

## References

- [1] "Leading Manufacturer of Intimate Apparel, Sportswear, Performance Wear and Swimwear | MAS - Change Is Courage." [Online]. Available: <http://www.masholdings.com/>. [Accessed: 06-Jul-2016].
- [2] "Apparel: Design, Textiles & Construction, 10th Edition." [Online]. Available: <http://www.g-wonlinetextbooks.com/apparel-design-textiles-construction-2012/>. [Accessed: 06-Jul-2016].
- [3] W. Mary G, "Successful Sewing, 7th Edition." [Online]. Available: <http://www.g-w.com/successful-sewing-2013>. [Accessed: 06-Jul-2016].
- [4] "6 Metrics To Track Your Factory Cutting Today!," 2015
- [5] ("Leading Manufacturer of Intimate Apparel, Sportswear, Performance Wear and Swimwear | MAS - Change Is Courage," n.d.)
- [7] ("Apparel: Design, Textiles & Construction, 10th Edition," n.d.)
- [8] ("A Study of Productivity and Financial Efficiency of Textile Industry of India," 2010)

# Appendix A

## Existing system Details

### Excel based ratio Planning Sheet.

Excel screenshot showing the 'Additional Data' section of a planning sheet. The ribbon includes 'Clipboard', 'Font', 'Alignment', 'Number', 'Formatting', 'Table', 'Styles', 'Cells', and 'Filter'. The formula bar shows:  $=IF(SUMPRODUCT(E16:S16,E35:S35)>N4,CONCATENATE(ROUND(SUMPRODUCT(E16:S16,E35:S35),3),"m" - Lay Length exceed its maximum"),IF(SUMPRODUC$

Additional Cut %	0%
Max. no. of Piles	100
Maximum Pile per Lay (Docked)	322 From the Main Ratio
Maximum Lay length (m)	5.000 m
Minimum Lay length (m)	0.000 m
Acceptable Qty/Pls (Minimum %)	100 %
End Allowance	0.000 m
FG Material	EG045231
Style #	PO63HS
Pattern #	DBAHS
Colour	Red
Laying Patterns	Strip Marking
Comments	Pls. check the H.S. dock order, depending on the
Sale Order #	156225
Line Item	100
Production Order	60076356
Size	XS
Qty	515.0 1030.0 2,055.0 1,040.0
Consumption	14 13 12 11
	4,846 Total Order Qty
	1,2228 Weighted Avg Consumption

Size Selection:  XS  S  M  L

Excel screenshot showing the 'MATERIALS CALCULATION' and 'BALANCE RATIO CALCULATION' sections. The ribbon includes 'Format Painter', 'Clipboard', 'Font', 'Alignment', 'Number', 'Formatting', 'Table', 'Styles', 'Cells', and 'Filter'. The formula bar shows:  $=IF(SUMPRODUCT(E16:S16,E35:S35)>N4,CONCATENATE(ROUND(SUMPRODUCT(E16:S16,E35:S35),3),"m" - Lay Length exceed its maximum"),IF(SUMPRODUC$

**MATERIALS CALCULATION**

Qty with Additional %	515.0	1030.0	2,055.0	1,040.0		600000
Qty per Ply	4.25	8.58	17.13	8.67		38.87
	2.15	4.29	8.58	4.33		18.33
Main Ratio	2	4	8	4		18.8
Fabric Requirement for one ply	2.80	5.20	3.80	4.40		600000
Initial Ratio Qty	240	480	960	480		2,700
Fabric Requirement for Main Ratio Qty	336.00	624.00	1,632.00	528.00		600000
No. of Layers (Docked)	2					
Estimated Master Length (m)	32.00	- Lay Length exceed its maximum				

**BALANCE RATIO CALCULATION**

Balance Qty (if Available)	35	70	135	00		320
No. of Piles for Balance	29					
Balance Ratio	1.21	2.41	4.65	2.76		11.9
Fabric Requirement for Balance one ply	1.40	2.80	6.00	3.30		600000
Balance Ratio Qty	29	58	145	87		380
Fabric Requirement for Balance Ratio Qty	40.60	75.40	174.00	55.70		365.78
Estimated Master Length (m)	13.300					

