

# ACATS Modification List for ACATS 4.1

Version 4.1S

September 30, 2020

## What is this?

This is the ACATS modification list for ACATS 4.1. This document includes test corrections, test removals, and new tests for ACATS 4.1. ACATS 4.1 is the current test suite for Ada, covering the third edition of Ada, ISO/IEC 8652:2012 (usually known as "Ada 2012").

ACATS Modification List version 3.1BB for ACATS 3.1 is the current list for that test suite. ACATS 3.1 should be used for testing implementations that support Amendment 1 (ISO/IEC 8652:1995/AMD 1:2007, often known as "Ada 2005"), and will continue to be maintained as necessary for the foreseeable future.

ACATS Modification List version 2.6H for ACATS 2.6 is the current list for that test suite. ACATS 2.6 should be used for testing implementations of the second edition of Ada, ISO/IEC 8652:1995 (usually known as "Ada 95"); it also will continue to be maintained as necessary for the foreseeable future.

## Changes from the last list:

A handful of tests changed status on July 1<sup>st</sup>; see the lists for the details.

Corrected pragmas in test B651001 to apply to the intended procedures.

New tests C360A01, C360A02, C360B01, C360B02, and the associated foundations F360A00 and F360B00 check that objects of types that have a specified `Default_Component_Value` are appropriately initialized.

Added checks that `Program_Error` is raised as expected in tests CXB3019, CXB3020, CXB3021, and CXB3022.

Note: Some Allowed Modification tests have a required date of "ACATS 4.2". These are tests that don't have substantive changes, but rather change comments (including error locations for B-Tests). For ACATS users that are using traditional results comparison rather than the ACATS grading tools, changing these tests may cause work without benefit (since the tests don't have significant changes). As such, we're allowing the use of the old versions of the tests until the time when the next ACATS version (ACATS 4.2) is issued (not likely before winter 2021; it will be announced at least 90 days in advance of issuance).

New tests posted between July 1, 2020 and September 30, 2020 will become required for conformity assessments on April 1, 2021. New tests posted between April 1, 2020 and June 30, 2020 will become required for conformity assessments on January 1, 2021. New tests posted between January 1, 2020 and March 31, 2020 will become required for conformity assessments on October 1, 2020. New tests posted before January 1, 2020 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).

## ACATS 4.1 includes optional Test Grading tools

ACATS 4.1 introduces new test grading tools.

When the ACATS was designed (as the ACVC in the early 1980s), the intention always was that running it would give a simple and clear Pass or Fail result. However, grading of tests (particularly of B and L Tests) is somewhat subjective and very time-consuming. (Test grading typically involved poring over compiler

listings of the entire ACATS with a large highlighter.) The subjectivity was acceptable in the days of common formal testing, as the formal testers would enforce a common grading standard (even if no one could describe what that was), but in an age of self-testing, it reduces the value of the ACATS.

As such, we're introducing a long-overdue set of automated grading tools. These tools are intended to:

- Greatly reduce the effort to grade an ACATS test run (and, hopefully to reduce the cost of formal testing to make it a more practical option);
- Ensure that all users of the ACATS grade tests in the same way, thus making it more valid to compare ACATS results between different implementations and different testers;
- Give implementers certainty as to whether a particular test result is passing (whether the location of an error is “close enough” to the canonical position);
- Be able to detect process errors (especially errors of omission) – that is, tests improperly run (for instance, files compiled in the wrong order where the ACATS requires an order), or not run at all (if one is checking off lines in a listing, it's hard to notice that some test or portion of a test is missing).

The tools also will optionally give feedback to implementers about quality of error message positioning and of error cascades (does one error generate multiple messages?). (Since “goodness of an implementation” is not something that the ACATS tests for, this is not an official goal for the tools.)

This is an ambitious set of goals. It's unlikely that they'll be completely met by the initial versions of the tools. As such, their use will be completely optional (but encouraged!) for ACATS 4.1. The tools will be updated periodically by the normal process for updating the ACATS – an ACATS Modification List like this one.

Details on the operation of the tools can be found in the ACATS 4.1 documentation (that documentation can be found at <http://www.ada-auth.org/acats-files/4.1/docs/UG-6.HTM>). As always, if you have questions, contact the ACAA Technical Agent at [agent@ada-auth.org](mailto:agent@ada-auth.org).

#### **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.ada-auth.org/standards/rm12\\_w\\_tc1/html/RM-TOC.html](http://www.ada-auth.org/standards/rm12_w_tc1/html/RM-TOC.html).

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**Main list:**

==== Core Language =====

Name	Category	Version label	(effective date; old version label)	Short description.
B32201A	[Allowed Modification]	New VCS Label: A4_1P	Org VCS Label: A4_1	Required in ACATS 4.2 Added error location indicators.
B33001A	[Modified]	VCS Label: A4_1P		Added error location indicators, added additional possible error locations, restored likely intended test for Set2.
B33101A	[Allowed Modification]	New VCS Label: A4_1P	Org VCS Label: A4_1	Required in ACATS 4.2 Added error location indicators.
B350001	[Pending New]	VCS Label: A4_1Q		Required after 2020-10-01 Check that the requirements on the specification of the Default_Value aspect are enforced.
C350001	[New]	VCS Label: A4_1D		Check that the object form of the Image attribute is implemented.
C350A01	[Pending New]	VCS Label: A4_1R		Required after 2021-01-01 Check that objects of types with specified Default_Values are properly initialized. Part 1: Normal discrete types.
C350A02	[Pending New]	VCS Label: A4_1R		Required after 2021-01-01 Check that objects of types with specified Default_Values are properly initialized. Part 2: Generic discrete types.
C350B01	[Pending New]	VCS Label: A4_1R		Required after 2021-01-01 Check that objects of types with specified Default_Values are properly initialized. Part 3: Normal real types.
C350B02	[Pending New]	VCS Label: A4_1R		Required after 2021-01-01 Check that objects of types with specified Default_Values are properly initialized. Part 4: Generic real types.
C352001	[Modified]	VCS Label: A4_1D		Corrected Failed message @267 to reflect intended result.
B354002	[New]	VCS Label: A4_1D		

Test basic requirements for the Mod attribute.

