POWER AUTOMATION TECHNOLOGIES

DIGSI 5 QUICK NOTES

DIGSI-5-QN0008: Get Settings & Fault Records from a relay:

This issue of DIGSI 5 Quick Notes covers:

- Connection to relay via front panel USB
- Connection to the relay via Ethernet (with PC in the same subnet)
- Extracting settings & fault records
- Extracting just fault records

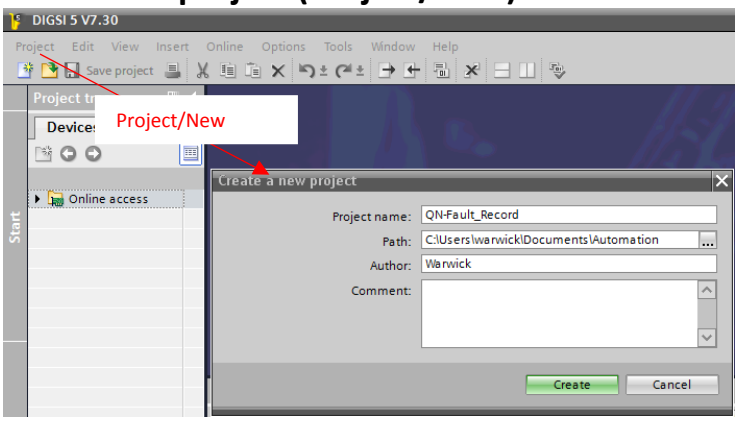
The described methods do not require an existing setting file, and therefore create a 'plug-and-play' version of the setting file. That is, plug-and-play settings are not intended for modification and loading back into the relay. This is a precaution in case IEC 61850 protocols are being used, as the plug-and-play setting file would not have Station Level information.

These instructions assume the required device drivers for the relay firmware, and protocol drivers are installed within DIGSI 5. If not warnings will be given indicating if device drivers first need to be downloaded and installed.

DIGSI-5-QN0009 covers the connection method in more detail and adds instructions for Remote Engineering Access situations where the relay may be in a different subnet.

QUICK GUIDE TO: Extracting settings & fault records and other data VIA USB

1: Create a project (Project/New)



If you do not first create a project, you still can go online, individually access and save logs, fault records and measurements. However, we recommend creating a Project first which allows all data and settings to be saved (creating project first uses less steps)

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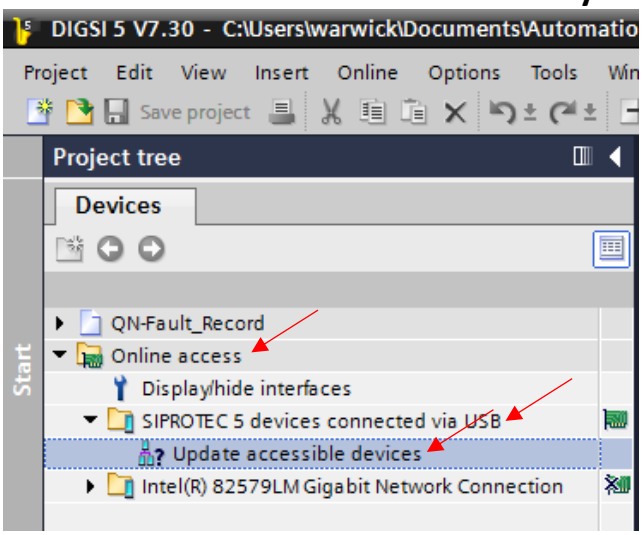
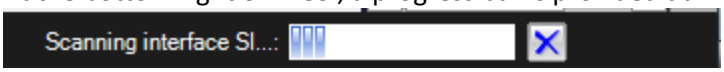
2: Make a USB connection to the relay

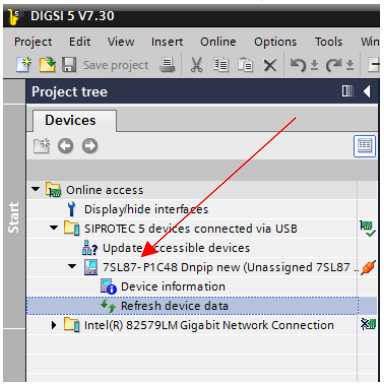


Click Online access, expand out “SIPROTEC 5 devices connected via USB”, then click on “Update accessible devices”.

