

PUBLIC

## **When to use SAP Fiori elements**

Usage guide

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## INTRODUCTION

### Purpose of this guide

Using SAP Fiori elements to build apps that rely on SAP data can save you time and money on both development and maintenance costs. SAP Fiori elements apps also ensure that business users have a consistent experience across the SAP applications they use. Consistency plays a major role in how satisfied people are with the user experience (UX).

SAP Fiori elements creates standard applications based on several basic [page types](#), which are templates or floorplans for common SAP scenarios. Understanding its capabilities will allow you to choose the right scenario to gain the advantages of using SAP Fiori elements to accelerate development.

**This guide will discuss when to use SAP Fiori elements. It is aimed at designers, product managers, developers, or anyone involved with application development, from the idea to execution.**

To help you get the most from this guide, we have highlighted some information:



“Golden nuggets,” that summarize key points

We also have tips for specific roles, indicated by icons:



Designers



Product managers and product owners



Developers

### What is SAP Fiori elements?

SAP Fiori elements is a set of several common [page types](#) that gives you a head start on developing applications that connect to data in SAP back-end systems. SAP Fiori elements is built on top of SAPUI5, SAP's HTML5 development toolkit. The main idea behind SAP Fiori elements is to generate an SAP Fiori app at runtime from an existing [OData](#) service (standard way to access data) with additional metadata (annotations that define attributes and relationships of the data).

Applications developed with SAP Fiori elements follow pre-defined patterns for the page types that are used. This also governs the navigation between the pages. These patterns cover most of Fiori application scenarios. For example, around 75% of all new Fiori apps in SAP S/4HANA follow these patterns and have been developed using SAP Fiori elements.

Besides the content of the pages, SAP Fiori elements also takes care of the logic and the behavior of the application. For example, you don't need to write UI code to manage navigation between pages or applications, to apply a filter to the content of a table, or to edit and save an object. This means that standard apps require very little UI development, and sometimes no additional UI code at all.

If your app deviates slightly from the standard page specification, it is possible to use annotations to achieve the exact look or functionality you want. If you want a fully custom app, sometimes called freestyle app, that uses your own designs, layouts, or workflows, SAP allows you to do this, but not with SAP Fiori elements. This guide will help you choose when to use which development tools.



#### SAP Fiori elements overview

- SAP Fiori elements is a UI development library based on SAPUI5
- App user interface is generated at runtime from metadata
- Low code required for standard apps.

## WHAT'S IN IT FOR YOU?

While SAP Fiori elements is a development tool, anyone working in the development process, including designers, product managers, product owners, and developers should know its capabilities so that they can recommend using SAP Fiori elements, when appropriate, to reduce the time to design, build, test, and maintain apps. Regardless of your role, SAP Fiori elements ensures design consistency and compliance with the latest design guidelines, while reducing the amount of front-end development needed to build SAP Fiori apps.

### Designers



**Designers** play a role early in the application development process. A good design often determines whether people will use the app or choose an alternate approach to get their work done. If designers know when to specify standard designs that follow the SAP Fiori elements page types, they can focus their efforts on higher value activities such as working on custom apps that will help their organizations differentiate their solutions.

Creating a design that balances aesthetics, functionality, and simplicity will result in software that satisfies user needs, while being fast and easy to develop, test, and deploy.

While your first instinct might be to innovate and create a beautiful, custom design to delight your colleagues, using SAP Fiori elements to deliver a standard layout for [common page types](#) can significantly increase the speed of development. You still have the opportunity to exercise some creative control over the final look and functionality of the app, but one of SAP Fiori element's strengths lies in delivering premade and consistently designed applications

SAP Fiori elements can make you more productive as a designer by standardizing certain common layouts and page formats. This will let you focus on the touches that matter, while also giving the page some design flair.

### Product managers and product owners



**Product managers** and **product owners** often write the specifications for enterprise applications. They understand the business requirements and set priorities for developing the functionality the app needs to deliver. Knowing the capabilities of SAP Fiori elements will allow them to recommend standard apps when possible, which will minimize both development time and cost.

Your colleagues count on you to deliver applications that meet their needs and help them solve a specific business problem. Therefore, delivering the required functionality on-time and on-budget is critical.

If the business scenario permits, using pre-defined templates, whenever possible, will help you deliver apps more quickly. SAP Fiori elements significantly reduces app development time if you can follow one of the [several page types included with SAP Fiori elements](#).

### Developers



**Developers** are the main beneficiaries of SAP Fiori elements, as it is a development tool. Using standard page types significantly reduces the amount of coding, especially for writing the user interface. Developers need to know the capabilities of the tool, so they can determine the best way to write apps that will be easy to create and maintain, even as design specifications change.

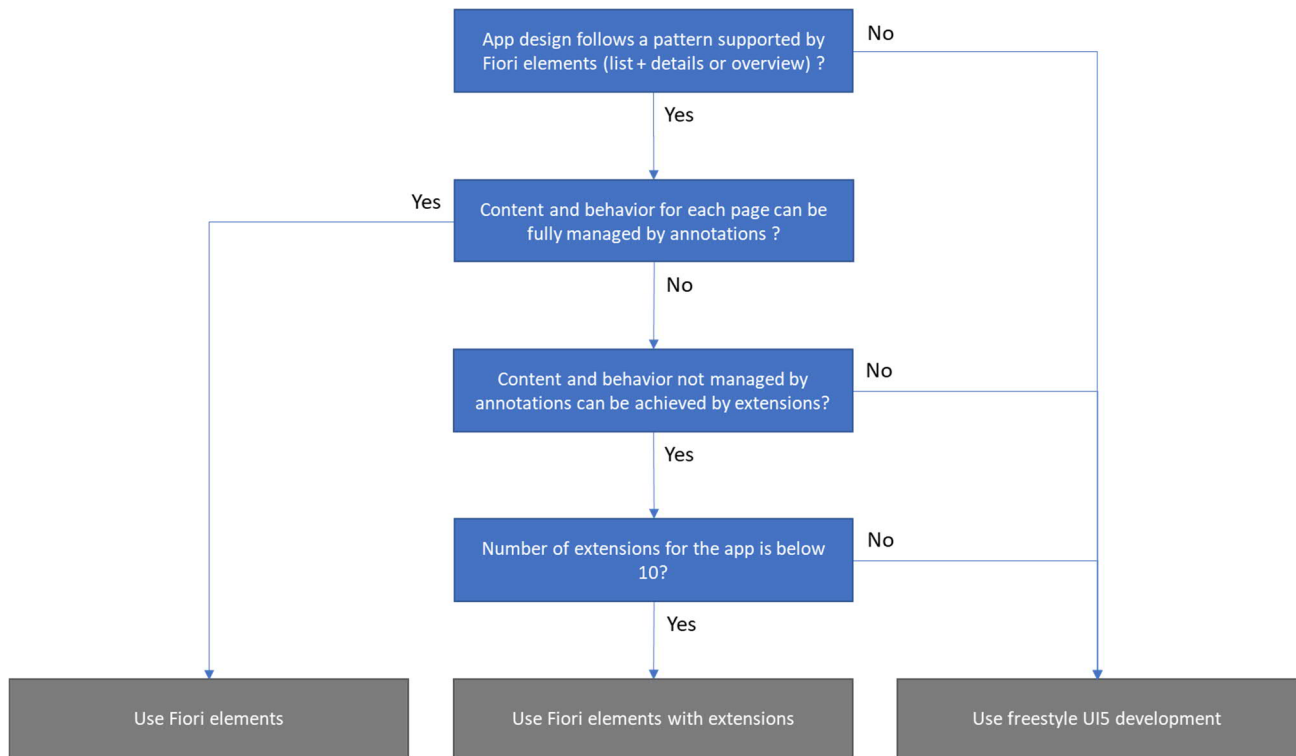
Agile development relies on creating shippable versions that you validate with users and improve with each release. Within the development timeframe, the more iterations you can complete, the more feedback you will receive and the more likely your users will use and appreciate the app you built for them.

SAP Fiori elements generates the app at runtime, based on the OData service and the metadata you use to create annotations. Using SAP Fiori elements means you can deliver a great user experience without the need to develop the user interface, since SAP Fiori elements generates it for you. If you can use one of the [supported page types in SAP Fiori elements](#), you will save lots of time in writing UI code.

