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:

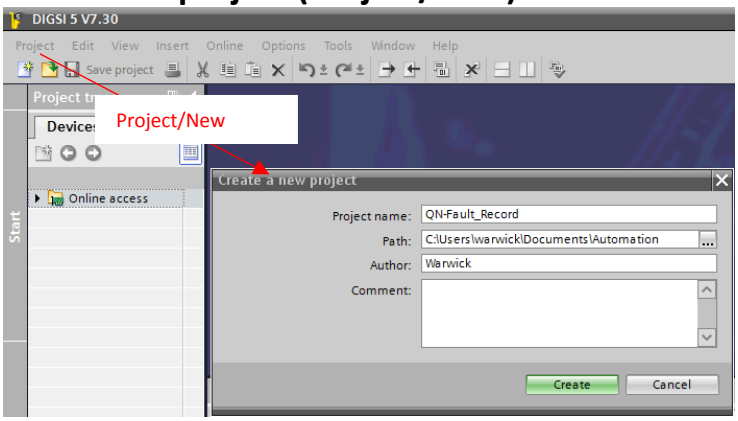
- Connecting to relay via front panel USB
- Extracting settings & fault records
- Connection to relay via Ethernet Remote Engineering Port (Port J) [Page 7]
- Extracting just fault records [Page 8]

Note:

1. These instructions assume the required device drivers for the relay firmware and setting version are installed within DIGSI 5. If not warnings will be given indicating if device drivers first need to be downloaded and installed.
2. These methods create a 'plug-and-play' version of the setting file. That is, the 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 extracted setting file would not have Station Level information.
3. DIGIS-5 Quick Note QN0009 shows how to connect to the relay via an Ethernet SCADA interface.

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

1: Create a project (Project/New)



If you do not create 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 (using less steps)

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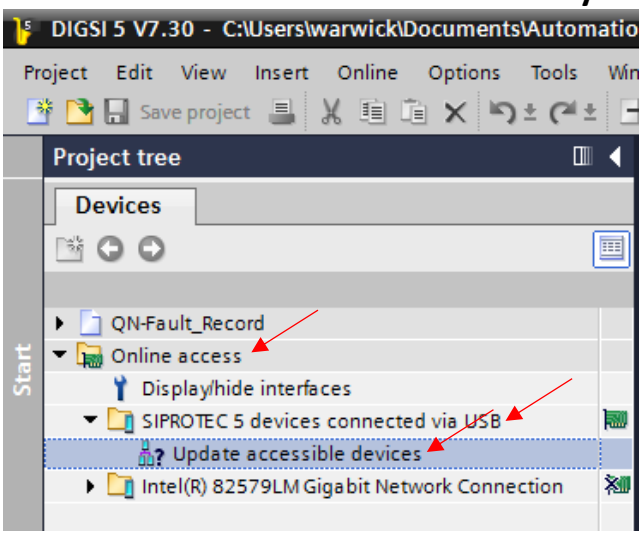
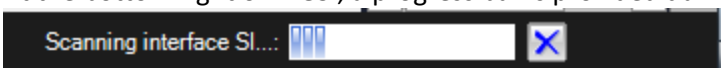
2: Make a USB connection to the relay

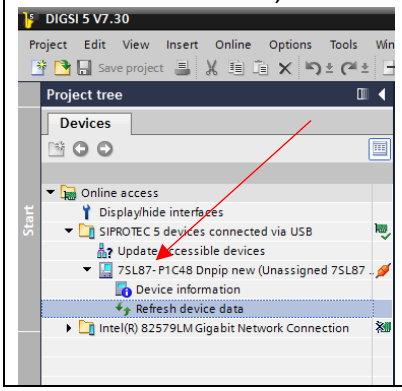


Click Online access, expand out “SIPROTEC 5 devices connected via USB”, then click on “Update accessible devices”.

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.



