



How Libraries Support Inclusion Through Efficient Design and Development Cycles

Irla Rebelo, User Experience Designers and Accessibility Lead
SAP Success Factors

Stefan Schnabel, User Experience Designer and Accessibility Specialist
SAP Inclusive Design



AGENDA

01

Accessibility problem
diagram

Design blueprint

02

Accessibility checklist

Designer persona

Overview

03

Library types

Challenges working
with libraries

04

Annotated component

Libraries alignment

Problem & solution

Takeaways

fundamental conf



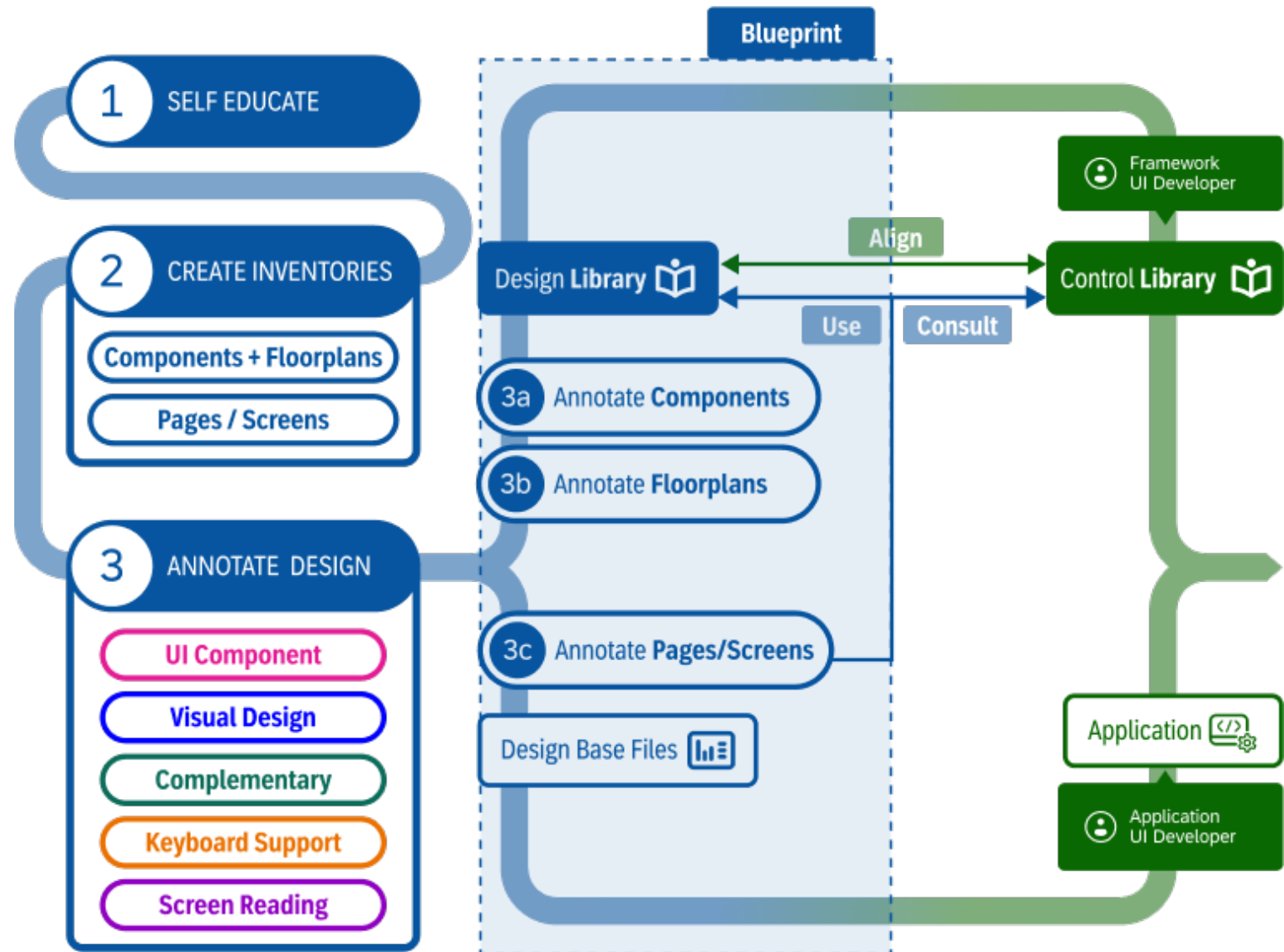
**“... WCAG 2.1 will be supported by
an extensive library of
implementation techniques and
educational materials...”**

