



# Test Assertions for the SCA Assembly Model Version 1.1 Specification

Committee Draft 02 / Public Review Draft 02

8 June 2010

## Specification URIs:

### This Version:

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions-cd02.html>

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions-cd02.odt>

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions-cd02.pdf>  
(Authoritative)

### Previous Version:

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions-cd01.html>

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions-cd01.odt>

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions-cd01.pdf>  
(Authoritative)

### Latest Version:

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions.html>

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions.odt>

<http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-test-assertions.pdf>  
(Authoritative)

## Technical Committee:

OASIS Service Component Architecture / Assembly (SCA-Assembly) TC

[http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=sca-assembly](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=sca-assembly)

## Chair(s):

Martin Chapman, Oracle

Mike Edwards, IBM

## Editor(s):

Mike Edwards, IBM

Eric Wells, Hitachi

Plamen Pavlov, SAP

## Related Work:

This document is related to:

- [Service Component Architecture Assembly Specification Version 1.1](#)

**Declared XML Namespace(s):**

<http://docs.oasis-open.org/ns/opencsa/scatests/200903>  
<http://docs.oasis-open.org/ns/opencsa/scatests/2009032>  
<http://test.sca.oasisopen.org/>  
<http://docs.oasis-open.org/ns/opencsa/scatests/bpel/200903>

**Abstract:**

This document defines the Test Assertions for the SCA Assembly specification.

The Test Assertions represent the testable items relating to the normative statements made in the SCA Assembly specification. The Test Assertions provide a bridge between the normative statements in the specification and the conformance TestCases which are designed to check that an SCA runtime conforms to the requirements of the specification.

**Status:**

This document was last revised or approved by the OASIS Service Component Architecture / Assembly (SCA-Assembly) TC on the above date. The level of approval is also listed above. Check the “Latest Version” or “Latest Approved Version” location noted above for possible later revisions of this document.

Technical Committee members should send comments on this specification to the Technical Committee’s email list. Others should send comments to the Technical Committee by using the “Send A Comment” button on the Technical Committee’s web page at <http://www.oasis-open.org/committees/sca-assembly/>.

For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Intellectual Property Rights section of the Technical Committee web page (<http://www.oasis-open.org/committees/sca-assembly/ipr.php>).

The non-normative errata page for this specification is located at <http://www.oasis-open.org/committees/sca-assembly/>

---

# Notices

Copyright © OASIS® 2009 - 2010. All Rights Reserved.

All capitalized terms in the following text have the meanings assigned to them in the OASIS Intellectual Property Rights Policy (the "OASIS IPR Policy"). The full Policy may be found at the OASIS website.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published, and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this section are included on all such copies and derivative works. However, this document itself may not be modified in any way, including by removing the copyright notice or references to OASIS, except as needed for the purpose of developing any document or deliverable produced by an OASIS Technical Committee (in which case the rules applicable to copyrights, as set forth in the OASIS IPR Policy, must be followed) or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by OASIS or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and OASIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY OWNERSHIP RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OASIS requests that any OASIS Party or any other party that believes it has patent claims that would necessarily be infringed by implementations of this OASIS Committee Specification or OASIS Standard, to notify OASIS TC Administrator and provide an indication of its willingness to grant patent licenses to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification.

OASIS invites any party to contact the OASIS TC Administrator if it is aware of a claim of ownership of any patent claims that would necessarily be infringed by implementations of this specification by a patent holder that is not willing to provide a license to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification. OASIS may include such claims on its website, but disclaims any obligation to do so.

OASIS takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on OASIS' procedures with respect to rights in any document or deliverable produced by an OASIS Technical Committee can be found on the OASIS website. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this OASIS Committee Specification or OASIS Standard, can be obtained from the OASIS TC Administrator. OASIS makes no representation that any information or list of intellectual property rights will at any time be complete, or that any claims in such list are, in fact, Essential Claims.

The names "OASIS" is a trademark of [OASIS](http://www.oasis-open.org), the owner and developer of this specification, and should be used only to refer to the organization and its official outputs. OASIS welcomes reference to, and implementation and use of, specifications, while reserving the right to enforce its marks against misleading uses. Please see <http://www.oasis-open.org/who/trademark.php> for above guidance.

# Table of Contents

1 Introduction.....	5
1.1 Example Test Assertion.....	5
1.2 Terminology.....	5
1.3 Normative References.....	6
1.4 Non-Normative References.....	6
2 Test Assertions.....	7
2.1 Section 4.....	7
2.2 Section 5.....	10
2.3 Section 6.....	25
2.4 Section 7.....	40
2.5 Section 8.....	41
2.6 Section 9.....	47
2.7 Section 10.....	48
2.8 Section 12.....	49
2.9 Section 13.....	62
2.10 Section 14.....	63
3 Cross Mapping of Conformance Statements to Assertions.....	65
4 Conformance.....	71
Appendix A.Acknowledgments.....	72
Appendix B.Revision History.....	73

# 1 Introduction

This document defines the Test Assertions for the SCA Assembly Specification Version 1.1. The test assertions in this document follow the format defined in the OASIS Test Assertion Guidelines specification [TA-GUIDE].

## 1.1 Example Test Assertion

Test assertions are presented in a tabular format with rows corresponding to the entry types defined in [TA-GUIDE].

Assertion ID	ASM-TA-xxxx
Source	[ASMx00yy]
Target	<kitchenSink/> element of composite file
Prerequisites	The <kitchenSink/> element has a @drain attribute
Predicate	The @drain attribute value of the <kitchenSink/> element is a URI that identifies a portal into the drainage system of the Domain.
Prescription Level	Mandatory
Tags	kitchenSink drain Domain

**Assertion ID:** Is a unique ID for the test assertion. Its format starts with a 3 letter string that identifies the specification to which it relates - "ASM" is for the SCA Assembly specification. This is followed by "-TA-" to indicate that this identifier is for a test assertion. This is then followed by a unique 4 digit number.

**Source:** Is the identifier(s) of the normative statement(s) in the specification to which this assertion relates.

**Target:** Identifies the target which is addressed by this assertion. This is typically some SCA document element, or other SCA artifact but possibly could identify an SCA runtime and its behaviour.

**Prerequisites:** Defines any prerequisites for this test assertion. The prerequisites may be defined in terms of one or more other test assertions that must be true.

**Predicate:** The meat of the assertion - something that should evaluate to true or false for the given target.

**Prescription Level:** Mandatory (for MUST requirements) or Preferred (for SHOULD requirements) or Permitted (for MAY requirements).

**Tags:** Zero or more labels that may be attached to this test assertion - these tags can be used to group sets of assertions.

## 1.2 Terminology

The keywords "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this specification are to be interpreted as described in [IETF RFC 2119 \[RFC 2119\]](#)

## 29 1.3 Normative References

- 30 [RFC 2119] S. Bradner. *Key words for use in RFCs to Indicate Requirement Levels*. IETF  
31 RFC 2119, March 1997.  
32 <http://www.ietf.org/rfc/rfc2119.txt>.
- 33 [TA-GUIDE] OASIS Committee Draft 04, *Test Assertion Guidelines*, February 2010.  
34 <http://docs.oasis-open.org/tag/guidelines/v1.0/cd04/testassertionsguidelines-cd-04.pdf>
- 36 [ASSEMBLY] OASIS Committee Draft 05, *Service Component Architecture Assembly Model*  
37 *Specification Version 1.1*, January 2010.  
38 <http://docs.oasis-open.org/opencsa/sca-assembly/sca-assembly-1.1-spec-cd05.pdf>  
39

## 40 1.4 Non-Normative References

- 41 None  
42

## 2 Test Assertions

### 2.1 Section 4

Assertion ID	ASM-TA-4002
Source	[ASM40003]
Target	<service/> element of a <componentType/> element
Prerequisites	The <componentType/> element has >1 <service/> elements
Predicate	The @name attribute of the <service/> element is not equal to the @name attribute of any other <service/> element of the <componentType/>
Prescription Level	Mandatory
Tags	"componentType" "service" "name"

Assertion ID	ASM-TA-4003
Source	[ASM40004]
Target	<reference/> element of a <componentType/> element
Prerequisites	The <componentType/> element has >1 <reference/> elements
Predicate	The @name attribute of the <reference/> element is not equal to the @name attribute of any other <reference/> element of the <componentType/>
Prescription Level	Mandatory
Tags	"componentType" "reference" "name"

Assertion ID	ASM-TA-4004
Source	[ASM40005]
Target	<property/> element of a <componentType/> element
Prerequisites	The <componentType/> element has >1 <property/> elements
Predicate	The @name attribute of the <property/> element is not equal to the @name attribute of any other <property/> element of the <componentType/>
Prescription Level	Mandatory
Tags	"componentType" "property" "name"

52

Assertion ID	ASM-TA-4005
Source	[ASM40006]
Target	<reference/> element of a <component/> where the <reference/> has the @target attribute set to valid target <component/> <service/>
Prerequisites	<reference/> element of the <componentType/> of the <implementation/> used by the <component/> has @wiredByImpl set to "true"
Predicate	<reference/> @target is ignored and the reference is not wired to the identified <component/> <service/>
Prescription Level	Mandatory
Tags	"componentType" "reference" "wiredByImpl"

53

54

Assertion ID	ASM-TA-4006
Source	[ASM40007]
Target	@type attribute of a <property/> element of a <componentType/> element
Prerequisites	
Predicate	@type attribute value of the <property/> element is the QName of an XML schema type
Prescription Level	Mandatory
Tags	"componentType" "property" "type"

55

56

Assertion ID	ASM-TA-4007
Source	[ASM40008]
Target	@element attribute of a <property/> element of a <componentType/> element
Prerequisites	
Predicate	@element attribute value of the <property/> element is the QName of an XSD global element.
Prescription Level	Mandatory
Tags	"componentType" "property" "element"

57

58

Assertion ID	ASM-TA-4008
Source	[ASM40009]
Target	Implementation property value of an <implementation/> of a <component/>



Prerequisites	a) The <property/> element of the <componentType/> element of the implementation has a default value for the property b) <component/> has a corresponding <property/> element that sets a value for the property
Predicate	The runtime value of the implementation property is the value declared by the <component/> <property/> element
Prescription Level	Mandatory
Tags	"component type" "property" "default"

59

60

Assertion ID	ASM-TA-4009
Source	[ASM40010]
Target	<property/> element of <componentType/>
Prerequisites	a) The <property/> element has a @type attribute declared
Predicate	<property/> element does not have an @element attribute declared
Prescription Level	Mandatory
Tags	"component type" "property" "type" "element"

61

62

Assertion ID	ASM-TA-4010
Source	[ASM40010]
Target	<property/> element of <componentType/>
Prerequisites	a) The <property/> element has a @element attribute declared
Predicate	<property/> element does not have an @type attribute declared
Prescription Level	Mandatory
Tags	"component type" "property" "type" "element"

63

64

Assertion ID	ASM-TA-4011
Source	[ASM40011]
Target	<property/> element of a <component/>
Prerequisites	a) <component/> has an <implementation/> which has a componentType with a <property/> element, corresponding to the <component/> <property/> element, which has @mustSupply="true"
Predicate	<property/> element declares a property value which sets the property value of the implementation
Prescription	Mandatory

Level	
Tags	"component type" "property" mustSupply" "value"

65

## 2.2 Section 5

66

67

Assertion ID	ASM-TA-5001
Source	[ASM50002]
Target	<service/> element of a <component/> element
Prerequisites	The <component/> element has >1 <service/> elements
Predicate	The @name attribute of [the <service/> element] not equal to the @name attribute of any other <service/> element of the <component/>
Prescription Level	Mandatory
Tags	"component services"

