

KISTERS Australia News

September 2005

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Introduction

Bill Steen, General Manager, Kisters Pty Ltd

The 2005 User Group meetings have come and gone and we have been exceptionally pleased with the number of users who have attended. This issue of the newsletter highlights some of the topics covered such XML, SODA, and Alarming.

2006 User Group meetings are already on the planning board with the Australian User Group meeting to be held in conjunction with the Australian Hydrographer's Association [AHA] Conference in Darwin from the 29th August to the 1st September. More details will be available in the next newsletter.

The AHA conference provides a great opportunity to participate in the exchange of ideas and industry trends. I would encourage all users especially international Hydstra / Wiski users to attend this conference. Darwin has its own unique Australian lifestyle and is rich with natural beauty such as Kakadu National Park. If you intend to come to Darwin in 2006 allow yourself a few days to explore Australia's "top end".

2005 Kisters Australian Users Group Meeting

The 2005 Kisters Australian Users Group meeting

was held in Canberra on August 3 and 4. Over 60 participants basked in the warm Canberra winter rain while we discussed the present and the future and, more importantly, socialised over a few beers.

Staff from Kisters presented papers on the way forward while a strong collection of user papers contributed much to the proceedings. Many thanks to all presenters.

During the proceedings Peter Heweston was presented with some framed memorabilia from the HYDSYS days, including part of the front window from the office with the original HYDSYS Pty Ltd signage. 2005 marks the 20th anniversary of the development of the HYDSYS software package.



Peter Heweston, Trevor Magnusson, Bill Steen and Klaus Kisters

The complete list of presentations included:

- The Future for Kisters - Klaus Kisters - Kisters AG, Germany
- The Year in Review - Bill Steen - Kisters Pty Ltd
- What's New in Hydstra - Peter Heweston - Kisters Pty Ltd
- Soda Update - Ben Bildstein - Kisters Pty Ltd
- HYSODA Update - Peter Heweston - Kisters Pty Ltd
- DIPNR Soda Trials - Ray Boyton - Department of Infrastructure, Planning and Natural Resources
- Computer Industry Trends - Peter Heweston - Kisters Pty Ltd
- Data Management for Flood Warning - Bryce Graham - Hydro Tasmania
- Hydstra Administration - Todd Lovell - Sydney

Water

- Kisters Alarm Module - Paul Sheahan - Kisters Pty Ltd
- Web Data in XML - Tony Caine
- Key Performance Indicators at DIPNR - Ray Boyton - Department of Infrastructure, Planning and Natural Resources
- Where Am I - Distributing Hydstra - Peter Heweston - Kisters Pty Ltd
- HYSCRIPT - Peter Heweston - Kisters Pty Ltd
- Hydstra Data Transfer - Judy Swann - Murray Darling Basin Commission
- Migration Path TimeStudio to WISKI - Michael Natschke - Kisters AG, Germany
- TimeStudio-WISKI migration - Gavan Smith - Hydro Tasmania

All the presentations are available on the Hydstra web site at www.kisters.com.au.

The user group meeting next year will be held in conjunction with the AHA conference in Darwin.



Conference dinner



Session time

Technical Planning Meeting in Aachen

Peter Heweston, Hydstra Product Development Manager

In September Trevor Magnusson and Peter Heweston attended a two week technical workshop in Aachen to discuss integration and technical directions for the Kisters product portfolio. During the week many aspects of the Kisters range of products were discussed, including Hydstra, Wiski, TSM, Soda, Alarm Manager, Wiski Web etc.

A number of important decisions were made that will affect the future direction of Hydstra development. The most significant was to endorse the Microsoft .Net framework as the platform for Kisters client side products. This is great news for Hydstra users as it guarantees that Hydstra will

remain at the leading edge of software development for the foreseeable future.

We are already starting the first steps on the path to .Net. We will begin by migrating to Delphi 2005, which supports both Win32 and .Net code, then begin the task of migrating to .Net. It is likely to be a while before you see a .Net version of Hydstra, but the first steps are being taken almost immediately.

A few decisions have been taken to smooth the path to .Net, and to leave behind as much legacy code as possible:

- All remaining 16 bit applications will be migrated to Windows or dropped. The main problems are a few old logger programs and HYCD and HYSETE, all of which are discussed below in separate articles.
- All Clipper code will be dropped. If you are still running any Clipper applications please contact support@hydstra.com with details of the applications you are using, as they will need to be re-developed.
- Hydstra V10 will require Windows 2000 or Windows XP. It will not run on Windows 95, 98, NT or ME, as support for all these operating systems has been withdrawn by Microsoft. See [http://support.microsoft.com/default.aspx?scid=h;\[ln\];lifecycle](http://support.microsoft.com/default.aspx?scid=h;[ln];lifecycle) for details of Microsoft's support policies.
- HYMENU will be dropped, and only HYPLORE supported as the menu front-end.

