Warranty/Serial Number Tracking Database
AR-1153

Overview

This Extended Solution to the Accounts Receivable module adds the ability to enter and maintain detailed sales history information for selected items in a Warranty Registration Database. A Warranty Registration Maintenance Entry screen has been added for entering registration/warranty data. Certain information is written to the Warranty Registration Database file during the Sales Journal Update. A utility has been added for importing an ASCII data file into the Registration Database.

This Extended Solution also allows you to designate up to 30 Custom Office User Defined Fields (UDFs) for the Warranty Registration Database Maintenance screen.

Additionally in this Extended Solution, the concept of 'Unique Identifier' (UID) adds a fifteen-character field similar to a Serial Number by Inventory Product Type. An SO-1014 S/O Line UDF may be used to identify UID Items that will create special comments during Sales Order Data Entry.

> Additional options are available with IM-1027: *Cross-Referenced Item Number* and SO-1014: *User Defined Fields for Sales Order Lines,* neither of which are supported under the SQL platform.

Installation

Before installing this Extended Solution, please verify that the version level(s) printed on the CD label are the same as the version level(s) of the MAS 90 MAS 200 module(s) you are using. For further information, please see the Upgrades and Compatibility section below. Check your Shipping Manifest for a complete list of Extended Solutions shipped.

For detailed installation instructions, please refer to the Sage website at:
http://support.sagesoftwareonline.com/mas/extended_solutions/main.cfm

Installing Your Extended Solutions under Windows
From a CD
If you have the *autorun* function turned on for your PC, the installation program will start up automatically. If not, find the **autorun.exe** file on your CD-ROM drive and double-click it to start the installation program. Follow the on-screen instructions.

From the Sage FTP site
When your Extended Solution is ready to be downloaded, you will receive an email from 'extendedsolutions.na@sage.com' telling you that it is ready. The email will contain the Customer Name, Cross Reference, a case-sensitive Password, a link via which you can download your Extended Solution, instructions and a Shipping Manifest. If you have any

problems with this order, please email extendedsolutions.na@sage.com and we will assist you during normal business hours.

Extended Solutions Control Center

Installing any Extended Solution will add an Extended Solutions Control Center to the MAS 90 MAS 200 Library Master Utilities menu. When you open the Control Center, the following options will be available:

- Extended Solutions Manuals
- Remove Extended Solutions
- Unlock Extended Solutions
- Merge Installation Files
- Extended Solutions Setup options

Custom Office

If you customize your MAS 90 MAS 200, then you must run the Update Utility *every time* you install this Extended Solution.

Setup

Once the disk is installed, you will need to access the Accounts Receivable Setup menu option screen. After the option screens have been displayed, a Setup screen for this Extended Solution will appear. Check the 'Enable Extended Solution' box to activate this Extended Solution (Figure 1a). The manual for this Extended Solution, if it has been installed, can be viewed by clicking the 'Manual' button next to the 'Enable Extended Solution' check box. It can also be viewed via the Extended Solutions Control Center (see Installation, above).

Figure 1a

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Answer the following prompts:

RECORD INVENTORY LINE ITEMS: Check this box if you wish to record Inventory Line Items. Leave it blank if you do not wish to record Inventory Line Items.

INVENTORY ITEM VALUATION METHODS (1-6): Enter the Inventory Valuation Method or Methods of items you wish to be updated to the Warranty Registration Database during Sales Journal Update.

RECORD MISCELLANEOUS ITEM CODE LINES: Check this box if you wish to allow Miscellaneous Item Code Lines to be maintained in the Warranty Registration Database. Leave it blank if you do not wish to allow Miscellaneous Item Code lines.

RECORD MISCELLANEOUS CHARGE CODE LINES: Check this box if you wish to allow Miscellaneous Charge Code Lines to be maintained in the Warranty Registration Database. Leave it blank if you do not wish to allow Miscellaneous Charge Code lines.

RECORD MISCELLANEOUS CHARGES: Check this box if you wish to allow Charge Code Lines to be maintained in the Warranty Registration Database. Leave it blank if you do not wish to allow Charge Code lines.

RECORD SPECIAL ITEM LINES: Check this box if you wish to allow Special Item Lines to be maintained in the Warranty Registration Database. Leave it blank if you do not wish to allow Special Item lines.

UPDATE EXISTING DATA WITH CREDIT MEMOS: Check this box if you wish to update existing data with Credit Memos.

