



# SOLIBRI

MODEL CHECKING FOR QUALITY



S O L I B R I M O D E L C H E C K E R v 7

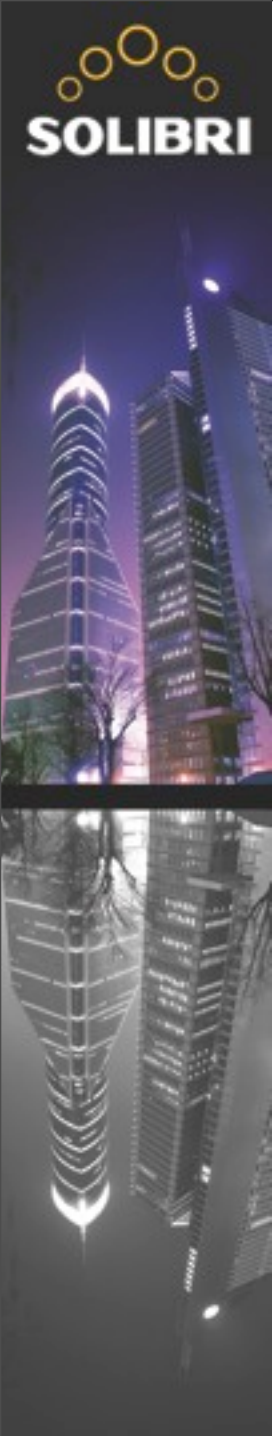


Friday, October 14, 2011



# Agenda

- 13:00 Registration
- 14:00 Opening of the Event  
Heikki Kulusjärvi, Solibri, Inc.
- 14:15 Kubus architectural solutions  
by Rob Roef
- 14:30 Nemetschek Scia  
by Dennis Mensen
- 14:45 Solibri Model Checker Presentation  
by Jaakko Jauhiainen
- 15:30 OpenBIM and Use of Solibri  
by Ronald van Aggelen
- 16:00 Closing
- 16:00 - 17:00 Networking



# Opening of the Event

Heikki Kulusjärvi, Managing Director

[heikki.kulusjarvi@solibri.com](mailto:heikki.kulusjarvi@solibri.com)  
[www.solibri.com](http://www.solibri.com)

# Solibri, Inc.

Develops and markets Quality Assurance/Quality Control (QA/QC) solutions that improve the quality of OpenBIM-based design and make the entire design process more productive.



● Offices:

- Helsinki
- Scottsdale, Arizona, USA

● Partners:

