

Submitted by the students of 7th Semester B.Tech.IT
In
University Institute of Technology
Session: 2019-2023



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Acknowledgement

I cannot express enough thanks to my mentor for them for continued support and encouragement **Mr. Gaurav Sood**, my mentor, **Er. Sandeep Sharma**. I offer my sincere appreciation for the learning opportunities provided by my mentor.

My completion of this project could not have been accomplished without the support of my classmate, Mis. Vijaya Kumari.

-thank you for allowing me time away from you to research and write.

Last but not least we would like to thank our family, friends, classmates and some other people for their encouragement, motivation and love that made all this worthwhile.

SAP ABAP

SAP: -systems, applications and products in data processing

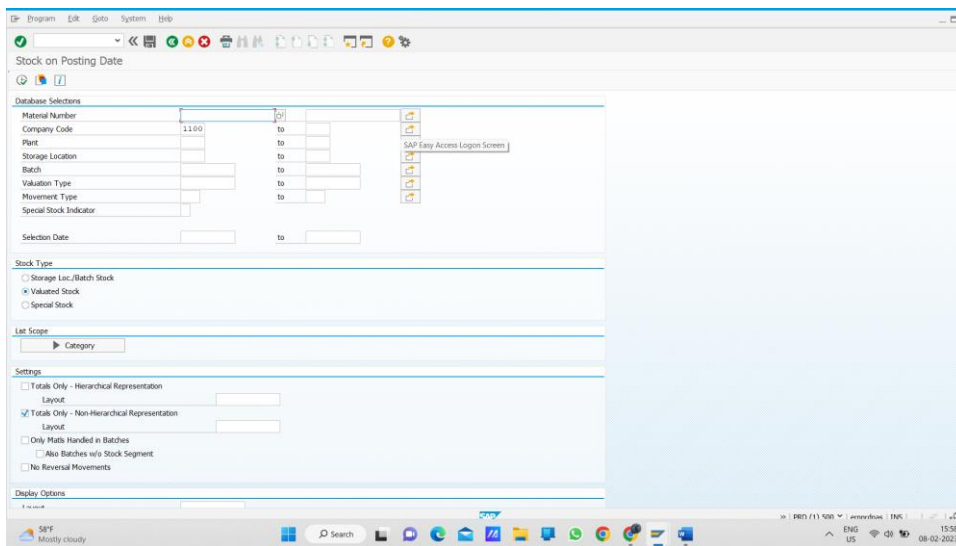
ABAP- Advanced Business Application Programming

ABAP is a fourth-generation programming language, used for development and customization purposes in the SAP software. Currently positioned along with Java, as the main language for SAP application server programming, most of the programs are executed under the control of the run-time system.

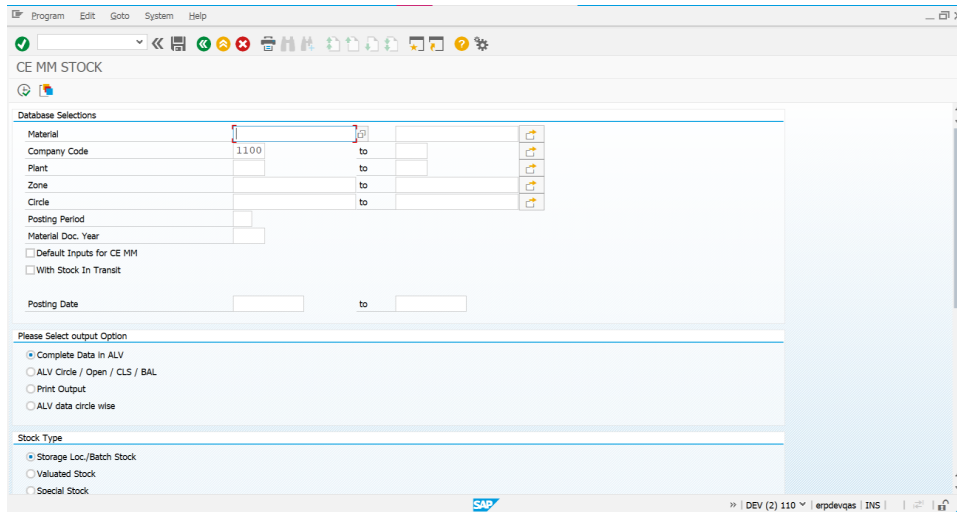
SAP ABAP is a high-level language that is primarily used to develop enterprise application for large business and financial institution on SAP platform. This tutorial is designed for those who want to learn the basics of SAP ABAP and advance in the field of software development.

Requirement: - Requirement from the business. The need of the report is to execute based on MRP type and record and get all the requirement of the material.

