AssetWORKS

Inventory

Application User – Training Guide

Version 24.x
Last Modified 24.0 | March 2024

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Customer Support is available Monday through Friday, 7:00 a.m. to 7:00 p.m., Eastern Time.

Telephone: 1-610-225-8300

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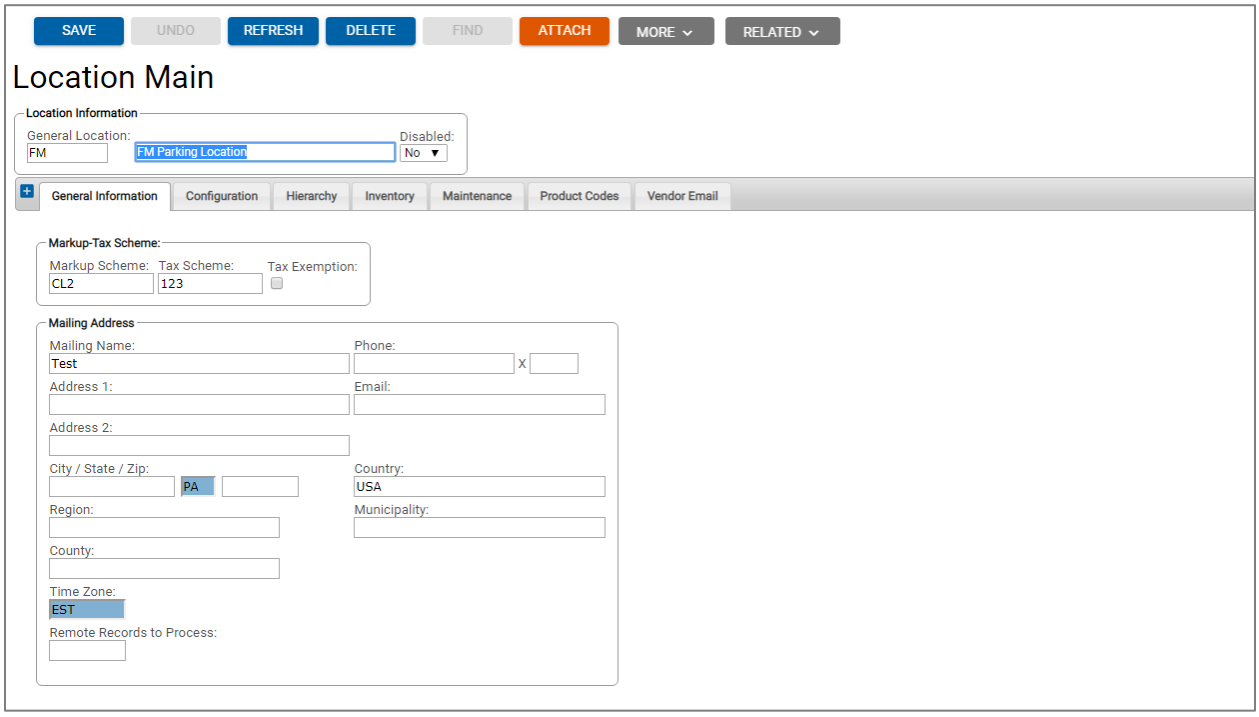
1. Location Setup

The Inventory tab on the Location Main frame is used to enter information specific to your inventory location. You can specify whether a site is to issue an inventory item even if the system shows none in stock, enter expenses involved in ordering inventory, designate an indirect account identifier for posting adjustment variances, and specify the price variance percentage for a part being received into inventory.



Field	Description	Notes
Auto-Receipt on Transfer	Select the checkbox if parts can be automatically received at this location.	N/A
Immediate Issue Upon Auto Transfer	Select the checkbox if parts are to be automatically issued upon a transfer receipt.	N/A
Allow negative inventory quantities?	Controls whether you will allow an issue, transfer or charge to set quantity on hand to a negative value.	N/A

Field	Description	Notes
Internal P.O. Overhead Cost	Refers to the overhead cost of each purchase order expense related to ordering inventory (such as handling, clerical, mailing costs).	N/A
Inventory Carrying Cost Percent	Refers to the average percent of inventory value that it costs to maintain inventory in stock while it is not being used (such as shelf cost, handling cost, counting cost).	N/A
Indirect Account	Indirect Account is the assigned indirect account code for charges such as physical inventory losses and overages (such as adjustment amounts).	N/A
Receipt Price Variance	This is the allowable change in pricing (without a warning) from prior cost. If you do not set some percentage in this field you will be warned for any deviation in price.	N/A
Must a Supervisor approve a manual requisition?	Refers to the requisition approval/rejection process, if this field is Y, then the requisitions must go through the Purchasing Requisition Approval frame before they can be added to a purchase order.	N/A
Must a supervisor approve an automatically-created requisition?	Refers to the requisition approval/rejection process but for requisitions that are created automatically by the part requisitions batch process.	N/A
Email Restocking Messages to	Enter the email address of person to receive restocking messages.	N/A
Prefix for Part PO	Identify Prefix to be used for Part PO's.	Refer to System Flags 1125 and 1126 for more PO Prefix configuration options.
Supervisor	Purchasing Requisition Approver	N/A
Hazardous Contact Information	Displays on a Bill of Lading for hazardous materials.	N/A

Warranty Terms are configured by using System Flag 2093.

2. Master Part Record vs. Inventory Location Record

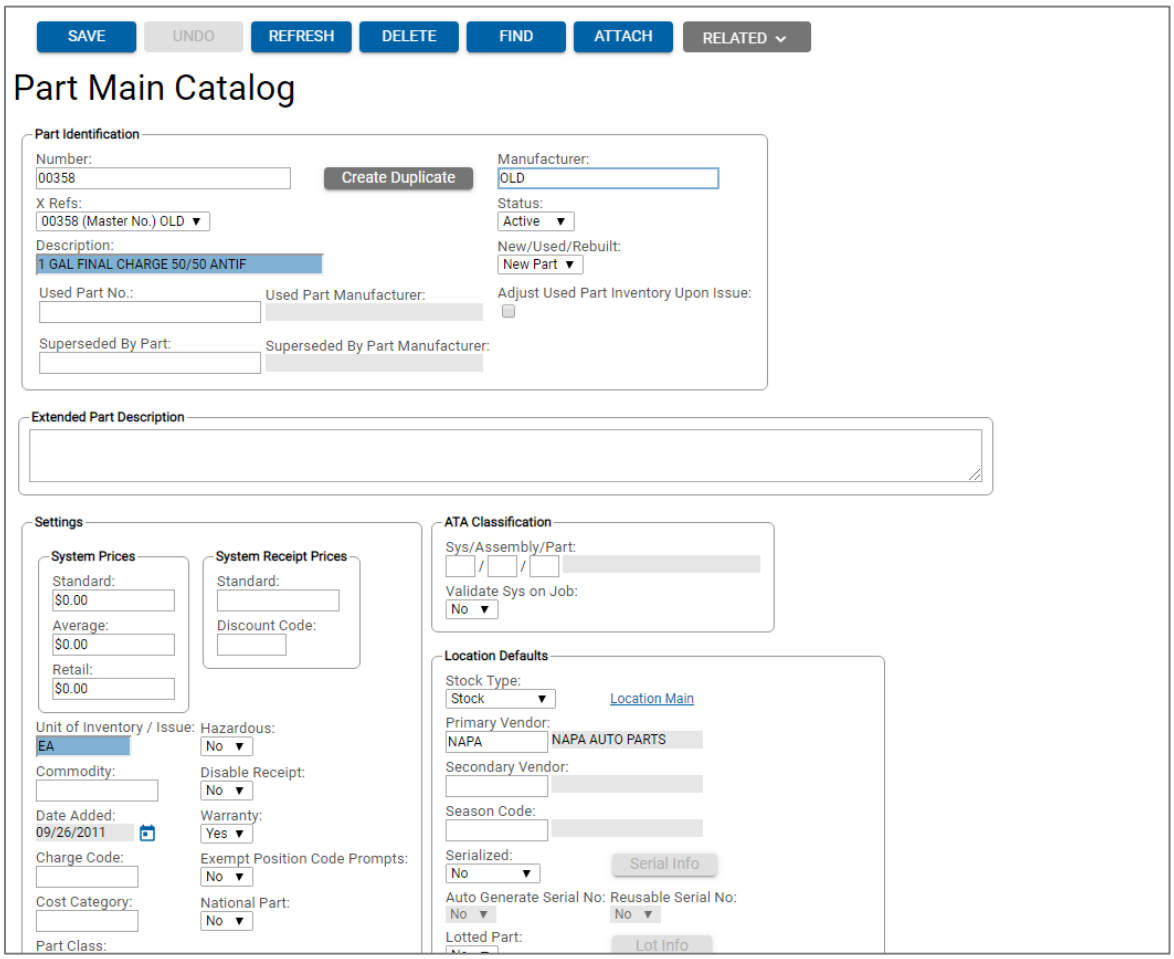
In M5 each part has a master part record maintained on the Part Main Catalog frame and a location part record maintained on the Part Inventory Location Manager (PILM) for each location the part is associated with.

Part Main Catalog

The Part Main Catalog frame is used to track general information on stock, consignment, and non-stock parts. The master catalog information is set up during the initial installation of your system. You can revise or add to the catalog as needed.

The master catalog is tracked separately from the actual inventory at each location. It contains definitional information on all parts that your organization uses. The location inventory, however, contains information on what is in stock at each specific location.

When you add parts to your actual inventory, you tell the system what items or parts you have at your location. All parts throughout your organization are set up and tracked in the master catalog.



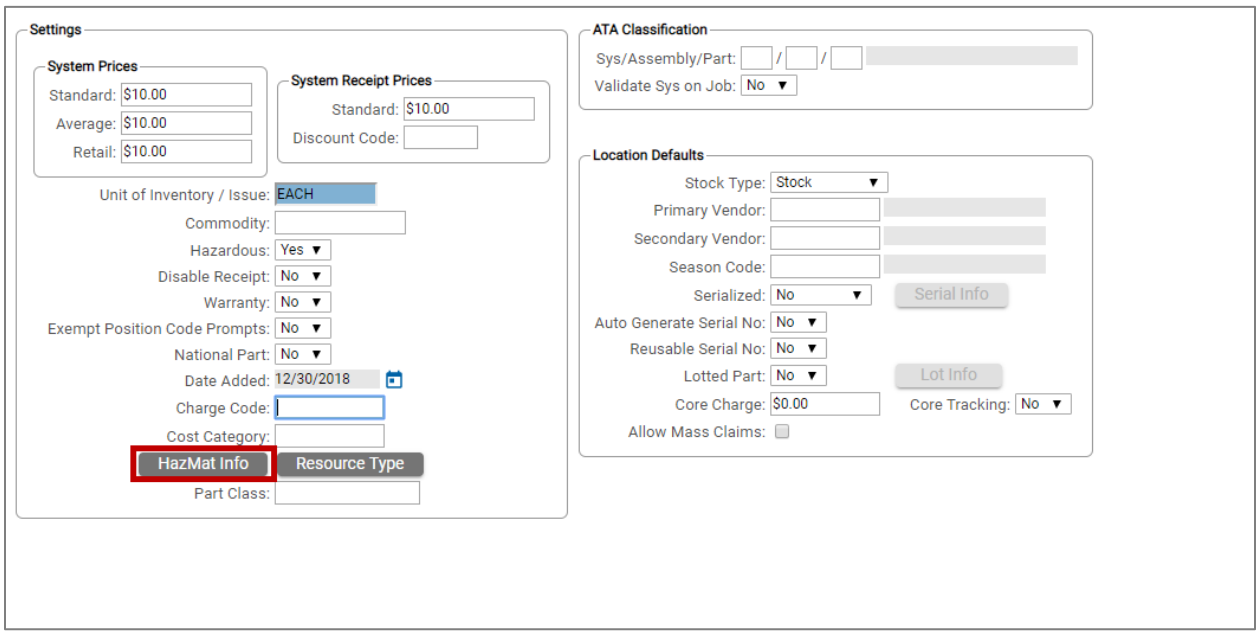
Field	Description	Notes
Part number	Main catalog part number.	This can be a duplicate number as long as manufacturer is different.
Create Duplicate Button	The new part button is used to create a duplicate part number only.	The manufacturer will be required when creating a duplicate part.
X-refs	A dropdown that displays all the part cross-references.	N/A
Description	The description of the part.	It is recommended to have a standard method of creating part descriptions.
Used Part No.	Can be stock or non-stock.	Part of a customer-specific interface functionality.
Used Part Manufacturer	Automatically defaults from the used part number PART MAIN CATALOG record, if used.	N/A
Adjust Used Part Inventory Upon Issue	If the checkbox is selected and the used part number is a stock part when the new part number is issued the used part number will be a positive adjustment transaction into the location inventory with the same qty of the new part issued. If the used part is non-stock the user will not be able to select the Adjust used part Inventory upon issue checkbox.	N/A
Manufacturer	The manufacturer for the part. Must be a valid manufacturer as created on the Part Manufacturer frame.	N/A
Status	The statuses are active and inactive.	N/A
Used/New/Rebuilt	The default is set to new for new parts created.	It can be changed to used or rebuilt if necessary.
Associated Parts Hyperlink	Ability to associate other stock parts to this part to be treated like a part assembly. Once associated, it is treated as one part number.	
Extended Part Description	An unlimited amount of characters can be used here to describe a part.	

Field	Description	Notes
Settings - System Prices	A system flag is set to determine the type of pricing and if using system standard pricing, the price is set here. The system or location average price will be displayed if that type of pricing is used.	Refer to System Flag 1058.
Unit of Inventory/Issue	The default is set to EACH. This can be changed if needed.	N/A
Commodity	Commodity codes can be created in the Commodity Codes frame and can be entered for the parts if needed.	Commodity codes in M5 groups parts by what type of part it is such as brake parts being a commodity code for brakes. There are several standards of commodity codes used worldwide such as NGIP.
Hazardous	If the part is considered hazardous, this flag can be set for the part.	You will be prompted to enter the Hazardous Material Data, which will comply with the U.S. Department of Transportation's hazardous shipping requirements.
Disable Receipt	If the part is to become obsolete or it is not in use anymore, it can be marked to disable receipt and users will not be able to receive the part.	N/A
Warranty	If the part is a warranty part, this flag must be selected.	N/A
Exempt Position Code Prompts Flag	Set to allow or disallow position prompts by part number.	N/A
National Part	Select Yes if the part is a national part.	This will lock parts on Part Main and Part Inventory Location Manager to users who do not have the National Parts privilege.
Date Added	The date the part was added or created in M5.	N/A
Charge Code	To identify those parts that are allowed to be issued or transferred using the Supply Distribution frame.	N/A
Cost Category	Used with the Supply Distribution functionality.	N/A
Resource Type	This button allows you to assign resource types to the part by using Resource Type Entry.	N/A

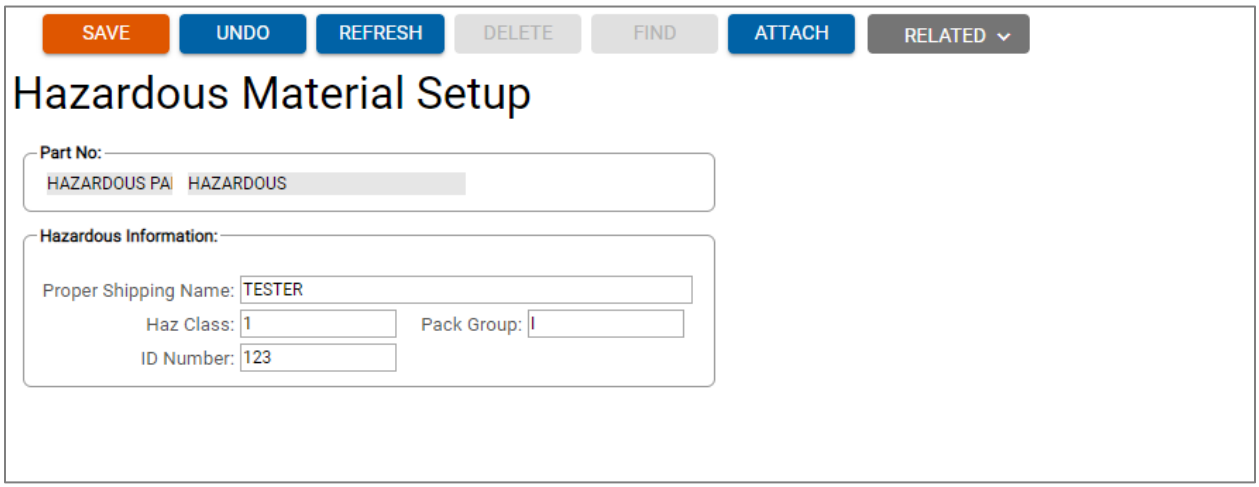
Field	Description	Notes
Part Class	Class codes to further define certain types of parts. For example, non-maintenance parts.	These codes are configured on the Part Class Codes frame.
ATA Classification	The part can be associated with an ATA System code which will make the part standard for any jobs added to the work order with that particular system code.	If the part is marked to validate then the user will only be able to issue the part to the system code specified. The job code must have the same system code indicated on the part.
Validate Sys on Job Flag	This is set to yes, if the system code is to be validated to the system code of the job when parts are issued.	N/A
Location Defaults – Stock Type	The part must be either stock (quantities of part on hand) or non-stock (ordered as needed). Or consignment part	N/A
Location Main Hyperlink	Can select the hyperlink to be taken to the PART INVENTORY LOCATION MANAGER for the location currently logged into.	N/A
Primary Vendor	The primary vendor for the part. This will assist in ordering and receiving the part since the primary vendor will automatically be entered during the transaction.	The primary vendor will also be listed on the Recommended Re-Order Report for the part.
Secondary Vendor	The secondary vendor for the part if the primary vendor cannot supply the part.	N/A
Season Code	Season codes can be created in the Season codes frame and added to parts to help with ordering.	A season is entered to denote when the part is in highest demand such as with lawn mower or snow plow parts.
Serialized	If the part is serialized and it is necessary to track the serial number from the time the part is received and what unit is it issued to, the options are No (Default, Optional and Mandatory. The optional choice will ask the user for a serial number but will not require it whereas mandatory will require the serial number entry.	N/A
Auto Generate Serial No?	If set to Y, then M5 will generate the serial number for the part.	N/A

Field	Description	Notes
Reusable Serial No. Flag	If a serial number can be reused, this flag should be set to Y.	N/A
Lotted Part?	A lotted part cannot be serialized. If the part is a lotted part, then the lot number will be captured for every part transaction.	N/A
Core Tracking	If the part has a core, select Yes from the dropdown menu.	N/A
Core Charge	Enter the value of the core.	N/A
Allow Mass Claims?	Only available if the part is a core part. This will allow the creation of mass claims for the given part.	N/A
Points	Enter the number of points this part is worth. Used in the quartermaster functionality.	Only available if System Flag 5227 is set to Y.

Hazardous Material Setup

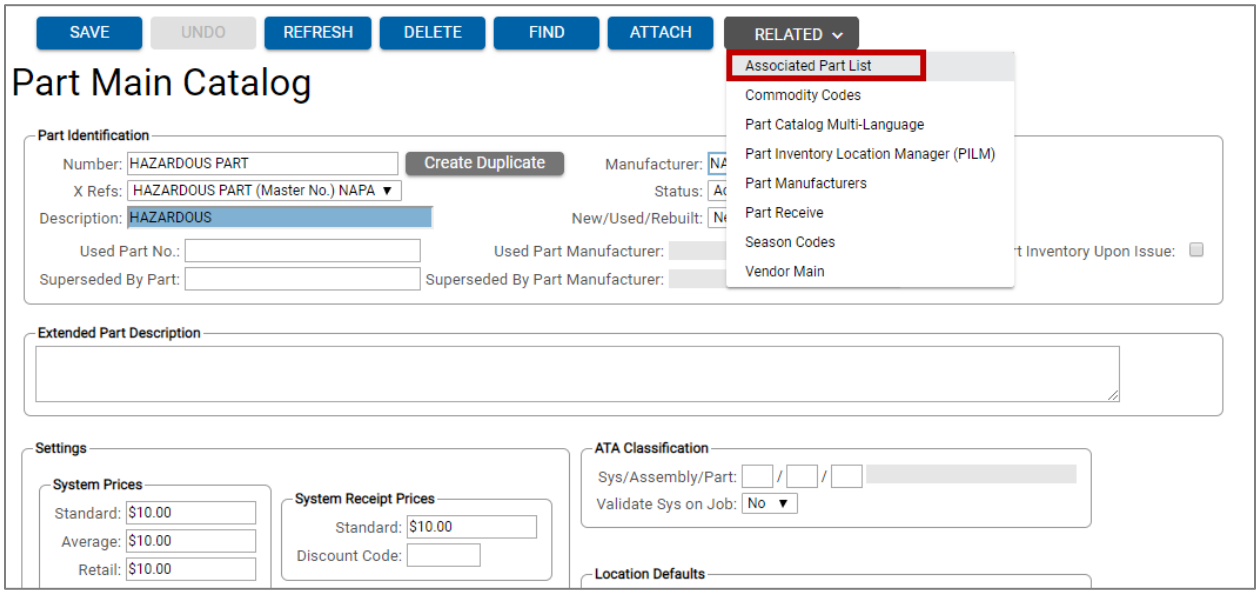


When a part is set as being hazardous on Part Main, you will be prompted to enter the Hazardous Material Data. You can also access the Hazardous Material Setup frame by selecting the **HazMat Info** button directly from Part Main or Part Inventory Location Manager.



Associated Parts

M5 supports **part assemblies** which are essentially separate part master numbers that when put together, are related to a single part main record. When a part with an assembly is issued, transferred, returned, adjusted, ordered or received, the associated parts transactions are properly recorded for tracking purposes.

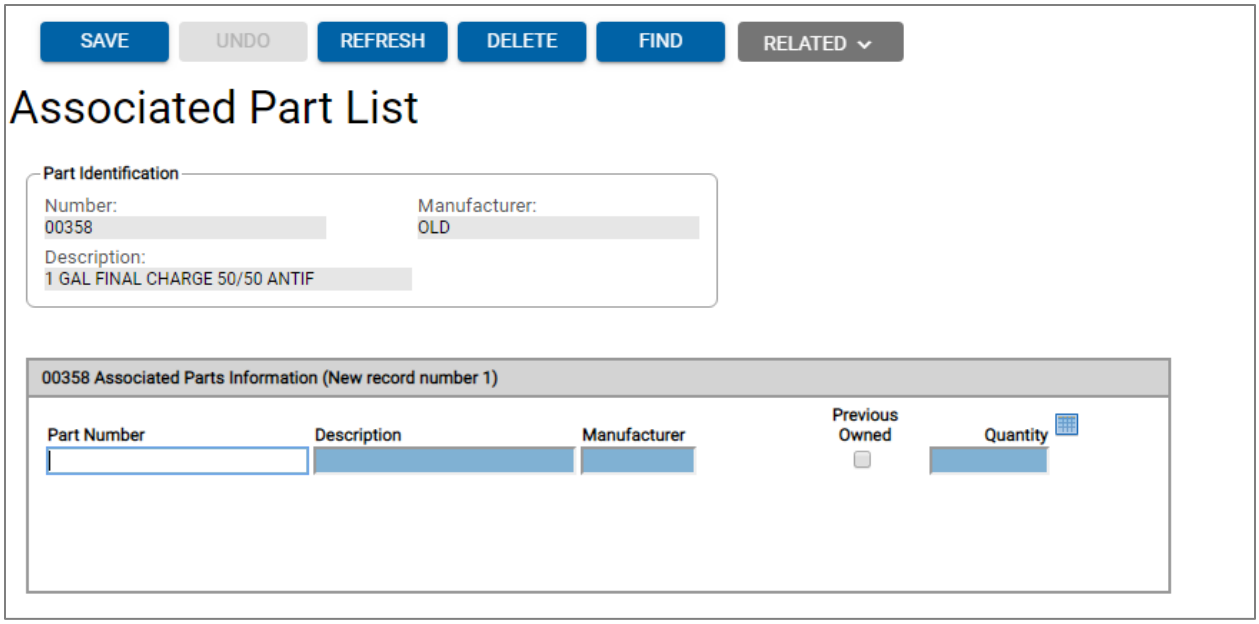


An example of a part such as this is a tire. A tire contains an assembly where each associated part has its own main part number and quantity in M5. For each transaction for the tire, the corresponding parts, called associated parts, will be adjusted in quantity (up or down) depending on the transaction being performed.

