

# **TECH NOTE #004:: GOM Aramis integration in catman**

Version: 2020-06-24 Status: public

## Abstract

This Tech Note describes how to integrate the GOM Aramis system into a catman measurement.

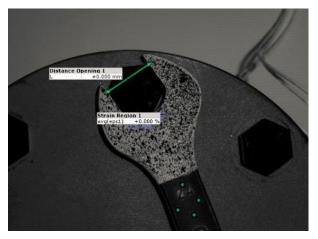
### Prerequisites

- catman AP Version >= V5.2; The support is included in catman AP only, not in catman Easy
- Aramis Version >= Aramis Professional 2017
- Before starting in catman the Aramis system must be fully configured and a measurement is running. When starting with catman no further configuration changes in Aramis are allowed, e.g. add or delete measurement points.
- The SCPI interface must be enabled for communication with catman

#### Workflow

1. Before you start with catman make sure that the Aramis system is fully configured and running. This means all measurement points have been defined and SCPI interface is enabled.

| Wait for          |                          |             |
|-------------------|--------------------------|-------------|
| Measuring mode    | Fixed frame rate *       | 5 Hz 🛟      |
| Finish at         | *                        |             |
| General settings  |                          | -           |
| mage size parti   | al image HD              |             |
| Repeat measu      | ring sequence            |             |
| Tracking settings | ngs                      |             |
| No. of stages     | 150                      | \$          |
| Tracking mode     | 3D view on (frequency op | otimized) 🔹 |
| ✓ SCPI server er  | abled                    |             |
|                   |                          |             |



2. Start catman and create a new measurement project

3. In the HBM device manager dialog click on "Add additional devices" and select optical interrogator in the "Create new device" dialog. Enter also the device name which should be displayed for the Aramis system in the catman DAQ channel list and enter the IP address of the device.

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| Firmware<br>.4.0 |
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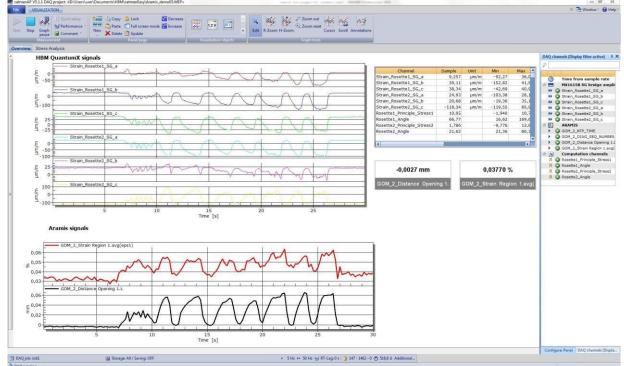
→ After click on OK catman adds the device to the available devices and tries to establish a connection. If connection was successful a green bullet is displayed next to the device, if not a red bullet is displayed. In case the connection was not successful please check if network cables are correct connected, IP address is correct and SCPI interface is enabled.

4. Now select QuantumX modules and Aramis HW in HBM device manager and click on "Connect"
 → All QuantumX and Aramis channels are displayed in the Channels table

