

# BECKHOFF MODULE DIAGNOSTICS IMPROVEMENTS

Addition of simple diagnostic software to show the status of Beckhoff modules instantly

## Simple diagnostics mimic

Process data from/to your drive systems is exchanged through Beckhoff PLC modules. Failure of such modules may even stop the propulsion. During such failures, it is tough to customer to locate the exact failure of Beckhoff network. This is due to lack of easy tools. In order to fill this gap, a simple diagnostic mimic has been developed by Power Conversion & Storage (PCS) - a GE Vernova's business.

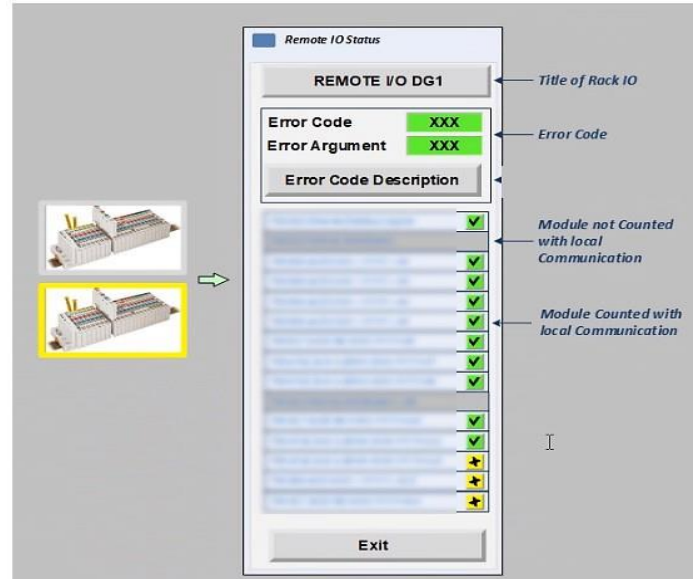
Software modifications will be done in P80i and a diagnostic mimic will be created on HMI with complete Beckhoff racks. Status of each module will be displayed on HMI in along with the information or the error message in case of a fault. Thus, the operator will be advised about a faulty module through error and color codes on the HMI.

## Fault description & color codes

I/O Rack Status	Description
Yellow	General status of the faulty input/output rack
Grey	General state of the input/output rack in operation
I/O Module Status	Description
Yellow	Faulty module
Green	Module in operation

## Salient points

- It is applicable to all MV7K & SD7K drives with Beckhoff racks.
- Field Service Engineer (FSE) completion time at site will be 1 FSE / day / converter depending on the converter type or vessel architecture.
- PCS recommends this improvement of mimic diagram during the next opportunity or in operation.



Sample diagnostic display on HMI





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## Benefits

- Improves troubleshooting by giving the information instantly on HMI.
- Helps to replace the faulty module quickly to restart the drive operation.
- Helps to reduce the OPEX due to instant identification of faulty modules.
- No hardware changes required as it is just a software addition to your existing drive system.

## PCS's services for a lifetime

PCS offers bespoke service support in the form of spares and replacement parts, onsite and remote technical support, maintenance services, upgrades, customized trainings and service agreements aimed at supporting customers based on their unique needs.

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