**Fiori Elements**

**Fiori Elements:**

SAP Fiori elements is a framework that comprises the most commonly used floorplan templates and is designed to:

* Speed up development by reducing the amount of frontend code needed to build SAP Fiori apps.
* Drive UX consistency and compliance with the latest SAP Fiori design guidelines.

The articles in the ‘SAP Fiori Elements’ section of the guidelines cover all the design possibilities based on the current technical capabilities of the SAP Fiori elements framework and the version used to develop your application. The analytical list page and the overview page are only available as SAP Fiori elements.

**Why use SAP Fiori elements?**

* High development efficiency to cover what 80% of all apps need

You do not need to build the UI over and over again. Just reuse the common features required by most applications. They are provided by the SAP Fiori elements floorplans.

* Design consistency

Predefined floorplans, views, and controllers ensure UI consistency within and across similar apps. Apps created using SAP Fiori elements are kept up-to-date as they are automatically adapted to the most recent design guidelines.

* Decoupling of UI and business logic

The metadata-driven development model uses semantic annotations and significantly reduces the amount of front-end code. Developers can focus on the business logic.

**Supported Layouts**

List Report, Work List, Object Page, Overview Page, Analytical list page.

* [List Report and Object Page](https://sapui5.hana.ondemand.com/sdk/#/topic/c0eec49db81a441e878f528c8f3d28de.html)

SAP Fiori elements contains predefined templates for list reports and object pages. A list report lets users filter, view, and work with items (objects) organized in list (table) format. The list report is typically used in conjunction with an object page. This object page lets users work with objects, providing functions for viewing, editing, and creating objects.

* [Worklist](https://sapui5.hana.ondemand.com/sdk/#/topic/d1d588f1061b4bac96a1facb80d3f3a2.html)

A worklist displays a collection of items to be processed by the user. There is no need for sophisticated filtering. Working through the item list usually involves reviewing details of the list items and taking action. In most cases, the user has to either complete a work item or delegate it.

* [Overview Pages](https://sapui5.hana.ondemand.com/sdk/#/topic/c64ef8c6c65d4effbfd512e9c9aa5044.html)

An overview page is a data-driven SAP Fiori app for organizing large amounts of information. Information is visualized in a card format in an attractive and efficient way. Different cards are used for different types of content. The user-friendly experience makes viewing, filtering, and acting on data quick and easy. While presenting the big picture, business users can focus on the most important tasks enabling faster decision making as well as immediate action.

* [Analytical List Page](https://sapui5.hana.ondemand.com/sdk/#/topic/3d33684b08ca4490b26a844b6ce19b83.html)

The analytical list page (ALP) offers a unique way to analyse data step by step from different perspectives, to investigate a root cause through drilldown, and to act on transactional content. You can use SAP Fiori elements to build apps that require visualization and reporting of data using filters, interactive charts, and other data points such as KPIs (key performance indicators).

**Features**

SAP Fiori elements provides the following default floorplan features:

* **Edit** mode control, switching between display and edit, and submitting changes
* Handling of draft documents (draft saving is available)
* Message handling, including message lifecycle and message display
* Multi-device support
* Support of value help
* Storing and restoring of application states, for example, saving filter fields with their content in the list report
* Back navigation that takes the history into account
* Busy handling and prevention of accidental double-clicks

The following features come with every SAP Fiori app:

* SAP Fiori launchpad integration
* Reuse functions that do not require specific programming

**Extending the apps**:

It’s possible to create extensions to deliver features that are not supported by SAP Fiori elements. However, this is not recommended because the associated code will need to be maintained.

**Development Methods**

**SAP Fiori Elements**

SAP Fiori Elements allow making use of standard application features and templates, enabling users to develop Fiori applications in less time and at a lower cost. With this method, the SAPUI5 code is automatically generated in accordance with the defined Metadata and Annotations on CDS. The fact that Odata services are also generated from CDS significantly reduces cost and development time for applications. Fiori Elements also enable features such as saving variants, filtering, grouping and sorting by default. Furthermore, Fiori Elements support mobile devices without the need for additional development. CDS views support **Create, Remove, Update, Delete (CRUD)**actions through the **Business Objects Processing Framework (BOPF)**; meaning these features are also available with SAP Fiori Elements. This structure allows developing Fiori applications that can generate reports, make analysis, create documents and carry out updates.

**Advantages and Disadvantages**

| **SAPUI5** | **SAP Fiori Elements** |
| --- | --- |
| Though the flexibility of the development model is a plus, developers need to spend a lot of time on UI5 codes, as each detail needs to be meticulously coded. | SAPUI5 code is automatically generated through CDS. No SAPUI5 or JavaScript coding is needed. |
| Upgrading applications to a new version requires rework. | Does not require rework for upgrading applications to a new version. |
| Development is costly and time-consuming. | Development is relatively quick and inexpensive. |
| High maintenance costs. | Relatively low maintenance costs. |
| Advantageous design and flexibility. Applications can be customized. | Complex development and custom designs are not always possible. |
| Integration with Open Source and third-party libraries is possible. | Integration with Open Source and third-party libraries is not supported. |
| Requires performance optimization and improvements. | Provides high performance with FE. Requires little performance optimization. |
| New applications developed through WEBIDE require to be deployed in the development system again. | Activating after editing the code is sufficient. Changes can be tested through Launchpad. No need for deploying again through WEBIDE. |
| Unable to utilize standard Fiori features by default. Requires development for the use of these features. | Standard Fiori features such as saving variant, filtering, grouping and sorting are available. |
| Requires development for use by mobile devices. | Supports use by mobile devices. No need for additional development. |

**Fiori elements vs Freestyle**:



