

# What's New in IrriMAX 9

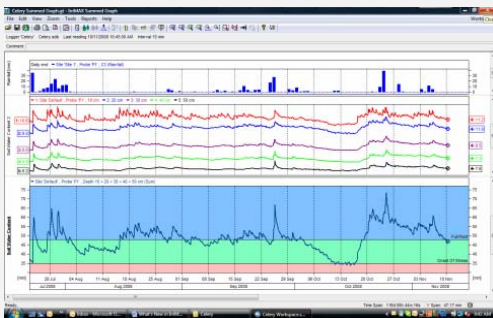
Sentek's latest software release, IrriMAX 9, offers end-users a whole new level of exciting soil moisture and solute management possibilities.

For the first time, Sentek is introducing a new level to IrriMAX licensing. With the launch of a Premium version of software, Sentek has released a product that offers superior web compatibility, management alerts and reporting functions. It is an ideal product for advanced water management across multiple sites.

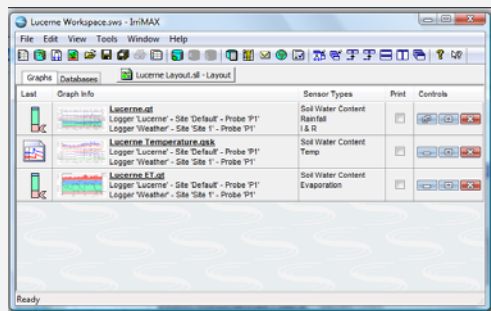
The IrriMAX 9 Standard Licence offers significant enhancements to useability, with greater graphing functionality and the introduction of new management wizards.

**Click on the links below for more information on new features. Detailed descriptions are also available in the Readme text file available from the Downloads section of the Sentek Website.**

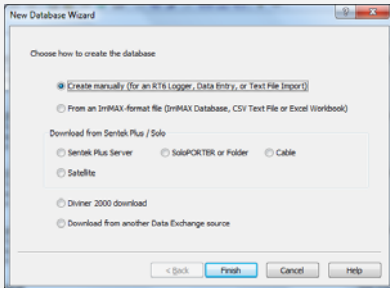
## New features available in IrriMAX 9



[Graph Enhancements](#)



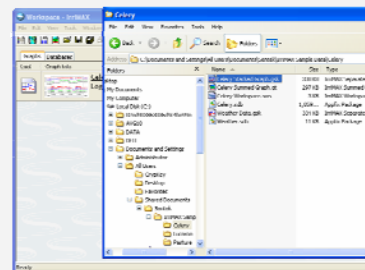
[Workspace Manager Enhancements](#)



[Workspace Download Management](#)

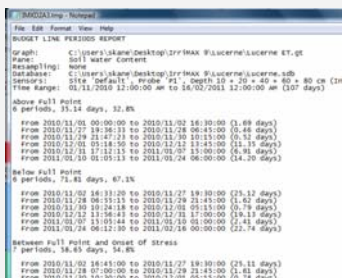


[Data Exchange Enhancements](#)

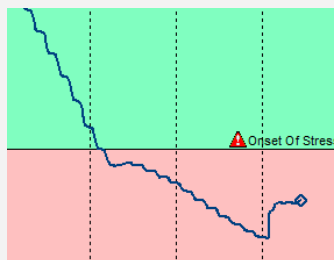


[Additional Enhancements](#)

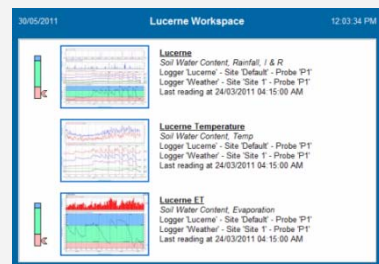
## Features exclusive to IrriMAX 9 Premium



[Graph Reports](#)



[Database & Graph Alerts](#)

