Data Export tricks and hints

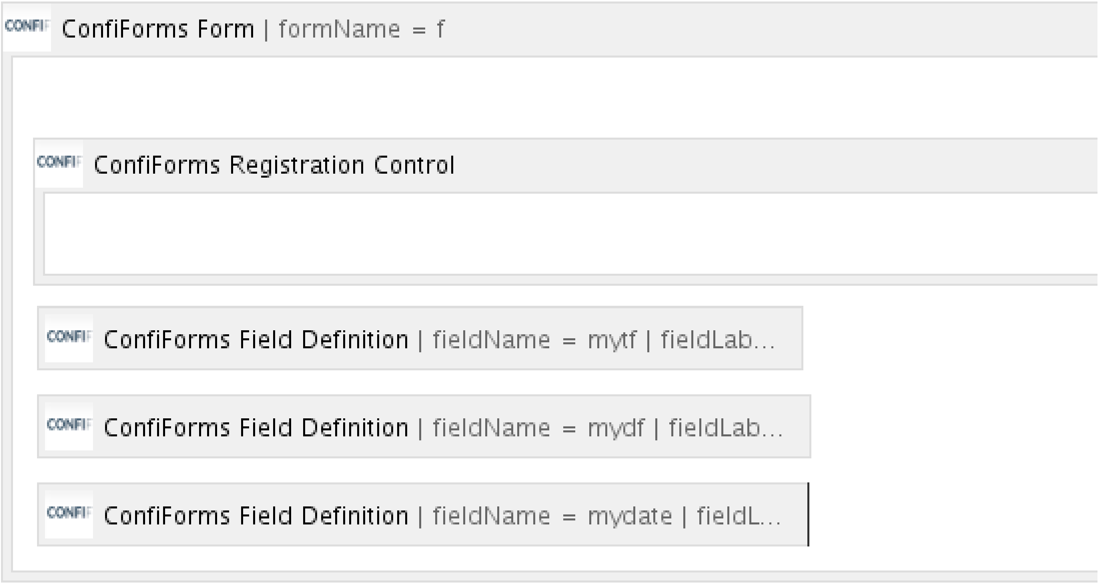
Export formats

ConfiForms provides a way to export data in 4 different formats (or in 6 if you count flattened views as separate types)

- CSV (+flattened view) - comma separated values
- XLS (+flattened view) - Microsoft Excel format
- JSON - JSON format
- XML - dataset exported in an XML format

First 2 are for end-users mainly and second 2 are for further data processing, as it depends how the data for complex fields is exported. JSON and XML formats export internal representation of the data, that means you will see IDs for dropdowns, GUIDs for smart classifiers, page IDs for pages and blogposts, date and time fields exported as timestamps (epoch) and also IDs for database-backed fields

Let's consider an example. Here is a form with 3 fields



ConfiForms Form | formName = f

ConfiForms Registration Control

ConfiForms Field Definition | fieldName = mytf | fieldLab...

ConfiForms Field Definition | fieldName = mydf | fieldLab...

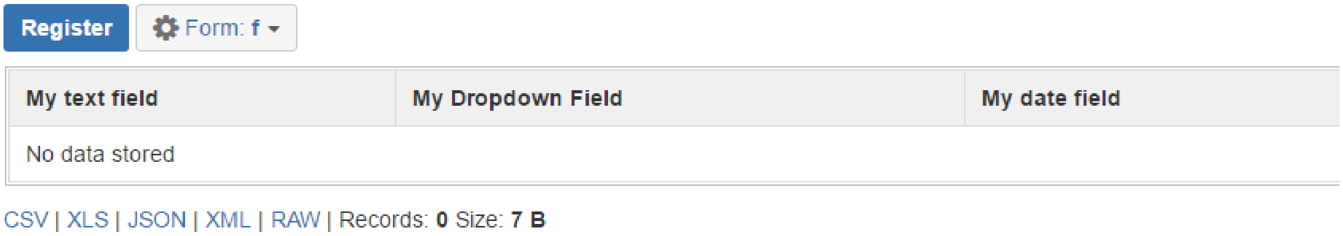
ConfiForms Field Definition | fieldName = mydate | fieldL...

