

SatXmlEditor User Guide

The program SatXmlEditor version 1.1.8 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. It now 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, it 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.

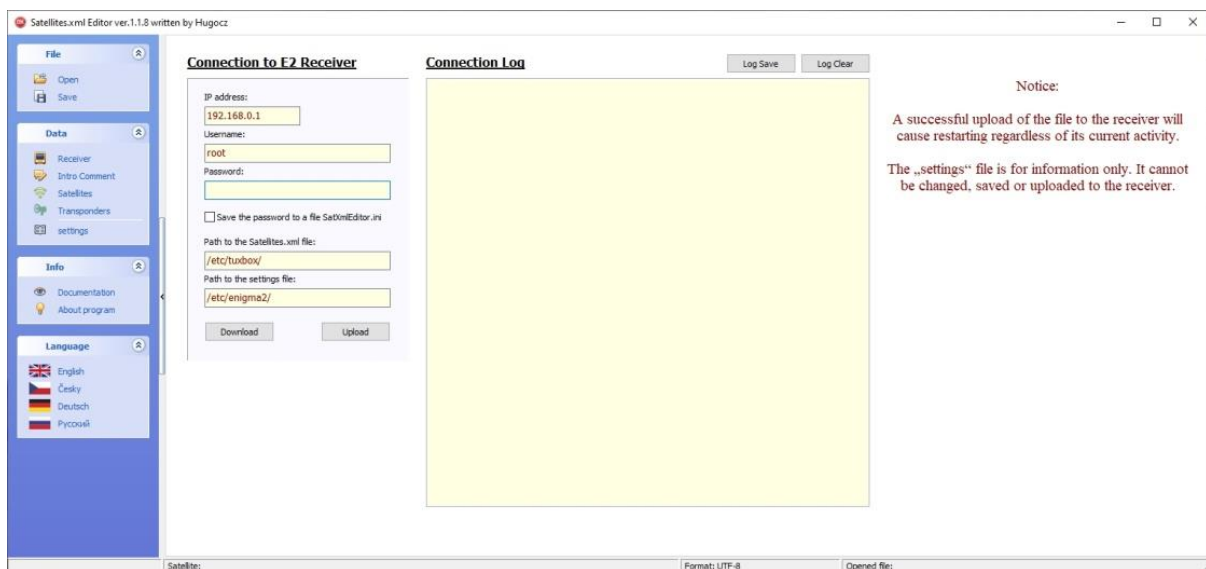


Fig. 1 – Appearance of the program after launch

After starting the program, we have the option to open the Satellites.xml file from the 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 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 via 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 password in SatXmlEditor.ini" check box, we decide whether the password is also saved in readable form in this file, or not saved at all.

The 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. When saving to a file, UTF-8 encoding must be used.

Satellite Name	Flags	Position	Comment	Transponders Count
Eutelsat 3B/Rascom QAF 1R (K03.0E)	None	30	SCN 39773, 2014-030A (Eutelsat 3F)	122
Eutelsat 3B/Rascom QAF 1R (C03.1E)	None	31	SCN 39773, 2014-030A (Eutelsat 3F)	48
Astra 4A/SES 5 (K04.9E)	None	49	SCN 32299, 2007-057A (Astra 4A),	85
Astra 4A/SES 5 (C05.0E)	None	50	SCN 32299, 2007-057A (Astra 4A),	22
Astra 4A/SES 5 (K05.1E)	None	51	SCN 32299, 2007-057A, (Astra 4A,	7
WGS F1 (K06.2E)	None	62	SCN 32258, 2007-046A, update 20;	19
Eutelsat 7B/7C (K07.0E)	None	70	SCN 39163, 2013-022A (Eutelsat 7I)	165
Eutelsat Connect (K07.2E)	None	72	SCN 45027, 2020-005B, update 20;	1
Eutelsat 7A/7B (K07.2E)	None	72	SCN 39163, 2013-022A (Eutelsat 7I)	124
Eutelsat 9B/Ka-Sat 9A (K09.0E)	None	90	SCN 41310, 2016-005A (Eutelsat 9E)	57
Eutelsat Ka-Sat 9A/9B (K09.2E)	None	92	SCN 37258, 2010-069A (Eutelsat Ki)	6
Eutelsat Ka-Sat 9A/9B (K09.3E)	None	93	SCN 37258, 2010-069A (Eutelsat Ki)	37
Eutelsat 10A (K10.0E)	None	100	SCN 34710, 2009-016A	202
Eutelsat 10A (C10.1E)	None	101	SCN 34710, 2009-016A	24
Inmarsat GX5 (K11.0E)	None	110	SCN 44801, 2019-080B, update 20;	1
Inmarsat GX5 (K11.2E)	None	112	SCN 44801, 2019-080B, update 20;	4
Blagovest 4 (K12.2E)	None	122	SCN 44457, 2019-048A, alias Cosm	2
Eutelsat Hotbird 13 B/E/G (K13.0E)	None	130	SCN 29270, 2006-032A (Hotbird 13)	84
Eutelsat 16A (K16.0E)	None	160	SCN 37836, 2011-057A	135
Eutelsat 16A (K16.2E)	None	162	SCN 37836, 2011-057A, update 20;	65
Amos 17 (K17.0E)	None	170	SCN 44479, 2019-050A	13
Amos 17 (C17.1E)	None	171	SCN 44479, 2019-050A	8
USA 164 (K19.0E)	None	190	SCN 27168, 2002-001A, alias Milst	4
Astra 1KR/1L/1M/1N (K19.2E)	None	192	SCN 29055, 2006-012A (Astra 1KR)	108
Astra 1L (K19.4E)	None	194	SCN 31306, 2007-016A, update 20;	52
Arabsat 5C (C20.1E)	None	201	SCN 37810, 2011-049B	13
Eutelsat 31B/31C/31D/31E/31F	None	316	SCN 39883, 2013-063B	146
Count: 180				Sum: 5 375

