



Interview Questions & Answers For Planning Engineers

“Chellange Yourself”

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Revision

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❖ Acknowledgment:

First of all, we as the "Planning Engineer" Team would like to thank all of our members who interacted and participated with us through this topic.

This document was originally initiated by the Planning Engineer website by creating a form to collect members' questions and answers that might face a planning engineer during the interview.

The planning Engineer team reviewed questions and answers to remove duplicated ones, added more explanations and graphs to the answers, and produced the final product in a good shape.

In this topic, you will find the most common Questions and Model Answers that you may expose to in your Interview for a Planning Engineer Position.

In the end of this document you will find links to live interviews between Eng. Hany Ismail, founder and CEO of Planning Engineer FZE, with several talented planning engineers from all over the world.

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1- Interview Questions & Answers

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1- Interview Questions & Answers

Question No.1:

What is a constraint in primavera?

Constraints in primavera is to fix the early or late start or finish dates of activity as per the following options:

A-Project Must Finish by

B-Mandatory Start / Mandatory Finish

C-Start / Finish On or After

D-Start / Finish On or Before

E-Start / Finish On

F-Expected Finish

Question No.2:

What is the clause to be refereed in FIDIC when there is entitled to an extension of time?

Clause 20.1, "If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance".

Question No.3:

What is the reasonable range of float you assume while checking the look ahead work activities?

The floating range is varied from one project to another. However, in my opinion, 10% of project duration is the maximum reasonable float for any project.

Question No.4:

What is the Critical Path? How do you identify it and if any activity has negative slack, how can you adjust the duration?

The critical path is the activities with zero floats. Any delay in these activities will lead to a delay in project duration. Usually, critical activities are shown in red color or say zero floats in columns. For reducing duration you can adjust it by reducing the duration or changing the relationship between activities. However, planning engineers should pay attention to maximum resources (resources constraints) while crashing the critical path.

Negative slack usually results from constraints in the activities. The planning Engineer should follow up on the negative float path and find the wrong relationships or constraints and fix it.

Question No.5:

What is the difference between Planning & Scheduling Engineer?

The planning Engineer can work along with the project team to develop a complete-time schedule including the cost of resources. Planning Engineer can lead the team and influence his/her point of view.

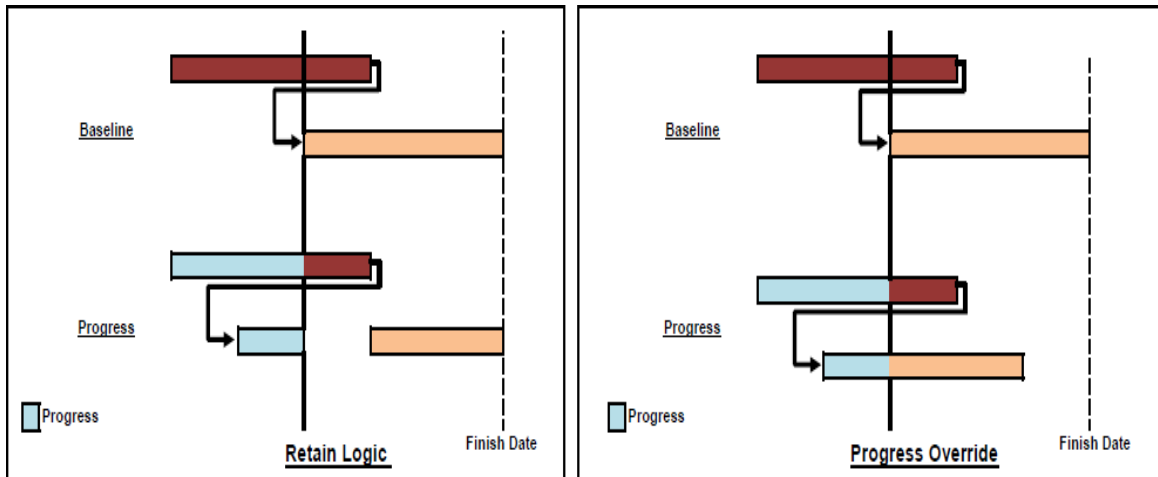
Scheduling Engineer can only follow senior planning engineer or project manager instructions to create logic between project activities, but s/he can't develop the schedule alone.

Question No.6:

What is the difference between Retained Logic & Override Logic?

Retained Logic is Invariably that will produce the longest critical path but if activities have been progressed out of sequence, there could be some illogical dependencies remaining, in particular resulting from dependencies with duration.

