

# Hash Variable

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## What is Hash Variable?

### Definition

**Hash Variables** gives users greater flexibility and freedom in accessing useful information or relevant run-time values from the system.

A hash variable is a special hash-escaped keyword that can be used in :

- Form Builder
- Datalist Builder
- Userview Builder
- Supported plugin configuration properties
- Activity name in Workflow Designer
- External Form URL when mapping an activity to an external form

to return the value of some useful runtime variables from Joget components.



To conveniently access the list of all hash variables available, use shortcut combination **Ctrl+Shift+3** in any of the components above.



Download the tutorial app on [Hash Variables](#) from [Joget Workflow Marketplace](#) to learn more about Hash Variable.

## Nested Hash Variable

A **Hash Variable** can be used inside another **Hash Variable** to form a **Nested Hash Variable**.

The syntax for the inner Hash Variable is wrapped by a pair of {curly bracket}.

### Syntax / Format

```
#prefix.{prefix.variableKey}#
```

Here's some examples:

#### Example

```
#date.{envVariable.dateFormat}#
#user.{variable.username}.firstName#
#form.tableChild.field1[ {form.tableParent.childId} ]#
```

## Escaping the Resultant Hash Variable

The parsed/returned Hash Variable may cause incompatibility with the current context/environment such as syntax error in a script.

Therefore, one may pass in additional parameters into the hash variable declared to escape certain characters.

Before ending a hash variable with a hash "#", add a question mark character "?" followed by the required format. You may include multiple by defining semicolon ";" separated values.

1. regex - Used to escape regular expression special characters
2. json - Used to escape JSON special characters
3. javascript - Used to escape Javascript special characters
4. html - Used to escape HTML special characters
5. xml - Used to escape XML special characters
6. java - Used to escape Java special characters
7. sql - Used to escape SQL special characters
8. url - Used to escape URL special characters
9. nl2br - Used to convert new line character to <br> HTML tag
10. separator(SEPARATOR\_CHARS) - Used to change the default separator ";" to the SEPARATOR\_CHARS. eg. ?separator(, ) resulted "abc, def" instead of "abc;def".

#### Example

```
#envVariable.script?java#
#envVariable.script?nl2br;json#
#form.table.users?separator(, )#
```

#### New Feature

nl2br and separator are new features in Joget Workflow v6.

## List of Hash Variables

- [Workflow Assignment Hash Variable](#)
- [Workflow Process Hash Variable](#)
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## Workflow Assignment Hash Variable

New
<p>New attributes added in Joget Workflow v6.</p> <ul style="list-style-type: none"> <li>• processDefIdWithoutVersion</li> <li>• appId</li> </ul>

Name	Description
Prefix	assignment
Description	To get workflow activity information of the current assignment.
Attributes	<ul style="list-style-type: none"> <li>• #assignment.processId#</li> <li>• #assignment.processDefId#</li> <li>• #assignment.processDefIdWithoutVersion#</li> <li>• #assignment.processName#</li> <li>• #assignment.processVersion#</li> <li>• #assignment.processRequesterId#</li> <li>• #assignment.appId#</li> <li>• #assignment.activityId#</li> <li>• #assignment.activityName#</li> <li>• #assignment.activityDefId#</li> <li>• #assignment.assigneeId#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>• Elements within and part of a Process.             <ol style="list-style-type: none"> <li>1. Activity Name.</li> <li>2. Form mapped as part of process activity mapping.</li> <li>3. Email Tool configuration as part of process tool mapping.</li> </ol> </li> </ul>
Sample Attributes	<p>To display the assignee's name:</p> <pre>#user.{assignment.assigneeId}.firstName# #user.{assignment.assigneeId}.lastName#</pre>

## Workflow Process Hash Variable

New Feature						
This is a new feature in Joget Workflow v6.						
<table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Prefix</td> <td>process</td></tr> <tr> <td>Description</td> <td>To retrieve information of a workflow process instance.</td></tr> </tbody> </table>	Name	Description	Prefix	process	Description	To retrieve information of a workflow process instance.
Name	Description					
Prefix	process					
Description	To retrieve information of a workflow process instance.					

