

CSE



*3 simple letters that
give You plenty to smile about*

The Importance of System Integration In Data Reconciliation Project

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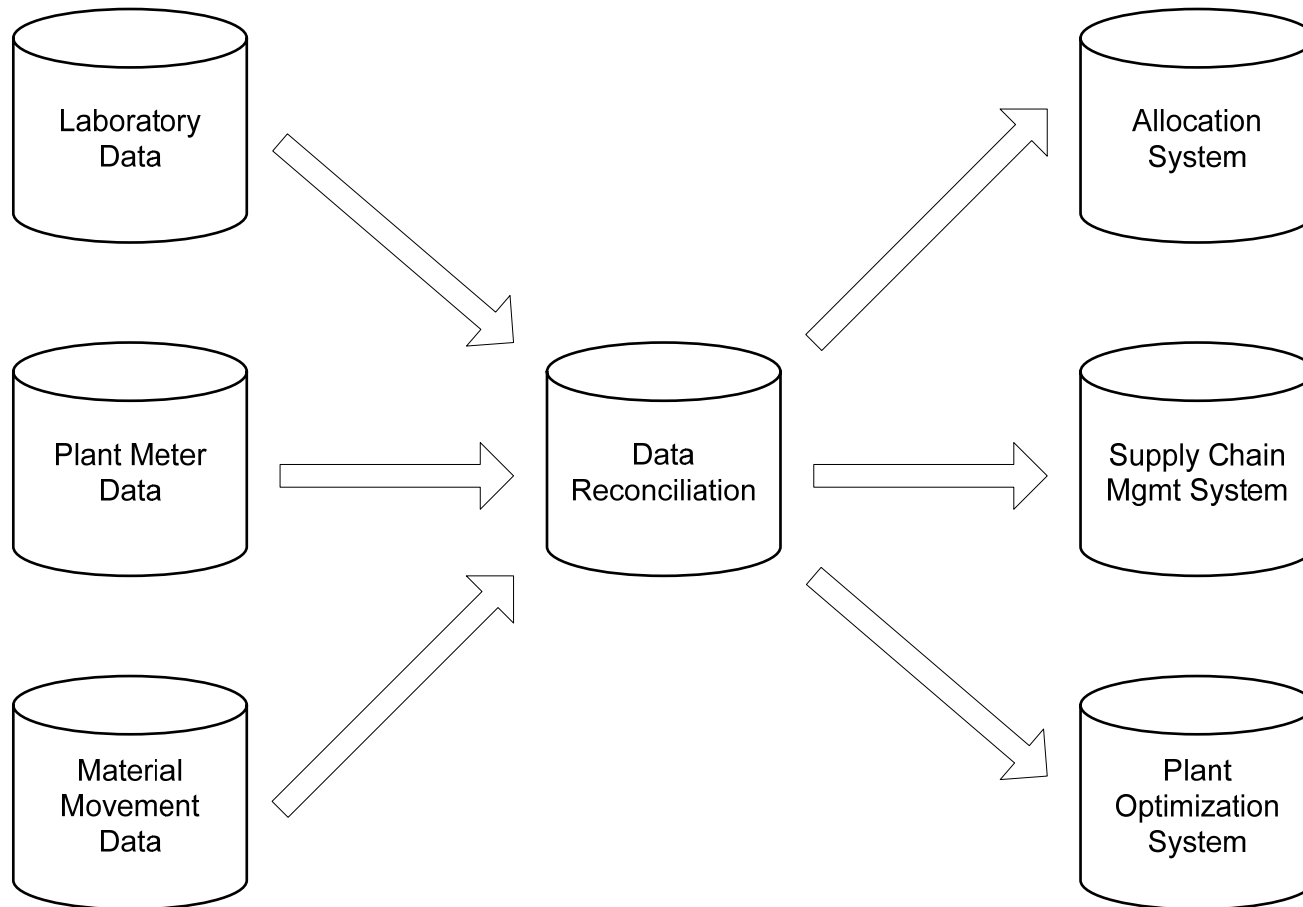
Agenda

- 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



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

Midnight Values Tank :TK19B

Movement Status	Values	Create Date	Tank Level	Temperature	Density	TOV	GSV15	GSV30	Mass
Midnight Values	Midnight (ATG)	23-Aug-2005 00:00:00	13.510	34.9	859.5	969.328	953.431	965.304	819.428

Save

Cancel

Tank History

Movement Status	Before/Alter	Cl
ATG/Dip before transfer	OPEN(ATG)(Manual)	23
	CLOSE (DIP)	23
	SUMMARY	
C/D from supplier	OPEN	23
	CLOSE C/D	23
	SUMMARY	
Transfer	OPEN	23

Tank Calculation

Master File Work Order Laboratory Movement Tank & Meter Report Administrator Log Out

Tank Calculation

DATA	OPEN	CLOSE	TOTAL TRANSFER	ARC (JIS)	ARC (T-54B)
LEVEL(MM)	9.055	2.554		20.554	20.554
TEMPERATURE(°C)	39.3	39.6		39.6	39.6
DENSITY(Kg/m3)	835	771		772.0	772.0
TOV(M3)	491.098	139.129	351.969	351.965	351.965
GOV(M3)	489.362	137.125	352.237	352.233	352.233
GSV 15°C(M3)	479.134	133.217	345.917	345.915	342.335
GSV 30°C(M3)	485.396	135.562	349.834	349.830	348.291
MASS IN VACUO(Mton)	399.837	102.657	297.180	297.180	264.283
MASS IN AIR(Mton)	399.297	102.508	296.789	296.778	263.900
LONG TONS(Lton)	392.990	100.889	292.101	290.032	259.731
US BARRELS 60°F(Barrel)	3,015.190	838.468	2,176.722	2,173.500	2,154.656

