

M-7679 R-PAC QUICK REFERENCE GUIDE

PROTECTION, AUTOMATION AND CONTROL SYSTEM FOR RECLOSER, SWITCH, SECTIONALIZER AND ADVANCED DISTRIBUTION AUTOMATION APPLICATIONS.

GOOSE Message Configuration and Report



Required Tools:

- PC running Windows 7® or higher
- S-7600 IPScom Communications Software

Download the latest **IPScom software** at:

<https://beckwithelectric.com/products/s-7600/>

Required Documentation:

- M-7679 Instruction Book
- M-7679 Application Guide
- Communications and Cybersecurity A.G.

Download the latest **M-7679 Instruction Book** at:

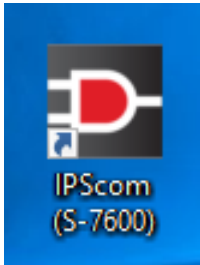
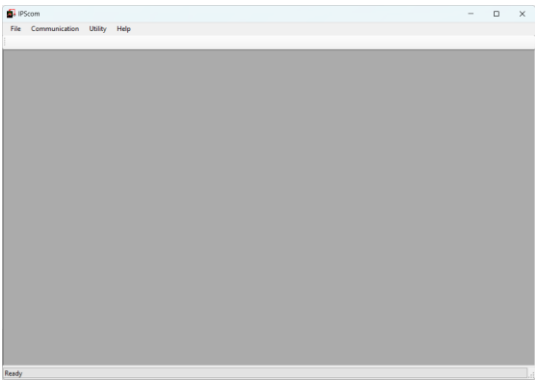
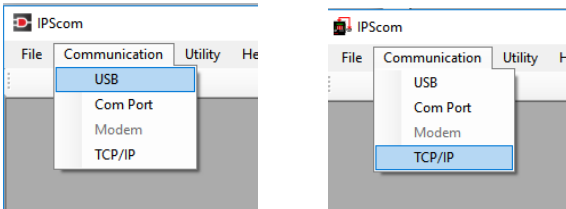
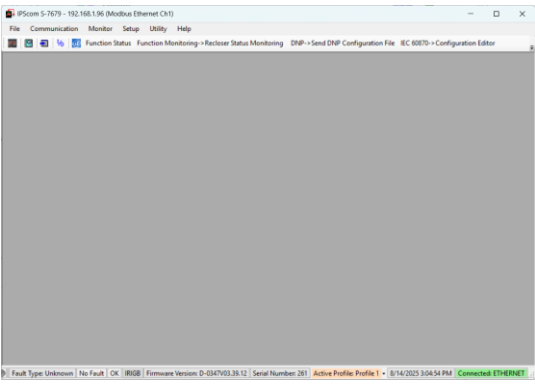
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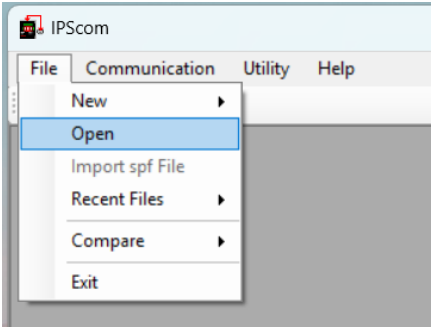
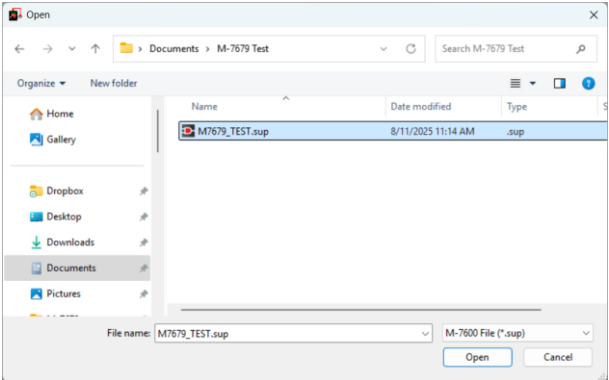
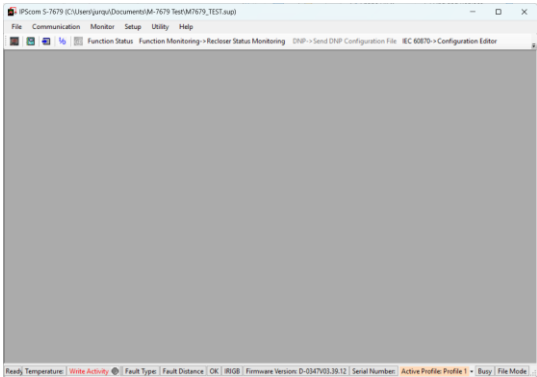
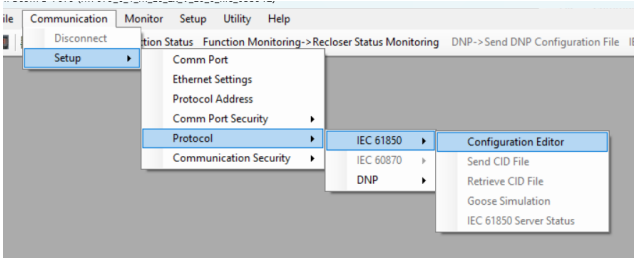


