BIM for Contractors: Back to Basics

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Have you ever thought about starting your Building Information Modeling / virtual design and construction (BIM/VDC) department over from scratch? What would you do differently with all the knowledge and experience you’ve gained? What wasted time and energy would you avoid the second time around? What tools, software, workflows, and processes would make the cut, and which would be revealed as fluff? We recently did just this after helping to build and manage the BIM department at an industry leader in technology use, and we’ve found it to be an amazingly refreshing exercise in optimization and refinement of workflows and tools. This class will focus on that transition and the lessons learned that we've gained during the process. Whether you’re a contractor with an established BIM/VDC workflow and you need some tips for spring cleaning your processes, or you’re just getting started in this world of 3D technology and need some ideas for the most important first steps to ensure success, you will walk away with some great ideas to take back to your firm.
Have you ever thought about starting your Building Information Modeling / virtual design and construction (BIM/VDC) department over from scratch? What would you do differently with all the knowledge and experience you’ve gained? What wasted time and energy would you avoid the second time around? What tools, software, workflows, and processes would make the cut, and which would be revealed as fluff? We recently did just this after helping to build and manage the BIM department at an industry leader in technology use, and we’ve found it to be an amazingly refreshing exercise in optimization and refinement of workflows and tools. This class will focus on that transition and the lessons learned that we’ve gained during the process. Whether you’re a contractor with an established BIM/VDC workflow and you need some tips for spring cleaning your processes, or you’re just getting started in this world of 3D technology and need some ideas for the most important first steps to ensure success, you will walk away with some great ideas to take back to your firm.
KEY LEARNING OBJECTIVES

At the end of this class, you will be able to:

• Discover the essential tools and processes needed to start a BIM/VDC department

• Discover best practices for clearing unnecessary tools and processes from your workflow

• Discover the software/hardware needed to get BIM/VDC implemented at the building-design, conceptual, preconstruction, and operations stages of a project

• Discover the best ways to start interfacing with and training owners, subs, and partners you work with to enhance relationships and ensure successful BIM implementation on your projects
David Epps  @DavidEppsBIM

• Director of Construction Technology

• University of Florida – Construction Management & Business

• 19 Years Construction Experience

• 13 Years BIM Experience

• Innovation, BIM/VDC, Laser Scanning, Drones, VR/AR

• AU Attendee Since 2007, Speaker Since 2008
Chris Baierl @BaierlBIM

- Purdue University – Computer Graphics Technology

- 8+ Years Professional BIM and Construction Experience

- Extensive Experience in Data & Technology and Corporate Office

- BIM Manager at Winter Construction Company
BACK TO BASICS

- Blank Slate (Like this slide)
BACK TO BASICS

STRATEGY

TOOLS

COMMUNICATION
STRATEGY
DEATH BY CHECKLISTS!
Outdated & Obsolete

- Templates
- Processes
- Checklists
- Tools
- Logs
Muda
- Japanese Word
- Futility
- Uselessness
- Wastefulness
STRATEGY

Muda

• Can Be Difficult
• Need A Plan
• Sentimental Value
STRATEGY

Challenge Everything

- Process Waste
- Physical Waste
- Information Waste
- People Waste
STRATEGY

BIM Assessment

• Don’t Do Everything

• Evaluate Each Project

• BIM Budget / Resources

• Scalability
STRATEGY

BIM Execution Plan

• Internal Plan

• External Plan
  - Who Does What?
  - When?
  - What LOD?
  - File Transfer Protocol

• Coordination

• Deliverables
TOOLS

Templates

• Consistency
• Be Flexible
• Avoid Cutting Corners
  • Single Use Processes
  • One-Off Scenarios
  • Avoid Improper / Quick Method
Hardware

- Desktop vs Laptop
- iPads
- Drones
- Virtual Reality
- Virtual Job Boxes
Software Flexibility

- Innovate
- Be Selective
- Use Trials / Demos
- Workflow
Software Workflow

- Work Together
- R&D Process
- Integration > Capabilities
- Need Vs. Available
KEY LEARNING OBJECTIVES

Discover the software/hardware needed to get BIM/VDC implemented at the building-design, conceptual, preconstruction, and operations stages of a project

WARNING!

INCOMING UNPAID AUTODESK PLUG!
KEY LEARNING OBJECTIVES
**KEY LEARNING OBJECTIVES**

**AUTODESK® ARCHITECTURE, ENGINEERING & CONSTRUCTION COLLECTION**

**COLLECTION INCLUDES**

- Revit
- AutoCAD
- AutoCAD Civil 3D

<table>
<thead>
<tr>
<th>OTHER SOFTWARE INCLUDED</th>
<th>CLOUD SERVICES INCLUDED</th>
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<td>Navisworks Manage</td>
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<td>AutoCAD Utility Design</td>
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KEY LEARNING OBJECTIVES

Design / Conceptual

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KEY LEARNING OBJECTIVES

Preconstruction
KEY LEARNING OBJECTIVES

Operations

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Outsourcing

- Needs > Resources
- Prioritize Efforts
- Outsource
  - Costs
  - Timing
  - Micromanagement
COMMUNICATION
COMMUNICATION

Turning the Ship

- Changing Mentalities

- “Old School”

- Find Proponents

- Leadership Support

- Change Slowly
COMMUNICATION

Training & Awareness
- Education
- Training
- “ConTech Moments”
- Awareness
COMMUNICATION

Industry Partners

• Architects

• Trade Partners

• Clients
COMMUNICATION

**Budgets**

- Starts With Assessment
- Educate
- Effort = Value
COMMUNICATION

Business Cases

- “Top-Down” Approach
- “Break-Even Point”
- Demonstration of Use
- Communicate Effectively
- Calibrate
BACK TO BASICS

STRATEGY

TOOLS

COMMUNICATION
KEY LEARNING OBJECTIVES

At the end of this class, you will be able to:

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• Discover best practices for clearing unnecessary tools and processes from your workflow

• Discover the software/hardware needed to get BIM/VDC implemented at the building-design, conceptual, preconstruction, and operations stages of a project

• Discover the best ways to start interfacing with and training owners, subs, and partners you work with to enhance relationships and ensure successful BIM implementation on your projects
KEY LEARNING OBJECTIVES

Discover the essential tools and processes needed to start a BIM/VDC department

Tools

- Computer / Hardware
- Software
- BIM Assessment (Internal Kickoff)
- BIM Project Kickoff (External Kickoff)
- Site Logistics Plan
- Model Creation / Authoring
- Model Coordination Process Tracking
- QTO Plan
KEY LEARNING OBJECTIVES

Discover the essential tools and processes needed to start a BIM/VDC department

Processes

- Plug Into Everything
- BD / Pursuits
- Preconstruction
- Coordination
- Training / Awareness Plan
KEY LEARNING OBJECTIVES

Discover best practices for clearing unnecessary tools / processes from your workflow

- Challenge Yourself
- Reduce Wasteful Practices
- Combine / Reduce Tools
KEY LEARNING OBJECTIVES

Discover the software/hardware needed to get BIM/VDC implemented at the building-design, conceptual, preconstruction, and operations stages of a project.
Discover the best ways to start interfacing with and training owners, subs, and partners you work with to enhance relationships and ensure successful BIM implementation on your projects

- Teach Owners
- Teach Design Partners
- Teach Trade Partners / Subs
- Industry Involvement
- BIM Roundtables
QUESTIONS?
How did we do?

• Your class feedback is critical. Fill out a class survey now.

• Use the AU mobile app or fill out a class survey online.

• Give feedback after each session.

• AU speakers will get feedback in real-time.

• Your feedback results in better classes and a better AU experience.