



Manual

Hedsam X/HHL-C-integration

V0.2

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1. Common

With Hedsam X/HHL-C-integration it is possible to create system where access control is controlling burglary alarm groups (HHL-C). Groups are controlled from the readers, GUI and groups can be set on by time program.

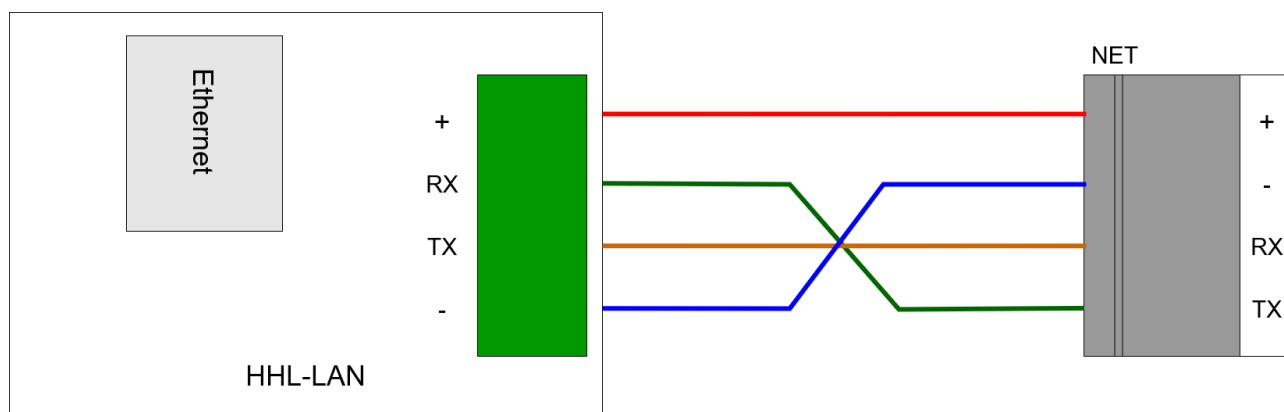
When person enters in to the group from a reader, the Person will go in to stack. When person exit the group, the person will drop out from the stack. When last person from the stack exits the group will activate. If persons forgets to exit the group, it is possible to set time program to throwout remaining persons from the group and activate the group.

It is possible to set the access right to follow the groups state. For example if you dont have correct right to control the group and the group is activated, you are not able to enter. The pin code usage time can be controlled by the control group. Also it is possible to chime the HHL group entry and exit delays from the reader buzzer.

Hedsam X -integrates to the HHL-C-panel thru NET -serial port (default). This port can be changed from the HHL-C serialport programming. Connection between Hedsam X and HHL-C is made with HHL-LAN external card. HHL-LAN communicates straight to the Hedsam X server. This means that all group control decisions are made in the Hedsam X server. In the communication between each other the HHL-C is Master and the Hedsam X is a slave. This means that the connection is established from the HHL-C decision (starts the communication).

Successful connection will need some adjust in the firewall rules.

2. Connections



HHL-LAN serial bus (RS232) is connected to HHL-C panel NET port (default). HHL-LAN is also connected to LAN with Ethernet -cable (RJ45). Make sure that when you connect the RS232 that RX is connected to TX and TX to RX.

HHL-LAN	NET
RX	TX
TX	RX

3. Hedsam X–configuration

HHL-C communication and the HHL-C Groups needs to configured in the Hedsam X HConfig configuration program.

3.1 Control Group programming

Enable Control Groups in the HConfig **System properties** (**File > System properties**).

Choose **Control groups** -tab.

Set **System includes control groups**.

