Random Codes – Elementz Tech Blog

Tech blog based on research and development done by the Elementz team.

Arduino MQTT Library for SIM800 GSM Modem

elementzonline / July 18, 2016

Hello tech freaks, hobbyists, enthusiasts and professionals,
we are pleased to announce the open source project "**SIM800 Arduino MQTT Library**". We welcome you to come and collaborate on this project. MQTT is an ISO standard publish-subscribe-based messaging protocol for use on top of the TCP/IP protocol (is the underlying technology behind Facebook Messenger). This MQTT client application connects to MQTT capable servers. And it can collect information from the device and publish the information to the server. It can also subscribe to topics and receive messages from the server. This Library is tested in Arduino Uno with SIM800 GSM Modem.

Those who just want to use implement MQTT with GSM modem can use this library. And those who want to go deep can go through the code and can contribute to it. For more, see our GitHub repositories and Blog announcements.

Functionalities:

- **Auto connect**
  - Automatically connect to TCP and to MQTT server.
  - This function if you want to use autoconnect(and auto reconnect) facility
  - This function is called whenever TCP connection is established (or re-established).

- **connect** function
  - This function can be used to connect your client to MQTT broker.
  - Use only if you do not use Auto connect functionality.
  - Optionally you can use username, password, WILL topic and WILL Message.

- **OnConnect** CallBack function
  - This call back function is called when MQTT connection is established.

- You can call subscription and publish functions inside it (according to your need).

- **publish** function

  - This function can be used to publish messages to different topics.
  - You can select QoS levels and RETAIN flag according to your need.

- **subscribe** function
  - This function can be used to subscribe messages from different topics.

- **OnMessage** CallBack function
  - This callback function is called when messages are received from subscribed topics
  - Topic, TopicLength, Message, MessageLength are the arguments of **OnMessage** callback function.
  - Inside this, you can write your custom code.

- **unsubscribe** function

  - This function can be used to unsubscribe from a previously subscribed topic.

- **disconnect** function

  - This function can be used to disconnect your client from MQTT broker.

- **available** function
  - return true when connection with mqtt brocker is existing

- You can specify your KeepAlive duration while initializing.
- Ping requests are sent and received automatically.

Subscribe Example:

```
#include "GSM_MQTT.h"
#include <SoftwareSerial.h>
String MQTT_HOST = "test.mosquitto.org";
/*
   MQTT host address
*/
String MQTT_PORT = "1883";
/*
   MQTT port
*/
SoftwareSerial mySerial(10, 11); // RX, TX
```

```
/*
   Software Serial through which mqtt events log is printed at 9600 baud rate
*/
void GSM_MQTT::AutoConnect(void)
{
  /*
     Use this function if you want to use autoconnect(and auto reconnect) facilit
     This function is called whenever TCP connection is established (or re-estab
     put your connect codes here.
  */
  connect("qwertyuiop", 0, 0, "", "", 1, 0, 0, 0, "", "");
  /*    void connect(char *ClientIdentifier, char UserNameFlag, char PasswordFlag
          ClientIdentifier  :Is a string that uniquely identifies the client to t
                            :It must be unique across all clients connecting to a
                            :It's length must be greater than 0 and less than 24
                            :Example "qwerty"
          UserNameFlag      :Indicates whether UserName is present
                            :Possible values (0,1)
                            :Default value 0 (Disabled)
          PasswordFlag      :Valid only when  UserNameFlag is 1, otherwise its va
                            :Indicates whether Password is present
                            :Possible values (0,1)
                            :Default value 0 (Disabled)
          UserName          :Mandatory when UserNameFlag is 1, otherwise its valu
                            :The UserName corresponding to the user who is connec
          Password          :alid only when  UserNameFlag and PasswordFlag are 1
                            :The password corresponding to the user who is connec
          CleanSession      :If not set (0), then the server must store the subsc
                            :If set (1), then the server must discard any previou
                            :Possible values (0,1)
                            :Default value 1
          WillFlag          :This flag determines whether a WillMessage publishec
                            :If the WillFlag is set, the WillQoS, WillRetain, Wil
                            :Possible values (0,1)
                            :Default value 0 (Disables will Message)
          WillQoS           :Valid only when  WillFlag is 1, otherwise its value
                            :Determines the QoS level of WillMessage
                            :Possible values (0,1,2)
                            :Default value 0 (QoS 0)
          WillRetain        :Valid only when  WillFlag is 1, otherwise its value
                            :Determines whether the server should retain the Will
                            :Possible values (0,1)
                            :Default value 0
          WillTopic         :Mandatory when  WillFlag is 1, otherwise its value :
                            :The Will Message will published to this topic (Will
          WillMessage       :Mandatory when  WillFlag is 1, otherwise its value :
                            :This message (WillMessage) will published to WillTop
  */
```

```
}
void GSM_MQTT::OnConnect(void)
{
  /*
     This function is called when mqqt connection is established.
     put your subscription publish codes here.
  */
  subscribe(0, _generateMessageID(), "SampleTopic", 1);
  /*    void subscribe(char DUP, unsigned int MessageID, char *SubTopic, char Sub
          DUP       :This flag is set when the client or server attempts to re-de
                    :This applies to messages where the value of QoS is greater t
                    :Possible values (0,1)
                    :Default value 0
          Message ID:The Message Identifier (Message ID) field
                    :Used only in messages where the QoS levels greater than 0 (S
          SubTopic  :Topic names to which  subscription is needed
          SubQoS    :QoS level at which the client wants to receive messages
                    :Possible values (0,1,2)
                    :Default value 0
  */

//  publish(0, 0, 0, _generateMessageID(), "SampleTopic", "Hello");
  /*  void publish(char DUP, char Qos, char RETAIN, unsigned int MessageID, char
      DUP       :This flag is set when the client or server attempts to re-delive
                :This applies to messages where the value of QoS is greater than
                :Possible values (0,1)
                :Default value 0
      QoS       :Quality of Service
                :This flag indicates the level of assurance for delivery of a PUB
                :Possible values (0,1,2)
                :Default value 0
      RETAIN    :if the Retain flag is set (1), the server should hold on to the
                :When a new subscription is established on a topic, the last reta
                :Possible values (0,1)
                :Default value 0
      Message ID:The Message Identifier (Message ID) field
                :Used only in messages where the QoS levels greater than 0
      Topic     :Publishing topic
      Message   :Publishing Message
  */
}
void GSM_MQTT::OnMessage(char *Topic, int TopicLength, char *Message, int Message
{
  /*
    This function is called whenever a message received from subscribed topics
    put your subscription publish codes here.
  */

  /*
```

```
     Topic        :Name of the topic from which message is coming
     TopicLength  :Number of characters in topic name
     Message      :The containing array
     MessageLength:Number of characters in message
  */
  mySerial.println(TopicLength);
  mySerial.println(Topic);
  mySerial.println(MessageLength);
  mySerial.println(Message);

}
GSM_MQTT MQTT(20);
/*
   20 is the keepalive duration in seconds
*/

void setup()
{
  // initialize mqtt:
  // GSM modem should be connected to Harware Serial
  //  index =0;
  MQTT.begin();

  /*
     You can write your code here
  */

}
void loop()
{

  /*
     You can write your code here
  */
  if (MQTT.available)
  {
    /*
      if you want to do something when mqtt connection is live.
      You can write your code here
    */
  }

  MQTT.processing();
}
```

