How to setup the IP configuration of a LYNX RCT5031 Master Controller to work in a local network.

Step 1: Connect the PC and the LYNX Frame to the same physical network

Make sure that the PC (which will be running the LYNX APPolo Control GUI) and the LYNX Rackframe RFR5012 are connected to the same physical IP network. No gateway computers should be (physically) separating the two parts of the network. Make sure all parts of the system are up and running.

At this point, the PC and the LYNX RFR5012 could be configured to different IP addresses.

Step 2: Start the LYNX APPolo Control GUI

Click on the "Connect ..." Button (close to the top left hand corner of the Main Window). This brings up a dialog window (pop-up), which is divided into three tabs. Select the middle tab (labeled "Network Connections Editor"). It will look similar to this:

APPolo Connection	Management					
Local Serial Connections	Network Connections E	ditor Network <u>C</u> or	nponent Configuratio	n		
Current infrastructure config	guration		Available network (components		
IP Address 🛆 🛛 Pr	oduct Name (Stat	us)	IP Address 🛛	Product	Version	Status
192.168.1.50 LY	'NX GUI PC "hhs-ly	אחי"	192.168.2.190	RCT5031	5.1.1	not connected
1						
Drag & drop it	em here		Find a specific IP a	iddress:		
To remove iron	n inirastructure		1			End
-Selected Device	1.50					
Product: LYNX GL	II.					
Name:						
Version: 5.1.1						
						Close

On the left side, you can see the current system from the perspective of the LYNX GUI. The

system consists of the GUI itself, running on the PC. Currently, nothing is connected to the GUI. The name of the PC is "hhs-lynx" in this example. The current IP address of the PC is "192.168.1.50" in this example.

The list on the right hand side of the dialog shows all LYNX network devices that can be found in the local network. In this example, there is a RCT5031 MasterController, configured to IP address 192.168.2.190. This IP address of that LYNX component is obviously not in the local class-C subnet as the PC. If there is no gateway available in the local network to forward communication between these two subnets, then the RCT5031 MasterController needs to be re-configured to work in the same subnet as the PC. The next step explains how to do this.

NOTE: If your PC does not have a current IP address (or if only the local loopback address 127.0.0.1 is displayed here) -> then you need to setup the IP settings of the local PC before continuing. Make sure to restart the LYNX APPolo Control GUI after you have modified the IP settings of your PC

Step 3: Modify IP settings of a LYNX Network Component (e.g. the RCT5031 MasterController)

Select the right-most tab of the Network Connection Dialog (labeled "Network Component Configuration"). In the here, you will see the RCT5031 again, which has to be re-configure now. Select that RCT5031 with your mouse. This may generate an error message similar to the following:

麗 APPo	lo Connection M	anagement	×	
⚠	Could not read device configuration from this controller:			
	Product:	RCT5031		
	MAC Address:	00:14:2d:23:7b:75		
	Network communica	ation has failed.		

Please ignore this message. You can continue anyway.

Enter the desired IP settings for the RCT5031 MasterController into the lower part of this dialog. Don't forget to set the Netmask and also the Gateway. If you are not sure about the correct setting for the Netmask, use "255.255.255.0". If you are not sure about the correct setting for the gateway, use the same address as the one you used for the RCT5031 itself, and replace the last number with a "1". As a result, the dialog should look similar to this:

APPolo Connectior	n Management				
cal <u>S</u> erial Connections	Network Connections E	ditor Network <u>C</u>	omponent Configuratio	n	
Product 🛆 Version	Serial Number	IP Address	MAC Address		
RCT5031 5.1.1	451	192.168.2.190	00:14:2d:23:7b:75		
Auto-locate selected	device				
5. L X 10. L					
Find a specific iF add	liess. J				End
Selected Device					
LYNX Product: Tupo Codo:				WARNING	
Serial Number:				Applying the modified network config	juration may
Version:				break existing attachments of this de	vice to LYNX
MAC Address:				adireta.	
Dupamic IP (DHCP):	_				
IP Address:	192 168 1 190				
ID N L	055.055.055.0				
IP Netmask:	255.255.255.0				
IP Gateway:	192.168.1.1				
		1			1
	<u>Discard</u> <u>A</u>	oply		Set	Passwords

Then press the "Apply ..." Button to apply these setting to the RCT5031. You will have to supply the administrator password before the modified settings will be accepted. The default admin-password is "lynx\$admin"

🔀 APPolo Conn	ection Management	<u>?</u> ×
Please enter the AD	MIN password for this controller:	
Product: MAC Address:	RCT5031 00:14:2d:23:7b:75	
	OK Cano	xel

Step 4: Connect the RCT5031 to the GUI

Now that the RCT5031 has been modified to work with the correct IP address, it can be connected to the GUI so that you can work with it. Please return to the middle tab in the Network Connection Management Dialog. It will now list the RCT5031 with its new IP address on the right side. (The same RCT5031 will still be listed there with its old / previous address for a while. Please ignore this second entry in the right list).

