Manual Data Entry with PI Manual Logger

Presented by Herve Bajolle Laurie Dieffenbach



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All Companies Collect Some Sort of Manual Data



- Data collection is usually done in the plant
- Many use inefficient paper records
- Mobile devices are increasing in popularity and new ones have emerged



What is PI Manual Logger?

A set of tools to configure and execute routine manual data entry (tours)

- Validate entries
- Navigate collection for multiple values
- Option to require data review

2 sets of tools for:

- Data collection (tour runs) with mobile devices - Pl Manual Logger Mobile
- Administration and configuration **PI Manual Logger**

Disclaimer: OSIsoft does not endorse any device manufacturer or vendor; images shown are for illustration purpose only

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Example Data Collection Tours







Week 17 Power Rankings

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Top Needs for Manual Data Collection

When data isn't collected at a desk

Want to easily carry data collection device

Require a safe, rugged device for harsh environments

Data entry has to be efficient, accurate, and simple

Network connections may be unavailable or unreliable



2 Options with PI Manual Logger Mobile

PI ML Mobile (2012)

Windows Mobile
 2003 SE to 6.x devices



- Local install on the device
- Ruggedized device options, becoming obsolete
- Works with PI Manual Logger 2014
 tours

PI ML Web (2014 or 2014 R2)

 Supports ANY device with an HTML5compatible browser



- Installed on a web server
- Newest release supports 9 languages (R2)

See the Product Overview page on Tech Support web site for specific comparison

OSIsoft does not endorse any particular hardware



PI Manual Logger Mobile 2012

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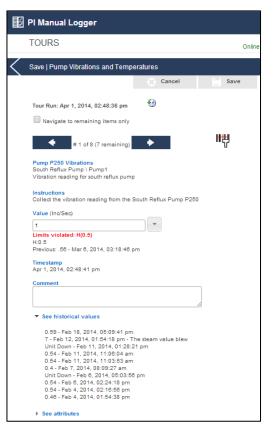






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PI Manual Logger Web 2014



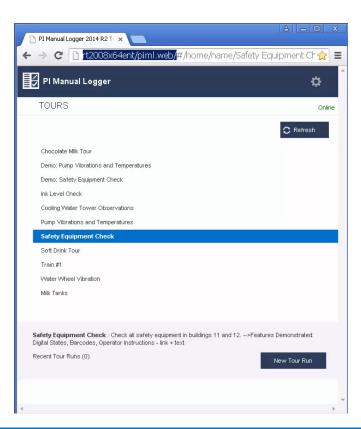








Select a Value from a List





Set the Time

PI Manual Logger 2014 R2 T(🗙		8 - 0 2
← → C 🗋 rt2008x64ent/piml.web/#/tourn	un/5c21e3d9-c63	id-4f79-84C 🏡 🗄
PI Manual Logger		
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Save Safety Equipment Check		
	Cancel	Save
Tour Run: August 25, 2015 1:30:00 PM 🛛 🧐		
Navigate to remaining items only		
+ 3 / 8 (5 remaining)	н и	
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Instructions Eyewash Inspection Procedures: Check operation and ensu cover is in place.	ure that eye wash	
Value		
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Timestamp August 25, 2015 1:30:00 PM		
Comment		
	1.	
See historical values		
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Scan a Barcode to Navigate

5 1:00:00 PM only ng) Ecan or enter a barcode	© Ca	ancel Save	
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SF:EXT-12.ML FREEDAT-12 08 25 2015		# 7 / 9 (9 remaining) SF:EXT-12.ML Building 12 Fire Ext South Bldg 12 - CO2 Instructions file:///c:\FireExtinguisherInspectionProcedures.txt	۳



