



Autodesk®
FBX® for 3ds Max

Interoperability Chart

Version 2010.2

| LEGEND | V | Perfect compatibility Data passed from a source application is recognized by the destination application, yielding identical results. |
|--------|---|--|
| | C | Data (Converted) compatibility Two applications do not use identical algorithms to achieve certain functionality. Data passed between the applications is converted or interpolated to yield results that are functionally equivalent. The converted data, to some extent, can still be manipulated and edited. |
| | B | Emulated (Bake) compatibility Two applications have completely different capabilities, so transferring data between them requires that data be baked on export to an FBX file using the bake animation feature of the FBX plug-in. Baked data transfers visual fidelity. The ability to manipulate and edit baked data is limited. |
| | X | Not Supported Data is not recognized and therefore ignored on export. |

| | | 3DS MAX | .FBX | MAYA | MOTIONBUILDER | MUDBOX |
|----------------|---------------------------|--------------------------------|------|------|---------------|--------|
| GENERAL | Environment | Colors / Maps | x | x | x | x |
| | | Global Lighting | √ | x | x | x |
| | Export Options | Audio Embedding | x | x | x | x |
| | | Texture Embedding | √ | √ | √ | √ |
| | | Portable .TIF Conversion | √ | √ | √ | √ |
| | | Export Selected | √ | √ | √ | √ |
| | Names | Named Selection Sets | √ | √ | x | √ |
| | | Object Names | √ | C | C | √ |
| | Time Configuration | Frames Per Second (FPS) Rate | x | x | C | x |
| | | Start / End Times | C | C | C | x |
| | Miscellaneous | Groups / Assemblies | x | x | x | x |
| | | Display Layers (Layer Manager) | √ | √ | x | x |
| | | Animation Layers | x | x | x | x |
| | | Render Settings | x | x | x | x |
| | | X-REF Objects | √ | √ | √ | √ |
| | | X-REF Scene / File Link | x | x | x | x |
| | Transforms | Position/Rotation/Scale | √ | √ | √ | √ |
| OBJECTS | Camera Types | Target | √ | C | C | C |
| | | Free | √ | √ | √ | C |
| | Geometry | Editable Mesh | √ | √ | √ | √ |
| | | Editable Poly | √ | √ | √ | √ |
| | | Patch | C | C | C | C |
| | | NURBS | C | C | C | x |
| | | 3ds Max Primitive | C | C | C | C |
| | | Instances / References | C | C | C | C |
| | Helpers | Standard (Dummy Objects) | C | C | C | x |
| | | Containers | C | C | C | x |
| | | Atmospheric Apparatuses | C | C | C | x |
| | | Manipulators | C | C | C | x |
| | | Reactor Objects | C | C | C | x |
| | Standard Lights | Target Spot | √ | √ | √ | x |
| | | Free Spot | √ | √ | √ | x |
| | | Target Direct | √ | √ | √ | x |
| | | Free Direct | √ | √ | √ | x |
| | | Omni | √ | √ | √ | x |
| | | Skylight | C | C | C | x |
| | | mental ray Area Omni | C | C | C | x |
| | | mental ray Area Spot | C | C | C | x |
| | Photometric Lights | Target Light | C | C | C | x |

| | | | | | | |
|---|------------------------------------|----------------------------|---------------|---|---|---|
| | | Free Light | C | C | C | X |
| | | mental ray Sky Portal | C | C | C | X |
| | Shape Objects | NURBS Curves | √ | √ | X | X |
| | | Splines / Editable Splines | C | C | C | C |
| | Systems | Biped | C | C | C | X |
| | | Bones | C | C | C | X |
| | | Particle Systems | X | X | X | X |
| | | Daylight | C | C | C | X |
| | | Sunlight | C | C | C | X |
| | MODIFIERS | Morpher | Editable Mesh | √ | √ | √ |
| Editable Poly | | | √ | √ | √ | C |
| NURBS | | | √ | √ | √ | X |
| Patch Object | | | X | X | X | X |
| Primitive | | | X | X | X | X |
| Physique | | All Geometry Types | X | X | X | X |
| (.PC2) Point Cache 2 (OSM/WSM) | | Editable Mesh | √ | C | C | X |
| | | Editable Poly | √ | C | C | X |
| | | NURBS | X | X | X | X |
| | | Patch Object | X | X | X | X |
| | | Primitive | √ | C | C | X |
| (.MC) Autodesk Cache (OSM/WSM) | | Editable Mesh | √ | √ | √ | X |
| | | Editable Poly | √ | √ | √ | X |
| | | NURBS | X | X | X | X |
| | | Patch Object | X | X | X | X |
| | | Primitive | √ | √ | √ | X |
| Skin | | Editable Mesh | √ | √ | √ | X |
| | | Editable Poly | √ | √ | √ | X |
| | | NURBS | X | X | X | X |
| | | Patch Object | X | X | X | X |
| | | Primitive | √ | √ | √ | X |
| Turbosmooth | | All Geometry Types | √ | C | X | X |
| Meshsmooth | | All Geometry Types | C | C | C | C |
| UVW Mapping | | Editable Mesh | √ | √ | √ | √ |
| | | Editable Poly | √ | √ | √ | √ |
| | | NURBS | X | X | X | X |
| | | Patch Object | √ | √ | √ | √ |
| | Primitive | √ | √ | √ | √ | |
| Unwrap UVW | Editable Mesh/Patch/Poly/Prim | √ | √ | √ | √ | |
| MATERIALS | Types | General | √ | C | C | C |
| | | Standard Materials | √ | √ | √ | √ |
| | | Composite | √ | √ | X | √ |
| | | HLSL (DirectX) Shaders | √ | C | X | X |
| | | Multi / Sub-Object | C | C | C | X |
| | Basic / Extended Parameters | Anisotropic Shader | C | C | C | C |
| | | Blinn Shader | C | C | C | C |
| | | Metal Shader | C | C | C | C |

