Belimo MP-Bus Niagara4 AddOns

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- **MpActualPoint**
- **MpDamperPosPoint**
- **MpDamperTestPoint**
- **MpDataPoint**
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- **MpFlowActualPoint**
- **MpFlowSetpointPoint**
- **MpHeavyUsagePoint**
- **MpInPoint**
- **MpNoSmokeDetectorPoint**
- MpOutResistancePoint
- **MpOutVoltagePoint**
- **MpOverloadPoint**
- MpRangeExtendedPoint
- **MpResetMmStatePoint**
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- **MpSetForcedPoint**
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- **MpSwitchPoint**
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Manager Details

- **MP Address Manager**
- **MP Information View**
- **MP Configuration View**
- **Points Manager**

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Preface

This help document gives you a brief description about using the SysMik Scalibur (SCA) or ILC 2050 BI devices and managing connected Belimo MP-Bus network within WorkplaceN4.

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Document Change Log

V4.3.0.0.4 - 180803

 Release candidate 4 of module sysmikScaMp-rt|wb for usage within sysmikScalo-rt|wb driver to configure connected MP-Bus networks.

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Compatibility and Installation

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NiagaraN4 Platform Compatibility

The **sysmikScaMp** module will work on all Niagara4 releases 4.3 and newer on Windows or Linux operating systems.

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License requirements

There are *no license* requirements for this module. The module sysmikScaMp is provided by SysMik GmbH Dresden without any charge.

Note:

The MP-bus network is a subnet underneath a MP-Bus terminal within a sysmikScalo network.

You must have a valid license for using the sysmikScalo driver module!

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Software requirements

The module sysmikScaMp is part of the SysMik Niagara AddOns installation.

Note:

The components can be used with Scalibur controllers (SCA-340) or ILC 2050BI Operating System version 1.0.1.14 and higher. It can only be used within the sysmikScalo driver. Please see help module <u>docSysmikScalo</u> for more information about the driver.

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Hardware requirements

The sysmikScaMp module can be used with all SysMik Scalibur (SCA) devices or with the Phoenix Contact ILC 2050 BI device.

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MP-Bus Configuration

The MP-Bus configuration is the first step in the usage scenario with connected MP-Bus devices. In this step you can add MP-Devices via Discover function and read additional information and configuration properties.

Note 1:

This component module cannot configure all properties like the Belimo PC Tool can do. Please use this tool first to pre-configure all the needed additional values. It's not the intention of this module to replace the Belimo PC Tool!

Note 2:

You must set the Enabled property within the component sysmikScaMp-ScaMpNetwork to false to be

able to use the configuration managers and views!

This can be done by performing the MP Network action "Set Config Mode" or by setting the following MP network properties to **false**:

- Enabled
- Poll Scheduler -> Poll enabled
- Poll Scheduler -> Invoke Enabled

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Add Network Component

To use the MP-Bus network of an MP-Bus terminal you must add the MP Network component from the module palette first. The MP Network is the child of an MP-Bus terminal.

(see Add SysmikScalo devices for details about adding terminals to a Sysmik Sca Io Network.)

Figure - Adding the MP Network component



MP Address Manager

The default manager view of the MP Network component is the MP Address Manager.

Note:

You must set the Enabled property within the MP Network component sysmikScaMp-ScaMpNetwork to

false to be able to use this manager!

This can be done by performing the MP Network action "Set Config Mode" or by setting the following MP network properties to **false**:

- Enabled
- Poll Scheduler -> Poll enabled
- Poll Scheduler -> Invoke Enabled

Figure - MP Address Manager

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File Edit Search Bookmarks Tools	Window Address Manager Help Quick Search	
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🕒 🔿 🔀 🔇 My Network	Discovered	objects
My Host : TST-W10-102-105 (test)	Device Name Series No Mp Address Profile	ţ\$
▶ ○ 10.0.7.117		
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Platform		
🔝 🎽 Station (testMp)		
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O Drivers		
▶ 🕑 NiagaraNetwork		
SysmikScaloNetwork Applie 1	Address Manager 0	objects
Alarm Source Info	Name Comm Status Device Name Mp Address New Mp Address Series No Designation Profile Devcat Devfam Builtin	Prof 🛡
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MP Network		- 1
Apps		
• Palette		- 1
sysmikScaMp		_
MP Network		- 1
Points		- 1
• Help	🖉 Edit 🔲 Cancel 🕀 Add 🔍 Taelt 🇰 Discover 🙄 From MP 🔛 Select All 🔓 Save MP Add	

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Discover devices

The Discover button in Mp Address Manager can be used to search for ALL MP-Bus devices connected to the selected terminal. This function tries to find all MP-Bus devices with a valid MP address.

Important:

The discover function needs a valid configured MP-Bus network for a proper work.

Please use the MP-Bus configuration web sites to do the job first or see the following steps for adding devices manually.

If you have a not addressed MB-Bus network do the following steps to add devices manually by using the series number.

- Use the New button to add one new device.
- In the Add Mp device dialog enter the Series No, set the needed New MP Address and assign a unique slot Name and set the Device Name. Finally use Ok to add the new device.

Figure - Add MP-Bus device manually

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My Host : TST-W10-102-105 (test)	Device0	[Mp1	1 21125-20033-0	10-001		4 Add N	MP devi	ce							×
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TTT Platform	Device4	.[Mp5	101109-00153-1	42-160	LI	📄 Narr	ne		Device9						
Station (testMp)	Device5	[Mp6	101308-10006-1	61-200		📄 Ena	bled		true						
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- O Drivers	Device8	. [Mp9	101638-11108-1	04-255	в	🗎 New	v Mp Ac	Idress	Mp12		-				
NiagaraNetwork	Device9	.[Mp10	101115-10035-1	58-159	N	📄 Seri	ies No		01115-10	0035-	158-159				B
SysmikScaloNetwork						Desi	ignatio	n	NMV-D3-P	MP.					TB.
MPBus_1						Bro	file		Vay Contro	oller					A
Alarm Source Into Alarm Source Into						Dev	rat		Vav	ollei					
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sysmikScaMp						Seri	ies No I	85	56						
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- Repeat the previous step until all needed devices have been added.
- If all devices have been added use the Save MP Addr. button to apply the values.
- If all devices have been successfully set to the MP address use Select All and remove the devices from the station database again.
- Now you can use the Discover button to add all devices like described below.

Figure - Discover MP-Bus devices

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192.168.1.1 (testMp) : Station (testMp) : Config	: Drivers : Sysm	ikScaloNetwork :	MPBus_1	: MP Network			🖌 Sca M	p Address Manage	er 🗸
• Nav	📀 🥕 Sca Mp Devi	ce Discover					Succe	ss 📎 🗙	
	Discovered							10 objects	
	Discovered Device Name	Series No.	Mp Address	Profile				n objecta	
My Host: TST-W10-102-105 (test)	Device MP1	21125-20033-010-001	Mp1	Data Pool Device					
 Interference Inter	Device MP2	00240-30025-104-100	Mp2	Fire Smoke Damp	er				
▶ ar Platform	Device MP3	00548-00014-146-142	Mp3	Vav Controller	-				
Platform	Device_MP4	00543-10280-142-136	Mp4	Vav Controller					
Station (testMp)	Device_MP5	01109-00153-142-160	Mp5	Vav Controller					
Alarm	Device_MP6	01308-10006-161-200	Mp6	MplDamper					
Contrig Genvices	Device_MP7	00642-10009-128-048	Mp7	Mp Damper				_	
O Drivers	Device_MP8	21243-10093-001-136	Mp8	Mpx Controller					
NiagaraNetwork	Device_MP9	01638-11108-104-255	Mp9	Fire Smoke Damp	er			-	
SysmikScaloNetwork	Address Mana	ger						0 objects	s
MPBus_1	Name Comm Sta	atus Device Name	Mn Address	New Mp Address	Series No Desig	nation Profile	Devcat Devfam	Builtin Prof	
Points	indiric commod	Just Device Hame	inp / ddi cab	new np naaress	Series no Besig	, addin Tronic	bereat berrain	Buildin 1101	11
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After having all found devices in the Discover (learn) table, you can add them to the station database by using the Add button.

