

Integration with ScriptRunner

Some customers and some partners may be using ScriptRunner in order to automate some tasks and even extend the features provided by Jira.

You can also do some automation-related with Xray, especially because we use Jira entities and concepts.

ScriptRunner may be used in order to access existing features or even to extend the built-in features.

Let us know if you're using also ScriptRunner and your use cases so we can improve and share them with other users.



Please note

The following scripts are provided as-is, no warranties attached. Use these scripts carefully.

Please feel free to adapt them to your needs.

Note: We don't provide support for ScriptRunner; if you have doubts concerning its usage, please contact [ScriptRunner's support](#).

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Create a Test Set or a Test Plan

Sometimes you may need to create a Test Set or a Test Plan programmatically.

The following example shows how to create a Test Plan or a Test Set based on setting the value for specific Xray custom fields.

create_xray_entities.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
```

```

import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager
import org.ofbiz.core.entity.GenericValue
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.event.type.EventDispatchOption
import groovy.json.JsonOutput
import groovy.transform.BaseScript
import groovy.json.JsonSlurper;
import groovy.json.StreamingJsonBuilder;
import javax.ws.rs.core.MultivaluedMap
import javax.ws.rs.core.Response
import com.atlassian.jira.issue.index.IssueIndexingService
import com.atlassian.jira.util.ImportUtils
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.IssueService.CreateValidationResult
import com.atlassian.jira.bc.issue.IssueService.IssueResult
import com.atlassian.jira.user.ApplicationUser

```

```

Logger.getLogger("com.onresolve").setLevel(Level.DEBUG)

```

```

// creates a Sub Test Execution from a requirement issue, with all linked Tests

```

```

projectManager = ComponentAccessor.getProjectManager()
componentManager = ComponentManager.getInstance()
issueManager = ComponentAccessor.getIssueManager()
def issueFactory = ComponentAccessor.getIssueFactory()
issueService = ComponentAccessor.issueService
searchService = ComponentAccessor.getComponent(SearchService.class);
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
customFieldManager = ComponentAccessor.getCustomFieldManager()
def subTaskManager = ComponentAccessor.getSubTaskManager()
issueService = ComponentAccessor.getIssueService()
def user = ComponentAccessor.jiraAuthenticationContext.getLoggedInUser()

```

```

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {

```

```

        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

Object getFieldValueByName(issue,customField) {
    def cField = customFieldManager.getCustomFieldObjectByName(customField)
    def cFieldValue = issue.getCustomFieldValue(cField)
    return cFieldValue
}

Object setFieldValueByName(issue,customField,value) {
    def cField = customFieldManager.getCustomFieldObjectByName(customField)
    issue.setCustomFieldValue(cField,*value)
}

Object setFieldValueByNameInParameters(inputParameters,customFieldName,value) {
    def customField = customFieldManager.getCustomFieldObjectByName(customFieldName)
    inputParameters.addCustomFieldValue(customField.id, value)
}

def project = projectManager.getProjectObjByKey("CALC")
def newIssueType = ComponentAccessor.issueTypeSchemeManager.getIssueTypesForProject(project).find { it.name ==
"Test Plan" }

def newIssue

def issueInputParameters = issueService.newIssueInputParameters()
issueInputParameters.with {
    projectId = project.id
    summary = "Issue created from script"
    issueTypeId = newIssueType.id
    reporterId = user.name
}

def jql = "project = ${project.key} and issuetype = Test and component = UI"
def issues = getIssues(jql)
def arr = issues.collect{ it.key }
log.debug("testKeys: "+arr)
testKeys=arr.toArray(new String[arr.size()])

// Tests association with a Test Execution: setting it through the CF is currently not possible due to bug XRAY-
2010
//setFieldValueByNameInParameters(issueInputParameters,"Tests association with a Test Set",testKeys)
setFieldValueByNameInParameters(issueInputParameters,"Tests associated with a Test Plan",testKeys)

appUser = user.getDirectoryUser()
CreateValidationResult createValidationResult = issueService.validateCreate(user, issueInputParameters)
if (!createValidationResult.isValid()) {
    log.error "Error validating new issue"+createValidationResult.getErrorCollection()
} else {
    IssueResult createResult = issueService.create(user, createValidationResult)
    newIssue = createResult.issue
    log.debug(newIssue.key)
}
}

```

Create a Test Execution

Sometimes you may need to create a Test Execution programmatically.

Currently there is a limitation to associate the Tests by custom field. Thus, a possible workaround using Xray's REST API is shown in the following example.

create_test_execution.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager
import org.ofbiz.core.entity.GenericValue
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.event.type.EventDispatchOption
import groovy.json.JsonOutput
import groovy.transform.BaseScript
import groovy.json.JsonSlurper;
import groovy.json.StreamingJsonBuilder;
import javax.ws.rs.core.MultivaluedMap
import javax.ws.rs.core.Response
import com.atlassian.jira.issue.index.IssueIndexingService
import com.atlassian.jira.util.ImportUtils
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.IssueService.CreateValidationResult
import com.atlassian.jira.bc.issue.IssueService.IssueResult
import com.atlassian.jira.user.ApplicationUser

Logger.getLogger("com.onresolve").setLevel(Level.DEBUG)

projectManager = ComponentAccessor.getProjectManager()
componentManager = ComponentManager.getInstance()
issueManager = ComponentAccessor.getIssueManager()
def issueFactory = ComponentAccessor.getIssueFactory()
issueService = ComponentAccessor.issueService
searchService = ComponentAccessor.getComponent(SearchService.class);
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
customFieldManager = ComponentAccessor.getCustomFieldManager()
```

```

def subTaskManager = ComponentAccessor.getSubTaskManager()
issueService = ComponentAccessor.getIssueService()
def user = ComponentAccessor.jiraAuthenticationContext.getLoggedInUser()

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

Object getFieldValueByName(issue,customField) {
    def cField = customFieldManager.getCustomFieldObjectByName(customField)
    def cFieldValue = issue.getCustomFieldValue(cField)
    return cFieldValue
}

Object setFieldValueByName(issue,customField,value) {
    def cField = customFieldManager.getCustomFieldObjectByName(customField)
    issue.setCustomFieldValue(cField,*value)
}

Object setFieldValueByNameInParameters(inputParameters,customFieldName,value) {
    def customField = customFieldManager.getCustomFieldObjectByName(customFieldName)
    inputParameters.addCustomFieldValue(customField.id, value)
}

boolean associateTestsToTestExecution(testExecKey,listOfTestKeys){
    def jiraBaseUrl = com.atlassian.jira.component.ComponentAccessor.getApplicationProperties().getString("jira.
baseurl")
    def endpointUrl = "${jiraBaseUrl}/rest/raven/1.0/api/testexec/${testExecKey}/test"
    url = new URL(endpointUrl);
    def body_req = [ "add": listOfTestKeys ]

    // you should use a specific user for this purpose
    username = "admin"
    password = "admin"
    def authString = "${username}:${password}".bytes.encodeBase64().toString()

    HttpURLConnection connection = (HttpURLConnection) url.openConnection()
    connection.setRequestMethod("POST")
    connection.setDoOutput(true)
    connection.addRequestProperty("Authorization", "Basic ${authString}")
    connection.setRequestProperty("Content-Type", "application/json;charset=UTF-8")
    connection.outputStream.withWriter("UTF-8") { new StreamingJsonBuilder(it, body_req) }
    connection.connect();
    log.debug(connection.getResponseCode())
    log.debug(connection.getResponseMessage())

    if (connection.getResponseCode() == 200) {
        // OK
        return true;
    } else {
        // error
        return false;
    }
}

```

```

def project = projectManager.getProjectObjByKey("CALC")
def newIssueType = ComponentAccessor.issueTypeSchemeManager.getIssueTypesForProject(project).find { it.name ==
"Test Execution" }

def newIssue

def issueInputParameters = issueService.newIssueInputParameters()
issueInputParameters.with {
    projectId = project.id
    summary = "Issue created from script"
    issueTypeId = newIssueType.id
    reporterId = user.name
}

def jql = "project = ${project.key} and issuetype = Test and component = UI"
def issues = getIssues(jql)
def testKeys = issues.collect{ it.key }

appUser = user.getDirectoryUser()
CreateValidationResult createValidationResult = issueService.validateCreate(user, issueInputParameters)
if (!createValidationResult.isValid()) {
    log.error "Error validating new issue"+createValidationResult.getErrorCollection()
} else {
    IssueResult createResult = issueService.create(user, createValidationResult)
    newIssue = createResult.issue
    log.debug(newIssue.key)
    associateTestsToTestExecution(newIssue.key, testKeys)
}

```

Validate requirement before allowing to make a transition

Sometimes you may need to assure that the requirement is actually OK before transitioning it to some status, or before resolving it.

The following script validates the requirement based on the tests executed for the version assigned to the requirement issue.

