

INAudit[©] & INSpec[©] Presentation

WiseTools Inc

**WiseTools Inc.
#306 – 605 1st Street SW
Calgary, AB T2P 3S9
Canada**

Phone: (403) 233-8015 Fax: (403) 233-8563

Email: info@wisetools.ca

Website: www.wisetools.ca



WiseTools Inc.

- Developers of INAudit[®] a web based audit tool for the SPI/INtools database.
- Developers of INSpec a comprehensive SPI Spec/Datasheet auditing tool
- Developers of Wise_SMA2PDF & Wise_PSR2PDF utilities to automatically convert SMART PLANT SMA and PSR files to PDF files, running as a background service.
- SPI/INtools consultants with 14 years experience implementing SPI/INtools, data transfer, consulting, training and data entry.

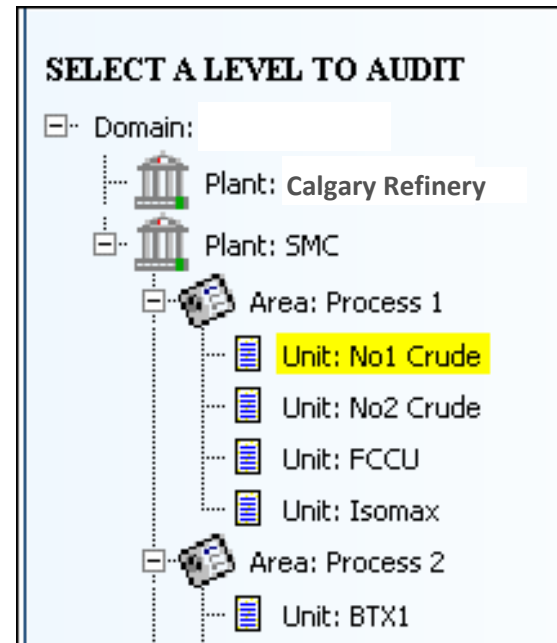
INAudit© Overview

Why Audit?

- Deliver a high quality database to your clients.
- Incomplete and inaccurate data is a hidden cost both in engineering and plant maintenance.
- Inaccurate and missing data is a safety risk.
- A cost effective way to reduce this is with a versatile auditing program that can be customized to meet your standards.

INAudit© Overview

- Easy access to the SPI/INtools Plant, Area and Unit structure.
- Audit at the Plant, Area or Unit level.



INAudit© Overview

- Main INAudit Modules window showing the High Level Filter configured for CWP (Construction Work Package Number.)
- Note: The High Level Filter field is optional , can be any UDF or UDT. Example: Project Number, Module Number...
- When a HLF value is entered only the related data will be audited



HIGH LEVEL FILTER

Filter By CWP:

Optional:

Enter a value to restrict the audit to tags/data that match the value in the High Level Filter. This field is case sensitive, and does not support wildcards.

MODULES

Select one module

- Index
- Datasheets
- Process Data
- Wiring
- FF/PB Tags and Wiring
- Loops
- I/O
- General Statistics
- Standards

Instrument Index Audit



INAudit

Domain:

Date: Feb-26, 2010

Plant: Calgary Refinery

Unit Index Report

Area: Flare Gas

Unit: 8- Flare Gas Recovery

License to: WiseTools Inc.

Audit by Status: All

Exclude Status: DELETED:Deleted Tag Number

[Return](#)

Total Tags: 3536	Tags not in a loop: 0 List	Tags without I/O: 0 List
Tags without Equipment Number: 2243 List	Tags without Line Number: 191 List	Attached Documents: 0
Minimum Data Fields Report - Initial	Minimum Data Fields Report - Final	Tags with Incorrect Service Description

Select any list option, example: Minimum Data Fields Report,
Tags with Incorrect Service Descriptions...

Index Initial Minimum Data Fields Report



INAudit

Domain: Date: Feb-25, 2010

Plant: Calgary Refinery **Unit Index Report - Initial**

Area: Flare Gas

Unit: 8- Flare Gas Recovery License to: WiseTools Inc.

Audit by Status: All

Exclude Status: None

Minimum Data Fields List **Note: Y= has data** **---=not required** **Total Tags: 3538** **Incomplete Tags: 2245**

TAG NUMBER	SERVICE	P&ID	EQUIPMENT	I/O
36% Completed	100%	100%	36%	100%
8 AA 1428	Y	Y		Y
8 AA 1509	Y	Y		Y
8 AA 1709	Y	Y		Y
8 AA 1818	Y	Y		Y
8 AA 1825	Y	Y		Y
8 AA 1839	Y	Y		Y
8 AA 1878	Y	Y		Y
8 AA 9950 A	Y	Y		Y
8 AA 9950 B	Y	Y		Y

Initial overall % complete and for each defined field.
All List reports have an Export Data button to Excel

Instrument Type Mismatch

Instrument Type Mismatch:
Tag instrument types that are linked to a different instrument type in the database.



