

Material Estimation & Tracking System

...extending control and monitoring

SPD Enterprises
48B Old Vasavi Nagar
Karkhana, Secunderabad
Andhrapradesh
India 500015

Quote

- “I do not believe you can do today's job with yesterday's methods and be in business tomorrow.”

By Nelson Jackson

- When companies experience fast growth, it's easy to forget to strengthen the digital infrastructure that facilitates communication. A key part of the solution is to make sure that all hires are plugged into the networked dashboard so that no one is left out from the information loop.
- IT is critical not only for growth of the Organization, but to retain flexibility, improve customer service, interaction with suppliers and partners, operational management, product and service innovation—all in the effort to enhance scalability and maintain some of the attributes that have served them so well.

Growth can be very challenging.

Common performance challenges may include:

- Lack of proper planning
- Unclear objectives and priorities leading to “Management by fire fighting”
- Ad-hoc policies and processes
- Cash Flow Management constraints
- Lack of clear insight into business performance and profitability
- Inadequate systems and controls

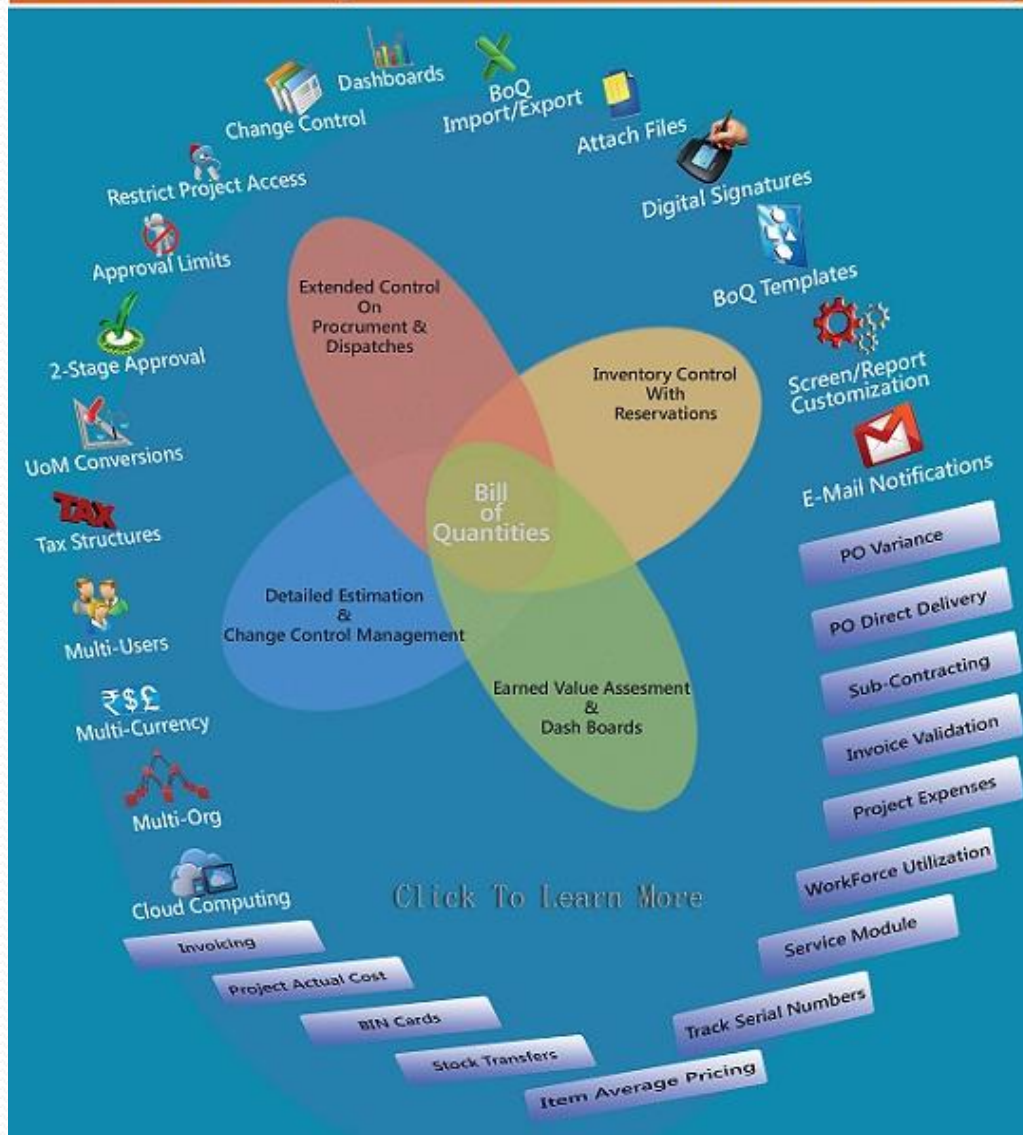
Challenges

- Detailed Estimation *Cost Vs Price.*
- Sub-Contracts.
- Change Controls.
- Preserving Documents.
- Spontaneous Decision – *Reliable Data.*
- Earned Value Statement.
- Control on procurement, Dispatches, Inventory.
- Monitor overall progress.
- Post analysis – *Actual Costing, Deviations.*

What is Needed?

- Software Application
 - Multi -User
 - Authorizations
 - Change Controls
 - Tool to perform real-time analysis
 - Accessible from any where
 - Low Cost of Maintenance
 - Low Initial Cost

METS An Application for Project Estimation & Material Tracking



Click To Learn More

METS — Material Estimation & Tracking System

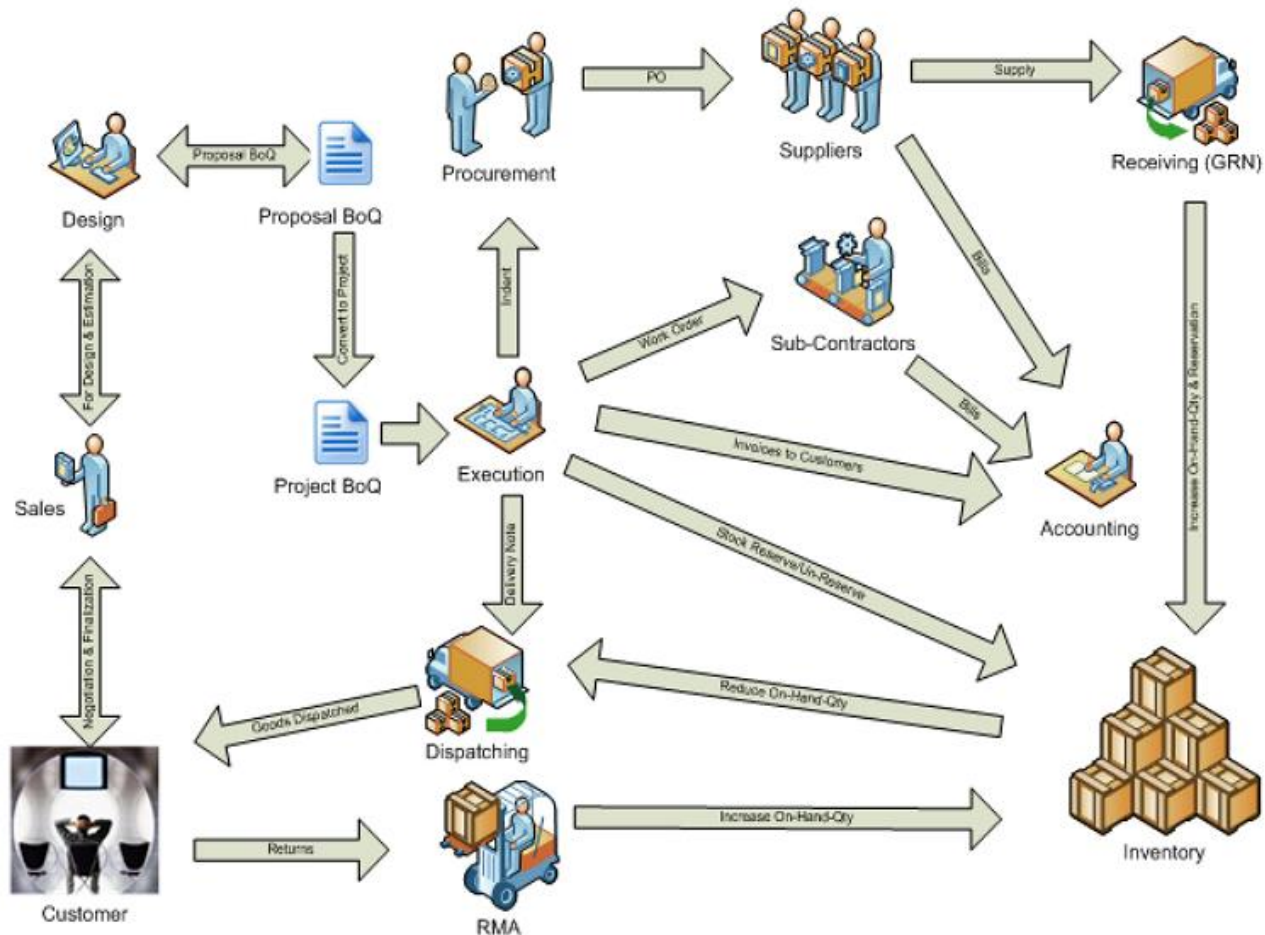
- Multi-User
- Multi-Org
- Multi-Currency
- Web-Based Application
- Low Cost
- Minimal change in infrastructure

