



iMES 2024

Integrated Manufacturing Planning, Tracking and Execution System

INTENSECOMP PTE LTD www.intensecomp.com



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Executive Summary



Executive Summary

Established in 2002, Intensecomp has grown from a single tracking solution company to company providing mass - solutions for connected devices in global scales. Intensecomp develops innovative solutions for automated identification and focused on tracking systems with intelligent analytics. Intensecomp is well positioned to harness for the current trend of automation and data exchanges for all smart devices through "Internet of Services"



RFID & AUTOID

More than 15 years of experience in RFID and AUTOID system.



AI & INTERNET OF THINGS

Our products such as Smart Cabinets, Shelves, Remote Controllable Sensors and Cloud Artificial Intelligent Services.

BUSINESS ANALYTICS

We provide dashboards and analytics charts through our software system for vital information to customers.



Mission Statement



We Are the Leader in Connecting World of Devices

Everything we do in Intensecomp is to enable smart devices to work with each other with seemless and minimum interference from human. We believe our implementations and products can positively impacting and scale up productivity of our customers.





Intensecomp Keys to Success



Professionalism



Creativity





Practical insight

Enjoyment of the experience



Our Software

Enterprise MES – InvenTrack

Industry: Chemical & Manufacturing.

Description:

Manufacturing execution system with barcode to prevent mix-up and tracking of all raw materials and finished goods..





Project Strategy Pyramid



GOALS

TACTICS

ACTION PLANS



Vision

Defines the vison of the project as a system which can be deployed across all plants.

Goals

To prevent mix-up and enable overall tracking of material in the plant.

Tactics

Defined a robust architecture and stable system using Smart Devices

Action Plans

Ensure prompt implementation and delivery of all agreed deliverables.













System Workflow

• Ra Ma Material • Pr Pl

Raw Material Management
Quality Check
Production Planning

Production Execution

- Production
 Monitoring
- Interlocking
- Rework/Scrap



- Goods Received
- Goods Issued
- Production Status
- QC Approval/Reject



System Design

System Admin

External Interfaces

Plant Level Roles

Production Line (Real Time Data)

DCS, PIMS & Barcode Devices





iMES Modules



SAP

SAP/MES Web Services

MES/Barcode Portal

MS SQL Database

CS/WinCC	Barcode Middleware	WIFI Network	
Sensors &	Barcode	Barcode	
Controls	Labels	Scanners	



Hardware Used





Product Barcode Printer

Area: RM Warehouse Production FG Warehouse

Mobile Barcode Scanner

Area: RM Warehouse Production FG Warehouse





RFID

Area: Weigh Bridge Tank Farm

QC Label Barcode Printer

Area: RM Warehouse FG Warehouse



Recipe & Process Order Management

Process Order Management To retrieve any material from the warehouse, production order and pick list are required.

Process Order Details

Process Order No:				Г		
Start date:	2016-01-01 00:00:00 +0800 (2016-01-01 13:55:18 +0800)			End date:	2015-12-01 00:00:00 +0800 (2016-01-02 06:44:32 +0800)	
Finish Goods Material Description:				Finish Goods Material No:	50027053	
Total Quantity:	33000 KG	,		Production Line:	Line 4	
Batch No:	41601002 (30250.0) KG	Batch I	nfo	Status:	Completed	

Reci	ne	

Material Description	Material No	Unit	Qty/Unit	Requested Quantity	Used Quantity		
ULT.B27 E	50933199	KG	0.0	24888.9	0.0		
		KG	820.0	24888.9	25954.0 (1065.1)	Materials Lleed	
		KG	700.0	500.1	514.0 (13.9)	vialenais Useu	
		KG	1000.0	4500.0	4609.0 (109.0)		
		KG	500.0	66.0	63.0 (-3.0)		
		KG	480.0	56.1	53.55 (-2.55)	Rework/Running Rework By Ba	
		KG	0.0	3000.0	1657.0 (-1343.0)		
ULT.B3EG3 SW00564 NT	50402499	KG			603.0 *	10000000250850 (Stock Out - 41601002)	
		KG		390.0 *	10000000250855 (Stock Out - 41601002)		
		KG		666.0	10000000250869 (In Location - 41601002)		
		KG		300.0	10000000250870 (In Location - 41601002)		
		KG			424.0	10000000250871 (In Location - 41601002)	

* Running Rework

Pick List | Premix | Loading Point | Edit | Details | Back

Scheduled Time vs Actual Time



Material Validation With Interlocking

Accurate Materi



Individual Instrument Scanning







Material Validation

- Via Equipment Interlocking.
- Check for Correct
 Material
- Check for QC Status
- Check for Safety Checklist.
- If all checks passed, allow valve or pump to start.

Scan Barcode Location & Material







Conclusions

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MIX-UP PREVENTION

Accurate tracking ensure no mix-up in products during production and handling of finished goods.

COMMAND & CONTROL



Complete accountability of all materials manufactured including rework and scrap.

FUTURE PROOF



Extensible system with Smart Devices design concept provides upgradable systems.

Comprehensive Material Tracking System

iMES is a system designed to harness the latest Smart Devices technology allowing extensibility on the system as well as future proof the investment with sustainable implementation.