C354004 [New] VCS Label: A4\_1D

Test basic operation of the Mod attribute.

B35A001 [New] VCS Label: A4\_1D

Check Legality Rules are enforced when Small is specified by an aspect specification.

C35A001 [New] VCS Label: A4\_1D

Check that Small can be specified by an aspect specification.

B360001 [Pending New] VCS Label: A4\_1Q

Required after 2020-10-01

Check that the requirements on the specification of the Default\_Component\_Value aspect are enforced.

C360A01 [Pending New] VCS Label: A4\_1S

Required after 2021-04-01

Check that objects of types with specified Default\_Component\_Values are properly initialized. Part 1: Arrays of discrete types.

C360A02 [Pending New] VCS Label: A4\_1S

Required after 2021-04-01

Check that objects of types with specified Default\_Component\_Values are properly initialized. Part 2: Generic arrays of discrete types.

C360B01 [Pending New] VCS Label: A4\_1S

Required after 2021-04-01

Check that objects of types with specified Default\_Component\_Values are properly initialized. Part 3: Arrays of real types.

C360B02 [Pending New] VCS Label: A4\_1S

Required after 2021-04-01

Check that objects of types with specified Default\_Component\_Values are properly initialized. Part 4: Generic arrays of real types.

B37309B [Modified] VCS Label: A4\_1G

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

B37310B [Modified] VCS Label: A4\_1G

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

B37311A [Modified] VCS Label: A4\_1G

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

B38003D [Modified] VCS Label: A4\_1A

Corrected error tags @70,76,82,88 so "optional" and "error" are on the same line, as required by the test standards.

B38103A [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B38103B [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B38103C [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B38103D [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B38103E [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B392002 [Modified] VCS Label: A4\_1G  
Revised to use Possible Error tags, and added error location indicators.

B392003 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B392004 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B392005 [Modified] VCS Label: A4\_1G  
Revised to use Possible Error tags, and added error location indicators.

B393001 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B393007 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies. Fixed overlong lines.

B393010 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies. Fixed overlong lines.

B393012 [Pending New] New VCS Label: A4\_1P  
Required after 2020-07-01  
Check that abstract types cannot be used in additional contexts that do not allow abstract types.

B393013 [Pending New] New VCS Label: A4\_1P  
Required after 2020-07-01  
Check that interface types cannot be used in additional contexts that do not allow abstract types.

C3A0030 [New] VCS Label: A4\_1A  
Check that an access discriminant is only null excluding if it includes a null exclusion.

B3A1001 [Modified] VCS Label: A4\_1A  
Split Pack6 so possible error sets don't intersect; fixed overlong lines.

B3A1002 [Modified] VCS Label: A4\_1A  
Split Pack6 so possible error sets don't intersect; fixed overlong lines.

B3A2007 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B3A2008 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B3A2009 [Modified] VCS Label: A4\_1G  
Removed tabs to meet test format standards; added error location indicators.

B3A2011 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B3A2012 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B3A2016 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B3A2018 [New] VCS Label: A4\_1H  
Check that an explicitly aliased parameter has the same accessibility level as a normal parameter unless compared to the return object. Check that master of the function call is properly determined statically.

B413004 [Modified] VCS Label: A4\_1J  
PPA and PFA trigger the issue of AI12-0289-1; explicit null exclusions were added to the parameters to avoid it.

C415001 [Modified] VCS Label: A4\_1P  
[VCS Label A4\_1N] Return @l19 fails an accessibility check unless C is aliased.  
[VCS Label A4\_1P] The subtype of My\_Colln @125 needs to be either discriminated or to statically match that of the formal types of the parameters.

B431007 [Pending New] New VCS Label: A4\_1P  
Required after 2020-07-01  
Check that record aggregates are not allowed for types whose

components aren't visible.

- B432002 [Pending New] New VCS Label: A4\_1P  
Required after 2020-07-01  
Check that all of the extensions of an extension aggregate are record extensions.
- B432003 [Pending New] New VCS Label: A4\_1P  
Required after 2020-07-01  
Check that the ancestor subtype\_mark of an extension aggregate does not denote a view with unknown discriminants.
- B452001 [New] VCS Label: A4\_1K  
Check that a membership that contains choice expressions is illegal for a limited type that does not have equality.
- B452002 [New] VCS Label: A4\_1L  
Check that Resolution and Legality Rules for the universal access equality operator are enforced.
- C452002 [New] VCS Label: A4\_1F  
[VCS Label A4\_1D] Check that overloading resolution of Ada 2012 membership operations works as intended.  
[VCS Label A4\_1F] Fixed incorrect test number passed to Report.
- C452003 [New] VCS Label: A4\_1K  
Check that memberships of general access-to-object types work as defined.
- C452003 [Allowed Modification] New VCS Label: A4\_1R Org VCS Label: A4\_1K  
Required after 2020-10-01  
Corrected Force\_Save and Force\_Op.
- C452004 [New] VCS Label: A4\_1Q  
[VCS Label A4\_1L] Check that memberships with multiple choices are evaluated as required, and that the correct equality operation is called for untagged record types.  
[VCS Label A4\_1Q] LTemp and RTemp @ 136 and 164 should be declared Integer rather than Natural, as the numerators are of type Integer and can be negative.
- C452005 [New] VCS Label: A4\_1L  
Check that memberships with multiple choices call the correct equality operation for array types.
- C452006 [New] VCS Label: A4\_1M  
[VCS Label A4\_1L] Check that memberships with multiple choices call the correct equality operation for access types.  
[VCS Label A4\_1M] Corrected to remove cases made illegal by AI12-0328-1.
- C452A01 [New] VCS Label: A4\_1K  
Check that "=" for language-defined private types behaves as if it is predefined. Part 1: core types.
- C452A02 [New] VCS Label: A4\_1K  
Check that "=" for language-defined private types behaves as if it

is predefined. Part 2: types of the Ada.Strings subsystem.