You can either make the validation based on the existence of failed tests (i.e. requirement status is "NOK") or, in a more complete way by making sure all of them are passing (i.e. requirement status is "OK").

requirement_validation.groovy

```

import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl

```

```

import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager
import com.opensymphony.workflow.InvalidInputException

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

searchService = ComponentAccessor.getComponent(SearchService.class);
issueManager = ComponentAccessor.getIssueManager()
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()

Issue issue = issue;

log.debug(issue.project.name)
projectName = issue.project.name
version = issue.fixVersions.join('')
log.debug(version)

//jql = "key = ${issue.key} and issue in requirements('NOK','${projectName}','${version}')"
jql = "key = ${issue.key} and issue in requirements('OK','${projectName}','${version}')"
issues = getIssues(jql)
count = issues.size
//log.debug(count)

/*
if (count>0) {
    invalidInputException = new InvalidInputException("Some tests are failing. You must assure that they pass
before making the transition.")
}
*/

if (count == 0) {
    invalidInputException = new InvalidInputException("Some tests need to be executed. You must assure that
they pass before making the transition.")
}
}

```

Reopen/transition linked Tests to a requirement

Whenever you change the specification of a requirement, you most probably will need to review the Tests that you have already specified.

The following script tries to make a transition on all linked Tests to a requirement. You can hook it to a post-function on the transition of the requirement.

reopen_linked_tests.groovy

```

import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager

```

```

import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.config.ResolutionManager
import com.atlassian.jira.workflow.WorkflowTransitionUtil
import com.atlassian.jira.workflow.WorkflowTransitionUtilImpl
import com.atlassian.jira.util.JiraUtils
import com.atlassian.jira.bc.ServiceResultImpl
import com.atlassian.jira.bc.issue.IssueService.TransitionValidationResult
import com.atlassian.jira.issue.IssueInputParametersImpl
import com.atlassian.jira.bc.issue.DefaultIssueService
import com.opensymphony.workflow.InvalidActionException
import com.atlassian.jira.workflow.IssueWorkflowManager

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

searchService = ComponentAccessor.getComponent(SearchService.class);
issueManager = ComponentAccessor.getIssueManager()
customFieldManager = ComponentAccessor.getCustomFieldManager()
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
IssueWorkflowManager issueWorkflowManager = ComponentAccessor.getComponentOfType(IssueWorkflowManager.class);

Issue issue = issue;

jql = "issue in requirementTests('${issue.key}')"
issues = getIssues(jql)

issues.each {
    WorkflowTransitionUtil workflowTransitionUtil = ( WorkflowTransitionUtil ) JiraUtils.loadComponent(
WorkflowTransitionUtilImpl.class );

```

```

MutableIssue tempissue = issueManager.getIssueObject(it.key)
workflowTransitionUtil.setIssue(tempissue);
workflowTransitionUtil.setUsername(serviceAccount.getUsername());

def actionId = 3 // change it accordingly
if (issueWorkflowManager.isValidAction(tempissue, actionId)){
    workflowTransitionUtil.setAction(actionId);//Id of the status you want to transition to
    try {
        workflowTransitionUtil.progress();
    } catch (InvalidActionException e) {
        log.error("Caught exception trying to transition issue" + e.getMessage());
    }
}
}
}

```

Requirement projects

Although you can go to Xray settings, in the "Requirement Projects" tab, and define a project as containing requirement issues, sometimes you may want to automate this.

The following script shows several functions that you can use to obtain the list of projects with requirement coverage enabled and to set or unset a project as being a requirements project.

requirement_projects.groovy

```

import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;

ENTITY_NAME = "com.xpandit.raven";
ENTITY_ID = 12345678987654321L;
REQUIREMENT_PROJECTS_SETTING = "requirement-coverage.projects";

projectManager = ComponentAccessor.getProjectManager()

Object obtainRequirementProjectsIds() {
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.class);
    def setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    def requirementProjects = Eval.me(setting.getText(REQUIREMENT_PROJECTS_SETTING))
}

Object obtainRequirementProjects() {
    def requirementProjects = obtainRequirementProjectsIds()
    log.debug("requirementProjects: "+requirementProjects)
    def availableProjects = projectManager.getProjectObjects()
    availableProjects.findAll { it.id.toInteger() in requirementProjects}
}

```

```

}

boolean enableRequirementCoverageForProject(project){
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.
class);
    def setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    projectList = obtainRequirementProjectsIds()
    if (!projectList.contains(project.id.toInteger())){
        setting.setText(REQUIREMENT_PROJECTS_SETTING,(projectList << project.id).toString())
    }
}

boolean disableRequirementCoverageForProject(project){
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.
class);
    def setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    projectList = obtainRequirementProjectsIds()
    if (projectList.contains(project.id.toInteger())){
        projectList.removeAll{it == project.id.toInteger()}
        setting.setText(REQUIREMENT_PROJECTS_SETTING,projectList.toString())
    }
}

boolean requirementCoverageEnabledForProject(project){
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.
class);
    def setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    def requirementProjects = Eval.me(setting.getText(REQUIREMENT_PROJECTS_SETTING))
    (project.id.toInteger() in requirementProjects)
}

projects = obtainRequirementProjects()
project = projectManager.getProjectObjByKey("CALC")
log.debug(requirementCoverageEnabledForProject(project))
enableRequirementCoverageForProject(project)
log.debug(requirementCoverageEnabledForProject(project))

```

Create Test Execution from Test Set issue screen

In this example, we're adding a new option in the "More" menu, by adding a new "web section", "web item" ScriptRunner elements.

The following script will create a Test Execution containing all the Tests that are part of the current Test Set.

It will set some fields as read-only.

create_test_exec_from_testset.groovy

```

import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager

// creates a Test Execution from a Test Set and fillouts the summary, as readonly, and the Tests associated

// projectManager = ComponentAccessor.getProjectManager()
issueManager = ComponentAccessor.getIssueManager()
searchService = ComponentAccessor.getComponent(SearchService.class);
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

if (getBehaviourContextId() == "create-testexec-from-testset") {
    getFieldById("project-field").setReadOnly(true)
    getFieldById("issuetype-field").setReadOnly(true)

    def contextIssue = issueManager.getIssueObject(getContextIssueId())
    getFieldById("summary").setFormValue("Issue created from ${contextIssue.key}").setReadOnly(true)

    def jql = "issue in testSetTests('${contextIssue.key}')"
    def issues = getIssues(jql)

    getFieldByName("Tests association with a Test Execution").setFormValue(issues.collect { it.key})
}

```

As a mere example, you can see below how it could be setup, by creating a web section and then a webitem to trigger the actual script for creating the Test Execution.

Create a custom web section

Creates a new web section, which you can add web-items to

Note: Entry in More menu
An optional note, used only for your reference.

Location: opsbar-operations
What location should this go in?

Condition: 1
Under what circumstances should this link be displayed. Must be either a plain script or an implementation of com.atlassian.plugin.web.Condition

Key: tools-menu-additional
Used for nesting

Weight:
Placement of the item within its section

Menu text:
Text of menu item

Constrained create issue dialog

Opens the Create Issue dialog with project, issue type, and a behaviour set

Note: Create Test Execution
An optional note, used only for your reference

What action should this go in? test-menu-additional
The location to place the item

Key: create-test-execution-item-behaviour
The key of the menu item

Menu text: Create Test Execution
Text of menu item

Weight:
Placement of the item within its section

Condition: 1 issue.issueType.name == "Test Set"
Expanding examples
Under what circumstances should this behave differently? Must have either a plain script or an implementation of com.atlassian.plugin.web.Condition

Project: CALO-ZZSE
Open issues in which project

Issue type: Test Execution
Which issue type?

Calculate requirement status for a certain version

Xray provides the "Requirement Status" custom field that shows the calculated coverage status for some version(s) depending on the configuration of that field in Xray's Custom Fields Preferences settings.

Sometimes you may need to evaluate the calculate requirement coverage status on some specific version, based on the executions made for that version.

A possible use case could be defining a scripted field present on the requirement issue screen that calculates the coverage status for some specific hardcoded version.

calculate_requirement_status_for_some_version.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.component.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
```

```

import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

projectManager = ComponentAccessor.getProjectManager()
componentManager = ComponentManager.getInstance();
searchService = ComponentAccessor.getComponent(SearchService.class);
issueManager = ComponentAccessor.getIssueManager()
customFieldManager = ComponentAccessor.getCustomFieldManager()
userUtil = ComponentAccessor.getUserUtil();
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
pluginAccessor = componentManager.getPluginAccessor();

Issue issue = issue;

log.debug(issue.project.name)
projectName = issue.project.name
version = 'v3.0'

statuses = ['OK', 'NOK', 'NOTRUN', 'UNCOVERED', 'UNKNOWN']
def status = ''

statuses.find {
    jql = "key = ${issue.key} and issue in requirements('${it}', '${projectName}', '${version}')"
    issues = getIssues(jql)
    count = issues.size
    if (count > 0) {
        status = it;
        return true; // break
    } else {
        return false;
    }
}

status

```

Show Tests Count for a requirement

In the following example, a "script field" is used to show the total amount of linked Tests to a given requirement.

total_linked_tests_to_requirement.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

projectManager = ComponentAccessor.getProjectManager()
componentManager = ComponentManager.getInstance();
searchService = ComponentAccessor.getComponent(SearchService.class);
issueManager = ComponentAccessor.getIssueManager()
customFieldManager = ComponentAccessor.getCustomFieldManager()
userUtil = ComponentAccessor.getUserUtil();
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
pluginAccessor = componentManager.getPluginAccessor();

IssueManager iManager = ComponentAccessor.getIssueManager();
Issue issue = issue;

jql = "issue in requirementTests('${issue.key}')"
issues = getIssues(jql)
issues.size
```

Show Defects Count for a requirement

In the following example, a "script field" is used to show the total amount of linked defects to a given requirement and also provide a link to easily obtain those defects in the Issue search page.

