# Eclipse Scout

Release Notes

**Scout Team** 

Version 6.1

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# Releases

Oxygen: This version is under development and scheduled for release in June 2017.

• Download SDK: Eclipse for Scout Developers

• Runtime on Maven Central: 6.1.0.x

### What's New

This document shows some of the new features delivered with the release 6.1. The release contains a lot of bugfixes and even some features not mentioned here. If you are interested in the detailed change log see https://github.com/eclipse/scout.rt/compare/releases/6.0.x...releases/6.1.x.

# Strong content security policy CSP

The stronger CSP disables inline javscript in html. Therefore the 'New Scout Project' wizard now creates a js file per html file and includes it using the script element. To migrate existing projects, see the Scout Migration Guide.

### **Enforcement of Model Thread**

Every operation which results in a modification of the model and eventually of the ui has to be performed by the model thread. This has been true for a long time and still is. If the wrong thread was used, unexpected behavior was the result, like a delayed update of the ui or concurrency exceptions. To prevent such behavior in the future, an exception will be thrown if an operation is executed in the wrong thread.

If you get such an exception, you'll need to wrap your operation in a model job and schedule it using ModelJobs.schedule(), see the chapter ModelJobs in the Scout Technical Documentation for details.

# Properties support for Lists, Maps and imports

Config properties support list- and map-data-structures. Furthermore other properties files can be imported. See the tech documentation section "Configuration Management" for more details.

# Binary resources support for HtmlField and BeanField

Binary resources such as images or videos can now be used in the following widgets:

- HtmlField
- BeanField

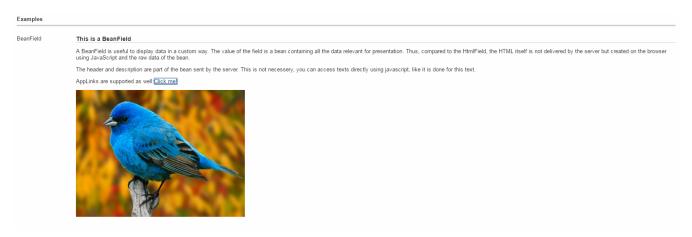


Figure 1. Binary resource on a model field.

- · Html enabled StringColumn
- BeanColumn

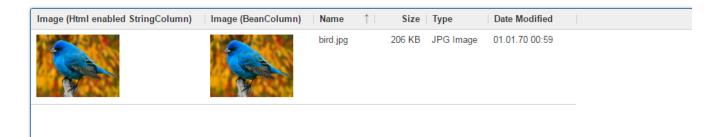


Figure 2. Binary resource on a column

# TriState capability for check boxes

Added support for tri-state value (true, false and null instead of just true and false) to boolean field and boolean column.

The new property triStateEnabled controls whether the boolean field/column behaves as a normal checkbox (false) or a tri-state checkbox (true).

A normal checkbox has values true/false. A tri-state checkbox has values true/false/null. The null value is interpreted as "undefined" and rendered as a filled square.

# New UriOpenAction: SAME\_WINDOW

The enum UriOpenAction provides a new value to open a URI in the current window: SAME\_WINDOW

# New methods in StringUtility

StringUtility provides the following new methods:

- containsString()
- containsStringIgnoreCase()
- containsRegEx()
- matches()
- endsWidth()
- startsWith()
- length()
- indexOf()
- lastIndexOf()
- split() (with *limit* argument)

All methods are null-safe, unit tested and documented with JavaDoc.

# **New ObjectUtility**

ObjectUtility was added as new utility for generic object methods and provides null-safe implementations of various Object methods. Various methods from former CompareUtility:

- equals()
- notEquals()
- nvl()
- isOneOf()
- compareTo()

And a new method ObjectUtility.toString(Object) providing a null-safe implementation of Object.toString() returning null if specified object is null.

# New form field property "preventInitialFocus"

By default, the first enabled field on a form gets the focus when the form is opened. This may not be desired in some cases (e.g. if the first field is a HTML field that contains app links). The new property PROP\_PREVENT\_INITIAL\_FOCUS can be used to prevent the initial focus to be set to this field. The default value is false. For AbstractHtmlField and AbstractBeanField, the default is set to true.

