BACnet 3rd Party to Desigo Insight Procedure

Create Desigo Insight Site

- Launch Desigo Insight System Configurator
- The BACnet 3rd Party device is probably on the same internetwork as Desigo PX but if not, add a new internetwork.



- Click to highlight the management station (MS01 in this case) and click "add" to select it as an "assigned management station"
- Now click "finish" to create the new internetwork
- Click "sites" and select "add site"
- Enter a name and short description for the site (this will normally be specific to a group of one or more similar BACnet devices types e.g "TraneChillers" or "Daikin")
- Select "BACnet 3rd" as automation station type
- Select "BACnet Annex M" for Assigned priority map but modify if required.
- Select the internetwork.
- Some adjustment of BACnet device settings may required depending on the capability of each third party device. If you are not sure, leave the settings as default for now.

		Site Properties	EX		
	🕌 System Configurator - Mi	General Ulars Course Ulars Designation			
Persuela Pie	File Edit View Help	General User Groups User Designation			
Recycle bir	D 🗊 🎒	Name and location			
	n 🏟 INSIGHT Ruilding Au	Name: Alerton (max. 10 characters)			
	B User Grouns		_		7
	- D Scopes	Path: J:\Insight\Projects\WultiVendor\Sites\Averton\			
N		Browse			
Adobe	🕢 🗟 INSIGHT Manage	Note: The site name must start with a standard ASCII character from A 7			
Reductio	🖃 🙆 Sites	(upper or lower case). The remaining characters may be any combination	of		
		letters or numbers only. No umlauts, accents or special characters may be used.			
	INSIGHT Program		b		
	Other Programs	Descriptions			
DESIGO		Short: Alerton			
INSIGHT					
		Long:			
Project Utilit		Advanced			
		Automation system type: BACnet3rd			
		BACnet subtype 0 BACnet Device Settings			
- 😭 🚮		Rindumen			
BACnet		Asiesdefathurse RAD A H			
Browser		Assigned pronty map. BACnet Annex M Configure			
		Internetwork settings			
		Internetwork: LocalInet	•		
		ОК	ancel		
				Mar Alexandre	
		Carlington		2 th 🗐 🖡 10	22
	🚐 🛅 🌽 🙀 System	Configurato		K 🙂 UF 🗤 10:	2

- Click "OK" to accept changes to the BACnet device settings
- Click the "user groups" tab
- Select all the user groups in "available groups" and click "add" to move them into authorised groups.
- Click "OK" to accept changes and close window.

Define Insight communications settings

- Under "Insight management stations" right click on "MS01" and select "properties"
- Click the "communications" tab and select the site you created.

28 - yszem conngutator - Mu Recycle Bir Recycle Bir Re	and the second
Recycle Bir Alam Refresh Trend Upload Disk/Memory Check	
General Log On Communication Moderns Subsystem Specific	
🕀 🌚 INSIGHT Building Aut Stee:	
User Groups	
General Steel Automation System Type	
Adobe Vietnet Py IPVI DESIGO	
Reader 8 INSIGHT Manager	
G Sites	
Connection Wizard	
DSTCO	
INSIGHT DISIGHT Program	
- 🔄 Other Programs Selected internetwork: LocalInet	
Archiving Ste must always be connected	
Contection	
Plogestulit BACnet Communication	
Lower Protocol Type IP Properties IP	
Management station network information	
Adapter	
BRAVINET DIP address	
Automation Station	
Adapter Intel 21140-Based PCI Fast Ethernet Adapter (Emulated) 👻	
IP address (Adapter): 192.168.0.54 🗸	
Automatic UDP port number	
UDP port number (Hex): BACO Add Properties	
BBMD information	
Register as foreign device (FD)	
IP address of BBMD: 255 . 255	
IDP port pumber (Hex): BACO	
OK Carrel	
💫 🔲 🗟 🖉 System Configurato	🎋 🖉 😣 📷 🛛 🕩 09:55

- Click "add" at the bottom of the screen to create a new available connection
- Type a description for the connection (again, this is specific to one site)
- Click "add" to create new available media
- Enter a name (again this is site specific)
- Select "IPPort" for protocol type and click "next"
- If the device is on a remote subnet tick "register as foreign device" and enter the IP address of the FDT.
- If it is a foreign device tick "Automatic UDP port number", if not un-tick this and specify the correct BACnet/IP port. (Note if a PX site coexists on the same Internetwork, these settings are shared)
- Click Finish to create the available media
- Click Finish to create the available connection, if Insight is running a warning should appear advising you to restart Desigo Insight before the settings will take effect.
- Close the 'system configurator'.

