

MS-COPYS Test Suite Specification

**Abstract:** This document provides information about how to configure the test suite and how MS-COPYS test suite is designed to test MS-COPYS Open Specification usability and accuracy. It describes test assumptions, scope and constraints of the test suite. It also specifies test scenarios, detailed test cases, test suite architecture and adapter design.

Contents

[1 Configuring the test suite 3](#_Toc384043923)

[1.1 Configuring the test suite client 3](#_Toc384043924)

[1.1.1 Configuring the test suite client manually 3](#_Toc384043925)

[1.1.2 Configuring the test suite client by scripts 4](#_Toc384043926)

[1.2 Configuring the system under test (SUT) 4](#_Toc384043927)

[1.2.1 Configuring the SUT manually 4](#_Toc384043928)

[1.2.2 Configuring the SUT by scripts 4](#_Toc384043929)

[1.3 Configuring the SHOULD/MAY requirements 5](#_Toc384043930)

[2 Test suite design 6](#_Toc384043931)

[2.1 Assumptions, scope and constraints 6](#_Toc384043932)

[2.2 Test suite architecture 6](#_Toc384043933)

[2.3 Technical dependencies and considerations 8](#_Toc384043934)

[2.4 Adapter design 8](#_Toc384043935)

[2.4.1 Adapter overview 8](#_Toc384043936)

[2.4.2 Technical feasibility of adapter approach 9](#_Toc384043937)

[2.4.3 Adapter abstract layer 9](#_Toc384043938)

[2.4.4 Adapter details 10](#_Toc384043939)

[2.5 Test scenarios 11](#_Toc384043940)

[2.5.1 S01\_ CopyIntoItems 12](#_Toc384043941)

[2.5.2 S02\_ CopyIntoItemsLocal 12](#_Toc384043942)

[2.6 Test case design 13](#_Toc384043943)

[2.6.1 Traditional test case design 13](#_Toc384043944)

[2.6.2 Test case description 14](#_Toc384043945)

# Configuring the test suite

## Configuring the test suite client

### Configuring the test suite client manually

Before you run the test suite, update the values in the MS-COPYS\_TestSuite.deployment.ptfconfig file. The MS-COPYS\_TestSuite.deployment.ptfconfig file can also be configured by running the client setup script.

1. Open MS-COPYS\TestSuite\MS-COPYS\_TestSuite.deployment.ptfconfig file.
2. Update the following value to specify the common configuration file.

Property name="CommonConfigurationFileName" value="SharePointCommonConfiguration.deployment.ptfconfig"

**Note**   This property can be removed or set to empty if the required properties are copied to the test suite specific configuration file. Any other changes to this property will cause all test cases in the test suite to fail during execution. The test suite first search through its specific configuration file and use the properties from there if they are defined, before looking for them from the common configuration file (if specified).

1. Update the following property values to match SUT settings and configuration.

* Property name="SourceSutComputerName" value=""
* Property name="TargetServiceUrlOfSourceSUT" value="[TransportType]://[SourceSutComputerName]/sites/[SiteCollectionName]/\_vti\_bin/copy.asmx"
* Property name="SourceFileUrlOnSourceSUT" value="[TransportType]://[SourceSutComputerName]/sites/[SiteCollectionName]/[SourceDocLibraryName]/MSCOPYS\_SourceFile.txt"
* Property name="SourceFileUrlOnDesSUT" value="[TransportType]://[SutComputerName]/sites/[SiteCollectionName]/[SourceDocLibraryName]/MSCOPYS\_SourceFile.txt"
* Property name="TargetServiceUrlOfDestinationSUT" value="[TransportType]://[SutComputerName]/sites/[SiteCollectionName]/\_vti\_bin/copy.asmx"
* Property name="UrlPatternOfDesFileOnDestinationSUT" value="[TransportType]://[SutComputerName]/sites/[SiteCollectionName]/[DestinationDocLibrary]/{FileName}"
* Property name="UrlPatternOfDesFileForMWSOnDestinationSUT" value="[TransportType]://[SutComputerName]/sites/[SiteCollectionName]/[MeetingWorkSpaceSiteName]/[MeetingWorkSpaceDocLibrary]/{FileName}"
* Property name="UrlPatternOfDesFileForMWSOnDestinationSUT" value="[TransportType]://[SutComputerName]/sites/[SiteCollectionName]/[MeetingWorkSpaceSiteName]/[MeetingWorkSpaceDocLibrary]/{FileName}"

