PIPELINE MANAGEMENT SYSTEM

In Pipeline industries, predictive modeling over vast geographical areas is an extremely complex process that is hindered by the latency of information transfer resulting from the lack of communication and management control.

With PMS, pipeline engineers and inspectors are capable of assessing and finalizing tasks at the point-of-work. Such flexibility leads to enhanced predictive and preventive maintenance, improved data integrity, and reduced workloads.
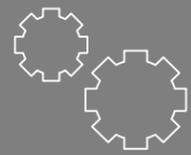
Product Overview

PMS, our flagship solution for managing pipes on site, handles all procedural aspects required for monitoring pipeline progress all the way from delivery, transfer, and activity updates to welding reports and QC inspections and tests.

Our product takes advantage of the vast, cutting-edge technologies by providing the ability to operate remotely via a mobile device and without incurring any additional expense. Moreover, its flexible nature allows for straightforward integration with any hardware device running Microsoft Windows Mobile OS, as the likes of Motorola Mobile Computers or back-end DBMS.

As for data reliability and efficiency, PMS is undoubtedly one step ahead. Its automation of on-site paper-work and elimination of manual entry into databases using smart selections eases the process of managing databases; which is in turn magnified by its forward compatibility with barcode and RFID technology that allow for data entry via computerized scanning.

Additionally, PMS's compatibility with various communication channels such as GPRS and EDGE allows for a flexible build that is capable of being implemented instantaneously and remotely.

Product Description

PMS is an Automatic Data Collection (ADC) based product that is fully compatible with Microsoft Windows Mobile. It is capable of standardizing the procedure of monitoring the series of activities that pipes undergo, such as 'Stringing', 'Holiday Test', 'Bending', and much more. PMS achieves the aforementioned by employing in-depth knowledge of each activity involved in the monitoring process and accordingly adapting the most appropriate methodology on where and how to best allocate resources to pipeline assets and activities. Additionally, PMS has been fitted with warehouse management capabilities that regulate the procurement of pipes and facilitate welding procedures for tracing welded joints. PMS also comes with an optional GPS functionality that triangulates the exact coordinates of joints, which can subsequently be fed into a Geographic Information System (GIS).

| ...ay Test | Stringing | .... | Bending | Hydro-test | Lowering | .... |

Sample Cycle of Pipe Activities

When pipes shift from one activity to another, relevant data is manually fed into PMS by site operators and inspectors. This process grants the project a tracking history detailing the date and time of each shift and serving as an excellent tool for progress monitoring and future planning.

In order to effectively minimize manual data entry and subsequently refine the quality and speed of reporting, PMS incorporates advanced data capturing technologies as the likes of bar-coding. When such technologies are integrated with back-end DBM systems such as ERP, generating reliable and accurate reports for stringing, welded joints and other relevant tasks become of great ease.

Aside from all of this, PMS users' activities are relevantly tracked and any inappropriate validation is reported instantaneously to allow for swift action by the designated concerned departmental or system administrators.

Furthermore, PMS allows site operators to automatically query all relevant information to the pipe activity, including physical location (either as a coordinate form or as a kilometer distance), in a very time-efficient manner that boosts productivity.

As for repairing purposes, inspectors have the choice of setting PMS to supply the accurate physical location of the pipes under activity, either in a coordinate format via GPS, or as a distance in kilometers. This reduces retrieval time especially for welded pipes, and establishes a traceable history of all pipe movements. Feeding those parameters and coordinates into a GIS would subsequently lead to a real-time monitoring of on-site progress.

Moreover, because a pipeline is constructed by welding a series of pipes one to the other, safety becomes of vital importance. To cater for this need, PMS provides QC inspectors with updated breakdowns of Welded Procedure Specifications (WPS) enabling them to monitor welders, ensure efficiency of their work, and update and enhance data records.

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