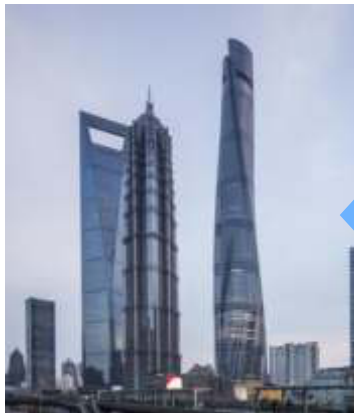# Shipbuilding Dimensional Control Software

China Shanghai Tower

- World's 2nd highest building with the shape of Dragon ascending into Sky
- To express atypical building structures, accuracy control of internal steel module and Joint between modules were critical
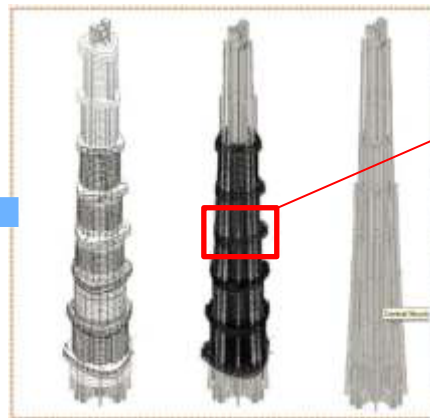- SAMIN provided tools for all accuracy verification needs

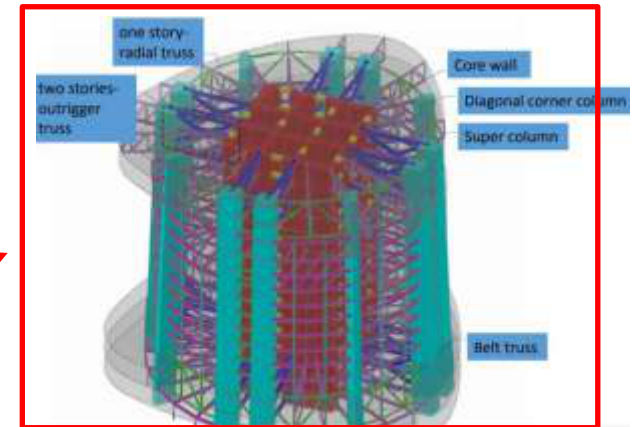Shangahai Tower Structure Component

<Shanghai Tower>

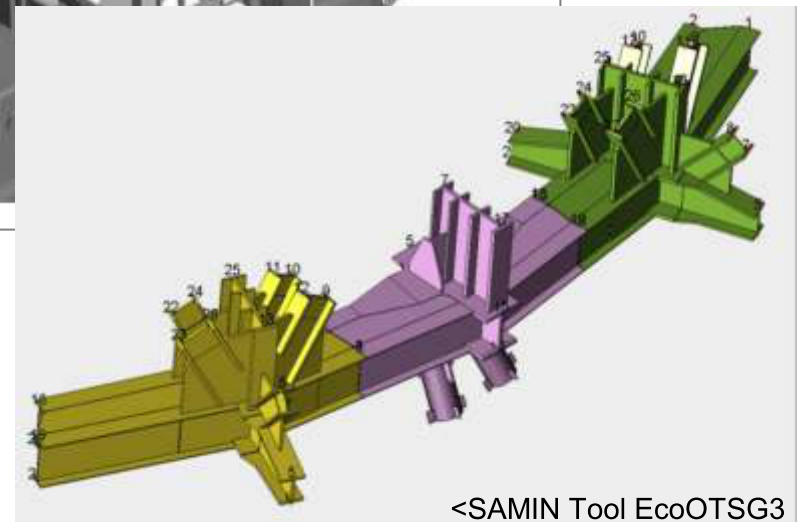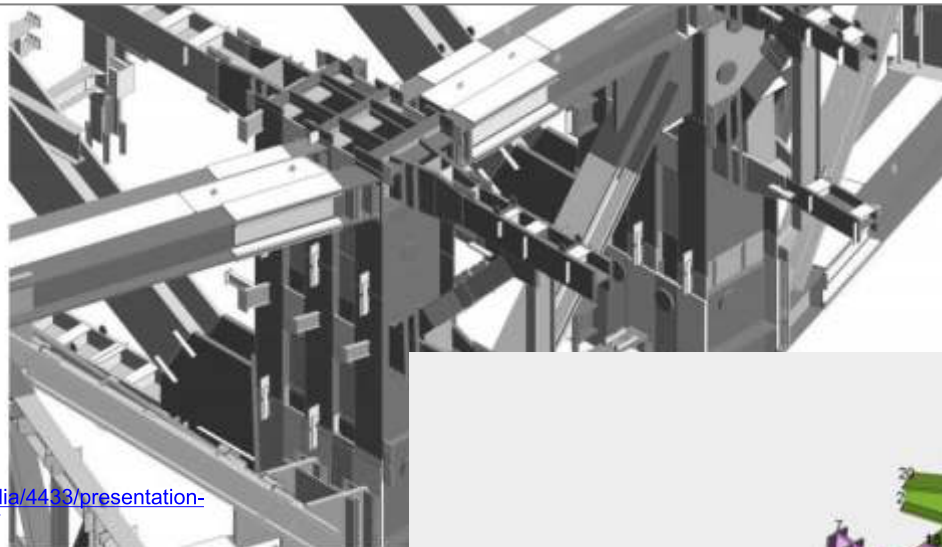<Curtain Wall>

