

Common ABEND Conditions with LE/VSE

LE/VSE Specific ABEND Codes and Their Possible Causes

Some Language Environment for VSE/ESA (LE/VSE) abend codes like the following might be referenced in LE/VSE error messages (beginning either with 'CEEnnnnn', 'EDCnnnnn', 'IBMnnnnn' or 'IGZnnnnn'), or via CICS error messages (beginning with 'DFHnnnnn'). Further details can be found either in IBM LE/VSE Debugging Guide and Run-Time Messages, SC33-6681, or at the operator console by entering the string CEEABENDC in the command line and entering PF9.

Please note that the error reasons listed here are not exhaustive and should only be used as a guideline.

LE/VSE ABEND	Probable Error Reasons
4034	LE/VSE condition handling was bypassed.
4038	For dynamic calls to AMODE 24 programs under CICS, please ensure LE/VSE run-time options ALL31(OFF) and STACK(4K,4K,BELOW,KEEP) are set. This serves as an indicator to LE/VSE to allow and perform AMODE-switching even if calling such programs from AMODE 31/ANY applications. Note: if applicable, it is recommended to set these options application specific (CEEUOPT). Detailed information about application specific run-time option changes are available in LE/VSE Customization Guide SC33-6682.
4039	On LE/VSE 1.4.1 (VSE/ESA 2.5) and above this ABEND might be caused by usage of LE/VSE run-time option TERMTHDACT(UADUMP) under CICS. However this is no useful setting under LE/CICS nor the system shipped default and may suppress regular CICS transaction dump symptoms. Please ensure a setting of TERMTHDACT(DUMP) for problem determination under CICS.
4042	The application heap data has been corrupted. Reason code 0: The LE/VSE heap checker has detected that heap storage has been corrupted. The message file should contain messages indicating the address and content of the damaged storage area. Reason code 1: An unrecoverable error occurred while the heap checker was attempting to check for or report on heap damage.
4082	This is a second malfunction occurrence.
4083	Back chain (user or system save areas) in error, probably a storage overlay has occurred. For High Level Assembler batch programs calling LE/VSE enabled subroutines the usage of LE/VSE provided Assembler macros can help to honor register conventions. For details please refer to IBM LE/VSE 1.4 Programming Guide, SC33-6684.
4086	Library routine(s) could not be loaded, not enough storage available or phase not found.
4087	A recursive error occurred exceeding the number of nested conditions (maximized via the DEPTHCONDLMT run-time option). Also check on required application compile options (especially RENT for COBOL CICS).

4088	A storage condition has occurred. In case an application fails with a CEE3322C error message and this type of ABEND it is possible that there is not available enough below-the-line partition GETVIS storage. LE/VSE acquires a minimum of 1200k 24-bit partition GETVIS. Please use a larger partition to process jobs or think about customizing your ALLOC/SIZE partition values. Another source of trouble can be applications coded with the GETVIS macro (in order to set up application specific storage areas). Generally saying it is then recommended to use LE callable services instead, as this is much less likely to cause problems.
4091	An unexpected condition has occurred.
4093	Shortage of GETVIS storage below 16MB, consider taking LE/VSE to the SVA. In general this code indicates a problem during LE/VSE initialization. In case you are experiencing: <ul style="list-style-type: none"> • DFH1562 LE FOR VSE/ESA IS BEING INITIALIZED CEE1000S LE/ESA INTERNAL ABEND ABCODE=FFD REASON 28 DFH0401 ABEND 4093 BY III TASK ... it is likely not having specified proper LE/VSE program definitions in CICS CSD file. Please run/rerun skeleton SKLE370 including the necessary LE/VSE module support. • For 4093 RC36 in CICS/VSE coexistence environments please check that CICS CSD file definitions for LE/VSE (group CEE) are matching with the installed LE/VSE release. This particularly may apply when using non-shared CICS CSD files! • For 4093 RC92 please check the language definition in PPT or CICS CSD file. Caution: Be aware that language type definition may default to Assembler!
4094	Termination error. Make sure you have defined LE/VSE destination queues 'CESE' and 'CESO' in your CICS subsystem.
4095	Fatal error in LE/VSE conforming language.