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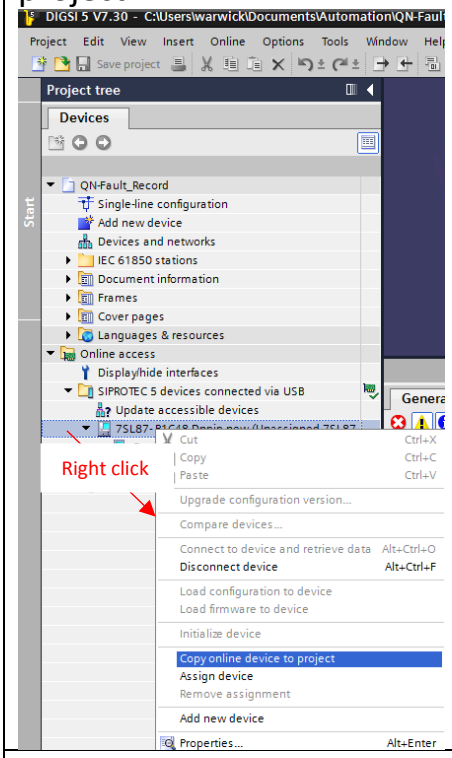
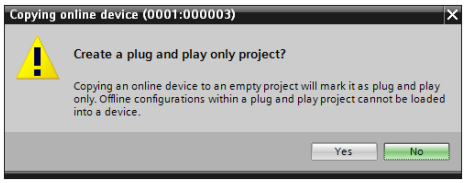
3: “Copy online device to project”

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

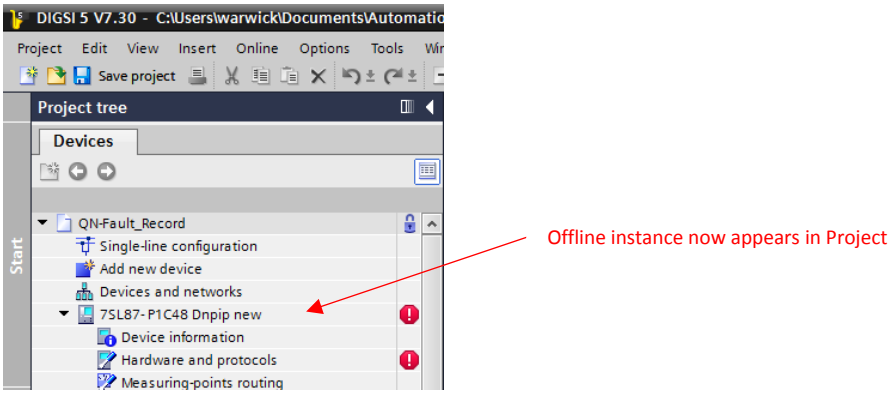


4: Create plug-and-play project

Select “Yes”.