Progress override invariably produces a shorter critical path and again there could be some illogical lack of dependencies resulting from activities having been progressed out of sequence.



Question No.7:

What is the difference between a recovery schedule and a revised schedule?

The recovery schedule keeps the same finish date with some corrective actions to recover the delay such as adding more resources and breaking down some activities and so on... In the revised schedule we have a new finish date because of claims or adding a new scope of work (amendment).

Question No.8:

You are working on a project and somewhere in the middle of the project. The progress variance was -5% and still, you are achieving the contractual completion date. How is it possible?

The contractor is working on a critical path and delays are on non-critical activities.

Question No.9:

How can you define the Critical Path in primavera?

Simply filter the activities with Zero Total Float.

Question No.10:

As a planning Engineer, "Walk me through a project":

This Project is "Project Name" and it has a budget of "Project Budget". The Project started in "Project Start Date" and planned to be finished in "Project planned finish date". According to the last update date on "updated date" this project is

(ahead/behind) the schedule where the planned % = X and actual % = Y, therefore the forecast completion date is Z.

Question No.11:

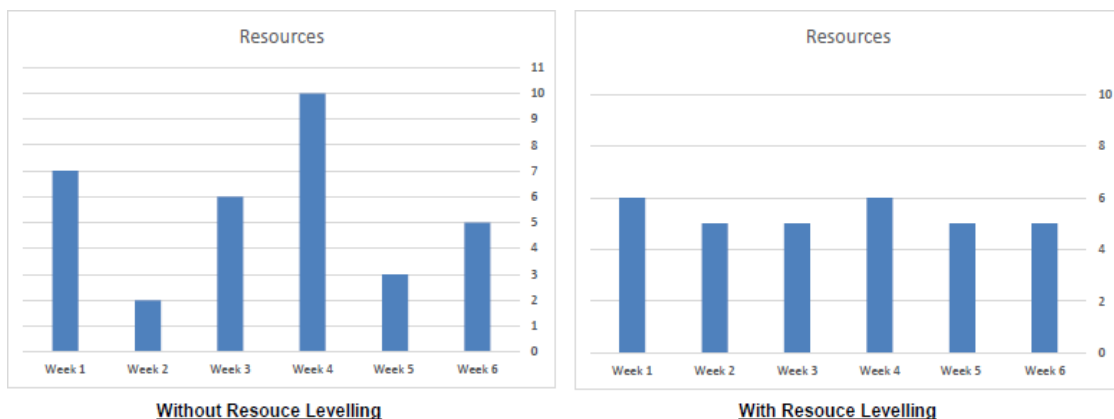
How can you differentiate total float and free float?

Total float represents the number of days that can be delayed without affecting the completion of the project, whereas free float determines the number of days that can be delayed without affecting the successor activity.

Question No.12:

What is Resource leveling and What is Resource Allocation?

Resource leveling is the best scenario to execute the works with the available resources. To achieve the best scenario, the planning engineer could change the activities durations and/or activities dates without affecting the project overall duration to maintain the best usage of resources. While Resource allocation is assigning resources to activities, determining the amount of labor, equipment, and money required for any activity.



Question No.13:

If we increase 2 days to the duration of any activity on the critical path that will increase the duration of the project by 2 days?

Yes. It is on the critical path which means it is as Zero Total Float and any increase in its duration will affect the duration of the project.

Question No.14:

Explain what a good schedule means?

- a) Scheduled activities must reflect the project's contract scope of work.
- b) Dates must be as per the contract.
- c) Meets the contractual requirements /milestones.
- d) Activity durations are reasonable: activity duration must be calculated based on the quantity of work and resources available to be applied to the work.
- e) Activity relationships are all defined, as review must take place all relationships have been included and all are valid and redundancies are eliminated, and no open-ended activities except the first and last activities.
- f) The critical path makes sense.
- g) It considers procurement and material and equipment deliveries.
- h) It must be cost and resource-loaded.
- i) Must be accessible in a proper format, complete, clear, and convenient.
- j) Schedule should be specific. What will be done, when it will be done, who will do it, and how much it will cost.

Question No.15:

How will you make a manpower loading for your schedule?

Man Power loading is based on my company productivity rates, we calculate the required man-hours for each B.O.Q item by using this formula :

$$\text{Required Man Hours} = \text{QTY} / (\text{Productivity Rate})$$

Question No.16:

What are the involvements of Project Planner and vital Role in Project Management?