68

69

Assertion ID	ASM-TA-5002
Source	[ASM50003]
Target	<service/> element of a <component/> element
Prerequisites	The <component/> element has an <implementation/> child element
Predicate	The @name attribute of [the <service/> element] is equal to the @name attribute of one <service/> element of the <componentType/> of the <implementation/> subelement of the <component/>
Prescription Level	Mandatory
Tags	"component services"

70

71

Assertion ID	ASM-TA-5003
Source	[ASM50007]
Target	<reference/> element of a <component/> element
Prerequisites	The <component/> element has >1 <reference/> elements
Predicate	The @name attribute of [the <reference/> element] not equal to the @name attribute of any other <reference/> element of the <component/>
Prescription Level	Mandatory
Tags	"component references"

72

73

Assertion ID	ASM-TA-5004
Source	[ASM50008]
Target	<reference/> element of a <component/> element
Prerequisites	The <component/> element has an <implementation/> child element
Predicate	The @name attribute of [the <reference/> element] is equal to the @name attribute of one <reference/> element of the <componentType/> of the <implementation/> subelement of the <component/>
Prescription Level	Mandatory
Tags	"component references"

74

75

76

Assertion ID	ASM-TA-5005
Source	[ASM50001]
Target	<component/> element in a <composite/> element
Prerequisites	The <composite/> element has >1 <component/> elements
Predicate	The @name attribute of [the <component/> element] not equal to the @name attribute of any other <component/> element in the <composite/>
Prescription Level	Mandatory
Tags	"component names"

77

78

Assertion ID	ASM-TA-5006
Source	[ASM50004]
Target	<service/> element of a <component/> element
Prerequisites	The <service/> element has an <interface/> child element
Predicate	The interface specified by the <interface/> child element of [the <service/> element] is a compatible subset of the interface declared for the <service/> with the same @name attribute in the <componentType/> of the <implementation/> child of the <component/>
Prescription Level	Mandatory
Tags	"compatible interfaces"

79

80

Assertion ID	ASM-TA-5007
Source	[ASM50005]

Target	<service/> element of a <component/> element
Prerequisites	The <service/> element has no <binding/> elements AND <service/> element (with same @name attribute value) of the <componentType/> of the <implementation/> element of the <component/> has 1 or more <binding/> elements
Predicate	The <service/> is made available using all the bindings declared on the <componentType/> <service/> element
Prescription Level	Mandatory
Tags	"service bindings"

81

82

Assertion ID	ASM-TA-5008
Source	[ASM50005]
Target	<service/> element of a <component/> element
Prerequisites	The <service/> element has no <binding/> elements AND <service/> element (with same @name attribute value) of the <componentType/> of the <implementation/> element of the <component/> has no <binding/> elements
Predicate	The <service/> is made available using binding.sca
Prescription Level	Mandatory
Tags	"service bindings"

83

84

Assertion ID	ASM-TA-5009
Source	[ASM50006]
Target	<service/> element of a <component/> element
Prerequisites	The <service/> element has 1 or more <binding/> elements
Predicate	The <service/> is made available using all of the bindings declared on its <binding/> elements
Prescription Level	Mandatory
Tags	"service bindings"

85

86

Assertion ID	ASM-TA-5010
Source	[ASM50009]
Target	<reference/> element of a <component/> element
Prerequisites	<reference/> element (with same @name attribute value) of the

	<componentType/> of the <implementation/> has multiplicity 1..n
Predicate	<reference/> element @multiplicity attribute is 1..n or 1..1
Prescription Level	Mandatory
Tags	"component references" "reference multiplicity"

87

88

Assertion ID	ASM-TA-5011
Source	[ASM50009]
Target	<reference/> element of a <component/> element
Prerequisites	<reference/> element (with same @name attribute value) of the <componentType/> of the <implementation/> has multiplicity 0..n
Predicate	<reference/> element @multiplicity attribute is 0..n or 1..n or 0..1 or 1..1
Prescription Level	Mandatory
Tags	"component references" "reference multiplicity"

89

Assertion ID	ASM-TA-5012
Source	[ASM50009]
Target	<reference/> element of a <component/> element
Prerequisites	<reference/> element (with same @name attribute value) of the <componentType/> of the <implementation/> has multiplicity 1..1
Predicate	<reference/> element @multiplicity attribute is 1..1
Prescription Level	Mandatory
Tags	"component references" "reference multiplicity"

90

91

Assertion ID	ASM-TA-5013
Source	[ASM50009]
Target	<reference/> element of a <component/> element
Prerequisites	<reference/> element (with same @name attribute value) of the <componentType/> of the <implementation/> has multiplicity 0..1
Predicate	<reference/> element @multiplicity attribute is 0..1 or 1..1
Prescription Level	Mandatory
Tags	"component references" "reference multiplicity"

92

93

Assertion ID	ASM-TA-5014
Source	[ASM50010] [ASM50013]
Target	<reference/> element of a <component/> element
Prerequisites	<reference/> element has @wiredByImpl="true"
Predicate	<reference/> element has no @target attribute set
Prescription Level	Mandatory
Tags	"component references" "wiredByImpl"

94

95

Assertion ID	ASM-TA-5015
Source	[ASM50010]
Target	<reference/> element of a <component/> element
Prerequisites	<reference/> element has @wiredByImpl="true"
Predicate	<reference/> element has no <binding/> child elements
Prescription Level	Mandatory
Tags	"component references" "wiredByImpl"

96

97

Assertion ID	ASM-TA-5016
Source	[ASM50011]
Target	<interface/> element of a <reference/> element of a <component/> element
Prerequisites	
Predicate	The interface declared by the <interface/> element of <reference/> element is a compatible superset of interface declared by the <interface/> child element of <reference/> element (with same @name attribute value) of the <componentType/> of the <implementation/> child element of the <component/> element
Prescription Level	Mandatory
Tags	"component references" "interface compatibility"

98

99

Assertion ID	ASM-TA-5017
Source	[ASM50012]
Target	<reference/> element of a <component/> element
Prerequisites	a) <reference/> has no <binding/> child elements b) <reference/> (with the same @name attribute) of the

	<componentType/> of the <implementation/> element of the <component/> has a <binding/> child element
Predicate	Binding declared by the <reference/> element (with the same @name attribute) of the <componentType/> is used for the reference
Prescription Level	Mandatory
Tags	"component references" "reference bindings"

100

101

Assertion ID	ASM-TA-5018
Source	[ASM50012]
Target	<reference/> element of a <component/> element
Prerequisites	a) <reference/> has one <binding/> child element which identifies a target service  b) <reference/> (with the same @name attribute) of the <componentType/> of the <implementation/> element of the <component/> has a <binding/> child element
Predicate	Binding (and target service) identified by the <binding/> element of the <reference/> is used to wire the reference.
Prescription Level	Mandatory
Tags	"component references" "reference bindings"

102

103

Assertion ID	ASM-TA-5019
Source	[ASM50013]
Target	<reference/> element of a <component/> element
Prerequisites	<reference/> element has @wiredByImpl="true"
Predicate	<reference/> element has no <binding/> child elements
Prescription Level	Mandatory
Tags	"component references" "wiredByImpl"

104

105

Assertion ID	ASM-TA-5020
Source	[ASM50013]
Target	
Prerequisites	<reference/> element has @wiredByImpl="true"
Predicate	No <wire/> elements have the <reference/> element declared as the @source for the wire

Prescription Level	Mandatory
Tags	"component references" "wiredByImpl"

106

107

Assertion ID	ASM-TA-5021
Source	[ASM50014]
Target	<reference/> element of a <component/> element
Prerequisites	a) <reference/> element has @autowire="true" b) There are multiple valid target services for the reference which satisfy the autowire process. c) <reference/> element has @target identifying a single target service
Predicate	The <reference/> element is wired only to the single target service identified by the @target attribute
Prescription Level	Mandatory
Tags	"component references" "autowire"

108

109

Assertion ID	ASM-TA-5022
Source	[ASM50014]
Target	<reference/> element of a <component/> element
Prerequisites	a) <reference/> element has @autowire="true" b) There are multiple valid target services for the reference which satisfy the autowire process. c) There is a <wire/> element which has the <reference/> element declared in its @source attribute
Predicate	The <reference/> element is wired only to the single target service identified by the <wire/> element
Prescription Level	Mandatory
Tags	"component references" "autowire"

110

111

Assertion ID	ASM-TA-5023
Source	[ASM50014]
Target	<reference/> element of a <component/> element
Prerequisites	a) <reference/> element has @autowire="true" b) There are multiple valid target services for the reference which satisfy



	the autowire process. c) <reference/> element has a <binding/> child element which declares a single target service
Predicate	The <reference/> element is wired only to the single target service identified by the <binding/> element
Prescription Level	Mandatory
Tags	"component references" "autowire"

112

113

Assertion ID	ASM-TA-5024
Source	[ASM50015]
Target	<binding/> element of a <reference/> element of a <component/> element
Prerequisites	<binding/> element has its @uri attribute specifying a target service
Predicate	The <reference/> is wired to the target service specified by the @uri attribute
Prescription Level	Mandatory
Tags	"component references" "uri"

114

115

Assertion ID	ASM-TA-5025
Source	[ASM50040]
Target	<reference/> element of a <component/> element
Prerequisites	a) @multiplicity is 1..1 b) @target attribute contains a single target service which is a service on a second component in the same <composite/> as the first components c) target service is compatible with the source reference
Predicate	The wire from the <reference/> to the target service is valid and the client component can invoke operations on the target service
Prescription Level	Mandatory
Tags	"component references" "valid wire"

116

117

Assertion ID	ASM-TA-5026
Source	[ASM50041]
Target	<reference/> element of a <component/> element
Prerequisites	a) @multiplicity is 1..n

	b) multiple target services exist in the <composite/> containing the <component/> which are compatible with the reference c) @target attribute contains 2 or more compatible target services
Predicate	The <reference/> is wired to all of the target services identified by its @target attribute and can invoke operations on each target service.
Prescription Level	Mandatory
Tags	"component references" "valid wire"

118

119

Assertion ID	ASM-TA-5027
Source	[ASM50040] [ASM50022]
Target	<reference/> element of a <component/> element
Prerequisites	a) @multiplicity is 1..1 b) multiple target services exist in the <composite/> containing the <component/> which are compatible with the <reference/> c) @target attribute contains 2 or more compatible target services
Predicate	The wires from the <reference/> to the target service are invalid and the client component cannot run
Prescription Level	Mandatory
Tags	"component references" "valid wire"

120

121

Assertion ID	ASM-TA-5028
Source	[ASM50039]
Target	<reference/> element with @multiplicity=0..1 of a <component/> element
Prerequisites	<reference/> element is not wired, either by the @target attribute of the <reference/> or by any <binding/> child elements of the <reference/>
Predicate	The configuration of the <component/> is valid and the component executes
Prescription Level	Mandatory
Tags	"component references" "valid wire"

122

123

Assertion ID	ASM-TA-5029
Source	[ASM50025]

Target	<reference/> element with @multiplicity=1..1 of a <component/> element within a <composite/>
Prerequisites	a) <reference/> element is wired to a compatible service of a second component within the same composite b) a <reference/> element of the <composite/> promotes the <reference/> element of the component c) the <composite/> is used as the implementation of a high level component and the composite <reference/> is wired to a valid target
Predicate	The wires from the <reference/> to the target service are invalid and the client component cannot run
Prescription Level	Mandatory
Tags	"component references" "valid wire"

124

125

Assertion ID	ASM-TA-5030
Source	[ASM50026]
Target	<reference/> element with @target attribute set to one or more target services, of a <component/> element within a <composite/>
Prerequisites	
Predicate	<reference/> element has no <binding/> child elements
Prescription Level	Mandatory
Tags	"component" "reference" "target" "binding"

126

127

Assertion ID	ASM-TA-5031
Source	[ASM50027]
Target	<property/> element of a <component/> element within a <composite/>, with an @value attribute declared
Prerequisites	type of the <property/> element is an XML Schema simple type
Predicate	@value attribute of the <property/> element contains a single value with a type matching that of the <property/> element
Prescription Level	Mandatory
Tags	"component" "property" "value"

