

DS0647

Customer Discounts



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Problem Definition

Prob	lem Definition	CCDA
ACME limits c Sales I into the as they creating	Co. has an existing Sales Discount module which calculates Product Discounts and ustomers receiving Product Discounts unless a dollar threshold has been met on the Document. They would like to add additional functionality, including Freight Discounts enhancement, as well as provide for the ability to easily upgrade the enhancement upgrade to the next version of Dynamics GP. Therefore, WilloWare will be re- g the entire enhancement.	
The ge	neral rules of ACME's Sales Discount enhancement are as follows:	
1.	Product Discount thresholds are defined by Customer Class.	
2.	Product Discount eligibility is defined by the Item Class and Price Level.	
3.	Freight Discount thresholds are defined per Company database.	
4.	Freight Discount eligibility is defined by the Item Class and Price Level	
5.	If a Customer receives a Product Discount because they have met the Product Discount threshold OR if any Sales Line has been updated to reflect a decrease in the Customer's Price List's standard price, then the Customer does NOT receive a Freight Discount.	
6.	If the Sales Document subtotal meets a Freight Discount threshold and there are NO Product Discounts on the order then the Customer will get a Freight Discount percentage off of the Sales Order subtotal, but only up to the Actual Shipping Amount.	
ACME populat the Fre Sales I	utilizes Starship software in their shipping process. The Starship software is used to the the Freight field during either the GP Sales Order or GP Sales Invoice stage. So, if ight field was populated on a Sales Order the information must be transferred to the invoice. At times, ACME uses Starship solely at the GP Sales Invoice stage.	



Solution Overview

Solution Overview	CCDA
Please see the Design Features section below.	



Design Features

Freight Discount Setup	CCDA
Navigation: Company→Setup→Freight Discount Setup	
This window is used to define the Sales Order Freight Discount Thresholds. A Sales Order's "Sales Document Eligible Freight Discount Subtotal" must fall within a threshold which receives a Freight Discount for a discount to be applied. In c the example below, if a Sales Order's Sales Document Eligible Freight Discount Subtotal is \$350.00, the Sales Order would receive a 20.00% Freight Discount.	
How to calculate Freight Discounts is described in detail in the section entitled Sales Document Freight Discount.	
Freight Discount Setup	
Done	
Starting Dollar Ending Dollar Freight Discount % 🚔	
\$0.00 \$299.99 15.00%	
\$300.00 \$999,999.99 20.00%	
50.00 50.00 0.00%	
Field	
Done Button The user will click the DONE button to exit the window	
Starting Dollar The enhancement will default the Starting Sales Document Dollar amount	
for each threshold layer. The first threshold layer must start with \$0.00.	



	This field is not editable. It is auto-calculated.	
Ending Dollar	The user will enter the Ending Sales Document Dollar amount for the	
	threshold layer. The last Ending Dollar amount must be for	
	\$999,999,999.99.	
Discount	The user will enter the Freight Discount Percentage. This field will default to 0.00%. This field has 2 decimal places and a user may enter a discount percentage from 0.00% to 100.00%.	
	The sum of a Sales Order's eligible Sales Lines (Sales Document Eligible Freight Discount Subtotal) will determine which threshold's Freight Discount Percentage will be utilized in the calculation.	
	(Eligibility of Sales Lines is described in later sections of this document).	



Customer Class Setup	CCDA
Navigation: Sales→Setup→Customer Class→Additional→Order Discount	
This window is used to define Sales Order Discount Thresholds. A Sales Order's "Sales Document Eligible Product Discount Subtotal" must fall within a threshold which receives a Product Discount for a discount to be applied to eligible Sales Lines.	
How to calculate Product Discounts is described in detail in the section entitled Sales Transaction Entry.	
Order Discount By Class	
Customer Class ID D20 Customer Class Description 20% Discount Customers	
Starting Dollar Ending Dollar Discount \$0.00 \$299.99 0.00% \$300.00 \$999,999,999.99 20.00% \$0.00 \$0.00 \$0.00	
Field Function	
Done Button The user will click the DONE button to exit the window.	
Customer Class ID The Customer Class ID will default. This field is not editable.	
Ustomer Class I he corresponding Customer Class Description will default. This	
Starting Dollar The enhancement will default the Starting Sales Document Dollar	



