

IFC Analyser

THE PROBLEM

An IFC Model Either Carries the Information You Need or It Doesn't and the Geometry Won't Tell You Which

A model turns up at handover looking fine on screen because geometry almost always does. What a 3D view won't show you is whether elements carry a classification, whether property sets are populated, whether the model is georeferenced or how much of it has been dumped into IfcBuildingElementProxy. Nobody finds out until someone tries to build an asset register, and by then the authoring team has moved on & every correction costs many times what it would have at export.

HOW IT WORKS

Drop an IFC file onto the page and it is parsed in the browser using web-ifc, so the model never leaves your machine. IFC Analyser builds a census of what is really in there, schema, storeys, element counts by class, property set coverage, units & georeferencing, then runs it against eight quality rules covering missing names & tags, empty property sets, missing classification, orphan elements, absent manufacturer data, proxy overuse & no map conversion. Findings are weighted by severity into a single 0-100 score. A 3D viewer sits alongside the report so you can click any element & read its real properties and Claude AI writes the verdict, telling you where the fixes are needed.

KEY BENEFITS

- A single 0-100 data quality score, by severity
- 8 gap rules covering classification, property sets, units, georeferencing & proxies
- AI verdict defining problems from genuine element-by-element rework
- 3D viewer alongside the report, click an element & see what it really carries
- Gap report exports to xlsx, punch list ready
- Parsed in your browser & never uploaded to the cloud

INDUSTRIES & USE CASES

Oil & Gas

Process Industries

EPC Contracting

Handover Deliverables

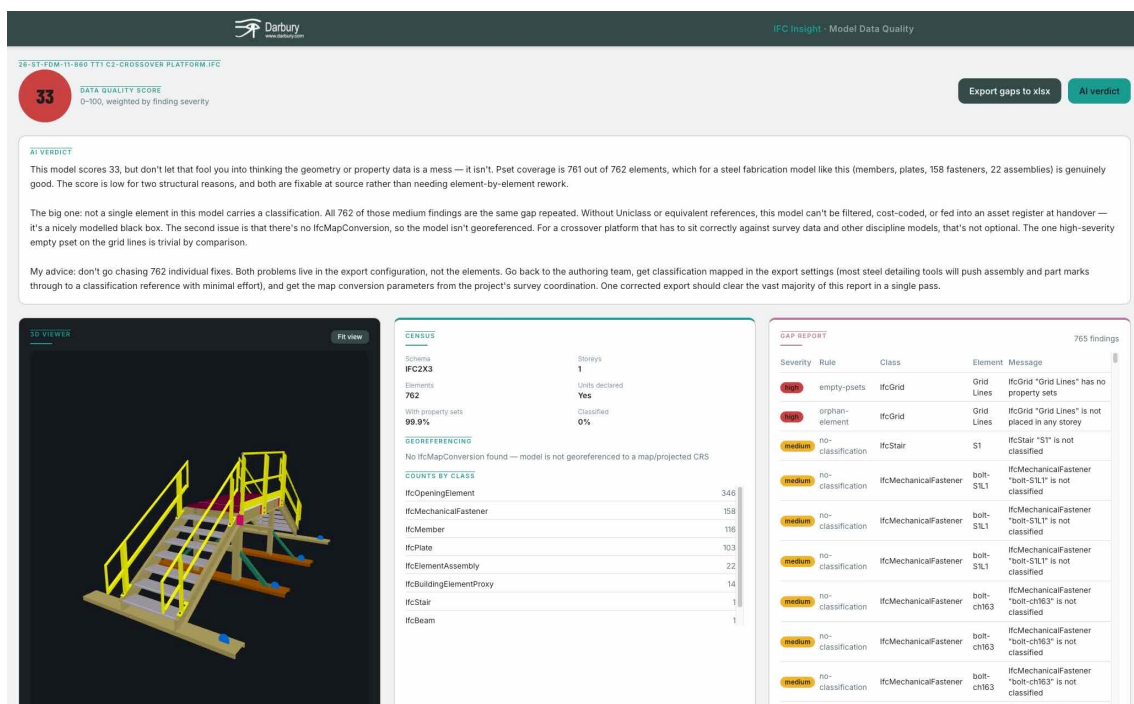
Asset Information Management

TECHNOLOGY STACK

Next.JS

Claude AI

web-ifc



18-17-F0M-11-860 TTY C2-CROSSOVER PLATFORM IFC

33 DATA QUALITY SCORE
0-100, weighted by finding severity

Export gaps to xlsx AI verdict

AI VERDICT

This model scores 33, but don't let that fool you into thinking the geometry or property data is a mess — it isn't. Pset coverage is 761 out of 762 elements, which for a steel fabrication model like this (members, plates, 158 fasteners, 22 assemblies) is genuinely good. The score is low for two structural reasons, and both are fixable at source rather than needing element-by-element rework.

The big one: not a single element in this model carries a classification. All 762 of those medium findings are the same gap repeated. Without Uniclass or equivalent references, this model can't be filtered, cost-coded, or fed into an asset register at handover — it's a nicely modelled black box. The second issue is that there's no IfcMapConversion, so the model isn't georeferenced. For a crossover platform that has to sit correctly against survey data and other discipline models, that's not optional. The one high-severity empty pset on the grid lines is trivial by comparison.

My advice: don't go chasing 762 individual fixes. Both problems live in the export configuration, not the elements. Go back to the authoring team, get classification mapped in the export settings (most steel detailing tools will push assembly) and part marks through to a classification reference with minimal effort), and get the map conversion parameters from the project's survey coordination. One corrected export should clear the vast majority of this report in a single pass.

3D VIEWER

CENSUS

Schema: IFC2X3

Storeys: 1

Units declared: Yes

Elements: 762

Units declared: 0%

With property sets: 99.9%

Classified: 0%

GEOREFERENCING

No IfcMapConversion found — model is not georeferenced to a map/projected CRS

COUNTS BY CLASS

Class	Count
IfcOpeningElement	348
IfcMechanicalFastener	158
IfcMember	198
IfcPlate	103
IfcElementAssembly	22
IfcBuildingElementProxy	14
IfcStair	1
IfcBeam	1

GAP REPORT

765 findings

Severity	Rule	Class	Element	Message
High	empty-psets	IfcGrid	IfcGrid "Grid Lines"	IfcGrid "Grid Lines" has no property sets
High	orphan-element	IfcGrid	IfcGrid "Grid Lines"	IfcGrid "Grid Lines" is not placed in any storey
Medium	no-classification	IfcStair	S1	IfcStair "S1" is not classified
Medium	no-classification	IfcMechanicalFastener	bolt-S1L1	IfcMechanicalFastener "bolt-S1L1" is not classified
Medium	no-classification	IfcMechanicalFastener	bolt-S1L1	IfcMechanicalFastener "bolt-S1L1" is not classified
Medium	no-classification	IfcMechanicalFastener	bolt-S1L1	IfcMechanicalFastener "bolt-S1L1" is not classified
Medium	no-classification	IfcMechanicalFastener	bolt-ch163	IfcMechanicalFastener "bolt-ch163" is not classified
Medium	no-classification	IfcMechanicalFastener	bolt-ch163	IfcMechanicalFastener "bolt-ch163" is not classified
Medium	no-classification	IfcMechanicalFastener	bolt-ch163	IfcMechanicalFastener "bolt-ch163" is not classified