

# ACATS Modification List for ACATS 4.0

Version 4.0H

September 3, 2015

## What is this?

This is the ACATS modification list for ACATS 4.0. This document includes test corrections, test removals, and new tests for ACATS 4.0. ACATS 4.0 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 3.1J 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 2.6D 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 number of tests changed status on July 1<sup>st</sup>, this list reflects those changes.

Test C324003 calls a non-existent function Name in the Predicate\_Failure messages. The function was added.

New test C390012 checks that Ada.Tags.Generic\_Dispatching\_Constructor operates properly.

Type New\_Window in test C416A02 uses the components of its parent type in the implementations of various routines in the package body C416A02\_A. Since the parent type is private, these components aren't visible. The package C416A02\_A was made a child of the foundation F416A00 to correct this problem; various other errors were also corrected.

New tests C650A02, C650B01, C650B02, and C650B03 check that functions that return tagged types return objects with the appropriate tag. A new foundation F650B00 was created for the latter three tests.

Obj52 in test B750A01 and Comp52 in test B750A02 qualified the expression to the wrong type.

New tests B750A04, B750A05, B750A06, B750A07, B750A08, B750A09, B750A10, B750A011, B750A12, and B750A13 test that only legal expressions are allowed in various contexts for a limited type.

Test CXAC008 had a message in subtest 8 that incorrectly identified the failure as in subtest 2.

Foundation F552A00 was corrected to return a value rather than a reference for the Bingo\_Balls example, else the use of 'Access on a component of a cursor fails its accessibility check.

New tests posted between July 1, 2015 and September 30, 2015 will become required for conformity assessments on April 1, 2016. New tests posted between April 1, 2015 and June 30, 2015 will become required for conformity assessments on January 1, 2016. New tests posted between January 1, 2015 and March 31, 2015 will become required for conformity assessments on October 1, 2015. New tests posted before December 31, 2014 are now required for conformity assessments. All tests posted to modification lists for other versions of the ACATS are included in ACATS 4.0 if appropriate and thus are required for conformity assessment using ACATS 4.0. 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).

### 2015 Corrigendum:

Beginning with ACATS Modification List 4.0B, we have included tests for corrections (including new features) in the upcoming 2015 Corrigendum. Most of these corrections have already been approved by WG 9, and those that haven't been are expected to be approved at their next meeting. All of these changes are technically corrections to Ada 2012; as such we will assume all such corrections are implemented for Ada 2012 compilers.

Implementers can request grading modifications for any tests containing 2015 Corrigendum changes until the Corrigendum is approved as a whole by SC22 (expected full 2015 meeting).

### 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 Ada standard as available at <http://www.adaic.org/resources/add-contentstandards/12rm/html/RM-TOC.html>.

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### Main list:

==== Core Language =====

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

C324001	[Modified]	VCS Label: A4_0E	Eliminated overlong lines.
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C324002 [Allowed Modification] New VCS Label: A4\_0F Org VCS Label: A4\_0  
Required after 2015-10-01  
[VCS Label A4\_0E] Eliminated overlong lines.  
[VCS Label A4\_0F] Replaced last test case (qualified expressions),  
as that check is required by the Corrigendum.

C324003 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
[VCS Label A4\_0E] Check that predicates are checked in the correct  
order and that the specified exception is raised.  
[VCS Label A4\_0H] Missing function Name is defined.

C324004 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check predicate checks are not performed for static and dynamic  
subtype predicates when the assertion policy is Ignore, but  
memberships, the Valid attribute, and for loops continue to use  
the predicates -- case A: global assertion policy pragmas

C324005 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check predicate checks are not performed for static and dynamic  
subtype predicates when the assertion policy is Ignore, but  
memberships, the Valid attribute, and for loops continue to use  
the predicates -- case B: specific assertion policy pragmas

C390012 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check the operation of Ada.Tags.Generic\_Dispatching\_Constructor.

C391003 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] 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 A4\_0E] Eliminate an overlong line.

B393011 [Pending New] New VCS Label: A4\_0D  
Required after 2015-10-01  
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.

C3A1003 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that a dereference of an  
access-to-tagged-incomplete type can be passed as a parameter.  
[VCS Label A4\_0E] Eliminated overlong lines.

