

SQLite Database mod for radio station logos - V. 1.01

(02/04/2022)

- Tested on MMI MH12
- Open GEM (keep the NAVI + RADIO keys pressed upwards) and look for the section relating to FM radio tuning.
- Note: PI value; Frequency; Radio name; (of all the radio stations we mean change the logo or radio stations we intend to add).

**= NOTE =**

- Possible source of radio logos: <https://www.phonostar.de/>
- DB Browser for SQLite - Download <https://sqlitebrowser.org/dl/>
- Image Editor: <https://www.gimp.org/downloads/>

Open the VW_STL_DB.sqlite file

DB Browser for SQLite - C:\Users\Miche\OneDrive\Desktop\VW_STL_DB.sqlite

File Modifica Visualizza Strumenti Aiuto

Nuovo Database Apri Database Salva le modifiche Ripristina le modifiche Apri Progetto Salva Progetto Collega Database Chiudi Database

Struttura database Naviga nei dati Modifica Pragmas Esegui SQL

Crea tabella Crea Indice Stampa

Nome Tipo Schema

▼ Tabelle (7)

- CountryRegionData CREATE TABLE CountryRegionData (crId INTEGER, ioc TEXT NOT NULL, countryId INTEGER NOT NULL, macroRegionId INTEGER NOT NULL, countryNameInternatic TEXT NOT NULL, countryNameOrigina TEXT NOT NULL, nuntryNameInternat TEXT NOT NULL, countryEcc TEXT NOT NULL, countryPi TEXT NOT NULL, countryNeighborPi0 TEXT NOT NULL, countryNeighborPi1 TEXT NOT NULL, countryNeighborPi2 TEXT NOT NULL, countryNeighborPi3 TEXT NOT NULL)
- CountryRegionTranslationData CREATE TABLE CountryRegionTranslationData (countryId INTEGER NOT NULL, guiLanguageId INTEGER NOT NULL, guiLanguage TEXT NOT NULL, countryRegionId INTEGER NOT NULL, translationId INTEGER NOT NULL, translationText TEXT NOT NULL)
- DatabaseVersion CREATE TABLE DatabaseVersion (versionMajor INTEGER NOT NULL, versionMinor INTEGER NOT NULL, versionRevision INTEGER NOT NULL, creationDate TEXT NOT NULL, versionText TEXT NOT NULL)
- SdsPhonemeSets CREATE TABLE SdsPhonemeSets (phonemeSetsId INTEGER NOT NULL, language TEXT NOT NULL, CLanguage TEXT NOT NULL, phonemeSetsversionMajor INTEGER NOT NULL, phonemeSetsversionMinor INTEGER NOT NULL, phonemeSetsversionRevision INTEGER NOT NULL, phonemeSetsversionText TEXT NOT NULL)
- SdsStationPhoneme CREATE TABLE SdsStationPhoneme (sdsId INTEGER, stationId INTEGER NOT NULL, stationPiSid INTEGER NOT NULL, countryId INTEGER NOT NULL, stationType INTEGER NOT NULL, phonemeSetsId INTEGER NOT NULL, phonemeSetsversionMajor INTEGER NOT NULL, phonemeSetsversionMinor INTEGER NOT NULL, phonemeSetsversionRevision INTEGER NOT NULL, phonemeSetsversionText TEXT NOT NULL)
- StationLogos CREATE TABLE StationLogos (logoId INTEGER PRIMARY KEY NOT NULL, country INTEGER, isOnPreset INTEGER, fileName TEXT, stationLogo BLOB)
- Stations CREATE TABLE Stations (stationId INTEGER PRIMARY KEY NOT NULL, country INTEGER NOT NULL, ecc INTEGER NOT NULL, piSid INTEGER NOT NULL, linkedPi INTEGER NOT NULL)

▼ Indici (6)

- index_SDStationID CREATE INDEX index_SDStationID ON SdsStationPhoneme (stationId)
- index_StaCountry ON Stations (country)
- index_StaEcc ON Stations (ecc)
- index_StaFrequency ON Stations (frequency)
- index_StaPiSid ON Stations (piSid)
- index_StaType ON Stations (type)

