2012 Schedule of Events

7/31/2012

Time	Monday, Aug. 6	Tuesday, Aug. 7	Wednesday, Aug. 8	Thursday, Aug. 9
7:00 AM				
8:00 AM		**7:30 AM - 8:00 AM** Breakfast & Welcome - room 450 B/C Registration - room 306	**7:30 AM** Breakfast room 450 B/C	**7:30 AM** Breakfast room 450 B/C
9:00 AM	**9:00 AM - 12:00 PM** Revit/GIS **Training**	**8:15 - 9:30 AM** Keynote Session Mansour Raad, ESRI - room 450 B/C *15 minute break* **9:45 - 10:45 AM** Concurrent Sessions T1A, T1B, T1C *15 minute break*	**8:30 - 9:30 AM** Concurrent Sessions W1A, W1B, W1C *15 minute break* **9:45 - 10:45 AM** Concurrent Sessions W2A, W2B, W2C *15 minute break*	**8:30 - 9:30 AM** Concurrent Sessions TH1A, TH1B, TH1C *15 minute break* **9:45 - 10:45 AM** Concurrent Sessions TH2A, TH2B, TH2C *15 minute break*
11:00 AM		**11:00 AM - 12:00 PM** Concurrent Sessions T2A, T2B, T2C	**11:00 AM - 12:00 PM** Concurrent Sessions W3A, W3B, W3C	**11:00 AM - 12:00 PM** Concurrent Sessions TH3A, TH3B, TH3C
12:00 PM	**12:00 - 1:00 PM** Lunch	**12:00 - 1:15 PM** Lunch	**12:00 - 1:15 PM** Lunch	***Conference Closes***
1:00 PM	**1:00 - 4:00 PM** **Revit/GIS** Training	**1:15 - 2:15 PM** Concurrent Sessions T3A, T3B, T3C	**1:15 - 2:15 PM** Concurrent Sessions W4A, W4B, W4C	**1:00 - 3:00 PM** **CFTA** Board Meeting
2:00 PM	**2:00 PM** Registration Opens - Campus Center room 306	*15 minute break* **2:30 - 3:30 PM** Concurrent Sessions T4A, T4B, T4C	*15 minute break* **2:30 - 3:30 PM** Concurrent Sessions W5A, W5B, W5C	
3:00 PM		*15 minute break*	*15 minute break*	
4:00 PM		**3:45 - 4:45 PM** Concurrent Sessions T5A, T5B, T5C	**3:45 - 5:00 PM** IUPUI Campus/Building Tours	
5:00 PM	**6:30 - 9:00 PM** Welcome Reception IUPUI University Place Hotel	**5:00 - 6:00 PM** **CFTA** Member Meeting T6A	**6:00 PM** buses leave Univeristy Place Hotel for Inpls. Motor Speedway	
6:00 PM		*Open Night*		
7:00 PM			**6:30 - 9:00 PM** Dinner and Tours at the Indianapolis Motor Speedway Museum	
8:00 PM				
9:00 PM				

EXHIBITOR SETUP

Campus FM Technology Association Conference – CFTA 2012

BIM

T1A - Harness the power of BIM with 3D laser scanning technology - Glenda Mayo (Univ. of West Florida) & Mark Hanna (PrecisionPoint)

T2A - BIM, Bam, Boom! What did we get ourselves into…? – Nick Eckhart (Luckett & Farley)

T3A - Journey to BIM Powered Decision Making - Joe Porostosky (Ohio State Medical Center) & Brian Skripac (DesignGroup)
T4A - VDC Deliverables: Turning BIM into SOP (Standard Operating Procedures) at a construction company - Jonathan Ammon & John Myers (Gilbane Building Company)

T4B - COBie - Demystifying COBie Standards & How to integrate them into BIM-based applications for Building Owners - Rich Mitrenga (Autodesk)

T5A - NavisWorks construction/clash detection and 3D FM – Doug Cummings (RAND/Imaginit)

W1A - Manage the Data of BIM & CAD outside of BIM & CAD - benefits of data management - Cyril Verley (CDV Systems)

W2A - Begin with the End in Mind - A Guide for Successful BIM / Lifecycle Integration - Chuck Mies (Autodesk)
W3A - BIM to FM & GIS: Bringing Facility Lifecycle Data Commissioning to Denver International Airport - Dennis Rodriquez (Denver International Airport) & Daniel Stonecipher (IMMERSIVx)

W3B - Building Information Modeling for existing buildings - Peter Strazdas (Western Michigan Univ.)

W4A - **Birds of a feather - BIM**
W5A - Northwestern Memorial Healthcare: Refining Data vs. Re-entering Data. A live look at Several Projects deploying an Owner-driven BIM-FM Strategy – Shrimant Jaruhar (Northwestern Memorial HealthCare) & Kenneth Kaiser (Northwestern Memorial HealthCare)

TH1A - Streamlining the BIM Integration Process for Penn State Facilities - Craig Dubler & Colleen Kasprzak (Penn State)

TH2A - BIM Lessons in Process: Incorporating Deliverables into Standard Project Practices – Kevin Stipp & Mike Alder (Pepper Construction)

TH3A - BIM Guidelines for Campus Owners – Dianne Davis (AEC Infosystems) and Igor Starkov (EcoDomus)

CAD

T4C - CAD Productivity Tips and Tricks/CAD Manager - Doug Cummings (RAND/Imaginit)

CAFM

T1B - Lifting the Space Planning Blues – How NC State University completed a massive space analysis by switching from hand-colored plans to automated coloring – Bishop Bettini (ideacode)

T2B - Using BIM for FM: Space, the first frontier - Mike Parkin & William Witts (MIT) & Brendan Molloy (InfoQuest Technologies)
W1B - Using Building Lifecycle Data to Support Facilities Management at Xavier University - Greg Meyer (Xavier Univ.) Chris Mealy (Messer Constr.) Marty Chobot (FM:Systems)

TH1B - **Birds of a feather - CAFM**

TH3B - How Indiana University is leveraging CAFM data, using COBie and working toward Business Intelligence - Tim Hansel and Julie Stines (Indiana Univ.)

Document Management

T5B - Managing your drawings and BIM models - document management – Phil Martin (Univ. of Colorado) & Glenn Seehausen (ACAD-Plus)

GIS

T1C - Building a campus ArcGIS flex and mobile map applications for Indiana University – Justin Peters (Indiana University)

T2C - CAD to GIS translation/automation - Aaron Cheuvront (Univ of Washington)
T3C - Building a better GIS – Harnessing the opportunity of GIS on mobile devices and tablet computers, while serving the needs of big desktop - Bishop Bettini (ideacode)

T5C - Creating Basemaps for Managing Facilities- Mark Stewart (Esri)

W1C - Transformation through Asset Management Best Practices - John Przybyla (Woolpert)

W2B - Fundamentals of GPS data collection for GIS - Larry Schnipper (Seiler Instrument)

W3C - Techniques for Managing Facilities and Assets Using ArcGIS Server - Chris Walls and Joe Serwinski (39 Degrees North & Facilities Survey Inc.)
W4C - Enterprise GIS Development for the Architect of the Capitol - a Use-Case-Based Approach for Data Sharing and Transparency - Chris Smith & Joe Lacombe (AOC and Woolpert)

W5C - GIS for the Built Environment, Implementations and Implications - Kevin Davis (PenBay Solutions)

TH1C - 3D Interior building routing from 2D CAD source drawings – Aaron Cheuvront (Univ. of Washington)

TH2C - Unwrapping the possibilities with Integration of Mobile Lidar - Cindy Candler/Andrew Harrison (Schneider Engineering)

TH3C - **Birds of a Feather - GIS**

Presentation Sessions by Day IUPUI Campus Center, Indianapolis, IN

Monday Pre-Conference Training / Registration / Welcome Reception – August 6, 2012

9:00am-4pm (lunch provided)
Campus Center room 305
Revit Hands-On Training – BIM for FM: Beginning with the End in Mind!
Instructor: Clyne Curtis, Brigham Young University
This hands-on lab will illustrate how you can set up your campus models with data rich objects that can be leveraged to help you manage your facilities.
Learn how to create powerful schedules, custom families for reporting data, create easy to understand, parametric color maps, work with project and shared parameters,
build custom tags for reporting room data, and much more! Export your models to Navisworks for even more FM functionality. Your campus models should be more than just pretty pictures!
Attendees need to bring their own laptops and Autodesk 2013 Revit Architecture software installed.

Campus Center room 308
GIS Hands-on Training – GIS mapping on your campus and buildings
Instructors: Esri (Esri is providing 23 laptops with Esri software for this hands-on training)
Intro to campus mapping and basemap construction

- Including template overviews and directions to free resources
  Interior space and exterior feature mapping with the campus editing template
- Including discussion of scanned maps/CAD to GIS conversion and geodatabase construction
  Campus "place" finder web app development
- Including creation of office and personnel locators, and service request mapping
  Going beyond the basics: Next steps

2:00-6:00pm – Campus Center room 306
Conference Registration / Speakers /CFTA Conference Admin.

6:30-9pm
Welcome Reception – IUPUI University Place Hotel

Tuesday Sessions – August 7, 2012

7:30am - 5:00pm - Campus Center room 306
Conference Registration/ Speakers /CFTA Conference Admin.
(no on-sight new registration available after Tuesday, only pickup of registration packet for those pre-registered)

7:30-8:00am – Exhibit Hall – Campus Center room 450 B/C
Breakfast/Conference welcome

8:15-9:30am – Exhibit Hall – Campus Center room 450 B/C
Keynote Speaker - Mansour Raad - Esri
Topic: Mobile/Geolocation/BigData/Data Visualization
With over 20 years of experience in the IT/GIS field, Raad is Senior Software Architect at Esri, where he has been using his command of Internet technology to design the next-generation Internet solutions. He has been a team lead in architecting and implementing ArcIMS. Currently, Raad is the Flex advocate within Esri and is leading the Flex-based API for ArcGIS

Server. After graduating from Boston University with a Masters Degree in Aerospace Engineering, he combined his IT experience and designed and implemented an airport noise and operation monitoring system (ANOMS) that is currently used in over 30 airports world-wide.

