



Week 2: Development Phase I

Unit 1: Explorer – Simple Declaration

Different Project **Components**

Project components

Studio

- Explorer | Workflow Designer | Editor | Debugger | UI Designer

SDK

- Project Templates | Framework and Extension | Libraries | Resources

Framework

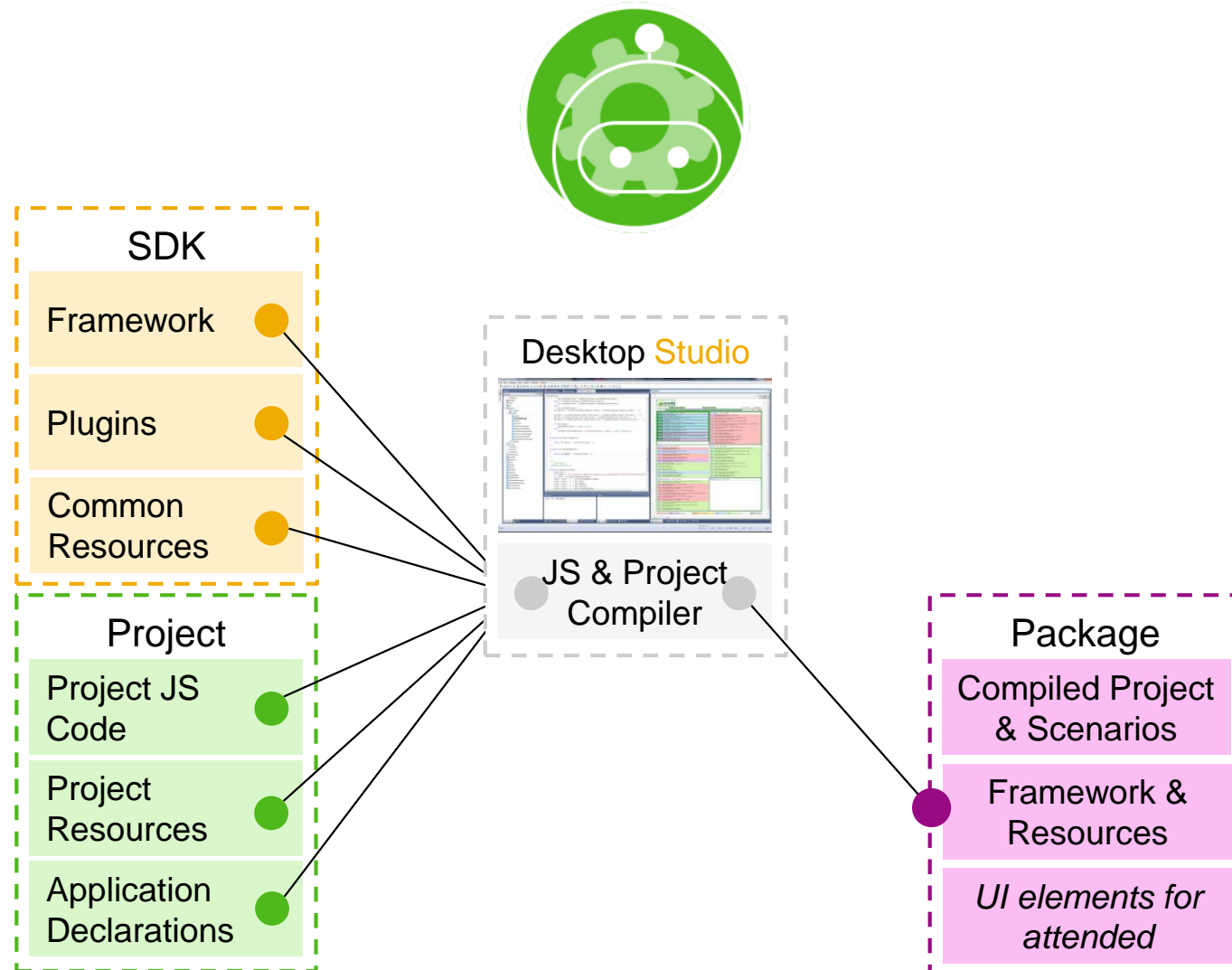
- JavaScript ctx Core Language | Language Extensions | Collaborative Approach

Project

- Solution Content | Declaration Files | Workflow Files | UI Resources | JavaScript Files

Explorer – Simple Declaration

Project components



Discover the Studio: **Hello World!**

Development Phases



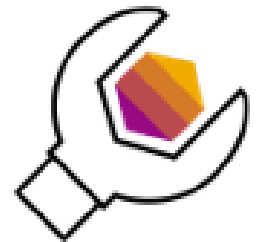
Discover the studio: Hello World!

Development Phases

Declaration Phase: declaration of the entities that Desktop Agent has to monitor



Workflow Design Phase: development of the automation scripts



Explorer – Simple Declaration

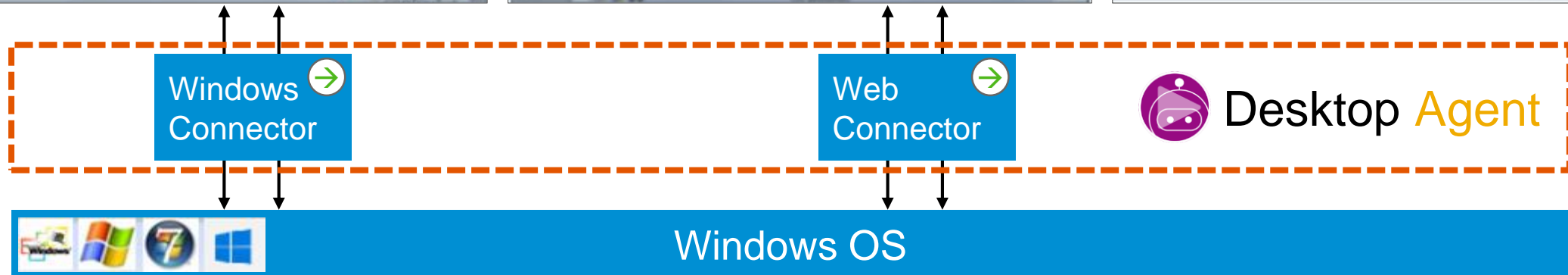
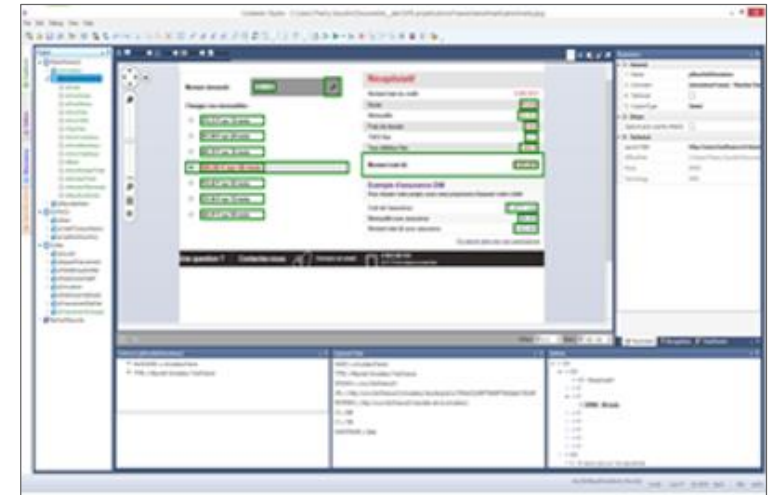
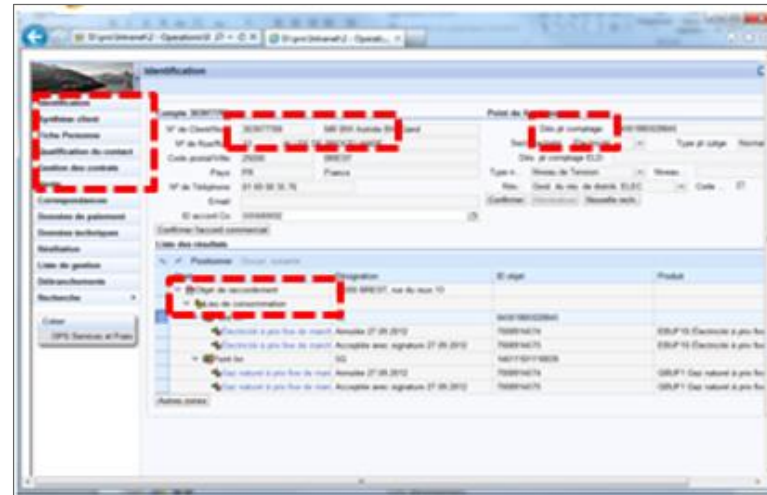
Declaration phase

