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IFS FSM™ INVENTORY & LOGISTICS

IFS ESSENTIALS COURSE – IFS FSM 6

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IFS ACADEMY





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A low-angle photograph of a worker in a blue uniform and safety harness climbing a red metal tower against a clear blue sky. The worker is positioned in the lower-left quadrant of the slide.

<h1>AGENDA</h1> <h2>FSM ESSENTIALS COURSE</h2>	01 FSM INTRODUCTION & SOLUTION OVERVIEW	02 FSM CORE ENTITIES	
		03 FSM CORE PROCESSES	04 BASIC CONFIGURATION AND MOBILE OVERVIEW

This is the agenda for the week’s course.
This morning is highlighted in the green box

AGENDA



01
INTRODUCTION

02
INVENTORY &
LOGISTICS
OVERVIEW

03
WRAP UP

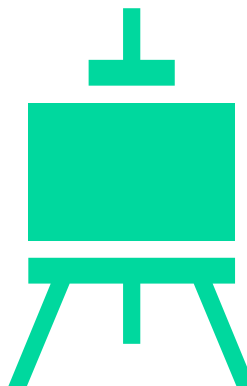


OUR TRAINING APPROACH

HOW WE LIKE TO DELIVER TRAINING

Learning Activities

Facilitator-led instruction
System Demos
Take home Exercises
Knowledge Tests



LEARNING ACTIVITIES

Facilitator-led Instruction

We try not to do too much of this, but it's inevitable that some of that we do during the course will involve me taking you through some slides and providing some information about how the system is structured, is designed to work and to show you how to configure the solution.

System Demos

Then, of course, we'll show you what this looks like in the system so that you can fully appreciate what we've been talking about

Hands-On

The most important part of what you'll do while you're here is get the opportunity to do some hands-on work in the training environment. This will always be a bit artificial compared to what you'll do back in the real world, but it's really important to have a go

Activities

These will be designed to give you a break from the screen and add a bit of fun!

Review sessions

This is where we'll aim to consolidate the learning that we've covered and make sure everyone has the basis they need to move on to the next steps

Knowledge Tests

Nothing heavy, just a little self-assessment so that you can check your learning progress and understand where your knowledge gaps are

LEARNING APPROACHES

Outcomes-based

For each lesson we'll set out, at the beginning, what we anticipate you'll be able to do by the end of the course – this means we're focused on what you'll be able to do with the training, not just on the training itself

Field service context-based

Field service is quite a distinctive business area and if you understand a bit about that context, it will really help you to appreciate what IFS customers are looking for when they implement this solution

Practically, functionally-based

We want to teach you things that are useful; whilst the code behind the scenes might be interesting to some, this course is about a practical, functional knowledge base that will allow you to implement the solution

Peer learning

There are people here from different backgrounds, with different experiences; if you get the opportunity to hear and share some of that, you'll find it makes the course more useful and more interesting



INVENTORY

LEARNING OUTCOMES

By the end of this lesson, should:

- Understand basic Inventory management processes
- Understand Stock control and parts management
- Be able to configure basic inventory management in FSM



INVENTORY

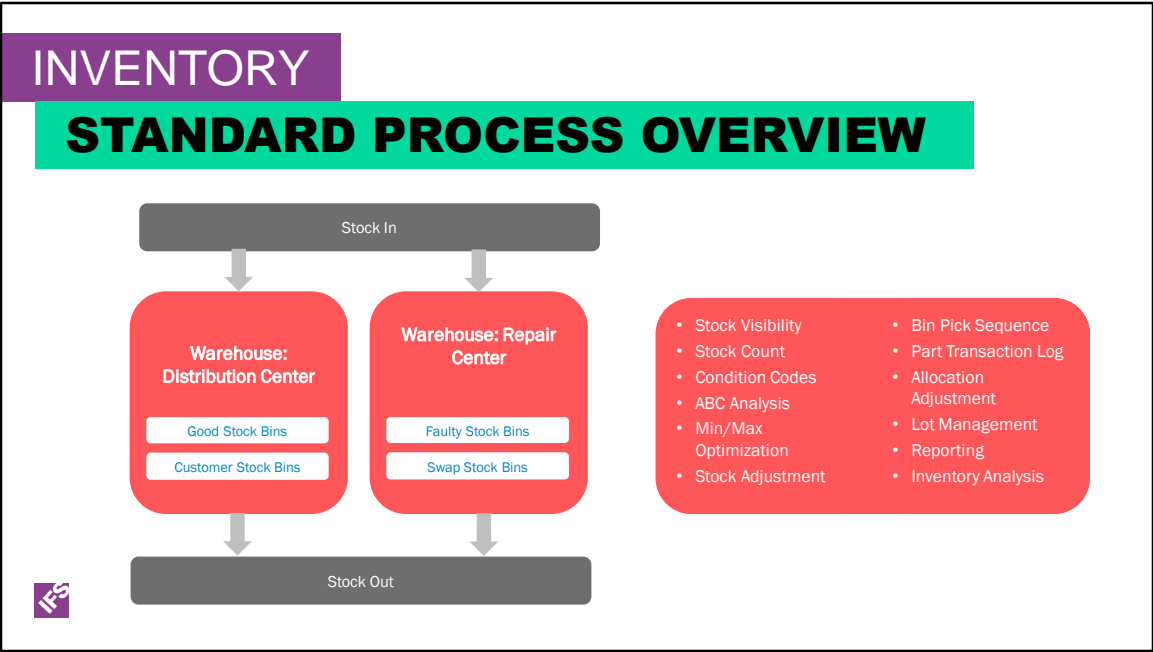
INVENTORY MANAGEMENT PROCESS

Inventory Management is the process of acquiring and storing non-capital assets (raw materials or finished goods) to fulfill business activities.

- In Field Service, this primarily relates to the management of spare parts and components for the completion of service delivery

Having the *right parts*, in the *right quantities*, in the *right place* at the *right time*





Inventory is the management of your parts and stock. Movement of the parts and stock from one Place/Location to another is Logistics, which we will cover in the next section of the training.

Inventory management sits in the center of the process, and includes all aspects required to ensure the right stock is available in the right quantities at the right time (right place aspect is the responsibility of Logistics)

Aspects of inventory management that are of interest are stock control (counting, replenishment, adjustments, allocation of stock to Tasks/Requests etc) and reporting and analysis

INVENTORY

STOCK ADJUSTMENT OVERVIEW

To adjust Stock quantities outside of normal count period, or to move/adjust Stock quantities without using the shipping/receipt process, you can process an **Adjustment**

TIP: The move/transfer Stock 'To' fields will only appear if you select a valid Adjustment Reason, ie Scrap suggests disposal of Stock so no relevant 'To' options



Every time you use, transfer, order or move a part, FSM creates a transaction log (a.k.a., part transaction log, part tranlog). Part transactions are logged for internal purposes and for you to use for research purposes. In addition to other information, you can see the activity date, the ID of the person who created the transaction, the adjustment reason if it is associated to a stock adjustment, and each serial ID and transaction type involved in the transaction. For example, you can verify the variances that were posted during a stock count.

Source ID identifies the source activity that caused the part transaction. This will be the stock count run ID, the shipment ID, the receiving ID or the request ID.

Source Type identifies the type of source activity that caused the part transaction. Used with Source ID. For example, the source type for a stock count run ID is "PC" (physical count). The source type for a stock adjustment is "ID" (online screen).

Transactions to be logged:

- On-hand quantity changed
- In-transit quantity changed
- Part Cost Change performed using the Logistics Manager screen

Part transfers are logged as two transactions; in-transit transfers are logged as four transactions; and, a shipment or receipt is logged as one transaction.

