

# ACATS Modification List for ACATS 3.1

Version 3.1S

June 13, 2018

## What is this?

This is the ACATS modification list for ACATS 3.1. This document includes test corrections, test removals, and new tests for ACATS 3.1. ACATS 3.1 is the current test suite for the version of Ada that became current with the approval and publication of Amendment 1 by ISO as ISO/IEC 8652:1995/AMD 1:2007 (often known as "Ada 2005").

ACATS Modification List version 2.6G for ACATS 2.6 is the current list for that test suite. ACATS 2.6 should be used for testing Ada 95 implementations, and will continue to be maintained as necessary for the foreseeable future.

ACATS Modification List version 4.1H is the current list for ACATS 4.1. ACATS 4.1 should be used for testing the third edition of Ada, ISO/IEC 8652:2012 (usually known as "Ada 2012").

## Changes from the last list:

Modified the grading criteria for test B740003 to note that processing the main subprogram is optional.

New test B853001 checks that renamed limited views are not used in a unit that doesn't **with** the original package.

New test B854002 checks that null exclusions match properly in subprogram renaming.

New test BA12018 checks that names that are mentioned but not named in a private with are also private.

New tests BC40003, BC54004, and BC60005 check that null exclusions match properly in a generic instantiation.

Support file Tctouch.Ada was modified to avoid reporting Trace Overflow more than once (if a compiler bug causes Touch to be called thousands of times, the result files were unmanageable).

New tests posted between April 1, 2018 and June 30, 2018 will become required for conformity assessments on January 1, 2019. New tests posted between January 1, 2018 and March 31, 2018 will become required for conformity assessments on October 1, 2018. New tests posted between October 1, 2017 and December 31, 2017 will become required for conformity assessments on July 1, 2018. New tests posted before October 1, 2017 are 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).

## Ada 2012 compatibility:

This test suite is designed for Ada 2005. ACATS 4.1 should be used to test Ada 2012 implementations. There are a significant number of tests in ACATS 3.1 that are incompatible with the requirements of Ada 2012.

## Notice:

The ACAA has created and maintains the Ada Conformity Assessment Test Suite for the purpose of conformity assessments conducted in accordance with the International Standard ISO/IEC 18009 - Ada:

Conformity assessment of a language processor. This test suite should not be used to make claims of conformance unless used in accordance with ISO/IEC 18009 and any applicable ACAA procedures.

**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.ada. 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 standards are given in the format:

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

These references are to the consolidated Ada standard as available at <http://www.adaic.org/resources/add-contentstandards/05rm/html/RM-TOC.html>.

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**Main list:**

==== Core Language =====

Name	Category	Version label	(effective date; old version label)
C352001	[Modified]	VCS Label: A3_1Q	Corrected Failed message @267 to reflect intended result.
B354002	[New]	VCS Label: A3_1Q	Test basic requirements for the Mod attribute.
C354004	[New]	VCS Label: A3_1Q	Test basic operation of the Mod attribute.
B37309B	[Allowed Modification]	New VCS Label: A3_1R	Org VCS Label: A3_1 Required after 2018-07-01 Added additional error locations to directly support common error reporting strategies.
B37310B	[Allowed Modification]	New VCS Label: A3_1R	Org VCS Label: A3_1 Required after 2018-07-01 Added additional error locations to directly support common error reporting strategies.

B37311A [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B38003D [Modified] VCS Label: A3\_1M  
Corrected error tags @70,76,82,88 so "optional" and "error" are on the same line, as required by the test standards.

B38105A [Withdrawn] Org VCS Label: A3\_1B  
Replaced by tests B3A1007 and B3A1A05 (and existing tests B3A1A01 and B3A1A02).

C390012 [New] VCS Label: A3\_1J  
Check the operation of Ada.Tags.Generic\_Dispatching\_Constructor.

C391003 [New] VCS Label: A3\_1F  
[VCS Label A3\_1E] Check that a type extension can be declared in a more nested scope than its parent type, and that overridden subprograms of that extension can be dispatched to.  
[VCS Label A3\_1F] Eliminated an overlong line.

B392002 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Revised to use Possible Error tags, and added error location indicators.

B392003 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B392004 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B392005 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Revised to use Possible Error tags, and added error location indicators.

B393001 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B393005 [Modified] VCS Label: A3\_1B  
Declaration @114 is illegal because it inherits an abstract function that is not overridden, as described in AI05-0097-1.

