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## TEC Gantt Chart - Download

The “TEC-GanttChart” can be downloaded from the web page <https://www.tecsoftware.it/> under the “TEC.GANTT.CHART” hyperlink.

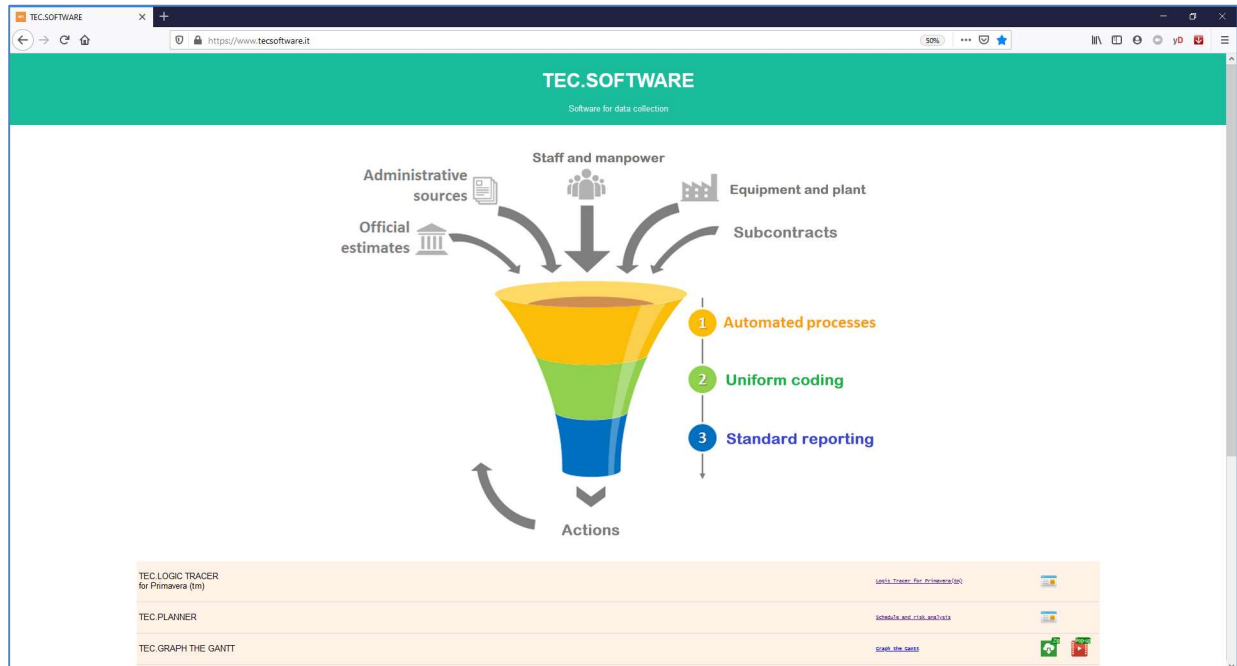


Figure 1 – TEC Software Main Page

The TEC-GanttChart has the options to:

- **Trial: Download** – from this link can download the zip file that does contain the following key file,
  - “TEC-GanttChart.xlsb” – The MsExcel VBA routine to Plot the Gantt Chart of a set of Activities extracted and not from any planning tool; the use of which will be explain in the following chapters.
- **Instruction EN** – This instruction manual in PDF format; and
- **Video Tutorial** – Video showing the use of the tool, from youtube.

## TEC Gantt Chart - Overview

The “TEC-GanttChart” is a routine in excel that run a VBA macro, that from a set of key activities attributes will plot the relevant Gantt Chart.

The routine does work on few simple steps.

Those steps are presented below in a summary way, for a more detail step by step explanation please make reference to next chapter.

### Create the Data Set

Run the TEC-GanttChart MsExcel tool, please do ensure:

- The VBA/Macro are enabled in MsExcel; and
- Enable modification to the file, if been prompt at launch.

Close the Message box been prompt at launch of the tool, Figure 2.

It can be call back by “CTRL” + “A” at any time



Figure 2 – Main Menu.

Go into the tab “Table” and report the set of activities and the key attributes:

- **Activity ID** – Unique identifier of the Activity;
- **Activity Name** – Description of the Activity scope;
- **Start Date** – Start date, from the CPM network or entered by the team, depending from the source of the data;
- **Finish Date** – Finish date, from the CPM network or entered by the team, depending from the source of the data;
- **Early Start** – Non Mandatory, can be left blank, from the CPM network or entered by the team, depending from the source of the data. Can Point to other attributes as well;
- **Early Finish** - Non Mandatory, can be left blank, from the CPM network or entered by the team, depending from the source of the data. Can Point to other attributes as well;
- **Late Start** - Non Mandatory, can be left blank, from the CPM network or entered by the team, depending from the source of the data. Can Point to other attributes as well;
- **Late Finish** – Latest date the activity can be completed without impacting the overall network, and
- **Activity Status** – Status of the Activity (Not Started, In Progress, Completed).

