

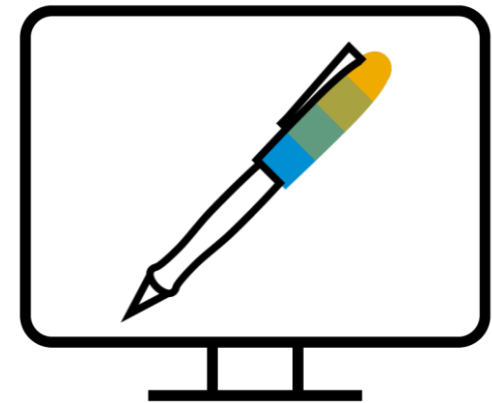


Week 4: Further Topics

Unit 3: Connector – UI Automation

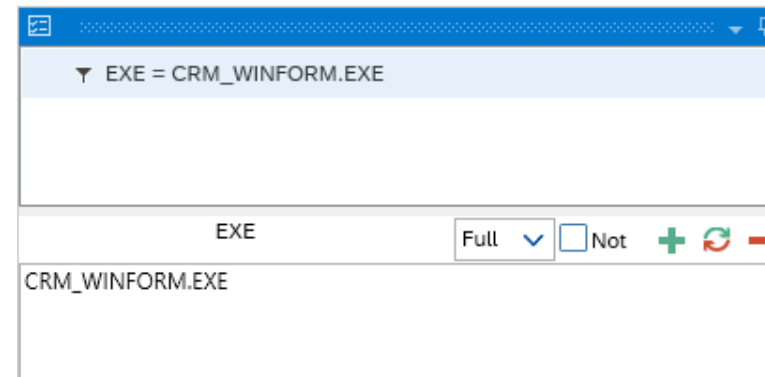
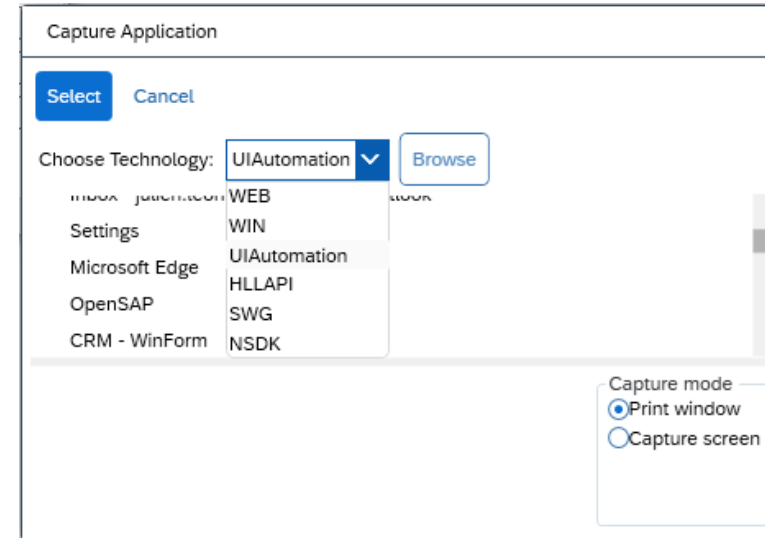
The UI Automation protocol

- It enables to control applications developed for Microsoft technologies.
- The control capabilities with UI Automation are constrained.
- The UI Automation protocol can give access to data elements displayed in complex IHM components.



