Pro-Soft Configuration of Multiple Instances Using a Single Network Interface

LAP Laser Applikationen

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1 The Setting

We want to communicate simultaneously with multiple gateways – with one computer. This can be done with the Multi-Instance-Function of Pro-Soft: The software gets started multiple times and each software instance communicates with a certain gateway. But there's a catch! Each gateway only sends to a fixed IP and a fixed port and each port can only be used by one instance only! Our workaround was to equip the computer with as much network

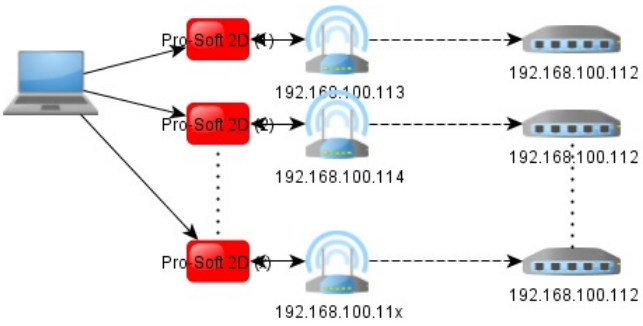

Figure 1: Network diagram for multiple instances using different IPs

cards as gateways. Then, each instance can bind the port of one of these cards (figure 1). Beginning with gateway firmware 1.3 another workaround is possible. With this version you are able to change the port the gateway should answer to. Therefore, communication with the gateways using multiple instances is enabled with just one single network card by using different ports for each instance (figure 2).

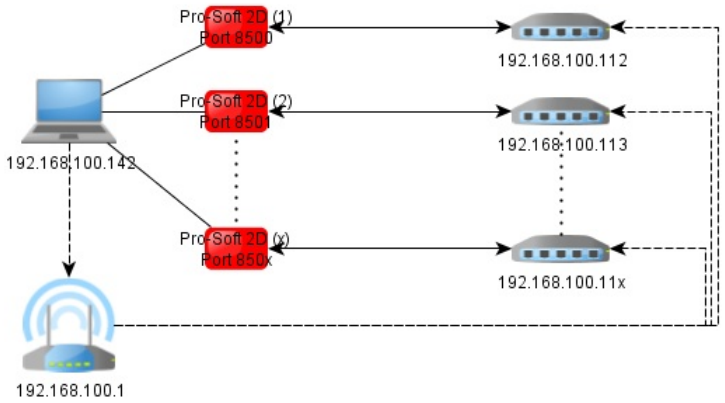

Figure 2: Network diagram for multiple instances using different ports

2 Configuration

As usual in the Multi-Instance case, static IP addresses are mandatory. All gateways have to have different IPs and at least firmware version 1.3 installed (figure 3). The access point might have a DHCP server, it should be disabled. The APs IP should be in the same subnet, as all network traffic is routed through it.

You should have:

- A computer with a network card, connected to a network with a static IP – in our figures this IP is 192.168.100.142
- In a wireless network an access point with an IP in the same subnet – in figure 2 it has the IP 192.168.100.1
- Multiple gateways, each having a different IP in the same subnet – for example gateway #1 might have 192.168.100.112, gateway #2 192.168.100.113, and so on

Multi-Instance functionality is enabled by naming the Pro-Soft folders in a special way. Each new instance is in a copied folder that is named "*Pro-Soft 2D (x)*" where x is the instance number (figure 4). For each instance of Pro-Soft you have to set (figure 5)

- The gateway IP address – different for each instance, i.e. instance #2 gets the IP of gateway #2 (192.168.100.113)
- The adapter IP address – the address of the computer in local network, the same for each instance!
- The port the gateway should answer to – different for each instance, i.e. instance #1 gets port 8500, instance #2 port 8501, and so on
- The remote control address associated with this instance (figure 6)