Associated parts may not have a price and they must be stock.

The **Part Inventory Location Manager** frame has the associated parts hyperlink it is read-only. Associated parts can only be entered and maintained on the Part Main Catalog frame.

If an associated part is added to the associated part list, M5 will add the new associated part to every inventory location were the main part number is inventoried.

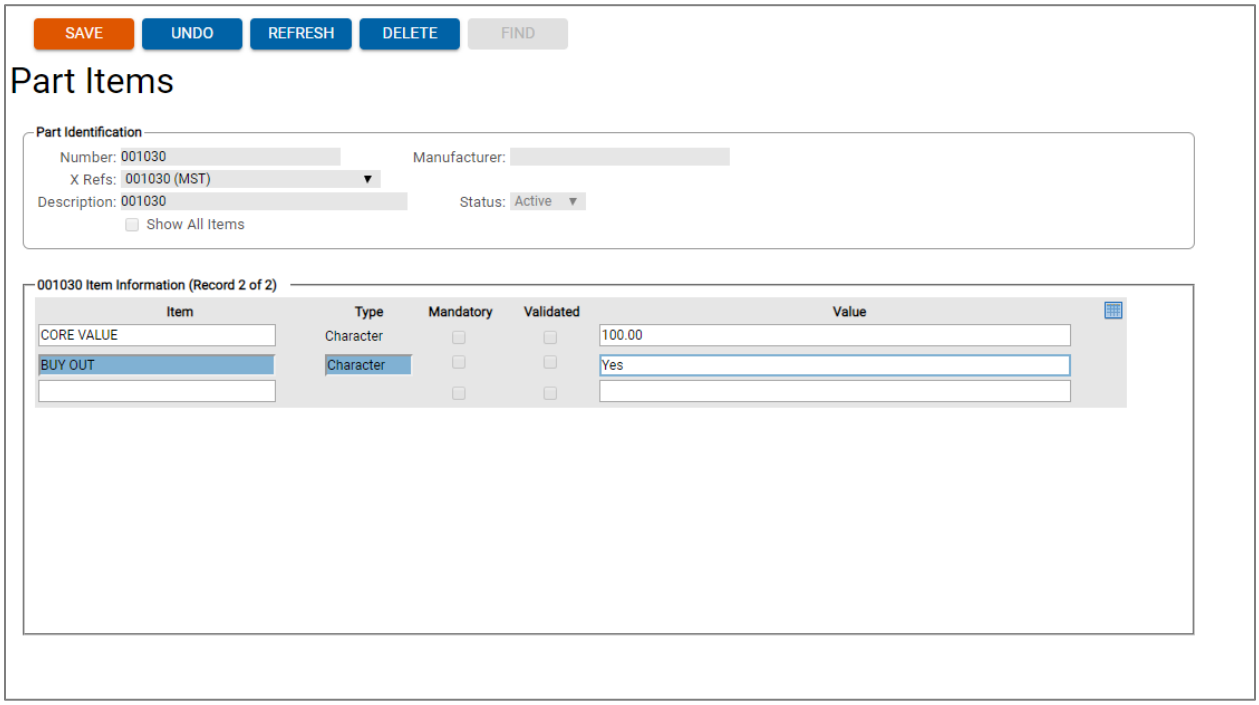


To support the relationship of the vendor to an M5 inventory location, the Vendor Main frame has a field called **Inventory Location**. As transactions are being performed in M5, the associated part transactions are made as adjustments and can be found as such in Part Journal.

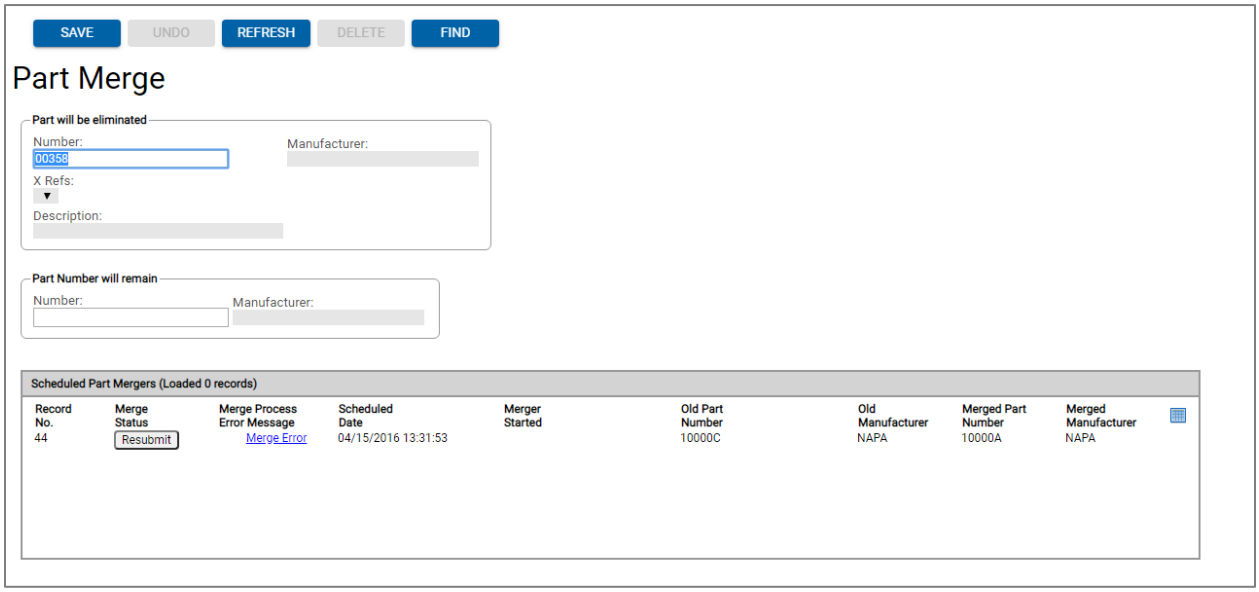
System Flag 5253 (Default reason for adjusting associated parts) determines the valid inventory adjustment reason to be used for each associated part adjustment transaction.

Part Items

A part item allows you to require certain specific information, which can be made mandatory and validated, when information is entered into the system regarding a part where the information is not stored on the Part Main Catalog or the Part Inventory Location record. The items must be set up on the Item Master Definition frame prior to using them on the Part Item frame.



Part Merge



The Part Merge frame merges one part master into another, eliminating most traces of the eliminated part.

After the merge, the quantities and histories of both parts appear as if they were always one part. The only remnants of the eliminated part are a journal transaction noting the merge and a cross-reference in the name of the eliminated part pointing to the remaining part.

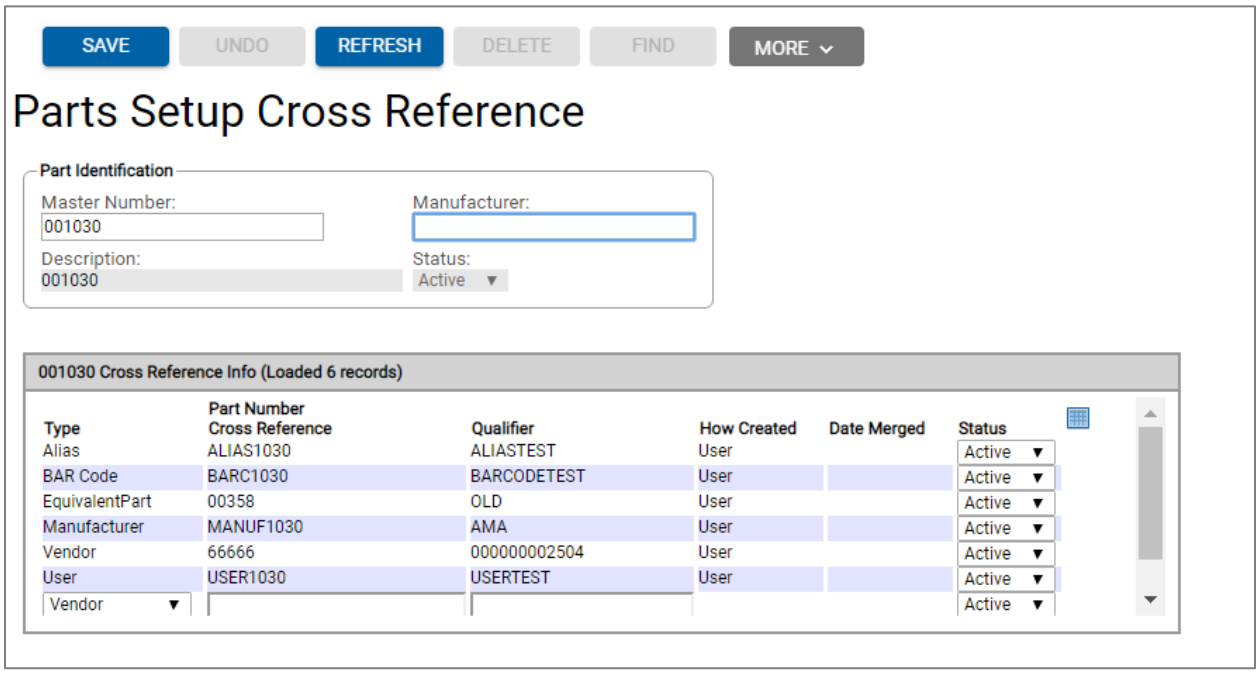
Part merge is a batch process. The i-frame will display the status of merged parts and return any error if the process failed.

Parts can only be merged if these rules apply:

- The parts do not have any serial numbers in common.
- At no location are the remaining part non-stock and the eliminated part stock with a quantity on hand or order.
- The remaining part requires serial numbers and the eliminated part does not.
- Either part is flagged as currently undergoing a physical inventory at any location.
- The two parts have different units of issue. The user is warned about this but is allowed to continue.

Part Number Xref (Cross Reference)

Maintaining Part Cross References is an important tool for organizations who wish to correctly index an existing catalog part number to another number for the same part.

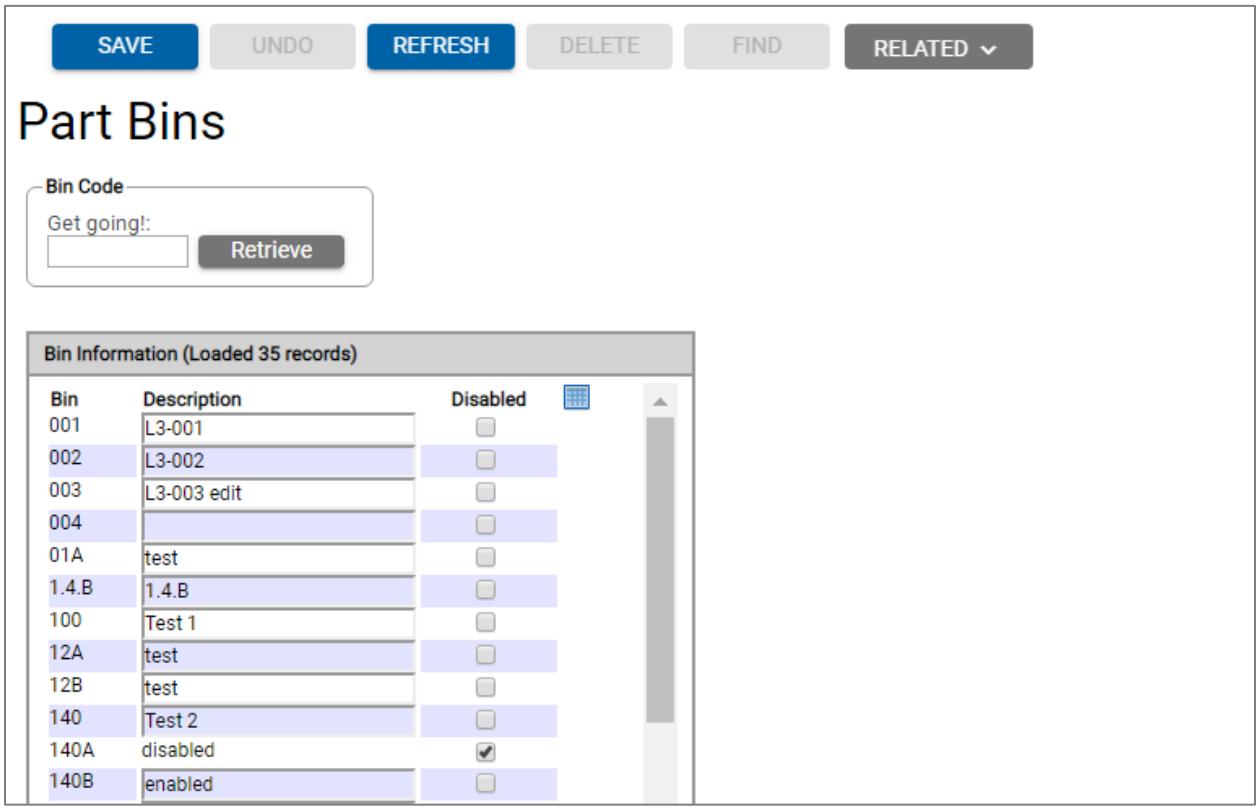


For example, you might want to indicate all oil filters as 123, but the various vendors from whom the filters are purchased use different numbers. These new numbers become Vendor Cross References. There are six types of Part Cross References allowed in M5:

1. **Vendor**: A part number defined by the Vendor.
2. **Manufacturer**: A part number defined by the Manufacturer.
3. **Alias**: A part number which may no longer be current.
4. **User**: A user defined part number.
5. **Bar Code**: A part number created for bar coding.
6. **Equivalent**: A part number of a different part that may be used instead of or in addition to the catalog part.

Part Bins

The Part Bins frame is used to create and maintain a list of codes to identify the physical location of where a stock part can be found at a particular inventory location.



For example the code could identify a row, shelf, box or tray. These part bins can be entered on the **Part Inventory Location Manager**. Part Bins can also be used as a method for conducting a Physical Inventory Count.

System Flag **5033** controls whether or not part bins are required as well as whether or not they are validated.

To load the Bin Information i-frame, select the Retrieve button to load the list of part bin codes. You may need to scroll to the bottom to find the first blank Bin field.

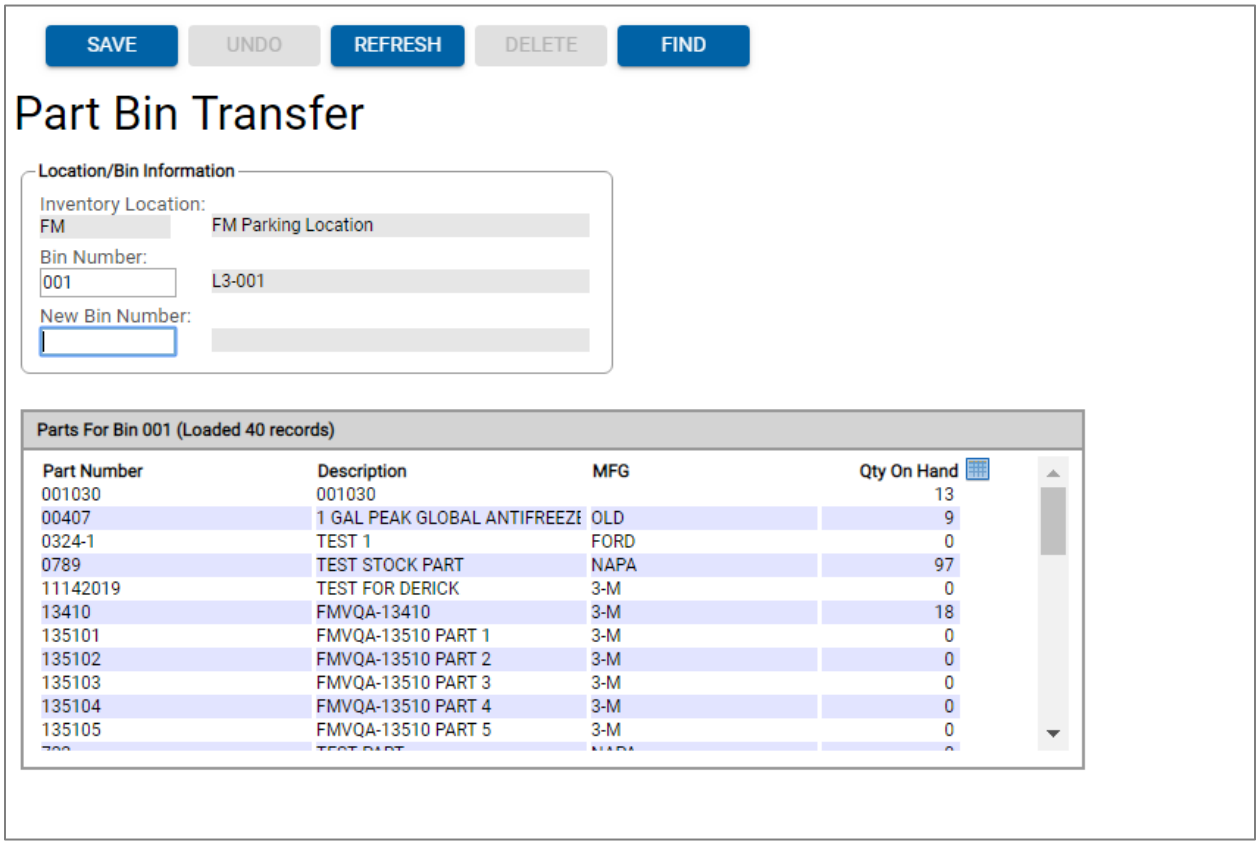
Type in a new Part Bin code. This field has a limit of six characters. Enter a description for the part bin in the Description field. This field has a limit of 20 characters.

- For example: 001A – ROW 001 BIN.

The codes are user-defined so it is up to your organization to decide on a format that will best suit your needs.

After you have completed the entry, select the **SAVE** button at the top of the screen. The Part Bin number will now be available to assign to parts on Part Inventory Location Manager.

Part Bin Transfer



The Part Bin Transfer (or Re-Number) frame allows you to change the number for an existing Part Bin to a new number while still keeping all of the same parts assigned to the new bin.

To re-number an existing bin, make sure you are logged into the proper inventory location for the bin you want to assign a new number. By default, the location you are logged into will be the inventory location on this frame.

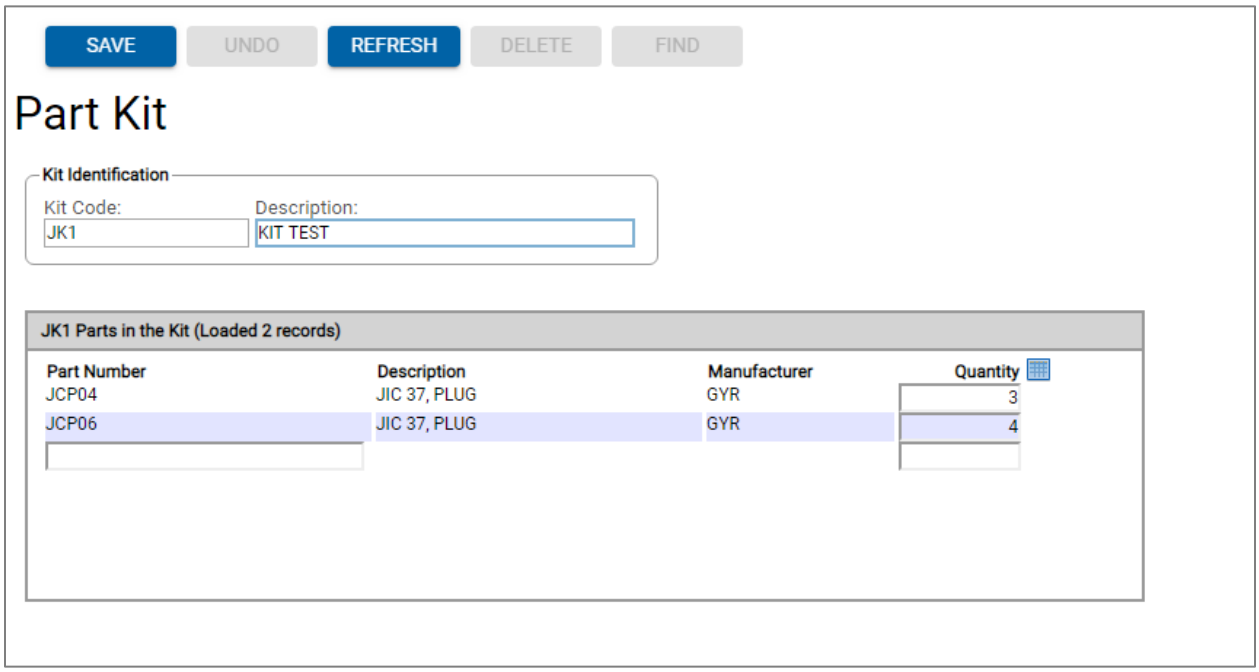
Enter the existing bin in the Bin Number field or double-click in the field to select one from the List of Values (LOV). Parts assigned to the existing bin will display on the i-frame below along with their Descriptions, Manufacturers and Qty on Hand.

Type the new bin number into the New Bin Number field or select one from the LOV. This field has a limit of eight characters.

You have to set up the new bin number on the Part Bins frame before you can use it on this frame as this is a validated field.

When finished entering the new part bin number, select the SAVE button at the top of the frame to reassign all the parts to the new bin.

Part Kits



To ease the issue and transfer of parts, a group of parts called a **kit** can be created. These kits expand into their list of included parts during the issue or transfer, and from then on are considered individual part line items. After the kit number is added and the list of parts appear, each line can be modified or changed as needed.

The parts in the kit must be stock parts and they cannot be serialized or lotted parts. A list of values displays the list of part kits from the Part Issue, Work Order Main and Part Transfer frames.

Field	Description	Notes
Kit Code	Enter the name of the kit.	N/A
Description	Enter a description of the kit.	N/A
Parts in the Kit	Enter the stock part number and the quantity for as many different parts that are needed.	The part must be designated as a stock part in the Part Main Catalog.

Lotted Parts

A **lot number** is a value stamped by the manufacturer on a box containing a number of parts or on the part itself. The box or part may also show a manufactured date, an expiration date, neither or both.

A lot number is very similar to a serial number except that there will be multiple parts with the same lot number. The master part number is flagged as either requiring lot numbers or forbidding them.

