



KISTERS Australia News

April 2023

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From the GM's Desk

Dear colleagues,

Welcome to our latest newsletter. As we all know, water is one of the most important natural resources on our planet, and managing it effectively is crucial for a sustainable future. That's where KISTERS comes in. Our solutions are designed to help professionals in the water resources management field to collect, analyse, and manage hydrological data, and make informed decisions about water resource management.

In this newsletter, we will be sharing some exciting updates about HYDSTRA and WISKI. I hope that this newsletter is informative and useful for you, and we welcome any feedback or suggestions you may have.

We are pleased to remind you that our forthcoming User Group meeting is scheduled for Monday May 22nd at Penrith Panthers as a lead into the AHA conference at the same venue and starting on the Tuesday. We encourage user presentations so please get the creative ideas flowing and put your hand up to share your experience and learnings with colleagues.

We recently attended the technical workshop for the New Zealand Hydrological Society, an excellent event and the first since 2020 due to Covid. There were a number of reports of Covid infection post workshop so you might want to consider a booster prior to the AHA conference, I've just had my 5th.

By Paul Sheahan, General Manager, KISTERS Pty Ltd

Paul Sheahan
General Manager
KISTERS Pty Ltd



2023 KISTERS User Group Meeting

Our 2023 KISTERS User Group (KUG) meeting will be held on Monday 22nd May 2023 at the Panthers Penrith Rugby Leagues Club in Sydney.

The KUG meeting precedes the 2023 AHA conference which commences on Tuesday at the same venue.

Bookings for the KUG can be made by filling out [this registration form](#) and returning to Deb by email at debbie.cockburn@kisters.com.au.

We look forward to seeing you there.

KISTERS Service Desk

The transition over to our new [KISTERS Service Desk](#) using Jira has been successful and feedback to date has been overall positive from both staff and clients.

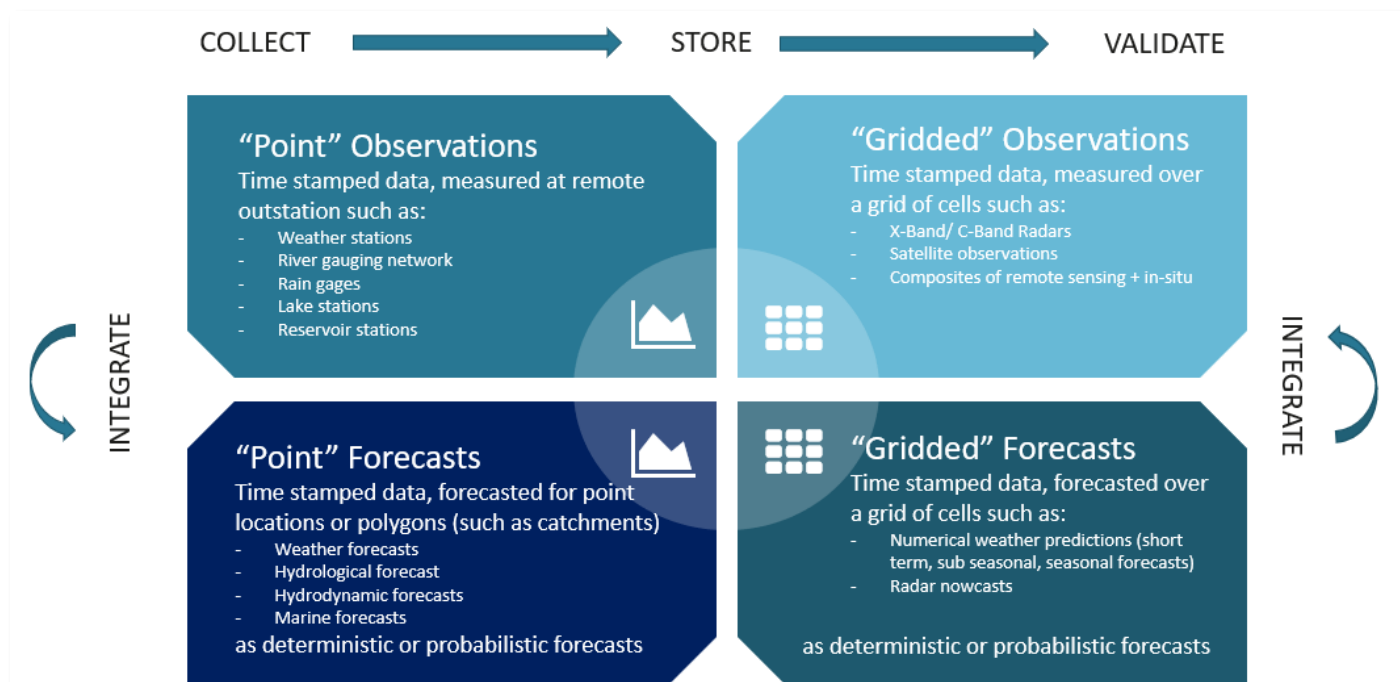
Do you have any questions about using the Service Desk? Please get in touch.

