

MINIWEBRADIO

INSTALLATION ECLIPSE SLOEBER

Install SLOEBER V4.2: <http://eclipse.baeyens.it/archived.php?ver=4.2>

Do not use V4.3, (in WiFiClientSecure: problems with `mbedtls1s_x509_crt`)

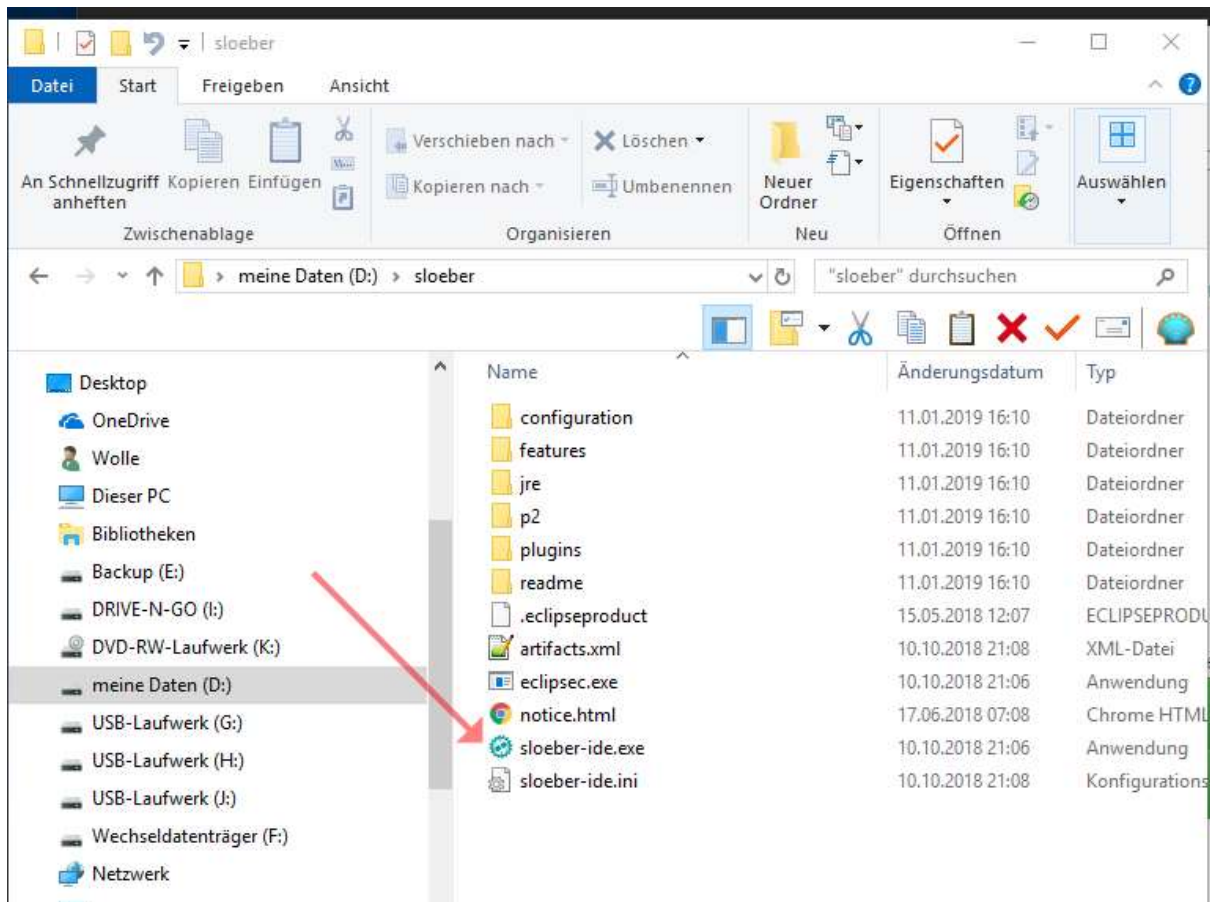
The screenshot shows the SLOEBER website's archive page for version 4.2. The page has a dark header with navigation links: Slobber, Home, Install, How To, Learn, FAQ, and Community. A search bar is on the right. The main content area has a heading "Archive version 4.2 in case you want to travel back in time." Below this is a quote from "The Hitchhiker's guide to the galaxy" about time travel. A section titled "Before you start" advises not to skip the section. Below that, it says "Pick your OS architecture in the following list" and shows a table of download links for different OS architectures.

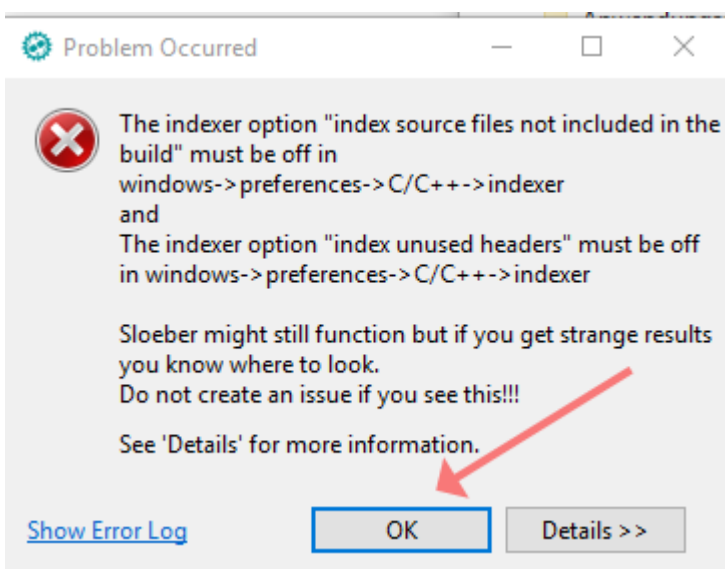
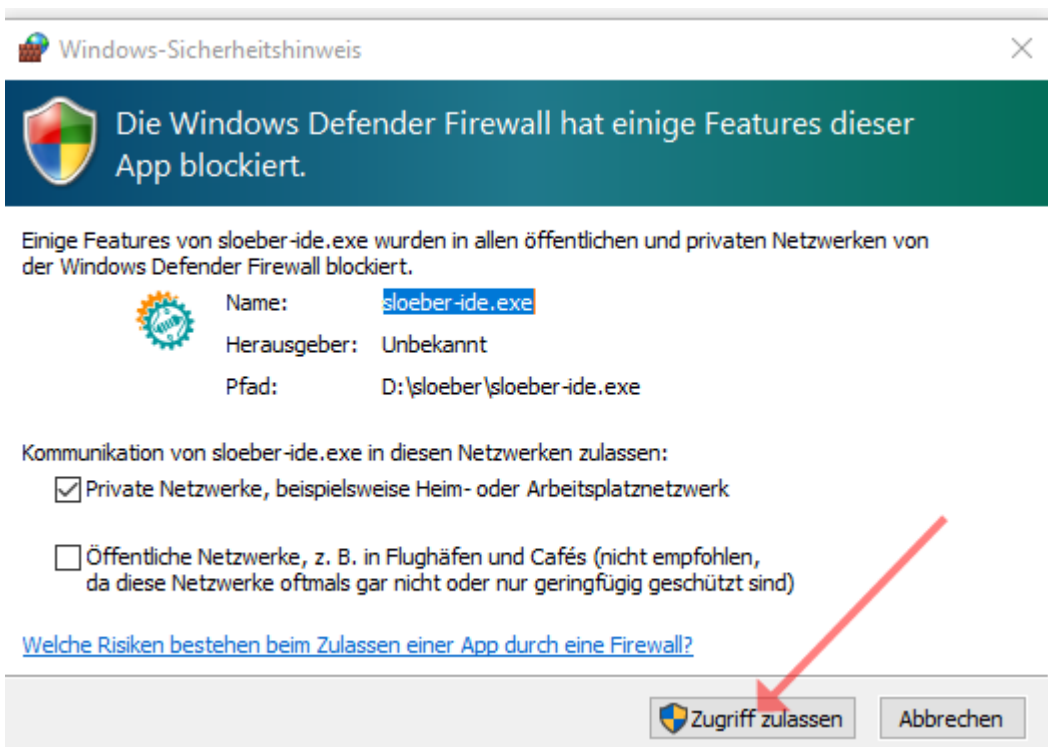
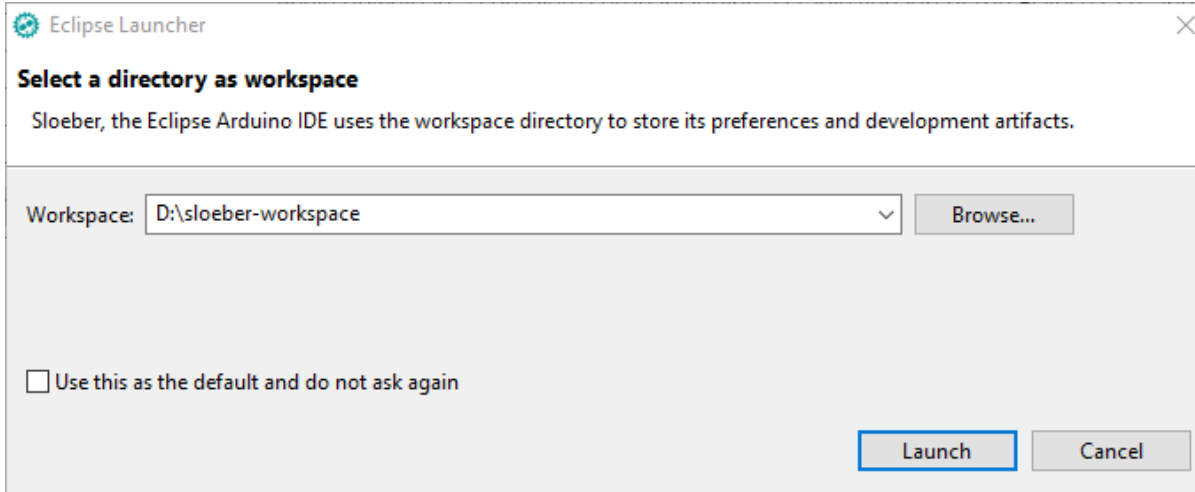
Date	Filename	Size
unknown	v4.2_win64-2017-11-20_02-16-52.tar.gz	unknown
unknown	v4.2_win32-2017-11-20_02-16-52.tar.gz	unknown
unknown	v4.2_mac64-2017-11-20_02-16-52.tar.gz	unknown
unknown	v4.2_linux64-2017-11-20_02-16-52.tar.gz	unknown
unknown	v4.2_linux32-2017-11-20_02-16-52.tar.gz	unknown

