The BIM Equation
Keeping Your BIM Process in Motion
Chad Speas

- Practice Technology Manager // Sr. Associate
- Graduated from Texas A&M University ‘99
- Registered Architect; Texas & Arizona (live in Phoenix)
- Develop & implement technical training for the firm

- Core beliefs (why I do what I do);
  - Consensus builder, the correct logic & process leads to better problem solving.
A Leading Architecture and Design Firm

80+ years in business and growing

600+ employees across 12 offices

92% repeat client business

Aviation  Commercial  Data Centers  Education  Healthcare  Interiors

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Who’s Attending Today?

- Representing...
- Architecture Firms?
- Consulting Firms?
- Construction Firms?
- Owners?
- Non-Design & Construction professionals?
What’s The Problem?
Can you put the plans on sheets & print them for me to redline...
Well, at my old firm we did it this way...
Building Information Modeling

BIM is an intelligent 3D model-based process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure.

-Autodesk
INSTRUMENTS OF SERVICE

THE BUILDINGS WE DESIGN

REAL TIME RENDERINGS & VISUALIZATION
What Leads Production Today?

D ➔ M + C^t + A? = ?

documentation
modeling
collaboration
analysis
• What we say, with what we need to accomplish, does not compute
The BIM Equation
Newton’s Second Law of Motion
Newton’s Second Law of Motion

\[ F = ma \]
Our BIM Equation

PxP  $\rightarrow$  M x C x A  $\equiv$  D

project execution plan
modeling collaboration analysis

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Practice Technology + Service Desk

Team

Training

Service

PxP \rightarrow M \times C \times A = D
Project Startup + Revit Template

PxP $\Rightarrow M \times C \times A = D$
Startup Steps

1. Enter Project Information
2. Set Project Location
3. Establish Worksets
4. Link in Background Extents
5. Set Project Extents
6. Path to Shared Parameters File
7. Path to Keynotes File
8. Set Starting View
9. Choose Browser Organization

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Modeling
What are Our Goals?

• Elevate the quality of our work product to better align with our brand

• Create a firm-wide Practice Technology training program that emphasizes craftsmanship and results in:
  • Common understanding of how we do things, and why
  • Consistent processes, workflows and messaging
  • More efficient use of time
  • Legible, craft-driven construction documents
  • Data-rich, leverageable BIMs
  • Reduced risk for the firm

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How do We Implement?

• Single Source Template
• Speed to Market Template
• Content Management Tool

PxP $\rightarrow M \times C \times A = D$
Revit Intensive Training Approach (RiTA)

day 1: concepts and core software

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day 2: model building

day 3: model manipulation

day 4: documentation and model management

PxP → M x C x A = D
Collaboration
Cloud Collaboration

- Low cost of infrastructure
- Speed to market
- Flexibility in work locations
- Central location
- No latency (compared to VDI/VM)
- Platform we already know
- Integrated production collaboration
- Accessible to Multi-Firm Projects

PxP \(\rightarrow\) M \(\times\) C \(\times\) A = D
Markup Sessions

- Real Time Sharing
- Comment Tracking
- Host any file types
Analysis
Dynamo

- Startup Steps in our Template
- Information Management
- Model Health Assessments
Other Technology + R&D

- Virtual Reality / Augmented Reality
- App Development
- Simulation Suits & Wayfinding Studies

AR/VR

AGE SIMULATION SUIT

DFW WAYFINDING
Data Management + Analytics
Model Health Assessments (MHAs)

- Scheduled through ASK
- 100+ Point Inspection
Documentation
The Product – The Template + PxPs

- Reductive Approach
- View Templates
- Established View & Sheet Names
- Pre-populated Sheets
- A Guide to the Model
The Product – Documentation

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PxP \(\Rightarrow\) \(M \times C \times A = D\)
The Product – The Model

PxP → M x C x A = D
Our BIM Equation

\[ \text{PxP} \rightarrow \text{M x C x A} \equiv \text{D} \]

- project
- execution
- plan
- modeling
- collaboration
- analysis
- documentation

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Questions (During Q&A Session)

- Chad Speas
- Corgan
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- @Arkitekt99 (instagram, twitter)
Thank You!

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