B393007 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies. Fixed overlong lines.

B393010 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1

Required after 2018-07-01

Added additional error locations to directly support common error reporting strategies. Fixed overlong lines.

- B393011 [New] VCS Label: A3\_1E  
Check that an abstract routine of an abstract partial view overridden by a non-abstract routine in the private part requires overriding when it is inherited if the private part is not visible where it is inherited.
- C3A0030 [New] VCS Label: A3\_1L  
Check that an access discriminant is only null excluding if it includes a null exclusion.
- B3A1001 [Modified] VCS Label: A3\_1M  
[VCS Label A3\_1B] Type UT1 @78 is supposed to be tagged incomplete, else it's the same as type U1.  
[VCS Label A3\_1M] Split Pack6 so possible error sets don't intersect; fixed overlong lines.
- B3A1002 [Modified] VCS Label: A3\_1M  
[VCS Label A3\_1B] Type UT1 @77 is supposed to be tagged incomplete, else it's the same as type U1.  
[VCS Label A3\_1M] Split Pack6 so possible error sets don't intersect; fixed overlong lines.
- C3A1003 [New] VCS Label: A3\_1E  
Check that a dereference of an access-to-tagged-incomplete type can be passed as a parameter.
- C3A1004 [New] VCS Label: A3\_1E  
Check that a parameter of a tagged incomplete type can be passed as a parameter.
- B3A1007 [New] VCS Label: A3\_1B  
Check that constraints and exclusions aren't allowed on an incomplete type in access type and subtype declarations.
- B3A1008 [New] VCS Label: A3\_1F  
[VCS Label A3\_1E] Check that a dereference of an access-to-incomplete type cannot be used as a prefix.  
[VCS Label A3\_1F] Eliminated overlong lines.
- B3A1009 [New] VCS Label: A3\_1F  
[VCS Label A3\_1E] Check that a dereference of an access-to-incomplete view cannot be used as a prefix. Check that a parameter of an incomplete view cannot be used as a prefix.  
[VCS Label A3\_1F] Eliminated overlong lines.
- B3A1A05 [New] VCS Label: A3\_1B  
Check that generic formal objects cannot be declared with an incomplete view.
- C3A2004 [New] VCS Label: A3\_1D  
Check that the type of the prefix of 'Access is used to resolve the expected type of the use of the attribute.

B3A2007 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B3A2008 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B3A2009 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Removed tabs to meet test format standards; added error location indicators.

B3A2011 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B3A2012 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B3A2016 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B3A2017 [New] VCS Label: A3\_1F  
[VCS Label A3\_1D] Check P'Access is not allowed in a generic body if P is declared in the generic (including in the parent of a child or in a formal package) and the access type is a formal type or outside of the generic.  
[VCS Label A3\_1F] Eliminated overlong lines.

B431006 [New] VCS Label: A3\_1D  
Check that if a variant part is not nested in an unselected variant, the value of the governing discriminant of a variant in a record aggregate cannot be non-static.

B43102A [Withdrawn] VCS Label: A3\_1D  
Replaced by B431006.

C453001 [New] VCS Label: A3\_1Q  
Check that modular adding operators wrap around rather than raising Constraint\_Error.

B455002 [Modified] VCS Label: A3\_1M  
Corrected casing of error tags and fixed overlong lines.

C460014 [New] VCS Label: A3\_1P  
Check that Constraint\_Error is raised appropriately when converting access-to-classwide to another access type.

C460015 [New] VCS Label: A3\_1P

Check that Constraint\_Error is raised appropriately when converting access-to-limited-classwide to another access type.

C480001 [New] VCS Label: A3\_1Q

[VCS Label A3\_1L] Check that an initialized allocator for a class-wide type does an accessibility check on the tag of the initializing object.

[VCS Label A3\_1Q] Changed mode to "in" (instead of "in out") @103 & 144 as those parameters are used in functions, making that an Ada 2012 feature, and this is an Ada 2005 test.

B480002 [New] VCS Label: A3\_1F

[VCS Label A3\_1E] Check that an initialized allocator for an access type with a class-wide designated type does not create an object whose type is more local than the access type.

[VCS Label A3\_1F] Eliminate overlong lines and tab characters.

B480003 [New] VCS Label: A3\_1L

[VCS Label A3\_1E] Check that an uninitialized allocator for an access type with a class-wide designated type does not create an object whose type is more local than the access type.