If you are not yet using Service Desk to raise new issues and discuss existing issues, then please send an email to hydstra.support@kisters.com.au or wiski.support@kisters.com.au to request registration.

Project Updates Vietnam and Philippines

Operational Water Management & Forecasting Support Systems at VNMHA (Vietnam Meteorological and Hydrological Administration) in support and maintenance.

The system is under a three year support and maintenance agreement (since the end of 2022) with VNMHA and the World Bank.



Data integration in KISTERS Central Data Hub offering import, storage and validation methods and tools for observed and forecasted scalar and gridded data

The system integrates different KISTERS solutions such as WISKI as the core engine, raster data using Array Storage as the backend, and a web solution that enables observers and forecasters in the provinces, regions and the central office to support their daily work tasks.

The underlying storage layer uses an Oracle RDBMS for all station and time-series based data. All scalar and gridded data is distributed to regional offices using data harvesting and synchronisation techniques for backup and disaster recovery purposes.

The gridded data storage consists of several redundant array storage nodes to ensure redundancy and scalability. The array storage nodes access the file system on the SAN as well as the HPC (High Performance Cluster). Gridded data is stored in the netCDF4 format according to the CF convention.

The CDH data is used by the forecasting components of SmartMet of the Finnish Meteorological Institute for meteorological forecasting and the Delft-FEWS framework of Deltares for hydrological and marine forecasting. Integrated hydrological models include NAM, Mike11 plus reservoir representation as well as the marine models ROMS, SuWAT and SWAN (see forecasting sub system in the figure below). The results of the models are stored back in the CDH infrastructure.

The main user interface for the early warning and forecasting services is a web-based service layer using KISTERS water portal technology that is accessed from all users (Centre Hanoi, Regional and Provincial Centres). The service layer utilises viewing and data validation applications for data quality assurance and quality control processes and data analytics. The complete forecasting process is done by all forecasters in the service layer offering tools to select the best forecast and to create forecasting bulletins automatically.

Hydrological Data Management System for the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) phase 1 completed

KISTERS is using a similar technological stack as in the VNMHA project with WISKI, the Array Storage and KISTERS web components in the Philippines (see Hydrological Data Management System for the Philippine Atmospheric, Geophysical, and Astronomical Services Administration, as introduced in our last newsletter).

The implementation of phase one, running a central CDH and four River Catchment systems, was recently completed and will be ongoing over the next years. We will keep you updated on the progress of the system and our technological stack for flood forecasting in this newsletter and in our User Group meetings. KISTERS values the close and inspiring cooperation with PAGASA (see quote from PAGASA below).

Quote from Roy Badilla (Chief Hydro-Meteorological Division of PAGASA):

The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) has chosen KISTERS products to establish a new Integrated Hydrological Data Management System (HDMS) for Operational Hydrology and Flood Forecasting and Warning Services in the Philippines.

The KISTERS Enterprise Solution, WISKI, and its data analytic components were selected for their maturity and flexibility in linking observed and forecasted data in both point and gridded formats. The KISTERS team has been professional and supportive throughout the process, ensuring that PAGASA's requirements were met. The new Hydrological Data Management System (HDMS) will be installed and operational in seven Flood Forecasting and Warning Centers (FFWCs) by the end of 2023 and will be rolled out across all the 18 FFWCs in the next few years. PAGASA is committed to improving flood forecasting and warning services, and thank KISTERS team for their partnership and dedication.

WISKI Product News

WISKI support team update

As most of you are probably aware and introduced in our latest customer meetings, we had a change in staff over the last month. Yanchao, who most of you met briefly last year, has left the company and we are very happy that we have been able to replace his position since the beginning of March with Shawn (see [staff news](#) below).

Additionally, we have Nina (see also [staff news](#) below) from our German support team working with us since the beginning of February. Nina will be in our office until the end of April and is involved mainly in support know-how transfer, working with Gayathri and Shawn and WISKI upgrade work. With the presence of Nina here in Australia we are also working on improvements in customers support. It's important for us to establish a quicker turn-around of issue with the German office. A tool which will help us very much in this space is the Jira Service Desk which we introduced at the end of last year. As a reminder, please use from now on the Jira [Service Desk](#) for any support questions. If you do not have a Jira account yet, please contact our support team over the [support email](#).

As in the past our whole team (Chris, David, Gayathri and Shawn) is involved in customer support depending on the recent consulting work which we have done with you. The key support however will be done by Gayathri and Shawn. Regarding the support account to your system for Shawn we will contact you individually.

