# AddLink

## Summary

This block is used to create a link between source(s) and target(s).

#### Implementation

- Drag and drop the block from the palette
- Link the "execute" action from the "executed" topic of the previous block
- By convention, we name the block with the source slot name, an arrow and the target slot name: "sourceSlotName -> targetSlotName"

#### Example

This block creates a link between two artifacts:

- AlarmClass: the alarm classes created by a previous block (it's an array of alarm class). The link is created from the slot "alarm"
- LastAlarm: this is a component from btibToolkit which displays the last X alarms. The link is created to the slot "receive"

Electricity Level 1 Larm Class Larm		Last Alarm	Electricity Level 1 Alarm Class	<b></b>	l <mark>ast Alarm</mark> last Alarm
			Alarm	ſ	Feceive
			→		
lastrisity Loval 2					
lectricity Level 2 arm Class			Electricity Level 2 Alarm Class		
arm			Alarm		
		alarm -> receive	<i>i</i>		
		Add Link Block			
		Execute Executed			
		Executed			
		Alarm -> r	eceive		
🤌 alarm -> red	eive (Add L	.ink Block)			
🔹 🧬 Advanc	ed Config	Advanced Config			
l Iop	ology Policy	/ Star 🗸			
🗎 Lon	Link Type	Unknown -			
🗎 Artifact	s	🕁 Link 🗸	×		
🗎 Source		{alarmClass}			(1)
		-			
Source 🗎	Slot	alarm			()
Target		{lastAlarm}			()
- rarget		[resertain]			
		receive			0 -
Target :	Slot	receive			
Target :	SIOT	OK	Cancel		

## Properties

- Artifacts: Artifacts created by this block
  - Link: link(s) created. Ex: the 2 links between Electricity Level 1 & Electricity Level 2 and Last Alarm
- Source: SFormat to define the source component of the link. Ex: the AlarmClasses added by a previous block
  - A SFormat: artifacts "target" and "source" are available to resolve the slot name depending on source or target. Ex: LonLink on (source. slot('objectId').subtract(5))
- · SourceSlot: SFormat to define the name of the source slot. Ex: topic "alarm" of each AlarmClass (Electricity Level 1 & Electricity Level 2)

- Target: SFormat to define the target component of the link. Ex: the LastAlarm of the AlarmService •
  - TargetSlot: SFormat to define the name of the target slot. Ex: action "receive" of the LastAlarm
    - A SFormat: artifacts "target" and "source" are available to resolve the slot name depending on source or target. Ex: LonLink on {target. slot('objectId').subtract(5)}

Note: you can use {source} or {target} when you want to access to a value from each element of artifacts. Example: nvoAitherSensor{source.slot('objectId'). subtract(3).toInt}

# **Advanced Config**

- Topology Policy: Define the topology of the links to create between several sources and several targets
  - Chain: each source is linked to the first target and it starts a chain with every target. Ex: Source 1 -> Target 1 -> Target 2 -> ... && Source 2 -> Target 1 -> Target 2 -> ..
  - Star: each source is linked to every target. Ex: Source1 -> Target 1 && Source 1 -> Target 2 && Source 2 -> Target 1 && Source 2 -> Target 2
  - Parallel: each source is linked to only one target corresponding by index. Ex: Source 1 -> Target 1 && Source 2 -> Target 2...
- . LonLinkType: Appears only if the LonModule is installed in the station. You can choose what type of LonLinks to create. Be careful with the restrictions offered by the Lon Protocol.

### Behavior: DO

Links are created between target(s) and source(s).

# Behavior: UNDO

If they still exist, links are removed between target(s) and source(s).