

It's 4/20/2021 and I am waiting to board my flight to one of our offices on the east coast for a site visit. I fire up my tablet to start coordination for another project in Kansas. I think back to the days when I first entered the BIM world and had to be on-site with a dual smart-board set up and a 20 pound high-speed laptop to perform coordination. I remember spending hours and sometimes days reviewing every single clash, then trying to fix all the issues in real-time, because that was what BIM would enable us to do. Now my meetings last less than an hour, because of industry-wide standard practices brought about by NBIMs. Files come together seamlessly due to improved information exchanges vendors have created working in the industry. Subcontractors are coming to the meeting with solutions to the issues they saw in last-night's upload. Most problems have been resolved through advanced communication systems that have become common place in project coordination today.

Still waiting to board the plane, I receive a call from our Central Region Leader asking to review a conceptual design our Engineers have just finished. He has a meeting with the client this afternoon to provide a plus or minus 5% GMAX estimate as well as a project schedule; this is the first time he has seen the project. Thankfully, with the integrations we have had with our Engineers, something that would have taken weeks before, only takes a few simple button clicks. Our historical cost data both actual and estimated has been formulated into a unit cost and assigned to every model element. With a few more questions answered our standard project Table of Allowances (TOA), once known as General Conditions, has been populated to reflect this current project. The most innovative item we have done recently was taking the same approach we did to cost and applying that to the project's schedule.

As we take-off I receive a frantic IM asking if we can reduce that project's schedule by 28 days as the client needs to have this new product line open sooner. I shake my head, remembering how not long ago an 18 month schedule was considered a fast-track project. I'll admit these six-month schedules at times kill me, but if the client needs it faster then that's what we'll do. Granted none of this could have been accomplished without BIM driven prefabrication and the NIBS VDC, Safety, and prefabrication integration study. New technologies have allowed recordable injuries to become a thing of the past; I can't remember the last year the industry lost someone on a site.

As my plane lands a new video message shows up in my Google Glass V16.6.9; we are still 45 minutes away from top-out. Fortunately, this is just a day trip and I don't have luggage. I arrive at the site and while some of the crews are celebrating successful completion, the interiors team has just started. I walk into the newly erected structure and my Google Glass immediately switches to the overlay model. I am able to view what will occupy the space in real time as I walk through the structure. To my left, I see a perfect floor plan to scale on the deck as the carpenter is laying out his wall; it reminds me of the paint by numbers I used to have as a kid. The carpenters and MEP trades are working simultaneously in the exact same space as a well-orchestrated symphony of construction. Granted this project has greatly been assisted with the advent of the Robotic Total Station Laser Projector (RTSLP) which was just released last year.

As I am waiting to catch my flight back home I receive an IM from our COO asking me if the figures he is seeing are complete with today's latest data. There has definitely been a paradigm shift in the way information is shared internally and with the client. Where we used to send weekly updates, now data is real-time, instantly accessible to all executives. Every bit of actionable information has been captured; from safety and quality incidents to manpower and cost variations. Through technology advancements we now are able to make truly informed decisions at every stage of the project. Our clients are leveraging the data we collect into their facilities operations, as we now work projects from cradle to grave in seamless transitions. There was a time when access to this data was realistically only affordable for large firms; now by following the well-established standards in the industry accessibility is available to everyone. It is reassuring to know that as a small firm I not only can be profitable, but I can quite possibly have some of the best margins my firm has ever seen. In the era of Integrated Big Data the opportunities appear to be endless.