

News from
12d Solutions



Welcome

...to the **November 2009** issue of the Dirt Digger. Yet another year has flown by and it is difficult to believe that we are in the midst of the festive season again.

In this issue we would like to introduce to you **Mick Gunter, Rob Graham, Mike Jensen, Geoff Thompson and Graham Wirth**. We are delighted to have these new experts join the 12d Model programming team.

We would like to take this opportunity to remind you that our **12d Model International User Conference** is not far away. We look forward to showcasing added functionality such as GIS interfacing in 12d Model and discussing future directions with you!

This Conference we have a **competition for all users**. We are looking for projects (presented as movies in .avi or .wmv format) that you are proud of and which highlight 'core functionality of 12d Model', 'How 12d Model helped you overcome project complexities' or a Project Movie. The winner will receive a **FREE** attendance to the Conference valued at \$AUD627.

The 2010 Conference will be held at the **Brisbane Convention Centre**, Australia on **7, 8, 9 March 2010**, it's one not to miss!

As most of you will know the roll out of 12d Model 9 is underway and will continue over the next few weeks.

12d Model 9 has many exciting new features including 3 new modules:

- **Dynamic Drainage** - Hydrographs & Basin Design
- **12d Field** - Taking Your Office To The Field
- **12d Track** - New Rail Features

So please enjoy this issue of the Dirt Digger and be sure to let us know if there is anything you would like to hear about in future issues.

Dr Lee Gregory

Alan Gray

Managing Director

Technical Director

lee.gregory@12d.com

alan.gray@12d.com

Road To The Middle East

In recent times 12d Model usage has expanded around the world, in particular the UAE. We are especially pleased to see that 12d Field is being adopted in this market.

This success has occurred due to the hard work and determination of the UAE team consisting of Joel Gregory, Julius Newman, Graham Wirth and David Owens.

Wins include:

- Presenting at the Chartered Institution of Civil Engineering Surveyors CPD event
- AECOM, ALDAR Laing O'Rourke, Nexalides & Al Jaber continued use for Al Raha Beach project
- Leighton's use of 12d on Saadiyat Island.
- Aurecon adoption for Dubai Waterfront project
- Ongoing success with GHD, Worley Parsons, Dutco Balfour Beatty, Al Futtain Carillion and Wade Adams

Watch out for CICES CPD events in Dubai and Oman (January 2010) where we will discuss "Surveying & The Electronic Model"

New Programmers at 12d

We are very fortunate to have additional talented experts join the programming team. It's exciting times ahead with the direction of 12d Model.

Mick Gunter - The man behind 12d Setout. With a clear passion for the needs of the end user, Mick is focussed on adding tools, streamlining processes and reducing complexity.

Mick loves the fact that 12d Model is the only true integrated civil design package in the marketplace.

He has worked throughout Australia in construction and authored the popular surveying programs TP Setout and TP Stakeout. Mick also worked for Leica in Switzerland and Australia working on Roadrunner and machine control.

Rob Graham - Already a member of the 12d team and a face that you may know from training. Today Rob is responsible for the design, development and

training needs for the 12d Drainage Module and Rivers Interfaces.

Rob has held various roles in both Australia and Canada ranging from IT and Training Consulting, through to Dam Design and Urban Drainage Engineering.

Rob's goal is to create a reliable drainage analysis and design a product that begins at the design stage and finishes with construction and as built drawings.

Mike Jensen - Mike has a passion for railways and has been providing 12d technical support in that field. He is also an experienced civil designer and has used 12d on airfield and rail projects in Australia and abroad.

Mike is currently writing tools for rail and other projects. In his opinion, *"There is no doubt that 12d has the most approachable team from the CEO down to the sales support."*

Geoff Thompson - A civil engineer with 30 years international experience writing drainage and sewer software with XP Software. Geoff is responsible for the development of the storm-water hydrology, sewer and hydraulic engines in 12d Model.

Geoff's aim is to make 12d Model the state-of-the-art solution in water engineering with the simplest, most intuitive interface.

Graham Wirth - Has over 35 years experience in civil construction and engineering surveying. Past roles include Chief Surveyor for Abigroup, Survey Manager for Baulderstone Hornibrook and Australasian Manager for Leica Geosystems.

