

KISTERS Australia News

April 2008

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From The GM's Desk

By Bill Steen

BOM Goes Off In Australia

A catchy heading with an impact that will effect everyone of us in one way or another. Many of you would have been involved in the first round of Bureau of Meteorology (BOM) funding under the Modernisation and Extension of Hydrologic Monitoring Systems [Water Act 2007].

The intention of the funding is to;

- Improving coordination of monitoring activities within States and Territories
- Improving accuracy of existing streamflow, groundwater and water storage measurement networks
- Improving currency of existing streamflow, groundwater and water storage measurement networks
- Improving procedures for the management of water data within agencies
- Enhancing monitoring network coverage for the purposes of water resources assessment and water accounting, provided agencies are able to sustain the on-going operation of the system.

I am under the impression that further funding will be available in the new financial year for projects of a 2 to 4 year nature with submissions due in mid to late August. This is yet to be confirmed.

The impact of this much needed funding promises to inject new life into a somewhat ailing industry. There is talk around the industry of new technology being introduced to assist with the development of rating tables for remote areas, acoustic Doppler radar technology being embraced plus the new era of IP addressable loggers. All very exciting.

The fallout from the historic signing off by Victoria in relationship to the improvement of the Murray Darling Basin as outlined in the National Water Security Plan is yet to be fully understood. However Prime Minister Kevin Rudd has outlined that the changes would include;

- The establishment of the independent Murray Darling Basin Authority as the single body responsible for the overarching management of the Basin;
- Arrangements giving the Commonwealth Minister power to approve a new Basin-wide plan, including a new cap on the amount of water used in the Basin, based on independent advice from the Authority;
- A commitment to provide for critical human needs and arrangements to allow South Australia to store water in upstream dams to ensure there's enough water for Adelaide and towns reliant on the Murray for drinking water;
- Continuation of the States role in setting annual water allocations, decisions on natural resource management across the Basin and a new role to provide input to the Basin-wide plan;
- An in-principle commitment from the Commonwealth to invest up to \$1 billion in Stage 2 of the Food Bowl Project in Victoria to return 100 billion litres of water to the Murray River and an equivalent volume of water to farmers in the Goulburn region; and
- Adoption of new reform outcomes and investment priorities for Commonwealth spending in the Murray Darling Basin.

All of these changes point to and highlight that the water industry is on the threshold of a new era. To enforce and regulate these changes will require more monitoring undertaken with improved quality assurance of the data.

So the times they are a changing....

Bill Steen

General Manager

KISTERS acquires RHEA SA Paris/France.

Aachen/Paris, February, 7th, 2008.

KISTERS AG, the international provider of software solutions in the areas of environment and energy, purchased the shares of RHEA SA, Nanterre, France. The acquisition is effective from 1st January 2008. The fusion of technical capabilities in the fields of rainfall radar and management systems based on time series for natural resources creates the potential for new high level solutions for the customers of RHEA and KISTERS, especially for local and regional operators of flood warning centers and sewage networks as well as for authorities in river basins and flood prone communities.

Since 1987 RHEA has developed its core product CALAMAR, a patented system based on spatially and temporally detailed rain measurement and forecasts based on hydro meteorological radar data. CALAMAR is used on the one hand to analyze historical floods and overflows and on the other hand to forecast short-dated rain events reliably in a real time mode. This enables RHEA to provide systems and services for flood control and the dissemination of alarms for upcoming flood events. The range of services provided by RHEA also includes the construction and operation of local measurement systems to collect rainfall data, which allow accurate calibration of hydro meteorological radar data and thereby permit a reliable short term forecast of heavy rainfall events. The customers of RHEA are based in France and North America.

In future RHEA will continue to operate as a subsidiary company of the KISTERS group from Nanterre/Paris.



New Zealand Meeting



A joint Kisters / iQuest User group meeting will be held in Dunedin New Zealand on Tuesday 20th May. The meeting will be held at Mercure Hotel, 310 Princes Street, Dunedin New Zealand, Tel: (64 3) 477 1145. Special accommodation rates have been arranged for those wishing to stay at the Mercure. A User Group dinner will be held on the Tuesday evening.

This is the first joint user group meeting and presentations will include case studies on the integration of iQuest products such as HydroTel and the Kisters Hydstra software. The conference

will be held the day before the Local Authority Environmental Monitoring Group Conference [LAEMG] meeting.

If you are interested in attending please contact either Bill Steen [William.steen@kisters.com.au] or David Richards [david.richards@iquest.co.nz] and register. Please contact us if you are interested in doing a presentation.

