

# Introducing the timelapsegantt method

demonstrated by application to the Empire State  
Building Project and the construction of the  
Sydney Harbour Bridge



INTRO



# About Me

- **Construction Project Planner**

- Australia and SE Asia
- Largest Project: 70 storey apartment tower. Smallest: fitness centre fitout

- **Software**

- Timecostcurves.com – showing how (and how much) you can save both time and costs on projects since 2019
- Presenting timelapsegantt method here...



# timelapseganttt

## What... Why... How?

- **What?**
  - Using novel methods to transform a typical gantt chart into a dynamic diagram of the project plan. Think simplified BIM.
- **Why?**
  - To transform a typical gantt chart into a dynamic diagram of the project plan! Use cases limited only by Users imagination 😊
- **How?**
  - Use native capabilities of MSP to redefine gantt bars and make 'em dance.
- **How much?**
  - Free. **How to?** Read on.....



# timelapseganttt

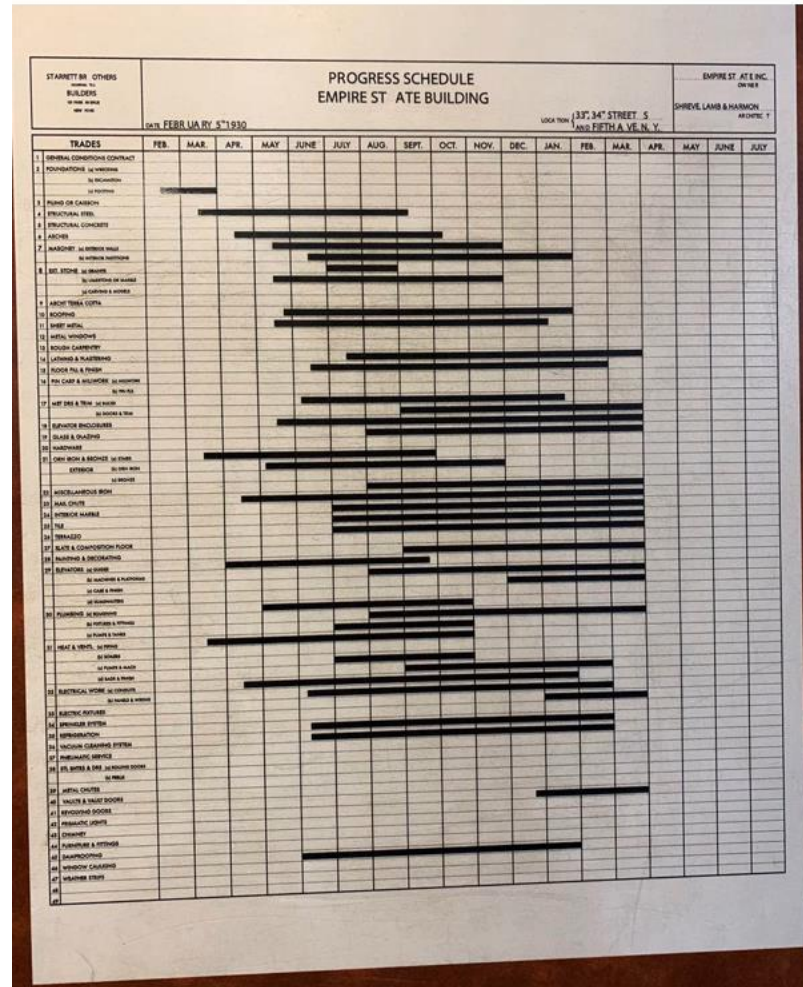
## Case Studies

SHOWCASE PROJECTS	REFERENCE	EVOLVING TIMELAPSEGANTTT FEATURES	REMARKS
Empire State Building (ESB) 1929-31	Gantt Chart	<ul style="list-style-type: none"> <li>●Site Demolition</li> <li>●Dual View: Elevation (LHS) vs Cross-Section (RHS)</li> <li>●Dashboard</li> </ul>	Commercial Construction Megaproject
Sydney Harbour Bridge (SHB) 1924-32	Table of Key Dates	<ul style="list-style-type: none"> <li>●Both Temporary and Permanent Works</li> <li>●Critical Path</li> <li>●Model of 2 Scenarios at Bridge Opening</li> </ul>	Infrastructure Megaproject
