Overview
This Extended Solution to the Sales Order module creates either Running Totals or Subtotals during Sales Order and Invoice Line Entry. A RUNNING TOTAL is defined as the total of all quantities or extended amounts from the top of the order/invoice up to the RUNTOT comment line. A SUBTOTAL is defined as all of the quantities and amounts between two SUBTOT comment lines. These totals can be any combination of the: Total Quantity Ordered, Total Quantity Shipped, Total Quantity Back Ordered or Total Order Extension. These totals will be displayed during comment entry. New fields have been defined to the Sales Order and Invoice forms that allow the printing of a calculated Subtotal and/or a Running Total for each Sales Order/Invoice.

If you have Extended Solution SO-1017: Sales Order Line Print Suppression installed and enabled, there is an option to include or exclude line items in a SUBTOT and RUNTOT based on it’s ‘Print Suppression’ flag.

Additionally, there is an option to use Implied Kit processing. An ‘Implied Kit Item’ is:
- the first Inventory Item on the Sales Order/Invoice or
- the first Inventory Item after a SUBTOT/RUNTOT line or
- the first former Component Item if you have SO-1068: Kit Explosion to Convert Components to Items installed

‘Implied Components’ are all the Sales Order/Invoice Line Items after the ‘Implied Kit Item’ until the next ‘Implied Kit Item,’ Comment or Miscellaneous Charge line. By turning on Implied Kit processing, the display and printing of quantity fields for Implied Kit Items and Implied Components is modified during S/O Invoice Data Entry (Please see ‘Implied Kit Processing’ in the Operations section for more details).

This Extended Solution cannot be enabled if the Sales Order Shipping Data Entry feature has been enabled. Conversely, Shipping Data Entry cannot be enabled if this Extended Solution has been enabled.

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.sagesoftware.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@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@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 a Sage Software Extended Solution.

Setup
Once the disk is installed, you will need to access the Sales Order Setup menu option screen. After the standard MAS 90 MAS 200 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 1). 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).
Answer the following prompts:

**ENTER ‘QUANTITY ORDERED’ ON SUBTOT LINE:** Check this box if you wish to calculate ‘Unit Price’ using a ‘Quantity Ordered’ field on the SUBTOT line in Sales Order Data Entry. The last 10 characters of the second comment line will fill in the ‘Quantity Ordered’ field.

**DISPLAY ‘LAST’ FIELDS ON MESSAGE LINE:** Check this box if you wish to display the Last Price and UOM on the prompt line during S/O Comment Line Entry.

**SUPPRESS PRINTING OF ‘SUBTOT’:** If you check this box, when all of the lines preceding the subtot line have a Quantity Ordered of ‘1’, the SUBTOT quantity fields for Qty Ord, Qty Shp and Qty BO will not print on the subtot line, and the SUBTOTAL_AVE_UNIT PRICE form field will be the subtotal of all the line extended amount fields.

**SUPPRESS PRINTING EXTENSIONS OF DUPLICATE ITEMS:** If you check this box, the extended amount will not print for all like items within a SUBTOT during Sales Order/Invoice Printing.

If you have Sage Software Extended Solution SO-1017: Sales Order Line Print Suppression installed and enabled, this option will appear on the Setup screen:

**SO-1017 INCLUDE ‘PRINT SUPPRESSED’ LINE AMOUNTS (YES/NO/ONLY):** If you select ‘Yes,’ SUBTOT and RUNTOTs will include amounts on lines that have been ‘Print Suppressed’. If you select ‘No,’ SUBTOT and RUNTOTs will not include amounts on lines that have been ‘Print Suppressed.’ If you select ‘Only,’ SUBTOT and RUNTOTs will include only amounts on lines that have been ‘Print Suppressed.’
**CALCULATE QUANTITIES USING IMPLIED KITS (YES/NO/UDF):** If you wish to use Implied Kit processing for all Inventory Items, answer ‘Yes.’ If you wish to use this processing for only selected I/M items, you must first have IM-1077: *User Defined Inventory Masterfile Fields* and SO-1014: *User Defined Line Fields for Sales Order* installed and enabled, and then you must select ‘UDF.’ When ‘UDF’ is selected, the following prompts will be available:

**INVENTORY UDF:** Enter an IM-1077 Yes/No type UDF to hold the ‘Implied Kit?’ flag.

**SO LINE UDF:** Enter an SO-1014 Yes/No type UDF to hold the ‘Implied Kit?’ flag. If you have Sage Software Extended Solution SO-1068: *Kit Explosion to Convert Components to Items* installed and enabled, and you have answered ‘Yes’ or ‘UDF’ to ‘Calculate Quantities Using Implied Kits’, then this option will be available:

**SO-1068 REFRESH QUANTITIES ON SUBTOT LINES WITH IMPLIED KITS:** If you check this box, any changes made to the Quantities on an Implied Kit during Invoice Entry will be reflected in the SUBTOT segments 1 (Qty Ordered), 2 (Qty Shipped), and 3 (Qty Back Ordered). These changes will be made to the SUBTOT line as the user exits the Implied Kit line.

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

**Operation**

*Subtotals and Running Totals On Sales Order Entry/Invoice Entry*

During S/O comment line entry, if the second line of a /C has either ‘SUBTOT’ or ‘RUNTOT’ typed into its first ten characters, then the total Quantity Ordered, Quantity Shipped, Quantity Back Ordered and Extended Amount of the lines above this comment line will be summed and displayed on the comment line as well as in a separate window (Figure 2). During non-Graphical printing, the first line of Comment will still be controlled via the Standard Form Maintenance program, but the second line of comment will be controlled via new Form fields added with this Extended Solution. (please see FORMs below)
The features of this Extended Solution are not available in Sales Order Shipping Data Entry.

**Average Unit Price Calculation On Sales Orders**

If you checked the 'Enter Quantity Ordered on 'Subtot' Line' box in Setup, a numeric value may be entered in the new 'Quantity Ordered' field while the cursor is on a SUBTOT line of the Sales Order entry lines section (Figure 3). A Form field called 'Unit Price' is then calculated as the SUBTOT value divided by this new Quantity Ordered. Both the 'Quantity Ordered' and 'Unit Price' fields are available as form fields on the Sales Order form (see Forms below).
The Unit Price field is for printing only; it will not be visible on-screen.

There is no method provided with this Extended Solution for a 'Quantity Shipped' on the subtotal line, nor a 'Quantity Backordered' on the subtotal line. The calculated 'Unit Price' will be recalculated each time the subtotal value changes, forcing the new 'Quantity' to equal the calculated subtotal line.

Display 'Last' Fields on Prompt Line
If you checked the 'Display "Last" Fields on Prompt Line' box in Setup, the last Unit Price and the last Unit of Measure of the Item, Miscellaneous Item, or Special Item immediately preceding the SUBTOT line will be displayed in the Additional Fields Box (Figure 4). These fields are also available for printing (see FORMs).
Integration with SO-1017, Line Print Suppression

If you have SO-1017 installed and answered the Setup question "SO-1017 Include "Print Suppressed" Line Amounts" as 'Yes,' then all processing in SO-1066 will ignore the SO-1017 Print Suppression flags. If you answered the setup question as 'No,' then any line flagged as 'Print Suppressed' will be excluded from SO-1066 processing. If you answered the Setup question as 'Only,' then only lines which are flagged as 'Print Suppressed' will be included in SO-1066 processing.

Implied Kit Processing

If you selected 'Yes' for the 'Calculate Quantities Using Implied Kits' option in Setup, then during Invoice Line Item Data Entry when an Implied Kit Item's Quantity Shipped is changed, the percentage of Quantity Shipped to Quantity Ordered is calculated. This percentage will be applied to the Quantity Ordered of all the associated Implied Component lines, calculating new Quantity Shipped and Back Ordered amounts (See Overview for the definition of an Implied Kit). In addition, if the Price Level of the 'Implied Kit Item' was changed, this Price Level will be applied to each of its 'Implied Component' lines and the 'Implied Component's' Unit Price will be recalculated when applicable.

If you selected 'UDF' for the 'Calculate Quantities Using Implied Kits' option, then you are expected to define which Inventory Items can be considered an 'Implied Kit Item' via the Setup-specified IM-1077 UDF. For each of these I/M items marked 'Yes' in its UDF, that 'Yes' will then be written to the Setup-specified SO-1014 UDF during the initial line entry of that item. An item with a 'Yes' in the specified SO-1014 will now be considered the 'Implied Kit Item' and each item after that will be considered an 'Implied Component' and subject to the processing described above.
If you have marked an Inventory Kit as an ‘Implied Kit Item’ via the IM-1077 UDF, then upon Kit explosion, the Parent Item will have the SO-1014 UDF flag set to ‘Yes.’

