CONSTRUCTION TECHNOLOGY

SPECIAL FEATURE

TRIMBLE VIEWPOINT COINS HEXAGON OCTANT AI
FIBERCORP/SUPA NETWORKS CONSTRUCTION SOFTWARE PTY LTD

INDUSTRY COMMENT

DIGITALLY CONNECTING COMMUNITIES

The future of Smart Cities is more about people than technology, however the largest barrier to digitally connecting communities to infrastructure is technology.

The opportunity to resolve issues like safety on our roads, accessibility in transport, congestion, and future mobility is technology. 20% of pedestrian deaths occur at school zones and the opportunity to apply smart infrastructure that protects the community and generates data to determine vehicle performance around our vulnerable communities is sadly lacking.

Solar and battery solutions make these solutions economical, carbon neutral and the real time data allows us to move away from preventative maintenance towards predictive maintenance reducing whole of life asset costs.

The future of C-ITS Cooperative Intelligent Transport Systems is on the forefront of vehicle to infrastructure communications, and the ability for infrastructure becomes the next most important development in being able to create efficient, safer road networks.

Traffic Signal algorithm's have been used for many years, but to reduce congestion on our ever-increasing arterial road network we must improve the way we optimise traffic signals.

Resolving challenges in our community needs to be looked at differently than the way we have always design technical solutions. The need to improve accessibility in public transport must improve.

The true ability to resolve issues like the legally blind catching public transport

DAMIAN HEWITT
Head of Smart Cities and Future Mobility
SAGE Group

is to hire people with these needs in the engineering workplace. It is only when we work as a community that we will live as a community.

LEVERAGE DATA TO CONTEXTUALISE COMPETITIVE CONSTRUCTION

Procure, fabricate, construct and commission construction projects efficiently.

EMPOWERING AN AUTONOMOUS FUTURE

In the face of recent inflationary pressures eroding project margins, profitability, and supply chain disruptions, we have experienced domestic market consolidation. Adding to this is talent shortages, overseas players entering and businesses having to compete to win projects, the construction industry is under ever-increasing pressure to drive competitive advantage.

Instead of driving price down, the savvier in the industry are choosing to win/profit in other ways. i.e. to deliver on safety, quality, efficiency, productivity and ultimately projects that are on-schedule/on-budget and even profitable by improving the complex operating environment.

Hexagon helps remove complexity from complex projects. Digitalisation and data visualisation provides decision makers a new level of transparency to make informed decisions with velocity, enabling Engineering, Procurement, Construction (EPCs) and General Contractors to achieve preferred status and remain competitive.

Hexagon is the global leader in digital reality and autonomous solutions with a mission of putting data to work to enable autonomous, connected ecosystems that boost efficiency, productivity and quality. Hexagon's Asset Lifecycle Intelligence division offers a suite of
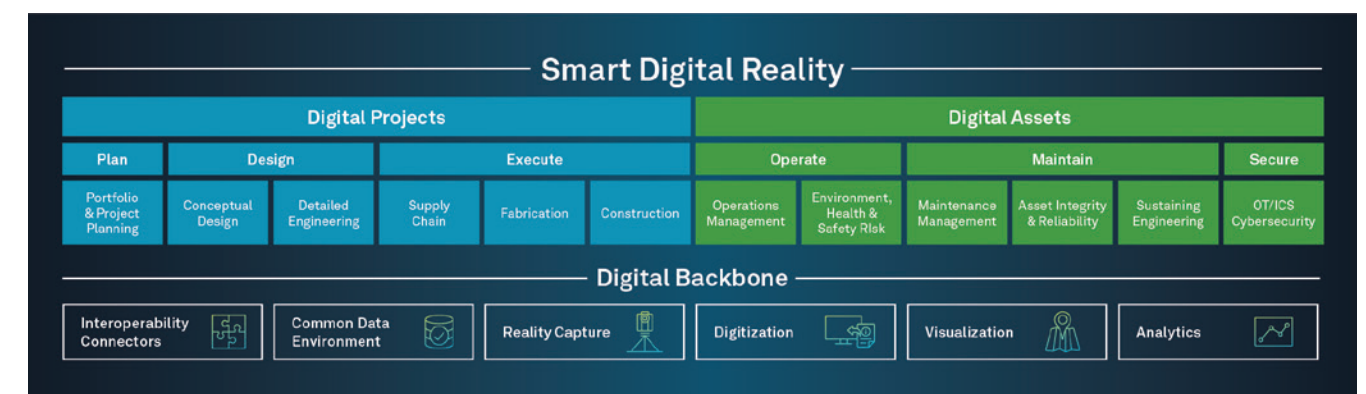
Many construction industry leaders are looking for new ways to claim a competitive advantage with digital transformation. With the construction phase of projects equating to approximately 80% of an assets total install cost, this phase is our biggest opportunity to positively affect schedule and budget.