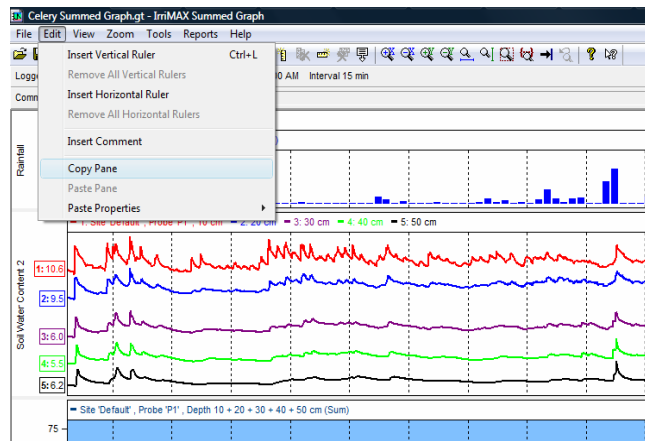


[Webify](#)

# Graph Enhancements

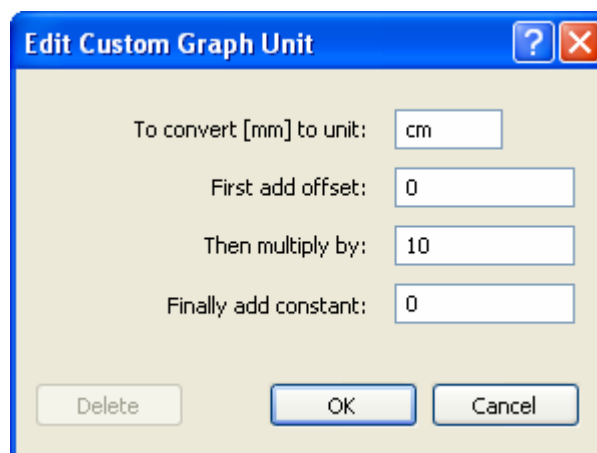
## ● Copy Pane Feature

You are now able to copy a pane from within a graph and paste it to another graph. Properties of the pane can also be copied and applied to another pane; these include line colours, budget lines, growth stages and graph mode.



## ● Change Units of Measure in Graph Settings

Units of measure can be changed within each graph without changing the global IrriMAX default settings. Units of measure specific to the type of data displayed in each pane can therefore be set.

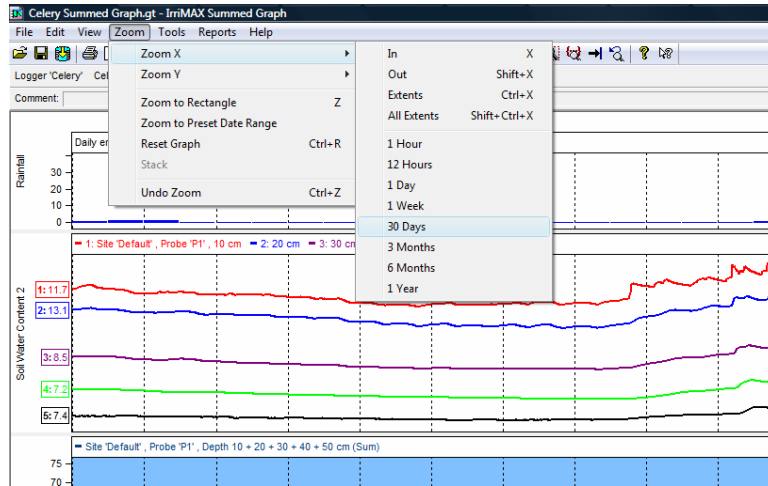


## ● Growth Stages available on all panes

Individual growth stages can be set on all panes; if budget lines are not applicable to that pane only the name and dividers are displayed.

## ● Enhanced Zooming Features

- **Enlarge Pane** has been added to the graph **View** menu, to enlarge the current pane by 25% and shrink all the other panes equally.
- When choosing a vertical zoom percentage from the **Zoom Y** menu, you can hold down the Shift key to zoom all panes at once.
- New horizontal zoom presets of **3 Months**, **6 Months** and **1 Year** have been added to the graph window's **Zoom X** menu.

