

# KISTERS Australia News

July 2008

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## From The GM's Desk

*By Bill Steen*

The 2008 User Group meeting is nearly upon us and it only seems like yesterday since the last user group meeting. Where has the time gone! It appears that like Kisters Pty Ltd everyone in the industry is busy and I would assume getting busier. The Australian Government seems to have deep pockets at the moment when it comes to money being injected in the water industry.

In a recent press release the Department of the Environment, Water, Heritage and the Arts published the following:

*"Australian Federal and State governments today finalised the Inter Governmental Agreement to secure a sustainable future for the Murray Darling Basin, Minister for Climate Change and Water, Senator Penny Wong, said. The agreement establishes a single body to manage the Basin, that will establish the first-ever Basin-wide management plan and will set a cap on the amount of water that can be extracted from its rivers and groundwater.*

*The Council of Australian Governments (COAG) meeting agreed on further projects to be funded as part of the historic deal, bringing the value of the Rudd Government's committed projects across the Murray Darling Basin to \$3.7 billion to date.*

*"These projects will help us deal with the current and future challenges of climate change in the Basin," Senator Wong said. "They form a*

*substantial part of our Australia-wide commitment to water under the Rudd Government's \$12.9 billion Water for the Future plan. This agreement means there will be urgent action to progress these important."*

*The projects are as follows:*

*New South Wales: \$1.3 billion for new priority projects to improve irrigation infrastructure*

*South Australia: Up to \$610 million for projects in South Australia.*

*Victoria: Reaffirmed commitment to up to \$1 billion for Stage 2 of Victoria's Foodbowl Modernisation Project, subject to due diligence. Commitment in principle to fund up to a further \$103 million for infrastructure projects*

*Queensland: Up to \$510 million to new priority projects in Queensland.*

*ACT: Up to \$85 million for salt reduction activities in the ACT.*

How is the money being spent and how does it affect you and me? The majority of the money is going towards irrigation infrastructure, pipes, concrete channels etc, however they will also need metering, data logging and telemetry. So who's going to manage this data and how will it be reported?

Already agencies are coming to terms with financial injections of funding for the improvement of resource monitoring but they may now be looking at new projects and much larger volumes of data collection. All of which will need to be managed and end up in the Bureau's national archive.

My guess is that if you think you are busy now then you may have to think again.

See you all at the User Group meeting

*Bill Steen*

General Manager  
Kisters Pty Ltd

## 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 awareness of the need for good hydrometric information.

The aim of this year's conference is to highlight and report on how Federal 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.

### **Kisters User Group / AHA Conference Registrations**

To register for either the Kisters User Group Meeting or the AHA Conference please go to [www.aha.net.au](http://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.

## **Hydstra Installation in Yuba County, CA**

Dylan Evans and Damian Skinner installed Hydstra at the Yuba County Water Agency in central California. The agency manages a few dams used to generate hydropower, as well as providing water to irrigation districts. The software was installed at the Colgate powerhouse, with users in nearby Marysville operating via terminal services.



*Don't touch anything!*



*Training session*

## **Hydstra Installation at DEC in WA**

Peter Heweston and Damian Skinner recently installed Hydstra at the Department of Environment and Conservation in Perth. The Department collects a significant amount of groundwater data, as well as time-series and water quality.

We particularly thank Matt Forbes for his invaluable assistance in helping to round up the considerable volume of data from various locations around the state.

Groundwater data presents some complexity compared with surface water, in that you measure distance *to* the water rather than depth *of* the water. We had a lot of fun clarifying the location of the measurement point in each case, as well as deciding whether positive measurements went down into the ground or up into the air - both conventions were in use.