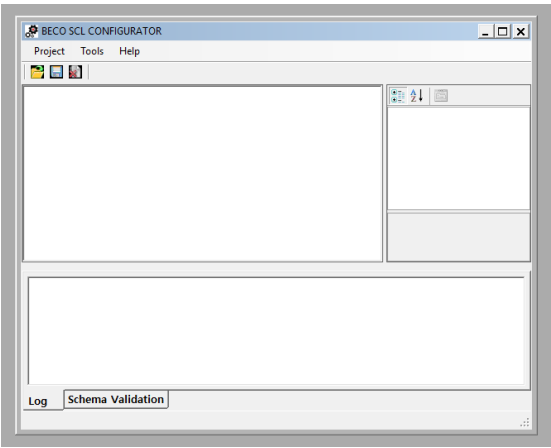
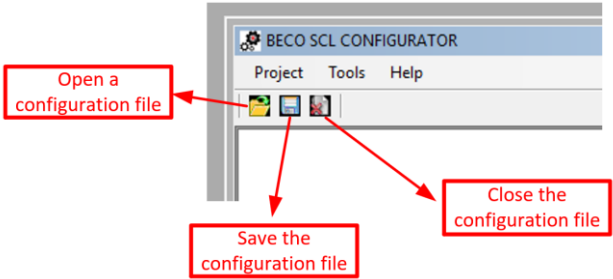
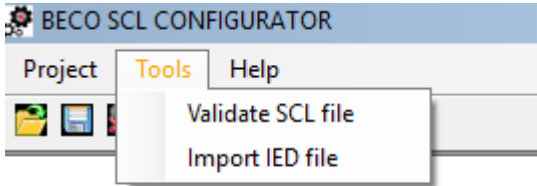
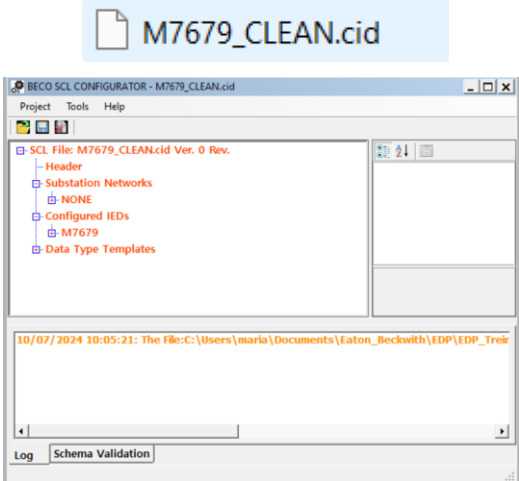
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M-7679 R-PAC General GOOSE Settings