This script field is configured to generate the output as HTML.

total_linked_tests_to_requirement.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

projectManager = ComponentAccessor.getProjectManager()
componentManager = ComponentManager.getInstance();
searchService = ComponentAccessor.getComponent(SearchService.class);
issueManager = ComponentAccessor.getIssueManager()
customFieldManager = ComponentAccessor.getCustomFieldManager()
userUtil = ComponentAccessor.getUserUtil();
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
pluginAccessor = componentManager.getPluginAccessor();

IssueManager iManager = ComponentAccessor.getIssueManager();
Issue issue = issue;

jql = "issue in defectsCreatedForRequirement('${issue.key}')"
issues = getIssues(jql)
"<a href='/issues/?jql=issue%20in%20defectsCreatedForRequirement(${issue.key})'>${issues.size}</a>"
```

Configured Issue Types as being requirements or defects

If you need to obtain the issue types configured as being handled as requirements or as defects by Xray, you may use the following script.

With some additional code, you may filter this out based on the issue types available in some certain project.

requirement_and_defect_issue_types.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;

ENTITY_NAME = "com.xpandit.raven";
ENTITY_ID = 12345678987654321L;
REQUIREMENT_ISSUE_TYPES = "issue-type-mapping.requirements";
DEFECT_ISSUE_TYPES = "issue-type-mapping.defects";

user = ComponentAccessor.jiraAuthenticationContext.getLoggedInUser()
constantsManager = ComponentAccessor.getConstantsManager()
availableIssueTypes = constantsManager.getAllIssueTypeObjects()

Object getRequirementIssueTypes(){
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.class);
    setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    configuredIssueTypes = Eval.me(setting.getText(REQUIREMENT_ISSUE_TYPES))
    availableIssueTypes.findAll{it.id.toInteger() in configuredIssueTypes}
}

Object getDefectIssueTypes(){
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.class);
    setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    configuredIssueTypes = Eval.me(setting.getText(DEFECT_ISSUE_TYPES))
    availableIssueTypes.findAll{it.id.toInteger() in configuredIssueTypes}
}

getRequirementIssueTypes()
getDefectIssueTypes()
```

Trigger a Jenkins project build from a Test Plan

In scenarios with CI implemented, you may want to trigger certain Jenkins "jobs" (i.e. project build) from a Test Plan and link back the result to Xray.

In this example, we're assuming that the list of automated tests that will be run is managed in the CI side, depending on the project configuration.

The results will be submitted back to Xray, if the project is configured to do so in Jenkins.

In order to add this option in Jira's UI, we'll need to add a custom "web item" that provides an action that will interact with a custom ScriptRunner endpoint, which will be the one doing the HTTP request to the Jenkins server, passing the Test Plan issue key. In order to submit the request to Jenkins, we need to obtain Jenkins username and respective API token along with the project-specific authentication token.

trigger_jenkins_build_restapi_endpoint.groovy

```
import com.onresolve.scriptrunner.runner.rest.common.CustomEndpointDelegate
import groovy.json.JsonOutput
import groovy.transform.BaseScript
import groovy.json.StreamingJsonBuilder;
import javax.ws.rs.core.MultivaluedMap
import javax.ws.rs.core.Response
import java.net.HttpURLConnection

@BaseScript CustomEndpointDelegate delegate

triggerJenkinsBuild(httpMethod: "GET") { MultivaluedMap queryParams ->

    def issueId = queryParams.getFirst("issueId") as String // use the issueId to retrieve this issue

    def flag = [
        type : 'success',
        title: "Build scheduled",
        close: 'auto',
        body : "A new build has been scheduled related with "+issueId
    ]

    URL url;
    def jobName = "java-junit-calc" // could come from a CF in the Test Plan
    def jenkinsHostPort = "192.168.56.102:8081" // could be defined elsewhere
    def token = "iFBDOBhNhaxL4T9ass93HRXun2JF161Z" // could also come from a CF in the Test Plan
    def username = "admin" // probably, would need to be stored elsewhere
    def password = "fa02840152aa2e4da3d8db933ec708d6" // probably, would need to be stored elsewhere
    def baseUrl = "http://${jenkinsHostPort}/job/${jobName}/buildWithParameters?token=${token}
    &TESTPLAN=${issueId}"

    url = new URL(baseUrl);
    def body_req = []

    def authString = "${username}:${password}".bytes.encodeBase64().toString()

    HttpURLConnection connection = (HttpURLConnection) url.openConnection()
    connection.setRequestMethod("POST")
    connection.setDoOutput(true)
    connection.addRequestProperty("Authorization", "Basic ${authString}")
    connection.setRequestProperty("Content-Type", "application/json;charset=UTF-8")
    connection.outputStream.withWriter("UTF-8") { new StreamingJsonBuilder(it, body_req) }
    connection.connect();
    log.debug(connection.getResponseCode())
    log.debug(connection.getResponseMessage())

    if (connection.getResponseCode() == 201) {
        Response.ok(JsonOutput.toJson(flag)).build()
    } else {
        //Response.status(Response.Status.NOT_FOUND).entity("Problem scheduling job!").build();
    }
}
```



Calculator / CALC-2283

CLONE - all my relevant tests for v3.0

Edit

Comment

Trigger Jenkins Build

More ▾

Start Progress

Resolve Issue

Close Issue

Admin ▾

Details

Type:	Test Plan	Status:	OPEN (View Workflow)
Priority:	Major	Resolution:	Unresolved
Affects Version/s:	None	Fix Version/s:	v3.0
Component/s:	None		
Labels:	None		

Example

ScriptRunner configuration

•> Custom web item

Creates a web item (a button or link) at the location you specify

Note	Trigger Jenkins build
	An optional note, used only for your reference.
What section should this go in	operations-top-level
	The section to place the item
Key	trigger-jenkins-build-button
	The key of the module
Menu text	Trigger Jenkins Build
	Text of menu item
Weight	1
	Placement of the item within its section
Condition	SCRIPT FILE 1 issue.issueType.name == 'Test Plan' Expand examples     Under what circumstances should this link be displayed. Must be either a plain script or an implementation of <code>com.atlassian.plugin.web.Condition</code>
Do what	Run code and show a flag
	What do you want to do when the item is clicked
Link	/rest/scriptrunner/latest/custom/triggerJenkinsBuild?issueId=\${issue.key}
	The relative URL to direct to. If external, include the scheme, eg <code>http://google.com</code>

•> Custom endpoint

Define a REST endpoint in a script

Note	jenkins build
	An optional note, used only for your reference.
Script file	Start typing to search for script files...
	 Path to the script file accessible on the server
Inline script	<pre>1 import com.onresolve.scriptrunner.runner.rest.common 2 import groovy.json.JsonOutput 3 import groovy.transform.BaseScript 4 import groovy.json.JsonSlurper; 5 import groovy.json.StreamingJsonBuilder; 6 import javax.ws.rs.core.MultivaluedMap 7 import javax.ws.rs.core.Response 8 9 @BaseScript CustomEndpointDelegate delegate 10 11 triggerJenkinsBuild(httpMethod: "GET") { MultivaluedMap 12</pre>

Jenkins configuration

In Jenkins, we need to generate an API token for some user, which can be done from the profile settings page.



Jenkins

Jenkins > admin

 People

 Status

 Builds

 **Configure**

 My Views

 Credentials

Full Name

admin

Description

API Token

User ID

admin

API Token

fa02840152aa2e4da3d8db933ec708d6

At the project level, we need to enable remote build triggers, so we can obtain an "authentication token" to be used in the HTTP request afterwards.

Build Triggers

☒ Trigger builds remotely (e.g., from scripts)

Authentication Token

IFBDOhNhaxL4T9ass93HRXun2JF161Z

Use the following URL to trigger build remotely: JENKINS_URL/job/java-junit-calc/build?token=TOKEN_NAME or /buildWithParameters?token=TOKEN_NAME
Optionally append &cause=Cause+Text to provide text that will be included in the recorded build cause.

The project itself is a normal one; the only thing relevant to mention is that this project is a parameterized one, so it receives a TESTPLAN variable, that in our case will be coming from Jira.

Jenkins > java-junit-calc >

GeneralSource Code ManagementBuild TriggersBuild EnvironmentBuildPost-build Actions

Project name

java-junit-calc

Description

creates a new Test Execution with the results from 4 junit tests. The revision field is populated with the build #

[Plain text] Preview

☒ Discard old builds

Strategy

Log Rotation

Days to keep builds

if not empty, build records are only kept up to this number of days

Max # of builds to keep

3

if not empty, only up to this number of build records are kept

Advanced...

☐ GitHub project

☒ This project is parameterized

String Parameter

X ? ?

Name

TESTPLAN

The final task submits the results linking the Test Execution to the Test Plan passed as argument.

Post-build Actions

Xray: Results Import Task

X

JIRA Instance

xray-vm

Format

JUnit XML

Parameters

Execution Report File (file path with file name)

java-junit-calc/target/surefire-reports/TEST-com.xpand.java.CalcTest.xml

Project Key

CALC

Test Execution Key

Test Plan Key

\${TESTPLAN}

Test Environments

Revision

\${BUILD_NUMBER}

Fix Version

v3.0

Trigger a Jenkins project build from a Test Plan, for the Tests contained in the Test Plan

This scenario is somehow similar to the previous one, except that the list of Tests that will be run in the CI side will be based on the Tests contained in the Test Plan.