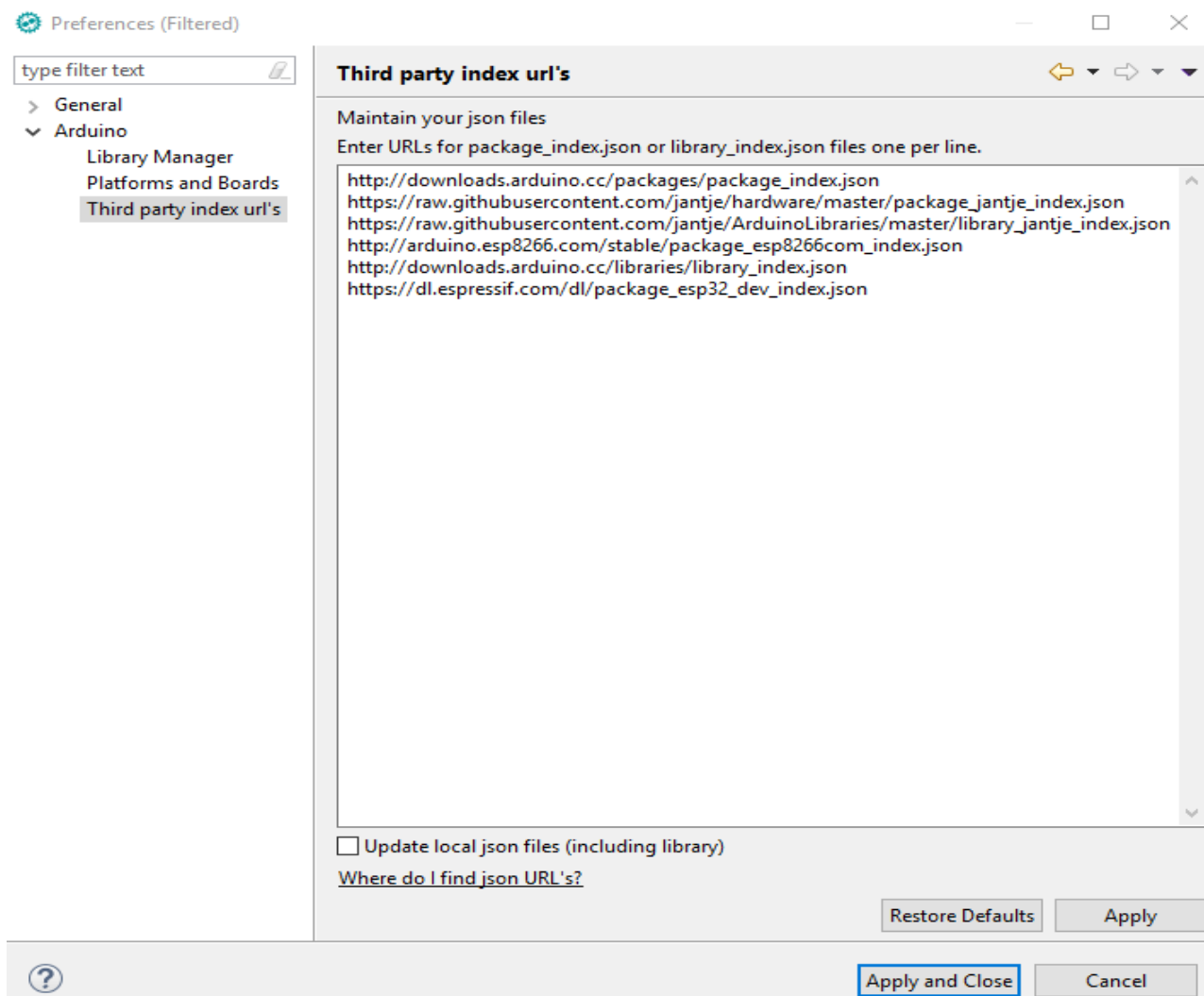
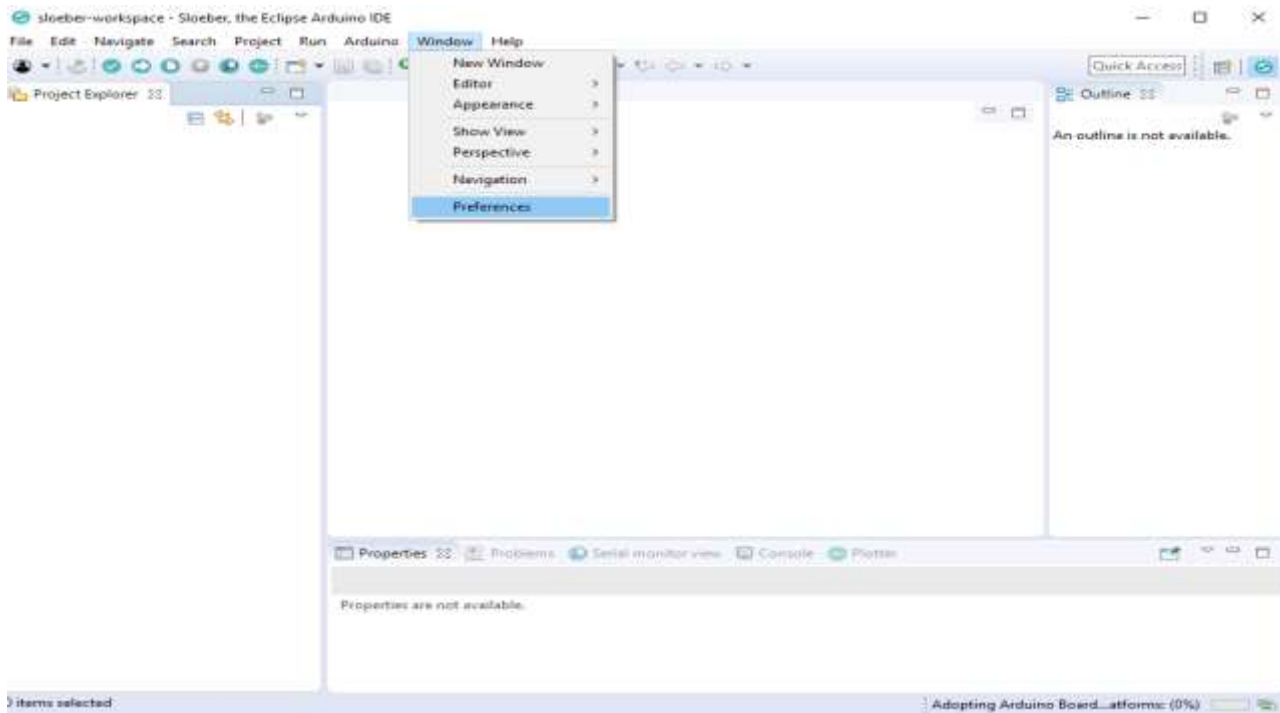
Extract SLOEBER

The screenshot shows a file manager window with two panes. The left pane shows a list of files and folders, including "sloeber". The right pane shows the contents of the "meine Daten (D:)" directory, which includes a folder named "sloeber". A red arrow points from the "sloeber" folder in the left pane to the "sloeber" folder in the right pane. The status bar at the bottom indicates "15 Elemente" and "1 Element ausgewählt".

