



Property of WillowWare Incorporated

DS0101
Document Merger



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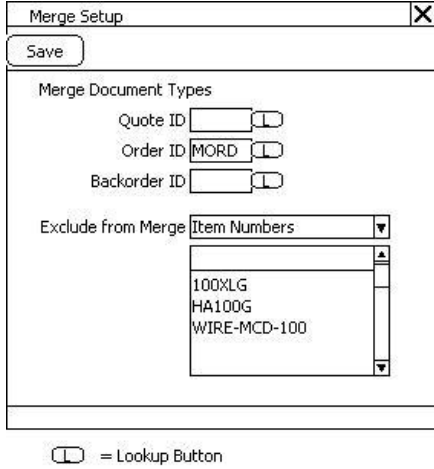
Problem Definition

<i>Problem Definition</i>	CCDA
<p>ACME Co. has a very high volume of sales transactions with many repeat customers. If orders, or lines on orders, cannot be fulfilled, they are moved to Backorders. To simplify fulfillment and invoicing, ACME needs to combine multiple documents together from a Customer into a single document.</p>	

Solution Overview

<i>Solution Overview</i>	CCDA
<p>The proposed solution will have the following features:</p> <ul style="list-style-type: none">• Allow setup of certain Customers, Items, and Batch IDs to always exclude from the merging process• Provide a Query Builder window where multiple selection criteria can be created to select a subset of documents to merge• Maintain complete history of documents so that the user can trace any document back to the originating document. For example, this will support tracing a posted invoice back to the Order, from there back to a Merged Backorder, then to the individual Backorders that were merged, then back to the originating orders, and so on.	

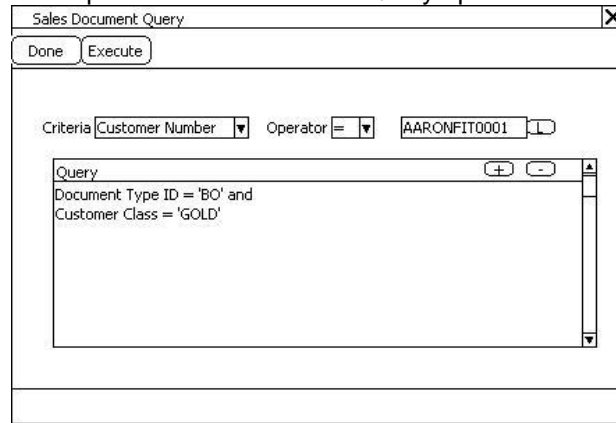
Design Features

Merge Setup		CCDA
<p>Merger Setup will be access from Tools >> Setup >> Sales >> Merger Setup</p> <p>NOTE: the Merger functionality is being added to ACME's existing Fulfillment customization. The "Merger" menu options will appear in the drop-down menus before "Fulfillment" so they are in the order the windows are used.</p> <div style="text-align: center;">  </div>		
Field	Function	
Document Types	The Document Type to be used when creating a new merged document. Each Document is merged into a new document of the same SOP Type. So, Quotes are merged into a new, combined Quote using the Quote ID specified here.	

	<p>If a Document Type ID is not provided in Setup, those documents will be automatically excluded from the Merge Query. So if no Document Type ID is specified for Quotes, Quotes will be excluded from the Merge Query.</p> <p>The new, merged documents will be created using the Document IDs specified here.</p>	
<p>Exclude From Merge</p>	<p>This drop down box changes what is displayed in the Scrolling Window below. The Exclude From Merge options are:</p> <ul style="list-style-type: none"> • Item Numbers • Customer Numbers • SOP Batch IDs • Inventory Site IDs 	
<p>Scrolling Windows</p>	<p>Exclusion Lists. These Item Numbers, Customer Numbers, Batch IDs, and Site IDs will NOT be included in the Merge Query—regardless of the query. In other words, specific inclusion in the Merge Query does not override the specific exclusion from one of these lists.</p> <p>An Item, Customer or Batch must be removed from these lists to be included in the Merge Query.</p> <p>If a document contains one or more excluded items, or sites, the entire document will be excluded.</p>	

Sales Document Query	CCDA
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Merge Query will be accessed from Transactions >> Sales >> Sales Document Query. As mentioned above, this will precede the Fulfillment Query option.



 = Lookup Button

This window is used to build a list of criteria used to identify a set of documents to merge. This is the same window used by Fulfillment Query. It will be renamed from Fulfillment Query to Sales Document Query. Both Merging and Fulfilling will access the same window from the navigation shown above.

