

OpenUI5 Road Map

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PUBLIC



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About SAP road maps

Companies today are planning their digital journeys – transforming business models, reengineering business processes, and reimagining work.

SAP road maps highlight innovations that may help you plan and implement your digital journey. They span products relevant to lines of business in your industry and explain how our innovations may add value to your business.

In our road maps, you can learn about our innovations along four different timelines:

- Recent innovations for our products that have been launched in the past weeks or months and can already be purchased
- 2. Planned innovations for our products that are intended to be launched in the short term or midterm
- 3. Product direction, providing a long-term perspective on high-level development plans for innovations for our solutions inspired by your requirements
- 4. Product vision, providing a high-level and long-term business perspective on innovations for our products

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Product overview

- Product description
- Product portfolio

Vision and direction

- Key trends, customer needs, and customer needs
- Product areas of future investment
- Major updates on maintenance strategy
- Upcoming short-term and midterm innovations

Product innovations

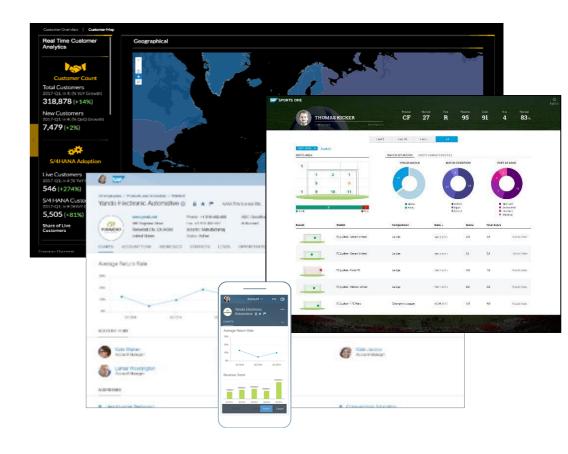
Detailed innovations

OpenUI5

Product description

OpenUI5 is an open source client-side JavaScript framework designed to build cross-platform, responsive, enterprisegrade Web applications. It is the leading UI technology of SAP's user experience strategy.

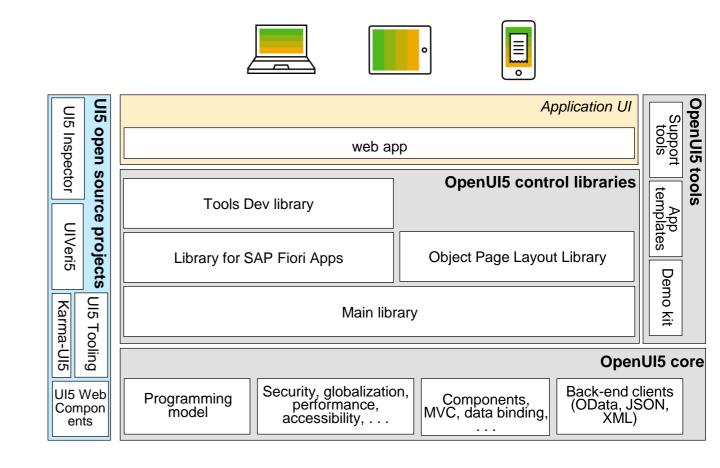
- Rich set of extensible and theme-able UI controls ensuring consistent user experience across solutions
- Facilitation of efficient development for designing Web applications
- Fulfills the SAP product standards
- Released under the Apache 2.0 license



OpenUI5



- The core serves as foundation for and simplifies Web development by managing many aspects behind the scenes.
- SAPUI5 offers ready-to-use **UI controls**, ranging from basic elements to complex UI patterns. They benefit from the consistent design language and coherent UX patterns known as SAP Fiori.
- Various tools complement the framework. They assist in building and testing apps as well as diagnosing and resolving issues during development and maintenance.
- Besides the tools integrated into the OpenUI5 SDK there are other UI5 open source projects to support the efficient development of web applications.

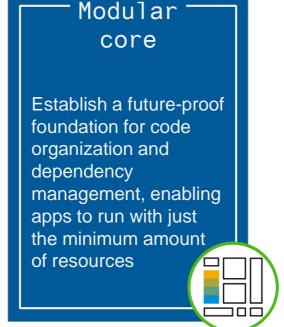


OpenUI5

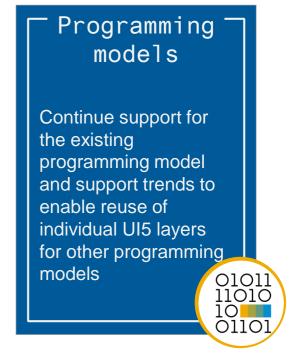
Upcoming short-term and midterm innovations

The UI5 Evolution project solves today's problems with being monolithic and having advanced framework, controls, and tooling by splitting the core, the rendering and controls, and the programming model into individual layers and enabling individual consumption.