At the bottom right of DIGSI, a progress bar is provided during the search for a USB connected relay.



When device is found, it will be listed in the Project tree view.



At this point the Device Information is available to allow confirmation that the correct relay has been connected to.

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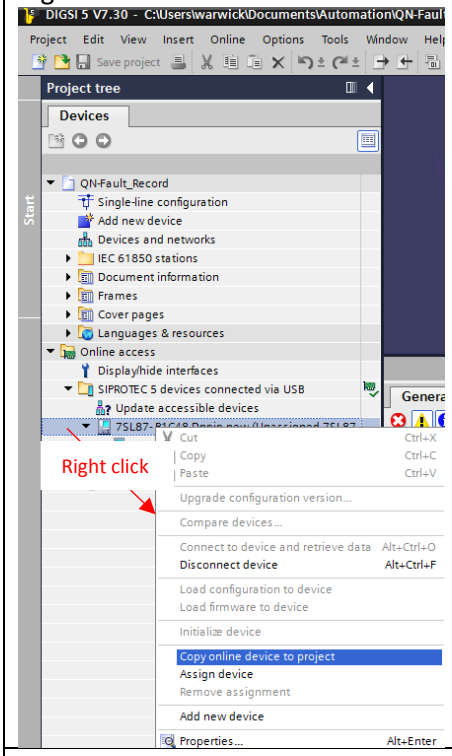
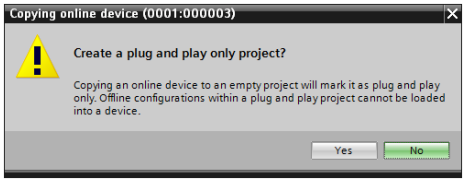
3: “Copy online device to project”

Right click on device in Online access Project tree view and select “Copy online device to project”

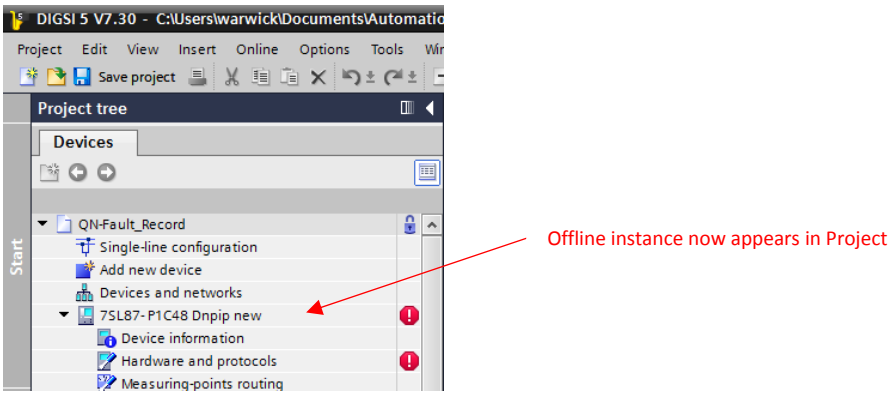


4: Create plug-and-play project

Select “Yes”.



