# DGC-2020 Product Notes

PRNote 134
November, 2009

## Applying Configurable Protection

The DGC-2020 is a very flexible and adaptable product that allows users to easily adapt features and functions to be used in almost any application. One of the features that makes the product flexible and customizable is the configurable protection.

The DGC-2020 contains eight configurable protection elements that can be set into logic to Alarm, Pre-alarm, or provide status only based upon one of the many metered or measured parameters monitored by the DGC-2020. Some of these parameters include the data monitored from engine senders, generator sensing parameters, and also analog inputs from the AEM-2020, if used. Each configurable protection element allows for two over- and two under-thresholds to be set with a time delay. This could allow for one setting to be used as a pre-alarm and the second to be used as a shutdown.

To set-up a configurable protection element simply click on Configurable Protection under the Settings Explorer menu in BESTCOMS*Plus*. Next, click on the configurable protection element you wish to use.

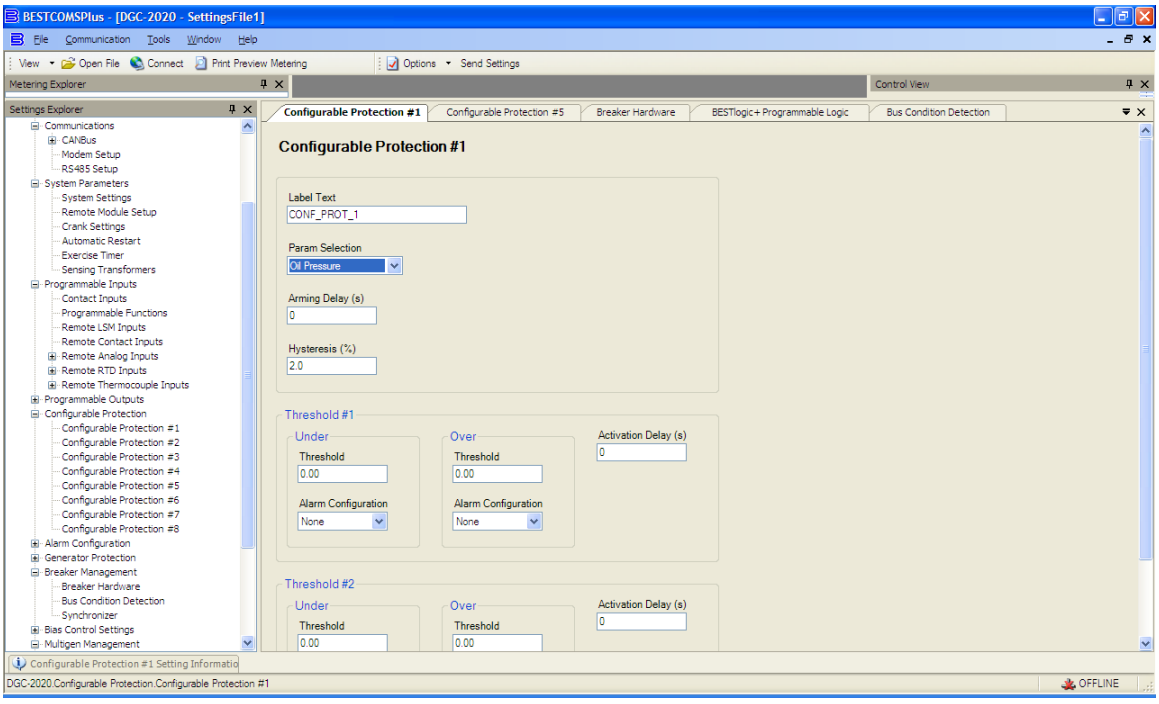


*Figure 1: Configurable Protection options in BESTCOMSPlus.*

On the dropdown menu, select the parameter to be monitored. In this example, to demonstrate a load shedding scheme, generator frequency is selected.

