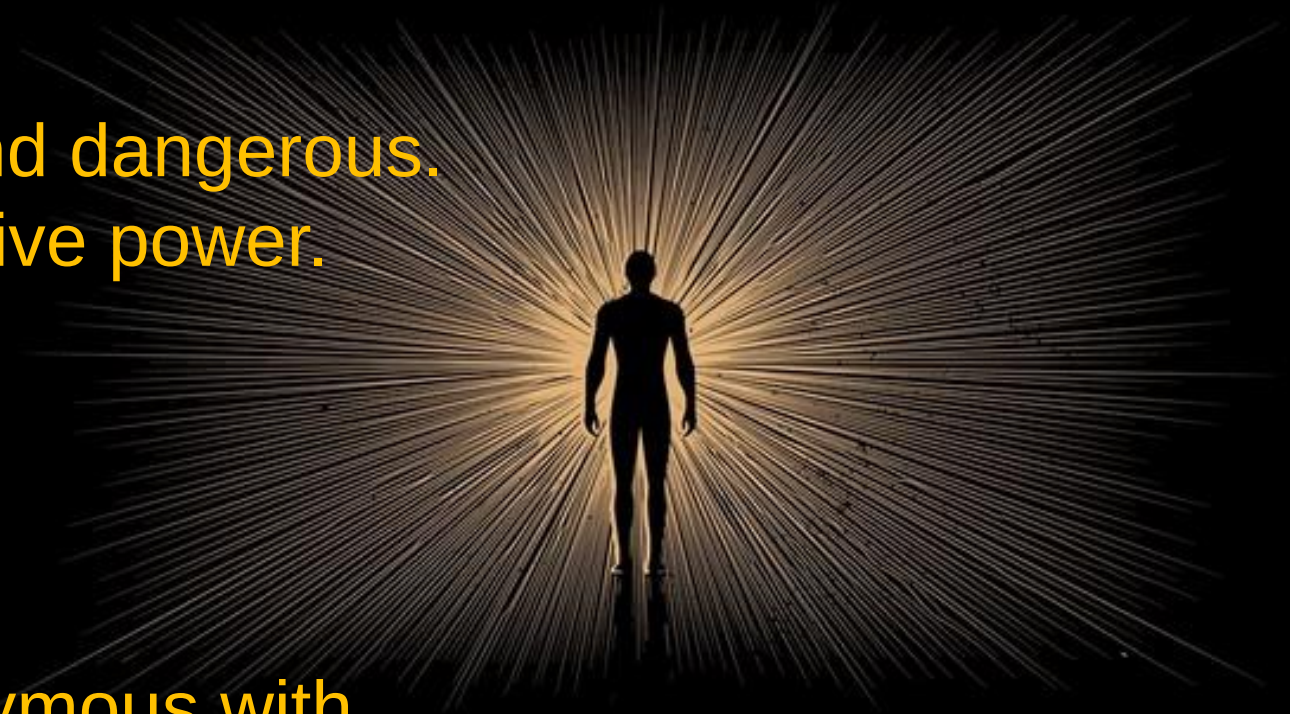
Meyer Turku since 1737

- Courage
- Innovation
- Transformation

The Fear of Fire & Courage to "Play with Fire"

- Fire was once seen as deadly and dangerous.
- Early humans feared its destructive power.



- Some dared to interact with fire.
- 'Playing with fire' became synonymous with taking risks.

