

# How to use Advanced BPMN Actions

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# 1 - How to create a Table field

## Table field use

This type of field allows to have more type of fields in it.

It is displayed as a table formed by N columns (depending on the number of fields configured) and N lines (depending on the number of lines the user decides to add). It is useful to store more information in one field.

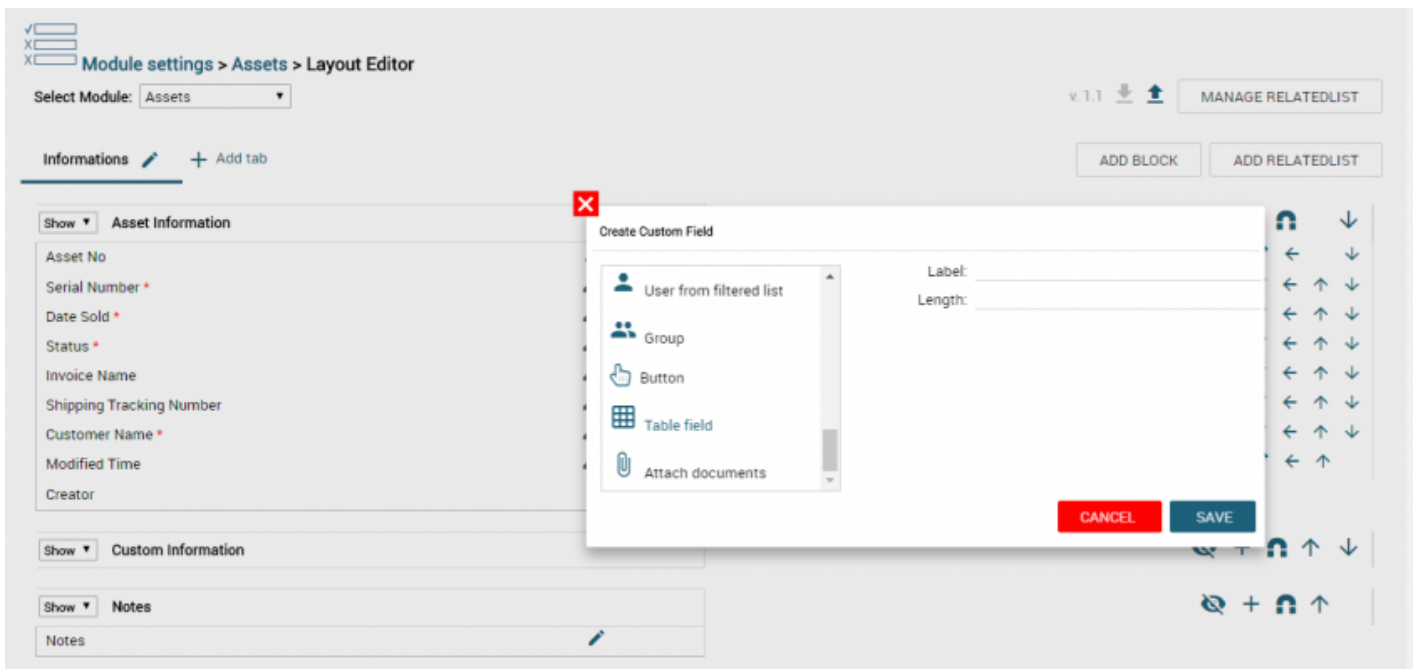
Here below we can find an example.

The screenshot shows the 'BPMN-ScriptTask: Possible Renewals' configuration window. The 'Field Label' is 'Possible Renewals'. The 'Columns' list includes Text, Text Area, Number, Number with decimals, and Percentage. The 'Selected Columns' table is as follows:

Name	Date Start	Date End	Contact Email	Contact Phone	Description
Text	Date	Date	Email	Phone	Text Area
Length: 200	Permissions: Read/Write	Permissions: Read/Write	Permissions: Read/Write	Permissions: Read/Write	Permissions: Read/Write
Mandatory Field: <input checked="" type="checkbox"/>	Mandatory Field: <input checked="" type="checkbox"/>	Mandatory Field: <input checked="" type="checkbox"/>	Mandatory Field: <input type="checkbox"/>	Mandatory Field: <input type="checkbox"/>	Mandatory Field: <input type="checkbox"/>
Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>

First we proceed by creating a new table field in the desired module.