If you have marked an Inventory Kit as an ‘Implied Kit Item’ via the IM-1077 UDF and you have SO-1068 installed and enabled, then upon Kit explosion, the first former component item will have the SO-1014 UDF flag set to ‘Yes.’

If you have SO-1068 installed and enabled, the following processing will occur, depending on how you answer the Setup questions for both SO-1068 and this Extended Solution:

Example 1
SO-1066 Setup questions:
  Enable Implied Kit Processing? (Yes/No/UDF): Yes or UDF
    IM-1077 UDF
    SO-1014 UDF
  SO-1068 Refresh Subtot Qtys?: Yes
SO-1068 Setup questions:
  SO-1066 Create Parent Item Comment?: Yes
  SO-1066 Use Original Kit Description & Unit Price in Parent Comment?: Yes

/C
ORIGINAL KIT DESCRIPTION
SUBTOT
  OK Qty
Ord
  OK Qty
Ship
  OK Qty
B/O
  OK Unit
Price

If there is a line item prior to the Kit Item being exploded, then there will also be ‘blank’ Subtot Line added prior to the kit:

/C
SUBTOT

The Original Kit Description appears AFTER all of the former component items. Changes to Qty Ship/B/O during Invoicing will have an effect on the Qty Ship & Qty B/O segments of the SUBTOT comment. If the only change to the above is ‘SO-1068 Refresh Subtot Qtys?: No,’ then there is no recalculation of the Qty Ship and Qty B/O segments during SO Invoicing. It should be noted that so long as SO-1068 is installed and enabled and you have said ‘Yes’ to ‘Calculate Quantities using Implied Kits,’ you will automatically get the SUBTOT comment line, regardless of your answer to the ‘Create Parent Item Comment’ Setup question in SO-1068.

Example 2
SO-1066 Setup questions:
  Enable Implied Kit Processing? (Yes/No/UDF): Yes or UDF
    IM-1077 UDF
    SO-1014 UDF
  SO-1068 Refresh Subtot Qtys?: Yes
SO-1068 Setup questions:
  SO-1066 Create Parent Item Comment?: Yes
SO-1066 Use Original Kit Description & Unit Price in Parent Comment?: **No**

/C  **IMPLIED KIT DESCRIPTION**  SUBTOT

<table>
<thead>
<tr>
<th>IK Qty</th>
<th>IK Qty</th>
<th>IK Qty</th>
<th>IK Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ord</td>
<td>Ship</td>
<td>B/O</td>
<td>Price</td>
</tr>
</tbody>
</table>

If there is a line item prior to the Kit Item being exploded, then there will also be ‘blank’ Subtot Line added prior to the kit:

/C    **SUBTOT**

The Implied Kit Description appears AFTER all of the Items in the Kit. Changes to Qty Ship/BO during Invoicing will have an effect on Qty Ship & Qty B/O segments of the SUBTOT comment. If the only change to the above is ‘SO-1068 Refresh Subtot Qtys?: **No,**’ then there is no recalculation of the Qty Ship & Qty B/O segments during SO Invoicing.

**Example 3**

SO-1066 Setup questions:
- Enable Implied Kit Processing? (Yes/No/UDF): **No**
  - IM-1077 UDF
  - SO-1014 UDF
- SO-1068 Refresh Subtot Qtys?: **No**

SO-1068 Setup questions:
- SO-1066 Create Parent Item Comment?: **Yes**
- SO-1066 Use Original Kit Description & Unit Price in Parent Comment?: **Yes or No**

Adding the same comment to the end of the exploded Kit.

/C  **ORIGINAL KIT DESCRIPTION**  SUBTOT

<table>
<thead>
<tr>
<th>OK Qty</th>
<th>OK Qty</th>
<th>OK Qty</th>
<th>OK Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ord</td>
<td>Ship</td>
<td>B/O</td>
<td>Price</td>
</tr>
</tbody>
</table>

If there is a line item prior to the Kit Item being exploded, then there will also be ‘blank’ Subtot Line added prior to the kit:

/C    **SUBTOT**

In this instance, the last Setup question has no effect on the previous setup question; they will both result in the same comment.

