



News from
12d Solutions



The Dirt Digger



Welcome

...to the next issue of The Dirt Digger...what a strange 2020 it has been so far!

This time we'll be featuring:

- **COVID-19 update**
- **12d Wiki**
- **Webinars**
- **12d Model online training**
- **12d Model Case study: Bennett + Bennett**
- **12d Technical Forum & Innovation Awards 2021**

We look forward to hearing any [feedback](#) or news from you!

Regards,

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 Technical Director
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COVID-19 update

It would be remiss in these strange times not to mention the global pandemic, during which there are still so many questions for all of us.



To say recent months have been an adjustment for many people would be somewhat of an understatement...but we're getting there, aren't we? Our staff members have embraced the opportunity and we're proud of the way in which they've risen to this new set of challenges.

Our team is almost exclusively working remotely now, and the safety of all concerned remains our top priority. Even though government restrictions are starting to ease, we're going to keep these measures in place for the time being, and will continue to review the situation in coming weeks.

Of course, a good portion of our team was already working remotely, so for some, there hasn't been much change, except perhaps they're now being contacted more often by those who weren't already used to the isolation!

Times are definitely tough for a lot of our users and their loved ones, but we are going to band together as a community and emerge stronger than ever.

12d Wiki



Presenting...[12d Wiki](#)! The team at Extra Dimension Solutions is continually updating and providing the latest in 12d Model Software support.

Check out the 12d Model Wiki website for tips and workflow information to ensure you gain the most out of your 12d Model Software.

The Wiki has been written in a format matching the main menu structure within 12d Model Software, to facilitate technical support.

12d Wiki was written by the Technical Support team, and exists to supplement the 12d Model Reference Manual with practical examples and hands-on advice.

Webinars

We've been running some very popular webinars in recent months, including two great series - Peter Taynton's six-part '[Trimesh BIM](#)', and Owen Thornton's soon-to-be-six-part '[Stormwater Drainage Design Fundamentals](#)'. 12d Field users haven't missed out either - check out the video of Graham Wirth's session on [12d Field Pickup in 12d Model 14 - Configuration and Setup!](#)

We'll keep posting the videos on YouTube after each sessions, with links through our [Webinars page](#) (where you can also find news of upcoming sessions!).

12d Model training...wherever you are!

Most face-to-face 12d Model training (including in-house) remains on hold until further notice.

In the meantime, we're conducting online training - [register your interest](#) today (and tell us which courses you'd like to complete).



We've been doing test runs of our online courses, and they're going really well so far!

You can also check out the online training options being offered by our NSW/ACT/SA reseller, [Extra Dimension Solutions!](#)

While we're unable to train you in person for the time being, we're still keen for you to keep upskilling, especially in these uncertain times when many of us will be working from home.

If you haven't already done so, please subscribe to our 12d Model [YouTube Channel](#) for lots of great video content - it's organised into playlists by topic, and all our previous webinars are on there in their own playlists, so you can catch up on any of those you might have missed.

ExDS has also made their [Introductory and Basic Training Resources](#) (Design & Survey) available online free of charge, so if you're just starting out 12d Model, that would be a great place to start honing your skills! Their [Online Help](#) page has help for common design tasks, such as Alignment Design, Speed Tables, SA Computators, Visualisation Timelines.

Using 12d Model from Home

One of the other questions we are being asked is whether 12d Model can be used from home. The short answer is 'yes'.

There are no 12d Solutions licence restrictions when doing so. Standalone 12d Model dongles can be used anywhere and anytime, and there's no restriction to accessing network licences from outside the office.

As such, there is no restriction on using a VPN, or opening up a port to access your 12d Model network licences from home. If your IT department is unclear on how to proceed, please [contact your local Sales team](#) to discuss how we can help.

If you've been stood down from work and want to use this time to up-skill at home, we're happy to discuss how we can help you with that, too.

Keep an eye on our [website](#) for updates.

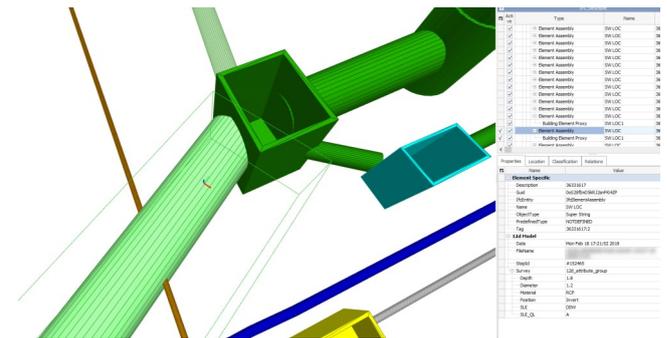
Enhanced data delivery options for underground utilities

Recent studies and reports have highlighted the need for increased efficiency and productivity in the construction industry. Forward-thinking firms such as Queensland-based Bennett + Bennett have been considering ways to improve design and engineering processes by embracing digital technologies.

