

# FALLOUT 4 ANIMATION KIT

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*This is for animators and modders.*

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F4AK can be found here:

<http://www.nexusmods.com/fallout4/mods/16694/>

[https://github.com/ShadeAnimator/ShadeAnimator\\_Fallout4\\_AnimationKit](https://github.com/ShadeAnimator/ShadeAnimator_Fallout4_AnimationKit)

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You can use Navigation headings in both PDF and docx versions of this file to quickly navigate through it!

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## GENERAL SOFTWARE INFORMATION

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### **TOOLS REQUIRED FOR ANIMATION MODDING:**

- 3ds max (versions 2013, 2014 or 2015. Recommended: 2015)
  - <http://www.autodesk.com/>
- HavokContentTools 2014 64 Bit
  - Available through other modders. Ask other animators to get it.
- niftools-max-plugins-3.8.0
  - [https://github.com/figment/max\\_nif\\_plugin/releases](https://github.com/figment/max_nif_plugin/releases)
- Havok 2 FBX Converter 0.1a
  - <https://github.com/Highflex/havok2fbx>
- HKXPack by DexesTTP
  - <https://github.com/Dexesttp/hkxpack>

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Some of the tools included in this kit, but look for newer versions using these links.

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### **TOOLS INCLUDED:**

- niftools-max-plugins-3.8.0
- HKXPack by DexesTTP with UI by ShadeAnimator
  - UI also has a "Convert skeleton.hkx to rig.txt" feature.
- 3ds max scenes:
  - Human rigged with CAT and Biped
  - Deathclaw
- 3ds max scripts:
  - F4AK Rig Connector
- HCT Preset files
- HCT Rig.txt files:
  - Human
  - Deathclaw

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This guide is based on 3ds max, but workflow for Maya is basically the same.

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## NOVICE NOTICE

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This guide will not teach you to work with 3ds max, or Maya or Blender, it will not teach you rigging or animation.

Not included, but really needed is some basic knowledge of 3ds max and rigging and animating. If you never rigged and animated anything before, all this might be very overwhelming for you, but for anyone who has at least some rigging and animation experience, and even better - some realization of how 3d animation works in general - all this should be really easy to follow.

If you want to start animating for Fallout4 or any other game, but you have no experience with animation and rigging, I'd suggest you starting with something else first. But if you are absolutely sure that you want to make animations for FO4 (or need to), then I'd suggest you first going through some tutorials.

I may suggest Digital Tutors, tutorials like intro to 3ds max, rigging (preferably not CAT or Biped but tutorials about making custom rigs, they will give you the understanding you need.) and animation.

## ANIMATION EXPORT

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### 3<sup>RD</sup> PERSON ANIMATIONS, AND BASIC WORKFLOW

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The basic workflow with this kit is this:

1. You either make a copy of F4AK\_Rig\_Final.max scene, or reference it into a new 3ds max scene. Either way, just preferably don't mess with original file, or have a backup somewhere.
2. You make your animation however you like. By default skeleton is connected to the CAT rig, but you can switch it to Biped using F4AK Rig Connector (documented below).
3. To export you go to Havok Content Tools menu - Export.
4. Here you should already have the right preset loaded, but just to be sure, go File - Load Configuration File and point it to HCT\_Preset.hko file which comes with this Kit
5. Click on Create Skeletons filter in the list to the right. To the right of it you should now see this filter's settings.
6. In the Build Rig, you need to select From File and pick the Fallout4Rig\_byShadeAnimator.txt. Sometimes you may have to refresh it, by choosing some other option, then From File again. And selecting a file. It will just load the list of bones and their order from that file. This is also the list of bones which will have animation on them. But it's really easy to break this file, because order and names are important, so you can experiment with it, but carefully.
7. Go to Write to Platform filter.
8. In the filename choose the destination for your new hbx file to save it to.

Click Run Configuration. Or Run Configurations, whatever button you like most.

Now, if there were no errors, you should have your fresh animation file! Yay!

If there were errors, check these steps again, and if you still can't export your file...