- mytf - text fied
- mydf - dropdown field (contains 3 choices)

ID	LABEL
1	one
2	two
3	three

- mydate - is of type date

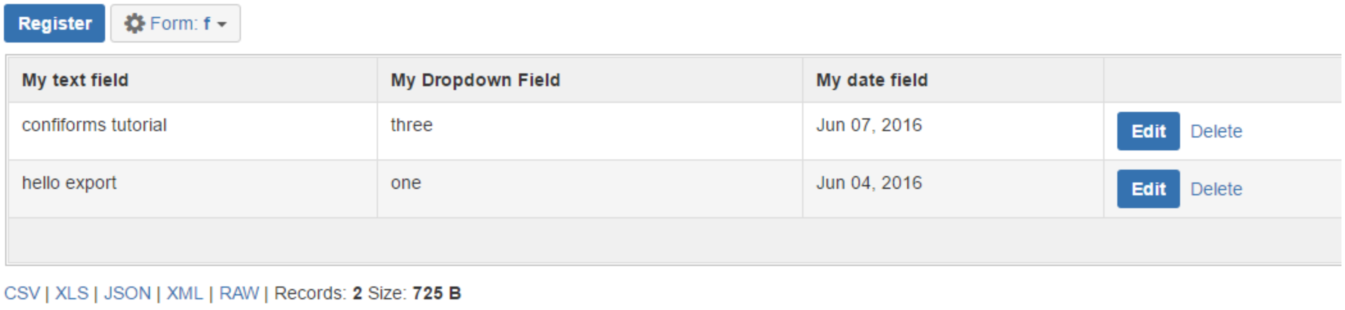
Export is enabled by default in the Admin UI for the form



My text field	My Dropdown Field	My date field
No data stored		

CSV | XLS | JSON | XML | RAW | Records: **0** Size: **7 B**

We will add couple of records and will show how the exported result for each format look like



My text field	My Dropdown Field	My date field	
confiforms tutorial	three	Jun 07, 2016	Edit Delete
hello export	one	Jun 04, 2016	Edit Delete

CSV | XLS | JSON | XML | RAW | Records: **2** Size: **725 B**

Exported as CSV

```
Id,Created By,Owned By,Created,Created,My text field,My Dropdown Field,My date field
f4ea4796-0dd2-455c-a1b4-926209260a02,sash,sash,1465197019719,2016-06-06 03:10,hello export,one,"Jun 04, 2016"
66cee179-2f33-4fd1-b8b8-bb889043e06f,sash,sash,1465197038331,2016-06-06 03:10,confiforms tutorial,three,"Jun
07, 2016"
```

Exported as XLS

Exported as JSON

```
{
  "list": {
    "entry": [
      {
        "recordId": 1,
        "deleted": 0,
        "createdBy": "sash",
        "created": 1465197019719,
        "id": "f4ea4796-0dd2-455c-a1b4-926209260a02",
        "fields": {
          "mydate": 1465012800000,
          "class": "fields",
          "mytf": "hello export",
          "mydf": 1
        },
        "ownedBy": "sash"
      },
      {
        "recordId": 2,
        "deleted": 0,
        "createdBy": "sash",
        "created": 1465197038331,
        "id": "66cee179-2f33-4fd1-b8b8-bb889043e06f",
        "fields": {
          "mydate": 1465272000000,
          "class": "fields",
          "mytf": "confiforms tutorial",
          "mydf": 3
        },
        "ownedBy": "sash"
      }
    ]
  }
}
```

