

# KISTERS Australia News

March 2005

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## Introduction

Welcome to the first newsletter for 2005. This edition highlights our progress over the past 5 months and points to where our client driven development is focused.

We are now over twelve months into the original merger with Kisters AG and as one would expect we are seeing the benefits of joining a larger international company that has the capability to provide resources not previously available to us. This includes access to development expertise whilst providing staff with the opportunity to work along side their counterparts in Germany and Spain.

Since January there has been a concerted effort to tailor SODA telemetry systems to the local market whilst working closely with clients. Ben Bildstein and Paul Sheahan in Australia plus the team of SODA staff in Germany, have worked tirelessly to ensure we meet the demands of the market. You can also expect to see an increase in the number of logger types supported by SODA over the next few months.

I would also like to take the opportunity to welcome the following new users from County of Orange USA, Regione Umbria Italy, ARPA Idrometeo Parma Italy, and Ministry of Agriculture East Timor.

This year we will be holding two User Group meetings commencing in New Zealand on the 28<sup>th</sup> and 29<sup>th</sup> July at the Auckland Regional Council office followed by the Australian meeting taking place at the Crowne Plaza, Canberra on the 3<sup>rd</sup> and 4<sup>th</sup> August. I look forward to seeing you all at the meetings.

Kisters North America organised their User Group meeting earlier this year, see details in this edition.

Bill Steen  
General Manager  
Kisters Pty Ltd



## Kisters Partners Meeting

In January staff from Kisters offices all over the world gathered in Aachen for Kisters Partners Week. The purpose of the week was for Kisters staff to discuss product and market issues. The group comprised staff from Germany, Australia, the USA, France, Spain and China. The Australian contingent included Bill Steen and Peter Heweston, who found the transition from 30°C to -1 °C bracing to say the least.



As well as long days of presentations and discussion the group had time to go racing one evening at Michael Schumacher's Kart-Center in Kerpen. The competition was intense, with Jürgen Stein (*pictured*) coming out victorious after a gruelling drive. Peter Heweston suffered from a poor power to weight ratio and came in a resounding last whilst Bill Steen managed 4<sup>th</sup> place from 18 starters in the first race.



## KNA Users Group Meeting

Kisters North America (KNA) held their Users Group meeting in Sacramento on March 8 and 9. Day one was devoted to generic Kisters matters and on day two we split up into product-based sessions for Hydstra and Wiski. It was 18 months since the last USA Hydstra meeting so there was plenty to discuss. We looked at the new features in Hydstra 9.2, Dylan Evans of KISTERS North America gave a presentation on "Recovering Deleted Data...Oops I Did It Again." (No pun intended to the famous recording star), and there were a number of presentations given by users throughout the two day meeting. This meeting was a success because of the 60 attendees who took time out of their busy schedules to attend and participate in the meeting.

## 2005 Users Group Meetings (Asia Pacific)

The 2005 Users Group meeting will be held in Canberra on August 3 and 4. You are invited to propose presentations on any relevant topic. We will be running a separate New Zealand meeting this year, on July 28 and 29 in Auckland. Klaus Kisters will be present at both meetings to present the roadmap for the future.

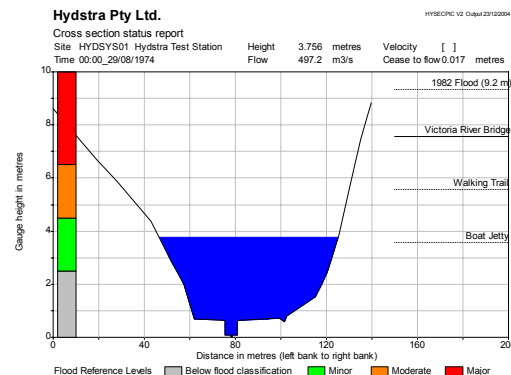
There will also be an Australian Hydrographers Meeting commencing at 4:30pm Wednesday 3<sup>rd</sup> August followed by the traditional User Group dinner. For those people just wanting to attend the dinner the cost will be \$55 [includes GST].