Application Recognition

Windows Application

 Web Application (intranet extranet)

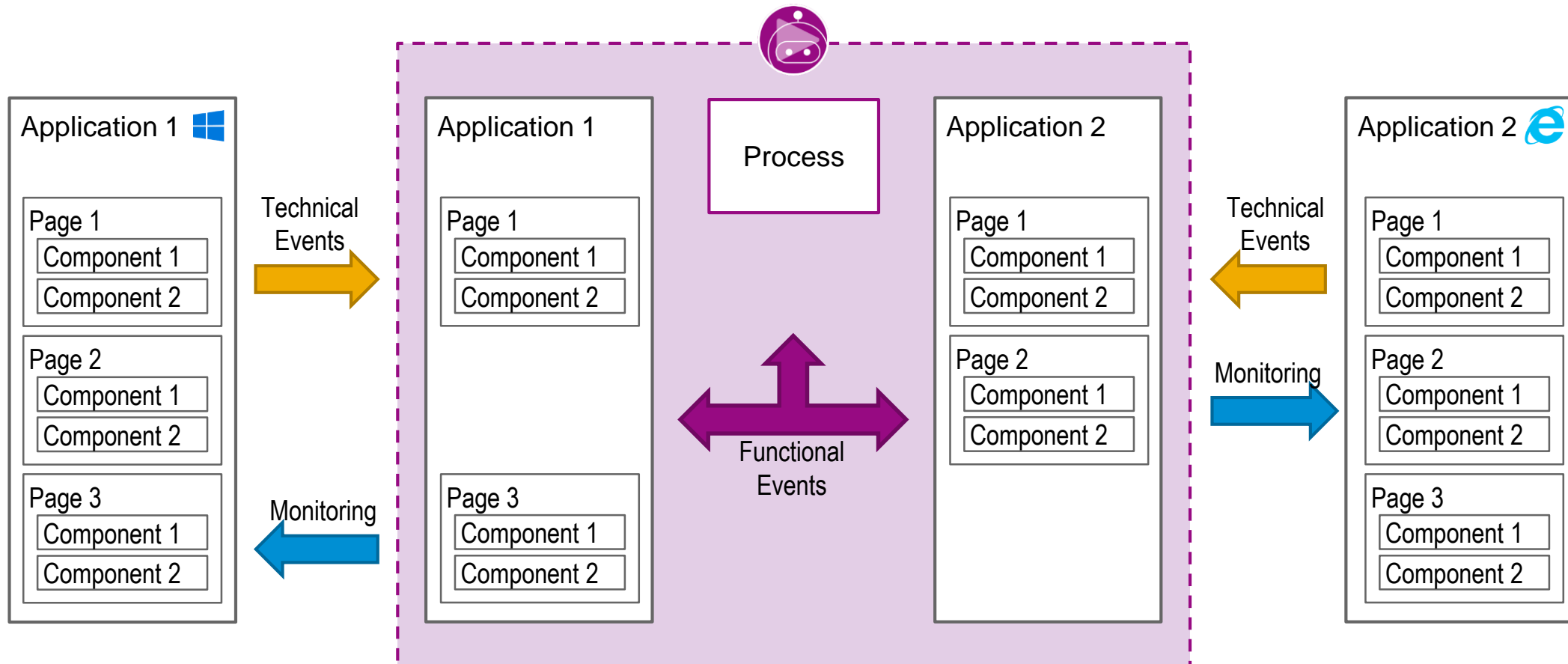
 Desktop Studio



Explorer – Simple Declaration

Conception and declaration

Entities declaration: Application, Page, Item, and Process



Desktop technologies

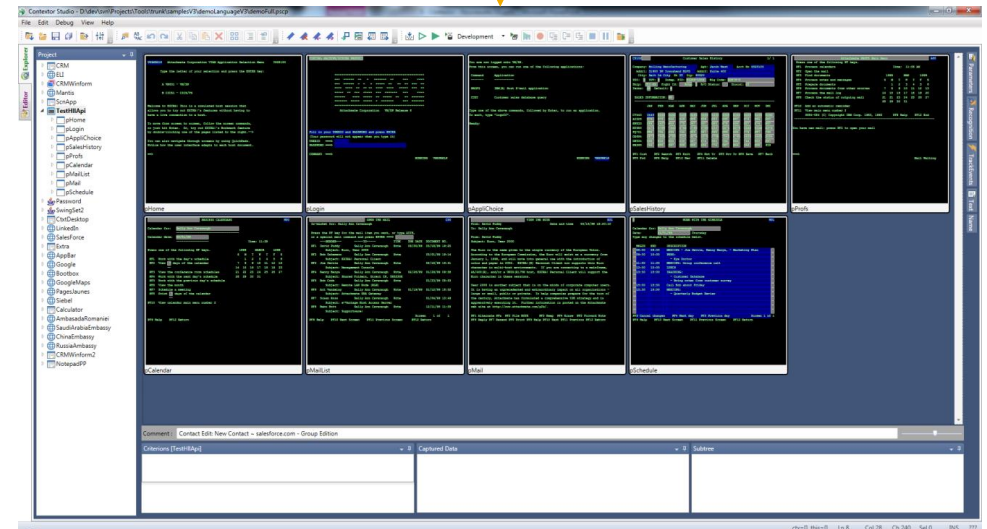
- **Application**

- Any EXE application running on the desktop with user interface (UI). Includes the following technologies: Windows, Java, Silverlight, QT, etc.
- The DOM tree of a desktop application consists of the tree of all UI components created by the application.

■ **Page**

- A page is a subtree of the DOM tree. The root of this subtree is defined as the root of the page.
- Any component of the DOM tree may be a root of a page.
- Any component of the DOM tree under the root of a page can be considered an item of this page.

