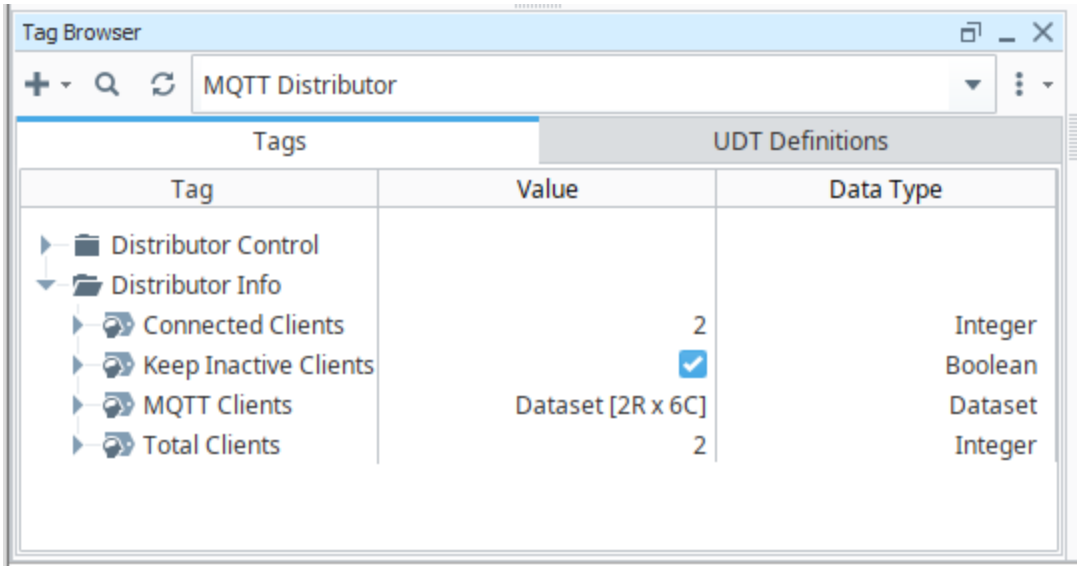
How do I know how many MQTT clients are connected to MQTT Distributor

Details about MQTT Clients connected to MQTT Distributor can be found in the Distributor Info folder in the MQTT Distributor tag provider.

> Distributor Info tags were expanded in v4.0.18 to provide information about each connected client



where:

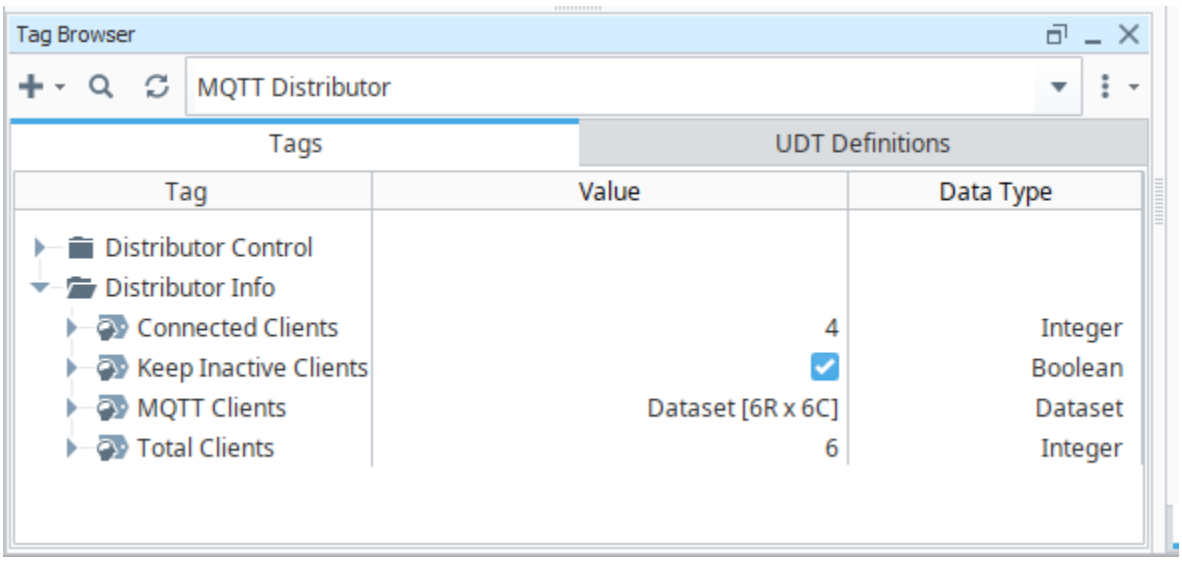
Name	Data Type	Description
Connected Clients	Integer	The number of the MQTT Clients currently connected
Keep Inactive Clients	Boolean	A writeable tag that controls whether to include inactive clients in Distributor Info tags (available 4.0.18 onward)
MQTT Clients	Dataset String Array String Array String Array Boolean Array DateTime Array DateTime Array	A dataset containing information about each connected client (available 4.0.18 onward). The following Column Names are included the dataset: ClientId Username IP Address Connected Last Connect Time Last Disconnect Time
Total Clients	Integer	The total number of clients that have connected since the last MQTT Distributor restart (available 4.0.18 onward)