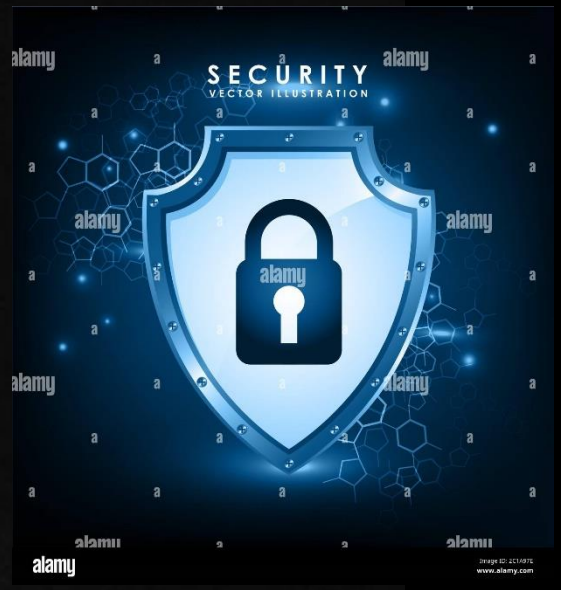
Fire as a Tool for Advancement

- Enabled cooking and better nutrition.
- Provided warmth in cold climates.
- Offered protection from predators.
- Illuminated the darkness, extending active hours.

Parallels in Modern Shipbuilding

- New technologies can seem discouraging.
- Fear of change and potential risks.

- Concerns about data security.
- Fear of losing competitive edge.
- Uncertainty about adopting new standards.



NEcOLEAP and OCX

- Research and development project
- Aims to develop climate-neutral cruise ships.
- Utilize intelligent technologies throughout the ship's life cycle.
- Carbon-neutral ship AVATAR
- Achieve carbon-neutral shipbuilding by 2030.

My Role in NEcOLEAP

- Leading the ”3D class approval with OCXproject”
- Aim to save a million / ship
- Collaboration with Universities and companies

RAPID STRUCTURAL DESIGN

Aalto University

DNV

AiTAC

Native 3D structure data transfer (COMPIT'23)

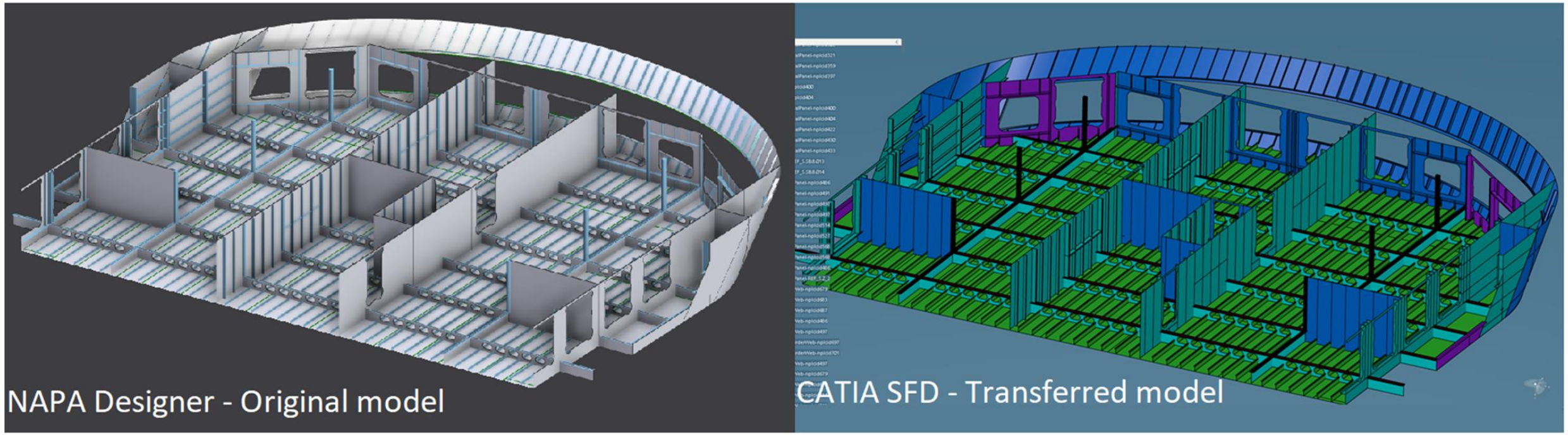
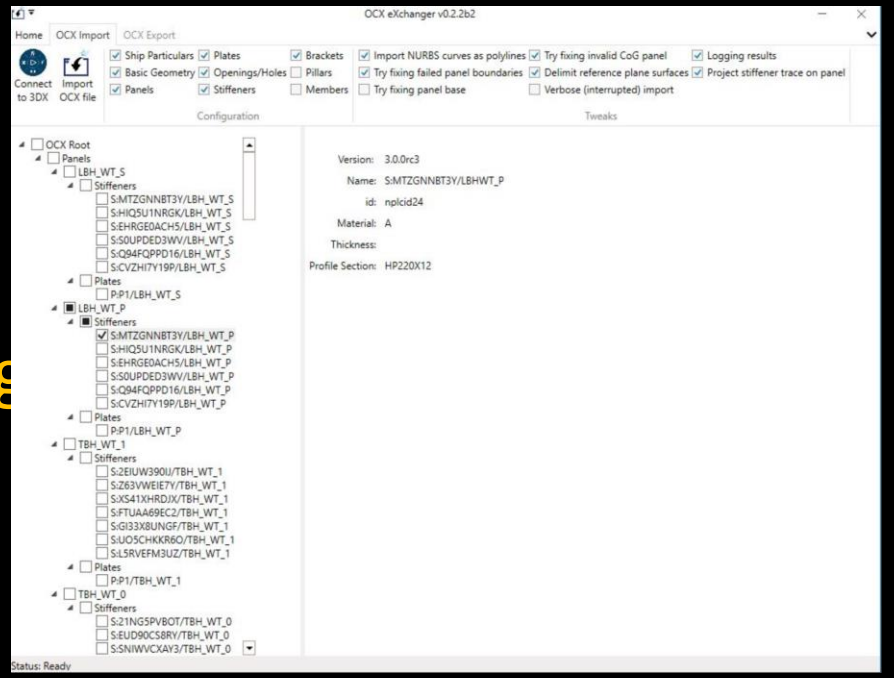