The 2019 update to the Australian Standard AS5488 has assisted by prescribing the consistent approach needed for the classification of information gathered in the field. Part 2 of the Standard focusses on Subsurface Utility Engineering (SUE) and outlines naming conventions, additional metadata requirements, the level of model creation required, the roles and responsibilities of the various stakeholders,

a framework for utility clash coordination and resolution, and the level of documentation needed for asset handover.

As software, collaborative workflows, and common data environment platforms improve, there are increasing benefits to having enhanced datasets, allowing for faster, more accurate, and more efficient planning and construction. Utilising this data with proposed project data better communicates design intent through enhanced visualisation, analysis, animation, simulations, and plans. As the objects in a 3D model are spatially related, they can be viewed from multiple perspectives, allowing the designer to identify design and constructability concerns more easily before the design reaches the field.



Accurate enhanced 3D data modelling sometimes takes more time to complete than a traditional 2D design, but this trade-off in time is easily surpassed by the long-term advantages...extra planning at the start of a project means saving a lot of time in the long run.

12d Model software in particular has been invaluable to Bennett + Bennett in these processes. The capacity to push data right through from start to finish using BIM with Attributes to harness metadata has been especially important.

The added benefits of having a 3D Utility Model include the capacity to perform Clash Detection Analysis against proposed design elements, a greater understanding of, and ability to mitigate, risk, and the ability of Construction Teams to run tolerance checks to find areas requiring further pot (test) holes.

Bennett + Bennett has been able to create and upload 'uncertainty buffer zones' enclosing the true location of a utility - an extra safety measure to avoid utility strikes during excavation. Updated models can be supplied to the Facility manager as an as-constructed model.

12d Model's seamless integration with other packages, and the use of 12d Model Visualisation, have been integral to making these Sub-Surface Utilities projects run smoothly. For more information, see Bennett + Bennett's blog series on this topic: [Part 1](#), [Part 2](#), and [Part 3](#).

12d Technical Forum 2021

The event that was to be the 2020 12d Technical Forum has been postponed, to 1-3 August 2021. Postponing was a tough call to make, but we faced the issue that even if we were able to go ahead with an

event in August...should we? Is it the right thing to do, to go ahead as though the world hasn't been in turmoil? We decided it was not. Thanks to great support from the Brisbane Convention and Exhibition Centre (BCEC), we've managed to book in an identical event for 2021, and we can't wait to welcome you to that!

All other details will remain the same - will still be in the substantially larger space within BCEC—upstairs on the Plaza Level!

At this 3-day event, 12d Solutions will be highlighting new features in 12d Model 15 and 12d Synergy 5, as well as many tips for working with the current versions! We will, of course, continue the ever-popular 'Birds of a Feather' breakout sessions on Design, Surveying, Three Waters, & 12d Synergy.

This event will be an invaluable learning and networking experience for users of 12d products and other industry professionals, in all areas of civil design, surveying and construction, and data management and project collaboration.

Stay tuned for more details, and remember that if you've already registered for 2020, your registration will automatically be transferred to 2021 (unless you need a refund, in which case you can still contact us).

New Dates Sunday 1st, Monday 2nd, and Tuesday 3rd August 2021.

Venue Brisbane Convention and Exhibition Centre (BCEC) – Plaza Level (please note new location—upstairs from Boulevard).

New registrations opening soon.



12d Innovation Awards 2021

The 2020 Innovation Awards will also be postponed, to align with the new Technical Forum dates. Entries are already open for the 2021 Innovation Awards, with a closing date of 30th April 2021. All other details will remain the same, and if you were already working on your 2020 entry, we'd love to [receive it](#) whenever you're ready!

For those who've already entered, we'll transfer your entries to 2021 automatically, but feel free to send us any new information that might supplement your entry in the meantime! Remember, you can enter as many times as you like, so if you have a new innovation between now and April 2021, you can keep submitting entries! All other details will remain the same.

The Awards recognise inspired thinking and innovative solutions in civil engineering, surveying and data management. Around the world, our industry faces challenging problems and finds inventive answers. The 12d International Innovation Awards highlights some of the best of those solutions.

Entries will now close 30th April 2021. The prize pool has actually blown out to well beyond the \$17,000 we originally promised, as Lee has thrown in a Full Technical Forum Package for the 12d International Technical Forum 2023 for each category winner as well as for the Overall Winner!