Excel screenshot showing the 'SUMMARY' section. The ribbon includes 'Format Painter', 'Clipboard', 'Font', 'Alignment', 'Number', 'Formatting', 'Table', 'Styles', 'Cells', and 'Filter'. The formula bar shows:  $=IF(SUMPRODUCT(E16:S16,E35:S35)>N4,CONCATENATE(ROUND(SUMPRODUCT(E16:S16,E35:S35),3),"m" - Lay Length exceed its maximum"),IF(SUMPRODUC$

**SUMMARY**

Total Cut Qty Selected Sizes	500	1,000	2,005	1,047		4,833
Cut Var for Additional	(-)	(-)	70	7		77
Cut Var for Additional Qty	(-)	(-)	64	7		71
Cut Variance Additional Qty %	(-)	(-)	6%	0%		
Absolute Fabric Requirement (100% order)	721.00	688.00	2,488.00	1,144.00		688.00
with additional % Fabric Requirement	721.00	688.00	2,488.00	1,144.00		688.00
Actual Fabric Requirement for the Cut	712.00	688.00	2,478.00	1,151.70		688.00
Main Ratio	No of Piles	29	58	145	87	
Balance Ratio	Lay Length (m)	22.0	22.0	13.300	1-Layer	
	Fabric Requirement per BCM	600000	600000	600000	600000	
	Fabric Requirement per Lay Ply	600000	600000	600000	600000	
	Fabric Savings	4.30				

# Appendix B

SAP Based Proposed system implementation details.

## 1. Databased table Structures.

Transp. Table  Active

Short Description

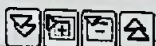
Attributes Delivery and Maintenance Fields Entry help/check Currency/Quantity Fields

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description
<u>RATIO PLAN NO</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZRATIO PLAN NO</u>	NUMC	12	0	Ratio Plan No
<u>WERKS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>WERKS D</u>	CHAR	4	0	Plant
<u>RP STATUS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZRP STATUS</u>	CHAR	1	0	Ratio Plan Status
<u>LOEKZ</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>AUFLOEKZ</u>	CHAR	1	0	Deletion flag
<u>ZCOMMENT</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZCOMMENT</u>	CHAR	20	0	Comment

Transp. Table ZPP\_RP\_SO  Active

Short Description Ratio Plan Sales Orders

Attributes Delivery and Maintenance Fields Entry help/check Currency/Quantity Fields



Srch Help

Predefined Type

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description
<u>MANDI</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MANDI</u>	CLNT	3	0	Client
<u>RATIO PLAN NO</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZRATIO PLAN NO</u>	NUMC	12	0	Ratio Plan No
<u>VBELN</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>VBELN VA</u>	CHAR	10	0	Sales Document
<u>POSNR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>POSNR VA</u>	NUMC	6	0	Sales Document Item
<u>AUFNR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>AUFNR</u>	CHAR	12	0	Order Number
<u>ORD NO</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZORD NO</u>	CHAR	10	0	Internal Order Number
<u>WERKS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>WERKS D</u>	CHAR	4	0	Plant
<u>WASTAGE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZWASTAGE D</u>	QUAN	13	3	Wastage
<u>MARKER TYPE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZMARKER TYPE</u>	CHAR	1	0	Marker Type
<u>ORD QTY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>WMENG</u>	QUAN	13	3	Order quantity in sales units
<u>MAINR</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>MAINR</u>	CHAR	18	0	Material Number
<u>ZZCUST STYLE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZCUST STYLE</u>	CHAR	20	0	Customer Style
<u>ZDATE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZMDATE</u>	DATS	8	0	Modification date
<u>UNAME</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>UNAME</u>	CHAR	12	0	User Name

Transp. Table ZPP\_RP\_PANEL  Active

Short Description Ratio Plan Panels

Attributes Delivery and Maintenance Fields Entry help/check Currency/Quantity Fields



Srch Help

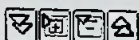
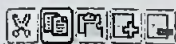
Predefined Type