Publish Example:

```
#include "GSM_MQTT.h"
#include <SoftwareSerial.h>
String MQTT_HOST = "test.mosquitto.org";
/*
   MQTT host address
*/
String MQTT_PORT = "1883";
/*
   MQTT port
*/
SoftwareSerial mySerial(10, 11); // RX, TX
/*
   Software Serial through which mqtt events log is printed at 9600 baud rate
*/
void GSM_MQTT::AutoConnect(void)
{
  /*
     Use this function if you want to use autoconnect(and auto reconnect) facili
     This function is called whenever TCP connection is established (or re-estab
     put your connect codes here.
  */
  connect("qwertyuiop", 0, 0, "", "", 1, 0, 0, 0, "", "");
  /*    void connect(char *ClientIdentifier, char UserNameFlag, char PasswordFlag
          ClientIdentifier  :Is a string that uniquely identifies the client to t
                            :It must be unique across all clients connecting to a
                            :It's length must be greater than 0 and less than 24
                            :Example "qwerty"
          UserNameFlag      :Indicates whether UserName is present
                            :Possible values (0,1)
                            :Default value 0 (Disabled)
          PasswordFlag      :Valid only when  UserNameFlag is 1, otherwise its va
                            :Indicates whether Password is present
                            :Possible values (0,1)
                            :Default value 0 (Disabled)
          UserName          :Mandatory when UserNameFlag is 1, otherwise its valu
                            :The UserName corresponding to the user who is connec
          Password          :alid only when  UserNameFlag and PasswordFlag are 1
                            :The password corresponding to the user who is connec
          CleanSession      :If not set (0), then the server must store the subsc
                            :If set (1), then the server must discard any previou
                            :Possible values (0,1)
                            :Default value 1
          WillFlag          :This flag determines whether a WillMessage publishec
                            :If the WillFlag is set, the WillQoS, WillRetain, Wil
                            :Possible values (0,1)
                            :Default value 0 (Disables will Message)
          WillQoS           :Valid only when  WillFlag is 1, otherwise its value
                            :Determines the QoS level of WillMessage
```

```
                              :Possible values (0,1,2)
                              :Default value 0 (QoS 0)
          WillRetain          :Valid only when  WillFlag is 1, otherwise its value
                              :Determines whether the server should retain the Wil
                              :Possible values (0,1)
                              :Default value 0
          WillTopic           :Mandatory when  WillFlag is 1, otherwise its value
                              :The Will Message will published to this topic (Will
          WillMessage         :Mandatory when  WillFlag is 1, otherwise its value
                              :This message (WillMessage) will published to WillTo
  */

}
void GSM_MQTT::OnConnect(void)
{
  /*
     This function is called when mqqt connection is established.
     put your subscription publish codes here.
  */
  //  subscribe(0, _generateMessageID(), "SampleTopic", 1);
  /*    void subscribe(char DUP, unsigned int MessageID, char *SubTopic, char Sub
          DUP       :This flag is set when the client or server attempts to re-de
                    :This applies to messages where the value of QoS is greater t
                    :Possible values (0,1)
                    :Default value 0
          Message ID:The Message Identifier (Message ID) field
                    :Used only in messages where the QoS levels greater than 0 (S
          SubTopic  :Topic names to which  subscription is needed
          SubQoS    :QoS level at which the client wants to receive messages
                    :Possible values (0,1,2)
                    :Default value 0
  */

  publish(0, 0, 0, _generateMessageID(), "SampleTopic", "Hello");
  /*  void publish(char DUP, char Qos, char RETAIN, unsigned int MessageID, char
      DUP       :This flag is set when the client or server attempts to re-delive
                :This applies to messages where the value of QoS is greater than
                :Possible values (0,1)
                :Default value 0
      QoS       :Quality of Service
                :This flag indicates the level of assurance for delivery of a PUB
                :Possible values (0,1,2)
                :Default value 0
      RETAIN    :if the Retain flag is set (1), the server should hold on to the
                :When a new subscription is established on a topic, the last reta
                :Possible values (0,1)
                :Default value 0
      Message ID:The Message Identifier (Message ID) field
                :Used only in messages where the QoS levels greater than 0
```

```
      Topic     :Publishing topic
      Message   :Publishing Message
  */
}
void GSM_MQTT::OnMessage(char *Topic, int TopicLength, char *Message, int Message
{
  /*
    This function is called whenever a message received from subscribed topics
    put your subscription publish codes here.
  */

  /*
     Topic        :Name of the topic from which message is coming
     TopicLength  :Number of characters in topic name
     Message      :The containing array
     MessageLength:Number of characters in message
  */
  mySerial.println(TopicLength);
  mySerial.println(Topic);
  mySerial.println(MessageLength);
  mySerial.println(Message);

}
GSM_MQTT MQTT(20);
/*
   20 is the keepalive duration in seconds
*/

void setup()
{
  // initialize mqtt:
  // GSM modem should be connected to Harware Serial
  //  index =0;
  MQTT.begin();

  /*
     You can write your code here
  */

}
void loop()
{

  /*
     You can write your code here
  */
  if (MQTT.available)
  {
    /*
```

```
      if you want to do something when mqtt connection is live.
      You can write your code here
    */
  }

  MQTT.processing();
}
```