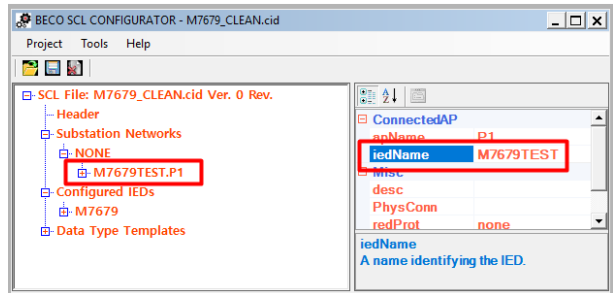
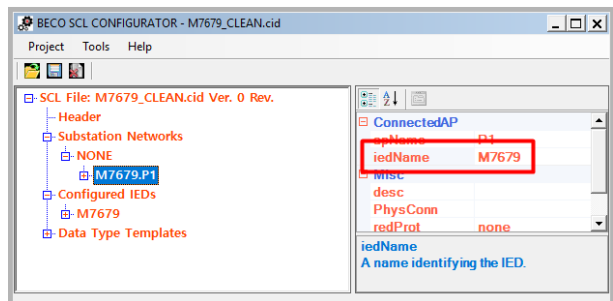
This document outlines the step-by-step procedure for creating a Goose Message and configuring the associated report in the M-7679 R-PAC.

1	Start IPScom Software by double-clicking the corresponding shortcut.	
2	IPScom will display the IPScom Main dialog screen.	
3	If the process will be performed while connected to an M-7679 R-PAC unit, establish a connection to the unit using either USB or TCP/IP mode.	
4	Once the connection is established, IPScom will display the Connected version of the IPScom main screen. Proceed to Step 8.	

5	If the process will be performed without a connection to an M-7679 R-PAC unit, navigate to File > Open to access an existing configuration file.	
6	IPScOm will display the Open Dialog screen. Find the required .SUP file and select OPEN .	
7	IPScOm will display the Not-Connected version of the main screen.	
8	To access the BECO SCL Configurator , navigate to Setup > Protocol > IEC 61850 > Configuration Editor .	

9	IPScm will open the BECO SCL Configurator application.	
10	The BECO SCL Configurator includes three icons that provide basic file management functions.	
11	The Tools menu provides the following options: 1. Validate SCL File – Checks the structure and syntax of the SCL file for compliance. 2. Import IED File – Allows integration of IED configuration data into the current project.	
12	Navigate to Project > Open or click the Open icon in the toolbar and find the M679_CLEAN.CID file.	

- 13 To rename the IED in the CID file, locate the field **M-7679.P1 > iedName** and update it with the desired IED name. For this example, the IED name will be set to **M-7679TEST**.

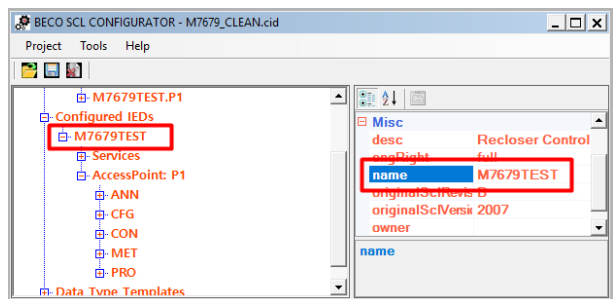
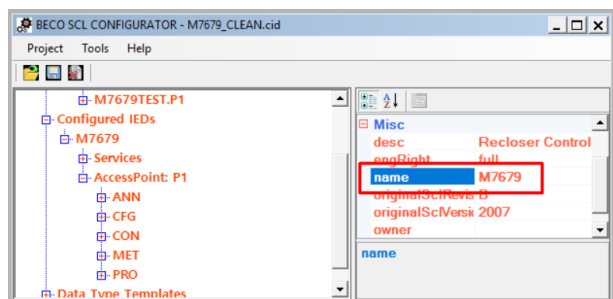


- 14 Navigate to **Configured IEDs** and select the entry labeled **M7679**. Edit the name to match the IED name specified in the previous step, which for this example is **M-7679TEST**.