[VCS Label A3\_1F] Eliminate overlong lines and tab characters.

[VCS Label A3\_1L] Corrected test objective and test description; the test code is unmodified.

B480004 [Pending New] New VCS Label: A3\_1R

Required after 2018-10-01

Check that an allocator is illegal if the access type has a Storage\_Size that is statically zero.

B4A010C [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1

Required after 2018-07-01

Added additional error locations to directly support common error reporting strategies.

C52101A [Modified] VCS Label: A3\_1M

Corrected comment @49 not to have the form of an error tag.

B540002 [New] VCS Label: A3\_1B

Check that case statement coverage rules are enforced for modular types.

B540002 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1B

Required after 2018-07-01

Added additional error locations to directly support common error reporting strategies.

C540002 [New] VCS Label: A3\_1B

[VCS Label A3\_1B] Check that the selecting\_expression of a case statement can be resolved using the requirement that it be any discrete type.

[VCS Label A3\_1F] Eliminated overlong lines.

B54B01B [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1

Required after 2018-07-01

Added additional error locations to directly support common error reporting strategies.

B54B01C [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B54B02B [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B54B02C [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B54B02D [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B54B04A [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B54B04B [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B54B05A [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B55B12B [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

B55B12C [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Added additional error locations to directly support common error reporting strategies.

C620001 [New] VCS Label: A3\_1B  
Check that elementary types are passed by-copy.

B62001C [Modified] VCS Label: A3\_1M  
Changed error @35 to be optional, as the syntax error @33 is required (and the comment that only one error need be detected is bogus).

B62001D [Modified] VCS Label: A3\_1M  
Changed error @41 to be optional, as the syntax error @33 is required (and the comment that only one error need be detected is

bogus).

C62003A [Withdrawn] Org VCS Label: A3\_1B  
Replaced by test C620001.

B640001 [New] VCS Label: A3\_1F  
[VCS Label A3\_1D] Check that abstract nondispatching operations do not participate in resolution.  
[VCS Label A3\_1F] Eliminate overlong lines and tab characters.

C640002 [New] VCS Label: A3\_1F  
[VCS Label A3\_1D] Check that an abstract nondispatching operator provides a way to eliminate an unwanted predefined operator.  
[VCS Label A3\_1F] Eliminate overlong lines.

B65005A [Modified] VCS Label: A3\_1P  
Added additional error locations to directly support common error reporting strategies.

B65005B [Modified] New VCS Label: A3\_1P  
Added additional error locations to directly support common error reporting strategies.

B651001 [New] VCS Label: A3\_1Q  
Check that a return statement cannot apply to a nonreturning procedure, and that a renames-as-body of a nonreturning procedure has to be a nonreturning procedure (pragma No\_Return version).

C651001 [New] VCS Label: A3\_1Q  
Check that a nonreturning procedure can raise an exception and raises Program\_Error otherwise (pragma No\_Return version).

C660001 [New] VCS Label: A3\_1B  
Check that a matching "/=" is defined for an explicitly declared "=" operator with a result of Boolean.

B730006 [Modified] VCS Label: A3\_1P  
Corrected format of error tags; added location indicators.

B730008 [New] VCS Label: A3\_1A  
Check that a tagged partial view and its completion must have the same set of interfaces.

B730009 [New] VCS Label: A3\_1F  
[VCS\_Label A3\_1A] Check that a tagged partial view can be synchronized if and only if the completion is a synchronized type.  
[VCS Label A3\_1F] Completion of Priv12 @131 violates 7.3(10.1/3).

B730010 [New] VCS Label: A3\_1F  
Check 7.3(10.1/3).

B730011 [New] VCS Label: A3\_1P  
Test various rules about completions of private types and extensions; replaces test B74001A.

B730012 [New] VCS Label: A3\_1P  
Test various rules about completions of private types and



extensions in generic units; replaces test B74001B.

B730013 [New] VCS Label: A3\_1Q

Test operations available for a private type; replaces test B74203E.

B73001A [Modified] VCS Label: A3\_1P

Added additional error locations to directly support common error reporting strategies.

B73001B [Modified] VCS Label: A3\_1P

Added additional error locations to directly support common error reporting strategies.

B73001C [Modified] VCS Label: A3\_1P

Added additional error locations to directly support common error reporting strategies.

