

KISTERS Australia News

March 2013

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From The GM's Desk

By Bill Steen, General Manager, KISTERS Pty Ltd

We are nearly to the end of the first quarter of 2013 but it's not too late to wish everyone a prosperous and healthy 2013.

Like everyone else in Australia, the year kicked off with the hottest summer on record. Not only did Canberra's temperature exceed 40 degrees Celsius, but Hobart also hit its highest recorded temperature, also exceeding 40. We should spare a thought for the people of Birdsville who experienced 31 successive days above 40°C. But I guess they are used to the heat.

I flew out of Sydney on the 18th January. The temperature at Sydney airport was 46.5°C and when I finally arrived at my destination in Germany it was -6°C!

I attended my 10th Kisters Partners Week, which is a gathering of the senior managers and sales staff from Kisters offices around the world. The annual meeting is designed to exchange information on what is happening in respect to new trends, projects and to exchange ideas.

Peter Heweston, Chris Michl, Trevor Magnusson and Vicky Isaac, also travelled to Germany to attend the annual technical meetings. As opposed to sales and marketing, the technical meetings tackle the planning of future development, address issues relating to technology changes and develop strategies to continually improve Kisters products.

Both the technical and management meetings complement the ongoing communication between the various Kisters offices.

In addition, this year we'd like to welcome our newest staff member, Massimo Antinarelli. Massimo and his family have relocated to Canberra from Italy.

Massimo is responsible for the sales and marketing of Kisters BelVis Energy product suite, so if your organisation is involved in any type of energy management or looking at optimisation please email massimo.antinarelli@kisters.com.au for further information.

Bill Steen
General Manager
KISTERS Pty Ltd



Hydstra Product News

Hydstra 10.04 Released

Hydstra 10.04 was released on August 16 2012 and is well and truly in production in many agencies. The main areas of change are a SQL Server version (at a cost), the instruments system and the groundwater system, but there are hundreds of enhancements and features that should make 10.04 attractive to everyone.

We strongly recommend that you copy your production system to a test location, get it running there, and then do a trial upgrade. Only when you are happy that your local extensions and enhancements are working fine should you go ahead with a production system upgrade.

If you work closely with other agencies and trade Hydstra data with them you should liaise with them before upgrading. Time-series files have no change between 10.03 and 10.04, but every database table has changed because they now carry additional auditing fields (DATECREATE, TIMECREATE, USERCREATE).

It is possible with care to downgrade most tables from 10.04 back to 10.03 using HYDBUTIL UPGRADE, but if you use instruments or groundwater there have been enough changes that HYDBUTIL UPGRADE cannot do the job.

If you use Hydstra/WEB you will need to liaise with Denby Angus about your 10.04 upgrade as he will need to be involved.

Hydstra Patch News

A new Hydstra patch is released every Friday as a rule, and can be accessed via <http://kna.kisters.net/hydstra/>. You can read the Change Log document at a link like <ftp://ftp.kisters.net/Hydstra/releases/hydstra.10.04.20130222.changelog.htm> (change the date accordingly) to see what patches have been made. You will need to contact us for the user login and password. Please include your HYACCESS.INI in your request email.

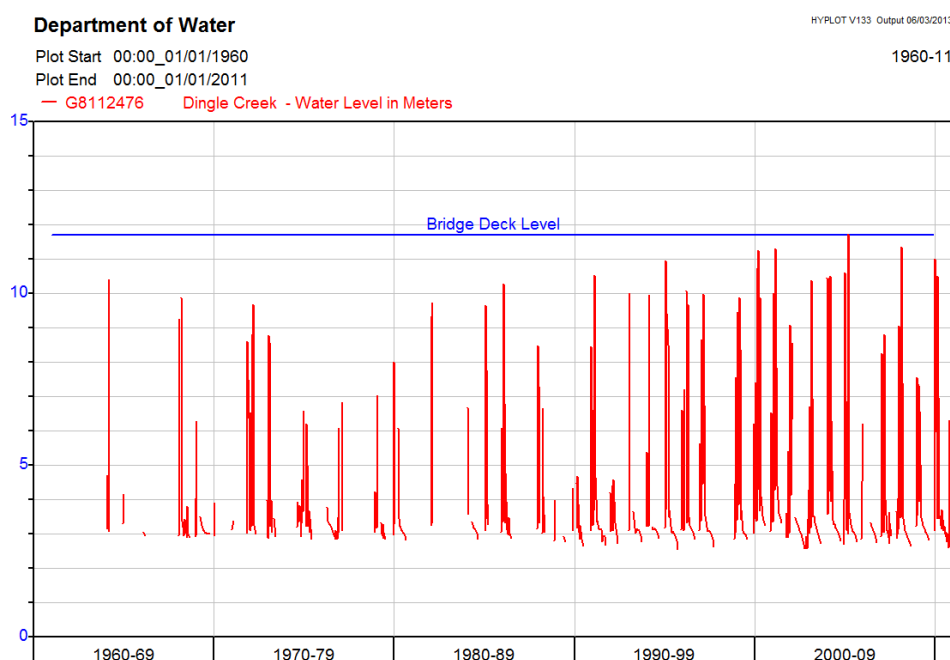
The current patch at time of printing is *hydstra.10.04.20121210.patch.zip*.

