


Use case library








The list below contains some use cases that can be realized using **Smart Fields for Jira**.

Make sure to come by once in a while since the number of use cases will grow over time.










For all examples marked with a , you do not even have to copy and paste the code. Simply search for the field in the [expression editor](#).

Use cases and examples

Use case	Feature	Built-in	Parsing mode	Expression
All email addresses mentioned in the issue description			General	<pre>%{findPattern(%{issue.description}, "(?<=mailto:)([a-zA-Z0-9._-]+@[a-zA-Z0-9._-]+\.[a-zA-Z0-9_-]+)")}</pre>
Assignee groups			Jira expression	<pre>issue.assignee?.groups ""</pre>
Attachment authors			Jira expression	<pre>issue?.attachments?.reduce((result,att) => result.set(att.author.displayName,""), new Map()).entries().flatten().filter (entry => entry != "")</pre>
Attachment filenames			General	<pre>%{issue.attachments}</pre>
Attachment mimetypes			Jira expression	<pre>issue?.attachments?.reduce((result,att) => result.set(att.mimeType,""), new Map()).entries().flatten().filter (entry => entry != "")</pre>
Average time since creation of sub-tasks			General	<pre>%{floor(avg(toNumberList(jiraExpression("issue.subtasks.map(i=>(Number(new Date())-Number(i.created))/1000/60/60/24)"))))}</pre>

Comment authors		Jira expression	<pre>issue.comments.reduce((result, comment) => result.set(comment.author.displayName, ""), new Map()).entries().flatten().filter (entry => entry != "")</pre>
Completion percentage by status		General	<pre>%{%{issue.status} = "Open" ? 0 : (%{issue.status} = "Planning" ? 0.15 : (%{issue.status} = "In Progress" ? 0.6 : (%{issue.status} = "In Review" ? 0.6 : (%{issue.status} = "Implementing" ? 0.85 : 1))))}</pre> <p>Please, replace the status names as well as the completion percentages with the ones of your choice. Any status not included in the sequence will return 1.</p>
Components from all subtasks		General	<pre>%{distinct(fieldValue(%{issue.components}, subtasks()))}</pre>
Creation date of the linked epic		Jira expression	<pre>issue?.epic ? issue?.epic.created.toCalendarDate(). toString() : ""</pre>
Difference between the current day and the earliest subtask due date		General	<pre>%{max(fieldValue({issue.dueDate},subtasks())) != null ? ceil((min(filterByValue(fieldValue({issue. dueDate},subtasks()),!=, null)) - {system. currentDateTime}) / DAY) : null}</pre>
Elapsed time between creation and resolution		General	<pre>%{{issue.resolutionDate} != null ? ({issue. resolutionDate} - {issue.created}) / DAY) : null}</pre> <p>The duration can be returned in years, weeks, days, hours or minutes if the DAY keyword is replaced in the above expression with the corresponding time constant.</p>
Field value validation		General	<pre>%{matches(%{issue.cfnnnnn},"6 7 8 9") ? "Valid":" Invalid"}</pre> <p>The values entered as arguments in the <i>matches()</i> parser function can be replaced with different values or with a regular expressions to validate differently the value of the custom field.</p> <p>Please, note that it is necessary to replace <i>nnnnn</i> with the ID of the custom field.</p>
