## Hydstra News

### Version 9.2 Released

Version 9.2 of Hydstra has been released. If you want a copy please email [support@hydstra.com](mailto:support@hydstra.com) with your request. Version 9.2 has been 9 months in gestation, and it includes many new features.

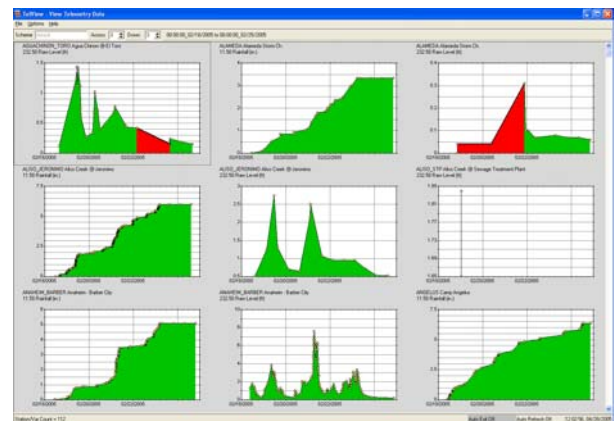
HYSECPIC is a program for generating cross-section pictures with current water level showing, suitable for web sites etc:



HYINSCAN provides a facility for scanning instruments in and out of a location using a barcode scanner.

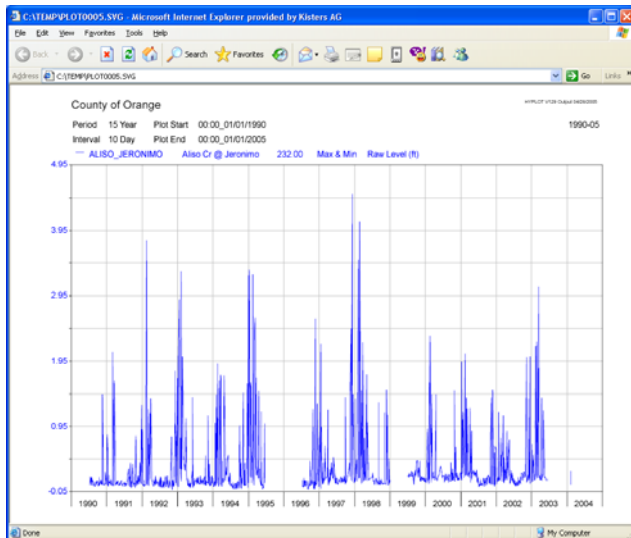
SUB VARIABLES IN RATING. The ratings system allows you to have different rating tables for different subvariables at a site, for instance upstream and downstream.

TELVIEW the telemetry view program has been extensively enhanced. TELVIEW is a good starting point for managing lots of real-time data, particularly as it now has the ability to go directly to the workbench from a right-click. This allows you to screen lots of data in Telview fairly quickly, and move to the Workbench to fix any problems.



All Hydstra plot programs can now produce graphical output in SVG format. SVG (Scalable Vector Graphics) is an open standard XML-based

graphics format that allows plots to resize to fit a given space, much as WIP plots do in HYVIEW and HYPLORE. To view SVG plots you will need to install the free Adobe SVG reader, available for download from the Adobe web site. You can then open an SVG plot in Internet Explorer:



### Workbench Comment Bug

We recently uncovered a bug in the Data Managers Workbench which under some circumstances caused comments to be replicated many times, and onto many points. The bug existed only in Hydstra version 9.0.6, and was fixed by 9.0.8. We believe we have notified all clients who might suffer from this bug, and we have provided a patched HYDMWB.EXE and a fix to undo the comment replication. If you observe replicated comments and need to apply the fix, please contact [support@hydstra.com](mailto:support@hydstra.com) for assistance.

### XML and Hydstra

Hydstra is increasingly being XML enabled in preparation for the future. XML allows data to be interchanged between products, it is simple to handle in programs and scripts, it is human readable as well as machine readable - what's not to like about XML!