We will see on next chapter how these columns heading may be adjusted to reflect different attributes (Activity Status).

## Map the Data to the Data Set

When the key activities attributes defined in the previous chapter have been imported into the “Table” tab, the TEC-GanttChart tool allow the flexibility to associate the required key activity attributes as previously defined.

In “Order & Setup” tab in the range A2:B10 of the tab can define those association, Figure 3 and Figure 4.

	A	B	C
1	<b>Columns</b>	<b>reference</b>	<b>format</b>
2	<b>Activity ID</b>		2 Code string
3	<b>Activity Name</b>		3 String
4	<b>Start</b>		4 Date() only
5	<b>Finish</b>		5 Date() only
6	<b>Early Start</b>		14 Free
7	<b>Early Finish</b>		15 Free
8	<b>Late Start</b>		16 Free
9	<b>Late Finish</b>		13 Date() only
10	<b>Activity Status</b>		28 String

Figure 3 – Activity Attribute association.

	A	B	C	D	E	F	G	H	I	J	K	L	M	
1	<b>Project ID</b>	<b>Activity ID</b>	<b>Activity Name</b>	<b>Start</b>	<b>Finish</b>	<b>Actus</b>	<b>Actus</b>	<b>Early</b>	<b>Early</b>	<b>Plann</b>	<b>Plann</b>	<b>Late</b>	<b>Late</b>	<b>Original</b>

Figure 4 – Data Set Headings.

In Column B for each of the key attributes identified in the relevant column A will be input the column from where read in the Data Set saved in “Table” tab.

For example in this case we are mapping:

- Column 2 with the Activity ID;
- Column 3 with the Activity Name;
- Column 4 with the Start date;
- Column 5 with the Finish date;
- Column 6 with the Early Start date. Can point to other attribute as well;
- Column 7 with the Late Finish date. Can point to other attribute as well;
- Column 8 with the Late Start date. Can point to other attribute as well;
- Column 9 with the Late Finish date; and
- Column 10 with the Activity Status.

Of course, can map to any columns as required from the format of your Data Set export.

Also the “Activity Status” can be defined in the range A14:B18 (4 status are allowed) with the color to be use for plotting the associated activities, see Figure 5.

The color palette is define in range A21:A29 and the selection is made input the associated color in the column B of A14:B18.

	A	B
14	Type only 4	Insert color ref
15	Not Started	4
16	Started	2
17	Completed	3
18	In Progress	8
19		
20	Color reference	
21	1	
22	2	
23	3	
24	4	
25	5	
26	6	
27	7	
28	8	
29	9	
30	don't change color in the reference	

Figure 5 – Activity Status association with plotting color scheme.

### Check the Data Set for Compliance

Once the Data Set has been populated and the mapping completed, we are ready to run the TEC-GanttChart tool.

It is suggested to make a final check on data consistency, and do ensure all Start, Finish and Late Finish fields are “Date” type.

If presence of any additional character need to be sorted out (such as “ A” or “\*” for actual date or constrained activities if the Data Set is generated from Primavera P6). It can quickly be sorted out with a “Replace” function of MsExcel.

With the TEC tool there is a routine to check the dates compliance that can be evoked from the Main Menu and the click the button “Date Test”, see Figure 2. Figure 2 – M

### Plot the Gantt Chart

Data Set defined, mapping completed, check of data consistency done, we are ready to plot the Gantt Chart.

If any Gantt Chart is plotted in the “Gantt” tab, can be cleared by “CTRL” and “q” or click on the relevant button in the main menu, see Figure 2.

We do evoke the main menu with “CTRL”+“a” and click “GANTT”, see Figure 2.