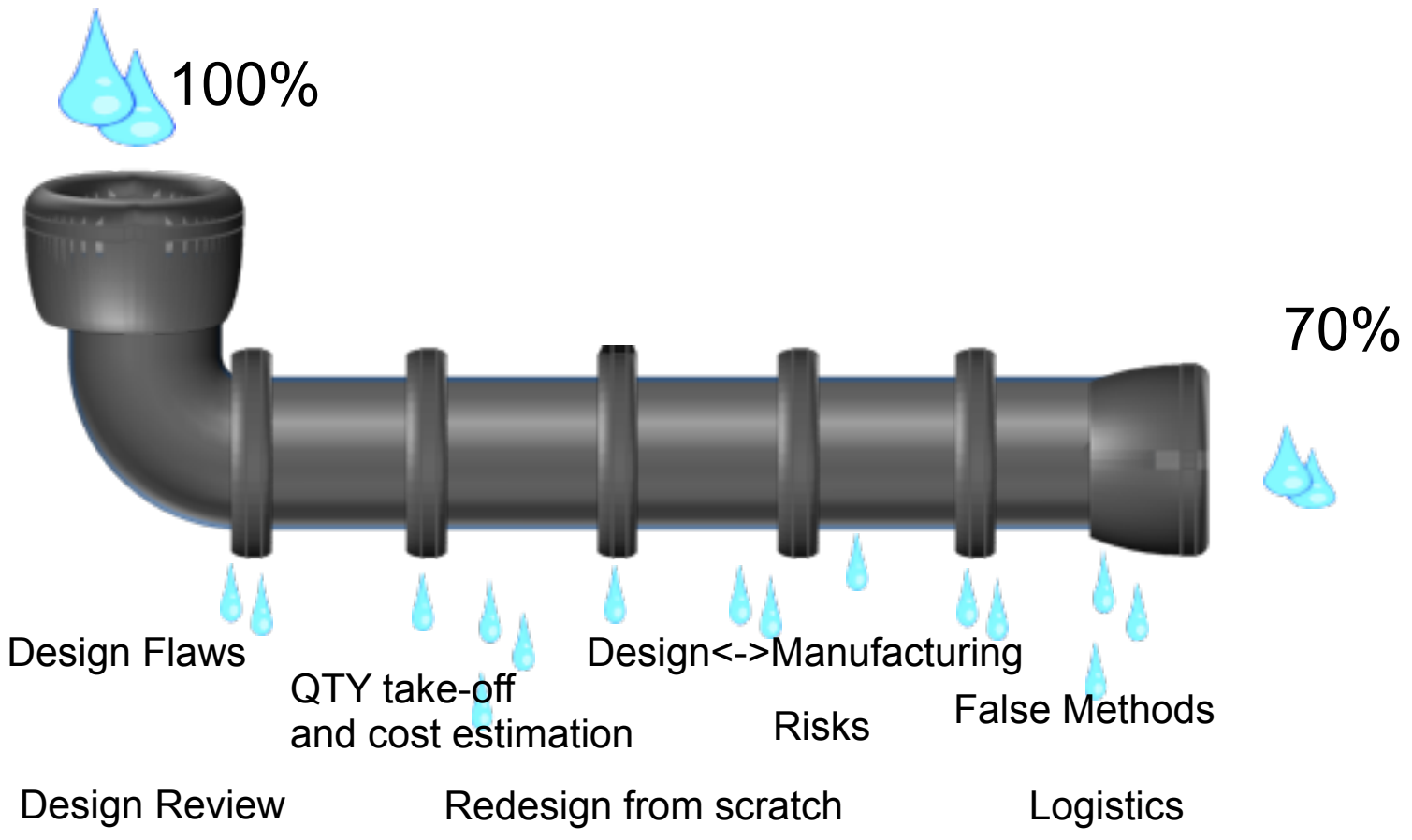
- North America - 12 partners
- Europe - 13 partners
- Dubai, Hong-Kong, South-Korea,
- New Zealand, Australia

Customers:

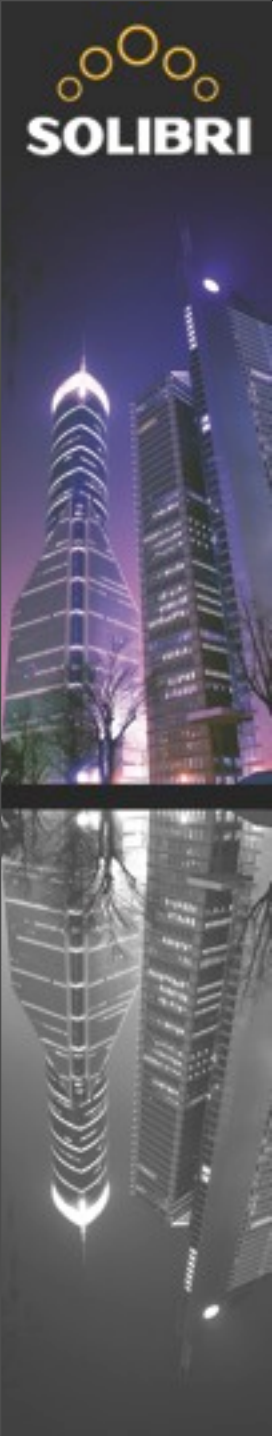
- Building owners, construction companies, consultants, architects and engineering firms
- Users in 64 Countries



# Construction Process Leaks 30%



In the United States alone up to a \$15.8 billion/year loss of capital in the architectural, engineering, construction and facility management industries. (US Commerce 2004 NIST report).