**Picking Sheet Printing**

If Implied Kit processing has been enabled and the user has specified in S/O setup to Print Picking Sheets Sorted by Bin Location, then this process is modified so that ‘Implied Components’ will follow their ‘Implied Kit Item’ during Picking Sheet Printing, rather than
being sorted to their own Bin Location (Please note that this Extended Solution modifies Picking Sheets only; the functionality does not apply to Shipping Data Entry Packing Lists.).

Note: The comment lines that follow Implied Components, down to the next non-comment line, will stay with the components during Picking Sheet Printing.

Sales Order Printing and S/O Invoice Printing
If you selected 'Yes' for 'Suppress Printing of SUBTOT Quantities’ in Setup, then when all of the lines preceding the SUBTOT line have a Quantity Ordered of 1, the SUBTOT quantity fields for SUBTOT_QTY_ORD, SUBTOT_QTY_BACKORDER, and SUBTOT_QTY_SHIPPED will not print, and the SUBTOTAL_AVE_UNIT_PRICE will be set to the Subtotal of all the line extended amount fields.

If you answered ‘Yes’ to ‘Suppress Printing Extensions Of Duplicate Items’ in Setup, then during Sales Order Printing and S/O Invoice Printing, the ‘Extended Amount’ field will not print for all like Items within a SUBTOT line. Only the SUBTOT line will print its combined Extended Amount. Line items that are not in a SUBTOT line will print line item extensions as normal. It is recommended that these single line items be entered after all of the Items subject to SUBTOT procedures have been entered.

Helpful Hints
• A space is required after the word ‘SUBTOT’ or ‘RUNTOT’ if there is more text on the comment line.
• You may print as many Subtotal and/or Running Total lines as you need on each Sales Order/Invoice form.
• The form fields ‘Dashed line 1’ and ‘Dashed line 2’ are printed with Subtotals and Running totals respectively.

Forms
Non-Graphical Forms
You can maintain the new FORM fields for this Extended Solution by pressing the ‘Form...’ button. A window will appear prompting you to select the FORM that you would like to maintain (Figure 5). Select this Extended Solution and the FORM maintenance screen for the new fields will be displayed (Figure 6).
The new fields that you activate with this Extended Solution will print in addition to any other fields that have been activated in standard MAS 90 MAS 200 or other Sage Software Extended Solution FORM maintenance.

The Running Total form fields will print the total of all extended amounts or quantities (depending upon the FORM item selected) for line items preceding it.
The Subtotal form fields will print the total of all extended amounts or quantities for items preceding it, back to any previous SUBTOT.

If desired, dashed line form fields are available to print along with the Subtotal and/or Running Total fields to further highlight these totals.

The SUBTOTAL_AVE UNIT_PRICE and RUNTOTAL_AVE_UNIT_PRICE are calculated as the Subtotal or Running Total divided by the total Quantity Ordered on the Sales Order form, divided by the Quantity Shipped on the S/O Invoice form.

SUBTOT SEGMENT 1 – Subtotal Qty Ordered
SUBTOT SEGMENT 2 – Subtotal Qty Shipped
SUBTOT SEGMENT 3 – Subtotal Qty Back Ordered
SUBTOT SEGMENT 4 – Subtotal Extended Amount
RUNTOT SEGMENT 1 – Running Total Qty Ordered
RUNTOT SEGMENT 2 – Running Total Qty Shipped
RUNTOT SEGMENT 3 – Running Total Qty Back Ordered
RUNTOT SEGMENT 4 – Running Total Extended Amount
PRIOR LINES UNIT PRICE – Refers to Setup question: Display ‘Last Fields on Message Line
PRIOR LINES UNIT OF MEASURE – Refer to Setup question: Display ‘Last Fields on Message Line
UNIT PRICE – Refers to Setup Question: Enter ‘Quantity Ordered’ on SUBTOT Line
QUANTITY ORDERED - Refers to Setup Question: Enter ‘Quantity Ordered’ on SUBTOT Line

Graphical Forms
No changes have been made to the Crystal Reports Work Table files. If you have elected to use graphical forms in the modules’ Setup, the features of this Extended Solution that affect form printing will not be available.

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
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