- C452A03 [New] VCS Label: A4\_1K  
Check that "=" for language-defined private types behaves as if it is predefined. Part 3: Annex C types.
- C453001 [New] VCS Label: A4\_1D  
Check that modular adding operators wrap around rather than raising Constraint\_Error.
- B455002 [Modified] VCS Label: A4\_1A  
Corrected casing of error tags and fixed overlong lines.
- B457001 [Modified] VCS Label: A4\_1F  
Fixed overlong lines. Added location indicators.
- B457004 [Modified] VCS Label: A4\_1F  
There should not be an ERROR tag @282; Single\_Highest @290 should be Single\_High. Added location indicators.
- B458001 [New] VCS Label: A4\_1F  
Check that a quantified expression has to be surrounded in parentheses if it is not already surrounded by them.
- C460014 [New] VCS Label: A4\_1C  
Check that Constraint\_Error is raised appropriately when converting access-to-classwide to another access type.
- C460015 [New] VCS Label: A4\_1C  
Check that Constraint\_Error is raised appropriately when converting access-to-limited-classwide to another access type.
- B470001 [New] VCS Label: A4\_1D  
Check that qualified expressions are a constant view of the expression, even if the expression is a variable object.
- C470001 [New] VCS Label: A4\_1D  
Check that qualified expressions are a name, and thus can be used as a prefix and other places a name is required.
- C480001 [New] VCS Label: A4\_1D  
[VCS Label A4\_1A] Check that an initialized allocator for a class-wide type does an accessibility check on the tag of the initializing object.  
[VCS Label A4\_1D] 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.
- B480004 [New] VCS Label: A4\_1G  
Check that an allocator is illegal if the access type has a Storage\_Size that is statically zero.
- B48002A [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.
- B48002G [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1

Required in ACATS 4.2  
Added error location indicators.

B48003B [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B48003E [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B490003 [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Moved error tags to more usual locations, added error location indicators.

B4A010C [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

C52101A [Modified] VCS Label: A4\_1A  
Corrected comment @49 not to have the form of an error tag.

B540001 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B540002 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B54B01B [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B54B01C [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B54B02B [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B54B02C [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B54B02D [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B54B04A [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

B54B04B [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.

reporting strategies.

- B54B05A [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.
- B551002 [Modified] VCS Label: A4\_1N  
Revised test to remove dependence on Ada.Iterator\_Interfaces.
- B552A01 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies. Fixed an overlong line.
- B55B12B [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.
- B55B12C [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.
- B56001A [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.
- B57001B [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.
- B611001 [New] VCS Label: A4\_1A  
Check that Pre and Post are only allowed on subprograms and entries (and not on subprogram instances).
- B611002 [New] VCS Label: A4\_1C  
[VCS Label A4\_1A] Check that Pre and Post are not allowed on subprograms acting as completions.  
[VCS Label A4\_1C] Corrected several error location codes.
- B611003 [New] VCS Label: A4\_1A  
Check that Pre'Class and Post'Class are only allowed on primitive subprograms of tagged types. (Normal tagged types and interfaces.)
- B611004 [New] VCS Label: A4\_1A  
Check that Pre'Class and Post'Class are not allowed on subprograms acting as completions.
- B611005 [New] VCS Label: A4\_1A  
Check that Pre and Post are not allowed on abstract subprograms and null procedures.
- B611006 [New] VCS Label: A4\_1C  
[VCS Label A4\_1A] Check that the restrictions on Pre'Class and Post'Class expressions added by AI12-0113-1 are enforced.  
[VCS Label A4\_1C] Clarified error @208; changed error @233 & @247 to OK (as the inherited Proc4 routine is abstract and thus is not subject to the new rule).

B611007 [New] VCS Label: A4\_1F  
[VCS Label A4\_1A] Check that Pre'Class and Post'Class are not allowed on entries and protected subprograms of untagged task and protected types.  
[VCS Label A4\_1F] Corrected preconditions @77 and @110 not to violate the new rule added by Binding Interpretation AI12-0166-1.

B611008 [New] VCS Label: A4\_1A  
Check various rules about the use of the Result attribute.

B611009 [New] VCS Label: A4\_1A  
Check that F'Result is not allowed in the body of F.

B611010 [New] VCS Label: A4\_1A  
Check that the Old attribute is not allowed in a subprogram or entry body, or in an accept statement.

B611011 [New] VCS Label: A4\_1A  
Check the Old attribute cannot be used within a precondition expression nor in a generic specification outside of a postcondition expression.

B611012 [New] VCS Label: A4\_1A  
Check that the prefix of an Old attribute cannot contain the Result attribute, another Old attribute, nor the index of a quantified expression.

B611013 [New] VCS Label: A4\_1A  
For a discrete X, check that X'Old has the nominal subtype of X.

B611014 [New] VCS Label: A4\_1C  
[VCS Label A4\_1B] If an Old attribute reference occurs at a place where it is potentially unevaluated, check that the prefix must statically denote an object.  
[VCS Label A4\_1C] Corrected error location codes @240 and @252.

B611015 [New] VCS Label: A4\_1B  
Check that the prefix of an Old attribute cannot have a limited type.

B611016 [New] VCS Label: A4\_1B  
Check that tagged task and tagged protected types do not allow Pre'Class and Post'Class, nor are they allowed on operations of those types.

B611017 [New] VCS Label: A4\_1C  
[VCS Label A4\_1B] Check that Pre'Class cannot be specified for an overriding of a subprogram that does not specify Pre'Class.  
[VCS Label A4\_1C] Declaration of New\_Proc @358 is not overriding and thus not subject to the rule. The declaration of Shine @149 never overrides primitives of the actual type by 12.3(18), thus this rule does not apply to instances of Gen2. Added an example using a generic derived type.

B611018 [New] VCS Label: A4\_1C  
[VCS Label A4\_1B] Check 6.1.1(10-16/3).  
[VCS Label A4\_1C] Type T08 @230 and @241 needs to be declared

abstract.

