

ScriptRunner IT Service Management (ITSM)

Lab 4

October 2018

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ScriptRunner IT Service Management (ITSM)

Overview

This lab brings together ScriptRunner features that allow ITSM practices such as updating all Linked incidents, count alerts using Scripted Fields, Using PostFunctions to set Remedial Action Priority, Optimising the Jira Service Desk behaviour, and constraining the Create Issue dialog with customised rules.

What do these labs showcase?

- How ScriptRunner enables a one-stop shop for updating all linked incidents in one go, saving time and cost for IT teams by automating these tasks and provide time to focus on more critical issues
- Using ScriptRunner Behaviours, you can now control the user interaction in a Jira Service Desk form, enabling IT teams to decipher key information by controlling what input the user must provide in a support desk form
- Using the power of Behaviours again, we see how to constrain the Create Issue dialog in Jira, providing more control over how your Jira users interact with the form
- Supercharging custom fields to show the number of alerts in an issue, users will learn how powerful Scripted Fields is with this example
- Tailor your Jira workflow to put in place a post function that sets a remedial action priority, for example, automatically set the remedial action issue priority to 'Highest' if it has 2 or more linked alerts.

Technology used

The following technology components are used in this solution:

- ScriptRunner for Jira Server - 5.4.12
 - Scripted Fields
 - Post Functions
 - Behaviours
 - Script Listener
- Jira Service Desk - 3.8.1
- Jira Software - 7.5.0
- Jira Core - 7.5.0

Prerequisites

- A demo/magic button Jira with Service Desk and Software license
- A demo/magic administration account
- A ScriptRunner for Jira Server license (evaluation or commercial):
- A basic understanding of Jira

Lab 4 – Adding Scripted Fields to Count Alerts

Before you start

Create an Alert Issue using the customer portal. Give it a summary to reflect a real-life alert, such as 'System failure'. Once this has been created, go and create **another** one using the customer portal, again with a summary such as 'System failure'. Here we are just replicating the sort of Alerts that an external monitoring system may create for us in an ITSM stack.



Using the normal Create button in the banner menu create a new Remedial Action issue

- Summary → 'Remedial Action for: <issue key of one of the alerts>
- Linked Issues → Remedial Action for
- Issue → <issue key of the alert mentioned in the summary>

Now go to the other Alert that you created earlier and manually link it to the newly created Remedial Action issue using the same link type. You can do this by finding the issue and clicking on More → Link:

- This issue → Remedial Action of
- Issue → <issue key of the Remedial Action issue>

EIM-5

System failure

The screenshot shows the JIRA issue 'System failure' (EIM-5). The 'More' dropdown menu is open, displaying various actions. The 'Link' option is highlighted in blue. The menu options include: Create Problem, Log work, Attach files, Voters, Watch issue, Watchers, Create sub-task, Convert to sub-task, Create linked issue, Move, Link, Clone, Labels, and Delete. The 'Link' option is the 10th item in the list.

The screenshot shows the 'Link' dialog box in JIRA. The 'This issue' dropdown is set to 'Remedial Action of'. The 'Issue' dropdown is set to 'EIM-8'. The 'Comment' section has two tabs: 'Respond to customer' (selected) and 'Internal comment'. The 'Link' button is highlighted in blue. The 'Cancel' button is also visible.





Now you will have one Remedial Action with two Alerts linked to it with the same link type.

Step 1

- Go to Add-ons → Script Fields using the cog in the top right corner
- Then click the Add New Item button and choose Custom Script Field
- Configure the screen to look like the below:

Custom Script Field

Create your own custom scripted field.

Field Name	<input type="text" value="Number of Alerts"/>
	The name of the custom field that you are creating
Field Description	<input type="text" value="Number of Alerts for Remedial Action"/>
	The description of the custom field that you are creating
Note	<input type="text" value="Number of Alerts for Remedial Action"/>
	An optional note, used only for your reference.
Template	<div>Number Field </div>
	Template to represent your field. Match to the output of your script.
Script file	<input type="text" value="Start typing to search for files..."/>
	Path to the script accessible on the server
Inline script	<div><pre>1 import org.apache.log4j.Level 2 import org.apache.log4j.Logger 3 4 5 import com.atlassian.jira.component.ComponentAccessor 6 import com.atlassian.jira.event.issue.IssueEvent 7 import com.atlassian.jira.issue.Issue 8 import com.atlassian.jira.issue.link.IssueLink</pre></div> <div>Enter your script here   </div>
Preview Issue Key	<input type="text"/>
	Issue key for preview. Only used for the preview function below.