C3A1004 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that a parameter of a tagged incomplete  
type can be passed as a parameter.  
[VCS Label A4\_0E] Eliminated overlong lines.

B3A1008 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that a dereference of an  
access-to-incomplete type cannot be used as a prefix.

[VCS Label A4\_0E] Eliminated overlong lines.

B3A1009 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] 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 A4\_0E] Eliminated overlong lines.

B3A1010 [Pending New] New VCS Label: A4\_0D  
Required after 2015-10-01  
Check that a dereference of an access-to-formal incomplete type  
cannot be used as a prefix. Check that a parameter of a tagged  
formal incomplete type cannot be used as a prefix.

C3A2004 [New] VCS Label: A4\_0C  
Check that the type of the prefix of 'Access is used to resolve  
the expected type of the use of the attribute.

B3A2017 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0C] 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 A4\_0E] Eliminated overlong lines.

B415001 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check various rules associated with the specification of aspect  
Implicit\_Dereference.

B415002 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that the object denoted by a generalized reference cannot  
be used as a variable if the discriminant has an  
access-to-constant type.

C415001 [Allowed Modification] New VCS Label: A4\_0F Org VCS Label: A4\_0  
Required after 2015-10-01  
Expression @155-6 violates 6.4.1(6.17/3).

B416002 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that a generalized indexing is illegal in a variable context  
if no Variable\_Indexing is specified and Constant\_Indexing  
specifies a function returning an ordinary object.

B416A01 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
When both Constant\_Indexing and Variable\_Indexing are  
specified, check that a generalized indexing is illegal if it is  
called in variable contexts when the prefix is a constant and  
Constant\_Indexing specifies a function returning an ordinary  
object.

C416A01 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that the name specified for a Constant\_Indexing or  
Variable\_Indexing aspect can refer to a set of overloaded  
functions, with two or more parameters, and that all of those

functions can be used in a generalized indexing.

- C416A02 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
[VCS Label A4\_0F] Check that the overloaded routines can be added to an inherited indexing aspect and the new routines can be used in a generalized indexing.  
[VCS Label A4\_0H] Correct package C416A02\_A to be a child of the foundation.
- C431002 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Check that a component association of others => <> in a record or extension aggregate may have any number of associated components, including none. (Case 2: Null records and extensions.)  
[VCS Label A4\_0E] Eliminated overlong line.
- B431005 [New] VCS Label: A4\_0B  
Check that a component association with an expression in a record or extension aggregate that have more than one associated component is illegal if the expression is illegal for any one of the associated components.
- B431006 [New] VCS Label: A4\_0C  
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.
- C433002 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Check that no array components can be outside of the index subtype for an array aggregate, even when the components are specified by <>.  
[VCS Label A4\_0E] Eliminated overlong lines.
- B433003 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that an others choice is not allowed in an array aggregate that is used as the return expression of an expression function or the expression of a return statement if the result subtype of the function is unconstrained.
- C433003 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Check that for each association with a box in an array aggregate, the component is initialized by default (scalar types with Default\_Values).  
[VCS Label A4\_0E] Eliminated overlong lines.
- C433004 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Check that for each association with a box in an array aggregate, the component is initialized by default (array types with Default\_Component\_Values).  
[VCS Label A4\_0E] Object O6 @136 expects the wrong result.  
Eliminated overlong lines.
- C433005 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Check that the constraint of the constrained

array subtype of a function return is used to determine the bounds of an array aggregate with an others choice in the expression of a return statement.  
[VCS Label A4\_OE] Eliminated overlong lines.