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



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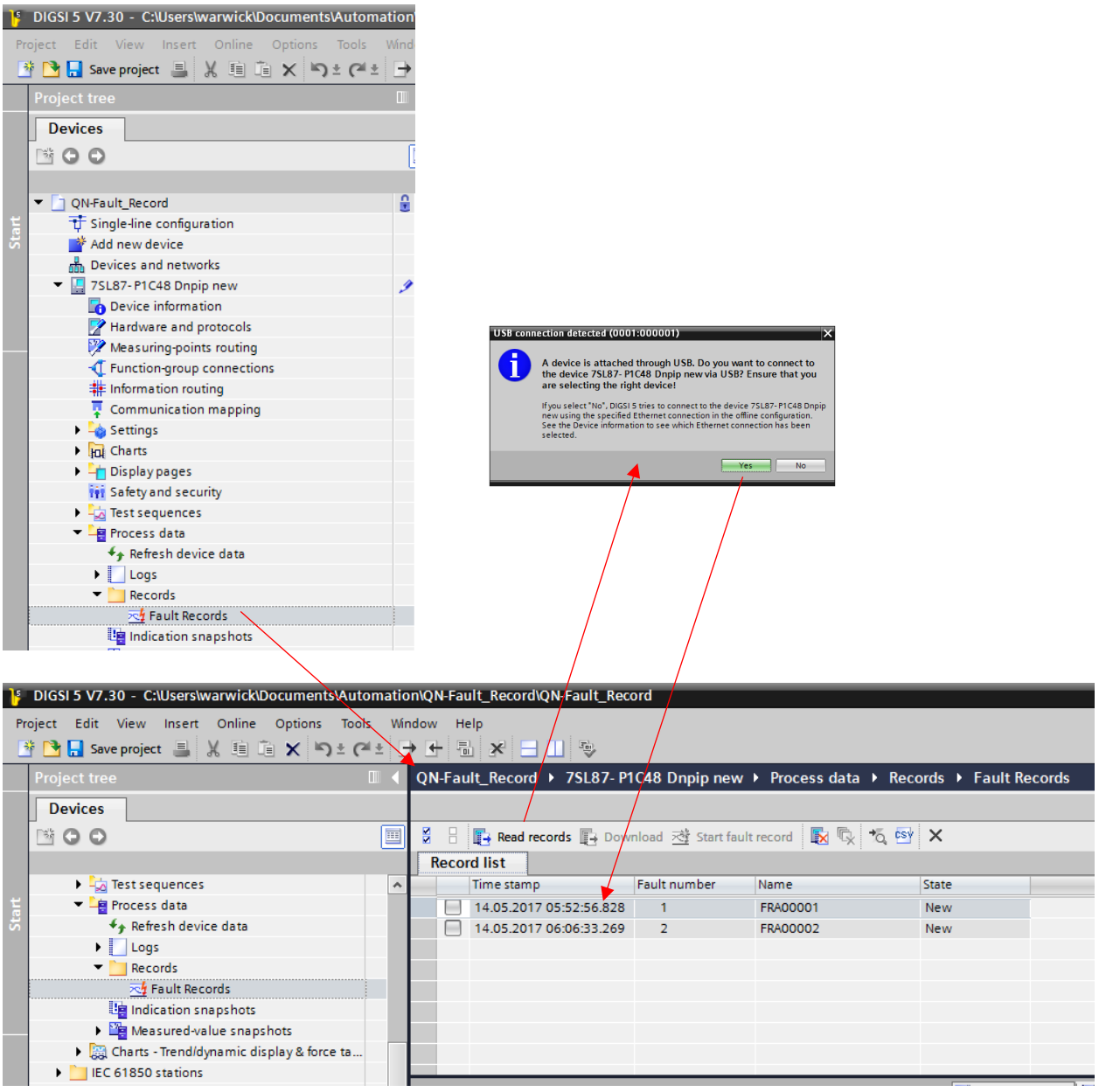
5: Load fault records

At this point, only ‘Settings’ 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 “Read records”, Click yes on the connected device dialogs. If there are records in the relay, a list of the available records will be displayed.

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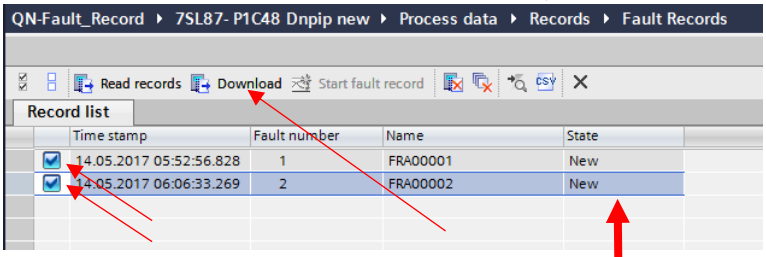
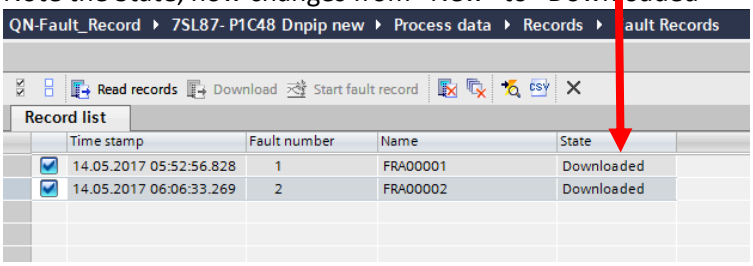
A snapshot of the records available in the device is shown. Use "Read Records" to download any new records created in the device since last snapshot.

6: Select the Fault records you want to download

Check the boxes to select the records wanted, the click "Download".