Use BACnet Browser to discover the points

- Stop the Desigo Service if it is running
- Start the BACnet Browser. If this is the first time the program is run, select 'Settings' from the File menu.

Recycle Bin	BACnet Browser	
Adobe Reader 8 DESIGO TRSIGHT Project Unity BACnet Browser	He Hep	
	BACnet Browser	No 🔐 😒 📫 🚺 😡 10:03

- The Interface field can often be left blank and the default IP connection will be used. When multiple network adapters are present, enter the IP address of the network adapter used for BACnet/IP networking. Modify the 'Port' field if the Internetwork port is different to 47808 (BAC0). Increase the APDU if required, but especially if MS/TP devices exist.
- If the connection to the BACnet network requires attaching as a foreign device, add the remote FDT device IP address in the foreign device field. Adjust the local port and/or BBMD port as required.
- Save settings. If the Interface field has been changed, exit and restart the BACnet browser.
- Either from the File menu, or by right clicking on the left hand panel, send the BACnet 'Whols' command to discover the connected devices. This will take the APDU timeout (in ms) to complete and refresh.
- The BACnet devices networks and attached devices should appear in a 'treeview'.

Recycle Bin	49 BACnet Browser		
Adobe Reader 8 DESIGO INSIGHT Project Unity BACnet Browser	File Help Device 299178 'Com1'Crestron" Device 299178 'Com1'Crestron" Device 10 Network 2001 Device 209177 'StPatd ASD1" Device 299177 'StPatd ASD1" Device 2 'Alerton FCU"	SIEMENS	
			10 € 10 H P 4 1007

- At this point the browser could be used to further investigate the BACnet devices. In this instance we are just going to use it to create an export file for the 3rd party device(s) to be imported into Desigo Insight.
- Expand the detail of the required third party device by double clicking the device in the tree. This will build a list of all the objects on the device.
- Wait for the list to be built. (You can click the '+' sign to expand the tree)



• From the File menu, select 'Export. A new full screen window will open and further details are collected from the device.

	1		ChaDanariaNan				
elect All	Site	IName	SiteDescription				
	Doc	VV [01	Doc RR 00 Meta VV 04 Met	a RR 04 Lang	lenGB		
	8	2	Alerton FCU	St	eve's Test FCU		
	10	0	DDC FILE	DI	JC FILE		
	16	0	DUC FILE	A	SILLITY STANDARDG5-1020C00*000000	de service and de se	
	0	U	AL 000			degrees-ceisius	
	0	1	AL 002			degrees-cesius	
	0	2	AL 002			no-units	
	1	0	AC 005			no-units	
	1	1	AO 000			no-units	
	1	2	40.002			no-units	
	1	3	AO 003			no-units	
	2	0	AV 000			no units	
	2	1	AV 001			no units	
	2	2	AV 002			no units	
	2	3	AV 003			no units	
	2	4	AV 004			no units	
	2	5	AV 005			no units	
	2	6	AV 005			no units	
	2	7	AV 007			no units	
	2	8	AV 008			no units	
	2	6	AV 000			no units	
	2	10	AV 010			no units	
	2	11	AV 011			no units	
	2	12	AV 012			no units	
	2	13	AV 013			no units	
	2	14	AV 014			no units	
	2	15	AV 015			no units	
	2	16	AV 015			no units	
	2	17	AV 017			no-units	
	2	18	AV 018			no-units	
	5	19	AV 019			no-units	
	5	20	AV 020			no-units	
	5	21	AV 021			no-units	
	5	22	AV 022			no-units	
	5	23	AV 023			no-units	
	5	24	AV 024			no-units	
	5	25	AV 025			no-units	
	2	26	AV 026			no-units	
	2	27	AV 027			no-units	
	2	28	AV 028			no-units	
	2	29	AV 029			no-units	
	2	30	AV 030			no-units	
	5	0.1	AV 0.91			na custa	

• It is unlikely that all objects need to be imported into Desigo Insight. Click in column 1 at the start of each line containing a required object to select it. NB The device object (type '8') is always required!!!