If you are planning to migrate your instruments system to 10.04 you should pick up a system dated after 1 Mar 2013 as the migration scripts have had some serious work done on them recently.

It is worth noting that all web programs are excluded from the patch set, so you can safely patch a system without disturbing your Hydstra/WEB site.

HYPLOT Enhancements In Hydstra 10.04

HYPLOT has been significantly enhanced in recent versions of 10.04 to include more control over trace labelling and plot labelling. This is done via sections in HYPLOT.INI. The following example shows a few such features in play:



This uses a special PLOT option in HYPLOT.INI to suppress the period and interval:

```
[NOPERIOD PlotOptions]
ShowPeriodAndInterval=no
```

and some specialised TRACE options to control trace labelling and get rid of the Max and Min bit:

```
[STAGE TraceOptions]
TraceLabel    =%SITE%  %SITENAME%  - Water Level in Meters

[DECK TraceOptions]
TraceLabel    =Bridge Deck Level
LabelPosition = TRACEMIDDLE
```

The options are invoked on the HYPLOT parameter screen as follows:

Code	Site	Data Source	VarFrom	VarTo	Type	Axis	Bottom	Top	Options
DATA	G8112746	stnini(A)	100.00	100	MAXMIN	LIN	0	15	DECK
DATA	=	a	100.00	100	MAXMIN	LIN	SAME	0.0	STAGE
DATA	0	a	100.00	140	MAXMIN	LIN	SAME	0.0	NONE
DATA	0	a	100.00	140	MAXMIN	LIN	SAME	0.0	NONE
DATA	0	a	100.00	140	MAXMIN	LIN	SAME	0.0	NONE

PLOT: Each Page Spans: 1 PERIOD Period of record
Divided Into: 1 DEFAULT Best possible resolution
Start Time: 00:00_01/01/2001 (Ignored for Period of record)
Number of Pages: 1 (Ignored for Period of record)
Plot Options: NOPERIOD
Plot Output: SCR

Run Close

You will need a very recent Hydstra patch to get all of the new features.

Upgrading Instruments to 10.04

If you use the instruments system you should carefully read the manual section on upgrading instruments to 10.04 before you upgrade. One significant change is that DATEOUT has been removed from INSTHIST, so the date out of an instrument is assumed to be the date in of the next record. In the last 10.03 patch HYGIENE has been enhanced to check your instruments system for anomalies, and we have an even better version of 10.03 HYGIENE for instruments available but not included in the patch. You can find it on the FTP site called *20121213 hygiene 10.03.hsc*. This version of HYGIENE will create dummy INSTHIST records to move instruments to site __UNKNOWN for periods when its location is dubious. You can use HYMANAGE to change the site if you like.

In Hydstra 10.03 the INSTHIST table had a DATEIN and a DATEOUT field. In a well maintained instrument system the DATEOUT of one record would be the DATEIN of the next record, and everything would be clean and tidy. However the possibility for mismatches allowed for many anomalous situations:

- A gap between the DATEOUT and the next DATEIN implied that the location of the instrument was unknown for some time. This is an error.
- An overlap where the new DATEIN was before the previous DATEOUT. This is an error.
- Two records with blank DATEOUT fields. This is an error.
- A DATEOUT on the final record indicated that the instrument was subsequently decommissioned or lost and no longer exists anywhere.

Because of the potential for all these anomalies we have removed the DATEOUT field in 10.04, and an instrument remains at a site until it is moved to another site. An Instrument must be at a site at all times, which means that you probably need to set up a few special sites like UNKNOWN, STOLEN and SCRAPPED as well as various stores and vehicles.

HYGIENE will report on various anomalies in 10.03, and will if required created new records in a work area to fill in the gaps in the record of where an instrument is located, using a special site of __UNKNOWN. If you were in the habit of using the DATEOUT field to signify gaps or decommissioning you had better run HYGIENE in 10.03 and fill in the gaps in the record before upgrading to 10.04.

You should download the last 10.03 patch from the web site to get latest the HYGIENE test for instrument system integrity, which is test 26 in the HYGIENE suite.

If you have already upgraded to 10.04 and feel you have lost some valuable information you can always restore a 10.03 backup, run the HYGIENE job, then carefully apply the changes to the 10.04 system after upgrading the resulting work area.

Keeping Time-Series File History

Hydstra allows you to keep any number of versions of a time-series file, subject to your available space. The number of versions kept and the location of the backup folder is controlled by the DATASRC.INI entry for each datasource, and there is no practical limit as to how many copies you can keep. For example:

```
BakFiles = &hyd-tspath.backup,5
```

says to keep the last 5 copies of the archive file in the `\hyd\dat\ts\backup` directory. If you have lots of space and a very recently patched Hydstra you can say

```
BakFiles = &hyd-tspath.backup,ALL
```

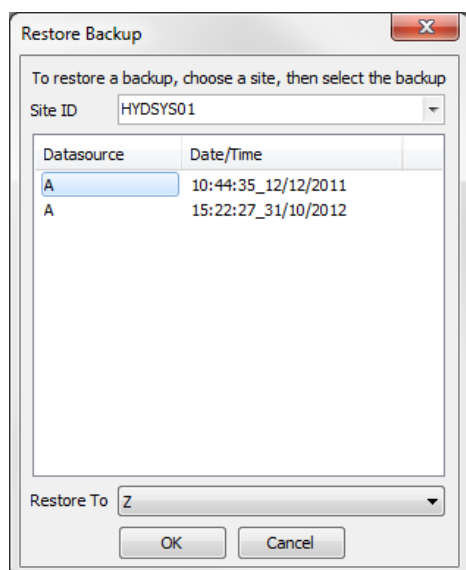
which will be quicker, since it doesn't need to count files, but it will fill the backup directory without bounds. However we believe that once you get to 20,000 files or so in a single directory things will slow down a bit, and by 150,000 files in a directory things will get very slow indeed.