The ability to apply a holistic, consolidated single source of truth that simplifies complex processes, and supports best practices, e.g., advanced work packaging and BIM, enables all levels of the organisation and ecosystem partners complete visibility of all aspects and detail affecting the execution of projects to improve decision making and collaboration.

Hexagon's Smart Digital Reality™ for industrial assets meets the industry challenges head on, infused with intelligence to automate processes and analytics. Hexagon's Portfolio Project Planning, Design, Construction, Operations and Maintenance software solutions coupled with reality capture and automated work processes can remove human errors and need for intervention, to help businesses leverage an autonomous future.

Great examples of data and digitising are:
- This oil refinery that was able to track 2,000,000 materials with Hexagon's Jovix solution for timely Materials Management.
- Technip Energies Uses EcoSys to Enable Progressive Digital Transformation of Project Control Processes.

solutions that span the entire lifecycle of a project – from planning, design and execution to operation, maintenance, and the security of assets.

Construction, Operations and Maintenance software solutions coupled with reality capture and automated work processes can remove human errors and need for intervention

Scan the QR codes for Case Studies

Technip Energies Uses EcoSys to Enable Progressive Digital Transformation of Project Control Processes

Oil Refinery Tracks 2,000,000 Materials with Jovix

Insights from Ausenco Achieving Sustainability and Efficiency with Digital Transformation

For more information, contact us at
https://hexagon.com/company/contact-us

WALZ GROUP CREATES SEAMLESS FINANCIAL PROCESSES WITH MOVE TO THE CLOUD

Trimble Viewpoint Case Study

Like their counterparts around the world, Australian construction companies face tougher challenges than ever in a harshly competitive environment that's chronically short on skilled workers, reasonably priced and reliably accessible materials, and – most elusive of all – the right information to run their businesses.

Walz Group has risen to these challenges better than most. A Trimble Viewpoint customer since 2020, the independently owned infrastructure services provider employs about 280 people and recently opened a second workshop to support its growing specialty contracting and maintenance services business.

Walz Group serves energy, mining, resources and other industrial infrastructure customers primarily in the Gladstone region and throughout the Bowen Basin, says Kate Brazier, the company's financial controller. Brazier reports to the CEO and leads Walz Group's finance team. She joined the company in 2016 as a senior accountant and moved into her current role in early 2020.

1It was to be an eventful year. Despite the COVID-19 pandemic, Brazier and other company leaders decided that they needed to move forward with a project to transform how the group managed its resources, projects and people. Walz Group would transition from scattered spreadsheets and aging point-solution software to a cloud-based and continually enhanced suite of connected solutions: Vista ERP.

Success brings challenges

While the company founded in 1976 by Colin Walz had grown steadily over the years, it was running into the challenge that all successful construction firms eventually face: how to scale operations to support a growing business, all whilst staying profitable.

Walz Group's reputation for dedicated people, quality work and a safety program second to none now needed to be matched by an equally strong set of technology solutions to bring its financial, HR and field management into the twenty-first century.

As always, the key challenge confronting the company was managing labor – from hiring and onboarding to deploying new employees and managing payroll.

"Labor is our primary issue, especially for us being somewhat more project-based," Brazier says. To service customer facilities during a typical short, labor-intensive maintenance shutdown, for example, Walz Group needs to hire anywhere up to 100 people quickly. Going after such projects requires confidence in the company's ability to do so efficiently and effectively – in other words: profitably.

Fortunately, the company is known for retaining and developing talented people, and about a third of its full-time employees have been with the company for more than 10 years. Brazier says. "We respect our employees, we're very focused on their safety and overall well-being, and when we find people with the same values, we do our best to retain them."

Relationships with customers have been just as important to the company's success. Centered in the Gladstone area since the beginning, "we have many long-term customers in the region who really value our safety culture. I think that's something we're known for, our high safety standards."

Enough is enough

Quality work done by quality people led to steady growth. But by early 2020, the back office was struggling to keep up. "Finance, HR and project management were all maintained separately," Brazier says.

"We had three separate financial, time sheeting and payroll systems. From a tracking and reporting point of view, it was very time-consuming and disjointed. Job numbers were different across systems. The project teams would refer to job numbers one way, whereas finance would refer to them in another way. It was just confusing, with no continuity."

