

Mobile Data Entry – Radio Frequency (RF)

Applies to:

SAP Radio Frequency RF

Summary

The Mobile Data entry customising facilitates the interface between Radio Frequency devices and SAP. SAP Console is used as a translator between the device and SAP, this takes the series of GUI designed screens (all transactions starting with "LM") and converts them into a text format that is readable on the text terminals.

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Mobile Data Entry – Radio Frequency (RF)

Introduction

The Mobile Data entry customising facilitates the interface between Radio Frequency devices and SAP. SAP Console is used as a translator between the device and SAP, this takes the series of GUI designed screens (all transactions starting with "LM") and converts them into a text format that is readable on the text terminals.

Verification Control

This customising is used to control which fields on which screens are required input for the driver. Profiles are created and these can then be assigned to the different movements within the warehouse. For the different confirmations, either the source or the destination screen is valid.

When a verification field is turned on, the user will see a one-character field next to the display field where the bar code or the quantity must be scanned or enter manually before he can progress.

Choices for verification are Storage unit, Storage bin, Quantity or Material code. For the first three it is a simply on / off choice, but for material SAP can be configured for (old) material number or GTIN confirmation.

Define profiles

The three simple profiles created are:

<i>Profile</i>	<i>Source bin</i>	<i>Destination bin</i>	<i>Source SU</i>	<i>Destination SU</i>	<i>Source Quantity</i>	<i>Destination . Quantity</i>
PUTAWA		YES	YES			
PICKIN	YES					
RETRIE			YES			

These profiles are assigned to a combination of movement types and source / destination storage type combinations.

PUTAWA

1. This profile should be used to move the material (SU and not SU) from a source bin to a destination bin by SU or TO.
2. If the profile requires Source SU verification (Putaway) but a SU has already been scanned as part of the selection process (i.e. in LM02) the system will not ask again.
3. If the profile requires Source SU verification and that the material is not SU managed, obviously the system will not ask to scan. This should happen when we use the transactions to move the material based on a TO (i.e. in LM03 or LM04)
4. When we have the destination bin set as 'yes' and that the verification field in the bin is empty the user has to press enter otherwise he has to scan (key) the verification information and press enter.

PICKIN

1. The PICKIN has been configured for all movements from non-SU managed Storage types (case and each picking) and the others according to the relevant in or outbound movement. Factory and DC settings are different due to the different replenishment profiles.

RETRIE

1. This profile should be used for the SU storage type (block, rack, case picking) to move the pallet by SU or by TO
2. If the requested quantity is smaller than the quantity on the pallet the system will ask to confirm the differences. Otherwise he will confirm the quantity
3. We shouldn't use this profile to move from the non SU storage type because this profile doesn't ask the user to confirm anything (source bin and quantity) it is just in this case an information screen

Assign verification profile to goods movements

<i>Source storage type</i>	<i>Destination storage type</i>	<i>Movement type</i>	<i>Profile</i>	<i>Skip Source data (screen)</i>
***	***	0	PUTAWA	
***	***	998	PUTAWA	Yes
***	***	999	PUTAWA	Yes
***	***	319	RETRIE	Yes
***	***	329	RETRIE	Yes
***	***	339	RETRIE	Yes
***	***	601	RETRIE	Yes
***	***	641	RETRIE	Yes
***	***	643	RETRIE	Yes
Non SU managed	***	319	PICKIN	No
Non SU managed	***	329	PICKIN	No
Non SU managed	***	339	PICKIN	No

Non SU managed	***	601	PICKIN	No
Non SU managed	***	641	PICKIN	No
Non SU managed	***	643	PICKIN	No

In this customising is also the function to "skip source screen". This is useful to speed up the process, as the user only will see the RF destination screen. However the ability to double-check the material details is lost.

Bar Code Setup

Assign bar code types to warehouse numbers

Bar code types are assigned to the warehouse for different functions. The bar code type has been assigned to the storage unit scanning function to enable changes. SAP standard table does not reference any real bar code types.

Maintain bar code specification

Bar code specifications can be created here and customised for functions such as prefixes and delimiters. In each bar code type is specified the Application identifiers for that bar code type. All delimiters are hardcoded to specific fields in SAP, so any changes made here are quite minor, such as the length and whether a delimiter is required. Not all delimiters in this table are linked to fields; many are only for reference and would need development (user exit?) to be used. Client bar code type (ZEAN128) is a copy of the SAP standard, but with the AI(00) changed to point to the storage unit when scanned (not in the standard).