- B611019 [New] VCS Label: A4\_1C  
[VCS Label A4\_1B] Check 6.1.1(17/3).  
[VCS Label A4\_1C] The declaration of Get\_Count @112 never overrides primitives of the actual type by 12.3(18), thus this rule does not apply to instances of Gen2. Added examples using generic derived types.
- C611A01 [New] VCS Label: A4\_1A  
Check that preconditions and postconditions where both specific and class-wide contracts apply are checked properly.
- C611A02 [New] VCS Label: A4\_1C  
[VCS Label A4\_1A] Check that the correct expressions are evaluated for specific preconditions and postconditions, and that they are evaluated at the correct point.  
[VCS Label A4\_1C] The main subprogram name was corrected to follow the rules of the ACATS User's Guide, clause 4.3.3.
- C611A03 [New] VCS Label: A4\_1C  
[VCS Label A4\_1A] Check that the correct expressions are evaluated for class-wide preconditions and postconditions, and that they are evaluated at the correct point.  
[VCS Label A4\_1C] The main subprogram name was corrected to follow the rules of the ACATS User's Guide, clause 4.3.3.
- C611A04 [New] VCS Label: A4\_1D  
[VCS Label A4\_1C] Check that the correct expressions are evaluated for class-wide preconditions and postconditions of an interface type, and that they are evaluated at the correct point.  
[VCS Label A4\_1D] Fixed overlong lines.
- C611B01 [New] VCS Label: A4\_1C  
[VCS Label A4\_1A] Check that X'Old has the tag of X and not the tag of the nominal subtype of X (for Post).  
[VCS Label A4\_1C] The main subprogram name was corrected to follow the rules of the ACATS User's Guide, clause 4.3.3.
- C611B02 [New] VCS Label: A4\_1C  
[VCS Label A4\_1A] Check that X'Old has the tag of X and not the tag of the nominal subtype of X (for Post'Class).  
[VCS Label A4\_1C] The main subprogram name was corrected to follow the rules of the ACATS User's Guide, clause 4.3.3.
- C611B03 [New] VCS Label: A4\_1D  
[VCS Label A4\_1C] Check that X'Old has the tag of X and not the tag of the nominal subtype of X (for Post'Class of an interface type).  
[VCS Label A4\_1D] Fixed overlong lines.
- C620002 [Pending New] New VCS Label: A4\_1R  
Required after 2021-01-01  
Modernizes, adds test cases to, and eliminates illegal calls from legacy test C95072A.
- B62001C [Modified] VCS Label: A4\_1A

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: A4\_1A  
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).

B631001 [New] VCS Label: A4\_1N  
Check that a prefixed view is intrinsic.

B65005A [Modified] VCS Label: A4\_1D  
Added additional error locations to directly support common error reporting strategies.

B65005B [Modified] VCS Label: A4\_1D  
Added additional error locations to directly support common error reporting strategies.

C650B04 [New] VCS Label: A4\_1A  
Check that the result of a function that returns a class-wide tagged type does an accessibility check on the tag of the result object when the result expression is class-wide.

B651001 [New] VCS Label: A4\_1D  
[VCS Label A4\_1D] 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).

B651001 [Allowed Modification] New VCS Label: A4\_1S Org VCS Label: A4\_1D  
Required after 2021-01-01  
[VCS Label A4\_1S] Corrected pragmas @176 and @179 to refer to the immediately preceding procedures.

C651001 [New] VCS Label: A4\_1D  
Check that a nonreturning procedure can raise an exception and raises Program\_Error otherwise (pragma No\_Return version).

B651002 [New] VCS Label: A4\_1D  
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 (aspect No\_Return version).

C651002 [New] VCS Label: A4\_1D  
Check that a nonreturning procedure can raise an exception and raises Program\_Error otherwise (aspect No\_Return version).

B651003 [New] VCS Label: A4\_1D  
Check that an aspect No\_Return can only be given on a procedure or generic procedure, that the expression has to be nonstatic, and that the aspect is not given on an instance or null procedure.

B660002 [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B660003 [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Fixed overlong lines, added error location indicators.

B66001A [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B66001B [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1  
Required in ACATS 4.2  
Added error location indicators.

B680001 [Modified] VCS Label: A4\_1F  
The immediately enclosing expression function @140 does not  
declare a parameter A, but A is used @141. Added location  
indicators.

B730006 [Modified] VCS Label: A4\_1C  
Corrected format of error tags; added location indicators.

B730011 [New] VCS Label: A4\_1C  
Test various rules about completions of private types and  
extensions; replaces test B74001A.

B730012 [New] VCS Label: A4\_1C  
Test various rules about completions of private types and  
extensions in generic units; replaces test B74001B.

B730013 [New] VCS Label: A4\_1D  
Test operations available for a private type; replaces test  
B74203E.

B73001A [Modified] VCS Label: A4\_1C  
Added additional error locations to directly support common error  
reporting strategies.

B73001B [Modified] VCS Label: A4\_1C  
Added additional error locations to directly support common error  
reporting strategies.

B73001C [Modified] VCS Label: A4\_1C  
Added additional error locations to directly support common error  
reporting strategies.

B73001D [Modified] VCS Label: A4\_1C  
Added additional error locations to directly support common error  
reporting strategies.

B73001E [Modified] VCS Label: A4\_1C  
Added additional error locations to directly support common error  
reporting strategies.

B73001F [Modified] VCS Label: A4\_1C  
Added additional error locations to directly support common error  
reporting strategies.

B73001G [Modified] VCS Label: A4\_1C  
Added additional error locations to directly support common error reporting strategies.

B73001H [Modified] VCS Label: A4\_1C  
Added additional error locations to directly support common error reporting strategies.

B740003 [Modified] VCS Label: A4\_1H  
[VCS Label A4\_1A] Modified criteria @75 so that it doesn't look like an error tag to the grading tools; also fixed an overlong line.  
[VCS Label A4\_1H] Modified grading to document that processing the main is optional. Added error location indicators.

B74001A [Withdrawn] VCS Label: A4\_1C  
Replaced by B730011.

B74001B [Withdrawn] VCS Label: A4\_1C  
Replaced by B730012.

B74203E [Withdrawn] VCS Label: A4\_1D  
Replaced by B730013.

B750A07 [New] VCS Label: A4\_1G  
[VCS Label A4\_1A] Check that only legal expressions are allowed in the return expression of an expression function that returns a limited type.  
[VCS Label A1\_1G] Adjusted error indicators to allow the error to be reported anywhere in a multi-line expression.

