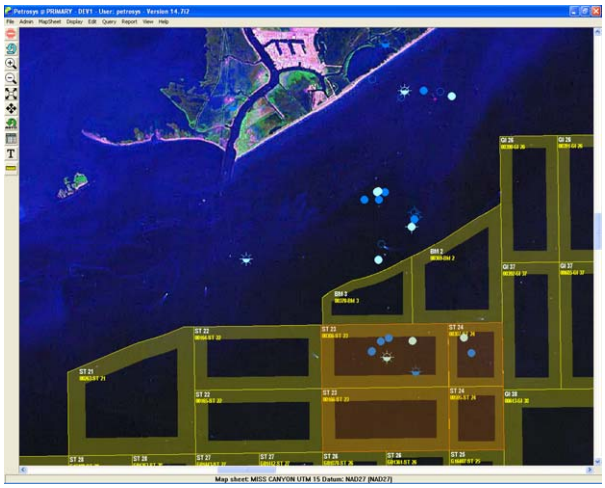
# Petrosys extends spatial options with WMS based ArcView interface, Oracle/Spatial displays

**Petrosys continues to build bridges between the GIS and the IT domains by releasing the ability to publish Petrosys map content in an ArcView desktop, and to render general spatial data from an Oracle/Spatial store using Petrosys' powerful spatial mapping functions.**

The support by Petrosys of a third mapping desktop – the web mapping desktop – has opened a gateway to Petrosys maps not only to web browser users but also to ArcView desktops. The industry standard web mapping services architecture of the Petrosys web map server is readily recognised by the popular ArcView mapping program, providing users with a long sought after ability to publish a Petrosys map in an ArcView window.



*Both ArcSDE and Oracle/Spatial technology can now be applied in the resolution of spatial issues in Petrosys.*

*The partly filled lease outlines are one of the many features of Petrosys 14.7.*

## Interest in applying Oracle/Spatial

Following the publication of work by our database developers there has been a lot of interest in creating databases in which ArcSDE layers are hosted in Oracle spatial objects. This provides the GIS functionality accessible to ArcSDE as well as the in-depth relational data management of native Oracle SQL. With the new direct Petrosys display of Oracle spatial data, users have a wide range of options for building a spatial data management strategy best suited to their specific requirements.

Visit us at SEG booth 708 (6-11 November, Houston) and **"Unearth a Masterpiece"**

## Web map services adds a path to Petrosys – ArcView integration

Petrosys users have for many years been able to directly display much of the information available to ArcView users through Petrosys links to ArcShape files and ArcSDE data stores, initially through imports to Petrosys culture mapping, and more recently through the Petrosys Display/Spatial function that allows spatial data posting and thematic mapping.

The Petrosys WMS gateway publishes Petrosys maps for dynamic viewing in a range of web enabled products that support the Open/GIS web mapping standard, including ArcView. By publishing a Petrosys map in your Intranet or Extranet, web and ArcView users throughout your organisation can view the map created in real time, with the most current data, and styled with a range of new dynamic viewing improvements.