| | | | | | | | |
|------------------|---|-------------------------|--------------------|---|---|---|---|
| | | Multi-Layer Shader | C | C | C | C | |
| | | Oren-Nayer Blinn Shader | C | C | C | C | |
| | | Phong Shader | √ | √ | √ | C | |
| | | Strauss Shader | C | C | C | C | |
| | | Translucent Shader | C | C | C | C | |
| | Map Channels (Map Coordinates) | | Values | C | C | C | C |
| | | | Ambient Color | √ | √ | C | x |
| | | | Diffuse Color | √ | √ | √ | √ |
| | | | Specular Color | √ | √ | C | √ |
| | | | Specular Level | √ | x | C | x |
| | | | Glossiness | √ | √ | C | √ |
| | | | Self-Illumination | √ | √ | C | x |
| | | | Opacity | √ | √ | C | x |
| | | | Filter Color | x | x | x | x |
| | | | Bump / Normal Bump | √ | √ | C | √ |
| | | Reflection | √ | √ | C | √ | |
| | | Refraction | x | x | x | x | |
| | | Displacement | x | x | x | x | |
| ANIMATION | Constraints | Attachment | B | B | B | x | |
| | | Link | B | B | B | x | |
| | | LookAt | B | B | B | x | |
| | | Orientation | B | B | B | x | |
| | | Path | B | B | B | x | |
| | | Position | B | B | B | x | |
| | | Surface | B | B | B | x | |
| | Position Controllers | Audio | B | B | B | x | |
| | | Bezier | B | B | B | x | |
| | | Expression | B | B | B | x | |
| | | Linear | B | B | B | x | |
| | | Motion Capture | B | B | B | x | |
| | | Noise | B | B | B | x | |
| | | Quaternion (TCB) | B | B | B | x | |
| | | Reaction | B | B | B | x | |
| | | Spring | B | B | B | x | |
| | | Script | B | B | B | x | |
| | X Y Z | √ | √ | √ | x | | |
| | Rotation Controllers | Audio | B | B | B | x | |
| | | Euler X Y Z | √ | √ | √ | x | |
| | | Linear | C | C | C | x | |
| | | Motion Capture | B | B | B | x | |
| | | Noise | B | B | B | x | |
| | | Quaternion (TCB) | C | C | C | x | |
| | | Reaction | B | B | B | x | |
| | | Script | B | B | B | x | |
| | Smooth | C | C | C | x | | |
| | Scale Controllers | Audio | B | B | B | x | |

| | | | | | | | |
|--------------|--------------------------------|-----------------------------------|-------------------------|---|---|---|---|
| | | Bezier | √ | √ | √ | × | |
| | | Expression | B | B | B | × | |
| | | Linear | B | B | B | × | |
| | | Motion Capture | B | B | B | × | |
| | | Noise | B | B | B | × | |
| | | Quaternion (TCB) | C | C | C | × | |
| | | Reaction | B | B | B | × | |
| | | Script | B | B | B | × | |
| | | X Y Z | C | C | C | × | |
| | | Bezier Tangent Types (PRS) | | | | | |
| | | | Smooth | √ | C | C | × |
| | | | Linear | √ | √ | √ | × |
| | | | Step | √ | √ | √ | × |
| | | | Slow | C | C | C | × |
| | | | Fast | C | C | C | × |
| | | | Custom (broken or flat) | √ | √ | √ | × |
| | | | Flat Tangent | C | C | C | × |
| | | IK Solvers | | | | | |
| | | | HD | B | B | B | × |
| | | | HI | C | C | C | × |
| | | IK Limb | B | B | B | × | |
| | | SplineIK | B | B | B | × | |
| | Special Key Types | Parameter Curve Out-Of-Range | C | C | B | × | |
| | Miscellaneous | Reaction Manager | B | B | B | × | |
| MISC. | Custom Attributes | | | | | | |
| | | Angle | √ | √ | √ | × | |
| | | Array | √ | √ | √ | × | |
| | | Boolean | √ | √ | √ | × | |
| | | RGB | C | C | C | × | |
| | | Float | √ | √ | √ | × | |
| | | fRGBA | C | C | C | × | |
| | | Integer | √ | √ | √ | × | |
| | | Material | × | × | × | × | |
| | | Node | × | × | × | × | |
| | | Percent | √ | √ | √ | × | |
| | | String | √ | √ | √ | × | |
| | | Texture | × | × | × | × | |
| | | World Units | √ | √ | √ | × | |
| | User Defined Properties | All Object Types | √ | C | C | × | |