

Manual
Universal Scanner Audio Player
Version 3.0.3

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1. Introduction.

This program written by Eldar Nizamutdinov aka Deim. With C# language.

I want to express my great appreciation to Radio Ham community from all over the world for helping me with device audio files, for testing my application.

You can contribute my project via financial donation:

PayPal : deim.mobile@gmail.com

SberBank: [4276 5501 0480 9226](#)

2. How it works.

The program use files and directories with scanner audio files as input data. Current version work with next types of scanners:

1. Uniden BCD436HP
2. Uniden BCD536HP
3. Uniden SDS100
4. Uniden SDS200
5. ICOM R30
6. AOR AR-DV10
7. Uniden HomePatrol
8. Whistler TRX-1
9. Whistler TRX-2

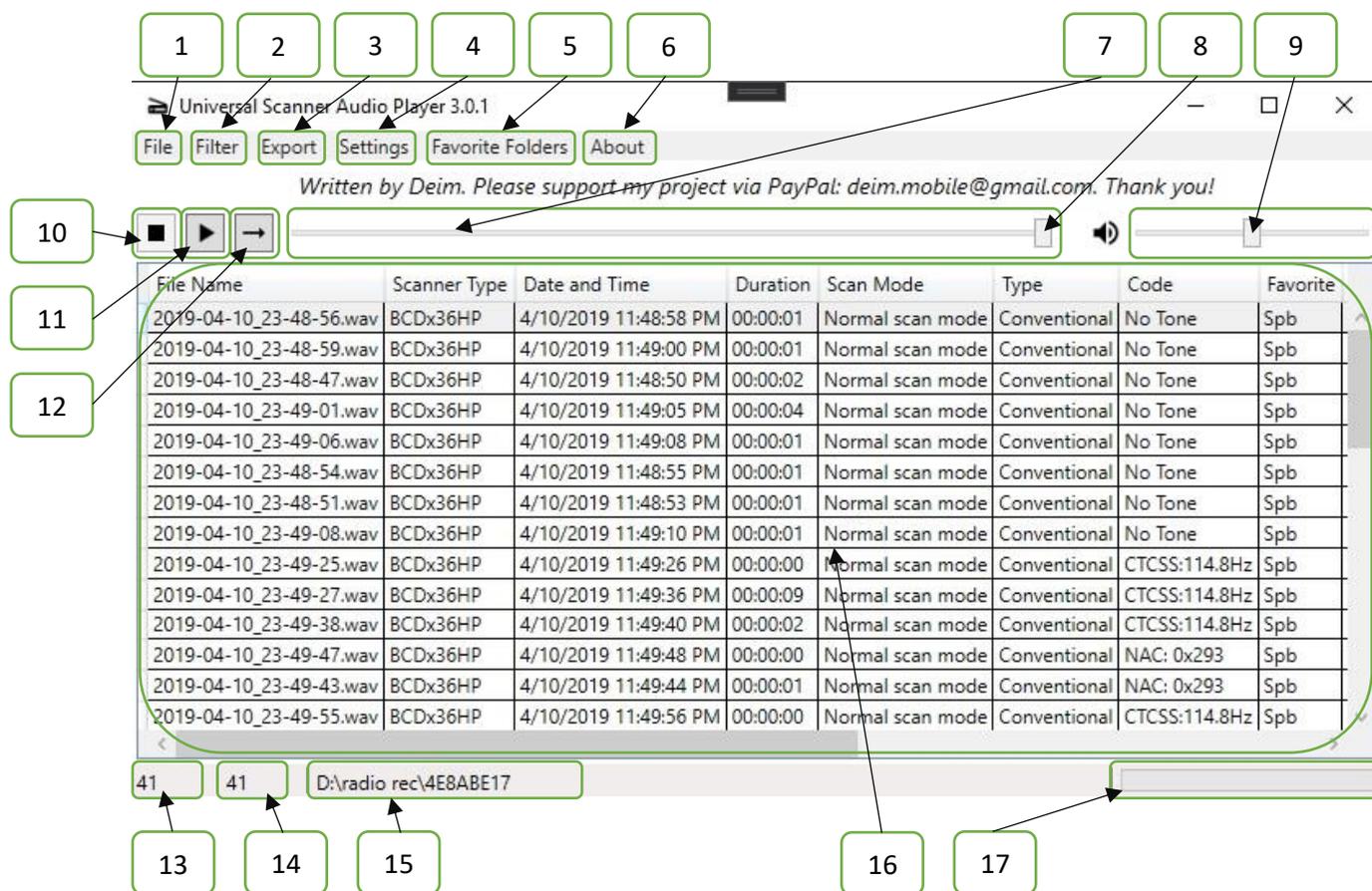
The application read WAV or AU files from directory and send it to parser engine. Parser engine work in multithread mode. In next step the parser engine read header from all files extract information from it and put this info to RAM.