## WHEN TO USE SAP FIORI ELEMENTS

Here are some tips to help you decide on when to use SAP Fiori elements when developing an SAP Fiori app. This list is by no means exhaustive, and you will ultimately have to rely on your own experience as a designer, product manager, or developer when making this decision.

	<b>SAP Fiori elements</b>	<b>Other app development approach</b>
Where will you run the app?	Web applications (app running in a web browser and connected to a backend system). Runs on desktop and mobile browsers	Native applications for iOS or Android that can leverage advanced device capabilities (camera, bar code reader, GPS, calendar, etc.)
How will you connect to the backend data?	OData protocol to connect to backend data. (This is a prerequisite for using SAP Fiori elements.)	RESTful APIs
Does the app follow one of the standard SAP Fiori elements page types?	Target design or layout follows one of the standard page types: <ul style="list-style-type: none"><li>• List report + a collection of object pages</li><li>• Worklist + a collection of object pages</li><li>• Analytical list + a collection of object pages</li><li>• Overview page</li></ul> (SAP Fiori elements allows you to display these pages either in full-screen mode, or within a flexible column layout where up to three pages are displayed side by side on the screen.)	Layout follows a different design
Do you need to run the app offline?	Not supported	Use freestyle approach to meet your needs



**Figure 2: Ask yourself several questions to determine how to build your app.**

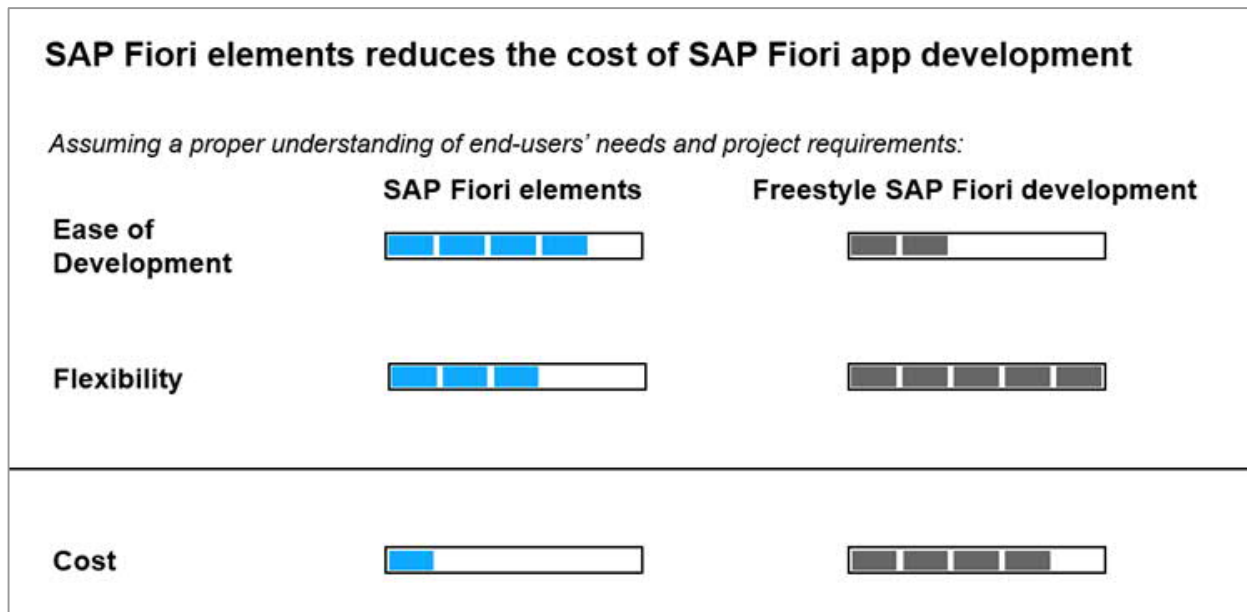


**Use SAP Fiori elements when**

- Your app follows one of the standard page types (overview page, list report, object page, analytical list report, worklist)
- You have an OData services that you can use to access your data
- You are planning to build a web app that runs in a browser (as opposed to a native iPhone or Android app)

## “FREESTYLE” DEVELOPMENT

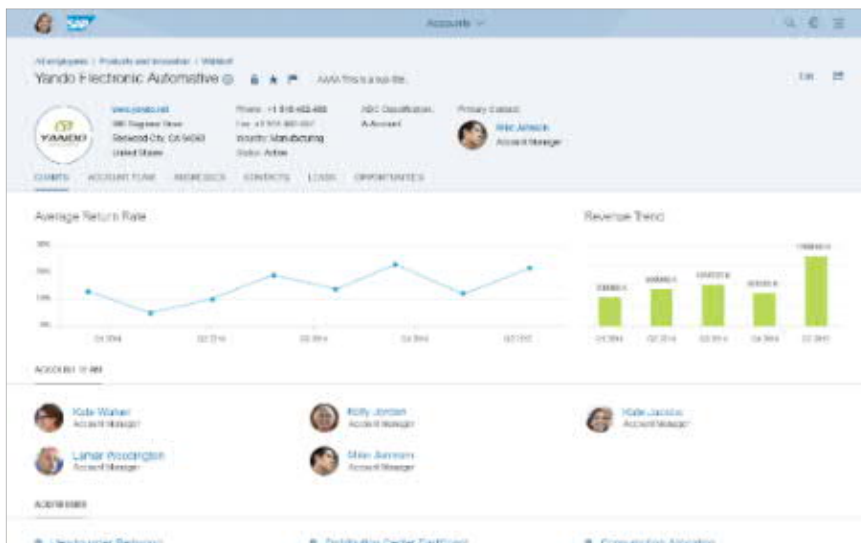
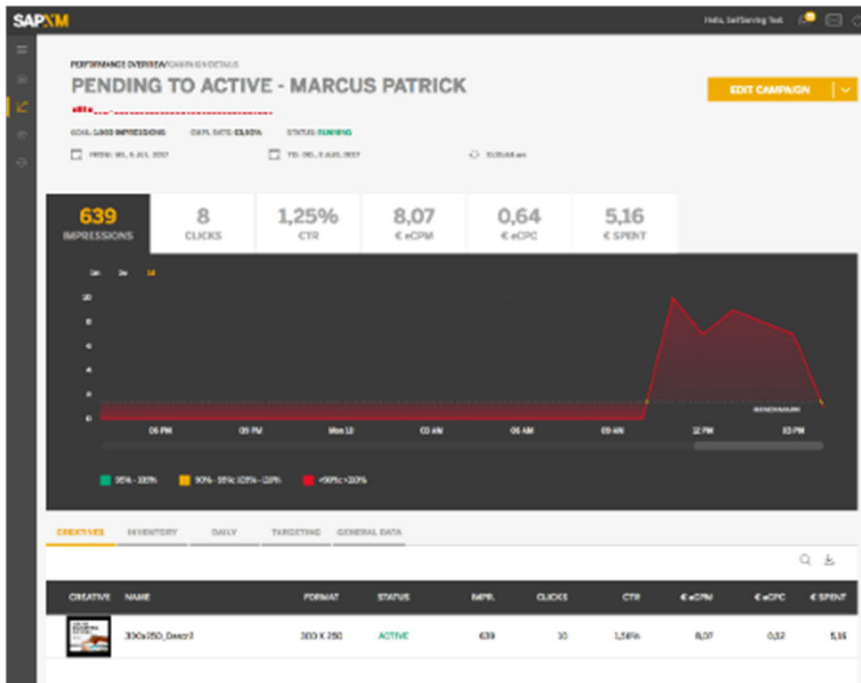
There are many ways to develop apps that connect to SAP data sources. Doing so without SAP Fiori elements is referred to as “freestyle” development. With freestyle development, you have complete flexibility about how your app will look and perform. You can specify the layout, flow, menu structure, colors, fonts, interaction patterns, etc. - anything and everything about the app. Of course, there are tradeoffs between the flexibility you gain and the extra time it takes to develop custom apps. For a custom app, you must write the UI code for each screen. With SAP Fiori elements, the templates provide UI code (including some logic), so the data from the back-end (accessed through the OData service) goes exactly where it should, the UI behaves exactly how it should, based on the metadata you provide.