Captured pages for wide range of application types, here HLLAPI (mainframe application)



Explorer – Simple Declaration

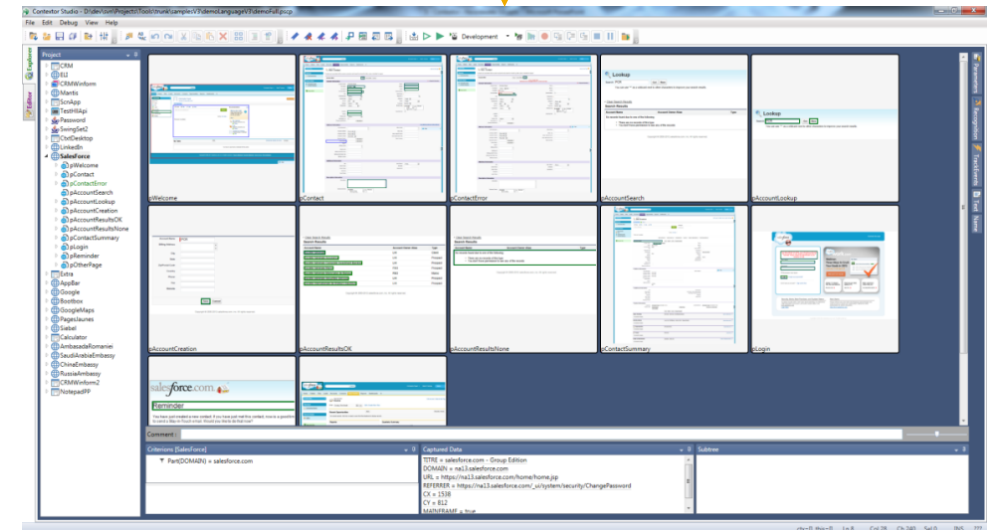
Application capture

Web technology

■ Application

- Any WEB application is set of Web pages that match the same set of criteria.
- Only a page displayed in an instance of a Web browser (IE, Chrome, Firefox) is a candidate for belonging to a WEB application.
- 2 Web pages belonging to the same WEB application, but displayed on 2 different tabs of the browser, are considered as 2 different application instances.
- If a page of a WEB application is displayed on a tab of the browser, and this page navigates to another page that does not belong to this application, the application is then considered to be ended (END event).

Captured pages of a Web application

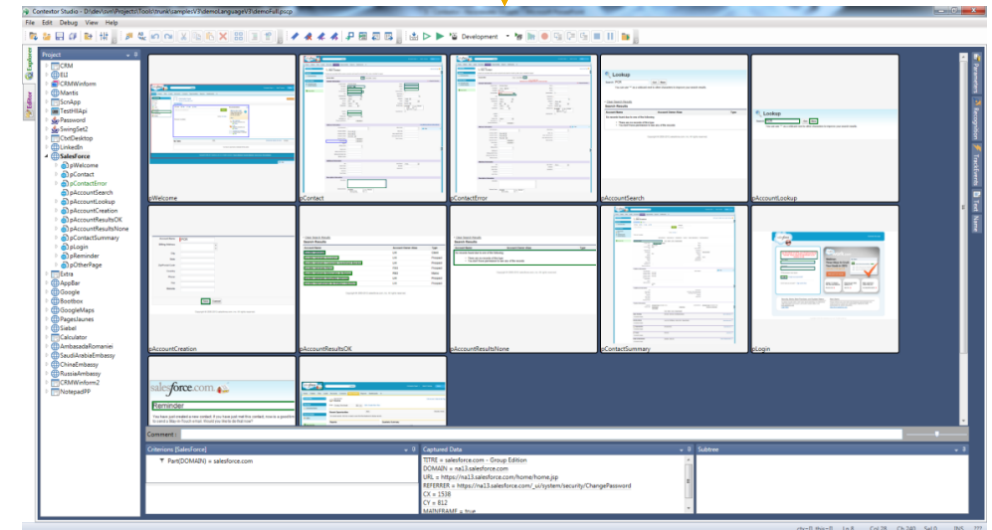


Web application

■ **Page**

- A Web page is the content of:
 - a tab of a Web browser or
 - the content of an iFrame
- Any declared element from the DOM of a Web page is considered an item of this page.
- The DOM of a Web page does not contain the DOM of its iFrames.