1. The following properties are not associated with SUT settings and can normally retain the default values.

* Property name="SiteCollectionName" value="MSCOPYS\_SiteCollection"
* Property name="MeetingWorkSpaceSiteName" value="MSCOPYS\_SubSiteMeetingWorkspace"
* Property name="SourceDocLibraryName" value="MSCOPYS\_SourceDocumentLibrary"
* Property name="MeetingWorkSpaceDocLibrary" value="MSCOPYS\_SubSiteDocumentLibrary"
* Property name="DestinationDocLibrary" value="MSCOPYS\_DestinationDocumentLibrary"
* Property name="SourceFileContents" value="MSCOPYS\_SourceFile"
* Property name="FieldNameOfTestReadOnly" value="MSCOPYS\_TestReadOnlyFiled"
* Property name="FieldDefaultValueOfTestReadOnlyOnSourceDocLibrary" value="MSCOPYS\_Source"
* Property name="FieldDefaultValueOfTestReadOnlyOnDesDocLibrary" value="MSCOPYS\_Destination"
* Property name="FieldNameOfTestWorkflowEventType" value="MSCOPYS\_WorkFlowEventFiled"
* Property name="MSCOPYSCheckOutUserName" value="MSCOPYS\_EditUser"
* Property name="PasswordOfCheckOutUser" value="Password01!"
* Property name="MSCOPYSNoPermissionUser" value="MSCOPYS\_limitUser"
* Property name="PasswordOfNoPermissionUser" value="Password01!"
* Property name="ServiceTimeOut" value="10"

### Configuring the test suite client by scripts

To configure the test suite client using scripts, see section 5.2.4 of the [SharePointTestSuiteDeploymentGuide.docx](../SharePointTestSuiteDeploymentGuide.docx).

## Configuring the system under test (SUT)

### Configuring the SUT manually

To manually configure the SUT, see section 5.1.3 of the [SharePointTestSuiteDeploymentGuide.docx](../SharePointTestSuiteDeploymentGuide.docx).

### Configuring the SUT by scripts

To configure the SUT using scripts, see section 5.1.2 of the [SharePointTestSuiteDeploymentGuide.docx](../SharePointTestSuiteDeploymentGuide.docx).

## Configuring the SHOULD/MAY requirements

All the implementation of the SHOULD/MAY and endnote related requirements are pre-configured in the format "<Property name="RXXXEnabled" value="XXXX"/>" for six Microsoft product versions in six SHOULD/MAY PTFConfig files:

* MS-COPYS\_WindowsSharePointServices3\_SHOULDMAY.deployment.ptfconfig
* MS-COPYS\_SharePointServer2007\_SHOULDMAY.deployment.ptfconfig
* MS-COPYS\_SharePointFoundation2010\_SHOULDMAY.deployment.ptfconfig
* MS-COPYS\_SharePointServer2010\_SHOULDMAY.deployment.ptfconfig
* MS-COPYS\_SharePointFoundation2013\_SHOULDMAY.deployment.ptfconfig
* MS-COPYS\_SharePointServer2013\_SHOULDMAY.deployment.ptfconfig

If RXXXEnabled is set to true, the requirement must be checked. If false, the requirement must not be checked. For Microsoft product versions, all values should not be changed. For third-party products, the closest Microsoft product version should be chosen, and the value of RXXXEnabled should be updated according to the real product behavior. For example, if SharePoint Foundation 2010 is chosen, user can open **MS-COPYS\_SharePointFoundation2010\_SHOULDMAY**.deployment.ptfconfig and update the RXXXEnabled accordingly.

.

# Test suite design

## Assumptions, scope and constraints

Assumptions

None

Scope

In scope

* This test suite will verify the accuracy and integrity of the technical content in the Open Specification against the results returned from the protocol server by using three SOAP operations: GetItem, CopyIntoItems, CopyIntoItemsLocal.
* This test suite will verify the server-side and testable requirements by running all the test cases on both HTTP and HTTPS.
* This test suite will verify operations over SOAP 1.1 and SOAP 1.2.
* This test suite will verify types’ schema definition in the Open Specification.