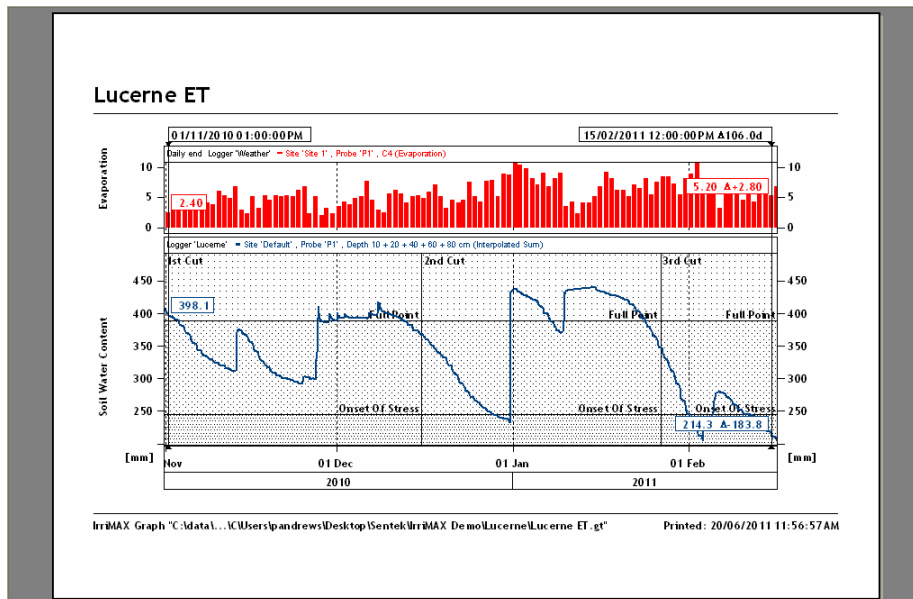


## Graph Print Improvements

Graph printouts have been improved to be more applicable to multiple panes. They show the following features:

- graph file name and the user-entered comment at the top of the page.
- graph path at the bottom of the page.
- "Logger ID" in the printed legends.

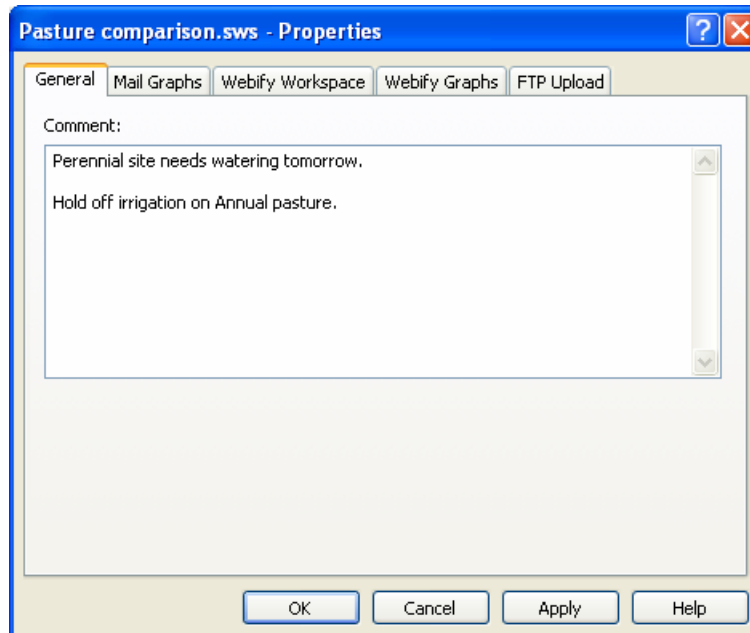
The database name, last reading time and sample interval only print if they are selected to appear in the legend for the pane.