Use **Global Sequence** and **Part Transactn ID** to help troubleshoot integrations.

Company Unit Cost and **Company Defective Cost** represent the unit cost and defective cost of the transaction, respectively, in company currency.

Note that there is no purging allowed from this table.

INVENTORY

OTHER PROCESSES

Inventory Process	Description
Allocation	Reserves Stock for a Part Need – required to consume a Part
Stock Counts	Counting of physical stock in the inventory and comparing it to FSM records
Replenishment	Method of creating a Part Need. Need to specify the appropriate maximum and minimum quantities
Refill to Target	Examines Stock not committed and automatically creates Purchase Orders to add Stock and maintain calculated maximums
Min/Max Analysis	Re-evaluation of minimum and maximum Part levels. Provides a recommendation for changes
Stock ABC Analysis	Classifies Stock by usage or value for the purposes of analysis
Purchasing	The process for procuring new Parts from third-party suppliers

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TIP: In FSM, these processes can be found in various parts of the Inventory >> Logistics Manager or Inventory >> Logistics menus

Logistics Manager

Allocate Part Needs

Allocation Adjustments

Bulk Third Party Repair

Miscellaneous Adjustments

Part Cost Change

Pick List

Roll To Targets

Replenish Stock

Set Part Need Places

Transfer Bin

Put Away List

Stock

Logistics

Bill Of Lading

Kitting

Part Need Search

Pending Receipt

Put Away

Receiving

Ship Handling Units

Shipping

Stock Counts

Stock Counts Exceptions

Every time you use, transfer, order or move a part, FSM creates a transaction log (a.k.a., part transaction log, part tranlog). Part transactions are logged for internal purposes and for you to use for research purposes. In addition to other information, you can see the activity date, the ID of the person who created the transaction, the adjustment reason if it is associated to a stock adjustment, and each serial ID and transaction type involved in the transaction. For example, you can verify the variances that were posted during a stock count.

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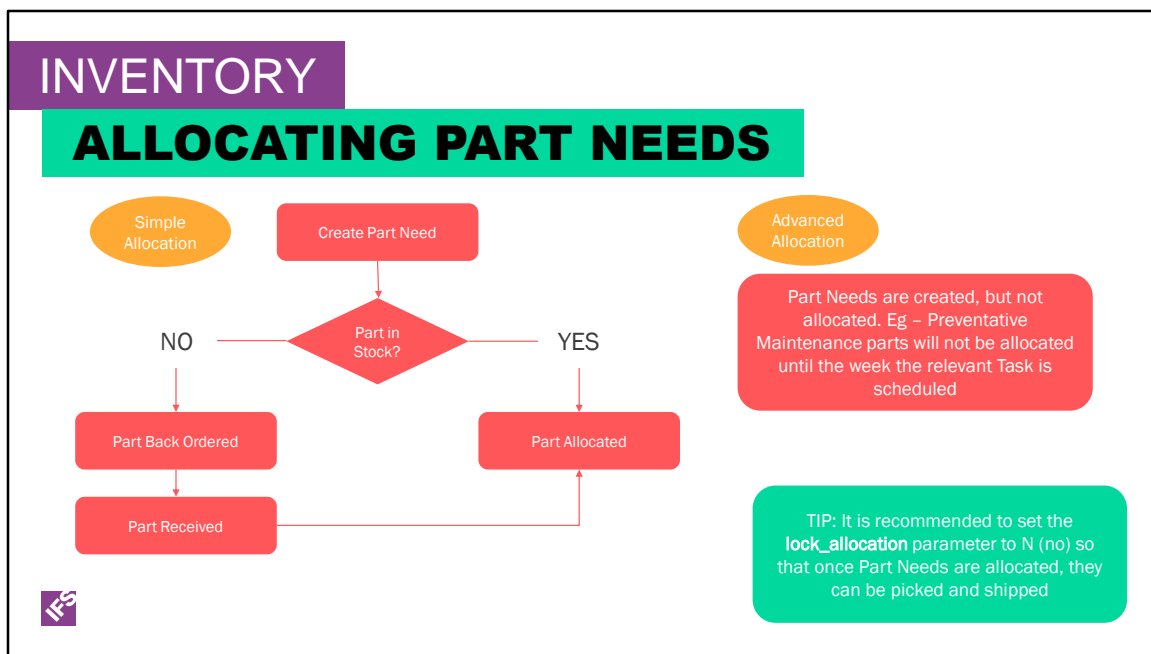
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Allocation reserves stock for a part need. After a part need is allocated, it can then be picked and shipped. The type of allocation you perform is determined by the **allocate_needs_upon_insert** application parameter. When Y (yes), simple allocation is performed when the part need is created. When N (no), you must perform advanced allocation.

Using **simple allocation**, as soon as a part need is created, it is immediately allocated. If stock is not available, then the part need is backordered. When stock becomes available, backorders are automatically allocated by earliest date needed.

Using **advanced allocation**, part needs are created but are not allocated. For example, when you create preventative maintenance requests with part needs, the request might be scheduled six months in advance, but you do not want to allocate the part needs until the week of the preventative maintenance.

There are application parameters that affect allocations:

Lock_allocation to force stock allocations, reallocations, and deallocations to process in serial, one-at-a-time order, set this value to Y (yes). We recommend you set this value to N (no).

Once part needs are allocated, they can be picked and shipped.

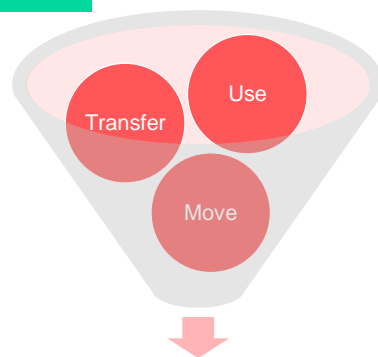
INVENTORY

PART TRANSACTION LOG

When a Part is used, transferred, ordered or moved, FSM creates a **Transaction Log**.

- Activity Date
- Person ID
- Adjustment reason
- Serial ID
- Transaction Type
- Source ID/Type – identifies the activity that caused the part transaction, eg stock count ID, Request ID

TIP: Transaction Logs are created for internal purposes, ie for research, reporting and audit, with the aim of more effective inventory management



Part Transaction Log

Every time you use, transfer, order or move a part, FSM creates a transaction log (a.k.a., part transaction log, part tranlog). Part transactions are logged for internal purposes and for you to use for research purposes. In addition to other information, you can see the activity date, the ID of the person who created the transaction, the adjustment reason if it is associated to a stock adjustment, and each serial ID and transaction type involved in the transaction. For example, you can verify the variances that were posted during a stock count.