▼ Viste (0)

▼ Triggers (0)

- "Database structure" → "Tables" → "CountryRegionData" → "countryId" column
- "Browse data" → "CountryRegionData" → "countryId" column

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Struttura database Naviga nei dati Modifica Pragmas Esegui SQL

Tabella: CountryRegionData

crId	ioc	countryId	macroRegionId	ntryNameInternatic	countryNameOrigina	nuntryNameInternat	countryEcc	countryPi	countryNeighborPi0	countryNeighborPi1	countryNeighborPi2	countryNeighborPi3
1	-1-1	69		69 Europe	-1	-1	-1	-1	0	0	0	
2	-1-1	1		69 AUTO	-1	-1	-1	-1	0	0	0	
3	-1-1	47		69 Albania	-1	-1	-1	-1	0	11	36	3
4	-1-1	49		69 Andorra	-1	-1	-1	-1	0	7	0	4
5	-1-1	2		69 Belarus	-1	-1	-1	-1	0	43	8	2
6	-1-1	3		69 Belgium	-1	-1	-1	-1	0	7	36	2
7	-1-1	4		69 Bosnia and ...	-1	-1	-1	-1	0	21	36	3
8	-1-1	5		69 Bulgaria	-1	-1	-1	-1	0	43	36	2
9	-1-1	6		69 Denmark	-1	-1	-1	-1	0	7	36	2
10	-1-1	7		69 Germany	-1	-1	-1	-1	0	7	36	2
11	-1-1	8		69 Estonia	-1	-1	-1	-1	0	7	8	2
12	-1-1	46		69 Faeroes	-1	-1	-1	-1	0	7	12	2
13	-1-1	9		69 Finland	-1	-1	-1	-1	0	7	8	2
14	-1-1	10		69 France	-1	-1	-1	-1	0	7	36	4
15	-1-1	48		69 Gibraltar	-1	-1	-1	-1	0	0	0	4
16	-1-1	11		69 Greece	-1	-1	-1	-1	0	11	42	3
17	-1-1	41		69 United Kingdom	-1	-1	-1	-1	0	7	12	2
18	-1-1	12		69 Ireland	-1	-1	-1	-1	0	7	12	2
19	-1-1	13		69 Iceland	-1	-1	-1	-1	0	7	12	2
20	-1-1	14		69 Italy	-1	-1	-1	-1	0	7	36	4
21	-1-1	50		69 Kosovo	-1	-1	-1	-1	0	21	36	3
22	-1-1	15		69 Croatia	-1	-1	-1	-1	0	21	36	2

- Find the country code "Italy" equal to 14.

DB Browser for SQLite - C:\Users\Miche\OneDrive\Desktop\VW_STL_DB.sqlite

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Nuovo Database Apri Database Salva le modifiche Ripristina le modifiche Apri Progetto Salva Progetto Collega Database Chiudi Database

Struttura database Naviga nei dati Modifica Pragmas Esegui SQL

Tabella: CountryRegionData

crId	ioc	countryId	macroRegionId	ntryNameInternatic	countryNameOrigina	nuntryNameInternat	countryEcc	countryPi	countryNeighborPi0	countryNeighborPi1	countryNeighborPi2	countryNeighborPi3
1	-1-1	14		69 Italy	-1	-1	-1	-1	0	7	36	49

4. Tabella "Stations"

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Struttura database Naviga nei dati Modifica Pragmas Esegui SQL

