

#### Version 3.3.0.0

- Precision ET service changes and additional weather parameters added (including precipitation)

#### Version 3.3.0.1

- Precision ET station was not sending rain value to satellites

#### Version 3.3.0.2

- Updated Campbell Scientific Turf Weather to work only with current generation weather stations

#### Version 3.3.0.3

- Fix for newer Vantage Pro consoles (they sleep and return CRLF before data packets)

#### Version 3.3.1.0

- Add support (requires fw 3.28) for Turf Guard wireless soil sensors to return salinity and temperature, at the upper level sensor. Support includes graphing, local web, and latest readings.
- Rename soil sensor type from Turf Guard to Wireless
- Display latest values for moisture on the Activity Monitor report, and removed from Special Data soil sensors tab.
- Add battery voltage and time since last reading received to Activity Monitor Soil Sensing Status Report. Battery will turn red when < 2.7v and time since will turn red after no reading received for 2 hours, which is when the satellite will revert to always irrigating.
- Also add soil salinity and temperature, only available for now with the full Golf dual level sensors

#### Version 3.3.2.0

- Modify flow sources tab on special data for fw 3.29 and up. Removes the old method of using a query station and idle polling time. Now we set communication parameters from this screen without need for query station. Also polling is now every minute always, so no idle polling interval.
- Also add k and offset to the flow source tab so that it can be used by the 3.29 and up fw when the flow source is a decoder.

#### Version 3.3.2.1

- make sure flow sources tab properly reflects that sources 1 and 2 are always local flow meters.
- graph was clipping floating point values between -100 and 100, now -100 and 2000 (also beeps when clipping occurs to help us identify in future)
- completed support for receiving soil sensor data on activity monitor from decoder based sensors
- zone data resize station column to fit 3 digits when windows font is 100% + other screen layout changes

#### Version 3.3.2.2

- fix auto program not loading/showing start times correctly s.o. 12/18

#### Version 3.3.2.3

- add support for Sentinel version 3.32.0 with Ethernet SRTA disable

#### Version 3.3.3.0

- debut release of user level security (beta)

#### Version 3.3.3.1 (updated for firmware 3.33)

- debut release of user 4 level security with system filter option (beta)
- Special data:
  - Alarms tab goes away on firmware 3.33 and up
  - Add support for sensor 2 alarm state
  - Move notifications list to global tab
- Special data: obsolete items removed:
  - Station types allowed above 96.
  - Two-wire / Irritrol on Serial port
  - Telephone Modem Options - Paging options and field modem initialization string
- Activity / Alarm monitor:
  - Add support for displaying sensor 2 alarm status
- Auto Operations:
  - Add irrigation program checkbox
  - Add reaction to the two sensor inputs in alarm state
  - Add new sensor alarm behavior option – stop if irrigation program
- Software Setup:
  - Removed the ability to choose a filter system on the startup tab. Instead this information is set in the user profile and requires security activation to use.
  - User credentials may be provided in whole or in part on User Preferences tab

#### Version 3.3.3.2

- Auto Operations – remove stop if irrigation program option

#### Version 3.3.3.3

- Remove references to Clusters and programs – now just programs 1-16  
On Rain Days and Percent Scale saved shutdowns set to old cluster/program format will no longer work.

#### Version 3.3.3.4

- Terminology – change Auto Operations to Scheduled Watering
- Terminology – change Special Data to Satellite Settings
- Terminology – change Zone Data to Station Settings

#### Version 3.3.3.5

- Terminology – change Percent Scale to Percent Adjust
- Terminology – change Unsent Changes to Synchronize

#### Version 3.3.3.6

- Visual improvements on Satellite Settings General tab
- Threshold for Turf Guard battery voltage red to 2.1V (was 2.7)
- Satellite Settings, Scheduled Watering Omit Date tab activated (fw 3.34 required)

#### Version 3.3.3.7

- Expect moisture graph data is unscaled, applies current scale factors to graph.