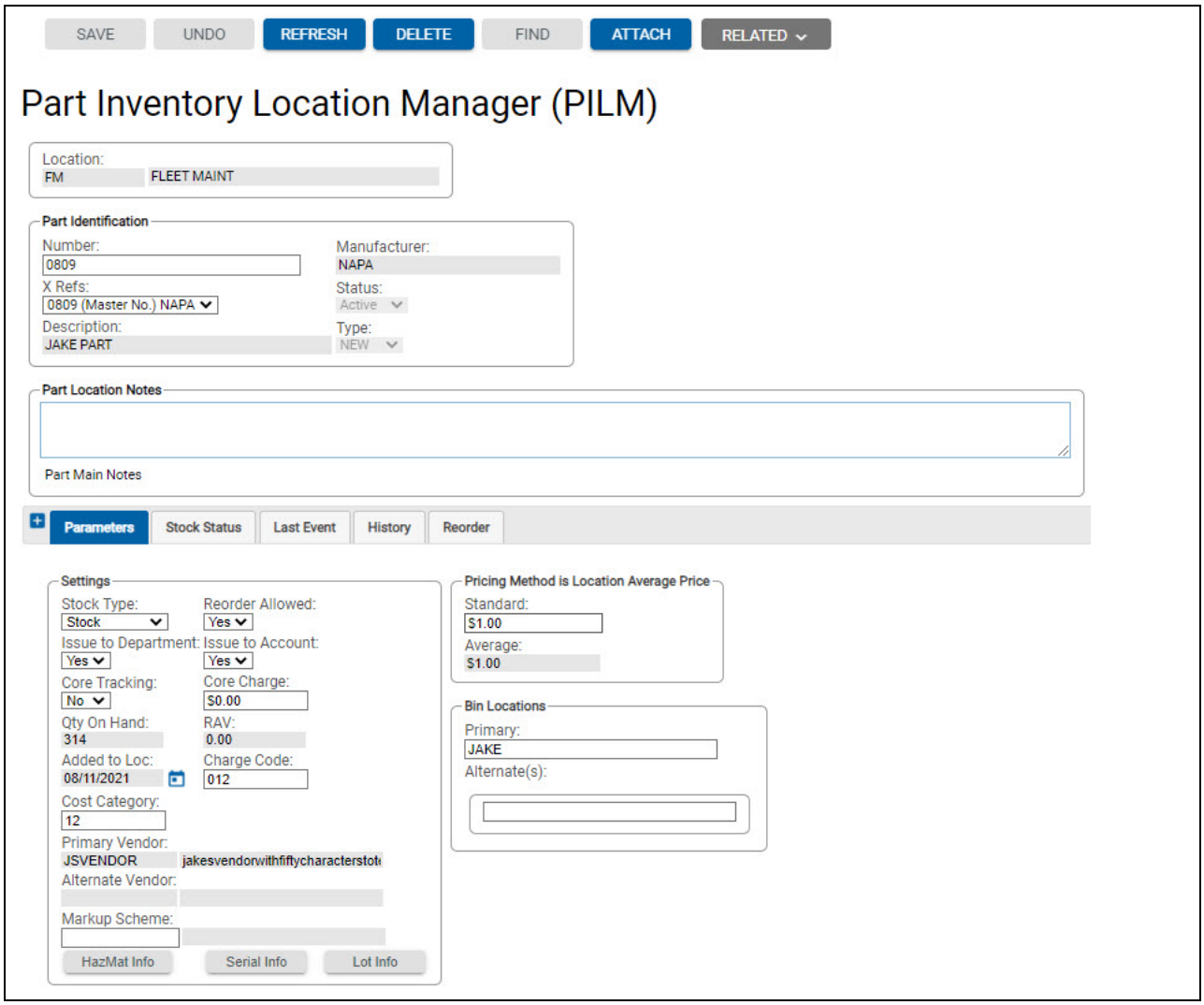
A newly created lotted part must have a part manufacturer associated with it. The reason is that the same part might use the same lot numbers made by different manufacturers.

There is a flag, **Lotted Part** that must be set to Yes in order for M5 to prompt for expiration date and lot number. The part must also be a stock part.

The printed work order will show the lot and dates for issued parts.

Part Inventory Location Manager

The Part Inventory Location Manager (PILM) frame allows you to define location specific information for parts that exist in the Part Main Catalog.



The Part Main Catalog contains the general information for all part records at all locations. Part Inventory Location Manager contains the information that is specific for a given part at a given inventory location.

The PILM record has information such as stock quantities, on-order quantities, and quantities in transit as well as pricing methods, bin locations, transaction histories, vendor reordering information and more. When you receive parts into inventory, you are updating the record at the inventory location.

After you create a part record in the Part Main Catalog, you must go to the Part Inventory Location Manager and add that part to the desired inventory location.

- You must be logged in at the location to which you want to add the part. The location on the Part Inventory Location Manager frame will default to your current location.
- You will need privileges, **INSERT PART INVENTORY, UPDATE PART INVENTORY,** and **NATIONAL PARTS**.
- If System Flag 5355 is set to **Y**, the Primary Vendor, Unit of Measure, Standard Price, Core Charge, and Core Tracking values will be pushed down to Part Inventory Location Manager when they are changed on the Part Main Catalog.
- System Flag 1058 specifies the pricing method used to value the inventory:
  - LOCAVG – Location Average
  - LOCSTD – Location Standard
  - SYSAVG – System Average
  - SYSSTD – System Standard

The Part Inventory Location Manager frame provides location specific item and part information, including:

- Settings such as core tracking, qty on hand and primary vendor.
- Pricing method such as location average, system average, system standard and location standard as well as the actual price.
- Stock Status such as qty on hand, qty on order, and qty in transit.
- Ability to view any Associated Parts.
- Bin locations.
- Last transaction information.
- History by period such as issue qty, on-hand qty, on-order qty, on-hand value unit cost and most issued at once.
- Vendor ordering information.
- Manual and Automatic Reordering.

Part Identification

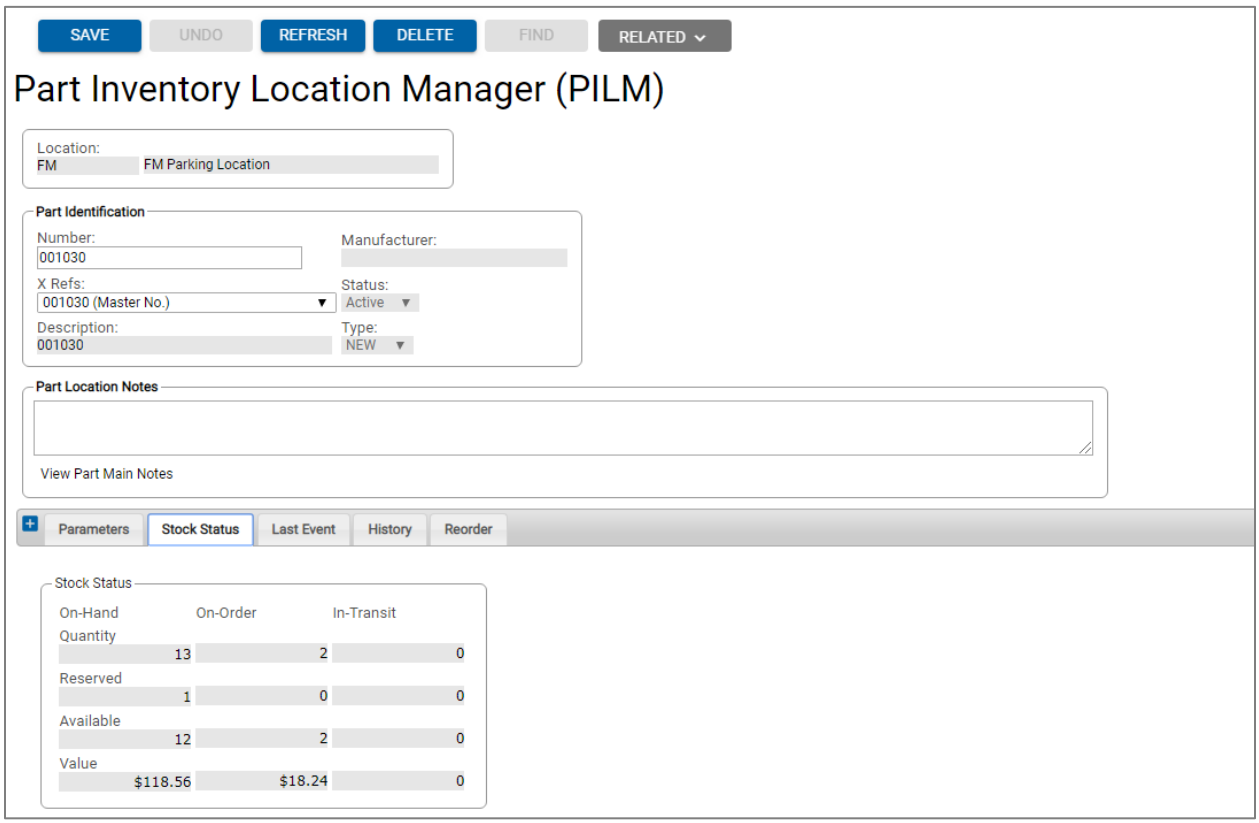
Field	Description	Notes
Location	Defaults to the user's logged in inventory location.	N/A
Part number	Must be a valid part number as created in the Part Main frame.	N/A
X-refs	A dropdown box that displays all the part cross-references.	N/A
Description	The description of the part.	It is recommended to have a standard method of creating part descriptions.
Manufacturer	The manufacturer for the part.	Must be a valid manufacturer as created on the Part Manufacturer frame. Defaults from Part Main.
Status	The statuses are active and inactive.	Defaults from Part Main.
Type	The types are new, used and rebuilt.	Defaults from Part Main.
Associated Parts Hyperlink	Will display the associated parts list.	Located in the **Related** menu.
Part Location Notes	Notes for the part at the inventory location level.	N/A
View Part Main Notes Hyperlink	Hyperlink will be active if there are notes on this part in PART MAIN CATALOG.	N/A

Parameters

Field	Description	Notes
Stock type	The stock types are stock, non-stock and consignment.	Stockness of a part is at the location level even though it is also set on Part Main. Consignment parts are parts stocked at the location at no charge with the vendor keeping track of the inventory and only charging for what is used.
Issue to Department	Select yes from the dropdown menu if the part can be issued directly to a department.	N/A
Core Tracking	If the part has a core, select yes from the dropdown menu.	N/A
Qty. on hand	Current quantity on hand if the part is stock.	N/A
Added to Location	The date the part was added to the location.	N/A
Primary Vendor	The primary vendor is set on Part Main. It can also be changed at this level.	N/A
Alternate Vendor	The secondary vendor as set on Part Main. It can also be changed at this level.	N/A
Mark-up scheme	Valid mark-up scheme can be applied to specific part	N/A
Hazmat/Serial/Lot Info	These buttons allows you to view and update information for Hazard Material, Serial, and Lotted parts.	N/A
Reorder allowed	If this part can be reordered choose yes from the drop down menu.	N/A
Issue to Account	If the part can be issued to the account select yes from the drop down menu.	N/A
Core Charge	The core charge if the part is eligible for a core credit.	N/A
RAV	Rounded average variance occurs when there is not an exact even dollar amount as a result of a STOCK PART receipt transaction.	N/A

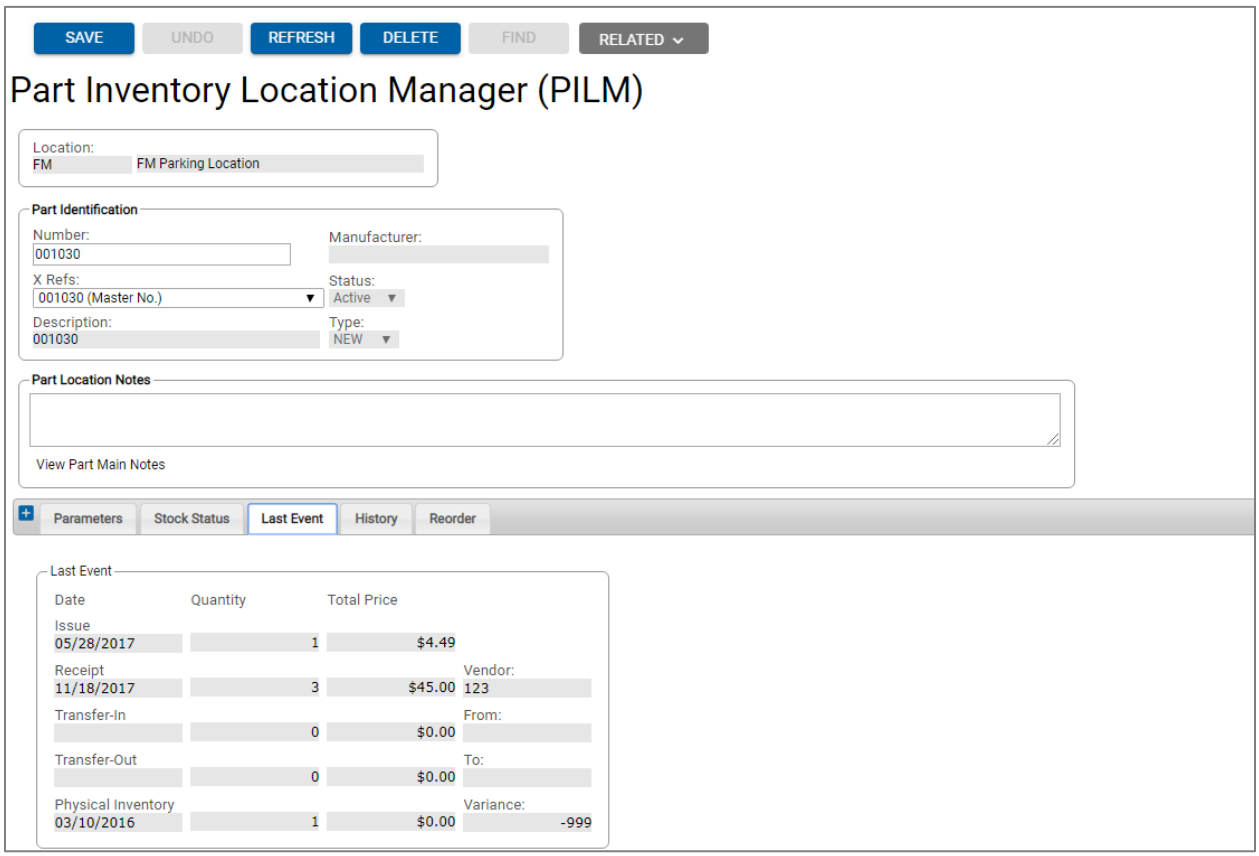
Field	Description	Notes
Charge Code	To identify those parts that are allowed to be issued or transferred using the Supply Distribution frame. This is a validated field.	N/A
Cost Category	This is a validated field to be used in the Supply Distribution functionality.	N/A
Pricing method is…	The pricing method as set by a system flag will be displayed.	Refer to System Flag 1058.
Standard	If standard pricing is being used, the standard price can be seen and edited here.	N/A
Average	If average pricing is being used, it will be displayed here.	N/A
Primary Bin	The bin as entered for this part.	A bin can be entered only if the part is stock.
Alternate(s) Bin	Any additional bin locations for this part.	The bin can be entered only if the part is stock.

Stock Status



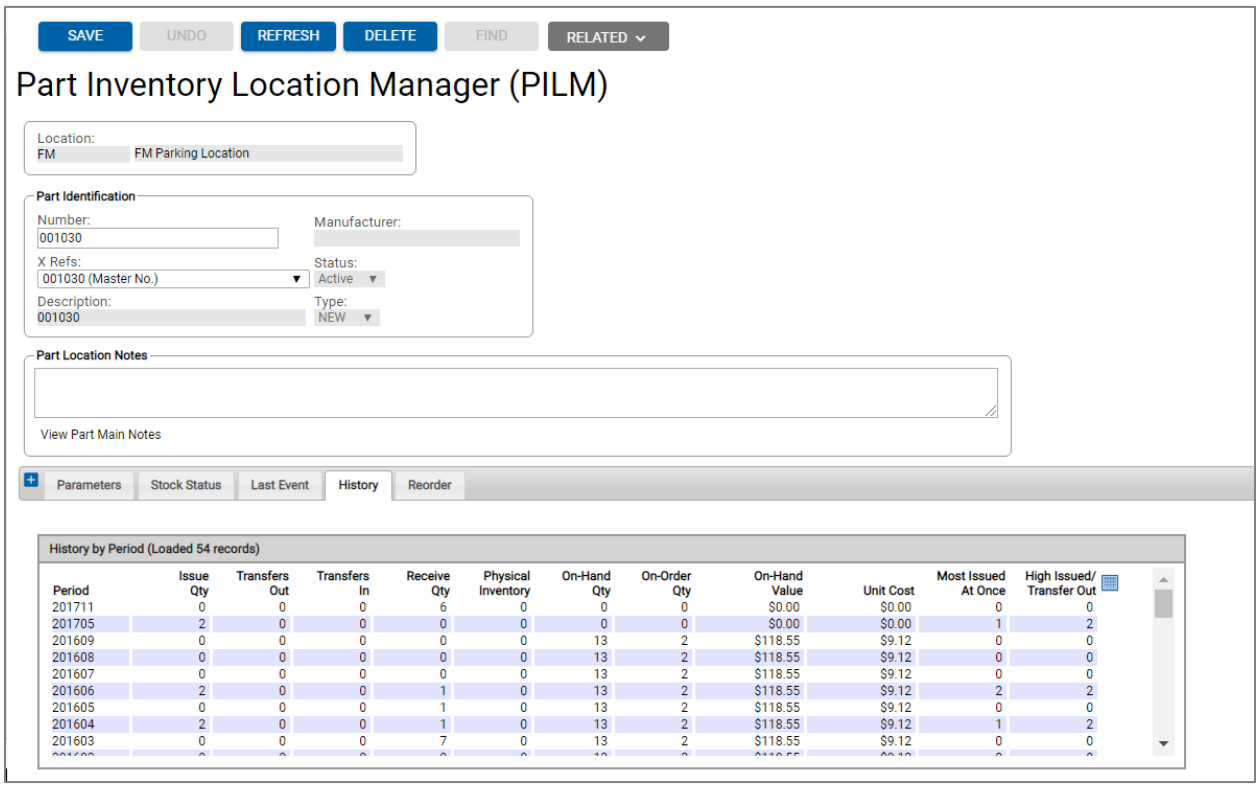
The Stock Status tab displays stock information as read-only for the part at the specific inventory location. The On-Hand (in stock), On-Order, and In-Transit quantities, reserved parts, available parts, and dollar values can be viewed here.

Last Event



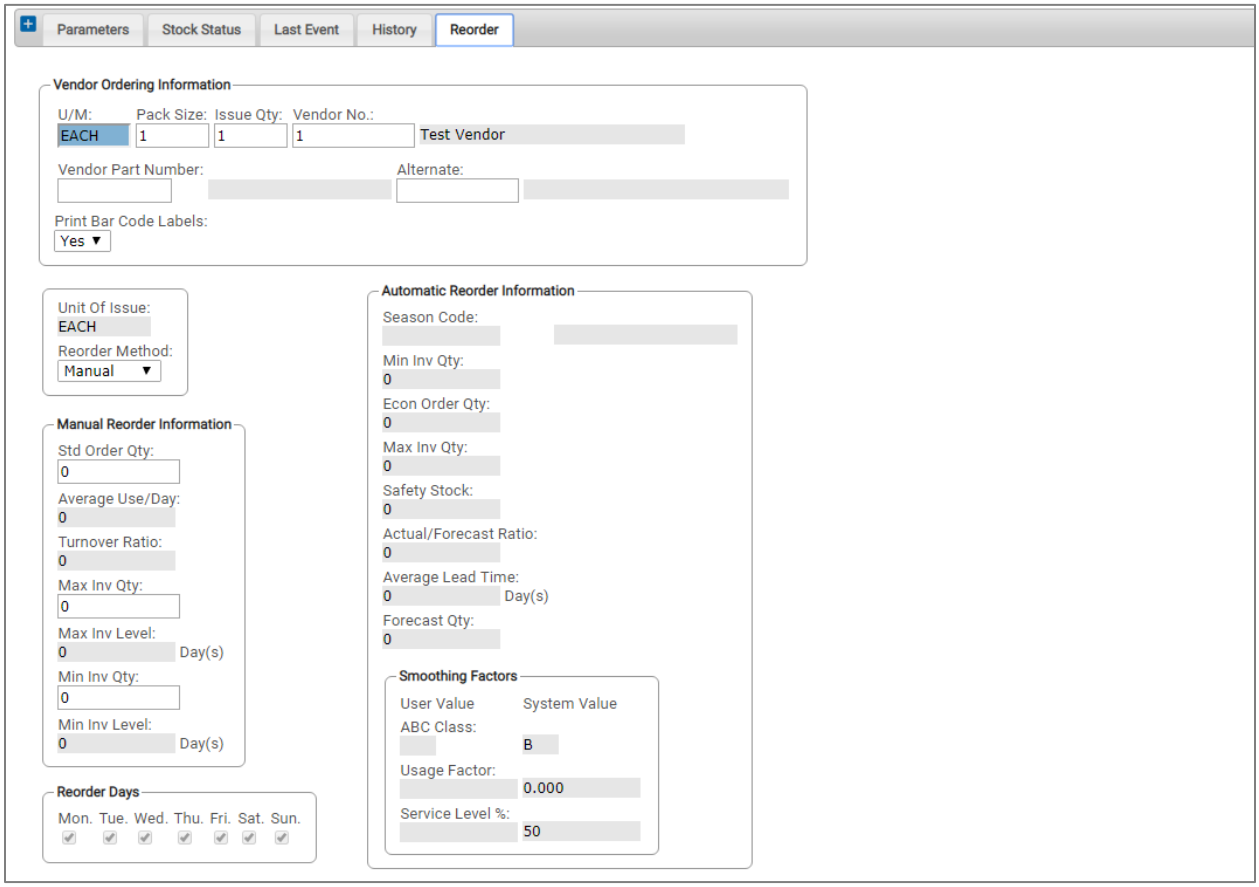
The Last Event tab displays the last date, quantity of issue, and total price for part issues, part receipts, transfers in and out and for the last physical inventory count. It displays the Vendor, To and From Locations for transfer, as well as variance.

History



The History tab displays the part's history by Fiscal Period. This information includes: Issue Quantity, Transfers In/Out, Receive Quantity, On-Hand Quantity, On-Hand Value, Unit Cost, Most Issued at Once, and High Issued/Transferred Out.

Reorder



Field	Description	Notes
Vendor Ordering Information	The unit of measure, pack size and issue quantity refers to the requirements of the primary vendor for ordering the part.	The primary and alternate vendor can be changed at this level if necessary.
Print Bar Code Labels	M5 will prompt the user to print barcodes for the part after the part is received is this selection is yes.	N/A
Reorder method	The reorder methods are manual and automatic.	The manual reorder method allows the user to manually enter the reorder, minimum and maximum quantities. The automatic method uses ABC classification and historical transactions to calculate reordering information.