You can locate the backup directory anywhere you like, for example out on a RAID_based storage farm. If you do this, you may also like to configure a hierarchical folder tree to keep these files in a more organised manner. This is done with special macros in the folder specification. You can have subfolders for the site ID, the year, the month and day of the date the backup was created.

Available macros are: &SRC-SITE., &SRC-YYYY., &SRC-MM. and &SRC-DD. Note that the "dots" are required. For example:

```
BakFiles = &hyd-hydrpath.backup\&src-site.\&src-yyyy.\&src-mm.\,ALL
```

In the Data Managers Workbench you can go back to any backup by opening the site, and right-clicking on a file and choosing Restore. You will offered a dialog that allows you to restore the file to the same datasource, or to a different one:



It would be a simple matter to develop a datasource to access any given backup via a dynamic datasource should that be required.

If the backups get too unwieldy we could easily develop processes to sweep them out into dated zipped folders for long term storage.

You will need a very recent patch to get all the new features including unlimited backups and folder structures.

Proposed Changes to HYDLOG in Hydstra V11

As part of the next release of Hydstra, which will probably be V11, we are planning a significant redevelopment of the Hydstra logging API (HYDLOG, SVRLOG, etc).

The salient features of this proposed revision are as follows:

- All logging will be done to a new HYCONFIG folder of HYDLOGPATH, which will default to `\hyd\dat\hydlog`.

- Log files will be kept in daily subdirs under HYDLOGPATH, in directories of the form hydlogpath\YYYY\MM\DD.
- Files will have names like HYDLOG~{computer}~{winuserid}~{session}~{thread}.YYYY-MM-DD.txt
- New HYCONFIG keywords HYDLOGDAYSKEEP and HYDLOGDAYSZIP will control how much data is kept, and when it gets zipped to a single daily zip file.
- The internal contents of the files will change radically. Times will be to the millisecond, fields will be delimited with a vertical bar delimiter, and much more information will be kept in fixed locations to simplify parsing and analysis. We are proposing to use KiLOG format, a company wide logging format, and there will likely be a specialised Kisters log file viewer which will allow to search and sort the log files fairly easily.

The following example shows a few lines of what the log files might look like:

```
2012-12-06T02:12:23.216|---|IOMACHINE_LOG|vm-w7-bom.kisters.de|---|---|*|*|*|*|IOMACHINE_LOG|0|msg|Y|IOMachineMainGate.Release,2.4.7
2012-12-06T02:12:23.279|---|IOMACHINE_LOG|vm-w7-bom.kisters.de|---|---|*|*|*|*|IOMACHINE_LOG|0|msg|Y|IOMachineServicesManager.Started,8,true
2012-12-06T22:20:25.067|---|IOMACHINE_LOG|vm-w7-bom.kisters.de|---|---|*|*|*|*|IOMACHINE_LOG|0|msg|Y|IOMachineServicesManager.Stopped
```

A consequence of the new format is that they won't be quite as easy to read for a human, but they will be much easier to parse by a program.

We will redevelop any scripts of ours that analyse or operate on HYDLOG, such as HYWOTSUP, HYZIPDIRS etc to deal with the new format.

There will be a new program HYLOGIT.EXE which can be used to log information from scripts. The Perl Prt module will direct '-H' as a print destination to the new log file destination and format.

Any jobs that use the utility LOGIT to write directly to HYDLOG.TXT will need to be redeveloped to use HYLOGIT - the process is fairly simple, and we will provide guidance closer to the time.

We will write a HYFIND job to help you locate explicit references to HYDLOG in your jobs.

If you have suggestions or requirements for the new logging API, now is a good time to get them to us.

Coded Fields and ALLOWNUL

MASTDICT and USERDICT allow you to control many aspects of the validation process for database fields. One area that seems to cause some confusion is ALLOWNUL, which specifies whether null values are permitted. If a field is coded or looked up in another database then ALLOWNUL is ignored. For coded fields you simply add a blank code to the code list, and for database lookups you should use SEEKN or SEEKZ depending on whether the field was character or numeric.

Hydstra 10.04 Requires FoxPro ADO Drivers

Hydstra has for some time required that the FoxPro ADO drivers be loaded to perform certain operations. These include copying database tables to XML, and Perl performing SQL operations on ADO. In 10.04 we added an assertion at startup that the drivers are loaded, and you get a diagnostic if they are not. To install the FoxPro driver right click on \hyd\sys\setup\ado\vfpodbc.msi and Run As Administrator. There is an optional flag /NOVFP on the HYPLORE command line to suppress the check if you are really sure you won't need the driver.

