



What is fulfillment

After you get the order – it's what happens next

# FULFILLMENT STRATEGIES

- Last year
  - Picking and Location management
  - Shipping systems and carton tracking
  - Order confirmation
  - Labels
  - Billing



2

Review of what we had last year

Reviewed picking location management – CR62 and field 60 options A, B,C etc. which control which location is allocated

Interface to shipping system

Options for order confirmation – auto confirm. You don't have to confirm orders individually –Auto confirm based on status – when order attains a set status the order can automatically confirm e.g. tracking number received

Labels

Brief discussion on billing for services

## FULFILLMENT STRATEGIES

- RF Shipping Development Strategy
- Master Order Staging
- Picking without RF
- RF pick and pack



Where is Maves headed with RF ?

What features already exist?

What's new?

What else could be done?

## RF SHIPPING DEVELOPMENT STRATEGY

- LTL

### Characteristics

- Palletized
- Pallet ID

Scanning from storage pallet to  
the shipping pallet



### LTL characteristics

Even if manufacturer doesn't have a pallet ID you can apply your own – you have some control over this

Our RF picking programs like Pick order, Unallocated picking, Load verify were built around this scenario – operators picking pallets or picking cases from pallets and either staging them as is on the dock or identifying a shipping conveyance.

Load verify then lets you scan the picked goods (now on the shipping pallet) and drive them into the trailer, print a pallet manifest, send EDI to your customer

## RF SHIPPING DEVELOPMENT STRATEGY

- Small Parcel
- Characteristics
  - Small parts
  - Multiple skus in location
  - Barcodes ?
  - Multiple units of measure (eaches, innerpacks etc.)
  - Packing area
  - Shipping system

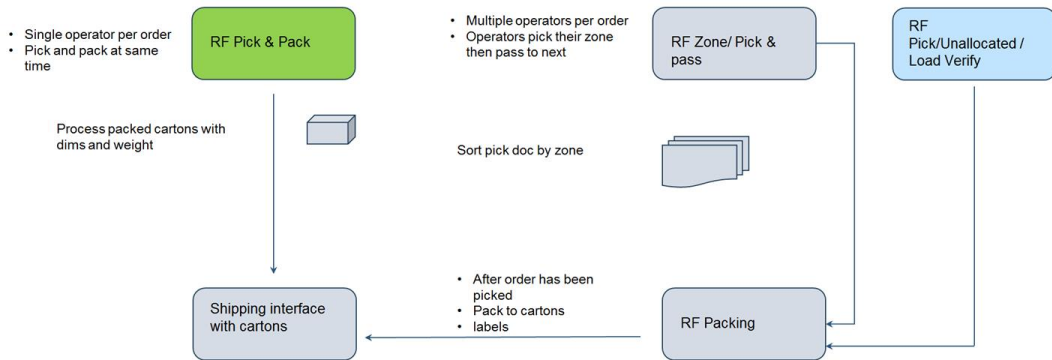


Small parts / small parcel picking have different characteristics

Review lines

So this means a change is required in how the system should behave

## RF SHIPPING DEVELOPMENT STRATEGY



Purpose here is provide you with a picture of where we are going with RF development as it relates to fulfillment.

The challenge with doing something like this is what if you don't like what we are planning to do ?

Well, that's why we are here - to give a idea of what we are working on some of things we have in mind over the coming months –

Your feedback is important to us

Click for blue current RF pick options

Today – RF pick order / unallocated and Load verify  
This is were we have been for quite some time

Works for LTL – pallet and case picking

Click for green shape

What we have developed

RF pick and pack – single operator picking a single order – probably using a picking slip, goes out with hand cart, finds the goods, picks them and puts them in a box or maybe on the cart and returns to the packing station where they or someone else does the packing

I will give you some further details then Tim will demonstrate this to you shortly

But there is more to be done..

Click for grey image

We have a shipping interface that requires packages to be handled one at a time and weighed on the weigh station. Dimensions have to be determined and entered. It works, but would be a problem for higher volumes

By having carton types in pick and pack this gives us the ability to feed this data along with standard weights to the shipping system

Click – Packing

Having done pick and pack the question arises – but what if I want to first pick and then pack later eg. it's not practical to pick and pack at same time – maybe volume is too high so I need to pick all the orders first then pack them separately. This means we need a separate packing program that knows we have already picked previously.

Click – RF zone pick

Zone picking – everyone familiar with this? You have multiple operators picking orders that have multiple skus – each sku is located in a zone (area) so if I am picker 1 I pick the line(s) in my zone then I pass the order over to the next person who continues picking in their zone, then they pass...

On a paper pick you might sort the document by zone. In RF you need a way to separate the zones and ensure that they get picked in sequence

Q&A

# FULFILLMENT STRATEGIES

- Master Order Staging

- Scenario
- Multiple orders
- Same skus
- Inefficient to pick each order



Order Date 12.31.2008			Time 10:46AM		Ship Date 12.31.2008
LINE #	TYPE	ORDERED SKU	PICKED SKU	PRODUCT / DESCRIPTION LOT / ID HOLD	
001	LOT	8 CS		1001DM Cases - conveyance Lot Code: .	
002	LOT	8 CS		1001EM Cases - conveyance Lot Code: .	