Exported as XML

```
<list>
   <entry>
      <id>f4ea4796-0dd2-455c-a1b4-926209260a02</id>
      <recordId>1</recordId>
      <ownedBy>sash</ownedBy>
      <createdBy>sash</createdBy>
      <created>1465197019719</created>
      <deleted>0</deleted>
      <fields class="fields">
         <mytf>hello export</mytf>
         <mydf>1</mydf>
         <mydate>1465012800000</mydate>
      </fields>
   </entry>
   <entry>
      <id>66cee179-2f33-4fd1-b8b8-bb889043e06f</id>
      <recordId>2</recordId>
      <ownedBy>sash</ownedBy>
      <createdBy>sash</createdBy>
      <created>1465197038331</created>
      <deleted>0</deleted>
      <fields class="fields">
         <mytf>confiforms tutorial</mytf>
         <mydf>3</mydf>
         <mydate>1465272000000</mydate>
      </fields>
   </entry>
</list>
```

In the examples above you can see the difference in how the data differs (for non-text fields, see "mydf" and "mydate" fields)

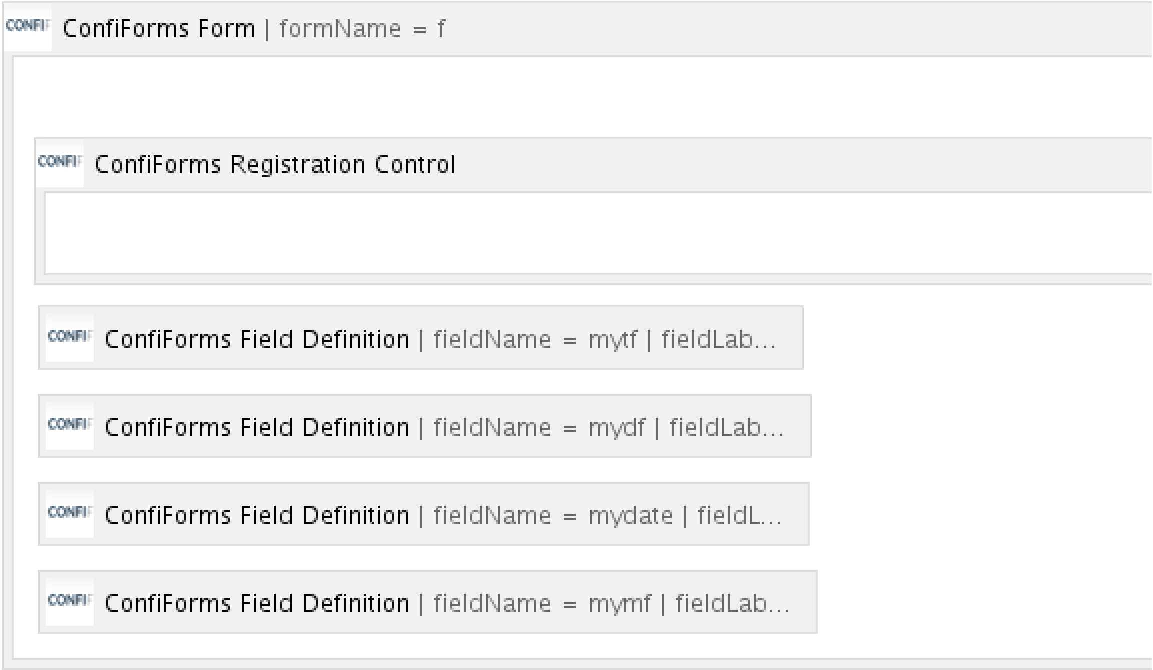
> Form Admin UI also provides a way to see the structure of the form dataset, providing RAW data format.
>
> This is mainly used for troubleshooting and data recovery

What about flattened views?

These are used for forms which have multi-select fields and you want to export each choices as aseparate row

Consider the following example

|



ConfiForms Form | formName = f

ConfiForms Registration Control

ConfiForms Field Definition | fieldName = mytf | fieldLab...