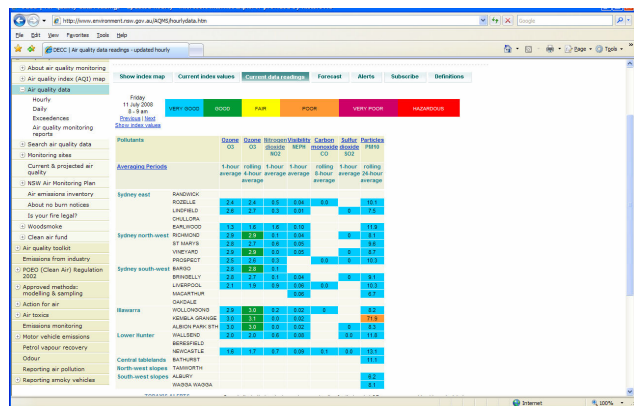
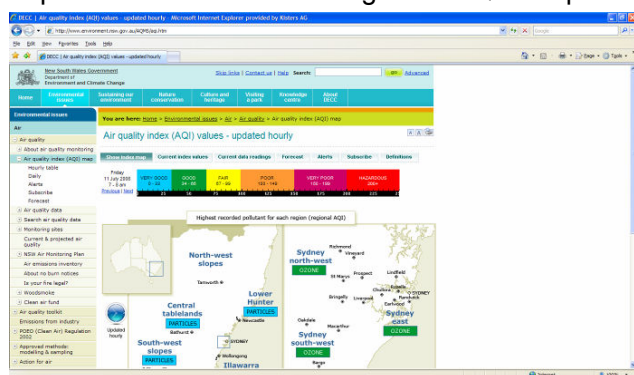
*Training Session at DEC*

## AquisNet Installed in Australia

Kisters Pty Ltd has completed the first Australian installation of AquisNet, the Kisters air quality product, with the Department of Environment and Climate Change in NSW. The installation was carried out by a team from Germany led by Christoph Braun, with support from Australian staff including Dom Turcic and Bruce Young. The Department uses AquisNet to manage air quality information from all over NSW.

You can see AquisNet in action on the Department's web site at:

<http://www.environment.nsw.gov.au/AQMS/aqi.htm>



## HydroTel installed at Tasman District Council

iQuest recently completed an installation of HydroTel for TDC at their Richmond HQ in the beautiful Nelson province at the top of the South Island, New Zealand. This installation takes the number of regional authorities in NZ using HydroTel as their front-line environmental telemetry system to eleven out of a total of fifteen.

The Nelson region is rugged, with many of their sixty or so remote monitoring sites in difficult and

harsh locations. Communication is via a mix of VHF/UHF radio, cellular GPRS and dial-up. There are also several brands of legacy data loggers in the field, requiring a range of protocols to be supported.

TDC are now planning the next phase of the project with new installations or site upgrades with iQuest iRIS data loggers.



*Nelson City- part of TDC's region*

## iQuest User Group Meeting in Dunedin

In May iQuest held its annual NZ user group meeting, this time in Dunedin. Users from all over New Zealand gathered to hear what's coming up from iQuest in terms of hardware and software developments. It was an excellent forum not only technically but also for delegates to gain a better understanding of how iQuest now fits in as part of the Kisters group. Klaus Kisters, Bill Steen and Peter Heweston also attended and their presentations were received with interest. The gathering, which was very well attended, concluded with a congenial conference dinner and a few beverages.



*Conference session*



## WISKI 7 Goes Global

*By Michael Natschke*

WISKI 7.0.9 has recently been implemented in several international locations. The current focus for WISKI7 is the German speaking market, the Canadian market, and as a replacement for TimeStudio in Australia.

Alberta Environment, City of Edmonton and Transalta Canada are some of the active projects in Canada.

At Alberta Environment WISKI7 will replace the TimeStudio near real-time archive, and will also manage the hydrometric archive of quality assured time series data.

The City of Edmonton is a new Kisters customer. WISKI7 will manage all their drainage and sewage data as well as surface water data and precipitation.

Kisters and Hydro Tasmania implemented WISKI7 and WISKI Modelling at Transalta as a replacement of their legacy Hydro Forecasting System. A WISKI Model developed by Hydro Tasmania routes the inflows through storages using the operation rules and constraints to determine generation, lake levels, the corresponding storage and spills. WISKI7 and TSM built the repository for all model input and output time series data. From the perspective of the TimeStudio to WISKI Integration Project the link between WISKI Modelling and Kisters TSM has satisfied the stability and performance requirements of the project.

