



RESO RETS Certification  
Client Testing Tool  
Instruction Manual

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# Table of Contents

<b>1</b>	<b>Introduction .....</b>	<b>3</b>
1.1	RESO Client Testing Tool.....	3
<b>2</b>	<b>Certification Preparations.....</b>	<b>4</b>
2.1	Certification Flow (Summary).....	4
2.2	Getting Ready – Using the RESO Client Testing Tool.....	5
2.2.1	Sign-up for an account (Client Compliance Registration Form) .....	6
2.2.2	Preparing your RETS Client for Testing.....	6
2.2.3	RESO Client Test Summary – Before Testing.....	7
2.2.4	RESO Client Test Summary – After Testing.....	8
2.2.5	RESO Test Detail Page.....	9
2.2.6	Exporting Test Details.....	10
<b>3</b>	<b>Client Review Session and Certification .....</b>	<b>11</b>
3.1	Scheduling a Client Review Session.....	11
3.2	Client Review Session – Sample Agenda .....	11
3.3	After the Review .....	11

# 1 Introduction

This document is to help organizations submit their RETS clients to RESO for certification. A process walk through is found below.

The following are links to resources that will help your technology to become RESO certified.

Explanations for how these fit within the certification process will be included below.

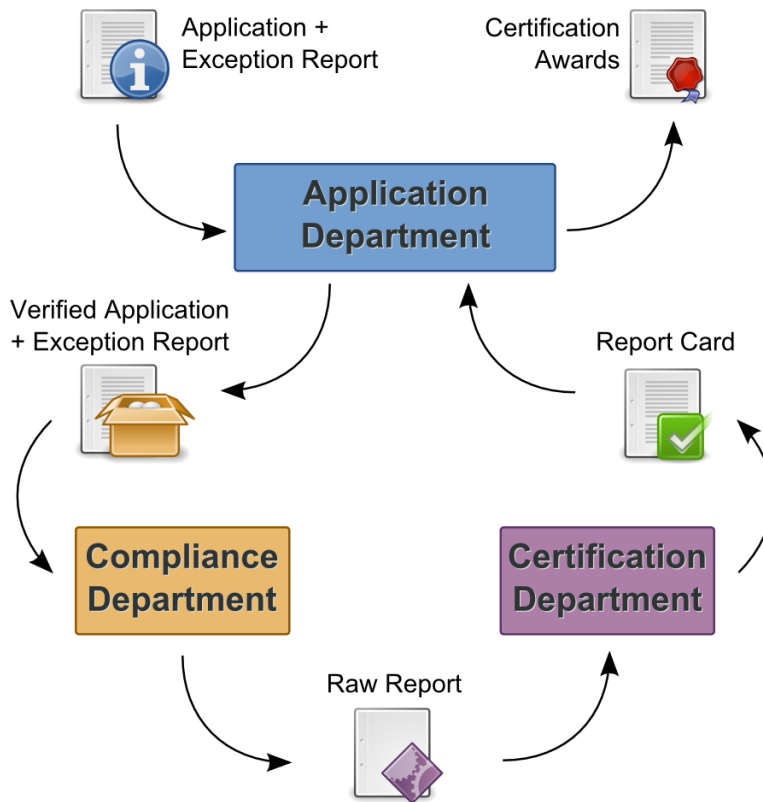
## 1.1 RESO Client Testing Tool

URL: <http://testing.reso.org:8080/retsClientCompliance/>

The RESO Client Testing Tool is a web site that sits between a RETS Client and RESO Test Server. It will intercept the transactions sent between the client and server. These transactions will be compared with the RETS 1.8 Standard. The results of the comparison will be provide.