Menu Control

SAP Menus were not copied but a simplified structure created to include all the planned Level 5 transactions.

The link with the user defined within

- > RF Queue Management
 - > Assign Processor to Queue

To obtain these Menus

Main MENU

Inbound Process

1. ASN Receipt RF
2. Putaway by Storage Unit
3. Putaway by Transfer Order
4. System-Guided Putaway
5. Clustered Putaway
6. Adhoc Movement by SU

Outbound Process

1. Picking by Delivery
2. Picking by Transfer Order
3. System Guided Picking/Replen.

Internal Movements

1. Putaway by Storage Unit
2. Clustered Putaway
3. Adhoc Movement by SU

Stock Management

1. Count Storage Unit

2. System Guided SU Count

Manufacturing

1. Declare Production
2. Declare Consumption
3. Putaway by Storage Unit
4. Clustered Putaway
5. Adhoc Movement by SU

Administration

1. Queue Change

Local MENU (example)

1. ASN Receipt RF
2. Adhoc Movements by SU
3. Picking by Delivery
4. Picking by Transfer Order

The configuration should be

Dyn. menu	Seq. no.	Text for dynamic menu	Menu /trns	Menu/trns code	Short text
ZMAIN	1	Inbound Process	1	ZINB	Inb proc.
ZMAIN	2	Outbound Process	1	ZOUT	Outb proc.
ZMAIN	3	Internal Movements	1	ZMOVE	Int Moves
ZMAIN	4	Stock Management	1	ZMAN	Stk Manag.
ZMAIN	5	Manufacturing	1	ZMFG	Manufacturing
ZMAIN	6	Administration	1	ZADMIN	Admin
ZINB	1	ASN Receipt RF	2	/NESGLB/MGT01_RFREC	ASN Receipt
ZINB	2	Putaway by Storage Unit	2	LM02	Putaway SU
ZINB	3	Putaway by Transfer Order	2	LM03	Putaway TO
ZINB	4	System-Guided Putaway	2	LM04	Putaway Sys
ZINB	5	Clustered Putaway	2	LM13	Putaway CL
ZINB	6	Adhoc Movement by SU	2	/GLB/RGTPT01_TO	Adhoc SU Mve
ZOUT	1	Picking by Delivery	2	LM06	Pick Del
ZOUT	2	Picking by Transfer Order	2	LM05	Pick TO
ZOUT	3	System-Guided Picking/Replen.	2	LM07	Pick Sys
ZMOVE	1	Putaway by Storage Unit	2	LM02	Putaway SU
ZMOVE	2	Clustered Putaway	2	LM13	Putaway CL

ZMOVE	3	Adhoc Movement by SU	2	GLB/RGTPT01_TO	Adhoc SU Mve
ZMAN	1	Count Storage Unit	2	LM51	Count SU
ZMAN	2	System-Guided SU Count	2	LM50	Coutn SU Sys
ZMFG	1	Production declaration pallet by pallet	2	/GLB/RGTPT01_PD	Prod. Decl.
ZMFG	2	Declare consumption	2	To be define	Prod. Cons.
ZMFG	3	Putaway by Storage Unit	2	LM02	Putaway SU
ZMFG	4	Clustered Putaway	2	LM13	Putaway CL
ZMFG	5	Adhoc Movement by SU	2	/GLB/RGTPT01_TO	Adhoc SU Mve
ZADMIN	1	Queue Change	2	LM77	Queue Chg
ZLOCAL	1	ASN Receipt RF	2	/NESGLB/MGT01_RFREC	ASN Receipt
ZLOCAL	2	Adhoc Movement by SU	2	/GLB/RGTPT01_TO	Adhoc SU Mve
ZLOCAL	3	Picking by Delivery	2	LM06	Pick Del
ZLOCAL	4	Picking by Transfer Order	2	LM05	Pick TO

>> ZLOCAL is an example of a short menu. This kind of menu could be created to simplify the user access to the transactions.

ZINQ	1	SU inquiry	1	To be develop Vx.x	SU information
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Note, In the Inquiries menu there is no transaction assigned. This is to there have the correct structure for the next templates in line with the process map, and allow space for possible localization transactions.