Attributes

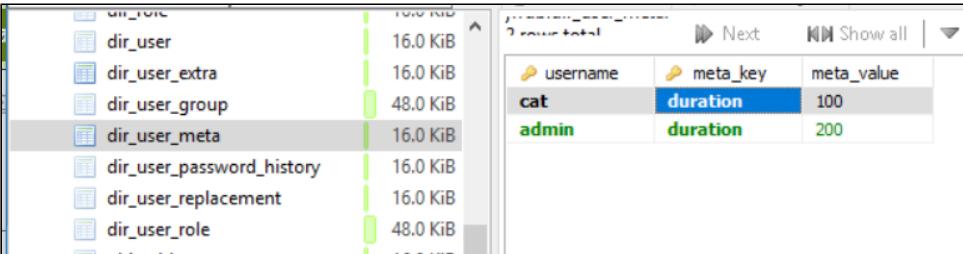
- #process.appId#
- #process.processId#
- #process.processDefId#
- #process.processDefIdWithoutVersion#
- #process.processName#
- #process.processVersion#
- #process.processRequesterId#
- #process.state#
- #process.startedTime#
- #process.limit#
- #process.due#
- #process.delay#
- #process.delayInSeconds#
- #process.finishTime#
- #process.timeConsumingFromDateStarted#
- #process.timeConsumingFromDateStartedInSeconds#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.instanceId#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.name#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.status#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.state#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.type#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.startedTime#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.limit#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.limitInSeconds#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.due#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.delay#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.delayInSeconds#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.finishTime#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.timeConsumingFromDateStarted#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.timeConsumingFromDateStartedInSeconds#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.performer#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.performerUser#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.assignmentUsers#

- #process.appId[PROCESS\_INSTANCE\_ID]#
- #process.processDefId[PROCESS\_INSTANCE\_ID]#
- #process.processDefIdWithoutVersion[PROCESS\_INSTANCE\_ID]#
- #process.processName[PROCESS\_INSTANCE\_ID]#
- #process.processVersion[PROCESS\_INSTANCE\_ID]#
- #process.processRequesterId[PROCESS\_INSTANCE\_ID]#
- #process.startedTime[PROCESS\_INSTANCE\_ID]#
- #process.limit[PROCESS\_INSTANCE\_ID]#
- #process.due[PROCESS\_INSTANCE\_ID]#
- #process.delay[PROCESS\_INSTANCE\_ID]#
- #process.delayInSeconds[PROCESS\_INSTANCE\_ID]#
- #process.finishTime[PROCESS\_INSTANCE\_ID]#
- #process.timeConsumingFromDateStarted[PROCESS\_INSTANCE\_ID]#
- #process.timeConsumingFromDateStartedInSeconds[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.instanceId[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.name[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.status[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.state[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.type[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.startedTime[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.limit[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.limitInSeconds[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.due[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.delay[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.delayInSeconds[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.finishTime[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.timeConsumingFromDateStarted[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.timeConsumingFromDateStartedInSeconds[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.performer[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.performerUser[PROCESS\_INSTANCE\_ID]#
- #process.activityInst.**ACTIVITY\_DEF\_ID**.assignmentUsers[PROCESS\_INSTANCE\_ID]#

Scope of Use	<ul style="list-style-type: none"> <li>Elements within and part of a Process.           <ol style="list-style-type: none"> <li>Activity Name.</li> <li>Form mapped as part of process activity mapping.</li> <li>Email Tool configuration as part of process tool mapping.</li> </ol> </li> </ul>
Sample Attributes	<p>To display the performer username of an activity instance of a process instance:</p> <pre>#process.activityInst.assign.performerUser[[assignment.processId]]#</pre>

## Current User Hash Variable

Name	Description									
Prefix	currentUser									
Description	To retrieve currently logged in user information.									
Attributes	<ul style="list-style-type: none"> <li>#currentUser.id#</li> <li>#currentUser.username#</li> <li>#currentUser.firstName#</li> <li>#currentUser.lastName#</li> <li>#currentUser.email#</li> <li>#currentUser.active#</li> <li>#currentUser.timeZone#</li> </ul>									
In Joget Enterprise edition, these additional attributes are available:-										
<b>User Meta</b> <ul style="list-style-type: none"> <li>#currentUser.meta.KEY#</li> </ul> <p>To read additional user meta data stored in <b>dir_user_meta</b> table. Example: #currentUser.meta.duration#.</p>  <table border="1"> <thead> <tr> <th>username</th> <th>meta_key</th> <th>meta_value</th> </tr> </thead> <tbody> <tr> <td>cat</td> <td>duration</td> <td>100</td> </tr> <tr> <td>admin</td> <td>duration</td> <td>200</td> </tr> </tbody> </table>		username	meta_key	meta_value	cat	duration	100	admin	duration	200
username	meta_key	meta_value								
cat	duration	100								
admin	duration	200								
<b>New Feature</b> <p>This is a new feature in Joget Workflow v6.</p>										
<b>Employment</b> <ul style="list-style-type: none"> <li>#currentUser.employee.code#</li> <li>#currentUser.employee.jobTitle#</li> <li>#currentUser.employee.isHod#</li> </ul>										
<b>HOD</b> <ul style="list-style-type: none"> <li>#currentUser.hod.username#</li> <li>#currentUser.hod.firstName#</li> <li>#currentUser.hod.lastName#</li> <li>#currentUser.hod.email#</li> <li>#currentUser.hod.active#</li> <li>#currentUser.hod.timeZone#</li> </ul>										
<b>Organization</b> <ul style="list-style-type: none"> <li>#currentUser.organization.id#</li> <li>#currentUser.organization.name#</li> <li>#currentUser.organization.description#</li> </ul>										

	<p><b>Department</b></p> <ul style="list-style-type: none"> <li>• #currentUser.department.id#</li> <li>• #currentUser.department.name#</li> <li>• #currentUser.department.description#</li> </ul> <p><b>Department HOD</b></p> <ul style="list-style-type: none"> <li>• #currentUser.department.hod.username#</li> <li>• #currentUser.department.hod.firstName#</li> <li>• #currentUser.department.hod.lastName#</li> <li>• #currentUser.department.hod.email#</li> <li>• #currentUser.department.hod.active#</li> <li>• #currentUser.department.hod.timeZone#</li> </ul> <p><b>Grade</b></p> <ul style="list-style-type: none"> <li>• #currentUser.grade.id#</li> <li>• #currentUser.grade.name#</li> <li>• #currentUser.grade.description#</li> </ul> <p><b>Group</b></p> <ul style="list-style-type: none"> <li>• #currentUser.groups.id#</li> <li>• #currentUser.groups.name#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>• All components within the App.</li> </ul>

## Date Hash Variable

Name	Description
Prefix	date
Description	To get <b>date time</b> according to a specified format. <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <span style="color: #0070C0; font-size: 1.5em; margin-right: 10px;">i</span> <b>Localization</b>            In Joget Workflow v5, the returned value would follow current logged in user's timezone. If user's information is not available, then it will use server's timezone.         </div>

Attributes	<ul style="list-style-type: none"> <li>• <code>#date.dateFormat#</code></li> <li>• <code>#date.dateUnit[+-]integerValue.dateFormat#</code></li> </ul> <div style="border: 1px solid #ccc; padding: 10px;"> <p><b>Options</b></p> <p><code>dateFormat</code></p> <ul style="list-style-type: none"> <li>○ In Java date format; e.g., yyyy-MM-dd for 2011-06-01</li> </ul> <p><code>dateUnit</code></p> <ul style="list-style-type: none"> <li>○ YEAR</li> <li>○ MONTH</li> <li>○ DAY</li> </ul> <p><code>integerValue</code></p> <ul style="list-style-type: none"> <li>○ Numeric integer value. E.g. 10</li> </ul> </div> <ul style="list-style-type: none"> <li>• <code>#date.DATE_FORMAT_TO[INPUT_DATE_VALUE  INPUT_VALUE_FORMAT]#</code></li> <li>• <code>#date.dateUnit[+-]integerValue.DATE_FORMAT_TO[INPUT_DATE_VALUE  INPUT_VALUE_FORMAT]#</code></li> </ul> <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p><b>INFO</b> <code>INPUT_DATE_VALUE</code> accepts any date value and even nested hash variables, e.g. form data hash variable. See example in sample attributes below.</p> <p><code>INPUT_VALUE_FORMAT</code> is the <code>INPUT_DATE_VALUE</code> original format.</p> <p><code>DATE_FORMAT_TO</code> defines the format to change to.</p> </div>
New Feature	<p>This is a new feature in Joget Workflow v6.</p>
Scope of Use	<ul style="list-style-type: none"> <li>• All components within the App.</li> </ul>
Sample Attributes	<pre>#date:h:mm a# // shows current time of 12:08 PM</pre> <pre>#date:EEE,d MMM yyyy h:mm:ss a# // shows current date time of Wed, 4 Jul 2014 12:08:56 PM</pre> <pre>#date.DAY+7:EEE,d MMM yyyy h:mm:ss a# // Add 7 days on top of current date time - Wed, 11 Jul 2014 12:08:56 PM</pre> <pre>#date.DAY-1:EEE,d MMM yyyy h:mm:ss a# // Minus 1 days on top of current date time - Wed, 3 Jul 2014 12:08:56 PM</pre> <pre>#date.dd-MM-yyyy[form:j_expense_claim:title]yyyy-MM-dd# // Retrieves date from j_expense_claim table, form field title, changes its origin format of <b>yyyy-MM-dd</b> to <b>dd-MM-yyyy</b>.</pre>