Domain: D
Plant: Calgary Refinery
Area: Flare Gas
Unit: 8- Flare Gas Recovery

Total Defined Instrument Type in Domain: 255
Total Tags: 789
Number of Instrument Type Used: 47
Option: Instrument type not defined in the component function type table

Incorrect Tag/Instrument Types: 74

Tag ID	Tag Name	Instrument Type	Process Function
23899	KPT 094	PDT	Pressure
24142	KASX 121	XA	General
24152	KASX 123	XA	General
24157	KAX 124	XA	General
24954	KAX 130	XA	General
47896	KPY 85AS	XY	Control Valve
49263	KXSE 240	XS	General
49270	KHSE 240AS	HB	General
49285	KHS 240CS	HB	General
49303	KLALL 135S	XA	General
49309	KTAH 974S	XA	General
49321	KLAH 048S	XA	General
49332	KTAH 892S	XA	General
59200	KRO 620	FE	Flow

Specification/Datasheet Audit Report

INAudit

Unit Datasheet Report

Domain: _____ Date: Feb-25, 20__

Plant: Calgary Refinery

Area: Flare

Unit: 8- Flare Gas Recovery

License to: WiseTools

Audit by Status: **All**

Exclude Status: **None**

Datasheet Revision Number: _____

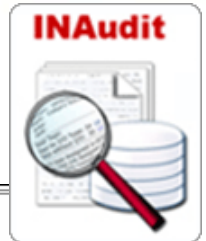
Tags with Datasheet: 933	Hard I/O Tags without Datasheet: 859 List
Archived Datasheets: 0	Tag with Datasheets without Revision Number: 172 List
Process Function Mismatch: 0 List	Datasheets without a Drawing Number: 3154 List
Datasheets with Incorrect Tag Service Description	Datasheets with Incomplete Revision Data
	Minimum Data Report - Initial
	Minimum Data Report - Final

Tags By Datasheet: Forms:36 [List](#)

Form	Form Name	No of Tags
101	Combust. Gas Toxic Detectors	9
107	Hydrogen Sulfide Monitor	20
112	Complex Analyzer	1



Tags without a Specification/Datasheet



INAudit

Date: Apr-6, 2008

Unit Datasheet Report

Domain: _____

Plant: Calgary Refinery

Area: Flare

Unit: 8- Flare Gas Recovery

License to: WiseTools

Audit by Status: All

Exclude Status: None

[Export Data](#)

Hard I/O Tags with no Datasheet List: 469

Tag Name	Service	I/O
ALT 001	DESALTER INTERFACE RANGE	AI
APT 001	DESALTER SAFETY DRUM OUTLET	FCI

The INAudit© administrator defines the instrument types with hard I/O that do **NOT** get assigned to a Specification/Datasheet as an exception list using the INAConfig utility

Process Data Audit

Identify tags that are not assigned to the process module (i.e. have no Process Data) – select one Process Function or all.

INAudit



PROCESS FUNCTION AUDIT

Tags not Assigned to Process Module:

Select A Process Function or All:

- Control Valve
- Flow
- Level
- Pressure
- Temperature
- Relief Valve
- All

Process Data Audit

Tags that are not assigned to the process module - have no Process Data.

Domain:					
Plant: Calgary Refinery		Unit Process Report			
Area: Flare Gas					
Unit: 8- Flare Gas Recovery					
Audit by Status: All					
Exclude Status: None					
Datasheet Revision Number:					
Tags Not Assigned to Process Module: ALL Process Functions					
Total Tags: 794 Total Process Data Tags : 659 (45% Assigned)					
Total Tags Assigned to Process Module: 301 Total Tags not Assigned to Process Module: 358					
	Control Valve	Flow	Level	Pressure	Temperature
Total P.D. Tags	138	160	51	74	236
% Assigned	42%	76%	47%	41%	27%
Process Function	Tag Name	Service			
Control Valve	AHV 057B	ATI-25/50 TS INLET HAND VALVE CONTROLLER			
	AHV 059A	ATI-13/17 TS INLET HAND VALVE CONTROLLER			
	AHV 059B	ATI-13/17 TS INLET HAND VALVE CONTROLLER			
	AHV 061C	AM-2 OUTLET TO EXCHANGERS HAND VALVE CONTROLLER			
	AHV 061A	AM-2 OUTLET TO EXCHANGERS HAND VALVE CONTROLLER			
	AHV 061B	AM-2 OUTLET TO EXCHANGERS HAND VALVE CONTROLLER			
	AHV 065A	ATI-28R/32R SS INLET HAND VALVE CONTROLLER			
	AHV 065B	ATI-28R/32R SS INLET HAND VALVE CONTROLLER			
	AHV 561	HVD PUMP AROUND			
	AHV 562	HVD TOTAL RX FLOW			
	AFV 030	API DISCHARGE, PRIMARY BOTTOMS TO ATI-55B SHELL SIDE			