Perls of Wisdom

Sometimes you need the whole contents of a file read into a string, perhaps to search for something. Our Perl distribution has a File::Slurp module for this very purpose:

```
use File::Slurp;
my $text = read_file('filename') ;
```

If you prefer an array of lines instead of single string:

```
my @text = read_file('filename') ;
```

You may see an older form scattered around the Hydstra code base which temporarily undefines \$/, the line delimiter:

```
{local $/;$text=<FILE>}
```

Slurp is quicker and easier, and has several other nice properties for reading binary files etc - read up more in the Perl help file.

Perl 25th Birthday

Perl and Hydstra are about the same age! Of course we didn't start using Perl in anger till much later, I can still remember struggling with the 64KB limit of early Perl versions! Today we couldn't live without it.

You can read more about the early days of Perl at <http://news.perlfoundation.org/2012/12/the-first-twenty-five-years.html>.

HYNRS -The Network Review System

In these days of tightening belts you may find yourself having to answer the rhetorical (or not so rhetorical) question of *"Why don't we close site XYZ, it's been running for years, surely we have enough data by now?"*.

The best way to answer such questions is to keep accurate information on all the parties who have either funded the operation of the site, or who have an interest in the resulting data. Program HYNRS allows you to keep a complex tree of projects and sub-projects in a series of tables, and to allocate sites to those projects in a fairly easy way. Once populated you should be able to quickly answer questions on any site with a quick filter or HYDBSQL retrieval on NRSTN. *"Oh you mean you want to close site XYZ that is part of the regional salinity program, is an important flood warning site, is part funded by BOM, and is part funded by irrigators? Sure, why not! Courageous decision Minister!"*.

Microsoft Consolas Font for Programmers

If you are using Windows Vista (don't!) or later you might like to consider the Consolas font for all fixed-pitch programming work. Consolas is designed to distinguish those difficult characters like one (1) and lower case l, and zero (0) and capital O, and to provide high readability on modern high resolution screens using ClearType technology. It is tighter in space usage, and clearer to read at small sizes:

Consolas 8	0011 - The quick brown fox jumped over the lazy dog
Lucida Console 8	0011 - The quick brown fox jumped over the lazy dog
Courier New 8	0011 - The quick brown fox jumped over the lazy dog

In Notepad++ you can change the default font using Settings/Style Configurator and changing both the Global Styles Global Override and Default Style fonts.

Windows XP users can download the font at <http://www.microsoft.com/en-us/download/details.aspx?id=17879> if it is not already installed.

Tablets Running Windows

The world of computing in the field is about to change significantly with the release of a range of tablets running Windows 8. Products like the Microsoft Surface Pro, the Panasonic Toughpad FZ-G1 and the HP ElitePad should all run Hydstra in the field just fine. We already know that Hydstra runs under Windows 8. With the release of the Instruments Workbench in Hydstra 10.04 the possibilities for field operation just opened up significantly. We will keep you posted as clients move forward into this rather exciting new world.

WISKI Product News

The WISKI product news section is new in this newsletter. It will from now on give information about the release management of the different products around WISKI. It will also focus on some new features, functions or methods which KISTERS think are helpful for the user community in Australia and NZ.

Recent Installations

WISKI 7.1 (version 7.1.13.21/23/25) is used by all WISKI customers in Australia and NZ. This includes the Bureau of Meteorology, Manly Hydraulics (NSW), Seqwater (QLD), SunWater (QLD, in migration from Time Studio) and Regional Council Waikato in NZ. Also the KISTERS Water Quality module (KiWQM) is used by the Office of Water (NSW), Seqwater (QLD) and Regional Council Waikato in NZ. Besides the two core products of WISKI7 and KiWQM customers are also using or starting to use the KISTERS Distributed Service Manager (KiDSM), the KISTERS Script server, the KISTERS Web products (Pro and Public), the Alarm Manager and the KISTERS Web Interoperability Solution (KiWIS).

Upcoming Releases 7.2 and 7.3

For the core products WISKI7 and KiWQM two new released systems will be available in April (KiWQM based on WISKI 7.2) and July/August (WISKI 7.3). The product decision to release KiWQM with WISKI 7.2 technology is based on major functional enhancements regarding water quality and biological sample data.

For all WISKI7 clients the migration path to WISKI 7.3 will be suggested as WISKI 7.3 allows improvements in the WISKI/TSM administration and the complete development of cluster nodes to host different WISKI/TSM services. This makes the WISKI system highly scalable running for example different TSMs, the agent framework, or WISKI server components like the import/export framework on different cluster nodes.

Accessing WISKI Data (Public APIs)

WISKI allows you to integrate data, functionality or whole data products with other applications or data streams over Public APIs. The APIs are using different technologies (for example SQL, Java, http, file etc.) combined with the ability to "read" and "write" and offer different options to access or retrieve data from a WISKI system. As some clients are using some of the offered APIs the following list gives an overview and recommendations what API to use for what functions.