C760A02 [New] VCS Label: A4\_1G  
Checks that functions that return immutably limited types are built-in-place.

C760A03 [New] VCS Label: A4\_1G  
Checks that expression functions that return immutably limited types are built-in-place.

B83027B [Modified] VCS Label: A4\_1G  
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: A4\_1G  
Corrected bad error tag, and added error location indicators.

B831006 [New] VCS Label: A4\_1K  
Checks that overriding indicators cannot be given on any subprogram declaration in a protected body.

B83E01B [Modified] VCS Label: A4\_1G  
Removed possible error cascades, reformatted some error tags, and added error location indicators.

B83F02C [Modified] VCS Label: A4\_1A  
Updated many optional error markers to match ACATS standards.

B85002A [Withdrawn] VCS Label: A4\_1H  
Replaced by B851005.

B85003A [Withdrawn] VCS Label: A4\_1H  
Replaced by B851007.

B85003B [Withdrawn] VCS Label: A4\_1H  
Replaced by B851007.

B851004 [Modified] VCS Label: A4\_1J  
Revised test to eliminate cases whose result would be changed by pending AI12-0287-1, and added cases to preserve complete testing.

B851005 [New] VCS Label: A4\_1H  
Checks that "known to be constrained" is properly enforced for renames. Part 1: "Normal" cases (no generics or access cases).

B851006 [New] VCS Label: A4\_1H  
Checks that "known to be constrained" is properly enforced for renames. Part 2: Access cases.

B851007 [New] VCS Label: A4\_1K  
[VCS Label A4\_1H] Checks that "known to be constrained" is properly enforced for renames. Part 3: Generic cases.  
[VCS Label A4\_1K] Corrected types of declaration @198 and @214, and mode @328.

B853001 [New] VCS Label: A4\_1H  
Checks that a renamed limited view cannot be used where there is not a with for the original package.

B854002 [New] VCS Label: A4\_1J  
[VCS Label A4\_1H] 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 A4\_1J] Corrected wording of the second test objective.

B854002 [Allowed Modification] New VCS Label: A4\_1R Org VCS Label: A4\_1J  
Required after 2020-10-01  
[VCS Label A4\_1R] Corrected error markers on RenG51, RenG61, RenGF51, and RenGF61. Corrected renaming @412 to rename the correct function.

B854003 [New] VCS Label: A4\_1J  
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: A4\_1J  
Check that renaming a subprogram that requires overriding is illegal.

B854005 [New] VCS Label: A4\_1J  
Check that a renaming of a prefixed view is illegal if renaming

the prefix as an object is illegal.

B860002 [Pending New] New VCS Label: A4\_1Q  
Required after 2020-10-01

Check that implicit conversions of access types don't allow too much.

B91003A [Modified] VCS Label: A4\_1C

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

B91003B [Modified] VCS Label: A4\_1C

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

B91003C [Modified] VCS Label: A4\_1C

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

B91003D [Modified] VCS Label: A4\_1C

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

B940003 [Modified] VCS Label: A4\_1C

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

B940004 [Modified] VCS Label: A4\_1C

Split into 8 files; added location indicators.

B940008 [New] VCS Label: A4\_1M

Check the overriding indicators work properly on protected subprograms.

B940009 [New] VCS Label: A4\_1M

Check that the mode and type of the first parameter of protected operations that implement inherited subprograms is correct.

B940010 [New] VCS Label: A4\_1M

Check that a protected operation and a primitive subprogram of a tagged protected type cannot have the same profile.

B940011 [New] VCS Label: A4\_1M

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 [New] VCS Label: A4\_1M

Check that dispatching calls can be made through a protected interface and that they can be implemented with protected subprograms and entries.

C94001A [Modified] VCS Label: A4\_1M

Revised test to replace excessive delays with Impdef constants.

C94001B [Modified] VCS Label: A4\_1M

Revised test to replace excessive delays with Impdef constants.

C94001C [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C94002A [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C94004A [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C94004B [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C94004C [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C94005A [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C94005B [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C94007A [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C94010A [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

B95007B [Modified] VCS Label: A4\_1A  
Fixed error markers @62,66,70 to match ACATS standards.

C95012A [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

C95072A [Withdrawn] VCS Label: A4\_1R  
Replaced by C620002; it violated the anti-order dependence rules of 6.4.1.

B952005 [New] VCS Label: A4\_1M  
Check the overriding indicators work properly on task and protected entries.

C97307A [Modified] VCS Label: A4\_1M  
Revised test to replace excessive delays with Impdef constants.

BA1001D [Modified] VCS Label: A4\_1G  
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: A4\_1G  
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: A4\_1G  
Split into six test files to avoid requiring error recovery.

BA11013 [Modified] VCS Label: A4\_1G  
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: A4\_1G  
Replaced by test BA14001.

BA12010 [Modified] VCS Label: A4\_1G  
Revised to use Possible Error tags, and added error location  
indicators.

BA12018 [New] VCS Label: A4\_1H  
Check that names mentioned but not named in a private with are  
also treated as privately withed.

BA14001 [New] VCS Label: A4\_1G  
Replaces test BA1101E with modern format and additional test cases  
for Ada 95 compilation units.

BA14002 [New] VCS Label: A4\_1G  
Similar to BA14001, testing private with.

BA14003 [New] VCS Label: A4\_1G  
Checks that a unit is illegal if it depends on two versions of the  
same unit.

BA21005 [New] VCS Label: A4\_1D  
Test that Pure and Preelaborate aspects cannot be specified late,  
with a nonstatic expression, or an expression of a type other than  
Boolean.

BB42001 [New] VCS Label: A4\_1C  
[VCS Label A4\_1A] Check that the arguments of a pragma Assert  
have to have the correct types.  
[VCS Label A4\_1C] Corrected two incorrect error location codes.

CB42001 [New] VCS Label: A4\_1A  
Check the usual operation of pragma Assert, including the optional  
message.

BB42002 [New] New VCS Label: A4\_1A  
Check that the arguments of a pragma Assert cannot be reordered  
even if named notation is used.

