

Benny's Secret Functions

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Guide to Variables used in STU

All STU variables take format like these.

`{{groupname.variablename}}`

or

`{{groupname.variablename(index)}}`

There are 3 types of Variables used in STU.

1. User defined variables
2. Plugin generated variables
3. Special variables

1. User defined variables

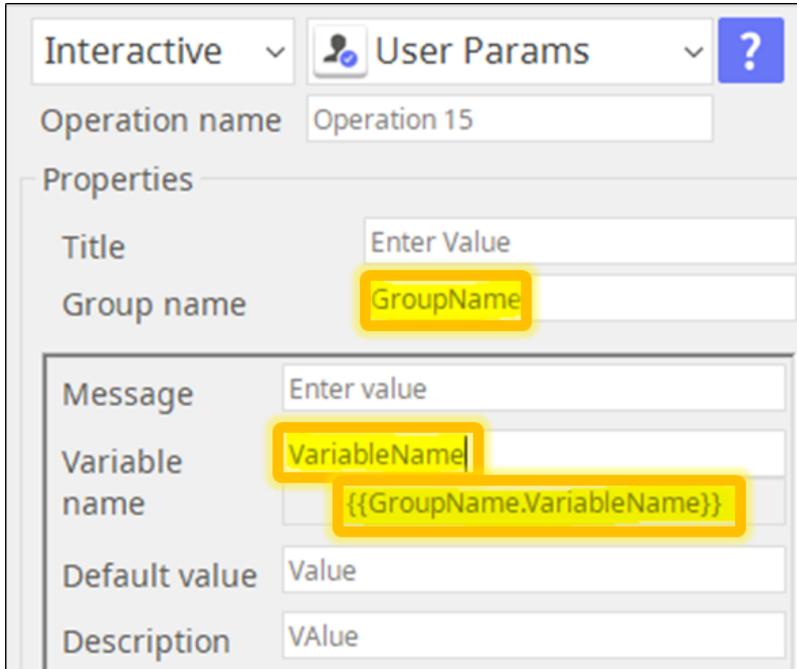
User Defined Variables are the ones that are defined in the Variable section of STU.

Variables				
	GroupName	VariableName	Array	UseCase
*	Click here to add a new row			
▶	my	input	<input type="checkbox"/>	{{my.input}}
	my	b	<input type="checkbox"/>	{{my.b}}
	my	c	<input type="checkbox"/>	{{my.c}}
	group	google	<input type="checkbox"/>	{{group.google}}
	group	tesseract	<input type="checkbox"/>	{{group.tesseract}}
	group	msAzure	<input type="checkbox"/>	{{group.msAzure}}
	group	AWS	<input type="checkbox"/>	{{group.AWS}}
	group	naverOCR	<input type="checkbox"/>	{{group.naverOCR}}

2. Plugin generated variables

Plugin/Operation generated variables are the variables specific to the Plugin when the Return Value of CSV has been selected.

One example is the User Param operation in the Interactive tool-group.



Interactive User Params ?

Operation name Operation 15

Properties

Title Enter Value

Group name GroupName

Message Enter value

Variable name VariableName

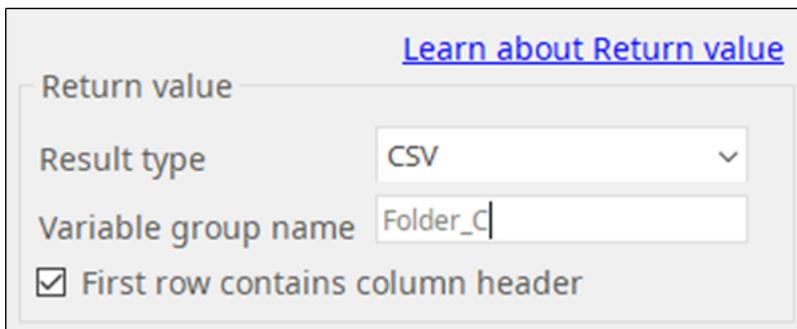
Default value Value

Description VAlue

Variable name {{GroupName.VariableName}}

For most of plugin generated variables, Users get to define group name but the variable names are defined by the plugin itself.

In below example Folder_C becomes the group name of the variable.



[Learn about Return value](#)

Return value

Result type CSV

Variable group name Folder_C

First row contains column header

Then in this example of File Monitor plugin, the variable names are Index, filepath, and filesize like described in its help document.

```
{{Folder_C.index(#)}} {{Folder_C.filepath(#)}} {{Folder_C.filesize(#)}}  
Where # should be the row # of CSV.
```

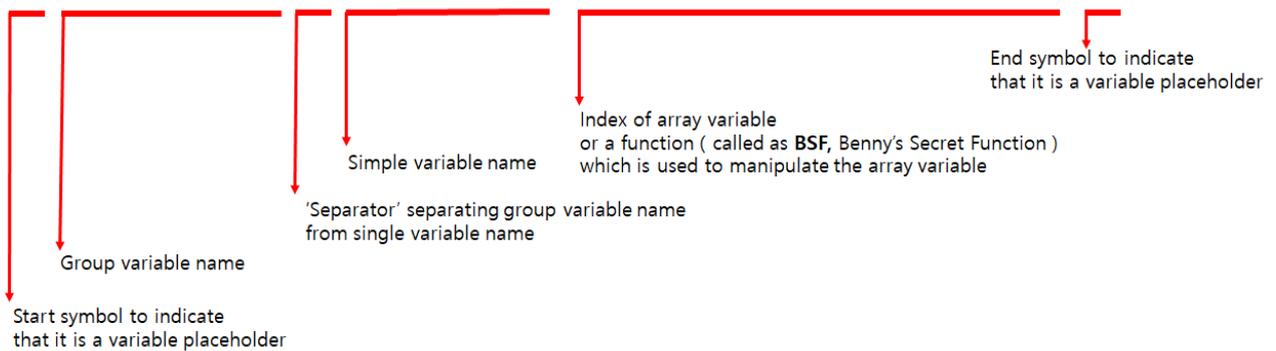
3. Special variables

Special Variables are fixed in the STU system such as `{{rp.index}}` in the Repeat operation which holds the counter data.