Settings and log files are now copied from the Online instance of the relay, to an Offline instance



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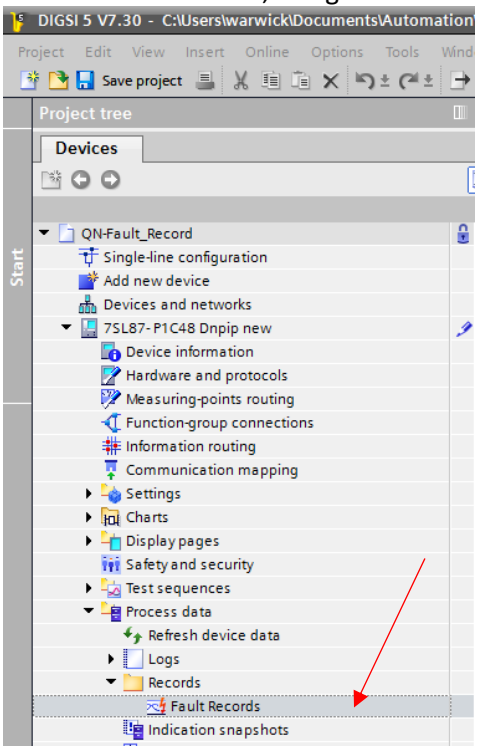
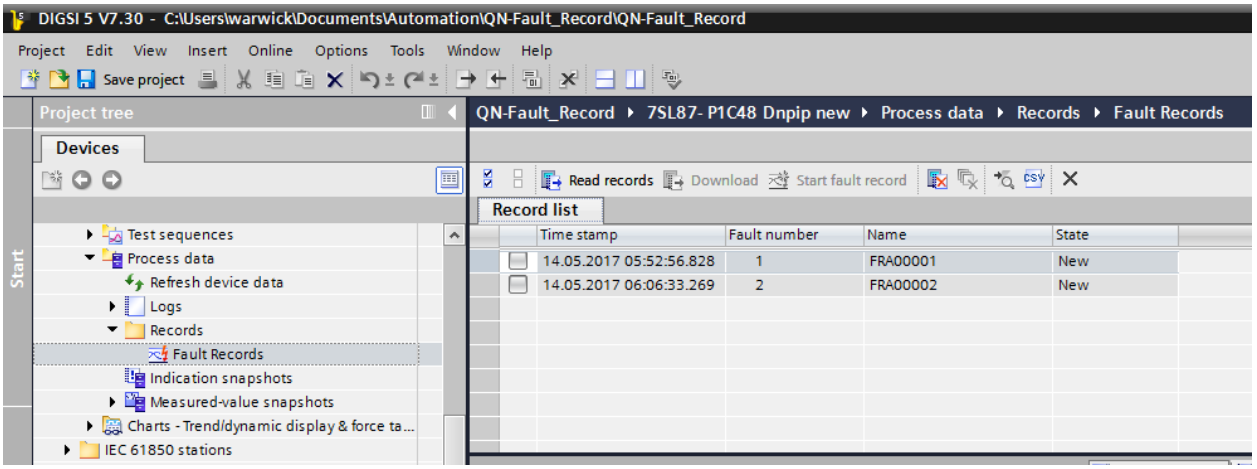
5: Select the desired fault records

At this point, only ‘Settings’ and ‘Logs’ are copied to the project.

In the offline instance, navigate to Process data/Records/Fault Records, and double click.





After double clicking in the Project Tree, the Fault Record window will open in the centre window. Click the two little check boxes above the “Record list” tab, which will select all the records in the list.

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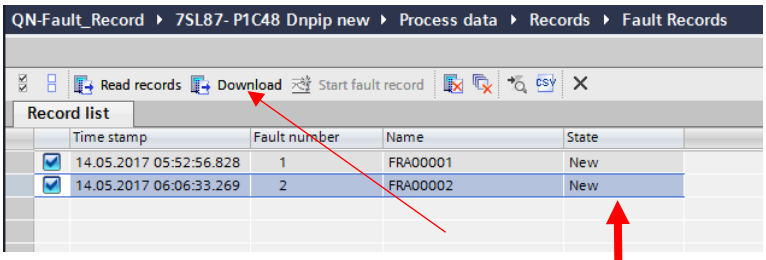
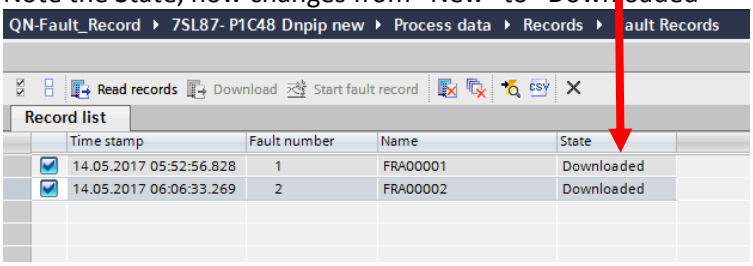
6: Download the Fault records

Click “Download”.



