

SAP SD-Based Customer Cash Discount Postings and Clearing Account Handling

Saurabh Jain
Cleveland, OH

Arvind Napa
Kansas City, KS

Abstract— One of the functionalities in customer billing is calculation of cash discount at the time of billing. At the time of billing SAP reads payment terms from customer master data using condition. The system reads discount percentage and calculates cash discount amount in billing document. Billing documents when posted creates accounting entries. A cash discount is given to customers for making payment within the due date. Therefore, the nature of customer cash discount is contingent liability. To show contingent liability towards the cash discount some clients may want to post cash discount to an accrual account and clear the same at the time of customer receipt. However, when customers do not make payment within dates, the system does not automatically reverse the accrued cash discount. This white paper shows how a report can be generated to find out the amount to be reversed/cleared for claimed/unclaimed cash discount.

Keywords – SAP, S/4 HANA, ECC, cash discount clearing, SKTO

Configuration Steps For Activating Customer Cash Discount Accrual.

1. Condition type SKTO is assigned to account key in pricing procedure (V/08). SKTO reads discount percentage and calculates cash discount amount in billing documents. SKTO is a statistical condition and therefore is only for information purposes.
2. SKTO has account key that has account determination in VKOA for posting to expense account and accrual account.
3. You have to make sure that accrual account in VKOA is same as Cash discount account assigned in T-Code OBXI. It has to be an OI managed balance sheet account.

Item Detail	Item Partners	Conditions	ForTrade/Customs	Item Texts	PO Data
Qty	62,500.000 LB	Net	67,575.00 USD		
		Tax	0.00		
Pricing Elements					
N.	ChTy	Name	Amount	Ccy	per
2500		Pricing	1.59 USD	1 LB	
		Gross Value	1.59 USD	1 LB	
21VA		Temp/Voluntary Allowan	0.00 USD	1 LB	
		Total Discounts	0.00 USD	1 LB	
21L2		LTL Upcharge	0.00 USD	1 LB	
21SC		Misc Charges	0.00 USD	1 LB	
		Total Surcharges	0.00 USD	1 LB	
		Rebate Basis	1.59 USD	1 LB	
		Net Value for Item	1.59 USD	1 LB	
		Net Value 2	1.59 USD	1 LB	
		Total Rebates	0.00 USD	1 LB	
		Total Commissions	0.00 USD	1 LB	
JR1		Tax Jur Code Level 1	0.000 %		
JR2		Tax Jur Code Level 2	0.000 %		
JR3		Tax Jur Code Level 3	0.000 %		
JR4		Tax Jur Code Level 4	0.000 %		
		Total	1.59 USD	1 LB	
SKTO		Cash Discount	1.000 %		
VERS		Internal price	1.22 USD	1 LB	
		Profit Margin	0.37 USD	1 LB	
2CER		CER	2.00 USD	1 TO	

Journal entry at the time of billing will be:

Dr. Customer	67,575.00
Dr. Disc. Exp. A/C (from VKOA)	675.75
Cr. Revenue A/C	67,575.00-
Cr. Disc Acc A/C (from VKOA – as accrual)	675.75-

The discount is recognized immediately as expense assuming that customer will pay in time. Credit with same amount goes to an accrual account.

If customer pays in time, entry at the time of payment –

Dr. Checks/Wires in	66,899.25
Dr. Disc Acc A/C (assigned in OBXI)	675.75
Cr. Customer	67,575.00 –

Amount in discount accrual account will always represent liability of the company towards cash discount. The client can accurately show its contingent liability towards an unclaimed cash discount. Accrual account works as clearing account and therefore we can track cash discount right from billing to payment.

However, there is a problem in this approach. All customers not always pay within due date. In that case the customer will pay full amount and at the time of payment discount accrual account will not be debited.

In that case the customer will not be able to claim the discount and will pay the full amount and receipt entry should go as shown below:

Dr. Checks/Wires in	67,575.00
Cr. Customer	67,575.00 –

Since the original discount amount is posted in expense account and accrual account, it needs to be reversed as well. So next entry to complete this should be –

Dr. Discount Accrual A/C	675.75
Cr. Discount Expense A/C	675.75 –

Above entry SAP does not post automatically and identifying line item to be reversed manually is a tedious task due to large number of entries in accrual account. Basically at a time line items in accrual accounts can be divided into 3 categories:

Cat. 1 – Lines that represent unclaimed discount where customer can make payment within time and claim the discount. Ideally only these lines should remain in accrual account.

