Thanks to FBX file format, Akeytsu interoperates with well-known software like Maya, 3DSMax, Blender, Cinema 4D, Motion Builder and many others as well as renowned game engines like Unity, Unreal Engine 4 just to name a few.

FBX files format are exported as FBX 2014.0.0 version in Akeytsu 1.0

Akeytsu 1.0 imports and exports the following information from FBX format:

- Meshes
- Materials
- Textures
- Skeletons
- Animations (No loop information, nor Key Tangent information)
- Skinning with weights (Smooth Skin (2) only)
- Characters as dummies
- Hierarchy

For now, Akeytsu 1.0 does not consider cameras, lights, marker nodes but will in subsequent releases.

The following is not I/E in Akeytsu:

Nurbs, Patch, Camera Stereo, Camera Switcher, Optical Reference, Optical Marker, Nurbs Curve, Trim Nurbs Surface, Boundary, Nurbs Surface, Shape, LOD Group, Sub Div, Cached Effect, Line

Otherwise, Akeytsu 1.0 uses a native file format AKT that is meant to be used from and to Akeytsu only.

It saves the main content:

- Meshes,
- Materials,
- Textures,
- Skeletons,
- Multi-layers (override mode) Animations (Loop info and Key Tangent infos),
- Skinning with weights (Rigid Skinning (1) and Smooth Skin (2)),
- Characters,
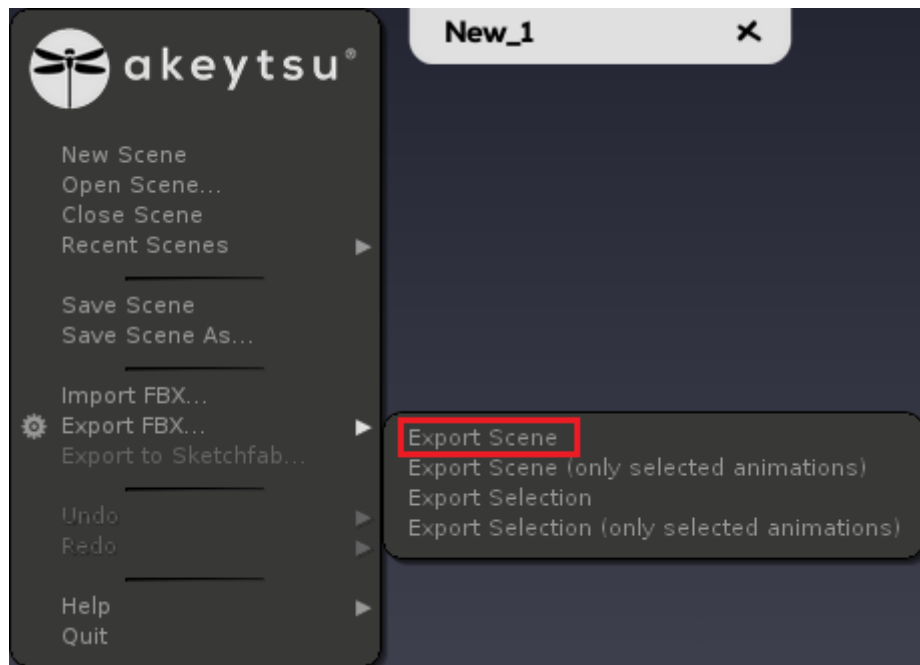- Hierarchy (including dummies).

It also ensures conservation of Akeytsu internal information:

- IK
- Reverse Foot
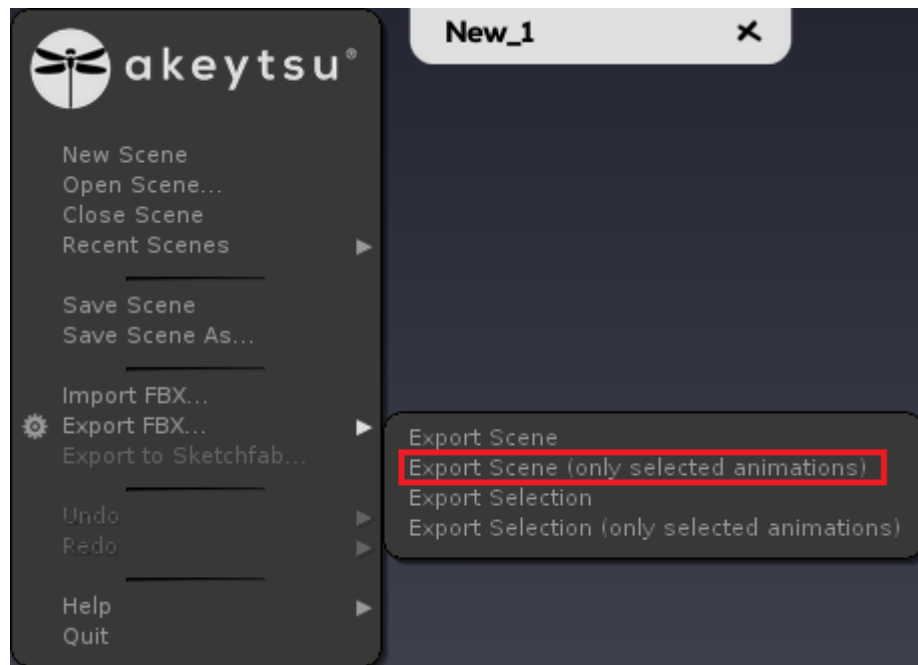- Check Mode pose
- Views and cameras
- File preferences

