



Grupo Residencial builds on large residential project success with Powerproject

Summary: Grupo Residencial has been building communities in Panama since 1984. It is now building thousands of high-quality homes on two significant sites to the east and west of the Panama Canal. Efficient planning of activities at scale helps ensure consistent, constant, and on time delivery of new homes ready for immediate sale and occupancy.



The company uses Powerproject from Elecosoft to help it schedule activities, and Site Progress Mobile to help it manage the progress of a large number of sub-contractors. Together these are transforming its ability to see, manage and report on its construction projects.

Panama-based real estate group Grupo Residencial specialises in building large urban residential communities in Panama City.

Project Manager Cristhian Hualde oversees the Brisas del Golf Arraijan project, a new development that is part of the company's wider Brisas del Golf development. This large multi-phase residential project is already recognised as an iconic development of its kind.

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As project leader, his responsibilities include managing a large workforce and volume procurement of materials and supplies. He has been instrumental in overseeing the rollout of Powerproject and discovering the significant benefits it could bring to the project.

The Brisas del Golf Arraijan project is in the western sector of Panama City. The first macro-phase saw the completion of 1825 houses, and the second phase to deliver a further 900 single storey residential homes is well underway. More than 500 homes are already completed, sold for around \$100k, and occupied. There is further land ready to be developed, with plans for 2000 more homes. The project includes playgrounds, schools, police sub-stations and lots for commercial development.

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Case study: Grupo Residencial



Faster and more precise planning

The first major benefit brought by Powerproject was the ability to reduce the length of time taken up by planning itself.

Cristhian told us: "It used to take us 2-3 months to plan, but when we started planning with Powerproject we could narrow down that window of time to be more precise, know exactly when we needed the people and the materials. It meant we could work with the commercial department about when they wanted the project delivered and work back from there."

The company previously used basic software programmes which were the repository for a vast amount of historic data. With Powerproject they were able to see its value, Cristhian explained: "The project here has been going on for 8 years and we've built many houses, so we had a lot of historic data that let us know how everything worked. Bringing all that knowledge from Excel and very basic Gantt charts into Powerproject has allowed us to realise where the bottlenecks were so it helped us really improve our productivity. Before, having 42 houses to prepare for move-in dates might take us 6-7 months. Now we're doing it in 4-5 months. It has shaved off a lot of time from the whole process."

"The biggest gain of having Powerproject is being able to deliver when I promise."

Continuous completion pressure

Delivery of every home exactly when it is planned is the foundation of the company's financial model. The company works continuously to complete homes ready for immediate sale and occupancy. In the past, it had to complete and carry

some homes as inventory in order to meet homebuyers' needs, because it was not always able to rely on precise delivery dates. With Powerproject, that has begun to change. "With Powerproject we have improved our ability to plan delivery dates, and we can deliver the finished homes when we need them – this has allowed us to reduce our need to carry inventory. The biggest gain of having Powerproject is being able to deliver when I promise" Cristhian told us.

"The Site Progress Mobile app is really a game-changer. It has made a huge difference because it has allowed us to be up to date much more frequently and anticipate issues before they happen."

Meeting completion deadlines means managing sub-contractors very carefully. On time delivery depends on the process moving smoothly from pouring concrete walls through internal finishes, to the roof tiling, with its personnel and sub-contractors moving from plot to plot at exactly the right time on a series of individual work contracts. The organisation of the local labour market is such that virtually all workers are sub-contracted, unionised, and require clear and careful management. Cristhian said: "Powerproject allowed us to plan ahead with the labourers we needed – when we needed them in and when we needed them to leave. That led to us being able to plan our budgets more precisely."

He continued: "We have created various templates in Powerproject where we can look at progress on weekly basis, a monthly basis, and for different contractors. It's like an assembly line that starts with the pouring of the concrete walls onwards, so we need to see not just the activities but where any delay is that could impact the whole assembly line behind it."