Cat. 2 – Credit amount at the time of billing and debit line items for on time payment. Ideally these line items should be cleared. In case these lines are not cleared it will represent a cluttered clearing account, however clearing such account is not an easy task because there are no common fields between credit amount and debit amount.

Cat. 3 – Credit amount at the time of billing where payment is not made on time. Ideally these entries should be reversed against discount expense account and cleared in accrual account.

If lines under category 2 and category 3 are not cleared and accrual account is not maintained it will be difficult to ascertain correct amount of liability towards cash discount. To identify and clear lines under category 2 and 3 in accrual account we can develop 2 custom reports. One report will show line items where customer paid in time and lines should be cleared and other report will show where customer failed to pay in time and line items can be reversed.

Report 1 – Clearing Information For Accrual Account (Customer Paid In Time):

When customer line items are cleared and discount is automatically posted, that document becomes clearing document for customer billing line item and payment document. It holds good when billing line is cleared at the time of booking payment (where payment document = clearing document) or when billing line and payment lines are cleared later like in case of Lockbox processing (where payment document < clearing document).

See example below:

Typically this is how a customer account looks after customer has made on time payment.

RV line shows – Billing,

DZ – Incoming payment and

AB – Clearing document (that posts allowable discount as well)

Customer Account: 100099 in company code 1100.

Acc. Doc	F. Year	Description	P. Date	Amt in LC	LC	D Typ	Clrng doc.
90029409	2013	XYZ Customer	6/10/2013	67,575.00	USD	RV	100118364
1400004854	2013	XYZ Customer	6/24/2013	66,899.25	USD	DZ	100118364
100118364	2013	XYZ Customer	6/24/2013	675.75	USD	AB	100118364

Accrual account after above postings. Please note that both lines are open as of now. Accrual account 120021 in company code 1100 -

Acc. Doc	F. Year	Description	P. Date	Amt in LC	LC	D Typ	Clrng doc.
90029409	2013	Disc Acc A/C	6/10/2013	675.75	USD	RV	
100118364	2013	Disc Acc A/C	6/24/2013	675.75	USD	AB	

If you observe in customer account that accounting document in the line where discount is posted is same as clearing document. We need to establish link between Billing document 90029409 and clearing document 100118364. This can be achieved using 2 tables i.e. BSIS and BSAD.

Please see below –

If we input following information in table BSIS we should get line item from document 100118364 along with other lines but for simplicity I am showing on line from document # 100118364.

Input:

Company Code (BSIS-BUKRS)

Accrual Account (BSIS-HKONT)

Posting Date (BSIS-BUDAT)

Output:

CoCode	G/L Account	Clearing	Clrng doc.	Assig.	Year	Document	Item	Posting Date	Doc. Date	Crcy	Type	Peri.	PK	D/C	Amount LC	Amount
1100	0000120021				2013	0100118364	1	06/24/2013	06/24/2013	USD	AB	6	40	S	675.75	675.75

If we use above information to join with fields in table BSAD we should be able to get billing document number and clearing document number:

Joining condition between table BSIS and BSAD should be:

BSIS-BELNR = BSAD-AUGBL

BSIS-BUDAT = BSAD-AUGDT

BSIS-BUKRS = BSAD-BUKRS

Input:

General Table Display

Background Number of Entries All Entries More

Table: BSAD Accounting: Secondary Index for Customers (Cleared Items)

Text table: ☐ No texts

Layout: ☐ Maintain entries

Maximum no. of hits: 500

Selection Criteria

Field name	O. Fr. Value	To value	More	Output	Technical
Client					MANDT
Company Code	1100				BUKRS
Customer					KUNNR
Transact.type					UMSKS
Special G/L ind					UMSKZ
Clearing	06/24/2013				AUGDT
Cimg doc.	100118364				AUGBL
Assignment					ZUONR

Output:

Display of Entries Found

Table to be searched: BSAD Accounting: Secondary Index for Customers (Cleared Items)

Number of hits: 3

Runtime: 0 Maximum no. of hits: 500

CoCode	Customer	Clearing date	Cimg doc.	Year	Document No.	Item	Posting Date	Ctry	Type	D/C	BusA	Tx	Amount LC	Amount	Cash Discount Amount
1100	0000100099	06/24/2013	0100118364	2013	0090029409	1	06/13/2013	USD	RV	S			67,575.00	67,575.00	675.75
1100	0000100099	06/24/2013	0100118364	2013	0100118364	2	06/24/2013	USD	AB	H			675.75	675.75	675.75
1100	0000100099	06/24/2013	0100118364	2013	1400004854	2	06/24/2013	USD	DZ	H			66,899.25	66,899.25	6.00

You will observe that you will get Billing document - 90029409, Payment document - 100118364 and Clearing document - 1400004854.