**Figure 2: Choose between SAP Fiori elements and freestyle development based on your needs.**

Here are four examples of “freestyle” apps that built using SAP UI5.







Some tools that SAP provides to do freestyle app development include:

- [Web IDE](#)
- [SAP Cloud Platform](#)
- [SAP HANA Extended Application Services](#)
- [SDK for iOS](#)
- [SDK for Android](#)



#### Business value of SAP Fiori elements

- Accelerate Fiori app development at scale
- Ensure consistency across apps
- Keep apps up-to-date with evolving Fiori design guidelines

## **APPENDIX**

Appendix 1 – Understanding the page types

Appendix 2 – Extending applications developed with SAP Fiori elements

Appendix 3 – Where to find more information

## Understanding the page types

The SAP Fiori elements library provides five page types that you can use to create your Fiori app:

- [overview page](#)
- [list report page](#)
- [object page](#)
- [worklist page](#)
- [analytical list page](#)

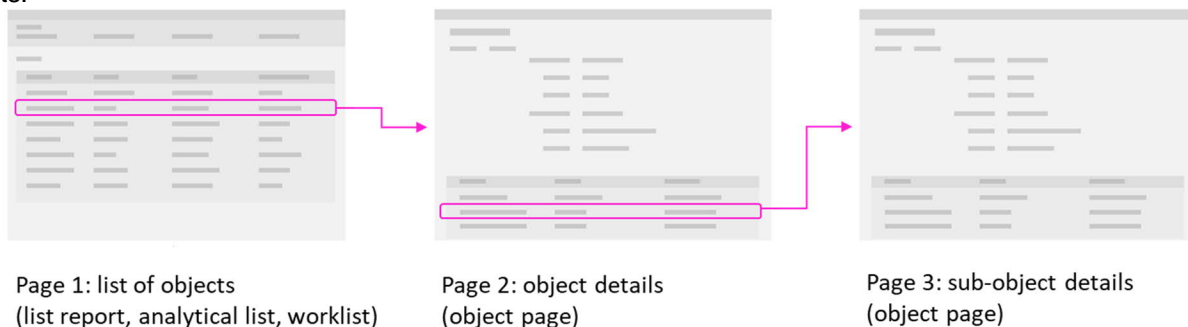
You will find more information about each page type in the dedicated sections below.

A page type consists of a general page layout and several UI elements (i.e. controls, such as text, charts, tables, images, buttons, ...) that can be assembled inside the layout. These controls and their respective content are entirely driven by OData annotations (or CDS annotations). It is also possible to use other SAPUI5 controls through [extensions](#).

One family of apps consists of a single overview page, which provides all the information a user needs, based on the user's specific domain or role. From the overview page, the user decides what further action to take and navigates via cards to the relevant SAP Fiori app.

The most common family of apps consists of a page displaying a list of objects. This first page can be either a list report page, a worklist page, or an analytical list page. Clicking on an object in the list brings you to an object page displaying more details about the selected object. In case this object is composite, i.e. made of sub-objects, or references other objects, it is possible to navigate to another object page about a sub-object, and so on.

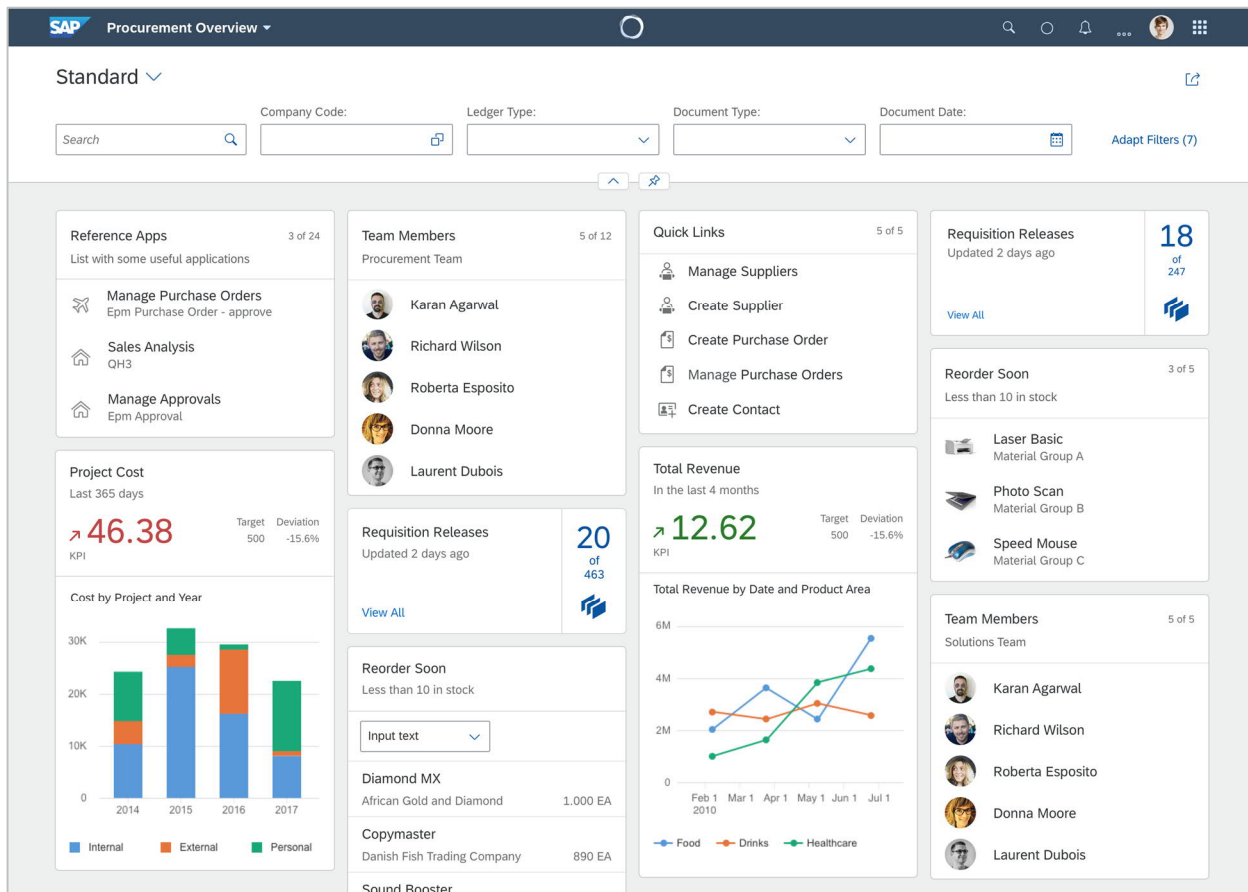
Many existing Fiori applications follow this pattern, for navigating, browsing, managing, monitoring and editing objects.



## Overview page

### What it is

The overview page is a data-driven SAP Fiori app type that provides all the information a user needs in a single page, based on the user's specific domain or role. It allows the user to view a summary of their domain and focus on the most important tasks, while also being able to filter and react to information quickly. Each task or topic is represented by a card (or content container). The overview page acts as a UI framework for organizing multiple cards on a single page.



### Structure and content of an overview page

The information displayed in an overview page is organized in cards. Cards can be moved, resized, or hidden by the end user. Clicking on a card triggers the navigation to the Fiori application associated with the objects displayed in the card.

SAP Fiori elements supports several types of cards:

- Table cards display a list of records in a column table layout.

Off-Contract Spend

3 of 10

This week

Supplier	Date	Amount
Jologa	Jul 15, 2016	59K USD
Florida Holiday Company	Jul 15, 2016	32K USD
PC Gym Tec	Jul 13, 2016	7K USD

New Contracts

3 of 2K

Created in the last three months

Contract	Creation Date	Target Value
1204124/10	Aug 21, 2017	99K USD
1204123/10	Aug 20, 2017	28K USD
1204122/10	Aug 19, 2017	67K USD

- List cards display lists of records, with up to six fields of data in each list item.