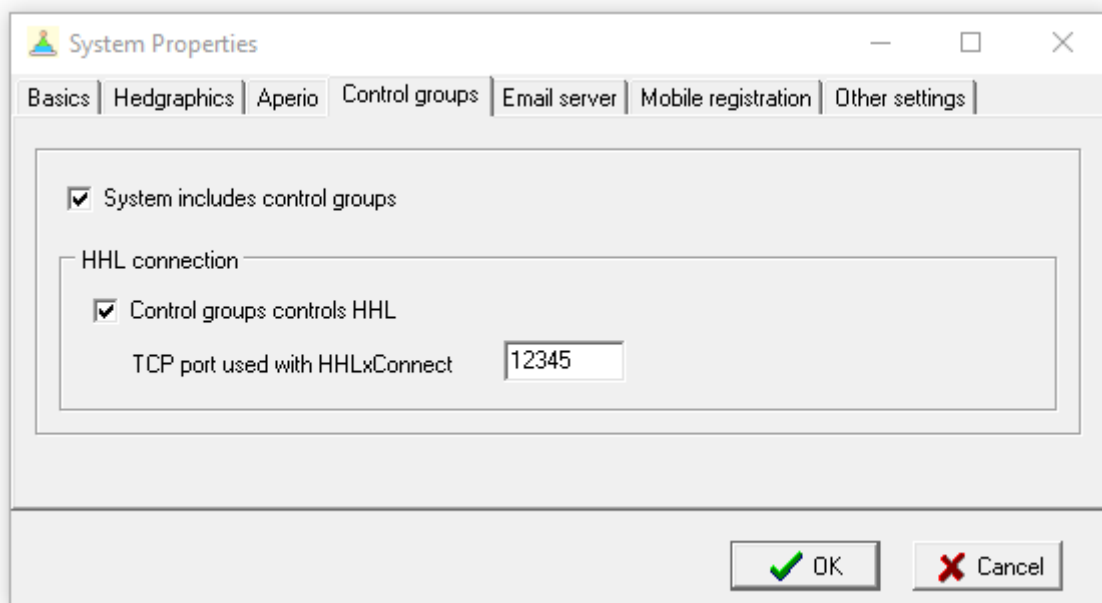
This will enable settings for Control groups in the configuration.

Set **Control groups controls HHL**.

This setting enables possibility to add HHL-C panel to be controlled with the Control group.

Set **TCP port used with HHLxConnect**, make sure that this port is available. In this example we use the port **12345**.

Select **OK**.



3.2 UDP-port programming

Add port for HHL connection.

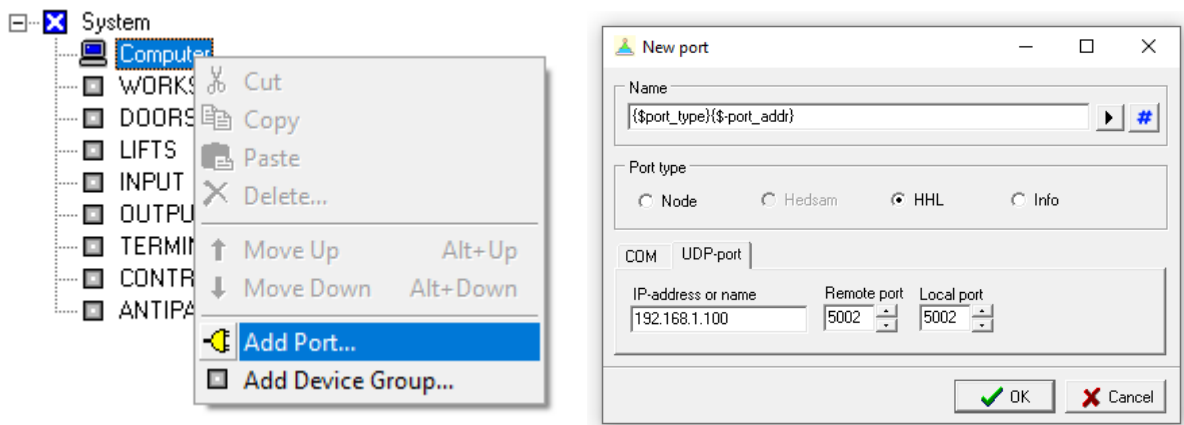
- Right click **Computer** and choose **Add port**.

Set **Port type** as **HHL**.

Set **IP-address**, this is the HHL-LAN IP-address.

Set **Remote port** and **Local port**. These port numbers need to match with the HHL-LAN settings. It is easier to use same port number on both (remote and local). In this example we use port 5002 on both.

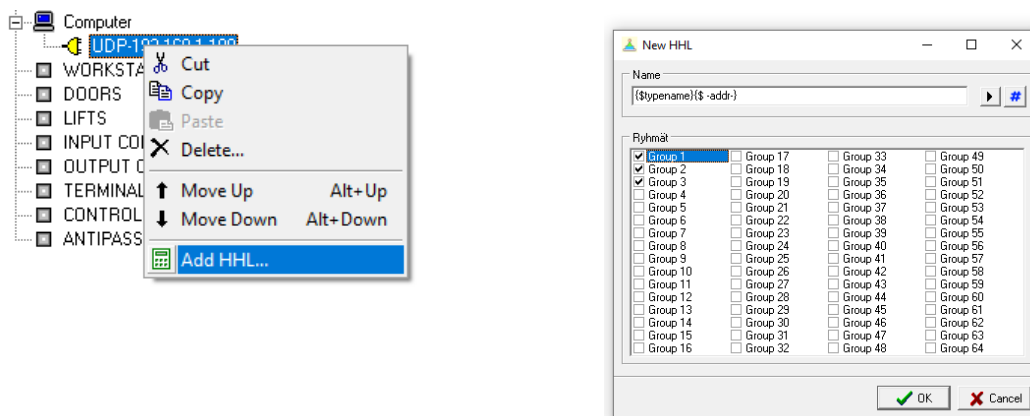
Select **OK**.