Scanning Devices are Available in Different Forms

Separate

Integrated





Enter Multiple Values at Once with the Desktop Version

Data I	Entry Form Data Entry Sheet		iia Tank 1 pHTestResult pHTest result of growth media Tank 1 iia Tank 2 pHTestResult pH Test result in growth media tank 2 JP Audit Log		9/22/2015 12:00:00 9/22/2015 12:00:00	17. Suc	et mout of and
	Tag Name		Tag Description	Value	C	Comment	TimeStamp
•	Growth Media.Tank 1.pHTest	Result	pHTest result of growth media Tank1				9/22/2015 12:00:0
	Growth Media.Tank 2.pHTest	Result	pH Test result in growth media tank2				9/22/2015 12:00:0
	Harvest Media.Tank 1.pHTes	Result	phTest in harvest media tank1				9/22/2015 12:00:0
	Harvest Media.Tank 2.pHTes	Result	phTest result for harvest media tank2				9/22/2015 12:00:0
	The second s	I4 4 1 	Ⅲ of 4 ▶ ▶ ☑ 🖬 恥 ~		<u>></u>	د الله الله مع المع المع المع المع المع المع المع ا	



Configuration, not Code



Using the Desktop app

- Configure general settings
 - Which SQL Server is used to store settings and data before it gets sent to PI Data Archive
 - Which PI Data Archive will receive data
- Configure routine data collection including:
 - Order
 Barcode settings
 - Limits Review requirements
 - Timestamp handling –
- Security
- Enter data, including using a grid for quick sequential entry
- Review data, including reviewing limit violations and making any corrections
- Send data to PI Data Archive





Configure the List of Values

82		PI Manua	l Logger - [Select a T	our]			_ 🗆 X
🖷 PIML 📓 Tours 🚦 Mobile Devices To	ols MobilePC Window Help	2					_ # ×
Search Options	×			Tour List			
Filter by Tour Name	Tour Name	Tour Description	Full Permission Group	Data Entry Only Per	Last Modified Time	Last Modified By	
	Lab Test Results	Entering test results from Lab tests	PIMLADMINS	PIMLUsers	3/5/2015 3:44:36		
	Chief Fermenters		PIMLADMINS	PIML Demo	3/5/2015 10:03:5	piml	
Help	test 12		PIMLADMINS	PIML Demo	3/5/2015 10:00:2	piml	
Hep.	Chiller Log	Daily Chiller Log	PIMLADMINS	PIMLUsers	3/5/2015 9:45:35	piml	
1510	Cooling Water Tower Ob	s Cooling water tower observations	PIMLADMINS	PIMLUsers	3/5/2015 9:45:10	. piml	
List Options	Safety Equipment Check		PIMLADMINS	PIMLUsers	3/5/2015 9:44:51		
Show only my tours	Train #1	Collection of bearing data for Trai	PIMLADMINS	PIMLUsers	3/5/2015 9:44:34		
 Show only my tours 	Soft Drink Tour	Scanning barcodes from different		PIMLUsers	3/5/2015 9:44:12		
O Show all tours	Test Max		PIMLADMINS	PIML Demo	3/5/2015 9:43:41		
	test3rr		PIMLADMINS	PIML Demo	3/5/2015 9:43:26		
	Heat Exchangers Survey	Daily tour to survey heat exchang	PIMLADMINS	PIML Demo	3/5/2015 9:40:57		
	Chiller Run	Data for the Chillers	PIMLADMINS	PIML Demo	3/5/2015 9:40:33		
	Chiller Log Mariana	Daily chiller Log Tour for chiller C	PIMLADMINS	PIML Demo	3/5/2015 9:39:22		
	SecurityTest	bany a mar bay roa tar a mar a	PIMLADMINS	PIML Demo	3/5/2015 9:39:08		
	Production Line1		PIMLADMINS	PIML Demo	3/5/2015 9:35:15		
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	Janelles Demo		PIMLADMINS	PIML Demo	3/5/2015 9:34:22		
	Manual Entry Data Demo		PIMLADMINS	PIML Demo	3/5/2015 9:31:12		
	Barcodes	,	PIMLADMINS	PIML Demo	3/5/2015 9:30:50		
	Tour of the Back 40	Gotta manually collect some data	PIMLADMINS	PIMLUsers	3/5/2015 9:30:12		
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	Oil Well Survey	Fort McMurray OW-206 survey.	PIMLADMINS	PIMLUsers	3/5/2015 9:17:09		
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	San Francisco Pump Vib		PIMLADMINS	PIML Demo	3/5/2015 9:14:27		
	JC Compressor	(G	PIMLADMINS	PIML Demo	3/5/2015 9:14:27		
	Test B		PIMLADMINS	PIML Demo	3/5/2015 9:14:03		
	Test A		PIMLADMINS	PIML Demo	3/5/2015 9:12:10		
	Mining Trucks		PIMLADMINS	PIMLUsers	6/11/2014 10:45:		
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Configure Time Options