Non-Managed Spend by Supplier

4 of 40

Last 30 days

Anav Ideon

10005-1233

29.4K USD

Quimica Madrilesnos

10005-9847

21.1K USD

Laurent

10005-2084

17.8K USD

Jologa


10005-8393

4.8K USD

Most Popular Content


4 of 21

By Video Starts

Anav Ideon


Genre Action

578

Angeré


Genre Drama

451

Laurent

Genre Comedy

447

Jologa

Genre Action

399

Urgent Purchase Requisition Items

3 of 40

By delivery date and value

Smartphone Leather Case ...

Overdue

10002474/10

180 EA

Material Group A

1.2K USD

Cordless Mouse

3 days

10002485/10

68 EA

Material Group B

1.1K USD

7" Widescreen Portable ...

5 days

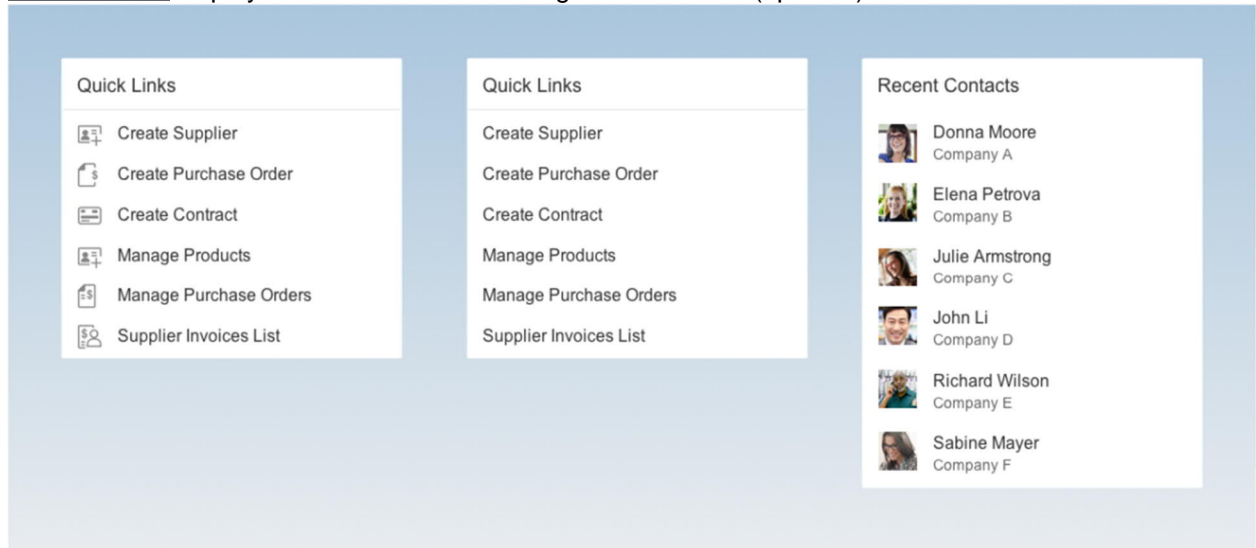
10002491/10

75 EA

Material Group C

7.1K USD

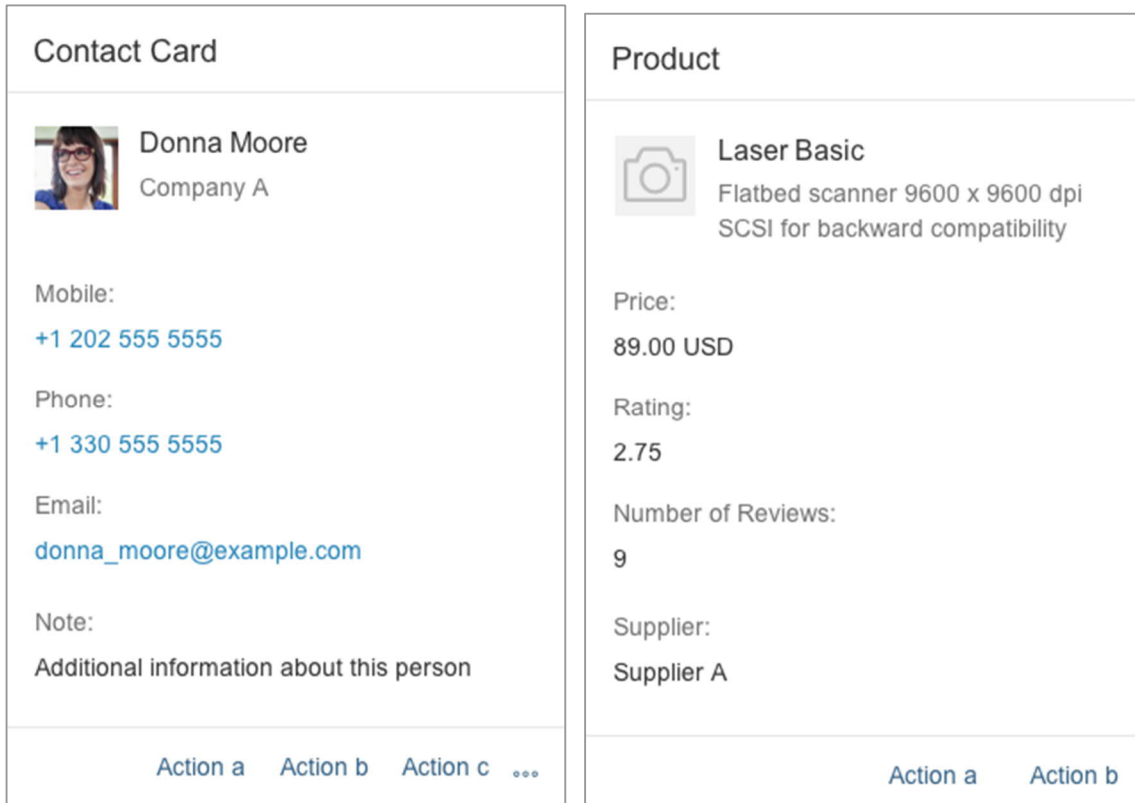
- Link list cards display a list of links with an image or icon and a (optional) subtitle for each of the links.



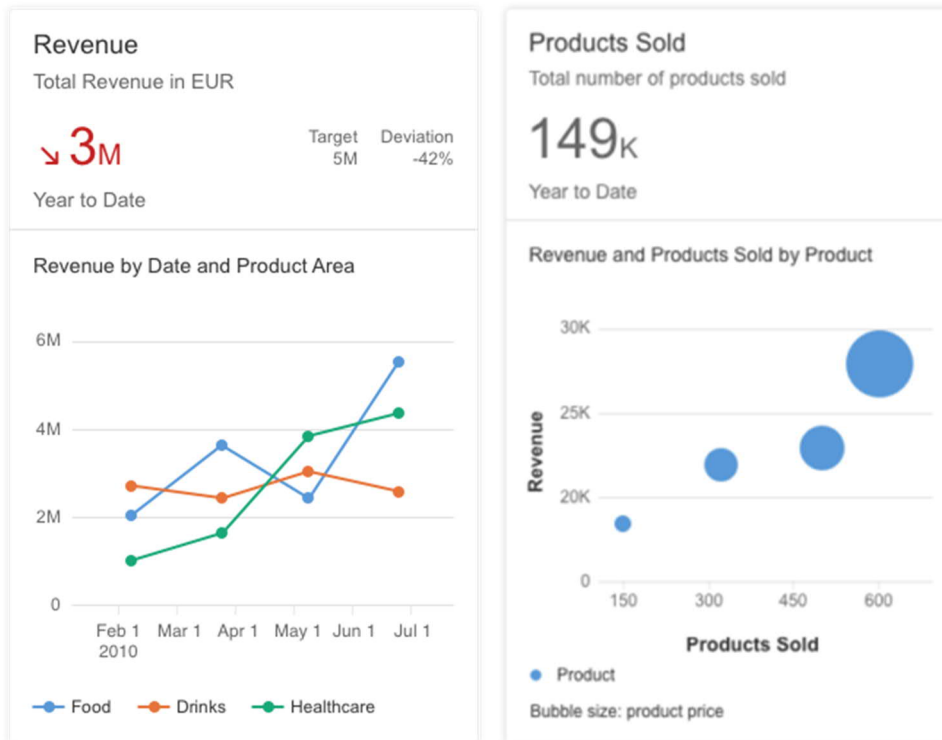
- Stack cards aggregate a set of cards of the same type, which are based on a common topic or action. When clicked, stack cards can display up to 20 cards in an object stream.



