Oracle® JavaScript Extension Toolkit (Oracle JET)

What's New in Oracle JET

15.0.0

F80679-01

July 2023

# New Features Described in Oracle JET's Documentation for Release 15.0.0

Here are updates to the documentation for Oracle JET to describe new features and enhancements added to Release 15.0.0.

For other changes in this release, see the product Release Notes.

## Oracle JET

Documentation updates for this release of Oracle JET.

- `ojet add testing`

  The Oracle JET CLI includes a new command, `ojet add testing`, that facilitates the testing of your Oracle JET apps. See Configure Oracle JET Apps for Testing.

- API documentation for VComponents

  The Oracle JET CLI includes a new command, `ojet add docgen`, that facilitates the generation of API documentation for VComponent-based web components. See Generate API Documentation for VComponent-based Web Components.

- Relocate TypeScript configuration file

  You can relocate your project's TypeScript configuration file by setting the optional `paths.source.tsconfig` subproperty in the `oraclejetconfig.json` file. See Properties in the oraclejetconfig.json File.

- Format translated string

  You can format strings in your translation bundle using tags such as the `<i>` tag and render this formatting in the HTML of your Oracle JET app using the `oj-bind-dom` element. See About Oracle JET Translation Bundles.

## Migration Information

Note the following change that affect JET apps that you migrate to Release 15.0.0:

See the following sections for step-by-step information about migrating your app to this release of Oracle JET.

- Migrate Alta-themed Applications from Releases Prior to 8.3.0 to Release 15.0.0 describes migration steps from releases prior to release 8.3.0 that allow migrating apps to the latest release.
- Migrate to the Redwood Theme CSS updated to describe how to migrate an Alta-themed app to the Redwood theme. As the topic describes, starting in release 9.0.0 it is possible to migrate to the Redwood theme.
- Migrate Redwood-themed Apps from Releases 9.x.0 or Later to Release 15.0.0 describes migration steps for Oracle JET app sources from version 9.x.0 or newer to the latest release.

## Oracle JET Audit Framework

*Using and Extending the Oracle JET Audit Framework* has been updated in the following ways.

New and changed JAF audit features:

- Audit support for TSX renderable JSX content is now available.

  This support includes new rules that are TSX versions of their HTML counterparts (See the complete list below). To disable these rules, add the following entry to the JAF configuration file:

  ```
  "ruleMods" : { "disable" : ["jet-tsx"] }
  ```

- You can now configure a newer version of ECMAScript (`ES14`) for the `ecmaVer` property in the `oraclejafconfig.json` file. See Audit with Specific JET and ECMA Script Versions.
- Improved issue reporting for component audits that cross reference multiple source files to determine an error. Previously, these had not reported a specific file name in association with the error, just the name of the component, but now they associate the error with the most appropriate file based on the nature of that particular audit:

  ```
  jetwc-deprecated-lifecycle
  jetwc-methods
  jetwc-property-changed
  jetwc-unused-events
  jetwc-unused-slots
  jetwc-vcomponent-loader
  ```

- Display components in maintenance status

  Use the newly-introduced `--maintenance` command line argument (`ojaf --maintenance` or `ojaf -mnt`) that has been introduced to display a list of the components that are in maintenance status along with the newer components that supersede these components.
- **ruleMods** configuration property

The severity of a rule overridden by the **ruleMods** configuration property now correctly overrides any severity set by a rule during its execution. Prior to this fix, any severity set by a rule at runtime to override the rule's default severity was incorrectly applied, thereby negating the severity set by **ruleMods**. For more information about the **ruleMods** configuration property, see Configure Audit Rule Runtime Properties.

- JAF includes changes to existing rules
  - The following rules that target specific components have been updated to target their Core Pack component counterparts (`oj-c-*`)

    ```
    oj-acc-select-aria-label
    oj-acc-input-aria-label
    oj-acc-avatar-aria-role
    oj-html-redwood-bp-endslot
    oj-html-form-noflex
    ```

  - **oj-acc-button-onclick**

    This rule has been updated to include handling of the **oj-c-split-menu-button** component.

