



PUBLIC

SAP Screen Personas for Mobile RF Devices in Extended Warehouse Management in SAP S/4HANA

How-To Guide

THE BEST RUN



COPYRIGHT

© 2022 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see <http://global.sap.com/corporate-en/legal/copyright/index.epx#trademark> for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

DOCUMENT HISTORY

Document Version	Date	Description
1.0	23.11.2021	First official release of this guide
1.1	28.01.2022	2 nd example script in chapter 4.8 and minor adjustments
1.2	12.10.2022	Added details about working in design mode

TABLE OF CONTENTS

1	BUSINESS SCENARIO	4
1.1	Introduction	4
2	OVERVIEW.....	5
2.1	Radio Frequency in Extended Warehouse Management	5
2.2	SAP Screen Personas	5
3	PREREQUISITES.....	6
4	STEP BY STEP PROCEDURES	7
4.1	Changing the Background Color	9
4.2	Changing the Font Size or Color.....	11
4.3	Hiding Fields	12
4.4	Changing Button Size and Moving Buttons.....	13
4.5	Creating Themes.....	15
4.6	Assigning Different Flavors to Different Users or User Groups	16
4.7	Simulating a Device in a Browser	18
4.8	Scripting	20
4.8.1	<i>Example 1 – Changing the Color of a Button</i>	<i>20</i>
4.8.2	<i>Example 2 – Dynamically Hiding the Verification Field on the Destination Screen</i>	<i>22</i>
5	SAP SCREEN PERSONAS FEATURES IN COMBINATION WITH RF IN EWM	24
5.1	Creating SAP Screen Personas Flavors – Tips & Tricks.....	28
6	RESULT OF SAP SCREEN PERSONAS FLAVOR	28
7	USEFUL LINKS.....	29

1 BUSINESS SCENARIO

1.1 Introduction

With the introduction of SAP GUI for HTML for browser-based radio frequency (RF) devices in SAP S/4HANA 2021, you can modernize the look and feel of RF screens. You can now have an SAP Fiori-like design without the need to use ITSMobile. SAP GUI for HTML renders the ABAP Dynpros created in the RF framework directly in the browser on the RF device. With SAP GUI for HTML, you can also use SAP Screen Personas to personalize RF screens. This guide describes how you can set up SAP Screen Personas flavors for mobile RF devices working on SAP GUI for HTML.

Note that you can't use the [ITSMobile Visual Editor](#) with SAP GUI for HTML. For SAP GUI for HTML, we recommend using SAP Screen Personas.

2 OVERVIEW

2.1 Radio Frequency in Extended Warehouse Management

The radio frequency (RF) framework is the standard solution for mobile devices that allows you to display an SAP application on GUI-based devices and browser-based devices using ITSmobile or SAP GUI for HTML. The RF framework supports your warehouse in the following ways:

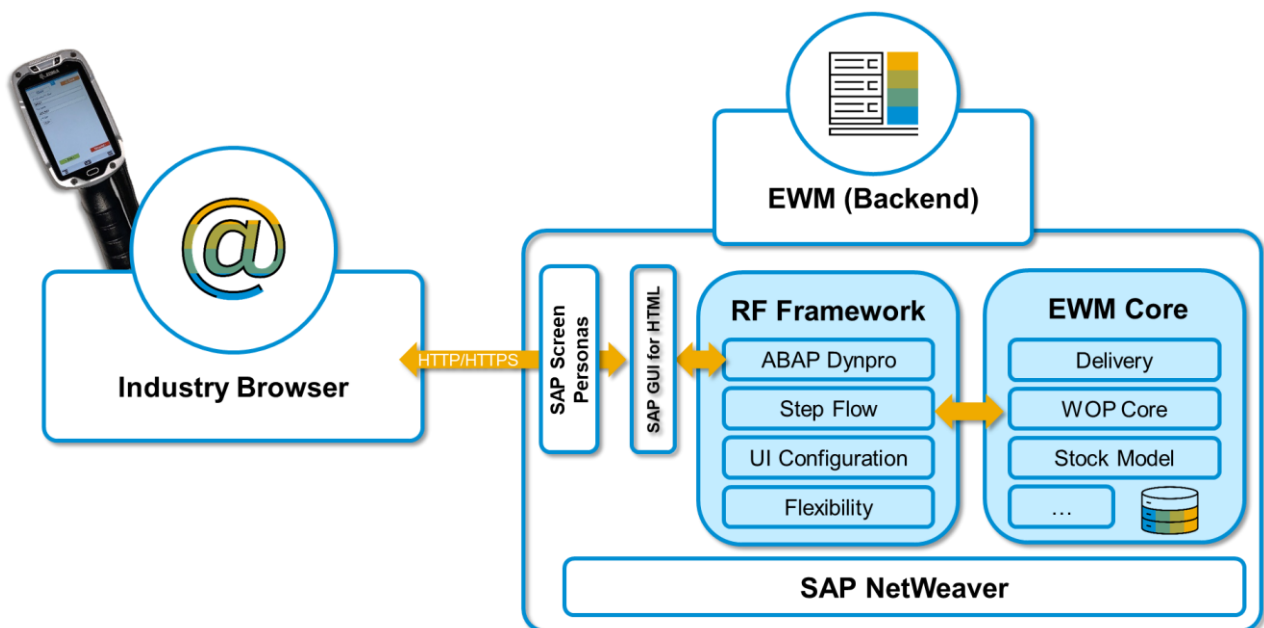
- Decouples business logic from the physical presentation of application data on a selected presentation device
- Supports a large variety of device sizes, device types, and data entry types
- Provides appropriate forms of data presentation according to application data, device capabilities, and user preferences
- Calls appropriate services according to resource inputs (such as verification/input data, keystroke, or logon request)
- Enables personalized menus and screens
- Enables flexible and user-friendly screen and flow-logic generation and modification

For more information, see [Radio Frequency Framework](#).

2.2 SAP Screen Personas

SAP Screen Personas is a personalization engine for Dynpro and Web Dynpro applications. You can use SAP Screen Personas to personalize and transform the user interface of SAP applications according to specific business needs. You can create role-specific screens (called flavors) that are managed by a central administrator. A flavor is a specific screen personalization applied to a particular transaction. If required, you can also allow users to create their own personalized look and feel for applications or transactions. Transactions can have more than one flavor, with each screen looking differently if desired. See chapter *SAP Screen Personas Features in Combination with RF* for flavor recommendations in the RF context. You can also use SAP Screen Personas to create scripts that automate processes within a transaction.

For more information, see [SAP Screen Personas](#).



Simplified Architecture

3 PREREQUISITES

1. Extended Warehouse Management (EWM) in SAP S/4HANA 2021 (or later) with configured SAP GUI for HTML and a radio frequency (RF) user profile
2. Installation of SAP Screen Personas following the relevant installation steps (see [Installation Steps](#))
3. SAP Screen Personas with the editor role (flavor developer) or administrator users (admin users) (see [Configuring Authorizations and Roles](#))

Note that this guide is not applicable for using the RF framework in combination with ITSmobile (SICF service RFUI).

4 STEP BY STEP PROCEDURES

This chapter describes common steps to personalize radio frequency (RF) transactions using SAP Screen Personas. For restrictions for SAP Screen Personas in the context of the RF framework, see the next chapter *SAP Screen Personas Features in Combination with RF*.

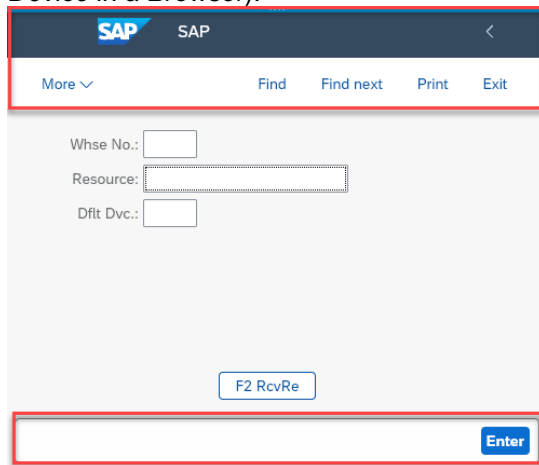
1. Start SAP GUI for HTML on a desktop PC to launch the SAP GUI for HTML service.

We recommend using a Google Chrome browser. Don't follow these steps in the back-end system using classical SAP GUI.

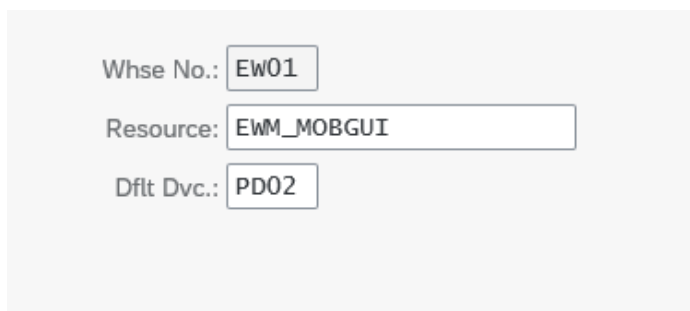
2. Log onto the RF environment with your RF user profile.

On the *SAP Easy Access* screen, choose *Logistics* → *SCM Extended Warehouse Management* → *Extended Warehouse Management* → *Execution* → *Log On to RF Environment* (/SCWM/RFUI).