2008 User Group Meeting

The next Kisters Australasian User Group Meeting has been scheduled for Wednesday August 20, at Rydges Lakeside Canberra.

This important and relevant hydrometric industry technical workshop/discussion day will complement the 14th Australian Hydrographic Conference - "Water Initiatives - 2008 and Beyond" that will be held over the following three days from Thursday 21st August to Saturday 23rd August, 2008.

The theme for this years AHA conference reflects the dramatic increase in the awareness and need for good hydrometric information.

In 2007, in response to increasing stresses on water resources and how they were being used, the former Prime Minister developed and instigated the National Water Security Plan.

The aim of this year's conference is to highlight and report on how initiatives and funding are being implemented in the improvement of water resources assessment nationally. Papers presented will address projects funded by various programmes and their impact on understanding better Australia's water resource availability, variability and for its better management into the future.

Registration

To register for either the Kisters User Group Meeting or the AHA Conference please go to; www.aha.net.au and follow the links.

The cost of the one day Kisters User Group meeting is \$570 [includes 2 days AHA conference registration].

Kisters are proud to be a Gold Sponsor of the AHA Conference. Call for Papers to be presented at the AHA Conference can be found at

<http://www.aha.net.au/AHAconference08/Papers.htm>

Tethys Meeting In Aachen

Peter Heweston

In January Trevor Magnusson and I ventured to Germany for the annual week of technical meetings where we discussed product integration between Hydstra and TSM, the new Kisters-wide time-series management system. We demonstrated Hydstra running over TSM, and were able to do some basic performance benchmarking, as well as setting out development objectives for the next year.

In a parallel series of sessions the Soda and Hydrotel teams spent time working out how to create a common driver framework for the two products which would allow drivers written for one product to run in the other.

As part of our European visit we spent a couple of days in Trento, in northern Italy. The train trip over the Alps is truly spectacular.



Over the Alps



Trento

Hydstra Data Transfer to BOM

We are well aware of the looming deadline imposed by the Water Act 2007, which mandates that some types of water data must flow from water agencies to the Bureau of Meteorology with three months. We have started discussions with BOM about developing a tool that would be distributed to

all Hydstra users, and which would simplify data delivery.

Our thinking to date is as follows:

- Data would be delivered in text file formats, probably XML and CSV.
- Data would be zipped into a single transaction file and sent to the BOM via FTP. This would be automated as part of the transfer script.
- For Hydstra data we can reduce the volume by sending only data changed since the last send. This is possible because we keep a datemod/timemod stamp against every database record and time-series block. Data in non-Hydstra systems (in-house WQ and GW systems for example) probably do not have this capability and may need considerable system redevelopment to be able to export changes.
- The export job would probably be run on a timer, perhaps a few times a day.
- The very first export would be very large, and may need to be transferred on a DVD instead of via FTP.

Assuming that we will indeed be commissioned by BOM to provide such a tool, it will require some considerable system development and patching of existing programs. ***To that end we will have to insist that users needing to contribute data to BOM MUST be running a fully patched 9.6.2 (or later).*** We will distribute patches with the final release of the transfer mechanism.

Hydstra Product News

Hydstra 9.6.2 Released

The current release of Hydstra is version 9.6.2. It is a consolidation of a range of bug fixes and patches made to 9.6.0.

The 9.6.2 release is available from the FTP site as a zipped ISO file, please contact us for details if you want to download it. Also please notify us when you go live with 9.6, as its is important that we keep accurate records of which version everyone is running.

You can see a summary of what's new in 9.6 at <http://hydstra.kisters.com.au/whatsnew906.pdf>.

Hydstra 10.0.0 Commenced

We have started on Hydstra V10, which will likely be a while in the making and a major upgrade when it finally arrives. Issues we are considering for inclusion in V10 include:

- Consolidating all DBF tables to a single path

(DBFPATH). This will impact many scripts and programs

- Starting on the move to alphanumeric variables and sub-variables
- Enhancing the notion of datasources, and collapsing datasets and datasources together.

Because we are proposing to implement a number of significant changes, you should plan for a period of in-house testing before implementing V10, during which time you will check that all your local scripts and processes continue to operate as expected. Larger agencies may care to plan for a paid consulting visit from Hydstra staff to help smooth the way.

V10 is at least 6 months away, and possibly much longer.

