

Kernel driver asus_wmi_sensors

Supported boards:

- PRIME X399-A,
- PRIME X470-PRO,
- ROG CROSSHAIR VI EXTREME,
- ROG CROSSHAIR VI HERO,
- ROG CROSSHAIR VI HERO (WI-FI AC),
- ROG CROSSHAIR VII HERO,
- ROG CROSSHAIR VII HERO (WI-FI),
- ROG STRIX B450-E GAMING,
- ROG STRIX B450-F GAMING,
- ROG STRIX B450-I GAMING,
- ROG STRIX X399-E GAMING,
- ROG STRIX X470-F GAMING,
- ROG STRIX X470-I GAMING,
- ROG ZENITH EXTREME,
- ROG ZENITH EXTREME ALPHA.

Authors:

- Ed Brindley <kernel@maidavale.org>

Description:

ASUS mainboards publish hardware monitoring information via WMI interface.

ASUS WMI interface provides a methods to get list of sensors and values of such, which is utilized by this driver to publish those sensor readings to the HWMON system.

The driver is aware of and reads the following sensors:

- CPU Core Voltage,
- CPU SOC Voltage,
- DRAM Voltage,
- VDDP Voltage,
- 1.8V PLL Voltage,
- +12V Voltage,
- +5V Voltage,
- 3VSB Voltage,
- VBAT Voltage,
- AVCC3 Voltage,
- SB 1.05V Voltage,
- CPU Core Voltage,
- CPU SOC Voltage,
- DRAM Voltage,
- CPU Fan RPM,
- Chassis Fan 1 RPM,
- Chassis Fan 2 RPM,
- Chassis Fan 3 RPM,
- HAMP Fan RPM,
- Water Pump RPM,
- CPU OPT RPM,
- Water Flow RPM,
- AIO Pump RPM,
- CPU Temperature,
- CPU Socket Temperature,
- Motherboard Temperature,
- Chipset Temperature,
- Tsensor 1 Temperature,
- CPU VRM Temperature,
- Water In,
- Water Out,
- CPU VRM Output Current.

Known Issues:

- The WMI implementation in some of Asus' BIOSes is buggy. This can result in fans stopping, fans getting stuck at max speed, or temperature readouts getting stuck. This is not an issue with the driver, but the BIOS. The Prime X470 Pro

seems particularly bad for this. The more frequently the WMI interface is polled the greater the potential for this to happen. Until you have subjected your computer to an extended soak test while polling the sensors frequently, don't leave you computer unattended. Upgrading to new BIOS version with method version greater than or equal to two should rectify the issue.

- A few boards report 12v voltages to be ~10v.