



Universal Product Codes Processing For MAS 90 and 200

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Installation Instructions and Cautions

PLEASE NOTE: MAS 90 must already be installed on your system before installing any IIG enhancement. If not already done, perform your MAS 90 installation and setup now; then allow any updating to be accomplished automatically. Once MAS 90 installation and file updating is complete, you may install your IIG enhancement product by following the procedure below.

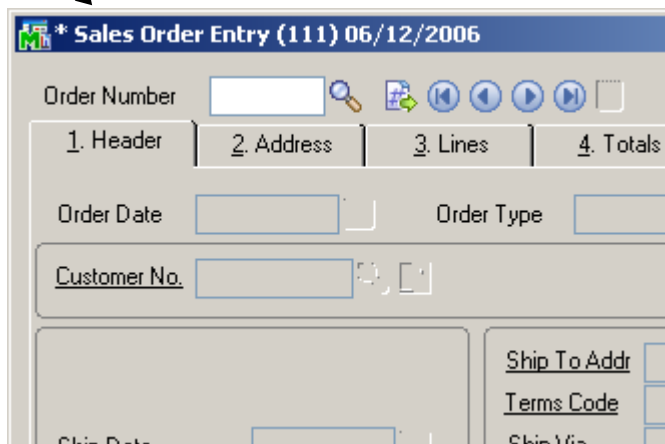
Wait! Before You Install – Do You Use CUSTOM OFFICE?

THIS IS AN IMPORTANT CAUTION: If you have Custom Office installed, **and** if you have modified any MAS 90 screens, you must run **Customizer Update** after you do an enhancement installation.

But wait! BEFORE you run **Customizer Update**, it is very important that you **print all of your tab lists**. Running **Customizer Update** will clear all Tab settings; your printed tab list will help you to reset your Tabs in Customizer Update. **Custom Office** is installed on your system if there is an asterisk in the title bar of some of the screens. The asterisk indicates that the screen has been changed.

An **asterisk** in a window's title bar indicates that the screen has been modified. This means that **Custom Office** is installed.

Follow all the instructions on this page before you run **Customizer Update!**



Registering IIG products

IIG Enhancement should be registered to be able to use it. If registration is not performed, the enhancement will work in a demo mode for a limited time period. The registration can be still done during the demo period.

Select the **IIG Product Registration** program under the **Library Master Setup** menu of the MAS 90.

If this option is not listed under the Library Master Setup menu, go to the main menu, and select **Run** from the **File** menu. Type in SVIIGR and click **OK**.

| Enhancement | Level | Release Date | Serial Number | Unlocking Key |
|----------------------|-------|--------------|----------------------|---------------|
| IIG Enhancement Name | 4.40 | | AAAAAAAAAAAAAAAAAAAA | BBBBBB |

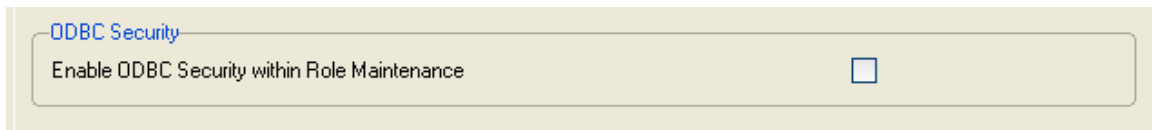
Enter **Serial Number** and **Unlocking Key** provided by IIG, and click **OK**.

If multiple IIG Enhancements are installed, Serial Numbers and Unlocking Keys should be entered for each enhancement.

Use the **Print Registration Form** button to print IIG Registration Form.

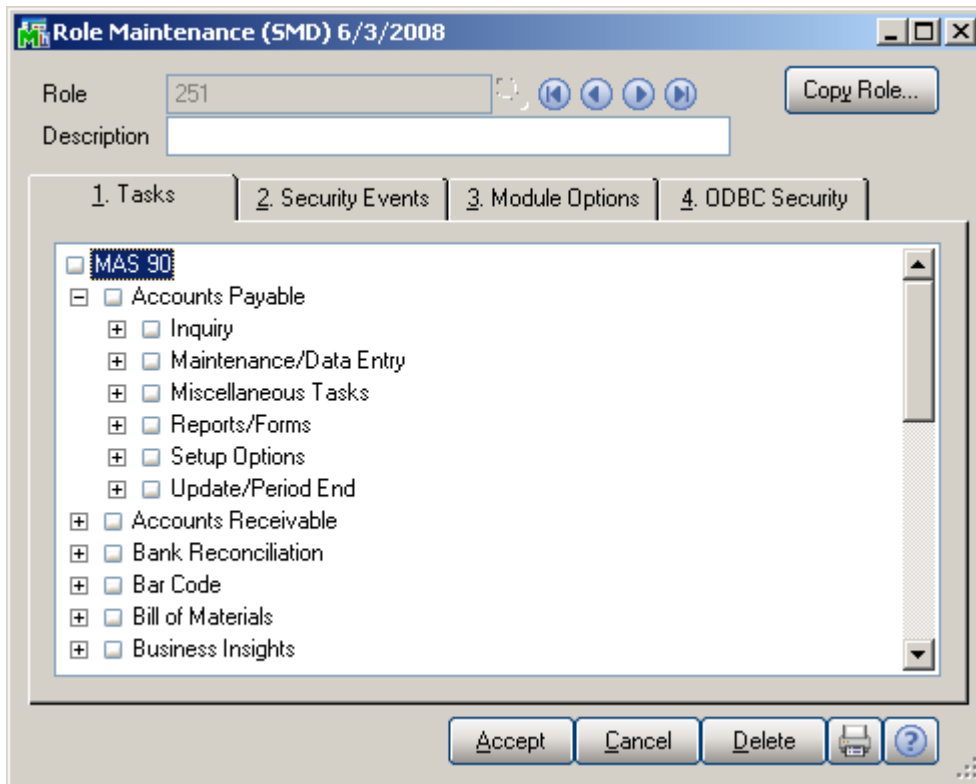
ODBC Security

After installing an **IIG Enhancement**; it is **very important to verify** whether or not the **Enable ODBC Security within Role Maintenance** check box is selected in the **System Configuration** window of your system. If it is selected you must assign ODBC security permissions and allow access to custom data tables/fields for the Roles defined in your system.



Role Maintenance

After installing an **IIG Enhancement**, permissions must be configured for newly created Tasks and Security Events.



Introduction

The **UPC** enhancement enables assigning Universal Product Codes (UPC) to items and recognizing items by UPC.

You can choose your system to work with either of these codes: UCC-12, EAN/UCC-13, EAN/UCC-14.

Enhancement can check UPC codes to be unique throughout the system.

UPC codes can be assigned to items or group of items automatically.

UPC Options

The **UPC Options** program has been added under the **Inventory Management Setup** menu.

