Selenium solution using SpecFlow for Matter Center 2

Build and deployment guide

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## Pre-requisites

This section describes all system requirements for building and running Selenium solution.

**Software requirements:**

1. [Visual Studio 2015 (Enterprise or Professional)](https://www.visualstudio.com/vs/)
2. Internet Explorer 9 (Refer Appendix A for steps for configuring Internet Explorer)

## Steps to build solution

This section describes all the required steps to build Selenium solution using Visual Studio 2015.

|  |  |
| --- | --- |
| # | Execution steps |
| 1 | Download solution from [Microsoft](https://github.com/Microsoft/mattercenter/) GitHub. |
| 2 | Go to file properties and unblock the file. |
| 3 | Extract the solution and open <<download\_location>>\tree\master\cloud\src\solution\Microsoft.Legal.MatterCenter.Selenium. |
| 4 | Edit App.config and change user credentials. These credentials will be used for logging into Matter Center dashboard and web app. |
| 5 | Execute encrypt.bat in Encryption folder to encrypt the credSettings section of App.config.    **Note:**   * In case credentials need to be changed, please execute refreshMailConf.bat in Encryption folder to refresh the configuration file. * In case the path for visual studio directory is not same as the default path, please edit the encrypt.bat to change the visual studio directory path. The default path for Visual Studio 2015 directory is “C:\Program Files (x86)\Microsoft Visual Studio 14.0\” |
| 6 | Open file Microsoft.Legal.MatterCenter.Selenium.sln. |
| 7 | Go to Tools 🡪 Extensions and Updates… |
| 8 | Search for ‘SpecFlow’ in the online section as shown in below screenshot. |
| 09 | Install ‘SpecFlow for Visual Studio 2015’. |
| 10 | Again, go to Tools 🡪 Extensions and Updates… |
| 11 | Search for ‘NUnit Test Adapter’ in the online section as shown in below screenshot. |
| 12 | Install NUnit Test Adapter. |
| 13 | Go to Test 🡪 Windows 🡪 Test Explorer. |
| 14 | Now go to solution explorer and build the solution to see all the test cases in test explorer. |
| 15 | In the test explorer right click on solution and click on Group by 🡪 Class to have all tests grouped together w.r.t to their pages. |

## Steps to execute Selenium solution using command prompt

This section describes all the required steps automate solution using SelenuimAutomation.bat and Task Scheduler.

|  |  |
| --- | --- |
| # | Execution steps |
| 1 | Right click on Project name and open Project properties. Verify whether Target framework is set to .Net Framework 4.6 as shown in below screenshot: |
| 2 | **Build** Selenium solution as mentioned above in step no. 14 as per **Steps to build solution** section, which will create the TestResults folder under <<Download location>>\tree\master\cloud\src\solution\Microsoft.Legal.MatterCenter.Selenium and all the required libraries will be copied. |
| 3 | Go to TestReportGenerator folder and open TestReportGenerator.sln |
| 4 | Build this solution so that TestReportGenerator.exe and TestReportGenerator.exe.config files appear in the Microsoft.Legal.MatterCenter.Selenium solution folder |
| 5 | Copy “IEDriverServer.exe” from TestResults folder to “<<Visual Studio directory>>\Common7\IDE” folder to load the Selenium driver at run time.  **Note:** The default path for Visual Studio 2015 directory is “C:\Program Files (x86)\Microsoft Visual Studio 14.0\” |
| 6 | Update the appSettings from <<Download location>>\tree\master\cloud\src\solution\ Microsoft.Legal.MatterCenter.Selenium\TestReportGenerator.exe.config file to send email across the team. |
| 7 | Execute encryptMail.bat in Encryption folder to encrypt the mail configuration details from above file.    **Note:**   * In case configuration need to be changed, please execute refreshMailConf.bat in Encryption folder to refresh the configuration file. * In case the path for visual studio directory is not same as the default path, please edit the encryptMail.bat to change the visual studio directory path. The default path for Visual Studio 2015 directory is “C:\Program Files (x86)\Microsoft Visual Studio 14.0\” |
| 8 | There are two ways to execute test cases as mentioned below:   * 1. **Using Tag name**: Execute only those test cases which have **E2E** tag:   Edit SeleniumAutomation.bat file using Notepad and add ‘/category: E2E’   1. **All test cases**: To execute all test cases (**By default this feature is enabled**):   Edit SeleniumAutomation.bat file using Notepad and remove ‘/category: E2E’ |
| 9 | Execute **SeleniumAutomation.bat** file to start execution  **Note**:   1. We can schedule task using Task scheduler to perform verification of Matter Center 2 build daily. 2. References for using Task scheduler:  * [How to schedule a Batch File to run automatically on Windows](http://www.thewindowsclub.com/how-to-schedule-batch-file-run-automatically-windows-7)  1. While referring the above link, kindly provide solution path (<<Download location>>\tree\master\cloud\src\solution\Microsoft.Legal.MatterCenter.Selenium) for ‘**Start in**’ field under Action tab. |
| 10 | Once the execution is completed, it will send email notification along with execution report (TestReport.trx) file as attachment as per the appSettings. |

