

User Guide
KTC-CCS





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2 Introduction

CCS is an OPC UA server that also supports OPC DA to enable support for older clients. CCS provides support for the protocol SRD-Link and supports the KTC's product line SRD400C or newer.

CCS is configured and monitored using the CMT tool.

Some calculations, as for example min / max / average can be performed in the OPC server.

CCS also provides support for XMPP and SCADA-StatusClient (COM1025).

For best performance install the CCS on a Windows Server 2008R2 or later (however, support for Win7 and 8 are included but not recommended). A memory of at least 8 GB of RAM is recommended.

Access to a MS SQL Server (2008 or later) is required (however, support for SQL Express are included but not recommended when you have large installations).

2.1 Manual Conventions

The user manual is built more as a "how to" than as a reference. We go through the different steps in configuring the CCS. When there is user input required the dialog box and screen dumps is included, and a table describing the different fields and their meaning.

Since a lot of fields is generic, when possible there is a section in beginning of each chapter describing general info on the fields that is valid for all parts of the chapter.

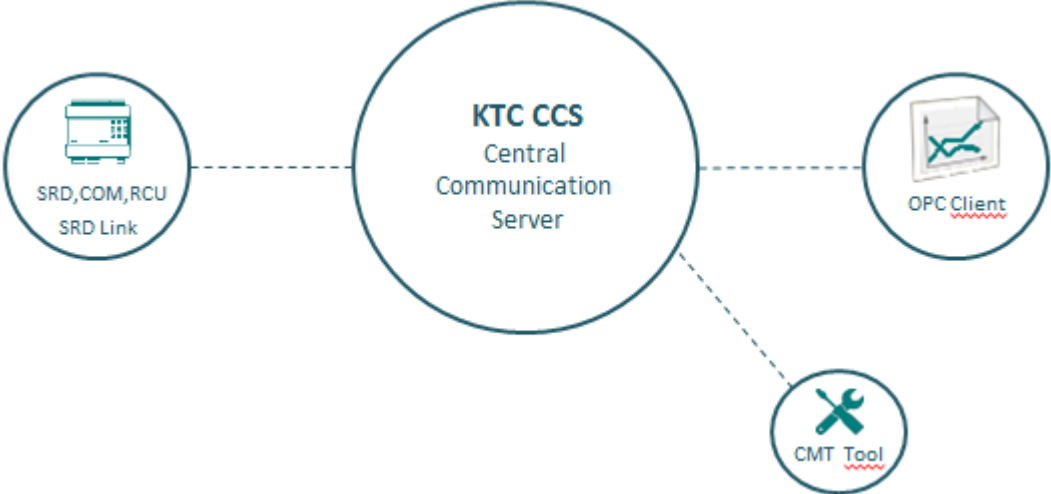
There are a lot of fields that is rarely used so since this is not a reference manual they are sometimes excluded. The field description has a layout as below. The R column stands for "Required" and indicates that the field must always have data. The "Ex.data" column is only present in cases where the author finds it necessary to give some hint on good naming conventions, or reasonable values.

Field	R	Description	Ex. Data



2.2 System Diagram

The picture below describes how a system using CCS typically is built.



In Version 1.0 you can connect SRDLink and XMPP devices over IP.

3 Getting started

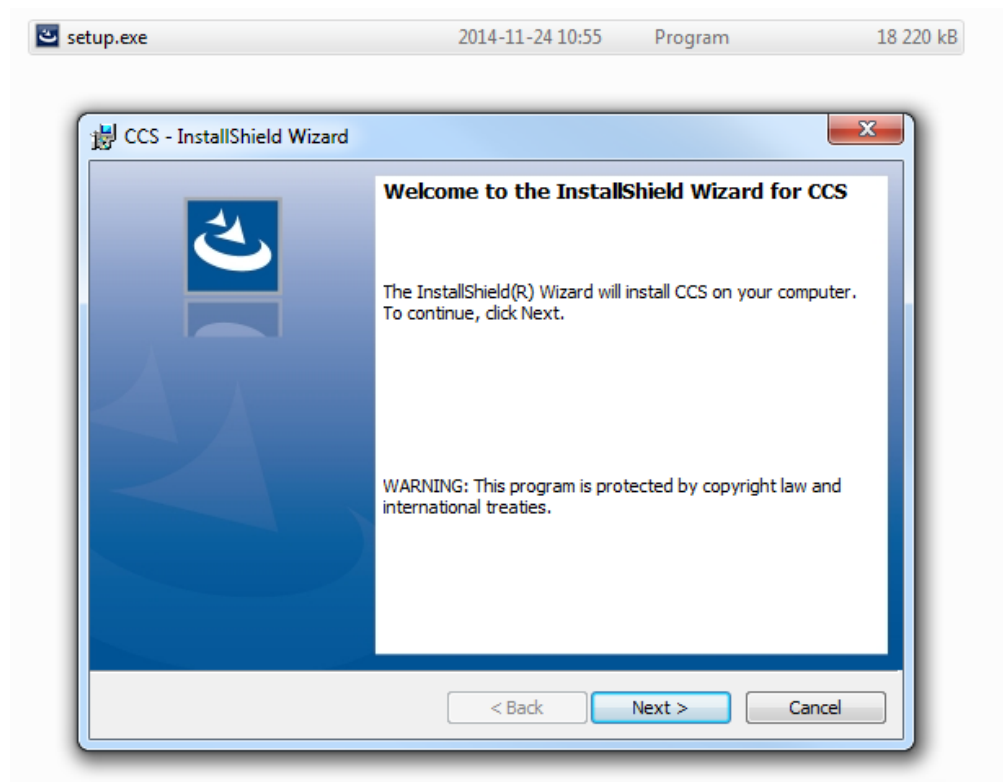
To configure the CCS you basically need to get it connected to a network, having the software tool “Clayster Management Client” CMT installed on your PC that is connected to the same network.

Links to section contents:

- [Installing the CCS](#)
- [Installing the CMT Client](#)
- [Connect the CMT Client to CCS](#)

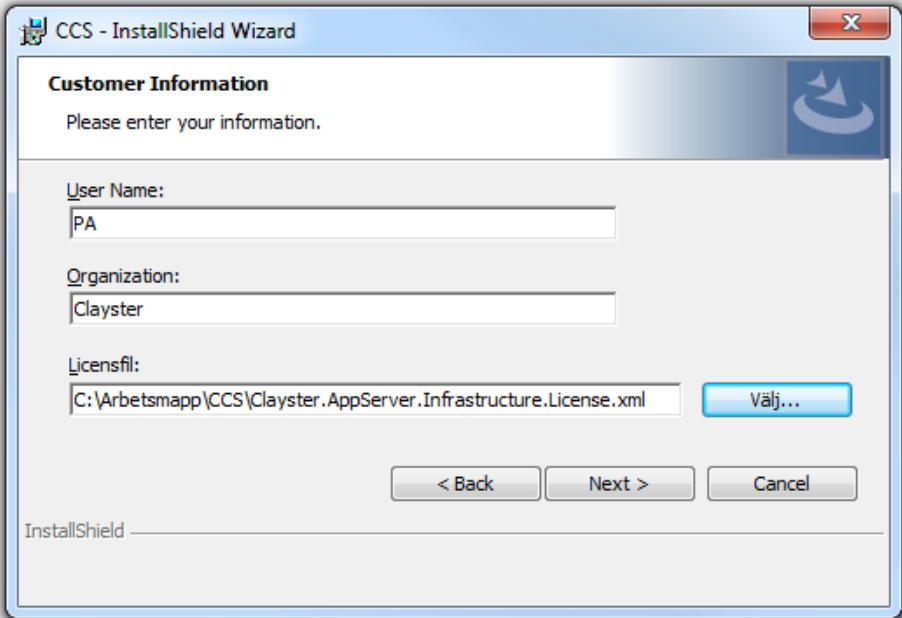
3.1 Installing the CCS

Run the setup file named Setup.exe

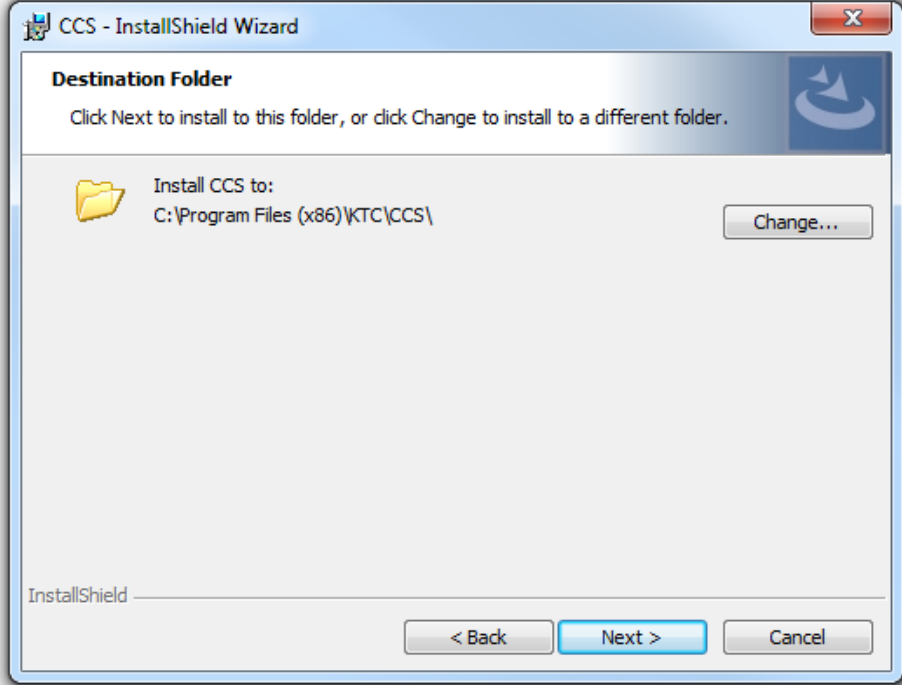




Fill in the user name and your organization name. Then select your license file you received when you purchased the product.



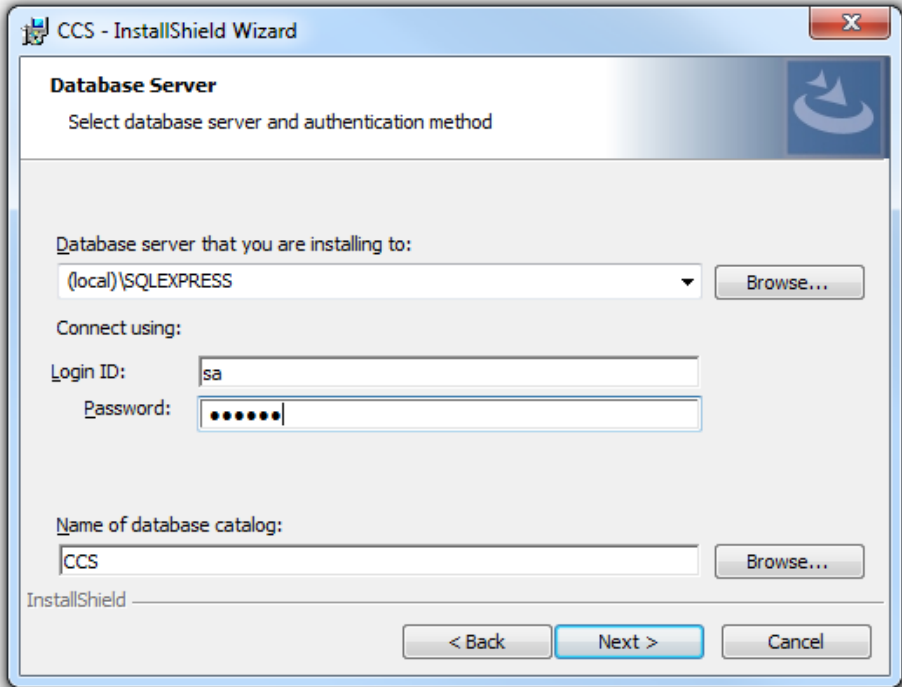
Select the folder you want the software to be installed in.



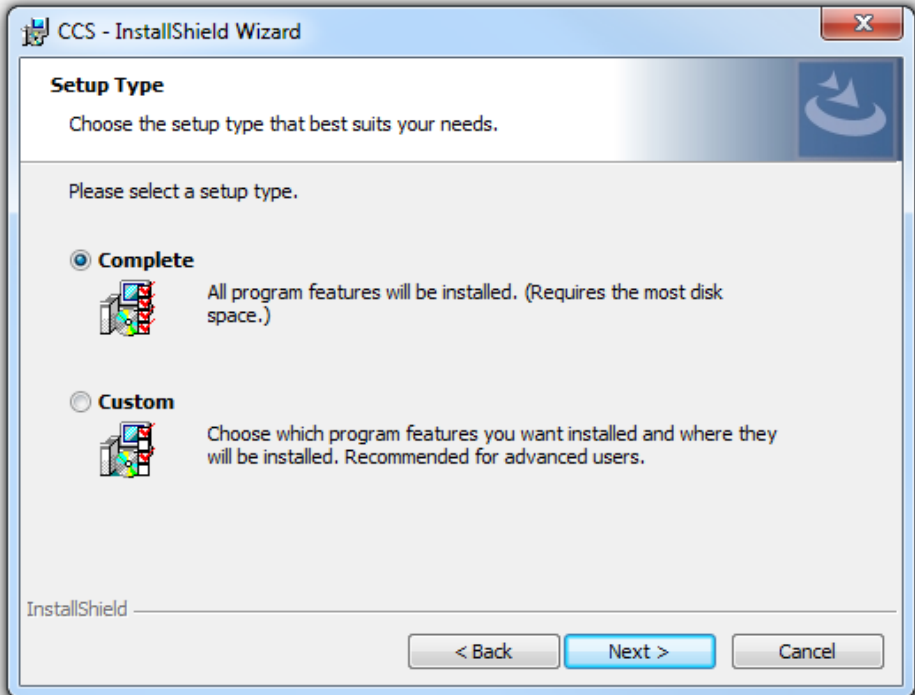


Next step is to fill in the details regarding the connection to the SQL database server.

Note: you have the opportunity to change the name of the database name or connect to an already installed CCS database.



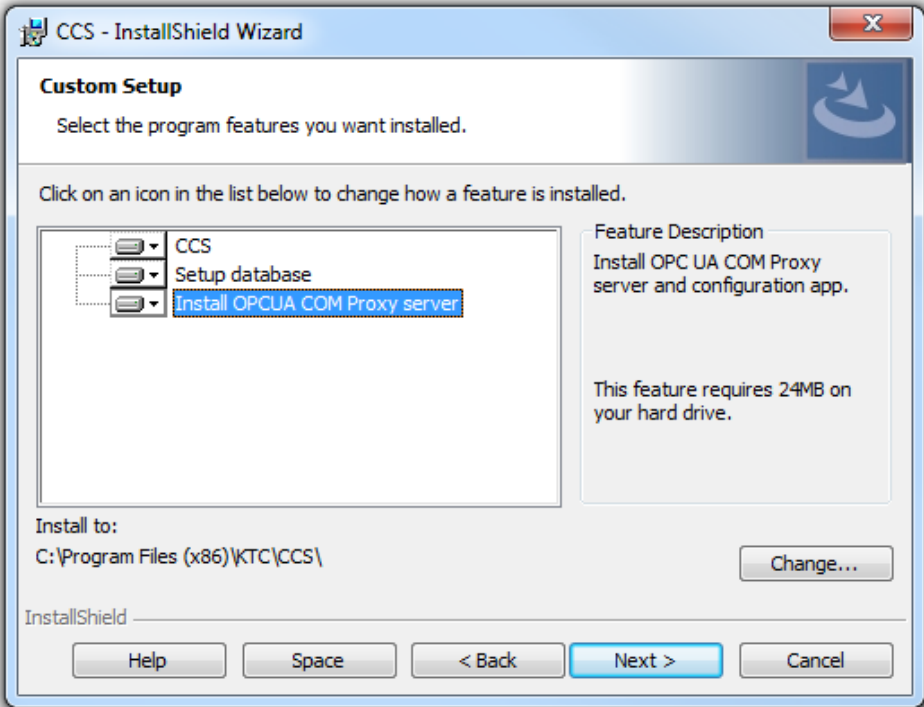
Select the type of installation you prefer for the specific installation.