First comment		Jira expressi on	<pre>issue?.comments[0]?.body?.plainText == null ? '' : issue?.comments[0]?.body?.plainText</pre>
			<p>The text will be returned using wiki markup, e.g. bold text will be shown as <i>*bold text*</i>.</p>
First comment author		Jira expressi on	<pre>issue?.comments[0]?.author?.displayName</pre>
Highest value out of several fields		General	<pre>%{max([{issue.cfAAAAA}, {issue.cfBBBBB}, {issue.cfCCCCC}, {issue.cfDDDDD}, {issue.cfEEEEEE}])}</pre>
			<p>Please, replace the field codes with the ones of your choice.</p>
Historical due dates		Jira expressi on	<pre>issue.changelogs.filter(changelog => changelog.items.some(item => item.fieldId == 'duedate' && item.from != null)).map(changelog => {duedateentry: changelog.items.filter(item => item.fieldId == 'duedate')}).map(e => new CalendarDate(e.duedateentry[0].from).toString()).join(", ")</pre>
ICE score		Jira expressi on	<pre>(issue?.customfield_IIIII 0) * (issue?.customfield_CCCCC 0) * (issue?.customfield_EEEEE 0)</pre>
			<p>Replace the IDs with the ones of your number custom fields Impact (IIIII), Confidence (CCCCC) and Ease (EEEEEE).</p>
Issue ID	 	General	<pre>%{issue.id}</pre>
Issue type description		Jira expressi on	<pre>issue?.issueType?.description</pre>
Keys of linked issues in current project		General	<pre>%{filterByProject(linkedIssues(), %{issue.project.key})}</pre>














Keys of non-estimated sub-tasks		Jira expression	<pre>issue.subtasks.filter(s => s?.originalEstimate == null && s?.customfield_nnnnn == null).map(i => i.key).join(", ")</pre> <p>Please, note that it is necessary to replace <i>nnnnn</i> with the ID of the custom field displaying the original estimate or story points.</p>
Last assignee change author		Jira expression	<pre>issue.changelogs.filter(changelog => changelog.items.some(item => item.fieldId == 'assignee')).map(changelog => changelog.author.displayName)[0] ""</pre>
Last comment	 	General	<pre>%{issue.lastComment}</pre>
Last comment author		Jira expression	<pre>issue?.comments[issue?.comments?.length-1]?.author?.displayName ""</pre>
Last status change author		Jira expression	<pre>issue.changelogs.filter(c=>c.items.some(i=>i.field=="status"))[0]?.author?.displayName ""</pre>
Last status change date		Jira expression	<pre>issue.changelogs.filter(changelog => changelog.items.some(item => item.fieldId == 'status')).map(changelog => changelog.created).concat(issue.created)[0].toString()</pre>
Lowest date and time from linked issues		Jira expression	<pre>let minDate = issue?.links.map(link => link.linkedIssue.customfield_nnnnn).filter(d => d != null); minDate.length > 0 ? new Date(minDate.reduce((a, b) => a < b ? a : b)).toString() : ""</pre> <p>Please, replace <i>nnnnn</i> with the ID of a Date Time Picker custom field.</p>
Lowest date from linked issues		Jira expression	<pre>let minDate = issue?.links.map(link => link.linkedIssue.customfield_nnnnn).filter(d => d != null); minDate.length > 0 ? new CalendarDate(minDate.reduce((a, b) => a < b ? a : b)).toString() : ""</pre> <p>Please, replace <i>nnnnn</i> with the ID of a Date Picker custom field.</p>






Months elapsed			General	<pre>%{{issue.cfnnnnn}} != null ? ((year({system. currentDateTime}, RUN_AS_LOCAL) - year({issue. cfnnnnn}, RUN_AS_LOCAL))*12 + month({system. currentDateTime}, RUN_AS_LOCAL) - (month({issue. cfnnnnn}, RUN_AS_LOCAL))) : null}</pre>
				Please, replace both <i>nnnnn</i> in the above expression with the ID of your Date Picker custom field.
Number of affected versions			General	<pre>%{issue.versions.length}</pre>
Number of assignee changes			Jira expression	<pre>issue.changelogs.filter(changelog => changelog. items.some(item => item.fieldId == 'assignee')). length</pre>
Number of attachment authors			Jira expression	<pre>issue.attachments.map(attachment => attachment. author.accountId).reduce((a, b) => a.includes(b) ? a : a.concat(b), []).length</pre>
Number of attachments			General	<pre>%{issue.attachments.length}</pre>
Number of attachments in sub-tasks			Jira expression	<pre>issue.subtasks.map(subtask => subtask.attachments. length).reduce((a, b) => a + b, 0)</pre>
Number of comment authors			Jira expression	<pre>issue.comments.map(comment => comment.author. displayName).reduce((a, b) => a.includes(b) ? a : a. concat(b), []).length</pre>
Number of comments			Jira expression	<pre>issue?.comments?.length</pre>
Number of components			Jira expression	<pre>issue.components.length</pre>
Number of days in previous status			Jira expression	<pre>let statusChangelogs = issue.changelogs.filter (changelog => changelog.items.some(item => item. fieldId == 'status')); statusChangelogs[0] ? (statusChangelogs[0].created. getTime() - (statusChangelogs[1] ? statusChangelogs [1].created : issue.created).getTime()) / (24*60*60*1000) : null</pre>