The dialog should now look like this:

icit initiastractare	configuration		Available netwo	k components		
Address 🛆	Product	Name (Status)	IP Address /	Product	Version	Status
-192.168.1.50 LYNX G		PC "hhs-lynx"	192.168.1.19	0 RCT5031	5.1.1	not connected
Drag & drop item here to remove from infrastructure		Find a specific If	Find a specific IP address:			
					Eind	
elected Device						
IP Address: 192	.168.1.190					
Product: RUI Name:	5031					
V · Fi	1					

Click on the RCT5031 in the right list and drag it over to the left side to connect it to the GUI. The GUI will automatically login to that server with the default user "ctrl" and the associated default password "lynx\$ctrl". After that, you can close this dialog (button "Close" in the bottom right hand corner) and work with the regular GUI.

Configuring a fixed local IP address to the PC (no automatic DHCP address)

If you are connecting your PC to the LYNX RackFrame with a direct IP-cable (no connection to the local area network), then your PC needs to have a fixed (manually assigned) local IP address. I.e. the usual automatic assignment of an IP address to the PC will not work (because there is no DHCP server in this mini-network).

- If you are not sure if your PC has a local static IP address or not (i.e. if you need to address this problem or not) you can look at the current IP address of the LYNX APPolo GUI application in the dialog as explained in Step 2 (above). If the current address is displayed as one of 127.0.0.1 or 169.254.202.83 then this is a clear indication that the PC does not have a proper IP configuration and you need to take the action described here.
- If you want to assign a local static IP address to your PC, you need to open the properties of your LAN connector. See the following screenshots (for Windows XP).



From the control panel, open the "Status" of your LAN connection



- (1) In the "Status" Window, open the "Properties" (1) of that LAN connection
- (2) In the "Properties" Window, select the "Internet protocol (TCP/IP)"
- (3) Click on "Properties of that "Internet protocol (TCP/IP)"
- (4) Modify setting to "manual IP address"
- (5) Enter IP address to be used (first line) and an appropriate netmask (second line)

Applying IP settings to LYNX Controller through Web-IF

In the previous descriptions, all IP settings of the LYNX Controller (RCT5031) are made through the LYNX APPolo GUI application. There is, however, an alternative way to modify the IP settings of a LYNX Controller Card without the need for a local instance of the LYNX APPolo GUI.

If you know the current IP address of the LYNX RCT5031 (the default address is: 192.168.1.160), you can go through the following steps:

Make sure, your PC can reach the IP address of the LYNX RCT5031. The easiest way
is to make sure that the PC itself is configured to an IP address that is in the same
subnet as the LYNX RCT5031. I.e. the IP-address of the PC starts with the same set
of numbers (for the above default case: the PC's IP address has to start with
192.168.1.xxx)

-> See above for instructions on how to modify the IP address of the PC to fulfill this criteria.

- Open a regular webbrowser application (e.g. Microsoft Internet Explorer or Firefox)
- Navigate to the IP address of the RCT5031 (default: <u>http://192.168.1.160</u>)
- On the welcome-page of the RCT5031, login as user "admin" (default password: "lynx\$admin")

- In the menu on the left, go to the last page named "System Settings"
- Enter the desired IP settings here (IP-address, Netmask, Gateway) and "Set Network Config"



- Now the RCT5031 will restart using that new IP address.
 If that new IP address is in a different subnet than the previous IP address, you will have to re-configure the local PC accordingly.
- As a result, the RCT5031 and the local PC are configured to the same IP subnet (first three components of IP-address are identical). Now re-start your APPolo GUI application and create the connections in the regular way (step 4 on page 3).

•

Connection problems

Here are some steps to go through if you have set up your IP configuration as explained above (all components, including your PC are configured to the same IP-subnet), and if you are then not able to connect the GUI to a LYNX RackFrame with an RCT5031

- Open a regular webbrowser application (e.g. Microsoft Internet Explorer or Firefox)
- Navigate to the IP address of the RCT5031 (default: http://192.168.1.160)
- If that connection succeeds (i.e. you see the welcome-page of the RCT5031), then the controller is configured correctly.
- If you are still not able to connect the LYNX APPolo GUI to this server (as explained in step 4 on page 3), then you are probably running a local firewall application on the PC which prevents the GUI from connecting to the RCT5031.
 -> disable your local firewall (on the PC) and retry this step 4)