Process Data Audit



Report Incomplete Process Data

Plant: Calgary Refinery Unit Process Report
 Area: Flare Gas
 Unit: 8- Flare Gas Recovery License to: WiseTools Inc

Audit by Status:
 Exclude Status:
 Datasheet Revision Number:

[Export Data](#)

Total Tag: 1439
Control Valve Report: Total audited tags: 162 Incomplete Tag: 153 Note: Y=have data; ---=Not Required

Tag Number	Fluid State	Flow Min	Flow Norm	Flow Max	Upstream Pressure Min	Upstream Pressure Max	Pressure Drop Min	Pressure Drop Norm	Pressure Drop Max	Temperature Min	Temperature Max	Density Norm	Specific Gravity Norm	Compressibility Norm	Design Temp Min	Design Temp Max	Design Press Min	Design Press Max	Failure Action
5% Overall Complete		63% Complete	75% Complete	82% Complete	59% Complete	81% Complete	28% Complete	29% Complete	30% Complete	74% Complete	88% Complete	81% Complete	81% Complete	85% Complete	74% Complete	61% Complete	19% Complete	67% Complete	81% Complete
240-FCV-0073	Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	---	Y	Y	Y	Y	
240-FCV-0077	Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	---	Y	Y	Y	Y	
240-FCV-0083	Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	---	Y	Y	Y	Y	
240-FCV-0087	Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	---	Y	Y	Y	Y	
240-FCV																			

You can export all the data reports to Excel.

Wiring Audit Reports

INAudit



INAudit

Domain:

Date: Feb-25, 2010

Plant: Calgary Refinery

Unit Wiring Report

Area: Flare Gas

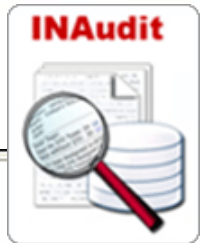
Unit: 8- Flare Gas Recovery

License to: WiseTools Inc.

Wires with no Polarity: 3370 List	Un-Connected Cable: 359 List
Panels with Same Name	Archived Panel Reports: 0
Strips with Same Name or No Name	Terminal Strips in Wrong Unit
Field Devices not Wired : 246 List	Panel Strips with incomplete Revision Data
Wires with No Colour: 503 List	Incomplete Wiring Incomplete MR Wiring

Panel/Strip Reports

Strips with Incomplete Revision Data



License to: WiseTools

Domain: -----
 Plant: Calgary Refinery
 Area: Flare Gas
 Unit: 8- Flare Gas Recovery

Unit Panel/Strip Report

Export Data

Total Loops: 505
 Strips with Incomplete Revision Data: 150

Panel Name	Strip Name	Revision Number	Revision Description	Description Length	Max(40)>Length>Min (10)	Disallowed Characters	Description in Upper Case	Revision Date	By	Chk	Appr
FCM-0K0100	24VDC	0	IFC (#00S0466)	14	Y	# IFC	Y	Y	Y	N	N
	TA-0K0121 - RACK 9	0	IFC (#00S0466)	14	Y	# IFC	Y	Y	Y	N	N
	TA-0K0123 - RACK 9	0	IFC (#00S0466)	14	Y	# IFC	Y	Y	Y	N	N
	TA-0K0125 K-MJB-01 RK1	0	IFC (#00S0466)	14	Y	# IFC	Y	Y	Y	N	N
	TA-0K0126 K-MJB-01 RK1	0	IFC (#00S0466)	14	Y	# IFC	Y	Y	Y	N	N
	TA-0K0127 K-MJB-01 RK1	0	IFC (#00S0466)	14	Y	# IFC	Y	Y	Y	N	N
FCM-1K0200	K-MJB-04 R3 TA-1K0203	0	IFC (#00S0466)	14	Y	# IFC	Y	Y	Y	N	N

Incomplete Wiring Report by Loop Number



INAudit

Domain:

Plant: Calgary Refinery

Area: Flare Gas

Unit: 8- Flare Gas Recovery

Unit Wiring Report

License to: WiseTools Inc.