Since Planning Engineer is directly involved in project management activities, project leadership to make decisions concerning the development of plans, and how the work process has broken down & control how it be managed. Track, review, forecast & give inputs on the status of the project and product. Further, more planning engineers should raise the flag to the project team where s/he recognize potential risks

Question No.17:

Does float belong to the Owner or the Contractor?

It is a question that you probably will not find a definite answer to it. The significance of the argument about who owns the float has two folds, first its ability to directly or indirectly influence the construction methodology and/or sequence once the project execution has started, and secondly, the potential entitlement of extension of time (EOT) and the application of liquidated damages (LDs). There are mainly three views of the matter which are presented hereinafter .

1. The 'contractor owns the float' argument -

This is the traditional view and still has its appeal among many practitioners. This view implies that the contractor is entitled to utilize float for his risk events and recovery rescheduling.

Not so far ago, a survey in the United Kingdom suggested that 80% of the respondents assumed that the contractor owns the float; not surprisingly, the majority of those respondents were contractors .

2. The client owns the float argument

This is just the opposite of the view above, the proponents of this view argue that the client has paid for the project and the program is one of the tools to manage the project and monitor progress, therefore, the client should be able to control the float to reduce costs and control progress, especially when the program is a contractual requirement in which the contractor has developed it for the client's benefit .

3. The 'project owns the float' argument

This view says float is owned by neither the contractor nor the owner. The project owns the float which means "float is not for the exclusive use of any of the parties and it serves whoever needs it first" as long as it is used in good faith.

The third argument looks more reasonable, The Project Owns the Float.

Question No.18:

What are the methods of calculating EV (earned value)?

- 1-Updating actual cost of activities.
- 2-Updating the actual budgeted units of activities.

3-Updating the actual resources compared to budgeted ones.

Question No.19:

What is the difference between a recovery plan and a revised plan?

The recovery plan is made with acceleration to remain within the contractual completion date but revised plans account for change orders which may or may not be within contractual dates.

Question No.20:

If the Project Total Float shows negative, does it always follow that the Performance % Complete is less than Schedule % Complete?

No. Performance % Complete has nothing to do with the network logic or the critical path. Certain activities with the high budgeted value might have been progressed better than planned but other activities that have less value are the ones driving the critical path and delaying the project completion date.

Question No.21:

How to calculate budget man-hours?

To calculate budget man-hour you must have the budget quantity for each activity, from that and through the standard man-hour, convert the quantity into man-hours based on organization productivity rates, the total of these man-hours will be the budget man-hours.

Question No.22:

What do you mean by SDK, & what is its usage in Primavera?

Its stand for " Software Development Kit " is used in Primavera to export quickly all the resources, cost, etc. from Excel to Primavera. It is a powerful tool but it has some limitations with the Excel version, i.e Excel version should be 32 not 64.

Question No.23:

How do you start planning without any information on hand?

Gather the necessary information from the project team and contract documents,



such as the Scope requirements, project start, and finish dates, and any documents needed to produce the project objective.

Question No.24:

What is redundant logic?

It means that if the successor of A is linked to B and B is linked to C Also Successor of A linked to C then the link between A to C is called redundancy.

Question No.25:

Quality and Grade are the same things?

No, there is a difference, Quality is the performance of the requirements and fitness to use, Grade is a matter of different technical characteristics.

Question No.26:

Define the main responsibilities of the planning engineer in each phase of the project's lifecycle. Please state clearly which information/data you would need from the Project Manager/Project management team to fulfill your task as a planner.

This question is tricky because it tests your understanding of the whole planning process throughout the project's different phases. Moreover, you should fully understand the specifications and legal documents related to the particular project in

Document / Stage	Bidding Stage (Tender)	First Month of the Project	Up to project completion
Time Schedule	Tender schedule	Master Schedule	Detailed Schedule
Cash flow	High level cash flow(as per Tender Schedule)	Master Cash flow(as per Master Schedule)	Detailed Cash flow(as per detailed schedule)
Man Power Histogram	High Level Histogram(as per Tender Schedule)	Master Histogram(as per Master Schedule)	Detailed Histogram(as per detailed schedule)
Shop Drawings Tracking	N/A	Master Shop Drawings Tracking	Detailed Shop Drawings Tracking
Materials Tracking	High level Long Lead Materials	Long Lead Materials	Detailed Materials Tracking
Weekly / Monthly Reports	N/A	Weekly / Monthly Reports	Weekly / Monthly Reports

question. However, you will not find it difficult to answer this question if you have been involved in the responsibility of only one completed project from inception to handover.