For the adhoc movement

		Single pallet	Multi pallets	Destination by strategy	Destination Manual input
Adhoc (V1.0)	/GLB/MGT_ADHOCMV	X	X	F4	F8
Adhoc(1)	/GLB/RGTPT01_TO	X			Storage Type / Bin
Adhoc(2)	/GLB/RGTPT02_TO	X			Bin / (Storage Type)
Putaway by SU	LM02	X		X	
Clustered Putaway	LM13	X	X	X	

Comments

1. Adhoc (V1.0) based on strategy is replaced by LM02 and LM13
2. Adhoc (V1.0) manual input single pallet is replaced by Adhoc(1) or Adhoc(2)
3. Adhoc (V1.0) manual input multi pallets is not replaced but this functionality doesn't works correctly. The problem generated by this process was the trigger to develop the new Adhoc(1 and 2).

To resume:

1. The Adhoc(V1.0) is not recommended to use anymore
2. Adhoc(1) or Adhoc(2) : the plant can choose one or other or both, depending on the storage bin naming convention.

Default Enter Function

Most bar code scanners / terminals can be customised to send an <ENTER> at the end of each scan. This can be used to navigate in the SAP system, by performing a series of functions, depending on the cursor position on the screen.

Categorization of Physical screen

Firstly the screens are grouped in terms of similar category like Source screen or Destination screen. This categorization will be used to link the pushbutton sequence to the active screen. Below the standard configuration

Program	Screen #	Category
/GLB/SAPLLMOB	202	SOURCE
/GLB/SAPLLMOB	203	SOURCE
/GLB/SAPLLMOB	204	SOURCE
/GLB/SAPLLMOB	205	SOURCE
/GLB/SAPLLMOB	212	SOURCE
/GLB/SAPLLMOB	213	SOURCE
/GLB/SAPLLMOB	302	DESTIN
/GLB/SAPLLMOB	304	DESTIN
/GLB/SAPLLMOB	312	DESTIN
/GLB/SAPLLMOB	402	SOURCE
/GLB/SAPLLMOB	403	SOURCE
/GLB/SAPLLMOB	404	SOURCE
/GLB/SAPLLMOB	405	SOURCE
/GLB/SAPLLMOB	2202	SOURCE
/GLB/SAPLLMOB	2203	SOURCE

/GLB/SAPLLMOB	2204	SOURCE
/GLB/SAPLLMOB	2205	SOURCE
/GLB/SAPLLMOB	2212	SOURCE
/GLB/SAPLLMOB	2213	SOURCE
/GLB/SAPLLMOB	2302	DESTIN
/GLB/SAPLLMOB	2304	DESTIN
/GLB/SAPLLMOB	2312	DESTIN
/GLB/SAPLLMOB	2502	SOURCE
/GLB/SAPLLMOB	2504	SOURCE
SAPLLMOB	202	SOURCE
SAPLLMOB	203	SOURCE
SAPLLMOB	204	SOURCE
SAPLLMOB	205	SOURCE
SAPLLMOB	212	SOURCE
SAPLLMOB	213	SOURCE
SAPLLMOB	302	DESTIN
SAPLLMOB	304	DESTIN
SAPLLMOB	312	DESTIN
SAPLLMOB	402	SOURCE
SAPLLMOB	403	SOURCE

SAPLLMOB	404	SOURCE
SAPLLMOB	405	SOURCE
SAPLLMOB	2202	SOURCE
SAPLLMOB	2203	SOURCE
SAPLLMOB	2204	SOURCE
SAPLLMOB	2205	SOURCE
SAPLLMOB	2212	SOURCE
SAPLLMOB	2213	SOURCE
SAPLLMOB	2302	DESTIN
SAPLLMOB	2304	DESTIN
SAPLLMOB	2312	DESTIN
SAPLLMOB	2502	SOURCE
SAPLLMOB	2504	SOURCE

Pushbutton sequence

This functionality allows to define the activities like "Save, Page Down. and CMPL =Save and next screen. The fields are split according to whether they are standard fields, last fields on a screen, or last transfer order item on a screen (or combination).