128

129

Assertion ID	ASM-TA-5032
Source	[ASM50028]

Target	<value/> child element of a <property/> element of a <component/> element within a <composite/>
Prerequisites	Type of the <property/> element is an XML Schema simple type or an XML Schema complex type
Predicate	The type of the <value/> element is the same as the type declared for the parent <property/> element
Prescription Level	Mandatory
Tags	"component" "property" "type"

130

131

Assertion ID	ASM-TA-5033
Source	[ASM50029]
Target	child element of a <property/> element of a <component/> element within a <composite/>
Prerequisites	Child element is not an <sca:value/> element
Predicate	The type of the <property/> element is an XML Schema global element and the child element is an instance of that global element
Prescription Level	Mandatory
Tags	"component" "property" "value" "type"

132

133

Assertion ID	ASM-TA-5034
Source	[ASM50031]
Target	<property/> element of a <component/> element within a <composite/>
Prerequisites	<component/> element contains 1 or more additional <property/> elements
Predicate	The @name attribute of the <property/> element is not the same as the @name attribute of any of the other <property/> child elements of the same <component/>
Prescription Level	Mandatory
Tags	"component" "property" "name"

134

135

136

Assertion ID	ASM-TA-5036
Source	[ASM50032]
Target	<property/> element of a <component/> element within a <composite/>, with values specified by <value/> child elements

Prerequisites	<property/> element with @many=false, or where componentType of the implementation has the matching <property/> with @many=false
Predicate	<property/> has a single <value/> child element
Prescription Level	Mandatory
Tags	"component" "property" "value" "many"

137

138

Assertion ID	ASM-TA-5037
Source	[ASM50033]
Target	<property/> element of a <component/> element within a <composite/>, with a value specified by a @value attribute
Prerequisites	
Predicate	<property/> has no <value/> child elements
Prescription Level	Mandatory
Tags	"component" "property" "value"

139

140

Assertion ID	ASM-TA-5038
Source	[ASM50034]
Target	<reference/> element of a <component/> element within a <composite/>
Prerequisites	a) <composite/> contains at least 2 distinct valid target services for the <reference/> b) <composite/> contains a <wire/> element with @source set to the <reference/> of the <component/> and @target set to one valid target service for the <reference/> ("serviceA") c) <wire/> element has @replace=true d) <reference/> has @target attribute containing a single entry declaring a different target service ("serviceB")
Predicate	<reference/> is wired to serviceA and is not wired to serviceB
Prescription Level	Mandatory
Tags	"component" "reference" "wire" "replace" "target"

141

142

Assertion ID	ASM-TA-5039
Source	[ASM50035]
Target	<property/> element of <component/>
Prerequisites	a) The <property/> element has a @type attribute declared

Predicate	<property/> element does not have an @element attribute declared
Prescription Level	Mandatory
Tags	"component" "property" "type" "element"

143

144

Assertion ID	ASM-TA-5040
Source	[ASM50035]
Target	<property/> element of <component/>
Prerequisites	a) The <property/> element has a @element attribute declared
Predicate	<property/> element does not have an @type attribute declared
Prescription Level	Mandatory
Tags	"component" "property" "type" "element"

145

146

Assertion ID	ASM-TA-5041
Source	[ASM50036] [ASM50038]
Target	<property/> element of <component/>
Prerequisites	<property/> element declares a type
Predicate	The type declared for the <property/> element is the same as the type declared for the corresponding <property/> in the <componentType/> of the <implementation/>
Prescription Level	Mandatory
Tags	"component" "property" "type" "component type"

147

148

Assertion ID	ASM-TA-5042
Source	[ASM50037]
Target	@name attribute of a <property/> element of <component/>
Prerequisites	<component/> has an <implementation/>
Predicate	@name attribute matches the @name attribute of one of the <property/> elements of the <componentType/> of the <implementation/>
Prescription Level	Mandatory
Tags	"component" "property" "name" "componentType"

149

150

Assertion ID	ASM-TA-5043
Source	[ASM50006]
Target	<callback/> subelement of a <service/> subelement of a <component/>
Prerequisites	<callback/> element has set of one or more <binding/> subelements
Predicate	For a given callback target, one of the set of <binding/> subelements is used for the callback operations.
Prescription Level	Mandatory
Tags	"component" "service" "callback" "binding"

151

152

Assertion ID	ASM-TA-5045
Source	[ASM50038]
Target	<property/> element of a <component/>
Prerequisites	a) property element declares a type b) property element has a @source attribute which gets the value for the property from a <composite/> <property/> element c) @source attribute value does not involve a subelement of the composite property
Predicate	The type of the <property/> element is compatible with the type of the composite property element
Prescription Level	Mandatory
Tags	"component" "property" "type" "source" "compatible"

153

154

Assertion ID	ASM-TA-5046
Source	[ASM50038]
Target	<property/> element of a composite used as an implementation by a component
Prerequisites	a) property element declares a type b) component using the composite as an implementation has a <property/> element which also declares a type
Predicate	The type of the composite <property/> element is compatible with the type of the component property element
Prescription Level	Mandatory
Tags	"composite" "implementation" "property" "type" "compatible"

155

156

Assertion ID	ASM-TA-5047
Source	[ASM50042]
Target	<reference/> of a component
Prerequisites	a) multiplicity either 0..1 or 1..1 b) reference/@nonOverridable="true"
Predicate	<reference/> is not promoted by a composite reference
Prescription Level	Mandatory
Tags	"component" "reference" "nonOverridable" "promote"

157

158

Assertion ID	ASM-TA-5048
Source	[ASM50043]
Target	<reference/> of a component
Prerequisites	a) reference does not declare @autowire attribute b) component containing the reference declares an @autowire="true" attribute c) reference is not wired by its @target attribute, is not wired by a binding element and is not promoted by any composite reference d) composite containing the component contains one target service compatible with the reference
Predicate	<reference/> is wired to the target service and can invoke the service
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "inherit"

159

160

Assertion ID	ASM-TA-5049
Source	[ASM50043]
Target	<reference/> of a component
Prerequisites	a) reference does not declare @autowire attribute b) component containing the reference does not declare an @autowire attribute c) composite containing the component does declare an @autowire="true" attribute d) reference is not wired by its @target attribute, is not wired by a binding element and is not promoted by any composite reference e) composite containing the component contains one target service



	compatible with the reference
Predicate	<reference/> is wired to the target service and can invoke the service
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "inherit" "composite"

161

162

Assertion ID	ASM-TA-5050
Source	[ASM50044]
Target	<property/> element of a component
Prerequisites	a) property has @many="true" b) property has multiple values set
Predicate	<property/> element contains all the multiple values set for that property
Prescription Level	Mandatory
Tags	"component" "property" "many" "multiple" "values"

163

164

165

166

## 167 2.3 Section 6

168

169

Assertion ID	ASM-TA-6001
Source	"Compatible Interfaces" section of specification
Target	2 interfaces defined by <interface.xxx/> elements (in any location in SCDL files) – called InterfaceA and InterfaceB
Prerequisites	1) (InterfaceA is remotable AND InterfaceB is remotable) OR (InterfaceA is local AND InterfaceB is local) 2) The number of operations and each of their names is the same in InterfaceA and InterfaceB 3) Each operation in InterfaceA has the same parameter types, same parameter order, same return value type and same set of fault/exception types as the operation with the same name in InterfaceB 4) Other specified SCA attributes of InterfaceA match the specified SCA attributes of InterfaceB

Predicate	InterfaceA is compatible with InterfaceB
Prescription Level	Mandatory
Tags	"interface" "compatible"

170

171

172

Assertion ID	ASM-TA-6002
Source	"Compatible Superset" section of specification
Target	2 interfaces defined by <interface.xxx/> elements (in any location in SCDL files) – called InterfaceA and InterfaceB
Prerequisites	<p>1) (InterfaceA is remotable AND InterfaceB is remotable) OR (InterfaceA is local AND InterfaceB is local)</p> <p>2) All of the operations in Interface A are present in InterfaceB</p> <p>3) Each operation in InterfaceA has the same parameter types, same parameter order, same return value type and same set of fault/exception types as the operation with the same name in InterfaceB</p> <p>4)Other specified SCA attributes of InterfaceA match the specified SCA attributes of InterfaceB</p>
Predicate	InterfaceB is compatible superset of InterfaceA
Prescription Level	Mandatory
Tags	"interface" "compatible"

173

174

Assertion ID	ASM-TA-6003
Source	"Compatible Subset" section of specification
Target	2 interfaces defined by <interface.xxx/> elements (in any location in SCDL files) – called InterfaceA and InterfaceB
Prerequisites	<p>1) (InterfaceA is remotable AND InterfaceB is remotable) OR (InterfaceA is local AND InterfaceB is local)</p> <p>2) All of the operations in InterfaceB are present in InterfaceA</p> <p>3) Each operation in InterfaceB has the same parameter types, same parameter order, same return value type and same set of fault/exception types as the operation with the same name in InterfaceA</p> <p>4) Other specified SCA attributes of InterfaceA match the specified SCA attributes of InterfaceB</p>
Predicate	InterfaceB is compatible subset of InterfaceA
Prescription	Mandatory

Level	
Tags	"interface" "compatible"

175

176

Assertion ID	ASM-TA-6004
Source	[ASM60001]
Target	@name attribute of a <composite/> element
Prerequisites	Multiple <composite/> elements exist in the same namespace
Predicate	@name attribute is not the same as the @name attribute of any other <composite/> element in the same namespace
Prescription Level	Mandatory
Tags	"composite" "name"

177

178

Assertion ID	ASM-TA-6005
Source	[ASM60002]
Target	<component/> child elements of a <composite/> element with @local="true"
Prerequisites	<composite/> element has multiple <component/> child elements that can run in separate operating system processes
Predicate	All the components run in the same operating system process
Prescription Level	Mandatory
Tags	"composite" "component" "local"

179

180

181

Assertion ID	ASM-TA-6006
Source	[ASM60003]
Target	@name attribute of a <service/> element of a <composite/> element
Prerequisites	<composite/> has multiple <service/> child elements
Predicate	@name attribute of <service/> element is unique across all the <service/> child elements of the <composite/>
Prescription Level	Mandatory
Tags	"composite" "service" "name"

182

183

Assertion ID	ASM-TA-6007
Source	[ASM60004]
Target	@promote attribute of <service/> element of a <composite/> element
Prerequisites	<composite/> contains a child <component/> offering a <service/>
Predicate	@promote attribute has a value which identifies a service of one of the <component/> elements in the <composite/>
Prescription Level	Mandatory
Tags	"composite" "service" "promote"

184

185

Assertion ID	ASM-TA-6008
Source	[ASM60005]
Target	<interface/> child element of a <service/> element of a <composite/>
Prerequisites	<service/> element promotes a service of a <component/> in the <composite/>
Predicate	<interface/> declares an interface which is a compatible subset of the interface declared by the promoted <component/> <service/>, as defined in ASM-TA-6003
Prescription Level	Mandatory
Tags	"composite" "service" "promote" "interface"

186

187

188

Assertion ID	ASM-TA-6009
Source	[ASM60006]
Target	@name attribute of a <reference/> element of a <composite/> element
Prerequisites	<composite/> has multiple <reference/> child elements
Predicate	@name attribute of <reference/> element is unique across all the <reference/> child elements of the <composite/>
Prescription Level	Mandatory
Tags	"composite" "reference" "name"

189

190

Assertion ID	ASM-TA-6010
Source	[ASM60007]
Target	@promote attribute of <reference/> element of a <composite/> element
Prerequisites	<composite/> contains one or more child <component/> elements with a

	<reference/>
Predicate	@promote attribute has a value which contains one or more URIs each of which identifies a reference of one of the <component/> elements in the <composite/>
Prescription Level	Mandatory
Tags	"composite" "reference" "promote"