Graham's role with 12d Solutions is Product Sales and Marketing Manager for 12d Field, with responsibility for management, development and channel creation of 12d Survey products.

Working with instrument manufacturers, hardware suppliers and the 12d R&D team, Graham assists clients to best utilise 12d products for their Civil surveying applications.



The 12d Model International User Conference



Less than 4 months to go, so be sure to secure your spot at the 12d Model International User Conference being held at the **Brisbane Convention Centre, Australia, on 7, 8, 9 March 2010.**

The 12d Model User Conference offers:

- A great opportunity to increase your 12d Model skills while interacting with the developers of 12d Model
- The chance to network with and learn from other 12d Model users.

The Conference will be of interest to people in **all areas of civil design, surveying and construction.**

It consists of three days (and two evenings) on 12d Model, future 12d directions, user papers, training sessions and the popular 'Birds of a Feather' booths.

The **Full Conference Package costs \$AUD627 (inc. GST).** This covers the full 3 days of sessions, morning teas, lunches and afternoon teas, the

Conference Pack, Welcome Event and the Conference Dinner. Individual day attendance is also available.

To Register simply download, complete and return the registration form located at www.12d.com or download [here](#)

Accommodation

We have organised block bookings at a number of nearby hotels with prices starting **from \$A108/night.**

Accommodation bookings can be made this year through a single point of contact, OzAccom - please email 12d on conference@12d.com for more details.

Call For User Papers

We have slots for User papers of different lengths (e.g. 10, 15 or 30 minutes) and also a poster area for those who don't like public speaking.

If you are interested in presenting a paper and/or poster at the Conference, please email 12d on conference@12d.com.

Conference Sponsorship

There are Gold, Silver and Bronze sponsorship packs still available for Companies wishing to be more closely affiliated with the Conference, plus sponsorships of the Welcome Event and Conference Dinner.

If you are interested in sponsoring the Conference, please email 12d on conference@12d.com

Version 9 Is Here!

2009 has been a big year rolling out 12d Model 9. New features include:

- Diary , Tagging models
- 12d Track - new rail features
- Trash bin for models & tins
- New Cad, text, lines & symbols
- New attribute mapping & labelling
- 12d Field - 12d Model in the field for setout & pickup
- Dynamic Drainage Analysis - Non-Rational drainage analysis - basins & ponds
- 2D & 3D Helmert - fixed scale, local origin
- Major upgrades to Super Alignment
- Chain parameters & decisions
- New MTF spreadsheet format & MTF commands
- Quick plan plotting
- Option Searching

Dynamic Drainage

This module extends hydrology beyond the Rational Method of simply measuring peaks and for hydraulics uses the full St Venant equation.

Dynamic Drainage looks at the use of **detention basins** in storm-water management to **reduce peak flows** that damage property and the environment.

Basin elevation-area curves are extracted from the design tin and outlet structures are created from a mix of culverts, weirs and orifices.

The transition from a Rational Method based design to 12d Model Dynamic Drainage Analysis is extremely quick. **The new method uses all of the same tools 12d Model drainage designers are familiar with.**

12d Dynamic Drainage is a particularly useful tool for **highway designers, road authorities, construction companies and developers.** Features include:

- **100% integration with civil design**
- **Storm-water basin design**
- **Integrates with 12d's Visualisation!**
- **Inlet capacities, bypass flow, dynamic pit loss calculation (Ku/Kw)**
- **Graphical results showing elevations, flows, velocity & other hydraulic parameters**
- **Includes Australian (AR&R including ILSAX) & NZ SCS hydrology methods**
- **Uses all the terms of the St Venant equations**
- **Customisable & region specific outputs**

12d Field

12d Field gives Surveyors and Engineers the ability to use the full functionality of 12d Model on small daylight readable tablets and notebooks in the field. Major advantages include:

- **Your Entire Project Available Anywhere**
- **Real Time Setout & Pickup**
- **Used As An "In Car" Site Location Management Tool**
- **Works With GPS & Total Stations**

12d Field has been developed in consultation with leading Surveyors and Engineers, and is used worldwide on major civil projects.

