ACATS Modification List for ACATS 3.1
Version 3.1V
March 29, 2019

What is this?

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

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

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

Changes from the last list:

Various tests changed status on January 1st. See the list for details.

New test B452002 checks that the Name Resolution and Legality Rules for the universal access "=" operator are enforced.

New tests posted between January 1, 2019 and March 31, 2019 will become required for conformity assessments on October 1, 2019. New tests posted between October 1, 2018 and December 31, 2018 will become required for conformity assessments on July 1, 2019. New tests posted between July 1, 2018 and September 30, 2018 will become required for conformity assessments on April 1, 2019. New tests posted before July 1, 2018 are required for conformity assessments. The effective dates of tests are marked in the lists.

Questions about this document? Contact the ACAA Technical Agent at agent@ada-auth.org.

Ada 2012 compatibility:

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

Notice:

The ACAA has created and maintains the Ada Conformity Assessment Test Suite for the purpose of conformity assessments conducted in accordance with the International Standard ISO/IEC 18009 - Ada: Conformity assessment of a language processor. This test suite should not be used to make claims of conformance unless used in accordance with ISO/IEC 18009 and any applicable ACAA procedures.

List explanation:

Test numbers given are for the basic test. Categories are "Withdrawn" (the test should not be processed for Ada conformity assessments); "Allowed Modification" (either the original test or the modified one should be processed for Ada conformity assessments); "Modified" (the modified test must be processed for Ada conformity assessments); "Pending New" (the test does not need to be processed for Ada conformity

assessments, but will be added in the future); "New" (the test is processed for Ada conformity assessments).

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

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

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

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

Main list:

===== Core Language =====

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

C352001 [Modified] VCS Label: A3_1Q
      Corrected Failed message @267 to reflect intended result.

B354002 [New] VCS Label: A3_1Q
      Test basic requirements for the Mod attribute.

C354004 [New] VCS Label: A3_1Q
      Test basic operation of the Mod attribute.

B37309B [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B37310B [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B37311A [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B38003D [Modified] VCS Label: A3_1M
      Corrected error tags @70,76,82,88 so "optional" and "error" are
      on the same line, as required by the test standards.

B38105A [Withdrawn] Org VCS Label: A3_1B
      Replaced by tests B3A1007 and B3A1A05 (and existing tests B3A1A01
      and B3A1A02).
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C390012 [New] VCS Label: A3_1J
      Check the operation of Ada.Tags.Generic_Dispatching_Constructor.

C391003 [New] VCS Label: A3_1F
      [VCS Label A3_1E] Check that a type extension can be declared in
      a more nested scope than its parent type, and that overridden
      subprograms of that extension can be dispatched to.
      [VCS Label A3_1F] Eliminated an overlong line.

B392002 [Modified] VCS Label: A3_1R
      Revised to use Possible Error tags, and added error location
      indicators.

B392003 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B392004 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B392005 [Modified] VCS Label: A3_1R
      Revised to use Possible Error tags, and added error location
      indicators.

B393001 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B393005 [Modified] VCS Label: A3_1B
      Declaration @114 is illegal because it inherits an abstract
      function that is not overridden, as described in AI05-0097-1.

B393007 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies. Fixed overlong lines.

B393010 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies. Fixed overlong lines.

B393011 [New] VCS Label: A3_1E
      Check that an abstract routine of an abstract partial view
      overridden by a non-abstract routine in the private part requires
      overriding when it is inherited if the private part is not visible
      where it is inherited.

C3A0030 [New] VCS Label: A3_1L
      Check that an access discriminant is only null excluding if it
      includes a null exclusion.

B3A1001 [Modified] VCS Label: A3_1M
      [VCS Label A3_1B] Type UT1 @78 is supposed to be tagged
      incomplete, else it's the same as type U1.
      [VCS Label A3_1M] Split Pack6 so possible error sets don't
      intersect; fixed overlong lines.

B3A1002 [Modified] VCS Label: A3_1M
      [VCS Label A3_1B] Type UT1 @77 is supposed to be tagged
      incomplete, else it's the same as type U1.
      [VCS Label A3_1M] Split Pack6 so possible error sets don't
      intersect; fixed overlong lines.

C3A1003 [New] VCS Label: A3_1E
      Check that a dereference of an access-to-tagged-incomplete type
      can be passed as a parameter.

C3A1004 [New] VCS Label: A3_1E
      Check that a parameter of a tagged incomplete type can be passed
      as a parameter.

B3A1007 [New] VCS Label: A3_1B
      Check that constraints and exclusions aren't allowed on an
      incomplete type in access type and subtype declarations.

