

CPM | axis: Bridging the Schedule Gap

White Paper





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Bridging the Schedule Gap

It is commonly understood that construction projects often suffer time and cost overruns. A recent June 2016 study published by McKinsey and Company states as much, confirming “The construction industry is ripe for disruption. Large projects across asset classes typically take 20 percent longer to finish than scheduled and are up to 80 percent over budget.” A portion of the problem facing these projects is the inability to accurately and timely track impacts and issues that arise throughout the course of all construction projects. This arises from ineffective or incomplete construction management solutions that have focused primarily on integrating and making widely available the data silos that house document control, cost, and design management access. This leaves the most integral portion of the project, the schedule, siloed and unavailable for daily monitoring and use. We have seen many solutions come on line that put a wide variety of project information into the hands of the team, except for the schedule.

When the schedule is not being used as a tool, the industry must quickly and widely advance technical solutions for this problem. Developed for the construction industry by experienced construction management and planning professionals, CPMaxis bridges the gaps that are integral to allowing the schedule to clearly communicate issues that directly contribute to the cost overruns and delays cited above.

This white paper will examine how the bridging of these gaps in the availability and use of the schedule will transform the way by which the project is managed, allowing the schedule to play a central role in decision making, issue notification and resolution, risk analysis, and the introduction of collaborative solutions.

Contract Schedule on the Shelf – Managing the Work with a Three Week Lookahead

A common problem faced by projects is the use of the schedule as a contract tool first, and a planning tool second. The contract specs will specify many requirements and standards to be met, most often requiring a monthly update. However, anyone who has experienced the fast paced and rapidly evolving nature of a construction project understands that schedule impacts, updates, and changes could be reflected weekly if not daily (if resources allowed). Thus, the monthly update is preserved to meet the standard of the contract, and a project team most often relies upon the lookahead schedule (three or four weeks forward with one week back) to plan and execute the work. Therefore, there is a gap with no common link between the contract schedule developed in a scheduling software, which is now sitting on the shelf, and the lookahead prepared in excel that the team is living by in the field.

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CPMaxis has bridged this gap. By directly importing the contract schedule, and allowing for end users to engage daily, the contract schedule becomes the tool by which daily and weekly planning is captured. Users simply update the status of activities where work has been performed, or is in progress, including the ability to add more granularity to the contract activities and document this progress with notes and photos, and document potential impacts to this work. This input from the team, which represents standard effort in generating lookahead schedules, allows for the creation of a lookahead schedule directly exported out of CPMaxis that correlates back to the contract schedule.

This tying of the schedules together allows for a more timely notification of potential issues, a more seamless tracking of progress and impacts to work, and finally, allows for the contract schedule to remain current and updated with all status on a weekly basis. With less effort, and with a focus on more productive status updates and planning, the schedule becomes a tool that the team can use on a daily basis, simply by empowering and putting the schedule in the team's hands.

Hidden in Plain Sight – Schedule Interaction and Engagement Reserved for a Select Few

As noted above, the contract schedule has too often been reserved for a monthly update for office project management only. The weekly lookahead then becomes disconnected from the field where the focus is on production. The walling off of these processes to a limited few on the project, namely the scheduler, superintendent, and project manager, often times limits the accuracy and depth of information necessary to allow for a truthful schedule. Bringing additional team members into the fold, like foremen, subcontractors, project/field engineers or even major vendors and the owner would only result in complications and bog down the process of developing and updating the schedule. There has not been a collaborative workspace to control this engagement and interaction in the schedule.

CPMaxis has bridged this gap and opened the schedule to the entire project team. A very important step in the process of updating schedules involves team members providing status only for the items within the current window and under their control or purview. Previously this might have involved a large number of spreadsheets, logs or various different pdfs marked up with status and changes that would need to be reflected in the schedule. CPMaxis allows for individual users to be tagged with the activities that fall under their responsibility, for example, tagging the electrical subcontractor with only their scope of work. Furthermore, smart filters allow for filtering of scope by date, status, activity code, and the various tags within CPMaxis. This controlled and organized access allows for wider interaction in the schedule while also streamlining and bolstering the accuracy by which the schedule is updated, again making it a tool that the team can use on a daily basis. The schedule is no longer reserved for a select few.

Schedule Dependent – But Not Connected nor Schedule Centric

Construction projects, as we have discussed above, are primarily dependent upon the schedule. Positive correlation relates between a successful project, based upon quality and cost basis, and a project that is on time. However, the schedule is not the center of the project interaction between team members due to the limited ability to engage. Schedules are often developed using expensive or complicated software tools such as Oracle Primavera or Microsoft Project that rely upon training and familiarity with professional planning practices. In addition, project issues and risks are communicated through document control processes without tying these issues to the schedule.

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CPMaxis takes these problems and bridges the gap. The schedules are exported and served up on a simple and intuitive platform that allows the team to work within these same files without detailed training or vast experience in developing schedules. The input is focused on status, documentation of issues, potential adding of additional activities or granularity, and the scope that is within the end user's filters. Centralizing and organizing the way users interact with the schedule, project issues, notes, status, pictures and correspondence between team members within CPMaxis restructures the engagement and communication of project issues from stagnant document control to dynamic and purposeful correlation with the project schedule.

Conclusion

Solving these issues can be managed by additional resources, but in a time where the industry is struggling to fill open roles and correctly train individuals to complete the tasks at hand, CPMaxis allows for a more cost effective, reliable and constructive solution compared to additional staffing. To be successful in bridging the gap faced in siloed schedule data, teams must adopt technological solutions such as those offered by CPMaxis. Projects with more timely and accurate schedules have a stronger likelihood of solving the numerous problems and challenges encountered on construction projects. By solving these issues in a timely manner through the bridging of the gaps noted above, CPMaxis can lead to a reduction in the cost and time overruns experienced industry wide.