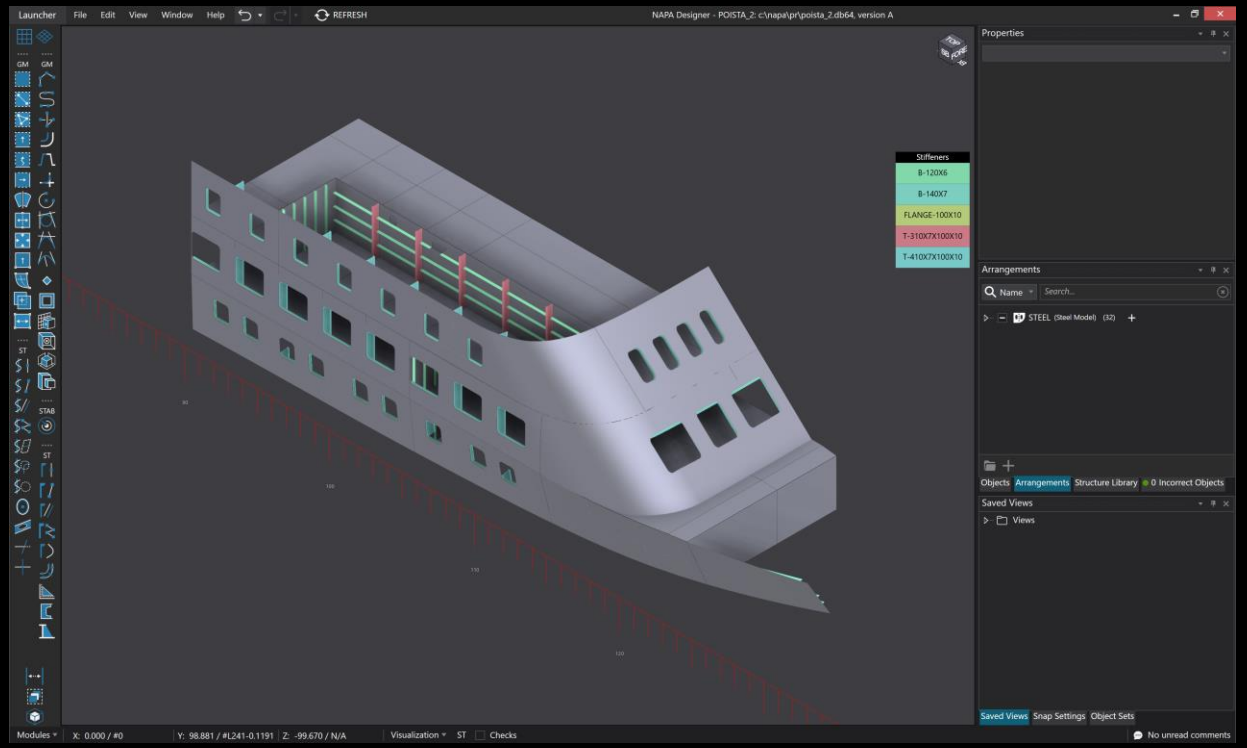
Figure 13. The original NAPA Designer model is shown on the left side, while the transferred file's result is displayed on the right side.