191

192

Assertion ID	ASM-TA-6011
Source	[ASM60008] [ASM60012]
Target	<interface/> child element of a <reference/> element of a <composite/>
Prerequisites	<composite/> contains one or more child <component/> offering a <reference/>
Predicate	<interface/> element declares an interface which is a compatible superset of the interface declared by each of the promoted <component/> <reference/>, as defined in ASM-TA-6002
Prescription Level	Mandatory
Tags	"composite" "reference" "promote" "interface"

193

Assertion ID	ASM-TA-6012
Source	[ASM60008] [ASM60013]
Target	<reference/> element of a <composite/>
Prerequisites	1) <composite contains multiple <component/> child elements which have one or more <reference/> child element 2) <reference/> promotes multiple <component/> <reference/> elements 3) <reference/> element has no <interface/> child element
Predicate	The interfaces declared by each promoted <component/> <reference/> are the same interface
Prescription Level	Mandatory
Tags	"composite" "reference" "promote" "interface"

194

195

Assertion ID	ASM-TA-6013
Source	[ASM60009]
Target	<reference/> element of a <composite/>

Prerequisites	1) <reference/> has @intent attribute declaring one or more intents 2) <reference/> promotes a <component/> <reference/> element which has one or more intents declared on it
Predicate	Intents declared on the <reference/> are not mutually exclusive with the intents declared on the promoted <component/> <reference/>
Prescription Level	Mandatory
Tags	"composite" "reference" "intents" "mutually exclusive"

196

197

Assertion ID	ASM-TA-6014
Source	[ASM60010]
Target	@requires attribute of <reference/> element of a <composite/>
Prerequisites	1) @requires declares two or more intents
Predicate	The set of intents declared by the @requires attribute do not contain a pair that are mutually exclusive.
Prescription Level	Mandatory
Tags	"composite" "reference" "intents" "mutually exclusive"

198

199

Assertion ID	ASM-TA-6015
Source	[ASM60011]
Target	@multiplicity attribute of <reference/> element of a <composite/>
Prerequisites	<reference/> promotes a <component/> <reference/> with multiplicity 0..1
Predicate	@multiplicity has a value of 0..1 or a value of 1..1
Prescription Level	Mandatory
Tags	"composite" "reference" "multiplicity"

200

201

Assertion ID	ASM-TA-6016
Source	[ASM60011]
Target	@multiplicity attribute of <reference/> element of a <composite/>
Prerequisites	<reference/> promotes a <component/> <reference/> with multiplicity 1..1
Predicate	@multiplicity has a value of 1..1
Prescription Level	Mandatory
Tags	"composite" "reference" "multiplicity"

202

203

Assertion ID	ASM-TA-6017
Source	[ASM60011]
Target	@multiplicity attribute of <reference/> element of a <composite/>
Prerequisites	<reference/> promotes a <component/> <reference/> with multiplicity 0..n
Predicate	@multiplicity has a value of 0..1 or a value of 1..1 or a value of 0..n or a value of 1..n
Prescription Level	Mandatory
Tags	"composite" "reference" "multiplicity"

204

205

Assertion ID	ASM-TA-6018
Source	[ASM60011]
Target	@multiplicity attribute of <reference/> element of a <composite/>
Prerequisites	<reference/> promotes a <component/> <reference/> with multiplicity 1..n
Predicate	@multiplicity has a value of 1..1 or a value of 1..n
Prescription Level	Mandatory
Tags	"composite" "reference" "multiplicity"

206

207

Assertion ID	ASM-TA-6019
Source	[ASM60014]
Target	@name attribute of <property/> element of a <composite/>
Prerequisites	<composite/> contains multiple <property/> elements
Predicate	@name attribute value is unique amongst the @name attributes of the <property/> elements of the <composite/>
Prescription Level	Mandatory
Tags	"composite" "property" "name"

208

209

Assertion ID	ASM-TA-6020
Source	[ASM60022]
Target	<reference/> with @autowire=true of a <component> within a <composite/>
Prerequisites	<composite/> contains 1 <component/> <service/> that has an interface

	that is the same as the interface of the <reference/>
Predicate	<reference/> is wired to the <component/> <service/> and can invoke operations on it
Prescription Level	Mandatory
Tags	"component" "reference" "autowire"

210

211

212

Assertion ID	ASM-TA-6021
Source	[ASM60022]
Target	<reference/> with @autowire=true of a <component> within a <composite/>
Prerequisites	<composite/> contains 1 <component/> <service/> that has an interface that is a compatible superset of the interface on the <reference/>
Predicate	<reference/> is wired to the component <service/> and can invoke operations on it
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "compatible interface"

213

214

Assertion ID	ASM-TA-6022
Source	[ASM60024]
Target	<reference/> with @autowire=true and with intents attached using @required, of a <component> within a <composite/>
Prerequisites	<composite/> contains 1 <component/> <service/> that is the same as the interface of the <reference/> and which has the same intents attached to it as are attached to the <reference/>
Predicate	<reference/> is wired to the <component/> <service/> and can invoke operations on it
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "intents"

215

216

Assertion ID	ASM-TA-6023
Source	[ASM60024]
Target	<reference/> with @autowire=true and with intents attached using @required, of a <component> within a <composite/>
Prerequisites	<composite/> contains 1 <component/> <service/> that is the same as the



	interface of the <reference/> and which does not have the same intents attached to it as are attached to the <reference/>
Predicate	<reference/> is not wired to the <component/> <service/> and cannot invoke operations on it
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "intents"

217

218

Assertion ID	ASM-TA-6024
Source	[ASM60025]
Target	<reference/> with @autowire=true and @multiplicity 0..1 of a <component> within a <composite/>
Prerequisites	<composite/> contains 2 or more <component/> <service/> that are compatible with the <reference/>
Predicate	<reference/> is wired to one <component/> <service/> and can invoke operations on it
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "intents"

219

220

Assertion ID	ASM-TA-6025
Source	[ASM60026]
Target	<reference/> with @autowire=true and @multiplicity=0..n of a <component> within a <composite/>
Prerequisites	<composite/> contains 2 or more <component/> <service/> that are compatible with the <reference/>
Predicate	<reference/> is wired to all of the compatible <component> <service/> and can invoke operations on each of them
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "intents"

221

222

223

Assertion ID	ASM-TA-6026
Source	[ASM60027]
Target	<reference/> with @autowire=true and @multiplicity=0..n or 0..1 of a <component> within a <composite/>
Prerequisites	<composite/> contains 0 <component/> <service/> that are compatible

	with the <reference/>
Predicate	<reference/> is not wired but the <component/> runs and can have services invoked on it
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "unwired"

224

225

226

Assertion ID	ASM-TA-6027
Source	[ASM60028]
Target	<reference/> with @autowire=true and @multiplicity=1..1 or 1..n of a <component> within a <composite/>
Prerequisites	<composite/> contains 0 <component/> <service/> that are compatible with the <reference/>
Predicate	<reference/> is in error (unwired) and an error is reported by the runtime if an attempt is made to invoke service operations on the <component/>
Prescription Level	Mandatory
Tags	"component" "reference" "autowire" "unwired"

227

228

Assertion ID	ASM-TA-6028
Source	[ASM60032]
Target	@promote attribute of <service/> of a <composite/> which is used as the <implementation/> of a higher level <component/>
Prerequisites	<composite/> contains contains at least 1 <component/> offering a <service> with an interface compatible with the interface of the <composite/> <service/>
Predicate	@promote attribute contains the URI of the <component/> <service/>
Prescription Level	Mandatory
Tags	"composite" "service" "promote" "implementation"

229

230

Assertion ID	ASM-TA-6029
Source	[ASM60033]
Target	<reference/> with @multiplicity=1..1 or 1..n of a <component> of a <composite/> which is used as the <implementation/> of a higher level <component/>
Prerequisites	

Predicate	<reference/> is wired to a service within the <composite/> or is promoted by a <composite/> <reference/>
Prescription Level	Mandatory
Tags	"component" "reference" "wire" "promote" "implementation"

231

232

Assertion ID	ASM-TA-6030
Source	[ASM60034]
Target	<property/> of a <component/> in a <composite/> used as the <implementation/> of a higher level <component/>
Prerequisites	<property/> is marked as @mustSupply=true in the componentType of the implementation of the lower level <component/>
Predicate	<property/> is given a value either through the @source attribute (from a <composite/> <property/>) or through a value in the <property/> configuration
Prescription Level	Mandatory
Tags	"component" "property" "value" "source"

233

234

Assertion ID	ASM-TA-6031
Source	[ASM60030]
Target	@name attribute of <implementation.composite/> element
Prerequisites	
Predicate	@name attribute contains the QName of a <composite/> in the Domain
Prescription Level	Mandatory
Tags	"implementation.composite" "name" "composite"

235

236

Assertion ID	ASM-TA-6032
Source	[ASM60031]
Target	SCA runtime
Prerequisites	a) <composite/> contains an <include/> element referencing a second <composite> b) including the second composite into the first one creates an invalid <composite/> configuration (eg two <component/> elements have the same @name value)
Predicate	SCA runtime reports an error

Prescription Level	Mandatory
Tags	"component" "property" "value" "source"

237

238

Assertion ID	ASM-TA-6033
Source	[ASM60035]
Target	<reference/> of <composite>
Prerequisites	a) <reference/> promotes 2 or more <component> <reference>s b) one promoted <component/> <reference/> has @wiredByImpl set
Predicate	all the <component/> <reference/> elements promoted by the <reference/> have the same value for their @wiredByImpl attribute
Prescription Level	Mandatory
Tags	"composite" "reference" "promote" "wiredByImpl"

239

Assertion ID	ASM-TA-6034
Source	[ASM60036]
Target	@wiredByImpl attribute of <reference/> of <composite/>
Prerequisites	a) <reference/> promotes one or more <component/> <reference/>
Predicate	@wiredByImpl attribute value is the same as the @wiredByImpl value of the promoted <component/> <reference/>s
Prescription Level	Mandatory
Tags	"component" "reference" "promote" "wiredByImpl"

240

Assertion ID	ASM-TA-6035
Source	[ASM60037]
Target	@promote attribute of a <reference/> of <composite/>
Prerequisites	a) <composite/> contains an <include/> element referencing a second <composite/> b) @promote attribute contains a URI pointing to a <component/> <reference/> which is contained in the second <composite/>
Predicate	The <reference/> promotes the <component/> <reference/> contained in the second <composite/>
Prescription Level	Mandatory
Tags	"component" "reference" "promote" "include"

241

Assertion ID	ASM-TA-6036
--------------	-------------

Source	[ASM60038]
Target	@promote attribute of a <service/> of <composite/>
Prerequisites	a) <composite/> contains an <include/> element referencing a second <composite/> b) @promote attribute contains a URI pointing to a <component/> <service/> which is contained in the second <composite/>
Predicate	The <service/> promotes the <component/> <service/> contained in the second <composite/>
Prescription Level	Mandatory
Tags	"component" "service" "promote" "include"

242

Assertion ID	ASM-TA-6037
Source	[ASM60039]
Target	<wire/> element of <composite/>
Prerequisites	a) <composite/> contains an <include/> element referencing a second <composite/> b) @source attribute of <wire/> contains a URI pointing to a <component/> <reference/> which is contained in the second <composite/> c) @target attribute of <wire/> contains a URI pointing to a <component/> <service/> which is contained in the second <composite/>
Predicate	The <wire/> successfully wires the <component> <reference/> to the <component/> <service/> and the reference is able to invoke an operation of the service.
Prescription Level	Mandatory
Tags	"composite" "wire" "include"

243

244

Assertion ID	ASM-TA-6038
Source	[ASM60040]
Target	<property/> element of <composite/>
Prerequisites	a) The <property/> element has a @type attribute declared
Predicate	<property/> element does not have an @element attribute declared
Prescription Level	Mandatory
Tags	"composite" "property" "type" "element"