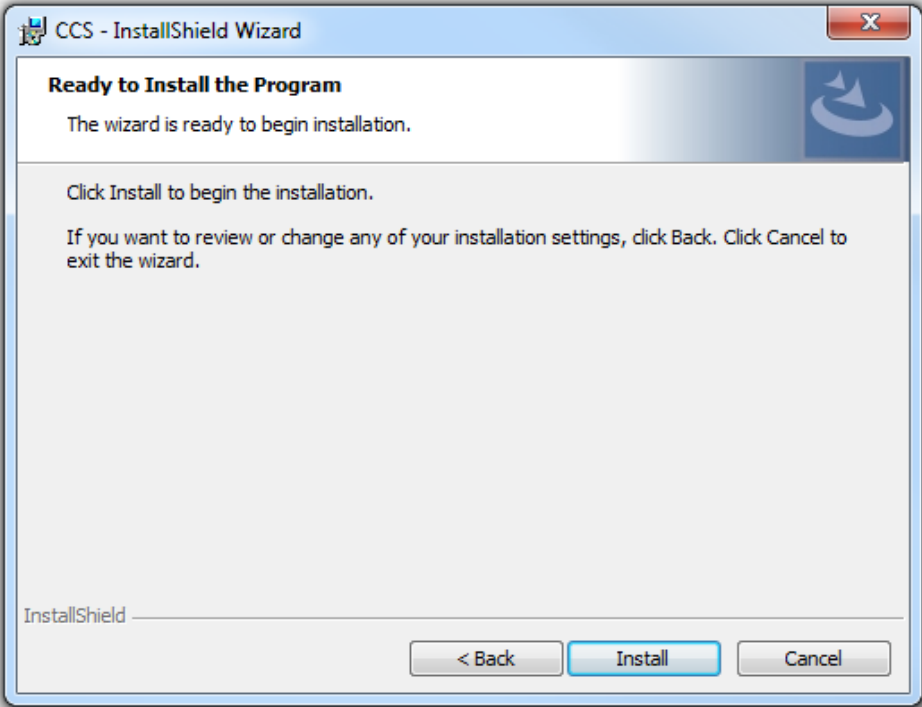


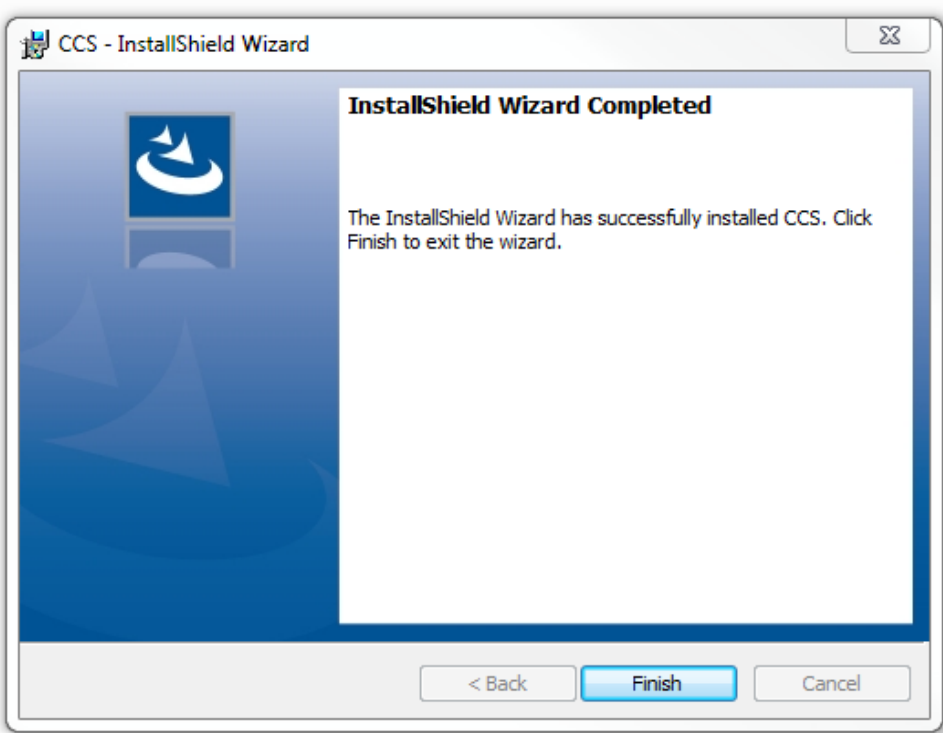
If you choose custom installation you have the opportunity to select if:

- 1. You want to install the CCS or not.
- 2. You want to install the CCS SQL database or not.
- 3. You want to install the OPC UA to OPC DA wrapper or not.



Click Install to begin the installation.

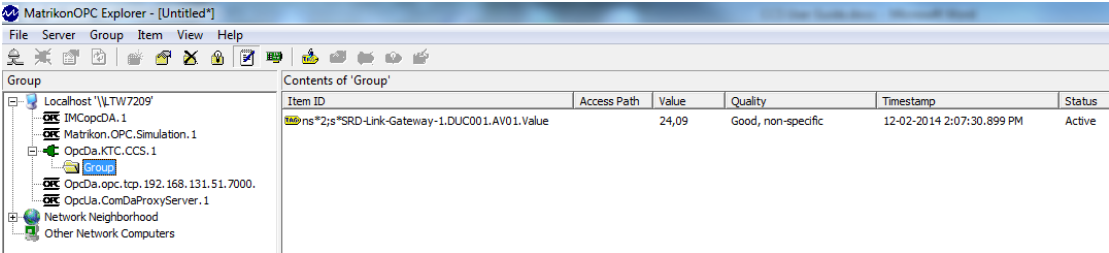




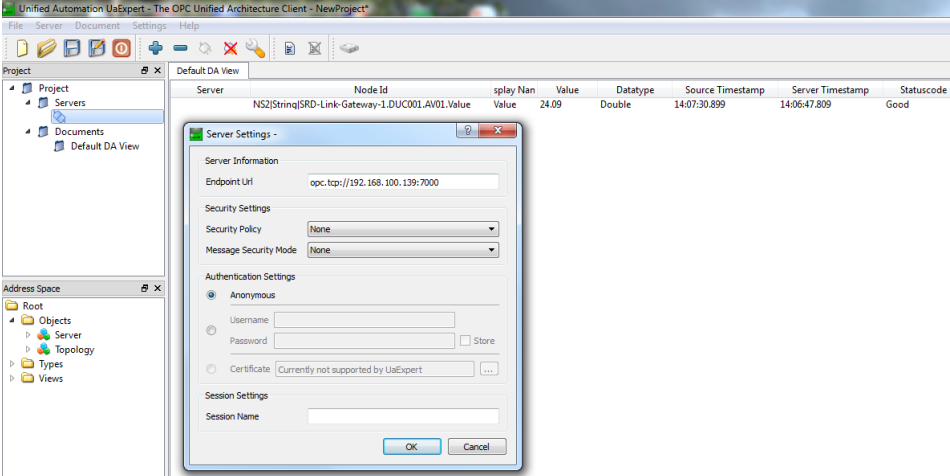
After the installation is complete, you may want to try to connect the OPC server with a client. There are a number of freeware clients that can be used for this.

In this example we use MatrikonOPC Explorer to test the OPC DA interface and UA Expert for OPC UA.

MatrikonOPC Explorer



UA Expert



3.2 Installing the CMT Client

The CMT Client is the “configuring tool” for CCS and is included when an installer is educated on the CCS at KTC. The installer will receive the software at the education, or upgrades later from ktc.se

The setup file is named Clayster.Management.WPF.Setup.msi.

Run the setup file on the computer that will be used for configuring CCS. CMT Client is a windows tool and needs Windows operating system on a pc.

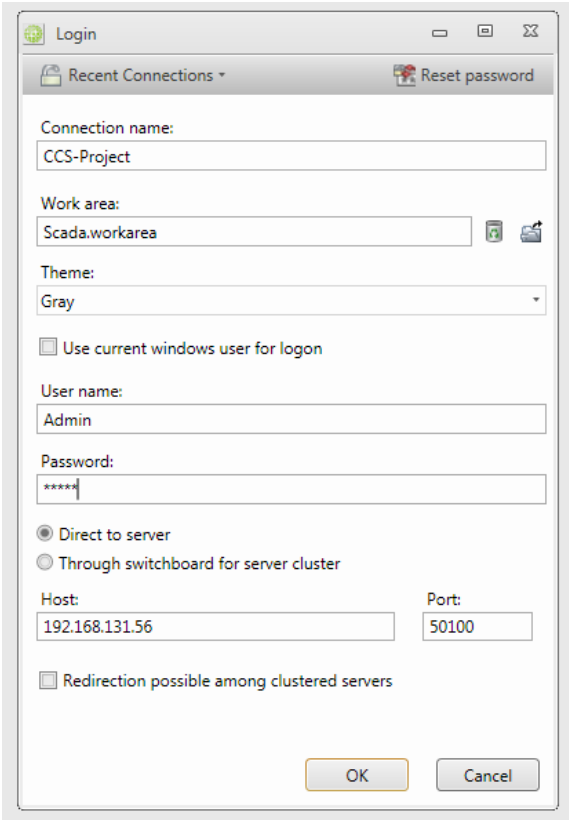
Follow the instructions given from setup program.





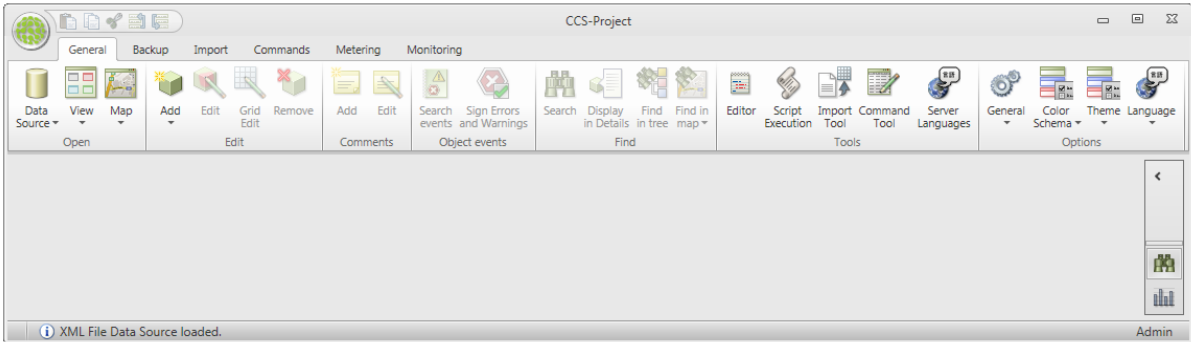
3.3 Connect the CMT Client to CCS

When starting the CMT Client the dialog below will be displayed. It allows you to connect to the CCS and start configuration. Once you have connected it will be easier to reconnect since the connections are saved under "recent connections"



Field	R	Description	Default on CCS
Connection Name	R	Simpler name than IP to remember	
User	R	User name	Admin
Password	R	Password	Admin
Host	R	Hostname or IP-Address to CCS.	
Port	R	Port number to communicate on	50100
Direct to Server	R	Always use this for CCS	
Work Area		If you have saved a file with configuration of your workspace you can load this here.	

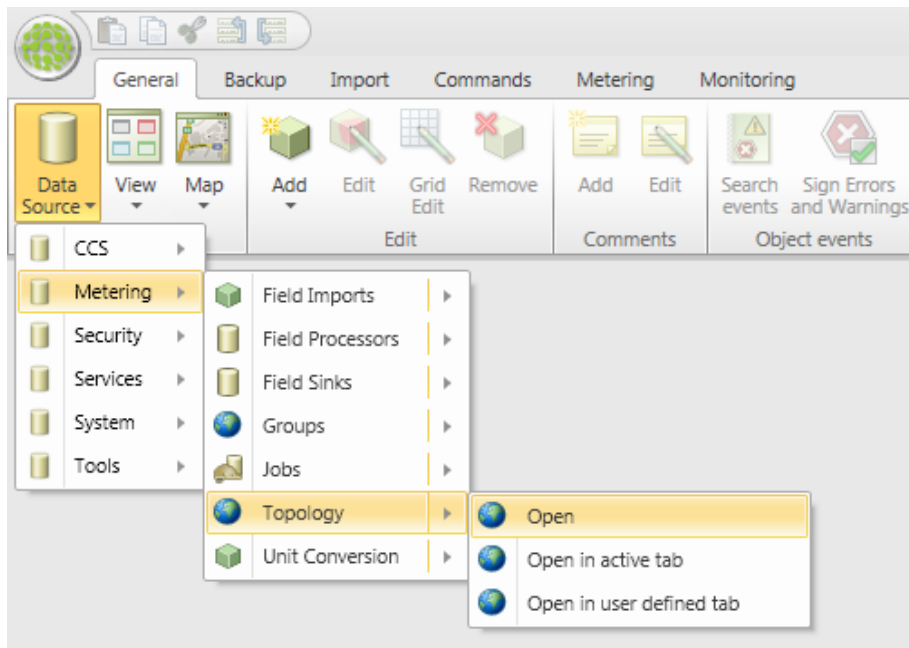
Once connected the screen will look as below. Then everything is ready to start configure...



4 Connecting SRD-Link devices

This section is for the installation engineer and describes how to configure and connect SRD-Link devices to the CCS.

All device configurations are done in the **topology**. The topology is the network of devices that are connected to the CCS. To access the topology, select datasource – metering – topology as shown in picture below.



Once topology is opened it will get a tab and you can access it by clicking on that tab.

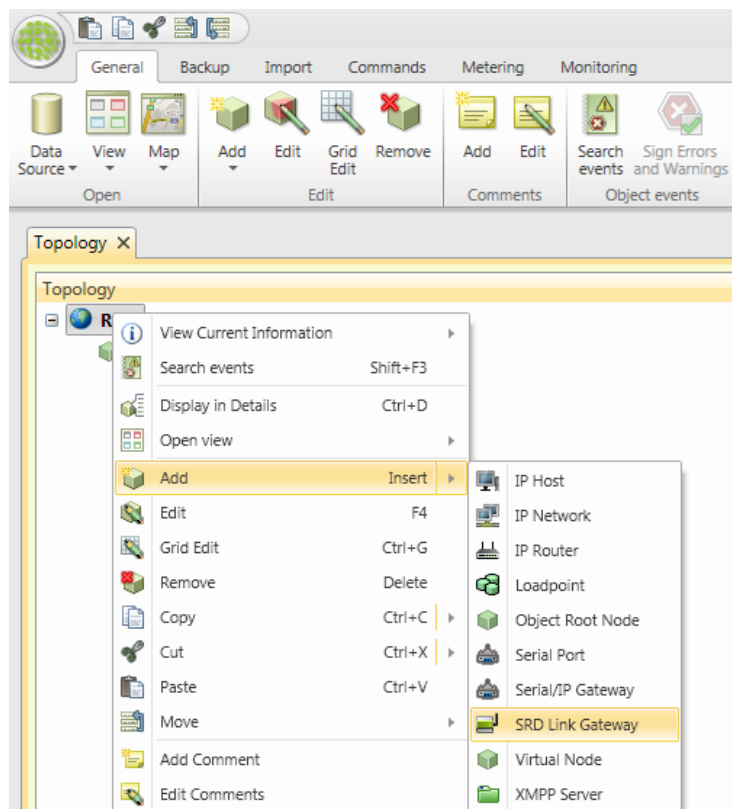
This chapter is divided into some general information and then one section for the SRD-Link protocol.

Link to sections on how to configure the topology

- [General information on topology](#)
- [SRDLink](#)

4.1 General information on topology

On a CCS the topology has the following node types that can be used.



IP Host - Not to be used in CCS version 1.0.

IP Network - Has no technical function, but is used to build the folder structure.

IP Router - Not to be used in CCS version 1.0.

Loadpoint - Not to be used in CCS version 1.0.

Object Root Node – Used for internal object. Ex. min / max / average calculations.

Serial Port - Not to be used in CCS version 1.0.

Serial/IP Gateway - Not to be used in CCS version 1.0.

SRD Link Gateway – to be used with SRD-Link products.

