PC connection with the Sensapex products

Revision: 2.0

1   General

This document describes how to connect Sensapex products to PC that is using Windows operating system.

For other operating systems, such as Linux, the physical connections are identical.

2   Physical connections

Sensapex products are controlled by local area network (LAN) architecture through local link address. Sensapex products must be connected to different physical ethernet cards / adapters / ports than used for the internet connection or otherwise Windows operating system may fail to automatically configure the local link address.

2.1   uMp micromanipulator system connections

2.1.1   Battery operated uMp-TSC

uMp micromanipulator system connections with battery operated uMp-TSC are shown in Figure 1 below. Standard ethernet cable is used for ethernet connections.
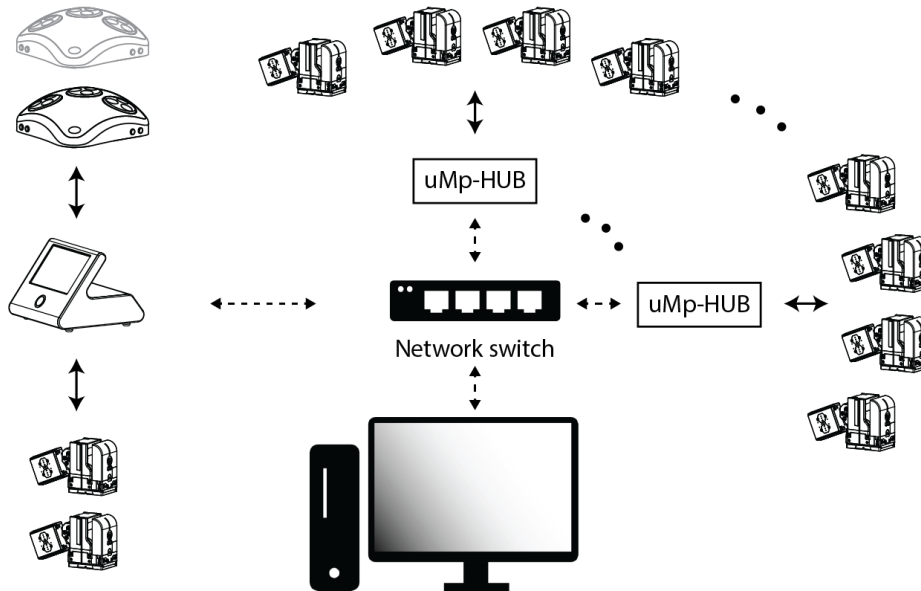

Figure 1. uMp micromanipulation system connections with battery operated uMp-TSC

2.1.2   uMp-TSCv2

uMp micromanipulator system connections are shown below with uMp-TSCv2 in Figure 2 below. Standard ethernet cable is used for ethernet connections.
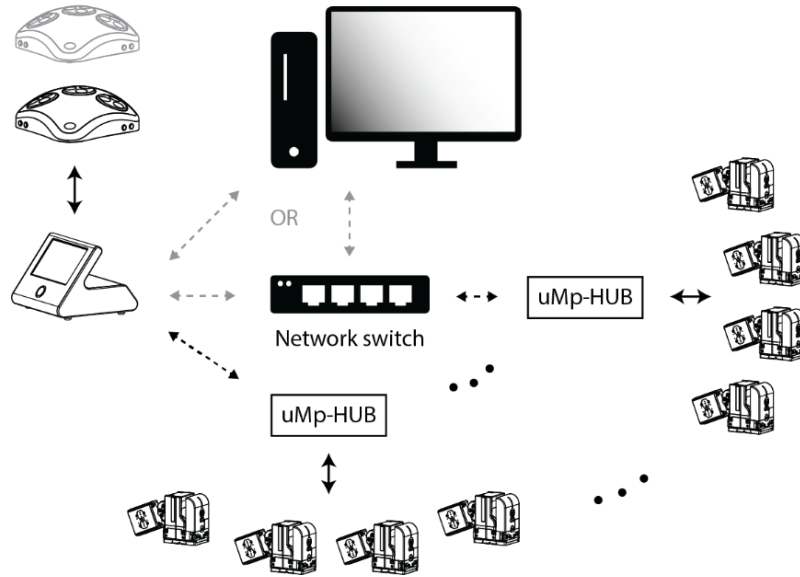
Figure 2. uMp micromanipulation system connections with uMp-TSCv2