In this case the field will be used to manage the Asset renewals, therefore it will be created in the corresponding module.



Once the table field is created the configuration window above will open.

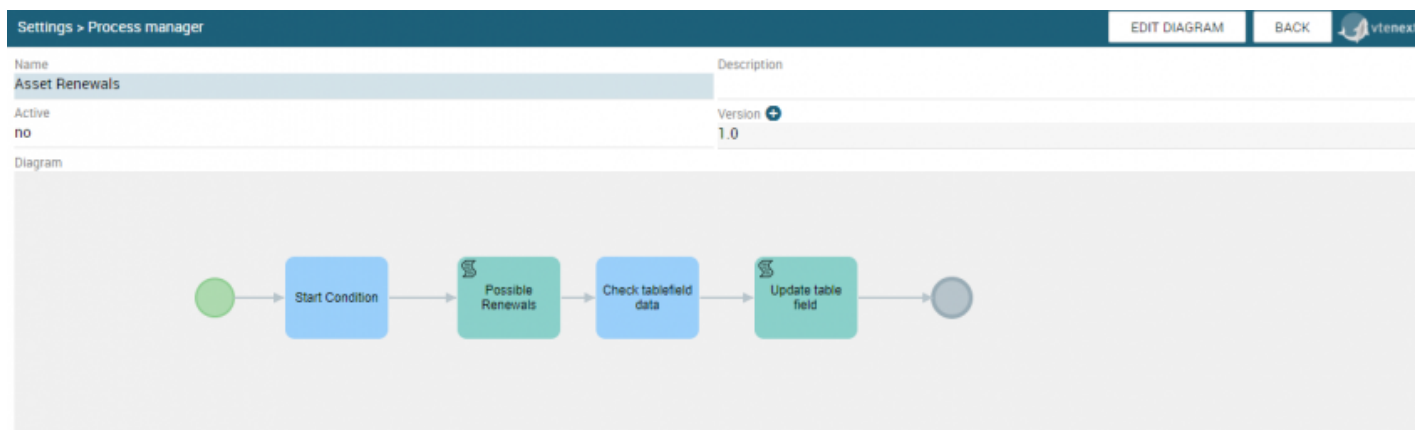
At this point, is possible to add and name the different type of fields in it (Text, Number, Date...). In this case for each line 6 fields will be present (Text, Date, Email, Telephone, Text Area), 3 of which are mandatory.

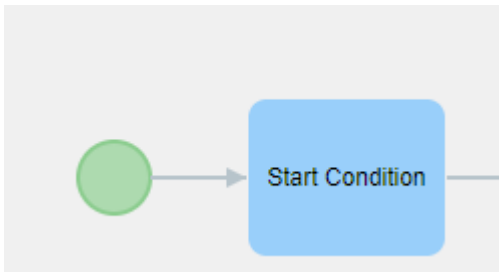
# 1 - Basic Process configuration - Installation renewals



Let's proceed with the creation of an easy process to manage the renewal of an Asset. When an installation expires the user will switch the Status to "Out of Order". At this point the process will begin. An eventual renewal will be notified to the user in charge through a pop up. Once one ore more renewals are inserted the record will be updated.

Below you can display the process. To enable it tick the "Active" box, once ended the chart and the settings.





This is the first Task of the process.

As previously said, this must be a Condition Task in order to define the starting entity and its starting features.

In this case the starting entity is the Asset module and the process will begin when the record status will be set on “Out of Service” and a previous renewal is not present, that is to say renewals lines (Table field) equal to zero.