Captured pages of a Web application

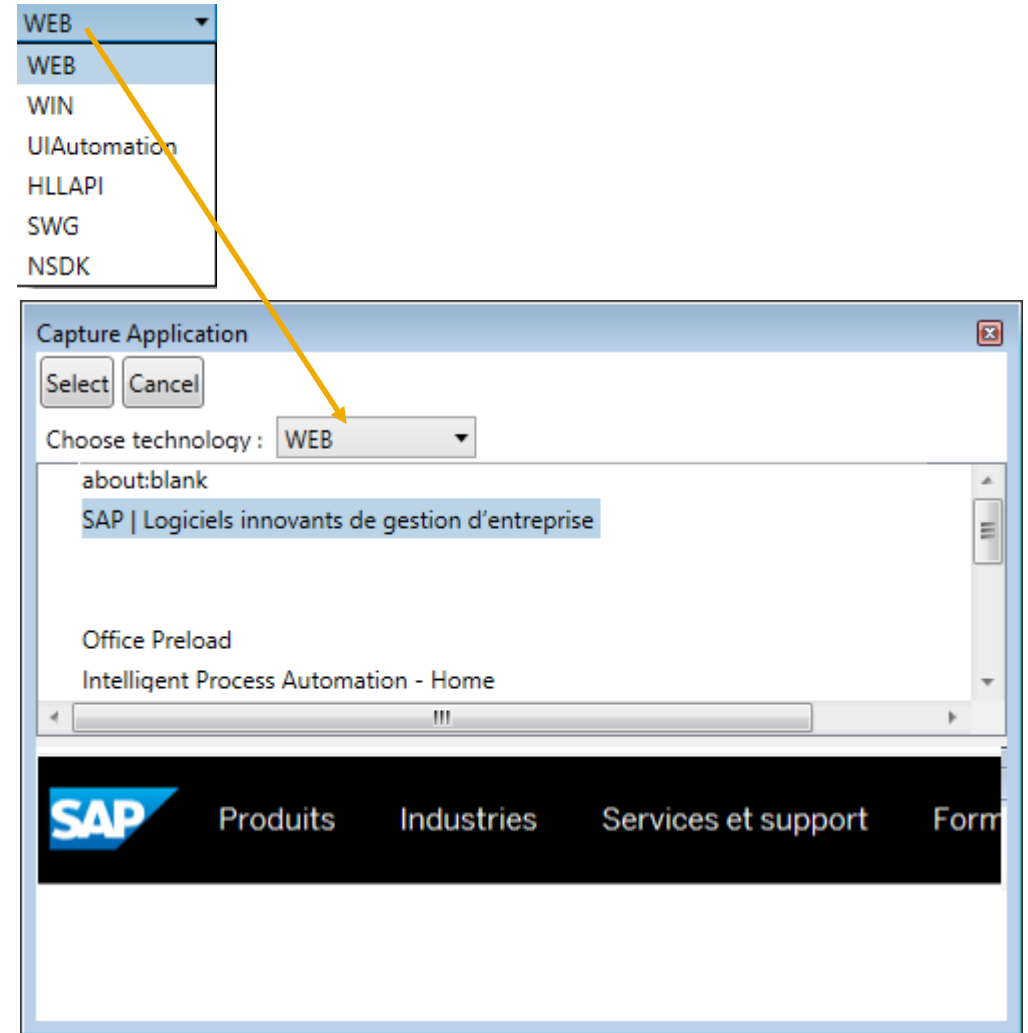


Explorer – Simple Declaration

Declaration principles

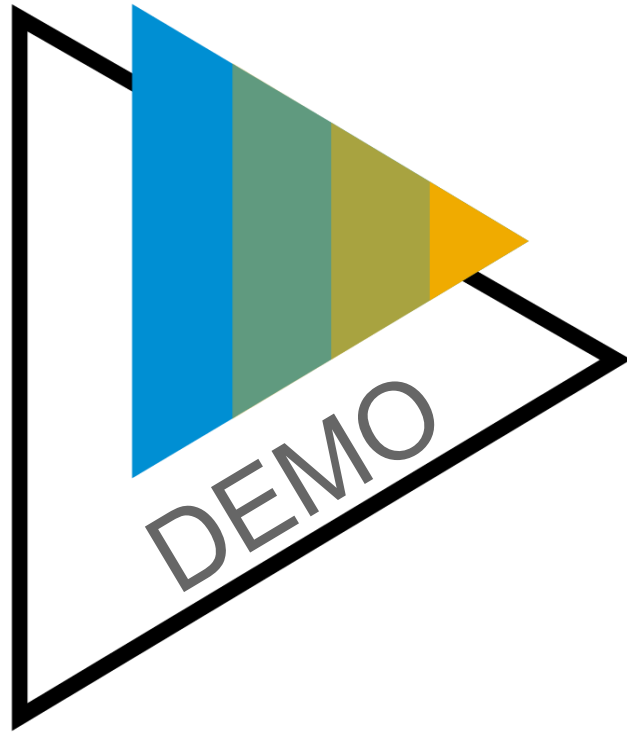
Technology choice

- **WEB:** Web application running in a Web browser (Internet Explorer, Chrome, Firefox)
- **WIN:** Windows Desktop application (Win32 or WinForms)
- **UIAutomation:** Other desktop applications (WPF, Silverlight, QT, etc.) can also be used for WIN applications (Win32 or WinForms)
- **HLLAPI:** Desktop mainframe application running in an HLLAPI-compatible emulator (Attachmate, etc.)
- **SWG:** Desktop Java application (AWT, Swing, custom classes, etc.)
- **NSDK:** Proprietary desktop applications generated by NSDK tool (mainly in French market)



Explorer – Simple Declaration

Simple Declaration

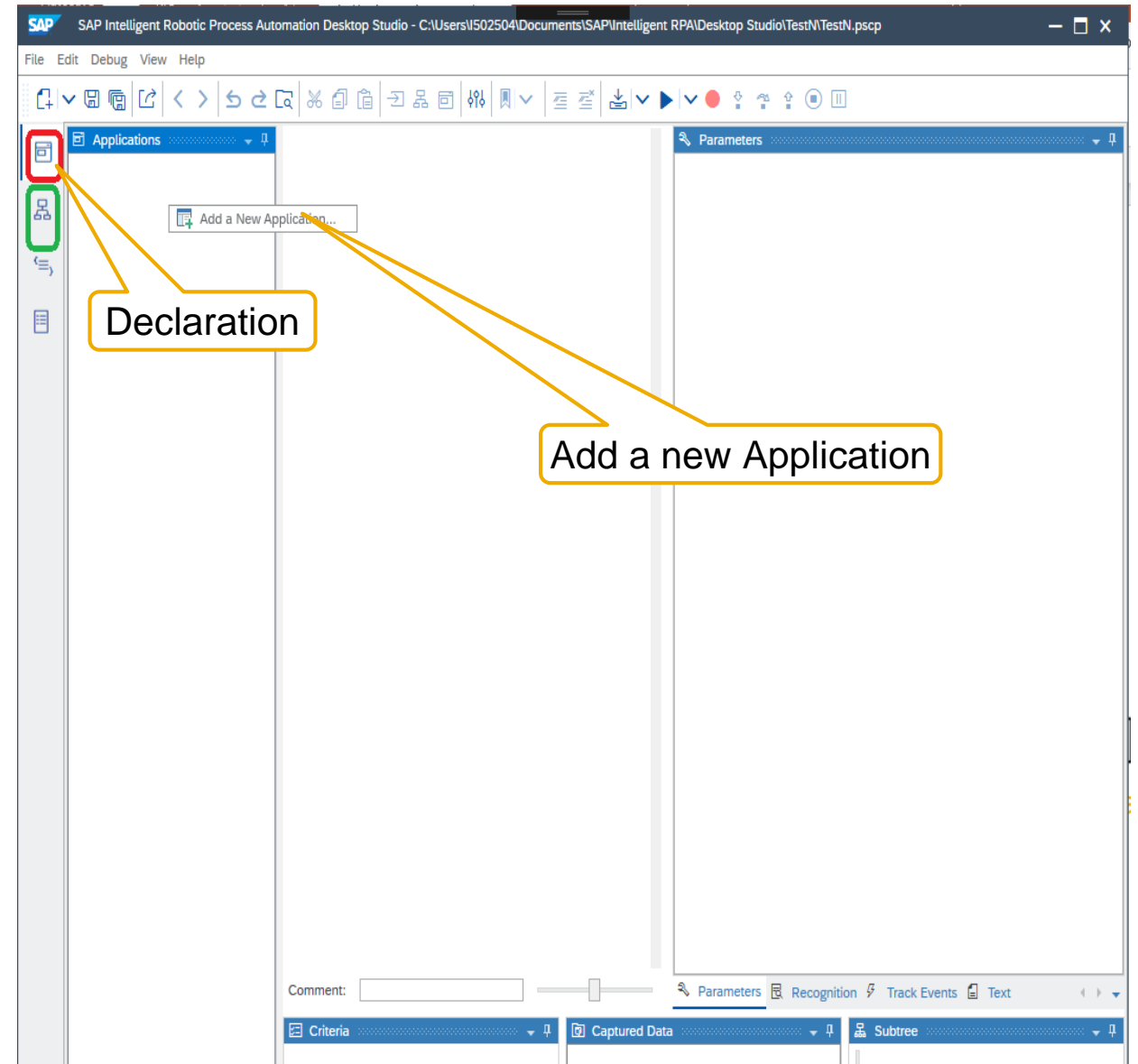


Discover the studio: Hello World!

