Cluster HAT

What does the output of 'clusterctrl status' mean?

Running "clusterctrl status" you will get output similar to the below text.

```
clusterhat:1
clusterctrl:2
maxpi:10
ctrl_bus:20:4:3 21:3:3
hat_version:1.2
hat_version_major:1
hat_version_minor:2
hat_size:4
hat_uuid:622aef87-17d6-4022-a370-781e1c3fe2b9
hat_vendor:8086 Consultancy
hat_product_id:0x0004
throttled:0x0
hat_alert:0
p1:0
p2:0
p3:0
p4:0
ctrl20:FW:1.1 ADC1:5014mV T1:18.60C
p5:0
u5:1
p6:0
u6:1
p7:0
u7:1
ctrl21:FW:1.1 ADC1:4891mV T1:23.52C
p8:0
u8:1
p9:0
u9:1
p10:0
u10:1
```

clusterhat:
False if no Cluster HAT is detected.
1 if a Cluster HAT was detected.

clusterctrl:
False if no Cluster CTRL devices (Single/Triple/Stack/A+6) detected
X number of devices detected

maxpi:
A count of the number of nodes controllable.

ctrl_bus:
Space separated list of data (order:I2C device:maxpi) from each Cluster CTRL device.

From the example above
20:4:3 - Cluster CTRL device with order 20, is controllable via /dev/i2c-4 and controls 3 nodes.
21:3:3 - Cluster CTRL device with order 21, is controllable via /dev/i2c-3 and controls 3 nodes.

hat_version:
Full version number of the Cluster HAT detected (1.2, 2.3, etc).

© 2024 Chris Burton <Chris@Burton.email> | 2024-03-28
URL: https://8086.support/content/23/107/en/what-does-the-output-of-_clusterctrl-status_-mean.html

hat_version_major:
Major Cluster HAT version (1 for 1.x, 2 for 2.x, etc).

hat_version_minor:
Minor part of the version number (4 for 1.4, 3 for 2.3, etc).

hat_size:
Number of Pi Zeros in the Cluster HAT this is by default 4, the maximum number supported. It can be overriden by editing /etc/defaults/clusterctrl and changing the value for CLUSTERHAT_SIZE. This will change the number of nodes controlled by the Cluster HAT for example if you only have 3 Pi Zero you can use CLUSTERHAT_SIZE=3 and the p4 name would be used for Cluster CTRL nodes.

hat_uuid:
The UUID for the Cluster HAT device, unique for every product.

hat_vendor:
Vendor name "8086 Consultancy".

hat_product_id:
8086 Consultancy product id for the HAT.

throttled:
Output of "vcgencmd get_throttled" shows any power/thermal issues on the controller.

hat_alert:
Status of the ALERT LED (0=off, 1=on).

pX:
Status of node pX power (0=off, 1=on).

uX: [only shown on Cluster CTRL devices]
Status of usbboot for node pX (0=off, 1=on).

ctrlX: [only shown for Cluster CTRL devices]
Space separated fields for **FW:** firmware version and where supported **ADCx:** voltages, (inaccurate) **Tx:** temperature, etc.

Unique solution ID: #1106
Author: n/a
Last update: 2020-11-29 00:13

© 2024 Chris Burton <Chris@Burton.email> | 2024-03-28
URL: https://8086.support/content/23/107/en/what-does-the-output-of-_clusterctrl-status_-mean.html