The tool will process all information and get the Gantt visualized in tab “Gantt”, see Figure 6



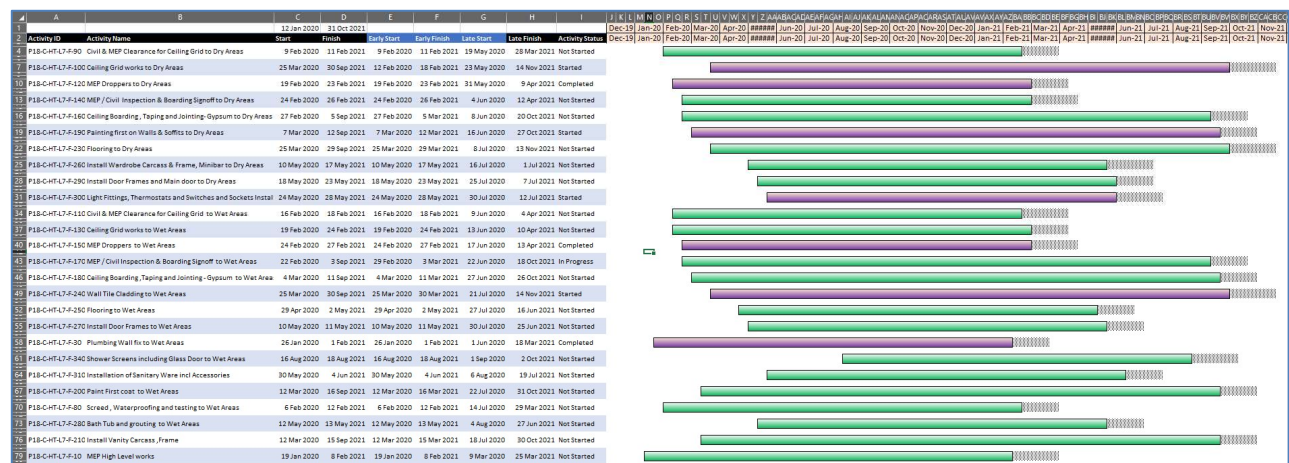


Figure 6 – Gantt Chart.

All the activities attributes are reported into the table side of the visualization.

The bar are plotted with the color associated with their status.

The shadowed part at the end of the bar is the part from the Finish Date to the Latest Finish Date, alias the visual representation of the float the activity may have (base on the CPM network calculation, if data are derived from them) of the amount of time the activity may be delayed without impacting the project.

If the Late Finish Date is less than the Finish Date (activity with negative Total Float) the shadowed part will not be plotted, see Figure 7

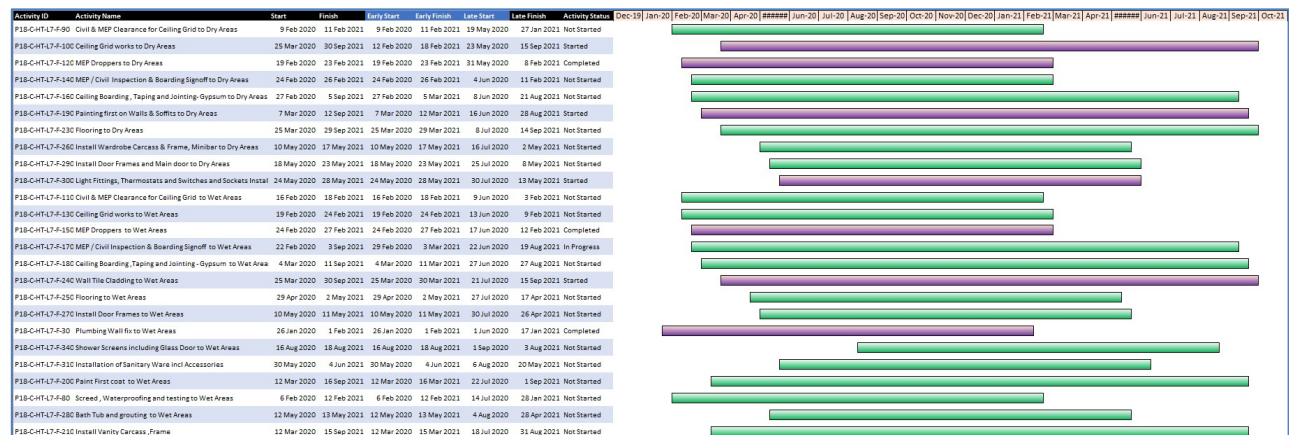


Figure 7 – Gantt Chart without Float Bar (Late Finish).

At the moment one column should be the “Activity Status” that need to have the defined values, the tool however, if requested, can be enhanced to allow for picking up different fields and therefore the color schema represent other qualities.

## Use the Plotted Gantt Chart

When the Gantt Chart is plotted, it is recommended to copy and paste the result in another MsExcel file, in order to add all the extra necessary information you may require.

As can see between each row representing an activity there is an empty row a reduced height. This can be modified, manually, in order to add extra text or graphic as required.

