DS0262

Revenue Deferral

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Problem Definition

Problem Definition	**CCDA**
ACMECO sells travel insurance and travel products. These transactions occur in systems external to Dynamics GP (Clientel and World Track), and are being imported into GP via eConnect. The travel insurance has start/end dates, so the revenue from those items needs to be deferred, and recognized during the period of coverage. The deferral process should occur automatically when a SOP Batch of imported transactions is posted, and also needs to integrate into the Analytical Accounting (AA) module. The AA information on a sales distribution needs to be replicated when revenue is deferred, and later when it is recognized.	

Solution Overview

Solution Overview	CCDA
Brief Background on Analytical Accounting (AA) AA refers to Analytical Accounting in the rest of this document. AA setup consists of creating Transaction Dimensions and Codes. A Transaction Dimension is set to have a data type of String, Currency, Date or Boolean. A Dimension with a string data type is assigned a list of user-created Codes. Collectively these data types will be referred to as Values. During transaction entry, one Value is selected or entered for each Transaction Dimension assigned to the Distribution Account, thus providing the ability to analyze a distribution by the group of Values assigned to it. **Overview** eConnect will be used to create Sales Invoices & Returns in GP. The integration will create one Sales Distribution line (distribution type = SALES) for each sales line on the transaction. AA Dimensions and Values will also be created for the Sales Distributions during the import. ACMECO sells both non-inventory (insurance) and sales-inventory (travel items). The insurance will have a Deferral Start Date and End Date. These dates will be provided in the AA Values. A special Dimension will be included called “DEFER” that has a Boolean data type. When the Value is TRUE, the deferral module will defer the distribution. Additional AA Values will also be imported. All sales transactions will be created in a Sales Batch. A user will log-in to GP to post the Sales Batch. The deferral process will be activated automatically when a Sales Batch is posted.	

The deferral module will then:

- Locate Sales Distributions that have the AA Defer flag set to TRUE
- Create a deferral journal entry that debits the SALES account, and credits an associated Deferral Account. For returns the journal entry will credit SALES and debit the Deferral Account.
- Create a deferral schedule
- AA Values will be attached to the journal entry distributions that match those from the original sales transaction distributions.

The deferral is done for SALES distribution lines with a Distribution Type = SALES. This does not include taxes, miscellaneous charges, write-offs, commissions, or any other type of SOP distribution.

The Revenue Recognition window will allow the user to select a Date Range, then display all Deferral Schedules that fall within that range. Executing the revenue recognition process will:

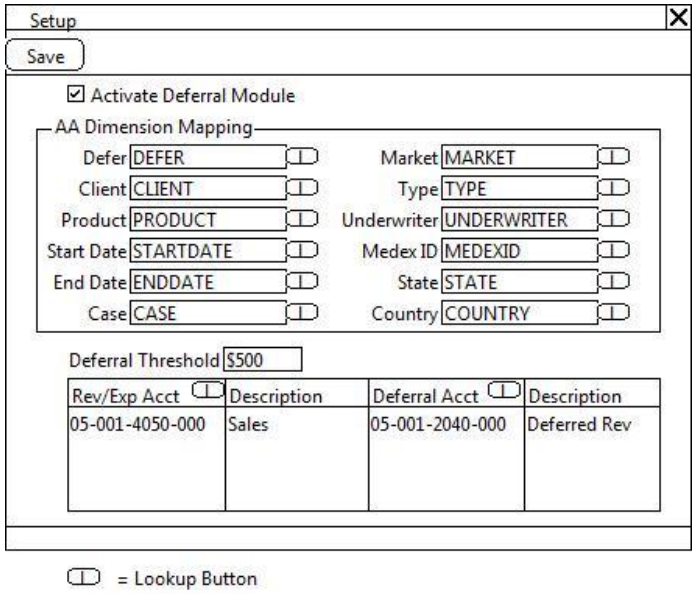
- Create one journal entry for all deferrals schedules within the date range
- Each deferral record will result in a distribution debiting the deferred revenue account, and crediting a Sales account. The Sales account comes from the original Sales Transaction Distribution that generated the deferral schedule, and the Deferred Revenue account was determined during SOP Posting from the Deferral Setup. For SOP Returns the journal entry will credit the deferred revenue account and debit the Sales account.
- AA Values will be attached to the journal entry distributions that match those from the original sales invoice distributions.
- The Journal Entry will be saved in a Batch for user review prior to posting.