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description
<u>MANDI</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MANDI</u>	CLNT	3	0	Client
<u>RATIO PLAN NO</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZRATIO PLAN NO</u>	NUMC	12	0	Ratio Plan No
<u>FG MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MAINR</u>	CHAR	18	0	Material Number
<u>CUI MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MAINR</u>	CHAR	18	0	Material Number
<u>FAB MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MAINR</u>	CHAR	18	0	Material Number
<u>WERKS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>WERKS D</u>	CHAR	4	0	Plant
<u>DFLI</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>FLAG</u>	CHAR	1	0	General Flag
<u>PANEL STATUS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZPANEL STATUS</u>	CHAR	1	0	Panel Status
<u>COMMENTS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>CHAR200</u>	CHAR	200	0	Text field length 200
<u>FAB WASTAGE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZWASTAGE D</u>	QUAN	13	3	Wastage
<u>COM SEQ</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZCOM SEQ</u>	INT1	3	0	fabric Combine Sequence

Transp. Table  ZPP\_RP\_D  Active

Short Description Ratio Plan Detail

Attributes Delivery and Maintenance Fields Entry help/check Currency/Quantity Fields



Srch Help

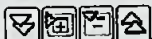
Predefined Type

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description
<u>MANDI</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MANDI</u>	CLNT	3		0 Client
<u>RATIO PLAN NO</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZRATIO PLAN NO</u>	NUMC	12		0 Ratio Plan No
<u>CUT MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZCUT MAINR</u>	CHAR	18		0 Cut Panel Material
<u>FAB MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZFAB MAINR</u>	CHAR	18		0 Fabric
<u>J 3ASIZE</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>J 3ASIZE</u>	CHAR	8		0 Grid Value
<u>MARKER ID</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZMARKER NO</u>	NUMC	3		0 Marker ID
<u>WERKS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>WERKS D</u>	CHAR	4		0 Plant
<u>MARKER NO</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZMARKER NAME</u>	CHAR	20		0 Marker Name
<u>ORD QTY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZORD QTY</u>	QUAN	13		3 Order Quantity
<u>SAMPLE QTY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZSAMPLE QTY</u>	QUAN	13		3 Sample QuantitySample Quantity
<u>ALLOWANCE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZALLOWANCE</u>	QUAN	13		3 Allowance
<u>WASTAGE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZWASTAGE D</u>	QUAN	13		3 Wastage
<u>CONSUMPTION</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZCONSUM</u>	QUAN	13		3 Consumption
<u>NO OF PLIES</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZNO OF PLIES</u>	NUMC	4		0 Number of Plies
<u>NO DOCKETS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZNO DOCKETS</u>	NUMC	4		0 Number of Dockets
<u>RATIO</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZRATIO</u>	NUMC	4		0 RATIO
<u>WIDTH</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZWIDTH L</u>	QUAN	13		3 Width

Transp. Table  ZPP\_RP\_PANEL  Active

Short Description Ratio Plan Panels

Attributes Delivery and Maintenance Fields Entry help/check Currency/Quantity Fields



Srch Help

Predefined Type

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description
<u>MANDI</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MANDI</u>	CLNT	3		0 Client
<u>RATIO PLAN NO</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZRATIO PLAN NO</u>	NUMC	12		0 Ratio Plan No
<u>FG MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MAINR</u>	CHAR	18		0 Material Number
<u>CUI MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MAINR</u>	CHAR	18		0 Material Number
<u>FAB MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MAINR</u>	CHAR	18		0 Material Number
<u>WERKS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>WERKS D</u>	CHAR	4		0 Plant
<u>DFLT</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>FLAG</u>	CHAR	1		0 General Flag
<u>PANEL STATUS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZPANEL STATUS</u>	CHAR	1		0 Panel Status
<u>COMMENTS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>CHAR200</u>	CHAR	200		0 Text field length 200
<u>FAB WASTAGE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZWASTAGE D</u>	QUAN	13		3 Wastage
<u>COM SEQ</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZCOM SEQ</u>	INT1	3		0 fabric Combine Sequence



Transp. Table ZPP\_RP\_LOG  Active

Short Description Log Details

Attributes Delivery and Maintenance Fields Entry help/check Currency/Quantity Fields

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description
<u>RATIO PLAN NO</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZRATIO PLAN NO</u>	NUMC	12		0 Ratio Plan No
<u>CUI MAINR</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MAINR</u>	CHAR	18		0 Material Number
<u>LOG NO</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ZLOG NO</u>	NUMC	4		0 Log No
<u>WERKS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>WERKS D</u>	CHAR	4		0 Plant
<u>OLD STATUS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZPANEL STATUS</u>	CHAR	1		0 Panel Status
<u>NEW STATUS</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ZPANEL STATUS</u>	CHAR	1		0 Panel Status
<u>ZUSER</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>UNAME</u>	CHAR	12		0 User Name
<u>ZDATE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>DATUM</u>	DATS	8		0 Date
<u>ZTIME</u>	<input type="checkbox"/>	<input type="checkbox"/>	<u>UZEIT</u>	TIMS	6		0 Time

Appendixes for Auto Ratio calculation code.

