

Supported 3D File Formats

Overview of all formats the Spectr platform can import via the Asset Transformer Toolkit (Unity Industry Toolkit v3.3).

The Spectr platform uses the Unity Asset Transformer Toolkit to import and process 3D models. The toolkit supports a wide range of CAD, BIM, and mesh formats from leading industrial software packages.

Supported Categories

CAD & BIM	Mesh / Tessellated	Point Clouds
STEP, IGES, JT, Revit, Navisworks, IFC, CATIA, NX, SolidWorks, Alias, Inventor...	FBX, glTF/glb, JT, OBJ, STL, Prefab...	E57, PLY, PTS, PTX, glTF...

Complete Format Overview

Columns: Tessellated = mesh geometry | BREP = B-Rep solid model | PMI = product & manufacturing info + annotations | Meta = metadata support

Format	Version	Extension(s)	Tess.	BREP	PMI	Meta
Pixyz	All versions	.pxz	Yes	Yes	Yes	Yes
3DS	All versions	.3ds	Yes	Yes	-	Yes
3MF	1.2.3	.3mf	-	Yes	-	-
ACIS	Up to 2023	.sab, .sat	Yes	Yes	-	-
AutoCAD 3D	Up to AutoCAD 2024	.dwg, .dxf	Yes	Yes	Yes	Yes
Autodesk Alias (1)	Up to 2024	.wire	Yes	Yes	-	Yes
Autodesk Inventor	Up to 2025	.iam, .ipt	Yes	Yes	-	-
Autodesk Navisworks	2012-2025	.nwc, .nwd, .nwf	Yes	Yes	-	Yes
Autodesk ReCap (2)	All versions	.rcs, .rcp	Yes	Yes	-	Yes
Autodesk VRED (3)	Up to 2024	.vpb	Yes	Yes	-	Yes
CATIA V4	Up to 4.2.5	.dlv, .exp, .model, .session	Yes	Yes	Yes	Yes
CATIA V5	Up to V5_6R2024	.CATDrawing, .CATProduct, .CATPart, .CGR	Yes	Yes	Yes	Yes
CATIA V6 / 3DXML	Up to V5_6R2024	.3dxml	Yes	Yes	Yes	Yes

Format	Version	Extension(s)	Tess.	BREP	PMI	Meta
COLLADA	All versions	.dae	Yes	-	-	-
Creo / Pro/E	Pro/E 19.0 - Creo 11	.asm, .neu, .prt, .xas, .xpr	Yes	Yes	Yes	Yes
CreoView	Up to 8.1	.pvs, .pvz	Yes	Yes	-	Yes
DGN	7, 8	.dgn	Yes	Yes	-	Yes
E57 Point Cloud	All versions	.e57	Yes	-	-	-
FBX	All versions	.fbx	Yes	Yes	-	Yes
GL Transmission	Version 2.0	.glb, .gltf	Yes	-	-	Yes
I-deas	Up to NX I-deas 6	.arc, .mf1, .pkg, .unv	Yes	Yes	Yes	Yes
IFC	IFC2 up to 2.3 / IFC4 up to 4.0	.ifc, .ifczip	Yes	Yes	-	Yes
IGES	5.1, 5.2, 5.3	.iges, .igs	Yes	Yes	-	Yes
JT	8.1, 9.5, 10.0	.jt	Yes	Yes	Yes	Yes
NX / Unigraphics	UG11-NX2412	.prt	Yes	Yes	Yes	Yes
OBJ	All versions	.obj	Yes	-	-	-
Parasolid	Up to 37.0	.p_b, .p_t, .x_b, .x_t	Yes	Yes	-	Yes
PDF 3D	All versions	.pdf	Yes	Yes	Yes	Yes
PLY Point Cloud (5)	All versions	.ply	Yes	-	-	-
PRC	All versions	.prc	Yes	Yes	Yes	Yes
Prefab (Unity)	All versions	.prefab	Yes	-	-	-
PTS / PTX Point Cloud	All versions	.pts, .ptx	Yes	-	-	-
Revit	2015-2025	.rfa, .rvt	Yes	Yes	-	Yes
Rhino 3D	4-8	.3dm	Yes	Yes	-	Yes
RVM	All versions	.rvm	Yes	Yes	-	Yes
SketchUp	Up to 2021	.skp	Yes	Yes	-	-
Solid Edge	1-2025	.asm, .par, .psm, .pwd	Yes	Yes	-	Yes
SolidWorks	1997-2025	.sldasm, .sldprt	Yes	Yes	Yes	Yes
STEP	AP 203/214/242	.step, .stp, .stepz, .stpz, .stpx, .stpxz	Yes	Yes	Yes	Yes
STL	All versions	.stl	Yes	-	-	-
U3D	ECMA-363	.u3d	Yes	-	-	-
USD	All versions	.usd, .usda, .usdc, .usdz	Yes	-	-	-

Format	Version	Extension(s)	Tess.	BREP	PMI	Meta
VDA-FS	1.0, 2.0	.vda	Yes	Yes	-	-
VRML	1.0, 2.0	.vrml, .wrl	Yes	-	-	-

Notes & Requirements

(1) Autodesk Alias: requires Autodesk Alias (valid license, Windows only) installed on the same machine.

(2) Autodesk ReCap: requires the Autodesk ReCap SDK (ADN account required, Windows only) installed on the same machine.

(3) Autodesk VRED: requires VRED Pro or VRED Design (valid license, Windows only) installed on the same machine.

(4) CSB Deltagen: only geometries are supported - variants and animations are not.

(5) PLY: both mesh and point cloud supported; select the appropriate importer based on the geometry type.

Source: Unity Industry Toolkit v3.3 - Supported Formats

Platform: spectr-xr.com