[Web Content Accessibility Guidelines \(WCAG\) 2.1](#) is a W3C Recommendation



What about design?

ACCESSIBILITY PROBLEM DIAGRAM



ACCESSIBILITY CHECKLIST

“At its heart, accessibility is about people not checklists.”

Liz Brown

But they are useful tools to manage and track annotations for accessibility.



CHECKLIST

Version 1

KEYBOARD SUPPORT

☐

Focus Order

☐

Focus Position

☐

Skipping Groups & Blocks☐

SCREEN READING SUPPORT

☐

Page Title

☐

Landmarks☐☐☐☐☐

COMPLEMENTARY

☐

Text Alternative (Tooltip)

☐

Time Limits & Refresh☐☐☐

COMPONENT DESIGN

☐

Keyboard Interaction

☐

Keyboard Navigation☐☐☐☐☐☐☐

Full checklist from SAP Guidelines Version 1 including Keyboard support, Screen reading, Complementary and Component design.

Partial checklist of complementary annotation from SAP Guidelines Version 2 with some items marked as done, as blocker and in progress.

COMPLEMENTARY

Accessibility by DESIGN

☒

✔

Tooltips

☒

✔

Error Prevention / Handling

☐

☐

☐

☐

☐

☐

☐

PERSONA OVERVIEW



| Accessibility Responsibilities | | Activities | Tools |
|--------------------------------|---|------------------------------------------|----------------------------------------------------------------|
| Training | | Workshops, courses | Guidelines, videos, etc |
| Design / Fix | — | Pages | Component library Personas' lenses Assets for annotation |
| | | Components Floorplans | |
| Review | — | Formal Review (Jira ticket + QA) | Checklist |
| | | Informal Review (peer, meeting, comment) | |
| Research | — | Choose & Prepare Research Study | Templates Research results library & data |
| | | Prepare Operations for testing | |
| | | Analyse Data Collected | |
| | | Consult Past Research Results | |
| App Document | — | Create Base File | Base specification file references |
| | | Update Base File | |

LIBRARY TYPES

Efficiency

Components in these libs are aligned and can be reused for consistent experiences

Design Guidelines
Design direction



SAP Fiori Design Guidelines



Specification Lib
Design Library
Design tool (Figma)