Interface	Access type	Access to	Technology	Integration with (examples)	Recommendation
KIWIS	Read	Meta Data, Time Series Data, Data Products (such as graphs)	WebService/ HTTP	Excel, WebMapping, 3rd party applications, language independent	<ul style="list-style-type: none"> - Good for the integration of time series data on open standards. - Good for integration of WISKI content via http level (charts, downloads, map layers can easily be shown in browser, but also desktop applications).
KiScript Server	Read	Meta Data, Time Series Data and Functionality	KiScript	Data integration on script level, Access to reports and analysis	<ul style="list-style-type: none"> - Good for the integration and analysis with different data sources.
IOMACHINE (KiIOSys in 7.2 and 7.3)	Read and Write	Time Series Data	JAVA API, File	Automatic import and export of time series data	<ul style="list-style-type: none"> - Good for the integration of scheduled file uploads and downloads.
WISKI Data Access API	Read and Write	Meta Data, Time Series Data, WISKI Objects and Functionality	JAVA API	3rd party applications (programmatic)	<ul style="list-style-type: none"> - Good for the integration with other time series client applications. Can create stations, parameter, time series and agents. On the fly calculation functionality. - Currently Limited access Meta data.
WISKI Batch Mode	Read and Write	Meta Data, Key List, Gaugings, WQ Samples	*.bat and csv	Automatic import and export on file basis (csv)	<ul style="list-style-type: none"> - Good for automatic import and exports of gaugings and quality sampling data.
KiDBIOUtilJ	Write	Time Series Data	SQL	Automatic import of time series values through import table	<ul style="list-style-type: none"> - Good for integration of time series data with SCADA System and other Information System using SQL.
Export table	Read	Time Series Data	SQL	Automatic export of time series values to export table	<ul style="list-style-type: none"> - Good for scheduled data transfers.
Time Studio dll	Read and Write	Time Series Data	C++, C# API	Excel, 3rd party application, VB, C++	<ul style="list-style-type: none"> - Only to be used for TimeStudio customers. - Will be replaced by WISKI Data Access API or ODBC Driver.

KiScript Forum for reports and agents

Initiated after last year's KiScript training in Canberra and at MHL KISTERS has started to set up a KiScript forum. The forum can be reached via: <http://www.forum.kiscript.org>.

The forum is intended to be used for KISTERS staff and KISTERS customers to exchange information and experience regarding KiScript. All internet browsers can be used, though IE has some restrictions (no screen shots can be pasted to a message).

Just logon to the website and register for the forum and get an active member to share scripts for reporting and KiScript agents. If the interest is high KISTERS is planning before the next KUG meeting (August 2013) a KiScript workshop. Please contact us via support@kisters.com.au if you wish to attend.

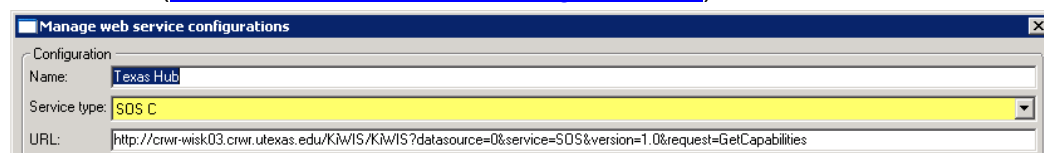
WISKI operations (from Version 7.1.13.21) – explorer view 'Tools and Analysis/Operations/Data exchange'

The operations below allow to exchange data using Open Standards as defined by the OGC and WDTF as time series standard in Australia.

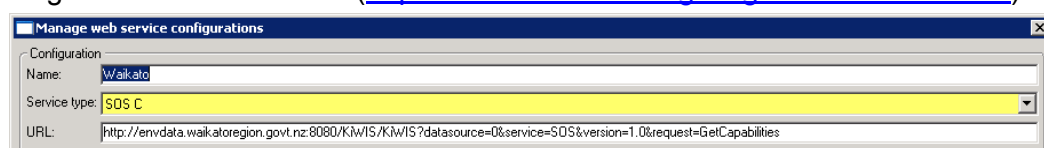
Time series cloud/Manage web service configurations:

WISKI supports the data consumption from Sensor Observation Services. First this involves defining the URL of the 'GetCapabilities' request of the service. Below are two example for the Texas Hub (part of World Water Online) and Regional Council Waikato NZ which publish SOS data using KiWIS.

Texas Hub (<http://www.centraltexashub.org/kiwis.htm>):



Regional Council Waikato (<http://envdata.waikatoregion.govt.nz:8080/KiWIS/>):



Additionally the mapping of the vocabulary has to be done. Below is an example to consume the data of the Texas Hub:

```
# Site is mandatory if the time series tree should be created
site.name=TexasHub-US
site.number=TEXAS
# The following parameters define regular expressions to
# extract the station, parameter and time series information
station.name=(.)*[(.)*]
station.number=. *[(.)*]
parameter.name=(.)*
timeseries.name=(.)*
# Options
# disableDescribeSensor may enhance performance
disableDescribeSensor=false
# time zone is mandatory
```

```
timezone=US/Central
# link between station and time series
readStations=true
timeseries.station.key=stationcid
station.key=cid
# Parameter mappings
map.parameter.name.Flow=Q
# Interpolation type mappings
map.interpolationtype.Cmd.Original=linear
map.interpolationtype.DailyMean=constantuntil
map.interpolationtype.MonthlyMax.Calculated=constantuntil
map.interpolationtype.MonthlyMin.Calculated=constantuntil
map.interpolationtype.MonthlyMean.Calculated=constantuntil
```


That configuration can be easily adjusted to other services by adjusting site, time zone, parameter and interpolation type mapping.