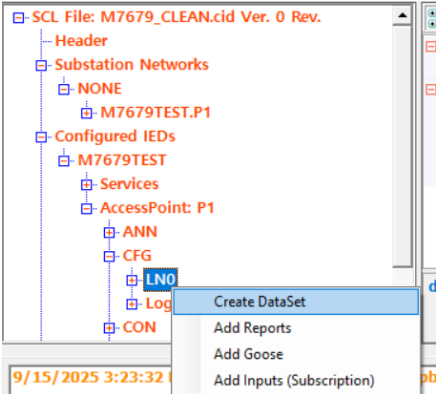
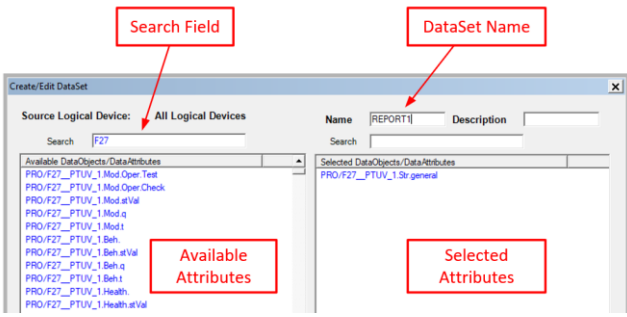


Warning

The IED name assigned in both fields must be identical to ensure proper configuration and system recognition.

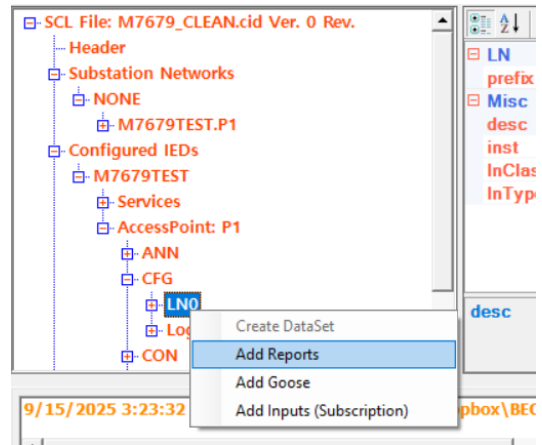


End of Procedure.

Datasets		
1	To create a Dataset, select a Logical Device and right-click on the LN0 Logical Node and choose Create Dataset from the context menu. For this example, select CFG Logical Device. This action will open the configuration options for defining a new Dataset within the selected Logical Device.	
2	The BECO SCL Configurator will display the Create/Edit Dataset screen. This interface includes the following sections: Search Field – Allows users to quickly locate specific attributes. Dataset Name – Field to enter or modify the name of the Dataset. Available Attributes – Lists all attributes that can be include into the Dataset. Selected Attributes – Displays the attributes currently included in the Dataset.	
End of Procedure.		

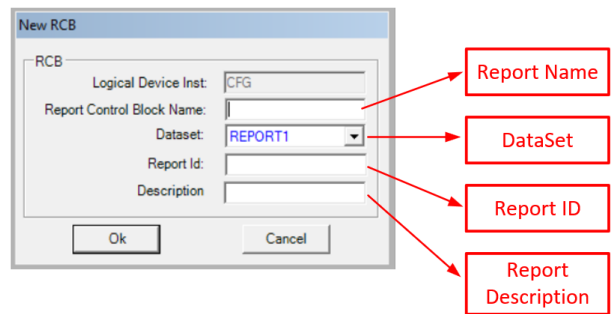
Reports

- 1 To create a **Report**, after creating the Dataset, right-click on the **LN0 Logical Node** and select **Add Reports** from the context menu.



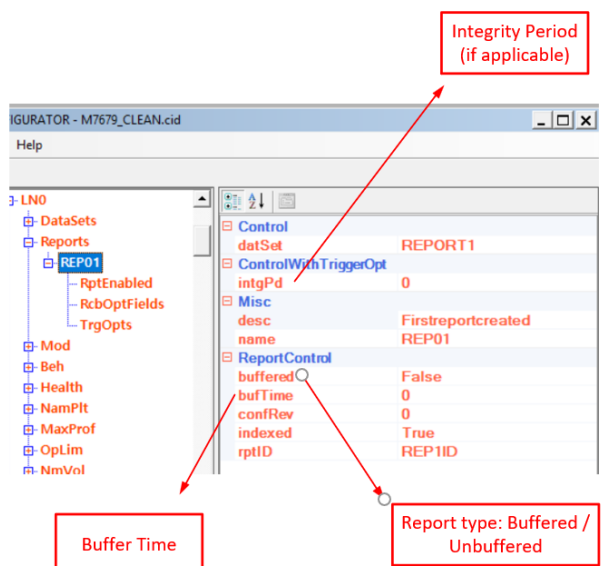
- 2 The **BECO SCL Configurator** will display the **New RCB** (Report Control Block) screen.