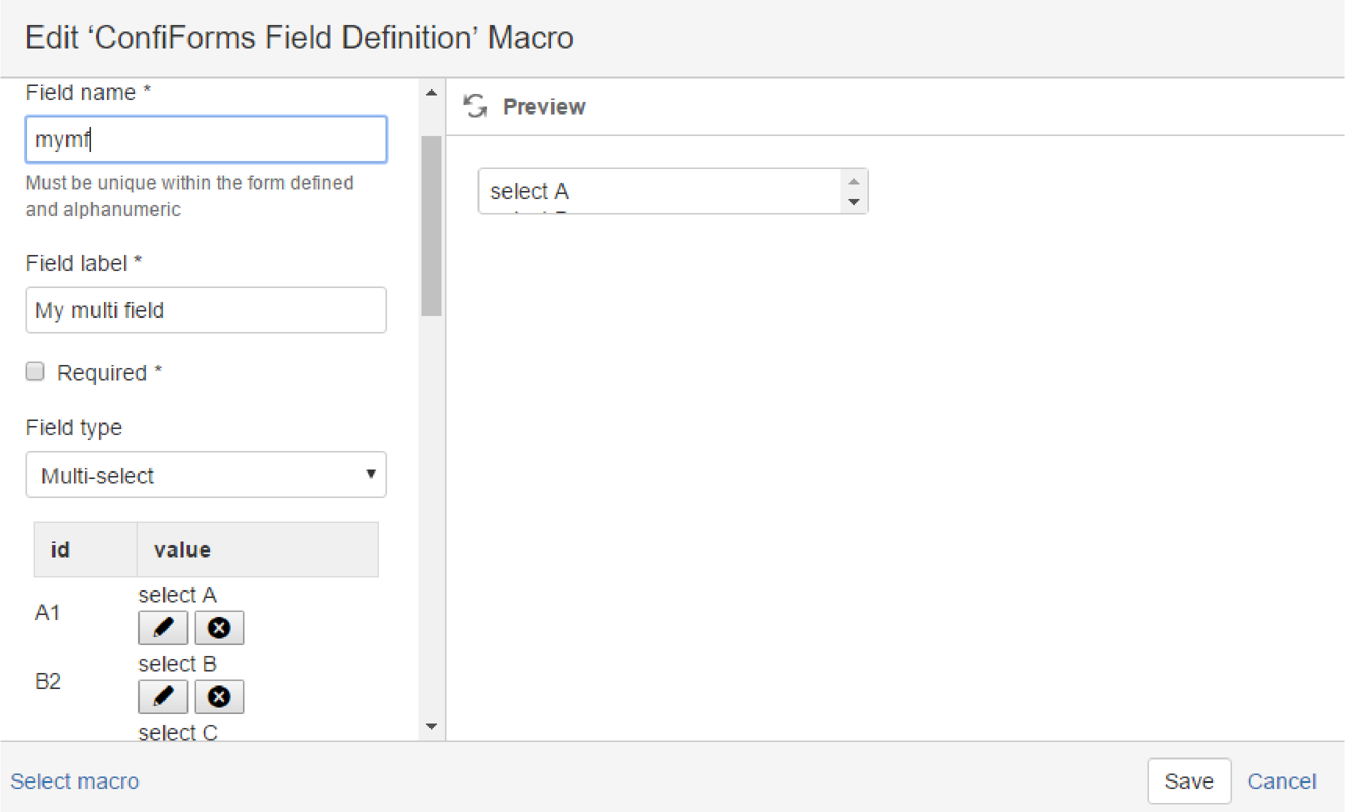
ConfiForms Field Definition | fieldName = mydf | fieldLab...

ConfiForms Field Definition | fieldName = mydate | fieldL...

ConfiForms Field Definition | fieldName = mymf | fieldLab...