petrosysguru.com

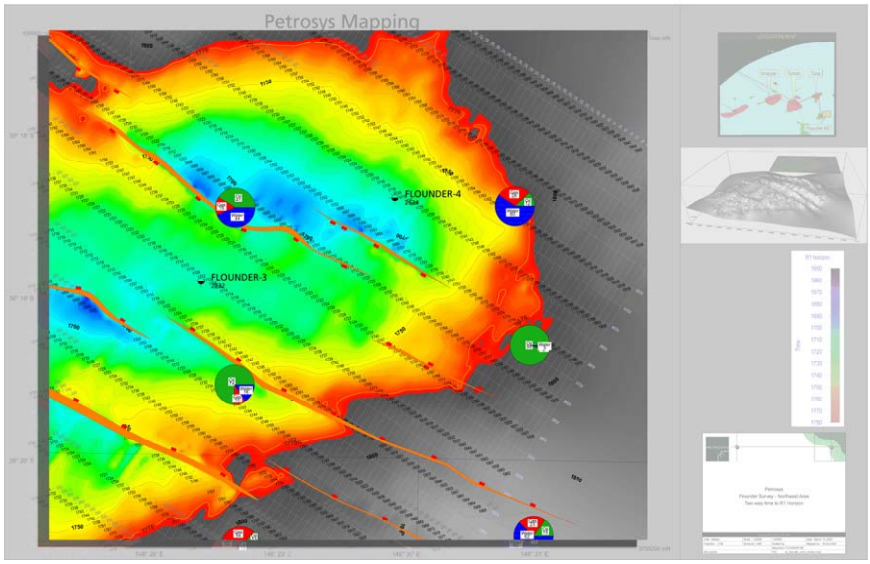
## In this issue



PETROSYS

EDITION 1 November 2005

# Want to create effective raster output?




*If you want to drop out the map border, Petrosys 14.7 includes a 'plot map contents only' option in View/Plot*

## Do you think that our maps go to a designer for use in brochures?

Think again! There are a number of paths to better raster output …

### Three paths to raster files

There are at least three ways that you can create Petrosys maps as raster images:

1. Creating a screen dump using the 'Print Screen' button and pasting it into a graphics package like Photoshop, Paintshop Pro, the Gimp, or directly into Powerpoint;
2. Using the Petrosys View/Plot option with one of the Petrosys raster drivers;
3. Using the Petrosys View/Print option (Windows only) with a Windows raster or PDF creating driver such as pdfFactory.

### Understand your output requirement

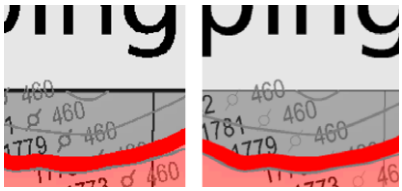
Screen and small format prints must look good and convey all information when presented as a 1000x1000 pixel image viewed from a distance. Using a series of zoomed in images of specific features is a good way of conveying information from large maps when constrained by such a 1000 pixel limit.

For large format printing you'll need a 4000 pixel or larger image unless it's only intended for viewing from a great distance.

Your choice of colors will also depend on the output media. Large printed maps are best produced with light backgrounds and pastel colors, as opposed to dramatic colors and dark backgrounds that work well on screen.

### Use anti-aliasing on PNG files

Anti-aliasing is a process by which font and line edges are smoothed, and line widths are represented more visually correct. You can enable antialiasing on the Petrosys PNG driver by inserting the extra device option _S2 on in the 'Properties' tab of the View/Plot device selection.



*Antialiasing creates raster images with smoother edges on lines and text, and more visually correct line widths.*

### Pick your resolution

The pixel dimensions of your image can be controlled by selecting a suitable window size for a screen dump, or through the View/Plot device options.

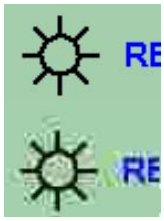
When creating a raster image with View/Plot, the image size in pixels depends on your scaled map size and the output resolution, which is specified in dots per inch (**dpi**). For a page that is 11 inches (about 28cm) across, a resolution of 150dpi will give an image that has 1,650 pixels across.

Higher resolutions such as 300dpi will give a more detailed image when reproduced at the intended paper size. However it will also create larger files and thinner lines, so that including the image as a scaled down picture in PowerPoint or a Word document may result in some fine detail being lost. You may need to save important maps in multiple resolutions.

### Use a fast new Windows computer

Don't short change yourself by working with underpowered equipment. Creating raster output requires large amounts of memory and a fast CPU, so treat yourself to a new PC and at least 1Gb of memory if you're serious about creating raster output. Despite recent improvements in Linux and Solaris, the font rendering in Windows continues to be the best around, so replay your graphics in a Petrosys Windows system for optimal text output quality.

### Know your graphics file formats



Many raster formats include compression to keep file sizes down.