The first major XML program in Hydstra is HYPXMLOUT. This program takes a site list parameter, and produces an XML file containing any or all of the following:

- Data from site-related tables for every site in the site list. Site related tables include SITE, STATION, HISTORY, PERIOD, ratings, gaugings, sections, etc
- Data from the whole of non-site related tables,

like VARIABLE, QUALITY, INSTREG etc

- Block information from time-series files, including block audit information, periods of data, qualities encountered, etc. Blocks can be filtered by date range of data, or date range of block modification.
- Point details from blocks of data
- Raw and computed data at regular time intervals, such as daily flow, hourly water level, etc.

The program is configured with an INI file that provides a good deal of flexibility in what comes out in the XML.

We have developed a set of Perl routines to simplify the processing of XML, and the conjunction of HYPXMLOUT and Perl has enabled us to develop for users projects such as:

- Printing a Station Catalogue that includes details about sites, locations, periods of record, etc
- Exporting changed blocks of data at regular intervals to populate an Oracle database of daily flows
- Developing a Perl tool to compare two time-series files and report on the differences, down to the point level if necessary
- Summarise data changed per month by user and region

Internet Explorer presents XML data in a simple tree structure by default. However if an XSL style sheet is associated with the XML, Internet Explorer will execute the style sheet and render the XML into formatted HTML.

One advantage of XML is that it separates data meaning from data format. In the long run it makes sense that many Hydstra programs produce their primary output in XML, and then the formatting be done in a subsequent step.

Look for developments in the near future that will produce XML output from programs such as HYAUDIT, HYBATCH, MAPHYD and more.

If you want to learn more about XML there are numerous resources on the web, or you can try one of the classic books such as "XML for Dummies". Amazon has dozens of listing on XML related topics.

If you don't want to know or care about XML, that's OK too - we'll do all the hard work for you.



# Kisters Integration

## ***Soda Developments***

A considerable amount of effort has been expended on integrating Soda into the Australian marketplace and linking it with Hydstra. Soda is the Kisters telemetry product that downloads loggers using phone, radio and other communications technologies. We have delivered drivers for a range of loggers used in the Australian marketplace, such as Campbell, Mindata, Greenspan and Mace, and development continues on some of the less widely used loggers such as SDS (Torrens), RRDL3, Unidata etc.

A new Hydstra program HYSODA receives the data from Soda and quickly adds it to Hydstra work files. HYSODA can process several files a second, which is more than ample performance for data delivered by phone.

A number of agencies are trialling Soda, including the NSW Department of Infrastructure Planning and Natural Resources, ECOWISE Environmental, and Sydney Water.

A reminder to users of TimeStudio Scheduler, for telemetry purposes you are entitled to a 50% discount on the software component if you purchase a SODA system before the end of 2005. This discount reduces to 30% in 2006. No discounts will be offered after 2006. This discount applies to the initial purchase only. No discounts apply to annual licence fees.

## ***Wiski/Web***

Wiski Web is a Kisters module that provides web-based mapping linked to time-series reports and plots. Wiski Web is being redeveloped in Java during this year, and Peter Heweston had discussions in January about integrating Wiski Web with Hydstra. The intention is to provide a web server-based product that will allow a user to browse sites on a map, zoom and pan interactively, then drill down into graphs and reports which are created on demand. We hope to have something to demonstrate later this year.

## ***Kisters Alarm Module***

Kisters have been commissioned to develop an alarm module for a German client. The specifications of the module are rigorous - it will be able to deliver 1800 faxes and 1800 SMS's an hour in the event of a major flood. We are planning integration with Hydstra so that Hydstra processes will be able to trigger alarms. The alarm module will be released as a new Kisters/Hydstra product in

due course.

## ***TimeStudio Modelling and Wiski***

TimeStudio modelling has been integrated with Wiski, with a client in Canada already running TimeStudio models over Wiski data. TimeStudio modelling has run over Hydstra for some time, and a number of clients are also using this combination.