Subscribe Publish Example:

```
 #include "GSM_MQTT.h"
#include <SoftwareSerial.h>
String MQTT_HOST = "test.mosquitto.org";
/*
   MQTT host address
*/
String MQTT_PORT = "1883";
/*
   MQTT port
*/
SoftwareSerial mySerial(10, 11); // RX, TX
/*
   Software Serial through which mqtt events log is printed at 9600 baud rate
*/
void GSM_MQTT::AutoConnect(void)
{
  /*
     Use this function if you want to use autoconnect(and auto reconnect) facili
     This function is called whenever TCP connection is established (or re-estab
     put your connect codes here.
  */
  connect("qwertyuiop", 0, 0, "", "", 1, 0, 0, 0, "", "");
  /*    void connect(char *ClientIdentifier, char UserNameFlag, char PasswordFlag
          ClientIdentifier  :Is a string that uniquely identifies the client to t
                            :It must be unique across all clients connecting to a
                            :It's length must be greater than 0 and less than 24
                            :Example "qwerty"
          UserNameFlag      :Indicates whether UserName is present
                            :Possible values (0,1)
                            :Default value 0 (Disabled)
          PasswordFlag      :Valid only when  UserNameFlag is 1, otherwise its va
                            :Indicates whether Password is present
                            :Possible values (0,1)
                            :Default value 0 (Disabled)
          UserName          :Mandatory when UserNameFlag is 1, otherwise its valu
                            :The UserName corresponding to the user who is connec
```

```
            Password          :alid only when  UserNameFlag and PasswordFlag are 1
                              :The password corresponding to the user who is connec
            CleanSession      :If not set (0), then the server must store the subsc
                              :If set (1), then the server must discard any previou
                              :Possible values (0,1)
                              :Default value 1
            WillFlag          :This flag determines whether a WillMessage published
                              :If the WillFlag is set, the WillQoS, WillRetain, Wil
                              :Possible values (0,1)
                              :Default value 0 (Disables will Message)
            WillQoS           :Valid only when  WillFlag is 1, otherwise its value
                              :Determines the QoS level of WillMessage
                              :Possible values (0,1,2)
                              :Default value 0 (QoS 0)
            WillRetain        :Valid only when  WillFlag is 1, otherwise its value
                              :Determines whether the server should retain the Will
                              :Possible values (0,1)
                              :Default value 0
            WillTopic         :Mandatory when  WillFlag is 1, otherwise its value i
                              :The Will Message will published to this topic (Will
            WillMessage       :Mandatory when  WillFlag is 1, otherwise its value i
                              :This message (WillMessage) will published to WillTop
    */

}
void GSM_MQTT::OnConnect(void)
{
    /*
       This function is called when mqqt connection is established.
       put your subscription publish codes here.
    */
    subscribe(0, _generateMessageID(), "SampleTopic", 1);
    /*    void subscribe(char DUP, unsigned int MessageID, char *SubTopic, char Sub
            DUP       :This flag is set when the client or server attempts to re-de
                      :This applies to messages where the value of QoS is greater t
                      :Possible values (0,1)
                      :Default value 0
            Message ID:The Message Identifier (Message ID) field
                      :Used only in messages where the QoS levels greater than 0 (S
            SubTopic  :Topic names to which  subscription is needed
            SubQoS    :QoS level at which the client wants to receive messages
                      :Possible values (0,1,2)
                      :Default value 0
    */

    publish(0, 0, 0, _generateMessageID(), "SampleTopic", "Hello");
    /*  void publish(char DUP, char Qos, char RETAIN, unsigned int MessageID, char
        DUP       :This flag is set when the client or server attempts to re-delive
                  :This applies to messages where the value of QoS is greater than
```

```
                :Possible values (0,1)
                :Default value 0
      QoS       :Quality of Service
                :This flag indicates the level of assurance for delivery of a PUB
                :Possible values (0,1,2)
                :Default value 0
      RETAIN    :if the Retain flag is set (1), the server should hold on to the
                :When a new subscription is established on a topic, the last reta
                :Possible values (0,1)
                :Default value 0
      Message ID:The Message Identifier (Message ID) field
                :Used only in messages where the QoS levels greater than 0
      Topic     :Publishing topic
      Message   :Publishing Message
  */
}
void GSM_MQTT::OnMessage(char *Topic, int TopicLength, char *Message, int Message
{
  /*
    This function is called whenever a message received from subscribed topics
    put your subscription publish codes here.
  */

  /*
     Topic        :Name of the topic from which message is coming
     TopicLength  :Number of characters in topic name
     Message      :The containing array
     MessageLength:Number of characters in message
  */
  mySerial.println(TopicLength);
  mySerial.println(Topic);
  mySerial.println(MessageLength);
  mySerial.println(Message);

}
GSM_MQTT MQTT(20);
/*
   20 is the keepalive duration in seconds
*/

void setup()
{
  // initialize mqtt:
  // GSM modem should be connected to Harware Serial
  //  index =0;
  MQTT.begin();

  /*
     You can write your code here
```

```
  */

}
void loop()
{

  /*
     You can write your code here
  */
  if (MQTT.available)
  {
    /*
      if you want to do something when mqtt connection is live.
      You can write your code here
    */
  }

  MQTT.processing();
}
```

Components used for developing this library are available at Arduino Uno and SIM800 GSM Modem. And this project is available at SIM800_MQTT_Arduino along with code examples. So please come and contribute. This library is also compatible with SIM900 MODEMs

“Don’t reinvent the wheel when you don’t have to, Just realign it”

July 18, 2016 in Arduino, Embedded System, sim800, Uncategorized, Wireless. Tags: Arduino, Arduino MQTT Library, Arduino UNO, Elementz, Elementz Blog, Elementz Engineers Guild Pvt. LTd., elementzonline, github, GSM, GSM Modem, GSM MQTT, GSM MQTT ARDUINO, MQTT, open source, Programmer, sim800, SIM800 MQTT, SIM900

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Interfacing micro SD card with SIM800 GSM Modem →

91 thoughts on “Arduino MQTT Library for SIM800 GSM Modem”

Santosh Kumar Jha July 19, 2016 at 2:07 pm

Great! Thanks for sharing it, I needed it for my Gateway application. I will use it and will give feedback.

Reply

elementzonline July 19, 2016 at 3:46 pm

Thanks Santhosh,
Please feel free to share your feedback and valuable suggestions. It will help us to improve the library.

Reply

Lâm July 23, 2016 at 6:10 pm

Thanks Santhosh,
But, I have a question. What were the example above auto connected ??

Reply

Lâm July 23, 2016 at 6:13 pm

I didn't found function auto connect in code example. Could you plain the code example sub and pub ??

Reply

elementzonline July 26, 2016 at 12:44 pm

Hi Lâm,
Thank you for your feedback. We have added a AutoConnect callback function in the library.

Connect function is called inside it.
To get the updated code, please go through our Github repository
https://github.com/elementzonline

Reply

Lâm July 29, 2016 at 3:47 pm

Thanks you very much !
I ran success in arduino with GSM800.

Hoàng Dương January 11, 2017 at 10:27 am

i don't look function " at+cipsend" in code example?why do you send data to broker?

Reply

masalinas July 24, 2016 at 1:23 am

I'm trying to use your librarie but I don't understand how connect to my server without any username, password. Anyone could tell me an example to connect to my mqtt server without username, password?

Reply

elementzonline July 26, 2016 at 1:19 pm

Hi masalinas,
we have added an AutoConnect call back function in the library. If you go through the example file, you can see that. And "connect" function is called inside that function. It looks like this,

```
void GSM_MQTT::AutoConnect(void)
{
connect("qwertyuiop", 0, 0, "", "", 1, 0, 0, 0, "", "");
// void connect(char *ClientIdentifier, char UserNameFlag, char PasswordFlag, char
```

*UserName, char *Password, char CleanSession, char WillFlag, char WillQoS, char WillRetain, char *WillTopic, char *WillMessage)
}

Autoconnect without username and password.

In connect function 2nd and 3rd arguments are UserNameFlag and PasswordFlag.
If you want to connect to your MQTT broker with username then you have to pass 1 as second argument (UserNameFlag). Similarly if you want to connect to your MQTT brocker with password you have to pass 1 as third argument (PasswordFlag). And pass your user name as 4th argument (UserName) and password as 5th argument (Password).

---

void GSM_MQTT::AutoConnect(void)
{
connect(“qwertyuiop”, 1, 1, “user12”, “pass123”, 1, 0, 0, 0, “”, “”);
// void connect(char *ClientIdentifier, char UserNameFlag, char PasswordFlag, char *UserName, char *Password, char CleanSession, char WillFlag, char WillQoS, char WillRetain, char *WillTopic, char *WillMessage)
}

Autoconnect with username user12 and password pass123 .

Reply

elementzonline July 26, 2016 at 1:24 pm

Hi everybody,
We have updated Library code with new functionalities
– AutoConnect call back function
– available function
Go to the repository and get the updated code. Those who want to contribute, please give pull requests.