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Powerproject: The power behind successful projects

Case study: Grupo Residencial

True picture of progress

With the progress on many plots to manage simultaneously, keeping an up-to-date picture of that progress from across a large site was previously a huge headache. Now, the company is using Site Progress Mobile to input real-time updates into Powerproject. "The Site Progress Mobile app is really a game-changer. It has made a huge difference because it has allowed us to be up to date much more frequently and anticipate issues before they happen."

He also talked of the time benefit that the team has experienced: "It used to take a lot of time to put progress into a reviewable, analysable format; it would be taken from paper agendas, then someone would type it into a spreadsheet, then the guy in charge of the project area would have to figure it out and analyse it. It was hard to narrow in on where the issues and delays were, or where things were stumbling over each other. If there was ever a mistake, or anything didn't make sense, it was a nightmare to find out where the error had happened."

Praise for Site Progress Mobile has been broad among the team members tasked with checking and inspecting work progress. Three of these gave us their impressions:

"Now I can complement my work progress with pictures and comments of any event that can influence the work immediately with the Site Progress Mobile app and it is registered directly in Powerproject." Angelica Ortega – BGA Construction Inspector

"Before Site Progress Mobile, I had to go up to the main office to fill out an Excel sheet every Friday and part of Saturday to record progress and now I do it directly from my cell phone on the job site and in a matter of minutes." Pablo Campbell – BGA Construction Inspector

"Site Progress Mobile saves us a lot of time in feeding progress information in to the plan. We can generate information for reports for superiors in a matter of minutes now, rather than several days." Ruben Herrera – BGA Project Supervisor.

Clearer reports aid communication

The visualisation and reporting capabilities of Powerproject are enabling better communication of that progress. Gantt charting and better graphics have made a big difference:

"The graphics make a huge difference to our ability to analyse data and see things quicker. We were reviewing progress on a monthly basis, but now, with the help of the mobile app we do it on a weekly basis. It takes people only half an hour to put all the progress in, then every Monday we meet and review; we can pinpoint the delays and identify where things are not running as smoothly as they should."

This is enabling better reporting that everyone understands, and going forward the team plans to use it to present better reports to the Board of Directors that can bring projects to life using detailed colour reporting formats, which will be easier for directors less familiar with this kind of planning to understand.

Local partnership and support

The company worked directly with Elecosoft's Premier partner APP Consultoría de Gestión de Proyectos – Project Management Consulting company who helped to implement Powerproject and the mobile app, and train and transfer its knowledge of how to develop efficient and accurate project schedules. Having direct support has helped the company realise additional benefits in addition to better scheduling its construction work. For example, Cristhian reflected on the importance of mitigating risks in procurement, saying: "We make some major purchases – for example, I could buy doors for 150 houses that would all come from China – but the logistics from China are unpredictable. Knowing from the Powerproject programme exactly when delivery of the project is needed allow me to plan all my resources better."

Some parts of the process have an important ROI driver – such as the concrete wall pouring stage. He went on: "The aluminium forms for the house walls are one of our biggest investments. To protect and preserve these important pieces of equipment we use our own labour rather than contractors, so we can control their use and maximise their productivity."

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Looking ahead

Powerproject's use on the Brisas del Golf Arraijan project is opening potential opportunities for better planning across the company's wider activities, which include commercial construction. Cristhian told us: "Being able to plan better and meet all our promises will make a difference. The stakes are high when executing industrial or commercial projects, because fines can be applied if deadlines are not met. Efficiency matters too. The construction labour is unionised, so the costs go up every year under labour contracts. Construction is getting more and more expensive, so we must use all our resources more efficiently and maximise what we achieve with them."

This family company has a clear vision and plans long in advance to secure land and forward-plan new developments. The Brisas del Golf Arraijan project may be relatively small within the Grupo Residencial portfolio at present, but it spans only half of the land already secured on the site. The company has a proven business model that is now aided by Powerproject to support its planning and Site Progress Mobile to help maintain a constant accurate view of progress. There seems little doubt that the company will expand and go from strength to strength.

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