'Lossless' compression which guarantees correct reproduction is available in **PNG** (portable network graphics) which is the raster format recommended for most Petrosys output and the basis of the upper well symbol shown .

The **JPEG** formats favoured for email and web sites use 'Lossy' compression, which can create graphical artifacts particularly on solid backgrounds, such as in the JPEG image of a well symbol shown in the lower part of this graphic.
**TIF** may or may not include compression and is favoured by some graphics designers. Avoid **GIF** formats, which not only compress but also reduce the number of colors to 256.

'Wavelet compression' formats such as MrSid, JPEG/2000, and ER-Mapper ECW provide fast access to huge images, and are created by running third party software on other image types.

For a more detailed discussion of the issues in this newsletter please email support@petrosys.com.au for access to our technical notes.

# Meet our software development guru

**Scott Tidemann, Petrosys' software development manager, will be hosting user forums in London, Calgary, Houston and Perth during November. Register now for these informative and influential events by calling your local support office or visiting [http://www.petrosysguru.com/events/user_meetings.htm](http://www.petrosysguru.com/events/user_meetings.htm).**

*Petrosys USA president Tom Robinson (left) puts the USA market view to European manager Nathan Balls (centre) and software development manager Scott Tidemann (right) at a recent management meeting at Petrosys' Adelaide headquarters.*

### See What's New:

Experienced users are often amazed at how Petrosys has been extended when they sit down with a Petrosys support person. Tight schedules mean that established workflows are followed whilst scanning of release notes to identify new features is relegated to a later date.

Investing half a day of your time to join in one of our user meetings will let you discover ways in which your Petrosys workflows can be streamlined through product enhancements, brought into context by an audience of active fellow users.

| Meeting | Dates | Notes |
|---|---|---|
| **Houston User Forum** | Thu, Nov 10, 2005<br>8:30am to 4:00pm<br>(following SEG) | Hilton Americas - Houston<br>1600 Lamar, Houston |
| **Calgary User Group** | Mon, Nov 14, 2005<br>9:00am to 5:00pm | Westin Hotel Calgary - Lakeview Room<br>320 4th Ave.SW, Calgary |
| **European User Group** | Thu, Nov 17, 2005<br>9:00am to 5:00pm | Chelsea Hotel - Attenborough Suite<br>Chelsea FC, Fulham Rd, London |
| **Perth User Forum** | Wed, Nov 23, 2005<br>1:00pm to 5:00pm | Woodside Plaza - Auditorium<br>Mezzanine Level, 240 St.George's Tce, Perth |

## Cool North Arrows


**Want a bolder and brighter rendering of North?**

From Petrosys 14.7 CGM files can include a text substitution parameter **MAP.NORTH_TRUE_FONT_ANGLE** which lets you use CGM files as cool north arrows. You can now choose from the wide range of arrow symbols in Windows and Linux text fonts to create north arrows that not only look good but that can also show the magnetic declination, datum, and a host of other valuable information.

## Secrets of the right mouse button

One of the great things about seeing a live Petrosys demonstration is witnessing some of the magical interactions that happen as the expert user makes a few clicks on the right mouse button (RMB).

The ability to **interrupt displays** using the RMB is probably well known.

Many **selection fields** can be blanked out by clicking on them with the RMB: you can clear file selections, line styles, dbMap lookups, and other selections like this.

The **SeisWorks, GeoQuest and SMT links** include a number of options only accessible through the RMB, including the ability to set line prefixes, padding 3D line names, sorting and changing the selection, and manipulating the horizon selection.

Context sensitive RMB menus allow fast interaction with the current object in mapping **display/modify**, most of the **well data file**, and many other spreadsheet dialogues.

Thinking of spreadsheets, many Petrosys list dialogues can be **exported directly into Excel** or delimited file by RMB options. Other exports include an RMB option to copy Display/Spatial's **thematic mapping** conditions to XML for editing or exchange.

Advanced text editing is also enabled by clicking the RMB in many text input fields such as the Display/Spatial **where clause** and when editing dbMap **SQL queries**.