B3A1008 [New] VCS Label: A3_1F
      [VCS Label A3_1E] Check that a dereference of an
      access-to-incomplete type cannot be used as a prefix.
      [VCS Label A3_1F] Eliminated overlong lines.

B3A1009 [New] VCS Label: A3_1F
      [VCS Label A3_1E] Check that a dereference of an
      access-to-incomplete view cannot be used as a prefix. Check that
      a parameter of an incomplete view cannot be used as a prefix.
      [VCS Label A3_1F] Eliminated overlong lines.

B3A1A05 [New] VCS Label: A3_1B
      Check that generic formal objects cannot be declared with an
      incomplete view.

C3A2004 [New] VCS Label: A3_1D
      Check that the type of the prefix of 'Access is used to resolve
      the expected type of the use of the attribute.

B3A2007 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B3A2008 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B3A2009 [Modified] VCS Label: A3_1R
      Removed tabs to meet test format standards; added error location
      indicators.

B3A2011 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B3A2012 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

B3A2016 [Modified] VCS Label: A3_1R
     Added additional error locations to directly support common error
     reporting strategies.

B3A2017 [New] VCS Label: A3_1F
     [VCS Label A3_1D] Check P'Access is not allowed in a generic body
     if P is declared in the generic (including in the parent of a
     child or in a formal package) and the access type is a formal type
     or outside of the generic.
     [VCS Label A3_1F] Eliminated overlong lines.

B413004 [Modified] VCS Label: A3_1T
     PPA and PFA trigger the issue of AI12-0289-1; explicit null
     exclusions were added to the parameters to avoid it.

B431006 [New] VCS Label: A3_1D
     Check that if a variant part is not nested in an unselected
     variant, the value of the governing discriminant of a variant in
     a record aggregate cannot be non-static.

B43102A [Withdrawn] VCS Label: A3_1D
     Replaced by B431006.

B452002 [Pending New] New VCS Label: A3_1V
                    Required after 2019-10-01
     Check that Resolution and Legality Rules for the universal access
     equality operator are enforced.

C452A01 [Pending New] New VCS Label: A3_1U
                    Required after 2019-07-01
     Check that "=" for language-defined private types behaves as if it
     is predefined. Part 1: core types.

C452A02 [Pending New] New VCS Label: A3_1U
                    Required after 2019-07-01
     Check that "=" for language-defined private types behaves as if it
     is predefined. Part 2: types of the Ada.Strings subsystem.

C452A03 [Pending New] New VCS Label: A3_1U
                    Required after 2019-07-01
     Check that "=" for language-defined private types behaves as if it
     is predefined. Part 3: Annex C types.

C453001 [New] VCS Label: A3_1Q
     Check that modular adding operators wrap around rather than
     raising Constraint_Error.

B455002 [Modified] VCS Label: A3_1M
     Corrected casing of error tags and fixed overlong lines.

C460014 [New] VCS Label: A3_1P
     Check that Constraint_Error is raised appropriately when
     converting access-to-classwide to another access type.

C460015 [New] VCS Label: A3_1P
     Check that Constraint_Error is raised appropriately when

converting access-to-limited-classwide to another access type.

C480001 [New] VCS Label: A3_1Q
    [VCS Label A3_1L] Check that an initialized allocator for a
    class-wide type does an accessibility check on the tag of the
    initializing object.
    [VCS Label A3_1Q] Changed mode to "in" (instead of "in out") @103
    & 144 as those parameters are used in functions, making that an
    Ada 2012 feature, and this is an Ada 2005 test.

B480002 [New] VCS Label: A3_1F
    [VCS Label A3_1E] Check that an initialized allocator for an
    access type with a class-wide designated type does not create an
    object whose type is more local than the access type.
    [VCS Label A3_1F] Eliminate overlong lines and tab characters.

B480003 [New] VCS Label: A3_1L
    [VCS Label A3_1E] Check that an uninitialized allocator for an
    access type with a class-wide designated type does not create an
    object whose type is more local than the access type.
    [VCS Label A3_1F] Eliminate overlong lines and tab characters.
    [VCS Label A3_1L] Corrected test objective and test description;
    the test code is unmodified.

B480004 [New] New VCS Label: A3_1R
    Check that an allocator is illegal if the access type has a
    Storage_Size that is statically zero.

B4A010C [Modified] VCS Label: A3_1R
    Added additional error locations to directly support common error
    reporting strategies.

C52101A [Modified] VCS Label: A3_1M
    Corrected comment @49 not to have the form of an error tag.

