ERP Consulting
Web Development
Custom Programming Solutions
Desktop & Web Applications for Manfact

NorthClark Computing, Inc.

Quality Control and Supplier Corrective Action Requests

User Guide

Web and Desktop Applications for Manfact by Epicor

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Introduction

The Quality Control module is designed to enhance Manfact's Quality Assurance module by providing a modern user interface along with a variety of special features aimed at streamlining the inspection process.

The Supplier Corrective Action Notice (SCAR) application complements the Quality Control module by formalizing the process of reporting defects in purchased parts, notifying the supplier that corrective action is required, and allows the user to decide whether the Supplier's performance rating should be impacted by the event.

Features of the Quality Control module include the ability to:

- QA Specification Codes define inspection requirements and statistical sampling plans.
- Search for Manfact QA records using a variety of search criteria
- View details of a QA record including all previous dispositions and stock transactions
- Enter details about the inspection, including Manufacturer information
- Accept or reject a QA lot
- Create and email a Non-Conforming Material Report (NMR)
- Retain the NMR Document and related Attachments in the NMR Data Store
- Disposition a rejected QA lot
- Require Approval of certain Disposition types before the QA record is finalized
- Send email notifications to request NMR Disposition Approval
- Enter NMR Disposition Approval or Refusal by clicking a link in the email message
- Create Stock transactions to move parts in/our of QA Controlled locations.
- Locate drawings and other electronic files in an electronic data store
- Generate an Inspection Report including QA Inspection History for the Part Number

The *Supplier Corrective Action Request* application includes the following major components:

- Create, view and modify Supplier Corrective Action Requests.
- Provides documentation for in-house repairs of defective parts.

- Record failures and impact supplier performance rating without generating a debit memo.
- Email notifications may be automatically sent to the Supplier, with the SCAR attached as a Word document or PDF file.
- Integration with the NorthClark Supplier Portal Web Site.

The Quality Control Module serves the needs of three separate functional areas: Receiving Inspection, the Material Review Board, and Supplier Quality Management. When purchased parts are received, the system determines whether inspection is required based on various parameters. Certain parts always require inspection, others are transferred directly to stock, and some are occasionally inspected based on "skip lot" criteria.

When a part requiring inspection is received, it will be moved to the Receiving Inspection location. At least one RI location should be created for each Warehouse. In the Manfact system, the RI location will be designated as a "QA" Location, meaning that each transfer will be assigned a unique QA Identification Number. The QA Identifier is essentially a temporary Lot Number that will be used to track the progress of the parts through the inspection process.

Each lot to be inspected is assigned a Specification Code. The Specification Code is initially obtained from the Parts master file, but may be changed to accommodate special circumstances. The Specification Code describes the type of inspection to be performed, along with rules for calculating sample sizes and rejection criteria.

When parts pass inspection, they are immediately transferred to Stock, and no further updates are required. Rejected items are transferred to the Material Review Board location for disposition. Note that the MRB location must also be identified as a "QA" location, as every item moved in or out of the location must be controlled by the QA Identifier.

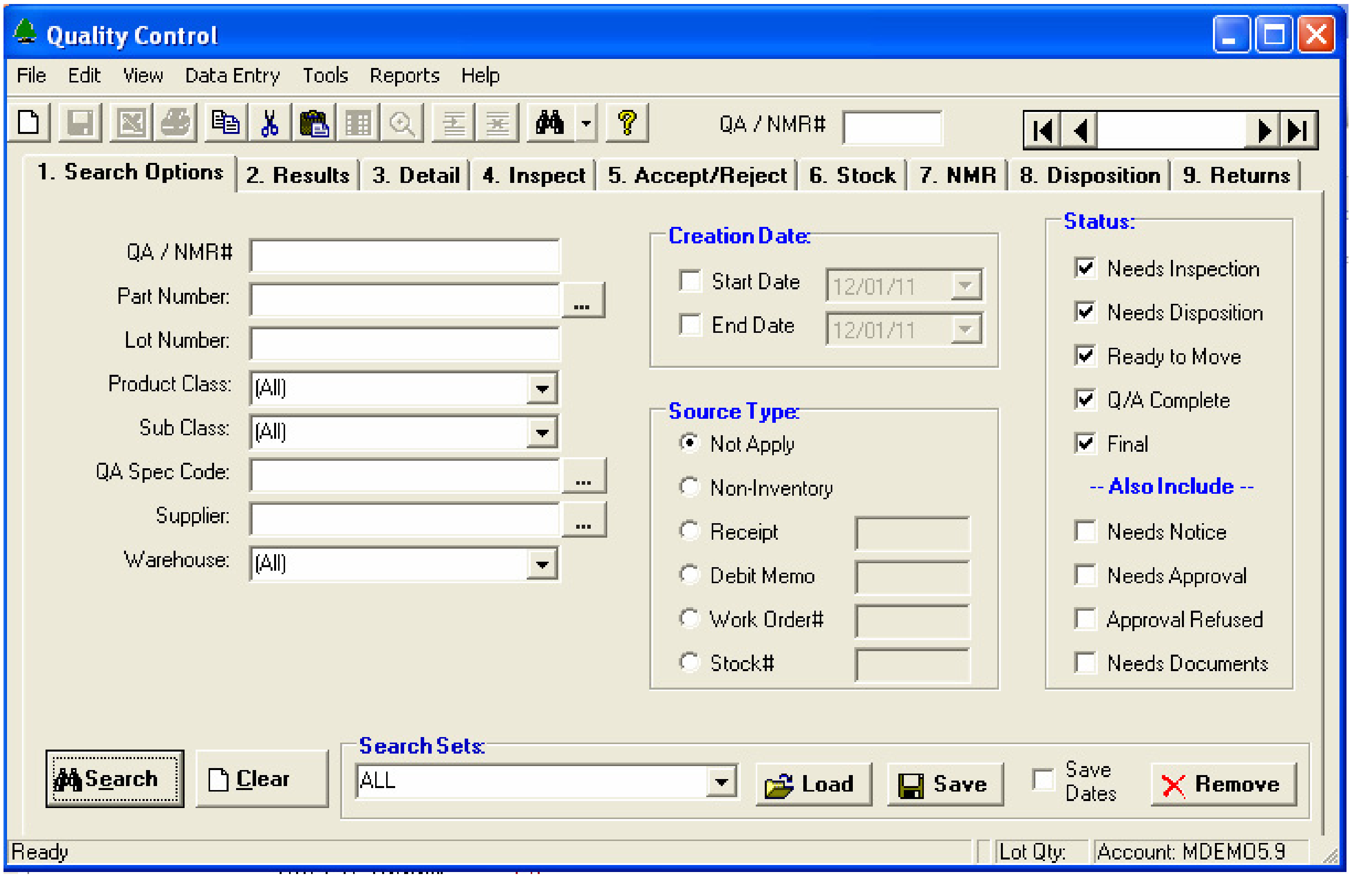
When parts are rejected, the Inspector will generate a Non-Conforming Material Report (NMR). This document may be printed and/or emailed to the responsible people on the Material Review Board. The NMR includes pertinent information such as the QA Identifier, Part Number, Supplier, Rejected Quantity, the reason for rejection, and so forth. The Material Review Board reviews the NMR, and decides on the appropriate course of action. For example, the parts may be scrapped, repaired, used as is, or returned to the supplier.

Entering the proposed disposition of rejected parts on the NMR will initiate the approval process. The number of approvals required depends on the Disposition Code. An email notification will be sent to each potential approver, with a copy of the NMR document attached. A link in the email message will direct the user to a web page where they may choose to approve or refuse the proposed disposition.

Once it has been determined that a lot is defective, and Supplier notification is required, the SCAR module may be invoked to create the *Supplier Corrective Action Request.* The SCAR will reference the NMR (QA record) identifier, allowing pertinent inspection information to be included without redundant data entry.

The Disposition Code assigned to a defective lot identifies additional follow-up documents that will be required: Engineering Change Request, Corrective Action Request (internal), Supplier Corrective Action Request and Debit Memo. The QA record will be finalized only when all of the required document numbers and signatures have been posted.

Quality Control Module



The Main screen of the Quality Control application is comprised of the following tabs:

1. **Search Options** Locate existing QA records using a variety of search criteria
2. **Results** The Results tab displays a list of QA records generated from the search
3. **Detail** Displays information for a QA record selected from the Results tab
4. **Inspection** Displays Manufacturer information, Sampling Plan and Inspection Steps
5. **Accept / Reject** Enter the Inspection Results.
6. **Stock** Move parts in or out of the RI and MRB inventory locations.
7. **NMR** Non-conforming Material Report.
8. **Disposition** Disposition rejected items.
9. **Returns** Returns to Supplier

Search Options

QA records are created automatically in the Manfact system when a qualifying part is received into a Quality Inspection location. Recording information about the inspection process begins by locating the desired QA record.

The fields on the Search Options display may be used in any combination to narrow your search (leave the field blank if you do not wish to consider it in the search). *Wildcarding* is supported for text fields. Once the desired selection criteria have been entered, click the **Search** button, and the list of qualifying records is displayed on the Results tab.

<u>Search Filters:</u>

QA ID	Enter a specific QA Identifier
Part Number	Enter the Part Number or use the Part Number Search Query.
Lot Number	The Lot Number assigned by the Manfact inventory control system.
Product Class	Select the Product Class from the drop-down list.
Product Sub Class	Select the Product Sub Class from the drop-down list.
QA Spec Code	Enter the QA Spec Code or use the QA Spec Code Search screen.
Supplier	Enter the Supplier identifier or use the Supplier Search function.
Warehouse	The Warehouse associated with the QA Receiving Inspection location.
Creation Date	Click the Start Date and End Date checkboxes, then enter the start and end dates that you want to use for your search criteria.
Source Types	Select the Source Types to include by clicking on the radio buttons. To select all Source Types, click Not Apply.
Status	Check all that apply. Note that a QA record may meet multiple criteria: **Needs Inspection:** Items awaiting action by Receiving Inspection **Needs Disposition:** Items awaiting action by the Material Review Board **Ready to Move:** Units are ready to be moved out of the RI or MRB location. This includes units that have passed inspection, as well as rejected items where the disposition has been entered. **Complete:** All items have been moved out of the RI and MRB locations.

Final: All required signatures and document numbers and have been posted.

Needs Notification: Disposition transactions are awaiting Approval, and a notification has not been sent. If you check this box, and Approval is needed, the record will be selected regardless of Status.

Needs Approval: Disposition transactions are awaiting Approval. If you check this box, and Approval is needed, the record will be selected regardless of Status.

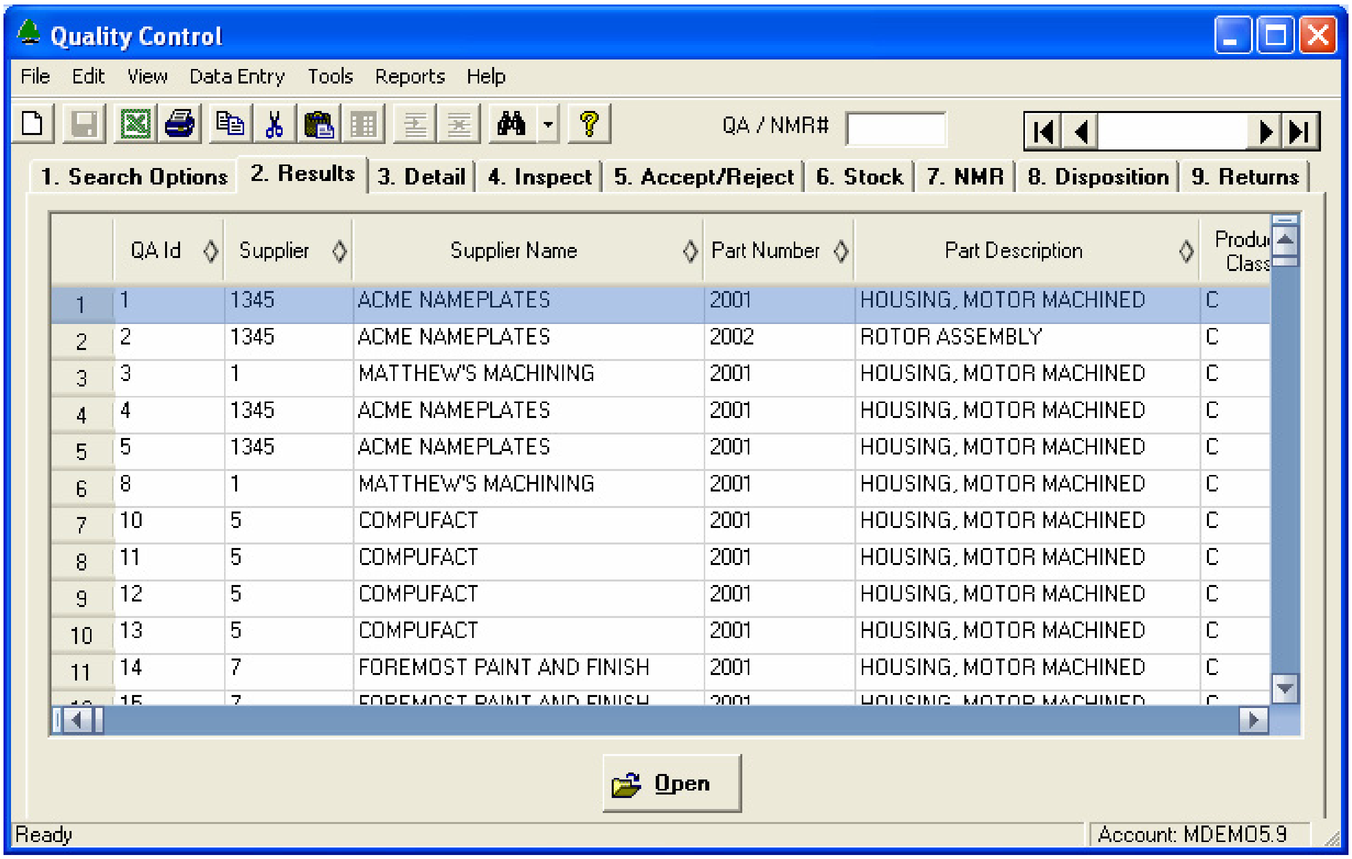
Approval Refused: Approval has been denied on an open Disposition transaction. If you check this box, and Approval is needed and has been refused, the record will be selected regardless of Status.

Needs Documents: Document numbers (ECR, CAR, SCAR, Debit Memo) need to be entered. If you check this box, and document numbers are required, the record will be selected regardless of Status.

Results

After you choose the Search command, the resulting list of QA records are displayed on the Results tab in spreadsheet format. You will be able to print the results or export to Excel. Data may not be updated using this tab.

Select a record to update by double-clicking on the desired row.



<u>Search Results Columns:</u>

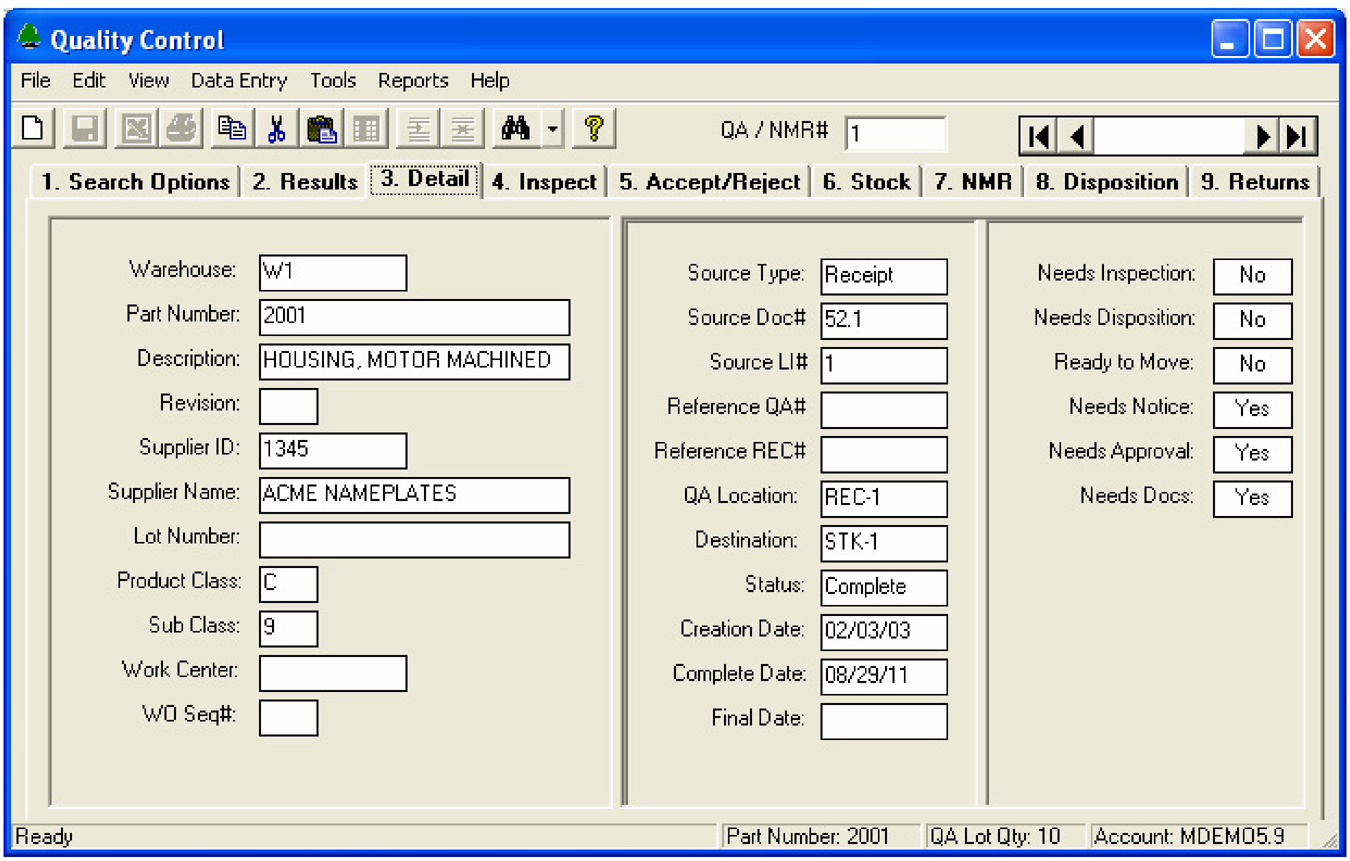
QA#	System assigned QA record identifier.
Part Number	Part Number to be inspected.
Description	Part Description
Part Revision	The Revision Level of the Part.
Supplier ID	Identifier of the Manfact Vendor file.
Supplier Name	Supplier's Company Name

Status	Active – Some or all of the parts are still in the RI or MRB location. Complete – All parts have been moved out of the RI and MRB locations. Final – All required signatures and document numbers have been posted.
QA Lot Qty	Total quantity issued to the inspection location.
Needs Inspection	Total quantity awaiting inspection.
Needs Disposition	Total quantity awaiting disposition.
Ready to Move	Quantity ready to move out of RI and/or MRB.
Accept Qty	Quantity that passed inspection.
Reject Qty	Quantity rejected.
Needs Notice	Disposition transactions are awaiting Approval, and a notification has not been sent.
Needs Approval	Disposition transactions are awaiting Approval.
Approval Refused	Approval has been denied on an open Disposition transaction.
Needs Docs	Document numbers (ECR, CAR, SCAR, Debit Memo) need to be entered.
Source Type	RC = Receipt, SK = Stock
Source Doc#	Receipt Number or Stock Transaction identifier.
Source Line#	Receipt Line Item Number.
Create Date	The date parts were received into inspection.
Complete Date	The date the last unit was moved out of inspection.
Buyer	The Buyer who placed the Purchase Order.
Inspected By	Name of the Inspector.
Specification Code	The Specification Code assigned to the part defines Inspection parameters.
Sampling Plan	The Sampling Plan determines the number of units that must be inspected, and criteria for rejecting the entire QA Lot.
Inspection Level	Normal, Reduced or Tightened.
Comments	Comments entered by the Inspector.

Product Class	Product classification code from the PARTS master file.
Sub-Class	Product sub-classification code from the PARTS master file.
Manufacturer	The Manufacturer's Name may be entered at time of Receipt.
Mfg. Part Number	The Manufacturer's Part Number may be entered at time of Receipt.
Date Code	The Date Code may be entered at time of receipt.
Lot Number	Manfact inventory lot number.
Work Center ID	When a part is rejected during work-in-process, the Work Center identifier is posted to the QA record.
WO Seq#	When a part is rejected during work-in-process, the operation sequence number is posted to the QA record.

Detail

The Detail tab displays information for a QA record selected from the Results tab.



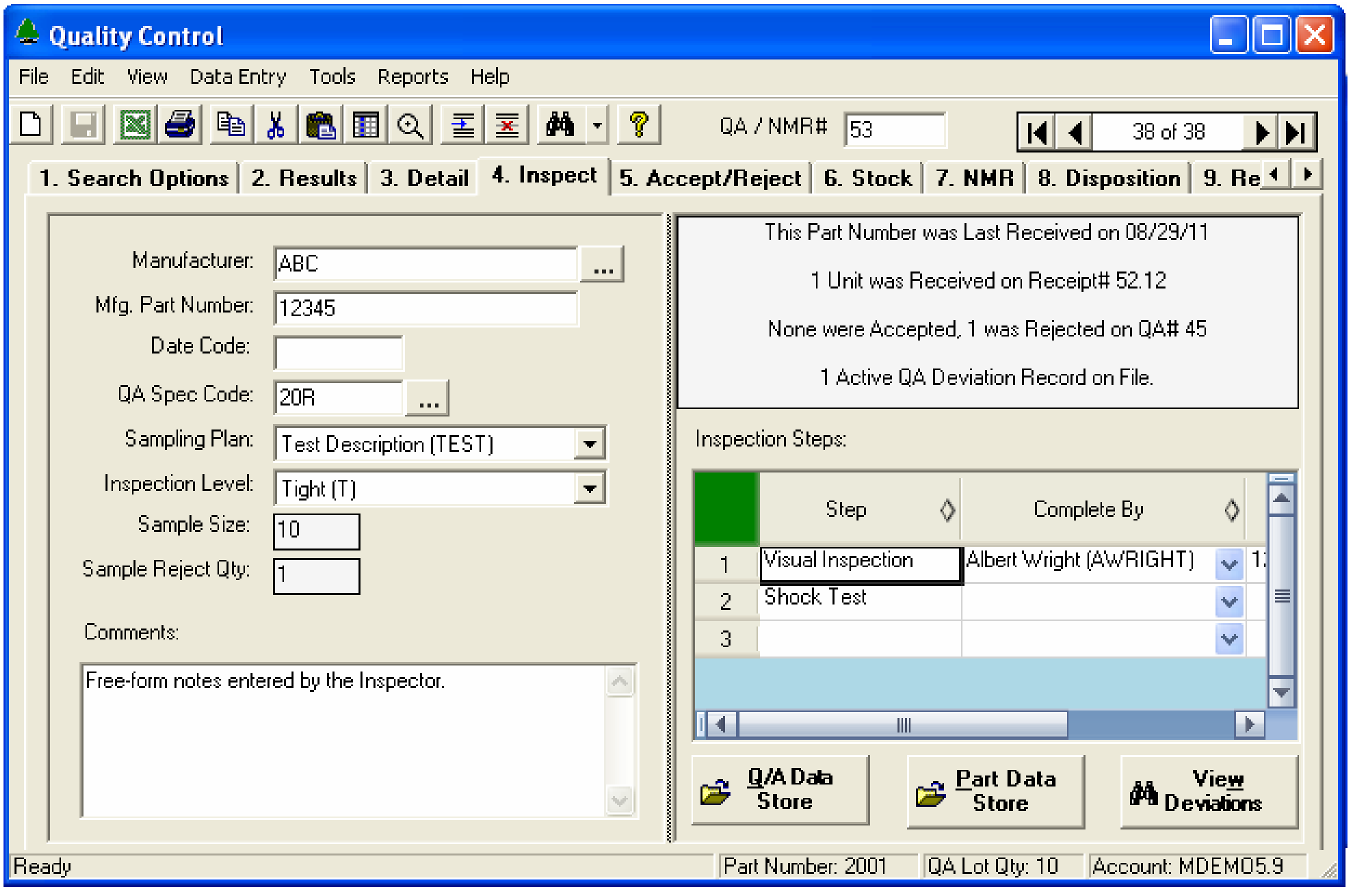
Information on the Detail Display

Warehouse	The Warehouse the RI Location belongs to.
Part Number	Part Number to be inspected.
Description	Part Description
Part Revision	The Revision Level of the Part.
Supplier ID	Identifier of the Manfact Vendor file.
Supplier Name	Supplier's Company Name
Lot Number	Manfact inventory lot number.
Product Class	Product classification code from the PARTS master file.
Sub-Class	Product sub-classification code from the PARTS master file.
Work Center ID	When a part is rejected during work-in-process, the Work Center identifier is posted to the QA record.
WO Seq#	When a part is rejected during work-in-process, the operation sequence number is posted to the QA record.
Source Type	Receipt or Stock Transaction
Source Doc#	Receipt Number or Stock Transaction Number
Source Line#	Receipt Line Number
Reference QA#	When parts are moved into a QA Controlled location from stocking location that is not QA Controlled, a new QA Number is assigned by the system. When this occurs, you may optionally reference another QA# where inspection was previously completed.
Reference REC#	When parts are moved into a QA Controlled location from stocking location that is not QA Controlled, a new QA Number is assigned by the system. When this occurs, you may optionally reference a Receipt Number for information purposes.
QA Location	The Receiving Inspection Inventory Location
Destination	The Ultimate Destination Inventory Location from the Purchase Order.
Status	Active – Some or all of the parts are still in the RI or MRB location. Complete – All parts have been moved out of the RI and MRB locations. Final – All required signatures and document numbers have been posted.

Create Date	The date the QA record was created.
Complete Date	The date the Status of this record became Complete.
Final Date	The date the Status of this record became Final.
Needs Inspection	Total quantity awaiting inspection.
Needs Disposition	Total quantity awaiting disposition.
Ready to Move	Quantity ready to move out of RI and/or MRB.
Needs Notice	Disposition transactions are awaiting Approval, and a notification has not been sent.
Needs Approval	Disposition transactions are awaiting Approval.
Needs Docs	Document numbers (ECR, CAR, SCAR, Debit Memo) need to be entered.

Inspection

The Inspection tab allows you to view and maintain information about the inspection process.



The following fields may be updated using this view:

Manufacturer — Enter the Manufacturer Code, or use the command button to search for the code using the Manufacturer Code Search screen.

Mfg. Part Number — The Manufacturer's Part Number for the selected Manufacturer Code validated against the Approved Manufacturers List in the PARTS file.

Date Code — The Date Code may be entered at time of Receipt.

QA Spec Code — Enter the QA Spec Code, or use the command button to access the QA Spec Code Search screen. This entry initially defaults from the PARTS file.

Sampling Plan — A drop-down box is available to select from the list of Sampling Plans. Sampling Plans are defined using the System Administration screen. This entry defaults based on the QA Spec Code, and may be changed by the user.

Inspection Level	A drop-down box is used to select Reduced, Normal, or Tight.
Sample Size	The system calculates and displays the required Sample Size based on the Sampling Plan, Inspection Level, and QA Lot Size.
Comments	Free form notes.
Last Receipt Info	Messages at the top of the screen display the Date and QA Identifier of the last receipt of this part number, and the number of units accepted and rejected.

Inspection Steps:

The list of Inspection Steps defaults from the QA Spec record and may be modified by the user.

Step	A brief description of the inspection step to be performed.
Completed By	Select the Inspector's Name from the drop-down box.
Complete Date	Enter the date this step was completed.

The [Q/A Data Store] button will open the folder containing inspection instructions and other Q/A related information for the Part Number. The name of the folder containing the QA data consists of the Part Number, followed by a space, followed by a description.

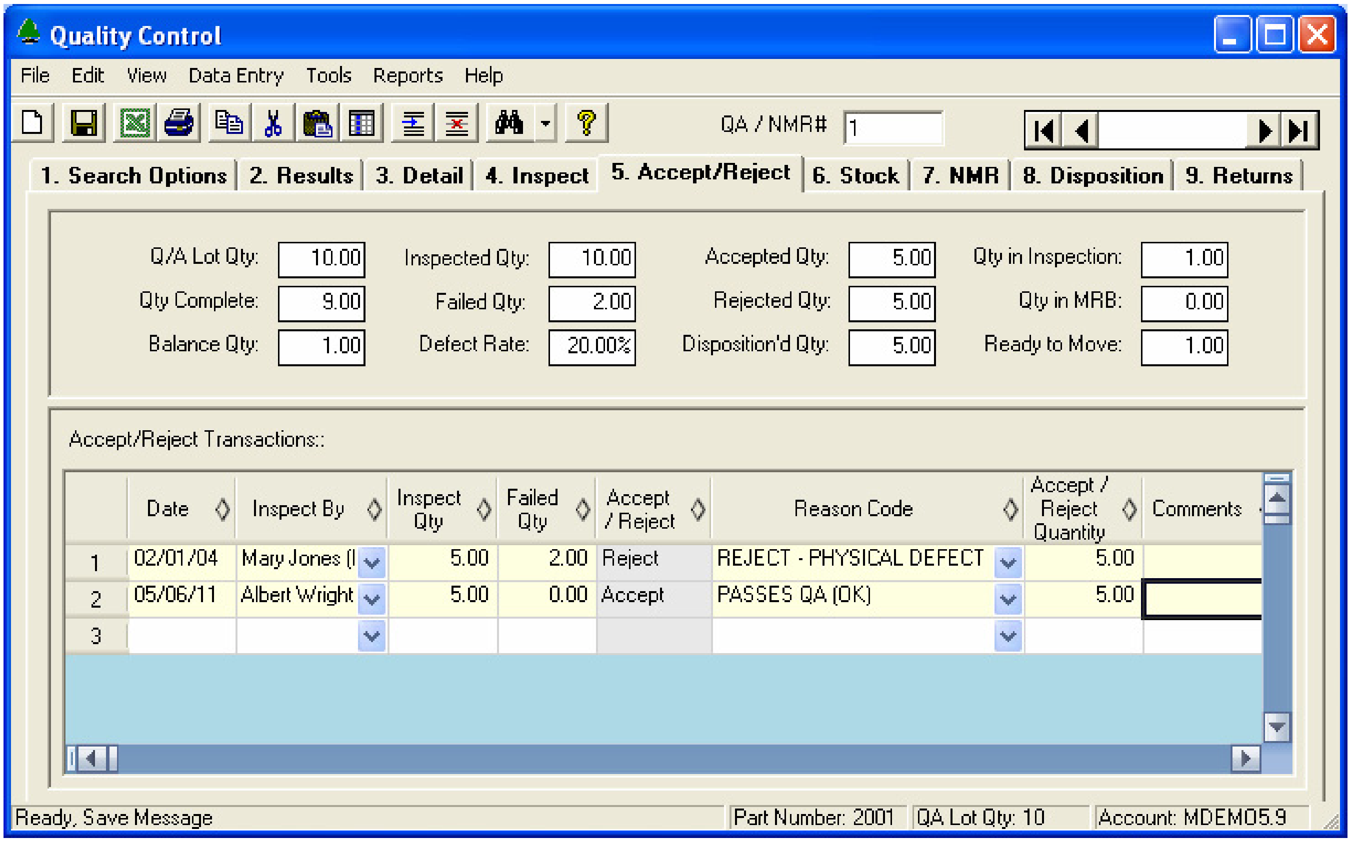
The [Part Data Store] button opens the drawing file for the Part Number. The Drawing File Name may be the Part Number alone, or the Part Number followed by "_", followed by the Revision Letter.