Declaration – Declaring an application

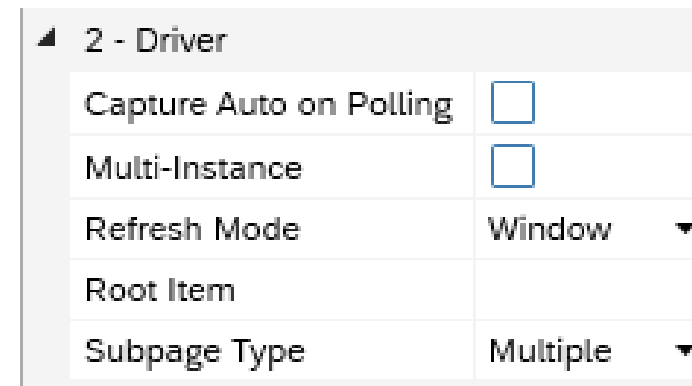
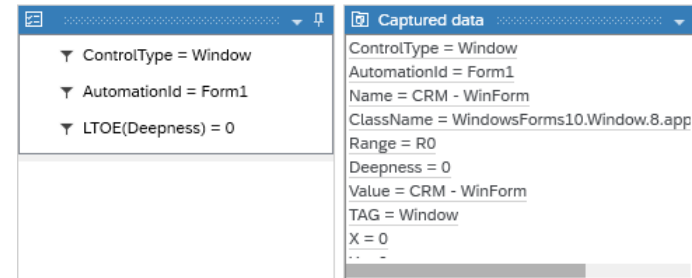
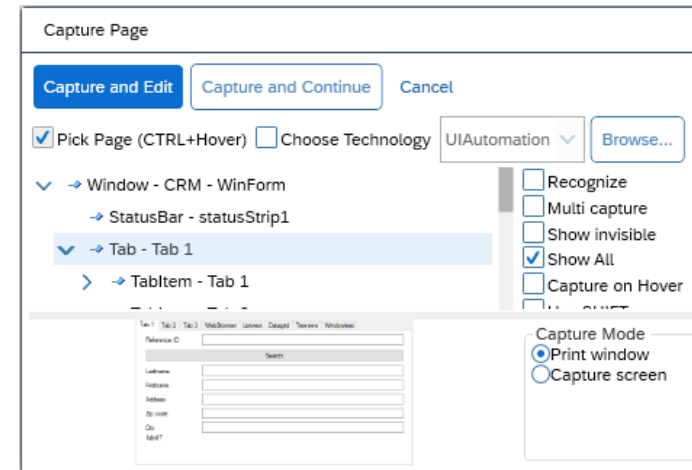
- Capture the UI Automation application:
- Select the application to capture and click Select. Once the capture is done, the Studio automatically has a criterion on the EXE property.
- Finally, you can set the application's parameters.