B73001D [Modified] VCS Label: A3\_1P

Added additional error locations to directly support common error reporting strategies.

B73001E [Modified] VCS Label: A3\_1P

Added additional error locations to directly support common error reporting strategies.

B73001F [Modified] VCS Label: A3\_1P

Added additional error locations to directly support common error reporting strategies.

B73001G [Modified] VCS Label: A3\_1P

Added additional error locations to directly support common error reporting strategies.

B73001H [Modified] VCS Label: A3\_1P

Added additional error locations to directly support common error reporting strategies.

B740003 [Modified] VCS Label: A3\_1M

[VCS Label A3\_1M] Modified criteria @75 so that it doesn't look like an error tag to the grading tools; also fixed an overlong line.

B740003 [Allowed Modification] New VCS Label: A3\_1S Org VCS Label: A3\_1M  
Required after 2018-10-01

[VCS Label A3\_1S] Modified grading to document that processing the main is optional. Added error location indicators.

B74001A [Withdrawn] VCS Label: A3\_1P

Replaced by B730011.

B74001B [Withdrawn] VCS Label: A3\_1P

Replaced by B730012.

B74203E [Withdrawn] VCS Label: A3\_1Q

Replaced by B730013.

B750A01 [Modified] VCS Label: A3\_1J  
The qualification @129 should be for Lim\_Ext, not Lim\_Rec.

B750A02 [Modified] VCS Label: A3\_1J  
The qualification @131 should be for Lim\_Ext, not Lim\_Rec.

B750A04 [New] VCS Label: A3\_1J  
Check that only legal expressions are allowed in the qualified expression of an allocator for a limited object.

B750A06 [New] VCS Label: A3\_1J  
Check that only legal expressions are allowed in the expression of a simple return statement for a function that returns a limited type.

C760015 [New] VCS Label: A3\_1L  
[VCS Label A3\_1E] Check that a controlled type can be declared within a subprogram.  
[VCS Label A3\_1F] Eliminated overlong lines.  
[VCS Label A3\_1L] Corrected one of the potential results for Subtest2(4) to be "Iafcf", not "IafcF".

C760A02 [Pending New] New VCS Label: A3\_1R  
Required after 2018-10-01  
Checks that functions that return immutably limited types are built-in-place.

B83027B [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
The discriminant @90 needs a default expression as all or none of the discriminants of a type need defaults. Also added error location indicators.

B83027D [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Corrected bad error tag, and added error location indicators.

B83E01B [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Removed possible error cascades, reformatted some error tags, and added error location indicators.

B831004 [New] VCS Label: A3\_1G  
Check that overriding indicators are properly enforced for types derived from a generic formal type. (Nested generic specification cases.)

B83F02C [Modified] VCS Label: A3\_1M  
Updated many optional error markers to match ACATS standards.

B840002 [New] VCS Label: A3\_1G  
Check a package use clause cannot denote a limited view or a non-package.

B853001 [Pending New] New VCS Label: A3\_1S  
Required after 2019-01-01  
Checks that a renamed limited view cannot be used where there is

not a with for the original package.

- B854002 [Pending New] New VCS Label: A4\_1H  
Required after 2019-01-01  
When parameter or result has a null exclusion for a subprogram rename, check that the subtype of the corresponding parameter or result of the renamed subprogram must exclude null.
- B91003A [Modified] VCS Label: A3\_1P  
Added additional error locations to directly support common error reporting strategies.
- B91003B [Modified] VCS Label: A3\_1P  
Added additional error locations to directly support common error reporting strategies.
- B91003C [Modified] VCS Label: A3\_1P  
Added additional error locations to directly support common error reporting strategies.
- B91003D [Modified] VCS Label: A3\_1P  
Added additional error locations to directly support common error reporting strategies.
- C920001 [New] VCS Label: A3\_1B  
Check activation (and non-activation) of tasks declared as (part of) return objects in extended return statements.
- B940003 [Modified] VCS Label: A3\_1P  
Added additional error locations to directly support common error reporting strategies.
- B940004 [Modified] VCS Label: A3\_1P  
Split into 8 files; added location indicators.
- B95007B [Modified] VCS Label: A3\_1M  
Fixed error markers @62,66,70 to match ACATS standards.
- BA1001D [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Revised to mark the main subprogram as optional, as it is not necessary to check the test objective. Added error location indicators.
- BA1020F [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Revised to mark the main subprogram as optional, as it is not necessary to check the test objective. Added error location indicators.
- BA11007 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Split into six test files to avoid requiring error recovery.
- BA11013 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Revised to make processing the last compilation unit optional,

as it is not necessary to check the test objective. Added error location indicators.