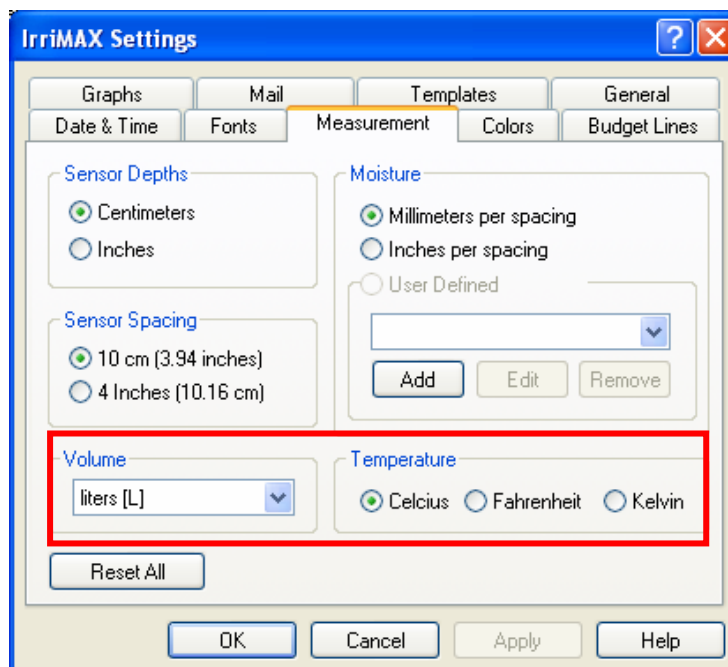
## Workspace Manager Enhancements

A range of enhancements have been introduced to the Workspace Manager, improving overall useability.

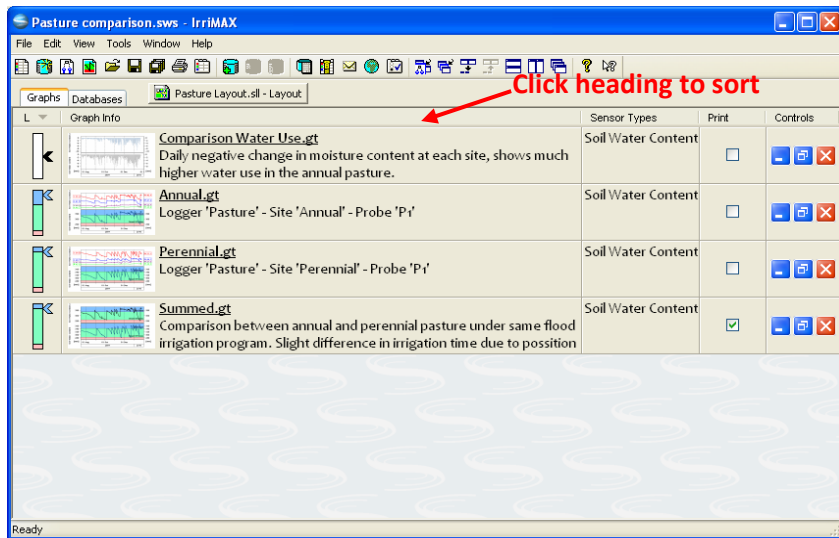
- Add general comments to the entire workspace.



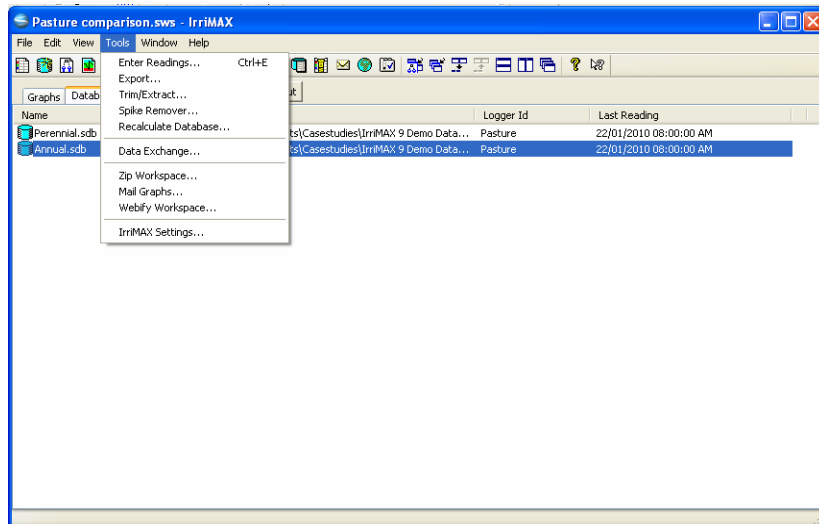
- Store time-zones for databases not using local time.
- Select default units of measure for graphing temperature and volume.



- Selected sort order of graph lists remembered and continually enforced.



- Trim or extract databases from within the workspace.



- One-click access to create or add a database, or start a batch download.
- Send a message to Sentek registrations through the Registrations Details dialog.