Please refer to the *Data Warehouse* chapter for more information.

Click the [View Deviations] button to see a list of active QA Deviation records for this Part Number.

Accept/Reject a QA Lot

Use this screen to enter the results of the Inspection process.



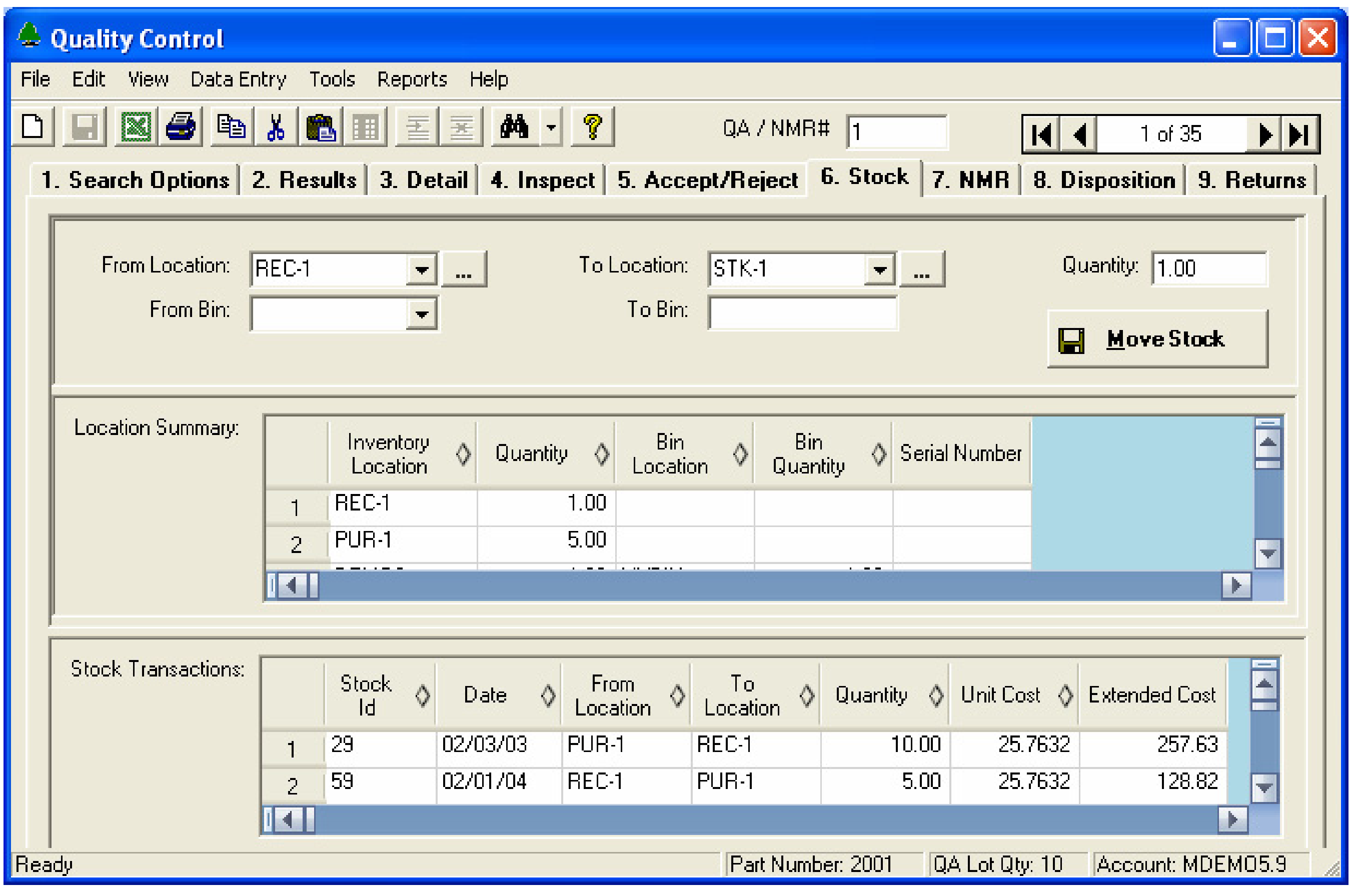
Enter the following information:

Date	Defaults to the current date
Inspected By	Select the Inspector's Name from the drop-down list.
Inspected Qty	Defaults to the system calculated Sample Size.
Quantity Failed	The number of units that failed inspection cannot exceed the Inspected Quantity.
Accept/Reject	The system determines if this is an Accept or Reject transaction based on the rejection criteria defined by the Sampling Plan. This value may not be changed by the user. If a Sampling Plan was not used, or the Inspected Quantity is less than the Sample Size, the transaction will be considered a rejection if the Failed Quantity is greater than zero.

Accept/Reject Code	Select the appropriate code from the drop-down list. Only appropriate codes are included in the list, depending on whether this is an Accept or Reject transaction.
Accept/Reject Qty	This value defaults to the QA Lot Quantity, less the number of units previously accepted or rejected.

Stock Transaction Entry

This functionality is limited to the transfer of parts either to or from a QA Controlled Inventory Location..



Enter the following information:

From Location	Select a Location from the drop-down list. Only those locations where the parts associated with this QA record currently reside will be offered.
To Location	If the from location is Receiving Inspection, and there are rejected parts on-hand in Receiving Inspection, this value defaults to the MRB location defined for the Warehouse.

If the from location is Receiving Inspection, and there are accepted parts on-hand in Receiving Inspection, this value defaults to the Ultimate Destination from the Purchase Order .

Quantity	Defaults to the quantity currently on hand at the From Location for this QA record.
From Bin	This entry is required if the From Location is Bin Controlled.
To Bin Location	This entry is required if the To Location is Bin Controlled.

If the Inventory Location you need is not in the list, you may type it, or use the browse button to search for the appropriate Inventory location. The following restrictions apply:

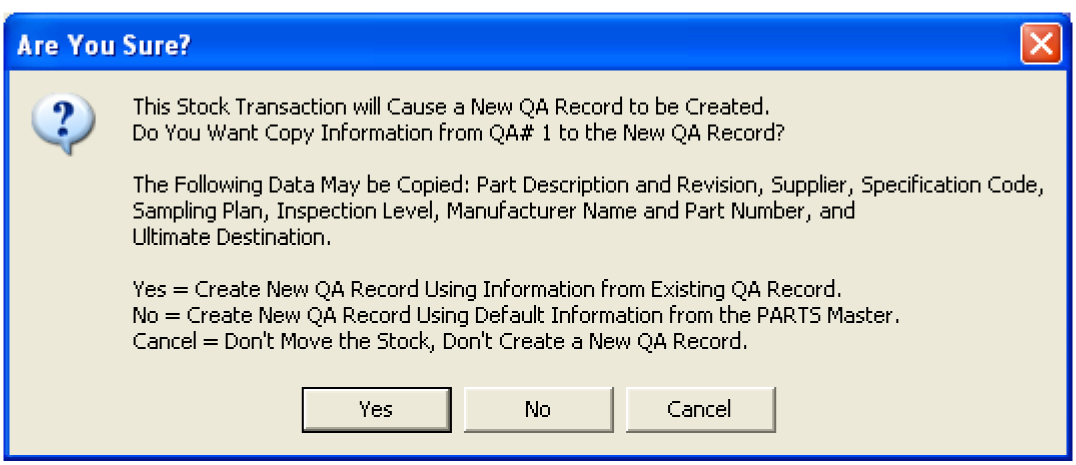
- At least one of the locations, from or to, must be a QA Controlled Inventory location.
- Movements to/from Adjustment, Purchasing and Cost Of Goods Locations are not permitted.
- Transfers to/from Work in Process, Outside Processing, Direct Shipment, and In-Transit locations are not supported.
- When moving from a QA Controlled location to a stocking location that is not QA Controlled, the transaction quantity may not exceed the *Quantity Ready to Move* on the QA record.

<u>Quantity Ready to Move</u>

Parts may be transferred freely between two QA Controlled locations, such as Receiving Inspection and MRB. The Quantity Ready to Move out of the QA Controlled environment includes parts that have been accepted and are ready to move to Stock, along with rejected parts whose disposition has been determined.

<u>Creating New QA Records</u>

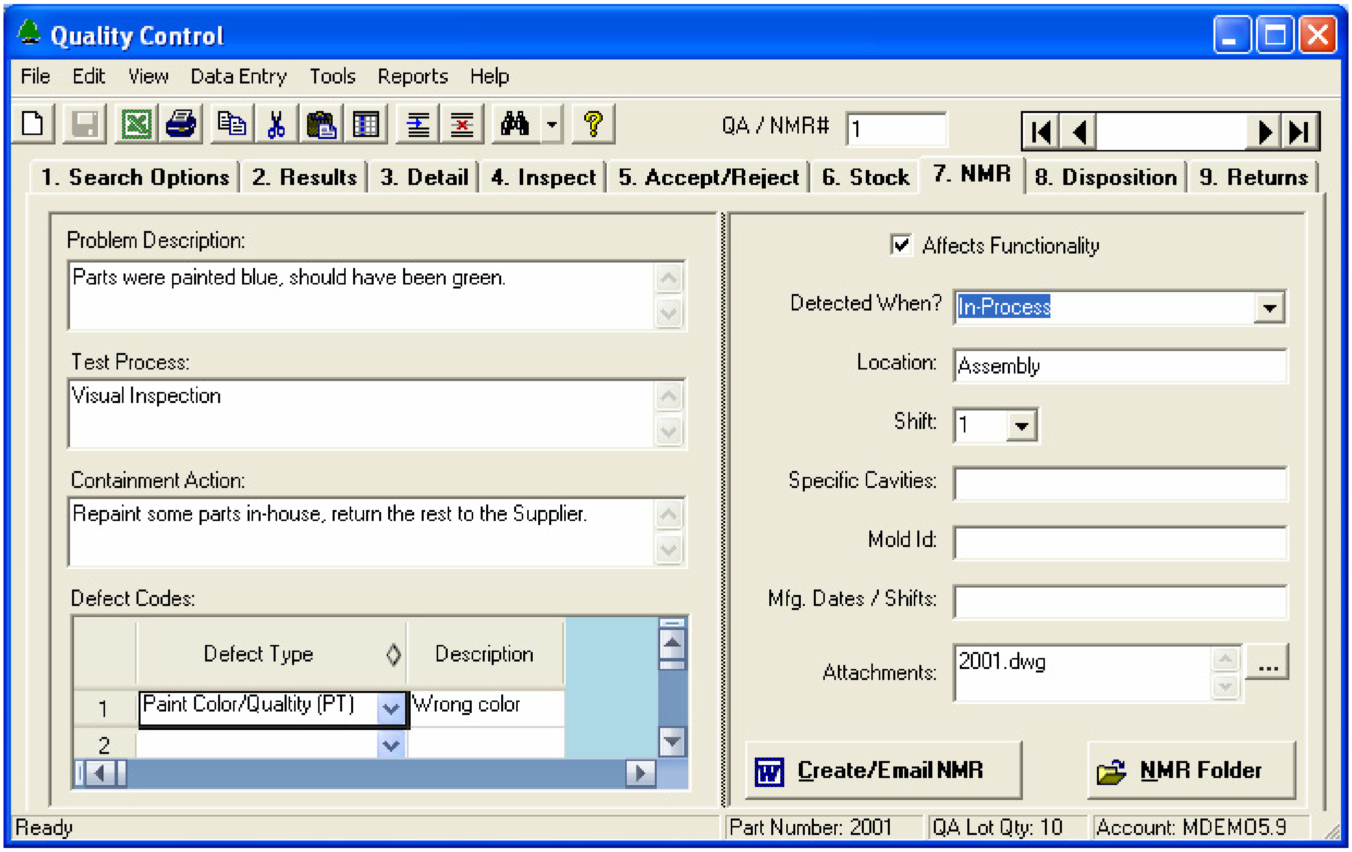
When parts are moved into a QA Controlled location from stocking location that is not QA Controlled, a new QA Number is assigned by the system. When this occurs, the system displays a prompt as shown in this example:



When a new QA record is created in this manner, the “Reference QA#” and “Reference Receipt#” fields are automatically updated with the original QA Identifier and Receipt Number. This feature is useful when parts that were previously received into Stock are subsequently returned to Inspection.

Non-Conforming Material Report (NMR)

Use this screen to enter additional details to be printed on the Non-Conforming Material Report.



The browse button next to the **Attachments** prompt allows you to locate documents, drawings or other files that may be attached to the NMR. When you attach a file, it is automatically copied to the NMR folder where it may be accessed by members of the Receiving Inspection and Material Review Board departments.

Click the [Create/Email NMR] button to generate the NMR as a Word Document, and optionally a PDF file to be stored in the NMR folder. When created, the document may be emailed to a list of responsible persons as defined in the System Administration function.

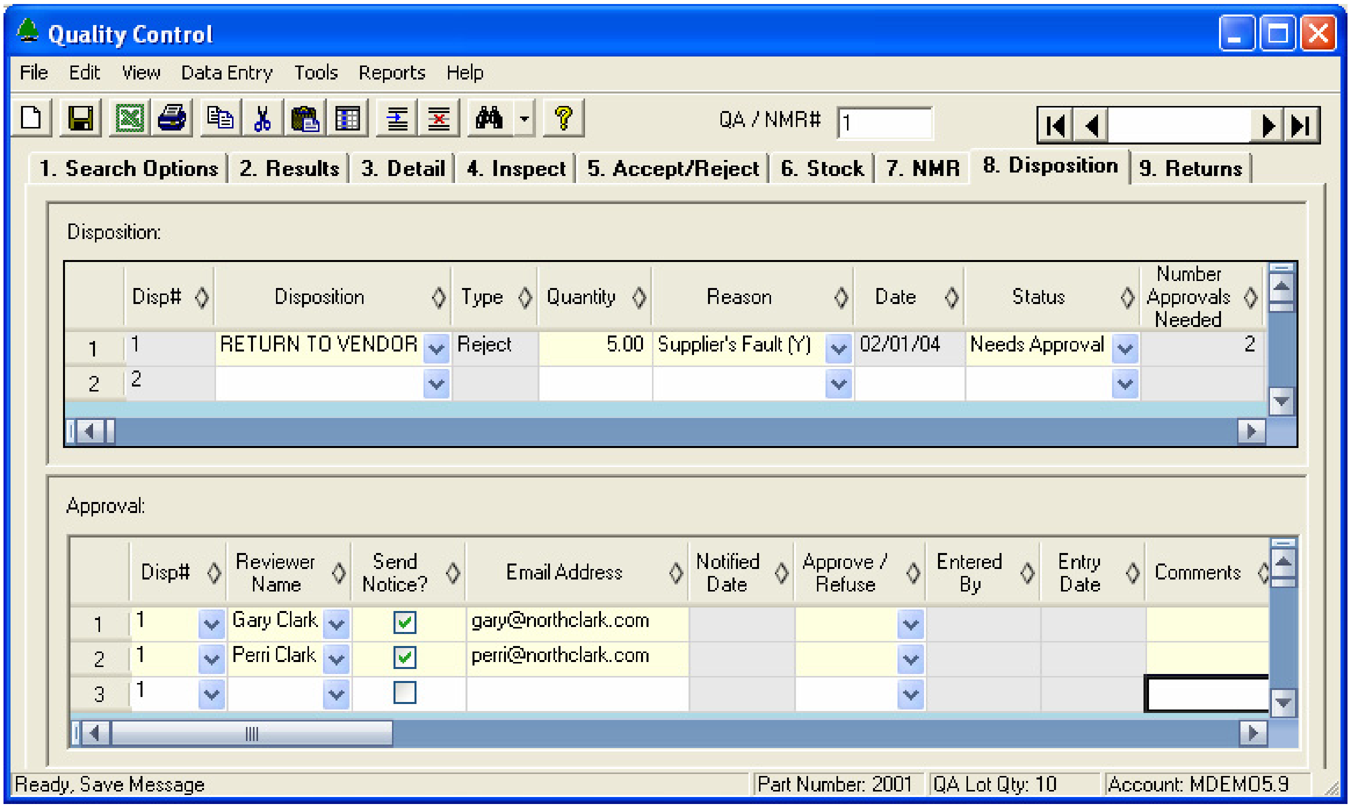
Click the [NMR Folder] button to view the folder containing documents and other attachments that may be linked to the NMR.

Information on this screen includes:

Problem Description	Free form text
Test Process	Briefly describe the testing performed.
Containment Action	Describe the Containment Action for Manufacturing Continuity (e.g. Sorting, parts on-hold, 100% testing, etc.)
Defect Codes	A table of Defect Codes and Descriptions.
Affects Functionality?	Yes or No
Detected When?	Receiving Inspection, In-Process, Dock Audit
Location	Area or Manufacturing Line
Shift	Reported during Shift
Specific cavities	Free-form entry.
Mold ID	Free-form entry.
Mfg. Dates/Shifts	Free-form entry.

Disposition a Rejected QA Lot

Use this tab to enter Disposition and Approval information for a rejected lot.



<u>Disposition Information:</u>

Disposition#	The identifier of the QA.DISP file.
Date	Defaults to the current date
Quantity	Enter the Disposition Quantity
Status	N = Needs Approval A = Approved X = Cancelled (quantity will be set to zero)
Disposition	Select the appropriate code from the drop-down list. The Disposition Code should indicate the action to be taken. For example: Accept and Move to Stock, Return at Supplier's Expense, Return at Our Expense, Use As Is, and so forth.

Type	The type of disposition, Accept or Reject, is associated with the Disposition Code. This value is displayed by the system and may not be changed.
Reason	The Disposition Code is associated to a "QA Code" which determines Supplier Fault. For example: Internal Error Supplier is at Fault Supplier Not at Fault
ECR# Required	Checkbox: Engineering Change Request is required.
CAR# Required	Checkbox: Corrective Action Request is required.
SCAR# Required	Checkbox: Supplier Corrective Action Request is required.
Debit Memo Required	Checkbox: Debit Memo is required.
Number of Approvals Needed	Indicates the number of signatures required before the Disposition may be finalized.
Number of Approvals Received	The number of approval signatures posted to this Disposition.
Comments	Free-form multi-line text.

Requesting NMR Approval

Disposition#	If there are multiple Disposition transactions, indicate which one this Approval applies to. The system defaults this entry to the first Disposition transaction where approvals are needed.
Reviewer's Name	Select the person's name from the drop-down list.
Send Notice	Check this box if an email notification should be sent to this person notifying them that their approval is requested. The email message will be sent when you click the [Save] button. Once the message is successfully transmitted, the checkbox will be automatically cleared.
Approve / Refuse	The Reviewer's decision.
Entered By	The login identifier of the person who entered the Approval is updated by the system and may not be changed. If the Approval was posted via the Web Site, the system will update this field automatically and this value may not be changed.

Entered Date	The date the Approval was entered is posted by the system and may not be changed.
Comments	Free-form multi-line text.

Email Message:

Upon saving, an email message will be generated if you have clicked the “Send Notice” option on an Approval request. Before sending notices, you must first create the NMR document. If you have not already done so, the system will prompt you to create the NMR before sending the Request for Approval.

If you have implemented the Supplier Portal Web Site, the Reviewer may enter their Approval or Refusal via the web site. If the URL for the Supplier Portal Web Site has not been entered in the System Administration screen, the link will be omitted from the Email Message.

Subject: Approval Requested for Disposition of NMR# _____

Attachment: NMR Document

Body: Please review the attached NMR document, and then click on this link to Approve or Reject the NMR Disposition: (Web Link)

Supplier:	XXXXXXXXXXXXXXXXXXXXXXXXX (999999)
Part Number:	XXXXXXXXXXXXXXXXXXXX Rev: XX
Description:	XXXXXXXXXXXXXXXXXXXXXXXXX
Disposition:	XXXXXXXXXXXXXXXXXXXXXXXXX
Quantity	999999

Web Link:

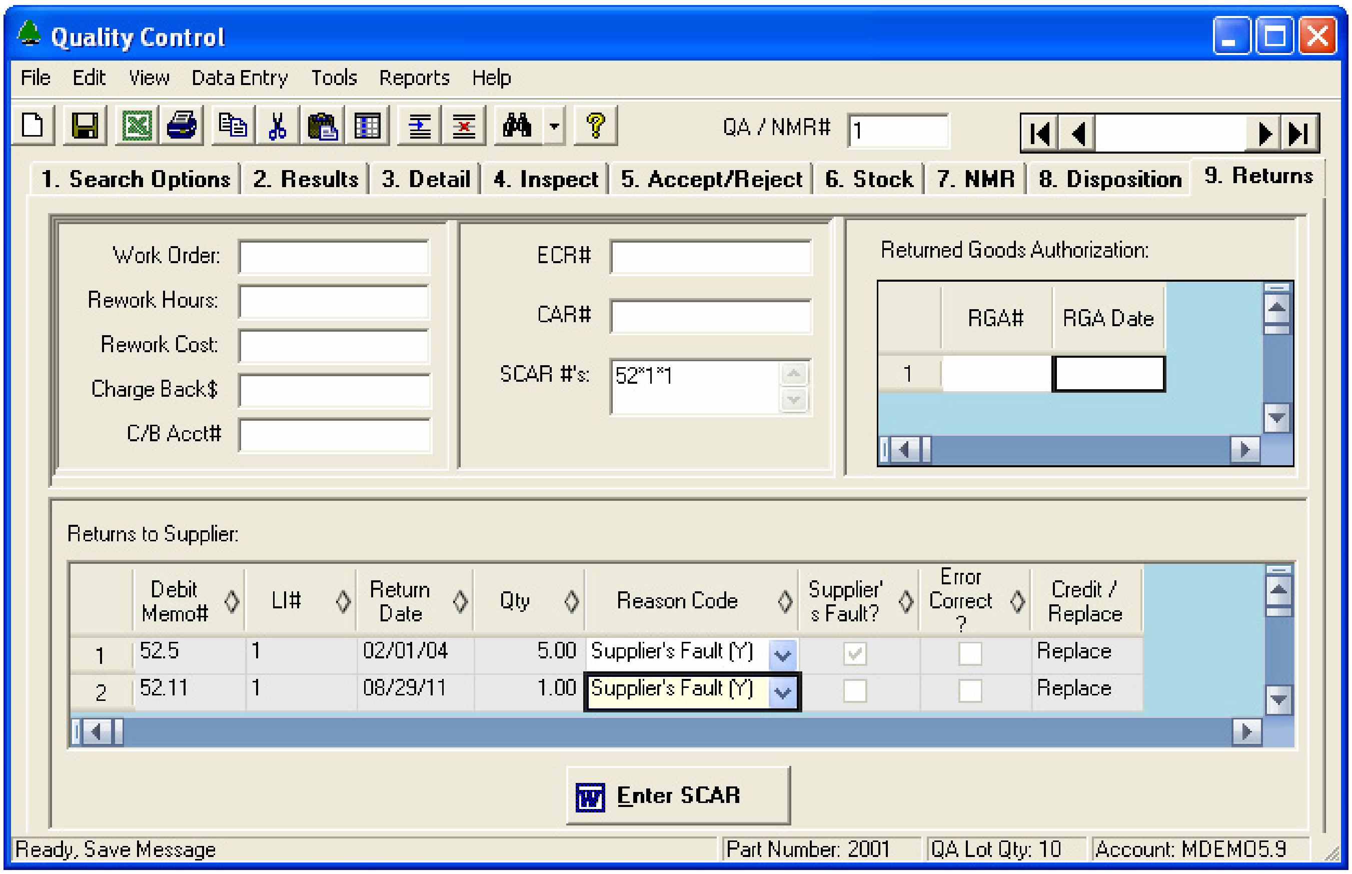
A link in the email message will provide access to the NMR Approval web page. The format of the link is: “http://URL/Page_Name?a=Approval_Number&b=Serial_Number”.

URL	The location of the Supplier Portal Web Site is entered using the System Administration screen.
Page_Name	The name of the NMR Approval Page: NMR_Approve.asp.
Approval_Number	Identifier of the NCC_QA_APPROVE record.

Serial_Number — A system generated random number. If this value does not match the Serial Number stored in the NCC_QA_APPROVE record, the user will not be able to access the NMR Approval Page.

Returns

Use this screen to authorize returns to the Supplier.



Click the [Enter SCAR] button to create a Supplier Corrective Action Request.

<u>Rework and Charge Backs</u>

Work Order# — Enter the Work Order Number used for repair or rework of these parts.

Rework Hours — Internal hours associated with repair, special handling, etc.

Rework Cost — Internal cost associated with repair, special handling, etc.

Charge Back $ — Amount to be charged back to the Supplier (for information only)

Charge Back Acct# — The G/L Account Number associated with the Charge Back (for information only.

ECR#	Enter the Engineering Change Request Number if required.
CAR#	Enter the Corrective Action Request Number if required.
SCAR#	This field is updated automatically by the system when a SCAR referencing this QA/NMR# is created.

Returned Goods Authorization

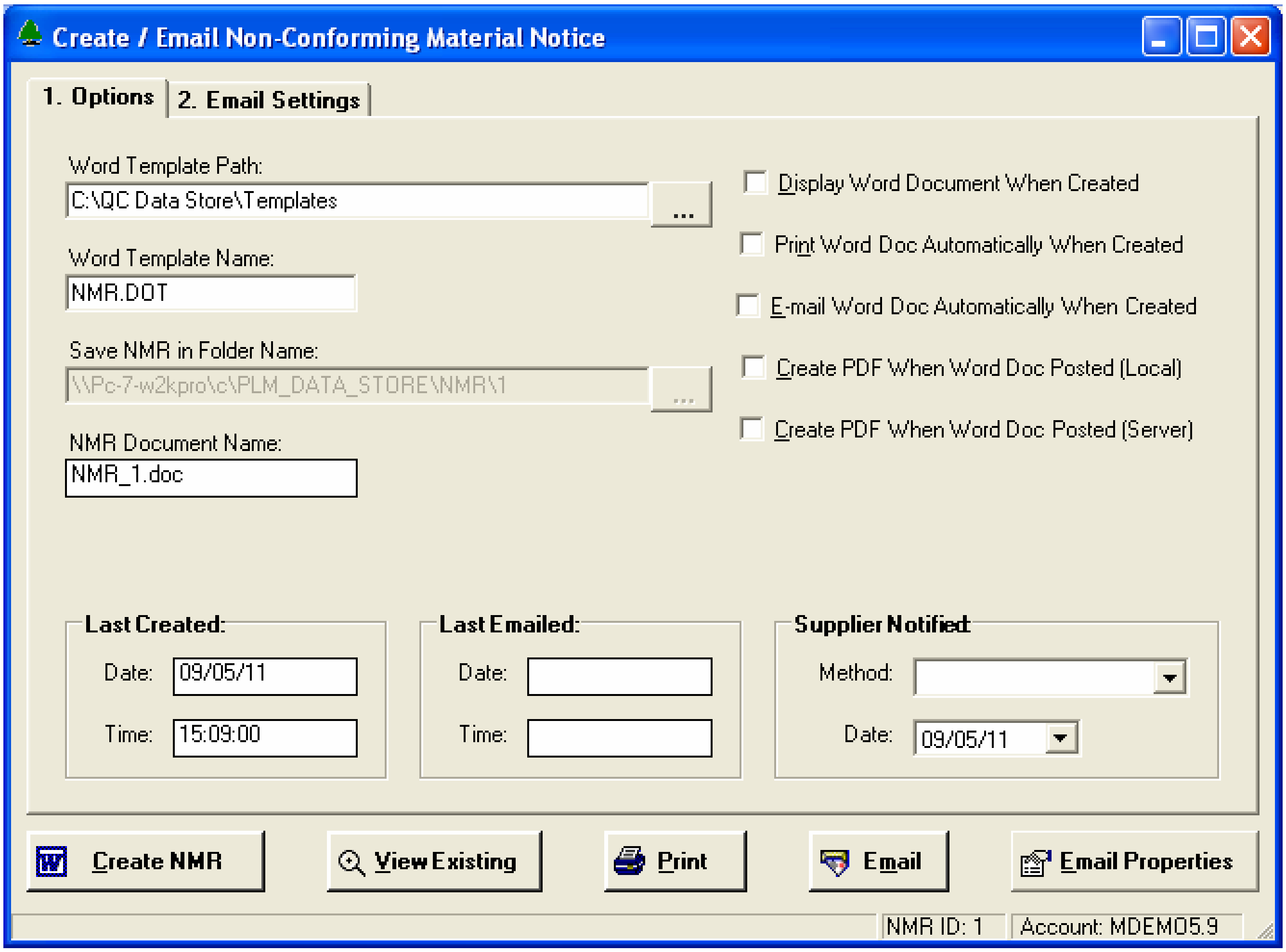
RGA#	Enter the Returned Goods Authorization Number provided by the Supplier.
RGA Date	Enter the date the RGA# was provided.

