

ABSTRACT

Air pressure, temperature and humidity are factors that greatly affect activities outside the room. With the development of technology makes it all the more practical and easy. For easy user created applications to display and record the measurements of air pressure, temperature and humidity through component DHT22, BMP085, Arduino Nano, and software Arduino I.D.E and software Processing. For the process sensors BMP085 and DHT22 measuring air pressure, temperature and humidity, then sends the data to a PC (Personal Computer) via USART (serial communication). Serial communications role as communication data delivery to store and visualize the data to the PC in the form of extension CSV (Comma-Separated Values). Measurement results successfully saved and displayed on a PC using software Processing. Application Processing using the Java programming language to produce a model in monitoring system, recording data, send it to Twitter and exit the application. Record data licensed open source multiplatform in PC successfully performed and the duration of the recording is done minute average value added file logged.csv size 28.5 (byte/minute). Further data is sent to the server Temboo to bridge the language of programming against the API (Application Programming Interface) that will be access. Further more the data successfully displayed on Twitter in the form of text through TCP/IP as the final result with a period every two minutes to upload one measurement status to Twitter. The data recording process could not take place at the same time doing data sending to Twitter. Expected future applications can be displayed in handphone and other social media, can control the device in an environment of multiplatform, developed for the appearance of not only text, position measurement not only outside of the room but within a certain area, and developed into a mobile device.

Keywords : multiplatform, Processing, USART, API, CSV, open source