9:45-10:45am
T1A – room A – Campus Center room 305
Harness the power of BIM with 3D laser scanning technology
Speakers: Glenda Mayo (Univ. of West Florida) & Mark Hanna (PrecisionPoint)
T1B – room B – Campus Center room 307
Lifting the Space Planning Blues – How NC State University completed a massive space analysis by switching from hand-colored plans to automated coloring
Speaker: Bishop Bettini (ideacode)
T1C – room C – Campus Center room 309
Building a campus ArcGIS flex and mobile map applications for Indiana University
Speaker: Justin Peters (Indiana University)

11:00am - Noon
T2A – room A – Campus Center room 305
BIM, Bam, Boom! What did we get ourselves into…?
Speaker: Nick Eckhart (Luckett & Farley)
T2B – room B – Campus Center room 307
Using BIM for FM: Space, the first frontier
Speakers: William Witts (MIT) & Brendan Molly (InfoQuest Technologies)
T2C – room C - Campus Center room 309
CAD to GIS Translation/Automation
Speaker: Aaron Cheuvront (University of Washington)

11:30-5pm – Exhibit Hall – Campus Center room 450 B/C
Vendor/Exhibits

Noon-1:15pm
Lunch – Exhibit Hall – Campus Center room 450 B/C

1:15 – 2:15pm
T3A – room A – Campus Center room 305
Journey to BIM Powered Decision Making
Speakers: Joe Porostosky (Ohio State Medical Center) & Brian Skripac (DesignGroup)

T3C – room C - Campus Center room 309
Building a better GIS – Harnessing the opportunity of GIS on mobile devices and tablet computers, while serving the needs of big desktop
Speaker: Bishop Bettini (ideacode)

2:30 – 3:30pm
T4A – room A – Campus Center room 305
VDC Deliverables: Turning BIM into SOP (Standard Operating Procedures) at a construction company
Speakers: Jonathan Ammon & John Myers (Gilbane Building Company)
T4B – room B – Campus Center room 307
Speaker: Rich Mitrenga (Autodesk)
T4C – room C - Campus Center room 309
CAD Productivity Tips and Tricks/CAD Manager
Speaker: Doug Cummings (RAND/IMAGINiT)

3:45 – 4:45pm
T5A – room A – Campus Center room 305
NavisWorks construction/clash detection and 3D FM
Speaker: Doug Cummings (RAND/IMAGINiT)
T5B – room B – Campus Center room 307
Managing your drawings and BIM models - document management
Speakers: Phil Martin (Univ. of Colorado) & Glenn Seehausen (ACAD-Plus)
T5C – room C - Campus Center room 309
Creating Basemaps for Managing Facilities
Speaker: Mark Stewart (Esri)

5:00 –6:00 pm
T6A – room A – Campus Center room 305
CFTA Annual Member Meeting

Open Night

Wednesday Sessions – August 8, 2012

7:30-8:30am – Exhibit Hall – Campus Center room 450 B/C
Breakfast
8:30am-6pm – Exhibit Hall – Campus Center room 450 B/C
Vendor/Exhibits
7:30am - 5:00pm - Campus Center room 306
Speakers /CFTA Conference Admin. (no on-sight new registration available, only pickup of registration packet for those pre-registered)

8:30-9:30am
W1A – room A – Campus Center room 305
Manage the Data of BIM & CAD outside of BIM & CAD - benefits of data management
Speaker: Cyril Verley (CDV Systems)
W1B – room B – Campus Center room 307
Using Building Lifecycle Data to Support Facilities Management at Xavier University
Speakers: Greg Meyer (Xavier Univ.), Chris Mealy (Messer Construction), Marty Chobot (FM:Systems)
W1C – room C - Campus Center room 309
Transformation through Asset Management Best Practices
Speaker: John Przybyla (Woolpert)

9:45-10:45am
W2A – room A – Campus Center room 305
Begin with the End in Mind - A Guide for Successful BIM / Lifecycle Integration
Speaker: Chuck Mies (Autodesk)
W2B – room B – Campus Center room 307
Fundamentals of GPS data collection for GIS
Speaker: Larry Schnipper (Seiler Instrument)

11:00am - Noon
W3A – room A – Campus Center room 305
BIM to FM & GIS: Bringing Facility Lifecycle Data Commissioning to Denver International Airport
Speakers: Dennis Rodriquez - Denver International Airport & Daniel Stonecipher – IMMERSIVx
W3B – room B – Campus Center room 307
Building Information Modeling for existing buildings ... is it possible?
Speaker: Peter Strazdas (Western Michigan University)
W3C – room C - Campus Center room 309
Techniques for Managing Facilities and Assets Using ArcGIS Server
Speakers: Chris Walls (39 Degrees North) & Joe Serwinski (Facilities Survey, Inc.)

Noon-1:15pm
Lunch - Exhibit Hall
CFTA Member meeting (12:45-1:15) – Exhibit Hall

1:15 – 2:15pm
W4A – room A – Campus Center room 305
Bird of a Feather - BIM
Facilitator: Clyne Curtis (Brigham Young University)
W4C – room C - Campus Center room 309
Enterprise GIS Development for the Architect of the Capitol - a Use-Case-Based Approach for Data Sharing and Transparency
Speakers: Chris Smith (Architect of the Capital) & Joe Lacombe (Woolpert)

2:30 – 3:30pm
W5A – room A – Campus Center room 305
Northwestern Memorial Healthcare: Refining Data vs. Re-entering Data. A live look at Several Projects deploying an Owner-driven BIM-FM Strategy
Speakers: Shrimant Jaruhar (Northwestern Memorial HealthCare) & Kenneth Kaiser (Northwestern Memorial HealthCare)
W5C – room C - Campus Center room 309
GIS for the Built Environment, Implementations and Implications
Speaker: Kevin Davis (PenBay Solutions)

3:45 – 5:00pm
IUPUI Campus/Building Tours
6:00pm
Buses depart from University Place Hotel / Courtyard Marriott Hotel for Indianapolis Motor Speedway

6:30-9:00 pm
Dinner and tours at the Indianapolis Motor Speedway Museum

9:00pm
Buses depart to return to University Place Hotel / Courtyard Marriott Hotel

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Thursday Sessions – August 9, 2012

7:30-8:30am – Exhibit Hall
Breakfast
7:30am - noon - Campus Center room 306
Conference Registration/ Speakers /CFTA Conference Admin.

8:30-9:30am
TH1A – room A – Campus Center room 305
Streamlining the BIM Integration Process for Penn State Facilities
Speakers: Craig Dubler & Colleen Kasprzak (Penn State)
TH1B – room B – Campus Center room 307
Birds of a Feather - CAFM
Facilitator: Tim Hansel (Indiana University)
TH1C – room C - Campus Center room 309
3D Interior building routing from 2D CAD source drawings
Speaker: Aaron Cheuvront (Univ. of Washington)

9:45-10:45am
TH2A – room A – Campus Center room 305
BIM Lessons in Process: Incorporating Deliverables into Standard Project Practices
Speakers: Kevin Stipp & Mike Alder (Pepper Construction)
TH2B – room B – Campus Center room 307
Speaker:
TH2C – room C - Campus Center room 309
Unwrapping the possibilities with Integration of Mobile Lidar
Speaker: Cindy Candler & Andrew Harrison (The Schneider Corporation)

11:00am - Noon
TH3A – room A – Campus Center room 305
BIM Guidelines for Campus Owners
Speakers: Dianne Davis (AEC Infosystems) and Igor Starkov (EcoDomus)
TH3B – room B – Campus Center room 307
How Indiana University is leveraging CAFM data, using COBie and working toward Business Intelligence
SpeakerS: Julie Stines & Tim Hansel (Indiana University)
TH3C – room C - Campus Center room 309
Birds of a Feather - GIS
Facilitator: William Witts (MIT)

Conference Closed

Presentation Abstracts by Topic
IUPUI Campus Center, Indianapolis, IN

Keynote Address topic: Mobile /Geolocation / BigData / Data Visualization

(Tues. Aug.7 8:15-9:30 am)

Mansour Raad – Esri (Senior Software Architect) mraad@esri.com
With over 20 years of experience in the IT/GIS field, Raad is Senior Software Architect at Esri, where he has been using his command of Internet technology to design the next-generation Internet solutions. He has been a team lead in architecting and implementing ArcIMS. Currently, Raad is the Flex advocate within ESRI and is leading the Flex-based API for ArcGIS Server. After graduating from Boston University with a Masters Degree in Aerospace Engineering, he combined his IT experience and designed and implemented an airport noise and operation monitoring system (ANOMS) that is currently used in over 30 airports world-wide.

BIM - Building Information Modeling

T1A - Harness the power of BIM with 3D laser scanning technology (Tues. Aug.7 9:45-10:45am)

Mark Hanna - PrecisionPoint, Inc. (President) mark.hanna@precisionpointinc.com
Glenda Mayo, CSI, CDT, LEED AP BD+C **-** University of West Florida (UWF Building Construction Program Faculty) gmayo@uwf.edu

High Definition 3D Laser scanning services have been commercially available now for several years. However, the technology and its applications in building documentation and facility management are not widely understood as they relate to BIM processes. With recent advances in processing software and hardware and by means of direct integration with current BIM authoring tools, laser scanning is transforming BIM applications. Owners and designers have dramatically reduced the high cost of traditional as-built surveys and translation of 2D data into the 3D format required by BIM. Utilizing a high-speed laser and integrated camera, 3D laser scanning efficiently and rapidly analyzes real-world environments to collect data on shape, mass, and color in near photo quality. The collected data, or "point cloud" is used to construct a digital 3D model of a buildings infrastructure at millimeter accuracy. Using point cloud models of structures is an ideal option for those who want to accelerate the "as-built" process for renovations and retrofits and existing building documentation while increasing accuracy and cutting costs. This presentation will cover; how the technology works, specifying a 3D scanning project (SCAN-to-BIM), selecting a service provider, weighing the cost of deliverables, and ways to leverage the technology for your existing building documentation or renovation project. In conclusion, a Case Study from the University of West Florida will be presented on the use of 3D scanning on an existing campus facility in the development of an owners BIM model.

