SUMMARY

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FEEDBACK ABOUT THE CURRENT OCX SCHEMA (2.8.6)

02

PROPOSAL FOR FUTURE EVOLUTION

01

FEEDBACK ABOUT THE CURRENT OCX SCHEMA (2.8.6)

STRUCTURE OF THE SOLUTION

Independent calculations

Classification package analysis

Exchange and traceability via VeriSTAR Project Management

Classification package creation

Approval comments creation and exchange

Viewing of the reviewed classification package In VPM

For each object (Plate / Stiffener / Pillar): definition of the geometry and attributes (thickness / section profile + material)
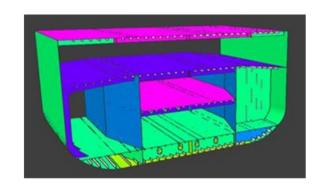
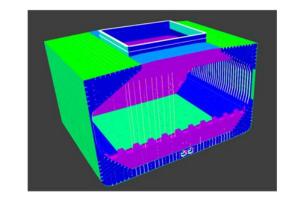● : Shipyard

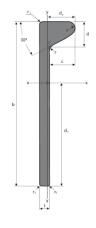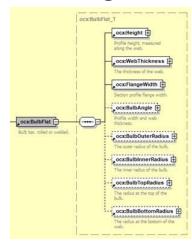● : Bureau Veritas

OCX TEST EXCHANGES

BULB PROFILE DEFINITION

Common definition: HP 180 X 10
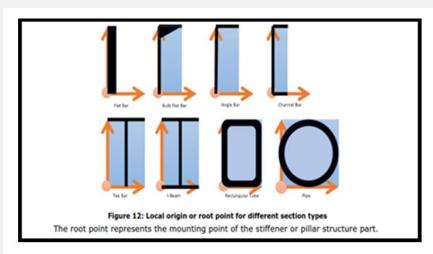
In 2.8.6 format, **FlangeWidth** is mandatory

Different interpretation : some CAD solutions export the OCX model with **FlangeWidth** equal to 0 or generate an OCX file without this **FlangeWidth** attribute (not conform with the schema).

BV Position :
- To be conform with the schema 2.8.6 -> the **FlangeWidth** attribute is to be present.
- We will modify our import tool to manage **FlangeWidth** = 0.
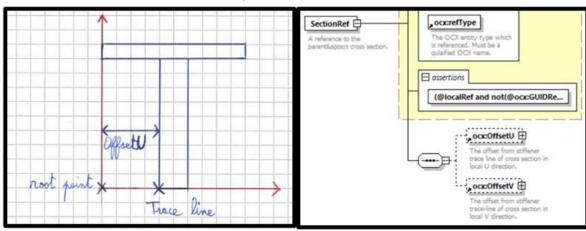- The schema should be corrected in the next version removing this **FlangeWidth** attribute.

ROOT POINT VS TRACE LINE DEFINITION

Figure 12: Local origin or root point for different section types
The root point represents the mounting point of the stiffener or pillar structure part.

Simple solution for CADs: export the trace line (as the connection line between the stiffener and the plate) and to set a value to OffsetU.

The cross-section origin or root point is defined by the lower left corner of the enclosing bounding box.
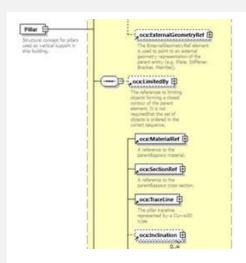
- for T bar, the root point doesn't correspond to the attached point between the stiffener and the attached plating
- for I-beam / rectangular tube / pipe, the root point doesn't correspond to the center of gravity of the pillars
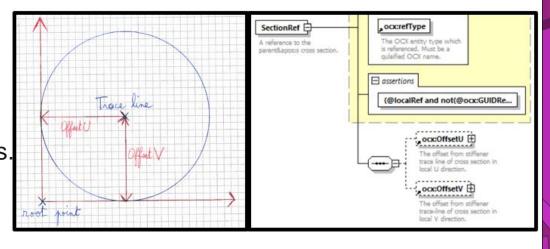

Actions:
- CAD solutions check if this convention is correctly applied / if not -> modify the export to follow it.
- Discussion if this root point definition should be reviewed to follow the normal CAD definitions.

Due to the root point definition, it seems that an inclination definition is mandatory. In fact, a simple solution for CADs to adapt their trace line to this convention in the export is to set a value to OffsetU and OffsetV using the pipe parameters (Height or Diameter).

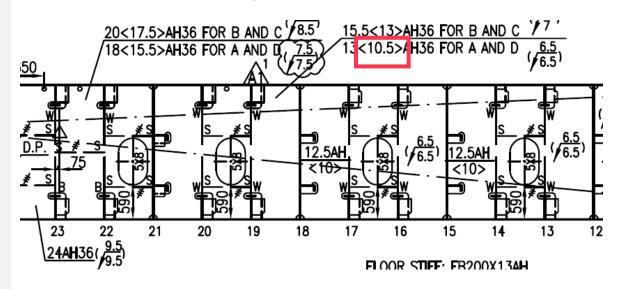The local axis are deducted from the Inclination defined in the stiffeners/pillars.

Actions:
- CAD solutions export systematically this *Inclination* attribute.
- Revision of the format to define this *Inclination* attribute as mandatory.

02

PROPOSAL FOR FUTURE EVOLUTION

ADD NEW ATTRIBUTES

As rule requirements, the renewal thickness / voluntary addition thickness when applicable are to be provided directly in the 2D drawings:
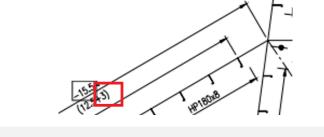

Actions:
Add these new attributes direclty in the OCX format:
- renewal thickness
- voluntary addition thickness

WELDING INFORMATION

Current situation:

- Use of the welding booklet to review:
  - Welding consumables and procedure
  - Standard connections

	Note	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Weld type
											Required Throat Thickness, tw (mm), for a given Plate Thickness, t (web thickness in mm of the thiner plate in the connection)																						
Stiffeners																																	
Stiffeners in general		3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4.5	4.5	5	5	5.5	5.5	5.5	5.5	5.5	6	Double continous
Stiffeners on internal bulkheads in dry spaces	50% of span	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	Double continous
	At ends (where no end brackets are fitted)	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4.5	5	5.5	5.5	6	6.5	6.5	7	7.5	7.5	8	8.5	9	9	9.5	10	10	10.5	Double continous

- Additional information directly on the 2D drawings for specific cases (ponctual load / pillar – equipment connections …)

Proposal based on the 3D model

- Use of the welding booklet to review:
  - Welding consumables and procedure
  - Standard connections
- For specific cases, additional information directly on the 3D Model thanks to a new object type WELD (weld type / leg length …)