Tip:

The new added components are named automatically using the MP address.

See the following picture for details.

Figure - Add MP-Bus devices

Device0 true Device1 true Device2 true Device3 true Device4 true Device6 true Device6 true Device8 true Device8 true	Device_MP1 Device_MP2 Device_MP3 Device_MP4 Device_MP5 Device_MP6 Device_MP7 Device_MP8 Device_MP9	Mp1 Mp2 Mp3 Mp4 Mp5 Mp6 Mp7 Mp8	Not Used Not Used Not Used Not Used Not Used	21125-20033-010-001 00240-30025-104-100 00548-00014-146-142 00543-10280-142-136 01109-00153-142-160 01308-10006-161-200	Data Pool Device Fire Smoke Damper Vav Controller Vav Controller Vav Controller	
Device1 true Device2 true Device3 true Device4 true Device5 true Device6 true Device7 true Device8 true Device9 true	Device_MP2 Device_MP3 Device_MP4 Device_MP5 Device_MP6 Device_MP7 Device_MP8 Device_MP9	Мр2 Мр3 Мр4 Мр5 Мр6 Мр7 Мр8	Not Used Not Used Not Used Not Used Not Used	00240-30025-104-100 00548-00014-146-142 00543-10280-142-136 01109-00153-142-160 01308-10006-161-200	Fire Smoke Damper Vav Controller Vav Controller Vav Controller	
Device2 true Device3 true Device4 true Device5 true Device6 true Device7 true Device8 true Device9 true	Device_MP3 Device_MP4 Device_MP5 Device_MP6 Device_MP7 Device_MP8 Device_MP9	Мр3 Мр4 Мр5 Мр6 Мр7 Мр8	Not Used Not Used Not Used Not Used	00548-00014-146-142 00543-10280-142-136 01109-00153-142-160 01308-10006-161-200	Vav Controller Vav Controller Vav Controller	
Device3 true Device4 true Device5 true Device6 true Device6 true Device8 true Device8 true Device9 true	Device_MP4 Device_MP5 Device_MP6 Device_MP7 Device_MP8 Device_MP8 Device_MP9	Мр4 Мр5 Мр6 Мр7 Мр8	Not Used Not Used Not Used	00543-10280-142-136 01109-00153-142-160 01308-10006-161-200	Vav Controller Vav Controller	
Device4 true Device5 true Device6 true Device7 true Device8 true Device9 true	Device_MP5 Device_MP6 Device_MP7 Device_MP8 Device_MP8 Device_MP9	Mp5 Mp6 Mp7 Mp8	Not Used	01109-00153-142-160 01308-10006-161-200	Vav Controller	
Device5 true Device6 true Device7 true Device8 true Device9 true	Device_MP6 Device_MP7 Device_MP8 Device_MP9	Mp6 Mp7 Mp8	Not Used	01308-10006-161-200		
Device6 true Device7 true Device8 true Device9 true	Device_MP7 Device_MP8 Device_MP9	Mp7 Mp8	Netllord		MplDamper	
Device7 true Device8 true Device9 true	Device_MP8 Device_MP9	Mp8	Notosed	00642-10009-128-048	Mp Damper	
Device8 true Device9 true	Device_MP9		Not Used	21243-10093-001-136	Mpx Controller	
Device9 true		Mp9	Not Used	01638-11108-104-255	Fire Smoke Damper	
	Device_MP10	Mp10	NotUsed	01115-10035-158-159	Vav Controller	
New Mp Add	Ress Not Used	-		₽ B		
Designation	21125-2003.	5-010-001		A-1 A-1		
Profile	Data Pool Devi	ice				
Devcat	-					
Devfam	-					
Builtin	-					
Profcat	8					
Proftype	10					
Series No B5	8					
Devfam Builtin Profcat	8					

This will result in a view like shown in the next picture.

Figure - Added MP-Bus devices

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My Host : TST-W10-102-105 (test)	Device Name	Series No	b	Mp Addres	s Profile					ţ.
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Platform	Evice_M	P4 00543-102	280-142-136	Mp4	Vav Contr	oller				
 Station (testMp) Alarm 	Device_M	P5 01109-003	153-142-160	Mp5	Vav Contr	oller				
Config	Device_M	P6 01308-100	006-161-200	Mp6	Mpl Damp	ber				
G Services	Device_M	00642-10	009-128-048	Mp7	Mp Damp	er				
 Orivers 	Device_M	P8 21243-100	093-001-136	Mp8	MpxCont	roller				
NiagaraNetwork	Device_M	01638-11	108-104-255	Mp9	Fire Smok	e Damper				-
V SysmikScaloNetwork	Address M	anager								10 objects
MPBus_1	Name	(Device Name	Mp Addres	ss Series	No	Designation	Profile	Devcat	Devfam	Bi 🛱
Points	Device0	Device MP1	Mp1	121125-2	20033-010-00	1	Data Pool Device			. ^
MP Network	Device1	Device MP2	Mp2	1 00240-3	30025-104-10	- 0	Fire Smoke Damper	Fire Smoke	Bf Mft Top	Ba
Apps	Device2	Device MP3	Mp3	1 00548-0	00014-146-14	2	Vav Controller	Vav	Vav Mp Rotate A	cuator YE
• Palette	Device3	Device_MP4	Mp4	1 00543-1	0280-142-13	6	Vav Controller	Air	Exc Rotate Act N	ew Mp YE
sysmikScaMp	Device4	Device_MP5	Mp5	101109-0	00153-142-16	0	Vav Controller	Air	Exc Rotate Act N	ew Mp YE
MP	Device5	Device_MP6	Mp6	101308-1	10006-161-20	0	MplDamper	Mpl	Mpl Type Actuat	tor -
MP Network	Device6	Device_MP7	Mp7	1 00642-1	10009-128-04	8	Mp Damper	Valve Linear	Nv Mft	Y E
P O Points	🖀 Device7	Device_MP8	Mp8	121243-1	10093-001-13	6	Mpx Controller	-	-	-
	Device8	Device_MP9	Mp9	101638-1	11108-104-25	5	Fire Smoke Damper	Fire Smoke	Bf Mft Top	Th
	Device9	Device MP10	Mp10	101115-1	10035-158-15	9	Vav Controller	Vav	Vav Compact D3	YE
- Help	New	💉 Edit	Cance	el 🕀 A	dd 🕄	Tagit 👬 I	Discover		Select All	≩ ₃ Save MI

Now hide the learn table, then use the Select All button followed by From MP button to read some more MP-Bus properties (like designation) from MP-Bus network.

The following picture shows an user interface example after a From MP job.

Figure - From MP

🏠 Niagara Workbench N4 4.2.36.38.1.4									-	
File Edit Search Bookmarks Tools	Window Ad	dress Manage	r Help					Q Quick Search		
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 	Device_MI	P2 00240-300	025-104-100	Mp2	Fire Smoke I	Damper				
Platform	E Device_M	00548-00	014-146-142	Mp3	Vav Controll	ler				
Platform	E Device_MI	P4 00543-102	280-142-136	Mp4	Vav Control	ler				
Station (testMp)	E Device_M	P5 01109-003	153-142-160	Mp5	Vav Control	ler				
Alarm	E Device_M	P6 01308-100	006-161-200	Mp6	Mpl Damper	r				
G Services	E Device_M	00642-10	009-128-048	Mp7	Mp Damper					
O Drivers	E Device_Mi	P8 21243-100	093-001-136	Mp8	Mpx Control	ller				
NiagaraNetwork	E Device_Mi	9 01638-11	108-104-255	Mp9	Fire Smoke I	Damper				
 SysmikScaloNetwork 										
▼ 🖬 MPBus_1	Address M	anager								l0 objects
Alarm Source Info	Name	(1 Mp Address	I Series No		Designation	Profile	Devcat	Devfam	Builtin	Prof 🛡
Points	Device0	[Mp1	121125-200	33-010-001		Data Pool Device	-	-	-	8
MP Network	Device1	. [Mp2	1 00240-300	25-104-100	BF24TL-T-ST	Fire Smoke Damper	Fire Smoke	Bf Mft Top	Bae2	0
P 🖽 Apps 🗸	Device2	. [Mp3	1 00548-000	14-146-142	NMV-D2-MP	Vav Controller	Vav	Vav Mp Rotate Acuator	Y Built In	0
• Palette	Device3	. [Mp4	1 00543-102	80-142-136	NM24A-MP	Vav Controller	Air	Exc Rotate Act New Mp	Y Built In	0
🖿 🗶 🔊 🎽 sysmikScaMp 🔹	🖀 Device4	. [Mp5	101109-001	53-142-160	LR24A-MP CEL	Vav Controller	Air	Exc Rotate Act New Mp	Y Built In	0
MP	Device5	[Mp6	101308-100	06-161-200		Mpl Damper	Mpl	Mpl Type Actuator	-	0
O Beinte	Device6	. [Mp7	100642-100	09-128-048	NV24-MFT2	Mp Damper	Valve Linear	Nv Mft	Y Built In	0
P U rombs	Device7	[Mp8	121243-100	93-001-136		Mpx Controller	-	-	-	1
	Device8	. [Mp9	101638-111	08-104-255	BKN230-24-1-M	Fire Smoke Damper	Fire Smoke	Bf Mft Top	Third Part	/ 0
	Device9	.[Mp10	101115-100	35-158-159	NMV-D3-MP	Vav Controller	Vav	Vav Compact D3	Y Built In	0 -
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Change Addresses