It communicates directly with **ALL major survey grade GPS units and Total Station instruments from Leica (1100, 1200) to Topcon (9000)**. This is achieved via radio, bluetooth, WI-FI or a cable connection.

With 12d Field, Surveyors and Engineers can use both GNSS and Total Stations with the same software that is used in the office to design and finalise projects.

12d Setout enables Surveyors and Engineers to use GPS and Total Stations to setout building and construction projects.

12d Field Pickup provides the ultimate



approach for surveyed data collection. 12d's unique hierarchical attribute method with simple-to-manage coding,

templating and live functionality gives the user complete control of the project and output, from the field.

In both Setout and Pickup, information is displayed live as it is surveyed. This, combined with the ability to simultaneously display detailed design and existing data, ensures total control and flexibility through 12d Model's interactive plan, section, and perspective views.

Survey instrument control and enhanced data flow in 12d Field add to the existing power and functionality of 12d Model to create an invaluable tool for productivity and information management.

Data can be processed in the field, used for design or exported instantly when and where it is needed.

12d Track

This module is aimed at providing tools to facilitate the design of railway alignments and station yard layouts using 12d Model.

12d Track includes tools for placing turnouts in alignments and calculating cant for alignments.

SALES & SUPPORT AUSTRALIA

NSW, ACT & SA
Tony Ingold
Extra Dimension Solutions
tingold@exds.com.au
Ph. (02) 9452 6771(sales)
Ph. (02) 9453 9449 (tech)

WA - Design
Katrina Hibbs Critical Image
criticalimage@bigpond.com
Ph. 0412 559 019

WA - Survey
Graham Wirth
graham.wirth@12d.com
Ph. (02) 9970 7117

VIC
Matt Stephens 12d Solutions
vic12d@unwired.com.au
Ph. (03) 9530 2753

QLD
12d Solutions
Ph. (02) 9970 7117(sales)
qld.sales@12d.com

UK, EUROPE, MIDDLE EAST & AFRICA

Joel Gregory 12d UK
joel.gregory@12d.co.uk
Ph. +44 (0) 845 051 372

NEW ZEALAND

Lane Irwin 12d NZ
lane@12d.co.nz
Ph. +64 27 477 7787

USA & CANADA

Lori Abbey
XP Software
lori@xpsoftware.com
Ph. +1 (888) 554 5022

ASIA

Phil Davies 12d Asia
phil.davies@12d.com.sg
Ph. +65 9026 0402

JAPAN

Anita Byrnes Forum8
anita@forum8.co.jp
Ph. +61 2 9130 1448

MALAYSIA - Design

Caruppaiya Natarajan
Astasoft
caru@astasoft.com.my
Ph. +60 3 8075 6133

FIJI

Kevin McConell Lukemine
Enterprises
lukemine@connect.com.fj
Ph. +679 337 0858

Welcome Aboard...apologies we have a back log & we are endeavouring to list all clients.