Time series cloud/Download data from web service:

Once a service and the mapping is defined the data can be downloaded by the WISKI client. Using the create time series tree option (see mapping above) the site/station/parameter/time series basic data tree will be created and the time series data imported. See example for the Texas Hub below:

Download data from web service

Configuration

Service configuration: **Texas Hub** | <http://crwr-wisk03.crrw.utexas.edu/K&WIS/K&WIS?datasource=0&service=SOS&version=1> ... **Read**

Short name mask: ***/S/***

Bounding box (n,n,n,n):

Time series

Station name	Number	Parameter	Time series	X Coordinate	Y Coordinate	Data from	Data until
<input type="checkbox"/> 1301 W. Oltorf	30435	S	Cmd.Original	-97.76966	30.24463		
<input checked="" type="checkbox"/> 1301 W. Oltorf	30435	S	Cmd.Cmd.Production	-97.76966	30.24463		
<input type="checkbox"/> E. Riverside	30436	S	Cmd.Original	-97.72112	30.23259		
<input checked="" type="checkbox"/> E. Riverside	30436	S	Cmd.Cmd.Production	-97.72112	30.23259		
<input type="checkbox"/> S 1st St at Gillis Park	30437	S	Cmd.Original	-97.76	30.24139		
<input checked="" type="checkbox"/> S 1st St at Gillis Park	30437	S	Cmd.Cmd.Production	-97.76	30.24139		
<input type="checkbox"/> Seminary Ridge	30438	S	Cmd.Original	-97.8214	30.19546		
<input checked="" type="checkbox"/> Seminary Ridge	30438	S	Cmd.Cmd.Production	-97.8214	30.19546		
<input type="checkbox"/> Emerald Forest	30439	S	Cmd.Original	-97.78611	30.21472		
<input checked="" type="checkbox"/> Emerald Forest	30439	S	Cmd.Cmd.Production	-97.78611	30.21472		
<input type="checkbox"/> W. Dittmar	30440	S	Cmd.Original	-97.786	30.183		

Data selection

☒ Create time series tree

☒ Import time series data

from: **1/01/2010 12:00 AM** until: **1/01/2013 12:00 AM**

WDTF export:

With the WDTF export operation WISKI data is mapped to the WDTF standard. The operation includes all WDTF elements (see example below):

BoM Export Level

Source data

Source list: **202416/202416, 201448/201448, 201428/201428, 201447/201447** ...

Short name filter: **Reg200806.s3.1a** (Instantaneous water course level relative to datum) ...

Time series selection

Search

Name	Data from	Data until	Last time since change mode	Last time since quick mode
<input checked="" type="checkbox"/> 202416/202416/Level1/Cmd.P	1985-12-19 14:15:00.0	2013-03-13 02:45:00.0	2013-03-13 06:00:10	2013-03-13 02:45:00
<input checked="" type="checkbox"/> 201447/201447/Level1/Cmd.P	1987-12-09 12:00:00.0	2013-03-13 06:45:00.0	2013-03-13 06:00:10	2013-03-13 03:45:00
<input checked="" type="checkbox"/> 201428/201428/Level1/Cmd.P	1987-12-22 10:15:00.0	2013-03-13 09:30:00.0	2013-03-13 06:00:10	2013-03-13 03:30:00
<input checked="" type="checkbox"/> 201448/201448/Level1/Cmd.P	1987-12-12 01:00:00.0	2013-03-13 09:15:00.0	2013-03-13 06:00:10	2013-03-13 03:15:00
<input checked="" type="checkbox"/> 201447/201447/Level2/Cmd.P	2013-02-18 07:00:00.0	2013-03-13 06:45:00.0		

Analysis period

Run Mode: **Change** Do not remember this execution time: ☐

☒ Absolute **24/04/2011 10:00 AM** **29/04/2011 10:00 AM**

☐ Relative

☐ No limit

WDTF configuration

☐ Export WISKI7 values as comments in WDTF file

Data supplier: **MHL** | **MHL BoM WDTF Quality Code Mapping** ...

Status: **Provisional**

Security: **Unclassified**

Export to: **Server**

File directory: **\\guxmhistage\bom\WDTF**

Export... **Save** **Close** **Help**

The system comes with all mapping conventions (see short name filter) defining the link between WDTF parameters and units to WISKI time series and unit types (see below).