B540002 [New] VCS Label: A3_1R
    [VCS Label A3_1B] Check that case statement coverage rules are
    enforced for modular types.
    [VCS Label A3_1R] Added additional error locations to directly
    support common error reporting strategies.

C540002 [New] VCS Label: A3_1B
    [VCS Label A3_1B] Check that the selecting_expression of a case
    statement can be resolved using the requirement that it be any
    discrete type.
    [VCS Label A3_1F] Eliminated overlong lines.

B54B01B [Modified] VCS Label: A3_1R
    Added additional error locations to directly support common error
    reporting strategies.

B54B01C [Modified] VCS Label: A3_1R
    Added additional error locations to directly support common error
    reporting strategies.

B54B02B [Modified] VCS Label: A3_1R
    Added additional error locations to directly support common error

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     reporting strategies.

B54B02C [Modified] VCS Label: A3_1R
     Added additional error locations to directly support common error
     reporting strategies.

B54B02D [Modified] VCS Label: A3_1R
     Added additional error locations to directly support common error
     reporting strategies.

B54B04A [Modified] VCS Label: A3_1R
     Added additional error locations to directly support common error
     reporting strategies.

B54B04B [Modified] VCS Label: A3_1R
     Added additional error locations to directly support common error
     reporting strategies.

B54B05A [Modified] VCS Label: A3_1R
     Added additional error locations to directly support common error
     reporting strategies.

B55B12B [Modified] VCS Label: A3_1R
     Added additional error locations to directly support common error
     reporting strategies.

B55B12C [Modified] VCS Label: A3_1R
     Added additional error locations to directly support common error
     reporting strategies.

C620001 [New] VCS Label: A3_1B
     Check that elementary types are passed by-copy.

B62001C [Modified] VCS Label: A3_1M
     Changed error @35 to be optional, as the syntax error @33 is
     required (and the comment that only one error need be detected is
     bogus).

B62001D [Modified] VCS Label: A3_1M
     Changed error @41 to be optional, as the syntax error @33 is
     required (and the comment that only one error need be detected is
     bogus).

C62003A [Withdrawn] Org VCS Label: A3_1B
     Replaced by test C620001.

B640001 [New] VCS Label: A3_1F
     [VCS Label A3_1D] Check that abstract nondispatching operations
     do not participate in resolution.
     [VCS Label A3_1F] Eliminate overlong lines and tab characters.

C640002 [New] VCS Label: A3_1F
     [VCS Label A3_1D] Check that an abstract nondispatching operator
     provides a way to eliminate an unwanted predefined operator.
     [VCS Label A3_1F] Eliminate overlong lines.

B65005A [Modified] VCS Label: A3_1P
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Added additional error locations to directly support common error
        reporting strategies.

B65005B [Modified] New VCS Label: A3_1P
        Added additional error locations to directly support common error
        reporting strategies.

B651001 [New] VCS Label: A3_1Q
        Check that a return statement cannot apply to a nonreturning
        procedure, and that a renames-as-body of a nonreturning procedure
        has to be a nonreturning procedure (pragma No_Return version).

C651001 [New] VCS Label: A3_1Q
        Check that a nonreturning procedure can raise an exception and
        raises Program_Error otherwise (pragma No_Return version).

C660001 [New] VCS Label: A3_1B
        Check that a matching "/=" is defined for an explicitly declared
        "=" operator with a result of Boolean.

B730006 [Modified] VCS Label: A3_1P
        Corrected format of error tags; added location indicators.

B730008 [New] VCS Label: A3_1A
        Check that a tagged partial view and its completion must have the
        same set of interfaces.

B730009 [New] VCS Label: A3_1F
        [VCS_Label A3_1A] Check that a tagged partial view can be
        synchronized if and only if the completion is a synchronized type.
        [VCS Label A3_1F] Completion of Priv12 @131 violates 7.3(10.1/3).

B730010 [New] VCS Label: A3_1F
        Check 7.3(10.1/3).

B730011 [New] VCS Label: A3_1P
        Test various rules about completions of private types and
        extensions; replaces test B74001A.

B730012 [New] VCS Label: A3_1P
        Test various rules about completions of private types and
        extensions in generic units; replaces test B74001B.

B730013 [New] VCS Label: A3_1Q
        Test operations available for a private type; replaces test
        B74203E.

B73001A [Modified] VCS Label: A3_1P
        Added additional error locations to directly support common error
        reporting strategies.

B73001B [Modified] VCS Label: A3_1P
        Added additional error locations to directly support common error
        reporting strategies.