245

246

Assertion ID	ASM-TA-6039
--------------	-------------

Source	[ASM60040]
Target	<property/> element of <composite/>
Prerequisites	a) The <property/> element has a @element attribute declared
Predicate	<property/> element does not have an @type attribute declared
Prescription Level	Mandatory
Tags	"composite" "property" "type" "element"

247

248

Assertion ID	ASM-TA-6040
Source	[ASM60041]
Target	<composite/> containing an <include/> element which references a second <composite/>
Prerequisites	second <composite/> has @local="true"
Predicate	<composite/> has @local="true"
Prescription Level	Mandatory
Tags	"composite" "local" "include"

249

Assertion ID	ASM-TA-6041
Source	[ASM60042]
Target	@name attribute of <include/> element of <composite/>
Prerequisites	
Predicate	@name attribute value is the QName of a second <composite/> in the SCA Domain
Prescription Level	Mandatory
Tags	"composite" "include" "name"

250

251

Assertion ID	ASM-TA-6042
Source	[ASM60043]
Target	interface of a service which is the target of a <wire/> element within a composite
Prerequisites	a) wire @source attribute declares a component reference in the composite b) wire @target attribute declares a component service in the composite c) both the component service and the component reference exist
Predicate	the interface of the service is a compatible superset of the interface of the reference

Prescription Level	Mandatory
Tags	"wire" "target" "source" "interface" "compatible superset"

252

253

Assertion ID	ASM-TA-6043
Source	[ASM60045]
Target	composite used as the implementation of a component
Prerequisites	
Predicate	componentType of the composite is determined according to the rules in the SCA Assembly specification section "Component Type of a Composite used as a Component Implementation"
Prescription Level	Mandatory
Tags	"composite" "implementation" "componentType"

254

255

Assertion ID	ASM-TA-6044
Source	[ASM60046]
Target	Wire declared by the @target attribute of a <reference/> of a component
Prerequisites	a) @target attribute declares a single target using the form "component-name/service-name" b) the component named in the @target attribute offers multiple services, each of which is compatible with the reference c) One of the services of the component named in the @target attribute has the name "service-name"
Predicate	The wire target is the service with the name "service-name" of the component with the name "component-name" and the reference is able to invoke this service.
Prescription Level	Mandatory
Tags	"wire" "target" "service-name" "component-name"

256

257

Assertion ID	ASM-TA-6045
Source	[ASM60047]
Target	Wire declared by the @target attribute of a <reference/> of a component
Prerequisites	a) @target attribute declares a single target using the form "component-name/service-name" b) the component named in the @target attribute does not have a service

	with the name "service-name" c) the component named in the @target attribute has at least one service which is compatible with the reference
Predicate	The wire is not valid and the SCA runtime raises an error.
Prescription Level	Mandatory
Tags	"wire" "target" "service-name" "component-name" "error"

258

259

Assertion ID	ASM-TA-6046
Source	[ASM60048]
Target	Wire declared by the @target attribute of a <reference/> of a component
Prerequisites	a) @target attribute declares a single target using the form "component-name"
Predicate	component identified by the @target attribute has a single service and this service is compatible with the reference and the reference can invoke this service
Prescription Level	Mandatory
Tags	"wire" "target" "component-name" "single"

260

261

Assertion ID	ASM-TA-6047
Source	[ASM60049]
Target	Wire declared by the @target attribute of a <reference/> of a component
Prerequisites	a) @target attribute declares a single target using the form "component-name/service-name/binding-name" b) the component named in the @target attribute offers a service with the name "service-name" c) the service named "service-name" has multiple bindings, one of which has the name "binding-name"
Predicate	The wire target is the service with the name "service-name" of the component with the name "component-name", and the wire uses the binding with the name "binding-name" and the reference is able to invoke the service.
Prescription Level	Mandatory
Tags	"wire" "target" "component-name" "service-name" "binding-name"

262

263

Assertion ID	ASM-TA-6048
--------------	-------------



Source	[ASM60050]
Target	Wire declared by the @target attribute of a <reference/> of a component
Prerequisites	a) @target attribute declares a single target using the form "component-name/service-name/binding-name" b) the component named in the @target attribute offers a service with the name "service-name" c) the service named "service-name" does not have a binding with the name "binding-name"
Predicate	The wire is not valid and the SCA runtime raises an error.
Prescription Level	Mandatory
Tags	"wire" "target" "component-name" "service-name" "binding-name"

264

265

Assertion ID	ASM-TA-6049
Source	[ASM60051]
Target	Wire declared by the @target attribute of a <reference/> of a component
Prerequisites	a) @target attribute declares a single target using the form "component-name/service-name" b) the reference has some policy requirements c) the component named in the @target attribute offers a service with the name "service-name" d) the service named "service-name" has multiple <binding/> subelements, one of which is compatible with the policy requirements of the reference
Predicate	The wire is valid and uses the binding which is compatible with the policy requirements of the reference
Prescription Level	Mandatory
Tags	"wire" "target" "component-name" "service-name" "bindings"

266

267

268

## 269 2.4 Section 7

270

## 271 2.5 Section 8

272

Assertion ID	ASM-TA-8001
Source	[ASM80002]
Target	<interface.xxx/> element
Prerequisites	a) The interface referred to by the <interface.xxx/> element is marked remotable using the language appropriate mechanism. b) The interface referred to by the <interface.xxx/> element has >1 operation.
Predicate	The name of an operation of the interface is not equal to the name of any other operation of the interface.
Prescription Level	Mandatory
Tags	"remotable" "interface.xxx"

273

274

Assertion ID	ASM-TA-8002
Source	[ASM80003]
Target	<interface.xxx/> element
Prerequisites	a) The interface referred to by the <interface.xxx/> element is marked remotable using the language appropriate mechanism. b) The interface referred to by the <interface/> element has an operation with input parameters.
Predicate	The value of the input parameters of the operation of the interface referred to by the <interface/> element are the same after the operation completes as they were before the operation invocation as observable by the client invoking the operation.
Prescription Level	Mandatory
Tags	"remotable" "interface.xxx"

275

276

Assertion ID	ASM-TA-8003
Source	[ASM80003]
Target	<interface.xxx/> element
Prerequisites	a) The interface referred to by the <interface,xxx/> element is marked remotable using the language appropriate mechanism. b) The interface referred to by the <interface/> element has an operation with output parameters.
Predicate	The value of the output parameters of the operation of the interface referred to by the <interface/> element remain constant after the operation invocation has completed, as observable by the service implementation.
Prescription Level	Mandatory

Tags	"remotable"
------	-------------

277

278

Assertion ID	ASM-TA-8004
Source	[ASM80004]
Target	<interface.xxx/> element of a <reference/> element
Prerequisites	The interface referred to by the <interface.xxx/> element is marked bidirectional using the language appropriate mechanism.
Predicate	The invoked service provider can invoke an operation of the callback interface on the client component.
Prescription Level	Mandatory
Tags	"bidirectional" "component reference"

279

280

Assertion ID	ASM-TA-8005
Source	[ASM80005]
Target	<interface.xxx/> element
Prerequisites	a) The interface referred to by the <interface.xxx/> element is marked bidirectional using the language appropriate mechanism. b) The forward interface referred to by the <interface.xxx/> element is marked remotable using the language appropriate mechanism.
Predicate	The callback interface referred to by the <interface.xxx/> element is marked remotable using the language appropriate mechanism.
Prescription Level	Mandatory
Tags	"bidirectional" "remotable"

281

282

Assertion ID	ASM-TA-8006
Source	[ASM80005]
Target	<interface.xxx/> element
Prerequisites	a) The interface referred to by the <interface.xxx/> element is marked bidirectional using the language appropriate mechanism. b) The forward interface referred to by the <interface.xxx/> element is marked local using the language appropriate mechanism.
Predicate	The callback interface referred to by the <interface.xxx/> element is marked local using the language appropriate mechanism.
Prescription Level	Mandatory

Tags	"bidirectional" "local"
------	-------------------------

283

284

Assertion ID	ASM-TA-8007
Source	[ASM80010]
Target	<interface.xxx/> element
Prerequisites	The interface document referred to by the <interface.xxx/> element defines a callback interface using the language appropriate mechanism.
Predicate	The invoked service provider can invoke an operation of the callback interface on the client component.
Prescription Level	Mandatory
Tags	"bidirectional" "component reference"

285

286

Assertion ID	ASM-TA-8008
Source	[ASM80011]
Target	<interface.xxx/> element
Prerequisites	a) The interface document referred to by the <interface.xxx/> element defines a callback interface using the language appropriate mechanism. b) The <interface.xxx/> elements declares a callback interface directly.
Predicate	The callback interface in the interface document is compatible with the callback interface in the <interface.xxx/> element, as defined by ASM-TA-6001
Prescription Level	Mandatory
Tags	"bidirectional"

287

288

Assertion ID	ASM-TA-8009
Source	[ASM50004]
Target	<interface.xxx/> element of a <service/> element of a <component/> element
Prerequisites	The interface of the corresponding <service/> element of the <componentType/> for the <implementation/> of the <component/> declares a callback interface.
Predicate	The <interface.xxx/> element declares a callback interface compatible with the callback interface declared on the corresponding <service/> in the componentType, as asserted by ASM-TA-6001
Prescription Level	Mandatory

Tags	"bidirectional" "component services"
------	--------------------------------------

289

290

Assertion ID	ASM-TA-8010
Source	[ASM50011]
Target	<interface.xxx/> element of a <reference/> element of a <component/> element
Prerequisites	The interface of the corresponding <reference/> element of the <componentType/> for the <implementation/> of the <component/> declares a callback interface.
Predicate	The <interface.xxx/> element declares a callback interface compatible with the callback interface declared on the corresponding <reference/> in the componentType, as asserted by ASM-TA-6001
Prescription Level	Mandatory
Tags	"bidirectional" "component references"

291

292

Assertion ID	ASM-TA-8011
Source	[ASM50004] [ASM50011]
Target	<interface.xxx/>element of a <service/> or <reference/> element of a <component/> element
Prerequisites	The interface of the corresponding <service/> or <reference/> element of the <componentType/> element for the <implementation.xxx/> element of the <component/> element does not define a callback interface using the language appropriate mechanism.
Predicate	The <interface.xxx/> element of the <service/> or <reference/> element of the <component/> element does not defines a callback interface.
Prescription Level	Mandatory
Tags	"bidirectional" "component services" component references"

293

294

Assertion ID	ASM-TA-8012
Source	[ASM60005]
Target	<interface.xxx/> element of a <service/> element of a <composite/> element
Prerequisites	The interface of the promoted component <service/> element defines a callback interface.
Predicate	The <interface.xxx/> element declares a callback interface compatible with the callback interface declared on the promoted component <service/>

	element, as asserted by ASM-TA-6001
Prescription Level	Mandatory
Tags	"bidirectional" "composite services" "promote"

295

296

Assertion ID	ASM-TA-8013
Source	[ASM60012]
Target	<interface.xxx/> element of a <reference/> element of a <composite/> element
Prerequisites	The interface of the promoted component <reference/> element defines a callback interface.
Predicate	The <interface.xxx/> element declares a callback interface compatible with the callback interface declared on the promoted component <reference/> element, as asserted by ASM-TA-6001
Prescription Level	Mandatory
Tags	"bidirectional" "composite references" "promote"

297

298

Assertion ID	ASM-TA-8014
Source	[ASM60005] [ASM60012]
Target	<interface.xxx/> element of a <service/> or <reference/> element of a <composite/> element
Prerequisites	The corresponding promoted component <service/> or <reference/> does not define a callback interface.
Predicate	The <interface.xxx/> element does not defines a callback interface.
Prescription Level	Mandatory
Tags	"bidirectional" "composite services" "composite references" "promote"