The results will be submitted back to Xray, if the project is configured to do so in Jenkins.

In order to add this option in Jira's UI, we'll need to add a custom "web item" that provides an action that will interact with a custom ScriptRunner endpoint, which will be the one doing the HTTP request to the Jenkins server, passing the Test Plan issue key. In the ScriptRunner endpoint script, we'll obtain the list of Generic Tests (we're assuming that they will come from Junit, so they have a certain syntax in the Generic Test Definition field).

In order to submit the request to Jenkins, we need to obtain Jenkins username and respective API token along with the project-specific authentication token.

trigger_jenkins_build_restapi_endpoint_with_testlist.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager
```

```

import com.opensymphony.workflow.InvalidInputException
import java.net.HttpURLConnection

import com.onresolve.scriptrunner.runner.rest.common.CustomEndpointDelegate
import groovy.json.JsonOutput
import groovy.transform.BaseScript
import groovy.json.JsonSlurper;
import groovy.json.StreamingJsonBuilder;
import javax.ws.rs.core.MultivaluedMap
import javax.ws.rs.core.Response

@BaseScript CustomEndpointDelegate delegate

issueManager = ComponentAccessor.getIssueManager()
searchService = ComponentAccessor.getComponent(SearchService.class);
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
customFieldManager = ComponentAccessor.getCustomFieldManager()

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

Object getFieldValue(issue,customField) {
    //def cField = customFieldManager.getCustomFieldObject(customField)
    def cField = customFieldManager.getCustomFieldObjectByName(customField)
    def cFieldValue = issue.getCustomFieldValue(cField)
    return cFieldValue
}

String replaceLast(String string, String substring, String replacement)
{
    int index = string.lastIndexOf(substring);
    if (index == -1)
        return string;
    return string.substring(0, index) + replacement + string.substring(index+substring.length());
}

triggerJenkinsBuildWithTestList(httpMethod: "GET") { MultivaluedMap queryParams ->

    // the details of getting and modifying the current issue are omitted for brevity
    def issueId = queryParams.getFirst("issueId") as String // use the issueId to retrieve this issue

    def flag = [
        type : 'success',
        title: "Build scheduled",
        close: 'auto',
        body : "A new build has been scheduled related with "+issueId
    ]

    URL url;
    def jobName = "java-junit-calc-triggered" // could be defined in a CF in the Test Plan
    def jenkinsHostPort = "192.168.56.102:8081" // could be defined elsewhere
    def token = "iFBD0BhNhaxL4T9ass93HRXun2JF161Z" // could also come from a CF in the

```

```

Test Plan
    def username = "admin" //
probably, would need to be stored elsewhere
    def password = "fa02840152aa2e4da3d8db933ec708d6" // probably, would need to be stored
elsewhere
    //def baseUrl = "http://${username}:${password}@${jenkinsHostPort}/job/${jobName}/build?token=${token}"
    //def baseUrl = "http://${jenkinsHostPort}/job/${jobName}/build?token=${token}"

    jql = "issue in testPlanTests('${issueId}') and \"Test Type\" = Generic"
    issues = getIssues(jql)
    // we're assuming that we have Junit based Tests.. so we need to do some conversion beforehand, so maven
    can process the list of tests to be run
    def testlist = issues.collect { getField(it, "Generic Test Definition")}
    def testlist2 = testlist.collect { replaceLast(it, ".", "%23")}

    def baseUrl = "http://${jenkinsHostPort}/job/${jobName}/buildWithParameters?token=${token}
&TESTPLAN=${issueId}&TESTLIST=${testlist2.join(',')}"
    url = new URL(baseUrl);
    def body_req = []

    def authString = "${username}:${password}".getBytes().encodeBase64().toString()

    HttpURLConnection connection = (HttpURLConnection) url.openConnection()
    connection.setRequestMethod("POST")
    connection.setDoOutput(true)
    connection.addRequestProperty("Authorization", "Basic ${authString}")
    connection.setRequestProperty("Content-Type", "application/json; charset=UTF-8")
    connection.outputStream.withWriter("UTF-8") { new StreamingJsonBuilder(it, body_req) }
    connection.connect();
    //connection.getContent();
    log.debug(connection.getResponseCode())
    log.debug(connection.getResponseMessage())

    if (connection.getResponseCode() == 201) {
        Response.ok(JsonOutput.toJson(flag)).build()
    } else {
        //Response.status(Response.Status.NOT_FOUND).entity("Problem scheduling job!").build();
    }
}

```

Example

ScriptRunner configuration

➔ Custom web item

Creates a web item (a button or link) at the location you specify

Note

Trigger Jenkins build with Test List

An optional note, used only for your reference.

What section should this go in

operations-top-level

The section to place the item

Key

trigger-jenkins-build-with-params-button

The key of the module

Menu text

Trigger Jenkins Build with these Tests

Text of menu item

Weight

2

Placement of the item within its section

Condition

SCRIPT

FILE

1 issue.issueType.name == 'Test Plan'

Expand examples

Under what circumstances should this link be displayed. Must be either a plain script or an implementation of com.atlassian.plugin.web.Condition

Do what

Run code and show a flag

What do you want to do when the item is clicked

Link

/rest/scriptrunner/latest/custom/triggerJenkinsBuildWithTestList?issueId=\${issueId}

The relative URL to direct to. If external, include the scheme, eg http://google.com

➔ Custom endpoint

Define a REST endpoint in a script

Note

An optional note, used only for your reference.

Script file

Start typing to search for script files...



Path to the script file accessible on the server

Inline script

```
79 }
80
81
82 triggerJenkinsBuildWithTestList(httpMethod: "GET")
83
84 // the details of getting and modifying the cu
85 def issueId = queryParams.getFirst("issueId")
86
87
88
89
90
91 def flag = [
92
```

Enter your script here

Jenkins configuration

In Jenkins, we need to generate an API token for some user, which can be done from the profile settings page.



Jenkins

Jenkins > admin

 People

 Status

 Builds

 **Configure**

 My Views

 Credentials

Full Name

admin

Description

API Token

User ID

admin

API Token

fa02840152aa2e4da3d8db933ec708d6

At the project level, we need to enable remote build triggers, so we can obtain an "authentication token" to be used in the HTTP request afterwards.

Build Triggers

☒ Trigger builds remotely (e.g., from scripts)

Authentication Token

iFBDOBHnaxL4T9ass93HRXun2JF161Z

Use the following URL to trigger build remotely: JENKINS_URL/job/java-junit-calc-triggered/build?token=TOKEN_NAME or /buildWithParameters?token=TOKEN_NAME
Optionally append &cause=Cause+Text to provide text that will be included in the recorded build cause.

The project itself is a normal one; the only thing relevant to mention is that this project is a parameterized one, so it receives TESTPLAN and TESTLIST variables, that in our case will be coming from Jira.

Jenkins > java-junit-calc

GeneralSource Code ManagementBuild TriggersBuild EnvironmentBuildPost-build Actions

Project name

java-junit-calc

Description

creates a new Test Execution with the results from 4 junit tests. The revision field is populated with the build #

[Plain text] Preview

☒ Discard old builds

Strategy

Log Rotation

Days to keep builds

if not empty, build records are only kept up to this number of days

Max # of builds to keep

3

if not empty, only up to this number of build records are kept

Advanced...

☐ GitHub project

☒ This project is parameterized

String Parameter

Name

TESTPLAN

Maven is configured in order to run just the tests identified in the TESTLIST variable, using the "-Dtest" JVM option.

Invoke top-level Maven targets

X

?

Goals

clean compile test

▼

POM

java-junit-calc/pom.xml

?

Properties

?

JVM Options

-Dtest=\${TESTLIST}

▼

?

Inject build variables

☐

?

Use private Maven repository

☐

?

Settings file

Use default maven settings

⌵

?

Global Settings file

Use default maven global settings

⌵

?

The final task submits the results linking the Test Execution to the Test Plan passed as argument.

Post-build Actions

Xray: Results Import Task

X

JIRA Instance

xray-vm

⌵

Format

JUnit XML

⌵

Parameters

Execution Report File (file path with file name)

java-junit-calc/target/surefire-reports/TEST-com.xpand.java.CalcTe

Project Key

CALC

Test Execution Key

Test Plan Key

\${TESTPLAN}

Test Environments

Revision

\${BUILD_NUMBER}

Fix Version

v3.0

Trigger a Bamboo plan build from a Test Plan

In scenarios with CI implemented, you may want to trigger certain Bamboo "plans" (i.e. builds) from a Test Plan and link back the result to Xray.

In this example, we're assuming that the list of automated tests that will be run is managed in the CI side, depending on the plan configuration.

The results will be submitted back to Xray, if the project is configured to do so in Bamboo.

In order to add this option in Jira's UI, we'll need to add a custom "web item" that provide an action that will interact with a custom ScriptRunner endpoint, which will be the one doing the HTTP request to the Bamboo server, passing the Test Plan issue key. In order to submit the request to Bamboo we just need to use the credentials of some user.

trigger_bamboo_build_restapi_endpoint.groovy