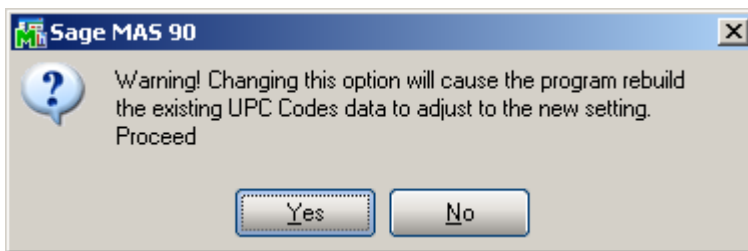
The screenshot shows the 'UPC Options' dialog box. The title bar reads 'UPC Options'. The dialog is divided into two main sections. The left section contains a dropdown menu for 'UPC Code Type' set to 'UCC-12', and five checkboxes: 'Allow Only Selected Type' (checked), 'Enforce UPC is unique' (checked), 'Allow for Components' (checked), and 'Use UPC Codes by U/M' (checked). The right section contains a 'Use UCC' checkbox (checked), a 'UCC Code' text box containing '000001', and a 'UPC Next Auto Item Reference' text box containing '00001'. At the bottom right are 'Accept', 'Cancel', and a printer icon.

The **UPC Code Type** determines the default length to be used for the code – 12, 13 or 14 digits. The available options are UCC-12, EAN/UCC-13, EAN/UCC-14.

Check the **Allow Only Selected Type** box to force the programs to reject UPC Codes of the lengths different from the selected.

Generally, if the **Allow Only Selected Type** box is cleared, the enhancement uses 14 digits for UPC Codes. If the entered UPC Code is 13 or 12 digits long, the program adds one or two zeroes correspondingly to the beginning of the Code. The default length determines possible **UCC Code** and **Item Reference** combinations.

Changing the **Allow Only Selected Type** option after using the UPC Codes in the system, can lead to problems after rebuilding the data connected to the already entered and used UPC Codes.



Check the **Enforce UPC is unique** box if you want the program to not allow assigning already existing UPC Codes.

Note that if this option is selected after entering a number of UPC Codes, the program will start checking if the Code has already been assigned only for the newly entered Codes. Hence, there might remain duplicate UPC Codes in the system.

Check the **Allow for Components** box to allow assigning UPC Codes to components of Kits/Bills of Materials.

The **Use UPC Codes by U/M** checkbox, when selected, allows processing separate **UPC codes** by each **U/M**.

Check the **Use UCC** box, if your company manufactures inventory rather than purchasing and selling finished goods.

The **UCC Code** is the company code, which will be used as the default for the part of the UPC codes. The **UCC Code** cannot be shorter than 6 digits.

The **UPC Next Auto Item Reference** is for adding to the **UCC Code** for assigning UPC Codes automatically in the

UPC Code Maintenance program. The **Item Reference** cannot be shorter than 2 digits.

The sum of the **UCC Code** and **Item Reference** lengths is equal to the length of the **UPC Code Type** selected (12, 13, or 14).

UPC Codes

The **UPC Code Maintenance** program under the **Inventory Management Setup** menu allows assigning UPC Codes to the selected items and reviewing all the UPC Codes in the system.

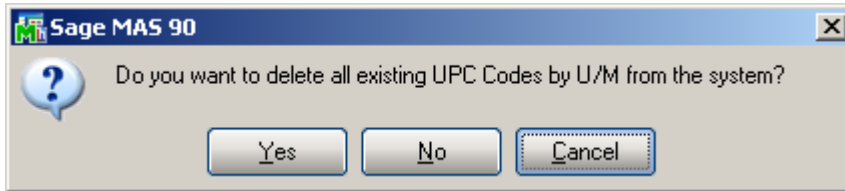
| | Item Code | UOM | Lot Serial Number | Upc Code |
|---|---------------|------|-------------------|--------------|
| 1 | 1001-HON-H252 | | | 000001000047 |
| 2 | 1001-HON-H252 | BOX | | 000001000061 |
| 3 | 2480-8-50 | | | 000001000078 |
| 4 | 2551-3-50 | BOX1 | 123456789 | 000001000108 |
| 5 | 2551-3-50 | CART | 5555555 | 000001000115 |
| 6 | 4886-18-14-3 | PKG | | 000001000054 |
| 7 | WJ-M-2109-A | | | 000001000085 |
| 8 | 2480-8-50 | | 101 | 000001000122 |
| 9 | | | | |

To add an item to the list, enter the **Item Code**, or select it using the **Lookup** button.

The **UPC #** and **Auto** buttons are available only in the case when **Use UCC** option is checked in the **UPC Options**.

The **UOM** column is available only if the **Use UPC Codes by U/M** checkbox is selected in the **UPC Options**.

If the **Use UPC Codes by U/M** box is unchecked in the **UPC Options** screen, the following dialog screen appears:



Click **Yes**, if you want to delete all **UPC codes** by **UOM**. When clicking **No**, the items having the **UPC Codes** by the **UOM** are not displayed in the **UPC Code Maintenance** and the **UOM** field is hidden in this screen. And when the **Use UPC Codes by U/M** box is checked again in the **UPC Options**, the **UPC Codes by UM** are displayed on the **UPC Code Maintenance** screen.

Component of a Kit or Bill of Materials cannot be assigned UPC Code, if the **Allow for Components** box is not checked in the **UPC Options**.

UCC Code and **Auto Next Number** are defaulted to the **UPC Options** settings.