Number of fix versions			General	<pre>%{issue.fixVersions.length}</pre>
Number of incoming issue links			Jira expression	<pre>issue?.links?.filter(link => link.direction == "inward").length</pre>
Number of issues under epic			Jira expression	<pre>issue.stories?.length</pre>
Number of issues under epic including sub-tasks			General	<pre>%{%{issue.issueType} = "Epic" ? count(append (issuesUnderEpic(),subtasks(issuesUnderEpic()))) : null }</pre>
Number of issues with the same fix versions			General	<pre>%{%{issue.fixVersions} != null ? count(issuesFromJQL ("fixVersion in ('" + jiraExpression("issue?.fixVersions?.map(v => v?.name).join('\','\"") ") + "') ")): null}</pre>
Number of labels			General	<pre>%{issue.labels.length}</pre>
Number of linked issues			General	<pre>%{issue.links.length}</pre>
Number of open child issues			General	<pre>%{count(issuesFromJQL("statusCategory in ('To Do','In Progress') and parent = " + %{issue.key}))}</pre>
Number of outgoing issue links			Jira expression	<pre>issue?.links?.filter(link => link.direction == "outward").length</pre>
Number of status changes			Jira expression	<pre>issue.changelogs.filter(changelog => changelog.items.some(item => item.fieldId == 'status')).length</pre>
Number of sub-tasks			General	<pre>%{issue.subtasks.length}</pre>






Number of sub-tasks based on status		General	<pre>%{count(filterByStatus(subtasks(), "Done, Completed"))}</pre>
			<p>Please, note that by changing "Done, Completed" into other statuses and resolutions you can adapt this use case for your needs.</p>
Number of sub-tasks based on status and issue type		General	<pre>%{count(filterByIssueType(filterByStatus(subtasks(), "Done, Completed"), "Sub-task, Sub-story"))}</pre>
			<p>Please, note that by changing "Done, Completed" into other statuses and "Sub-task, Sub-story" into other issue types, you can adapt this use case for your needs.</p>
Number of times issue was changed to the current status		Jira expression	<pre>issue.changelogs.filter(changelog => changelog.items.some(item => item.fieldId == 'status' && item.toString == issue?.status?.name)).length</pre>
Number of times that a custom field has been changed		Jira expression	<pre>issue.changelogs.filter(changelog => changelog.items.some(item => item.fieldId == 'customfield_nnnnn')).length</pre>
			<p>Please, replace <i>nnnnn</i> with the ID of your custom field in the above expression.</p>
Number of times that an issue was rejected		Jira expression	<pre>issue.changelogs.filter(changelog => changelog.items.some(item => item.fieldId == 'resolution' && item.toString == 'Rejected')).length</pre>
			<p>In case you have other statuses and resolutions, feel free to change these arguments: " item.fieldId == 'resolution' && item.toString == 'Rejected'"</p>
Number of unresolved blocking issues		General	<pre>%{count(filterByResolution(linkedIssues("is blocked by"), ""))}</pre>