Returns to the Supplier:

Debit Memo#	Select an existing Debit Memo Identifier from the drop-down list, or select (TBA) to authorize a new Debit Memo.
Return Date	If you selected an existing Debit Memo Number, this value is displayed by the system and may not be changed. If you are entering authorization for a new Debit Memo, the estimated return date may be entered.
Qty Returned	If you selected an existing Debit Memo Number, this value is displayed by the system and may not be changed. Otherwise, entry is required.
Reason Code	This value determines Supplier Fault, and may be changed for both proposed and existing Debit Memos.
Supplier Fault?	Supplier fault is indicated by the Reason Code, and may not be manually altered.
Error Correct?	The Reason Code may indicate the transaction corrects an administrative error. This value may not be manually altered.
Comments	Free-form multi-line text.

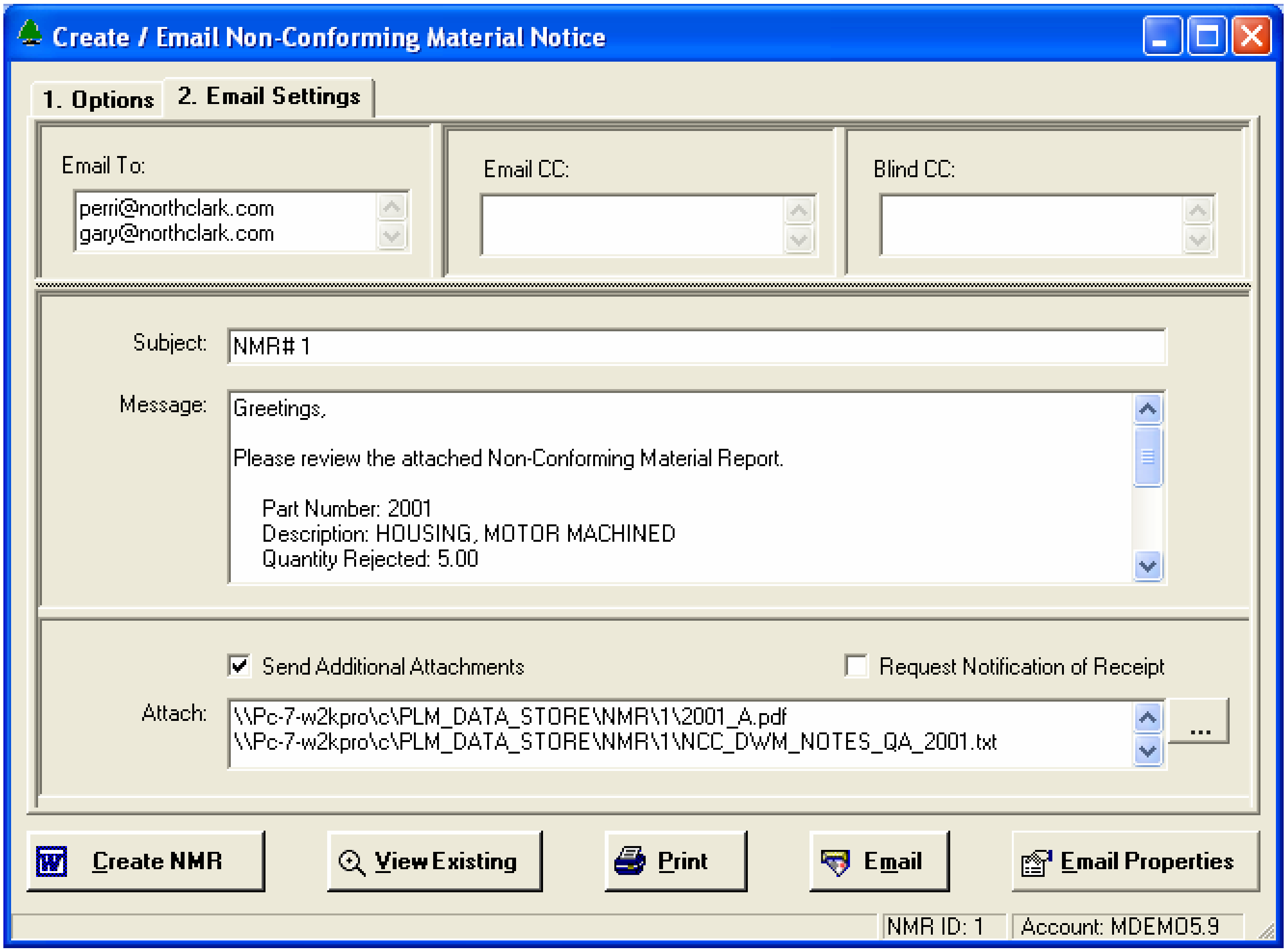
Generate Non-Conforming Material Report (NMR)

This screen is displayed when you click the [Create/Email NMR] button on the NMR tab. It is used to create the NMR document, which may be printed and/or emailed to the responsible people on the Material Review Board. The document may be transmitted in either Word Document or PDF format.



Email Settings

Use this view to create the email message. The information on this screen is initially filled in based on entries made using System Administration screen, but may be adjusted here if desired.



NMR Document Format

See next page for a sample of the NMR Document format.

NorthClark Computing, Inc.
PO BOX 2096
Oregon City, OR 97045
Phone: 503.632.5671

Non-Conforming Material Report

Part Number:		**Part Revision:**		**NMR#**	
Part Description:		**Inspected By:**		**Warehouse:**	
Supplier Name:		**Inspect Date:**		**Source Type:**	
Mfg. Dates/Shifts		**Shift:**		**Source Trans#**	
Specific Cavities:		**Mold Id:**		**Qty Rejected:**	
Detected When?		**Location:**		**Part Cost:**	

PROBLEM DESCRIPTION

Problem Description:
Test Definition:
Containment Action:
Affects Functionality:

Defect Code	Description	Comments

MATERIAL REVIEW BOARD

Date	Qty	Disposition	Reason	Status

APPROVAL

Reviewer Name	Notified	Reviewed	Decision	Comments

RETURNS

RGA#	RGA Date	Debit Memo	DM Date	Qty	Reason	Credit / Replace

FOLLOW-UP

ECR?	**ECR#**	**WO#**	**Return?**
CAR?	**CAR#**	**Rework Hours:**	**Charge Back$**
SCAR?	**SCAR#**	**Rework Cost:**	**Account#**

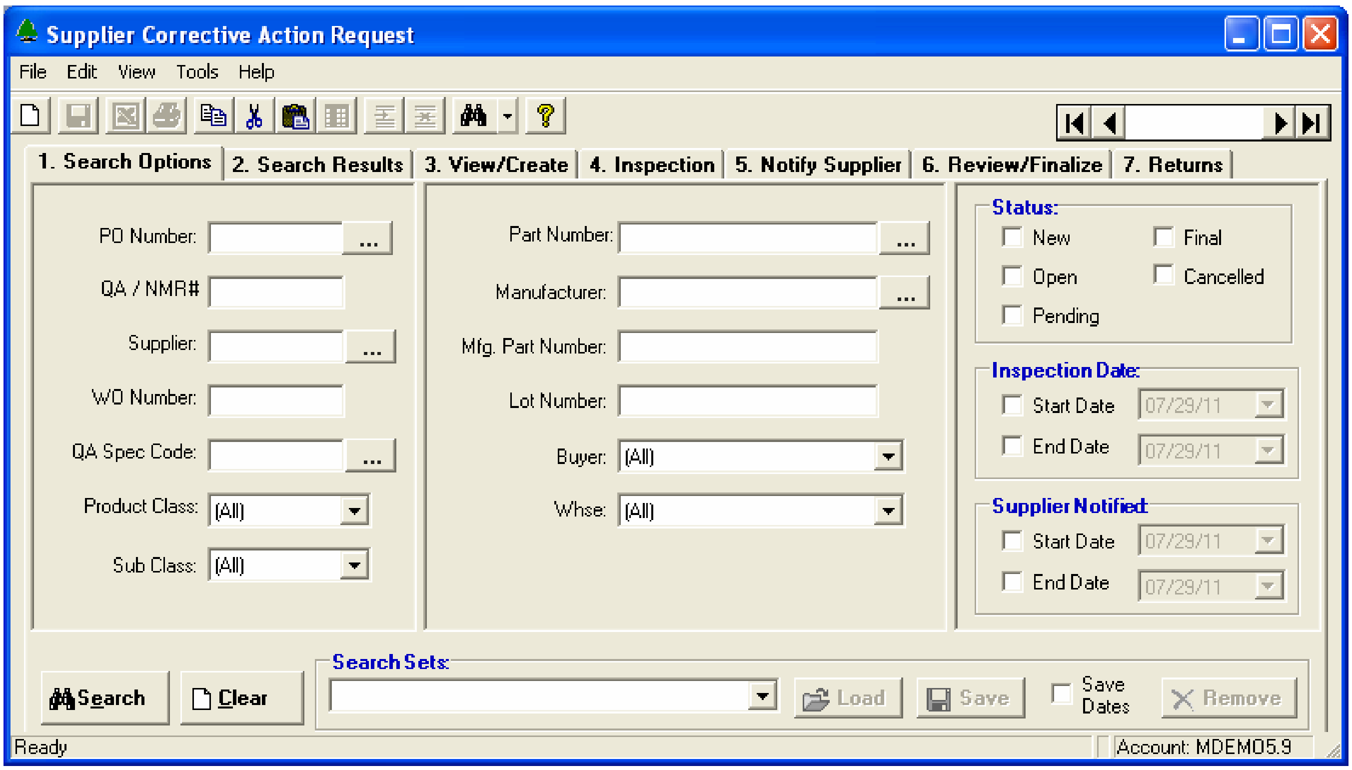
Attachments:

Page 1 of 1

Supplier Corrective Action Request (SCAR)

The Non-Conformance / Corrective Action Notice is a two-way communication device used when defective parts are received from a Supplier. The primary functions are:

- Formally notify the Supplier when defects are discovered
- Obtain Supplier Feedback
- Perform a final review to determine the impact on the Supplier's Performance Rating.
- Retain the SCAR document in a Data Store for future reference.



The main screen is comprised of seven tabs:

1. Search Options — Locate SCAR records using a variety of search criteria.
2. Search Results — View a list of SCAR records in spreadsheet form.
3. View / Create — View details from the associated Purchase Order line item.
4. Inspection — Entry of details regarding non-conforming material.
5. Notify Supplier — View and update Supplier's contact information, and their response to this notice.
6. Review/Finalize — Determine whether Supplier is at fault and enter Reviewer's comments.
7. Returns — Update Reason Codes on debit memos for the selected line item.

Use the Search Options and Search Results tabs to locate existing SCAR records in your database. The remaining tabs are used to view and update a specific SCAR record. A *Navigator Bar* on the upper right corner of the screen allows you to scroll through a list of selected records.

To create a new record, choose the "New / Open" option from the ***File*** menu. You may also use this option to open an existing record if you know the SCAR record identifier. For convenience, a button at the bottom of tabs 3-5 is also available to invoke the "New / Open" option.

The SCAR record must be associated to a specific Purchase Order and Line Item Number. If your company uses the Quality Control module, a QA Identifier may also be specified. When a QA Identifier is entered, details about the inspection are automatically copied to the SCAR. Additional information about the problem or defect may be entered using the *Inspection* tab.

Enter the Supplier's contact information on the *Notify Supplier* tab. Click the "Word Doc" button on the bottom of tabs 2-5 to generate the SCAR as a Microsoft Word Document, and optionally a PDF file, and save it the BWB Data Store. Once produced, the SCAR document may be emailed to the Supplier. When the document is emailed, a list individuals may be automatically copied, according to the options entered in the System Administration screen.

The Supplier may respond by traditional means (phone, email, etc.) or they may visit the Supplier Portal web site to enter comments regarding the SCAR. Once the Supplier's comments are entered, the status of the SCAR changes to "Pending Final Review".

Verify the Reason Code (which determines fault) and change the status to "Final" to close the SCAR.

Search Options

You may fill in as many fields as desired to narrow your search. If you leave a field blank, it will be ignored. Wildcard features are supported for all text fields. Click the "Search" button at the bottom of the screen, and the qualifying records will be displayed on the *Search Results* tab.

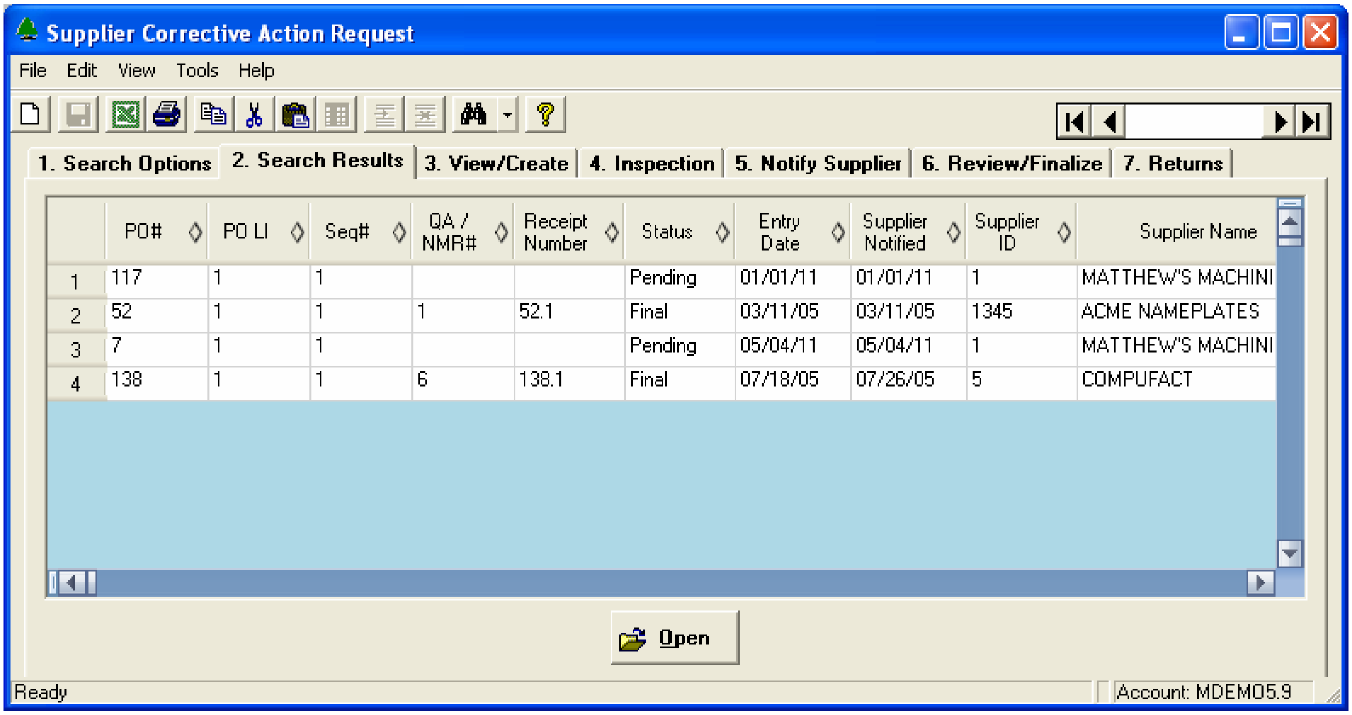
Search Sets

The **Search Set** commands at the bottom of the screen allow each user to name and save their favorite search options. Select an existing Search Set from the drop-down list, or simply type a description to name a new Search Set.

Click the **Save** button to save the settings for the named Search Set. Click the **Load** button to recall the saved settings. Click the **Remove** button to permanently delete the Search Set from the list.

Check the **Save Dates** box if you want the system to remember dates when settings are saved. If this box is unchecked, all date fields will default to the current date.

Search Results



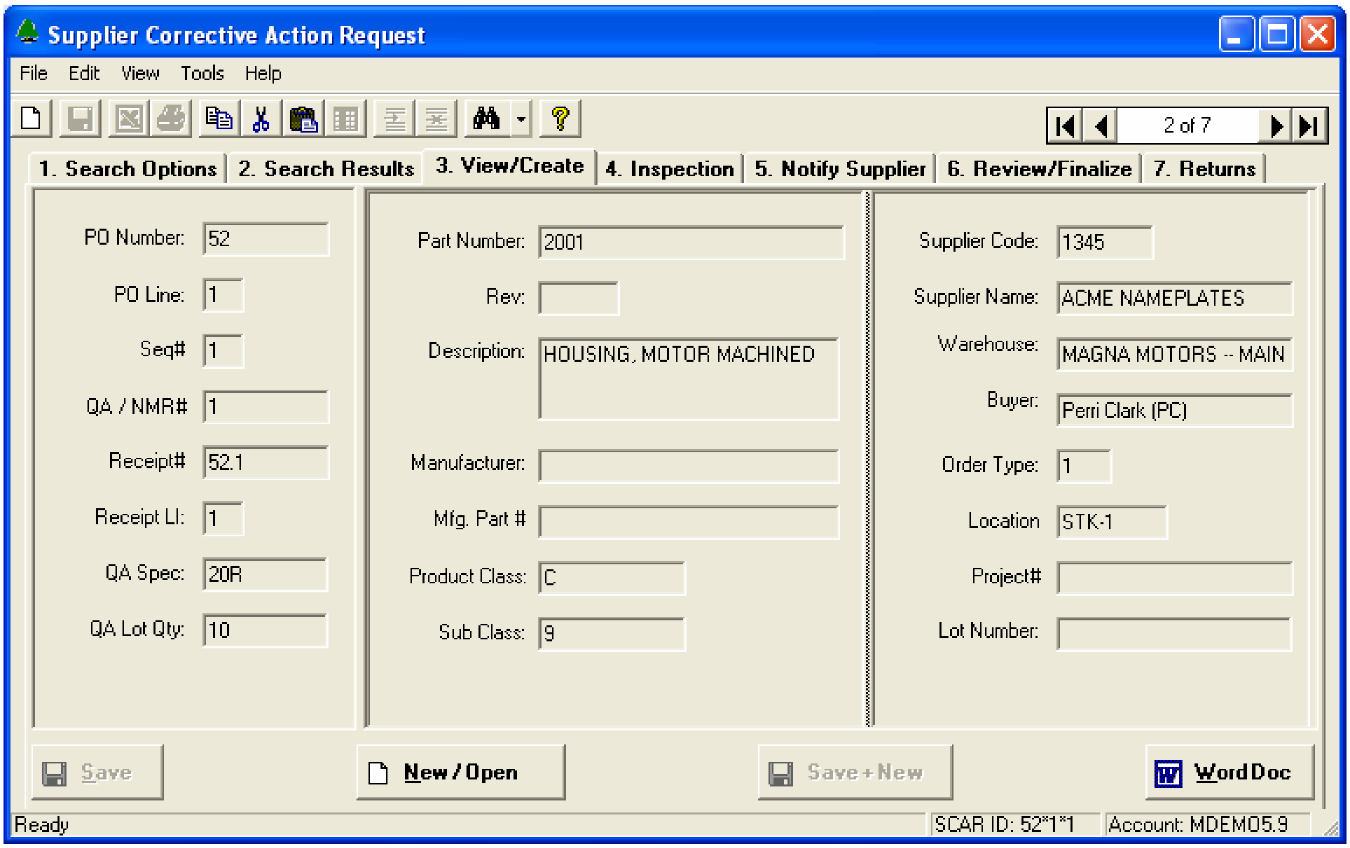
<u>Columns Included in Search Results:</u>

PO#	Purchase Order Number.
PO LI	Purchase Order Line Item Number.
Seq#	Each SCAR is uniquely identified by the Purchase Order Number, PO Line Number, and a system assigned Sequence Number.
QA / NMR#	The QA record identifier, which is also the identifier of the internal Non-Conforming Material Report (NMR).
Receipt Number	The Receipt Number from the QA record is displayed.
Status	The Status may be set to one of the following: New, Notice Not Sent (N) Open, Supplier Notified (O) Pending Final Review (P) Final Review Complete (F) Cancelled (X)
Entry Date	The date the SCAR was created.
Supplier Notified	The date the SCAR was sent to the Supplier.

Supplier ID	The identifier of the VENDOR file.
Supplier Name	The Supplier's company name.
Warehouse	The Warehouse where the parts were originally received.
Buyer	The name of the Buyer who placed the Purchase Order.
Work Order#	The Work Order number used to rework or repair the defective parts.
Part Number	The Part Number from the Purchase Order line item.
Description	The Part Description from the Purchase Order line item.
Disposition	The Disposition Code determines the action to be taken (Return to Supplier, Scrap, Use As Is, etc.).
Reason	The Reason Code (also known as the QA Code) indicates whether or not the Supplier is at fault.
Supplier Fault	Yes or No as indicated by the Reason Code.
Reject Qty	The total quantity reported as defective.
Return Qty	The number of units returned to the Supplier via a debit memo.
Used As Is Qty	The number of non-conforming or defective units that were not returned.
Inspected by	The name of the person who performed the inspection.

View or Create a SCAR

If you have used the search feature to produce a list of Supplier Corrective Action Requests on the Results tab, you may use the navigator bar on the upper right corner of the screen to scroll through the list. If you wish to create a new SCAR, click the **New / Open** button at the bottom of the screen.



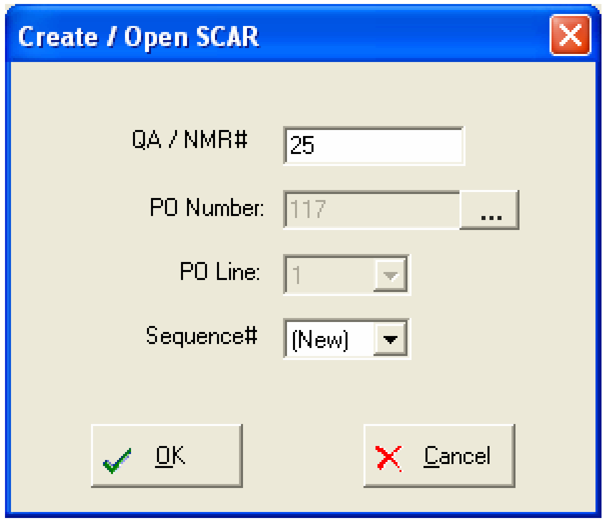
Information on this screen includes:

PO Number	Purchase Order Number.
Line Number	Purchase Order Line Item Number.
Sequence Number	Each SCAR is uniquely identified by the Purchase Order Number, PO Line Number, and a system assigned Sequence Number.
QA / NMR#	The QA record identifier, which is also the identifier of the internal Non-Conforming Material Report (NMR).
Receipt Number	The Receipt Number from the QA record is displayed.
Receipt Line Number	The Receipt Line Item Number from the QA record is displayed.

QA Spec Code	The QA Specification Code from the QA record. This Code defines the inspection requirements for the part, including the Sampling Plan.
QA Lot Quantity	The total quantity received.
Part Number	Part Number from the Purchase Order Line Item.
Part Revision	Part Revision Level from the Purchase Order Line Item.
Description	Part Description from the Purchase Order Line Item.
Manufacturer	The Manufacturer's Name from the RECEIPTS record.
Manufacturer's Part Number	The Manufacturer's Part Number from the RECEIPTS record.
Product Class	Product Classification code from the PARTS master file.
Product Sub-Class	Product Sub-Class code from the PARTS master file.
Supplier Number	Identifier of the VENDOR file.
Supplier Name	The Supplier's company name.
Warehouse	The Warehouse where the parts were originally received.
Buyer	The name of the Buyer who placed the Purchase Order.
Order Type	Order Type from the Purchase Order line item.
Location	Receiving inventory location.
Project Number	Project Number from the Purchase Order line item.
Lot Number	The Inventory Lot Number from the QA record.

Creating a New SCAR

Click the New/Open button at the bottom of the screen to create a new Supplier Corrective Action Request.

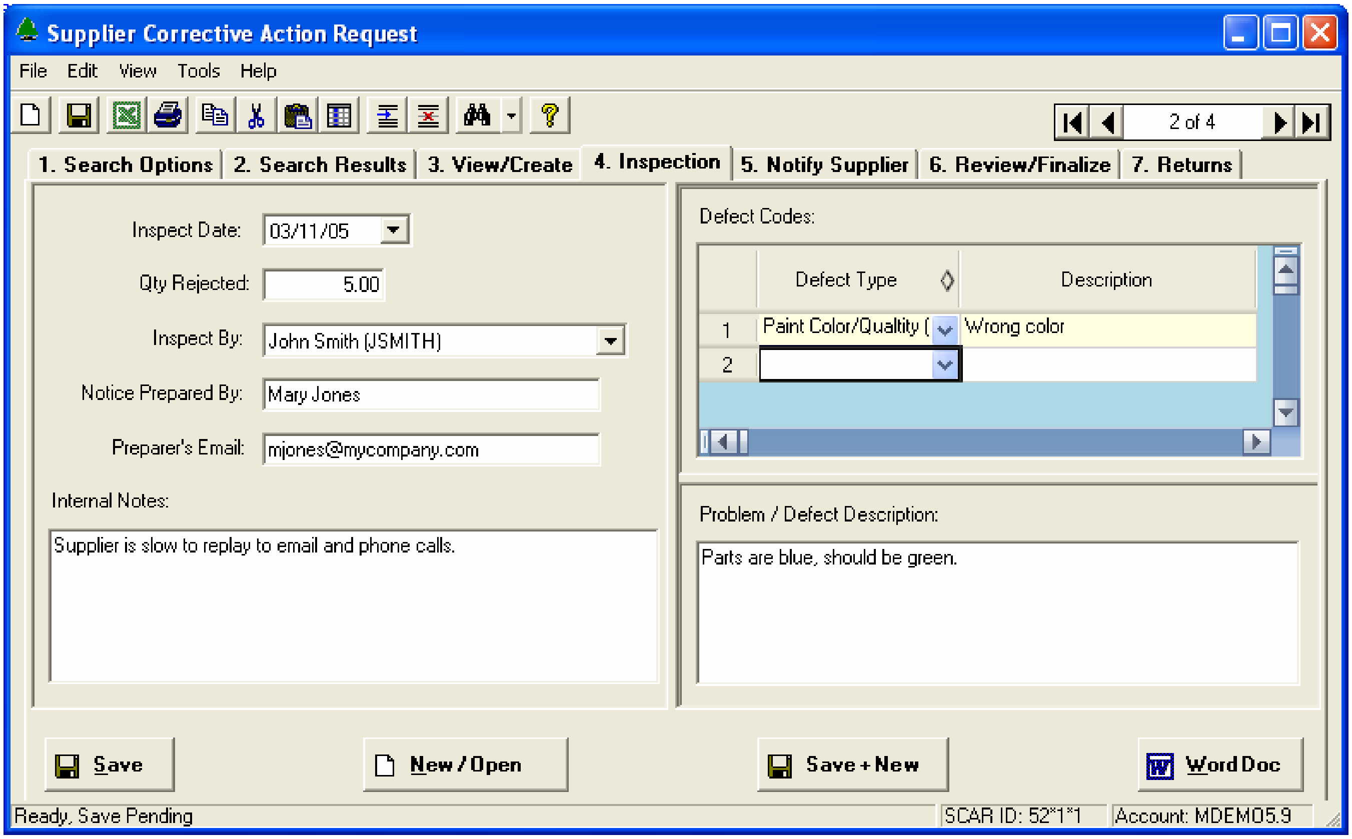


Information on this dialog includes:

QA / NMR#	Optionally, you may associate the SCAR to an existing QA Identifier, which is the same as the internal Non-Conforming Material Report Number. If entered, the system displays the Purchase Order and Line Number automatically.
PO Number	If you do not wish to associate this SCAR to a specific QA record, enter the Purchase Order Number instead. The browse button next to the PO Number prompt provides a search screen for locating the Purchase Order and Line Item Number.
PO Line	Select the Purchase Order Line Number this SCAR applies to. If you entered a QA Identifier, this entry is not required.
Sequence#	If one or more SCAR records have already been entered for this PO and Line Number, you may select a Sequence Number from the drop-down list to open an existing record.

Inspection

The *Inspection* tab is used to enter details about the non-conforming material.

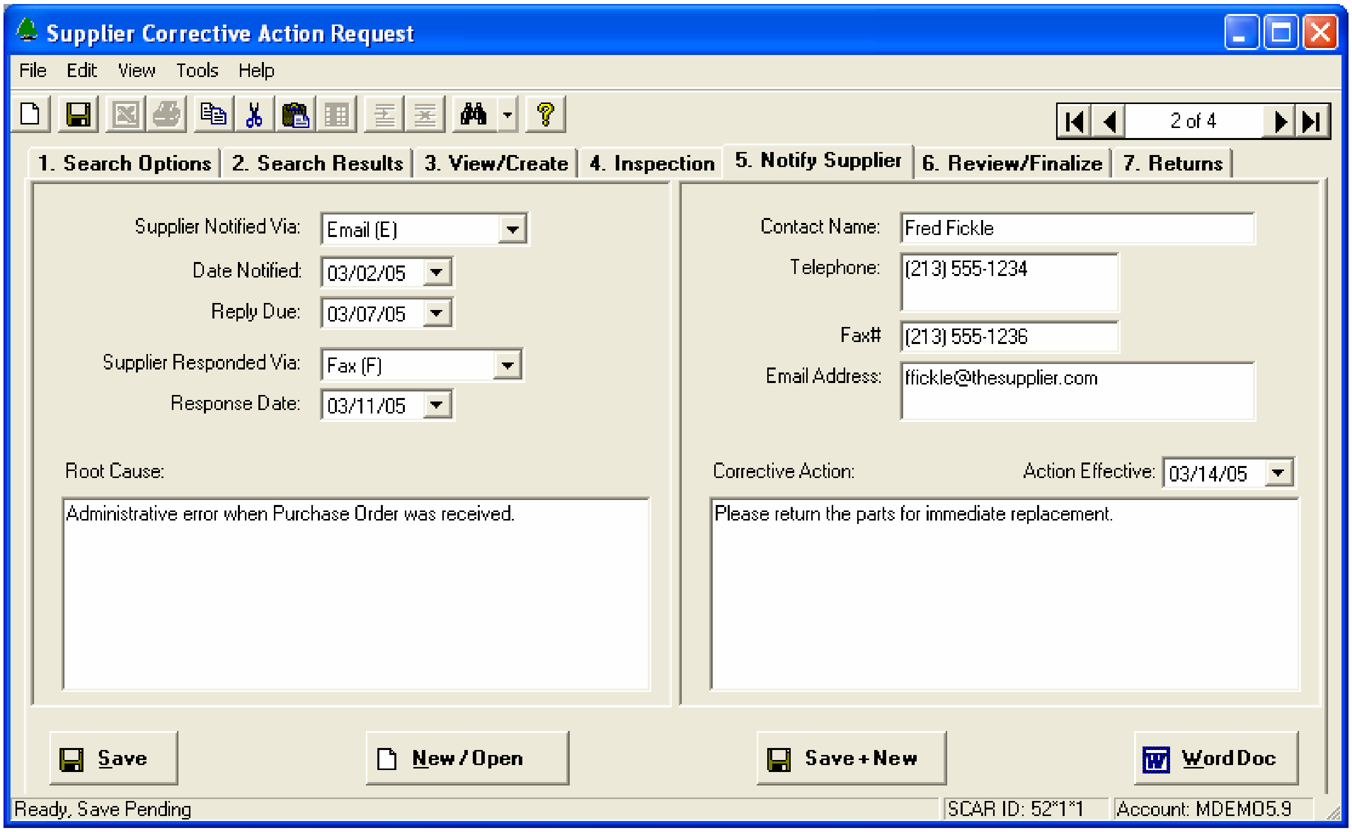


Information on this screen includes:

Inspection Date	Select the date that the inspection took place
Qty Rejected	The total quantity of rejected or non-conforming parts.
Inspected By	Enter the name of the inspector
Preparer's Name	Name of the individual preparing the SCAR
Preparer's Email	Email address of the individual preparing the SCAR
Internal Notes	These notes do not print on any external documents.
Defect Code	Select the Defect Code from the drop-down window. Multiple defect Codes may be entered. Note, Defect Codes and Descriptions are entered using the System Administration screen accessible from the Tools menu.
Defect Code Description	The Defect Code Description is displayed, and may be modified if desired.