2 - Driver	
Appli Page Name	
Pending Delay (s)	0
Polling Delay (ms)	0

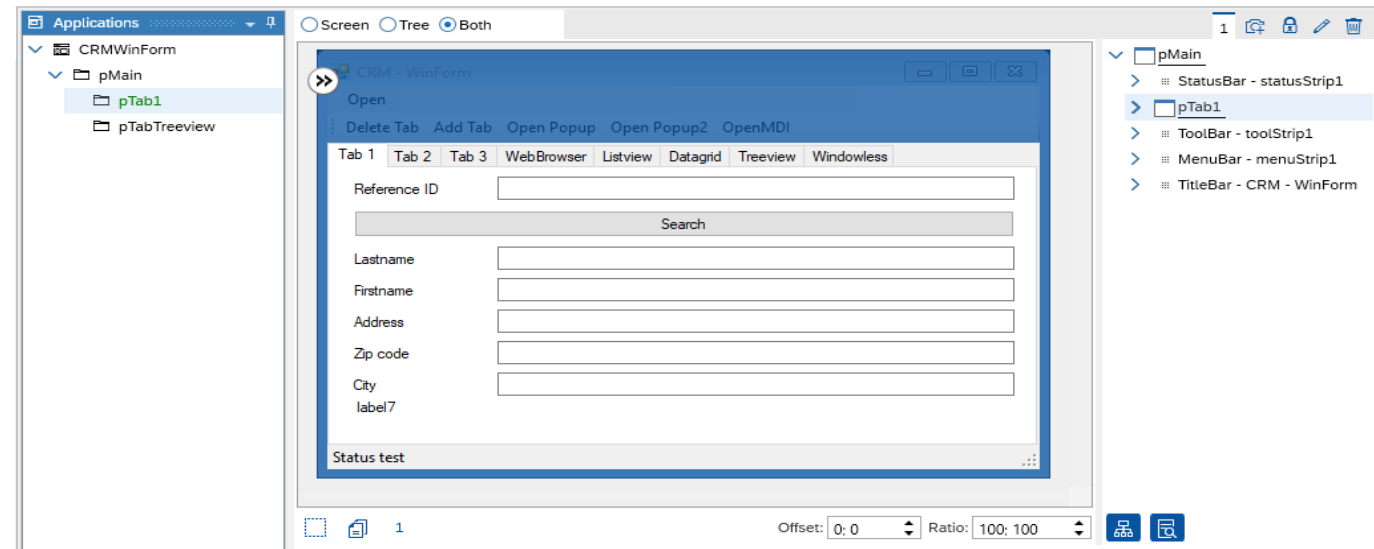
Declaration – Declaring a page

- Capture the page:
- Set the criteria of the page:
- Set the page parameters:

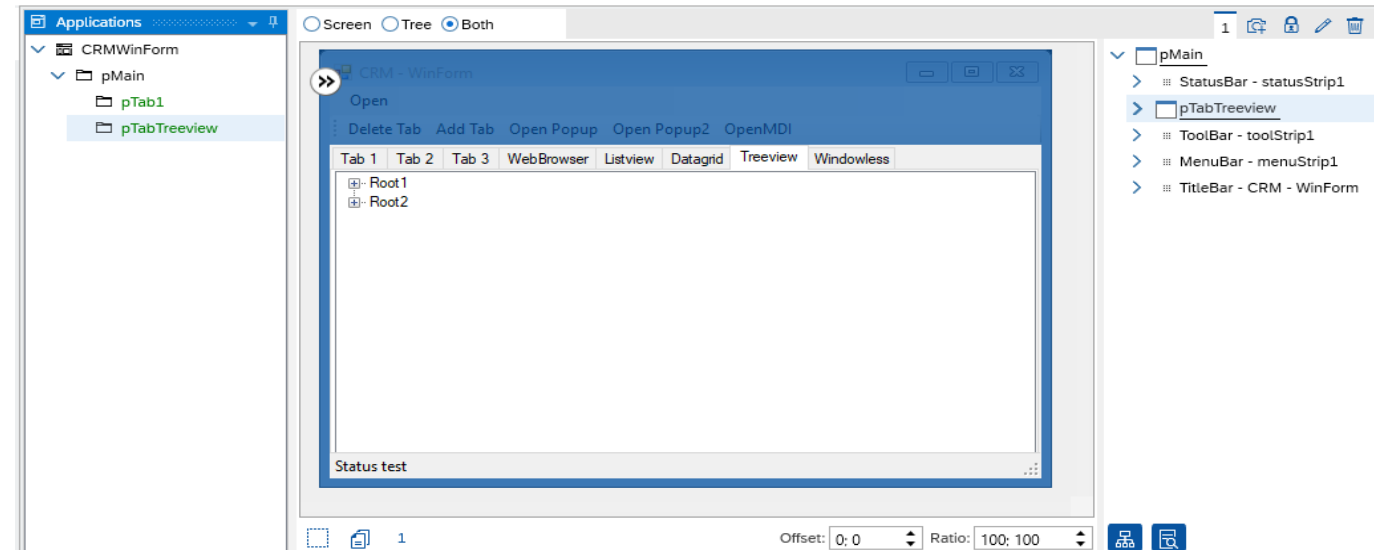


Declaration – Subpage recognition

- Subpage for Tab1:

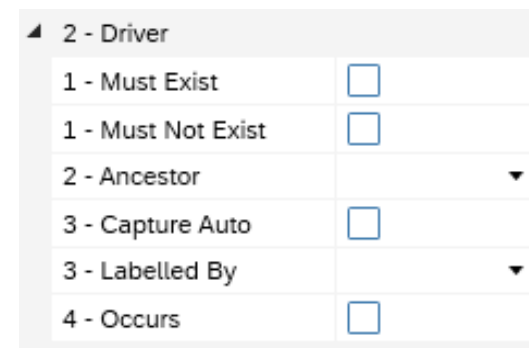
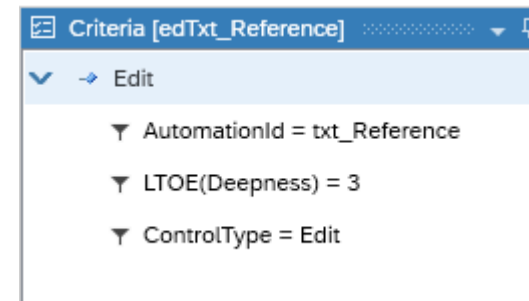
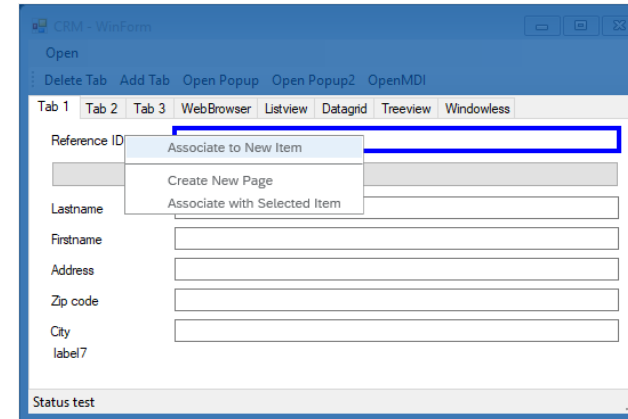


- Subpage for TabTreeview:



Declaration – Declaring an item

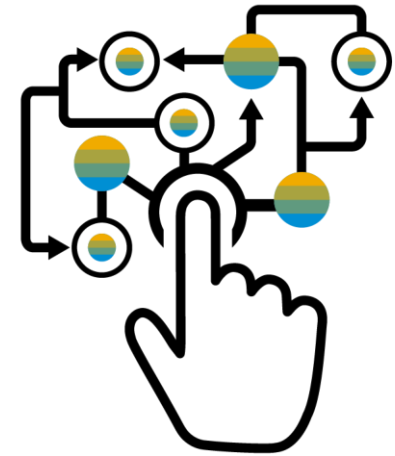
- Declare an item:
- Set the criteria:
- Set the parameters:








Performance management

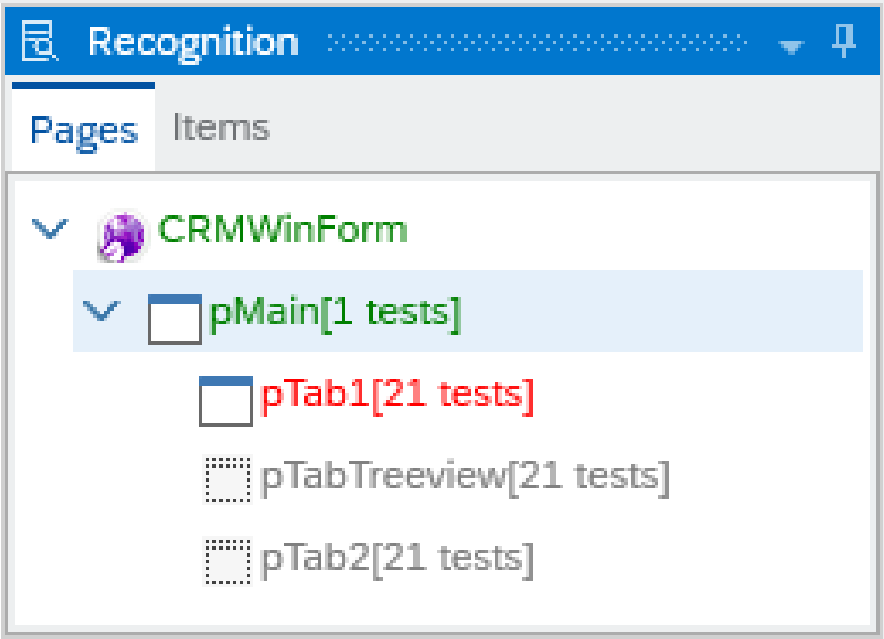
You can significantly improve recognition performance by limiting the size of the DOM tree that is explored:

- Exclude parts of the DOM tree from being explored
- Set the maximum depth of exploration
- Limit the exploration cone



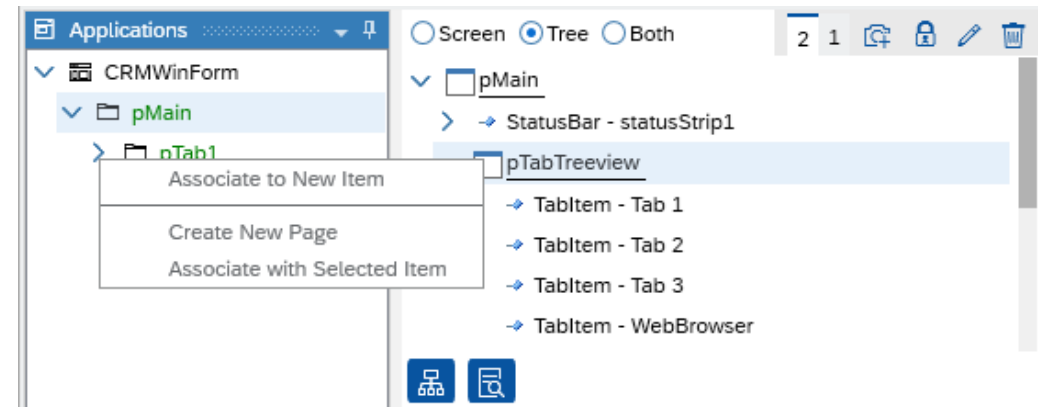
Performance management – Detect optimization needs

Recognized Application	 CRMWinForm
Unrecognized Application	 CRMWinForm
Recognized Page	 pTabTreeview [3 tests]
Unrecognized Page	 pTab1 [21 tests]
Untested Page	 pTab2 [11 tests]