Field	Function
Criteria	<p>A drop-down list containing the criteria that can be used to build a restriction list. The available criteria are:</p> <ul style="list-style-type: none"> • Document Number • Document Date • Customer Number • Requested Ship Date (from Sales Line) • Document Type ID • Batch Number

	<ul style="list-style-type: none"> • Site ID (from Sales Line) • Customer Class • SOP Type 	
Operator	<p>A drop-down list containing the types of comparisons that can be done on the selected Criteria:</p> <ul style="list-style-type: none"> • Equals (=) • Less than (<) • Greater than (>) • Less than or equal to (<=) • Greater than or equal to (>=) • Between (enables to “values” field so user can select/enter the from/to values) • Not Equal To (<>) 	
Value	<p>The values fields change depending on the type of Criteria selected. For example, if “Customer Number” “Between” are selected, two “Customer Number” fields and lookups will be enabled. Selecting “Document Date” would enable date fields.</p>	
+ and -	<p>Add or remove a restriction criteria.</p>	
Execute	<p>This is a “button drop list”, which when clicks displays a drop-down menu. This menu will contain two options: Merge Query and Fulfillment Query.</p> <p>Merge Query: all documents meeting the restriction criteria will be selected. See the next section for “Merge Rules”. There are some documents that may automatically be excluded from the Query Results regardless of the selection criteria.</p> <p>If there is not a Merge Document Type ID specified for a SOP Type, those documents will automatically be excluded. For example, if there is not a Merge Document Type ID specified for Invoice ID, then invoices will not be included in the query regardless of any other criteria.</p>	

	There will be some additional restrictions placed on which documents can actually be merged (described in the next section).	

Sales Query Results	CCDA																						
<p>Sales Query Results opens automatically from Sales Document Query. It is the same window created in DS0092 for Fulfillment, but will be renamed to Sales Query Results. If the Fulfillment Query was executed the title bar of the window will show “Sales Query Results – FULFILLMENT”, and if the Merge Query was executed the title will show “Sales Query Results – MERGE”.</p> <div data-bbox="388 571 1071 958" style="border: 1px solid black; padding: 5px;"> <p>Sales Query Results - MERGE</p> <p>Close Mark All Unmark All Process</p> <p>Batch ID MERGE_26NOV</p> <table border="1"> <thead> <tr> <th>X</th> <th>SOP Num</th> <th>Document ID</th> <th>Priority</th> <th>Customer ID</th> <th>Customer Name</th> <th>Document Date</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>BO2225</td> <td>BO</td> <td>1</td> <td>CENTRALD001</td> <td>Central Distributing</td> <td>5/23/2007</td> </tr> </tbody> </table> <p> <input type="checkbox"/> = Expansion Button <input type="checkbox"/> = Lookup Button </p> </div> <p>This is a Scrolling Window which can have a multi-line display with Expand/Contract buttons.</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>“X”</td> <td>This is a Checkbox field used to mark/unmark documents to be merged. By default this box will be marked.</td> </tr> <tr> <td>Document No.</td> <td>The column header will be a “zoom” button, which will allow opening the document in Sales Transaction Inquiry Zoom.</td> </tr> <tr> <td>→</td> <td>An expansion button will open the selected document in Sales Query Detail (below). All lines must be included in the Merge, so the Sales Query Detail will be inquiry only.</td> </tr> </tbody> </table>	X	SOP Num	Document ID	Priority	Customer ID	Customer Name	Document Date	X	BO2225	BO	1	CENTRALD001	Central Distributing	5/23/2007	Field	Function	“X”	This is a Checkbox field used to mark/unmark documents to be merged. By default this box will be marked.	Document No.	The column header will be a “zoom” button, which will allow opening the document in Sales Transaction Inquiry Zoom.	→	An expansion button will open the selected document in Sales Query Detail (below). All lines must be included in the Merge, so the Sales Query Detail will be inquiry only.	
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Mark All	Marks all documents
Unmark All	Unmarks all documents.
Process	Executes the merge process. The window knows which query opened it, so Process will act accordingly (i.e. Fulfilling or Merging).
Window Close	When the window is closed, the query results are deleted from the database. In other words, after executing the Query and seeing the results in Sales Fulfillment, you must either Process or close the window (which deletes the query results). It cannot be saved and worked on later, as during that time the underlying Sales Orders could have been changed by another user.
Batch ID	For the Fulfillment Query and the Merge Query this field will be disabled. Merged documents will remain in their originating Batch. In the event that documents from multiple batches are included, the merge process will only merge documents within a Batch.

Sales Query Detail window, which is available for the Fulfillment Query, will be available for Merge too, but will not be editable. It will be view only when opened from a Merge Query. Entire documents must be selected for the merge.