Note the State, now changes from “New” to “Downloaded”



In this process a snapshot of the records available in the device at connection time are shown. The “Read Records” can be used to update the display showing any new records created in the device since the last snapshot.

In this example we have created a new plug-and-play file and download all records. However, it is also possible using the check boxes to just select records of interest for downloading.

Where an existing project file has been loaded with earlier saved data, and then the relay is connected to again with that project file open, new records can be added to those already downloaded.

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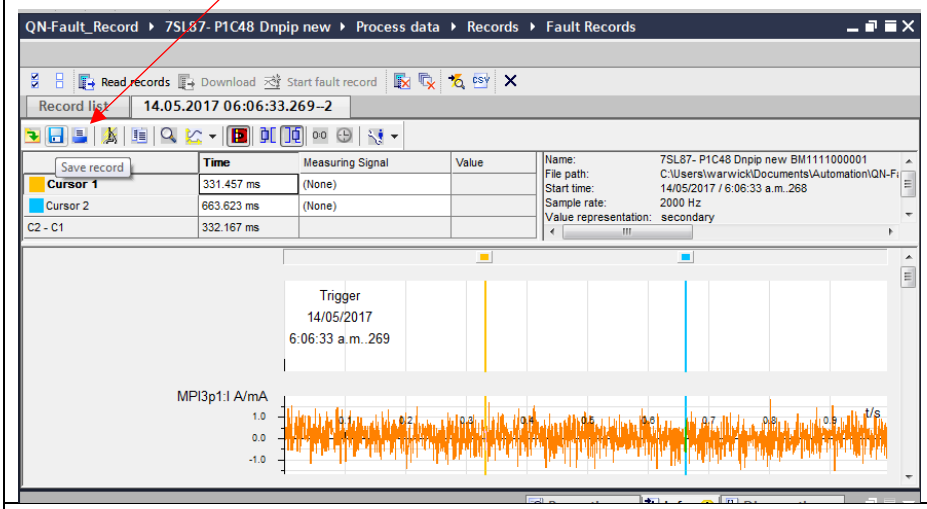
7: Viewing the Record

If SIGRA is installed on your PC, when the record is downloaded, it can be open in SIGRA from within DIGSI 5 (or otherwise it will use the built-in COMTRADE viewer). Double click the record to open. **The fault record can also be exported in COMTRADE format for use with other applications.**