Question No.27:

What are the monitoring skills?

Ability to sort data, Check the authenticity of data, Analyze and Predict data, Generate Reports.

Question No.28:

Could you chase Project Managers for information and not just be a keyboard Junkie?

An answer for this question could be that I have developed very good interpersonal and communication skills which accord me the ability to politely yet consistently pull for the needed answers I require to get my side of the job going and yet maintain a healthy rapport within My team of busy PM's.

Question No.29:

What is the best software for planning?

No software for planning, it is only for scheduling, the planning process is only done in the brain. However, oracle primavera is the best planning tool that helps to create time schedules. Furthermore, Microsoft Power Bi is another great tool for reporting.

Question No.30:

What would you submit if your consultant/client asks you to submit a matrix report?

It is an incomplete request. I must know which matrix do you need, resource matrix, cost matrix, authorities matrix, engineering/procurement matrix, etc. else that would be a wide report containing more than 50 columns of P6.

Question No.31:





Mention 4 reasons cause -ve float in primavera:

- o Using project must finish by.
 - o Using Constraints.
 - o Using different calendars in one project.
 - o Using relationships with other projects.
-

Question No.32:

What is the difference between Float and Slack?

There is no difference between float and Slack. It is two different definitions of the same meaning.

Question No.33:

What is the difference between negative lag & lead?

There is no difference. It is two different definitions of the same meaning.

Question No.34:

How do you explain project delay if the earned value is more than the planned value?

The contractor has performed better in areas that are not on the longest path "The Critical Path". In other words, the contractor executed the right quantity in the wrong place.

Question No.35:

How are early and late dates determined?

Early Dates in a network are determined by Forwarding Calculations And late dates are determined by backward Calculations.



Question No.36:

What are three methods of measuring project progress?

Key Performance Indicators "KPI's", Cost Performance Index "CPI", Schedule Performance Index "SPI".

Question No.37:

What is the best way to be a professional planning engineer?

Understand the project management concepts, tools, and techniques. -Practice doing real projects and get comments/reviews from experts. -Continuous improvement by learning new tools that would help to increase the accuracy of decrease the time required for tasks.

Question No.38:

What are SV and CV?

Schedule Variance (SV) & Cost Variance (CV) in Project Cost Management. Schedule Variance and Cost Variance are two important parameters in earned value management that help you analyze the project's progress. Schedule variance (SV) = Earned value (EV) – Planned value (PV) Cost variance (CV) = Earned value (EV) – Actual cost (AC)

Question No.39:

What's the way to resolve the delay in project time?

Fast Track: Reduce activities duration, resequence, reschedule without affecting the project total duration, fast-tracking has a problem regarding the quality issues if it is applied in the wrong way.

Crashing: Reduces activities durations, resequence, reschedule but with additional cost to achieve better results. These additional costs could be:

-Acceleration Costs to subcontractors.

-Bonus.

-Additional costs result from less productivity due to increasing the manpower in the workplace.

Question No.40:

If the Budgeted cost of works is more than the actual cost of works, how do you consider the performance of the Project? Optimum, Bad, or Good?

Good. Since we are spending less money than planned, we also need to check if we are on schedule or not.

Question No.41:

What is Project Management?

Project management is the application of processes, methods, knowledge, skills, and experience to achieve the project objectives. A project is a unique, transient endeavor, undertaken to achieve planned objectives, which could be defined in terms of outputs, outcomes, or benefits.

Question No.42:

What does it mean if "SPI" is greater, lesser, or equal to one?

SPI greater than one means ahead of schedule, less than one means behind the schedule & equal to one means as per schedule.

Question No.43:

Could we have more than one critical path?

The critical path is a dynamic path where it could be changed every time we update the schedule, change durations, or relationships. However, the critical path of a project is one path that could have too many activities underneath. Therefore, the project has only one critical path.

Question No.44:

The scope is known partially, then how to plan for the future?

Through the life of the project as more information is available more work is to be planned called agile management. Accordingly, we can use agile management to plan the known part of the project only and keep the scope of work until we have more information about it.

Question No.45:



What is the concurrent delay?

When two events of delay on the critical path are occurring at the same time or with some overlapping, one affecting activities on Contractor's risk and the other affecting activities on Employer's risk.

In other words, there are delays because of the contractor and delays because of the client.

Question No.46:

What is a Baseline?

