



X4: Foundations - Own Radio Stations

This mod lets you to listen to your favorite music in-game

Features:

- Separate radio station for each track, plus a designated MP3 player station
- Keeps track of in-game happenings, making it far better, than old-school solutions
- Emulates signal weakening for radio stations, which are owned by any faction
- Uses an editable INI file for settings
- Supports on-line streamed radio stations
- Supported formats: MP1, MP2, MP3, OGG, WAV, AIFF
- Volume controls are totally integrated with the X4 Sound Options menu

Requirements:

- X4: Foundations 3.00 or later, Windows version
- SirNukes Mod Support APIs
- kuertee UI Extensions and HUD

Installation / Setup:

- ✂ Copy the 'X4_ORs' directory into your game's 'extensions' directory
- ✂ Edit the INI file, and set up your radio stations
- ✂ Have your local radio station files copied to the specified locations (if any)

Controls:

- CTRL + ALT + Down arrow key - Previous radio station
- CTRL + ALT + Up arrow key - Next radio station
- CTRL + ALT + Left arrow key - Previous MP3 track (only on MP3 player station)
- CTRL + ALT + Right arrow key - Next MP3 track (only on MP3 player station)

Notes:

- 🔊 The radio can only be heard from the pilot chair. It's not available in spacesuit, or on platforms.

Technical information:

- 🔧 The mod contains an EXE file, which is used to do the playback. If you tamper with the EXE, your game may freeze, when trying to communicate with the EXE.
- 🔧 The EXE uses the included BASS.DLL, to play audio.
- 🔧 The mod uses MD + LUA scripts, to control the EXE.

Setting up the INI:

INI file location: 'extensions/X4_ORs/radiostations/settings.ini'

- INI section: **[Global]**
 - **NumberOfStations**: (integer) Total number of radio stations to load. MP3 player station doesn't count to this value.
 - **Latency**: (integer) Max number of milliseconds allowed as latency, before music is paused, once the game becomes unresponsive, or paused.
Accepted values: 10 - 5000, default: 1000
 - **RandomizeTracks**: (integer) If true, then the program will seek local stations to a random position, and the MP3 station to a random MP3 upon program initialization..
Accepted values: 0 (false), any other (true), default: 0 (false)
 - **NoOnlineStreams**: (integer) If true, then the program will not load on-line streamed radio stations.
Accepted values: 0 (false), any other (true), default: 0 (false)
 - **UseLinearVolume**: (integer) If true, then the program will attempt to 'linearize' the volume scale, working against the logarithmic scale of Bass.
Accepted values: 0 (false), any other (true), default: 0 (false)
 - **LoudnessFactor**: (real) The master loudness of the program.
Accepted values: 0.0 - 1.0, default: 1.0
- INI section: **[Radio_X]**: 'X' is replaced by a number from 1 to **NumberOfSections** from the **[Global]** section. Each normal radio station must have one section in the INI.
 - **FileName**: (text) The file name of the radio station; the file name can be either a relative, or an absolute file name. On-line streamed radios must have their file names start with 'http://', 'https://', or 'ftp://'
Examples:
 - radio_POP.MP3
 - D:\KJAH.wav
 - http://stream.berliner-rundfunk.de/brf/mp3-128/internetradio
 - **Owner**: (text) Owner faction(s) of this radio station. If specified, the signal weakening can be emulated. Otherwise, the radio station will be available everywhere in-game.
Examples:
 - antigone
 - holyorder, trinity
 - **LoudnessFactor**: (real) The individual loudness of this radio station.
Accepted values: 0.0 - 1.0, default: 0.0
 - **DampeningFactor**: (real) This value specifies, the strength of the signal, after each kilometer. If not specified, then the station will be available everywhere in-game. *Usually the best choice is 0.999 (~6000 km range).*
Accepted values: 0.0 - 1.0, default: 1.0 (no dampening)
 - **RadioText**: (text) The name of the radio station. This text will be shown for 5 seconds, after changing station. Must not contain comma!
Default value: '?Unnamed Station?'
- INI section: **[Radio_MP3]**: Designated specifically for the last, MP3 player station. On this station, the music placed in the 'extensions/X4_ORs/radiostations/mp3' is played.
 - **Enabled**: (integer) If true, then the MP3 player station is enabled.
Accepted values: 0 (false), any other (true), default: 0 (false)
 - **LoudnessFactor**: (real) The individual loudness of this radio station.
Accepted values: 0.0 - 1.0, default: 0.0
 - **RadioText**: (text) The name of the radio station. This text will be shown for 5 seconds, after changing station. Must not contain comma!
Default value: '?Unnamed MP3 Station?'

Backstory:

By default, X4: Foundations plays background music for every sector, which is usually quite good. Even the war music / suspense music is good.

Coming from the GTA world, I got used to the 'radio stations'. X4 doesn't have them, but in the beginning, it wasn't a problem.

After weeks of playing, the background music seemed to be a bit monotone, repeated. Only a little bit... but I'm way too extreme.

A few weeks before my first encounter with X4, I've modded GTA V, with an 'Own Radio Stations' mod, as a way of replacing in-game radio stations with custom ones. I used the same methodology, as it was used in GTA SA, with the SAORS mod, made by HackMan128. He used a separate background process for playing music, while replacing original radio stations with silence. That solution used memory hack, to read game memory, while my GTA V ORS used shared memory + in-game script, to read game internals; this solution is portable amongst different game versions.

Based on GTA V ORS, X4 ORS uses shared memory + in-game script, to read game internals, and also to keep in-game music muted (music is not removed, but simply muted, while radio is on).