Category	Last field	Last TO item	Code	Code	Code
SOURCE	X		SAVE	PGDN	
SOURCE	X	X	CMPL		

DESTIN	X		PGDN		
DESTIN	X	X	SAVE		

For example: When a last field has been entered, the system automatically performs a Save and PgDn (page down) function to take the user to the next pallet on the TO. Once the last pallet on the TO has been scanned then the system performs a SAVE and NEXT to take the user to the destination screen for confirmation.

Customizing is required in this area when the "skip source data (screen)" functionality is used. In this case the verification checking is turned off in the destination screen on ENTER, and only works on SAVE. When this is valid and the error checking is required on ENTER then this table has to be configured to automatically SAVE on the verification scanning.

Define Screen Management

This functionality allows for control of different screen sizes for different devices and also to control user exits on the standard screens using the "variant" function. In V1.5 the adhoc movement functionality has been rewritten, the new development uses the variant screen selection to define the access to the user exit for LM02 and LM13.

<i>Program</i>	<i>Screen format</i>	<i>Screen Variant</i>	<i>Logical Screen</i>	<i>Logical screen name</i>	<i>Act. screen</i>
SAPLLMOB	16X20	0	100	Select by storage unit	2100
SAPLLMOB	16X20	0	101	Collected	2101
SAPLLMOB	16X20	0	102	Select by TO	2102
SAPLLMOB	16X20	0	104	Select by delivery	2104
SAPLLMOB	16X20	0	105	Identify by MS Area	2105
SAPLLMOB	16X20	0	106	Identify by Shipment	2106
SAPLLMOB	16X20	0	107	Identify by Others	2107
SAPLLMOB	16X20	0	108	Identify by Group	2108
SAPLLMOB	16X20	0	151	Storage unit count	2151
SAPLLMOB	16X20	0	152	Storage bin count	2152
SAPLLMOB	16X20	0	153	Storage bin count details	2153
SAPLLMOB	16X20	0	170	Move handling unit	2170
SAPLLMOB	16X20	0	202	Source info material	2202
SAPLLMOB	16X20	0	204	Source info storage unit	2204

SAPLLMOB	16X20	0	205	Source info storage unit, bin	2205
SAPLLMOB	16X20	0	212	Source info material	2212
SAPLLMOB	16X20	0	221	Detailed source infos	2221
SAPLLMOB	16X20	0	302	Destination infos - Multiple materials	2302
SAPLLMOB	16X20	0	304	Destination info - Multiple SU/materials	2304
SAPLLMOB	16X20	0	312	Destination info material w/o SU	2312
SAPLLMOB	16X20	0	321	Detailed destination information	2321
SAPLLMOB	16X20	0	400	Report difference in destination qts	2400
SAPLLMOB	16X20	0	402	Source info - Multiple materials	2402
SAPLLMOB	16X20	0	404	Source info - Multiple SUs/materials	2404
SAPLLMOB	16X20	0	406	Report difference in destination qts	2406
SAPLLMOB	16X20	0	410	Confirm TO - Zero stock	2410
SAPLLMOB	16X20	0	411	Difference during pick from bulk storage	2411
SAPLLMOB	16X20	0	412	Difference qty - delivery item	2412
SAPLLMOB	16X20	0	501	Special SU - single	2501
SAPLLMOB	16X20	0	502	Source info - multiple materials	2502
SAPLLMOB	16X20	0	504	Source info - Multiple SUs/materials	2504
SAPLLMOB	16X20	0	600	Inquiry - select material	2600
SAPLLMOB	16X20	0	601	Inquiry - display material stock	2601
SAPLLMOB	16X20	0	630	Shipment Header	2630