About the Speakers
Mark Hanna, President – PrecisionPoint, Inc.
Mark is the founder and President of PrecisionPoint, Inc. He is responsible for the daily operations of the company and has an active role managing the company's growth in the burgeoning 3D scanning and building documentation industry. Founded in 2009, and as an early adopter of 3D scanning technology, he formed the company to provide solutions to the acquisition and implementation of architectural and historical 3D as-built building documentation. Mark has more than 15 yrs. of successful business development and engineering management leadership experience with major Fortune 500 companies such Ingersoll Rand and Texas Instruments. He holds a Bachelor of Science degree in Mechanical Engineering from Rochester Institute of Technology and an Associate of Science degree in Survey Engineering Technology from the State University of New York at Alfred.

Glenda Mayo CSI, CDT, LEED-AP BD+C - University of West Florida Building Construction Program
Glenda is an instructor in the BCN program and teaches their BIM course. Prior to academia, she was the Assistant Director of the Facilities at UWF. She has worked in both the residential and commercial areas as well as in both the private and public sectors and is currently working to complete her Ph.D at the University of Florida.

T2A - BIM, Bam, Boom! What did we get ourselves into…? (Tues. Aug 7 11am-noon)

Nicholas Eckhart – Luckett & Farley (VP of Design Technology & Innovation) neckhart@luckett-farley.com

Across the country, Planning, Design and Construction Departments at colleges and universities are requiring their consulting architects and engineers to design capital projects using Building Information Modeling. But in many instances, these same Institutions are

woefully unprepared for what they've unleashed! This presentation will examine some of the real-life *unexpected consequences* experienced by some of the Planning, Design and Construction Departments at a variety of higher education institutions throughout the country (all names are changed to protect the guilty!). We'll examine the cause and effect of letting the proverbial BIM Genie *out of the bottle*. Lastly, we'll examine the power and benefits of BIM and how you can best prepare your Institution to take full advantage of the work product you've asked your architects and engineers to provide.

About the Speaker
Nicholas J. Eckhart, LEEDAP, is Vice President of Design Technology & Innovation at Luckett & Farley Architects, Engineers and Construction Managers, Inc. - a 159 year old A/E firm founded in 1853 with locations in Indiana, Tennessee, and headquartered in Louisville, Kentucky. Nick has served as Project Manager for Healthcare and DoD projects throughout the region for the last 13 years. A recognized early adapter of Building Information Modeling, he has been instrumental in pioneering the technological transition at L&F by developing opportunities for architects, engineers and interior designers to leverage technology in innovative ways to better deliver facility services to higher education, institutional and healthcare markets, helping to ensure that Luckett & Farley continues to remain a recognized technology leader in service to their clients. Nick resides with his family in Louisville Kentucky.

T3A - **Journey to BIM Powered Decision Making** (Tues. Aug.7 1:15-2:15 pm)

Joe Porostosky - Ohio State Medical Center / The Ohio State University (Senior Manager, Facilities Information and Technology Services) Joe.Porostosky@osumc.edu
Brian Skripac - Columbus, OH (Assoc. AIA, LEED AP BD+C / BIM/Design Technology Leader) bskripac@gmail.com

This session will review the how and why of Ohio State's Wexner Medical Center's data and process transition of over 6 million square feet of existing building information from 2D to BIM. Our presentation will cover 4 main topics:

1. Define the multi-phased approach of the BIM Implementation Plan (the HOW)
2. Describe how The Ohio State University's Wexner Medical Center and DesignGroup partnered to deliver this project
3. Illustrate how BIM is improving OSUWMC's decision-management process in a range of areas (the WHY)
4. Explore future plans for the expansion of BIM throughout the University

About the Speakers
Joe Porostosky - Ohio State Medical Center / The Ohio State University (Senior Manager, Facilities Information and Technology Services)
Joe Porostosky is the Senior Manager of the Facilities Information and Technology Services (FITS) at The Ohio State University. With a background in technology management, Joe has managed the FITS team for the past 4 years. Providing an active and strategic leadership role within the university Joe has redefined the way his group works by leveraging technology in new and innovative ways. (As the team leader for the recent BIM Implementation Project, Joe has led the Wexner Medical Center at The Ohio State University to the forefront of not only academic medical centers and universities/colleges but clients around the country in the adoption of BIM to improve their overall decision making processes.) Joe's BIM initiatives have been the source of many recent publications, and presentations as well as being the recipient of the "Best in Innovative Digital Design Award" from [acronym] online.

Brian Skripac - Columbus, OH (Assoc. AIA, LEED AP BD+C / BIM/Design Technology Leader)
Brian is an innovative, forward thinking BIM/Design Technology Leader, who has embraced the changing paradigms of architectural practice and throughout the past six years have integrated building information modeling (BIM) technologies well beyond the traditional design and documentation processes. More recently, he has focused on the integration of BIM to optimize sustainable design outcomes throughout all stages of a project, as well as demonstratingand implementing the value BIM brings to facility owners from a lifecycle management strategy. Combining strong leadership and communication skills, he manages teams collaboratively to fully leverage technology in solving every day design and business challenges.

Brian holds a bachelor of science in architecture from The Ohio State University, is a LEED® accredited professional, and an Autodesk® Revit® Architecture certified professional. He currently serves as a Leadership Team member for the AIA Technology in Architectural Practice Knowledge Community (TAP KC) at the National level as well as being the chair of the AIA Columbus TAP KC.

T4A - **VDC Deliverables: Turning BIM into SOP (Standard Operating Procedures) at a construction company** (Tues. Aug. 7 2:30-3:30 pm)

Jonathan Ammon – Gilbane Building Company JAmmon@GilbaneCo.com
John Myers - Gilbane Building Company JMyers@GilbaneCo.com

Jonathan and John will present on the role of VDC Deliverables at Gilbane Building Company. Their presentation will focus on how standard construction processes, such as estimating, scheduling, construction field supervision and building turnover are all enhanced and changed by the infusion of BIM into the entire process – from the start of design through routine building maintenance and operation.
Learning Objectives:
Using ROI metrics and real world case studies, Jonathan and John will explain:
How the model is turning into a central tool in collaborative design phase activities such as:

Master Planning / Estimating / Constructability Feedback / Consultant Coordination / Visual Scheduling (4D) / Site Logistics Plans / Virtual Mockups

How the model is turning into a central tool during construction:

Safety Plans /Collaborative, confirming RFIs / Model based supplementary documents

How the model is being used for enhanced building turnover and FM:

FM Database population / Model-based barcoding/asset tagging strategies / OWMS floor plan creation / Document Management integration

About the Speakers

Jonathan Ammon, Assoc. AIA - VDC Engineer, Gilbane Building Company
Jonathan has spent time outside the United States studying the architecture and urban environments of other countries. He has masters' degrees from both the School of Architecture and Construction Management at Washington University in St. Louis. Jonathan views the potential of BIM/VDC as a driving force in the architecture and construction industry and one that will enable the realization of good design in the built environment. While working with the VDC team at Gilbane, he is concurrently earning his professional license in architecture.

John Myers - VDC Engineer, Gilbane Building Company
John has a Master of Architecture from the University of Kansas where he participated in the prestigious Studio 804 design-build program. As one of 23 graduate students there, he designed and built a $1.8 million net-zero, passiv-haus spec, campus building for the University of Kansas. John is currently working with multiple software platforms to provide new analytical tools for MEP coordination, 4D visualization, and constructability animation for jobs across the West Coast. While working with the VDC team at Gilbane, he is concurrently earning his professional license in architecture.

T4B - **Demystifying COBie Standards & How to integrate them into BIM-based applications for Building Owners** (Tues. Aug.7 2:30-3:30 pm)

Rich Mitrenga - Autodesk (Business Development) rich.mitrenga@autodesk.com

COBie (Construction Operations Building Information Exchange), is an emerging internationally recognized standard and specification developed to improve the post-construction handover process to building owner-operators. COBie is an information exchange specification for the life-cycle capture and delivery of information needed by facility managers. COBie based data can be viewed in design, construction, and maintenance software as well as in simple spreadsheets. This versatility allows COBie to be used on all projects regardless of size and technological sophistication. Many building owners (in addition to requiring BIM based deliverables) are now asking that BIM models be delivered with "intelligent objects" that enable COBie based information exchanges.
This session will explain and demystify the COBie standard. We will discuss best practices for adding this COBie/lifecycle data into a building information model and show examples of how some commercial asset management systems can be automatically populated with as-built, data-rich building information modeling (BIM) models.

About the Speaker

Rich Mitrenga is the AEC Business Development Manager for Autodesk, Inc., responsible for advancing Building Information Modeling to building owners. In this position, Rich promotes the role of BIM in the building lifecycle for Operations and Maintenance, Facilities Management, GIS and Building Control Applications. Rich has been at Autodesk for 15 years and has held various sales and technical positions. He has 30 years industry experience in Facilities Management, Operations and Maintenance BIM, CAD, and GIS applications and has been involved in consulting, implementing and customization of these applications as well as integration with various systems and enterprise applications. Prior to Autodesk, Rich worked for a software reseller as Vice President, managing all sales, support and consulting services.

T5A - **NavisWorks construction/clash detection and 3D FM** (Tues. Aug.7 3:45-4:45 pm)

Doug Cummings – RAND Worldwide/Imaginit Technologies (Infrastructure Solutions & Facilities Management Manager)
dcummings@rand.com

This session will focus on products that will allow the use of 3d drawings & objects in the FM world. Software involved in this presentation will be REVIT, Navisworks, Civil 3D, Infrastructure Modeler and other 2D/3D offerings from Autodesk, & other software vendors. Topics will include; Compiling models from various sources within Navisworks for visualization, construction or maintenance time lining and clash detection of geometry , adding GIS, utility & satellite imagery to your building model data with Autodesk Infrastructure Modeler, producing sun shadow studies & animations, dealing with origin and coordinate systems in CAD, and sharing data between a variety of different software packages. Additional topics of external database connectivity, linking and other potential cross platform techniques will also be discussed.