3.3 HHL-C panel and group activation

Add the HHL under the port we just created and activate HHL-C groups that we want to control with this integration.

- Right click on top of the UDP -port and choose **Add HHL**.
- Choose **Groups** to be controlled.
- Select **OK**.



4. Set **HHL** type as **HHL-C**

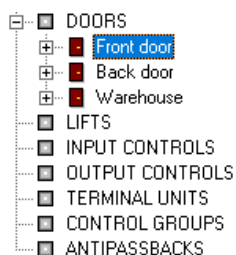



Values References Extra	
Property	Value
Basics	
<input checked="" type="checkbox"/> Name	{typename}{-addr-}
<input checked="" type="checkbox"/> Active	Yes
HHL	
<input checked="" type="checkbox"/> Type	HHL-C
<input type="checkbox"/> Group count	

3.4 Door programming

Define doors that you want to use for controlling the HHL-C groups.

1. Open **Doors** and select a door.
2. Set **Usage with control groups** as **Connects control group**.
3. Do the same setting for each door that you want to use in this integration.

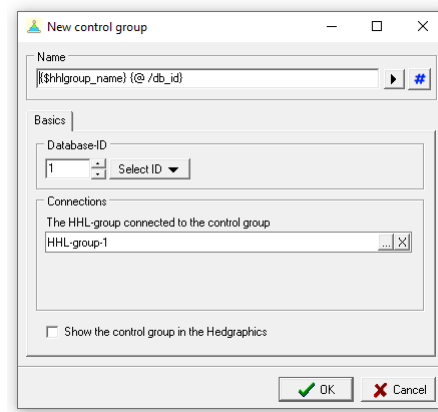
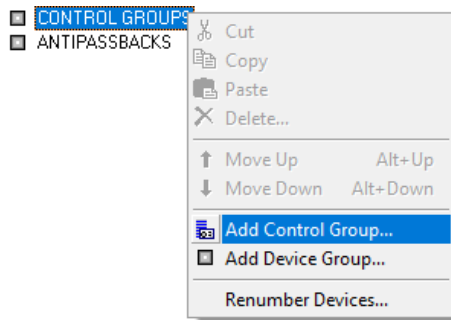


<input checked="" type="checkbox"/> Name	{dooris_name}
<input checked="" type="checkbox"/> Active	Yes
<input checked="" type="checkbox"/> Database-Id	1
Door-card responsible of the access rights	
<input checked="" type="checkbox"/> Door-card	 Front door
Control groups	
<input checked="" type="checkbox"/> Usage with control groups	Connects control group

3.5 Adding Control Group

Next we will define the actual control groups. Each HHL group need to have it's own control group.

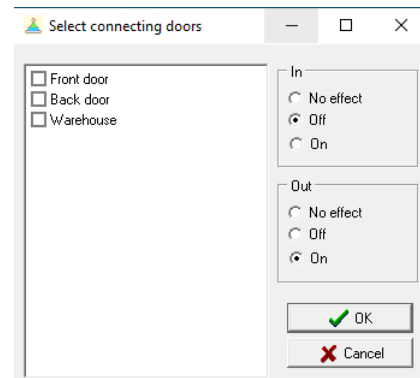
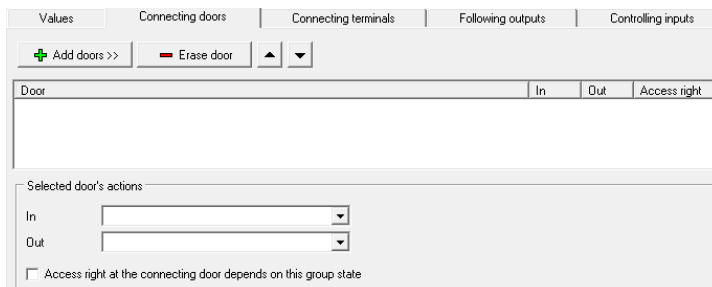
1. Right click on top of the **Control groups** and select **Add Control Group**.
2. Set **The HHL-group connected to the control group**
3. Select **OK**.



