

How to install and use Mosquitto for Windows

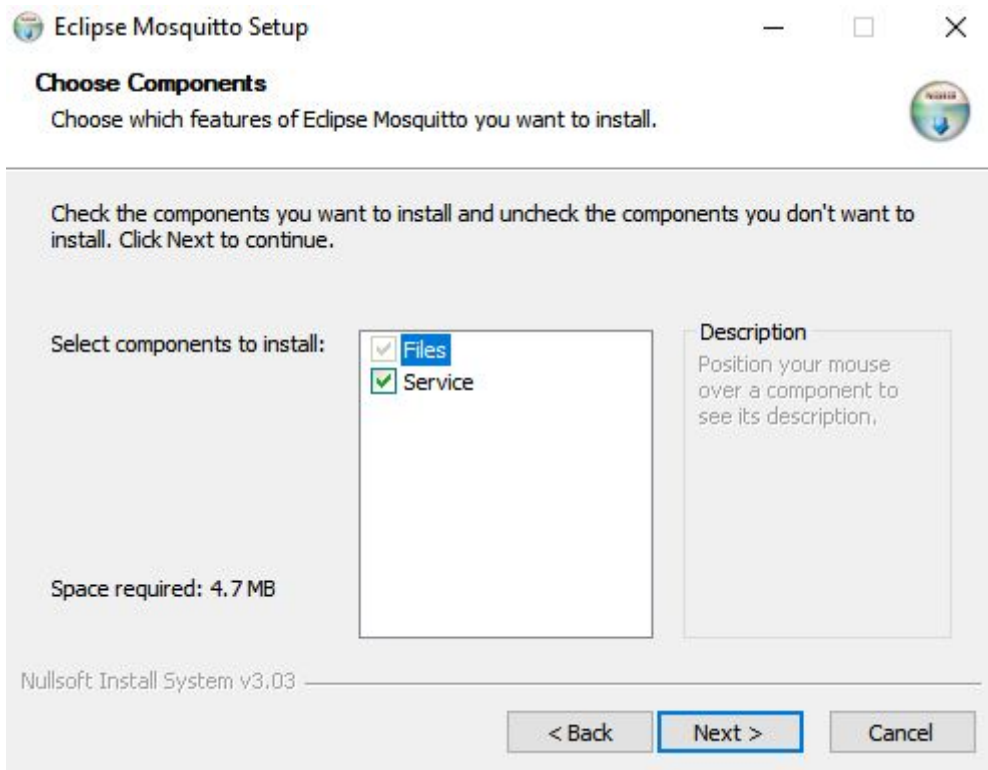
Introduction

Mosquitto is an application for the MQTT protocol. It can be used as a broker, subscriber and publisher.

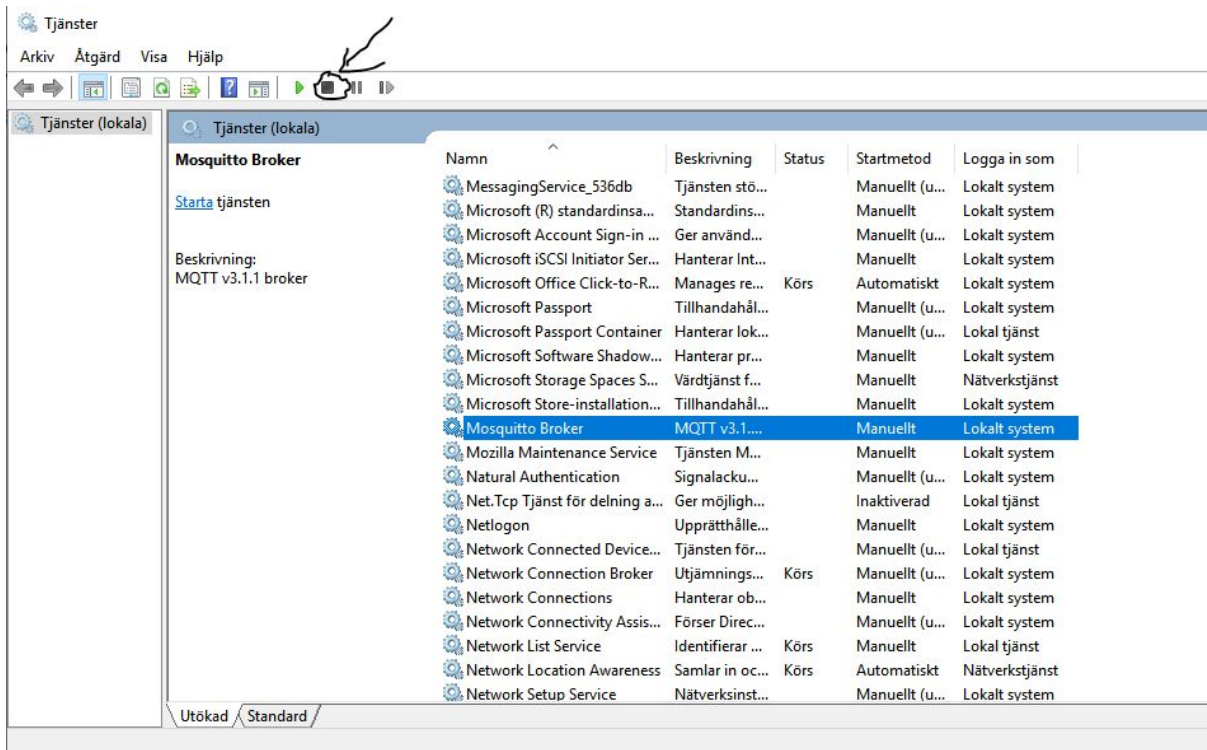
This guide will covers how to use Mosquitto as an application, not as a Windows service.