- Here is the code snippet:

```
import org.apache.log4j.Level
import org.apache.log4j.Logger

import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.event.issue.IssueEvent
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLink

import com.atlassian.jira.ComponentManager
import com.atlassian.jira.issue.CustomFieldManager
import com.atlassian.jira.issue.fields.CustomField

String scriptCode = "EIM Alert Count:"
String robotUsername = "admin"
```

```

        // List of link types we are counting for Incidents
        List<String> linkNamesForIncident = [ "Remedial Action Link" ]
        // Trigger an event of the given type ID
        // Set logging appropriately
        // Set logging appropriately
        Logger logger = log
        logger.setLevel( Level.ALL )

        // Get the current issue object
        Issue triggerIssue = issue
        logger.debug( "$scriptCode Script triggered on issue ${
triggerIssue.getKey() }" )

        // Get all the trigger issue links
        List<IssueLink> triggerIssueInwardLinks =
ComponentAccessor.getIssueLinkManager().getOutwardLinks( triggerIssue.getId() )

        // Get all the link types that we are looking for
        List<IssueLink> filteredLinks = triggerIssueInwardLinks.findAll {
it.getIssueLinkType().getName() in linkNamesForIncident &&
it.destinationObject.issueType.name == "Alert"}

        // Get the number of filtered links
        double AlertCount = (double) filteredLinks.size()
        log.info(AlertCount)

        // Return that value
        return AlertCount

```

- Click Add

Step 2

- Click on the cog to the right of the new field you just created

Number of Alerts

No failures in the last 15 execution(s) ↕

Default Configuration Scheme for Number of Alerts

Searcher: [Free Text Searcher](#)

Template: Number Field

Number of Alerts for Remedial Action

Timezone

Has not run yet

⚙️

Edit

Delete

Configure Context

Configure Screens

- Modify the data to look like the below:

Configuration contexts enable the custom field for that particular set of issues and each context can have its own configuration set (e.g. different default values, options).

Custom Field Number of Alerts

Configuration scheme label *

Label for this context

Description

Optional description for this context

Choose applicable issue types

Please select the applicable issue types. This will enable the custom field for these issues types in the context specified below.

Issue types

- ☐ Change
- ☐ Epic
- ☐ Incident
- ☐ Problem
- ☐ Remedial Action

Apply for all issues with any selected issue types

Choose applicable context

Please choose the contexts where this configuration will be applicable. Note that this will apply to only issues with the selected issue type as above.

- ☐ Global context. Apply to all issues in JIRA.
- ☒ Apply to issues under selected projects

Projects

Apply for all issues in any selected projects

- Click Modify
- Navigate back to the Script Fields sections. Add-ons → Script Fields using the cog in the top right corner

- Now go to the Configure Screen option in the same cog and add the field to the PM: Kanban Default Issue Screen

Number of Alerts

No failures in the last 11 execution(s) ↕

⚙

Edit

Delete

Configure Context

Configure Screens

Default Configuration Scheme for Number of Alerts

Searcher: [Free Text Searcher](#)

Template: Number Field

Number of Alerts for Remedial Action

Timezone

⌚ Has not run yet

Associate field Number of Alerts to screens

Associate the field Number of Alerts to the appropriate screens. You must associate a field to a screen before it will be displayed. New fields will be added to the end of a tab.

Screen	Tab	Select
Default Screen	Field Tab	<input type="checkbox"/>
Link to recent Problem	Field Tab	<input type="checkbox"/>
PM: Kanban Default Issue Screen	Field Tab	<input checked="" type="checkbox"/>
Problem Creation Screen	Field Tab	<input type="checkbox"/>
Reopen	Field Tab	<input type="checkbox"/>
Resolve Issue Screen	Field Tab	<input type="checkbox"/>
Workflow Screen	Field Tab	<input type="checkbox"/>


Update

Cancel

- Click Update

Test Step

- Click the Issue drop down in the banner menu and find the Remedial Action issue created in this lab
- Check the Number of Alerts field in showing the value 2



Extended Incident Management

EIM-5

Add more memory to system

Edit

Comment

Assign

More

Backlog

Selected for Development

Workflow

Admin

Details

Type: Remedial Action

Priority: ↑ Medium

Component/s: None

Labels: None

Number of Alerts: 2

Status: BACKLOG (View Workflow)

Resolution: Unresolved

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