About the Speaker

Doug Cummings - Infrastructure Solutions & Facilities Management Manager / RAND Worldwide / IMAGINiT Technologies
Prior to working in the Autodesk reseller channel, Douglas worked 12 years in a civil engineering firm gaining experience in surveying, Civil Engineering design work focused on residential subdivision, utility design, construction inspection and CAD Management. With

Rand Worldwide, Douglas manages the services team that focuses on major implementations in the FM/CAFM space, leveraging Rand's business partner status with Archibus and Autodesk, as well as other GIS software solutions. Douglas in an Autodesk Certified Implementation Expert, and Instructor. He is experienced in teaching AutoCAD, Map3D, Navisworks, 3DS Max Design, Raster Design, Mapguide, Land Desktop, Civil 3D, Revit, Autodesk Infrastructure Modeler, Autocad Architecture & MEP products, as well as non-Autodesk products like MapINFO, Archibus and various ESRI offerings.

W1A - **Manage the Data of BIM & CAD outside of BIM & CAD - benefits of data management**

(Wed. Aug.8 8:30-9:30 am)

Cyril Verley - CDV Systems (President & CEO) cyril.verley@cdvsystems.com

From an owner's perspective, it's the data that is critical during the entire lifecycle of the project. From cradle to grave, BIM and CAD data can managed from a single location, can pass through many hands and be edited using many different CAD or BIM programs. This workflow is agnostic to the CAD or BIM program used and can be managed from a central Access or SQL database and all the assets can be managed from a single "Kit of Parts". This exposes the asset data within a single room, to a building, across multiple buildings within an entire campus. That same data can then be exposed to Maximo and ArcGIS for the CAFM needs. The solution is to remove boundaries between the different software program environments, and in this session you'll see how that's done. We will demonstrate how two-way data flow is accomplished for a large menu of detailed room and asset data between specific software applications, exposing that BIM/CAD throughout all phases of the work and into downstream programs for asset management, work orders and preventative maintenance.

Class Description
This lecture outlines how project data based on Access and SQL databases are linked to a BIM and /or CAD files exposing a building's program, equipment, furniture and lifecycle needs using direct links to FM and GIS applications. It is a standalone database that links the project program & equipment requirements to Autodesk Revit Arch, MEP and AutoCAD files.
Key Learning Objectives

- Bidirectional link project program & equipment requirements to Autodesk Revit Arch, MEP and AutoCAD files.
- Maintain BIM project/program and design requirements through all lifecycle deliverable stages, from concept through design and construction, to facilities and operations management.
- BIM data export to GIS via ESRI/ArcGIS and bidirectionally linked to an IBM Maximo database.
- Building Information Modeling (BIM) for: Design and Construction / Facility Management / Space Management

About the Speaker
Cyril Verley RA, President of CDV Systems, has been practicing architecture for 26 years, registered for 21, and has served as an AEC consultant for the past 18 years with the last 10 years focused on Revit (14 months prior to Autodesk's purchase of Revit) and CodeBook services. Verley founded CDV Systems (www.cdvsystems.com) is 1993 as a privately owned AEC consultancy offering a full range of on- and off-site Revit Architecture, Structure, MEP and CodeBook services. The mission at CDV Systems has been to deliver the finest and most comprehensive, project-centric, experience-based BIM technology services to the AEC+O global market.

CDV Systems offers a vast selection of BIM training, implementation, documentation and technical support services for projects starting in pre-design, moving onto design & documentation, and culminating in construction and FM/GIS data support. CDV's approach views each BIM project from a holistic perspective and considers each an opportunity to benefit from Full BIM Lifecycle Management of all rooms, spaces & FF+E assets enhancing and impacting Architectural, MEP, Landscape and Civil BIM models. CDV Systems is also an Autodesk Developer Network (ADN) partner and an Autodesk Registered Publisher.

We are fortunate to work with some of the largest and most prestigious AEC firms and property owners in the US and worldwide, challenging us to provide answers to real world BIM issues. At CDV Systems, we strongly believe that in today's ultra-competitive world, getting the most out of the tools available, and maximizing return on investment, is absolutely necessary. That's why we strive to provide world-class services for Designers, Builders, and Owners so you can be more profitable.

W2A - **Begin with the End in Mind - A Guide for Successful BIM / Lifecycle Integration**

(Wed. Aug.8 9:45-10:45 am)

Chuck Mies, LEED AP, Assoc. AIA – Autodesk (Business Development Manager / AEC Solutions) chuck.mies@autodesk.com

Building Information Modeling continues to accelerate in the Design and Construction phases of projects. As this trend continues, and the pipeline of BIM Projects that are in and completing construction grows, building owners are starting to ask about benefits of the model after occupancy. As they look to this application, they start to find that they need a much better understanding of the process to start to take advantage of the models after occupancy, in the lifecycle phase of a building. Chuck Mies, Autodesk Business Development Manager, will provide an overview level of BIM and proceed into some specific recommendations and observations from other owners on their use of the technology.

- What is BIM: an overview for the owner to understand lifecycle benefits.
- The effect of process interoperability issues through design and construction and the impact on owners, and how BIM can be used to address these issues.

- The BIM-Based lifecycle strategies that are emerging from large owners.
- The position of the industry to support these initiatives.
- The benefit of developing deliverable standards.

About the Speaker
Chuck Mies, LEED AP, Assoc. AIA - Business Development Manager, Autodesk, Inc.

As a member of the Autodesk Business Development Team focused on Lifecycle Management Processes, Chuck works on a global scale with owners in Healthcare and Education as a resource to assist these clients and the firms that work for them understand the value of Building Information Modeling and the issues that will affect the use of BIM on projects. He has also assisted owners organizations in developing deliverable standards and execution plans that ensure the success of the program for both the owner and the firms making the transition with the owner. He has spoken on these topics at many national conferences and webcasts for organizations such as SCUP, COAA, APPA, Labs21 and others. He is also a member of the advisory panel for the Pennsylvania State University BIM Planning Guide for Facilities Owners.

Chuck's background includes 9 years of professional practice in Architecture, focused at lifecycle maintenance practices, while managing on-call contracts for large owners such as Southwestern Bell and Boeing Commercial Airplane Group.

W3A - BIM to FM & GIS: Bringing Facility Lifecycle Data Commissioning to Denver International Airport (Wed. Aug.8 11am - noon)

Dennis Rodriquez - Denver International Airport (Project Manager) dennis.rodriguez@flydenver.com
Daniel Stonecipher – IMMERSIVx (President & CEO) dstonecipher@immersivx.com

From feasibility to operations and maintenance, capital facility projects like the South Terminal Redevelopment Program (STRP) at the Denver International Airport generate an enormous amount of data throughout all phases of the facility lifecycle. Traditionally, facility Owners have relied upon the design and construction community to provide facility-related data as a by-product of contract deliverables -- resulting in fragmented and non-relational data typically geared toward the contributing designer or contractor solicited to provide a small piece of the bigger picture. This data is more often not standardized, incomplete or disjointed and difficult to utilize for planning and management and facilities operational needs. Inherently this is a barrier to the sharing of relevant information for stakeholders, team members and key decision makers. Owner teams are increasingly finding that it is they that must define relevant organizational BIM standards and project execution plans focused not only on Owner data requirements, but also on highly configured technology and workflow necessities.

This presentation will cover the current BIM to FM & GIS initiative at the Denver International Airport (DIA), Denver Colarado, USA, as a case study that includes a full capital lifecycle data management solution that not only collects, but also normalizes existing/ new building and asset information from historical data sources as well as throughout the planning, design, construction and commissioning phases to provide true as-built data and model delivery to DIA as an industry first BIM to FM& GIS solution.

About the Speakers
Daniel Stonecipher **-** President & CEO, IMMERSIVx, Inc.
Daniel Stonecipher is the founding Principal of IMMERSIVx, a consulting and technology development firm specializing in BIM/ GIS based Total Project Data Commissioning™ integrating planning, design, construction, commissioning and facilities & Operations management data across the entire capital lifecycle process. Mr. Stonecipher has worked more than 20 years in the AEC+O industry with experience across all aspects of capital project lifecycle planning and execution processes, including design, construction, Cx and operations for projects of various size and building types. Throughout his career Daniel has provided industry thought leadership by speaking and consulting for/at major industry development events and with major governmental and public sector owners such as the Healthcare BIM Consortium Owners Group meetings, Autodesk University/Tech Camps, Revit Technology Conferences (RTC), Denver International Airport, and the Massachusetts Convention Center Authority to name a few. Daniel also serves as an industry leading member of the Gravity Jack advisory board. Daniel has an ongoing technology development relationship for the past 2 years with the Denver International Airport providing thought leadership, technical consulting and standards, implementation, workflows, processes and software solutions that define DIA's BIM to FM/OM & GIS initiative.

Dennis Rodriguez **-** Project Manager, Denver International Airport, AECOM
Based in Denver, Colorado, Dennis is a highly accomplished Architectural Design/Project Management and Process Development professional with more than 20 years of experience. He has been spearheading an enterprise-wide BIM implementation for Denver International Airport using Autodesk Revit®, Civil3D® and Navisworks®. Since joining the airport in 2009, he has worked to integrate design, construction, and commissioning together with facility management into all aspects of DIA operations. Dennis holds a Master of Architecture degree and B.D. in Architecture from Arizona State University. He has presented on BIM at the Airport's Council International, ESRI International User Conference and the Colorado BIM Expo. This is Dennis' first year as a presenter at Autodesk University.

W3B - **Building Information Modeling for existing buildings** (Wed. Aug.8 11am - noon)

Peter Strazdas - Western Michigan University (Associate Vice President, Facilities Management) peter.strazdas@wmich.edu

Building information modeling is becoming main stream for new capital construction projects. It is gaining traction for major building renovations. Is there value to use these models for existing buildings? This presentation will outline the rational for Western Michigan University to consider this approach. How WMU created 151 existing building models in a cost effective manner, the process to add data into the growing models, and how planners to maintenance technicians access the information in the model.