1	PI Manual Logger - [Tour Configuration - Lab Test Results]		_ 🗆 X
💀 PIML 📓 Tours 🚦 Mobile Devices	Tools MobilePC Window Help		- 8 ×
Tour Info ×	Tag Configuration Tag Entry Options Data Validation Tag Group Configuration	Tag Attributes	x
Tour Name	LoLo Limt	Attribute Value	
Lab Test Results	Set	Tag Name Growth Media.Tank 1.pHTest Tag Descriptor pHTest state of growth media Tank 1	
Tour Description	Low Limit	Eng. Unit	
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This tour might be used on a desktop or tablet to enter a series of values once laboratory tests have been completed. The	*		
goal is to match the result time stamps with the time the sample was taken.			
Tour Options			
Too options			
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Barcode Configuration

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Search Options X				Tour List			
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•	Lab Test Results Chief Fermenters	Entering test results from Lab tests	PIMLADMINS	PIMLUsers PIML Demo	3/5/2015 3:44:36 3/5/2015 10:03:5	piml	
Help	test 12 Chiller Log	Daily Chiller Log	PIMLADMINS	PIML Demo PIMLUsers	3/5/2015 10:00:2 3/5/2015 9:45:35	. piml	
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	Heat Exchangers Survey Chiller Run	Daily tour to survey heat exchang Data for the Chillers	PIMLADMINS PIMLADMINS	PIML Demo PIML Demo	3/5/2015 9:40:57 3/5/2015 9:40:33		
	Chiller Log Mariana SecurityTest	Dailly chiller Log Tour for chiller C	PIMLADMINS PIMLADMINS	PIML Demo PIML Demo	3/5/2015 9:39:22 3/5/2015 9:39:08		
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	Janelles Demo Manual Entry Data Demo	2	PIMLADMINS PIMLADMINS	PIML Demo PIML Demo	3/5/2015 9:34:22 3/5/2015 9:31:12		
	Barcodes Tour of the Back 40	Gotta manually collect some data	PIMLADMINS PIMLADMINS	PIML Demo PIMLUsers	3/5/2015 9:30:50 3/5/2015 9:30:12	. piml	
	Downtime Details Oil Well Survey		PIMLADMINS	PIML Demo PIMLUsers	3/5/2015 9:20:03 3/5/2015 9:17:09	piml	
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Enter Instructions and Set Limits

