

3 simple letters that give You plenty to smile about



The Importance of System Integration In Data Reconciliation Project

By Lim Tiong Beng, CSE-EIS Pte Ltd



Customer Satisfaction, Everytime.

Agenda

- Why Data Reconciliation Projects ?
- Understanding of System Setup
- Examples of System Integration Considerations
- Q & A

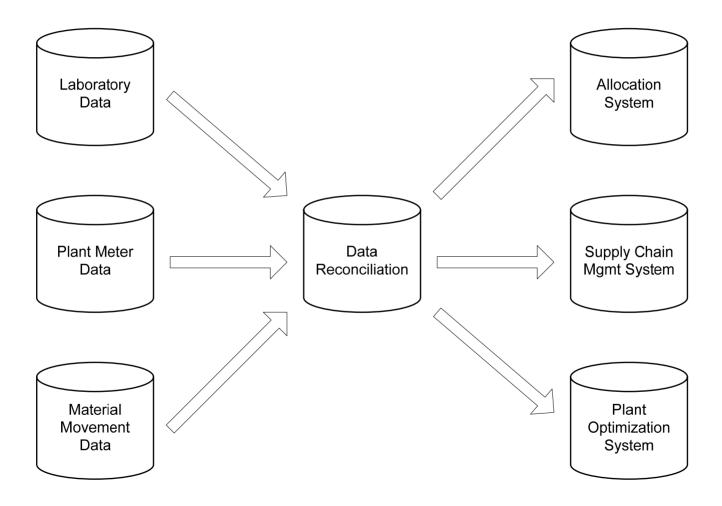


Why Data Reconciliation Projects ?

- Product Allocation / Accounting
 - Profits sharing and costs allocation
- Inventory / Supply Chain Management
 - Accurate information on plant inventories
- Improve Material Movement Management
 - Movement of products across fences
 - Movement of materials within fences
- Improve Data Quality for Plant Optimization
 - Accurate information of plant yield to feed optimization software



Understanding of System Setup





Customer Satisfaction, Everytime.

TMS Integration

- Material Movement Data
 - Known as transfers in Sigmafine
- Information May Reside in Different Software Applications for Different Organizations
 - Inventory Management / Tank Management / ERP
 - Different software systems handle data, changes differently



TMS Tank Information

Movement Status	Values	Create Date	Tank Level	Temperature	Densi	y TOV	GSV15 GS	¥30 I	Mass
Midnight Values	Midnight (ATG)	23-Aug-2005 00:00:00	13,510	34	1.9 85	9.5 969.328	953.431 98	65.304	819.428
Save Cancel		Tank Calcula	tion						
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Novement Status	Before/After	Tank Calculation	OPEN	CLC	SE T	OTAL TRANSFER	ARC (JIS)	i.	ARC (T-54B)
ATG/Dip before transfer	OPEN(ATG)(Manual)	2 LEVEL(MM)		9,055	2,554			20,554	20,55
	CLOSE (DIP)	TEMPERATURE('C)	2	39.3	39.6			39.6	39
	SUMMAR	DENSITY(Kg/m3)		835	771			772.0	772
C/D from supplier	OPEN	24 TOV(M3)	4	91.098	139.129	351.96	9 3	151.965	351.9
	CLOSE C/D	GOV(M3)	41	89.362	137.125	352.23	7 3	52.233	352.23
	SUMMAR		4	79.134	133.217	345.91	7 3	45.915	342.33
Fransfer	OPEN	GSV 30'C(M3)	4	85.396	135.562	349.83		349.830	348.29
		MASS IN VACUO(Mtor	.) 3:	99.837	102.657	297.18	0 2	97.180	264.28
		MASS IN AIR(Mton)	3	99.297	102.508	296.78	9 2	96.778	263.90
		LONG TONs(Lton)	3:	92.990	100.889	292.10	1 2	90.032	259.73
		US BARRELS 60'F(Ba	rrel) 3.0	15.190	838.468	2,176.72	2 2.1	73.500	2,154.6
		Save Canc	el Calculate	Re-Entry					



TMS Meter Calculations

Master File 🔻 🗳 Work Orde	er 🔻 🕰 Laboratory 👻	į Movement 👻 🚮	Tank & Meter 🔻 ᢖ Rep	ort 🔻 😫 Administrato
eter Calculation DATA	FLOW 1	FLOW 2	TOTAL TRANSFER	CUSTOMER
FLOW ID:	935FT11	935FT22	·	142F05
Batch Gross(M3):	51.386	34.296	85.682	85.681
Batch Net(15 Deg.C)(M3):	1,280.373	1,313.365	2,593.738	2,593.637
Batch Net(30 Deg.C)(M3):	1,295.468	1,269.969	2,565.437	2,565.332
BATCH MASS(TON):	1,230.968	1,272.316	2,503.284	2,503.175
Temperature(Deg.C):	37.1	35.5	[36.1
Density (15 Deg.C)(KG/M3):	9,999.0	9,999.0	[
Density (30 Deg.C)(KG/M3):	9,999.0	9,999.0	[
/CF (15 Deg.C):	9999.0000	9999.0000	[
VCF (30 Deg.C):	9999.0000	9999.0000	[
CPL:	9999.0000	9999.0000	[
Meter Factor:	9999.0000	9999.0000	[
K-Factor:	9999.0000	9999.0000	[



Material Movement Summary

- Dispatch/receipt via pipeline
- Tank to tank transfer

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1	TK17B	!	945TK17B	Feed T	ank		117			STATIC			
1	TK17C		945TK17C	Interme	diate Tan	k	117	Intermediate		Feed Pipe <mark>C</mark>	/D from supplier		
1	TK18A		945TK18A	Produc	t Tank		117			STATIC			
1	TK18B	!	945TK18B	Feed T	ank		117			STATIC			
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1	TK20C	Work RP-TO	Order DC-RF-05-07-008		evision	Product Na	<u>1me</u>		1	945TK6B	<u>Quantity(M3)</u> 2,000	Movement Sta ATG/Dip after tr	ansfer
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LIMS Integration

- Mass Balance Data
 - Density, Composition or MW analysis
- Component Mass Balance Data
 - Limited online analyzer data
 - Uses routine laboratory GC analyses data
- LIMS Application
 - Understand the data handling of LIMS application



LIMS Data Processing

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Summary

- Integration of Systems is Important for all Data Reconciliation Project Implementation
 - Data Reconciliation is not an end by itself
 - Understand what and where the required data is; data exchange mechanism, final data users
- CSE-EIS As a Sigmafine VAR
 - Years of experience implementing RtPM, LIMS, TMS and Data Reconciliation



Questions and Answers





Customer Satisfaction, Everytime.