



## Load Dependent Start Stop (LDSS) Emulation Tool

### DESCRIPTION

Load Dependent Start Stop (LDSS) is a novel approach to start or stop power generating assets as the load demand changes. Primary motivation of LDSS is not only to increase the fuel efficiency while maintaining the reliability of the power generating system but also, to name a few,

- monitor that all or several of the power generating assets does not approach maintenance cycle simultaneously
- maintain sufficient reserve power on the bus in anticipation of a large consumer and that the reserve power automatically falls back after the large consumer breaker is closed
- start and stop the gensets according to max/min loading criteria, the later especially to help burn carbon deposits on engines cylinder head
- switch ON and OFF the genset at every pre-defined run hours to equalize the total run hours
- determine the optimum combination of gensets when the fleet consists of mixed size gensets.

The LDSS Emulation Tool is designed to answer many of your what-if questions how your genset fleet would sequence according to your application requirements, all at the convenience of your PC. The Tool provides an interactive emulation environment that covers genset sequencing under various loading scenarios in mains parallel or island parallel operation mode. The tool supports up to 8 group controllers (GC) and to each GC one load, optionally one mains connection, one group breaker and up to 31 attached gensets. The final parameters are transferred to a Modbus/TCP-connected GC-3000XT hardware online or can be saved for offline writing to the group controller.

### ORDERING & INSTALLATION

Download the installation file from [\[HERE\]](#) and install on your PC. This installs a DEMO with pre-defined configuration of 2x GC and 4x EG per GC. Below three simple steps to activate the FULL version, on your PC.

1. Use the order code: 10-012-060 to place an order for activation code with your Woodward representative
2. Access Help/Licensing from the Tool's menu, obtain the site code and send it to your Woodward representative
3. Receive back a "License Key" and insert this into the license authorization window. You have unlimited access to the LDSS Emulation tool at this PC.

For details on the Tool's capabilities download the Application note 37898.

### Salient Features

- ✓ Interactive PC tool to emulate up to 496 gensets sorted into 16 groups of 31 gensets each
- ✓ Directly transfer the final settings to the group control, GC-3000XT
- ✓ Integrate the tool with a Modbus/TCP master for automation
- ✓ Simple installation and handling

- Interactive emulation running real LDSS algorithm from GC-3000XT
- Accurate start/stop decisions based on
  - Maintain reserve power or generator load
  - Fit genset size
  - Fit or staggered service hours
  - Manual prioritization
- Modbus/TCP master connectivity to transfer the final parameters to GC-3000XT
- Modbus/TCP slave connectivity for embedding into larger simulation project
- Load dependent start / stop (LDSS) sequence for the entire fleet (up to 496 gensets in up to 16 groups)
- Comprehensive status visualization for the entire fleet
- Part number 10-012-060

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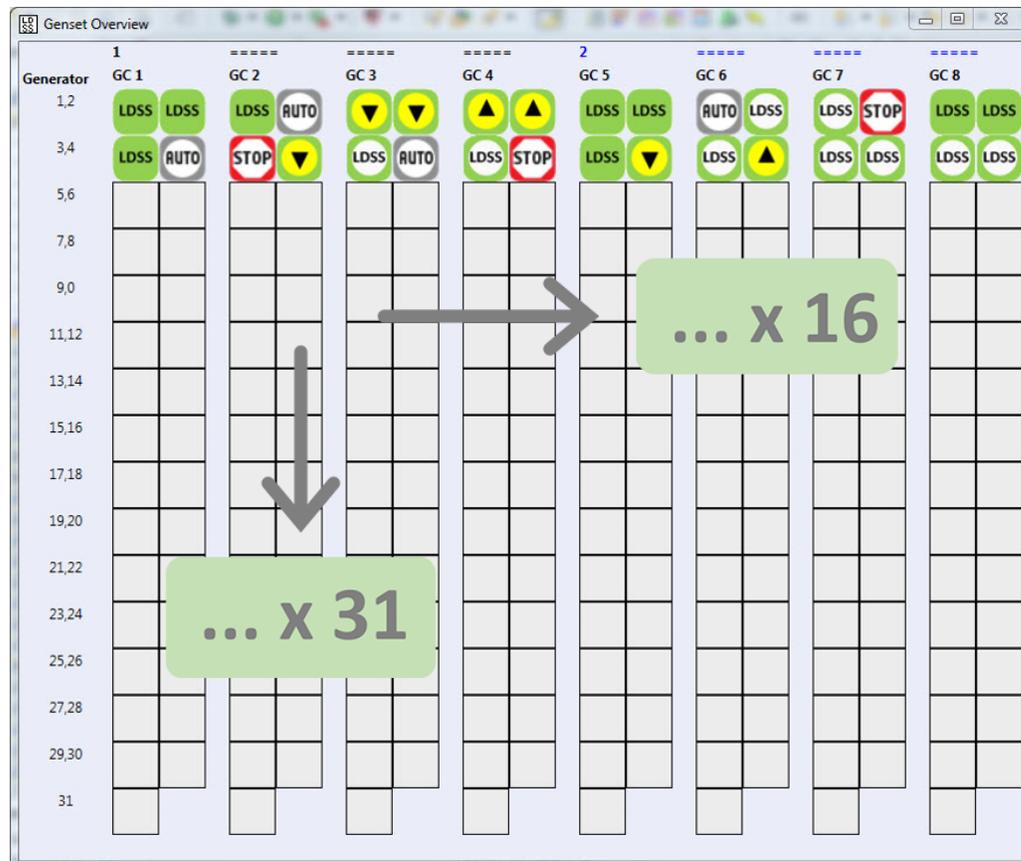
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For more information contact:

## FLEET OVERVIEW

The compact fleet overview screen presents consolidated states of the entire fleet. Some of the interesting states like gensets currently participating in the LDSS, gensets starting-up and shutting-down, gensets not available for the LDSS or in STOP mode are represented with intuitive graphics in a single page. It also depicts the segmentation of the available groups of gensets.



## RELATED PRODUCTS

- Group Controller GC-3400XT (Product Specification #37896)
- Genset Controller easYgen-3500XT-P1 & easYgen-3500XT-P2 (Product Specification # 37583)
- ToolKit (Product Specification # 03366)

## PART NUMBER

Description	Order Code
Soft Code for LDSS Emulation Tool	10-012-060