We have added one more field of type multi-select into the form (described above)

It is called "mymf" and of type "Multi-select"



Edit ‘ConfiForms Field Definition’ Macro

Field name *

mymf

Must be unique within the form defined and alphanumeric

Field label *

My multi field

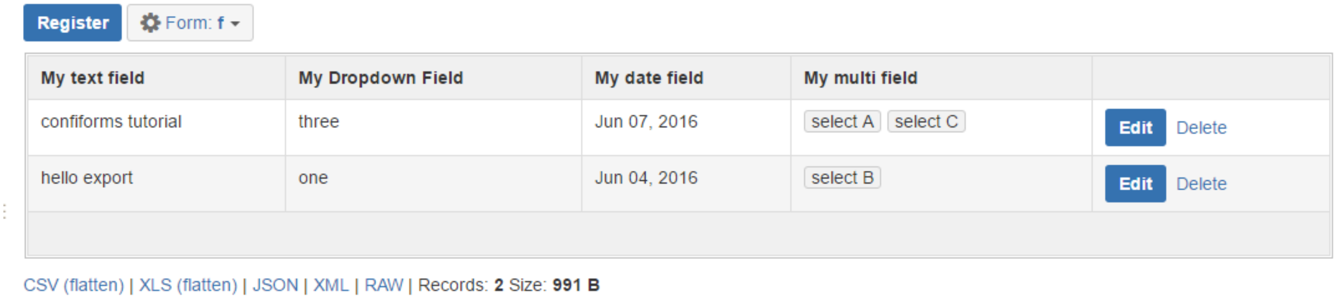
□ Required *

Field type

Multi-select

id	value
A1	select A
B2	select B
	select C

We changed our dataset to



My text field	My Dropdown Field	My date field	My multi field	
confiforms tutorial	three	Jun 07, 2016	select A select C	Edit Delete
hello export	one	Jun 04, 2016	select B	Edit Delete

CSV (flatten) | XLS (flatten) | JSON | XML | RAW | Records: **2** Size: **991 B**

It still contains 2 fields and the exported view as CSV looks like this:

```
Id,Created By,Owned By,Created,Created,My text field,My Dropdown Field,My date field,My multi field
f4ea4796-0dd2-455c-a1b4-926209260a02,sash,sash,1465197019719,2016-06-06 03:10,hello export,one,"Jun 04, 2016",
select B
66cee179-2f33-4fd1-b8b8-bb889043e06f,sash,sash,1465197038331,2016-06-06 03:10,confiforms tutorial,three,"Jun
07, 2016",select A select C
```

However, when "flattened view" is requisted it will split the choices of multi-select field into separate rows

```
Id,Created By,Owned By,Created,Created,My text field,My Dropdown Field,My date field,My multi field
f4ea4796-0dd2-455c-a1b4-926209260a02,sash,sash,1465197019719,2016-06-06 03:10,hello export,one,"Jun 04, 2016",
select B
66cee179-2f33-4fd1-b8b8-bb889043e06f,sash,sash,1465197038331,2016-06-06 03:10,confiforms tutorial,three,"Jun
07, 2016",select A
66cee179-2f33-4fd1-b8b8-bb889043e06f,sash,sash,1465197038331,2016-06-06 03:10,confiforms tutorial,three,"Jun
07, 2016",select C
```

See last 2 rows, they are practically identical with one exception, last field: each selection for multi-select field is on on it's own row

What if I need internal or transformed data in CSV/Excel format?

This is also possible, but will require a bit of custom work

Consider how the link to export data is constructed in form AdminUI (but also in other views where export is enabled)

```
Version 2.18.15 and later
https://wiki.vertuna.com/plugins/servlet/confiform/export?t=csv&pageId=8159450&fd=f:8159450&fields=&filter=

Version 2.18.14 and older
https://wiki.vertuna.com/ajax/confiforms/export.action?t=csv&pageId=8159450&fd=f:8159450&fields=&filter=
```

It expects:

Parameter name	Value
t	Could be: - csv - flatten.csv - xml - json - xls - text - flatten.xls
pageId	Page Id of the page where ConfiForms is configured
fd	form name and again page ID where form is defined (some backward compatibility parameter, but still is required). It sould be given in a format formname:pageId In the example above we have a form named "f" and it is located on the page with id "8159450"

<table>
<tr>
<td>fields</td>
<td>

Field names to export. This is interesting, as you can limit the fields in your export and also use the techniques from Accessing field values and properties to customize the export.