The baseline is the value or condition against which all future measurements will be compared. The baseline is a point of reference. In project management, there are three baselines – schedule baseline, cost baseline, and scope baseline.

Question No.47:

What is the Difference between Bar charts & Network diagrams?

Bar charts and network diagrams are used to display visually the complexities and dependencies of project work. Network diagrams display the project work as linkages through the chronological flow of work from start to finish. Gantt charts visually display primarily the work breakdown and the associated durations. Both charts graphically show work breakdowns, enabling managers and workers to easily identify conflicts, co-dependencies and determine the effect of change in the system.

Question No.48:

What are Thresholds in Project Management?

It is the project management technique in which lower and upper values of a parameter are specified against which project data can be evaluated and monitored. It could be applied to WBS level as well as activity level.

Question No.49:

What is the difference between crashing and fast-tracking?

Two techniques can be used to shorten the project duration while maintaining the project scope. These techniques are fast-tracking and crashing.

Crashing is the process of adding resources to one's project to be able to finish it

faster. It has a cost impact.

Fast Tracking, on the other hand, is the process of performing tasks in parallel to be able to finish the project sooner. It does not have any cost impact but increases the risks.

Question No.50:

What is the normal productivity of welder for Carbon steel material per day?

This question is to test your knowledge of productivity rates. However you shouldn't memorize all the answers in your mind, your answer could be "I don't memorize all productivity rates since it varies from one organization to another and from worker nationality to another. However, I have some standards that I refer to when the organization's productivity rate is not available.

Question No.51:

What is the difference between free float and total float?

Total float is the amount of time that an activity can be delayed without delaying the project completion date. On a critical path, the total float is zero.

Free float is the amount of time that an activity can be delayed without delaying the Early Start of its successor activity.

Question No.52:

For an activity, if the free float is negative whereas the total float is positive. Is this possible to happen and what's the impact?

It may happen depending on the activity flow, but that doesn't mean this free float will affect the completion of the project since the total float is positive.

Question No.53:

Define critical path:

A critical path is the sequence of project network activities that add up to the longest overall duration, regardless of whether that longest duration has floated or not. This determines the shortest time possible to complete the project.

Question No.54:

Do primavera loads cash in and cash out in the same schedule?

Primavera deals with the cost of the project only (cash out) but you can work around with making a resource called cash in/out to view cash in/out.

Question No.55:

How to reduce critical path?

- A- Compressing schedule by fast-tracking, crashing, Reducing scope, Cut quality.
 - B- Fast tracking: Results in rework, increase risk, requires more attention and communication.
 - C- Crashing: increase cost, increase management time
 - D- Reduce scope: negative impact on customer satisfaction
 - E- Cut quality: increase risk, requires good matrices.
-

Question No.56:

What is the normal total float allowed for a new project?

The total float should be not greater than 10% duration of the total project duration.
(This percentage is subjective)

Question No.57:

What are the duties of a planner?

Assigned in overall/master schedule, look-ahead targets, and accomplishment reports and monitoring.

Question No.58:

What is Baseline Program?

An agreed Program is used to compare the actual result to measure the performance of a project or product against what was planned.

Question No.59:

What is SF dependency? Any example. Have you ever used this?

A logical relationship in which a successor activity cannot finish until a predecessor activity has started. Example: The first security guard shift (successor) cannot finish until the second security guard shift (predecessor) starts.

I don't think I have ever used this, but I have generally thought of a Start-Finish dependency as being used where an agreed period of handover is required between two activities.

Question No.60:

Are all activities with negative total float drive the project completion date?

Not all negative float activities drive the project completion date. Only the chain of activities driven by their dates and logical relationship drive the completion date and it is called the longest path.

Question No.61:

What is meant by a recovery schedule?

The recovery schedule is a revision of the Program's Master Schedule updated on a certain data date. The Engineer requested the Contractor the recovery schedule to show how the contractor he'll be going to recover the incurred delays up-to-date.

Question No.62:

What do you mean by "EPC", "TIA" & "EOT"?

EPC stands for "Engineering, Procurement & Construction"

TIA = Time Impact analysis.

EOT= Extension of Time.

Question No.63:

How do you get information to populate and update your schedule?

Organize a planning workshop with all the Subject matter experts in attendance, plan



all your questions needed for you to make up a plan and schedule. Extract all information from them, develop a high-level initial schedule and populate the WBS and activity lists. Later on, the planner should develop forms to be filled by the project team on weekly basis.

Question No.64:

What is the standard deviation of the activity?

