



Week 3: Development Phase II

Unit 4: Run and Debug

Run and Debug

Agenda

Introduction

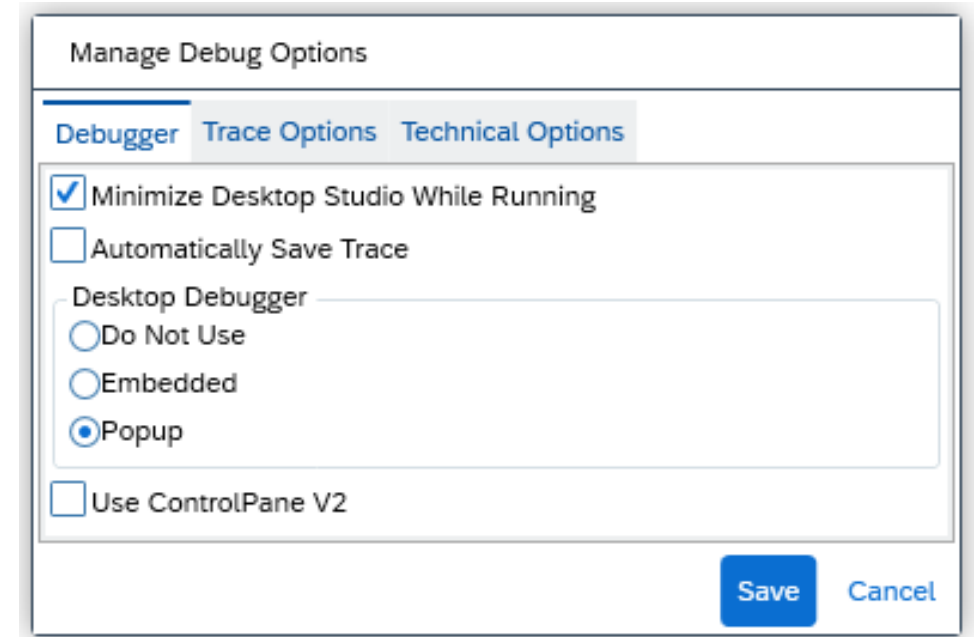
- Debugger perspective
- Debug options
- Compilation
- Output generation
- Step-by-step debugging
- Demo

Summary



Debugger options:

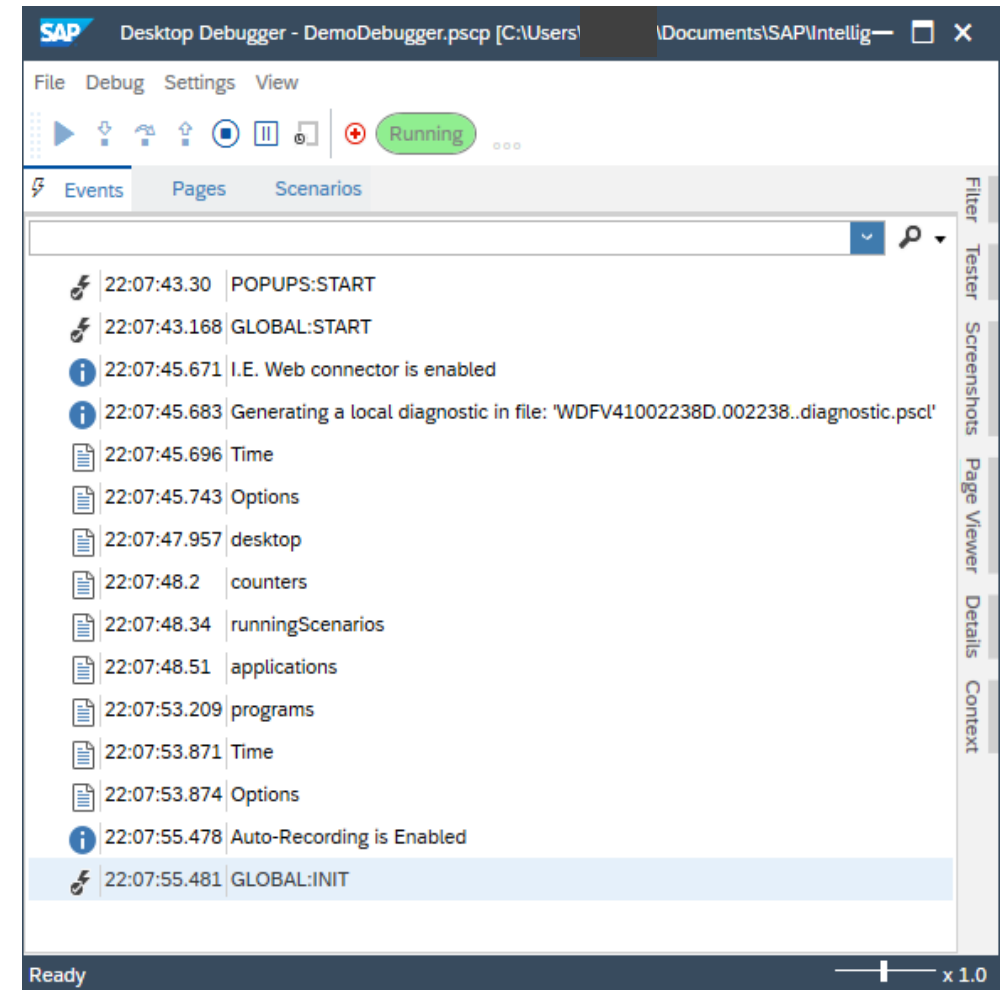
- **Minimize Studio:** minimize the Desktop Studio while running
- **Save trace:** automatically save trace
- **Desktop debugger:** 3 choices are possible
 - Do not display it
 - Embed it in the Studio
 - Display it as autonomous popup
- **Use ControlPane V2:** a legacy version of the debugger



