Field validation: Regular Expressions

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Field validation: Regular Expressions

Sometimes we want to help the user by validating if the input is correct/what we expect in the system.

For example if the user inputs a phone number, url or email address.

Regular expression

Wikipedia: A **regular expression** (shortened as **regex** or **regexp**; also referred to as rational expression) is a sequence of characters that define a search pattern.

Basically we provide the system a pattern it can use to search any string value with and allow it to do some action when a match is found.

Using regular expression: Variable Validation Regex

You can use regular expressions throughout the system. If you want to validate a value input in the Service Catalog for a user requesting an item you can set up a Variable Validation Regex:
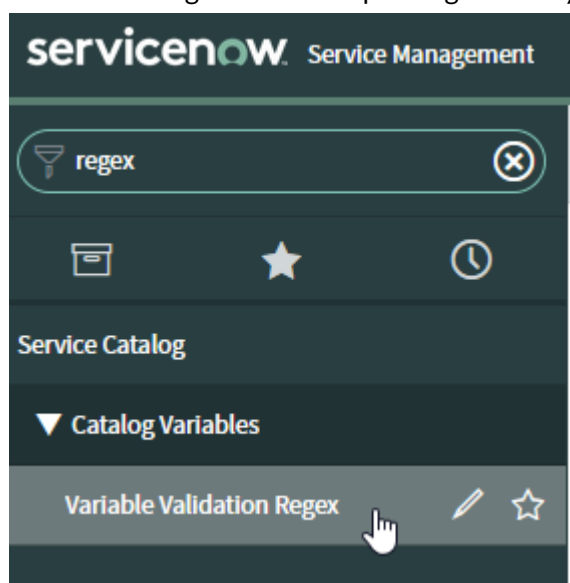

Existing Regular expressions

There are already a few Regular expressions available in the system:

	Name	Regular Expression	Validation message
ⓘ	Phone number	^[0]\d{10}	Should start with 0 and 11 digit total
ⓘ	URL	(((ftp|http|https):\/\/)|(www\.))([-\w\....	Not a valid URL
ⓘ	US Zip Code	^[0-9]{5}(?:-[0-9]{4})?$	Incorrect Zip Code
ⓘ	Number	^[0-9]*$	Not a Number

Add a new one

You can add your own Regular expression to this. For example if we want to check if an email address that is entered is valid:

<	☰	Question Regular Expression email			📎 ⇄ ⊙⊙⊙	Update	Delete

| ✱ Name	email	Application	Global	ⓘ
Validation message	Please enter a valid email addres	Active	✓	
✱ Regular Expression	^([a-zA-Z0-9_\-\.]+)@([a-zA-Z0-9_\-\.]+)\.([a-zA-Z]{2,5})$			
Regex Flag	-- None -- ▾			

Apply it to a Variable

To apply it to a Question/Variable, go to the variable and select the regular expression you like to use in the Type Specification:

<	☰	Variable Email			📎 ⇄ ⊙⊙⊙	Update	Copy	Delete

Type	Single Line Text ▾	Application	Global	ⓘ
Catalog item	To Do list 🔍 ⓘ	Mandatory	☐	
		Active	✓	
		Order	30	

Question	Annotation	**Type Specifications**	Default Value	Permission	Availability

Variable Width	System Default Width (50%) ⌄
	Not honored in 2 column container
Validation Regex	email ⌄ ⓘ

The result

A valid email address format:

Email

valid@email.com

Invalid format:

Email

in&va$lid@email.com

Please enter a valid email address

Reference the Docs article here: https://docs.servicenow.com/bundle/orlando-it-service-management/page/product/service-catalog-manage...

Using regular expression: onChange client script

We can get the same result using an onChange client script. With the added benefit that we can use an onChange script in a Catalog Client script, as well as on a form in the back-end.

To do this add the following code to an onChange client script on the field you want to validate:

```
function onChange(control, oldValue, newValue, isLoading) {
    if (isLoading || newValue == '') {
        return;
    }
    var re = /^([a-zA-Z0-9_\-\.]+)@([a-zA-Z0-9_\-\.]+)\.([a-zA-Z]{2,5})$/;
        if (!re.test(newValue)) {
        g_form.showFieldMsg('your_field name', 'Please enter a valid email addr
ess', 'error');
        return false;
    }
    return true;
}
```

Like so:

📎 √· ⇌ ∘∘∘ | Update | Delete

Name | validate email

Applies to | A Catalog Item

Active | ✓

UI Type | All

Application | Global ⓘ

Type | onChange

Catalog item | To Do list 🔍 ⓘ

Variable name | email

Applies on a Catalog Item view | ✓

Applies on Requested Items | ☐

Applies on Catalog Tasks | ☐

Script

```
 1  function onChange(control, oldValue, newValue, isLoading) {
 2      if (isLoading || newValue == '') {
 3          return;
 4      }
 5      var re = /^([a-zA-Z0-9_\-\.]+)@([a-zA-Z0-9_\-\.]+)\.([a-zA-Z]{2,5})$/;
 6      if (!re.test(newValue)) {
 7          g_form.showFieldMsg('email', 'Please enter a valid email address', 'error');
 8          return false;
 9      }
10      return true;
11  }
```

Common Regular expressions

For common Regular expressions, please refer to this article:

https://community.servicenow.com/community?
id=community_article&sys_id=453fa36edbd7d0103daa1ea668961...

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