2.2 uM workstation connections

uM micromanipulator system connections are shown below with in Figure 3, including uMp micromanipulator system, uMc pressure control and uMs microscope products. Standard ethernet cable is used for ethernet connections.
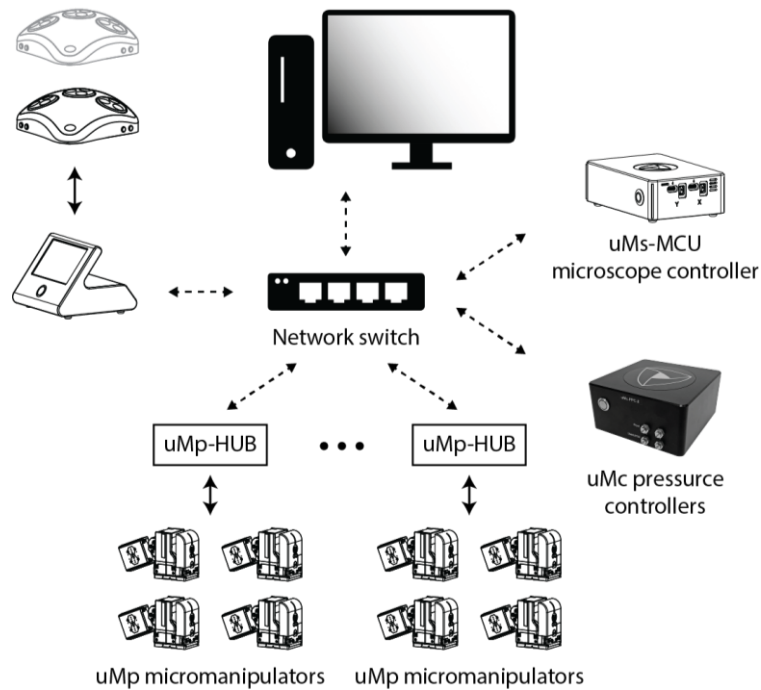

Figure 3. uM workstation connections

3 Troubleshooting connection issues

The uMx firmware update tool can be used to test that all Sensapex devices connected to the computer are working properly in Windows.

In case no devices are found, please verify that the uMx firmware update tool is configured for the same Device group as all the Sensapex devices (A by default).

In case devices are still not found, the problem may relate to specific IT settings in the computer. We cannot address specific issues that may relate to specific computer settings or organizations IT policy with related security software, but you may try these steps that often help to resolve the issue.

Please consult your local IT support in case you have any questions or concerns related to this configuration. Sensapex assumes no liability of any kind for any issues or damage from configuration options described in this section.