This design specification addresses only the deferral for SOP Invoices and returns imported with eConnect, and recognition of that revenue based on a deferral schedule. No functionality is provided for transactions from AP, AR, GL or any other Dynamics GP transaction. The mention of AP in this document address ONLY the inclusion of some fields on windows and tables that could be used for AP deferrals in the future.

Design Features

Setup	CCDA

Navigation: Tools >> Setup >> Company >> Deferral Setup



Field	Function
Activate Module	The Deferral module has processes that run automatically when SOP Batches are posted. When this box is marked, the module will be activated in the Company Database. The module can be activated/deactivated on a per-Company database basis.
AA Dimension Mapping	Provides a mapping to key AA Dimensions used by the Deferral Module. At this time, the Case Dimension is not being used for

	Sales Invoices, but is provided to support future inclusion of AP deferrals. The mapped dimensions will each have a named column in the Deferral Schedule table to store that AA Value. An additional 10 “generic data” columns will also be included to automatically capture up to 10 other unmapped AA Values.
Deferral Threshold	If the distribution amount is equal to or greater than this amount, it will be deferred. Anything less will not be deferred.
Account Mapping	Maps a Sales account to its Deferral account. The column is labeled Rev/Exp to support the possible future inclusion of expense deferrals.

The key AA fields listed above will be stored along with the deferral schedule for easy cross-reference on reports. The order in which the fields are listed above is not important, so the eConnect import may provide these fields in any order. The only fields that are required for correct functioning of the Deferral Module are the Defer flag, Start Date and End Date. The Defer flag must have a data type of Boolean (this will be verified when the Dimension ID is selected on the Setup widow).

SOP Deferral	**CCDA**
All sales invoices will be created in a Sales Batch by the eConnect import. A user will log-in to GP to post the Sales Batch. Before posting is allowed, the deferral module will check the following to determine is a distribution should be deferred, and if it has the proper information to be deferred: • For sales invoice distributions with the Distribution Type = SALES: 1. An AA Value for DEFER exists and is TRUE 2. AA Values for Start Date and End Date exist, and neither is blank. 3. The SALES account must be mapped to a deferral account in Setup. If not, the error will prevent posting the batch. If #1 is TRUE, failure on #2 and/or #3 will prevent posting of the Batch. If there are any errors, a report will print showing the Account Number and Amount (to help the user locate the distribution line with the error), and a description of the error. The errors need to be manually addressed by entering the required AA information. The deferral process will monitor the posting process and record each document that posts successfully. The actual deferral process will run when SOP posting is complete. Using the distributions marked for deferral: • A Journal Entry will be created (one per Sales Batch posting) to reverse the posting to Sales. This transaction will debit the Sales Account(s), and credit the Deferred Revenue Account(s) for an Invoice, and credit the Sales Account(s)/debit the Deferred Revenue Account(s) for a Return. AA Values will be added to each distribution line that exactly matches the AA Values on the SALES distribution (this applies to the SALES account only. AA Values will not be added to the deferral account). The Deferral Journal Entry will be saved in a Batch for user review prior to posting. **NOTE: the journal entry must NOT be changed before posting. Changing it will cause the deferral module to not reconcile to GL.** • For each Sales Distribution a Deferral Schedule will be created based on the	

Start/End Dates stored in the AA Values. The amount to be recognized in each period will be based on the ratio of the number of days in the period over the total number of days of coverage. For example, given a $100 distribution with a Start Date of 15-May and an End Date of 3-July, there are 49 days of coverage.

- May: 16 Days (15th to 31st)
- June: 30 Days
- July: 3 Days

If posted in May, three recognitions scheduled:

31-May	30-June	3-July
16/49	30/49	3/49
$32.65	$61.22	$6.12

If posted in June, two recognitions will be scheduled:

30-June	3-July
46/49	3/49
$93.88	$6.12

There is no user interface for the deferral process. If there are a large number of transactions in the batch, and/or a large number of sales distributions that are being deferred, progress will be displayed on a Progress window so that the user is aware that the system is still active.