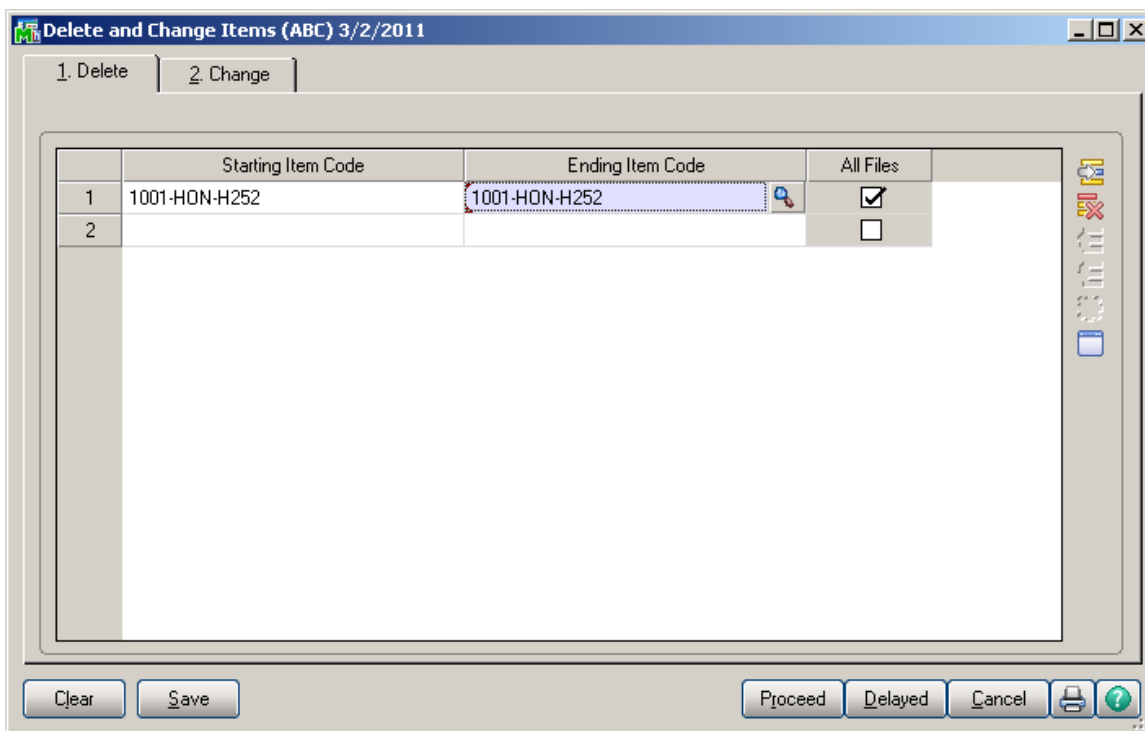
Click the **Auto** button to assign codes automatically to all the listed Items not having UPC Codes yet.

Click the **UPC #** button to assign a UPC Code to the selected line.

If the **Allow Only Selected Type** box is cleared in the **UPC Options**, any valid UPC Code may be entered. The length can be 12, 13 or 14 digits. If the entered UPC Code is 13 or 12 digits long, the program adds one or two zeroes correspondingly to the beginning of the Code. The Checking Digit is checked to be valid. If the **Use UCC** option is set in the **UPC Options**, you may enter only Item Reference (the length must correspond to the Options). In

this case the program will use the UCC Code and calculate the Checking Digit to form complete UPC Code.

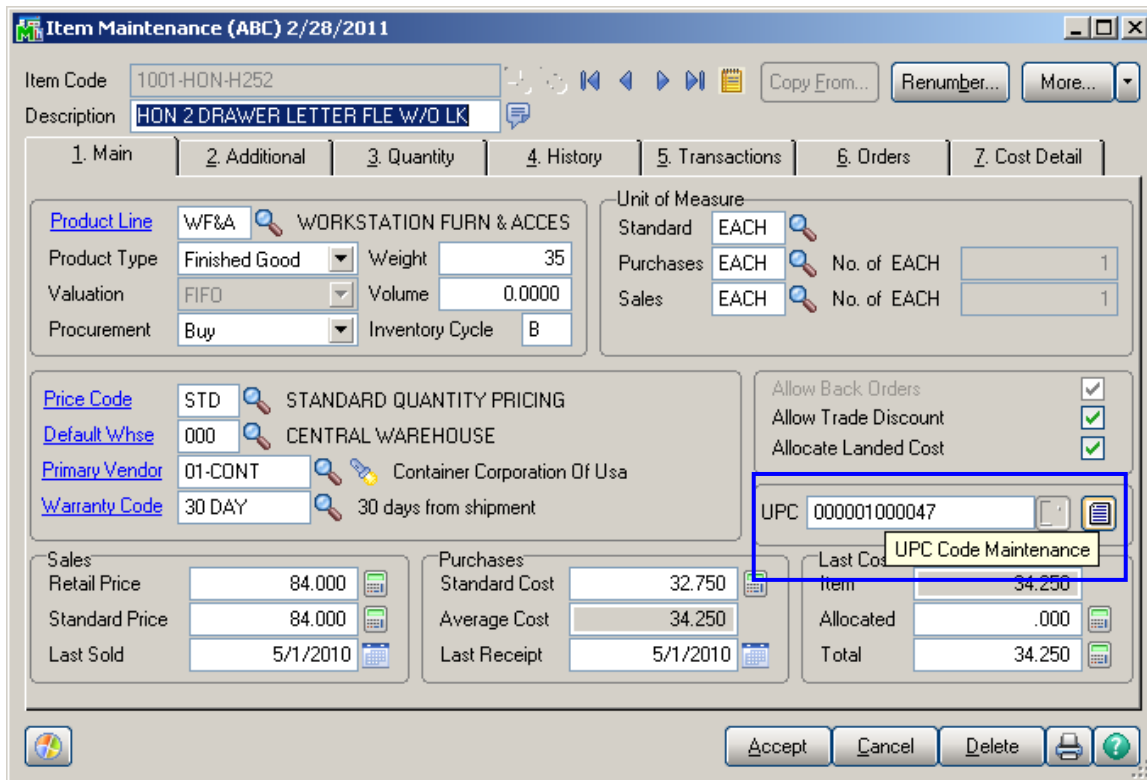
When changing or deleting Item through the **Delete and Change Items** program opened from the **Inventory Management Utilities** menu, the item will be correspondingly deleted or changed in UPC Master file.