All extracted information store only in RAM and deleted after close the application.

Main purpose of the program is playback, search, sorting and cataloguing of the scanners audio files.

You should also understand that scanners may write incorrect info in files. This may be related with short transmission, radio interference and high load of trunk radio network.

3. Main view.



Pic. 1

Main view of the application present on picture 1. This view contains basic controls and main table with extracted information.

1. File Menu position 1 on Pic.1 – see section 3.1
2. Filter Menu position 2 on Pic.1 – see section 3.2
3. Export Menu position 3 on Pic.1 – see section 3.3
4. Settings Menu position 4 on Pic.1 – see section 3.4
5. Favorite Menu position 5 on Pic.1 – see section 3.5
6. About Menu position 6 on Pic.1 – here you can find this manual.
7. Playback progressbar - playback progress bar with. If it nessasery, you can seek playing file by drag and the slider(8).
10. Slider
11. Volume level.
12. Stop playback button. **Shortcut – “S”**
13. Playback/pause button. **Shortcut – “P”**
14. Toggle between one file playing or play all files one by one. **Shortcut – “R”**
15. Total files in main table view.
16. Total audio records in main table view. This value can be different then value in pos. 13 in cases with AOR audio files.
17. Current working directory. Last working directory saved into settings file and can be opened quickly after program started.

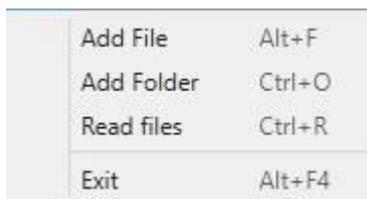
18. Main table view.

- **File Name** – file name.
- **Scanner Type** – scanner type. All Uniden scanners show as BCDx36HP. Whistler TRX-1/TRX-2 – show as Whistler. AOR DV10 – AOR DV-10. ICOM R30 – ICOM R30.
- **Date and Time** – date and time of creating this audio record.
- **Duration** – audio record duration.
- **Signal Level** – signal level of receiving transmission. Implemented for Icom and Aor scanners. Signal level show as in scanner.
- **Scan Mode** – Scanner operation mode. Different scanners use different operation modes so there is no compliance between scanners manufacturers.
- **Type** – type of record. Generally – type of receiving transmission.
- **Frequency** – frequency of receiving transmission.
- **Code** – squelch type and value.
- **Favorite*** – favorite list name.
- **System*** – system name.
- **Channel*** – channel name.
- **Department*** - department name.
- **Site** – Site on which transmission will be recorded.
- **TGID** – Talk Group IDS.
- **TGID Name*** – LTR talk group id.
- **UID** – User ID of radio.
- **UID Name*** - Name of user id.
- **Latitude, Longitude** – geographical coordinates.

19. Load and work progress bar.

*-this is from Uniden scanners favorite lists.

3.1 File menu.



Add File	Alt+F
Add Folder	Ctrl+O
Read files	Ctrl+R
Exit	Alt+F4

Pic. 2

- **Add File Shortcut – “Alt+F”**. You can add to the program any supported single file. This can be useful with AOR wav files. When each audio file can contain a lot of voice records.
- **Add Folder Shortcut – “Ctrl+O”**. You can add any folders with audio supported audio records.
- **Read files Shortcut – “Ctrl+R”**. This menu item is enabled only when Current working directory not empty.
This is useful for quick start. After application start you can just press Ctrl+R last loaded directory load again.

3.2 Filter menu.

Shortcut – “Ctrl+F”.

First, how filtering process work. When you press “Search” button, all saved into memory information from files pass to the filtering engine. After filtering process, the program creates another list with files information and pass it to the Main table view. After every press to the Search button this process will be repeated. Filtering process work with all files list every time and create new filtered list. Old, filtered list will be removed from memory.

When you close filter window, all filtered results will be removed, and Main table window show you previous unfiltered file list.