And of course the RMB also enables the **cut and paste** that is the simplest form of integration between the many different applications on your desktop.

## *Petrosys are moving…*
## *…everywhere!*

In the true spirit of sharing experience in a small global company, all Petrosys offices got into 'let's find a better office' mode earlier this year and have been proactively sharing the pain and gain of finding office accommodation more appropriate to the expanding needs of the location.

Most of our offices will be moving into better locations before the end of the year.

Our new Houston office – at 'the Lakes' – is on Post Oak Boulevard taking it further into the mainstream Houston business precinct of the Galeria.

In Adelaide we have made the move into the inner city, which we hope will allow us to establish better links between our development and support staff and the 'front line' of the EP industry.

Our new permanent homes in London House, Perth and Bow Valley Square, Calgary reflect our commitment to those key EP centres.

Check our website for further details.

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**Do you have an interesting story to share with our readers?**
Email us at info@petrosys.com.au and tell us about your experience in the wide world of Petrosys use.

# Getting serious about Petrosys.eu

The segmentation in Europe of EP companies into nation-based entities means that the geoscientists and engineers in the industry have the benefit – as we do in our home city of Adelaide – of living in the cultural centre of their choice.

Paris, Madrid, Geneva, London, Vienna, Milan, Oslo, Aberdeen, Rijswik, Copenhagen, Warsaw and the many centres of the expanding European Union evoke a wide range of traditions and cultures that are enthusiastically promoted by the local EP professionals by the expatriate staff who are fortunate enough to find a position there.

In recognition of the need to more adequately serve this EP community, Petrosys Europe have stationed Franck Lemaire as the resident Petrosys market development expert at an office near Chatelet Les Halles in central Paris.

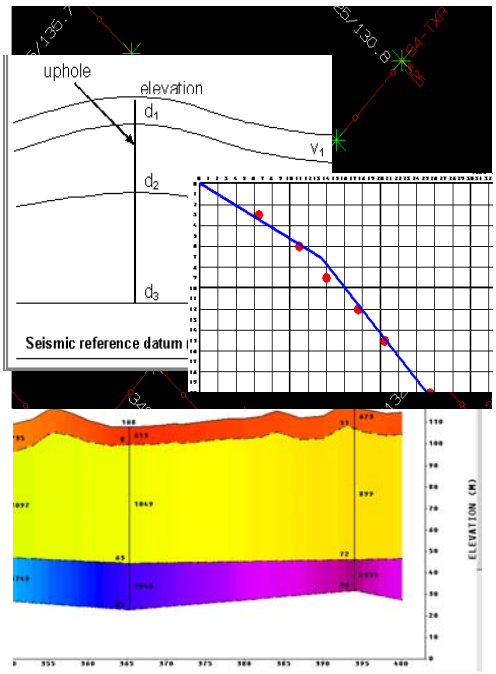
Formerly international business development manager for Dynamic Graphics Inc in the USA, and with previous experience at CGG in Massy, France, Mr.Lemaire brings a technical background in geophysics and geology.

His eleven years within the international EP industry have given him the skill set required to work out how the Petrosys solution can best be applied in the European context.

Franck has excellent French, Spanish, Portuguese, English and German language skills – you can phone him directly on +33 1 72 74 55 86.

# Petrosys StatX Statics Module

Distortions in land seismic data can be caused by velocity and thickness variations that occur at shallow depths. These variations are caused by weathering and create a low velocity layer (commonly known as the LVL). In order to compensate for the LVL, shallow holes (or upholes) are routinely drilled along seismic lines and the thickness and velocity of the LVL are measured. These measurements are interpreted to produce time values (called statics) that compensate for the LVL.




Petrosys' StatX software program is a flexible interactive tool that uses uphole information to produce static profiles for use in seismic processing.

Recently released for use in an easy to administer SQLite database environment, StatX combines with Petrosys' database and mapping module - dbMap, to provide the optimal visual and computational statics package.