You can ignore the header and footer area as they will be hidden automatically when logging onto the RF environment following the right URL (see SAP Note [3048632](#) and chapter *Simulating a Device in a Browser*):



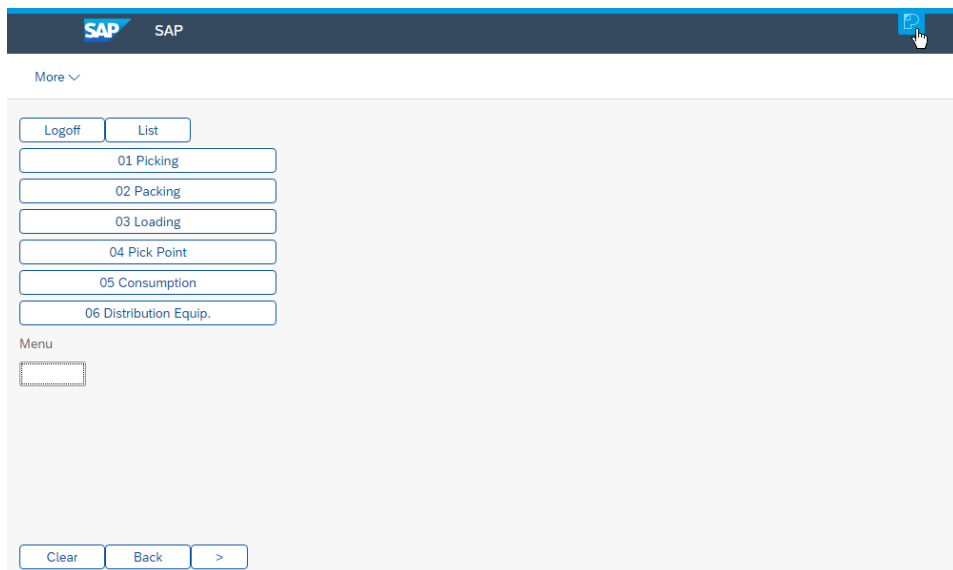
3. Enter the warehouse number, resource, and presentation device name:



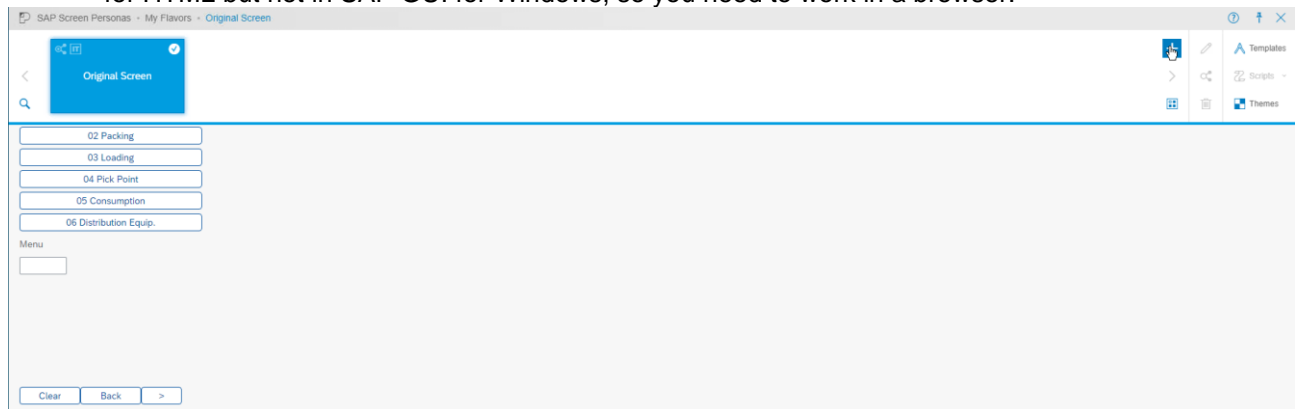
The default presentation device you enter determines which screens are used when working in the RF environment.

In Extended Warehouse Management (EWM), you can display RF screens in portrait or landscape mode. The presentation profile setting for the device defines the screen format. For example, profile '***' - standard screens in landscape mode, profile '*2' - standard screens in portrait mode.

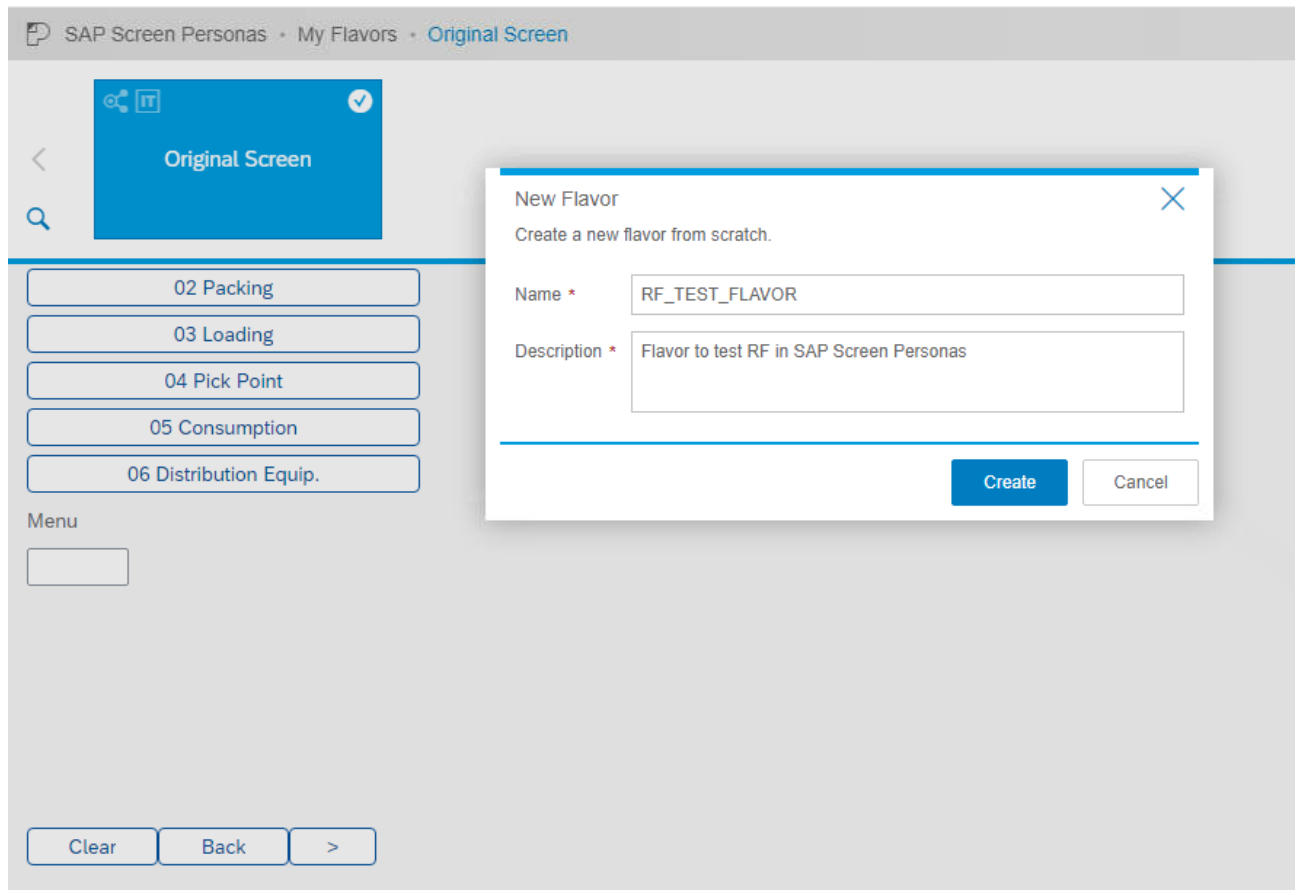
4. Create a flavor for the RF environment.
 - a. Choose *SAP Screen Personas* to open the Flavor Manager.



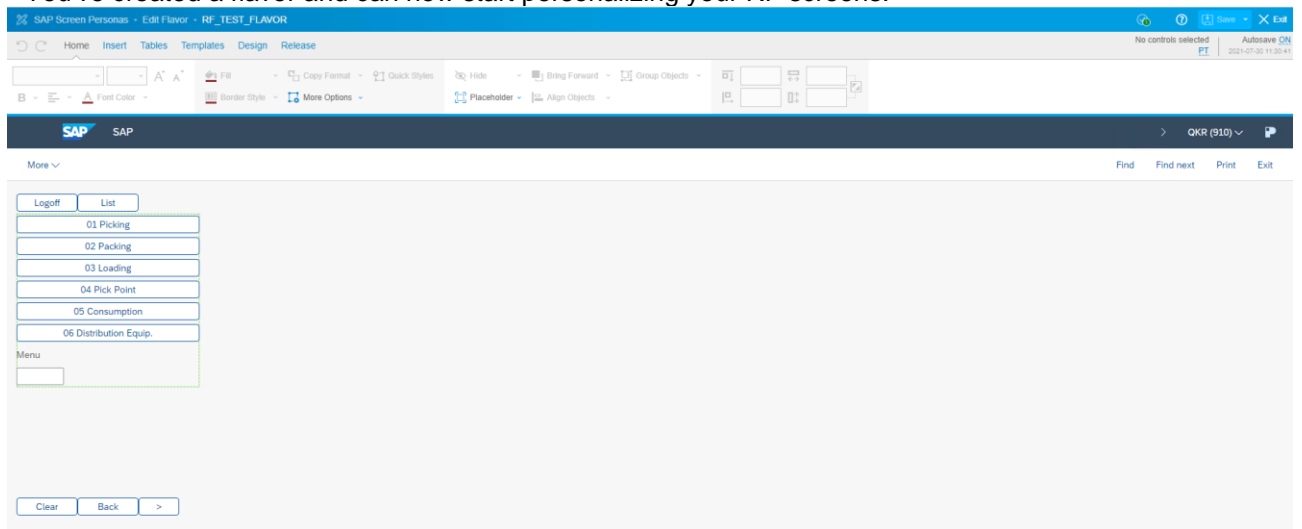
- b. Choose *Create Flavor* in the flavor bar. Note that *Create Flavor* is available only in SAP GUI for HTML but not in SAP GUI for Windows, so you need to work in a browser.



- c. Enter a name and description for the flavor.