Problem / Defect Description	Free-form multi-line text.

Notify Supplier

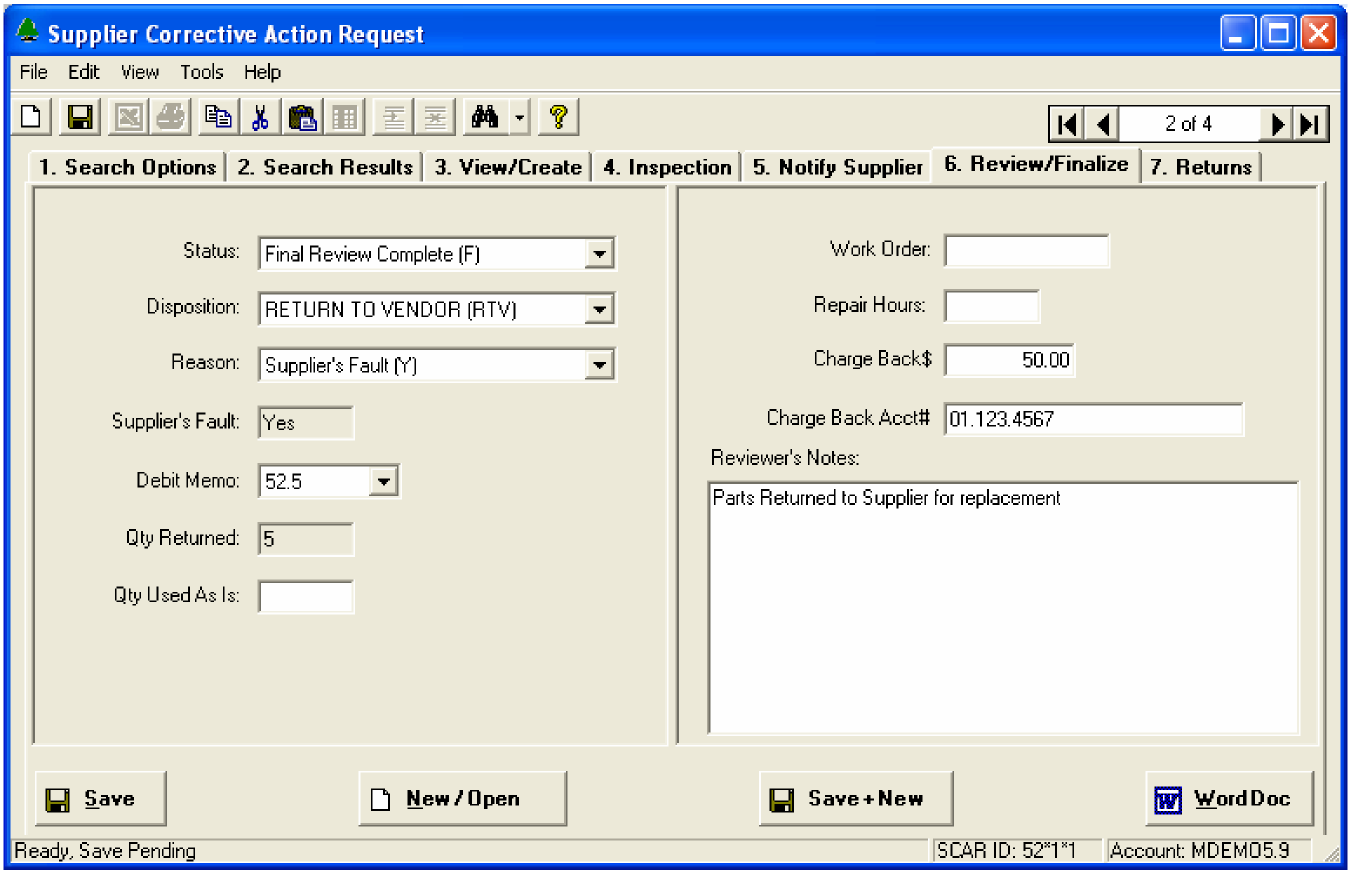


Information on this screen includes:

Supplier Notified Via	Select one of the following options from the drop-down list: Not Notified, Email, Fax, Mail, Phone / In Person
Supplier Notified Date	The date the Supplier was notified.
Reply Due	The Supplier is expected to reply on or before this date. The value defaults to the Supplier Notified Date plus 5 days.
Supplier Responded Via	Select one of the following options from the drop-down list: Not Notified, Email, Fax, Mail, Phone / In Person. If the Supplier responded via the Supplier Portal Web Site, this information is updated automatically.

Supplier Response Date	The date the Supplier responded. If the Supplier responded via the Supplier Portal Web Site, this information is updated automatically.
Supplier Contact Name	The name of the person who will respond to the SCAR.
Contact Phone	The phone number of the Supplier Contact. This information initially defaults from the VENDOR file.
Contract Fax	The fax number of the Supplier Contact. This information initially defaults from the VENDOR file.
Contact Email	The email address of the Supplier Contact. This information initially defaults from the VENDOR file.
Root Cause	The Supplier's explanation as to the root cause of the problem or defect. If the Supplier responded via the Supplier Portal Web Site, this information is updated automatically.
Corrective Action	The corrective action proposed by the Supplier. If the Supplier responded via the Supplier Portal Web Site, this information is updated automatically.
Action Effective Date	The date the Corrective Action is to be put into affect. If the Supplier responded via the Supplier Portal Web Site, this information is updated automatically.

Review / Finalize



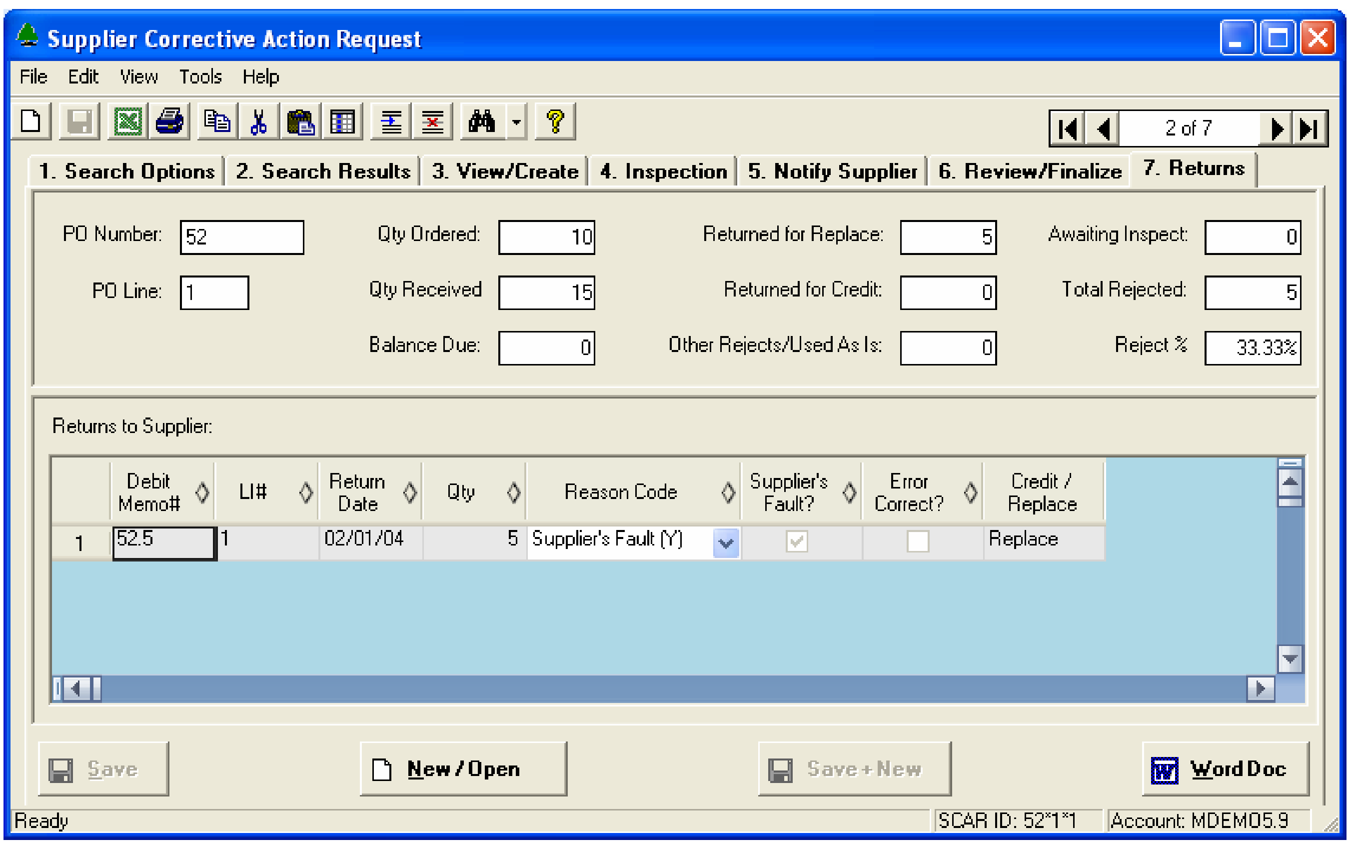
Information on this screen includes:

Status	The Status may be set to one of the following: New, Notice Not Sent (N) Open, Supplier Notified (O) Pending Final Review (P) Final Review Complete (F) Cancelled (X)
Disposition Code	Disposition Codes are stored in Manfact's DISPCODE file, and describe the action to be taken. For example, Return to Supplier, Scrap, Use As Is, etc.
Reason Code	Reason Codes are stored in Manfact's QA.CODE file. A flag on the QA.CODE record indicates whether or not the Supplier is at fault.
Supplier's Fault	The system displays Yes or No based on the Reason Code. If you wish to change this value, you must change the Reason Code.
Debit Memo Id	If the SCAR is related to a Debit Memo, select the Debit Memo from the drop down list

Qty Returned	If a Debit Memo is entered, the quantity is displayed and may not be updated
Qty Used As Is	The number of defective units that will not be returned to the Supplier. For example, they may be reworked, scrapped, or used for an alternate purpose. If the Reason Code entered indicates the Supplier is at fault, entry of a Quantity in this field will have a negative impact on the Supplier Performance Rating.
Work Order Number	Enter the identifier of the Work Order used to make repairs (optional).
Est. In-House Repair Hours	Enter the estimated time required to perform the repair (optional).
Supplier Charge Back	Amount to be charged back to the Supplier (optional).
Account Number	G/L Account Number for Charge Back (optional).
Reviewer's Notes	The Reviewer's comments will print on the SCAR document.

Returns

The *Returns* screen displays a list of all returns to the Supplier for the selected line item.



The information included on this screen includes:

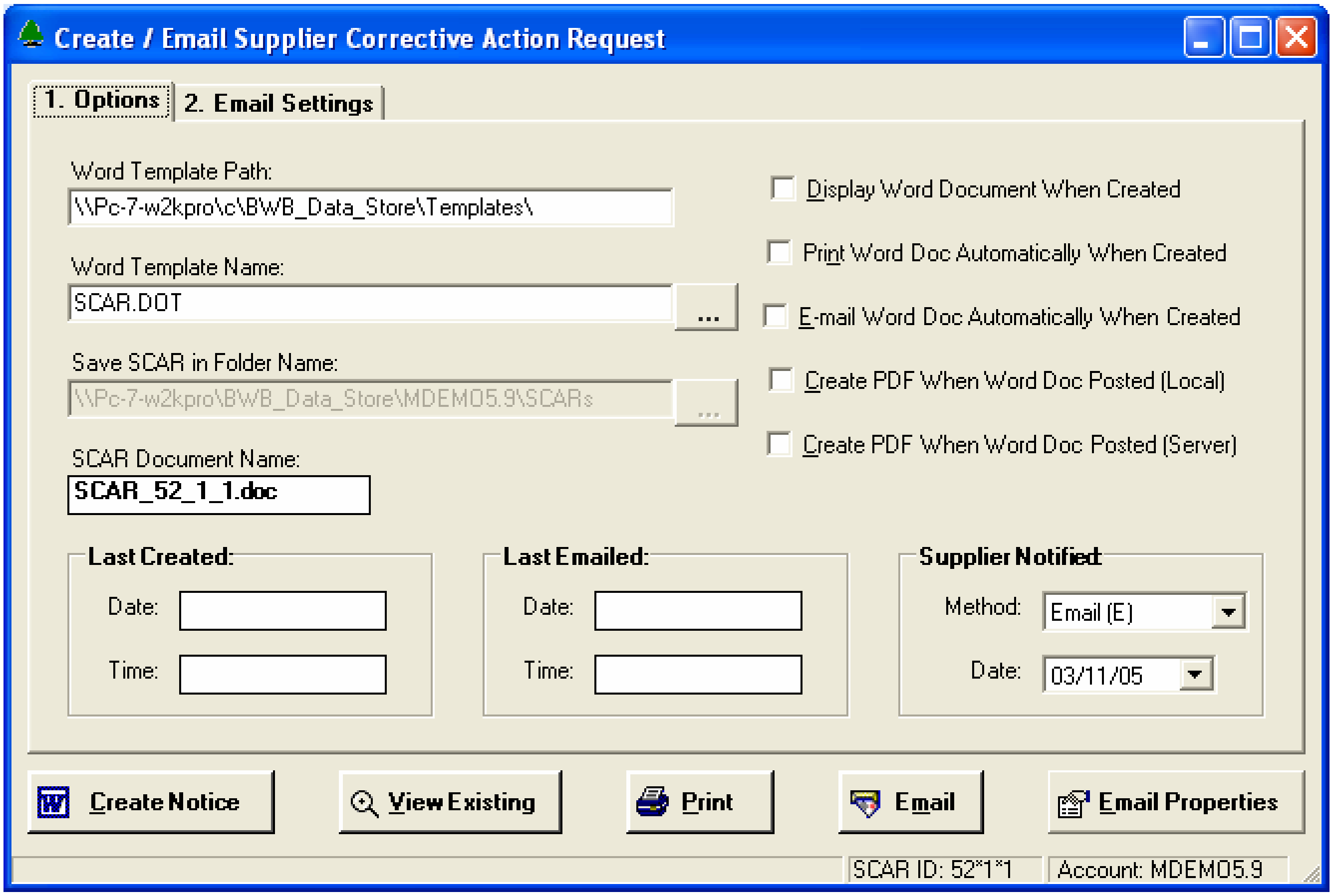
PO Number	The Purchase Order Number this SCAR applies to.
PO Line	Purchase Order Line Number.
Qty Ordered	Total PO Line Item Order Quantity
Qty Received	Total Quantity Received on this Purchase Order Line Item
Balance Due	Balance Due from Supplier
Returned for Replacement	Quantity returned to the supplier for replacement.
Returned for Credit	Quantity returned to the supplier for credit.
Rejects Used As Is	Qty Rejected but Not Returned.
Awaiting Inspection	Quantity received against this PO Line Item, but not yet inspected.
Total Rejected	The greater of Quantity Rejected using the Quality Control Module, or total returns via Debit Memo.
Rejected %	Total Quantity Rejected / Total Quantity Received

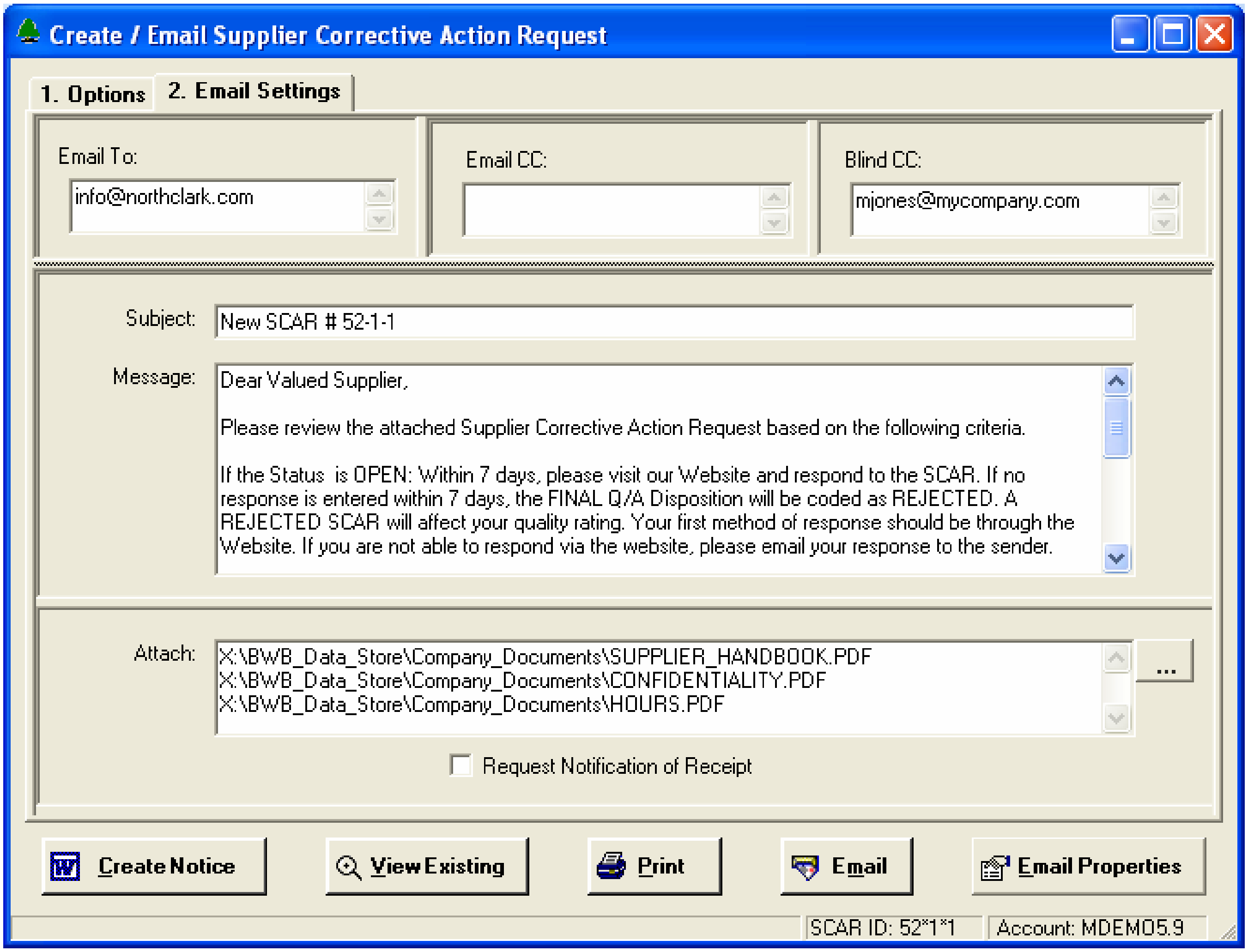
<u>List of Returns to Supplier:</u>

Debit Memo Number	Identifier of the RECEIPTS file.
Return Date	Debit Memo Date
Qty	Quantity Returned
Reason Code	QA Code Assigned to the Return, determines Supplier's fault. If you change the Reason Code, the Supplier's Performance Rating will be updated accordingly.
Supplier's Fault?	If checked, this transaction will have a negative impact on the Supplier's Performance Rating.
Error Correct?	If checked, indicates that this is an error correction only. Reduces the Total Quantity Received for Supplier Performance Rating calculation purposes.
Credit / Replace	Returns for replacement increase the Balance Due, returns for credit do not.

Print or Email the Supplier Corrective Action Request

Use this screen to generate a Microsoft Word Document, and optionally a PDF file, and store the document in the BWB Data Store. Once produced, you may email the document directly to the Supplier along with any desired attachments.





SCAR Sample Document

See sample on next page.

NorthClark Computing, Inc.
PO BOX 2096
Oregon City, OR 97045
Phone: 503.632.5671

Supplier Corrective Action Request

Purchase Order#	117-1	**NMR#**	6
Supplier Name:	MATTHEW'S MACHINING	**Inspect Date:**	01/01/11
Supplier Contact:	Fred Fickle	**Supplier Notified Date:**	01/01/11
Notified By:	Phone/In Person	**Reply Due Date:**	01/06/11
Part Number:	2001	**Part Revision:**	C
Part Description:	HOUSING, MOTOR MACHINED	**Quantity Rejected:**	5
Inspected By:	Albert Wright	**Quantity Returned:**	1
Prepared By:	Perri Clark	**Quantity Used As Is:**	9
Preparer's Email:	perri@northclark.com	**Estimated Repair Hours:**	42.00

PROBLEM DESCRIPTION

The parts are the wrong color and the wrong size. They are not suitable for the intended application.

Defect Type	Notes
Paint Color/Qualtity (PT)	Wrong Color
Dimensional Issue (110)	Wrong size

SUPPLIER COMMENTS

Responded By: Phone/In Person **Respond Date:** 08/11/11 **Effective Date:** 08/12/11

Root Cause: This was a clerical error that occurred when the Purchase Order was received and entered into our system.

Corrective Action: Please return the parts for immediate replacement. We have implemented new Purchase Order entry validation procedures to ensure this does not happen in the future.

QUALITY MANAGEMENT REVIEW

Disposition: RETURN TO VENDOR **Status:** Final Review Complete

Reason: Supplier's Fault

Comments: This is the third time this has happended in the past 12 months. The Supplier's performance rating will be impacted by this incident.

Page 1 of 1

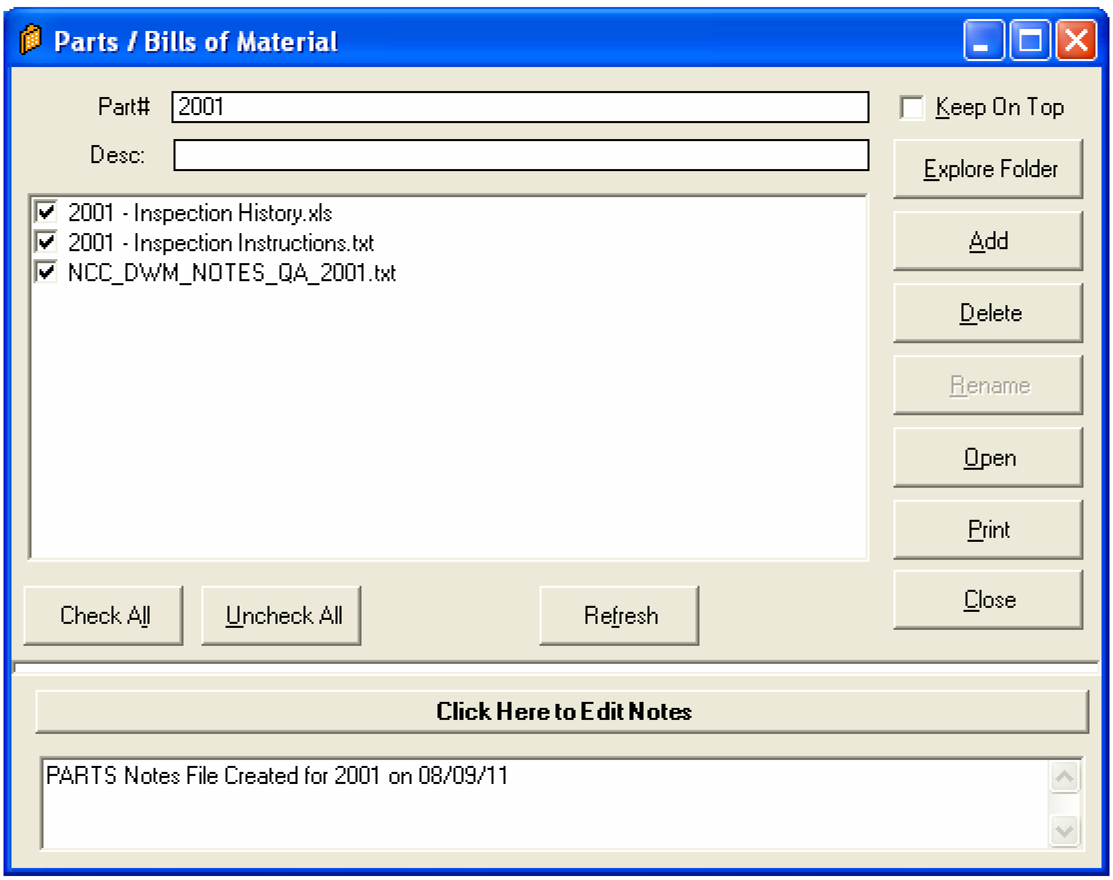
Data Warehouse Management

The Quality Control and Supplier Corrective Action Request modules rely on the following Data Stores:

- Part Drawings and Blueprints
- Q/A Specifications
- Non-Conforming Material Requests
- Supplier Corrective Action Requests (BWB Data Store)

The System Administration function is used to define the location on your network where each Data Store resides.

This example illustrates a view of the Parts Data Store for Record Identifier: 2001. Note that with the exception of the titles, the format of this screen, and the options available, are the same for all Data Stores.



Information on this Screen:

Record Identifier	Part Number, QA, or SCAR Record Identifier
Description	Part Description or Part Number

File List	A list of files currently contained in this Data Store is displayed. Use the checkboxes to select multiple items to Open, Print, or Delete.
Keep on Top	Check this box to keep the Data Store View on top of other Windows on your desktop, so it stays visible.
Explore Folder	Click this button to launch an instance of Windows Explorer, open at the current Data Store Folder. If desired, you can copy/paste or drag-n-drop to copy files from the Explorer Window to the Data Store View File List. This option is recommended for advanced users.
Add	A dialog is displayed allowing you to browse your computer network for files to be added to the Data Store.
Delete	Choose this option to delete one or more selected files. Note, when a file is deleted from the Data Store, it is moved to a folder called "Backup Files" where it may be retrieved using Windows Explorer, if needed. The name of the file will be changed to reflect the date and time it was saved, so multiple copies of the same file may exist in Backup Files.
Rename	Choose this option to Rename the *highlighted* file. A box will be displayed allowing you to edit or type over the existing file name.
Open	The program attempts to open the selected file(s) by launching the application associated with the file extension.
Print	The program attempts to print the selected file(s) by launching the application associated with the file extension.
Close	Closes the Data Store View.
Check All	Selects all the files in the list.
Uncheck All	Deselects all the files in the list.
Refresh	Redisplays the file list and Notes with currently information from the Data Store folder.
Splitter Control	The white horizontal bar in the center of the screen allows you to adjust the size of the top and bottom panels.
Edit Notes	Click this button to edit the Notes file for this Data Store. If the text file does not exist, the program will create it automatically.
Notes Display	The system displays the Notes from the text file.

Part Data Warehouse

This function may be accessed from the Tools Menu, or from the Inspection tab on the QA screen. It is used to locate drawings and blueprints in the Part Data Warehouse.

Q/A Data Warehouse

This function may be accessed from the Tools Menu, or from the Inspection tab on the QA screen. It is used to locate files in the Q/A Data Warehouse associated with a Part Number.