METS

- Inventory
- Proposals
- Projects
- Work-Orders
- Dispatches
- Procurement
- Trade Orders
- After Sales Services

Business Process

METS – Generic Business Process



Inventory

- Bin Card
- Stock on hand
- Stock Valuation
- Inter Org Stock Transfer
- Stock transfer to sub contractor
- Inventory Reconciliation
- Material Transaction Details

Proposals

- Import/Export BoQ from/to excel.
- Group BoQ items by task and subtask.
- Copy BoQ items from templates, proposals & projects.
- Supports multiple tax structures.
- Segregate cost and price to material and work (labor), freight, packing & forwarding charges, miscellaneous charges and taxes.
- Associate Client Item code/task and description and also specify additional item description.
- Multi-step approval process. Iterations of Submit for approval and reviews and finally approve.
- Amend Proposal during Technical/Design/Financial bidding and track changes.
- Data Grids can be customized as per user preferences.
- Information confidentiality from sales and procurement.
- Reports to view changes by item details/tasks.

Projects

- Along with features of proposal, projects also offer the following:-
- Items can be reserved for a project.
- Associate dispatched Non-BoQ Item to project BoQ item on amendments.
- Displays summary of item dispatches, returns, reserved, Indented and local purchases.
- Change controls track all item changes right from project inception till its completion.
- On demand cumulative quantity/price variance of material.
- Allows material charges to be excluded.
- Process flow to track approval sequences.
- Record on site expenses incurred and work force engaged for executing a task.
- Easy to track total billable work completed as of now.
- Process to document collections including TDS certificates.

Work Order

- Sub-Contract parts of project and track changes and Invoices.
- Issue Work Orders with or without material.
- If without material, Option to transfer stock from Organization to contractor lot and vice versa.

- Multiple WO's can be issued to multiple Contractors.
- Track stock at contractor's lot including wastage.

- Supports multiple Units Of Measurements.
- Supports multi-currency and tax structures.
- Allows users to freeze visible columns.