At the center of the maelstrom was the legacy ERP. "It was too big and clunky for us and it was not construction-specific. Also another

pain point for us was our reporting. We really, really lacked in the reporting and it was very manual. We required multiple spreadsheets," Brazier says. "All of those things combined, there were a few unhappy people in the business and it got to the point where we were agreed, 'It's time to have a look at this.'"

Finding the right partner

A few senior leaders at the company suggested taking a look at Trimble Viewpoint's offerings. "We had our criteria sheet with our needs and our wants, and then from there we met with a few providers and evaluated who essentially ticked the most boxes," Brazier recalls. "Not just looking at today, but also having a look at where we could go, from a business perspective: 'Where can this system take us? Does it suit us now, but can it grow with us as well?' That was sort of the key.

Obviously, the future is unknown, but we didn't want to go down the path of implementing software that potentially down the track was going to be no good for us."

A 'fantastic' implementation

Walz Group pulled the trigger in early April 2020. "Our goal was to go live before 1 July, our financial year being July to June," Brazier says. With the pandemic raging, "we were going to have a purely off-site implementation. We had no physical meetings, even our go-live was carried out remotely."

With many implementations, consultants or vendor personnel typically are onsite for several weeks, but "we did that all remotely with no showstoppers on go-live."

Walz Group officially went live with Vista on Monday the 28th of June. "We run a weekly payroll, so we went from the old payroll one week, to Vista payroll the next week. That really was a significant achievement.," Brazier says.

"Our implementation story is fantastic. I think what we were able to achieve remotely, in a short period of time, during a pandemic, is a large credit to the efforts of both parties."

Running faster and better

The benefits quickly became apparent. For a start, hands-on payroll time has been reduced significantly. "We had a manual timesheet module that had to be reviewed and then transferred into our payroll system, and then it was again reviewed and checked in the second system. The ability to do all of the above in one system was game-changing for our payroll officer," Brazier says.

Employee set-up is also faster and easier.

"If we have an influx of say 50 people for a project, we don't notice that impacting us as much as what we had in the previous system; from an employee set-up point of view and then timesheet entry and processing of pays."

That's made life better for everyone. "It's given the team members the ability to focus on reviewing payroll rather than the data entry. Previously, our time would be spent on data entry and with a weekly payroll, you're on a deadline and focused on getting it processed, whereas now we have the time and ability to review and analyse things like rates, overtime, allowances, etc. more closely," Brazier says. "It's the same with accounts payable. It's quite straight forward to enter an invoice into Vista, so it gives us more time to review and be sure we're processing invoices free from errors. It's allowed us to slightly shift team members away from data-entry and towards reviewing."

Benefits of the cloud

Moving from local servers to the Trimble Construction Cloud has also enabled Walz Group to run a better business. "Prior to Vista, our purchase orders were all manually signed," Brazier says. "They were printed out, and then manually signed and scanned back in. And obviously with Vista, that's now all online."

Viewpoint Vista with Financial Controls allows Walz Group's project managers to approve purchase orders and invoices on their phones, tablets or desktops. "That's been a bit of a game changer for us, the time that's saving," Brazier says. Likewise, it eliminates the administrative burden of "printing, scanning, emailing. It's all just in the system. And it's easily traceable for us as well."

Walz Group now wonders how it ever did things differently. "I would say the biggest thing for us in the cloud is the ability to access our data – be it working remotely at home, working remotely on site or working in the office – the ease of access by having it in the cloud is fantastic," Brazier says. "From our point of view, being on the cloud is smooth. It's accessible".

Focusing on the right things

Such accessibility has not only saved time in the office, but it's also freed up Walz Group's project managers and executives to more efficiently, and effectively, serve their customers. "It's definitely allowed us to become more efficient, as it's enabled us to work faster, from anywhere," Brazier says.

"Our Project Managers would previously have to wait for a purchase order to be raised and emailed, go back to the site office, print it out to manually sign for approval, and then scan and email back for processing".

"Now, once a purchase order is raised, they jump on their phone, click approve and it's

underway. It allows them to focus on the project and the task at hand."

That flexibility extends all the way up the company ladder. "Senior Management are frequently offsite at meetings or site visits," Brazier says. "So when they're in a taxi on the way to/from a meeting or sitting in an airport lounge, they can approve a purchase order or an invoice, and allow the wheels to keep turning in the process, where they may have been held up before."