Reply

Burak July 31, 2016 at 4:02 pm

Its absolutly greatt!! I was trying to write a library same of this! And now I dont need to 🙂
Thank you sooo much for this great work! After I use it I will give feedback.

Reply

elementzonline August 2, 2016 at 10:18 am

Hi Burak,

Thanks for the encouragement. We are looking forward to hear from you soon.

Reply

Sandeep Solanki August 5, 2016 at 6:26 am

Thanks for writing this library. I tested it on my Arduino MEGA with Harware Serial port connected to SIM808. It worked fine.
But when i tried to change the Harware ports from “Serial” to “Serial1” and “mySerial” to “Serial” its not working. I changed the serialEvent() to serialEvent1() also..

Any ideas? I’ve raised it as an issue in Github. Please help.

Reply

ravi butani August 9, 2016 at 3:56 am

I have tested with mega.. SIM800 on Serial1 and Debug on Serial …. It works fine… I have changed all instance of Serial–> Serial1 and mySerial—>Serial and serialEvent() to serialEvent1()….

Initially publish is great but subscribe with message length more than 10 bytes hangs the code… By the way I Have changed Serial Buffer size from 64 to 256 and now no issue upto atleast 150 char message with 40 char topic name…

and many thanks to elementzonline for provide this lib in public domain….

Reply

ravi butani August 9, 2016 at 7:45 am

I have done similer thing and bingo it works with my mega… also change serial buffer size in arduino hardwareserial.cpp so it can handle subscribed message more than 10 bytes… And many thanks to elementzonline for providing this very useful lib on public domain…

Reply

elementzonline August 9, 2016 at 3:31 pm

Hi Ravi,

Thanks for the encouragement. We are very happy to know that it is useful to you.

“Help each other and grow faster”

Sandeep Solanki August 10, 2016 at 4:16 pm

Hi Ravi,
Thanks for the response.
I tried changing the HardwareSerial.h
replaced line : #define SERIAL_TX_BUFFER_SIZE 64
with line: #define SERIAL_TX_BUFFER_SIZE 256
and
replaced line : #define SERIAL_RX_BUFFER_SIZE 64
with line: #define SERIAL_RX_BUFFER_SIZE 256

To check if the Buffer really has changed, i added a statement in my loop() method
Serial.println(SERIAL_RX_BUFFER_SIZE);

I still see that its printing 64.

But another interesting thing i noticed that, i started receiving the incoming message and my Serial is now printing the incoming messages.

So to re-check if this has happened due to change in the Serial buffer, i revoke my changes from HardwareSerial.h and made both the buffers back to 64, but i didn’t remove my Serial.print() statement in the loop.

Now, i am still receiving my message though not full message but partial message.

So that bring me to the conclusion that if i don’t give Serial.print() statement in the loop, it doesn’t print any incoming MQTT message on the Serial monitor but if i give Serial.print(), it prints in the Serial Monitor.

Below is my code in the loop() method.
void loop()
{

```
Serial.print(SERIAL_RX_BUFFER_SIZE);

if (MQTT.available())
{

}
MQTT.processing();
}
```

Any idea why is it like this ?
Also, what does MQTT.available() means?

ettaibi June 19, 2019 at 4:33 am

please how send temperature data using sim900 to mqtt broker ???

Rainer August 5, 2016 at 10:59 am

Can Anyone confirm that this library is working with mosquitto? I ported the library to mbed and I am getting the following error from mosquitto mqtt broker: Invalid protocol version 0 in CONNECT from xxx.xxx.xxx.xxx

Reply

elementzonline August 6, 2016 at 5:40 am

Hi Rainer,
Yes, this library is compatible with mosquitto broker. We are happy to know that you are porting it to mbed platform.

Reply

Rainer August 5, 2016 at 4:48 pm

Any support for mbed would be highly appreciated … tried to convert the library – but as I am a novice I am running into lot's of issues … thanks anyhow for your efforts!

Reply

Vanessa August 22, 2016 at 7:58 pm

I have some doubts.
I'm using the shield of icomsat v1.1 exactly as pictured .

What I did was change SoftwareSerial mySerial (10, 11); to SoftwareSerial mySerial (18,19) .
Is that correct?
I did not quite understand how to publish using the library , how do I post a variable?
I did: publish(0, 0, 0, _generateMessageID(), "SampleTopic", variable);
Is that correct?

I am new to programming so I apologize if I asked something stupid

Reply

Gabriel August 23, 2016 at 1:30 am

I did not understand how to call the functions, for example : I want to publish something when MQTT are available , how can I do this?
One more thing, that serial is for gprs ?
I need to communicate my arduino mega with gprs to the fair school science , but I could not understand the examples. My code looks like this:

```
#include "GSM_MQTT.h"
#include
String MQTT_HOST = "test.mosquitto.org";
/*
MQTT host address
*/
String MQTT_PORT = "1883";
/*
MQTT port
*/
SoftwareSerial mySerial(10, 11); // RX, TX
/*
Software Serial through which mqtt events log is printed at 9600 baud rate
*/
void GSM_MQTT::AutoConnect(void)
```

```
{
connect("Gabriel", 0, 0, "", "", 1, 0, 0, 0, "", "");

}
void GSM_MQTT::OnConnect(void)
{

publish(0, 0, 0, _generateMessageID(), ";Test", "Hello everybody");

}
void GSM_MQTT::OnMessage(char *Topic, int TopicLength, char *Message, int
MessageLength)
{
mySerial.println(TopicLength);
mySerial.println(Topic);
mySerial.println(MessageLength);
mySerial.println(Message);

}
GSM_MQTT MQTT(20);
/*
20 is the keepalive duration in seconds
*/

void setup()
{
// initialize mqtt:
// GSM modem should be connected to Hardware Serial
// index =0;
MQTT.begin();
Serial.begin(9600);

}
void loop()
{

AutoConnect();

if (MQTT.available())
{
OnConnect();

}

MQTT.processing();
}
```

I want to show " Hello everybody " message on a topic on my computer, but I could not .

It's really hard to start program alone :T

Reply

Jordan Silverman August 24, 2016 at 3:51 pm

Hi, I am using the example and it's getting through until

"CONNECT
MQTT.TCP_Flag = True"

but then it stops. I believe it's supposed to run AutoConnect() next with the Connect function inside it, however this doesn't seem to be running. Anyone have the same issue?

Thanks

Reply

Gabriel August 29, 2016 at 5:39 pm

Hello Jordan ! You have modified the example or the library ? Can you show me your code?

Reply

Jordan Silverman August 30, 2016 at 11:15 am

I'v modified both actually, had to swap mySerial and Serial in the .cpp because my gsm module is connected via software serial whilst using hardware serial when connected to my PC. I also had to modify the check for network because I have a global sim card which is never on a 'home network'.

Is there a way I can send all to you so you can check? It would be greatly appreciated.