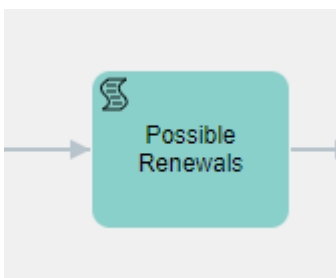
The screenshot shows the 'BPMN-Task: Start Condition' configuration window. At the top, the title is 'BPMN-Task: Start Condition' and the task ID is 'Task\_1k02qse'. There are 'SAVE' and 'CANCEL' buttons. Below the title bar, the 'Entity' is set to 'Asset'. Under 'When to run the check', the options are:
 

- ☐ on create
- ☐ on create / change
- ☒ on change
- ☐ every time the condition is true
- ☐ when executed subprocess

 The 'Conditions' section contains a list of conditions:
 

- Status: è cambiato in Out-of-service E
- Rinnovi: ha esattamente 0 righe

 There is a 'NUOVA CONDIZIONE' button and a 'NEW GROUP' button. A close button (X) is in the top right corner of the conditions list.



In the following Task, ScriptTask, the Process Helper is set in order to show the pop up to the assignee for possible renewals.

It is then assigned to the latter by “picking” the assignee of the module from the picklist, we link the entity Assets (related ID), we select the checkbox “show popup in the linked entity” and we include a block with the desired fields. In this case there are two fields:

- **Table field with the same fields as the one previously created**
- **Note field for any reports**

BPMN-ScriptTask: Possible Renewals ScriptTask\_0rnvalv

SAVE CANCEL ADVANCED...

NEW ACTION

**Actions**

No actions configured

☒ **Process Helper**

Assigned To: Other   
Related to: ID   
Status: Running   
Instructions: Seleziona Opzione...   
☐ Process Name: Seleziona Opzione...   
☒ Show popup in the related entity

Manage dynamic form

ADD BLOCK IMPORT BLOCK...

RENEWALS INFO

Possible Renewals	Renewals Notes
-------------------	----------------

BPMN-ScriptTask: Possible Renewals ScriptTask\_0rnvalv

Add table field SAVE CANCEL

Field Label: Possible Renewals

Columns:

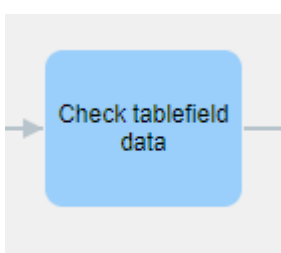
- Text
- Text Area
- Number
- Number with decimals
- Percentage

ADD SELECTED

Selected Columns:

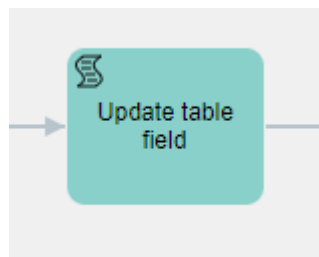
Name	Date Start	Date End	Contact Email	Contact Phone	Description
Text	Date	Date	Email	Phone	Text Area
Length: 200					
Permissions: Read/Write	Permissions: Read/Write	Permissions: Read/Write	Permissions: Read/Write	Permissions: Read/Write	Permissions: Read/Write
Mandatory Field: <input checked="" type="checkbox"/>	Mandatory Field: <input checked="" type="checkbox"/>	Mandatory Field: <input checked="" type="checkbox"/>	Mandatory Field: <input type="checkbox"/>	Mandatory Field: <input type="checkbox"/>	Mandatory Field: <input type="checkbox"/>
Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>	Vai a capo: <input type="checkbox"/>

This is the table field shown in the pop up, the one that, once filled, will be updated in the linked record. In fact the inserted fields are the same as the ones created in the module.



At this point, we check if the user has filled the renewal fields. It is possible to check the number of lines inserted, for example “minimum one”, or check, like in this case, if the user has inserted the renewal notes. The reference entity it’s the dynamic form previously set. The process is on hold until that condition is true.

The screenshot shows the configuration for a BPMN-Task named 'Check tablefielddata'. The task is associated with the entity '[SDF4] Form dinamica (BPMN-ScriptTask: Possible Renewals)'. Under 'When to run the check', the option 'every time the condition is true' is selected. In the 'Conditions' section, a condition is defined: 'Renewals Notes' is 'diverso' (different) from an empty field. A 'NEW GROUP' button and a close icon are also visible.