## 2 Certification Preparations

### 2.1 Certification Flow (Summary)



Certification Flow	Group	Action	Output
1: Application Processing (Pre-Certification)	Application Department	Accept and Verify Applicant's ' <i>Certification Application</i> ' and ' <i>Exception Report</i> ' via <a href="http://reso.org">reso.org</a> .	Prepare for Compliance Testing. Pass application and ' <i>Exception Report</i> ' to Compliance Department.
2: Compliance Testing	Compliance Department	Test applicant's metadata against well-defined Compliance Rules as set forth by the RESO RETX 1x Workgroup.	Testing results formatted in ' <i>Raw Report</i> ' package. Pass ' <i>Raw Report</i> ' to Certification Department.
3: Certification Analysis	Certification Department	Analyze ' <i>Raw Report</i> ' to determine if applicant qualifies for a certificate. Create a ' <i>Report Card</i> ' with findings.	Pass analysis results and ' <i>Report Card</i> ' back to Application Processing.
4: Application Processing (Post-Certification)	Application Department	Act on Certification Department recommendation	Notify applicant of Certificate Pass/Fail. Send notification and ' <i>Report Card</i> ' back to Applicant.

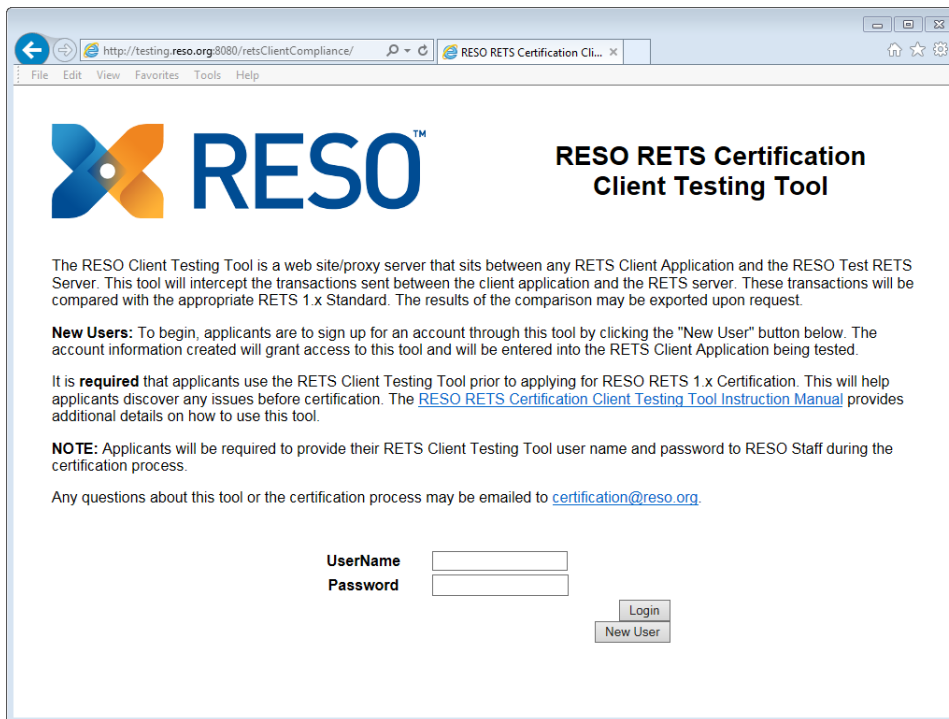
## 2.2 Getting Ready – Using the RESO Client Testing Tool

The RESO Client Testing Tool is available so applicants may know what to expect during the Certification Process.

The RESO Client Testing Tool is a proxy service that observes RETS requests and responses between the client and a RETS Server. The Testing Tool does NOT execute tests. It only displays the test results on a web page.

The RETS client being tested must use the URL, login and password set up in the Testing Tool. The web page is used to DISPLAY TEST RESULTS ONLY.

Visit <http://testing.reso.org:8080/retsClientCompliance/> to begin using the tool.



The screenshot shows a web browser window with the address bar displaying <http://testing.reso.org:8080/retsClientCompliance/>. The page features the RESO logo on the left and the title "RESO RETS Certification Client Testing Tool" on the right. Below the title, there is a paragraph explaining the tool's function as a proxy server. This is followed by a "New Users" section with instructions on how to sign up. A "NOTE" section states that users must provide their login credentials to RESO staff. At the bottom, there is a login form with fields for "UserName" and "Password", and two buttons: "Login" and "New User".