Order Date 12.31.2008			Time 10:48AM		Ship Date 12.31.2008
LINE #	TYPE	ORDERED SKU	PICKED SKU	PRODUCT / DESCRIPTION LOT / ID HOLD	
001	LOT	12 CS		1001DM Cases - conveyance Lot Code: .	
002	LOT	12 CS		1001EM Cases - conveyance Lot Code: .	



Now, in contrast to what we just did – ie. single order, picked individually

Multiple orders

Same skus

Click 1 then Click 2 for arrows

How can I pick everything in bulk, then resort it by DC?

I need to go to bulk first, get the goods I need for all the orders, stage them then pick from the staging area

Click for last graphic at bottom

Creating a master 1) OE83 or 2) OE80 based on criteria or 3) from Highviews by click and select



## FULFILLMENT STRATEGIES

- Master Order Staging

- Enter master order
- Select the sku
- Select where you are pulling from
- Enter the staging location

The screenshot displays a terminal interface for the Master Order Staging process. It consists of several screens:

- Menu Screen:** A list of options with '07 Master Order Staging' highlighted.

```
< MENU >
# Description
01 Accept Work
02 Bulk Receiving
03 Single Receiving
04 Master Order P
05 Pick Order
06 Bulk Picking
<07 Master Order St>
08 Unpick Stock
```
- Master Order Entry Screen:** Fields for Date, Client, Quantity, Product, Lot, Location, and Conveyance. The 'Master' field is set to 'M0315A'.

```
Master Order Staging
Master (M0315A )
Date
Client
Quantity
Product
Lot
Location
Conveyance
```
- Product Selection Screen:** A list of products with '1001DM' and '1001EM' visible.

```
< Master Order St
Product
<1001DM
1001EM
```
- Product Location Selection Screen:** Fields for Ty, Wh, and Location. The 'Wh' field is set to '01 AA010'.

```
< Product location >
Ty Wh Location
<B 01 AA010 >
B . 01 AA01A
```
- Availability Table:** A table showing availability and conveyance IDs.

Avail	Qty	Conv ID:
24		160086-01
24		160086-02

Step through the process

Click x 3

## FULFILLMENT STRATEGIES

- RF Unallocated Picking
  - Select the order line
  - System only shows stock in Staging Locations (SL90 type S)
  - Scan the conveyance and enter qty
  - If partial conveyance remains in Staging, move it back to storage

```
Ord#:600116 Ln:001
Client:GEN001 Wh: 01
Prod: 1001DM
Ord Qty: 8
Oldest
Lot: ST-0010
```

```
Pick Loc: ST-0010
Lot:0315A
Storage Conveyance
Pick Qty:
Drop/Pick (D/P):
Location:
Accept (Y/N): Y
```

```
Ord#:600116 Ln:001
Client:GEN001 Wh: 01
Prod: 1001DM
Ord Qty: 8
Oldest
Lot: ST-0010
```

```
Pick Loc: ST-0010
Lot:0315A
Storage Conveyance
160086-01
Pick Qty: 8
Drop/Pick (D/P):
Location:
Accept (Y/N): Y
```

```
<11 Move Stock
```



Step through the process

Click x 2

This completes the process

Now if there is stock remaining in staging

Click for the Move to put back stock

Q&A

## FULFILLMENT STRATEGIES

- Picking without RF
  - Validating the correct product
  - Pick list with images
  - Screen display



### Product Pick List

Sunday, May 14 2017 03:26 PM

Item #	Description	Warehouse Location	# Required
 SLU-V-WHITE-L Size: L	 V-Neck Undershirt   White - L	LA (90021): B7	5
 SLU-V-WHITE-XL Size: XL	 V-Neck Undershirt   White - XL	LA (90021): B7	2
 SLU-V-GREY-3PK	 V-Neck Undershirt   Grey   3-Pack	LA (90021): B7	1
 SLU-V-GREY-L Size: L	 V-Neck Undershirt   Grey	LA (90021): B7	3
 SLU-V-GREY-M Size: M	 V-Neck Undershirt   Grey - M	LA (90021): B7	5
 SLU-V-WHITE-3PK	 V-Neck Undershirt   White   3-Pack	LA (90021): B7	2
 SLU-V-WHITE-M Size: M	 V-Neck Undershirt   White	LA (90021): B7	6
Total Items Required: 24			

10

With docstore we can store images and attach them in the system

For instance, if your customer provides you with a file containing product codes and images and if we could import them – is this of value? Would it help the picking process? Improve accuracy etc?

## FULFILLMENT STRATEGIES

RF Pick and Pack

What is being scanned?



In your fulfillment area you will have bins

And of course it would like exactly like this – each bin of the same size, with a tidy id number on the front, so it's easy to know exactly what there is????

Oh, maybe not

## FULFILLMENT STRATEGIES

RF Pick and Pack



Or maybe it looks more like this?

Oh what was that – did I take this picture in your warehouse?