Declaration of all the applications that
Desktop Agent has to interact
with/monitor through user interface (UI)



Initial Declaration

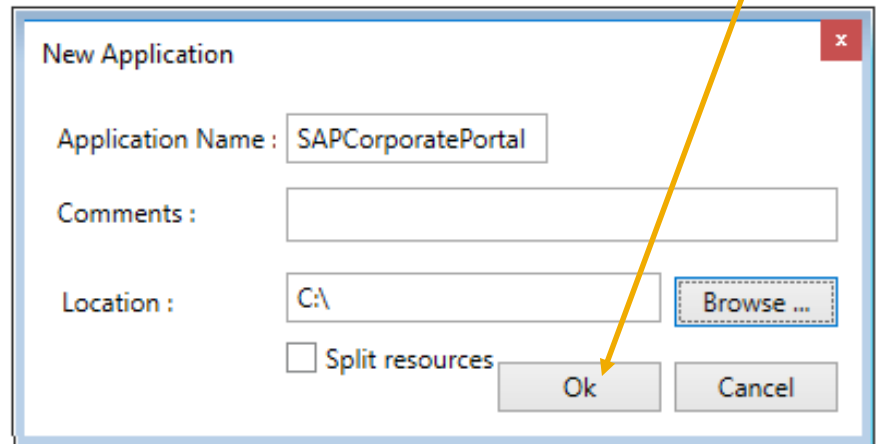


Explorer – Simple Declaration

Application declaration

Capture the **Application**

3. Confirm

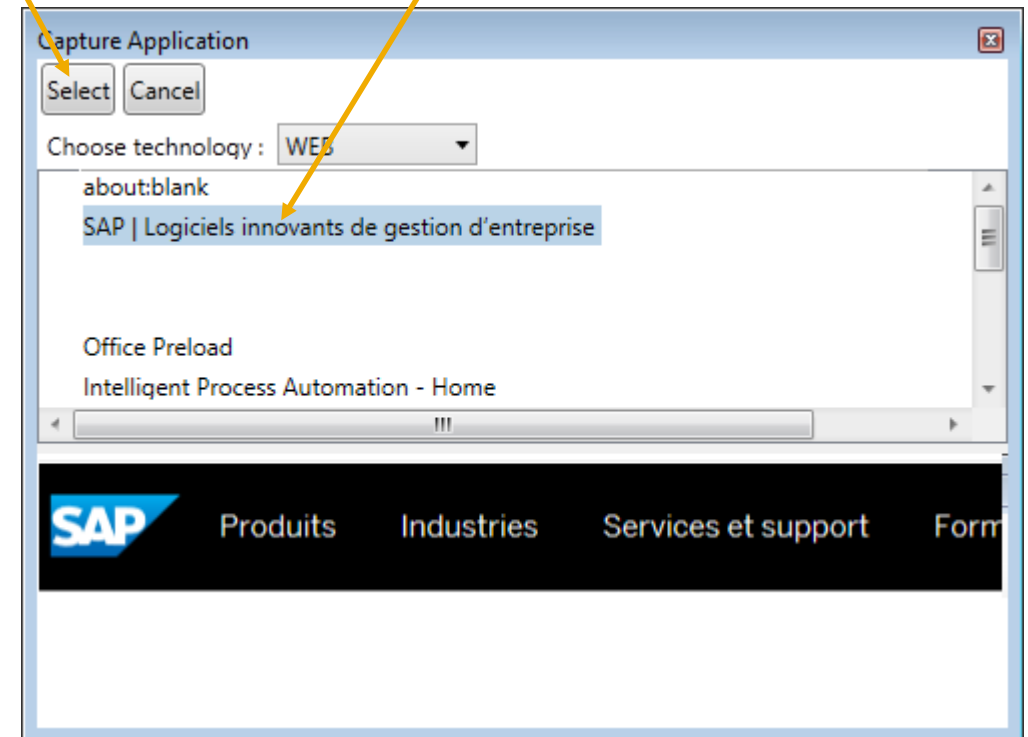


The 'New Application' dialog box contains the following fields and controls:

- Application Name :** SAPCorporatePortal
- Comments :** (empty text box)
- Location :** C:\ (with a 'Browse ...' button next to it)
- ☐ Split resources
- Buttons:** Ok, Cancel

2. Select

1. Choose the application in the list



The 'Capture Application' dialog box contains the following elements:

- Buttons:** Select, Cancel
- Choose technology :** WEB (dropdown menu)
- Application List:**
 - about:blank
 - SAP | Logiciels innovants de gestion d'entreprise (highlighted)
 - Office Preload
 - Intelligent Process Automation - Home
- Footer:** SAP logo, Produits, Industries, Services et support, Form

Explorer – Simple Declaration

Application declaration

Set Recognition Criteria

2. Apply an operator

1. Choose the criterion to add or update

3. Update or delete

The screenshot displays two windows from the SAP application declaration tool. The 'Criteria [SAPCorporatePortal]' window on the left shows a table with one criterion: 'Part(DOMAIN) = wdf.sap.corp'. Below this, a table lists criteria with columns for the criterion name, operator, and a checkbox for 'Not'. The 'DOMAIN' criterion is selected, and its operator 'Part' is being modified via a dropdown menu. The dropdown menu is open, showing options: 'Any', 'Empty', 'Full', 'Part', 'Starts', 'Ends', and 'like'. The 'Part' option is currently selected. To the right of the dropdown are three buttons: a green plus sign (+), a red circular arrow (refresh), and a red minus sign (-). The 'Captured Data' window on the right shows a list of data elements: 'TITRE = SAP Corporate Portal', 'DOMAIN = wdf.sap.corp', 'URL = https://portal.wdf.sap.corp/home', 'CX = 1349', 'CY = 660', and 'MAINFRAME = true'. The 'DOMAIN = wdf.sap.corp' entry is highlighted with a dashed border.