3D Engineering Surveys Pty Ltd - Qld
 43 Below - NZ
 Abigroup Contractors Pty Ltd - NSW, Qld, Vic
 Aclaim Consultants Ltd - NZ
 Acor Consultants Ltd - NSW
 AECOM - ACT, NSW, Qld, SA, Vic, WA; NZ; UAE
 Al Amin Construction Co. Ltd - Bangladesh
 Alexandrina Council - SA
 Alluvium Consulting - Qld, Vic
 Agaba Water Company - Jordan
 Arup - NSW, Qld, Vic; UK
 Aspect Infrastructure Design Limited - UK
 Atteris Pty Ltd - WA
 Aurecon Group - Brisbane, Perth; NZ; UAE
 Ausenco - Qld
 Auspat Australia Pty Ltd - NSW, Qld
 Axis Consultants - NZ
 Babbage Consultants Ltd - NZ
 Balai Sungai, Pusat Litbang Sumber Daya - Indonesia
 Bankstown City Council - NSW
 Barlow Gregg VDM Pty Ltd - Qld
 Bateman Engineering Pty Ltd - WA
 Beca Infrastructure Ltd - NZ
 Bellerio Constructions - Qld
 Bereza Civil Surveys - ACT
 BG & E Consulting Engineers Pty Ltd - WA
 Bill Guy & Partners - ACT
 BMD Group - NSW, Qld
 Bonacci Group Pty Ltd - Qld, Vic
 Bonisch Surveyors - NZ
 BPA Engineering Pty Ltd - WA
 Brandon & Associates Pty Ltd - Qld
 Breese Pitt Dixon - Vic
 Brierty Contractors - WA
 Brisbane City Council - Qld
 Brock & Associates - Qld
 Brown Consulting - ACT, NSW, Qld, Vic
 BRR Nias Selatan - Indonesia
 Budget Setouts - NZ
 Bundaberg Regional Council - Qld
 Burchill VDM Pty Ltd - Qld
 Bureau Veritas - UK
 Buro Happold - Dublin; Glasgow; Bath, Hatton Gardens, Leeds, London (UK); Kuwait
 Calibre Engenium Joint Venture Pty Ltd - Qld, WA
 Caloundra City Council - Qld
 Canmap Hawley - NZ
 Capita Symonds - East Grinstead (UK)
 Cardno Group - ACT, NSW, NT, Qld, Vic, WA; NZ
 Cassowary Coast Regional Council - Qld
 Catholic Relief Service (CRS) Medan - Indonesia
 Central Surveys Ltd - NZ
 Challenger TAFE (ACEPT, Fremantle) - WA
 China State Construction Engg. Corp - UAE
 Christchurch City Council - NZ
 City of St. Paul Public Works - USA
 City of Swan - WA
 City of Wodonga - Vic
 Civil Services (HB) Ltd - NZ
 Civtech Design Pty Ltd - Vic
 CKL Surveys Limited - NZ
 Clarence Valley Council - NSW
 Clark Fortune McDonald & Associates Ltd - NZ
 Clough Engineering Limited - WA
 Coalville Surveying - Vic
 Coffs Harbour City Council - NSW
 Coleman Engineering Services - ACT
 Complete Urban Solutions - NSW
 Conics - Brisbane, Mackay, Sunshine Coast, Townsville
 Construction Survey - NZ
 Consulting Engineers Group Ltd - India
 Coomes Consulting Group - Vic
 Coromandel Surveyors Ltd - NZ
 Cossill and Webley - WA
 Costin Roe - NSW
 CPG Global - NZ
 Cuttriss Consultants Ltd - NZ
 Dalton Consulting Engineers - Vic
 Daracon Group - NSW
 Decmil Australia Pty Ltd - WA
 de Groot and Benson - NSW
 de Scheepvaart - Belgium
 Defence Housing Authority - ACT
 Dennis Price Miller - Vic
 Department of National Roads - Fiji
 Department of Primary Industries and Mines, Ministry of Industry - Thailand
 Design Logic - Vic
 Development Engineering Consultants - WA
 Deign Works - NZ
 D.M. Gerloff & Associates Pty Ltd - WA
 DPI Marine and Harbours - WA
 DTEI - SA
 Dubai Municipality (GIS Centre) - UAE
 Eliot Sinclair & Partners - NZ
 Engineering and Management Services Islamabad - Pakistan
 Engineering Surveys - SA
 Engineers Office - UAE
 Engenuity Design - NSW
 Ertech Pty Ltd - WA