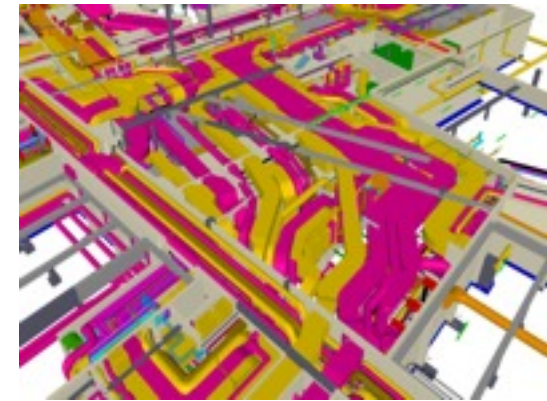


# Trends in Construction

- Quality Cost (waste) is too High
- Productivity
- Buildings are Getting More Complex
- Energy Efficiency Requirements

=> BIM Process

=> Proper Quality Assurance is a MUST





# Solibri Model Checker™

Model Checking for Quality

## The Solution

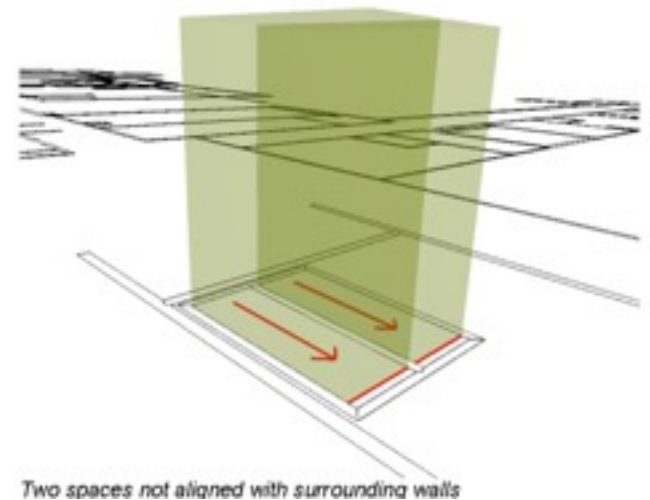


# Rule Based Model Checking

- Building has components that can be recognized and components have a function.
- It's like a spell checker in word processing, but instead of words it analyses building components of a BIM file.