## Appendix A: Steps to configure Internet Explorer

This section describes all the required steps to configure Internet Explorer for compatibility with Selenium solution.

|  |  |
| --- | --- |
| # | Execution steps |
| 1 | Open Internet Explorer and click settings icon |
| 2 | Select ‘Internet options’. |
| 3 | Open ‘Security’ tab. |
| 4 | Enable protected mode for all the zones |
| 5 | Set security level for the zones as mentioned below:   * Internet: Medium-high * Local intranet: Medium-high * Trusted sites: Medium-high * Restricted sites: High |
| 6 | Click Apply and then Click OK. |

## Appendix B: List of test cases in Selenium solution:

| Page Name | Test Case | Description |
| --- | --- | --- |
| Matter Provision | Open the browser and load create matter page | [Matter](https://matterwebapp.azurewebsites.net/#/createMatter) provision page will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify incorrect form submission error on open matter tab | 1. Submitted the form with the following data missing:    1. Client name    2. Matter name 2. Verified the error messages then generated. 3. Submitted the form with a matter name that was previously used. 4. Verified the error message then generated. |
| Verify Open Matter tab | Verified by creating the matter with following details   * 1. Client Name: Amazon   2. Matter Name: Automated matter name (Random Name)   3. Matter ID: Automated matter name (Random ID)   4. Matter Description: Testing |
| Verify incorrect form submission error on Assign Permission tab | Verified error messages for below scenarios:   * 1. Conflict check not enabled   2. Member name not provided   3. Reviewer name not provided   4. Conflicting member name not provided   5. Date not provided |
| Verify Assign Permission tab | Assigned the team members and External user with **Full Control** permission. |

The below table consists of test cases and a description of how the tests were verified.