Run sloeber-ide.exe

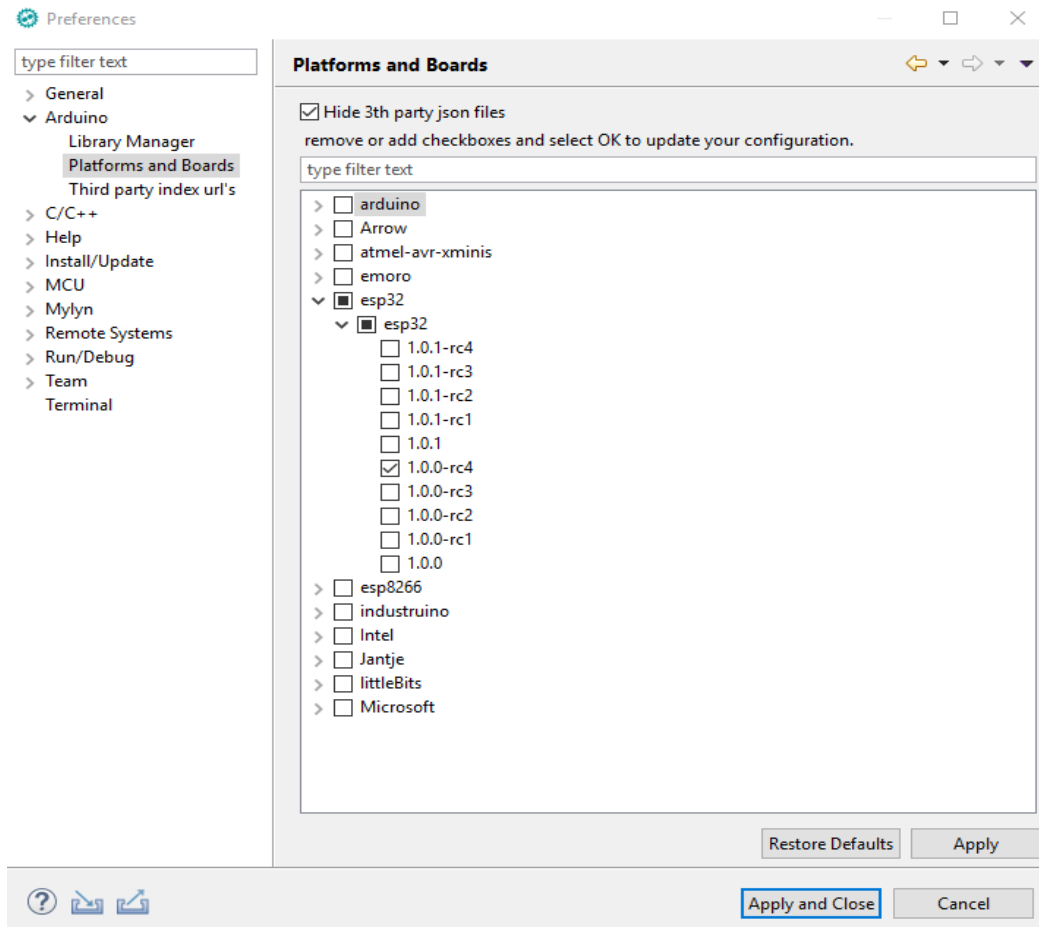






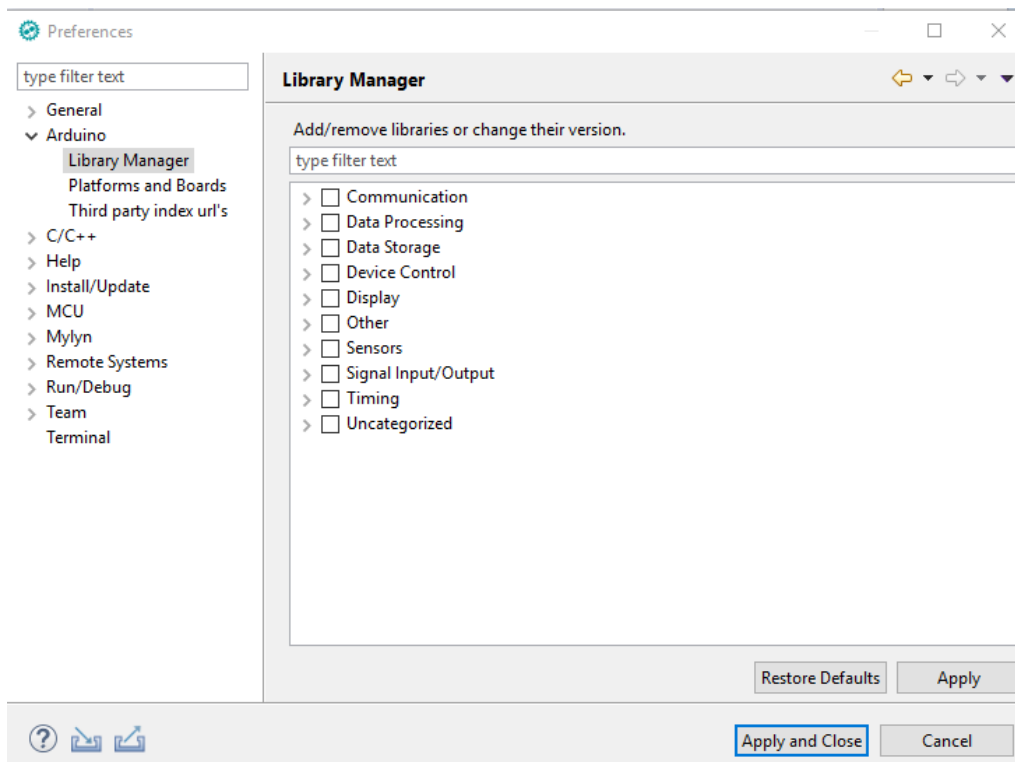
Add https://dl.espressif.com/dl/package_esp32_dev_index.json <Apply>