By subtotaling field BSAD-SKNT0 and BSAD-WSKTO on clearing document you can have zero for cash discount amount (you will have to make them +ive or -ive by using field SHKZG). If your total is zero these accounting documents can be cleared. If total is not zero it means that customer paid amount after due date and therefore not claimed discount. Such discount needs to be reversed against expense account.

We can have a nice custom report to show above output:

Cash Clearing info

CoCd	Document No.	G/L	Posting Date	Doc. Date	Reference	B/C	Amount in LC	Ctry	Amount	Ctry	Document No.	Customer	CoCd	Doc. Type	CD	Amount DC	B/C	Amount LC
1100	100118364	120021	06/24/2013	06/24/2013		S	675.75	USD	675.75	USD	90029409	100099	1100	RV		675.75		675.75
1100	120021	06/24/2013	06/24/2013		S	675.75	675.75	USD	100118364	100099	1100	AB				675.75		675.75
1100	120021	06/24/2013	06/24/2013		S	675.75	675.75	USD	1400004854	100099	1100	DZ				6.00		6.00
							2,027.25		2,027.25	USD						0.00		0.00
							2,027.25		2,027.25	USD						0.00		0.00

Again, clearing above lines is a manual task, however a custom program can be further extended to update assignment field in selected line items based on same clearing document number. Based on assignment field a match-code can be configured for automatic clearing of Discount Accrual account.

Selection screen for the above report will look as shown below:

Cash Clearing info

Report-specific selections

Company Code: 1100 to

Accounting Document: 100118364 to

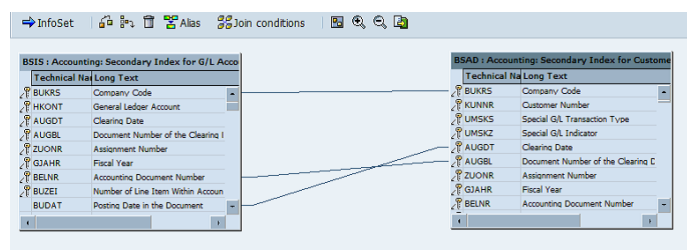
GL Account: 120021 to

Output specification

Layout:

Follow the steps below to develop a query report:

1. Create InfoSet (SQ02) by joining tables BSIS and BSAD as shown below:



2. Query will show duplicates in its output; you will have to insert following code to remove duplicate:

Display InfoSet ZPTM_CASH_CLR_INFO

Alas tables Join Field groups Extras

Data fields: Accounting: Secondary Index for G/L Accounts BSIS, Accounting: Secondary Index for Customers (Cleared) BSAD, Additional fields

Extras: Selections Code Enhancements

Code Section: DATA

Pattern: PrettyPrint

FIELD-SYMBOLS <dtab> TYPE STANDARD TABLE.

Display InfoSet ZPTM_CASH_CLR_INFO

Alas tables Join Field groups Extras

Data fields: Accounting: Secondary Index for G/L Accounts BSIS, Accounting: Secondary Index for Customers (Cleared) BSAD, Additional fields

Extras: Selections Code Enhancements

Sequence

Name	Type	Description
<Code>	Code	
E_BELNR	Addtl Field	Document No

3. To show amount according to +/- sign you will need 2 'Local Fields' – One for document currency amount and one for local currency amount.