Apollo 8 Lunar Mission 21-29DEC1968	Dates for Launch, Lunar Orbit and Return	<ul style="list-style-type: none"> <li>●Lunar Mission (ie Mobile Plant)</li> <li>●Introductory Model of Gamefied Risk Management</li> </ul>	Space Age Projects Versatile Method Wide Development Potential
Agile Example	Agile Manifesto	<ul style="list-style-type: none"> <li>●Represent a Journey</li> <li>●Sprints, etc.</li> </ul>	Contemporary Practise

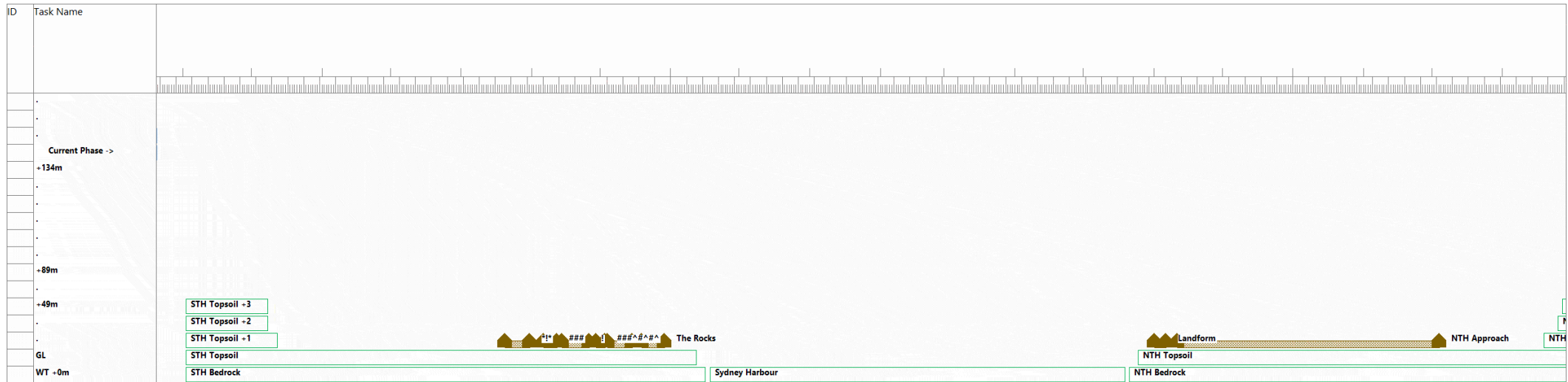


# timelapsegantt Empire State Building

Watch on to see this



# timelapsegantt Sydney Harbour Bridge





# timelapsegantt - Apollo 8 Lunar Mission

ALT (x20,000km): 22

#timelapsegantt Status as at 21DEC68 08:00

21/12/68 22/12/68 25/12/68 26/12/68 27/12/68

21DEC68 Launch HI/L/O : 1.2 FAST/SLO: 43.7 EXPAND

3D

ALT (x20,000km): 22  
Apollo 8 Lunar Mission to Launch on 21/12/68 for Moon Orbit then Return to Earth by 27/12/68  
ALT (x20,000km): 21  
ALT (x20,000km): 20  
ALT (x20,000km): 19  
ALT (x20,000km): 18  
ALT (x20,000km): 17  
ALT (x20,000km): 16  
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ALT (x20,000km): 9  
ALT (x20,000km): 8  
ALT (x20,000km): 7  
ALT (x20,000km): 6  
ALT (x20,000km): 5  
ALT (x20,000km): 4  
ALT (x20,000km): 3  
ALT (x20,000km): 2  
ALT (x20,000km): 1  
ALT (x20,000km): 0  
ALT (x20,000km): -1







# Method

- **Requirements**

- MS Project

- VBA (optional)

- Gantt Chart with usual Activities and their Start, Finish, Duration and Predecessors at a minimum.