- C433006 [Pending New] New VCS Label: A4\_OF  
Required after 2016-01-01  
Check that the constraint of the constrained array subtype of a function return is used to determine the bounds of an array aggregate with an others choice in the return expression of an expression function.
- B457002 [Pending New] New VCS Label: A4\_OD  
Required after 2015-10-01  
Check that 'others' must be last and alone in a case expression.
- B457003 [Pending New] New VCS Label: A4\_OD  
Required after 2015-10-01  
Check that 'else' cannot be omitted for an if expression if the type of the expression is not a boolean type.
- B457004 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
[VCS Label A4\_OD] Check that case choice coverage and staticness are enforced for case expressions.  
[VCS Label A4\_OE] Eliminated overlong lines.
- B457005 [Pending New] New VCS Label: A4\_OD  
Required after 2015-10-01  
Check that all or none of the dependent expressions of a conditional expression can be dynamically tagged if the type of the expression is a specific tagged type.
- B480002 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
[VCS Label A4\_OD] 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 A4\_OE] Eliminated overlong lines and tab characters.
- B480003 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
[VCS Label A4\_OD] 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 A4\_OE] Eliminated overlong lines and tab characters.
- C540002 [Modified] VCS Label: A4\_OE  
Eliminated overlong lines.
- C550001 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
[VCS Label A4\_OC] Check that for loops iterate properly over subtypes with static predicates.  
[VCS Label A4\_OE] Eliminated overlong lines.
- B551001 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
Check legality rules for aspect Default\_Iterator.
- B551002 [Pending New] New VCS Label: A4\_OE

Required after 2015-10-01  
Check legality rules for aspect `Iterator_Element`.

B552001 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
Check legality rules for array component iterators from the 2015 Corrigendum.

C552001 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
Check correct operation of array component iterators.

C552002 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
Check correct operation of array component iterators where the array has convention Fortran.

C552A01 [Modified] VCS Label: A4\_0E  
Eliminated violations of ACATS lexical rules.

C552A02 [Modified] VCS Label: A4\_0E  
Eliminated violations of ACATS lexical rules.

B552A04 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
Check legality rules for container element iterators (most of the checked rules are from the 2015 Corrigendum).

B552A05 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
Check legality rules for generalized iterators from the 2015 Corrigendum).

B640001 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0C] Check that abstract nondispatching operations do not participate in resolution.  
[VCS Label A4\_0E] Eliminated overlong lines and tab characters.

C640002 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0C] Check that an abstract nondispatching operator provides a way to eliminate an unwanted predefined operator.  
[VCS Label A4\_0E] Eliminate overlong lines.

B650005 [New] VCS Label: A4\_0C  
Check that the accessibility level of the return subtype indication of an extended return statement cannot be statically deeper than that of the function result if that result is class-wide.

B650006 [New] VCS Label: A4\_0C  
Check that an extended return statement with a constant return object cannot omit the initializing expression.

C650A02 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that the result of a function that returns a class-wide tagged type has the tag of the return expression, if the `return_subtype_indication` (if any) is class-wide.  
Case A: limited types.

C650B01 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that the result of a function that returns a specific tagged type has the tag of the tagged result type, even if the return expression has a different tag.

C650B02 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that the result of a function that returns a class-wide tagged type has the tag of the return expression, if the return\_subtype\_indication (if any) is class-wide.  
Case B: non-limited types.

C650B03 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that the result of a function that returns a class-wide tagged type has the tag of the return\_subtype\_indication if it is a specific tagged type.

B730009 [Modified] VCS Label: A4\_0E  
Completion of Priv12 @131 violates 7.3(10.1/3).

B730010 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
Check 7.3(10.1/3).

B732001 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check various resolution and legality rules for aspect Type\_Invariant.  
[VCS Label A4\_0E] Length @80 should have return type Natural.  
Changed Is\_Valid to Is\_Clean @95, 97, 146 so that the inherited routine doesn't come into play.

C732001 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that assertion checks are made after assignments to and calls with actuals of appropriate view conversions.  
[VCS Label A4\_0E] Eliminated overlong lines.

C732002 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check some differences between specific and class-wide type invariants.

C732A01 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that the failure of a Type\_Invariant check raises Assertion\_Error (constrained array).  
[VCS Label A4\_0E] Eliminated overlong lines.

C732A02 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that the failure of a Type\_Invariant check raises Assertion\_Error (part of unconstrained array).

C732B01 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that the failure of a Type\_Invariant check raises



Assertion\_Error (discriminated record).

C732B02 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that the failure of a Type\_Invariant check raises  
Assertion\_Error (access-to-record).

B732C01 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that the aspect Type\_Invariant can only  
be specified on private types, private extensions, and full types  
that complete one of the others.  
[VCS Label A4\_0E] Eliminate overlong lines.