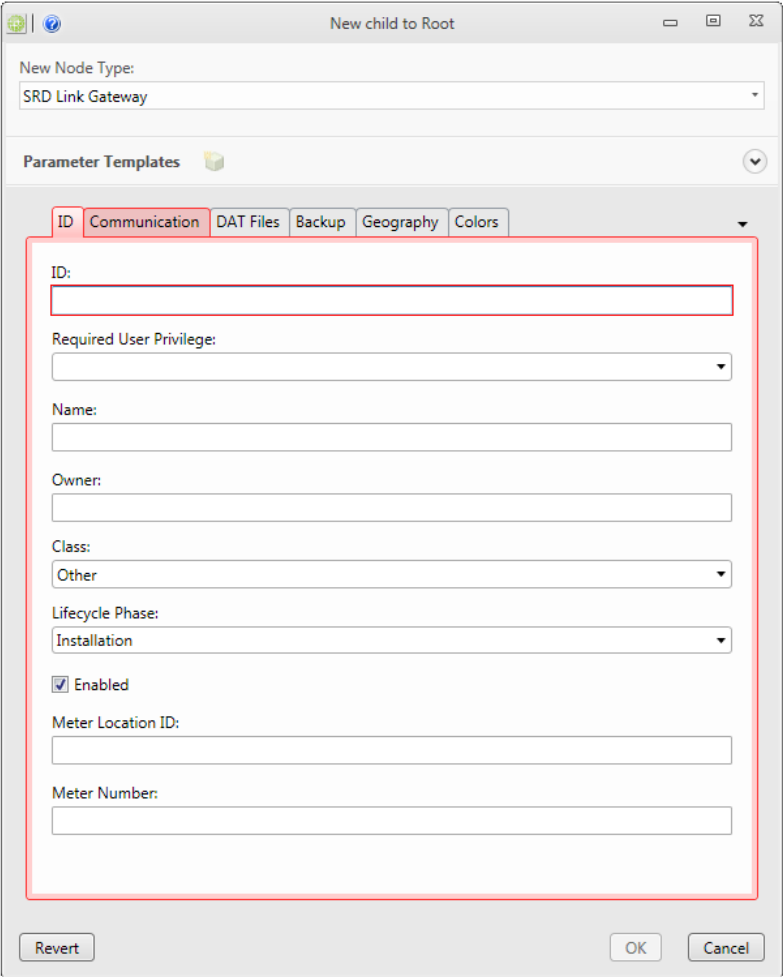
Virtual Node - Not to be used in CCS version 1.0.

XMPP Server – Used to run the SRD-Link protocol over the XMPP protocol.

Note: **Alarminfo** - Special node that provides functionality for Sum alarms for all other nodes.



When adding new nodes just select the node that you want to add a device or node under, right click and select “add”. Depending on where and what you want to add a dialog box will appear. However many of the fields is similar between different objects that you add. A Dialog box similar to the one below will appear.



Some fields and tabs in the dialog box are unique to the type of object you want to add, but many fields are identical. This manual will describe the generic fields valid for all objects. More specific fields for a specific type of object are described in the part of the manual that describes these objects.

4.2 SRDLink

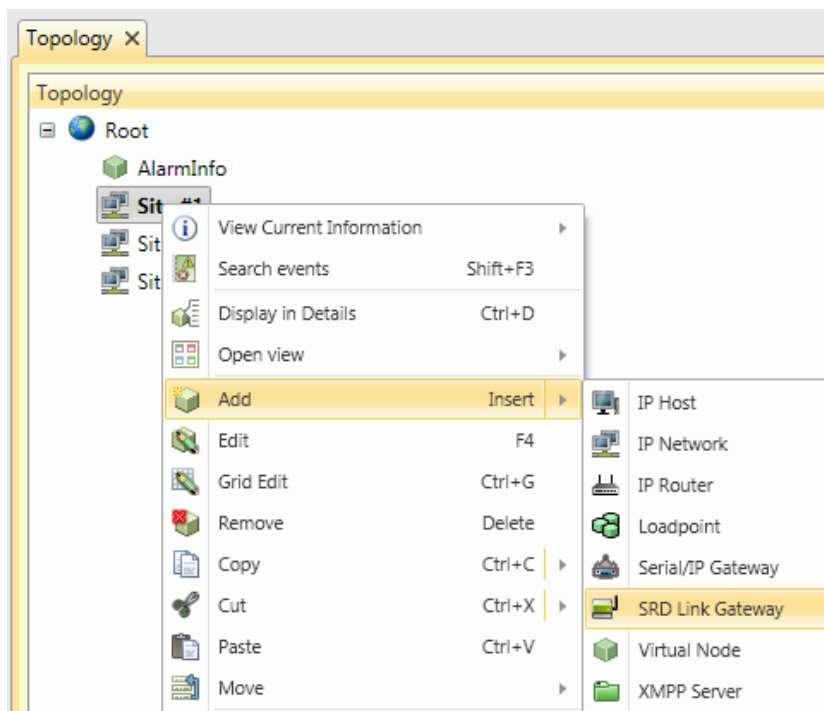
SRDLink is the software protocol for KTC-specific products. KTC products also supports other protocols but the native protocol is SRDLink.

SrdLinkGateway

- SrdLinkNode
 - SrdLinkObject
 - SrdLinkObjectGroup
 - SrdLinkObject
 -

4.2.1 To add a SRDLink device to your topology tree:

Begin by adding a **SRDLink gateway** node:





The ID tab: Enter the ID and Name (often the same).

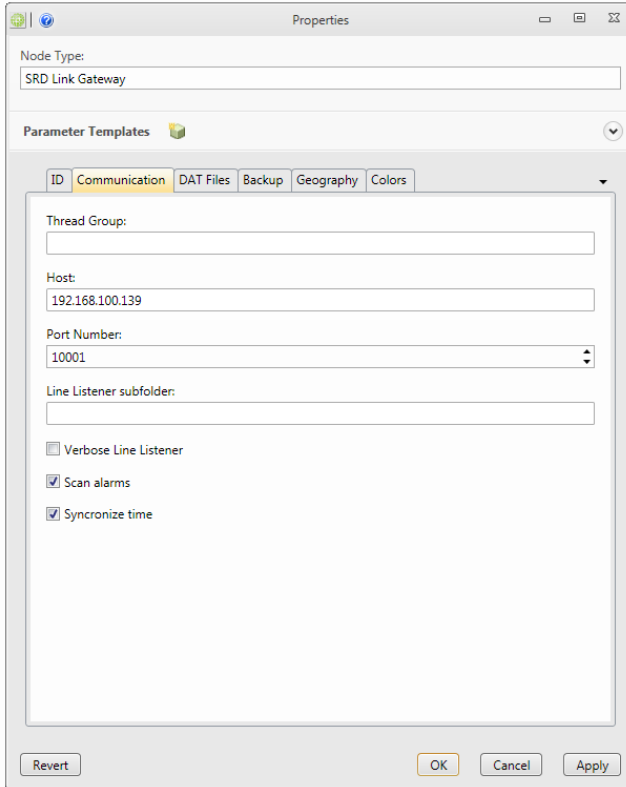
The screenshot shows a software dialog box titled "New child to Site #1". At the top, there is a "New Node Type:" dropdown menu with "SRD Link Gateway" selected. Below this is a "Parameter Templates" section with a dropdown arrow. The main area is divided into tabs: "ID", "Communication", "DAT Files", "Backup", "Geography", and "Colors". The "ID" tab is active and contains the following fields:

- ID:** A text input field containing "NET001".
- Required User Privilege:** A dropdown menu.
- Name:** A text input field containing "NET001".
- Owner:** An empty text input field.
- Class:** A dropdown menu with "Other" selected.
- Lifecycle Phase:** A dropdown menu with "Installation" selected.
- Enabled:** A checked checkbox.
- Meter Location ID:** An empty text input field.
- Meter Number:** An empty text input field.

 At the bottom of the dialog are three buttons: "Revert", "OK", and "Cancel".

- Id** *required*
A unique Id for the system to use for this node.
- Required User Privilege** *optional*
If empty, all can view this node. If not empty, this node and children can only be viewed by users with this Privilege ID.
- Name** *optional*
A secondary name (string) for the node. It appears in the tree. Is used to inform about usage of the objects.
- Class** *required*
Select the type of device. Possible values are: ColdWater, Gas, Electric, Concentrator, , etc.
- Phase** *required*
-Test: cannot erase nodes.
- Production: cannot erase nodes or edit some com parameters.
- Install: all new nodes default)
- Enabled** *optional*
Enables function. Default= true
- MeterLocationId** *optional*
ID of the meter location. Often used in meter apps to assign values. It is recommended to be used by engineers to locate meters/sensors.
- MeterNumber** *optional*
Meter apps can use to assign values.

On the Communication tab: Enter the IP-address and port number to reach the unit, standard port for SRD Link is 10001.



Properties

Node Type:
SRD Link Gateway

Parameter Templates

ID Communication DAT Files Backup Geography Colors

Thread Group:
[Empty]

Host:
192.168.100.139

Port Number:
10001

Line Listener subfolder:
[Empty]

Verbose Line Listener

Scan alarms

Synchronize time

Revert OK Cancel Apply

ThreadGroup *optional*

Thread Groups can help performance. Nodes of the same thread group are read using the same thread. If not specified, the node automatically assigns a thread group with the same name as the node ID.

Host *required*

Host Name or IP Address of the device.

Port *required*

Port Number to use when connecting to the device. Standard for SRDLink is 10001.

Line listener subfolder *optional*

Enter the name of a line listener subfolder. Leave empty if no line listener is desired.

Verbose line listener *optional*

If checked, additional info is provided in the line listener.


Scan alarms *optional*

Scans the alarm queue.

See chapter 7.1 and 7.3 for further information regarding alarm setup.

Synchronize time *optional*

Synchronize times.

A decorative horizontal row of seven squares: six teal and one red in the center.

DAT Files tab: This is an alternative for adding SRDLink nodes. See: 4.4 Create SRDLink nodes via DAT file.

Backup: Here we can see when the last backup of the PLC is made.

To make a PLC backup, right click on the SRD-Link Gateway and select "Read DAT file". The files will by default be stored under: C:\ProgramData\CCS\DATFiles

Geography tab: unnecessary.

Colors tab: unnecessary.

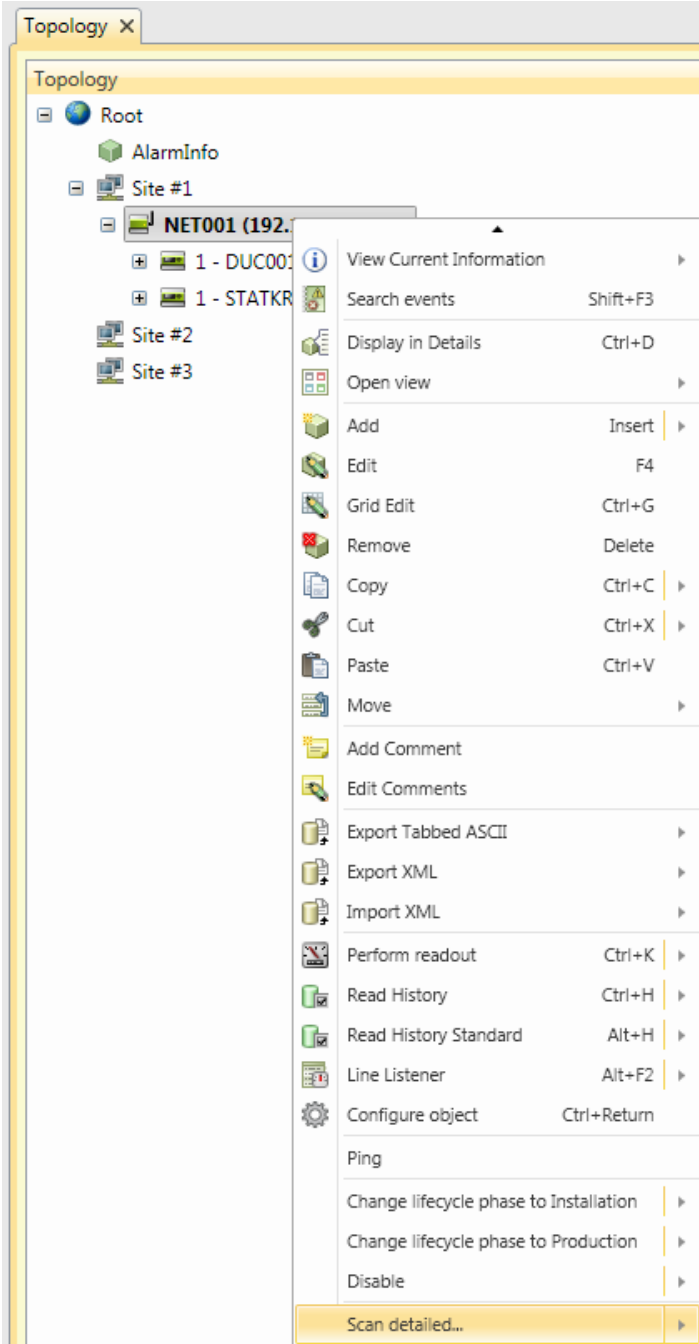
There are three ways to add SRD-Link devices.

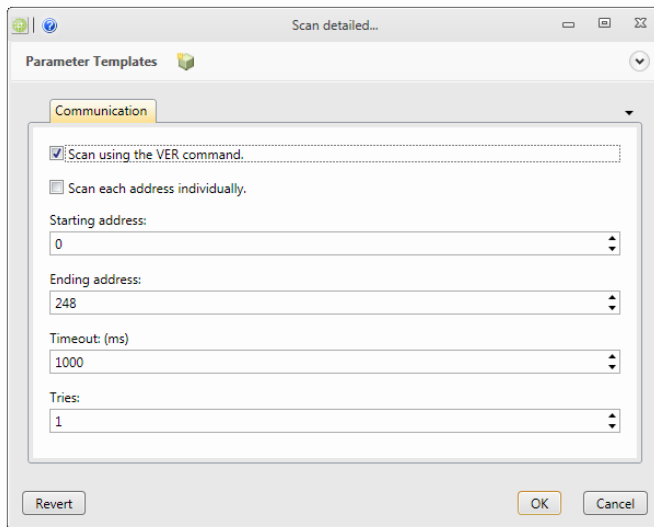
1. Scan: automatic scanning of devices. This is the easiest way and requires a minimum of time. This method requires that devices are accessible from the CCS server.
2. Import DAT-files: We use this method when we want to prepare the OPC server and not yet have communication to the devices.
3. Manually build the SRD-Link topology: This method is the most time consuming and is primarily used to add single new objects in a device.



4.3 Create SRDLink nodes via scan option

Right click on the SRD-Link Gateway and select “scan detailed”.





Use VER Default method. Fastest scan but can be unreliable with many devices connected to the bus.

Individual search

More time consuming but more reliable with a large number of devices connected.

Starting address

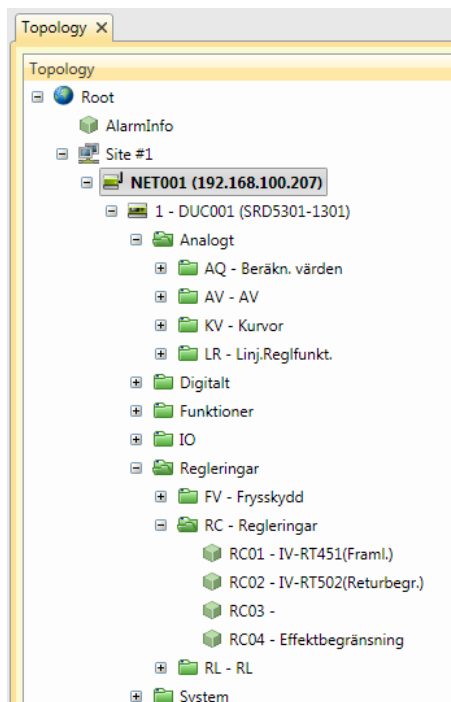
Beginning address for the individual address scan range.

End address End address for individual address scan range.

Timeout Timeout in ms for address queries.

Tries Number of tries before returning a failure.

Every existing device and object connected to the SRD-Link Gateway will automatically be placed in your topology tree.



