Claims

1. A computer implemented method for adjusting a sound emitting device to compensate for ambient noise, comprising:

receiving audio data associated with operation of the sound emitting device at a predetermined location, said audio date comprising a power or loudness value, the power or loudness value relating to both the ambient noise and sound from the sound emitting device;

processing said audio data to determine an operating characteristic of the sound emitting device with respect to the predetermined location;

comparing the operating characteristic with a predetermined mathematical relationship to determine whether a difference exists with an ideal volume for the sound emitting device, the operating characteristic and the ideal volume both relating to the predetermined location;

identifying an input adjustment to correct the difference, wherein the input adjustment is within a predetermined range and does not exceed a predetermined maximum increment; and

providing the input adjustment to change the operating characteristic of the sound emitting device with respect to the predetermined location;

wherein the predetermined mathematical relationship is a polynomial equation predetermined from a plurality of RMS values and a plurality of sound volume levels, wherein each RMS value of the plurality of RMS values represents an average of the loudness or power value measured at different sound volume levels of the plurality of sound volume levels in respect of the sound emitting device.

2. A method according to claim 1, comprising: the further step of receiving data associated with operation of a sound capturing device at a predetermined location.

3. A method according to claim 1, wherein operation of the sound emitting device is at a predetermined location and time.

4. A method according to claim 1, wherein an output variable is a sound volume.

5. A method according to claim 1, wherein the mathematical relationship is determined at the same predetermined location.

6. A method according to claim 1, wherein data is received via a physical connection or received wirelessly, and by one or more of WiFi, Bluetooth, ZigBee, and LiFi.

7. A method according to claim 1, wherein the audio data comprises one or more of voltage, current, power, electrical frequency, electrical amplitude, sound pressure, sound frequency, sound amplitude, and sound volume.

8. A method according to claim 1, wherein the processing step comprises determining a first operating characteristic of that device for that location and determining a second operating characteristic of that device for that location.

9. A method according to claim 1, wherein the predetermined mathematical relationship is determined by a method comprising one or more of:

generating a curve of best fit based on a set of inputs and outputs in respect of the sound emitting device; or

algorithmically creating an equation to describe the relationship between a set of inputs and output in respect of the sound emitting device.

10. The method of claim 1, wherein an entirety of said audio data is received at a single location.

11. The method of claim 1, wherein an entirety of said audio data is received by one sensor type.

12. A method of managing an audio device, comprising the steps of:

detecting an audio device which comprises one or more of an audio input device which is a microphone or a sound emitting device;

analysing audio data associated with the audio device to identify it;

searching a data store for configuration data associated with the identified audio device;

retrieving configuration data in relation to the identified audio device from the data store; and

processing the audio data based at least in part on the configuration data and to send instruction, wherein the processing comprises a predetermined mathematical relationship, wherein the predetermined mathematical relationship is a polynomial equation predetermined from a plurality of RMS values and a plurality of sound of volume levels, wherein each RMS value of the plurality of RMS values represents an average of a loudness or power value measured at different sound volume levels of the plurality of sound volume levels in respect of the audio device and send the instruction to the audio device.

13. A method according to claim 12, further comprising the steps of:
detecting an audio input device which is a microphone;
analysing data associated with the audio input device to identify it;

searching a data store for configuration data associated with the identified audio input device;
retrieving configuration data in relation to the identified audio input device from the data store;
detecting a sound emitting device;
analysing data associated with the sound emitting to identify it;
searching a data store for configuration data associated with the identified sound emitting; and
retrieving configuration data in relation to the identified sound emitting device from the data store.

14. A method according to claim 12, wherein the audio device is an audio input device and a microphone, and further comprising the steps of:
searching a network for a sound emitting device;
identifying whether the sound emitting device has previously been configured; and
retrieving configuration data in relation to the sound emitting device from a data store.

15. A method according to claim 12, wherein the detecting step comprises one or more of:
receiving a signal from the audio device;
sending a signal on a network to request a response from an audio device wherein the response is only requested of unregistered devices;
polling for unregistered devices;
using an introduction protocol; and
sending a signal via peripheral to request a response from a computer's process wherein the response is only requested of unregistered devices.

16. A method according to claim 12, wherein the data associated with the audio device comprises one or more of: an identification tag or code or number, specification data, manufacturer data, audio device capabilities, device physical attributes, network configuration settings, one or more operational attributes which are selected from current temperature, geographical location, Application Programming Interface, generic interface/gateway information, and pre-configured identity data.

17. A method according to claim 12, wherein the data store is located locally or remotely.

18. A system for managing a sound emitting device, comprising:
a sound emitting device;
an audio input device;
a data store; and
a computing device in communication with said sound emitting device and with said audio input device and with said data store;

wherein said computing device is adapted to process audio data received from the audio input device based on data from the data store and communicate one or more instructions to the sound emitting device based on said processing, wherein said processing comprises a predetermined mathematical relationship, wherein the predetermined mathematical relationship is a polynomial equation predetermined from a plurality of RMS values and a plurality of sound of volume levels, wherein each RMS value of the plurality of RMS values represents an average of a loudness or power value measured at different sound volume levels of the plurality of sound volume levels in respect of the sound emitting device.

19. A system according to claim 18, wherein communication with the computing device comprises communication over one or more of a wireless network, a telecommunications network, and the internet.

20. A system according to claim 18, comprising a second computing device to respond to queries from the first computing device in relation to attributes of one or more of the sound emitting device and the audio input device.