Installation

Download Mosquitto from <https://mosquitto.org/download/> and install it.



If you install it with the “Service” checkbox checked, it will start automatically with Windows and **occupy the default port 1883**.



If you installed Mosquitto this way you can disable the service by going into the *Services* menu in Windows and pressing the stop button with the *Mosquitto Broker* selected.

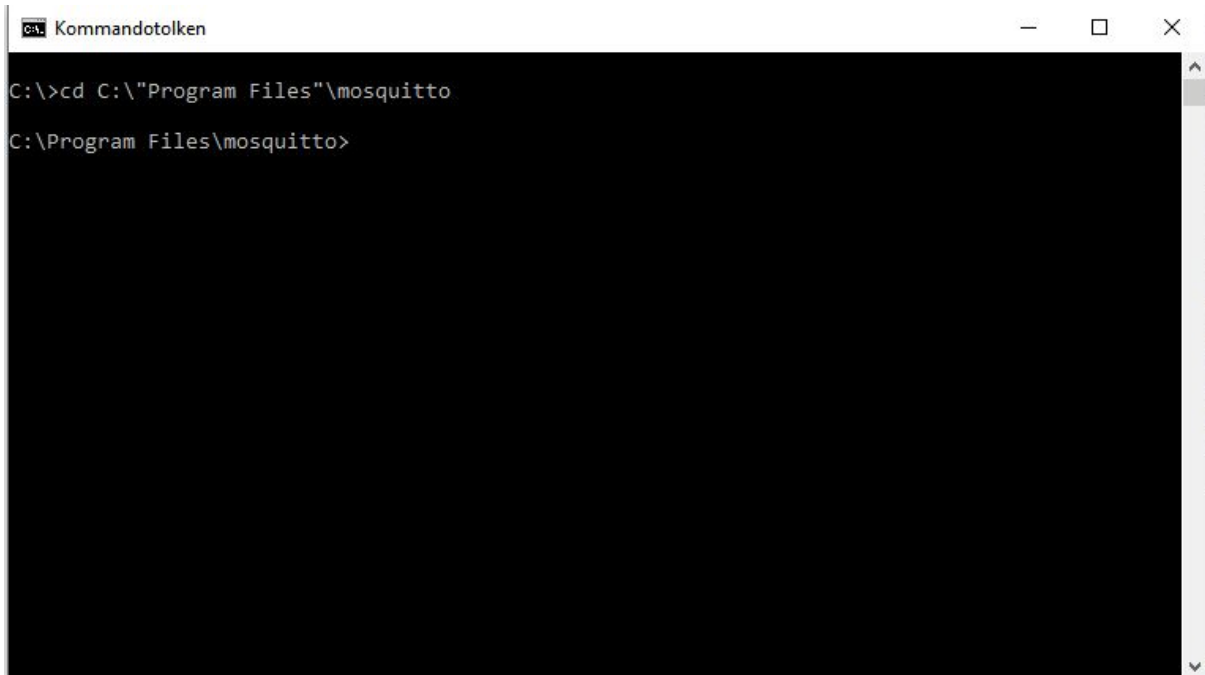
Namn	Senast ändrad	Typ	Storlek
devel	2019-04-23 13:43	Filmapp	
aclfile.example	2019-04-17 21:54	EXAMPLE-fil	1 kB
ChangeLog.txt	2019-04-17 21:54	Textdokument	87 kB
edl-v10	2019-04-17 21:54	Fil	2 kB
epl-v10	2019-04-17 21:54	Fil	12 kB
libcrypto-1_1-x64.dll	2019-02-26 20:12	Programtillägg	3 327 kB
libssl-1_1-x64.dll	2019-02-26 20:12	Programtillägg	666 kB
mosquitto.conf	2019-04-17 21:54	CONF-fil	44 kB
mosquitto.dll	2019-04-17 22:18	Programtillägg	80 kB
mosquitto.exe	2019-04-17 22:18	Program	295 kB
mosquitto_passwd.exe	2019-04-17 22:17	Program	20 kB
mosquitto_pub.exe	2019-04-17 22:18	Program	47 kB
mosquitto_sub.exe	2019-04-17 22:18	Program	48 kB
mosquittoptop.dll	2019-04-17 22:18	Programtillägg	18 kB
pwfile.example	2019-04-17 21:54	EXAMPLE-fil	1 kB
readme.md	2019-04-17 21:54	MD-fil	4 kB
readme-windows.txt	2019-04-17 21:54	Textdokument	3 kB
Uninstall.exe	2019-04-23 13:43	Program	65 kB