BA1101E [Withdrawn] Org VCS Label: A3\_1R  
Replaced by test BA14001.

BA12010 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Revised to use Possible Error tags, and added error location indicators.

BA12017 [New] VCS Label: A3\_1F  
[VCS Label A3\_1D] Check that a limited with clause is not allowed on a descendant of the named package.  
[VCS Label A3\_1F] Eliminated overlong line.

BA12018 [Pending New] New VCS Label: A3\_1S  
Required after 2019-01-01  
Check that names mentioned but not named in a private with are also treated as privately withed.

BA14001 [Pending New] New VCS Label: A3\_1R  
Required after 2018-10-01  
Replaces test BA1101E with modern format and additional test cases for Ada 95 compilation units.

BA14002 [Pending New] New VCS Label: A3\_1R  
Required after 2018-10-01  
Similar to BA14001, testing private with.

BA14003 [Pending New] New VCS Label: A3\_1R  
Required after 2018-10-01  
Checks that a unit is illegal if it depends on two versions of the same unit.

BA15003 [New] VCS Label: A3\_1D  
Check that a library unit pragma must apply to a library unit.

CB30001 [New] VCS Label: A3\_1C  
Check that the optional message parameter is supported in a raise statement, and that the message can be retrieved with Exception\_Message.

BB42001 [New] VCS Label: A3\_1L  
Check that the arguments of a pragma Assert have to have the correct types.

CB42001 [New] VCS Label: A3\_1L  
Check the usual operation of pragma Assert, including the optional message.

BB42002 [New] VCS Label: A3\_1L  
Check that the arguments of a pragma Assert cannot be reordered even if named notation is used.

CB42002 [New] VCS Label: A3\_1L  
Check that if the assertion policy is Ignore, none of the

expressions of a pragma Assert are evaluated and no exception is raised by the pragma.

BB42003 [New] VCS Label: A3\_1L

Check that a pragma Assertion\_Policy is illegal if the policy is not recognized.

CB42003 [New] VCS Label: A3\_1L

Check that procedure Ada.Assertions.Assert evaluates its arguments and raises Assertion\_Error regardless of the assertion policy.

CC30003 [Modified] VCS Label: A3\_1F

Eliminated overlong lines.

CC30004 [New] VCS Label: A3\_1F

[VCS Label A3\_1B] Check that if a generic actual type is elementary, it is passed by copy within an instance.

[VCS Label A3\_1F] Eliminated overlong lines and tab characters.

CC3017C [Withdrawn] Org VCS Label: A3\_1B

Replaced by test CC30004.

BC40003 [Pending New] New VCS Label: A3\_1S

Required after 2019-01-01

Checks that the subtype of the actual for a generic formal object with a null exclusion must exclude null.

BC51016 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1

Required after 2018-07-01

Corrected bad error tag, and added error location indicators.

BC54004 [Pending New] New VCS Label: A3\_1S

Required after 2019-01-01

Checks that the null exclusion of the formal type and of the actual subtype for a generic formal access type must match.

BC60001 [New] VCS Label: A3\_1D

Test rules associated with formal subprogram defaults of null.

CC60001 [New] VCS Label: A3\_1H

Check that calls on a formal abstract subprogram are dispatching.

BC60002 [New] VCS Label: A3\_1H

Test rules associated with the controlling type of a formal abstract subprogram.

BC60004 [New] VCS Label: A3\_1H

Check that a call on a formal abstract subprogram must be dispatching.

BC60005 [Pending New] New VCS Label: A3\_1S

Required after 2019-01-01

Checks that the subtype of a parameter or result of the actual subprogram for a generic formal subprogram where the corresponding parameter or result has a null exclusion must exclude null.

CD1009A [Withdrawn] VCS Label: A3\_1Q

Has one of the objectives of, and thus redundant with, test CD2A31C (now CD30012).

CD1009B [Withdrawn] VCS Label: A3\_1Q

Has one of the objectives of, and thus redundant with, test CD2A21C (now CD30011).

CD1009L [Withdrawn] VCS Label: A3\_1Q

Virtually identical to, and thus redundant with, test CD2D13A.