The standard deviation for activity is = (Pessimistic duration - Optimistic duration)/6

Pessimistic duration (worst case scenario):

The longest duration an activity could be executed on.

Optimistic duration (best case scenario):

The shortest duration an activity could be executed on.

Question No.65:

Suppose you have a conflict with the project consultant/ owner representative about a schedule update you have submitted recently. You believe that you have the right to reflect some time delays in the schedule in favor of your company, but the owner wouldn't accept that. The conflict escalated and the consultant hold the monthly payment till you agree on the update according to his perspective. He's also implicitly threatening to kick you out of the project unless you are "cooperative". What's should you do?

Unfortunately, this case is very common in the middle east. The power of consultants is overestimated, and engineers, especially juniors, will find themselves in similar situations in one way or another. My answer would be that you should communicate with your Project Manager immediately. It's not enough to have a casual conversation during the tea break; you should do that in "WRITTEN" format only. You should clearly explain the situation; why you think you have right in your claims; what would be the consequences in case you agree with the requirements of the consultant; and what are your concerns regarding the situation. In most cases, if the project manager is strong enough, he will exclude you from direct contact with the consultant till he solves the issue; and it might be necessary to consult the company's lawyer for assistance.



Question No.66:

What does it mean If my free float is positive?

It means I can delay this activity without delaying the successor activity and accordingly the project finish date.

Question No.67:

What to look for when a contractor sends their tender program to be awarded?

The tender schedule is summarized by nature. However, it should tell the contractor's strategy of executing the project and the project's overall planning.

Question No.68:

What is an S–Curve?

S-curve is a graph showing cumulative cost or value (measured in terms of money or man-hours) against time.

Question No.69:

How De-watering works could affect your schedule?

That is based on the calculation of the building's weight to be equal to or more the uplift force. Dewatering is required to reduce the uplift force of underground water. When this force is less than the weight of the building, then dewatering activity could be finished. The planner should check with the project team when it is recommended to stop the dewatering and plan accordingly. Normally dewatering will hold the backfilling and external works around the building.

Question No.70:

Every project plan has two types of dates, the early start early finishes and the late start late finish. Late start always starts after an early start but finishes with the early finish, Why?

Late start denotes the total float of the activities which allows the activities in the early stage of the project to get as late as possible while in the late time of the project there are mostly critical activities are left which does allow the late dates to pass over.



Question No.71:

What is the major difference between Cost variance and Schedule variance?

Schedule variance=Earned value-Planned value. It is related to the time or data date.

Cost variance=Earned value-Actual cost.

Question No.72:

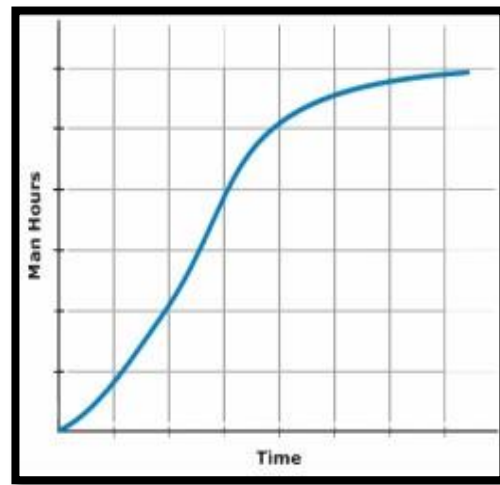
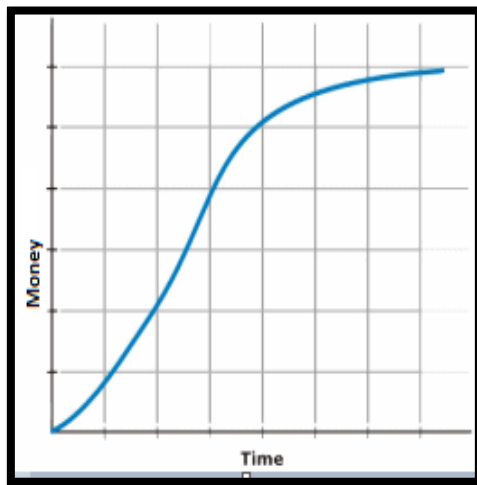
Why negative lag/lead is not recommended in a good schedule?

Because other relationship types can serve the same purpose. For example, instead of using an FS relationship with negative lag, you can use an SS relationship with positive lag.

Question No.73:

What does variance in the S curve indicate on both axis?

Variance on Y-axis represents the value of (Money, ManHrs., etc.), while X-axis represents time variance.