Procurement

- Purchase Orders may be related to a project or it may also be an in-house purchase.
- Compare Purchase Price with Item Average Price and Project BoQ's own material cost and view variances.
- Purchase unit of measure need not be same as BoQ UOM.
- Validations against serial numbers for Inventory items.
- Process flow to track approval & authorization sequences.
- Define approval limits based on PO Total and Non-BoQ items.
- Mark entire Goods Receipt Note for Direct Delivery.
- Options to save user screen preferences.
- Amend PO after placing it and track changes.
- Validate price and quantity of Vendor invoices against PO and GRN
- Track vendor quotations.

Dispatches

- Dispatch BoQ or Non-BoQ items considering wastage quantity distinctly.
- Customer Returns can be BoQ items or Non-BoQ items. Allows direct delivery to customer.
- Customer Returns are validated against BoQ.
- Association of Non BoQ to a BoQ item.
- Track dispatched serial numbers.
- Define approval limits to prevent exceeding dispatches over certain percent of Estimated BoQ quantity.
- Review Deviations from Project BoQ and obtain Amendments from customer if required.

Invoicing

- Gives a complete picture of BoQ/Non-BoQ items that were dispatched, returned, locally purchased, previously invoiced, invoiced but awaiting client approval. Quantities and Amounts are segregated by material and work.
- Generate customer invoices along with annexure.
- Allows generating credit notes as part of adjustment to previous invoices.
- Records details related to receivables from customers including tax certificates.
- Validate vendor invoice quantity and price against PO and GRN and cross validate against previous invoices to avoid duplicate invoicing.
- Validates quantity and price against the Work Order issued and previously submitted invoices.

User Preferences

- Freeze and unfreeze columns.
- View/Hide columns and Save the settings for future use.
- Export data to excel.
- View data in a report format.
- View authorization sequence.
- Use Shift+Tab to switch between screens.
- No of open screens within a user session is configurable.
- Save reports in multiple formats.
- Customize reports and register them.
- Item changes displays every change done as per change control.
- View revision history displays all changes done since its inception.
- View project and Item Variance.

METS (continuation)

- Project Monitoring :-
 - Project variance
 - Cumulative variance.
 - Costing.
 - Earned Value Assessment.
- Documenting Changes :-
 - Amendments to Projects.
 - Amendments to Purchase Orders.
 - Amendments to Work Orders.
 - Approval cycles to Amendments.
 - View Changes

METS (continuation)

- Maintain Efficiency :-
 - Import/Export BoQ from Excel.
 - Generate BoQ by copying from previous proposal/projects/templates.
 - Verification of customer/vendor/work order invoices.
 - Generate invoices.
 - Transaction Summaries.
 - Inventory Summaries.
 - Inventory Reservations.

METS (continuation)

- Procurement :-
 - Validates against BoQ quantity.
 - Verify prices against BoQ and Item average prices.
 - Displays BoQ variance.
 - User approval limits.
- Dispatches :-
 - PO with direct delivery to customer.
 - Validates against BoQ quantities.
 - Track wastage quantity.
 - User approval limits.

METS (continuation)

- Obtain reliable information on time for prompt decision making :-
 - Price comparisons during procurement.
 - View changes to BoQ.
 - View BoQ information by Task, sub-task or both.
 - Segregation of material and work costing/pricing.
 - Earned value vs Invoiced value.
 - Work force utilization.

METS (continuation)

- Post Analysis :-
 - Estimated vs Actual quantities.
 - Estimated vs Actual cost of material.
 - Estimated vs Actual cost of works.
 - Estimated vs Actual overall cost of the project.
 - Actual margins of the project.