 ESO Surveyors - NSW
 Eurobodalla Shire Council - NSW
 Far North Holdings Limited - NZ
 Fastnet Engineering Services Pty Ltd - WA
 Fieldworx (HB) Limited - NZ
 Flanagan Consulting Group
 Fluor Australia Pty Ltd - WA
 Fulton Hogan Ltd (Washdyke) - NZ
 FX Browne, Inc. - USA
 Gary Deane Constructions Pty Ltd - Qld
 Geo Image Services - NSW
 Geolyse - NSW
 GHD Services Pty Ltd - Brisbane, Melbourne, Perth; NZ
 Gilbert and Sutherland - Qld
 GM-CCS - Qld
 Gold Coast City Council - Qld
 Gold Coast Institute of TAFE - Qld
 Good Earth Matters Consulting Limited - NZ
 Greenhaven Projects Pty Ltd - Qld
 Greenhill Engineers - SA
 Hadley Consultants Ltd - NZ
 Halls Fripp Surveying - Qld
 Hard and Forester - NSW
 Hardy Bros Mining and Construction - NSW
 Harrison Grierson - Qld (Aust.); Auckland, Parnell, Manukau, Tauranga (NZ)
 Hatch Associates - Qld
 Hinterland Surveys - Qld
 Hille Thompson and Delfos - WA
 Hughes & Associates - NZ
 Hughes Trueman - NSW
 Hutchinson Consultants Ltd - NZ
 Hyder Consulting Pty Ltd - NSW, Qld, Vic
 Inco Australia Management Pty Ltd - Qld
 Ipswich City Council - Qld
 J & P Overseas Ltd - Qatar
 Jabatan Mineral Dan Geosains (Sabah) - Malaysia
 J B Serisier & Associates - Qld
 JCA Land Consultants - Vic
 JDSI Pty Ltd - WA
 Jim Stirk - WA
 JKR Perak - Malaysia
 John Holland Group - NSW, WA
 John Parish - Qld
 John Wilson & Partners Pty Ltd - NSW, Qld
 Johnson Partners - NSW
 Jondaryan Shire Council - Qld
 J.P. Engineering Surveys - Qld
 Judge Surveys - NSW
 Juffermans Surveying - NZ
 Kardon Consultants - NZ
 Kea Consultants Ltd - NZ
 Kehoe Myers - Qld
 Keith Altmann & Associates - Vic
 Kellogg Brown and Root - NSW, Qld, SA, Vic, WA
 Kempsey Shire Council - NSW
 Kevin Lonergan - NSW
 Khansaheb Civil Engineering LLC - UAE
 King and Campbell - NSW
 Kingston Surveys - WA
 Kolej Poly-Tech MARA, Kuantan - Malaysia
 Laing O'Rourke Pty Ltd - NSW, Qld; Abu Dhabi
 Lambert and Rehbein Pty Ltd - NSW, Qld, Vic
 Land Surveys Pty Ltd - WA
 LandPartners Limited - NSW, Qld
 Lands and Survey Limited - NZ
 Larsen and Toubro Limited - India
 Leighton Abigroup JV - Qld
 Leighton - NSW, Qld, WA; Indonesia; UAE
 Lendrum & Associates - NZ
 Local Government Engineering Services - NSW
 Logan City Council - Qld
 Lustot Pty Ltd - NSW
 Lysaght Consultants Ltd - NZ
 McConnell Dowell - Vic
 McCormick Rankin Cagney - Qld
 MacDow ABI JV (Western Pipeline Alliance) - Qld
 Mackay City Council - Qld
 Main Roads Western Australia - WA
 Map Surveying Limited - NZ
 Mareeba Shire Council - Qld
 Maroochy Shire Council - Qld
 Mayer Brown Limited - UK
 Meinhardt - NSW, Vic
 Melbourne Water - Vic
 Meridian Surveys Pty Ltd - SA
 Middleton Williams & Co. Ltd - NZ
 Mine Survey Services - WA
 Ministry of Education, Thimphu - Bhutan
 Miriam Vale Shire - Qld
 Monteath and Powys Pty Ltd - NSW
 MPA Surveying Pty Ltd - Qld
 MPN Group - NSW, Qld
 MS Design and Drafting - Vic
 MS Sambu JV - Pakistan
 MSES - NSW
 Murray Hislop Surveyors - NZ
 MWH - NSW, Qld; NZ
 Negeri Roadstone Sdn Bhd - Malaysia
 New Zealand Defence Force - NZ
 Newport Equipment Pty Ltd - Qld
 NSW Department of Commerce - NSW
 Ontrack (New Zealand Railway Corporation) - NZ
 Opus - Brisbane, Darwin; NZ