Debugger perspective

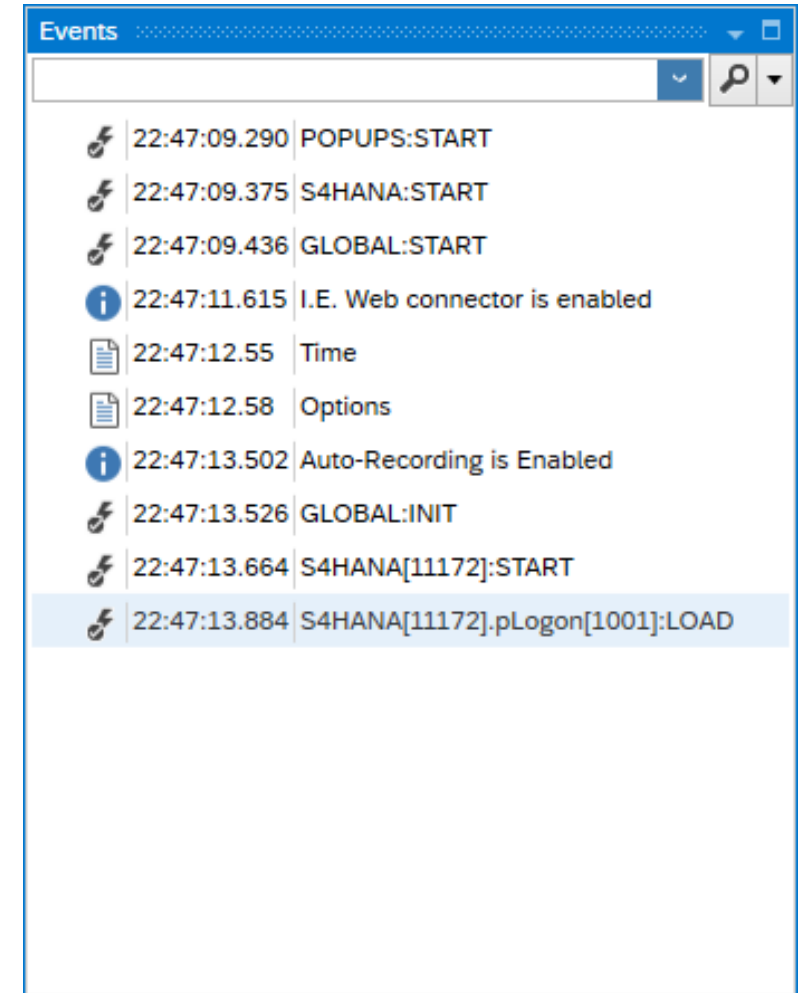
Debugger perspective: has different views

- **Events:** displays the events and execution history
- **Pages:** displays the loaded pages
- **Scenarios:** displays the executed scenarios
- **Filter:** enables you to filter events, pages, etc.
- **Tester:** enables you to execute code on-the-fly
- **Screenshots:** displays the screenshots made during execution
- **PageViewer:** displays the Pages captures
- **Details:** displays the events or actions details
- **Context:** displays the engine internal context



Events view:

- Displays all the events generated by the desktop agent during execution
 - All events are timestamped and ordered by time
 - Timestamp can be hidden from the context menu
 - Icon at the head of each line indicates the type of event
 - 🔧 Technical event
 - 📄 Detailed traces
 - 📘 Information