B73001C [Modified] VCS Label: A3_1P
        Added additional error locations to directly support common error

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     reporting strategies.

B73001D [Modified] VCS Label: A3_1P
     Added additional error locations to directly support common error
     reporting strategies.

B73001E [Modified] VCS Label: A3_1P
     Added additional error locations to directly support common error
     reporting strategies.

B73001F [Modified] VCS Label: A3_1P
     Added additional error locations to directly support common error
     reporting strategies.

B73001G [Modified] VCS Label: A3_1P
     Added additional error locations to directly support common error
     reporting strategies.

B73001H [Modified] VCS Label: A3_1P
     Added additional error locations to directly support common error
     reporting strategies.

B740003 [Modified] VCS Label: A3_1S
     [VCS Label A3_1M] Modified criteria @75 so that it doesn't look
     like an error tag to the grading tools; also fixed an overlong
     line.
     [VCS Label A3_1S] Modified grading to document that processing the
     main is optional. Added error location indicators.

B74001A [Withdrawn] VCS Label: A3_1P
     Replaced by B730011.

B74001B [Withdrawn] VCS Label: A3_1P
     Replaced by B730012.

B74203E [Withdrawn] VCS Label: A3_1Q
     Replaced by B730013.

B750A01 [Modified] VCS Label: A3_1J
     The qualification @129 should be for Lim_Ext, not Lim_Rec.

B750A02 [Modified] VCS Label: A3_1J
     The qualification @131 should be for Lim_Ext, not Lim_Rec.

B750A04 [New] VCS Label: A3_1J
     Check that only legal expressions are allowed in the qualified
     expression of an allocator for a limited object.

B750A06 [New] VCS Label: A3_1J
     Check that only legal expressions are allowed in the expression
     of a simple return statement for a function that returns a
     limited type.

C760015 [New] VCS Label: A3_1L
     [VCS Label A3_1E] Check that a controlled type can be declared
     within a subprogram.
     [VCS Label A3_1F] Eliminated overlong lines.
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[VCS Label A3_1L] Corrected one of the potential results for
    Subtest2(4) to be "Iafcf", not "IafcF".

C760A02 [New] VCS Label: A3_1R
    Checks that functions that return immutably limited types are
    built-in-place.

B83027B [Modified] VCS Label: A3_1R
    The disriminant @90 needs a default expression as all or none of
    the discriminants of a type need defaults. Also added error
    location indicators.

B83027D [Modified] VCS Label: A3_1R
    Corrected bad error tag, and added error location indicators.

B83E01B [Modified] VCS Label: A3_1R
    Removed possible error cascades, reformatted some error tags, and
    added error location indicators.

B831004 [New] VCS Label: A3_1G
    Check that overriding indicators are properly enforced for types
    derived from a generic formal type. (Nested generic specification
    cases.)

B83F02C [Modified] VCS Label: A3_1M
    Updated many optional error markers to match ACATS standards.

B840002 [New] VCS Label: A3_1G
    Check a package use clause cannot denote a limited view or a
    non-package.

B851004 [Modified] VCS Label: A3_1T
    Revised test to eliminate cases whose result would be
    changed by pending AI12-0287-1, and added cases to preserve
    complete testing.

B853001 [New] VCS Label: A3_1S
    Checks that a renamed limited view cannot be used where there is
    not a with for the original package.

B854002 [Pending New] New VCS Label: A3_1T
                Required after 2019-04-01
    [VCS Label A3_1S] When parameter or result has a null exclusion
    for a subprogram rename, check that the subtype of the
    corresponding parameter or result of the renamed subprogram must
    exclude null.
    [VCS Label A3_1T] Corrected wording of the second test objective.

B854003 [Pending New] New VCS Label: A3_1T
                Required after 2019-04-01
    Check various rules about renames as body: conformance of both the
    renaming and renamed entity, and renaming of abstract and
    intrinsic subprograms.

B854004 [Pending New] New VCS Label: A3_1T
                Required after 2019-04-01
    Check that renaming a subprogram that requires overriding is

illegal.

B91003A [Modified] VCS Label: A3_1P
        Added additional error locations to directly support common error
        reporting strategies.

B91003B [Modified] VCS Label: A3_1P
        Added additional error locations to directly support common error
        reporting strategies.

B91003C [Modified] VCS Label: A3_1P
        Added additional error locations to directly support common error
        reporting strategies.

B91003D [Modified] VCS Label: A3_1P
        Added additional error locations to directly support common error
        reporting strategies.