NUMBER OF DAYS FOR WARRANTY PERIOD (0-999): Enter the number of days you wish to allow for the Warranty Period.

AUTO FILL NEXT SEQUENCE NO. IN MAINTENANCE: Check this box if you wish to have the next Sequence Number automatically filled in during Warranty Registration Database Maintenance. Leave it blank if you do not wish to use this option.

Answer the following prompts under Tab 2 (Figure 1b):

Figure 1b

PRODUCT TYPES THAT IDENTIFY 'UID' WARRANTY ITEMS: Select the Product Types that will identify 'UID' items (Finished Good, Raw Material, Discontinued and Kit). Items having this Product Type will require the entry of a 'UID' value during Warranty Registration Database Maintenance and S/O Invoice Data Entry.

When Lots and/or Serials are checked on Tab 1 of Setup as valuation methods subject to Warranty Database processing, **do not** enable UIDs on Tab 2. Doing so will produce undesirable results.

TITLE TO REPLACE 'SERIAL NUMBER' FOR 'UID' ITEMS: Enter a title for the 'UID' field when processing UID items. This field may not be left blank.

If you have SO-1014: *User Defined Fields for Sales Order Lines* installed and enabled, you will have access to this prompt:

S/O LINE UDF FOR 'CHECK FOR WARRANTY?': Specify a checkbox type SO-1014 S/O Line Item UDF that, when checked, will allow warranty checking during S/O entry. This UDF is not required to perform 'UID' Item processing and may be left blank if the 'Check Warranty' function is not required.

If you have IM-1027: *Cross-Referenced Item Number* installed and enabled, you will have access to this prompt:

IM-1027 CROSS REFERENCE ITEM ON F2 LIST: Check this box if you wish to display the IM-1027 Cross Referenced Item instead of the Lot/Serial Number on the Item Lookup List in Warranty Registration Database Maintenance list.

USE F2 KEY FOR EXISTING ENTRIES IN MAINTENANCE: Check this box if you wish to allow existing entries to be listed when using the <F2> function key in the Item field in Registration Database Maintenance.

Answer the following prompts under tab 3 – Import Setup (Figure 1c):

Figure 1c

DEFAULT PATH: Enter the default path you wish to use for the Warranty Database Import Utility. The path you enter will be used as the default path on the Warranty Database Import Utility selection screen.

DEFAULT FILENAME: Enter the default file name you wish to use for the Warranty Database Import Utility. The file name you enter will be used as the default file name on the Warranty Database Import Utility selection screen.

DELETE IMPORT FILE AFTER IMPORTING: Check this box if you wish to delete the import file after it is imported. Leave it blank if you wish to save and rename the import file after it is imported.

RENAME IMPORT FILE WITH EXTENSION: If you left the above check box blank, enter the extension you wish to use to rename the import file.

EXCLUDE FILENAME.XXX FROM LOOKUP: Check this box if you wish to exclude imported files from the lookup function. Leave it blank if you wish to include imported files in the lookup function.

VALIDATE LOT/SERIAL NUMBERS: Check this box to validate lot/serial numbers during Database Import.

You should visit this Setup screen after each upgrade or reinstallation of this Extended Solution.

If the Warranty Registration Database Maintenance has not previously been added to a menu, a pop-up screen will be presented allowing you to automatically add this Extended Solution to the selected menu. Answer 'No' if you want to use Menu Maintenance to add the program to a different menu of your choice.

Operation
Custom Office Warranty Database UDFs
A new Custom Office UDF Entity, 'Sage Software Warranty Database,' will be available to create additional data fields for the Warranty Registration Database. These fields can be added to the Warranty Registration Database listed in Customizer Selection (Figure 2).
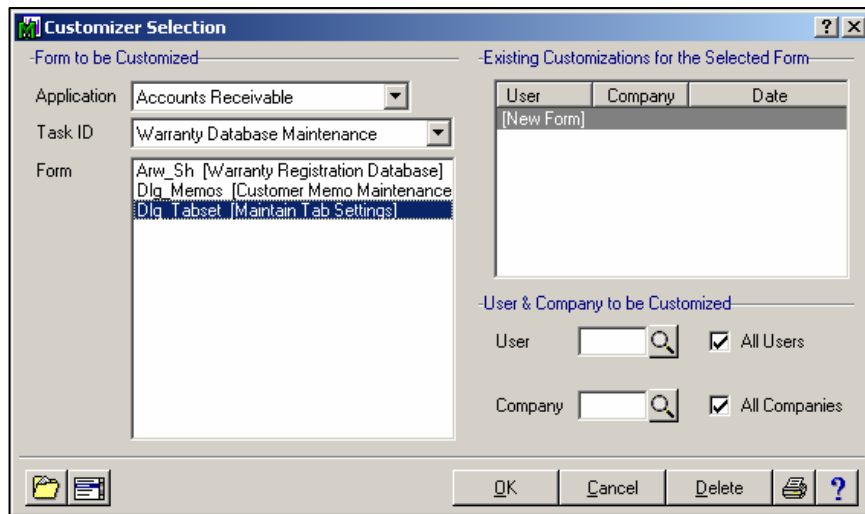
Figure 2