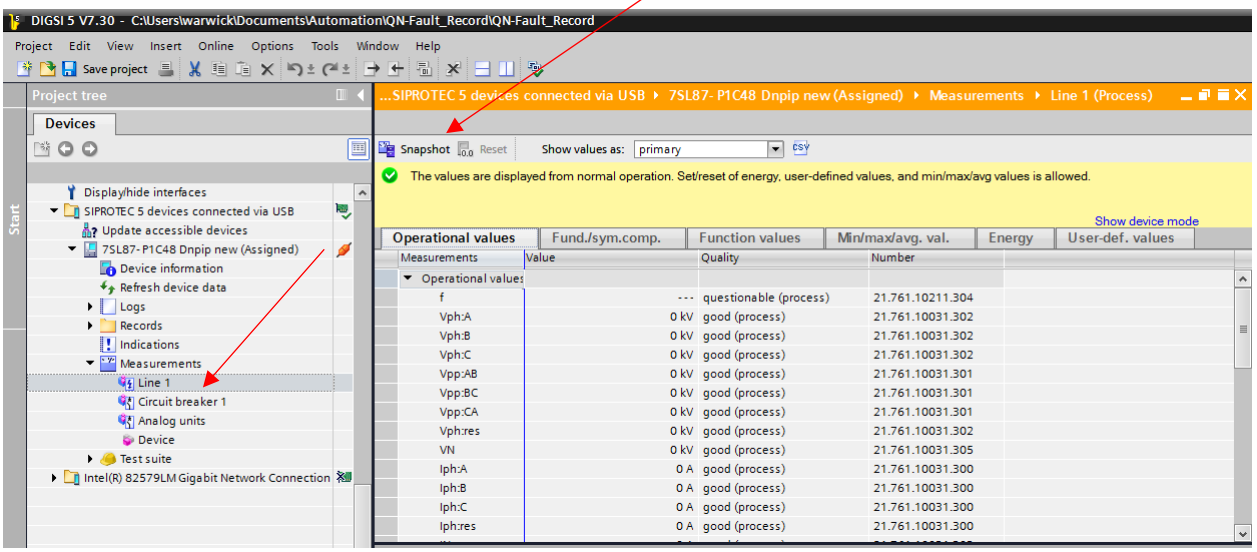
8: Get other Process Data

Instantaneous Measurements:

If you also want a copy of instantaneous measurement values, navigate in the online section to:

1) Indications
2) Measurements (where multipe measurements are available for each function group)

Each screen is similar to below. It may take a few seconds for the Snapshot button to appear. Select "Snapshot" and repeat taking Snapshots for each Measurement groups you want to save. The data is automatically saved in the offline project.



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9: Save the project

Save the project to save the new downloaded data in the Offline project file.

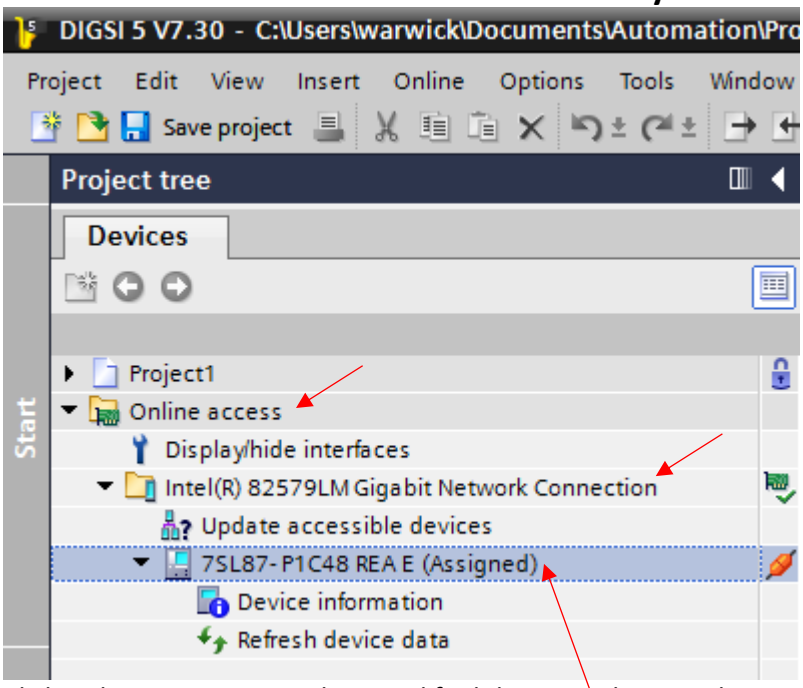
Refer to DIGSI 5 Quick Notes 0001 for information on methods for sending DIGSI 5 project to others.

QUICK GUIDE TO: Extracting settings & fault records and other data VIA Ethernet Port J

The process is similar to that for extracting data via the USB explained earlier in this document. It is only Step 2 that differs.

This assumes your PC IP address is in the same IP subnet as the protection relay Port J. Quick Note 0009 details the connection method for accessing the relay via an Ethernet SCADA interface.