Deselect Arduino, select 1.0.0-rc4

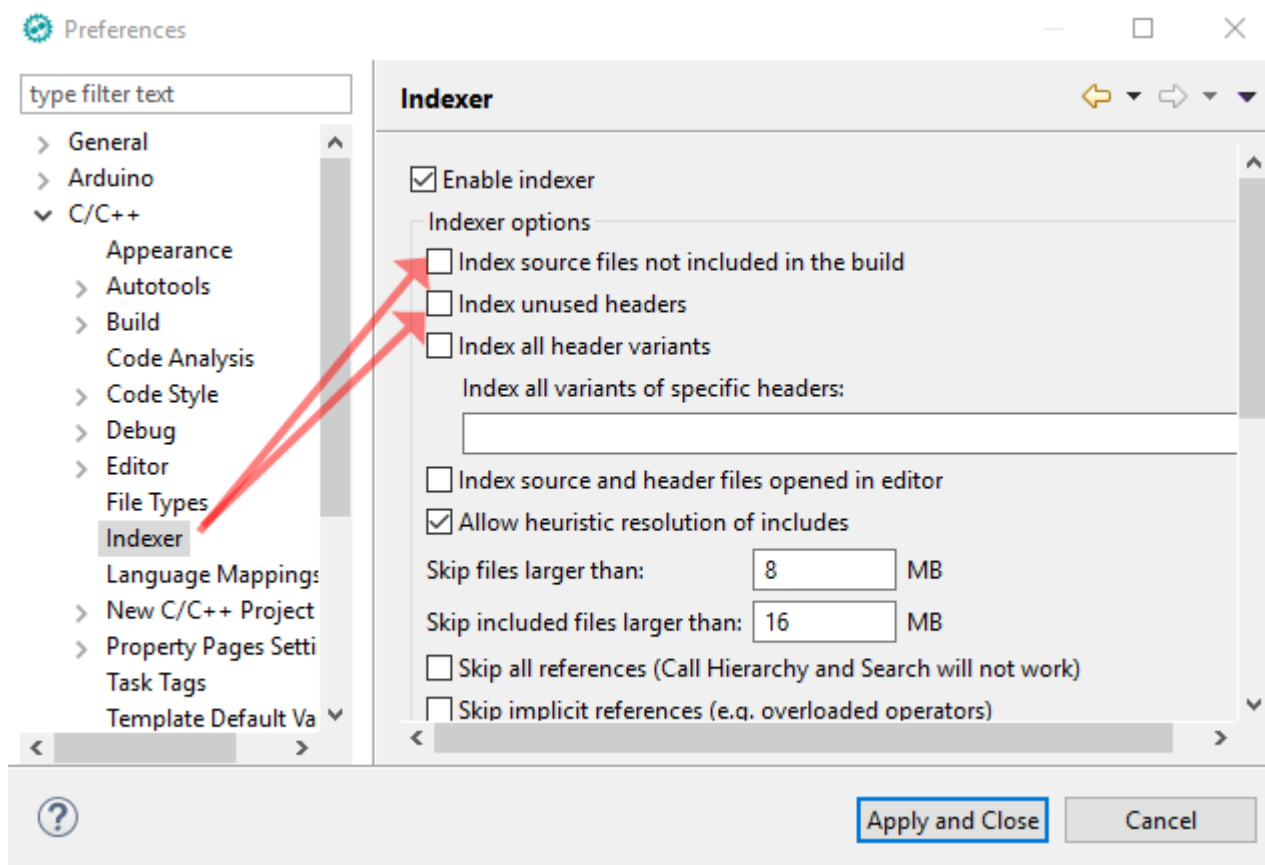


<Apply and Close> an wait some minutes

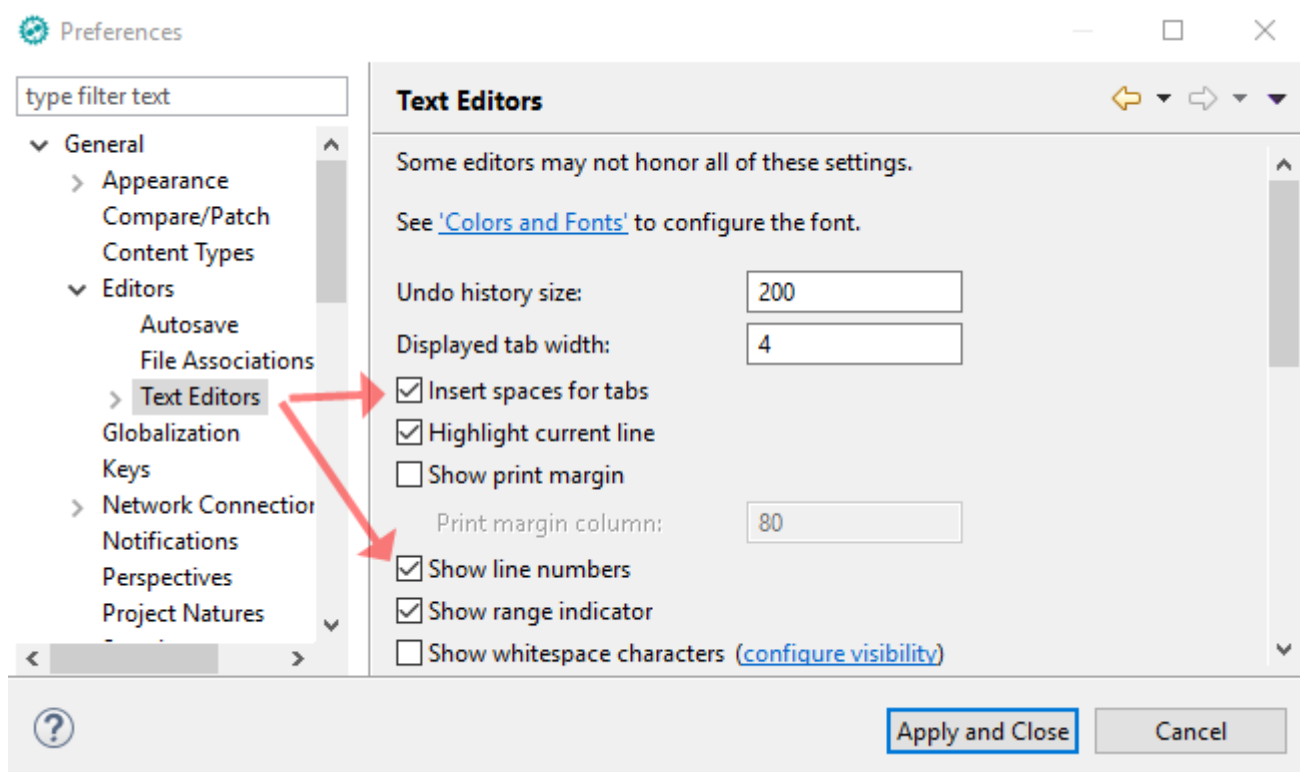
Deselect all Arduino libraries

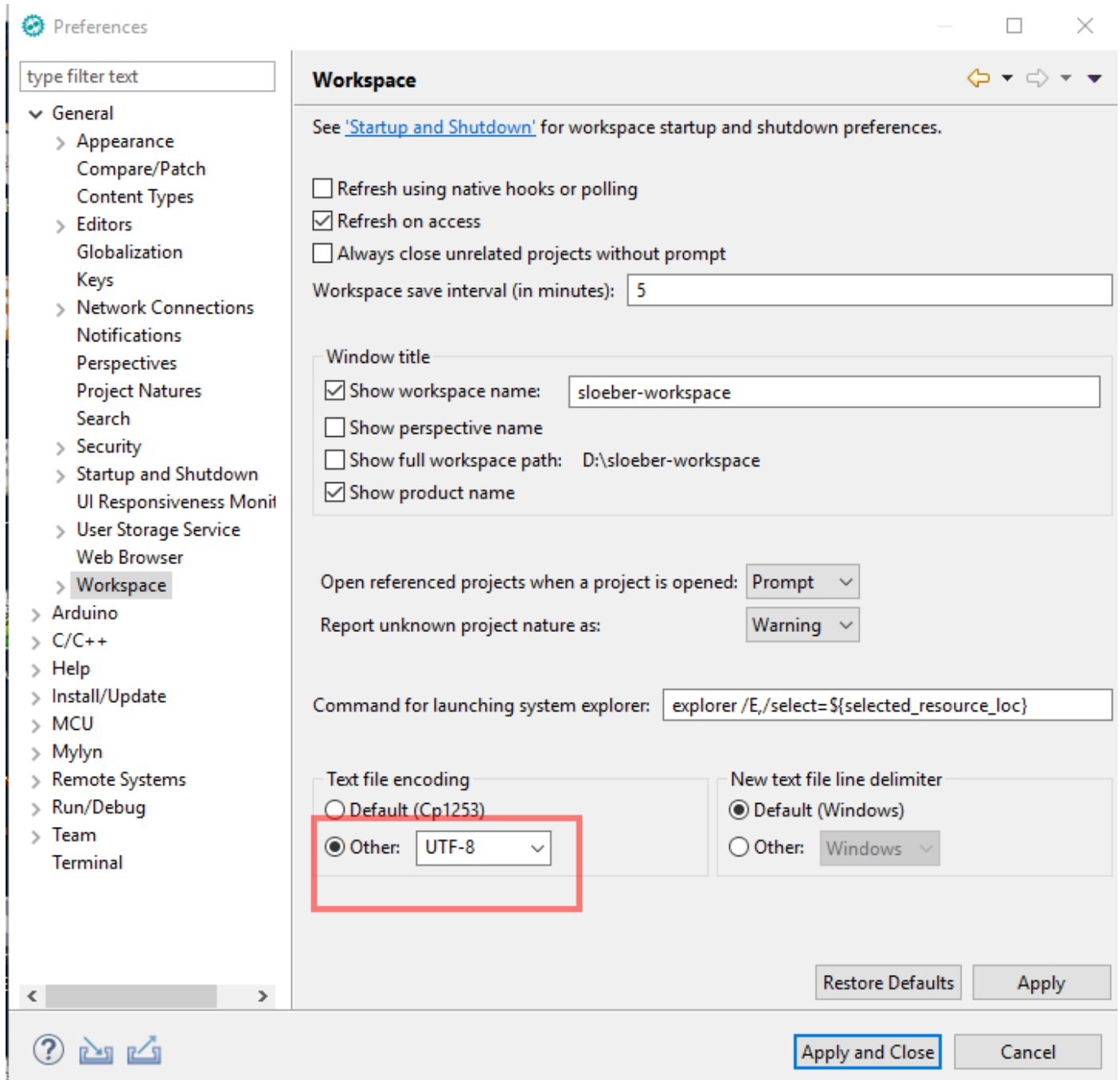


Window/Preferences/Indexer: deselect „Index source files not included in the build“ und „Index unused headers“



Window/Preferences/Editors/Text Editors select "Insert spaces for tabs" and "Show line numbers"