Out of scope

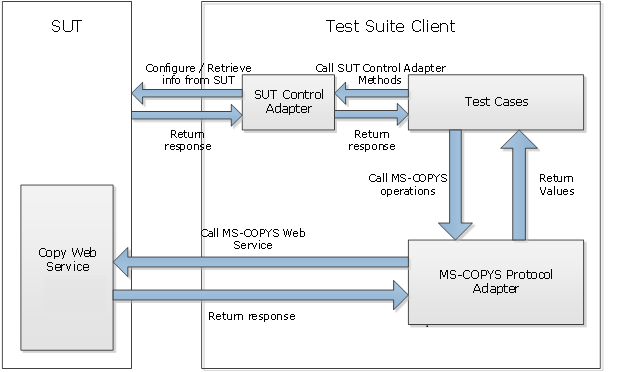
* This test suite will not verify the requirements related to client behaviors.
* This test suite will not verify the requirements related to server internal behaviors.
* This test suite will not verify the internal implementations of its transport protocol stack.

Constraints

None

## Test suite architecture

This test suite verifies the server-side and testable requirements obtained from Open Specification. The following figure shows the architecture of this test suite.



MS-COPYS test suite architecture

The details of the MS-COPYS test suite architecture

* SUT hosts the Copy Web Service which this test suite runs against.
* From a third-party’s point of view, the SUT is the protocol server implementation.
* The following products have been tested with the MS-COPYS test suite on the Windows platform.
* Windows SharePoint Services 3.0 Service Pack 3 (SP3)
* Microsoft SharePoint Foundation 2010 Service Pack 2 (SP2)
* Microsoft SharePoint Foundation 2013 Pack 1 (SP1)
* Microsoft Office SharePoint Server 2007 Service Pack 3 (SP3)
* Microsoft SharePoint Server 2010 Service Pack 2 (SP2)
* Microsoft SharePoint Server 2013 Pack 1 (SP1)
* The test suite acts as the client to communicate with the SUT and validates the requirements gathered from the MS-COPYS Open Specification.
* The test cases invoke the MS-COPYS adapter to call the MS-COPYS operations and validate the response from SUT. Test cases also use the SUT control adapter to set the SUT to the test case specific situation.
* MS-COPYS adapter is used in the test cases. The test cases call the methods in the adapter interfaces to invoke the MS-COPYS operations.
* The test cases also use the SUT control adapter to set/modify the SUT environment by calling the methods in the SUT control adapter interface to configure the SUT.

## Technical dependencies and considerations

Dependencies

* This test suite depends on the SOAP messaging protocol for exchanging structured data and type information, when using the SOAP operations described in the Open Specification.
* This test suite will use the HTTP or HTTPS protocol directly for exchanging structured data and type information when using the HTTP GET/PUT methods to downloading and uploading files.
* This test suite depends on HTTP or HTTPS protocol to transmit the SOAP messages.
* This test suite depends on the Protocol Test Framework (PTF) to drive managed adapters.

Encryption consideration

Transportation of MS-COPYS includes HTTP and HTTPS, and encryption will be handled by HTTPS.

## Adapter design

### Adapter overview

One protocol adapter and one SUT control adapter are used in this test suite.

Protocol adapter

* MS-COPYS adapter
* The MS-COPYS adapter is a managed adapter, which is derived from the ManagedAdapterBase class in the Protocol Test Framework (PTF).
* The MS-COPYS adapter has the following functionalities
* Choose HTTP or HTTPS and SOAP 1.1 or 1.2 for transport;
* Construct requests of three MS-COPYS SOAP operations.
* Communicate with the SUT by sending requests to the SUT and receive the corresponding responses from the SUT;
* Parse the response messages and validate the messages according to the WSDL schema;
* Generate the result log.
* The MS-COPYS adapter uses the C# proxy class, which is generated by running the wsdl.exe tool against the full WSDL of this protocol to send SOAP request messages and receive SOAP response messages. The wsdl.exe can be found in Microsoft .NET Framework SDK tools.

SUT control adapter

* MS-COPYS SUT control adapter
* The SUT control adapter is a managed code adapter, derived from the ManagedAdapterBase class in PTF and invoked by the test cases.
* The SUT control adapter has the following functionality:
* Delete files by specified file URLs.
* CheckOut/UndoCheckOut a file by specified user credentials.
* Upload a txt file into the Document library.