TimeStudio Release

The current (and final) release version of TimeStudio is 4.2.0.8. We have delivered a 4.2.0.8 CD to all registered TimeStudio users. Any further patches will be delivered via the Kisters FTP site. All registered TimeStudio users have been sent instructions on how to log in to the FTP site.

Consulting Rate Increase

Following the recent round of Bureau of Meteorology recruiting we (and many other agencies) have had to review salary levels to help ensure staff retention. In consequence we have raised our daily consulting rates.

Automatic Hydstra Login

Since Hydstra 9.4 you have been able to give users login-free access to Hydstra simply by putting their Windows user ID into their entry in the PASSWD table. We strongly suggest that you set up access for ALL users this way. The fewer things a user needs to log into the better.

Hydstra/Web Development

We continue to develop and extend Hydstra/Web. The current demo version is available (on a very slow server) at:

<http://hydstra.kisters.com.au/web.htm> . There is real data available for site HYDSYS01.

Foxpro CDX Problems

Occasionally you may see error messages such as:

```
Access violation at address 01CA404D in
module 'SDE50.DLL'. Read of address
00311082
```

The first thing that should come to mind is the possibility of a corrupted CDX index file on a database table. Indexes can get corrupted if a

process is terminated with prejudice, or if the power goes off mid-program.

It is always worth forcing a database re-index by deleting the CDX file and then opening a manage which references the table. Alternatively you can run the INDEX command of HYDBUTIL.

AGD 66 to GDA94 Transformations

Hydstra has the capability to transform between AGD66 and GDA94 map grids. However this code only works in Victoria and NSW. Outside these states you will have to go to your GIS people for assistance in doing the conversion. To get new values back in, create a CSV file in EXACTLY the same format that HYDBUTIL EXPORT produces, then use HYDBUTIL APPEND to a work area followed by HYDBUTIL UPDATE to update the archive.

Spaces and Commas in Command Lines

The Windows command processor (which we sometimes colloquially call a DOS box) passes parameters on the command line using spaces as the delimiters between parameters. Commas, tabs, semicolons and equals are also treated as delimiters. Hence if you need to pass something which contains a delimiter you must quote the parameter:

```
dir "c:\long dirname with spaces\*.*)"
hystns "group(region,murray)" s
call mybat "kw=value" "kw2=value2"
hyplot @"[my saved job]"
```

Directory Opus

Some of us in Kisters have started using an Australian product called Directory Opus that replaces Windows Explorer with a much more capable equivalent. It can do split screens horizontally or vertically, connect easily to FTP locations, includes a very powerful file searching facility, and much more. PC Magazine reports *"With its unique conveniences, startling speed, and gleaming interface, Directory Opus is the only file manager we find powerful enough to use as a replacement for Windows Explorer..."*. Have a look at <http://www.gpsoft.com.au/> for more information.

File Unlocker

Have you ever been in the situation where you couldn't carry out some system maintenance because someone was holding a file open? If you're game you can do a brute-force disconnect using free software from <http://ccollomb.free.fr/unlocker/>.

Staff News

The recent entry of the BOM into the Australian water market has created some staff turmoil for us. We farewell Paul Sheahan and Peter Taylor with our best wishes for the future. We expect to continue interacting closely with Paul as he works on national water data issues for the BOM.

We are very pleased to welcome back Damian Skinner. Damian originally did work experience with HYDSYS Pty Ltd while he was at school in 1990, worked over uni breaks from 1993, started with us part-time in 1995, and worked full time from 1997 till 2003. Damian brings a wealth of Hydstra and water industry experience back to Kisters after his recent sojourn at the MDBC.



Damian Skinner

Job Vacancies

We are always looking for programming staff. If you are interested in developing Delphi in Hobart, or Perl in Canberra, please contact us. The pay is good, the work interesting, and both locations have a lot going for them in terms of lifestyle, particularly for young families. The Canberra position will involve quite a deal of travel, the Hobart one not much.

iRIS 320 Data Logger

The iRIS 320 is a compact, self-contained datalogger featuring an integral keypad, LCD, 12V battery, Solar or DC charger and GSM GPRS or CDMA cellphone module. With 4 analogue/digital inputs and SDI-12 connectivity the iRIS 320 will give you instant access to your data from anywhere in the world from any Internet-equipped PC.

The iRIS 320 can be configured locally via a laptop or remotely across the wireless network, giving you unprecedented flexibility, without having to leave your desk.

The iRIS320 has a 2 piece milled case constructed from corrosion-resistant hard anodised aluminium alloy and a full gasket seal for IP65 rating,



tested and proven for use in harsh outdoor conditions, whether on the top of a mountain or the bottom of a farm.