VARIABLES

1. Notation

`{{ grpname . varname (index or function) }}`



2. Examples

Define a "grp1" variable group like below in the 'User variables in Scenario'.

- "grp1" including 3 variables, "var1", "var2", and "var3".

Group Variable: grp1

```
{
  # Group variable name: "grp1"
  "grp1": {
    # simple variable (number)
    "var1": 100,

    # simple variable (string)
    "var2": "Hello World, Thank you for using ARGOS RPA+"

    # array
    "var3": [ 1, "Hello", "World", "Thank you for choosing ARGOS RPA+"
  ]
}
```

- "grp2" including 3 variables, "var4", "var5", and "var6".

Group Variable: grp2

```
{
  # Group variable name: "grp2"
  "grp2": {
    # simple variable (number)
    "var4": 30,

    # simple variable (string)
    "var5": "I am a Bot"

    # array
    "var6": { 2, "ARGOS RPA" }
  }
}
```

Below are the variable notation examples and the actual value of the variable.

Variable	Value	Description
{{grp1.var1}}	100	actual value of simple variable "var1" of group variable "grp1"
{{grp1.var3(2)}}	"Hello"	the 2nd item of array variable "var3" of group variable "grp1"
{{grp1.var3(APPEND)}}		see below "How ot use APPEND"
{{grp1.var3(COUNT)}}	4	total number of items in the "grp1.var3" array variable. It is used as an index in "Repeat" action
{{grp1.var3(LAST)}}	"Thank you for choosing ARGOS RPA+"	the last item in the "grp1.var3" array variable
Hello {{grp1.var3(3)}}!	"Hello World"	Substitution. {{grp1.var3(3)}} placeholder is replaced with its actual value of array, "World"

FUNCTIONS

1. COUNT

How to use "COUNT" in "Repeat"

'COUNT' can be used as an index in "Repeat".

See below.

The screenshot shows the configuration for a 'Repeat' action. The 'Action' dropdown is set to 'Repeat'. The 'Operation name' is 'Operation 6' and the 'Delay' is '0.5 Sec'. In the 'Properties' section, 'Last operation' is '[6] Operation 5'. The 'Repeat' options are: 'Repeat for' (selected) with the value ':{grp1.var3(COUNT)} times' highlighted in a red box, and 'Repeat for' (unselected) with the value '0 seconds'. Under the 'Advanced' section, 'Use index' is checked. The 'Range' is '1 ~ 1' and 'Increment' is '1'. The 'Variable use case' is '{{rp.index}}'.

When repeating same operations for all items in array, you have to know the total number of items in array variable. You can obtain it by using 'COUNT'.

For examples, ":{grp1.var3(COUNT)}" means the total number of items of ":{grp1.var3}" array variable. The value of ":{grp1.var3(COUNT)}" is "4".

2. APPEND

How to use "APPEND"

Use case

- 'Excel Basic' action
- Result value of plugins

How to use "APPEND" in "Excel Basic"

Suppose you have a array variable that already has a values.

In this example, I'll show you how to append ":{grp2.var2}" (simple variable) and ":{grp2.var3}" (array) to another array variable ":{grp1.var3}".

Sample Excel Data for "grp2":

	A	B	C
1	var1	30	
2	var2	I am a Bot	
3	var3	2	ARGOS RPA

Ex1. Append "{{grp2.var2}}" (simple variable) to "{{grp1.var3}}" (array)

1. Add "Excel Basic" action
2. Choose "Read" in 'Read/Write'
3. Select an excel file to read in STU
4. (Option) Set 'Sheet name' (default: sheet1)
5. Click "Add Item"
6. Set "Cell range" to ""*B2*"
7. Write "{{grp1.var3(APPEND)}}" in "Select variable" input box

To check out the result value of "{{grp1.var3}}", print on 'Notepad' by using 'Repeat' and 'TextInput' actions

Results	Description
1	
Hello	
World	
Thank you for choosing ARGOS RPA+	{{grp1.var3}} values
I am a Bot	Appended value

Ex2. Append ""*grp2.var6*" (array) to "grp1.var3" (array)

1. Add "Excel Basic" action
2. Choose "Read" in 'Read/Write'
3. Select an excel file to read in STU
4. (Option) Set 'Sheet name' (default: sheet1)
5. Click "Add Item"
6. Set "Cell range" to ""*B3:C3*"
7. Write ""*{{grp1.var3(APPEND)}}*" in "Select variable" input box

Results	Description
1	
Hello	
World	Original {{grp1.var3}} values.
Thank you for choosing ARGOS RPA+	Appended value. Array converted to a simple variable automatically.
['2', 'ARGOS RPA']	It is not a array but a simple variable.

How to use "APPEND" with return value of plugin

There are 3 types in the result type of plugins. Only 'string' can be used with 'APPEND'.

1. Select the result type of plugin to 'string'
2. Select 'Variable name' in variable table drop down menu. (ex) {{grp1.var3}}
3. Edit variable name like "{{grp1.var3(APPEND)}}".
The returned value is appended to {{grp1.var3}}.

Return value

Result type: String

Variable name: {{grp1.var3(APPEND)}} ?