### Technical feasibility of adapter approach

Message generation

The MS-COPYS adapter invoke the operations in proxy class, which serializes the parameter values to the SOAP request messages, then the SOAP request messages are sent out by proxy class.

Message consumption

The messages received from the SUT will be parsed in the MS-COPYS proxy class and be passed upon to the MS-COPYS adapter. Then these messages are consumed in the MS-COPYS adapter to validate the message format requirement, and consumed in the test cases to validate the logic-related requirements.

SUT control adapter

The SUT control adapter is designed to remotely control the SUT to set up and clean up the test environment of the SUT and to retrieve folders and items information from the SUT.

### Adapter abstract layer

Protocol adapters

MS-COPYS adapter interface

There are five methods declared in the MS-COPYS adapter interface IMS\_COPYSAdapter.

The GetItem, CopyIntoItems and CopyIntoItemsLocal correspond to the three MS-COPYS operations: GetItem, CopyIntoItems and CopyIntoItemsLocal. The operators of the three methods are abstracted from the operations specified in the MS-COPYS. The SwitchTargetServiceLocation method is used to switch the target service location. The SwitchUser method is used to switch the current credentials of the protocol adapter by specified user. The methods are described in the following table:

|  |  |  |
| --- | --- | --- |
| No. | Methods | Description |
| 1 | CopyIntoItems | Copy a file to a destination server that is different from the source location. |
| 2 | CopyIntoItemsLocal | Copy a file when the destination of the operation is on the same protocol server as the source location. |
| 3 | GetItem | Retrieve the contents and metadata for a file from the specified location. |
| 4 | SwitchTargetServiceLocation | Switch the target service location |
| 5 | SwitchUser | Switch the current credentials of the protocol adapter by specified user. |

MS-COPYS adapter interface methods

SUT control adapter

There are four methods defined in the SUT control adapter interface IMS\_COPYSSUTControlAdapter.

* These methods are described in the following table:

|  |  |  |
| --- | --- | --- |
| No. | Methods | Description |
| 1 | CheckOutFileByUser | Check out a file by specified user credential. |
| 2 | DeleteFiles | Remove the files. |
| 3 | UndoCheckOutFileByUser | Undo checkout for a file by specified user credential. |
| 4 | UploadTextFile | Upload a file to the specified full file URI. |

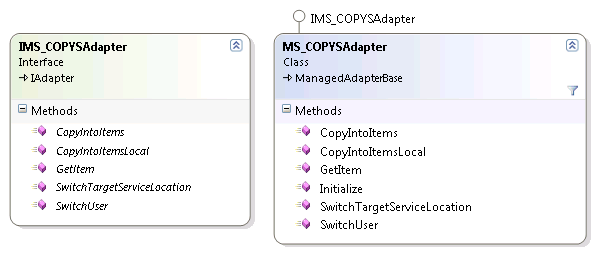
SUT control adapter interface method

### Adapter details

#### Protocol adapter

##### MS-COPYS protocol adapter

The following figure illustrates the MS- COPYS protocol adapter class diagram.



MS-COPYS adapter class diagram

The following outlines details of the class diagram:

Adapter interface

* The IMS\_COPYSAdapter is the interface of MS-COPYSAdapter.
* The IMS\_ COPYSAdapter defines the methods invoked by test cases, including SwitchTargetServiceLocation, SwitchUser, CopyIntoItemsLocal, GetItem and CopyIntoItems.

Adapter implementation

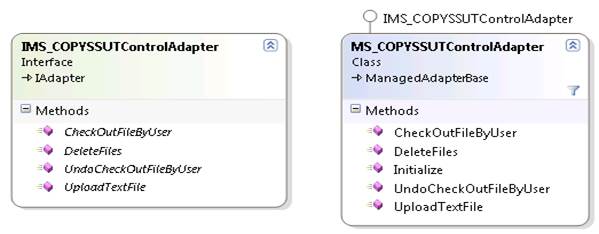
* MS-COPYSAdapter is the protocol adapter class of the test suite. It is used to implement IMS\_COPYSAdapter.
* The CopyIntoItemsLocal, GetItem and CopyIntoItems methods are implemented by generating message request, invoking the CopyIntoItemsLocal, GetItem and CopyIntoItems methods provided by the MS-COPYS proxy class to send message requests, and then getting corresponding de-serialized response and verifying related requirements.
* The ConfigureSOAPHeader method is used to configure the exchange service binding soap header.

