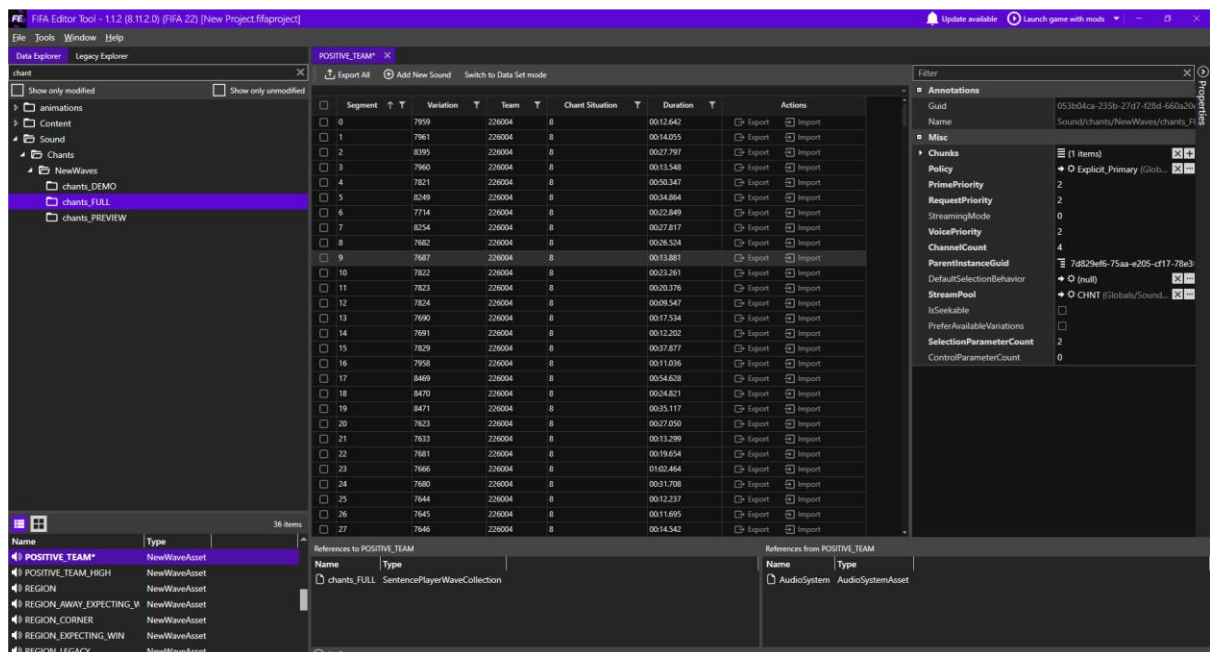# Adding new chants

Step 1 – Adding sounds to Fifa Editor

The first thing you will need to do is create a new chant. Now the best way to do this is to use an empty project so that you don't need to delete anything later. This process works with all of the sounds NewWaveAsset files I have tried so far in the Fifa Editor Tool version 1.1.2. It possibly works with 1.1.3 too, but I have stopped using that version as it has introduced some bugs with creating tournaments.
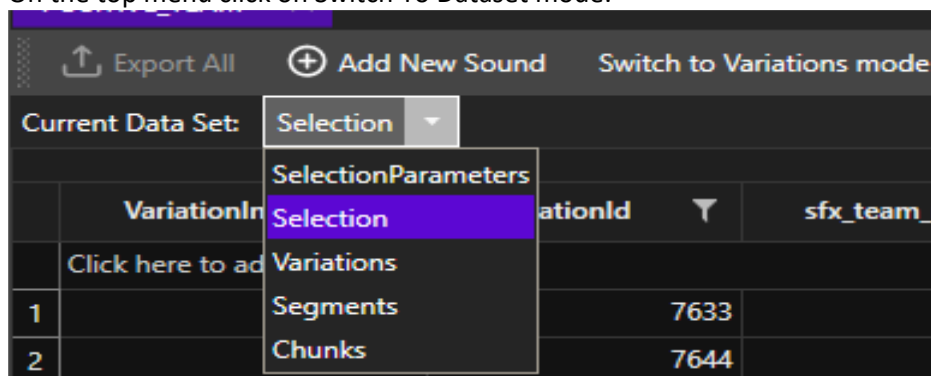
This guide is based on chants. If you need help with other sounds I can modify this guide later on.