Tabella: Stations

	stationId	country	ecc	piSid	linkedPi	ensembleId	scidi	subChannelId	frequency	longName	shortName	type	logId	regionalScope	networkStatus	gpsPosition	power	height
	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro
1	10002	7	224	56852	-1	4104	-1	-1	-1	-1	*BRKlass	DAB	10002	NULL	NULL	NULL	NULL	NULL
2	10003	7	224	54394	-1	-1	-1	-1	102300	ESSEN	FM	10003	NULL	NULL	NULL	NULL	NULL	NULL
3	10005	7	224	4226	-1	-1	-1	-1	104600	OKERVILLE	FM	10005	NULL	NULL	NULL	NULL	NULL	NULL
4	10006	7	224	54314	-1	-1	-1	-1	104600	104.6RTL	FM	10006	NULL	NULL	NULL	NULL	NULL	NULL
5	10008	7	224	55180	-1	-1	-1	-1	106900	GONG	FM	10008	NULL	NULL	NULL	NULL	NULL	NULL
6	10009	7	224	55128	-1	-1	-1	-1	106200	RADIO OB	FM	10009	NULL	NULL	NULL	NULL	NULL	NULL
7	10010	7	224	56473	-1	-1	-1	-1	107700	HAGEN	FM	10010	NULL	NULL	NULL	NULL	NULL	NULL
8	10011	7	224	53400	-1	-1	-1	-1	100100	ANTENNE	FM	10011	NULL	NULL	NULL	NULL	NULL	NULL
9	10012	7	224	54161	-1	4332	-1	-1	-1	1LIVE	DAB	10012	NULL	NULL	NULL	NULL	NULL	NULL
10	10013	7	224	57233	-1	4332	-1	-1	-1	1diGGI	DAB	10013	NULL	NULL	NULL	NULL	NULL	NULL
11	10014	7	224	7590	-1	-1	-1	-1	88300	ANTENNE	FM	10014	NULL	NULL	NULL	NULL	NULL	NULL
12	10015	7	224	5422	-1	-1	-1	-1	88400	88vier	FM	10015	NULL	NULL	NULL	NULL	NULL	NULL
13	10016	7	224	53467	-1	-1	-1	-1	89000	89.0 RTL	FM	10016	NULL	NULL	NULL	NULL	NULL	NULL
14	10017	7	224	53467	-1	4304	-1	-1	-1	89.0 RTL	FM	10017	NULL	NULL	NULL	NULL	NULL	NULL

5. Enter the country code 14 in the "Filter" box of the "country" column

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Nuovo Database Apri Database Salva le modifiche Ripristina le modifiche Apri Progetto

Struttura database Naviga nei dati Modifica Pragmas Esegui SQL

Tabella: Stations

	stationId	country	ecc	piSid	linkedPi	ensembleId	scidi	subChannelId	frequency	longName	shortName	type	logId	regionalScope	networkStatus	gpsPosition	power	height
	Filtro	14	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro
1	21001	14	224	21092	-1	20489	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
2	21002	14	224	21457	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
3	21003	14	224	21462	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
4	21004	14	0	39329	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

From the analysis of the "logId" column, it is clear that the logo IDs of radio stations consist of digits starting with 21 and 22 (for safety note the codes of the radio station listed we intend to change the logo).

- Radio 105 = LogoID: 21146
- Radio Studio Plus = LogoID: 21657
- Radio WoW = LogoID: NOT PRESENT

	stationId	country	ecc	piSid	linkedPI	ensembleId	scidi	subChannelId	frequency	longName	shortName	type	logoId
	Filtro	14	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro
1	21001	14	224	21092	-1	20489	-1	-1	-1		* RDS *	DAB	21001
2	21002	14	224	21457	-1	-1	-1	-1	101200	ACTION	FM	22041	
3	21003	14	224	21462	-1	-1	-1	-1	106000	AFNEAGLE	FM	21951	
4	21004	14	0	39329	-1	-1	-1	-1	107000	AFNEAGLE	FM	21951	
5	21005	14	0	39288	-1	-1	-1	-1	106000	AFNEAGLE	FM	22044	
6	21008	14	224	21463	-1	-1	-1	-1	107000	AFN 107	FM	21834	

- "StationsLogo" table.
- Click on the "logId" column.

CASE 1: replace an existing logo

- Enter the value indicated in point 5 in the "logId" column (Ex. 21146 or 21657).