Descriptions	D	R	C	Mark ID	# Plies	# Docks	X5	S	M	L	XL	20L	Total	Est.Length	Est.Fab.Req	Mark Name	Width	Length	Allowance	Fab Yield %	Pattern	
Order Qty							248	268	106	223	218	103	1,166									
Sample Qty							0	0	0	0	0	0	0									
Wastage Qty							0	0	0	0	0	0	0									
Consumption							0	0	0	0	0	9	0									
Total Qty							0.016	0.016	0.016	0.016	0.016	0.016	0									
Ratio							248	268	106	223	218	103	1,166									
Cut Qty				1	10	2	3	3	3	3	3	3	18	0.268	5.260							
Per Docket Qty							60	60	60	60	60	60	360									
% Size Plan							30	30	30	30	30	30	180									
Balance Qty							24.194	22.388	56.604	26.966	27.523	58.252	0									
Ratio				2	50	1	188	268	46	163	156	43	806									
Cut Qty							3	4	1	5	3	1	17	0.272	13.660							
Per Docket Qty							150	200	50	250	150	50	850									
% Size Plan							150	200	50	250	150	50	850									
Balance Qty							84.677	97.015	103.7	139.0	96.330	166.7	0									
							38	8	-4	-67	8	-7	-44									

DATA: li\_sku\_tem TYPE TABLE OF tfl\_sku.

```

DATA: wa_fname(20)           TYPE c,
      lv_wastage              TYPE menge_d,
      lv_plies                TYPE menge_d,
      lv_totcut               TYPE menge_d,
      lv_dockets              TYPE menge_d,
      lv_totratio             TYPE menge_d,
      lv_mak_id               TYPE menge_d,
      lv_length                TYPE menge_d,
      lv_allow                 TYPE menge_d,
      lv_est_length           TYPE menge_d,
      lv_round_val            TYPE menge_d,
      lv_ral_val              TYPE menge_d,
      lv_incri_val            TYPE menge_d,
      lv_tolren                TYPE menge_d,
      lv_sum_val              TYPE menge_d,
      lv_sum_seletd_qty       TYPE menge_d,
      lv_cut_spe               TYPE flag.
  
```

```

CLEAR:lv_est_length,lv_allow,lv_length,lv_totratio,lv_dockets,
      lv_totcut,lv_plies,lv_wastage,gv_tot_wat,gv_tot_coun,gv_bal_falg,
      gv_bal_falg,lv_sum_val,lv_sum_seletd_qty.
  
```

li\_sku\_tem = gi\_sku.

```

*---get the Selected size Qty
LOOP AT gi_sku ASSIGNING <fs_sku>.
  READ TABLE gi_gridval INTO gwa_gridval WITH KEY j_3asize = <fs_sku>-
j_3asize. "Grid Mapping
  
```

```

IF sy-subrc = 0.
  READ TABLE gi_selec_cell TRANSPORTING NO FIELDS WITH KEY fieldname =
gwa_gridval-feild.
  IF sy-subrc = 0.
    lv_sum_seletd_qty = lv_sum_seletd_qty + <fs_sku>-kwmeng.
  ENDIF.
ENDIF.
ENDLOOP.

*---Do calculations in itab
lv_row = 0.
LOOP AT <t_dyntable> ASSIGNING <fs_dyntable>.
  lv_row = lv_row + 1.
  CHECK lv_row <> '1'.

  wa_fname = 'IND'. "Indicator
  ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs_fldval>.

***** Process the Sample Qty *****

IF <fs_fldval> = 'A'.
  LOOP AT gi_sku ASSIGNING <fs_sku>.
    IF gv_dif_style = abap_true.
      wa_fname = <fs_sku>-size_order.
    ELSE.
      wa_fname = <fs_sku>-j_3asize.
    ENDIF.

    READ TABLE gi_gridval INTO gwa_gridval WITH KEY j_3asize = wa_flnam
e. "Grid Mapping
    IF sy-subrc = 0.
      wa_fname = gwa_gridval-feild.

      READ TABLE gi_selec_cell TRANSPORTING NO FIELDS WITH KEY fieldnam
e = wa_fname.
      IF sy-subrc = 0.
        ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs_f
ldval>.
        <fs_sku>-sample_qty = <fs_fldval>.
        lv_sum_val = lv_sum_val + <fs_sku>-sample_qty .

