# PRODUCTION MONITORING SYSTEM

**INTRODUCTION:**

The main reason for implementing PMS (Production Monitoring Systems) is to analyse real time production monitoring and to offer better solutions for all scale production companies. PMS is an alternative to manual data collection and should capture most of the required production data without human intervention. It is a production tool that collects and distributes necessary data when various events occur in a station or production line. Monitored data should help the production team to respond timely on the events that may affect the desired result. Such system should also alarm and inform respective department concerning all recognized faults. PMS is not just display boards that show production data, it also has a reporting and administration module, where stored data can be analysed to find trends, estimations and projections for easier decision making and production planning.

Some main advantages for goint to PMS is

- It reduces setup times
- Deliver real time information
- Increase production capacity
- Increase production effeciency
- Targetted and performance based
- Improve customer service
- Real-time visualization of production status and performance
- Transparency in production status to ease production planning and scheduling

The Overall Functional Block diagram for PMS is as follows
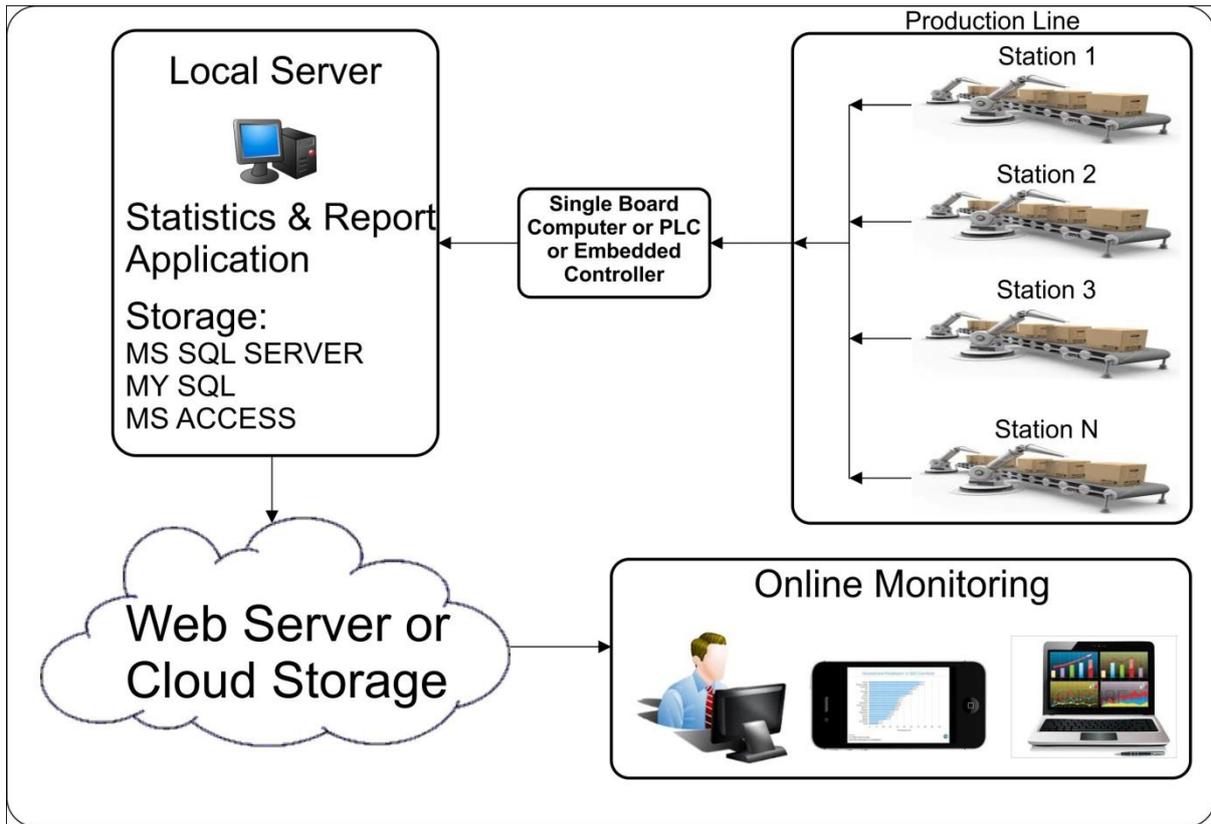
## DESCRIPTION:

The main objective of indroducing PMS is to collect data from a production or assembly line and to generate statistics and report for organization for production planning. Here we have given a simple functional diagram on which how PMS get data and used for production Monitoring.

At first a PLC or SBC or a Microcontroller which embedded with each assembly line which tracks production status sends the necessary data to a local server or PC. From which the server stores the data locally. A PC based application is installed in local server or pc for creation of statistics and report. And also this application displays the current status of each assembly line or production line lively for user. This live monitoring system is used for monitoring production status even in remote place instead of getting into factory.

This local server uses a web service method to move the data to a webserver for monitoring the status lively in web. So each and everyone from a factory can see the current status on web. For ex if a supervisor or manager wants to know the current information about production line they easily be viewed with the help of web from their places itself either at office or home or from anywhere.

Let's see how these devices communicate each other. Following a simple wiring diagram on how this get worked.

# Hardware Connection:

*Wired Connection*



Legend:
- DIGITAL IO
- ETHERNET/RS485

DATABASE

LOCAL PC

Network Switch

PLC/SBC/EMBEDDED CONTROLLER

Online Monitoring

WEB SERVER INTERNET

STATION 1

STATION 2

STATION 3

STATION N