Field	Description	Notes
Manual Reorder Information – Standard Order Quantity	The quantity to reorder.	If this field is not entered, then the maximum quantity and the quantity on hand will be subtracted to be used as the reorder quantity.
Average Use/Day	The average use per day of the part will be calculated automatically by M5.	This will give the user some guidance as to setting up the minimum and maximum reorder quantities for the part. The average usage per day is calculated during the end of period process.
Turnover Ratio	It is the Qty. of this part that have been received and issued within one fiscal period.	The turnover ratio is calculated automatically by M5 during the end of period process. This information is helpful to the user entering in manual reorder information.
Maximum Inventory Quantity	The maximum amount of parts to keep on hand.	N/A
Maximum Inventory Level	This is the maximum amount of total inventory at the location.	N/A
Minimum Inventory Quantity	The minimum amount of parts to keep on hand.	N/A
Minimum Inventory Level	This is the minimum amount of total inventory at the location.	N/A
Reordering Days	The reorder days are set by vendor on the Vendor Main frame.	N/A
Automatic Reordering Information	All fields in this section are calculated based on the ABC class assigned and historical transactions on the part.	N/A
Season Code	The season code assigned to the part.	N/A
Minimum Inventory Quantity	The minimum inventory quantity as calculated by M5.	N/A
Economic Order Quantity	The order quantity as calculated by M5.	N/A
Maximum Inventory Quantity	The maximum inventory quantity as calculated by M5.	N/A

Field	Description	Notes
Safety Stock	The quantity that must be kept on hand in case it is needed.	The safety stock takes vendor lead time into consideration.
Actual/Forecast Ratio	Actual vs. Forecasted ratio.	N/A
Average Lead Time	Lead time from the time the order is placed to the vendor to the time the part is received.	N/A
Forecast Qty	Forecasted order quantity as determined by M5.	N/A
Smoothing Factors	The smoothing factors are set up with the ABC class code. The values are displayed in this section.	N/A
ABC Class	The ABC class code can be added manually to the part or through an automated process.	N/A
Usage Factor	The usage factor as per the ABC class code.	The usage factor defines how active or “fast moving” the part is.
Service Level %	The service level % as defined on the ABC class code.	N/A

3. Inventory Procurement Overview

M5 provides for:

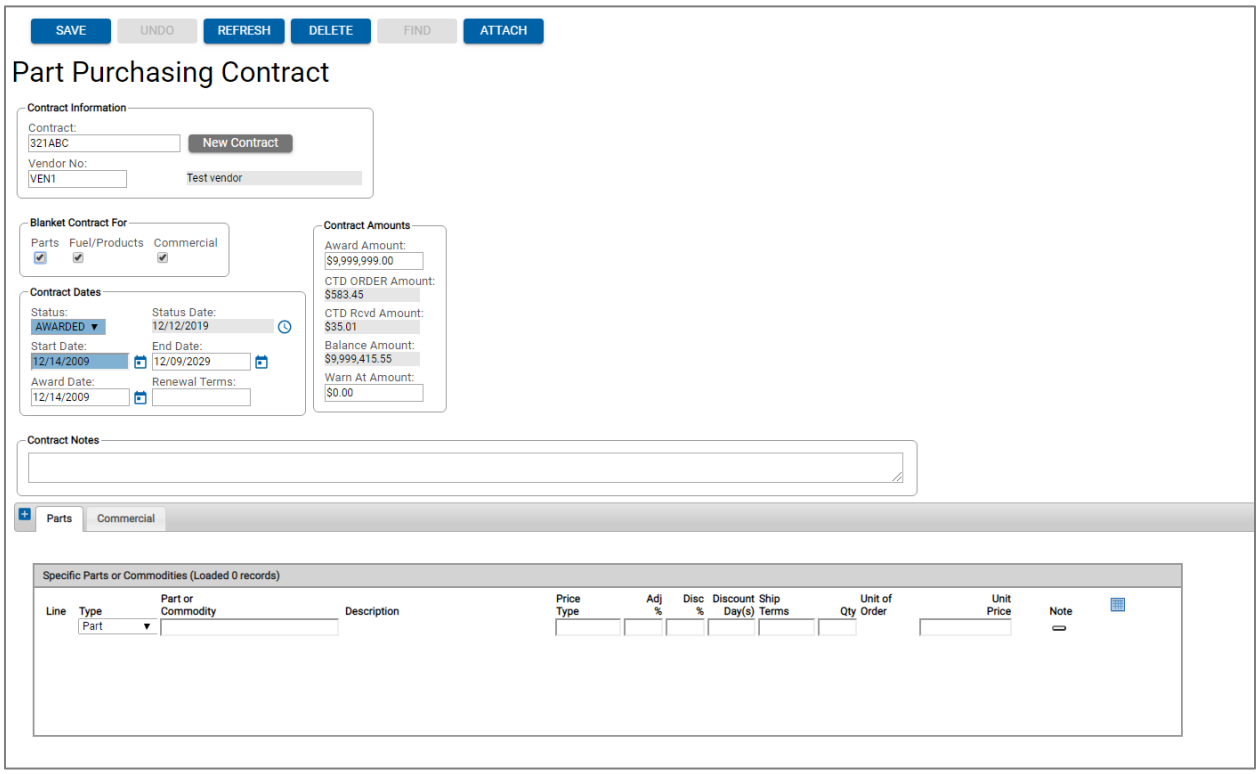
- Manual or automatic reordering
- Automatically generate requisitions
- Automatically generate purchase orders
- Automatically generate transfers
- Creating requests for parts
- Handling the requests for parts (issue, create requisition or PO)
- Use of requisitions with or without an approval process
- Creating part purchase orders with a purchase contract
- Creating part purchase orders without a purchase contract
- Ordering parts using system generated purchase orders or manual purchase orders

Setup activities depend on the customer's choices regarding the functionality to be deployed in their organization. The customer needs to answer the following questions:

- Will you be using manual or automatic reordering?
- Will you be using the spoke/hub functionality?
- Will M5 automatically generate the requisitions/purchase orders/transfers?
- Will you require a part requisition?
- Will part requisitions need to be approved before adding them to a part purchase order?
- Will you create system generated purchase orders?
- Will you use manually created purchase orders?
- Will you use purchase contracts?

Purchasing Contracts

Depending on the functionality that will be used as part of the purchase contract, there are various codes that may need to be setup in M5 such as price types, shipment terms, and vendors.



In order to receive the best price for an item or part, a user can establish a purchasing contract with a vendor. This is sometimes referred as a **blanket purchase order.**

A purchasing contract enables the user to establish pre-approved conditions for the purchase of stock or non-stock parts, products and services, including purchases made with specific vendors for pre- determined items/parts, quantities and prices.

The user can define a range of dates for which the purchasing contract is valid ad specify the balance amount at which a warning is issued for purchase orders approved against the contract. Later, when creating the purchase order, line items may be retrieved from awarded contracts originally established here.

Purchasing contracts can be established for:

- Parts (specific or not)
- Fuel/Products
- Commercial (sub-let) work

Contract lines may be for commodities, meaning that any part whose commodity code matches the contract line's commodity can be ordered off the contract. Individual part numbers can also set up on contracts. However, this is not a popular method as it is labor intensive.

The commodity method is helpful for those customers who purchase broad categories of parts from a particular vendor and need to ensure that spending does not exceed a preset limit for the vendor.

Another option is to create a blanket contract, where specific parts or commodities are not defined.

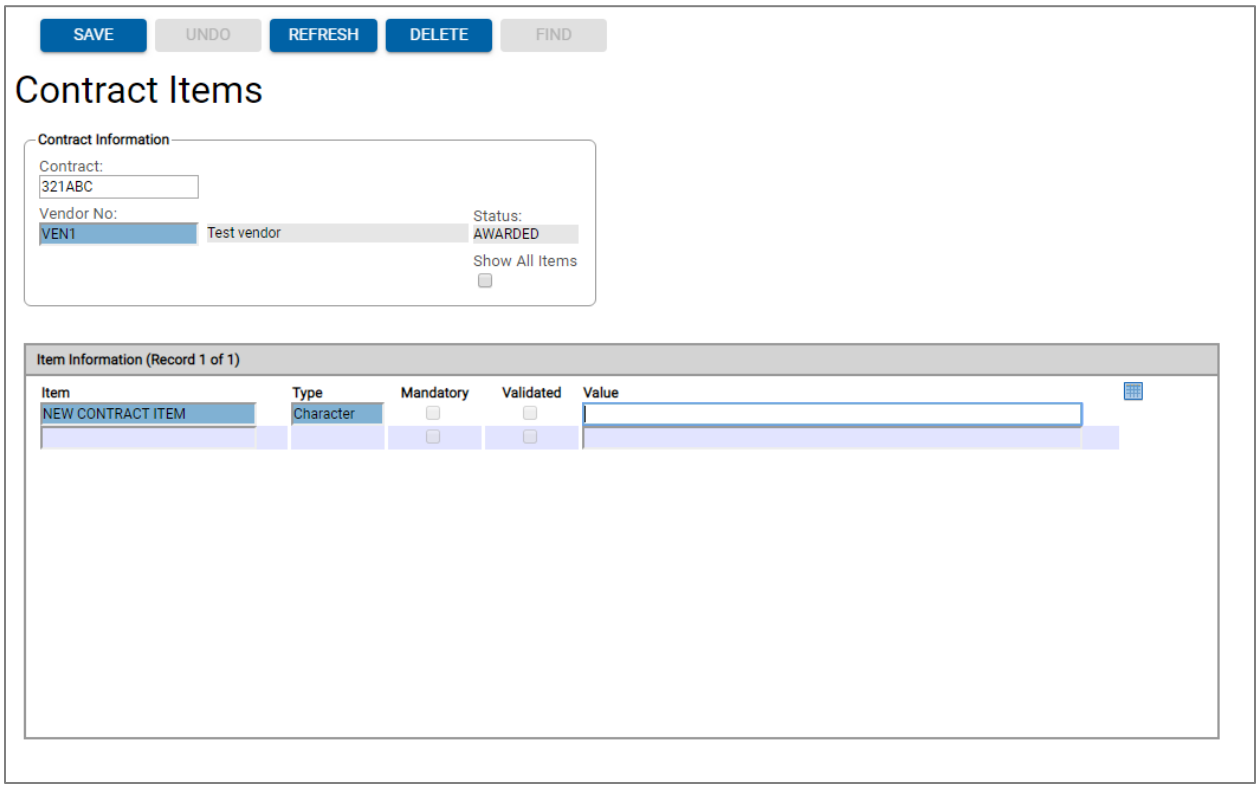
The Purchasing Contract frame will allow for more than one valid blanket contract with same vendor with the same start and end dates. If the contract is created for specific parts then only one Purchase Contract is allow per vendor with the same effective dates.

Field	Description	Notes
Contract Information	Enter a valid purchasing contract or click New Contract Button to have system generate number.	N/A
Vendor No.	Enter a valid vendor number	N/A
Blanket Contract For	Blanket Contracts Part Fuel/Products or Commercial.	N/A
Status	Select status from drop down.	N/A
Start Date	Enter Start date of contract.	N/A
End Date	Enter end date of contract.	N/A
Award Date	The date the contract is awarded. Contract is not valid until there is an award date.	N/A
Renewal Terms	Enter renewal terms if needed.	N/A
Contract Amounts	Enter award amount and the system will calculate CTD (contract to date) order, received, and balance amounts.	Warn amount can be established to warn the user when the contract reaches a specific amount.
Specific Parts or Commodities	If not a blanket contract then you will have to enter either specific parts or commodities to be purchased on this contract.	N/A

The Purchasing Contract goes through a number of statuses. These are **Build**, **Awarded**, and **Closed**. The purchasing contract cannot be used until the status is changed to Awarded. The purchasing contract can be updated during its validated period. After a purchasing contract is finished, the status is changed to Closed.

Purchasing Contract Items

Purchasing contracts items is used to record information for contracts that is not otherwise stored in M5. Use the Item Master Definition frame to setup the items.



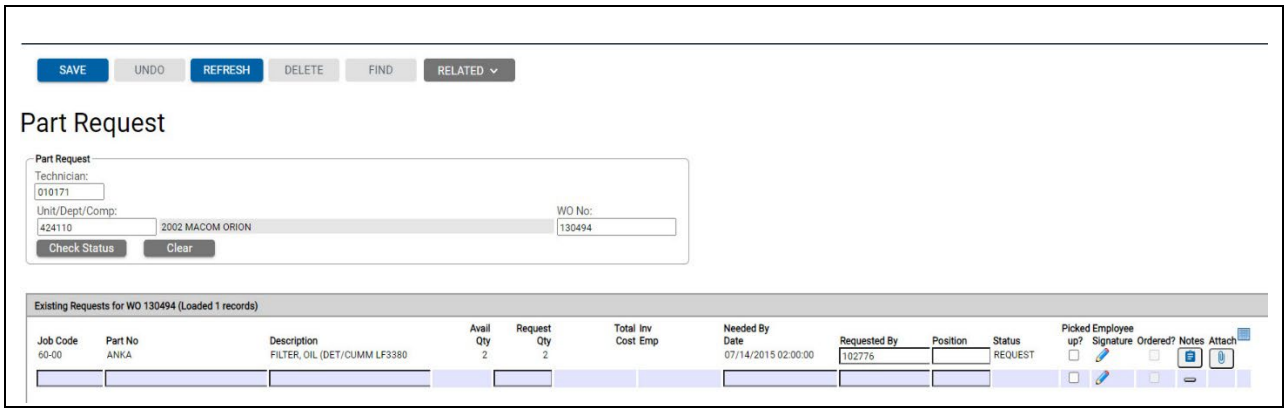
Field	Description	Notes
Contract	Enter a valid purchasing contract.	N/A
Vendor No.	Enter a valid vendor number.	N/A
Item	Enter the part item.	N/A
Value	Enter the value.	N/A

Updating Purchasing Contracts

As parts are ordered and received, depending on the M5 System Flag setting, the Purchasing Contract's balance is updated.

Part Requests

Part Requests exist in M5 to assist Technicians and Parts Personnel communicate and plan for parts required to perform maintenance.



This functionality consists of the ability to request parts needed for work orders where only the description can be entered, allow parts personnel to review the requests and act on them, and require Shop Supervisor (or other authorized personnel) to approve part requests when necessary.

To use this functionality for Part Requests, there are several assumptions made about the shop and parts workflow processes that exist in your organization/specific maintenance locations.

1. Real time labor capture is implemented with the use of the Labor Wedge (not required but it is integrated with part requests) frame.
2. Real time work order processing for most if not all work orders; not after the fact batch entry of work order data.
3. There is a parts room managed by personnel separate from the Technicians.

Field	Description	Notes
Technician	The Technician requesting parts for a job/work order.	This is the Employee ID from Employee Main.
Unit/Dept/Comp	The unit, department, component number.	N/A
WO No.	Work order number.	Open or Completed WO number.
Job Code	The job code for which parts are needed.	N/A
Need by Date	When the parts are needed by the Technician.	N/A

Field	Description	Notes
Part No.	A valid stock or non-stock part number, LOV available.	Can be left blank.
Part Description	The description for the valid part number entered or if the part number is not known, the description can be entered manually.	N/A
Available Qty	The available qty for a part if it's a stock part and a valid part number was entered above.	Will be blank if only the part description was entered.
Request Qty	The qty of the part needed.	N/A
Request Note	A note can be entered for each part request made	N/A
Existing Requests for WO #	An i-frame that contains existing part requests for the work order job or jobs along with details of what part was requested, the part number, description, request qty, needed by date, requested by and status.	N/A

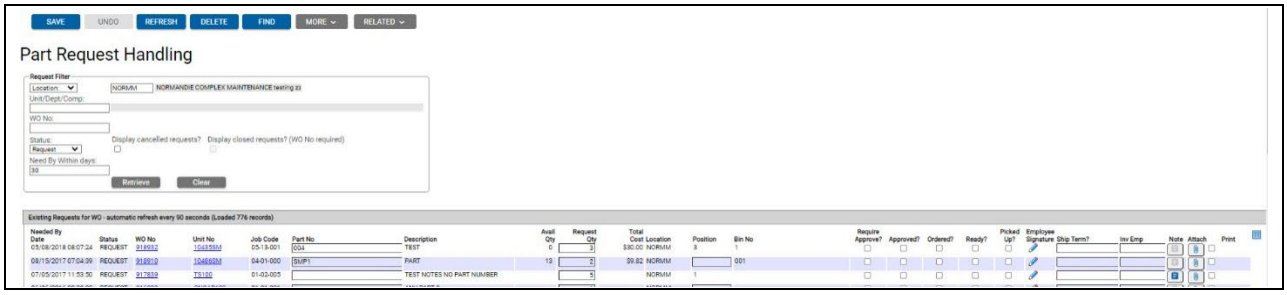
The ability to create a part request can also be done directly from the Labor Wedge frame. Details about that functionality are documented in the Labor Management application training manual.

A part request can have several statuses:

1. REQUEST – New request created.
2. ORDERED – Part had to be ordered using part requisition or purchase order.
3. REQ APPROVE – Requires supervisor approval.
4. IN-REQ – The part request has been made into a part requisition.
5. APPROVED – Supervisor approved part request.
6. READY – Parts person has changed the status to ready which will alert the Technician the parts are ready for pickup.
7. CANCELLED – Either the Technician, Supervisor, or Parts Person can cancel the request.
8. CLOSED – The part has been issued.

Part Request Handling

If using part request functionality, all part transactions related to the part request must be handled from the Part Request Handling frame.



The Part Request Handling frame allows Parts Room personnel to monitor part requests. This frame serves as the central hub for creating Purchase Requisitions, Part Purchase Orders, Purchase Order Queries, and Part Request Issues for these part requests. Parts procurement for part request must be performed using this frame.

The frame defaults to the login location of the application user and defaults to Request for the status. You can also filter on the Unit, Department, or Component Number, the Work Order Number, Cancelled Requests, and the Need By Within Days.

The **APPROVE PART REQUEST** privilege allows you to check the **Approve** box on the Part Request Handling frame.

The **EDIT SHIP TERMS** privilege allows you to enter a validated value in the **Ship Terms** column on this frame.

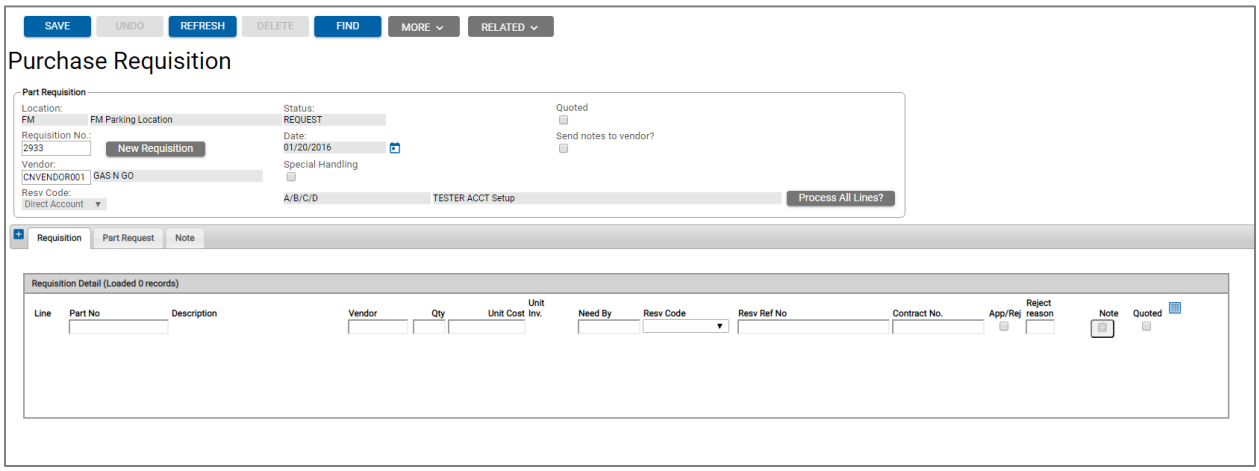
Require Approve? - To require supervisor approval of the request, select the checkbox.

Approved? - To approve a request, select the checkbox.

Ready? - To mark a request ready, meaning the requested parts are available, select the checkbox.

Purchase Requisitions

Purchasing requisitions can be used to request parts to be ordered. The person ordering the parts must indicate the reason why the part is to be ordered.



Requisitions can also be created automatically through an M5 Batch Process.

In order for the user to add a new stock or non-stock part to the location they will need to have the **ISSUE PART INVENTORY** privilege as part of their User Role privileges.

System Flag 5271 - Display Purchasing Requisitions Reservation header information? (Y/N) - Setting this flag to Y will display the reservation code and reference number fields in the Purchasing Requisitions frame header. Utilizing these fields will default the corresponding fields in the iframe detail rows. The iframe default values may be changed if necessary. Setting this flag to N will hide the reservation code and reference number fields in the Purchasing Requisitions frame header. Each new iframe detail row will then auto populate the reservation code and reference number fields based on the prior rows entries. The row will initially default for a stock reservation.

System Flag 5388 - Add core flag and core cost on Purchasing Requisitions screen? (Y/N) - Default will be "N"; If set to "Y", the core flag and core cost will be added on Purchasing Requisitions, Part Requisition Approval and Part Requisition Multi Approval screens.

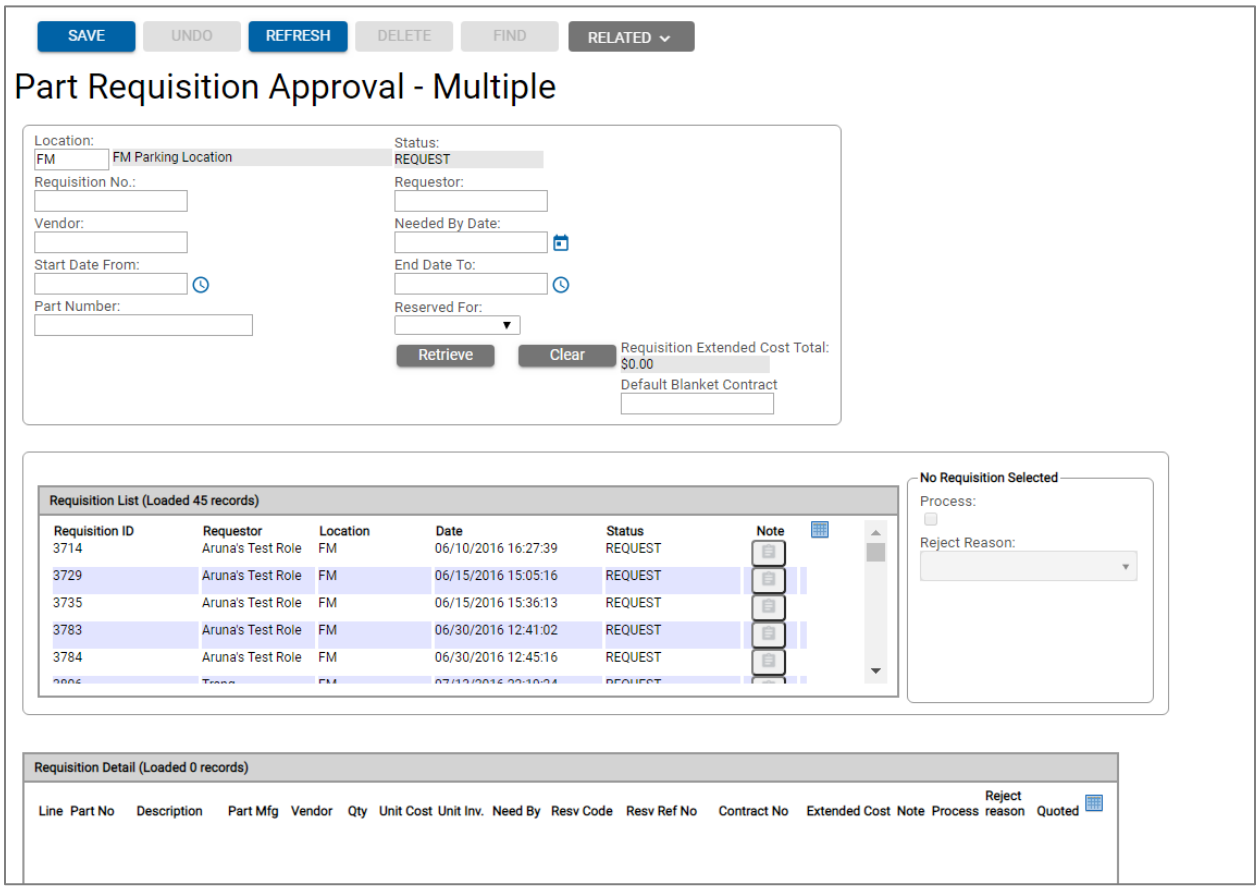
Field	Description	Notes
Location	The location the user is logged into.	It must be an inventory location since this is the location the requisition is being created for.
Requisition No	The requisition number is a system generated number.	N/A

Field	Description	Notes
Vendor	The parts are to be ordered from this vendor.	N/A
Date	Automatically defaults to the current date and time of the creation of the requisition.	N/A
Status	The status codes track the requisition from the time it is built to the time it is completed.	The statuses are build, in process, request
Special Handling	Used to indicate if the requisitioned parts require special handling.	This indicator is used only with part procurement interfaces sending data to outside systems.
Requisition Detail	Each stock or non-stock part number to be placed on the requisition.	Non-stock parts must have a reservation.
Part Number	A valid part number to be requisitioned.	N/A
Description	The part description.	N/A
Quantity	The quantity to be requested.	N/A
Unit Cost	The unit cost for the part to be requested.	This price is the last received price and can be changed.
Unit Inv.	Unit of inventory such as Each or Box.	N/A
Vendor	The valid vendor number the order is to be placed with. This is optional.	N/A
Need by	The date the part is needed by.	N/A
Resv. Code	Parts can be reserved for units, accounts (indirect and direct), work orders, departments and stock inventory.	If the part is placed on reserve for any type other than stock, M5 will require additional information for the reservation. Non-stock parts cannot be ordered for stock and must have a reservation.
Resv. Ref. No.	Depending on what was selected in Resv Code as to what needs to be entered here.	For example, if Unit was selected as the Resv Code, then a valid unit number must be entered here.

