

DBEXPLAIN

INTRINSIC NUMBER 418

Prints a multiline message on the \$STDLIST device which describes a TurboIMAGE/XL procedure call and explains the call's results as recorded in the calling program's status array.

OPENTURBO vs TurboIMAGE Difference

100%.

OPENTURBO Performance Enhancements

In-memory Client or Server message mapping availability.

OPENTURBO Additional Feature

SQL Explain

Syntax

DBEXPLAIN, status

Parameters

status is the name of the array used as the *status* parameter in the TurboIMAGE/XL procedure call about which information is requested.

NOTE The call to DBEXPLAIN must be made immediately after receiving an error status before any other intrinsics are executed to ensure the display of valid messages.

Discussion

Table 5-11. contains the general format for lines 2 through 6 of the message which is sent to \$STDLIST. Elements surrounded by brackets are sometimes omitted. Braces indicate that only one of the choices shown will be printed. Lines 5 and 6 are printed only if, during the preparation of lines 2, 3, and 4, TurboIMAGE/XL detects that the status array contents are invalid, unrecognizable, or incomplete, or if a message must be truncated to fit on a single line.

If the status array contents appear to be the result of something other than a TurboIMAGE/XL procedure call or if the array is used by the called procedure for information other than that discussed here, the second choice for line 3 is printed. This would be the case for a successful call to DBGET, which uses all 10-status elements to return a return status, lengths, and record numbers.

If the status array contains an unrecognized error code, the second line 4 choice is printed. If the return status is greater than or equal to zero, the word ERROR in line 2 is replaced by RESULT because non-negative return statuses indicate success or exceptional conditions, such as end-of-chain. Return status values are explained in appendix A.

You can use the offset information to locate the specific call statement that generated the status array contents if the call is made with a programming language which enables you to determine displacements of program statements or labels within the code. The identity of the code segment is not printed because it cannot be determined by DBEXPLAIN. Therefore, you need to be familiar with the program's

functioning in order to locate the correct call. The offset portion of line 2 is printed only if the status array appears to be set by a TurboIMAGE/XL library procedure call and contains valid offset information.

Table 5-11. DBEXPLAIN Message Format

Line	Format
1	(a blank line)
2	TurboIMAGE{ ERROR RESULT } [AT <i>offset</i>] RETURN STATUS= <i>retstat</i>
3	{ <i>intrinsicname</i> .MODE <i>x</i> ,ON [<i>setname</i> OF] <i>basename</i> [;PASSWORD= <i>password</i>] TurboIMAGE CALL INFORMATION NOT AVAILABLE }
4	{ <i>message</i> UNRECOGNIZED RETURN STATUS: <i>retstat</i> }
5	[HEX DUMP OF STATUS ARRAY FOLLOWS OCTAL DUMP OF STATUS ARRAY FOLLOWS]
6	[<i>hex display</i> <i>octal display</i>]
7	(a blank line)
Parameter	Explanation
<i>offset</i>	The code offset of the TurboIMAGE/XL procedure call in a CM procedure. It is the virtual memory address of the TurboIMAGE/XL procedure call in a NM procedure.
<i>retstat</i>	The return status (from the first element of <i>status</i>) printed as a decimal integer and corresponding to the return statuses described in appendix A.
<i>intrinsicname</i>	The name of the TurboIMAGE/XL library procedure (intrinsic) which was called and which sets the contents of the <i>status</i> array.
<i>x</i>	The value of the <i>mode</i> parameter as a decimal integer.
<i>setname</i>	The value of the second parameter, usually a data set name or number, as passed to the procedure which set the <i>status</i> array contents. The second parameter can be a data item name or number if the procedure in question is DBINFO. If the procedure is DBOPEN, DBLOCK, DBUNLOCK, or certain modes of DBINFO or DBCLOSE, <i>setname</i> is omitted.
<i>password</i>	The word printed at the end of line 3 only if the error relates to the <i>password</i> parameter of DBOPEN.
<i>basename</i>	The database specified in the procedure which was called and set the <i>status</i> array contents.
<i>message</i>	A description of the result based on the condition word and other <i>status</i> array information. The message is generated by the DBERROR procedure which is also described in this chapter. See Table 5-9 for all possible messages returned in line 4.
<i>hex display</i>	A listing of each halfword of <i>status</i> printed as a string of 4 hex digits. Adjacent <i>status</i> elements are separated by a blank and the entire line is 49 characters long. The hex display is generated for NM applications only.
<i>octal display</i>	A listing of each halfword of <i>status</i> printed as a string of 6 octal digits. Adjacent <i>status</i> elements are separated by a blank and the entire line is 49 characters long. The octal display is generated for CM applications only.

Figure 5-1. Contains four examples of messages generated by DBEXPLAIN for a Native Mode application.

Figure 5-1. Sample DBEXPLAIN Messages

```
TURBOIMAGE RESULT AT $0001d76c: RETURN STATUS=0 DBOPEN=intrinsic name
DBOPEN,MODE1, ON ORDERS ORDERS=database name
SUCCESSFUL EXECUTION - NO ERROR NO ERROR=message

TURBOIMAGE ERROR AT $0001d76c: RETURN STATUS=-12
DBPUT,MODE1, ON DATE-MASTER OF ORDERS DATE-MASTER=data set name
DBPUT CALLED WITHOUT COVERING LOCK IN EFFECT

TURBOIMAGE RESULT AT $0001d76c: RETURN STATUS=16
DBPUT,MODE1, ON #1 OF ORDERS #1=data set number
THE DATA SET IS FULL

TURBOIMAGE RESULT: RETURN STATUS=4792
TURBOIMAGE CALL INFORMATION NOT AVAILABLE
UNRECOGNIZED RETURN STATUS: 4792
HEX DUMP OF STATUS ARRAY FOLLOWS:
12b8 0040 0c63 ff82 4d33 02a7 32e8 0000 0000 0000
.....hex display.....
```

Because the application is in Native Mode, the display is in hex. For Compatibility Mode applications, the display is in octal.