

Prerequisites:

While the core JavaScript should work on many systems (even non-Drupal / CiviCRM systems), the following is the implementation that I use to make things as simple and flexible as possible:

PHP Version: 7.4.30

Drupal Version: 9.4.2

Additional Drupal Modules:

To Add / Update Activities

Webform

Webform CiviCRM (To Create Activities for Gantt)

NOTE: While I think the CiviCRM Form Builder is coming along nicely, CiviCRM WebForms still offer a lot more flexibility.

To Get JSON Activity Records for Gantt

JSON:API

RESTful Web Services

Serialization

CiviCRM: 5.51.1

Custom CiviCRM (Activity) Fields:

ID	Field Label	Data Type	Field Type
1	Percent Complete	Integer	Text
2	Activity Dependencies	Alphanumeric	Text
3	ShowOnGantt	Yes or No	Radio

Additional Drupal Setup:

Webform for Creating New Activities

There are 2 main gotchas for CiviCRM and activities. 1, You cannot (without a lot of effort) change the activity type after it is created. The reason for this is how custom fields and security related to the Activity type. 2, How CiviCRM activities deal with the End Date / Time for activities (Start Date plus Duration in Minutes).

You can create this any way you want but I have added the YML for my form to deal with the issues.

ActivityWebform.yml - This is the source for creating a new Gantt Activity

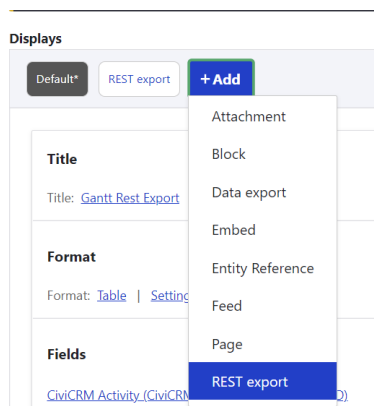
Drupal View to get the JSON for Gantt Chart

To get the data from CiviCRM you need to create a Default View so that the resulting table comes out “somewhat” like the Following:

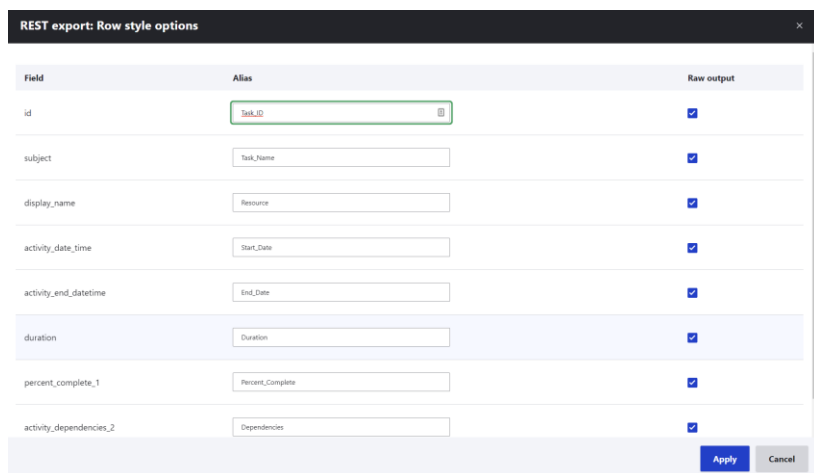
Task ID	Subject	Resource	Start Date	End Date	Duration	Percent Complete	Dependencies
6	Write Paper	Mary Smith	Tue, 01/06/2015 - 12:08	Fri, 01/09/2015 - 12:08	4320	30	7,11
7	Find Sources		Thu, 01/01/2015 - 12:25	Tue, 01/06/2015 - 12:25	7200	100	
8	Create Bibliography	Jon Goldberg	Tue, 01/06/2015 - 12:36	Wed, 01/07/2015 - 12:36	1440	20	7
10	Hand in Paper	Goldberg Corporate Finance	Fri, 01/09/2015 - 09:10	Sat, 01/10/2015 - 09:10	1440	0	6,8
11	Outline paper	Mary Smith	Mon, 01/05/2015 - 09:12	Tue, 01/06/2015 - 09:12	1440	100	7

The reason I say “somewhat” like is that the format of the JSON export is what is important, and due to the nature of Views, there are some special settings you need to do to get the export correct.

Once you have enabled the Drupal Modules above you will have the ability to create a REST export for any View.



Within the REST export of the view the trick is that you need to enable “Raw” output for the fields.



VERY Important: The Alias for the Fields must EXACTLY Match the following or the JavaScript that generates the GANTT will not work.

Alias (For Javascript)	GoogleChart Name	GoogleChart Data Type	CiviCRM
Task_ID	'Task ID'	string	Activity ID
Task_Name	'Task Name' (e.g. Find Sources)	string	Activity Subject
Resource	'Resource' (e.g. Find Sources)	string	Activity Assigned
Start_Date	'Start Date'	date	Activity Date

Activity Date + Activity
Duration (minutes) -
Calculated automatically in
Views

End_Date	'End Date'	date	
	'Duration' - Milliseconds - Calculated in Gantt by End		
Duration	Date	number	Duration
Percent_Complete	'Percent Complete' (1-100)	number	Activity Percent Complete
	'Dependencies' - Comma List		
Dependencies	Refers to 'Task ID'	string	Activity Dependencies

If all the settings are correct, the resulting JSON from the View should be:

```
[{"Task_ID":"6","Task_Name":"Write Paper","Resource":"Mary Smith","Start_Date":"2015-01-06T11:08:00","End_Date":"2015-01-09T11:08:00","Duration":"4320","Percent_Complete":"30","Dependencies":"7,11"}, {"Task_ID":"7","Task_Name":"Find Sources","Resource":null,"Start_Date":"2015-01-01T11:25:00","End_Date":"2015-01-06T11:25:00","Duration":"7200","Percent_Complete":"100","Dependencies":""}, {"Task_ID":"8","Task_Name":"Create Bibliography","Resource":"Jon Goldberg","Start_Date":"2015-01-06T11:36:00","End_Date":"2015-01-07T11:36:00","Duration":"1440","Percent_Complete":"20","Dependencies":"7"}, {"Task_ID":"10","Task_Name":"Hand in Paper","Resource":"Goldberg Corporate Finance","Start_Date":"2015-01-09T08:10:00","End_Date":"2015-01-10T08:10:00","Duration":"1440","Percent_Complete":"0","Dependencies":"6,8"}, {"Task_ID":"11","Task_Name":"Outline paper","Resource":"Mary Smith","Start_Date":"2015-01-05T08:12:00","End_Date":"2015-01-06T08:12:00","Duration":"1440","Percent_Complete":"100","Dependencies":"7"}]
```

For my system the URL of the REST Export is set as: /ganttrest . This can be changed in the default variables of the JavaScript used to display the Gantt. Note if you want to see it outside the preview you need to look at it in the form of yourwebsite.com/ganttrest?_format=json . It is not well documented that you have to add the **?_format=json** option.

The Final Step is to Show the Gantt Chart. The HTML / Javascript is included in the file **drawchartonpageSelect.html**. I just put this right in the Body of a Drupal Page, that way you can use all standard Drupal / CiviCRM security and other features.