|  |  |  |
| --- | --- | --- |
|  | Verify Create and Notify tab | 1. Created all matter components (Task, Calendar, RSS) 2. Verified whether **successBanner** is present along with text as “Matter is successfully created. you can find recently created matter over **here**”. |
| Document dashboard | Open the browser and load document dashboard page | [Document dashboard page](https://matterwebapp.azurewebsites.net/#/documentdashboard) will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify the document flyout on document dashboard | Clicked on a document and verified the contents of the flyout. |
| Verify the pin/unpin functionality | Clicked pin/unpin icon for a document and its final state with respect to the initial state is verified. |
| Verify the mail cart functionality | Selected more than one document and clicked mail cart icon. Verified ‘mail as an attachment’ and ‘mail as a link’ links. |
| Verify the sort functionality on document dashboard | 1. Clicked sort by dropdown, selected ‘name: ascending order’. Verified the resultant list of documents to be sorted alphabetically for the following document tabs:    1. My Documents    2. All Documents    3. Pinned Documents 2. Clicked sort by dropdown, selected ‘created date: ascending order’. Verified the resultant list of documents to be sorted chronologically for the following document tabs:    1. My Documents    2. All Documents    3. Pinned Documents |
| Verify invalid text search on document dashboard | 1. Typed random keywords in the search box and clicked on search icon. 2. Verified that there are no resultant documents. |
| Verify the search feature on document dashboard | 1. Typed ‘test’ in the search box and clicked on search icon. 2. Verified the resultant documents to contain ‘test’ keyword. |
| Verify the search feature with managed properties on document dashboard | 1. Typed ‘DocTitle: test’ in the search box and clicked on search icon. 2. Verified the resultant documents to contain ‘test’ keyword. |
| Verify the advance filter functionality | 1. Clicked various components on advanced filter. 2. Verified the resultant documents to be filtered accordingly. |
| Document landing | Open the browser and load document landing page | [Document landing page](https://msmatter.sharepoint.com/sites/catalog/SitePages/documentDetails.aspx?client=/sites/microsoft&listguid=e734db7d-8c18-4fef-8509-20bc69c9817d&docguid=f61e8203-4146-4193-9b64-813c99340429) will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify action links | Verified all the actions links for the opened document. |
| Verify pin/unpin functionality | Clicked pin/unpin icon for the open document and verified the change in state of the document. |
| Verify file properties | Expanded the file properties section and verified all the field to be present. |
| Verify version details | Expanded the version details section and verified all the field to be present. |
| Verify the footer links | Verified all the links in the footer section. |
| Document search | Open the browser and load search document page | [Document search page](http://matterwebapp.azurewebsites.net/#/documents) will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify the document ECB menu | 1. Clicked on the ECB menu and verified all the menu items. 2. Verified the link for open this document menu item. 3. Verified the link for view matter details menu item. 4. Verified the pin unpin functionality using menu item. |
| Verify the document flyout | Clicked on a document and verified the contents of the flyout. |
| Verify the document sort | Clicked on a column and verified the resultant documents to be sorted as per the selected column. |
| Verify the document search box | 1. Typed ‘test’ in the search box and clicked on search icon. 2. Verified the resultant documents to contain ‘test’ keyword. |
| Verify the document search box for managed search | 1. Typed ‘DocTitle: test’ in the search box and clicked on search icon. 2. Verified the resultant documents to contain ‘test’ keyword. |
| Verify the column picker | 1. Checked the various columns in column picker and verified all those columns to be present on resultant page. 2. Unchecked all the columns in the column picker and verified only one column to be present on the resultant page. |
| Verify the document drop down menu | Verified whether respective pages are opening correctly by clicking on matter drop down options **(My Document**, **All Document**, **Pinned Document).** |
| Verify the document filter search | 1. Clicked on the column filter and entered ‘test’ keyword. 2. Verified the resultant documents to be filtered by ‘test’ keyword. |
| Verify no results on searching invalid text | 1. Typed random keywords in the search box and clicked on search icon. 2. Verified that there are no resultant documents. |
| Verify no results on searching invalid text on document filter | 1. Clicked on the column filter and entered random keywords. 2. Verified that there are no resultant documents. |
| Home | Open the browser and load home page | [Home](https://matterwebapp.azurewebsites.net) page will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Open the hamburger menu and verify all the elements | Clicked on the hamburger menu and verified all the options present. |
| Verify links on home page | Clicked and verified ‘learn more’ and ‘dismiss’ links on the home page. |
| Verify all components on home page | Checked the presence and links of the following components on the home page:   * 1. Matters   2. Documents   3. Create new matter   4. Upload an attachment   5. Go to matter center home page |
| Verify the Matter Center support link | Verified the ‘mail to’ and ‘subject’ attributes of the support link. |
| Verify contextual help section | Clicked on the contextual help icon and verified the contents of the menu. |
| Verify user profile icon | Clicked on the user profile icon and verified contents of the profile. |
| Manage permissions | Open the browser and load manage permission page | [Manage permissions page](https://matteruiv0.azurewebsites.net/pages/managepermissions.aspx?&IsEdit=true&clientUrl=https://msmatter.sharepoint.com/sites/Amazon&matterName=New%20Matter%20Amazon%20Test34&IsDlg=1&IsDlg=1) will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify addition of new Attorney | Added Attorney to the matter. |
| Verify newly added Attorney | Saved changes and verified the new Attorney to be added to the matter. |
| Verify error on adding non-existing Attorney | 1. Typed random keywords for Attorney name. 2. Verified error message on saving the settings. |
| Matter dashboard | Open the browser and load Matter Center home page | [Matter Dashboard](https://matterwebapp.azurewebsites.net/#/matterdashboard) page will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify the hamburger menu | Clicked on the hamburger menu and verified all the options present. |