	amount for each threshold layer. The first threshold layer must start with \$0.00. This field is not editable. It is auto-calculated.	
Ending Dollar	The user will enter the Ending Dollar amount for the threshold laver. The last Ending Dollar amount must be for \$999,999,999,999,999,999,999,999,999,99	
Discount	The user will enter the Discount Percentage.	
	The user will enter the Product Discount Percentage. This field will default to 0.00%. This field has 2 decimal places and a user may enter a discount percentage from 0.00% to 100.00%.	
	The sum of a Sales Order's eligible Sales Lines (Sales Document Eligible Product Discount Subtotal) will determine which threshold's Discount Percentage will be utilized in the calculation.	
	(Eligibility of Sales Lines is described in later sections of this document).	
When the window ope The user will then ente The user will then ente amount must be \$999	ns, the Customer Class and Customer Class Description will default. er the first threshold layer. The Starting Dollar amount must be \$0.00. er the Ending Dollar amount. The last threshold layer's Ending Dollar ,999,999.99.	



Item Class Setup		CCDA
Navigation: Inventory→Setup→Item Clas	s→Additional→Item Class Discount Option	
This window is used to assign Product and F	reight Discount eligibility to an Item Class:	
Item Class Discount Optio	n X	
(Save)		
Item Class B Item Class Description B Do Do Do	Item Class Not Include in Product Discount Not Include in Product Discount Threshold Not Include in Freight Discount Not Include in Freight Discount Threshold	
Field	Function	
Done Button	The user will click the DONE button to exit the window.	
Item Class	The Item Class will default. This field is not editable.	
Item Class Description	The Item Class description will default. This field is not editable.	
Do Not Include in Product Discount	This field is a checkbox:	
	 CHECKED: All Items in the Item Class are NOT eligible to receive a Product Discount even if the Product Discount Threshold has been met. NOT CHECKED: All Items in the Item Class are eligible to receive a Product Discount if the Product Discount 	



	Threshold has been met.	
Do Not Include in Product Discount Threshold	 This field is a checkbox: CHECKED: All Items in the Item Class are NOT included in the total Sales Order value calculated to determine if a Sales Order has reached a threshold which offers a Product Discount. NOT CHECKED: All Items in the Item Class are included in the total Sales Order value calculated to determine if a Sales Order has reached a threshold which offers a Product Discount. 	
Do Not Include in Freight Discount	 This field is a checkbox: CHECKED: All Items in the Item Class are NOT eligible to receive a Freight Discount even if the Freight Discount Threshold has been met. NOT CHECKED: All Items in the Item Class are eligible to receive a Freight Discount if the Freight Discount Threshold has been met. 	
Do Not Include in Freight Discount Threshold	 This field is a checkbox: CHECKED: All Items in the Item Class are NOT included in the Sales Document Eligible Freight Discount Subtotal value calculated to determine if a Sales Order has reached a discount threshold set in the Freight Discount Setup. NOT CHECKED: All Items in the Item Class are included in Sales Document Eligible Freight Discount Subtotal value calculated to determine if a Sales Order has reached a discount threshold set in the Freight Discount Setup. 	



Price Level Setup		CCDA
Navigation: Inventory→Setup→Price Lev	el→Additional→Price Level Discount Option	
This window is used to assign Product and F	reight Discount eligibility to Price Levels:	
Price Level Discount Option		
Price Level ID W Price Level Description Whole	esale	
□ Do Not □ Do Not	Include in Product Discount Include in Product Discount Threshold	
Do Not	Include in Freight Discount Threshold	
Field	Function	
Done Button	The user will click the DONE button to exit the window.	
Price Level ID	The Price Level will default. This field is not editable.	
Price Level Description	The Price Level description will default. This field is not editable.	
Do Not Include in Product Discount	This field is a checkbox:	
	 CHECKED: All Item on the Sales Order assigned the Price Level on the Customer Maintenance window are NOT eligible to receive a Product Discount even if the Product Discount Threshold has been met. 	