Import BoQ screen shot

The screenshot displays the 'Import BOQ' application interface. At the top, there's a header 'Import BOQ :'. Below it, a 'BOQ Proposal / Project' section includes a 'File' field with '1.xlsx' and a 'Date Format' dropdown set to 'dd/mm/yyyy'. The 'Project' field is set to '8011' and the 'Client' field is '3378 : PHOENIX INFOCITY PVT. LTD.'. A table below these fields lists columns for mapping, with a red oval highlighting the 'Default' and 'Value If Null' columns. The table has columns: sno, Column, Max Len, Required, Default, Value If Null, Translation Set, Reject OnError, Value OnError, and Retain Original. Below the table are buttons for 'Translation Sets', 'Save Mapping', and 'Import'. At the bottom, an 'Excel Data' tab is active, showing a table with columns: Row No, Selecte Item, Action (A), Rev# (B), Task (C), SubTask (D), Item (E), Description (F), and Additional Desc Max:.

sno	Column	Max Len	Required	Default	Value If Null	Translation Set	Reject OnError	Value OnError	Retain Original
26	Despatch PF Charges	0	<input type="checkbox"/>				<input type="checkbox"/>		<input type="checkbox"/>
27	Despatch PF Taxable	0	<input checked="" type="checkbox"/>	0		True/False	<input type="checkbox"/>		<input type="checkbox"/>
5	Exclude Material	0	<input checked="" type="checkbox"/>		0	True/False	<input checked="" type="checkbox"/>		<input type="checkbox"/>
4	Client Item	100	<input type="checkbox"/>				<input type="checkbox"/>		<input type="checkbox"/>
2	Client Task	50	<input type="checkbox"/>				<input type="checkbox"/>		<input checked="" type="checkbox"/>
3	Client Item Code	50	<input type="checkbox"/>				<input type="checkbox"/>	Invalid Client Code	<input type="checkbox"/>
36	Description	200	<input type="checkbox"/>				<input type="checkbox"/>		<input type="checkbox"/>
37	Remarks	250	<input type="checkbox"/>				<input type="checkbox"/>		<input type="checkbox"/>
1	Item Artil Description	2000	<input type="checkbox"/>				<input type="checkbox"/>		<input type="checkbox"/>

Row No	Selecte Item	Action (A)	Rev# (B)	Task (C)	SubTask (D)	Item (E)	Description (F)	Additional Desc Max:
3	<input checked="" type="checkbox"/> DDC Controller	ADD	0	A		DDC Controller	DDC Controller	CSU Controller - 1:
4	<input checked="" type="checkbox"/> DDC Controller	ADD	0	A		DDC Controller	DDC Controller	Kitchen, Repro Ex
5	<input checked="" type="checkbox"/> BMS-Field-Dev	ADD	0	B		BMS-Field-Dev	BMS Field Devices	Temperature Sensi
6	<input type="checkbox"/>	ADD	0	B		BMS-Field-Dev	BMS Field Devices	Combined Temper:
7	<input type="checkbox"/>	ADD	0	B		BMS-Field-Dev	BMS Field Devices	Differential Pressure
8	<input type="checkbox"/>	ADD	0	B		BMS-Field-Dev	BMS Field Devices	Water flow switche
9	<input type="checkbox"/>	ADD	0	B		BMS-Field-Dev	BMS Field Devices	Out door air Tempe
10	<input type="checkbox"/>	ADD	0	C		Fire-Alarm	Fire Alaram	Entire Fire Alarm S
11	<input type="checkbox"/>	ADD	0	C		Integration	Integration of Equipments	Integration of Digit:

Drag and drop the customer BOQ which is in excel format into Excel data tab. Map items you want to import to the BoQ items and select import.

View by Task screen shot

The screenshot shows the 'Projects' application window. At the top, there are fields for Code (8004-P), Second Proposal, 8002, New, and Original - 0. Below this, there are summary fields for Project OMC Inc Taxes (2001569.04), Project SP Inc Taxes (2244431), and Net Billable Inc Taxes (2244430.95). A 'Value Breakout' field is circled in red. The main area is a table with columns for task names and various financial values. A dropdown menu is open over the table, showing options: ShowAll, By Task, By SubTask, and By Task&SubTask. A red arrow points from the 'By Task&SubTask' option to the 'C5:BMS integration' task row, which is also circled in red. A red arrow points to the expand/collapse arrow on the left of the 'C5:BMS integration' row. At the bottom, there are 'Remarks:' and 'Misc Rsn:' fields.