The screenshot shows the Registrations Details dialog box. It contains the following fields and options:

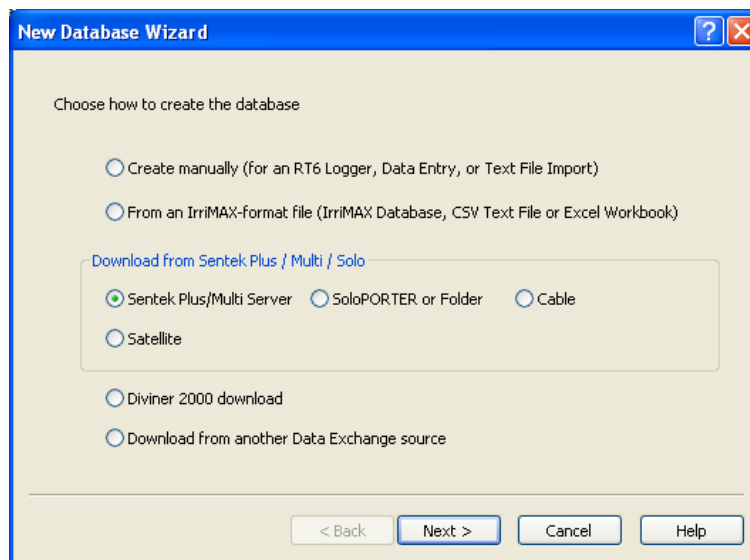
- City / Town: [Text Field]
- State: [Text Field] \* Postcode / Zip: [Text Field] \*
- Country: [Text Field] \*
- Serial Number: [Text Field] \*
- Old Serial Number: [Text Field] (if upgrading)
- Add-on Serial(s): [Text Field] (for optional components, comma-separated)
- Add to Mailing List:  (by checking this box you elect to receive periodic newsletters and updates from Sentek, sent to the e-mail address nominated above)
- Message to Sentek: [Text Area]
- Send details by:
  - E-mail
  - Print/Fax
  - Copy/Paste
- Buttons: OK, Cancel

# Workspace Download Management

A number of new wizards are available to assist in the set-up, downloading and editing of databases.

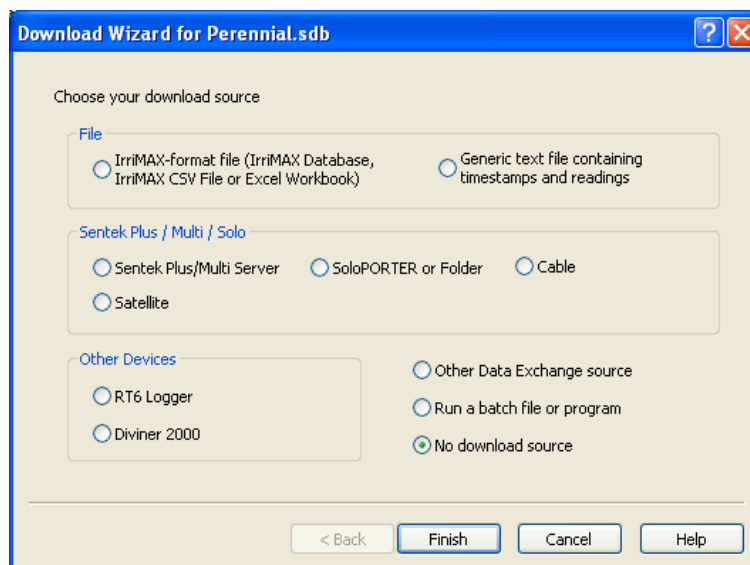
## ● "New Database" Wizard

The new database wizard simplifies creating new databases. A number of different options are available and the wizard takes the user through step by step to create.



## ● Download Wizard

The download wizard assists in downloading from a system for the first time.



## ● Download direct from Internet

You can download directly from an SDB file that is located on the internet using FTP. You can also download from SDB, WDB, CSV, Excel and Mapped Readings by HTTP or FTP.

## ● Easy editing of Mapped Readings mapping files

The Download Wizard can create and update the Mapping Files used by the Data Exchange Mapped Readings module (for simpler importing of other data file formats).