Phan Đình Bắ´c September 26, 2016 at 10:21 am

Did you fix this problem? I change software serial to hardware serial. So I meet the same problem, I don't know how to fix it? Did the problem when I change software serial to hardware serial?
Thanks

Reply

Guillermo Schimmel October 13, 2016 at 2:49 pm

Hi Jordan. Can you please help me sort that same issue? I'm stuck there at CONNECT. Also interchanged serial ports. Thanks

Reply

Bojan Jovanvoic November 15, 2016 at 3:00 pm

Hey Jordan,

I'm experiencing completely the same issue. Did you have a chance to overcome it ? Would you mind to share your experience with me ?

Thanks for your time and effort. I really appreciate it.

Sincerely,
Bojan.

Reply

Sascha February 25, 2017 at 1:59 pm

do you have an solutions? because i have the same Poblem (i also changed the serials)
TY

Reply

Jordan Silverman September 1, 2016 at 10:48 am

Okay, I've sorted this issue now. Now the next thing is that I am trying to send data from a current sensor in the loop() method. I can see that I am reading data but the MQTT.publish() method isn't working when called. Any idea why that is?

Here is my code:

```
void loop()
{

/*
You can write your code here
*/
if (MQTT.available())
{
unsigned int x=0;
float AcsValue=0.0, Samples=0.0, AvgAcs=0.0, AcsValueF=0.0;

for (int x = 0; x <150; x++){
AcsValue = analogRead(A0);
Samples = Samples + AcsValue;
delay (3);
}
AvgAcs=Samples/150.00;
AcsValueF = ((AvgAcs * ((5.0 / 1024.0)) – 2.5 )/0.185);
dtostrf(AcsValueF, 9, 5, stracsvalue);

MQTT.publish(1, 2, 1, MessageID+1, "gogo", stracsvalue);
Serial.println(stracsvalue);

}
```

Reply

G October 13, 2016 at 2:48 pm

How exactly have you sorted that issue? I'm stuck at CONNECT. Also changed hw and software serial ports.
Could you please send me some working files? THANKS in advance

Reply

Andrei October 26, 2016 at 9:39 am

The same issue. Is there any solution?

Guillermo Schimmel November 3, 2016 at 1:56 pm

I swapped serial and softwareserial and now it works. It has some glitches, like MQTT.available() not working. But I can at least use it.

Bojan Jovanvoic November 15, 2016 at 3:30 pm

Hey G, I get stuck on the same point (@ CONNECT) when I try to swap mySerial and Serial ports.
Would you be so kind to share you experience with me ? How did you resolve this swapping issue ?

Thanks in advance,
Bojan.

Guillermo Schimmel November 15, 2016 at 6:33 pm

Well, my experience was very variable and weird. It worked, it stopped working. I'm tired of the itead gboard. Perhaps the sim900 module is not so compatible. So I bought a couple of Arduino Uno's and a SIM800L in order to reproduce the exact setup. I will let you know as soon as I test it.

Bojan Jovanvoic November 15, 2016 at 7:54 pm

Thank you very much for your info, Guillermo! Appreciate it.

Guillermo Schimmel November 16, 2016 at 1:26 pm

Well, as I told you, I bought a SIM800L Module and it works like a charm. Evidently they are not so compatible.

I will continue with my project using SIM800L and later on if I have some spare time I will try to discover where to touch, as I have two itead gboards that I intend to use.

Ahmed September 6, 2016 at 9:23 am

Great job! Thanks for sharing. I manged to get it working using sim900 and arduino pro mini 3.3v 8mhz.
I have added those lines in (void GSM_MQTT::OnMessage) function to control the LED and later will add some relays for my project:

if (strcmp(Message, “on”) == 0) digitalWrite(13, HIGH);
if (strcmp(Message, “off”) == 0) digitalWrite(13, LOW);

I hope to see a tutorial on how to integrate this library with Blynk service.

Reply

Ahmed September 7, 2016 at 8:28 am

Thank you for sharing. I tried the library and it is working fine on arduino uno and SIM900 module. Is it possible to integrate it with Blynk service?
ive added these lines to (GSM_MQTT::OnMessage) function:
if (strcmp(Message, “on”) == 0) digitalWrite(13, HIGH);
if (strcmp(Message, “off”) == 0) digitalWrite(13, LOW);

Reply

Raoulos September 13, 2016 at 2:53 am

Hi,
Your work is awsome !
The good thing is the At commands are close to the A6 gsm/Gprs so i try to convert your library for the A6!
But i’ve a main problem because i can’t understand a big part of the Code:

```
case 3:
{
if (GSM_ReplyFlag != 7)
{
_tcpStatus = sendATreply("AT+CIPSTATUS\r\n", "+IPSTATUS:", 4000);
if (_tcpStatusPrev == _tcpStatus)
{
tcpATerrorcount++;
if (tcpATerrorcount >= 10)
{
tcpATerrorcount = 0;
_tcpStatus = 7;
}

}
else
{
_tcpStatusPrev = _tcpStatus;
tcpATerrorcount = 0;
}
}
_tcpStatusPrev = _tcpStatus;
mySerial.print(_tcpStatus);
switch (_tcpStatus)
{
case 2:
{

_sendAT("AT+CGDCONT=1,\"IP\",\"free\"\r\n", 5000);
break;
}
case 3:
{
//_sendAT("AT+CIICR\r\n", 5000) ;
_sendAT("AT+CGACT=1,1\r\n", 5000);
break;
}
case 4:
{
sendATreply("AT+CIFSR\r\n", ".", 4000) ;
break;
}
case 5:
{
Serial.print("AT+CIPSTART=\"TCP\",\"");
Serial.print(MQTT_HOST);
Serial.print("\",\"); //Change "\",\"" to "\","
Serial.print(MQTT_PORT);
if (_sendAT("\r\n", 5000) == 1) //Change "\"\r\n to "\r\n"
```

```
{
unsigned long PrevMillis = millis();
unsigned long currentMillis = millis();
while ( (GSM_Response != 4) && ((currentMillis – PrevMillis) < 20000) )
{
// delay(1);
serialEvent();
currentMillis = millis();
}
}
break;
}
```

I can't understand this part, how it works ?
What is the job of the MQTT.GSM_ReplyFlag ?
Specialy this one:

```
else if ((strstr(MQTT.inputString, " CONNECT OK") != 0) || (strstr(MQTT.inputString,
"CONNECT FAIL") != NULL) || (strstr(MQTT.inputString, "PDP DEACT") != 0))
{
MQTT.GSM_ReplyFlag = 7;
```

Because it's in this part something goes wrong:

```
^CINIT: 1, 0, 0

^CINIT: 2, 32, 41891

^CINIT: 8, 2048, 1

^CINIT: 16, 0, 1638450

^CINIT: 32, 0, 0

+CREG: 0

+CREG: 5
AT+CREG?

+CREG: 1,5

OK
AT+CGATT?

+CGATT:0

OK
AT+CGATT=1

COMMAND NO RESPONSE!
```

+CTZV:16/9/13,2:47:34,8

+CGREG: 5

OK
AT+CIPSTATUS

+IPSTATUS: IP INITIAL

OK
AT+CGDCONT=1,"IP","free"

OK
AT+CIPSTATUS

+IPSTATUS: IP INITIAL

OK
AT+CGDCONT=1,"IP","free"

OK
AT+CIPSTATUS

+IPSTATUS: IP INITIAL

OK
AT+CGDCONT=1,"IP","free"

OK
AT+CIPSTATUS

+IPSTATUS: IP INITIAL

OK
AT+CGDCONT=1,"IP","free"

OK
AT+CIPSTATUS

+IPSTATUS: IP INITIAL

OK
AT+CGDCONT=1,"IP","free"

Idk why it's blocked at AT+CGDCONT=1,"IP","free" Maybe because there is a link with the result of CIPSTATUS ?