  - **oj-html-cdn**

    This updated rule now has a corrected CDN path.

  - **oj-html-slot-prof-content**

    This rule has been extended to include default slot usage.

  - **jetwc-property-translatable**

    This property can now be configured with expressions to match property names rather than requiring exact property name matches

  - **oj-html-ojtag-ns**

    This rule has been updated to catch all usage of tags with an unregistered namespace if the tag does not start with prefixes `oj-` or `ns-`.

  - **oj-html-form-bindif**

    The rule is now enabled by default.

  - **jetwco-license-info**

    This rule for custom components now looks for license information in the component metadata as well as, or instead of, the physical LICENSE.txt file. That is, having either or both allows the audit to pass. Furthermore, the rule can be configured with an array of valid license URLs to validate the value used in the component metadata.

  - **jetwco-component-api-controlled-changes**

    The typeMapping override capability for this rule has been enhanced to allow for a specific type used in an API to transition to more than one valid type.

  - **jetwco-component-api-controlled-changes**

This rule now ignores trivial capitalization differences where an API type has been corrected from, for example, "String" → "string".

- **oj-html-wctag-maintence**

  This rule has been corrected to provide details of the replacement component(s) for which a component in maintenance mode has been superseded. Note that this rule disabled by default.

- **oj-html-wctag-nested** and **oj-tsx-wctag-nested**

  When a nested oj-table or oj-list-view is used in the context of a collectionTemplate of an oj-select-single, no audit diagnostic is issued. The rules are now extended to also ignore the case where a component implementing interface `SelectSingleElement` is used in place of oj-select-single.

- JAF includes new rules:

  - **jetwc-status-since**

    Severity: blocker[1] Message ID's: jetwc-0210, 0211, 0212

    This rule checks that the since metadata associated with deprecations and maintanence mode specifies a production version of the component as opposed to a pre-production version which is not valid

  - **oj-html-attr-expr-delims**

    Severity: major Message ID: jet-2211

    Unmatched attribute expression delimiters are not permitted.

  - **csp-json-unsafe-expr**

    Severity: blocker[1] Message ID's: csp-1045, 1046

    A JSON member value contains an expression that violates the Content Security Policy, and is not supported. Execution of the expression will be blocked.

  - **oj-html-slot-pref-content**

    A `<div>` element declaring a slot is now treated in the same way as `<template>` or `<oj-defer>` elements. That is, the `<div>` is ignored , and immediate children are used as preferred content.

  - **oj-html-rating-gauge-track-resize**

    Severity: major Message ID: jet-0525

    The use of the <oj-rating-gauge> 'track-resize' attribute is a Redwood theme anti-pattern. This attribute is only needed if the 'size' attribute is set to 'fit', however, 'fit' is a Redwood theme anti-pattern.

  - **oj-js-numconv-pattern**

    Severity: major Message ID: jet-5830

    Applications should not use the deprecated 'pattern' option of IntlNumberConverter because it is not locale sensitive. Use other options instead like formatType, dateFormat and timeFormat, and if needed, set the locale to be the preferred locale.

- **oj-ts-numconv-pattern**

  Severity: major Message ID: jet-3470

  Applications should not use the deprecated 'pattern' option of IntlNumberConverter because it is not locale sensitive. Use other options instead like formatType, dateFormat and timeFormat, and if needed, set the locale to be the preferred locale.

- **jetwc-reference-npm-path**

  Severity: major Message ID: jetwc-0220

  In order to be usable in local deployment mode, reference components must have npm path mappings defined as well as CDN path mappings

- **oj-html-tabbar-edge**

  Severity: major[1] Message ID's: jet-2215, 2216

  Vertical support in <oj-tab-bar> is deprecated in JET 15.0.0. Use <oj-navigation-list> instead. Use of `edge` property values `start` or `end` (or omitting `edge`) is not recommended, and the values `top` or `bottom` should be used.