Field	Description	Notes
Contract No.	If the part is under contract with the vendor, the contract number must be a valid contract and be chosen from the LOV.	N/A
App/Rej	If you have the privilege, APP/REJ REQ ON FLY, then you can either approve or reject the part requested, by selecting the checkbox.	If you are rejecting the line, enter the reject reason. After you save, a dialog box will display asking if you truly want to reject the row. Otherwise, you are approving the line item.
Reject Reason	If the requisition was not approved, enter the reason why you are rejecting the line item.	N/A
Part Request	Tab on part requisition to pull in any part request that needs to be ordered.	The Part Requisition frame can also be launched from the more actions hyperlink on the Parts Handling screen.
Requisition Notes	Any notes for the requisition.	N/A

Purchase Requisition Approval

An organization can require purchasing requisitions to be approved, prior to being placed on a purchase order.



This frame can only be used if System Flag 5267 is set to Y to allow for approving or rejecting multiple requisitions. Otherwise you will have to use the single approval frame.

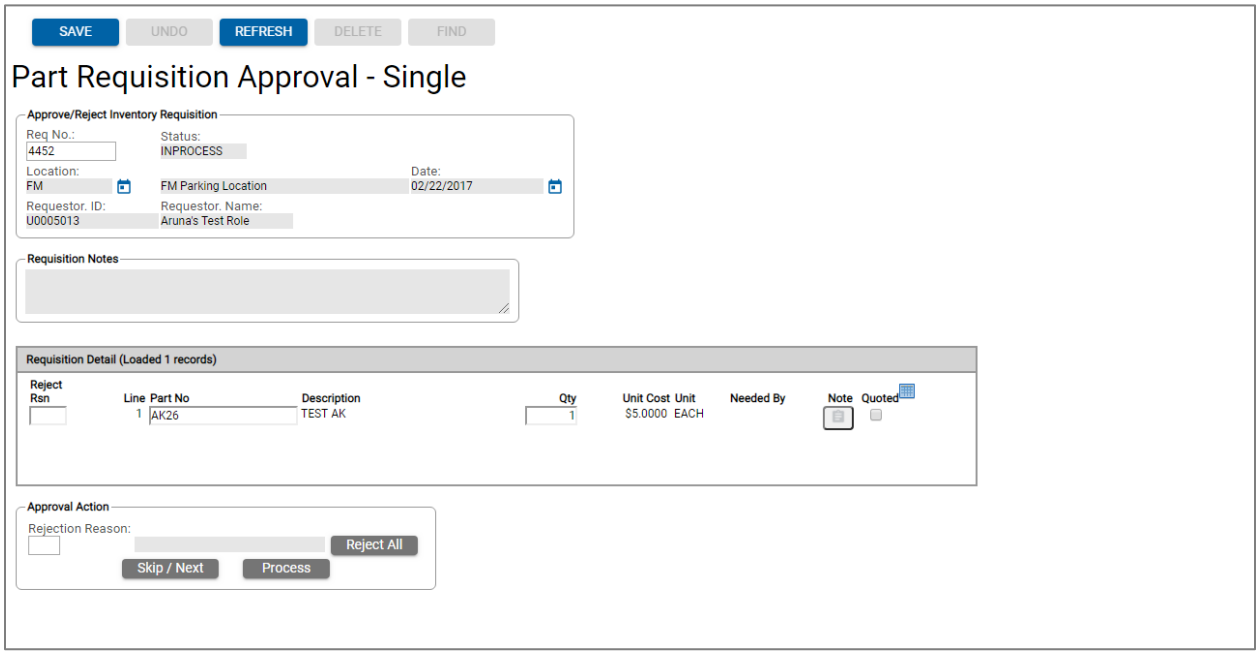
A privilege called **CHG PART NO/QTY** allows users to change the part number or quantity requested to order on the part requisition. If the user has the privilege, then on Purchasing Requisition Approval frame, the part number field and qty field are open for editing.

After entering any filtering information, select the **Retrieve** button to view results. To view the parts on the displayed requisitions, double-click on the row and the parts will display below as the user can either approve or reject by each line item or by the requisition.

Field	Description	Notes
Requisition Number	The valid system generated requisition number.	N/A
Location	The log in location for the user.	This is also the same location the requisition is being approved for.
Status	Defaults to 'Request'.	N/A
Requestor	The user id that made the requisition.	N/A
Needed By Date	Enter the date the parts are needed by.	N/A
Start Date From/End Date To	Enter date range to search for 'requested' part requisitions.	N/A
Part Number	If looking for a specific part, enter it here.	N/A
Reserved For	If looking for a specific part that is reserved for a unit or dept, enter that unit number or department number.	N/A
Requisition List	Will display all requisitions needing action based on the results of the query.	N/A
Requisition Notes	Notes are created when the requisition was created and can be updated from this frame.	N/A
Process	Select the checkbox to designate that this entire requisition is being either approved or rejected.	When selected, all 'process' checkboxes for each row will automatically be selected.
Reject Reason	If the entire requisition is to be rejected, enter the reason.	N/A
Requisition Detail	Every line item will display allowing the user to change part number, qty, reservation code and add notes as well as reject or approve the line item.	The user can only change the part number and qty if they have the privilege, **CHG PART NO/QTY.**
Requisition Notes	Notes are created when the requisition was created and can be updated from this frame.	N/A
Process	Select the checkbox to indicate whether this line item is being approved or rejected.	N/A

Field	Description	Notes
Reject Reason	If a part is to be rejected, a reject reason can be entered at the part level by using the LOV to choose a reason.	N/A

Purchase Requisition Approval – Single

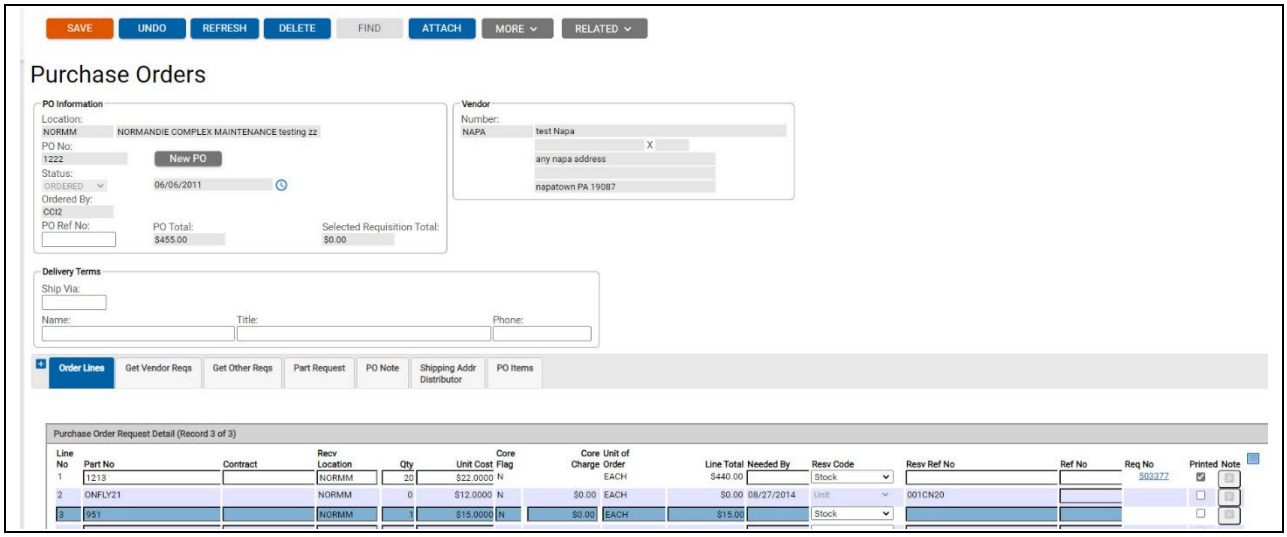


If System Flag 5267 is set to N, you will have to use this frame for part requisition approvals.

Purchase Orders

The data needed to be setup is determined by the functionality the customer chooses to implement. An organization can determine whether to require purchase requisitions. Or, if spoke/hub processes will be used the distributors, vendors, and the locations need to be updated.

For the M5 Batch Process to generate requisitions and/or purchase orders, then the parts reordering data will need to be setup – minimum and maximum levels, vendors, order dates, and such.



Purchase Orders can be created in a variety of ways depending on an organization's business practices.

There are 5 statuses that a purchase order could potentially go through:

1. **ORDERED** – Parts are on order.
2. **ACLOSED** – The purchase order was automatically closed when all receipts were made.
3. **MCLOSED** – The purchase order was manually closed via the PURCHASE ORDER frame.
4. **QUERY. PARTIAL** – There has been a partial receipt; a backorder.
5. **CANCELED** – A canceled PO.

Creating Purchase Orders

Part Purchase Orders can be created manually or by the batch reorder process. Requisitions can be added to the PO as needed – either requisitions already created for the PO vendor or other vendors requisitions. Part Contracts can also be assigned to the order line.

If a new part is being ordered and the user has the privilege, INSERT PART INVENTORY and System Flag 5033 is set to either R or V, M5 will look at System Flag 5263 for a value. The user will be able to add a new part on the fly at the receiving location without first entering that part number into that location's record or being logged into that inventory location.

System Flag 5263 tells M5 the default bin number, if the new part is a stock part number. This same functionality applies to the **PART TRANSFER** frame also.

Field	Description	Notes
Location	The location the user is logged into and the location the purchase order is being created for.	N/A
PO#	The PO number is a user defined number or a system generated number and it used to track the purchase with the vendor.	N/A
Status	The purchase order will go through several statuses.	The statuses are Build, Ordered, Aclosed and Mclosed.
Ordered By	The user id of the person generating the purchase order.	N/A
P.O. Reference #	A user defined reference number.	N/A
P.O. Total	As parts are ordered, the total will adjust accordingly.	N/A
Vendor #	A valid vendor number the order is being placed with.	The name, phone number and address will be displayed after it is entered.
Delivery Terms	A valid shipping term can be entered.	Valid employee can also be identified (Optional).
Order Lines Tab	The order lines are used to add parts to the purchase order if a requisition was not created and will also display parts that have been requisitioned once added to the purchase order.	N/A
Get Vendor Reqs	Any approved requisitions that have parts listed for the vendor number entered on the purchase order.	Select the select column to add those parts to the requisition.

Field	Description	Notes
Get Other Reqs	All other approved requisitions will be displayed in this tab.	N/A
PO Note	Purchase order notes can be entered.	N/A
Shipping Address	Address that parts are to be shipped.	N/A
Distributor	Distributor associated with the vendor on PO.	N/A
PO Items	Items for this PO.	

After the purchase order is saved, the selected requisition lines are added to the order lines tab. The status is now set to **ordered**.

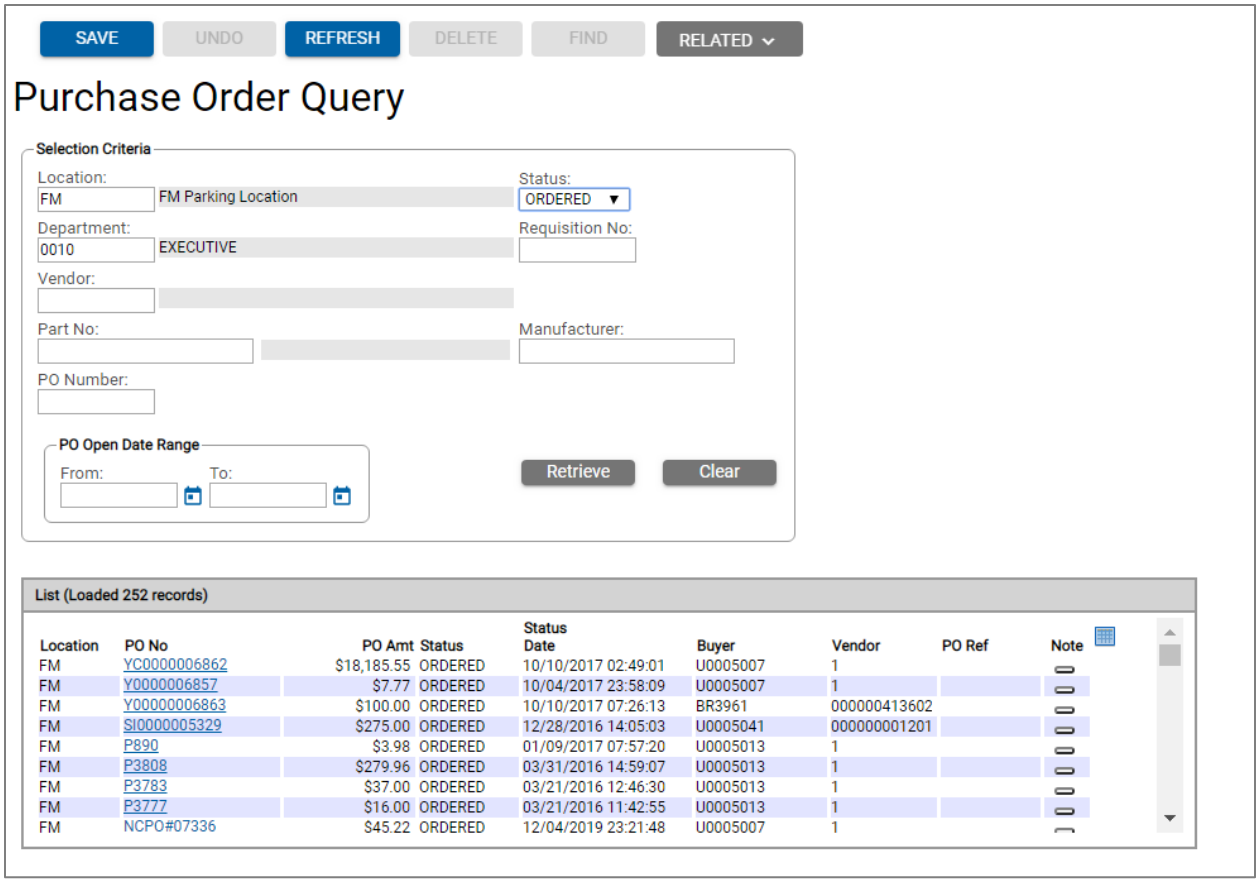
The **Begin PO Extract** button is used for clients that have web-service integrations to send the PO data from M5 to a procurement system. It allows you the ability to create the PO, save it, wait, and then edit it. After the PO is ready to send and edits are complete then the button is used to send the data.

Updating a Purchase Order

Purchase Orders can be updated as required during their life cycle. It can also be cancelled.

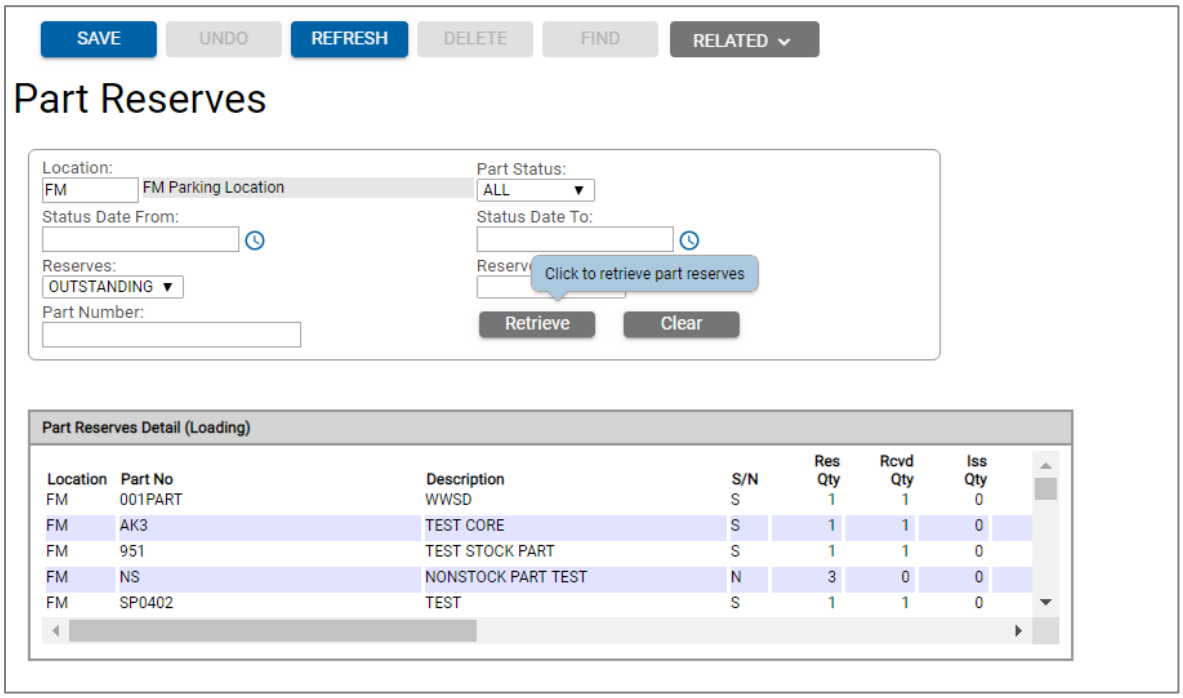
Purchase Order Query

Regardless of the status of a purchase order, it can be viewed at any time using the Purchase Order Query frame. This frame will be useful to see outstanding purchase orders. This is the only place you can cancel or manually close a PO by clicking on the PO No hyperlink.


SAVE
UNDO
REFRESH
DELETE
FIND
RELATED
Purchase Order Query
Selection Criteria
Location:
FM
FM Parking Location
Status:
ORDERED
Department:
0010
EXECUTIVE
Requisition No:
Vendor:
Part No:
Manufacturer:
PO Number:
PO Open Date Range
From:
To:
Retrieve
Clear
List (Loaded 252 records)
Location PO No PO Amt Status Status Date Buyer Vendor PO Ref Note
FM YC0000006862 $18,185.55 ORDERED 10/10/2017 02:49:01 U0005007 1
FM Y0000006857 $7.77 ORDERED 10/04/2017 23:58:09 U0005007 1
FM Y00000006863 $100.00 ORDERED 10/10/2017 07:26:13 BR3961 000000413602
FM SI0000005329 $275.00 ORDERED 12/28/2016 14:05:03 U0005041 000000001201
FM P890 $3.98 ORDERED 01/09/2017 07:57:20 U0005013 1
FM P3808 $279.96 ORDERED 03/31/2016 14:59:07 U0005013 1
FM P3783 $37.00 ORDERED 03/21/2016 12:46:30 U0005013 1
FM P3777 $16.00 ORDERED 03/21/2016 11:42:55 U0005013 1
FM NCPO#07336 $45.22 ORDERED 12/04/2019 23:21:48 U0005007 1

Reviewing Part Reserves

All non-stock parts that are ordered by a purchase order must be reserved against something, whether it is a work order, a department, an account number, and such.



Stock parts can also be reserved, but only through the purchase order. After the part is received, it goes into reserves.

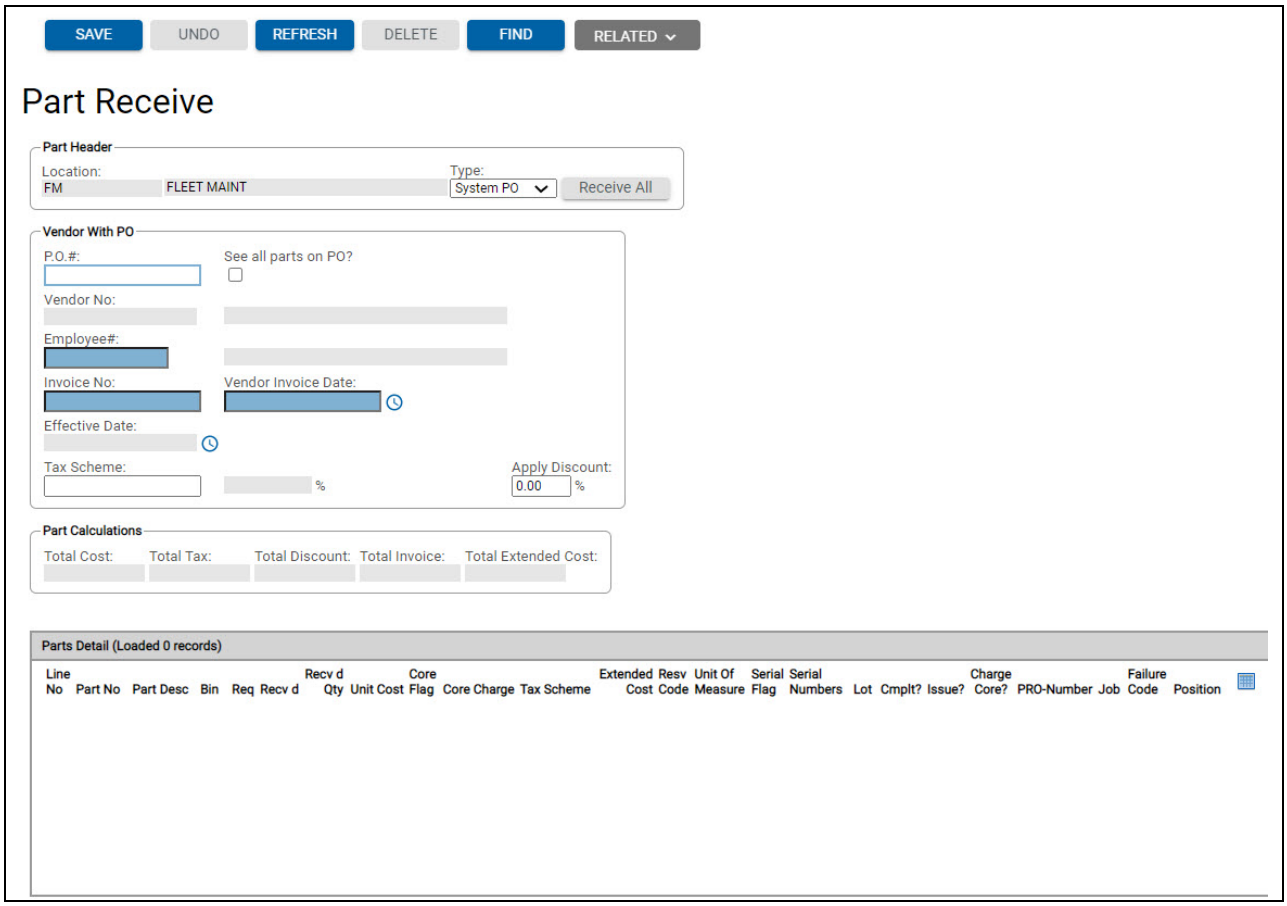
A reservation can be changed (reservation type), meaning that if the part is reserved for a WO, you can change the reservation to now be reserved to something else. If a partial issue of a reserved part has been made, then you cannot change the reservation.