Use the Edit button in Mp Address Manager to change the MP Address.

Figure - Edit New Mp Address

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File Edit Search Bookmarks Tools	Window Address Manager Help Quick Search
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192.168.1.1 (testMp) : Station (testMp) : Config	: Drivers : SysmikScaloNetwork : MPBus_1 : MPNetwork 🖌 Sca Mp Address Manager
- Nav	Address Manager 10 objects
🕒 🔿 🐹 🔇 My Network	Name Commistatus Device Name and commission of the second se
	Add MP device X Add MP device X
My Host: 151-W10-102-105 (test)	Device1 Device MP2 Name Enabled Device Name Mp Address New Mp Address Series No
▼	Device2 Device_MP3 Provide true Device NotUsed NotUsed NotUsed O0000-0000-000-000
▶ a r Platform	Device3 Device_MP4
TTT Platform	Device4 Device_MP5 Tenabled true
Station (testMp)	Device5 Device_MP6 Device Name Device
Alarm	Device6 Device_MP7 Device_MP7 NotUsed
G Services	Device7 Device_MP8 New Mp Address Not Used
Orivers	Device MP9 Device_MP9 Series No 000000-0000-000 T
NiagaraNetwork	Device9 Device_MP10
SysmikScaloNetwork	
MPBus_1	C Profile Unknown Type
Points	
MP Network	
Apps	Profeat 0
- Palette	Proftype 0
SvsmikScaMp	Series No B5 0
	Series No B6 0
MP Network 🎌 New	X
Type to Add	Sca Mp Device v OK Cancel
0	Cancel
- Help	New Fdit Cancel Add Tagit H Discover From MP Select All 2. Save M
	There is care a care of the state in the state of the sta

If all new MP addresses have been assigned use Save MP Addr. button to write the new settings into the devices.

Note:

The manager checks first whether or not the MP addresses are unique!

Figure - Check success or fail

🏰 Niagara Workbench N4 4.2.36.38.1.4									-	□ ×
File Edit Search Bookmarks	Tools Window	v Address Mar	nager Help					Q Quid	k Search	
	To 🔝 🖿		Б 🕞 🕺	0 <u> </u>	12b × 1	+ t _{te}			÷ 📎	8, >>
192.168.1.1 (testMp) : Station (testMp) :	Config : Drive	rs : SysmikSca	iloNetwork : MP	Bus_1 :	MP Network				🖍 Sca Mp Add	ress Manager 👻
- Nav	Address Man	ager								10 objects
🖢 🖸 🙁 🕲 My Network 🗸	es No	Designation	Profile	Devcat	Devfam	Builtin	Profcat	Proftype	Hint Step	ţ,
My Host : TST-W10-102-105 (test)	25-20033-010-001		Data Pool Device	-	-	-	8	10		
▶	10-30025-104-100	BF24TL-T-ST	Fire Smoke Damper	Fire Smoke	Bf Mft Top	Bae2	0	0		
 I92.168.1.1 (testMp) 	18-00014-146-142	NMV-D2-MP	Vav Controller	Vav	Vav Mp Rotate Acuator	Y Built In	0	0		
Platform	43-10280-142-136	NM24A-MP	Vav Controller	Air	Exc Rotate Act New Mp	Y Built In	0	0		
Platform)9-00153-142-160	LR24A-MP CEL	Vav Controller	Air	Exc Rotate Act New Mp	Y Built In	0	0		
Station (testMp))8-10006-161-200		MplDamper	Mpl	Mpl Type Actuator	-	0	0		
Alarm	12-10009-128-048	NV24-MFT2	Mp Damper	Valve Linear	Nv Mft	Y Built In	0	0		
G Services	13-10093-001-136		Mpx Controller	-	-	-	1	1		
O Drivers	38-11108-104-255	BKN230-24-1-MP	Fire Smoke Damper	Fire Smoke	Bf Mft Top	Third Party	0	0		
NiagaraNetwork	15-10035-158-159	NMV-D3-MP	Vav Controller	Vav	Vav Compact D3	Y Built In	0	0	Address changed to	o Mp12
- A SyamilySeptember										

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Replace Devices

If you have to replace a defect device by another one (with the same Profile) use the Action Replace Device.

Important:

Do not change the series number via Edit button!

The following figure shows the steps for a device replacement. The action must be confirmed first before you can enter the series number.

Note:

The entered series number is checked against basic syntax rules!

Figure - Replace device

🌺 Niagara Workbench N4 4.2.36.38.1.4								— C	X C
File Edit Search Bookmarks	Tools Window Addre	ss Manager	Help				Q Quick Search		
	; 🗈 🖬 - 🛄	B G	в ж	o î 🗈	X h	A 🖌 🗟 🖌		S 3	>>
192.168.1.1 (testMp) : Station (testMp) :	Config : Drivers : Sys	mikScaloNetwo	ork : MPBu	is_1 : MP Netw	vork		🖊 Sca	Mp Addres	s Manager 👻
• Nav	Address Manager							10	objects
😫 🔿 🐹 🔇 My Network 🔽	Name Comm Status	Device Name	Mp Address	New Mp Address	Series No	Designation	Profile	Devcat	0 🛱
▶ 💿 My Host : TST-W10-102-105 (test)	Device0	Device_MP1	Mp1	Not Used	21125-20033	🎊 Replace Device		×	•
▶	Device1	Device_MP2	Mp2	NotUsed	00240-30025	<u></u>	ieh te inveke "Denlase	k Davice"2	e Bf M
 	Device2	Device_MP3	Mp3	NotUsed	00548-00014	Are you sure you w	ish to invoke "Replace	Device	Vav I
Platform	🖀 De Views	▶ <mark>₽4</mark>	Mp4	Not Used	00543-10280	Yes	No	_	Exc F
Platform	De Actions	▶ <u>R</u> u	un Forced Con	trol	01109-00153	142-160 I D24A-MD CEL	Vav Controller	Air	Exc F
Alarm	e New	► Ri	un <u>S</u> ynchronis	ation	01308-10006-	Replace Device		~	Mpl
Config	De Calita Tama	Ri	un <u>A</u> dapation		00642-10009-	00000-00000-000-000		ne	arNv№
Gervices	De	RI	un Reset <u>M</u> alfu	inction	21243-10093-	ОК	Cancel		-
🔻 🙆 Drivers	🖀 _{De} Make Template	RL	u <u>n</u> Set Relative	2	01638-11108-	104-255 BKN230-24-1-MP	Fire Smoke Damper	Fire Smok	e Bf M
NiagaraNetwork	🔒 De Cut	Ctrl+X	eplace <u>D</u> evice		01115-10035-	158-159 NMV-D3-MP	Vav Controller	Vav	Vav
 SysmikScaloNet 	Сору	Ctrl+C Se	et Special <u>F</u> unc	2					
▼ 🚔 MPBus_1	Paste	Ctrl+V U	pdate Op Rang	ge Facet					
Alarm S B Points	Paste Special								

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MP Information View

Another manager view of the MP Network component is the MP Info View.