CB42002 [New] New VCS Label: A4\_1A  
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: A4\_1A  
Check that a pragma Assertion\_Policy is illegal  
if the policy is not recognized.

CB42003 [New] VCS Label: A4\_1A  
Check that procedure Ada.Assertions.Assert evaluates its arguments

and raises Assertion\_Error regardless of the assertion policy.

CC3601C [Modified] VCS Label: A4\_1E

Moved "=" for type Rec in order that it not violate 4.5.2(9.8/4).

BC40003 [Pending New] VCS Label: A4\_1J

[VCS A4\_1H] Checks that the subtype of the actual for a generic formal object with a null exclusion must exclude null.

[VCS A4\_1J] Revised test to eliminate cases whose result would be changed by pending AI12-0287-1, and to preserve complete testing.

CC51010 [Modified] VCS Label: A4\_1F

The main subprogram name was corrected to follow the rules of the ACATS User's Guide, clause 4.3.3.

BC51016 [Modified] VCS Label: A4\_1G

Corrected bad error tag, and added error location indicators.

BC51019 [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1

Required in ACATS 4.2

Added error location indicators.

BC51020 [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1

Required in ACATS 4.2

Added error location indicators.

BC51B02 [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1

Required in ACATS 4.2

Added error location indicators.

BC51C01 [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1

Required in ACATS 4.2

Added error location indicators.

BC51C02 [Allowed Modification] New VCS Label: A4\_1P Org VCS Label: A4\_1

Required in ACATS 4.2

Added error location indicators.

BC54004 [New] VCS Label: A4\_1H

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

BC55001 [Pending New] New VCS Label: A4\_1P

Required after 2020-07-01

Check that formal interface types cannot be used in contexts that do not allow abstract types.

BC60005 [New] VCS Label: A4\_1J

[VCS Label A4\_1H] 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 A4\_1J] Corrected wording of the second test objective.

BC60005 [Allowed Modification] New VCS Label: A4\_1R Org VCS Label: A4\_1J

Required after 2020-10-01

[VCS Label A4\_1Q] Corrected error markers on InstG51, InstG61,

InstGF51, and InstGF61.  
[VCS Label A4\_1R] Corrected instance @437 to use correct actual parameter.

BD10001 [Pending New] VCS Label: A4\_1R  
Required after 2021-01-01  
Check that an aspect cannot be specified in multiple ways for a single entity.

CD1009A [Withdrawn] VCS Label: A4\_1D  
Has one of the objectives of, and thus redundant with, test CD2A31C (now CD30012).

CD1009B [Withdrawn] VCS Label: A4\_1D  
Has one of the objectives of, and thus redundant with, test CD2A21C (now CD30011).

CD1009L [Withdrawn] VCS Label: A4\_1D  
Virtually identical to, and thus redundant with, test CD2D13A.

CD1009M [Withdrawn] VCS Label: A4\_1D  
Virtually identical to, and thus redundant with, test CD3014C.

CD11001 [New] VCS Label: A4\_1A  
Check that appropriate entities are visible in an aspect specification.

CD2A21C [Withdrawn] VCS Label: A4\_1D  
Replaced by CD30011.

CD2A31C [Withdrawn] VCS Label: A4\_1D  
Replaced by CD30012.

BD30001 [New] VCS Label: A4\_1D  
Check Legality Rules are enforced when Size is specified by an aspect specification for a type.

BD30002 [New] VCS Label: A4\_1D  
Check Legality Rules are enforced when Alignment is specified by an aspect specification for a type.

BD30003 [New] VCS Label: A4\_1D  
Check Legality Rules are enforced when Component\_Size is specified by an aspect specification.

CD30010 [New] VCS Label: A4\_1D  
Check that Component\_Size can be specified via an aspect specification.

CD30011 [New] VCS Label: A4\_1D  
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: A4\_1D  
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.

- BD4003A [Modified] VCS Label: A4\_1A  
Moved error marker from @66 to @67 so it is on the incorrect construct.
- BDB0A01 [Modified] VCS Label: A4\_1G  
Revised to use Possible Error tags, and added error location indicators.
- BDB2001 [New] VCS Label: A4\_1G  
Check that a call on an instance of Unchecked\_Deallocation is illegal if the access type has a Storage\_Size that is statically zero.
- BDB4001 [Pending New] New VCS Label: A4\_1P  
Required after 2020-07-01  
Check that the object for a pool that supports subpools is declared in the same scope as the access type that uses it.
- BDD2003 [Modified] VCS Label: A4\_1G  
Added additional error locations to directly support common error reporting strategies.
- BDD2006 [Pending New] VCS Label: A4\_1Q  
Required after 2020-10-01  
Check that the requirements for specifying the Stream\_Size attribute are enforced.
- BDD2007 [Pending New] VCS Label: A4\_1Q  
Required after 2020-10-01  
Check that the requirements for specifying the Stream\_Size aspect are enforced.
- CDD2B01 [Pending New] VCS Label: A4\_1Q  
Required after 2020-10-01  
Check that confirming Stream\_Size attributes work as expected.
- CDD2B02 [Pending New] VCS Label: A4\_1Q  
Required after 2020-10-01  
Check that confirming Stream\_Size aspects work as expected.
- CDD2B03 [Pending New] VCS Label: A4\_1Q  
Required after 2020-10-01  
Check that non-confirming Stream\_Size attributes work as expected.
- CDD2B04 [Pending New] VCS Label: A4\_1Q  
Required after 2020-10-01  
Check that non-confirming Stream\_Size aspects work as expected.
- CDE0002 [Modified] VCS Label: A4\_1E  
Changed to use Storage\_Size rather than Size so that the static expression rule of 13.14(7.2/3) is not triggered.
- CXAC009 [New] VCS Label: A4\_1D

Check that Stream\_IO.File\_Type has Preelaborable\_Initialization.

