

December 1<sup>st</sup>, 2024

## CirrusPRO<sup>™</sup> New Features Guide

for build 4.7

#### Important Database Changes:

With 4.7, we have migrated the database engine from Microsoft SQL to PostgreSQL, which allows for much larger database sizes. The process to updating from 4.6 to 4.7 will take longer than usual as PostgreSQL will be installed and your 4.6 database will be converted.

Note that at this time, it will not be possible to "restore" any previous database once you have migrated to 4.7. Only GSP will be able to help if you need to restore a database that was created in a version prior to 4.7.

#### Decoder Diagnostics from the Map:

In 4.7, it is now possible to conduct Decoder diagnostics directly from the Map. This can be done for a single station, or multiple stations via the Multi-Select tool.



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Then, select "Run Test". A message will pop-up saying that this will cancel all irrigation. Click OK for the test to start.

| On/Off Test |            |                         |                        |                           | RUN                     | TEST C    | ANCEL TEST          |
|-------------|------------|-------------------------|------------------------|---------------------------|-------------------------|-----------|---------------------|
| fested: 4/4 | ⊘ 3 ⑦      | 1<br>NO FEEDBACK        |                        |                           |                         | Last Upda | ted 2024/09/19 15:0 |
| Result 🗮    | Location = | Interface =             | Resting current = (mA) | In-rush current =<br>(mA) | Holding<br>current (mA) | Hole 📃    | Area                |
| 0           | 2G4        | SDI in office<br>(COM2) | 9                      | 14                        | 9                       | Hole 2    | Greens              |
| $\odot$     | 2G1        | SDI in office<br>(COM2) | 13                     | 567                       | 26                      | Hole 2    | Greens              |
| $\odot$     | 2G2        | SDI in office<br>(COM2) | 12                     | 562                       | 26                      | Hole 2    | Greens              |
| $\odot$     | 2G3        | SDI in office<br>(COM2) | 13                     | 563                       | 26                      | Hole 2    | Greens              |

Results then show up with detailed information. Any issue is listed at the top.

### Decoder Interface Current Graph:

A Decoder Interface Current Graph is now available in the Diagnostics section, under "Decoder Interface Diagnostics". You simply need to click on the " " symbol under the "Show Graph column. This will bring up a pop-up showing the current mA draw from the interface.





If your system had some activity in the selected period, then a current graph will be displayed. It is best to limit this period to 3 days or less.



#### Cycle & Soak Override & Vertical Progression: Start Days\* When looking at the program options, there are two new options Week Davs available: "Ignore Cycle & Soak" as well as "Vertical $\odot$ $\odot$ $\bigcirc$ $\odot$ Progression". Click to add Cycle & Soak override is self-explanatory. 21:00 Z Enabled Vertical Progression is where CirrusPRO will run Ignore System Water Budget as many stations on a given hole before starting stations on the next hole (see detailed explanation Ignore System OFF on the next page). Ignore Cycle & Soak Forced Progression Vertical Progression



To better understand Vertical vs. Horizontal irrigation, let's use the view from the Activity/Active page. Holes are displayed on the top and stations on the left.

By default, CirrusPRO will run a program "horizontally", meaning that it will prioritize running one station per hole for as many holes as possible (based on Flo-Manager). So, for this Greens program, it will start 7G1, 8G1, 9G1, etc. until Flo-Manager reaches a restriction. This spreads the usage of water across the entire property and is easier on the piping network as the maximum flow per pipe is not likely to be reached.