CD1009M [Withdrawn] VCS Label: A3\_1Q

Virtually identical to, and thus redundant with, test CD3014C.

CD2A21C [Withdrawn] VCS Label: A3\_1Q

Replaced by CD30011.

CD2A31C [Withdrawn] VCS Label: A3\_1Q

Replaced by CD30012.

CD30008 [New] VCS Label: A3\_1K

Renaming of previous test CD33001 (there is no subclause 13.3.3). The test is unchanged other than renaming the units involved and fixing an overlong line.

CD30009 [New] VCS Label: A3\_1K

Renaming of previous test CD33002 (there is no subclause 13.3.3). The test is unchanged other than renaming the units involved and fixing an overlong line.

CD30011 [New] VCS Label: A3\_1Q

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: A3\_1Q

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.

CD33001 [Withdrawn] VCS Label: A3\_1K

Renamed to CD30008, as there is no subclause 13.3.3.

CD33002 [Withdrawn] VCS Label: A3\_1K

Renamed to CD30009, as there is no subclause 13.3.3.

BD4003A [Modified] VCS Label: A3\_1M

Moved error marker from @66 to @67 so it is on the incorrect construct.

BDB0A01 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01

Revised to use Possible Error tags, and added error location indicators.

BDD2003 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1

Required after 2018-07-01

Added additional error locations to directly support common error reporting strategies.

- BDD2004 [New] VCS Label: A3\_1F  
[VCS Label A3\_1A] Check that subprograms specified for stream attributes meet the requirements for such subprograms. This version corrects the location of 'Class @230, 235, 240.
- CXA4037 [New] VCS Label: A3\_1G  
Check Ada.Strings.Fixed.Find-Token against rule from 2001 Corrigendum.
- CXA5016 [New] VCS Label: A3\_1F  
[VCS Label A3\_1D] Check operation of attribute Machine\_Rounding.  
[VCS Label A3\_1F] Eliminated overlong lines.
- CXAA021 [New] VCS Label: A3\_1D  
Check file operations of Text\_IO.Bounded\_IO.
- CXAA022 [New] VCS Label: A3\_1D  
Check file operations of Text\_IO.Unbounded\_IO.
- CXAB002 [New] VCS Label: A3\_1D  
Check file operations of Wide\_Text\_IO.Wide\_Bounded\_IO.
- CXAB003 [New] VCS Label: A3\_1D  
Check file operations of Wide\_Wide\_Text\_IO.Wide\_Wide\_Bounded\_IO.
- CXAB004 [New] VCS Label: A3\_1D  
Check file operations of Wide\_Text\_IO.Wide\_Unbounded\_IO.
- CXAB005 [New] VCS Label: A3\_1D  
Check file operations of Wide\_Wide\_Text\_IO.Wide\_Wide\_Unbounded\_IO.
- CXAC008 [New] VCS Label: A3\_1J  
[VCS Label A3\_1D] Check that Stream\_IO files opened with mode Out\_File are not truncated by Close or Reset.  
[VCS Label A3\_1E] Corrected required file size in subtest 8, and various failure messages.  
[VCS Label A3\_1F] Eliminated overlong lines.  
[VCS Label A3\_1J] Corrected a failure message.
- CXAG001 [New] VCS Label: A3\_1F  
Check that Ada.Directories can be used to create and delete directories.
- CXAH001 [New] VCS Label: A3\_1F  
[VCS Label A3\_1E] Test that package Environment\_Variables can be used to read environment variables.  
[VCS Label A3\_1F] Added missing Applicability Criteria.
- CXAH002 [New] VCS Label: A3\_1F  
[VCS Label A3\_1E] Test that package Environment\_Variables can be used to modify environment variables.  
[VCS Label A3\_1F] Added missing Applicability Criteria.

CXAI001 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Vectors.

CXAI002 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Doubly\_Linked\_Lists.

CXAI003 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Hashed\_Maps.

CXAI004 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Ordered\_Maps.

CXAI005 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Hashed\_Sets.

CXAI006 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Ordered\_Sets.

FXAIA00 [New] VCS Label: A3\_1A  
Foundation containing types and values to be used to check the functionality of the indefinite containers.

CXAIA01 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Indefinite\_Vectors.

CXAIA02 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Indefinite\_Doubly\_Linked\_Lists.

CXAIA03 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Indefinite\_Hashed\_Maps.