C732C01 [Pending New] New VCS Label: A4\_0D  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that the failure of a Type\_Invariant check  
raises Assertion\_Error (tagged record).  
[VCS Label A4\_0E] Eliminated overlong lines.

B732C02 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that the aspect Type\_Invariant'Class can  
only be specified on private types, private extensions, and  
interfaces.  
[VCS Label A4\_0E] Eliminate overlong lines.

B750A01 [Allowed Modification] New VCS Label: A4\_0H Org VCS Label: A4\_0  
Required after 2016-01-01  
The qualification @129 should be for Lim\_Ext, not Lim\_Rec.

B750A02 [Allowed Modification] New VCS Label: A4\_0H Org VCS Label: A4\_0  
Required after 2016-01-01  
The qualification @131 should be for Lim\_Ext, not Lim\_Rec.

B750A04 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed in the qualified  
expression of an allocator for a limited object.

B750A05 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed in the  
initialization expression of an extended return statement for a  
limited object.

B750A06 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed in the expression  
of a simple return statement for a function that returns a  
limited type.

B750A07 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed in the return  
expression of an expression function that returns a limited type.

B750A08 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed as the dependent  
expressions of a conditional expression used as the initialization

expression of an object declaration of a limited type.

- B750A09 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed as the dependent expressions of a conditional expression used as the default expression of a component declaration of a limited type.
- B750A10 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed as the dependent expressions of a conditional expression used as the qualified expression of an initialized allocator for a limited object.
- B750A11 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed as the dependent expressions of a conditional expression used as the initializing expression of an extended return statement that returns a limited type.
- B750A12 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed as the dependent expressions of a conditional expression used as the expression of a simple return statement that returns a limited type.
- B750A13 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Check that only legal expressions are allowed as the dependent expressions of a conditional expression used as the return expression of an expression function that returns a limited type.
- C760014 [New] VCS Label: A4\_0A  
Check that Ada.Finalization is declared pure.
- C760015 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that a controlled type can be declared within a subprogram.  
[VCS Label A4\_0E] Eliminate overlong lines.
- C831001 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that overriding indicators do not change the dynamic effect of calls.
- B831004 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that overriding indicators are properly enforced for types derived from a generic formal type. (Nested generic specification cases.)
- B831005 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that overriding indicators are properly enforced for types derived from a generic formal type. (Library unit and body cases.)
- B840002 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check a package use clause cannot denote a limited view or a

non-package.

- B840003 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check a use all type clause does not make non-primitives or class-wide operations that aren't directly declare where a primitive operation would be visible.
- BA12017 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0C] Check that a limited with clause is not allowed on a descendant of the named package.  
[VCS Label A4\_0E] Eliminated overlong line.
- BA15003 [New] VCS Label: A4\_0C  
Check that a library unit pragma must apply to a library unit.
- CA21002 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
Check that Pure and Preelaborate aspects can be specified with an object declared in another package.
- CB30001 [New] VCS Label: A4\_0B  
Check that the optional message parameter is supported in a raise statement, and that the message can be retrieved with Exception\_Message.
- CB30002 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Check that the optional message parameter is supported in a raise expression, and that the message can be retrieved with Exception\_Message.  
[VCS Label A4\_0E] Eliminated overlong lines and tab characters.
- CC30003 [Modified] VCS Label: A4\_0E  
Eliminated overlong lines.
- CC30004 [Modified] VCS Label: A4\_0E  
Eliminated overlong lines and tab characters.
- CC51010 [Pending New] New VCS Label: A4\_0D  
Required after 2015-10-01  
[VCS Label A4\_0D] Check that a generic unit with a tagged incomplete formal type can be instantiated with an incomplete view of a type from a limited withed package, and that operations in the instance can be used normally when the full view of the type is visible.  
[VCS Label A4\_0E] Added constructor function to generic, as Elem'Unchecked\_Access is illegal when Elem is incomplete. Moved body of CC51010\_2 so it compiles after another package on which it depends.
- BC60001 [New] VCS Label: A4\_0C  
Test rules associated with formal subprogram defaults of null.
- CC60001 [Pending New] New VCS Label: A4\_0G  
Required after 2016-01-01  
Check that calls on a formal abstract subprogram are dispatching.
- BC60002 [Pending New] New VCS Label: A4\_0G  
Required after 2016-01-01