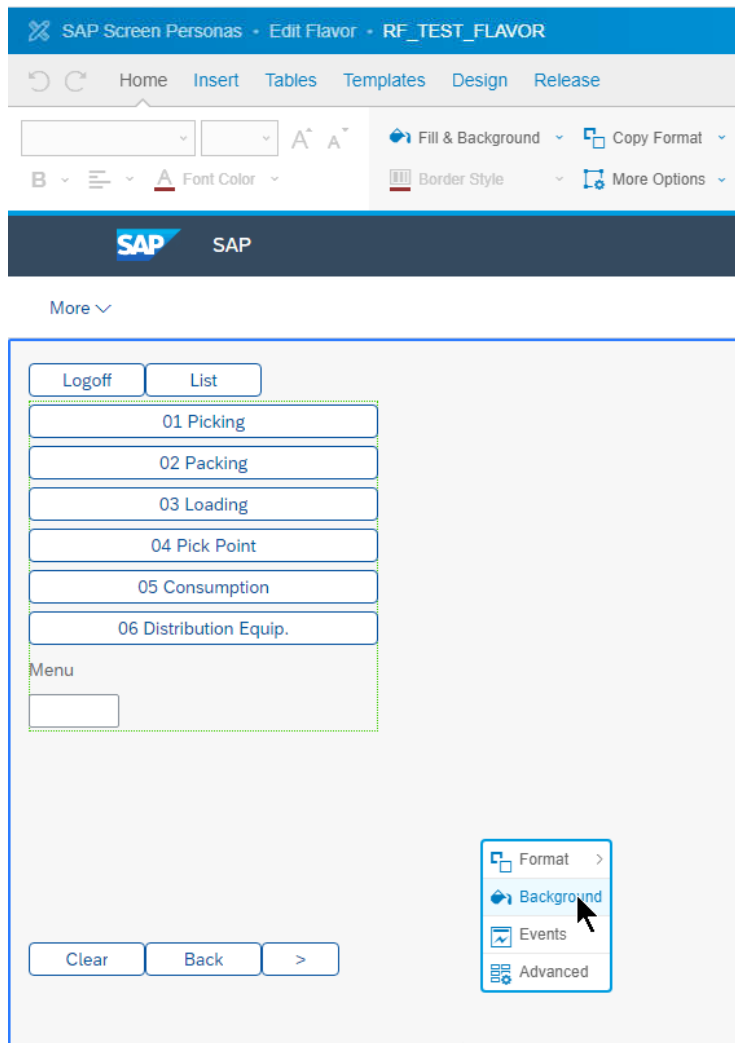


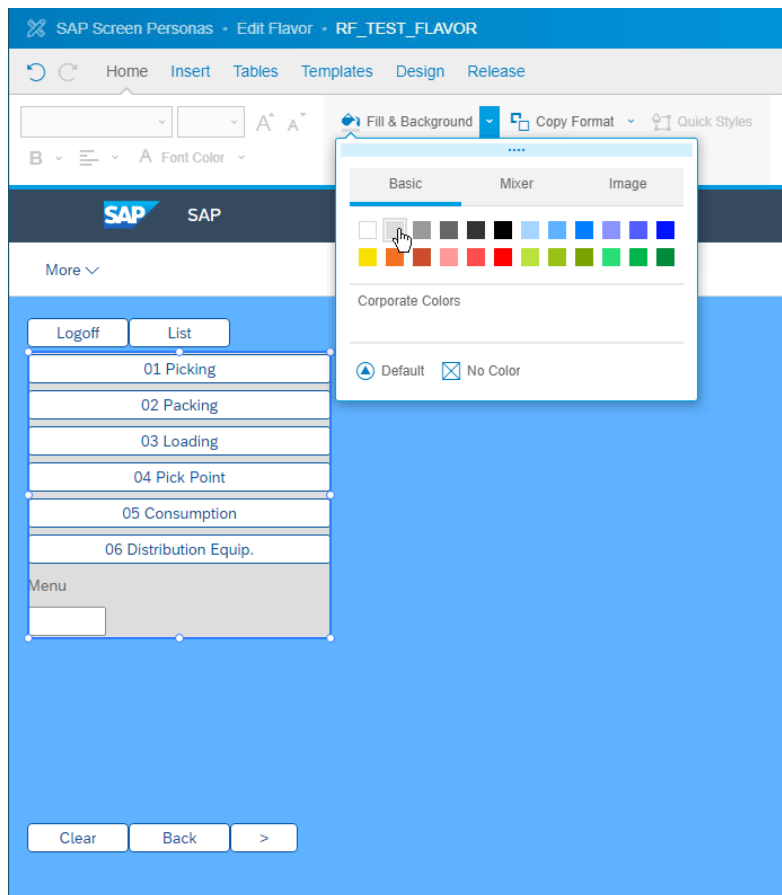
You've created a flavor and can now start personalizing your RF screens.



4.1 Changing the Background Color

1. Select the screen element for the background.
2. Choose *Fill & Background* or right click and choose *Background*.
3. Choose a color from the palette.

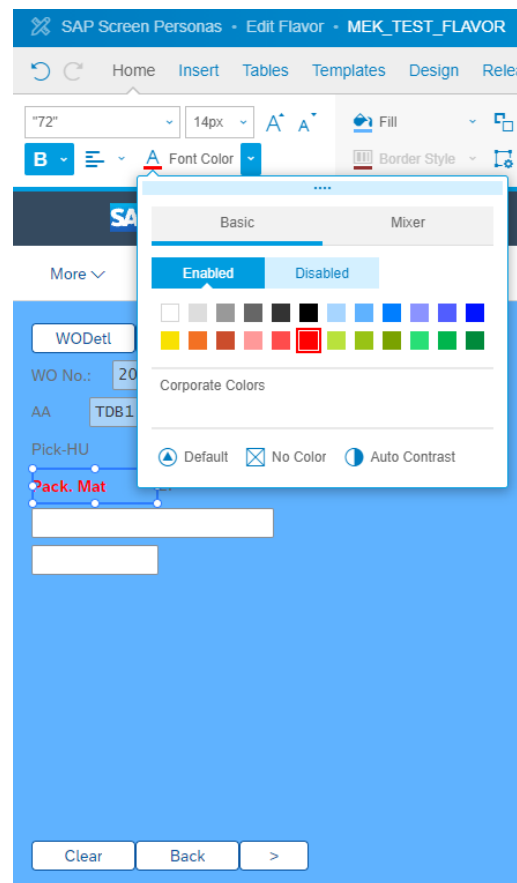
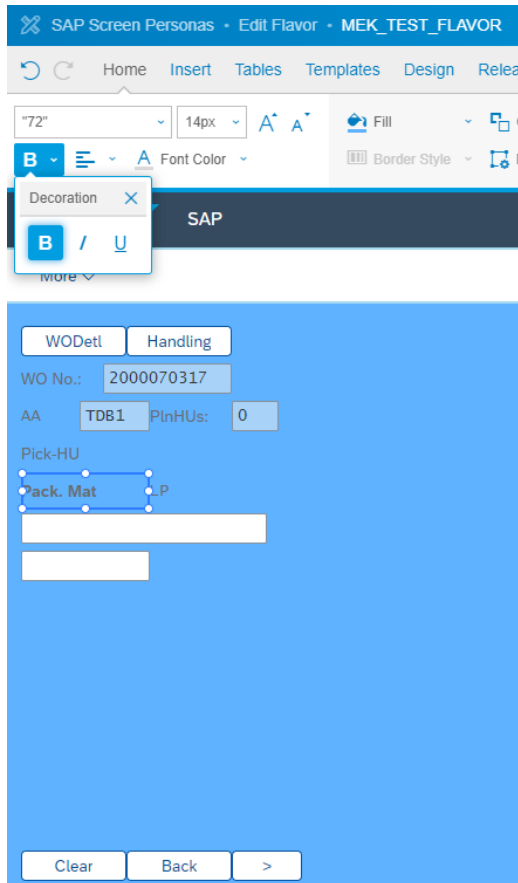




If you don't get the expected result, please check chapter *SAP Screen Personas Features in Combination with RF* for restrictions in the RF context.

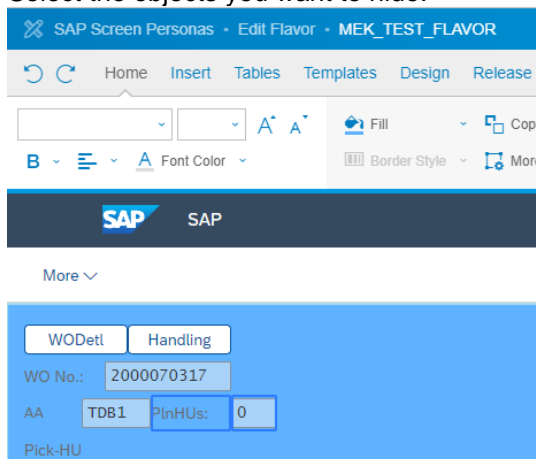
4.2 Changing the Font Size or Color

1. Select the element whose font size or color you want to change.
2. Choose *Decoration* to change the font to bold, italics, or underlined. Choose *Color* to change the font color.

