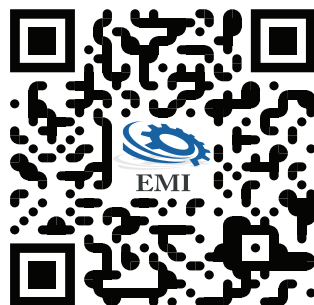**Engineering & Marketing International**

EMI TAG DATA VALIDATOR

TDV

Introduction

EMI TDV gives you the ability to validate your Data flow and mark out bad or questionable values so that other reporting applications can filter out unreliable data. The tool also provides a set of HTML5 interactive dashboards to pinpoint and analyze the locations and sources of bad data, giving users more insight into the authenticity of their data.

Main Features

- Data Cleansing Service to mark un-trustful real-time data as Questionable directly in the PI Data Archive.
- Annotate Questionable Values in the PI Data Archive with the reason of marking.
- Calculate Hourly Averages for equipment or Assets excluding Bad and Questionable Values.
- Real time Synchronization of your AF Database with your Relational Data Store (SQL, Oracle, MongoDB).
- Backfilling tools.
- Real-time HTML5 Charts with zooming and panning support.
- Extra Fast Data Retrieval by MongoDB.
- Charts that support exporting, annotating and printing.
- System Exposed as Rest Services for third party integration

Flagged Data will include

- **Below Range Values:** Values that are below the "Zero" of the tag.
- **Above Range Values:** Values that are above the ("Zero" +"Span") of the tag.
- **Frozen Values:** Values that get the same reading for more than a predefined number of times.
- **Noisy Values:** Values whose standard deviation over a predefined period is larger than a configured threshold.
- **System Default Errors:** Values that are in "System Default Errors" digital state.
- **Null Values:** String tags that receive empty string values.

Level monitoring bubble chart

Showing the magnitude of issues distributed among their physical locations and level of issues. Three bar charts also show the distribution of issues across the first three levels.

Node Status Chart

Showing the Elements statuses, with the ability to drill down from the highest level all the way to the tag level. Two Zoom modes, one for the Level and one for the Hierarchy.

Data Reliability KPI

Showing the overall data reliability KPI with error location and details chart; and showing details Charts with the ability to drill down, group and export data..

Tags Reliability Heat Map View

Showing the reliability of the data over time, which can be used by the users to select the best period to conduct their studies.

Tag Data Validator Allows

- Revenue increasing by reducing operation issues.
- Fleet wide real-time data monitoring in one system.
- Make reliable business & operation decisions based on validated data.
- Provide data access to multiple levels across the organization such as operators, IT, engineers.

System Requirements

- Windows Server 2012 R2 or Later
- PI Server 2012 or Later
- PI AF Server 2012 or Later
- MongoDB V4.0.4

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