Save

Cancel

Calculate

Re-Entry

TMS Meter Calculations

Meter Calculation

Master File Work Order Laboratory Movement Tank & Meter Report Administrator Log Out

Meter 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		
VCF (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		

Save

Cancel

Material Movement Summary

- Dispatch/receipt via pipeline
- Tank to tank transfer

Tank Movement Pairach Along

Master File | Work Order | Laboratory | Movement | Tank & Meter | Report | Surveyor | Administrator | Log Out

Tank Id	Tank Name	Tank Type	Location	Intermediate	Status
TK17A	945TK17A	Feed Tank	I17		STATIC
TK17B	945TK17B	Feed Tank	I17		STATIC
TK17C	945TK17C	Intermediate Tank	I17	Intermediate	Feed Pipe C/D from supplier
TK18A	945TK18A	Product Tank	I17		STATIC
TK18B	945TK18B	Feed Tank	I17		STATIC
TK19A	945TK19A	By Product Tank	I17		Feed Pipe C/D from supplier
TK19B	945TK19B	By Product Tank	I17		Feed Pipe C/D from supplier
TK19C	945TK19C	By Product Tank	I17		Feed Pipe C/D from supplier
TK20A	945TK20A	By Product Tank	I17		Feed Pipe C/D from supplier
TK20B	945TK20B	By Product Tank	I17		Feed Pipe C/D from supplier
TK20C	945TK20C	By Product Tank	I17		Feed Pipe C/D from supplier
TK21A	945TK21A	By Product Tank	I17		Feed Pipe C/D from supplier
TK21E	945TK21E	By Product Tank	I17		Feed Pipe C/D from supplier
TK24A	945TK24A	By Product Tank	I17		Feed Pipe C/D from supplier
TK24E	945TK24E	By Product Tank	I17		Feed Pipe C/D from supplier

Movement Pipe Receiving Pairach Along

Master File | Work Order | Laboratory | Movement | Tank & Meter | Report | Surveyor | Administrator | Log Out

Work Order	Revision	Product Name	Tank	Quantity(M3)	Movement Status
RP-TOC-RF-05-07-008	0	RAFFINATE	945TK6B	2,000	ATG/Dip after transfer
RP-ARC-C9A-05-08-002	1	C9 AROMATICS	945TK15A	3,000	ATG/Dip before transfer
RP-TOC-LN-05-08-006	0	LIGHT NAPHTHA	945TK19A	3,000	ATG/Dip before transfer
RP-TOC-LN-05-08-007	0	LIGHT NAPHTHA	945TK19A	25,000	ATG/Dip before transfer
RP-ARC-RE-05-07-006	0	REFORMATE	945TK20C	3,200	ATG/Dip before transfer
RP-TOC-RF-05-08-004	1	RAFFINATE	945TK6A	30,000	ATG/Dip before transfer
RP-SSMC-BTR-05-08-003	0	BENZENE/TOLUENE RETURN STREAM	945TK21B	2,300	C/D from supplier
RP-TTT-FRC-05-08-001	0	FULL RANGE CONDENSATE	945TK17C	200	C/D from supplier
RP-ARC-C9A-05-07-003	0	C9 AROMATICS	945TK15B	1,000	Midnight Values
RP-TTT-TL-05-07-004	0	TOLUENE	945TK12B	13,000	Midnight Values
RP-ARC-RE-05-07-002	0	REFORMATE	945TK20C	5,000	Midnight Values
RP-TOC-RF-05-07-007	0	RAFFINATE	945TK6A	5,000	Midnight Values
RP-TOC-LN-05-07-005	0	LIGHT NAPHTHA	945TK19B	3,000	Tank Calculation
RP-ARC-C9A-05-07-009	0	C9 AROMATICS	945TK15A	1,200	Transfer

Filter Show All

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

The screenshot displays the Sapphire LIMS interface in Microsoft Internet Explorer. The browser address bar shows the URL: `http://eis-limb:8080/ELIMS/rc?command=page&page=DataEntry`. The application header includes navigation tabs for Samples, AQC, Tests, Others, Certifications, Reference, Reports, Stability, and Studies. The main content area is titled "DataEntry Single Sample List View" and shows a list of test components for sample S-060530-00001. The table below details the test results:

Parameter	Type	Rep	Entered Value	Info	Unit
<input type="checkbox"/> H2S	Standard	1	1.0000		mol%
<input type="checkbox"/> CO2	Standard	1	2.0000		mol%
<input type="checkbox"/> N2	Standard	1	3.0000		mol%
<input type="checkbox"/> CH4	Standard	1	4.0000		mol%
<input type="checkbox"/> C2H6	Standard	1	5.0000		mol%
<input type="checkbox"/> C3H8	Standard	1	6.0000		mol%
<input type="checkbox"/> iC4H10	Standard	1	7.0000		mol%
<input type="checkbox"/> nC4H10	Standard	1	8.0000		mol%
<input type="checkbox"/> iC5H12	Standard	1	9.0000		mol%
<input type="checkbox"/> nC5H12	Standard	1	10.0000		mol%
<input type="checkbox"/> C6+	Standard	1	11.0000		mol%
<input type="checkbox"/> Total Sulfur	Standard	1	12.0000		mol%
<input type="checkbox"/> Mercaptans	Standard	1	13.0000		mol%
<input type="checkbox"/> Total	Standard	1	79.5000		mol%
<input type="checkbox"/> MW	Standard	1	25.00		
<input type="checkbox"/> He	Standard	1	0.5000		mol%

A callout box on the right side of the table points to the "Info" column, containing the text: "Grouping of LIMS test components".

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 Significant VAR**
 - Years of experience implementing RtPM, LIMS, TMS and Data Reconciliation

Questions and Answers

Thank You!