	 NOT CHECKED: All Items on the Sales Order assigned the Price Level on the Customer Maintenance window are eligible to receive a Product Discount if the Product Discount Threshold has been met.
Do Not Include in Product Discount Threshold	 This field is a checkbox: CHECKED: All Items on the Sales Order assigned the Price Level are NOT included in the total Sales Order value calculated to determine if a Sales Order has reached a threshold which offers a Product Discount. NOT CHECKED: All Items on the Sales Order assigned the Price Leven are included in the total Sales Order value calculated to determine if a Sales Order has reached a threshold which offers a Product Discount.
Do Not Include in Freight Discount	 This field is a checkbox: CHECKED: All Items on the Sales Order assigned the Price Level are NOT eligible to receive a Freight Discount even if the Freight Discount Threshold has been met. NOT CHECKED: All Items on the Sales Order assigned the Price Level are eligible to receive a Freight Discount if the Freight Discount Threshold has been met.
Do Not Include in Freight Discount Threshold	 This field is a checkbox: CHECKED: All Items on the Sales Order assigned the Price Level are NOT included in the Sales Document Eligible Freight Discount Subtotal value calculated to determine if a Sales Order has



 reached a discount threshold set in the Freight Discount Setup. NOT CHECKED: All Items on the Sales Order assigned the Price Level are included in the Sales Document Eligible Freight Discount Subtotal value calculated to determine if a Sales Order has reached a discount threshold set in the Freight Discount Setup. 	



Sales T	ransaction	n Entry					CCDA
Navigation	: Sales→Sales	s Transaction Entry					
The Sales T what is disp Sales Orde	Transaction Entro blayed below. T er and Invoice.	ry window will be modif he CALCULATE and S	ied to include two HIPPING buttons	new buttons – CA will be active on the sective on the sective on the sective on the section of t	LCULATE and SHIF ne following SOP typ	PPING similar to bes: Quote,	
	Sales Transaction E	Entry				×	
	<u>F</u> ile <u>E</u> dit <u>T</u> ools	: View Opt <u>i</u> ons <u>A</u> dditional	<u>H</u> elp Debug	jtw M	aryland China Company 5/14	/2013	
	🔚 Save 🛛 Action	n <u>s</u> 🔻			Г., 127 127	a	
	Type/Type ID:	Order 🗸 MCC		Date	5/14/2013 🔠 🗲		
	Document No.	MORD0150503 🔍 🗋 →		Batch ID	ORD 🔍 🗌) 🔶	
	Customer ID	GR3331 🗌 🗋 ·	>	Default Site ID	MAIN 🔍 🗌	1	
	Customer Name	GRAND HOTEL (ADD OK)		Customer PO Number	JTW	111	
	Ship To Address	MAIN 🔍 286 GRAND	AVE.	Currency ID	<u> </u>		
	 Line Items by Order 	er Entered				- ×	
	Item Number Ci	DUofM (💫 Qty Ordered 🛛 🧇 🕂	I Unit Price	Extended Price		
	1164		0	1 \$5. 00 \$0	00 \$5.0		
			0	.uu - აი.			
						- =	
						_	
						.	
	Amount Received	\$0.0		Subtotal	\$5.00		
	Terms Discount Taken	\$0.0		Iculate Trade Discount	\$0.00	· →	
	On Account	\$5.0		Freight	\$0.00	→	
	Comment ID			Miscellaneous	\$0.00	→	



