Ethernet devices setup for WinTopas4

To learn about WinTopas4 in general, go to:

https://lightconupdater.blob.core.windows.net/documentation/WinTopas4/index.html

Connecting laser and OPAs to Control PC

Laser (applies only to PHAROS and CARBIDE) and optical parametric amplifiers are connected to a single control network using standard Ethernet cables. Each device has an ethernet port on the body for such a connection. Some of the OPA devices might have two ethernet ports on the body – in this case these ports can be used to daisy chain devices together. If there is only one ethernet port on your OPAs, please use the supplied external ethernet switch to connect devices together. If you have just a single OPA and the pump laser is not PHAROS or CARBIDE, there is no need to use any switches at all. All cases are illustrated below:

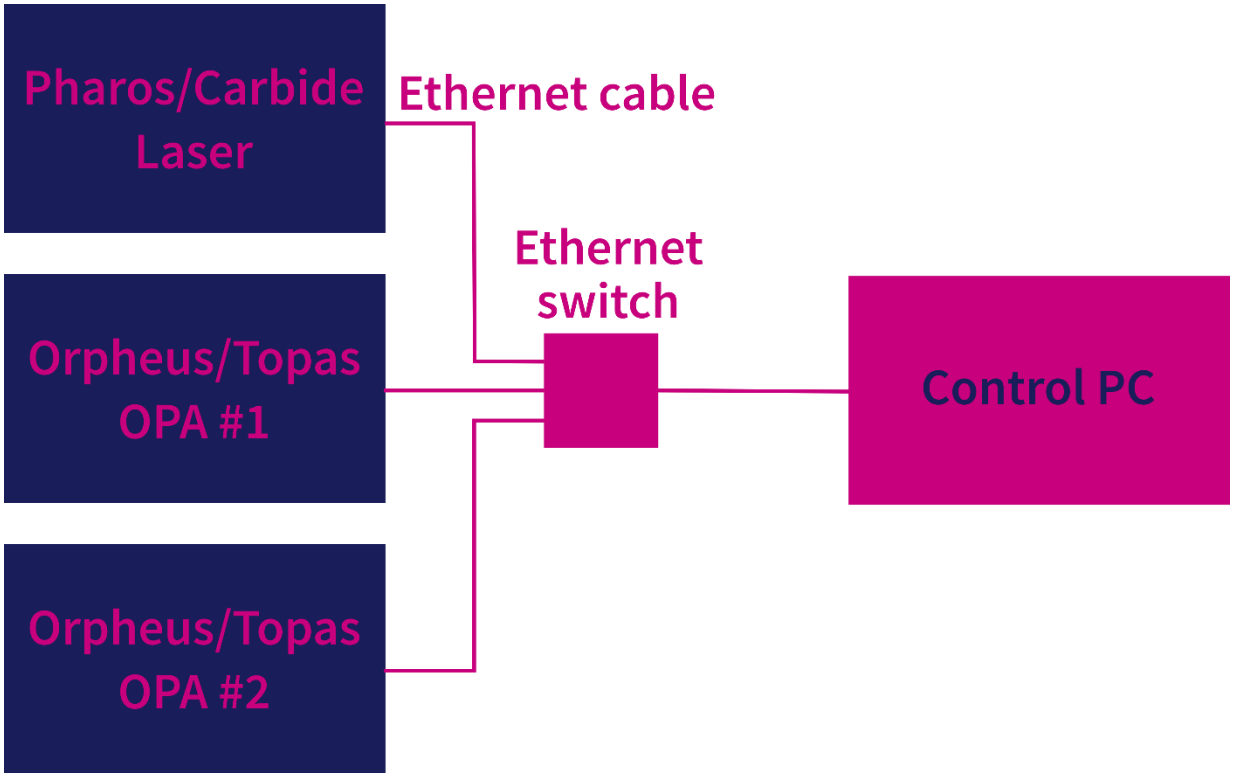

Figure 1. Connection of OPA control network using external ethernet switch

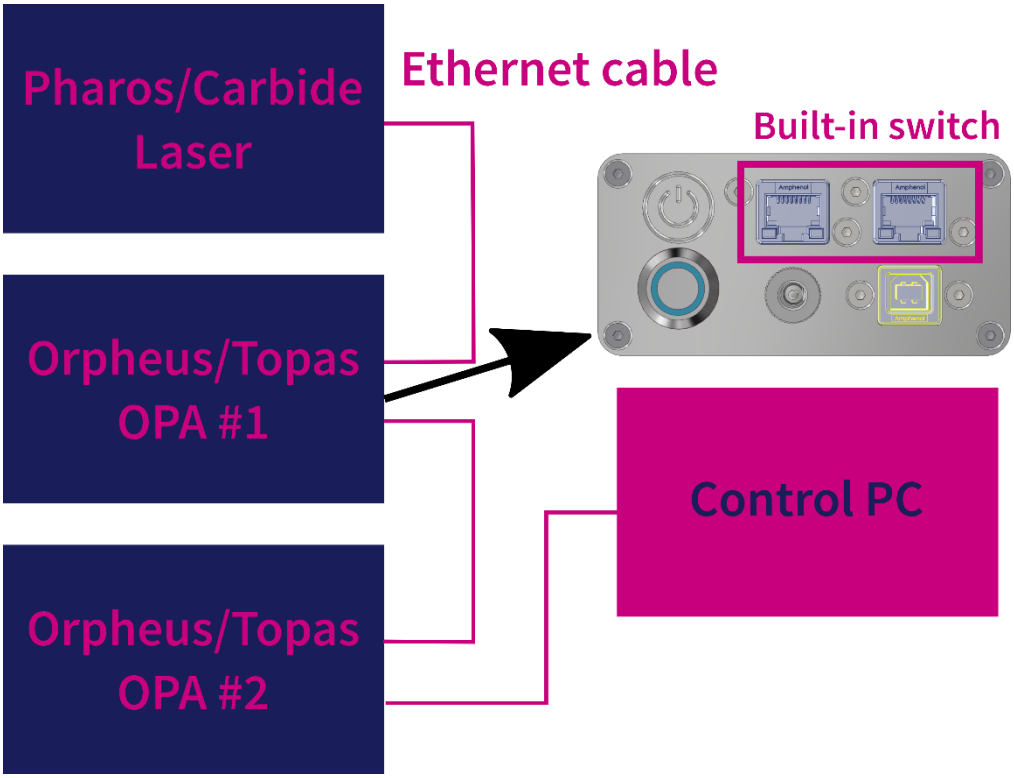

Figure 2. Connection of OPA control network using built-in switches in OPAs

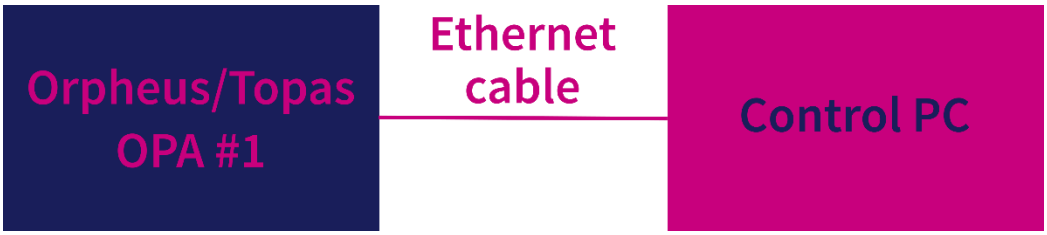

Figure 3. Connection of single OPA

Light Conversion software is installed on the control PC. Connect the devices to the control PC in a way depicted in Figure 1, Figure 2 or Figure 3. You can use either a built-in ethernet port on your PC or ethernet-USB adapter for the connection. **The preferred way of connecting is directly to the ethernet port on the control PC, due to unreliability of the ethernet-USB adapter.** If you need to use an ethernet port on your PC for other purposes, you could use an ethernet-USB adapter there.

