Realizing Business Value From PI Manual Logger Applications

Presented by **Ayman Massoud, Methanex**

METHANEX ?

Methanol in our Lives

- **Methanex is the world's largest supplier** of methanol to major international markets. This means every day - over the world - Methanex plays a vital role in people's lives. Methanol is an important ingredient in many of the essential industrial and consumer products that make the world a better place in which to live, work and play.

- **Methanol can be found in everything** from windshield washer fluid to recyclable plastic bottles, plywood floors to paint, silicone sealants to synthetic fibers. The fastest growing markets for the use of methanol are in the energy sector including: direct gasoline blending, dimethyl ether and biodiesel.

- **As a global enterprise, Methanex has** manufacturing, marketing and supply chain capabilities in North America, Latin America, Europe, the Caribbean, the Middle East and throughout the Asia Pacific region.

Methanex Global Locations

KOREA   CANADA   BELGIUM   UNITED ARAB EMIRATES

TRINIDAD AND TOBAGO

UNITED STATES

CHILE

JAPAN

EGYPT

CHINA

NEW ZEALAND   ● Production Regions

Business Challenge

One of Methanex plants has <u>750</u> readings located in different process areas, these data are collecting manually on 6 times every day by the field operators and producing <u>4,500 readings/day</u>.

Readings are collecting/registering using paper-pencil method, and archiving on hardcopy paper files.

- Time and effort are consumed to collect these manual data with <u>no control</u> on its completeness, accuracy, validity, and timestamps.

- In case of problem investigation, it is <u>nearly impossible</u> to refer to these kind of data in terms of find, analyze, integrate, used, etc…

Business Needs

- Reliable, scalable, and cost effective solution to manage the plant manual data.

- Facilitate the process of data collecting, and automate the manual data uses.

- Visualize and integrate the manual data to be accessible to the plant users and systems.

- Encourage plant people to use the manual data (by increasing its accuracy, completeness, and availability) in their operation activities, and problem investigation.

PI Manual Logger (*PI ML*)

1- Service Implementation – First Phase

1.1 Classified data, defined its attributes, and uploaded it as PI Tags.

1.2 Design **PI ML** Enterprise Architecture.

1.3 Install, configure, and use **PI ML** System.

1

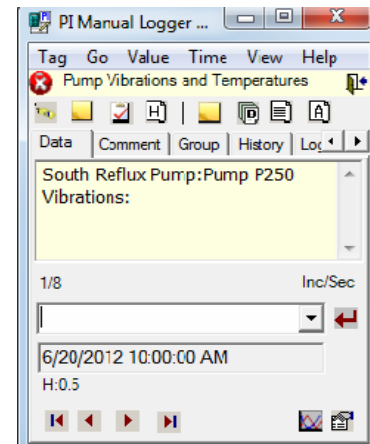| Process Area	Tags Count
Utility	355
Front End & Nat. Gas	219
ASU	60
Distillation Pumps	116

3

2

PI Manual Logger Enterprise Architecture
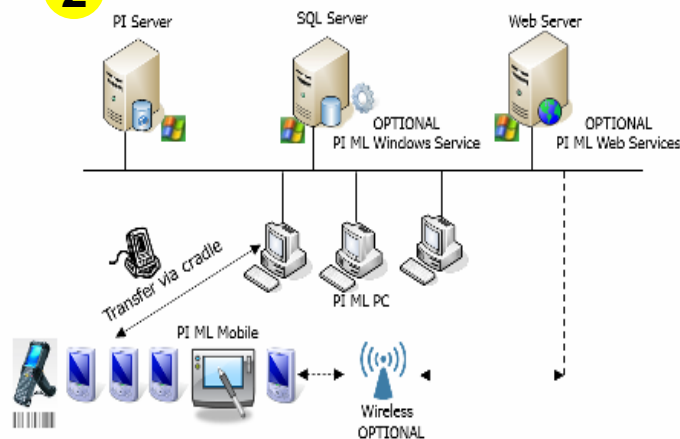
PI Manual Logger (PI ML)

2- Service Implementation – Second Phase

2.1 **PI ML** mobile kit installation and configuration.