Field	Function	
Calculate Button	The user will click the CALCULATE button when they are ready to calculate the Product Discount.	
	The CALCULATE button will appear YELLOW once the Product Discount has been calculated.	
	The CALCULATE button will appear WHITE when new Sales Lines are added to the Sales Document or existing Sales Lines are updated.	
	The enhancement will calculate the Sales Document Product Discount in the following manner when the CALCULATE button is clicked:	
	Step 1: Is the Customer assigned a Class ID with Discount Thresholds? If this is true, then the enhancement will move on to step #2 of the Product Discount calculation. If this is false, the enhancement will do nothing.	
	Step 2: The enhancement will calculate the Subtotal of Sales Lines which are NOT marked "Do Not Include in Product Discount Threshold" on the Item Class Discount Option Card AND the Price Level Discount Option Card. If the either of the checkboxes (or both checkboxes) are marked, the Sales Line will NOT be included in the Subtotal Calculation.	
	The Subtotal of eligible Sales Lines will be calculated in the following manner as requested by ACME:	
	 Each eligible Sales Line will have its Sales Line Subtotal calculated as (Qty to Invoice * Unit Price) 	
	2. The subtotal of each eligible Sales Line will be added together to get the "Sales Document Eligible Product Discount Subtotal"	
	Step 3 : The enhancement will assess if the "Sales Document Eligible Product Discount Subtotal" is within the Customer's Class ID threshold layers which receive a Product Discount. If this is true, then the enhancement will move on to step #4 of the Product Discount calculation.	



If this is false, the enhancement will do nothing.
Step 4: The enhancement will determine which Sales Lines are eligible to receive the Product Discount. Eligible Sales lines are determined in the following manner:
 Eligible Sales Lines include any Sales Line where the Item is assigned to an Item Class where the "Do Not Include In Product Discount" checkbox is NOT marked AND where the "Do Not Include In Product Discount" checkbox is NOT marked for the Sales Line Item Price Level. If either of these checkboxes is marked, the Sales Line Item will NOT receive the Product Discount.
 The enhancement will then check the Eligible Sales Lines for manually updated Sales Line Unit Prices. The Sales Line Item's Unit Price MUST match the Price in the Item Price List Maintenance window for the Price Level, UOM and Quantity combination. If the Unit Price does NOT match the Price in the Item Price List Maintenance window for the Price Level, UOM and Quantity combination, the Sales Line will NOT be eligible for the Product Discount.
PLEASE NOTE: The enhancement determines if a Sales Line's Unit Price has been manually updated by comparing the Sales Line's Unit Price to the <i>current</i> Item Price List Price for the Item, UOM, and Qty combination.
 Finally, the enhancement will then check the eligible Sales Lines for Markdowns. Only eligible Sales Line which do NOT have a Markdown Percentage assigned will be eligible for the Product Discount. Sales Lines with a Markdown Percentage will NOT be updated. The original Markdown Percentage will remain.



Step 5: The enhancement will set each eligible Sales Line's Markdown Percentage equal to the Discount Percentage from the Order Discount by	Step 5: The enhancement will set each eligible Sales Line's Markdown Percentage equal to the Discount Percentage from the Order Discount by Class window for the threshold layer		
The Standard GP Sales Markdown Entry window will be utilized to hold the Product Discount Percentage. A sample of this window is below:			
Sales Markdown Entry			
File Edit Tools Help Debug sa Fabrikam, Inc. 4/12/2017			
Item Number 128 SDRAM			
Description 128 meg SDRAM			
Markdown Type: Percentage Amount 20.00%			
Unit Price \$250.00			
Markdown – \$50.00			
Adjusted Unit Price = \$200.00			
Quantity x 2			
Extended Price = \$400.00			
C OK Cancel			
Additional			
 If the CALCULATE button is clicked multiple times on a Sales 			
Order, the enhancement will NOT duplicate the discount. Each time the CALCLILATE button is clicked, the logic described in			
Steps 1 thru 5 will process. Items which have already had their			
Product Discount applied (i.e. they have a Percentage Markdown and Adjusted Unit Price) will not be overridden. If there have			
been any changes to an Item, Customer or Price Level eligibility			
OR to the Discount percentage or threshold limit, the Product			
affected.			