Canberra Office Renovations

The Canberra office has had a facelift after 15 years of occupation. New air conditioning, a new server room and new carpets have revitalised the office ready for the next decade.



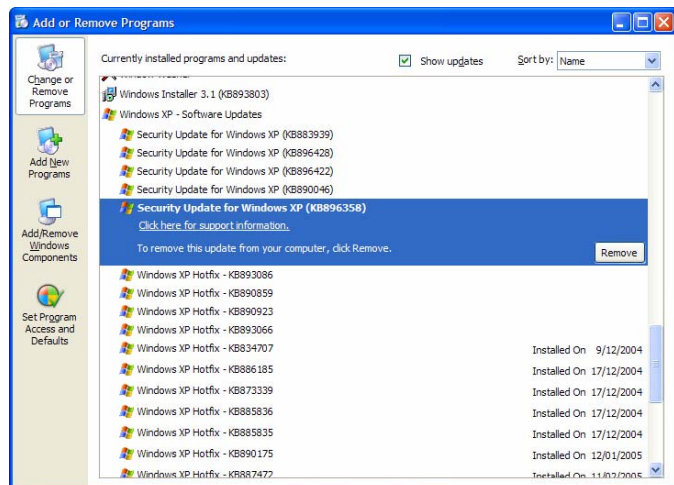
Hydstra News

Problems with Networked Help Files

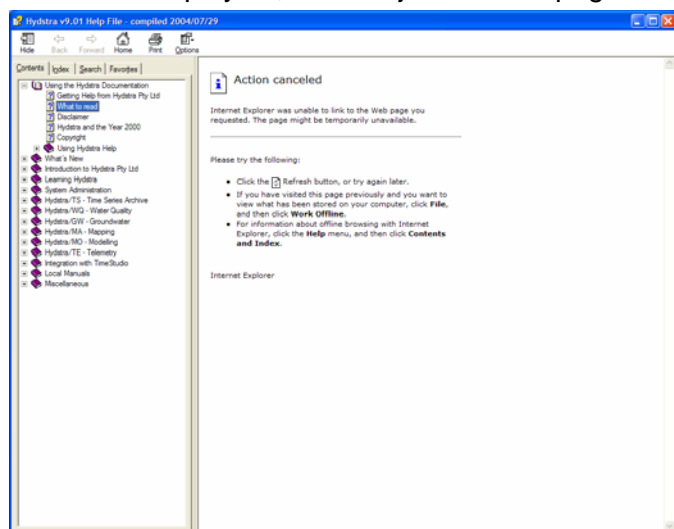
Microsoft have recently identified and fixed a

potentially serious security vulnerability relating to .CHM Help files. Unfortunately a side-effect of their fix is that for some users the Hydstra Help stops working.

The update was released around June 16 in Windows XP Hotfix KB896358. You can check if you have this fix installed using Control Panel/Add or Remove Programs. Check the 'Show Updates' checkbox and look at Windows XP Software Updates:



The effect of this update is to deny access to the contents of .CHM files on networked drives. The symptom is that you see the Table of Contents for the Help file, but the right hand pane has an error message like 'Action cancelled' or 'The page cannot be displayed', or even just a blank page:



The only fix we know of involves applying a registry patch, which should be treated with care. The effect of the patch is to trust .CHM files on local networked drives. To apply the patch, copy the following text into a text editor, save the result as 'chm.reg' then double click on chm.reg to apply the update.

```
REGEDIT4
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\HTMLHelp]
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\HTMLHelp\1.x\
HHRestrictions]
"MaxAllowedZone"=dword:00000001
"EnableFrameNavigationInSafeMode"=dword:00000001
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\HTMLHelp\1.x\
ItsRestrictions]
"MaxAllowedZone"=dword:00000001
```

(there are 7 lines in this script - beware of wrapping)

There is another potential problem which may mean that even after applying the above fix the Help file still does not work. If your networked share contains any dots in it (like H: shared from [\\server\kisters.com.de/files\\$](http://server\kisters.com.de/files$) or [\\192.168.23.45/files\\$](http://192.168.23.45/files$)) then the share is NOT trusted as part of the local network. Only shares without dots in them (like [\\server/files\\$](http://server/files$)) are trusted. We had to change our network shares at Hydstra before we could read the Help file correctly.

