

10 Insights into Using Table Fields in Processes

- [10.1 Insights into Using Table Fields in Processes](#)
- [10.2 Partial sum of the rows of a table field involved in a loop](#)

10.1 Insights into Using Table Fields in Processes

In order to be able to exploit its content within the processes, the system provides (in the "Select option" picklist) a dedicated section for each table field involved in the modules or dynamic forms associated with the process (Figure 1)

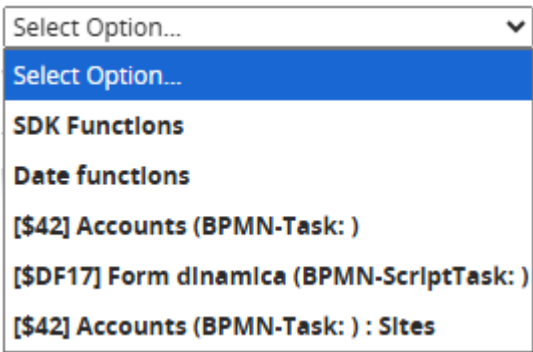


Figure 1

By clicking on a specific section, the system allows you to quickly select one of the columns present in the table field being examined (Figure 2)

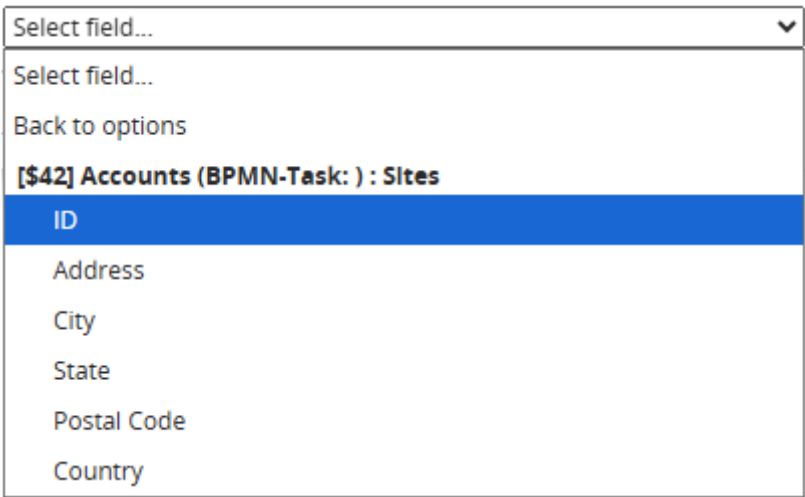


Figure 2

NOTE: the system automatically performs a filter based on the starting field from which you are consulting the "Select options" picklist, consequently it will only show the columns of the table field whose typology can be accepted by the starting field.
If, for example, inside the "Member of" field of the Company module you wanted to insert the content of the text type column "Address", the system will not make this column available, this is

because it will only allow you to select the columns of the table field of the "Related to" type. If there are no columns of this type, the system will not make the entire section of the table field available (Figure 3)

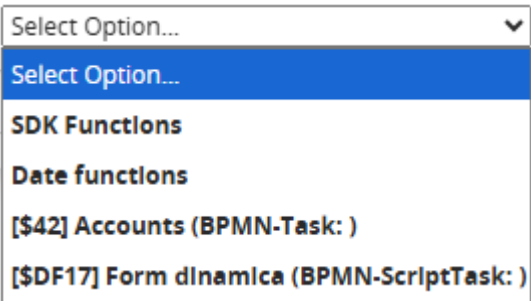


Figure 3

Alternatively, you can access the table field columns by selecting the section for the form where the table field is located and scrolling through the various available fields (Figure 4 and 5)



