

# ACATS Modification List for ACATS 3.1

Version 3.1W

June 28, 2019

## 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 4.1M 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:

Various tests changed status on April 1<sup>st</sup>. See the list for details.

Created new tests B940008, B940009, B940010, B940011, and B952005 to check various legality rules associated with "implementing" protected operations. Created new test C940017 to verify that dispatching works for protected interfaces.

Revised tests C94001A, C94001B, C94001C, C94002A, C94004A, C94004B, C94004C, C94005A, C94005B, C94007A, C94010A, C95012A, and C97307A in order to replace excessively long delays with Impdef constants. This should reduce the runtime of the ACATS by about 27 minutes (using the default Impdef values).

New tests posted between April 1, 2019 and June 30, 2019 will become required for conformity assessments on January 1, 2020. New tests posted between January 1, 2019 and March 31, 2019 will become required for conformity assessments on October 1, 2019. New tests posted between October 1, 2018 and December 31, 2018 will become required for conformity assessments on July 1, 2019. New tests posted before October 1, 2018 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>.

#### **Main list:**

==== Core Language =====

Name	Category	Version label	(effective date; old version label)
			Short description.
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	[Modified]	VCS Label: A3_1R	Added additional error locations to directly support common error reporting strategies.
B37310B	[Modified]	VCS Label: A3_1R	Added additional error locations to directly support common error reporting strategies.
B37311A	[Modified]	VCS Label: A3_1R	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 [Modified] VCS Label: A3\_1R  
Revised to use Possible Error tags, and added error location indicators.

B392003 [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B392004 [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B392005 [Modified] VCS Label: A3\_1R  
Revised to use Possible Error tags, and added error location indicators.

B393001 [Modified] VCS Label: A3\_1R  
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 [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies. Fixed overlong lines.

B393010 [Modified] VCS Label: A3\_1R  
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 [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B3A2008 [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B3A2009 [Modified] VCS Label: A3\_1R  
Removed tabs to meet test format standards; added error location indicators.

B3A2011 [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error

reporting strategies.

- B3A2012 [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.
- B3A2016 [Modified] VCS Label: A3\_1R  
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.
- B413004 [Modified] VCS Label: A3\_1T  
PPA and PFA trigger the issue of AI12-0289-1; explicit null exclusions were added to the parameters to avoid it.
- 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.
- B452002 [Pending New] New VCS Label: A3\_1V  
Required after 2019-10-01  
Check that Resolution and Legality Rules for the universal access equality operator are enforced.
- C452A01 [Pending New] New VCS Label: A3\_1U  
Required after 2019-07-01  
Check that "=" for language-defined private types behaves as if it is predefined. Part 1: core types.
- C452A02 [Pending New] New VCS Label: A3\_1U  
Required after 2019-07-01  
Check that "=" for language-defined private types behaves as if it is predefined. Part 2: types of the Ada.Strings subsystem.
- C452A03 [Pending New] New VCS Label: A3\_1U  
Required after 2019-07-01  
Check that "=" for language-defined private types behaves as if it is predefined. Part 3: Annex C types.
- 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 [New] New VCS Label: A3\_1R

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

B4A010C [Modified] VCS Label: A3\_1R

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\_1R

[VCS Label A3\_1B] Check that case statement coverage rules are enforced for modular types.

[VCS Label A3\_1R] 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 [Modified] VCS Label: A3\_1R

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

B54B01C [Modified] VCS Label: A3\_1R

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

B54B02B [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B54B02C [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B54B02D [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B54B04A [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B54B04B [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B54B05A [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B55B12B [Modified] VCS Label: A3\_1R  
Added additional error locations to directly support common error reporting strategies.

B55B12C [Modified] VCS Label: A3\_1R  
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\_1S

[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.

[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 [New] VCS Label: A3\_1R  
Checks that functions that return immutably limited types are built-in-place.

B83027B [Modified] VCS Label: A3\_1R  
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 [Modified] VCS Label: A3\_1R  
Corrected bad error tag, and added error location indicators.

B83E01B [Modified] VCS Label: A3\_1R  
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.

B851004 [Modified] VCS Label: A3\_1T  
Revised test to eliminate cases whose result would be changed by pending AI12-0287-1, and added cases to preserve complete testing.

B853001 [New] VCS Label: A3\_1S  
Checks that a renamed limited view cannot be used where there is not a with for the original package.

B854002 [New] VCS Label: A3\_1T  
[VCS Label A3\_1S] 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.  
[VCS Label A3\_1T] Corrected wording of the second test objective.

B854003 [New] VCS Label: A3\_1T  
Check various rules about renames as body: conformance of both the renaming and renamed entity, and renaming of abstract and intrinsic subprograms.

B854004 [New] VCS Label: A3\_1T  
Check that renaming a subprogram that requires overriding is illegal.

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.

B940008 [Pending New] New VCS Label: A3\_1W  
Required after 2020-01-01  
Check the overriding indicators work properly on protected subprograms.

B940009 [Pending New] New VCS Label: A3\_1W  
Required after 2020-01-01  
Check that the mode and type of the first parameter of protected operations that implement inherited subprograms is correct.

B940010 [Pending New] New VCS Label: A3\_1W  
Required after 2020-01-01  
Check that a protected operation and a primitive subprogram if a tagged protected type cannot have the same profile.

B940011 [Pending New] New VCS Label: A3\_1W  
Required after 2020-01-01  
Check that an protected operation and the associated inherited operation must subtype conform. Check that inherited operations must be implemented, overridden, or be a null procedure.