Once the conditional Task is done we proceed with the update of the renewal/s. Therefore we create a Script Task with a Cycle type action. We cycle the number of line inserted in the dynamic form (Possible Renewal field) and for every line “Add tab line” in the field “Renewal” created in the module. Doing so the lines inserted in the pop up will be reported in the record.

The screenshot shows the configuration for a BPMN-ScriptTask named 'Update table field'. The task is associated with the entity '[SDF4] Form dinamica (BPMN-ScriptTask: Possible Renewals)'. Under 'Create a new action', the 'Cycle' action is selected on the 'Possible Renewals' field, and for each row, the 'Insert table row' action is selected on the 'Renewals' field. A dropdown menu is open for the 'Renewals' field, showing options: '[S5] Assets (BPMN-Task: Start Condition)', 'Rinnovi', '[SDF4] Form dinamica (BPMN-ScriptTask: Possible Renewals)', and 'Possible Renewals'. The 'Add Renewal' action is listed in the 'Actions' section. Buttons for 'SAVE', 'CANCEL', 'ADVANCED...', 'NEW ACTION', 'CREATE', and 'CANCEL' are visible.

Action: Cycle

SAVE CANCEL

Action title Add Renewal

Insert row in Renewals of [\$5] Assets (BPMN-Task: Start Condition)

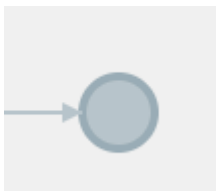
Conditions on field Possible Renewals of [\$DF4] Form dinamica (BPMN-ScriptTask: Possible Renewals) NEW GROUP

Information

Name	Possible Renewals: Name	Select...	Date Start
\$DF4-vcf_2-vcf_3:curr		Select...	Possible Renewals: Date Start
		Somma	+ ▼ *** days ▼
		Minimo	
		Massimo	
		Media	Contact Email
		Last	\$DF4-vcf_2-vcf_6:curr
		Current	Seleziona Opzione... ▼
		Sequence	
Date End	Possible Renewals: Date End		
+ ▼ *** days ▼			
Contact Phone	Seleziona Opzione... ▼	Description	Seleziona Opzione... ▼
\$DF4-vcf_2-vcf_7:curr		\$DF4-vcf_2-vcf_8:curr	

Now we proceed by updating the existing fields.

For each of them we take the entity contained in the Dynamic Form and we select the value “Current” in the pick list, in order to obtain the correct value for each line. Even if this is not the case, if we wanted we could for example obtain the sum or the average of different fields from different lines.



We complete the process by setting the End Event, changing the status in “Ended” and linking it to the entity (Assets).



SAVE CANCEL ADVANCED...

NEW ACTION

Actions

No actions configured

Process Helper

Assigned To

Other

Assigned To

Related to

--Please select--

--Please select--

[\$5] Assets (BPMN-Task: Start Condition)

IO

Product Name

Invoice Name

Customer Name

Sales Order

Status

Ended

Instructions

Seleziona Opzione...

Manage dynamic form

ADD BLOCK IMPORT BLOCK...

# 1 - Basic Process activation - Installation renewals

## PROCESS ACTIVATION

← Asset Double Panel See-thru Updated today (13 Mar 2018)

EDIT

Information

History

Relations

Trouble Tickets

Documents

Messages

Processes

Asset Information

Asset No

ASS1

Product Name

Double Panel See-thru Clipboard

Serial Number

3148465131

Assigned To

admin (User Administrator)

Date Sold

05-03-2018

Date in Service

05-03-2018

Status

In Service

Save - Cancel Tag Number

Shipping Method

Shipping Tracking Number

Asset Name

Double Panel See-thru

Customer Name

demovte

Created Time

05-03-2018 15:05:34

Modified Time

13-03-2018 19:29:21

Sales Order

Creator

admin (User Administrator)

Renewals

Name

Date Start

Date End

Contact Email

Contact Phone

Description

We can test now the process in action. There are no existing renewal and we set the Status field on “Out of Service”.