Export Data

Total Loops: 477

Loops with Incomplete Wiring: 107 Complete: 77.6%

Loop	Service	Tag	Status
8 A-1430	FGP FD FROM WSGP	8 AT 1430	Incomplete max signal sequence 100
		8 XS 1430	Complete
8 A-1818	FGP 017VES36458/36460 FG MIX DRM SWEET GAS FD	8 AT 1818	Incomplete max signal sequence 1
8 A-1878	FGP 017VES36461 FG COALESCER SWEET GAS OUT	8 AS 1878	Incomplete max signal sequence 1
		8 AT 1878	Incomplete max signal sequence 1
8 A-9950	FGP ISBL LEL DETECTOR	8 AT 9950	Incomplete max signal sequence 9
		8 AX 9950	Complete
		8 AXL 9950	Incomplete max signal sequence 100

Loop Audit Reports



INAudit

INAudit

Domain:
 Plant: Calgary Refinery
 Area: Flare Gas
 Unit: 8- Flare Gas Recovery

Date:

Unit Loop Report

License to: wise tools

Total Loops: 505	Loops without Tags: 0 List
Loops without a Service Description: 3 List	Loops without Rev Number: 145 List
Loop without P&ID: 59 List	Loop Measured Var Mismatch: 4 List
Loops without Generation Method Indicated: 452 List	Loops without Equipment Number: 353 List
Loops with Incorrect Service Description	Loop Drawing with Incomplete Revision Data

Loops by Measured Variable: **505** [List](#)

Variable Name	No of Loops
A	27
DP	1
F	124
H	6
L	30
P	70
PD	1
T	218
X	28

Loops with Measured Variable Mismatch



INAudit			
Domain:		Unit Loop Report	
Plant: Calgary Refinery			
Area: Flare Gas			
Unit: 8- Flare Gas Recovery			
Loop Measured Var Mismatch: 4			
Loop	Loop Measured Var	Database Measured Var	Loop ID
KP094	P	DP	23738
KP136	P	PD	93245
KX002-01	X	A	105235
KX002-02	X	A	105245

I/O Report

INAudit



INAudit

Domain:
Plant: Calgary Refinery
Area: Flare Gas
Unit: 8- Flare Gas Recovery

Unit I/O Report

Date: Apr-6, 2008

License to: WiseTools

Total Tags: 789	
Tags by I/O Type: 583 List	Hard I/O tags Assigned in DCS/PLC: 559 List
Tags without I/O: 1 List	Hard I/O tags not Assigned in DCS/PLC: 24 List
Remote I/O Terminations in the Same Panel as the I/O Cards: 0 List	Remote I/O Terminations not in the Same Panel as the I/O Cards: 0 List

I/O Assigned by Type Report

% Complete



INAudit		
Domain:		Unit I/O Report
Plant: Calgary Refinery		
Area: Flare Gas		
Unit: 8 Flare Gas Recovery		
Assigned I/O Type: List Detail List		
I/O	Count of Assigned Tags	% completed
AI	59	92
AO_R	93	100
DILDC	47	94
DOLDC	14	66
FCI	174	100
T/C	172	100
Total	559	overall 97%

I/O Detailed Report with Card % Free



INAudit

Domain:
Plant: Calgary Refinery
Area: Flare Gas
Unit: 8- Flare Gas Recovery

Unit I/O Report

License to: WiseTools

Export Data

Hard I/O Tags assigned to DCS detail list:

Panel Name	I/O	I/O Card	Rack	Slot	Manufacturer	Model No	Tag Name	Equipment	Status	Channel	Total Channels	Free Channels	% Free
FCM-0K0100	AI	TA-0K0121 - RACK 9	Plate 2	1	Foxboro	FBM201	KXT 002-01	KF-20	EIP	1	8	2	25%
							KXT 002-02		EIP	2			
							GXT 577A	HL-V2	E	3			
							GXT 586		E	4			
							GXT 587		E	5			
							GXT 577B	HP-1	EIP	6			
FCM-0K0100	AI	TA-0K0122 - RACK 9	Plate 1	2	Foxboro	P0916AA	KAT 125		EIP	1	8	5	62%
							KAT 126		EIP	6			
							KAT 127		EIP	7			
FCM-0K0100	DILDC	TA-0K0125 K-MJB-01 RK1	Plate 2	5	Foxboro	P0916JS	KALSD 117		EIP	1	16	5	31%
							KALSD 119	KB-1	EIP	2			
							KXS 101		EIP	3			
							KPSLE 118		EIP	4			
							KASX 121		EIP	6			
							KHA 117		N	7			
							KHA 118		N	8			
							KHA 119	KB-1	N	9			
KXS 007		EIP	10										

General Statistics Report



INAudit Details		
Domain Name:	Calgary Oil	Date: Jan-28-2010
INAudit Version:	5.8.15	
INTools Version:	08.00.06.13	
Tagging Format:	Flexible Standard	
Database Type:	Engineering -Domain	
Source:	Oracle	Export Data