C920001 [New] VCS Label: A3_1B
        Check activation (and non-activation) of tasks declared as (part
        of) return objects in extended return statements.

B940003 [Modified] VCS Label: A3_1P
        Added additional error locations to directly support common error
        reporting strategies.

B940004 [Modified] VCS Label: A3_1P
        Split into 8 files; added location indicators.

B95007B [Modified] VCS Label: A3_1M
        Fixed error markers @62,66,70 to match ACATS standards.

BA1001D [Modified] VCS Label: A3_1R
        Revised to mark the main subprogram as optional, as it is not
        necessary to check the test objective. Added error location
        indicators.

BA1020F [Modified] VCS Label: A3_1R
        Revised to mark the main subprogram as optional, as it is not
        necessary to check the test objective. Added error location
        indicators.

BA11007 [Modified] VCS Label: A3_1R
        Split into six test files to avoid requiring error recovery.

BA11013 [Modified] VCS Label: A3_1R
        Revised to make processing the last compilation unit optional,
        as it is not necessary to check the test objective. Added error
        location indicators.

BA1101E [Withdrawn] Org VCS Label: A3_1R
        Replaced by test BA14001.

BA12010 [Modified] VCS Label: A3_1R
        Revised to use Possible Error tags, and added error location
        indicators.

BA12017 [New] VCS Label: A3_1F
      [VCS Label A3_1D] Check that a limited with clause is not allowed
      on a descendant of the named package.
      [VCS Label A3_1F] Eliminated overlong line.

BA12018 [New] VCS Label: A3_1S
      Check that names mentioned but not named in a private with are
      also treated as privately withed.

BA14001 [New] VCS Label: A3_1R
      Replaces test BA1101E with modern format and additional test cases
      for Ada 95 compilation units.

BA14002 [New] VCS Label: A3_1R
      Similar to BA14001, testing private with.

BA14003 [New] VCS Label: A3_1R
      Checks that a unit is illegal if it depends on two versions of the
      same unit.

BA15003 [New] VCS Label: A3_1D
      Check that a library unit pragma must apply to a library unit.

CB30001 [New] VCS Label: A3_1C
      Check that the optional message parameter is supported in a raise
      statement, and that the message can be retrieved with
      Exception_Message.

BB42001 [New] VCS Label: A3_1L
      Check that the arguments of a pragma Assert have to have the
      correct types.

CB42001 [New] VCS Label: A3_1L
      Check the usual operation of pragma Assert, including the optional
      message.

BB42002 [New] VCS Label: A3_1L
      Check that the arguments of a pragma Assert cannot be reordered
      even if named notation is used.

CB42002 [New] VCS Label: A3_1L
      Check that if the assertion policy is Ignore, none of the
      expressions of a pragma Assert are evaluated and no exception is
      raised by the pragma.

BB42003 [New] VCS Label: A3_1L
      Check that a pragma Assertion_Policy is illegal if the policy is
      not recognized.

CB42003 [New] VCS Label: A3_1L
      Check that procedure Ada.Assertions.Assert evaluates its arguments
      and raises Assertion_Error regardless of the assertion policy.

CC30003 [Modified] VCS Label: A3_1F
      Eliminated overlong lines.

CC30004 [New] VCS Label: A3_1F

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        [VCS Label A3_1B] Check that if a generic actual type is
        elementary, it is passed by copy within an instance.
        [VCS Label A3_1F] Eliminated overlong lines and tab characters.

CC3017C [Withdrawn] Org VCS Label: A3_1B
        Replaced by test CC30004.

BC40003 [Pending New] New VCS Label: A3_1T
                    Required after 2019-04-01
        [VCS A3_1S] Checks that the subtype of the actual for a generic
        formal object with a null exclusion must exclude null.
        [VCS A3_1T] Revised test to eliminate cases whose result would be
        changed by pending AI12-0287-1, and to preserve complete testing.

BC51016 [Modified] VCS Label: A3_1R
        Corrected bad error tag, and added error location indicators.

BC54004 [New] VCS Label: A3_1S
        Checks that the null exclusion of the formal type and of the
        actual subtype for a generic formal access type must match.

BC60001 [New] VCS Label: A3_1D
        Test rules associated with formal subprogram defaults of null.

CC60001 [New] VCS Label: A3_1H
        Check that calls on a formal abstract subprogram are dispatching.

BC60002 [New] VCS Label: A3_1H
        Test rules associated with the controlling type of a formal
        abstract subprogram.

BC60004 [New] VCS Label: A3_1H
        Check that a call on a formal abstract subprogram must be
        dispatching.