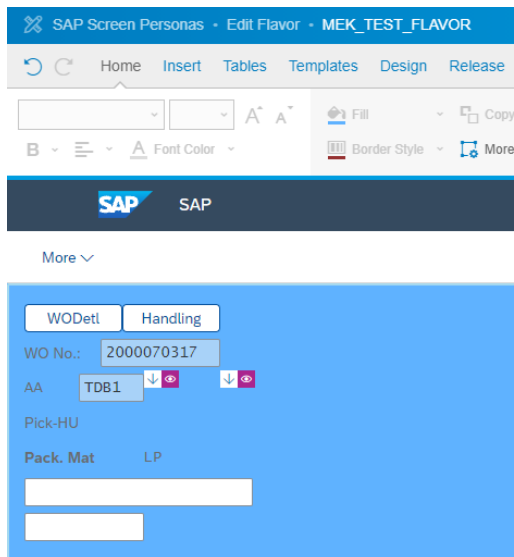
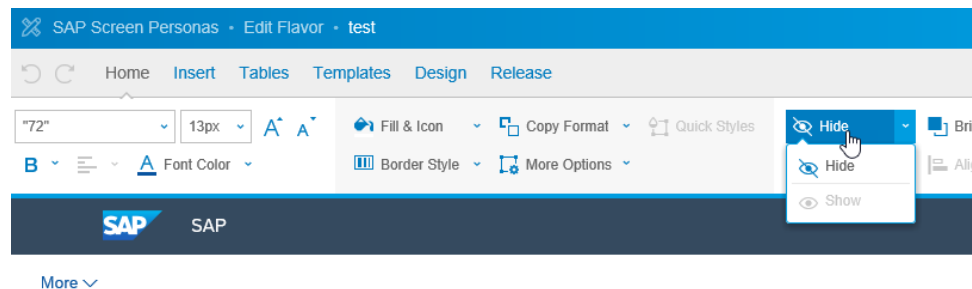


4.3 Hiding Fields

1. Select the objects you want to hide.

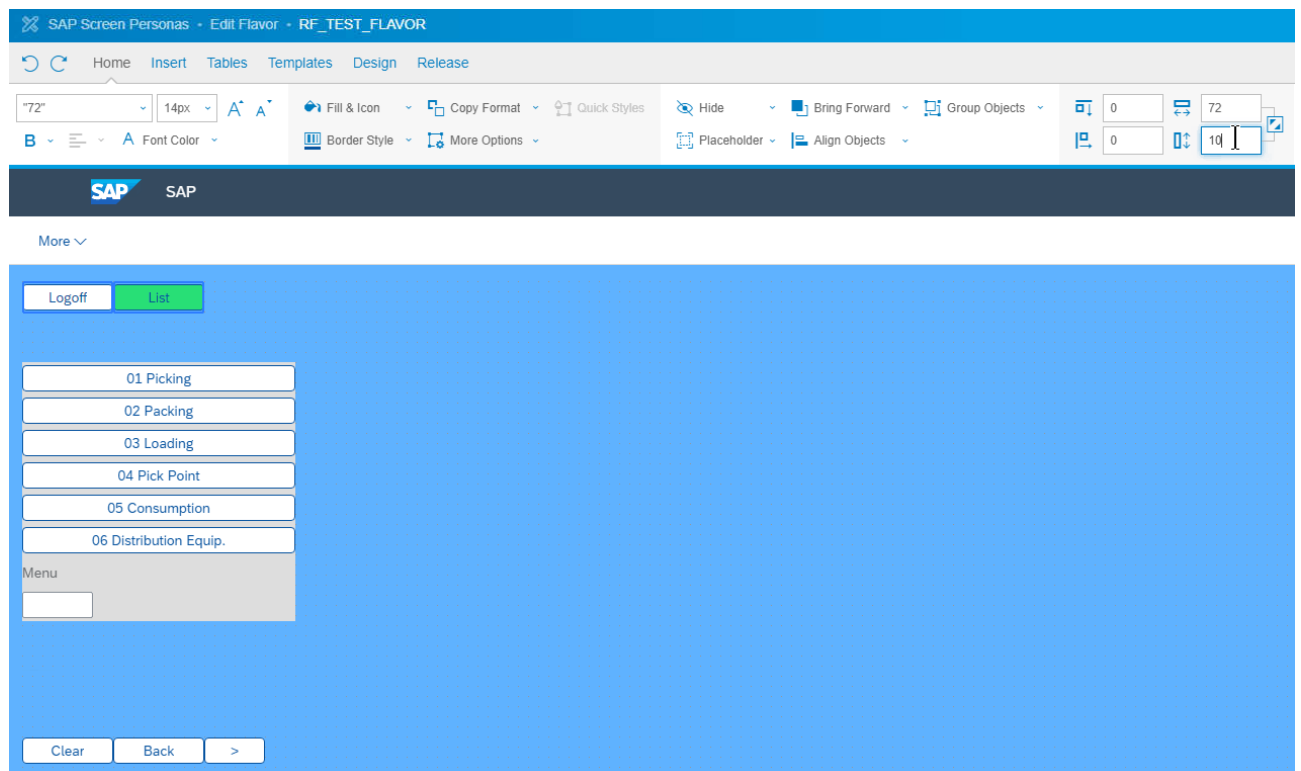


2. Choose *Hide*.

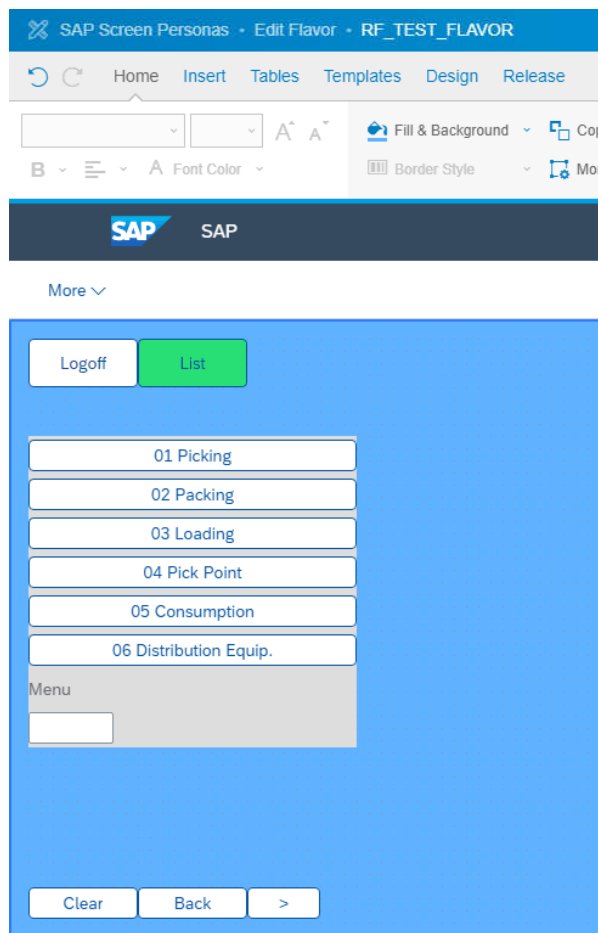
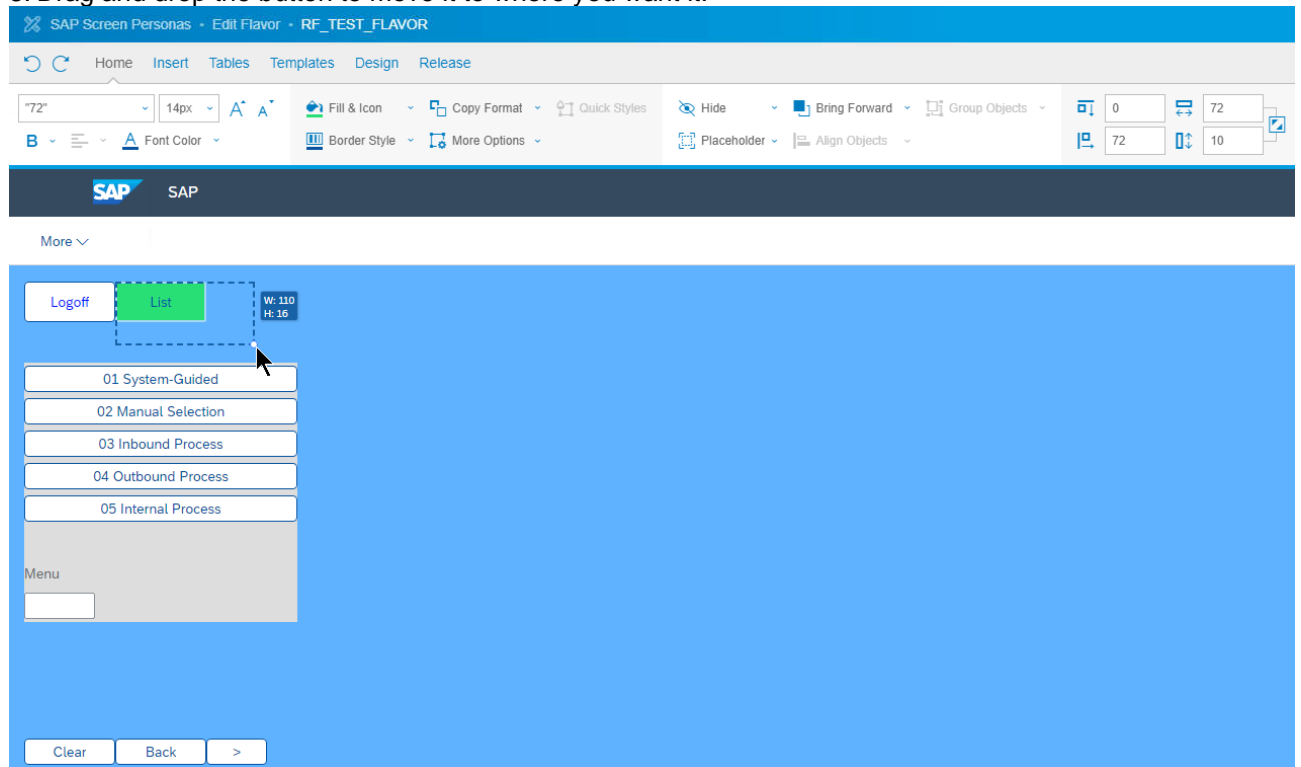


4.4 Changing Button Size and Moving Buttons

1. Select the button whose size you want to change.
2. Move the element borders or use the size palette.



3. Drag and drop the button to move it to where you want it.

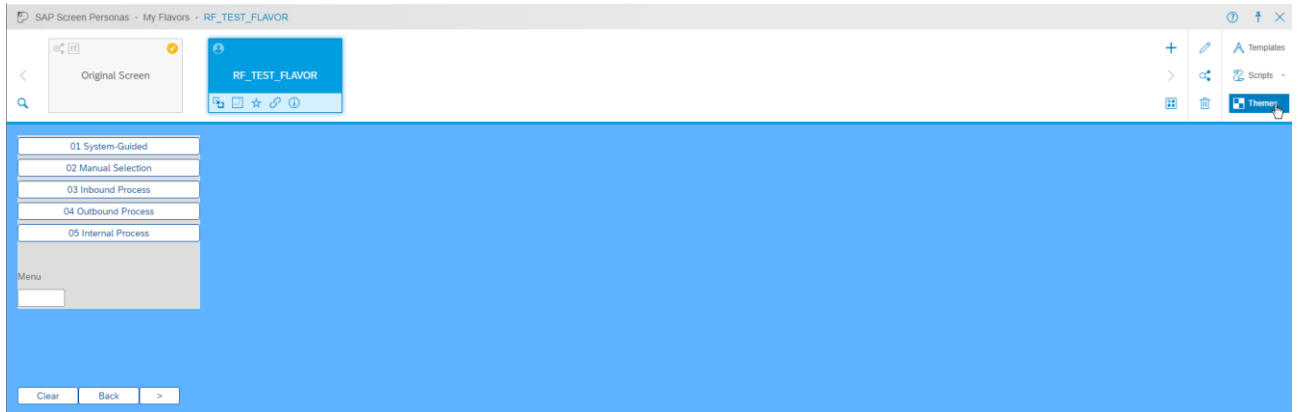


For more information about buttons, see chapter 5 *SAP Screen Personas Features in Combination with RF*.