```
import com.onresolve.scriptrunner.runner.rest.common.CustomEndpointDelegate
import groovy.json.JsonOutput
import groovy.transform.BaseScript
import groovy.json.JsonSlurper;
import groovy.json.StreamingJsonBuilder;
import javax.ws.rs.core.MultivaluedMap
import javax.ws.rs.core.Response
import java.nio.charset.StandardCharsets
import java.net.HttpURLConnection

@BaseScript CustomEndpointDelegate delegate

triggerBambooBuild(httpMethod: "GET") { MultivaluedMap queryParams ->

    def issueId = queryParams.getFirst("issueId") as String // use the issueId to retrieve this issue

    def flag = [
        type : 'success',
        title: "Build scheduled",
        close: 'auto',
        body : "A new build has been scheduled related with "+issueId
    ]

    URL url;
    // curl --user admin:admin -X POST -d "default&ExecuteAllStages=true" http://yourbambooserver/rest/api
    /latest/queue/XRAY-JUNITCALC
    def projectKey = "XRAY" // could
    come from a CF in the Test Plan
    def planKey = "JUNITCALC" // could come from
    a CF in the Test Plan
    def bambooHostPort = "192.168.56.102:8085" // could be defined elsewhere
    def username = "admin" //
    probably, would need to be stored elsewhere
    def password = "admin" //
    probably, would need to be stored elsewhere
    def baseUrl = "http://${bambooHostPort}/rest/api/latest/queue/${projectKey}-${planKey}"
    String urlParameters = "default&ExecuteAllStages=true&bamboo.TESTPLAN=${issueId}";
    byte[] postData = urlParameters.getBytes( StandardCharsets.UTF_8 );
    int postDataLength = postData.length;

    url = new URL(baseUrl);
    def body_req = []

    def authString = "${username}:${password}".bytes.encodeBase64().toString()

    HttpURLConnection connection = (HttpURLConnection) url.openConnection()
    connection.setRequestMethod("POST")
    connection.setDoOutput(true)
    connection.addRequestProperty("Authorization", "Basic ${authString}")
    connection.setRequestProperty( "Content-Type", "application/x-www-form-urlencoded");
    connection.setRequestProperty( "charset", "utf-8");
    connection.setRequestProperty( "Content-Length", Integer.toString( postDataLength ));
    connection.setUseCaches( false );

    DataOutputStream wr = new DataOutputStream(connection.getOutputStream());
    wr.write( postData );

    connection.connect();
    //connection.getContent();
    log.debug(connection.getResponseCode())
    log.debug(connection.getResponseMessage())

    if (connection.getResponseCode() == 200) {
        Response.ok(JsonOutput.toJson(flag)).build()
    } else {
        //Response.status(Response.Status.NOT_FOUND).entity("Problem scheduling job!").build();
    }
}
```

```
}  
  
}
```



Calculator / CALC-2350

CLONE - all my relevant tests for v3.0

Edit

Comment

Trigger Bamboo Build

More ▾

Start Progress

Resolve Issue

Close Issue

Admin ▾

Details

Type:	Test Plan	Status:	OPEN (View Workflow)
Priority:	Major	Resolution:	Unresolved
Affects Version/s:	None	Fix Version/s:	v3.0
Component/s:	None		
Labels:	None		

Example

ScripRunner configuration

•> Custom web item

Creates a web item (a button or link) at the location you specify

Note	Trigger Jenkins build with Test List
	An optional note, used only for your reference.
What section should this go in	operations-top-level
	The section to place the item
Key	trigger-jenkins-build-with-params-button
	The key of the module
Menu text	Trigger Jenkins Build with these Tests
	Text of menu item
Weight	2
	Placement of the item within its section
Condition	SCRIPT FILE 1 issue.issueType.name == 'Test Plan' Expand examples     Under what circumstances should this link be displayed. Must be either a plain script or an implementation of com.atlassian.plugin.web.Condition
Do what	Run code and show a flag
	What do you want to do when the item is clicked
Link	/rest/scriptrunner/latest/custom/triggerJenkinsBuildWithTestList?issueId=\${issueId}
	The relative URL to direct to. If external, include the scheme, eg http://google.com

•> Custom endpoint

Define a REST endpoint in a script

Note	Trigger Bamboo build
	An optional note, used only for your reference.
Script file	Start typing to search for script files...
	 Path to the script file accessible on the server
Inline script	<pre>1 import com.onresolve.scriptrunner.runner.rest.common 2 import groovy.json.JsonOutput 3 import groovy.transform.BaseScript 4 import groovy.json.JsonSlurper; 5 import groovy.json.StreamingJsonBuilder; 6 import javax.ws.rs.core.MultivaluedMap 7 import javax.ws.rs.core.Response 8 import java.nio.charset.StandardCharsets 9 10 @BaseScript CustomEndpointDelegate delegate 11 12 triggerBambooBuild(httpMethod: "GET") { Multivalued 13 14</pre> Enter your script here    

Bamboo configuration

The project itself is a normal one; the only thing relevant to mention is that this project is a parameterized one, so it receives a TESTPLAN variable, that in our case will be coming from Jira.

Build projects / Xray Automation Samples / java-junit-calc

Configuration - java-junit-calc

java-junit-calc

Plan Configuration

Stages & jobs 1

Default Stage

default

Branches 0

Plan details Stages Repositories Triggers Branches Dependencies Permissions Notifications Variables Miscellaneous Audit log

Variables

Variables substitute values in your task configuration and inline scripts. If the key contains the phrase 'password', like 'userpassword' the value will be masked with *****.

For task configuration fields, use the syntax \${bamboo.myvariablename}. For inline scripts, variables are exposed as shell environment variables which can be accessed using the syntax \$bamboo_MY_VARIABLE_NAME (Linux/Mac OS X) or %BAMBOO_MY_VARIABLE_NAME% (Windows).

Variable name	Value
TESTPLAN	CALC-1200

Add

The final task submits the results linking the Test Execution to the Test Plan passed as an argument.

Stages & jobs 1

Default Stage

default

Branches 0

Tasks

A task is a piece of work that is being executed as part of the build. The execution of a script, a shell command, an Ant Task or a Maven goal is about tasks.

You can use [runtime](#), [plan](#) and [global variables](#) to parameterize your tasks.

Source Code Checkout

Checkout Default Repository

Maven 3.x

clean compile test

Final tasks Are always executed even if a previous task fails

Xray: Results Import Task

Import JUnit XML

Add task

Xray: Results Import Task configuration

Task description

Import JUnit XML

☐ Disable this task

JIRA instance*

Local JIRA

Format*

JUnit XML

Execution Report File (file path with file name)*

java-junit-calc/target/surefire-reports/TI

Project Key

CALC

Test Execution Key

Test Plan Key

\${bamboo.TESTPLAN}

Trigger a Bamboo plan/stage build from a Test Plan, for the Tests contained in the Test Plan

This scenario is somehow similar to the previous one, except that the list of Tests that will be run in the CI side will be based on the Tests contained in the Test Plan.

The results will be submitted back to Xray, if the project is configured to do so in Bamboo.

In order to add this option in Jira's UI, we'll need to add a custom "web item" that provides an action that will interact with a custom ScriptRunner endpoint, which will be the one doing the HTTP request to the Bamboo server, passing the Test Plan issue key. In the ScriptRunner endpoint script, we'll obtain the list of Generic Tests (we're assuming that they will come from Junit, so they have a certain syntax in the Generic Test Definition field).

In order to submit the request to Bamboo, we need the credentials of some Bamboo user.

trigger_bamboo_build_restapi_endpoint_with_testlist.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager
import com.opensymphony.workflow.InvalidInputException
import java.net.HttpURLConnection

import com.onresolve.scriptrunner.runner.rest.common.CustomEndpointDelegate
import groovy.json.JsonOutput
import groovy.transform.BaseScript
import groovy.json.JsonSlurper;
import groovy.json.StreamingJsonBuilder;
import javax.ws.rs.core.MultivaluedMap
import javax.ws.rs.core.Response
import java.nio.charset.StandardCharsets

@BaseScript CustomEndpointDelegate delegate

issueManager = ComponentAccessor.getIssueManager()
searchService = ComponentAccessor.getComponent(SearchService.class);
serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
customFieldManager = ComponentAccessor.getCustomFieldManager()

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;

    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}
```

```

Object getFieldValue(issue,customField) {
    def cField = customFieldManager.getCustomFieldObjectByName(customField)
    def cFieldValue = issue.getCustomFieldValue(cField)
    return cFieldValue
}

String replaceLast(String string, String substring, String replacement)
{
    int index = string.lastIndexOf(substring);
    if (index == -1)
        return string;
    return string.substring(0, index) + replacement + string.substring(index+substring.length());
}

triggerBambooBuildWithTestList(httpMethod: "GET") { MultivaluedMap queryParams ->

    def issueId = queryParams.getFirst("issueId") as String // use the issueId to retrieve this issue

    def flag = [
        type : 'success',
        title: "Build scheduled",
        close: 'auto',
        body : "A new build has been scheduled related with "+issueId
    ]

    jql = "issue in testPlanTests('${issueId}') and \"Test Type\" = Generic"
    issues = getIssues(jql)
    // // we're assuming that we have Junit based Tests.. so we need to do some conversion beforehand, so maven
    can process the list of tests to be run
    def testlist = issues.collect { getFieldValue(it,"Generic Test Definition")}
    def testlist2 = testlist.collect { replaceLast(it,".", "%23") }

    URL url;
    // curl --user admin:admin -X POST -d "default&ExecuteAllStages=true&bamboo.TESTLIST=com.xpand.java.
    CalcTest#CanAddNumbers" http://yourbambooserver/rest/api/latest/queue/XRAY-JUNITCALCPARAMS

    def projectKey = "XRAY" // could
    come from a CF in the Test Plan
    def planKey = "JUNITCALCPARAMS" // could come from a
    CF in the Test Plan
    def stage = "default" // could be hardcoded or come from a CF in the Test
    Plan
    def bambooHostPort = "192.168.56.102:8085" // could be defined elsewhere
    def username = "admin" //
    probably, would need to be stored elsewhere
    def password = "admin" //
    probably, would need to be stored elsewhere
    def baseUrl = "http://${bambooHostPort}/rest/api/latest/queue/${projectKey}-${planKey}"
    String urlParameters = "${stage}&ExecuteAllStages=true&bamboo.TESTPLAN=${issueId}&bamboo.
    TESTLIST=${testlist2.join(',')}"
    byte[] postData = urlParameters.getBytes( StandardCharsets.UTF_8 );
    int postDataLength = postData.length;

    url = new URL(baseUrl);
    def body_req = []

    def authString = "${username}:${password}".bytes.encodeBase64().toString()

    HttpURLConnection connection = (HttpURLConnection) url.openConnection()
    connection.setRequestMethod("POST")
    connection.setDoOutput(true)
    connection.addRequestProperty("Authorization", "Basic ${authString}")
    connection.setRequestProperty( "Content-Type", "application/x-www-form-urlencoded");
    connection.setRequestProperty( "charset", "utf-8");
    connection.setRequestProperty( "Content-Length", Integer.toString( postDataLength ));
    connection.setUseCaches( false );

    DataOutputStream wr = new DataOutputStream(connection.getOutputStream());
    wr.write( postData );