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Struttura database Naviga nei dati Modifica Pragmas Esegui SQL

Tabella: StationsLogo

	logId	country	isOnPreset	fileName	stationLogo
	Filtro	Filtro	Filtro	Filtro	Filtro
1	21146	14	-1	NULL	BLOR

Modifica cella

Modalità: Immagine



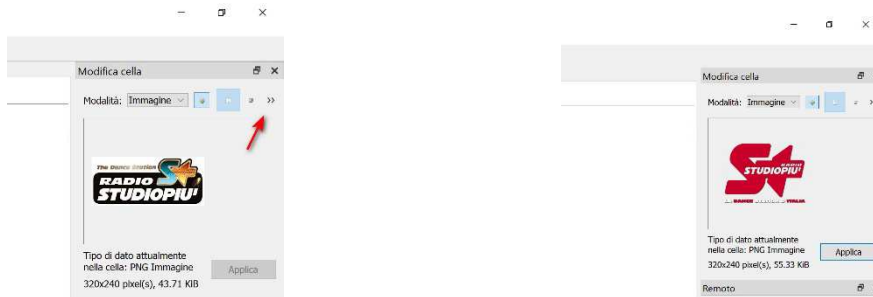
Tipo di dato attualmente nella cella: PNG Immagine
320x240 pixel(s), 49.56 KIB

Applica

Remoto



9. Navigate to the "stationsLogos" column and select a PNG 320x240 logo of your choice, load it and replace it with the one already present (click where marked by the arrow: Import ☐ Import ☐ select PNG).



10. Click "Apply" and then "Save changes".



CASE 2: Adding a logo for a radio station that is not present

* Note: for MMIs without logos, the frequency (consisting of 5 characters) and PI (4 characters) in order to match the new logo correctly.

- Look for and note the last logo ID starting with 22 (in my case: 22106). To find the latest value available for a particular country just set the correct filter on the column "Country" and then click on the label of the "stationId" column until reorganized by values decreasing.

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Nuovo Database

Apri Database

Salva le modifiche

Ripristina le modifiche

Apri Progetto

Salva Progetto

Collega Database

Chiudi

Struttura database

Naviga nei dati

Modifica Pragmas

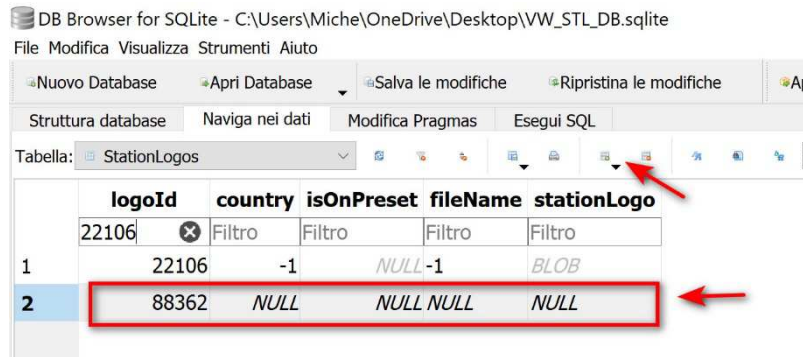
Esegui SQL

Tabella: Stations

Filtra in qualsiasi colonna

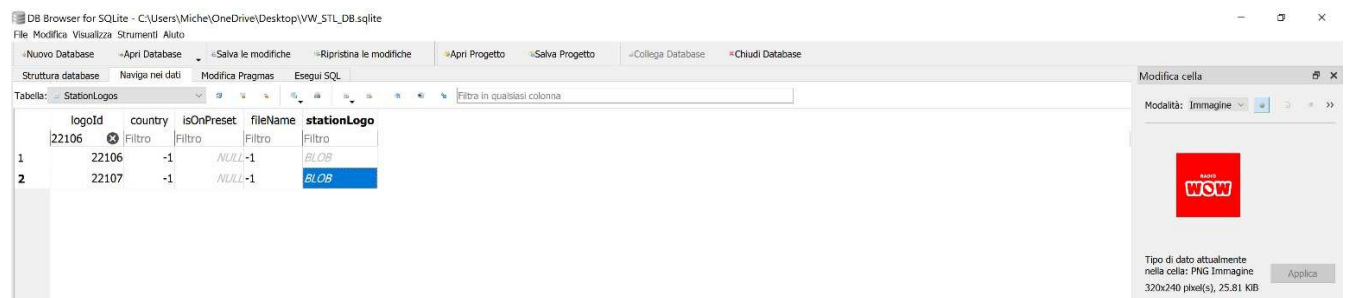
	stationId	country	ecc	piSid	linkedPi	ensembleId	scidi	subChannelId	frequency	longName	shortName	type	logoId
	Filtro	14	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro	Filtro
1	23027	14	224	21633	-1	-1	-1	-1	91500	CrikCrok	FM	22106	
2	23026	14	224	20482	-1	-1	-1	-1	87700	BALLA	FM	22105	
3	23025	14	224	22016	-1	-1	-1	-1	91000	MARISTEL	FM	22104	
4	23023	14	224	21151	-1	-1	-1	-1	-1	RTL102.5	DAB	22103	
5	23022	14	224	21231	-1	-1	-1	-1	-1	RTL102.5	DAB	22102	