The default installation path will be: *C:\Program Files\mosquitto*
 The directory should look like this if the program installed correctly.

Usage

The installation path is by default: *C:\Program Files\mosquitto*

Navigate to the folder with cmd.exe using **cd C:\Program Files\mosquitto**



```
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C:\>cd C:\Program Files\mosquitto
C:\Program Files\mosquitto>
```

Running the broker

Running the command **mosquitto.exe -v** will start the broker and put it in *verbose* mode, enabling debug messages etc.

```
Kommandotolken - mosquitto.exe -v

C:\Program Files\mosquitto>mosquitto.exe -v
1556788613: mosquitto version 1.6.0 starting
1556788613: Using default config.
1556788613: Opening ipv6 listen socket on port 1883.
1556788613: Opening ipv4 listen socket on port 1883.
```

The broker is now running, any connecting subscribers or published messages will show up as prints in this window.

```
Kommandotolken - mosquitto.exe -v

C:\Program Files\mosquitto>mosquitto.exe -v
1556788613: mosquitto version 1.6.0 starting
1556788613: Using default config.
1556788613: Opening ipv6 listen socket on port 1883.
1556788613: Opening ipv4 listen socket on port 1883.
1556788787: New connection from ::1 on port 1883.
1556788787: New client connected from ::1 as mosq/jwXv0qQ2x6gkG9Udxs (p2, c1, k60).
1556788787: No will message specified.
1556788787: Sending CONNACK to mosq/jwXv0qQ2x6gkG9Udxs (0, 0)
1556788787: Received SUBSCRIBE from mosq/jwXv0qQ2x6gkG9Udxs
1556788787:     testTopic (QoS 0)
1556788787: mosq/jwXv0qQ2x6gkG9Udxs 0 testTopic
1556788787: Sending SUBACK to mosq/jwXv0qQ2x6gkG9Udxs
```

When a subscriber subscribes to your broker, it will look something like this.

Running the subscriber

Running the command `mosquitto_sub.exe -t *your topic here*` will start the subscriber and subscribe to the topic specified instead of **your topic here**.

If not specified, the default IP is your local IP.

If not specified, the default port is 1883

```
cmd Kommandotolken - mosquitto_sub.exe -t testTopic  
C:\Program Files\mosquitto>mosquitto_sub.exe -t testTopic
```

This subscriber is now subscribed to the topic **testTopic** on the broker running on the local IP on port 1883.

To subscribe to another IP and/or another port use **-h *IP here* -p *port here*** as additional arguments when starting mosquitto_sub.exe

```
cmd Kommandotolken - mosquitto_sub.exe -t testTopic -h 140.2.66.130 -p 1234  
C:\Program Files\mosquitto>mosquitto_sub.exe -t testTopic -h 140.2.66.130 -p 1234
```

This broker is now subscribed to the topic **testTopic** on ip **140.2.66.130** on port **1234**.

Using the additional argument **-d** will enable debug prints.

Running the publisher

Running the command `mosquitto_pub.exe -t *your topic here* -m ""your message here""` will start the publisher and send a message to the topic specified with the message specified.

If not specified, the default IP is your local IP.