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by Tour Name	Tour Name	Tour Description	Full Permission Group	Data Entry Only Per		Last Modified By		
	Lab Test Results	Entering test results from Lab tests	TOTAN AND AND AND AND AND AND AND AND AND A	PIMLUsers	3/5/2015 11:49:1	piml		
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	Chiller Log	Daily Chiller Log	PIMLADMINS	PIMLUsers	3/5/2015 9:45:35			
Options	Cooling Water Tower			PIMLUsers	3/5/2015 9:45:10			
	Safety Equipment Ch	eck Check all safety equipment in buil		PIMLUsers	3/5/2015 9:44:51			
Show only my tours	Train #1	Collection of bearing data for Trai	PIMLADMINS	PIMLUsers	3/5/2015 9:44:34	piml		
	Soft Drink Tour	Scanning barcodes from different		PIMLUsers	3/5/2015 9:44:12			
Show all tours	Test Max		PIMLADMINS	PIML Demo	3/5/2015 9:43:41			
	test3m		PIMLADMINS	PIML Demo	3/5/2015 9:43:26			
	Heat Exchangers Sur			PIML Demo	3/5/2015 9:40:57			
	Chiller Run	Data for the Chillers	PIMLADMINS	PIML Demo	3/5/2015 9:40:33	piml		
	Chiller Log Mariana	Daily chiller Log Tour for chiller C		PIML Demo	3/5/2015 9:39:22			
	SecurityTest		PIMLADMINS	PIML Demo	3/5/2015 9:39:08	piml		
	Production_Line1		PIMLADMINS	PIML Demo	3/5/2015 9:35:15	piml		
	Sample Tour		PIMLADMINS	PIML Demo	3/5/2015 9:34:41	piml		
	Janelles Demo		PIMLADMINS	PIML Demo	3/5/2015 9:34:22	piml		
	Manual Entry Data D	emo	PIMLADMINS	PIML Demo	3/5/2015 9:31:12	piml		
	Barcodes		PIMLADMINS	PIML Demo	3/5/2015 9:30:50	piml		
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	Downtime Details		PIMLADMINS	PIML Demo	3/5/2015 9:20:03	piml		
	Oil Well Survey	Fort McMurray OW-206 survey.	PIMLADMINS	PIMLUsers	3/5/2015 9:17:09	piml		
	Wind Turbine Survey	Instruments Verification (RS2013)	PIMLADMINS	PIMLUsers	3/5/2015 9:16:47	piml		
	Pump Vibrations and	Temp Plant Equipment Vibrations and T	PIMLADMINS	PIMLUsers	3/5/2015 9:15:03	piml		
	San Francisco Pump	Vibra	PIMLADMINS	PIML Demo	3/5/2015 9:14:27	piml		
	JC Compressor		PIMLADMINS	PIML Demo	3/5/2015 9:14:03	piml		
	Test B		PIMLADMINS	PIML Demo	3/5/2015 9:12:10			
	Test A		PIMLADMINS	PIML Demo	3/5/2015 9:11:53	piml		
	Mining Trucks		PIMLADMINS	PIMLUsers	6/11/2014 10:45:	piml		
	Bighom Transformers	Manual Entries for Bighorn substa	PIMLADMINS	PIMLUsers	8/23/2013 3:13:5	piml		
	Pumps		PIMLADMINS	PIMLUsers	4/23/2013 1:16:5	piml		
	Search Options	🗅 New Tour 🗙 Delete 😕 Oper	n 🖬 Save As 💵 Clo	se 🗔 Import 🗔 Exp	port			

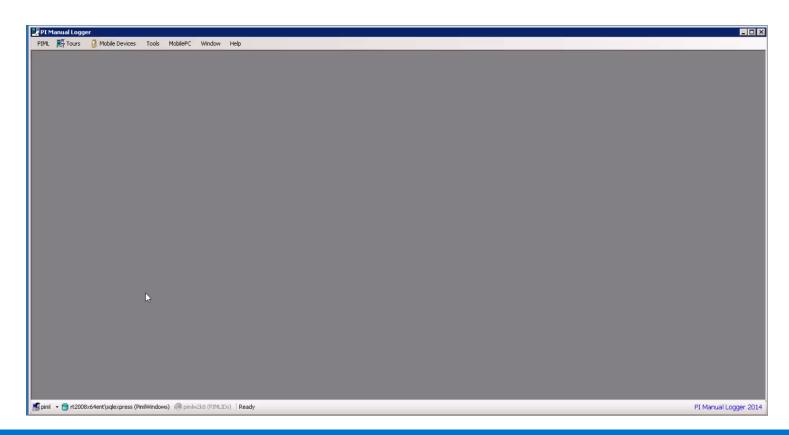
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Require Review