299

300

Assertion ID	ASM-TA-8015
Source	[ASM80009]
Target	<implementation/> of a <component/> which has a <service/> with an <interface/> which has a callback interface
Prerequisites	One forward operation invocation has been made from a service client component to the service
Predicate	The implementation can invoke an arbitrary number of operations of the callback interface on the client component an arbitrary number (including

	zero) of times.
Prescription Level	Mandatory
Tags	"bidirectional"

301

302

Assertion ID	ASM-TA-8018
Source	[ASM80008]
Target	<service/> or <reference/> element
Prerequisites	The interface of a <service/> or <reference/> element has required intents.
Predicate	The required intents of the interface apply to the <service/> or <reference/> element using the interface.
Prescription Level	Mandatory
Tags	"intents" "component services" "component references" "composite services" "composite references"

303

304

Assertion ID	ASM-TA-8020
Source	[ASM80001]
Target	@interface attribute of a <interface.wsdl> element
Prerequisites	
Predicate	The @interface attribute references a WSDL 1.1 <portType/>
Prescription Level	Mandatory
Tags	"interface.wsdl" "portType"

305

306

Assertion ID	ASM-TA-8021
Source	[ASM80016]
Target	@callbackInterface of a <interface.wsdl> element
Prerequisites	
Predicate	The @callbackInterface attribute references a WSDL 1.1 <portType/> element
Prescription Level	Mandatory
Tags	"interface.wsdl" "portType"

307

308

Assertion ID	ASM-TA-8022
Source	[ASM80017]
Target	<interface.wSDL/> element
Prerequisites	
Predicate	<interface.wSDL/> element does not contain @remotable="false"
Prescription Level	Mandatory
Tags	"interface.wSDL" "portType"

309

## 310 2.6 Section 9

311

Assertion ID	ASM-TA-9002
Source	[ASM90001]
Target	The @uri attribute of a <binding /> element of a <reference/> element
Prerequisites	The @uri attribute has a non-default value
Predicate	1) The @uri attribute is the componentName/serviceName of a wire to an endpoint within the SCA Domain.  OR 2) The @uri attribute is the address of an endpoint to an accessible service inside or outside the SCA Domain, using the addressing scheme determined by the binding type
Prescription Level	Mandatory
Tags	"binding" "reference" "uri"

312

313

Assertion ID	ASM-TA-9003
Source	[ASM90002]
Target	@name attribute of a <binding /> element in a <service/> or <reference/> element
Prerequisites	The <service/> or <reference/> element has more than one <binding /> element
Predicate	The value of the @name attribute for a <binding /> element must be unique within all the <binding /> elements for each <service/> or <reference/> element
Prescription Level	Mandatory
Tags	"binding" "service" "reference" "name"

314

315



Assertion ID	ASM-TA-9004
Source	[ASM90003]
Target	<binding /> element of a <reference/> element
Prerequisites	<binding/> element does not specify an endpoint using binding specific mechanisms
Predicate	<reference/> element has a @uri attribute which resolves to a valid service endpoint
Prescription Level	Mandatory
Tags	"binding" reference "uri"

316

317

Assertion ID	ASM-TA-9005
Source	[ASM90004]
Target	<reference/> element of a <component/>
Prerequisites	<reference/> element is wired to a target <component/> <service/> in the SCA domain  target <service/> has multiple <binding/> subelements, each with an @name attribute declared  wire between reference and service uses a specific binding
Predicate	<reference/> element has a @target attribute which has the form "componentName/serviceName/bindingName"
Prescription Level	Mandatory
Tags	"binding" reference "target"

318

319

Assertion ID	ASM-TA-9006
Source	[ASM90005]
Target	<binding.sca/> subelement of the service of a component
Prerequisites	
Predicate	The <binding.sca/> element has no @uri attribute declared
Prescription Level	Mandatory
Tags	"binding.sca" "@uri"

320

## 321 2.7 Section 10

322

Assertion ID	ASM-TA-10001
Source	[ASM10001]

Target	QName of <intent/>, <policySet/>, <binding/>, <bindingType/> or <implementationType/> subelement of a <definitions/> element
Prerequisites	
Predicate	QName is unique amongst all subelements of all <definitions/> elements in the SCA Domain
Prescription Level	Mandatory
Tags	"QName" "Domain" "definitions"

323

324

Assertion ID	ASM-TA-10002
Source	[ASM100002]
Target	<intent/>, <policySet/>, <binding/>, <bindingType/> or <implementationType/> subelement of a <definitions/> element in the SCA Domain
Prerequisites	
Predicate	Element is accessible for reference by any artifact in the SCA Domain
Prescription Level	Mandatory
Tags	"Domain" "SCA" "definitions"

325

326

Assertion ID	ASM-TA-10003
Source	[ASM100003]
Target	definitions.xml file
Prerequisites	Contents of definitions.xml file do not conform to the sca-definitional.xsd schema
Predicate	The SCA runtime rejects the definitions.xml file and raises an error
Prescription Level	Mandatory
Tags	"Domain" "SCA" "definitions.xml" "sca-definitional.xsd" "schema"

327

## 328 2.8 Section 12

329

Assertion ID	ASM-TA-12001
Source	[ASM12001]
Target	SCA contribution
Prerequisites	
Predicate	Artifacts of the contribution are presented as a hierarchy of resources based off a single root

Prescription Level	Mandatory
Tags	"contribution" "resources" "hierarchy"

330

331

Assertion ID	ASM-TA-12002
Source	[ASM12002]
Target	SCA contribution
Prerequisites	
Predicate	Directory with the name META-INF exists at the root of the contribution
Prescription Level	Optional
Tags	"contribution" "META-INF"

332

333

Assertion ID	ASM-TA-12003
Source	[ASM12003]
Target	SCA contribution
Prerequisites	Contribution has a META-INF directory at the root (ASM-TA-12002)
Predicate	Contribution META-INF directory contains a file with the name sca-contribution.xml
Prescription Level	Optional
Tags	"contribution" "META-INF" "sca-contribution.xml"

334

335

Assertion ID	ASM-TA-12005
Source	[ASM12005]
Target	Artifact related declarations of how to resolve artifacts referenced in contribution
Prerequisites	Contribution contains references to artifacts not contained within the contribution but exist elsewhere such as in other contributions
Predicate	Artifacts are resolved using artifact related mechanisms
Prescription Level	Mandatory
Tags	"contribution" "artifact" "resolution"

336

337

Assertion ID	ASM-TA-12006
--------------	--------------

Source	[ASM12021]
Target	Artifact related declaration of how to resolve an artifact referenced in contribution
Prerequisites	Artifact cannot be found using artifact related mechanisms
Predicate	SCA runtime reports an error
Prescription Level	Mandatory
Tags	"contribution" "artifact" "resolution"

338

339

Assertion ID	ASM-TA-12007
Source	[ASM12006]
Target	Contribution in ZIP packaging format
Prerequisites	
Predicate	SCA runtime accepts contribution
Prescription Level	Mandatory
Tags	"contribution" "ZIP"

340

341

Assertion ID	ASM-TA-12008
Source	[ASM12007]
Target	2 contributions with exported artifacts
Prerequisites	An artifact name exported by one contribution is the same as an artifact name exported by the second contribution
Predicate	All artifact names exported by one contribution are different from any artifact name exported by the second contribution
Prescription Level	Optional
Tags	"contribution" "artifact" "name"

342

343

Assertion ID	ASM-TA-12009
Source	[ASM12008]
Target	SCA runtime
Prerequisites	
Predicate	SCA runtime has contribution functions
Prescription Level	Optional

Tags	“SCA runtime” “contribution” “functions”
------	--

344

345

Assertion ID	ASM-TA-12010
Source	[ASM12009]
Target	Contribution which has dependent contributions from which it resolves artifacts
Prerequisites	2 indirect dependent contributions (ie dependents of dependents) export conflicting artifacts
Predicate	Conflicting dependent contributions are resolved by an entry in the dependent contribution list of the contribution
Prescription Level	Mandatory
Tags	“contribution” “import” “conflict”

346

347

Assertion ID	ASM-TA-12011
Source	[ASM12010]
Target	Contribution contains a reference to an artifact which is marked with a non-SCA artifact resolution mechanism
Prerequisites	
Predicate	Non-SCA artifact resolution mechanism is used to resolve the artifact reference
Prescription Level	Mandatory
Tags	“contribution” “non-SCA” “artifact” “resolution”

348

349

Assertion ID	ASM-TA-12012
Source	[ASM12011]
Target	Contribution contains a reference to an artifact which is marked with a non-SCA artifact resolution mechanism
Prerequisites	Non-SCA artifact resolution mechanism does not resolve the artifact
Predicate	SCA runtime reports an error that it cannot resolve the artifact
Prescription Level	Mandatory
Tags	“contribution” “non-SCA” “artifact” “resolution”

350

351

Assertion ID	ASM-TA-12013
--------------	--------------

Source	[ASM12012]
Target	<reference/> of a <component/> deployed at the SCA Domain level
Prerequisites	1) <reference/> has no target service configured by any means (no @target attribute, no child <binding/> elements, no @autowire attribute, no <wire/> elements with this reference in the @source attribute)  2) at least one <component/> <service/> is deployed in the Domain that is compatible with the <component/> <reference/> (ie this service is a valid target for a wire from the <component/> <reference/>)
Predicate	The <reference/> remains unwired and as a result cannot be invoked by the <component/> <implementation/>.  (The principle here is that the autowire process is NOT used to wire the reference – since @autowire=false for the Domain itself)
Prescription Level	Mandatory
Tags	“Domain” “autowire” “component” “reference”

352

353

Assertion ID	ASM-TA-12014
Source	[ASM12013]
Target	<reference/> with @autowire=true of a <component/> which is deployed to the Domain
Prerequisites	(SCA runtime does not support autowire at the Domain level)
Predicate	<component/> is not deployed to the Domain and an error is reported
Prescription Level	Optional
Tags	“Domain” “autowire” “component” “reference”

354

355

Assertion ID	ASM-TA-12015
Source	[ASM12013]
Target	<reference/> with @autowire=true of a <component/> which is deployed to the Domain
Prerequisites	1) SCA runtime supports autowire at the Domain level 2) SCA Domain contains one <component/> <service/> that is compatible with the <component/> <reference/>
Predicate	<reference/> is wired to the compatible <component/> <service/>
Prescription Level	Optional
Tags	“Domain” “autowire” “component” “reference”

356

357

Assertion ID	ASM-TA-12016
Source	[ASM12013]
Target	<reference/> with @autowire=true of a <component/> which is deployed to the Domain
Prerequisites	<ul style="list-style-type: none"> <li>1) SCA runtime supports autowire at the Domain level</li> <li>2) SCA runtime only evaluates autowire targets when a component is deployed</li> <li>3) SCA Domain contains one &lt;component/&gt; &lt;service/&gt; that is compatible with the &lt;component/&gt; &lt;reference/&gt;, when the &lt;component/&gt; &lt;reference/&gt; is deployed</li> <li>4) An additional &lt;component/&gt; &lt;service/&gt; compatible with the &lt;component/&gt; &lt;reference/&gt; s deployed to the SCA Domain, later than the time when the &lt;component/&gt; &lt;reference/&gt; is deployed.</li> </ul>
Predicate	<reference/> wiring remains unchanged when the second <component/> <service/> is deployed
Prescription Level	Optional
Tags	"Domain" "autowire" "component" "reference"