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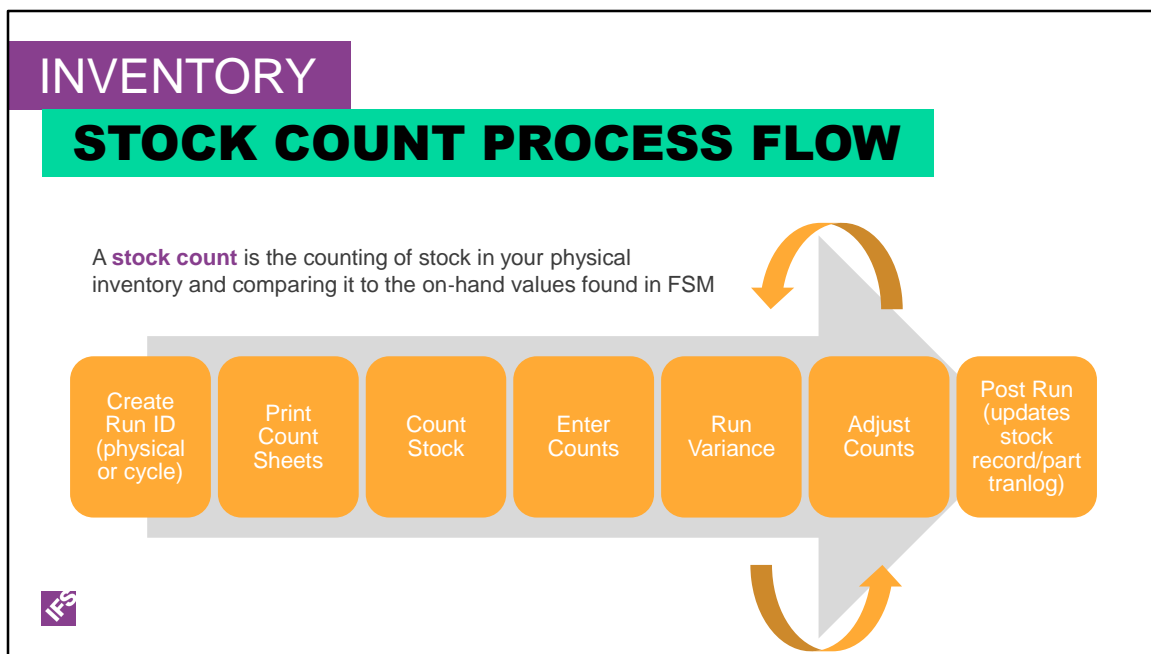
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Note that there is no purging allowed from this table.



A **stock count** is the counting of stock in your physical inventory and comparing it to the on-hand values found in FSM. You can perform the following types of stock counts:

- A physical count is the count of certain items without time period restrictions, for example the yearly inventory. It will count all stock records based on criteria entered. It updates Last Activity Date on Stock record.
- A cycle count is the count of stock records whose cycle count date falls on or before the cutoff date specified in “Count Cutoff Date” field. It only will count based on Cycle Count Period and Last Activity Date on Stock record. Note that the “Last Activity Date” on the stock record is also updated with a Physical Count so it may throw your cycle counts off if you do both physical and cycle counts.
- An ABC count is a count of items that are either most valuable or used most often. Uses ABC Codes from Part record. You should perform an ABC analysis first. This will be discussed in a later lesson.

Note that the only difference between the three types is how the data is gathered for the run.

Stock Count Generation screen is a filter screen. The more data you enter, the more the criteria is restricted. In addition, you can restrict by part and/or bin and/or lot.

Once the stock count run sheets have been generated, you can print them for distribution.

The Stock Count reports can be found under the File>Reports menu: Stock Count Errors, Stock Count Exception, Stock Count Sheets, Stock Count Variance Details, Stock Count Variance Summary.

You do not need to enter all the counts at one time. You can record your counts as they are completed, repeating the process as often as necessary until all the stock

counts for the selected run have been recorded. If a part has been recorded in the location on the count sheet but not in the run on-line, the part can added to the run. Note: This process is time sensitive. It uses the count times and transaction times to reconcile any variation between the expected quantities and counted quantities. The **variance** is defined as the difference between the number of items IFS FSM has calculated as on hand and the number of items you actually counted. FSM tracks the number of items on hand based on date and time, so that the count is accurate. After the counts are entered, clicking the Variance button on the Stock Count screen calculates the variances.

Then **post** the stock counts. When you post the stock counts, it adjusts the on-hand quantities as of the date and time of the count by the amount of the variance. This accounts for any transactions you have performed since the count.

INVENTORY

ABC STOCK ANALYSIS OVERVIEW

- ABC Stock Analysis classifies stock by Usage or Value (Cost) and provides an indication of which high volume/high value stock should be closely monitored and which can have a lower priority, less frequent counting cycle
- Provides increased flexibility, including when managing customer stock
- Part records are assigned ABC value according to percentages you specify and duration

TIP: You must have a cost on the Part record to classify stock by Value



Stock ABC Analysis classifies stock by **usage** or **value** (cost). The stock is assigned an ABC code of A, B, or C based on identified percentages. ABC analysis allows:

- All parts, regardless of whether stock currently exists
- All stock, as before
- Stock at the location and bin level; if stock is analyzed in multiple locations and bins, different ABC values may be assigned to each bin

Why do you want to do Stock ABC Analysis? Benefits include increased flexibility, for example when you perform warranty repair for multiple companies and need to manage stock owned by each company. ABC coding calculates the percentage of part usage based on the quantity used or the extended cost of that use and falls within the time period you selected. It categorizes the parts based on the percentage levels you define, sorts that usage in descending order, largest usage to smallest and assigns the appropriate code. You can use the codes to determine cycle counts. This provides a guideline so you can closely monitor your high volume, high cost stock while minimizing your efforts on low volume, low cost stock. You could, for example, cycle count the A category weekly, the B category monthly, and the C category quarterly.

On the part record, the stock is assigned an ABC code of A, B, or C, according to percentages you specify and number of months included in the analysis. You must have a cost on the part record if you are classifying stock by

value. Usage is determined by part line codes with the "Count As Usage" option set, or any stock adjustment with an adjustment reason with the "Count As Usage" option set. This will be seen on the Part Tranlog in the field "Count As Usage".

The ABC Stock Analysis report can be found under the **File>Reports menu: Stock ABC Analysis**.



WRAP-UP



AGENDA
FSM ESSENTIALS COURSE

01
FSM
INTRODUCTION
& SOLUTION
OVERVIEW

02
FSM CORE
ENTITIES

03
FSM CORE
PROCESSES

04
BASIC
CONFIGURATION
AND MOBILE
OVERVIEW

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AGENDA



01
INTRODUCTION

02
LOGISTICS
FUNCTIONS

03
WRAP UP





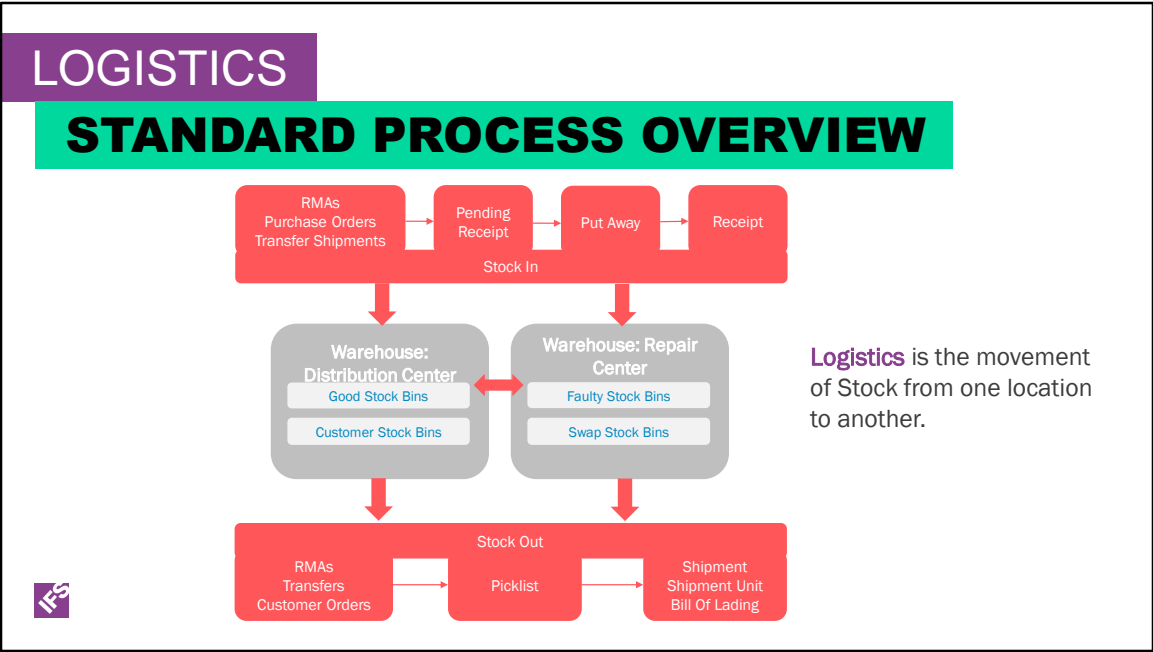
LOGISTICS

LEARNING OUTCOMES

By the end of this lesson, you should:

- Understand standard Logistic processes
- Understand Stock movement
- Be able to configure basic Logistics processes in FSM





Logistics is the movement of stock from one location to another. Some examples of transferring stock are from warehouse to warehouse, Repair Center to Repair Center, Repair Center to Vendor, warehouse location to another location within the same warehouse, or Supplier to warehouse.