- Quick view cards display detailed information about a single record, in greater depth than would be displayed in a table or list.



- Analytical cards show data in a variety of chart formats. They can be line, bubble, donut, column, stacked column, vertical column, combination, or scatter chart cards.





It is also possible to use extensions to create custom cards.

Above the cards, a filter bar allows the end user to filter the content of all cards at once.



**Designers:** Use an overview page if you need want to provide an entry-level view of content related to a specific domain or role. Think about the best and most compact way to visualize the information in cards, based on the different card types provided by SAP Fiori elements. Do not confuse the overview page with the Fiori launchpad (see a detailed explanation [here](#)).



**Product managers:** Think about a specific persona or user role when using an overview page, who needs information from at least two different applications to complete their role-specific tasks. An overview page offers different information formats (such as charts, lists, and tables) on a single page. Choose a different page type if all the information you need to display relates to only one type of objects (use a list report or an analytical list page instead), or if you just want to allow the user to launch applications (use the Fiori launchpad instead).



**Developers:** The overview page implementation in SAP Fiori elements includes the UI code for everything that displays on the page, including filtering card contents, moving, resizing and hiding cards, as well as storing the page configuration.

### To learn more

Overview page in the Fiori design guidelines: <https://experience.sap.com/fiori-design-web/overview-page/>

Technical documentation on SAP Fiori elements overview page:  
<https://ui5.sap.com/#/topic/c64ef8c6c65d4effbfd512e9c9aa5044>

[Introducing Overview Pages \(video\)](#)

[Creating Overview Pages \(video\)](#):

List report page

What it is

With a list report, users can view and work with a large set of items. This is a common scenario within SAP applications. For example, employees, based on their role, might look at lists of sales orders, open quotations, sales by product or region, work orders, purchase requisitions, employees, pieces of equipment, etc. Once they find the item of interest, they can click on it to see the details.

The list report page type offers powerful features for finding and acting on relevant items. It is often used as an entry point for navigating to the item details, which are usually shown on an [object page](#).

SAP Manage Sales Order

Standard

Open in Sales Analysis

Search

Company:

Sales Contact:

Warehouse:

Document Date:

Adapt Filters (2)

Sales Orders (18)

Add Remove Calculate Sale Spread

Sales Order Number	Product Code	Company Code	Company	Sale Contact	Warehouse	Amount (Local Currency)
500009070	BP-1232-1323	SAP SA (001)	Anav Ideon	John Millier	Tel Aviv	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	HEPA Tec	Sabine Mayer	Bangalore	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Brazil Technology	Richard Wilson	Sao Paolo 12	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Angere	Alain Chevalier	Michigan HQ	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Jologa	Dona Moore	Lisabon 12H	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	DelBont Industries	Elena Petrova	Main LZ123	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Anav Ideon	John Millier	Tel Aviv	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	HEPA Tec	Sabine Mayer	Bangalore	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Brazil Technology	Richard Wilson	Sao Paolo 12	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Angere	Alain Chevalier	Michigan HQ	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Jologa	Dona Moore	Lisabon 12H	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	DelBont Industries	Elena Petrova	Main LZ123	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Anav Ideon	John Millier	Tel Aviv	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	HEPA Tec	Sabine Mayer	Bangalore	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Brazil Technology	Richard Wilson	Sao Paolo 12	12,897.0 EUR

Structure and content of a list report page

A list report page displays a list of objects in a table (or in several tables and charts in different tabs). Standard actions on objects are provided automatically by SAP Fiori elements (create, edit, delete), and it's possible to [add custom actions](#). The end user can configure how data is displayed in the table by selecting visible columns and applying sorts and grouping.

Above the table, a filter bar allows the select and search for objects according to her needs. Filtering are specified either through a value and an advanced search dialog, or a select control if the user needs to only one item from a short list.

Custom filters can be achieved with extensions.

The table supports different types of columns out-of-the-box: plain text

Plant

SELECT FROM LIST DEFINE CONDITIONS

Search

Hide Advanced Search

Plant:

Plant Name:

Valuation Area:

Customer No. Plant:

Supplier No. Plant:

Factory Calendar:

Purch. Organization:

Sales Organization:

Address:

Plant cat.:

Distrib. channel:

Int.co billing dlv.:









Language Key:

Items

	Plant	Plant Name	Valuat...	Customer No. Plant	Supplier No. Plant	Fi...	Purch...	Sales...	Address	PL...	DI...	Int...
<input type="checkbox"/>	1010	Plant 1 DE	1010		10411010		01	1010	1010	27879		10 00
<input type="checkbox"/>	1110	Plant 1 GB	1110		11411110		GB	1110	1110	24714		10 00
<input type="checkbox"/>	1210	Plant 1 FR	1210		12411210		FR	1210	1210	26751		10 00
<input type="checkbox"/>	1310	Plant 1 CN	1310		13411310		CN	1310	1310	28734		10 00
<input type="checkbox"/>	1410	Plant 1 BR	1410		14411410		BR	1410	1410	30883		10 00

user to  
criteria  
help  
through  
select

columns, columns with color coding, columns with an image, columns containing charts (progress bar, rating indicator, bullet chart, area chart), columns containing a button to trigger an action on the object or to navigate to another application, and columns displaying a popover with a contact card. Extensions allow you to use custom columns.

Image	Plain text	Color coding	Rating	Progress bar	Bullet chart	Contact
	NoteBook Basic 16	<span style="color: green;">■</span> In stock	★★★★★	<div><div>10 of 40</div></div>	<div><div>2</div><div>2</div></div>	ComputerWare 
	NoteBook Basic 17	<span style="color: green;">■</span> In stock	★★★★★	<div><div>12 of 40</div></div>	<div><div>2</div><div>2</div></div>	ComputerWare 
	NoteBook Basic 19	<span style="color: red;">■</span> Out of stock	★★★★★	<div><div>0 of 40</div></div>	<div><div>2</div><div>2</div></div>	ComputerWare 
	NoteBook Pro 17	<span style="color: orange;">▲</span> Low stock	★★★★★	<div><div>2 of 40</div></div>	<div><div>2</div><div>4</div></div>	ComputerWare 



**Designers:** Use a list report page to display a collection of objects. It includes search and filter bars in a standard location at the top of the page.



**Product managers:** If the requirement is to navigate through a list of business objects such as sales data, assets, or employees, for example, then a list report will provide the framework to show these items along with the ability to search and filter the results. Choose a different page type if the list of objects is small (use worklist page type instead), the requirement is to show information graphically (use analytical list report page type instead) or allow interrogation of objects in a graphical format (use analytical list report page type instead).



**Developers:** The list report page type includes the UI code for everything that displays on the page, including header, filtering and search bars, content area with layout and formatting, and footers.

If the main use case is for a phone, assess whether the information the business wants to display will look and perform properly in this small form factor using the list report page type. If not, consider building a native mobile app.

### To learn more

List report in the Fiori design guidelines: <https://experience.sap.com/fiori-design-web/list-report-floorplan-sap-fiori-element/>

Technical documentation on SAP Fiori elements list report:  
<https://ui5.sap.com/#/topic/1cf5c7f5b81c4cb3ba98fd14314d4504>

[Introducing List Report and Object Pages \(video\)](#)

[Creating List Report & Object pages \(video\):](#)

## Object page

### What it is

The object page allows the user to display, create, or edit an object. This is the recommended page type for representing various objects in SAP Fiori. The object page comes with a flexible header, a choice of anchor or tab navigation, and a flexible, responsive layout. These features make it adaptable for a wide range of use cases.