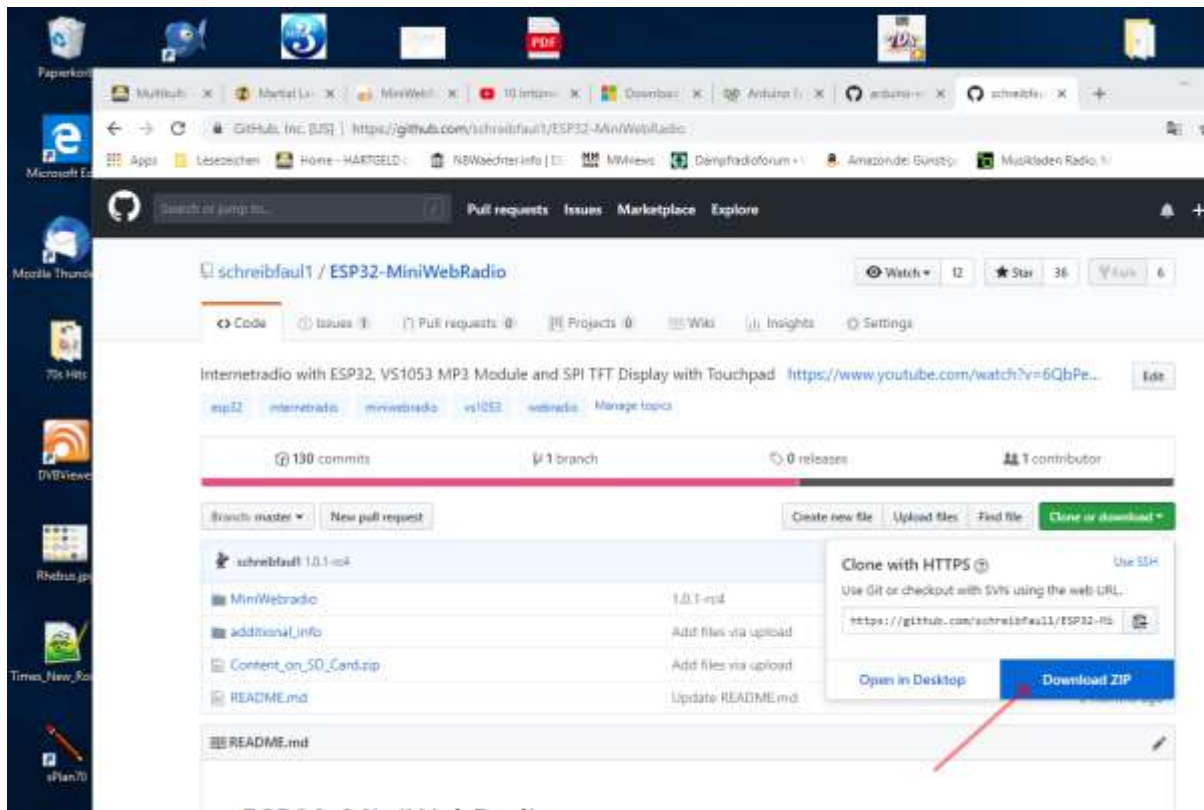




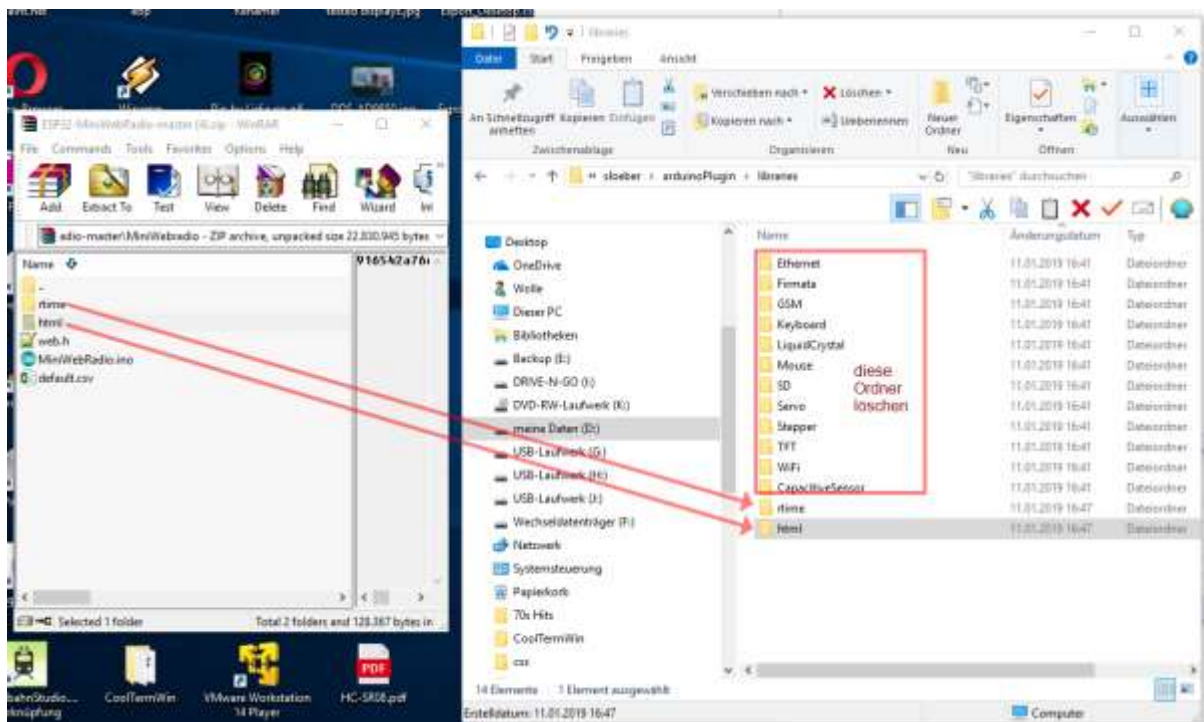
Window/Preferences/General/Workspace/ Set "Text file encoding" to **UTF-8**

INSTALLATION MINIWEBRADIO

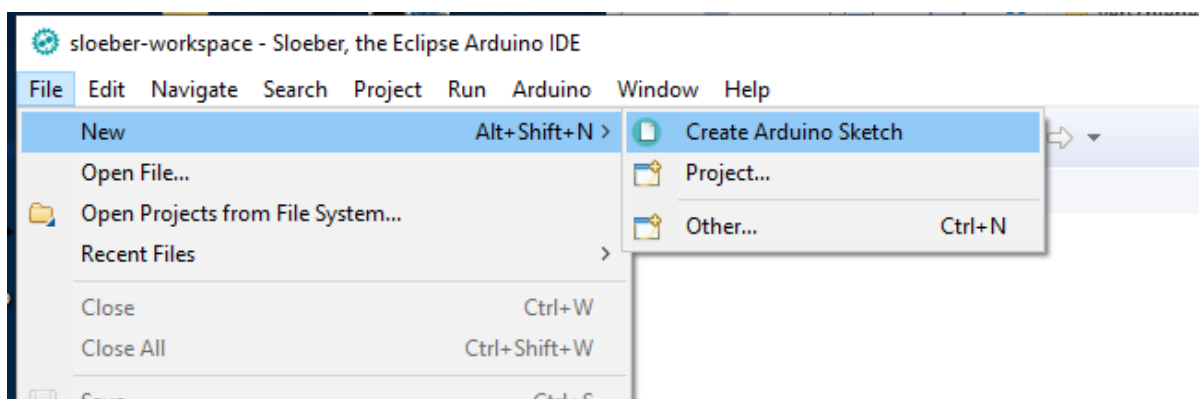
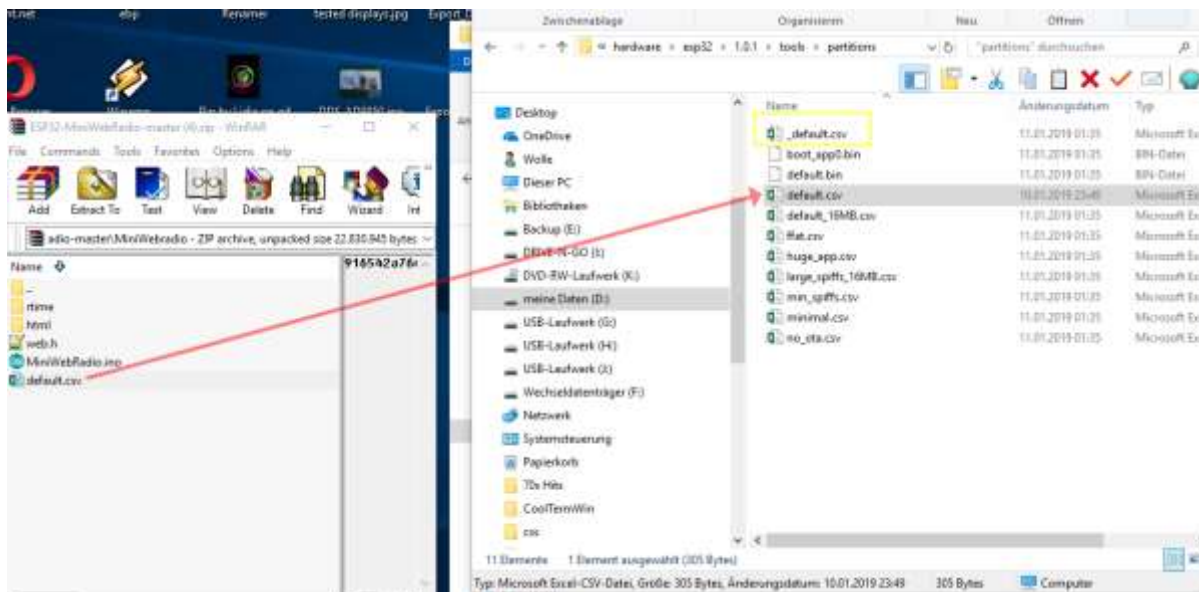
Download project: <https://github.com/schreibfaul1/ESP32-MiniWebRadio>



Delete in folder **sloeber/arduinoPlugin/libraries** all Arduino libraries, add „html“ and „rtmc“

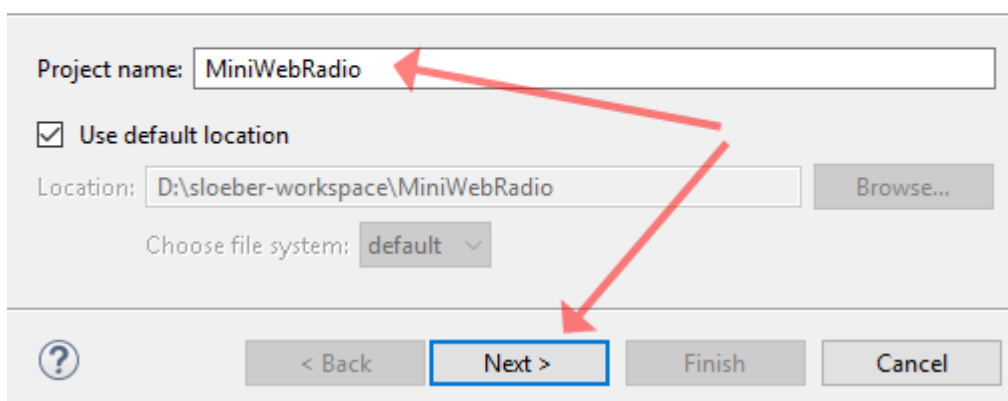


In `...\sloeber\arduinoPlugin\packages\esp32\hardware\esp32\1.0.0\tools\partitions` rename the `default.csv` in `_default.csv`, extract and copy the new partitiontable `default.csv`

