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OnBase Guide - Unity Script - Unity Form String Functions

Goal: To use a script on a Unity form to perform simple string operations not available through Custom Actions.

Complexity Level: Departmental Unity Form
Developers

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Background

General information about using scripts in Unity forms is available in the [Handbook](#) in the “Unity Script Usage” section.

Unity form custom actions and expressions cannot perform many string functions, the options there are oriented to numeric calculations. Instead, you can use the script as described in this guide for basic string operations, including:

- Length - returns length of value in specified field
- To Upper - returns the value in the specified field in uppercase
- To Lower - returns the value in the specified field in lowercase
- Word Count - returns the number of words in the string
- Contains - returns True if parameter value is in the value in the specified field, or False if not.
- Ends With - returns True if the value in the specified field ends with the parameter value, or False if not.
- Pad Left - returns the value in the specified field updated to the specified length, with the beginning of the string padded with the parameter character
- Pad Right - returns the value in the specified field updated to the specified length, with the end of the string padded with the parameter character
- Replace - returns the value in the specified field updated to replace the first parameter value with the second parameter value
- Substring - returns a substring of the value in the specified field based on the provided parameters

Depending on the output of this script, you can then use additional custom actions to achieve the desired result (invalidate field, prevent submission, etc.).

For more complex string manipulation in Unity forms with regular expressions, refer to the guide on [Validating Field Values with RegEx](#). More information about general Unity Script usage is also available in [the handbook](#).

For assistance, please contact UIS_DM_Support@cu.edu.

Prerequisites

You must be a member of the Unity form developer user group and be familiar with creating form templates and configuring custom actions.



Using the Unity Form Script

This script does not directly update a keyword value but updates a form field which may be mapped to a keyword type or stored as a non-keyword form field. The correct fields need to be configured, then a custom action runs the script.

Configuring Form Fields

Certain field IDs must be used for the script to work. You will need:

Value/Use	Field ID	Used as
Primary field, this is the value we are manipulating/checking. This is NOT designed to work with any fields in a repeating section/table.	FieldToCheck	Input, required
Function - see options below	FunctionToPerform	Input, required
Function Parameters - see options below	FunctionParameters	Input, optional
Result	ScriptFunctionOutput	Output, required

The input fields will need a value to be set. This can be done using a default value in the field configuration or setting the value through another custom action (especially if you have multiple values to check or functions to perform).

The screenshot shows a configuration window with two main sections:

- Form Elements:** Contains a text input field with the label "Field Being Evaluated - multilinetextbox_FieldBeingEvaluated" and the value "foobar". Below the field is a "Run Script" button.
- Fields Needed for Script:** A list of fields with input boxes:
 - FieldToCheck: multilinetextbox_FieldBeingEvaluated
 - FunctionToPerform: Contains
 - FunctionParameters: foo
 - ScriptFunctionOutput: True

Troubleshooting Form Scripts

If you'd like to include error messages, you can add the following output fields (these are optional):

Value	Field ID
General Error Message (all scripts)	error_message



Error Messages for this script only	error_message_GENOnBaseGeneralizedUnityFormRegExSearch
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Function Options & Parameters

The **FunctionToPerform** field should have a value from the first column in this table. Depending on the function, parameters may be required. If using parameters, format according to the example in the second column, this value goes in the **FunctionParameters** field.

The third column describes the output that will be set in the **ScriptFunctionOutput** field.

Function Value (FunctionToPerform)	Parameter Format (FunctionParameters)	Description of ScriptFunctionOutput
Length		Returns length of value in specified field Ex. 12
To Upper		Returns the value in the specified field in uppercase Ex. Value -> VALUE
To Lower		Returns the value in the specified field in lowercase Ex. Value -> value
Word Count		Returns number of words in the string Ex. 15
Contains	Value to search for, case sensitivity (0 for case sensitive, 1 to ignore case) Ex. Value, 0	Returns True if parameter value is in the value in the specified field, or False if not.
Ends With	Value to search for, case sensitivity (0 for case sensitive, 1 to ignore case) Ex. Value, 1	Returns True if the value in the specified field ends with the parameter value, or False if not.



Pad Left	Length, Character Ex. 8, 0	Returns the value in the specified field updated to the specified length, with the beginning of the string padded with the parameter character. Ex. 1234 -> 00001234
Pad Right	Length, Character Ex. 8, 0	Returns the value in the specified field updated to the specified length, with the end of the string padded with the parameter character. Ex. 1234 -> 12340000
Replace	What to replace, what to replace with, case sensitivity (0 for case sensitive, 1 to ignore case) Ex1. a, 4, 1 Ex2. foo, bar, 1	Returns the value in the specified field updated to replace the first parameter value with the second parameter value. Ex1. Value -> V4lue Ex2. foobar -> barbar
Substring	Start Position, Length Ex1. 0, 3 Ex2. 1, 4	Returns a substring of the value in the specified field based on the provided parameters. Ex1. Value -> Val Ex2. Value -> alue

Custom Action to Execute Script

A custom action is required in order to execute a Unity script. Create a custom action with the desired conditions, then add an action to execute the **GEN - OnBase - Unity Form String Functions** script.

At a minimum, you should have a condition that any required input fields have a value prior to running the script.

You may wish to add other conditions such as:



- Form is new (to prevent the script running every time the form is viewed after submission)

Testing

As with anything, please be sure to test thoroughly in non-production. The script is set up on a form template (S - UIS - Unity Form String Functions Script) that can be used to test your input values.

The screenshot displays the 'S - UIS - Unity Form String Functions Script' interface. It features a top navigation bar with 'Forms' and 'string' tabs. The main content area is titled 'S - UIS - Unity Form String Functions Script' and includes 'Example' and 'Hidden' tabs. The 'Fields' section contains three input fields: 'multilinetextbox_Field1' (with placeholder text), 'textbox_Field2' (containing 'fooBar'), and 'textbox_Field3' (containing '1234'). The 'Functions' section is a grid of function buttons: 'Length' (FunctionToPerform: Length, FunctionParameters: none), 'Upper' (FunctionToPerform: To Upper, FunctionParameters: none), 'Lower' (FunctionToPerform: To Lower, FunctionParameters: none), 'Contains' (FunctionToPerform: Contains, FunctionParameters: foo, 1), 'Ends With' (FunctionToPerform: Ends With, FunctionParameters: bar, 1), 'Replace' (FunctionToPerform: Replace, FunctionParameters: a, 4, 0), 'Pad Left' (FunctionToPerform: Pad Left, FunctionParameters: 0, 0), 'Pad Right' (FunctionToPerform: Pad Right, FunctionParameters: 0, 0), and 'Substring' (FunctionToPerform: Substring, FunctionParameters: 0, 3). The 'Run Script' section has a 'Run Script' button. The 'Fields Needed for Script' section includes input fields for 'FieldToCheck', 'FunctionToPerform', 'FunctionParameters', and 'ScriptFunctionOutput'.