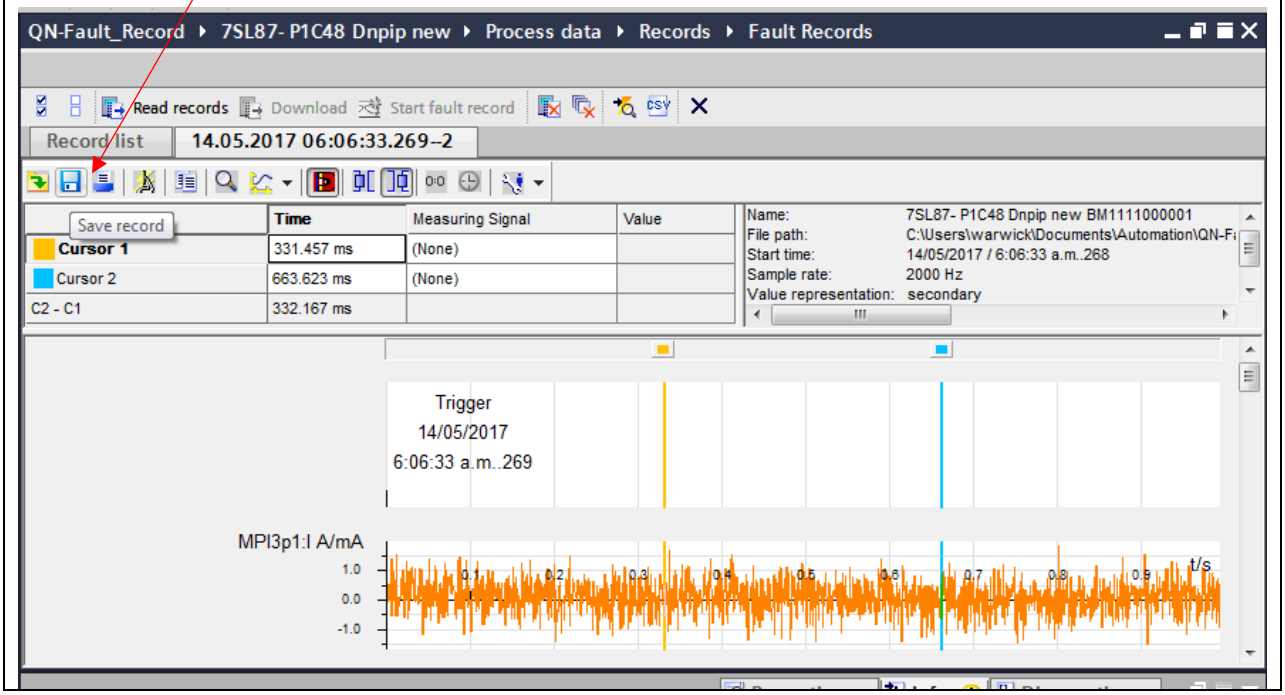


Note the State, now changes from "New" to "Downloaded"



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 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.**



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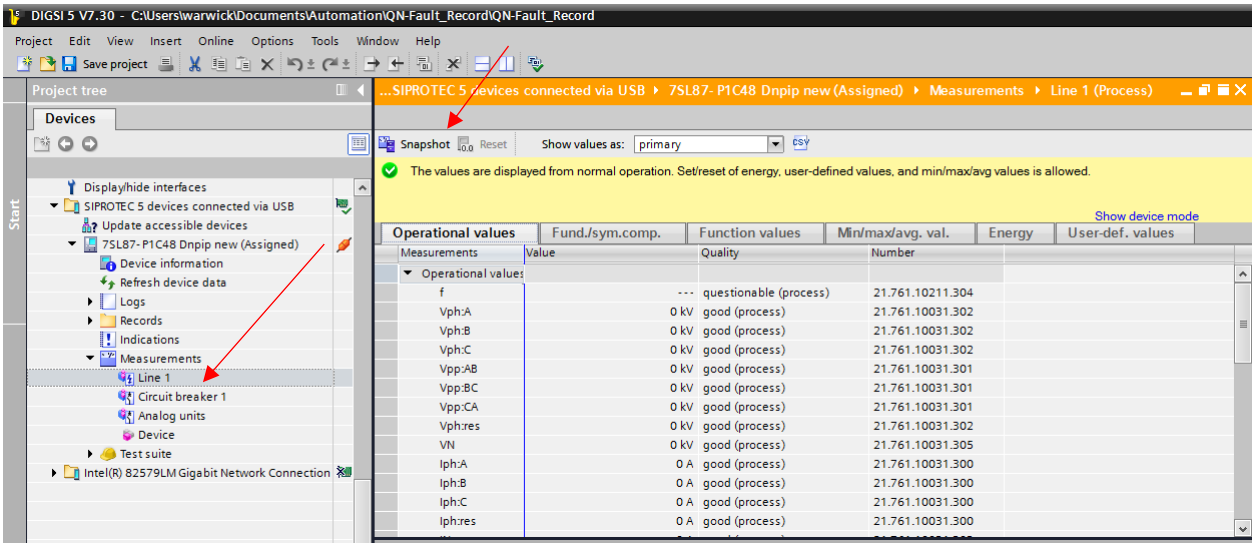
8: Get other Process Data