## Environment Variable Hash Variable

Name	Description
Prefix	<code>envVariable</code>
Description	To retrieve <b>Environment Variable</b> value. Learn more about <a href="#">Environment Variables</a> .
Attributes	<ul style="list-style-type: none"> <li>• <code>#envVariable. <i>keyName</i> #</code></li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>• Anywhere within the Joget app itself. (i.e. Process, Process Tool, Form, List, Userview)</li> </ul>

Sample Attributes	#envVariable.smtpServer# #envVariable.smtpPort#
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## Form Data Hash Variable

Name	Description
Prefix	form
Description	To get <b>field value</b> from <b>form table</b> .
Attributes	<ul style="list-style-type: none"> <li>• #form. <i>tableName</i> . <i>fieldId</i> #</li> <li>• #form. <i>tableName</i> . <i>fieldId</i> [<i>recordId</i>]# (Available in 3.1 and above)</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>• In a Process Tool part of a Process.</li> <li>• In a Form.</li> <li>• In a process design.</li> </ul>
Sample Attributes	#form.registration.registeredDate# //will use the current record ID #form.registration.registeredDate[ 0001 ]# //0001 is the record ID to seek for #form.registration.registeredDate[{variable.recordId}]# //using nested Hash Variable with curly bracket.

## Form Binder Hash Variable

New Feature
This is a new feature in Joget Workflow v6.

Name	Description
Prefix	binder
Description	To get <b>field value</b> or <b>field value label</b> from the binder of a form via its <b>form definition id</b> .  The <b>binder</b> prefix retrieves the field value, while the <b>binder.options</b> prefix retrieves the lookup field (eg. select box, checkbox & radio button) option label.  The <b>field value</b> or <b>field value label</b> can also be obtained from other apps by including the APP_ID, else it uses the current app context.  By providing the PRIMARY_KEY argument, <b>field value</b> or <b>field value label</b> from a different record can be retrieved, else data from the current record id is retrieved instead.
Attributes	<ul style="list-style-type: none"> <li>• #binder.APP_ID.FORM_DEF_ID.FIELD_ID#</li> <li>• #binder.APP_ID.FORM_DEF_ID.FIELD_ID[PRIMARY_KEY]#</li> <li>• #binder.FORM_DEF_ID.FIELD_ID#</li> <li>• #binder.FORM_DEF_ID.FIELD_ID[PRIMARY_KEY]#</li> <li>• #binder.options.APP_ID.FORM_DEF_ID.FIELD_ID#</li> <li>• #binder.options.APP_ID.FORM_DEF_ID.FIELD_ID[PRIMARY_KEY]#</li> <li>• #binder.options.FORM_DEF_ID.FIELD_ID#</li> <li>• #binder.options.FORM_DEF_ID.FIELD_ID[PRIMARY_KEY]#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>• In a Process Tool part of a Process.</li> <li>• In a Form.</li> <li>• In a process design.</li> </ul>