3.6 Connecting doors

Select and set doors that you want to use to control the HHL group. Adjust the reader influence to the group.

- Select **Connecting doors** tab.
- Click **Add doors**
- Select the doors and set reader in / out functions
- Click **OK**



With the connecting door In/Out settings you can achieve different kind of combinations. For example when you move from group 1 to 2, the group 1 will go active and group 2 deactivates. Single connecting door can effect multiple groups at the same time.

When you enable Access right at the connecting door depends on the group state, it will affect also pin code usage, common code usage as well access rights. This setting is door specific



This table lists how HHL-group states will affect to the door access rights. In this example there is 1 door and group count is from 1 to 3.

Door effect to group(s)	HHL-G1 state	HHL-G2 state	HHL-G3 state	Access	Pin code usage
G1	Activated			Blocked	Is required
G1	Deactivated			Allowed	Not required
G1-G2	Deactivated	Activated		Blocked	Is required
G1-G2	Activated	Deactivated		Blocked	Is required
G1-G2	Deactivated	Deactivated		Allowed	Not required
G1-G3	Deactivated	Activated	Activated	Blocked	Is required
G1-G3	Deactivated	Deactivated	Activated	Blocked	Is required
G1-G3	Deactivated	Activated	Deactivated	Blocked	Is required
G1-G3	Activated	Deactivated	Activated	Blocked	Is required
G1-G3	Activated	Activated	Deactivated	Blocked	Is required
G1-G3	Activated	Deactivated	Deactivated	Blocked	Is required
G1-G3	Activated	Activated	Activated	Blocked	Is required
G1-G3	Deactivated	Deactivated	Deactivated	Allowed	Not required

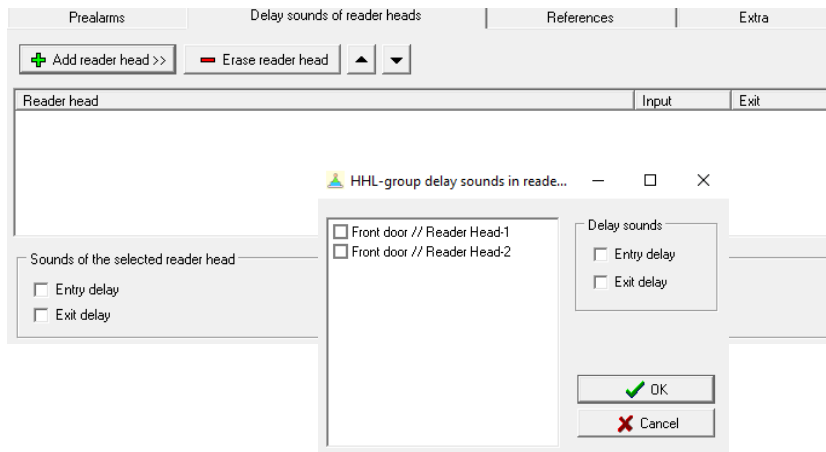
The same principle is for common code usage. All the groups need to be deactivated before you can enter with common code and only one needs to be activated so that the common code does not work.

3.7 Reader head HHL -group delay sound

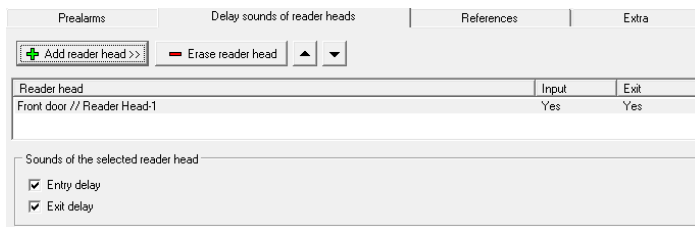
It is possible to set connecting door reader heads to indicate entry and exit delays. Entry & Exit sound will buzz as long as the delay is set in HHL configuration.

Set delay sounds of reader heads from **Control group** -settings.

- Choose **Delay sounds of reader heads** -tab.
- Click **Add reader head>>**
- Select the reader heads and set entry and/or exit delay.
- Click **OK**.



You can adjust the settings from the same tab.



