ComAp
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IGS-NT-HYBRID

Firmware for InteliSys and InteliGen NT controllers in hybrid applications

SW version 1.3.1

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New Feature List

1 General information

1.1 Version information

Fw IGS-NT-HYBRID 1.3.1 is based on the previous version of IGS-NT-HYBRID.

FW is available for InteliGen$^{NT/C}$ BaseBox and InteliSys$^{NT/C}$ BaseBox. (fw is not supported in InteliGen$^{NT/C}$ GC).

Dynamic Spinning Reserve can be activated by a software key, which can be purchased through your official ComAp Distributor.

1.2 Clarification of notation

Note: *This type of paragraph calls readers attention to a notice or related theme.*

> **IMPORTANT: This type of paragraph highlights a procedure, adjustment etc., which can cause a damage or unproper function of the equipment if not performed correctly and may not be clear at first sight.**

> **Example:** This type of paragraph contains information that is used to illustrate how a specific function works.

2 Changes in the version 1.3.1

2.1 Repairs

- Init state after power cycle
  - The controller goes to the initial state after power reset,when CAN2 was previously connected, has been fixed.

3 Changes in the version 1.2.0

3.1 Repairs

- PV power limitation
  - The PV power limitation ability on sites with one gen-set was added (available through ComAp communication gateway UC-7112-LX Plus). The requested value of the PV output is calculated in the gateway based on the Min GS Power setpoint and actual PV output value (it is necessary to create the algorithm in the gateway PLC)
- DynSpinResReq and DynSpinResOfst values
  - The communication between the InteliSys NTC Hybrid controller and the gen-set controllers with the IGSNT- Hybrid fw is ensured via CAN, where it takes an effect in the power management. If the master controller is other than InteliSys NTC Hybrid, then the DSR setpoints must be configured appropriately via LAIs

4 Changes in the version 1.1.1

4.1 Repairs

- Logical Binary Outputs Alarm and Horn were falsely announced / activated
  - The bugs were repaired

5 Changes in the version 1.1.0

5.1 New features

- **FUEL SAVE mode replaced EFFICIENCY mode**
- **Dynamic Spinning Reserve offset is now used**
  - The LAI DYNSPINRES has been renamed to DynSpinResReq and will be used for calculation of the limit value for start and stop of next Gen-set.
    Additional LAI DYNSPINRESOFST was added for calculation of the limit value for next Gen-set stop only.
- **NextStrtDel and OverldNextDel decision rules were changed**
  - New setpoint *OverldNextLim* was added to allow faster start of a next Gen-set. This adjustable setpoint [*%netPgnomPh*] allows to start next Gen-set even before the critical 90 % of nominal power of the running Gen-sets is reached, to provide safely sufficient power supply when dynamic spinning reserve value is rising. When the *OverldNextLim* value is reached, the *OverldNextDel* timer will start to count down the set delay to start next Gen-set.

6 Changes in the version 1.0.0

6.1 New features

- **Dynamic Spinning Reserve**
  - Dynamic Spinning Reserve is a type of Load reserve which can be received through Logical Analog Input from hybrid master controller (either InteliSys^{NTC} Hybrid or a third party controller). This setpoint can be activated upon inserting sw key (for details how to purchase the sw key IGS-NT-Hybrid Guide) and by setting the *Dynam Spin Res* [DISABLED / ENABLED] to ENABLED (in Power management group of setpoints). The value of LAI:DynSpinResReq will be then added to active Load Reserve.

7 Related information

7.1 Available files

Firmware (*.mhx)	
For InteliGen^{NT} BaseBox and InteliGen^{NTC} BaseBox	**For InteliSys^{NT} BaseBox and InteliSys^{NTC} BaseBox**
IG-NT-BB-HYBRID1.3.1.mhx	IS-NT-HYBRID1.3.1.mhx

Table 7.1 Available firmware

Archives (*.ant)	
For InteliGen^{NT} BaseBox and InteliGen^{NTC} BaseBox	**For InteliSys^{NT} BaseBox and InteliSys^{NTC} BaseBox**
IG-BB-HYBRID-MINT-1.3.1.ant IG-BB-HYBRID-COMBI-1.3.1.ant	IS-HYBRID-MINT-1.3.1.ant IS-HYBRID-COMBI-1.3.1.ant

Table 7.2 Available archives

Note: *IG-NT-HYBRID fw is not supported in InteliGen$^{NT/C}$ GC controllers.*

8 Notes

8.1 Document history

Revision number	Related sw. version	Date	Author
5	1.3.1	21.06.2021	Jiří Louda
4	1.2.0	20.01.2020	Jiří Louda
3	1.1.1	19.11.2015	Ladislav Szetei
2	1.1.0	20.8.2015	Jiří Louda
1	1.0.0	7.10.2014	Jiří Louda