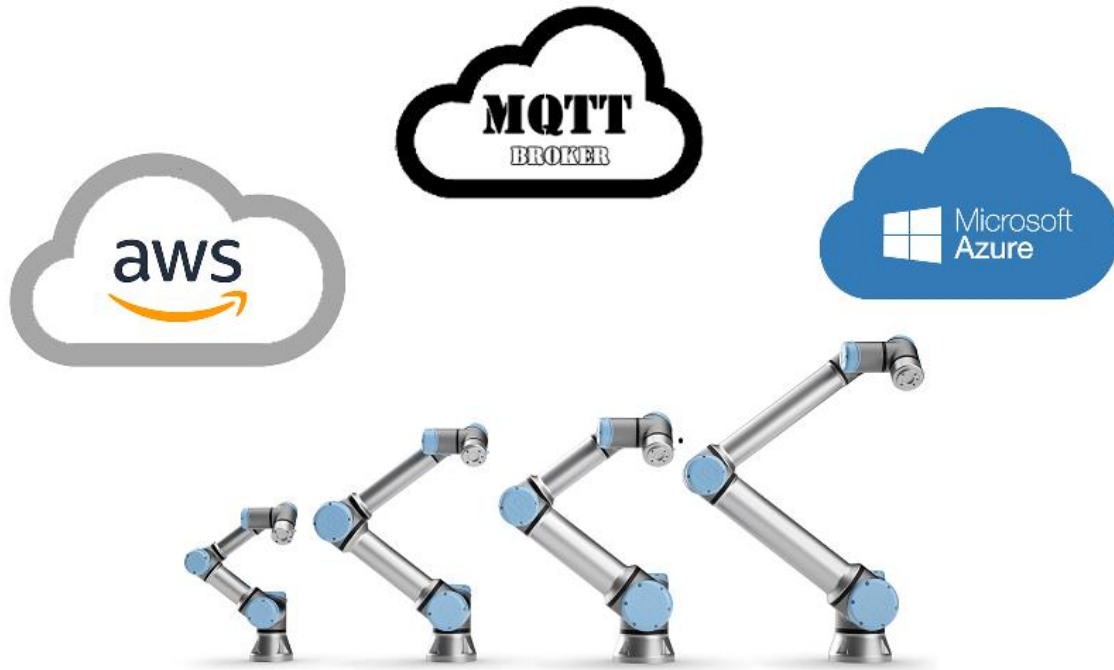


Introduction

The Cloud Connector is an URCap made for Universal Robot robots. It makes it possible to publish and subscribe data from the robot to Microsoft Azure, Amazon Web Services and MQTT brokers.



The Cloud Connector can be downloaded for free for evaluation. See the instruction at <http://kimnyholm.com/universal-robots/>.

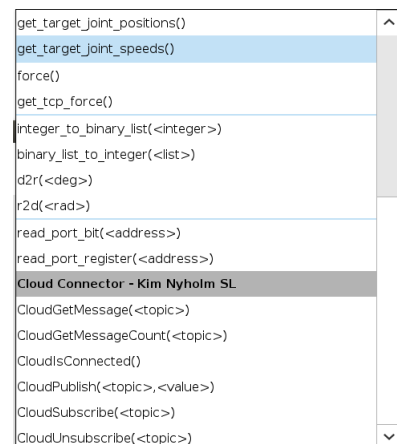
Features and benefits

The Cloud Connector enables publishing and subscription of data to cloud services with add-in functions to Polyscope for programming the robot.

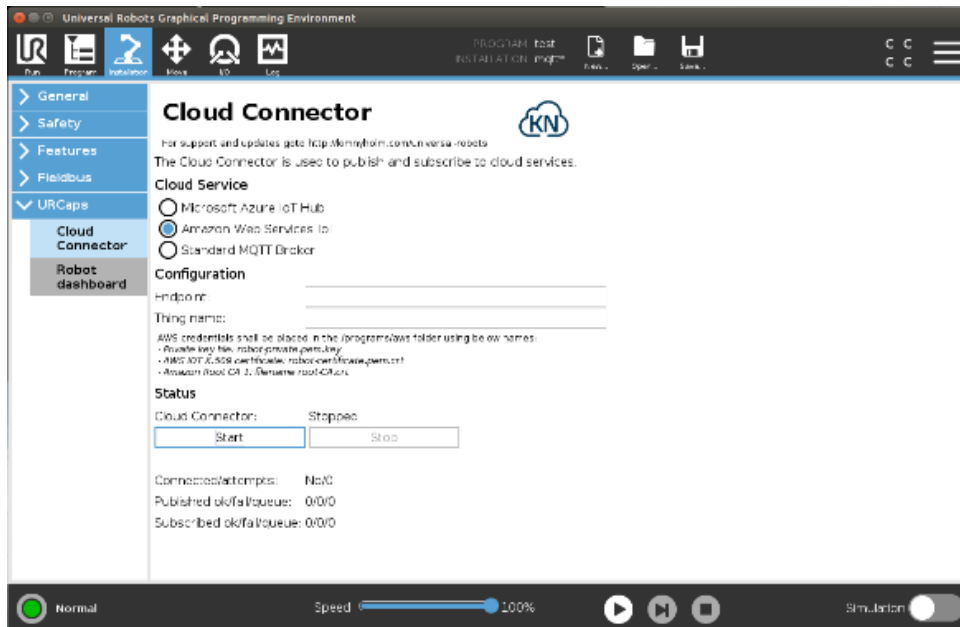
Functions added to the Polyscopy programming interface are:

- CloudPublish(topic, value)
- CloudSubscribe(topic)
- CloudUnsubscribe(topic)
- CloudGetMessage(topic)
- CloudGetMessageCount(topic)
- CloudIsConnected()

Publish and Subscribe supports all data types in the script language, i.e. int, float, string, pose, bool, and array.



Microsoft Azure IoT Hub, Amazon Web Services IoT Core and Standard MQTT brokers are supported. For Microsoft and Amazon services all communication is encrypted using TLS.



How does it work

The Cloud Connector URCap adds additional functions to the script language. These functions are made into calls for the relevant cloud service and results are sent back to the robot.

Compatibility

Robots: UR3, UR5, UR10, UR3e, UR5e, UR10e, UR16e
Controller boxes: CB3.1
Software versions: Polyscope 3.4 and higher

Network requirements

TCP ports 1883 and 8883 must be opened on the robot controller, e.g. not blocked by firewalls.

Licenses

Licenses apply for a single installation. The following licenses exists:

- Free 30-day evaluation license
- Standard including one year of maintenance and support
- Premium including on-line support to configure and test robot with cloud service
- Annual maintenance and support subscription after 1st year

Additional information

For more information see <http://kimnyholm.com/universal-robots/> or contact mail@kimnyholm.com.