- **jetwc-css-pack-load-path**

  Severity: blocker Message ID: jetwc-0230

  Components in a JET Pack should always use the canonical path for that pack when using the css! or ojcss! plugins rather than relative (./) addressing.

- New rules to audit TSX renderable JSX content:

```
oj-tsx-5-tag-obs
oj-tsx-acc-avatar-aria-role
oj-tsx-acc-button-onclick
oj-tsx-aria-ojselector-labelledby
oj-tsx-aria-prop
oj-tsx-attr-req
oj-tsx-cca-tagname
oj-tsx-combo-converter
oj-tsx-databind-all
oj-tsx-dlg-title
oj-tsx-form-bindif
oj-tsx-form-noflex
oj-tsx-input-isodate
oj-tsx-ojattr-deprecated
oj-tsx-ojattr-value
oj-tsx-ojattr
oj-tsx-ojtag-deprecated
oj-tsx-ojtag-ns
oj-tsx-pageopts-type
oj-tsx-picker-attrs
oj-tsx-prop-inline-definition
oj-tsx-rating-gauge-size
oj-tsx-rating-gauge-track-resize
oj-tsx-slot-deprecated
oj-tsx-slot-pref-content
```

```
oj-tsx-tabbar-edge
oj-tsx-unsup-theme
oj-tsx-wctag-maintenance
oj-tsx-wctag-nested
oj-tsx-wctag-packprivate
```

- JAF deprecated these rules and methods:
  - **oj-html-wctag-id**

    This rule has been deprecated and will be removed in a future release.

    > **Note:**
    >
    > Deprecated rules may be displayed using `ojaf -dpl`

  - The method **getTagPropType()** is now deprecated. Use the **getTagAttrType()** method instead. See Oracle JET Audit Metadata Interface Library Tag Methods.
- JAF removed this rule:
  - **oj-html-cspexpr**

    Message ID: JET-2210

    The functionality is now available in the **csp-html-unsafe-expr** rule. The feature that checked attribute expression delimiters is now available in the new rule, **oj-html-attr-expr-delims**, with the JET-2211 message ID.

Changes for rule writers:

- Oracle JAF now supports listener types specific to TSX files. See Listener Types for TSX Rules.
- Oracle JAF includes a new utility library, TsxUtils. See TsxUtils: TSX Utility Functions.
- The Oracle JAF rule pack manager has a new method, **getRuleCustomOption()**. See Rule Pack Class Methods.
- A new HTML listener type, **notglob**, listens for all HTML tags that are not common HTML elements or SVG tags. See Listener Types for HTML and JSON Rules.
- Two new listener types complement **webcomp**. Use the **jetcomp** listener for JET components (legacy or core pack components) and **extcomp** for external (that is, non-JET) components. See Listener Types for HTML and JSON Rules.
- New MetaLib APIs:
  - **hasTagDefaultSlot()** to test if a component has a default slot.
  - **hasTagDynamicSlot()** to test if the component supports dynamic slots.
  - **isInterfaceImplemented()** to determine if the specified interface name is implemented by the tagName component.
  - **getTagPropertyFromEvent()** to return a property name from a tag event attribute.

  - **getTagSlotMetadata()** to return the slot object from component metadata.
- MetaLib API's **isTagSlotName()** and **getPreferredSlotContent()** now support "" to represent the default slot as their second argument. See Oracle JET Audit Metadata Interface Library Tag Methods.
- New **FsUtils** API **walkDirSync()** which walks a directory tree applying a function to each file and sub-directory. See FsUtils: File System Functions.
- For rule writers who use TypeScript to author their rules, JAF types have been enhanced to support registering listeners for named elements in the **<component attrname=>** format.

# Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

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