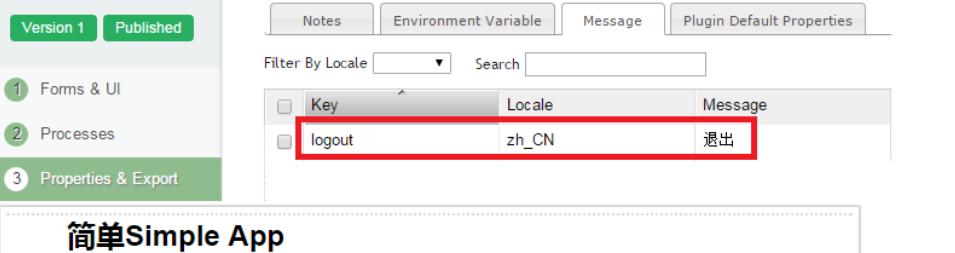
Sample Attributes	#binder.addCard.title#  #binder.cardViewer.addCard.title#  #binder.cardViewer.addCard.title[b30bce20-c0a82095-14976e70-fded1735]#  #binder.options.addCard.title#  #binder.options.cardViewer.addCard.title#  #binder.options.cardViewer.addCard.title[b30bce20-c0a82095-14976e70-fded1735]#
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## App Definition Hash Variable

New Feature	
This is a new feature in Joget Workflow v6.	
Name	Description
Prefix	appDef
Description	To retrieve App Definition information
Attributes	<ul style="list-style-type: none"> <li>● #appDef.appId#</li> <li>● #appDef.dateCreated#</li> <li>● #appDef.dateModified#</li> <li>● #appDef.version#</li> <li>● #appDef.license#</li> <li>● #appDef.name#</li> <li>● #appDef.published#</li> <li>● #appDef.description# (Properties &amp; Export &gt; Notes)</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>● All components within the App.</li> </ul>
Sample Attributes	To display the app definition name:  #appDef.name#

## App Message Hash Variable (Internationalization)

Name	Description
Prefix	i18n
Description	To support language localization on application level.
Attributes	<ul style="list-style-type: none"> <li>● #i18n. <i>keyName</i> #</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>● All components within the App.</li> </ul>

Sample Attributes	<p>#i18n.logout#</p>  <p><b>简单Simple App</b></p> <p>Click to edit</p> <p>#i18n.welcome# #date.EEE, d MMM yyyy#</p> <p>菜单</p> <p><b>简单Simple App</b></p> <p>你好 星期二, 13 十月 2015</p> <p>退出</p>
Example	Please see <a href="#">Add Message</a> .

## Performer Hash Variable

Name	Description
Prefix	performer
Description	To get <b>user information of the performer</b> of an activity.
Attributes	<ul style="list-style-type: none"> <li>#performer.activityDefId.id#</li> <li>#performer.activityDefId.username#</li> <li>#performer.activityDefId.firstName#</li> <li>#performer.activityDefId.lastName#</li> <li>#performer.activityDefId.email#</li> <li>#performer.activityDefId.active#</li> <li>#performer.activityDefId.timeZone#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>Elements within and part of a Process.             <ol style="list-style-type: none"> <li>Activity Name.</li> <li>Form mapped as part of process activity mapping.</li> <li>Email Tool configuration as part of process tool mapping.</li> </ol> </li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p><b>i</b> To get activityDefId (activity definition ID), mouseover the activity name in the Activity Mapping tab (Workflow Management Console); there will be an overlay showing the ID.</p> </div> <div style="border: 2px solid red; padding: 5px; margin-top: 10px;"> <p><b>!</b> The activity chosen must have already been performed.</p> </div>
Sample Attributes	<ul style="list-style-type: none"> <li>#performer.runProcess.firstName#</li> <li>#performer.submitLeave.firstName#</li> </ul>

## Request Parameter Hash Variable

Name	Description
Prefix	requestParam
Description	To access request parameter's values.