```

```
connection.connect();
//connection.getContent();
log.debug(connection.getResponseCode())
log.debug(connection.getResponseMessage())

if (connection.getResponseCode() == 200) {
    Response.ok(JsonOutput.toJson(flag)).build()
} else {
    //Response.status(Response.Status.NOT_FOUND).entity("Problem scheduling job!").build();
}
}
```

Example

ScripRunner configuration

•> Custom web item

Creates a web item (a button or link) at the location you specify

Note
An optional note, used only for your reference.

What section should this go in
The section to place the item

Key
The key of the module

Menu text
Text of menu item

Weight
Placement of the item within its section

Condition SCRIPT FILE

1

`issue.issueType.name == 'Test Plan'`

[Expand examples](#)   
Under what circumstances should this link be displayed. Must be either a plain script or an implementation of `com.atlassian.plugin.web.Condition`

Do what
What do you want to do when the item is clicked

Link
The relative URL to direct to. If external, include the scheme, eg `http://google.com`

•> Custom endpoint

Define a REST endpoint in a script

Note
An optional note, used only for your reference.

Script file

Path to the script file accessible on the server

Inline script

1

`import com.atlassian.jira.issue.Issue`

2

`import com.atlassian.jira.issue.link.IssueLinkManager`

3

`import com.atlassian.jira.issue.link.IssueLinkType`

4

`import com.atlassian.jira.issue.link.IssueLinkType`

5

`import com.atlassian.jira.ComponentManager`

6

`import com.atlassian.jira.component.ComponentAccessor`

7

`import com.atlassian.jira.jql.builder.JqlQueryBuilder`

8

`import com.atlassian.jira.user.util.UserUtil`

9

`import com.atlassian.jira.user.util.UserManager;`

10

`import com.atlassian.jira.bc.issue.IssueService`

11

`import com.atlassian.jira.bc.issue.search.SearchService`

12

`import com.atlassian.jira.issue.search.SearchProvider`

13

`import com.atlassian.jira.issue.search.SearchResult`

14

Bamboo configuration

The project itself is a normal one; the only thing relevant to mention is that this project is a parameterized one, so it receives TESTPLAN and TESTLIST variables, that in our case will be coming from Jira.

Build projects / Xray Automation Samples / java-junit-calc-params

Configuration - java-junit-calc-params

java-junit-calc with TESTLIST param

Plan Configuration

Stages & jobs 1

Default Stage

default

Branches 0

Plan details Stages Repositories Triggers Branches Dependencies Permissions Notifications Variables Miscellaneous Audit log

Variables

Variables substitute values in your task configuration and inline scripts. If the key contains the phrase 'password', like 'userpassword' the value will be masked with *****.

For task configuration fields, use the syntax \${bamboo.myvariablename}. For inline scripts, variables are exposed as shell environment variables which can be accessed using the syntax \$bamboo_MY_VARIABLE_NAME (Linux/Mac OS X) or %BAMBOO_MY_VARIABLE_NAME% (Windows).

Variable name	Value	
		Add
TESTLIST		✕
TESTPLAN	CALC-1200	✕

[How to use variables](#)

Maven is configured in order to run just the tests identified in the TESTLIST variable, using the "-Dtest" JVM option.

Plan Configuration

Stages & jobs 1

Default Stage

default

Branches 0

Job details Tasks Requirements Artifacts Miscellaneous

Tasks

A task is a piece of work that is being executed as part of the build. The execution of a script, a shell command, an Ant Task or a Maven goal are only about tasks.

You can use [runtime](#), [plan](#) and [global variables](#) to parameterize your tasks.

1 a

Source Code Checkout

Checkout Default Repository

Maven 3.x

clean compile test

Final tasks Are always executed even if a previous task fails

Xray: Results Import Task

Import JUnit XML

Add task

Maven 3.x configuration

Task description

clean compile test

☐ Disable this task

Executable

Maven 3 [Add new executable](#)

Goal*

clean compile test -Dtest=\${bamboo.TESTLIST}

The goal you want to execute. You can also define system properties such as -Djava.awt.headless=true.

The final task submits the results linking the Test Execution to the Test Plan passed as argument.

Tasks

A task is a piece of work that is being executed as part of the build. The execution of a script, a shell command, an Ant Task or a Maven goal are [about tasks](#).

You can use [runtime](#), [plan](#) and [global variables](#) to parameterize your tasks.

Source Code Checkout Checkout Default Repository Maven 3.x clean compile test Final tasks Are always executed even if a previous task fails Xray: Results Import Task Import JUnit XML Add task	Xray: Results Import Task configuration Task description Import JUnit XML ☐ Disable this task JIRA instance* Local JIRA Format* JUnit XML Execution Report File (file path with file name)* java-junit-calc/target/surefire-reports/TI Project Key CALC Test Execution Key Test Plan Key `\${bamboo.TESTPLAN}`
---	--

Extending REST API for interacting with requirement projects

In this example, we'll be creating some endpoints for obtaining the requirement projects and also for enabling or disabling requirement coverage for a certain project.

This makes use of ScriptRunner's custom REST API capabilities.

xray_custom_rest_api.groovy

```
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.onresolve.scriptrunner.runner.rest.common.CustomEndpointDelegate
import groovy.json.JsonBuilder
import groovy.json.JsonSlurper;
import groovy.transform.BaseScript
```

```

import javax.servlet.http.HttpServletRequest
import javax.ws.rs.core.MultivaluedMap
import javax.ws.rs.core.Response

@BaseScript CustomEndpointDelegate delegate

ENTITY_NAME = "com.xpandit.raven";
ENTITY_ID = 12345678987654321L;
REQUIREMENT_PROJECTS_SETTING = "requirement-coverage.projects";

projectManager = ComponentAccessor.getProjectManager()

Object obtainRequirementProjectsIds() {
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.
class);
    def setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    def requirementProjects = Eval.me(setting.getText(REQUIREMENT_PROJECTS_SETTING))
}

Object obtainRequirementProjects() {
    def requirementProjects = obtainRequirementProjectsIds()
    log.debug("requirementProjects: "+requirementProjects)
    def availableProjects = projectManager.getProjectObjects()
    availableProjects.findAll { it.id.toInteger() in requirementProjects}
}

boolean enableRequirementCoverageForProject(project){
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.
class);
    def setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    projectList = obtainRequirementProjectsIds()
    if (!projectList.contains(project.id.toInteger())){
        setting.setText(REQUIREMENT_PROJECTS_SETTING,(projectList << project.id).toString())
    }
}

boolean disableRequirementCoverageForProject(project){
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.
class);
    def setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    projectList = obtainRequirementProjectsIds()
    if (projectList.contains(project.id.toInteger())){
        projectList.removeAll{it == project.id.toInteger()}
        setting.setText(REQUIREMENT_PROJECTS_SETTING,projectList.toString())
    }
}

boolean requirementCoverageEnabledForProject(project){
    JiraPropertySetFactory jiraPropertySetFactory = ComponentAccessor.getComponent(JiraPropertySetFactory.
class);
    def setting = jiraPropertySetFactory.buildCachingPropertySet(ENTITY_NAME, ENTITY_ID, true);
    def requirementProjects = Eval.me(setting.getText(REQUIREMENT_PROJECTS_SETTING))
    (project.id.toInteger() in requirementProjects)
}

// curl -u admin:admin "http://yourjiraserver/rest/scriptrunner/latest/custom/getRequirementProjects"
requirementProjects(
    httpMethod: "GET", groups: ["jira-administrators"]
) { MultivaluedMap queryParams, String body ->
    return Response.ok(new JsonBuilder(obtainRequirementProjects()).collect{ [id: it.id, key: it.key, name: it.
name] } ).toString() ).build()
}