Filters are of two types. Exact and non-exact. Exact filter search exactly that you search. Non-exact will find all value which contains searched symbols. Example: if you search by frequency 172.800 – program will find only files with this frequency. This is how to work exact filter. If try to search Favorites and type in text box “Sp” program will find all favorites that contain “Sp” – Spain, SpongeBob, SPB etc.

The screenshot shows a 'Filter' dialog box with the following components:

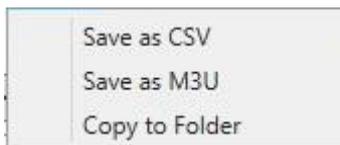
- Left Column (Filters 1-9):** File Name Filter (1), Scanner Type Filter (2), Date and Time Filter (3) with a date picker showing '15', Scan Mode Filter (4), Type Filter (5), Frequency Filter (6), Code Filter (7), Favorite Filter (8), and System Filter (9).
- Right Column (Filters 11-15):** Department Filter (11), Channel Filter (12), Site Filter (13), TGID Filter (14), and UID Filter (15).
- Range Filters (16-18):** Frequency range, Mhz (16) with Min: 19 and Max: (19); Date range (17) with Start: (15) and End: (15); Duration range, ms (18) with Min: 21 and Max: (21).
- Buttons:** Search (22) and Reset Filter (23) at the bottom.
- Window Controls:** A close button (X) in the top right corner.

Pic. 3

1. **File Name Filter** – case insensitive file name filter.
2. **Scanner Type filter** - case insensitive scanner type filter.
3. **Date and time filter** – search by date only. May work with extended date filter 20 on Fig. 3
4. **Scan mode filter** – case insensitive scan mode filter.
5. **Type filter** – case insensitive type filter.
6. **Frequency filter** – Exact filter by frequency in range 0 - 2500Mhz. May work with extended frequency filter 19 on Fig. 3. This is exact filter
7. **Code filter** – case insensitive code filter.
8. **Favorite filter** – case insensitive favorite filter.
9. **System filter** – case insensitive system filter.

10. Clear filter button. Each filter has clear button to fast clear filter value.
11. Department filter – case insensitive department filter.
12. Channel filter – case insensitive channel filter.
13. **Site filter** – case insensitive site filter.
14. **Tgid filter** – filter by TGID. This is exact filter
15. **Uid filter** – filter by UID. This is exact filter
16. This is check box for extended frequency filter. If it checked base frequency filter will be disabled. This filter helps you to search frequency in range.
20. Next **Extended Date filter** helps you search records in date range.
21. **Duration filter** – sometimes these is needed to find long voice records or vice versa very shot records.
Useful tip – you can search very shot voice records in all your files and delete them. In shot records less than 500 msec you cannot hear nothing useful.
22. **Search button** – apply filter and send filtered file list to the main table view.
23. **Reset filter** - clear all filter value and send to the main table view unfiltered file list.

3.3 Export menu.



Pic. 4

- **Save as CSV** - save information from all files in current main table view in csv file. Save all columns whether column hide or visible. If in settings, you will set default csv location, program will open this folder for save file. If it not set – program open My Documents folder. Default name – current date and time.
- **Save as M3U** – Save information from all files in current table view in m3u playlist file. If in settings, you will set default m3u location, program will open this folder for save file. If it not set – program open My Documents folder. Default name – current date and time.
NOTE: AOR wav file will not export to the m3u!
- **Copy to Folder** – Copy files from main table view to another folder.
Use tip. Search files from different folders by specific pattern like a tgid and copy all of them to one folder.

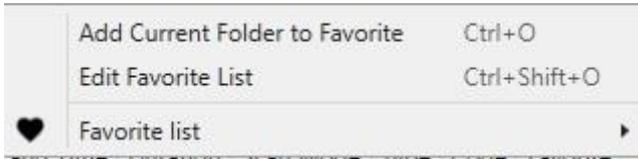
3.4 Settings menu.