'They were there to support us'

After a few years running Viewpoint Vista with Financial Controls, Walz Group appreciates not only the functionality, but the customisability and flexibility in reporting. Most of all, perhaps, Walz Group appreciates Viewpoint's partnership approach.

"I think from the beginning it was clear from our interactions that they were there to support us," Brazier says. "And it definitely seems as though Viewpoint are putting a lot of time and money into improving and constantly growing their products – trying to make the system better and listening to their customers."

Viewpoint

For more information contact Viewpoint, website www.viewpoint.com

FIBERCORP JOINS FORCES TO FORM SUPA

Fibercorp recently announced that they have joined forces with B Energy, Epsilon Security, Smart Automation Systems and ConnecX to form Smart Urban Properties Australia (SUPA), Australia's first unified converged services provider to multi-occupancy precincts and properties.

In coming together to form SUPA, Fibercorp will now operate as SUPA Networks and continue to improve the lifestyles of the communities they serve by delivering inspiring buildings and occupier experiences.

As a registered ACMA telecommunications carrier, SUPA Networks takes pride in their expertise to offer superior Fibre-to-the-Premise (FTTP) networks and state-of-the-art overlay technology throughout Australia. SUPA Networks constantly looks for ways to stay ahead of the curve and future-proof their organisation.

One way they do this is by investing in innovative communications infrastructure and technology. They are committed to future-proofing modern developments by investing in critical communications infrastructure and technology that delivers secure, high speed connections to create connected communities.

For Geocon, Fibercorp (now SUPA Networks) designed, supplied, and delivered a superfast fibre network to Aspen Village – Black Diamond and integrated the MATV and IP security over the fibre network. Designing the network this way reduces reticulation/materials and provides additional construction cost savings. SUPA Networks will be delivering the same kind of network with services overlayed throughout the year on projects in ACT, NSW, VIC & QLD.

"Traditionally you would see a bunch of black and blue cables running up the risers inside the building," said SUPA Networks National Sales Manager, Brett Payne. "By using various GPON technologies, our network infrastructure can support all these services on a single fibre distribution architecture, alleviating the need for two or more separate traditional copper networks to deliver services. This is good for design (clean), good for cost (cheaper) and good for the environment (fewer materials used)."

"Geocon wanted to deliver a fully integrated solution in Black Diamond, and Fibre to the Premise (FTTP) means fast and reliable speeds for all residents and a future-proofed building for high speed telecommunications," said Brett

The technology reduces costs and infrastructure while increasing bandwidth. The hardware provides the capabilities using a 2.5 GPON optical WAN interface with switching and routing functions that manage premises network traffic at speeds up to 1Gbps to each customer delivering a customisable, high-capacity fibre network delivering entertainment, and customisable information network for forms of IP-based services.

SUPA Networks supplies and installs its solutions for multi-dwelling, commercial, and broadacre residential developments and can be done at ZERO COST as SUPA Networks subsidises the costs while reducing the project management and headache of managing this aspect of the build.

"We do not know what the next 10-20 years will look like, but we do know we're delivering future-proofed, fibre optic networks capable of everything you can throw at them, so our developer clients and their end-users won't need to be replacing redundant networks in years to come. It is important to SUPA Networks that we keep evolving and pushing what's possible with design, speed and service and it's showing as we continue to take on more clients and projects across Australia," says Brett

Smart Urban Properties Australia offer a platform to bring all essential services under the one umbrella and provide a bunch of benefits for all stakeholders whilst also allowing to provide the individual services of each entity independently.

For more information contact Fibercorp/ SUPA Networks, 36 Ricketty Street, Mascot NSW 2020, phone 1300 342 372, email support@fiber-corp.com, website www.smarturbanproperties.au

Figure 1 - New riser cabling for overlay on fibre

Figure 2 - old riser cabling f overlay

ONE PLATFORM FOR TECHNOLOGY INNOVATION IN CONSTRUCTION

Balance of Plant (BOP) renewables industry leader, Zenviron is using the COINS Enterprise Resource Planning (ERP+) software system to transform the way the company does business.

Images: Crudine Ridge Wind Farm and Dundonnell Wind Farm

Zenviron provides full-service BOP to construct sustainable, clean, safe, and affordable renewable energy infrastructure, and is headquartered in Newcastle.

The company has set the standard for innovation in wind farm technology in Australia and has built some of the country's most significant wind farm projects, including the Crudine Ridge Wind Farm in New South Wales and Dundonnell Wind Farm in Victoria to name a few.