The Initialize method is used to initialize the MS-COPYS protocol adapter.

#### SUT control adapter

##### MS-OXWSBTRF SUT control adapter

The following figure illustrates the MS-COPYS SUT control adapter class diagram.



SUT control adapter class diagram

The following outlines details of the class diagram:

Adapter interface

* IMS\_COPYSSUTControlAdapter is the interface of MS\_ COPYSSUTControlAdapter.
* IMS\_COPYSSUTControlAdapter defines the DeleteFiles, UploadTextFile, CheckOutFileByUser and UndoCheckOutFileByUser methods invoked by test cases.

Adapter implementation

* The MS\_COPYSSUTControlAdapter is a managed adapter. The implementation can be substituted by other implementation or be configured as interactive mode for the third party’s need.

## Test scenarios

Two scenarios are designed to verify the server-side, testable requirements in MS-COPYS test suite. The following table lists the scenarios used in this test suite.

|  |  |
| --- | --- |
| Scenario | Description |
| S01\_CopyIntoItems | Copy a file to the destination server, and the destination server is different with the source location. |
| S02\_CopyIntoItemsLocal | Copy a file to the destination server, and the destination server is same with the source location. |
|

MS-COPYS scenario

### S01\_ CopyIntoItems

Description

This scenario is designed to copy a file to the destination server, and the destination server is different with the source location.

Operations

* GetItem
* CopyIntoItems

Prerequisites

The client invokes the MS-COPYS adapter method GetItem to retrieve content and metadata for a file that is stored in a source location and calls the MS-COPYS adapter method CopyIntoItems to copy this file to the destination server.

Cleanup

Delete the file which is copied to the destination location.

### S02\_ CopyIntoItemsLocal

Description

This scenario is designed to copy a file to the destination server, and the destination server is the same with the source location.

Operations

* GetItem
* CopyIntoItemsLocal

Prerequisites

The client invokes the MS-COPYS adapter method CopyIntoItemsLocal to copy a file when the destination of the operation is on the same protocol server as the source location..

Cleanup

Delete the file which is copied to the destination location.

## Test case design

### Traditional test case design

Traditional testing is adopted as the test approach for this test suite. The test cases are designed to cover the server-side and testable requirements.

There are 33 traditional test cases designed to cover the two scenarios mentioned in section [2.5 Test scenarios](#S26). Details of the traditional test cases are specified in section [2.6.2 Test case description](#S272). The scenarios distributions of the test cases are listed in the following table.