The Part Reserves frame can be used to review all the parts that are reserved on purchase orders.

Field	Description	Notes
Location	Enter inventory location where the reserves reside.	N/A
Part Status	The part statuses are used to track the progress of the reservation.	The statuses are: all (will show all statuses in the query), approved (transfer or requisition that has been approved), complete (part has been received but not issued yet), ordered (parts on purchase order), partial (partial receipt from vendor), rejected (rejected transfer or requisition), request (transfer or requisition), deleted (part request that was deleted), in-transit (transfer on the way to the receiving location) and short (transfer receipt did not include the entire quantity).
Status Date from and to	Dates can be entered as a range to narrow the search.	N/A
Reserves	Defaults to displaying outstanding reservations, but can also select all.	N/A
Reserved for	The reserved for is the reservation reference number field used to create part reservations.	N/A
Part number	A specific part number can be entered if looking for reservations for that number only.	N/A
Part Reserves Detail	The part reserves detail will be listed in the table- field and will display part number, description, reserved quantity, received quantity, issued quantity, reserved type, reserved for, part status, status date, PO or ticket number, requisition number, and PO/Tfr.	N/A
Reserved type and for	Both of these fields can be changed.	If the reservation was made for the unit by mistake for example, it can be changed here to work order and the work order would have to be entered.

Part Receive

The Part Receive frame allows you to receive parts from a system-generated purchase order, a manually created PO, a transfer ticket or a negative receipt. A system-generated PO is the purchase order that is created on the Purchase Orders frame.



A manually created PO is one that is created from the Part Receive frame. This is usually used when ordering by vendor and receiving it all on the same day. A transfer ticket is generated when a transfer is made and a negative receipt allows the user to return the stock part at a cost other than the system cost.

After you receive a part, the system lets you know the order status of the part by indicating whether a **PARTIAL** or a **COMPLETE** order has been received. When you receive parts at staggered intervals, some having been received completely, some not, the status of each part (outstanding or not outstanding) is shown.

After a part has been received, you can issue the part to a unit, department, indirect/direct account or a work order. Parts reserved for a work order, unit, department or account can only be issued to their corresponding charge codes.

If all parts are not received, the PO status will remain ordered. If they are all received, the PO status will be closed. If any part was not fully received, the part status will be partial otherwise the part status will show as ‘complete’.

The balance of any parts contracts that had receipts will adjust accordingly.

As soon as a lotted part number is entered on Part Receive, a pop-up window displays. If the part you are receiving has more than one lot number, then you must receive that part again on a new line for the next lot number.

Field	Description	Notes
Location	The location the user is logged onto and is the location where the parts will be received.	
Type	The type must be chosen to receive the part.	The Manual PO type is used to receive the part without a purchase order. System PO type is used if a purchase order was created. Transfer type is used if a transfer is being received. Negative Receive type will only be available if the user has the privilege, “Allow Neg Receive’. Negative Receive is only for stock parts. The default type is dependent on System Flag 5079. The header and fields will change depending on what type is chosen.
Receive All	Receive all allows user to auto fill the receive qty with the request qty.	System Flag 5115 must be set to Y to use this function.
If receiving without a PO – Vendor without a PO	The vendor number, contract number if necessary, invoice number (system flag can make this required), P.O.#, effective date, tax and discount percentages must be entered.	N/A
Tax Scheme	Dependent on System Flag 2056 as to whether the vendor’s tax scheme displays or the user can enter a tax scheme.	N/A
Apply Discount	Will only display if System Flag 1341 is set to Y.	N/A

Field	Description	Notes
Parts Detail	Each part to be received must be entered in this section. The valid part number can be entered or chosen from the LOV. Enter the quantity to be received and the cost.	If a non-stock part is being received, the non-stock part issue frame will appear and must be completed. The receipt of non-stock parts is a 2 step process to receive and issue at the same time since non-stock parts cannot be put on the shelf but issued to a unit, work order, department and indirect or direct account. Serial numbers and lot numbers will also be captured if configured to do so.
If receiving with a PO – Vendor with PO	The valid PO must be entered or chosen from the LOV.	The vendor number will be displayed based on the purchase order chosen. Invoice number (system flag can make this required) and effective date must be entered. Tax and discounts entered if necessary. The parts on the PO will be listed in the Parts Detail Section.
Parts Detail	The part number and description will default in from the PO, user will need to enter quantity and price (if the displayed price is incorrect).	If non- stock parts are being received, or a reservation was made on the purchase order for a non-stock part the part will be placed into reserve upon save. To issue the non-stock part right away during the receipt, click the issue box. If the user decides not to issue the part at the same time the receipt is done, the part will remain in reserve and must be issued from Part Issue.
If receiving a transfer – Transfer ticket number	The valid transfer ticket number must be entered or chosen from the LOV.	The parts on the transfer will be displayed in the Parts Detail section.
Parts Detail	If the part being transferred is non-stock, the part will have a reservation on it.	The user has the option to issue the part by checking the issue box or to save the issue and the part will remain in reservation and must be issued.
Part Calculations	The line item details for the receipt including total cost, total tax, total discount, and total extended cost.	N/A

If System Flag 5245 is set to Y, then when the user goes to save any outstanding stock parts that are requested by transfers, the following will display. If the user has the privilege*, Not Force Transfers*, then the user can opt to either close the frame without selecting the line item or to fulfill the request. If the user does not have this privilege, then the user will be forced to transfer the line item. If using the pick or ship functionality, then the selected part will show up in pick status on the Part Transfer frame otherwise, the part will be in-transit.

The order of the parts in the list is:

1. Part Transfer Requests with Reservations for Work Orders.
2. Part Transfer Requests with Reservations for Units.
3. Part Transfer Requests with Reservations for Departments.
4. Part Transfer Requests from other locations for Stock (oldest transfer requests for stock sorted first).

Change Part Numbers when Receiving

Occasionally, when the vendor ships a part, the part being received can have a different part number than the part number on the purchase order.

This may occur when the part on the purchase order has been superseded by another part number or it could be the vendor shipped an equivalent part. An enhancement to M5 has been made so that users with the proper privilege can change the part number when receiving parts.

If the user has the privilege called **CHG PART NO-PART REC**, the Part Number column on the Part Receive screen becomes a link. By selecting the link, the user can change the part number. The user has three options to change the part number when receiving parts on an existing M5 Purchase Order:

1. Change the part number to one of its existing cross reference numbers.
2. Add a new cross reference number and change the part number to a new cross reference number.
3. Change the master part number which will permanently change the part main master number.

If the user makes some other unsaved changes when trying to change part number, they have a choice to either continue with the part number change or clear all the other unsaved changes, or cancel the part number change.

4. Core Tracking

Overview

The idea of tracking core credits has been existence in the fleet world for some time. However, the way that core credits are tracked and occur varies amongst our fleet customers. The end result of core tracking is to receive a credit from the vendor when returning a part that contains a core. The vendor identifies core parts along with the potential value of the credit.

It all comes down to these two questions: what consists of a core credit and how can it be done in a fleet software package? The core credit itself is never definitive. Our clients are not guaranteed a core credit once it is returned to the vendor.

There are several factors that determine if the full value of the core credit is honored. There are two factors: condition of the core being returned and time. If the core is in poor condition or destroyed, partial or no credit will be given. If the core is not returned to the vendor in a timely manner, the core credit will not be honored.

One important piece to this functionality as it was written in M5 is to remember that the core charge and credit has no monetary value unless it is charged out with the part issue transaction or until the core credit has been applied using the Core Claim functionality.

A part can have a core value and the core value is tracked throughout the parts life and with every transaction in the Part Journal table. This will allow our clients to report on all parts with cores and what the potential core value is. But money is not part of the process unless the existing core charge is issued to the work order or the credit has been entered.

There are two main areas that is part of this new functionality in M5. First, is the ability to track the issue and cost of parts with cores for reporting purposes and second, capture the data for core itself that needs to be returned to the vendor for credit. After the credit is received by the vendor for the core it can be claimed with the vendor against the work order to which the part with the core was issued.

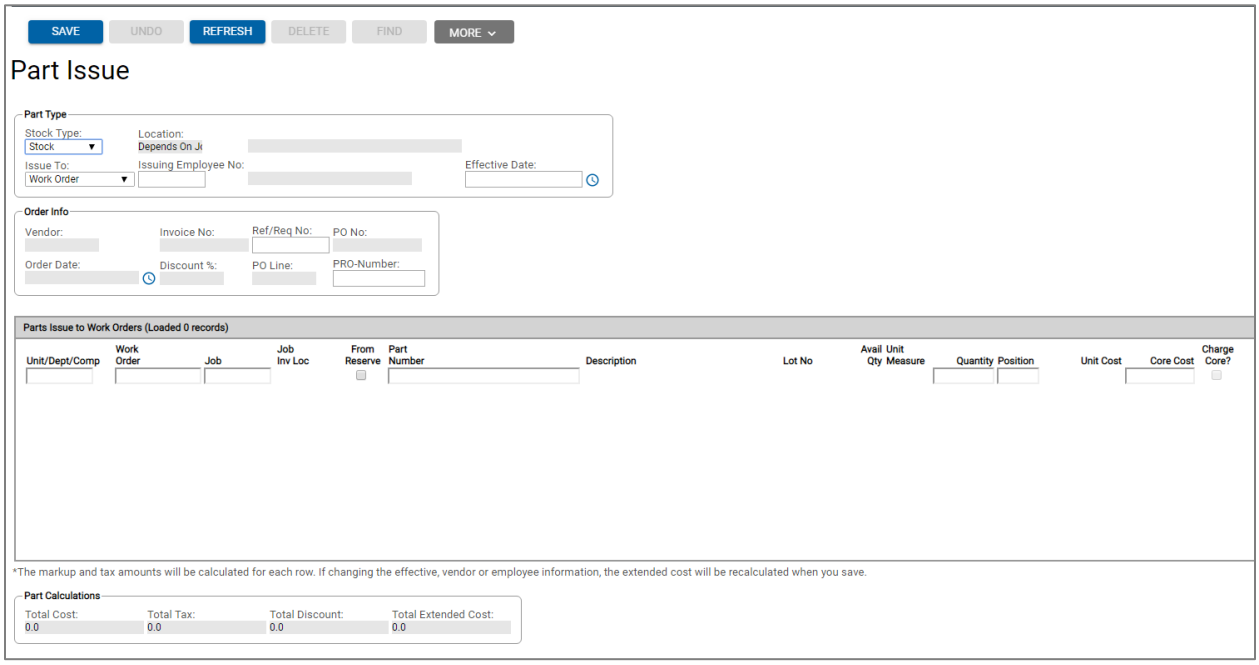
Please refer to the *Core Processing Overview Reference Guide* for more information.

5. Inventory Movement

Overview

Inventory movement includes Part Issues, Transfers, and Returns. A separate document involving Inventory Movement functionality provides a more in depth review of the process. This section provides a basic introduction to the major frames.

Part Issue



If issuing a lotted part, M5 will ask for the lot number as soon as the part number is entered. A LOT List of Values will display to select the Mfg Date and Expiration Date. If more than one lot is being issued for the same part, a new line for that part must be issued.

System Flag 5260 determines which list of values displays for looking up a stock part number. When set to S, the stock part catalog (with xref) at location LOV displays. When set to L, the parts stocked at location LOV displays and when set to C, the part catalog LOV displays.

If System Flag 5013 is set to Y and requires a valid employee ID when issuing a part. This flag is used in conjunction with a new flag on EMPLOYEE MAIN, Inv. Emp. The employee must also have this flag selected so that their ID will display in the Employee LOV when issuing, returning or receiving a part.

Field	Description	Note
Stock Type	The part types are stock, non-stock and commercial. Commercial charge type allows the user to issue commercial charges from the Part Issue frame but was designed for a specific customer interfacing this information to an external financial system. If the non-stock type is chosen, the vendor, invoice, po number, order date and PRO-Number will display in the order info section and will need to be entered.	Dependent on System Flag 5052 setting as to which default type will display. If System Flag 5017 is set to Y, then Ref/Req No will display and will be required entry if issuing stock parts.
Location	The location the user is logged into and it is also the location the part will be relieved from.	
Issue to:	The issue to selections are work order, unit, department, indirect and direct accounts (the ability to issue parts to accounts and directly to units and departments are system flags). Depending on which is chosen, specific fields will show in the table-field below.	
Issuing Employee #	Only displays if System Flag 5013 is set to Y. Enter the employee Id of the person issuing the part.	
PRO-Number	If a PRO-Number is entered, 9 digits are required. This allows the user to generate a Bill of Lading. There is a new icon in the Menu Bar to use this function, 	
Part Issue to Work Orders	If the part is non-stock, vendor information such as vendor number and invoice will need to be entered.	
Effective date	The date the part is being issued.	
Unit/Dept	The unit or department number the part is being issued to. If there is an open work order at that location, it will display automatically. If issuing to a WO and System Flag 5057 is set to Y, then the Unit/Dept/Comp field will display and the user can enter either the WO # or the Unit #.	

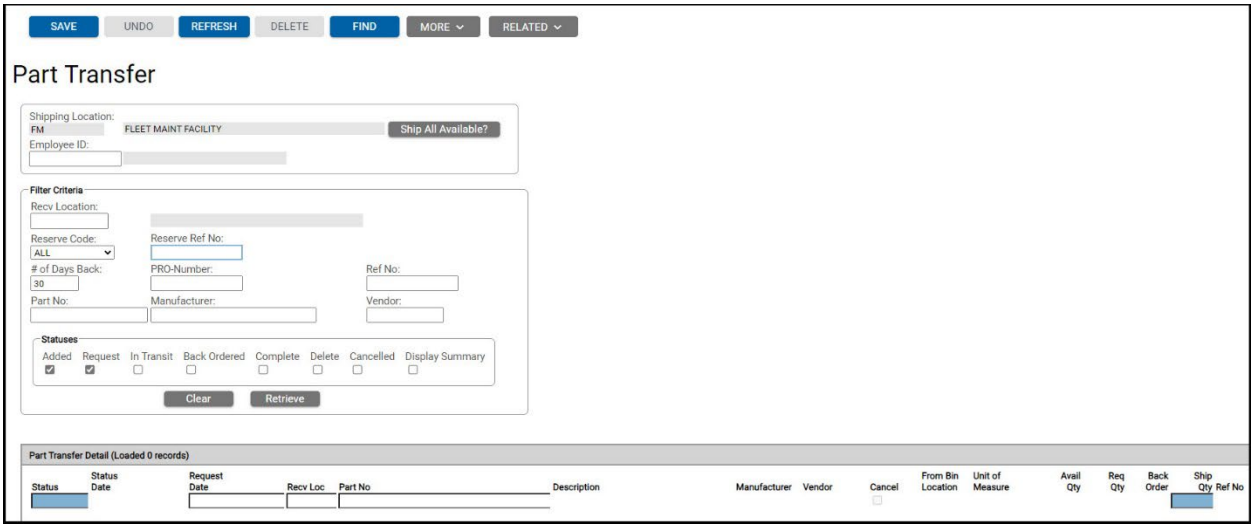
Field	Description	Note
Work Order Number	The work order number the part is being issued to. The work order status must be open or completed.	
Job	The job code the part is being issued to. The job code must be a valid job code on the work order.	
Job Inv Loc	The inventory location of the job.	
From Reserve	From reserve selection is to issue parts that have a reservation.	
Part Number and Description	If the non-stock part is new to M5, it will have to be created in the Non-stock Part frame that will appear.	
Unit of Measure	The default is Each.	
Available Quantity	The quantity on hand of the part if it is stock.	
Quantity	The quantity of the part being issued.	
Position	If System Flag 5016 is set to Y or A, then the position field will display. If this flag is set to Advanced multiple position codes can be entered when the system or system/assembly code always requires a position code entry and the quantity exceeds one.	
Unit Cost	The unit cost can be changed for non-stock parts.	
Core Cost	If the part was designated as a core, the core cost will automatically display. It can be changed, as necessary.	
Charge Core?	If the part is a core and there is a core charge, this box will automatically be selected.	
Failure Code	If System Flag 1321 is set to Y, then this field will be required entry.	
Discount	If selected, the discount entered above will be applied to this part issue.	
Extended Cost	The extended cost of the part issue including the discount and markups if any. If the part is a core and if System Flag 5209 is set to Y, then the core charge will be included in this cost.	

Field	Description	Note
Contract	If the part being issued is covered under contract, the contract can be selected from here.	
Warranty Terms		
Note	User notes can be entered here.	
Part Issue to Units - Differences	If the part is non-stock the vendor information must be entered.	
Unit No	The unit number the part is being issued to.	
Meter Readings	The meter readings can be entered for both primary and secondary meters (if the user has the privilege).	
Part Issue to Direct and Indirect Accounts – Differences	A valid direct account number must be entered. The part must have a flag set on the inventory location record to be allowed to be issued to direct accounts.	

If System Flag 5223 is set to Y when the user saves this Part Issue frame, they will prompted to enter an employee PIN.

When issuing a part from a Part Kit, you will be shown a list of parts in the kit in a content window. You have the option to not issue any parts from the kit by selecting the Cancel button.

Part Transfer



The Part Transfer frame serves two functions. The first is as a query frame that allows you to search for and view all of the Part Transfer Requests at your current log in Location. The second is to initiate or complete the transfer process after the parts are ready to ship.

It's important to note that this frame will display all transfer request for parts from your location. In order to view other requests at other locations you must log in to those locations specifically. However, you can filter by Receiving Location if you want to see transfers to a specific location coming from your log in location.

You can filter on a variety of criteria to narrow the results on the i-frame and there are Status filter flags that let you view requests in various stages of the transfer process.

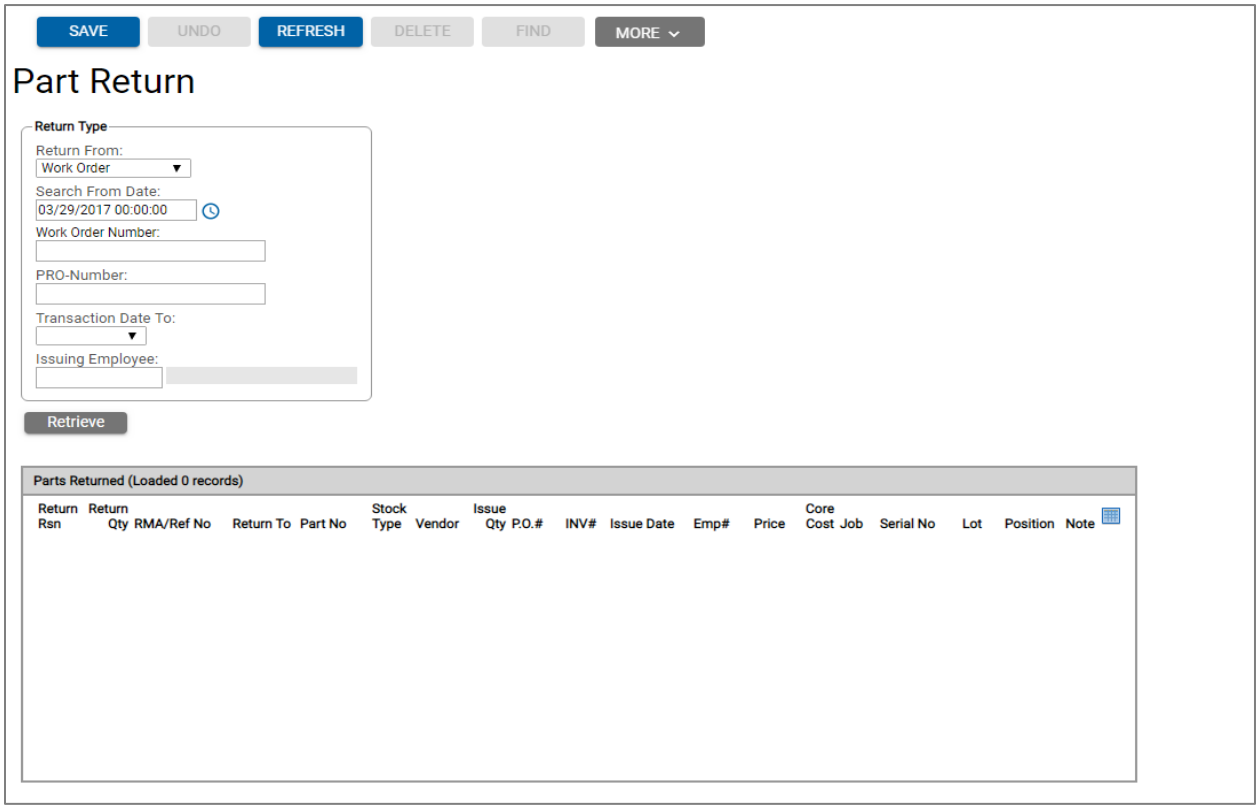
Pick/Ship

System Flag 5153 must be set to N in order to use the enhanced version of the Part Transfer frame.

This frame allows the parts room to see the requests and enter the quantity they want to pick. A pick ticket can then be generated. Meanwhile, this quantity has not been shipped until the user selects the Ship checkbox.

This is useful in case the parts room person goes to pick the parts and there may not be enough in the bin to ship that amount, so they can go back and change the pick quantity before shipping.

Part Returns



The Part Return frame allows you to return a part from a Work Order, Department, Unit/Component, Non-Stock Reserves or as a Credit on a Work Order. The return process will add the part back to the inventory location it was issued from. You can also return the part directly to a vendor.