About the Speaker

Mr. Strazdas is the Associate Vice President of Facilities Management at Western Michigan University. A Department of nearly 500 employees, they are responsible for planning, engineering, construction, and operations for a campus of 150 buildings and 8 million GSF. In his 32 year tenure at WMU, he also held positions as the Construction Administrator, Director of Maintenance Services, and Assistant Professor of Construction Management. He served on the Michigan APPA Board for many years, President for the past 6 years, and is presently the National APPA Secretary-Treasurer. He was appointed by the Governor to the Michigan OSHA Construction Commission, is a four term Mayor in the City of Portage, and served as the President of the Council of Governments in Kalamazoo County. He has been a speaker at the Michigan, Midwest, and National APPA conferences. He also presented at the national COAA and ASHEE conferences.

W5A - **Northwestern Memorial Healthcare: Refining Data vs. Re-entering Data. A live look at Several Projects deploying an Owner-driven BIM-FM Strategy** (Wed. Aug.8 2:30-3:30 pm)

Shrimant Jaruhar - Northwestern Memorial HealthCare (BIM Manager, Facility Planning and Construction) SJARUHAR@nmh.org
Kenneth Kaiser - Northwestern Memorial HealthCare (Facilities Renovation, Manager) kkaiser@nmh.org

Two years ago, Northwestern Memorial Hospital (NMH) issued an enterprise mandate requiring a transition to BIM/VDC technologies and processes on all projects, both new and renovation. That mandate began, "with the end in mind" and a stated goal of successful BIM-enabled FM at close out. NMH has since undertaken to put in place various infrastructure, tools and procedures necessary for successful FM handover at closeout. In this session, we will take a real-time look at several NMH project examples (2 new construction and 1 renovation) used as live laboratory investigations for optimizing BIM/VDC and transitioning to a BIM-enabled FM system. As works-in-progress, we will share active findings and lessons learned on topics including;

- Data standardization before a project begins
- Effectively connecting existing data systems into a cohesive network
- Contract clauses to clarify hand-over requirements.
- Cloud-hosted collaboration portals

About the Speaker

Shrimant Jaruhar. LEED AP **–** Mr. Jaruhar is the BIM Manager for Northwestern Memorial Healthcare's Department of Facility Planning and Construction. Mr. Jaruhar's responsibilities include developing BIM standards and processes for all new and renovation projects across all NMH facilities as well as pushing the envelope of BIM implementation at NMH to be an industry leader in the healthcare sector and beyond.

Kenneth Kaiser, AIA, CHFM, SASHE - With multiple sites totaling over five million square feet of medical and support facilities, renovation is a continuous process at Northwestern Memorial HealthCare. A registered architect and certified health facilities management professional, Ken has worked provided responsible leadership in the areas of strategic planning, change management, design, project development, operations and maintenance to major institutions and corporate organizations for over three decades. Roles have included senior management within a number of Chicago's architectural firms with primary responsibility for such programs as Northwestern Memorial's Prentice Women's Hospital build-out, Pharmacia/Pfizer's Skokie regional headquarters' regional consolidation and Advocate Good Shepherd Hospital's Women's and Children's Birthing Center renovation. He has served as facilities director for Rush-Copley Medical Center during their replacement campus development, and as corporate facilities manager of a GE Capital corporation. Mr. Kaiser is a member of the American Institute of Architects, the Construction Owners Association of America, and a Senior member and past chapter president and of the American Society for Healthcare Engineering.

TH1A - **Streamlining the BIM Integration Process for Penn State Facilities** (Thurs. Aug.9 8:30-9:30 am)

Craig Dubler - Penn State Design Services – Office of Physical Plant (Virtual Facilities Engineer) crd137@psu.edu
Colleen Kasprzak - Penn State Design Services – Office of Physical Plant (BIM Implementation Strategist) cmk264@psu.edu

As owner, designer, and facility manager, the Office of Physical Plant (OPP) at the Pennsylvania State University (Penn State) has been successful with Building Information Modeling (BIM) implementation beyond construction. This has been achieved by "keeping the end in mind" and focusing on the use of BIM at project conception for building operations. By teaming with the Computer Integrated Construction (CIC) research group, developers of the BIM Project Execution Planning Guide, OPP has developed a strategic plan, and documented lessons learned from a large-scale BIM implementation. Penn State is currently integrating information into their facilities management system with a focus on preventative maintenance.

Penn State is working extensively, both internally and with outside consultants, to develop the integration between BIM software and their existing facilities management program. This strategy includes providing visualization of asset information, visibility of owner/operator data requirements, and feedback of building performance. The integration workflow includes a central database with a bidirectional link as the model and associated information will be accessed differently. The goal of this project was to develop a system, working within each of the project team's workflows, and was tested and validated on a University Park campus facility.

This presentation also outlines the initiatives by Penn State to develop owner operational requirements for future projects, and develop a flexible integration framework to support information exchange into the operations phase. Specific topics to be ascertained include the steps taken to develop a strategic implementation plan for information exchange process between project stakeholders; an overview and analysis of the existing operations processes currently implemented; and a summary of the collaboration effort Autodesk, project stakeholders, and PSU are using to develop this information integration. As a result, PSU has been able to define owner operational requirements for future projects and develop a flexible integration framework to support additional BIM tasks and information exchanges.

Learning Objectives:
Highlight the BIM initiatives and strategies which are currently being implemented at all levels at Penn State
Summarize methods, strategies, and lessons learned for harvesting data and integrating BIM into existing CMMS system
Outline the facilities information for effective building operation from planning through deconstruction.
Define strategies for developing effective BIM to FM integration methodology

About the Speakers
Craig Dubler is a Virtual Facilities Engineer for the Office of Physical Plant and Adjunct Faculty for the Architectural Engineering Department at Penn State. His current focus is the implementation of Building Information Modeling and applying efficient information exchange procedures throughout facility construction and operations.

Colleen Kasprzak is the BIM implementation Strategist for the Office of Physical Plant at Penn State. Currently, her focus is on the development and implementation of appropriate BIM strategies and standards for the university, as well as integrating BIM information exchange procedures into Penn State's existing facility management system.

TH2A - **BIM Lessons in Process: Incorporating Deliverables into Standard Project Practices**

(Thurs. Aug.9 9:45-10:45 am)

Kevin Stipp – Pepper Construction (BIM Manager) KStipp@pepperconstruction.com
Mike Alder – Pepper Construction (BIM Engineer) MAlder@pepperconstruction.com

Pepper Construction will focus on a history of lessons learned from past projects, the importance of procurement and front-end document requirements, as well as next steps in leveraging technology for owners. The presentation will be aimed at informing the audience of best practices for BIM projects. We will focus on some of the challenges encountered during design and construction coordination meetings, how BIM facilitates improved project communication, and why it's important to get buy-in from all stakeholders. We will highlight some of our past project deliverables and demonstrate how higher education partnerships are helping to facilitate improved results for project turnover and facilities management integration.

About the Speakers
Kevin Stipp, BIM Manager
With eight years of experience in the construction industry, all with Pepper Construction, Kevin started as a field engineer and is now a BIM manager for Pepper. As BIM Manager, Kevin has worked on projects totaling more than $1.4 billion, including the Eskanzi Health Hospital. He is a member of a local Revit Users Group and the American Contractors Insurance Group BIM Safety Committee. Kevin has also been a featured speaker on BIM panel presentations for several conferences and organizations, including the Indiana Construction Association, Midwest Healthcare Engineering Conference and the Chicago Precision Midwest BIM Expo.

TH3A - **BIM Guidelines for Campus Owners** (Thurs. Aug.9 11am-noon)

Dianne Davis – AEC Infosystems d.davis@aecinfosystems.com
Igor Starkov – EcoDomus igor@ecodomus.com

Large owners often get excited about BIM, COBie, IPD and other acronyms and place them into the project contracts/guidelines without specifying enough level of details to make those great ideas work properly.
As a result, many so-called BIM or COBie projects do not produce meaningful results. The presenters will demonstrate how to improve BIM roadmaps/guidelines by defining the level of details for data (the "I" in BIM) and geometry, reviewing long-term vs. short-term BIM plans for the organization as a whole, specifying roles and responsibilities of project/program personnel, and other items. The presenters will review their recent BIM guidelines: Kaiser Permanente's BIM Roadmap (developed by EcoDomus), Department of Veterans Affairs BIM Guide (developed by AEC Infosystems), and present typical issues from actual projects (DCAM Data Center COBie project, FAA Lifecycle BIM project, etc.)

About the Speakers
Dianne Davis, CSI, is an internationally recognized innovator in BIM use.
Her ground breaking work with the US Coast Guard, the authoring of the Veterans Affairs BIM Guide, and work as IDM Technical Chair of the National BIM Standards and Co-Chair of OmniClass development for CSI has her at the center of data implementation in BIM processes. She is a member of the Lean Construction Institute, buildingSmart Alliance Board Member and has worked with numerous owners and firms to streamline BIM and data integration with lean methodologies.

Igor Starkov, co-founder of EcoDomus, the leading provider of Lifecycle BIM solutions, is a computer scientist and entrepreneur with over 25 years of experience in software development and over 10 years of experience leveraging technology to improve construction project delivery and management of the built environment. Mr. Starkov's knowledge of COBie and BIM workflow issues provide him with the unique capability of developing versatile information-enabled solutions. Mr. Starkov is a recipient of FIATECH CETI award for 2010, and he has been profiled in the ENR Magazine's cover story in March 2011.