Associated with Inventory are shipping, receiving and the Logistics Manager module which allows for movement of stock between internal and external locations as well allowing for stock replenishment to stocking locations.

LOGISTICS

TYPES OF STOCK MOVEMENT

Logistics Process	Description
Pick Lists / Put Away	Enable the physical collection of parts for shipping. Completed via the Pick List Generation screen, or via the Request, RMA or Task. Put Away is the reverse for goods received.
Bill of Lading	Collection of shipments being sent together, recording individual shipments, shipment handling units or a combination
Shipment / Receipt	The dispatching and receiving of the goods
Part Disposition	Disposal or removal of a Part (often hazardous or expensive) that needs to be accounted for
Repair Center Transfers	Moves items within the Repair Center
3rd Party Repair	Creates Requests and Purchase Orders to send items to a third party
Transfer a Bin	Moves the Bin and its contents to another Location or to another Bin
Lot Control	Enables tracking of each item to its group of origin



As illustrated in the previous slide, logistics is movement of stock. Many of the movements are found under the menu item Inventory, Logistics, Logistics Manager.

All movements of stock are recorded in **Part Transactions log**. They are logged for internal purposes and for you to use in research purposes.

Pick Lists enable you to physically collect parts to be shipped when creating shipment records for allocated part needs. Picking is done either on the Pick List Generation screen or on the Request, RMA or Task via the "Print Picks" button.

Once the items are collected and ready to ship, **Shipping** can be performed. A **Bill of Lading** is a collection of shipments being sent together same carrier / same conveyance. Bill of lading can record individual shipments, shipment handling units, or a combination of both.

Receiving accepts items into inventory that were sent on an RMA, transferred in-transit, or purchased on a purchase order.

Part Disposition is normally performed during service when you dispose or remove a part that must be accounted for. Typically these parts are bio-hazardous or expensive.

There are times that you need to move stock or adjust quantities when you do not need to use the receiving or shipping processes. This is done through **Stock Adjustments**.

Repair Center Transfers moves items within the repair center.

3rd Party Repair creates requests and purchase orders to send items to your third-party repair center or vendor. Another stock movement is to **Transfer a bin** and its contents from one location to another or you can transfer the contents of a bin to another bin.

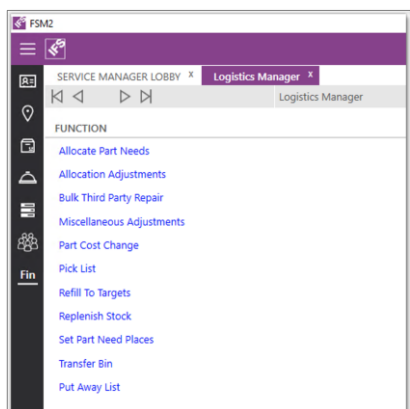
Put Away is conceptually similar to picking, but in reverse. A list of items to put away is generated with locations and bins.

Lot Control is a supply chain concept used to ensure that every piece of inventory can be tracked to its group of origin. Lots are specific batches of a part that was received, is currently stored, or was shipped from your warehouse. Lots are normally assigned a unique number (lot id).

We will look at various examples of stock movement over the next few slides. We will discuss logistics in greater detail in the *IFS FSM Logistics* course.

LOGISTICS

LOGISTICS MANAGER



The Logistics Manager menu provides access to the screens needed to manage the movement, ordering and tracking of parts in different locations.

Commonly used screens are:

- **Allocate Part Needs**
- **Allocation Adjustment**
- **Pick List**
- **Refill To Targets**
- **Replenish Stock**

- Allocate Part Needs – allocates a Part Needs to a Request, thereby creating a requirement within the system for a Part that is matched with the relevant Request/Task
- Allocation Adjustment – adjustments to the allocation of parts
- Pick List – covered on next slide
- Refill To Targets – sets the target quantities which will trigger the ordering of new parts
- Replenish Stock – facilitates the movement of parts from one location to another where there is a need

LOGISTICS

PICK LIST GENERATION

Pick Lists identify Parts to be picked from inventory, with their associated Location and Shipping location. There are 2 methods:

PRINT PICKS

Found on Parts Need record
Picks all Parts and allows partial quantities

PICK LIST GENERATION (LOGISTICS MANAGER)

Picks all parts based on criteria specified
Options for partial quantities

Pick List report generated
Part Need status updated to 'PickListGenerated'
Shipment ID hyperlink on Part Need

Pick lists identify parts that need to be picked from inventory to fulfill part needs as well as where the parts are located, and where they need to be shipped. Pick list generation generates the shipment records that enables you to physically collect parts to be shipped. The part need status is updated to show pick list have been generated. Pick list generation is an asynchronous process.

Picking can be done two ways.

Print Picks is found on the Part Needs record. This method picks all the parts on the request and allows all partial quantities on the pick list. Once the pick list is generated, a Pick List report is created, the part need status is updated to "PickListGenerated" and there is a Shipment ID hyperlink on the part need.

Pick List Generation is found under Logistics Manager. This method picks all the parts based on the criteria selected and has three choices for allowing partials: Do Not Allow Partial, Allow In-Stock Partial, Allow All Partial. Normally this method is used by the Shipping department and run several times a day. Once the pick list is generated, a Pick List report is created, the part need status is updated to "PickListGenerated" and there is a Shipment ID hyperlink on the part need.

For picking, you can choose how many records as the threshold between running interactively (foreground) versus running in the background.

Async_threshold_inventory_picking identifies the number of part needs to pick that causes the picking process to be run asynchronously instead of interactively. Value is any positive integer.

Note that if you do need to make a change to the part need in a "PickListGenerated" or "Shipped" status, you will need to delete the shipment to revert the part need back to "Entered" status.

LOGISTICS

SHIPPING SCREEN

Shipping of Parts can be done directly to the customer/vendor, or to a Person or Warehouse

Shipment Header:

Shipment Detail:

Shipment Units:

Service Manager Lobby - Shipment

216

Shipment ID: 216
Request/RMA ID: 612
Released: 20/8/2017 16:34
Freight Amount: 0.00
Shipping Person: ADMIN
Ship From Place: MX CORP
Shipped: 20/8/2017 16:34

Ship To Transit: gr
Ship Via: Standard
Freight Terms:
Shipment Type: TRANS
Customs ID:

Address ID: 121
Address: 2015 Plaza Ct
Waukegan, WI 53186
US
External Ship ID:
Way Bill:

Posted: Full
Our Shipment ID: 216
Shipment Weight: 0.00
Weight UOM:
Box Count: 1
Cubic UOM:
Cubic Size: 0.00

Serial Entry 1

Lines Notes

Units

Serial Entry tab allows quick entry of multiple units using default information from the serial number

TIP: To undo a shipment you can Unpost, which reverses the stock transaction and puts the Part Need back to 'PickListGenerated' status, or you can delete the shipment and the Part Need is set to 'Entered'

The Shipping screen is used to ship parts out of the application. These parts can be sent direct to the customer or vendor. Or, sent intransit to your technician or another warehouse and they would need to record that they received the part.