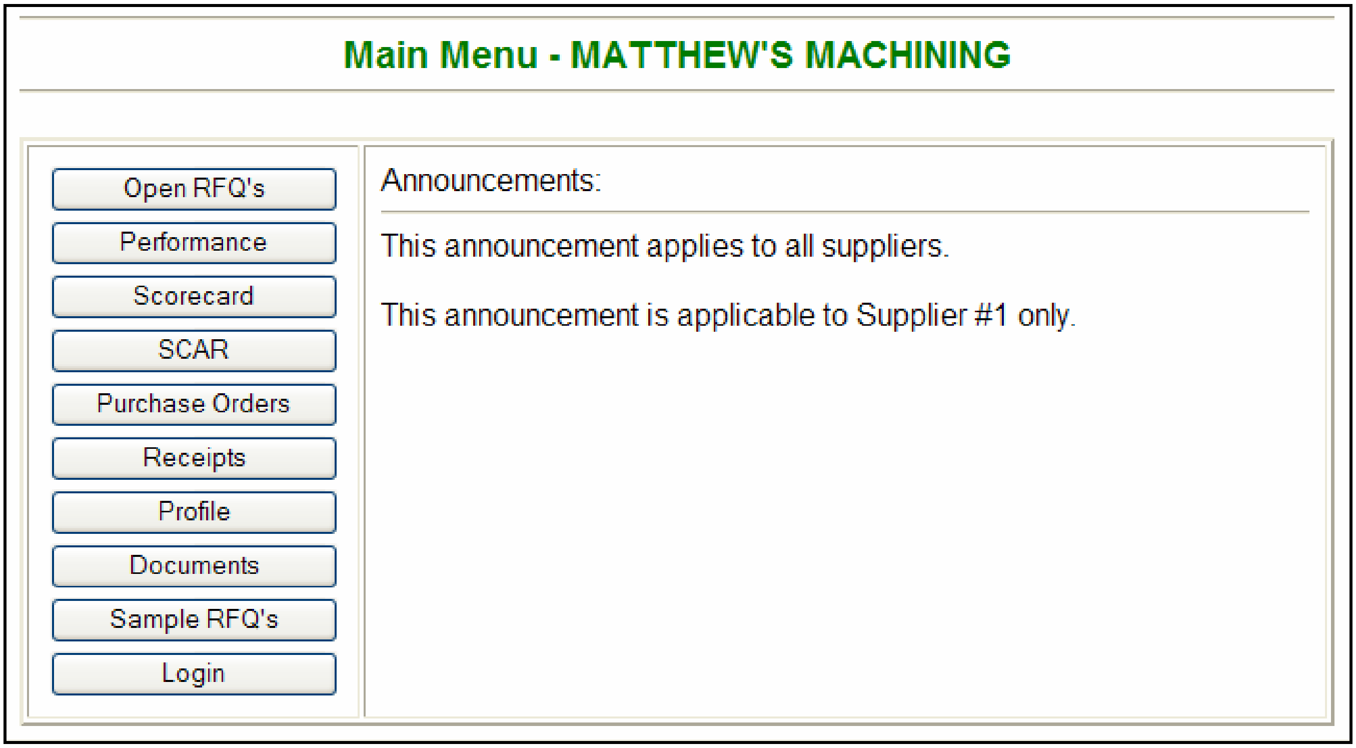
NMR Data Warehouse

This function may be accessed from the Tools Menu, or from the NMR tab on the QA screen. It is used to locate files attached to a Non-Conforming Material Report.

Supplier Portal Web Site

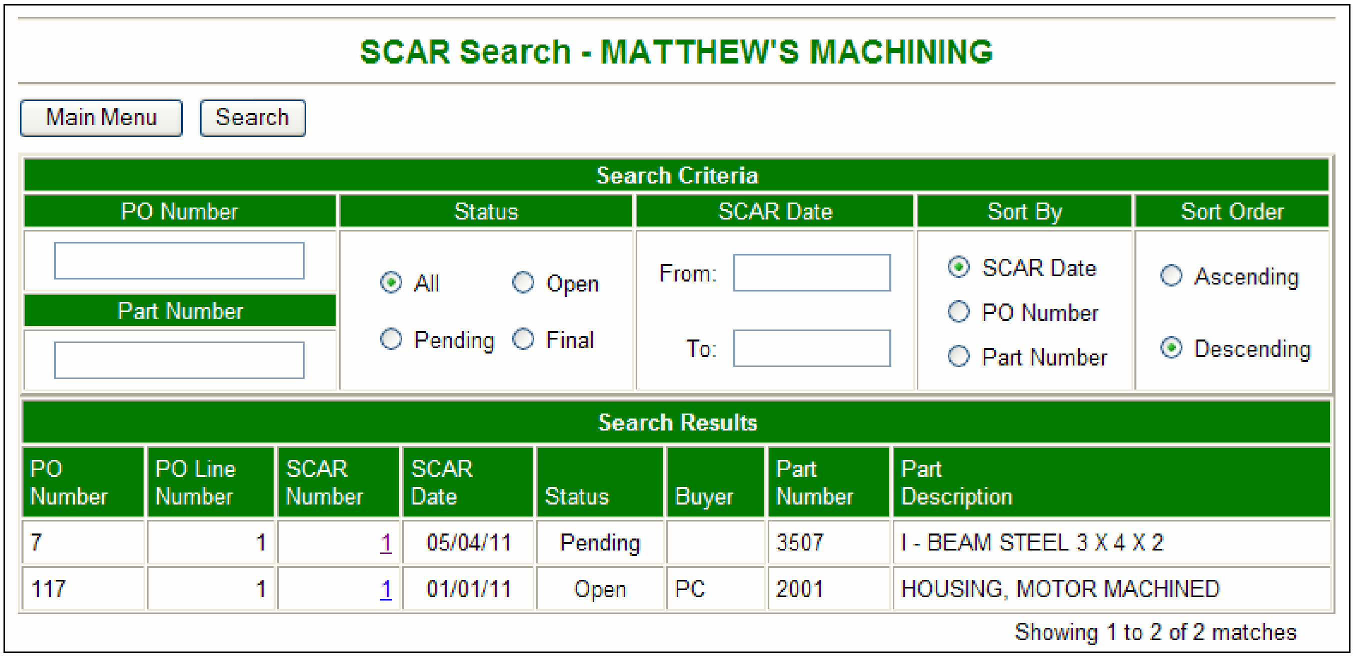
The Supplier Portal Web Site allows authorized guests to interact with the Purchasing and Supplier Quality organization.

The Main Menu is displayed upon successful login:



Supplier Response to Corrective Action Request (SCAR)

Upon receipt of a Supplier Corrective Action Request (SCAR), the Supplier may visit the Supplier Portal Web Site to enter their response. The Search Screen allows the Supplier to locate the desired record.


SCAR Search - MATTHEW'S MACHINING

Main Menu | Search

Search Criteria

PO Number	Status	SCAR Date	Sort By	Sort Order
Part Number	(•) All ( ) Open ( ) Pending ( ) Final	From: To:	(•) SCAR Date ( ) PO Number ( ) Part Number	( ) Ascending (•) Descending

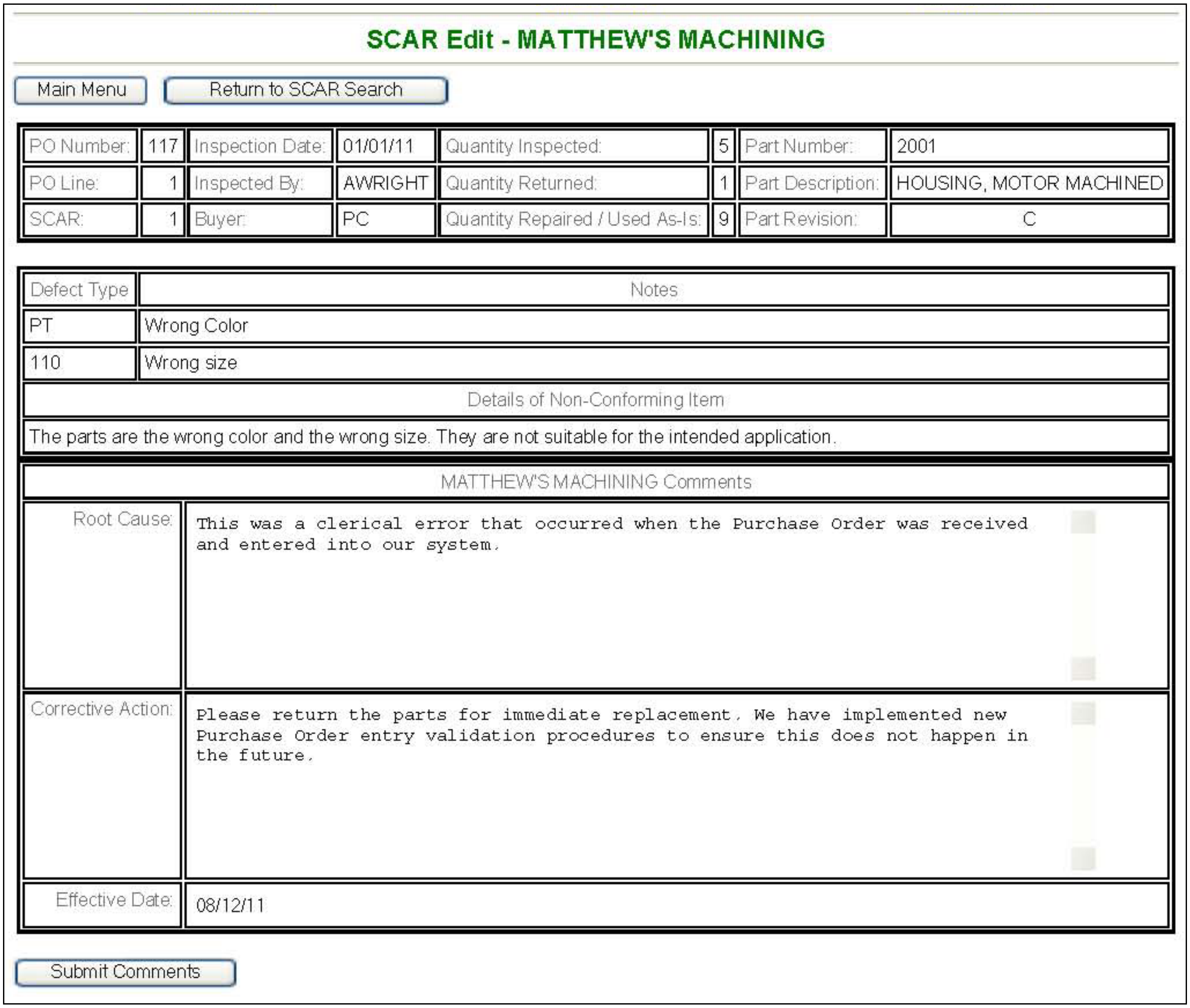
Search Results

PO Number	PO Line Number	SCAR Number	SCAR Date	Status	Buyer	Part Number	Part Description
7	1	1	05/04/11	Pending		3507	I - BEAM STEEL 3 X 4 X 2
117	1	1	01/01/11	Open	PC	2001	HOUSING, MOTOR MACHINED

Showing 1 to 2 of 2 matches

The Supplier clicks on the “SCAR Number” link to open a record to view or update.

The SCAR Edit Page allows the Supplier to submit their comments:



SCAR Edit - MATTHEW'S MACHINING

Main Menu | Return to SCAR Search

PO Number:	117	Inspection Date:	01/01/11	Quantity Inspected:	5	Part Number:	2001
PO Line:	1	Inspected By:	AWRIGHT	Quantity Returned:	1	Part Description:	HOUSING, MOTOR MACHINED
SCAR:	1	Buyer:	PC	Quantity Repaired / Used As-Is:	9	Part Revision:	C

Defect Type	Notes
PT	Wrong Color
110	Wrong size

Details of Non-Conforming Item

The parts are the wrong color and the wrong size. They are not suitable for the intended application.

MATTHEW'S MACHINING Comments

Root Cause:	This was a clerical error that occurred when the Purchase Order was received and entered into our system.
Corrective Action:	Please return the parts for immediate replacement. We have implemented new Purchase Order entry validation procedures to ensure this does not happen in the future.
Effective Date:	08/12/11

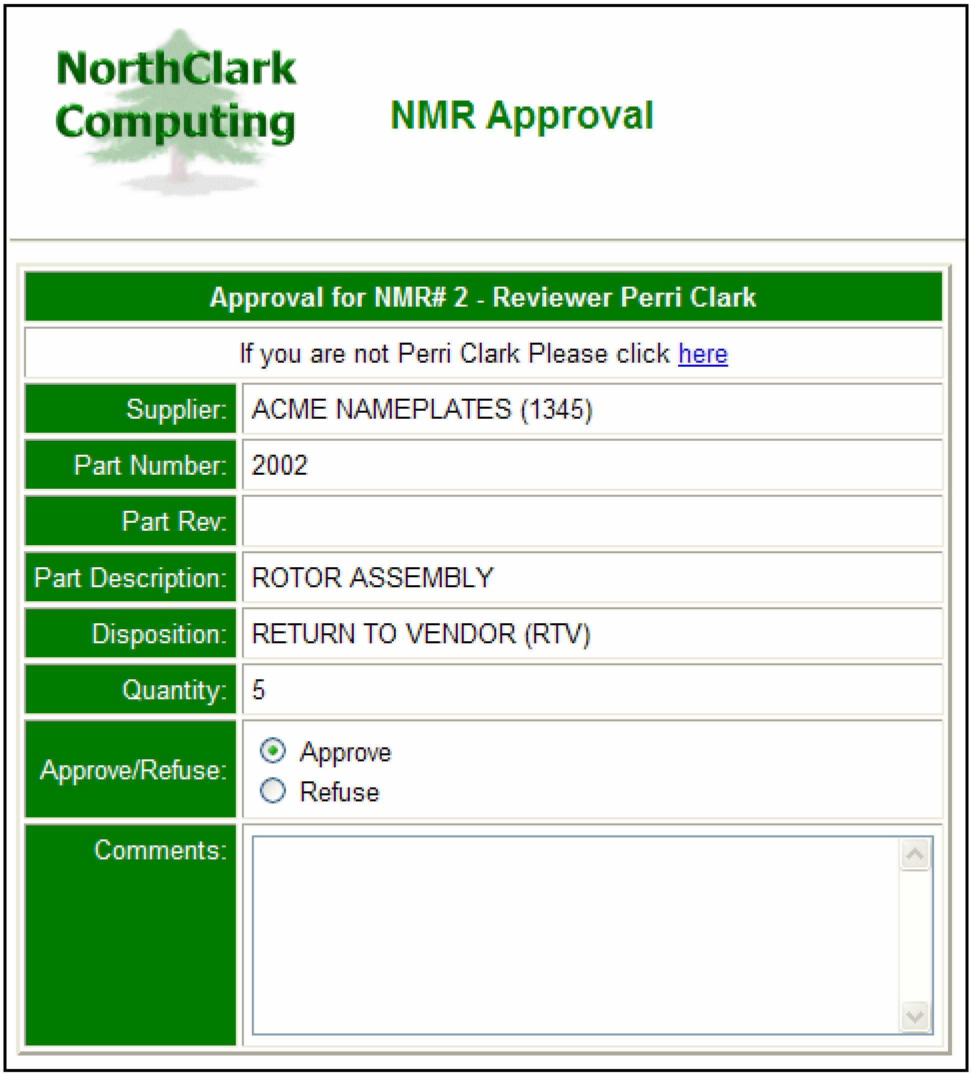
Submit Comments

When the Supplier responds, an email notification is sent to the person who prepared the SCAR, and to the list of individuals who were copied when the SCAR was originally transmitted.

NMR Disposition Approval Page

This page is available for internal personnel to approve or reject the disposition of a Non-Conforming Material Report (NMR). When the disposition of an NMR is entered, an email notification is sent to the individuals who are asked to approve the proposed action (return to Supplier, use as is, etc.), along with a copy of the NMR document. A link in the email message will direct the user to the NMR Disposition Approval page.

This page is not available to Suppliers, and it cannot be accessed directly from an Internet browser. A unique serial number embedded in the email message ensures that the page can only be accessed by the intended party. Information on this screen includes:



NorthClark Computing

NMR Approval

Approval for NMR# 2 - Reviewer Perri Clark	
If you are not Perri Clark Please click here	
Supplier:	ACME NAMEPLATES (1345)
Part Number:	2002
Part Rev:	
Part Description:	ROTOR ASSEMBLY
Disposition:	RETURN TO VENDOR (RTV)
Quantity:	5
Approve/Refuse:	Approve Refuse
Comments:	

If you are not [Reviewer's Name], click here. (closes the web page)

NMR# The QA Record Identifier

Supplier	Supplier Name and Identifier.
Part Number	The identifier of the Part on the QA record.
Part Description	25 character description.
Part Revision	The Revision Level of the Part on the QA record.
Disposition	Description of the proposed action (return to supplier, use as is, etc.)
Quantity	The number of units on this Disposition.
Approve	Click this button to Approve the Disposition.
Reject	Click this button to Reject the Disposition.
Comments	Comments may be entered by the Approver.

Data Entry and Maintenance

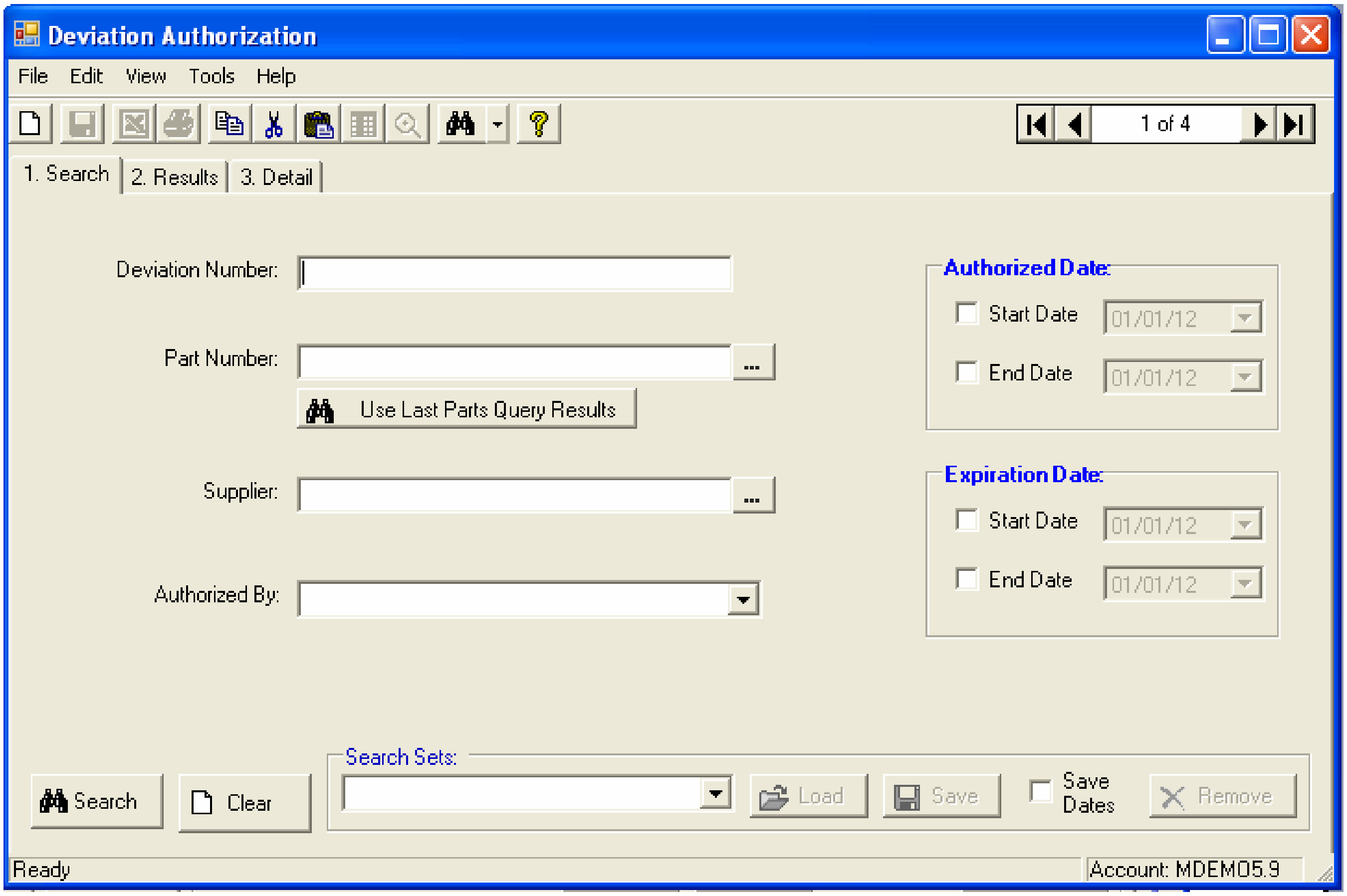
Deviation Authorization

Use this procedure to document an allowable deviation from established Quality Assurance specifications and/or procedures. This data is for information purposes only, and does not impact the user's ability to accept or reject a given QA lot.

Authorized users may create and update Deviation records using this procedures (please refer to the Security section for more information). Inspectors and other non-administrative personnel may use this procedure for inquiry purposes.

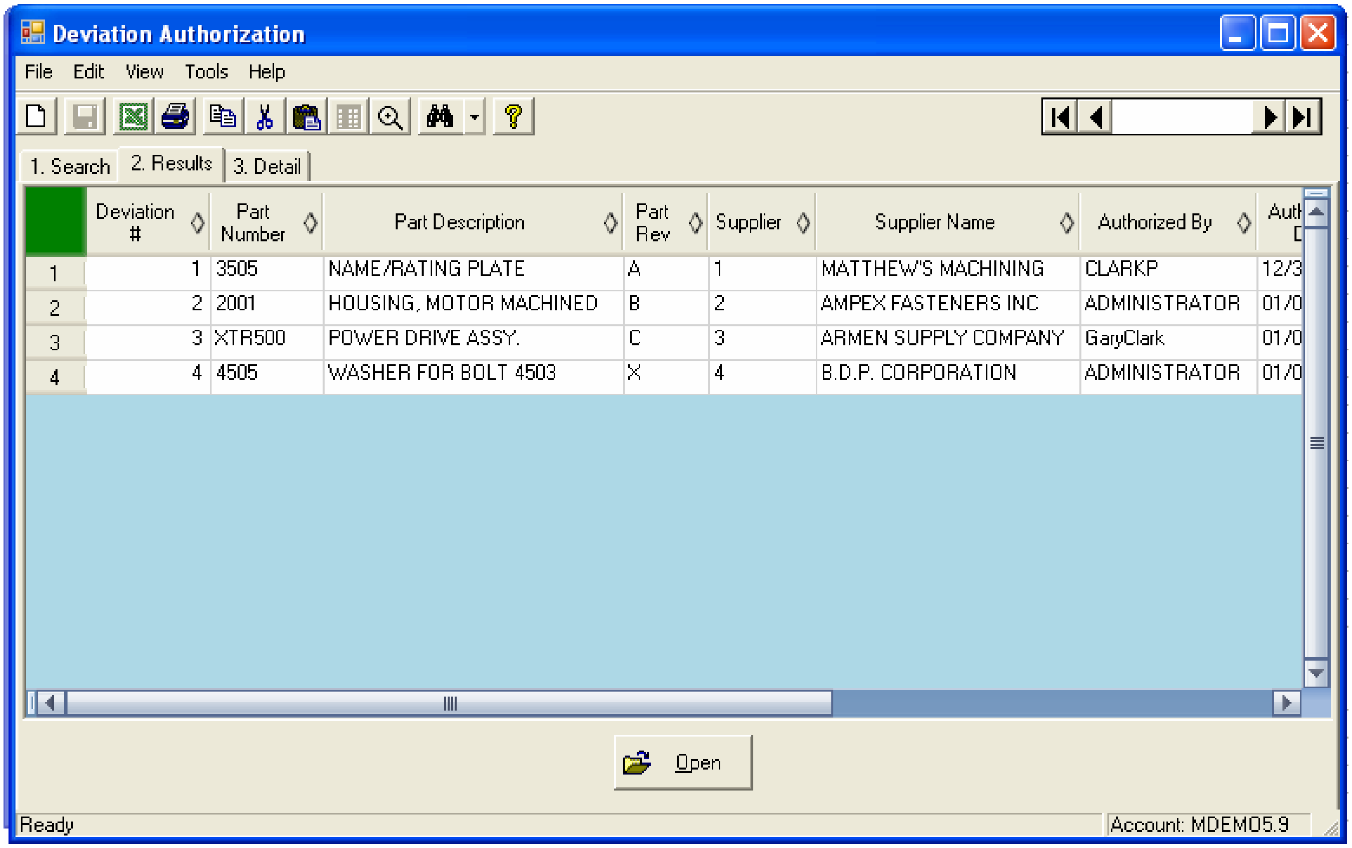
Search Options

The Search tab allows you to locate QA Deviation records using a variety of search criteria.



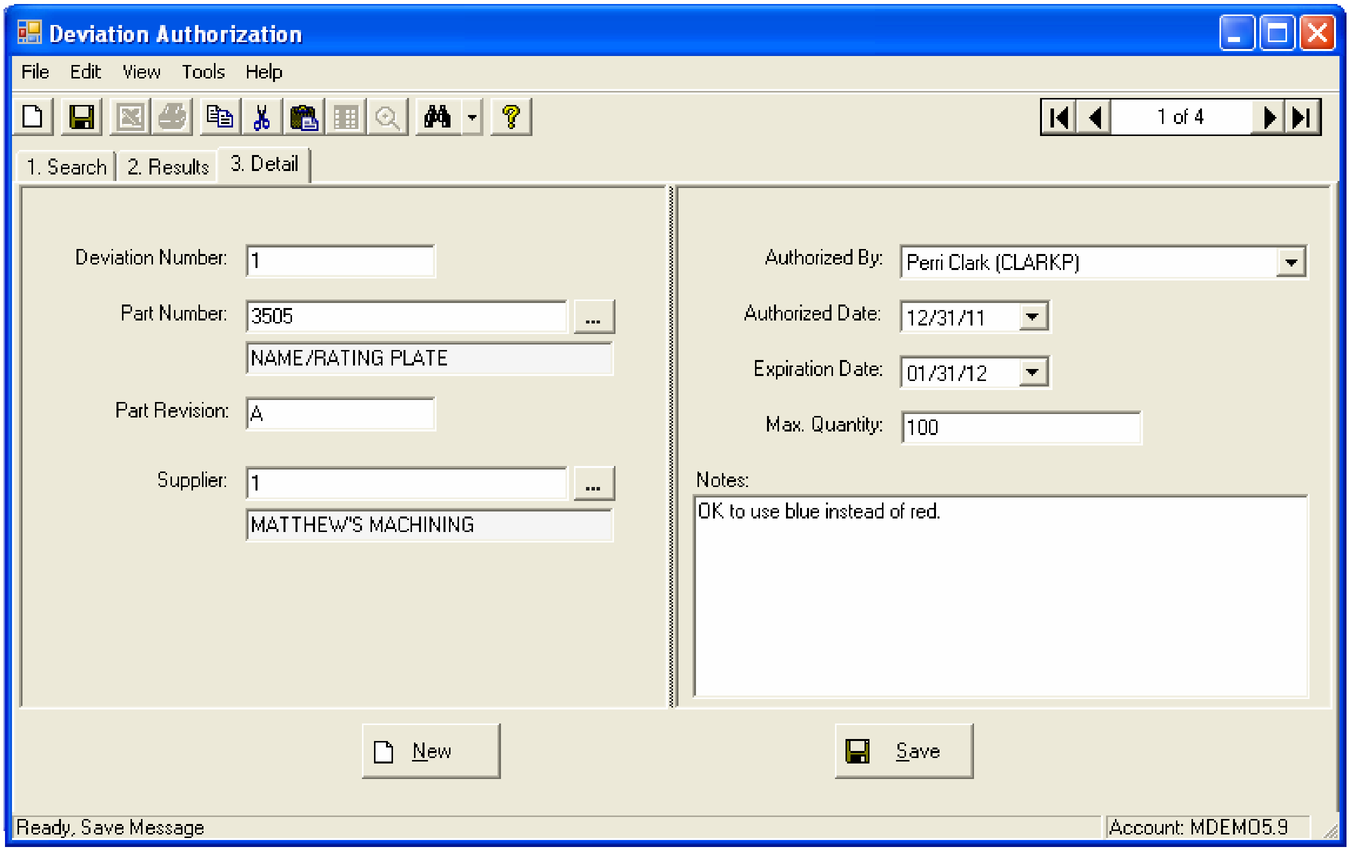
Search Results

This tab displays a list of QA Deviation records meeting your search criteria. To open a record for updating, double-click on the row header, or highlight a row and click the Open button.



Detail

Use this tab to create or update a QA Deviation record.



Use the navigator bar on the upper-right corner of the screen to scroll through the list of QA Deviation records you have selected, or enter the desired record identifier at the Deviation Number prompt.

Assigning Deviation Numbers

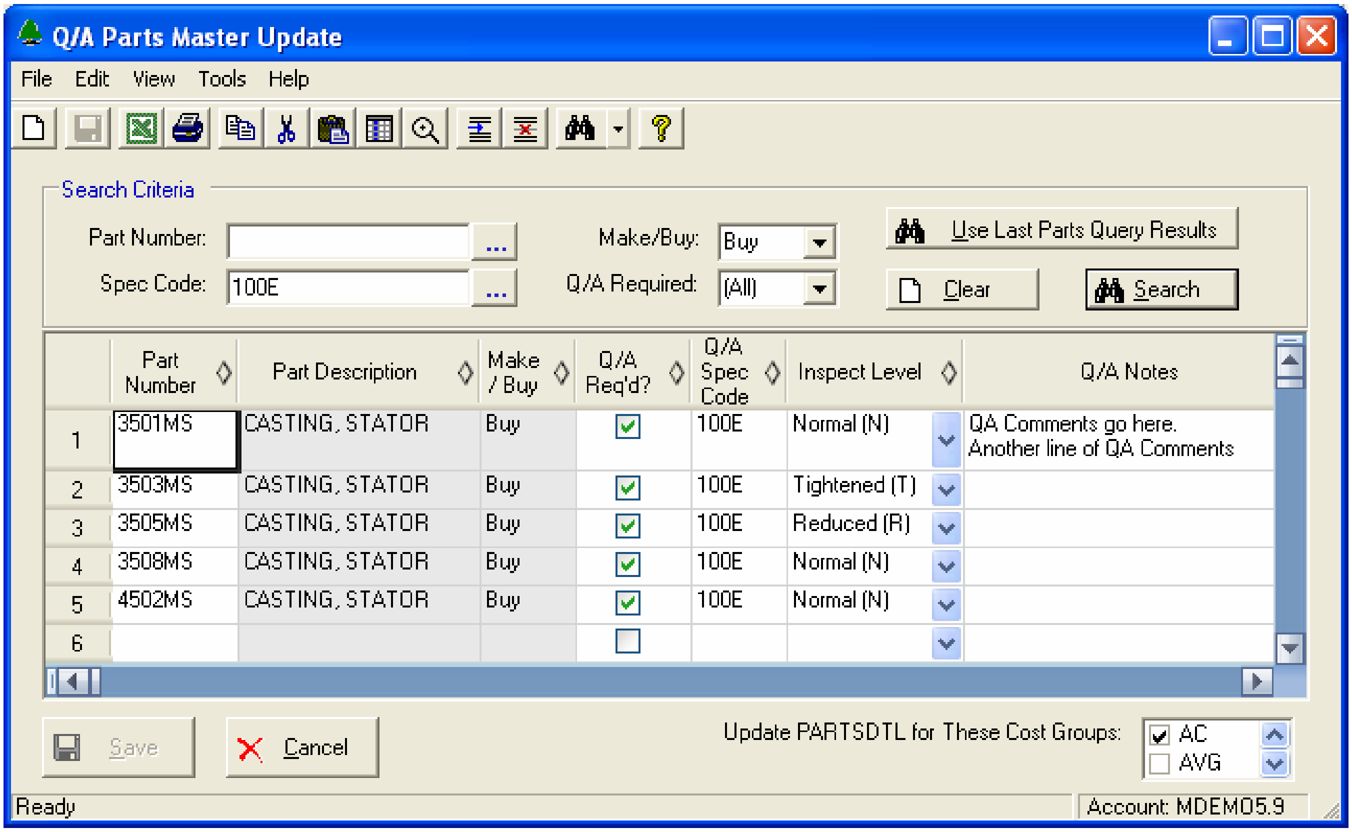
Click the [New] button to start a new record. The system will assign the next sequential Deviation Number when the record is saved. If you enter a Deviation Number that does not exist, an error message is displayed, then the system asks you if you want to create it. This feature may be useful for entering Deviations that were generated prior to implementing the NorthClark system.