CAD - Computer-Aided Design

T4C - **CAD Productivity Tips and Tricks/CAD Manager** (Tues. Aug.7 2:30-3:30 pm)

Doug Cummings – RAND Worldwide/Imaginit Technologies (Infrastructure Solutions & Facilities Management Manager)
dcummings@rand.com

In this session we will explore various “Tips and Tricks”, as well as best practices in working with drawings in AutoCAD 2013, tailored to the typical FM world. The tools & features used will not be specific to AutoCAD 2013, and will apply to most recent releases of the product. We will explore maintaining “healthy” drawing files, best practices in layer management, XREF files, Sheet Set Manager and Annotative Scaling options of AutoCAD. Another topic will focus on a variety of polylining and hatching techniques aimed at easing the pain of polylining a typical FM drawing. Also covered will be a demonstration of a free cloud based version of AutoCAD for editing drawings on a mobile device or pad called AutoCAD WS, and how that could be used “in the field” for verification or building maintenance scenarios. While this session will be focused on base AutoCAD, features & techniques with space & asset management in both AutoCAD Architecture & Revit may also be discussed.
About the Speaker
Doug Cummings - Infrastructure Solutions & Facilities Management Manager / RAND Worldwide / IMAGINiT Technologies
Prior to working in the Autodesk reseller channel, Douglas worked 12 years in a civil engineering firm gaining experience in surveying, Civil Engineering design work focused on residential subdivision, utility design, construction inspection and CAD Management. With Rand Worldwide, Douglas manages the services team that focuses on major implementations in the FM/CAFM space, leveraging Rand’s business partner status with Archibus and Autodesk, as well as other GIS software solutions. Douglas in an Autodesk Certified Implementation Expert, and Instructor. He is experienced in teaching AutoCAD, Map3D, Navisworks, 3DS Max Design, Raster Design, Mapguide, Land Desktop, Civil 3D, Revit, Autodesk Infrastructure Modeler, Autocad Architecture & MEP products, as well as non-Autodesk products like MapINFO, Archibus and various ESRI offerings.

CAFM - Computer-Aided Facilities Management

T1B - **Lifting the Space Planning Blues – How NC State University completed a massive space analysis by switching from hand-colored plans to automated coloring** (Tues. Aug.7 9:45-10:45 am)

Bishop Bettini – ideacode (Founder & CEO) bishop@ideacode.com

When the provost asked space planners for a 50 building departmental use analysis, the tried-and-true method of hand coloring CAD drawings was too labor intensive. Since their AERES FM system already stored the drawings and the data, automating the process was the answer. The idea was simple, but the needs were big and the deadline close. The automated coloring had to be flexible. Space planners needed full and detailed control, and the final print report had to be crisp and professional. All of these without programmer intervention. This presentation is a case study of the challenges faced and overcome to meet this massive analysis, and a look to the future of automated coloring at NCSU.

About the Speaker
Charles B. “Bishop” Bettini is a software engineer and entrepreneur with a passion for solving problems. Combining his love of maps, the engineering and architecture of space, and the buzz of college campuses he founded ideacode -- a North Carolina-based company building affordable, flexible FM software for higher ed. ideacode’s comprehensive FM product, AERES, launched at North Carolina State University in 2003. Since then, AERES has grown to serve over 50 departments and 800 users at this large land-grant university. Bishop has consulted to numerous colleges and universities, Fortune 500 companies, and the United States General Services Administration about their technology needs. He has written, taught, and presented on technology trends as it affects industry. Bishop is a graduate of North Carolina State University and the North Carolina School of Science and Mathematics. He is a member of the

Campus FM Technology Association (CFTA), the Association of Computing Machines (ACM), and is a contributor to several open-source software projects. Additionally, Bishop is an Eagle Scout, a certified beekeeper, and a technician-class ham radio operator. He may be reached directly at (919) 341-5170 or bishop@ideacode.com.

T2B – **Using BIM for FM: Space, the first frontier** (Tues. Aug.7 11am-noon)

William Witts – MIT (CAD/GIS Specialist, Facility Information Systems) wwitts@plant.mit.edu
Brendan Molloy – InfoQuest Technologies (President) BCM@IQT.com

In an effort to modernize their space inventory, MIT is currently resurveying 2M sf of their 12.8M sf campus. In addition to getting more accurate space measurements, this effort is the first step to moving MIT's space inventory into a BIM solution. This talk will provide an overview of the space survey process and will discuss the strategies behind the development of Revit models for space. They will also discuss the plans of moving their entire 1,200 DWG inventory into Revit.

W1B - **Using Building Lifecycle Data to Support Facilities Management at Xavier University**

(Wed. Aug.8 8:30-9:30 am)

Greg Meyer - Xavier University (Assistant Director for Facility Assessment, Physical Plant) meyer@xavier.edu
Chris Mealy, LEED AP - Messer Construction (Virtual Construction Engineer) cmealy@messer.com
Marty Chobot - FM:Systems (VP of BIM Initiatives) MChobot@fmsystems.com

As a growing institution, Xavier University recently embarked on an ambitious plan to add new buildings and more classroom space to its campus. Because of the size and complexity of the projects, they needed a streamlined approach to incorporate the information about the new buildings with information in its existing systems. Creating an integrated BIM and FM process was the answer.

Campuses nationwide are facing similar growing pains, and looking to realize the value of BIM data more quickly than other organizations. Understanding the potential for value is one thing – but getting a BIM model that is as useful during operations as it is in the design and construction phases of the building lifecycle is another. Out of necessity higher-ed facilities professionals are learning to collaborate with key partners to ensure that the BIM model created is useful throughout the lifecycle. What elements make a superior BIM model? How can all stakeholders work together better in creating that model? In this case study, Xavier University, Messer Construction and FM:Systems discuss what one university and its partners learned while working through the process.

About the Speakers

Greg Meyer - Assistant Director for Facility Assessment, Physical Plant, Xavier University
Greg joined the staff at Xavier University in 1985, and assumed his duties as the assistant director for facilities assessment in 2007. Here he is responsible for providing accurate information about the condition of facilities and building systems. This entails a continuous, systematic approach of identifying, assessing, prioritizing, and maintaining the specific maintenance, repair, renewal and replacement requirements for all facility assets. In addition, Greg provides valid documentation, reporting mechanisms, and budgetary information of facility issues in a detailed database. Greg's job forms the foundation for ensuring smooth operations today and planning for the future.
Greg is a member of the Association of Higher Education Facilities Offices (APPA) and Society for College and University Planning (SCUP).

Christopher J. Mealy, LEED AP - Virtual Construction Engineer, Messer Construction
Messer Construction Co, founded in 1932, is a 100% employee owned, full-service complex commercial construction company specializing in building for health care, higher education and life sciences. Messer has 9 offices spread throughout Ohio, Kentucky, Indiana, Tennessee, and North Carolina and regularly puts in place more than $600M per year. Since 2006, Messer has put into place more than $2B worth of projects utilizing BIM technology. Chris graduated from the University of Cincinnati – College of Applied Science with a BS in Construction Management, and AS in Civil and Construction Engineering Technology in 2009. Chris helped start Messer's BIM department while on co-op early in his career at Messer, and was hired-on as a Virtual Construction Engineer. Chris is a regular guest speaker at the University of Cincinnati in both the Construction Science and Engineering departments. He has spoken at the ACI Tech Expo the last two years on emerging BIM technology and was a speaker at SPAR International in Houston earlier this year. In his free time he enjoys spending time with friends and family, working on cars, playing lacrosse, enjoying the outdoors, his dog Rosie, and giving back to the community.

Marty Chobot - VP of BIM Initiatives, FM:Systems
As VP of BIM Initiatives, Marty helps FM:Systems better understand the needs of its customers and bring new products to market. Primary roles include working with others on the management team to set the strategic direction for the company, helping align product direction with market needs, and communicating the company's offerings and value to customers, prospects and partners.

Marty's focus is the convergence of BIM and the operation of sustainable, cost-efficient buildings. Key activities include leading the FM-BIM Working Group and conducting customer and market research on the application of BIM models and data in the operational phase of the building lifecycle.

TH3B - How Indiana University is leveraging CAFM data, using COBie and working toward Business Intelligence (Thurs. Aug.9 11am-noon)

Tim Hansel - Indiana University (Facilities Data Manager, Space Information) thansel@indiana.edu
Julie Stines - Indiana University (Associate Director of Space Information) jstines@indiana.edu

This session centers on our continuing journey to integrate facilities data into major system functions at Indiana University campuses. Understanding duplication of effort (shadow systems) and providing options to tap the central facilities data source provides opportunity for broad based cross functional reporting and analysis. Working together to transition from data warehouse retrieval and reporting to a Business Intelligence environment. Lessons learned along the way.
Key Topics:

- Points of integration:
  GIS / Business Continuity / Risk Management/emergency preparedness / Capital Asset Management / Indirect Cost Recovery
  Purchasing (for deliveries) / Classroom/Event Scheduling / Telecommunications
- Tools: COBie / Business Intelligence Reporting
- Vision: Provide one source of truth for University Reporting needs.

About the Speakers
Tim Hansel – Facilities Data Manager, Space Information, Indiana University
For 25 years, Tim has worked for IU, serving the last 15 years as the Facilities Data Manager. In this role, he updates and maintains the master library of floor plans using AutoCAD and links them to the IU CAFM database. Additionally, he is responsible for assignment of all room numbers for the University and filing most base floor plan and project startup information requests. IU has over 700 users with access to their web-based CAFM information. This includes 32 million sq. ft. of up-to-date plans in DWF format (shaded by department and space type) and Crystal Reports of building and room information by any number of parameters based on end user needs. Tim has extensive experience with AutoCAD and FM:Interact and is adept in Revit, and regularly trains and supports coworkers on current technology. Specifically, he co-presents Facilities Information Management Systems (FIMS) training on a regular basis and was tapped to teach an introductory Revit class to several in-house staff. A member of CFTA, Tim holds an Associate degree in General Studies from IU, as well as certificates in Design and Drafting Application Discipline from Ivy Tech State College and Management Training Series classes from IU.

Julie Stines – Associate Director of Space Information, Indiana University
Julie has over 32 years of customer service, administration, database management, reporting and analysis experience at Indiana University. Her practical experience with database transitions between applications and among people gives Julie particular expertise for this session's topic. Julie's role at IU includes maintenance and oversight of Space Information data, reporting and analysis, supporting CAFM software and interfaces for classroom scheduling, indirect cost recovery, product delivery, capital assets, and more. A member of both CFTA and Higher Education Facilities Management Association (HEFMA), Stines holds certificates from IU in Professional and Management Training.