Preciously they use -MB5B but the issues with that is they can't run it on multiple material so to overcome that thing now currently they are using zmm130.



MB5B



ZMM130

Software/tool used: -

- ❖ SAP Software
- ❖ NET WEAVER
- ❖ DATABASE MAXDB
- ❖ SOLMAN

ALV

The ABAP List Viewer (ALV) is a set of application programming interfaces (APIs; function modules or classes) for displaying data in a tabular or hierarchical format and built-in options for visual presentation and event processing.

ALV is originally short for [ABAP](#) List Viewer, but the current term found in SAP documentation is *SAP List Viewer*. This is of little importance, though: in everyday practice, it's simply referred to as ALV, not by any longer name.

To users, ALV offers a friendly interface with a toolbar that allows each user to adjust the presented layout to their preferences and sort or filter data easily. Many standard SAP reports use ALV and it has become a popular tool when building custom ABAP reports due to its flexibility, ease of implementation, and variety of features.

ABAP List

The first tool for data output in tabular format was *ABAP List* (see figure below). Such output was generated by using the WRITE command to display one line of data on the screen. To present the data in a grid format, the fields needed to be placed at specific, static positions on the screen while processing data in a loop or a cycle.

This type of presentation, traditional in mainframe-based systems for the last century, was inconvenient for both developers and users. Developers had to write all the code

manually to output each field, as well as the column headers and totals or subtotals. And users were offered only a rigid report structure that they couldn't modify without requesting a change in the program. Making changes in such reports was also inconvenient and time-consuming.

Program					
Program					
001 AA	0017	NEW YORK	JFK SAN FRANCISCO	SFO	6:01
001 AA	0064	SAN FRANCISCO	SFO NEW YORK	JFK	5:21
001 AZ	0555	ROME	FCO FRANKFURT	FRA	2:05
001 AZ	0788	ROME	FCO TOKYO	TYO	12:55
001 AZ	0789	TOKYO	TYO ROME	FCO	15:40
001 AZ	0790	ROME	FCO OSAKA	KIX	13:35
001 DL	0106	NEW YORK	JFK FRANKFURT	FRA	7:55
001 DL	1699	NEW YORK	JFK SAN FRANCISCO	SFO	6:22

ALV List

The first implementation of the ALV framework was the *Classic SAP List Viewer*, usually referred to as *ALV List*. As you can see in the next figure below, this was a major improvement over the plain ABAP List functionality: the columns are nicely aligned and the toolbar offers additional functionality, such as sorting, filtering, and subtotals. More importantly, users could choose which columns they wanted to view and in which order. Their

preferences could be saved in a *layout* to be applied next time they ran the report.

For developers, ALV offered a unified set of tools for data presentation, with no more calculating the screen position of each column and writing all the code manually. When using the ALV framework, developers only needed to be concerned with preparing business data; the ALV framework took care of the presentation.

Classic SAP List Viewer supported single-level lists, like the one shown below, and multilevel or sequential lists.

ZMM130

ZMM130 is a T- Code used to access the material report in sap.

ZMM is a full display interface of purchase of goods in material management.

Report contains different displays option of material purchase.

Program Edit Goto System Help

CE MM STOCK

Database Selections

Material			
Company Code	1100	to	
Plant		to	
Zone		to	
Circle		to	
Posting Period			
Material Doc. Year			

☐ Default Inputs for CE MM

☐ With Stock In Transit

Posting Date: to

Please Select output Option

☒ Complete Data in ALV

☐ ALV Circle / Open / CLS / BAL

☐ Print Output

☐ ALV data circle wise

Stock Type

☒ Storage Loc./Batch Stock

☐ Valuated Stock

☐ Special Stock

- ZMM130 window contain different options to display the data explained below: -

Material: - material contains all the materials details specified with unique code digit.

Company code: - digit code given to the company.eg;1100

Plant: - Plant is unit site or place which transactions of material is done.

Zone: - There is three zone define in zmm130 north south center according to the area side.

Circle: -circle are sub divided area of zone

Posting period: -period of data updated entries in report data.