- To add a new logo, in this case, you need to create a "new station radio" to match the new "logold". To add a new logo go to the table "stationsLogos" and create a new line with a "logold" higher than the latest available for the selected country (14 - Italy in this case). In this case it will be anything other than $22106 + 1 =$.

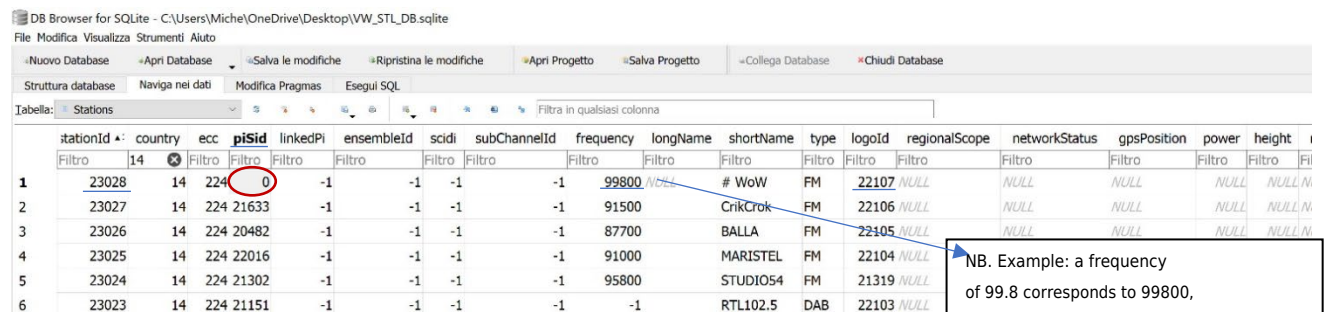


NB. To insert:

- 1 in the "country" column
- 1 in the "fileName" column



- Load the PNG files 320x240 (which will then be reduced to 160x120) in the column field "stationLogo".
- Click on "Apply" after importing the PNG logo.
- Save your changes.
- Now, select the "stations" table.
- Set the country filter to 14 (Italy).
- Rearrange the "stationId" column in descending order and observe what the last value is entered for Italy (in my case, 23027).
- Create a new row and insert the value following the one displayed (in my case $23027 + 1 = 23028$).
- Complete the rest of the line with the correct parameters (for those not known copy from a any FM line (not DAB). country, etc, linkedPi, ensembleId, scidi, subChannelId, type



NB. Example: a frequency of 99.8 corresponds to 99800, while a frequency from 104.2 corresponds to 104200.

- ATTENTION** : To obtain the value of the column "piSid" è need to convert PI value to decimal:

<https://www.rapidtables.com/convert/number/hex-to-decimal.html>

- Insert the decimal value obtained in the correct box of the "piSid" column.

13. Save the changes.



Final part (optional):

1. Table: DatabaseVersion.
2. Column: versionRevision → one unit increase.
3. Column: creationDate → updates the date.

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Nuovo Database Apri Database Salva le modifiche Ritoristina le modifiche Apri Progetto Salva Progetto

Struttura database Naviga nei dati Modifica Pragma Esegui SQL

Tabella: DatabaseVersion

versionMajor	versionMinor	versionRevision	creationDate	regionCode
Filtro	Filtro	Filtro	Filtro	Filtro
1	1	20	2022-02-03	Europe

Final passage:

☐ Save the new database and / or overwrite the currently open one.

File> Save All> click on the name of the file in use

☐ Overwrite the new updated database in the MMI.