Implementation Lib
Styles component
Visual appearance Tech agnostic



Fundamental Library

Wrapped component
Tech ready / framework & behavior



Fundamental Library



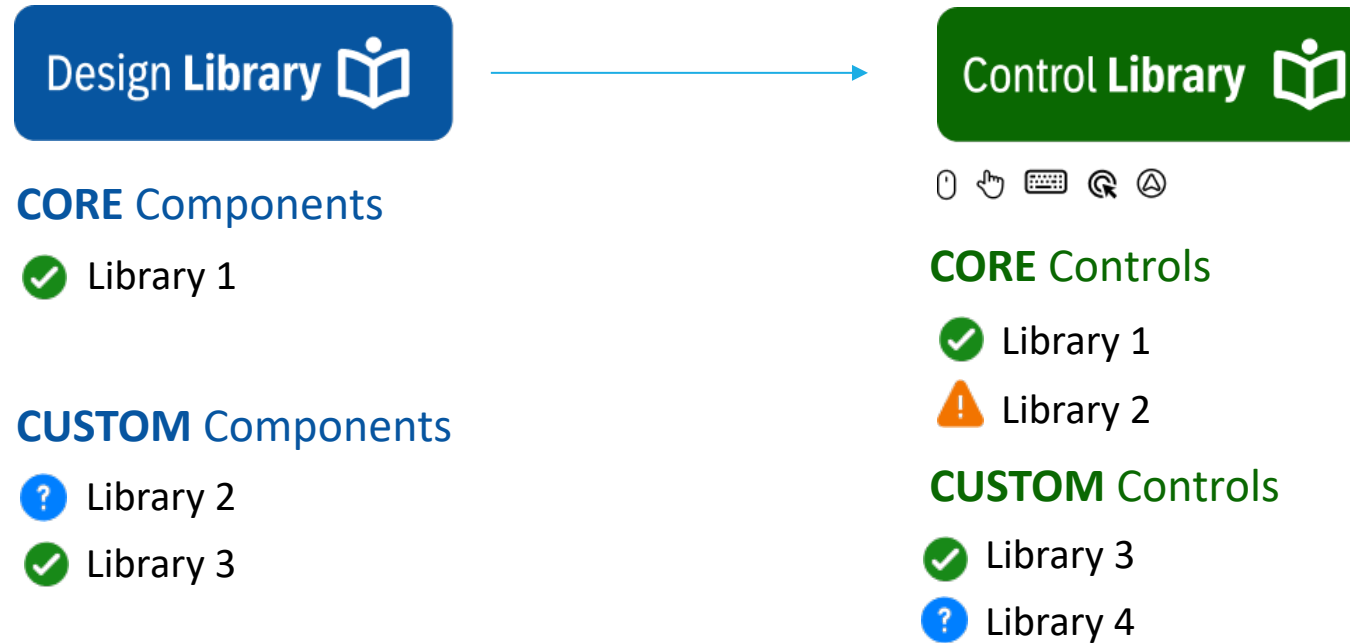
CHALLENGES WORKING WITH LIBRARIES

01



Locate Libraries

Where is the library I need? Is this component available in the control library? Do I need to request the implementation of a custom component?



Alignment

CHALLENGES WORKING WITH LIBRARIES

02

Consistent Terminology

Why this component is called something else here?

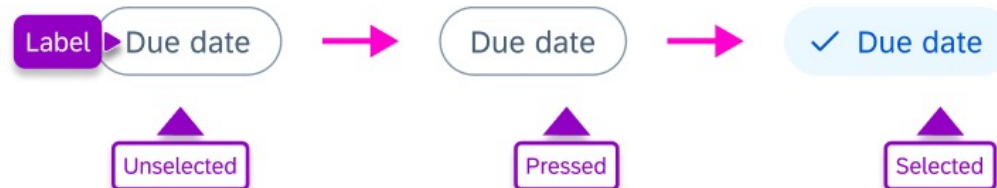
Role: ui5.QuickFilter

Design Library



Role: ui5.m.Chips

Design Library



CHALLENGES WORKING WITH LIBRARIES

03

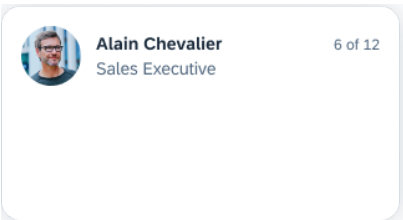


Consistent Look & behavior

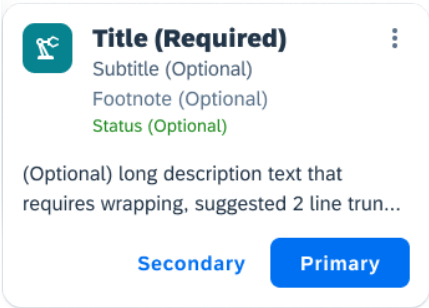
Where are the gaps regarding interactions? Is it in the design specification or in the implementation? How many variations are there of the same control?