**RESO** **RESO RETS Certification Client Testing Tool**

The RESO Client Testing Tool is a web site/proxy server that sits between any RETS Client Application and the RESO Test RETS Server. This tool will intercept the transactions sent between the client application and the RETS server. These transactions will be compared with the appropriate RETS 1.x Standard. The results of the comparison may be exported upon request.

**New Users:** To begin, applicants are to sign up for an account through this tool by clicking the "New User" button below. The account information created will grant access to this tool and will be entered into the RETS Client Application being tested.

It is **required** that applicants use the RETS Client Testing Tool prior to applying for RESO RETS 1.x Certification. This will help applicants discover any issues before certification. The [RESO RETS Certification Client Testing Tool Instruction Manual](#) provides additional details on how to use this tool.

**NOTE:** Applicants will be required to provide their RETS Client Testing Tool user name and password to RESO Staff during the certification process.

Any questions about this tool or the certification process may be emailed to [certification@reso.org](mailto:certification@reso.org).

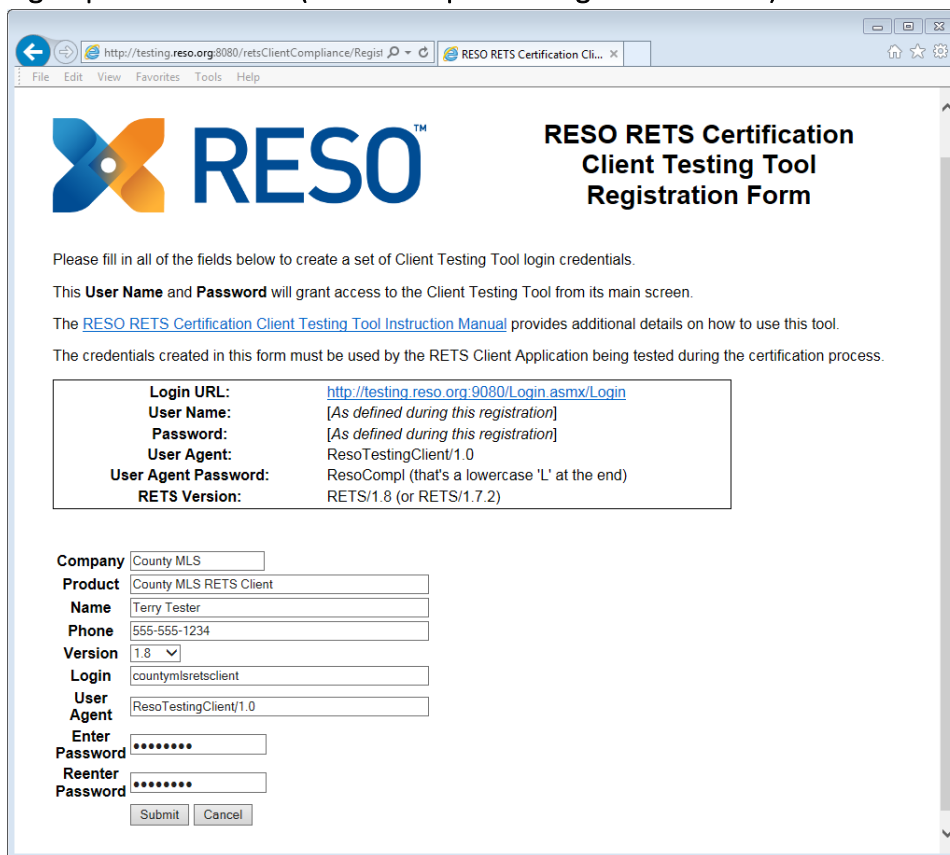
UserName   
Password

Login  
New User

The first time visitors will need to sign up for a new account.

Click "New User" to begin the registration process.