Run and Debug

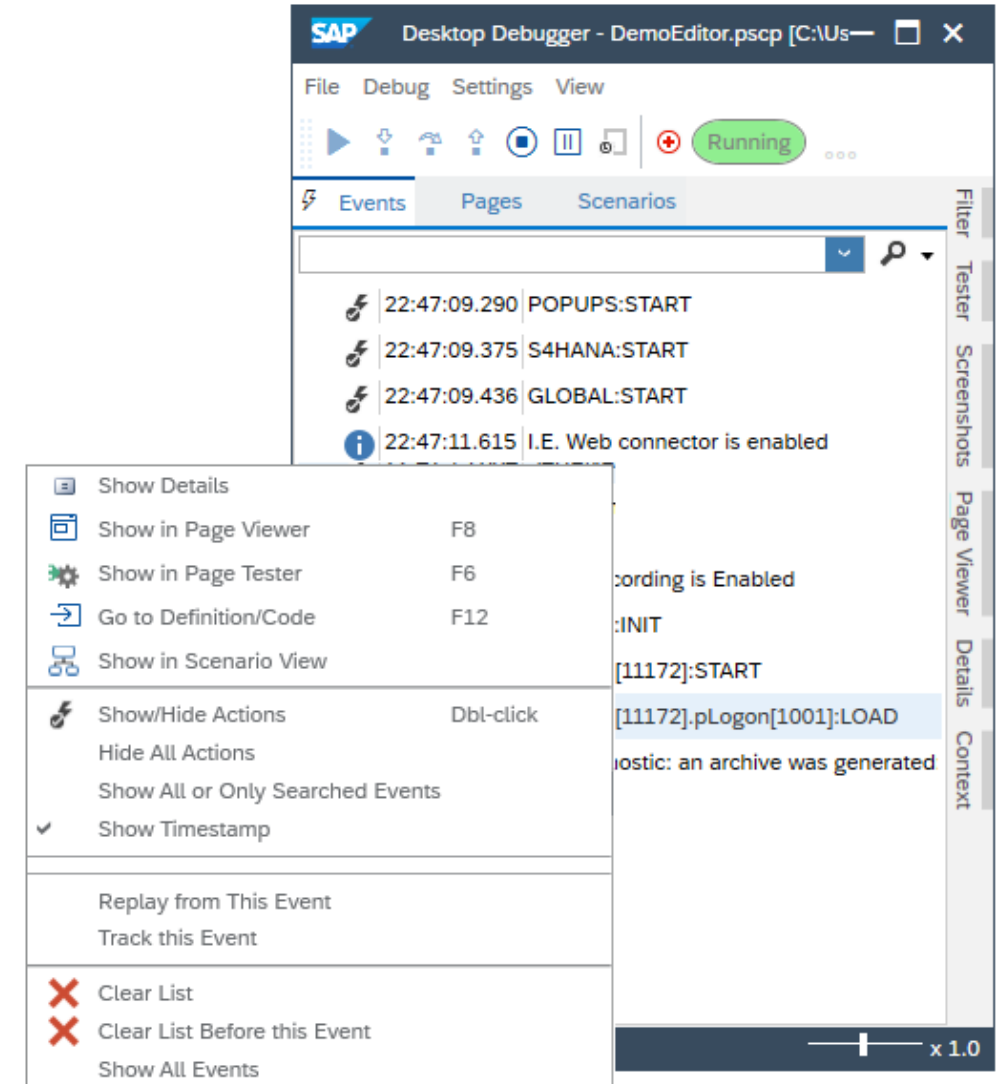
Events view

Context menu:

- The **Events view** has a context menu allowing actions related to the events

Limit displayed events:

- Using the event Historic Duration
- Using the scopes
- Using the Filter view

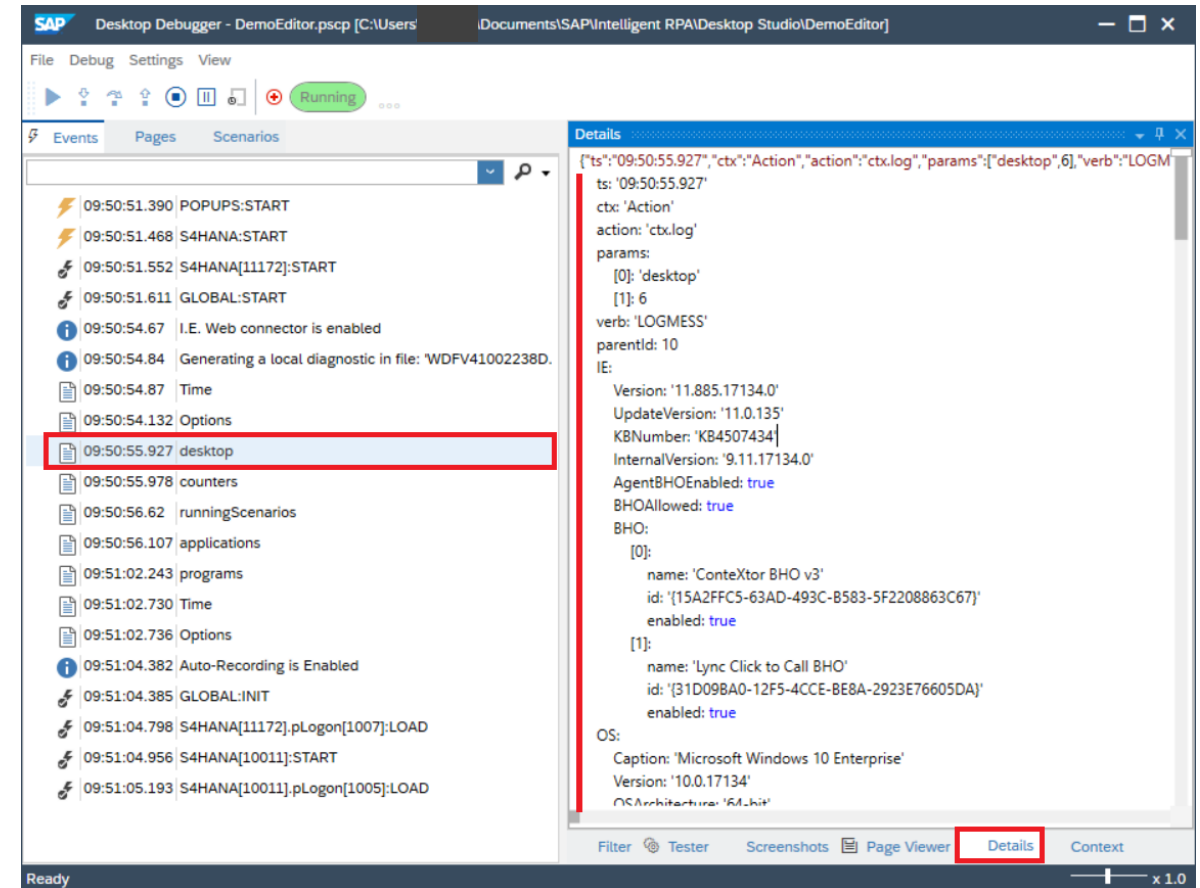


Run and Debug

Details view

Details:

- The **Details view** displays
 - For each event, the data associated to the event
 - For an action
 - The action parameters
 - The return value
 - The item on which the action is executed
 - **Example:** the details of the desktop running the agent