## Advanced Use of the Gantt Chart – TEC Gantt Chart & Logic Tracer

The TEC-GanttChart tool can be used in conjunction with the TEC-LogicTracer to plot all the various predecessor Gantt Chart outside the planning tool, saving valuable planner engineer effort.

It can also be used by the project team to plot simple weekly look ahead schedules or discuss fragnet of events and so on.

### Advanced Use of the Gantt Chart – Different Activities Attributes

At the moment one column should be the “Activity Status” that need to have the defined values, the tool however, if requested, can be enhanced to allow for picking up different fields and therefore the color schema represent other qualities.

For the Early Start, Early Finish and Late Start I can also use to tool to point (map) to different attributes, as done in the example below, Figure 8

Activity ID	Activity Name	Start	Finish	Original Dura	Total Float	Longest Path	Late Finish	Activity Status
P18-C-HT-L7-F-90	Civil & MEP Clearance for Ceiling Grid to Dry Areas	9 Feb 2020	11 Feb 2021	3.0	26 Mar 1900	No	21 May 2021	Not Started
P18-C-HT-L7-F-10	Ceiling Grid works to Dry Areas	25 Mar 2020	30 Sep 2021	6.0	26 Mar 1900	No	30 May 2021	Started
P18-C-HT-L7-F-12	MEP Droppers to Dry Areas	19 Feb 2020	23 Feb 2021	4.0	26 Mar 1900	No	3 Jun 2021	Completed
P18-C-HT-L7-F-14	MEP / Civil Inspection & Boarding Signoff to Dry Areas	24 Feb 2020	26 Feb 2021	3.0	26 Mar 1900	No	7 Jun 2021	Not Started
P18-C-HT-L7-F-16	Ceiling Boarding , Taping and Jointing- Gypsum to Dry Areas	27 Feb 2020	5 Sep 2021	7.0	26 Mar 1900	No	15 Jun 2021	Not Started
P18-C-HT-L7-F-19	Painting first on Walls & Soffits to Dry Areas	7 Mar 2020	12 Sep 2021	6.0	26 Mar 1900	No	22 Jun 2021	Started
P18-C-HT-L7-F-23	Flooring to Dry Areas	25 Mar 2020	29 Sep 2021	4.0	29 Mar 1900	No	12 Jul 2021	Not Started
P18-C-HT-L7-F-26	Install Wardrobe Carcass & Frame, Minibar to Dry Areas	10 May 2020	17 May 2021	7.0	26 Feb 1900	No	23 Jul 2021	Not Started
P18-C-HT-L7-F-29	Install Door Frames and Main door to Dry Areas	18 May 2020	23 May 2021	5.0	26 Feb 1900	No	29 Jul 2021	Not Started
P18-C-HT-L7-F-30	Light Fittings, Thermostats and Switches and Sockets Install	24 May 2020	28 May 2021	4.0	26 Feb 1900	No	5 Aug 2021	Started
P18-C-HT-L7-F-11	Civil & MEP Clearance for Ceiling Grid to Wet Areas	16 Feb 2020	18 Feb 2021	3.0	6 Apr 1900	No	11 Jun 2021	Not Started

Figure 8 – Mapping to Different Activities.

Another use could be to map the “Activity Status” attribute with the Longest Path and then have the bar plotted in different schema based on the relevant value.

See Figure 9 for the reference mapping to the “Critical” attribute, and the relevant mapping field