- A preliminary idea of how to represent the project as a “drawing” or an “object” that will be automatically drawn by the software using customised bars in the barchart view (see below section).

- In the case of the ESB example (see fig. 1 (R) above), it is a front elevation with the left side indicating the external view, whilst the right-side is more like a cut-out showing the interior works.
    - For the SHB (see fig. 2 (mid and bottom) above), the “object” is a longitudinal section through the bridge with a background of Sydney (albeit much simplified) along the approaches and site of the SHB.

- T's & C's: Please note the intention is to only be indicative of the activities given the constraints of the software. The object is by no means intended to represent an actual design drawing of the project being planned. What may be lacking in design accuracy is more than justified by this method's versatility, economy and complete integration into a project's implementation plan, also presenting the project team with the opportunity to maintain tight management and control. Hence, the project management cycle traditionally described as “planning, organising and controlling” can be implemented using this method with a bare minimum of overhead.



## Method (continued)

- For the ESB, the author prepared custom bar shapes (see fig. 3) for each of:
- -Existing building to be demolished
- -Excavation
- -Footings
- -Structural Steel framework
- -Concrete floors
- -Exterior cladding
- -Window glazing
- -Exterior brickwall
- -Interior brickwall
- -Elevator rough-in
- -Elevator finishing
- -Plumbing rough-in
- -Plumbing fixtures
- -Interior tiling
- -Interior painting & decorating
- -Electrical fixtures
- -Works in progress
- -Status Date
- NB. The limit is about 20 customised bar shapes, however creative application of the method can extend this limit.