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

- BC60003 [Pending New] New VCS Label: A4\_0G  
Required after 2016-01-01  
Check that the actual subprogram for a formal abstract subprogram must be a dispatching operation of the controlling type.
- BC60004 [Pending New] New VCS Label: A4\_0G  
Required after 2016-01-01  
Check that a call on a formal abstract subprogram must be dispatching.
- CD30006 [Modified] VCS Label: A4\_0E  
Eliminated overlong lines and tab characters.
- CD30007 [Modified] VCS Label: A4\_0E  
Eliminated overlong lines.
- BDB3A01 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Test resolution and legality rules for pragma and aspect Default\_Storage\_Pool.  
[VCS Label A4\_0E] Declaration of Pool @53 is missing the TC\_Id discriminant.
- CDB3A01 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Test that aspect Default\_Storage\_Pool changes the default storage pool for a generic instantiation.  
[VCS Label A4\_0E] Eliminated overlong line.
- BDD2004 [Modified] VCS Label: A4\_0E  
[VCS Label A4\_0B] Error @229 is legal by AI12-0121-1.  
[VCS Label A4\_0E] Eliminated overlong lines.
- BDD2005 [Modified] VCS Label: A4\_0E  
[VCS Label A4\_0B] Replaced test cases waiting on AI12-0106-1 (now approved) and made changes required by AI12-0121-1.  
[VCS Label A4\_0E] Eliminated overlong lines.
- CXA4037 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check Ada.Strings.Fixed.Find-Token against rule from 2001 Corrigendum.
- CXA5016 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0C] Check operation of attribute Machine\_Rounding.  
[VCS Label A4\_0E] Eliminated overlong lines.
- CXAA021 [New] VCS Label: A4\_0C  
Check file operations of Text\_IO.Bounded\_IO.
- CXAA022 [New] VCS Label: A4\_0C  
Check file operations of Text\_IO.Unbounded\_IO.
- CXAB002 [New] VCS Label: A4\_0C  
Check file operations of Wide\_Text\_IO.Wide\_Bounded\_IO.
- CXAB003 [New] VCS Label: A4\_0C

Check file operations of Wide\_Wide\_Text\_IO.Wide\_Wide\_Bounded\_IO.

CXAB004 [New] VCS Label: A4\_OC  
Check file operations of Wide\_Text\_IO.Wide\_Unbounded\_IO.

CXAB005 [New] VCS Label: A4\_OC  
Check file operations of Wide\_Wide\_Text\_IO.Wide\_Wide\_Unbounded\_IO.

CXAC008 [Pending New] New VCS Label: A4\_OH  
Required after 2016-04-01  
[VCS Label A4\_OC] Check that Stream\_IO files opened with mode Out\_File are not truncated by Close or Reset.  
[VCS Label A4\_OD] Corrected required file size in subtest 8, and various failure messages.  
[VCS Label A4\_OE] Eliminated overlong lines.  
[VCS Label A4\_OH] Corrected a failure message.

CXAG001 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
Check that Ada.Directories can be used to create and delete directories.

CXAG002 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
Check that Ada.Directories.Hierarchical\_File\_Names exists and works as expected.

CXAH001 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
[VCS Label A4\_OD] Test that package Environment\_Variables can be used to read environment variables.  
[VCS Label A4\_OE] Added missing Applicability Criteria.

CXAH002 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
[VCS Label A4\_OD] Test that package Environment\_Variables can be used to modify environment variables.  
[VCS Label A4\_OE] Added missing Applicability Criteria.

CXAH003 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01  
[VCS Label A4\_OD] Test the two parameter Value in package Environment\_Variables.  
[VCS Label A4\_OE] Added missing Applicability Criteria.

BXAI001 [New] VCS Label: A4\_OB  
Test that package Hashed\_Maps does not allow reverse iterators.

BXAI002 [New] VCS Label: A4\_OB  
Test that package Hashed\_Sets does not allow reverse iterators.

BXAI003 [New] VCS Label: A4\_OB  
Test that package Bounded\_Hashed\_Maps does not allow reverse iterators.