Warranty Registration Database Maintenance
A new Warranty Registration Database Maintenance option may be accessed on the Accounts Receivable Main Menu (Figure 3).

Figure 3

This screen may also be accessed while in Customer Maintenance and Sales Order Data Entry (see related sections below). This screen is designed for entering and maintaining Warranty/Registration information for each Customer.

On the Warranty/Registration screen, enter a Customer Number. A list of Customers is available on the Customer Number field. You may use the Current Listing button to list on-file entries, or the <F4> to print the Warranty Database Listing for all Customers. You may click the Tab button to access a tab setting window (Figure 4). Check the box next to the field names where you wish the cursor to stop when you are tabbing through the screen. Leave the box blank for any fields where you do not wish the cursor to land. You may use the Search Options button to pop-up a window of search options (Figure 5).

Figure 4

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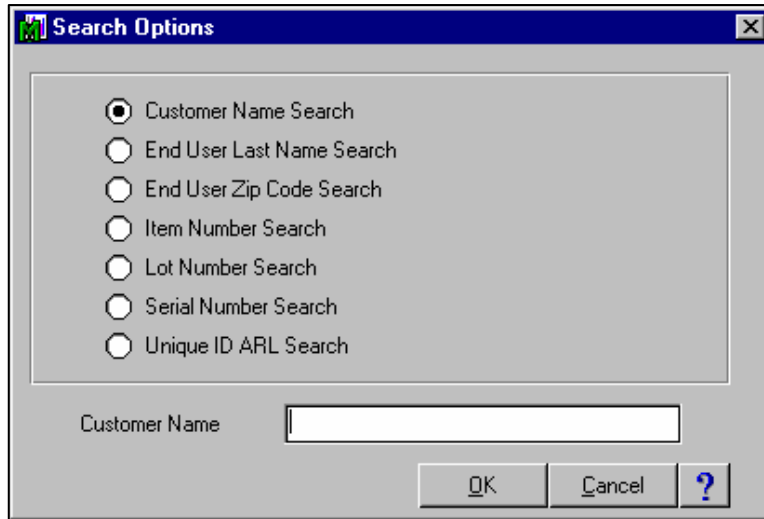
Figure 5

You may choose from seven different search options: Customer Name, End User Last Name (entered during Warranty Registration Database Maintenance), End User Zip Code, Item Number, Lot Number, Serial Number or Cross-Reference Number (IM-1027). The search is performed by Customer Number.

Use the Memo button to maintain customer memos.

After entering the Customer Number, you will be prompted for an Item Number. A list is available on the Item Number field. You may use the Current Listing button in the Item Number field to list entries in the Warranty Registration Database for this customer. If IM-1027, *Cross Reference Item Numbers*, is installed and enabled, then you may also enter an Xref Item Number that will be converted to its associated Item.

After you enter an Item Number, enter the five-digit Sequence Number associated with the required record (Figure 6).

The lookup button may be used to list on-file entries. Click the '#...' button if you wish to add the 'next' Sequence Number. If you checked the 'Auto Fill Next Sequence No. in Maintenance' box in Setup, the next Sequence Number will automatically appear in the Sequence Number field. Sequence Numbers will be assigned to this Customer Number/Item Number combination starting with 99999 and reduced by one for each subsequent entry. This will cause the most recently recorded entry to appear first when using the Current Listing button. The UDF Maintenance Screen will automatically appear if you are entering a new Sequence Number.

During Maintenance of existing records, the Invoice Number, Invoice Date, Quantity, Unit Price, Extension, and Lot/Serial Number cannot be changed. These fields may be maintained by clicking the 'Fix' button (only users with supervisory rights have access to this button). Click 'Delete' if you wish to delete this entry.