There'll again be categories, with a new twist: **BIM & Visualisation, Design, Water, Surveying & Construction, Customisation, 'Banishing the Drafting Demon', and 12d Synergy.**

And of course a giant prize pool worth nearly \$20K!

We'll also award certificates for the best of: **Small Company, Medium Company, Large Company, and Government.**

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OTHER REGIONS

12d Solutions

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Welcome Aboard to our New Licences and Upgrades from...

12d Model

Aarvee Associates – Qld
 Acor – NSW
 Active Survey – NZ
 ADG Engineers – Qld
 ADW Johnson – NSW
 AECOM – Qld, WA; Poland
 Affinity Surveys – NSW
 Afflux Consulting – Vic
 AgDesign – NZ
 Agustin Consulting – Vic
 Aldanmark – Vic
 Alexander and Symonds – SA
 Algorry Zappia & Associates – NSW
 Alliance Surveying – WA
 Amey – Vic
 Arcadis – Qld, WA
 ARKK Engineering Corporation – Canada
 Asset Survey Solutions – Vic
 AT & L – NSW, Qld
 ATC Williams – Qld
 Aurecon Australasia – NSW
 Ausenco – Qld, WA
 Auspat Land Survey Australia – NSW, Vic
 AWJ Earthmoving – NSW
 Axis Consultants – NZ
 Baseline Group – NZ
 Benchmark Surveys – WA
 Bennett + Bennett – Qld
 Bereza Civil Surveys – ACT
 Beveridge Williams – Vic
 BG & E – Qld, WA
 BG Civil – Qld
 Birzulis Associates – NSW
 Black Creek Engineering Surveys – NSW
 Blue Wallace Surveyors – NZ
 Bolte Civil – NSW
 Boyd and Moore – Qld
 Brown Design and Engineering – Vic
 BTW Company – NZ
 Bundaberg Regional Council – Qld
 Calibre Group – NSW, WA
 Cardno – NSW, Qld, NZ
 Cardno TGM – Vic
 CBP Engineers – Qld
 CDM Smith – Qld
 Centurion Survey – NSW
 Cessnock City Council – NSW
 Chester – NZ
 Christchurch City Council – NZ
 Cipher Design Solutions – Qld
 City of Gold Coast – Qld
 Civil Designers – Qld
 CivilPlan Consultants – NZ
 CivilTEC – NZ
 Civix – NZ
 CKF Surveys – NSW
 Clarkstone Surveyors – NSW
 Cleanaway Operations – Vic
 Clough Engineering – Qld, WA
 CMT Engineers – Qld
 CNEC Engineering Group – NZ
 Colin Hill – NSW
 Complete Consulting Services – UK
 Consone Consulting – NT
 Covey Associates – Qld
 CPB Contractors – NSW, Qld, Vic, WA; NZ
 CPBLLJV – NSW
 Creo Consultants – Vic
 CRL Construction JV (Link Alliance CityRail Link) – NZ
 Cross River Rail – Qld
 Cruickshank Surveys – Qld
 D & C Civil – Qld
 Dale and Hitchcock – ACT
 Dalton Consulting Engineers – Vic
 Daly Services – Qld
 De Witt Consulting – NSW
 Degotardi Smith & Partners – NSW
 Dept of Transport & Main Roads – Qld
 Digital Surveying Solutions – WA
 Digitise Consulting – NSW
 DNBS Consulting Engineers – Qld
 Don Stizza & Associates – Vic
 Downer – NZ
 Downes Group – Qld
 Drafting Solutions Australia – WA
 Drive Consulting – Qld
 Durkin Construction – NSW
 EDGE (Civil) – Qld
 Element IMF – NZ
 Elite Survey – NSW
 Elick & Co. – NZ
 Engineering Geology – NZ