**Download Wizard for Perennial.sdb**

**Mapped Readings**

Please select a generic text file of readings, and a Mapping File to interpret them:

Reading File:

Mapping File:

You can enter a URL to download a Reading File from the Internet. For example:  
http://server.com/path/file.dat  
or  
ftp://user:password@server.com/path/file.txt

Use this wizard to create or update the Mapping File

## Data Exchange Enhancements

Enhancements have been made to Data Exchange to improve flexibility and options in the:

- **Sentek Plus/Multi Module**
- **Mapped Readings Module (for importing data in different formats)**
- **SDB and WDB Module**
- **CSV and Excel Module**

## Additional Enhancements

- Drag-and-drop adding of files from Windows Explorer in the Workspace Manager, Logger Layout and Graph windows, and in the *Select Sensors Dialog*.
- Editing the historical records of air and water normalization counts of a sensor.
- Reverse calculation of raw counts from cooked values in the *Recalculate Database Dialog*. This is useful for retrieving the original raw counts for Sentek Plus/Multi databases.
- A range of new command lines to enhance automation processes.
- New example workspaces and databases.

# Graph Reports

A selection of text-based reports can be generated from the Graph window, based on the data in the currently selected pane.

- The **Graphed Values Report** outputs the values as displayed in the current pane, therefore can output values on a summed graph.
- The **Budget Line Periods Report** lists the amount of time the graph line spends between each pair of visible budget lines, can identify how long the crop has been stressed from lack of water or too much water.
- The **Daily Crop Water Use Report** attempts to give a more accurate indication of crop water use than simply graphing "daily negative change".

## Example of Daily Crop Water Use Report

```

IMX9458.tmp - Notepad
File Edit Format View Help
DAILY CROP WATER USE REPORT
=====
Disclaimer: Calculated/Corrected Volumetric Daytime Negative Change (VDTNC) is an estimate of crop water use.
Corrected VDTNC values are under constant improvement (via Irrimax upgrades) to give better crop water use
estimates. For assumptions used in Corrected VDTNC see below.

Graph:      C:\Users\skane\Desktop\Pasture\Perennial.gt
Pane:       Soil water Content
Database:   C:\Users\skane\Desktop\Pasture\Perennial.sdb
Sensors:    Site 'Perennial', Probe 'P1', Depth 10 + 30 + 50 + 80 cm (Interpolated Sum)
Unit:       mm
Time Range: 17/07/2009 06:00:00 AM to 22/01/2010 06:00:00 AM (189 days)
DayTime:    6 AM to 6 PM (12 hours)

DayTimeChange = Sum of all changes during daytime hours
DayTimePosChange = Sum of all positive changes during daytime hours
DayTimeNegChange = Sum of all negative changes during daytime hours
NightTimeChange = Sum of all changes during nighttime hours
NightTimePosChange = Sum of all positive changes during nighttime hours
NightTimeNegChange = Sum of all negative changes during nighttime hours

Calc VDTNC = DayTimeNegChange - ((DayTimeHours / NightTimeHours) * NightTimeNegChange)

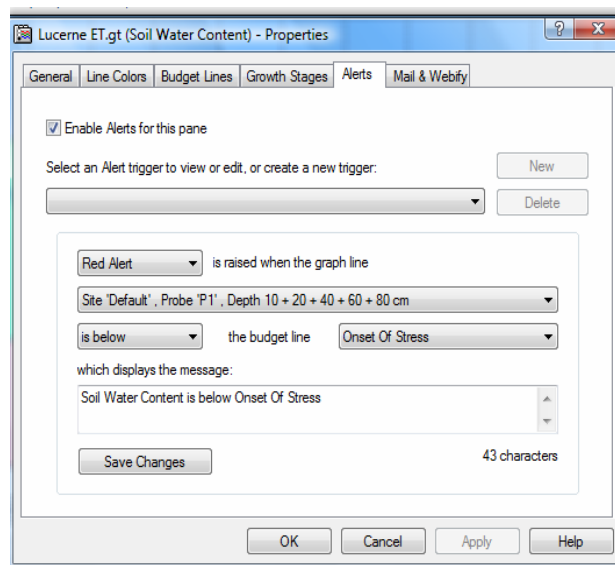
Corrected VDTNC = Calc VDTNC, with the following exceptions (evaluated in order):
(1) when a significant (1.2x) hourly change of SWC is detected during daytime or previous nighttime,
    Corrected VDTNC is derived from the previous and next day
(1a) when DayTimeChange is positive (e.g. rainfall or irrigation), Corrected VDTNC is derived from the
    previous and next day
(2) when significant (1.2x) hourly change of SWC is detected during nighttime or previous daytime,
    Corrected VDTNC = DaylightNegChange
(2a) when NightTimeChange is positive (e.g. rainfall or irrigation), Corrected VDTNC = DayTimeNegChange
(3) when NightTimeNegChange exceeds DayTimeNegChange (e.g. diurnal fluctuation), corrected VDTNC =
    DayTimeChange+NightTimeChange

Date      DayTime  DayTime  DayTime  NightTime  NightTime  NightTime  Calc  Corrected
yyyy/mm/dd  Change PosChange NegChange  Change PosChange NegChange  VDTNC  VDTNC
-----
2009/07/17  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.000
2009/07/18  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.000
2009/07/19  0.000  0.000  0.000  0.000  0.000  0.000  0.000  0.000
2009/07/20 -1.510  0.335  1.845  -0.325  0.340  0.665  1.180  1.180
2009/07/21 -0.325  0.250  0.575  -0.120  0.295  0.415  0.160  0.160
2009/07/22 -0.115  0.285  0.400  -0.230  0.125  0.355  0.045  0.045
2009/07/23 -0.270  0.280  0.550  -0.690  0.090  0.780  *      0.960 (3)
2009/07/24 -0.535  0.325  0.860  -0.760  0.185  0.945  *      1.295 (3)
2009/07/25 -0.370  0.240  0.610  -0.490  0.240  0.730  *      0.860 (3)
2009/07/26 -0.360  0.210  0.570  -0.315  0.230  0.545  0.025  0.025
2009/07/27 -0.185  0.210  0.395  -0.070  0.530  0.600  *      0.255 (3)