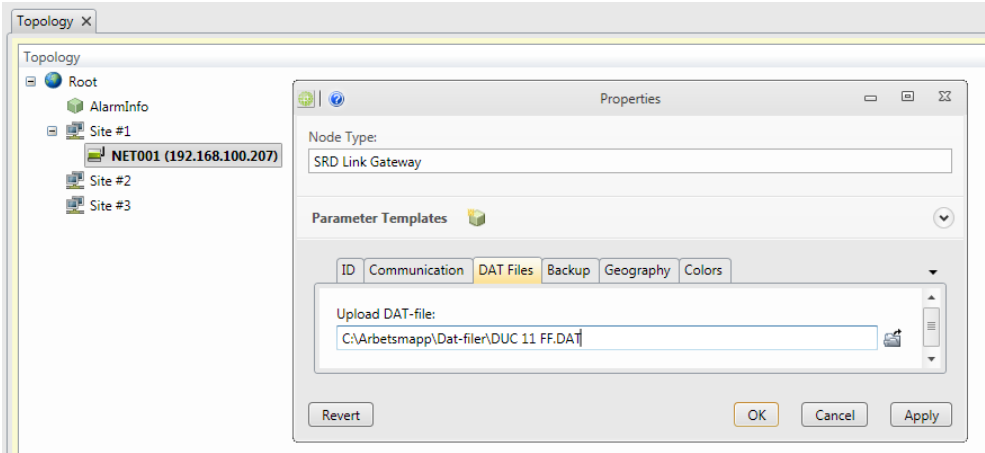


4.4 Create SRDLink nodes via DAT file (Offline configuration)

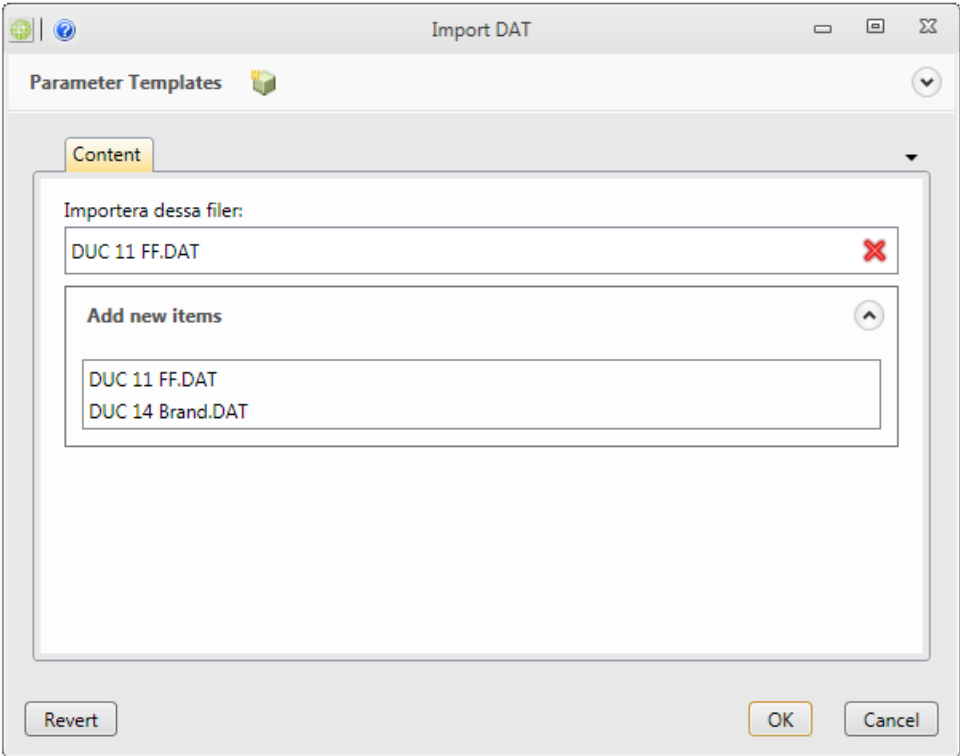
For convenient logistics, you can pre-program a building with an offline configuration. This method allows you to create a SRDLink gateway node with SRDLink devices and objects by importing a DAT file at the gateway level.

DAT Files are created by using the KTC Tool Automate, for more details read the manual for Automate.

Start by uploading your already configured DAT files to the "SRD Link Gateway".



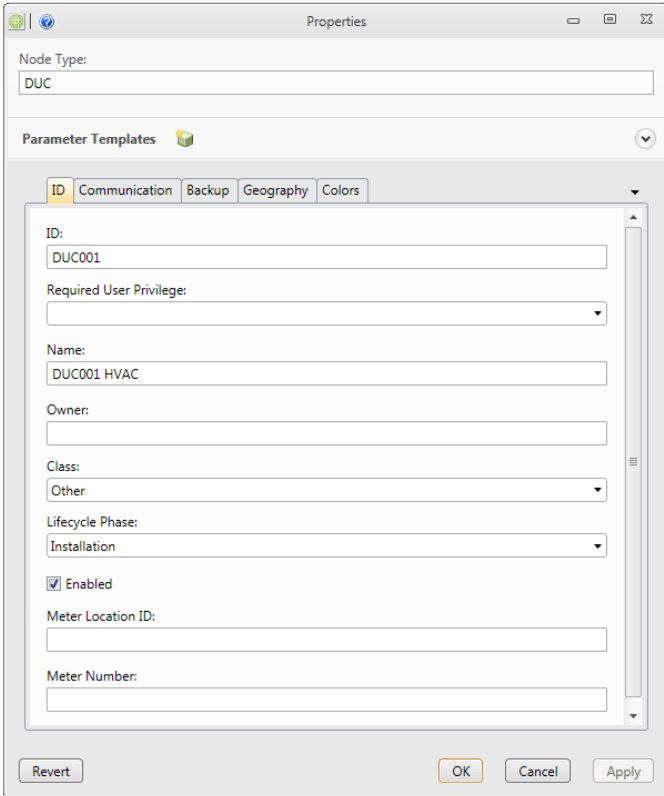
Right click on the "SRD Link Gateway" and choose "Import DAT".





4.5 Create SRDLink nodes/Objects manually

Add a SRD-Link device node to the gateway by right-clicking the SRD Gateway and selecting the **Add/DUC** option:



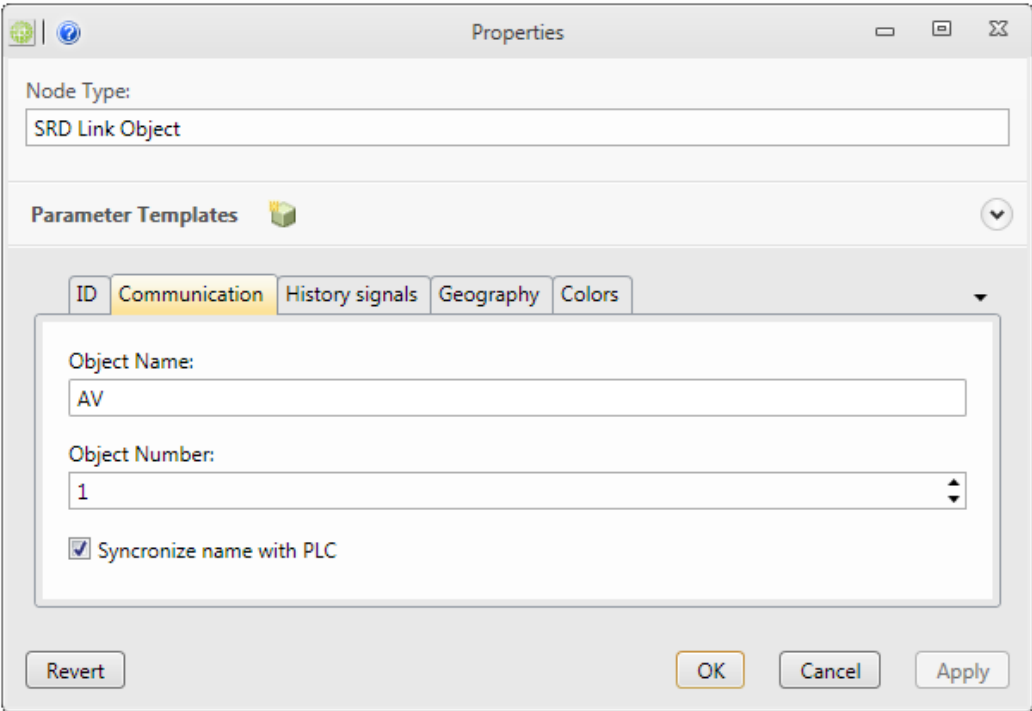
- Id** *required*
A unique Id for the system to use for this node.
- Required User Privilege** *optional*
If empty, all can view this node. If not empty, this node (and all its children) can only be viewed by users having this Privilege ID.
- Name** *optional*
A secondary name(string) for the node. It appears in the tree. Is used to inform about usage of the objects.
- Class** *required*
Select the type of device. Possible values are: ColdWater, Gas, Electric, Concentrator, , etc.
- Phase** *required*
-Test: cannot erase nodes.
- Production: cannot erase nodes or edit some com parameters.
- Install: all new nodes default)
- Enabled** *optional*
Enables function. Default= true
- MeterLocationId** *optional*
ID of the meter location. Is often used in meter data application to assign values. It is recommended to assign a meterLocationId. It is used by engineers to locate meters/sensors upon customer request.
- MeterNumber** *optional*
Often used in meter data application to assign values.

On the Communication tab: Enter the SRD-address and model type of the unit.



After this you can add a **SRD-Link Object/ SRD-Link Object Group**(used to organize the objects)
Just right click and chose the type of object you want to add.

On the Communication tab you have to fill in the Object Name and number.





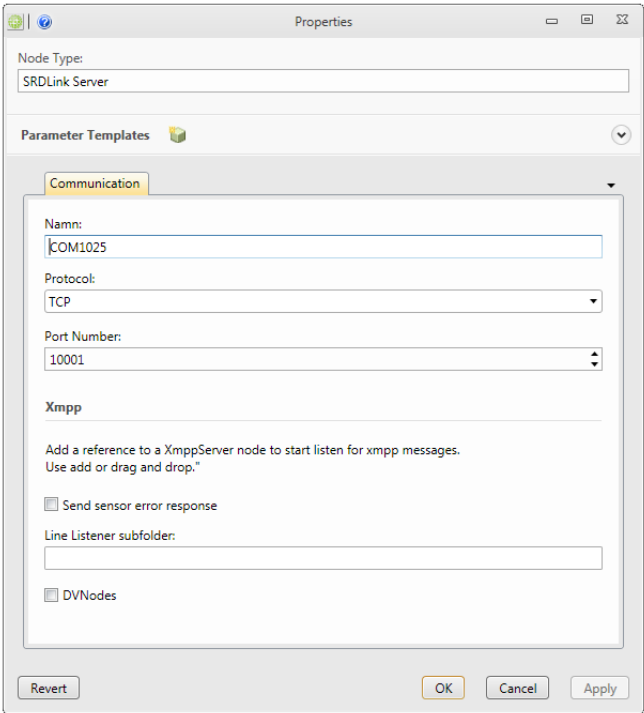
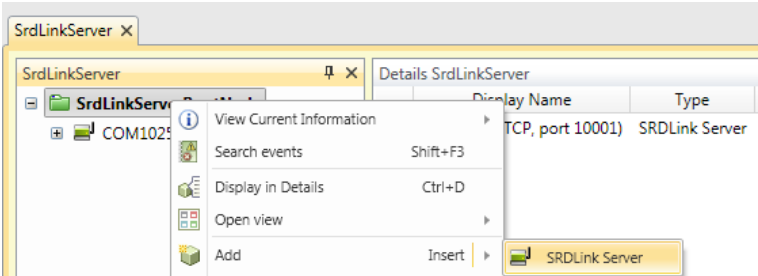
5 Connecting KTC device COM1025 using “SCADA-StatusClient” function with CCS.

In the communication product KTC COM1025 there is a function called "SCADA Client Status". This feature enabled communication between COM1025 and former Adepto OPC server without the use of fixed IP addresses. At CCS, we have implemented functionality to be able to support KTC COM1025 fully in the CCS.

The first thing we must do is to add a SRDLink server. This is to allow communication between COM1025 and the CCS server.

Open **Data source/CCS/SRDLinkServer**.

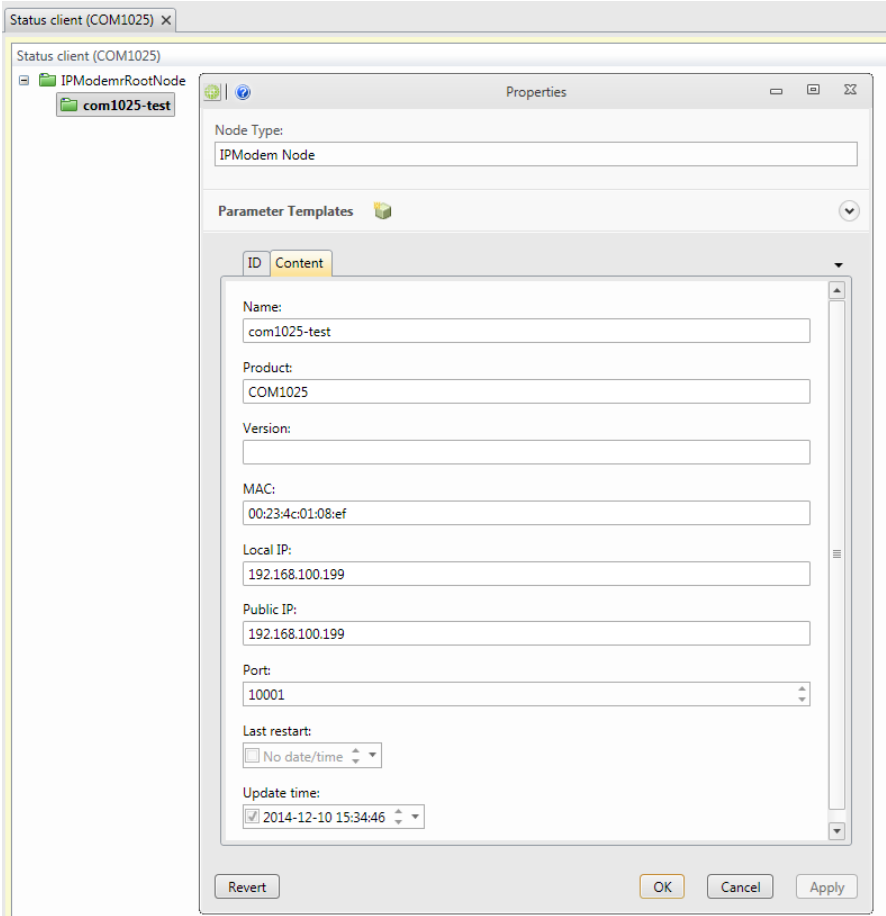
Add SRDLink Server



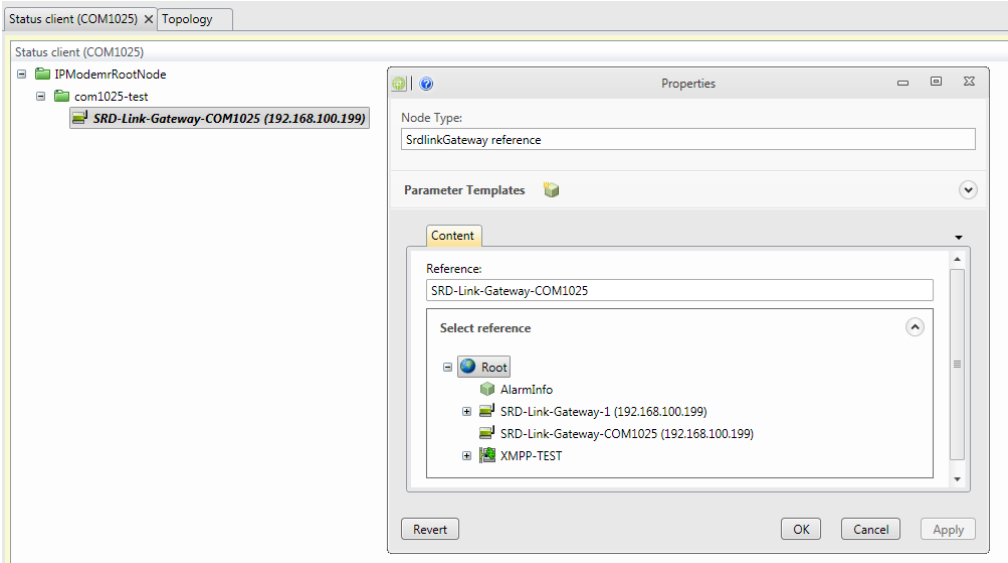
- Name:** Enter a name for the node
- Protocol:** TCP/UDP (in this case we use TCP)
- Port Number:** Enter a valid port number for the connection to the host machine. Default for this application is 10001.