In this screen, the user can define the settings for the new report, including parameters such as report name, associated Dataset, Report ID and the corresponding Report description.



- 3 Once the report has been created, the user can view and modify its settings.

Parameters such as **Integrity Period**, **Buffer Type** and **Buffer Time** can be configured according to system requirements to ensure proper report behavior and performance.



4 BECO SCL Configurator allows the user to select and configure **Report Trigger Options** to define when reports are generated.

The following trigger settings are available:

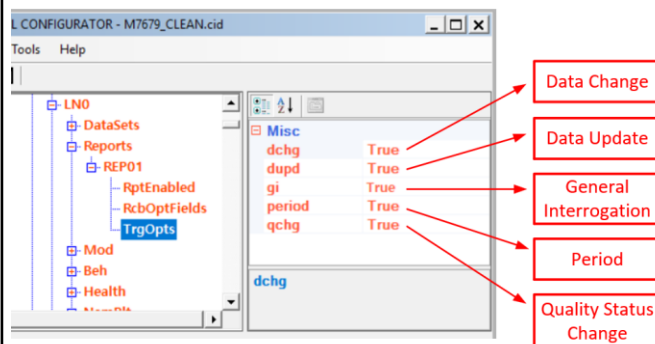
Data Change – Triggers a report when monitored data values change.

Data Update – Triggers a report when monitored data is updated.

General Interrogation – Triggers a report in response to a manual or system-initiated interrogation.

Period – Triggers reports at regular time intervals.

Quality Status Change – Triggers a report when the quality status of monitored data changes.

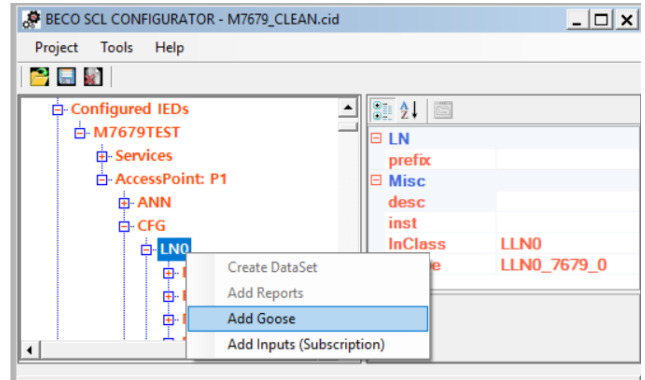


End of Procedure.

Goose Messages

1 To create a **GOOSE Message**, right-click on the **LN0 Logical Node** and select **Add GOOSE** from the context menu.

This action opens the configuration interface for defining GOOSE message parameters.



2 The **BECO SCL Configurator** will display the **New GOOSE** screen, where the user can configure the parameters for a GOOSE message.

The following configuration fields are available:

GOOSE Name – Identifier for the GOOSE message.

Dataset – Select the Dataset to be transmitted via GOOSE.

Message MAC Address – Specifies the destination MAC address for the GOOSE message.