Shipping ButtonThe user will click the SHIPPING button when they are ready to calculate the Freight Discount. If the Freight Discount has been calculated already, the Shipping button will turn YELLOW.		 As is standard Dynamics GP functionality, Sales Line Markdowns will transfer when a Sales Document is transferred. PLEASE NOTE: There will NOT be a control in place to prevent calculating or recalculating the Product Discount on Sales Documents which have been transferred. The Product Discount may be inaccurate if the Sales Document was not shipped complete. If any Sales Line receives a Product Discount, the Sales Order and its Sales Lines will NOT be eligible to receive a Freight Discount. 	
Please see the next section entitled Sales Document Freight Discount for the Shipping Button logic.	Shipping Button	The user will click the SHIPPING button when they are ready to calculate the Freight Discount. If the Freight Discount has been calculated already, the Shipping button will turn YELLOW. Please see the next section entitled Sales Document Freight Discount for the Shipping Button logic.	

ACME Internal Process Controls:

• If a Sales Line Price is manually overridden by a user, the user will only update the Sales Line Item's **Unit Price** field. The Extended Price field and the Markdown field will NOT be used.



Sales Document Freigl	ht Discount		
Navigation: Sales→Sales Trans	action Entry		
When the SHIPPING button is clic	ked on the Sales Transaction Entry window, the following window will open:		
When the window opens, the ends	Sales Document Freight Discount Done Original Shipping Amount Stopping Amount Stopping Amount Shipping Allowance Shipping S8.79 Shipping Weight 60.80 Calculate Freight Discount		
Eiold	Eurotion		
Pene Butten	The user may disk the DONE butten to exit the window		
Original Shipping Amount	This field populates from the Sales Order Document's Freight Field. The field is set when the Sales Document Freight Discount window is opened the first time only, by clicking the SHIPPING button on the Sales Transaction Entry window.		
	The field will NOT change if the Freight Field on the Sales Transaction Entry window is updated after the enhancement has set the Original Shipping Amount. This field is not editable.		
Actual Shipping Amount	This field will populate from the Sales Order Document's Freight Field when the Sales Document Freight Discount window is opened the first		



	time only, by clicking the SHIPPING button on the Sales Transaction Entry window.
	Users are able to update the Actual Shipping Amount field. The user may change the Actual Shipping Amount and then click the CALCULATE FREIGHT DISCOUNT button if the Actual Freight Charge is different than the Original Shipping Amount.
	Clicking the CALCULATE FREIGHT DISCOUNT button will recalculate the Shipping Allowance (Freight Discount). Please see the Shipping Allowance field below for a detailed description of the Freight Discount Calculation logic.
Shipping Allowance (Freight Discount)	When the Sales Document Freight Discount window opens by clicking the SHIPPING button on the Sales Transaction Entry window, the enhancement will calculate the Freight Discount.
	The Shipping Allowance (Freight Discount) is calculated in a series of steps:
	Step 1: Does the Sales Order have any Sales Lines which have received a Product Discount OR have received a manual Unit Price update? If this is true, then the Sales Order and all of its Sales Lines are NOT eligible to receive a Freight Discount and the enhancement will do nothing. If this is false, the enhancement will move on to Step 2 of the Freight Discount calculation.
	PLEASE NOTE:
	 The enhancement determines if a Sales Line has received a Product Discount by reviewing the Markdown Percentage field. If the Markdown Percentage is NOT zero, the Sales Line has received a Product Discount. If the Markdown Percentage is zero, no Product Discount has been applied.
	 The enhancement determines if a Sales Line's Unit Price has been manually updated by comparing the Sales Line's Unit Price to the <i>current</i> Item Price List Price for the Item UOM and Qty