Merge Process

The Sales Query Results window will ensure that only one user has it open at any given time. Users can be active in other SOP windows, working with sales transactions.

There is nothing in the Query process that necessarily restricts to a certain document type, although ACME will usually restrict it by SOP Type. If multiple SOP Types are included, each will be handled as a separate group, so it would be possible to merge quotes and backorders at the same time (Quotes merge into new Quotes, and Backorders merge into new Backorders).

The “merge” process is better thought of as creating a new, combined document rather than merging. Most information on the document will be populated with customer defaults. For example, the default address information will be used for the specified Ship To Address ID, even though Dynamics GP allows the Ship To Address to be edited on a per-document basis. Such changes to the Ship To Address, if present, will be ignored and the new document will pull in the Ship To Address information from the customer record. In other

words, if two documents for AARONFIT0001 both have the same Ship To Address ID (WAREHOUSE), but the user has changed the details of that address on one of the documents, the documents will still be merged and the Ship To Address details will be pulled from the Customer Address Master.

Merge Rules: The following rules will be followed when combining documents:

- Quotes, Backorders and Orders can be combined (Quotes to new Quotes, Backorders to new backorders, and Orders to new orders). Documents cannot be combined across SOP Types.
- Documents must have the same Ship To Address ID and Bill To Address ID
- No information that was changed on Sales Customer Detail Entry on a per-document basis will be combined
- No information from the Sales Date Entry window will be combined
- Customer PO Number will be appended to the SOP Line Comment Text.
- Documents must have the same Currency ID to be combined
- Document cannot have a Deposit
- Document level Notes will be ignored
- Document level Comment ID and Comment Text will be ignored
- Holds will be ignored (a document on Hold will not be merged)
- No information from Sales User-Defined Fields Entry will be combined
- Salesperson and Sales Territory IDs will be assigned to the new document if they are set up on the Customer Maintenance window. Existing Salesperson and Territory information on the source documents will be ignored.
- Sales Lines will not be combined.
 - All sales line information will be retained when creating the new line on the combined document.
- If a Backorder has Qty To Invoice = 0 and Qty To Order = 0, the entire document will be excluded. This addresses a potential error condition where the document did not move to history when it was fulfilled, so these documents should be excluded.

As documents are combined, the originals will be moved into the GP Sales History Tables.

If a document is “in use” by a user at the time it would be merged, it will be skipped.

When finished, the system will print a report showing the Sales Orders and Lines that were

<p>included in the Merge. The report will show the new SOP Number as “header row”, then list below details about each of the lines that were merged into the new document (see report output sample at end of this document).</p>	
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<i>Inquiry</i>	CCDA
<p>The “merged” documents will be visible Sales Document Detail Entry (for Open transactions), and Sales Document Detail Inquiry Zoom (for Posted transactions). These are the windows that open from the Expansion Button to the right of Document No. on Sales Transaction Entry and Sales Transaction Inquiry Zoom, respectively.</p> <p>This solution will not require modifications to Sales Transaction Entry or Sales Transaction Inquiry Zoom.</p>	

<i>Binary Stream Document Merger</i>	CCDA
<p>It should be noted that the Binary Stream Merger product does not move documents to history as they are merged. The documents are copied into a set of “shadow tables” that mirror the GP Sales Tables. Uninstalling Binary Stream Merger will remove the ability to view those documents through Binary Stream’s Inquiry windows.</p> <p>If Binary Stream is to be uninstalled, we recommend migrating the data from the Binary Stream tables into the GP Sales History tables.</p> <p>Another option would be to keep the software installed until the history documents it contains are no longer as important. They could still be accessed through SmartList Builder.</p> <p>Handling the decommissioning of Binary Stream, and migrating data or building SmartList Builder objects is outside the scope of this estimate.</p>	

Report Sample					CCDA		
Date : 11/20/2008		Fabrikam, Inc.			Page No. 1		
Time : 5:46:43 PM		SOP Merge Document			User Id: sa		
Merged SOP Doc.	Customer Name	Doc. Date	Batch Number		Doc. Amount		
STDINV2311	Aaron Fitz Electrical	4/12/2007	MERGE		\$1,028.62		
Org SOP Doc.	ReqShipDate	Bill To	Ship To	Pay Terms	Doc.Date	Batch Number	Doc. Amount
STDINV2308	4/12/2007	PRIMARY	WAREHOUSE	Net 30	4/12/2007	TEST	\$224.20
STDINV2309	4/12/2007	PRIMARY	WAREHOUSE	Net 30	4/12/2007	FULFIL	\$804.42
						Sub Total	\$1,028.62
						Rounding Diff	\$0.00
						Grant Total:	\$1,028.62