Reply

elementzonline September 13, 2016 at 10:11 am

Hi there, you can consult SIM800 AT command documentation for more details.

Reply

Raoulos September 13, 2016 at 12:05 pm

Hi yes it's what i do but i cant find a real exemple of the CipStatus on internet for the Sim800 and i don't have this board so i cant know if the tcpStatus is basesd on the number gived in the State of each step for connectionn. Because in the A6 CipStatus response there is no numbers and in the Sim800 At commands there is a lot but idk if it's only a way to present the response in the pdf or if they are in the response when we write AT+CIPSTATUS

Bojan Jovanvoic November 8, 2016 at 11:27 pm

Hello there, the people from elementzonline!
You did a quite good job with this library, guys. It seems that the examples work smooth when downloaded on Arduino Uno.

What I would like to do in my project is the following:
– I need to publish some data on MQTT broker (I know the mqtt_host, mqtt_port, username, and password parameters of the broker). I was able to connect with the broker easily by using your connect(xxx) function.

However, I have a problem to publish data on the broker. I know that you have a function

GSM_MQTT::publish(char DUP, char Qos, char RETAIN, unsigned int MessageID, char *Topic, char *Message)

for that purpose. However, what I send through MQTT should be properly formatted (JSON format). There are two events (temperature and location). Both of them have their details:

# temperature
{
details: {
celsius: "50"

}
}

# location
{
details: {
latitude: '-25.572176',
longitude: '124.453125'
}
}

Here is how the data are sent by using a Ruby language:

event = {
uuid: "velo_1003",
event: {
event_type: 'location',
details: {
longitude: "24.437148",
latitude: "5.273438"
},
device_info: {
battery_status: "47"
}
}
}.to_json
=> "{\"uuid\":\"velo_1003\",\"event\":{\"event_type\":\"location\",\"details\":
{\"longitude\":\"24.437148\",\"latitude\":\"5.273438\"},\"device_info\":{\"battery_status\":\"47\"}}}"
client = MQTT::Client.connect(conn_opts)

client.publish(
'event',
event
)

My question is, what should I do to be able to properly send data from SIM900 !? Let's say that I would like to send just a GPS coordinates to the broker. i suppose that Topic parameter for the publish(xxx) function should be "location". What would be the content of the Message ?

Thank you very much for your time and effort to help me.

Sincerely,
Bojan.

Reply

Narendra Dehury November 17, 2016 at 5:04 am

Is it true that it won't work with SIM900 module. Can you please clarify?

Reply

elementzonline November 19, 2016 at 9:09 am

It will work with SIM800 and SIM900

Reply

Guillermo Schimmel November 21, 2016 at 1:28 pm

It's true. At least with the wiring on the ITEAD GBOARD. It works, but behaves weird. MQTT.available() won't work, and several other glitches.

Reply

Guillermo Schimmel November 21, 2016 at 1:45 pm

Perhaps I sounded a bit unpolite. I want to make clear that I'm loving this library. I like it so much that I bought Arduino UNOs and SIM800 in order to use it. And I'm waiting for the 20 itead gboard 800s that I purchased. Thank you guys, it is a great work.

Guillermo Schimmel February 1, 2017 at 1:29 pm

Everybody reading my comments, take them with caution. I discovered that I had some faulty simcards that allowed limited acces to the internet.

hoko@gmx.de December 26, 2016 at 12:49 pm

Hi there,

thank you very much for your great work.
Unfortunately, i had some problems. I extract the files in the library directory and it will be found.
If i try to compile your example sketch, i got some errors:

* with a standard ubuntu 16.04 with arduino 1.0.5, i got this error:
/home/gfr/sketchbook/libraries/GSM_MQTT/GSM_MQTT.cpp: In function ‘void serialEvent()’:
/home/gfr/sketchbook/libraries/GSM_MQTT/GSM_MQTT.cpp:671:25: error: ‘_delay_us’ was not declared in this scope
_delay_us(10);
^

* with the latest arduino 1.8.0, i got a lot of warnings, for example:
/home/gfr/arduino-1.8.0/libraries/GSM_MQTT/GSM_MQTT.cpp:154:43: warning: deprecated conversion from string constant to ‘char*’ [-Wwrite-strings]
_sendAT(“AT+CIICR\r\n”, 5000) ;

and finally, i got
home/gfr/arduino-1.8.0/libraries/GSM_MQTT/GSM_MQTT.cpp:154:43: warning: deprecated conversion from string constant to ‘char*’ [-Wwrite-strings]
_sendAT(“AT+CIICR\r\n”, 5000) ;

Do you have a hint for me? Thank you very much.

best regards

Reply

Huskar January 3, 2017 at 3:36 pm

Hello, thanks for your work. I have tested your library, It works fine on arduino.
I have a new board msp430, i’m using energia to program for it. Energia like Arduino.
But when I edit your library your library and use it for energia. My project NOT working. When i look at SoftwareSerial for debug information, it looks like this:
OK
AT
ATE1

OK
AT+CREG?

```
OK

+CREG: 0,1

OK
AT+CIPMUX=0
AT+CIPMODE=1

ERROR
AT+CGATT?

+CGATT: 1

OK
AT+CIPSTATUS

OK

STATE: CONNECT OK
AT+CIPSHUT

SHUT OK
AT

OK
ATE1

OK
AT+CREG?

+CREG: 0,1

OK
AT+CIPMUX=0
AT+CIPMODE=1

OK
AT+CGATT?

OK

+CGATT: 1

OK
AT+CIPSTATUS

OK
```

STATE: IP INITIAL
AT+CSTT=”AIRTELGPRS.COM”

OK
AT+CIPSTATUS

OK

STATE: IP START
AT+CIICR

OK
5EQUM
OK

STATE: IP GPRSACT
AT+CIFSR

10.91.209.18
AT+CIPSTATUS

OKTE: IP STATUS
AT+CIPSTATUS

OK

STATE: IP STATUS
AT+CIPSTART=”TCP”,”m13.cloudmqtt.com”,”15571″

OK
¡¨ÊÊ
Q
CLOSED
AT+CIPSTATUS

OK

STATE: TCP CLOSED
AT+CIPSTART=”TCP”,”m13.cloudmqtt.com”,”15571″

OK
99
Q

Do you have any idea for my proplem ??????

Reply

sam January 29, 2017 at 3:23 pm

Hii Huskar (and hopefully Elementzonline),
You said you have tested the library and it was fine with arduino.
I am wondering how did you connect the SIM800L to the arduino board?
Did you make any changes to the library ?

Because unless I swap Serial to mySerial and vice versa, the library just doesn't work.
Even if I did swap, the whole thing sometimes just stop at TCP_Flag = true.

I think serialEvent() is not firing properly.

I am using arduino nano board.
Need some help please.

thx

Reply

Guillermo Schimmel February 1, 2017 at 1:15 pm

Hi sam. This may be of use to you.