BXAI004 [New] VCS Label: A4\_OB  
Test that package Bounded\_Hashed\_Sets does not allow reverse iterators.

BXAI005 [Pending New] New VCS Label: A4\_OE  
Required after 2015-10-01

[VCS Label A4\_0B] Test that package Hashed\_Sets does not allow direct writing of set elements.  
[VCS Label A4\_0E] Eliminated overlong lines.

BXAI006 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Test that package Ordered\_Sets does not allow direct writing of set elements.  
[VCS Label A4\_0E] Eliminated overlong lines.

BXAI007 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Test that package Bounded\_Hashed\_Sets does not allow direct writing of set elements.  
[VCS Label A4\_0E] Eliminated overlong lines.

BXAI008 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Test that package Bounded\_Ordered\_Sets does not allow direct writing of set elements.  
[VCS Label A4\_0E] Eliminated overlong lines.

BXAIA01 [New] VCS Label: A4\_0B  
Test that package Indefinite\_Hashed\_Maps does not allow reverse iterators.

BXAIA02 [New] VCS Label: A4\_0B  
Test that package Indefinite\_Hashed\_Set does not allow reverse iterators.

BXAIA03 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Test that package Indefinite\_Hashed\_Sets does not allow direct writing of set elements.  
[VCS Label A4\_0E] Eliminated overlong lines.

BXAIA04 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Test that package Indefinite\_Ordered\_Sets does not allow direct writing of set elements.  
[VCS Label A4\_0E] Eliminated overlong lines.

CXAI027 [Modified] VCS Label: A4\_0B  
Corrected the name of the package that is reported as being tested.

BXB3001 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check B.3.3(8/2).

BXB3002 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check B.3.3(9/3).

BXB3003 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check B.3.3(11/2).

BXB3004 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check that rules for the application of aspect Unchecked\_Union are

enforced.

CXB3019 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check B.3.3(23/2).

CXB3020 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check B.3.3(24/2).

CXB3021 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check B.3.3(25/2).

CXB3022 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Check B.3.3(26/2).

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Annex C  
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[None.]

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Annex D  
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[None.]

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Annex E  
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[None.]

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Annex F  
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[None.]

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Annex G  
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[None.]

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

[None.]

=====  
Support  
=====

F416A00 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Foundation for tests B416A01, C416A01, and C416A02.

F552A00 [Allowed Modification] New VCS Label: A4\_0H Org VCS Label: A4\_0E  
Required after 2016-01-01  
The Constant\_Reference routine @237 and @388 needs to return a  
Bingo\_Call value rather than a reference, (and then was renamed)  
in order to prevent an accessibility failure.

F650B00 [Pending New] New VCS Label: A4\_0H  
Required after 2016-04-01  
Foundation for tests C650B01, C650B02, and C650B03.

F732A00 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01

[VCS Label A4\_0D] Foundation for test C732A01.  
[VCS Label A4\_0E] Eliminated overlong lines.

F732A00 [Allowed Modification] New VCS Label: A4\_0F Org VCS Label: A4\_0E  
Required after 2016-01-01  
[VCS Label A4\_0F] Added types and operations to support test  
C732A02. They are only needed for that test.

F732B00 [Pending New] New VCS Label: A4\_0F  
Required after 2016-01-01  
Foundation for tests C732B01 and C732B02.

F732C00 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0D] Foundation for tests B732C01, B732C02, and  
C732C01.  
[VCS Label A4\_0E] Eliminated overlong lines.

FDB3A00 [Pending New] New VCS Label: A4\_0E  
Required after 2015-10-01  
[VCS Label A4\_0B] Foundation for test BDB3A01 and CDB3A01.  
[VCS Label A4\_0E] Eliminated overlong line.

IMPDEF [Modified] VCS Label: A4\_0E  
[VCS Label A4\_0D] Added constants for the names of environment  
variables used by tests CXAH001, CXAH002, and CXAH003. 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 A4\_0E] Added a constant and function used by tests  
CXAG001 and CXAG002. The change is only needed for those tests,  
it has no effect on any other tests.

### **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\_0H.Zip and Tar files on the ACAA web site.

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

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

The baseline ACATS 4.0 is available in various formats on the ACAA web site.