In your new empty project go to *Sound/chants/NewWaves/chants_FULL*
Open one of the new wave assets. (I will use POSITIVE_TEAM).

At the top of the menu click on Add New Sound and when the dialog box opens click on the sound you want to add. The sound gets added to the bottom of the list. For the time being don't add teamid or variation. We are going to export the chunk which has been created.

On the top menu click on Switch To Dataset mode.

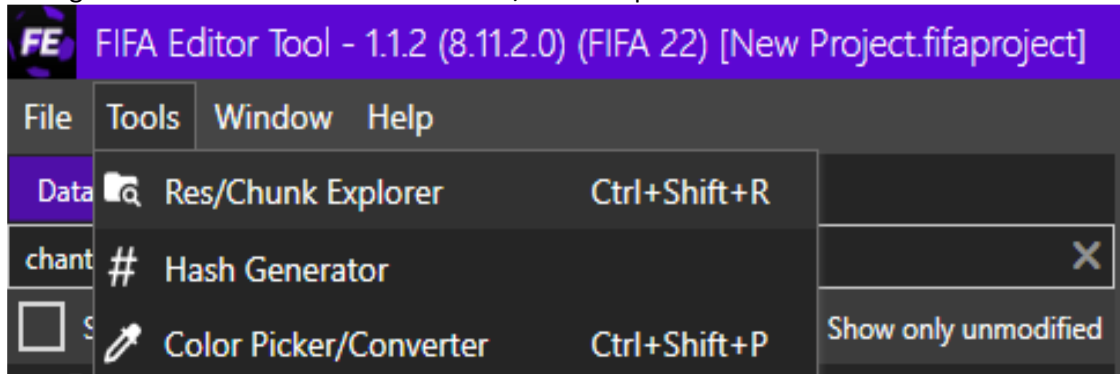Change the current data set to Chunks.

The chunk at the bottom is the most recent sound you have added.

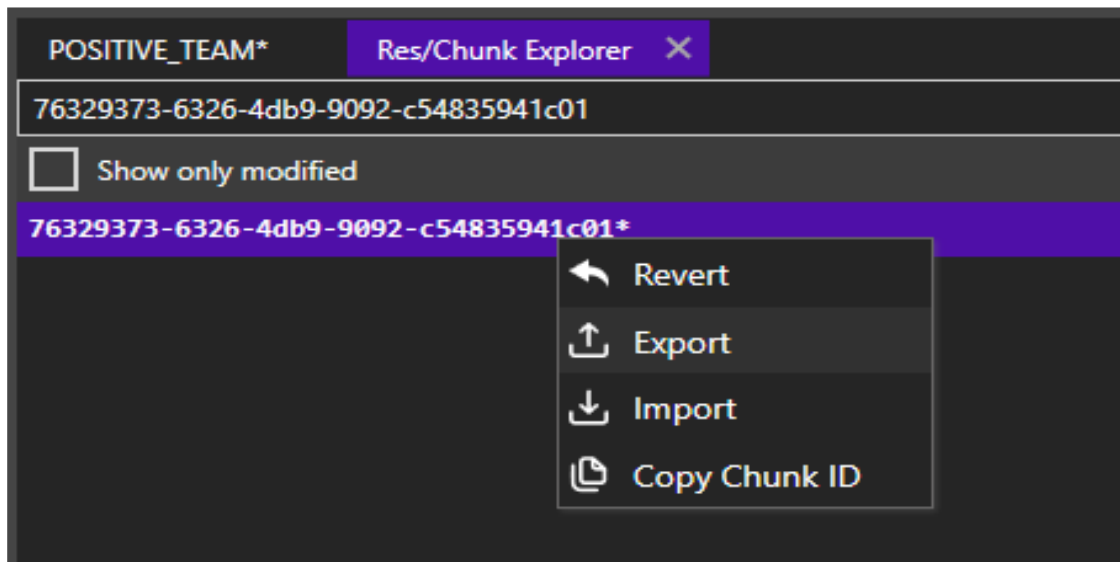|	ChunkSize	ChunkId		ChunkIndex	
	Click here to add a new row				
1	470772040	9258f866-c35a-5ccf-7fb2-448d69a153a2		0	
2	248748	76329373-6326-4db9-9092-c54835941c01		1	

Expand the column out and you can see the full chunk id. Copy this down into notepad.