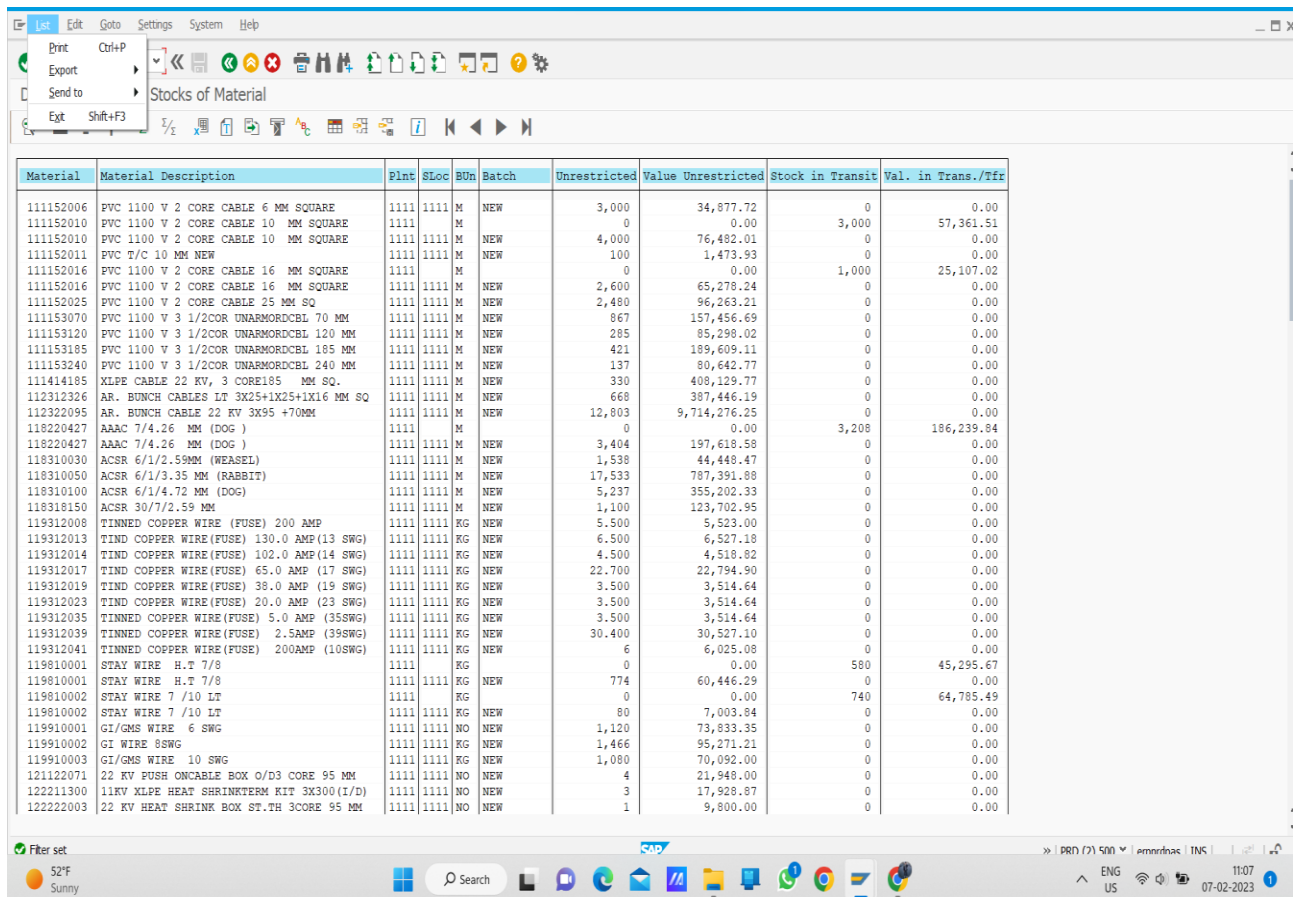
Material doc. Year: -document write details of material according to time year

--There are 4 different option to display the output--

1.Complete data in ALV: -AVL (ABAP LIST VIEWER)

1. In this no information list data is absent complete data is show without any filter or abstraction
2. Almost whole information single big volume unit.
3. It includes complete information of selected type like plant, zone, circle anything.

