

Tips & Tricks for Rapise and Dynamics 365 for Sales

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Create New Test

To test Dynamics 365 for Sales create tests with cross-browser methodology.

The screenshot shows a 'Create New Test' dialog box with the following fields and options:

- Test Name: CreateNewLead
- Folder: C:\Work\Inflectra\InflectraGitProjects\rapise-dynamics365-samples
- Full Path: C:\Work\Inflectra\InflectraGitProjects\rapise-dynamics365-samples\CreateNewLead\CreateNewLead.sstest
- Methodologies:
 - Basic: Windows Desktop Application (Windows Native, .NET, Java, WPF etc)
 - Manual: Manual-only testing
 - Mobile: Mobile Support
 - Web: Cross-Browser Testing Support** (highlighted with a yellow border)
- Cancel button

To record and playback you can use Internet Explorer or Chrome. Dynamics 365 for Sales does not work under Firefox.

Use Chrome for Recording and Playback

Dynamics 365 for Sales uses IFRAME elements for content panes and dialogs. To use Chrome browser one needs to launch it with specific parameters which will allow Rapise to cross borders between IFRAMEs.

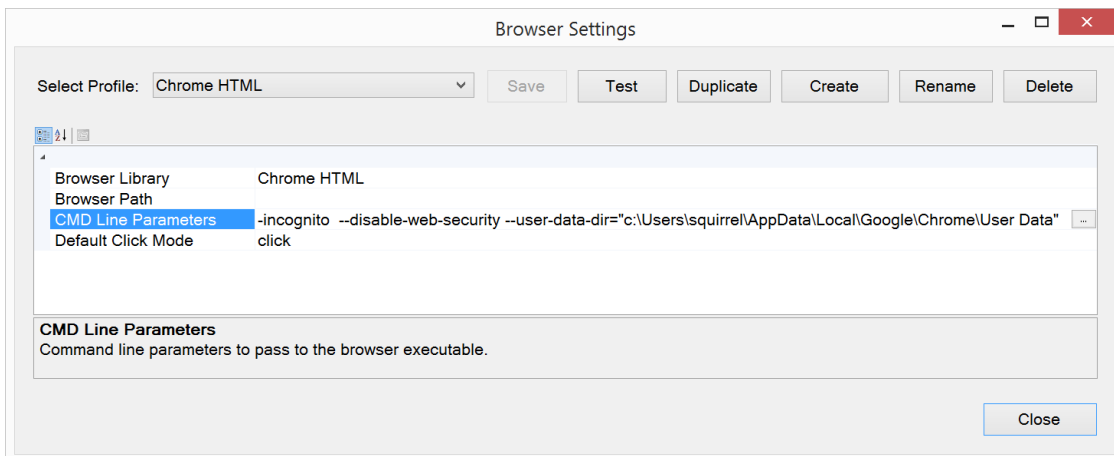
```
--disable-web-security --user-data-dir="c:\Users\\AppData\Local\Google\Chrome\User Data"
```

If you also want to start Chrome with a clean cache add --incognito parameter.

To start Chrome for recording create a simple CMD file with the following contents. Do not forget to replace <User> with your Windows user name.

```
"C:\Program Files (x86)\Google\Chrome\Application\chrome.exe" --remote-debugging-port=9222 --disable-web-security --user-data-dir="c:\Users\\AppData\Local\Google\Chrome\User Data"
```

To instruct Rapise to launch Chrome with required parameters add them to the profile (Ribbon > Options Tab > Web Testing Group > Browser Settings > Chrome HTML).



Recording Form Elements

Enter Text into Edit Field

To record entering text into edit fields follow these steps:

1. Click on a field label

CONTACT

Topic *	<input type="text"/>
Name *	--
Job Title	--

2. Click on a field itself

CONTACT

Topic * 

Name * --

Job Title --

3. Enter text

CONTACT

Topic * 

Name * --

Job Title --

4. Press TAB to move focus out of the field

CONTACT

Topic * Interested in a product demo

Name *

Job Title --

Recording for these steps looks like

Recording Activity for "Chrome HTML"				
#	Object	Action	Data	Comment
1	Topic	Click		
2	subject_i	Click		Click on subject_i
3	subject_i	SetText	Interested in a product demo	Set Text Interested in a product demo in subject_i


Verify (Ctrl+1) Learn (Ctrl+2) SPY (Ctrl+5) Resume Finish (Ctrl+3) Cancel

Paused Advance d>> Transp

Enter Value into Lookup Field

1. Click on a field label


Summary

Order ID *  --

Name * --

Currency * **US Dollar**

* --

Prices Locked *  **No**


2. Click on magnifier button

Summary

Order ID *	🔒	--
Name *		--
Currency *		US Dollar
Price List *		<input type="text"/> 
Prices Locked *	🔒	No

3. Click on an item

Summary

Order ID *	🔒	--
Name *		--
Currency *		US Dollar
Price List *		<input type="text"/> 
Prices Locked *	🔒	<div data-bbox="581 976 760 1060">Main US Dollar</div> Look Up More Records

SHIPPING DATES

1 result

Recording for these steps looks like

Recording Activity for "Chrome HTML"				
#	Object	Action	Data	Comment
1	Price List	Click		Click on Price List
2	Select a value.	Click		Click on Select a value.
3	Main	Click		Click on Main

Verify (Ctrl+1) Learn (Ctrl+2) SPY (Ctrl+5) Resume Finish (Ctrl+3) Cancel

Paused Advance d>> Transp

Wait for Object

When test steps result in a page load and you want to make sure that a particular object is displayed on screen before proceeding use `Global.DoWaitFor` action.

```
Global.DoWaitFor("topic");
```

By default it will be checking for object presence during 30 seconds. Once object is found execution of a test is resumed. For bigger timeout pass second argument to the action, it is an integer value in milliseconds.