Change the current dataset to segments, go down to the very bottom and you will see the in the duration column the length of each sound you have added. Note this duration down into notepad.

Now go to the tools menu and click on Res/Chunk Explorer.

In Res/Chunk explorer search for the chunkid which we copied into notepad, right click on it and export it.

Save it to your desktop somewhere as MainChunk or something to distinguish it as where we will do the work. We are going to use this chunk to add more sound files.

Use the above method to add another sound file, when you export it this time save it with a name so you know it is a single sound. For example, I will name it ManchesterUnitedChant2.chunk.

Step 2 – Working with the chunks

Now you will need a Hex Editor. Personally, I use HxD. You can download it from here:
https://mh-nexus.de/en/hxd/

Eventually, you can use this method to export as many sound files as you want using the above steps and import them all. I would advise you add only one to start with until you get comfortable with the steps and understand what is going on. It is also very easy to make a mistake, so remember to back things up as you go.

You will notice whenever you add a new song, it creates a new chunk.

The FIFA editor has a limit of allowing you to only add a certain number of chunks to each NewWaveAsset. When you hit the limit, you will need to add your songs to an already existing chunk.

Now open your MainChunk in HxD. The start of each sound uses the Hex 48 00 00 0C.

Go to the end of the hex. Note down the offset when your mouse cursor is at the very end of the hex.

```
0003CB80   20 38 3F 02 FF C7 49 18 31 01 B7 CC 12 B8 A3 1C    8?.ÿÇI.1.·I.,£.
0003CB90   DF 65 17 89 63 93 9C 86 2F F9 E2 20 6A 0C 4D 23   ße.‰c"œ†/ùâ j.M#
0003CBA0   DE 84 7C D6 58 4C BB 45 00 00 05 00              Þ„|ÖXL»E....
```

Results

Checksum	Search (0 hits)

Algorithm	Checksum	Usage

Expected result:

Offset(h): 3CBAC   Overwrit

YOU MUST make sure your mouse cursor is at the exact end of the hex. The offset your need to write down is in the bottom left hand corner of the screen where it says Offset (h):

For example my offset (length) is 3CBAC. This is my file length.

You need to also convert this to decimal. You can use a tool like
https://www.rapidtables.com/convert/number/hex-to-decimal.html

The decimal number is the length of the chunk. You will notice that this number appears in the chunks data set for the chunk in data set mode. Make sure you keep this number in notepad. Each time we add a new sound we need to make sure we update the chunksize in FifaEditor
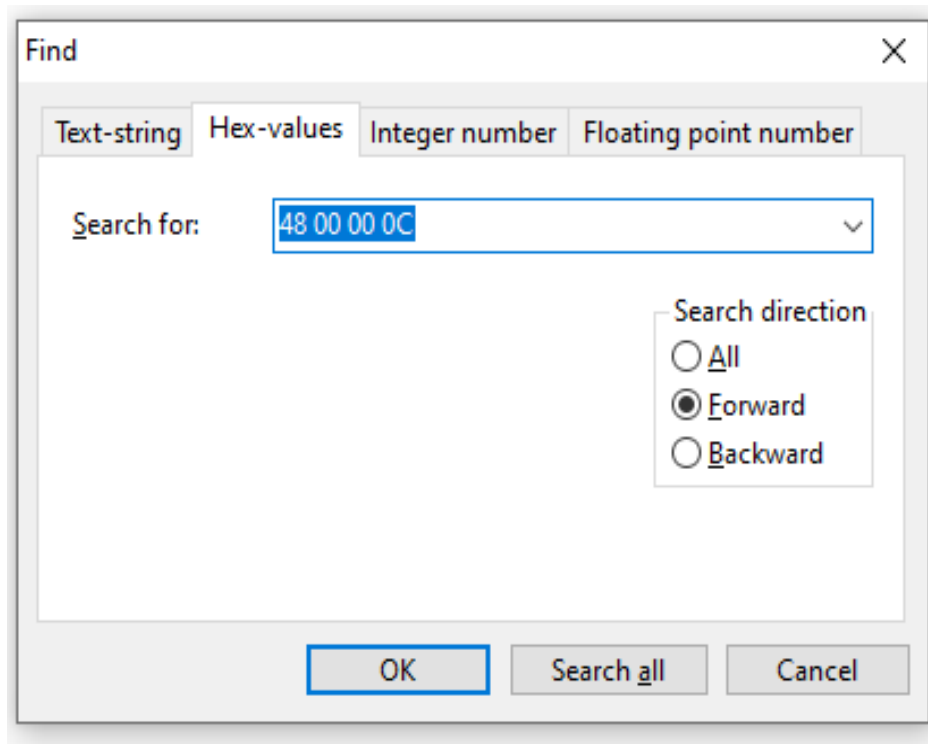

Back in HxD open the second song that you added. (ManchesterUnitedChant2.chunk)

Copy all of the hex and paste it at the end of the Main chunk file and save it.

