CONNECTWISE

Script Math Function

Overview

This article describes the ConnectWise Automate® Script Math script function. The Script Math function performs basic math on the values entered in the Values parameters and stores the result in %MATHResult% and the named variable. This function runs on the server.

Script Math

Parameters

- **Value:** First numeric value to use. A variable can be entered with or without the @.
- **Operator:** Select the operator from the drop-down. Available options are: +,*,^,\, div, mod, pow, abs, max, min
- **Value:** Second numeric value to use. A variable can be entered with or without the @ (abs does not need a second value).
- **Variable:** Enter the variable name to store the result in, with or without the @.

Examples

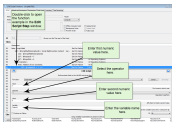
Example #1: Example of the addition operator (+). Returns the sum of the two values.

Example #1A: Addition of two constants
Parameters:

- **Value:** 7
- **Operator:** +
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **7** into the **Value** field.
4. Select **+** from the **Operator** drop-down.
5. Enter **5** into the **Value** field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



Example #1B: Addition of two variables
Parameters:

- **Value:**@Input1@
- **Operator:** +
- **Value:** @Input2@
- **Variable:** Output2

Using the function example in a new or existing script: Example 1B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **+** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

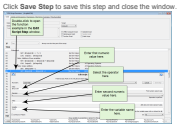
Example #1C: Unary addition. This example assumes you have created an Input3 variable with the parameter of 1 using the Variable Set function.

Parameters:

- **Value:**@Input3@
- **Operator:** +
- **Value:** 1
- **Variable:** Input3

Using the function example in a new or existing script: Example 1C

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input3@** into the **Value** field.
4. Select **+** from the **Operator** drop-down.
5. Enter **1** into the **Value** field.
6. Enter **Input3** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



Example #2: Example of the subtraction operator (-). Returns the difference between the two values. This function assumes you have created Input1 and Input2 variables using the Variable Set function.

Example #2A: Subtraction of two constants
Parameters:

- **Value:** 7
- **Operator:** -
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 2A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **7** into the **Value** field.

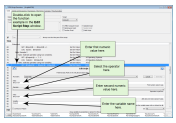
4. Select **-** from the **Operator** drop-down.
5. Enter **5** into the **Value** field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

Example #2B: Subtraction of two variables
Parameters:

- **Value:** @Input1@
- **Operator:** -
- **Value:** @Input2@
- **Variable:** Output2

Using the Function Example in a New or Existing Script: Example 2B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **-** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



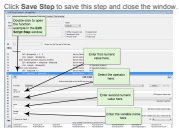
Example #2C: Unary subtraction. This function example assumes you have created an Input3 variable with a parameter of 2 using the Variable Set function.

Parameters:

- **Value:** @Input3@
- **Operator:** -
- **Value:** 1
- **Variable:** @Input3@

Using the Function Example in a New or Existing Script: Example 2C

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **-** from the **Operator** drop-down.
5. Enter **1** into the **Value** field.
6. Enter **@Input1@** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



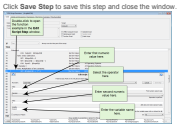
Example #3: Example of the multiplication operator (*). Returns the product of the two values.

Example #3A: Multiplication of two constants
Parameters:

- **Value:** 7
- **Operator:** *
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 3A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **7** into the **Value** field.
4. Select ***** from the **Operator** drop-down.
5. Enter **5** into the **Value** field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



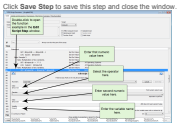
Example #3B: Multiplication of two variables
Parameters:

- **Value:** @Input1@
- **Operator:** *
- **Value:** @Input2@
- **Variable:** Output2

Using the Function Example in a New or Existing Script: Example 3B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.

4. Select ***** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

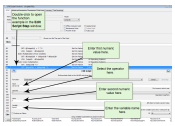


Example #3C: Unary multiplication.This function example assumes you have created an Input3 variable with a parameter of 5 using the Variable Set function.
Parameters:

- **Value:** @Input3@
- **Operator:** *
- **Value:** 2
- **Variable:** Input3

Using the Function Example in a New or Existing Script: Example 3C

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input3@** into the **Value** field.
4. Select ***** from the **Operator** drop-down.
5. Enter **2** into the **Value** field.
6. Enter **Input3** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



Example #4: Example of the division operator (\). Returns a decimal value if first value is not a multiple of the second value.

Example #4A: Division of two constants
Parameters:

- **Value:** 7
- **Operator:** \
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 4A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **7** into the **Value** field.
4. Select **** from the **Operator** drop-down.
5. Enter **5** into the **Value** field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

Example #4B: Division of two variables
Parameters:

- **Value:** @Input1@
- **Operator:** \
- **Value:** @Input2@
- **Variable:** Output2

Using the Function Example in a New or Existing Script: Example 4B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **/** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

Example #4C: Unary division.This function example assumes you have created an Input3 variable with a parameter of 7 using the Variable Set function.
Parameters:

- **Value:** @Input3@
- **Operator:** \
- **Value:** 2
- **Variable:** Input3

Using the Function Example in a New or Existing Script: Example 4C

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input3@** into the **Value** field.
4. Select **** from the **Operator** drop-down.

5. Enter **2** into the **Value** field.
6. Enter **Input3** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

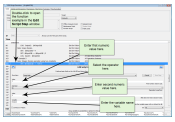
Example #5: Example of the integer division operator (div). The quotient is rounded down to the nearest whole number.