Prompts on this Screen

You must enter a Part Number, Authorization Date, and Expiration Date. All other prompts are optional.

Parts Master Update

The Q/A Parts Master Update screen is accessible from the Data Entry menu on the Main screen.



This prompts at the top of the screen allow you to search for a list of Manfact PARTS records to be updated. To use this feature, enter the desired filters and then click the [Search] button.

Clicking the browse button next to the Part Number prompt will initiate the NorthClark Part Number Search Query, which offers more extensive search features. Click the [Use Last Parts Query Results] button to copy the list of Part Numbers from your last search into the list below.

If you wish to update a specific Part Number, simply type it into the blank row at the bottom of the spreadsheet. Note, you may only enter existing Part Numbers. New records may not be created using this procedure.

In the Manfact system, the “QA Required” flag exists in both the PARTS and PARTSDTL files. The flag in the PARTSDTL file allows you to enter a different value for each “Cost Group”, while the flag in the PARTS file serves as a default value. The check box list at the bottom of the screen let’s you choose the Cost Groups that should be updated. Most companies have only one Cost Group, and under these circumstances, the box should always be checked.

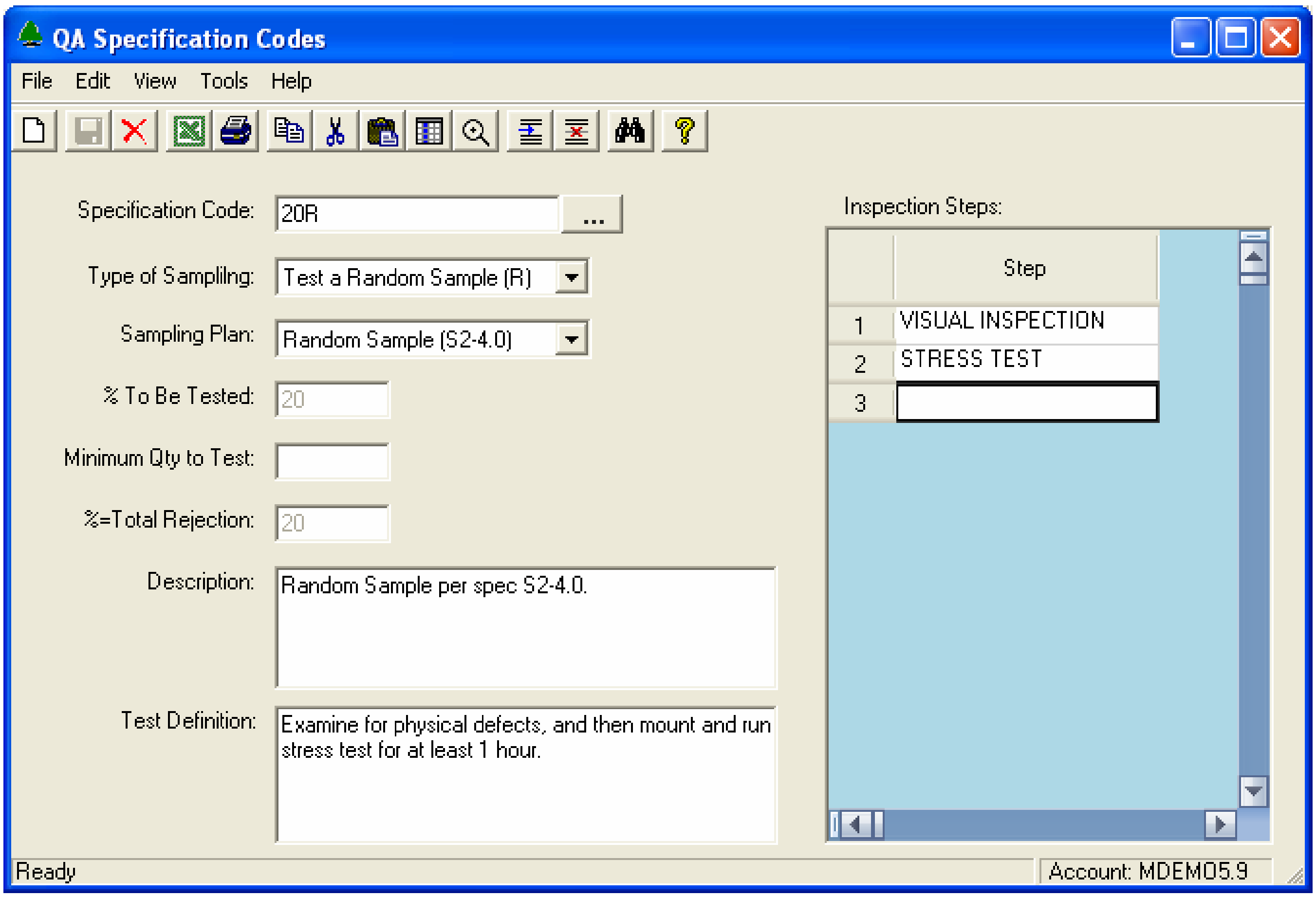
Once you have entered a Part Number into the spreadsheet, or loaded a list of Part Numbers using the Search features, you may edit the Q/A related fields. Click the [Save] button to post your changes to Manfact.

The columns on this screen include:

Part Number	This entry must exist on the Manfact PARTS master file.
Description	This Part Description is displayed by the system and may not be updated.
Make / Buy	The Make/Buy flag is displayed by the system and may not be updated.
QA Required?	Check this box if this Part Number normally requires inspection upon receipt, even if inspection may be bypassed based on “Skip Lot” parameters. Uncheck this box if the part *never* requires inspection.
QA Spec Code	Q/A Specification Codes define the rules for inspecting each type of part, including inspection steps, and optionally a statistical sampling plan. Please refer to the QA Specification Code entry topic for more information.
Inspection Level	The Inspection Level is used in Sampling Plan calculations. Valid entries are Normal, Reduced and Tightened. The value entered here is used only when an Inspection Level as not been entered for the Supplier using the Skip Lot Parameter entry screen.
QA Notes	Free form multi-line text.

QA Specification Codes

In the Manfact system, the QA.SPEC.N procedure is used to define Quality Assurance Specification Codes, which can be assigned to parts via the PARTS.ALL procedure. Users who normally have access to Manfact's QA.SPEC.N procedure will be able to create, modify, and delete Q/A Specification Codes using the NCC_QC program.



Note: A QA.SPEC record may not be deleted if it is referenced on an existing QA record.

The fields below are available in addition to the information currently available in the Manfact version:

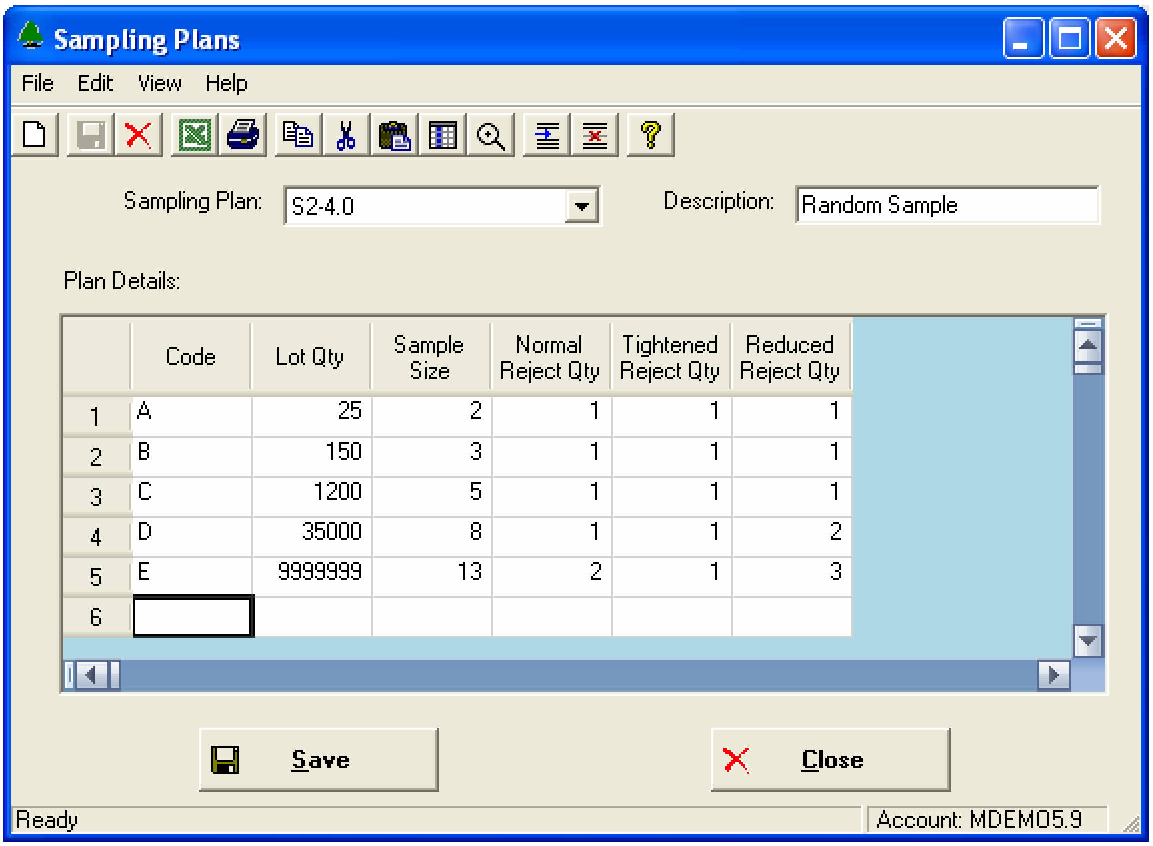
Specification Code: A command button has been provided to allow access to the QA Specification Code Search screen.

Type of Sampling Options are: Test a Random Sample, or Test Each Piece.

Sampling Plan:	A drop-down list is provided to select from the list of available Sampling Plans. Note, this prompt is disabled if the Type of Sampling is not "Test a Random Sample" If a detailed Statistical Sampling Plan has been provided, the following prompts are disabled: % To Be Tested, Qty to Be Tested, %=Total Rejection.
% To Be Tested	If you have chosen Random Sampling, but do not wish to use a statistical Sampling Plan, enter the percentage of the total QA Lot Quantity to be tested.
Minimum Qty to Test	If you have chosen Random Sampling, but do not wish to use a statistical Sampling Plan, enter the minimum number of units to test. The Sample Size will be the greater of "% To Be Tested" or "Minimum Qty to Test".
% = Total Rejection	If you have chosen Random Sampling, but do not wish to use a statistical Sampling Plan, enter the Defect Rate (Failed Quantity / Sample Size) that will cause the entire QA Lot to fail.
Description	Free form text entry.
Test Definition	Free form text entry.
Inspection Steps:	This multi-valued prompt will allow the user to create a sequential list of steps that must be performed to complete the inspection process. When the Inspection Report is entered, the Inspector's Name and Inspection Date will be entered for each Inspection Step.

Sampling Plans

Each Sampling Plan will have a table of values used to calculate the Sample Size required for each QA Lot, along with the Reject Quantity for both Normal, Tightened and Reduced Inspection Levels. For example:

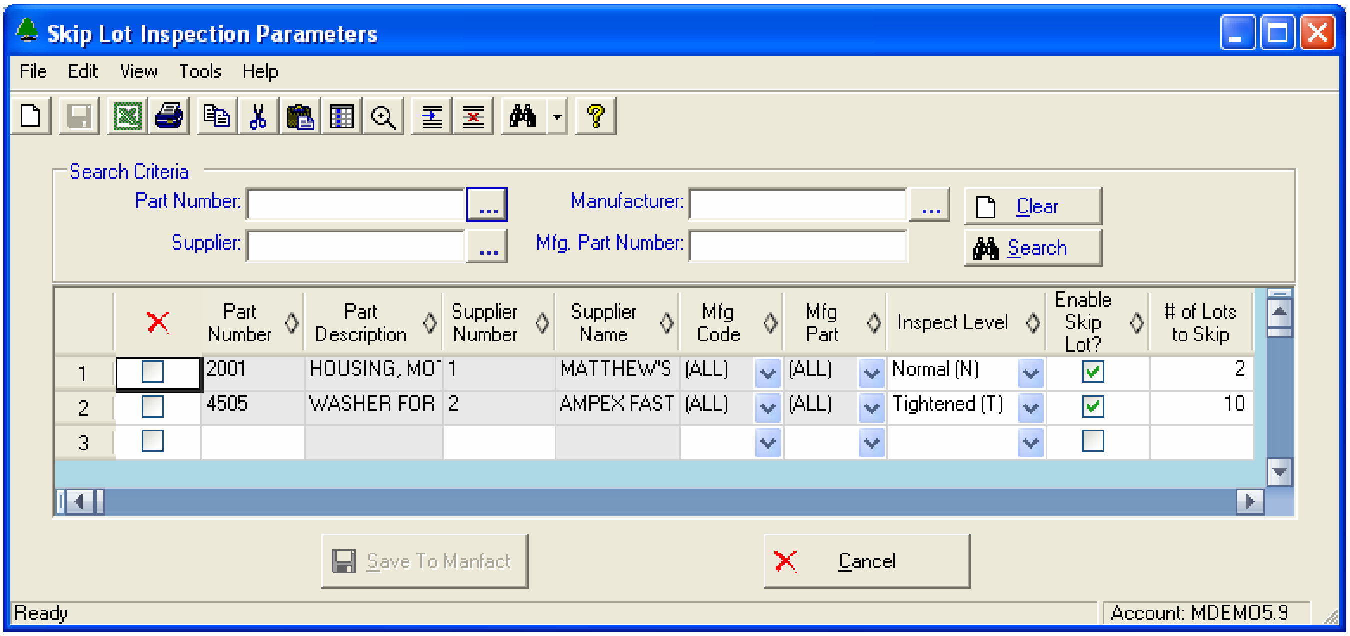


	Code	Lot Qty	Sample Size	Normal Reject Qty	Tightened Reject Qty	Reduced Reject Qty
1	A	25	2	1	1	1
2	B	150	3	1	1	1
3	C	1200	5	1	1	1
4	D	35000	8	1	1	2
5	E	9999999	13	2	1	3
6						

The Specification Code assigned to the Part Number determines the Sampling Plan to use. The Inspection Level assigned to the QA record indicates Normal, Tightened, or Reduced. If the number of failures is greater than or equal to the Reject Quantity, the entire QA Lot will fail.

Skip Lot Inspection Parameters

In the Manfact system, a flag in the PARTSDTL record determines whether or not the item will require quality inspection upon receipt. When this option is enabled, the part is automatically transferred to the Receiving Inspection location when the item is received against a Purchase Order. The NorthClark Quality Control module enhances this feature by allowing you to specify additional parameters used to determine when the part will require inspection.



This screen is accessed from the Tools Menu and is used to define the “Skip Lot” inspection parameters for each Part Number, Supplier Number, Manufacturer and Manufacturer’s Part Number combination. These parameters will be used to determine when a given receipt will be allowed to skip inspection.

<u>Delete Checkbox</u>

Check this box if you wish to permanently delete this record. This action causes the row to turn red. The record will be removed when you click the [Save] button.

<u>Enable Skip Lot?</u>

Check this box to allow inspection to be periodically bypassed for this Part Number, Supplier Number, Manufacturer and Manufacturer’s Part Number combination.

<u># of Lots to Skip</u>

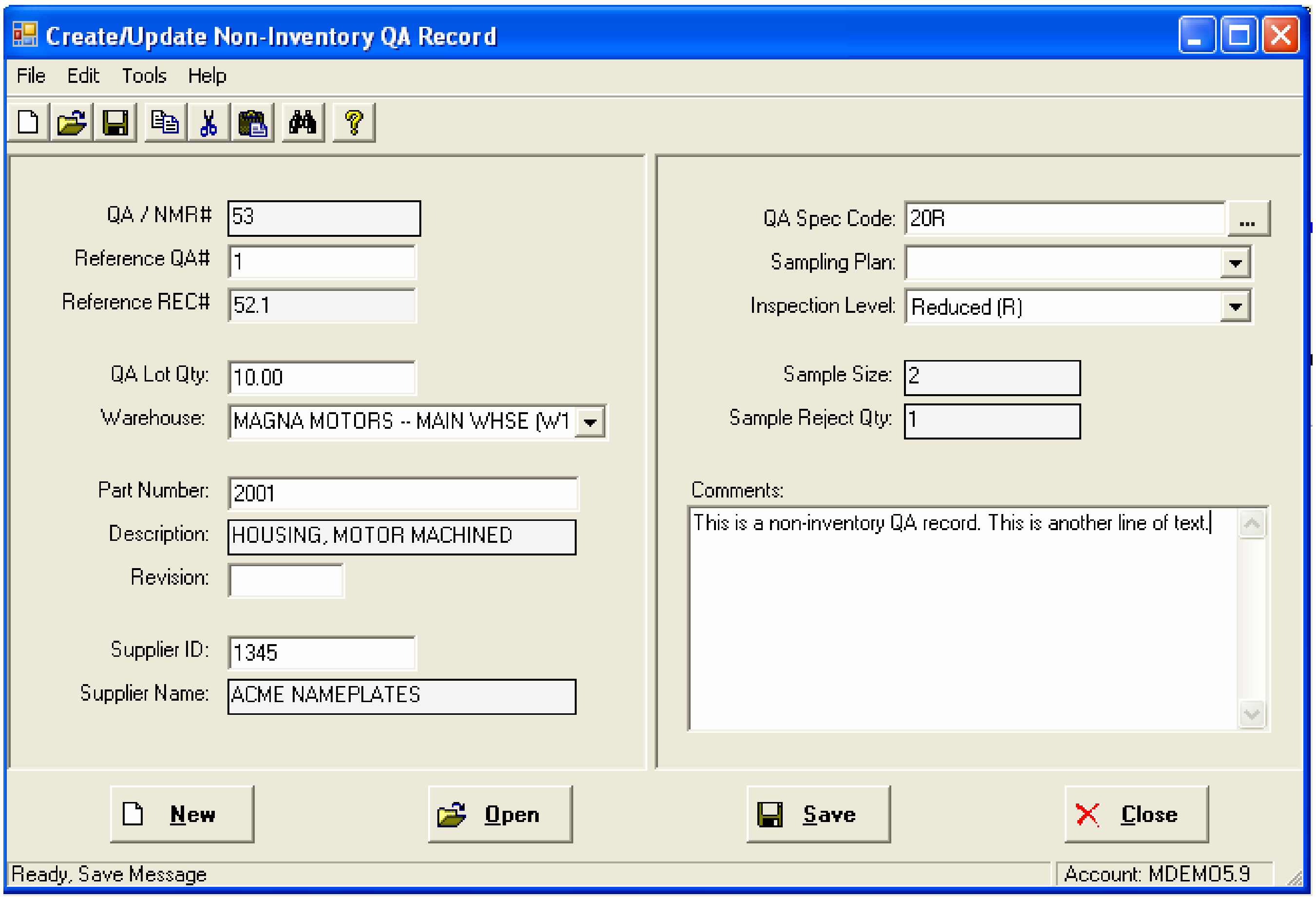
Enter the number of times this item may skip inspection, after which inspection becomes mandatory for the next lot received.

<u>Inspection Level</u>

The Inspection Level is used in Sampling Plan calculations. Valid entries are Normal, Reduced and Tightened. If left blank, the Inspection Level indicated on the NCC_PARTS file is used.

Create New Non-Inventory QA Record

QA records are normally created automatically by the system when parts are received into a QA controlled location via a Purchase Order Receipt or a Stock transaction. However in some cases, it may be desirable to report a quality failure for items that are not currently in inventory. After creating a Non-Inventory QA record, you may enter Inspection results, generate a Non-Conforming Material Report (NMR) and record Disposition and Approval information. If a Vendor Number is supplied, the system will automatically update Vendor Performance statistics.



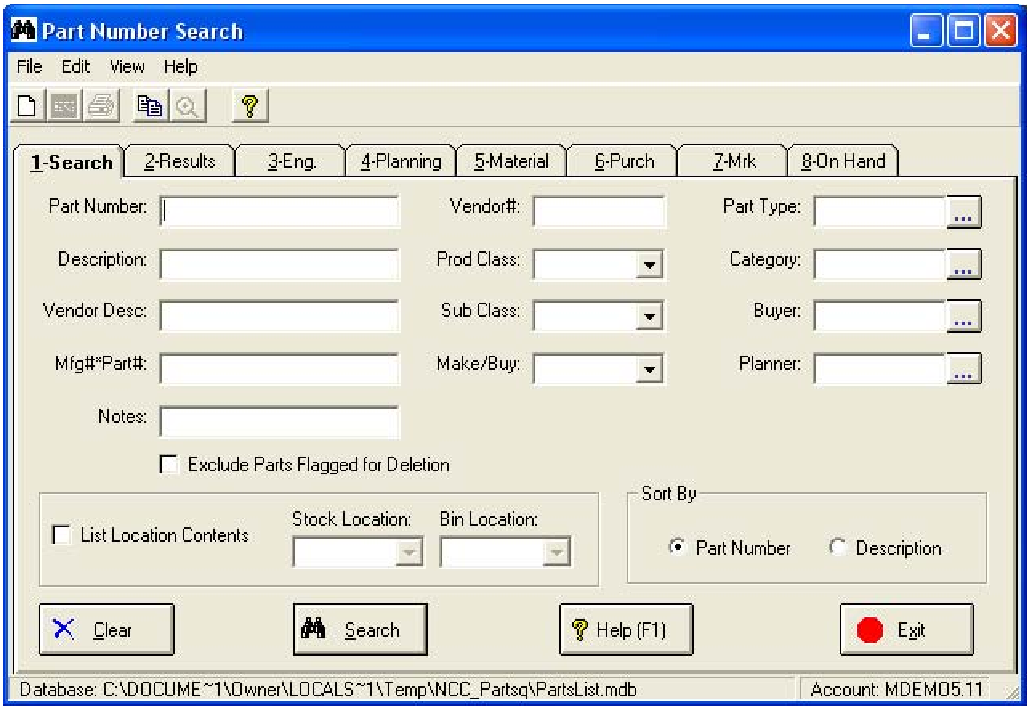
- Click the [New] button to clear the screen and begin entering data on a new record.
- Click the [Open] button to access a Non-Inventory QA record created previously. Note, you may not update Inventory type QA records using this screen.
- Click the [Save] button to save your work. The system will automatically assign a QA/NMR# to new records.
- Click the [Close] button to return to the Main screen. The last Non-Inventory QA record you just created or updated will automatically be displayed on the main screen, ready for your to add addition information and create the NMR document if desired.

Tools

The options described in this section may be accessed from the Tools Menu.

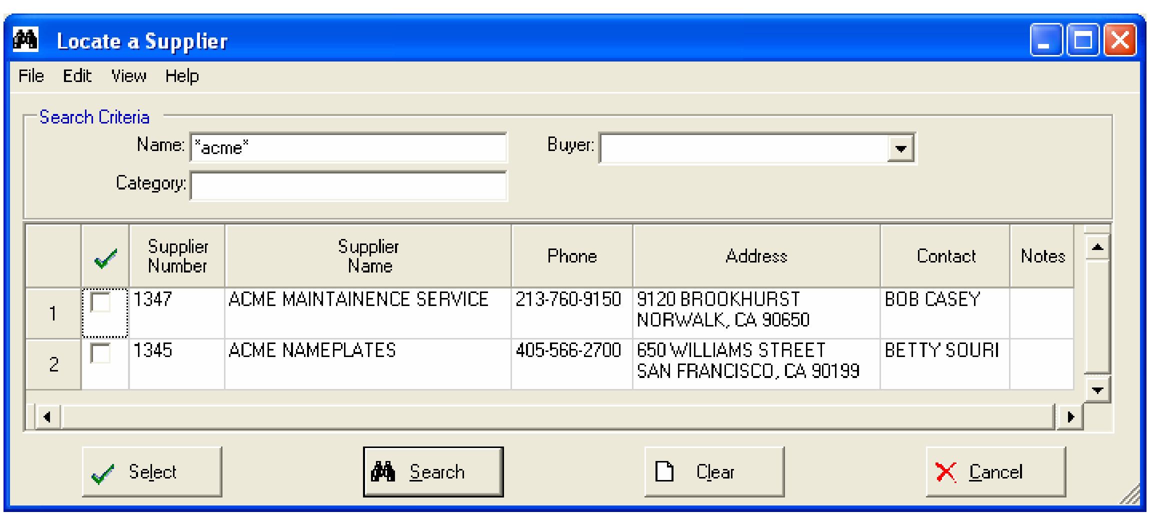
Part Number Search

The Part Number Search query helps you locate a Manfact Part Number using a variety of search criteria. This procedure is for inquiry purposes only, and does not allow records to be updated.



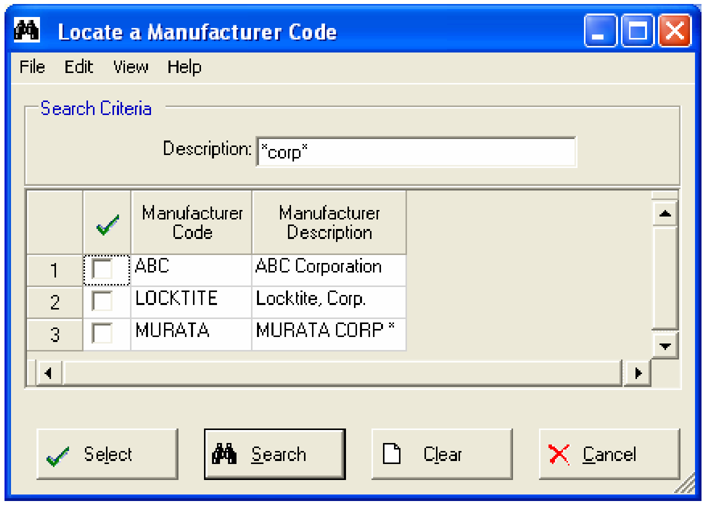
Supplier Search

Use this view to locate Suppliers in the Manfact VENDOR file. Wildcarding may be used to enter part of the Supplier Name as shown in this example.



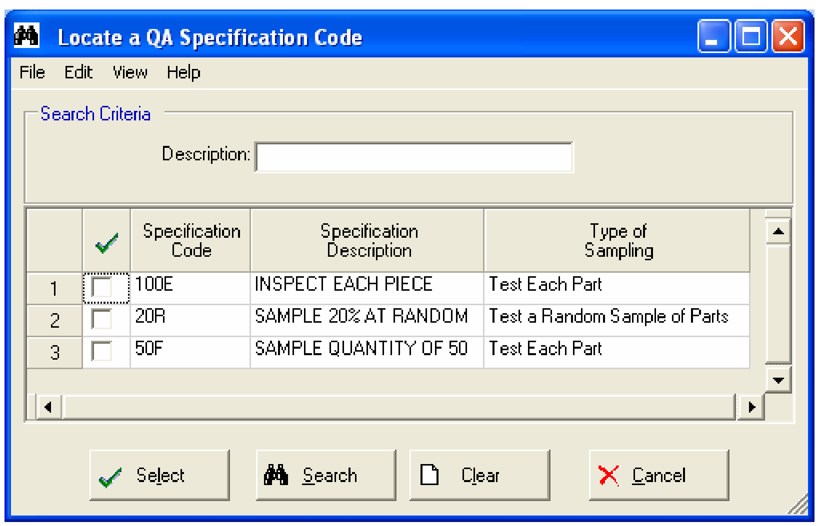
Manufacturer Search

Use this option to locate Manufacturer Codes stored in Manfact's MANFR file.