Processo > test1

SALVA

ANNULLA

INFORMAZIONI RINNOVI

Possibili Rinnovi

Azioni

Nome

Data Inizio

Data Fine

Email Contatto

Cellulare Contatto

Descrizione

Rinnovo1

13-03-2018

13-03-2019

jack.johnson@learnkop.com

0225462359

Primo Rinnovo Prodotto

Note Rinnovi

Il Rinnovo è già attivo

AGGIUNGI RIGA

Now the assignee of the record will display a pop up with the chance to add one or more renewals. In this case we add an annual renewal and we fill all the proposed fields.

Asset Double Panel See-thru Updated today (13 Mar 2018)

EDIT

ASS1	Double Panel See-thru Clipboard
Serial Number 3148465131	Assigned To admin (User Administrator)
Date Sold 05-03-2018	Date in Service 05-03-2018
Status Out-of-service	Tag Number
Invoice Name	Shipping Method
Shipping Tracking Number	Asset Name Double Panel See-thru
Customer Name demovte	Created Time 05-03-2018 15:05:34
Modified Time 13-03-2018 19:30:21	Sales Order
Creator admin (User Administrator)	

Renewals

Name	Date Start	Date End	Contact Email	Contact Phone	Description
Renewal1	13-03-2018	13-03-2019	jack.johnson@learnkop.com	0225462359	First Product's Renewal

Notes

Relations

Processes
1

Trouble Tickets

Documents

Messages

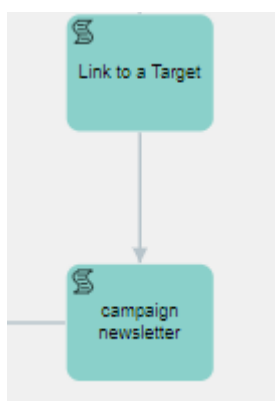
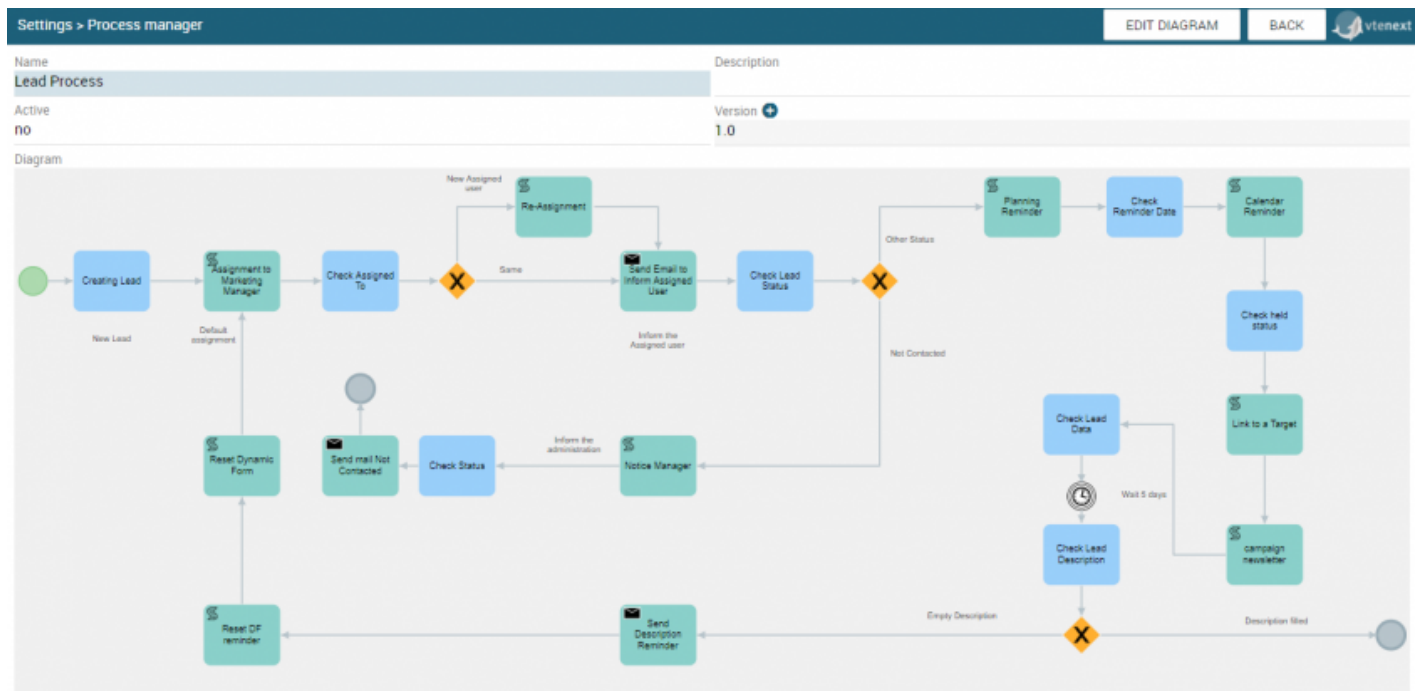
When saving a new line will be added in the field “Renewals”, and among the relates entities we will display the Process module.