Now remember each sound starts with 48 00 00 0C. We need to find the location of this in Main to see where the new sound starts.

You can do this easily by using the Search->Find option in HxD. Make sure to go back to the very start of the hex before you search, otherwise they may appear in the wrong order.

Then make sure the Hex-Values tab is selected and search for 48 00 00 0C. For search direction select All. Search All.

The search results will show at the bottom like this:

Offset	Excerpt (hex)	Excerpt (text)
16EDC	00 0B DC F8 00 00 34 80 00 00 04 45 00 00 05 00 **48 00 00 0C** 16 00 AC 44 40 0A 87 80 44 00 04 97	..Üø..4€...E....H.....¬D@.‡€D..—
2D53C	0B CC F8 00 00 3F C0 00 00 04 45 00 00 06 00 00 **48 00 00 0C** 16 00 AC 44 40 0A 5F 00 44 00 04 97	.Ìø..?À...E....H.....¬D@._.D..—

Ignore the first record at 0. FifaEditor has already added this one for you.

Offset	Excerpt (hex)	Excerpt (text)
0	**48 00 00 0C** 16 00 BB 80 40 0A EF 00 44 00 04 97 00 00 02 40 84 8F 00 09 00 09 DC 00 00 03 FC 28	H.....»€@.ï.D..—...@,.....Ü...ü(
16EDC	00 0B DC F8 00 00 34 80 00 00 04 45 00 00 05 00 **48 00 00 0C** 16 00 AC 44 40 0A 87 80 44 00 04 97	..Üø..4€...E....H.....¬D@.‡€D..—

Double click on the second result which is the start of the sound you pasted in. Remember as you add more sounds the chunk grows and more 48 00 00 0C offsets appear. When you are at the position in the hex where 48 00 00 0C appears click so your cursor is on the 0C part of the hex.

Now check the offset in the bottom left of HxD again. Go back to the hex to decimal converter and get the value in decimal.

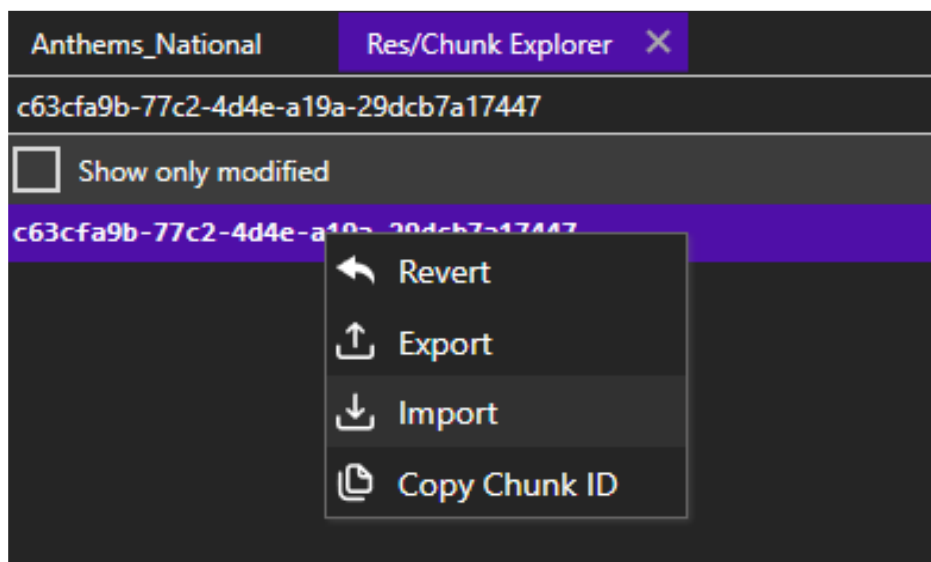# Hexadecimal to Decimal converter

Note down this value in notepad as NewSoundOffset. Now save the MainChunk file in HxD.

