Developing a Strategic Plan for BIM and Structural Concrete

SDC Session #26
October 1, 2009
Inverness Hotel & Conference Center
Englewood, Colorado

Agenda

- Participants
- Work Plan
- Schedule
- Closing Remarks
Developing a Strategic Plan for BIM and Structural Concrete

Funding Organizations

The Charles Pankow Foundation

Ready Mixed Concrete Research and Education Foundation

Project Organization

Champion
ACI Foundation

Administrator
Strategic Development Council

Sponsor
Charles Pankow Foundation

Sponsor
RMC Research and Education Foundation

Project Leadership
ACI Foundation
Strategic Development Council

IFC's for Concrete Construction

Industry
Industry Representatives

Professionals
Professional Representatives

Software
Software Representatives

DATE 10-1-09
Developing a Strategic Plan for BIM and Structural Concrete

Participants

MANAGEMENT
- Doug Sordyl, ACI Foundation
  - Program Manager
- Chris Darnell, SDC
  - Program Manager
- Thomas R. McLane, ATC
  - Project Manager
- Edwin T. Dean, Nishkian Dean
  - Principal Investigator
- Michelle Anderson, Nishkian Dean
  - Project Administrator

PROJECT ADVISORY PANEL
- François Grobler, PAP Chair
- Chuck Eastman
- Dan Frangopol
- Dave Hutchinson
- Jim Jacobi
- Steve Jones
- Paul Mlakar
- Deke Smith

PMC Participants

ENGINEERING
- Erleen Hatfield, Buro Happold
- Phil Williams, Webcor

INDUSTRY
- Pete Carato, ACI
  - Chair, ACI BIM Committee 131
- Mike Schneider, ASCC
  - Baker Concrete
- John Turner, CRSI
  - CRSI Regional Manager
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 PMC Participants

SOFTWARE

- AEC Autodesk (Revit Structure)
  - Scott Hammond
- Bentley Systems
  - Raoul Karp
- Tekla
  - Alistair Wells
- Digital Project
  - Chi Ng
- aSa
  - Dave Grundler
- Computers and Structures, Inc.
  - Rob Tovani

WORK PLAN
Objective

The results from the research effort will be to develop a comprehensive report that describes current state of the industry, attribute exchange priorities, and a strategy for implementing effective IFC exchanges.

INTEROPERABILITY

Strategic Planning Tasks

Task 1: Strategic Planning Research
Task 2: Strategic Planning Session
Task 3: Strategic Plan Report
Strategic Planning Research

**TASK 1**

Assess and assemble the current state of the industry and opinion of industry participants, design professionals, suppliers and builders.
Strategic Planning Research

This information will be derived from:

1. Evaluation Strategic Development Council (SDC) BIM survey.
2. Telephone interviews will be conducted with select individuals to gain insight and industry perspective on the needs and opportunities that interoperability can achieve.
3. Assess applicability of concrete domain work prepared.

Strategic Planning Research

From the survey, interviews and domain report, a white paper will be developed to establish the state of the practice within the concrete industry on interoperability.
The strategic planning session will bring together professionals and industry representatives in a forum to foster discussion, solicit input and gain support for industry initiatives for concrete BIM interoperability.
Strategic Planning Session

- One or Two-day strategic planning session will consist of an assortment of
  - plenary and
  - break-out meetings
- The objective of the planning session will be to coalesce ideas into strategic initiatives.

Strategic Plan Report:

**TASK 3**
Strategic Plan Report

- The strategic planning research and the group planning session will be used to develop a Strategic Work Plan.
- This report will highlight the state of the industry and portray a vision for increasing interoperability through the use of IFCs.

Strategic Plan Report

- The exchange attribute priorities will be clearly defined and a direction offered for achieving interoperability through IFC implementation.
- The Strategic Plan will be the seminal guide for future industry investment in developing concrete BIM objectives.
Schedule (Preliminary)

- Strategic Planning Research 1/2010
- Strategic Planning Session 3/2010
- Strategic Plan Report 6/2010

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Supplemental Information

- What is an IFC
- ATC-75 Project

WHAT IS AN IFC
Industry Foundation Class – IFC
- Exchange protocol;
- Non proprietary, open architecture file format for exchanging data;
- International NBIMS protocols maintained by buildingSMART
IFC Export and Imports are accessed from the pull down menu.
Vision

Create a robust process for seamless, efficient, reproducible exchange of accurate and reliable structural information that is widely and routinely utilized among all tools and stakeholders.

*Generate it once, use it many times – interoperability.*

ATC-75 Project

- Creating interoperability between BIM software platforms.
  - Identifying priority exchange attributes
  - Creating an industry definition – IDM
  - Generating software protocols – MVDs
- Increasing industry awareness
- Engaging BIM software platform support – getting onto the pull down menus
Developing a Strategic Plan for BIM and Structural Concrete

IFC Exchange Pathways

1. Architectural Model
2. Structural Model
3. Detailing Model
4. Analysis Model
5. Construction Model

Structural Domain

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