| DAQ CHANNELS VIDEO DA                              | Q JOBS VISUALIZATION DATAVIEWE                       | R SENSOR DATABASE         |   |              |
|--|--|---------------------------|---|--------------|
| t<br>ment  | y Default<br>W Fast<br>Sample rates/filter           |                           |   |              |
| re DAQ channels Devices: 2 Hardwar<br>Channel name | e channels: 20 Computation channels: 4 [E<br>Reading | Sample rate/Filter        | Sensor/Function                             | Zero value   |
| MX1615B SG bridge amplifier                        |  |                           |   |              |
| Strain_Rosette1_SG_a                               | 😝 10,36 μm/m   | ▶ 50 Hz / BE 5 Hz (Auto)  | 😅 SQ quarter bridge 120 Ohm, 4-wire circuit | -904,25 µm/m |
| Strain_Rosette1_SG_b                               | 🤗 41,17 µm/m   | >> 50 Hz / BE 5 Hz (Auto) | SG quarter bridge 120 Ohm, 3-wire circuit   | -1152,7 µm/m |
| Strain_Rosette1_SG_c                               | 🥘 39,99 μm/m   | 50 Hz / BE 5 Hz (Auto)    | 😅 SG quarter bridge 120 Ohm, 3-wire circuit | -2326,8 µm/m |
| Strain_Rosette2_SG_a                               | 🤗 28,46 μm/m   | ▶ 50 Hz / BE 5 Hz (Auto)  | SG quarter bridge 120 Ohm, 3-wire circuit   | -1305,3 µm/m |
| Strain_Rosette2_SG_b                               | 🦲 21,60 µm/m   | ▶ 50 Hz / BE 5 Hz (Auto)  | 🛒 SG quarter bridge 120 Ohm, 3-wire circuit | -1195,1 µm/m |
| 🖬 Strain_Rosette2_SG_c                             | 🤤 -116,7 μm/m  | ▶ 50 Hz / BE 5 Hz (Auto)  | 😅 SG quarter bridge 120 Ohm, 3-wire circuit | -1296,6 µm/m |
| ARAMIS [169.254.205.10]     GOM_2_NTP_TIME         | 😝 1506408697 (26.09.2017 06:51:37) s                 | ▶ 5 Hz / Filter: Off      | Optical camera system                       | 0,00000 s    |
| GOM_2_DIAG_SEQ_NUMBER                              | € 438,0  | 5 Hz / Filter: Off        | 🙇 Optical camera system                     | 0,00000      |
| GOM_2_Distance Opening 1.L                         | 👄 -0,00432 mm  | 5 Hz / Filter: Off        | 🙇 Optical camera system                     | 0,00000 mm   |
| GOM_2_Strain Region 1.avg(eps1)                    | 0,02823 %  | 5 Hz / Filter: Off        | 🙇 Optical camera system                     | 0,00000 %    |
| Computation channels                               |  |                           |   |              |
| Rosette1_Principle_Stress1                         | € 10,79  |                           | ROSETTE~Strain_Rosette1_SG_a~Strain_Ros     | € 0,00000    |
|  | 66,60  |                           | ROSETTE~Strain_Rosette1_SG_a~Strain_Ros     | s∈ 0,00000   |
| Rosette2_Principle_Stress2                         | 2,584  |                           | ROSETTE~Strain_Rosette2_SG_a~Strain_Ros     |              |
| Rosette2_Angle                                     | 21,50  |                           | ROSETTE-Strain Rosette2 SG a-Strain Ros     |              |

- 5. Configure the same sample rate for Aramis like configured in the Aramis software
- 6. Configure QuantumX system and DAQ job

7. Start measurement



#### Synchronization between QuantumX and Aramis

To synchronize both systems NTP can be used. To do so you have to enable NTP in QuantumX and Aramis and configure the same NTP master.

For the Aramis system the NTP service is running on the testing controller hardware, which must be connected to the same network as the QuantumX.

| GOM Testing Contr | oller Web | Interface |
|-------------------|-----------|-----------|
|-------------------|-----------|-----------|

| Navigation  | Ethernet  |  |  |
|---|---|--|--|
| > Home  | Liternet  |  |  |
| <ul> <li>Analog In</li> <li>Analog Out</li> </ul>   | Network Information   |  |  |
| > Power   | MAC address: 00:80:21:25:10:26  |  |  |
| > Trigger In  | IP address: 192.168.4.200   |  |  |
| > Trigger Out   | Subnet mask. 255,255,255.0  |  |  |
| > Command Log   |   |  |  |
| > Ethernet  | Set IP Address  |  |  |
| <ul> <li>Firmware update</li> <li>Status</li> </ul>   | 9 192.168.x.x network range:<br>Valid IP range is 192.168.4 - 253.200. The exceptions are 192.168.39.200 and 192.168.40.200 |  |  |
| · Oldida  | IP address: 192.168. 4 .200   |  |  |
| nfo   | © 10.x.x.x network range:<br>Valid IP range is 10.0 - 254.0 - 254.200   |  |  |
| GOM   | IP address: 10. 0 👾 4 👻 200   |  |  |
| GOM GmbH<br>Schmitzstraße 2<br>D-38122 Braunschweig   | Reset to default IP:<br>192.168.4.200   |  |  |
| Telefon: +49 (0) 531 390 29 - 0<br>Telefax: +49 (0) 531 390 29 - 15<br>mail: info@gom.com<br>ittp://www.gom.com | NTP Settings  |  |  |
|   | NTP Server Address:   |  |  |
|   | 192.168.4.1   |  |  |
|   | NTP Server Port:  |  |  |
|   | 123   |  |  |

#### -- end

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