AITAC OCX eXchanger 3.0.0

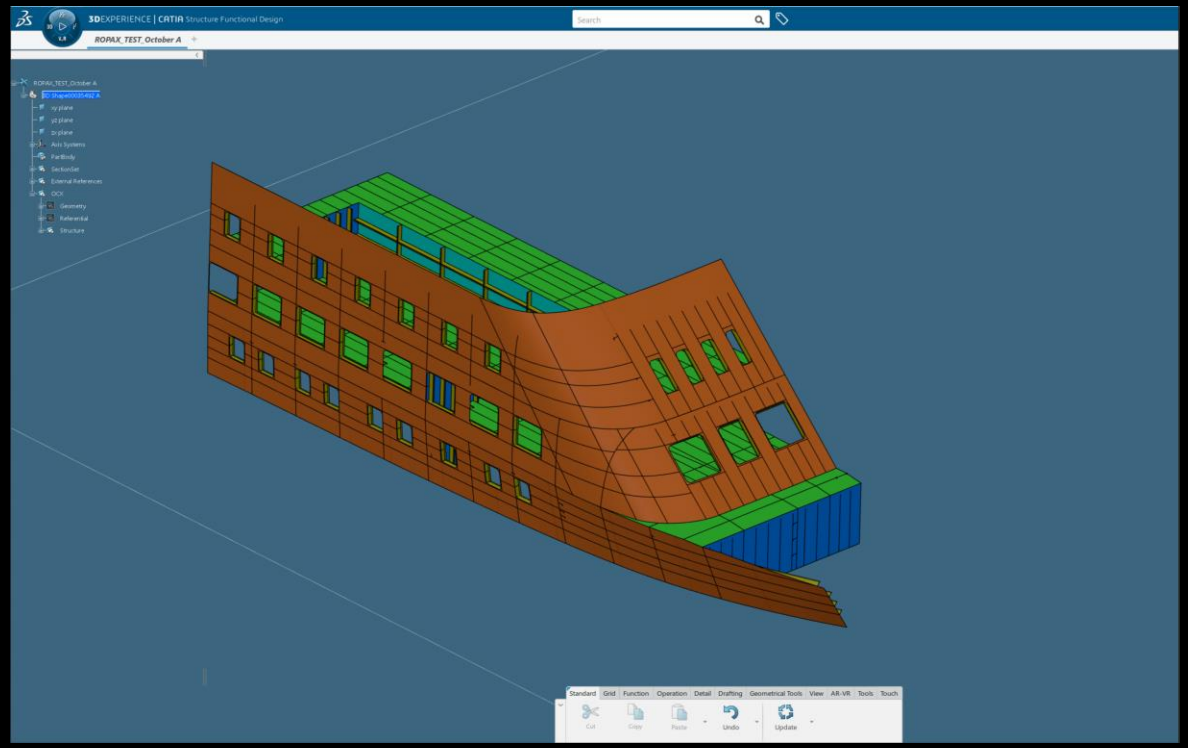
- Improvements in complex geometry handling
- Stiffeners defined properly
- Handpick features to import
- Knuckle panel improvements
- Mapping possibilities
- Duplicates removed
- User-friendly interface
- Compartments added