### **Summary lists:**

#### **Withdrawn Tests**



(Refer to the main list for details)

B43102A

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### **Allowed Modification Tests**

(Refer to the main list for details)

B750A01	2016-01-01
B750A02	2016-01-01
C324002	2015-10-01
C415001	2015-10-01

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### **Modified Tests**

(Refer to the main list for details)

B730009  
BDD2004  
BDD2005  
C324001  
CXAI027  
CC30003  
CC30004  
CD30006  
CD30007  
IMPDEF [VCS\_Label\_A4\_0E]

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### **New Tests**

(Refer to the main list for details)

B431005  
B431006  
B640001  
B650005  
B650006  
BA15003  
BC60001  
BXAI001  
BXAI002  
BXAI003  
BXAI004  
BXAIA01  
BXAIA02  
C3A2004  
C760014  
CB30001  
CXA5016  
CXAA021  
CXAA022

CXAB002  
CXAB003  
CXAB004  
CXAB005

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### **Pending New Tests**

(Refer to the main list for details)

B393011	2015-10-01
B3A1008	2015-10-01
B3A1009	2015-10-01
B3A1010	2015-10-01
B3A2017	2015-10-01
B415001	2016-01-01
B415002	2016-01-01
B416002	2016-01-01
B416A01	2016-01-01
B433003	2016-01-01
B457002	2015-10-01
B457003	2015-10-01
B457004	2015-10-01
B457005	2015-10-01
B480002	2015-10-01
B480003	2015-10-01
B551001	2015-10-01
B551002	2015-10-01
B552001	2015-10-01
B552A04	2015-10-01
B552A05	2015-10-01
B730010	2015-10-01
B732001	2015-10-01
B732C01	2015-10-01
B732C02	2015-10-01
B750A04	2016-04-01
B750A05	2016-04-01
B750A06	2016-04-01
B750A07	2016-04-01
B750A08	2016-04-01
B750A09	2016-04-01
B750A10	2016-04-01
B750A11	2016-04-01
B750A12	2016-04-01
B750A13	2016-04-01
B831004	2016-01-01
B831005	2016-01-01
B840002	2016-01-01
B840003	2016-01-01
BA12017	2015-10-01
BC60002	2016-01-01
BC60003	2016-01-01
BC60004	2016-01-01
BDB3A01	2015-10-01
BXAI005	2015-10-01
BXAI006	2015-10-01
BXAI007	2015-10-01
BXAI008	2015-10-01
BXAIA03	2015-10-01
BXAIA04	2015-10-01

BXB3001	2016-01-01
BXB3002	2016-01-01
BXB3003	2016-01-01
BXB3004	2016-01-01
C324003	2016-04-01
C324004	2016-01-01
C324005	2016-01-01
C390012	2016-04-01
C3A1003	2015-10-01
C3A1004	2015-10-01
C416A01	2016-01-01
C416A02	2016-04-01
C431002	2015-10-01
C433002	2015-10-01
C433003	2015-10-01
C433004	2015-10-01
C433005	2015-10-01
C433006	2016-01-01
C550001	2015-10-01
C552001	2015-10-01
C552002	2015-10-01
C640002	2015-10-01
C650A02	2016-04-01
C650B01	2016-04-01
C650B02	2016-04-01
C650B03	2016-04-01
C732001	2015-10-01
C732002	2016-01-01
C732A01	2015-10-01
C732A02	2016-01-01
C732B01	2016-01-01
C732B02	2016-01-01
C732C01	2015-10-01
C760015	2015-10-01
C831001	2016-01-01
CA21002	2015-10-01
CB30002	2015-10-01
CC51010	2015-10-01
CC60001	2016-01-01
CDB3A01	2015-10-01
CXA4037	2016-01-01
CXAC008	2016-04-01
CXAG001	2015-10-01
CXAG002	2015-10-01
CXAH001	2015-10-01
CXAH002	2015-10-01
CXAH003	2015-10-01
CXB3019	2016-01-01
CXB3020	2016-01-01
CXB3021	2016-01-01
CXB3022	2016-01-01
F416A00	2016-01-01
F650B00	2016-04-01
F732A00	2015-10-01
F732B00	2016-01-01
F732C00	2015-10-01
FDB3A00	2015-10-01