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Any MESH object in 3ds max scene, is there just for preview purposes. It won't be exported with animation. Max scene files come with a few meshes included, you can Hide and show them however you like. For example, there is a CBBE body which might be more pleasant to look at while animating. Also there are a few hair styles. And you can import more meshes. How? Described in another section of this text.

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It is recommended to only use Rig controls, not animating game joints directly. However, it won't break anything.

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## 1<sup>ST</sup> PERSON ANIMATIONS EXPORT

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It is possible to export 1<sup>st</sup> person animations using this Kit.

To do it you need to follow the same workflow as before, with just a few exceptions.

1. Use the FO4\_Human\_1st\_Rig.txt (thanks to MaikCG) instead of FO4\_Human\_3rd\_Rig.txt
2. Follow the guide from MaikCG

### GUIDE FROM MAIKCG

What I have to tell you. For all animation F4 using identical skeleton. And of course weapon bones saved with them. The difference in these two skeletons - in the 1st person skeleton absence 14 bones for skinning, it has no effect on the animation, as well as an absence of bone CamTarget in the Fallout4Rig1st.txt for HCT

Animations for the FPS weapons (\Actors\Character\\_1stPerson\Animations) - weapon directed at the axis +Y, neck and head rotated back by 90 degrees so as not to accidentally fall into the camera. Body movement only in order to hands not stretched. HCT export with preset AnimationExport1stPerson.

Animations for the TPS - the same direction at the axis +Y. Most of the animation is done in place. Locomotions to do with the actual shift skeleton root. Still need to change the position of the Camera and CamTarget bones, as its default offset from the character is taken from an animation file. HCT export with preset AnimationExport3rdPerson.

For weapons exists a set of common animations (Actors\Character\Animations) and an additional set which stores the individual weapons pose bones (Actors\Character\Animations\Weapon). I looked up a couple of files, there is no even animation, just a pose.

All annotations for animations recorded in Note track. Warning! Note track should not be added to the main track Root object, it should be added to the transformation track.

In any case, use vanilla animations as an example.

## 3DS MAX RIG SCENE STRUCTURE

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The scene contains a few layers and selection sets to make it easier to work with.

It contains 2 rigs: Biped and CAT, and you can switch between them using the F4AK Rig Connector script.

You can select Skin and Control joints using predefined selection sets inside the scene.

You can hide or show layers for:

- Game skeleton
- CAT rig
- Biped rig
- Male meshes
- Female meshes

## IMPORTING SKELETON FOR ANIMATION FROM SCRATCH

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You may need this if you'll need to use updated skeleton from Bethesda, or to work with other creatures, not included in the kit.

Well, there is really no magic here, and there just a few steps to importing the skeleton and mesh into max from scratch, and setting it up for export.

First you need to extract two archives: Meshes and Animations. They have everything you need for animations.

All you need to do, is import two files. First is the mesh \*.nif files, and second is the skeleton.nif files, which is unique for each creature.

Using Deathclaw as example, you can find them here:

```
\Fallout 4\Data\Meshes\Actors\Deathclaw\Deathclaw.nif (Mesh)
```

```
\Fallout 4\Data\Meshes\Actors\Deathclaw\CharacterAssets\skeleton.nif
```

You will also need a skeleton.hkx file to get the order of joints for rig.txt. (Rig.txt is just a txt file you load into HCT as a preset of a rig, you can name it however you want).

```
\Fallout 4\Data\Meshes\Actors\Deathclaw\CharacterAssets\skeleton.hkx
```

The path convention is the same for all creatures. Or at least it should be. If not, try using logic and locating these files 😊

And you import it with default settings. Now you can import additional meshes as discussed in another section of this text, if you need.

From here you can create your own rig for the creature or whatever you've just imported, using CAT, Biped or custom rigging. If you name your rig joints the same as the skeleton but with some prefix, you may be able to use the F4AK Rig Connector to connect any rig. Check it's documentation below.