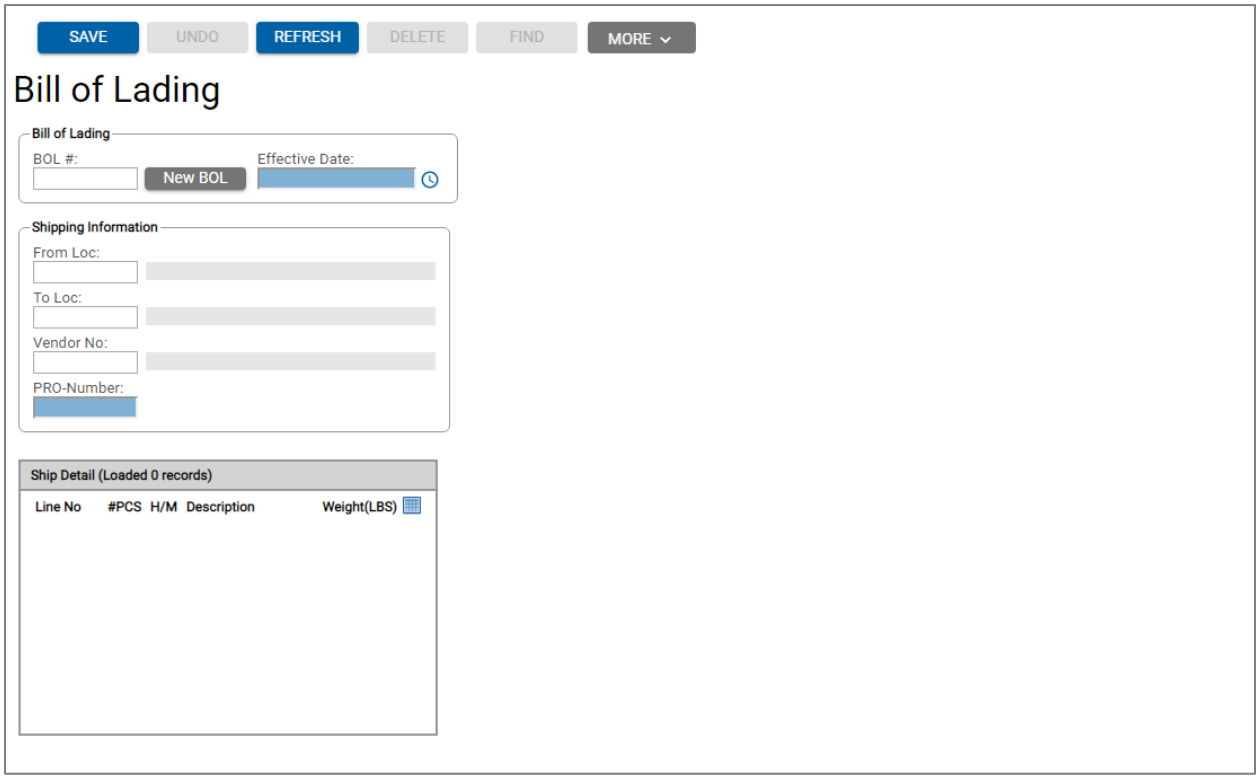
In the Return Type section, select the Return From value from the dropdown menu. The Return Type selected will alter some of the fields in the Return Type section accordingly. The Search From Date will look for parts issued from that date to the current date.

For example if you select Indirect Account, an Account Field will load on the frame in which you can enter a valid value. The PRO-Number and Issuing Employee fields will be available for each selection. After you finish entering you selection criteria, select the Retrieve button to display your query results.

All parts issued since the search date that match your criteria will be listed below. Select the correct part you are returning. Choose a valid Return Rsn for each part to be returned. Enter the quantity being returned. The Returned value cannot exceed the original issued value. When finished, select the Save button at the top of the frame.

The frame will only display returns for Work Orders that match the location the user is currently logged into.

Bill of Lading



A Bill of Lading (BOL) is a legal contract between the shipper and the carrier for the transportation of goods. A Bill of Lading Crystal report is available to be printed from an icon on the Part Transfer, Part Issue, and Part Return frames. There is also a new field to track shipments called a PRO-Number.

In order to print Free-Form Bills of Lading, a new Bill of Lading frame was created. This frame is used to record the information required to print on the Free-Form Bill of Lading Crystal Report. The user can use the Bill of Lading Number LOV to retrieve previously saved data or delete existing Bill of Lading Numbers if required.

6. Inventory Reordering

M5 has two methods of calculating the number of parts to order: **Manual** and **Automatic**.

In manual reordering, each stock part at each location has a minimum and maximum quantity to have on hand. When the quantity on hand (plus any on order or in transit) is less than the minimum number, then M5 recommends that enough parts be ordered to reach the maximum number.

For stockrooms with few frequently used parts and sufficient experienced staff to consider the best quantities to order, the manual method is good enough.

For those stockrooms that need an automatic way to determine these order point, M5 does this in four stages:

1. **ABC classification.** M5 determines which parts should be watched carefully because the parts are critical to the operation, are expensive, and are heavily used.

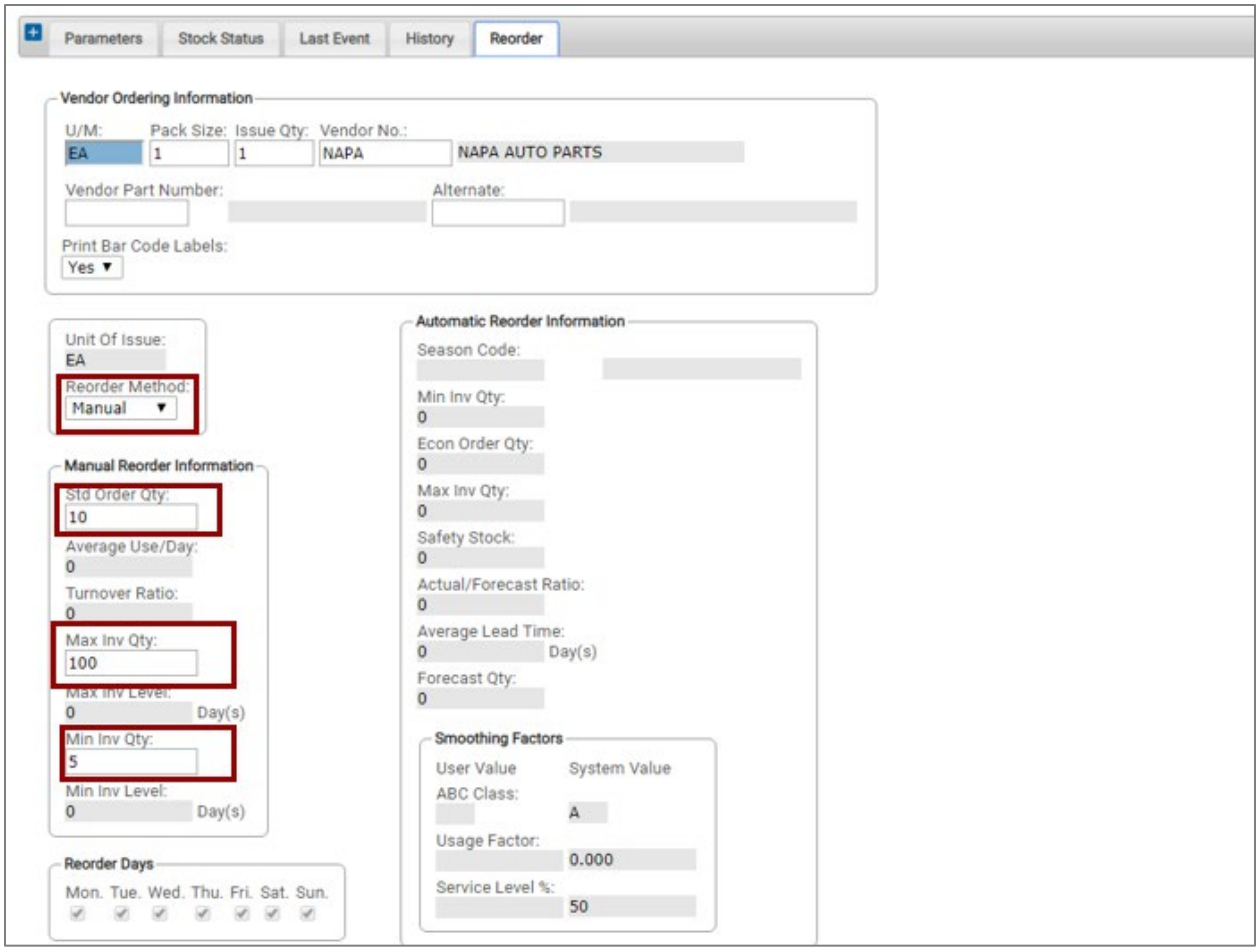
2. **Reorder point calculation.** M5 determines the point at which parts should be reordered and how many should be ordered at a time.

3. **Recommended reorder report.** M5 generates a list of parts that should be ordered.

4. **Automatic requisitions or orders.** Based on current stock levels, M5 determines how many parts should be ordered and generates requisitions or orders for each parts primary vendor.

Manual Reorder Calculations

On the Part Inventory Location Manager – Parameters frame, the Reorder Allowed Box needs to be set to Yes. On the Part Inventory Location Manager frame – Reorder Tab, the Reorder Method needs to be set to Manual.



Min. Inv Level is the smallest number of parts that should be on hand, in transit or already on order. System Flag 2003, Reorder parts at minimum (Y) or below minimum (N)? - controls when an order is triggered. If set to Y, the reorder process orders parts when the number of parts on hand is exactly the same as the entered number or below. If set to N, the reorder process orders parts when the number of parts on hand is less than the entered number.

The number of parts to order is controlled by one of two fields. If the Std Order Qty is not zero, then exactly that number of parts is ordered. If Std Order Qty is zero, then Max. Inv Level is the maximum number of parts to have on hand, and when an order is triggered, the system orders enough parts to raise the new quantity on hand to this number.

The other, grayed-out fields do not affect manual reorders.

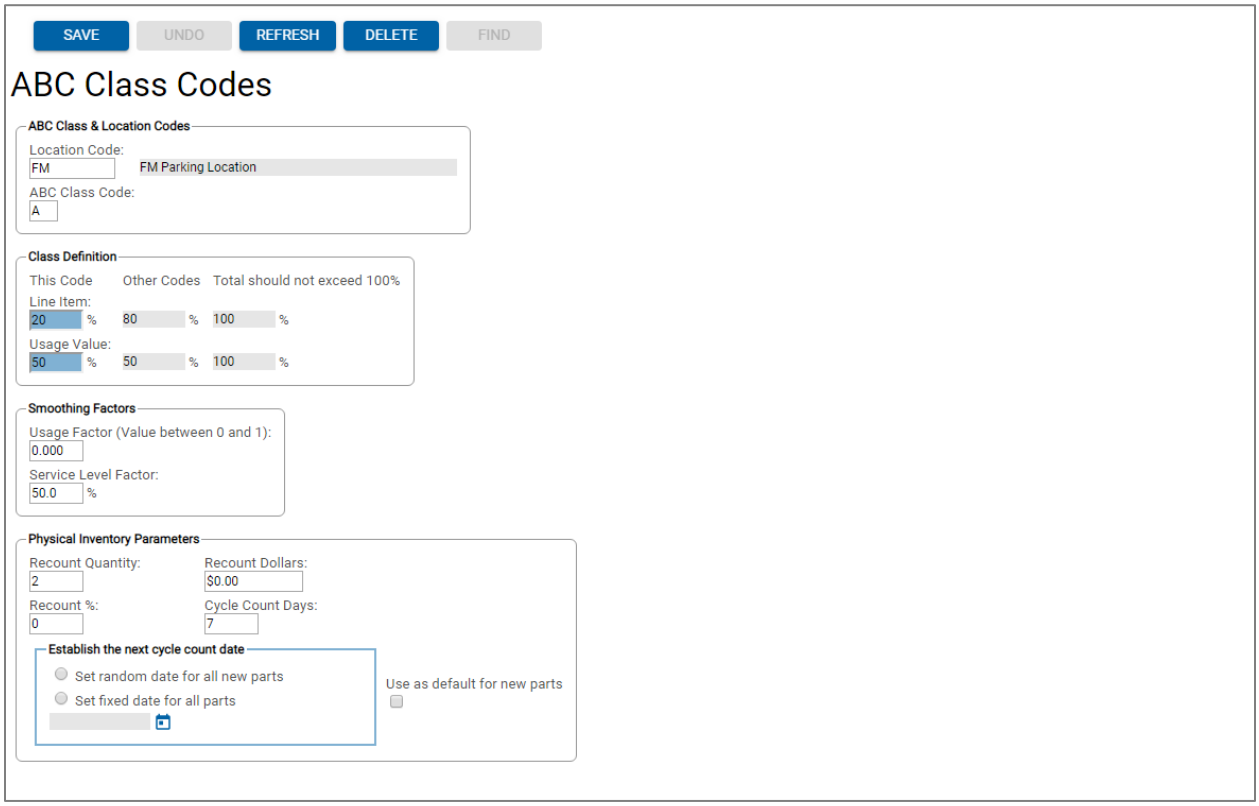
Automatic Reorder Calculations

The automatic reorder calculation depends on many factors, including a sense of the importance of the part to the overall operation, the cost of the part, the overhead in creating purchase orders, the cost of warehouse space, and many others. Fortunately, many of these factors need only be considered once for each inventory location, and M5 provides some ways of estimating the special values for each part.

ABC Classification

The **ABC Class** is a way of organizing the vast list of stock parts into general categories of importance. Traditionally, an "A" part is the most important, "B" is less so, and "C" parts are unimportant. M5 allow up to 36 ABC Classes, but these examples will assume the traditional three.

ABC Classes are established by choosing the ABC Class Codes frame. The importance of the part is defined by the value of parts actually used; that is, the total amount of money spent on each part over the previous year. In the example, parts that account for 70% of this value will be "A" parts. Limiting the number of line items for each ABC Class refines the importance of the parts. In the example, only 20% of stock parts can be "A" parts. The total percentages for all classes must equal 100%. Each location has its own collection of ABC Classes.



The ABC Class contributes two "smoothing" factors to the automatic reorder calculation. The **usage factor** determines how much the currently calculated usage can bend the forecast. For example, if a part was used exactly ten times every month for the past two years, the forecasted usage for the next month will also be to use ten parts. If, however, zero parts were used in the last month, what should the forecasted usage be? If the usage factor is 10%, then the forecasted usage will be bent 10% towards the actual usage, resulting in a forecast of nine parts. Typically, commonly used parts are given smaller usage factors so that a longer trend in usage prevails. In the example, the usage factor for "A" parts is 10%, or 0.100.

The other smoothing factor is the **service level**. When a part is needed, what percentage of the time should it be in stock? Important parts should have high service levels, less important parts low service levels. In the example, "A" parts are expected to be in stock 95% of the time when one is needed. The cost of establishing high service levels is that more parts need to be on the shelf "just in case", which drives up inventory costs.

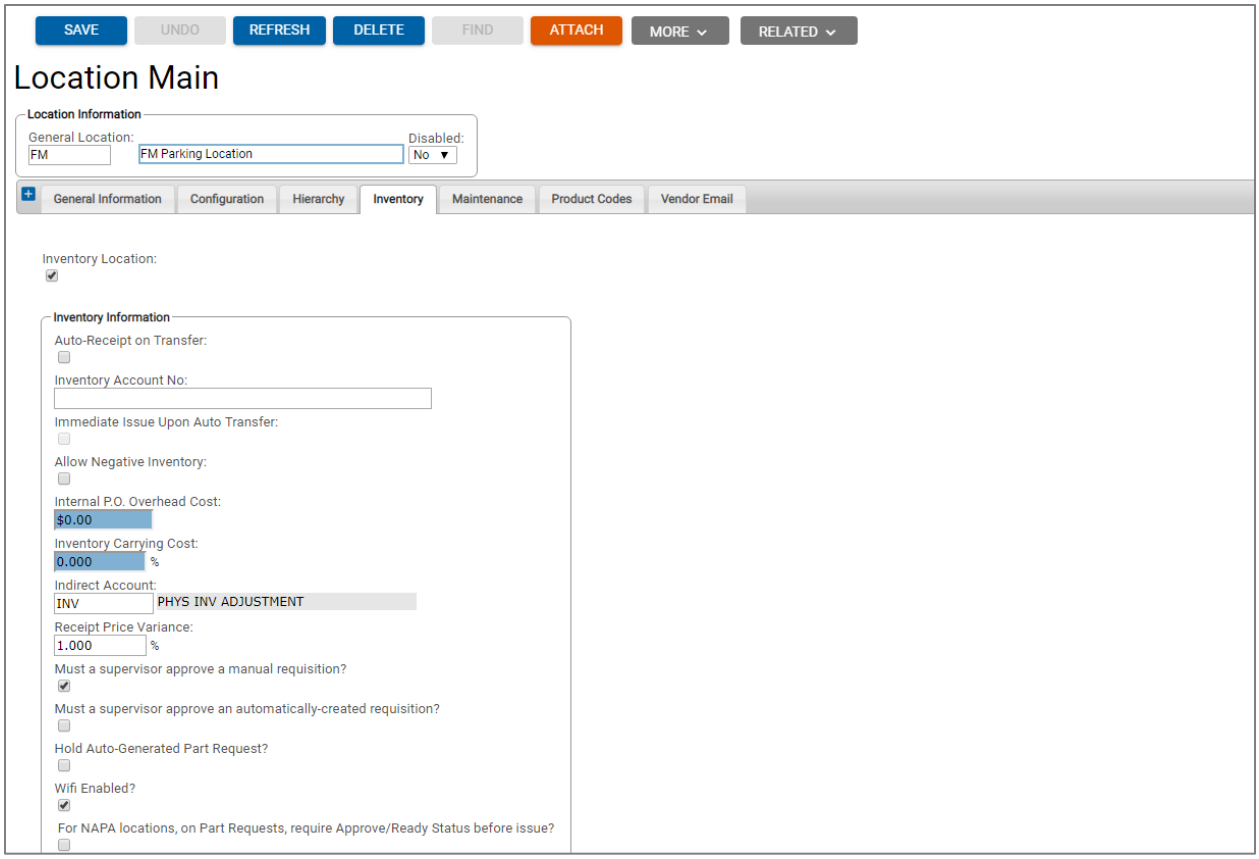
After the ABC Classes are defined, if System Flag 5038 - Update ABC Class codes to the Part Inventory Location frame? (Y/N). is set to yes, the End OF Period process will assign the appropriate class to each part.

Inventory Location Settings

Parts are not cheap to order or keep. Each location has two ways to define the overhead involved with ordering and keeping parts.

The cost of generating and tracking a purchase order is wrapped up in **cost per purchase order**. If the cost is high, more parts will be ordered at once so that orders are made less frequently.

The cost of warehousing parts is expressed as an i**nventory carrying cost percentage**. If the percentage is high, then fewer parts are purchased in order to keep inventory costs lower.



Calculation The Reorder Point

In addition to the ABC Class and location factors, some are specific to each part.

The **lead time** is the interval between the date and time of the order and the date and time of the receipt. For the best precision, the last twenty receipts are considered, whether the receipt was from a vendor or from another location. The lead time is weighted by the number of parts received so that the lead time for the receipt of 200 parts counts ten times as much as a receipt of 20.

The **ABC Class** can be changed on each part at each location or the usage factor or service level adjusted.

Usage is calculated using the current period and the previous period:

```
current usage = (period's issues + transfers-out) / days elapsed

previous usage = (period's issues + transfers-out) / length of period

Usage = (current usage + previous usage) * total days
```

The **forecast** depends on, among other things, the forecasts for previous periods. If previous forecasts differed by a large amount from the actual usage, then future forecasts may also be too inaccurate. To account for this, a method known as double smoothing is employed:

```
a = old forecast + (usage_factor * (Usage - old forecast)

b = old b + (a - old b)

new forecast = a + (a - b)
```

The **actual/forecast ratio**, sometimes referred to as the "mean average deviation" or "MAD", represents the error between the forecast and the actual usage. M5 stores the forecasts and actual usage from previous periods and uses the most recent 13 periods (not including the present period) for the calculation. Also, transfers-out will be considered in order to account for central location's usage.

```
actual/forecast ratio = sum(abs((period usage + transfers out) -
forecast)) / 13
```

Safety stock is the amount of stock necessary to ensure (to a degree of certainty) that the supply of a part will not run out while waiting for new parts to arrive. A factor based upon standard deviations is established depending on how certain the user wants to be that no stock outs will occur, the **service level**:

Safety factor	Service level
0.00	50.00
1.00	79.00
1.25	84.00
2.00	95.00
2.50	98.00
3.00	99.00
3.75	100.00

The safety stock is:

```
safety stock = safety factor *

    (actual/forecast ratio * lead time) / length of previous period
```

The new **reorder point**, or "minimum inventory level", is then figured. The "reorder point" is the time at which, when there is this number of parts on hand, it is time to order more parts:

```
reorder point = ((new forecast * (lead time) / days elapsed in period))
+

      safety stock
```

The number to order when the inventory level drops below the reorder point the **economic order quantity,** or "EOQ":

```
                ------------------------------------------------------------

      EOQ =  / 2 * (PO Cost * Usage) / (Inventory carrying cost percentage *
unit price)

             \/
```

The maximum inventory level is:

```
        maximum inventory level = reorder point + economic order quantity
```

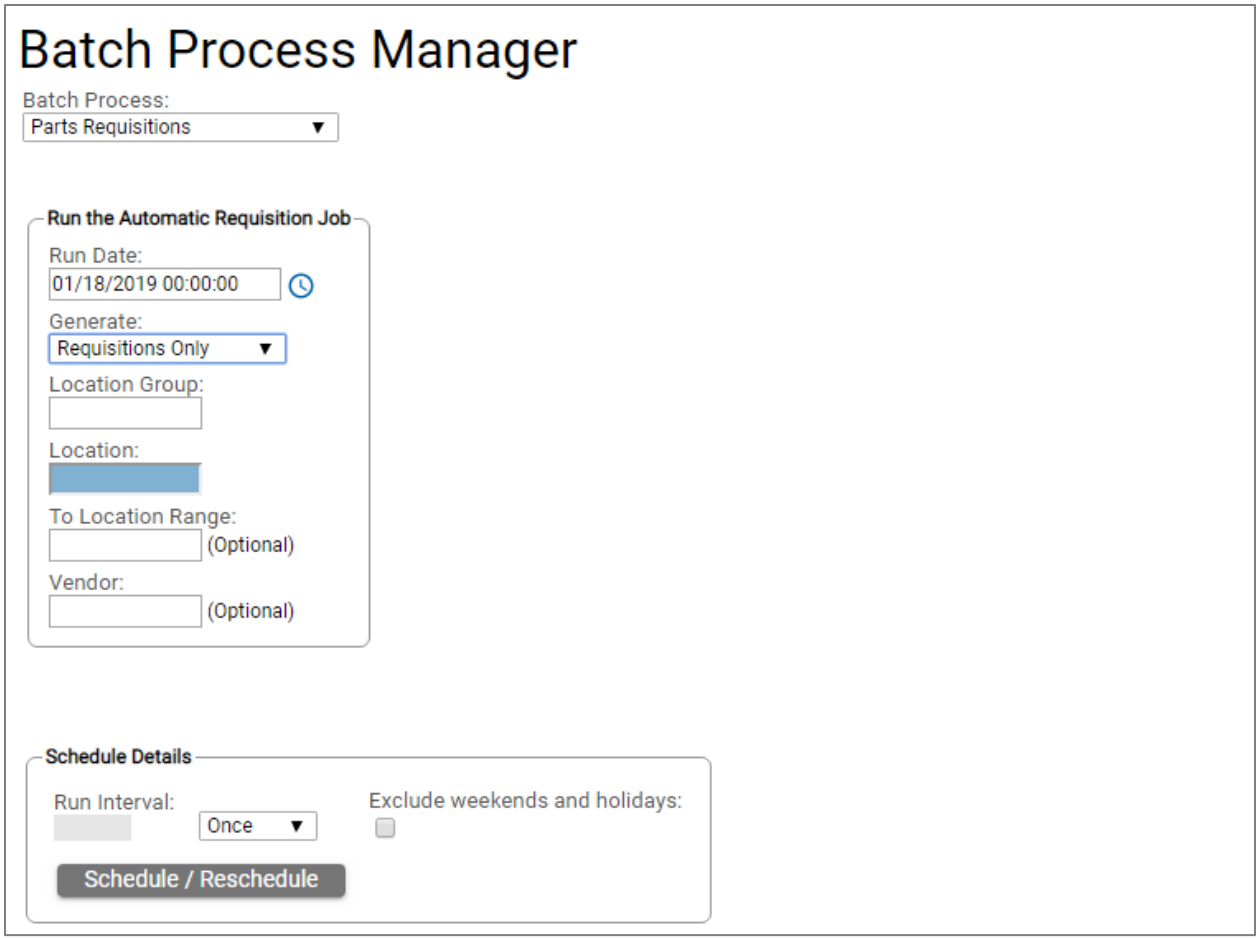
Setting The Reorder Point

The reorder point is reset as part of the End of Period process. The End Of Period program updates the reorder points for all stock parts at all locations set for "Automatic Reorder" and stores the results in the part history table and creates forecasts for the next fiscal period.