Display Query ZPTM_CASH_CLR: Field Selection

Basic List Statistics Ranked List

Fields	Short name	Local
Accounting: Secondary Index for G/L Accounts		
<input type="checkbox"/> Document Number of the Clearing Document		
<input checked="" type="checkbox"/> General Ledger Account	BSIS_HKONT	
<input checked="" type="checkbox"/> Company Code	BSIS_BUKRS	
<input type="checkbox"/> Text:Company Code		
<input type="checkbox"/> Fiscal Year		
<input checked="" type="checkbox"/> Accounting Document Number	BSIS_BELNR	
<input checked="" type="checkbox"/> Posting Date in the Document	BSIS_BUDAT	
<input checked="" type="checkbox"/> Document Date in Document	BSIS_BLDAT	
<input checked="" type="checkbox"/> Currency Key	BSIS_WAERS	
<input type="checkbox"/> Text:Currency Key		
<input checked="" type="checkbox"/> Reference Document Number	BSIS_XBLNR	
<input checked="" type="checkbox"/> Document Type	BSIS_BLART	
<input type="checkbox"/> Text:Document Type		
<input checked="" type="checkbox"/> Debit/Credit Indicator	BSIS_SHKZG	
<input type="checkbox"/> Text:Debit/Credit Indicator		
<input checked="" type="checkbox"/> Amount in Local Currency	BSIS_DMBTR	
<input checked="" type="checkbox"/> Amount in Document Currency	BSIS_WRBTR	
<input type="checkbox"/> Amount in Second Local Currency		
Accounting: Secondary Index for Customers (Clea...		
<input checked="" type="checkbox"/> Document Type	BSAD_BLART	
<input type="checkbox"/> Text:Document Type		
<input checked="" type="checkbox"/> Company Code	BSAD_BUKRS	
<input type="checkbox"/> Text:Company Code		
<input checked="" type="checkbox"/> Customer Number	BSAD_KUNNR	
<input type="checkbox"/> Text:Customer Number		
<input checked="" type="checkbox"/> Accounting Document Number	BSAD_BELNR	
<input checked="" type="checkbox"/> Clearing Date	BSAD_AUGDT	
<input checked="" type="checkbox"/> Document Number of the Clearing Document	BSAD_AUGBL	
<input checked="" type="checkbox"/> Fiscal Year	BSAD_GJAHR	
<input type="checkbox"/> Amount in Document Currency		

Configure Local fields as shown below:

Field definition

Short Name: ZSKNTO

Field Description: CD Amt LC

Heading: CD Amt LC

Field group: Accounting: Secondary Index

Properties

☐ Same attributes as field

☐ Text field No. of Characters

☒ Calculation field Number of Digits: 13 Decimal Places: 2

☐ Date Field

☐ Time Field

☐ Symbol

☐ Icon

Calculation Formula

☒ $BSAD_SKNTO * -1$

Condition: $BSAD_BLART = 'RV'$ AND $BSIS_SHKZG = 'S'$

☐ Input on Selection Screen ☐ Mandatory

Complex calculation

Field definition

Short Name: ZWSKTO

Field Description: CD Amt DC

Heading: CD Amt DC

Field group: Accounting: Secondary Index

Properties

☐ Same attributes as field

☐ Text field No. of Characters

☒ Calculation field Number of Digits Decimal Places

☐ Date Field

☐ Time Field

☐ Symbol

☐ Icon

Calculation Formula

☒ $BSAD_WSKTO * -1$

Condition: $BSAD_BLART = 'RV'$ AND $BSIS_SHKZG = 'S'$

☐ Input on Selection Screen ☐ Mandatory

Complex calculation

Display Query ZPTM_CASH_CLR: Field Selection

Basic List Statistics Ranked List

Fields	Short name	Local
<input type="checkbox"/> Amount in Local Currency		
<input checked="" type="checkbox"/> Cash Discount Amount in Local Currency	BSAD_SKNTO	
<input checked="" type="checkbox"/> Cash Discount Amount in Document Currency	BSAD_WSKTO	
<input checked="" type="checkbox"/> CD Amt DC	ZWSKTO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> CD Amt LC	ZSKNTO	<input checked="" type="checkbox"/>

