

SatXmlEditor User Guide

The program SatXmlEditor version 1.0.7 is designed to edit the Satellites.xml file. It is written for Windows OS, but there is no need to install it (portable version). The program creates its database in the RAM memory, into which it loads the data from the Satellites.xml file. Furthermore, it only works with this database, so the user cannot accidentally overwrite the source file. **But it may forget to save the changes made.**

The program creates a separate table for satellites and a separate table for transponders in its database. Displays transponders only for the selected satellite. It is therefore not possible to display all transponders of all satellites at the same time. You can quickly switch between the satellites and transponders tables by double-clicking on the current table item.

Both satellite and transponder entries use parameters whose meaning is stored in the Explanation.xml file. After starting, the program uploads these data to the relevant tables of its database and uses them to edit satellites and transponders via drop-down combo boxes. It is therefore possible to add new values of existing parameters to this file, which will be introduced in the future for the Satellites.xml file. The program will thus learn to use them.

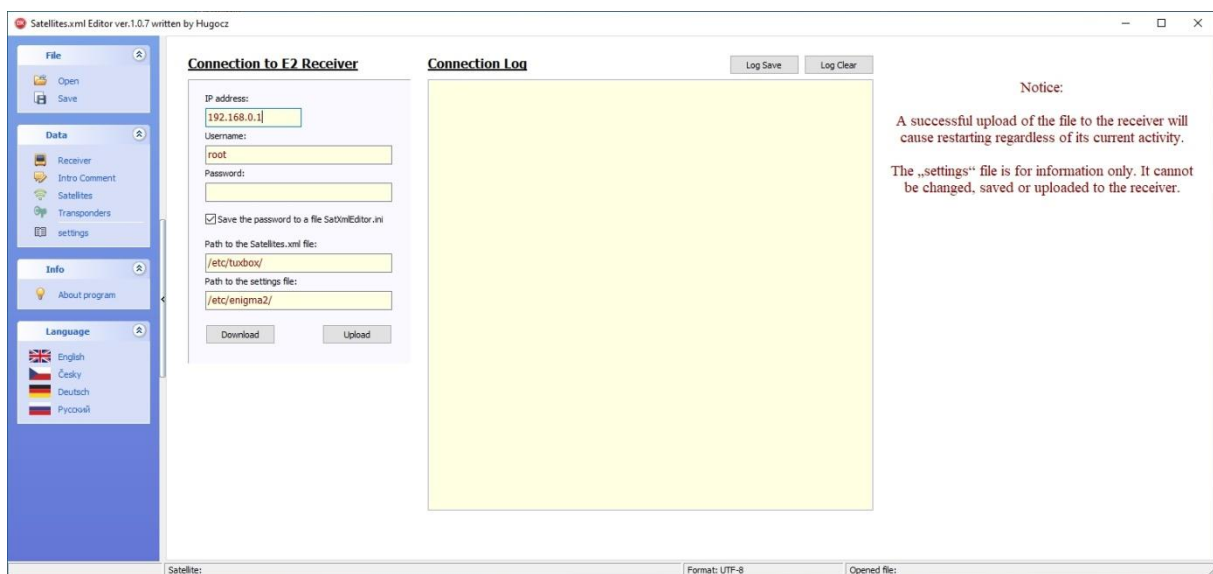


Fig. 1 – Appearance of the program after launch

After starting the program, we have the option to immediately start writing satellite and transponder data for a completely new Satellites.xml file. Text encoding is automatically set to UTF-8. This can be seen on the bottom line of the program. Transponder items cannot be created until at least one satellite item has been created.

Another option is to open the Satellites.xml file from your computer disk, or download it directly from the Enigma satellite receiver. In both cases, the program copies the data to its database and does not continue to work with the source file. The program finds out how the text is encoded in the source file (UTF-8, iso-8859-1, ...). This data is printed on the bottom line of the program. It uses this text encoding when saving.

The option to open a file from the computer disk is in the “File – Open” menu on the left. Depending on the Windows settings, it is also possible to browse the local network and search network drives.

The option to download a file from a satellite receiver is in the “Data – Receiver” menu. This page appears automatically after starting the program. The file is downloaded using the ftp protocol. First we need to set the correct data for connecting to the receiver and the correct path to the Satellites.xml file. Usually "/etc/tuxbox/". After a successful connection, this data is saved in the SatXmlEditor.ini file. The program will automatically

load them at the next start, so you don't have to copy them all the time. With the "Save the password to a file SatXmlEditor.ini" check box, we decide whether the password is also saved in readable form in this file, or not saved at all.