Item Maintenance

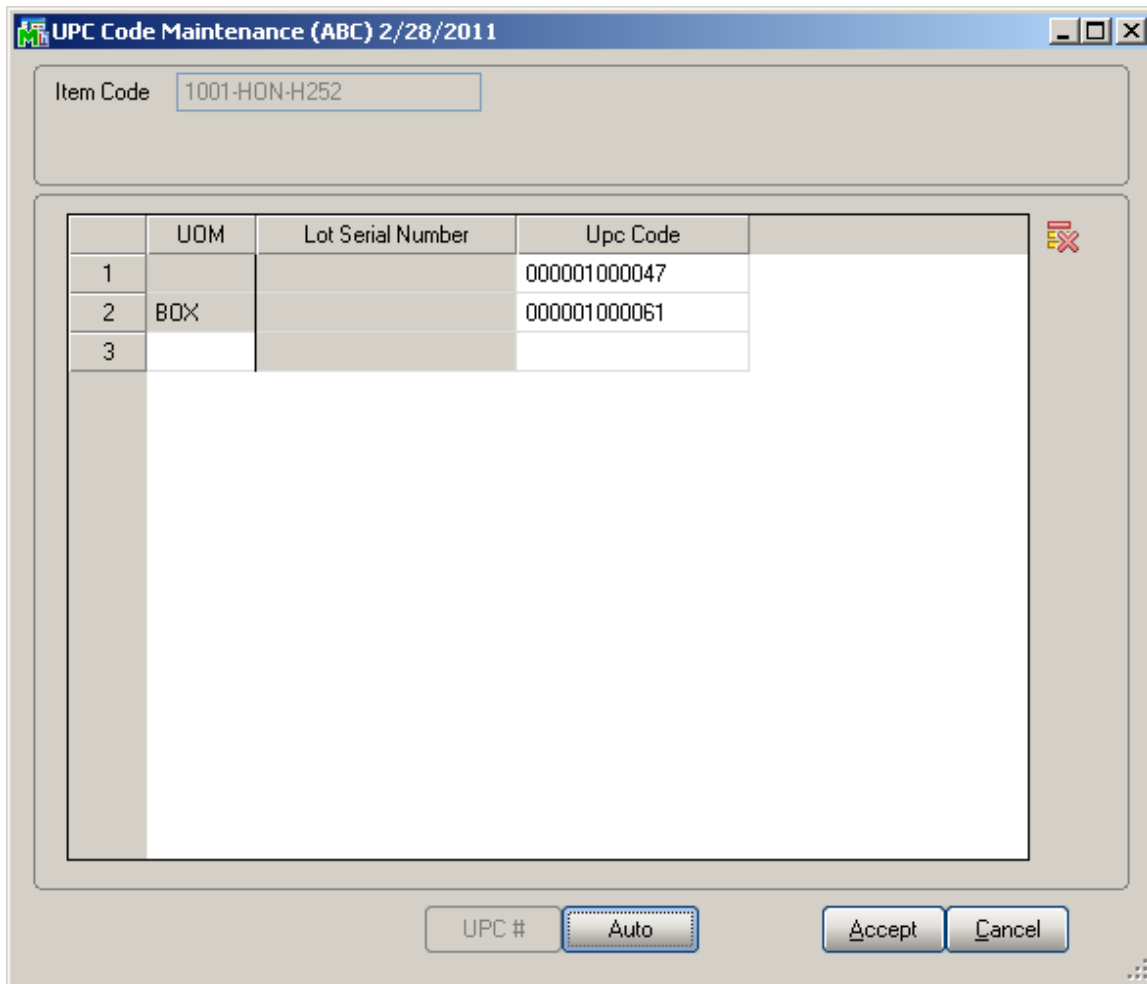
The **UPC** field and the **UPC Code Maintenance** button have been added to the **Main** tab of the **Item Maintenance** screen.

The **UPC Code Maintenance** button allows processing **UPC Codes by U/M**.



*Note: The **UPC Code Maintenance** is displayed on the **Main** tab of the **Item Maintenance** screen if the **Use UPC Codes by U/M** box is checked in the **UPC Options** program.*

Click the **UPC Code Maintenance** button to display corresponding screen for the selected item.



The **UPC Code** without any UM specified is defaulted to the **UPC** field.

If the **Use UCC** option is checked in the **UPC Options**, the **Auto** and **UPC #** buttons becomes visible. It is available for the items not having **UPC Code** yet. The Code will be formed from the **UCC Code** and the **Next Auto Item Reference** set in the **UPC Options**. The Checking Digit will be calculated automatically. To view UPC Code for a particular UM press the **UPC #** button.

The **UPC** field and the Next button are disabled for Components of a Kit or Bill of Materials, if the **Allow for Components** box is not checked in the **UPC Options**.

When Deleting or Renumbering, the Item will be correspondingly deleted or renumbered in UPC Master file.

UPC Code Processing

Sales Order Entry

The **Sales Order Entry** program displays the **Item Code**, **U/M**, and **Unit Price** when entering a **UPC Code** of an item in the **Item Code** field on the **Lines** tab.

Enter the **UPC Code** for an item.

Order Number: 0000176

User: USERIIG

| | Item Code | Ordered | Back Ordered | Unit Price | Extension | Co |
|---|-----------------|---------|--------------|------------|-----------|----|
| 1 | 1001-HON-H252LK | 1.00 | .00 | 87.000 | 87.00 | |
| 2 | 000001000047 | .00 | .00 | .000 | .00 | |

Quick Row: 2

Description: _____

Warehouse: _____

Unit Of Measure: _____

Shipped: .00

Price Level: _____

Total Amount: 87.00

Buttons: Print Order..., Print Pick..., Recalc Price, Accept, Cancel, Delete, Help

The corresponding Item Code, Description, U/M (associated with that UPC Code) and Unit Price will be displayed.

Order Number: 0000176

User: USERIIG

| | Item Code | Ordered | Back Ordered | Unit Price | Extension | Co |
|---|-----------------|---------|--------------|------------|-----------|----|
| 1 | 1001-HON-H252LK | 1.00 | .00 | 87.000 | 87.00 | |
| 2 | 1001-HON-H252 | .00 | .00 | 84.000 | .00 | |
| 3 | | .00 | .00 | .000 | .00 | |