Figure 4

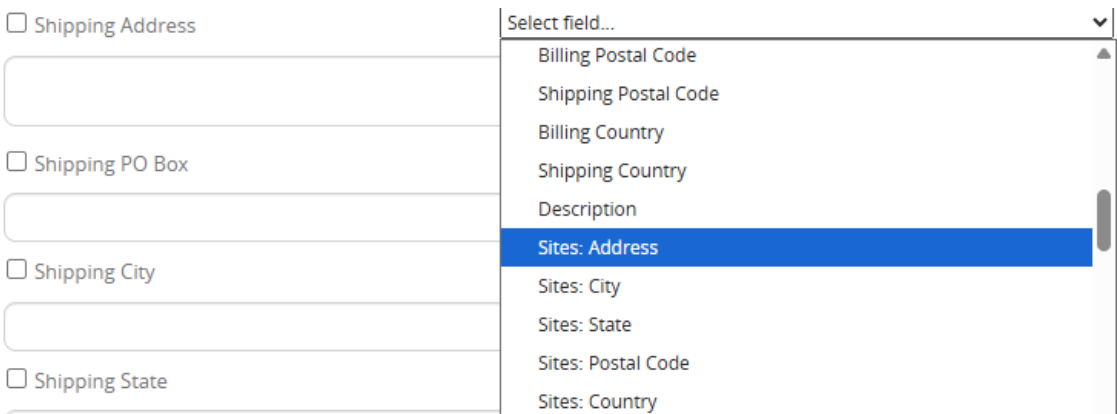


Figure 5

Once the column of the table field of interest has been selected, an additional picklist will be presented to the right of the "Select options" field, from which it will be possible to select one of the available items (Figure 6)

☐ Shipping Address
 Sites: Address
Select...

☐ Shipping PO Box
 Select...

☐ Shipping City
 Select...

Figure 6

- **"Sum"**-> only for columns of the type Number, Currency and Percentage, allows you to obtain the sum of all the rows present in the table field concerned.

NOTE: this item will still be available for the other types of columns but, logically, will not produce any results.

- **"Minimum"**-> only for columns of the type Number, Currency and Percentage, allows you to obtain the lowest value among all the rows present in the table field concerned.

NOTE: this item will still be available for the other types of columns but, logically, will not produce any results.

- **"Maximum"**-> only for columns of the Number, Currency and Percentage type, allows you to obtain the highest value among all the rows in the table field concerned.

NOTE: this item will still be available for other column types but, logically, it will not produce any results.

- **"Average"**-> only for columns of the Number, Currency and Percentage type, allows you to obtain the average value among all the rows in the table field concerned.

NOTE: this item will still be available for other column types but, logically, it will not produce any results.

- **"Last"**-> allows you to obtain the value of the last row in the table field concerned.

- **"Sequence"**-> allows you to obtain the value of a specific row (if present) of the table field.

To indicate the exact number of the row, you will have to fill in the field that will be presented on the right and finally click on the dedicated button (Figure 7)

☒ Shipping Address
 Sites: Address
Sequence
1

\$42-ml3::f9:seq:1

Figure 7

In the case where we want to take into consideration only a part of the rows present in the table field, we will necessarily have to use a row cycle action (for more information on how it works, see chapter 10.2 of the process manual)

This is because, if we do not perform a cycle on the table field, the system will always take into consideration **ALL** the rows present in the table field.

In fact, within a row cycle action, it will be possible to indicate conditions that will allow only the rows that satisfy them to be involved.

These conditions must be indicated in the "Field Conditions" section (Figure 8)

Conditions on field Sites of [\$42] Accounts (BPMN-Task: Initial conditions)

Figure 8

To use only the columns of the rows that are being cycled and that respect the conditions set, within the "Select" picklist available to the right of the "Select options" field it will be possible to select an additional item called "Current" (Figure 9)

Select... ▼

Select...SumMinMaxAverageLastCurrentSequence

Figure 9

To better understand how it works, below is an example of a row cycling action on the "Locations" table field of the Company module (Figure 10) from which we want to create a record of the "Locations" custom module for each row having the value "IT" in the State column.

Sites				
Address	City	State	Postal Code	Country
Via Manzoni 10	Milano	MI	20121	IT
N1701 EMERY LN	KAUKAUNA	WI	54130-9544	USA
Via Melisurgo 92	Minucciano	LU	55034	IT

Figure 10

Inside the process we configure a cycle rows action and for each row it creates entities of the custom module "Locations" (Figure 11)

Create a new action Cycle rows on field Sites and for each row Create entity

Create Cancel

Figure 11

In the "Field Conditions" section we enter State = "IT" while in the "Module" section we select the "Location" item (Figure 12)

Action: Cycle rows

Save Cancel

Action title Cycle Sites table with Country = IT and for every row create a Site

Conditions on field Sites of [\$42] Accounts (BPMN-Task: Initial conditions)

New Group

Country equals IT

New Condition

Module Site

Redirect to --Please select--

Figure 12

In the fields relating to the address of the Headquarters module, we insert the contents of the various columns, always selecting the "Current" item from the "Select" picklist available to the right of the "Select options" field (Figure 13)

Address Information

Address	Address	Current	City	City	Current
	\$42-ml3::f9:curr			\$42-ml3::f12:curr	
State	State	Current	Postal Code	Postal Code	Current
	\$42-ml3::f10:curr			\$42-ml3::f13:curr	
Country	Country	Current			
	\$42-ml3::f11:curr				

Figure 13

Resuming Figure 10, as a final result we will obtain the creation of two total records of the Locations module, the first record corresponding to the first row and the second record corresponding to the third row.