- CXAG003 [New] VCS Label: A4\_1H  
[VCS Label A4\_1G] Check that function  
Ada.Directories.Name\_Case\_Equivalence exists and that it  
reflects the handling of file names.  
[VCS Label A4\_1H] Added "return;" @171; if the file can't be  
opened, the Read\_File trial is complete.
- CXB3019 [Allowed Modification] New VCS Label: A4\_1S Org VCS Label: A4\_1  
Required after 2021-01-01  
Added missing failures if Program\_Error is not raised when  
expected.
- CXB3020 [Allowed Modification] New VCS Label: A4\_1S Org VCS Label: A4\_1  
Required after 2021-01-01  
Added missing failures if Program\_Error is not raised when  
expected.
- CXB3021 [Allowed Modification] New VCS Label: A4\_1S Org VCS Label: A4\_1  
Required after 2021-01-01  
Added missing failures if Program\_Error is not raised when  
expected.
- CXB3022 [Allowed Modification] New VCS Label: A4\_1S Org VCS Label: A4\_1  
Required after 2021-01-01  
Added missing failures if Program\_Error is not raised when  
expected.
- CXB3023 [New] VCS Label: A4\_1A  
Check that a value of an unchecked union type (defined with  
pragma Unchecked\_Union) can be passed to a C function.
- CXB3024 [New] VCS Label: A4\_1A  
Check that a value of an unchecked union type (defined with  
aspect Unchecked\_Union) can be passed to a C function.
- =====  
Annex C  
=====
- BXC6A03 [Modified] VCS Label: A4\_1G  
Changed subtest result to require the changes of AI05-0218-1.
- =====  
Annex D  
=====
- CXD2007 [Modified] VCS Label: A4\_1C  
Added missing N/A => Error tag.
- LXD7001 [Modified] VCS Label: A4\_1C  
Added missing error tag.
- LXD7003 [Modified] VCS Label: A4\_1C  
Added missing error tag.
- LXD7004 [Modified] VCS Label: A4\_1C  
Added missing error tag.

LXD7005 [Modified] VCS Label: A4\_1C  
Added missing error tag.

LXD7006 [Modified] VCS Label: A4\_1C  
Added missing error tag.

LXD7007 [Modified] VCS Label: A4\_1C  
Added missing error tag.

LXD7008 [Modified] VCS Label: A4\_1C  
Added missing error tag.

LXD7009 [Modified] VCS Label: A4\_1C  
Added location indicators.

CXDB001 [Modified] VCS Label: A4\_1C  
Added missing N/A => Error tag.

CXDB002 [Modified] VCS Label: A4\_1C  
Added missing N/A => Error tag.

CXDB003 [Modified] VCS Label: A4\_1C  
Added missing N/A => Error tag.

CXDB004 [Modified] VCS Label: A4\_1C  
Added missing N/A => Error tag.

==== Annex E =====

[None.]

==== Annex F =====

[None.]

==== Annex G =====

[None.]

==== Annex H =====

LXH4001 [Modified] VCS Label: A4\_1C  
Corrected format of error tag; added location indicators.

LXH4003 [Modified] VCS Label: A4\_1C  
Corrected format of error tag; added location indicators.

LXH4006 [Modified] VCS Label: A4\_1C  
Added missing error tags.

LXH4009 [Modified] VCS Label: A4\_1C  
Added missing error tags.

LXH4013 [Modified] VCS Label: A4\_1C  
Added missing error tags.

LXH4014 [Modified] VCS Label: A4\_1C

Added missing error tags.

==== Support =====

- F350A00 [Pending New] New VCS Label: A4\_1R  
Required after 2021-01-01  
A foundation for discrete specified Default\_Value tests.
- F350B00 [Pending New] New VCS Label: A4\_1R  
Required after 2021-01-01  
A foundation for real specified Default\_Value tests.
- F360A00 [Pending New] New VCS Label: A4\_1S  
Required after 2021-04-01  
A foundation for discrete specified Default\_Component\_Value tests.
- F360B00 [Pending New] New VCS Label: A4\_1S  
Required after 2021-04-01  
A foundation for real specified Default\_Component\_Value tests.
- F611A00 [New] VCS Label: A4\_1C  
[VCS Label A4\_1A] Foundation for tests C611A01, C611A02, and C611A03.  
[VCS Label A4\_1C] Added additional data for test C611A04. The changes are only needed for that test.
- F611B00 [New] VCS Label: A4\_1A  
Foundation for tests C611B01, C611B02, and C611B03.
- FDD2B00 [Pending New] VCS Label: A4\_1Q  
Required after 2020-10-01  
A foundation for Stream\_Size aspect tests.
- GRADE.A [Modified] VCS Label: A4\_1G  
[VCS Label A4\_1C] Allowed manual grading for tests that are missing execution or linking (with no earlier errors). Corrected the result for binder crashes. Added category totals to the summary.  
[VCS Label A4\_1D] Corrected so that Annex C RQMT failures are properly counted in their own category.  
[VCS Label A4\_1G] Corrected call @1578 so that the special handling flag rather than the failed flag is used with a manual grading message for a missing error set. (The actual grade was correct, only the message was wrong.)
- GRD\_DATA.A [Modified] VCS Label: A4\_1P  
[VCS Label A4\_1D] Increased table sizes as the new tests have caused grading the entire ACATS to exceed the old limits.  
[VCS Label A4\_1M] Generalized reading of white space in order to be more resilient, especially on Unix-like systems.  
[VCS Label A4\_1P] MAX\_SUMMARY\_ITEMS @66 was increased to 40\_000 as the ACATS has grown to exceed the old limit.
- SPECIAL.A [Modified] VCS Label: A4\_1J  
[VCS Label A4\_1C] Added test BA21005 to the list of optional main subprograms.  
[VCS Label A4\_1H] Added seven tests to the list of optional main

subprograms.  
[VCS Label A4\_1J Added more tests to the list of optional main subprograms.

SUMMARY.A [Modified] VCS Label: A4\_1C  
Corrected identification of main subprograms in modern tests.  
Changed the unit name for subunits to be the full expanded name including the parent name.

TCTOUCH.ADA [Modified] VCS Label: A4\_1H  
Added code so that Touch only reports buffer overflow once. Fixed the Id string.

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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\_4\_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 4.1 is available in various formats on the ACAA web site.