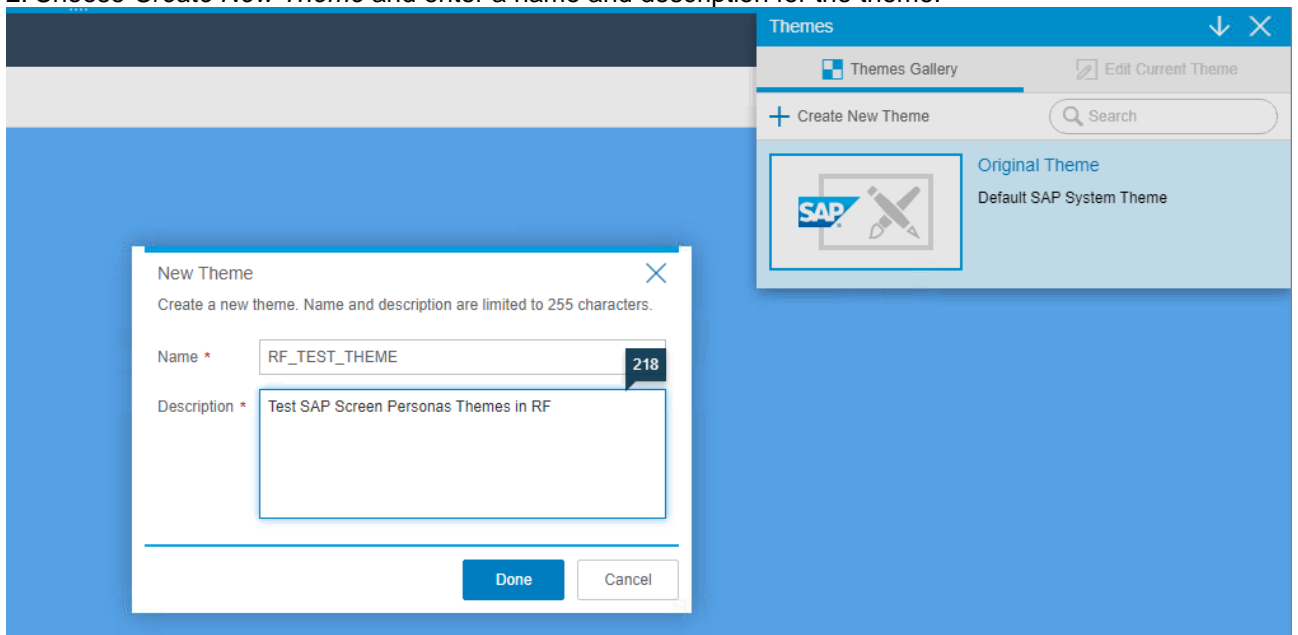
4.5 Creating Themes

You can use the Themes tool to make multiple changes at the same time. For example, you can change the font for all elements with the same settings.

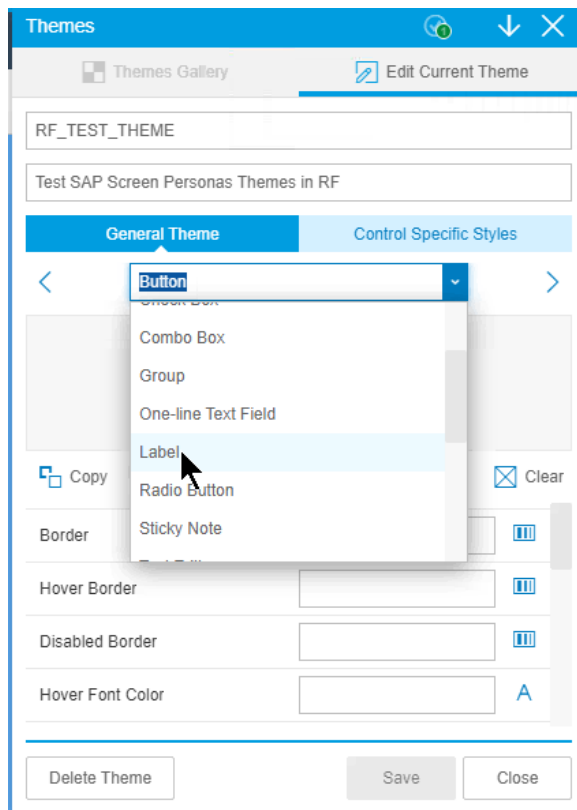
1. Choose *Themes* in the flavor bar.



2. Choose *Create New Theme* and enter a name and description for the theme.



3. Customize the various groups of screen elements.

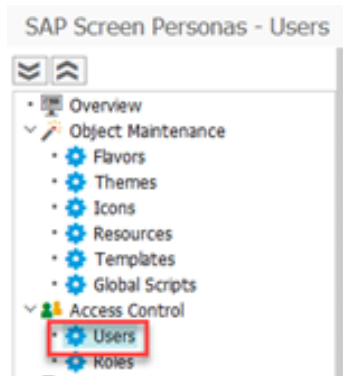


Your changes are applied to all group elements, except those elements that are adjusted manually.

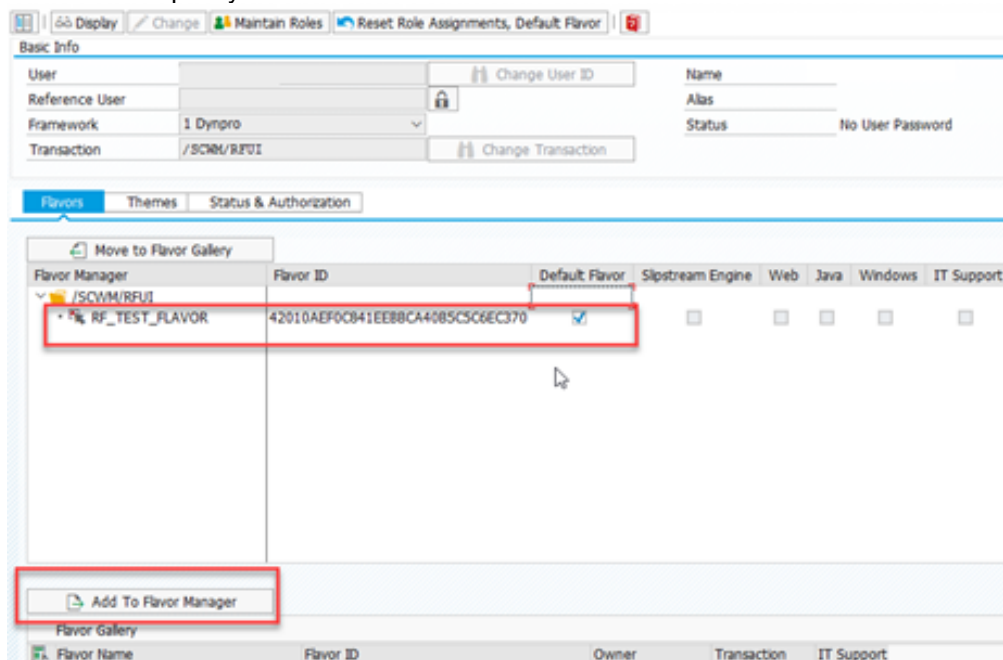
4.6 Assigning Different Flavors to Different Users or User Groups

You can assign a flavor to any user using transaction **/PERSONAS/ADMIN** as follows:

1. Select *Access Control > Users* and select the user.

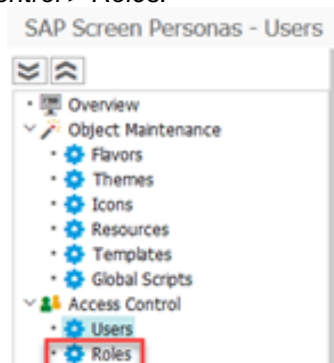


2. Go to the *Flavors* tab and add the required flavor from the Flavor Gallery. You can also specify a default flavor for the user.



If you enable the selected PFCG role for SAP Screen Personas, you can assign a flavor to a group of users by role using transaction `/PERSONAS/ADMIN`.

1. Select *Access Control* > *Roles*.



2. Choose *Create* and select an existing PFCG role.
3. Go to the *Flavor Assignments* tab and add the required flavor from the Flavor Gallery. You can also specify a default flavor for the role.

Metadata

Theme Assignments

Change History

Flavor Assignments

Role Flavors Linkage	ID	Flavor Assigned	Default Flavor	Slipstream Engine	Web	Java	Windows
<div> <div> <div></div> <div>/SCWM/RFUI</div> </div> <div> <div></div> <div>RF_TEST_FLAVOR</div> </div> </div>	42010AEF0C841EEB8CA4085C5C6EC370	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additionally, you can change the role assignment using Business Add-In (BAI) *Initialization of Flavor-Role-Assignments* (/PERSONAS/INIT_ROLE_ASSIGNMENT). For more details, see [Manipulation of Flavor-Role-Assignments Using BADIs](#).