Task	OMC Inc Taxes	SellingPrice Inc Taxes	Net Billable Inc Taxes
Non Tasked Items	0	0	0
A:INSTRUMENTATION & CONTROLS	214136.32	246499.55	246499.55
B:FIELD DEVICES	122931.02	141297.85	141297.85
C:INTEGRATION OF FOLLOWING SYS1	1197314.10	1366582.71	1366582.71
C3:CABLES and END TERMINATIONS	130107.60	140400.00	140400.00
C5:BMS integration	337080.00	349650.84	349650.84

Click on the arrow button to expand the contents of that task.

View items by task, subtask or both

BoQ items can be viewed by Task, Subtask or both.

Report Customization screen shot

PageHeaderBand1											
						{RptTitles.Header1}					
						{RptTitles.Header2}					
						{RptTitles.Header3}					
DataBand1; Business Object: PEXP.Header											
Project Code: {PEXP.Header.F...}						Description: {PEXP.Header.Proposal_Summary.Prop_Desc}			Project Expenses		
Organization: {RptTitles.OrgC...						Ref Num# : {PEXP.Header.Refered			Type : {IF(PEXP.Header.Trn		
Remarks: {PEXP.Header.Remarks}						Start Date : {PEXP.Header.StartDt			End Date : {PEXP.Header.EndDt		
						Status : {PEXP.Header.Status}					
Sl.No	Task	Item	Incurred On	Type	Qty	UoM	Taxes	Unit Price	Net Tax	Net Unit Amount	Line Total
DataBand2; Business Object: PEXP.PexpLines											
										Master Component: DataBand1	
{Line}	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V	{PEXP.PexpLines.ItemSummary_V
FooterBand1											
										Total	{Round(Sum(

When the viewer selects the customize button he will given an opportunity to design the report screen accordingly.

Earned Value Screen Shot

Customer Invoice EV: Sudha Analyticals (GVK BIO - Mallapur, Hyderabad) : 415

BoQ EV inc. Tax: 5826337.63 Invoiced Amt inc. Tax: 0 In Process inc. Tax: 1928876.77 Await Approval IncTax: 2243903.66 View By Task

Select	Task	Client/Task/Item	Service	UOM	BoQ Qty	DSP Qty	Rtn Qty	LP/Exp Qty	Invoiced Qty	Inv Labor Qty	Cr. Qty	Cr. Labor Qty	InProcess Inv Qty
*	1	:01.0 Chiller-AC-155:155 TR Screw		No.	2.00	0	0	0	0	0	0	0	0
*	2	:02.0 PUMP-ES-7.5 Hp:7.5 HP End		No.	0	0	0	0	0	0	0	0	0
*	3	:03.0 PUMP-ES-7.5 Hp:7.5 HP End		No.	0	0	0	0	0	0	0	0	0
*	4	:04.1 AH35000/6/50/FM:AHU 35000		No.	2.00	0	0	0	0	0	0	0	0
*	4	:04.2 VFD-Std:Variable Frequency I		Set	2.00	0	0	0	0	0	0	0	0
*	4	:04.3 STRIPHTR-STD.Strip Heater		No.	2.00	0	0	0	0	0	0	0	0
*	5	:05.1 AH8800/4/40/FM:AHU 8800 C		No.	2.00	0	0	0	0	0	0	0	0
*	6	:06.0 PAC-CU-AC-8.5TR:8.5 TR Du		No.	2.00	0	0	0	0	0	0	0	0
*	7	:07.1 PIPES CU H 11/8:1 1/8" Hard		m	40.00	0	0	0	0	0	0	0	0
*	7	:07.2 PIPES CU H 7/8:7/8" Hard Co		m	40.00	0	0	0	0	0	0	0	0
*	8	:08.1 PIPES MS C 125-6:MS Pipe 1		m	70.00	30.12	0	0	0	0	0	0	0
*	8	:08.2 PIPES MS C 150-6:MS Pipe 1		m	160.00	180.10	0	0	0	0	0	0	0
*	8	:08.3 PIPES MS C 200-8:MS Pipe 2		m	70.00	96.23	0	0	0	0	0	0	0
*	9	:09.1 Valve BF-125:Butterfly Valve1		No.	22.00	0	0	0	0	0	0	0	0
*	9	:09.2 Valve BF-150:Butterfly Valve 1		No.	4.00	0	0	0	0	0	0	0	0
*	9	:09.3 Valve BF-200:Butterfly Valve 2		No.	2.00	0	0	0	0	0	0	0	0
*	11	:11.2 Valve Bal 150:Balancing Valve		No.	2.00	0	0	0	0	0	0	0	0
*	11	:11.3 Valve Bal 200:Balancing Vavle		No.	0	0	0	0	0	0	0	0	0
*	12	:12.1 Valve MI-2W 150:2 way Mixing		No.	2.00	0	0	0	0	0	0	0	0
*	13	:13.1 Y-Strainer 125:Y-Strainer 125		No.	6.00	0	0	0	0	0	0	0	0
*	13	:13.2 Y-Strainer 150:Y-Strainer 150		No.	2.00	0	0	0	0	0	0	0	0