Query ZPTM_CASH CLR layout design

Test Rule All tools on/off Header Footer Node assignment

Data fields	List ...	Select ...	Technical Name
Table Join	15	3	
Accounting: See	9	3	BSIS
Document Num	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-AUGBL
General Ledger	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-HKONT
Company Code	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-BUKRS
Fiscal Year	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-GJAHR
Accounting Doc	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-BELNR
Posting Date in	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-BUDAT
Document Date	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-BLDAT
Currency Key	<input type="checkbox"/>	<input type="checkbox"/>	BSIS-WAERS
Reference Docu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BSIS-XBLNR
Document Type	<input type="checkbox"/>	<input type="checkbox"/>	BSIS-BLART
Debit/Credit Ind	<input type="checkbox"/>	<input type="checkbox"/>	BSIS-SHKZG
Amount in Local	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-DMBTR
Amount in Docu	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BSIS-WRSTR
Amount in Seco	<input type="checkbox"/>	<input type="checkbox"/>	BSIS-DMBE2
Accounting: See	4	0	BSAD
Document Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BSAD-BLART
Company Code	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BSAD-BUKRS
Customer Numb	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BSAD-KUNNR
Accounting Doc	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BSAD-BELNR
Clearing Date	<input type="checkbox"/>	<input type="checkbox"/>	BSAD-AUGDT
Document Num	<input type="checkbox"/>	<input type="checkbox"/>	BSAD-AUGBL
Fiscal Year	<input type="checkbox"/>	<input type="checkbox"/>	BSAD-GJAHR
Amount in Docu	<input type="checkbox"/>	<input type="checkbox"/>	BSAD-WRSTR
Amount in Local	<input type="checkbox"/>	<input type="checkbox"/>	BSAD-DMBTR
Cash Discount A	<input type="checkbox"/>	<input type="checkbox"/>	BSAD-SKNTD
Cash Discount A	<input type="checkbox"/>	<input type="checkbox"/>	BSAD-WSKTD
Additional Fields	0	0	---
Local additional	2	0	
CD Amt DC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	%Z_0001
CD Amt LC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	%Z_0022

CoCd	DocumentNo	G/L	Posting Date	Doc. Date	Reference	D	Amount in LC	Amount
Accounting Document Number 100000488								
1000	100000488	101050	07/31/2013	07/31/2013	ABCDEFGHIJKLMNOP	S	5,000.00	5,000.00 USD
Sum of Accounting Document Number 100000488							5,000.00	5,000.00 USD
Overall Total							5,000.00	5,000.00 USD

Sort fields

 Accounting Docum

Totaling fields

 Amount in Local
 Amount in Docume
 CD Amt DC
 CD Amt LC

Above entry SAP does not post automatically and identifying line item to be reversed manually is a tedious task due to the large number of entries in accrual account. A report can be developed to identify each customer line where discount is available as per the billing document. This report can show whether individual lines can be reversed or no.

In the above report the last column shows traffic lights, red light means line cannot be reversed, green light means amount can be reversed. On the date of executing report total of all amounts under green light can be reversed and cleared against individual lines.

From table BSID (Customer open line items) for lines generated using document type 'RV' (SD Billing) program will check whether on the date of execution line item is overdue or not.

Example –

Payment terms - 60 days, discount percentage = 1%.

Baseline date is 04/28/2014; Run Date is 08/10/2014; Days overdue = 104 which is more than 60 days and therefore customer is not eligible for discount. Therefore, for this line green light should be indicated and amount can be reversed.

In my example I compared days overdue with value in the BSAD-ZBD1T field (i.e. highest number of days any discount is available). The amount to be reversed will be calculated as a local field by multiplying discount percentage with discount base.

Selection screen for above report –

Table BSID has all the relevant information to generate this report. You can use query shown below to produce above shown report –

InfoSet (SQ02)

You will need 3 local fields in this report –

Days Overdue, Reversal Amount and Traffic light indicator.

Local fields should have calculation steps as shown below –

ZDPDUE - Days overdue

Formula – Run date (variable %DATE) – Baseline date (BSAD-ZFBDT)

REVAMT - Reversal Amount

Formula – BSAD-SKFBT (Discount base) * (BSAD-ZBD1P (Disc. Percent 1)/100)

With the help of the above 2 reports, the user should be able to maintain the discount accrual account, also he/she should be able to show the discount accrual amount correctly.

XREVRS - Can be reversed?

Formula –

If BSAD-ZBD2T (Days 2) <> 0 AND BSAD-ZBD2T < ZDPDUE then green light. (If value in field days 2 exist then compare it with ZDPDUE)

If BSAD-ZBD2T (Days 2) = 0 AND BSAD-ZBD1T < ZDPDUE then green light. (If value in field days 2 is 0 then compare field ZBD1T with ZDPDUE)

Else, red light

CONCLUSION

Clearing accounts if not maintained properly for a long period can accumulate values that cannot be reconciled later. 'Customer cash discount account' is one such account. In the absence of standard functionality to maintain this account, the steps shown above can greatly reduce manual effort of account maintenance. The report shown above can analyze historical data and suggest amount that should be cleared/reversed.