Select All		Alerton	Aler	ton Fancoil					
		loc VV 01	Doc RR 00	Meta VV 04	Meta RR 04	Lang	enGB		
	8	2	Alerton	FCU		51	teve's Test FCU		
2	10	0	DDC FILE			D	DC FILE		
2	16	0	DDC FILE			AE	SILITY STANDARDG5-1020c00*000000		
2	0	0	AI 000					degrees-celsius	
2	0	1	AI 001					degrees-celsius	
2	0	2	AI 002					no-units	
2	0	3	AI 003					no-units	
2	1	0	AO 000					no-units	
2	1	1	AO 001					no-units	
2	1	2	AO 002					no-units	
2	1	3	AO 003					no-units	
2	2	0	AV 000					no-units	
2	2	1	AV 001					no-units	
2	2	2	AV 002					no-units	
2	2	3	AV 003					no-units	
2	2	4	AV 004					no-units	
2	2	5	AV 005					no-units	
2	2	6	AV 005					no-units	
2	2	7	AV 007					no-units	
2	2	8	AV 008					no-units	
2	2	9	AV 009					no-units	
2	2	10	AV 010					no-units	
2	2	11	AV 011					no-units	
2	2	12	AV 012					no-units	
2	2	13	AV 013					no-units	
2	2	14	AV 014					no-units	
2	2	15	AV 015					no-units	
2	2	16	AV 016					no-units	
2	2	17	AV 017					no-units	
2	2	18	AV 018					no-units	
2	2	19	AV 019					no-units	
2	2	20	AV 020					no-units	
2	2	21	AV 021					no-units	
2	2	22	AV 022					no-units	
2	2	23	AV 023					no-units	
2	2	24	AV 024					no-units	
2	2	25	AV 025					no-units	
2	2	26	AV 026					no-units	
2	2	27	AV 027					no-units	
2	2	28	AV 028					no-units	
2	2	29	AV 029					no-units	
2	2	30	AV 030					no-units	
2	h	24	AV 021					ina conita	

• It is recommended that the field holding the 'name' of the Device object is modified, as this field will be used to prefix all other objects attached to this device, and the name will define how the hierarchy of objects appear in Desigo Insight. Use the syntax "hierarchy1'hierarchy2'hierachy3'... " with an apostrophe between each hierarchy level.

Select Al		lerton	Alerton Fancoil			
	D	oc VV 01	Doc RR 00 Meta VV 04 M	leta RR 04 Lang enGB		
	8	2	Bid 1'Fir 1'FCU02	Steve's Test FCU		
	10	0	DDC FILE	DDC FILE		
	16	0	DDC FILE	ABILITY STANDARDG5-1020c00*000000		
	0	0	AI 000		degrees-celsius	
	0	1	AI 001		degrees-celsius	
	0	2	AI 002		no-units	
	0	3	AI 003		no-units	
	1	0	AO 000		no-units	
	1	1	AO 001		no-units	
	1	2	AO 002		no-units	
	1	3	AO 003		no-units	
	2	0	AV 000		no-units	
	2	1	AV 001		no-units	
	2	2	AV 002		no-units	
	2	3	AV 003		no-units	
	2	4	AV 004		no-units	
	2	5	AV 005		no-units	
	2	6	AV 006		no-units	
	2	7	AV 007		no-units	
	2	8	AV 008		no-units	
	2	9	AV 009		no-units	
	2	10	AV 010		no-units	
	2	11	AV 011		no-units	
	2	12	AV 012		no-units	
	2	13	AV 013		no-units	
	2	14	AV 014		no-units	
	2	15	AV 015		no-units	
	2	16	AV 016		no-units	
	2	17	AV 017		no-units	
	2	18	AV 018		no-units	
	2	19	AV 019		no-units	
	2	20	AV 020		no-units	
	2	21	AV 021		no-units	
	2	22	AV 022		no-units	
	2	23	AV 023		no-units	
	2	24	AV 024		no-units	
	2	25	AV 025		no-units	
	2	26	AV 026		no-units	
	2	27	AV 027		no-units	
	2	28	AV 028		no-units	
	2	29	AV 029		no-units	
	2	30	AV 030		no-units	
	h	10.4	IA1/ 001		ina cusita	

Export to Desigo Insight

- Update the 'Site' field to match the site name defined in Desigo Insight
- Change Site description if required
- If the target Insight is at v3, change the *Meta VV* to '02' and the *Meta RR* to '06', other wise the settings are correct for Insight V4
- Use 'File' / 'Save As' menu option to save the file as 'DIProject.xml' to the EPT folder for the new site (in the Desigo Insight project folder\Sites\sitename\BACnet\Dbi\EPT

Desigo Insight DB Import

•

- Start DB Import and select '3rd Party BACnet'
 - Import 'System' metafile – if DI v3 select *DIMeta0050____0206007.xml* – if DI v4 select *DIMeta0050____0404004.xml* (Note in future others may apply)
- Import Site Project DIProject.xml

Restart Desigo Service

- Now Restart Desigo Insight. . Note: if installed as a service restart the Desigo Service
- Check to see that imported points appear in Object Viewer with values.
- Check that all currently active alarms are brought into Desigo Insight.