



## Interoperability Chart

Version 2012

LEGEND	V	Perfect compatibility
		<p>Data passed from a source application is recognized by the destination application, yielding identical results.</p>
C	Data (interpolated) compatibility	
	<p>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.</p>	
B	Emulated compatibility	
	<p>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.</p>	
X	Not Supported	
	<p>Data is not recognized and therefore ignored on export.</p>	

		Maya	.FBX	3DS MAX	MOTIONBUILDER	MUDBOX	SOFTIMAGE	FLAME/SMOKE
<b>GENERAL</b>	<b>Export Options</b>	Audio Embedding	X	X	X	X	X	X
		Texture Embedding	√	√	√	√	√	√
		Export Selected	√	√	√	√	√	√
	<b>Names</b>	Object Names	√	√	√	√	√	√
		Prefix	√	√	√	√	√	√
		NameSpace	√	√	√	√	√	X
	<b>Time Configuration</b>	Frames Per Second (FPS) Rate	X	X	√	X	X	√
	<b>Render Settings</b>	Pixel/Device Aspect Ratio	√	√	√	X	X	√
		Image Size (Width/Height)	√	√	X	X	X	√
	<b>OBJECTS</b>	<b>Camera Types</b>	Free	√	√	√	√	C
Aim			√	√	√	C	C	√
Aim and Up			√	C	√	C	C	√
Stereo			√	X	√	X	√	√
<b>Geometry</b>		Polygon	√	√	√	√	√	√
		Polygon Smooth Mesh Preview	√	√	B	B	X	X
		NURBS	√	√	√	X	√	√
		SubD	X	X	X	X	X	X
		Curves	√	√	X	X	√	X
		Instances	√	√	C	B	B	X
<b>Miscellaneous</b>		Locators	√	√	√	X	√	X
		Groups	√	C	√	X	√	X
		Sets	√	√	X	C	X	X
		Reference Objects	B	B	B	B	B	X
		Display Layers	√	√	X	X	X	X
<b>Lights</b>		Ambient	C	C	C	X	C	C
		Directional	√	√	√	X	C	√
		Point	√	C	√	X	√	√
		Spot	√	√	√	X	√	√
		Area	C	C	C	X	C	C
	Volume	C	C	C	X	C	C	
<b>ANIMATION</b>	<b>Tangent Types</b>	Spline	√	C	√	X	√	X
		Linear	√	√	√	X	√	√
		Clamped	√	C	√	X	C	X
		Stepped	C	√	√	X	√	X
		Stepped Next	C	X	√	X	√	X
		Flat	C	C	√	X	C	C
		Fixed	√	C	C	X	C	√
		Plateau	C	C	C	X	C	C
		Auto	C	√	√	X	C	√

		Weighted Tangents	✓	✓	✓	X	C	C	
		Broken Tangents	✓	✓	✓	X	✓	✓	
	<b>Animation Layers</b>	Animation Layers	✓	B	✓	X	B	B	
	<b>Quaternion</b>	Quaternion Tangent Dependant	✓	C	C	X	C	B	
		Quaternion Slerp	✓	C	C	X	C	B	
		Quaternion Cubic	✓	C	C	X	C	B	
	<b>Extrapolation</b>	Pre / Post Infinity	✓	✓	✓	X	X	✓	
	<b>Dynamics</b>	nCloth	B	B	B	X	B	B	
		Particles	X	X	X	X	X	X	
	<b>Constraints</b>	Point	✓	B	✓	X	B	✓	
		Aim	✓	B	✓	X	B	✓	
		Orient	✓	B	✓	X	B	✓	
		Scale	✓	B	✓	X	B	X	
		Parent	✓	B	✓	X	B	X	
		IK	✓	B	✓	X	B	X	
	<b>Camera Sequencer</b>	Camera Sequencer	X	X	X	X	X	✓	
	<b>DEFORMERS</b>	<b>Bones</b>	Joints	✓	✓	✓	X	✓	B
		<b>Smooth Bind</b>	Polygon	✓	✓	✓	X	✓	✓
			NURBS	✓	✓	✓	X	X	✓
			SubD	X	X	X	X	X	X
<b>Dual Quaternion Skin</b>		Polygon	✓	X	X	X	X	✓	
		NURBS	✓	X	X	X	X	✓	
		SubD	X	X	X	X	X	X	
<b>Skinning Method</b>		Weight Blended	✓	X	X	X	X	✓	
<b>Rigid Bind</b>		Polygon	✓	C	✓	X	✓	✓	
		NURBS	✓	C	✓	X	X	✓	
		SubD	X	X	X	X	X	X	
<b>Blend Shapes</b>		Polygon	✓	✓	✓	C	✓	✓	
		NURBS	✓	✓	✓	X	X	✓	
		SubD	X	X	X	X	X	X	
		In-Between Blendshape	✓	✓	X	X	X	X	
<b>Clusters</b>		Polygon	C	C	C	X	C	✓	
		NURBS	C	C	C	X	X	✓	
		SubD	X	X	X	X	X	X	
<b>Lattice</b>		Polygon	X	X	X	X	X	X	
		NURBS	X	X	X	X	X	X	
		SubD	X	X	X	X	X	X	
<b>Geometry Cache</b>		Polygon	✓	✓	✓	X	✓	✓	
		NURBS	✓	X	X	X	X	✓	
		SubD	X	X	X	X	X	X	
		Float	✓	✓	✓	X	✓	✓	
		Double	✓	C	✓	X	✓	✓	
<b>MATERIALS</b>	<b>Basic Materials</b>	Anisotropic	C	C	C	C	C	C	
		Blinn	C	C	C	C	C	C	
		Lambert	✓	C	C	C	✓	C	

		Layered Shader	X	C	C	C	X	X	
		Ocean Shader	X	X	X	X	X	X	
		Phong	√	√	C	C	√	C	
		Phong E	C	C	C	C	C	C	
		Ramp Shader	X	X	X	X	X	X	
		Shading Map	X	X	X	X	X	X	
		Surface Shader	X	X	X	X	X	X	
		Use Background	X	X	X	X	X	X	
		Substances	X	X	X	X	X	√	
		HLSL (DirectX)	√	√	X	X	X	X	
		<b>Utilities</b>	Bump 2d	√	√	C	√	√	√
		<b>Textures</b>	2d Placement	√	√	√	√	√	X
			3d Placement	X	X	X	X	X	X
			Layered Texture	C	C	C	C	C	X
	<b>UV Sets</b>	Multiple UV Sets	√	√	X	X	√	X	
<b>HIK</b>	<b>HIK Solver</b>	HIK	√	X	√	X	X	X	
<b>FBIK</b>	<b>FBIK Solver</b>	Biped	√	X	√	X	X	X	
		Quadruped	√	X	√	X	X	X	
<b>MISC.</b>	<b>Extra Attributes</b>	Vector	√	X	√	X	√	X	
		Integer	√	√	√	X	√	X	
		String	√	√	√	X	√	X	
		Float	√	√	√	X	√	X	
		Boolean	√	√	√	X	√	X	
		Enum	√	√	√	X	√	X	