eh

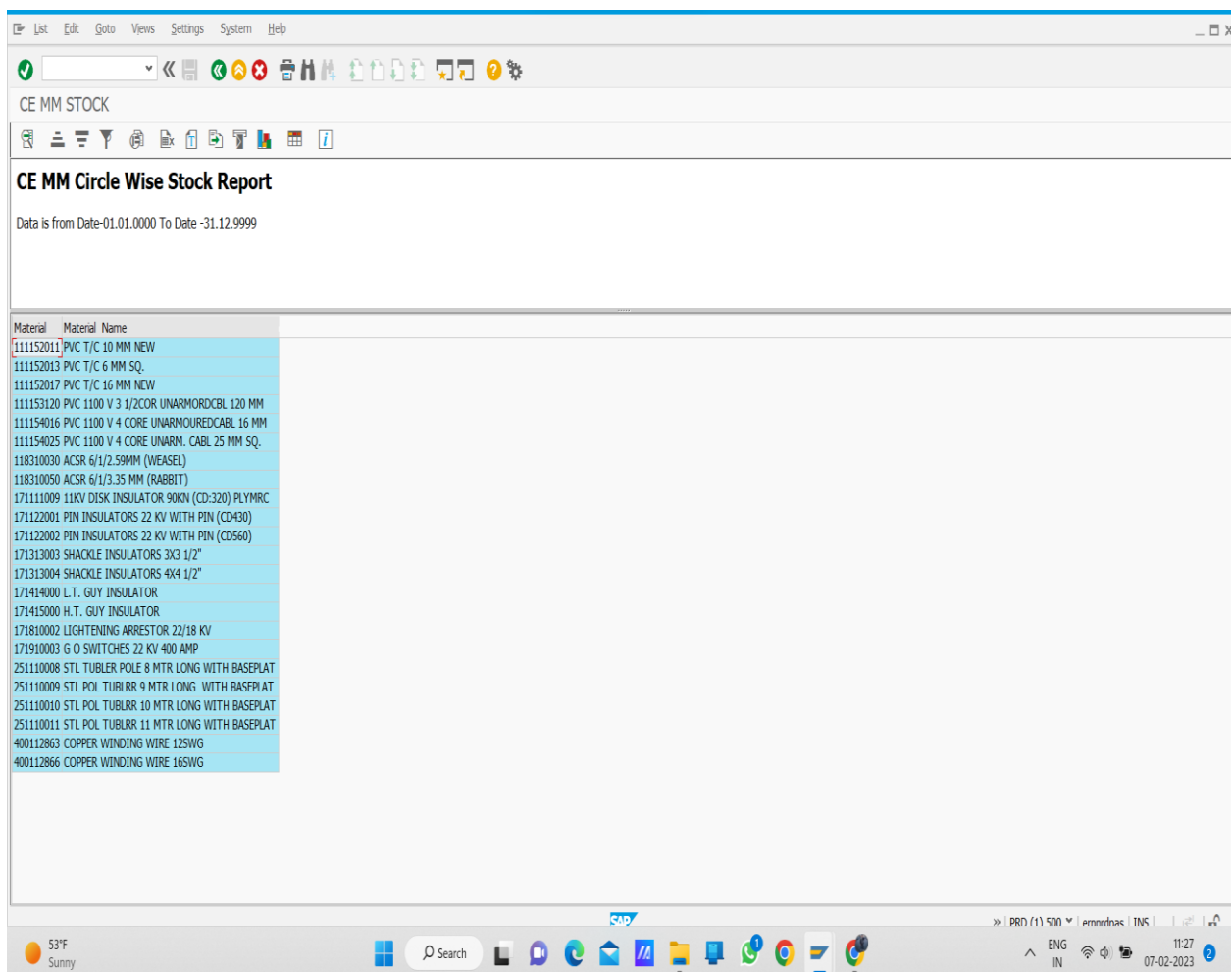


The screenshot displays the SAP 'Stock of Material' report. The interface includes a menu bar (List, Edit, Goto, Settings, System, Help), a toolbar with icons for print, export, and navigation, and a status bar at the bottom showing system information like 'PRN (7) 500', 'amernfrac', 'TNS', and the date '07-02-2023'.