For more information about customizing SAP Screen Personas, see the [Administration Guide](#) for SAP Screen Personas.

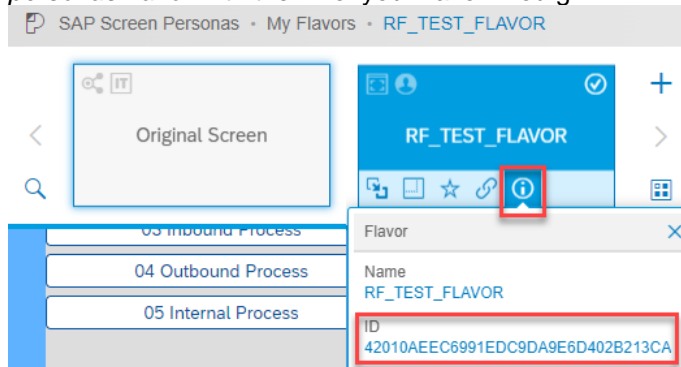
4.7 Simulating a Device in a Browser

After creating a flavor, you can check the result by simulating a device with the browser's developer tools. The steps below describe how to do this for the Google Chrome browser.

1. Call a URL that uses the following pattern:

```
https://<server>/sap/bc/gui/sap/its/ewm_mobgui?~transaction=/scwm/rfui&sap-language=EN
```

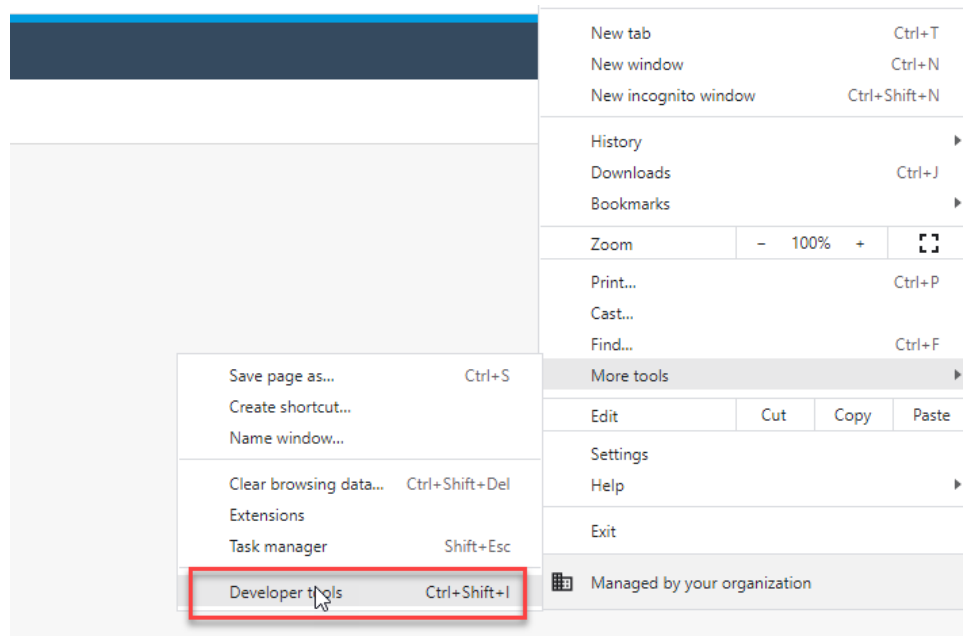
Note that you can add your flavor from the previous steps by using the additional URL parameter *sap-personas-flavor* with the ID of your flavor. You get the flavor's ID in the Flavor Manager:



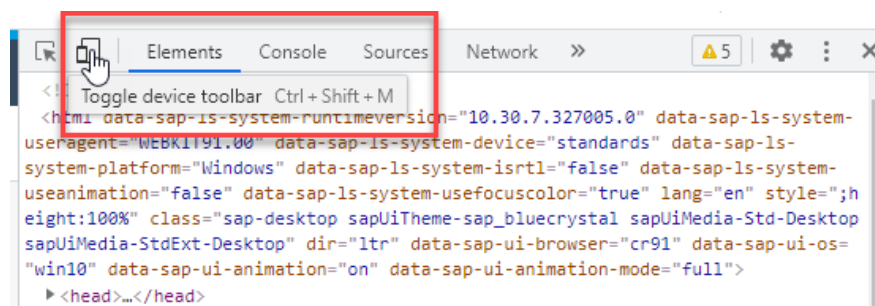
Example of URL with flavor ID added:

```
https://<server>/sap/bc/gui/sap/its/ewm_mobgui?~transaction=/scwm/rfui&sap-language=EN&sap-personas-flavor=42010AEEC6991EDC9DA9E6D402B213CA
```

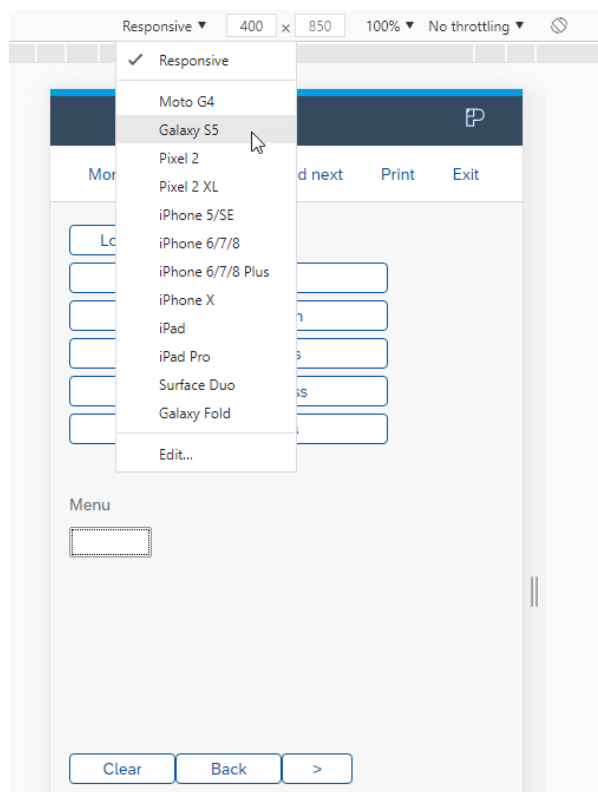
2. Log onto the RF with your RF user profile.
3. Open the developer tools using the Google Chrome menu in the browser window and selecting *More Tools > Developer Tools*.
Alternatively, you can press Ctrl + Shift + I.



4. Toggle to the device toolbar by selecting a corresponding button or pressing Ctrl + Shift + M:



5. Select one of the devices, for example, Galaxy S5:



4.8 Scripting

You can use scripting to automate or manipulate screen actions, for example:

- Screens can be skipped assuming mandatory fields can be filled automatically by the script
- Fields can be prefilled

SAP Screen Personas scripts are small pieces of JavaScript. You can attach these scripts to individual UI elements with script events or entire screens with screen events. For more details, see [Scripting](#).

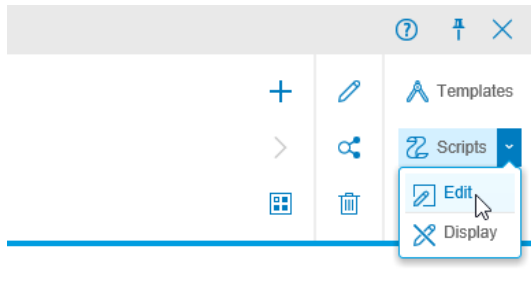
Note that the use of scripting can have negative side effects, for example:

- Performance - there is a visible delay in the button changing color
- If you want to change the color of a button depending on its content, the corresponding coding might become language dependent. That is, if the script checks for the label text, you must consider different languages used in your warehouses.

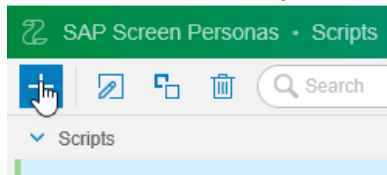
4.8.1 Example 1 – Changing the Color of a Button

The steps below describe how to create a script to change the color of the second button on the *Pick-HU Creation* screen in the RF logical transaction for picking.

1. Start the script editor from the flavor bar by choosing *Scripts > Edit*.



2. Choose *Create New Script*:



3. Name the script and create the following implementation in the coding window:

(copy 2) / SCWM/SAPLRF_TMPL # 0021 ▶ wnd[0]/scriptPersonas_42010AEF0C841EEBDA319296181A370

Execute Start Recording Format script Save Autosave ON Just now

```

1 if (session.idExists("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0200")) {
2   if (session.idExists("wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2")) {
3     session.findById("wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2").setProperty("backgroundColor", "rgba(177,175,100,1)");
4   }
5 }
6 else {
7   if (session.idExists("wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2")) {
8     session.findById("wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2").setProperty("backgroundColor", "rgba(40,223,118,1)");
9   }
10 }
11
12
13

```

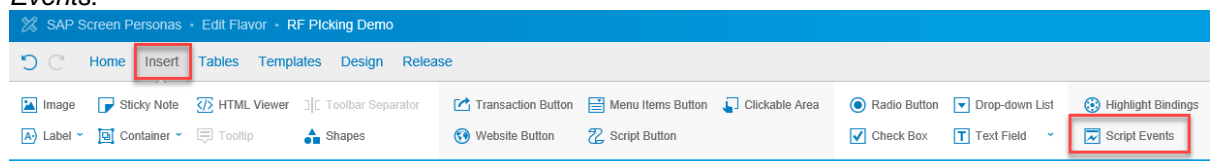
```

if (session.idExists("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0200")) {
  if (session.idExists("wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2")) {
    session.findById("wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2").setProperty("backgroundColor",
"rgba(177,175,100,1)");
  }
} else {
  if (session.idExists("wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2")) {
    session.findById("wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2").setProperty("backgroundColor",
"rgba(40,223,118,1)");
  }
}

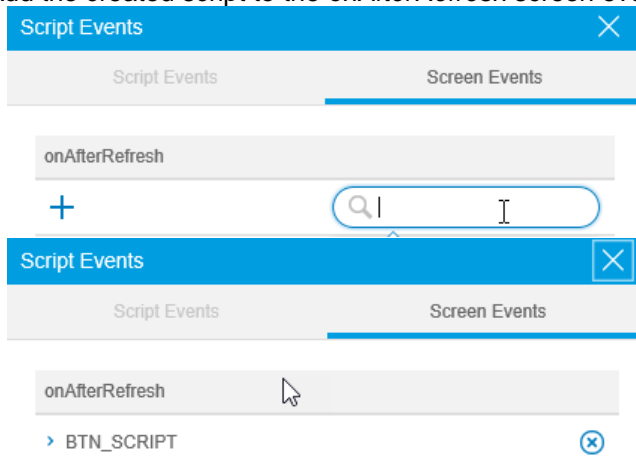
```