	combination.	
	Step 2: The enhancement will calculate the Subtotal of Sales Lines which are NOT marked "Do Not Include in Freight Discount Threshold" on the Item Class Discount Option Card AND the Price Level Discount Option Card. If the either checkbox (or both checkboxes) are marked, the Sales Line will NOT be included in the Subtotal Calculation.	
	The Subtotal of eligible Sales Lines will be calculated in the following manner as requested by ACME:	
	 Each eligible Sales Line will have its Sales Line Subtotal calculated as (Qty to Invoice * Unit Price) 	
	The subtotal of each eligible Sales Line will be added together to get the "Sales Document Eligible Freight Discount Subtotal."	
	Step 3 : The enhancement will assess if the Sales Document Eligible Freight Discount Subtotal lies within a threshold which receives a Freight Discount in the Freight Discount Setup window. If this is true, then the enhancement will move on to step #4 of the Freight Discount calculation. If this is false, the enhancement will do nothing as the Sales Order and its Sales Lines are not eligible to receive a Freight Discount.	
	Step 4: The enhancement will calculate the total (Shipping Allowance) Freight Discount by multiplying the Sales Document Eligible Freight Discount Subtotal by the appropriate Freight Discount Percentage.	
	The Shipping Allowance CANNOT be greater than the Actual Shipping Amount. If the Shipping Allowance is greater than the Actual Shipping Amount it will be set equal to the Actual Shipping Amount.	
	(This was a request by ACME as the Shipping Allowance is printed on the Invoice Document and they do NOT want the Shipping Allowance to be larger than the Actual Shipping Amount.)	
Net Shipping	The enhancement will calculate Net Shipping as (Actual Shipping Amount	



	 Shipping Allowance). The Net Shipping Amount will be pushed to the Freight Field of the Sales Transaction Entry window each time the Freight 	
	Discount (Shipping Allowance) is calculated.	
Shipping Weight	The enhancement will calculate the Shipping Weight as:	
	 Each Sales Line will have its Shipping Weight calculated as (Qty to Invoice * Shipping Weight) 	
	 The total of each Sales Line's Shipping Weight will be added together to get the total Shipping Weight. 	
	Sales Line Items on the Sales Document. The Shipping Weight of each Item Number is held in the Item Maintenance Card Shipping Weight Field.	
Calculate Freight Discount Button	The user may click the CALCULATE FREIGHT DISCOUNT button to recalculate the Shipping Allowance (Freight Discount).	
	Each time the CALCULATE FREIGHT DISCOUNT button is clicked, the logic described in Steps 1 thru 4 will process. If there have been any changes to an Item, Customer or Price Level eligibility OR to the Discount percentage or threshold limit, the Freight Discount previously calculated may be affected.	
	If the CALCULATE FREIGHT DISCOUNT button is clicked multiple times on a Sales Order, the enhancement will NOT duplicate the discount.	

Transferring Documents

- When a Sales Order document is transferred to a Sales Invoice document, the Freight amount on the Sales Transaction Entry window AND all data from the Sales Document Freight Discount window will transfer.
- When transferring a Sales Order Document to a Sales Invoice Document, any backordered lines are transferred to a Backorder Document. They do NOT remain on the original Sales Order Document. As is standard GP functionality, the Freight Amount will NOT transfer to the Backorder Document.

ACME Internal Process Controls:

• PLEASE NOTE: There will NOT be a control in place to prevent calculating or recalculating the Freight Discount on



Sales Documents which have been transferred. The Freight Discount may be inaccurate if the Sales Document was not shipped complete



Printing SOP Documents	
To support printing fields from the enhancement on Sales Documents, an integration will be provided for a report writer function called RW_GetTableHeaderCurrency(). The documentation provided with the customization will provide step-by-step instructions on how to add a calculated field to existing GP Sales Documents for the following fields:	



Assumptions/Requirements	
 The Extended Pricing Module is NOT used. The Sales Transaction Entry window modifications are not included in the Upgrade Assurance. ACME should NOT use the Qty Cancelled field in Sales Order Entry. Both the Freight Discount and Product Discount calculations are based on Qty Ordered of the Sales Line. Entering a Qty Cancelled does NOT reduce the Qty Ordered quantity by the Cancelled amount. 	