Note 1:

You must set the Enabled property within the MP Network component sysmikScaMp-ScaMpNetwork to false to be able to use this manager!

This can be done by performing the MP Network action "Set Config Mode" or by setting the following MP network properties to **false**:

- Enabled

- Poll Scheduler -> Poll enabled
- Poll Scheduler -> Invoke Enabled

Note 2:

Only the InfoFirmware property slot is saved in the station. All other information is set to transient and not part of the station database!

Figure - MP Info View

Niagara Workbench N4 4.2.36.38.1.4										-	
File Edit Search Bookmarks To	ools Window	Information Vie	w Help						Q Quick	Search	J
	To 🔝 🖿		R 🖬 👌	6 8	Ê	C'a (×	∽ <u>τ</u> ⊗	B 🛱		
192.168.1.1 (testMp) : Station (testMp) : Co	nfig : Drivers	s : SysmikScaloN	letwork :	MPBus_1	: N	IP Netwo	rk			🖍 Sca	I Mp Info View 👻
• Nav	Information V	liew									10 objects
🖢 🔿 💌 🔇 My Network 🗸	Designation	Profile	(Firmware	Reversed	d Sync C) Y Setpo	Reve	r Setting Control Signal	U5 Output Mode	Control Mode	Torque l 🕫
▶ 💿 My Host : TST-W10-102-105 (test)		Data Pool Device	?.?	-	false	-	-	-	-	-	0 96
I0.0.7.117	BF24TL-T-ST	Fire Smoke Damper	.335.10	Off	true	Off	Off	Analog voltage control	Softswitch	Position control	100 %
👻 🔁 192.168.1.1 (testMp)	NMV-D2-MP	Vav Controller	. 312337.4	Off	false	Off	On	Analog voltage control	Volumetric Flow0	Position control	100 %
▶ a r Platform	NM24A-MP	Vav Controller	. 3 12337.4	Off	false	Off	On	Analog voltage control	Position1	Position control	100 %
Platform	LR24A-MP CEL	Vav Controller	. 12337.25	Off	true	Off	On	Analog voltage control	Position1	Position control	100 %
Station (testMp)		Mpl Damper	. 3 7.7		false	-	-	-	-	-	0 96
Alarm	NV24-MFT2	Mp Damper	. 354.1	Off	false	Off	Off	Analog voltage control	Position1	Position control	100 %
		Mpx Controller	7.7		false	-	-	-	-	-	0 96
O Drivers	BKN230-24-1-MP	Fire Smoke Damper	. 37.7	Off	false	Off	Off	Open / close control	Softswitch	Position control	100 %
NiagaraNetwork	NMV-D3-MP	Vav Controller	. : 0.0	Off	false	Off	On	Analog voltage control	Volumetric Flow0	Volumetricflow	100 %
👻 🕙 SysmikScaloNet											
	4	_									
- Help					В. та	σlt	MP Er	om MP			
					-0.10	P					_

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MP Configuration View

Another manager view of the MP Network component is the MP Config View.

Note 1:

This manager view cannot configure all properties like the Belimo PC Tool can do.

Please use this tool first to pre-configure all the needed additional values. It's not the intension of this

manager view to replace the Belimo PC Tool!

Note 2:

You must set the Enabled property within the MP Network component sysmikScaMp-ScaMpNetwork to false to be able to use this manager!

This can be done by performing the MP Network action "Set Config Mode" or by setting the following MP network properties to **false**:

- Enabled
- Poll Scheduler -> Poll enabled
- Poll Scheduler -> Invoke Enabled

Note 3:

All properties shown in the view are saved in the station database.

Figure - MP Config View

Miagara Workbench N4 4.2.36.38.1.4										-	
File Edit Search Bookmarks	Tools Windo	w Configuration	View Hel	р					Q Qui	ck Search	
	; 🔂 🖬 🕯		B D	ж 📀 [j Da :	X S	$\ell^{\flat} = {}^{t} {}^{t} {}^{t}$		00		
192.168.1.1 (testMp) : Station (testMp) :	Config : Drive	ers : SysmikScald	Network	: MPBus_1	: MP Netwo					🖊 s	ca Mp Config View 🤸
• Nav	Configuratio	on View									10 objects
ピ 🖸 🗵 🕲 My Network 🔻	Designation	Profile	(1 Minimum	Intermediate	Maximum	Transit Ti	Operating I	Sync Op	Config Vnom	Config Vmax	Config Vmi 🛱
My Host : TST-W10-102-105 (test)		Data Pool Device	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
▶	IF24TL-T-ST	Fire Smoke Damper	0,00 %	0,00 %	0,00 %	0,0 s	0,00	true	0,00	0,00	0,00
- 🗢 192.168.1.1 (testMp)	IMV-D2-MP	Vav Controller	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
▶ 🚁 Platform	IM24A-MP	Vav Controller	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
Platform	R24A-MP CEL	Vav Controller	0,00 %	0,00 %	0,00 %	0,0 s	0,00	true	0,00	0,00	0,00
Station (testMp)		MplDamper	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
Config	IV24-MFT2	Mp Damper	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
Gervices		Mpx Controller	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
Trivers	KN230-24-1-MP	Fire Smoke Damper	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
NiagaraNetwork	IMV-D3-MP	Vav Controller	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
SysmikScaloNet											
• Help		_	🖋 Edit	🖏 Tagit	From I	IP R	Select All	^{MP} T	o MP		

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Read Configuration

Use the button From MP to read all configuration properties in the MP Config View.

Note:

It maybe be that not all devices provide all information!

So, it does not have to be an error if you see question marks in Comm Status.

Figure - From Mp started

Niagara Workbench N4 4.2.36.38.1.4											-	
File Edit Search Bookmarks	Tools Windo	w Configuration	View Help						Q Quic	k Search		/
	; 🔁 🖬 I		R P (ж ©	î B	X S	$e^{-t_{\mathbf{t}_{\mathbf{t}}}}$	× 0		R	MP →	
192.168.1.1 (testMp) : Station (testMp) :		ers : SysmikScale	oNetwork :	MPBus_1	: MP Net					/	Sca Mp (ConfigView 👻
• Nav	Configurati	on View									1	0 objects
🕒 🖸 🔀 🕅 My Network	Designation	Profile	Comm Status	Hint Step	Minimum	Intermediate	Maximum	Transit T	ir Operating	F Sync O	p Config Vn	om C 🛱
My Host : TST-W10-102-105 (test)		Data Pool Device			0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00
I0.0.7.117	F24TL-T-ST	Fire Smoke Damper			0,00 %	0,00 %	0,00 %	0,0 s	0,00	true	0,00	0,00
 	IMV-D2-MP	Vav Controller			0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00
Platform	IM24A-MP	Vav Controller		1 of 5	0,00 %	50,00 %	100,00 %	0,0 s	0,00	false	0,00	0,00
Platform	R24A-MP CEL	Vav Controller		1 of 5	0,00 %	50,00 %	100,00 %	0,0 s	0,00	true	0,00	0,00
Station (testMp)		MplDamper			0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00
	IV24-MFT2	Mp Damper		1 of 5	15,00 %	65,00 %	85,00 %	0,0 s	0,00	false	0,00	0,00
Gervices		Mpx Controller			0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00
- O Drivers	KN230-24-1-MP	Fire Smoke Damper	?	1 of 5	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00
NiagaraNetwork	IMV-D3-MP	Vav Controller		1 of 5	0,00 %	50,00 %	100,00 %	0,0 s	0,00	false	0,00	0,00
-												
- Help	4		a care	P Toget	MP Ero		Coloct All	HP To I	ID			•
			201L	*© Tagir	¢ FIO	III MIC EK	OCICUL AII	-	11			

If all values have been read the available values are shown in the table depending on the profile type.