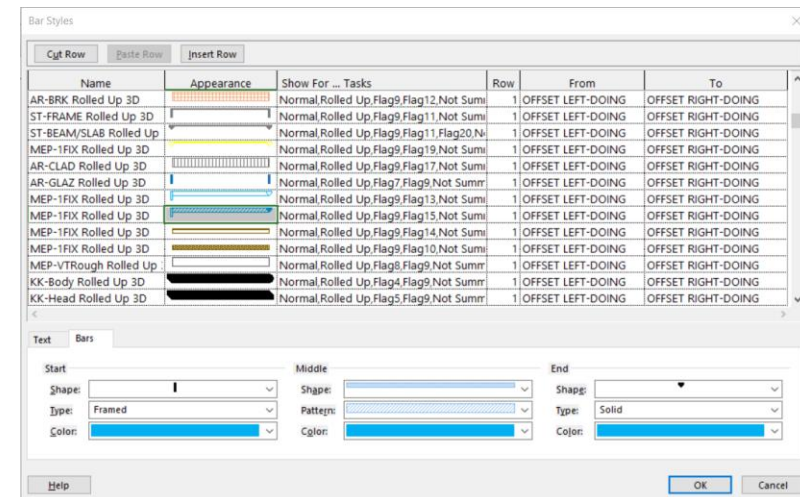


Fig. 3 Bar Styles wizard as part of MS Project



# Method (continued)

- **Data Input**

- **Customisations**

- Fields
    - Two custom dates to represent the left-side and right-side of the object, ensuring these dates lie outside the project start and finish dates (to avoid confusion). Consider this as the horizontal axis of your 2-dimensional diagram.
    - A custom lookup table of every building Storey, or an otherwise appropriate vertical scale. Consider this as the vertical axis of your 2-dimensional diagram.
    - Groups
    - Group the activities by Storey, typically sorted top-down, and also (but not essentially) rolled-up to the Storey level.
    - Filters
    - Show only activities relevant to the Storeys grouping.
    - Views
    - Define a view with Group:=Storeys
    - Scroll and adjust barchart to display the dates representing the Left and Right sides of the object as above
    - Change status date (either manually or with the userform as per below) to see the object's status change.
    - Flags
    - The different bar styles each need a flag associated with them (hence the general limit of 20).
    - Minimum one flag should be reserved to mark which tasks are planned to be done, or in progress, in relation to the status date.
    - Bar Styles
    - Corresponding to each custom flag, select colour and shape the planner deems is an appropriate representation of the project activity.
    - Replace the normal Start and Finish dates with the custom Dates as described in the Fields section above.



## Method (continued)

- **Code (Optional)**
- **Modules**
- Procedures are coded to calculate custom fields according to status date.
- **Userform**
- Call up the userform, which allows a scrollbar interface with the Project Status Date, and an expand / retract button to show / hide further details, as per the user's code:
- when the Status Date changes, custom fields are recalculated from the above module to give up-to-date status for whichever details you wish to include in the userform at whichever status date you select, as well as updating the object's status in the barchart.



# Output

- **Timelapse Gantt View**
- Status can be changed programmatically as per userform above. Alternatively, the userform can be closed and the Status Date changed manually. The object's status will change accordingly.
- [ESB](#) link to timelapsegantt view converted into .mp4 video file
- [SHB](#) link to timelapsegantt view (preview version) converted into .gif animation file





## Graphics

May not  
look out of  
place on  
national  
TV?

# VIDEO: What is causing all this rain and when will it end?

Posted 3h ago

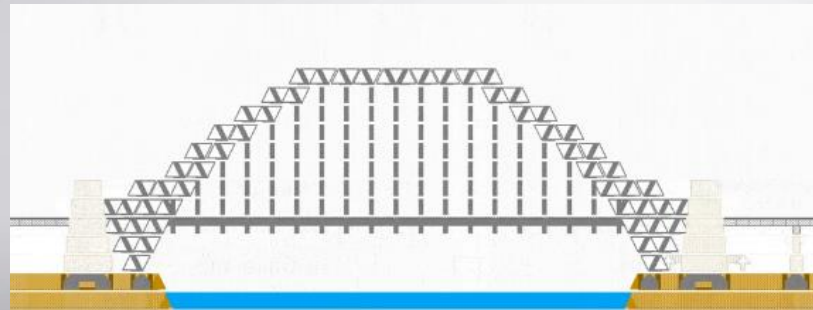


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Posted 3h ago



**17 SYDNEY  
HARBOURS**



▶ ⏮ 🔊 01:56 / 11:12

10 NEWS



## Conclusion

- The method described above is quite straightforward and it easily transforms your Gantt chart into an understandable, visually-appealing, one-page status update for any instant of time in your project. It has all the same rigour and detail that as the planner you have input to your original Gantt chart, in fact it is just a different view of the same Gantt chart, conveniently contained within the same file and able to be viewed side-by-side with, say, a more traditional line-of-balance view. As has been demonstrated here, it works for state-of-the-art megaprojects but can also be applied to any other type of project planning, from space travel to vegetable gardening. I hope that it will be put to use on your next project too.





# Heading style (14pt).

- **Bullet or Heading if required (Lato 10pt sentence case)**
  - Sub bullet (Arial 08pt sentence case)
    - Sub bullet (Arial 06pt sentence case) circle sub bullet (Arial 06pt sentence case)
  - Bullets are always square and red (#7d1730)
  - Use **this colour** to emphasise text and avoid UPPERCASE and underline. Text should be in dark grey (RGB 125/23/48) for best visibility.
  - Please **always** save your presentation as a pdf when sending to external clients.
  - If you need to change a colour please choose one of the preset theme colours. The colours are displayed on the PPT colour palette page.