Don't change the hierarchy of objects under the Root. You can use constraints, you can constraint those objects to other objects, etc etc, anything that does not break the hierarchy. Only the names and hierarchy is important.

## MANUAL HCT SETUP PROCESS.

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Okay, so, to export animation for FO4 from max you need:

- max 2013-2015
- nifttools plugin
- HavokContentTools 2014
- Rig.txt file (because automatic joint finding does not work properly)
- Preset for HCT which comes with this Kit

To create the rig.txt file you can use my HKXPack UI. It extracts all the bones from the hkx\xml file in the right order, and creates a rig.txt file. But you can also do this manually.

### SO, STEPS:

1. Setup\Create\Find rig.txt file.
2. Next, you need to go to Havok Content Tools - Export. In the new window go File - Load Configuration Preset, and load the \*.hko file included inside the HCT\_Presets folder. I will not go through the settings yet, you can check them from the file, and deduce some things.
3. Starting from here, click the Create Skeletons tab. And specify your rig txt file there. You may have to refresh it sometimes, by choosing another option then From File again.
4. Go to Write Platform tab (or list item rather), and select the output file location, where you want new file to be.

Thats all! Just 4 steps.

## CREATING RIG.TXT FILE

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You can use my tool, which is on git, under HKXPACK\_BASED\_TOOLS

Give it a skeleton.hkx and press generate rig.txt, it will do the rest.

You can do it manually. Convert skeleton.hkx to xml using hkxpack, and then find the "bones" there, and create the following file:

```
[HAVOK SKELETON DEFINITION FILE]
```

```
[BONES START]
```

```
Bone
```

```
Bone
```

```
Bone
```

```
[BONES END]
```

just replace Bone Bone Bone with your joints.

Now, thats not all.

Open your scene, go to Havok Export, and try to load the rig.txt file under the Create Skeletons filter. It will probably show a few errors, saying that it can't find some joints. It's common.

First, check if there are joints in your scene named in CAPS. Like commonly, Weapon is called WEAPON. Renamed them in your scene to match the naming from the rig.txt file.

Then, if there are still missing joints, if you think they are not significant for animation - you can just create a joints anywhere in the hierarchy with the name of a missing joints.

Otherwise you may have to check other nif files for those joints. For example for human I had to import pistol and dummy weapons to get all the joints needed. But for creatures you will probably only need to create, say, a Camera joint, it should not be an issue really.

Thats all.

Now, setting it up for export.

## ANNOTATIONS (UNTESTED YET)

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Anotations allow you to trigger different events at specific animation frames, through animation. This is usually used for sounds (footsteps for example), showing\hiding stuff (showing and hiding Phycho jet model in char's arm for example), and some other things.

### TO ADD ANNOATIONS TO YOUR ANIMATION:

If you are using your own scene:

1. Select Root joint.
2. Open DopeSheet.
3. Select Root joint there.
4. Go to - Edit - Note Track - Add (note that in earlier max versions location of this button was different)

If you're using scenes shipped with F4AK, this track should already exist there.

To add annotation:

1. Keys - Add Keys tool
2. Click wherever you want to place a key
3. Exit this tool
4. Right click and write your annotation

Now they should export. If not, try ticking Annotations in Prune Type filter.

List of annotations is currently unknown to me.

Process is similar to the one shown in this video: <https://vimeo.com/113225958>

## ANIMATION IMPORT

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### IMPORT VANILLA ANIMATION (BY MAIKCG)

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All F4 animation is created using the 64 bit version HavokContentTools. At the same time havok2fbx is only working with 32 bit files. In order to convert you need to use HCT. Start 3dmax, open HCT export window and load F4Animation.hko preset. It contains three variants:

- ConvertAnimation\_x32
- AnimationExport1stPerson
- AnimationExport3rdPerson

Select option ConvertAnimation\_x32.

In first filter "Merge Asset" you need yo choose vanilla \*.hcx animation file.

In third filter "Write to Platform" you need specify output folder and select file format - Binary, Packfile, Win32MSVC.

After this click "Run Configuration" and file will be converted.