Figure - From Mp finished

Niagara Workbench N4 4.2.36.38.1.4										_	
File Edit Search Bookmarks	Tools Windo	w Configuration	View Hel	p					Q Quie	ck Search	
) 🕞 🔳 🕯		B 🗜	% @ [ŭ - Eb - 1	X h	$\ell^{\diamond} = {}^{t} t_{i}$	ø	S &		
192.168.1.1 (testMp) : Station (testMp) :		ers : SysmikScale	oNetwork	: MPBus_1	: MP Netwo					🖊 s	ca Mp Config View 👻
• Nav	Configuratio	on View									10 objects
🕒 🖸 🐹 🚱 My Network	Designation	Profile	(1 Minimum	Intermediate	Maximum	Transit Ti	Operating	F Sync Op	Config Vnom	Config Vmax	Config Vmi 🛱
My Host : TST-W10-102-105 (test)		Data Pool Device	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
▶	IF24TL-T-ST	Fire Smoke Damper	. 30,00 %	50,00 %	100,00 %	74,0 s	95,95 deg	true	0,00	0,00	0,00
 	IMV-D2-MP	Vav Controller	. 5 0,00 %	50,00 %	100,00 %	0,0 s	95,20 deg	false	2000,00	100,00	0,00
▶ ⊠ Platform	IM24A-MP	Vav Controller	. 5 0,00 %	50,00 %	100,00 %	50,0 s	95,00 deg	false	0,00	100,00	0,00
Platform	R24A-MP CEL	Vav Controller	. 50,00%	50,00 %	100,00 %	10,0 s	45,00 deg	true	0,00	100,00	0,00
Station (testMp)		MplDamper	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
Config	IV24-MFT2	Mp Damper	. 3 15,00 %	65,00 %	85,00 %	40,0 s	15,00 mm	false	0,00	0,00	0,00
Gervices		MpxController	. 30,00%	0,00 %	0,00 %	90,0 s	89,28 deg	false	0,00	0,00	0,00
- O Drivers	KN230-24-1-MP	Fire Smoke Damper	. 3 0,00 %	0,00 %	0,00 %	150,0 s	95,00 deg	false	0,00	0,00	0,00
NiagaraNetwork	IMV-D3-MP	Vav Controller	. 5 0,00 %	50,00 %	100,00 %	50,0 s	90,00 deg	false	0,00	100,00	0,00
~											
• Help	4	_	💉 Edit	🖏 Tagit	From I	MP R	Select All	M₽ T	o MP	_	•

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Write Configuration

Use the button Edit to change the needed configuration properties in the MP Config View.

Note:

It can be that not all devices are providing all information and some values cannot be changed depending on the profile type!

Figure - Use Edit to change the values

Niagara Workbench N4 4.2.36.38.1.4										-	
File Edit Search Bookmarks	Tools Windo	w Configuration	View He	lp					Q Quie	k Search	
	; 🔂 🗓 (G 🗜	% @	î Di	X h	(* t	ø	S 8	^{₩₽} 🖳 [₩] ₽	
192.168.1.1 (testMp) : Station (testMp) :		ers : SysmikScale	oNetwork	: MPBus_1	: MP Netwo					🖍 so	a Mp Config View 👻
• Nav	Configuratio	on View									10 objects
🖌 💭 🔀 🕅 My Network	Designation	Profile	(1 Minimum	Intermediate	Maximum	Transit Tir	Operating	F Sync O	p Config Vnom	Config Vmax	Config Vmi 🛱
My Host : TST-W10-102-105 (test)		Data Pool Device	0.00.96	0.00.96	0.00.96	0.0 %	0,00	false	0,00	0,00	0,00
▶ □ 10.0.7.117	F24TL-T-ST	Fire Smoke Dam	Confirm - W	/rite ALL values		×	95,95 deg	true	0,00	0,00	0,00
 	IMV-D2-MP	Vav Controller	YES = Write all values into the devices 95,20 deg false 2000,00					2000,00	100,00	0,00	
▶ A T Platform	IM24A-MP	Vav Controller	NO=Writ	e only the changed values into		es into the devices 95,0		false	0,00	100,00	0,00
Platform	R24A-MP CEL	Vav Controller	Ye	s No	Cancel		45,00 deg	true	0,00	100,00	0,00
👻 🌌 Station (testMp)		MplDamper	0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00	0,00
Alarm	IV24-MFT2	Mp Damper	. 3 10,00 %	55,00 %	95,00 %	60,0 s	15,00 mm	false	0,00	0,00	0,00
Contig		Mpx Controller	. 30,00%	0,00 %	0,00 %	90,0 s	89,28 deg	false	0,00	0,00	0,00
	KN230-24-1-MP	Fire Smoke Damper	. 3 0,00 %	0,00 %	0,00 %	150,0 s	95,00 deg	false	0,00	0,00	0,00
NiagaraNetwork	IMV-D3-MP	Vav Controller	. 50,00 %	50,00 %	100,00 %	50,0 s	90,00 deg	false	0,00	100,00	0,00
											· · · · · · · · · · · · · · · · · · ·
• Help	4			· - · · ·							
			💉 Edit	🗞 Tagit	From	MP R	Select All	^{MP} 1	Го МР		
To MP											

Use finally the button To MP to write all or only all changed configuration properties into the MP devices.

If all values have been written and read back the table shows the new settings. Depending on the profile type it is possible that some values are rejected and not changed!

Figure - To Mp finished

Niagara Workbench N4 4.2.36.38.1.4											_	
File Edit Search Bookmarks	Tools Windo	w Configuration	View Hel	р					C	λ Quick S	earch	
	li 1		B 🗜	ж	<u>ن</u>	B ×	5 0	ħ. 1	° 🛇 🛛	8 HP	R ¥	
192.168.1.1 (testMp) : Station (testMp) : Config : Drivers : SysmikScaloNetwork : MPBus_1 : MPNetwork 🖌 🖍 Sca Mp Config View												
• Nav	Configuratio	on View										10 objects
🖆 🖸 🗵 🔇 My Network 🔻	Designation	Profile	Comm Statu	s Hint S	Minimum	Intermediate	Maximum	Transit T	iı Operating	F Sync O	p Config Vnom	Config \ 🛱
My Host : TST-W10-102-105 (test)		Data Pool Device			0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00
▶ ○ 10.0.7.117	F24TL-T-ST	Fire Smoke Damper			0,00 %	50,00 %	100,00 %	74,0 s	95,95 deg	true	0,00	0,00
 I92.168.1.1 (testMp) 	IMV-D2-MP	Vav Controller			0,00 %	50,00 %	100,00 %	0,0 s	95,20 deg	false	2000,00	100,00
Platform	IM24A-MP	Vav Controller			0,00 %	50,00 %	100,00 %	50,0 s	95,00 deg	false	0,00	100,00
Platform	R24A-MP CEL	Vav Controller			0,00 %	50,00 %	100,00 %	10,0 s	45,00 deg	true	0,00	100,00
Station (testMp)		MplDamper			0,00 %	0,00 %	0,00 %	0,0 s	0,00	false	0,00	0,00
Alarm	IV24-MFT2	Mp Damper	???	5 of 5	10,00 %	55,00 %	95,00 %	60,0 s	15,00 mm	false	0,00	0,00
Contig		MpxController			0,00 %	0,00 %	0,00 %	90,0 s	89,28 deg	false	0,00	0,00
Drivers	KN230-24-1-MP	Fire Smoke Damper			0,00 %	0,00 %	0,00 %	150,0 s	95,00 deg	false	0,00	0,00
OnigaraNetwork	IMV-D3-MP	Vav Controller			0,00 %	50,00 %	100,00 %	50,0 s	90,00 deg	false	0,00	100,00
			1	1	1					1		
- Help	4			55		un l	-					•
			🖋 Edit	00 T	Tagit	From MP	R Select	All	то МР			

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Runtime and Points usage

The MP-Bus point usage is the second step in the workflow of using connected MP-Bus devices. In this step you can add points via Discover.

Note:

You must set the Enabled property within the component <u>sysmikScaMp-ScaMpNetwork</u> to true to be able to poll and invoke point values.

Tip:

You can use the MP Address Manager view to navigate to the points manager.

Select a device and use the button >>Points to navigate to the points component of the device.

The Points folder is a child (frozen slot) of the <u>sysmikScaMp-ScaMpDevice</u> component.