# **Multiple Dimensions Support**

Some components now support more dimensions for various attributes. E.g. until now there have been two dimensions for Form Field visibility: visible and visible-granted. Now there are also custom dimensions available. See the chapter 'Multiple Dimensions Support' in the Scout Technical Documentation for details and examples.

Currently the following attributes support multiple dimensions:

• Actions: visible, enabled

· Columns: visible

• Tree Nodes: visible, enabled

• Outlines: visible

• Form Fields: visible, enabled, label-visible

• Data Model Attributes: visible

• Data Model Entity: visible

• Wizard Steps: visible, enabled

Trees: enabledTables: enabled

### Form Field Enabled Inheritance

The inheritance of the enabled property for Form Fields has been changed. Now the enabled properties are no longer propagated to children if it is changed on a composite field. Instead a field is only considered to be enabled if itself and all of its parents are enabled. This allows to toggle an entire box to disabled and back to enabled without touching the child fields. This has the advantage that the original state is restored when the box is set back to enabled.

With this change the getConfiguredEnabled on composite fields now also automatically affects children. There is no need to overwrite execInit() and call setEnabled(false) anymore.

# Table: new property "groupingStyle"

The new property <code>groupingStyle</code> can be set to <code>bottom</code> (default) or <code>top</code>. Depending on the value aggregate rows are rendered on the bottom of grouped rows or on the top of grouped rows. The new top style can be set to have an aggregate row as a title for a group of table rows, this is useful for separating a table into multiple categories.

# UnloadRequestHandler for navigator.sendBeacon()

When a client leaves the application (e.g. puts about:blank in the address bar) one last "unload" request to the UI server is sent in order to property clean up the session on the server.

If the browser supports the Beacon API navigator.sendBeacon() is used for this request. Unfortunately application/json is not a CORS-safelisted request-header which implies that we can't use the JsonMessageRequestHandler for the unload handling. Therefore a separate UnloadRequestHandler was introduced which handles all requests to /unload/[UiSessionId]. (For more Information, see https://git.eclipse.org/r/#/c/89422/)

To cut a long story short, new traffic to /unload will be sent by the clients. Please check your container and firewall configuration.

# **Preparations for Scout JS**

A classic Scout application has a client model written in Java, and a UI which is rendered using JavaScript. With this approach you can write your client code using a mature and type safe language. Unfortunately you cannot develop applications which have to run offline because the UI and the Java model need to be synchronized.

With Scout JS this will change. You will be able to create applications running without a UI server because there won't be a Java model anymore. The client code will be written using JavaScript (or TypeScript) and executed directly in the browser.

This release (6.1) is the first step in this direction. Several actions have been performed:

### 1. Created scout.App

The new App object represents the *Single Page Application*. It will be initialized when the page loads and prepares all the necessary things the application needs to run, like texts, codes, fonts, logger and the session. These things may be different in case of a classic remote application and a Scout JS application. That is why there is another app called <code>scout.RemoteApp</code> which extends the <code>scout.App</code>. For you it basically means: if you create a Scout Classic App, use <code>scout.RemoteApp</code>, otherwise use <code>scout.App</code>.

#### 2. Separated Widget and Model Adapter

A ModelAdapter is the connector with the server, it takes the events sent from the server and calls the corresponding methods on the widget. It also sends events to the server whenever an action happens on the widget. So if there is no server, there is no need for such adapters. This means in a Scout JS app you will only work with widgets, adapters are only required for remote apps.

#### 3. Enhanced Widgets

With a Scout Classic app a lot happens on the UI server, like validating a form when the ok button is pressed. We started to enhance the JavaScript widgets with similar functionality and added API to use them. One example: The ValueField on Java side has a value and a display text. If a text is entered it will be parsed to get the value, or if a value is set the format function is called to get the text. This has not existed on JavaScript side, because the server only sent the text. This has been changed, parse and format functions now exist on the JS ValueField as well.

The preparations done in this release are just the first step. You could create a Scout JS app with this release, but a lot of the widgets are not ready to use yet. See also the Scout Migration Guide to migrate your existing JavaScript code.

# Button: new property 'defaultButton'

A button may now be marked as default button which gives him a dedicated look to attract users attention. It will just change the look, the behavior stays the same.

Note: The first button or menu which has an Enter keystroke will automatically get that look too. This is existing behavior and hasn't changed. The new property has been added to give you more control, but actually you should always prefer the *enter keystroke approach* to provide a consistent behavior.



