

Welcome

...to the latest edition of The Dirt Digger. It's been a while since we've released one of these, so we have lots of news to share!

We've been very lucky here at 12d in that we've been able to keep going throughout the pandemic these past three years, and to help our customers do the same, in particular by providing COVID cloud licences so users could easily work from home. We firmly believe that companies that can help in a crisis have a responsibility to do so – it's always been part of our ethos.

Luckily, most of our clients found ways to keep working through the pandemic and much to our surprise, financial years '21 and '22 resulted in record sales for both 12d Model and 12d Synergy.

Our programming teams shifted to working online but our development continued at a frantic pace, resulting in 12d Model 15 and 12d Synergy 5 being released during the pandemic.

The pandemic also forced us to postpone our 12d Technical Forum and move it online as the 12d Tech Forum 2021. This was a huge success with over 5,000 registrants.

But even though going online proved a success, now that things are opening up again, we look forward to meeting everyone in person.

This issue will feature:

- Reseller of the Year
- New 12d Award
- New photo competition
- The Civil and Surveying Institute unleashes SPOT
- ADAC: Bundy and Beyond
- 12d Tech Forum and Innovation Awards 2021 review and videos
- What's New in 12d Model 15 and 12d Synergy 5
- Hosted network licences

We look forward to hearing any feedback or news you might have. This will be the final issue in the current format – our next newsletter will have a new look, and will contain the rest of our news we couldn't fit in this time!

Regards,

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Reseller of the Year

The winner of our Reseller of the Year Award for FY22 was...Extra Dimension Solutions (EXDS)!

EXDS also set a record, training over 100 Surveyors from one government department!

Working closely with TfNSW staff and key clients, EXDS has developed tools and workflows that construction contractors are using to streamline output of as-built data for the State's 'RAMS' asset database.

The new 'Metaconnex' tools (available in 12d Model 15) are used for these RAMS procedures, and in workflows used by designers to meet TfNSW DE Framework requirements.

Fantastic work across NSW/ACT/SA, Team!

New 12d Award

We've introduced a new award for educational institutions. The top student in courses featuring 12d Model software will be given

a certificate and a free 12-month Subscription Licence of 12d Model software.

Pictured here is Cameron Gardiner from TAFE Queensland (South Bank Campus), one of our lucky winners.



Photo competition: "Where do you use 12d?"

Send us your happy snaps whenever you use 12d Model somewhere unusual, even unusual inside your office! We'll award a free SPOT course to the owners of any images that we post. The funniest and most interesting will be in with the best chance. Send your entries to info@12d.com















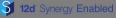












The Civil and Surveying Institute unleashes SPOT

In case you haven't heard, the Institute of Surveying and Civil Design Training (ISCDT) has been rebranded as the Civil and Surveying Institute (CSI): www.civilandsurveying.com.

CSI is an authorised 12d Model training centre offering training programs for novices through to experienced 12d Model users.

For instructor-led courses, CSI has online and faceto-face training, either as open courses, or courses restricted to one company. Tailored courses are also available.

CSI realised that not everyone can attend their instructor-led courses and so has added Self-Paced Online Training (SPOT) to its offering.

With SPOT, you work through a course at a time of your choosing, from anywhere in the world - all you need is a Microsoft computer, two screens, an internet connection, and an interest in learning.

Once enrolled in a SPOT course, you can play, and replay, the videos for twelve months, and on successfully completing all the lessons and any associated guizzes, you receive a Certificate of Completion. Most courses also include access to a 12d Model licence for up to six months.

Another service offered by the Civil and Surveying Institute is Proctored exams. In a proctored exam,



you are under online supervision and work through, and successfully complete, a number of 12d Model tasks. After passing a Proctored exam, you will receive a Certificate of Competency.

Although Proctored exams are based around

Model courses, they are open to anyone, regardless of whether you have taken a CSI course.

So, if you need civil and surveying training using 12d Model, the Civil and Surveying Institute is the place to go.

ADAC: Bundy and beyond

On 1st September 2017, Bundaberg Regional Council (BRC) adopted the ADAC system for As Constructed XMLs for data provided by the Development Industry.

"However, ADAC, as the name implies, is Asset Design and As Constructed...so why doesn't our industry provide 'Design For Construction' in ADAC.XML?" said Adam Johnston, Manager of

Design at Bundaberg Regional Council.