A		B		C		D		E		F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH								
Project ID		Activity ID		Activity Name		Start		Finish																															Longest Path	Critical						
1	Plot18-PMBr02	P18-C-HT-L7-F-90		Civil & MEP Clearance for Ceiling Grid to Dry Areas	09-Feb-20		11-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	Yes		
2	Plot18-PMBr02	P18-C-HT-L7-F-100		Ceiling Grid works to Dry Areas	25-Mar-20		30-Sep-21			#	#	#	#	#	6	0	6	6	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	St	Ta	Nc	Rc	Fi	No	Yes	
3	Plot18-PMBr02	P18-C-HT-L7-F-120		MEP Droppers to Dry Areas	19-Feb-20		28-Feb-21			#	#	#	#	#	4	0	4	4	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Cc	Ta	Nc	Rc	Fi	No	No	
4	Plot18-PMBr02	P18-C-HT-L7-F-140		MEP / Civil Inspection & Boarding Signoff to Dry Areas	24-Feb-20		26-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
5	Plot18-PMBr02	P18-C-HT-L7-F-160		Ceiling Boarding , Taping and Jointing- Gypsum to Dry Areas	27-Feb-20		05-Sep-21			#	#	#	#	#	7	0	7	7	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No
6	Plot18-PMBr02	P18-C-HT-L7-F-180		Painting first on Walls & Soffits to Dry Areas	07-Mar-20		12-Sep-21			#	#	#	#	#	6	0	6	6	2	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	St	Ta	Nc	Rc	Fi	No	No	
7	Plot18-PMBr02	P18-C-HT-L7-F-190		Flooring to Dry Areas	25-Mar-20		29-Sep-21			#	#	#	#	#	4	0	4	4	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
8	Plot18-PMBr02	P18-C-HT-L7-F-290		Install Wardrobe Carcass & Frame, Minibar to Dry Areas	10-May-20		17-May-21			#	#	#	#	#	7	0	7	7	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
9	Plot18-PMBr02	P18-C-HT-L7-F-260		Install Door Frames and Main door to Dry Areas	18-May-20		23-May-21			#	#	#	#	#	5	0	5	5	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
10	Plot18-PMBr02	P18-C-HT-L7-F-300		Light Fittings, Thermostats and Switches and Sockets Installatio	24-May-20		28-May-21			#	#	#	#	#	4	0	4	4	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	St	Ta	Nc	Rc	Fi	No	No	
11	Plot18-PMBr02	P18-C-HT-L7-F-110		Civil & MEP Clearance for Ceiling Grid to Wet Areas	18-Feb-21		18-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
12	Plot18-PMBr02	P18-C-HT-L7-F-1100a		Civil & MEP Clearance for Ceiling Grid to Wet Areas	18-Feb-21		18-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
13	Plot18-PMBr02	P18-C-HT-L7-F-1100b		Civil & MEP Clearance for Ceiling Grid to Wet Areas	18-Feb-21		18-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
14	Plot18-PMBr02	P18-C-HT-L7-F-1100c		Civil & MEP Clearance for Ceiling Grid to Wet Areas	18-Feb-21		18-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
15	Plot18-PMBr02	P18-C-HT-L7-F-1100cc		Civil & MEP Clearance for Ceiling Grid to Wet Areas	18-Feb-21		18-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
16	Plot18-PMBr02	P18-C-HT-L7-F-1100dd		Civil & MEP Clearance for Ceiling Grid to Wet Areas	18-Feb-21		18-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
17	Plot18-PMBr02	P18-C-HT-L7-F-1100dd		Civil & MEP Clearance for Ceiling Grid to Wet Areas	18-Feb-21		18-Feb-21			#	#	#	#	#	3	0	3	3	0	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	Nc	Ta	Nc	Rc	Fi	No	No	
18																																														

Figure 9 – Data Set.

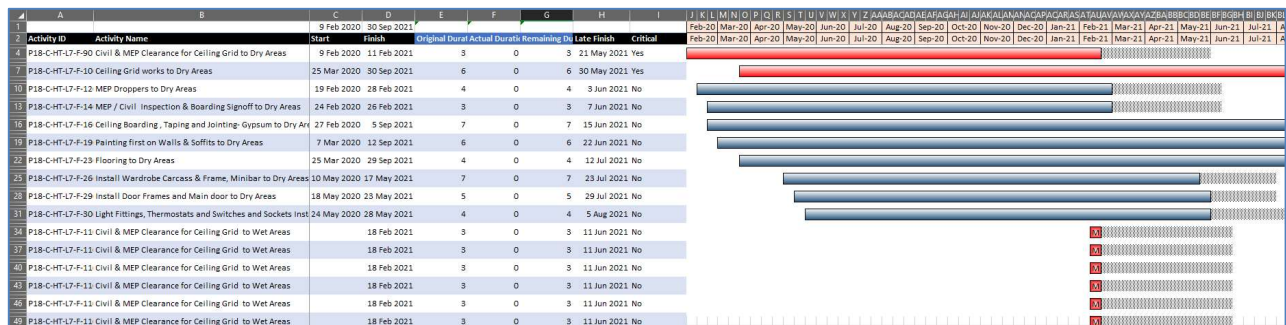


Figure 10 – New Gantt Chart with Critical Activities identified.

If column E, F and G are set to map attributes that are not dates their format in the “Gantt” tab need to be adjusted accordingly, Figure 10.



## Unlock of the TEC-GanttChart Tool

If you find the tool of use and want to unlock the time trial version, please contact the service department at [tec.planner@outlook.com](mailto:tec.planner@outlook.com).