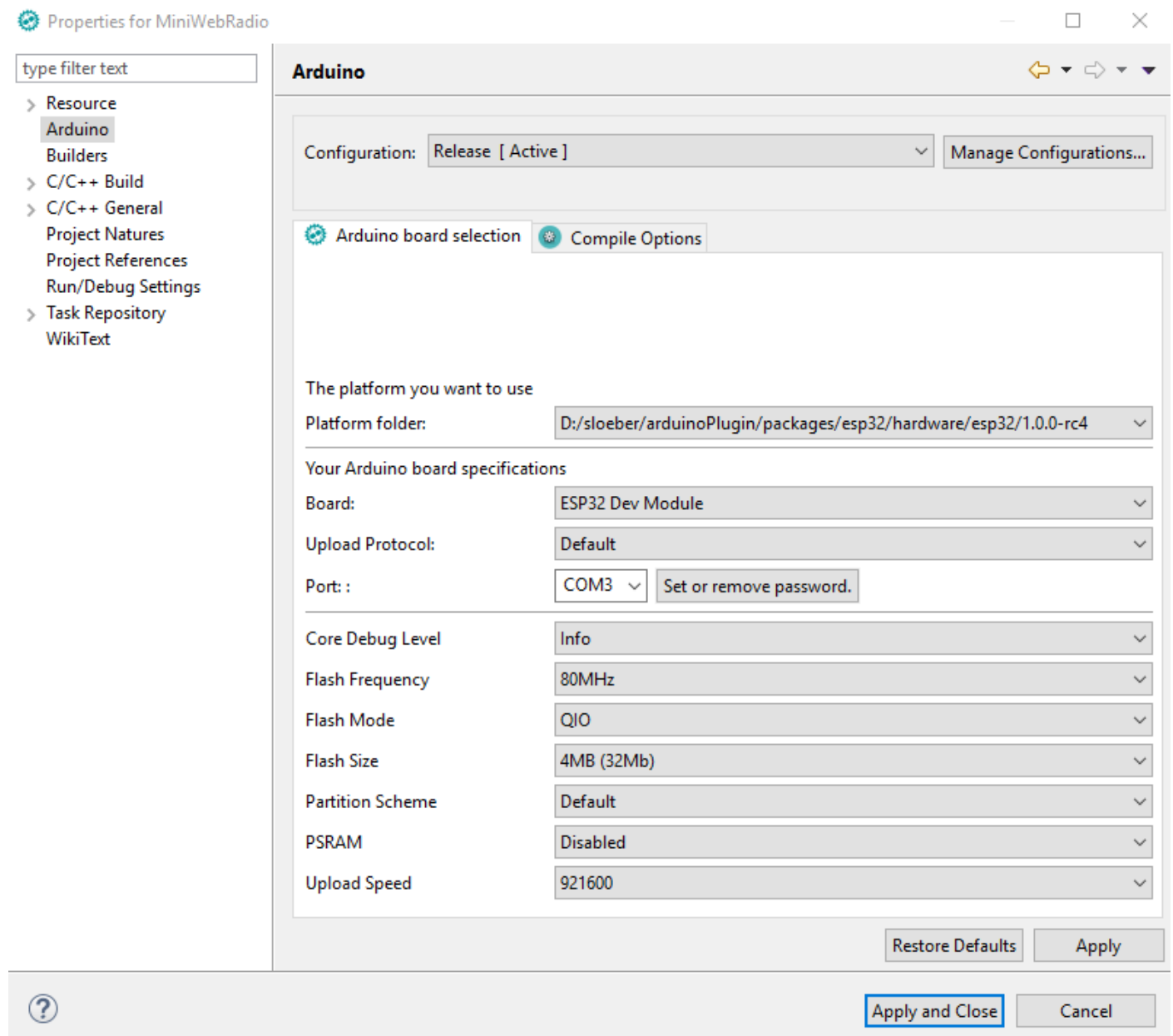


New Arduino sketch

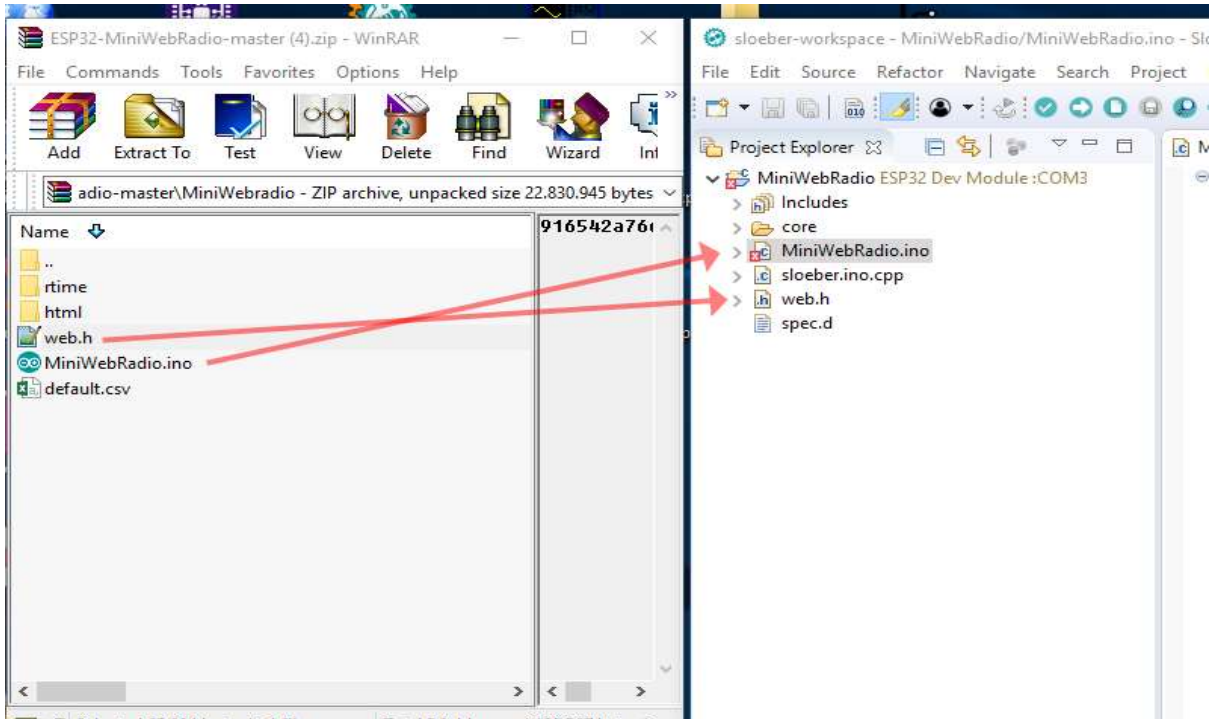
Create a new Arduino sketch.



Make this window bigger and select all items



Replace **MiniWebRadio.ino** and add **web.h**



Download this libraries:

https://github.com/schreibfaul1/ESP32-vs1053_ext

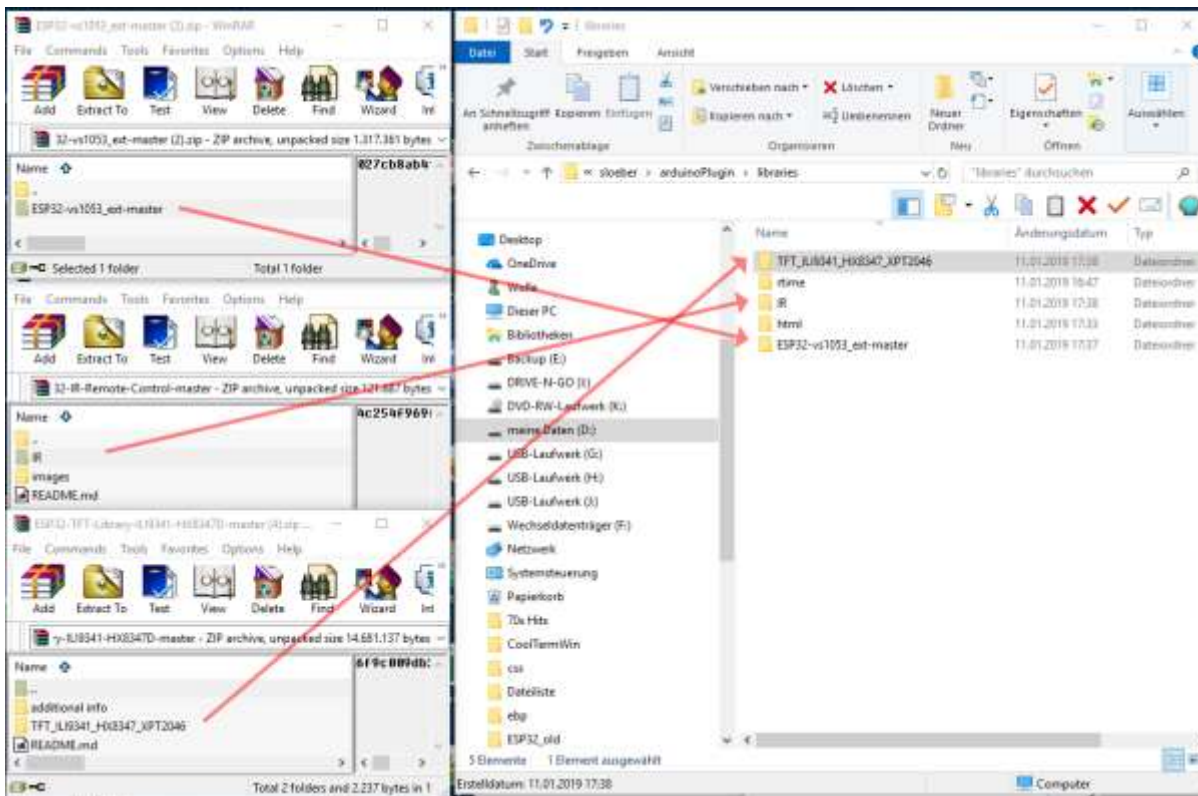
<https://github.com/schreibfaul1/ESP32-IR-Remote-Control>