Warehouse: 001

Unit Of Measure: EACH

Shipped: .00

Price Level: 1

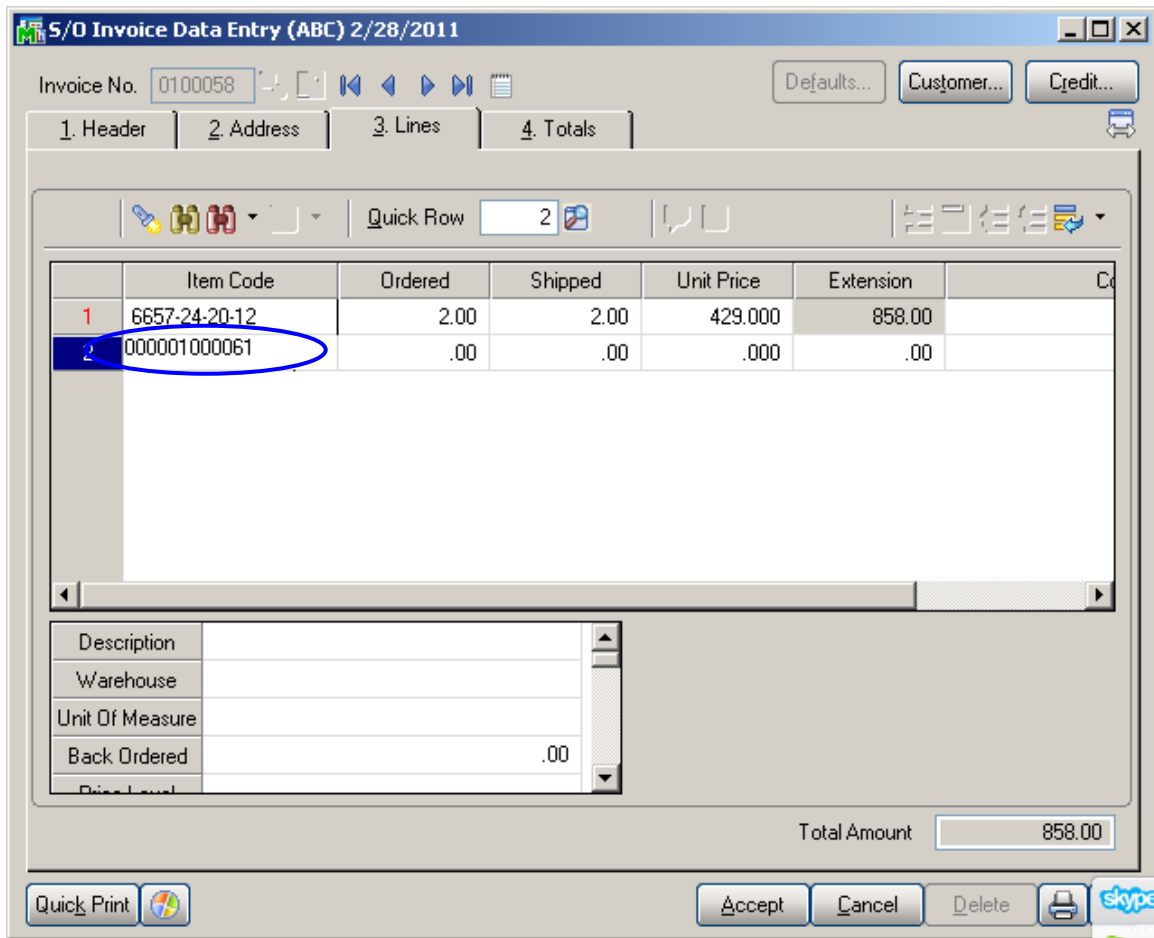
Price Class: TV

Total Amount: 87.00

Buttons: Print Order..., Print Pick..., Recalc Price, Accept, Cancel, Delete

Invoice Data Entry

The **Invoice Date Entry** program displays the **Item Code**, **U/M**, and **Unit Price** when entering a **UPC Code** of an item in the **Item Code** field on the **Lines** tab. Enter the **UPC Code** for an item.



The corresponding Item Code, Description, U/M (associated with that UPC Code) and Unit Price are displayed.

5/O Invoice Data Entry (ABC) 2/28/2011

Invoice No. 0100058 Defaults... Customer... Credit...

1. Header 2. Address 3. Lines 4. Totals

Quick Row 2

| | Item Code | Ordered | Shipped | Unit Price | Extension | Co |
|---|---------------|---------|---------|------------|-----------|----|
| 1 | 6657-24-20-12 | 2.00 | 2.00 | 429.000 | 858.00 | |
| 2 | 1001-HON-H252 | .00 | .00 | 8,400.000 | .00 | |
| 3 | | .00 | .00 | .000 | .00 | |

Description: HON 2 DRAWER LETTER FLE W/O LK
 Warehouse: 001
 Unit Of Measure: BOX
 Back Ordered: .00

[Average Cost = 3,425.000] Profit Margin % = 59 Total Amount 858.00

Quick Print Accept Cancel Delete

Shipping Data Entry

The **Shipping Data Entry** program has been modified to allow automatically selecting the line with an item coupled with a **UPC Code by U/M**, when entering that **UPC Code** in the **Item Code** field on the **Lines** tab.

Select **Order No.** containing the Line Item that has UPC Code assigned. When entering that UPC Code in the **Item Code** field, the line item, for which that UPC Code is set, will be automatically selected.

Shipping Data Entry (ABC) 2/28/2011

Shipper ID: 1 Ship Date: 2/28/2011 Order No.: 0000171
 Shipping No.: 0100059 Ship Status: New SO Created By: ###
 Customer No.: 01-ABF American Business Futures

1. Lines 2. Shipping

Item Code: 000001000061 Quick Row: 1 Pkg: 0001

| | Item Code | Ordered | Shipped | Back Ordered | Comment |
|---|---------------|---------|---------|--------------|---------|
| 1 | 1001-HON-H252 | 1.00 | 1.00 | .00 | |

Description: HON 2 DRAWER LETTER FLE W/O LK
 Warehouse: 001
 U/M: EACH
 Package: 0001

Quick Print Auto Increment Accept Cancel Delete

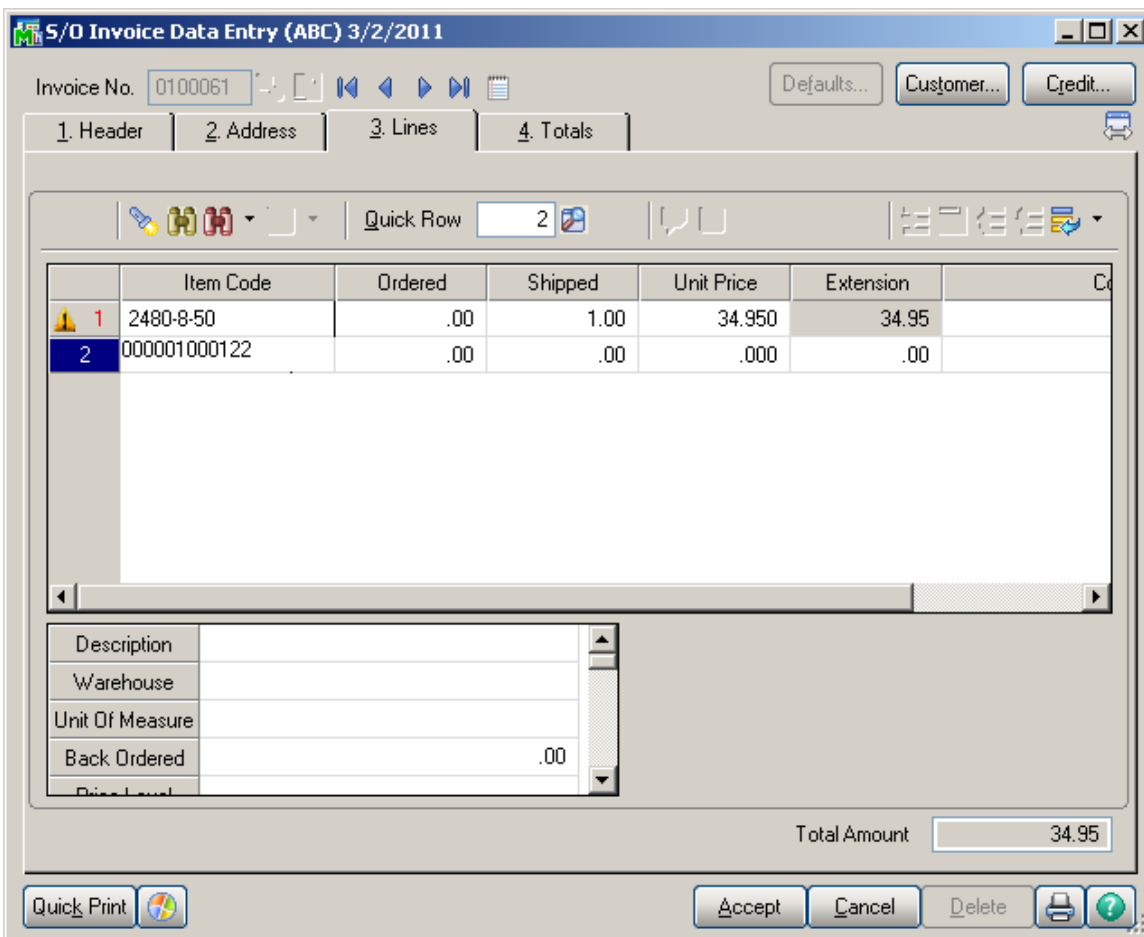
Selecting the **Auto Increment** check box will automatically increment the shipped quantity by 1 if the U/M of scanned/entered UPC code is matching with the U/M of the line. Otherwise the Auto Increment check box will not automatically increment the shipped quantity by 1 and the Quantity will be increased taking into consideration the U/M of the line and the conversion factor.