 Pacific Survey - NSW
 Paragon Consulting Engineers Pty Ltd - Qld
 Paroissien Grant & Associates - Vic
 Parsons Brinckerhoff - NSW, Qld, SA, Vic, WA; Philippines
 Paterson Pitts Partners - NZ
 Patterson Britton & Partners - NSW
 PDM Surveys - Qld
 Peter Bennett - Qld
 Pewan Bandaraya Kuala Lumpur - Malaysia
 PH and KE Gow - WA
 Philip Xeros Pty Ltd - NSW
 Phillips Surveyors - SA
 Pine Rivers Shire Council - Qld
 Pitt and Sherry - Vic
 Precision Enterprises Pty Ltd - WA
 Probuild Civil (QLD) Pty Ltd - Qld
 Project Services - Qld
 Projex North Pty Ltd - Qld
 ProMet Engineers Pty Ltd - WA
 ProSurv Pty Ltd - NSW, Qld
 PT Borneo Indobara - Indonesia
 PT Dianlia Setyamukti - Indonesia
 PT Pamapersada Nusantara - Indonesia
 PT Vietnamdo Energitma - Indonesia
 Pulver Cooper and Blackley - NSW
 Pyrenees Shire Council - Vic
 Q.L.D. Group - Qld
 Qasco - NSW, Vic
 Quality Development Consultants - Fiji
 Queensland Department of Transport and Main Roads - Brisbane, Bundaberg, Cairns, Cloncurry, Nambour Nerang, Rockhampton, Toowoomba, Townsville
 QR Limited - Qld
 Queensland Surveying Solutions - Qld
 Rajamangala University of Technology - Thailand
 Redcliffe City Council - Qld
 Reed Constructions Australia Pty Ltd - NSW
 Reeds Consulting - Vic
 Reyburn and Bryant - NZ
 Riley Consultants Ltd - NZ
 Rio Tinto Iron Ore - WA
 Road Builder (M) Sdn Bhd - Malaysia
 Robert Bird Group - NSW, Qld; UK
 Robson Civil Projects - NSW
 Rowen Meyer & Associates - Qld
 RPC Ltd - NZ
 RTA - NSW
 SEMF Pty Ltd - Tas
 Shedden Uhde - Vic
 Shire of Kalamunda - WA
 Sinclair Knight Merz - NSW, NT, Qld, Vic, SA, Tas, WA; NZ; Fiji
 Singleton Council - NSW
 SM Urban - Vic
 SMEC Australia Pty Ltd - NSW, Qld, SA, Vic, WA
 SNC-Lavalin - Qld, WA; UAE
 Staig and Smith Ltd - NZ
 Stevenson Surveys Pty Ltd - NSW, Qld
 Stewart Group Ltd - NZ
 Stringer Surveys - Qld
 Structural Systems SA - SA
 Structerre Consulting Engineers - Qld, WA
 Suncoast Civil Design - Qld
 Survey and Planning Solutions - NZ
 Survey 21 Pty Ltd - WA
 Survey North - WA
 Survey of Pakistan - Pakistan
 Surveying The Bay Ltd - NZ
 Sydney Water - NSW
 TABEC - WA
 Tate Professional Engineers Pty Ltd - Qld
 Terraco - Vic
 TGM Group - Vic
 The Project Centre - UK
 The Surveying Company - NZ
 THG Resource Strategists - Qld
 Thiess Pty Ltd - NSW, Qld, WA
 Thompson McRobert Edgeloe - WA
 Thurlow Consulting Engineers and Surveyors - NZ
 TMK Consulting Engineers - SA
 Tomkinson - Vic
 Tonkin and Taylor Group Ltd - NZ
 Toowoomba Regional Council - Qld
 Town of Kwinana - WA
 Townsville City Council - Qld
 Track Star Alliance - Qld
 UBC Group - Scotland
 UDP Consulting Engineers - Qld
 Unesco Jakarta Office - Indonesia
 University of Canterbury - NZ
 URS - NSW, Qld, Vic; NZ
 Vassallo Constructions Pty Ltd - Qld
 VDM Pty Ltd - NSW, Qld, WA
 Wallbridge and Gilbert - NSW, Vic
 Waste Management NZ Ltd - NZ
 Water Technology - Qld, Vic
 Waterman Group - UK; Dubai
 Watsons - Vic
 Waverley Council - NSW
 Wayne Davies - WA
 Wilson Survey Group (Qld) Pty Ltd - Qld
 Wood and Grieve - Qld, WA
 Wood & Partners Ltd - NZ
 WorleyParsons - NSW, NT, Qld, Vic, WA; Abu Dhabi; Singapore
 Yeats Consulting - Qld
 Youngs Consulting Civil Engineers - Vic