Pic. 5

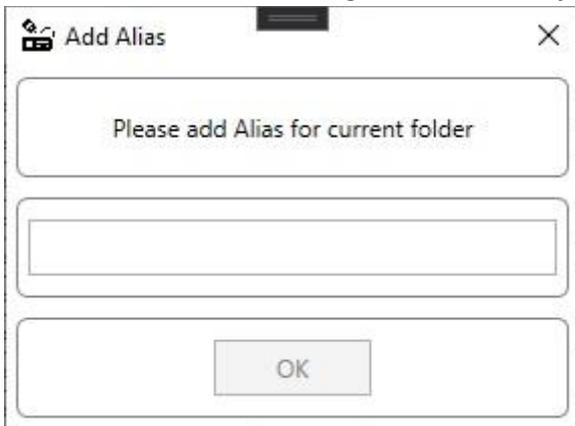
- **Nac in hex** – if this check box checked all NAC in main table view will show as hex value
- **Debug mode** – if this check box checked in the application folder will created folder with name Log. In this folder the program will write debugging information. If cause some error in the application, it will be written in the log.
NOTE: debug mode slows down the application. Please use it only if necessary.
- **Scroll into view in player** – if this check box checked player in playing all files mode will automatically scroll down to current playing file.
This may be useful if you only listen files and may interrupt you in other case.
- **Default CSV location** – default folder for save exported csv files
- **Default M3U location** – default folder for save exported m3u files.
- **Minimal file duration** - it is another method to prevent loading useless short audio files in main table view. It works on main load process and drop file with duration less then set in this setting.

3.5 Favorite Folders menu.



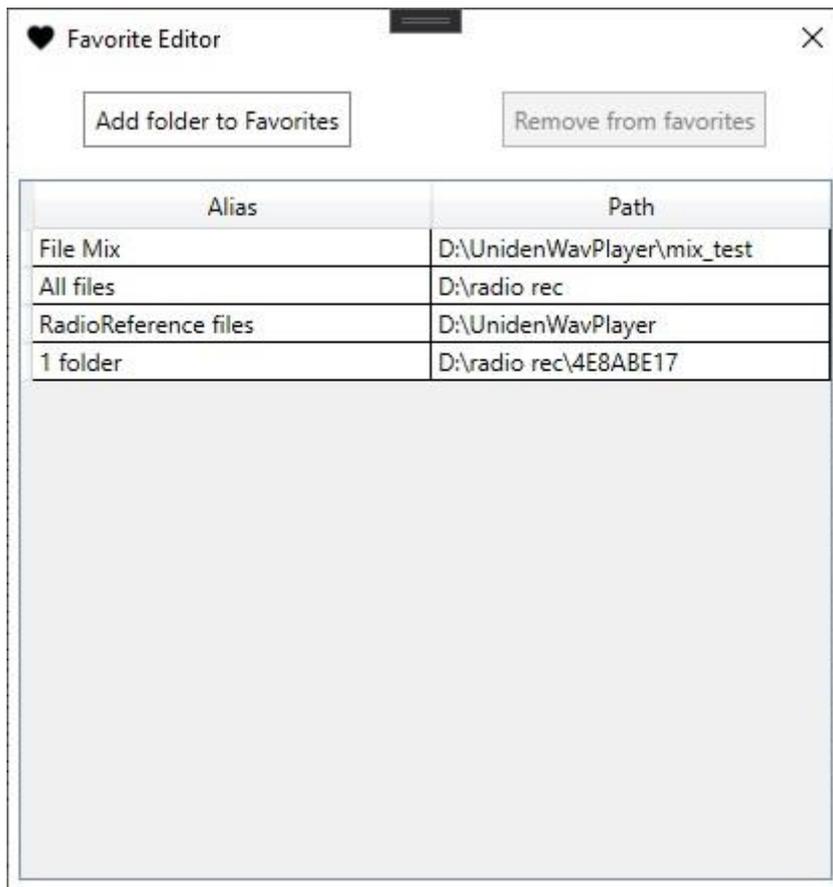
Pic. 6

- **Add current folder to favorite** – if current working folder exists you can add it to favorite list. **Shortcut – “Ctrl+O”**. After pressing the Add current folder to favorite menu you will see window for adding Alias for new directory:
Note: maximum length of alias – 25 symbols.



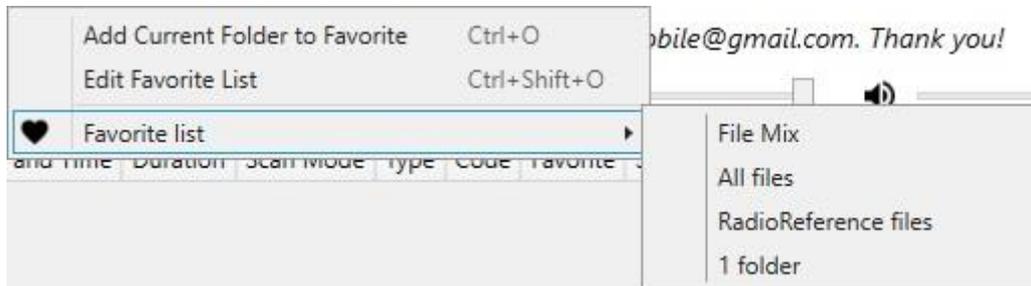
Pic. 7

- **Edit Favorite List** see Fig.8 **Shortcut – “Ctrl+Shift+O”**– if current favorite list does not empty you can edit it. Add folders to favorite and remove them. For adding folder press “Add folder to Favorites” button, set Alias, select directory and press “Add”