| Verify the pin/unpin functionality | Clicked pin/unpin icon for a matter and its final state with respect to the initial state is verified. |
| Verify the upload button functionality | Clicked on the upload button and verified contents of the flyout. |
| Verify the matter flyout on Matter Center homepage | Clicked on a matter and verified the contents of the flyout. |
| Verify the search feature on matter center homepage | 1. Typed ‘test’ in the search box and clicked on search icon. 2. Verified the resultant matters to contain ‘test’ keyword. |
| Verify the search feature using managed properties on matter center home page | 1. Typed ‘MatterName: test’ in the search box and clicked on search icon. 2. Verified the resultant matters to contain ‘test’ keyword. |
| Verify the advance filter functionality | Clicked various components on advanced filter. Verified the resultant matters to be filtered accordingly. |
| Verify the sort functionality in matter center home | 1. Clicked sort by dropdown, selected ‘alphabetical: ascending order’. Verified the resultant list of matters to be sorted alphabetically for the following document tabs:    1. My Matters    2. All Matters    3. Pinned Matters 2. Clicked sort by dropdown, selected ‘created date: ascending order’. Verified the resultant list of matters to be sorted chronologically for the following document tabs:    1. My Matters    2. All Matters    3. Pinned Matters |
| Verify the footer on matter center home | Verified all the links in the footer section. |
| Verify enterprise search feature on matter center home page | 1. Typed ‘test’ in the enterprise search box and clicked the search button. 2. Verified the presence of ‘test’ keyword in the redirected link. |
| Verify no results on invalid text search | 1. Typed random keywords in the search box and clicked on search icon. 2. Verified that there are no resultant matters. |
| Matter landing | Open the browser and load matter landing page | [Matter](https://msmatter.sharepoint.com/sites/microsoft/SitePages/a0ec6dfddf9f9c52efb9f8a245d3ff97.aspx) landing page will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify the matter components | Verified the presence of the following components on the matter landing page:   * 1. Task   2. RSS   3. Calendar   4. OneNote |
| Verify the matter profile and matter description | 1. Clicked on the matter profile tab. 2. Verify components of matter profile. 3. Clicked on matter description tab. 4. Verified components of matter description. |
| Verify the footer | Verified all the links in the footer section. |
| Verify the hamburger menu | Clicked on the hamburger menu and verified all the options present. |
| Verify the manage user functionality | 1. Clicked on the group icon. 2. Verified list of users to be present. |
| Verify empty results on searching non-existing files | 1. Typed random keywords in the file search box. 2. Verified no files to be shown in the result section. |
| Matter search | Open the browser and load search matter page | [Matter](https://matterwebapp.azurewebsites.net/#/matters) search page will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify the matter ECB menu | 1. Clicked on the ECB menu and verified all the menu items. 2. Verified the link for upload to matter menu item. 3. Verified the link for view matter details menu item. 4. Verified the link for go to matter OneNote. 5. Verified the pin unpin functionality using menu item. |
| Verify the matter flyout | Clicked on a matter and verified the contents of the flyout. |
| Verify the matter sort functionality | Clicked on a column and verified the resultant matters to be sorted as per the selected column. |
| Verify the matter search functionality | 1. Typed ‘test’ in the search box and clicked on search icon. 2. Verified the resultant matters to contain ‘test’ keyword. |
| Verify the matter search box using managed properties | 1. Typed ‘MatterName: test’ in the search box and clicked on search icon. 2. Verified the resultant matters to contain ‘test’ keyword. |
| Verify the matter drop down menu | Verified whether respective pages are opening correctly by clicking on matter drop down options **(My Matters**, **All Matters**, **Pinned Matters).** |
| Verify the matter filter search | 1. Clicked on the column filter and entered ‘test’ keyword. 2. Verified the resultant documents to be filtered by ‘test’ keyword. |
| Verify the matter column picker | 1. Checked the various columns in column picker and verified all those columns to be present on resultant page. 2. Unchecked all the columns in the column picker and verified only one column to be present on the resultant page. |
| Verify no results on searching invalid text | 1. Typed random keywords in the search box and clicked on search icon. 2. Verified that there are no resultant documents. |
| Verify no results on searching invalid text on matter filter | 1. Clicked on the column filter and entered random keywords. 2. Verified that there are no resultant documents. |
| Settings | Open the browser and load settings page | [Settings](https://matteruiv0.azurewebsites.net/pages/settings.aspx?&clientdetails=https://msmatter.sharepoint.com/sites/microsoft$|$Microsoft) page will be loaded and more than one elements like ID, Class, CssSelector, LinklText or Xpath are verified to be present (e.g. Page URL, HeaderPlaceHolder, headerTitle). |
| Verify deletion of team members | 1. Retrieved the current number of team members. 2. Pressed delete members button for all the members. 3. Verified that the last user is not deleted. |
| Verify error message on adding non-existing team member | 1. Added non-existing member to team. 2. Verified the error message after saving settings. |
| Set the values on settings page | 1. Updated the below values on Settings page:    1. Matter name    2. Matter ID    3. Practice group    4. Matter type    5. Team member name    6. Team member role    7. Assigned permissions to team member 2. Verified whether text is displayed as “Your changes have been saved. Go back to Teams” or not. |
| Verify values on matter provision page | 1. Redirected to matter provision page. 2. Selected the client. 3. Verified the preset values against the values set in settings page. |

## Appendix C: Document revision history

This section describes the version history of the document.

| **Revision** | **Author** | **Date** | **Status and Description** |
| --- | --- | --- | --- |
| 0.1 | MAQ Software | 10/11/2016 | Initial draft. |
| 0.2 | MAQ Software | 10/12/2016 | Fixed internal review comments. |
| 0.3 | MAQ Software | 10/14/2016 | Fixed external review comments. |
| 0.4 | MAQ Software | 10/18/2016 | Added section for IE configuration steps. |
| 1.0 | MAQ Software | 10/20/2016 | Fixed internal review comments. |