Go back to FifaEditor and in Res/Chunk Explorer import it in the place of the one you previously exported main from.
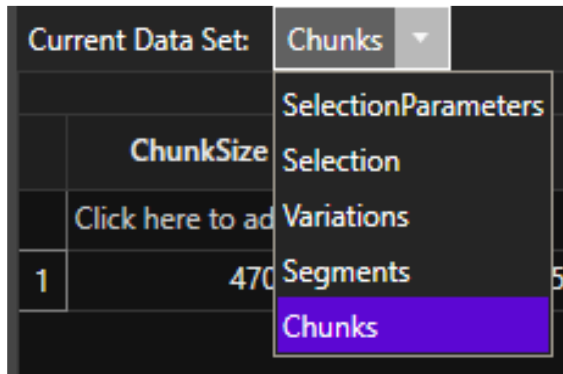
Now from this chunk you can reference both sounds!

Step 3

In FifaExplorer open the NewWaveAsset once again and switch to dataset mode. We are now able to add the reference to the new sound manually, rather than adding a new sound.

For the current data set go to Chunks

On the row that contains the ChunkId for your main chunk. Change the size so it is the same as the one we noted down in notepad after the second sound was added.

- Change the current dataset to Segments. Add a new row. Duration should be the duration of the second sound we added which we noted down in notepad earlier on.

SeekTableOffset can be set to 0.

SamplesOffset should be set to the start of the second sound we added in decimal. We noted this down in notepad so copy and paste that value in.

Segment index is just the sound number in total. So just look at the previous SegmentIndex and add 1 to it for the new row.

- Now change the currentdataset to Variations. We need to add a new row here too.
- LastLoopSegmentIndex is 0
  MemoryChunkIndex is 0
- StreamChunk index is the number is a reference to the chunk which we have used (ChunkIndex+1). So if your master chunk is the second chunk in the chunks list it will be 2 (Note it is not the chunkindex, but the row number)
- FirstLoopSegmentIndex is 0
- SegmentCount is 1
- FirstSegmentIndex is the same as SegmentIndex in the Segments Data Set. (Just add 1 for each row). Do the same for Variations Index, they should be the same.
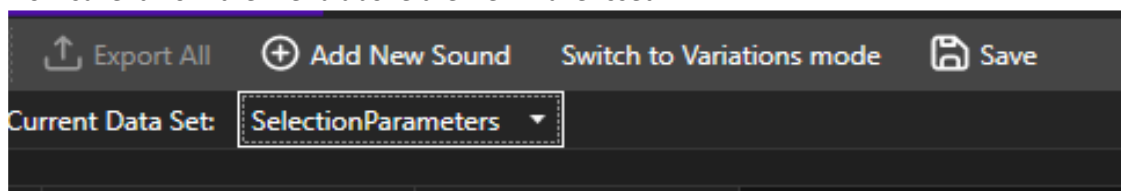
- VariationID just needs to be something unique within range. I tend to use 7300 for my first sound, then just add 80 to each new sound. You just need to make sure it is unique aswell as leaving a bit of room in case you want to add more later on.

Now change the currentdataset to Selection. We need to add a new row here too.

VariationIndex is the same number we added in the previous Variations data set. VariationID is also the same as the one we just added to Variations data set. sfx_team id is a reference to the team you want it to play for and chant situation is for the type of chant you are adding. I haven't worked out what each situation yet, but these will change for each type of sound you add to the game, it will ask for different things like teamid and playerid etc.

You shouldn't need to add anything to SelectionParameters dataset. FifaEditor should have already done this for you.

Now save it from the menu above the NewWaveAsset.

Now you can switch to Variations mode. If you scroll to the bottom you will see FifaEditor has added to your new sound to this table automatically based on the values you changed in data set mode.

All Done!

Now for a bit of advice as to how I approach this.

Once you are comfortable you can open a new blank project in FifaEditor, convert all of your sounds to chunks and save them in a folder on your PC.

Then when you open your actual project you can just add one song using FifaEditor, export the chunk, then start pasting all your sounds into it one by one.

Then use HxD to get all of the references and add them into the datasets in FifaEditor.

Don't get frustrated if you don't understand it at first. Learning how to use Hex is quite difficult, but you will get there and find it much easier to just edit things.

Good luck and let me know how you get on!