SDR++ Spreadsheet to Frequency Manager Tool Instructions

Note: This script (tool) was designed with and runs with English Internationalization Spreadsheets only. No testing was done on other Spreadsheet internationalization formats.

Note: The supported Spreadsheet formatting is: 2007 to 365 ".xlsx" format only. Compatible with LibreOffice and Excel generated Spreadsheets (perhaps others also, but untested).

Note: Github page for the Python source code and this document,

https://github.com/Hagtronics/SDRpp-FrequencyManager-Spreadsheet-Tool

Quick start:

1) Download the Python script and the sample frequency database spreadsheet named,
"Example Frequency Database Spreadsheet.xlsx"

2) Modify the spreadsheet for your needs. See the section on modifying the spreadsheet below for more information.

3) Open a command window in the directory where the Python script and the Spreadsheet are located.

4) Run the command,

```
python SpreadSheet_To_FrequencyManager.py "Example Frequency Database Spreadsheet.xlsx"
```

Note: This assumes that the "Python""interpreter is on your system path somewhere.

5) A message will tell you if the conversion was successful or not. Fix any errors and try again.

6) Very Important: Close any running instances of SDR++. This is because SDR++ rewrites the JSON file upon exit and if SDR++ is not closed before you modify the JSON file it will overwitte the new file with the old one.

7) Make a backup copy of your current "frequency_manager_config.json" file that is located in the main install SDR++ directory.

8) Move the newly created "frequency_manager_config.json" file to the folder location where SDR++ is located.

9) Run SDR++ and your new frequency lists will show up in the "Frequency Manager" panel!

Note: In rare instances SDR++ could fail to load. If this happens restore the old "frequency_manager_config.json" and try again.

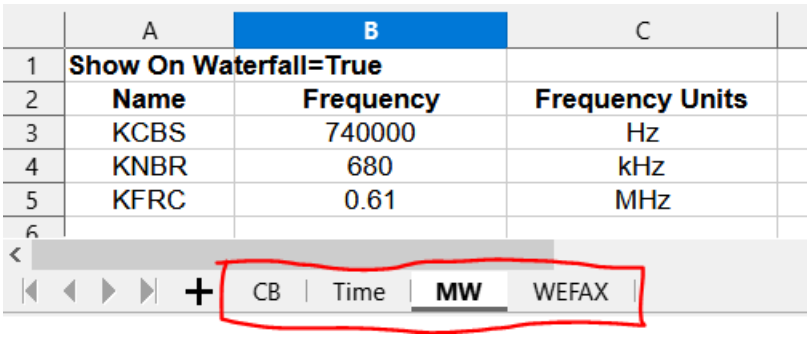
Modifying the Spreadsheet for your own use:

Note: Download the "Example Frequency Database Spreadsheet.xlsx" Spreadsheet from the "src'"directory for the next part.

1) The "Frequency Manager" panel in SDR++ consists of several parts.

a) "Lists" – Different sections where bookmark frequencies can be grouped.
b) "Bookmarks" – Where Named Frequencies lists can be listed for recall while in SDR++.

2) "Lists" correspond to the Spreadsheet "Tabs". See below,



You can add "Tabs" to the Spreadsheet Workbook to organize Frequency Bookmarks together.

3) Each "Tab" can contain grouped "Bookmarks" that are made up of Named: Frequencies, IF "Bandwidths", and Demodulation "Modes". See below,

Valid field entries are,

Name: Any string. EX: "CHU Canada", *Note: Names must be unique.*

Frequency: Any number (Floating point or integer): EX: 7.854

Frequency Units: A string specifier: "Hz", "kHz", "MHz", or "GHz".
This is the units that the "Frequency" value is in.

EX: A 'Frequency' value of 7.854 and with a 'Units' of MHz will specify a bookmark frequency of: 7.854 MHz.

Bandwidth: An integer specifying the Demodulation Bandwidth in Hz. EX: 5500

Mode: A string that specifies the Demodulation Mode: “AM”, “USB”, “LSB”, “DSB”, “NFM”, “WFM”, or “RAW”. EX: RAW

4) Additionally each Workbook or “Tab” can have the parameter that tells SDR++ whether or not to show that “Tabs” Bookmarks on the Waterfall display of SDR++. See below,

	A	B	C	D	E
1	**Show On Waterfall=True**				
2	**Name**	**Frequency**	**Frequency Units**	**Bandwidth (Hz)**	**Mode**
3	KCBS	740000	Hz	6000	AM
4	KNBR	680	kHz	6000	AM
5	KFRC	0.61	MHz	6000	AM
6					

The ‘Show On Waterfall’ field tells SDR++ whether or not to show the Bookmarks “Names” on the Waterfall display. This specifier must be a string, located in cell A1, and the parameter can be “True” or “False”.

The Show On Waterfall parameter must be in cell ‘A1’ of the Worksheet. It must be either,

Show On Waterfall=False

or,

Show On Waterfall=True

5) The information in the columns must be in exactly the same order as in the example spreadsheet. Parsing is done by fixed position in the row(s) and column(s). See below.

	A	B	C	D	E
1	**Show On Waterfall=True**				
2	**Name**	**Frequency**	**Frequency Units**	**Bandwidth (Hz)**	**Mode**
3	KCBS	740000	Hz	6000	AM
4	KNBR	680	kHz	6000	AM
5	KFRC	0.61	MHz	6000	AM
6					

The ‘Fields’ must be in the same row / column order as shown above.

The Bookmark Names must start in column ‘A’ and in row ‘3’. Likewise the ‘Mode’ for each Bookmark Name must start in column ‘E’ and in row ‘3’.

6) There is a ‘Notes’ column in the example worksheet. You can place notes or anything you wish here. The tool ignores all of this.

Note about errors: When working with the Spreadsheet Workbooks it is possible to delete the contents of cells, such that you cannot see anything, but the spreadsheet

may still mark these rows as being used. This can cause a conversion failure, because the Tool starts to read in NULL's.

The way to fix this is to: Highlight the first empty row at the end of your data and then to select down a lot of other rows. Then right click and select "Delete Rows".

This should really delete the contents that you may not be able to see.

If the problem persists: Then recreate the Worksheet 'Tab' in the Spreadsheet, copying only the real data to a new Worksheet 'Tab'. Then delete the 'problem' Worksheet 'Tab'.

--- Fini ---

Version: 1.0 - 18Nov24 - Steven C. Hageman
Version: 1.1 - 20Nov24 - Steven C. Hageman