Figure 6

Sales Order Data Entry
The Warranty Registration Database Maintenance option may be accessed from Sales Order Data Entry. Access Warranty Registration Database Maintenance by clicking the 'More…' button (Figure 7). The customer number that you were referencing in Sales Order Data Entry will automatically appear on the Warranty Registration Database Maintenance screen. Warranty Registration Database Maintenance will function as noted above in the Warranty Registration Database Maintenance section, except for the Print and Memo Maintenance functions.

The features of this Extended Solution are not available in Sales Order Shipping Data Entry.

Figure 7

A/R Customer Maintenance
You may access Warranty Registration Database Maintenance on the Accounts Receivable Customer Maintenance Menu (Figure 8).

Figure 8

The Warranty Registration Database Maintenance will function as if you had accessed it from the Accounts Receivable Main Menu. Warranty Registration Database Maintenance will function as noted above in the Warranty Registration Database Maintenance section, except for the Print and Memo Maintenance functions.

The Print and Memo Maintenance functions will not be active when maintaining Warranty Registration Information from A/R Customer Maintenance and Sales Order Data Entry.

Sales Journal Update
During Sales Journal Update the Item Number, Item Description, Quantity Shipped, Unit Price, Extended Price, Invoice Date (Date Sold), Invoice Number and any Warranty Registration Database Maintenance, UDFs will be updated to the Warranty Registration Database File. If you have IM-1027: *Cross-Referenced Item Numbers* installed and enabled you may also update the IM-1027 cross-reference number used to recall the item for each line.

The Warranty Expiration Date will be calculated by adding the number of days entered at the Setup option 'Number of Days for Warranty Period?' to the Invoice Date. A record is created in the Warranty Registration Database for each Item line (for Item types specified in Setup) sold on a Sales Order Invoice using the Quantity Shipped for the line. If the Item is a Lot/Serial type item, a record will be created for each Lot/Serial Tier.

Credit Memos and Returns
If you checked the 'Update Existing Data with Credit Memos' box in Setup, the Warranty Registration Database will be affected by Credit Memos and negative quantities sold. The Extended Solution will attempt to locate the Warranty Registration record for the item being returned by matching the Customer Number, Item Number and the Lot/Serial Number for Lot/Serial valued Items. The Date Returned field will be assigned the Credit Memo Date. Records will be scanned, and the quantity reduced, until all of the Credit Memo/Negative Quantities have been relieved. If any quantity remains, or no match is found, a new record is created for the negative quantity.

The Warranty Database Listing
This listing may be printed from Warranty Database Maintenance by selecting the Warranty Database Listing from the Accounts Receivable Reports Menu (Figure 9).

Figure 9

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The listing may be selected by a range of Customer Numbers, Invoice Dates and Item Numbers. The listing details the fields exactly as they appear on the Warranty Database Maintenance screen with page breaks by customer (Figure 10).

Figure 10

If you wish to purge data from the database, click the 'Purge' button after you make your report selections for the Warranty Database Listing (see the report selection screen, Figure 9). All records printed for the listing will be purged from the Database file after printing.

Warranty Database Import Utility
The Warranty Database Import Utility has been added to the A/R Setup menu. This utility may be used to import data from an ASCII delimited file into the Warranty Database. Please refer to the Appendix at the end of this manual for information regarding the layout of the import file.

Figure 11

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The following prompts appear on the utility selection screen (Figure 11):

DIRECTORY IMPORT FILES ARE IN: Enter the directory from which you wish to import the data files. The default entered in Setup will be present at this prompt.

IMPORT FILENAME: Enter the file name you wish to use for the import. The default entered in Setup will be present at this prompt.

SCAN ONLY: Check this box if you wish to scan the file and print an Error Report detailing any errors in the import file. If you check this box, no import will take place. Leave it blank if you wish to continue with the actual import.