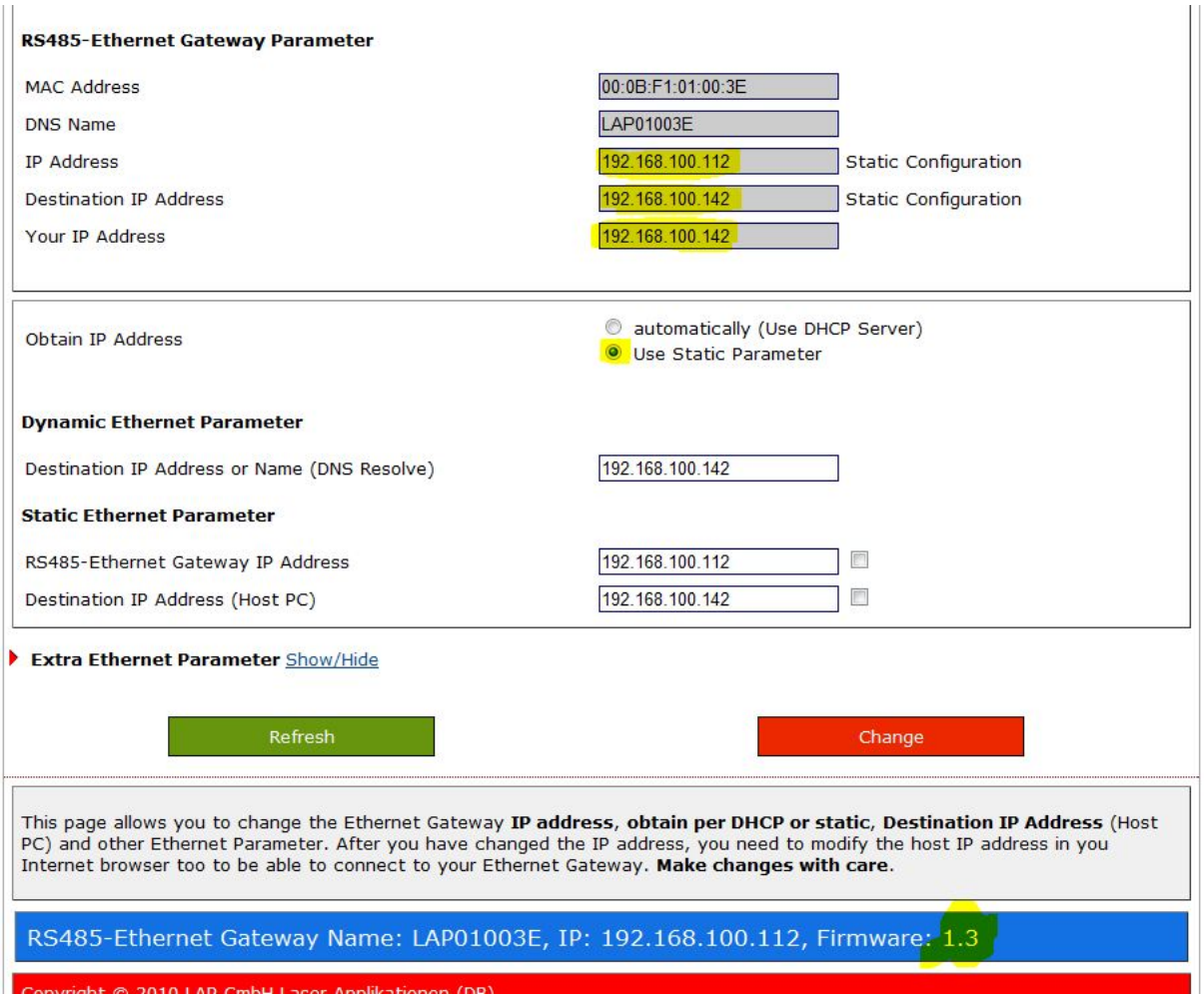

Figure 3: Example configuration of gateway #1 with static IPs

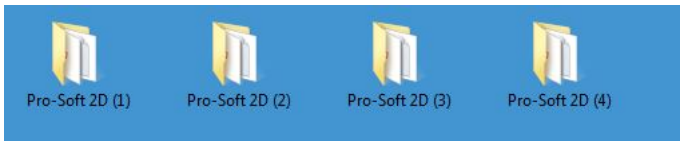

Figure 4: Folder naming for 4 Pro-Soft instances

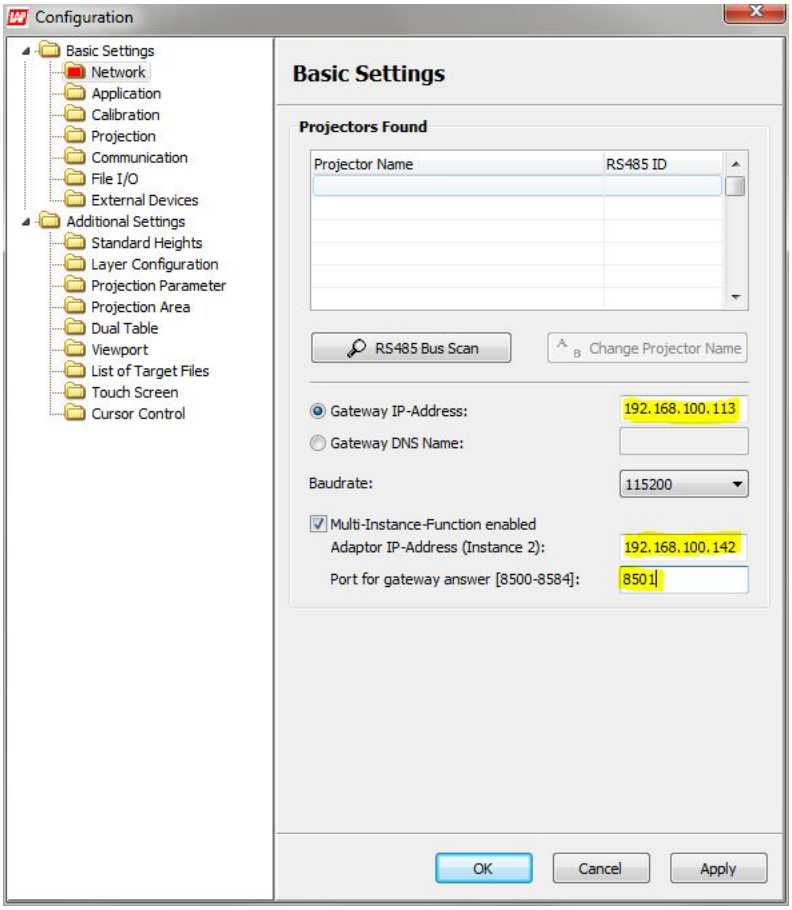