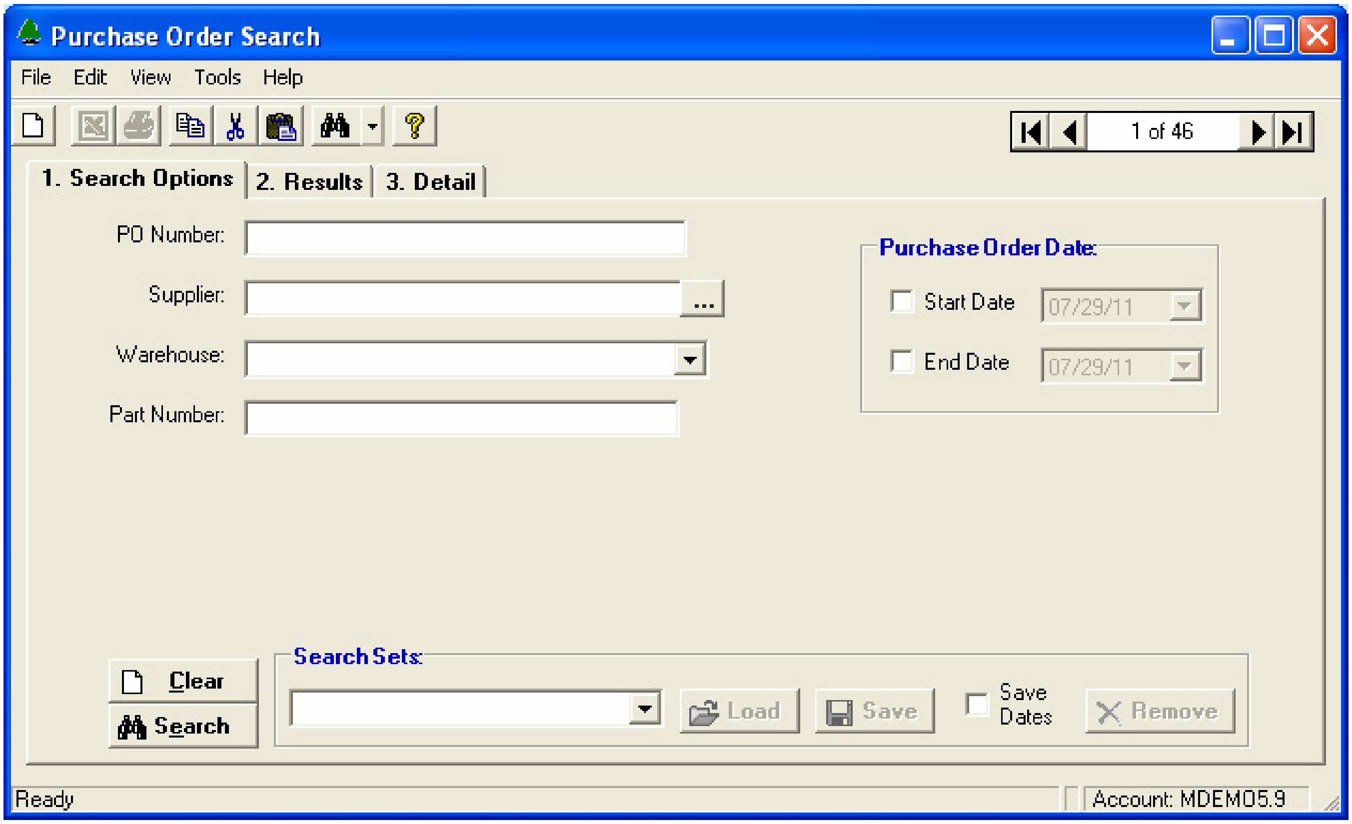
QA Specification Code Search

Use this view to locate QA Specification codes stored in Manfact's QASPEC file.



PO Search

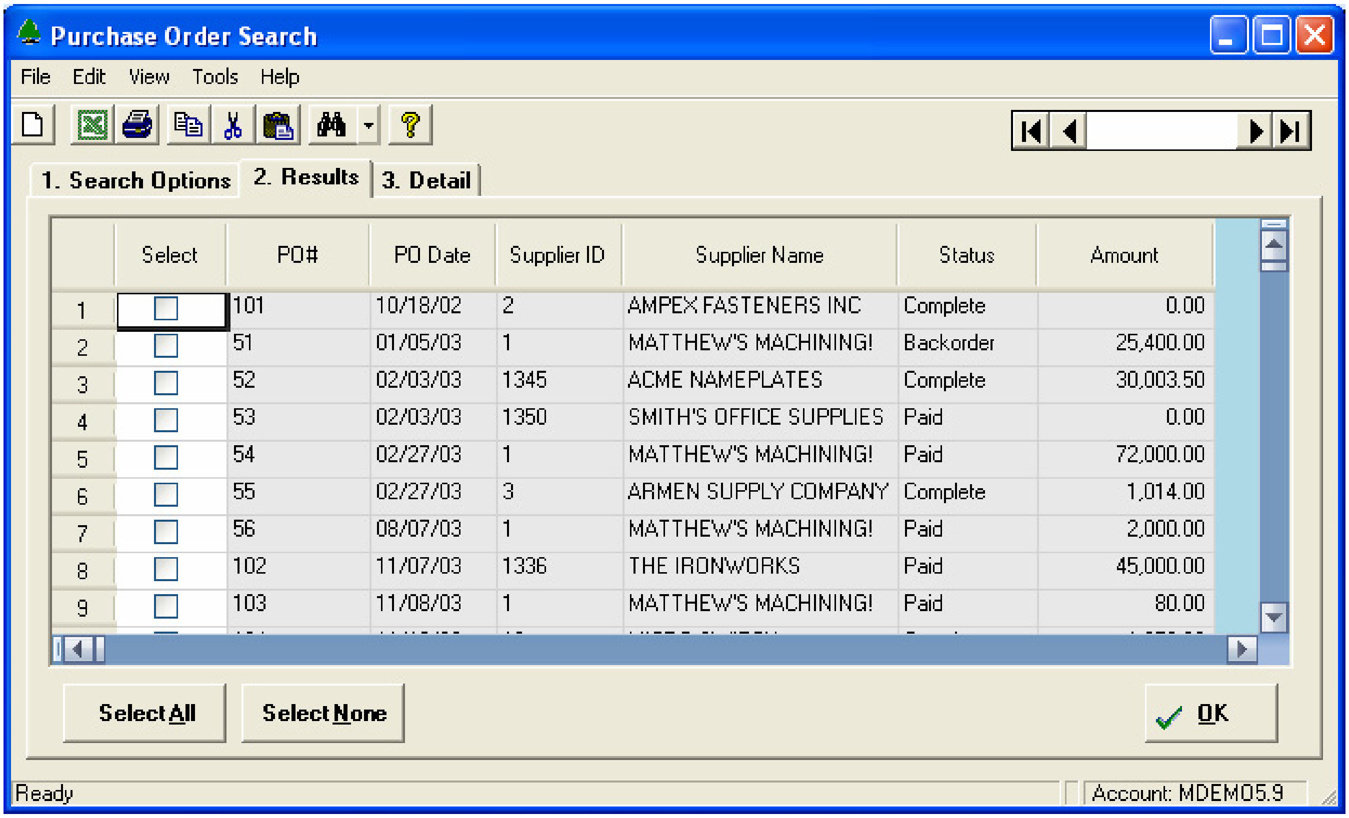
Use this screen to locate Purchase Orders using a variety of search criteria.



Enter your selection criteria, and then click the ***Search*** button. You may use as many fields as desired to narrow your search, and *wildcarding* is supported for text fields.

Search Results

When the search is complete, the list of qualifying records will be displayed on the *Search Results* tab:



If you accessed this screen from a prompt that permits entry of one or more Purchase Order Numbers, click the checkboxes in the first column to choose the desired PO Numbers. Use the **Select All** and **Select None** buttons at the bottom of the screen to check or uncheck all of the boxes.

Click the OK button when you are finished selecting Purchase Orders.

Double-click on a row to view line item details for the selected Purchase Order.

Columns Displayed for PO Search Results:

Select	Use the checkbox to select or de-select a Purchase Order.
PO #	The identification number for the PO.
Date	The creation date for the PO.
Supplier ID	Number or Code assigned to a specific Supplier (Vendor ID).
Supplier Name	Name of the Supplier/Vendor

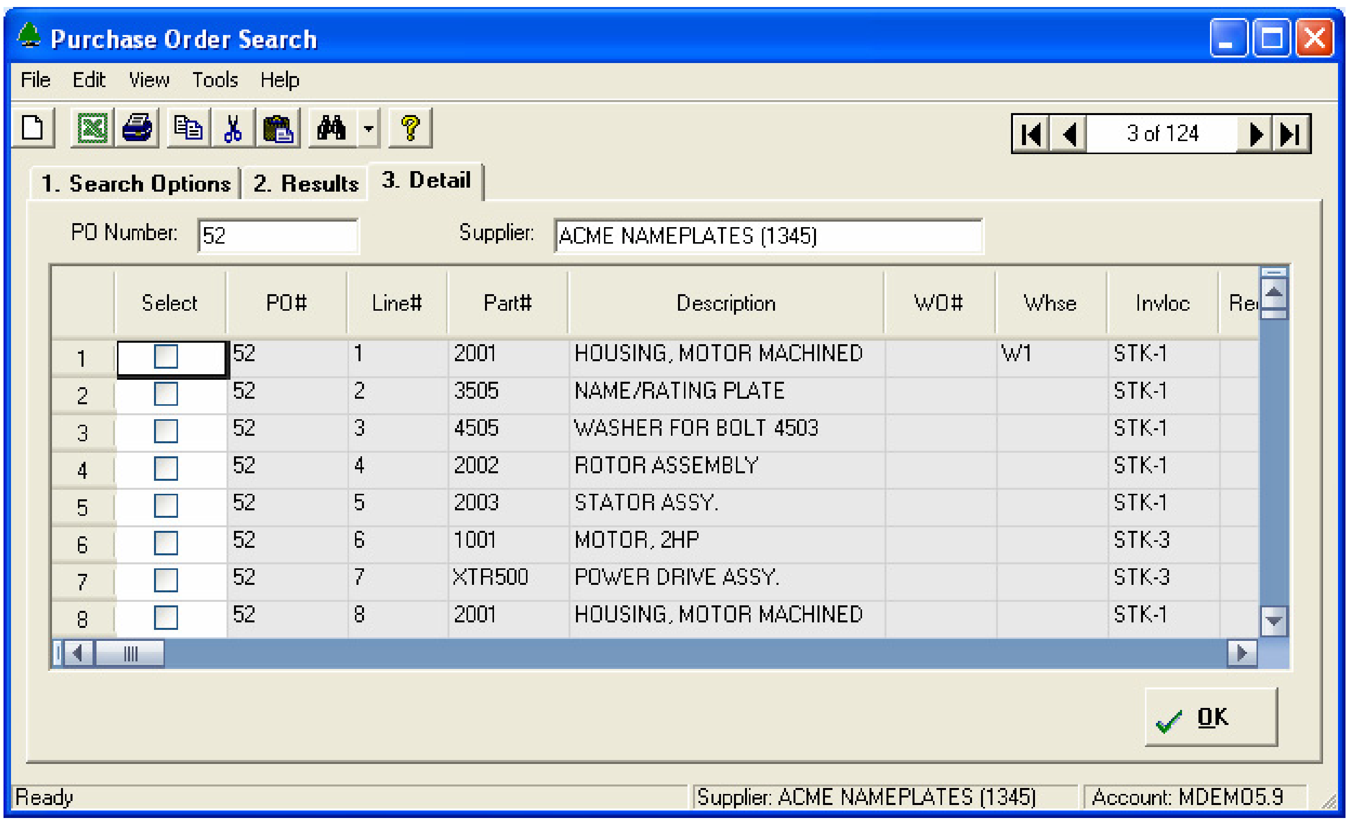
Status — The current status of the Purchase Order:

- New: There have been no receipts against the purchase order.
- Backordered: There has been a receipt against the purchase order and there is a quantity remaining to be received
- Closed: All line items have been fully received
- Closed and Paid: All Line items have been fully received and paid for.

PO Value — The total value of the Purchase Order.

<u>PO Search – Detail</u>

This screen displays the line item detail for a selected Purchase Order.



If you accessed this screen from a prompt that requires input of a specific Purchase Order Line Item, you may use the checkboxes in the first column to select the desired line item. Click the **OK** button once the desired line items has been located.

Columns Displayed for PO Line Item Detail:

Select — Use the checkbox to select or de-select a line item.

PO Line#

Part Number

Description

Work Order#

Warehouse

Inventory Location

Receipt Qty

Unit of Measure

U/M Factor

Unit Cost

Ext. Cost

Cost Factor

Cost Conversion

Tax Type

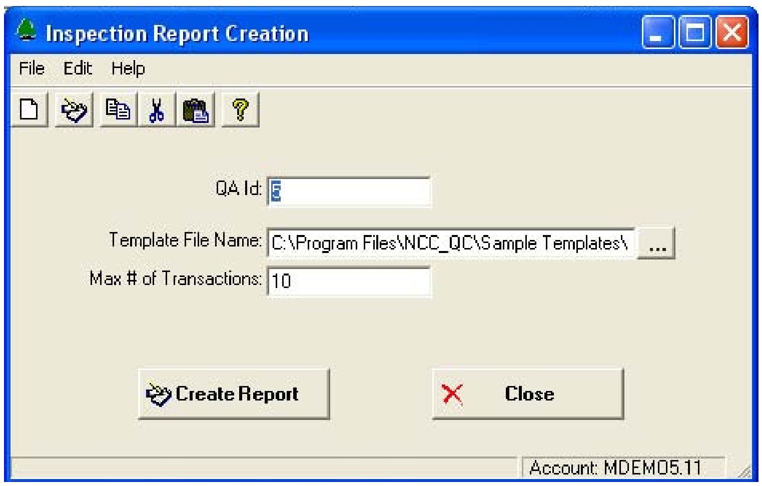
Resource Code

Reports

Receiving Inspection Report

The Inspection Report will be generated as an Excel spreadsheet that may be printed or stored electronically. It may be created for a specified QA Id as an input document prior to inspection, and it may also be used to produce a report after the QA information has been entered.

The System Administration is used to define the starting path for the Inspection Reports. Each file will be created with a unique name that includes the QA Id, Creation Date and Creation Time.



The user is prompted for the following information:

QA ID	Defaults to the selected QA Identifier from the QA Detail View
Template File Name	The name of the Excel template to be used for Inspection Report.
Max # of Transactions	The maximum number of the most recent transactions to be exported

The report has three parts; a header section with information about the current QA Inspection transaction, an inspection "sign-off" section, and a history section listing previous inspections for the part number.

Header Section: QA Identifier, Part Number, Part Description, Product Class, Product Sub Class, Inspection Level, Date Code, Sampling Plan, Manufacturer Name, Manufacturer Part Number.
Sign Off Section: Inspection Steps, Inspector Name, Complete Date

History Section: Transaction Date, Transaction Type, Source Document, Supplier, Manufacturer, Lot Number, Date Code, Lot Size, Sample Size, Quantity Accepted, Quantity Rejected, Disposition, Completed By, Remarks

Report Sample

Receiving Inspection Report

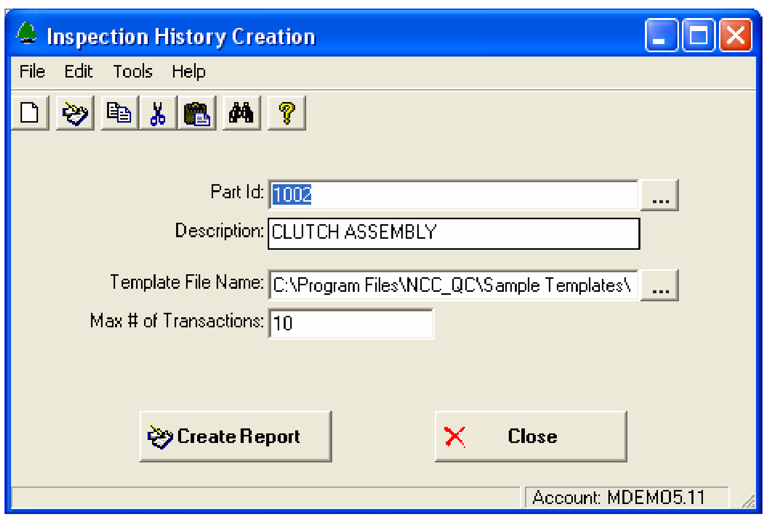
QA ID	Part#	Part Description	Product Class	Sub Class	Inspect. Level	Date Code	Sampling Plan	Mfg. Name	Manufacturer Part Number
5	1002	CLUTCH ASSEMBLY	C	9	Normal	70105	Sample 20%	JONES	1002.123

Inspection Steps	Inspector Name	Complete Date
Examine physical defects	Jo Savage	7/16/2005

Date	Type	Source	Supplier	Mfg.	Lot#	Date Code	Lot Size	Sample Size	Quantity Accepted	Quantity Rejected	Disp.	Cmpl. By	Remark
7/15/2005	RC	113.1	MARTIN P. WILSON	JONES	10	70105	200.00	200.00		200.00	JS		Return to Vendor-Defective
7/11/2005	RC	109.1	MARTIN P. WILSON	JONES	8	70105	100.00	20.00		100.00			Random Sample

Inspection History Report

The Inspection History Report will be generated as an Excel spreadsheet that may be printed or stored electronically. It may be created for a specified QA Id. The System Administration will be used to define the starting path for the History Reports. Each file will be created with a unique name that includes the QA Id, Creation Date and Creation Time.



The user is prompted for the following information:

QA ID	Defaults to the selected QA Identifier from the QA Detail View
Template File Name	The name of the Excel template to be used for Inspection History Report
Max # of Transactions	The maximum number of the most recent transactions to be exported

The report consists of the following information: Transaction Date, Transaction Type, Source Document, Supplier, Manufacturer, Lot Number, Date Code, Lot Size, Sample Size, Quantity Accepted, Quantity Rejected, Disposition, Completed By and Remarks.

Report Sample:

Inspection History Report

Part#	Part Description
1002	CLUTCH ASSEMBLY

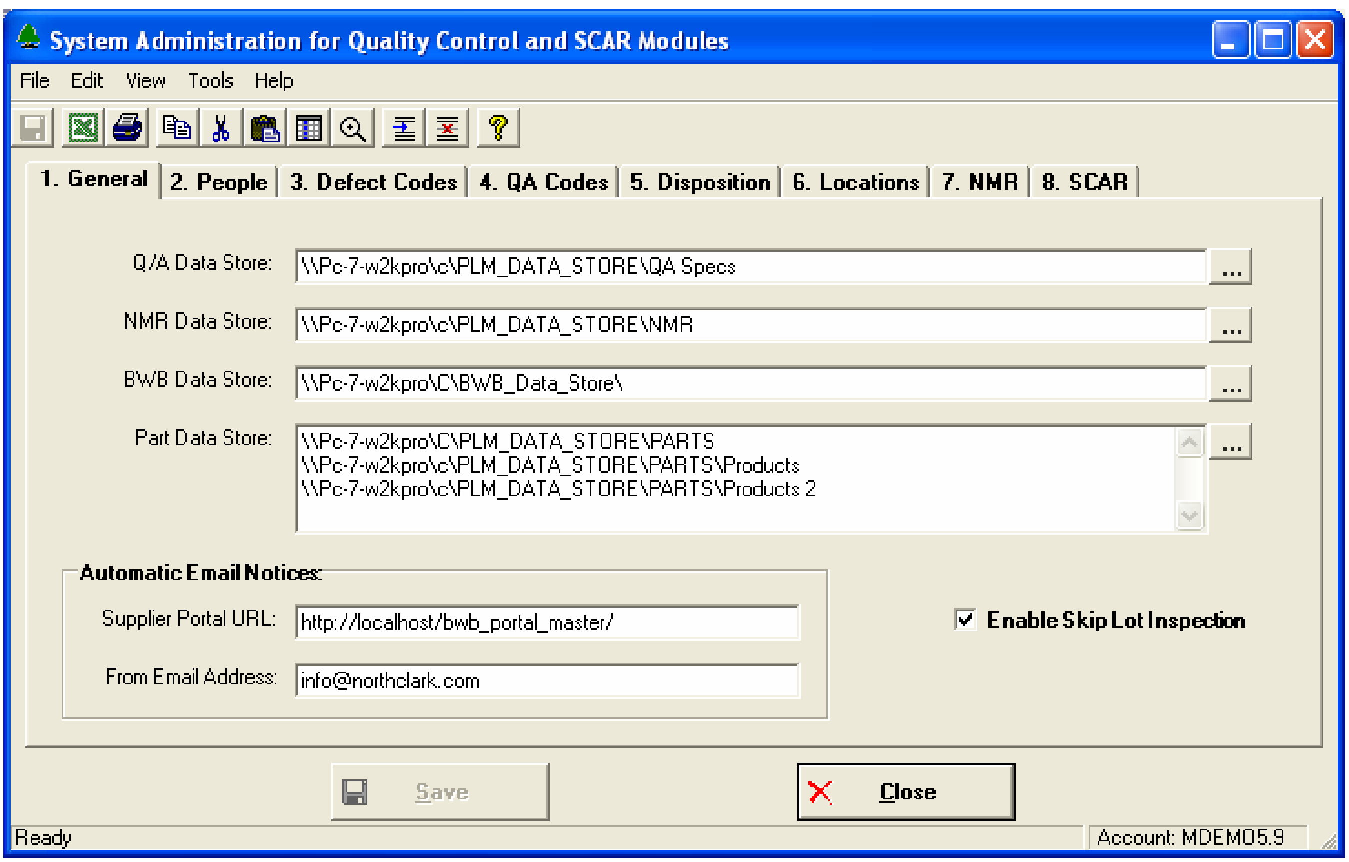
Date	Type	Source	Supplier	Mfg.	Lot#	Date Code	Lot Size	Sample Size	Quantity Accepted	Quantity Rejected	Disp.	Cmpl. By	Remark
7/15/2005	RC	113.1	MARTIN P.	JONES	10	70105	200.00	200.00		200.00	JS		Return to Vendor-Defective
7/11/2005	RC	109.1	MARTIN P.	JONES	8	70105	100.00	20.00		100.00			Random Sample

System Administration

The System Administration screen is accessed from the Tools menu, and is used to define various parameters that are necessary for the system to function properly. You must have appropriate security clearance to gain access to the System Administration function. This view is comprised of the following tabs:

1. General
2. People
3. Defect Codes
4. QA Reason Codes
5. Disposition Codes
6. Locations
7. Non-Conforming Material Reports (NMR)
8. Supplier Corrective Action Requests (SCAR)

General



<u>Data Stores</u>

Q/A Specifications, Non-Conforming Material Reports, Supplier Corrective Action Requests and Part Drawings may be stored in an electronic data warehouse. Enter the path name or use the browse button to locate the root folder for each Data Store.

Note that Supplier Corrective Action Requests are stored in a sub-folder of the BWB Data Store making them accessible to the Supplier Portal Web Site. Enter only the root folder to the BWB Data Store; the system will create the sub-folders automatically.

If you have already entered the Data Store Pathnames using the NorthClark Data Warehouse Management (NCC_DWM) application, this information will be filled in automatically.

<u>Automatic Email Notices</u>

The system may generate automatic email notifications when: (1) approval is required for the disposition of rejected parts, and (2) when a Supplier responds to a Corrective Action Request via the Supplier Portal Web Site.

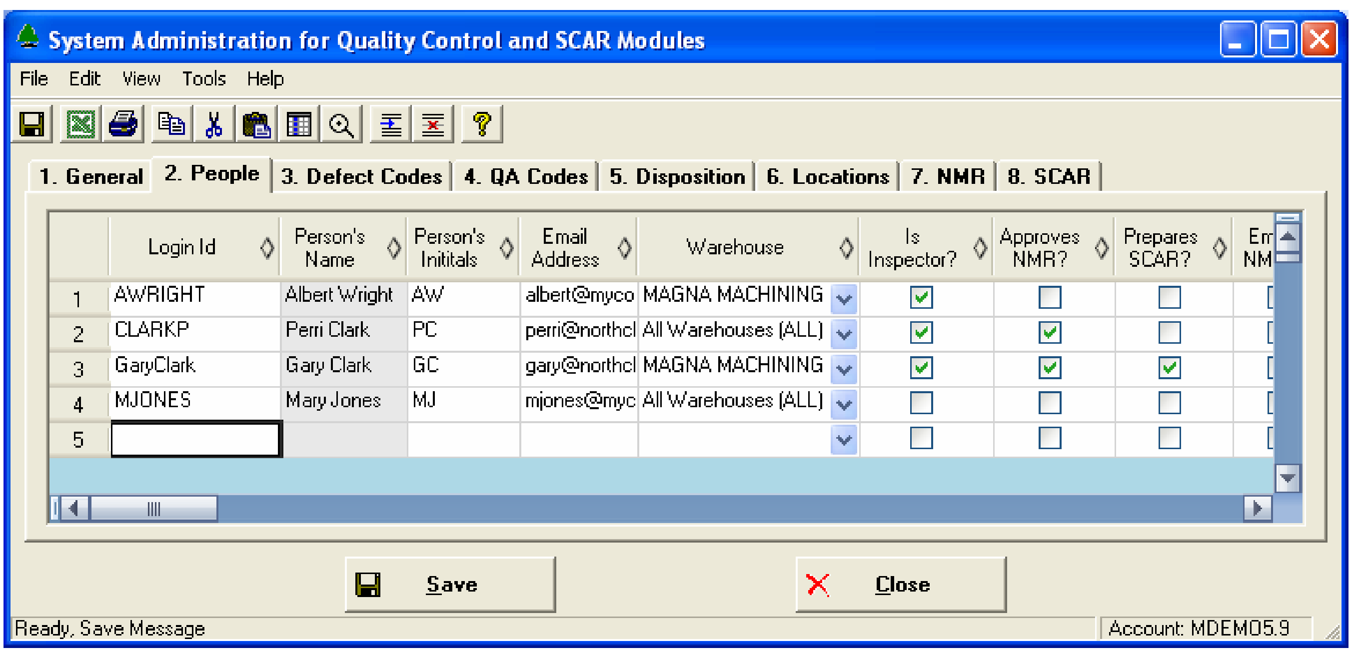
Supplier Portal URL	The web address of your Supplier Portal Web Site (Universal Resource Locator).
From Email Address	The "From" email address to be used for system generated messages.

<u>Enable Skip-Lot Inspection</u>

Check this box to enabled the Skip Lot Inspection feature.

People

Create a table of Names to be used when updating QA and SCAR records. The Login Identifier must exist in the Manfact OPER file. Peoples names are displayed by the system and may not be changed.

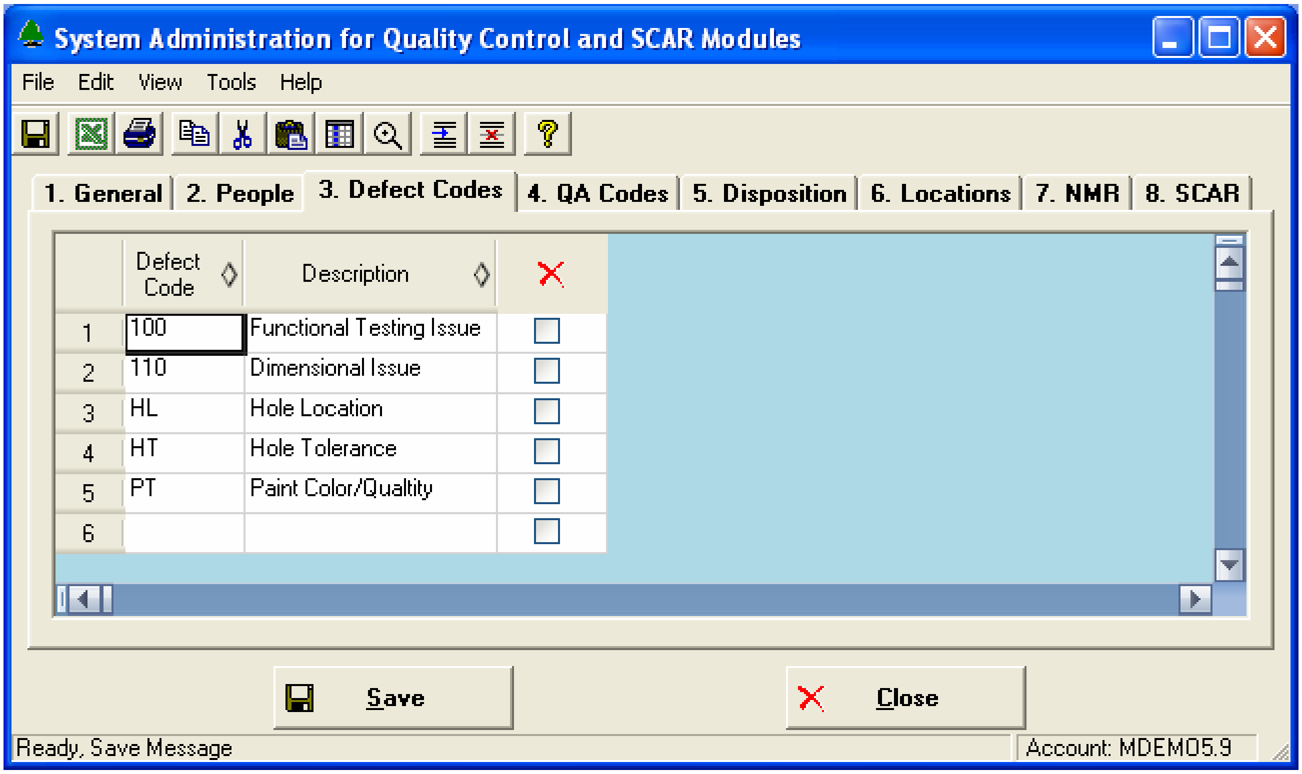


People Columns

Login Id	The Login Name must exist on the Manfact OPER file.
Person's Name	The name from the OPER file is displayed and may not be changed.
Person's Initials	Enter the person initials for printing on reports.
Email Address	Enter this person's email address for sending notifications.
Warehouse	Select the Warehouse where this person works. If entered, this person will receive email notifications only when the event occurs within their warehouse. If you choose "All Warehouses", the person will receive notification for all transactions.
Is Inspector	Check this box if want this person's name to appear in the drop-down list of Inspector Names.
Approves NMR	Check this box if want this person's name to appear in the drop-down list of Approver Names.
Prepares SCAR	Check this box if want this person's name to appear in the drop-down list of SCAR Preparer Names.
Email NMR	Check this box if this person should be included in the email distribution of Non-Conforming Material Reports.
Email SCAR	Check this box if this person should be included in the email distribution for Supplier Corrective Action Requests.
Delete?	Check this box if you wish to permanently delete this record. This action causes the row to turn red. The record will be removed when you click the [Save] button.