Fig. 2 – Satellite page

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. Multiselect is not enabled for the satellite table, so only one item can be selected. 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.

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. This condition is not checked by the program and the Position value is completely under the control of the user.

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. But this is only a visual sorting in the table on the screen, so that the data can be searched better. This does not change the order of sentences in the database.

Active	Frequency	Polarization	Symbol Rate	FEC	System	Modulation	Inversion	Pilot	RollOff	NID	TID	IS ID	PLS Mode	PLS Code	T2MI PLP 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	23 500 000	3/4	DVB-S2	8PSK											

Fig. 3 – Transponders page

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. This comment must not contain the string <transponder>, as this keyword is used by the program to identify a disabled transponder item.

Multiselect is enabled for the transponder table. This means that we can select several rows at the same time. We achieve this using standard procedures known from windows. By clicking the mouse on a line with the Ctrl key pressed at the same time, we select / deselect one item. By clicking the mouse on a row with the Shift key pressed at the same time, we select / cancel the range of items. This can be advantageously used for mass deletion of transponders. On the contrary, it is not possible to edit several records at the same time.

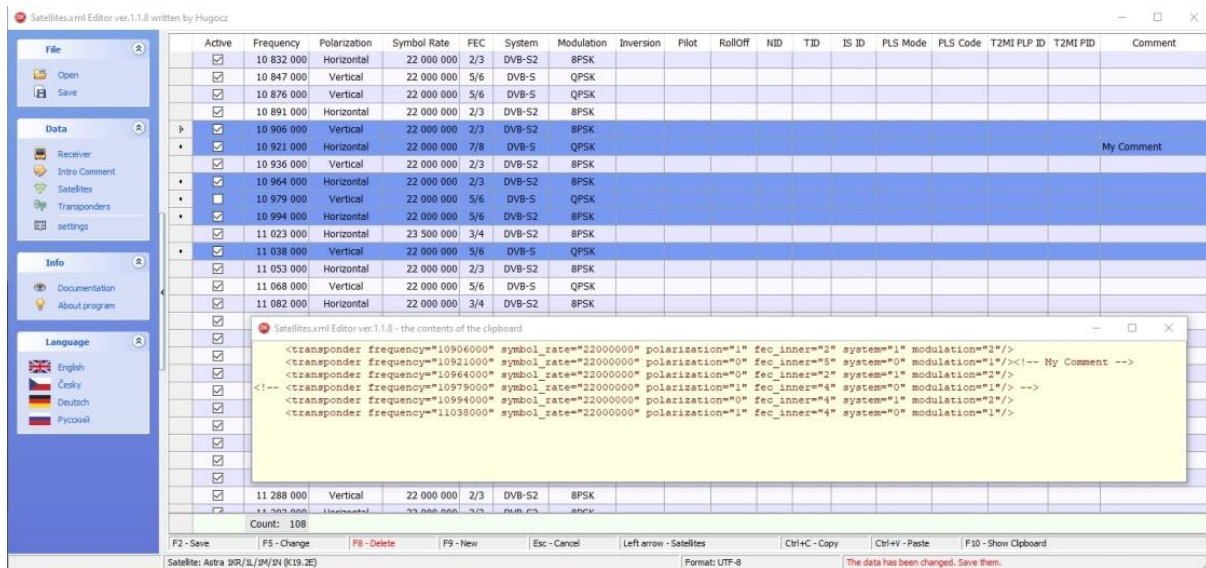


Fig. 4 – Windows Clipboard

A completely new function of the program is the use of the Windows clipboard. Using the familiar Ctrl + C key combination, all selected transponders are copied as text to the clipboard. After copying, the contents of the clipboard will be displayed in a separate window. If there are already copied transponders in the clipboard, they can be inserted into the database with the other transponders using another well-known key combination Ctrl + V. Using the F10 key, we can display the contents of the clipboard in a separate window at any time.