Example #5A: Integer division of two constants
Parameters:

- **Value:** 7
- **Operator:** div
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 5A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **7** into the **Value** field.
4. Select **div** from the **Operator** drop-down.
5. Enter **5** into the **Value** field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



Example #5B: Integer division of two variables
Parameters:

- **Value:** @Input1@
- **Operator:** div
- **Value:** @Input2@
- **Variable:** Output2

Using the Function Example in a New or Existing Script: Example 5B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **div** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

Example #5C: Unary integer division.This function example assumes you have created an Input3 variable with a parameter of 7 using the Variable Set function.

Parameters:

- **Value:** @Input3@
- **Operator:** div
- **Value:** 2
- **Variable:** Input3

Using the Function Example in a New or Existing Script: Example 5C

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input3@** into the **Value** field.
4. Select **div** from the **Operator** drop-down.
5. Enter **2** into the **Value** field.
6. Enter **Input3** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

Example #6: Examples of the modulus division operator (mod). Returns the remainder of the integer division of the first value divided by the second value.

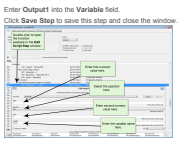
Example #6A: Module operation using two constants
Parameters:

- **Value:** 7
- **Operator:** mod
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 6A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.

3. Enter **7** into the **Value** field.
4. Select **mod** from the **Operator** drop-down.
5. Enter **5** into the **Value** field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

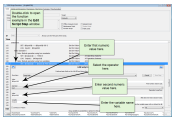


Example #6B: Module operation using two variables
Parameters:

- **Value:** @Input1@
- **Operator:** mod
- **Value:** @Input2@
- **Variable:** Output2

Using the Function Example in a New or Existing Script: Example 6B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **mod** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



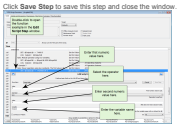
Example #7: Example of the exponential operator (pow). Raises the first value to the power defined in the second value.

Example #7A: Power operation using two constants
Parameters:

- **Value:** 7
- **Operator:** pow
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 7A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **7** into the **Value** field.
4. Select **pow** from the **Operator** drop-down.
5. Enter **5** into the Value field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

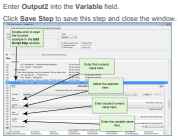


Example #7B: Power operation using two constants
Parameters:

- **Value:** @Input1@
- **Operator:** pow
- **Value:** @Input2@
- **Variable:** Output2

Using the Function Example in a New or Existing Script: Example 7B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **pow** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



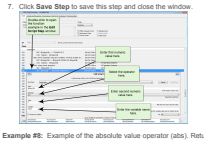
Example #7C: Unary power operation.This function example assumes you have created an Input3 variable with a parameter of 2 using the Variable Set function.
Parameters:

- **Value:** @Input3@
- **Operator:** pow
- **Value:** 2
- **Variable:** Input3

Using the Function Example in a New or Existing Script: Example 7C

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input3@** into the **Value** field.
4. Select **pow** from the **Operator** drop-down.

5. Enter **2** into the **Value** field.
6. Enter **Input3** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



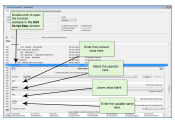
Example #8: Example of the absolute value operator (abs). Returns the absolute value of the first value.

Example #8A: Absolute value of a constant
Parameters:

- **Value:** -8
- **Operator:** abs
- **Value:**
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 8A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **-8** into the **Value** field.
4. Select **abs** from the **Operator** drop-down.
5. Leave the **Value** field blank.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



Example #8B: Absolute value of a variable. This function example assumes that you have crated an Input1 variable with a parameter of -9 using the Variable Set function.

Parameters:

- **Value:** @Input1@
- **Operator:** abs
- **Value:**
- **Variable:** Output2

Using the Function Example in a New or Existing Script: Example 8B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **abs** from the **Operator** drop-down.
5. Leave the **Value** field blank.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

Example #9: Example of the maximum operator (max). Compares the two values and returns the maximum value.

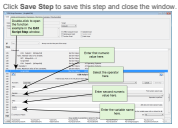
Example #9A: Maximum value of two constants

Parameters:

- **Value:** 7
- **Operator:** max
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 9A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **7** into the **Value** field.
4. Select **max** from the **Operator** drop-down.
5. Enter **5** into the **Value** field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



Example #9B: Maximum value of two variables

Parameters:

- **Value:** @Input1@
  Operator: max
  Value: @Input2@
  Variable: Output2

Using the Function Example in a New or Existing Script: Example 9B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **max** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.

Example #10: Example of the minimum operator (min). Compares the two values and returns the minimum value.

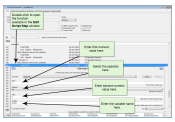
Example #10A: Minimum value of two constants

Parameters:

- **Value:** 7
- **Operator:** min
- **Value:** 5
- **Variable:** Output1

Using the Function Example in a New or Existing Script: Example 10A

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **7** into the **Value** field.
4. Select **min** from the **Operator** drop-down.
5. Enter **5** into the **Value** field.
6. Enter **Output1** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.



Example #10B: Minimum value of two variables

Parameters:

- **Value:** @Input1@
- **Operator:** min
- **Value:** @Input2@
- **Variable:** Output2

Using the Function Example in a New or Existing Script: Example 10B

1. From a new or existing script, right-click a line in the **Then** or **Else** section, select **Add** to open the **Edit Script Step** window.
2. Select **Script Math** from the **Function** drop-down.
3. Enter **@Input1@** into the **Value** field.
4. Select **min** from the **Operator** drop-down.
5. Enter **@Input2@** into the **Value** field.
6. Enter **Output2** into the **Variable** field.
7. Click **Save Step** to save this step and close the window.