Figure 5: Example configuration of Pro-Soft instance #2 to communicate with gateway #2 (192.168.100.113)

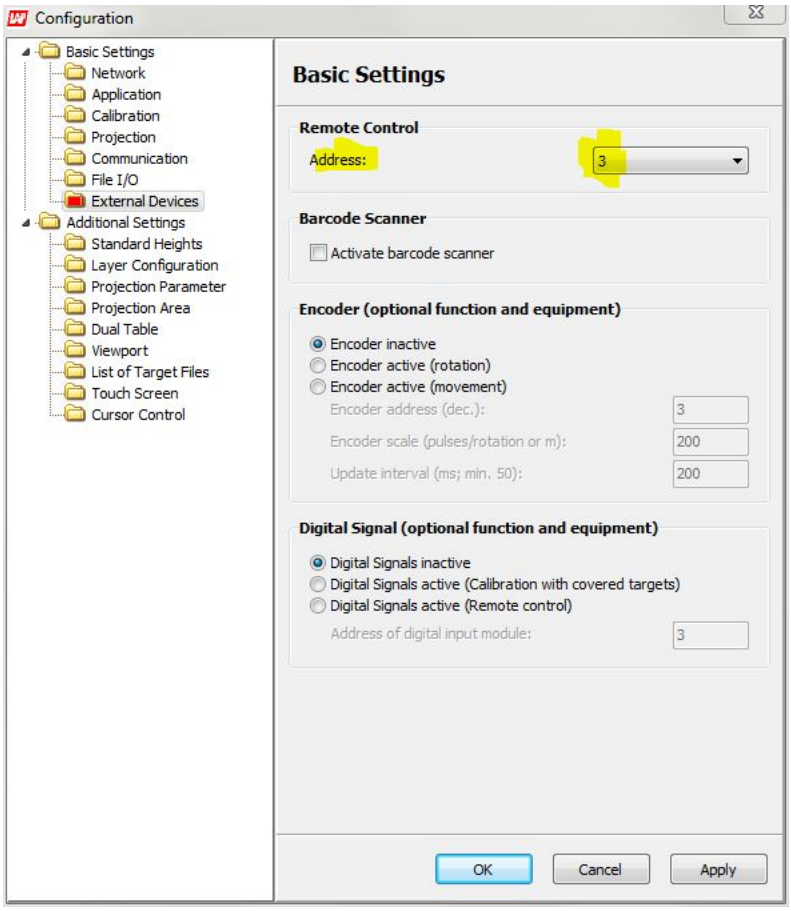

Figure 6: Example configuration of Pro-Soft instance #3 to use remote control #3