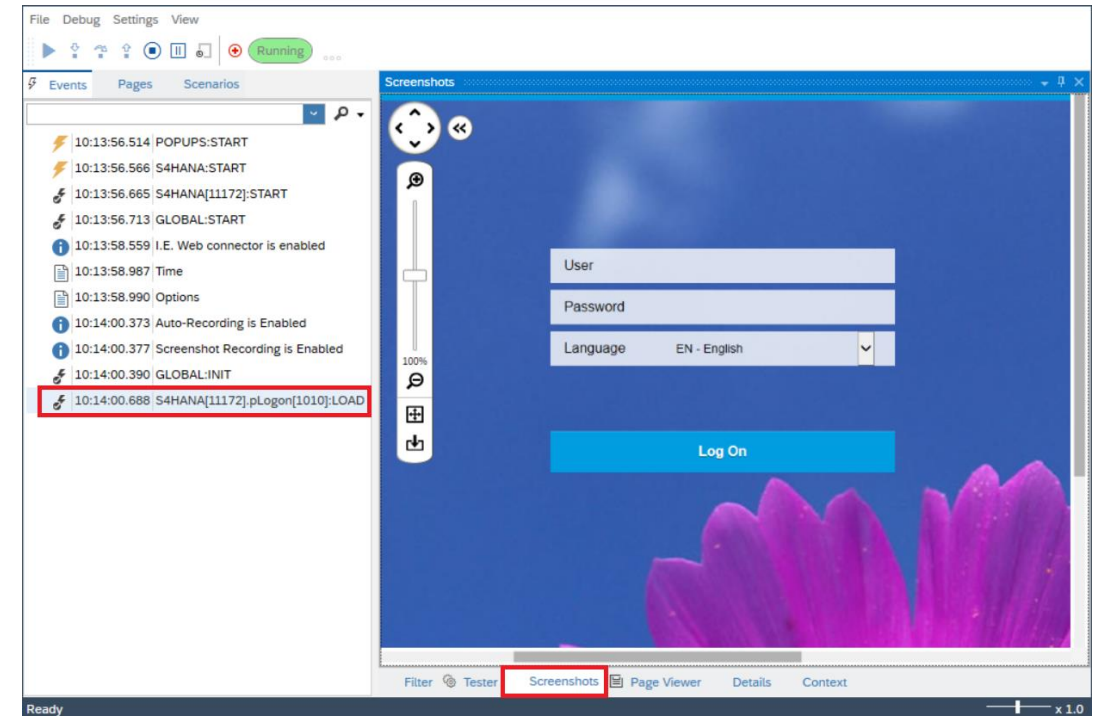
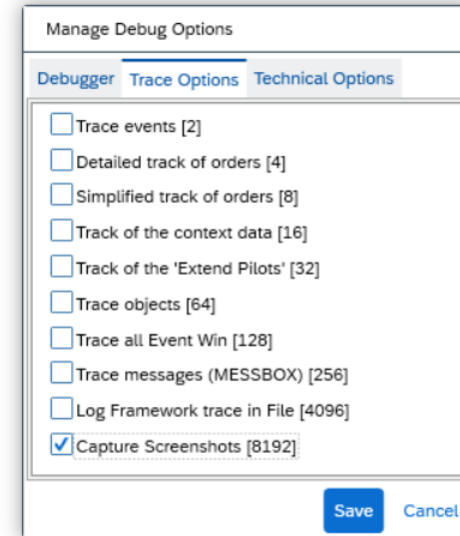
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Screenshots view

Screenshots:

- If you select Capture Screenshots from the Debug options:
 - The desktop agent captures the screen image during execution based on page LOAD and UNLOAD events
 - To display the screenshot associated to the event
 - display the “Screenshots” view, if not displayed
 - select the event

Note: Screenshots are simple images. You cannot select components on screenshots.

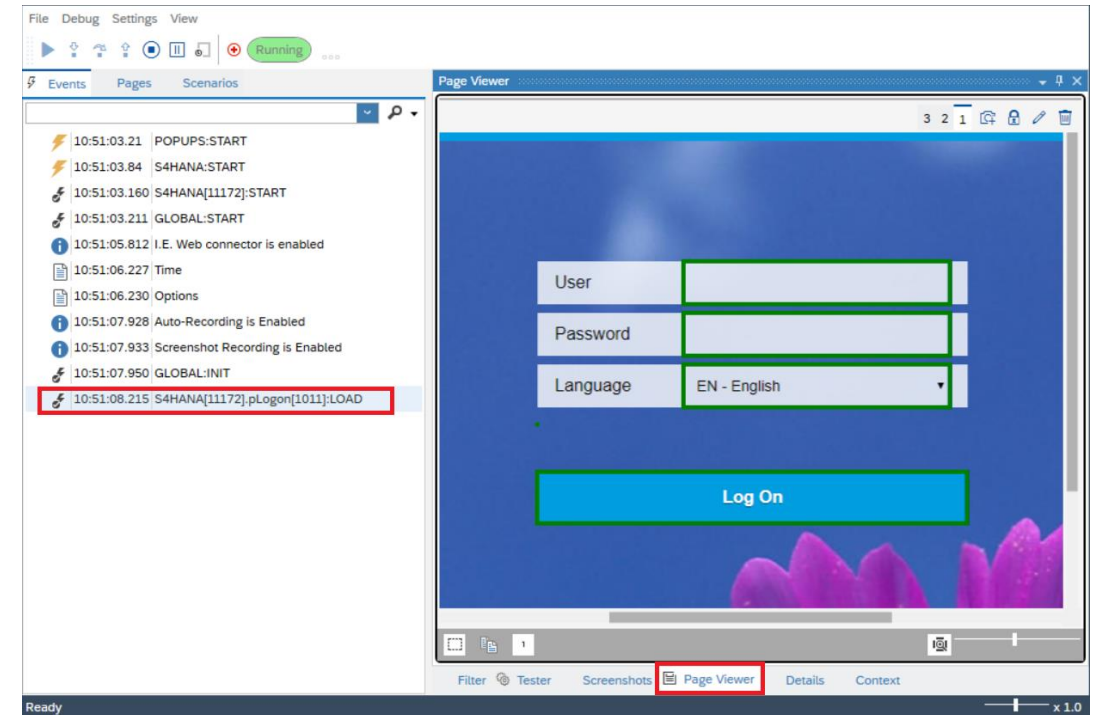


Run and Debug

Page Capture view

Page viewer:

- If an event or action associated to a **page** is selected, the **capture** associated to the page is displayed in the **Page viewer**
- If an event or action associated to an **item** is selected in the Events view, the corresponding **recognized items** are **highlighted** in the Page viewer












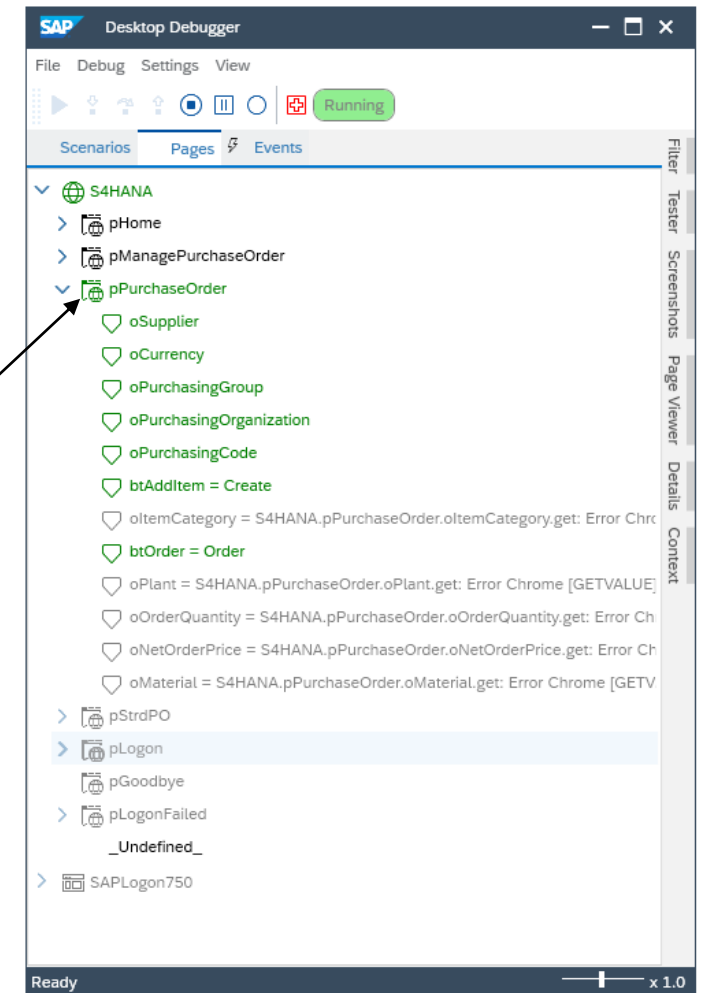
Run and Debug

Pages view

Pages view:

- Displays the tree of applications, pages, and items declared in the project following a color code:
 - **Green:** the element is loaded
 - **Gray:** the element has never been loaded
 - **Black:** the element has been loaded but is now unloaded










	Go to definition	F12
	Show in 'Page viewer'	F8
Update Item Values		
	Highlight	
	Highlight Items	
	Search in Events View	F9
Show in Page Tester		
	Show in Page Tester	F6
	Insert Code in Tester	Ctrl+F7
	Insert Code in Tester with Instances	Ctrl+Shift+F7
Hide Never Loaded Appis/Pages		
Copy Name		
	Copy Value	



Context Menu:

■ Display Items Values:

- **Goto Definition:** Navigate to page/item declaration in the Explorer perspective
- **Show in Page viewer:** Display the page captures associated to the page or item
- **Show in Page Tester:** Display the element in the page tester
- **Update Items values:** Display items values
- **Highlight:** Highlight the recognized page in the controlled application
- **Highlight Items:** Highlight the recognized items in the controlled page/application
- **Search in Events view:** Search in the events view for the events received for this page and display handling actions
- **Insert code in Tester:** Insert corresponding code in the Tester view
- **Insert code in Tester with instances:** Insert corresponding code in the Tester view with instances values
- **Hide never loaded Applis/Pages:** Hide/show never loaded (gray) applications and pages
- **Copy name:** Copy the name of the selected item, page or application in the clipboard
- **Copy value:** Copy the value of the selected item in the clipboard