```



```

ENDIF.
ENDIF.
ENDLOOP."End of sample Qty

"---Sum of sample Qty
IF lv_sum_val IS NOT INITIAL.
  wa_fname = 'TOT_RATIO'.
  ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs fldva
1>.

  <fs fldval> = lv_sum_val.
  CLEAR:lv_sum_val.
ENDIF.

```

\*\*\*\*\* Process the Wastage \*\*\*\*\*

```

ELSEIF <fs fldval> = 'B'.
  LOOP AT gi_sku ASSIGNING <fs_sku>.
    IF gv_dif_style = abap_true.
      wa_fname = <fs_sku>-size_order.
    ELSE.
      wa_fname = <fs_sku>-j_3asize.
    ENDIF.

```

```

  READ TABLE gi_gridval INTO gwa_gridval WITH KEY j_3asize = wa_flnam

```

e. *Grid Mapping*

```

  IF sy-subrc = 0.
    wa_fname = gwa_gridval-feild.

```

```

  READ TABLE gi_selec_cell TRANSPORTING NO FIELDS WITH KEY fieldnam
e = wa_fname.

```

```

  IF sy-subrc = 0.
    ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs_f
ldval>.

```

```

    <fs_sku>-wastage = <fs fldval>.
    gv_tot_wat = gv_tot_wat + <fs fldval>.
    CLEAR: lv_wastage,wa_fname.

```

```

  ENDIF.

```

```

ENDIF.

```

```

ENDLOOP."End of cal wastage

```

```
IF gv_tot_wat IS NOT INITIAL.
```

```
  "Sum of wastage Qty
```

```
  wa_fname = 'TOT_RATIO'.
```

```
  ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs_fldva
```

```
l>.
```

```
  <fs_fldval> = gv_tot_wat.
```

```
ENDIF.
```

```
***** Process the Total Qty *****
```

```
ELSEIF <fs_fldval> = 'C'.
```

```
  LOOP AT gi_sku ASSIGNING <fs_sku>.
```

```
    IF gv_dif_style = abap_true.
```

```
      wa_fname = <fs_sku>-size_order.
```

```
    ELSE.
```

```
      wa_fname = <fs_sku>-j_3asize.
```

```
    ENDIF.
```

```
    READ TABLE gi_gridval INTO gwa_gridval WITH KEY j_3asize = wa_flnam
```

```
e. "Grid Mapping
```

```
      IF sy-subrc = 0.
```

```
        wa_fname = gwa_gridval-feild.
```

```
        READ TABLE gi_selec_cell TRANSPORTING NO FIELDS WITH KEY fieldnam
```

```
e = wa_fname.
```

```
      IF sy-subrc = 0.
```

```
        ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs_f
```

```
ldval>.
```

```
        <fs_sku>-tot_qty = <fs_sku>-kwmeng + <fs_sku>-
```

```
sample_qty + <fs_sku>-wastage.
```

```
        <fs_fldval> = <fs_sku>-tot_qty. "Total Qty For Size wise
```

```
        lv_totcut = lv_totcut + <fs_sku>-tot_qty.
```

```
      ENDIF.
```

```
    ENDIF.
```

```
  ENDLOOP.
```

```
  "Sum of Cut Qty
```

```
  IF lv_totcut IS NOT INITIAL.
```

```
    wa_fname = 'TOT_RATIO'.
```

```
    ASSIGN COMPONENT wa_fname
```

```

    OF STRUCTURE <fs_dyntable> TO <fs_fldval>.
    <fs_fldval> = lv_totcut.
ENDIF.

```

\*\*\*\*\*Process the Consumptions Data\*\*\*\*\*

```

ELSEIF <fs_fldval> = 'D'.
  LOOP AT gi_sku ASSIGNING <fs_sku>.
    IF gv_dif_style = abap_true.
      wa_fname = <fs_sku>-size_order.
    ELSE.
      wa_fname = <fs_sku>-j_3asize.
    ENDIF.