2: Make a Ethernet connection to the relay



Click Online access, expand out and find the entry that matches your Ethernet connection, then click on "Update accessible devices".

At the bottom right of DIGSI, a progress bar is provided during the search for a Network connected relay.

When device is found, it will be listed in the Project tree view.

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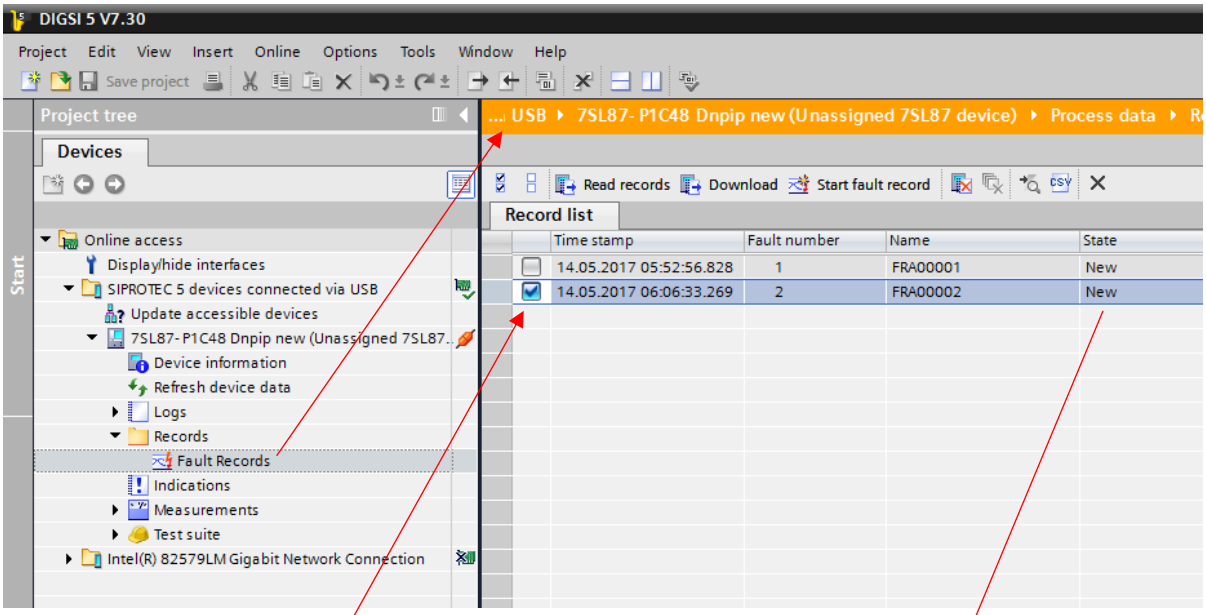
QUICK GUIDE TO: Extracting just a COMTRADE file

The follow process can be used if you just require a fault record, but not settings or any other process data.

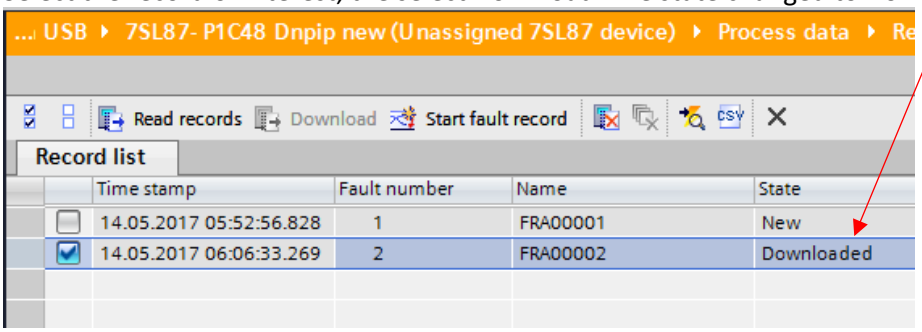
1: Make an online connection (via USB or Ethernet) to the relay

2: Navigate to the Fault Records

The right window will open, when "Fault Records" in the Project Tree is double clicked.