## ***TimeStudio***

The next release of TimeStudio (version 4.2) is a consolidation release; this is the final TimeStudio release prior to TimeStudio being placed in caretaker mode. All Kisters funded research and development on the TimeStudio product ceased on 31 December 2004. Significant bug corrections, customer funded enhancements and support for TimeStudio will continue until 31st of December 2006. It is anticipated that TimeStudio customers will migrate to the enhanced WISKI product with the new TimeStudio style reporting module and modelling. TimeStudio telemetry customers have a migration path via the SODA product line.

TimeStudio customers should budget for staff training in WISKI and SODA, for data migration assistance and for conversion of any custom applications that interface to TimeStudio. As each organisation's requirements will be different please contact our support staff for estimates for budgeting purposes. Note that a detailed TimeStudio usage and data holding survey will be required to provide accurate estimates.

## ***TimeStudio 4.2 Release***

TimeStudio development for the last period has involved progressing towards the version 4.2 release. This is intended to be the last major release for TimeStudio, although patch versions will be available for any critical changes that need to occur, as described above.

This release includes multiple fixes to various features along with the addition of some new features. A major fix that is included in version 4.2 is the fix for the 2006 date-time problem in the general TimeStudio framework. Many drivers have also been worked on to include the fix; there are only now a few remaining to be looked at. Scheduler's telemetry has had numerous enhancements, including fixes/improvements to the various protocol layers. A full list of the new features and bug fixes is available with the 4.2 release.

### ***TimeStudio Multi-Variant Time Series Editor***

The 'multi-variate time series editor' has had a number of changes to it, as well as many fixes to improve general functionality and usability. For people still using the old Time-Series editor they may want to take a look at the changes, as it can now be accessed using a new icon on the toolbar



. Clients looking for fast checking, editing and quality coding of data may find it a lot more efficient. Coupled with the saving of edit sessions to the favourites work area, you can cut down on searching through variables to get directly to your data.

### ***TimeStudio/WISKI Integration Project (TWI)***

The TimeStudio WISKI Integration has been progressing since the last update in December. In the first quarter of 2005 the Development work of **Iteration 1** is almost complete.

WISKI 6.1 now boasts two new modules: WISKI Modelling and WISKI Reporting.

To integrate the WISKI Modelling and the Reporting an access interface to the WISKI data world has been developed. This interface accesses WISKI time series and applies the WISKI conversion system for unit conversions. "On-the fly" calculation such as stage-discharge conversion have been implemented.

The migration tools from TimeStudio to WISKI also form part of **Iteration 1**. TimeStudio customers who wish to migrate to the current WISKI 6.1 can now use the migration tools to access TimeStudio Locations, Stations, Parameter and Time Series. Selected Locations are migrated to the WISKI database with a few button clicks.

This month the TWI project concentrates on finalising the work on the graphical user interface of the migration tools and the quality assurance of the WISKI Reporting and Modelling integration.

In the first quarter of 2005 the kickoff for WISKI 7 development has been undertaken. The first iteration of the **WISKI 7** project is of a pure technical nature. WISKI 7, Iteration 1 will deliver access interfaces to TSM2004, the new Time Series Management System for all KISTERS time series products.

### ***TimeStudio gaugings export***

An export tool for TimeStudio to output gaugings using an XML format has been implemented, thus allowing importing into WISKI. This will be incorporated with the suite of migration tools to allow an easy transition to the WISKI environment

for TimeStudio users.

The WISKI 7 basis is required to complete the TimeStudio to WISKI Integration Project.

The WISKI 7 version, due for release in November/December 2005, will incorporate the remaining TimeStudio functionality.



*Michael Natschke*

## **Client Services News**

### ***Installation at Orange County.***

Dylan Evans and Peter Heweston installed Hydstra at the County of Orange in February this year. The County is part of the greater Los Angeles area, and includes Disneyland in its area of responsibility. As is common in southern California, flood warning is a major concern as flash flooding can be severe when normally dry streams begin to flow after heavy rain. The County uses the Alert system for monitoring rainfall and stream level, and as part of the installation we integrated the Alert data into Hydstra using HYSODA.