Using the Serial Entry tab of the Shipping screen, you can easily enter multiple items and they will automatically be matched up with the appropriate lines.

For shipping, you can choose how many records as the threshold between running interactively (foreground) versus running in the background.

Note that there are times that you may have shipped the incorrect serial or unit and need to unpost the shipment. Unposting the shipment reverses the stock transaction and puts the part need in 'PickListGenerated' status again. If you delete the shipment, the part need is set to 'Entered' status whereby you can run the picklist generation process again.

The **serial entry** tab is used to quickly enter multiple units quickly. Information on the Lines tab is updated as each unit is entered. Serial numbers entered are matched with receiving details and receiving units are created. If a serial number cannot be found, an error is recorded on the line. Clicking the **Process** button or posting the receipt processes the entered serialized items.

There are application parameters that are significant to shipping:

Async_threshold_shipment_post identifies the number of shipment units to post that causes the posting process to be run asynchronously instead of interactively. Value is any positive integer.

Max_lines_per_shipment to limit the number of shipment lines that appear on a shipment, set this value to a positive integer value.

LOGISTICS

RECEIVING

1 Received (date)

2 Receive to Place

3 Posted

4 Post / Unpost button: updates inventory and financial records

5 Actual Cost

6 Quantity Rejected

7 Receive Short

8 Usable

9 Serial Entry tab

RECEIVING HEADER

Service Manager Lobby x Receiving x

231

Received 29/1/2018 16:10

Received ID 231

Receiving Type Intransit Shipment

Post Not Posted

Receive To Place TRUCK01

Receiving Person ADMIN

Way Bill

External Ship ID

Weight

Weight UOM

Cubic UOM

Ship Via UPS

Freight Terms

Customs ID

Our Receiver ID

Box Count

Cubic Size

RECEIVING HEADER

Lines 1 Serial Entry 9 Notes Misc Costs

10 Showing 1 - 1 of 1 records

Line #	Posted	Item ID	Location	Usable	Actual Cost	Quantity Rejected	Quantity Received	Receive Short
13		HD500	GOOD	<input checked="" type="checkbox"/>		0.00000	1.00	<input type="checkbox"/>

The Receiving screen is used to receive parts into the application. There are fields on the receiving header screen that are significant.

Receiving identifies the date and time that the items were received.

Place ID to Receive identifies the place that received the received items

Posted indicates whether inventory is adjusted. N = No, P = Partial, Y = Yes (Full).

Post/Unpost button updates both inventory and financial records. Posting a receipt will cause inventory to increment and update the part transaction log. Unposting will reverse the transaction. The part transaction log will be updated with the reversal.

The **receiving line** contains information significant information for the receipt.

Actual Cost is the actual cost of the part received. It will be used to update the average cost.

Quantity rejected will place the outstanding purchase orders and in-transit quantity back into the on-hand quantity of the shipping location and keep the line open waiting for the remainder to be received.

Receive short will place the outstanding purchase orders and in-transit quantity back into the on-hand quantity of the shipping location and close the line. The quantity ordered remains unchanged.

Usable is used to indicate the usability of the part. By default, for example, purchase orders are received usable. Repair center receipts are received unusable.

The **serial entry** tab is used to quickly enter multiple units. Information on the Lines tab is updated as each unit is entered. Serial numbers entered are matched with receiving details and receiving units are created. If a serial number cannot be found, an error is recorded on the line. Clicking the **Process** button or posting the receipt processes the entered serialized items.

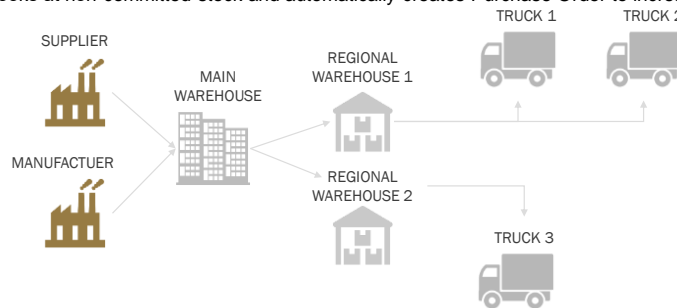
LOGISTICS

REPLENISHMENT & REFILL PIPELINE

▪ **Replenishment** is the process of moving stock from one location to another location, via Requests or Part Needs, based on minimum and maximum quantities shown on the stock record and outstanding backorders.

▪ **Refills** is the process of bringing parts in from an outside source to refill stock quantities. Refilling goes to the top level Warehouse. The 'Refill to Target' feature looks at non-committed stock and automatically creates Purchase Order to increase stock as required.

The stock pipeline may be simple or extensive; just-in-time or with longer lead times, depending on the business need.



Replenishments is the process of moving stock from one location to another location. Replenishments create requests / part needs to transfer stock from one location to another location. This is based on minimum and maximum quantities on stock record and outstanding backorders. **Refills** is the process of bringing parts in from an outside source such as a distributor or vendor to refill stock quantities. The stocking places that you are refilling will be your top level warehouse(s). The Refill to Target process examines the stock that is not committed and automatically creates purchase orders to increase stock to the maximums calculated.

You need to define your stock “pipeline”, that is, you need to determine who supplies stock to whom. Depending on your service operations, the pipeline may be extensive or simple. In an extensive pipeline, the parts may flow from your suppliers to national warehouses to regional warehouses to branch warehouses to service truck. In a simple pipeline, the parts may flow from the supplier to your warehouse to your truck. The frequency with which you replenish stock will depend on your volume of part usage and the quantity of on-hand parts you want to maintain.

PURCHASING PROCESS

[illegible][illegible]

Refill To Target and Bulk third party processes allow the user to generate purchase orders or purchase requisitions.



WRAP-UP





IFS FSM™ INVENTORY MANAGEMENT & LOGISTICS

IFS ESSENTIALS COURSE – IFS FSM 6

DHANUSHKI PAHATHKUMBURE
SENIOR BUSINESS SYSTEMS ANALYST

IFS ACADEMY





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AGENDA

FSM ESSENTIALS COURSE

01

FSM INTRODUCTION & SOLUTION OVERVIEW

02

FSM CORE ENTITIES

03

FSM CORE PROCESSES

04

BASIC CONFIGURATION AND MOBILE OVERVIEW





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This is the agenda for the week’s course.
This morning is highlighted in the green box