Criterion	Operator	Not
Part(DOMAIN) = wdf.sap.corp	Part	<input type="checkbox"/>

Criterion	Operator	Not
DOMAIN	Part	<input type="checkbox"/>
wdf.sap.corp		

Any
Empty
Full
Part
Starts
Ends
like

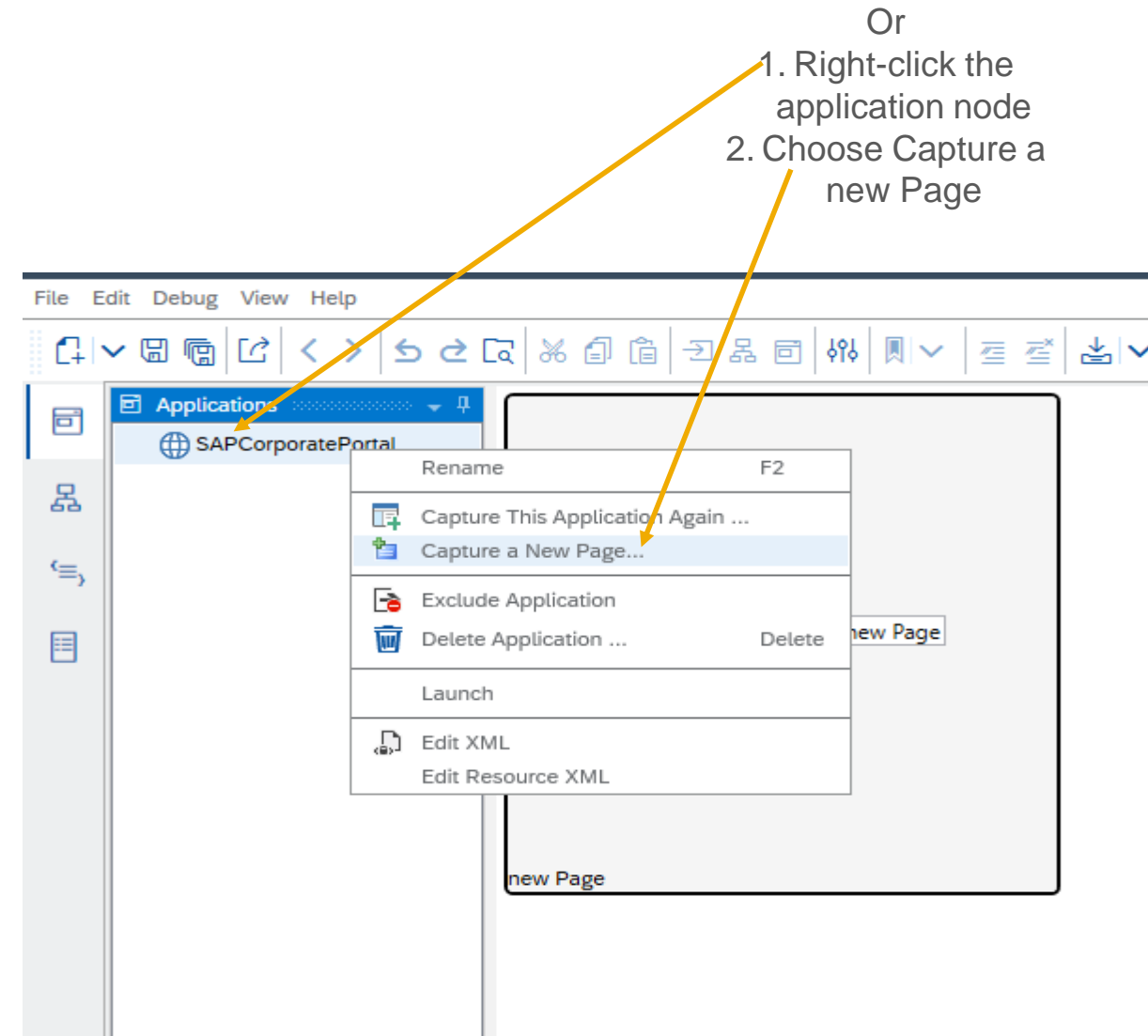
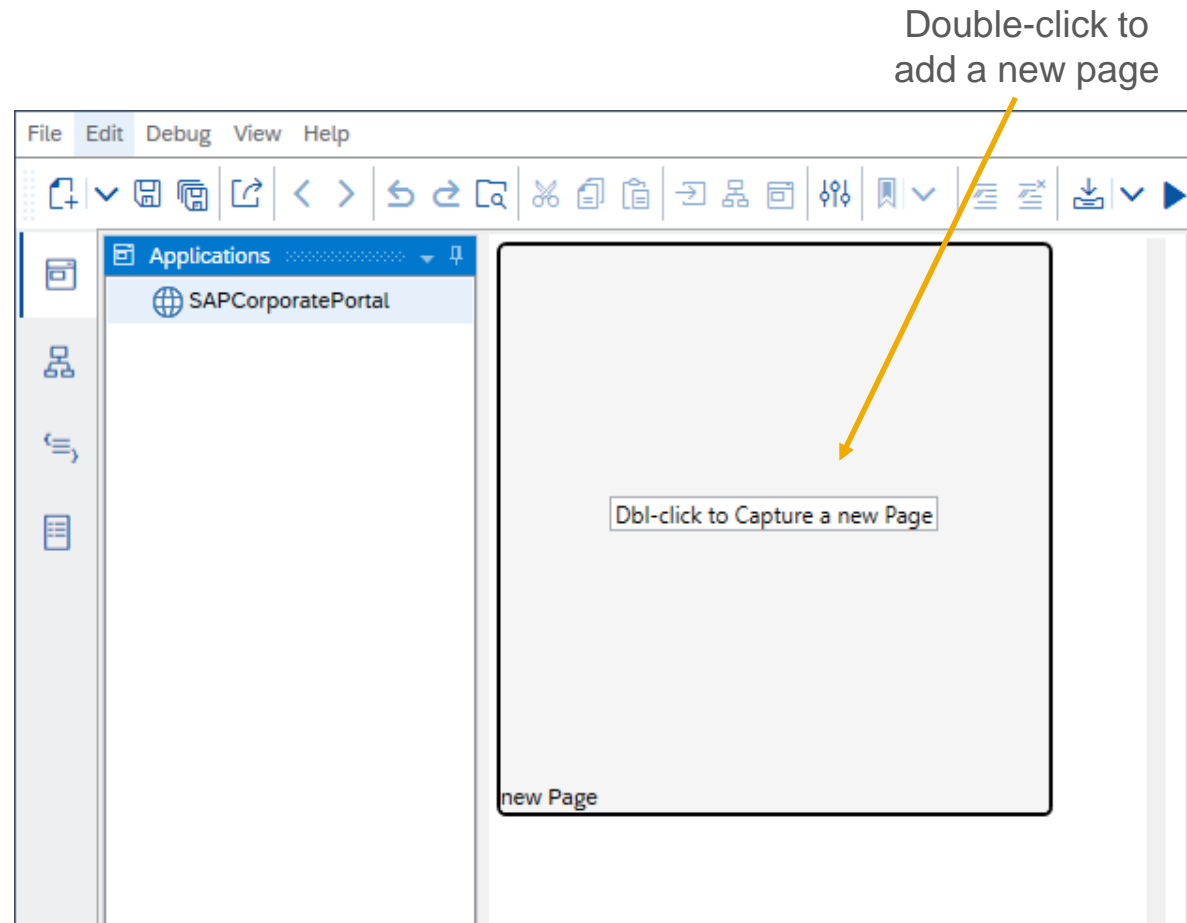
+ ↺ -

TITRE = SAP Corporate Portal
DOMAIN = wdf.sap.corp
URL = https://portal.wdf.sap.corp/home
CX = 1349
CY = 660
MAINFRAME = true