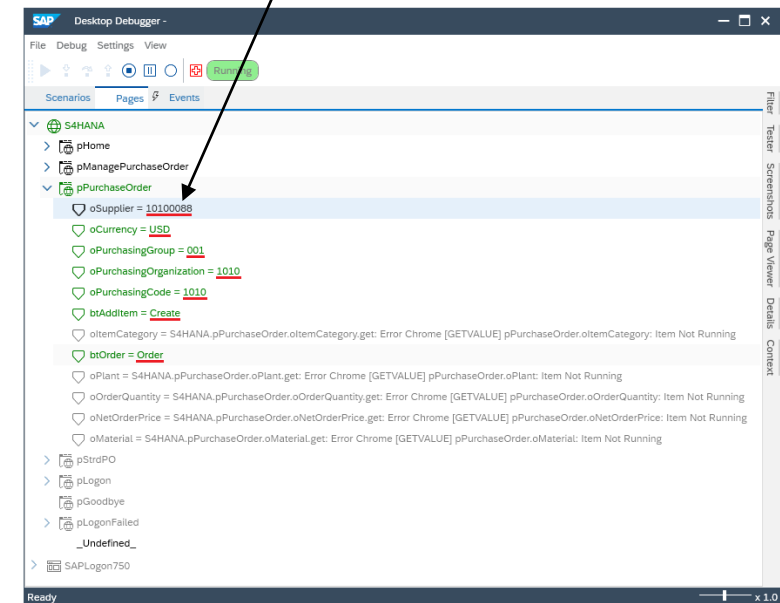
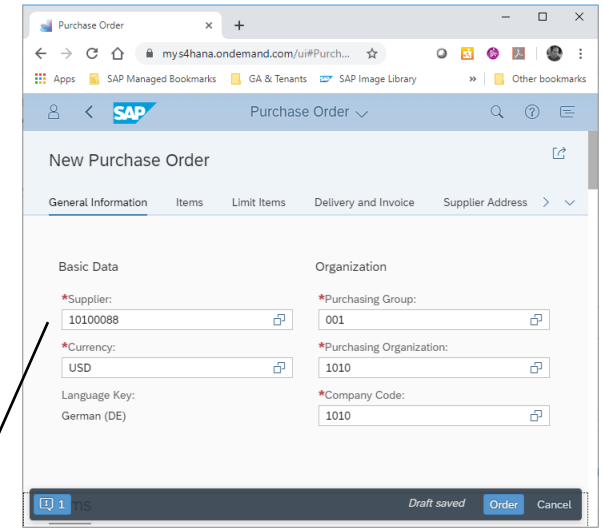
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Hide Never Loaded Applis/Pages		
Copy Name		
	Copy Value	

Run and Debug

Pages view

Context Menu:

- **allows the following actions:**
 - **Simple Items:** the item's value is collected from the page and displayed after the item's name
 - **Occured Items:**
 - The item's count is collected and displayed before the item's name
 - The value of the first item's occurrence is displayed after the item's name
 - For the WEB items multi-occurs, the count can't be collected without collecting all the values. To reflect that, [??] is displayed in place of the count values

