

## Facility linking with *eibPort* via LAN / ISDN

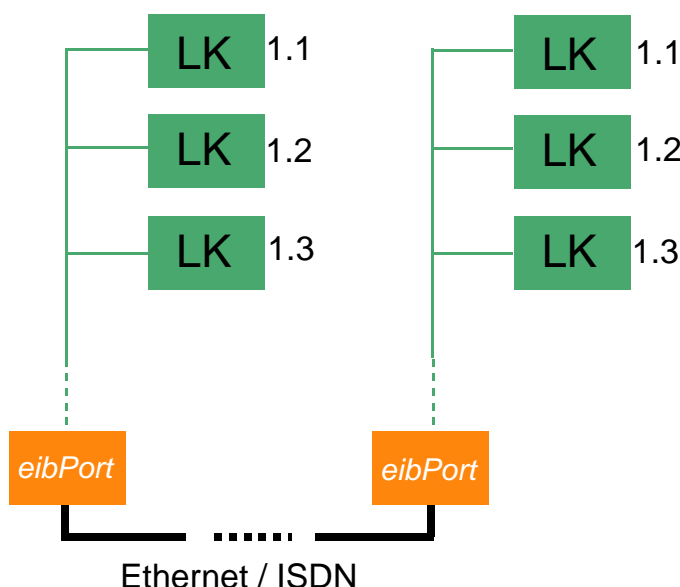
The *eibPort* can be used for linking facilities. Linking facilities means connecting two or more physically separated facilities via Ethernet or ISDN.

Address intersections in the range of the physical addresses are irrelevant. The intersection of EIB group addresses is prevented by the use of virtual group addresses (see below).

### Hardware setup

The *eibPorts* are connected via the Ethernet (LAN) or ISDN. For a facility link via ISDN the *eibPort* has to be connected directly to the NTBA. Telephone installations are not supported!

The facility link via ISDN is exclusively for error process handling. This restriction is necessary because an *eibPort* needs up to 4 seconds for connecting and disconnecting. Telegrams sent during this time get lost.