While opening the Satellites.xml file, the name of the currently read satellite is written on the bottom line of the program. If an error occurs, here we find the name of the satellite that could not be loaded.

Settings file is downloaded at the same time as the Satellites.xml file. The correct path is usually "/etc/enigma2/". In this file, among other things, the settings of the receiver's individual tuners are stored, which must correspond to the Satellites.xml file. This file cannot be edited or saved. However, the text in the window can be selected, copied and pasted into any text editor.

Satellite Name	Flags	Position	Comment	Transponders Count
4.8E Ku-band Astra 4A & SES 5	Network Scan	48		41
4.8E C-band Astra 4A & SES 5	Network Scan	49		19
7.0E Ku-band Eutelsat 7B/7C	Network Scan	70		31
7.0E Ka-band Eutelsat 7B/7C	Network Scan	72		6
9.0E Ku-band Eutelsat 9B & Ka-Sat 9A	Network Scan	90		56
9.0E Ka-band Eutelsat 9B & Ka-Sat 9A	Network Scan	92		1
10.0E Ku-band Eutelsat 10A	Network Scan	100		11
10.0E C-band Eutelsat 10A	Network Scan	101		11
13.0E Hotbird 13B/13C/13E	Network Scan	130		81
16.0E Ku-band Eutelsat 16A	Network Scan	160		63
16.0E Ka-band Eutelsat 16A	Network Scan	162		9
17.0E Ku-band Amos 17	Network Scan	170		13
17.0E C-band Amos 17	Network Scan	171		5
19.2E Ku-band Astra 1KR/1L/1M/1N	Network Scan	192		95
19.2E Ka-band Astra 1KR/1L/1M/1N	Network Scan	194		1
20.0E C-band Arabsat 5C	Network Scan	201		8
21.5E Eutelsat 21B	Network Scan	215		33
23.5E Astra 3B	Network Scan	235		29
25.5E Ku-band Eshail 1	Network Scan	255		8
25.5E Ka-band Eshail 1	Network Scan	257		2
26.0E Ku-band Badr 4/5/6/7 & Eshail 2	Network Scan	260		58
26.0E C-band Badr 4/5/6/7 & Eshail 2	Network Scan	261		2
28.2E Astra 2E/2F/2G	Network Scan	282		88
30.5E Arabsat 5A/6A	Network Scan	305		17
31.0E Türksat 5A	Network Scan	310		2
31.5E Astra 5B	Network Scan	315		10
33.0E Eutelsat 33C & Eutelsat 33E	Network Scan	330		3
Count: 252				Sum: 4 102

Fig.2 – Page of satellites

After loading the data, the program automatically switches to the Satellites window. A table of satellites is displayed here, in which we can select any item. You can continue working with the selected satellite using the menu on the bottom bar of the window. The following options are available:

- F2 - Save: Saves the changed or new satellite sentence to the database in RAM
- F5 – Change: Opens a window allowing you to change the current satellite item
- F8 – Delete: Deletes the selected sentence of the satellite **with all its transponders**
- F9 - New: Opens a window to insert a new satellite item
- Esc – Cancel: Allows you to cancel the started editing of the current / new item
- Right arrow: Switching to the transponder table of the selected satellite

Offers can be activated by clicking the mouse or pressing the appropriate key. After choosing "F5 - Change" or "F9 - New", an editing window opens where you can enter the relevant changes. Individual items are colored in light yellow. This indicates a state where the value of the item has not yet been changed. As soon as any item is edited, its edit field turns dark yellow. This alerts you that you need to update the data in the database using the "F2 - Save" menu.

Any comments about the satellite can be entered in the "Comment" column. These comments are always saved in the Satellites.xml file as a comment at the end of the line after the satellite header.

During editing, use the Enter or Tab key to move to the next item. This is how we go back to the first item from the last item. Until we finish editing the item by choosing "F2 - Save" or "Esc - Cancel", **all other functions of the program are blocked**.

Worth noting is the Position value. Positive numbers are ten times the positions of satellites located in the East direction. Negative numbers are ten times the positions of satellites located in the West direction, or their subtraction from the value of 360.0°. Importantly, there **MUST NOT** be two entries with the same position in the Satellites.xml file.

If multiple entries with the same position are needed (for example, a separate entry for Ku-band and a separate entry for C-band of the same satellite), it is necessary to increase or decrease the value of Position by 1 for one item. This creates a virtual position that differs from the real one by 0, 1°. This value must also be correctly specified in the settings file for the corresponding tuner settings record.

The table can be sorted by clicking on the appropriate column header. Clicking on this column header again will sort the items in reverse order. Canceling this forced sorting is done by clicking on the column header while holding down the Ctrl key.