Executing the code below in the Ignition Script Console will print out the values in the MQTT Clients dataset for review:

```
print ("Number of Connected Clients: " + str(system.tag.readBlocking("[MQTT Distributor]Distributor Info
/Connected Clients")[0].value))
print ("Keep Inactive Clients: " + str(system.tag.readBlocking("[MQTT Distributor]Distributor Info/Keep
Inactive Clients")[0].value))
print ("Total clients that have connected since last MQTT Distributor restart: " + str(system.tag.readBlocking
("[MQTT Distributor]Distributor Info/Total Clients")[0].value))

clients = system.dataset.toPyDataSet(system.tag.readBlocking("[MQTT Distributor]Distributor Info/MQTT Clients")
[0].value)
print ("MQTT Client details:")
for row in clients:
        data = []
        data.append(["Client ID", row[0]])
        data.append(["Username", row["Username"]])
        data.append(["IP Address", row["IP Address"]])
        data.append(["Connected", row["Connected"]])
        data.append(["Last Connect Time", row["Last Connect Time"]])
        data.append(["Last Disconnect Time", row["Last Disconnect Time"]])
        print data
```

Example result from the Distributor Info > MQTT Clients




```
>>>
Number of Connected Clients: 4
Keep Inactive Clients: True
Total clients that have connected since last MQTT Distributor restart: 6
MQTT Client details:
[['Client ID', u'MT-abf45d02-4c23-4489'], ['Username', u'admin'], ['IP Address', u'127.0.0.1'], ['Connected',
False], ['Last Connect Time', Fri Sep 22 16:01:43 CDT 2023], ['Last Disconnect Time', Fri Sep 22 16:04:32 CDT
2023]]
[['Client ID', u'ME-d631ab45-4466-42f0'], ['Username', u'admin'], ['IP Address', u'127.0.0.1'], ['Connected',
True], ['Last Connect Time', Fri Sep 22 16:01:42 CDT 2023], ['Last Disconnect Time', None]]
[['Client ID', u'MT-6697e6f5-35fe-471f'], ['Username', u'admin'], ['IP Address', u'127.0.0.1'], ['Connected',
True], ['Last Connect Time', Fri Sep 22 16:04:34 CDT 2023], ['Last Disconnect Time', None]]
[['Client ID', u'MT-12c7ca46-e2ec-416c'], ['Username', u'admin'], ['IP Address', u'127.0.0.1'], ['Connected',
False], ['Last Connect Time', Fri Sep 22 16:01:43 CDT 2023], ['Last Disconnect Time', Fri Sep 22 16:04:32 CDT
2023]]
[['Client ID', u'MT-04edd7b9-b7ad-455d'], ['Username', u'admin'], ['IP Address', u'127.0.0.1'], ['Connected',
True], ['Last Connect Time', Fri Sep 22 16:04:34 CDT 2023], ['Last Disconnect Time', None]]
[['Client ID', u'MT-RPC-73ecfe46-2a63-41'], ['Username', u'admin'], ['IP Address', u'127.0.0.1'], ['Connected',
True], ['Last Connect Time', Fri Sep 22 16:04:32 CDT 2023], ['Last Disconnect Time', Fri Sep 22 16:04:32 CDT
2023]]
>>>
```

Additional Information on MQTT Engine and Transmission Clients

MQTT Engine Clients

MQTT Engine has two potential client connections per MQTT Server setting.

One, with ClientId in the format ME-xxxxxxx-xxxx-xxxx, will publish the v3.0.0 Sparkplug™ B STATE message which will be initiated by default.

A second optional client, with ClientId in the format ME-LS-xxxxxxxx-xxxx-xx, is available to publish the legacy Sparkplug™ B STATE message and is disabled by default.

> See How do I know how many MQTT Clients are connected from MQTT Engine for additional information

MQTT Transmission Clients

Each Sparkplug Edge Node Descriptor (which is the Group ID and Edge Node ID combination) will create an MQTT client.

For example, a single Transmitter configuration with the following Sparkplug Edge Node Descriptors will result in three Sparkplug MQTT clients:

Group1/EdgeNode1
Group1/EdgeNode2
Group2/EdgeNode1

A Transmission ClientId is in the format MT-xxxxxxxx-xxxx-xxxx

The MQTT Transmission Transmitters and Tag Trees document describes how transmitters and tag trees can be arranged, which in turn will define how many MQTT clients get created from a single Transmission instance.

In addition, MQTT Transmission supports an optional RPC Client, ClientId MT-RPC-xxxxxxxx-xxxx-xxxx, which is used when publishing from Ignition Python scripts. This is enabled by default.

> See How do I know how many MQTT clients are connected from MQTT Transmission for additional information

Additional Resources

- Inductive Automation's Ignition download with free trial
  - Current Ignition Release
- Cirrus Link Solutions Modules for Ignition
  - Ignition Strategic Partner Modules
- Support questions
  - Check out the Cirrus Link Forum: https://forum.cirrus-link.com/
  - Contact support: support@cirrus-link.com
- Sales questions
  - Email: sales@cirrus-link.com
  - Phone: +1 (844) 924-7787
- About Cirrus Link
  - https://www.cirrus-link.com/about-us/