Question No.74:

What is an open-end activity?

An open-ended activity is an activity that can end on the last day of the project without delaying the overall project. An open-end activity is normally not followed by any other activity and its completion can be delayed (within the project life) to focus on more important activities that have successors (activities which can start only at the end of the earlier ones).



Question No.75:

If you are loading the cost in Primavera, Which cost will you select either at the price in BOQ or your Budget amount, or Both?

It depends, if this schedule is for the consultant, then the budget amount (selling price) should be loaded. However, this is a case where the contractor would like to monitor the actual cost, in that case, the actual cost could be loaded. However, cost control is better in excel than primavera.

Question No.76:

What does trend analysis mean?

A trend analysis is an aspect of technical analysis that tries to predict the future movement of a stock based on past data.

Question No.77:

A project shows actual performance is matching the planned performance. The Project is in delay also. What could be the reason?

The reason is, that progress is made on the non-critical activities than on the critical activities.

Question No.78:

What is the difference between flag and milestone activity in primavera?

Milestone & flags both are events rather than activities. Some client likes to use flags rather than milestone due to the following differences.

1. With the use of flags the logic of the main event can be easily tracked as these cannot be created without predecessor as standalone allocating the constraint. Whereas milestones can.
2. Flags cannot update manually as Primavera automatically update the status whereas milestone can be updated manually.
3. Flags cannot be constraint only driven by predecessor whereas milestones can.



Question No.79:

How do you estimate activities durations?

Generating meetings & follow-ups with contractors and other persons related to construction is also related to the contractual milestones. Normal activities can be estimated from experience. Special activities can be estimated by having meetings with the project team and experts in this field. However, the project overall duration is the main constrain that might affect all other estimations.

Question No.80:

What does it mean if "CPI" is greater, lesser, or equal to one?

The Cost Performance Index (CPI) is a method for calculating the cost efficiency and financial effectiveness of a specific project through the following formula:

$$\text{CPI} = \text{Earned Value (EV)} / \text{Actual Cost (AC)}$$

A CPI ratio with a value higher than 1 indicates that a project is performing well budget-wise. A CPI value of 1 indicates that a project is performing on budget. A CPI value that is less than 1 indicates that a project is over budget.

Question No.81:

What is needed for a successful project plan?

Contract document, drawings, B.O.Q as primary & other planning tools as secondary support. Furthermore, the involvement of the project team in the planning, estimation, and sequence of work would result in a more accurate project plan.

Question No.82:

We hire the team in execution, then who planned for the project?

The planning of the project is made during the project life cycle with different levels of detail. For example, during the tender stage, the tender team is responsible for a high level of planning. However, when the project is awarded the project team is responsible for the planning and breakdown.



Question No.83:

How often do you update your Project Baseline?

It varies from project to project, depending on reporting/progressing periods. However, the working schedule should be updated continuously, as each activity is started or finished.

Question No.84:

What are BCWS, BCWP, and ACWP?

These three acronyms are earned value terms that stand for Budgeted Cost for Work Scheduled (planned value, or PV in the PMBOK Guide's in my opinion ill-advised neologisms), Budgeted Cost for Work Performed (earned value, or EV), and Actual Cost for Work Performed (actual cost, or AC.)

BCWS is what was budgeted for each work package as scheduled .

BCWP is the sum of the budgets of all completed activities/milestones.

ACWP is the sum of what it cost to complete each of the work packages/milestones

Question No.85:

What is a constraint?

A limitation that reduces the efficiency with which a project can be accomplished.

Resource availability is a type of constraint that can delay a project's schedule and efficiency.

In general, constraints should not be input into the schedule until after the schedule has been optimized through critical path analysis.

Question No.86:

What is activity & What is WBS?

Activity is a task or process to be accomplished in a set period of time as part of working toward a larger project goal. An Activity can be assigned to a resource(s)





and have an associated cost. Activities are ordered with logic links

Work breakdown structure, a hierarchical format for identifying, displaying, reporting, and changing project work. Since the WBS is the “skeleton” of work on which the resource, cost, schedule information is draped, it is the principal tool for implementing scope/cost/schedule integration.

Question No.87:

What is a milestone? What are the types of milestones?

A milestone is an event. Activity-driven milestones are usually entered into PM software as activities with durations of zero. Since milestones have no duration, once they are reached they are immediately in the past. It is therefore good practice to name activities using the past participle of the verb (i.e., “Test component” = activity; “Component tested” = milestone).