Active	Frequency	Polarization	Symbol Rate	FEC	System	Modulation	Inversion	Pilot	RollOff	NID	TID	IS ID	PLS Mode	PLS Code	T2MI PLS ID	T2MI PID	Comment
<input checked="" type="checkbox"/>	10 729 000	Vertical	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 758 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	10 773 000	Horizontal	22 000 000	3/4	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 788 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	10 803 000	Horizontal	22 000 000	3/4	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 818 000	Vertical	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 832 000	Horizontal	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 847 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	10 876 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	10 891 000	Horizontal	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 906 000	Vertical	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 921 000	Horizontal	22 000 000	7/8	DVB-S	QPSK											
<input checked="" type="checkbox"/>	10 936 000	Vertical	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 964 000	Horizontal	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	10 979 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	10 994 000	Horizontal	22 000 000	5/6	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	11 023 000	Horizontal	23 500 000	3/4	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	11 038 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	11 053 000	Horizontal	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	11 068 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	11 082 000	Horizontal	22 000 000	3/4	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	11 097 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	11 112 000	Horizontal	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	11 127 000	Vertical	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	11 156 000	Vertical	22 000 000	5/6	DVB-S	QPSK											
<input checked="" type="checkbox"/>	11 186 000	Vertical	22 000 000	2/3	DVB-S2	8PSK											
<input checked="" type="checkbox"/>	11 214 000	Horizontal	22 000 000	3/4	DVB-S2	8PSK											

Fig.3 – Page of Transponders

After selecting the satellite item, we switch to the transponders window. Here, all transponders of the selected satellite are displayed in a table. On the bottom bar of the window, there is again the possibility to work with items in the same way as in the case of satellites.

The first column of the table allows you to turn on / off the respective transponder. If this box is unchecked, the entire transponder is saved as a comment. The satellite receiver then ignores such a transponder. But the data is still stored in the Satellites.xml file, and if necessary, the entire transponder can be activated again by checking the appropriate box.

Any comment with notes about the transponder can be entered in the last column. These comments are always saved in the Satellites.xml file as a comment at the end of the line after the transponder.



Fig.4 – Page with the Intro Comment

Using the menu “Data - Intro Comment”, we switch to the page where the introductory comment from the Satellites.xml file is written. This comment can be edited. Any initial and final empty lines will be deleted by the program when saving.

After finishing editing the database, we have to save the changes to a file on disk using the "File - Save" menu, or to a file in the satellite receiver with Enigma using the "Data - Receiver" menu.

In the second case, we switch back to the "Data - Receiver" window and press the "Upload" button. First, the data from the database is converted into xml format . Then the program connects to the satellite receiver. With the telnet protocol he shuts down Enigma (init 4), with the ftp protocol he overwrites the original Satellites.xml file with a new file, and then with the telnet protocol he restarts the entire receiver (init 6). The progress of these activities is written in the "Connection log" window.

The inscription on the bottom line of the program informs about the need to permanently save changes to a file on disk or in a satellite receiver. If this sign is red, when you shut down the program, you will be asked if you want to save the changed data to a file. If we do not save the changes made at this time, they will be irretrievably lost.



Fig. 5 – Page with a listing of the settings file

In the “Data – settings” menu, we switch to the window where the contents of the settings file are displayed. This listing is for informational purposes only. Therefore, it cannot be edited or sent back to the receiver. The lines related to the settings of the input part of the receiver are colored blue. Nims0 is the first tuner, Nims1 the second, etc. The config.Nims.x.dvbs.advanced.sat entry lists the positions of the satellites for tuning. This data must correspond to the position in the Satellites.xml file.

The program is translated into four languages. Information about the current language is stored in the SatXmlEditor.ini file. After starting the program, the last used language is automatically selected. All text strings for all languages are stored in the Languages.xml file. If the required phrase is not found in the file, the program will use its own text in English.

The program does not assume the existence of other translations. Therefore, it is not enough to just add a new language to the Languages.xml file. If you are interested in adding other languages, please contact me by email at hugocz@jevicko.org.

Notice:

When saving to a file or when sending to the receiver, the program sorts the order of the satellites according to the "Position" value. The program will sort the Transponders according to the "Frequency" and "Polarization" value. **The original order of satellites and transponders will not be preserved.**

Program Limitations:

- 1) Only one comment can be placed after the <sat > item. Others will be lost.
- 2) Only one comment can be placed after the <transponder > item. Others will be lost.
- 3) **Comments between the end of satellite </sat> and the beginning of the next satellite <sat > are not loaded by the program and will be lost.**

This means that the Satellites.xml file cannot be split into separate sections using comments.