Those COM1025 devices configured to talk to your CCS server will now appear in the tab **Data source / CCS / Status Client (COM1025)**.



What remains now is to create a reference to Topology tree. We do this by adding a **SRDLink Gateway reference**.



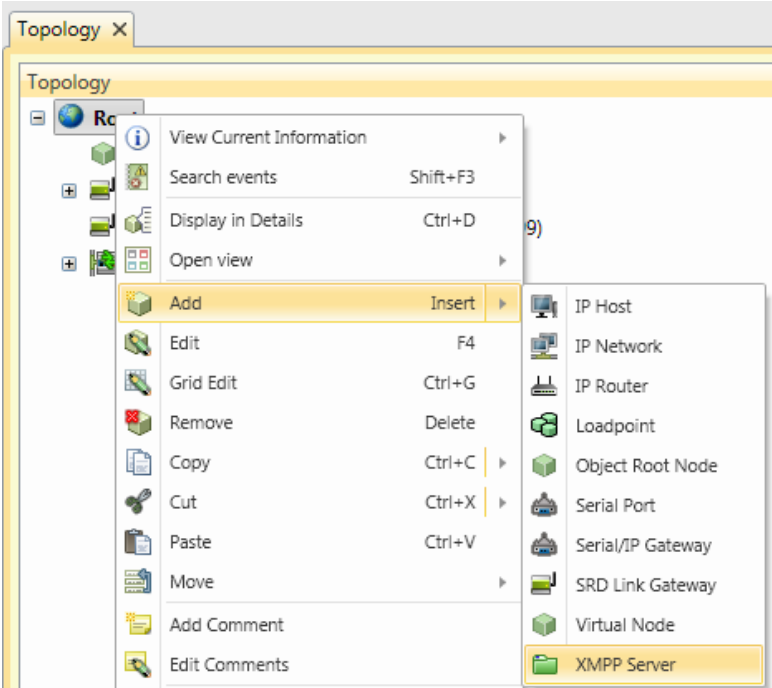
Note: This reference replaces any communication settings previously made in Topology / SRDLink Gateway with new ones from the Status client.



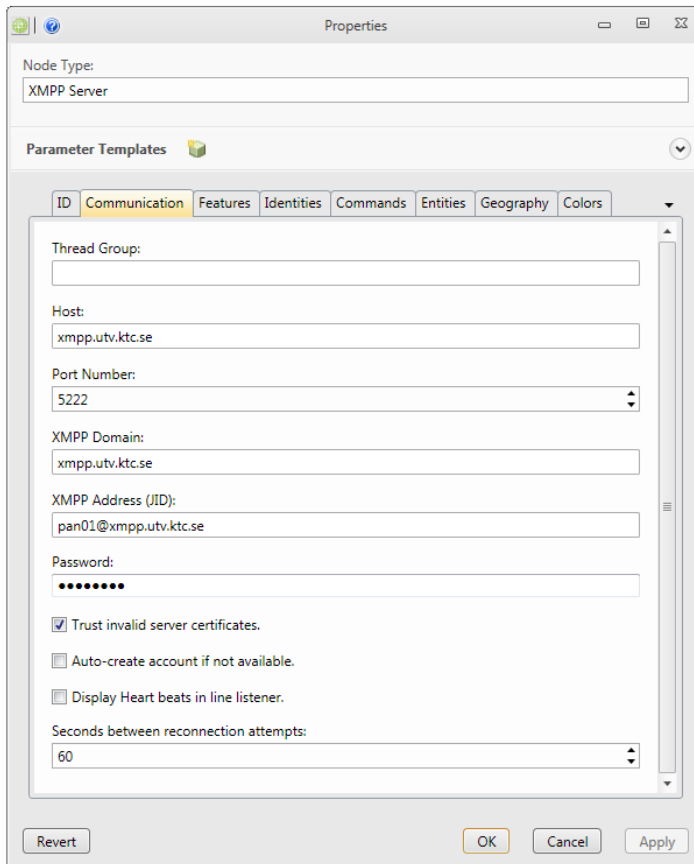
6 Connecting KTC device using XMPP

In CCS, you also have the ability to connect your devices through XMPP. Connection via XMPP does not require fixed IP addresses and only port for outgoing traffic must be opened (default XMPP port 5222). An XMPP server must be available for this type of communications solution.

Add a new XMPP Server:



Fill in settings for communication with the XMPP server you are connecting to in the Communications tab:



Thread Group *optional*

All nodes belonging to the same thread group, will be read using the same thread.

Host *required*

Enter an IP address or DNS name for the host machine

Port Number *required*

Enter a valid port number for the connection to the host machine.

XMPP Domain *required*

Name of the domain hosted by the XMPP server.

XMPP Address (JID) *required*

XMPP address of the client that will perform communication with XMPP devices.

Password *required*

Password corresponding to the XMPP address.

Trust invalid server certificates *optional*

If checked, invalid server certificates will be accepted during connection.

Auto-create account if not available *optional*

If checked, a new account will be created on the XMPP server. After created, the flag will be cleared.

Display Heart beats in line listener *optional*

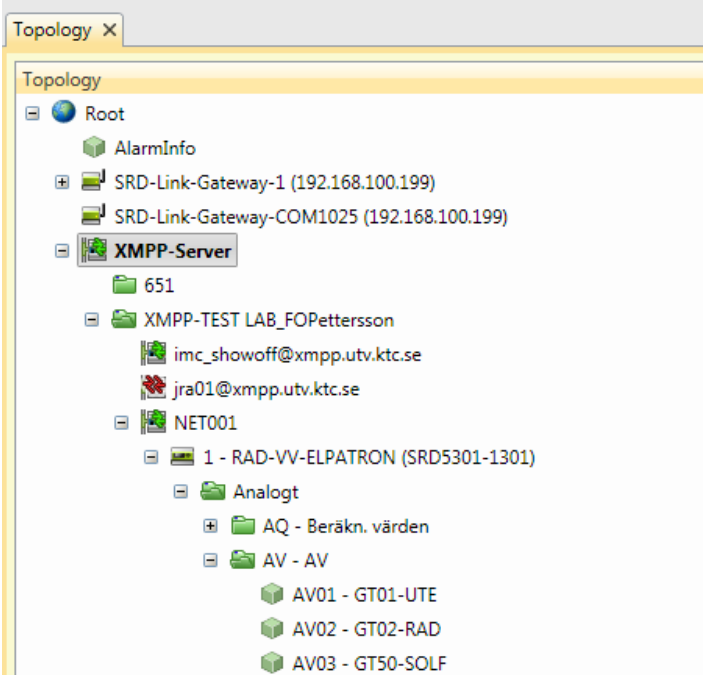
If checked, the line listener will display when heart beat messages is sent to the XMPP server.

Seconds between reconnection attempts

If connection to XMPP server is missing, reconnection attempts will be performed with this interval.



Any valid connections will show up in the XMPP topology:



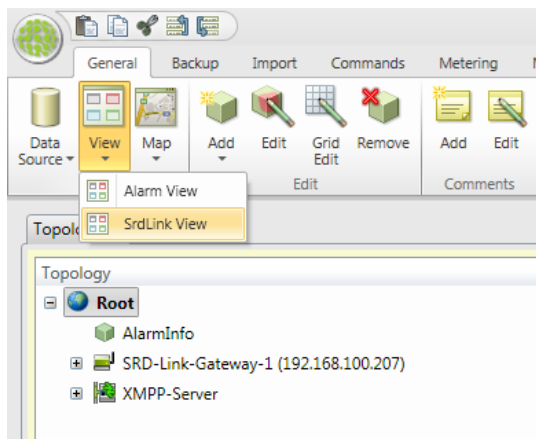


7 Custom View CCS

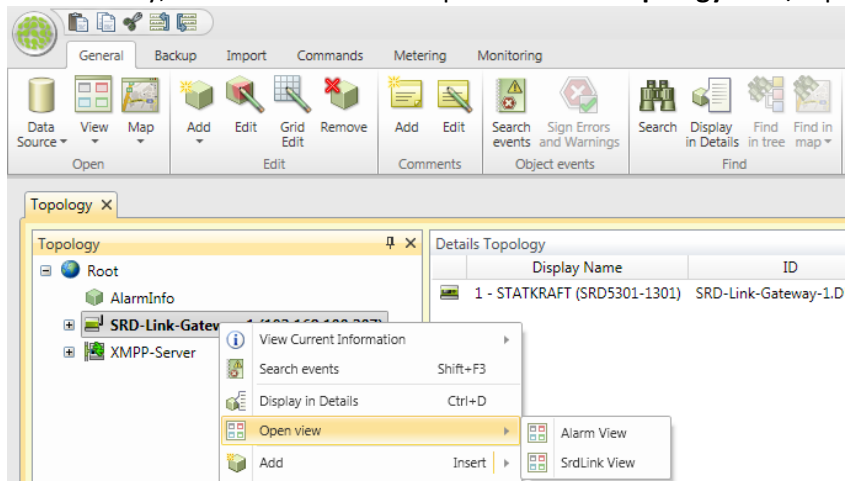
The CCS includes two different custom views. These two are the **Alarm view** and **SRDLink view**. The **Alarm view** is used to monitor and acknowledge alarms. **SRDLink view** can be used to monitor real-time values of Object, see when the last backup was taken and activate trend collection on Objects and more.

Both are closely linked to the Topology tree and displays information depending on which node in the tree you have selected.

Custom views are accessed via the **View / Alarms view** alt. **SRDLink view**. A prerequisite for being able to open custom views is that **Topology** is already selected.



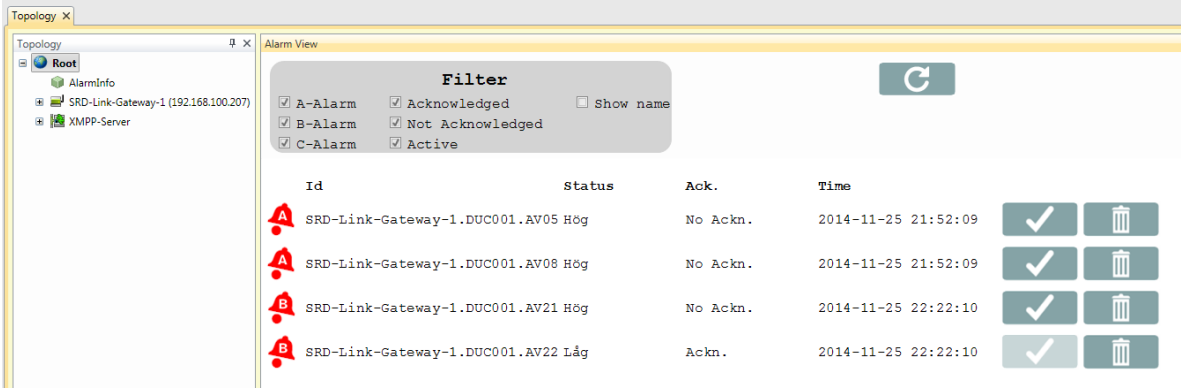
Alternatively, custom views can be opened via the **Topology** tree / Open View.





7.1 Alarm view

Alarm view is a list with the possibility to Filter, acknowledge and delete alarms. Alarms are displayed related to the selected node in the topology tree. It means that you will see all alarms in the CCS if you select the top node.

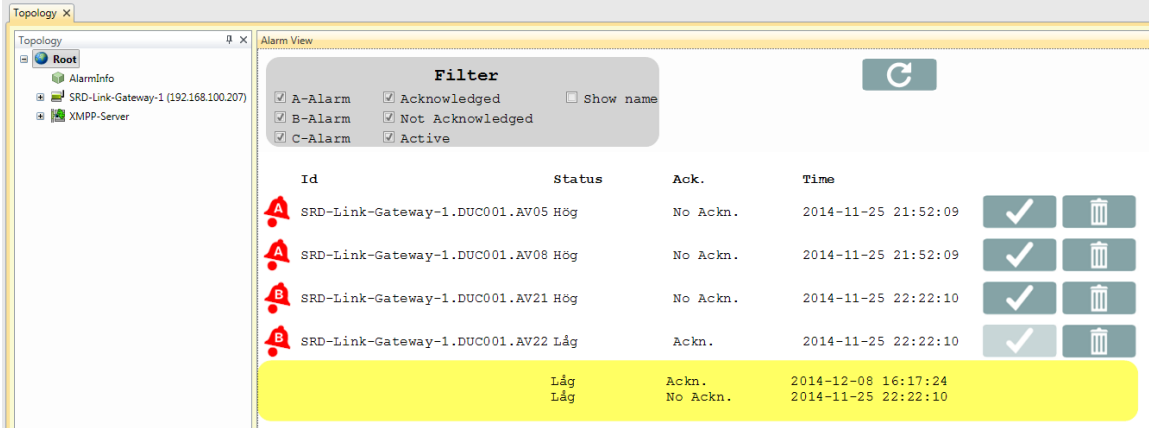


Acknowledging alarms is done by clicking:

Permanently remove an alarm is done by clicking:

Refresh the Alarm view by clicking:

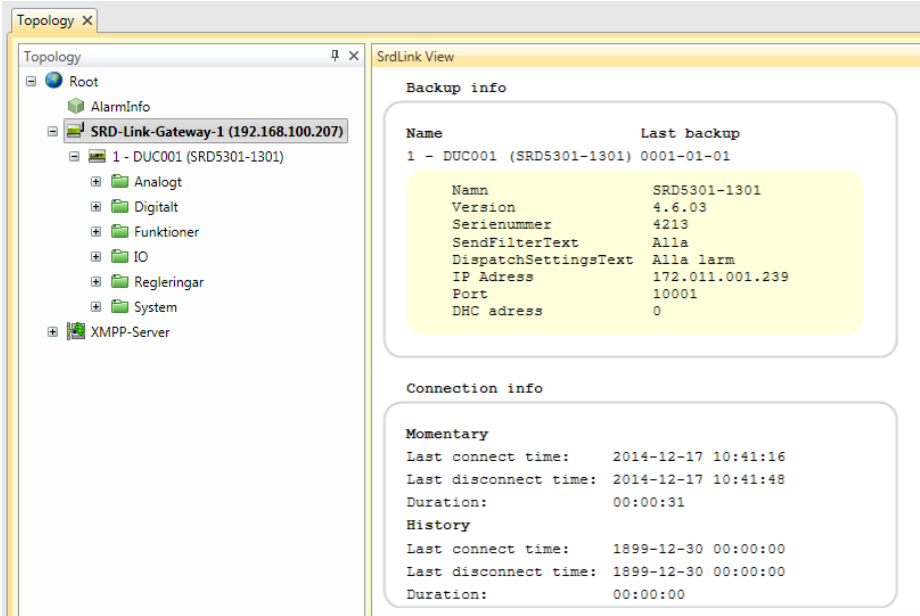
By clicking on an alarm you will get more information about the specific alarm.