Also you can select format - Tagfile, XML. This will extract the animation as XML (default \*.hcx but it opens by notepad), in it you can find the names of events to track annotation (events created for F4 engine, mainly for playback of audio files).

Put the file skeleton.hcx and converted file (WPNReload.hcx for example) in folder with havok2fbx.

Then the console command will look like this:

```
havok2fbx.exe -hk_skeleton skeleton.hcx -hk_anim WPNReload.hcx -fbx WPNReload.fbx
```



---

In Windows you can use Shift+RMB inside a folder with havok2fbx.exe and then click Open command window here, to open cmd window which is already pointed to this folder. Later I will add a UI for this too.

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Now you should have the FBX file with animation, which you can import onto the skeleton or rig or edit it directly.

## IMPORTING ANIMATIONS ONTO GAME SKELETON INSIDE THE RIG FILE

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First you need to disconnect the skeleton from the rig, using F4AK Rig Connector.

Now, Import FBX , in the FBX importer settings choose "File content: Update animation" (by default "Add and update animation"). It should load animation onto existing skeleton, as far as the joint names match.

## IMPORTING ANIMATIONS ONTO CAT RIG FROM FBX

---

It is possible to import animations directly on the CAT rig.

To do this all you need to do is open FBX file with animation. Add the prefix "F4CAT\_" to all the joints in there. Export animation to FBX.

Open 3ds max scene with CAT rig. Make sure that CAT rig has animation layer and animation mode is active. Import FBX , in the FBX importer settings choose "File content: Update animation" (by default "Add and update animation"). It should load animation onto existing CAT rig.

## IMPORTING ANIMATION ONTO BIPED RIG FROM FBX (BY MAIKCG)

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### APPROACH FROM MAIKCG

Open F4BipedImport.max in 3dmax and import the resulting file. In the FBX importer settings choose "File content: Update animation" (by default "Add and update animation"). It must be remembered that the main direction of the face is +Y axis. Havok2fbx turn animation to axis +X, you need select Root bone and rotate skeleton in the correct orientation. In named selection sets choose "SaveAnimation", select Camera nodes and all Bip bones without Nub. Select main menu "Animation" -> "Save Animation..."

Setup:

- Animated tracks - off
- Include constraints - off
- Keyable tracks - off
- Segment - on (and setup start/end frames)
- Key per frame - on
- You save animation for selected bones as xml file.(\*.haf)

Open F4Biped.max (mentioned file is from F4Biped Kit by MaikCG, in F4AK you need to open it's default rig scene, and reconnect the skeleton to Biped instead of CAT) in 3dmax. In named selection sets choose "LoadAnimation". Select main menu "Animation" -> "Load Animation..."

Setup:

- Load Into Active Layer - off
- Absolute - on
- Replace - on
- Motion Mapping/Retargeting - choose SaveLoadMapping.xmm

Ready.

If does not work, check to make things right, it is a tested method.

#### **APPROACH FROM SHADEANIMATOR:**

It is also possible to use different approach. To import animation onto the Biped rig in the F4AK\_Rig\_Final.max file, you can first open the FBX scene, add a prefix "Bip\_" to all the joints. Now open the Rig file, and import FBX, in the FBX importer settings choose "File content: Update animation" (by default "Add and update animation"). It should load animation onto existing Biped rig.

Both approaches are valid.

#### **EXPORT USING MAYA OR SOFTIMAGE**

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Since Havoc Content Tools 2014 has plugins for Maya and Softimage as well, it is possible to use these programs to export animations for F4 as well. Without niftools plugin you won't be able to export new skeletons or meshes however. Nif plugin is available for Maya up to 2016, but you either need to compile it or find a compiled version. It or a link to it may be included in later versions of F4AK.

The process to export animations is the same. F4AK has FBX versions of the skeleton and preview meshes, so you can import them into Maya or Softimage, rig them and export them to the game.

#### **CREATING ANIMATIONS USING BLENDER**

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Blender currently (Jul 2016) does not have all the tools to export animations for F4. However, if you are experienced with it, you can use Blender to animate character, then use Max or Maya to do the export.