### **Summary lists:**

#### **Withdrawn Tests**

(Refer to the main list for details)

B74001A  
B74001B  
B74203E  
B85002A  
B85003A  
B85003B  
BA1101E  
C95072A  
CD1009A  
CD1009B  
CD1009L  
CD1009M  
CD2A21C  
CD2A31C

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## Allowed Modification Tests

(Refer to the main list for details)

B32201A	ACATS 4.2	
B33101A	ACATS 4.2	
B38103A	ACATS 4.2	
B38103B	ACATS 4.2	
B38103C	ACATS 4.2	
B38103D	ACATS 4.2	
B38103E	ACATS 4.2	
B48002A	ACATS 4.2	
B48002G	ACATS 4.2	
B48003B	ACATS 4.2	
B48003E	ACATS 4.2	
B490003	ACATS 4.2	
B56001A	ACATS 4.2	
B57001B	ACATS 4.2	
B651001	2020-01-01	[VCS Label A4_1S]
B660002	ACATS 4.2	
B660003	ACATS 4.2	
B66001A	ACATS 4.2	
B66001B	ACATS 4.2	
B854002	2020-10-01	[VCS Label A4_1R]
BC51019	ACATS 4.2	
BC51020	ACATS 4.2	
BC51B02	ACATS 4.2	
BC51C01	ACATS 4.2	
BC51C02	ACATS 4.2	
BC60005	2020-10-01	[VCS Label A4_1R]
C452003	2020-10-01	[VCS Label A4_1R]
CXB3019	2021-01-01	
CXB3020	2021-01-01	
CXB3021	2021-01-01	
CXB3022	2021-01-01	

## Modified Tests

(Refer to the main list for details)

B33001A  
B37309B  
B37310B  
B37311A  
B38003D  
B392002  
B392003  
B392004  
B392005  
B393001  
B393007  
B393010  
B3A1001

B3A1002  
B3A2007  
B3A2008  
B3A2009  
B3A2011  
B3A2012  
B3A2016  
B413004  
B455002  
B457001  
B457004  
B4A010C  
B540001  
B540002  
B54B01B  
B54B01C  
B54B02B  
B54B02C  
B54B02D  
B54B04A  
B54B04B  
B54B05A  
B551002  
B552A01  
B55B12B  
B55B12C  
B62001C  
B62001D  
B63005A  
B65005B  
B680001  
B730006  
B73001A  
B73001B  
B73001C  
B73001D  
B73001E  
B73001F  
B73001G  
B73001H  
B732C02  
B740003  
B83027B  
B83027D  
B83E01B  
B83F02C  
B851004  
B95007B  
B91003A  
B91003B  
B91003C  
B91003D  
B940003  
B940004  
BA1001D  
BA1020F  
BA11007

BA11013  
BA12010  
BC51016  
BB42001  
BD4003A  
BDB0A01  
BDD2003  
BXC6A03  
C352001  
C415001  
C52101A  
C94001A  
C94001B  
C94001C  
C94002A  
C94004A  
C94004B  
C94004C  
C94005A  
C94005B  
C94007A  
C94010A  
C95012A  
C97307A  
CC3601C  
CC51010  
CDE0002  
CXD2007  
CXDB001  
CXDB002  
CXDB003  
CXDB004  
LXD7001  
LXD7003  
LXD7004  
LXD7005  
LXD7006  
LXD7007  
LXD7008  
LXD7009  
LXH4001  
LXH4003  
LXH4006  
LXH4009  
LXH4013  
LXH4014  
GRADE  
GRD\_DATA  
SPECIAL  
SUMMARY  
TCTOUCH.ADA

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**New Tests**

(Refer to the main list for details)

B354002  
B35A001  
B393012  
B393013  
B3A2018  
B431007  
B432002  
B432003  
B452001  
B452002  
B458001  
B480004  
B611001  
B611002  
B611003  
B611004  
B611005  
B611006  
B611007  
B611008  
B611009  
B611010  
B611011  
B611012  
B611013  
B611014  
B611015  
B611016  
B611017  
B611018  
B611019  
B631001  
B651001 [VCS Label A4\_1D]  
B651002  
B641003  
B730011  
B730012  
B730013  
B750A07  
B831006  
B851005  
B851006  
B851007  
B853001  
B854002 [VCS Label A4\_1J]  
B854003  
B854004  
B860002  
B940008  
B940009  
B940010  
B940011  
B952005  
BA12018  
BA14001  
BA14002

BA14003  
BA21005  
BB42001  
BB42002  
BB42003  
BC40003  
BC54004  
BC55001  
BC60005 [VCS Label A4\_1J]  
BD30001  
BD30002  
BD30003  
BDB2001  
BDB4001  
C350001  
C354004  
C35A001  
C3A0030  
C452002  
C452003 [VCS Label A4\_1K]  
C452004 [VCS Label A4\_1L]  
C452005  
C452006  
C452A01  
C452A02  
C452A03  
C453001  
C460014  
C460015  
C470001  
C480001  
C611A01  
C611A02  
C611A03  
C611A04  
C611B01  
C611B02  
C611B03  
C650B04  
C651001  
C651002  
C760A02  
C760A03  
C940017  
CB42001  
CB42002  
CB42003  
CD11001  
CD30010  
CD30011  
CD30012  
CXAC009  
CXAG003  
CXB3023  
CXB3024  
F611A00  
F611B00

## Pending New Tests

(Refer to the main list for details)

B350001	2020-10-01
B360001	2020-10-01
B860002	2020-10-01
BD10001	2021-01-01
BDD2006	2020-10-01
BDD2007	2020-10-01
C350A01	2021-01-01
C350A02	2021-01-01
C350B01	2021-01-01
C350B02	2021-01-01
C360A01	2021-04-01
C360A02	2021-04-01
C360B01	2021-04-01
C360B02	2021-04-01
C620002	2021-01-01
CDD2B01	2020-10-01
CDD2B02	2020-10-01
CDD2B03	2020-10-01
CDD2B04	2020-10-01
F350A00	2021-01-01
F350B00	2021-01-01
F360A00	2021-04-01
F360B00	2021-04-01
FDD2B00	2020-10-01