Select the record of interest, the select Download. The state changed to Downloaded



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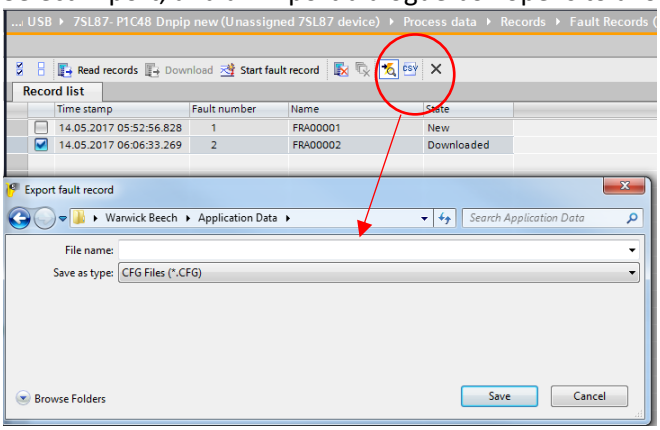
Select Export, and an Export dialogue box opens to allow the COMTRADE file to be saved.

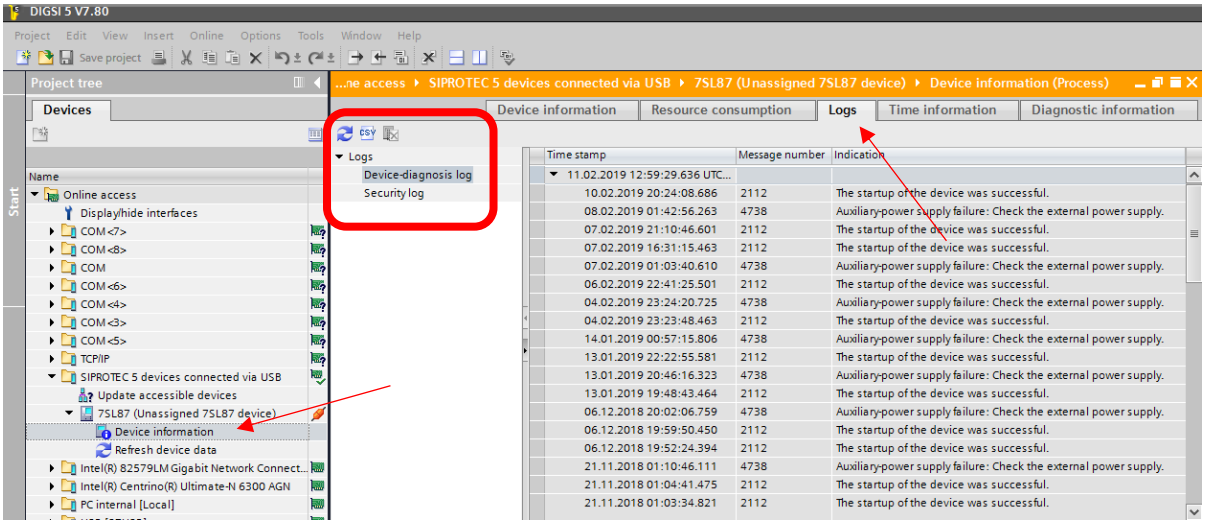


QUICK GUIDE TO: Retrieving the Device Diagnosis Log

The Device-diagnosis log, is a log useful to Siemens in cases of complex device support issues. This log is not saved with the other relay logs.

If the relay is in Process Mode/Commission Mode or Simulation Mode:

Go online to the relay, selecting 'Device Information' in the Project Tree, double click on Device Information. In the main screen that then opens select the Logs tab, and in the tree structure of that window select 'Device-diagnosis log', and then the arrow icon 'refresh button'. Finally use the CSV icon to save a copy of the log file.



If the relay is in the Fallback mode, then contact us for a copy of SIPROTEC5 FixIt software, a tool for extracting diagnostic information in that case.

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