# FBX EXPORT

o *Features :*

- **Export Scene:** This is the standard export as it exports each object in the scene.

- **Export Scene (only selected animations):** Tree content is exported with only the animation(s) in the Anim Bank <u>for the current Character</u>. Other characters are exported without animation.

- **Export selection:** Only objects selected in the tree <u>and their descendants</u> are exported.
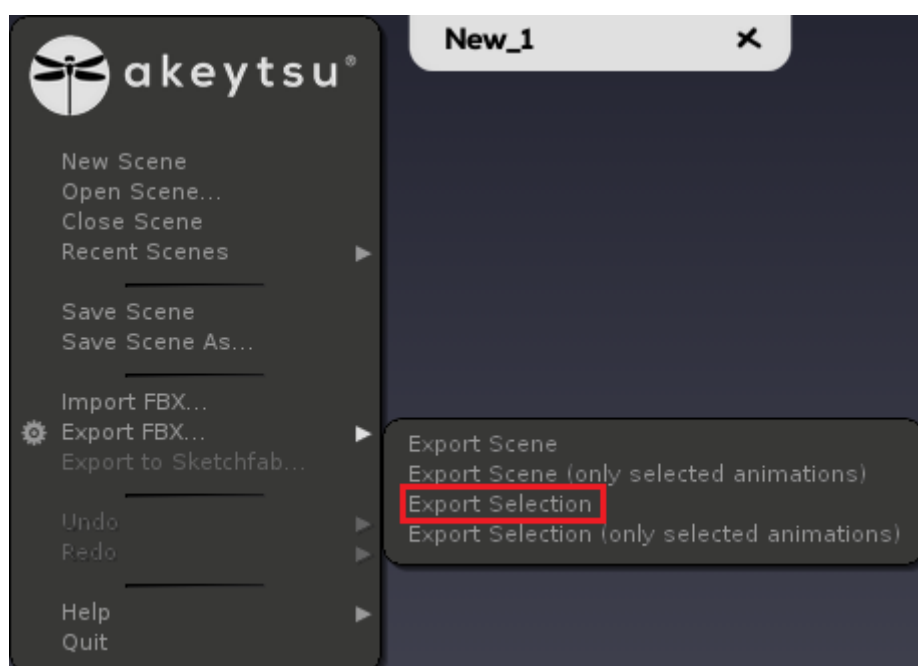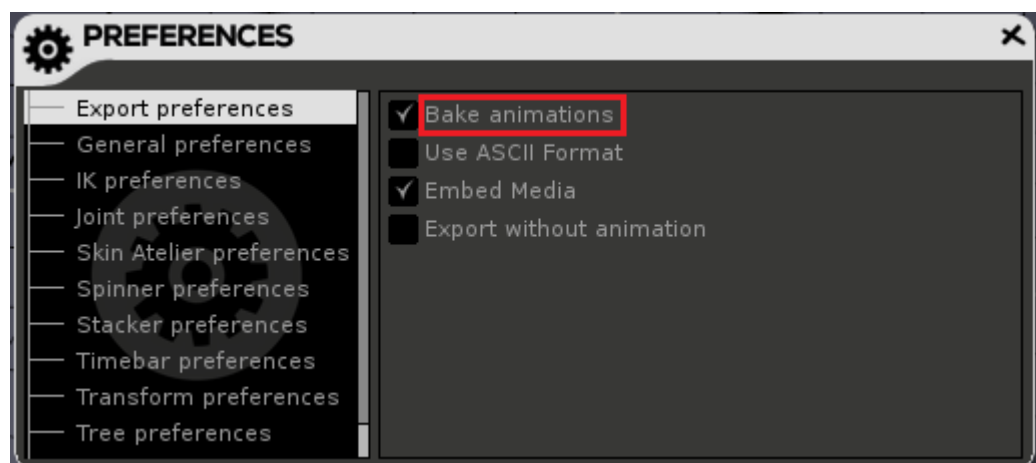