| CIRRUSE            | PRO**   | COURSE     | ACTIVITY   | PROGRAM          | IS REPOR        | tts syste | MISETTINGS | 1        |              |        |               |      | Tutal New: | 2300<br>295.2 gal/min | © 1       | O Di   | ()<br>()     | <b>1</b> | 1 <b>2</b> |
|--------------------|---------|------------|------------|------------------|-----------------|-----------|------------|----------|--------------|--------|---------------|------|------------|-----------------------|-----------|--------|--------------|----------|------------|
| ACTIVITY           |         |            |            |                  | n" Ad           | twe 5ch   |            |          |              |        |               |      |            |                       |           |        |              |          |            |
| uli 🗮<br>Chert Lat | 1. D    | Show Separ | ate Pumps  |                  | i II<br>el caso | Alia      |            |          |              |        |               |      |            |                       |           |        |              |          |            |
| CirrusPRO D        | Demo GC | * (        | Golf Areas |                  |                 |           |            |          |              |        |               |      |            |                       |           |        |              | I ÷      |            |
|                    | 1       | 2          | 3          | 4                | 5               | 6         | 7          | 8        | 9            | 10     | 11            | 12   | 13         | 14                    | 15        | 16     | 17           | 18       |            |
| ↑ Greens           | s O     | -          |            |                  |                 | ►         | loriz      | onta     | l irrig      | gatio  | n <b>—</b>    |      |            |                       |           |        |              |          | Î          |
| G1                 | 8       | 8          | 8          | 8                | 8               | 8         | 0 0.12     | () 0.12  | 0 0.11       | 0 0.12 | <u>Ô</u> 0.12 | 0.12 | Ô 0.12     | 0 0.11                | 0 0.11    | 0 0.11 | 8            | 8        |            |
| G2                 | 0 0.03  | Õ 0.11     | 0 0.11     | Õ 0.11           | O 0.11          | 0 0.12    | 8          | 8        | 8            | 8      | 8             | 8    | g          | g                     | 8         | В      | 8            | 8        |            |
| G3                 | 8       | В          | 8          | 8                | B               | 8         | 8          | B        | 8            | B      | g             | 8    | 8          | 8                     | 8         | В      | 8            | 8        |            |
| G4                 | 8       | 8          | g          | 8                | 8               | 8         | 8          | 8        | В            | 8      | g             | 8    | 8          | 8                     | 8         | 8      | В            | 8        |            |
| GS                 |         |            | В          | 83               | 8               | 8         | g          | 8        | 3 <b>7</b> - | 8      | Β             | 83   | 10         | 5.83                  |           | 5      | 3 <b>7</b> 1 | 3        |            |
| G6                 |         | ÷          | - 85 I     | 34               | - 34<br>-       | 362       | ji k       | ¥        | 34           | 2      | 10            | - 54 | 14         | 166                   | - 24<br>- | - 20   | 34 L         |          |            |
| G7                 |         | - A        | 10         | 15               | <u>.</u>        | 1.20      | 10         | <u>8</u> | 35           | - A    | 12            | - 15 | (t)        | 0.50                  | - 2       | - 55   | 13%          | 5        |            |
| G8                 |         |            |            | - 9 <del>8</del> | 90              | 1.000     | 8          | 8        |              |        | -             | - 24 | - (e)      | 0.8                   | 18        |        | 3 <b>4</b> - | 10       |            |

Example: Horizontal Irrigation (default)

#### Example: Vertical Irrigation

| <b>n</b> 18 |       | t n    | thow Senar | ate Pumps  |        | F III    |         |        |          |        |        |    |               |        |        |       |      |      |      |
|-------------|-------|--------|------------|------------|--------|----------|---------|--------|----------|--------|--------|----|---------------|--------|--------|-------|------|------|------|
| rrusP       | RO De | mo GC  | - (        | Golf Areas |        | are Pass | Eastern | -      | -        | -      | -      | -  | -             | -      | -      | -     | -    | -    | T ·  |
| 10,550      |       | 1      | 2          | 3          | 4      | 5        | 6       | 7      | 8        | 9      | 10     | 11 | 12            | 13     | 14     | 15    | 16   | 17   | 18   |
| ∧ G         | reens | 0      |            |            |        |          |         |        |          |        |        |    |               |        |        |       |      |      |      |
| - 0         | 1     | 0 0.02 | g          | 8          | В      | 8        | g       | 0 0.11 | Q 0.12   | 0 0.12 | 0 0.12 | 8  | 0 0.12        | 0 0.12 | Ó 0.12 | 8     | 8    | 8    | 8    |
| 4           | 2     | 0 0.02 | 0 0.11     | 0 0.11     | 0 0.11 | 0 0.11   | 0 0.11  | 0 0.11 | 0 0.12   | Ó 0.12 | 0 0.12 | 8  | <u>0</u> 0.12 | 0 0.12 | 0 0.12 | 8     | 8    | 8    | g    |
| 0           | 53    | 0 0.02 | 0 0.11     | O 0.11     | 0 0.11 | 0 0.11   | 0.11    | 0 0.12 | 8        | 0 0.12 | В      | 8  | 8             | Ξ      | 8      | В     | 8    | 8    | 8    |
| - (         | 54    | 0.02   | 8          | 8          | B      | 8        | 8       | 0 0.12 | 8        | 0 0.12 | B      | 8  | 8             | 8      | 8      | E     | 8    | 8    | g    |
|             | 5     |        | 8          | g          | 15     | 8        | 8       | 8      | В        | 2      | В      | 8  |               | 8      | 8      | 5     | - 19 | 3    | - 52 |
| 3           | 6     |        | - 24       | -          | -      | 58       | 145     | (#S)   | 12       | 92     | 844    | 2  | ÷8            | - 64   | -      | - 20  | 34   | - 40 | 22   |
| ÷ (         | 7     |        | 12         | *          |        | - 25     |         | 0.8.5  | <u>.</u> |        |        | 12 | <b>1</b> 0    | 12     |        | - te: | - 67 |      | 1.0  |
| 5 (         | 8     | ]      |            |            | - 63   |          | -       | 1.00   |          | - 82   | 1943   |    |               |        |        | - 8   |      | (e)  | 1.00 |