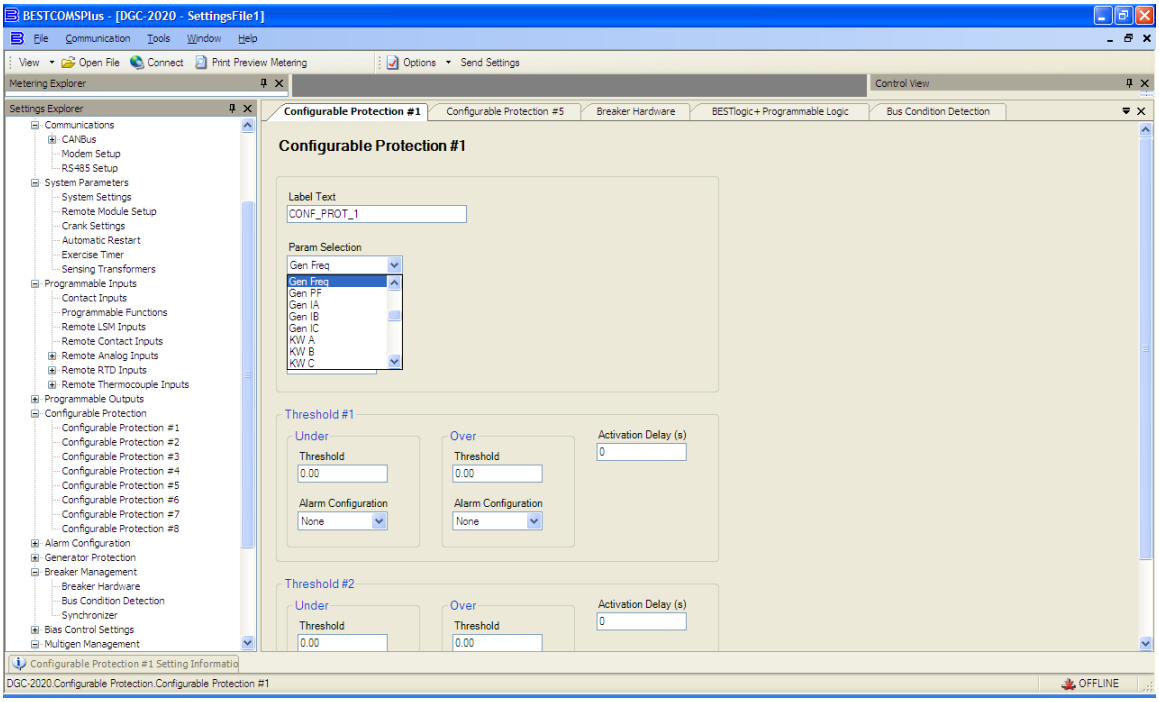


*Figure 2: Configurable Protection options – Gen Freq*

Next, set the threshold levels, time delays and alarm configuration.