Generating Requisitions and/or Purchase Orders

The Batch Program – Part Requisition can generate requisitions only, requisitions and PO's, or transfers only. These are then at a later time reviewed, revised, and approved by using the Purchase Requisition frame, Purchase Requisition Approval frame, Purchase Order frame, or Part Transfer frame. System Flag 1178 - Is requisition required on purchase order? Controls whether requisitions are required. The options are - Order parts with Req (Y), without Req (N), or either (E), requires that ordered parts come from a requisition if "Y", "N" allows ordering without a requisition, and "E" allows both requisitioned and non-requisitioned parts on the same order.

The requisitions and orders are generated for all stock parts whose quantity on hand (plus quantity in transit and quantity already on order) has dropped below the minimum inventory level, regardless of whether that figure was set manually or calculated automatically. The number of parts requisitioned or ordered is the economic order quantity (if the reorder point was calculated automatically) or the number required to bring the quantity on hand to the maximum inventory level (if the minimum inventory level was entered manually).



Generating Recommended Orders

After the Part Requisition batch program runs, the Inventory Reorder by Location report shows the recommended number of parts to order for all stock parts, whether using the manual minimums or automatic reorder points. It lists the parts that are suggested for reorder by location.

The Inventory Reorder report shows is another report that shows the recommended number of parts to order for all stock parts, whether using the manual minimums or automatic reorder points. This report prints a reorder form by vendor and address. These reports does not create purchase orders or requisitions. They can be created using the frames as discussed in the previous section.

Inventory Reorder Summary

ASSETWORKS
Report Printed: 01/19/2018 14:07:45 By User: TRANGS

Part Nunber / Manufacturer / Description	Primary Bin	Qty On Hand	Qty Available	Qty In-Transit	Qty On Order	Min Stk Level	Max Stk Level	Std Order Qty	Last Price	Recmnd Order Qty	Order Qty
Location: 01MAIN - 24th ST Maintenance Shop											
10771 3M NEG TESTER						- No Primary Vendor					
		-1.00	-1.00	0.00	0.00	0.00	0.00	0.00	100.00 M	1	
107712 3M NEG STOCK TESTER						- No Primary Vendor					
		-4.00	-4.00	0.00	0.00	0.00	0.00	0.00	0.00 M	4	
22778 3M HOSE GARDEN 1" X 75'						0000001526 - ASSET WORKS					
	17	0.00	0.00	0.00	0.00	5.00	100.00	10.00	0.00 M	10	
75-050 NAPA OIL (QUART) 5W30						0000002921 - NAPA AUTO PARTS					
	001 B	3.00	3.00	0.00	0.00	5.00	10.00	0.00	2.39 M	7	
KT6 3M TEST						- No Primary Vendor					
		-1.00	-2.00	0.00	0.00	0.00	0.00	0.00	1.00 M	2	
PART002SM 3M PART						VEN002SM - Vendor 1					
		0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00 M	5	
R134AWD NAPA R134A REFRIGERANT W/DYE						AUZ5000000 - AUTO ZONE					
	59	0.00	0.00	0.00	0.00	30.00	90.00	0.00	3.99 M	90	
:			**Part Count: 7**		**Total Quantity:**		**119**	**Est. Order Value:**		**477.83**	
Location Summary: 01MAIN			**Part Count: 7**		**Total Quantity:**		**119**	**Est. Order Value:**		**477.83**	

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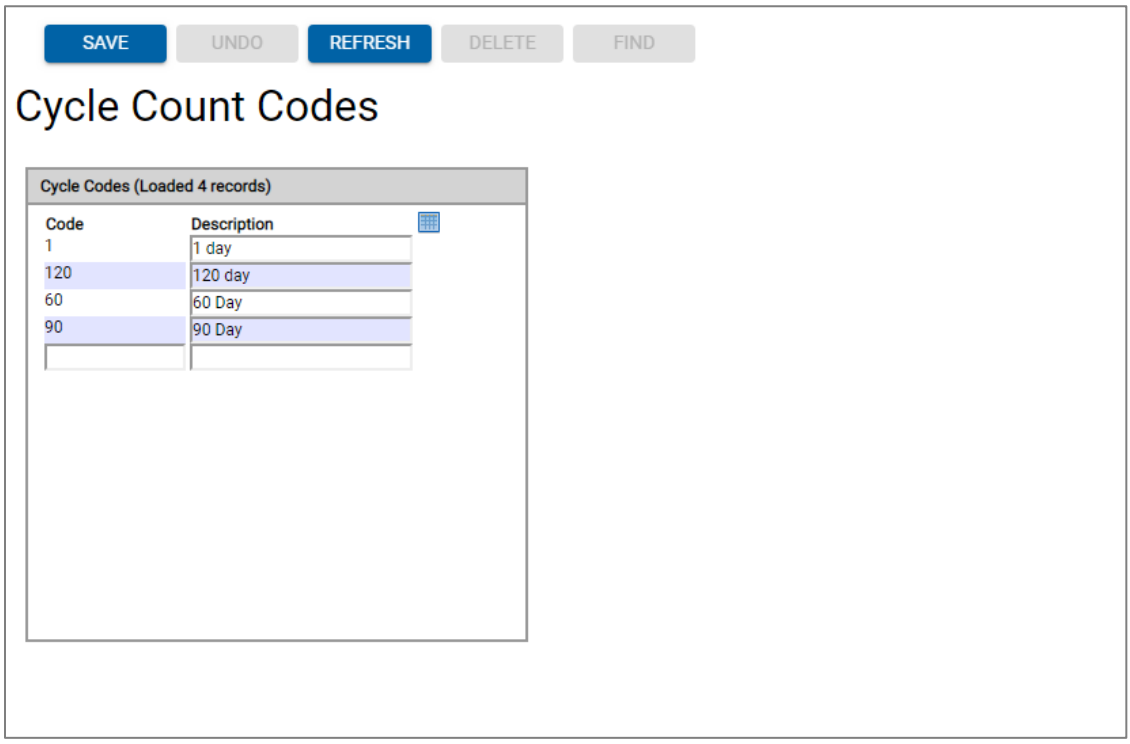
7. Inventory Control

Controlling the accuracy of the parts inventory is an important system function. There are several methods a customer can use to identify the parts that will be counted as part of the physical inventories. Physical inventories can be conducted based on cycle counts, ABC classifications, or based on part specific data. The setup requirements for each type of count are described below.

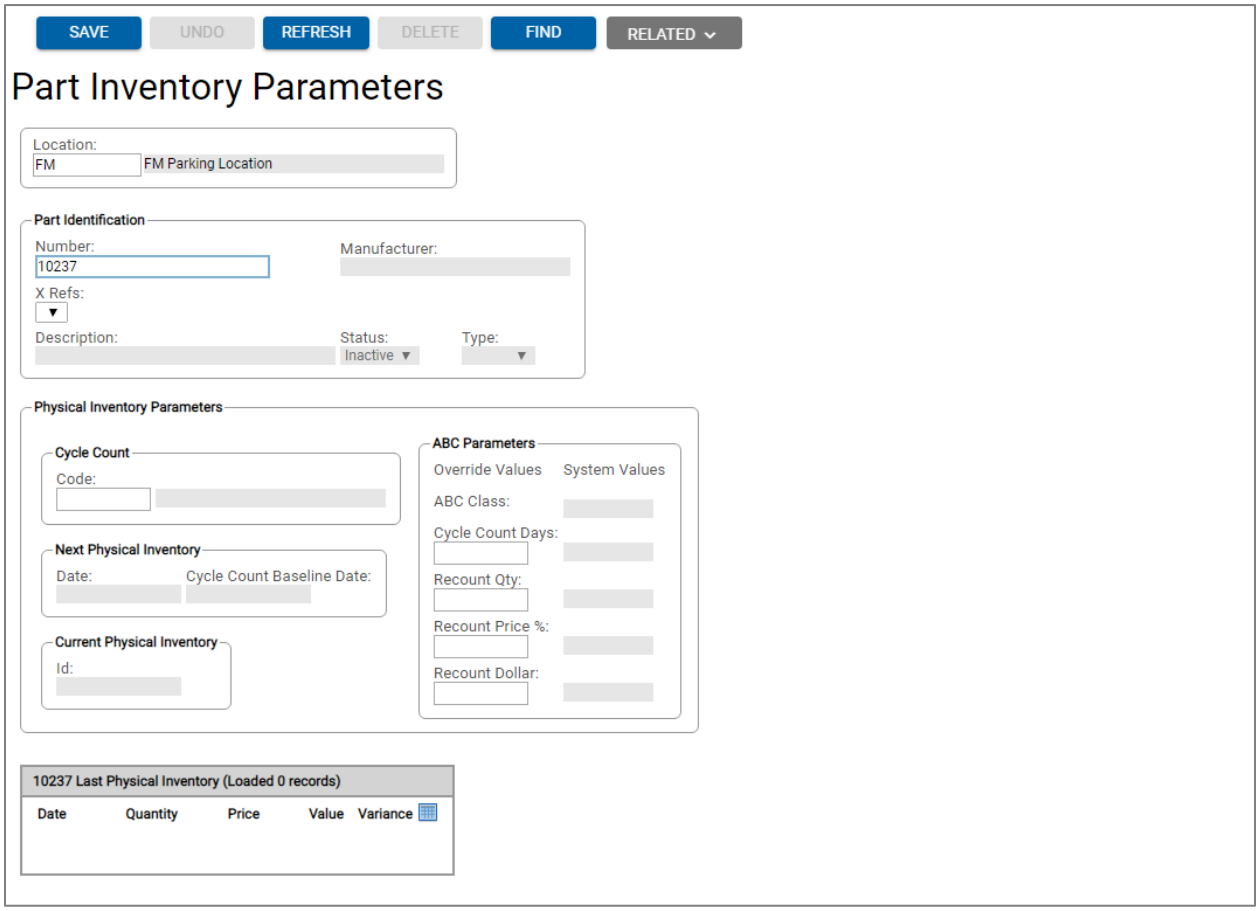
Cycle Count Codes



Cycle Count Codes are used to determine how often a physical inventory count is performed on a particular part. A cycle count is one method of collecting physical inventory counts. These codes can be created and maintained on this frame.

After these codes are set up, they must be manually assigned to each part on the Part Inventory Parameters frame in the Physical Inventory Parameters Sections.

Part Inventory Parameters



The Part Inventory Parameters frame allows you to view and modify the Physical Inventory parameters for a particular part. These parameters determine how parts are counted during a physical inventory.

To view or modify the parameters for a specific part, start by entering the inventory location of the part in the Location field at the top of the frame.

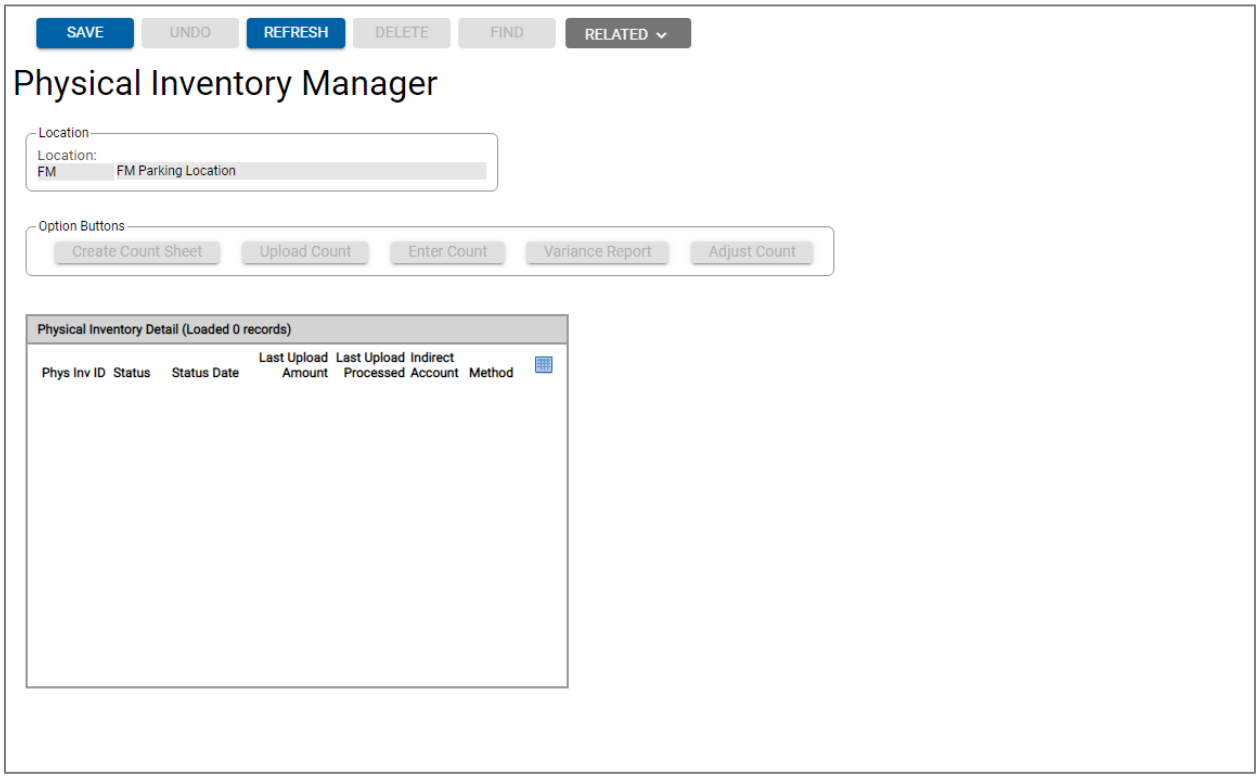
Physical Inventory Parameters

- **Cycle Count** - A Cycle Count is one method for collecting physical inventory counts. Cycle Count Codes determine how often a physical inventory count is performed on a specific part. Enter a code or double-click in the field to select one from the list of values (LOV).
- **Next Physical Inventory Date** - Date of the next scheduled physical inventory, read-only.
- **Cycle Count Baseline Date** - Used as the baseline to schedule future counts.

- **Current Physical Inventory ID** - If the part is currently part of an existing Physical Inventory, that ID will display in this field.

Physical Inventory

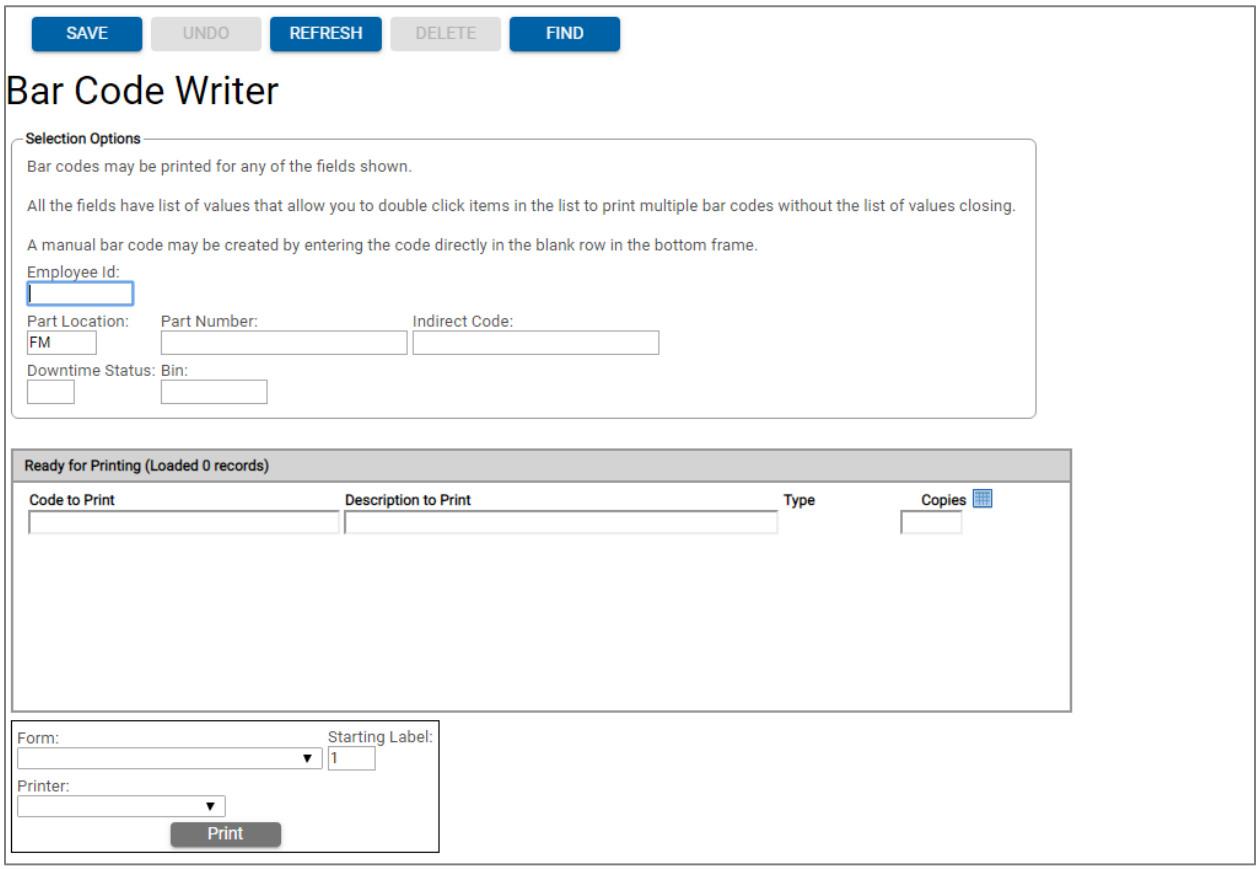
The Physical Inventory Process is detailed in a separate document. Controlling the accuracy of the parts inventory is an important system function. There are several methods a customer can use to identify the parts that will be counted as part of the physical inventories. Physical inventories can be conducted based on cycle counts, ABC classifications, or based on part specific data.



1. Create Physical Inventory count sheet.
2. Enter part counts.
3. Print Variance Sheet.
4. Make inventory adjustments, as necessary.

8. Bar Codes

Bar Code Writer

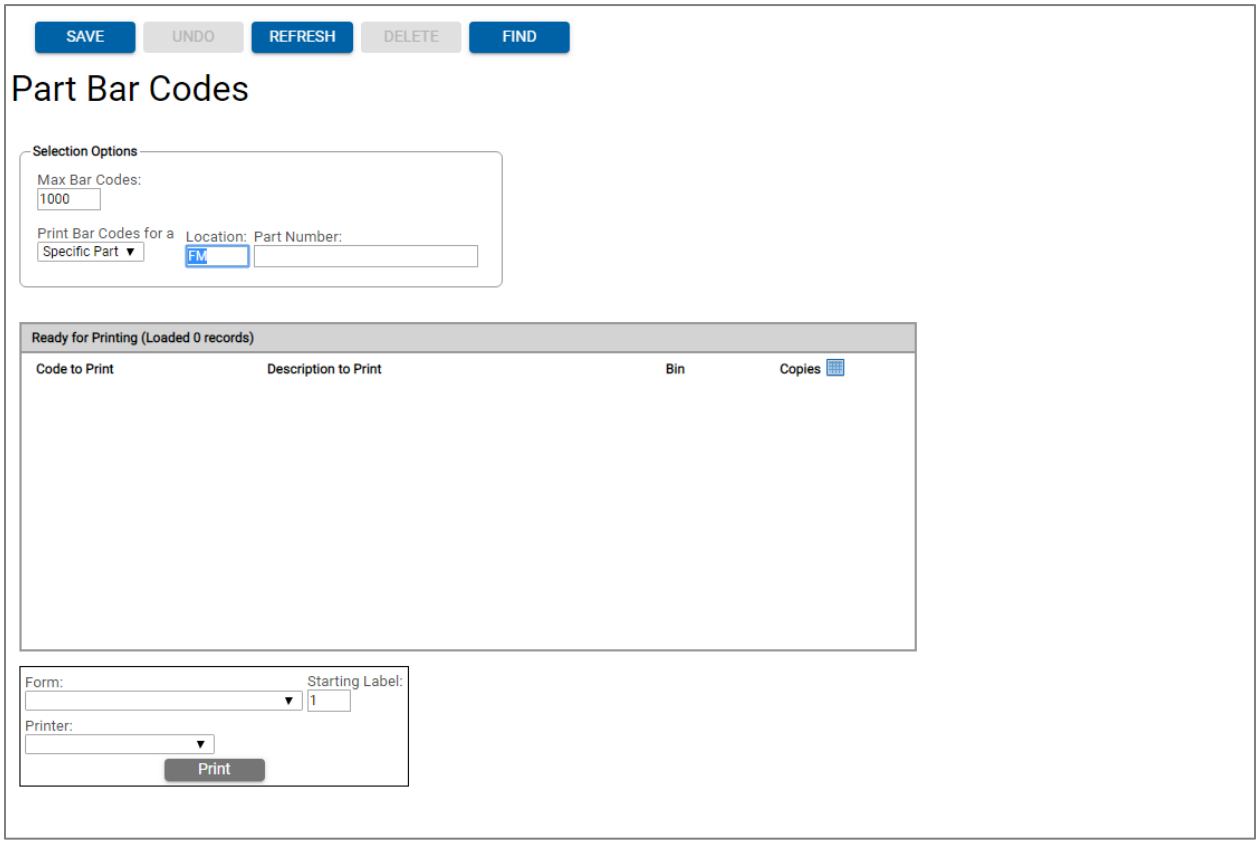


The Bar Code Writer frame provides you with options for printing a variety of bar codes. The Selection Options section has five different entities you can print bar codes for: Employee ID, Part Number, Indirect Code, Downtime Status, and Bin.

You must have a bar code printer installed and available on your PC in order to print bar code labels. It is also necessary to make sure you have the proper labels loaded into the printer for this function.

You can use the Selection Options to specify what type of labels you want to print. Each field has a list of values you (LOV) can access by double-clicking in that field.

Part Bar Codes



The Part Bar Codes frame allows you to print bar code labels specifically for parts. To print bar codes for other items, refer to the Bar Code Writer frame. To print part bar codes you must have a bar code printer installed and available on your PC. You will also need the proper labels loaded in the printer you are using.

In the Selections Options section, you can set the Max Bar Codes value. It is recommended to print the codes in smaller batches in case the labels get jammed in the printer or if you encounter another printer error. Smaller print jobs are easier to deal with and re-run should you encounter problems.

9. Query Screens

M5 offers multiple reporting and query options related to Inventory Management. The M5 Reports guide contains more information on the standard reports available. Some important query frames are listed below.

- Part Inventory Inquiry
- Physical Inventory Query
- Purchase Order Query
- Part Journal Query

10. Additional Functionality

- Invoice Reconciliation
- Component Rebuild
- Spoke/Hub Distribution

11. Inventory System Flags List

Please refer to the *System Flags Table* for a complete listing of all the flags.

Updates

Release	Section	Description
23.2	All sections	Applied miscellaneous writing style updates throughout the document.
24.0	Inventory System Flags List	Updated reference to the System Flags Table. Removed the System Flags table.
24.0	Core Tracking	Updated the reference file title name.
24.0	Part Transfer	Added new image with the Cancelled status and Cancel checkbox.