Pic. 8

- **Favorites list** – favorite list look like this:

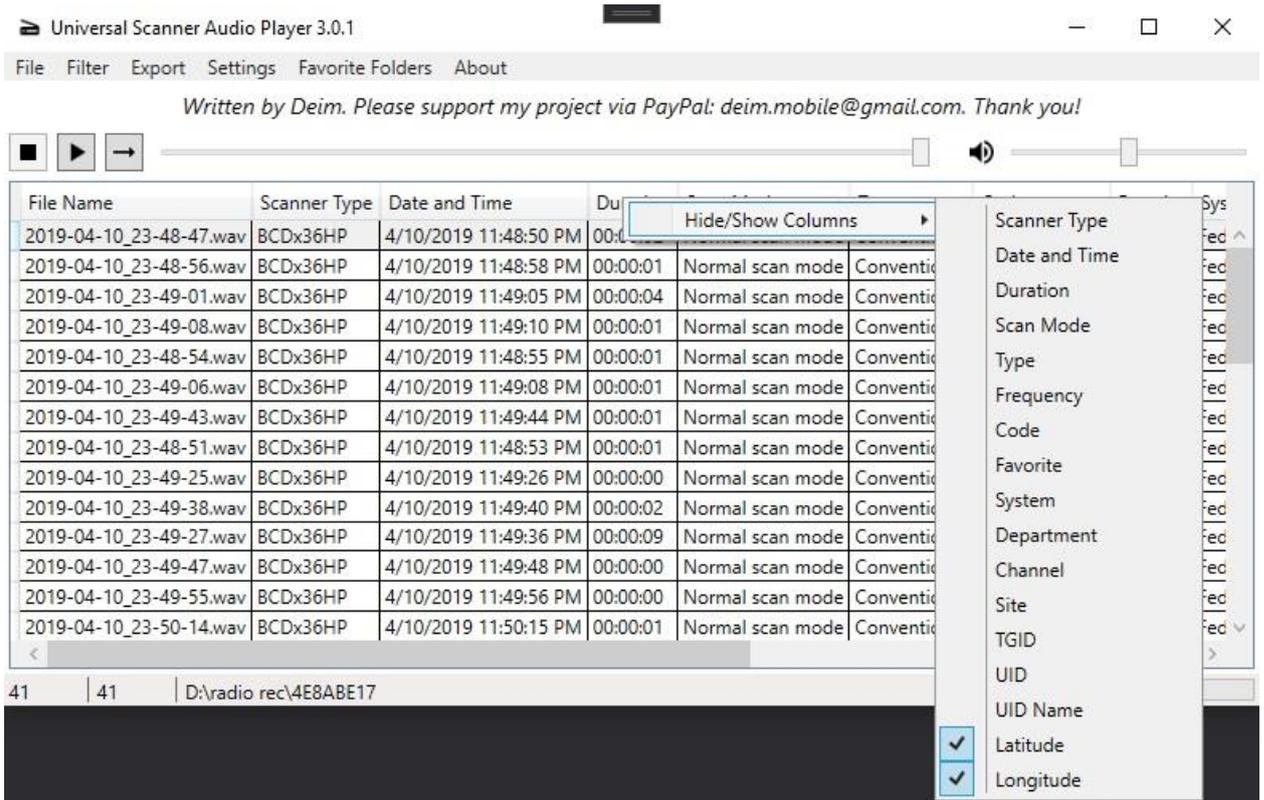


Pic. 9

About.

Here you can find this manual in English and in Russian languages.