Engineering Surveys – SA
 Enspire Solutions – NSW
 ERSCON – Qld
 ESO Surveyors – NSW
 Etika Ukur Consultant – Malaysia
 ETS Group – Qld
 Everest Consultants – NZ
 Ferrycarrig Civil Contracting – NSW
 Flat Out Surveying – Vic
 Fletcher Construction Company (City Edge Alliance) – NZ
 Fortescue Metals Group – WA
 Full Circle Surveyors – Qld
 Fulton Hogan Group – NSW, Qld; NZ
 Fyfe – Qld
 FZ Survey – NZ
 Gandy and Roberts – Tas
 Geleon – Qld
 GenEng Solutions – Qld
 Genesis Engineering Consultants – Fiji
 GEO Image Services – NSW
 Geochelle – WA
 Geoscope Locating – NSW
 Geosurv – NSW
 GHD – Qld
 GM-CCS – Qld
 GR Engineering Services – WA
 Grant and Cooke – NZ
 Greenhaven Projects – Qld
 Greenhill Engineers – SA
 Hail Creek Coal – Qld
 Halcrow Consulting – India
 Hardy Frupp Surveying – Qld
 Hardly Bros Mining and Construction – NSW
 Haro Designs – Qld
 Harrison Infrastructure Group – Qld
 Hatch – Qld
 Hawkesbury City Council – NSW
 Haydn Civil Design – Qld
 Heavy Construction Solutions – NSW
 Heazlewood and Sons Surveyors – NZ
 i Consulting – Qld
 IDC Group – NZ
 Indesco Consulting Engineers – NSW
 Infraology – WA
 Inovo Projects – NZ
 Insight Survey – Qld
 Integral Surveys – NSW
 JAC Surveyors – Vic
 Jacobs Group – NSW, Qld, WA
 JCA Land Consultants – Vic
 Jeremy Benn Pacific – Qld
 JHA Consulting Engineers – NSW
 JJ Civil – Qld
 Joel Darling – Qld
 John Holland – NSW, Qld, Vic
 Jurovich Surveying – WA
 Kaku Surveying – NSW
 KCB Australia – Qld, WA
 Kennedy Surveying – NSW
 King and Campbell – NSW
 KLM Spatial – Vic
 Knobel Engineers – Qld
 KR Surveys – WA
 KUB - Berjaya Enviro – Malaysia
 Land Dynamics Australia – NSW
 Land Information New Zealand – NZ
 Land Surveys No Problems Just Solutions – NSW, Vic, WA
 Land Team Australia – NSW
 LandLink – NZ
 LandPartners – Qld
 Lands and Survey – NZ
 LCG – NSW
 LD Eng – Vic
 Leith Consulting – NZ
 Lendlease – NSW, Qld, Vic
 Lendlease Engineering Acciona Coleman Rail JV – Vic
 Lendlease Samsung Bouygues JV – NSW
 Lindsay Dynan – NSW
 Linke and Linke – NSW
 Locaters – NSW
 Logan City Council – Qld
 Lonergan Surveying – ACT
 LPD Surveys – WA
 Lyall & Associates – NSW
 Lycopodium Minerals – WA
 Lynton Surveys – NSW
 Lysaght Consultants – NZ
 M-Surv Australia – Qld
 McKenzie & Co. Consultants – NZ
 Matt Monk – NSW
 Maven Otago – NZ
 MCG Drafting – NSW
 Meinhardt Urban – Qld

Mine Earth – WA
 MinStaff Survey – Qld
 Mott MacDonald – NSW, Vic
 MPF Surveying – NSW
 MPN Consulting – Qld
 Murrindindi Shire Council – Vic
 Nacap – Vic
 NCTIR Alliance – NZ
 Neilly Group – Qld
 Newnham Karl Weir & Partners – NSW
 Nexus Surveys – WA
 Northern Hills Drafting – Qld
 NorthGroup Consulting – Qld
 Northrop Engineers – NSW
 Onyx Projects – WA
 Orion Consulting Engineers – NSW
 Orion Spatial Solutions – Qld
 Orogen – NZ
 Osgood Civil Resource Engineering – NSW
 Owen Consulting – Qld
 Pacific Survey – NSW
 PanAust Services – Qld
 Paterson Pitts Partners – NZ
 Paul Jacuba – Qld
 Paul Martin – Qld
 Pavaset Australia – Qld
 PEAKURBAN – Qld
 Penrith City Council – NSW
 Phoenix AG – Vic
 PLANIT Engineering – NSW
 Port Nelson – NZ
 Power Construction and Investigation Enterprise – Vietnam
 Praxis Engineering – NSW
 Precise Positioning Solutions – Qld
 Premise Group Services – Qld
 Pritchard Francis – WA
 Project Delivery Partners – SA
 Projex Partners – Qld
 Protterra Group – Qld
 Protrans Earthmoving – NZ
 PT Kalimantan Citra Bara – Indonesia
 PT Pama Persada Nusantara – Indonesia
 Pulver Cooper and Blackley – NSW
 Pyrenees Shire Council – Vic
 Queensland Rail – Qld
 R D Gossip – ACT
 R2 Consulting – NZ
 Raster Co. – NZ
 Ray Surveys – NSW
 Red Fox Advisory – Qld
 Realsurv Engineering Surveys – NSW
 Red Earth Engineering – Qld
 Regional Management Group – Vic
 Results Based Surveying – NSW
 Rio Tinto – WA
 Rivland Surveyors – NSW
 RMA Consulting Engineers – Qld
 Road and Civil Surveys – NSW
 Road Construction Surveys – Vic
 Roads and Maritime Services – NSW
 Robson Civil Projects – NSW
 Roesner and Hamilton Consulting Engineers – Qld
 RPC – NZ
 RPS – Qld
 Salini Impregilo (NRW JV) – WA
 Sasan Safari – Vic
 Scope Surveying – NZ
 SCP Consulting – NSW
 Sedgman Consulting – Qld
 Shadforth's Civil – Qld
 Shawmac – WA
 Simon Wallace – Qld
 SKL Group – Qld
 SMEC – NSW, Qld, Vic
 Southern Land – NZ
 Span Survey – NSW
 Spire – Vic
 STA Consulting Engineers – Qld
 State Railway of Thailand – Thailand
 Storm Surveying – Vic
 STP Consultants – Qld
 Stratum Consultants – NZ
 Subdivisions – Qld
 Summit Survey – NZ
 Sunrise Surveying – Qld
 Sunshine Coast Council – Qld
 Sunshine Coast Survey and Planning – Qld
 Superior Surveys – WA
 Sure Search – NSW
 Survey 3D – Qld
 Survey Dynamics – WA
 Survey Graphics – WA
 Surveyors @ Work – Qld