Dynamics XPATHs or What to Do if an Object is Not Found During Playback

Sometimes recorded locators of elements (xpath expressions) need to be manually modified. It happens when xpath of an element contains dynamic parts. For example:

```
/html/body/div[6]/div[@id='crmContentPanel1']/iframe[@name='contentIFrame1' and @id='contentIFrame1']@@@/html/body/div[@id='Dialog_pricelevelid_IMenu']/div[2]/ul[@id='pricelevelid_IMenu']/li[@id='item26']/a[2]
```

In this case `item26` is a generated id that may be different each time you run a test. So Rapise may not find the object. If we want to select a particular value (e.g. Main) we may change the xpath this way:

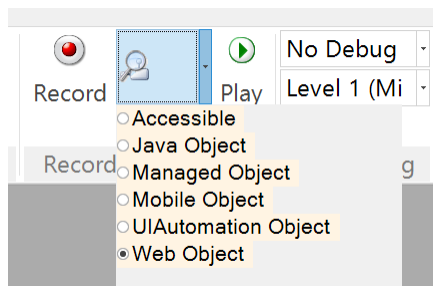
```
//iframe[@id='contentIFrame1']@@@//div[@id='Dialog_pricelevelid_IMenu']//a[@title='Main']
```

It is also optimized to be more concise and resilient. `@@@` is a special delimiter recognized by Rapise that indicates frame borders.

How to Use Spy

Rapise has a powerful Spy that may help to calculate the best possible xpath expression for an element.

Launch Spy from the ribbon. Make sure its mode is set to Web Object.



When DOM tree is loaded press `Ctrl-T` to enter tracking mode. Place mouse pointer over a web element and press `Ctrl-T` again. The Spy will reveal the element in the DOM tree. Then you can optimize its xpath and add to the object tree of your test.

Rapise Spy [https://internalcrm.ms365.grinmark.com:444/CRM365/main.aspx#281006106]

Get Snapshot (Ctrl-G) Learn Options

Browser Object Tools

Locators

//span[@command="lead NoRelationship Form Mscrm.SavePrimary"]	Test	Learn
html > body:first-of-type > div:nth-of-type(5) > div:nth-of-type(2) > div > ul	Test	Learn

DOM Tree

```

html lang="en">
<head>...</head>
<body scroll="no" style="">
  <noscript>&lt;div style="padding:10px;back...
  <script type="text/javascript">var mainPage...
  <span id="crmEventManager"></span>
  <div style="display:none;" id="crmHistoryMa...
  <div id="crmRecentlyViewed"></div>
  <div id="crmLookupMru"></div>
  <div id="crmMasthead" tabindex="-1">...</di...
  <div id="crmTopBar" class="ms-crm-TopBar...
  <div id="crmAppMessageBar" class="crmA...
  <div id="crmRibbonManager" currenttribbo...
    <div id="commandContainer9" style="dis...
      <ul role="application" class="ms-crm-C...
        <li tabindex="-1" class="ms-crm-Cor...
          <span tabindex="-1" class="ms-crm...
            <a tabindex="0" class="ms-crm-...
              <img tabindex="-1" class="ms-...
                <span tabindex="-1" class="m...
                  <div class="ms-crm-div-NotVi...
                    <li tabindex="-1" class="ms-crm-Cor...
                    <li tabindex="-1" class="ms-crm-Cor...
                    <li tabindex="-1" class="ms-crm-Cor...
                    <li class="ms-crm-CommandBarItem...
                  <div id="contextualActionBar" style="top: 0...
                <div>...</div>
              <script type="text/javascript">var LOCID_UN
  </div>...</div>
  <script type="text/javascript">var LOCID_UN
  
```

DOM Element

innerHTML	Save
tagName	SPAN
Attributes	
class	ms-crm-CommandBar-Menu
command	lead NoRelationship Form Mscrm.SavePrimary
style	max-width:150px
tabindex	-1
Properties	
height	32
width	56
x	82
y	253
Selectors	
css	html > body:first-of-type > div:nth-of-type(5) > div:nth-of-type(2) > div > ul
xpath	//span[@command="lead NoRelationship Form Mscrm.SavePrimary"]
xpath_aria	//li[@id="lead NoRelationship Form Mscrm.Form.lead.Save"]//span/a/sp
xpath_full	/html/body[1]/div[5]/div[2]/div/ul/li[1]/span/a/span[1]
xpath_indexed	(//span)[58]
xpath_min	//span[@command="lead NoRelationship Form Mscrm.SavePrimary"]
xpath_std	//span[@command="lead NoRelationship Form Mscrm.SavePrimary"]
xpath_text	//span[normalize-space(text())="Save"]

Test Results

```

  <div>
    <ul>
      <li>
        <span tabindex="-1" class="ms-crm-CommandBar-Menu" style="max-width:150px" command="lead|NoRelationship|Form|Mscrm.SavePrimary">
          Save
        </span>
      </li>
    </ul>
  </div>
  
```

Current Node

To put xpath of an element to the ribbon of the Spy - select the element in the DOM tree and double click it. To test xpath press Test XPath button on the ribbon. Use Learn button on the ribbon to add an object with the given xpath to the object tree of the test.