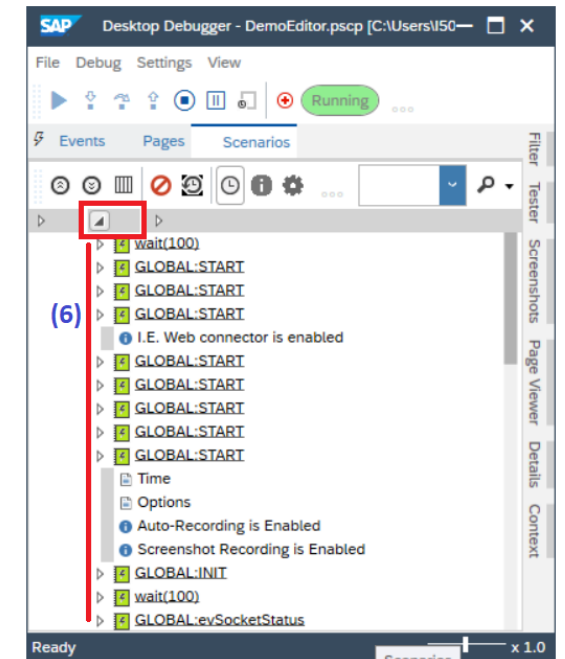
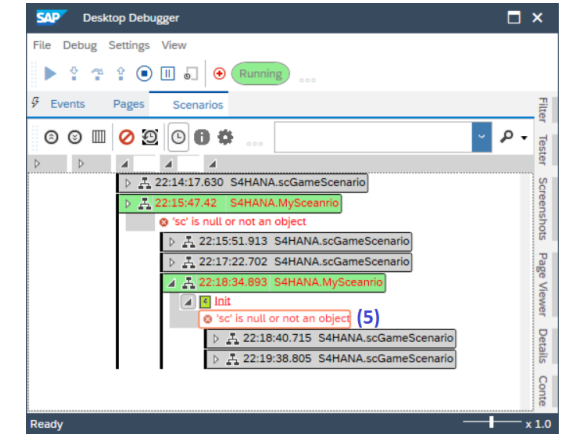
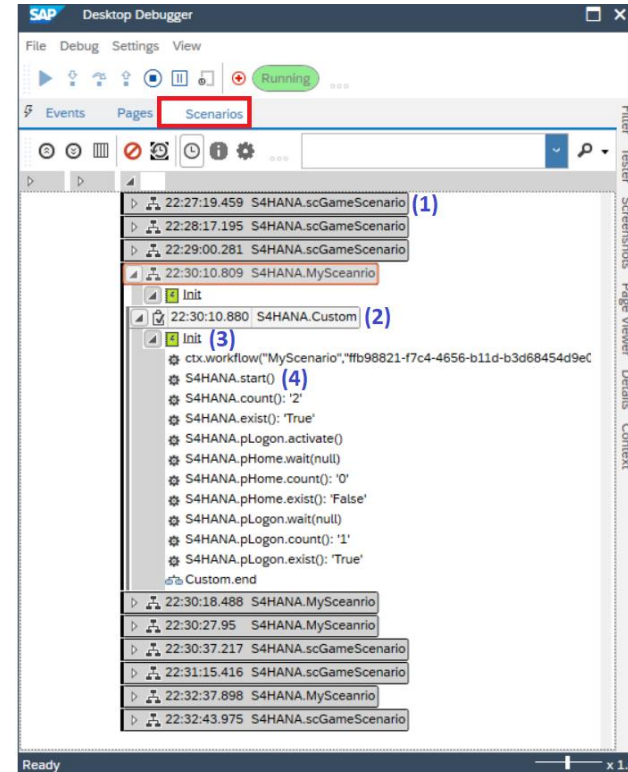


Run and Debug

Scenarios view

Scenarios view:

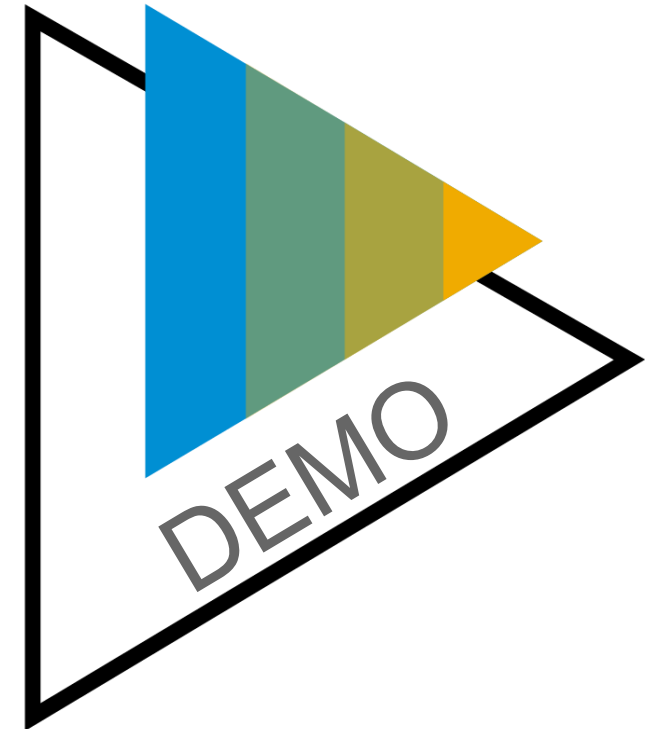
- Displays the tree of
 - **Scenarios (1)**
 - **Steps (2)**
 - **Handlers (3)**
 - Log messages
 - Trace of executed **commands (4)**
 - **Log and error items (5)**
 - **Handlers (6)**
 - when executed outside the scope of a step they are displayed in the second column
 - Example: **GLOBAL.Start** handlers



Run and Debug Demo

Demo view:

- Compiling
 - Build and run
- Testing
 - Insert code and test
- Debugging
 - Step-by-step debugging



Thank you.

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