<https://github.com/schreibfaul1/ESP32-TFT-Library-ILl9341-HX8347D>

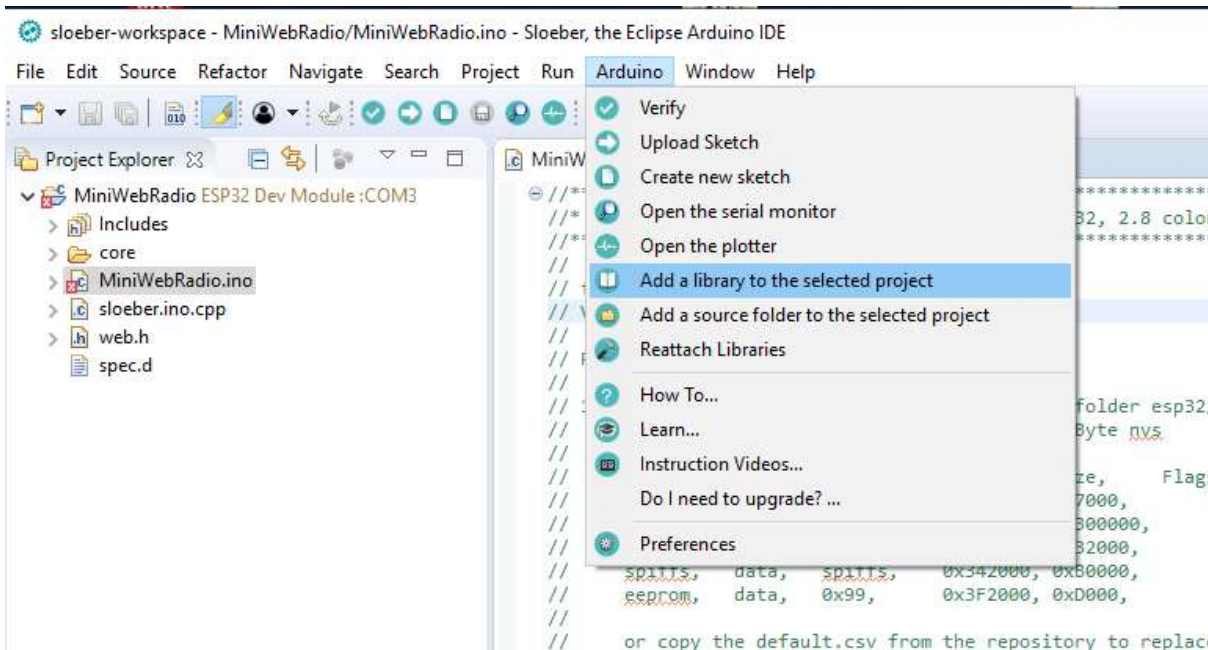
add to library folder „sloeber/arduinoPlugin/libraries“ (rtime und html exists already).

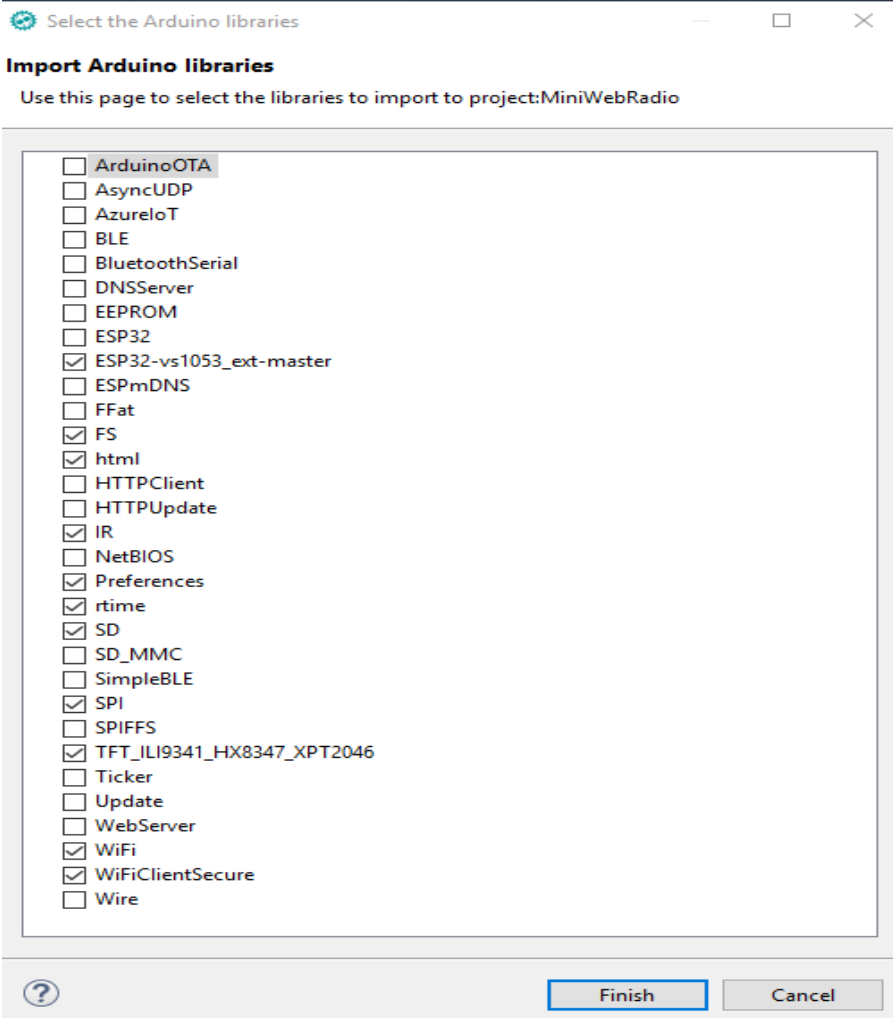
Copy the folders:

- ESP32-vs1053_ext-master
- IR
- TFT_ILl9341-HX8347_XPT2046

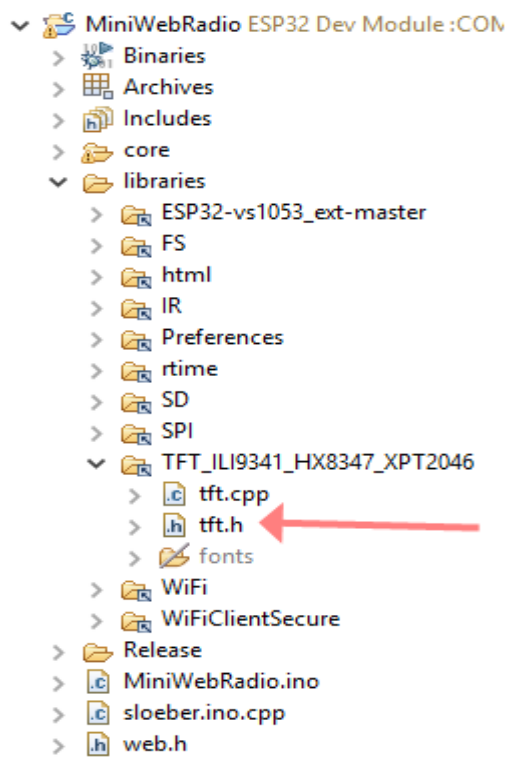


Add all needed libraries:

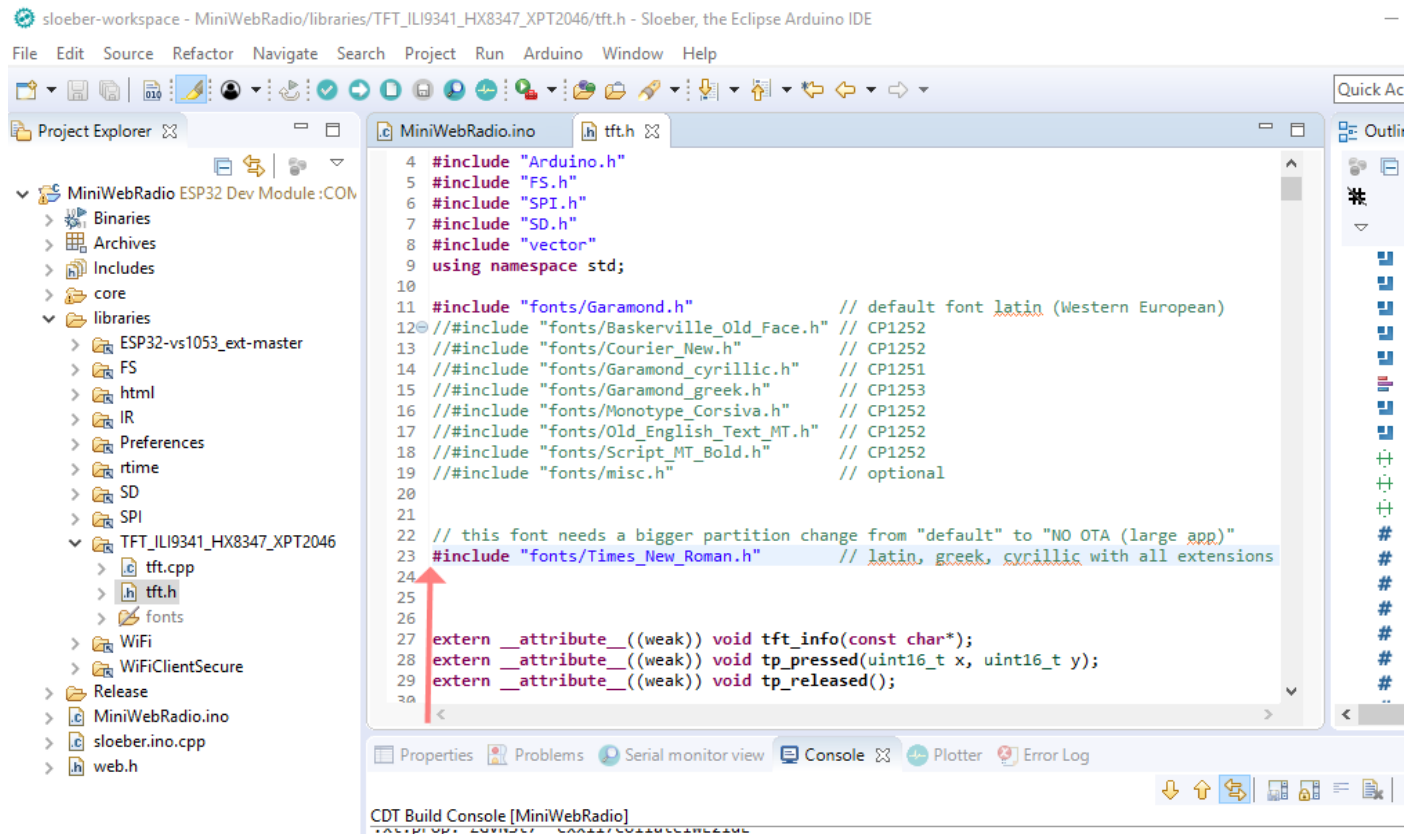




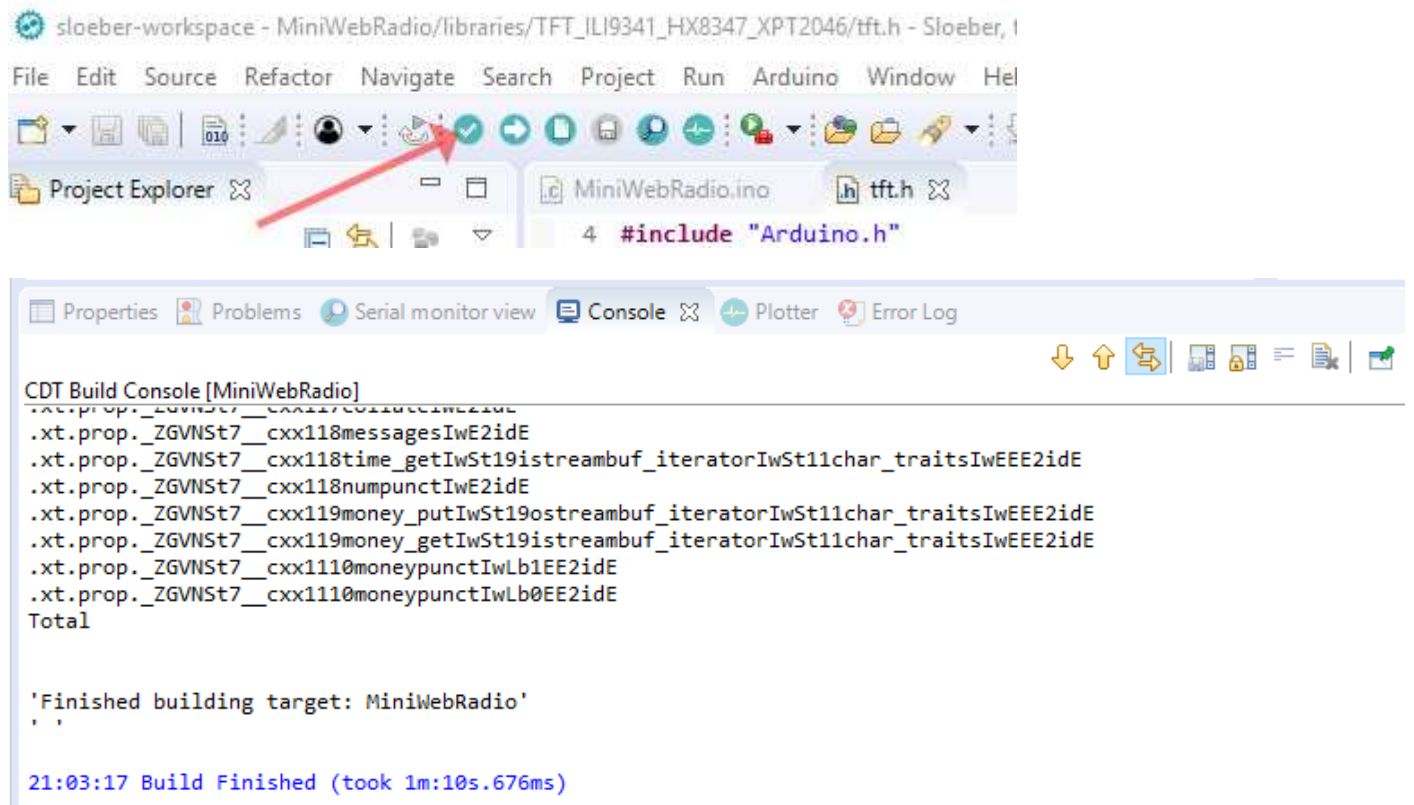
Doubleclick tft.h



Remove comment `#include "fonts/Times_New_Roman.h"`



and compile



LAST SETTINGS

Extract file "Content _ on _ SD _ Card.zip" on the SD card.

Time zones: default is middle Europe, examples for other time zones can be found in `rtime.cpp`

```
// Timezone
#define TZName "CET-1CEST,M3.5.0,M10.5.0/3"

String _SSID = "mySSID"; // Your WiFi credentials here
String _PW = "myWiFiPassword";
```

Set default SSID/PW. If the connection to the Wi-Fi cannot be established, more networks can be searched in "networks.txt." First always associated with the strongest Wi-Fi, then with the second strongest, etc..

Here, TFT controller is set, the display has the dimension 320x240 pixels

```
165
166 //objects
167 TFT tft(1); // parameter: (0)ILI9341, (1)HX8347D
168 VS1053 mp3(VS1053_CS, VS1053_DCS, VS1053_DREQ);
169 hw_timer t* timer=NULL; // instance of the timer
```

In the setup, the image or touchscreen can be rotated depending on the design of the display.

Example: `tft.setRotation(1);`

```
659 ir.begin(); // Init InfraredDecoder
660 tft.setRotation(3); // Use landscape format
661 tp.setRotation(3);
662 pref.begin("MiniWebRadio", false); // instance of pref
663 stations.begin("Stations", false); // instance of pref
```

In the setup, the clock can be increased with good SD card and short wires

```
657 tft.begin(TFT_CS, TFT_DC, SPI_MOSI, SPI_MISO, TFT_CLK);
658 SD.begin(SD_CS, SPI, 16000000); // frequency
659 ir.begin(); // Init InfraredDecoder
660 tft.setRotation(3); // Use landscape format
```

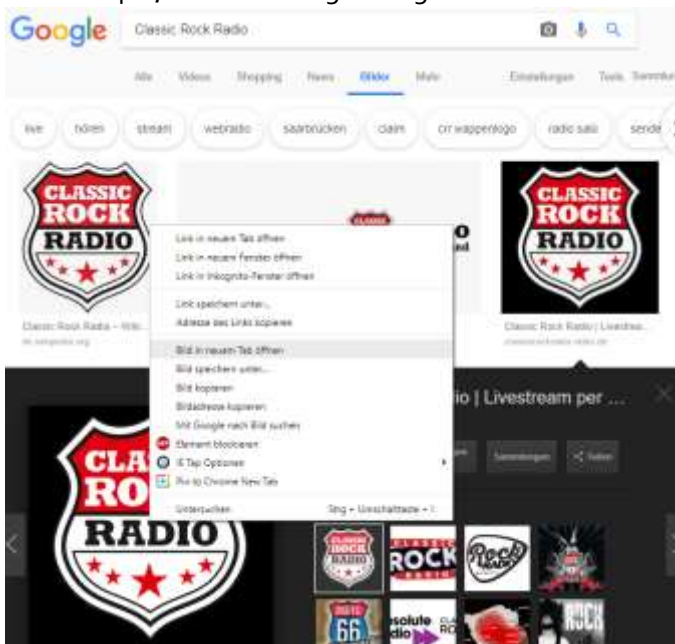
Possible meaningful values are 20000000, 40000000, 80000000

BROADCASTER SEARCH

The last line displays the IP address assigned by the router on the display. The web browser allows me to connect the IP to MiniWebRadio. On the page with the magnifying glass symbol can be selected for a country stations. The StreamUrl can be tested for function and, if necessary, the sender homepage can be displayed. If there is no logo, you can search the Internet for a suitable



For example, with the Google image search:





Click image to open with the right mouse button image in the new tab. Then copy the URL of the image, paste it into the line LogoUrl and press Enter

HomepageUrl

LogoUrl





  

The new image is scaled and displayed. With  The image can be written on the SD card. The file name is the name displayed that may be changed. At the same time, that's the name of the station. With  The station can be added to the station list. Cy (Country) is the country, e.g. "D," STsubstitute is an alternative text that is displayed if no text is transmitted by the transmitter. X = * means: The sender exists in the station list but does not appear in the list.

HomepageUrl

LogoUrl





Edit

X

Cy





StationName

StreamURL

STsubstitute

OK

In the station list, the transmitter is now available locally

GR	Ράδιο Ήλιος Radio Helios	195.154.217.103:8051/stream/1	Καλώς Ήρθατε	
RU	НАШЕ Радио nashemmx	nashe1.hostingradio.ru/nashe-128.mp3		
RU	Радио Русские Песни RUS	listen.rusongs.ru/ru-mp3-128		
D	Classic Rock Radio	http://internetradio.salue.de:8000/classicrock.aac		

Save Load save xlsx load xlsx

But it is only with "save" that the station list is stored on the SD card.

Sender names can be separated with a pipe (Example): **Ράδιο Ήλιος|Radio Helios** If the Name does not contain ASCII characters (latin 1). In front of the pipe, the name as it is displayed is after the pipe as it is stored. Sender name and file name of the logo must match, but file names must not contain Cyrillic or Greek characters