**Robot Arm Series 9**  
PO-48865

Manufacturer: Robotech  
Factory: Florida, OL  
Supplier: [Robotech \(234242343\)](#)

Status: **Delivery**

Delivery Time: 12 days

Assembly Option: **To Be Selected**

Leasing Rate per month: £ 379.99

**General Information** | Assembly Options (7) | Contact Information

**Order Details**  
Order ID: 589946637  
Contract: [10045876](#)  
Transaction Date: 6 May 2018

Expected Delivery Date: 23 June 2018  
Production Start: 2 June 2018

**Configuration Details**  
Model: Robot Arm Series 9  
Color: White (default)  
Socket: Default Socket 10  
Axis: 6 Axis  
Leasing Rate: £ 379.99 per month

**Assembly Options (7)**

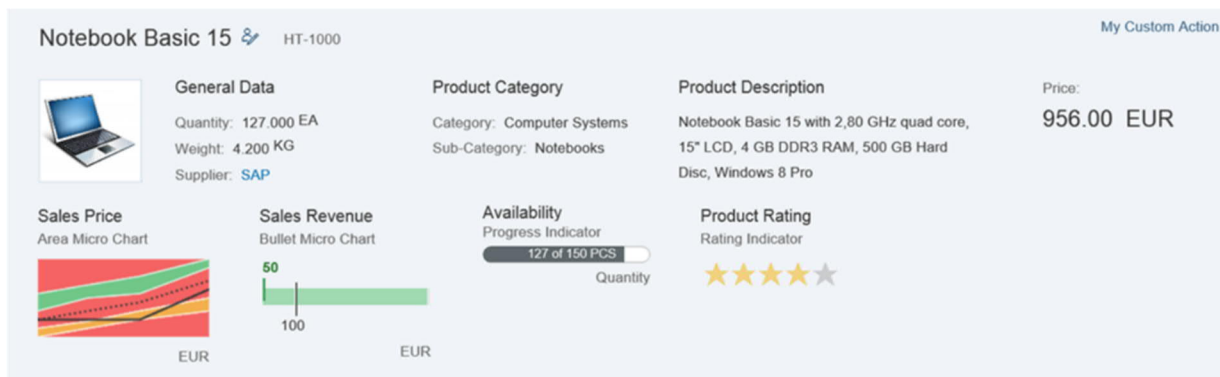
Option	Option Code	Supplier	Availability	Additional Information	Price
Concrete Base	CO_837017	Angéré	Available in 11 days	Will be installed by subcontractor	£ 397.00
Duo Concrete Base	CO_837018	Angéré	Available in 11 days	Will be installed by subcontractor; for 2 arms	£ 597.00
Steelwork Base	SW_57331	DelBont Industries	Available	Can be installed by purchaser	£ 485.00
Duo Steelwork Base	SW_57332	DelBont Industries	Available	Can be installed by purchaser; for 2 arms	£ 654.00
Harvest Line Integration	HL_12358	Anav Ideon	Available	Will be installed by subcontractor	£ 430.00
Mobile Trailer Base	MT_142536	Jologa	Available	Works with common trailer hitches	£ 799.00
Duo Mobile Trailer Base	MT_142537	Jologa	Not Available	Works with common trailer hitches; for 2 arms	£ 1,287.00

### Structure and content of an object page

The object header resides at the top of an object page. It contains key information about the business object and provides the user with the necessary context.

The header shows an object title and subtitle, an object image or icon, global actions for the object, and additional information organized in content containers called header facets.

SAP Fiori elements supports different types of header facets: plain text and form facets, key value, facets with charts (progress bar, rating indicator, bullet chart, area chart), contact facet (displaying a popover with a contact card).



Below the header, the content of the object page is organized into sections. SAP Fiori elements supports four types of sections:

- Form sections, displaying the information as label-value pairs
- Table sections, showing a list of related objects in a table. Supported columns are the same as in a list report: plain text columns, columns with color coding, columns with an image, columns containing charts (progress bar, rating indicator, bullet chart, area chart), columns containing a button to trigger an action on the object or to navigate to another application, and columns displaying a popover with a contact card.
- Chart sections, to present data graphically for analysis.
- Contact list sections, to render a list of contacts.

Many extensions points are available for the object page: custom header facets, custom sections, custom columns in a table section, custom actions, custom fields in a form section.



**Designers:** Use an object page in conjunction with a list page (list report, worklist, or analytical list page) to display details of an object, and support object editing and creation scenarios. If the creation process for a new object is not linear, but can have different paths, depending on the information selected, use the wizard floorplan instead (not supported in SAP Fiori elements).



**Product managers:** Use an object page if your target user needs to get an overview of an object and interact with different parts of the object. The object page is the natural complement of a list page (list report, worklist or analytical list page) in a lot of Fiori applications, for browsing, managing, monitoring and editing objects. Choose a different page type if users need to edit several items at the same time.



**Developers:** The object page implementation in SAP Fiori elements includes the UI code for everything that displays on the page, including header, sections, and footers. The editable version of the page is automatically generated for you, as well as the API calls to create a new object, save a new version, or cancel changes.

### To learn more

Object page in the Fiori design guidelines: <https://experience.sap.com/fiori-design-web/object-page/>

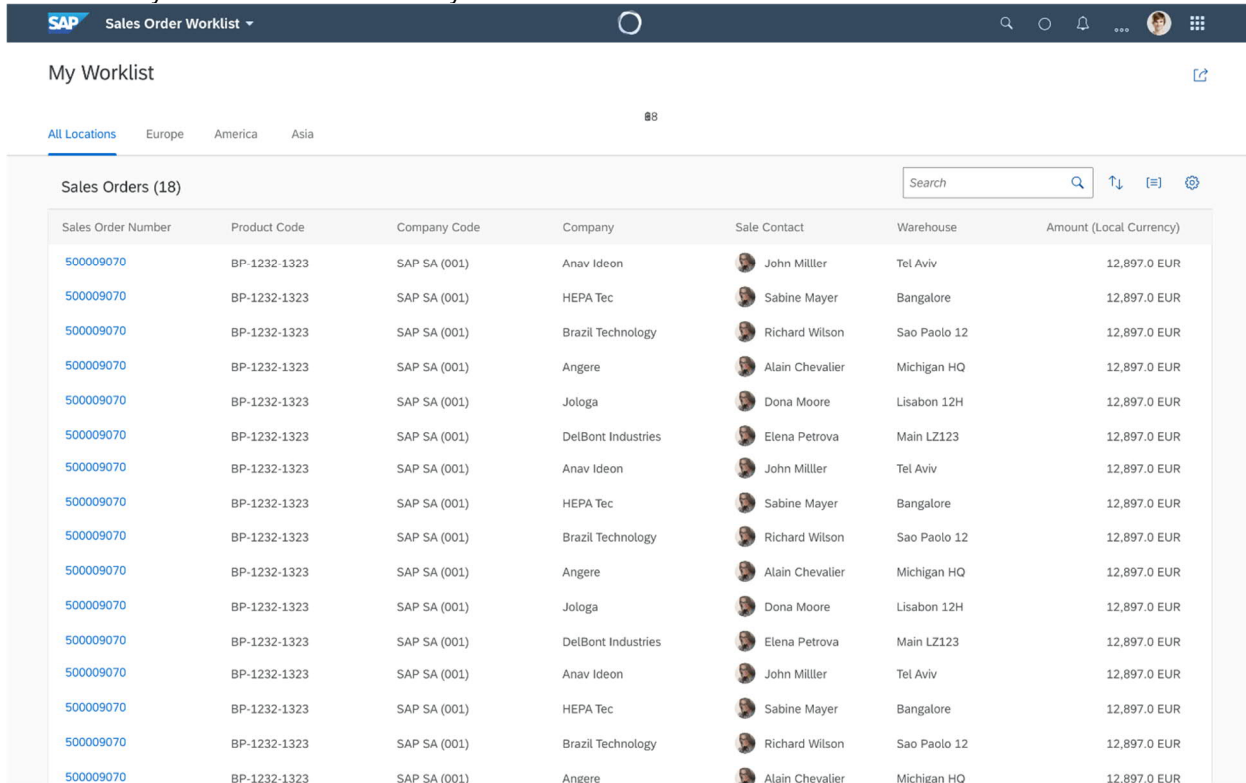
Technical documentation on SAP Fiori elements object page:  
<https://ui5.sap.com/#/topic/d26d3dd85f43441192e9c8b210746bf1>

## Worklist page

### What it is

A worklist page displays a collection of items that a user needs to process. Working through the list usually involves reviewing details of the items and taking action. In most cases, the user has to either complete a work item or delegate it.

When the items displayed in a worklist are involved in a workflow or a process, users may need to work with multiple views of the same content (for example, items that are “Open”, “In Process”, or “Completed”). Users can then switch between views using the tab bar and therefore display work items in specific categories. This helps users identify critical items more easily.