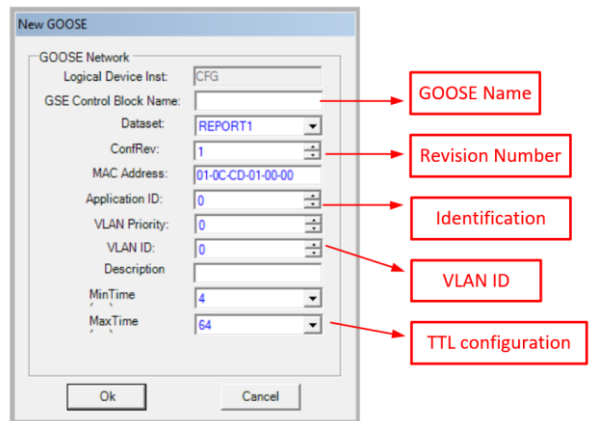
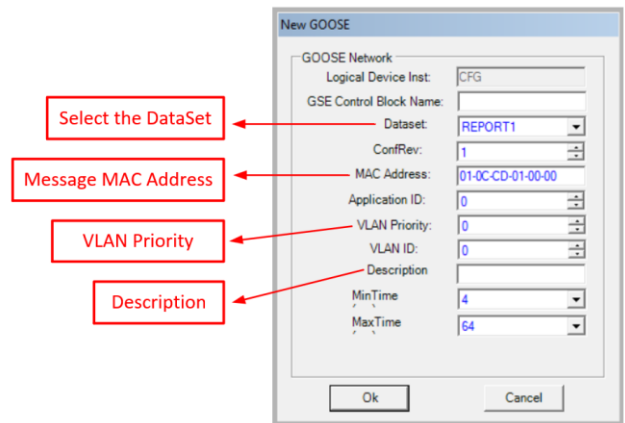
Identification – Unique identifier for the GOOSE control block.

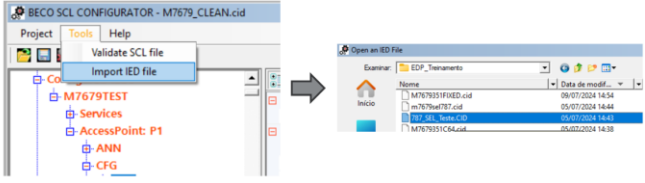
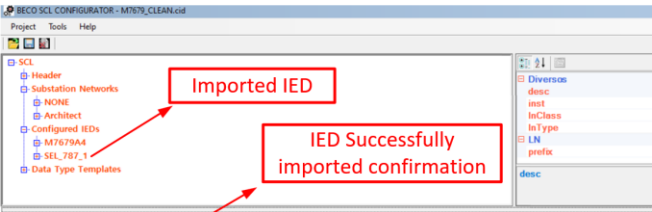
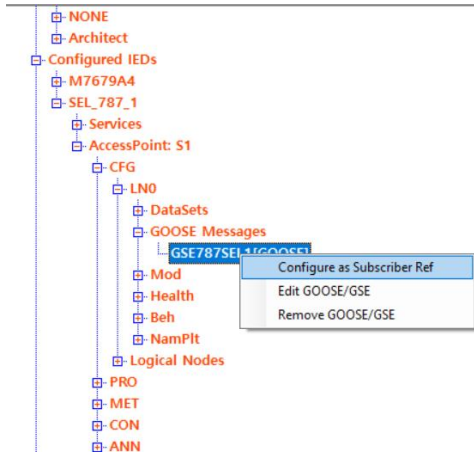
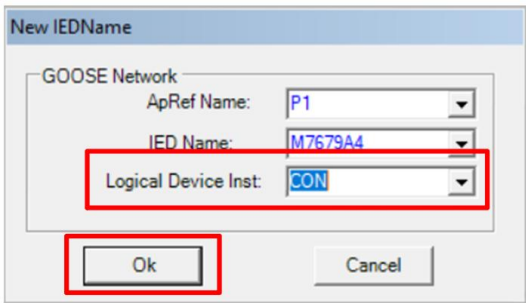
VLAN Priority – Sets the priority level for VLAN-tagged traffic.

