



V I R T U P L E X

Virtual Reality - source data

How to achieve an easy transition between 3D source data and VR applications.

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Which formats to use to share data with Virtuplex?

3D Data:

- **FBX** - best format to share your 3D data. It is also possible to embed textures and materials into this format which is highly recommended. Do not use FBX ASCII as that is impossible for us to open without possible data loss
- **OBJ** - also suitable format for sharing your 3D data
- **Blend** - we are using Blender
- **SBS/SBSAR** - we are using Substance Painter for texturing
- **DAE** - not preferred, but acceptable
- **3DM** - not preferred, but acceptable
- **STL** - not preferred, but acceptable

Textures:

- **PNG** - preferred format for its quality and ability to store transparency -
- **JPG**
- **TGA**
- **TIFF**

Data requirements & best practices

Tricount - <5 million tris

Texture size - 256x256 to 2048x2048, bigger is better than smaller

File sizes - the smaller the file sizes, the better. It's better to break the model in multiple files than one big file containing everything. Anything above 1gb is usually impossible to open and may be requested to reexport

Data structure - easy to understand structure, logical naming conventions, correctly named textures and models

Textures - if possible, keep textures embedded into model (FBX supports this) and also supply it in a separate folder. If you can't provide textures, please send us exact name of material that is going to be used

Separated objects - keep objects separated (no OBJ with all meshes joined into singular objects) with correctly assigned materials & textures

Visualisation - if you have previous 3D visualisation of your project, please provide us with all of the source data to speed up production

NURBS - if you work with NURBS (and similar other workflows), we are able to procedurally optimize it with great results. Feel free to provide us with source files along with other formats

mentioned in 3D Data section

Unity performance testing - if you are familiar with Unity engine ,you can test your data to see if they meet our optimization standards. Here are benchmark numbers you can strive for:

- CPU main: <7ms
- Batches: <1000
- Tris: <5 millions
- FPS: >80FPS)