Question No.88:

What are the steps to review EOT Claim?

As a client or the main contractor you should consider the following while reviewing the EOT Claim:

- 1- Agree about the delay analysis method (As Planned, As-Built, Time Impact).
- 2- Be sure that the updated baseline has the same duration and relationships as the baseline or there is a clear change log if there are any changes.
- 3- There is a detailed narrative report recording the chronology of the events and describes the contractor/subcontractor entitlement under contract clauses.
- 4- Review the event impact and verify all additional relationships and activities added to the baseline schedule as a result of this event.
- 5- Compare the influence schedule (window) to the project situation where it should reflect the actual situation on the ground.
- 6- Direct all my concerns/comments to my project team to verify any information I might need.
- 7- Call for a meeting with the Contractor/Subcontractor to discuss my review findings.
- 8- Issue my comments to Contractor/Subcontractor within contract allowed period and set a deadline for Contractor/Subcontractor to respond.
- 9- Review the second submission and be sure it is aligned with contract requirements.





10- When everything is clear, I raise a recommendation to the project manager with the Contractor/Subcontractor entitlement for Excusable-Compensable delays and Excusable non- Compensable delays.

Question No.89:

What are the differences between critical and longest paths?

The longest path is the set of activities with the minimum total float, if the project is delayed, the total float will be a negative value. All the longest path activities are critical, but not all the critical activities are on the longest path.

Question No.90:

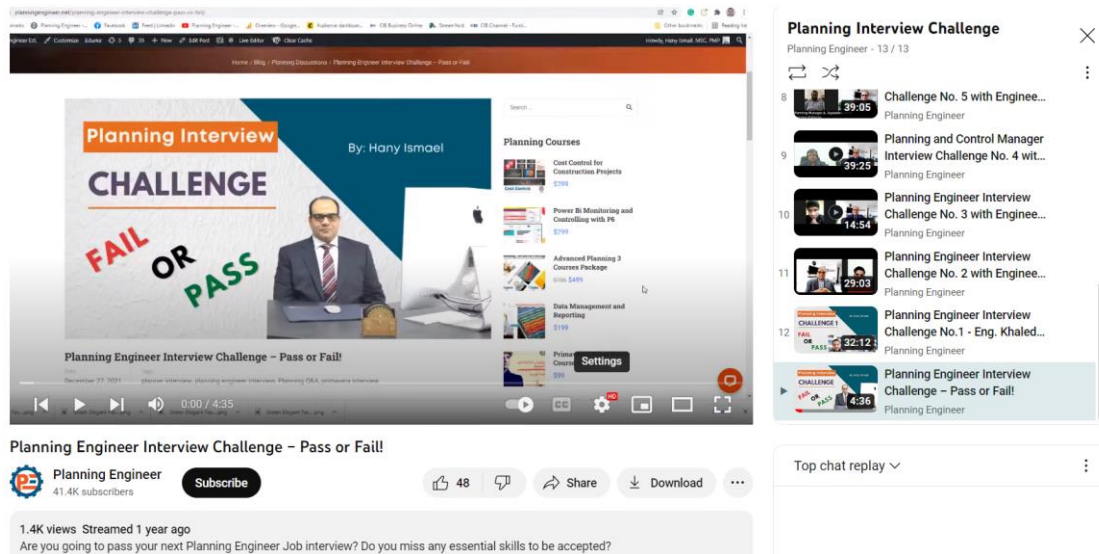
What is the use of Activity Codes?

Activity codes are used to organize and filter the project activities. Unlike the project WBS, the activity codes are more flexible to assign and use in filters. For Example, we can make one activity code for the Type of work (Civil, Finishes, and MEP). Then we can use this activity code to filter the relevant activities. This is difficult to be done with WBS.





Section Two (Live Interviews)



As a part of our duty towards the community of planning engineers, we asked for talent planning engineers who want to challenge their knowledge and experience and participate in [live interview challenge](#) on our [You Tube channel](#). As a lot of engineers applied, we tried to choose a wide range of experiences and cultures to let all planning engineers get the best of this experience.

You will find in this playlist interviews with engineers with different countries around the world. Each one works in a different industry and has different experience. You'll find interviews with junior, senior, and team leaders planning engineers. They all participated in this to share their knowledge, challenge their experience, and the most important thing, let the fresh planning engineers take the experience and practise by themselves.

As we have interview mock-ups for all planning engineers level, we also provide [courses](#) in planning, cost control, delay analysis, and many other topics, for all levels.

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