4. Save the implementation.

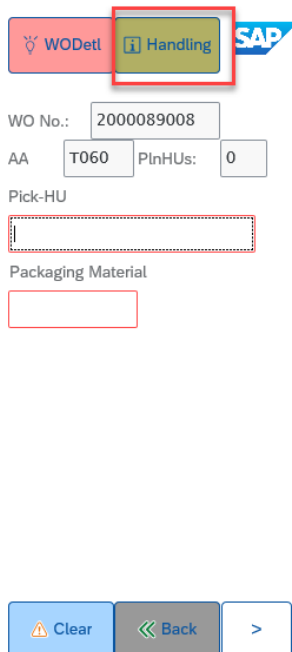
5. Assign the script to the screen event by editing the flavor, choosing the *Insert* tab, and choosing *Script Events*:



6. Add the created script to the *onAfterRefresh* screen event:



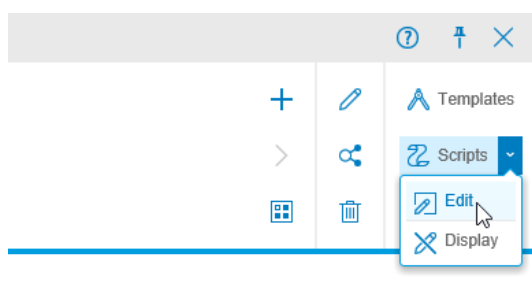
When the script runs, the color of the second button on the *Pick-HU Creation* screen is changed:

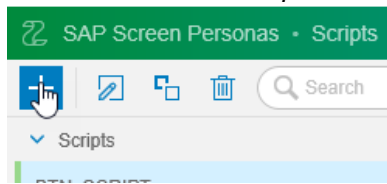


4.8.2 Example 2 – Dynamically Hiding the Verification Field on the Destination Screen

The steps below use a script to dynamically hide the quantity fields on the destination screen of a product warehouse task in RF picking. Besides hiding the fields, the script also automatically verifies the quantity on the destination screen. This is based on the assumption that the quantity was already verified on the source screen.

1. Start the script editor from the flavor bar by choosing *Scripts > Edit*:



2. Choose *Create New Script*.

3. Add the following coding:

```

wnd[0]/scriptPersonas_506B4BC345F41EEC9CC52F6AEFF4EEA7
Execute Start Recording Format script Aa + Save Autosave ON 2022-01-10 16:38:1
1 // An OnLoad or OnAfterRefresh script was executed.
2
3 if (session.idExists("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/lbl/SCWM/S_RF_ORDIM_CONFIRM-NISTA_VERIF")) {
4     session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/txt/SCWM/S_RF_ORDIM_CONFIRM-NISTA_VERIF").text = session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/txt/SCWM/S_RF_ORDIM_CONFIRM-NISTA_CHR").text;
5     session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/lbl/SCWM/S_RF_ORDIM_CONFIRM-NISTA_VERIF").hide();
6     session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/txt/SCWM/S_RF_ORDIM_CONFIRM-NISTA_VERIF").hide();
7     session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/txt/SCWM/S_RF_ORDIM_CONFIRM-ALTME").hide();
8 }

```

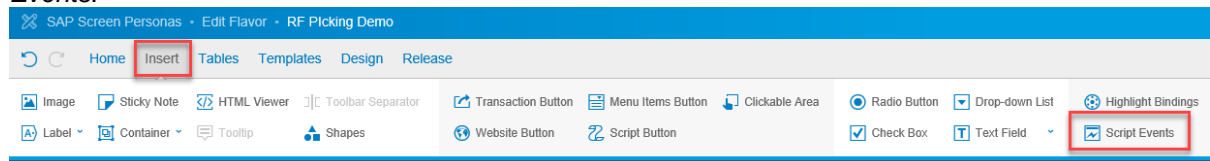
```

// OnAfterRefresh

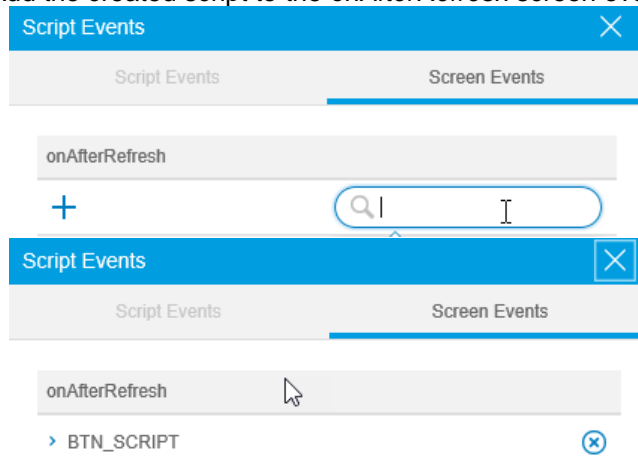
if (session.idExists("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/lbl/SCWM/S_RF_ORDIM_CONFIRM-NISTA_VERIF")) {
    session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/txt/SCWM/S_RF_ORDIM_CONFIRM-NISTA_VERIF").text = session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/txt/SCWM/S_RF_ORDIM_CONFIRM-NISTA_CHR").text;
    session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/lbl/SCWM/S_RF_ORDIM_CONFIRM-NISTA_VERIF").hide();
    session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/txt/SCWM/S_RF_ORDIM_CONFIRM-NISTA_VERIF").hide();
    session.findById("wnd[0]/usr/subX:/SCWM/SAPLRF_PICKING_PM:0302/txt/SCWM/S_RF_ORDIM_CONFIRM-ALTME").hide();
}

```

4. Save the implementation.

5. Assign the script to the screen event by editing the flavor, choosing the *Insert* tab, and choosing *Script Events*:

6. Add the created script to the *onAfterRefresh* screen event:



When the script runs, the quantity fields won't be visible on the destination screen for product warehouse tasks in RF picking:

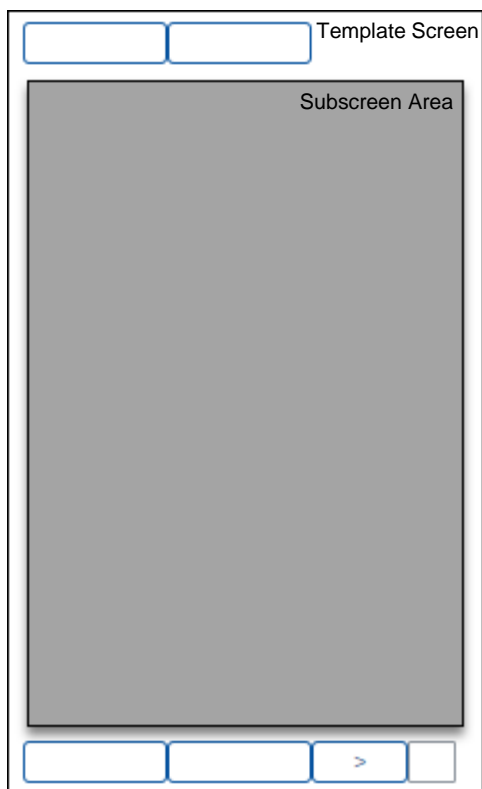
The screenshot shows the SAP RF picking screen with various input fields and buttons. The 'Detail' and 'Queries' tabs are visible at the top. The 'ActHUs' field is set to 0, and the 'MTOs' field is set to S001. The 'DstBin' field is set to S001-06-07. The 'SrcceHU' field is empty. The 'HUWith' field is empty. The 'DestHU' field is empty. The 'LogPos' field is empty. The 'Prod.' field is set to TG11. The 'Trad.Good' field is set to 11,PD,Reg.T... and the '2' field is set to 2. A red box highlights the bottom section of the screen, which contains the 'Clear', 'Back', and '>' buttons.

5 SAP SCREEN PERSONAS FEATURES IN COMBINATION WITH RF IN EWM

When using SAP Screen Personas with radio frequency (RF) screens in Extended Warehouse Management (EWM), it's important to pay attention to the ID of the screen element that you're adjusting.

RF screens have two main parts:

- Template screen with buttons - this screen contains buttons with the element IDs /SCWM/S_RF_SCRELM-PB1 through to /SCWM/S_RF_SCRELM-PB4.
- Subscreen area with dynamic content - the subscreen area is called based on the maintained screen and program for the current RF step in the RF customizing or the menu subscreen.