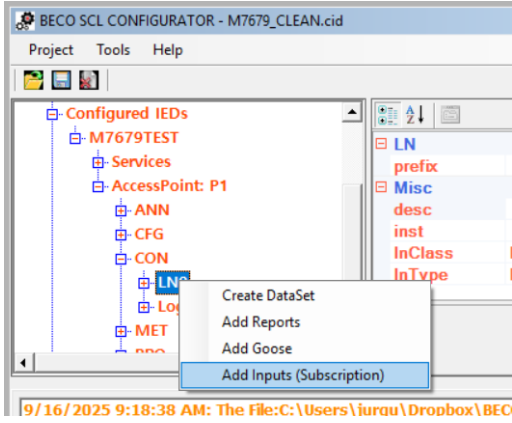
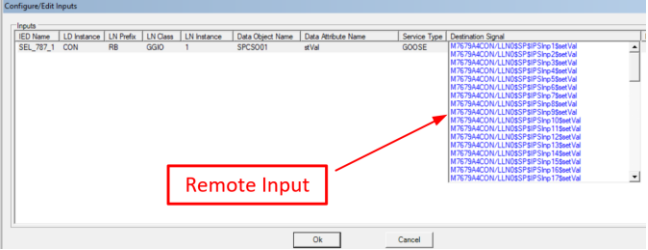
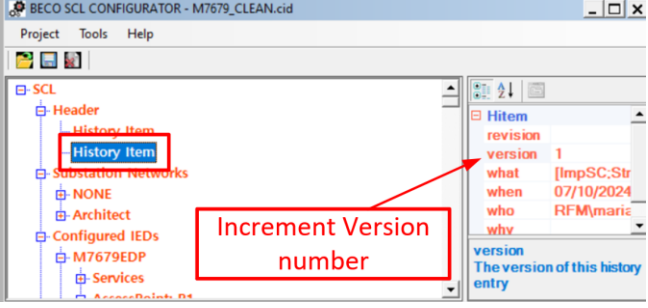
VLAN ID – Defines the VLAN to which the GOOSE message belongs.

Description – Optional field for additional context or notes.

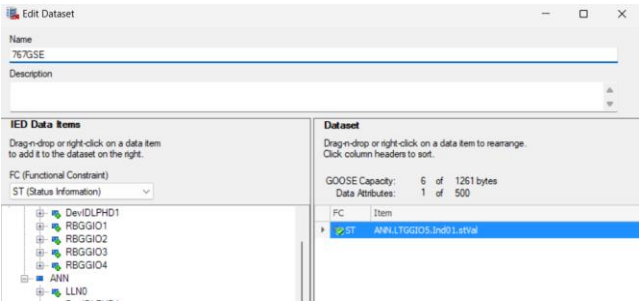
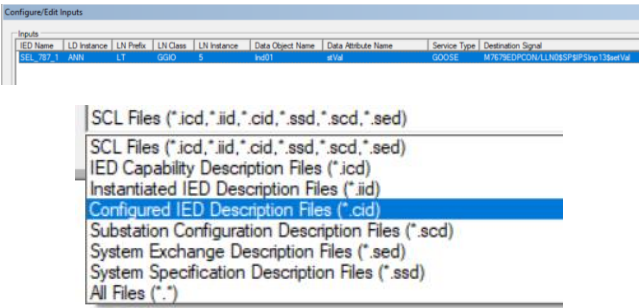
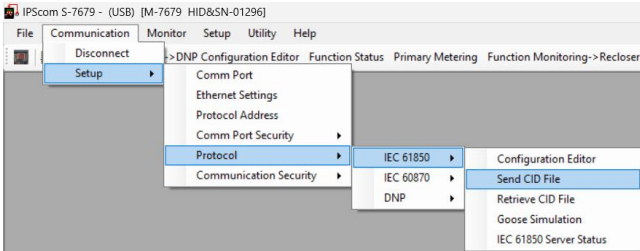
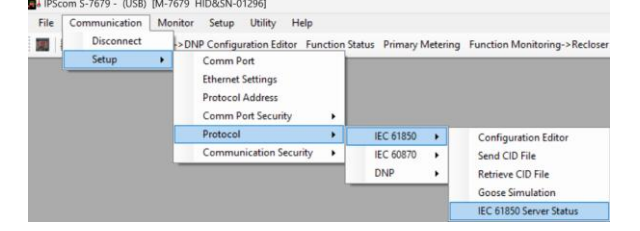
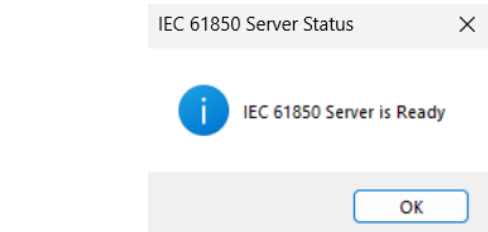
TimeToLive – Determines how long the GOOSE message remains valid.