The iRIS320 has a powerful on-board scheduler and alarm manager which means it can be programmed with alarms, triggering call-ins, SMS text messages or switched outputs. The two digital outputs can be controlled by input triggers, schedules, remote control or user programs.

The iRIS Camera has been designed as an accessory for the iRIS 320 datalogger. This allows the user to extend the range of logging options to include the ability to take images of the remote site and retrieve them in the same manner as that of the standard sensors.



The iRIS CAM features:

- Scheduled or alarm driven image capture.
- Draws a small amount of power from the logger.
- Adjustable image size (Max 640x480 pixels @ 16.8 million colours).
- PC compatible for easy setup and positioning on site.

Being attached to the iRIS 320 means the images can be retrieved through any of the means available to the logger (CSD, CDMA/GPRS, Radio, direct RS232, etc). The camera produces JPEG format images, which can be easily uploaded to websites or viewed from within HydroTel™ 2000.

For more information contact **iQuest (NZ) Ltd**

Email: david.richards@iquest.co.nz

Job Vacancies in NT

With the increased demand for good hydrometric data there has been a dramatic increase in the number of employment opportunities throughout Australia.

Due to expansion of the NRETA Hydrographic unit a number of senior positions are available based in Darwin, Northern Territory.

1 x Hydrographic Supervisor T5 – Permanent
2 x Snr Hydrographers T4 – Permanent
1 x Hydrographer T2/3 – Permanent

A great opportunity exists for those interested in all things Hydrographic to work in the unique environment of the “dry wet tropics”. Working on and around some of the largest natural undeveloped river systems and pristine river environments remaining in Australia will offer adventure, significant challenges and the opportunity to enhance your existing broad range of skills.

With world heritage areas on the doorstep, and cheap flights to Asia, Darwin is a fantastic base to explore the Northern Territory and its neighbours to the North, especially with 6 weeks annual leave. Based in a city with exceptional facilities for its size, but still small enough for a social and easy going lifestyle, Darwin has an average age in the thirties and is a great place to bring up a family.

For more information on these opportunities contact Simon Cruickshank (Hydrographic Manager) on 0401118360 or email simon.cruickshank@nt.gov.au

Closing dates – 18th April 2008



"The last guy who tried a gauging round here was Dave Williams - wanna have another try?"

Contact Information

This newsletter is published by Kisters Pty Ltd and edited by Peter Heweston.

Homepage: <http://www.kisters.com.au>

All support and accounts questions should be directed to support@hydstra.com.

All personal Hydstra email addresses are of the form firstname.lastname@kisters.com.au, but all general emails should be addressed to support@hydstra.com.

Canberra

Unit 4A, 24 Mahony Court
Weston ACT 2611

PO Box 3476
Weston Creek ACT 2611, Australia
Phone +61 2 6288 2302, Fax +61 2 6288 9061,
Email support@hydstra.com

Hobart

Level 4, 2 Kirksway Place,
Battery Point, Tas 7004
GPO Box 1390
Hobart, Tas. 7001
Phone +61 3 6224 8252, Fax +61 3 6224 8414

Sacramento

7777 Greenback Lane, Suite 209
Citrus Heights, CA 95610
Phone: +1 916 723 1441, Fax: +1 916 723 1626

Aachen

Charlottenburger Allee 5
52068 Aachen, Nordrhein-Westfalen, Germany
Phone +49 241 9671-0, Fax +49 241 9671-555

France

KISTERS France SAS
11Bd de la République
78400 Chatou
Telefon: +33 1 30 71 62 54

Spain

C / Gabilondo N°15 Principal
E-47007 Valladolid, Spain
Phone +34 983-228134, Fax +34 983-276876

Shanghai

Fushan Road 450, 10F
Pudong New Area
200122 Shanghai
China

iQuest (NZ) Ltd

PO Box 15 169
Dinsdale
Hamilton 3243 New Zealand

Core Facilities Building
Waikato Innovation Park
Ruakura Lane
Hamilton 3214 New Zealand
Phone +64 7 857 0812 (DDI), Fax +64 7 857 0811,
Mobile +64 21 489 617

Email Attachments to Kisters

The Kisters email system will not allow attachments with the following suffixes: *.pif, *.scr, *.vbs, *.exe, *.cmd, *.com, *.bat, *.hta, etc.

Please zip all attachments before sending them to any Kisters or Hydstra email address.