Material	Material Description	Plant	SLoc	BUn	Batch	Unrestricted	Value Unrestricted	Stock in Transit	Val. in Trans./Tfr
111152006	PVC 1100 V 2 CORE CABLE 6 MM SQUARE	1111	1111	M	NEW	3,000	34,877.72	0	0.00
111152010	PVC 1100 V 2 CORE CABLE 10 MM SQUARE	1111	1111	M	NEW	0	0.00	3,000	57,361.51
111152010	PVC 1100 V 2 CORE CABLE 10 MM SQUARE	1111	1111	M	NEW	4,000	76,482.01	0	0.00
111152011	PVC T/C 10 MM NEW	1111	1111	M	NEW	100	1,473.93	0	0.00
111152016	PVC 1100 V 2 CORE CABLE 16 MM SQUARE	1111	1111	M	NEW	0	0.00	1,000	25,107.02
111152016	PVC 1100 V 2 CORE CABLE 16 MM SQUARE	1111	1111	M	NEW	2,600	65,278.24	0	0.00
111152025	PVC 1100 V 2 CORE CABLE 25 MM SQ	1111	1111	M	NEW	2,480	96,263.21	0	0.00
111153070	PVC 1100 V 3 1/2COR UNARMORDCBL 70 MM	1111	1111	M	NEW	867	157,456.69	0	0.00
111153120	PVC 1100 V 3 1/2COR UNARMORDCBL 120 MM	1111	1111	M	NEW	285	85,298.02	0	0.00
111153185	PVC 1100 V 3 1/2COR UNARMORDCBL 185 MM	1111	1111	M	NEW	421	189,609.11	0	0.00
111153240	PVC 1100 V 3 1/2COR UNARMORDCBL 240 MM	1111	1111	M	NEW	137	80,642.77	0	0.00
111414185	XLPE CABLE 22 KV, 3 CORE185 MM SQ.	1111	1111	M	NEW	330	408,129.77	0	0.00
12312326	AR. BUNCH CABLES LT 3X25+1X25+1X16 MM SQ	1111	1111	M	NEW	668	387,446.19	0	0.00
12322095	AR. BUNCH CABLE 22 KV 3X95 +70MM	1111	1111	M	NEW	12,803	9,714,276.25	0	0.00
18220427	AAAC 7/4.26 MM (DOG)	1111	1111	M	NEW	0	0.00	3,208	186,239.84
18220427	AAAC 7/4.26 MM (DOG)	1111	1111	M	NEW	3,404	197,618.58	0	0.00
18310030	ACSR 6/1/2.59MM (WEASEL)	1111	1111	M	NEW	1,538	44,448.47	0	0.00
18310050	ACSR 6/1/3.35 MM (RABBIT)	1111	1111	M	NEW	17,533	787,391.88	0	0.00
18310100	ACSR 6/1/4.72 MM (DOG)	1111	1111	M	NEW	5,237	355,202.33	0	0.00
18318150	ACSR 30/7/2.59 MM	1111	1111	M	NEW	1,100	123,702.95	0	0.00
19312008	TINNED COPPER WIRE (FUSE) 200 AMP	1111	1111	KG	NEW	5,500	5,523.00	0	0.00
19312013	TIND COPPER WIRE(FUSE) 130.0 AMP (13 SWG)	1111	1111	KG	NEW	6,500	6,527.18	0	0.00
19312014	TIND COPPER WIRE(FUSE) 102.0 AMP (14 SWG)	1111	1111	KG	NEW	4,500	4,518.82	0	0.00
19312017	TIND COPPER WIRE(FUSE) 65.0 AMP (17 SWG)	1111	1111	KG	NEW	22,700	22,794.90	0	0.00
19312019	TIND COPPER WIRE(FUSE) 38.0 AMP (19 SWG)	1111	1111	KG	NEW	3,500	3,514.64	0	0.00
19312023	TIND COPPER WIRE(FUSE) 20.0 AMP (23 SWG)	1111	1111	KG	NEW	3,500	3,514.64	0	0.00
19312035	TINNED COPPER WIRE(FUSE) 5.0 AMP (35SWG)	1111	1111	KG	NEW	3,500	3,514.64	0	0.00
19312039	TINNED COPPER WIRE(FUSE) 2.5AMP (39SWG)	1111	1111	KG	NEW	30,400	30,527.10	0	0.00
19312041	TINNED COPPER WIRE(FUSE) 200AMP (10SWG)	1111	1111	KG	NEW	6	6,025.08	0	0.00
19810001	STAY WIRE H.T 7/8	1111	1111	KG	NEW	0	0.00	580	45,295.67
19810001	STAY WIRE H.T 7/8	1111	1111	KG	NEW	774	60,446.29	0	0.00
19810002	STAY WIRE 7 /10 LT	1111	1111	KG	NEW	0	0.00	740	64,785.49
19810002	STAY WIRE 7 /10 LT	1111	1111	KG	NEW	80	7,003.84	0	0.00
19910001	GI/GMS WIRE 6 SWG	1111	1111	NO	NEW	1,120	73,833.35	0	0.00
19910002	GI WIRE 8SWG	1111	1111	KG	NEW	1,466	95,271.21	0	0.00
19910003	GI/GMS WIRE 10 SWG	1111	1111	KG	NEW	1,080	70,092.00	0	0.00
121122071	22 KV PUSH ONCABLE BOX O/D3 CORE 95 MM	1111	1111	NO	NEW	4	21,948.00	0	0.00
122211300	11KV XLPE HEAT SHRINKTERM KIT 3X300(I/D)	1111	1111	NO	NEW	3	17,928.87	0	0.00
122222003	22 KV HEAT SHRINK BOX ST.TH 3CORE 95 MM	1111	1111	NO	NEW	1	9,800.00	0	0.00

2.ALV Circle/open/Cls/Bal:-

- ❖ This display output used when one need a output specific circle data display
- ❖ Open and Cls is an open and close display in report data output
- ❖ Bal is balance sheet data in alv