SESSION AGENDA

01
INTRODUCTION

02
LOGISTICS
FUNCTIONS

03
WRAP UP







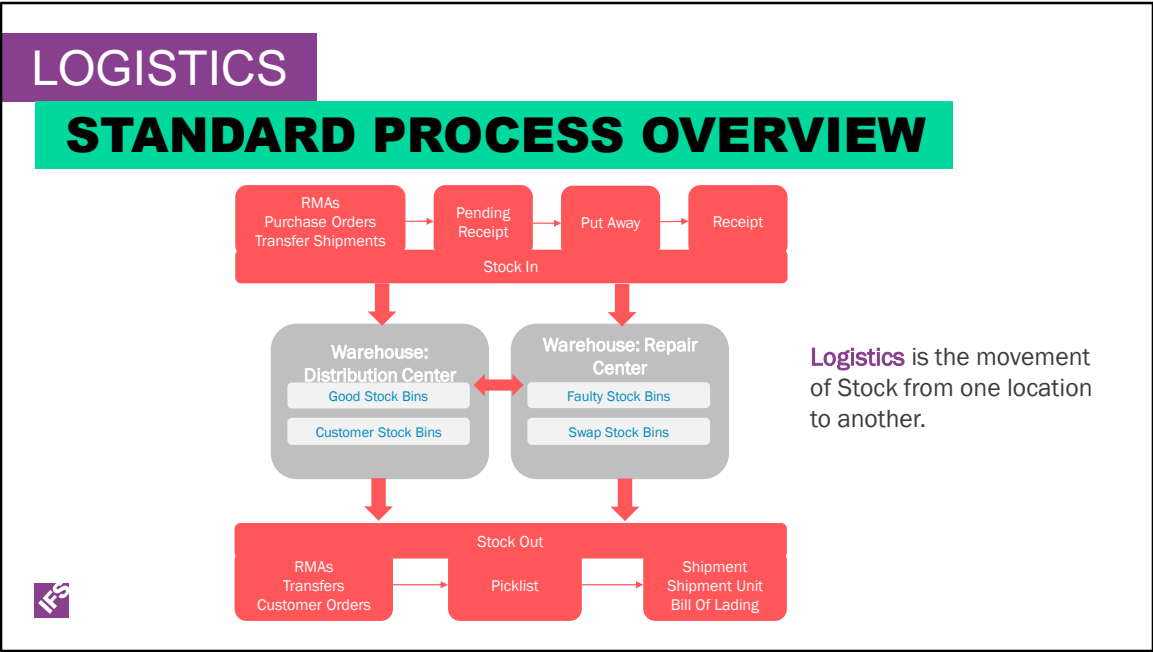
LOGISTICS

LEARNING OUTCOMES

By the end of this lesson, you should:

- Understand standard Logistic processes
- Understand Stock movement
- Be able to configure basic Logistics processes in FSM





Logistics is the movement of stock from one location to another. Some examples of transferring stock are from warehouse to warehouse, Repair Center to Repair Center, Repair Center to Vendor, warehouse location to another location within the same warehouse, or Supplier to warehouse.

Associated with Inventory are shipping, receiving and the Logistics Manager module which allows for movement of stock between internal and external locations as well allowing for stock replenishment to stocking locations.

LOGISTICS

TYPES OF STOCK MOVEMENT

Logistics Process	Description
Pick Lists / Put Away	Enable the physical collection of parts for shipping. Completed via the Pick List Generation screen, or via the Request, RMA or Task. Put Away is the reverse for goods received.
Bill of Lading	Collection of shipments being sent together, recording individual shipments, shipment handling units or a combination
Shipment / Receipt	The dispatching and receiving of the goods
Part Disposition	Disposal or removal of a Part (often hazardous or expensive) that needs to be accounted for
Repair Center Transfers	Moves items within the Repair Center
3 rd Party Repair	Creates Requests and Purchase Orders to send items to a third party
Transfer a Bin	Moves the Bin and its contents to another Location or to another Bin
Lot Control	Enables tracking of each item to its group of origin



As illustrated in the previous slide, logistics is movement of stock. Many of the movements are found under the menu item Inventory, Logistics, Logistics Manager.

All movements of stock are recorded in **Part Transactions log**. They are logged for internal purposes and for you to use in research purposes.

Pick Lists enable you to physically collect parts to be shipped when creating shipment records for allocated part needs. Picking is done either on the Pick List Generation screen or on the Request, RMA or Task via the “Print Picks” button.

Once the items are collected and ready to ship, **Shipping** can be performed. A **Bill of Lading** is a collection of shipments being sent together same carrier / same conveyance. Bill of lading can record individual shipments, shipment handling units, or a combination of both.

Receiving accepts items into inventory that were sent on an RMA, transferred in-transit, or purchased on a purchase order.

Part Disposition is normally performed during service when you dispose or remove a part that must be accounted for. Typically these parts are bio-hazardous or expensive.

There are times that you need to move stock or adjust quantities when you do not need to use the receiving or shipping processes. This is done through **Stock Adjustments**.

Repair Center Transfers moves items within the repair center.

3rd Party Repair creates requests and purchase orders to send items to your third-party repair center or vendor. Another stock movement is to **Transfer a bin** and its contents from one location to another or you can transfer the contents of a bin to another bin.

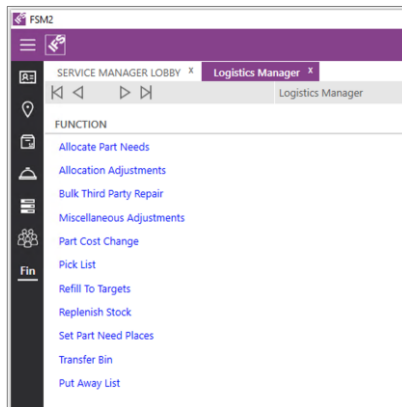
Put Away is conceptually similar to picking, but in reverse. A list of items to put away is generated with locations and bins.

Lot Control is a supply chain concept used to ensure that every piece of inventory can be tracked to its group of origin. Lots are specific batches of a part that was received, is currently stored, or was shipped from your warehouse. Lots are normally assigned a unique number (lot id).

We will look at various examples of stock movement over the next few slides. We will discuss logistics in greater detail in the *IFS FSM Logistics* course.

LOGISTICS

LOGISTICS MANAGER



The Logistics Manager menu provides access to the screens needed to manage the movement, ordering and tracking of parts in different locations.

Commonly used screens are:

- **Allocate Part Needs**
- **Allocation Adjustment**
- **Pick List**
- **Refill To Targets**
- **Replenish Stock**

- Allocate Part Needs – allocates a Part Needs to a Request, thereby creating a requirement within the system for a Part that is matched with the relevant Request/Task
- Allocation Adjustment – adjustments to the allocation of parts
- Pick List – covered on next slide
- Refill To Targets – sets the target quantities which will trigger the ordering of new parts
- Replenish Stock – facilitates the movement of parts from one location to another where there is a need

LOGISTICS

PICK LIST GENERATION

Pick Lists identify Parts to be picked from inventory, with their associated Location and Shipping location. There are 2 methods:

PRINT PICKS

Found on Parts Need record
Picks all Parts and allows partial quantities

PICK LIST GENERATION (LOGISTICS MANAGER)

Picks all parts based on criteria specified
Options for partial quantities

Pick List report generated
Part Need status updated to 'PickListGenerated'
Shipment ID hyperlink on Part Need

Pick lists identify parts that need to be picked from inventory to fulfill part needs as well as where the parts are located, and where they need to be shipped. Pick list generation generates the shipment records that enables you to physically collect parts to be shipped. The part need status is updated to show pick list have been generated. Pick list generation is an asynchronous process.

Picking can be done two ways.

Print Picks is found on the Part Needs record. This method picks all the parts on the request and allows all partial quantities on the pick list. Once the pick list is generated, a Pick List report is created, the part need status is updated to “PickListGenerated” and there is a Shipment ID hyperlink on the part need.

Pick List Generation is found under Logistics Manager. This method picks all the parts based on the criteria selected and has three choices for allowing partials: Do Not Allow Partial, Allow In-Stock Partial, Allow All Partial. Normally this method is used by the Shipping department and run several times a day. Once the pick list is generated, a Pick List report is created, the part need status is updated to “PickListGenerated” and there is a Shipment ID hyperlink on the part need.

For picking, you can choose how many records as the threshold between running interactively (foreground) versus running in the background.