Figure - Us	sing button	>>Points in N	MP Address	Manager
-------------	-------------	---------------	------------	---------

🁫 Niagara Workbench N4 4.2	.36.38.1.4									-	
File Edit Search	Bookmark	s Tools V	Vindow Add	dress Manage	r Help				Q Quick Sear	ch	
< → Ia □ -	D 🕈	S	i 🖿 - I		a ₽ %	0 🖞 🖻 🗙	(h) (*)	t. D 🖋 I) 🛇 🕀	۶ »
192.168.1.1 (testMp) : Stati	ion (testMp)			SysmikScaloNe	twork : MPBu	s_1 : MP Network			1	Sca Mp Addr	ess Manager 👻
• Nav 🔄	Address N	lanager									10 objects
	Name	Comm Status	Device Name	Mp Address	New Mp Address	Series No	Designation	Profile	Devcat	Devfam	tă
- SysmikScaloNetwork	🖀 Device0		Device_MP1	Mp1	Not Used	21125-20033-010-001		Data Pool Device	-		
MPBus_1	Device1		Device_MP2	Mp2	Not Used	00240-30025-104-100	BF24TL-T-ST	Fire Smoke Damper	Fire Smoke	Bf Mft Top	
Alarm Source Infi	Device2		Device_MP3	Mp3	Not Used	00548-00014-146-142	NMV-D2-MP	Vav Controller	Vav	Vav Mp Rotat	e Acuator
Points	Device3		Device_MP4	Mp4	Not Used	00543-10280-142-136	NM24A-MP	Vav Controller	Air	Exc Rotate Ac	t New Mp
MP Network	Device4		Device_MP5	Mp5	Not Used	01109-00153-142-160	LR24A-MP CEL	Vav Controller	Air	Exc Rotate Ac	t New Mp
Poll Schedu	Device5		Device_MP6	Mp6	Not Used	01308-10006-161-200		Mpl Damper	Mpl	Mpl Type Act	uator
Device0	Device6		Device_MP7	Mp7	Not Used	00642-10009-128-048	NV24-MFT2	Mp Damper	Valve Linear	Nv Mft	
Device1	Device7		Device_MP8	Mp8	Not Used	21243-10093-001-136		Mpx Controller	-	-	
Device2	Device8		Device_MP9	Mp9	Not Used	01638-11108-104-255	BKN230-24-1-MP	Fire Smoke Damper	Fire Smoke	Bf Mft Top	
Device3	Device9		Device_MP10	Mp12	Not Used	01115-10035-158-159	NMV-D3-MP	Vav Controller	Vav	Vav Compact	D3
✓ Palette ✓ ✓ ✓ ✓ ✓ ✓ ✓ Help	A New	🖋 Edit	Cancel	(+) Add	🗞 Tagit	Discover	rom MP	Select All	ave MP Addı	. 🗎 >>F	• oints

^Table of Content

Points Manager

The default manager view of the Points folder is the MP Points Manager.

Note:

You must set the Enabled property within the MP Network component sysmikScaMp-ScaMpNetwork to

true to be able to use the points later!

(see sysmikScaMp-ScaMpPollScheduler for details about the poll and invoke properties)

Figure - MP Points Manager

🚰 Niagara Workbench N4 4.2.36.38.1.4	- [0 X
File Edit Search Bookmarks Tools Window Points Manager Help		٦J
	0	6 »>
192.168.1.1 (testMp) : Station (testMp) : Config : Drivers : SysmikScaloNetwork : MPBus_1 : MPNetwork : Device7 : Points 🖌 🖊	Sca Mp Point	ts Manager 👻
Nav Points Manager	(0 objects
ピ 🔿 🗵 🕲 Mu - Name Type Out Facets		ţ\$
Constant of the second se		
a Device0 a Device1		- 1
Device2		- 1
Devices		- 1
Device5 A Device6		- 1
✓ ▲ Device7		- 1
Points		- 1
• Palette		- 1
• Help		- 1

Use the button Discover to get all available points for this device depending on the profile type. The following figure shows an example of the MPX controller points.

Figure - Discover Points Example

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File Edit Search Be	ookmarks Tools Window	Points Manager Help Quick Sea	rch
4) IX II - IX	• A C 🗟 🖬 🖬	- 🗉 🖪 🕞 🕹 🎯 🗅 🖻 🗙 🔨 / 💺 🖬 =	🕀 🖏 🗞 🔅
192.168.1.1 (testMp) : Station (t	estMp) : Config : Drivers	: SysmikScaloNetwork : MPBus_1 : MPNetwork : Device7 : Points	Sca Mp Points Manager 👻
• Nav 🛛	📀 🥕 Sca Mp Points Discover		Success ≫ 🗶
₽ ○ × ⊙ м	Discovered		14 objects
MP Network	Туре	Facets	(1)
🕨 🕈 Poll Scheduler	Mp In Point	units=%,precision=2,min=0,00,max=100,00,cc=37,lp=2,la=0,ofs=0,len=2	A
Device0	Mp Setpoint Point	units=%,precision=2,min=0,00,max=100,00,cc=41,lp=0,la=4,ofs=2,len=2	
Device1	Mp Actual Point	units=%,precision=2,min=0,00,max=100,00,cc=41,lp=0,la=4,ofs=0,len=2	
Device2	Mpx Sensor Voltage Point	units=V,precision=1,min=0,00,max=10,00,nr=1,cc=117,lp=0,la=6,ofs=0,len=3	
Device3	Mpx Sensor Voltage Point	units=V,precision=1,min=0,00,max=10,00,nr=2,cc=117,lp=0,la=6,ofs=3,len=3	
Device4	Mpx Sensor Resistance Point	units=Ω,min=min,max=max,radix=10,precision=1,nr=1,cc=117,lp=0,la=6,ofs=0,len=3	
Device5	Mpx Sensor Resistance Point	units=Ω,min=min,max=max,radix=10,precision=1,nr=2,cc=117,lp=0,la=6,ofs=3,len=3	
Deviceo	-		Y
Points	Points Manager		0 objects
	Name Type Out Facets		(¢
- Palette			
		New Add 🗞 Tagit 📰 Cancel	

Adding points is done like known from almost all .

• Select all needed points in the Discover/Learn table.

Figure - Add Points

👫 Add MP Profile Points	5		Х
B Sensor_Switch1	Mpx Sensor Switch Point	trueText=open,falseText=closed,nr=1,cc=117,lp=0,la=6,ofs=0,len=3	*
B Sensor_Switch2	Mpx Sensor Switch Point	trueText=open,falseText=closed,nr=2,cc=117,lp=0,la=6,ofs=3,len=3	
🚺 Data101poll	Mp Data Point	precision=0,id=101,la=1,ty=poll,help=Poll: MPX Sensor 1, 0 inactive, 1 resistance	
🚺 Data102poll	Mp Data Point	precision=0,id=102,la=1,ty=poll,help=Poll: MPX Sensor 2, 0 inactive, 1 resistance	
🚺 Data101set	Mp Data Point	precision=0,id=101,la=1,ty=set,help=Set: MPX Sensor 1, 0 inactive, 1 resistance, 2	
🚺 Data102set	Mp Data Point	precision=0,id=102,la=1,ty=set,help=Set: MPX Sensor 2, 0 inactive, 1 resistance, 2	L.
Reset_Mm_State	Mp Reset Mm State Point	range=sysmikScaMp:ScaMpResetMmEnum,cc=29,lp=1,la=0	L
Name In Type Mp In Po Facets units=%,pre	int v ecision=2%,min=0,00%,max=1	00,00%,cc=3 » ③ - OK Cancel	•

• Press the Add button and finally Ok to add the points to the station database.

