



Software Release Version 1.2.0

Release Notes

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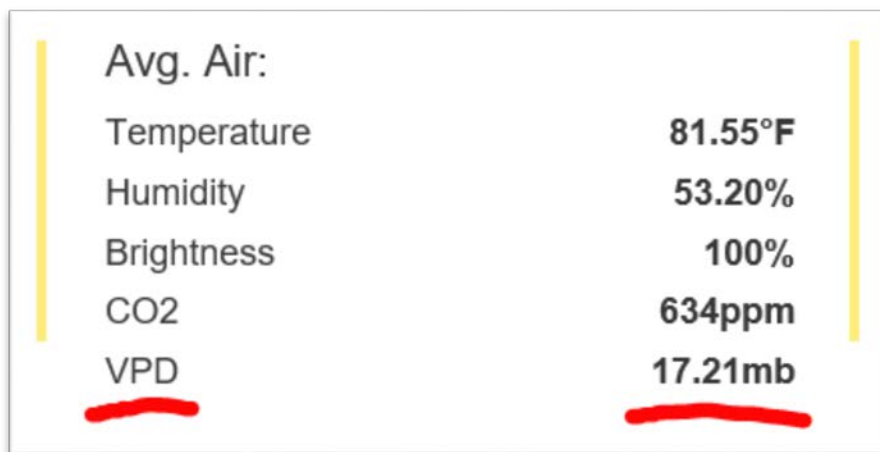
HiveOS v1.2.0
Release Notes (Build 4605)
August 11, 2016 01-2-4605-20160811

Technical Documentation: docs.smartbeecontrollers.com
SmartBee Controllers Video Library: video.smartbeecontrollers.com
Knowledge Base: kb.smartbeecontrollers.com
Customer Support: support@smartbeecontrollers.com
Document Feedback: techdocs@smartbeecontrollers.com

Release features:

Vapor Pressure Deficit, or *VPD*, is the difference (deficit) between the amount of moisture in the air and how much moisture the air can hold when it is saturated. Once air becomes saturated water will condense out to form clouds, dew or films of water over leaves. It is this last instance that makes VPD important for greenhouse regulation. If a film of water forms on a plant leaf it becomes far more susceptible to rot. On the other hand, as the VPD increases the plant needs to draw more water from its roots. In the case of cuttings, the plant may dry out and die.

Compute and graph Vapor Pressure Deficit (VPD):



