

University Health System and COBie

A Case Study

Presented by:

Ken Medellin, University Health Systems
Art Dominguez, University Health Systems
Gary Cox, TMA Systems
Kerry Joels, TMA Systems
Pete Billante, VELA

About UHS

- ▶ Owned by the people of Bexar County
- ▶ Nationally recognized academic medical center
- ▶ Partnership with The UT Health Science Center at San Antonio
- ▶ Recognized as a leader in advanced treatment options, new technologies and clinical research.

About UHS

- ▶ University Health System ranked as one of the top 12 health systems in the U.S. for high level health information technology integration
- ▶ Named as one of the nation's Most Wired Hospitals & Health Systems in 2008
- ▶ Named one of the Top 25 Most Connected Healthcare Facilities by Health Imaging Magazine in 2009

History

- ▶ The Bexar County Hospital District, doing business as University Health System, is a political subdivision of the state of Texas. The legal entity was created in 1955 to provide medical care to the indigent of Bexar County.

History

- ▶ University Health System's origins date back to 1916 when the city of San Antonio and the county of Bexar jointly sponsored the Robert B. Green Memorial Hospital to provide medical services to the community's indigent.

History

- ▶ Today, it is the third largest public health system in the state of Texas and one of the largest employers in Bexar County with over 5,000 employees, nearly 700 resident physicians, and an operating budget of \$848 million for 2009.

History

- ▶ University Hospital operates about 400 acute care and specialty beds and serves as the lead Level I trauma center for a 22-county area of South/Central Texas. University Health System's outpatient and facilities provide primary care and specialty outpatient care throughout Bexar County.

Capital Improvement – 2012

- ▶ Four urgent projects for University Hospital
 - Emergency Center expansion (1 Million Sq Ft)
 - Central Plant upgrade
 - Appropriately sizing diagnostic and treatment areas
 - Constructing more parking for patients and staff
 - Additional inpatient rooms & replacement of many existing adult rooms in the oldest part of the hospital, which opened in 1968

Capital Improvement – 2012

- ▶ Expansion at University Health Center – Downtown (formerly the Robert B. Green Hospital, constructed in 1915)
 - Acute and crisis care services
 - Diagnostic imaging
 - Pharmacy services
 - Parking

Capital Improvement – 2012

- ▶ Estimated completion of major phases:
 - West Parking Garage 5/1/11
 - Central Utility Plant 8/1/12
 - New Trauma Tower 2/1/14

Capital Improvement – 2012

- ▶ West Parking Garage – The COBie Test Case
 - Relatively simple structure
 - Nearing completion
 - Well understood spaces and equipment
 - Perfect for gaining experience with COBie

COBie & Target 2012

- ▶ Why COBie? The last major UHS project:
 - A team of 6 Plant Eng. staff working overtime took approximately 5 months to review hundreds of pages of spreadsheets, validate, correct by manually keying in data, and rerun the reports for accuracy of data. A very time consuming task, many man-hours and expense, not to mention staff sacrificing their time away from family and friends especially during the Holidays.

COBie & Target 2012

- ▶ On Feb 4, 2007 Super Bowl XLI – Colts and Bears, (Colts won 29 –17 by the way) we were working on that Sunday entering data into spreadsheet after spreadsheet determined to meet our deadline date of 2/23/2007. It was a painstaking process to say the least.

COBie & Target 2012

- ▶ What COBie needs to do:
 - Reduce data entry time
 - Increase data quality and quantity dramatically
 - Decrease commissioning and time to full FM operations
 - Save cost of FM launch

COBie & Target 2012

- ▶ Phase 1 – The new Parking Facility
 - COBie spreadsheet to be the vehicle from the commissioning to full FM operations
 - COBie compliant organizations (TMA and VELA) will drive the process
 - Design/build team members can learn the COBie process before more complex projects begin

COBie & Target 2012

- ▶ Integrating COBie into TMA
 - TMA is the current CMMS for UHS
 - TMA will be able to upload COBie at different stages to enable UHS FM to plan commissioning needs through the building process
 - Staffing requirements
 - Training
 - Parts Procurement
 - Special Tool Procurement

TMA Systems

- ▶ Twenty Years of Experience (Incorporated 1988)
- ▶ More than 1,400 Clients Worldwide
- ▶ Over 45,000 Facilities – 3.2 Billion Square Feet
- ▶ Privately Held with No Debt
- ▶ Client-driven Solution Provider
- ▶ Dedicated to Facility and Asset Management
- ▶ Industry Leader (Education, Healthcare, and Public Sector)
- ▶ Fully Committed to Research and Development
- ▶ Total Solution Provider

Vela Systems

Vela Systems provides Field Management Software for construction. Unlike carrying pads of paper and tubes of drawings on the jobsite, Vela combines mobile technologies at the point-of-construction with reporting for management. Using Vela measurably improves the quality and profitability of projects and companies.



