Interoperability Chart

Version 2011

LEGEND		
	√	**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 and Effects	Background Color / Map	x	x	x	x
		Ambient Global Lighting	√	x	x	x
		Exposure Control	x	x	x	x
		Atmosphere	x	x	x	x
		Effects	x	x	x	x
	Export Options	Audio Embedding	x	x	x	x
		Texture Embedding	√	√	√	√
		Export Selected	√	√	√	√
	Names	Named Selection Sets	√	√	x	√
		Object Names / Name Clash	√	C	C	√
	Time Configuration	Frames Per Second (FPS) Rate	x	x	C	x
		Start / End Times	C	C	C	x
	Render Setup	Pixel Aspect	√	√	√	x
		Output Size (Width/Height)	√	√	x	x
	Miscellaneous	Groups / Assemblies	C	C	C	C
		Display Layers	√	√	x	x
		Animation Layers	x	x	x	x
		Level of Detail (Utility)	C	C	x	x
		File Link	C	C	C	C
		X-REF Objects	C	C	C	C
		X-REF Scene	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
		Primitive	C	C	C	C
		Instances	√	√	√	x
		References	C	C	C	x
	Helpers	Standard (Dummy Objects)	x	x	x	x
		Containers	x	x	x	x
		Atmospheric Apparatuses	x	x	x	x
		Manipulators	x	x	x	x
		Reactor Objects	x	x	x	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	√	√	√	C
		Editable Poly	√	√	√	C
		NURBS	√	√	√	x
		Patch	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**	Standard Materials: Standard	√	√	√	√
		Standard Materials: Composite	√	√	x	√
		Standard Materials: DirectX (HLSL)	√	C	x	x

		Standard materials: Multi/Sub	C	C	C	x
		mental ray Materials: All	√	x	x	x
		Autodesk Material Library: All	√	x	x	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	Values	C	C	C	C
	(Map Coordinates)	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	√	√	√	√
		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	√	√	√	x
		Expression	B	B	B	x
		Linear	B	B	B	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
		X Y Z	C	C	C	x
	Bezier Tangent Types (PRS)	Smooth	√	C	C	x
		Linear	√	√	√	x
		Step	√	√	√	x
		Slow	C	C	C	x
		Fast	C	C	C	x
		Custom (broken or flat)	√	√	√	x
		Flat Tangent	C	C	C	x
	IK Solvers	HD	B	B	B	x
		HI	C	C	C	x
		IK Limb	B	B	B	x
		SplineIK	B	B	B	x
	Special Key Types	Parameter Curve Out-Of-Range	C	C	B	x
	Miscellaneous	Reaction Manager	B	B	B	x
MISC.	**Custom Attributes**	Angle	√	√	√	x
		Array	√	√	√	x
		Boolean	√	√	√	x
		RGB	C	C	C	x
		Float	√	√	√	x
		fRGBA	C	C	C	x
		Integer	√	√	√	x
		Material	x	x	x	x
		Node	x	x	x	x
		Percent	√	√	√	x
		String	√	√	√	x
		Texture	x	x	x	x
		World Units	√	√	√	x
	User Defined Properties	All Object Types	√	C	C	x