SAPLLMOB	16X20	0	631	Delivery Header	2631
SAPLLMOB	16X20	0	632	Delivery item	2632
SAPLLMOB	16X20	0	634	Split delivery by HU	2634
SAPLLMOB	16X20	0	650	Entry: shipping unit	2650
SAPLLMOB	16X20	0	651	Entry: shipping unit	2651
SAPLLMOB	16X20	0	700	Inquiry - select handling unit	2700
SAPLLMOB	16X20	0	701	Inquiry - display lower-level HU list	2701
SAPLLMOB	16X20	0	702	Inquiry - Display HU details	2702
SAPLLMOB	16X20	0	703	Inquiry - display material list	2703
SAPLLMOB	16X20	0	704	Inquiry - select handling unit	2704
SAPLLMOB	16X20	0	705	Inquiry - display WM details	2705
SAPLLMOB	16X20	0	760	Introduce handling unit-existing or new	2760
SAPLLMOB	16X20	0	761	Display HU - more information	2761
SAPLLMOB	16X20	0	762	Source plant storage location for HU act	2762
SAPLLMOB	16X20	0	763	Source whs/bin loc. HU activities	2763
SAPLLMOB	16X20	0	764	Select lower-lvl HU for HU activites	2764
SAPLLMOB	16X20	0	765	Select material for HU activities	2765
SAPLLMOB	16X20	0	766	Select serial number for HU activities	2766
SAPLLMOB	16X20	0	767	Additional packaging material	2767
SAPLLMOB	16X20	0	768	Destination plant storage location	2768

SAPLLMOB	16X20	0	769	Destination warehouse / bin location	2769
SAPLLMOB	16X20	0	777	Queue & warehouse modification	2777
SAPLLMOB	16X20	0	800	Load shipment	2800
SAPLLMOB	16X20	0	801	Load delivery	2801
SAPLLMOB	16X20	0	802	System-guided	2802
SAPLLMOB	16X20	0	803	Unload shipment	2803
SAPLLMOB	16X20	0	804	Unload delivery	2804
SAPLLMOB	16X20	0	805	Load overview	2805
SAPLLMOB	16X20	0	806	Details	2806
SAPLLMOB	16X20	0	807	Details	2807
SAPLLMOB	16X20	0	888	Dynamic menu	2888
SAPLLMOB	16X20	0	889	logon / menu screens	2889
SAPLLMOB	16X20	0	900	Double Scan Inbound	2900
SAPLLMOB	16X20	0	901	Double Scan Inbound / Material List	2901
SAPLLMOB	16X20	0	998	Warning message	2998
SAPLLMOB	16X20	0	999	Error message screen	2999
SAPLLMOB	16X20	1	100	Select by storage unit	8100
SAPLLMOB	16X20	1	101	Collected	8101
SAPLLMOB	16X20	2	100	Select by storage unit	8100
SAPLLMOB	16X20	3	101	Collected	8101

SAPLLMOB	8X40	0	100	Select by storage unit	100
SAPLLMOB	8X40	0	101	Collected	101
SAPLLMOB	8X40	0	102	Select by TO	102
SAPLLMOB	8X40	0	104	Select by delivery	104
SAPLLMOB	8X40	0	105	Identify by MS Area	105
SAPLLMOB	8X40	0	106	Identify by Shipment	106
SAPLLMOB	8X40	0	107	Identify by Others	107
SAPLLMOB	8X40	0	108	Identify by Group	108
SAPLLMOB	8X40	0	151	Storage unit count	151
SAPLLMOB	8X40	0	152	Storage bin count	152
SAPLLMOB	8X40	0	153	Storage bin count details	153
SAPLLMOB	8X40	0	170	Move handling unit	170
SAPLLMOB	8X40	0	202	Source info material	202
SAPLLMOB	8X40	0	204	Source info storage unit	204
SAPLLMOB	8X40	0	205	Source info storage unit, bin	205
SAPLLMOB	8X40	0	212	Source info material	212
SAPLLMOB	8X40	0	221	Detailed source infos	221
SAPLLMOB	8X40	0	302	Destination infos - Multiple materials	302
SAPLLMOB	8X40	0	304	Destination info - Multiple SU/materials	304
SAPLLMOB	8X40	0	312	Destination info material w/o SU	312

