# Oracle JavaScript Extension Toolkit

Oracle JavaScript Extension Toolkit (Oracle JET) is a complete, modular, open source JavaScript development toolkit designed to help developers build engaging user interfaces. It is based on industry standards and popular open-source frameworks. Oracle JET adds advanced functionality and services to help developers build better applications faster.

#### **KEY FEATURES**

- Complete JavaScript development toolkit
- Modular architecture use parts of the framework as needed or plug-in other libraries as needed
- · Free and open sourced
- Leverages popular open-source technologies
- · Rich set of UI components
- Unique features for mobile app development
- · Built in accessibility support
- · Support for internationalization
- Advanced two-way binding with a common model layer
- Powerful routing system supporting single-page application navigation
- · Smart resources management

### Complete and Open Toolkit

JavaScript and HTML5 have become the preferred technology combination for building cutting-edge user interfaces for web and mobile applications. Organizations are looking for a complete JavaScript offering that will deliver increased developer productivity, built-in support for advanced UI capabilities such as internationalization and accessibility, and allow developers to create engaging and responsive user interfaces.

Oracle JET leverages popular open-source frameworks and adds advanced functionality to offer an integrated and complete development toolkit solution. Oracle JET is based on industry standards such as JavaScript, HTML5, CSS and SASS and helps solve the challenges facing JavaScript developers.

#### **Built-in Advanced Functionality**

Oracle JET provides a rich feature set that addresses common needs of JavaScript developers. Some of the features included in Oracle JET are:

- Rich set of UI components Over 70 components, packaged as JQuery UI
  components, that include layout components to handle responsive UI, a variety of
  data entry components, and a comprehensive set of data visualization components
- Advanced two-way binding Building on the Knockout.js framework, Oracle JET further simplifies the implementation of the MVVM architecture in your application and provides a common model layer for binding to REST, WebSocket and SSE sources of data seamlessly. The Oracle JET common model Layer provides additional services for filtering and sorting, caching, pagination and virtual scrolling
- Advanced Routing System The Oracle JET routing feature provides support for HTML5 browser history and nested state management to support anything from simple to the most complex single-page application scenarios
- Smart Resource Management Relying on the RequireJS framework, Oracle JET optimizes the performance of your applications with powerful resource management that accelerates your user interface responsiveness
- Validation framework providing UI elements and component validators and data converters for more accurate data entry





Figure 1. Oracle JET rich set of data visualization components

# **Enterprise UI Compliance**

Modern applications need to comply with industry regulations in areas such as accessibility by users with disabilities, and the ability to work in an international environment.

Oracle JET supports internationalization with lazy loading of localized resource strings and both left-to-right and right-to-left rendering. Oracle JET has built-in support for 27 languages and over 160 locales.

Accessibility complying with WCAG standard is supported out-of-the-box. Gesture interactions are supported for the UI components enabling intuitive interactions on touch devices.

# Mobile Apps Ready

Oracle JET includes unique features that make it an ideal framework for building hybrid cross-platform mobile applications. Oracle JET's mobile native themes match the iOS, Android, and Window mobile apps look and feel enabling developers to build HTML5 interfaces that look like native mobile apps.

Oracle JET components support common mobile gestures and behaviors such as swipe, pull to refresh, progressive data loading, and various animations helping developers implement the user interactions expected from advanced mobile apps.

Built in responsive design support helps target the variety of screen sizes common in mobile devices.

Oracle JET includes tooling utilities to automate containerizing your applications with Apache Cordova to deliver device-resident mobile apps.

## Optimized for the Oracle Platform

Oracle's internal development teams leverage Oracle JET for the development of the UI layer for many of Oracle's cloud based products. It is therefor not surprising that Oracle JET provides the perfect platform for customers and partners looking to integrate with Oracle's SaaS and PaaS solutions.

Oracle JET components support the Oracle Alta UI design system, providing a set of components that implement the Oracle recommended look and feel and UI guidelines and best practices to help with UI consistency.

#### Modular and Flexible

Oracle JET is based on a modular architecture that allows you to select which parts of the framework to use, as well as the ability to plug-in your favorite library to replace the default implementation included in JET. This flexibility enables quick adjustments to the evolving nature of JavaScript development, allowing you to adopt new solutions for specific layers of the application without loosing the investment you made in the other layers.

### Summary

Oracle JET provides a complete solution for organizations looking to standardize their JavaScript-based development on a reliable toolkit. Building on the ease of use and popularity of existing open-source solutions and extending those with advanced functionality delivered in modular libraries, Oracle JET provides an ideal toolkit for developers looking to build engaging and dynamic web and mobile user interfaces.



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For more information about Oracle JavaScript Extension Toolkit, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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