|  |  |
| --- | --- |
| Scenario ID | Test case name |
| S01\_CopyIntoItems | MSCOPYS\_S01\_TC01\_GetItem\_Success |
| MSCOPYS\_S01\_TC02\_GetItem\_Fail |
| MSCOPYS\_S01\_TC03\_GetItem\_NoPermission |
| MSCOPYS\_S01\_TC04\_GetItem\_InternalNameUnique |
| MSCOPYS\_S01\_TC05\_GetItem\_IdUnique |
| MSCOPYS\_S01\_TC06\_CopyIntoItems\_ErrorCodeForSuccess |
| MSCOPYS\_S01\_TC07\_CopyIntoItems\_UnknownForInvalidField |
| MSCOPYS\_S01\_TC08\_CopyIntoItems\_DestinationCheckedOut |
| MSCOPYS\_S01\_TC09\_CopyIntoItems\_DestinationMWS |
| MSCOPYS\_S01\_TC10\_CopyIntoItems\_DesLocationNotExist |
| MSCOPYS\_S01\_TC11\_CopyIntoItems\_NoPermison |
| MSCOPYS\_S01\_TC12\_CopyIntoItems\_malformedIRI |
| MSCOPYS\_S01\_TC13\_GetItem\_ContentTypeId |
| MSCOPYS\_S01\_TC14\_CopyIntoItems\_EmptyFieldsCollection |
| MSCOPYS\_S01\_TC15\_CopyIntoItems\_EncodedAbsUrlField |
| MSCOPYS\_S01\_TC16\_CopyIntoItems\_CopySourceField |
| MSCOPYS\_S01\_TC17\_GetItem\_WorkflowEventType |
|  | MSCOPYS\_S01\_TC18\_CopyIntoItems\_ValueAttribute |
| MSCOPYS\_S01\_TC19\_GetItems\_FileNotExist |
| MSCOPYS\_S01\_TC20\_CopyIntoItems\_CheckFileContent |
| MSCOPYS\_S01\_TC21\_CopyIntoItems\_CheckResultNumber |
| MSCOPYS\_S01\_TC22\_CopyIntoItems\_CheckResultOrder |
| S02\_CopyIntoItemsLocal | MSCOPYS\_S02\_TC01\_CopyIntoItemsLocal\_ErrorCodeForSucess |
| MSCOPYS\_S02\_TC02\_CopyIntoItemsLocal\_DestinationInvalid |
| MSCOPYS\_S02\_TC03\_CopyIntoItemsLocal\_DestinationMWS |
| MSCOPYS\_S02\_TC04\_CopyIntoItemsLocal\_DestinationCheckedOut |
| MSCOPYS\_S02\_TC05\_CopyIntoItemsLocal\_SourceNotPointExistFolder |
| MSCOPYS\_S02\_TC06\_CopyIntoItemsLocal\_DesMalformedIRI |
| MSCOPYS\_S02\_TC07\_CopyIntoItemsLocal\_EncodedAbsUrlField |
| MSCOPYS\_S02\_TC08\_CopyIntoItemsLocal\_CopySourceField |
| MSCOPYS\_S02\_TC09\_CopyIntoItemsLocal\_CheckFileContent |
| MSCOPYS\_S02\_TC10\_CopyIntoItemsLocal\_CheckResultNumber |
| MSCOPYS\_S02\_TC11\_CopyIntoItemsLocal\_CheckResultOrder |

Test case scenario distribution

Negative testing is used in S01\_CopyIntoItems and S02\_CopyIntoItemsLocal. The client will send invalid messages to the server or correct messages to the server that is in a wrong state, expecting to get a SOAP fault message which is used to verify negative requirements as described in the Open Specification.

### Test case description

The steps in the following test case use methods and parameters in the adapter interfaces directly.

The following tables describe the traditional test cases.

