

Sequencing multiple generators on a paralleled network via Ethernet communications

In applications where multiple generators are being paralleled together, it is sometimes desired to develop controls to sequence the generators on and off in a particular order. This order could be desired based on machine size, engine run time, or engine hours left until maintenance among others.

Traditionally, this control was performed by a master control system such as a programmable logic controller or a network of control relays. However, using the powerful programmable logic function of the DGC-2020 Digital Genset Controller and the enhanced Ethernet communications available with the LSM-2020 add-on load sharing module, these master devices can be eliminated.

The DGC-2020 and LSM-2020 combination allows multiple generator sets to be connected to a common network via Ethernet communications. Over this communication network, each machine on the network can communicate with all other machines on the same network. The BESTCOMS*Plus* programming software allows the user to program the units to sequence on and off of the network in the desired fashion.

To set-up the DGC-2020 / LSM-2020 combination for generator sequencing is as easy as the following steps:

- 1. Open BESTCOMS*Plus*. Under the Settings Explorer click Multigen Management then Generator Sequencing.
- 2. Select the desired type of sequencing.
- 3. Next set the desired Sequencing ID. This will be the ID of this generator on the network that will be communicated to the other machines on the network.
- 4. Set the maximum generator start time. This setting defines the amount of time the system will wait until attempting to start the next available machine in the system priority.
- 5. Set the maximum generator stop time.



Figure 1: Generator Sequencing Screen

6. Next set up the Demand Start/Stop criteria. Click on Multigen Management, then Demand Start/Stop under the settings explorer. Set the start levels, stop levels, and time delays for the starting and stopping of the generators. The demand start and stop function monitor the loading of the machines. When the machines on the network are loaded to the demand start or stop parameters, the next machine in priority will start or stop as required.



Figure 2: Demand Start/Stop Screen

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



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