WISKI Service Desk and release planning, 7.4.13 is our current version

In our last newsletter we advised that based on the security enhancements in WISKI (see also below WISKI security enhancement) implemented since version WISKI 7.4.13 SR7 all WISKI/KiWQM and KIECO systems need to be updated to 7.4.13. We started the process in December last year with updates to SR7/SR8 and SR9. At the moment

we are rolling out the SR10 to the systems which we have not been updated yet. Please see below our general release plan for the next month:

Version and SR (Service Release)	Date	Remark
7.4.13 SR7/SR8/SR9	since May 2022	WISKI stream - Production version
7.4.13 SR10	recent version	WISKI stream - Production version
7.4.13 SR11	available Mid May	WISKI vintage - ongoing Production version
7.4.15 SR3	available Mid June	WISKI stream - Production version

As you see in the release plan, the 7.4.13 version will move into the WISKI vintage stream with the next version (SR11). This will allow you to stay with the 7.4.13 versions for at least another year once the 7.4.15 version gets the WISKI production release in June 2023. There will be also a further release for the 7.4.13 with the SR12 in October for critical fixes if required.

In short, if you are not in the process of planning with us new functionalities in WISKI/KiWQM or KiECO, we suggest to stick to the 7.4.13 version throughout 2023. In all other cases, we will discuss with you individually the update path.

WISKI security enhancements

The security incident in 2021 has confronted us with major challenges, not only in regards to the re-establishment of our internal infrastructure and workflows, but also as a prompt to cast our attention inwards and see how the security of our products can be improved. This has always been a continuous endeavour at KISTERS, and the incident served to sharpen the company’s security strategy, resulting in much internal development on security and stability in the latest WISKI versions.

We have achieved great improvement in these areas from WISKI 7.4.13 SR7 and will continue to maintain this trend throughout future versions. During the time immediately after the security incident, we received great feedback from our customers regarding our open communication strategy, as this is not always the case with many public and private organisations.

We want to keep this attitude and have therefore implemented a dedicated *Security* section within our release notes, which are distributed with every version and are available on our download portal. In this section we keep records of all our enhancements and changes regarding common vulnerabilities and exposures ([CVE](#)).

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KisRPC TLS activation

Further to the information above, as we are putting more focus on the security of our software components, we have activated TLS – encrypted data transport – for our client-server communication as of WISKI 7.4.13 SR9. This

change ensures secure communication between client and server, but may require you to implement a few minor changes in your environment.

To activate TLS communication, a fully-qualified domain name (FQDN) is required for login. This means, goodbye to localhost. There are several cases where localhost may be used, which should be checked in your environment prior to an update:

- When logging into a WISKI client hosted on the WISKI server itself
- In WISKI batch scripts as part of a `tsmlogin()` or `tsmloginenc()` command
- During the usage of TS ExportTool/KiOpUtil within KiDSM (this includes time series export and WDTF export operations)
- Scripts which call the WISKI REST API interface and don't use the FQDN

While less common, it's also very important to note that this also includes cases where you connect a client to the WISKI server using IPs. These must also be replaced with a FQDN.

New Python installation path

Due to the rapidly advancing world of Python, WaterPython is now based on Python 3.9 since WISKI Version 7.4.13 SR7. During this update process, the default installation has been changed to `<KISTERSROOT>\third_party_software\micromamba`, which differs from the previous miniconda path. This information is especially important if you use our WISKI Python installation in external reports or scripts. It is therefore recommended to test all scripts after an update, ideally in a test environment. A quick audit of scripts using Notepad++'s find-in-files function – searching for miniconda – across your scripts directory will be a good way to check.

While not a default setting, if you've saved the Python environment underneath your KISTERS installation into an environment variable (such as `python`, `python3`, `py`, etc.), you'll need to modify this also.

Time Series Export Tool

The Time Series Export Tool is intended to perform export tasks of time series data via predefined configuration or in the export operation mode. It is designed to work with KiIOSYS and the WISKI Server to export time series data resulting in high performance and stability. Currently, many of our WISKI users are using KiOpUtil to call WISKI operations – often in conjunction with KiDSM. With the Time Series Export Tool we want to offer a reliable and stable alternative to KiOpUtil and eventually replace it in the long run. The new implementation optimises the resource usage while at the same time minimises the possible sources of errors during the export process.

The Time Series Export Tool in principal allows you to use it in two different modes:

- With an xml-configuration file, which defines the export (structure, time series, time range, etc.)
- In operation mode, using the export operations defined within WISKI

In the configuration file you can define items such as export path, format, format group, export time zone, time range (relative/absolute), transformations, time series list, etc. This mode therefore allows you to pre-define export configurations which might be used on multiple occasions in a clearly structured way. It furthermore allows you to easily modify or duplicate the configuration if needed. Below you can see a simple configuration example:

Parameters:

- Log file language is English
- Export path: `d:\exppath\simple with format ZRXPV2R2_E`
- Time interval: Last 30 days until yesterday
- One file for each time series
- File names: `simple-<tspath>-<date of export>.zrx`


```

<?xml version="1.0" encoding="UTF-8"?>
<tsExportTool>
  <settings>
    <maxWorkers>4</maxWorkers>
    <waitForComplete duration="PT1H"/>
    <locale>en</locale>
    <logging>tsexp-logback.xml</logging>
  </settings>
  <connection>
    <host>Hostname</host>
    <port>7430</port>
    <domain>WISKI</domain>
    <role>KiDomainSuperUser</role>
    <user>WISKIUser</user>
    <password>EncryptedPW</password>
    <secured>>false</secured>
  </connection>
  <exports>
    <export description="Simple example" exportPath="d:\exppath\simple" for-mat="ZRXPV2R2_E" from="-P30D" till="-P1D">
      <timeseriesList mode="each" nameTemplate="simple-{tspath}-{date}.zrx">
        <pathList>
          0/TS001/S/15m.Cmd.P,0/TS002/S/15m.Cmd.P,0/TS003/S/15m.Cmd.P,0/TS004/S/15m.Cmd.P
        </pathList>
      </timeseriesList>
    </export>
  </exports>
</tsExportTool>

```

In the operation mode, the Time Series Export Tool uses the predefined export operations from WISKI (system view > operations > data exchange > time series export). These operations can be created and configured via the WISKI client GUI. Any existing operations can easily be used by the Time Series Export Tool, as long as the operation is visible to the configured WISKI user.

The Time Series Export Tool can be started by using the standard Java Runtime Environment command to start executable JAR files.

```
java -jar <time series exporter JAR> <configuration>
```

Furthermore, it can be triggered using KiDSM. This way it is possible to schedule and automate the export processes. When using the xml-configuration file, KiDSM can start the Time Series Export Tool via batch: simply create a task which executes the batch file. Please ensure you store all configuration files, including both the xml-configuration as well as the batch files in the documents folder, as other locations, such as the installation directory might be cleared during an update.

When using the operation mode, KiDSM easily allows you to select between KiOpUtil and the new Time Series Export Tool. Existing Export operations can furthermore be changed via this UI. To do so, simply create an export task and

choose the type “Server operation (Time Series Export)”. As server type you can choose between KiOpUtil and TS Export. You can select the desired export operation in the KiDSM interface, it will automatically load all existing operations from the configured WISKI system.

The screenshot shows the 'Task Editor' interface for configuring an 'Export operation via TS ExportTool'. The 'Type' dropdown is set to 'Server operation (Time Series Export)'. Under 'Server Operation Options', the 'Server type' dropdown is open, showing 'TS Export' selected. Other fields include 'Port *' (7430), 'User *' (Admin), 'Password *' (masked), and 'Tenant *' (WISKI). An 'Operation List *' table at the bottom contains one entry: 'Export (fe37b5a7-121e-42a6-98c3-a5a33ca90b83)'.

A Dive into Taxonomy and KiECO

In an ideal world, botanists, taxonomists or indeed anyone involved in ecology would use a common taxonomic tree. In this world, we would all gather round and agree upon classifications and implement any necessary taxonomic adjustments at the same time, referencing the same tree.

In reality, the aggregation of decades worth of taxonomical information and protocol across, at the very least, a national scale is daunting, let alone a globally aggregated system. In many cases, even within one organisation multiple taxa trees may be in use. This is not necessarily due to carelessness but, perhaps, the reliance on more than one system used to collect and collate taxonomical data, or simply the usual turnover of staff who may do things differently.

Merging several taxonomical databases can be a lengthy task, particularly given the requirement that those undertaking the work have strong taxonomical knowledge as well as an understanding of historical data and internal classification systems used over time.

Over the last 20 years, the increasing usage of genetic technologies to identify taxa in environmental samples has significantly increased our capacity to validate survey data, as well as identify the presence of unseen taxa. Environmental DNA (eDNA) technology, for example, has helped locate [critically endangered fish in Japan](#), [highly invasive 'rock snot' in Pennsylvania](#), and also spawn new e-RNA technologies, most notably for [tracking COVID-19](#).

Reducing taxa misidentification in surveys is critical, however another significant problem is simply the adherence to a common classification system and the usage of the most up-to-date names for taxa.

Scientific name: Valid to:

Details (1/01/2010 00:00:00)

Name:

Scientific name:

Display name:

Rank: Valid from:

Parent nodes: Taxonomic type:

Key:

Remark:

Attributes

Attribute

Descendants

Display name	Scientific name

The current scientific name for this species is *Backhousia leptopetala*. However this was formerly known as *Syncarpia leptopetala*. In this system, the *Backhousia leptopetala* name is valid from 01/01/2010. The old name is stored as a synonym with reference to its former Genus:

Scientific name: Valid to:

Details (1/01/2010 00:00:00)

Name:

Scientific name:

Display name:

Rank: Valid from:

Parent nodes: Taxonomic type:

Key:

Remark:

Attributes

Attribute

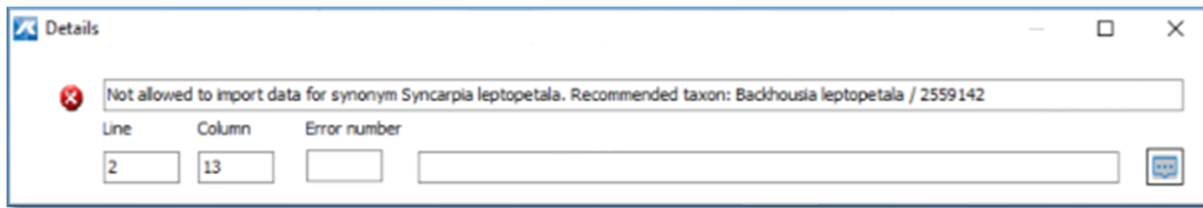
Descendants

Display name	Scientific name

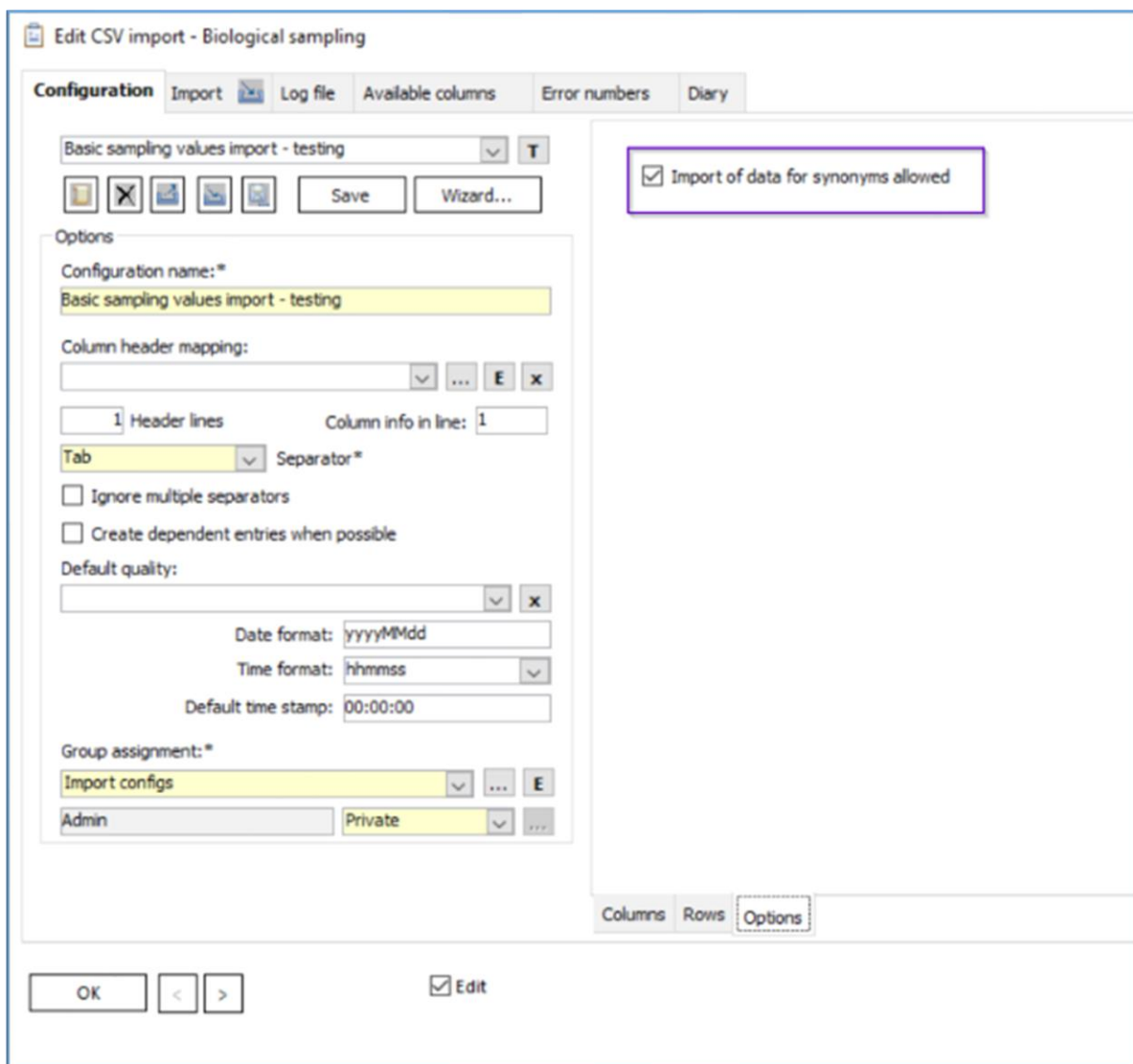
Syncarpia leptopetala is valid from 01/01/1850, until the valid-from date of *Backhousia leptopetala*.

Via the biological parameter type (observable) concept in KiECO, all historical data associated with inactive taxon versions can be linked to the same active taxon, without ever needing to migrate data from one name to the other.