DESIGN

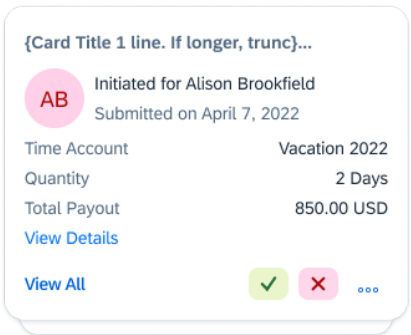
Library 1



Library 2

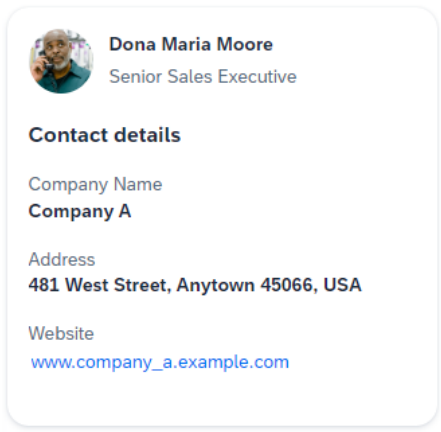


Library 3

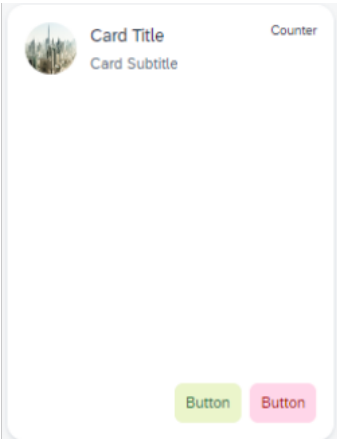


TECHNOLOGY

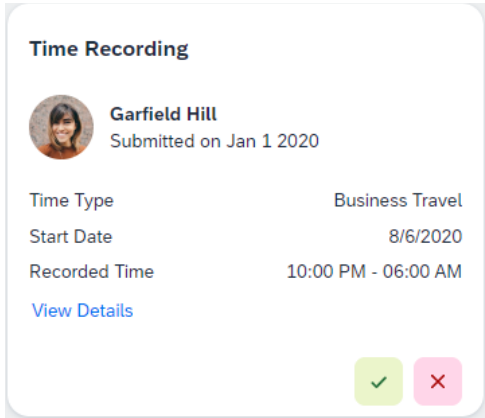
Library 1



Library 2



Library 3



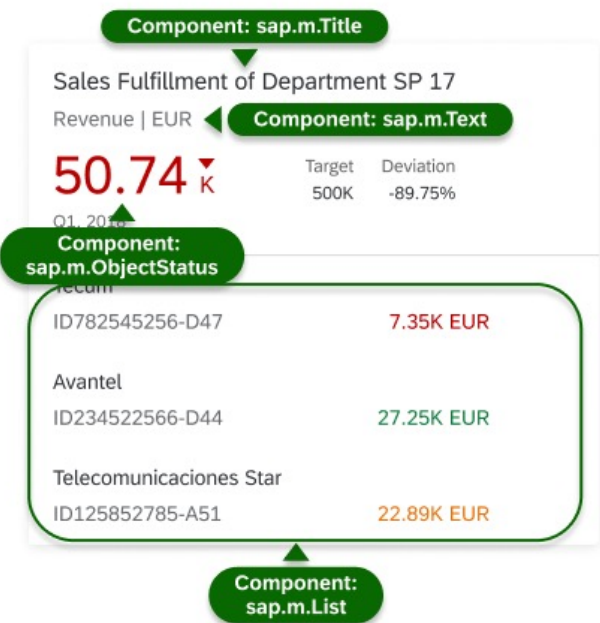


How to annotate components?