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC01\_GetItem\_Success |
| **Description** | This test case is used to verify the GetItem operation sequence. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC01\_GetItem\_Success**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC02\_GetItem\_Fail |
| **Description** | This test case is used to verify the GetItems operation when the source location is an invalid URL. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with an not existing URL. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC02\_GetItem\_Fail**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC03\_GetItem\_NoPermission |
| **Description** | This test case is used to verify if there have some permission settings for the server or the file at the source location, the protocol server MUST report a failure by using HTTP Status-Code 401 Unauthorized. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchUser to change the user which is no permission. 2. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC03\_GetItem\_NoPermission**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC04\_GetItem\_InternalNameUnique |
| **Description** | This test case is used to verify the InternalName attribute values are unique. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC04\_GetItem\_InternalNameUnique**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC05\_GetItem\_IdUnique |
| **Description** | This test case is used to verify the Id attribute values are unique. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC05\_GetItem\_IdUnique**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC06\_CopyIntoItems\_ErrorCodeForSuccess |
| **Description** | This test case is used to verify if the CopyIntoItems operation executes successfully, error code "Success" should be returned. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC06\_CopyIntoItems\_ErrorCodeForSuccess**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC07\_CopyIntoItems\_UnknownForInvalidField |
| **Description** | This test case is used to verify "Unknown" error code for CopyIntoItems operation when one of fields is not invalid value. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server with invalid field value. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC07\_CopyIntoItems\_UnknownForInvalidField**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC08\_CopyIntoItems\_DestinationCheckedOut |
| **Description** | This test case is used to verify "DestinationCheckedOut" error code for CopyIntoItems operation. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call SUT control adapter method CheckOutFileByUser to check out the file by the specified user. 4. Call protocol adapter method CopyIntoItems to copy a file to the destination server. 5. Call SUT control adapter method UndoCheckOutFileByUser to undo checkout for a file by specified user credential. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC08\_CopyIntoItems\_DestinationCheckedOut**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC09\_CopyIntoItems\_DestinationMWS |
| **Description** | This test case is used to verify "DestinationMWS" error code for CopyIntoItems operation. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to Des SUT 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. 4. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC09\_CopyIntoItems\_DestinationMWS**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC10\_CopyIntoItems\_DesLocationNotExist |
| **Description** | This test case is used to verify if the destination location does not point to an existing folder for CopyItem operation, "Unknown" error code should be returned. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server when one of the destination URL is invalid. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC10\_CopyIntoItems\_DesLocationNotExist**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC11\_CopyIntoItems\_NoPermison |
| **Description** | This test case is used to verify if the protocol client does not have permission to access the source file, "Unknown" error code should be returned. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method SwitchUser to change the user which is no permission. 4. Call protocol adapter method CopyIntoItems to copy a file to the destination server. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC11\_CopyIntoItems\_NoPermison**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC12\_CopyIntoItems\_malformedIRI |
| **Description** | This test case is used to verify if the destination location is a malformed IRI, server should have different responses. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC12\_CopyIntoItems\_malformedIRI**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC13\_GetItem\_ContentTypeId |
| **Description** | This test case is used to verify the ContentTypeId map to field type on different products. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC13\_GetItem\_ContentTypeId**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC14\_CopyIntoItems\_EmptyFieldsCollection |
| **Description** | This test case is used to verify if the Fields collection is empty, the CopyIntoItems operation can succeed. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server with an empty fields collection. 4. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC14\_CopyIntoItems\_EmptyFieldsCollection**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC15\_CopyIntoItems\_EncodedAbsUrlField |
| **Description** | This test case is used to verify the field EncodedAbsUrl does not be copied when call CopyIntoItems operation on Windows SharePoint Services 3.0. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to Des SUT 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. 4. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with first destination URL. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC15\_CopyIntoItems\_EncodedAbsUrlField**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC16\_CopyIntoItems\_CopySourceField |
| **Description** | This test case is used to verify CopyIntoItems operation the value of field with internal name \_CopySource does equal to the value of source location on SharePoint Foundation 2010. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to Des SUT 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. 4. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with first destination URL. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC16\_CopyIntoItems\_CopySourceField**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC17\_GetItem\_WorkflowEventType |
| **Description** | This test case is used to verify the WorkflowEventType map to Error field type. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC17\_GetItem\_WorkflowEventType**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC18\_CopyIntoItems\_ValueAttribute |
| **Description** | This test case is used to verify the protocol server should accept the Value attribute either be present and have an empty value, or not be present. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to Des SUT 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. 4. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with first destination URL. 5. Call protocol adapter method CopyIntoItems to copy a file to the destination server. 6. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with first destination URL. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC18\_CopyIntoItems\_ValueAttribute**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC19\_GetItems\_FileNotExist |
| **Description** | This test case is used to verify when the source location does not point to an existing file on the protocol server, the Fields and Stream elements in the GetItemResponse element will be removed. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC19\_GetItems\_FileNotExist**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC20\_CopyIntoItems\_CheckFileContent |
| **Description** | This test case is used to verify if CopyIntoItems operation executes successfully, the file should be copied from source location to all destination locations. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. 4. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with first destination URL. 5. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with second destination URL. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC20\_CopyIntoItems\_CheckFileContent**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC21\_CopyIntoItems\_CheckResultNumber |
| **Description** | This test case is used to verify the CopyIntoItems operation executes successfully, the collection MUST have exactly one record for each destination location. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC21\_CopyIntoItems\_CheckResultNumber**

|  |  |
| --- | --- |
| **S01\_CopyIntoItems** | |
| **Test case ID** | MSCOPYS\_S01\_TC22\_CopyIntoItems\_CheckResultOrder |
| **Description** | This test case is used to verify if CopyIntoItems operation executes successfully, the return value in the Results collection MUST be in the same order as the items in the destination locations collection. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. 2. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 3. Call protocol adapter method CopyIntoItems to copy a file to the destination server. |
| **Cleanup** | N/A |

