

#### The Concept

The AWS is composed of elementary hardware/firmware modules which are commercially available off the shelf (COTS), and therefore is expandable with modularity and uses TCP/IP to transmit data from the source.

Any AWS hardware/firmware modules are scalable to fit, the expandability of the system where and when necessary.

It is able to classify and report all the AWS, software possible performances, in a basic general configuration tables. Therefore, the AWS behavior is very flexible according to the variations of this general configuration table setting.



#### Open Source, Open Architecture

The operating system used for both firmware and software is LINUX. The embedded parts of the systems are also POSIX compliant. The database used is PostgreSQL.

It must also be noted that since this is a web-based application, each element of the system software is written as an individual module to be controlled by the web-interface module. Such modularity dispenses of the idea of a single large and cumbersome application.

The system uses an Open Architecture-based concept, whereby all sensors and hardware are hot pluggable. It can therefore be called a plug- and play system and therefore it is manufacturer independent for both acquisition electronics and sensors.



#### Transmission, Protocols & Languages

ease of software maintenance while the front end interfaces use Java. The flexibility of the system enables virtually all types of transmission by changing parameters within the configuration files.

Virtually all data exchange within and outside the system uses HTTP while SOAP/XML is used for data transmission.

Perl, PHP, XML, JavaScript & Java for ease of software maintenance.

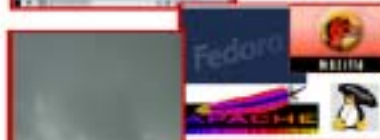
#### System In-brief

Open Source, Open Architecture, Manufacturer Independent

Modular, TCP/IP Virtually From Source

Uses Scripting Languages For A Complete Web-based Solution

Software & Hardware Configurable Using Web Applications



#### Hope for the future

It is the hope that this project inspires the advent of intelligent TCP/IP based sensors which can be connected to the WWW and the data viewed wherever an internet connection exists.