You should consult your system administrator if you cannot run registry scripts yourself. If you want to further research the problem, look up the following links on the web:

<http://support.microsoft.com/kb/896358/>

<http://support.microsoft.com/kb/896054/>

HYSODA Quality Codes

HYSODA has been enhanced to recognise status flags in ZRXP files. These flags can be mapped into Hydstra quality codes using a new mapping facility provided in HYSODA. This allows loggers to signal missing or unreliable data, for example.

New HYSAX Perl Module

We at Hydstra are increasingly using XML as the basis of much of our peripheral Perl development. The combination of HYXMLOUT and Perl makes for a powerful toolkit.

We now distribute HYSAX.PM in RUNPATH. HYSAX allows you to parse an XML stream and be called back whenever specified Perl paths are recognised. SAX stands for Simple API for XML, and the advantage of SAX programming is that you don't need to keep the whole XML file in memory. Document Object Model (DOM) programming on the other hand first loads the whole XML document into memory - not a smart move with very large XML files.

HYSAX is documented internally in the module.

Seconds in Database fields

In Hydstra V9.2 we added seconds to a number of TIME fields in database tables. The syntax for entering times with seconds is always of the form

hhmm.ss, so 2315.50 means 50 seconds past 23:15.

Tables with seconds capability include RATEPER, GAUGINGS, GAUGMEAS, TSHIFT & SSHIFT. Some tables that already had seconds, including WCWTELE, TSBLOCKS, TSPOINTS & TSCOMNTS, have been upgraded to use the new format.

Windows XP and FoxPro ODBC Drivers

Windows XP does not come with the Foxpro ODBC drivers already installed. If you need to access Hydstra databases via ODBC or ADO under XP you will need to install them by double-clicking on \hyd\sys\setup\ado\vfpodbc.msi. If you don't have the drivers installed you will get a flurry of errors like

```
OLE exception from "Microsoft OLE DB Provider for ODBC Drivers":
```

```
[Microsoft][ODBC Driver Manager] Driver does not support this function
```

```
Win32::OLE(0.13) error 0x80004005: "Unspecified error " in METHOD/PROPERTYGET "Open" at w:\hyd\sys\run\HydADO.pm line 223 Use of uninitialized value in concatenation (.) at w:\hyd\sys\run\HydADO.pm line 733. Use of uninitialized value in concatenation (.) at w:\hyd\sys\run\HydADO.pm line 733. Use of uninitialized value in numeric lt (<) at w:\hyd\sys\run\HydADO.pm line 676. ***Error executing Open Driver={Microsoft Visual FoxPro Driver};UID=;PWD=;Source Type=DBF;SourceDb=D:\SWDB TEST DATA;; on /: Record=[]
```

We recommend that when possible you access Hydstra data from external programs using HYDLL instead of direct ADO calls. Perl module hyddll.pm provides a selection of easy routines for using the DLL.

Hydstra Unidata Logger Support

Hydstra has a suite of programs that support Unidata loggers running our own logging software - currently the logger program is HYLOG08, and the programs are HYSERUNI, HYMONUNI, HYPOLUNI, and the UNILog and UNICHAN tables.

We plan to drop these programs in Hydstra V10. Please let us know via an email to support@hydstra.com if this will cause problems.

We have no intention of supporting the Hydstra Unidata software under Soda, Soda will support native Unidata schemes only.

Data files from Unidata loggers running Unidata schemes can be easily processed by the Generalised Loggers system.

Hydstra MACE TRS Logger Support

Hydstra has a suite of programs that support the

obsolete MACE TRS logger. The programs are HYUNLMAC and HYUNL700. We propose to drop these programs in Hydstra V10. We will continue to support the Mace 2000 and later Mace loggers with HYM2000 and Soda.

Preparing for Hydstra V10

As noted above, there will be no remaining 16 bit applications in Hydstra V10. The main impact of this on most users is that HYCD must be replaced by a batch script, and HYSETTE must redirect its output with /O. The reason for this is that a 32 bit application cannot change its own environment variables.

You can assist in preparing for the transition by modifying existing scripts and batch jobs to use techniques that will survive the transition.