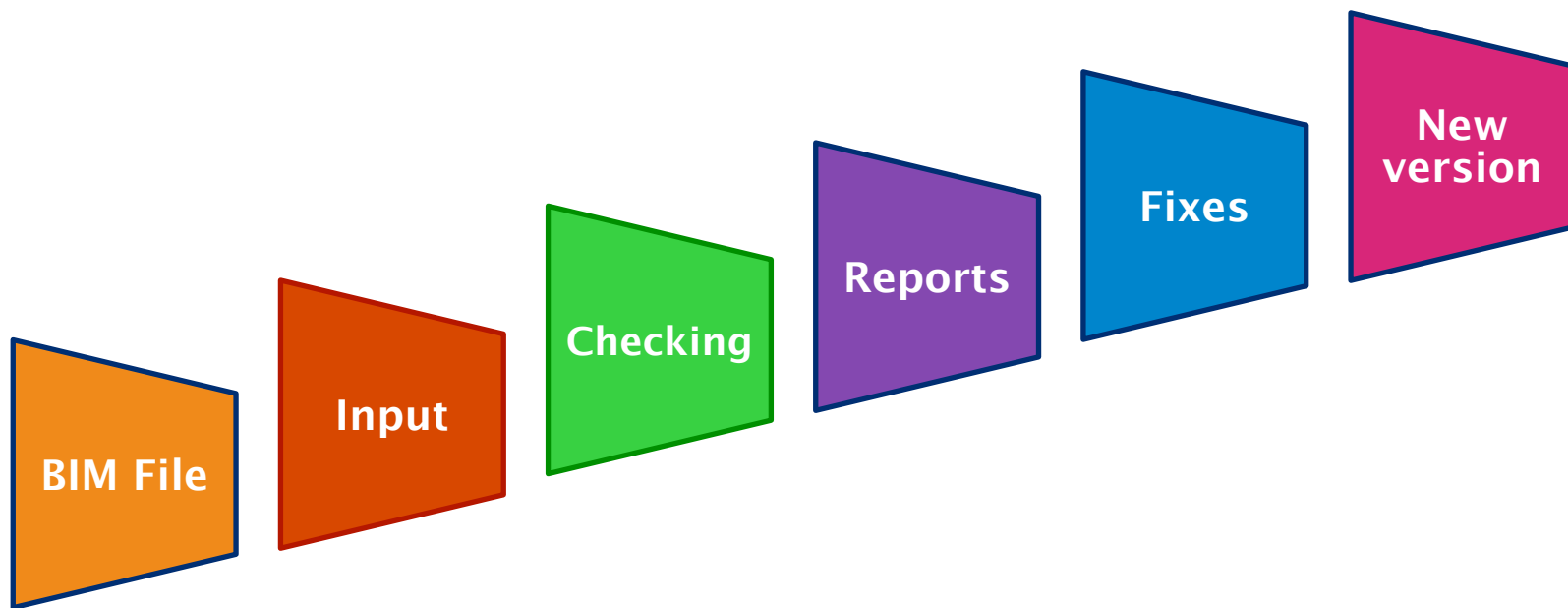
typing misstake < --- >

1.1.2.1. Space Validation Results



Two spaces not aligned with surrounding walls

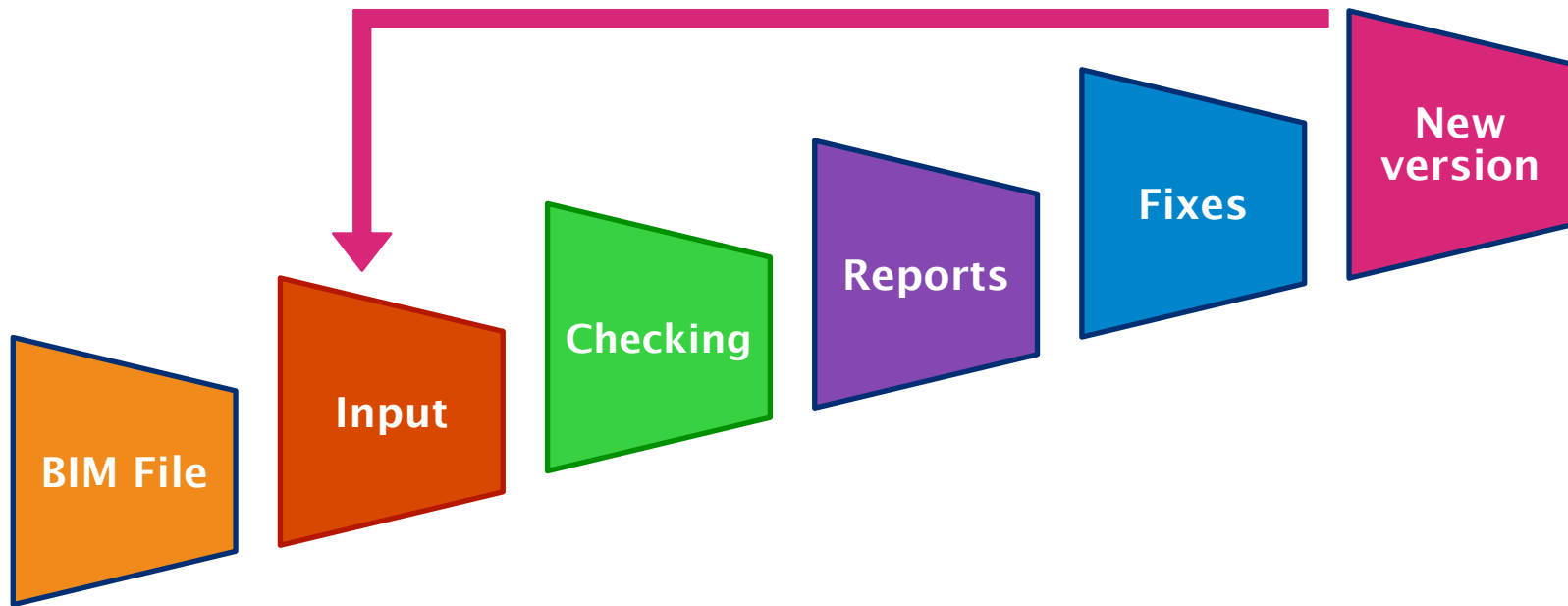
# Solibri Model Checker™ Quality Assurance Process



