

#### Aanderaa Data Instruments AS

Sanddalsringen 5b, Postboks 103 Midtun, 5843 Bergen, Norway Tel +47 55 60 48 00 aanderaa.info@xylem.com

### Smartguard Image - v 2.1.267 - 03.01.2025 (Release)

Summary: AIS and Gill updates

#### **Improvement**

- Improved sleep synchronization between logger and AIS
- Gill correction on format

### **Bug Fix**

RWS precipitation status code mapping (drizzel was mapped to fog)

#### **Others**

Removed event messages in com-port debug log

## Smartguard Image - v 2.1.253 - 22.08.2024

Summary: Changes in parameter types and units on Gill

#### **Improvement**

- Gill GMX200,GMX500,GMX551: Changed direction parameters from I4 (integer).
- Gill GMX200,GMX500,GMX551: Changed temperature units from "C" to "Deg.C" and Air Density unit from "kgm-3" to "kg/m3"





## Smartguard Image - v 2.1.251 - 05.07.2024 (Release)

Summary: Fixed Comport power bug introduced in Image 2.1.249

#### **Bug Fix**

• Power drops on Comport-power because of a bug in MSP-driver wrapper

## Smartguard Image - v 2.1.249 - 06.05.2024 (Release)

Summary: DO NOT USE! Update of AIS parameter mapping and Gill absolute humidity unit

### **Improvement**

• Added support for units "C" and "F" for temperature/dewpoint.

### **Bug Fix**

- Corrected units "%" and "%RH" for relative humidity in AIS format.
- Gill Maximet 500/551 absolute humidity unit was corrected fro "%" to "g/m3"

# Smartguard Image - v 2.1.244 - 12.10.2023

Summary: Delete data folder bugfix

### **Bug Fix**

Delete directory failed when containing sub-directories



# Smartguard Image - v 2.1.243 - 27.09.2023 (Release)

Summary: Added support for Gill MaxiMet GMX551

### **New Functionality**

• Added support for Gill MaxiMet GMX551

# Smartguard Image - v 2.1.240 - 08.09.2023

Summary: Fixed Gill sensror header reading issue when the integer value has prefix sign.

#### **Improvement**

• Iridium improvements. Reduce the number of registrations to network to reduce the iridium subscription cost.

## **Bug Fix**

Fixed Gill sensor header reading issue when the integer value has prefix sign.

## Smartguard Image - v 2.1.235 - 08.03.2023

Summary: GPS time sync and MSP updates Note! Modem configurations needs to be check if upgrading from images between 2.1.183 and 2.1.231.



#### **Improvement**

- Changes default baudrates for GPS, AIS and Iridium modems
- Improved filtering of old GPS-message from last awake time.

#### **Bug Fix**

Naming of Configuration categories "COM Port Settings" and "Modem Settings" in Modem configuration "User Maintenance" was different in images between 2.1.183 and 2.1.231 and will result in settings going back to default values when upgrading to or from these versions.

## Smartguard Image - v 2.1.216 - 03.01.2023 (Release)

Summary: USB as virtual serial port

## **New Functionality**

• USB is now a virtual serial port by default. ActiveSync is still supported.

### Bug Fix

ModemManager: Iridium m\_IRebootWaitTime was not read from the configuration

## Smartguard Image - v 2.1.188 - 05.07.2022

Summary: Added support for SRT Chronas AIS Type 3. Renamed RtComports to Modem1 and Modem2, Added wakeup RtComports.



### **New Functionality**

- Added wakeup on RtComports (Modems).
- Added support for SRT Chronas AIS Type 3.

•

#### **Improvement**

- Renamed RtComports to Modem1 and Modem2.
- •

## Smartguard Image - v 2.1.187 - 25.05.2022

Summary: GPS Timesync

## **New Functionality**

- GPS Timesync. Uses time from ZDA, RMC, GGL or GGA messages.
- Wakeup from GPS. Wakeupe from sleep to update GPS-position and time.
   Wakeup is switched off after position and time is aquired within an interval.

# Smartguard Image - v 2.1.183 - 23.02.2022 (Release)

Summary: Added additional RealTime Comport communication channel. Added device control request feature.

## **New Functionality**

- Added additional RealTime Comport communication channel.
- \_



Added device control request feature.

## Smartguard Image - v 2.1.182 - 03.01.2022 (Release)

Summary: Added support for Gill Maximet200 and Maximet500 sensor. Added Sensor as GPS source when GPS Sensor is present. Added S-Flash backup copy to Data folder.