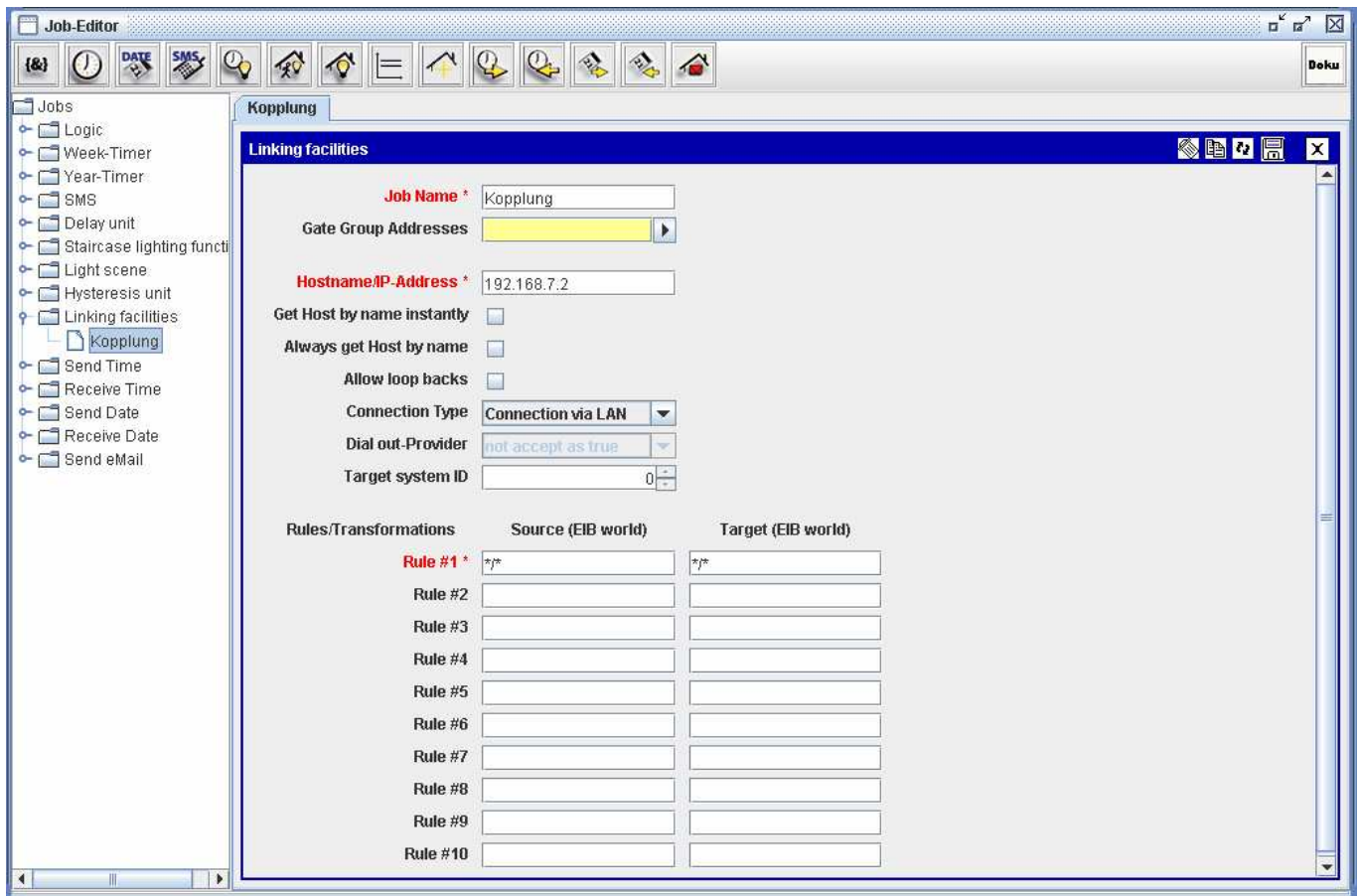


Picture: Hardware setup facility linking with *eibPort*

### Configuration

The facility link is parameterized by the job „Linking facilities“ in the integrated Jobeditor. All parameters of the facility link are always set from the view of the source EIB plant in direction to the target EIB plant.

For linking a facility A to a facility B and reverted in both *eibPorts* the Job Linking facilities must be configured.



Picture: Parameter window Linking facilities

## Parameter list Linking facilities

Parameter	Bedeutung
Job Name	Description for this Job
Gate Group Adresse	Group address (Format EIS 1) for enabling(value ONE) / disabling(value ZERO) the function linking facilities. No entry means the job is enabled.
Hostname / IP-Address	Hostname or IP-Address of the target <i>eibPort</i> . (If DNS is supported the name of the target <i>eibPort</i> can be entered)
Get host by name instantly	active: at starting the <i>eibPort</i> the name resolution will start instantly inactive: the name resolution starts when enabling the job Linking facilities

Always get Host by name	<p>active: at each start of the job the name resolution will be done again. (only reasonable at dynamic name resolution)</p> <p>inactive: the name resolution will only be done at the first start of the job</p>
Allow loop backs	<p>active: loop backs via LAN/ISDN are allowed</p> <p>inactive: loop backs via LAN/ISDN are disabled</p>
Connection type	<p>Connection via LAN: Facility link via Ethernet</p> <p>ISDN-Dial-out Provider 00 .. 11: Facility linking via ISDN using Provider 00 .. 11 (The <i>eibPort</i> can administrate up to 12 ISDN connections)</p>
Dialout-Provider	Choice of the ISDN Providers (Settings in Configuration tool)
Target System ID	Unique ID of the target EIB facility (0 - 255) (No entry : Target System ID = 0)
Rules/ Transformations:	Here the rules are parameterized. See table 2 below.

Table 1: Parameter Facility linking

## Rules for linking facilities

For fast configuration wild-cards (represented by “\*”) are used. According to its position in the address structure the „\*” represents the main, middle or sub group.

Rule	Description
*/* → */*	All main groups and sub groups of the EIB facility 1 are linked directly to the EIB facility 2. Attention: This rule is only allowed for linking facilities via Ethernet!
6/* → 6/*	All group addresses of the main group 6 of the EIB facility 1 are linked directly to the main group 6 of the EIB facility 2.
7/* → 17/*	All group addresses of the main group 7 of the EIB facility 1 are linked to the virtual main group 17 of the EIB facility 2. • No EIB address intersection in facility 2!
*/1 → */1	The addresses 0/1; 1/1; 2/1...32/1 are linked directly to the facility 2.
1/*/4 → 2/*/4	The addresses 1/0/4, 1/1/4, 1/2/4 etc are transformed into the addresses 2/0/4, 2/1/4, 2/2/4 etc.
2/3/* → 2/*	All sub groups of the main group 2/3 are transformed into the sub groups of the main group 2.

Table 2: Rules

## Virtual Group Addresses

Virtual group addresses are the main groups 16-32. They are only available for the eibPort and cannot be used for the parameterization in the ETS. To avoid address intersections the virtual group addresses are used for facility links. If for example in facility 2 a light scene shall be started from facility 1 the light scene in facility 2 is parameterized with a virtual group address (e.g. 17/1). The rule in the job of the facility 1 must be for example 2/3 -> 17/1. The real group address in the facility 1 (e.g. assigned to a switch) is transformed into the virtual group address in the facility 2.

## Linking facilities via ISDN

The ISDN settings are done with the configuration tool (button System at the eibPort start page). The Parameter “Host Name / IP Address” of the Job must be: **192.168.6.2**