SAPLLMOB	8X40	0	321	Detailed destination information	321
SAPLLMOB	8X40	0	400	Report difference in destination qts	400
SAPLLMOB	8X40	0	402	Source info - Multiple materials	402
SAPLLMOB	8X40	0	404	Source info - Multiple SUs/materials	404
SAPLLMOB	8X40	0	406	Report difference in destination qts	406
SAPLLMOB	8X40	0	410	Confirm TO - Zero stock	410
SAPLLMOB	8X40	0	411	Difference during pick from bulk storage	411
SAPLLMOB	8X40	0	412	Difference qty - delivery item	412
SAPLLMOB	8X40	0	501	Special SU - single	501
SAPLLMOB	8X40	0	502	Source info - multiple materials	502
SAPLLMOB	8X40	0	504	Source info - Multiple SUs/materials	504
SAPLLMOB	8X40	0	600	Inquiry - select material	600
SAPLLMOB	8X40	0	601	Inquiry - display material stock	601
SAPLLMOB	8X40	0	630	Shipment Header	630
SAPLLMOB	8X40	0	631	Delivery Header	631
SAPLLMOB	8X40	0	632	Delivery item	632
SAPLLMOB	8X40	0	633	Split delivery by qty	633
SAPLLMOB	8X40	0	634	Split delivery by HU	634
SAPLLMOB	8X40	0	650	Entry: shipping unit	650
SAPLLMOB	8X40	0	651	Entry: shipping unit	651

SAPLLMOB	8X40	0	700	Inquiry - select handling unit	700
SAPLLMOB	8X40	0	701	Inquiry - display lower-level HU list	701
SAPLLMOB	8X40	0	702	Inquiry - Display HU details	702
SAPLLMOB	8X40	0	703	Inquiry - display material list	703
SAPLLMOB	8X40	0	704	Inquiry - select handling unit	704
SAPLLMOB	8X40	0	705	Inquiry - display WM details	705
SAPLLMOB	8X40	0	760	Introduce handling unit-existing or new	760
SAPLLMOB	8X40	0	761	Display HU - more information	761
SAPLLMOB	8X40	0	762	Source plant storage location for HU act	762
SAPLLMOB	8X40	0	763	Source whs/bin loc. HU activities	763
SAPLLMOB	8X40	0	764	Select lower-lvl HU for HU activites	764
SAPLLMOB	8X40	0	765	Select material for HU activities	765
SAPLLMOB	8X40	0	766	Select serial number for HU activities	766
SAPLLMOB	8X40	0	767	Additional packaging material	767
SAPLLMOB	8X40	0	768	Destination plant storage location	768
SAPLLMOB	8X40	0	769	Destination warehouse / bin location	769
SAPLLMOB	8X40	0	777	Queue & warehouse modification	777
SAPLLMOB	8X40	0	800	Load shipment	800
SAPLLMOB	8X40	0	801	Load delivery	801
SAPLLMOB	8X40	0	802	System-guided	802

SAPLLMOB	8X40	0	803	Unload shipment	803
SAPLLMOB	8X40	0	804	Unload delivery	804
SAPLLMOB	8X40	0	805	Load overview	805
SAPLLMOB	8X40	0	806	Details	806
SAPLLMOB	8X40	0	807	Details	807
SAPLLMOB	8X40	0	888	Dynamic menu	888
SAPLLMOB	8X40	0	889	logon / menu screens	889
SAPLLMOB	8X40	0	900	Double Scan Inbound	900
SAPLLMOB	8X40	0	901	Double Scan Inbound / Material List	901
SAPLLMOB	8X40	0	998	Warning message	998
SAPLLMOB	8X40	0	999	Error message screen	999
SAPLLMOB	8X40	1	100	Select by storage unit	9100
SAPLLMOB	8X40	1	101	Collected	9101
SAPLLMOB	8X40	2	100	Select by storage unit	9100
SAPLLMOB	8X40	3	101	Collected	9101

RF Queue Management

This functionality is used to manage the activities in the warehouse. The system puts the transfer orders in different queues and the users are assigned to these queues.

The RF monitor (LRF1) allows to monitor and influence the execution of the transfer orders in the RF enabled warehouse. It is a graphical overview of all transfer orders assigned to queues, the RF users that are active in the warehouse and the queues and TO's they are assigned to. The user of this transaction can allocate different users to different queues and also move the transfer orders

Define Queues

SAP standard does not provide any recommendations. RF queues definition should reflect the organisation in the warehouse. To demonstrate the flexibility of the assignment of the TO's 8 queues have been created:

Queue	Queue name	Capac.used	Capac.used	Access lim
PUTAWAY	Putaway from the receiving area	2,000	5,000	no limitation
RETRIEVAL	Picking of entire SU's	2,000	5,000	no limitation
EAPICKING	Each picking	2,000	5,000	no limitation
CSPICKING	Case picking	2,000	5,000	no limitation
2STEPPICK1	2 Steps picking – First step	2,000	5,000	no limitation
2STEPPICK2	2 Steps picking – Second step	2,000	5,000	no limitation
OTHER	Miscellaneous movements	2,000	5,000	no limitation
PRODSUPPLY	Production Supply	2,000	5,000	no limitation

All Transfer orders should fall into one of these categories for visibility.