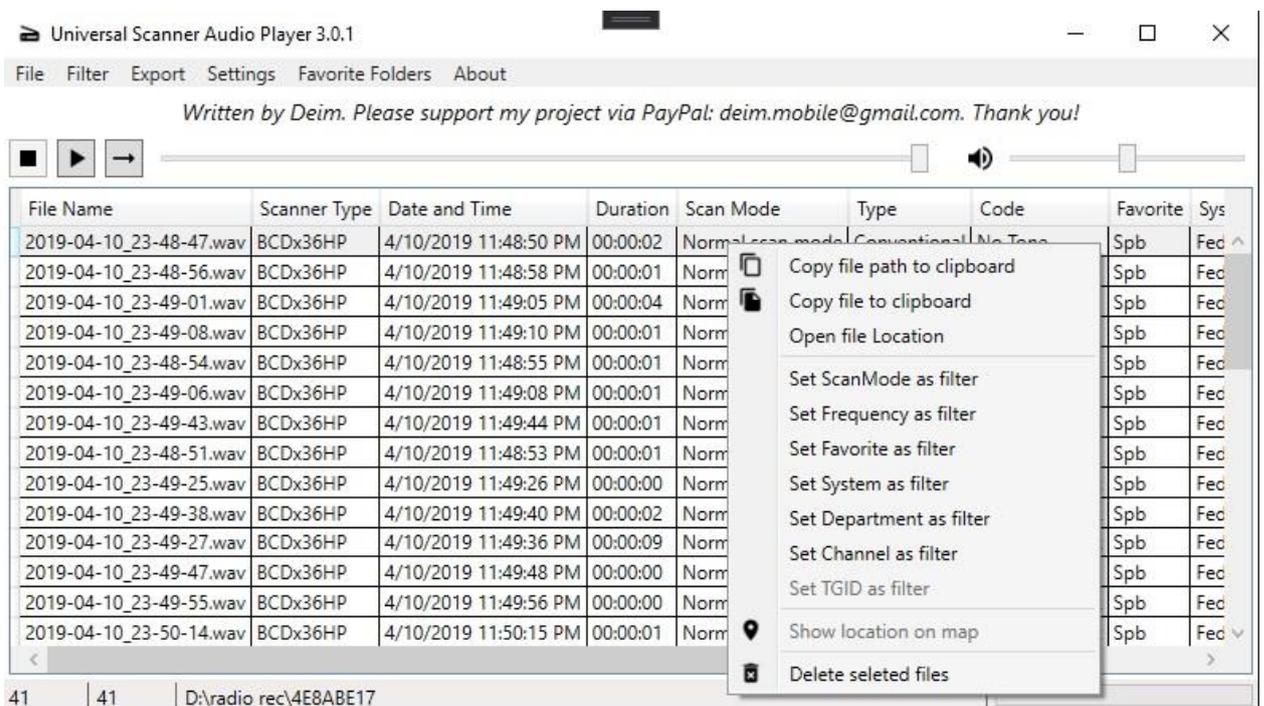
4. Columns header menu.



Pic. 10

Click on the column header to see this menu. If you want to hide any column you will just check them.

5. Table view menu.



Pic. 11

- **Copy file path to clipboard** – copy current selected file path to clipboard.
 - **Copy file to clipboard** – copy current selected file to clipboard.
 - **Open file Location** – open current selected file location.
 - **Set Scan Mode as filter** – if current selected file scan mode does not empty then open filter window and set scan mode as filter. If filter window already opened – just set value as filter.
 - **Set Frequency as filter** – same as Set Scan Mode as filter
 - **Set Favorite as filter** – same as Set Scan Mode as filter
 - **Set System as filter** – same as Set Scan Mode as filter
 - **Set Department as filter** – same as Set Scan Mode as filter
 - **Set Channel as filter** – same as Set Scan Mode as filter
 - **Set TGID as filter** – same as Set Scan Mode as filter
 - **Show location on map** – if current file contains GPS position you can see this position on Google maps on your browser.
 - **Delete selected files** – if you select one or more file you can remove it by pressing this menu item.
- Note: files completely removed from your pc.**

6. How to speed up the program.

For fastest load files in the program, you may add folder with your scanner records to the exceptions of your anti-virus software or to the windows defender exceptions.

7. Possible bugs and how to fix it.

If you find bugs or ran into unstable work of the program. Please turn on debug mode and repeat all actions to reproduce bug or unstable work. After this send me log files at email and description of issue.

8. If you find incorrect data in table view.

If some information shows in main table view incorrect or not shown, please send me this info by email. Send me this file(files) short description and scanner model which create these files.

9. Proposal of cooperation

If you have ideas for adding new functionality or adding new type of files, please email me: deim.mobile@gmail.com

Or you can find me(deim) on Radio Reference forum:

<https://forums.radioreference.com/>