Async_threshold_inventory_picking identifies the number of part needs to pick that causes the picking process to be run asynchronously instead of interactively. Value is any positive integer. Note that if you do need to make a change to the part need in a “PickListGenerated” or “Shipped” status, you will need to delete the shipment to revert the part need back to “Entered” status.

LOGISTICS

SHIPPING SCREEN

Shipping of Parts can be done directly to the customer/vendor, or to a Person or Warehouse

Shipment Header:

Shipment Detail:

Shipment Units:

The screenshot shows the IFS Shipping screen with the Serial Entry tab selected. The header section contains fields for Shipment ID (216), Ship To (216 Plaza Ct, Waukegan, WI 53186, US), and various shipping details like Release Date (20/8/2017 16:34) and Freight Amount (0.00). The Serial Entry tab is highlighted with an orange circle and a '1' icon. Below the tab, there is a table for entering units with columns: Item #, Item ID, Part, Location, and Usable. A message 'No Records Available' is displayed in the table. To the right of the table, there are buttons for 'New', 'Delete', 'Select', and 'Process'. A tip box on the right side of the screen states: 'Serial Entry tab allows quick entry of multiple units using default information from the serial number'.

TIP: To undo a shipment you can Unpost, which reverses the stock transaction and puts the Part Need back to 'PickListGenerated' status, or you can delete the shipment and the Part Need is set to 'Entered'



The Shipping screen is used to ship parts out of the application. These parts can be sent direct to the customer or vendor. Or, sent intransit to your technician or another warehouse and they would need to record that they received the part.

Using the Serial Entry tab of the Shipping screen, you can easily enter multiple items and they will automatically be matched up with the appropriate lines.

For shipping, you can choose how many records as the threshold between running interactively (foreground) versus running in the background.

Note that there are times that you may have shipped the incorrect serial or unit and need to unpost the shipment. Unposting the shipment reverses the stock transaction and puts the part need in 'PickListGenerated' status again. If you delete the shipment, the part need is set to 'Entered' status whereby you can run the picklist generation process again.

The **serial entry** tab is used to quickly enter multiple units quickly. Information on the Lines tab is updated as each unit is entered. Serial numbers entered are matched with receiving details and receiving units are created. If a serial number cannot be found, an error is recorded on the line. Clicking the **Process** button or posting the receipt processes the entered serialized items.

There are application parameters that are significant to shipping:

Async_threshold_shipment_post identifies the number of shipment units to post that causes the posting process to be run asynchronously instead of interactively. Value is any positive integer.

Max_lines_per_shipment to limit the number of shipment lines that appear on a shipment, set this value to a positive integer value.

LOGISTICS

RECEIVING

1 Received (date)

2 Receive to Place

3 Posted

4 Post / Unpost button: updates inventory and financial records

5 Actual Cost

6 Quantity Rejected

7 Receive Short

8 Usable

9 Serial Entry tab

RECEIVING HEADER

Service Manager Lobby x Receiving x

231

Received 29/1/2018 16:10

Received ID 231

IMA ID

Shipment ID 218

PD ID

Posted Not Posted

Receive To Place TRUCK01

Receiving Person ADMIN

Way Bill

External Ship ID

Weight

Weight UOM

Cubic UOM

Ship Via UPS

Freight Terms

Receiving Type Intransit Shipment

Customs ID

Our Receiver ID

Box Count

Cubic Size

RECEIVING HEADER

Lines 1

Serial Entry 9

Notes

Misc Costs

8

5

6

7

10

Line #	Posted	Item ID	Location	Usable	Actual Cost	Quantity Rejected	Quantity Received	Receive Short
13		HD500	GOOD	<input checked="" type="checkbox"/>		0.00000	1.00	<input type="checkbox"/>

Showing 1 - 1 of 1 records

The Receiving screen is used to receive parts into the application. There are fields on the receiving header screen that are significant.

Receiving identifies the date and time that the items were received.

Place ID to Receive identifies the place that received the received items

Posted indicates whether inventory is adjusted. N = No, P = Partial, Y = Yes (Full).

Post/Unpost button updates both inventory and financial records. Posting a receipt will cause inventory to increment and update the part transaction log. Unposting will reverse the transaction. The part transaction log will be updated with the reversal.

The **receiving line** contains information significant information for the receipt.

Actual Cost is the actual cost of the part received. It will be used to update the average cost.

Quantity rejected will place the outstanding purchase orders and in-transit quantity back into the on-hand quantity of the shipping location and keep the line open waiting for the remainder to be received.

Receive short will place the outstanding purchase orders and in-transit quantity back into the on-hand quantity of the shipping location and close the line. The quantity ordered remains unchanged.

Usable is used to indicate the usability of the part. By default, for example, purchase orders are received usable. Repair center receipts are received unusable.

The **serial entry** tab is used to quickly enter multiple units. Information on the Lines tab is updated as each unit is entered. Serial numbers entered are matched with receiving details and receiving units are created. If a serial number cannot be found, an error is recorded on the line. Clicking the **Process** button or posting the receipt processes the entered serialized items.

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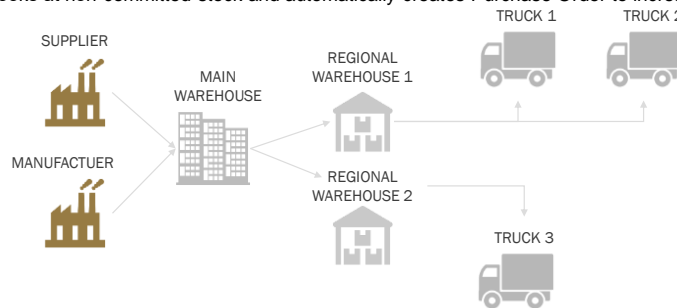
LOGISTICS

REPLENISHMENT & REFILL PIPELINE

▪ **Replenishment** is the process of moving stock from one location to another location, via Requests or Part Needs, based on minimum and maximum quantities shown on the stock record and outstanding backorders.

▪ **Refills** is the process of bringing parts in from an outside source to refill stock quantities. Refilling goes to the top level Warehouse. The 'Refill to Target' feature looks at non-committed stock and automatically creates Purchase Order to increase stock as required.

The stock pipeline may be simple or extensive; just-in-time or with longer lead times, depending on the business need.



Replenishments is the process of moving stock from one location to another location. Replenishments create requests / part needs to transfer stock from one location to another location. This is based on minimum and maximum quantities on stock record and outstanding backorders. **Refills** is the process of bringing parts in from an outside source such as a distributor or vendor to refill stock quantities. The stocking places that you are refilling will be your top level warehouse(s). The Refill to Target process examines the stock that is not committed and automatically creates purchase orders to increase stock to the maximums calculated.

You need to define your stock “pipeline”, that is, you need to determine who supplies stock to whom. Depending on your service operations, the pipeline may be extensive or simple. In an extensive pipeline, the parts may flow from your suppliers to national warehouses to regional warehouses to branch warehouses to service truck. In a simple pipeline, the parts may flow from the supplier to your warehouse to your truck. The frequency with which you replenish stock will depend on your volume of part usage and the quantity of on-hand parts you want to maintain.

LOGISTICS

PURCHASING PROCESS

The financial processes required to complete the stock replenishment process are **Purchase Requisition** and **Purchase Order**.

PURCHASE REQUISITION
Optional process, depending on business requirement

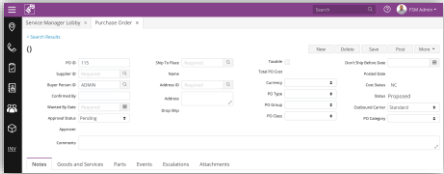
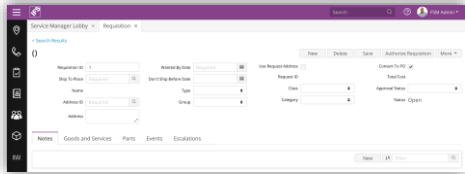
Notifies buying team to source the parts included on the requisition

Provides additional approval level

PURCHASE ORDER
Usually mandatory process

Communicate the Parts requirement to the supplier

Created using Refill to Targets or manually



FSM allows you to create a purchase requisition and/or a purchase order.

