

UCS Director

Sample Workflow – String Pack

Background

There are times when string manipulations are desirable to create values for workflows. For example in enforcing a naming convention it may be desirable to concatenate a code for the location to the kind of guest of a virtual machine (Machine name = “bos” + “win”).

Common Features

All of the strings are defined to take up to 256 characters by default.

All functions log the before and after state of the operation.

Unit Tests

Each task has a unit test that can be run to validate functions. The expected results are set in the workflows so they will fail if any of the tests yield unexpected results.

A *Validate String Suite* task can be used to span all of the workflows. This can be useful to re-validate the functions with updated versions of UCS Director.

Tasks

Custom Task – String Combine

Function

Combines up to three strings to form a new one.

Description

Combines a “Prefix” (optional) with the “Body” content with the “Suffix” (optional).

Result = [Prefix] + Body + [Suffix]

Category

Strings

Inputs

| | |
|--------|--|
| Prefix | (Optional) String to put at the front of the output |
| Body | Main contents of the string |
| Suffix | (Optional) String to be added to the end of the output |

Outputs

| | |
|--------|--------------------|
| Result | Prefix+Body+Suffix |
|--------|--------------------|

Examples

| Prefix | Body | Suffix | Result |
|--------|------|--------|---------|
| Bos | Win | | BosWin |
| | bos | 01 | bos01 |
| bos | - | win | bos-win |

| | | | |
|----|----|-----|---------|
| us | ma | bos | usmabos |
|----|----|-----|---------|

Custom Task – String Length

Function

Takes a string and returns the numerical length.

Description

Determines the number of characters in a given string.

Result = Length(String)

Category

Strings

Inputs

| | |
|--------|-----------------------------|
| String | Main contents of the string |
|--------|-----------------------------|

Outputs

| | |
|--------|----------------------|
| Result | Length of the string |
|--------|----------------------|

Examples

| String | Result |
|--------|--------|
| boswin | 6 |
| 01 | 2 |
| (Null) | 0 |

Custom Task – String Trim

Function

Takes a String, removes specified last number of characters and returns the result.

Description

Removes the last “Characters to Trim” from the string. If the “Characters to Trim” is negative, the string will remain intact. If the “Characters to Trim” is larger than the length of the string, a null string will be returned.

Result = String – Characters to Trim

Category

Strings

Inputs

| | |
|--------------------|---|
| String | Main contents of the string |
| Characters to Trim | Number of characters to remove from the end |

Outputs

| | |
|--------|------------------------------------|
| Result | String – Last “Characters to Trim” |
|--------|------------------------------------|

Examples

| String | Characters to Trim | Result |
|-----------|--------------------|-----------|
| Bostonian | 3 | Boston |
| Bostonian | (null) | Bostonian |
| Bostonian | (Negative Number) | Bostonian |
| Bostonian | 33 | (null) |

Custom Task – String Substring Absolute

Function

Return the characters of a string between “Start Position” and “End Position”.

Description

Extracts the characters found between the “Start Position” and “End Position” where the first character starts at one. If a negative “Start Position” is entered, it will be treated as position 1. If a negative “End Position” is entered, a null string will be returned.

Result = String(Start Position, End Position)

Category

Strings

Inputs

| | |
|----------------|--|
| String | Main contents of the string |
| Start Position | Index to start character position to extract starting at “1” for the first character |
| End Position | Index to end character position |

Outputs

| | |
|--------|---------------------------------------|
| Result | String between Start and End Position |
|--------|---------------------------------------|

Examples

| String | Start Position | End Position | Result |
|-----------|----------------|--------------|--------|
| Bostonian | 1 | 3 | Bos |
| Bostonian | 3 | 5 | ton |
| boswin | 4 | 6 | win |
| boswin | 4 | 9 | win |
| boswin | 4 | -9 | (null) |
| boswin | -3 | 3 | bos |

Custom Task – String Substring Relative

Function

Return the characters of a string starting “Start Position” for “Number of Characters”.