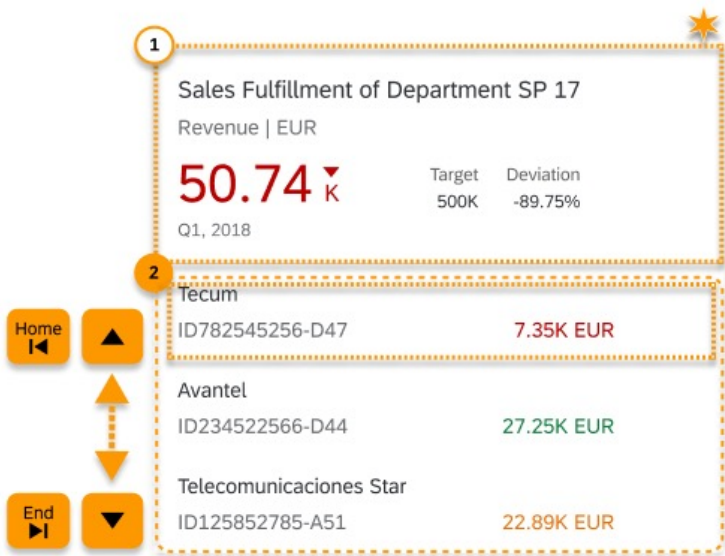
Annotated Component in library

| | | | |
|-----------------------|-----------------|-----------|-------------|
| Component Design name | Control name | Designer | Last update |
| Summary Card | ui5.SummaryCard | John Sean | May 2022 |

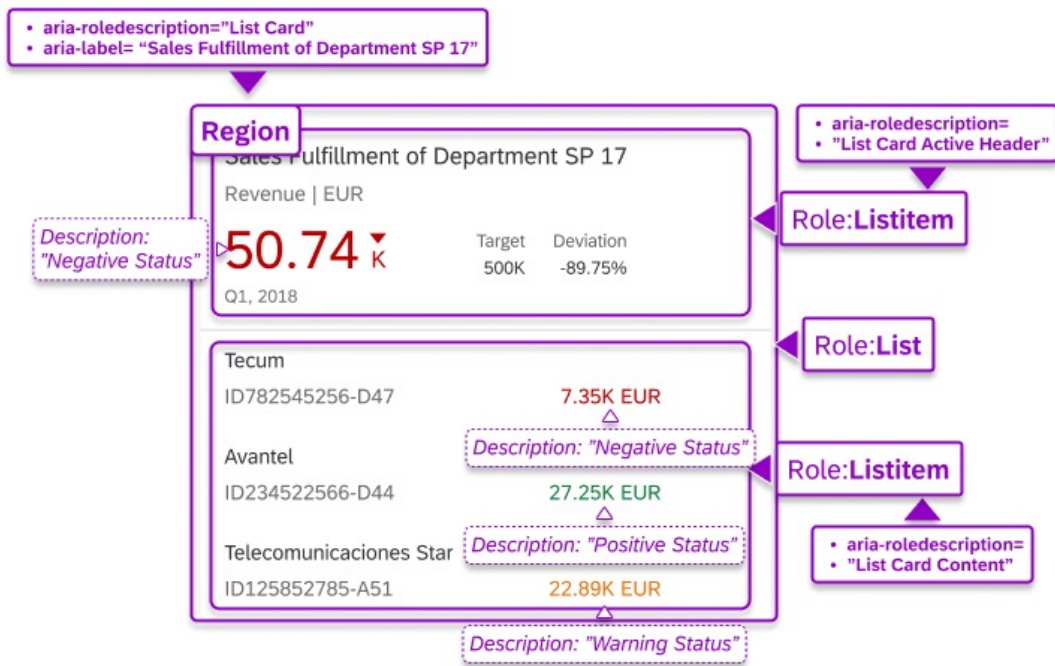
Complementary Annotation



Keyboard Support



Screen Reading



ALIGNMENT = EFFICIENCY

The designer annotate the component.

The developer implemented the component.

Now component and control can be efficiently reused.