Attributes	<ul style="list-style-type: none"> <li>● <code>#requestParam.parameterName[separator]#</code></li> <li>● Separator (, or :) can be indicated if requestParam is used in datalist filter with multiple values, to define the separator character in data output. Comma "," is used as default if no separator is indicated in cases of multiple values.</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>● All components within the App.</li> </ul>
Sample Attributes	<ul style="list-style-type: none"> <li>● <code>#requestParam.key#</code> can be used specifically to obtain <a href="#">Userview Key value</a>.</li> <li>● <code>#requestParam.name[:]#</code> to indicate 'name' variable will store multiple values separated by semicolon. For example, this SQL statement "select * from expenses where title in (#requestParam.title[:])" will be translated to "select * from expenses where title in (a,b,c)" to cater for multiple values in "where-in" statement.</li> <li>● In a Userview page, one may access the following attributes. <ul style="list-style-type: none"> <li>○ <code>#requestParam.key#</code></li> <li>○ <code>#requestParam.userviewId#</code></li> <li>○ <code>#requestParam.menuId#</code></li> <li>○ <code>#requestParam.appId#</code></li> </ul> </li> <li>● <code>#requestParam.primaryKey#</code> can be used to retrieve the value passed into Ajax Subforms. For example, when a select box is selected, the id value will be passed into the Ajax Subform and you can use the <code>#requestParam.primaryKey#</code> in JDBC SQL Where clause.</li> </ul>

## User Hash Variable

Name	Description
Prefix	user
Description	To get <b>user information</b> based on <b>username</b> .
Attributes	

- #user. *username*.id#
- #user. *username*.username#
- #user. *username*.firstName#
- #user. *username*.lastName#
- #user. *username*.email#
- #user. *username*.active#
- #user. *username*.timeZone#

In Joget Enterprise edition, these additional attributes are available:-

#### User Meta

- #user. *username*.meta.KEY#
- To read additional user meta data stored in **dir\_user\_meta** table.  
Example: #user.cat.meta.duration# will return the value "100".

The screenshot shows the Joget interface. On the left, there is a tree view of directory contents under 'dir\_user'. The 'dir\_user\_meta' folder is selected and highlighted in grey. Other visible folders include 'dir\_cat', 'dir\_user', 'dir\_user\_extra', 'dir\_user\_group', and 'dir\_user\_password\_history'. On the right, there is a database table viewer titled 'dir\_user\_meta'. It has three columns: 'username', 'meta\_key', and 'meta\_value'. There are two rows: one for 'cat' where 'duration' is 100, and one for 'admin' where 'duration' is 200.

username	meta_key	meta_value
cat	duration	100
admin	duration	200

#### Organization

- #user. *username*.organization.id#
- #user. *username*.organization.name#
- #user. *username*.organization.description#

#### Department

- #user. *username*.department.id#
- #user. *username*.department.name#
- #user. *username*.department.description#

#### Grade

- #user. *username*.grade.id#
- #user. *username*.grade.name#
- #user. *username*.grade.description#
- #user. *username*.grade.organizationId#

#### HOD

- #user. *username*.hod.username#
- #user. *username*.hod.firstName#
- #user. *username*.hod.lastName#
- #user. *username*.hod.email#
- #user. *username*.hod.active#
- #user. *username*.hod.timeZone#

#### Group

- #user. *username*.groups.id#
- #user. *username*.groups.name#

#### Employment

- #user. *username*.employee.code#
- #user. *username*.employee.jobTitle#
- #user. *username*.employee.isHod#

#### Department HOD

- #user. *username*.department.hod.username#
- #user. *username*.department.hod.firstName#
- #user. *username*.department.hod.lastName#
- #user. *username*.department.hod.email#
- #user. *username*.department.hod.active#
- #user. *username*.department.hod.timeZone#

Scope of Use	<ul style="list-style-type: none"> <li>All components within the App.</li> </ul>
Sample Attributes	<ul style="list-style-type: none"> <li>#user.admin.email#</li> <li>#user.cat.firstName#</li> <li>#user.requestParam.username).email# to retrieve the email address of the user passed via url parameter</li> </ul>