We can use the windows box to copy transponders from one satellite to transponders of other satellites. As the clipboard text format is used, this method can also be used to import/export transponders from/to any Satellites.xml files opened in text editors. So we can create compilations from files of different authors.

The program does not check duplicate transponders for one satellite. This means that copied transponders can be inserted into the table of the same satellite. How to deal with these duplicates is entirely up to the user.

The windows clipboard cannot be used for satellite items. It is intended exclusively for work with transponders.

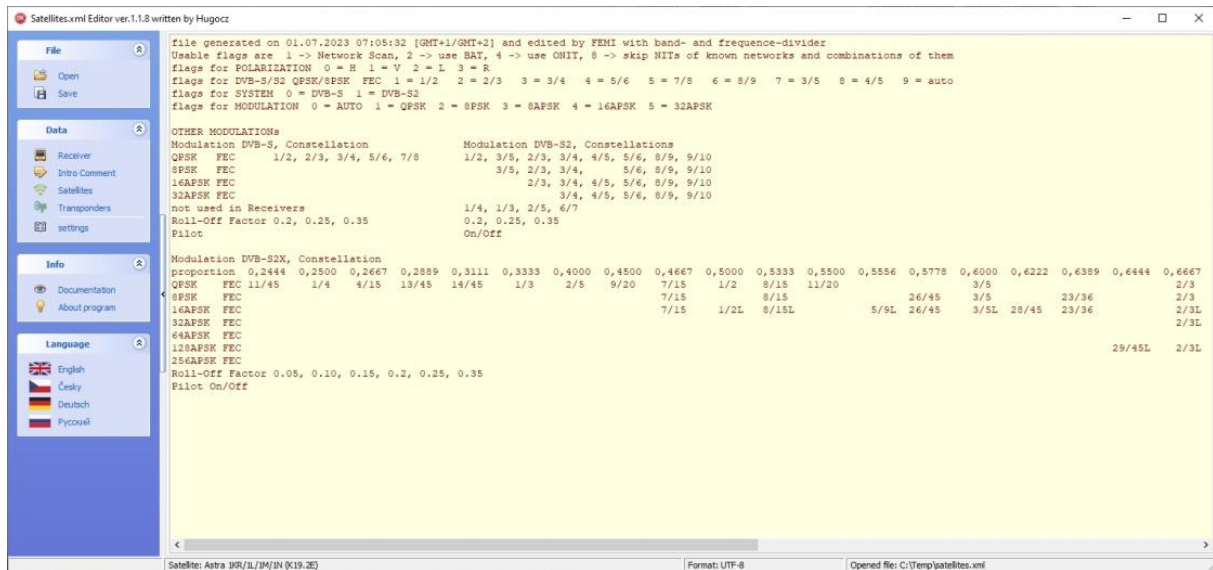


Fig. 5 – The opening comment page

Using the menu Data - Introductory 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. He shuts down Enigma with the telnet protocol (init 4), overwrites the original Satellites.xml file with a new file with the ftp protocol, and then restarts the entire receiver with the telnet protocol (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 we do not save the changes made in this way, they will be irretrievably lost after the end of the program.



Fig. 6 – 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.

User manuals in pdf format are located in the Doc subdirectory. These can of course be used independently with any viewer of these files. However, the menu "Info - documentation" is available in the program menu, which displays the relevant file without the need for an external browser. The condition is that the manual file is located in the Doc subdirectory and its name has not been changed. The language of the manual is selected automatically according to the selected language of the entire program.