Solibri Supports the Whole Process



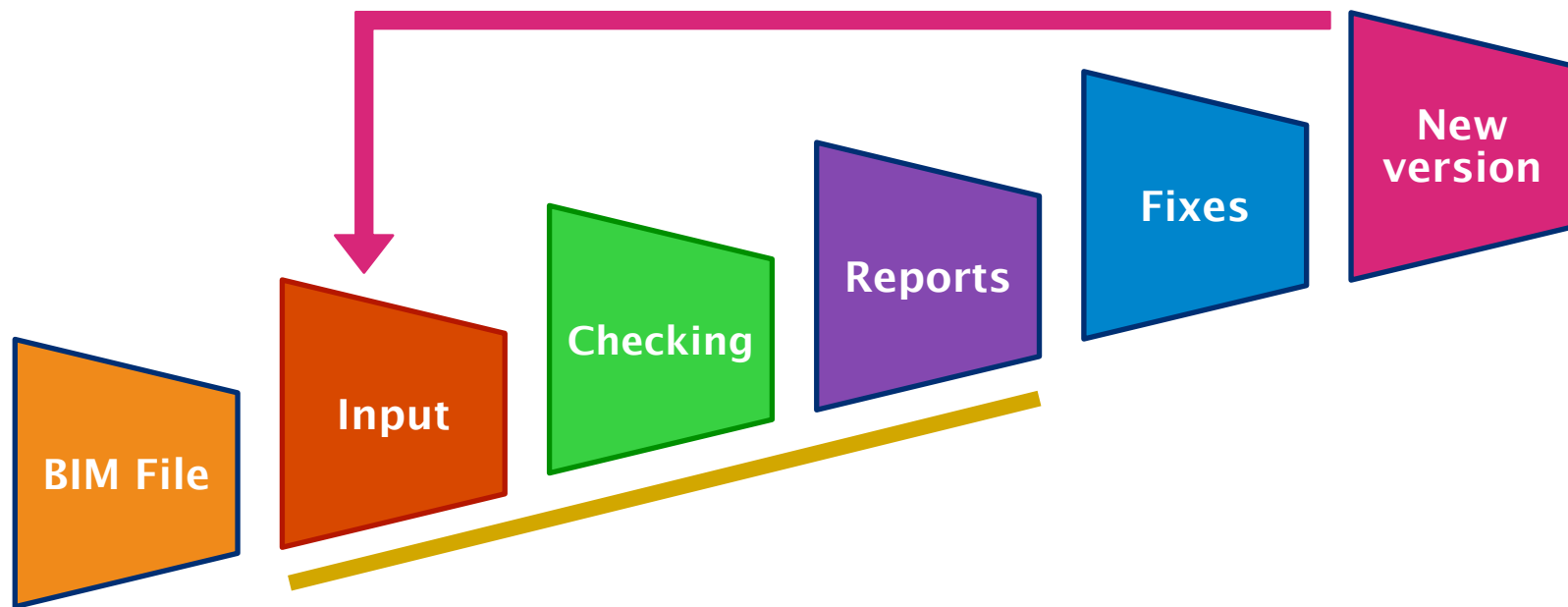
# Solibri Model Checker™ Quality Assurance Process



