, do pro-active FM and PM on the job site, and capture the data for accounting and cost recovery
Summary

- The FM lives in a new world of data exchange
- The FM is a part of the whole life-cycle of the building
- The FM drives some of the design/build process through definition and nomenclature input as well as with design input to improve serviceability
- The FM is ready to go on Day 1
- The FM is optimizing services to realize cost savings that can fund PM
- The FM organization becomes a pro-active rather than reactive entity