

# ACATS Test Modification List

Version 2.6K  
June 7, 2024

## Changes from the last list:

Test CD30005 contained C code that does not have a function prototype. Function prototypes were introduced in ANSI C in 1989, and have been recommended since C99 (not using prototypes has been deprecated in standards since then). Function prototypes will be required in future versions of C, some popular compilers will start rejecting code without prototypes in their next releases.. Virtually any C compiler that one would encounter today would support prototypes, so it is best that the ACATS use them appropriately. Note that implementers are allowed to modify the C code of the ACATS, so in the unlikely event that someone needed to run the ACATS on a compiler that doesn't support prototypes, the extra declaration can be removed. Note that the Ada test file includes a copy of the C code in its comments, so both files of this test have been modified.

Test CXA4001 has been modified to use the results of the function calls @186 and @201, in order to ensure that the functions need to be called.

Many of the tests in ACATS 2.6 are incompatible with Ada 2005. ACATS 2.6 is intended for testing Ada 95 compatibility only; use ACATS 3.1 for testing Ada 2005 and ACATS 4.1 for testing Ada 2012.

No further new tests will be issued for version 2 of the ACATS test suite (future development will be done only on more recent versions). New tests added to the ACATS before October 1, 2023 are now required for conformity assessments. The effective dates of tests are marked in the lists.

Questions about this document? Contact the ACAA Technical Agent at [agent@ada-auth.org](mailto:agent@ada-auth.org).

## List explanation:

Test numbers given are for the basic test. Categories are “Withdrawn” (the test should not be processed for Ada conformity assessments); “Allowed Modification” (either the original test or the modified one should be processed for Ada conformity assessments); “Modified” (the modified test must be processed for Ada conformity assessments); “Pending New” (the test does not need to be processed for Ada conformity assessments, but will be added in the future); “New” (the test is processed for Ada conformity assessments).

ACATS version labels are provided with all new and modified tests. Use this label to retrieve the test from the ACATS VCS. See “How to get new and modified tests”.

In citations, line numbers are given relative to the start of a test file in the format of '@<line#,line#,...>'; if a test program comprises more than one file, then the particular file will be indicated by "fn", where "n" is the test-program name's file-designator numeral. E.g., "B38103E : @f1-31, ..." denotes test file b38103e1.ad. In cases where there are two or more rationales for different errors in a test program, these different rationales with their respective line citations are listed on separate lines. References to the Ada 83 & Ada 95 standards are given in the format:

<section|chapter>.<clause>[.<subclause>]:<paragraph>

These references are to the Ada 95 standard unless “Ada83” is specified.

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## **Main list:**

### **==== Core Language =====**

Name        Category    Version label    (effective date; old version label)  
Short description.

C433001 [Modified] VCS Label: A2\_6D  
Messages @85, 107 should refer to Second\_Component and messages  
@88, 110 should refer to Last\_Component.

C453001 [New] VCS Label: A2\_6F  
[VCS Label A2\_6E] Check that modular adding operators wrap around  
rather than raising Constraint\_Error.  
[VCS Label A2\_6F] Remove with of Ada.Containers and all uses of  
it, as it is an Ada 2005 feature.

C460013 [New] VCS Label: A2\_6A  
Check that null excluding subtypes do not allow null values:  
access parameters. Includes a check for the not null syntax  
as required in Ada 95 by AI-447.

C460014 [New] VCS Label: A2\_6E  
Check that Constraint\_Error is raised appropriately when  
converting access-to-classwide to another access type.

C620001 [New] VCS Label: A2\_6H  
Replaces test C62003A with modern format and additional test  
cases, also removes Ada 2012 incompatibility.

C620002 [New] VCS Label: A2\_6H  
Replaces test C95072A with modern format and additional test  
cases, also removes Ada 2012 incompatibility.

C62003A [Withdrawn] VCS Label: A2\_6E  
Replaced by C620001.

B730013 [New] VCS Label: A2\_6E  
Test operations available for a private type; replaces test  
B74203E.

B74203E [Withdrawn] VCS Label: A2\_6E  
Replaced by B730013.

C761006 [Modified] VCS Label: A2\_6D  
Rewrite test to not fail if the deallocated object is finalized  
twice. (This is allowed by AI95-0179-1.)

C95072A [Withdrawn] VCS Label: A2\_6E  
Replaced by C620002.

BA11007 [Modified] VCS Label: A2\_6G  
Split into six test files to avoid requiring error recovery.

BA1101E [Withdrawn] VCS Label: A2\_6G  
Replaced by BA14001.

BA14001 [New] VCS Label: A2\_6G  
Replaces test BA1101E with modern format and additional test cases for Ada 95 compilation units.

CB41004 [Modified] VCS Label: A2\_6B  
Test case @99-107 should allow Constraint\_Error to be raised, as per the Binding Interpretation AI-446.

BC10001 [New] VCS Label: A2\_6J  
Check that generic formal parts cannot be prepended to task or protected specifications. Replaces BC2001D and BC2001E.