Document Management

T5B - Drawing and Document Management at the University of Colorado Boulder (Tues. Aug.7 3:45-4:45 pm)

Phil Martin – University of Colorado (CAD/GIS Document Manager) Martinp@colorado.edu
Glenn Seehausen – ACAD-Plus, Inc. (founder and CEO) glenns@acad-plus.com

UCB went "live" on their new Meridian Document Management System in late 2011. Phil and Glenn will demonstrate their multi-vault strategy for managing all CAD and Design & Construction drawings and documents. They will demonstrate their CADacombs Vault, which allows for quick storage of all drawings and specifications submittals, providing the entire organization a consistent way to find and view these documents during and after projects. We will also demonstrate their Facilities Primary Vault, which is used for storing all project documentation by the Project Managers and Project Coordinators. These documents are retained as Project Archives upon project closeout. This vault also manages all Master Floor Plans, feeding them automatically to the other departments that utilize them (e.g. Telecom and EH&S). Glenn will also demonstrate new functionality in Meridian related to managing Revit Models.

About the Speakers
Phil Martin - University of Colorado (CAD/GIS Document Manager)
Phil Martin is the manager of the CAD/GIS and Document Management Office at the University of Colorado Boulder. During the past 6 years in this position, he has worked with the people in his office to implement a Geographic Information System (GIS) on campus. Phil played a major role in the scanning and documentation of thousands of Specification Books and Operations and Maintenance Manuals. More recently he has worked with a team of people from Facilities Management to implement a major new document management system – BlueCielo Meridian Enterprise.

Glenn Seehausen – ACAD-Plus, Inc. (founder and CEO)

Glenn is the founder and CEO of ACAD-Plus, Inc., a firm specializing in Electronic Data/Document Management (EDM) and Computer Aided Facilities Management (CAFM) solutions since 1986. Under his direction, ACAD-Plus developed CAFM software solutions and performed implementations for customers totaling more than 500 million square feet, Glenn has designed and implemented EDM solutions in the facilities environment with a specific focus on universities. His customers use this solution to manage millions of CAD drawings, scanned images, and related documents. He is a returning NCFMTC speaker, presenting at his first conference in 1999.

GIS – Geospatial Information System

T1C - Building a campus ArcGIS flex and mobile map applications for Indiana University

(Tues. Aug.7 9:45-10:45am)

Justin Peters, GISP - Indiana University (University Information Technology Services) jppeters@indiana.edu

Indiana University has approached interactive campus map distribution for its Bloomington and regional campuses as an enterprise endeavor. By using the most recent, authoritative GIS data maintained by its Facilities and University Architect's offices, IU is publishing map services that are used in web clients for both desktop and mobile devices. The desktop and mobile applications are designed to have a consistent branding and look and feel among all the campuses.

This session will discuss the workflow, collaboration, and design decisions between the data stewards, the ArcGIS Server administrator, and the IU Mobile team. Demonstrations of the finished products including the interactive campus map for desktop devices built with the ArcGIS API for FLEX and the mobile device solution using the ArcGIS API for JavaScript will be presented.

About the Speaker

Justin has been working in the GIS industry for over 15 years in State government, the private sector, and higher education. He currently works as a GIS Specialist for UITS (University Information Technology Services) at Indiana University and is a full time staff in the Research Technologies unit of the Pervasive Technology Institute at Indiana University. With undergraduate degrees in Geography and Geology from Indiana State University, he is currently pursuing his Master's degree in Information Science from Indiana University.

T2C - CAD to GIS translation/automation (Tues. Aug.7 11am-noon)

Aaron Cheuvront – University of Washington (Building GIS/CAD Application Manager, UW Capital Projects Office - Information Systems) aaronch@u.washington.edu

If you have a large volume of floor plans that need to be maintained and translated to GIS, this is the class for you!
Learn how the University of Washington is using an automated process to translate over 1400 2D CAD floor plans to GIS. This process focuses on the CAD user as the sole editor and all manual tasks are performed by the CAD user. This session will walk through the various components needed to automate the translation to GIS and provide a complete overview of how to go from existing 2D CAD floor plans to 3D GIS buildings (schematic view). At the end of the session, attendees will be able to adapt the requirements for automation to their process; this will require custom programming in CAD/GIS to implement.

About the Speaker

Aaron is the CAD/BIM/GIS Manager for floor plans at the UW. His responsibilities include system design and integration between AutoCAD, Revit, and ArcGIS. He has spent 15 years working on various elements of space management from space planning and chargeback analysis to enterprise CAFM implementation support. Aaron is a self-proclaimed "hard-core CAD geek with GIS tendencies". Education/Certifications: B.S. - Technical Project Management / AutoCAD 2012 Certified Professional / Revit Architecture 2012 Certified Professional

T3C - Building a better GIS – Harnessing the opportunity of GIS on mobile devices and tablet computers, while serving the needs of big desktop (Tues. Aug.7 1:15-2:15 pm)

Bishop Bettini - ideacode (Founder & CEO) bishop@ideacode.com

As the web has evolved from refreshing pages to interactive content, GIS has kept up and pushed the boundaries of possibility. But through it all, the desktop computer remained constant. Things have changed.

Today, mobile devices and tablet computers introduce small, vivid screens, while the desktop screen grows ever larger and more capable. Between these two lay a huge divide, and the possibility for poor design that undermines one or both is a real and present danger. Whether you are writing GIS software, or presenting information for display in a GIS, understanding the implications of this divide can help you provide the best user experience.

This presentation reviews GIS challenges and opportunities in the mobile, tablet, and desktop environments and offers advice on building and serving data for them. This presentation will demonstrate ideas using the open source OpenLayers and Dojo libraries, which are native to the
AERES FM GIS but are also usable by ESRI ArcGIS.

About the Speaker
Charles B. "Bishop" Bettini is a software engineer and entrepreneur with a passion for solving problems. Combining his love of maps, the engineering and architecture of space, and the buzz of college campuses he founded ideacode -- a North Carolina-based company building affordable, flexible FM software for higher ed. ideacode's comprehensive FM product, AERES, launched at North Carolina State University in 2003. Since then, AERES has grown to serve over 50 departments and 800 users at this large land-grant university. Bishop has consulted to numerous colleges and universities, Fortune 500 companies, and the United States General Services Administration about their technology needs. He has written, taught, and presented on technology trends as it affects industry. Bishop is a graduate of North Carolina State University and the North Carolina School of Science and Mathematics. He is a member of the Campus FM Technology Association (CFTA), the Association of Computing Machines (ACM), and is a contributor to several open-source software projects. Additionally, Bishop is an Eagle Scout, a certified beekeeper, and a technician-class ham radio operator. He may be reached directly at (919) 341-5170 or bishop@ideacode.com.

T5C – **Creating Basemaps for Managing Facilities** (Tues. Aug.7 3:45-4:45 pm)

Mark Stewart – Esri (Community Maps Program Coordinator) mstewart@esri.com

Any successful facilities management plan begins with a good basemap. This presentation will introduce the Campus Basemap and Campus Editing templates produced by the Esri ArcGIS for Local Government team. These templates simplify and standardize the creation of your large scale campus basemap, which can then be used as a foundation for desktop, web and mobile facilities management applications. The presentation will also explain how you can have your campus basemap hosted online as part of the Esri Community Maps Program and provide some current examples of colleges and universities who are Community Maps contributors.

About the Speaker
Mark Stewart is a project manager in the Esri Database Services department where he devotes himself primarily to managing the training solutions for the Community Maps program. Now in his 16th year with Esri, Mark enjoys working with ArcGIS users to help them create their basemap for inclusion in the Community Maps program and watching them realize the benefits of participation. Prior to joining ESRI, he accumulated over 5 years of experience in the GIS industry working in a variety of applications, including consulting and the electric utility industry.

W1C - **Transformation through Asset Management Best Practices** (Wed. Aug.8 8:30-9:30 am)

John Przybyla, PE, GISP – Woolpert, Inc. (Senior Vice President) John.Przybyla@Woolpert.com

The term Asset Management has been popular for a number of years, and it often means different things to different people. To some it is merely an effective work order system. To others it means moving from reactive maintenance to planned maintenance. To still others it is a capital planning system. To many, it's a magical piece of software that will provide answers at the push of a button.

But the best practices in Asset Management are much more than any of these. Through efforts of a number of international organizations, a set of ISO standards for Asset Management are being developed that intend to transform the planning, design, operation, and maintenance of all facilities and infrastructure of an organization. These new ISO standards, which are expected to be finalized in 2013, could have far reaching impacts on any organization that manages facilities and infrastructure.

This paper will present an overview of the best management practices as documented in the Institute of Asset Management's PAS-55 on Asset Management (British Standards Institute), the International Infrastructure Management Manual (Australia/New Zealand), and the upcoming ISO 55000 Asset Management Standards. It will discuss the all-encompassing, organizational and lifecycle management approaches of these standards and the potential implications for organizations that manage facilities and infrastructure.

About the Speaker
John Przybyla is a Senior Vice President for Woolpert in Dayton, OH. He is a Professional Engineer in 5 states and a Certified GIS Professional. He applies his understanding of design and infrastructure to manage implementations of Information and Asset Management Systems for the built environment. His work experience encompasses over 75 organizations in his 30+ years of professional experience, including local governments, institutions, airports, and the Federal government. He holds a BS in Civil Engineering and an MS in Environmental Engineering from Michigan State University.

W2B - **Fundamentals of GPS data collection for GIS applications** (Wed. Aug.8 9:45-10:45 am)

Lanny Schnipper - Seiler Instrument (Mapping and CAD Manager) lschnipper@seilerinst.com

This presentation will cover the essentials of GPS data collection for GIS applications. Topics will include: GPS applications for GIS data collection, accuracy levels, device configurations, basic technical overview, and case studies from various markets. This

presentation is designed for those who have not yet experienced GPS data collection for GIS. Representative equipment will be available.

About the Speaker
Lanny Schnipper is the Mapping and CAD Manager for Seiler Instrument. In this role, Lanny supports all sales, marketing, and technical aspects of Seiler's Mapping/GIS and Design Software products and services. Lanny has been with Seiler since April of 2006. He has been involved with mapping-grade GPS since 1999, including time as Trimble's Regional Sales Manager for their Mapping product line. Lanny holds a Certificate in GIS from the University of Denver and a Bachelor's degree from Florida State University.