Description

Extracts the “Number of Characters” starting at “Start Position”.

Exceptions

If a negative “Start Position” is entered, it will be treated as position 1.
If a negative “End Position” or “Start Position” greater than the string’s length is entered, a null string will be returned.

Result = String(Start Position, Number of Characters)

Category

Strings

Inputs

| | |
|----------------------|--|
| String | Main contents of the string |
| Start Position | Index to start character position to extract starting at “1” for the first character If negative, will search from end of string backwards. |
| Number of Characters | Number of characters to extract |

Outputs

| | |
|--------|-------------------------------------|
| Result | String = StartPosition for NumChars |
|--------|-------------------------------------|

Examples

| String | Start Position | Number of Characters | Result |
|---------|----------------|----------------------|--------|
| usmabos | 3 | 2 | ma |
| boswin | -3 | 3 | bos |
| boswin | 4 | (Negative Number) | (null) |
| boswin | 7 | 2 | (null) |

Custom Task – String Upper

Function

Takes a string and returns the text as upper case.

Description

Returns the upper case version of the string. If the string is already in upper case, it is not modified.

Result = Upper(String)

Category

Strings

Inputs

| | |
|--------|-----------------------------|
| String | Main contents of the string |
|--------|-----------------------------|

Outputs

| | |
|--------|---------------------------------|
| Result | Uppercase version of the string |
|--------|---------------------------------|

Examples

| String | Result |
|--------|--------|
| boswin | BOSWIN |
| BosWin | BOSWIN |
| BOSWIN | BOSWIN |

Custom Task – String Lower

Function

Takes a string and returns the text as lower case.

Description

Returns the lower case version of the string. If the string is already in lower case, it is not modified.

Result = Lower(String)

Category

Strings

Inputs

| | |
|--------|-----------------------------|
| String | Main contents of the string |
|--------|-----------------------------|

Outputs

| | |
|--------|---------------------------------|
| Result | Lowercase version of the string |
|--------|---------------------------------|

Examples

| String | Result |
|--------|--------|
| boswin | boswin |
| BosWin | boswin |
| BOSWIN | boswin |

Custom Task – String Replace

Function

Replaces all instances of a string with a new string.

Description

Locates “From String” and replaces it with “To String” for each match within the specified string.

Exceptions

If the “To String” is null, it will effectively remove the “From String”.
If the “From String” is null, the “To String” will be pre-pended to the original string.

Result=Replace(String, From String, To String)

Category

Strings

Inputs

| | |
|--------|-----------------------------|
| String | Main contents of the string |
|--------|-----------------------------|

| | |
|-------------|------------------------------|
| From String | Original text to be replaced |
| To String | Replacement text |

Outputs

| | |
|--------|---|
| Result | String with original text converted to new text |
|--------|---|

Examples

| String | From String | To String | Result |
|-----------------|-------------|-----------|-----------------|
| bos-win | bos | sjc | sjc-win |
| bos-win | - | (null) | boswin |
| Bos-win | - | _ | bos_win |
| bos-win | (null) | ma- | ma-bos-win |
| bos-win | ma | ca | bos-win |
| bos-win bos-lnx | bos | sjc | sjc-win sjc-lnx |

Custom Task – String Contains

Function

Verifies if a string contains a given value.

Description

Looks for the “Search For” string. If found the task will exit with success. If the string is not found, the task will exit with a fail.

The position of the first position the “Search For” will be returned from the function or zero if the string is not found.

Result=Location(String, Search For)

Category

Strings

Inputs

| | |
|------------|-----------------------------|
| String | Main contents of the string |
| Search For | String to search for |

Outputs

| | |
|--------|---|
| Result | Found: Exit success, Location of “Search For” Not Found: Fail the task, Zero |
|--------|---|

Examples

| String | Search For | Result |
|--------|------------|---------|
| boswin | bos | Success |
| boswin | bas | Fail |
| boswin | (null) | Success |
| (null) | bos | Fail |
| (null) | (null) | Success |

Last Validated

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