#### Version 3.3.3.8

- Correct a bug when trying to save software config for the first time

#### Version 3.3.3.9

- Visual improvements to Activity Monitor Report
- Add missing flow sources 7 & 10 to hydro report
- Fix crashes when editing omit dates

#### Version 3.3.4.0

- Security now provides way to change user / logout (L-Click Permission Level on toolbar)
- Security now provides way to lock screen (R-Click Permission Level on toolbar) Useful when running watcher.

#### Version 3.3.4.1

- Security functions for satellite security initial release (Security tab, Satellite Settings)

#### Version 3.3.4.2

- Add support to graph screen to retrieve soil sensor lower and both probe graphs (if available)
- Fix issue causing 1 (or scale factor) to be subtracted from the soil moisture value when graphing

#### Version 3.3.4.3

- Display temperature graphs in celcius when set to metric mode

#### Version 3.3.4.4

- Fix, on scheduled watering switch behavior start and run was swapped with start, stop on de-assert.
- Add pause option to scheduled watering switch behavior

#### Version 3.3.4.5

- Fix user manager not storing/showing security on/off setting
- Show security login toolbar button when security on or any users created .

#### Version 3.3.4.6 1/21/20

- Fix - temp user manager permission now granted if no admin account in all cases
- Added code to gray out security options on security tab if not in fw version
- Synchronize indicator now shows up in all cases controller is out of sync
- Fix – horizontal dividing lines on activity monitor report were not displaying correctly on large reports

#### Version 3.3.4.7

- Fix – be sure logging is as new user refreshes list of satellites on satellite tab
- Fix – Setup button requires L4, Manage and Scheduler require L3 else disabled
- Updated Help Screen text.
- Fix – Exception opening flow graph in system mode

#### Version 3.3.4.8 Project Reflection (Flow and moisture decoders) Release Version

- Fix – cluster/program display on Optimizer
- Fix – better security/context switching behavior when changing databases

#### Version 3.3.4.9 **Start Build towards a v4 version release**

- Fix – program listing was still using cluster/program format
- Fix – Scheduled Watering slot editor was not wide enough
- V4 Change – Auto programs for v4 no longer allow assigned schedule adjustment. Schedules are stored 1 to 1 with program. Receive all programs from satellite after update to V4 to get corrected schedule information.
- V4 Change: Added Cycle End Time to programs
- V4 Change: Added Run Time Basis HH:MM, HH:MM legacy, and MM:SS
- V4 Change: Build version and hardware platform added to satellite settings (allows both version and platform customizations on WMS UI)
- V4 Change: Cycle & Soak Options can be set on satellite & station settings
- V4 Change: Cycle Add new and simplify port options on satellite settings advanced for DXi & v4
- V4 Change: Cloud Connectivity Supported setup under config->CloudSettings Or override for each satellite on the comm settings tab.

#### Version 3.3.5.0

- V4 Change: Bypass Satcomm for Cloud and IP to satellites (much faster)

#### **Note:**

**As of this version you may longer IP connect to a V2 central interface.**

**Serial connect still ok, as well as IP to V3. IP connections now require packet comm mode when talking to satellites.**

#### Version 3.3.5.1 (required update for cloud connect)

- Add maxFlowDecoders to limit UI in WMS (and later V4 satellite)(default 3)
- new cloud error codes for offline and invalid credentials

#### Version 3.3.5.2

- Watcher was always closing hydro report window regardless of setting
- System Operations were not using cloud credentials
- removed all Hangup calls to keep Satcomm from opening after IP communications
- Add CANCEL option at bottom of software for the new Direct IP (no Satcomm) communications

#### Version 3.3.5.3

- Correct Comm Option Device– requires fw 4.2.8 and up

#### Version 3.3.5.4

- further correction Comm Option Device & now read only
- Vantage Pro – improvements & changes:  
Wind direction now cardinal direction, barometer in HPa  
Fix: Rain in metric mode was incorrect – now based on .2mm/tip