To do this you need to import FBX into blender. Animate it however you want. Then export the animation to FBX.

From here there are two options:

1. Open the FBX or the rig file in max or maya. And now you should be able to export it from here.

2. Alternatively you can open the existing rig scene for 3ds max. Disconnect the skeleton from the rig using F4AK Rig connector script. Import animation FBX using "Update" instead of "Add" or "Add or Update" in FBX import settings. Now you should have your animation.

# CREATING ANIMATIONS, WORKING WITH TOOLS, USING ANNOTATIONS

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## TESTING ANIMATIONS IN THE GAME

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You may have to add this to the Fallout4Custom.ini inside the /MyDocuments/My Games/Fallout4 folder:

```
[Archive]

bInvalidateOlderFiles=1

sResourceDataDirsFinal=
```

This may be needed for the Engine to use files not from archives.

Then the tested and working way to test it is to export animation as PoseA\_JetUse.hkx and put it into this folder (you can create it yourself, or extract Animations archive and replace a file):

```
steamapps\common\Fallout 4\Data\Meshes\Actors\Character\Animations\MT\Neutral
```

Then, in the game, open console with ~, and type:

```
player.playidle IdleUseJet
```

And you should see your animation playing.

## IMPORTING NEW PREVIEW MESHES INTO EXISTING SCENE

---

This Animation Kit comes with a few basic meshes already. But sometimes you may need or just want to test your animations with some specific ones, like clothes, bodies or hair, for example. Adding new meshes into 3ds max is simple, and you should have everything you need.

So, the tools you'll need are:

- 3ds max (obviously)
- nif plugin
- Archive2 or another extractor of Fallout4 archives.

Archive2 was not yet mentioned here. You can take it from the CreationKit:

```
<CreationKitRoot>\Tools\Archive2
```

Main mesh files are in this archive: Fallout4 - Meshes.ba2 inside the Data folder of Fallout4 installation.

All standard meshes are here:

```
..\Fallout 4\Data\Meshes\Actors\Character\CharacterAssets
```

### GETTING IT INTO MAX

Now, assuming you already have the rig or animation scene open, to get them into max, you just use File-Import. Select the file you want to import. Select the appropriate skeleton.nif at the bottom of the nif plugin import window (for humans it's located at <>\steamapps\common\Fallout 4\Data\Meshes\Actors\Character\CharacterAssets), which should've opened after you selected a file and clicked Import.

Now, UNTICK the Import Skeleton checkbox, since we're importing it into a scene. It is important. Otherwise it will create a separate hierarchy with another skeleton in your scene, and we don't want it.

### USING F4AK RIG CONNECTOR

F4AK Rig Connector is a MaxScript located under Tools\MaxScript.

You can use it to constraint the F4 game skeleton to any rig.

It works using the simple principle, control rig must have it's driving joints named the same as the game skeleton, but with some prefix.

The 3ds max rig scene supplied with this Kit has 2 rigs in it, Biped and CAT. Their respective prefixes are: "Bip\_" and "F4CAT\_". You can add your own rig with some other prefix and connect the skeleton to it using F4AK Rig Connector.

To reconnect the skeleton you first ALWAYS need to DISCONNECT it. Don't be afraid to click the button a few times if the rig is disconnected. Also you should be fine clicking the CONNECT button multiple times, but it is not recommended.

#### HOW IT WORKS:

If you ever need to troubleshoot it, or if use it, or update it, this section may be useful.

The script itself is documented. But here is the process.

When you click Connect, it selects the hierarchy below the "Root" node, finding it by it's name. Then it goes through each object in the hierarchy, and looks for the "prefix+name" objects. If it finds one, it Orient constraints the object to the object with prefix.

If the name of the object is "Pelvis" it will also use Position constraint on it.

If the name of the joint is RArm\_UpperArm or LArm\_UpperArm, it will also try to connect the RArm\_UpperTwist1 LArm\_UpperTwist1 to the same parent.