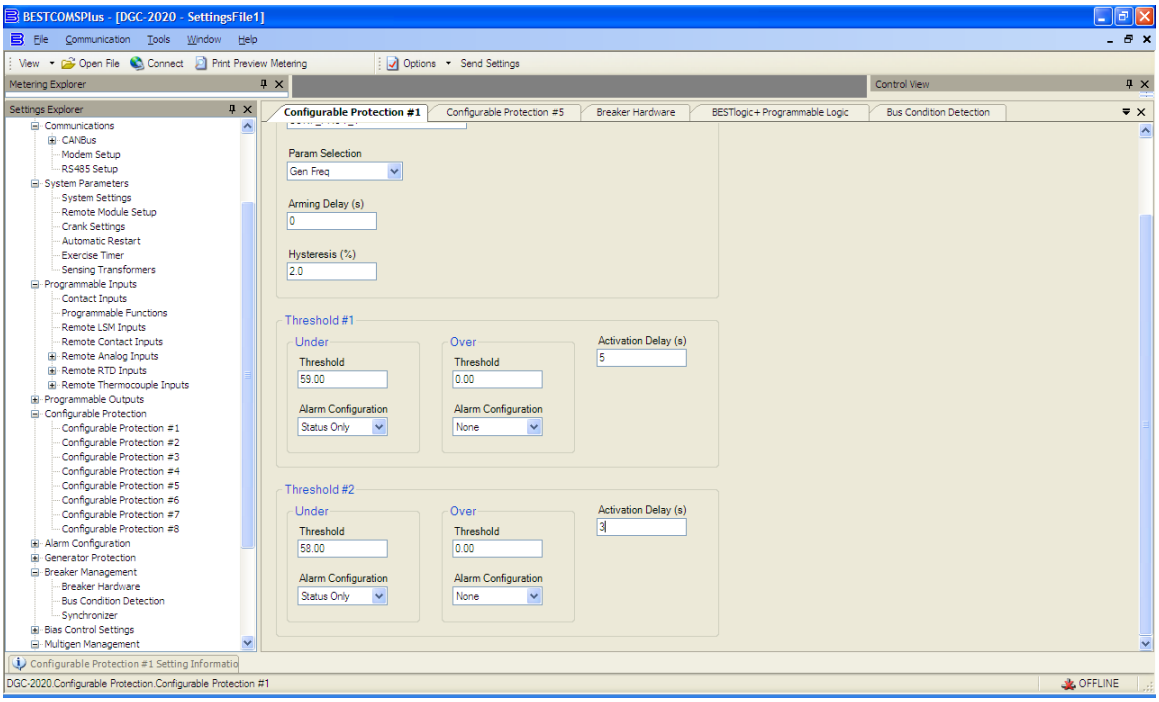


*Figure 3: Configurable Protection options – Threshold levels, time delays and alarms*

In this example the under-thresholds were set-up as status only. Threshold #1 was set to 59Hz with a time delay of 3 seconds and threshold #2 was set to 58Hz with a time delay of 5 seconds.

Next the configurable protection elements can be added into the programmable logic.

Under the Settings Explorer, double click on BESTLogic. In the programmable logic, click the I/O tab, then Input objects, then Status Inputs and finally Configurable Protection. Then find the configurable protection element and threshold(s) to be utilized and drag it into the programmable logic.