BC2001D [Withdrawn] Org VCS Label: A2\_6J  
Replaced by test BC10001.

BC2001E [Withdrawn] Org VCS Label: A2\_6J  
Replaced by test BC10001.

CD1009A [Withdrawn] VCS Label: A2\_6E  
Has one of the objectives of, and thus redundant with, test CD2A31C (now CD30012).

CD1009B [Withdrawn] VCS Label: A2\_6E  
Has one of the objectives of, and thus redundant with, test CD2A21C (now CD30011).

CD1009L [Withdrawn] VCS Label: A2\_6E  
Virtually identical to, and thus redundant with, test CD2D13A.

CD1009M [Withdrawn] VCS Label: A2\_6E  
Virtually identical to, and thus redundant with, test CD3014C.

CD2A21C [Withdrawn] VCS Label: A2\_6E  
Replaced by CD30011.

CD2A31C [Withdrawn] VCS Label: A2\_6E  
Replaced by CD30012.

CD30005 [Allowed Modification] New VCS Label: A2\_6K Org VCS Label: A2\_6  
Required after 2024-10-01  
Added int to the C function declaration @f0-46 and @f1-51. C function prototypes are required in recent versions of C.

CD30011 [New] VCS Label: A2\_6E  
Merges legacy tests CD1009B and CD2A21C to eliminate duplication (CD1009B has the same objective as one of the objectives of CD2A21C) while adding modern formatting and applicability criteria.

CD30012 [New] VCS Label: A2\_6E  
Merges legacy tests CD1009A and CD2A31C to eliminate duplication (CD1009A has the same objective as one of the objectives of CD2A31C) while adding modern formatting and applicability criteria.

CXA4001 [Allowed Modification] New VCS Label: A2\_6K Org VCS Label: A2\_6

Required after 2024-10-01  
Added uses of Bad\_Map after the function calls @186 and @201 in  
order to ensure that the calls are not omitted.

CXAC005 [Modified] VCS Label: A2\_6A  
The function @114-7 may raise Program\_Error for some  
implementations of Stream\_IO.File\_Type.

CXB3013 [Modified] VCS Label: A2\_6J  
Added "#include <stdlib.h>" @f1:57, as this is required by  
standard C for the call to Malloc.

===== Annex C =====

BXC3002 [Modified] VCS Label: A2\_6D  
Declaration @103 is not illegal as Amendment repealed the relevant  
rule.

BXC6A03 [Modified] VCS Label: A2\_6G  
Removed test case changed by AI05-0218-1.

CXC7001 [Modified] VCS Label: A2\_6B  
Checks at @165 and @177 are backwards.

===== Annex D =====

[None.]

===== Annex E =====

BXE2009 [Modified] VCS Label: A2\_6A  
Package Ada.Finalization @140 is not a "normal" package.

===== Annex F =====

[None.]

===== Annex G =====

[None.]

===== Annex H =====

[None.]

===== Support =====

TCTOUCH.ADA [Modified] VCS Label: A2\_6H  
Added code so that Touch only reports buffer overflow once.

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**How to get new and modified tests:**

The official home of the ACATS test suite is the ACAA web site. The site can be accessed at [www.ada-auth.org](http://www.ada-auth.org).

The complete set of official new and modified tests are available in the Mod\_2\_6K.Zip and Tar files on the ACAA web site.

Individual new and modified tests can be retrieved from the ACATS VCS. Simply navigate to the appropriate directory (folder), and select the test you want. Select the revision you want (usually the most recent) and it will be retrieved for you. Tests are stored in directories that correspond to the test's prefix. For instance, the test CD92001.A will be found in the CD directory. You can also browse the differences between versions of a test. [In case of a conflict, the files in the ACATS VCS should be considered the 'official' versions.]

If you cannot get the files from the official site or you cannot get the files in a format appropriate for your processor, please contact your ACAL.

The baseline ACATS 2.6 is available in various formats on the ACAA web site.

### **Summary lists:**

#### **Withdrawn Tests**

(Refer to the main list for details)

B74203E  
BA1101E  

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BC2001D  
BC2001E  
C62003A  
C95072A  
CD1009A  
CD1009B  
CD1009L  
CD1009M  
CD2A21C  
CD2A31C

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#### **Allowed Modification Tests**

(Refer to the main list for details)

CD30005	2024-10-01
CXA4001	2024-10-01

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#### **Modified Tests**

(Refer to the main list for details)

BA11007  
BXC3002  
BXE2009  
C433001

C761006  
CB41004  
CXAC005  
CXB3013  
CXC6A03  
CXC7001  
TCTOUCH

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### **New Tests**

(Refer to the main list for details)

B730013  
BA14001  
BC10001  
C453001  
C460013  
C460014  
C620001  
C620002  
CD30011  
CD30012

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### **Pending New Tests**

(Refer to the main list for details)

None currently.