Explorer – Simple Declaration

Page declaration

Capture a New Page

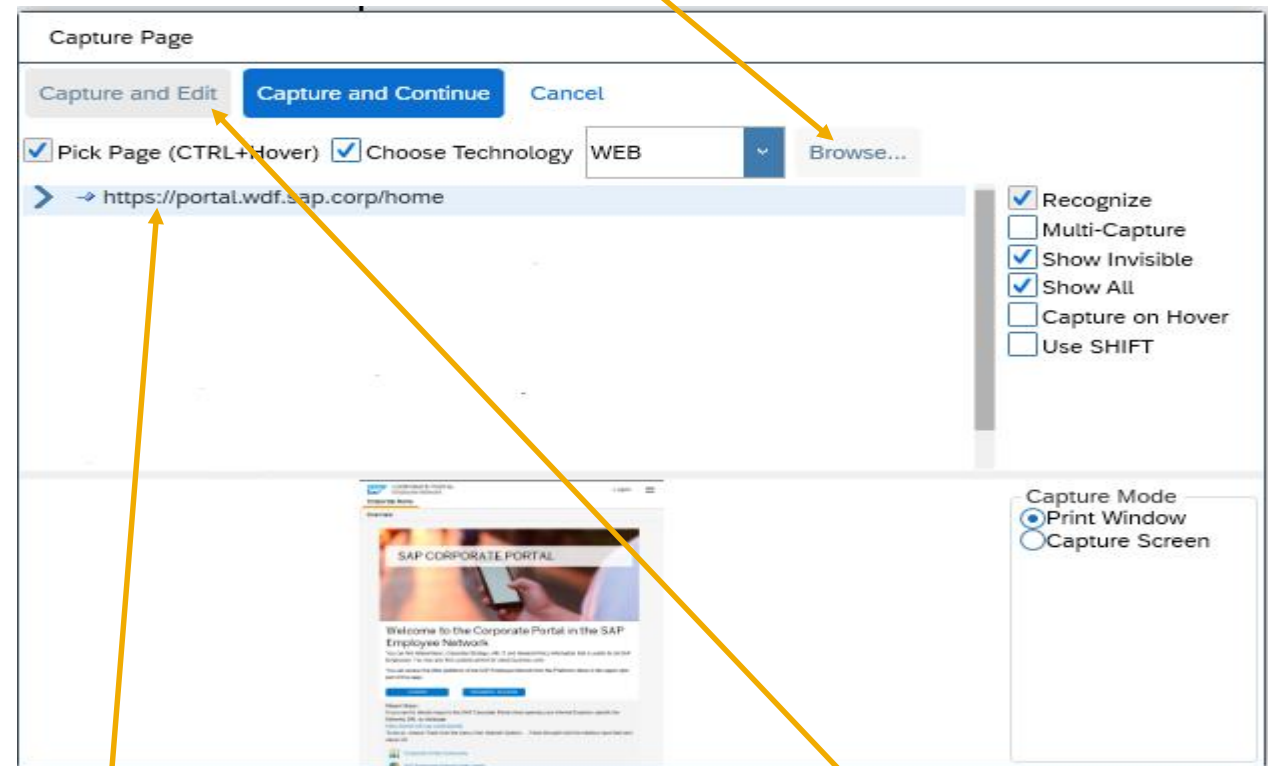
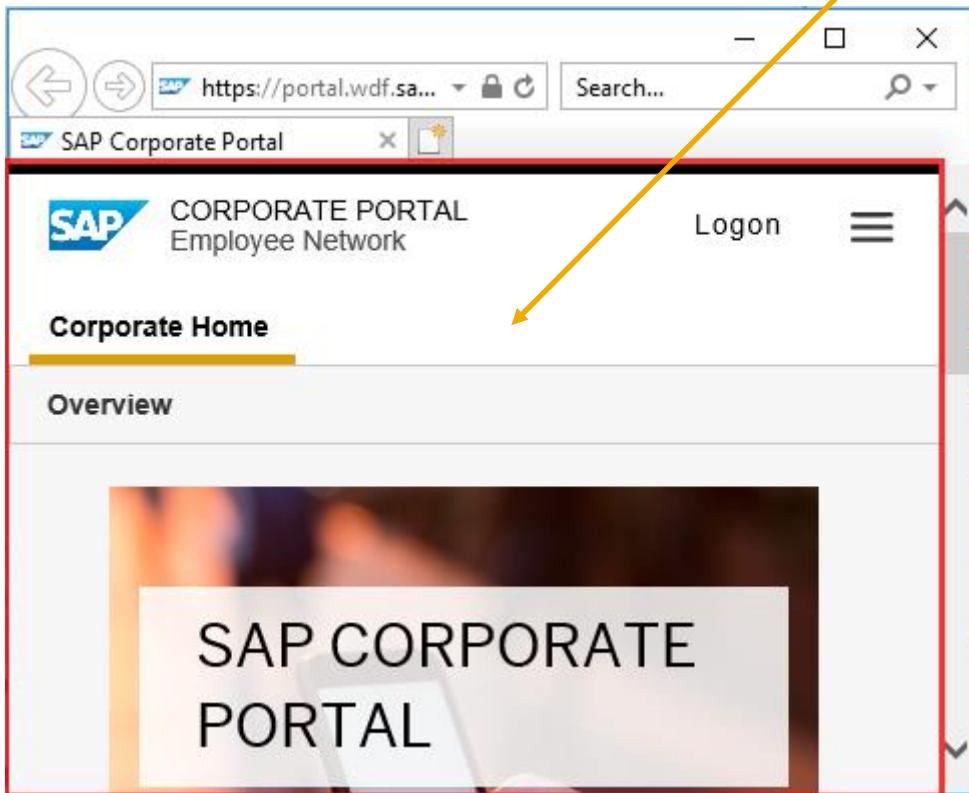


Explorer – Simple Declaration

Page declaration

Browse the **DOM** of the Page

1. Point to your page with your mouse and press Ctrl
Or browse the DOM of application



2. Select the frame or subtree, if any

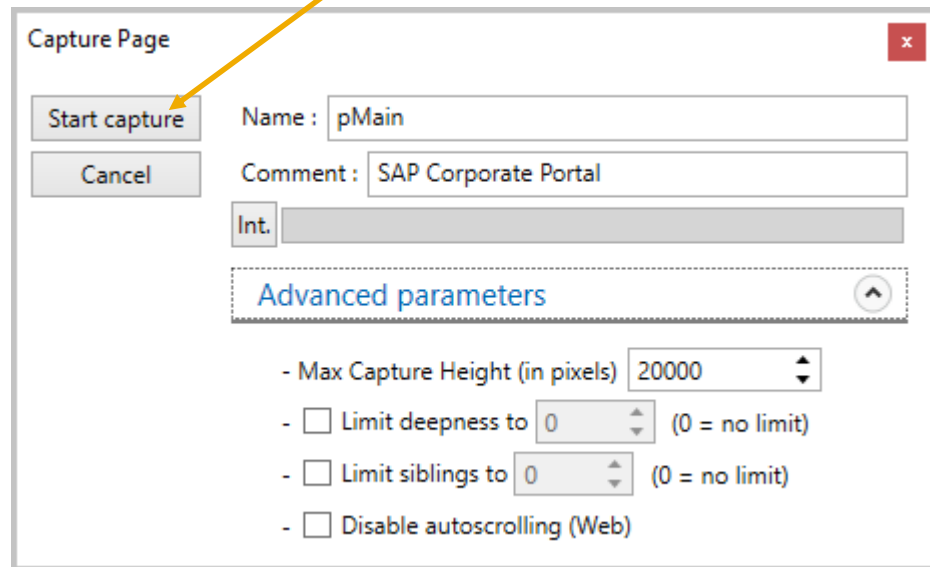
3. Click Capture and edit

Explorer – Simple Declaration

Page declaration

Start Capturing the Page

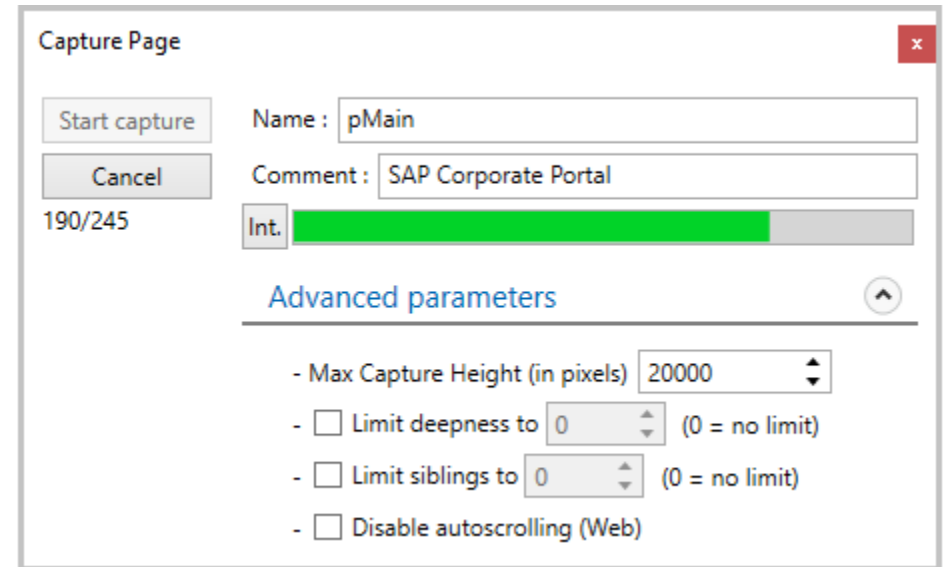
1. Set your parameters and click Start capture