The screenshot shows the SAP CE MM Circle Wise Stock Report interface. The title bar includes 'List', 'Edit', 'Goto', 'Views', 'Settings', 'System', and 'Help'. Below the title bar is a toolbar with various icons. The main header area displays 'CE MM STOCK' and 'CE MM Circle Wise Stock Report'. A subtitle indicates the data range: 'Data is from Date-01.01.0000 To Date -31.12.9999'. The table below lists materials and their names. The table has two columns: 'Material' and 'Material Name'. The materials listed are:

Material	Material Name
111152011	PVC T/C 10 MM NEW
111152013	PVC T/C 6 MM SQ.
111152017	PVC T/C 16 MM NEW
111153120	PVC 1100 V 3 1/2COR UNARMORDCBL 120 MM
111154016	PVC 1100 V 4 CORE UNARMOREDCABL 16 MM
111154025	PVC 1100 V 4 CORE UNARM. CABL 25 MM SQ.
118310030	ACSR 6/1/2.59MM (WEASEL)
118310050	ACSR 6/1/3.35 MM (RABBIT)
171111009	11KV DISK INSULATOR 90KN (CD:320) PLYMRC
171122001	PIN INSULATORS 22 KV WITH PIN (CD430)
171122002	PIN INSULATORS 22 KV WITH PIN (CD560)
171313003	SHACKLE INSULATORS 3X3 1/2"
171313004	SHACKLE INSULATORS 4X4 1/2"
171414000	L.T. GUY INSULATOR
171415000	H.T. GUY INSULATOR
171810002	LIGHTENING ARRESTOR 22/18 KV
171910003	G O SWITCHES 22 KV 400 AMP
251110008	STL TUBLER POLE 8 MTR LONG WITH BASEPLAT
251110009	STL POL TUBLRR 9 MTR LONG WITH BASEPLAT
251110010	STL POL TUBLRR 10 MTR LONG WITH BASEPLAT
251110011	STL POL TUBLRR 11 MTR LONG WITH BASEPLAT
400112863	COPPER WINDING WIRE 12SWG
400112866	COPPER WINDING WIRE 16SWG


The bottom of the screenshot shows the Windows taskbar with the date 07-02-2023 and time 11:27.

3.Print output: -

- ❖ This option gives the output of the selected unit type.
- ❖ Print preview can be seen or have preview screen.

Print Preview of LOCL Page 00001 of 00001

Archive Print and Archive



CRITICAL MATERIAL STOCK REPORT

Data is from Date-01.01.0000 To Date -31.12.9999

	North			Central				South						
Material Description Material Number - Unit	Kangra	Dalhousie	Una	Bilaspur	Kullu	Mandi	Hamir	Rampur	Rohroo	Shimla	Solan	Nahan	Grand	Total
PVC TIC 10 MM NEW 111152011-M	0.00	339.00	3,800.00	0.00	1,000.00	0.00	0.00	0.00	0.00	1,496.00	0.00	0.00	6,635.00	