This is the current state of planning and may be changed by SAP at any time.

OpenUI5 core

Product road map overview – Key innovations

Recent innovations

Programming model*

- Better routing for (reuse) components
- Extended handling of custom currencies

Security*

- CSP: Avoid inline JS code
- Document how to make apps compliant to a CSP policy

OData V4 model*

- Support of OData types "unit" and "currency"
- Selective refresh (request side effects)
- Support of read APIs on suspended bindings

Planned Q2/2019¹

Modular core*

 Further modularize, refactor, and modernize the core code base

Programming model*

- Improve OData V2 message handling
- Managed object model (public)

OData V4 model*

- Create multiple entities without refresh
- Improve data access in controller code

Modular core*

 Consistent and powerful feature configuration

Planned Q3/2019¹

 Additional complementary asynchronous APIs

Programming model*

Enhance info propagation to reuse components

OData V4 model*

- CRUD for collections in transient entities
- Deferred delete
- Error messages in changesets

Product direction

Modular core*

- Start-up bundling for self-contained apps
- Advanced bundling through code splitting
- Extended universal core w/o dependencies to DOM/jQuery

Programming model*

Enable use of XML templating with routing

Security*

CSP: Avoid dynamic JS code (such as eval())

OData V4 model*

- Masking of sensitive data
- Tree support
- Start adopting OData V4.01
- Support for analytical table:
 - Visual grouping
 - Filtering before aggregation
 - Multiunit handling
 - Automatic type detection for aggregates
 - "Others" section for chart

*Also valid for OpenUI5

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Product road map overview – Key innovations (1/6)

Recent innovations

General UI control aspects*

- Accessibility: Support of Jaws 19/Chrome
- CSP: Avoid inline JS code
- Drag-and-drop enablement for use-caserelevant controls
- Language-specific hyphenation of texts

SAP Fiori 3*

- Provide SAP Fiori 3 default theme
- Adjust controls for SAP Fiori 3 default theme usage
- CSS grid: Set breakpoints for responsiveness
- Grid list: IE compliance
- Cards (new controls):
 - Self-contained UI element, connected to a manifest and used as a widget
 - Types: List card, analytical card, timeline card, and object card
- Freestyle card (new control) for card-style visualization
- Shell bar (new control, experimental):
 Responsive, adaptive horizontal bar control

Planned Q2/2019¹

General UI control aspects*

- CSP: Avoid dynamic JS code
- New color palette for industry- specific colors

SAP Fiori 3*

- SAP Fiori 3 default theme round-offs
- CSS grid:
 - Support drag and drop
 - IE compliance (round-offs)
- Cards: Provide new card types for table and component
- Shell bar: Release for public usage
- Busy indicator: Redesign

Planned Q3/2019

General UI control aspects*

Expose semantic rendering

SAP Fiori 3*

- Provide SAP Fiori 3 dark theme
- Adjust controls for SAP Fiori 3 dark theme usage
- CSS grid:
- Support resizing
- Accessibility enhancements
- Grid list: Selection mode
- Cards:
 - Support resizing of cards
- Analytical card enhancements

Product direction¹

SAP Fiori 3*

- SAP Fiori 3 dark theme round-offs
- Round-offs to adjust controls for SAP Fiori 3 dark theme usage
- Cards: Interactive cards
- Support progressive disclosure of cards
- New card types based on feedback

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Product road map overview – Key innovations (2/6)

Recent innovations

Layouts, floorplans, frameworks

Layouts*

- Dynamic page:
 - Single line title for mobile scenario
 - New landmarkInfo aggregation for landmark roles (accessibility)
- Flexible column layout: Hide first column in full screen use case
- Semantic page (sap.f):
 - Single line title for mobile scenario
 - New accessibility landmarkInfo aggregations

Floorplans*

- Object page:
 - New landmarkInfo aggregation for landmark roles (accessibility)
 - Enable drag and drop
 - Support comparison pattern
 - UX improvements: Horizontal form arrangement, auto-expand subsections

Tool purposes*

Tool page: New selectedKey property in side navigation control

Planned Q2/2019¹

Layouts, floorplans, frameworks

Layouts*

- Dynamic page: Improve UX for expanding/collapsing header
- Page (sap.m): Enable drop event

Floorplans*

- Object page:
 - Semantic object page
 - Merge section/subsection with title and toolbar in case only one type of content
- Wizard:
 - Visual indication for validated steps
 - Enable drop event
- Improve UX with animations