Design Guidelines

Design direction



Specification Lib

Design Library

Design tool (Figma)



Implementation Lib

Styles component

Visual appearance Tech agnostic



Wrapped component

Tech ready / framework & behavior



Annotating the screen using the component **ui5.SummaryCard**

In the context of the page a designer only inform the name of the component. If needed, add contextualized information like names, tooltips, shortcuts, etc.

The screenshot shows an SAP Fiori application interface with several UI5 components annotated. The components are labeled with green callouts: **ui5:ProductsCard**, **ui5:PromotionCard**, **ui5:GraphicCard**, **ui5:SummaryCard**, **ui5:JourneyCard**, and **ui5:ListCard**.

Featured Section:

- ui5:ProductsCard:** A list card titled "List Card with Products" showing "The top sellers this month". It lists products: "Comfort Easy", "32 GB Digital Assistant", "ITelO Vault", "Digital Organizer", and "Notebook Professional 15 With 2,80 GHz quad core".
- ui5:PromotionCard:** A promotion card titled "New Video Robot Arm Series 9" with a video player showing a robot arm and a "13:40 min" duration.
- ui5:GraphicCard:** A graphic card titled "Total Spend" showing a line chart for "Spend per Day" with data points for Revenue and Cost across four weeks (CW14, CW15, CW16, CW17).

Today at a Glance Section:

- ui5:SummaryCard:** A summary card titled "Sales Fulfillment of Department SP 17" showing "Revenue | EUR" as **50.74 K** (Q1, 2018) with a target of 500K and a deviation of -89.75%. It also lists three items: Tecum (7.35K EUR), Avantel (27.25K EUR), and Telecomunicaciones Star (22.89K EUR).
- ui5:JourneyCard:** A journey card titled "Upcoming Activities For Today" showing three activities: "Weekly Sync: Marketplace / Design Stream", "Video Conference for FLP@SF, S4", and "Call 'Project Nimbus'".
- ui5:ListCard:** A list card titled "Quick Links" showing a list of links: "Template-Based Segmentation", "Segmentation Models", "Marketing Plans", "Target Groups", "Program Structure", and "AdWords Campaigns".



Problem

Lack of coordination and vision:

- prevents work efficiency and alignments
- do not provide the right tools for stakeholders to work
- ignore the importance of trusted libraries where components look alike, behave alike

Solution

Acknowledge your landscape and identify the problem.

How many lib are there?

Create a plan of action.

Make an inventory of commonly used assets used to create experiences.

TAKEAWAYS

Challenges to work with libraries includes **locate** them, find **components using clear terminology** and maintain **consistent look and behaviors**.

Inventories are helpful to create a **controlled environments** and they support **efficient work flows**.

A design library contains **reusable components annotated for accessibility**.

Design and Control Libraries depend on a **solid strategy plan and strong alignment**.



THANK YOU.

Contact information:



Irla Rebelo

User Experience Design Expert and
Accessibility Lead

Irla.Bocianoski.Rebelo@sap.com

SAP SuccessFactors

Montreal Canada



Stefan Schnabel

User Experience Design Expert

Stefan.Schnabel@sap.com

**SAP Design | SAP Accessibility Competence Center
& Inclusive Design**

Walldorf Germany



Teasing questions:

**What has been your experience
working with accessibility?**

**Are you comfortable using accessible
components from design libraries?**

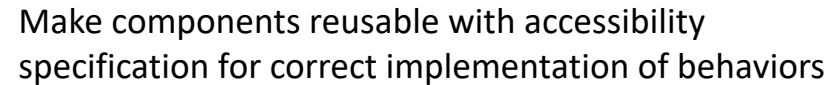


Avoid repeating annotation that are common to many pages like floorplans and structural elements.



Be patient and perseverant.

They contributes to work efficiency providing visibility of your building blocks for an strategic inclusive design: floorplans & components.



Annotate repetitive layers pointing to layout structures and UI elements such as shell bar, menus, breadcrumbs. Make this part of a base file.

Every new page or new features added to an existing page should be specified for accessible navigation and interactions. Refer components from the library.