Operations with field values from sub-tasks			Jira expression	<pre>issue.subtasks.length && issue.subtasks.map(s => (s.customfield_nnnnn 0) * (s.customfield_ppppp 0)).reduce((a, b) => a + b)</pre>
Please, replace <i>nnnnn</i> and <i>ppppp</i> in the above expression with the IDs of the Number fields.				
Parent assignee			General	<code>%{parent.assignee.displayName}</code>
Parent priority			General	<code>%{parent.priority}</code>
Parent reporter			General	<code>%{parent.reporter.displayName}</code>
Parent status			General	<code>%{parent.status}</code>
Percentage of completed child issues			Jira expression	<pre>let children = (issue.isEpic ? issue.stories : issue.subtasks); children.length ? (children.filter(child => child. resolution).length / children.length * 100 + ''). slice(0, 4) + '%' : ''</pre>
Previous assignee			Jira expression	<pre>issue.changelogs.map(i=>i.items).flatten().filter (i=>i.field=="assignee").length>0 ? issue.changelogs.map(i=>i.items).flatten().filter (i=>i.field=="assignee").map(a=>a.fromString)[0] : ""</pre>
Previous issue status			General	<code>%{issue.status.previous}</code>
Previous reporter			Jira expression	<pre>let reporters= issue.changelogs.map(i=>i.items). flatten().filter(i=>i.field=="reporter"); reporters.length>0 ? reporters.map(a=>a.fromString)[0] == null ? "" :reporters.map(a=>a.fromString)[0] : ""</pre>

Priority assessment based on field values		General	<pre>%{sum([%{issue.cfnnnnn} = "Option 1" ? 1 : 0, % {issue.cfppppp} = "Option 1" ? 1 : 0])}</pre>
Please, replace <i>nnnnn</i> and <i>ppppp</i> with the IDs of the custom fields, e.g. Select List (single choice).			
Priority description		Jira expression	<code>issue?.priority?.description</code>
Project category of issue		General	<code>%{issue.project.category}</code>
Project description	 	General	<code>%{issue.project.description}</code>
Project lead	 	General	<code>%{issue.project.leadDisplayName}</code>
Remaining budget		General	<pre>%{{{issue.cfnnnnn} = null ? null : {issue.cfnnnnn} - sum(append(fieldValue({issue.cfppppp}, subtasks()), [0]))}</pre>
Status description		Jira expression	<code>issue?.status?.description</code>
Sub-task assignees		General	<code>%{distinct(fieldValue(%{issue.assignee.displayName}, subtasks()))}</code>
Sub-task labels		General	<code>%{distinct(fieldValue(%{issue.labels}, subtasks()))}</code>
Sub-task reporters		General	<code>%{distinct(fieldValue(%{issue.reporter.displayName}, subtasks()))}</code>
Sum of field values from issues in JQL query		General	<pre>%{sum(fieldValue({issue.cfnnnnn}, issuesFromJQL ("project = DEMO and 'fieldName' is not empty"))}</pre>
Please, replace <i>nnnnn</i> in the above expression with the ID of the Number custom field and <i>fieldName</i> with its name.			

Sum of original estimates of issues under epic's parent		General	<pre>%{%{issue.issueType} = "Initiative" ? sum(append (fieldValue({issue.originalEstimate} , union(issuesFromJQL("issuekey in portfolioChildIssuesOf ("+ %{issue.key} +")"), issuesUnderEpic (issuesFromJQL("issuekey in portfolioChildIssuesOf ("+ %{issue.key} +")")))), [0])) / 60 : null}</pre>
			<p>We consider the epic's parent to be a Initiative in this expression, but it could differ depending on the Advanced Roadmaps issue type hierarchy. To adapt to your issue type hierarchy change the following part of the expression: "%{issue.issueType} = "Your Custom Issue Type" "</p>
Sum of story points of completed child issues		General	<pre>%{sum(fieldValue({issue.cfnnnnn},issuesFromJQL ("statusCategory = Done AND 'parent' = "+%{issue. key}))))}</pre>
			<p>Replace "nnnnn" with the ID of the story points field. Keep in mind, that this smart fields should be displayed on a parent issue.</p>
Sum of story points of completed sibling issues		General	<pre>%{sum(fieldValue({issue.cfnnnnn},issuesFromJQL ("statusCategory = Done AND 'parent' = "+%{parent. key}))))}</pre>
			<p>Replace "nnnnn" with the ID of the story points field. Keep in mind, that this smart fields should be displayed on a child issue.</p>
Sum of time spent of blocking issues		General	<pre>%{sum(append(fieldValue({issue.timeSpent}, linkedIssues("is blocked by")), [0])/60}</pre>
			<p>If the resulting number from the expression contains too many decimal numbers, feel free to select one of the available display formats or to configure it manually.</p>
Sum of time spent of epic and issues under it		General	<pre>%{%{issue.issueType} = "Epic" ? (sum(append (fieldValue({issue.timeSpent}, issuesUnderEpic()), [{issue.timeSpent}])) / 60) : null}</pre>
			<p>If the resulting number from the expression contains too many decimal numbers, feel free to select one of the available display formats or to configure it manually.</p>