53°F Sunny

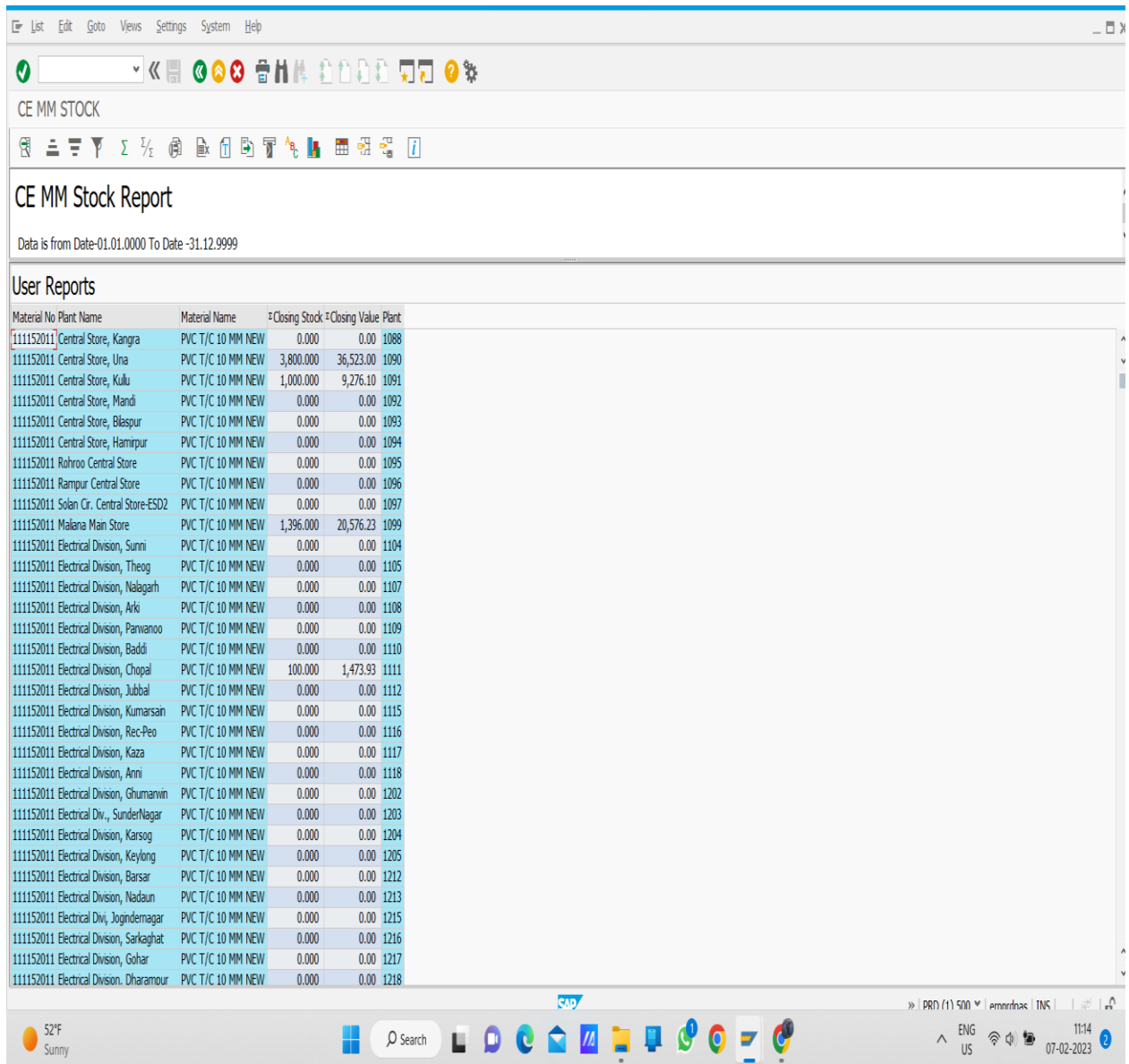
Search

PRD (1) 500 emmrdnas TNS

ENG IN 11:30 07-02-2023

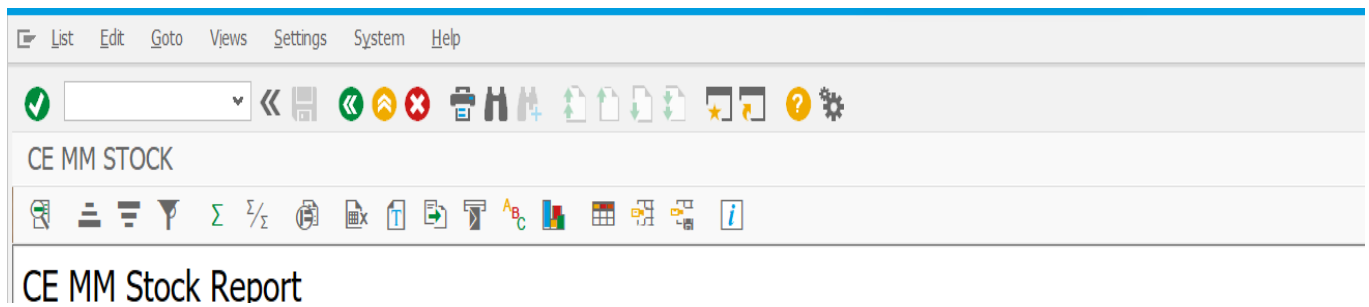
4. Alv data circle wise: -

- ❖ Gives List view of data report on screen circle wise.
- ❖ Selected circle information display on the screen.



The screenshot displays the SAP CE MM Stock Report interface. The title bar shows 'CE MM STOCK'. Below it, the report title 'CE MM Stock Report' is visible, followed by the date range 'Data is from Date-01.01.0000 To Date -31.12.9999'. The report is categorized under 'User Reports'. The main data table lists materials with their plant names, material names, and closing stock values. The table has four columns: 'Material No Plant Name', 'Material Name', 'Closing Stock', and 'Closing Value Plant'. The data is sorted by material number, showing a list of materials starting from 111152011 and ending at 111152018. The closing stock values are mostly 0.00, with some exceptions like 3,800.000 for material 111152011 and 1,396.000 for material 111152011.