So, for some skeletons\objects you may also choose to add some of your own constraints. You can also use skeleton.hkx converted to .xml to see which joint supports translations or not.

## USING F4AK HKXPack UI

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F4AK comes with a version of HKXPack enhanced with a UI. Or rather it comes with a set of tools, which use HKXPack. Call it however you like.

The thing is, HKXPack UI has some additional functionality inside it.

### TO LAUNCH IT, START THE FILE:

f4ak\_hkxpack\_UI.exe

If you know python or have python installed, you can use .py file.

### FUNCTIONS:

- UI for converting hkx ⇔ xml
- Generating rig.txt file from the skeleton.hkx
- (In future versions) UI for using havok2fbx

## GUIDE APPENDICES

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*Other useful information.*

## GLOSSARY

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Just so we are on the same page. Here are some terms:

**Rig** - this can be a misquiding word, because it usually means not just one thing, but it includes a few things. Which are:

**Skeleton** - Skeleton is a collection of joints, in gamedev they usually have to have the same root and exist within the same hierarchy. The joints\bones are used to drive character mesh, which is skinned to them, some of the joints\bones, usually referred to as locators, can be used as 'sockets' to snap other meshes to in realtime, like weapon joints.

Basically joint is just a transform in space, and there is usually no real separation of joints or locators or nulls in game engines, only in 3d software, where they may have different properties and behaviour, only until you export them.

**Skinning** - Skinning is a process of bining character mesh's verticies to specific joints.

**Control Rig** - A collection of additional objects and constraints which are required to make it possible for an animator to animate the character comfortably. While you can just animate joints, this is not really the right way to work with animations. Rigs can be simple or complex, they can be considered programs even, because they follow same conventions usually.

So basically character control rig is the strings an animator uses to control the puppet, while the puppet is skeleton and skinned mesh. It is a good idea to keep control rig and skeleton separately.

In 3ds max there are 3 ways to create Control Rig:

1. Creating Custom Control Rig, using bones, constraints, and objects and other tools available in max.
2. Using CAT - CharacterAnimationToolkit, built-in plugin in max, which allows you to easily create a rig for any character, and includes some animation tools, like mirroring, pose saving, etc.
3. Using Bipod - less feature-full and older built-in plugin for max, which allows you to quickly rig a humanoid character.

**Rig.txt** - this is something specific to Fallout4 and Skyrim, rig.txt file is a txt file required by Havok Content Tools to define the joints and their order upon export. I usually refer to it as "rig.txt" file, but you can call it however you want. I recommend calling them after the character's skeleton is made, and putting it into the same folder.

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Some people reported that rig.txt file must be placed under the same folder as 3ds max scene you are working with. I personally did not encounter this problem, but if you have problems exporting hbx animations from HCT2014, this may be the thing to try first.

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## FILE LOCATIONS

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Human meshes and skeletons are in the Meshes archive, here:

```
<STEAM>\steamapps\common\Fallout 4\Data\Meshes\Actors\Character\CharacterAssets
```

## ABOUT THE SOFTWARE CHOICE

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### WHY 3DS MAX? WHY THESE VERSIONS?

Currently we are limited with the tools available. 3ds max everything required, for latest possible versions, and the most updated ones.

HCT2014 is available for Max and Maya 2012-2016. It is not available for blender.

niftools has its most advanced and developed plugin for max only.

## VERSIONS

You can use any of these versions to work with Fallout4 Animations:

- 3ds Max 2013
- 3ds Max 2014
- 3ds Max 2015 (Recommended)

They all have HCT and niftools plugins support. 3ds max 2016 and 2017 are not supported by available HCT, and probably won't be anytime soon, since HCT's future is unknown, because Microsoft bought it recently.

I will be sticking with 3ds Max 2015, but Animation Kit will also include files for max 2013, which you'll be able to open in 2013 and 2014.

However I can't guarantee that I will save all files under for max 2013.