**MSCOPYS\_S01\_TC22\_CopyIntoItems\_CheckResultOrder**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC01\_CopyIntoItemsLocal\_ErrorCodeForSucess |
| **Description** | This test case is used to verify if CopyIntoItemsLocal operation executes successfully, error code "Success" should be returned. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC01\_CopyIntoItemsLocal\_ErrorCodeForSucess**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC02\_CopyIntoItemsLocal\_DestinationInvalid |
| **Description** | This test case is used to verify CopyIntoItemsLocal operation when a folder location that is not valid on the destination server. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT with the invalid destination folder. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC02\_CopyIntoItemsLocal\_DestinationInvalid**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC03\_CopyIntoItemsLocal\_DestinationMWS |
| **Description** | This test case is used to verify CopyIntoItemsLocal operation when destination location is inside a Meeting Workspace site. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT with Meeting Workspace library. 3. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC03\_CopyIntoItemsLocal\_DestinationMWS**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC04\_CopyIntoItemsLocal\_DestinationCheckedOut |
| **Description** | This test case is used to verify CopyIntoItemsLocal operation when destination file is checked out. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call SUT control adapter method CheckOutFileByUser to check out the file by the specified user. 3. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT with check out source file. 4. Call SUT control adapter method UndoCheckOutFileByUser to undo checkout for a file by specified user credential. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC04\_CopyIntoItemsLocal\_DestinationCheckedOut**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC05\_CopyIntoItemsLocal\_SourceNotPointExistFolder |
| **Description** | This test case is used to verify CopyIntoItemsLocal operation when source folder is not existent. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT with non-existent source folder. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC05\_CopyIntoItemsLocal\_SourceNotPointExistFolder**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC06\_CopyIntoItemsLocal\_DesMalformedIRI |
| **Description** | This test case is used to verify CopyIntoItemsLocal operation when a destination location is a malformed IRI. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT with malformed IRI. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC06\_CopyIntoItemsLocal\_DesMalformedIRI**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC07\_CopyIntoItemsLocal\_EncodedAbsUrlField |
| **Description** | This test case is used to verify the field EncodedAbsUrl does not be copy when call CopyIntoItemsLocal operation on Windows SharePoint Services 3.0.  EncodedAbsUrl: Absolute server-relative URL of the related file of an item. This value is computed by destination location. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to Des SUT 2. Call protocol adapter method GetItem to retrieve the contents and metadata for a file from the specified location. 3. Call protocol adapter method CopyIntoItemsLocal to copy a file to the destination server. 4. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with first destination URL. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC07\_CopyIntoItemsLocal\_EncodedAbsUrlField**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC08\_CopyIntoItemsLocal\_CopySourceField |
| **Description** | This test case is used to verify CopyIntoItemsLocal operation the value of field with internal name \_CopySource does equal to the value of source location on SharePoint Foundation 2010. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to Des SUT 2. Call protocol adapter method CopyIntoItemsLocal to copy a file to the destination server. 3. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with first destination URL. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC08\_CopyIntoItemsLocal\_CopySourceField**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC09\_CopyIntoItemsLocal\_CheckFileContent |
| **Description** | This test case is used to verify if CopyIntoItemsLocal operation executes successfully, the file should be copied from source location to all destination locations. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT. 3. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with first destination URL. 4. Call protocol adapter method GetItem to retrieve content and metadata for a file that is stored in a source location with second destination URL. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC09\_CopyIntoItemsLocal\_CheckFileContent**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC10\_CopyIntoItemsLocal\_CheckResultNumber |
| **Description** | This test case is used to verify the CopyIntoItemsLocal operation executes successfully, the collection MUST have exactly one record for each destination location. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC10\_CopyIntoItemsLocal\_CheckResultNumber**

|  |  |
| --- | --- |
| **S02\_CopyIntoItemsLocal** | |
| **Test case ID** | MSCOPYS\_S02\_TC11\_CopyIntoItemsLocal\_CheckResultOrder |
| **Description** | This test case is used to verify if CopyIntoItemsLocal operation executes successfully, the return value in the Results collection MUST be in the same order as the items in the destination locations collection. |
| **Prerequisites** | N/A |
| **Test execution steps** | 1. Call protocol adapter method SwitchTargetServiceLocation to switch to destination SUT. 2. Call protocol adapter method CopyIntoItemsLocal to copy files in same SUT. |
| **Cleanup** | N/A |

**MSCOPYS\_S02\_TC11\_CopyIntoItemsLocal\_CheckResultOrder**