

Problem Determination Guide

The items listed below are cross-referenced by Natural for DL/I error messages. They are supplied to advise Natural programmers, DL/I database administrators and system support personnel of actions required to correct a given problem.

This chapter covers the following topics:

- Item 1: Activate Natural Trace Facility for DL/I
 - Item 2: Obtain the Program Listing
 - Item 3: Obtain the View Listing
 - Item 4: Obtain the DBD Macros
 - Item 5: Obtain the PSB Macros
 - Item 6: Obtain the NDB Description Printout
 - Item 7: Obtain the NSB Description Printout
 - Item 8: Obtain the UDF Description Printout
 - Item 9: Obtain a DUMP
 - Item 10: Obtain the NDLPARM Listing
 - Item 11: Obtain the NATDBD Procedure Output
 - Item 12: Obtain the NATPSB Procedure Output
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Item 1: Activate Natural Trace Facility for DL/I

How to activate the Natural trace facility for DL/I:

- **Dynamic trace activation:**

Execute the command NDLTRACE in library SYSDDM as follows:

```
NDLTRACE ON parm1 parm2 parm3
```

Permitted values for trace parameters are either CMD, SER, ROU (according to the specifications in the given error message) or ALL to trace all events of Natural for DL/I.

- **Initial trace activation:**

1. Either code the TRACE parameter in the NDLPARM module according to the specifications in the given error message or specify TRACE=ALL to trace all events of Natural for DL/I.
2. Assemble the NDLPARM module.

3. Link-edit the load module that contains Natural for DL/I.

How to create and display the Natural trace for DL/I:

1. Start the Natural session with DSIZE=64 (or smaller). This is required because the trace data is written into the DSIZE buffer.
2. Activate the trace facility (see above) and specify the following commands:

TEST DBLOG D	Start DBLOG for DL/I.
...	Reproduce your problem here.
TEST DBLOG D	Display the data logged.

Note:

The Natural trace facility for DL/I is available in all Natural for DL/I environments.

Item 2: Obtain the Program Listing

Item 3: Obtain the View Listing

Item 4: Obtain the DBD Macros

Item 5: Obtain the PSB Macros

Item 6: Obtain the NDB Description Printout

To obtain the printout, execute the Natural module NDLBLOCK in the library SYSDDM with the following parameters:

- block type (3 bytes alphanumeric) = NDB
- block name (8 bytes alphanumeric) = *dbd-name*

Item 7: Obtain the NSB Description Printout

To obtain the printout, execute the Natural module NDLBLOCK in the library SYSDDM with the following parameters:

- block type (3 bytes alphanumeric) = NSB
- block name (8 bytes alphanumeric) = *psb-name*

Item 8: Obtain the UDF Description Printout

To obtain the printout, execute the Natural module NDLBLOCK in the library SYSDDM with the following parameters:

- block type (3 bytes alphanumeric) = UDF

-

block name (8 bytes alphanumeric) = *db-id**file-number*

(that is, 3 digits for the database ID, a literal separator "***" and 3 digits for the *file-number*)

Item 9: Obtain a DUMP

Item 10: Obtain the NDLPARM Listing

Item 11: Obtain the NATDBD Procedure Output

Item 12: Obtain the NATPSB Procedure Output