10.2 Partial sum of the rows of a table field involved in a loop

As anticipated in chapter 10.1, to perform the partial sum of the rows of a table field involved in a cycle, it is not possible to use the "Sum" item, since the system will always take into account **ALL** the rows present within the table field.

In fact, the "Sum" item is a variable available even if a cycle is not performed. Its existence is aimed at easily obtaining the sum of all the rows of a table field without necessarily having to configure a row cycle action.

So, to get the desired result, you will have to configure a row cycle action and for each row "Update entity", in this way we will save the total inside a field of a module or a dynamic form (from version 24.08 onwards).

Once you have inserted the condition in the "Field conditions" section to involve only the interested rows in the cycle, in the entity update action you will have to use the SDK fieldAction Standard function "vte_sum()" (for more information see chapter 12.1) to add (at each cycle) the value of the current row to the content that is already present in the field in which you are saving the result.

ATTENTION! -> in the case in which you configure a process that is triggered recurrently, to get the correct result you must set an entity update action that empties the content of the field in which you want to save the result.

EXAMPLE OF USE

To better understand how it works, below is an example of a row cycling action on the "Participants" table field (Figure 1) of the Leads module from which we want to calculate the sum of the "Number" column only of the rows having the value "Reseller" in the "Type" column and save the result in the "Total Resellers" field (Figure 2)

Participants		
Company Name	Type	Numero
Vtenext	Reseller	5
Klondike	Customer	2
Microsoft	Reseller	3
Apple	Customer	10

Figura 1

Total Resellers

0

Figure 2

Inside the process we configure a cycle action rows and for each row update entities of the "Leads" module (Figure 3 and 4)

Create a new action Cycle rows on field Partecipants and for each row Update entity

Create Cancel

Figure 3

Action: Cycle rows

Save Cancel

Action title Cycle rows and calculate Total Resellers

Conditions on field Partecipants of [567] Assets (BPMN-Task: Initial Condition) New Group

Entity ID

Figure 4

In the "Field Conditions" section, we enter "Type" = "Reseller" (Figure 5)

Conditions on field Partecipants of [567] Assets (BPMN-Task: Initial Condition) New Group

Type equals Reseller ✕

New Condition

Figure 5

Inside the "Total Resellers" field we call up the interested SDK function through the "Option Selection" picklist and accessing the "SDK Functions" section (Figure 6)

☒ Total Resellers

Sum (number1,number2,...)

\$Sdk:vte_sum()

Figure 6

As the first parameter we insert the variable that identifies the content of the "Total Resellers" field (Figure 7)

Customer name

Accounts

Search...

Sales Order

Search...

Total Resellers

Notes

Participants: Company Name

Participants: Type

Participants: Numero

Product Name : (Products) Product Name

Product Name : (Products) Product No

Product Name : (Products) Part Number / SKU

Product Name : (Products) UPC Code

Total Resellers

Creator

Users List

admin (Admin System)

Custom Information

☒ Total Resellers

\$Sdk:vte_sum(\$67-cf_1fl_1340)

Figure 7

As a second parameter we insert the variable that identifies the current value of the "Number" column of the rows of the table field involved in the cycle (Figure 8)

Accounts

Search...

Sales Order

Search...

Select...

Somma

Minimo

Massimo

Media

Last

Current

Sequence

Creator

Users List

admin (Admin System)

Custom Information

☒ Total Resellers

Numero

Current

\$Sdk:vte_sum(\$67-cf_1fl_1340, \$67-ml3::f12:curr)

Figure 8

Resuming Figures 1 and 2, as a final result we will obtain the sum of the "Number" column of the first and third row of the table field, which in our case corresponds to the value 8 (Figure 9)

Total Resellers

8

Figure 9