With vertical irrigation, CirrusPRO will run as many stations as possible on a given hole until Flo-Manager restricts the next station on the hole before starting stations on the next hole. This method may seem like a more logical approach; however, it maximizes the flow in the pipes on a given hole almost every time.

Note that the Programs side panel also shows "Forced Progression" but that it is grayed out. This feature is being worked on and should be available in 4.8.

#### Programs Toggle Switches:

From the program screen, it is now easy to toggle programs on or off with a toggle switch.

| CIRR   | US <b>PRO</b> ™ | COURSE ACTIVITY                | PROGRAMS REPORTS   | SYSTEM SETTINGS | Total Flow: Ogal/min     | 21:00 100% 0.1 in | om ♥ ♠ ≗      |
|--------|-----------------|--------------------------------|--------------------|-----------------|--------------------------|-------------------|---------------|
| PROG   | RAMS            |                                |                    |                 |                          |                   |               |
| Ean    | Stop Start      | II I▶ ₩<br>Pause Resume Advanc | e<br>Mare          |                 |                          |                   | •             |
|        | ≠ ≡             | Name $\equiv$                  | $\equiv$ Schedules | ≡ Priority      | $\equiv$ Status $\equiv$ | Enabled $\equiv$  | Start Times   |
|        | 1               | Greens 0.12"                   | 18 Schedules       | <b>7</b> 1      | 5                        | -                 | 21:00         |
|        | 2               | Tees 0.16"                     | 18 Schedules       | 5               | 8                        | -                 | 21:00         |
|        | 3               | Falrways<br>0.12"              | 18 Schedules       | 2               | 6                        | -                 | 21:00         |
|        | 4               | Approaches                     | 16 Schedules       | 2               | 12                       | -                 | 21:00         |
|        | 5               | Surrounds                      | 18 Schedules       | ¥               |                          | -                 | 21:00         |
|        | 6               | Rough                          | 18 Schedules       |                 | *                        | -                 | 21:00         |
|        | 7               | Driving<br>Range               | 2 Schedules        | ₽1              | 15                       | -                 | 21:00         |
|        | 8               | Perimeters                     | 19 Schedules       | 2               |                          |                   | 21:00         |
|        |                 |                                |                    |                 |                          |                   | 0/16 selected |
| Rain E | Bird Dashboard  | > Programs                     |                    |                 |                          |                   |               |

#### "Block" stations on the map:

With version 4.7, it is now possible to add Block stations to the map. In this example, station 1BU1 has been defined has having 3 rotors:





These 3 rotors will now show under 1BU1 in the Map Menu under "Stations by Holes" and each rotor can now be placed on the map. As soon as you place one of the "child" rotors to that station, the station symbol will change to a valve symbol.



When 1BU1 is running, an animation will show water flowing in the lines linking the rotors to the valve as well as pulsating rotors.



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#### Weather Related Additions:

- 1. Weather History Totals pop-up:
  - When going to the Weather Report section, a new summary pop-up will appear in the upper right area of your screen.