Change between V1.0 and V1.5

- > CPICKING is changed to CSPICKING
- > EPICKING is changed to EAPICKING
- > MANAGE is changed to OTHER
- > PRODSUPPLY is new
- > 2STEPPICK1 and 2STEPPICK2 are new

Performance data can be shown on the RF monitor, in terms of the number of TO's per user:

The two "relation" (capacity) fields define the threshold value for the ratio between the workload and the users of a queue. The queue traffic light changes its colour from green to yellow (left field) or from yellow to red (right field).

If, for example, six transfer orders (TO's) are to be processed by three users, the relation is 2.0.

- The queue traffic light is green if the relation is less than the value given in the left relation field.
- The queue traffic light is yellow if the relation is greater than or the same as the value specified in the right field.

The queue traffic light is red if the relation is greater than or the same as the value specified in the left relation field.

The reference system has been customised with the left field as 2, the right field as 5.

The access limitation for the queue "OTHER" must be no limitation otherwise the user exit in the developments transaction LM02 and LM13 will pop up a message. If the message appear and that the user answer "NO" a TO will be create but not cancel!

Assign areas and activities to queues

The assignment of TO's to queues is dependent on:

- Screen for generation of Transfer order (putaway, picking, single item)
- Transfer Type (Pick, putaway, posting change, warehouse supervisor)
- Source storage type and storage sections.
- Destination storage type and picking area.
- Doors

So the effectively the movement type and the movement itself play a large role.

<i>Screen</i>			
<i>Type</i>	<i>Source Storage type</i>	<i>Destination storage type</i>	<i>Queue</i>
Preparation screen for placement into stock			
E		***	PUTAWAY
E		PSA	PRODSUPPLY
E		Case pick in 2 steps	2STEPPICK1
Preparation screen for stock removal			
A	***		RETRIEVAL
A	Case pick areas		CSPICKING
A	Each pick areas		EAPICKING
A	Case pick in 2 steps		2STEPPICK2
Single item screen			

U	***	***	OTHER
X	***	***	OTHER

No distinction has been made between the raw and finished goods part of the factory warehouses, it is assumed that the same workforce operates in both areas. But in the case where we need to separate the activities, the selection should be done by creation of new queues and links with the specific storage type

When TO's are assigned to a queue they also have a priority. For system guided use, they are sorted according to priority then creation date & time. The priority is taken over from the creation document, i.e. the Delivery or the Transfer Requirement. This does not function for adhoc moves without an originating document (SAP Bug - OSS note outstanding), but as these will normally not be system guided, and in a different queue, this should not be a big issue. Outbound delivery priorities are as follows:

02 - Cash sales

04 - High priority orders

05 - Medium priority orders

06 - Low priority orders

Customer services (CS) use these for stock allocation but they also will have an effect on how orders are picked.

The warehouse moves have been given the following priorities:

1 - Replenishment of case or each picking area (to go to the top of the queue)

5 - All other movements.

Assign processor to queues

For SAP user to access the RF functionality, the user name has to exist in this table. Other data that can also be input is the warehouse number they are assigned to (can only be changed here or in LM77, change Queue), the default queue, default screen size, default menu, personnel number and whether they have the ability to change their default data once logged in. For example they may want to use a terminal with a different screen size.

The document that the user is working on is also captured here during execution. This allows the user to continue their job if there is a connection problem. This would mainly be used in conjunction with 2-step confirmation of transfer orders. This is not recommended functionality for Nestlé as when it is implemented it restricts the functionality on the standard transactions.

<i>Variant</i>	<i>LM02 function</i>	<i>LM13 Function</i>	<i>Recommended config.</i>
00	SAP std screen	SAP std screen	Yes
01	Custom dev. screens	Custom dev. screens	Yes
02	Custom dev. screens	SAP std screen	No
03	SAP std screen	Custom dev. screens	No

RF Monitor

All of the customising above is used by the RF monitor (LRF1) along with the performance data / TO splitting customising. No specific customising is required for the RF monitor.

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