- **Export selection (only selected animations):** Only objects selected in the tree <u>and their descendants</u> and selected animations are exported. If an animation is selected but the linked skeleton isn't, the animation won't be exported.
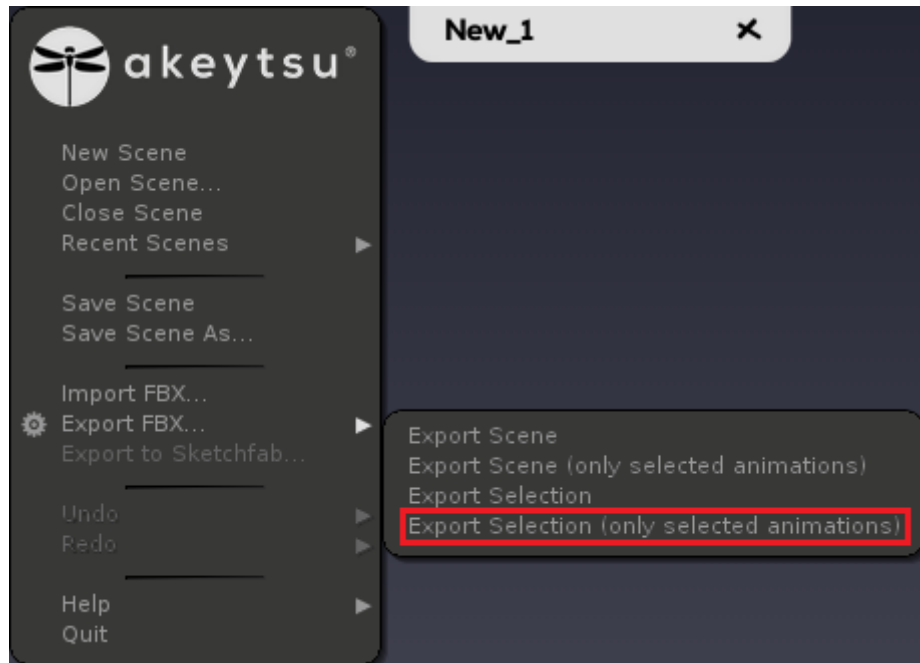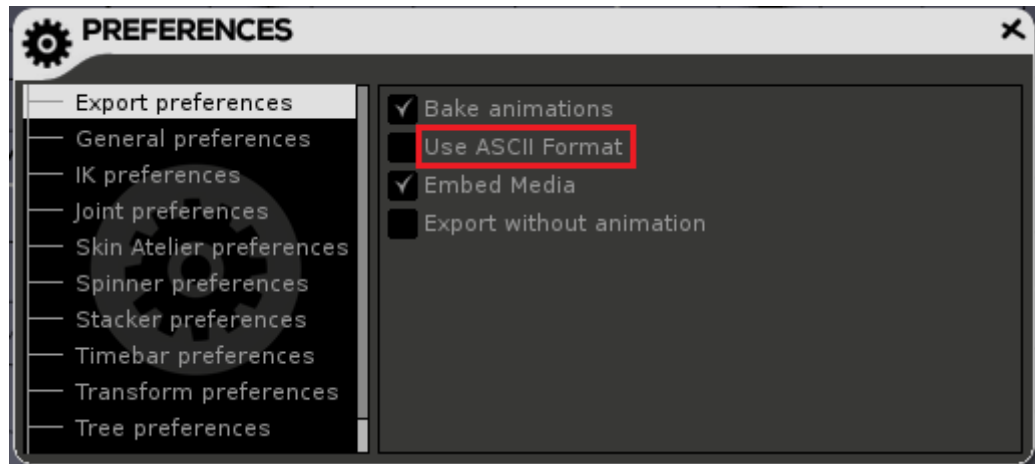

o *Settings :*

- **Bake animations:** Animations are exported with one key by frame.

- **Use ASCII Format:** FBX file will be ASCII and not binary, so it will be readable with a text editor.