Figure - Points added

niagara Workbench N4 4.2.36.38	3.1.4			-	□ ×
File Edit Search Bo	ookmarks Tools V	Vindow Points Manager	Help	Q Quick Search	
4) IX II - IX	H C 🖟 🛛	 - E E	3 B X Q	0 🗅 🖻 🗙 h / t. 🖬 🖉 🗖 = 📀 📎	₿, >>
192.168.1.1 (testMp) : Station (te	estMp) : Config :	Drivers : SysmikScaloN	etwork : MPBus_	1 : MP Network : Device7 : Points 🖌 Sca Mp Po	oints Manager 👻
• Nav 🛃	Points Manager				12 objects
E° ○ × ③ My ·	Name	Туре	Out	Facets	ţ\$
MP Network	💽 In	Mp In Point	- {null} @ def	units=%,precision=2,min=0,00,max=100,00,cc=37,lp=2,la=0,ofs=0,len=2	A
Poll Scheduler	🔇 Setpoint	Mp Setpoint Point	0,00 % {ok} @ def	units=%,precision=2,min=0,00,max=100,00,cc=41,lp=0,la=4,ofs=2,len=2	
Device0	🔇 Actual	Mp Actual Point	3,64 % {ok} @ def	units=%,precision=2,min=0,00,max=100,00,cc=41,lp=0,la=4,ofs=0,len=2	
Device1	Sensor_Voltage1	Mpx Sensor Voltage Point	59789,0 V {ok} @ def	units=V,precision=1,min=0,00,max=10,00,nr=1,cc=117,lp=0,la=6,ofs=0,len=3	
Device2	Sensor_Voltage2	Mpx Sensor Voltage Point	59142,6 V {ok} @ def	units=V,precision=1,min=0,00,max=10,00,nr=2,cc=117,lp=0,la=6,ofs=3,len=3	
Device3	🔞 Sensor_Resistance1	Mpx Sensor Resistance Point	59789,0 Ω {ok} @ def	units=Ω,min=min,max=max,radix=10,precision=1,nr=1,cc=117,lp=0,la=6,ofs=0,len=3	
Device5	Sensor_Resistance2	Mpx Sensor Resistance Point	59142,6 Ω {ok} @ def	units=Ω,min=min,max=max,radix=10,precision=1,nr=2,cc=117,lp=0,la=6,ofs=3,len=3	
Device6	B Sensor_Switch1	Mpx Sensor Switch Point	true {ok} @ def	trueText=open,falseText=closed,nr=1,cc=117,lp=0,la=6,ofs=0,len=3	
Device7	B Sensor_Switch2	Mpx Sensor Switch Point	true {ok} @ def	trueText=open,falseText=closed,nr=2,cc=117,lp=0,la=6,ofs=3,len=3	
🕨 🖽 Points 🖕	🔃 Data101poll	Mp Data Point	1 {ok} @ def	precision=0,id=101,la=1,ty=poll,help=Poll: MPX Sensor 1, 0 inactive, 1 resistance, 2 vo	ltage, 3
	🔃 Data102poll	Mp Data Point	1 {ok} @ def	precision=0,id=102,la=1,ty=poll,help=Poll: MPX Sensor 2, 0 inactive, 1 resistance, 2 vo	ltage, 3
• Palette	Reset Mm State	Mn Reset Mm State Point	- {null} @ def	range=svsmikScaMn:ScaMnResetMmFnum cr=29 ln=1 la=0	
- Help		New 🖉 Ed	it 🔳 Cancel	🕢 Add 🔍 Tagit 🔣 Select All	

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Using Data Pool Points

The points of Data Pool devices are a little bit different to normal MP points. A data pool device point is a generic component sysmikScaMp-ScaMpDataPoint component. Use the Property Sheet view to configure such a data point.

Each Data-Pool device comes with a datasheet containing a description of all available Data-Pool values. Set the properties depending on the needed point ID.

Figure - Data Pool Point properties

🏰 Niagara Wor	kbench N4 4.2.36.38	8.1.4		– 🗆 X
File Edi	it Search Bo	ookmarks Tools Wir	Adow Help	earch
		🖬 🗙 🕞 🗓	🗎 - 🛄 🖫 🕞 🎸 🐨 🗋 🐄 🔨 🦯	
192.168.1.1 (testM	Ip) : Station (te	estMp) : Config : I	Vrivers : SysmikScaloNetwork : MPBus_1 : MPNetwork : Device0 : Points : SensTempC	💉 🛛 AX Property Sheet 👻
• Nav	-7	Property Sheet		
l= C [× 🕄 M	🕔 SensTempC (Mp Da	ta Point)	
MP		Facets	units=null,precision=1,min=-inf,max=+inf 🔉 🕓 👻	
es MP Ne	etwork	— Out	0,0 {fault} 8 def	
	Device0	Error Code	Unkown Id	
	Device1	Description	Reads or write a data pool device data po	
▶ 🖀 D	Device2	🗎 Data Length	Two Bytes 🗸	
▶ 🖀 D	Device3) Data Id	14	
🕨 🗎 D	Device4) Data Div	100,00	
) 🗎 D	Device5	🗎 Data Writable	e false	
🕨 🔒 D	Device6			
🔻 🖀 D	Device7			
► I	Points -			
1	•			
 Palette 	6			
• Help	2		C Refresh Save	

Additionally, you can set the point facets still.

Figure - Point facets

Niagara Workbench N4 4.2.36.38.1.4	4				- 🗆	×
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	A C 🗈 🗉		42			×
192.168.1.1 (testMp) : Station (testM	Mp) : Config : D	rivers : SysmikScaloNetwork : MPBus_1 : MPNetwork	temperature (K)	✓ celsius	(°C) -	<u>в</u> -
• Nav 🔄 P	Property Sheet			OK Cancel		
	SensTempC (Mp Dat	a Point)				
	Facets	units=°C,precision=1 °C,min=-inf °C,max=+inf °C 📎 🕓 👻	🁫 Config Fa	icets	×	
Poll Scheduler	— Out	21,8 {ok} @ def	Key	Type	Value 🛱	
Device0	🗎 Error Code	No Error	units	Unit	°C	
Device1	Description	Reads or write a data pool device data p	precision	Integer	1	·
Device2	🗎 Data Length	Two Bytes 🔍	min	Double	-inf	
Device3	Data Id Data	14	max	Double	+inf	
Device4	🗎 Data Div	100,00				_
Device5	🗎 Data Writable	false 🗸		(1)	¥ 0	
Device6						
Device7				OK Cancel		
• Palette						- 1
						- 1
• Help		💭 Refresh 🔳 Sav	re			

If the properties are correct the point should now contain a valid Out value.

Figure - Valid Data Pool Point

👫 Niagara Workbench N4 4.2.36.38.1.4 -	- 🗆 :	×
File Edit Search Bookmarks Tools Window Points Manager Help		J
	> %	>>
192.168.1.1 (testMp) 💠 Station (testMp) 🗧 Config 🗧 Drivers 🗧 SysmikScaloNetwork 🗧 MPBus_1 🗧 MP Network 🗧 Device0 🗧 Points 🛛 🖌 Sca	Mp Points Manag	er 🗸
• Nav	\gg \times	
🔓 🔿 🗵 💿 🗠 Discovered	0 objects	
Type Facets	tê	
 A Poll Scheduler A Device0 A Device1 A Device2 		
Device3 Points Manager	1 objects	s
Devices Name Type Out Facets	ţ.	
Evice6 O SensTempC Mp Data Point 21,9 *C (ok) @ def units=*C, precision=1, min=-inf, max=+inf		
Palette Palette		

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Component Details

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ScaMpNetwork

This component models an MP bus network underneath a MP-Bus terminal device in a sysmikScaloNetwork.

Properties

Name	Description
Enabled	Here you can enable or disable the runtime engine and change from configuration (false) to runtime mode The default value is false.
Description	Here you can add some information about the network.

Note:

You must set the Enabled property to true to be able to use the points (with poll and invoke) later! (see *Runtime and Points usage* for details about the poll and invoke properties)! This can be done by performing the MP Network action "Set Runtime Mode" or by setting the following

MP network properties to **true**:

- Enabled

- Poll Scheduler -> Poll enabled

- Poll Scheduler -> Invoke Enabled

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ScaMpDevice

This component models an MP bus device in Niagara and is not intended to be used manually. Please use the following managers and views to create and read the configuration and information properties.

Links to managers and views:

- MP Address Manager
- MP Information View
- MP Configuration View

^Table of Content

ScaMpPoints

This component models a points folder within an MP-Bus device component and is a frozen property of <u>sysmikScaMp-ScaMpDevice</u>.

Please use the following Sca Mp Points Manager to manage the needed points.

See here for details:

Points Manager

^Table of Content

MpActualPoint

This point is the actual relative output value of a MP device modeled as BStatusNumeric in property Out.