ABORT IMPORT ON ERRORS: Check this box if you wish to cease all processing if a bad record is encountered. If this box is left blank or you checked the 'Scan Only?' box, the importing process will continue but bad records will not be included in the import. An Error Report will be printed which lists rejected records (Figure 12).

```
RUN DATE: 03/06/96        ABC Company--GEN2        PAGE: 1
SYS DATE: 05/24/95      WARRANTY DATABASE IMPORT UTILITY      TIME: 04:05 PM
            ERROR REPORT

 RECORD          CUSTOMER NO. ITEM NUMBER  INVOICE NO.  INVOICE DATE
 NUMBER REASON FOR REJECTION

 0000002 CUSTOMER NUMBER NOT FOUND.   01-ABC  1001-HON-H252 1234567  02/02/95
 0000003 ITEM NUMBER NOT FOUND.     01-ABF  2001-HON-H252 1234567  02/02/95

 TOTAL IMPORT RECORDS READ: 3
 TOTAL BAD RECORDS FOUND:  2
```

Figure 12

The intention of this import utility is to add new records to the Warranty Database. Existing records will not be updated. The import utility does not validate the invoice number and does not back-calculate Purchase Date from Expiration Date.

Unique Identifier
The concept of UID adds the ability to specify an Item Number as having a Unique Identifier (similar to a fifteen character serial number) and adds the user defined title for the UID field.

Sales Order Data Entry
During line entry, if an SO-1014 UDF for 'Check for Warranty?' was specified in Setup and that UDF is checked, a pop-up window will be displayed prompting the user to enter the 'UID' value to search for (Figure 13). If the serial number is found in the Warranty Data Base File, a pop-up screen will display the existing warranty information and prompt 'Apply Warranty? (Figure 14).

Figure 13

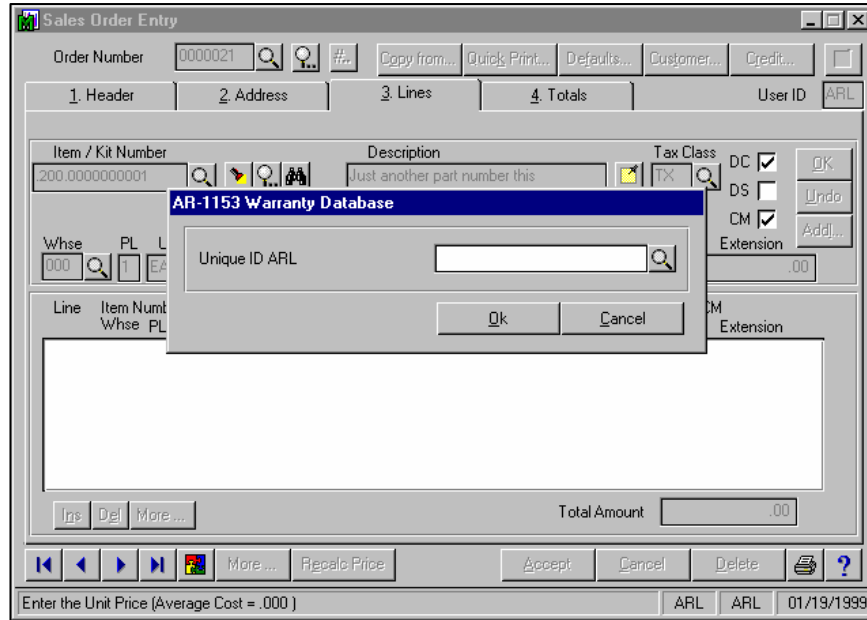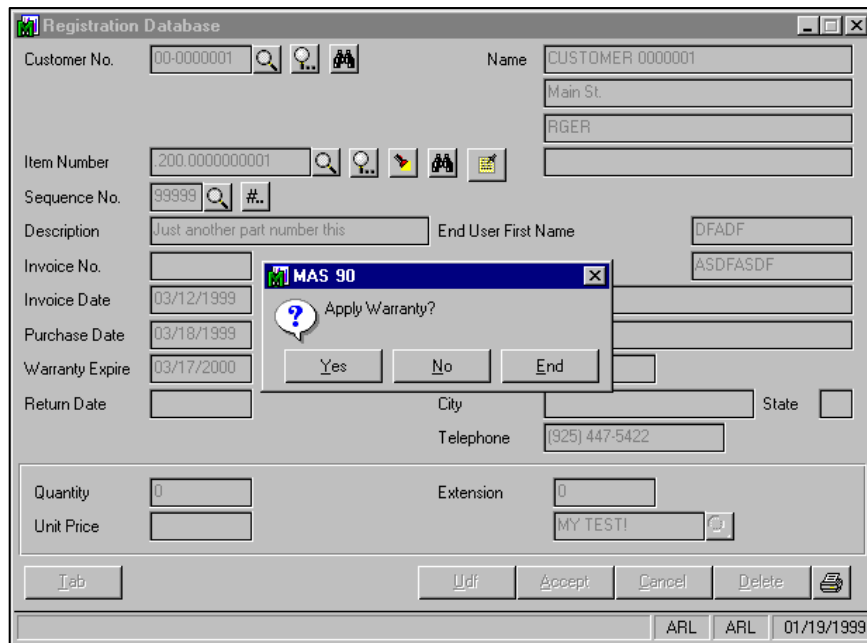**Figure 14**

Depending on the answer to this prompt, a comment line is added to the next line of the Sales Order (Figure 15).