### 2.2.1 Sign-up for an account (Client Compliance Registration Form)



Fill in the registration form with the information with your company information and details about the RETS client being tested.

- **User Agent:** The User Agent “ResoTestingClient/1.0” is required at this time.
- **Password:** Please provide a unique password NOT used for any MLS production servers. This password may need to be provided to RESO staff during the certification process. <http://www.random.org/passwords/> may assist in generating unique passwords.

Press “Submit” to create the credentials.

Return to the main screen and log in with the new credentials to view the RESO Client Test Summary.

### 2.2.2 Preparing your RETS Client for Testing

The following are the credentials that the client being tested will need to use.

Contact Fields	Description
Login URL:	<a href="http://testing.reso.org:9080/Login.aspx/Login">http://testing.reso.org:9080/Login.aspx/Login</a>
User Name:	[As defined during registration]
Password:	[As defined during registration]
User Agent:	ResoTestingClient/1.0
User Agent Password:	ResoCompl (that’s a lowercase “L” at the end)
RETS Version:	RETS/1.8 (or RETS/1.7.2)

### 2.2.3 RESO Client Test Summary – Before Testing

Test results can be viewed at any time even before the tests have been run from the Client you are testing.

- **Refresh:** This button gets the latest status of the test.
- **Reset Tests:** This sets the status of all the tests to failed and clears any past test run.
- **Email Tests:** Email the complete test results to the RESO Certification administrator.
- **Save Test to File:** This saves the status of the tests to a file on your local hard drive.

Test	Status	Message	Description
<a href="#">DigestLoginTest</a>			The Digest Login test validates that the client is able to negotiate a digest login to a RETS server. It also evaluates the required request headers.
<a href="#">GetObjectTest</a>			The GetObject test evaluates the required request headers. It also evaluates the required request arguments: Resource, Type and ID for format and values. This test validates that the client is properly using the server's metadata to format a valid GetObject request.
<a href="#">MetaDataTest</a>			The Metadata test evaluates the presence of required request headers. It also checks for the presence of required request arguments Type and ID, evaluating their format and values. It also checks for the optional request argument Format and evaluates its values.
<a href="#">SearchTest</a>			The Search test makes certain that the required request headers are present. It checks for the presence of required request arguments: QueryType, Class, SearchType and Query. It evaluates the format and values of these arguments. If optional request arguments such as Count, Format, Limit or Offset are present, it evaluates their format and values. The search test compares the search request against the metadata provided by the test server to determine if the Client is correctly interpreting metadata provided. It also checks for proper DMQL syntax in the query.
<a href="#">UpdateTest</a>			The Update test evaluates the required request headers. It also checks for the required request arguments: Resource, ClassName, Type, and Record, evaluating their format and values. It also validates that a client has correctly used the server's metadata to create an update request.
<a href="#">LogoutTest</a>			The Logout test validates that the Client made a compliant logout request to the RETS server.
<a href="#">GetPayloadListTest</a>			The GetPayloadList Test makes certain the request is formatted properly
<a href="#">PostObjectTest</a>			The PostObject test evaluates the required request headers. This test validates that the client is properly using the server's metadata to format a valid PostObject request.

Refresh  
Reset Tests  
Save Tests to File

The RESO Client Test Summary shows the test that are available to test your client. As each functionality is performed by the RETS Client, the Status and Message columns will be populated.

- **“Refresh” Button:** Updates the Status and Message columns after the Client has submitted searches.
- **“Reset Tests” Button:** Removes all Status and Message information for all of the tests. This allows the client to run more tests against the server.
- **“Save Tests to File” Button:** Allows the current test results to be exported as an XML file. (Additional details below.)

## 2.2.4 RESO Client Test Summary – After Testing

Test results can be viewed at any time even before the tests have been run from the Client you are testing.

- **Refresh:** This button gets the latest status of the test.
- **Reset Tests:** This sets the status of all the tests to failed and clears any past test run.
- **Email Tests:** Email the complete test results to the RESO Certification administrator.
- **Save Test to File:** This saves the status of the tests to a file on your local hard drive.