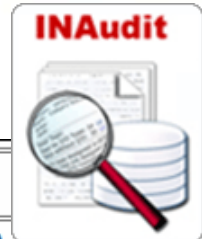
1.) General Statistics		
Plants:	<input type="text" value="1"/>	List
Areas:	<input type="text" value="7"/>	List
Units:	<input type="text" value="47"/>	List
Projects:	<input type="text"/>	

Configured		
Instrument Types:	<input type="text" value="369"/>	List
I/O Types:	<input type="text" value="23"/>	List
P&ID Drawings:	<input type="text" value="492"/>	
Equipment Numbers:	<input type="text" value="854"/>	
Equipment Types:	<input type="text" value="63"/>	List
Line Numbers:	<input type="text" value="2006"/>	
Line Types:	<input type="text" value="4"/>	List
Manufacturers:	<input type="text" value="323"/>	
Model Numbers:	<input type="text" value="2048"/>	
Specification Forms:	<input type="text" value="88"/>	List
Specification Pages:	<input type="text" value="89"/>	List
User Defined Fields (UDFs):	<input type="text" value="16"/>	List
User Defined Tables (UDTs):	<input type="text" value="5"/>	List
Status Values:	<input type="text" value="19"/>	List
Locations:	<input type="text" value="28"/>	List
Loop Measured Variables:	<input type="text" value="26"/>	List
SPINTools Users:	<input type="text" value="390"/>	List
Inst Types In Multi Process Functions:	<input type="text"/>	List

Unused		
Instrument Types:	<input type="text" value="73"/>	List
I/O Types:	<input type="text" value="9"/>	List
P&ID Drawings:	<input type="text" value="21"/>	List
Equipment Numbers:	<input type="text" value="17"/>	List
Line Numbers:	<input type="text" value="20"/>	List
Manufacturers:	<input type="text" value="3"/>	List
Specification Forms:	<input type="text" value="3"/>	List
Specification Pages:	<input type="text" value="2"/>	List
UDFs (WITHOUT Data):	<input type="text" value="0"/>	List
UDTs (WITHOUT Data):	<input type="text" value="0"/>	List
Status Values:	<input type="text" value="2"/>	List
Loop Measured Variables:	<input type="text" value="0"/>	List

General Statistics (Domain) Report

Instrument Types Defined in More Than One Process Function



INAudit

Domain: Date: Apr-01, 2008
 Plant: Calgary Refinery **Domain Statistics Report**
 Area: Flare Gas
 Unit: 8- Flare Gas Recovery License to: WiseTools

[Export Data](#)

Instrument types in multiple process functions:

Instrument Type	Description	Process Function	Instru Type ID	Total Tags
AI	ANALYZER ANALOG SIGNAL	Analyzer	20153	4
AI	DCS INDICATOR- ANALYZER	Analyzer	163962	1
AI	DCS INDICATOR	General	163961	8
AIT	COMBUSTIBLES TRANSMITTER	Analyzer	163965	1
AIT	OXYGEN TRANSMITTER	Analyzer	163968	1
AIT	PH TRANSMITTER	Analyzer	21922	2
AIT	SULPHUR TRANSMITTER	Analyzer	163969	2
AIT	GAS MONITOR OUTPUT	General	163966	3
AIT	H2S MONITOR OUTPUT	General	163967	6
AT	ANALYZER TRANSMITTER	Analyzer	5	68
AT	BETA FOIL ASSEMBLY	Analyzer	23834	1
AT	BOILING POINT ANALYZER	Analyzer	23835	6

Wiring General Statistics by Domain Control System (CS) Tags not Linked



INAudit	
Domain:	Date: Apr-6, 2008
Plant: Calgary Refinery	Domain Statistics Report
Area: Flare Gas	
Unit: 8- Flare Gas Recovery	License to: WiseTools
Export Data	
CS Tag not Linked: 443	
CS Tag	ID
AAT773	119789
AAT774	119801
ACID TK-FILL	149811
ACID TK-STOP	149812
AFT998	82740
AFT999	82699
AFV998	82752
AFV999	82711
AFY998	82746
AFY999	82705
AH234	93309

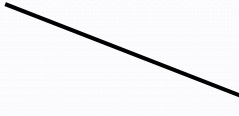
Standards Module

Standards

Audit

Return

Select a level, then click the audit button.