#### Version 3.3.5.5

- fix: if map coordinates supplied and map file name is not, then map will open google map in default browser. (same as view button next to coordinates)
- S/R support for satellite description added using stringNoPadding (efficient bi-directional string transfer w/o any padding bytes needed. Requires fw 4.03.0)
- support for program and station descriptions S/R to satellite. Requires fw 4.03.0

- fix rain units display on vantage pro
- Soil sensing status –Mode statement indicates if program isn't opted in to moisture control

#### Version 3.3.5.6

- add support for time zone, daylight savings, cloud time sync, latitude & longitude (fw 4.03.01 and up)
- for readability activity monitor report now shows station ranges x-y, rather than all the comma separated stations between x and y
- fix error saving satellite settings (build version)

#### Version 3.3.5.7

- fix multiple comm issues on station settings, scheduled watering and station settings associated with description fields

#### Version 3.3.5.8 (fw 4.03.02 now required for description support)

- fix code related to string / description fields

#### Version 3.3.5.9 (fw 4.03.03 now required for description support)

- add support for DXi High current shutdown alarm
- fix error display when parm invalid or parm length invalid
- maxFlowDecoder count enforced with error flags on flow sources screen on save/send

#### Version 3.3.6.0

- fix error saving satellite settings

#### Version 3.3.6.1

- remove all locks on Precision ET stations
- clean up: remove Irrisoft Weather Reach and fw 1.40 forwarding options
- WLR logic change – see fw version 4.3.7 save/send of station settings will check Wireless LR limit to prevent exceeding capacity setting (4)
- ? satellite settings support for maxFlowDecoders limit

#### Version 3.3.6.2

- add support for fw 4.3.7 removes mirrored master adds pump start. (receive satellite settings from controller to update wms values)
- additional fixes on satellite settings encountered during blank db new controller setup

#### Version 3.3.6.3

- fix issue with fw build version not loading causing incorrect screen versioning

#### Version 3.3.6.4

- more fixes to screen versioning due to fw build version enhancement

#### Version 3.3.6.5

- Add support for serial communications without satcomm, when talking to satellite v3 or up. Fixes issue with Satcomm not managing flow control lines. (satcomm now only used for weather stations)
- S/R stn. descriptions include button on station settings for v4 units
- Support for Dev 2 cloud

#### Version 3.3.6.6

- fix logic around max flow decoder(3) and max WirelessLR(4) board checks

- fix build number was displaying as hex string instead of base 10 number
- satcomm is only bypassed for V3 units (they support packetcomm) otherwise it is still used for V2 units and weather stations

#### Version 3.3.6.7

- additional logic changes to accommodate V2 legacy satellite communications
- serial comm checks fw version and if packet comm ready (v3 and up) then satcomm is bypassed
  - if satcomm bypassed flow control is implemented if serial device asserts CTS, otherwise not

#### Version 3.3.6.8

- activity monitor report will display comm warnings of type 5 as local
- validate station count on satellite settings must be 1 to 204
- Fix activity monitor results display for build version

#### Version 3.3.6.9

- Scheduled watering / program checkup was incorrectly calculating program total run time in seconds for older satellites that only support minute based runtimes

#### Version 3.3.7.0

- Weather station names containing a single quote were crashing opening monitors

#### Version 3.3.7.1

- Ensure when a monitor throws an exception due to insufficient records in interval the monitor value is 0 and not tripped. Prior to this the previous monitor value was not cleared out.