The above method of getting fault records does not copy other process data.

You should select the other process data and download it in turn.
E.g Logs/Operational Log
/Setting-history log
/Fault log
/User log 1
/User log 2
/Ground-fault log

The Read log entries button in each provides the mechanism to download any new log entries that may have occurred since last download from the device.

Instantaneous Measurements:
If you also want a copy of the instantaneous measurement values, navigate in the online section to each of the Measurement entries and select “Snapshot”. Repeat for each Measurement groups you want to save.



9: Save the project

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

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

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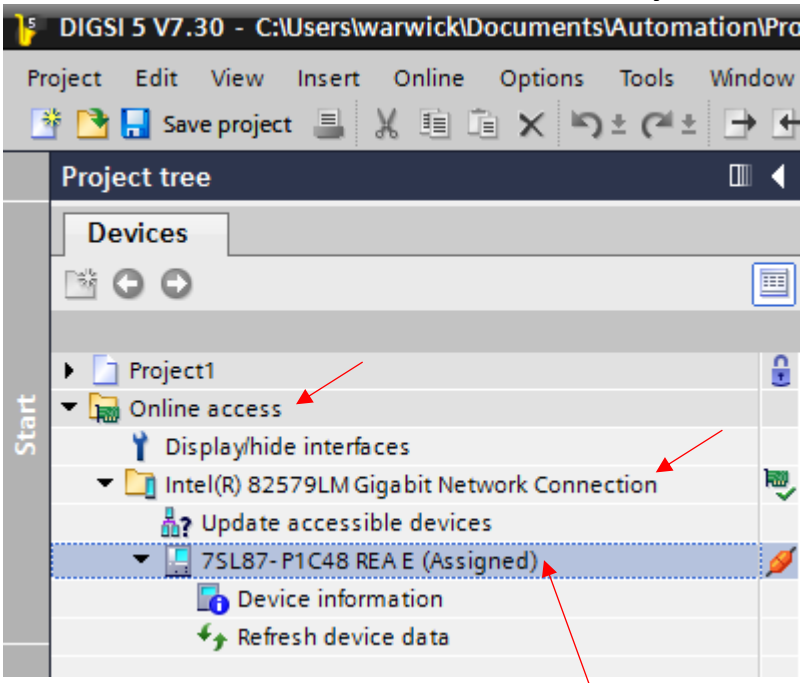
The process is similar to that for extracting data via the USB explained earlier in this document. It is only Step 2 that differs.

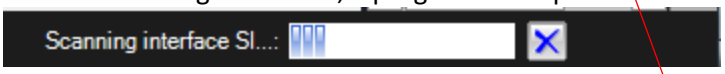
This assumes your PC IP address is in the same IP subnet as the protection relay Port J. Quick Note 0009 details the connection method for accessing the relay via an Ethernet SCADA interface.