PI Manual Logger - [Tour Configuration -	Pump Vibrations and Temperatures]		
🤗 PIML 🎘 Tours 🟮 Mobile Devices 1	Tools MobilePC Window Help		_ & ×
Tour Info X	Tag Configuration Tag Entry Options Data Validation Tag Group Configuration		Tag Attributes X
Tour Name	Tag Name		Common All Attribute Value
Pump Vibrations and Temperatures	Pump P250 Vibrations	Add	Tag Name Pump P250 Vibrations
Tour Description			Tag Descriptor Vibration reading for south reflux pump Eng. Unit Inc/Sec
Plant Equipment Vibrations and Temperatures - North and South - vibetool	Barcode		Point Type Float32
Temperatures - North and South - Viberool		View	Zero 0 Span 100
			DisplayDigits -5
Full Access Group	Comment Tag (By default, tour run comments for tags are stored in annotations.)		
PIMLADMINS	piml_test_tag_comment	Set	
Data Entry Group			
Operators 💌	Tag Group		
Tour Comment Tag	Pump1 Clear	Set	
piml_test_tour_comment			
Set	Collection Scheduling		
		Set	
Tour Scheduling	Operator Instructions		Tag List View X
1			Tree View List View
Notes Set	Collect the vibration reading from the South Reflux Pump P250		
			B 1 South Reflux Pump
Notation test string			⊟-D= Pump1
Tour Options			
			I
	4 4 1 of8 ▶ ▶ □ ×		
	III - D IF - D P		
🛒 piml 🔹 🝵 rt2008x64ent\sqlexpress (PimlWinde	ows) @ pimlw2k8 (PIMLIDs) 11 tours loaded.		PI Manual Logger 2014



Review/Edit Collected Data







Language Support



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PI Manual Logger Web 2014 R2

🕒 PI Manual Logger 2014 R2 🗙 🔽	
← → C f Trt2008x64ent/piml.web/	/#/home ☆ =
Pl Manual Logger	*
Chocolate Milk Tour Cooling Water Tower Observations Ink Level Check Milk Misc Test Pump Vibrations and Temperatures Safety Equipment Check Soft Drink Tour Train #1 Water Wheel Vibration	 ENGLISH GERMAN SPANISH FRENCH PORTUGUESE RUSSIAN KOREAN CHINESE JAPANESE
Chocolate Milk Tour : Testing Chocolate Milk Recent Tour Runs (0)	New Tour Run

Support for 9 languages

The language selection is remembered on the device





Details



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Compatible Browsers

- Microsoft Internet Explorer 9.0 or greater
- Chrome 32.0.1700.76 or greater
- Firefox 26 or greater
- Safari on iOS 6.1 or above
- Windows Phone 7.5 or above
- Android tablet/phone 4.2 or above





Supported Devices

- Any device with a modern browser that supports HTML5 features such as:
 - iOS (iPad, iPhone, or iPod Touch version 6.1 or above)
 - Android tablets and phones
 - Windows Phone (7 or above)
 - Windows tablets (Slate PC, Surface tablet, etc.)

OSIsoft does not endorse any particular hardware, but we endeavor to work with vendors of industrial-grade devices









Compatibility

- One version, many options
 - UPGRADE existing tours to the 2014 version
 - CONTINUE with PI Manual Logger Mobile 2012 (on Windows Mobile devices)
 - UPGRADE to PI Manual Logger Web (2014 R2)



More Information

• Go see the product in action at the Product Expo



- Review customer presentations
 - Verso Paper from 2015 San Francisco Conference
 - SunCoke Energy from 2015 San Francisco Conference
 - Recorded presentations available on the OSIsoft web site

Advantages of PI Manual Logger

- Easiest way to get data into the PI System that isn't collected via instrumentation
- Off-the-shelf application only requires configuration
- Part of a complete PI System infrastructure
- Simple to configure and collect data
- Compatible with a variety of devices

Contact Information

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Please wait for the **microphone** before asking your questions

State your name & company



Please don't forget to...

Complete the Online Survey for this session







Start storing your manually collected data in the PI System!