### Userview Key Hash Variable

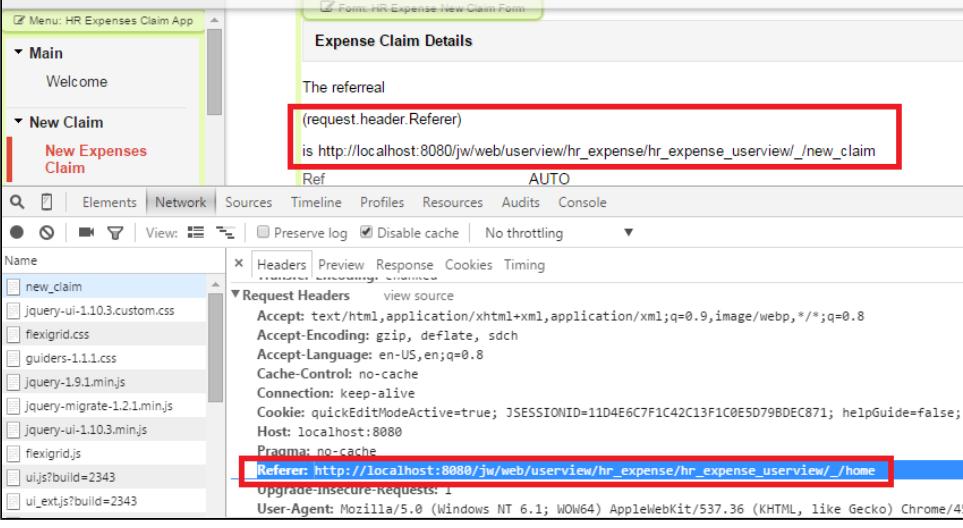
Name	Description
Prefix	userviewKey
Description	<p><b>Userview Key</b> Hash Variable is used solely for the purpose of accessing the current <a href="#">Userview key's value</a>.</p> <p>Typical use case for this hash variable are:-</p> <ul style="list-style-type: none"> <li>Filtering a <b>Datalist</b> based on Userview Key.</li> <li>Preloading certain form data field (e.g. subform) in a <b>Form</b> or <b>Form part of a process flow</b> based on Userview Key.</li> </ul>
Attributes	<ul style="list-style-type: none"> <li>#userviewKey#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li><a href="#">Datalist Binder</a></li> <li><a href="#">SQL Chart Userview Menu</a></li> </ul>

### Workflow Variable Hash Variable

Name	Description
Prefix	variable
Description	To get the <b>value of a workflow variable</b> in a Process Flow.
Attributes	<ul style="list-style-type: none"> <li>#variable. <i>variableName</i> #</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>Elements within and part of a Process.             <ol style="list-style-type: none"> <li>Activity Name.</li> <li>Form mapped as part of process activity mapping.</li> <li>Email Tool configuration as part of process tool mapping.</li> </ol> </li> </ul>
Sample Attributes	#variable.approvalStatus#

### Request Hash Variable

Name	Description
Prefix	request
Description	To get the <b>value</b> from the current <b>HttpServletRequest</b> object of the page view.

Attributes	<ul style="list-style-type: none"> <li>#request.characterEncoding#</li> <li>#request.contextPath#</li> <li>#request.header.NAME#, where NAME is the custom header name.</li> <li>#request.locale#</li> <li>#request.method#</li> <li>#request.pathInfo#</li> <li>#request.protocol#</li> <li>#request.queryString#</li> <li>#request.remoteAddr#</li> <li>#request.requestURI#</li> <li>#request.requestURL#</li> <li>#request.requestedSessionId#</li> <li>#request.scheme#</li> <li>#request.serverName#</li> <li>#request.serverPort#</li> <li>#request.servletPath#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>All components within the App where there is valid <b>HttpServletRequest</b> object. Such object will not be available in background activity such as in <b>Process Tool triggered</b> as a result of <b>Deadlines</b>.</li> </ul>
Sample Attributes	 <p>The screenshot shows the Network tab of a browser developer tools interface. A red box highlights the 'Referer' header under the 'Request Headers' section. The value of the 'Referer' header is shown as 'is http://localhost:8080/jw/web/userview/hr_expense/hr_expense_userview/_new_claim'. Another red box highlights the URL 'http://localhost:8080/jw/web/userview/hr_expense/hr_expense_userview/_home' in the 'Referer' header value.</p>

To retrieve the "Referer" header attribute value in the screenshot above, one may use the following hash variable.

#### Hash Variable

```
#request.header.Referer#
```

## Platform Hash Variable

#### New Feature

This is a new feature in Joget Workflow v6.

Name	Description
Prefix	platform
Description	To retrieve platform specific information.