CXAIA04 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Indefinite\_Ordered\_Maps.

CXAIA05 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Indefinite\_Hashed\_Sets.

CXAIA06 [New] VCS Label: A3\_1A  
Check the functionality defined in package Ada.Containers.Indefinite\_Ordered\_Sets.

CXB3017 [New] VCS Label: A3\_1B  
Check that pragma Export can be used on subprograms and objects.

CXB3023 [New] VCS Label: A3\_1M  
[VCS Label A3\_1K] Check that a value of an unchecked union type (defined with pragma Unchecked\_Union) can be passed to a C



function.

[VCS Label A3\_1M] Added missing N/A => ERROR markers.

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

BXC6A03 [Allowed Modification] New VCS Label: A3\_1R Org VCS Label: A3\_1  
Required after 2018-07-01  
Removed test case changed by AI05-0218-1.

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

CXD2007 [Modified] VCS Label: A3\_1P  
Added missing N/A => Error tag.

LXD7001 [Modified] VCS Label: A3\_1P  
Added missing error tag.

LXD7003 [Modified] VCS Label: A3\_1P  
Added missing error tag.

LXD7004 [Modified] VCS Label: A3\_1P  
Added missing error tag.

LXD7005 [Modified] VCS Label: A3\_1P  
Added missing error tag.

LXD7006 [Modified] VCS Label: A3\_1P  
Added missing error tag.

LXD7007 [Modified] VCS Label: A3\_1P  
Added missing error tag.

LXD7008 [Modified] VCS Label: A3\_1P  
Added missing error tag.

LXD7009 [Modified] VCS Label: A3\_1P  
Added location indicators.

CXDB001 [Modified] VCS Label: A3\_1P  
Added missing N/A => Error tag.

CXDB002 [Modified] VCS Label: A3\_1P  
Added missing N/A => Error tag.

CXDB003 [Modified] VCS Label: A3\_1P  
Added missing N/A => Error tag.

CXDB004 [Modified] VCS Label: A3\_1P  
Added missing N/A => Error tag.

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

[None.]

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

[None.]

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

CXG2001 [Modified] VCS Label: A3\_1B  
Formula for Model\_Mantissa was replaced in Ada 2005 (and really in the Corrigendum), but was never updated in this test. This only affects machines with decimal floating point.

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Annex H  
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LXH4001 [Modified] VCS Label: A3\_1P  
Corrected format of error tag; added location indicators.

LXH4003 [Modified] VCS Label: A3\_1P  
Corrected format of error tag; added location indicators.

LXH4006 [Modified] VCS Label: A3\_1P  
Added missing error tags.

LXH4009 [Modified] VCS Label: A3\_1P  
Added missing error tags.

LXH4013 [Modified] VCS Label: A3\_1P  
Added missing error tags.

LXH4014 [Modified] VCS Label: A3\_1P  
Added missing error tags.

=====  
Support  
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IMPDEF [Modified] VCS Label: A3\_1K  
[VCS Label A3\_1B] Added constants for the external names for the imported and exported routines in test CXB3017. The change is only needed for that test, it has no effect on any other test.  
[VCS Label A3\_1E] Added constants for the names of environment variables used by tests CXAH001 and CXAH002. Also removed obsolete .AW file constants (these are not used as test source has been provided in UTF-8 format since the release of ACATS 3.0). The change is only needed for those tests, it has no effect on any other tests.  
[VCS Label A3\_1F] Added a constant and function used by test CXAG001. The change is only needed for that test, it has no effect on any other tests.  
[VCS Label A3\_1K] Added constants for the external name for the imported routine in test CXB3023. The change is only needed for that test, it has no effect on any other test.

TCTOUCH.ADA [Allowed Modification] New VCS Label: A3\_1D Org VCS Label: A3\_1  
Required after 2018-10-01  
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. It also 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\_3\_1S.Zip and Tar files on the ACAA web site. As always, when a multi-file test is modified, we provide all of the files, including the unmodified files.

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 3.1 is available in various formats on the ACAA web site.