1. Please check your Windows firewall settings. Sensapex PC uMx Firmware tool should be allowed as shown in the screenshot below.
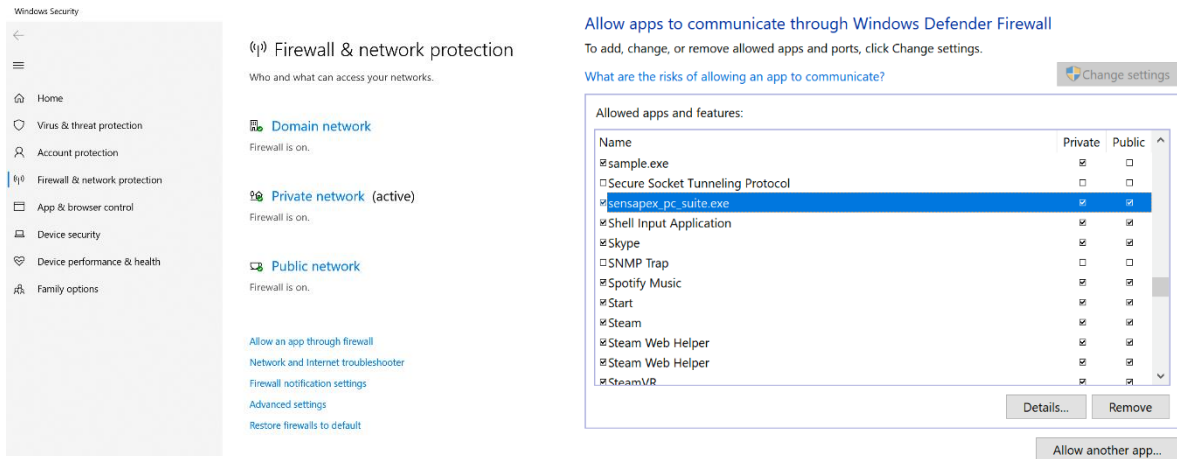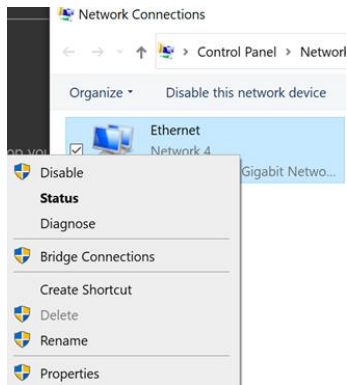

2. In case Windows is not succeeding in setting up the local link IP address automatically, it can be set up manually following these steps:
    a) Open Windows control panel
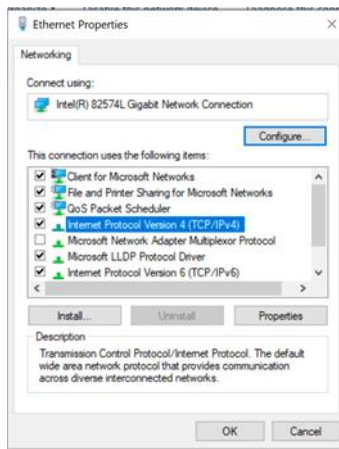   b) Go to Network and internet and then Network and Sharing center
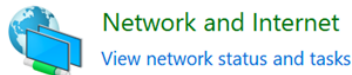
    c) Select Change adapter settings:
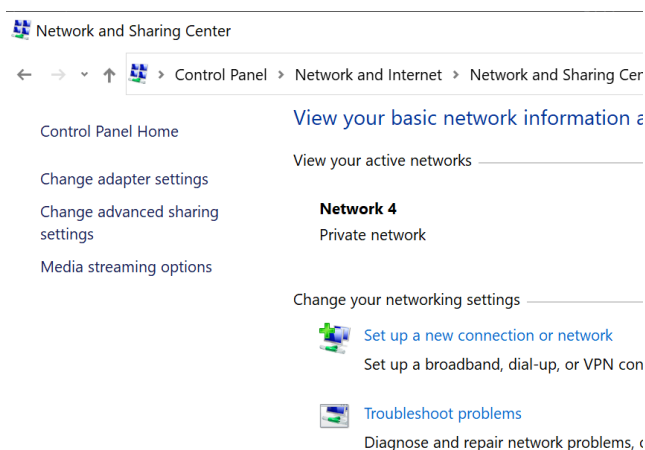
d) Right click ethernet device and select Properties

e) Select Internet Protocol Version 4 (TCP/IP) and press 'Properties' button

f) Select 'Use the following IP Address' and type in the settings for the IP address and Subnet mask fields as shown in picture below. Then press OK.

NOTE: IF THIS IS YOUR ONLY NETWORK CARD THIS MEANS YOUR INTERNET CONNECTION WILL BE OFFLINE. TO GET BACK TO INTERNET CHANGE THE SELECTION TO "OBTAIN AN IP ADDRESS AUTOMATICALLY".