Note: If there is no U/M specified for the scanned UPC Code the Sales Unit of Measure from the Inventory Master file will be taken into account when increasing the quantity of the line.

For example, if the item is sold on the sales order as EACH, and the UPC code scanned for this item is for a 6PK (six pack), then the quantity incremented will be 6, which is the unit of measure conversion factor. This allows you to have a different UPC code for the each item, the inner pack, the master pack, the pallet, and even a shipping container, yet be specific to the item. This way, the operator does not have to open the box to scan the items when they are sold in a case or master pack when there will be case or multiple cases shipped. An example would be an order for 240 widgets, sold as EACH, which are packaged as CS24 (24 per case) with a UPC code for this unit of measure. In this example, the operator would only have to scan 10 cases, not 240 items.

UPC Code Processing for Lot Items in Invoice Data Entry and Shipping Data Entry

If Lot Serial Number has been specified for a UPC Code in the **UPC Code Maintenance** program, then when entering that UPC Code in Invoice Date Entry and Shipping Data Entry programs' lines, Shipped quantity will be incremented by one and auto distribution will be done. If in current warehouse there is no corresponding lot for the lot/serial item, auto distribution will not be done.



5/O Invoice Data Entry (ABC) 3/2/2011

Invoice No. 0100061

1. Header | 2. Address | 3. Lines | 4. Totals

Quick Row 2

| | Item Code | Ordered | Shipped | Unit Price | Extension | Co |
|---|-----------|---------|---------|------------|-----------|----|
| 1 | 2480-8-50 | .00 | 1.00 | 34.950 | 34.95 | |
| 2 | 2480-8-50 | .00 | 1.00 | 34.950 | 34.95 | |
| 3 | | .00 | .00 | .000 | .00 | |

Description: DESK FILE 8" CAP 50
 Warehouse: 000
 Unit Of Measure: EACH
 Back Ordered: .00

Total Amount: 69.90

Quick Print | Accept | Cancel | Delete

Lot/Serial Number Distribution

Item Code: 2480-8-50 DESK FILE 8" CAP 50
 Unit of Measure: EACH

| | Lot Number | Available | Distribute |
|---|------------|-----------|------------|
| 1 | JAN10 | 164.00 | 1.00 |
| 2 | | .00 | .00 |

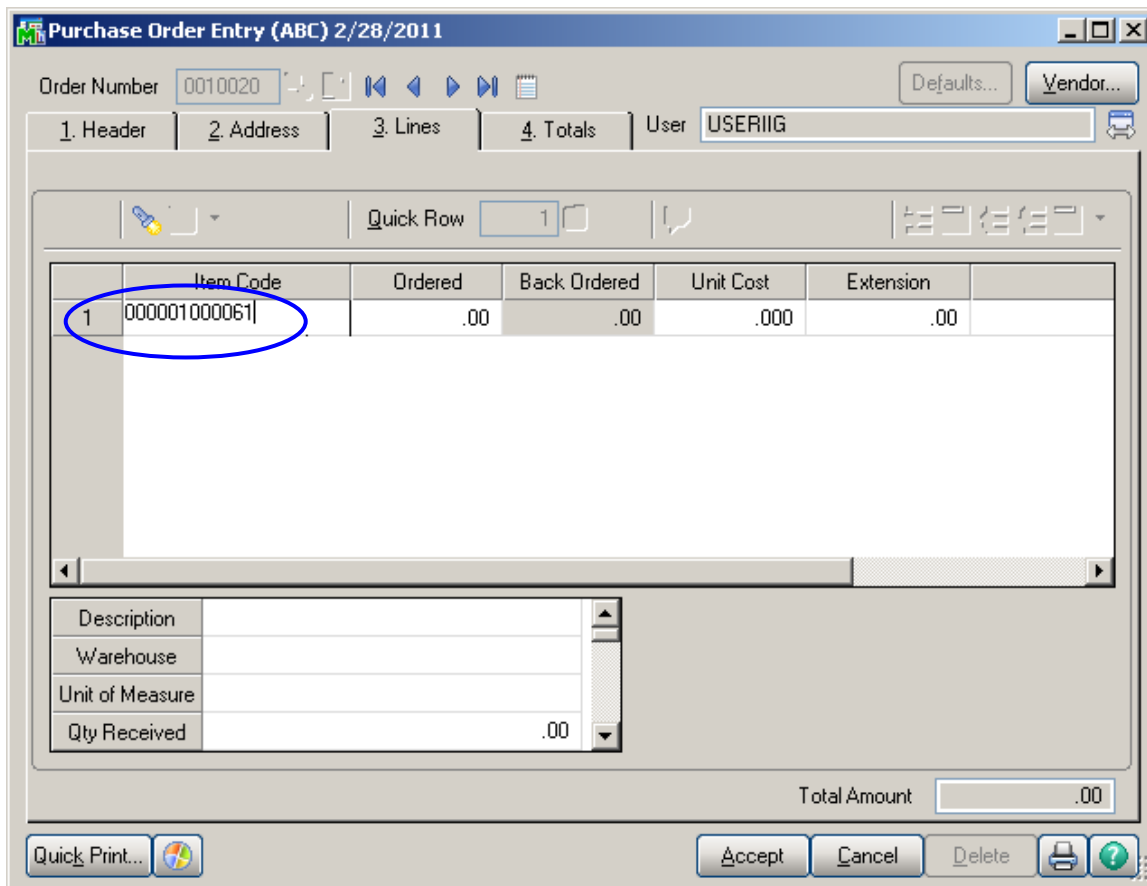
Distribution Balance: 1.00

OK | Cancel

Purchase Order Entry

The **Purchase Order Entry** program has been modified to display the **Item Number**, **U/M**, and **Unit Price** when entering a **UPC Code** of an item in the **Item Number** field on the **Lines** tab.