Canopy Temperature		Relative Humidity															
°F	°C	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%
102°	39°	55.9	52.4	48.9	45.4	41.9	38.4	34.9	31.5	28.0	24.5	21.0	17.5	14.0	10.5	7.0	3.5
100°	38°	53.0	49.7	46.4	43.1	39.7	36.4	33.1	29.8	26.5	23.2	19.9	16.6	13.2	9.9	6.6	3.3
99°	37°	50.2	47.0	43.9	40.8	37.6	34.5	31.4	28.2	25.1	22.0	18.8	15.7	12.5	9.4	6.3	3.1
97°	36°	47.5	44.5	41.6	38.6	35.6	32.7	29.7	26.7	23.8	20.8	17.8	14.8	11.9	8.9	5.9	3.0
95°	35°	45.0	42.2	39.3	36.5	33.7	30.9	28.1	25.3	22.5	19.7	16.9	14.1	11.2	8.4	5.6	2.8
93°	34°	42.5	39.9	37.2	34.6	31.9	29.2	26.6	23.9	21.3	18.6	16.0	13.3	10.6	8.0	5.3	2.7
91°	33°	40.2	37.7	35.2	32.7	30.2	27.7	25.1	22.6	20.1	17.6	15.1	12.6	10.1	7.5	5.0	2.5
90°	32°	38.0	35.7	33.3	30.9	28.5	26.1	23.8	21.4	19.0	16.6	14.3	11.9	9.5	7.1	4.8	2.4
88°	31°	35.9	33.7	31.4	29.2	26.9	24.7	22.5	20.2	18.0	15.7	13.5	11.2	9.0	6.7	4.5	2.2
86°	30°	33.9	31.8	29.7	27.6	25.5	23.3	21.2	19.1	17.0	14.8	12.7	10.5	8.5	6.4	4.2	2.1
84°	29°	32.0	30.0	28.0	26.0	24.0	22.0	20.0	18.0	16.0	14.0	12.0	10.0	8.0	6.0	4.0	2.0
82°	28°	30.2	28.3	26.5	24.6	22.7	20.8	18.9	17.0	15.1	13.2	11.3	9.4	7.6	5.7	3.8	1.9
81°	27°	28.5	26.7	25.0	23.2	21.4	19.6	17.8	16.0	14.3	12.5	10.7	8.9	7.1	5.3	3.6	1.8
79°	26°	26.9	25.2	23.5	21.8	20.2	18.5	16.8	15.1	13.4	11.8	10.1	8.4	6.7	5.0	3.4	1.7
77°	25°	25.3	23.8	22.2	20.6	19.0	17.4	15.8	14.3	12.7	11.1	9.5	7.9	6.3	4.8	3.2	1.6
75°	24°	23.9	22.4	20.9	19.4	17.9	16.4	14.9	13.4	11.9	10.4	8.9	7.5	6.0	4.5	3.0	1.5
73°	23°	22.5	21.1	19.7	18.3	16.9	15.4	14.0	12.6	11.2	9.8	8.4	7.0	5.6	4.2	2.8	1.4
72°	22°	21.1	19.8	18.5	17.2	15.9	14.5	13.2	11.9	10.6	9.3	7.9	6.6	5.3	4.0	2.6	1.3
70°	21°	19.9	18.6	17.4	16.2	14.9	13.7	12.4	11.2	9.9	8.7	7.5	6.2	5.0	3.7	2.5	1.2
68°	20°	18.7	17.5	16.4	15.2	14.0	12.9	11.7	10.5	9.4	8.2	7.0	5.8	4.7	3.5	2.3	1.2
66°	19°	17.6	16.5	15.4	14.3	13.2	12.1	11.0	9.9	8.8	7.7	6.6	5.5	4.4	3.3	2.2	1.1
64°	18°	16.5	15.5	14.4	13.4	12.4	11.3	10.3	9.3	8.3	7.2	6.2	5.2	4.1	3.1	2.1	1.0
63°	17°	15.5	14.5	13.6	12.6	11.6	10.7	9.7	8.7	7.7	6.8	5.8	4.8	3.9	2.9	1.9	1.0
61°	16°	14.5	13.6	12.7	11.8	10.9	10.0	9.1	8.2	7.3	6.4	5.5	4.5	3.6	2.7	1.8	0.9
59°	15°	13.5	12.8	11.9	11.1	10.2	9.4	8.5	7.7	6.8	6.0	5.1	4.3	3.4	2.6	1.7	0.9