When importing, if we identify the taxon using the column *Observable by taxon scientific name* (or using the *Observable shortname* itself) the importer will reject any obsolete names, providing the active taxon as a suggestion:



You can however override this behaviour by setting the flag in the *Options* tab under the main *Configuration* tab in the *Biological sampling* importer. This will then mute the warnings associated with bringing in data against a defunct taxon name:

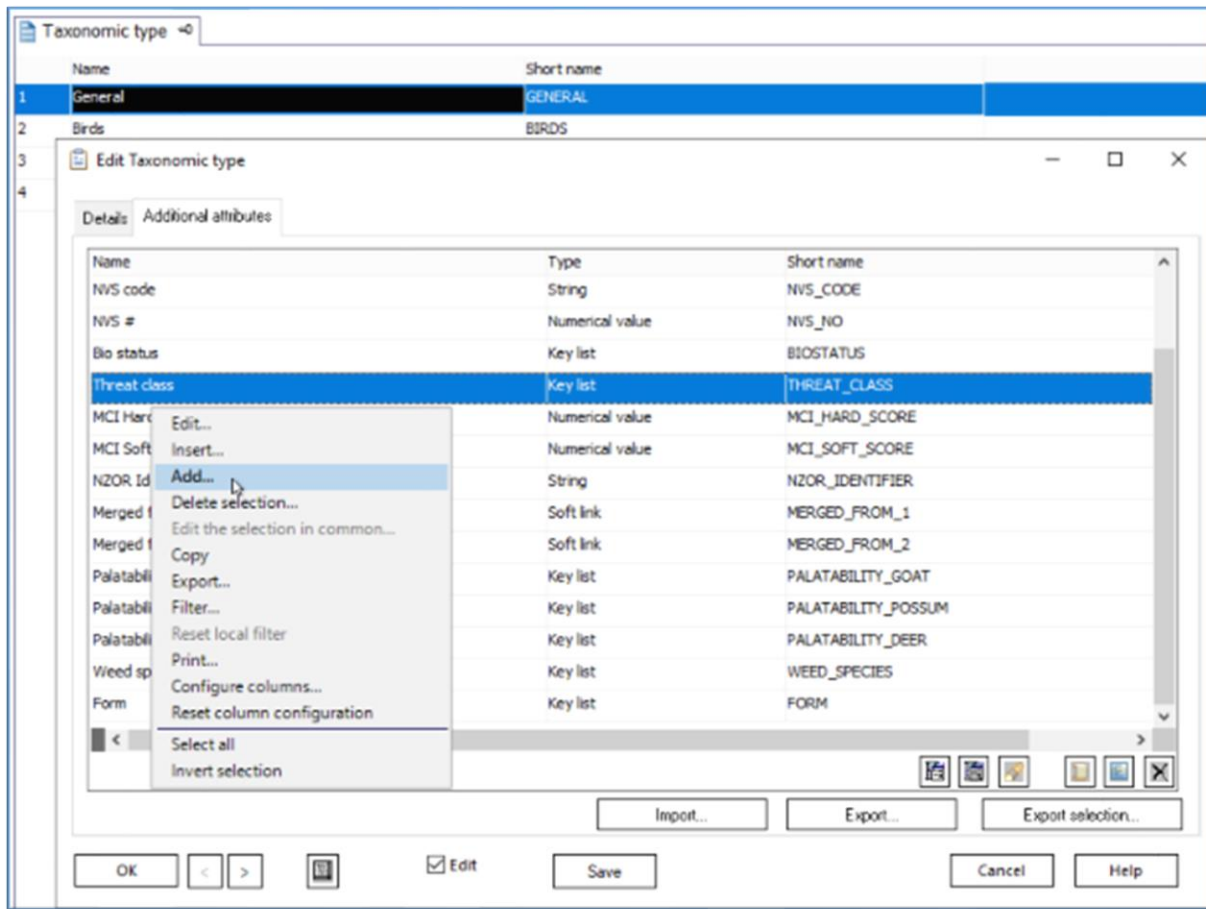


When exporting data, using the column *Observable by taxon scientific name* will return the accepted taxon name at the time of the survey. As of WISKI version 7.4.13 SR9, using the column *Reference observable scientific name* will, by contrast, return the *currently* active taxon name for that organism.

This is an important feature for recognising the name at the time of data collection, as well as the currently accepted name at the time of data access.

Taxon attributes

Another important feature of the KiECO taxon object is the facility to add custom attributes against individual taxon versions. These attributes will be defined against a *taxa type*. It's not necessary to use more than one taxon type, however splitting taxa types into several other types will assist in the grouping of relevant attributes.



It should be noted however, that this should *not* include common names, as there is a dedicated structure to store these against a taxon already, found under the *Common names* tab.

Attributes to add might include indigenous name, biosecurity status, IUCN classification (conservation status), or other IDs that may be useful to store against the taxon. This is an important concept to consider when dissemination of an organisation's taxonomical data is required.

For example, while the scientific names in use at Organisation A differ from Organisation B, cross-referencing taxa using a common identifier stored in both systems will provide the missing link, without having to individually map synonymous names against each other or agree upon a common classification. Examples of taxon IDs:

- National Center for Biotechnology Information (NCBI) ID (global)
- New Zealand Organism Registry (NZOR) ID (New Zealand)
- National Vegetation Survey (NVS) Code (New Zealand)
- PlantNet ID (New South Wales)
- Wildnet ID (Queensland)

Taxon key

What about the taxon key on the taxon object for storing an ID?