Tool purposes*

- Block layout: Enhance data binding
- Vertical layout: Enable drop event
- Responsive splitter: Paginator capability

Planned Q3/2019¹

Layouts, floorplans, frameworks Layouts*

Dynamic page: Embed tabs in header content

Floorplans*

Object page: Optimize subsection toolbar behavior

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Product road map overview – Key innovations (3/6)

Recent innovations

Basic UI elements

Container*

- Carousel: Supports display of several items at once (comparison pattern use case)
- Tab container: Support icon and text on each tab

Data visualization*

 Upload set (new control): Upload one or multiple files from device to app

Display*

- Avatar: Provide fallback image behavior
- Generic tag (new control): Enable complementary information related to current page
- Object status, object number:
 - Enable larger font size of object page header content
 - Show (5th) information state
- Object header: Support circle-shaped images

Basic UI elements

Container*

- Generic tile
 - Improve flexibility
 - Increase amount of lines in content

Planned Q2/2019¹

- Panel: Enable drag-and-drop events
- Scroll container: Enable drop event

Data visualization*

Text area: Enable drop event

Planned Q3/2019¹

Basic UI elements

Container*

Enhancements based on feedback

Data visualization*

Enhancements based on feedback

Display*

Enhancements based on feedback

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Product road map overview – Key innovations (4/6)

Recent innovations

Icon tab bar*

Closing of tabs capability

Toolbar*

Overflow toolbar: Support of generic tag

User input*

- Align behavior of input controls: Enhance and align suggestion capabilities
- Combo box base, input base: new API showItems (experimental) to open the SuggestionsPopover with available items
- (Multi) combo box, (multi) input: Enable grouping in suggestion
- Input: New autocomplete functionality
- Select, select list: Support icons before text

Planned Q2/2019¹

Messaging*

Message stripe: Enable drag event

Toolbar*

Overflow toolbar: Support of sap.m.Link

User input*

- Align behavior of input controls (round-offs)
 - Value state multiline
 - Suggestion highlighting
 - Provide property for min width
 - Mobile full-screen dialogs alignment
- Multi-input: Enable drop event
- Select:
 - Introduce value state enhancement
 - Add property "editable"
 - Enable drop event
- Radio button: Enable drag event

Planned Q3/2019¹

Messaging*

Notification: SAP Fiori 3 adjustments

Toolbar*

Responsiveness enhancement when spacer is used in the toolbar

User input*

- Align behavior of input controls (round-offs)
 - Auto completion: Provide remove option for second column of suggestion
 - Search field: Adjustment in suggestions and value state
- (Multi) combo box: Multiline support for value state in dropdown
- Search field: Handling and semantic color

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Product road map overview – Key innovations (5/6)

Recent innovations

Planned Q2/2019¹

Planned Q3/2019¹

Lists and tables

List*

- Validation of copied/pasted data
- More values for highlight property
- Support new semantic color for information

Table*

- Validation of copied/pasted data
- More values for highlight property
- Responsive table: Sort indicator
- Tree table: Sticky toolbar
- Grid table: Multiselection and range selection

Lists and tables

Table*

Responsive table, tree: Enable scrolling with keyboard

Spreadsheet export

- Automatic/user-driven support for big decimal numbers
- Escape formulas

Lists and tables

Table*

Analytical table: Support OData V4

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Product road map overview – Key innovations (6/6)

Recent innovations

Planned Q2/2019¹

Scheduler

Date-time input*

- Planning calendar: Subintervals enhancements
- Single planning calendar (new control) with:
 - Day/week view, date navigation header area, vertical timeline, sticky mode, and cozy form factor (for mobile use case)
 - Interactive grid: Grid cell focus navigation and selecting grid cells
 - Visual indication of appointments shorter than 30 min
 - Usage of planning calendar legend
 - Appointment selection
 - Drag-and-drop capabilities: Move, create, resize, copy appointments
 - Accessibility capabilities
- Date-time picker
 - Date picker: Property showing if last entry is valid

Scheduler

Date-time input*

- Month/year picker
- Planning calendar
 - Pin rows
 - Header alignment according to one person calendar UX definition
- Single planning calendar
 - Working hours visualization
 - Long titles/subtitles in appointments
 - Support of special days
 - Month view

Planned Q3/2019¹

Scheduler

Date-time input*

- Date picker: UX alignment with month/year picker concept
- Planning calendar
 - Grouping
 - Enable interval headers in all views

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OpenUI5 tools and documentation