```

```
// curl -u admin:admin -X DELETE "http://yourjiraserver/rest/scriptrunner/latest/custom/requirementProjects
/CALC"
requirementProjects(
    httpMethod: "DELETE", groups: ["jira-administrators"]
) {MultivaluedMap queryParams, String body, HttpServletRequest request ->
    try{
        def extraPath = getAdditionalPath(request)
        projectKey = extraPath.split("/")[1]
        log.debug("projectKey: "+projectKey)
        project = projectManager.getProjectObjByKey(projectKey)
        disableRequirementCoverageForProject(project)
    } catch (e) {
        return Response.serverError().entity([error: e.message]).build()
    }
    return Response.ok().build()
}

//curl -u admin:admin -X POST -d "@data.json" -H "Content-Type: application/json" "http://yourjiraserver/rest
/scriptrunner/latest/custom/requirementProjects"
requirementProjects(
    httpMethod: "POST", groups: ["jira-administrators"]
) {MultivaluedMap queryParams, String body ->
    try{
        def jsonSlurper = new JsonSlurper()
        def object = jsonSlurper.parseText(body)
        log.debug("projectKey: "+object.key)
        def project
        if (object.key) {
            project = projectManager.getProjectObjByKey(object.key)
        } else if (project.id ){
            project = projectManager.getProjectObjById(object.id)
        }
        enableRequirementCoverageForProject(project)
    } catch (e) {
        return Response.serverError().entity([error: e.message]).build()
    }
    return Response.ok().build()
}
}
```

Example of requests

Obtaining all projects with requirement coverage enabled

```
curl -u admin:admin "http://yourjiraserver/rest/scriptrunner/latest/custom/requirementProjects"
```

Response

```
[
  {
    "id":10300,
    "key": "CALC",
    "name":"Calculator"
  },
  {
    "id":10501,
    "key": "DEMO",
    "name":"Demonstration"
  }
]
```

Enabling requirement coverage for a project

```
curl -u admin:admin -X POST -d "@data.json" -H "Content-Type: application/json" "http://yourjiraserver/rest/scriptrunner/latest/custom/requirementProjects"
```

data.json

```
{
  "key": "CALC"
}
```

Disabling requirement coverage for a project

```
curl -u admin:admin -X DELETE "http://yourjiraserver/rest/scriptrunner/latest/custom/requirementProjects/CALC"
```

Synchronize Tests from "related" Test Sets to a Test Execution or to a Test Plan

Test Plans and (Sub) Test Executions contain a list of Tests. Although you can add Tests using Test Sets, you're not actually adding the Test Set itself; you're adding the Tests that belong to that Test Set(s) at that given moment. Thus, there is no relation whatsoever between Test Plans<=>Test Sets or between Test Executions<=>Test Sets.

However, and taking the Test Plan as an example, you may find handy to have some sort of "dynamic Test Plan" that will contain the Tests of the Test Sets that would be related to that Test Plan.

Since there is no relation between Test Plans<=>Test Sets, you have to define a convention for that. One option would be to use issue links (e.g. "relates to" or "includes"); in this case, you would need to manually create these links between Test Sets and Test Plans (or Test Executions).

After this, you can create a custom script that will obtain the Tests from the related (e.g. the linked) Test Sets using JQL, followed by REST API requests to specific endpoints to add these Tests to the destination entity (e.g. Test Plan).

We start by adding a button in Jira's UI using a custom "web item", providing an action that will interact with a custom ScriptRunner endpoint containing the following logic:

- receive the source issue key that triggered the synchronization request (e.g. Test Plan, Test Execution, Sub Test Execution)
- obtain the linked Test Sets, using JQL
 - obtain the Tests on each Test Set, using JQL
 - submit a REST API request to Xray specific endpoints to add the Test to the entity (e.g Test Plan)

ScripRunner configuration

Custom web item ?

Creates a web item (a button or link) at the location you specify

Note

An optional note, used only for your reference.

What section should this go in

The section to place the item

Key

The key of the module

Menu text

Text of menu item

Weight

Placement of the item within its section

Condition


```
1 issue.issueType.name in
2 ['Sub Test Execution', 'Test Execution', 'Test Plan']
```

[Show examples](#) ?

Under what circumstances should this link be displayed. Must be either a plain script or an implementation of com.atlassian.plugin.web.Condition

Do what

What do you want to do when the item is clicked

Link

The relative URL to direct to. If external, include the scheme, eg http://google.com

Custom endpoint

Define a REST endpoint in a script

Note

An optional note, used only for your reference.

Script file

Path to the script file accessible on the server

Inline script

```
100
107
108 synchTestsFromRelatedTestSets(httpMethod: "GET") {
109     // issue_key may refer to a Test Plan or to a Test Execution
110     def issue_key = queryParams.getFirst("issueId")
111
112
113     projectManager = ComponentAccessor.getProjectManager()
114     componentManager = ComponentAccessor.getComponentManager().getComponentManager6
```

[Show examples](#) ?

Enter your script here

synchTestsFromRelatedTestSets_restapi_endpoint.groovy

```

import com.onresolve.scriptrunner.runner.rest.common.CustomEndpointDelegate
import groovy.json.JsonOutput
import groovy.transform.BaseScript
import groovy.json.JsonSlurper;
import groovy.json.StreamingJsonBuilder;
import javax.ws.rs.core.MultivaluedMap
import javax.ws.rs.core.Response
import java.nio.charset.StandardCharsets
import com.atlassian.jira.issue.Issue
import com.atlassian.jira.issue.link.IssueLinkManager
import com.atlassian.jira.issue.link.IssueLinkType
import com.atlassian.jira.issue.link.IssueLinkTypeManager
import com.atlassian.jira.ComponentManager
import com.atlassian.jira.component.ComponentAccessor
import com.atlassian.jira.jql.builder.JqlQueryBuilder
import com.atlassian.jira.user.util.UserUtil
import com.atlassian.jira.user.util.UserManager;
import com.atlassian.jira.bc.issue.IssueService
import com.atlassian.jira.bc.issue.search.SearchService;
import com.atlassian.jira.issue.search.SearchProvider
import com.atlassian.jira.issue.search.SearchResults
import com.atlassian.jira.web.bean.PagerFilter;
import com.atlassian.jira.issue.MutableIssue
import com.atlassian.jira.user.UserPropertyManager
import com.atlassian.jira.propertyset.JiraPropertySetFactory;
import com.google.common.collect.ImmutableMap;
import com.opensymphony.module.propertyset.PropertySet;
import com.opensymphony.module.propertyset.PropertySetManager;
import com.atlassian.jira.util.BuildUtils
import com.atlassian.jira.util.BuildUtilsInfo
import com.atlassian.jira.util.BuildUtilsInfoImpl
import com.atlassian.plugin.PluginAccessor
import com.atlassian.plugin.PluginManager
import com.atlassian.jira.bc.license.JiraLicenseService
import com.atlassian.jira.bc.license.JiraLicenseServiceImpl
import org.apache.log4j.Level
import org.apache.log4j.Logger
import com.atlassian.jira.issue.IssueManager
import groovy.json.StreamingJsonBuilder

```

```

@BaseScript CustomEndpointDelegate delegate

```

```

boolean associateTestsToXrayIssue(endpoint, issueKey, listOfTestKeys){
    def jiraBaseUrl = com.atlassian.jira.component.ComponentAccessor.getApplicationProperties().getString("jira.baseUrl")
    def endpointUrl = "${jiraBaseUrl}/rest/raven/1.0/api/${endpoint}/${issueKey}/test"

    log.debug("issueKey: "+issueKey)
    log.debug("listOfTestKeys: "+listOfTestKeys)
    log.debug("jiraBaseUrl: "+jiraBaseUrl)
    log.debug("endpoint: "+endpointUrl)
    url = new URL(endpointUrl);
    def body_req = [ "add": listOfTestKeys ]

    // you should use a specific user for this purpose
    username = "admin"
    password = "admin"
    def authString = "${username}:${password}".bytes.encodeBase64().toString()

    HttpURLConnection connection = (HttpURLConnection) url.openConnection()
    connection.setRequestMethod("POST")
    connection.setDoOutput(true)
    connection.addRequestProperty("Authorization", "Basic ${authString}")
    connection.setRequestProperty("Content-Type", "application/json;charset=UTF-8")
    connection.outputStream.withWriter("UTF-8") { new StreamingJsonBuilder(it, body_req) }
    connection.connect();
    log.debug(connection.getResponseCode())
}

