

# KISTERS Australia News

October 2009

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## From The GM's Desk

*By Bill Steen*

This year's user groups meeting in Australia and the USA have come and gone and we're now planning next year's Australian meeting to be held in Perth in October 2010.

The Australian user group meeting proved to be a very informative event with several themes dominating the proceedings such as presentations by the Bureau of Meteorology on building a national archive, CSIRO WDTF and WaterML2 followed by more on water transfer to BOM. I feel that those present would agree that the water industry is undergoing a major face lift in respect to how data is not only being transferred more frequently amongst end users but growing in importance especially with the push for greater reliability as we move more into national water accounting.

The USA user group in San Diego was similar to that held in Australia in respect to the importance of the changes users will face with the release of Version 10. The presentations generated a lot of discussion on how alpha-numeric variable naming conversions could be addressed through to changes in the instrument database to address asset management.

On the home front Kisters has employed a new staff member, Sanette Latsky, and we all welcome Sanette to the Kisters team. Sanette has prior

experience with Hydstra whilst working for the South African Department of Water Affairs and Forestry. I dare say over the coming months many of you will be communicating with Sanette via support.

Bill Steen  
General Manager  
Kisters Pty Ltd

## 2009 Australian Kisters User Group Meeting

The 2009 user group meeting was held in August at Rydges Lakeside Hotel in Canberra. Over 60 people attended the two days. A variety of sessions were presented on issue of interest to Hydstra users. Hydstra Version 10 was announced as released, and a considerable amount of time was devoted to discussing the issues surrounding V10 and the upgrade path.

The session titles included:

- Welcome and Year In Review - Bill Steen
- Kisters Group News - Klaus Kisters
- Security, Backup and Disaster Recovery - Peter Heweston
- What's New in Hydstra - Peter Heweston
- Monitoring Systems Status and Data Currency Using SVRFIDO - Tony Caine
- Computer Industry Trends - Peter Heweston
- New DataSources in Hydstra - Peter Heweston
- Alphanumeric Variables - Peter Heweston
- Migrating To V10 - Peter Heweston
- Accessing Documents in TRIM from Hydstra - Jason Venables
- Hydrometric Instrument and Asset Management in Hydstra - John Hayes and Col Mayes
- Progress on Building a National Database - Tony Boston
- WDTF and WaterML2 - Pete Taylor
- Hydstra WEB Update - Denby Angus
- Data Transfer to BOM - Todd Lovell
- Water Data Transfer in Australia - Peter Heweston

- National Water Accounting - John Hayes
- Wiski Update - Michael Natschke
- iQuest update - Mike Cook

Copies of the presentations are available at [hydstra.kisters.com.au](http://hydstra.kisters.com.au)

## 2009 KNA User Group Meeting

The 2009 user group meeting was held in August at the Bahia Resort Hotel in San Diego. Session titles included:

- Kisters Update – Klaus Kisters
- Kisters North America Review and News – Stan Malinky
- Hydstra Review and News – Bill Steen
- Introduction to CUAHSI Water Web Services and Texas HIS – David Maidment
- Integration of Spatial and Temporal Analyses – Dean Djokic
- Computer Industry Trends – Dylan Evans
- What's New in Hydstra – Dylan Evans
- New Data Sources in Hydstra – Dylan Evans
- Alphanumeric Variables – Dylan Evans
- Hydstra WEB Update – Bill Steen
- Migrating To V10 – Dylan Evans
- Collection and presentation of real-time data on the web – Steve Clark



San Diego Bay

## KISTERS & OGC

*By Stefan Feust, Kisters AG*

KISTERS at the OGC Technical Committee Meeting in Darmstadt, Germany, 28.-30.9.2009. KISTERS has recently become a member of the

Open Geospatial Consortium (OGC). This group has defined a lot of standards that relate to spatial questions. While standards like WMS and WFS are common in web-mapping the OGC today is thinking about water related standardization. KISTERS is member of the Hydrology domain working group which is starting to specify a new data exchange format called WaterML2.0 and which should bring together global experiences from different organizations. Other members in the group are CUAHSI and also CSIRO. Peter Taylor from CSIRO actually initiated a harmonization process with a comparison of existing water time-series formats around the world. KISTERS is contributing to this process by providing the experience of a large number of installations and the deep knowledge on the requirements to our systems. KISTERS also participates to earlier see how standards evolve to make them quickly available in our system.