VELA SYSTEMS®

Field BIM for Commissioning, Handover and Facilities Management

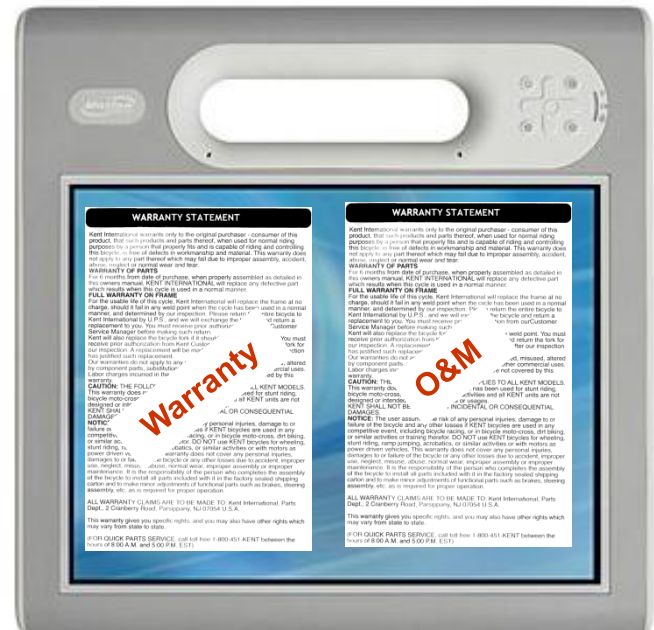
► Capabilities

- Track and coordinate the startup process of all systems and equipment
- Create a database for documents and data (e.g., warranty date) related to the startup of a system
- Indicate or flag problems using document and photo markup
- Link and exchange data and files with BIM (Tekla and Autodesk Navisworks)



► Benefits

- Contractor: Streamline closeout process – improve profitability
- Owner: Get O&M data faster and with fewer errors than ever before – helps owner @ handover



COBie & Target 2012

- ▶ Instant FM Operations Demonstration
 - Vela Export
 - TMA Systems Import Demonstration
 - UHS Operational Demonstration

COBie & Target 2012

- ▶ Next Phases and expanded COBie role
- ▶ Addition of COBie compliant suppliers
- ▶ Reduced COBie spreadsheet population time
- ▶ More robust “sandbox” for FM Planning
- ▶ Better “scrubbing” of data

Observations

- ▶ Issues introducing COBie to the design–build culture
 - Critical information needed
 - Meeting resistance
 - Value of COBie certified providers
 - Tracking evolution of COBie integration

Observations

- ▶ Critical information needed
 - Design/build team members need to understand
 - the business case for COBie
 - their specific role in the COBie process
 - who will train them or provide the COBie data entry interface
 - what this will add to their time and effort

Observations

▶ Meeting Resistance

- Implementing any new standard involves a cultural shift. In this project, designers, construction integrators, contractors and major system sub-contractors have all manifested
 - skepticism
 - lack of understanding of their role
 - overt mistrust of COBie
 - apparent lack of concern for FM and future uses
 - anxiety over responsibilities
 - lack of clarity in relationships in the COBie environment

Observations

- ▶ Value of COBie certified providers:
 - In the initial phases of Target 2012 construction, COBie certified providers (TMA and VELA) are both driving and demonstrating how COBie works to the Design/build team.

Observations

- ▶ Tracking evolution of COBie integration
 - As the projects move forward, there is a need to assess:
 - Level of participation in design & construction integration and subs.
 - Level of reliance on COBie certified partners
 - Speed of implementation of FM operations
 - Comprehensiveness of FM data (compared with pre-COBie projects)

Questions?

- ▶ Any of us would be happy to answer questions

- Contacts

- Ken Medellin – UHS 210-358-9277
- Art Dominguez – UHS 210-358-2434
- Gary Cox – TMA 918-858-6624
- Kerry Joels – TMA 918-858-6679
- Pete Billante – VELA 781-345-5648