# 2 - Send newsletter

## Newsletter sending

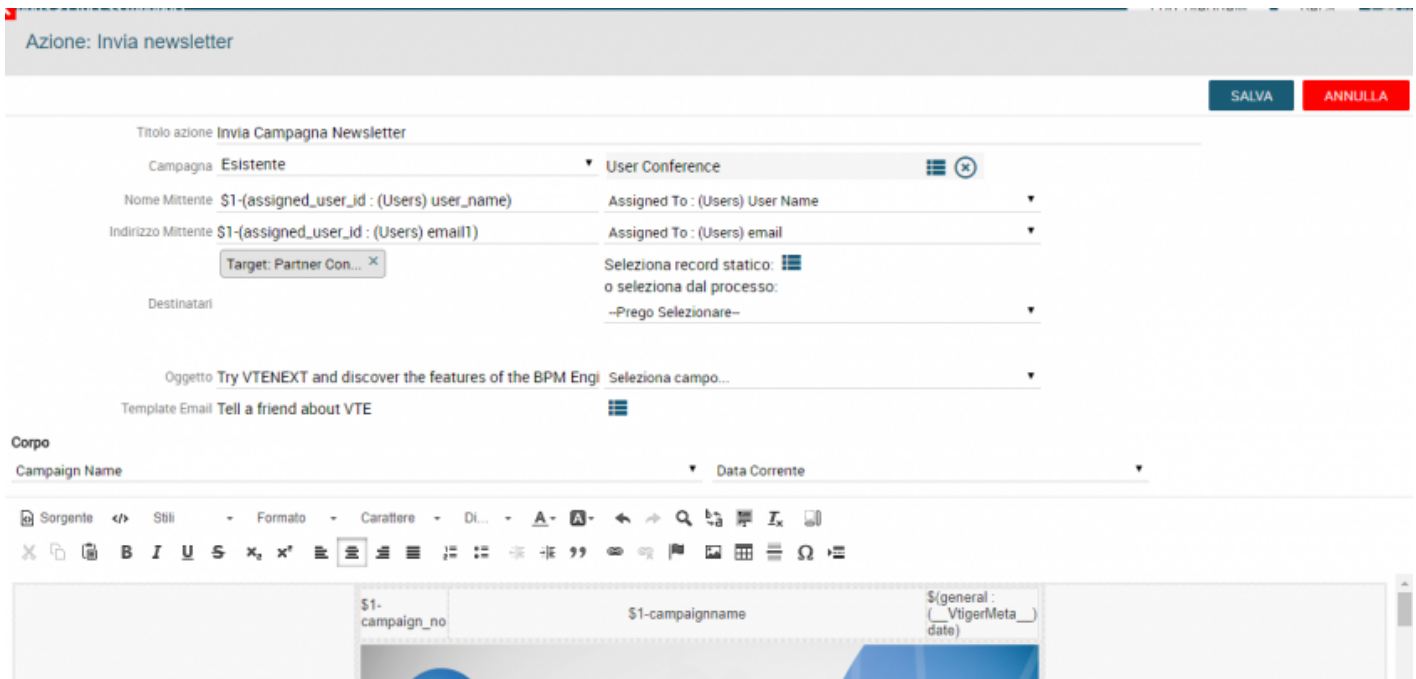
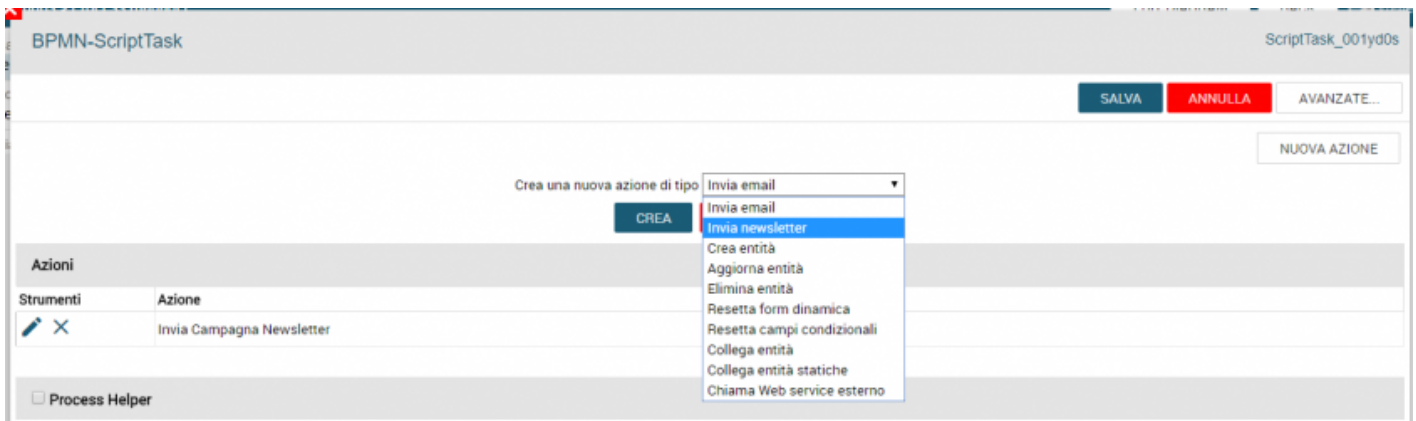
It is possible to schedule the newsletter sending using the processes.