- **Embed Media:**
  - **Embed:** Textures are <u>in</u> the FBX file, and extracted as temporary files each time you open it.
  - **Not embed:** A folder named [FBX file name]_FBX_Textures is created next to the FBX file, it contains meshes textures and need to be moved with your FBX file.
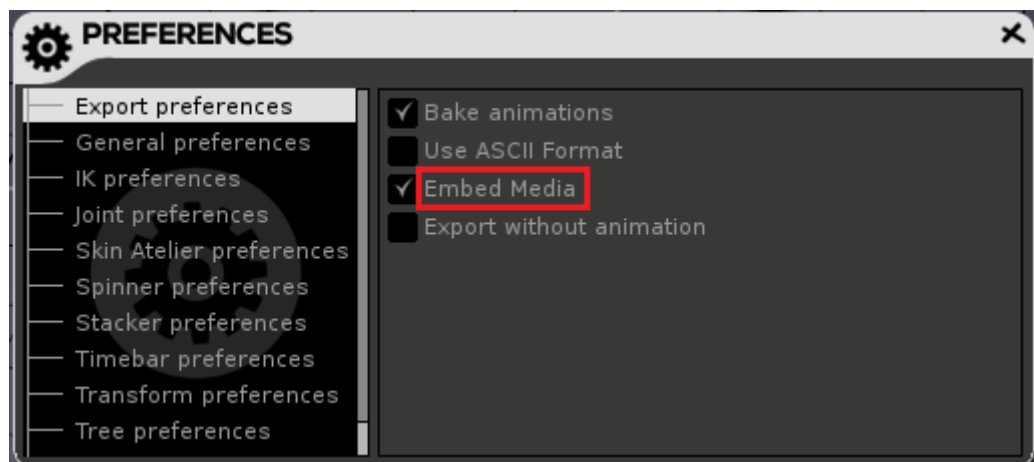
- **Export without animation:** Content is exported without any animation. The character will remain in bind pose.
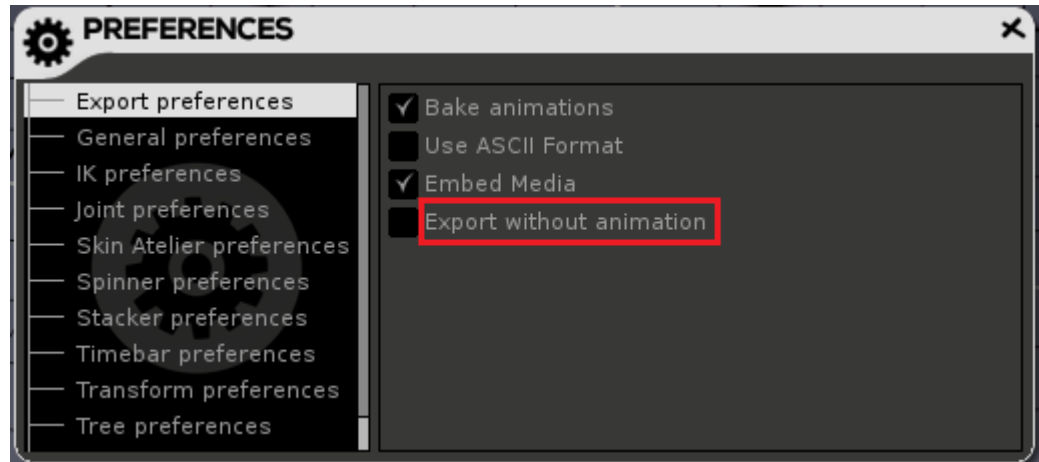
  o *Content :*
    - Akeytsu exports FBX files with FBX 2014 version.
    - Only meshes, skeletons and dummies are exported, other objects will be lost.
    - Akeytsu Character is converted to dummy.
    - If a Character has been moved or rotated, the transformation is conserved in the FBX file but, since the Character becomes a dummy, some software ignore these transformations.

FBX IMPORT

  o *Features :*

    - Original layers are merged.
    - New layers are created, 1 for each different keys set.
    - If the FBX frame rate is different than the scene one, a pop up will ask you to choose between converting the scene or the FBX.
    - Character position is now saved into the FBX export

  o *Content :*

    - Only meshes, skeletons and dummies are extracted, other objects will be lost.

- If a FBX skeleton has multiple bind poses, only one will be conserved. The rules are :
  - If a bind pose is equal to the untransformed skeleton, it is the one conserved.
  - If not, the most used bind pose is conserved.
- If a dummy exists and has a skeleton in descendants and no dummy in ancestors, it will be converted to Akeytsu character.
- Akeytsu character object is added as direct parent of each skeleton encountered if there is not already character in ancestors.