The first thing you should do is create HYCHDIR.BAT in RUNPATH using NOTEPAD. The contents of HYCHDIR.BAT should be one line:

```
HYCD %1 %2 %3
```

Then everywhere that you currently use HYCD or HYCD.EXE you should replace it with CALL HYCHDIR with the same parameters. Hence if you find in a script:

```
HYCD INIPATH
```

You should replace it with

```
CALL HYCHDIR INIPATH
```

You can find all occurrences of HYCD in your code by starting a DOS box from the Hydstra menus, moving to \HYD\DAT\INI and \HYD\LOC\BAT in turn, and running

```
gnuegrep -i hycd *.*|more
```

You do not need to alter code in RUNPATH or MISCPATH, we will be attending to that.

The second thing you need to ensure is that every occurrence of HYSETTE uses /O to redirect its output to a script which you then call. The correct way to set an environment variable using HYSETTE is as follows:

```
hysette inipath /o >%temppath%zzset.bat  
call %temppath%zzset.bat
```

You can check that all your HYSETTE calls are done this way by running

```
gnuegrep -i hysette *.*|more
```

against \HYD\DAT\INI and \HYD\LOC\BAT. Any lines that do NOT have /O on them need attention.

In summary again:

- Create HYCHDIR.BAT as described above
- Replace all HYCD with CALL HYCHDIR
- Check all HYSETTE uses /O

Once you have made these changes there will be no further work required to your scripts to run under V10. We will ensure in V10 that you are alerted to scripts which have not been upgraded, but it is better if you make the changes now in advance of V10 to avoid disruption.

Kisters Integration

Soda Developments

Most loggers commonly used in Australia are now supported by Soda, including Mace, Mindata, Unidata, Hydrological Services, Campbell and Datataker. Outstanding tasks include a Unidata Magpie driver, and Sigma.

Kisters Alarm Module

Kisters have been commissioned to develop an alarm module for a German client. The requirements for 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 which will be delivered by the alarm module using phone, fax, SMS and email. The alarm module will be released as a new Kisters/Hydstra product in due course.

TimeStudio Migration Options

All TimeStudio users should be aware by now that migration will be necessary in the next year or so, as TimeStudio is no longer being actively supported or developed. The normal migration path for TimeStudio users will be to Wiski 6 or Wiski 7. However Australian and New Zealand TimeStudio users may choose to migrate to Hydstra if they feel this would be a preferable path. Please talk to Peter Heweston at Kisters Pty Ltd in Canberra about your options.

Client Services News

Hydstra/TS in East Timor

In March Paul Sheahan travelled to Dili in East Timor to install a Hydstra system and train staff in the Ministry of Agriculture, Forestry and Fisheries. The installation was part of a larger Asian Development Bank project managed by ANUTECH in Canberra.



Downtown Dili



Training

Les Egouts de Paris

During May Peter Heweston visited Paris on leave, during which he couldn't resist taking the famous sewer tour. The Paris sewers are a marvel of engineering dating back to the early 1800s. They were constructed under the streets of Paris, and are conveniently labelled with street signs so you don't end up the proverbial creek. Up until the 1970s you could even go for a boat trip down the main collector (were paddles included I wonder?), but sadly these days a brief guided stroll is all you are allowed. Highly recommended for the technically minded, though the pongs can be intense to say the least.



Street sign



Cleaning balls

Current Releases

The current release version of Hydstra is 9.3.2 The current release version of TimeStudio is 4.2.0.8

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.

Ask us for a CD if you want to upgrade either product via an email to support@hydstra.com.

Staff News

New Staff Member

We are pleased to welcome Dominik (Dom) Turcic to the Hydstra fold. Dom graduated in 2003 with a Bachelor of Engineering in Software Engineering from the University of Canberra. He will initially be working in Canberra with Ben Bildstein on Soda logger driver development.

Peter Taylor Returns from Spain

Pete Taylor has been working from our office in Spain for the past six months, and has now returned to our Hobart office. He reports that his Spanish has improved to the extent that on some days he knows the difference (in Spanish) between wine and tapas. Pete has been supporting the final release of TimeStudio as well as the integration of TimeStudio and Wiski.

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Dom Turcic



Pete Taylor

Employment Opportunities at Kisters Pty Ltd

Kisters Pty Ltd are looking for staff with a mix of IT and hydrographic skills to join us in the support group in Canberra. The work requires demonstrated programming experience, though we will provide specific Perl training if necessary. The support group provides front-line client support, assists in Hydstra installations, provides Hydstra training, and works on consulting projects for clients. A certain amount of overseas travel is also involved. Please contact Paul Sheahan or Peter Heweston if you are interested.

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 support emails should be addressed to support@hydstra.com.

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