## FULFILLMENT STRATEGIES

- What are you scanning?
  - Location code
  - Product code
  - Conveyance ID



I always tell people who are interested in getting started with RF that the benefits of RF are not so much a question of speed but of accuracy – making sure that the correct goods are picked in the correct quantity and are shipped to the correct customer

So if you are now paper picking and switching to a scanner system

The question is what do you want to scan?

Actually, what is there available to scan?

Click – for location

The location code is the easiest one – your locations are labelled – and you may have a barcode there already or could add one.

This would help validate that you are picking the correct goods from the correct location

Ok so this works, you say but this is all very well if you only one product in one

location – and I have multiple products in one location, so???

Next – the product

Click for product

This can be tricky – do the products you are picking have a barcode on them? If they do then great!

Maybe they don't? now in this example the product barcode has been creatively placed below the bin (each bin has a different product code) – yes this can work

Scan this barcode – at least you now have a validation of the product.  
Of course nothing to stop the operator from scanning the one to left or right...and you would not want to insert a new bin that shifts everything over by one...

Click – for conveyance

Now – in LTL picking you would want to scan the conveyance but this isn't always helpful in this situation. Why – well to start with where is the conveyance? Someone would have to take the pallet ID sticker and put it somewhere where it could be scanned.

Secondly – what happens when you refill the pick location from bulk with a second conveyance?

How important is lot control in this situation?

In fulfillment the lot may not be that important, eg industrial parts and supplies

## FULFILLMENT STRATEGIES

Carton Types

Dimensions

Standard carton types

Shipping Carton ID (ship conveyance)



You maybe familiar with the scenario – goods are picked and taken to the pack area then weighed and the package measured and dims entered in UPS?

What if you had standard carton types? – assuming that there is a fixed number of shipping cartons that you use for packing – so they all have a carton type – setup the database with your carton types and dimensions, then when packing tell the system – I am using carton type X.

This makes it possible for the system to tell the shipping interface that hey, this is in a carton that has the following dims  
Does this make sense?

next



## FULFILLMENT STRATEGIES

What quantity am I picking?

Multiple Pack sizes



When using RF the quantities are assumed to be the base unit of measure. The picklist can show the pack size eg. Case (containing 12 eaches)

Pack size can be more complex than just eaches and cases

Historically, this hasn't been much of an issue – base unit of measure generally was case, unless you were handling electronic goods or pallet rolls or small parts when it would have been an each.

Data entry in OE01 doesn't let you change the UOM

Fulfillment is more complex – there can be multiple units of measure, eaches, innerpacks, master packs, sleeves (not what you put your arm in)

Dealing with multiple skus

Click

Some time back we added a multi sku configuration to CR10 but this isn't something

that became popular so you likely haven't heard much about it, plus it never accommodated RF.

We now have a way to handle pack sizes

CR10 units of measure, well we have a multi sku feature in there that permits the definition of multi sku units of measure.

This of course raises other questions like:

How do I setup a pickline in more than one unit of measure?

Can we do billing by inner pack?

And more....

Today's objective is to show you how the physical picking could be handled

(Tim, see I didn't once mention anything about thinking outside of the box)

## FULFILLMENT STRATEGIES

Multi Sku

CR62 Pack Size

01*Client	TEST	TEST CLIENT
02*Product	1001	
03*Desc-1	Product 1001 description	
04.Desc-2		
< Details >		
50.Pallet Tie :	48	
51.Pallet Tier :	20	
52.Pallet Oddtie :	0	
53.SKUs / Pallet	960	
54*Pack Size :	48	CS
55.Packing :	0	N 0
56.Reporting Qty:		

Today we have CR62 configuration – pallet tie and tier

But what about the pack size?

Click

you can in field 54 define a pack and this will print on the picking document for the benefit of the picker

Limited application

Fields 55 were put there for the intention of master packs but there is a better way and we needed more flexibility going forward

# FULFILLMENT STRATEGIES

CR10 Multi Sku

< Multiple stock keeping unit set codes >

01\*Code MPACK1 Set exists, not currently used

02\*Description Multi pack1

03\*Base unit of measure EA

04.Unit of measure 2	IPK	05.How many	EA	in a	IPK	12
06.Unit of measure 3	CS	07.How many	IPK	in a	CS	4
08.Unit of measure 4	PAL	09.How many	CS	in a	PAL	20
10.Unit of measure 5		11.How many	PAL	in a		0
12.Unit of measure 6		13.How many		in a		0
14.Unit of measure 7		15.How many		in a		0
16.Unit of measure 8		17.How many		in a		0
18.Unit of measure 9		19.How many		in a		0
20.Unit of measure 10		21.How many		in a		0

CR10 Multi sku setup is much more flexible

Here you can see that

base UOM is the Each

Innerpack is 12 eaches

Case has 4 innerpacks

Pallet also can be defined as well as other pack sizes if required

There are other setups – this gives you an idea of flexibility

(don't try this at home)

# FULFILLMENT STRATEGIES

RF Pick and Pack demo



Over to Tim for the demo



# THANK YOU



INFO@MAVES.COM



HTTP://WWW.MAVES.COM/