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- On a mobile device, you need to click on the

symbol to see it

- This pop-up provides a quick summary of the filtered data. If you change the date range, the data in this summary will be updated.





2. View data Daily or by Day & Time:

In the weather report, you can now select to view data with only a daily sum rather than only displaying the data with hourly amounts by selecting how you want to display the information here:



Example showing Date only

| late Range 20-10-202 | 4 - 30-10-2 | 024 🖻      | Weather So | urce WatchDo | og #1 - Hole 2 | - Q<br>terres | aret fin |            |            |            |             |                                     |
|----------------------|-------------|------------|------------|--------------|----------------|---------------|----------|------------|------------|------------|-------------|-------------------------------------|
| Date F               | 并           | <b>G</b> P | 8          | 긟            | :0;;           | ٥             | 0.17     |            | $\cap$     |            |             | 20-10-2024 - 30-10-20               |
| -10-2024             | 0.11 in     | 0.07 in    | 73.02°F    | 4.3mph       | 351,03 Ly      | 83.3%         | 0.10     | -X         | $\vee$     |            |             | TOTALS                              |
| -10-2024             | 0.13 in     | 0.07 in    | 74.35%F    | 4.32mph      | 404.54 Ly      | 81%           |          | VA         | AA)        |            | $\bigwedge$ | Weather Rain<br>Solar Radiation 4.4 |
| 10-2024              | 0.16 in     | 0.04 in    | 75.49°F    | 3.77mph      | 460.93 Ly      | 77.1%         | 0.15     | $\times$   | XV         | -to        |             | AVERAGES                            |
| 10-2024              | 0.14 in     | 0.21 in    | 74.84ºF    | 3.41mph      | 409.11 Ly      | 77.7%         | 0.00     | /Y \       |            |            |             | Weather ET 0.13<br>Avg Temperature  |
| 10-2024              | 0.15 in     | 0.24 in    | 73.14°F    | 1.33mph      | 476.46 Ly      | 74.3%         | ta alta  |            | $\forall$  |            | I           | Wind Speed 2.<br>Relative Humidity  |
| 10-2024              | 0.15 in     | 0.2 in     | 71.99°F    | 1.21mph      | 451.27 Ly      | 77.8%         | 0.13     |            |            |            | 1 11        | V                                   |
| 10-2024              | 0.15 in     | 0.16 in    | 72.68°F    | 1.92mph      | 451.68 Ly      | 75.7%         |          | 14         | 1          | / XI       | 111         | Λ                                   |
| 10-2024              | 0.12 in     | 0.06 in    | 71.62°F    | 1.27mph      | 368.33 Ly      | 79%           | 0.12     |            | N X        |            |             |                                     |
| 10-2024              | 0.1 in      | 0.08 in    | 72.56°F    | 2.99mph      | 312.13 Ly      | 82.4%         | 0.11     | $\neg$     |            |            | XX          |                                     |
| 10-2024              | 0.14 in     | 0.04 in    | 74.35°F    | 2.97mph      | 415.76 Ly      | 81.2%         |          | $\bigvee$  | X          | / 🗸        |             |                                     |
| -10-2024             | 0.12 in     | 0.18 in    | 75.47%F    | 3.17mph      | 347.91Ly       | 79.4%         | 01       | 25-15-2024 | 23-10-2024 | 25-10-2024 | 27-40-2024  | 29-10-3024                          |



3. View the Last 24 Hours:

When choosing the date range, you now can select the last 24 hours from the side list:

| RUS        | PRO <sup>™</sup> |       | COUR   | RSE    | ACTIVI | ry Prc  | GRAMS      | REPORT     | is sys   | TEM SETTINGS |                    |
|------------|------------------|-------|--------|--------|--------|---------|------------|------------|----------|--------------|--------------------|
| + WEAT     | THER             |       |        |        |        |         |            |            |          |              |                    |
| Date Rang  | e 10/30          | /2024 | 4 - 10 | #31/2  | 024 🗖  | ) v     | /eather \$ | Source W   | /atchDog | #1-Hole2 🔻   | Settings Export to |
| _          | «                | <     | 10     | /30/20 | )24    | >       | Tod        | ау         |          | A            |                    |
| d Date 8   | RTI 5            | м     | τ      | w      | т      | F       | Last       | : 24 Hours | :0;;     | ۵            | 0.032              |
| 10/30/2024 | OCT              |       |        |        |        |         | Last       | 3 Days     |          | 86.7%        |                    |
| 10/30/2024 |                  |       | 1      | 2      | 3      | 4 5     | Last       | 7 Days     | oly.     | 88.5%        | 0.028              |
| 10/30/2024 | : 6              | 7     | 8      | 9      | 10     | 11 12   | This       | Week       |          | 89.2%        | 0.024              |
| 10/30/2024 | . 13             | 14    | 15     | 16     | 17     | 18 19   | Last       | Week       |          | 91.4%        |                    |
| 10/30/2024 | 20               | 21    | 22     | 23     | 24     | 25 26   | Last       | Month      | 0 ly     | 93.7%        | 0.02               |
| 10/30/2024 | 27               | 28    | 29     | 30     | 31     |         | 71.8*F     | 0.18mph    | 017      | 94.6%        | Ę                  |
| 10/30/2024 | 6:00 AM          | 0     | Jin    | 0 in   | 70°F   | 70.37°F | 70.7°F     | 0.45mph    |          |              | 0.016              |
| 10/30/2024 | 7:00 AM          | c     | ) in   |        | 70.1*F | 70.28%  | 70.4ºF     | 2.45mph    |          |              | 0.012              |
| 10/00/0001 | 0.00 444         |       | 1.     |        |        |         |            |            |          |              |                    |

#### "Resolved" Notes available at the station level:

With version 4.7, it is now possible to view resolved Notes from the station level by clicking on





#### Larger and improved side panels:

The side panels that open when editing data has been improved and made larger for added visibility and to show more data in the same screen. Note that the size will vary based on the screen size.

#### Station side panel in build 4.6

| 1G1                                | F           | <u>p</u> | ۹   |
|------------------------------------|-------------|----------|-----|
| Hole 1 Greens                      |             |          |     |
| Name *                             |             |          |     |
| 1G1                                |             |          | - 1 |
| Description                        |             |          | . 1 |
| Shady                              |             |          | A   |
| Wet<br>Disease Brossure Loft Front |             |          | •   |
| Adjustments                        |             | 50       | %   |
| O Temporary Override               |             |          |     |
| ET Adjust                          |             | 100      | %   |
| Settings                           |             |          |     |
| Flow Rate per Head * He            | ads per Sta | ation *  |     |
| 22.600 1                           |             |          | _ • |
| CANCEL                             |             | SAV      | /E  |

#### Station side panel in build 4.7

| 1G1                                      |                | P           | 0        | ٩      | ×    | 8 |
|--|----------------|-------------|----------|--------|------|---|
| Hole 1 Greens                            |                |             |          |        |      |   |
| Name*<br>1G1                             |                |             |          |        |      |   |
| Description                              |                |             |          |        |      |   |
| Shady<br>Wet<br>Disease Pressure, Left I | Front          |             |          |        | ÷ // |   |
| Adjustments                              | -              |             |          |        |      |   |
| Adjust                                   |                |             | -        | 100    | %    |   |
| <ul> <li>Temporary Over</li> </ul>       | erride         |             |          |        |      |   |
| ET Adjust                                | _              |             |          | 100    | %    |   |
| Settings                                 |                |             |          |        |      |   |
| Flow Rate per Head *<br>24.7             | (i)<br>gal/min | Heads per S | tation * |        |      |   |
| Total Flow Rate:                         |                | 24.7        | 00 ga    | al/m   | in   |   |
| Non Irrigation                           |                |             |          |        |      | ï |
| Run Time                                 |                |             | 0:       | 10:00  | >    |   |
| Sprinkler Details                        |                |             | F        | Rotors | >    |   |
| ICM Address                              |                |             | 10       | F828   | >    |   |
| FloZone<br><sup>Sub-Area</sup><br>Front  |                | FZ82-1      | 1 Greer  | n Loop | >    | • |
|  |                | Canc        | el       | Sa     | ve   |   |



#### Flo-Manager integration with the map:

A new icon has been added to the map menu allowing you to see the Flo-Manager tree and select different components of the Flo-Manager such as Pumps, branches, Flo-Zones, etc. When you make a selection, all the stations included in the selected feature will show a halo around then, making it easy to identify stations that are associated with this feature. As an example, by selecting Branch B14, all the stations on Holes 1 and 2 should be highlighted, but we see that there are some stations on Hole 2 that have not yet been assigned to a Flo-Zone.