#### **New Functionality**

- Added support for Gill Maximet200 and Maximet500 sensor.
- •
- •
- Added Sensor as GPS source when GPS Sensor is present.

### Improvement

• Added S-Flash backup copy to Data folder.

# Smartguard Image - v 2.1.181 - 06.12.2021

Summary: Added RWS support for VKRTEMP2-VKRTEMP5. Added supported units "%" and "%RH" for Relative Humidity mapping (AIS, XDR and RWS).

### **Improvement**

• Added RWS support for VKRTEMP2-VKRTEMP5. Added supported units "%" and "%RH" for Relative Humidity mapping (AIS, XDR and RWS).



## Smartguard Image - v 2.1.180 - 23.11.2021

Summary: Added Compression for Real-Time format on Modem. Bugfix: Inverted logic on Override Forward Disabled Function.

#### Improvement

- Added Compression for Real-Time format on Modem.
- •

### **Bug Fix**

Bugfix: Inverted logic on Override Forward Disabled Function.

## Smartguard Image - v 2.1.179 - 25.10.2021

Summary: Added Thies Ultrasonic 2D Compact to sensor service

# New Functionality

Added Thies Ultrasonic 2D Compact to sensor service

# Smartguard Image - v 2.1.178 - 20.10.2021 (Release)

Summary: Bugfix in Road Condition status code. ConfigID change only when there is a change in configuration.

#### Improvement

ConfigID change only when there is a change in configuration.



### **Bug Fix**

Bugfix in Road Condition status code

## Smartguard Image - v 2.1.176 - 21.07.2021 (Release)

Summary: Get config and connection xml from Iridium downloader. Parse and display record values from Binary message.

## **New Functionality**

- · Get config and connection xml from Iridium downloader.
- Parse and display record values from Binary message.

## Smartguard Image - v 2.1.175 - 19.07.2021 (Release)

Summary: Corrected virtual override for GetPowerSettings in CGillWindSonicSensorConfig and CCampbellSR50SensorConfig.

Added GetPowerSettingsEx override to CGillWindSonicSensorConfig and CCampbellSR50SensorConfig.

#### **Improvement**

 Added GetPowerSettingsEx override to CGillWindSonicSensorConfig and CCampbellSR50SensorConfig.

## **Bug Fix**

 Corrected virtual override for GetPowerSettings in CGillWindSonicSensorConfig and CCampbellSR50SensorConfig.



## Smartguard Image - v 2.1.174 - 12.07.2021 (Release)

Summary: Bug fix for Gill sensor when reading the status code

### **Bug Fix**

Bug fix for Gill sensor when reading the status code

## Smartguard Image - v 2.1.173 - 28.04.2021 (Release)

Summary: Geo-position resolution change from Float to Double Add Date to the Serial Comport Log

### Improvement

- Geo-position resolution change from Float to Double
- •
- Add Date to the Serial Comport Log

# Smartguard Image - v 2.1.172 - 02.02.2021 (Release)

Summary: Fix bug in ext serial driver after sleep for COM5-8

## **Bug Fix**

Fix bug in ext serial driver after sleep for COM5-8



## Smartguard Image - v 2.1.171 - 05.01.2021 (Release)

Summary: Power control on Null Modem Added Sequential Message Identifier to AIS Message

### **New Functionality**

- Power control on Null Modem
- •

#### **Improvement**

Added Sequential Message Identifier to AIS Message

# Smartguard Image - v 2.1.170 - 19.11.2020 (Release)

Summary: Option to format corrupt drives Added CRC check for SensorList file

### **New Functionality**

Option to format drives

### **Improvement**

Added CRC Check fro SensorList file

Smartguard Image - v 2.1.169 - 23.09.2020 (Release)



Summary: Auto Recovery of missing data on Iridium connection.

### **New Functionality**

Auto Recovery of missing data on Iridium connection.

## Smartguard Image - v 2.1.168 - 15.05.2020 (Release)

Summary: Auto reboot Datalogger on lost Iridium connection Fix bug in startrecorder from Iridium data downloader

### **New Functionality**

• Auto reboot Datalogger on lost Iridium connection

### **Bug Fix**

• Fix bug in startrecorder from Iridium data downloader

## Smartguard Image - v 2.1.167 - 07.05.2020 (Release)

Summary: Auto reset option for 3rd party serial sensors on error

### **New Functionality**

• Auto reset option for 3rd party serial sensors on error



## Smartguard Image - v 2.1.166 - 17.04.2020 (Release)

Summary: Added Modem Power Scheduler functionality.