For example:

to export just user-defined fields, without metadata fields

```
Version 2.18.15 and later
https://wiki.vertuna.com/plugins/servlet/confiform/export?t=csv&pageId=8159450&fd=f:
8159450&fields=mytf,mydf,mydate,mymf&filter=

Version 2.18.14 and older
https://wiki.vertuna.com/ajax/confiforms/export.action?t=csv&pageId=8159450&fd=f:
8159450&fields=mytf,mydf,mydate,mymf&filter=
```

result:

```
My text field,My Dropdown Field,My date field,My multi field
hello export,one,"Jun 04, 2016",select B
confiforms tutorial,three,"Jun 07,2016",select A select C
```

to export date field as timestamp in CSV format and dropdown field's ID (not label)

```
Version 2.18.15 and later
https://wiki.vertuna.com/plugins/servlet/confiform/export?t=csv&pageId=8159450&fd=f:
8159450&fields=mydf.id,mydate.timestamp&filter=

Version 2.18.14 and older
https://wiki.vertuna.com/ajax/confiforms/export.action?t=csv&pageId=8159450&fd=f:
8159450&fields=mydf.id,mydate.timestamp&filter=
```

result:

```
mydf.id,mydate.timestamp
1,146501
3,146527
```

For fields, you can use Virtual functions and format or transform the values as needed!

Please note that functions that use *commas (,)* in the parameters could not be used at the moment

</td>
</tr>
<tr>
<td>filter</td>
<td>Same as ConfiForms Filters. To limit the exported dataset</td>
</tr>
<tr>
<td>headers</td>
<td>

Since ConfiForms version 2.15.3 you can supply the "headers" parameter as comma separated list of names to use for headers in exported CSV/Excel file

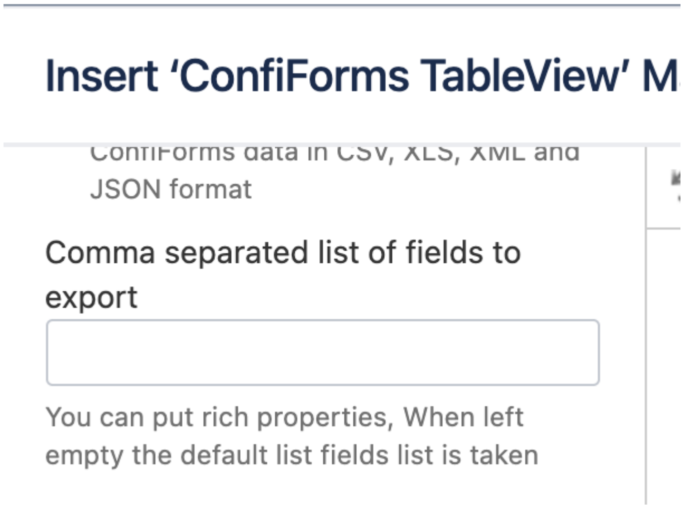
Quick example:

```
headers=My ID,Column2
```

</td>
</tr>
<tr>
<td>sort
SINCE 2.18.19</td>
<td>Sorting in ConfiForms</td>
</tr>
<tr>
<td>limit
SINCE 2.18.19</td>
<td>Numeric value to limit the number of records returned. Missing parameter or limit=0 sets the limit to "no limit"</td>
</tr>
</table>

Customising exports via ConfiForms Views

Same customizations as explained in the table above for "***fields***" parameter could be managed/configured on ConfiForms views (TableView, CardView, ListView, etc) macros using