3.8 Prealarms

There is a possibility to define prealarm relays. These relays can be used for example trigger the central audio system to play warning announcement or set up some other wanted event. Trigger of this prealarm relay is at the same time as the control group will make throwout for the persons that are still inside the controlled group. It is possible to set up time program for control group to make this event possible. The throwout time is given minutes before the actual activation time. This will work also when time buying feature is used.

Set prealarm relays from the control group settings

- Choose **Prealarms** -tab.
- Click **Add outputs>>**
- Select output(s) and set **Pulltime (s)**.
- Click **OK**.

Prealarms

Delay sounds of reader heads

References

Extra

Add outputs >>

Erase output

Output

Pull time

Selected output's pull time [s]

0

Select prealarm outputs

☐ Front door // Output-1

☐ Front door // Output-2

☐ Back door // Output-1

☐ Back door // Output-2

☐ Warehouse // Output-1

☐ Warehouse // Output-2

Pulltime (s)

5

OK

Cancel

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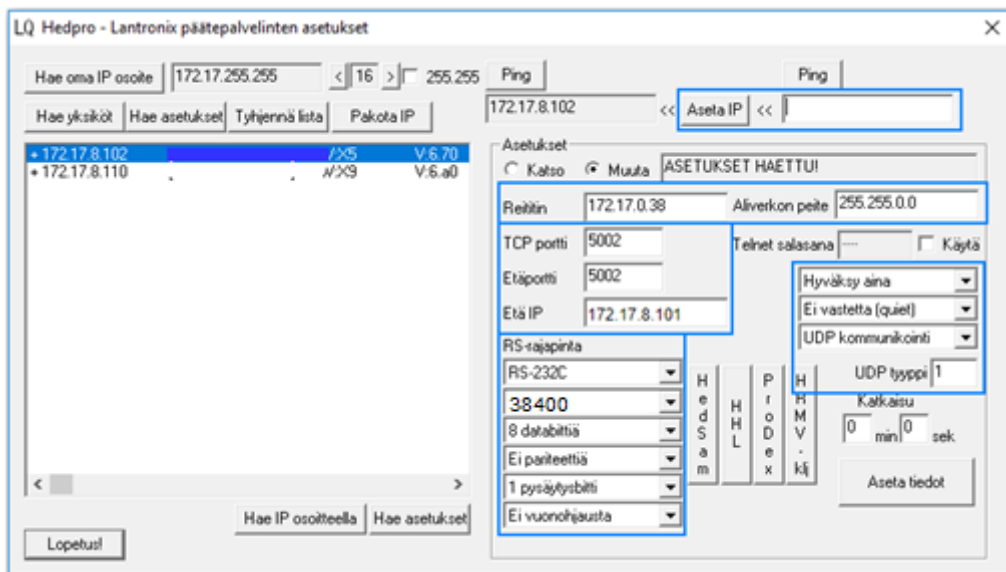
4. HHL-C configuration

By default HHL-C works with this integration without any Hedsam specific configuration in the HHL itself. Exception for this is if HHL-C is set up with HEDRING.NET card (Network of panels), then you need to adjust serial port settings from the HHL-C install program. In networked HHL environment you need to use other serial port than NET(Ser1). This port is used for the HEDRING.NET communication. In this case you can use SER 2 or C-EXT for Hedsam integration. If you want to use Hedsam to indicate entry / exit delays, you need to set these from HHL-C Install program. Check HHL-C programming manual for details.

HHL-LAN is used for the Hedsam X/HHL communication. We recommendate to use LanQuery program to configure HHL-LAN card. In this example the HHL-LAN IP address is 172.17.8.102, Hedsam X -server IP address is 172.17.8.101, Gateway is 172.17.0.38 and UDP ports that is used are 5002.

Settingf for HHL-LAN -card are:

- HHL-LAN -card IP-Address
- Reititin (GateWay)
- Aliverkon peite (NetMask)
- TCP-portti (Local Port)
- Etäportti (Remote Port)
- Etä IP (Server IP)
- RS-rajapinta (Notice! speed 38400)
- UDP kommunikointi and UDP tyyppi



5. What could go wrong?

1. Check firewall rules that you have enabled traffic from out to in and protocol for allowed port is UDP.
2. Check that Local and Remote ports are correct. For each HHL you need to configure separate local port for Hedsam X. For example you can set HHL1 to use ports 5002/5002 and HHL2 to use ports 5003/5003
3. Hedsam X server IP address need to be configured in the HHL-LAN card as ETÄ IP. HHL-C is master and Hedsam X is a slave.