### **New Functionality**

Added Modem Power Scheduler functionality.

## Smartguard Image - v 2.1.165 - 22.01.2020 (Release)

Summary: Added Input Channel with Filter option to custom data format for serial sensor

### **Improvement**

Added Input Channel with Filter option to custom data format for serial sensor.

## Smartguard Image - v 2.1.164 - 08.11.2019 (Release)

Summary: Add new status code from sensor so there will not be missmatch in iridium output and real-time output

#### **Improvement**

 Add new status codes from sensor so there will not be missmatch in iridium output and real-time output.

## **Bug Fix**

• Fix bug in ReSync of SD Card having different hidden sector offset.



## Smartguard Image - v 2.1.162 - 20.09.2019 (Release)

Summary: Fix bug, there it always logged the comport in realtime. This is now desided of the settings

#### **Bug Fix**

 Fix bug in so no debug from COMport realtime communication if the log is turned off.

### Smartguard Image - v 2.1.161 - 29.08.2019 (Release)

Summary: Fix bug when AppSytemGUI shoud exit because of the AbortInit.txt file on SD card. Now it will exit. Thsi error have been since image 2.1.150

## **Bug Fix**

Fix bug in AppSystemGUI when abort init file is in place.

# Smartguard Image - v 2.1.160 - 08.04.2019 (Release)

Summary: Fix the modemManager so it support profile in customformat. It use the vector as id, when it generate a connection object for real-time collector

Also fix in iridium so it l postbone the transfer of data after modem powerup.

It use the Warm up Time to add delay from power up to the data is sendt to the modem.



#### **Improvement**

 Add Power setting Warmup time to Iridium data deliver schedule, so that the modem can reiceve the characters.

#### **Bug Fix**

• Fix the Modem manager so it support profile in customformat.

## Smartguard Image - v 2.1.156 - 21.01.2019 (Release)

Summary: fix bug in denominator in CoCommunicationServer so it works on all communication channels

### **Bug Fix**

 fix bug in denominator in CoCommunicationServer so it works on all communication channels

## Smartguard Image - v 2.1.155 - 09.01.2019 (Release)

Summary:

## Improvement

- Changed RequestReset to DoCriticalReset in SensorManager error handling to ensure recorder starts after the reset
- Added TransduecerDirection attribute in XmlColumn
- Added FillValue in XmlParameter(point, vector, timeseries and spectrum)
- Added RecordsDenominator element to XmlData



#### **Bug Fix**

- Prevent sleep when GroupRecorder is stopped
- Abort sleep if time to wake up is shorter than 3 sec

## Smartguard Image - v 2.1.150 - 20.06.2018 (Release)

Summary: Synchronized with Seaguard II Image 3.0.198

#### **New Functionality**

- Support for GGL GPS message
- Added limit record freq for Null modem, AIS and Iridium
- Added reduced XML, Hide status OK and Overide forward disabled for Real-Time Out on NULL-Modem
- Serial sensor "Trim Start of Line" property to handle formats that in some cases starts with space (Turner C3, Sontek SL500)
- AIS "Enable Power" settings to select power on or off (not controlled by schedule)
- Implemented AIS pressure tendency and waterlevel trend

#### Improvement

- Support for "Sec" as unit in AIS Wave/Swell Period
- Support for "mm/s" and "dm/s" for NMEA/AIS speed parameters
- Changed "Transmit Power" property range for the GOES GTX 2.0 Transmitter

#### **Bug Fix**

- Serial handshake bugfix
- Selection of GPS in platform config, bug when GPS device is removed



- Modem manager, bug when multiple groups are selected and one group is stopped prevents data from remaining running groups
- Digital sensor service, rainfall accumulation error
- Serial Sensor number validation bug when value is only a negative sign

# Smartguard Image - v 2.1.120 - 31.03.2017 (Release)

#### Summary:

#### Version Dependencies:

Smartguard Bootloader version >= 1.0.16

## New Functionality

- Added pre-defined serial sensor Campbell SR50
- Added routed COM port power control
- Added Real-Time Comport Power Soft Start
- Iridium 9602 support(preview)
- Added NMFA Sensor