358

359

Assertion ID	ASM-TA-12017
Source	[ASM12013]
Target	<reference/> with @autowire=true of a <component/> which is deployed to the Domain
Prerequisites	<ul style="list-style-type: none"> <li>1) SCA runtime supports autowire at the Domain level</li> <li>2) SCA runtime re-evaluates autowire targets when the Domain configuration is updated by deployment actions</li> <li>3) SCA Domain contains one &lt;component/&gt; &lt;service/&gt; that is compatible with the &lt;component/&gt; &lt;reference/&gt;, when the &lt;component/&gt; &lt;reference/&gt; is deployed</li> <li>4) An additional &lt;component/&gt; &lt;service/&gt; compatible with the &lt;component/&gt; &lt;reference/&gt; s deployed to the SCA Domain, later than the time when the &lt;component/&gt; &lt;reference/&gt; is deployed.</li> <li>5) &lt;reference/&gt; has multiplicity 0..n</li> </ul>
Predicate	<reference/> wiring is updated when the second <component/> <service/> is deployed and the <reference/> is able to invoke the second <component/> <service/>
Prescription Level	Optional
Tags	"Domain" "autowire" "component" "reference"

360

361

Assertion ID	ASM-TA-12018
Source	[ASM12014]
Target	<reference/> of <component/> deployed at the SCA Domain level

Prerequisites	1) SCA runtime supports updating of <reference/> targets at runtime 2) New <wire/> element is deployed to the SCA Domain, with @source set to the <component/> <reference/> and @source set to a <component/> <service/> which is compatible with the <component/> <reference/>
Predicate	<reference/> wiring is updated when the <wire/> is deployed and the <reference/> is able to invoke the <component/> <service/> declared by the <wire/> @target attribute.
Prescription Level	Optional
Tags	"Domain" "component" "reference" "wire" "update"

362

363

Assertion ID	ASM-TA-12019
Source	[ASM12015]
Target	<component/> at the SCA domain level
Prerequisites	1) Configuration of the <component/> is updated by a deployment action 2) <component/> has an invocable <service/>
Predicate	Invocation of the <component/> <service/> by a new client after the deployment action is complete reflects the updated configuration of the <component/>
Prescription Level	Mandatory
Tags	"component" "configuration" "update" "Domain"

364

365

Assertion ID	ASM-TA-12020
Source	[ASM12016]
Target	<component/> at the SCA domain level
Prerequisites	1) Configuration of the <component/> is updated by a deployment action 2) Instances of the <component/> are in existence at the time of the deployment action 3) SCA runtime maintains existing instances with the old configuration after the configuration is updated by the deployment action
Predicate	<component/> instances with the initial configuration continue to exist and to service requests after the deployment action has completed
Prescription Level	Optional
Tags	"component" "configuration" "update" "Domain"

366

367

Assertion ID	ASM-TA-12021
--------------	--------------



Source	[ASM12016]
Target	<component/> at the SCA domain level
Prerequisites	1) Configuration of the <component/> is updated by a deployment action 2) Instances of the <component/> are in existence at the time of the deployment action 3) SCA runtime stops and discards existing instances with the old configuration after the configuration is updated by the deployment action
Predicate	<component/> instances with the initial configuration are stopped and discarded and cease to service requests after the deployment action has completed
Prescription Level	Optional
Tags	"component" "configuration" "update" "Domain"

368

369

Assertion ID	ASM-TA-12022
Source	[ASM12017]
Target	<reference/> of a <component/> where the reference is wired to the <service/> of a second <component/>
Prerequisites	1) second <component/> is removed by a deployment action 2) <reference/> wire is not the result of the autowire process
Predicate	Invocation of any operation of the <reference/> receives a Service Unavailable fault
Prescription Level	Optional
Tags	"component" "reference" "deployment" "remove" "target"

370

371

Assertion ID	ASM-TA-12023
Source	[ASM12017]
Target	<reference/> of a <component/> where the reference is wired to the <service/> of a second <component/>
Prerequisites	1) second <component/> is removed by a deployment action 2) <reference/> wire is the result of the autowire process 3) SCA runtime supports dynamic rewiring of references 4) a third <component/> exists in the Domain which has a <service/> which is compatible with the <component/> <reference/>
Predicate	After the deployment action is complete, <reference/> becomes wired to the <service/> of the third <component/> and service invocations through the <reference/> result in invocations of the operations of the <service/> of the third <component/>

Prescription Level	Optional
Tags	"component" "reference" "deployment" "remove" "target" "autowire"

372

373

Assertion ID	ASM-TA-12024
Source	[ASM12018]
Target	<component/> <service/> that is the target of a wire
Prerequisites	1) <component/> configuration is updated by a deployment action
Predicate	invocations to the <service/> over that wire that take place after the deployment action is complete use the new configuration of the <component/>
Prescription Level	Preferred
Tags	"component" "service" "deployment" "update" "target"

374

375

Assertion ID	ASM-TA-12025
Source	[ASM12020]
Target	<reference/> with @autowire=true of a <component/> deployed at the Domain level
Prerequisites	1) new <component/> is deployed into the Domain which has a <service/> that is a compatible with the <reference/> 2) SCA runtime supports dynamic update of references
Predicate	target(s) of the <reference/> are dynamically updated so that all invocations of the <reference/> after the deployment of the new <component/> is complete can use the <service/> of the new <component/>
Prescription Level	Optional
Tags	"component" "reference" "autowire" "target" "deployment" "dynamic"

376

377

Assertion ID	ASM-TA-12026
Source	[ASM12020]
Target	<reference/> with @autowire=true of a <component/> deployed at the Domain level
Prerequisites	1) new <component/> is deployed into the Domain which has a <service/> that is a compatible with the <reference/> 2) SCA runtime does not support dynamic update of references
Predicate	target(s) of the <reference/> remain unchanged until its <component/> is

	stopped and restarted - invocation of operations of the <reference/> cannot use the <service/> of the new <component/> until this occurs.
Prescription Level	Optional
Tags	"component" "reference" "autowire" "target" "deployment"

378

379

Assertion ID	ASM-TA-12027
Source	[ASM12022]
Target	a reference to an artifact in a contribution where that artifact is resolved using the SCA import mechanism
Prerequisites	1) the <contribution/> document has multiple <import/> declarations which relate to the namespace of the referenced artifact
Predicate	the search to resolve the artifact is conducted by searching the locations identified by the <import/> declarations in the order in which the <import/> statements appear in the <contribution/> document
Prescription Level	Mandatory
Tags	"contribution" "import" "artifact" "resolution" "multiple"

380

381

Assertion ID	ASM-TA-12028
Source	[ASM12023] [ASM12024]
Target	a reference to an artifact in a contribution where that artifact is resolved using the SCA import mechanism
Prerequisites	1) the <contribution/> document has an <import/> declaration for the namespace of the artifact 2) the location identified by the <import/> declaration contains an instance of the artifact 3) the contribution containing the reference to the artifact also contains an instance of the artifact
Predicate	the artifact reference is resolved to the artifact instance from the location identified by the <import/> declaration
Prescription Level	Mandatory
Tags	"contribution" "import" "artifact" "resolution"

382

383

Assertion ID	ASM-TA-12029
Source	[ASM12023]

Target	a reference to an artifact in a contribution where that artifact is resolved using the SCA import mechanism
Prerequisites	1) the <contribution/> document has an <import/> declaration for the namespace of the artifact 2) the location identified by the <import/> declaration does not contain an instance of the artifact 3) the contribution containing the reference to the artifact also contains an instance of the artifact
Predicate	the artifact reference is resolved to the artifact instance in the contribution which contains the reference
Prescription Level	Mandatory
Tags	"contribution" "import" "artifact" "resolution"

384

385

Assertion ID	ASM-TA-12030
Source	[ASM12026]
Target	a reference to an artifact in a contribution which resolves to an artifact instance in a second contribution
Prerequisites	1) the resolved artifact has references to yet further artifacts 2) both the original contribution and the second contribution have <import/> statements relating to namespace(s) of the additional artifacts
Predicate	the artifact references of the resolved artifact instance are resolved using the <import/> statements of the contribution which contains the artifact instance
Prescription Level	Mandatory
Tags	"contribution" "import" "artifact" "resolution"

386

387

388

Assertion ID	ASM-TA-12031
Source	[ASM12025]
Target	a reference to an artifact in a contribution where that artifact is resolved using the SCA import mechanism
Prerequisites	1) the <contribution/> document has an <import/> declaration for the namespace of the artifact 2) the location identified by the <import/> declaration does not contain an instance of the artifact 3) the contribution containing the reference to the artifact also does not contain an instance of the artifact

Predicate	the artifact references remains unresolved and the SCA runtime reports an error to this effect
Prescription Level	Mandatory
Tags	"contribution" "import" "artifact" "resolution" "unresolved" "error"

389

390

Assertion ID	ASM-TA-12031
Source	[ASM12025]
Target	a reference to an artifact in a contribution where that artifact is resolved using the SCA import mechanism
Prerequisites	1) the <contribution/> document has an <import/> declaration for the namespace of the artifact 2) the location identified by the <import/> declaration does not contain an instance of the artifact 3) the contribution containing the reference to the artifact also does not contain an instance of the artifact
Predicate	the artifact references remains unresolved and the SCA runtime reports an error to this effect
Prescription Level	Mandatory
Tags	"contribution" "import" "artifact" "resolution" "unresolved" "error"

391

392

Assertion ID	ASM-TA-12032
Source	[ASM12027]
Target	sca-contribution.xml file in an SCA contribution
Prerequisites	sca-contribution.xml file contents do not conform to the sca-contribution.xsd
Predicate	SCA runtime raises an error when it reads the sca-contribution.xml file
Prescription Level	Mandatory
Tags	"sca-contribution.xsd" "sca-contribution.xml"

393

394

Assertion ID	ASM-TA-12033
Source	[ASM12029]
Target	<deployable/> element in an sca-contribution.xml file in an SCA contribution
Prerequisites	<deployable/> element points at a <composite/> in the contribution

Predicate	SCA runtime deploys and runs the <composite/> referenced by the <deployable/> element
Prescription Level	Optional
Tags	"sca-contribution.xml" "deplpyable"

395

396

Assertion ID	ASM-TA-12034
Source	[ASM12030]
Target	@namespace attribute <export/> element in sca-contribution.xml file in an SCA contribution
Prerequisites	contribution contains one or more XML artifacts
Predicate	@namespace attribute contains the namespace of one or more of the XML artifacts contained in the contribution
Prescription Level	Optional
Tags	"sca-contribution.xsd" "export" "namespace" "atrifacts"

397

398

Assertion ID	ASM-TA-12035
Source	[ASM12031]
Target	artifact with dependencies
Prerequisites	a) artifact is contained within a first SCA contribution b) artifact is exported from the first contribution c) artifact is used as a dependency by a second artifact in a second contribution, which imports the namespace of the first artifact d) both first contribution and the second contribution contain artifacts that could satisfy the dependencies of the first artifact
Predicate	the artifacts dependencies are resolved within the context of the first contribution
Prescription Level	Mandatory
Tags	"artifact" "resolution" "context" "contribution"

399

400

Assertion ID	ASM-TA-12036
Source	[ASM12034]
Target	Property value of a domain level component
Prerequisites	a) property value is obtained from a domain level <property/> through use of the @source attribute

	<p>b) value of domain level &lt;property/&gt; element is updated by means of deployment actions</p> <p>c) component is stopped and restarted after the domain level &lt;property/&gt; value has been updated</p>
Predicate	Property value of the domain level component is the same as the new value of the domain level <property/> element
Prescription Level	Mandatory
Tags	"property" "value" "domain" "source" "update"

401

Assertion ID	ASM-TA-12037
Source	[ASM12034]
Target	Property value of a domain level component
Prerequisites	<p>a) property value is obtained from a domain level &lt;property/&gt; through use of the @source attribute</p> <p>b) value of domain level &lt;property/&gt; element is updated by means of deployment actions</p> <p>c) component is not stopped and restarted after the domain level &lt;property/&gt; value has been updated</p>
Predicate	Property value of the domain level component is the same as the new value of the domain level <property/> element
Prescription Level	Optional
Tags	"property" "value" "domain" "source" "update"

