

# Eclipse Scout

## *Migration Guide*

Scout Team

Version 9.0

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# About This Document

This document describes all relevant changes **from Eclipse Scout 8.0 to Eclipse Scout 9.0**. If existing code has to be migrated, instructions are provided here.

**Attention:** The here described functionality has not yet been released and is part of an upcoming release.

## API Changes (Java)

### Disabling Close- & Cancel-Buttons

Until Scout 8.0 a Close- or Cancel-Button ignored the enabled-granted property to ensure the form can be closed even if the full form has been disabled using `setEnabledGranted(false)`. This was confusing because the same convenience was not available for all other enabled dimensions.

Since Scout 9.0 Close- and Cancel-Buttons can be disabled like any other form field. But one special handling is still present: The method `isEnabledIncludingParents` ignores the enabled state of the parents and always returns the state of the button only.

So if a Form or GroupBox is disabled using `setEnabled(false)` or `setEnabledGranted(false)` or any other dimension, the full form gets disabled except the Close- and Cancel-Buttons. As soon as the button is disabled explicitly (e.g. by calling `setEnabled(false)` on the button itself or by propagating to the button using `setEnabled(false, false, true)` on a parent composite) it will be disabled and the form cannot be closed anymore.

#### Migration:

If you disable the root group box of a form (with child propagation) and want the close- or cancel button to stay enabled anyway, the button must be re-enabled again afterwards.

If you have Close- or Cancel-Buttons that need to be disabled, it must be disabled explicitly on the button itself or by propagating the change on a parent form field.

### Add Custom Header for REST Services

By default REST services exposed by Scout using the `org.eclipse.scout.rt.rest.RestApplication` are protected against [CSRF](#) now. This requires a custom header to be present on all non GET or HEAD requests. Please do also ensure that GET or HEAD requests do follow the HTTP specification and therefore do not perform any data or state changing operations!

As long as the ScoutJS App or the `org.eclipse.scout.rt.rest.client.AbstractRestClientHelper` is used to call REST services this header is automatically added. For other 3rd party clients the custom header `X-Requested-With` must be added. There is no value for the header required. Typically `XMLHttpRequest` is passed but the value can be chosen freely.

If there are non CSRF prone clients (like backend systems) such clients may also be excluded from

the CSRF header check by replacing the Scout Bean `AntiCsrfHelper` and ignoring such requests.

See the Scout Bean `org.eclipse.scout.rt.rest.csrf.AntiCsrfHelper` for more details.

## Replacements for `ServerRunContextFilter`

Before Scout 9 the `ServerRunContextFilter` was used to create Scout server contexts for REST APIs. This filter used a user based TTL cache that was not bound to the HTTP session.

Starting with Scout 9 there are two new filters available:

- `HttpRunContextFilter`: Creates a Scout context without HTTP- and server sessions for stateless REST backends. It supports subject, correlationId, locale, transaction, etc.
- `HttpServerRunContextFilter`: Creates a Scout server context that additionally has a user-agent and an optional Scout server session.

### Migration:

If a Scout server session is required in the application use

- `ServerRunContextFilter` for clients that have no cookie support
- `HttpServerRunContextFilter` for clients with cookie support

If the application does not have a Scout server session use

- `HttpServerRunContextFilter` with session support disabled if a server dependency is available in the application.
- `HttpRunContextFilter` if only a server-commons dependency is available in the application.

## Property Lookup Order Changed

The Scout properties are now resolved in a slightly different order. The environment variables are now resolved *before* the `config.properties` file.

1. System properties
2. Environment variables
3. Config properties file
4. Default value of property

Environment variable typically have stricter naming conventions for their names (POSIX). To allow overriding most Scout properties with environment variables, these lookup rules are applied in order to find a matching environment variable:

1. An exact match of your property key (`my.property`)
2. A match where periods are replaced by underscores (`my_property`)
3. An uppercase match of your property key (`MY.PROPERTY`)

4. An uppercase match where periods are replaced by underscores (`MY_PROPERTY`)

If there are no environment variables which collide with Scout properties, then no migration is required.

In a deployment where a colliding environment variable exists, the following migration options exist:

- If it is an intentional override: No migration required
- If the override is an unintended collision of the environment
  - Remove the colliding environment variable from the environment of the process your application runs in, or
  - Change the property key, or
  - Force the intended property to the desired value using a Java system property (`-D JVM parameter`).