Sales Orders (18)						
Sales Order Number	Product Code	Company Code	Company	Sale Contact	Warehouse	Amount (Local Currency)
500009070	BP-1232-1323	SAP SA (001)	Anav Ideon	John Miller	Tel Aviv	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	HEPA Tec	Sabine Mayer	Bangalore	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Brazil Technology	Richard Wilson	Sao Paolo 12	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Angere	Alain Chevalier	Michigan HQ	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Jologa	Dona Moore	Lisabon 12H	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	DelBont Industries	Elena Petrova	Main LZ123	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Anav Ideon	John Miller	Tel Aviv	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	HEPA Tec	Sabine Mayer	Bangalore	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Brazil Technology	Richard Wilson	Sao Paolo 12	12,897.0 EUR
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500009070	BP-1232-1323	SAP SA (001)	DelBont Industries	Elena Petrova	Main LZ123	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Anav Ideon	John Miller	Tel Aviv	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	HEPA Tec	Sabine Mayer	Bangalore	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Brazil Technology	Richard Wilson	Sao Paolo 12	12,897.0 EUR
500009070	BP-1232-1323	SAP SA (001)	Angere	Alain Chevalier	Michigan HQ	12,897.0 EUR

### Structure and content of a worklist page

A worklist page displays a list of objects in one or several tables in different tabs. Standard actions on objects are provided automatically by SAP Fiori elements (create, edit, delete), and it's possible to add custom actions. Each table correspond to a specific predefined filter. The end user can configure how data is displayed in tables by selecting visible columns and applying sorts and grouping.

The table supports different types of columns out of the box: plain text columns, columns with color coding, columns with an image, columns containing charts (progress bar, rating indicator, bullet chart, area chart), columns containing a button to trigger an action on the object or to navigate to another application, and columns displaying a popover with a contact card. Extensions allow you to use custom columns.



**Designers:** Use a worklist page to display a simple collection of objects, where advanced filtering capabilities are not needed, and when the number of objects to display is not too large. The focus of the worklist page type is on processing the items.



**Product managers:** Use a worklist page if your target user has numerous potential work items and needs to decide which ones to process first. This page type allows for a direct entry point for taking action on work items.

Choose a different page type if the collection of displayed objects is large and therefore requires flexible searching, filtering and sorting capabilities (use list report page type instead). Use an analytical list page if you need graphical representations and analytical capabilities (e.g. drill-down).



**Developers:** The worklist page type includes the UI code for everything that displays on the page, including header, tabs, tables with layout and formatting, and footers.

If the main use case is for a phone, assess whether the information the business wants to display will look and perform properly in this small form factor using the list report page type. If not, consider building a native mobile app.

### To learn more

Worklist page type in the Fiori design guidelines: <https://experience.sap.com/fiori-design-web/work-list/>

Technical documentation on SAP Fiori elements worklist:

<https://ui5.sap.com/#/topic/d1d588f1061b4bac96a1facb80d3f3a2>

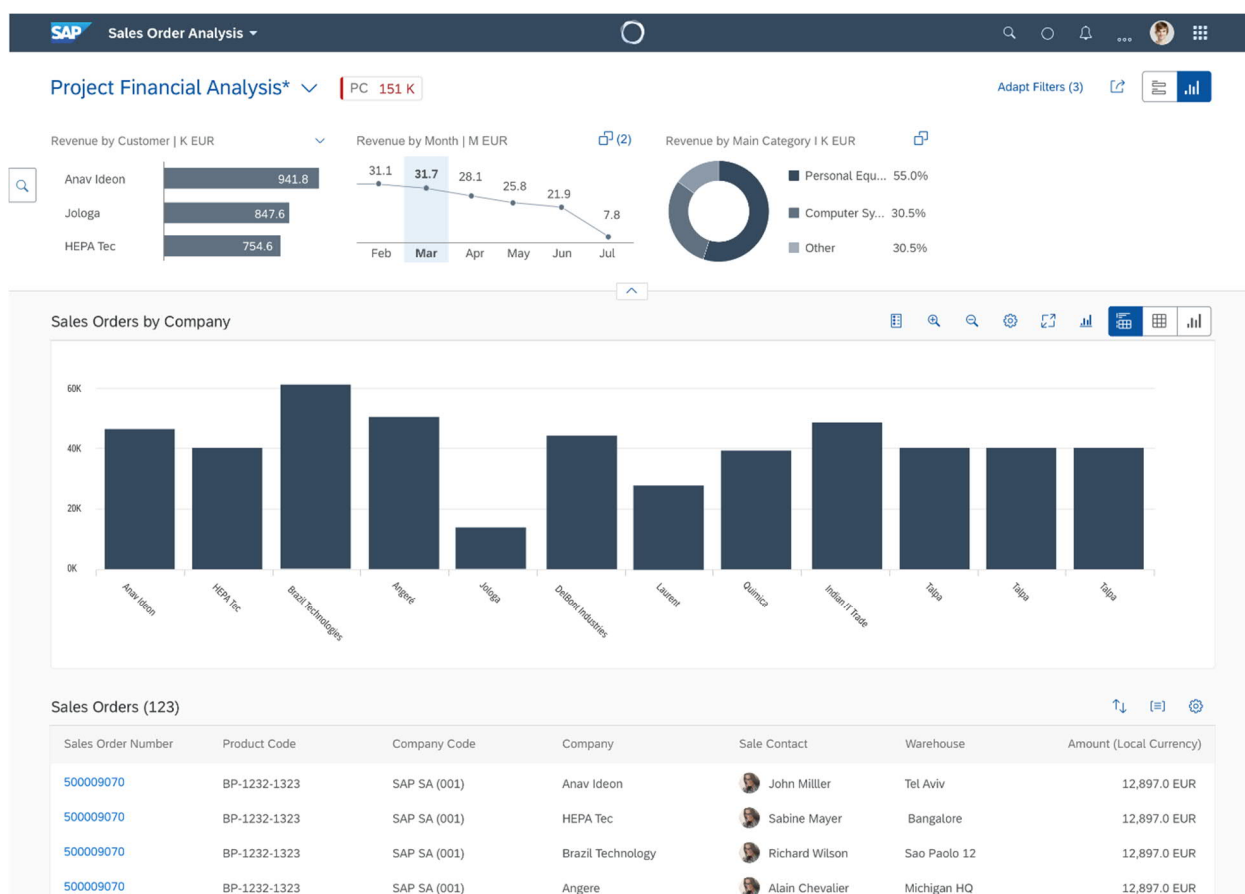
## Analytical list page

### What it is

The analytical list page offers a unique way to analyze data step-by-step from different perspectives, to investigate a root cause through drilldown, and to act on transactional content. All this can be done seamlessly within one page. The purpose of the analytical list page is to display information graphically, so users can identify areas of interest within datasets and analyze them using data visualization and business intelligence.

Visualizations help users to recognize facts and situations and reduce the number of interaction steps needed to gain insights. Interactive graphics also enable users to spot relevant data more quickly.

The main target group are users who work on transactional content. They benefit from fully transparent business object data and direct access to business actions. In addition, they have access to analytical views and functions without having to switch between systems. These include KPIs, a visual filter where filter values are enriched by measures and visualizations, and a combined table/chart view with drill-in capabilities (hybrid view). Users can interact with the chart to dig deep into the data. The visualization enables them to identify spikes, deviations and abnormalities more quickly, and to take appropriate action right away.



### Structure and content of an analytical list page

An analytical list report page displays a collection of objects in a chart and in a table. The chart is fully configurable by the end user (and by the app creator) who can choose dimensions, measures and a visualization type. The end user can also configure how data is displayed in the table at runtime by selecting visible columns and applying sort criteria and grouping.

Standard actions on objects are provided automatically by SAP Fiori elements (create, edit, delete), and it is possible to add custom actions.



Above the table, a filter bar allows the user to select and search for objects according to her needs. Like in a list report page, filtering criteria can be specified either through a value help and an advanced search dialog, or through a select control if user needs to select only one item from a short list. The analytical list page also provides visual filtering capabilities via interactive micro-charts in the filter bar that allow you to quickly select a property value to filter on. Bar, line and donut micro-charts are supported.