C940017 [Pending New] New VCS Label: A3\_1W  
Required after 2020-01-01  
Check that dispatching calls can be made through a protected interface and that they can be implemented with protected subprograms and entries.

C94001A [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94001B [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94001C [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94002A [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94004A [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94004B [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94004C [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94005A [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94005B [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94007A [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

C94010A [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

B95007B [Modified] VCS Label: A3\_1M  
Fixed error markers @62,66,70 to match ACATS standards.

C95012A [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

B952005 [Pending New] New VCS Label: A3\_1W  
Required after 2020-01-01  
Check the overriding indicators work properly on task and  
protected entries.

C97307A [Allowed Modification] New VCS Label: A3\_1W Org VCS Label: A3\_1  
Required after 2019-10-01  
Revised test to replace excessive delays with Impdef constants.

BA1001D [Modified] VCS Label: A3\_1R  
Revised to mark the main subprogram as optional, as it is not necessary to check the test objective. Added error location indicators.

BA1020F [Modified] VCS Label: A3\_1R  
Revised to mark the main subprogram as optional, as it is not necessary to check the test objective. Added error location indicators.

BA11007 [Modified] VCS Label: A3\_1R  
Split into six test files to avoid requiring error recovery.

BA11013 [Modified] VCS Label: A3\_1R  
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 [Modified] VCS Label: A3\_1R  
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 [New] VCS Label: A3\_1S  
Check that names mentioned but not named in a private with are also treated as privately withed.

BA14001 [New] VCS Label: A3\_1R  
Replaces test BA1101E with modern format and additional test cases for Ada 95 compilation units.

BA14002 [New] VCS Label: A3\_1R  
Similar to BA14001, testing private with.

BA14003 [New] VCS Label: A3\_1R  
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 [New] VCS Label: A3\_1T  
[VCS A3\_1S] Checks that the subtype of the actual for a generic formal object with a null exclusion must exclude null.  
[VCS A3\_1T] Revised test to eliminate cases whose result would be changed by pending AI12-0287-1, and to preserve complete testing.

BC51016 [Modified] VCS Label: A3\_1R  
Corrected bad error tag, and added error location indicators.

BC54004 [New] VCS Label: A3\_1S  
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 [New] VCS Label: A3\_1T

[VCS Label A3\_1S] 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.

[VCS Label A3\_1T] Corrected wording of the second test objective.

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 [Modified] VCS Label: A3\_1R  
Revised to use Possible Error tags, and added error location  
indicators.

BDD2003 [Modified] VCS Label: A3\_1R  
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 [Modified] VCS Label: A3\_1R  
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.

==== Annex H =====

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 =====

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 [Modified] VCS Label: A3\_1S

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\_3\_1W.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)

C94001A	2019-10-01
C94001B	2019-10-01
C94001C	2019-10-01
C94002A	2019-10-01
C94004A	2019-10-01
C94004B	2019-10-01
C94004C	2019-10-01
C94005A	2019-10-01
C94005B	2019-10-01
C94007A	2019-10-01
C94010A	2019-10-01
C95012A	2019-10-01
C97307A	2019-10-01

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### **Modified Tests**

(Refer to the main list for details)

B37309B  
B37310B  
B37311A  
B38003D  
B392002  
B392003  
B392004  
B392005  
B393001  
B393005  
B393007  
B393010  
B3A1001  
B3A1002  
B3A2007  
B3A2008  
B3A2009  
B3A2011  
B3A2012  
B3A2016  
B413004  
B455002  
B4A010C  
B54B01B  
B54B01C  
B54B02B  
B54B02C  
B54B02D  
B54B04A  
B54B04B  
B54B05A  
B55B12B

B55B12C  
B62001C  
B62001D  
B65005A  
B65005B  
B730006  
B73001A  
B73001B  
B73001C  
B73001D  
B73001E  
B73001F  
B73001G  
B73001H  
B740003  
B750A01  
B750A02  
B83027B  
B83027D  
B83E01B  
B83F02C  
B91003A  
B91003B  
B91003C  
B91003D  
B940003  
B940004  
B95007B  
BA1001D  
BA1020F  
BA11007  
BA11013  
BA12010  
BC51016  
BD4003A  
BDD2004  
BDB0A01  
BDD2003  
BXC6A03  
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  
TCTOUCH

### **New Tests**

(Refer to the main list for details)

B354002  
B393011  
B3A1007  
B3A1008  
B3A1009  
B3A1A05  
B3A2017  
B431006  
B480002  
B480003  
B480004  
B540002  
B640001  
B651001  
B730008  
B730009  
B730010  
B730011  
B730012  
B730013  
B750A04  
B750A06  
B831004  
B840002  
B853001  
B854002  
B854003  
B854004  
BA12017  
BA12018  
BA14001  
BA14002  
BA14003  
BA15003  
BB42001  
BB42002  
BB42003  
BC40003  
BC54004  
BC60001

BC60002  
BC60004  
BC60005  
BDD2004  
C354004  
C390012  
C391003  
C3A0030  
C3A1003  
C3A1004  
C3A2004  
C453001  
C460014  
C460015  
C480001  
C540001  
C620001  
C640002  
C651001  
C660001  
C760015  
C760A02  
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

**Pending New Tests**

(Refer to the main list for details)

B452002	2019-10-01
B940008	2020-01-01
B940009	2020-01-01
B940010	2020-01-01
B940011	2020-01-01
B952005	2020-01-01
C452A01	2019-07-01
C452A02	2019-07-01
C452A03	2019-07-01
C940017	2020-01-01