# Check box to enable/disable grouping by Sub-Areas in the Map Menu:

When in the "Stations" section of the Map Menu, it is now possible to choose between viewing the stations either grouped by sub-area, or not grouped by clicking on the "filter" icon and **formula** selecting the preferred option.





#### Indicator for disabled Schedules or stations without runtime:

A new icon has been added to the programs screen to alert the user of disabled schedules or stations without a runtime.

Hovering over the icon will display a pop-up indicating what the user needs to pay attention to.

Note that this icon may not display on small screens.



#### Ability to move stations from one interface to another:

In build 4.7, it is now possible to move stations from a satellite system from one interface to another interface of the same type (hardwired to hardwired, LINK to LINK). It is also possible to move Decoder stations from one Decoder

interface to another.

To do this, you must navigate down to the stations via the "Interface" menu, then select the stations to me moved and click on the "More" menu to see the "Change Interface" menu.

|   | ₽<br>Edīt | Table Edit | Stop Start        |        | •••<br>More | Cou                      | urse •  |   |
|---|-----------|------------|-------------------|--------|-------------|--------------------------|---------|---|
|   |           | ≡          | Location $\equiv$ | Name = | *<br>+      | Move<br>Change Interface | Runtime | E |
|   |           | 0          | 14A6              | 18A3   | 7,          | Reorder                  | ос      | 1 |
| V |           | 0          | 14A7              | 18A4   | \$          | Reconnect ICM            | oc      | 1 |
|   |           | 0          | 18G1              | 18G1   |             | Delete                   | 00      | 1 |
|   |           | 0          | 18G2              | 18G2   |             | 00:10                    | 0:00    | 1 |
|   |           | 0          | 18G3              | 18G3   |             | 00:10                    | :00     | 1 |
|   |           | 0          | 18G4              | 18G4   |             | 00:10                    | :00     | 1 |
|   |           | 0          | 18A1              | 18A1   |             | 00:00                    | :00     | 1 |
|   |           | 0          | 18A2              | 18A2   |             | 00:00                    | :00     | 1 |



#### View Flow and Pressure in the Pump Widget from any Rain Bird pump station:

The Pump Widget now supports pump stations connected via MCA or Pump Manager 2, offering enhanced flexibility and functionality.

For MCA connections, simply click the three dots in the top-right corner, navigate to Settings, enter your credentials, and save. Once completed, close the settings, and you'll be able to select your pump station to monitor live flow and pressure data effortlessly.

| Ø Pump  |          |          | ⊖ WE                   | Ø Pump         |      |       | • : |
|---------|----------|----------|------------------------|----------------|------|-------|-----|
| Pump: - |          | Settings | Ĩ                      | Settings       |      |       |     |
| Flow    | Pressure | Remove   | Widget                 |                |      |       |     |
| 0       | 0        |          | HOURLY F               |                |      |       |     |
| Ŭ       | Ŭ        |          | 式 7:04<br>< <u>Now</u> | SAVE AND       | TEST | CLOSE |     |
| gal/min |          | psi      | § 60.1                 |                |      |       |     |
|         |          | Of Dump  |                        | . / 0          |      |       |     |
|         |          | Pumo: 1  | 7492 MK4-S FG25        | <u>ں ببا ہ</u> | •    |       |     |
|         |          |          |                        |                |      |       |     |
|         |          | Flow     |                        | Pressure       |      |       |     |
|         |          | 1        | 54                     | 80.59          |      |       |     |
|         |          |          | gal/min                |                | psi  |       |     |
|         |          |          |                        |                |      |       |     |

To view live flow and pressure data from your Rain Bird pump station connected via Pump Manager 2, ensure that Pump Manager 2 is installed on the same computer as CirrusPRO. After installation and connection, simply add the Pump Widget, select the drop-down menu, and your pump station will appear for easy monitoring.