The Kisters TSM technology has been successfully implemented behind all the WISKI7 projects and provides a stable time series management tier with server side calculation of time series data.

The current WISKI Version 7.0.9 offers standard functionality to manage environmental time series data. New key features of this version are the calculation of long term values including percentiles, the possibility to roll out any period of time series data to a profile time series, the inverse rating curve calculation and the WISKI User administration (including an LDAP plug-in).

The management of water quality samples and the coupling to the Kisters Alarm Manager are currently under development and will be released with version 7.0.11 in August 2008

## Transferring Data to BOM

Hydstra has been working closely with the Bureau of Meteorology to develop data transfer tools for Hydstra that will allow agencies to meet their obligations under the new Water Act. We expect to release HYXMLEXP shortly to selected users, particularly those who have a three month deadline for initial data delivery.

HYXMLEXP is a HYSOFT job that extracts data from Hydstra and converts it into XML or CSV, zips it up, and sends it to the BOM via FTP. It should be a relatively simple matter for users to configure the program with a list of sites and variables that need to be transferred, as well as indicating how the data should be converted into the preferred units mandated by the BOM.

HYXMLEXP will run in several modes:

In FULL mode it will do a complete dump of all the data for the reporting sites. This will produce such a huge amount of data that you would probably send the first offering on a DVD rather than trying to FTP gigabytes of data.

In CHANGE mode the program will report on blocks of data that have changed since the last FULL or CHANGE run. You would probably run CHANGE mode once a day, at night time when things were quiet. It would pick up any retrospective editing done that day, as well as transferring changes in ratings, gaugings etc. In order to make the transfers as robust as possible, any time a rating point is changed, all ratings for the site are transferred, any time a gauging is changed all gaugings for the site are transferred, etc.

Finally QUICK mode delivers only time-series data points that have been added to the archive since last run. You could run QUICK mode every 15 minutes if you wished, delivering new telemetry data to BOM shortly after it had arrived.

Users will need to be running Hydstra 9.6 to use HYXMLEXP, and we will deliver a few patches as part of the HYXMLEXP delivery to ensure the system is up to date.

Users in the first round of data delivery should expect to hear from us very soon. We will be able to provide some on-site assistance if necessary to help you configure the jobs and get them running.

Chris Misson has been contracted to develop a BOM exporter for TimeStudio.

# Hydstra Product News

## **Hydstra 9.6.4 Released**

The current release of Hydstra is version 9.6.4. It rolls up a lot of changes and enhancements made since the beginning of this year. 9.6 will be the last version 9 release, though we may release more patches if necessary.

The 9.6.4 release is available from the FTP site as a zipped ISO file, please contact us for ftp details if you want to download it. Also please notify us when you go live with 9.6, as it 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/whatsnew.pdf>.

## **Hydstra 10.0.0 Development Commenced**

We have started on the development of Hydstra Version 10, which will likely be a while in the making and a major upgrade when it finally arrives. Issues we have finalised already for inclusion in V10 include:

- Consolidating all DBF tables to a single path (DBFPATH).
- Starting on the move to alphanumeric variables and sub-variables
- Enhancing the notion of datasources, and collapsing suffixes, datasets and datasources together into a single datasource concept.
- Enhancements to the underlying binary time-series file formats to improve accuracy and round-tripping.
- Elimination of any relic 16 bit tools, and replacement with 32 bit equivalents.

We will be presenting the Version 10 development plan in detail at the User Group meeting, and demonstrating aspects of V10 in operation.

## **Hydstra Doesn't Run Under 64 Bit Windows**

We recently discovered (to our cost) that Hydstra does not run under 64 bit Windows. If you are planning to acquire a dedicated server for running Hydstra applications please ensure it is running a 32 bit Windows operating system. Note that 32 bit Windows will run on 64 bit hardware, and we don't care about the hardware, only the software.

## **Microsoft Office Document Image Writer**

You may have noticed when you go to print something that a virtual printer called Microsoft Office Document Image Writer is offered. This is Microsoft's answer to PDF, and it can be very handy if you find yourself needing to take a report

to another computer, or to email it to someone. It behaves in a very similar way to PDF, but produces a .MDI file. The file contains multiple pages, images etc in one handy document.