2.2 Barcode configuration, printing, and distribution.

2.3 Data AutoSynch/Transfer through cradle or wireless.

Results and Benefits

*Implementing **PI ML** service provides the following data achievements:*

- **Results**
  - ✓ **Productivity – *PI ML*** allowed to have a more complete dataset of all plant assets.
  - ✓ **Manageability – *PI ML*** *making the m*anual data be visible, accessible, and available.
  - ✓ **Archiving – *PI ML*** archived the manual data to be secured on PI Server.
  - ✓ **Usability – *PI ML*** *provided r*eliable, Integrated, and Scalable data solution.
  - ✓ **Quality – *PI ML*** adopted effective data workflow and validation controls.

- **Tangible Benefits**
  - ✓ Saving 6,000 working hours per/year.

- **Intangible Benefits**
  - ✓ Increase confidence on manual data especially on plant problem investigation.
  - ✓ Assist in managing and visualize the plant life cycle and operational status.
  - ✓ Allowed to have a more complete dataset of assets data combining with other business data.

Future Plan

- Implement the same *PI ML* service in other Methanex sites.

- Utilize resources and maximize *PI ML* business value.

- Share **Methanex-*PI ML*** *users feedback* with *OSIsoft*
(for improvement purposes).

Realizing Business Value from PI Manual Logger

*"Plant facilities may have a significant amount of data that can not be collected automatically from instrumentations and control systems. PI Manual Logger (**PI ML**) provides an efficient and cost effective solution that allows users to manage and control the manual data as they are doing with the automatically distributed Data."*

Ayman MASSOUD
Methanex Corp.

METHANEX®
A Responsible Care® Company

Business Challenge

How to Collect, Archive, Integrate, Access, and Visualize the plant manual data in an efficient and cost effective way?

Solution

- Utilized Methanex - PI System's capabilities by implemented new service of PI Manual Logger.

- Used mobile computers with barcode option to facilitate the process of data collecting and synchronization.

Results and Benefits

- Reliable integrated solution, significant savings of time, cost, and effort that required to make the plant manual data be available, accurate, and supportive.

- The plant manual data becomes a part of the PI System data, and benefits from PI System analytical engine.

Conclusion

- PI System has a powerful products that support to align with business needs and changes, we just need to use it.

- *PI ML* is a reliable solution for all plant manual data whatever its sources types.

- There is no need to customize any interface between the manual data and the PI System, *PI ML* is here.

- Using the computer mobiles (data logger handhelds) with barcode option would facilitate the process of data collecting and synchronization.

- There are a lot to benefits from *PI ML* system, for example using *PI ML* to integrate the operational data with other different data types (Lab data, Financial data, etc…).

Ayman MASSOUD

- amassoud@methanex.com
- Senior Systems Analyst
- Methanex Corp.
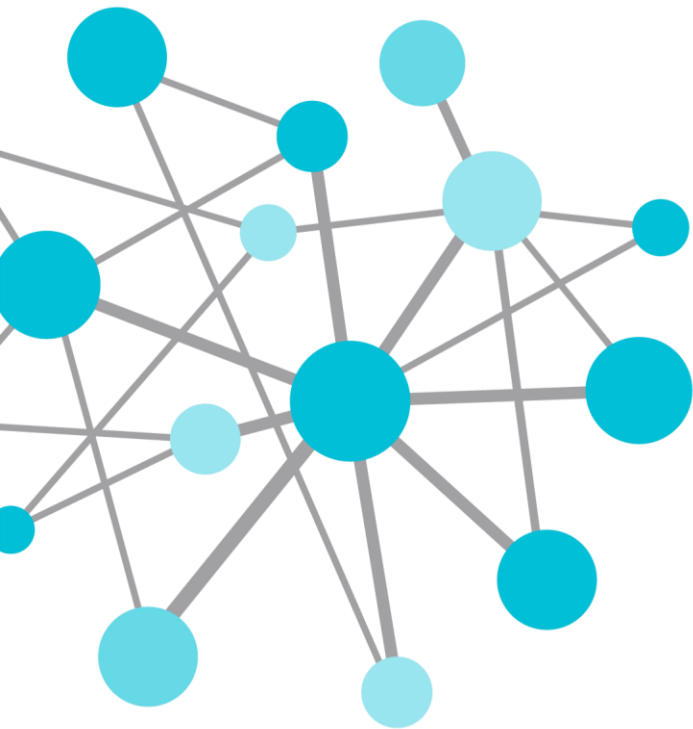
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