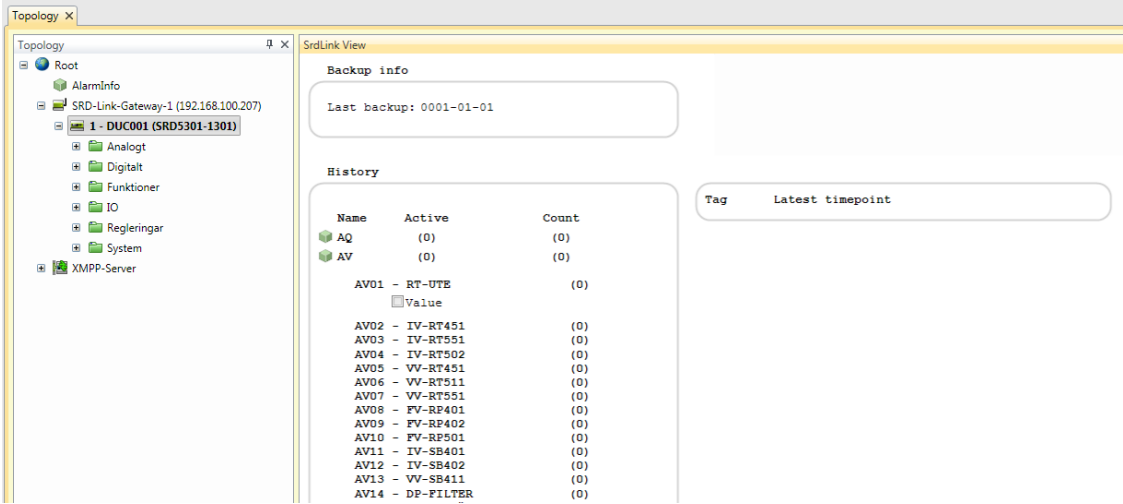


7.2 SRDLink view

At the gateway level, it provides information about Backups, current alarm settings in the PLC (click on the PLC name) as well as connection info.



At the PLC level you can see when the last backup was taken. You are also able to activate historical collection of objects (see Chapter 10.3.1 for more information).





On the object level you will find real-time data for the selected object.

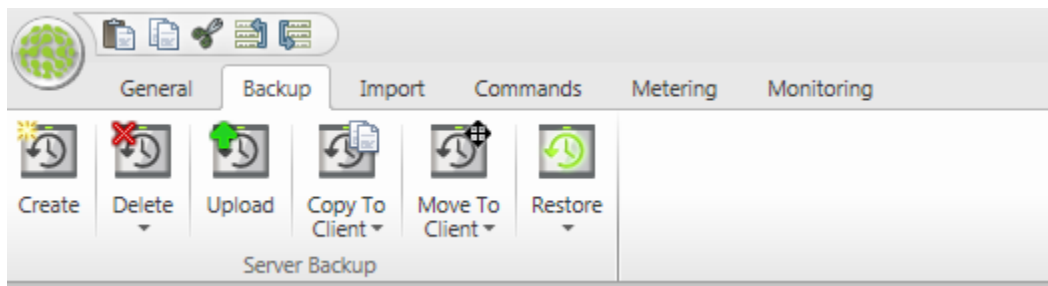
The screenshot shows a software interface with two main panels. The left panel, titled 'Topology X', contains a tree view of a system hierarchy. The right panel, titled 'SrdLink View', displays a table of real-time data for the selected object 'AV01 - RT-UTE' as of 2014-12-17 11:21:48.

Text	Value
Tag	RT-UTE
Kategori	0
CategoryText	---
Signalval	AI01va
Värde	24,08 °C
Utgångsstatus	24,08
Enhet	1
UnitText	°C
Minbegränsning	
Maxbegränsning	
Villkor min	0,00
Villkor max	0,00
Max	24,10 °C
Min	24,05 °C
MinMax reset interval	2
MinMaxResetIntervalText	Dag
Manöverläge	0
ModeText	Auto
Handställt värde	1,00 °C
Givarfelstatus	0
AlarmSensorStatusText	Ej Larm
Larmstatus	0
AlarmStatusText	Ej Larm
Fördröjning	0 sek
Larmprioritet	3
AlarmPriorityText	A-larm
Höglarmgräns	60,00 °C
Låglarmgräns	0,00 °C
Larmförregling	
Larmtid	6.06:00:00
Larmdatum	0001-01-01
Tid kvittering	6.06:00:00
Datum kvittering	0001-01-01

8 Copy, backup and restore

You can copy all or part of the tree in the topology and then copy it to another part of the tree or to another project. Right click and select copy(CTRL + C) then paste(CTRL + V).

You can also do a full backup of your IMC project. This is done by first selecting "Backup" tab at the top.



Create

Create a new server backup
(With option to copy or move the backup to a client when finished)

Delete Backup

Delete a server backup

Upload

Upload a locally saved backup to the server

Copy to Client

Copy a locally saved backup to the client

Move to Client

Copy a backup file from the server and save on the client and then delete the backup file on the server

Restore

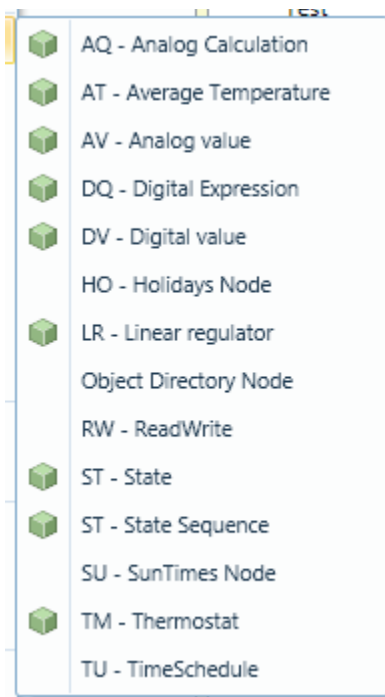
Restore a server backup

9 Creating integrated functionality

IMC places all of your building's systems on a common platform. This enables you to converge the functionality from several different systems to vastly increase their scope and utility.

9.1 Generic info on creating calculation objects.

Much of the integration logic is created in the "Objects" part of topology tree. The different objects that can be added (version 1.0) are:



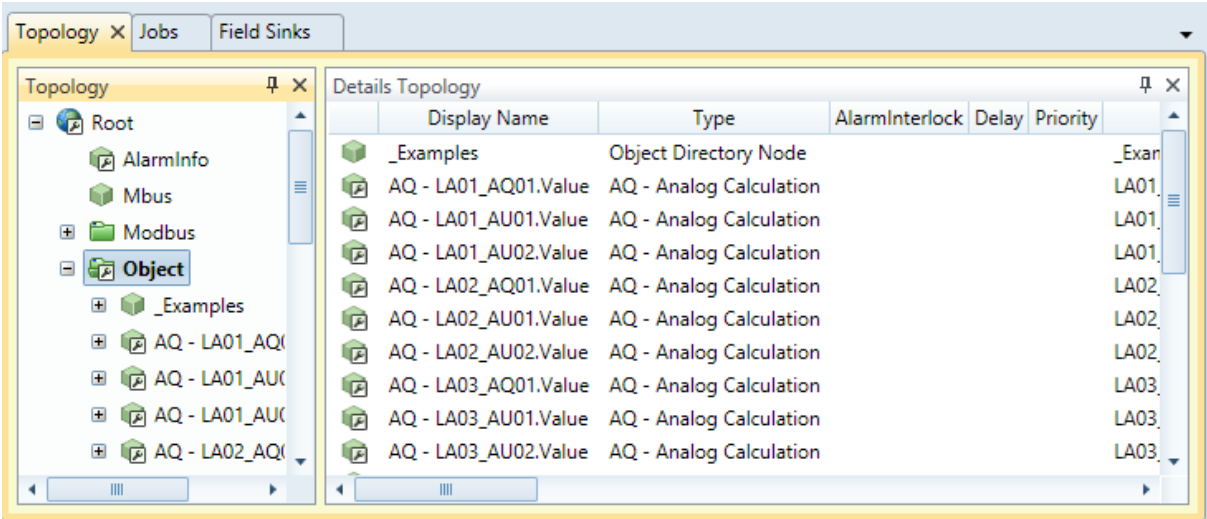
9.2 AQ – Analog Calculation Object

The analog calculation object is used to perform a calculation between a number of analog inparameters

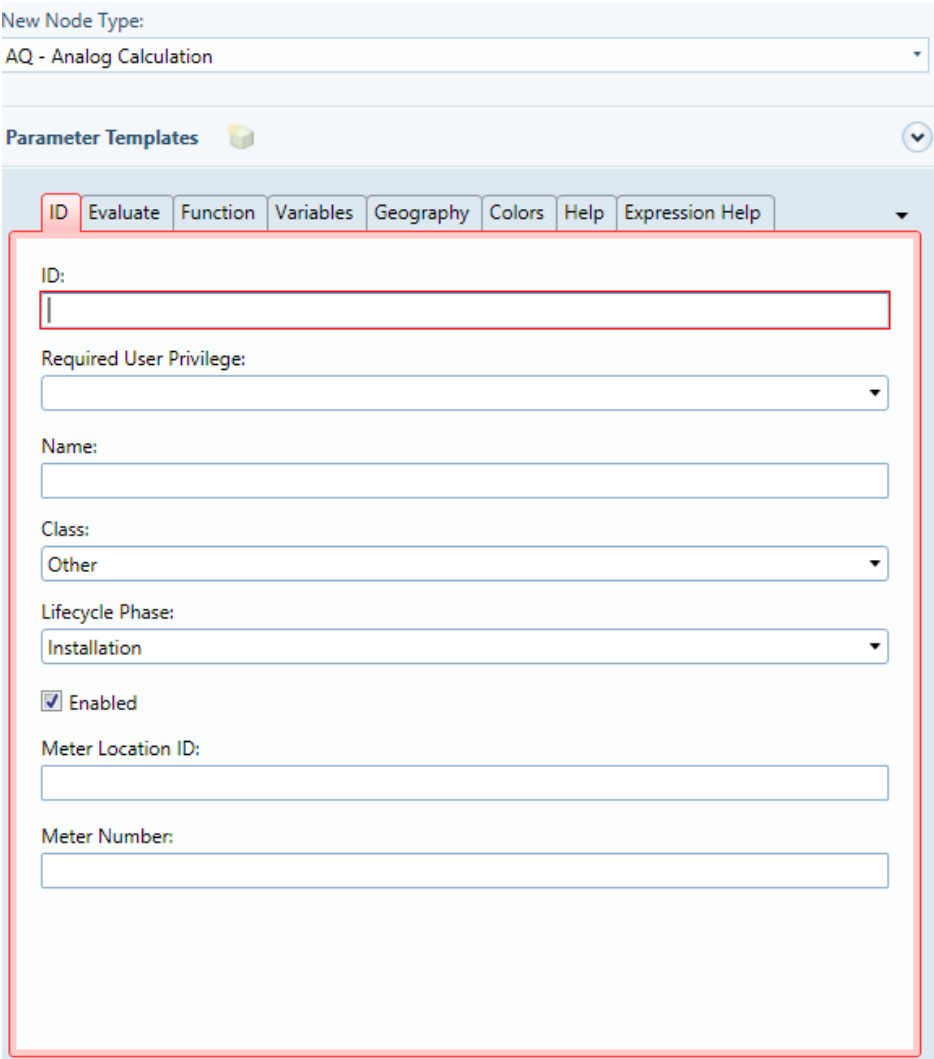
It is possible to perform more advanced calculations using a script language.

For more "ease of use" there is also a number of standard calculations included, similar to those in KTC PLC:s. (Min,Max,Average) etc.

In this example we first create a "object directory node" by right-clicking in topology tree. The node is called "_Examples". The result should similar to below, although only with "Examples" and not all the AQ in the picture.

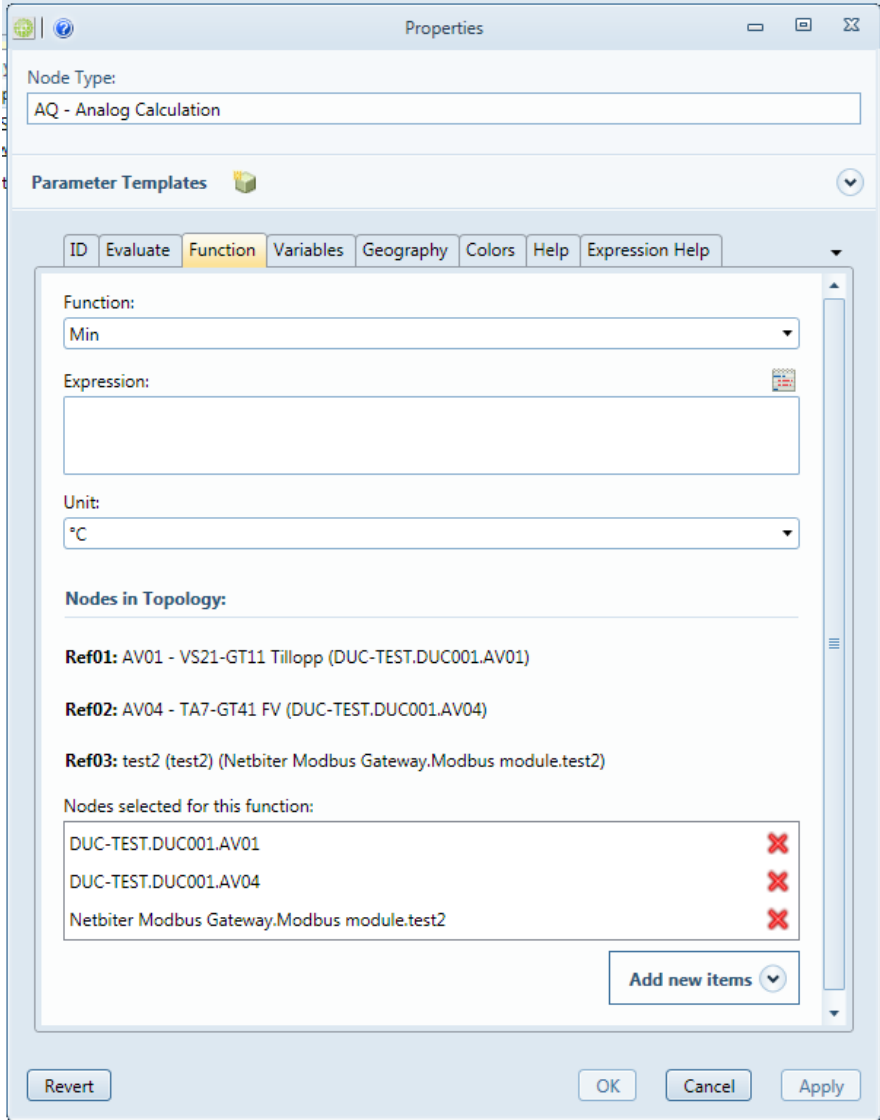


Next step is to right-click `_Examples`, select add, select “AQ – Analog Calculation Object”.
You will get a dialog box locking like the one below.





The below table describes the fields involved. Suitable name standard might be to number the objects and a description of the purpose. Example AQ01 – Lowest Room Temp.

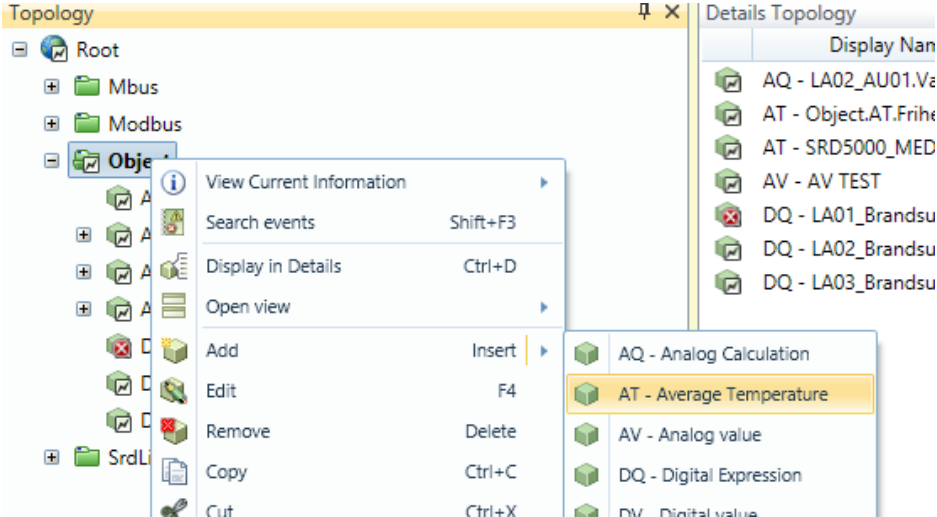




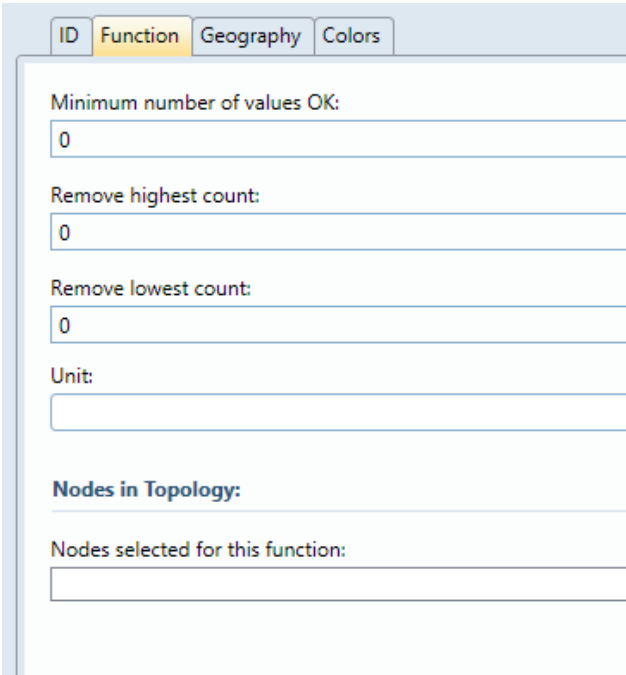
9.3 AT - Average Temperature Object

There is a special object in IMC to calculate average temperature. You can use script functions to perform the same functionality, but the AT Object simplifies this calculation. It is typically used to control heating for a building by using average room temperature instead of heating flow.

