



IAI Organization and Processes

Presented in Dallas Jan. 23, 1996




“New ways” that rely on IT




- Automation of tasks to reduce time and cost
- Elimination of reproduction and duplication to avoid errors
- Same source of information to eliminate misunderstandings and conflicting solutions
- Recording of design intent to maintain the understanding of past decisions and consistency over the life of a building
- Maintenance and reuse of full building records

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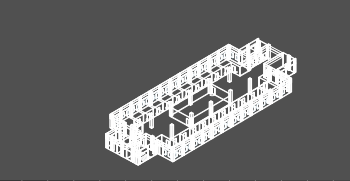
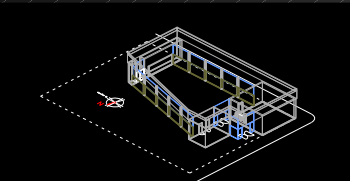


IAI demonstrations at AEC'98



IFC- and Part 21-based information exchange in support of industry processes:


- Design of an energy-efficient bank building
 - Schematic design (Alberti)
 - Architectural design (Allplan FT)
 - Architectural design development (AutoCAD)
 - Energy simulation/analysis (SMOG/RIUSKA)
 - Energy code compliance (ComCheck)
- Redesign of an office building floor
 - Interactive IFC CAD tool (Design Sketcher)
 - Architectural design (ArchiCAD)
 - Architectural dimensioning (AcadMap)
 - HVAC ducting (roCAD)
 - Cost estimating (Precision Estimating)



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Why invest in IT now

- **Ability to cope with what is developing now**
- **Ability to take advantage of future developments**
- **One cannot wait for the software developers to solve industry problems**

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How to best prepare for the future

- **Engage in industry-wide education**
- **Develop business cases for the use of IT**
- **Engage in real-life demonstration projects**
- **Develop a universal object data model (IFC)**
- **Understand the developing new legal environment**
- **Begin to think differently**


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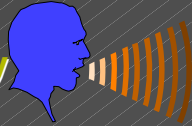
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Industry-wide education




- Educate yourself: allocate time and resources, then do it
- “Visit” other industries and see what it takes to get involved
- Determine what tools, techniques and practices from other industries you can benefit from in your operation
- “Try it,” experiment with ideas
- “Spread the gospel:” tell others you work with (do not keep it to yourself)
- Hire the “new breed” of IT-savvy professional



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Business cases for the use of IT




- “Follow the process:” define process steps and information types
- Define specific cost savings
- Define specific time savings
- Outline specific benefits and the ways to attain them
- Define other (indirect) benefits


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Real-life demonstration projects



- Find an interested “sponsor”
- Formulate a demonstration plan that will showcase the benefits to the “sponsor”
- Expect to make sacrifices and modifications in detail, but stick to the overall plan
- Complete the plan
- *Document the experience*

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The new legal environment





- Ownership of electronically distributed documents
- Liabilities resulting from electronic exchange and distribution
- Authorization to electronically manipulate documents
- Versioning of documents that are electronically distributed

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Begin to think differently

- Ask if you can do differently what you have been doing traditionally
- Look for ways to improve what you are doing
- Look for new ideas in the way you work
- Challenge yourself to prove that there is no better way to do what you are doing
- Always keep an open mind

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Software developers cannot solve industry problems




- Required software is too diverse in nature for any single software developer (even Microsoft)
- The knowledge of industry issues lies within the building, not software industry
- Software development typically *follows* market demand



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Building industry of the future



- Industry-wide: better, cheaper, sooner
- “New ways” of doing business that rely on IT

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How far are we from this future?

This is largely up to you:
People like you will have to demand it.
In other industries they already have.

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End of talk

Thank you Questions?

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