Enter the **UPC Code**. The corresponding **Item Number**, **Description**, **U/M** (associated with that UPC Code) and **Unit Cost** are displayed.



Purchase Order Entry (ABC) 2/28/2011

Order Number: 0010020

1. Header | 2. Address | 3. Lines | 4. Totals | User: USERIIG

Quick Row: 1

| | Item Code | Ordered | Back Ordered | Unit Cost | Extension |
|---|---------------|---------|--------------|-----------|-----------|
| 1 | 1001-HON-H252 | 2.00 | .00 | 3,425.000 | 6,850.00 |
| 2 | | .00 | .00 | .000 | .00 |

Description: HON 2 DRAWER LETTER FLE W/O LK
 Warehouse: 000
 Unit of Measure: BOX
 Qty Received: .00

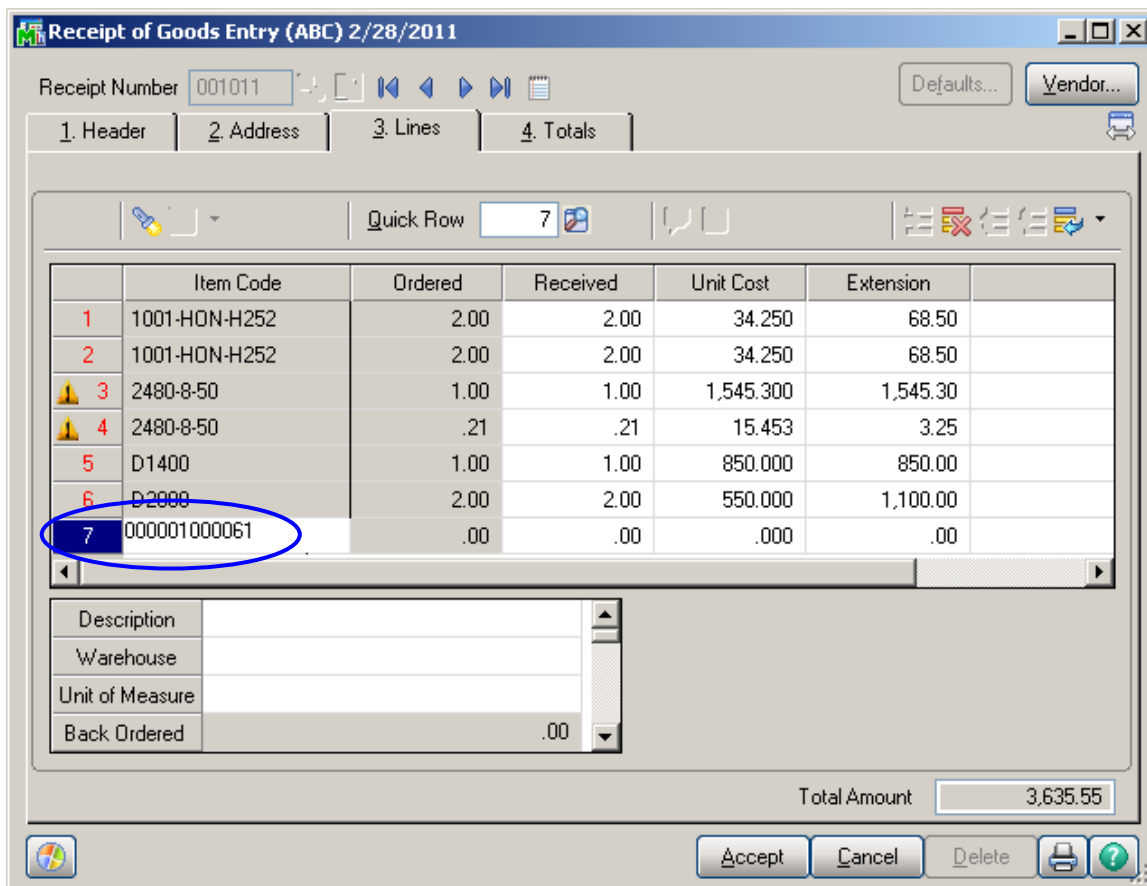
Total Amount: 6,850.00

Buttons: Quick Print... | Accept | Cancel | Delete | [Print] | [Help]

Receipt of Goods Entry

The **Receipt of Good Entry** program has been modified to display the **Item Number**, **U/M**, and **Unit Price** when entering a **UPC Code** of an item in the **Item Number** field on the **Lines** tab.

Enter the **UPC Code**. The corresponding **Item Number**, **Description**, **U/M** (associated with that UPC Code) and **Unit Cost** are displayed.



Receipt of Goods Entry (ABC) 2/28/2011

Receipt Number 001011

1. Header | 2. Address | 3. Lines | 4. Totals

Quick Row 7

| | Item Code | Ordered | Received | Unit Cost | Extension |
|---|---------------|---------|----------|-----------|-----------|
| 1 | 1001-HON-H252 | 2.00 | 2.00 | 34.250 | 68.50 |
| 2 | 1001-HON-H252 | 2.00 | 2.00 | 34.250 | 68.50 |
| 3 | 2480-8-50 | 1.00 | 1.00 | 1,545.300 | 1,545.30 |
| 4 | 2480-8-50 | .21 | .21 | 15.453 | 3.25 |
| 5 | D1400 | 1.00 | 1.00 | 850.000 | 850.00 |
| 6 | D2000 | 2.00 | 2.00 | 550.000 | 1,100.00 |
| 7 | 1001-HON-H252 | .00 | .00 | 3,425.000 | .00 |

Description: HON 2 DRAWER LETTER FLE W/O LK
 Warehouse: 000
 Unit of Measure: BOX
 Back Ordered: .00