#### Improvement

- Gill Wind Sensor updates
- SerialSensor, dont skip trailing delimiters if not white space (tab or space)
- Added default settings for Mira 3544S
- Routed comport update

### **Bug Fix**

- AiCaP Config-service bug
- Unit bug on AiS direction
- Bug in profile metadata mapping in mapped parameters



- Unit bug on NMEA heave
- Prevent Smartguard to go to sleep when recorder is stopped

Smartguard Image - v 2.1.81 - 04.03.2016 (Release)

Summary:

### **Improvement**

Increased AiCaP timeout to support string with many node

### **Bug Fix**

• Prevent Configmanager crash if AiCaP sensor fail at startup

Smartguard Image - v 2.1.75 - 30.10.2015 (Release)

Summary:

## **New Functionality**

Option to use unregulated power on Real-Time comport, COM2

Smartguard Image - v 2.1.74 - 14.10.2015 (Release)

Summary:



### **New Functionality**

- Pharos Marine Automatic Power AIS support
- Support for Waterlog GOES transmitter firmware version 2.2.0
- Interval offset support
- Support for MicroCom GTX 2.0
- FTP protect data option
- Stored Data transfer support
- S-Flash backup and update support
- Wathchdog at startup
- Check for recorder hang
- Sensor input parameters support
- RWS Wavecom modem SMS support
- NMEA Proprietary sentence
- Gill wind speed average and gust calculation with compass input correction
- Analog Sensor inverse polynom calculations
- Recorder delayed start support
- DCPS support

#### **Improvement**

- Syncronize S8F config backup at startup
- Status code validataion on NMEA Sentences
- Communication server memory optimizing
- Hide status code ok in modem format Real-Time
- RWS/OPC update. implemented Wind speed and gust. Fix in precipitation sensor parameter mapping
- Change OS default time to 2001.1.1 00:00:00

#### **Bug Fix**

- OPC wind gust bugfix
- Climagram service bugfix: precipitation, wind and snowdepth climagram
- Bugfix communication server (SystemStatus)



# Smartguard Image - v 2.0.38 - 04.09.2013 (Release)

Summary:

#### **New Functionality**

- Added serial sensor custom data format delimiters SOH, STX, ETX and EOT
- Support for escape sequences in serial sensor commands
- Possibility to allow for invalid data values in serial sensor data
- Selectable (None, CR, LF or CRLF) command termination for serial sensor commands
- Unregulated power option on COM2 for serial devices
- Size limitation and backup for log files
- Option for limitation on number of data sessions (old will be deleted)
- Option for splitting files based on size or record numbers
- Selectable records history size
- Climagram network service for RWS
- SR10/VR22 sensors DI-module support (predefined in serial sensor formats in Layout)

#### **Improvement**

- Time adjustment whit out the need of system restart
- Reorganized data and log folders on SD card
- Status code on out of range for serial and analog sensor
- Analog sensor time series in engineering units

#### **Bug Fix**

Status code in serial sensor was not reset



## Smartguard Image - v 2.0.1 - 20.11.2012 (Release)

#### Summary:

#### Version Dependencies:

Smartguard Bootloader version >= 1.0.12

#### **New Functionality**

- Status monitor for modems and auxiliary devices
- COM2 is no longer locked to Real-Time communication and can be used for serial sensor.
- Current layout (SystemLayout.xml) is stored to recording folder at recorder start
- Redundancy storage and checksum of layout and configuration
- Automatic adding of new sensors to recorder group 0 (or other if group dependency)
- Microcom GTX 1.0 GOES transmitter support
- Waterlog H-2221 GOES transmitter support
- Pseudo-binary output protocol (for use with satellite communication)
- ASCII output protocol
- NMEA CUR, MTW, DPT, MWV and XDR output protocols
- AIS Message 8, FI 32 output protocol (for use with AIS transponder)
- GPS with NMEA RMC sentence support
- MANDO 303 AIS transponder support
- Real-Time COM port power control (for use with radio modems on Real-Time port)
- Routing of data from Real-Time enabled instruments
- Routing of data from terminal communication instruments/sensors (CR, LF, CR+LF terminated data)
- Serial sensor multi-line format support



### **Improvement**

- Extended serial sensor control. Existing Smartguard with serial sensors needs to be re-configured
- Recording start on aligned interval

# **Bug Fix**

- COM port serial driver and sleep bug
- Memory leak in GUI when sleep