Insert 'ConfiForms TableView' M

ConfiForms data in CSV, XLS, XML and JSON format

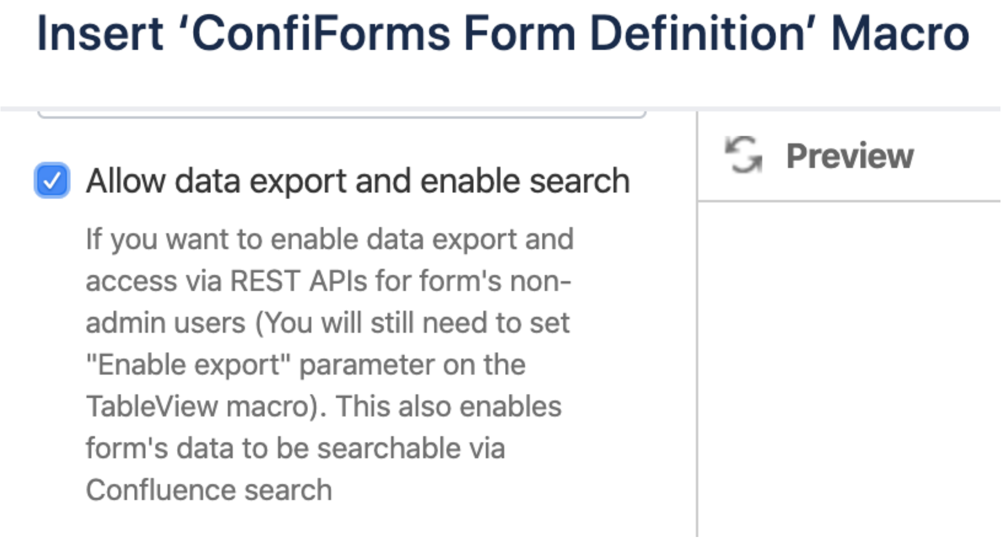
Comma separated list of fields to export

You can put rich properties, When left empty the default list fields list is taken

Exports are not working for some users

For form non-admin users (see here who is form administrator and who is not - Confluence page permissions and ConfiForms) you need to explicitly allow data exports. This is a security measure to prevent forms data from being exported by anyone when you dont't want to.

To enable exports for non admin users you need to allow exports in the Form Definition for your form



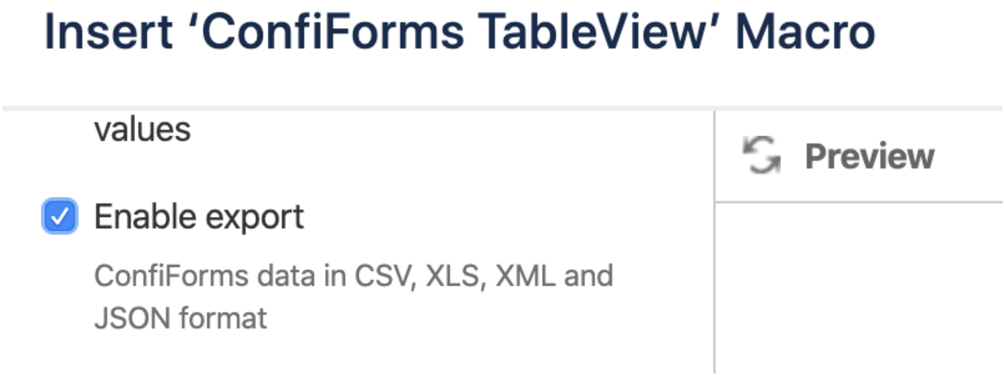
Insert 'ConfiForms Form Definition' Macro

☑ Allow data export and enable search

If you want to enable data export and access via REST APIs for form's non-admin users (You will still need to set "Enable export" parameter on the TableView macro). This also enables form's data to be searchable via Confluence search

And then you can enable the option to export the data in the corresponding views

For example, this is how you do it for the ConfiForms TableView



Insert 'ConfiForms TableView' Macro

values

☑ Enable export

ConfiForms data in CSV, XLS, XML and JSON format