Their current project, Rye Park Wind Farm, will be the largest in New South Wales to date, when it's completed in early 2024.

Above: COINS ERP+ Software Interface

The growing business has implemented COINS software to integrate its procurement, project management and financial control systems into one single platform.

Zenviron's Chief Financial Officer, Richard Clark, explained why they chose an integrated ERP platform like COINS.

"Prior to implementing COINS, we were using another system, and it was quite disparate and inefficient as it couldn't integrate data from across the company. So, information on invoicing, suppliers or project financials for example, were all managed separately," he said.

"The old system relied on international support which was difficult from a management point-of-view, and reporting was mostly done in Excel, so it took up a lot of time.

"We inherited that system, so when we made the call that it was time to make a change, we looked into the market for a platform that was integrated, like COINS. We knew COINS could give us those features that we didn't have, as well as a plan for the future, so we could utilise many of the add-ons COINS has available," he said.

Clark said the company was saving significant time through COINS automated reporting. "I receive automated and personalised reports

on a daily basis, which save me so much time. There is no need to log into the system to see what's happening with financials or projects," he said.

"And when I am in the COINS platform, I can quickly drill down to the detail of an invoice. That's been game changing for Zenviron," Clark said.

Zenviron uses the innovative Business Planning and Forecasting (BPF) feature of COINS, which streamlines monthly financial reporting, and provides management with up-to-date operational and financial data at any point in time. This information, which is quickly and easily accessible, gives a better understanding of variations across planned, actual, and forecast profitability to manage projects efficiently.

COINS' BPF allows construction companies to determine the true position of projects and the overall business, and to quickly identify potential risks and opportunities.

Clark explained this Business Planning and Forecasting feature was instrumental for Zenviron. "The Business Planning and Forecasting feature is vital for Zenviron. The way we can standardise and streamline our end-of-month reporting has transformed the process for us. The way the COINS platform reviews and aggregates data is impressive."

The COINS ERP system provides Zenviron with 'one source of the truth' to guarantee accurate, timely and verifiable information is available for all stakeholders in the business, through its integrated project control and financial management architecture.

"Prior to COINS, only the accounting team had access to our financial management system which made it challenging for project managers to get the information they needed," Clark said. "Now, all our staff can log on to COINS and have critical business information at their fingertips."

Technology has never been more crucial for construction companies given the ongoing challenges the industry faces.

With that in mind, the COINS ERP+ solution is specifically developed to easily manage the intricacies of the Australian construction industry.

From finance and operations, project delivery and time management, to controlling supply chain and service management, all core functions of a construction company can be managed by COINS.

For more information contact Construction Industry Solutions, 2728 Logan Road, Eight Mile Plains QLD 4113, phone 1300 214 750, email info.au@coins-global.com, website www.coins-global.com

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Developed using data from over 38,000 projects, Octant AI is easily calibrated for contractors, subcontractors, consultants, designers and other key stakeholders to use.

TECHNOLOGY THAT BUILDS CONSTRUCTION PROFIT

Octant AI is a technology company enabling users to leverage their own data quickly, easily, and securely to achieve better financial outcomes for construction organisations. The company mission is to put powerful new technology tools in the hands of project professionals.

Co-founders David Porter and Cuong Quang met at University of Oxford and set out to solve one of the construction industry's biggest problems - achieving reliable, sustainable profitability.

Their unique AI applications provide information to assist key stakeholders in mitigating risks to financial outcomes in projects.

Developed using data from over 38,000 projects, Octant AI is easily calibrated for contractors, subcontractors, consultants, designers and other key stakeholders to use. Octant AI then calibrates platforms for businesses on an individual basis with projects, in their location and in their industry.

The output is direct, immediate, accurate and actionable insights for the critical questions project businesses need to ask
- What will it really cost us?
- What will our revenue be?
- How certain is our profit?

In every industry predictive analytics, machine learning and artificial intelligence are opening opportunities that seemed impossible just a few years ago. The very recent explosion of AI capability with Chat GPT is making many aware of the possibilities. Octant AI has invested 5 years in shaping its technology so construction organizations can get unprecedented early warning of emerging risk and opportunity quickly and at low cost.

With no costly onboarding, no time consuming data transformation, no extensive training and no disruption to existing ICT systems; this is a game changing innovation that helps construction organisations where it really counts – the bottom line.

The team at Octant AI are committed to having businesses up and running on the platform within a few days. Experience real innovation where it really counts with Octant AI.

Scan the QR code to learn more

For more information contact Octant AI, email business@octantai.com, website www.octantai.com