Doing so we can massively send emails to more addresses using preset template and campaigns (with the related target etc).



This is a Script Task. It was previously used in the process for the Lead management. After the link with the target a newsletter sending is scheduled starting from an existing campaign.

**New Action --> Send Newsletter**



We now proceed by configuring this Task. We select a campaign, here we use an existing one (it is also possible to create a new one).

We select name and address of the sender and the receivers. In this case we select the “Partner Conference” target, doing so we take all the related email addresses.

Lastly, instead of writing the email it is possible to select a pre existing template (Email templates. Tell a friend about vtenext).

## Send newsletter.

## Try VTENEXT and discover the features of the BPM Engine

Lunedì 19-03-2018 11:31:10

Dettagli -   

Traduci messaggio



perlin

A: federico.perlin.test@gmail.com



CAM1

User Conference

11:26:30

19-03-

2018



Here below is reported an example of the email received by the recipient of the email.

# 3 - Web service integration

## Web service integration

Using WebServices it is possible to integrate different systems.

Using this function it is possible to receive data from external sources.

This is made possible by using set API that will give back json values, those will become variables that can be used within every process.

TEST WEB SERVICE

SAVE

CANCEL

Name	Get TEXT and Code WEBSERVICE		A name for this web service
Description	Returns md5 valueand text		
Active	<input checked="" type="checkbox"/>		If flagged, the web service can be used in processes
Type	REST		The type of web service to call
Method	GET		The HTTP method to use for the request
Endpoint	http://md5.jsontest.com		The endpoint for the request, for example https://mywebsite.example.com/api/
Authentication	User Name	Password	
	admin	*****	
Headers	ADD HEADER		
Parameters	ADD PARAMETER		
Returned fields	Field name	Value to extract	
	value	original	
	crypt	md5	
	ADD FIELD		Fields to extract from the Web service result. Only simple flat json and xml objects are supported.

