Evaluation of the diagnostic buffer

How to find the program location displayed in the diagnostic buffer?
Evaluation of the diagnostic buffer

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For questions regarding this application please contact us at the following e-mail address:

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Qualified personnel

In the sense of this documentation qualified personnel are those who are knowledgeable and qualified to mount/install, commission, operate and
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service/maintain the products which are to be used. He or she must have
the appropriate qualifications to carry-out these activities
e.g.:

- Trained and authorized to energize and de-energize, ground and tag
circuits and equipment according to applicable safety standards.
- Trained or instructed according to the latest safety standards in the care
and use of the appropriate safety equipment.
- Trained in rendering first aid.

There is no explicit warning information in this documentation. However,
reference is made to warning information and instructions in the Operating
Instructions for the particular product.

Reference regarding export codes

AL: N
ECCN: N
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1 Question

How to find the program location displayed in the diagnostic buffer?

2 Solution

This FAQ describes how to find in a diagnostic buffer entry, in the online and offline state, the program location affected in the user program.

2.1 Evaluation in the online state

The procedure is displayed using a sample MCC source. When a problem occurs (CPU stop), open the diagnostic buffer under target devices → System diagnostics.

Double-click the entry affected (here entry 5) to open the program affected and display the program location.
Here, the problem was caused by an MCC program. The block affected is highlighted with a blue border.
2.2 Evaluation in the offline state

As a prerequisite for evaluation, the project which has been processed on the controller must be available offline.

With ST programs, you can identify the program location directly using the line number.

With MCC and LAD/FBD programs, the procedure described here will be helpful using an example. The diagnostic buffer was read out online and stored in a file. The diagnostic buffer file provides the following data for the problem:

Event details: 7 out of 200 : 06:11:30:106 30.06.93
Event ID: 16# F360:BF8D
Additional info 1 / 5: 16# 00 00
Additional info 1 / 2 / 3: 16# 0000 0000 000F
Floating point exception in the user program
Error 11330 BackgroundTask, kfquelle_1, line 32 (kopFup_1): FPU exception
Call stack:Incoming event

The entry shows that the problem has occurred in line 32 of the unit “kfquelle_1” (kfsource) in the program/FB/FC “kopFup_1”.

In a LAD/FBD unit, you cannot directly derive the program location affected from the line number. For this reason, first generate the reference data for the unit stated.
Trigger "generate reference data" for the unit "KFQuelle_1".
The reference data are displayed in a list. We recommend that you sort this list in ascending order, by the column "line/block".

Click on the table line with the program line entry “32” to open the program location.
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Appendix

3 Revision

Table 3-1: Revision/Authors

<table>
<thead>
<tr>
<th>Version</th>
<th>Date/Revision</th>
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4 Contact partners

Application Center

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