## Water Level and AHD

*By Peter Heweston*

As the Australian water industry moves into the brave new world of the 'geofabric' it may become desirable to be able to reduce all water level measurements to a uniform height datum. At present most river water levels are measured in gauge datum, which is a local or assumed datum that varies from site to site.

In Australia the height datum is referred to as Australian Height Datum, or AHD. You can read an excellent description of AHD at <http://www.ga.gov.au/geodesy/datums/ahd.jsp>.

Historically the elevation of gauge zero can and does change over time, in response to changes in location, rebuilding structures, and damage caused by flood events. However the history of changes in gauge zero is usually not recorded reliably in Hydstra at present. The STATION table does have a GAUGE field to hold the current gauge zero elevation, but that doesn't help with historic changes.

It seems to us that Hydstra users might contemplate the day when water levels will be transferred to the BOM in AHD instead of in local gauge datum.

The most important work that will need to be done in preparing for such an eventuality is to create a time-table for each site that stores the AHD of gauge zero each time it changes. Then it becomes a simple variable conversion to add the time-table values to the water level values to produce a level in AHD.

You would need to create two new variables in the VARIABLE table, perhaps:

- 108 - AHD of Gauge Zero
- 109 - Water Level in AHD

You would then populate a time-table for each site that stores 108 values. Finally you would create a variable conversion that performed a TRACEADD to add 100 and 108 to produce 109.

You could then at any time and in any program produce water level in AHD by asking for 100->109 as a variable conversion.

The technical work in Hydstra required to set up such a system framework is quite modest, and should only take half an hour. What will take the time is working back through the survey level books to discover the historic changes in gauge zero and entering them into Hydstra. You may like to consider a proposal to BOM for funding to assist in this endeavour.

## Hydstra Product News

### *Hydstra Version 10 Released*

The current release of Hydstra is version 10.1.0. We had a slip-up with 10.0, and it has been canned. If you have a 10.0 installation of any sort, please upgrade it to 10.1 soon, as 10.0 is unpatchable.

The upgrade to version 10 may require some care for larger users, particularly those with lots of custom scripts. Read the V10 Help file from the release CD for more information. You might like to get us in for a few days of consulting, and we are considering running a one day training course later in the year specifically on Upgrading to Hydstra 10.

The 10.1.0 release is available from [hydstra.kisters.com.au](http://hydstra.kisters.com.au) as a zipped ISO file. You will need to contact us for a V10 HYACCESS file before you can install or upgrade.

Please notify us when you go live with V10, as it is important that we keep accurate records of which version everyone is running.

### *Testing Microsoft SQL Server Version of Hydstra*

We are working with a few key clients towards a release of a fully supported Microsoft SQL Server version of Hydstra V10. We will also plan to release Oracle and PostgreSQL versions subsequently.

We plan to make a beta test version available to selected clients towards the end of this year, with a production release early next year, most likely as

part of Hydstra version 10.2.

Note that any of the SQL version of Hydstra will still maintain its time-series files in Hydstra compressed files, not inside a database table. Only meta-data such as SITE, VARIABLE, GAUGINGS, RATINGS etc will be inside SQL tables. However we may incorporate the AWDIP table structures into Hydstra at some future date in order to provide a store of computed data at the daily and possibly hourly level.

There will be a significant fee involved in migrating to a SQL Server version of Hydstra - please contact Bill Steen at Kisters Pty Ltd for more information.

### *Talking to SCADA via OPC*

OPC is a standards specification developed by the OPC Foundation for open connectivity of industrial automation devices and systems. We have recently developed an interface for a client between Hydstra and a Ovation® Expert Control System using a Perl OPC module. Please contact us if you have an OPC compliant system and need to interface Hydstra to it.

## HYBOMEXP Developments

We propose to release HYBOMEXP V4 shortly. The new version significantly strengthens the amount of validation done on the parameters provided in the (rather complex) INI file. It also simplifies the layout of the INI file and allows for re-use of sections in relation to FTP, variable filters, etc.

You will be notified by email when the new version is released.