## **Printing HTML from HYPLORE**

Recently Hydstra has started producing some richer formatted reports in HTML, using a variety of tools we have developed, mainly in Perl.

If you want to print a nice coloured report, let's say the output from HYGIENE, you may find that the coloured cells and backgrounds don't come out correctly. To rectify this you need to configure Internet Explorer (which is what HYPLORE uses to display HTML). Go to Tools/Internet Options/Advanced and scroll down to the Printing section. Check the box labelled 'Print background colours and images' and you should see your nice colours coming out on paper.

To get rid of the 'Page n of m' type headers and footers, go to File/Page Setup in IE and clear out the header and footer lines. Then when you print an HTML output from HYPLORE you will get printed exactly what you see in HYPLORE.

## **Site Lists Respect Order (sometimes)**

You may not have noticed an important change in site lists (HYSTNS expressions) that was introduced in 9.6. Prior to 9.6 site lists were always sorted and unique - only one reference to a site would ever exist in the resulting list, and the list was presented in site order.

In 9.6 there are a few expressions like GROUP(), FILE() and PERLLIST() that preserve order and duplicates. Order preservation is important because it allows us to generate 'run of river' type reports from a site list expression that produces the report in the correct site order down the river.

If you really want to ensure uniqueness and ordering you should wrap your expression in SORT().

## **Terminal Server and Citrix**

Many agencies are using Terminal Server or Citrix to provide access to their Hydstra system for users in remote offices. We recommend such solutions for distributed organisations, however we remind you that you are not licensed to allow access to your system by users who are not part of your agency. If you wish to allow external users or consultants to access your copy of Hydstra you must discuss licensing arrangements with Kisters Pty Ltd.

## Keeping Users Out Of Hydstra

Occasionally in a large agency you may wish to make Hydstra unavailable for a period while you perform system maintenance. You may use HYMAILER to email logged-in users that a scheduled outage is planned, using the *loggedin:all* recipient. You can also prevent further users from logging into the system by dropping a small script into INIPATH called *hyxplore.startup.pl*.

The following example notifies the potential user that maintenance is occurring, and immediately logs them out of HYXPLORE again:

```
require 'hydlib.pl';
main: {
  Prt("-M", "Hydstra is undergoing system
maintenance - please close all Hydstra
programs and try again later\n");
  system('hyxplore /k');
}
```

## TimeStudio Release

The current 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.

## Naming ADCP Files

A number of people have mentioned to us their desire to keep track of Acoustic Doppler Current Profiler (ADCP) files from Sontek, RDI and other similar vendors. These files are typically quite large, and contain a lot of information that we will never be able to understand or decode in a Hydstra program. However we suggest that if you wish to keep the files in some sort of logical order we propose the following strategy:

- Make an ADCP directory under \hyd\log.
- Make site directories under \hyd\log\adcp
- Name the files with dated names of the form 20080705132000 blah blah.

This will at least keep the files together with the rest of Hydstra and backed up with the system.

## Planning for Perl Training

Some time later this year we hope to run a one or two week Perl training course. The course will be aimed at bringing programmers in other languages up to scratch in Perl, with particular reference to Hydstra. It will emphasise all the potential linkages between Hydstra and Perl, and demonstrate tools and techniques for achieving outcomes. Prerequisites will be a good knowledge of Hydstra and a demonstrated ability to program in another language. We will not be able to accept trainees

without both qualifications.

Please register your potential interest in such a course, and we will contact you when we have more detailed plans. Email [support@hydstra.com](mailto:support@hydstra.com).

## Demise of Clipper in V10

If there were any relics of Clipper left in V9 they have certainly all gone in V10. This includes the old GENLOG system, as well as HYDBU.

Before the table gets completely removed you might like to export LOGREG to CSV or XML and stash it away somewhere for future reference. LOGREG was the processing table for the old Clipper Generalised Loggers system.

# 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](mailto:support@hydstra.com).

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