<Main Structure>

<SAMIN Tool EcoOTSG3>

China Shanghai Tower

- Many Joints exists with different axis standard, requiring for 'Relational' Dimensional Control in consideration from Module Fabrication to Joint Connection

- SAMIN Tool provided different axis based dimension quality check and hook-up simulation

Connection Description

- Complexity of stress state.
- Connections should be broken after the destructiveness of members
- Different connections have different design criteria, according to the variation of structure members.

Source : https://faculty.arch.tamu.edu/media/cms_page_media/4433/presentation-case%20study%20of%20Shanghai%20Tower%2012-04-14.pdf

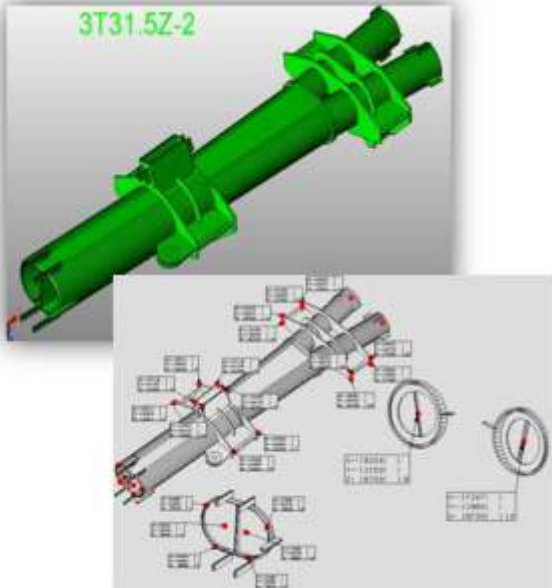<SAMIN Tool EcoOTSG3
Black Number=As-Built Measurement Point>

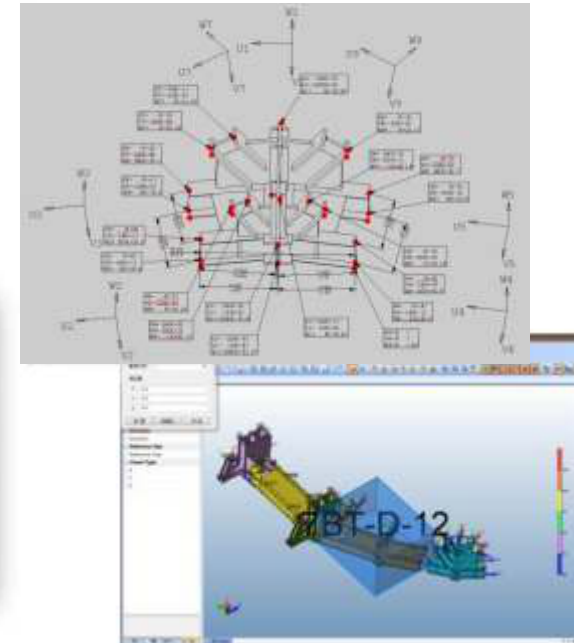**China Shanghai Tower Dimensional Control Work Process**

Check Sheet	Measurement	Analysis/Simulation

- Import 3D Model.
- Create Control Point.
- Make a check sheet.

- Measure each point based on the check sheet.

- Error analysis using different angle orientation
- Installation Simulation using different angle orientation