## Menu Wrapping

The `OutlineMenuWrapper` has been adapted so that no manual instance can be created anymore (the constructors are no longer public). Instead the new factory bean `org.eclipse.scout.rt.client.ui.desktop.outline.MenuWrapper` should be used. This helps to ensure that the correct wrapper is created for each menu type and because it is a bean it may be extended for custom menu types. The same is for the methods `unwrapMenu` and `containsWrappedMenu` which have been moved to the new `MenuWrapper` class as well.

## CollatorProvider Behavior Changed

The `CollatorProvider` bean now uses the *NaturalCollatorProvider* by default (see release notes). This may result in different results when sorting text.

### Migration:

If your application already used a custom `CollatorProvider` bean, this may not be necessary anymore. Check the implementation.

If your application wishes to restore the previous behavior, the `CollatorProvider` has to be replaced like this:

```
@Replace
public class MyCollatorProvider extends CollatorProvider {

    @Override
    public Collator getInstance(Locale locale) {
        return Collator.getInstance(locale); // use JVM default
    }
}
```

# API Changes (JavaScript)

## Rename of LESS Variables

If you created a custom theme, you might have to adjust some LESS variables.

- Renamed `@scrollbar-thumb-color` to `@scrollbar-thumb-main-color`
- Renamed `@scrollbar-thumb-inverted-color` to `@scrollbar-thumb-inverted-main-color`
- Renamed `@calendar-mode-active-text-color` to `@calendar-mode-selected-color`
- Renamed `@planner-mode-active-text-color` to `@planner-mode-selected-color`
- Renamed `@popup-border-color` to `@control-popup-border-color`
- Renamed `@view-tab-active-color` to `@simple-tab-active-color`
- Renamed `@view-tab-active-background-color` to `@simple-tab-active-background-color`
- Renamed `@view-tab-background-color` to `@simple-tab-background-color`
- Renamed `@table-header-menu-cmd-active-background-color` to `@table-header-menu-cmd-selected-background-color`
- Renamed `@table-header-menu-cmd-active-border-color` to `@table-header-menu-cmd-selected-border-color`
- Renamed `@table-header-menu-cmd-active-color` to `@table-header-menu-cmd-selected-color`
- Renamed `@table-control-active-color` to `@table-control-selected-color`
- Renamed `@table-control-active-background-color` to `@table-control-selected-background-color`
- Renamed `@scrollbar-side-margin` to `@scrollbar-side-padding`

## Default Value for Scout JSON Model Attribute "type"

In the Scout JSON model the `"type": "model"` must no longer be specified as it is the default value now. Therefore all occurrences can be deleted. This makes the static JSON model more compact, easier to write and better readable.

## Page Can Be Declared in the Static Outline JSON Model

Before 9.0 it was necessary to add pages (`PageWithTable`, `PageWithNodes`) programmatically to outlines as pages could not be declared in the JSON model. This is now possible. The Outline JSON model may now contain an attribute `nodes` which may contain custom pages. Refer to the helloworld application (created by Eclipse) or the JS Widgets application for an example.

## Form in FormTableControl is Adapted Automatically

A form in a `FormTableControl` is automatically adapted to match the semantics in which the form exists:

- It is automatically set to non-modal

- It does not ask if a save is needed as it will never be saved anyway.
- It is configured to `DisplayHint.VIEW`

Until now if the `FormTableControl` was used in a project, this adaption of the form must have been done manually. This code can now be removed as it will be done by Scout now.

## Table Inside PageWithTable Uses Default Reload Handler

A table within a `PageWithTable` has a default reload handler installed now. It calls `loadTableData` on the page which discards all rows and loads them again by calling `_loadTableData`. If a custom reload handler was installed, it may be removed now.

Furthermore the `_loadTableData` method now also gets an optional argument holding the exported data of the first form that is attached to the table using a `FormTableControl` (typically the `SearchForm`).

## Possibility to Prepare a LookupCall in ListBox & RadioButtonGroup

Until now it was necessary to set the lookup call programmatically to a `ListBox` or `LookupCall` if a `prepareLookupCall` listener was registered. Otherwise the call has been executed before the listener could have been attached. This is no longer the case: The `LookupCall` is executed on first use only and not during the creation of the widget which allows to attach `prepareLookupCall` listeners. The `LookupCall` may now also be declared in the static JSON model of the widget even though a `prepareLookupCall` listener is registered.

## Other Changes



Do you want to improve this document? Have a look at the [sources](#) on GitHub.