#### Version 3.3.7.2 5/12/21

- Add code to handle bad Timezone/DST data from a satellite by saving and displaying it as default (instead of throwing exception)
- Editing Cycle/Soak settings on station settings was not setting change flag on Synchronize

#### Version 3.3.7.3

- update strings MT Cell-> 4G LTE, Digi Cell -> 3G, Raveon M8 -> UHF Radio

#### Version 3.3.7.4

- update template.mdb for blank database startup issues

#### Version 3.3.7.5

- fix alarm cleared date message on activity monitor report, was “no alarms found”

#### Version 3.3.7.6

- fix map float function now works (must ctrl click map)

#### Version 3.3.7.7

- add safety when writing weather station history to ensure record count has incremented by one (to prevent writing a truncated file)

#### Version 3.3.7.8

- WOBLR limit of Wireless long range is applied only if V4 firmware

#### Version 3.3.7.9

- Fix program schedules not saving

#### Version 3.3.8.0

- Fix Pump start option on MV not saving

#### Version 3.3.8.1

- Fix Saving Sat settings was altering aux pump setting on programs

#### Version 3.3.8.2

- Fix Weather Source comm error notifications were being sent without text, likely due to a blocked communication. Added text to this case so notification is not blank.

#### Version 3.3.8.3

- Change Wob LR board limit from 4 to 8

#### Version 3.3.8.4

- Correct message displayed when a rain off is unable to receive rain days – send is skipped
- dotmemory cleanup (frmClosing): activity monitor, et/rain poll, time sync, rain off, config main, weather src properties, hydro report
- Eliminate use of gForm in doComm for memory cleanup & not needed
- Fix version mismatch messages due to build version on scheduled watering
- Modify appendcurrentcharttortb to use an approach that doesn't use the clipboard (less unmanaged memory consumed)(hydroreport)

#### Version 3.3.8.5

- No longer send email notifications of errors during weather station monitor polling (though still for ET poll) (see pollStation)
- Remove unnecessary writes to db of rain and et during daily weather poll

#### Version 3.3.8.6

- Fix error saving station settings when station descriptions are blank / null

#### Version 3.3.8.7b

- Fix station settings not receiving station descriptions
- Connection pooling off- was causing multiple issues not immediately seeing database changes
- Fix multiple fixes to programs s/r -> Sending program twice incorrectly reported fw version mismatch

#### Version 3.3.8.7c

- Add support for 6 IP sockets on sat settings advanced (fw 4.3.59 and up)

#### Version 3.3.8.7d

- Add support for continued use of V2 CTM's. This is done by user unchecking Packet Comm on any satellites communicated to through a V2 CTM. (Note V3 CTM's are still recommended going forward as they handle larger packets and support current protocols)
- Removed post dial string from comm settings – no longer used
- Improved enable/disable blocks when selecting a profile on comm settings

#### Version 3.3.8.8

- Fix saving a program with no changes cleared the sync flag- now doesn't
- Fix satellite settings screen was cut-off visually

#### Version 3.3.8.9

- Fix satellite settings still had screen size too small
- Scheduled Watering missing schedule pattern dropdown
- Fix attempt to communicate with offline cloud unit was displaying green success

icon instead of broken link comm failure icon

- Print on graph now prints directly to printer, bypassing dialog which crashes on some installs (ctrl-click will still attempt to open the dialog)

Version 3.3.8.10

- Fix scheduled watering altering runtime was not setting change flag

Version 3.3.8.11

- Fix multiple fw version to db fw version mismatch messages incorrectly indicated
- Fix Hydro Report error message on close / save caused by null value

Version 3.4.0.0 – now secure cloud connection

- Fix issue with global cloud credentials – stack overflow when tested
- Implement Cloud Connect JSON API - JSON API endpoint, HTTPS

Version 3.4.0.1

- Fix -force cloud comm when version blank but Cloud Connect specified
- Authenticate updated to use Cloud JSON API

Version 3.4.0.2

- Fix -http endpoint for cloud test server was incorrect

Version 3.4.0.3

- After adding a new satellite: RunTimeBasis default minute legacy and IsIrrigation set for each program.
- Fix crash when trying to save a new database after closing software config

end