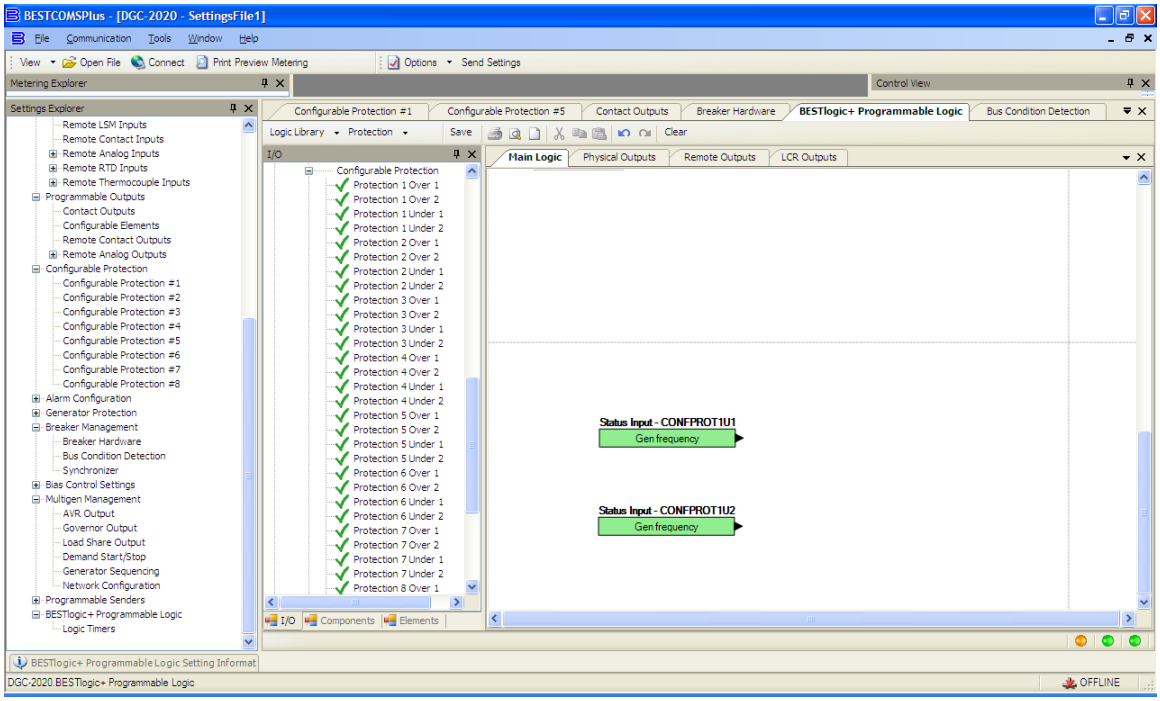


*Figure 4: BESTLogic*

Next connect the thresholds to the logic and/or outputs to be controlled. In this case, the configurable protection will open two load breakers in the event of an under frequency condition.

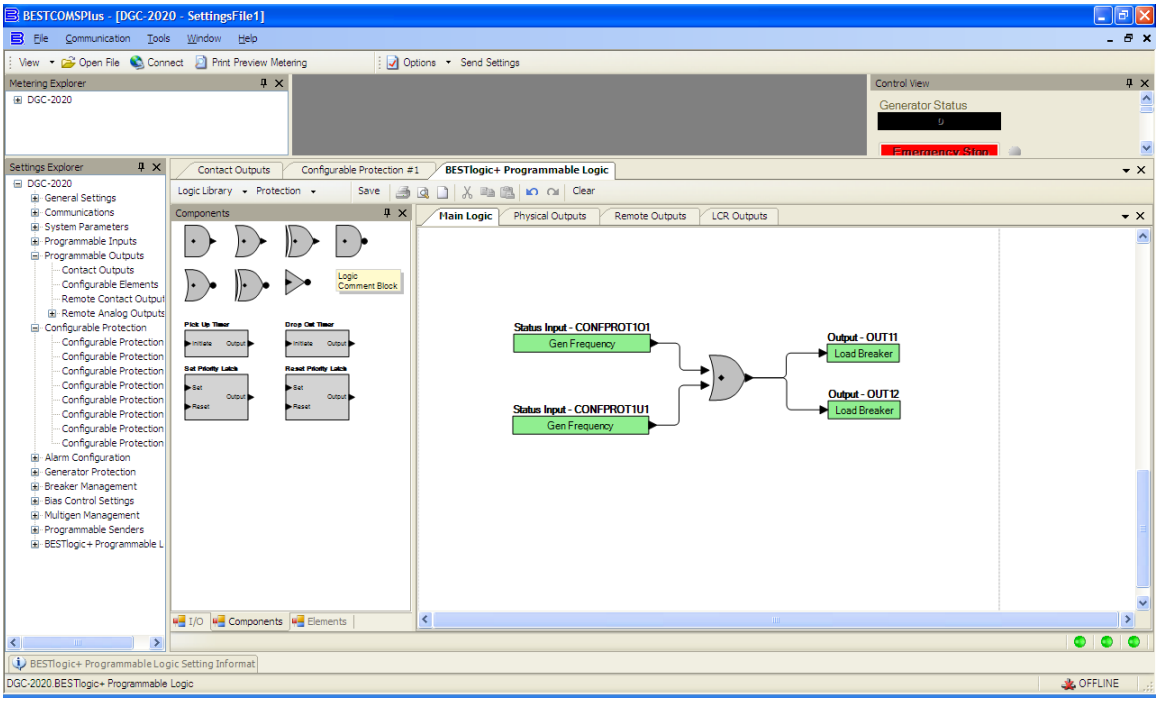


*Figure 5: Connecting thresholds and logic*

The Configurable Protection Element 1 now is set to energize outputs 11 and 12 if a generator under frequency event occurs.

For more information on the DGC-2020, consult the Basler factory at 618/654-2341 or visit **www.basler.com**.

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