I will keep an eye on information about moving animation modding into Maya as well, but Blender guys have to research stuff themselves. I will, however, add information about Blender to this header post, just send it to me, ill review it and post here.

### 3DS MAX

It's the primary and most advanced package to work with Fallout4 animations so far. It has all the tools needed, all the plugins, and in some cases these plugins are more feature-full than in other software.

Main reason why it's currently the best solution for animations is that it has HavokContentTools and niftools plugins are compiled and available for it from the official niftools github repo.

- HCT
- Niftools Plugin seems to have more features than alternatives

### MAYA

Maya may be the second tool in this list, because it also has HCT and niftools plugin, and can use same HCT presets. But it is much harder to find the right compiled niftools plugin. **I did not find it yet, for Maya 2013-2015. If someone can compile it for Maya 2015, it would be perfect!**

But since in fact niftools plugin is only required to import and export MESHES it should be possible to export meshes and joints as FBX into maya, and then work in it from there.

You can use the FBX rig file, import it into maya and work with it there.

### BLENDER

Bad news for blender users, it does not have HCT plugin available. Without it, currently it is not possible to export \*.hmx animation files, until some third-party tool arrives.

However it should be possible to create a blender scene for animation and use it to animate, then export FBX animation, bring it into 3ds max, and export from there.

### UNIVERSAL

The real breakthrough can at some point come from [DexesTTP with his hmx tools](#), he is basically working on a standalone COLLADA => HMX converter. COLLADA format is available for both max and maya, and, i'm not sure, but I think blender too. It will make the process of exporting animations as simple as exporting an animation file into collada format with built-in tools, and converting it with a converter.

Once the converter is ready it will be even possible to automate the process to just 1 button click, a script can then export an animation, and launch external converter to convert it into hmx, so it will look like it just exported into hmx 😁

### HavokContentTools 2014

Can be obtained through other modders.

Required to create animations, was actually available for free from the official site. Until Microsoft bought them, and removed from the site. But they officially allow those people, who still have them, to



keep using them. And while redistribution is not allowed by the license, you don't need to provide any license keys or anything to install the plugin, which really makes redistribution untraceable.

So while I'm not approving piracy, finding HCT2014 is possible.

## TROUBLESHOOTING

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### **TROUBLE:**

You get the following error, while trying to click Export in HCT.

```
-- Error occurred in anonymous codeblock; filename: D:\Program Files\Autodesk\3ds  
Max 2013\MacroScripts\hvkCommon.mcr; position: 192; line: 7
```

```
>> MAXScript MacroScript Error Exception:
```

```
-- Unknown system exception <<
```

### **SHOOTING:**

Try installing max on C:\ Drive.

### **TROUBLE:**

When you try to export animation, you either succeed but the file is not created, or you receive some errors.

### **SHOOTING:**

First, of course, try to read the error message and understand it.

Second thing that might help – some people reported that they were only able to export animation, when the rig.txt file was placed right next to the current working 3ds max scene.

I personally did not encounter this, though.

## CONTACTS

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If you experience any problems or crucial bugs, or if you need any support with animations for F4 mods, feel free to contact me on <http://forums.nexusmods.com>.

Find ShadeAnimator there, or use this link: <https://forums.nexusmods.com/index.php?/user/5591708-shadeanimator/>

I am also available at Loverslab.

If I have time and consider your mod interesting for me to work with, I may consider joining your team or helping you. Though I am a busy man, so mind this, and don't be offended if I decline to help you directly. However I will try to always help you with information, to extent of my abilities.

Also contact me if you know how to improve this guide. If it is too big or too small, or if you have additional information, or if something stated here is wrong.

## CREDITS

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While the author behind this guide and F4AK is ShadeAnimator, it would not be possible without the help of some people.

- ShadeAnimator – author of F4AK and F4AK Guide.
- DexesTTP – developer of HKXPack and HKXAnim.
- MaikCG – author of F4Biped, helped a lot with information, research, guides and some files.
- CPU – a lot of help during research
- NifTools team for NifTools plugins
- JoshNZ – contribution to research