3	To assign a GOOSE Message, navigate to Tools > Import CID File, then locate and select the appropriate CID file to be imported.	
4	Once the CID file has been successfully imported, the new IED will appear in the Configured IEDs section. A confirmation message will also be displayed, indicating that the import was successful.	 10/07/2024 10:05:21: The File C:\Users\maria\Documents\Eaton_Beckwith\EDP_Treinamento\TREINAMENTO_EDP\Material_Treinamento_EDP 10/07/2024 10:52:57: Successfully Imported File C:\Users\maria\Documents\Eaton_Beckwith\EDP_Treinamento\787_SEL_Testo.CID
5	To configure a GOOSE Message as a subscriber reference, right-click on the GOOSE Control Block and select Configure as Subscriber Ref from the context menu.	
6	A New IED Name screen will be displayed. In this screen, select the CON Logical Device, then click OK to confirm the selection.	

7	Within the CON Logical Device, locate the LN0 Logical Node. Right-click on LN0 and select Add Inputs (Subscription) from the context menu to configure input signals for GOOSE message subscription.	 The screenshot shows the BECO SCL CONFIGURATOR interface. On the left, a tree view shows the project structure: Configured IEDs > M7679TEST > Services > AccessPoint: P1 > ANN > CFG > CON > LN0. A right-click context menu is open over LN0, with options: Create DataSet, Add Reports, Add Goose, and Add Inputs (Subscription). The 'Add Inputs (Subscription)' option is highlighted. On the right, a properties pane shows fields for LN: prefix, desc, inst, InClass, and InType. At the bottom, a status bar shows the date and time: 9/16/2025 9:18:38 AM.
8	Choose a Remote Input to be linked as an attribute to the Publisher Relay. This input will be included in the GOOSE message configuration, allowing the relay to transmit status or event data to subscribing devices.	 The screenshot shows the 'Configure/Edit Inputs' dialog box. It has a table with columns: IED Name, LD Instance, LN Profile, LN Class, LN Instance, Data Object Name, Data Attribute Name, Service Type, and Destination Signal. The table contains several rows of data. A red box highlights the text 'Remote Input' in the 'Destination Signal' column of one of the rows. The dialog has 'Ok' and 'Cancel' buttons at the bottom.
9	In the SCL Header Settings, increment the version of the file. This ensures proper version tracking and helps maintain configuration history for auditing and system updates.	 The screenshot shows the BECO SCL CONFIGURATOR interface. On the left, a tree view shows the project structure: SCL > Header > History Item. The 'History Item' is highlighted with a red box. On the right, a properties pane shows fields for Hitem: revision, version, what, when, who, and why. The 'version' field is set to 1. A red box highlights the text 'Increment Version number' in the properties pane. At the bottom, a status bar shows the date and time: 9/16/2025 9:18:38 AM.
End of Procedure.		

Configuring GOOSE Message – Coordinated Trip with SEL 787

1	Select the attribute without Quality Point or timestamp to ensure compatibility with the expected data format.	
2	Select Remote Input 13 (reserved for Coordinated Trip). It is important to save the file using the .CID extension and increment the version number to maintain proper version control and ensure compatibility with system updates.	
3	To send the CID file to the M-7679 R-PAC, navigate to: Communication > Setup > Protocol > IEC 61850 > Send CID File. Select the appropriate CID file and confirm the transfer to complete the configuration update.	
4	To verify the IEC 61850 server status, navigate to: Communication > Setup > Protocol > IEC 61850 > IEC 61850 Server Status	
5	The M-7679 R-PAC performs an automated verification of the IEC 61850 server status. Upon successful configuration and connection, IPScm generates a confirmation message to indicate that the server is functioning as expected.	

End of Procedure.



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