If not specified, the default port is 1883

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```
C:\Program Files\mosquitto>mosquitto_pub.exe -t testTopic -m "Test message"
C:\Program Files\mosquitto>
```

This publisher has just sent a message to the broker on my local computer, on port 1883, on topic **testTopic** with the message **Test message**.

To publish to another IP and/or another port use `-h *IP here* -p *port here*` as additional arguments when starting `mosquitto_pub.exe`

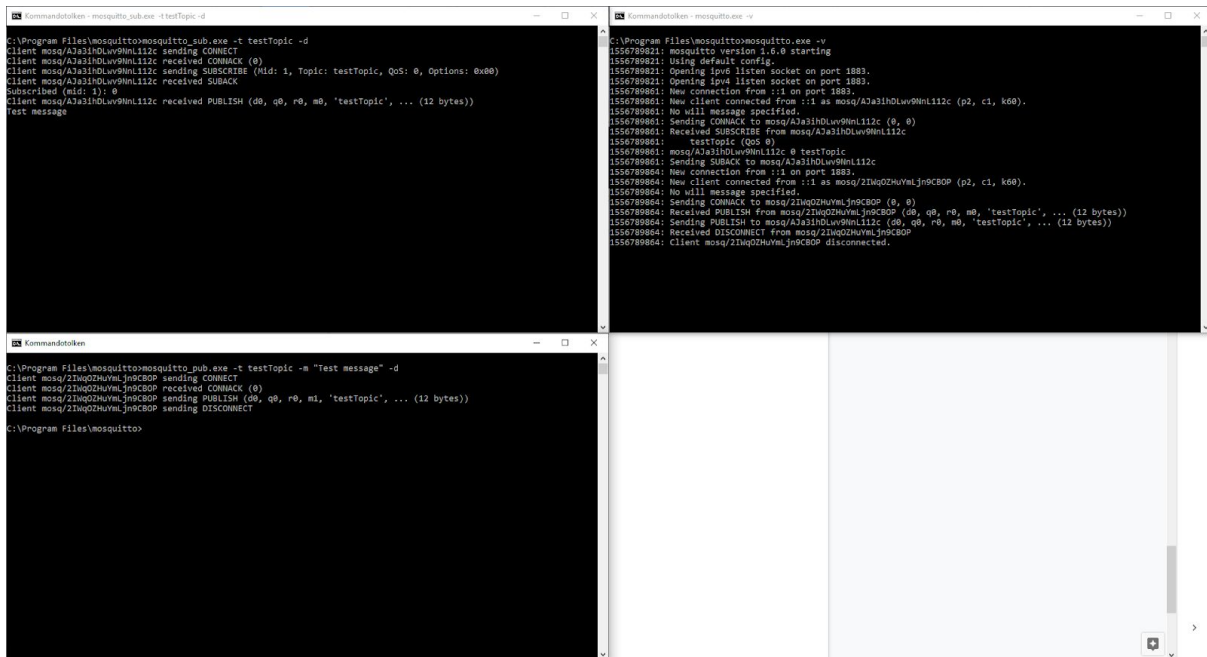
Using the additional argument `-d` will enable debug prints.

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```
C:\Program Files\mosquitto>mosquitto_pub.exe -t testTopic -m "Test message" -d
Client mosq/eb3j8nDEEa6tELTqQn sending CONNECT
Client mosq/eb3j8nDEEa6tELTqQn received CONNACK (0)
Client mosq/eb3j8nDEEa6tELTqQn sending PUBLISH (d0, q0, r0, m1, 'testTopic', ... (12 bytes))
Client mosq/eb3j8nDEEa6tELTqQn sending DISCONNECT
C:\Program Files\mosquitto>
```

This publisher just sent the same as above, although this time with debug messages enabled.