Sum of time spent of issues under epic		General	<pre>%{%{issue.issueType} = "Epic" ? sum(append(fieldValue({issue.timeSpent}, issuesUnderEpic()), [0])) / 60 : null}</pre>
			<p>If the resulting number from the expression contains too many decimal numbers, feel free to select one of the available display formats or to configure it manually.</p>
Sum of time spent of linked issues		General	<pre>%{sum(append(fieldValue({issue.timeSpent}, linkedIssues()), [0])) / 60}</pre>
Sum of time spent of the current and linked issues		General	<pre>%{sum(append(fieldValue({issue.timeSpent}, union(linkedIssues(), issueKeysToIssueList(%{issue.key})), [0])) / 60}</pre>
Time left until due date		General	<pre>%{%{issue.dueDate} != null ? max({issue.dueDate} - {system.currentDateTime}, 0) / DAY : null}</pre>
Timely resolution assessment		General	<pre>%{%{issue.resolutionDate} != null AND {issue.dueDate} != null ? ({issue.resolutionDate} <= {issue.dueDate} ? "Yes" : "No") : (datePart({system.currentDateTime}, RUN_AS_LOCAL) > {issue.dueDate} ? "No" : "")}</pre>
Time since creation		General	<pre>%{floor(({system.currentDateTime} - {issue.created}) /DAY)}</pre>
			<p>The duration can be retuned in years, weeks, days, hours or minutes if the DAY keyword is replaced in the above expression with the corresponding time constant.</p>
Time spent ratio		General	<pre>%{%{issue.originalEstimate} != null AND %{issue.timeSpent} != null ? {issue.timeSpent} / {issue.originalEstimate} * 100 : null}</pre>
Total attachment size in MB		Jira expression	<pre>issue.attachments.reduce((result, att) => result + att.size, 0) / 1024 / 1024</pre>

Total original estimate of blocking issues		General	<pre>%{sum(fieldValue({issue.originalEstimate}, linkedIssues("is blocked by")))/60}</pre>
			<p>If the resulting number from the expression contains too many decimal numbers, feel free to select one of the available display formats or to configure it manually.</p>
Total remaining estimate of blocking issues		General	<pre>%{sum(append(fieldValue({issue.remainingEstimate}, linkedIssues("is blocked by")), [0]))/60}</pre>
			<p>If the resulting number from the expression contains too many decimal numbers, feel free to select one of the available display formats or to configure it manually.</p>
Total remaining estimate of issues under epic		General	<pre>%{%{issue.issueType} = "Epic" ? sum(append (fieldValue({issue.remainingEstimate}, issuesUnderEpic()), [0])) / 60 : null}</pre>
Total remaining estimate of issues under epic and sub-tasks		General	<pre>%{%{issue.issueType} = "Epic" ? sum(append (fieldValue({issue.remainingEstimate}, union (issuesUnderEpic(), subtasks(issuesUnderEpic()))), [0])) / 60 : null}</pre>
Total story points of issues in an epic		General	<pre>%{sum(fieldValue({issue.cfNNNNN}, issuesUnderEpic()))}</pre>
			<p>Replace the ID with the one of your 'Story Points' custom field.</p>