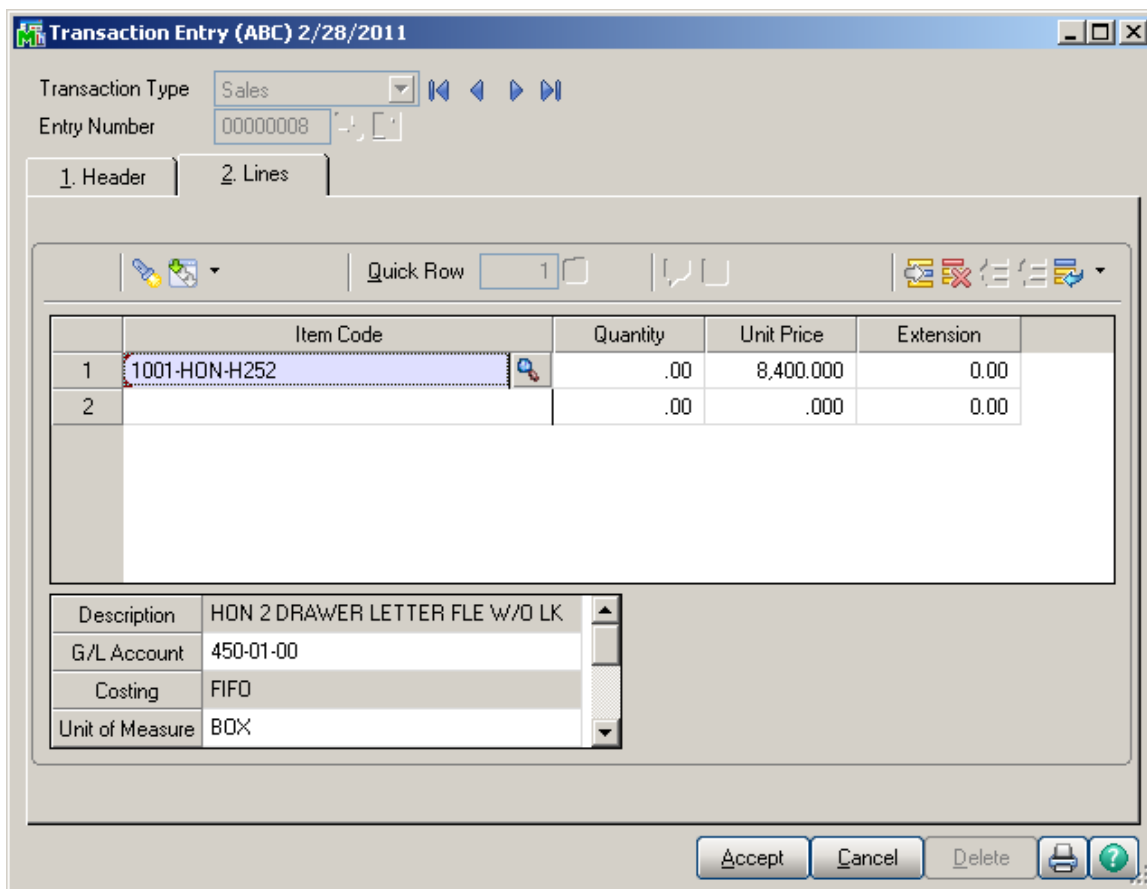
Total Amount 3,635.55

Accept Cancel Delete

Transaction Entry

The **Transaction Entry** program under the **Main** menu of **I/M** module has been modified to allow automatically loading the **Item Number** when entering a **UPC Code** of that item in the **Item Number** field on the **Lines** tab. If a **U/M** is associated with a **UPC Code** (in the **UPC Code Maintenance**), that **U/M** will be loaded automatically.

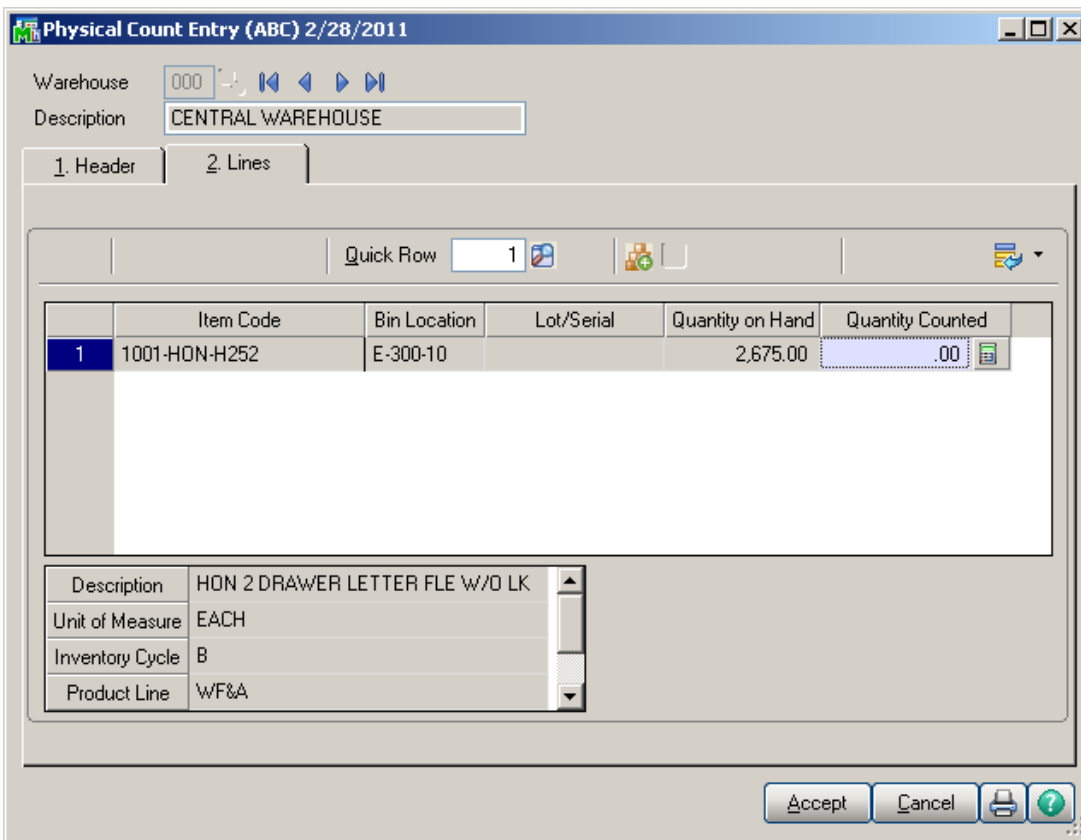
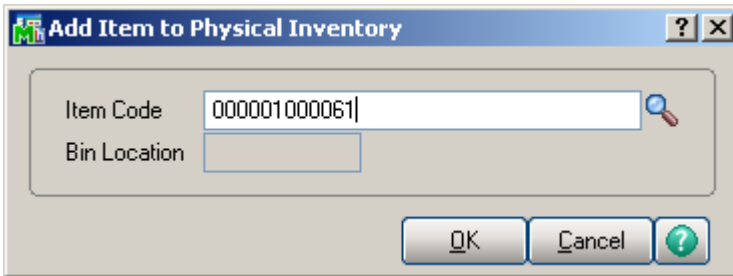
Enter the **UPC** code. The corresponding Item Number, U/M (associated with that UPC Code) and other related information will be displayed.



Note: UPC processing works for all transaction types.

Physical Count Entry

The **Physical Count Entry** program under the **Physical** menu of the **I/M** module has been modified to allow automatically loading the **Item Code** when entering the **UPC Code** of that item in the **Item Code** field.



The Alias Numbers are also supported in the **Physical Count Entry** and **Transaction Entry**. When the Alias Number is entered in the **Item Number** field the corresponding item is loaded in the grid.

Note. If the UPC Code and the Alias Number of an Item coincide then the preference is given to the Alias Number.