Steel model

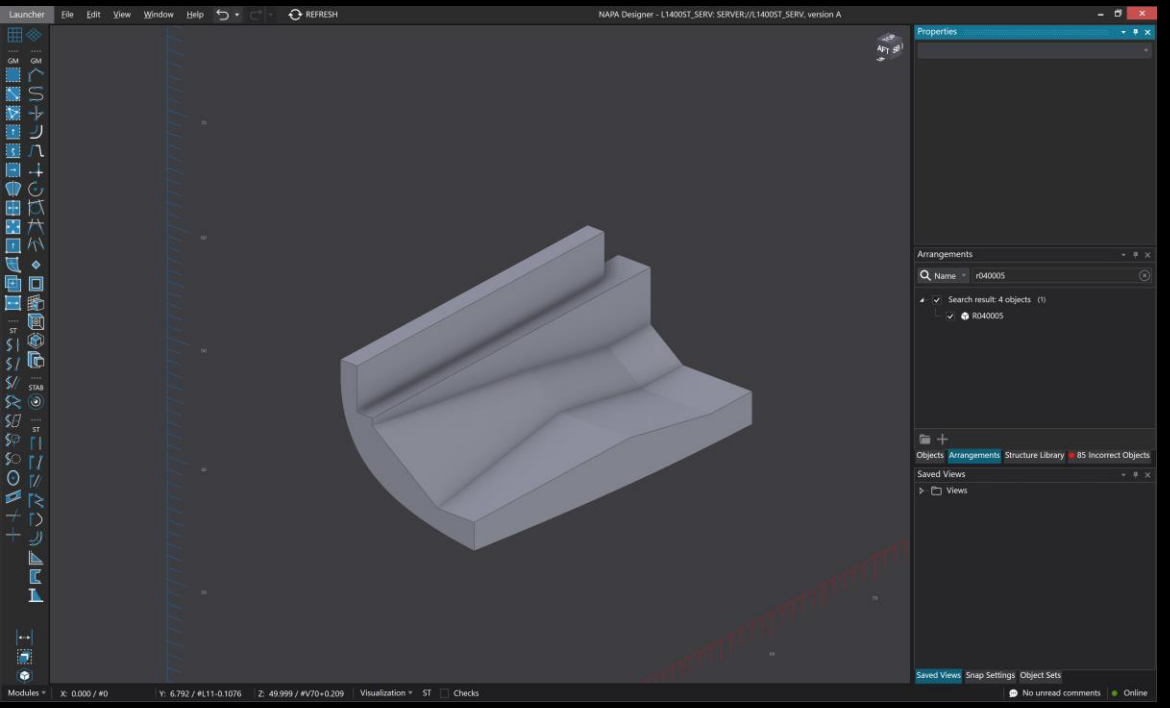


Napa Designer

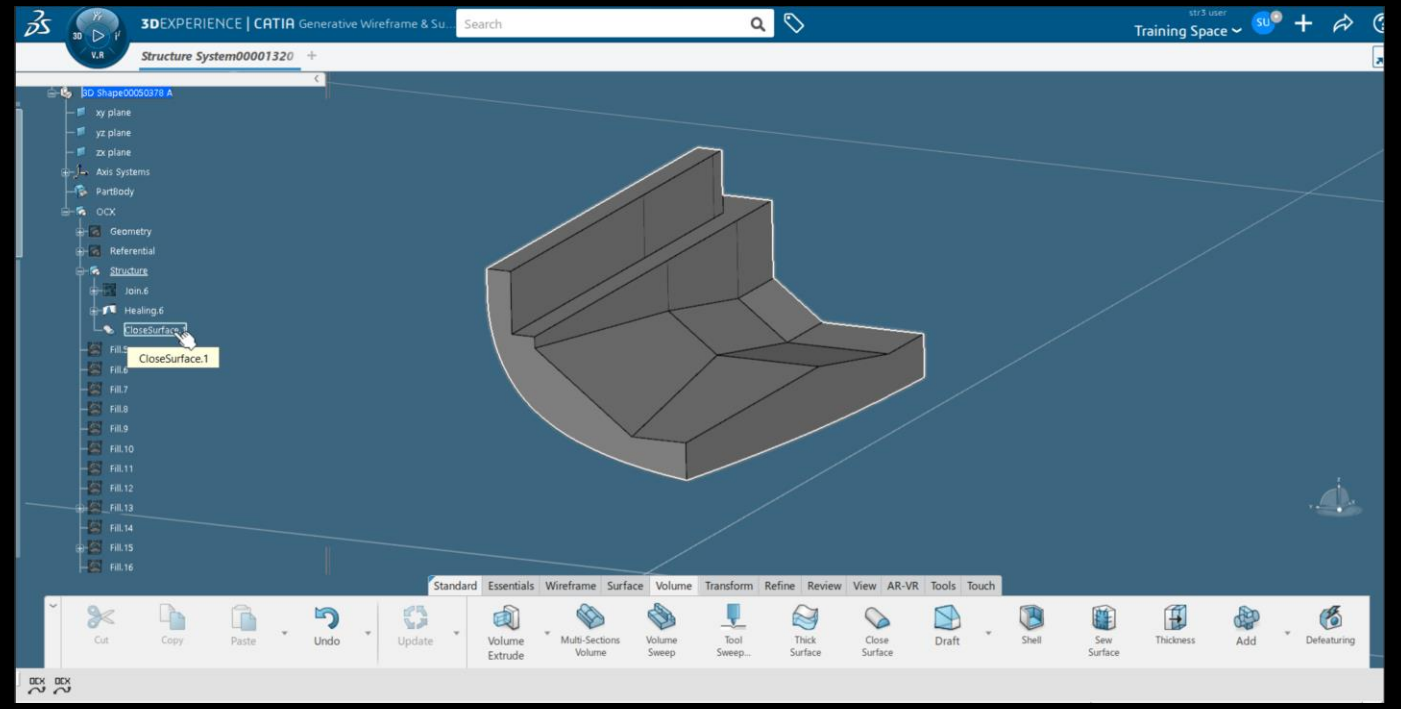


Catia V6 Structural Functional Design