Product road map overview – Key innovations

Recent innovations

Support assistant*

 Additional rules to identify synchronous APIs

Demo kit*

- Live code editor on welcome page
- API reference
 - Option to distinguish external links
 - Improved tree structure
 - Include borrowed properties, aggregations, and associations in the respective sections
- Update demo apps to latest recommendations and concepts
- Content density "Condensed" setting in samples

Documentation*

- Provide comprehensive documentation for modularization and async APIs
- Document CSP compliance for apps
- Update grid documentation
- New best practice guide
- Tutorials:
 - New quick-start tutorial
 - Update tutorials to latest recommendations and concepts

Planned Q2/2019¹

Support assistant*

Rule set expansion

Demo kit*

- Search engine optimization
- Enhance object page sample

Documentation*

- Update documentation on control lifecycle
- Update documentation on laying out

Support assistant*

 Consumption support and rule set expansion

Planned Q3/2019¹

Demo kit*

- Create client search
- Provide edit capabilities in code samples

Documentation*

Improve documentation based on feedback

Product direction¹

Support assistant*

Recording of app data

Demo kit*

- Cards explorer
- Improve user experience based on feedback

Documentation*

Improve documentation based on feedback

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*Also valid for OpenUI5

OpenUI5 – Complementary open source projects

Product road map overview – Key innovations

Recent innovations

UI5 Web components

- Beta version released under Apache license
- Provide basic components, aligned with SAP Fiori 3 design concepts: Shell bar, switch, card, message strip, select
- Align with SAP Fiori 3 default theme
- Provide Belize light theme
- Provide documentation and playground

UI5 tooling

Simple extensibility for custom projects

UIVeri5

 New E2E testing framework released under Apache license

Planned Q2/2019¹

UI5 Web components

- Extend components set
- Improve table component
- Provide styling capabilities (import, theming, CSS custom properties)
- Reduce technical debt
- Provide custom renderer
- Reduce bundle size
- Provide sample app

UI5 tooling

- Migration tools to adapt code bases
- Concise app testing setup (Karma)
- JSDoc generation
- Additional tooling types (such as component)

UIVeri5

Istanbul code coverage generator

Planned Q3/2019⁷

UI5 Web components

- Provide SAP Fiori 3 dark theme
- Screen reader support enhancements
- Enable extensibility

UI5 tooling

- Proxy support
- Enhance extensibility and flexibility
- Integration of initial features into SAP Web IDE

UIVeri5

Test snippet generation

Product direction

U5 Web components

- Usage in OpenUI5 apps
- Enhancements based on feedback
- Extent component set based on feedback

UI5 tooling

- Integration of more advanced features into SAP Web IDE
- Mock server for OData V4 model

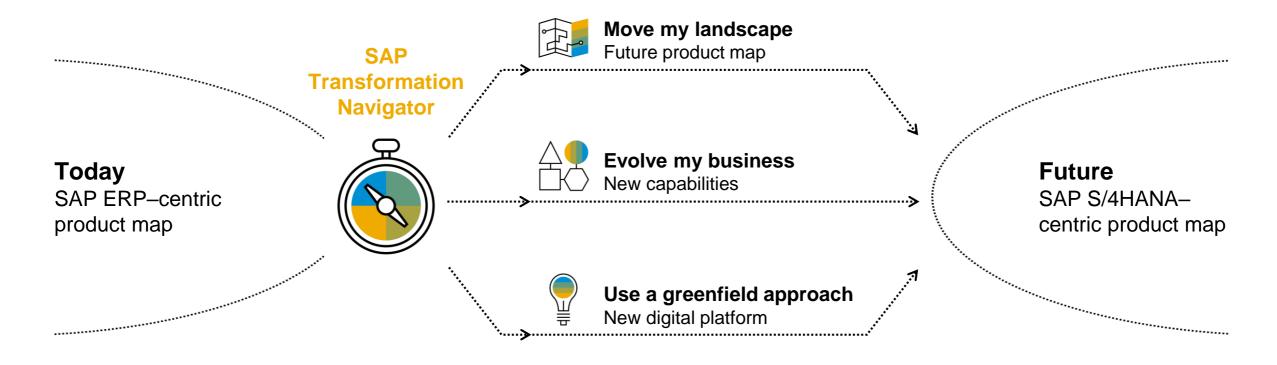
UIVeri5

Usability improvements

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- With the new time-slider feature, you can even identify the best point in time to engage in your journey to becoming an intelligent enterprise.
- Discover the tool and your transformation path at https://support.sap.com/stn.

Related road maps

SAPUI5 has sundry intersections with the following solutions.

Related product road maps available on sap.com/roadmaps:

- SAP Fiori
- SAP Web IDE
- SAP Cloud Platform
- SAP Gateway



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