Note: Further references are available in IBM LE/VSE R4 Debugging Guide and Run-Time Messages, SC33-6681.

CICS Specific ABEND Codes Related to LE/VSE and Possible Causes

The following CICS abend codes typically occur in LE/VSE environments, can and might be referred to by CICS and/or LE/VSE. The error codes can also be found in IBM VSE/ESA Messages and Codes.

CICS ABEND	Probable Error Reasons
ACE7	LE/VSE encountered unexpected error in THREAD INIT while trying to run an LE/VSE enabled program.
ACE8	LE/VSE encountered unexpected error in RUNUNIT INIT while trying to run an LE/VSE enabled program.
ACE9	LE/VSE encountered unexpected error in RUNUNIT BEGIN INVOCATION while trying to run an LE/VSE enabled program.
APC2	This may be caused by incorrect specification of CICS translator options. For COBOL/VSE or VS COBOL II, check that XOPTS(COBOL2) or XOPTS(ANSI85) has been specified. For CICS TS environments XOPTS(COBOL3) can be used for COBOL/VSE programs.
APCH	This CICS ABEND may occur if COBOL2=YES has been specified in the CICS/VSE SIT. For COBOL/VSE and VS COBOL II running with LE/VSE under CICS/VSE, COBOL2=NO must be specified.

APCO	<p>Can indicate a lack of storage within the partition while LE/VSE is trying to establish its run-time environment (in particular when involving C support, for example during the CICS startup phase). In such cases increasing the partition ALLOC value can help (due to more GETVIS 31 storage) in MODE=ESA environments. Nevertheless be aware that the partition SIZE value must leave enough partition GETVIS 24 storage (at least around 1200k dedicated to LE/VSE). For CICS partitions a SIZE value around 5-5.5M is a practical value.</p> <p>It is also possible that there has been a request for loading a program larger than 512k (in AMODE 24) which is a restriction in CICS. For details you might like to refer to CICS Application Programming Guide. A general solution can be to put the offending phase(s) into the SVA.</p> <p>For LE/VSE routines eligible for Shared Virtual Area (SVA) please refer to the LE/VSE R4 Customization Guide SC33-6682, Appendix F.</p>
APCS	CICS is unable to make a successful connection to LE/VSE in order to determine run-time characteristics of the application.
APCW	The required level of support for the LE/VSE-enabled COBOL/VSE compiler is not present in the system (it may be that the corresponding LE/VSE run-time library is not connected or installed). Please also check the order of LIBDEF chains (for the application and CICS startup!).
APDA	Any attempt to execute C/370, DOS PL/I, DOS/COBOL or RPG-II applications with AMODE 31 will result in this ABEND type.
APDB	<p>An LE/VSE enabled AMODE 24 application is using LE/VSE run-time options STACK or HEAP requesting more than 65504 bytes of storage below the 16MB line. This is a restriction under CICS/VSE.</p> <p>To avoid the problem, rewrite the application to be 31-bit enabled, or reduce working storage requirements < 64k.</p> <p>This type of problem may occur if LE/VSE on-line applications are linked with user specific run-time options via macro CEEUOPT. This object will then be part of the link step while building the program phase. The macro is used to override installation-wide LE/VSE run-time options.</p> <p>Note: incorrect LIBDEF settings may include a copy of CEEUOPT that is not intended. If in doubt, check for multiple CEEUOPT.OBJ members via the LIBRARIAN SEARCH command.</p>

LE/VSE Return Code "0011060" for CICS in VSE/ESA 2.7 Environments

The following CICS message reference to LE/VSE return code "0011060" might be experienced in VSE/ESA 2.7 environments in case the CEECOPT.A (LE/CICS option source) is assembled without the CEELOPT macro appendix.

DFHAP1200 DBDCCICS A CICS request to the Language Environment for VSE/ESA has failed. Reason code '0011060'.

The event indicates that an invalid CEECOPT.PHASE module was used for LE/CICS initialization. For related relief, simply take the system provided CEEWCOPT skeleton and regenerate CEECOPT.PHASE.

Note:

This setup problem can be indicated via message DFH1568 in CICS/VSE coexistence environments. Other LE/VSE abend codes to CICS are best referred to via IBM LE/VSE Debugging Guide and Run-Time Messages, SC33-6681.

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