### **Summary lists:**

#### **Withdrawn Tests**

(Refer to the main list for details)

B38105A  
B43102A  
B74001A  
B74001B  
B74203E  
BA1101E  
C62003A  
CC3017C  
CD1009A  
CD1009B  
CD1009L  
CD1009M  
CD2A21C  
CD2A31C  
CD33001  
CD33002

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#### **Allowed Modification Tests**

(Refer to the main list for details)

B37309B	2018-07-01
B37310B	2018-07-01
B37311A	2018-07-01
B392002	2018-07-01
B392003	2018-07-01
B392004	2018-07-01
B392005	2018-07-01

B393001	2018-07-01	
B393007	2018-07-01	
B393010	2018-07-01	
B3A2007	2018-07-01	
B3A2008	2018-07-01	
B3A2009	2018-07-01	
B3A2011	2018-07-01	
B3A2012	2018-07-01	
B3A2016	2018-07-01	
B4A010C	2018-07-01	
B540001	2018-07-01	[VCS Label A3_1R]
B54B01B	2018-07-01	
B54B01C	2018-07-01	
B54B02B	2018-07-01	
B54B02C	2018-07-01	
B54B02D	2018-07-01	
B54B04A	2018-07-01	
B54B04B	2018-07-01	
B54B05A	2018-07-01	
B55B12B	2018-07-01	
B55B12C	2018-07-01	
B740003	2018-10-01	[VCS Label A3_1S]
B83027B	2018-07-01	
B83027D	2018-07-01	
B83E01B	2018-07-01	
BA1001D	2018-07-01	
BA1020F	2018-07-01	
BA11007	2018-07-01	
BA11013	2018-07-01	
BA12010	2018-07-01	
BC51016	2018-07-01	
BDB0A01	2018-07-01	
BDD2003	2018-07-01	
BXC6A03	2018-07-01	
TCTOUCH	2018-10-01	

### Modified Tests

(Refer to the main list for details)

B38003D  
B393005  
B3A1001  
B3A1002  
B455002  
B62001C  
B62001D  
B65005A  
B65005B  
B730006  
B73001A  
B73001B  
B73001C  
B73001D  
B73001E

B73001F  
B73001G  
B73001H  
B740003 [VCS Label A3\_1M]  
B750A01  
B750A02  
B83F02C  
B91003A  
B91003B  
B91003C  
B91003D  
B940003  
B940004  
B95007B  
BD4003A  
BDD2004  
C352001  
C52101A  
C540002  
CC30003  
CXD2007  
CXDB001  
CXDB002  
CXDB003  
CXDB004  
CXG2001  
IMPDEF [VCS A3\_1K]  
LXD7001  
LXD7003  
LXD7004  
LXD7005  
LXD7006  
LXD7007  
LXD7008  
LXD7009  
LXH4001  
LXH4003  
LXH4006  
LXH4009  
LXH4013  
LXH4014

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### **New Tests**

(Refer to the main list for details)

B354002  
B393011  
B3A1007  
B3A1008  
B3A1009  
B3A1A05  
B3A2017

B431006  
B480002  
B480003  
B540002 [VCS Label A3\_1B]  
B640001  
B651001  
B730008  
B730009  
B730010  
B730011  
B730012  
B730013  
B750A04  
B750A06  
B831004  
B840002  
BA12017  
BA15003  
BB42001  
BB42002  
BB42003  
BC60001  
BC60002  
BC60004  
BDD2004  
C354004  
C390012  
C391003  
C3A0030  
C3A1003  
C3A1004  
C3A2004  
C453001  
C460014  
C460015  
C480001  
C540001  
C620001  
C640002  
C651001  
C660001  
C760015  
C920001  
CB30001  
CB42001  
CB42002  
CB42003  
CC30004 [VCS Label A3\_1F]  
CC60001  
CD30008  
CD30009  
CD30011  
CD30012  
CXA4037  
CXA5016  
CXAA021  
CXAA022

CXAB002  
CXAB003  
CXAB004  
CXAB005  
CXAC008  
CXAG001  
CXAH001  
CXAH002  
CXAI001  
CXAI002  
CXAI003  
CXAI004  
CXAI005  
CXAI006  
CXAIA01  
CXAIA02  
CXAIA03  
CXAIA04  
CXAIA05  
CXAIA06  
CXB3017  
CXB3023  
FXAIA00

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**Pending New Tests**

(Refer to the main list for details)

B480004	2018-10-01
B853001	2019-01-01
B854002	2019-01-01
BA12018	2019-01-01
BA14001	2018-10-01
BA14002	2018-10-01
BA14003	2018-10-01
BC40003	2019-01-01
BC54004	2019-01-01
BC60005	2019-01-01
C760A02	2018-10-01