```

# Database and Graph Alerts

An alert is a notification presented to the user that is triggered when a nominated condition is met.

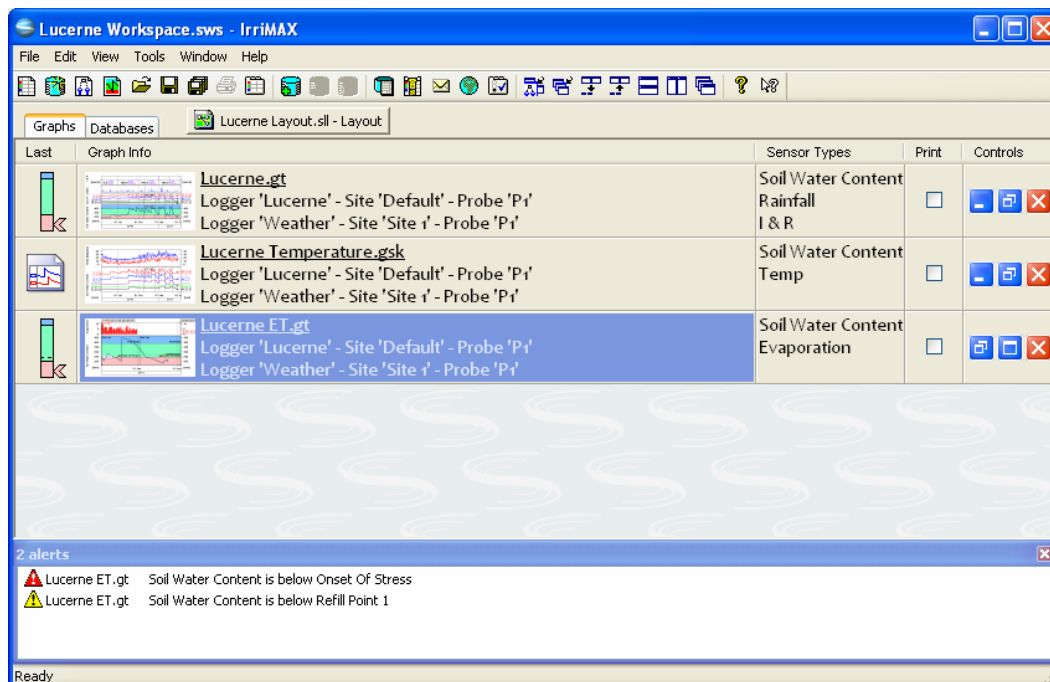


The user can define alert triggers based on these conditions:

- A graph line being above or below a nominated budget line on a graph.
- The last reading of a database being a nominated amount of time older than the current time.
- The last reading of a database containing an invalid moisture or salinity value.

