

AVN-GPIO Firmware 3.0 Addendum

This document describes changes introduced in firmware version 3.0 and should be read in conjunction with the current AVN-GPIO v1.02 Handbook. Unless specifically stated in this document, all information in the current handbook remains unchanged.

Unless stated otherwise, all functionality described in the current handbook remains unchanged.

1. What's New in Firmware 3.0

Firmware version 3.0 introduces the following enhancements:

- Trigger Conditions for virtual inputs.
 - Consumer Mode virtual outputs.
 - Extended UDP command support.
 - Syslog timestamp reporting.
-

2. Trigger Conditions

Virtual inputs are no longer limited to Boolean parameters.

A trigger condition may now be applied to determine when the virtual input becomes active.

Supported parameter types are:

- Boolean
- Integer
- Double
- String
- Enumeration

Depending on the parameter type, the following comparison operators are available:

- Equal To
- Not Equal To
- Greater Than
- Greater Than or Equal To
- Less Than
- Less Than or Equal To

String parameters support:

- Equal To
- Not Equal To

The virtual input becomes active whenever the configured condition evaluates to true.

3. Virtual Outputs

Virtual outputs now support two modes of operation:

- Provider Mode
- Consumer Mode

Provider Mode

Provider mode operates as described in the current handbook.

The AVN-GPIO provides an Ember+ tree which may be monitored by other devices.

Consumer Mode

Consumer mode allows the AVN-GPIO to write values to parameters on a remote Ember+ device.

The following configuration parameters are available.

Ember Address

The IP address of the remote Ember+ device.

Ember Port

The TCP port used by the remote Ember+ provider.

For Sonifex devices, this is normally port 9000.

Ember ID

The raw Ember+ path of the parameter to be controlled.

Value To Assign

Determines the value that will be written to the remote Ember+ parameter whenever the virtual output is triggered.

The type of the value follows the type of the remote parameter.

Supported parameter types are:

- Boolean
- Integer
- Double

- String
 - Enumeration
-

4. UDP Command Enhancements

Several UDP commands have been extended.

PHY Command

Using:

PHY:0,status

returns the status of all physical GPIOs.

Physical input event monitoring now supports:

- Rising edge detection.
 - Falling edge detection.
 - Both rising and falling edge detection.
-

GET Command

GET responses now include the GPIO ID and Event ID.

Using:

GET:,0

returns all timestamps stored for that GPIO input.

VRT Command

The VRT command has been extended to support Consumer Mode virtual outputs.

RLY Command

Using:

RLY:0,status

returns the status of all relay outputs.

5. Syslog Timestamp Reporting

Input event timestamps are now recorded in the system log.

Messages are transmitted using the prefix:

TS:

This allows GPIO event activity to be monitored remotely using a syslog server.

All existing functionality described in the current handbook remains valid unless superseded by this addendum.