Standards Development Collaboration in the Facilities Industry

Presented by
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Open Forum for Standards Developers
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National Institute of Building Sciences

- 1974 - NIBS - Public Law 93-383, Sect. 809
  - Bridge between Private and Public Construction
  - Non-governmental – Unique 501(c)3 Organization
  - Unique in that it represents all disciplines in industry

- 1992 - Facility Information Council Mission
  - “improve the performance of facilities over their full life-cycle by fostering common and open standards and an integrated life-cycle information model for the A/E/C & FM industry.”

- NIBS Related Products
  - Construction Criteria Base
  - Whole Building Design Guide
  - National CAD Standard
  - National BIM Standard
Simple Message

buildingSMART will deliver…

— a facility sooner
— a lower cost higher quality facility
— a facility with few or no change orders
— a significant reduction in RFI’s
— a more energy efficient facility
— a more sustainable facility
— a more environmentally friendly facility
Building Electronically First

Image courtesy of Dennis R. Shelden, Ph.D.
Chief Technology Officer, Gehry Technologies.
The picture is of the Disney Conference Hall, designed by Frank Gehry.
Case Studies: Far More Than Visualization

Ceiling Integration
Disney Concert Hall
Design by Frank Gehry

Image courtesy of Dennis R. Shelden, Ph.D.
Chief Technology Officer, Gehry Technologies.
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Case Studies: Facility Management

Sectional View of Sydney Opera House

Copyright Sydney Opera House
Courtesy Utzon Architects/
Johnson Pilton Walker
(Architects in collaboration)
ARUP

Sectional View of Sydney Opera House
Interested Countries

- Russia
- India
- Brazil

Courtesy of Patrick MacLeamy, HOK
OGC AECOO Testbed – Direct to ISO

Decision Support Communications

QTO

Energy Analysis

AECOO Testbed

Green Buildings

National BIM Standard V1 P1

- Delivered Dec 27, 2007
- International ISO-based Core
- National Specific
  - OmniClass
- Over 30 contributors
- Being used in Australia and Norway

190,000 Downloads in the first four months
ISO 15926 and ISO/PAS 16739

Both approaches are based on changing business processes.

They have many more similarities than differences.

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Relationships

Figure 2 - IFC in the ISO family
Projects: Coordinating Object Definitions

ISO/PAS 16739
(Industry Foundation Class)

ISO 15926
(Process Industry)
Issues and Challenges

- Effort is under resourced
- ISO standards not well respected in U.S.
- Standards not in forefront of significant problems
- Work is being done on IFC’s in Europe and they are currently representing our needs
- Work is outside ANSI chain
  - OGC direct to ISO
  - IFC work direct ISO
- Value not perceived
- Not seen as a crisis . . . yet