Regulation name	Short name filter	Short description	WDTF unit	Wiski unit	WDTF parameter	Sampled feature
<input checked="" type="checkbox"/> Reg200806.s3.1a	Level/"P	Instantaneous water course level relative to datum	m	M	WaterCourseLevel_m	WaterCourse
<input type="checkbox"/> Reg200806.s3.1b	Q/"P	Instantaneous water course discharge	m3/s	CUMC	WaterCourseDischarge_m3s	WaterCourse
<input type="checkbox"/> Reg200806.s3.2a	GWVLV/"P	Ground water level of a bore relative to datum	m	M	GroundWaterLevel_m	Bore
<input type="checkbox"/> Reg200806.s3.2b	GWPP/"P, P_MHD/"P	Ground water pressure of a bore in kilopascals	kPa	KP	GroundWaterPressure_Kpa	Bore
<input type="checkbox"/> Reg200806.s3.3a	ResLV/"P	Major storage water level relative to datum	m	M	WaterCourseLevel_m	WaterCourse
<input type="checkbox"/> Reg200806.s3.3b	ResV/"P, V-ML/"P	Volume of water held in each major storage	ML	ML	StorageVolume_ML	WaterStorage
<input type="checkbox"/> Reg200806.s3.3c	ResQrel/"P, Q-MLD/"P, Q-MLD/Day.Total	Major storage daily release to water course	ML/d	MLD	WaterCourseDischarge_MLd	WaterCourse
<input type="checkbox"/> Reg200806.s3.3d	Q/"P, Q"/Day.Total	Water daily transferred between storages	ML/d	MLD	StorageTransfer_MLd	WaterStorage
<input type="checkbox"/> Reg200806.s3.3e	V-ML/"P	Volume of water held in a minor storage	ML	ML	StorageVolume_ML	WaterStorage
<input type="checkbox"/> Reg200806.s3.4a	Precip/"P, Precip/"Total	Precipitation depth for a time interval	mm	MM	Rainfall_mm	WaterStorage
<input type="checkbox"/> Reg200806.s3.4b.1	WSpeed/"P, WSpeed_ms/"P	Instantaneous wind speed in metres per second	m/s	MS	WindSpeed_ms	Storage
<input type="checkbox"/> Reg200806.s3.4b.2	WDir/"P	Instantaneous wind direction over a period	deg	DEG	WindDirection_Deg	Storage
<input type="checkbox"/> Reg200806.s3.4b.3	WindRun/"P	Instantaneous wind run in kilometres over a period	km	KM	WindRun_km	Storage
<input type="checkbox"/> Reg200806.s3.4c	Evap/"P, Evap/Day.Total	Daily evaporation from a Class A evaporation pan	mm	MM	Evaporation_mm	Storage
<input type="checkbox"/> Reg200806.s3.4d.1a	RS/"P	Global solar exposure in joules per square metre	J/m2	J/m2	GlobalSolarExposure_Jm2	Storage

Additionally the run modes 'Change', 'Full' and 'Quick' are supported as well as the quality code mappings from WISKI quality codes to WDTF quality codes.

Kisters On the Web

Kisters technology is at the heart of an increasing number of customer web sites, whether they be based on Hydstra or Wiski web technology or their own web developers.

The following list shows a selection of user sites, with a brief description of the underlying platform. We take no responsibility for the accuracy of this list, nor the health of the web sites listed.

Please contact Kisters Pty Ltd for advice on how to publish your data on the web.

Let us know if you would like your web site to be added to or removed from this list.

Client	Link	Technology
California Department of Water Resources	http://www.water.ca.gov/waterdata/library/	Client web site using Hydstra products
County of San Bernardino Department of Public Works	http://www.sbcounty.gov/dpw/floodcontrol/water_re_sources.asp	
County of Ventura Watershed Protection District	http://portal.countyofventura.org/portal/page/portal/PUBLIC_WORKS/Watershed_Protection_District/About_Us/VCWPD_Divisions/Planning_and_Regulatory/Hydrology/Historic%20Rain%20Stream%20Data%20(WISKI%20Web-prod)	Wiski Web Public over Hydstra
Germany Environmental State Agency of Bavaria	http://www.nid.bayern.de/grundwasser/index.php?hema=niedrigwasser&days=0&wert=grundwasser	WISKI Web Public with customised content
Germany National wwHydrometric Network (WSV)	http://www.pegelonline.wsv.de/gast/start	Web portal solution (not from KISTERS) publishing WISKI data
Minnesota Department of Natural Resources	http://www.dnr.state.mn.us/waters/csg/index.html	Client web site using Hydstra DLL and ODBC driver
Nevada Irrigation District	http://nidwater.com/recreation/river-lake-hourly-data/	Client web site using Hydstra products
NSW Manly Hydraulics	http://new.mhl.nsw.gov.au/	Public Website MHL with WISKI content and user login to WISKI Web Pro
NSW Office of Water	http://waterinfo.nsw.gov.au/water.shtml?ppbm=SU&FACE_WATER&rs&3&rskm_url	Hydstra/WEB for desktop PCs
NSW Office of Water	http://realtimedata.water.nsw.gov.au/mobile/	Hydstra/WEB for modern mobile phones and tablets.
NSW Office of Water	http://realtimedata.water.nsw.gov.au/mobtext/	Hydstra/WEB for older mobile phones
NT Land Resource Management	http://www.lrm.nt.gov.au/water/water-data-portal/#.UTWEhjBTBBk	Hydstra/WEB for desktop PCs
QLD Dept of Natural Resources and Mines	http://watermonitoring.derm.qld.gov.au/host.htm	Hydstra/WEB for desktop PCs
QLD Dept of Natural Resources and Mines	http://watermonitoring.derm.qld.gov.au/mobile/	Hydstra/WEB for modern mobile phones and tablets.
QLD Dept of Natural Resources and Mines	http://watermonitoring.derm.qld.gov.au/mobtext/	Hydstra/WEB for older mobile phones
Riverside County Flood Control and Water Conservation District	http://www.floodcontrol.co.riverside.ca.us/RainFallMap.aspx	Client web site using Hydstra products
Southern California Edison	http://kna.kisters.net/scepublic/	Wiski Web Public
Spain Confederación Hidrográfica del Duero	http://www.chduero.es/aforos/list.html	WISKI Web Public
St Johns River Water Management District	http://www.sjrwm.com/toolsGISdata/	Client web site using Hydstra products
State of Washington Department of Ecology	https://fortress.wa.gov/ecy/wrx/wrx/flows/regions/st_ate.asp	Client web site using Hydstra products