I had the same behaviour and it ended being the GSM sim cards that my provider gave me. The prepaid type had some filter that allowed the tcp connect (syn, syn ack, ack) but nothing more. The "postpaid", with invoice, work great.

Try to test the simcards in another environment, a.k.a. with a smartphone and MQTT app.

Regards

sam February 1, 2017 at 4:38 pm

Hi Guillermo,
I am guessing you have successfully run mqtt-sim800-arduino using the original source code right ?
How did you connect the modem to arduino ? (which pin)
And are you able to see the logging console at the same time without confusing the serial communication?

I have managed to make it run but I have to modify the codes:
1. communicating to the modem using “mySerial” (modem is connected to pin 10 and 11) and console log using “Serial” (In other words, I replaced all “Serial” to “mySerial”, and vice verca)
2. added serial data checking in “mySerial” inside GSM_MQTT::processing and GSM_MQTT::available functions and if data is available call serialEvent() (I have to do this because in the original code serialEvent never get called when there is data coming in from the modem)

Mert GUNDOGDU March 6, 2017 at 1:51 pm

hi Sam,
i did same stuff you did on step on. replaces mySerial with Serials. but i dont get the second step? so i`m still stuck on
MQTT.TCP_Flag = True
i have same setup nano & sim800L USING 10,11 RX,TX could you please guide me on this?

Reply

Newumal March 23, 2017 at 4:30 am

Hi Huskar,
Can you send me your working code ? I changed only “HOST ” ,” PORT” =”1883″ , Topic and massage in Originall Publish code. I can see CONNECT OK , But not update my MQTT sever ?
Can U plz help me?

Thankx….

Reply

Gerard January 25, 2017 at 3:31 pm

Hi Guys, great job with the library, but i am also having problems with changing it for a SIM900. i have modified the serial ports etc and that all seems good. The below is what I get in the debug print. Can anyone help me please. The SIM900 is on serial2

OK
AT+CREG?

+CREG: 0,4

OK

+PACSP: 1
AT+CREG?

+CREG: 0,2

OK
AT+CREG?

+CREG: 0,1

OK
AT+CIPMUX=0
AT+CIPMODE=1

OK
AT+CGATT?

+CGATT: 0

OK
AT+CGATT=1

OK
AT+CIPSTATUS

OK

STATE: IP INITIAL
AT+CSTT=”everywhere”,”eesecure”,”secure”

OK
AT+CIPSTATUS

OK

STATE: IP START
AT+CIICR

OK
AT+CIPSTATUS

OK

STATE: IP GPRSACT
AT+CIFSR

10.188.223.216
AT+CIPSTATUS

OK

STATE: IP STATUS
AT+CIPSTART=”TCP”,”www.listo-portal.com”,”1883″

OK
AT+CIPSTATUS

OK

STATE: TCP CONNECTING

CONNECT OK
AT+CIPSTATUS

OK

STATE: CONNECT OK
AT+CIPSHUT

Reply

ZImb January 26, 2017 at 9:53 am

Hello,

i have tryed to Change the Code to Use Arduino Mega 2560 with HW-Serial.
Can someone post a valid Code with HW-Serial Configuration?

Greetings

Reply

Guillermo Schimmel February 1, 2017 at 1:22 pm

I think the code as-is uses HW Serial for arduino-sim800 communication.

Reply

Anydy February 13, 2017 at 12:02 pm

Hello! Help a newbie. I do not understand where to write the name of the access point, user name and password for my operator? AP, username, passvord?

Reply

Yashvant Phavade February 14, 2017 at 7:17 am

Hi,

Thanks to elementzonline for this great work.

I have tested this library to publish & subscribe messages.

I need help in following things
1. How would i get the acknowledgement of published messages?
2. When everything is working fine & i remove the power supply of SIM800 module still library give me MQTT.available(). is there any way to recognize whether module is connected, lost network or hang.
3. Also some times it got stuck in loop of CIPSTATUS giving STATE: IP START then i have to restart the system.

Reply

Newumal March 23, 2017 at 4:24 am

Hi…
what is the “AIRTELGPRS.COM” ….? in below mentioned part of code. what it is important in code?
And, is it change to my website or not ?

STATE: IP INITIAL
AT+CSTT=”AIRTELGPRS.COM”

OK

Reply

Guillermo Schimmel March 23, 2017 at 6:00 pm

apparently it should be the network operator's apn. In practice you can put any string there, It won't make a difference.

Reply

Joseph March 24, 2017 at 9:21 am

Hi, i try to use the lib sim900 with arduino, but i can communicate gsm with arduino.
So when Ardunino sends AT, arduino not receive a response from sim900.
connection :
SoftwareSerial mySerial(2, 3); // RX, TX
GSMTX ——> D2
GSMRX ——> D3

Reply

esawyja March 29, 2017 at 11:59 am

Hi
With the mysensors.org development, they use a serial gateway which receives the sensor values and then send the mqtt with an ethernet cable to the broker, my question is, they use 2 modules W5100 or the ENC28J60 for the TCP/IP stack, could this be replaced with a SIM800 module that will send mqtt to a cloud based server via GSM? Please see https://www.mysensors.org/build/ethernet_gateway and https://www.mysensors.org/build/mqtt_gateway , I'm desperate to get this to work, so if you can give me some advice, I would appreciate it
Regards

Reply

satyam June 3, 2017 at 11:18 am

hi, I am an beginner to MQTT and GSM tech, could anybody provide with an detailed tutorial on how to go on about using this library tht would be great.

Reply

Yashvant Phavade June 12, 2017 at 9:17 am

HI
Is there any way to send data more than 50 character at a time.
I am facing issues while sending data more than 50 characters.

Reply

ravi butani August 22, 2017 at 4:36 pm

step1: browse to arduino-1.8.2\hardware\arduino\avr\cores\arduino from your arduino installation folder
step2: open HardwareSerial.h
step3: find this line #define SERIAL_RX_BUFFER_SIZE 64
step4: change 64 to 150 or even high
step5: in GSM_MQTT.h find these three line..
#define UART_BUFFER_LENGTH 300 //Maximum length allowed for UART data
#define TOPIC_BUFFER_LENGTH 50 //Maximum length allowed Topic
#define MESSAGE_BUFFER_LENGTH 250 //Maximum length allowed data
and update buffer sizes as required…
thats it…

Reply

MonibSaadi July 31, 2017 at 8:58 am

I just downloaded the library. I don't know how to publish a message from my Arduino to broker mosquitto. How to use the functions and stuff. Can anyone help ?

Reply

shubhamsharmaa001 August 20, 2017 at 4:44 am

Hi can I use it with the adafruit MQTT server ? i am able to connect to the server but then it disconnects automatically

Reply

ravi butani August 22, 2017 at 4:38 pm

If MQTT Broker (server) is working on 8883 port (SSL/TSL encrypted) than it will not work as it is…

Reply

Giselle March 1, 2020 at 3:02 pm

Hi yes you can use this with an adafruit server. I've been doing that for a couple months now and it mostly works good.

Reply

shubhamsharmaa001 October 12, 2017 at 9:55 am

what to do to implement SSL/TLS IN SIM800 with MQTT?