```

```

log.debug(connection.getResponseMessage())

if (connection.getResponseCode() == 200) {
    // OK
    return true;
} else {
    // error
    return false;
}
}

boolean associateTestsToTestPlan(testPlanKey, listOfTestKeys){
    return associateTestsToXrayIssue("testplan", testPlanKey, listOfTestKeys)
}

boolean associateTestsToTestExecution(testExecutionKey, listOfTestKeys){
    return associateTestsToXrayIssue("testexec", testExecutionKey, listOfTestKeys)
}

Object getIssues(jqlQuery){
    // A list of GenericValues representing issues
    List<Issue> searchResults = null;
    SearchService.ParseResult parseResult = searchService.parseQuery(serviceAccount, jqlQuery);

    if (parseResult.isValid()) {
        // throws SearchException
        SearchResults results = searchService.search(serviceAccount, parseResult.getQuery(), PagerFilter.
getUnlimitedFilter());
        searchResults = results.getIssues();
        return searchResults;
    }

    return []
}

synchTestsFromRelatedTestSets(httpMethod: "GET") { MultivaluedMap queryParams ->
    // issue_key may refer to a Test Plan or to a Test Execution
    def issue_key = queryParams.getFirst("issueId") as String // use the issueId to retrieve this issue

    projectManager = ComponentAccessor.getProjectManager()
    componentManager = ComponentManager.getInstance();
    searchService = ComponentAccessor.getComponent(SearchService.class);
    issueManager = ComponentAccessor.getIssueManager()
    customFieldManager = ComponentAccessor.getCustomFieldManager()
    userUtil = ComponentAccessor.getUserUtil();
    serviceAccount = ComponentAccessor.getJiraAuthenticationContext().getLoggedInUser()
    pluginAccessor = componentManager.getPluginAccessor();

    MutableIssue issue = issueManager.getIssueObject(issue_key)

    Logger.getLogger("com.onresolve").setLevel(Level.DEBUG)

    // assume that Test Plan/Execution is linked to Test Sets using the issue link "relates to"; customize if
    needed
    jql = "issue in linkedIssues('${issue_key}', 'relates to')"
    testset_issues = getIssues(jql)
    def had_errors = false
    def success = false

    testset_issues.each {
        // process only "Test Set" issues
        if (it.issueType.name == "Test Set") {
            jql = "issue in testSetTests('${it.key}')"
            issues = getIssues(jql)
            test_keys = issues.collect{ it.key }
            //log.debug(test_keys)
            if (issue.issueType.name == "Test Plan") {

```

```

        success = associateTestsToTestPlan(issue_key, test_keys)
    } else if ((issue.issueType.name == "Sub Test Execution") || (issue.issueType.name == "Test
Execution")) {
        success = associateTestsToTestExecution(issue_key, test_keys)
    }
    if (!success) {
        had_errors = true
    }
}

def flag = []
if (success) {
    flag = [
        type : 'success',
        title: "Test Sets Synchronization",
        close: 'auto',
        body : "Tests have been synchronized for " + issue_key
    ]
    Response.ok(JsonOutput.toJson(flag)).build()
} else {
    flag = [
        type : 'success',
        title: "Test Sets Synchronization",
        close: 'auto',
        body : "Tests have been synchronized for " + issue_key
    ]
    Response.serverError().entity([error: "some Tests were no synchronized"]).build()
}
}
}

```

Example


[Calculator](#) / [CALC-5186 As a user, I can calculate the sum of 2 numbers](#) / [CALC-5254](#)

Sub Test Execution for CALC-5186

 Edit
  Comment

Synchronize Tests from... 

Start Progress

Resolve Issue

Close Issue

Admin

Details

Type:	 Sub Test Execution	Status:	OPEN (View Workflow)
Priority:	 Major	Resolution:	Unresolved
Affects Version/s:	None	Fix Version/s:	v3.0
Component/s:	None		
Labels:	None		
Test Plan:	None		
Test Environments:	None		
Tests association with a Test Execution:	None		

Description

[Click to add description](#)

Tests

This test execution is not associated with tests yet.

+ Add

Attachments

 Drop files to attach, or [browse](#).

Issue Links

relates to	 CALC-5191 arithmetic tests	 OPEN
------------	--	---



Calculator / CALC-5186 As a user, I can calculate the sum of 2 numbers / CALC-5254

Sub Test Execution for CALC-5186

[Edit](#) [Comment](#) [Synchronize Tests from...](#) [More](#) [Start Progress](#) [Resolve Issue](#) [Close Issue](#) [Admin](#)

Details

Type: **Sub Test Execution** Status: **OPEN** ([View Workflow](#))
Priority: **Major** Resolution: **Unresolved**
Affects Version/s: **None** Fix Version/s: **v3.0**
Component/s: **None**
Labels: **None**
Test Plan: **None**
Test Environments: **None**

Xporter

Template: **Filter Results with Cover Page**
Output format: **PDF**
Use custom filename: ☐
[Export](#)

Test Sets Synchronization
Tests have been synchronized for CALC-5254

Tests

[+ Add](#)

Overall Execution Status

3 **TODO**

TOTAL TESTS: 3

[Filter\(s\)](#)



Show **100** entries

[Columns](#)

		Rank	Key	Summary	Test Type	#Req	#Def	Assignee	Status
		1	CALC-5190	Generic Test As a user, I can calculate the sum of 2 numbers	Generic	1	0	Administrator	TODO
		2	CALC-5189	Cucumber Test As a user, I can calculate the sum of 2 numbers	Cucumber	1	0	Administrator	TODO
		3	CALC-5187	Manual Test As a user, I can calculate the sum of 2 numbers	Manual	1	2	Administrator	TODO

Add a custom link to the Tests top menu

Sometimes it may be useful to add a custom link to the Tests top menu.

As an example, you may have an internal documentation/Confluence space with some valuable information concerning Xray usage in your organization.

ScriptRunner configuration

Adding an entry to the top menu is easy.

Just go the Add-ons section in your Jira administration and then "Script Fragments".

Administration

Search JIRA admin

ApplicationsProjectsIssuesAdd-onsUser managementSystemStructure

ATLASSIAN MARKETPLACE

Find new apps

Manage apps

APWIDE XRAY INTEGRATION

Configure

BEHAVIOURS

Behaviours

JSU - SUITE UTILITIES FOR JIRA

Configuration

SCRIPTRUNNER

Script Console

Built-in Scripts

Script Listeners

Script Fields

REST Endpoints

Script Fragments

Script ConsoleBuilt-in ScriptsListenersScript FieldsREST EndpointsScript FragmentsEscalation ServicesJQL Functions

Script Fragments

Web items and panels can change the UI, and add new functionality.

If this is a non-production instance, web location finder can help you to find the correct location for your web items, panels, and resources... enable, disable.

Looking for more information?

Check out our documentation for Script Fragments. If you have a question, the Atlassian Community may also have answers for you!

Add New Item

Name	Actions
Create a custom web section <i>Entry in More menu</i>	
Custom web item <i>Trigger Jenkins build with Test List</i>	
Constrained create issue dialog <i>Create Test Execution</i>	
Custom web item <i>Trigger Bamboo build with Test List</i>	

Add a new "Raw xml module".

Script Fragments

Web items and panels can change the UI, and add new functionality.

If this is a non-production instance, web location finder can help you to find the correct location for your web items, panels, and resources... enable, d

Looking for more information?

Check out our documentation for Script Fragments. If you have a question, the Atlassian Community may also have answers for you!

Add New Item

Raw xml module ?
Raw xml module

Create a custom web section ?
Creates a new web section, which you can add web-items to

Install web resource ?
Install web resource

Constrained create issue dialog ?
Opens the Create Issue dialog with project, issue ty

And add the configuration for the link; this configuration is exactly the same as if you were going to develop your own app, so it follows [Atlassian developer documentation guidelines for the "web-item" element](#).

Search JIRA admin

Issues Add-ons User management System Structure

Script Console Built-in Scripts Listeners Script Fields REST Endpoints **Script Fragments** Escalation Services JQL Functions

Raw xml module ?
Raw xml module

Note
An optional note, used only for your reference.

XML

```

1 <web-item key="xray-topnav-tests-meta-customlink"
2   <label>My Custom Link</label>
3   <link linkId="raven-topnav-test-item-meta.customlink">
4 </web-item>

```

Enter your xml

Preview Update Cancel

Make sure the "web-item" as a "weight" value higher than 120, to append your link to the end of the options available from the dropdown menu.

Example

Let's say that we want to add a link to "https://getxray.app" in the top Test menu, having the name "My Custom Link".

The "raw xml module" configuration would be something similar to the following snippet.

```

<web-item key="xray-topnav-tests-meta-customlink" name="Custom link" section="raven-menu/xray.topnav.meta.
section" weight="130">
  <label>My Custom Link</label>
  <link linkId="raven-topnav-test-item-meta.customlink">https://getxray.app</link>
</web-item>

```

JIRA Dashboards Projects Issues Boards Structure Power Apps DbConsole easyBI Tests Create

Administration Search JIRA admin

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Configuration

Script Console Built-in Scripts Listeners Script Fields REST Endpoints **Script Fragments** Escalation Services JQL Functions

Raw xml module ?
Raw xml module

Note
An optional note, used only for your reference.

XML

```

1 <web-item key="xray-topnav-tests-meta-customlink"
2   <label>My Custom Link</label>
3   <link linkId="raven-topnav-test-item-meta.customlink">
4 </web-item>

```

Enter your xml

SEARCH
Search Test
Search Pre-Condition
Search Test Set
Search Test Execution
Search Test Plan
Xray Reports
Test Repository
Test Plan Board
Automated Steps Library
Test Case Importer
Documentation
Get Started
My Custom Link