Too Hot and Dry

Too Cool and Wet

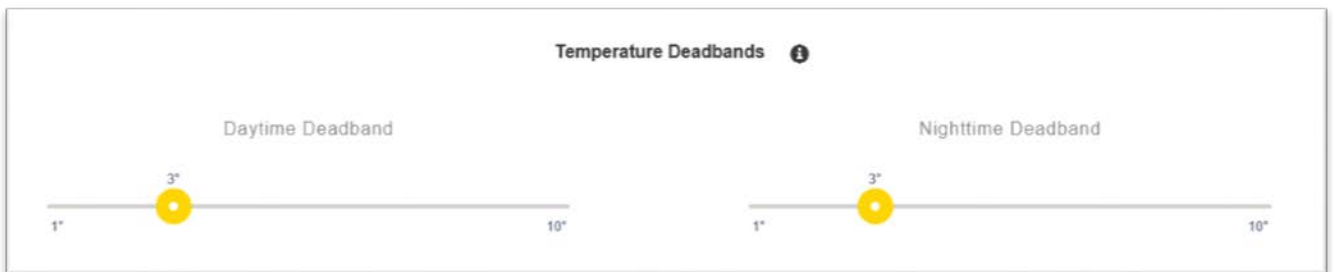
Canopy Temperature		Relative Humidity															
°F	°C	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%
102°	39°	55.9	52.4	48.9	45.4	41.9	38.4	34.9	31.5	28.0	24.5	21.0	17.5	14.0	10.5	7.0	3.5
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79°	26°	26.9	25.2	23.5	21.8	20.2	18.5	16.8	15.1	13.4	11.8	10.1	8.4	6.7	5.0	3.4	1.7
77°	25°	25.3	23.8	22.2	20.6	19.0	17.4	15.8	14.3	12.7	11.1	9.5	7.9	6.3	4.8	3.2	1.6
75°	24°	23.9	22.4	20.9	19.4	17.9	16.4	14.9	13.4	11.9	10.4	8.9	7.5	6.0	4.5	3.0	1.5
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63°	17°	15.5	14.5	13.6	12.6	11.6	10.7	9.7	8.7	7.7	6.8	5.8	4.8	3.9	2.9	1.9	1.0
61°	16°	14.5	13.6	12.7	11.8	10.9	10.0	9.1	8.2	7.3	6.4	5.5	4.5	3.6	2.7	1.8	0.9
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VPD = 12.5

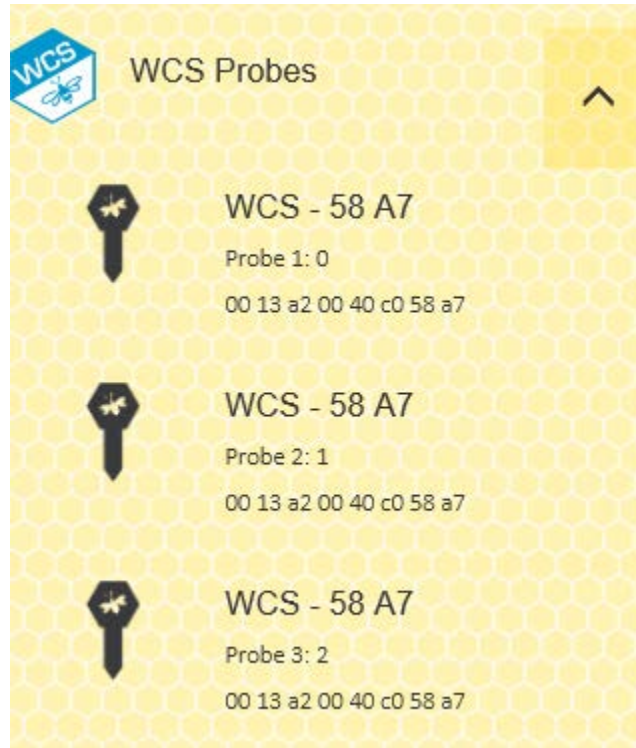
Bluelab Guardian support:

Avg. in Resi:	
EC	1.19
pH	5.86
Temp	64.96°F

User Temperature and Humidity Deadbands:



WCS probe and SS1/SS4 circuits have individual names and can be assigned to rooms independently:



- Added "day" and "night" icons for each section on control pages.
- Report breaker trip value in breaker trip notification.
- Notify user of significant Hive time offset at login.
- Remove longMessage from UserNotificationEvent.
- DeviceManager refactor (internal).
- Device command retry and more clear failure messages.
- Show offline devices in device manager.
- Kick wakeful devices and delete offline devices.

Bug fixes:

- Limit the rate at which the Hive sends XBee packets to comply with ZigBee recommendations (8 per second).
- Report internal command queue sizes in system info (internal; hive log only).
- Dashboard displays "There are no rooms" while loading rooms (even when rooms exist).
- Starting the server with an URGENT update enters DOWNLOAD_COMPLETE and does not auto-install.
- Remove ApplianceType assignment when a circuit is removed from a Room.
- Purge old client tokens. (internal) (security)
- Unassigned Circuits should default to OFF.
- Reorder device initialization during startup sequence to resolve incorrect switching (such as lights toggling briefly).