Broker, sub and pub all working together



```

C:\Program Files\mosquitto>mosquitto_sub.exe -t testTopic -d
Client mosq/A3a31HDLv9Ml112c sending CONNECT
Client mosq/A3a31HDLv9Ml112c received CONNACK (0)
Client mosq/A3a31HDLv9Ml112c sending SUBSCRIBE (Mid: 1, Topic: testTopic, QoS: 0, Options: 0x00)
Client mosq/A3a31HDLv9Ml112c received SUBACK
Subscribed (mid: 1): 0
Client mosq/A3a31HDLv9Ml112c received PUBLISH (d0, q0, r0, m0, 'testTopic', ... (12 bytes))
Test message

C:\Program Files\mosquitto>mosquitto.exe -v
1556789821: mosquitto version 1.6.0 starting
1556789821: Using default config.
1556789821: Opening ipv6 listen socket on port 1883.
1556789821: Opening ipv4 listen socket on port 1883.
1556789881: New connection from ::1 on port 1883.
1556789881: New client connected from ::1 as mosq/A3a31HDLv9Ml112c (p2, c1, k06).
1556789881: No will message specified.
1556789881: Sending CONNACK to mosq/A3a31HDLv9Ml112c (0, 0)
1556789881: Received SUBSCRIBE from mosq/A3a31HDLv9Ml112c
1556789881: testTopic (QoS 0)
1556789881: mosq/A3a31HDLv9Ml112c 0 testTopic
1556789881: Sending SUBACK to mosq/A3a31HDLv9Ml112c
1556789884: New connection from ::1 on port 1883.
1556789884: New client connected from ::1 as mosq/21mq02HvMlJn9CBOP (p2, c1, k06).
1556789884: No will message specified.
1556789884: Sending CONNACK to mosq/21mq02HvMlJn9CBOP (0, 0)
1556789884: Received PUBLISH from mosq/A3a31HDLv9Ml112c (d0, q0, r0, m0, 'testTopic', ... (12 bytes))
1556789884: Sending PUBLISH to mosq/21mq02HvMlJn9CBOP (d0, q0, r0, m0, 'testTopic', ... (12 bytes))
1556789884: Received DISCONNECT from mosq/21mq02HvMlJn9CBOP
1556789884: Client mosq/21mq02HvMlJn9CBOP disconnected.

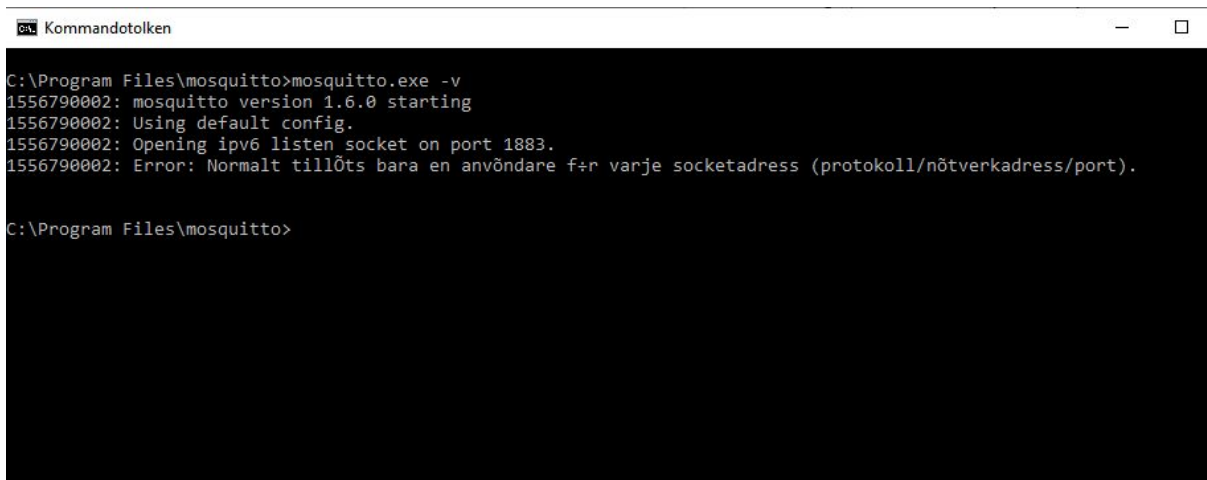
C:\Program Files\mosquitto>mosquitto_pub.exe -t testTopic -m "Test message" -d
Client mosq/21mq02HvMlJn9CBOP sending CONNECT
Client mosq/21mq02HvMlJn9CBOP received CONNACK (0)
Client mosq/21mq02HvMlJn9CBOP sending PUBLISH (d0, q0, r0, m1, 'testTopic', ... (12 bytes))
Client mosq/21mq02HvMlJn9CBOP sending DISCONNECT

C:\Program Files\mosquitto>

```

A printscreen of all 3 different programs running one on a computer. The broker in the top right, subscriber in top left and publisher in bottom left.

Troubleshooting



```

C:\Program Files\mosquitto>mosquitto.exe -v
1556790002: mosquitto version 1.6.0 starting
1556790002: Using default config.
1556790002: Opening ipv6 listen socket on port 1883.
1556790002: Error: Normalt tillöts bara en användare för varje socketadress (protokoll/nätverkadress/port).

C:\Program Files\mosquitto>

```

If you get an error telling you that “normally only one user is allowed per socket address (protocol/network address/port)” you might have another application already running, listening on port 1883. Check if you already have another cmd window with a broker running on the same port. Alternatively a Mosquitto broker might be running already as a service. Scroll up to the **installation section** of this guide to see how to fix this.