In the Earned Value tab, users can clearly see the Earned value, Invoiced amount/labor value, credited material/labor value, In process material/labor value and Amount to Invoice value etc.

Bin Card Screen Shot

Header

Bin Card Bin Card Customise

Print Open Save

BIN CARD

For Item : SHT-AL-26G Description : Aluminium Sheet 26 G

Organization: 8002 From Dt : 01-01-14 To Dt : 13-02-14

			REG		RSV		Balance
			IN	OUT	IN	OUT	
OPEN STOCK			21.67		0		21.67
10-01-14	IOT:0003:13	8003	0	1.00	0	0	20.67
16-01-14	CST:0004:13	30010:Air Master Equipments India P. Ltd	100.00	0	0	0	120.67
16-01-14	CST:0003:13	30010:Air Master Equipments India P. Ltd	0	10.00	0	0	110.67
17-01-14	Adj:INI	REG	1.00	0	0	0	111.67
17-01-14	IOT:0010:13	8003	0	1.00	0	0	110.67
21-01-14	MR:0018:2013	8004-P	1.00	0	0	0	111.67
21-01-14	IOT:0012:13	8003	0	1.00	0	0	110.67
28-01-14	Adj:REC	REG	1.00	0	0	0	111.67
28-01-14	CST:0006:13	30180:FEDDERS LLOYD CORPORATION LIMITED	0	1.00	0	0	110.67

Bin Card displays item history along with current stock on hand

User authorization screen shot

Authorization For	Limited	Non BoQ	Max Value	Active
Customer Invoice	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10000	<input checked="" type="checkbox"/>
Despatch Approval	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10	<input checked="" type="checkbox"/>
Goods Receipts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	<input checked="" type="checkbox"/>
Inter Org Stock Transfer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20000	<input checked="" type="checkbox"/>
Project Expenses	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Project Approval	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
PO Approval	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Proposal Approval	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Return Material Approval	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Return To Vendors	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
SubCont Stock Trans	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
Vendor Invoices	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
▶ WorkOrder Approval	<input checked="" type="checkbox"/>	<input type="checkbox"/>	100000	<input checked="" type="checkbox"/>

* In Case Of Limited Authorization Max Value for DN indicates %of Qty user may exceed beyond BoQ Estimated Qty

* Non BoQ is applicable only for users with limited authorization of PO Approval

Contacts

- Website:- www.metsystem.in
- Phone:- (+91) 83329 63872