BC60005 [Pending New] New VCS Label: A3_1T
                    Required after 2019-04-01
        [VCS Label A3_1S] Checks that the subtype of a parameter or result
        of the actual subprogram for a generic formal subprogram where the
        corresponding parameter or result has a null exclusion must
        exclude null.
        [VCS Label A3_1T] Corrected wording of the second test objective.

CD1009A [Withdrawn] VCS Label: A3_1Q
        Has one of the objectives of, and thus redundant with, test
        CD2A31C (now CD30012).

CD1009B [Withdrawn] VCS Label: A3_1Q
        Has one of the objectives of, and thus redundant with, test
        CD2A21C (now CD30011).

CD1009L [Withdrawn] VCS Label: A3_1Q
        Virtually identical to, and thus redundant with, test CD2D13A.

CD1009M [Withdrawn] VCS Label: A3_1Q
        Virtually identical to, and thus redundant with, test CD3014C.
```

CD2A21C [Withdrawn] VCS Label: A3_1Q
      Replaced by CD30011.

CD2A31C [Withdrawn] VCS Label: A3_1Q
      Replaced by CD30012.

CD30008 [New] VCS Label: A3_1K
      Renaming of previous test CD33001 (there is no subclause 13.3.3).
      The test is unchanged other than renaming the units involved
      and fixing an overlong line.

CD30009 [New] VCS Label: A3_1K
      Renaming of previous test CD33002 (there is no subclause 13.3.3).
      The test is unchanged other than renaming the units involved
      and fixing an overlong line.

CD30011 [New] VCS Label: A3_1Q
      Merges legacy tests CD1009B and CD2A21C to eliminate duplication
      (CD1009B has the same objective as one of the objectives of
      CD2A21C) while adding modern formatting and applicability
      criteria.

CD30012 [New] VCS Label: A3_1Q
      Merges legacy tests CD1009A and CD2A31C to eliminate duplication
      (CD1009A has the same objective as one of the objectives of
      CD2A31C) while adding modern formatting and applicability
      criteria.

CD33001 [Withdrawn] VCS Label: A3_1K
      Renamed to CD30008, as there is no subclause 13.3.3.

CD33002 [Withdrawn] VCS Label: A3_1K
      Renamed to CD30009, as there is no subclause 13.3.3.

BD4003A [Modified] VCS Label: A3_1M
      Moved error marker from @66 to @67 so it is on the incorrect
      construct.

BDB0A01 [Modified] VCS Label: A3_1R
      Revised to use Possible Error tags, and added error location
      indicators.

BDD2003 [Modified] VCS Label: A3_1R
      Added additional error locations to directly support common error
      reporting strategies.

BDD2004 [New] VCS Label: A3_1F
      [VCS Label A3_1A] Check that subprograms specified for stream
      attributes meet the requirements for such subprograms. This
      version corrects the location of 'Class @230, 235, 240.

CXA4037 [New] VCS Label: A3_1G
      Check Ada.Strings.Fixed.Find_Token against rule from 2001
      Corrigendum.

CXA5016 [New] VCS Label: A3_1F
      [VCS Label A3_1D] Check operation of attribute Machine_Rounding.

```
     [VCS Label A3_1F] Eliminated overlong lines.

CXAA021 [New] VCS Label: A3_1D
     Check file operations of Text_IO.Bounded_IO.

CXAA022 [New] VCS Label: A3_1D
     Check file operations of Text_IO.Unbounded_IO.

CXAB002 [New] VCS Label: A3_1D
     Check file operations of Wide_Text_IO.Wide_Bounded_IO.

CXAB003 [New] VCS Label: A3_1D
     Check file operations of Wide_Wide_Text_IO.Wide_Wide_Bounded_IO.

CXAB004 [New] VCS Label: A3_1D
     Check file operations of Wide_Text_IO.Wide_Unbounded_IO.

CXAB005 [New] VCS Label: A3_1D
     Check file operations of Wide_Wide_Text_IO.Wide_Wide_Unbounded_IO.

CXAC008 [New] VCS Label: A3_1J
     [VCS Label A3_1D] Check that Stream_IO files opened with mode
     Out_File are not truncated by Close or Reset.
     [VCS Label A3_1E] Corrected required file size in subtest 8, and
     various failure messages.
     [VCS Label A3_1F] Eliminated overlong lines.
     [VCS Label A3_1J] Corrected a failure message.

CXAG001 [New] VCS Label: A3_1F
     Check that Ada.Directories can be used to create and delete
     directories.