If answered 'Yes,' the comment will be 'Warranty Accepted - Invoice Number xxxxxxx Invoice Date: MM/DD/YY.'
If answered 'No,' the comment will be 'Warranty Rejected - Invoice Number xxxxxxx Invoice Date: MM/DD/YY.'
If answered 'End,' no comment will be added.

Figure 15

Note: Information about UID entries and which comments they created on the Sales Order is not retained. The user should review existing comments on the Sales Order before creating new comments using this function.

Invoice Data Entry
During Invoice data entry, for items designated for UID tracking (where the Item's Product Type matches Setup), a pop-up window will be displayed which will allow the user to distribute the quantity shipped into UIDs. One 'UID' entry will be required for each quantity shipped. The F2 key can be used to display existing 'UID' entries for this line. Each 'UID' entry will be assumed to have a quantity of one. The distribution data will be saved as part of the invoice, which will allow access at a later time and allow the update to the warranty database during the S/O sales journal update.

S/O Sales Journal Update
During the Sales Journal Update, the warranty data entered on the invoice will create new records in the warranty data base file. One record will be created for each 'UID.' The following data fields will be populated with the appropriate data from the invoice and Setup:

Invoice Number, Invoice Date, Warranty Expiration Date, Quantity, Price, Extension and 'UID.'

Report Master/ Visual Integrator
The files listed below have been added or changed in the Data Dictionary by this Extended Solution for Visual Integrator purposes.

New File: Field:
AR.WARRNTY All Fields

The Data Dictionary may contain other files and data fields that are not available without their corresponding Sage Software Extended Solutions installed.

Note: The Report Master module is not supported in MAS 200 SQL.

Crystal Reports and the ODBC Dictionary
The files listed below have been added or changed in the ODBC Dictionaries by this Extended Solution for Crystal Reports purposes.

File: Description   Field:
AR_L2   CO Warranty Database UdfAll Fields
AR_WU Warranty Database Mst   All Fields
AR_WV Warranty UDF Validation   All Fields

Be aware that the ODBC Dictionaries may contain other files and data fields that will be unavailable without their corresponding Extended Solutions installed.

Upgrades and Compatibility
The installation CD is labeled with the version of the MAS 90 MAS 200 module for which this Extended Solution was prepared. This Extended Solution will check its compatibility with the appropriate MAS 90 MAS 200 modules and will be disabled if an incompatibility is found. If you upgrade your MAS 90 MAS 200 modules, this Extended Solution must be upgraded as well. Your MAS 90 MAS 200 dealer can supply this upgrade.

Documentation
Only changes made to the standard operation of MAS 90 MAS 200 have been documented in this manual. Operations not documented in this manual are standard procedures of MAS 90 MAS 200 processing. Standard MAS 90 MAS 200 processes, data entry screens, inquiry screens, reports, updates, etc., have not been changed unless addressed in this document.

Parts of this document may refer to the *Specific Purpose Rule*. When referenced, the described feature was developed for a specific client to its specifications and may not conform to generally accepted MAS 90 MAS 200 standards and procedures. These features may or may not benefit you in your application of MAS 90 MAS 200.

Acknowledgments

Appendix

The Warranty Database Import Utility is designed to import data from an ASCII comma delimited file with the following layout. Strings must be surrounded by quote marks.

Item Name	Data Type
Division	string
Customer Number	string
Item Number	string
Invoice Number	string
Invoice Date	mmddyy or mm/dd/yy
Warranty Exp Date	mmddyy or mm/dd/yy
Credit Memo Date	mmddyy or mm/dd/yy
Item Description	string
Lot/Serial #	string
Quantity	numeric ########.00-
Unit Price	numeric ########.00-
Extension	numeric ########.00-
Cross-reference #	string