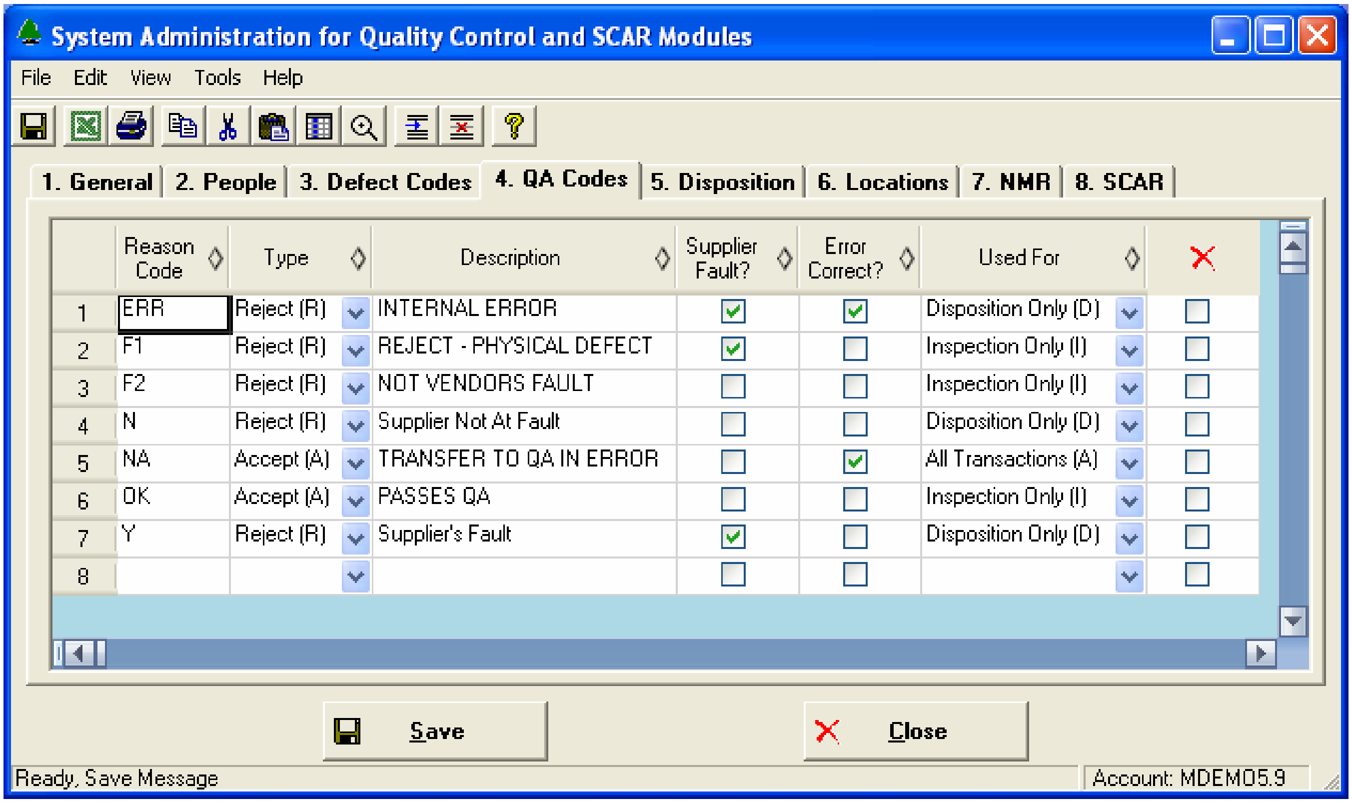
Defect Codes

Defect Codes may be entered on both Non-Conforming Material Reports and Supplier Corrective Action Requests to help standardize defect types and descriptions.



QA Reason Codes

Use this procedure to define QA Reason Codes for both Inspection and Disposition purposes.



<u>Reason Code Columns:</u>

Reason Code	User defined accept or reject code.
Type Code	A = Accept, R = Reject
Description	Free form multi-line text.
Impact Vendor Performance	Enter a "Y" if this QA Code should impact the Supplier's performance rating.
Filed in Error	Enter a "Y" if this Reason Code is used to correct internal administrative errors.
Inspection or Disposition?	This is a new prompt that will be added to support the NorthClark Quality Control module (see below).

The QA Reason Codes serve two separate purposes in Manfact:

- Entered by the Inspector to indicate Acceptance or Rejection of a lot quantity.
- Entered on Debit Memos to indicate Supplier Fault.

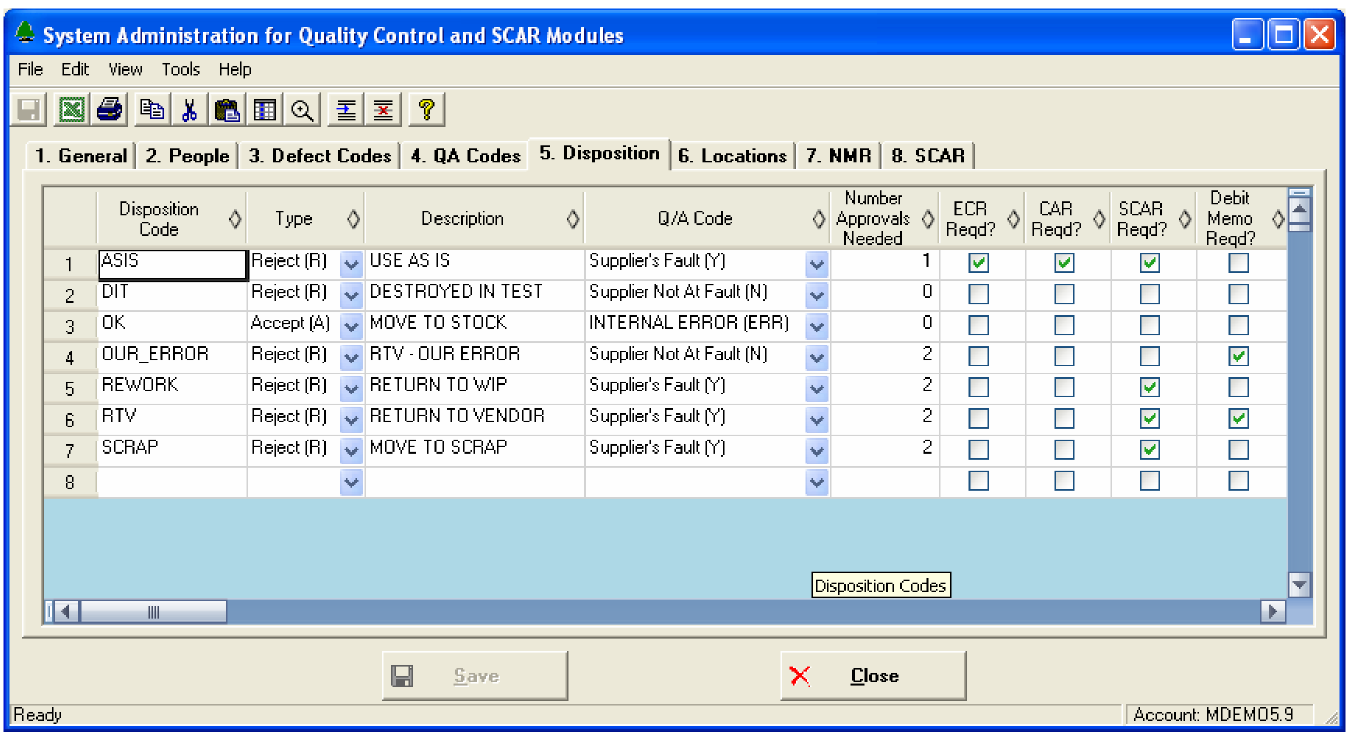
Arguably, the indication of Supplier Fault should really be a function of the Disposition Code, not the Reason Code. To address this discrepancy, the NorthClark system allows you to create separate QA Codes for each purpose.

When the Inspector enters an Accept/Reject transaction, only those QA Codes flagged as "Used for Inspection" will be included in the drop-down list. When a Debit Memo is proposed, only those codes flagged as "Used for Disposition" will be offered.

Note that entry of the "Impact Vendor Performance" and "Filed in Error" prompts are only applicable to QA Codes that are used for Disposition.

QA Disposition Codes

QA Disposition Codes define the action to be taken when material is rejected (Return to Supplier, Use As Is, etc.)



	Disposition Code	Type	Description	Q/A Code	Number Approvals Needed	ECR Reqd?	CAR Reqd?	SCAR Reqd?	Debit Memo Reqd?
1	ASIS	Reject (R)	USE AS IS	Supplier's Fault (Y)	1	☑	☑	☑	☐
2	DIT	Reject (R)	DESTROYED IN TEST	Supplier Not At Fault (N)	0	☐	☐	☐	☐
3	OK	Accept (A)	MOVE TO STOCK	INTERNAL ERROR (ERR)	0	☐	☐	☐	☐
4	OUR_ERROR	Reject (R)	RTV - OUR ERROR	Supplier Not At Fault (N)	2	☐	☐	☐	☑
5	REWORK	Reject (R)	RETURN TO WIP	Supplier's Fault (Y)	2	☐	☐	☑	☐
6	RTV	Reject (R)	RETURN TO VENDOR	Supplier's Fault (Y)	2	☐	☐	☑	☑
7	SCRAP	Reject (R)	MOVE TO SCRAP	Supplier's Fault (Y)	2	☐	☐	☑	☐
8						☐	☐	☐	☐

<u>QA Disposition Code Columns:</u>

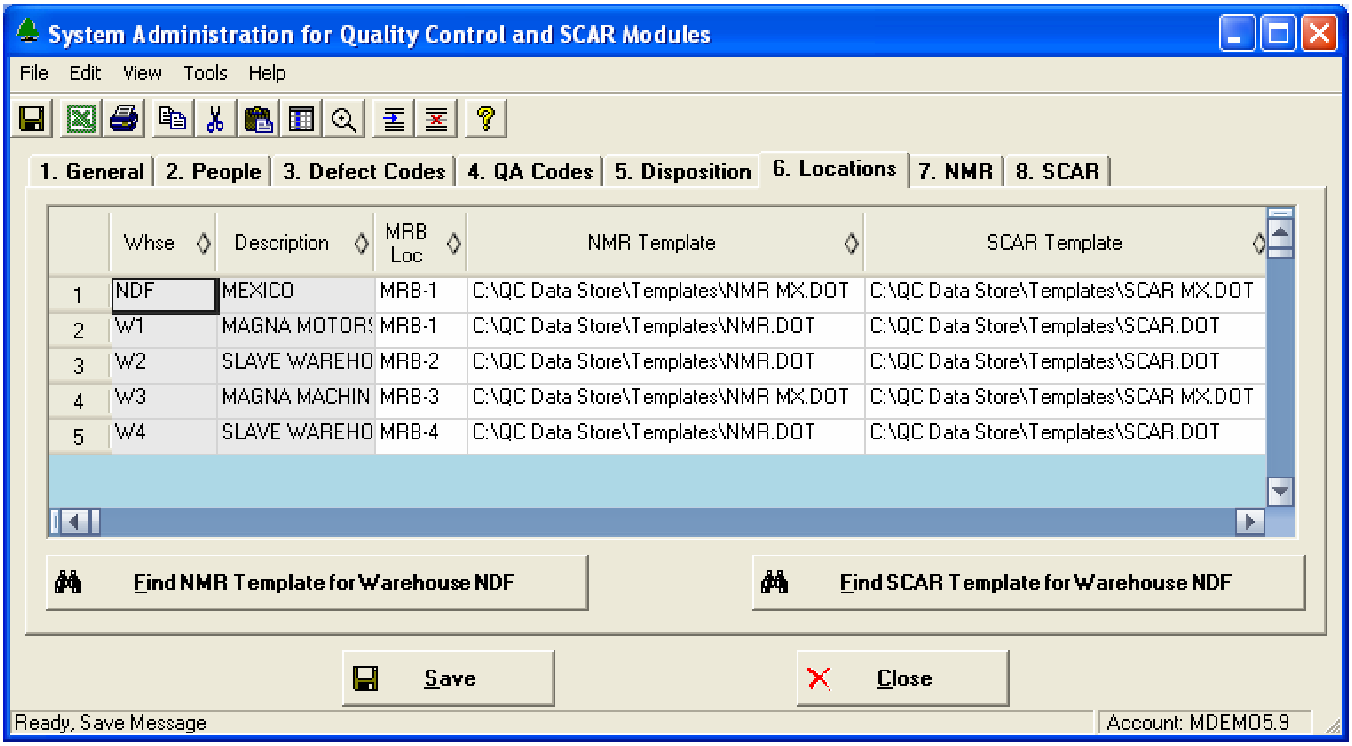
Disposition Code	User defined.
Type Code	A = Accept, R = Reject

Description	Free form multi-line text.
QA Code for Debit Memo	If this Disposition Code is used for returns to the Supplier, select the QA Code that should be assigned to the Debit Memo. The available options will be displayed in a drop-down list. For example: Internal Error Supplier Fault Supplier Not at Fault
Number of Approvals	Indicates the number of signatures required before the Disposition may be finalized.
ECR# Required	Checkbox: Engineering Change Request is required.
CAR# Required	Checkbox: Corrective Action Request is required.
SCAR# Required	Checkbox: Supplier Corrective Action Request is required.
Debit Memo Required	Checkbox: Debit Memo is required.

If the Disposition Code indicates that an ECR, CAR, SCAR or Debit Memo is required, the associated document number must be entered on the Disposition record before it may be finalized.

Warehouse Locations

This view allows you to enter parameters unique to each Warehouse. Warehouse Codes are defined in Manfact. You may not create new warehouses using this procedure.

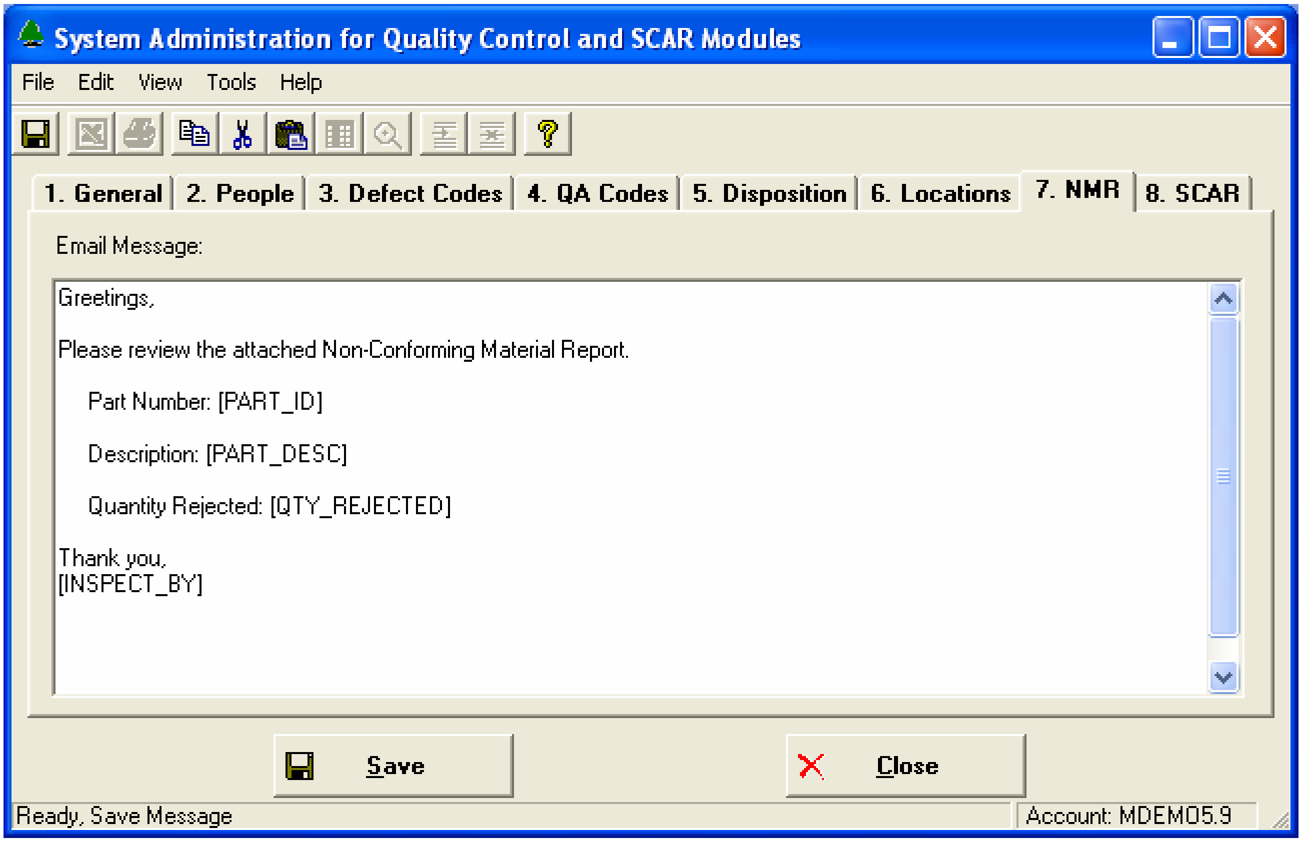


<u>Location Columns:</u>

MRB Location	Enter the MRB location for each Warehouse. This will be used as the default destination location when rejected parts are moved out of Receiving Inspection.
NMR Template	The Word Document Template used to create Non-Conforming Material Reports for this Warehouse.
SCAR Template	The Word Document Template used to create Supplier Corrective Action Requests for this Warehouse.

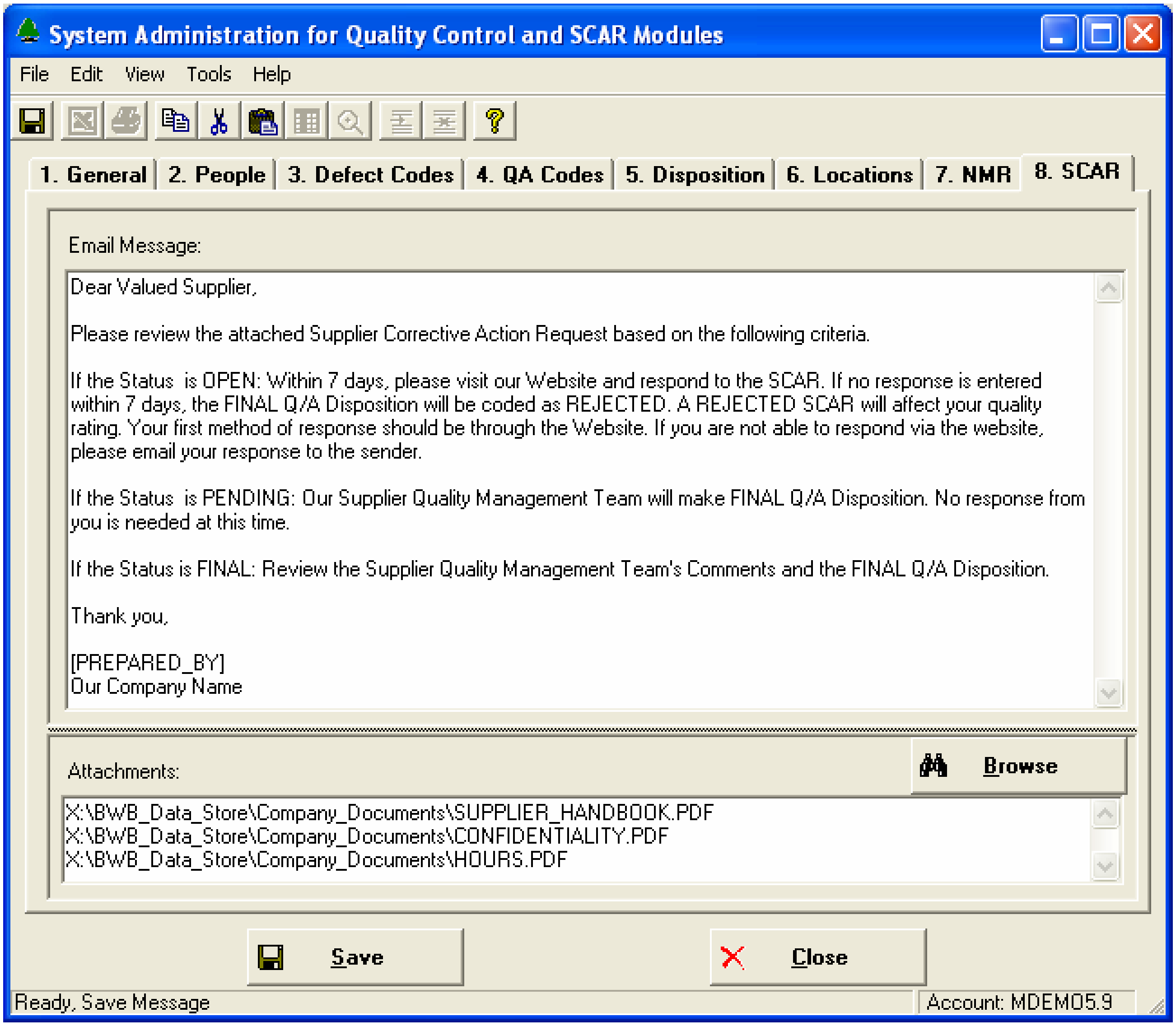
Non-Conforming Material Reports (NMR)

Use this view to create a default email message body for NMR notifications.



Supplier Corrective Action Requests (SCAR)

Use this view to create a default email message body for Supplier notifications. You may also enter a list of standard attachments to be included along with the SCAR document.



Security

Access to NorthClark applications is governed by the Manfact security system. In order to access the NorthClark Quality Control module, one of the following commands must be added to the user's Manfact Security Table:

NCC_QC	-	Normal access to the NorthClark Quality Assurance module
NCC_QCADMIN	-	Ability to use all features of NCC_QC, including access to the System Administration screen.
NCC_SCAR	-	Can create and transmit SCAR documents to Suppliers.
NCC_SCARADMIN	-	Same as NCC_SCAR, plus access to the System Administration.

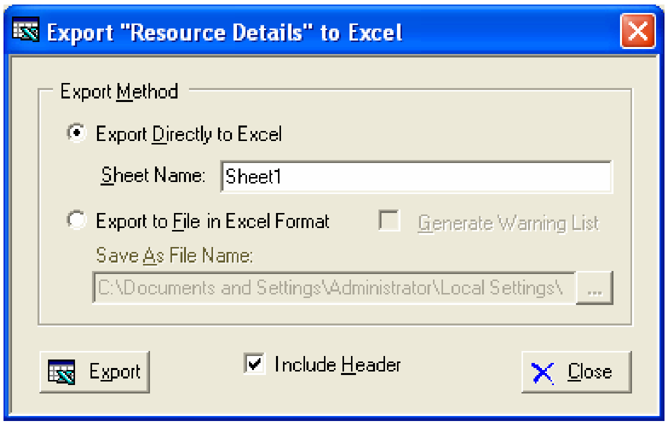
One or more of the following entries may also be included to authorize *additional* privileges.

NCC_QCNEW	-	Manually create new QA records
NCC_QCPARTS	-	Update Quality Control parameters in the Parts Master
NCC_QCSKIPLOT	-	Modify "Skip Lot" parameters for Parts
PARTS.ALL	-	Update Quality Control parameters in the Parts Master
PARTS.EN	-	Update Quality Control parameters in the Parts Master
PARTS.PC	-	Update Quality Control parameters in the Parts Master
QA.ACT.N	-	Ability to Accept or Reject a QA Lot
QA.DISP.N	-	Ability to Disposition a QA Lot
QA.SPEC.N	-	Authorization to create or modify QA Specification Codes, Sampling Plans, and QA Deviation records.
STOCK.N	-	Create Stock Transactions to move parts in or out of a QA Location

General Information

Export to Excel

All spreadsheet views are equipped with the option to Export to Microsoft Excel. Click on the spreadsheet your wish to export, then choose the Export to Excel option from the menu or toolbar.



Export to Excel or to a File?

You may export the contents of the display directly to Excel, or you may choose to create a file in Excel format.

Sheet Name

Enter the Excel sheet name to create. This will automatically default to Sheet1.

Save As File Name

Enter the pathname of the file you wish to create. You may Browse the files by clicking the button to locate the drive and folder where the file will be stored.

Generate Warning List?

Select this option to create a log file. The log file contains error messages and other information about how your Excel file was created. The name of the log file is "CreateExcelFile.log", and it will be stored in the same folder as your spreadsheet.

Include Header

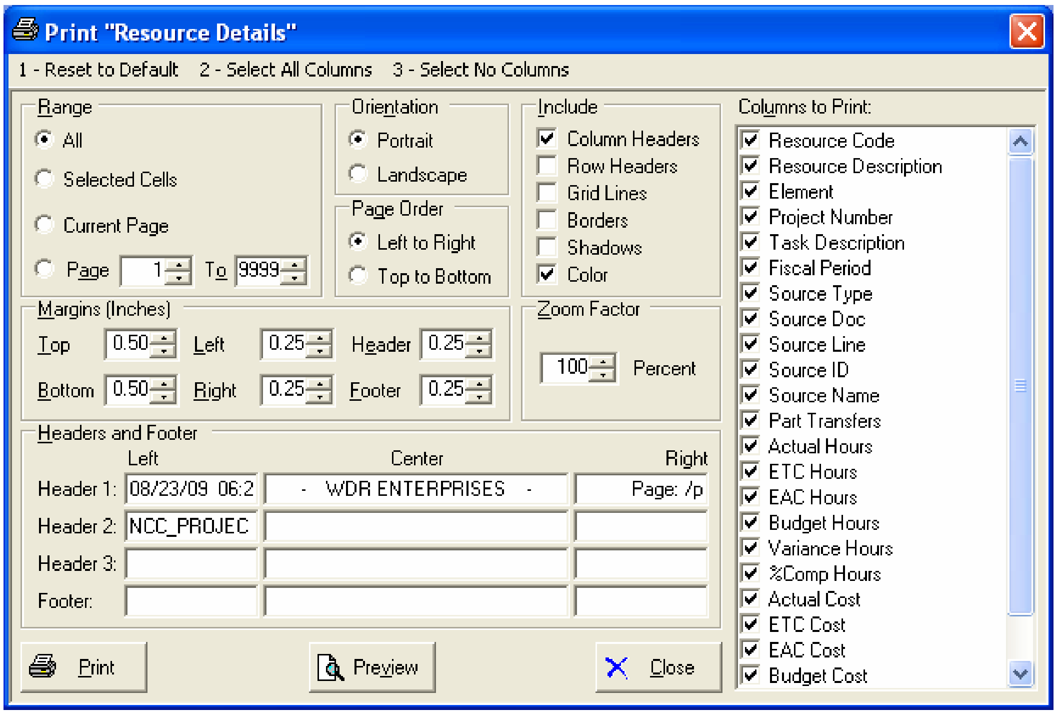
Check this box to export the column headings.

Export Button

Click this button to export your data to Microsoft Excel.

Print a Spreadsheet

All spreadsheet views are equipped with a Print feature. Click on the spreadsheet you wish to print, then choose the Print option from either the menu or the toolbar.



Range - Selecting a Print Range

You may choose to print the entire spreadsheet (all), selected cells (those that you have highlighted on the current screen), the current page (only the rows that are currently visible on your screen), or a range of page numbers.

Orientation - Portrait or Landscape

You may print your report in portrait mode (normal) or landscape mode (sideways). Printing in landscape mode will allow you to fit more columns of information on your report.

Margins - Report Margins

You can make your report more attractive by setting the top, bottom, left, and right margins. Reduce the left and right margins if you need to fit more columns on the report.

Units - Inches or Centimeters?

Are the margins you entered expressed in inches or centimeters?

Page Order

If your report is too wide, it may span multiple pages. When this occurs, do you want the report printed from top to bottom or left to right?

What Do You Want to Print?

You can customize the appearance of your report by printing (or not printing) column headers, row headers, grid lines, borders, shadow, and color.

Headers and Footers

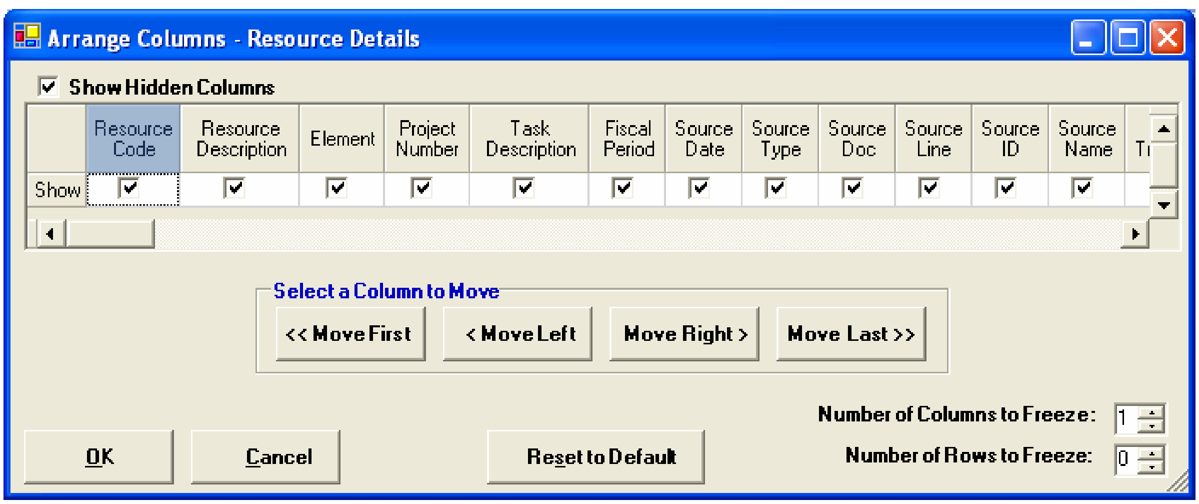
Your report may have up to three lines for the heading, and one line for the footer. The system initially displays a default heading, which you may modify if desired.
Tip: Use /p to designate a page number.

Which Columns Do You Want to Print?

The columns that are available for printing are listed. Select the columns you wish to include on your report.

Arranging / Hide Columns

Use this view to change the sequence in which columns appear on your spreadsheet.



Each column represents a field that is available for display on the spreadsheet. To hide a column remove the check from the box under the title heading. Use the [Move First], [Move Left], [Move Right] and [Move Last] Buttons to re-arrange the order in which the fields appear on the specific screen Display. Click [Reset to Default] to return to the system's default settings. Select the Number of Columns and Rows you with to Freeze on the Display. Note, these settings are stored in the Windows Registry for each user.

Wildcardinged in the Windows Registry for each user.

Wildcarding

Wildcarding is a powerful feature that allows you to search using a portion of the field. You tell the system you want to use a wildcard by typing three periods "…" or an asterisk "*" at the beginning or end of your search entry. You can also use "+" and "," to include and/or conditions. Here are some examples of search commands and their expected results:

…FREIGHT… or *FREIGHT*	Search for the word "FREIGHT" anywhere in the field
FREIGHT+*EXP*	Both "FREIGHT" and "EXP" must appear in the field
FREIGHT,*TAX*	Either "FREIGHT" or "TAX" must appear in the field

NorthClark Computing

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