Material No Plant Name	Material Name	Closing Stock	Closing Value Plant
111152011 Central Store, Kangra	PVC T/C 10 MM NEW	0.000	0.00 1088
111152011 Central Store, Una	PVC T/C 10 MM NEW	3,800.000	36,523.00 1090
111152011 Central Store, Kulu	PVC T/C 10 MM NEW	1,000.000	9,276.10 1091
111152011 Central Store, Mandi	PVC T/C 10 MM NEW	0.000	0.00 1092
111152011 Central Store, Blasapur	PVC T/C 10 MM NEW	0.000	0.00 1093
111152011 Central Store, Hamirpur	PVC T/C 10 MM NEW	0.000	0.00 1094
111152011 Rohroo Central Store	PVC T/C 10 MM NEW	0.000	0.00 1095
111152011 Rampur Central Store	PVC T/C 10 MM NEW	0.000	0.00 1096
111152011 Solan Cr. Central Store-ESD2	PVC T/C 10 MM NEW	0.000	0.00 1097
111152011 Malana Main Store	PVC T/C 10 MM NEW	1,396.000	20,576.23 1099
111152011 Electrical Division, Sunni	PVC T/C 10 MM NEW	0.000	0.00 1104
111152011 Electrical Division, Theog	PVC T/C 10 MM NEW	0.000	0.00 1105
111152011 Electrical Division, Nalagarh	PVC T/C 10 MM NEW	0.000	0.00 1107
111152011 Electrical Division, Arki	PVC T/C 10 MM NEW	0.000	0.00 1108
111152011 Electrical Division, Parvanoo	PVC T/C 10 MM NEW	0.000	0.00 1109
111152011 Electrical Division, Baddi	PVC T/C 10 MM NEW	0.000	0.00 1110
111152011 Electrical Division, Chopal	PVC T/C 10 MM NEW	100.000	1,473.93 1111
111152011 Electrical Division, Jubbal	PVC T/C 10 MM NEW	0.000	0.00 1112
111152011 Electrical Division, Kumarsain	PVC T/C 10 MM NEW	0.000	0.00 1115
111152011 Electrical Division, Rec-Peo	PVC T/C 10 MM NEW	0.000	0.00 1116
111152011 Electrical Division, Kaza	PVC T/C 10 MM NEW	0.000	0.00 1117
111152011 Electrical Division, Anni	PVC T/C 10 MM NEW	0.000	0.00 1118
111152011 Electrical Division, Ghumarwin	PVC T/C 10 MM NEW	0.000	0.00 1202
111152011 Electrical Div., SunderNagar	PVC T/C 10 MM NEW	0.000	0.00 1203
111152011 Electrical Division, Karsog	PVC T/C 10 MM NEW	0.000	0.00 1204
111152011 Electrical Division, Keylong	PVC T/C 10 MM NEW	0.000	0.00 1205
111152011 Electrical Division, Barsar	PVC T/C 10 MM NEW	0.000	0.00 1212
111152011 Electrical Division, Nadaun	PVC T/C 10 MM NEW	0.000	0.00 1213
111152011 Electrical Dvi, Jogindemagar	PVC T/C 10 MM NEW	0.000	0.00 1215
111152011 Electrical Division, Sarkaghat	PVC T/C 10 MM NEW	0.000	0.00 1216
111152011 Electrical Division, Gohar	PVC T/C 10 MM NEW	0.000	0.00 1217
111152011 Electrical Division, Dharamour	PVC T/C 10 MM NEW	0.000	0.00 1218



DIFFERENT OPTIONS: -

Ascending Order: - It shows data in ascending order I.e., it shows data from higher to lower digit.

Descending order: - it shows data in descending order I.e., it shows data from lowest to higher value.

Filter: - one of the important options for having the exact information about what the user is desire to find.

Change layout: -change layout of the display output.

ABC Analysis: - analysis the output data.

Conclusion: -After working on zmm130 which is report of material management we find that it is easy to have view of transaction data of material purchase or other transaction.

The finding of data for particular term or section become easy.

References: -

- ❖ **SAP Community** [Tour the SAP Community](#) and explore the various features of SAP Community.
- ❖ Sams Teach Yourself ABAP/4® in 21 Days.
- ❖
- ❖ https://help.sap.com/docs/SAP_PROFITABILITY_AND_COST_MANAGEMENT/2a1e337ac18d4557af55f1789f48aecb/fae59fb26faf1014878bae8cb0e91070.html
- ❖ https://help.sap.com/docs/SAP_S4HANA_ON-PREMISE/2c0f74c2ca4d401d92b7d727798d6c94/7b47d153da7e4308e10000000a174cb4.html