- Select All
- Instrument types
 - I/O types
 - Loop Measured Variables
 - Status
 - Spec Pages
 - Spec Forms
 - Manufacturer
 - Reference Panels/Strips * Plant Specific
 - Reference Cables * Plant Specific
 - Wire Colour
- 

Sample Standards Audit Result



Return

Instrument Types

Std Instrument Types	369	List	Export
Non Std Instrument Types	30	List	Export
Duplicate Instrument Types	12	List	Export
Tags w Non Std Instrument Types	3618	List	Export

I/O Types

Std I/O Types	23	List	Export
Non Std I/O Types	0	List	Export
Duplicate IO Types	0	List	Export
Invalid SPI/INTools I/O Types	1	List	
Tags w Non Std I/O Types	0	List	Export

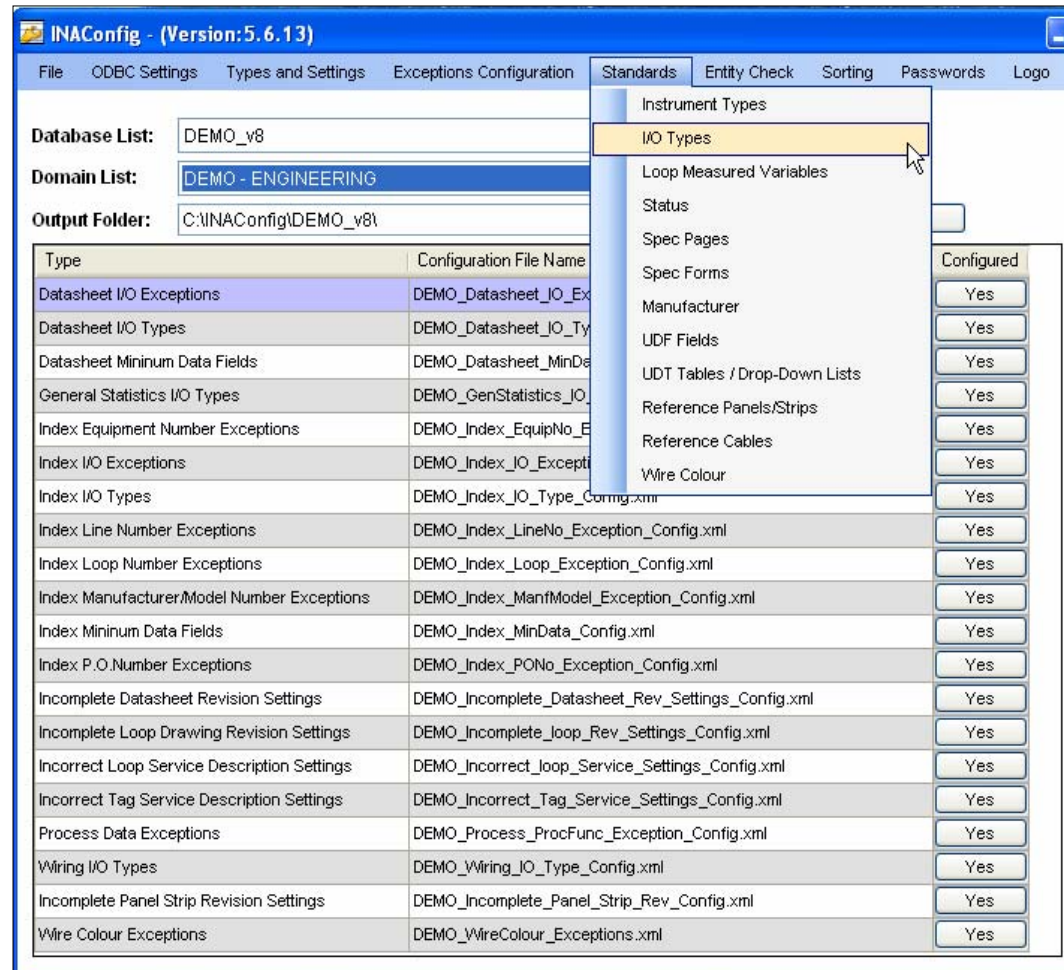
Loop Measured Variables

Std Loop Measured Vars	29	List	Export
Non Std Loop Measured Vars	0	List	Export
Duplicate Loop Measured Vars	0	List	Export
Loops w Non Std Measured Vars	0	List	Export

Checks for changes, new or deletions to the standards

INAConfig©

A utility used to configure the rules and exceptions for INAAudit© when auditing your SPI database.



The screenshot shows the INAConfig software interface with the following configuration details:

- Database List:** DEMO_v8
- Domain List:** DEMO - ENGINEERING
- Output Folder:** C:\INAConfig\DEMO_v8\

The 'Standards' menu is open, showing a list of configuration items. The 'I/O Types' item is highlighted. Below the menu, a table lists various configuration items and their status:

Type	Configuration File Name	Configured
Datasheet I/O Exceptions	DEMO_Datasheet_IO_Ex	Yes
Datasheet I/O Types	DEMO_Datasheet_IO_Ty	Yes
Datasheet Minimum Data Fields	DEMO_Datasheet_MinDe	Yes
General Statistics I/O Types	DEMO_GenStatistics_IO	Yes
Index Equipment Number Exceptions	DEMO_Index_EquipNo_E	Yes
Index I/O Exceptions	DEMO_Index_IO_Excepti	Yes
Index I/O Types	DEMO_Index_IO_Type_Config.xml	Yes
Index Line Number Exceptions	DEMO_Index_LineNo_Exception_Config.xml	Yes
Index Loop Number Exceptions	DEMO_Index_Loop_Exception_Config.xml	Yes
Index Manufacturer/Model Number Exceptions	DEMO_Index_ManfModel_Exception_Config.xml	Yes
Index Minimum Data Fields	DEMO_Index_MinData_Config.xml	Yes
Index P.O.Number Exceptions	DEMO_Index_PONo_Exception_Config.xml	Yes
Incomplete Datasheet Revision Settings	DEMO_Incomplete_Datasheet_Rev_Settings_Config.xml	Yes
Incomplete Loop Drawing Revision Settings	DEMO_Incomplete_loop_Rev_Settings_Config.xml	Yes
Incorrect Loop Service Description Settings	DEMO_Incorrect_loop_Service_Settings_Config.xml	Yes
Incorrect Tag Service Description Settings	DEMO_Incorrect_Tag_Service_Settings_Config.xml	Yes
Process Data Exceptions	DEMO_Process_ProcFunc_Exception_Config.xml	Yes
Wiring I/O Types	DEMO_Wiring_IO_Type_Config.xml	Yes
Incomplete Panel Strip Revision Settings	DEMO_Incomplete_Panel_Strip_Rev_Config.xml	Yes
Wire Colour Exceptions	DEMO_WireColour_Exceptions.xml	Yes

INAudit© New FF/PB Module

INAudit

Domain: SCF_EXPI_MARCH24_2010

Project:

Plant: HYDROGEN (HMU2)

Area:

Unit:

Date: Jul-21, 2010



License to: Barry Morris

Total FF Tags: 278 List	Total PB DP Tags: 0 List
Total VD Tags: 276 List	Total PB PA Tags: 0 List
VD tags in wrong unit: 205 List	FF/PB tags with wrong I/O type: 0 List
FF/PB tags with no VD tags: 3 List	Conventional tags with function blocks: 0 List
Check FF/PB Profiles for CS Tag Settings	FF/PB tags without a function block: 1 List

FF/PB Index audit

INAudit© New FF/PB Module

INAudit

FF/PB Profiles for CS Tag Settings

Domain: SCF_EXPI_MARCH24_2010

Project:

Plant: HYDROGEN (HMU2)

Area:

Unit:

Number of FF/PB Profiles: 36

Date: Jul-21, 2010



License to: Barry Morris

Export

Instrument Type	Description	IO Type	Profile Control System	Profile CS Tag	CS Tag
FT	D/P FLOW TRANSMITTER - FF	FF	Y	Y	FC
FT	ULTRASONIC FLOW TRANSMITTER - FF	FF	Y	Y	FC
FT	CORIOLIS MASS FLOW XMTR - FF	FF	Y	Y	FC
FV	DAMPER - FF	FF	Y	Y	FV
PV	DAMPER - FF	FF	Y	Y	PC
XZT	UNCLASSIFIED VALVE POSITION XMTR - FF	FF	Y	Y	XZI
PZT	PRESSURE VALVE POSITION XMTR - FF	FF	Y	Y	PZI
LT	CAPACITANCE LEVEL TRANSMITTER - FF	FF	Y	Y	LC
FI	LOCAL ELECTRONIC INDICATOR - FF	FF	Y	Y	FI
FF	NON-RELEASABLE FLOW TRANSMITTER - FF	FF	Y	Y	FC

FF/PB Index audit checking the SPI Instrument profiles for CS tags defined

INAudit© New FF/PB Module

INAudit

Domain: SCF_EXPL_MARCH24_2010

Project:

Plant: HYDROGEN (HMU2)

Area:

Unit:

Date: Jul-21, 2010



License to: Barry Morris

Number of Segments Defined: 59 [List](#)

Number of Segment Archives: 14 [List](#)

FF/PB Devices Assigned to a Segment: 275 [List](#) FF/PB Devices not Assigned to a Segment: 0 [List](#)

Segments Drawing without a Revision No: 15 [List](#) CS Tags Assigned to FF/PB Tags: 265 [List](#)

Segments with Incomplete Revision Data: 44 [List](#) [Incomplete FF/PB Wiring by Segment](#)

Terminators: 0

Unassigned Terminators: 0 [List](#)

FF/PB Segment/Wiring Audits

Summary

- **INAudit©** - Your 24hr/7days a week cost effective SPI/INtools administrator.
- Improving the quality of your instrumentation database and reducing your project hand-over costs.