The 'Capture Page' dialog box is shown with the following fields and options:

- Start capture** (button) - An orange arrow points to this button.
- Cancel** (button)
- Name :** pMain
- Comment :** SAP Corporate Portal
- Int.** (text input field)
- Advanced parameters** (expandable section):
 - Max Capture Height (in pixels) 20000
 - ☐ Limit deepness to 0 (0 = no limit)
 - ☐ Limit siblings to 0 (0 = no limit)
 - ☐ Disable autoscrolling (Web)

2. Wait for the end of the capture



The 'Capture Page' dialog box is shown with the following fields and options:

- Start capture** (button)
- Cancel** (button)
- Name :** pMain
- Comment :** SAP Corporate Portal
- Int.** (text input field)
- 190/245** (progress indicator)
- Advanced parameters** (expandable section):
 - Max Capture Height (in pixels) 20000
 - ☐ Limit deepness to 0 (0 = no limit)
 - ☐ Limit siblings to 0 (0 = no limit)
 - ☐ Disable autoscrolling (Web)

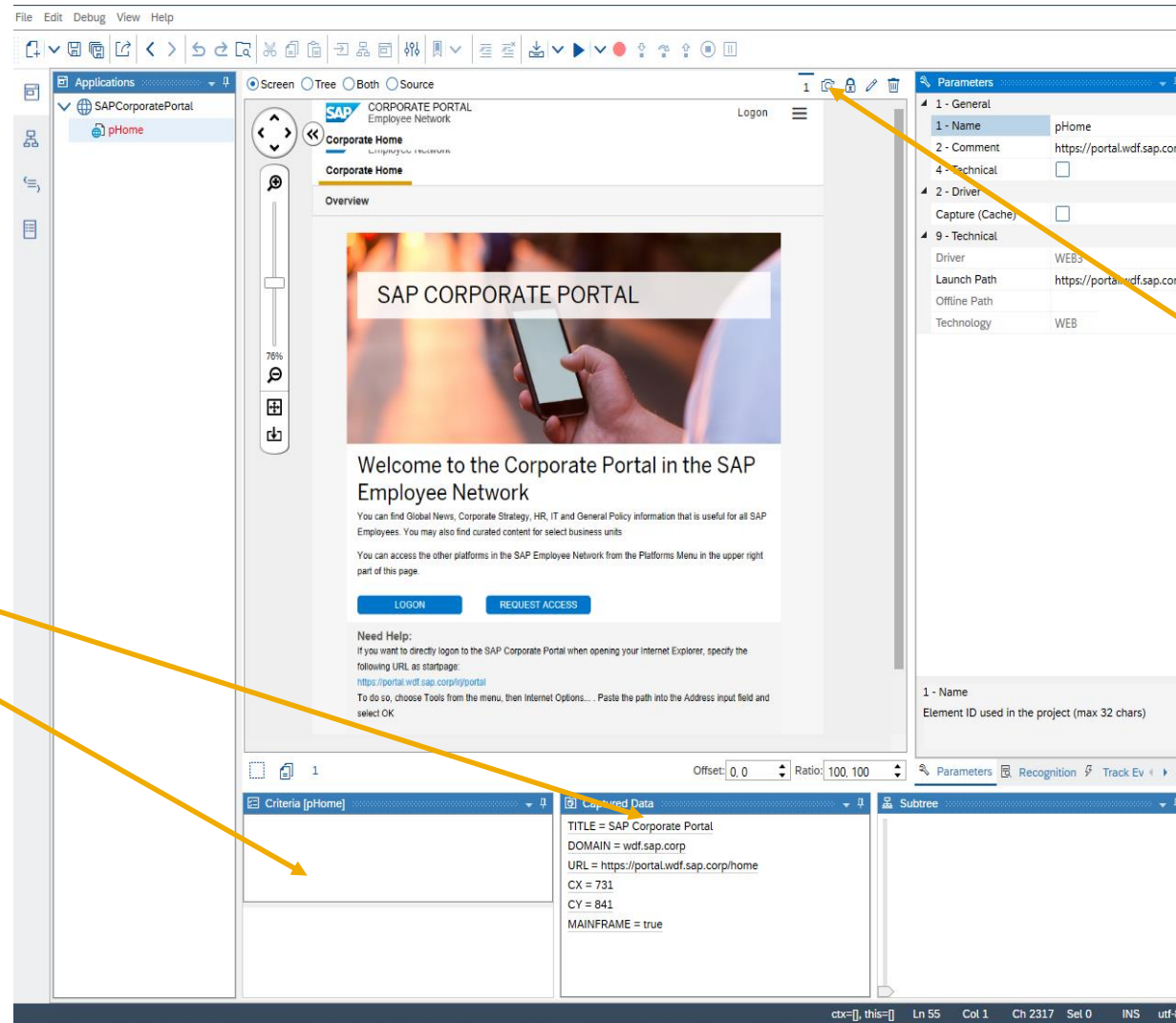
Explorer – Simple Declaration

Page declaration

Set Page Criteria

1. Set the page criteria from the captured data

2. If needed, you can add more captures of the same page



Explorer – Simple Declaration

Item declaration

Add an Item and Set Criteria

2. Set the item criteria from the captured data

The screenshot displays the SAP Explorer interface with the 'SAPCorporatePortal' application selected. The main view shows a screenshot of the 'SAP CORPORATE PORTAL' login page. The 'btLogon' button is highlighted in the DOM tree on the right. The 'Parameters' panel on the right shows the 'General' tab with the following settings:

- 1 - Name: btLogon
- 2 - Comment
- 3 - Folder
- 3 - Index (Specs)
- 4 - Technical
- 2 - Driver
- 1 - Must Exist
- 1 - Must Not Exist
- 2 - Ancestor
- 3 - Capture: No
- 4 - Occurs
- 5 - Collection
- 6 - Use Text Prop...
- Set Value Method...
- 9 - Technical
- Driver: WEB3
- Offline Path: C:\Users\J502504\Do...
- Technology: WEB

The 'Criteria [btLogon]' panel at the bottom left shows the criteria for the selected item:

- 1 - Name: Element ID used in the project (max 32 chars)
- 1 - Name: uhSiteLinks0
- Occurs: Children

The 'Captured Data' panel at the bottom right shows the captured data for the selected item:

- TAG = A
- id = uhSiteLinks0
- Text = Logon
- href = https://portal.wdf.sap.corp/irj/portal
- OuterHTML = <a tabindex="1" title="Logon" id="uhSiteLinks0" onclick="win
- title = Logon
- target = _self
- range = 0

The 'Subtree' panel at the bottom right shows the subtree structure:

- 1 - Name: Element ID used in the project (max 32 chars)
- 1 - Name: uhSiteLinks0
- Occurs: Children

Choose your item by double-clicking or by right-clicking → Associate to new Item

Thank you.

Contact information:

open@sap.com

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