Network interface configuration on Control PC

Network interface should be configured first to connect OPA to a control PC through LAN. Use IPAssistant, the utility software by Light Conversion to configure IP address. IPAssistant should be installed by a service engineer during the set-up of the system. If you cannot find it on the control PC or want to move all control software to another PC, use the provided USB flash drive with the installation program of the IPAssistant or follow this link to download it:

https://lightcon.com/support/#software

Launch the IPAssistant application. You will see a list of ethernet adapters present on control PC.

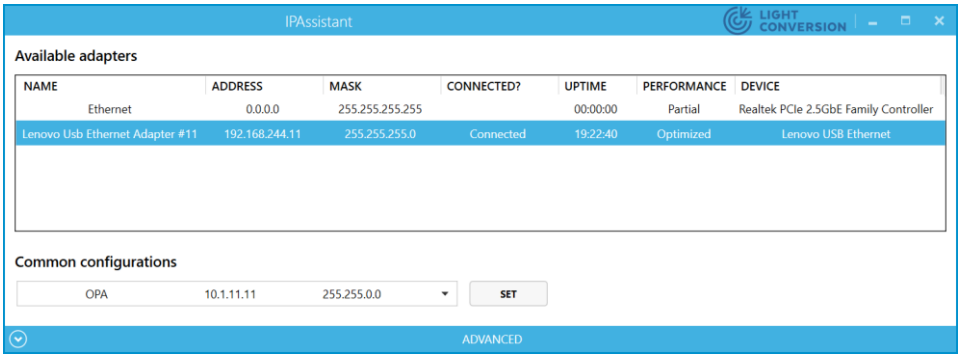

Figure 4. IPAssistant application before performing required steps.

Select the network interface you have connected your OPAs to. If you are not sure which one it is, unplug the ethernet cable from the PC and observe changes in the list. “OPA” configuration is the default one, so just click “SET” once you have selected the correct entry in the list of network interfaces. Entry for the selected network interface should change to “OPA – 10.1.11.11” or similar. as shown in Figure 5.

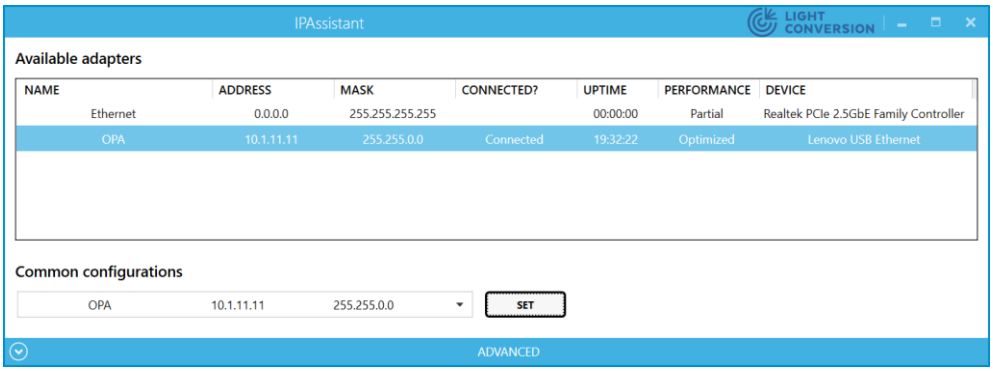

Figure 5. IPAssistant application after performing required steps.

Network interface configuration should be performed once during the installation of the system on the end-user PC. It will have to be repeated if:

a) Control of the OPAs must be moved to another PC with all the Light Conversion software.

b) USB-Ethernet adapter used for connection to control network is replaced.

c) Windows network adapter settings reset due to miscellaneous problems, crash, etc.

Help

Downloads, API help page, instructions:
https://lightconupdater.blob.core.windows.net/documentation/WinTopas4/index.html
Customer support: support@lightcon.com