Domain Level Audits

1.) Number of Spec Forms:	88	List
2.) Unused Spec Forms:	3	List
3.) SPI Profile Instrument Types assigned to Spec Forms:	102	List
4.) Defined Spec Form Browsers:	49	List
5.) Index UDF's defined on Spec Forms:	17	List
6.) UDT Fields defined on Spec Forms:	0	List

Plant Level Audit: Calgary Oil Sands

1.) Tags assigned to Spec Forms:	7679	List
2.) Tag/Spec Forms with no Revision Number:	1456	List
3.) Tag/Spec Forms with last rev = ISSUED FOR CONSTRUCTION:		List
4.) Tag/Spec Forms with last rev = AS-BUILT:		List
5.) Tag/Spec Form process function mismatch:	10	List
6.) Tag/Spec Forms missing a Drawing Number:	0	List
7.) Tag/Instrument Types assigned to Incorrect Spec Form:	2337	List
8.) Tag/Spec Forms not assigned a Fluid State:	1690	List
9.) Tag/Spec Forms with Non-Std Fluid State:	10	List
10.) Audit by Spec Form:	Start Spec Sheet Audit	

INSpec New Spec/Datasheet auditing program

INSpec



Instrument Types assigned to Spec Forms

User Notes:
Notes go here...

Instrument Types

Show: Unassigned

Filter: By Process Function

Name	Description
---	NOT APPLICABLE
AI	Analog Input
AO	Analog Output
F*	New Instrument
FE	Flow Element
FHS	Flow Hand Switch
FIC	Flow Indicating C
FIT	^Magnetic Flow In
FQI	Flow Totalizing In
FSHH	Flow Switch High
FY	^Speed Transducer
^FAL	^Low Flow Alarm
^FALL	^Low-Low Flow A
^FC	^PLC Flow Contr
^FE	^UltraSonic Flow
^FE	^Vortex Flow Eler
^FF	^Insertion Turbin

Total: 29

Save Cancel

View (Thermal Flow/Level Switch) Instrument Types

User Notes:
Notes go here...

Form Name: Thermal Flow/Level Switch

Process Function: Flow

Instrument Types

Name	Description	Process Function
FSL	Flow Switch Low	Flow
FSLL	Flow Switch Low-Low	Flow

Cancel

Total: 2

Process Function	Instrument Types
Flow	^FE,^FIT
Flow	^FE
Flow	^FE
Flow	FI
Flow	FSH,^FT
Flow	FO
Flow	FT,^FIT,^FQIT
Flow	^FIT,^FT
Flow	FSL,FSLL
Flow	^FE
Flow	FG
Flow	^FT

Define/Check instrument types assigned to spec forms for the audit



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O		
1	Report:	INSpec - Audit By Pressure															
2	Date:	2010-08-06															
3	Domain	Calgary Oil (Engineering)															
4	Project:																
5	Plant:	Calgary Oil Sands															
6	Area:	200 Process															
7	Unit:	240 Extraction															
8	High Level Filter:																
9	Status Included:																
10	Status Excluded:																
11	Revision Filter:																
12																	
13	CNUM	Spec Form Name	Process Function														
14	300	Pressure Gauge	Pressure														
15					Page1 (ID: 11)												
16					Common												
17				Complete %:	100%	100%	100%	100%	94%	94%	94%	100%	UOM/DATA	100%	100%	100%	Process Fu
18		Tag Name	Process Fur	Fluid State	P&ID Number	Service	Location	Line Number	Nominal Accura	Manufacture Model	Dwg. No.:	Temperature U	Oper. Ten	Max. Tem	Max. Press		
19				UOM Value:								°C					
20		240-PG -0017	Pressure	Liquid	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
21		240-PG -0019	Pressure	Liquid	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
22		240-PG -0021	Pressure	Liquid	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
23		240-PG -0032	Pressure	GasVapor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
24		240-PG -0034	Pressure	GasVapor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
25		240-PG -0042	Pressure	GasVapor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
26		240-PG -0055	Pressure	Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		

Part sample of the Audit report

Who's Using the WiseTools Products?

- Canadian Natural Resources
- CDI Engineering, Houston, USA
- Chevron, Concord, CA, USA
- Chevron, El Segundo, CA, USA
- ExxonMobil, Houston, USA
- Husky Energy, Canada
- Hovensa, USA
- Petro-Canada
- Petrocon Arabia, Saudi Arabia
- Petrobras, Brazil
- Shell Canada
- Shell International Exploration & Production, USA
- Suncor Energy, Canada
- Syncrude, Canada
- Tesoro Companies, USA

Thank You

For further information Contact

WiseTools Inc.

#306 – 605 1st Street SW

Calgary, AB T2P 3S9

Canada

Phone: (403) 233-8015 Fax: (403) 233-8563

Email: info@wisetools.ca Website: www.wisetools.ca