Compartments



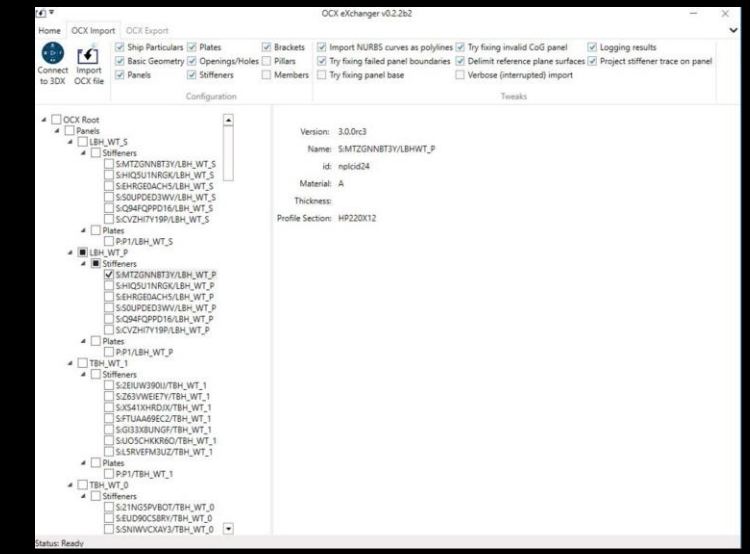
Napa Designer



Catia V6 Generative Wireframe

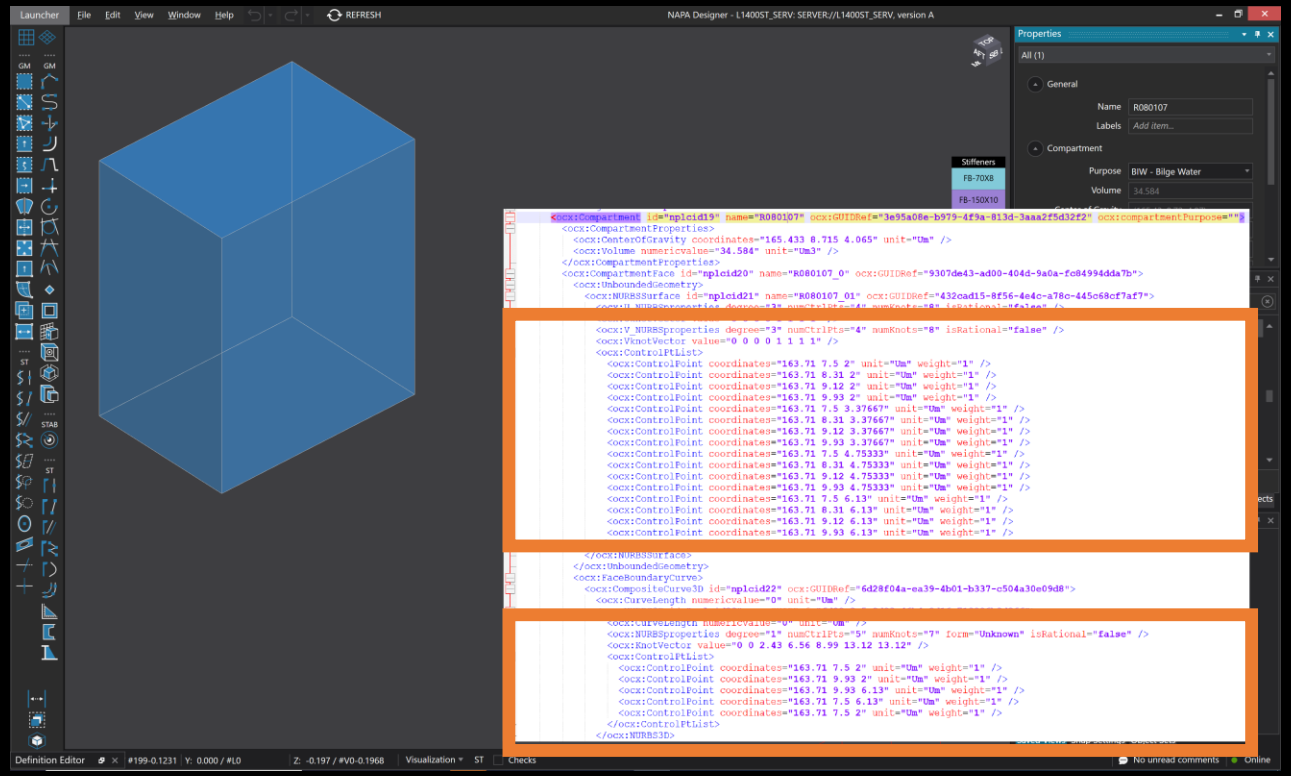
Compartments

- Select what to import
- Native transfer
  - Geometry
  - Metadata
  - Topology
- Modifications can be done after importing