"ADAC no longer needs to be only part of the As Constructed package at BRC ... The goal was to produce an ADAC.XML file from a 12d design so that it could be read into our GIS and accounting systems and supplied to industry so that it could be used by any other system that reads ADAC.XML."

With this in mind, at 12d Solutions, Paul Hardwick and Peter Taynton enhanced the new 12d Model 15 option, Metaconnex, and added extensions to snippets, 12d mapfiles, chains and macro calls, to make this a reality. Mal Peaker then trained the BRC Designers in the new process.

"This process used to be done manually and could take weeks for large projects. Now this only takes hours to achieve, arguably with more accuracy than before," said Adam.

The next logical question is: if we have ADAC at design and at the As Constructed phase, where will this process lead? Stay tuned!

The 12d Tech Forum 2021 was a huge success...and all can now join the fun!

Due to COVID. the 12d Tech Forum 2021 was held as a virtual event and had over 5,000 registrants, so we couldn't have been happier.

The three-day industry event featured over 80 expert speakers. Some of the highlights included keynotes from 12d Founders, Piritahi, SMEC, Arup, technical deep-dive sessions for all 12d users, from basics to advanced training, project Case Studies: City Rail Link, Western Sydney Airport, North East Link, and many more!

The videos of the 12d Tech Forum were available exclusively to registrants for twelve months, but that time has now passed and the videos have been posted as a Free course on the Self-Paced Online Training (SPOT) section of the Civil and Surveying Institute (CSI). If you have already registered for SPOT, the videos will be there when you next log in.

12d Innovation Awards 2021 results

Although the **12d Tech Forum** had to be held online, the 12d Innovation Awards were still conducted. The judges were again overwhelmed by the quantity and quality of the entries, and found it exceptionally difficult to decide on the winners.

From clever macros to awe-inspiring projects, our users find ingenious solutions to challenging issues. and push the boundaries of technology, surveying,

























engineering, and construction.

The winner of the **Design category** was **Peter** Zimmerle of Harrison Infrastructure Group.

The winner of our 12d Synergy Award for 2021 was team from **Premise, Andrew** Langdon and Glenn Brosnan.

The winner of the Surveying & Construction category was a joint effort - Sam Cech of Tatras Consulting and Mark Finlayson of Envivo.

The winner of the BIM & Visualisation category was Niall Brady of Digitise Consulting!

The winner of our Banishing the Drafting Demon Award was Grant Wandel of Southern Land Ltd.

The winner of the Water category was another collaboration of innovators: Patrick Cavanagh, Richard Russell. Michael Huan. and Brett Hussey, of Arcadis, Aurecon, and CPB Acciona (https://www.cpbcon.com.au/ & https:// www.acciona.com/).

Picking the winner of our Customisation Award for 2021 was an extra tough call. Two entries were deemed to have equal merit, and the Award was shared between two great projects, by Allan Walker and Joshua Allison, both of SMEC.

The Overall Winner for 2021 was yet another great piece of teamwork - Sam Cech of Tatras Consulting and Daniel Ripley of Acciona!



Great work, Sam and Dan; that top prize wellwas deserved!

More

information on each of the Innovation Awards is also available in SPOT, or you can watch the presentation here.

What's New in 12d Model 15

Well, it's official... 12d Model 15 is another huge release - so many updates across the board.

There are some totally new features, and also improvements and extensions to existing functionality, to allow users to overcome new problems, simplify their procedures, and speed up processing. These features, improvements, and extensions include...

New Project Launcher: a new front screen to create and access projects as well as quick links to the What's New, Reference and Macro manuals, our YouTube videos and 12d.com.

Themes: Previously 12d Model was shipped with a fixed Main menu and submenu structure but 12d Model 15 comes with Themes for BIM, CAD, Design, Survey, 12d Field, Tin and Water, each with its own menu structure and the choice of icon sizes, so 12d Model can be used on all monitors from tablets to 4K.

Object Tree: In 12d Model 15, names of models, tins, functions and templates can have path names like in Windows with folders and files.

As projects become larger, the number of models, tins, functions and templates rapidly increase and pop-up lists become unmanageable so in 12d Model 15. names of models, tins, functions and templates can have path names similar to folders and files in Windows. This allows items to be easily grouped.