Test	Status	Message	Description
<a href="#">DigestLoginTest</a>	Passed		The Digest Login test validates that the client is able to negotiate a digest login to a RETS server. It also evaluates the required request headers.
<a href="#">GetObjectTest</a>	Passed		The GetObject test evaluates the required request headers. It also evaluates the required request arguments: Resource, Type and ID for format and values. This test validates that the client is properly using the server's metadata to format a valid GetObject request.
<a href="#">MetadataTest</a>	Passed		The Metadata test evaluates the presence of required request headers. It also checks for the presence of required request arguments Type and ID, evaluating their format and values. It also checks for the optional request argument Format and evaluates its values.
<a href="#">SearchTest</a>	Passed		The Search test makes certain that the required request headers are present. It checks for the presence of required request arguments: QueryType, Class, SearchType and Query. It evaluates the format and values of these arguments. If optional request arguments such as Count, Format, Limit or Offset are present, it evaluates their format and values. The search test compares the search request against the metadata provided by the test server to determine if the Client is correctly interpreting metadata provided. It also checks for proper DMQL syntax in the query.
<a href="#">UpdateTest</a>			The Update test evaluates the required request headers. It also checks for the required request arguments: Resource, ClassName, Type, and Record, evaluating their format and values. It also validates that a client has correctly used the server's metadata to create an update request.
<a href="#">LogoutTest</a>	Passed		The Logout test validates that the Client made a compliant logout request to the RETS server.
<a href="#">GetPayloadListTest</a>	Passed		The GetPayloadList Test makes certain the request is formatted properly
<a href="#">PostObjectTest</a>			The PostObject test evaluates the required request headers. This test validates that the client is properly using the server's metadata to format a valid PostObject request.

Refresh  
Reset Tests  
Save Tests to File

The latest information will be displayed after using “Refresh”. Details of the results are available by clicking on the different named “Test” links in the first column.

A description of the tests is also provided here:

- **DigestLoginTest:** The Digest Login test validates that the client is able to negotiate a digest login to a RETS server. It also evaluates the required request headers.
- **GetObjectTest:** The GetObject test evaluates the required request headers. It also evaluates the required request arguments: Resource, Type and ID for format and values. This test validates that the client is properly using the server's metadata to format a valid GetObject request.



- **MetaDataTest:** The Metadata test evaluates the presence of required request headers. It also checks for the presence of required request arguments Type and ID, evaluating their format and values. It also checks for the optional request argument Format and evaluates its values.
- **SearchTest:** The Search test makes certain that the required request headers are present. It checks for the presence of required request arguments: QueryType, Class, SearchType and Query. It evaluates the format and values of these arguments. If optional request arguments such as Count, Format, Limit or Offset are present, it evaluates their format and values. The search test compares the search request against the metadata provided by the test server to determine if the Client is correctly interpreting metadata provided. It also checks for proper DMQL syntax in the query.
- **UpdateTest:** The Update test evaluates the required request headers. It also checks for the required request arguments: Resource, ClassName, Type, and Record, evaluating their format and values. It also validates that a client has correctly used the server's metadata to create an update request.
- **LogoutTest:** The Logout test validates that the Client made a compliant logout request to the RETS server.
- **GetPayloadListTest:** The GetPayloadList Test makes certain the request is formatted properly
- **PostObjectTest:** The PostObject test evaluates the required request headers. This test validates that the client is properly using the server's metadata to format a valid PostObject request.