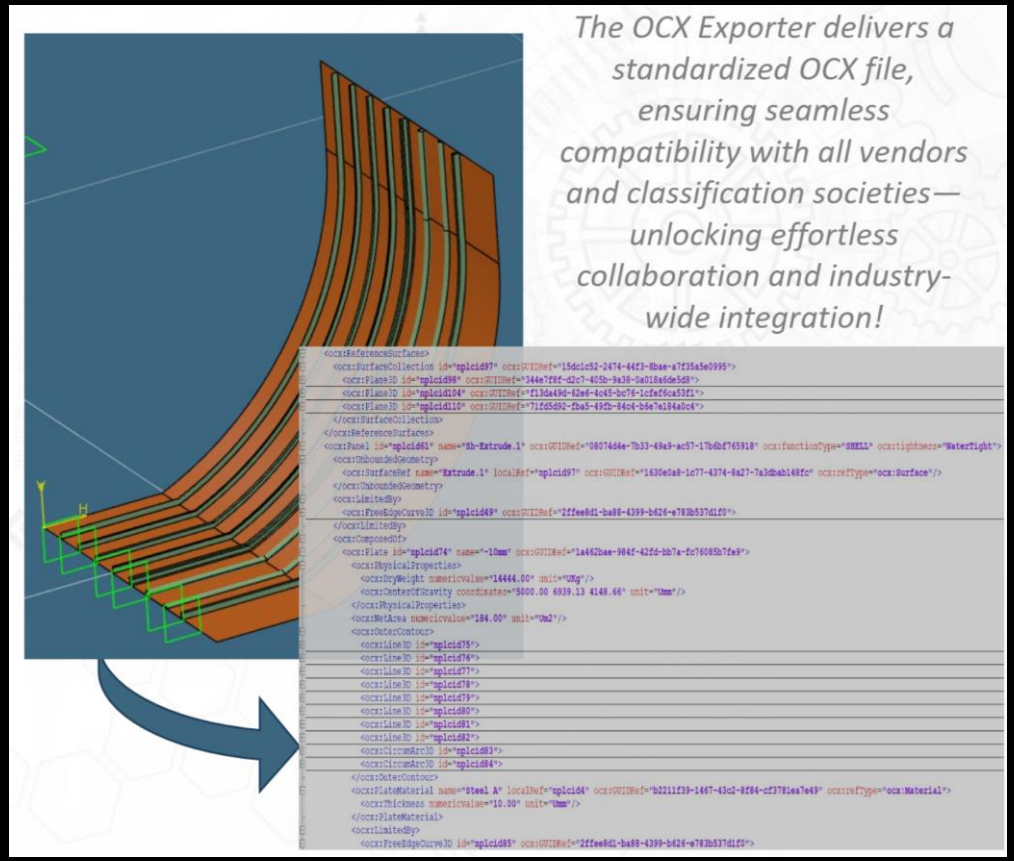
Identified room for improvement

- Simple shapes are defined with Nurbs
- Nurbs can cause deviations compared to the original model.
  - Not fully closed geometry
- Lines and arcs to be prioritized
  - Higher precision
  - Simpler definition
  - Reduction of the OCX file size



Catia Exporter under way

- Supports all schema versions
- Compatible with all 3DExperience versions since R2020x
- Successful implementation of EKL actions
- Comply with certified hardware and software provided by DS
- Exported models on Implementor Forum WebPage



The Revolutionary Potential of OCX

- OCX as a catalyst for industry change.
  - Enabling Seamless Model Reuse 👍
  - Supporting Sustainable Shipbuilding 👍
  - Driving Digitalization 👍
  - Promoting Cross-Platform Collaboration 👍
  - Enabling intelligent technologies across the ship's life cycle 👍
- Embracing innovation leads to growth.

Call to Action

- Let's harness this opportunity together.
- Be pioneers in transforming shipbuilding.