CXAH001 [New] VCS Label: A3_1F
     [VCS Label A3_1E] Test that package Environment_Variables can be
     used to read environment variables.
     [VCS Label A3_1F] Added missing Applicability Criteria.

CXAH002 [New] VCS Label: A3_1F
     [VCS Label A3_1E] Test that package Environment_Variables can be
     used to modify environment variables.
     [VCS Label A3_1F] Added missing Applicability Criteria.

CXAI001 [New] VCS Label: A3_1A
     Check the functionality defined in package Ada.Containers.Vectors.

CXAI002 [New] VCS Label: A3_1A
     Check the functionality defined in package
     Ada.Containers.Doubly_Linked_Lists.

CXAI003 [New] VCS Label: A3_1A
     Check the functionality defined in package
     Ada.Containers.Hashed_Maps.

CXAI004 [New] VCS Label: A3_1A
     Check the functionality defined in package
     Ada.Containers.Ordered_Maps.
```

CXAI005 [New] VCS Label: A3_1A
       Check the functionality defined in package
       Ada.Containers.Hashed_Sets.

CXAI006 [New] VCS Label: A3_1A
       Check the functionality defined in package
       Ada.Containers.Ordered_Sets.

FXAIA00 [New] VCS Label: A3_1A
       Foundation containing types and values to be used to check the
       functionality of the indefinite containers.

CXAIA01 [New] VCS Label: A3_1A
       Check the functionality defined in package
       Ada.Containers.Indefinite_Vectors.

CXAIA02 [New] VCS Label: A3_1A
       Check the functionality defined in package
       Ada.Containers.Indefinite_Doubly_Linked_Lists.

CXAIA03 [New] VCS Label: A3_1A
       Check the functionality defined in package
       Ada.Containers.Indefinite_Hashed_Maps.

CXAIA04 [New] VCS Label: A3_1A
       Check the functionality defined in package
       Ada.Containers.Indefinite_Ordered_Maps.

CXAIA05 [New] VCS Label: A3_1A
       Check the functionality defined in package
       Ada.Containers.Indefinite_Hashed_Sets.

CXAIA06 [New] VCS Label: A3_1A
       Check the functionality defined in package
       Ada.Containers.Indefinite_Ordered_Sets.

CXB3017 [New] VCS Label: A3_1B
       Check that pragma Export can be used on subprograms and objects.

CXB3023 [New] VCS Label: A3_1M
       [VCS Label A3_1K] Check that a value of an unchecked union type
       (defined with pragma Unchecked_Union) can be passed to a C
       function.
       [VCS Label A3_1M] Added missing N/A => ERROR markers.

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

BXC6A03 [Modified] VCS Label: A3_1R
       Removed test case changed by AI05-0218-1.

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

CXD2007 [Modified] VCS Label: A3_1P
       Added missing N/A => Error tag.

LXD7001 [Modified] VCS Label: A3_1P

Added missing error tag.

LXD7003 [Modified] VCS Label: A3_1P
        Added missing error tag.

LXD7004 [Modified] VCS Label: A3_1P
        Added missing error tag.

LXD7005 [Modified] VCS Label: A3_1P
        Added missing error tag.

LXD7006 [Modified] VCS Label: A3_1P
        Added missing error tag.

LXD7007 [Modified] VCS Label: A3_1P
        Added missing error tag.

LXD7008 [Modified] VCS Label: A3_1P
        Added missing error tag.

LXD7009 [Modified] VCS Label: A3_1P
        Added location indicators.

CXDB001 [Modified] VCS Label: A3_1P
        Added missing N/A => Error tag.

CXDB002 [Modified] VCS Label: A3_1P
        Added missing N/A => Error tag.

CXDB003 [Modified] VCS Label: A3_1P
        Added missing N/A => Error tag.

CXDB004 [Modified] VCS Label: A3_1P
        Added missing N/A => Error tag.

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

[None.]

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

[None.]

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

CXG2001 [Modified] VCS Label: A3_1B
        Formula for Model_Mantissa was replaced in Ada 2005 (and really in
        the Corrigendum), but was never updated in this test. This only
        affects machines with decimal floating point.

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

LXH4001 [Modified] VCS Label: A3_1P
        Corrected format of error tag; added location indicators.

LXH4003 [Modified] VCS Label: A3_1P
        Corrected format of error tag; added location indicators.

```
LXH4006 [Modified] VCS Label: A3_1P
       Added missing error tags.

LXH4009 [Modified] VCS Label: A3_1P
       Added missing error tags.