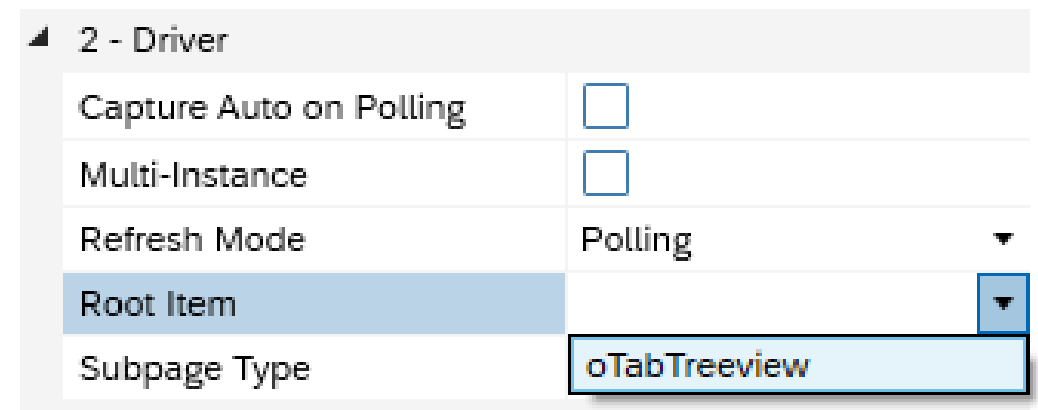


Performance management – Exclude parts of the DOM tree from being explored

- Declare the root item

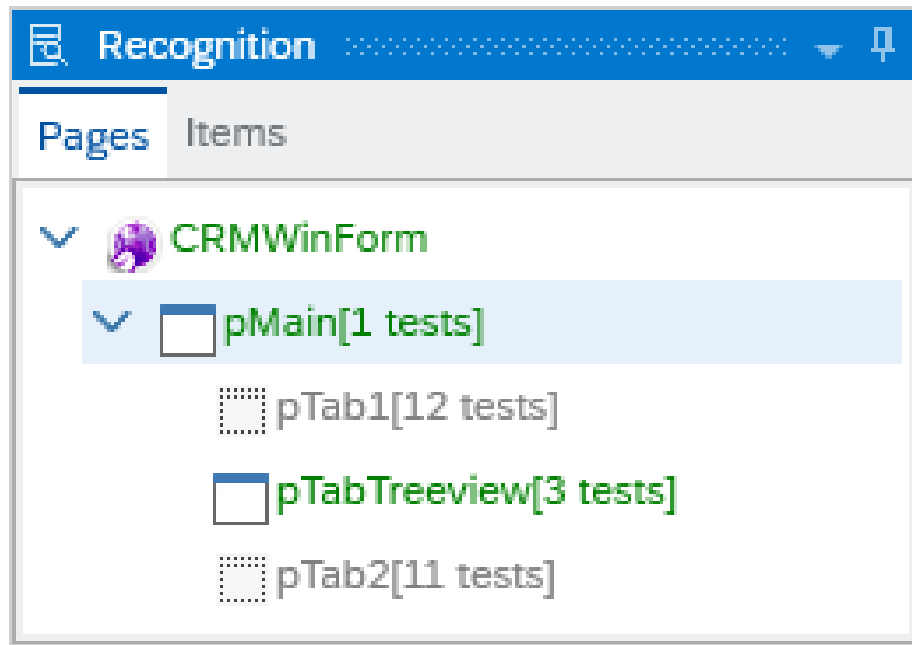


- Configure the root item on the chosen page:

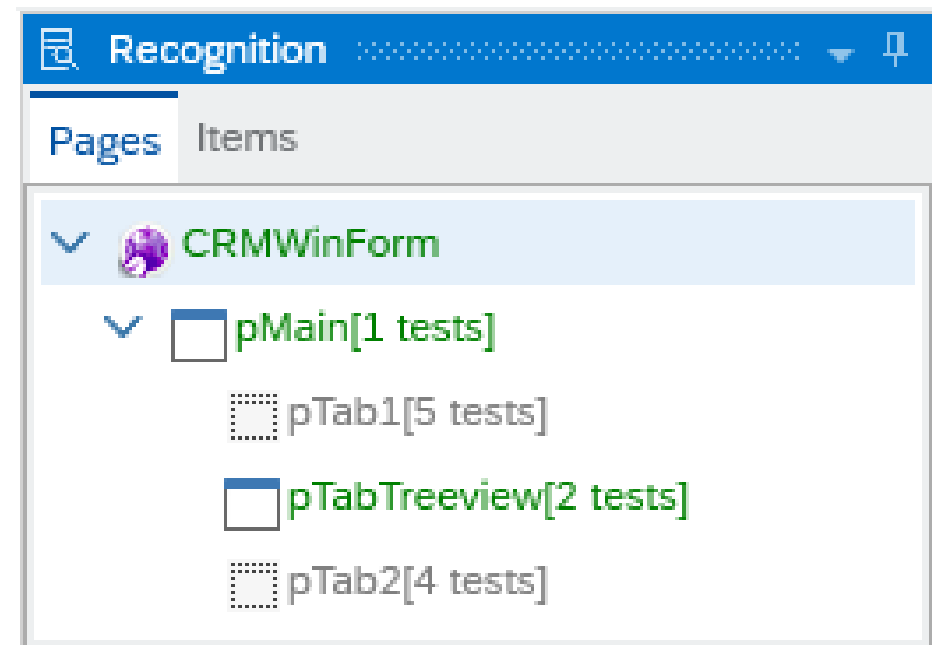


Performance management – Limit the depth of exploration

Without deepness criteria

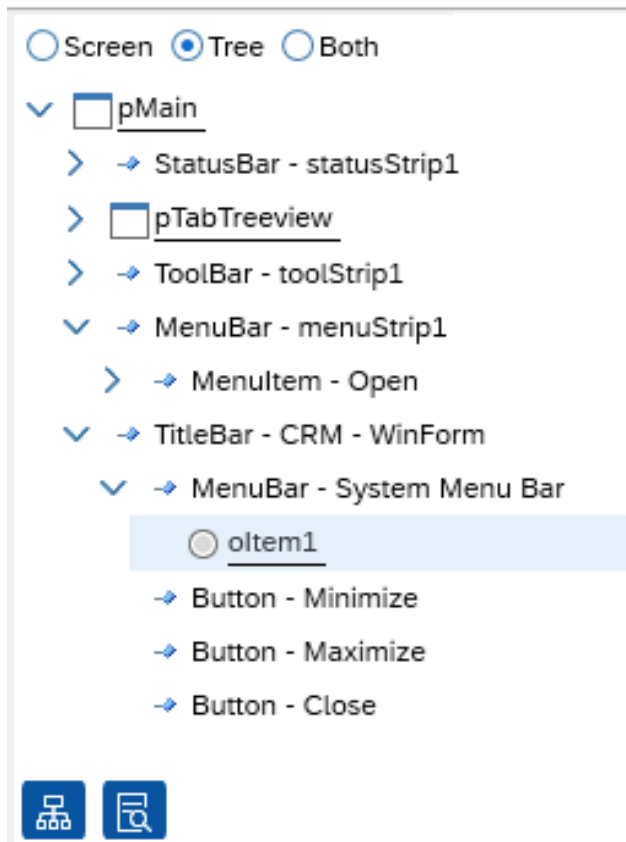


With deepness criteria on each page

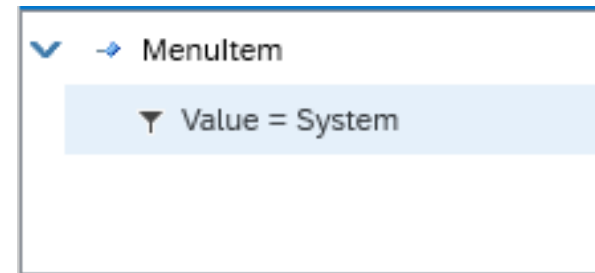


Performance management – Limit the exploration cone

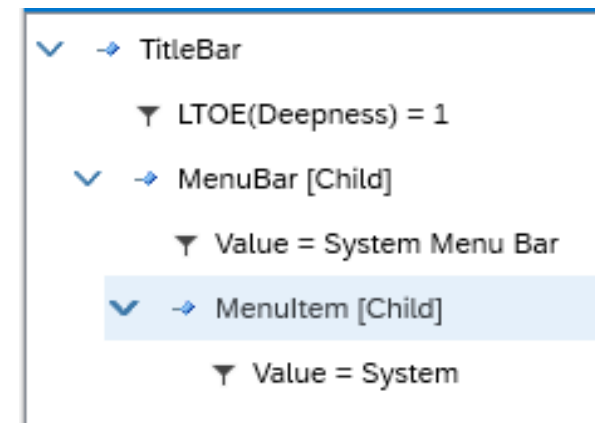
DOM of the page:



Initial criteria:



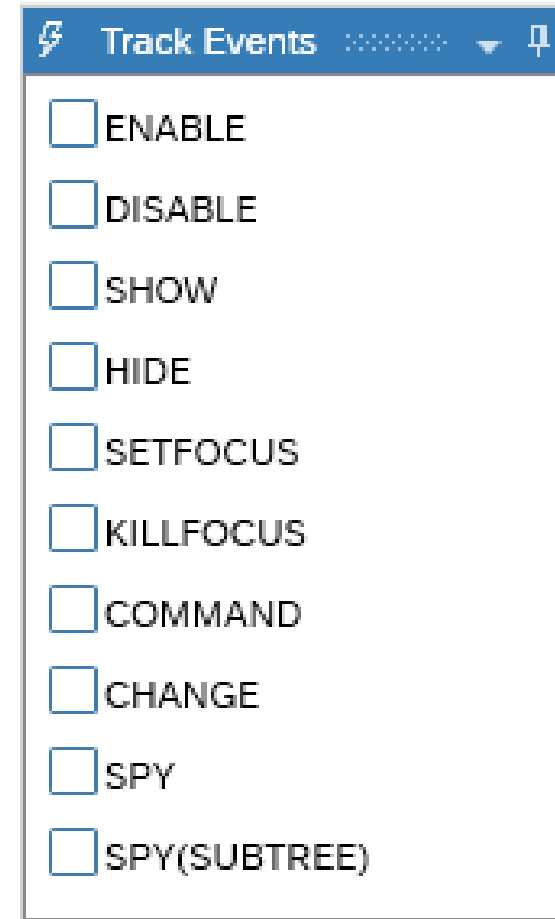
Criteria with pattern technique:



Connector – UI Automation

Item technical events

Trackable events:



The screenshot shows a 'Track Events' dialog box with a blue header bar containing a lightning bolt icon, the text 'Track Events', a progress indicator, a dropdown arrow, and a pin icon. The main area is a white list with ten items, each preceded by an unchecked checkbox:

- ☐ ENABLE
- ☐ DISABLE
- ☐ SHOW
- ☐ HIDE
- ☐ SETFOCUS
- ☐ KILLFOCUS
- ☐ COMMAND
- ☐ CHANGE
- ☐ SPY
- ☐ SPY(SUBTREE)

Manage refresh mode – Automatic refresh (refresh polling)

Suspend automatic refresh:

Sample Code

```
// Suspend automatic refresh
MyAppli.MyPage.lockRefresh() ;

// Control Items
MyAppli.MyPage.MyItem1.set('my value1');
MyAppli.MyPage.MyItem2.set('my value2');
...
MyAppli.MyPage.MyItemN.set('my valueN');

// Resume automatic refresh
MyAppli.MyPage.unlockRefresh() ;
```

Manage refresh mode – Manuel refresh (refresh window)

Force manual refresh:

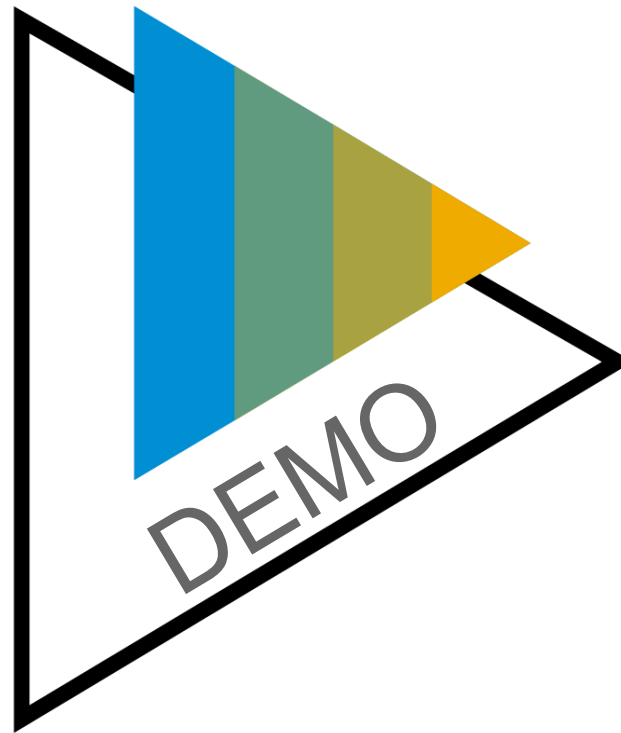
Sample Code

```
ctx.polling({delay: 100,nbMax: 10,  
  test: function(index)  
  {  
    // Force MyPage to refresh its subtree  
    MyAppli.MyPage.refresh() ;  
    // Test MyItem existence  
    return MyAppli.MyPage.MyItem.exist();  
  },  
  ...  
});
```

Connector – UI Automation

Demo

UI Automation demo



Thank you.

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