W3C - **Techniques for Managing Facilities and Assets Using ArcGIS Server** (Wed. Aug.8 11am-noon)

Chris Walls - 39 Degrees North (Managing Director of Partnerships) chris@39dn.com
Joe Serwinski - Facilities Survey Inc. (Owner and President) jserwinski@facsur.com

Are you interested in learning techniques for managing space and assets within buildings using ArcGIS Server? In this session, we will demonstrate a facility-based ArcGIS Server 10.x Flex application and discuss how to overcome potential data barriers. Additionally, we will demonstrate how easy facility information can be edited, maintained, analyzed and searched in a web environment.

About the Speakers
Chris Walls **-** 39 Degrees North (Managing Director of Partnerships)
Chris Walls is a passionate GIS professional with over 10 years of experience in creating GIS solutions. His vision for 39 Degrees North has developed over the years to become one of the staple GIS service providers to local government in Indiana. In addition, 39 Degrees North services customers across multiple sectors throughout the country, including commercial, utility, defense, energy, and real estate. Chris is dedicated to GIS and the contribution it brings to analysis, solution delivery, and management. Chris represents the GIS Service Providers sector on the Indiana Geographic Information Council (IGIC) Board of Directors, and currently serves as IGIC's Treasurer.

Joe Serwinski - Facilities Survey Inc.(Owner and President)
Joe is a seasoned professional with a broad range of experience in the Facility Management, Computerized Maintenance Management Systems (CMMS) and business development. He has 24 years of experience in all areas of facility management within the healthcare industry including management, consulting and sales. Joe started Facilities Survey Inc. because he saw an opportunity to more effectively apply technology in the field of managing buildings and facilities. His company utilizes the latest web-based development tools and creates intuitive software products for customers in the Facilities Management field. With their CMS (Custom Maintenance Software) line of products, he and his employees create solutions that provide customers the tools they need while maintaining ease-of-use, which has been an issue with other software providers.

Joe earned his Bachelors of Science in Industrial Engineering and Technology from California University of Pennsylvania in 1988. Joe spent 14 years working in the Facilities Management field in Healthcare Industry. Joe worked at Children's Hospital of Pittsburgh, ARAMARK (Healthcare division) and Four Rivers Software. While working in the industry, he saw a need to provide his expertise with consumers purchasing a CMMS. With strengths such as diligence, honesty and common sense, providing his services through his own company seemed to be the logical next step.

Since starting Facilities Survey Joe has worked with some of leaders in the healthcare industry to develop working business relationships. Business partners include The Cleveland Clinic, Hospital Corporation of America (HCA), Tenet Healthcare, Ohio State University Medical Center, and Wake Forest Baptist Medical Center. With his growing list of clients, he strives to be the best provider of both cutting edge software and consulting services.

W4C - Enterprise GIS Development for the Architect of the Capitol - a Use-Case-Based Approach for Data Sharing and Transparency (Wed. Aug.8 1:15-2:15 pm)

Chris Smith – Architect of the Capitol **(**Director, Technical Support Division) cmsmith@aoc.gov
Joe Lacombe – Woolpert, Inc. (Solutions Architect) Joe.LaCombe@Woolpert.com

The Architect of the Capitol (AOC) is the facility manager for Congress, the Library of Congress, and the Supreme Court. In both day-to-day operations and maintenance activities and longer term construction and preservation work, there is a pressing need for accurate, reliable information in order to support decision making and organizational performance metrics. Currently, this information is very atomized across the Agency – held in a variety of databases, spreadsheets, hard copy documents and enterprise data systems and with individuals as corporate knowledge gleaned from years of experience. As a consequence, it can take significant time to assemble data to answer questions and develop information in support of decisions. AOC partnered with Woolpert to develop and field an Enterprise GIS to provide wide access to AOC's facility data in ways that had the end-user, and their information needs, in mind. This approach focused on leveraging existing sources of facility data (CAD drawings, BIMs, CMMS, e.g.) to form a foundation to overlay other business line data (grounds, historic preservation, utilities, equipment, emergency management, etc.). Specifically, the existing CAD drawings were transformed from paper space into the GIS' coordinate system and then sent through ArcGIS' Data Interoperability

Extension to extract architectural and interior feature classes. Then wall heights were added enabling the spaces to be viewed in 3D with 2D furniture derived from the CAD furniture cells. To indicate space types, this data was pulled from AOC's CMMS (TMA) and linked. The same process was done for other CMMS data (equipment, assets, etc). Other tabluar datasets for trees, cultural resources, light poles, and storm water management will be linked as they are ready. In many ways the cultural barriers to data sharing were greater than the technological ones, but the objective was to place useful, reliable information in the hands of staffers who needed to make decisions or do analysis wherever they happened to be – on a desktop computer or in the field on a mobile device. This "democratization" of data proved to be a key for getting people to be better data stewards and take an active interest in the accuracy of information attributed to them.

About the Speakers
Chris Smith - Architect of the Capitol **(**Director, Technical Support Division)
As the Architect of the Capitol's Technical Support Director for Planning and Project Management, Chris oversees the Agency's project delivery business processes, manages the CAD/BIM, cost estimating, and scheduling teams, and acts as the CAFM Program Manager. He's been with the Architect since 2007.

Joe Lacombe – Woolpert, Inc. (Solutions Architect)
Joe is a Solutions Architect with Woolpert, where he has been for 13 years. Throughout that time, Joe has focused on the architecture and development of integrated GIS solutions and applications across the enterprise.

W5C – **GIS for the Built Environment, Implementations and Implications** (Wed. Aug.8 2:30-3:30 pm)

Kevin Davis – PenBay Solutions – Director of Business Development KDavis@penbaysolutions.com

Educational and research institutions are increasingly deploying geographic information systems technology (GIS) as a critical component of their facility management information technology infrastructure. These implementations are taking the form of both stand alone GIS systems and integrations with Integrated Workplace Management (IWMS) applications. Kevin will present an overview and lessons learned from projects with clients including the University of North Carolina Charlotte, the University of Massachusetts Lowell, and the Smithsonian Institution Tropical Research Institute.

About the Speaker
Kevin is the Director of Business Development at PenBay Solutions. He has more than 20 years of experience in business management, and sales and marketing of hardware and software within the enterprise technology market, and the real estate and construction industries. At PenBay Kevin is leading the effort to bring geographic information systems technology to the field of facility management in a variety of markets, including education, health care and commercial. He is involved in new market development, strategic partner management and and solution strategy for the IWMS/CAFM market. Kevin has a BA in Business Administration and English Literature from Warren Wilson College in Asheville, NC.

TH1C - **3D Interior building routing from 2D CAD source drawings** (Thurs. Aug.9 8:30-9:30 am)

Aaron Cheuvront - University of Washington (Building GIS/CAD Application Manager, UW Capital Projects Office - Information Systems)
aaronch@u.washington.edu

Want 3D interior building routing without having to convert all of your 2D CAD floor plans to 3D?
The University of Washington is developing a process to use the ESRI template for 3D interior building routing while generating the source routing network from 2D CAD floor plans. The building routing network is also part of the campus routing network to provide seamless transition between traditional routing and interior routing. This system addresses the need for true endpoint routing to doors instead of nearest point to room center. Unlike streets, building hallways are highly disorganized and may require going through multiple rooms to reach your destination. This can be a critical distinction in emergency response; close just isn't good enough. While the technology exists to create an entire campus in 3D, the source data currently exists in 2D and this will provide a way to leverage that existing resource while a true 3D campus can be developed.

This session will build on the process developed for the UW's CAD to GIS Automated Translation for Floor Plans. Key topics covered include: elevation assignment, stops (doors/rooms), restrictions (ADA, locked doors), 2D to 3D conversion requirements.
At the end of this session attendees will understand how 2D CAD lines and points can be converted into a schematic 3D GIS routing network.

About the Speaker
Aaron is the CAD/BIM/GIS Manager for floor plans at the UW. His responsibilities include system design and integration between AutoCAD, Revit, and ArcGIS. He has spent 15 years working on various elements of space management from space planning and chargeback analysis to enterprise CAFM implementation support. Aaron is a self-proclaimed "hard-core CAD geek with GIS tendencies".

Education/Certifications: B.S. - Technical Project Management/AutoCAD 2012 Certified Professional/Revit Architecture 2012 Certified Professional

TH2C - **Unwrapping the possibilities with Integration of Mobile Lidar** (Thurs. Aug.9 9:45-10:45 am)

Cindy Candler – The Schneider Corporation (Survey Business Development Manager / Survey Project Manager)
clcandler@schneidercorp.com
Andrew Harrison – The Schneider Corporation (GIS Business Development Manager) Aharrison@schneidercorp.com

This presentation will explain how to integrate survey data, laser scanning data (mobile lidar and terrestrial scanning) into a usable system for facilities management and for design use. This session will take the field to finish approach on mobile lidar data collection to produce a final product to be used for planning or design.

Cindy Candler
Coralina (Cindy) Candler is a Survey Project Manager for The Schneider Corporation, a land surveying, GIS and consulting engineering firm headquartered in Indianapolis, where she has been employed since 1996. She is a licensed Land Surveyor in Indiana and Kentucky. Cindy is a graduate of the surveying program at Vincennes University and the business management program at Indiana Wesleyan University. She is a member of Indiana Society of Professional Land Surveyors (ISPLS) and the International Right of Way Association (IRWA).

Andrew Harrison
Andrew Harrison, GISP brings 25 years of local government experience and serves as the client liaison for many of the major projects at The Schneider Corporation. Working in different communities all over the region provides Andrew with critical insight into the daily activities of local government and the mandates facing and solutions available for your community. He enjoys helping communities with their local needs for transportation engineering, municipal engineering, professional land surveying and Geographic Information Systems (GIS). Andrew is also a Certified Geographic Information Professional and has provided leadership for GIS projects in Indiana, Arkansas, Minnesota, Michigan, Iowa, Missouri, South Carolina and Ohio. He also participates in numerous industry organizations on past boards & committees and speaks at conferences throughout the country.