Alerts are displayed in a window at the bottom of the Workspace Manager.

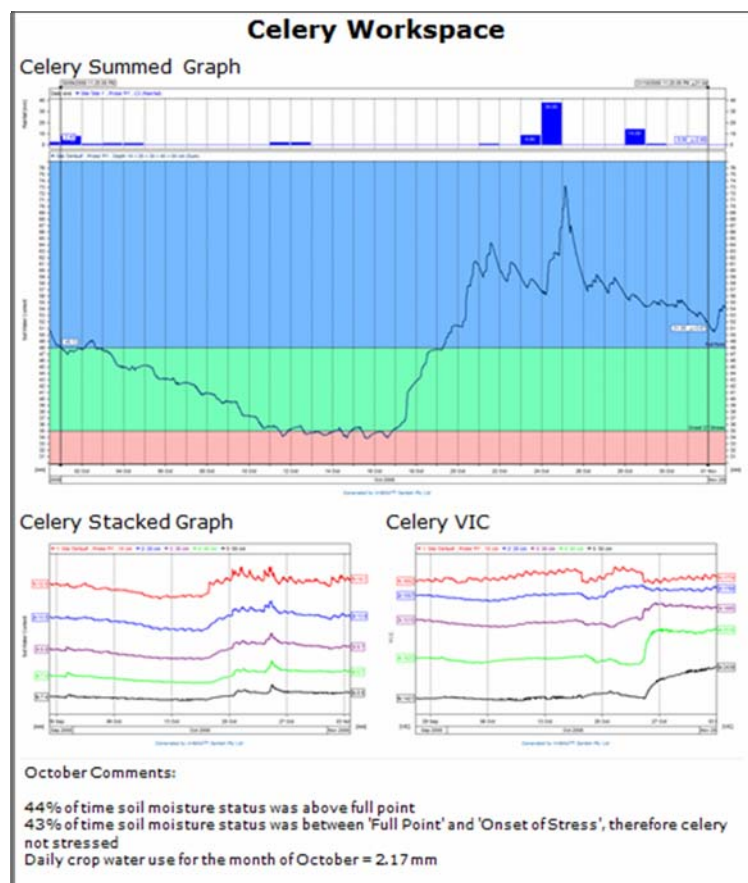
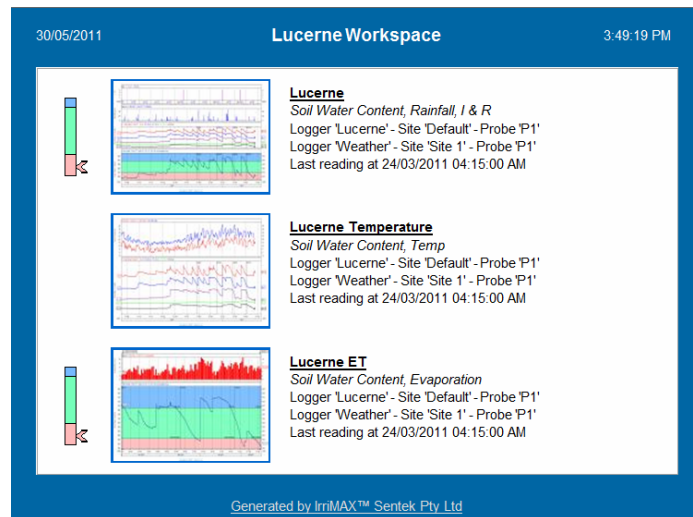
Alerts can also be sent via an email (via a command-line switch).



# Webify Enhancements

- The new workspace comment property can be viewed in a webified workspace.
- When webifying a graph or workspace, IrriMAX will create the output folder if it does not exist.
- When uploading a webified workspace using FTP, IrriMAX will create the folders in the remote path if they don't exist.

Examples of Workspace Webify Outputs:



**Note: Webify functionality is only available in IrriMAX 9 Premium**