Attributes	<ul style="list-style-type: none"> <li>#platform.name#</li> <li>#platform.version#</li> <li>#platform.jdbcDriver#</li> <li>#platform.setting.dataFilePath#</li> <li>#platform.setting.deadlineCheckerInterval#</li> <li>#platform.setting.defaultUserview#</li> <li>#platform.setting.fileSizeLimit#</li> <li>#platform.setting.landingPage#</li> <li>#platform.setting.systemDateFormat#</li> <li>#platform.setting.systemLocale#</li> <li>#platform.setting.systemTimeZone#</li> </ul> <p>In Joget Enterprise edition, these additional attributes are available:-</p> <ul style="list-style-type: none"> <li>#platform.license.name#</li> <li>#platform.license.holder#</li> <li>#platform.license.users#</li> <li>#platform.license.appLimit#</li> <li>#platform.license.expiry#</li> <li>#platform.license.activated#</li> <li>#platform.systemKey#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>All components within the App.</li> </ul>

## Users Hash Variable

New Feature	
This is a new feature in Joget Workflow v6.	
Name	Description
Prefix	users
Description	To retrieve information of all the users in the selected group, grade, department and organization. Multiple results will be separated by semicolon.
Attributes	<ul style="list-style-type: none"> <li>#users.group.GROUP_ID.username#</li> <li>#users.group.GROUP_ID.firstName#</li> <li>#users.group.GROUP_ID.lastName#</li> <li>#users.group.GROUP_ID.fullName#</li> <li>#users.group.GROUP_ID.email#</li> <li>#users.grade.GRADE_ID.username#</li> <li>#users.grade.GRADE_ID.firstName#</li> <li>#users.grade.GRADE_ID.lastName#</li> <li>#users.grade.GRADE_ID.fullName#</li> <li>#users.grade.GRADE_ID.email#</li> <li>#users.department.DEPARTMENT_ID.username#</li> <li>#users.department.DEPARTMENT_ID.firstName#</li> <li>#users.department.DEPARTMENT_ID.lastName#</li> <li>#users.department.DEPARTMENT_ID.fullName#</li> <li>#users.department.DEPARTMENT_ID.email#</li> <li>#users.organization.ORGANIZATION_ID.username#</li> <li>#users.organization.ORGANIZATION_ID.firstName#</li> <li>#users.organization.ORGANIZATION_ID.lastName#</li> <li>#users.organization.ORGANIZATION_ID.fullName#</li> <li>#users.organization.ORGANIZATION_ID.email#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>All components within the App.</li> </ul>

Sample Attributes	<p>To return all the users in the current user's groups id:</p> <ul style="list-style-type: none"> <li>● #users.group.{currentUser.groups.id}.fullName#</li> <li>● #users.department.D-005.username#</li> <li>● #users.group.G-001.email#</li> </ul>
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## Bean Shell Hash Variable

<b>New Feature</b>
This is a new feature in Joget Workflow v6.

Name	Description
Prefix	beanshell
Description	Using environment variable to execute bean shell script. Passing parameter using URL query string syntax.
Attributes	<ul style="list-style-type: none"> <li>● #beanshell.ENVIRONMENT_VARIABLE#</li> <li>● #beanshell.ENVIRONMENT_VARIABLE{PARAMETERS_URL_QUERY_STRING}#</li> </ul>
Scope of Use	<ul style="list-style-type: none"> <li>● All components within the App.</li> </ul>
Sample Attributes	<p>To execute a script stored in "welcome" environment variable with parameter "username" and "dept":</p> <pre style="border: 1px solid #ccc; padding: 10px; font-family: monospace; font-size: 0.9em;"> if (username != null &amp;&amp; username.length == 1 &amp;&amp; !username[0].isEmpty()) {     return "Welcome " + username[0] + " (" + dept[0] + ")"; } else {     return ""; } </pre> <ul style="list-style-type: none"> <li>● #beanshell.welcome[username={currentUser.username?url }&amp;dept={currentUser.department.name?url }]#</li> </ul>
Related Tutorials	<ul style="list-style-type: none"> <li>● <a href="#">Add Signature Form Element as Image into Email Content</a></li> </ul>

## Hash Variables In Joget Marketplace

- [Date Formatter Hash Variable](#)
- [Signature Hash Variable Plugin](#)
- [Property Hash Variable Plugin](#)

## Download Demo App

- [Tutorial App: Hash Variable](#)