The resolution is 0.01 and the unit is percent. The valid range is from 0.00% to 100.00%.

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MpDamperPosPoint

This point shows the damper position of a MP fire and smoke device modeled as BStatusEnum in property Out.

Valid values are:

- Traveling,
- ClosedPosition,
- OpenPosition,
- Invalid.

More properties

Name	Description
SwptS1	The trip-point of the closing side soft-switch. The resolution is 0.01 and the unit is percent. The valid range is from 0.00% to 100.00%.
SwptS2	The trip-point of the opening side soft-switch. The resolution is 0.01 and the unit is percent. The valid range is from 0.00% to 100.00%.

^Table of Content

MpDamperTestPoint

Shows the bit Damper test error (fire smoke actuators only) of the malfunction state information modeled as BStatusBoolean in property Out.

More properties

Name	Description
Fire Test Run Active	Is true if a fire test is running otherwise false.
Damper Test Active	Is true if a damper test is running otherwise false.
Nominal Range Active	Is true if the nominal range is used instead of the adapted range.

Note:

To control the actuator the right way, you must know whether it is working with an adapted or with a programmed range.

Depending on this value you must use Set_Forced_Adapted (nominalRangeActive=false) or

Set_Forced_Nominal (nominalRangeActive=true) control point.

Ambient Temp Higher72deg C

Is true if the ambient temperature is higher than 72°C.

Internal Error	Is true if an internal error has been occurred within the device.	
Actions		
Name	Description	
Start Test Run Fire	Use the Action to start an	
	Adaption,	
	Fire Test Run,	
	Free Damper Test,	
	or	
	Synchronisation.	

^Table of Content

MpDataPoint

Reads or writes a data pool device data point with configured length and ID. The value is modeled as BStatusNumeric in property Out.

More properties

Name	Description
Data Length	Use this value to set the correct data length (1,2 or 4).

Note:

At the moment only length values of 1, 2 or 4 are supported.

Data Id	Use this value to set the correct data ID.
Data Div	Use this value to set the correct presentation (precision) of the value.
	To show the correct value of ID 14 (SensTempC) of a MS24A-R0#-MPX device use 100,0.

Tip:

Use the Facets slot of the component to adjust the precision and or unit of the data point.

Data Writable	If a data point is writable set this Boolean value to true.
Error Code	Use this property to check whether an action was successful or not.

If a data point is writable you can use the following actions.

Δcti	nnc
ACU	ons

Name	Description
Set	This will set (prepare) the value for a later SendData action.
Send Login	Use this action to send a login command if needed first.
Send Data	Use finally this action to send the value to the data pool device.

Tip:

Use a readonly point with the same settings for DataLength, DataId and DataDiv to check whether or

not the value is really changed.

You should also check the Error Code value for success or fail of the action.

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MpDuctTemperaturPoint

Shows the bit Duct temperature too high (fire damper actuators only) of the malfunction state information modeled as BStatusBoolean in property Out.

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MpFlowActualPoint

This point is the actual relative airflow output value of a MP device (VAV Controller) modeled as BStatusNumeric in property Out.

The resolution is 0.01 and the unit is percent.

The valid range is from 0.00% to 100.00%.

^Table of Content

MpFlowSetpointPoint

This point is feedback value of the Flow Setpoint value of a MP device (VAV Controller) modeled as BStatusNumeric in property Out.

The resolution is 0.01 and the unit is percent.

The valid range is from 0.00% to 100.00%.

^Table of Content

MpHeavyUsagePoint

Shows the bit Excessive Utilisation of the malfunction state information modeled as BStatusBoolean in property Out.

^Table of Content

MpInPoint

This point is the Setpoint value of a MP device (VAV Controller) modeled as BStatusNumeric. in property In and Out.

The Out value is sent to the MP device if a changed event has been occurred at any of the input slots.

You can use all priority Input slots like known from each BNmericWritable point.

The resolution is 0.01 and the unit is percent.

The valid range is from 0.00% to 100.00%.

^Table of Content

MpNoSmokeDetectorPoint

Shows the bit Smoke detector Alarm not connected (fire damper actuators only) of the malfunction state information modeled as BStatusBoolean in property Out.

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MpOutResistancePoint

This point shows the resistance value of a passive sensor on Y-input in Ohm and is modeled as BStatusNumeric in property Out

The parameter slot Choice Ad Convert must be configured fitting to the passive sensor type.

The resolution is 1 and the unit is Ohm.

The valid range depends on the selected Choice Ad Convert value and can be 8500hm..16000hm or 2000hm..500000hm.

Note:

Using this point will disable the analog forced control functionality. Re-activating the analog forced control functionality needs a warm- or cold-start. Reading a passive sensor activates a current source on wire Y to enable sensor measurement. With older actuators this current source stays active, thus the switch values will be wrong until the next warm- or cold-start.

^Table of Content

MpOutVoltagePoint

This point shows the voltage value of an active sensor on Y-input in V and is modeled as BStatusNumeric in property Out.

The resolution is 0.01 and the unit is Volt.

The valid range is 0.00V .. 10.00V.

Note:

Using this point will disable the analog forced control functionality.

Re-activating the analog forced control functionality needs a warm- or cold-start.

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MpOverloadPoint

Shows the bit Overload, setpoint position not reached of the malfunction state information modeled as BStatusBoolean in property Out.

^Table of Content

MpRangeExtendedPoint

Shows the bit Control range increased of the malfunction state information modeled as BStatusBoolean in property Out.

^Table of Content

MpResetMmStatePoint

This point writes a reset malfunction maintenance bits command to MP device and is modeled as BStatusEnum in property Out.

^Table of Content

MpSecurityRelevantPoint

Shows the bit Security relevant malfunction (fire damper actuators only) of the malfunction state information modeled as BStatusBoolean in property Out.

^Table of Content

MpSetForcedAdaptedPoint

This point writes a forced control command to a fire and smoke device with adapted range mode. It is modeled as BStatusEnum in property Out.

^Table of Content

MpSetForcedNominalPoint

This point writes a forced control command to a fire and smoke device with nominal range mode. It is modeled as BStatusEnum in property Out.

^Table of Content

MpSetForcedPoint

This point writes a forced control command to a MP device. It is modeled as BStatusEnum in property Out.

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MpSetpointPoint

This point is feedback value of the Setpoint value of a MP device modeled as BStatusNumeric in property Out.

The resolution is 0.01 and the unit is percent.

The valid range is from 0.00% to 100.00%.

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MpStartAdaptionPoint

This point writes a start adaption command to a MPL device.

Note:

Use the action Set to start the invoke of the adaption command to the MPL device.

^Table of Content

MpSupercapPoint

Shows the bit Supercap malfunction of the malfunction state information modeled as BStatusBoolean in property Out.

^Table of Content

MpSwitchPoint

This point shows the switch value connected between wire Y and 24V and is modeled as BStatusBoolean in property Out.

Note:

Using this point will disable the analog forced control functionality.

Re-activating the analog forced control functionality needs a warm- or cold-start.

Using this point switches a 1.0kOhm resistor from Y to GND.

With older actuators this resistor stays active, thus the passive sensor values will be wrong until the next

warm- or cold-start.

There is an additional property Forced Control available that holds the forced control feedback.

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MpxSensorResistancePoint

This point shows the resistance value of a passive sensor on Y-input (1 and/or 2) in Ohm and is modeled as BStatusNumeric in property Out.

The resolution is 1 and the unit is Ohm.

The valid range 2000hm..550000hm.

Note:

This is a special point for LR24A-MPX devices only.

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MpxSensorSwitchPoint

This point shows the switch value connected between wire Y (1 and/or 2) and 24V and is modeled as BStatusBoolean in property Out.

Note:

This is a special point for LR24A-MPX devices only.

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MpxSensorVoltagePoint

This point shows the voltage value of an active sensor on Y-input (1 and/or 2) in V and is modeled as BStatusNumeric in property Out.

The resolution is 0.01 and the unit is Volt.

The valid range 0.00V..10.00V.

Note:

This is a special point for LR24A-MPX devices only.

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Manager Details

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Address Manager

See MP Address Manager for details...

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Information View

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Configuration View

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Points Manager

See Points Manager for details...