Technology for the Real World

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Objectives

- Help with technology decisions
- Offer model for value system
- Discuss adjacent technologies
- Propose a “real world approach”
- Lead into Q & A session
Growing the Bottom Line

• Grow the top line: *more of the same*
• Increase margins: *do something differently*
• Decrease risk: *be more consistent*
• Any other ways?
Before Extranets: There is no common way to track, communicate, and organize information, view outstanding items, and provide accountability.

The Communication Problem:
Many Participants, No Common Communication Place
The Goal:
Peer to Peer Project Management

Source: Primavera
Other ways to have a central communication standard:
Shared 3D Model tied to Database

- Image captures design intent in 3D
- All components are tied to database with further information
- This can be changed in real time
- This can be shared with the team in real time
- This is different than static 2D contracts!

Source: IBM/Catia
2D Representation to 3D: Parametric Building Modeling Tied to Shared Data  (revit.com)
Other steps to capture value: B2B Internet Bidding

- Graph shows subcontractor price declining in open bid
- Today, Freemarkets.com targets Fortune 100
- Materials and labor are harder than industrial components
- Only big companies can do this
- Project managers could take advantage of the system yet still control the buy locally

Source: Freemarkets
Planned Coordination with Algorithms: Supply Chain Integration
(supplyworks.com, i2)
The real world:
The field world.
Future access = wireless
AEC/EPC Supply Chain in the Real World: Owner/Sponsor Isolating Risk

Consultant  
Engineer  
Labor  
Material  
Sponsor  
Designer  
Constructor  
Subcontractor  
Distributor  
Building Product Manufacturer  
Permanent Finance  
Project Finance  
Land and Permissions  
Finance Risk  
Market Risk  
Design and Construction Risk  
End User
AEC/EPC Supply Chain Business Models: Design - Build with Brokerage
AEC/EPC Supply Chain Business Models: GC with Direct Hire
AEC/EPC Supply Chain
Business Models:
EPCOM

Technology for the Real World: Considerations for Businesses

Personal comfort
Economic risk
Transparency of information
Personal effectiveness