Details (1/01/2010 00:00:00)	Synonym 1 (1/01/1850 00:00:00)	Common name
Name:	<input type="text"/>	
Scientific name:	Backhousia leptopetala	
Display name:	Backhousia leptopetala	
Rank:	Species	
Parent nodes:	Backhousia	
Key:*	2559142	
Remark:	<input type="text"/>	

While custom configuration of the taxon key is certainly an option, be wary of using this as an organism's unique ID. The taxon key is *specific to a taxon version, not the organism*. If an external ID you wish to add refers to the *organism*, not the name given to an organism, then this won't be a suitable location to store it, since you may have several names for a single taxon. In this case, you'd be better off storing the ID against the active taxon in an additional attribute.

Hydstra Product News

Hydstra News

If you have patched your Hydstra in recent time you should be receiving Hydstra News directly in HYPLORE, provided a TS=3 user logs in weekly. You will get more information more regularly in Hydstra News than we can provide in quarterly Newsletters, so we encourage you to patch.

Hydstra News requires internet access - if your organisation doesn't allow internet access then perhaps your Hydstra Administrator can download the news at home and bring it in to work - the procedure is documented in the Help file.

Hydstra Administration Service

"Experts as a Service"

In recent times some Hydstra client agencies are finding that they no longer have either the skills or the manpower to maintain their Hydstra systems in good order (a review of a full HYGIENE output is a likely indicator of how well your Hydstra system is being maintained, with green being good and red being poor).

In response to client requests KISTERS have been evaluating a new advanced support contract which allocates KISTERS support staff to regularly check your Hydstra system to review procedures and processes, implement best practice where possible, and offer advice on fixes to data where needed.

This service is available starting from one day per month, and is dedicated to system monitoring and improvement.

Common inclusions:

- Regular log file analysis and reporting using HYWOTSUP, HYDLOGEX etc to identify problems.

- Running HYGIENE and reporting on issues raised. Where possible we will rectify the issue if caused by a system problem, or report to the client if a data problem is encountered.
- Automation of routine management tasks in AUTOJOB and/or SVRRUN (if licenced). The Hydstra Help topic 'Routine System Administrator Tasks' will be used to guide development.
- Configure and review spinning backups at various levels, subject to space availability.
- Manage INIPATH, removing obsolete files and controlling access.
- Review PASSWD to control who has access to Hydstra. Expire users who no longer require Hydstra access.
- Review file space usage, clean up old log and report files, zip up raw data folders as needed, report on stray folders, etc.
- If required, configure operating system file permissions to various folders under Hydstra
- If required, control stray files and folders in the Hydstra tree using HYDIRCHK.
- Review IT backup procedures, particularly as they relate to very long-term data retrieval from backups (years or decades later).
- If applicable, configure and run WEBTESTALL to confirm that web services and web sites are running and up to date.

If you're interested in discussing how a Service Agreement could be customised for your Hydstra system, please contact us through our [Service Desk](#).

Hydstra Systems and Patches (V12, V13) Available

Hydstra is upgraded continuously through frequent delivery of patch updates. If you want to stay abreast of the latest features make sure you read Hydstra News in Hydstra, and apply patch updates (or ask us to patch Hydstra for you) on a regular schedule.

The latest Hydstra full system versions and patches for V12 and V13 are available to licensed users at <https://www.kisters.com.au/index.php?filename=downloads>.

Contact the [KISTERS Service Desk](#) for access to patch downloads, and please provide your HYACCESS.INI file with the request.

Hydstra update of Python

The version of Python used in Hydstra has been updated to 3.11.2. Those of you who update current patches will now have this update.

Sending an email when SVRIMP has an error

If you are running SVRIMP to import data, and you have HYMAILER operational, it is possible to send an email every time SVRIMP encounters a problem. We recommend you set this up, as it prevents data loss caused by un-noticed errors occurring for days or weeks. In SVRIMP.INI you will find a *Notification Job* setting. We provide a job *svrimp_error_notification.bat* in RUNPATH which simply needs to be invoked with a valid email address as the second parameter:

```
Notification Job=svrimp_error_notification.bat &svr-errordetails. joe.somebody@wherever.com
```

We recently found a tricky bug in HYMAILER.HSC which led to erroneous characters causing the email to sometimes fail (it was interpreting part of a path with a number site like *svrimp\210776.csv* as character 210). Apply the latest patch or pick up HYMAILER.HSC from it to rectify the problem.

If you want to take some other action instead of running HYMAILER feel free to develop your own script.

Some Python calls moved from hydlib.py to hydsql.py and (new) hyddir.py

NB: the following only applies if you have downloaded and applied a patch dated after 2023/03/06.

We have moved some less-commonly used functions in `hydlib.py` to `hydsqllib.py` and a new module - `hyddir.py`.

All scripts which are supported by KISTERS (and which live in folders under `\hyd\sys\`) have been modified to call these functions from their new module locations.