Suwanee River Water Management District	http://www.mysuwanneeriver.com/index.aspx?NID=35	Client web site using Hydstra products
Switzerland Hydrological Service of the Kanton Thurgau und Schaffhausen	http://hydrodaten.tg.ch/tg/index.html	WISKI Web Public
US Central Texas Hub, World Water Online	http://www.centraltexashub.org/wiskiweb.htm	WISKI Web Public and KISTERS Web Interoperability
VIC Dept of Sustainability and Environment	http://203.12.195.132/dseweb.htm	Hydstra/WEB for desktop PCs
Yuba County Water Agency	http://www.ycwa.com/conditions	Client web site over Hydstra data

Mobile Web Sites and Apps

Hydstra/WEB has the ability to offer a mobile web site as part of the client web site. You can see a couple of examples of Hydstra/WEB for mobile at <http://watermonitoring.derm.qld.gov.au/mobile/> and <http://realtimedata.water.nsw.gov.au/mobile/>. These sites will run on iPhone and Android phones, recent Blackberries, as well as modern desktop browsers such as Chrome and Firefox. We offer a text version for older Windows phones, Blackberries and Nokias such as <http://realtimedata.water.nsw.gov.au/mobtext/>.

On any modern phone you can save a shortcut to a web site to the desktop, making it appear to be another application. If you set up your icons correctly on the web site you also get a nice icon for the shortcut.

The question has been asked as to whether there would be benefit in wrapping these web sites into an application that would be available from the iTunes or Android stores. Given that you can save a bookmark to the phone desktop, where it looks like an app, it's an open question as to whether the effort of producing an app has benefit. What do you think? Would you prefer an app or a web site? Do you care?

Worldwide KISTERS News

You can keep up to date with all the news from KISTERS worldwide through the following links:

<http://www.kistersnews.com/au/index.html>

<http://www.kisters.net/news.html>

Training Courses

Basic Hydstra Training Course 17-18 April

On 17-18 April 2013 we will be running a 2 day training course on 'Basic Hydstra Training' at our office in Canberra. The course will cost \$1500 per person including GST. It is aimed at new Hydstra users.

The course content is available in the Hydstra Help file under 'Learning Hydstra – Hydstra Training Course Outline – Basic Hydstra'. There are no prerequisites for attending this course.

Please contact debbie.cockburn@kisters.com.au to secure a place on this course.

Hydstra Administration and Server Course 14-16 May

We propose to run a three day course on administering Hydstra, particularly in the context of large organisations running SVRIMP and SVRRUN. The course will cost \$2250 per person including GST for the 3 days. It will be run at the Kisters Pty Ltd office in Canberra on May 14-16. The intended target is Hydstra system administrators, and previous experience with Hydstra will be essential. If you wish to only attend the first two days the cost will be \$1500, if you wish to attend just the last day on SVRIMP and SVRRUN it will be \$750.

Topics we propose to cover include:

- HYCONFIG and HYMULTI
- Installing and patching
- Testing new releases
- Training off USB
- Configuring datasources
- HYFTP and HYMAILER
- Batch programming
- Automation and AUTOJOB
- Shutting down Hydstra

- Problem solving and debugging
- Backup and recovery, HYCLONE
- Bulk data changes - HYDBPERL, HYDBUTIL, HYFILER, HYTRAN
- HYTSMIRROR for copying TS files around
- SVRIMP, SVRRUN and SVRFIDO

Please contact debbie.cockburn@kisters.com.au to secure a place on this course.

Available Courses

We are happy to provide training courses on any aspect of Hydstra provided there are sufficient people interested in attending. Please contact us at support@kisters.com.au with expressions of interest for any training requirements you have. We can provide training at your office or here in Canberra. Training in Canberra is based on a per-person per-day cost, provided we have sufficient people attending. Training at your office will be charged our standard consulting rates per day for the trainer, plus a preparation day, plus travel and accommodation at cost. Courses we can offer include:

- Basic Hydstra
- Advanced Hydstra
- Administering Hydstra
- Administering Hydstra/WEB
- Hydstra Modelling with MODSYN
- Hydstra/SVR Server
- Ratings and Gaugings
- HYWDTF_OUT
- Using Perl with Hydstra

Please contact us via support@kisters.com.au if you wish to attend. We will register your interest and notify you when the next course is planned.

Staff News

Massimo Antinarelli Joins Kisters

Massimo has joined Kisters Ltd Pty in Canberra with the role of Senior BelVis Energy Consultant. Massimo graduated in civil engineering from the Rome University La Sapienza. After two years experience in the energy trading business he joined a Kisters Italian partner company. During the last nine years he has been working in marketing and pre-sales roles for Kisters Energy products.

His specialty is energy data management, demand and renewable production forecast, power plant data management & energy portfolio management.



Massimo Antinarelli

Rafe Skinner Arrives

On Dec 18 Damian and Marisa Skinner welcomed their son Rafe into the family, joining older sister Alice who is now a big girl of two and a half.



Rafe Skinner

Sannette Latsky Departs

Following the transfer of her husband back to Nowra, Sanette has moved back to the coast to enjoy a more domestic life away from the hustle of Hydstra Support. We wish her well in her new life.

Information

This newsletter is published by KISTERS Pty Ltd and edited by Peter Heweston. It is distributed using MailChimp (www.mailchimp.com)

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