Reply

A Rajib Kumar Gupta December 19, 2017 at 1:44 pm

I am trying the code with Arduino UNO. It is continuously printing +++AT on the serial console. Can anyone please help me in finding the problem ?

Thanks

Reply

elementzonline December 26, 2017 at 4:00 am

Go through issues session in the GitHub repository for more details. There are similar issues raised and already solved..

Reply

Giselle March 1, 2020 at 3:06 pm

Have you tried debugging by talking to your sim module directly? You can use putty such as TeraTerm along with a serial to USB module to test your module and make sure the AT commands are successful. This USB to serial device is also known as an FTDI board. You can get one cheap on amazon. That along with TeraTerm is a must have when using these GSM modules.

Reply

gagan December 12, 2018 at 1:09 am

please, sir, can you tell me is this library compatible with the cloud MQTT broker ????

Reply

elementzonline February 16, 2019 at 6:58 pm

yes, should be working fine since mqtt protocol is an open standard..

Reply

Pingback: 15 Arduino Blogs And Websites You Would Love to Know About | Engineering Blog

Basile February 12, 2019 at 10:04 pm

Hi,

First, thank you for the sharing of your library.

Unfortunately, I'm not able to use it. When i try to add the ZIP file in Arduino I get some error (specified file does not contain valid library). So I tried to add in manually in the library folder

keeping only the .h and .cpp file but when I try to compile I get a lot of error warnings.

For example: C:\Users\bpi\Documents\Arduino\Programmes\GSMMQTT\GSMMQTT.ino:22:57: warning: ISO C++ forbids converting a string constant to 'char*' [-Wwrite-strings]

I'm trying to use my Arduino as a gateway from Modbus to MQTT (using 3G and the SIM800L EVB) in order to send data to some dashboards online.

Do you have any solution for my problem?

Cheers,

Basile

Reply

Marko Mandaric March 4, 2019 at 4:16 am

Hi there, how much work would it take to make this work on the SIM5320?

Reply

elementzonline March 5, 2019 at 1:53 pm

Hi Marko Mandaric,

First note the changes in the AT commands, then you need to implement the AT command changes in the code. As the MQTT protocol is standard, there should not be any incompatibility,

Reply

Marko Mandaric May 10, 2019 at 4:28 am

We might be interested in contracting someone to do just that, as I suspected it isn't a huge element of work. Would you/Element be interested? Please contact me at my email. (My apologies for not responding sooner, I never noticed your reply)

elementzonline May 13, 2019 at 9:16 am

We are interested, please comment your email ID.

Nadjib Jipou May 14, 2019 at 3:46 am

Hi Guys , there anyone who work with this library to publish to IBM Bluemix ?? i need some help How i can Use This library in my Project ;

Reply

Sebuhi Shukurov July 24, 2019 at 3:59 pm

Hello there!

We have a problem with serial communication, we send AT but we dont receive any response from GSM module (we are using SIM900) serialevent function does not change value of GSM_response. Plus we want to clarify, for what purposes you have used Hardware and Software Serial, which one is for GSM module.
Could you please help us indeed, why this happens?

Reply

elementzonline October 21, 2019 at 10:28 pm

Please open issue in GitHub repository. Someone will be there to help you. For easy usage of MQTT stack you can use SIM7600 instead.

https://www.elementzonline.com/sim7600e-4g-gsm-ttl-usb-modem-with-sma-antenna

Reply

mattia October 10, 2019 at 8:58 pm

hello there!
i have correctly installed my library on arduino 1.8.8 and i have icluded my libraries from the “include library” menu, but the ide continue to show me this message: “in file included from: c:/users/mattia/documents/arduino/[namesketch]/[namesketch].ino:0:1: c:/users/mattia/documents/arduino/libraries/[name_of_this_libraries_directory]/[name_of_this_library]:19:18: fatal error: string: no such file or directory. please help me!

Reply

elementzonline October 30, 2019 at 11:10 pm

try copying the files to your sketch folder and restart Arduino IDE

Reply

Gune_on3 October 21, 2019 at 12:24 pm

any one try wih thingspeak ?

Reply

Muhammed Imdaad March 4, 2021 at 8:48 am

How to use QoS 1, 2 in MQTT. I couldn’t find a code snippet that waits for the ACKs and send a duplicate or discard the message. Can anyone help me in?? Thank you

Reply

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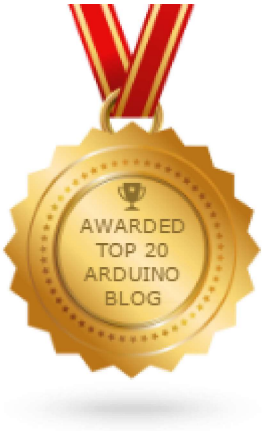

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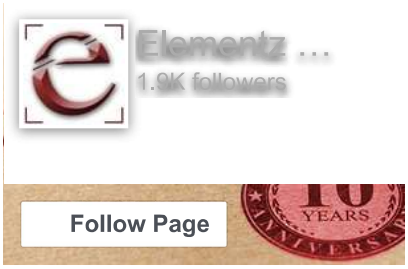

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Archives

February 2016

January 2016

December 2015

November 2015

October 2015

September 2015

August 2015

July 2015

May 2015

April 2015

March 2015

February 2015

January 2015

December 2014

November 2014

October 2014

September 2014

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May 2014

February 2014

January 2014

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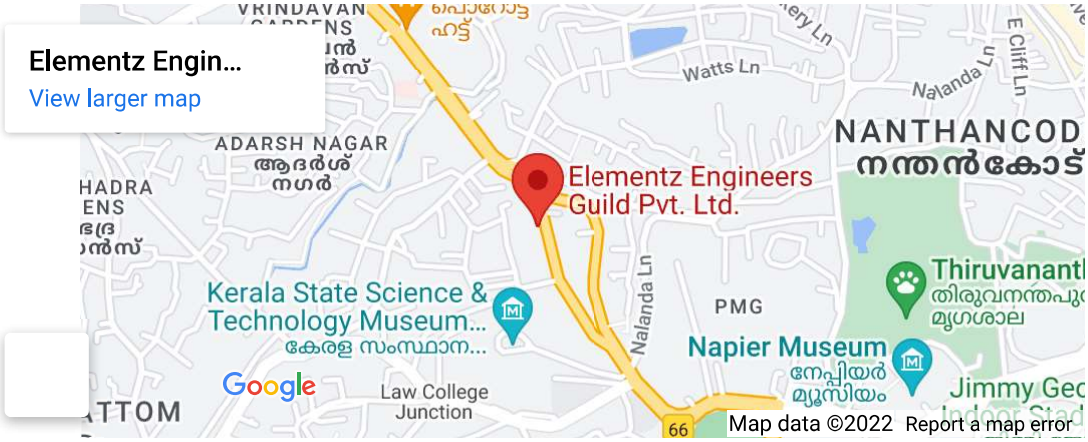

Elementz Engineers Guild Pvt. Ltd.
Rema Plaza, T. C. 25/1655/5,, SS Kovil Rd, Thampanoor, Thiruvananthapuram, Kerala 695001
+91-471-6006699, +91-471-3106622, +91-9020616699, +91-9020716699
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