We have received funding from the NSW Office of Water via the BOM to enhance HYBOMEXP to export in WDTF format. We will be working on that project over the next few months, and HYBOMEXP V5 will support WDTF export as well as the current format.

We have also received funding to develop a WDTF to Hydstra importer. When completed this will be made available to all Hydstra users, thus allowing agencies to interchange data in WDTF format.

### *HYBOMEXP Bug in MLD Conversions*

If you are running HYBOMEXP and converting your flows from MLD to CUMC then you will be referencing a file called *hybomexp.local.mld.pl*. Some distributed versions of this file have a bug whereby the gaugings were being sent out with variable 141 instead of variable 140. Around line 36

```

    }elseif($stable eq 'gaugings'){
        #only want some of the gaugings
records
        if(($$record{'varfrom'} eq '100')&&
($$record{'varto'} eq '141')){
            UnitConv($record,'gaugings',
'flow','MLD','CUMC');
            UnitConv($record,'gaugings',
'veLOCITY','KMD','MS');
            $$record{'varto'}='140';
            return 1;
        }
    }
}

```

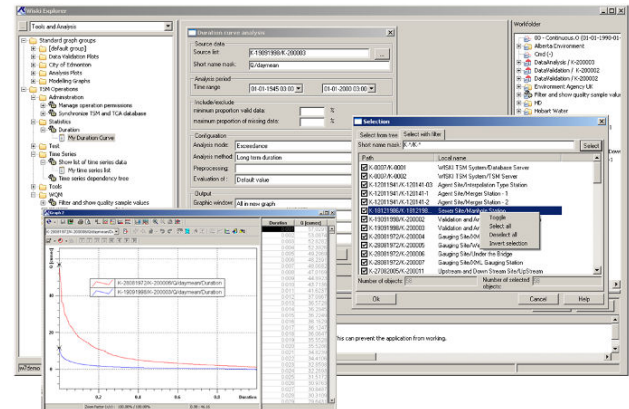
# WISKI 7 News

WISKI 7 is leaving the zero version stream behind. The current WISKI Version is WISKI 7.1.1. The Reason for the major version shift is an update of the underlying development platforms and the introduction of a new frame work: the operation framework.

[illegible]

All operations follow the same configuration workflow. Define input data, configure time range, the operation and the expected output. Operations can be executed for a single station but also multiple stations at the same time.

All configurations can be stored as private or public named configuration into the central database.



# iQuest Newsletter

# Hydstra Training

If you wish we can run courses at your organisation. Courses run at your agency are charged for at our standard travel and consulting rates. Please allow an extra day at the start for travelling and to set up the training room with Hydstra systems - it is a time-consuming task. Hydstra needs to be installed on each PC so that trainees can be operating on the same data simultaneously.

- Basic Hydstra
- Advanced Hydstra

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- Exporting Data to BOM
- Hydstra/WQ
- Hydstra/SVR
- Ratings
- Modelling with MODSYN
- Using Perl with Hydstra (pre-requisite is attendance at 4 day Programming Perl run by Perl Training Australia plus advanced Hydstra knowledge.)

If we get a full house then courses are charged at \$500 per day plus GST. For smaller numbers we may have to increase the per-person cost.

Please contact us if you are interested in attending a training course.

### **Advanced Hydstra Course**

We plan to run a 3 day Advanced Hydstra course on Dec 7-9, at a cost of \$1500 per person plus GST. Topics we plan to cover include:

- Basic Windows scripting
- Job automation and HYBATCH
- HYAUDIT and key performance indicators
- Routine administrator tasks
- Installing and moving Hydstra
- Hydstra under Citrix and Terminal Server
- Migrating to Version 10

### **Programming Perl Course**

Perl Training Australia will be presenting a four day Programming Perl course in Canberra on Nov 10-13. Completion of this course is a necessary pre-requisite to attending our Using Perl with Hydstra course. You can book via their web site at <http://perltraining.com.au/bookings/Canberra.html>

## **Staff News**

We welcome Sanette Latsky to Kisters Pty Ltd. Sanette worked for the Department of Water Affairs and Forestry in South Africa as a Hydstra specialist a few years ago, and she brings a wealth of Hydstra and Perl experience to her new position. Sanette will be working with the support team in Canberra.



Sanette Latsky

## **Contact Information**

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

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