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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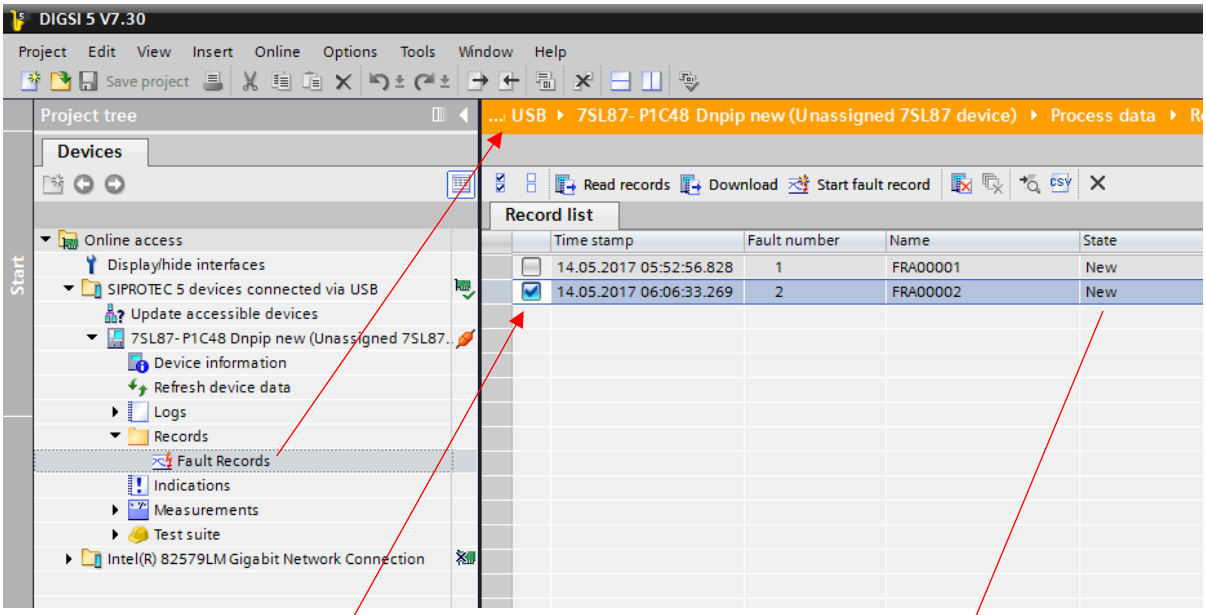
QUICK GUIDE TO: Extracting just a COMTRADE file

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

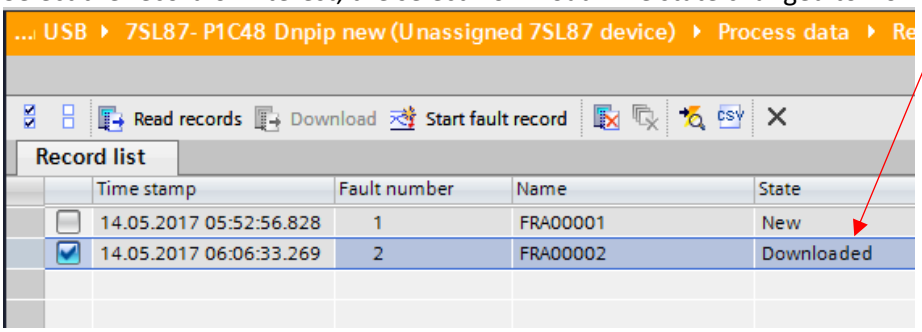
1: Make an online connection (via USB or Ethernet) to the relay

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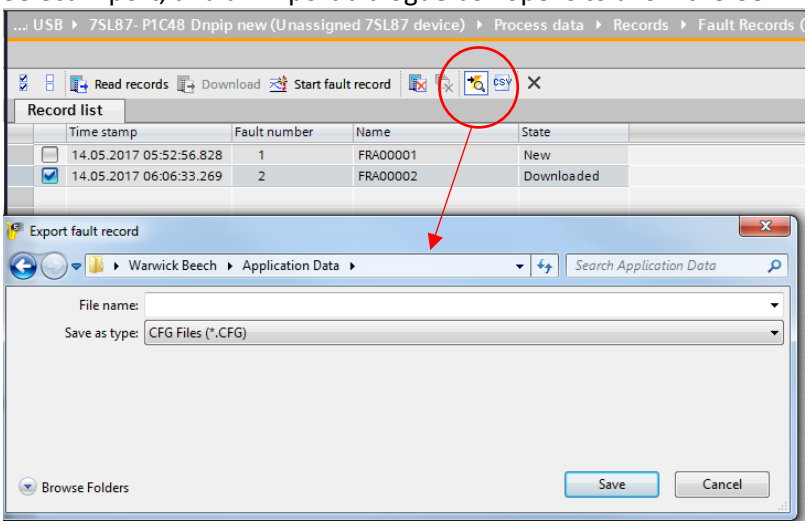
Select Export, and an Export dialogue box opens to allow the COMTRADE file to be saved.



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