Create an AT Object by adding this to objects in topology.



Next step is to select the room sensors and set the parameters on the Function Tab



Minimum Number of Values OK

To avoid controlling when many sensors are lost, it is possible to set minimum number of sensors. If less sensors then minimum, the average will be “sensor error”

Remove Highest Count

If a number > 0 is entered, the algorithm will exclude the x highest temperatures from average calculation, where x is the number entered,

Remove Lowest Count

If a number > 0 is entered, the algorithm will exclude the x lowest temperatures from average calculation, where x is the number entered,

Unit:

Normally select °C here.

Nodes in Topology

Select the temperature sensors to include in calculation here,

9.4 AV Analog Value Object

Used to create analog alarm from third party devices (eg Modbus).
See Section 8.1 for more information.

9.5 DQ – Digital Expression Object

Similar to the AQ object but used for digital signals.
Expressions are made using AND/OR commands.

Expression Help

The following examples has three named boolean values, v1, v2 and v3.

Logical Or writes as OR, ELLER or ||

v1 || v2

v1 ELLER v3

Logical And writes as AND, OCH or &&

v1 && v2

v1 AND v3

Logical Exclusive Or writes as XOR

v1 XOR v2

Negation writes as NOT or !

!(v1 || v3)

9.6 DV Digital Value Object

Used to create digital alarm from third party devices (eg Modbus).
See Section 8.1 for more information.

9.7 HO Holidays Object

Holidays

This node tells if the current day is an holiday or not. Select which nations holidays you want.
The readout result will be:

Status

True if the current day is a holiday.

Holiday name

If it's a holiday, the name of the holiday will be presented here.

9.8 LR Linear Regulator Object

Used to do a linear curve with two breakpoints.

9.9 RW ReadWrite Object

ReadWrite Help

This node reads value from a node and writes that value to another node. It continuous checks that the values is the same on both sides.

The input and output of this node is configured by its childnodes. No parameters to be set on this node.

Node Reference Input

The value of this node represents the input value. If more than one node is added, the sum of all nodes will be the input.

Node Reference Output

The output node is the node which this nodes writes to. The value of this node will always be the same as the input to this node.

9.10 ST State Object

9.11 ST State Sequence Object

9.12 SU SunTimes Object

SunTimes

This node calculates the sunrise and sunset for a specific position. Enter the longitude and latitude for the position. The readout result will be:

Status

True if the sun is up.

Sunrise

Timepoint for the sunrise the current day.

Sunset

Timepoint for the sunset the current day.

9.13 TM Thermostat Object

Used to do thermostats function with on and off- time delay.

9.14 TU Timeschedule Object

Time schedule Help

Time schedule with a free number of periods. Add a TimeSchedulePeriodNode for each period. The result is the combined result of all periods. If one or more period is evaluated to true the readout result of this node will be true.

Auto

All periods are evaluated and the readout result will be the evaluated result.

True

Readout result is always true.

False

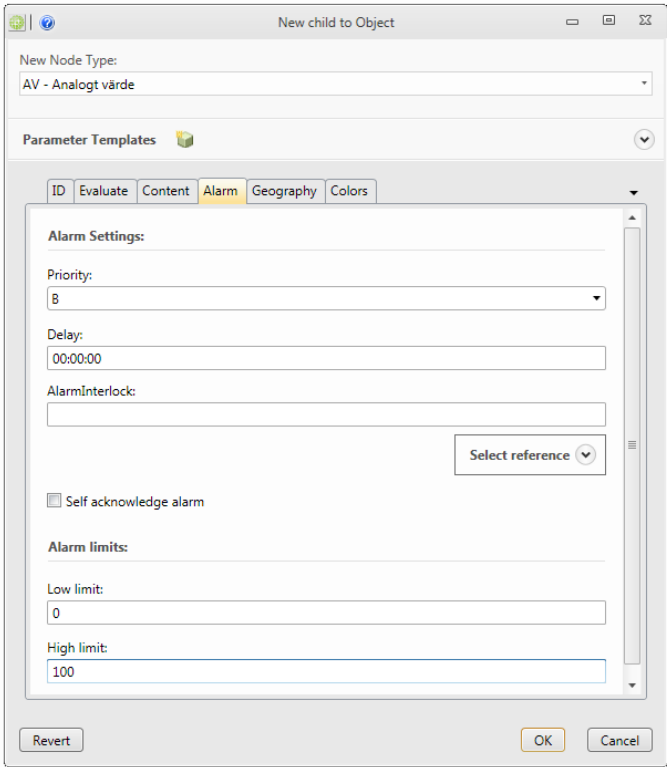
The readout result is always false.



10 Creating IMC Alarms and Trend Data

10.1 How to set up polled Alarm using AV/DV Objects

To create polled alarms, we use the AV / DV objects (for SRDLink Gateway alarm see further down in this manual). First a physical Object needs to be linked to an AD / DV Object. After this you have to set the alarm options via the "Alarm" tab described below. Via the "Evaluate" tab it's possible to set the time for the polling interval (default is 60sec).

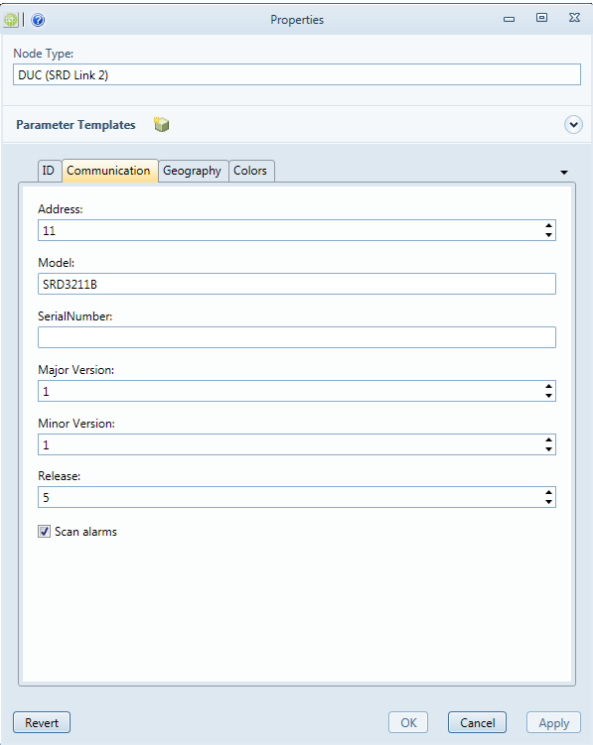
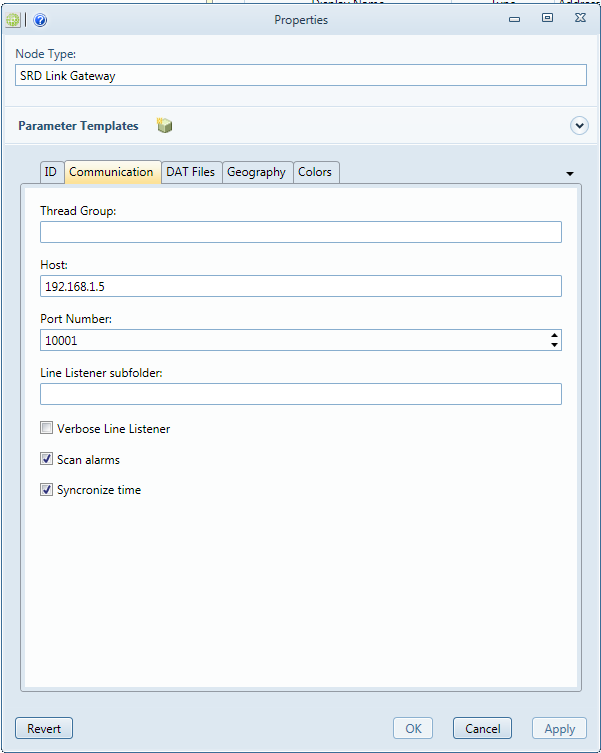


- Priority** *required*
Off, A,B or C
- Delay** *required*
Time delay for the alarm.
- AlarmInterlock** *optional*
Ability to connect an object to use for interlock of the alarm.
- Self acknowledge alarm** *optional*
(AutoAcknowledge) If the alarm should be autoacknowledged or not.
- Low limit** *required*
Low alarm limit setpoint.
- High limit** *required*
High alarm limit setpoint.



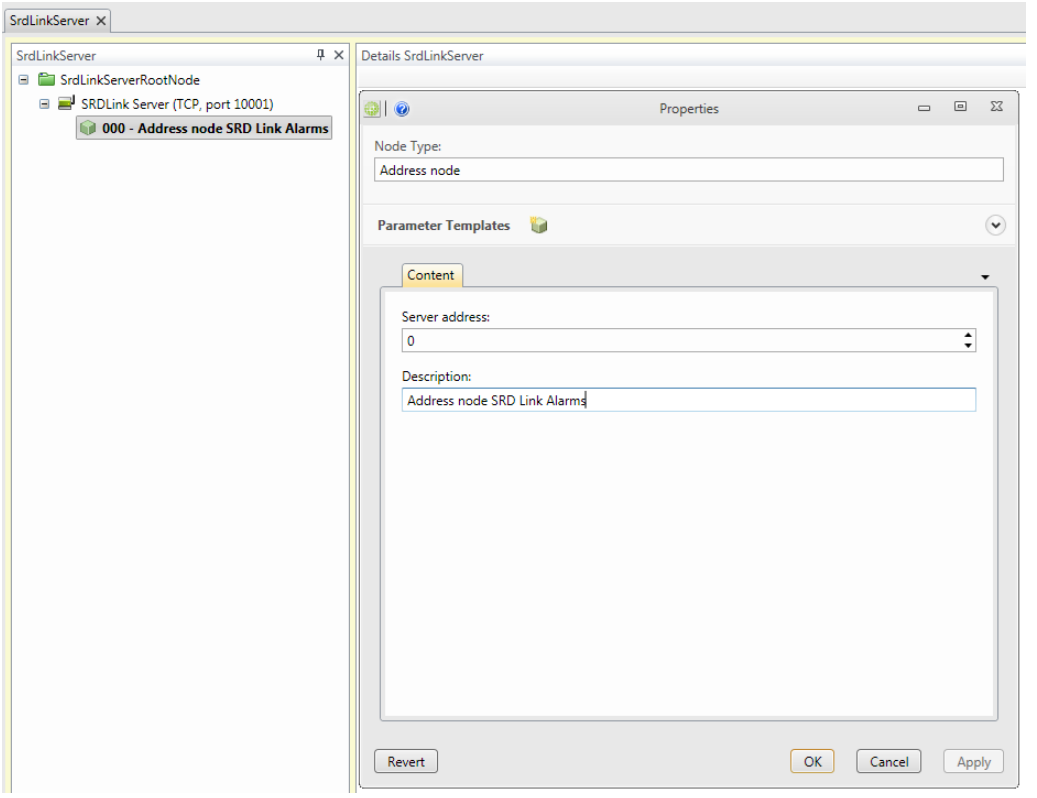
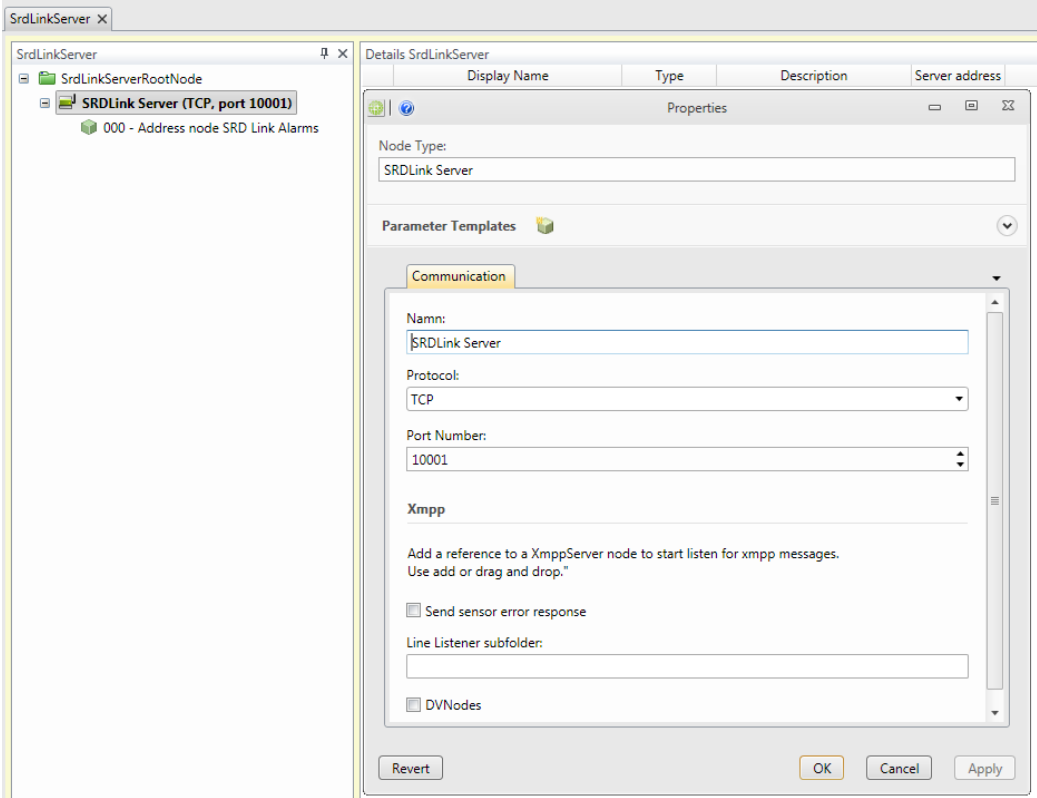
10.2 How to set up Alarms for SRDLink devices

Alarms from SRDLink devices are activated in the "SRDLink Gateway" and the "DUC (SRD Link)" by checking the "Scan alarms" box. The CCS will then poll the activated alarms in KTC SRD Link devices.





Note: You can also configure the SRDLink devices to send alarms to the IMC. This requires that a receiver is set up in **SRDLinkServer**. Typically, this receiver address will be set to "0". This is not necessary but will speed up the alarm handling as it will be handled as an event.





10.3 How to set up Trend Data for SRDLink devices

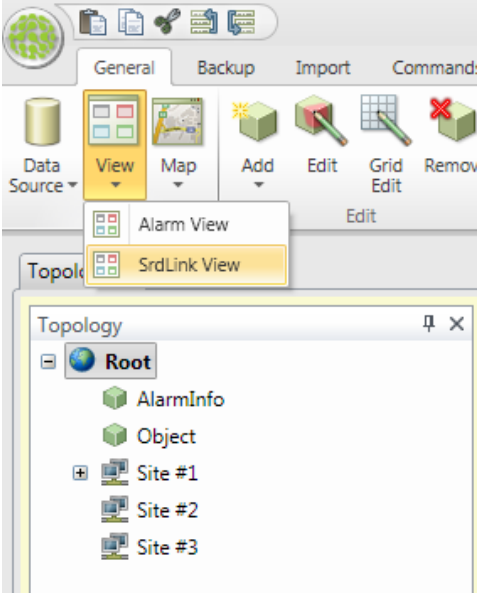
SRD devices have built-in-trend buffer. At CCS, we are able to determine which object we want to retrieve history from and save in the CCS database.