To exploit the potentialities of the Web Service first it is necessary to enter some fundamental parameters.

To do so we go to:

**Settings --> Business Process --> Manager External --> Web Services**

vtenext

permissions

Condition based fields

Wizard creator

Module creator

Module settings

Picklist editor

Internationalized picklist

Linked picklist

Encrypted fields

Top menu settings

Listview colors

Mail Converter

External data import

**External Web services**

**Settings > External Web services**

Configure external Web services to be used with processes

ADD

Name	Description	Type	Active	Tools
Get TEXT and Code WEBSERVICE	Returns md5 valueand text	REST	Yes	

[Scroll to Top]

Clicking on “Add” it is possible to set a new Web Service with the desired parameters. In this case we use `http://md5.jsontest.com`

TEST WEB SERVICE
SAVE
CANCEL

Name
Get TEXT and Code WEBSERVICE
Returns md5 valueand text

A name for this web service

Description

Active
☒

If flagged, the web service can be used in processes

Type
REST

The type of web service to call

Method
GET

The HTTP method to use for the request

Endpoint
http://md5.jsontest.com

The endpoint for the request, for example https://mywebsite.example.com/api/

Authentication

User Name
admin

Password
\*\*\*\*\*

Headers

ADD HEADER

Parameters

ADD PARAMETER

Returned fields

Field name	Value to extract
value	original
crypt	md5

ADD FIELD

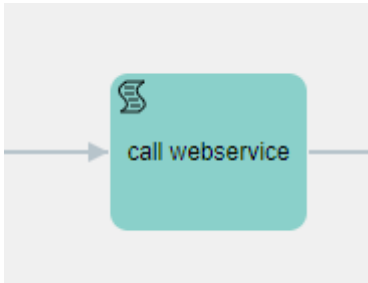
Fields to extract from the Web service result. Only simple flat json and xml objects are supported.

Once configured the desired Web Service it can be used in every process. Let’s see an example:





- In the **first task** we recall the a Web Service set to become an actual entity of the process.
- In the **second task** the principal entity of the process will be updated with the data given by the Web Service itself.



In this Task we set the use of the previously configured Web Service:

### New Action Call --> External Web Service

BPMN-ScriptTask: Call webservice ScriptTask\_13pnz3y

Create a new action

- Send email
- Send newsletter
- Create entity
- Update entity
- Delete entity
- Reset dynamic form
- Reset conditional fields
- Link entities
- Link static entities
- Call external Web service

Actions	
Tools	Action
✎ ✕	WebService jsonrest

☐ Process Helper

From the pick list Web Service we select the desired one and so all the related data will be displayed.

At this point it becomes an effective entity of the process. In the section Parameters it is possible to add dynamics values to pass to the URL.

The Parameter's name and its value are indeed specified (it can be selected by the pick list "Values").

Action: Call external Web service

SAVE CANCEL

Action title WebService jsontest

Web service Get TEXT and Code WEBSERVICE

--Please select--  
Get TEXT and Code WEBSERVICE

Authentication

User Name admin Selezione Opzione... Password \*\*\* Selezione Opzione...

Parameters

Additional parameters

Parameter name text Selezione Opzione... Parameter value \$7-designation Selezione Opzione...  
ADD PARAMETER

Returned fields

value original Selezione Opzione... crypt md5 Selezione Opzione...  
ADD FIELD



It is now possible to update any field of the selected entity with the values obtained by the Web Service.

Here we decide to update the field “Description” and so we select in the pick list the entity Web Service.

After that, we select one of the given field, in this case the “crypt” field is highlighted which gives back the md5 value.

Description Information

☒ Description

Select Option...  
Select Option...  
SDK Functions  
[\$7] Leads (BPMN-Task:)  
[\$WS] Web service (BPMN-ScriptTask: WebService jsontest)

☐ Country Select Option... ☐ State

Description Information

☒ Description

Select field...  
Back to options  
[\$WS] Web service (BPMN-ScriptTask: WebService jsontest)  
Positive result?  
Response code  
Response message  
value  
crypt  
Select field...