LXH4013 [Modified] VCS Label: A3_1P
       Added missing error tags.

LXH4014 [Modified] VCS Label: A3_1P
       Added missing error tags.

===== Support =====

IMPDEF [Modified] VCS Label: A3_1K
       [VCS Label A3_1B] Added constants for the external names for the
       imported and exported routines in test CXB3017. The change is only
       needed for that test, it has no effect on any other test.
       [VCS Label A3_1E] Added constants for the names of environment
       variables used by tests CXAH001 and CXAH002. Also removed obsolete
       .AW file constants (these are not used as test source has been
       provided in UTF-8 format since the release of ACATS 3.0). The
       change is only needed for those tests, it has no effect on any
       other tests.
       [VCS Label A3_1F] Added a constant and function used by test
       CXAG001. The change is only needed for that test, it has no
       effect on any other tests.
       [VCS Label A3_1K] Added constants for the external name for the
       imported routine in test CXB3023. The change is only
       needed for that test, it has no effect on any other test.

TCTOUCH.ADA [Modified] VCS Label: A3_1S
       Added code so that Touch only reports buffer overflow once.
```

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.

The complete set of official new and modified tests are available in the Mod_3_1V.Zip and Tar files on the ACAA web site. As always, when a multi-file test is modified, we provide all of the files, including the unmodified files.

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

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

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

Summary lists:

Withdrawn Tests

(Refer to the main list for details)

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

Allowed Modification Tests

(Refer to the main list for details)

```
[None in this list.]
```

Modified Tests

(Refer to the main list for details)

```
B37309B
B37310B
B37311A
B38003D
B392002
B392003
B392004
B392005
B393001
B393005
B393007
B393010
B3A1001
B3A1002
```

```
B3A2007
B3A2008
B3A2009
B3A2011
B3A2012
B3A2016
B413004
B455002
B4A010C
B54B01B
B54B01C
B54B02B
B54B02C
B54B02D
B54B04A
B54B04B
B54B05A
B55B12B
B55B12C
B62001C
B62001D
B65005A
B65005B
B730006
B73001A
B73001B
B73001C
B73001D
B73001E
B73001F
B73001G
B73001H
B740003
B750A01
B750A02
B83027B
B83027D
B83E01B
B83F02C
B91003A
B91003B
B91003C
B91003D
B940003
B940004
B95007B
BA1001D
BA1020F
BA11007
BA11013
BA12010
BC51016
BD4003A
BDD2004
BDB0A01
BDD2003
BXC6A03
```

```
C352001
C52101A
C540002
CC30003
CXD2007
CXDB001
CXDB002
CXDB003
CXDB004
CXG2001
IMPDEF [VCS A3_1K]
LXD7001
LXD7003
LXD7004
LXD7005
LXD7006
LXD7007
LXD7008
LXD7009
LXH4001
LXH4003
LXH4006
LXH4009
LXH4013
LXH4014
TCTOUCH
```

New Tests

(Refer to the main list for details)

```
B354002
B393011
B3A1007
B3A1008
B3A1009
B3A1A05
B3A2017
B431006
B480002
B480003
B480004
B540002
B640001
B651001
B730008
B730009
B730010
B730011
B730012
B730013
B750A04
B750A06
```

```
B831004
B840002
B853001
BA12017
BA12018
BA14001
BA14002
BA14003
BA15003
BB42001
BB42002
BB42003
BC54004
BC60001
BC60002
BC60004
BDD2004
C354004
C390012
C391003
C3A0030
C3A1003
C3A1004
C3A2004
C453001
C460014
C460015
C480001
C540001
C620001
C640002
C651001
C660001
C760015
C760A02
C920001
CB30001
CB42001
CB42002
CB42003
CC30004 [VCS Label A3_1F]
CC60001
CD30008
CD30009
CD30011
CD30012
CXA4037
CXA5016
CXAA021
CXAA022
CXAB002
CXAB003
CXAB004
CXAB005
CXAC008
CXAG001
CXAH001
```

```
CXAH002
CXAI001
CXAI002
CXAI003
CXAI004
CXAI005
CXAI006
CXAIA01
CXAIA02
CXAIA03
CXAIA04
CXAIA05
CXAIA06
CXB3017
CXB3023
FXAIA00
```

Pending New Tests

(Refer to the main list for details)

```
B452002     2019-10-01
B854002     2019-04-01
B854003     2019-04-01
B854004     2019-04-01
BC40003     2019-04-01
BC60005     2019-04-01
C452A01     2019-07-01
C452A02     2019-07-01
C452A03     2019-07-01
```