*Training at Orange County*

Peter and Dylan managed to find time to visit Disneyland in amongst all the data manipulation. Even for grown-ups, Disneyland is serious fun!



*Dylan on a ride*

### **Citrix Implementation in South Africa**

Peter Heweston spent three weeks in South Africa in April helping the Department of Water Affairs and Forestry migrate their distributed regional system to Citrix. Many of our larger clients are taking a hard look at Citrix, as it dramatically simplifies the data management side of things, and allows for much more timely data publication. Citrix eliminates the inevitable delays as data migrates between regions and head office, as under Citrix the regional users are working on servers in head office, and as soon as they archive data it is available for use.

In South Africa we implemented a system where incoming data has a special quality code meaning unchecked, and a subsequent audit process changes the quality to 1 after a verification and checking stage. This allows the department to publish unaudited data subject to a warning of its unchecked status.

### **Key Performance Indicators**

Paul Sheahan has been working with the NSW Department of Infrastructure, Planning and Natural Resources to implement a range of audit procedures that run across their real-time telemetry data. As part of the development Paul used a range of recent facilities such as Perl HYAUDIT tests, Perl HYSTNS expressions, and the ability for HYAUDIT results to be stored away in time-series to form a long-term performance history.

As a general observation it seems that Australian agencies are looking more and more to Hydstra to provide them with assistance in implementing business procedures based on Hydstra. This is the sort of work we enjoy doing, and we can bring considerable experience to bear on user problems.

## **Current Releases**

The current release version of Hydstra is 9.2. The current release version of TimeStudio is 4.2.

Ask us for a CD if you want to upgrade.

TimeStudio users are reminded that they must migrate to version 4.2 before they need to use dates in 2006, as TimeStudio 3.x will not handle dates beyond 06:28:14 on the 7th Feb 2006. This includes users of the Hydrol DLL.

## **Staff News**

On January 21<sup>st</sup> Debbie Cockburn had a baby girl Darcy. Both are doing well, and Debbie is now back at work. We missed Debbie during her absence and would like to thank Brian Curtis for his diligent work manning the support emails.



*Darcy Cockburn*

Ben Bildstein has moved to from Hobart to Canberra where he has continued to work on Soda driver development.

Pete Taylor is working out of the Kisters office in Spain while he brushes up on his Spanish language skills. Pete is supporting TimeStudio and assisting in the integration of TimeStudio and Wiski.

A number of job offers have been made, and we expect further announcements on new staff shortly.

## **Odds and Ends**

### **FTP Site Available**

We now have space on the Kisters FTP site where we can deliver files to and receive files from Hydstra users. If you need to use the FTP site please contact us for a user ID and password.

### **Geoscience Australia Map Layers**

Australian Hydstra users may be interested in the catalogue of map layers available from Geoscience Australia at

[https://www.ga.gov.au/products/servlet/controller?event=PRODUCT\\_SELECTION&national=exclusive](https://www.ga.gov.au/products/servlet/controller?event=PRODUCT_SELECTION&national=exclusive)

There are a number of useful layers available for free download, including many with hydrological relevance.

If downloading for use in MAPHYD, choose SHP files in lat/long.

### **Virtual Modems**

A common issue in the Hydstra environment is the need to have modems on PCs so you can dial loggers and connect to them. However IT management sometimes gets paranoid about the idea of modems coming in behind the firewall, and

even when you guarantee that nobody can call in on the modem, IT may take a hard line.

One approach to the problem is to leave the modems on the outside of the firewall, and communicate with them using a modem server that uses TCP/IP to the PC. Products such as the Cisco 5350 Universal Gateway may help resolve the dilemma.

<http://www.cisco.com/en/US/products/hw/univgate/ps501/ps503/index.html>

A windows driver communicates with the modem via a secured port through the firewall, and the modems themselves reside outside.

<http://www.tacticalsoftware.com/site/html/products/dialoutip.htm>

## 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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