Solibri Supports the Whole Process



# Solibri Model Checker™ Quality Assurance Process



Solibri Supports the Whole Process



# Solibri Model Checker™

## Input

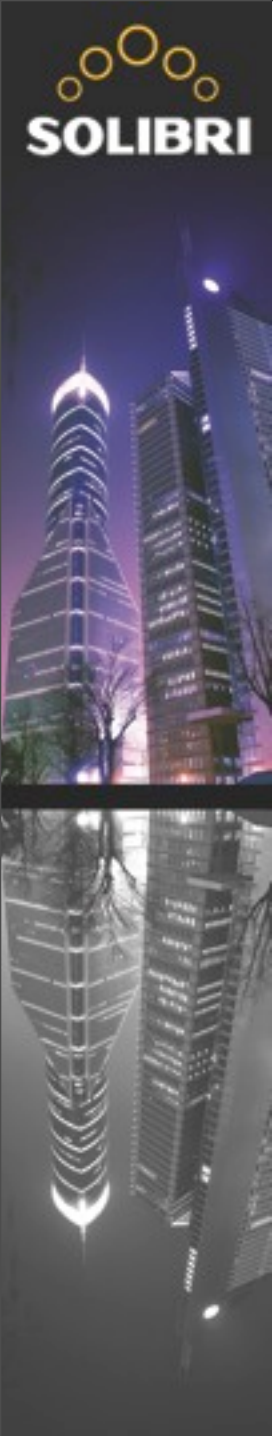
- Reads ISO standard IFC files
  - BuildingSMART Certified
- DWG files

## Checking

- Rule-based Checking
- Merging Models
- Measure Quality of BIM Models and Designs
- Spatial Coordination
- Building Code Conformance
- Custom Rules
- Information Takeoff (ITO)

## Reports

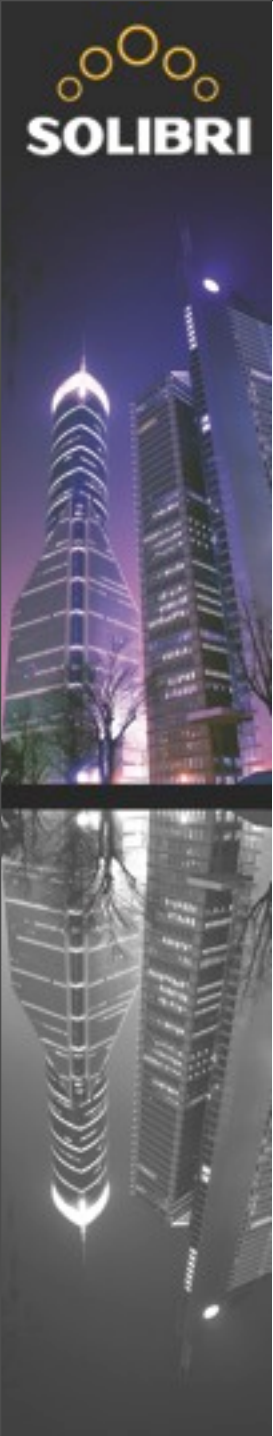
- Reports (customized)
- BIM Collaboration (BCF)
- Solibri Model Viewer
  - Reads IFC and SMC files
  - Freely available at [www.solibri.com](http://www.solibri.com)



# Rule Examples

## Model Checking for Quality

- BIM Guide Validation
  - Senate Properties BIM Requirements
  - GSA BIM Guide Requirements
  - Company Specific BIM Standards
- Building Code Checking
  - Accessibility Rules
  - Egress Analysis
- Architecture vs. Structural Comparison
- Spatial Coordination (incl. collision detection)
- Version Management
- Space Checking
- Key Figures – alerts when off limits
- Quantity Take off - improve accuracy
- .....



# Thank You!

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[www.solibri.com](http://www.solibri.com)