However, if you have any Python scripts that are not explicitly maintained by KISTERS (eg, they live in `\hyd\dat\ini`) and call any of the functions listed below:

- The scripts will **continue working**,
- however they will **generate warnings** until you modify the scripts to use the new modules

The following functions have been moved from `hydlib.pl` into `hydsqllib.pl`:

```
SqlFlavour (NB this is a class, not a function)
sql_connectini_vala
public_work_tables()
private_work_tables()
```

The following functions have been moved from `hydlib.pl` into the new module `hyddir.py`:

```
file_owners()
file_time()
dir_age()
_scan_tree()
dos_to_regexp()
scan_file_list()
scan_dir_list()
```

If your non-maintained scripts call any of these functions, you will have to do the following

- add a “`import hyddir`” (or `hydsqllib`) statement near the top of your scripts
- change each of those the calls from `hydlib.xxx()` to `hydsqllib.xxx()` or `hyddir.xxx()`

SVRRUN and the tasks it runs from SVRTRIG

When a task runs as the result of a trigger firing via `SVRTRIG` and `SVRACT`, the resulting task is run by `SVRRUN` on behalf of the user who caused the trigger to fire, using their permissions. Hence if a user trigger fires and the resulting `SVRACT` job requires `TS=3`, the job will fail unless the triggering user has `TS=3`.

It is worth noting that `SVRRUN` caches the `PASSWD` table on startup, so if you change the permissions of a user on `PASSWD` you need to stop and restart `SVRRUN` for it to take notice of the change.

Battling with HYBATCH

Because `%` is used to escape various `HYBATCH` variables, getting a single `%` sign into a `HYBATCH` command line (e.g. in a password) requires FOUR consecutive `%` signs:

```
command=echo Your score is 100%%%
```

and even worse, should you require two consecutive `%` signs, try 8!

```
command=echo This line has two consecutive %%% signs: 100%%%
```

The reason for this seemingly bizarre behaviour is that `HYBATCH` turns two `%` into one, and the `CMD` processor does the same. Hence 4 becomes 1!

Advanced HYBATCH

`HYBATCH` can be a mysterious beast, and sometimes it takes lateral thinking to solve a problem.

Recently a user needed to execute a program if ANY one of two conditions applied. The `DATAFOUND` functionality can easily be nested to develop an `AND` condition, but specifying an `OR` condition is a little more complex, and requires mixture of `HYBATCH` and normal `CMD` processing, as the following example shows, where the condition is that either the B file contains variable 100 OR the C file contains variable 100:


```
[MULTIDS]
command = set doit=
if = datafoundddsrc b 100
  command = set doit=y
endif =
if = datafoundddsrc c 100
  command = set doit=y
endif =
command = if "%doit%"=="y" (
  command = do what you wanted here
command = )
```

ESRI Field Maps

ESRI offer a number of field data collection apps, including Collector, Survey123 and QuickCapture. Their latest product in this area is called Field Maps. All of these products use the same backend storage, which are ESRI feature layers and tables. The data in these layers and tables may be hosted for you by ESRI (ArcGIS Online) or on your own infrastructure (ArcGIS Portal). The ArcGIS REST API allows access to the information that is collected via Field Maps or any of the other field data collection apps.

If you are interested in importing the data from these apps into Hydstra, we have Python libraries that can easily download the data to CSV files. Using a plugin architecture, the data can be imported into any Hydstra table or time series datasource, and photos and other attachments can be imported into the Hydstra documents management system.

Staff News

Introducing Shawn Xiong

We are pleased to introduce Shawn, our new Support and Consulting Engineer at KISTERS Australia. Shawn holds a master's degree in Industrial Engineering from the University of Erlangen-Nuremberg in Germany and has previous experience working as a product specialist and project engineer in a multicultural environment in Germany, China and Australia. In addition to his engineering expertise, Shawn also has a strong passion for technology and its application in business solutions.

In his new role, Shawn will primarily be responsible for providing comprehensive customer service and support for our WISKI Enterprise Solution. Additionally, he will be assisting with various HydroMet projects in Australia, NZ, and South-East Asia. With his diverse skill sets, we are confident that Shawn will bring a fresh perspective and make contributions to our projects. Outside of work, Shawn enjoys outdoor activities such as hiking and playing table tennis.



Shawn can be contacted at shawn.xiong@kisters.com.au.

Secondment Nina Schmitz

Nina Schmitz has been working for KISTERS AG (Germany) since 2016. She joins our WISKI Australia team this year from February until April, performing staff training and working in customer support and projects.

Her background is in geography and hydrology with a MSc in Applied Geography. She is working as director of customer support & service and is using her time in Australia to understand the support processes and workflows with our customers. In the KISTERS Group we are constantly trying to improve our global processes and knowledge transfer to guarantee the best support possible to our international client base. Nina is currently reviewing these processes and is helping us to integrate our global offices in the best possible way.



Nina can be contacted on nina.schmitz@kisters.de

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