```

```

    READ TABLE gi_gridval INTO gwa_gridval WITH KEY j_3asize = wa_fname

```

e. "Grid Mapping

```

    IF sy-subrc = 0.
      wa_fname = gwa_gridval-feild.
      READ TABLE gi_selec_cell TRANSPORTING NO FIELDS WITH KEY fieldname = wa_fname.
      IF sy-subrc = 0.
        ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs_fldval>.
        <fs_sku>-consumption = <fs_fldval> .
        gv_tot_coun = gv_tot_coun + <fs_sku>-consumption.
      ENDIF.
    ENDIF.
  ENDLOOP.

```

\*\*\*\*\* PROCESS THE RATIO CALCULATION \*\*\*\*\*

```

ELSEIF <fs_fldval> = 'X'.

```

\*---Size wise ratio calculation

```

  IF lv_row = 6.

```

```

    wa_fname = 'MARKER_ID'.
    ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs_fldval>.
  l>.
    lv_mak_id = <fs_fldval>.
    CLEAR:wa_fname.

```

lv\_plies = 0.

wa\_fname = 'PLIES'.

ASSIGN COMPONENT wa\_fname OF STRUCTURE <fs\_dyntable> TO <fs fldval>

IF sy-ucomm = 'AUTO\_R'.

<fs fldval> = gwa\_ratio\_para-max\_plies.

ENDIF.

lv\_plies = <fs fldval>.

*"get the Cut Speratey Indication*

wa\_fname = 'C\_CUT'.

ASSIGN COMPONENT wa\_fname OF STRUCTURE <fs\_dyntable> TO <fs fldval>

lv\_cut\_spe = <fs fldval>.

*\*---Claculate the number of Dockets*

wa\_fname = 'DOCKETS'.

ASSIGN COMPONENT wa\_fname OF STRUCTURE <fs\_dyntable> TO <fs fldval>

*IF sy-ucomm = 'OPTIMIZE'. "For Optimaze*

<fs fldval> = <fs fldval> + 1.

*ELSEIF sy-ucomm = 'AUTO\_R'.*

IF gwa\_ratio\_para-max\_dkt\_pcs <> 0.

<fs fldval> = trunc( gv\_tot\_qty / gwa\_ratio\_para-max\_dkt\_pcs ).

<fs fldval> = trunc( lv\_sum\_seletd\_qty / gwa\_ratio\_para-

max\_dkt\_pcs ).

IF <fs fldval> IS INITIAL.

<fs fldval> = 1.

ENDIF.

ENDIF.

*ENDIF.*

lv\_dockets = <fs fldval>.

CLEAR:wa\_fname,gwa\_gridval."end of cal # of dokets

*\*---Calculate the total ratio for First Ratio*

LOOP AT gi\_sku ASSIGNING <fs\_sku>.

IF gv\_dif\_style = abap\_true.

```

wa_fname = <fs_sku>-size_order.
ELSE.
wa_fname = <fs_sku>-j_3asize.
ENDIF.

```

```

READ TABLE gi_gridval INTO gwa_gridval WITH KEY j_3asize = wa_fname.
"Grid Mapping

```

```

IF sy-subrc = 0.
wa_fname = gwa_gridval-feild.
ASSIGN COMPONENT wa_fname OF STRUCTURE <fs_dyntable> TO <fs_fldval>.

```

```

IF ( lv_dockets * gwa_ratio_para-max_plies ) <> 0.

```

```

*           IF sy-
ucomm = 'OPTIMIZE' AND <fs_fldval> <> 0. "For Optimaze.

```

```

*           lv_ral_val = <fs_sku>-
tot_qty / ( lv_dockets * gwa_ratio_para-max_plies ).

```

```

*           ELSE.
READ TABLE gi_selec_cell TRANSPORTING NO FIELDS WITH KEY fldname = wa_fname.

```

```

IF sy-subrc = 0.
lv_ral_val = <fs_sku>-
tot_qty / ( lv_dockets * gwa_ratio_para-max_plies ).

```

```

ENDIF.

```

```

*           ENDIF.

```

```

ENDIF.

```

LIBRARY / UOM	
20	18
20	
20	
20	
20	