There are several ways to activate history on the objects.

- 1. Using **SRDLink View**
- 2. On each object
- 3. Several at once using the details Topology

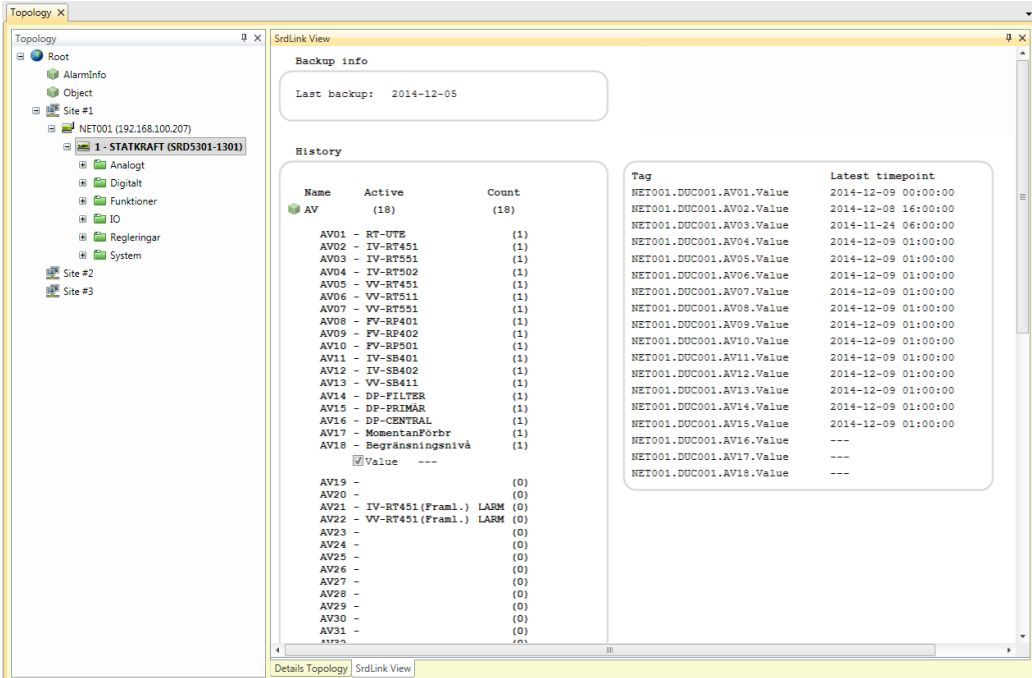
10.3.1 Activate Trend Data collection via SRDLink View

Mark the **Topology** tab and select **View / SRDLink View**.



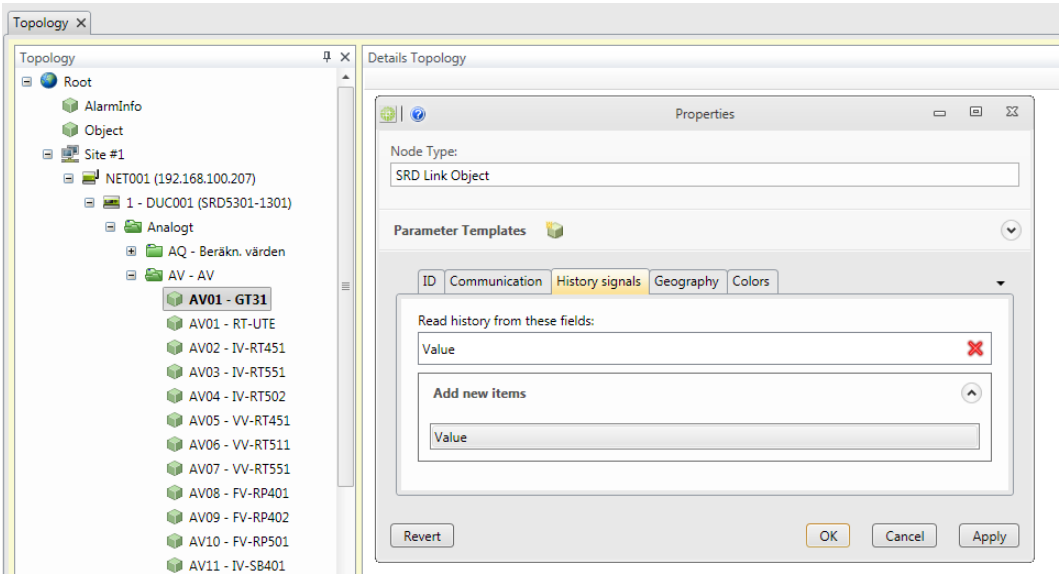


Select the SRD device you want to activate Trend Collection on. In SRDLink View window, you will now get the option to enable collection of history on each individual object. This is done by expanding the object and then tick the Value box.



10.3.2 Activate Trend Data collection manually on every object

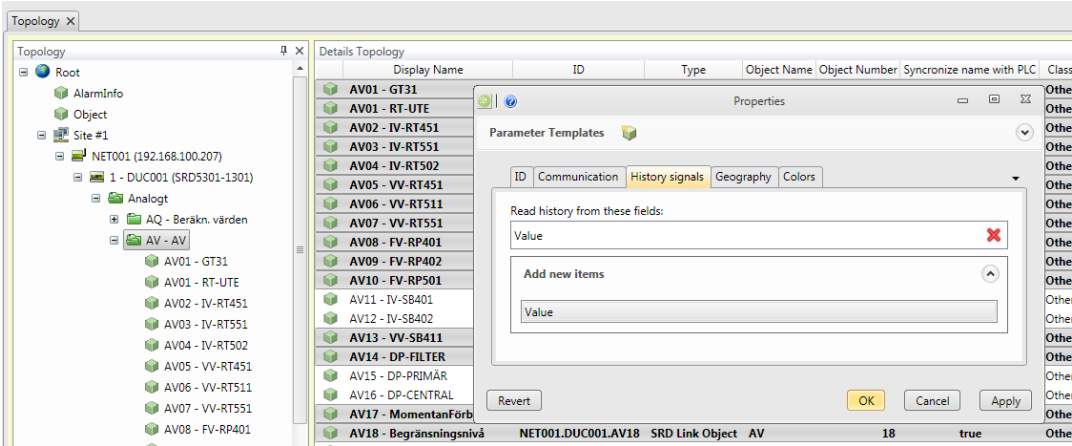
Select the object you want to activate Trend Collection on through the Topology tree and select Edit (F4). Select the tab "History signals" and the Add New Items "Value".





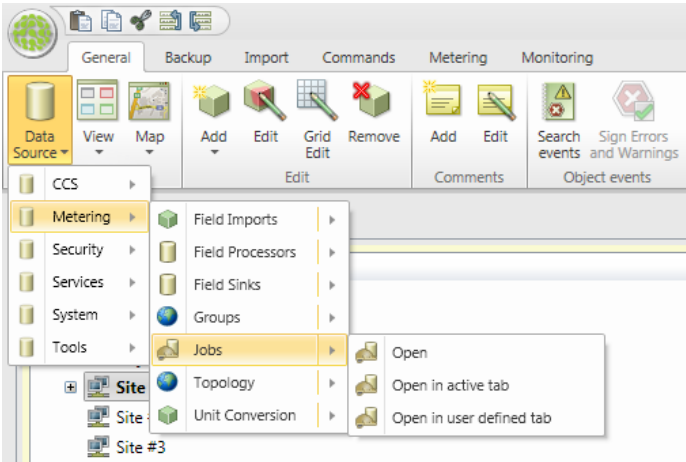
10.3.3 Activate Trend Data collection on several objects at the same time

Select the object you want to activate Trend Collection on in the Details Topology. Select Edit (F4). Select the tab "History signals" and the Add New Items "Value". All selected object will now be activated.

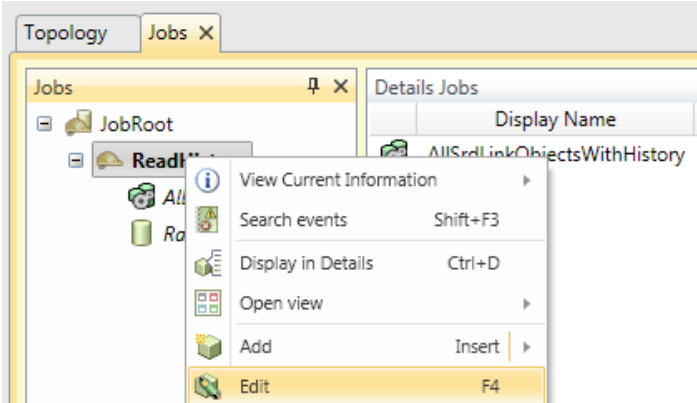




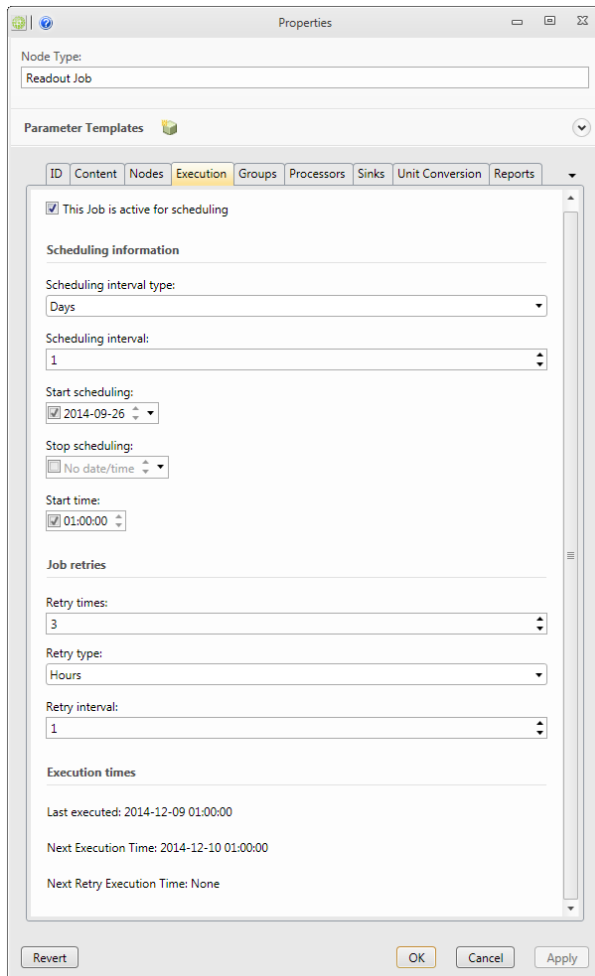
10.3.4 General settings for the retrieval of historical values.
Start by opening **Data Source/Metering/Jobs**.



Mark **ReadHistory** and select **Edit**.



Choose Execution to change the setup for scheduling of the job.



This job is active for scheduling *required*

If not selected the scheduler will never schedule this job for execution.

Scheduling interval type *required*

Specify interval type used by the scheduler to determine next execution time.

Scheduling interval *required*

Specify the interval used by the scheduler to determine next execution time. For instance '2' results in scheduling every other of the type specified(hour, day, etc)

Start scheduling *required*

Enter the day for when the scheduler starts scheduling the job. If empty, today is used as starting point for scheduling.

Stop scheduling *required*

Enter the day for when the scheduler ends scheduling the job. If empty, the scheduler keeps schedule new execution times forever.

Start time *optional*

Enter the time of day for the execution to begin(scheduling is performed during the start-end time interval, using execution to decide how often). If not specified the start of the day is used.

Retry times *optional*

Specify the number of retries the job does for erroneous results. Only erroneous results are retried. If specified to 0 no retries will be performed by the job.

Retry type *optional*

Specify interval type used by the job to determine next retry time.

Retry interval *optional*

Specify the interval used by the job to determine next retry time. For instance '2' results in retries every other of the type specified(hour, day, etc)

11 Connecting to KTC Scada

The CCS has built-in support for OPC UA, which we use when we want to communicate with KTC-SCADA. We use the tool KTC Manager to add a new data source to establish communication with IMC OPC UA. Things to consider is that the OPC UA communicates on port 7000 and that in this case we are using OPC UA Alarms and Trend.

Datakälla	
Namn	IMC
Tagseparator	.
Taggprefix	i
OPC-UA	
Sökväg OPC-UA-server	opc.tcp://xxx.xxx.xxx.xxx:7000
Namn på server i OPC-UA-konfiguration	Topology
<input checked="" type="checkbox"/> OPC UA Alarm	<input checked="" type="checkbox"/> OPC UA Trend
OPC UA Användarnamn	
OPC UA Lösenord	
ManodoTrendAlarmService	
Serveradress	-
DCOM-namn (Samma som i Matrikon)	-
Trend & Alarm Insamlingsjobb (från KTC AdeptoOPC till Scada-databasen)	
Scada-databas (linked server, dest.)	
(Obligatorisk, tomt fält medför att befintliga jobbparametrar tas bort)	
OPC Databas	
OPC Job Databas	
(Valfritt, tomt fält medför att resp. jobbparametrar ej skapas)	

12 Export/Import network structure from AdeptoOPC to CCS

In order to be able to easily replace the older software AdeptoOPC we described here how to proceed to export the network structure and history settings from AdeptoOPC to CCS.

12.1 On the export server(AdeptoOPC)

12.1.1

Replace the file "AdeptoOPCManager.exe" on existing AdeptoOPC installation with a new provided by KTC Control (NOTE: make a copy of the existing file).

NOTE! Adepto OPC must be at version 2.4.1 or later. If not, it must be upgraded before export to CCS can be made.

12.1.2

Create an export from AdeptoOPC by:

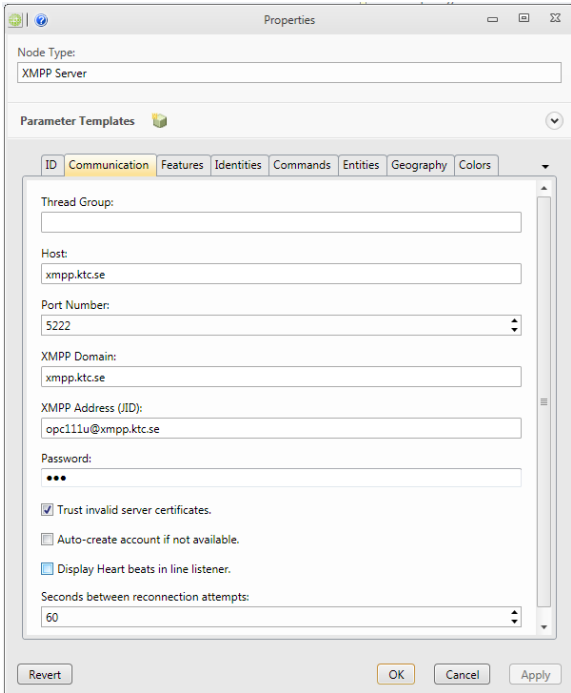
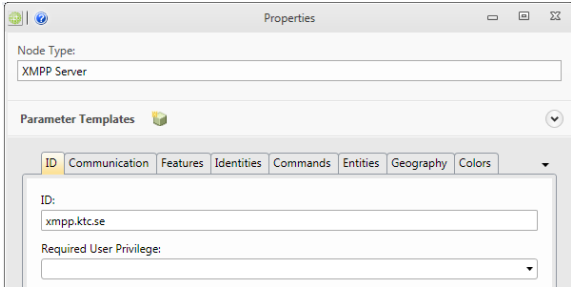
1. Open AdeptoOPCManager
2. Open "File, Import/Export"
3. Select Export to: (choose location to save the file).
4. Click "Export database".



12.2 On the import server(CCS)

12.2.1

If XMPP communication are used in the AdeptoOPC server and is also to be used in the CCS server we need to create these accounts on the CCS server before the import is done (See Chapter 6 for details how this is done). NOTE! It's important that the ID of the XMPP server is the same as the name of the XMPP domain.





12.2.2

Select the root node and right click. Select "Import from AdeptoOPC". Add the current file and click OK.