402

403

Assertion ID	ASM-TA-12038
Source	[ASM12034]
Target	Contribution containing artifacts
Prerequisites	<p>a) Artifacts are all in installed state</p> <p>b) none of the artifacts in the Contribution are deployed or running</p> <p>c) one of the artifacts in the Contribution contains statically checkable errors</p>
Predicate	The errors in the artifact are not reported and other deployed artifacts continue to run correctly
Prescription Level	Mandatory
Tags	"contribution" "artifacts" "error" "installed"

404

405

Assertion ID	ASM-TA-12039
Source	[ASM12033]
Target	Contribution containing artifacts
Prerequisites	a) one of the artifacts in the Contribution contains statically checkable errors b) artifact containing errors is first deployed and then put into the running state
Predicate	SCA runtime raises an error and does not run the artifact that contains the error
Prescription Level	Mandatory
Tags	"artifacts" "errors" "deployed" "running"

406

407

408

## 409 2.9 Section 13

410

Assertion ID	ASM-TA-13001
Source	[ASM13001]
Target	Composite file that violates one or more of the sca-core.xsd, sca-interface-wsdl.xsd, sca-implementation-composite.xsd and sca-binding-sca.xsd schemas.
Prerequisites	
Predicate	SCA runtime rejects the composite file and raises an error
Prescription Level	Mandatory
Tags	"composite" "schema" "error"

411

412

Assertion ID	ASM-TA-13002
Source	[ASM13002]
Target	Contribution file that violates the sca-contribution.xsd schema.
Prerequisites	
Predicate	SCA runtime rejects the contribution file and raises an error
Prescription Level	Mandatory
Tags	"contribution" "schema" "error"

413



414

Assertion ID	ASM-TA-13003
Source	[ASM13003]
Target	definitions file that does not conform to the sca-definitions.xsd schema
Prerequisites	
Predicate	SCA runtime rejects the definitions file and raises an error
Prescription Level	Mandatory
Tags	"composite" "schema" "error"

415

416 **2.10 Section 14**

417

Assertion ID	ASM-TA-14001
Source	[ASM14001]
Target	SCA artifact containing error(s) detectable through static analysis
Prerequisites	1) Artifact is deployed to the SCA Domain 2) SCA runtime detects errors at deployment time
Predicate	SCA runtime detects the error at deployment time and raises an error
Prescription Level	Optional
Tags	"deployment" "error" "static"

418

419

Assertion ID	ASM-TA-14002
Source	[ASM14002]
Target	Contribution that contains 1 or more artifacts with errors detectable through static analysis
Prerequisites	
Predicate	SCA runtime prevents deployment of the contribution and raises an error
Prescription Level	Optional
Tags	"contribution" "deployment" "error" "static"

420

421

Assertion ID	ASM-TA-14003
Source	[ASM14003]
Target	Component attempts an activity that causes an error to be detected at runtime

Prerequisites	
Predicate	SCA runtime raises an error to the component
Prescription Level	Mandatory
Tags	"component" "error" "runtime"

422

423

Assertion ID	ASM-TA-14004
Source	[ASM14004]
Target	Deployed component associated with an error detectable by static analysis
Prerequisites	
Predicate	SCA runtime does not run the component
Prescription Level	Optional
Tags	"contribution" "import" "artifact" "resolution" "unresolved" "error"

424

425

426

427

### 3 Cross Mapping of Conformance Statements to Assertions

428

429

430

Conformance statement	Test Assertion
ASM40001	Not testable
ASM40003	ASM-TA-4002
ASM40004	ASM-TA-4003
ASM40005	ASM-TA-4004
ASM40006	ASM-TA-4005
ASM40007	ASM-TA-4006
ASM40008	ASM-TA-4007
ASM40009	ASM-TA-4008
ASM40010	ASM-TA-4009 ASM-TA-4010
ASM40011	ASM-TA-4011

431

432

Conformance statement	Test Assertion
ASM50001	ASM-TA-5005
ASM50002	ASM-TA-5001
ASM50003	ASM-TA-5002
ASM50004	ASM-TA-5006 ASM-TA-8009 ASM-TA-8011
ASM50005	ASM-TA-5009
ASM50006	ASM-TA-5043
ASM50007	ASM-TA-5003
ASM50008	ASM-TA-5004
ASM50009	ASM-TA-5010 ASM-TA-5011 ASM-TA-5012 ASM-TA-5013
ASM50010	ASM-TA-5014 ASM-TA-5015
ASM50011	ASM-TA-5016 ASM-TA-8010 ASM-TA-8011
ASM50012	ASM-TA-5017 ASM-TA-5018
ASM50013	ASM-TA-5019

Conformance statement	Test Assertion
	ASM-TA-5020
ASM50014	ASM-TA-5021 ASM-TA-5022 ASM-TA-5023
ASM50015	ASM-TA-5024
ASM50016	Untestable (leave for Bindings specs)
ASM50022	ASM-TA-5027
ASM50025	ASM-TA-5029
ASM50026	ASM-TA-5030
ASM50027	ASM-TA-5031
ASM50028	ASM-TA-5032
ASM50029	ASM-TA-5033
ASM50031	ASM-TA-5034
ASM50032	ASM-TA-5036
ASM50033	ASM-TA-5037
ASM50034	ASM-TA-5038
ASM50035	ASM-TA-5039 ASM-TA-5040
ASM50036	ASM-TA-5041
ASM50037	ASM-TA-5042
ASM50038	ASM-TA-5044 ASM-TA-5045 ASM-TA-5046
ASM50039	ASM-TA-5028
ASM50040	ASM-TA-5025 ASM-TA-5027
ASM50041	ASM-TA-5026
ASM50042	ASM-TA-5047
ASM50043	ASM-TA-5048 ASM-TA-5049
ASM50044	ASM-TA-5050

433

434

Conformance statement	Test Assertion
ASM60001	ASM-TA-6004
ASM60002	ASM-TA-6005
ASM60003	ASM-TA-6006
ASM60004	ASM-TA-6007
ASM60005	ASM-TA-6008 ASM-TA-8012 ASM-TA-8014
ASM60006	ASM-TA-6009
ASM60007	ASM-TA-6010
ASM60008	ASM-TA-6011 ASM-TA-6012
ASM60009	ASM-TA-6013
ASM60010	ASM-TA-6014
ASM60011	ASM-TA-6015

Conformance statement	Test Assertion
	ASM-TA-6016 ASM-TA-6017 ASM-TA-6018
ASM60012	ASM-TA-6011 ASM-TA-8013 ASM-TA-8014
ASM60013	ASM-TA-6012
ASM60014	ASM-TA-6019
ASM60022	ASM-TA-6020 ASM-TA-6021
ASM60024	ASM-TA-6022 ASM-TA-6023
ASM60025	ASM-TA-6024
ASM60026	ASM-TA-6025
ASM60027	ASM-TA-6026
ASM60028	ASM-TA-6027
ASM60030	ASM-TA-6031
ASM60031	ASM-TA-6032
ASM60032	ASM-TA-6028
ASM60033	ASM-TA-6029
ASM60034	ASM-TA-6030
ASM60035	ASM-TA-6033
ASM60036	ASM-TA-6034
ASM60037	ASM-TA-6035
ASM60038	ASM-TA-6036
ASM60039	ASM-TA-6037
ASM60040	ASM-TA-6038 ASM-TA-6039
ASM60041	ASM-TA-6040
ASM60042	ASM-TA-6041
ASM60043	ASM-TA-6042
ASM60045	ASM-TA-6043
ASM60046	ASM-TA-6044
ASM60047	ASM-TA-6045
ASM60048	ASM-TA-6046
ASM60049	ASM-TA-6047
ASM60050	ASM-TA-6048
ASM60051	ASM-TA-6049

435

436

Conformance statement	Test Assertion
ASM80001	ASM-TA-8020
ASM80002	ASM-TA-8001
ASM80003	ASM-TA-8002 ASM-TA-8003
ASM80004	ASM-TA-8004
ASM80005	ASM-TA-8005 ASM-TA-8006
ASM80008	ASM-TA-8018
ASM80009	ASM-TA-8015
ASM80010	ASM-TA-8007
ASM80011	ASM-TA-8008
ASM80016	ASM-TA-8021
ASM80017	ASM-TA-8022

437

438

Conformance statement	Test Assertion
ASM90001	ASM-TA-9002
ASM90002	ASM-TA-9003
ASM90003	ASM-TA-9004
ASM90004	ASM-TA-9005
ASM90005	ASM-TA-9006

439

Conformance statement	Test Assertion
ASM100001	ASM-TA-10001
ASM100002	ASM-TA-10002
ASM100003	ASM-TA-10003

440

441

Conformance statement	Test Assertion
ASM12001	ASM-TA-12001
ASM12002	ASM-TA-12002
ASM12003	ASM-TA-12003
ASM12005	ASM-TA-12005
ASM12006	ASM-TA-12007
ASM12007	ASM-TA-12008
ASM12008	ASM-TA-12009
ASM12009	ASM-TA-12010
ASM12010	ASM-TA-12011
ASM12011	ASM-TA-12012
ASM12012	ASM-TA-12013
ASM12013	ASM-TA-12014 ASM-TA-12015 ASM-TA-12016 ASM-TA-12017
ASM12014	ASM-TA-12018
ASM12015	ASM-TA-12019
ASM12016	ASM-TA-12020 ASM-TA-12021
ASM12017	ASM-TA-12022 ASM-TA-12023
ASM12018	ASM-TA-12024
ASM12020	ASM-TA-12025 ASM-TA-12026
ASM12021	ASM-TA-12006
ASM12022	ASM-TA-12027
ASM12023	ASM-TA-12028 ASM-TA-12029
ASM12024	ASM-TA-12028
ASM12025	ASM-TA-12031
ASM12026	ASM-TA-12030
ASM12027	ASM-TA-12032
ASM12028	Untestable
ASM12029	ASM-TA-12033
ASM12030	ASM-TA-12034
ASM12031	ASM-TA-12035
ASM12032	ASM-TA-12038
ASM12033	ASM-TA-12039
ASM12034	ASM-TA-12036 ASM-TA-12037

443

Conformance statement	Test Assertion
ASM13001	ASM-TA-13001
ASM13002	ASM-TA-13002
ASM13003	ASM-TA-13003

444

445



---

446 **4 Conformance**

447 There are no conformance statements relating to the Test Assertions.

448

---

449 **Appendix A. Acknowledgments**

450 The following individuals have participated in the creation of this specification and are gratefully  
451 acknowledged

452 **Participants:**

453

Participant Name	Affiliation
Bryan Aupperle	IBM
Vladislav Bezrukov	SAP AG*
David Booz	IBM
Martin Chapman	Oracle Corporation
Vamsavardhana Reddy Chillakuru	IBM
Mark Combellack	Avaya, Inc.
Mike Edwards	IBM
Anish Karmarkar	Oracle Corporation
Ashok Malhotra	Oracle Corporation
Plamen Pavlov	SAP AG*
Eric Wells	Hitachi, Ltd.

454

455

456

457 **Appendix B. Revision History**

458

459

<b>Revision</b>	<b>Date</b>	<b>Editor</b>	<b>Changes Made</b>
17	06/02/09	Mike Edwards	Preparations for Public Review - added Acknowledgements
18	06/10/09	Mike Edwards	Adjusted wording of ASM-TA-8003 Added ASM-TA-8021 Added ASM-TA-8022
19	06/16/09	Mike Edwards	CD01 / Public Review draft 01 All changes accepted, file name changed to match OASIS guidelines
cd01-rev1	03/09/10	Mike Edwards	Issue 187 - Added ASM-TA-12036 & ASM-TA-12037
cd01-rev2	04/12/10	Mike Edwards	Issue 159 - Removed assertions, added assertions and reassigned assertions to match latest CD of SCA Assembly specification.
cd01-rev3	06/08/10	Bryan Aupperle	Formatting and hyperlink fixes in the frontmatter
cd02	06/08/10	Mike Edwards	All changes accepted

460