AutoUpdater: when 12d Model 15 is installed by Admin, an AutoUpdater service can also be created so that future subversions can be installed without needing Admin privileges.

Quick Starts for simplifying the creation of roads designs and water networks and simplifying starting up survey.

New MetaConnex for creating and checking of attributes.

Water: Concept Stormwater Design, flooded widths for Dynamic Drainage for full backwater calculations, Water Quality using MUSIC (Model for Urban Stormwater Improvement Conceptualisation) create, import, and edit MUSIC files, create water mains, on road catchment creator, Inlet capacity curve creator, direct rainfall temporal patterns with losses (ARR 2019, TP108), 2D Quadtree and Subgrid Sampling for better quality results.

Alignment and MTF: new Parts editor in Super Alignment, MTF speed ups and additions with less processing storage space required, many snippet additions, rail regression.

Survey: support for the LINZ rules for NZ, GNSS Vector Reports in NZ.

New Projections file editor including Vertical Datums, new General Conformance option, SDR Improvements, Least Squares Adjustment Conformance improvements, **Pavement** improvements.

12d Field: support for Leica AP20 Smart pole, standardised icons, improved interfacing with

12d® Model























Topcons

BIM: Read and Write IFC 2x3, 4 and 4x3 files, KML writer improvements, Masonry block retaining wall, Improved handling of Point Clouds

General: Cut and fill between two tins, grid volumes, tins and 3D objects can be created from strings and attributes.

And the best part? For users on maintenance, there is no cost to upgrade to 12d Model 15.

Click here to watch the What's New in 12d Model 15 video from the Tech Forum 2021!

Hosted network licences

12d Solutions can now host your 12d Model 15 network licences for you.

What's New in 12d Synergy 5

Web & Mobile

The first major feature in version 5 is Web & Mobile. Stay connected to your 12d Synergy Common Data Environment (CDE) anywhere, anytime, from a phone or a tablet. All you need is the App (either IOS or Android), or a web browser,

and an internet connection!



Surveyors or Project Managers can retrieve all their important documents and files while out on site. Users can review designs while commuting or in between meetings. You

can also upload photos directly from the field where naming conventions will be automatically applied to ensure standards are maintained.

ISO 19650

Further enhancements have been made to 12d Synergy's workflow engine to comply with ISO 19650 standards. Outputs from all file types can be managed through WIP, Shared, Published, and Archived via approval gates. Status codes and revisions are managed along the workflow, and permissions can be applied for access to key areas Collaborator access to Shared and Published). Out-of-the-box 12d Synergy's ISO 19650 solution has been developed in compliance with the Transport for NSW (TfNSW) digital framework. Further developments can be made to comply with the standards which your organisation, delivery authority or assigning party

established. Contact your 12d Synergy account manager for more information.

Collaborator Access

The next major feature is Collaborators. This feature allows you to invite third parties / to access your information from your own 12d Synergy system, with restricted permissions and in a Read-Only format.



You can bring contractors, developers, and clients outside of your organisation or department to access valuable documents and files. These third parties will only need a free Collaborator license and a web browser to open the data. The entire project team can work and collaborate all from within the same system.

12d Model Customisation

12d Model Customisation files can now be downloaded and transferred onto a non-workspace location, like your standard C drive. Your files are still "checked out" and with simple workflows, local unauthorised changes will be prevented. This provides better support in an offline environment, especially for adoption in new users.

Offline Mail Management

Email management within 12d Synergy has always been a key part of our product. Now you can queue emails for filing while you're offline through your mail app and then everything syncs up, once you reconnect online. This will be extremely handy when you're on the go.

Two-Factor Authentication

You can set a second level of authentication via email or through a mobile authentication app for 12d Synergy users, ensuring greater security measures for your Common Data Environment.

Compressed Downloads

This will really help with home internet connections and users with limited bandwidth. 12d Synergy already supports compression of 12d Model projects and Managed Folders before uploading. Now in Version 5, files and data can be compressed before downloading from your server.

Click here to watch the What's New in 12d Synergy 5 video from the Tech Forum 2021! More videos from the event are available in SPOT (if you've already registered for SPOT, the videos will be visible to you).















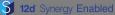












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