Template screen (White area)

- Contains buttons
- Contains subscreen area
- Portrait mode - 15 rows and 26 columns
- Landscape mode - 8 rows and 40 columns

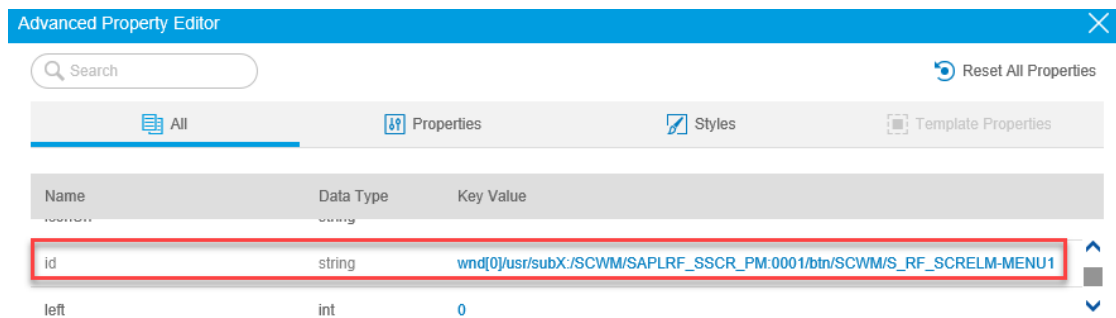
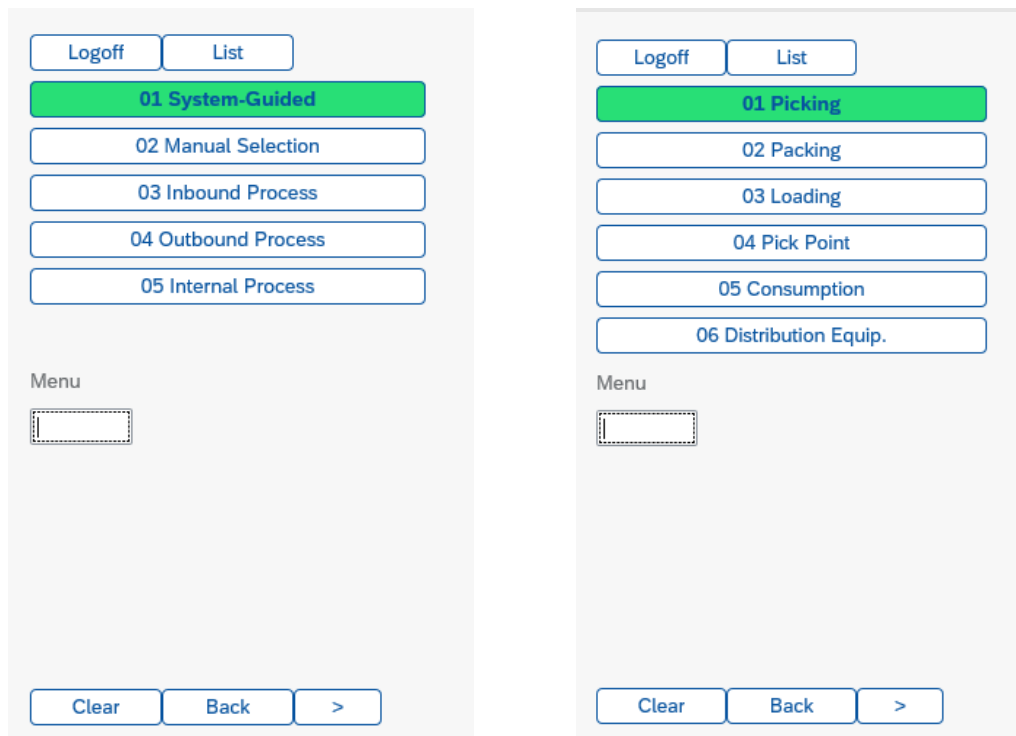
Subscreen area (Grey area)

- Contains dynamic content
- Portrait mode - 13 rows and 26 columns
- Landscape mode - 7 rows and 40 columns

If you adjust an element in the subscreen area, the changes are applied only for the transaction that uses this subscreen area. If you adjust a button of a template screen, the changes are applied to all RF transactions.

Examples:

- When applying changes to the RF menu items, the changes are applied to all the menu items (for example, Inbound Process, Outbound Process, and Internal Process) and subitems (for example, Picking, Packing, and Loading) because they have the same ID. They have the same RF transaction, same screen number, and same technical element.



- When applying changes for the buttons on the main screen, the changes are applied to all RF transactions because they have the same screen element IDs.

The image shows two screenshots of SAP RF screens and the Advanced Property Editor.

Left Screenshot (Handling Screen):

- Buttons: WODetl, Handling
- WO No.: 2000070317
- AA: TDB1, PlnHUs: 0
- Pick-HU
- Pack. Mat: LP
- Buttons: Clear, Back, >

Right Screenshot (Detail Screen):

- Buttons: Detail, Queries
- SrcBin:
- GEN1-0304-0304
- SrcHU: HUWith:
- Prod. LM-EWM-QM-PIP
- Small part, fast-moving Pres. in Prod.
- 0000005264
- 4
- ActQty: EA
- DestHU: 800012535
- Buttons: Clear, Back, >

Advanced Property Editor:

- Search:
- Reset All Properties
- Tabs: All, Properties, Styles, Template Properties

Name	Data Type	Key Value
id	string	wnd[0]/usr/btn/SCWM/S_RF_SCRELM-PB2

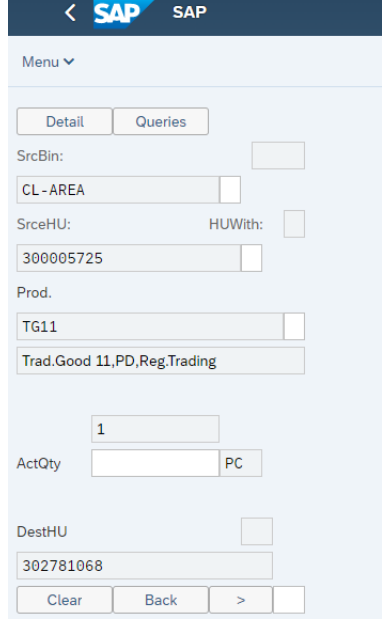
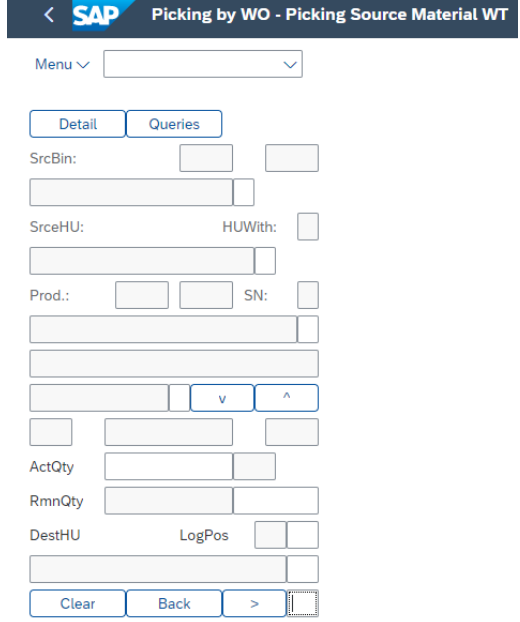
SAP Screen Personas allows you to adjust only screen elements that are displayed on a screen when the screen is being used. If some of the elements or screens are not displayed based on context (for example, serial numbers), you can't adjust these elements. Consequently, if you want to influence serial number fields, you have to work with a serialized product. To overcome this limitation, you can use design mode on a desktop to adjust RF screens more easily.

With design mode, you can see all the RF screens in your current presentation format (portrait or landscape) and all possible fields that belong to the RF transaction, without needing to prepare the necessary data upfront.

Tips:

- Start design mode by pressing Ctrl + Shift + F2 from any screen in the RF transaction that you want to adjust.
- Go to the next screen by pressing Ctrl + Shift + F3.
- Return to the previous screen by pressing Ctrl + Shift + F4.
- You can identify the screen you're adjusting by the description of the RF transaction and the RF transaction step in the header, for example, *Picking by WO – Picking Source Material WT*.
- Start SAP Screen Personas by choosing *Adapt UI* to open the Flavor Manager.
- End design mode by restarting the *Test RF Environment* app.

Example: RF Picking Screen

Normal Mode - some fields hidden from RF transaction based on current application data	Design Mode - all fields visible
	

5.1 Creating SAP Screen Personas Flavors – Tips & Tricks

- Before creating a flavor, it's important to think about which transactions and screens you want to adapt.
- Optionally, you can create a custom radio frequency (RF) menu to limit the menu entries displayed (for example, to different users).
- Extended Warehouse Management (EWM) provides the RF screens in two presentation formats (portrait and landscape mode). If you use RF devices with only one presentation format, make sure that you enter the right presentation device type at the RF logon screen. If you use RF devices with both presentation formats, you might have to make the SAP Screen Personas change twice. The latter depends on the usage of themes (see previous chapter).
- When changing the content of the template screen (see chapter 5), check all the subscreens that you use. The layout change you make could negatively affect the subscreens. For example, if you increase the size of buttons on the top of the screen, you must rearrange the subscreen area so that it's not hidden by the content of the template screen.
- SAP recommends preparing necessary test data for the screens that need to be adjusted. Then create an SAP Screen Personas flavor and apply to your RF screens as described in chapter 4.
- Test your RF screens in a browser and then validate the flavor with a real RF device. Distribute the flavors to the relevant target system. For information about transports in relation to SAP Screen Personas, see the [Administration Guide](#) for SAP Screen Personas.
- SAP recommends creating one flavor for the complete RF experience. Nevertheless, depending on your needs, it's also possible to create separate flavors, for example, for different user groups (experienced users as opposed to temporary employees) and application areas (inbound, outbound, and internal processes).

6 RESULT OF SAP SCREEN PERSONAS FLAVOR

In this [video file](#), there's a demo of the result of an SAP Screen Personas flavor applied to the RF picking transaction. It compares the RF picking transaction with and without a custom flavor.

7 USEFUL LINKS

- SAP Screen Personas
 - [Help Portal](#)
 - [Open SAP Course: SAP Screen Personas](#)
 - [Open SAP Course: Introduction to SAP Screen Personas](#)
 - [Open SAP Course: Using SAP Screen Personas for Advanced Scenarios](#)
 - [Open SAP Course: Building Mobile Applications with SAP Screen Personas](#)
 - [SAP Community](#)
 - [Blog posts](#) on the SAP Community
- Extended Warehouse Management
 - [RF Cookbook](#)

www.sap.com/contactsap

© 2022 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, and they should not be relied upon in making purchasing decisions.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. See www.sap.com/copyright for additional trademark information and notices.

THE BEST RUN