The **purchase requisition** is not a mandatory process but will be an additional step that can be followed. As part of the purchasing process within businesses there can be a team of buyers who decide where parts or services will be sourced from externally due to them knowing which supplier is the best to use for every situation along with taking the cost/pricing into account. A purchase requisition will notify the buyers to source the parts needed for them to add the supplier for each part and then generate the purchase orders.

Purchase orders are used to obtain parts from suppliers. They are either created using the refill to targets function, as described below, or you can create them manually. Purchase order lines can be specified with its own currency. Specified currencies will be used to find and use cost records with that currency when determining the cost of the item on that line. If no match exists, cost is determined by conversion of the corporate currency to the purchase order currency. After purchase orders are created using refill to targets, you review them, make any necessary changes, and post them. You can mix goods and services and parts on the same purchase order.

Refill To Target and Bulk third party processes allow the user to generate purchase orders or purchase requisitions.



WRAP-UP



Go to the warehouse Place record. Show Bins & Serials and Bins & Lots.

Show how to create a new bin.

Go to Stock. Search for the Place and Location above.

Show a stock adjustment in to a useable location.

Go to a request. Create two part needs – one that a quantity and one that is backordered. Pick the part need on the Pick List Generation screen but show that it could be done on the request from the Print Picks button.

Show the stock record that it was allocated.

Ship the part. Show the stock record was decremented.

Go to purchasing. Create a purchase requisition and purchase order for the place and location and part above. Post it.

Go to stock record and show the on order quantity

Receive it. Show the on order quantity has been removed and the on hand has been incremented.



FEEDBACK ON THE OBJECTIVES OF THIS LESSON

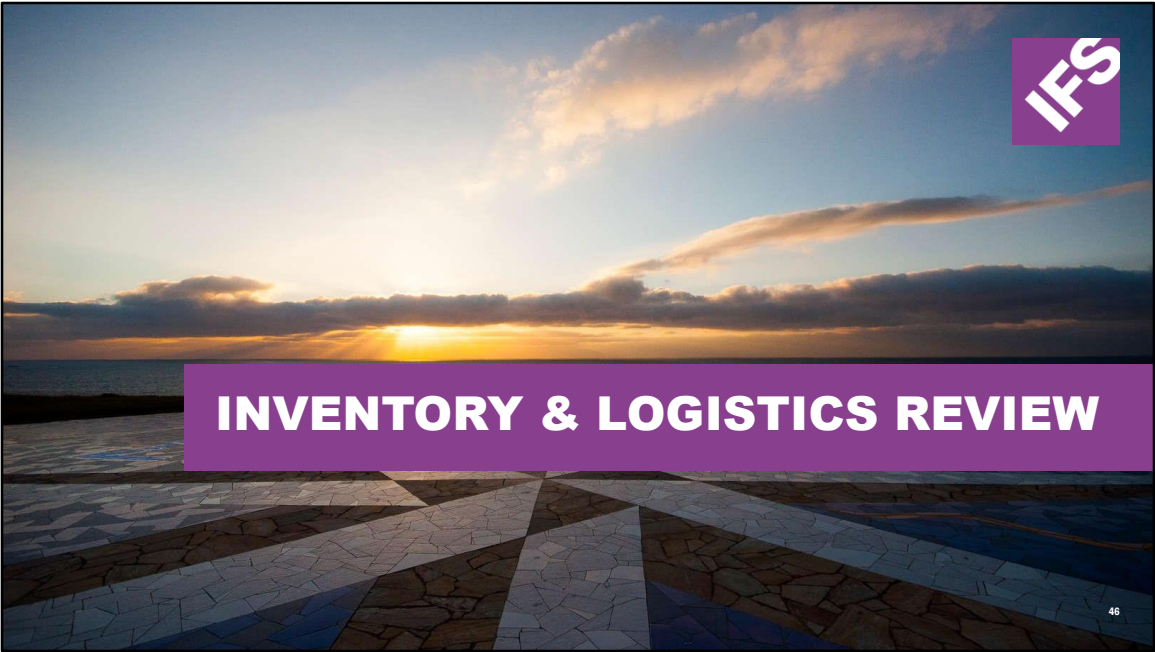


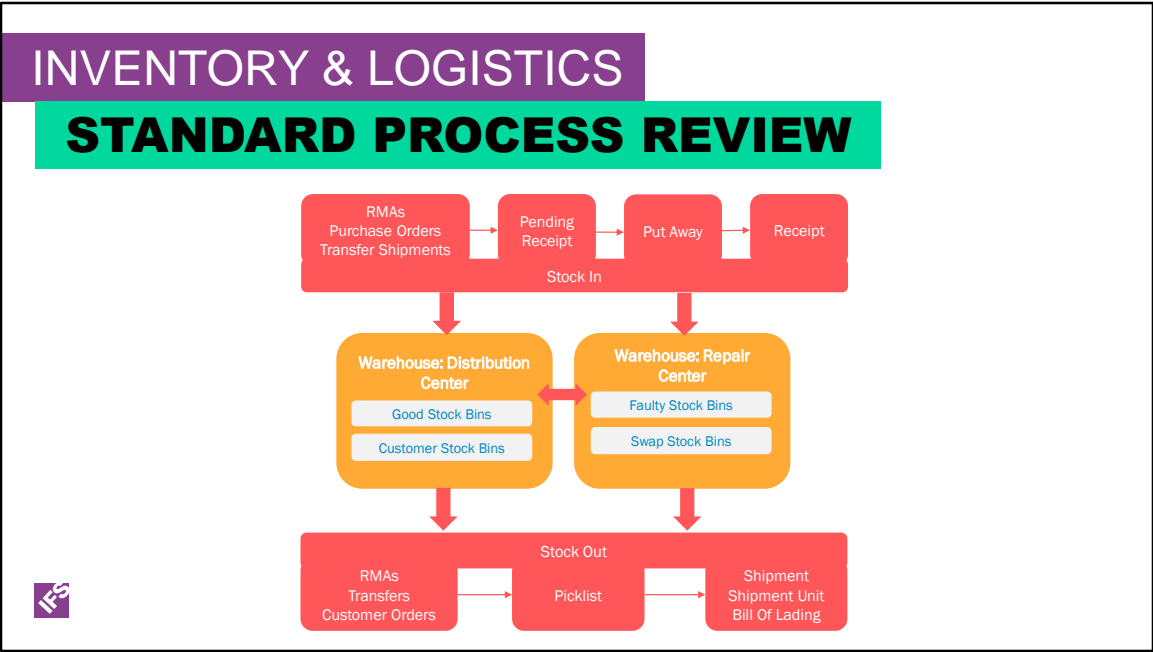
By the end of this lesson, you should:

Understand standard Logistic processes

Understand Stock movement

Be able to configure basic Logistics processes in FSM





Inventory is the management of your parts and stock. Movement of the parts and stock from one Place/Location to another is Logistics, which we will cover in the next section of the training.

Inventory management sits in the center of the process, and includes all aspects required to ensure the right stock is available in the right quantities at the right time (right place aspect is the responsibility of Logistics)

Aspects of inventory management that are of interest are stock control (counting, replenishment, adjustments, allocation of stock to Tasks/Requests etc) and reporting and analysis



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