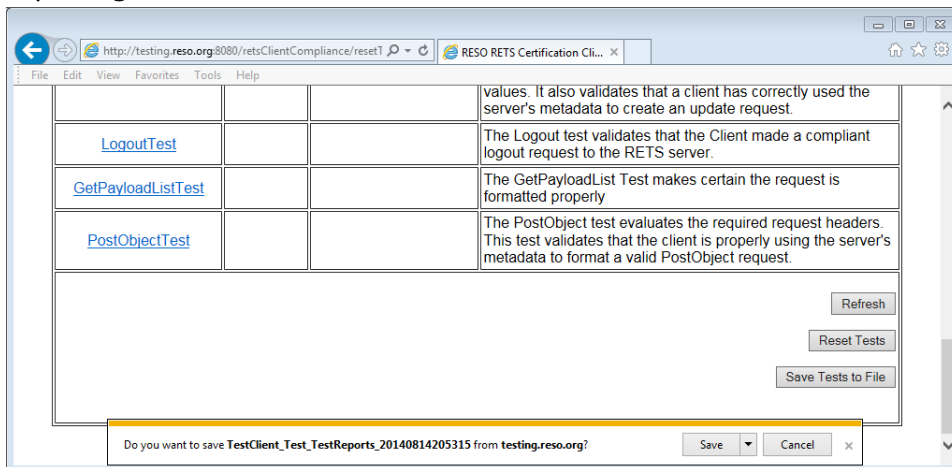
## 2.2.5 RESO Test Detail Page



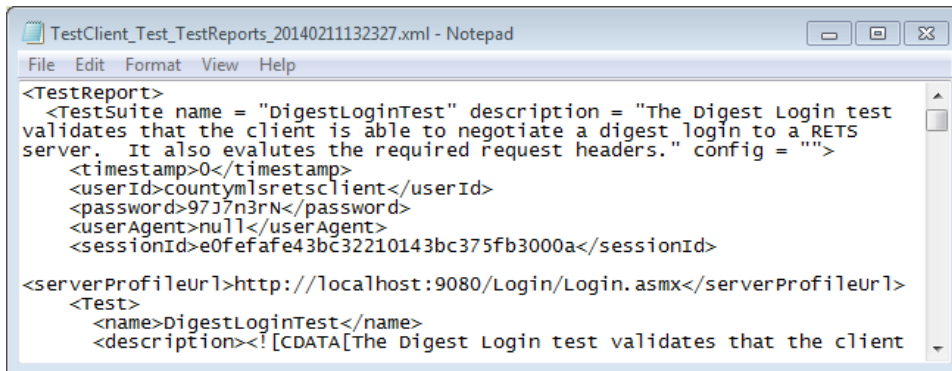
The Test Detail Page displays the details of the test, included the HTTP request and response.

The “Select the Test” dropdown allows viewing the results of any other test without returning to the main Test Screen.

## 2.2.6 Exporting Test Details



The "Save Tests to File" Button allows the current test results to be exported as an XML file. This is the only way to save the results of the tests. This export is NOT available after the "Reset" button is pressed.



Here's an example of the exported Test Reports. This export should be attached to any support requests.

### **3 Client Review Session and Certification**

The functionality of the RETS client will be reviewed during a Client Review Session hosted by member of the RESO Compliance Department.

#### **3.1 Scheduling a Client Review Session**

The RESO Compliance Department will send out proposed meeting times consistent with the information in the application. Invitations will be sent out once a time has been selected.

Before the meeting a new set of Client Compliance Login passwords will be provided. This additional set of credentials will be required for the RESO Compliance Department to see the results. RESO may request the username and password of the test account already set up, if needed.

#### **3.2 Client Review Session – Sample Agenda**

The Client Review Session will use a GoToMeeting video conference and a separate conference call line.

During the call, the applicant will share their screen and control their RETS Client. RESO Staff will watch the client perform the required transactions. At the end, RESO Staff will “refresh” the Compliance Testing Tool, export the test results (XML) and provide this information to the Certification Department for review.

RESO does not dictate what functionality should be included in any RETS client. If a RETS 1.8 functionality is not available, such as Update or PostObject, those tests will not be observed. It is encouraged to test as many items as possible in one review session.

#### **3.3 After the Review**

The RESO Certification Department will review the information gathered during the Review Session. Certification will be award based on the rules established by the RESO.

Notification of the certification results will be provided shortly thereafter.