Custom filters can be achieved with extensions.

The table supports different types of columns out of the box: plain text columns, columns with color coding, columns with an image, columns containing charts (progress bar, rating indicator, bullet chart, area chart), columns containing a button to trigger an action on the object or to navigate to another application, and columns displaying a popover with a contact card. Extensions allow you to use custom columns.



**Designers:** Use an analytical list page to display a collection of objects in a hybrid view (chart + table), together with visual filters located at the top of the page. Avoid the analytical list page if displaying the data graphically doesn't bring much value to the end user. If the main use case is for a phone, assess whether the information the business wants to display will look and perform properly in this small form factor using the analytical list page type. If not, consider building a native mobile app.



**Product managers:** Use an analytical list page if the target users need a way to analyze data step-by-step from different perspectives, investigate a root cause through drilldown, and act on transactional content within one page, along with the ability to find and act on relevant items out of a large set of items by searching, filtering, sorting, grouping, drilling down, and slicing and dicing. Choose a different page type if the list of objects is small (use worklist page type instead), or if there's no need for a chart (use list report page type instead).



**Developers:** The list report page type includes the UI code for everything that displays on the page, including header, filtering and search bars, chart and table with layout and formatting, and footers.

### To learn more

Analytical list page in the Fiori design guidelines: <https://experience.sap.com/fiori-design-web/analytical-list-page/>

Technical documentation on SAP Fiori elements analytical list page: <https://ui5.sap.com/#/topic/3d33684b08ca4490b26a844b6ce19b83>

[Introducing Analytical List Report Pages \(video\)](#)

[Creating Analytical List Report Pages \(video\)](#):

## Extending applications developed with SAP Fiori elements

Extensions provide more flexibility when developing SAP Fiori elements applications. You're not limited to annotations but have access to all the functionalities and controls provided by SAPUI5.

This flexibility comes with a cost, however. It takes significantly more development effort to develop and maintain extension code than to just leverage annotations. The resulting UX may not be consistent and compliant to Fiori guidelines. You will also have to make sure the extensions stay aligned with the Fiori guidelines over time, whereas the parts generated from annotation will automatically be updated.

Therefore, use app extensions with caution and only if you cannot produce the required behavior by other means, such as manifest settings or annotations.



**Designers:** Get familiar with SAP Fiori elements and the typologies of design you can achieve with them. Try to design your apps within the SAP Fiori elements boundaries and consider extensions only when necessary as there's an associated development and maintenance cost.



**Product managers:** SAP Fiori elements cover many use cases for Fiori applications. SAP Fiori is a paradigm shift away from big and complex applications towards light-weight apps tailored to the users' tasks. Keep your apps simple and focused on a specific use case, as SAP Fiori elements facilitates the development of such simple apps.



**Developers:** Always favor standard SAP Fiori elements functionalities based on OData annotations. You will be more productive, and the maintenance effort will be significantly reduced. Consider using extensions only when necessary, and to a reasonable extent. For example, we recommend you use no more than 10 extensions in an app.

## Annotations and extensions

The content and interactions of each page is supported by SAP Fiori elements through annotations. You can support additional controls and behaviors using extensions, but these should be used carefully. Extensions allow you to go beyond what SAP Fiori elements provides out of the box. The content and behavior of a "pure" SAP Fiori elements application are completely controlled by annotations, and extensions allow a developer to add specific UI controls or behaviors using the standard UI5 programming model based on HTML5 and JavaScript.

You end up with an app where some parts are controlled by annotations and leverage the standard controls, layout and behaviors from SAP Fiori elements, and where other parts are controlled by custom JavaScript code and can leverage the full-fledged UI5 programming model to have more flexibility. How to find the balance between these 2 models will be discussed below.

## Extension points

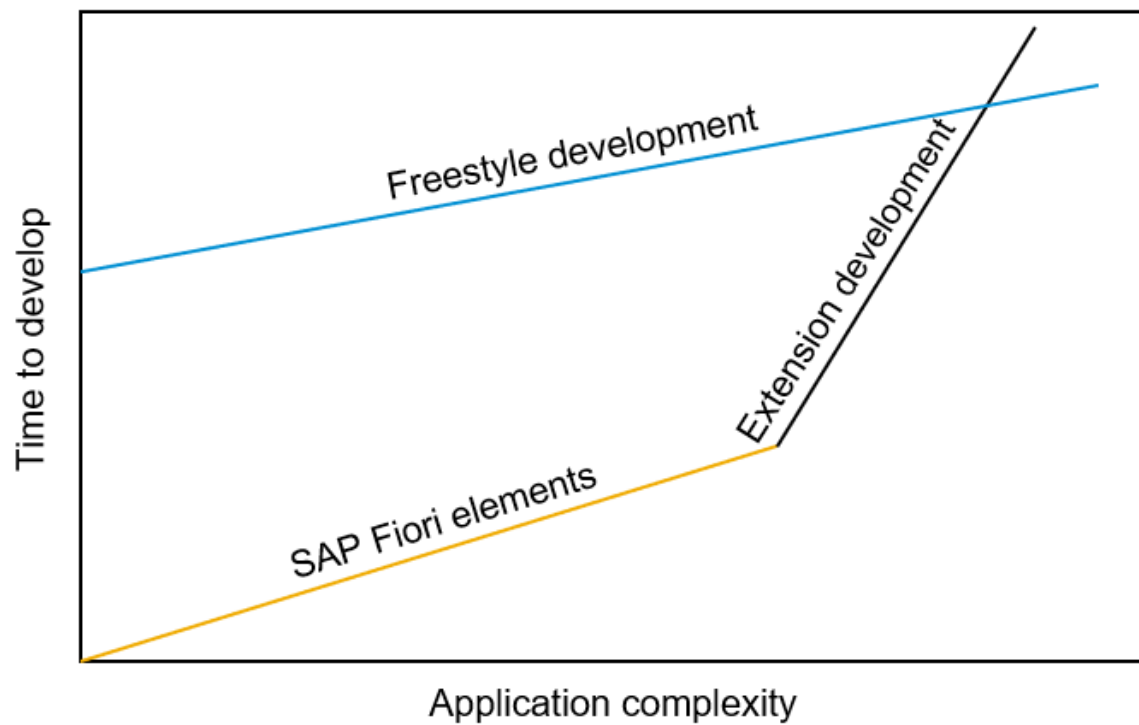
SAP Fiori elements apps can be extended only in certain ways and in specific areas, called [extension points](#).

In a list report, worklist or analytical list page, you can create custom columns in the table (i.e. use other UI controls to display specific data in a column), create custom filters (i.e. use other filtering mechanisms and interactions to filter the table content) and create custom actions.

In an object page, you can create custom columns in a table section, display custom fields in forms, display custom controls in the header (header facets extensions), create custom actions, and create custom sections (i.e. display something else than a table, a form, a chart or a contact list in a section).

In an overview page, you can create custom filters and define specific filtering behavior for some cards, create custom actions, create custom cards to display custom information relevant to your overview page, and modify how navigation is managed when clicking on card content.

Only if the target design cannot be achieved with extensions, should you go for freestyle SAPUI5.



**Figure:** If you add too many extensions to an SAP Fiori elements app, it could end up taking more time than developing a freestyle app.

## Where to find more information



### **Designers:**

Fiori design guidelines: <https://experience.sap.com/fiori-design-web/>



### **Product managers:**

SAP Fiori elements in the SAP community wiki:  
<https://wiki.scn.sap.com/wiki/display/Fiori/Fiori+elements>



### **Developers:**

Technical documentation - Developing Apps with SAP Fiori elements :  
<https://ui5.sap.com/#/topic/03265b0408e2432c9571d6b3feb6b1fd>

### Getting Started with SAP Fiori elements video series:

1. [Introducing SAP Fiori elements](#)
2. [Introducing Overview Pages](#)
3. [Introducing List Report and Object Pages](#)
4. [Introducing Analytical List Report Pages](#)
5. [Understanding OData and Annotations](#)
6. [Turning OData into Applications](#)
7. [Creating Overview Pages](#)
8. [Creating List Report and Object Pages](#)
9. [Creating Analytical List Report Pages](#)

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