SurveyPro – NZ
 Sustainable Energy Network Solutions – NSW
 Tablelands Regional Council – Qld
 Taggart Earthmoving – NZ
 Terra Consultants – NZ
 Terramark – NZ
 Tetra Tech Proteus – WA
 The Surveying Company (HB) – NZ
 Titus Consulting Engineers – NZ
 Trent Seale – NSW
 TriCAD Design – Qld
 Tripp Andrews Surveyors – NZ
 TRN Group – NSW
 TSS Total Surveying Solutions – NSW
 Turnbull Engineering – NSW
 UAV Surveys – NSW
 Utec Solutions – NSW
 Utility Mapping (Aust) – Vic
 VDM Group – Qld
 Veris Australia – NSW, Qld, Vic, WA
 Verve Projects – Vic
 VFT Engineering Surveyors – NSW
 VGT – NSW
 Virid IFC – Qld
 Virtue Construction Surveying – Vic
 Vision Surveys – Qld
 Vitruvius – NZ
 Vukich and Borich – Fiji
 Ward Civil Engineering – NSW
 Westera Partners – Qld
 Western Earthmoving – NSW
 Willow and Sparrow – NSW
 WMG Engineering Surveyors – NSW
 WML Consultants – WA
 Woden Construction – NSW
 Wood & Partners – NZ
 Wood Australia – Vic
 WorleyParsons – Qld, WA
 WSP – NSW, Qld
 WSP Opus – NZ
 WW Surveys – Qld
 Yeltuor Enterprises – Qld
 Yeomans Survey Solutions – NZ

12d Synergy

AD Design and Consulting – Tas
 AECOM – Australia
 Arcadis – Australia
 Bereza Civil Surveys – ACT
 BG&E Consulting Engineers – Australia
 Blue Barn Consulting Engineers – NZ
 Byrne Consultants – NT, Qld
 Cardno – Australia
 Cato Bolam Consultants – NZ
 Cheal – NZ
 CKL – NZ
 CPB Contractors – Australia
 Cuttriss Consultants – NZ
 Dempsey Wood Civil – NZ
 Durkin Construction – NZ
 ESO Surveyors – Australia
 Fraser Thomas – NZ
 Fulcrum CAD – NZ
 Fulton Hogan Construction – Australia
 GM Civil + Construction Surveying – Qld
 Haro Designs – Qld
 Hatch – Australia
 HCE Engineers – Australia
 Inland Rail – Australia
 Jacobs Group – Australia
 Land Surveys No Problems Just Solutions – Australia
 McCaffrey Engineering Consultants – NZ
 McKay Knarston – NZ
 McKenzie & Co. – NZ
 MinStaff Survey – Qld
 Ngatai Tuwharetoa Geothermal Assets – NZ
 Paterson Pitts Group – NZ
 Piritahi Project – NZ
 Quoin Structural Consultants – NZ
 Riley Consultants – NZ
 Scope Surveying – NZ
 SMEC – Australia
 Southern Land – NZ
 Stantec – Australia
 Sunrise Surveying – NSW
 Surveying Services – NZ
 Tipeg – Qld
 Tonkin and Taylor – NZ
 Turnbull Engineering – NSW
 Western Downs Regional Council – Qld
 Wood & Partners – NZ
 WSP – Australia