Each deferral schedule line will contain cross reference information so that it can be easily tied back to the original sales transaction, the deferral journal entry, and when revenue is recognized, the revenue recognition journal entry. Additionally, the AA fields mapped in Setup will be stored in corresponding columns, and several generic “Data” fields will capture “other” AA fields.

When the deferral process completes a report will print showing the SOP Batch ID, the Deferral ID, and the total amount deferred. The total amount deferred should match the distribution totals on the Deferral Journal Entry. If the totals do not match, the user should investigate the reason for the mismatch prior to posting the JE.

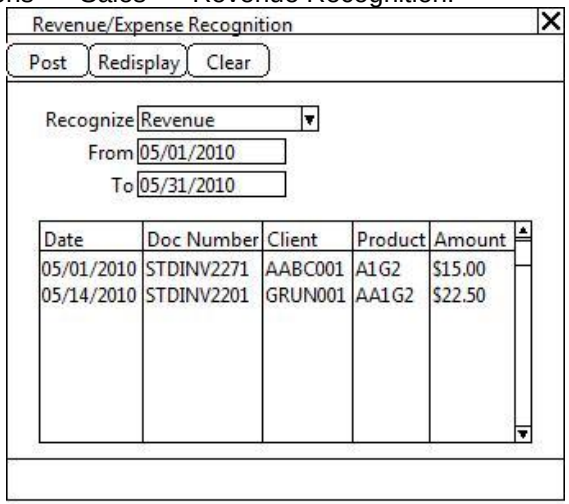
If a failure occurs during the deferral process, when GP is restarted and the user logs-in again, the deferral process will automatically restart and continue with any unprocessed records.

Field	Function

Revenue Recognition	**CCDA**

The Revenue/Expense Recognition window is used to select a range of Deferral Schedule lines to be recognized.

Navigation: Transactions >> Sales >> Revenue Recognition.



Field	Function
Recognize	Revenue or Expense. Determine which set of data is used to populate the window.
From/To	User selects a date range. Deferral Schedule lines that have a Date falling on or between the date will be displayed.
Scrolling Window	User can zoom from here to view the originating document in an Inquiry window.
	BUTTONS
POST	Executes the revenue or expense recognition process (see below)
REDISPLAY	After selecting dates, user clicks the Redisplay button to show

	Deferral Schedule lines.
CLEAR	Clears the display

The revenue/expense recognition process will create a single Journal Entry. Each Deferral Schedule line will result in two distribution lines on the Journal Entry:

- SOP Invoice: debit to the Deferral Account, credit the SALES account from the originating sales invoice distribution
- SOP Return: credit the Deferral Account, debit the SALES account from the originating sales return distribution
    - AA Values will be added to the SALES account distribution line that exactly match the AA Values attached to the originating sales distribution line

The Recognition journal entry will be saved in a batch for user review prior to posting. **NOTE: the journal entry must NOT be changed before posting. Changing it will cause the deferral module to not reconcile to GL.**

When the recognition process completes a report will print showing the Recognition ID, and the total amount recognized. The total amount recognized should match the distribution totals on the Recognition Journal Entry. If the totals do not match, the user should investigate the reason for the mismatch prior to posting the JE.

If a failure occurs during the recognition process, when GP is restarted and the user logs-in again, the recognition process will automatically restart and continue with any unprocessed records.

Reversing Revenue Recognition	**CCDA**

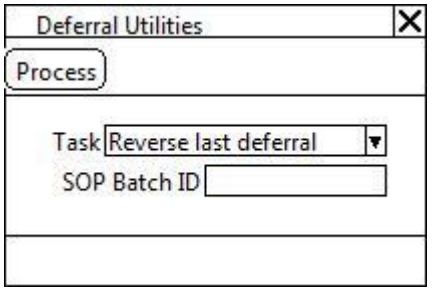
Reversing a Recognition posting is done with the “Correct Journal Entry” functionality provided by the Journal Entry Transaction Entry window.

From Journal Entry, select Correct, select the Recognition JE, and Backout the original Revenue Recognition Transaction.

- Additional controls will be added to the Correct Journal Entry window to allow reversal only of the most recent revenue recognition posting.
- The Correct Journal Entry window automatically reverses the AA Values (it automatically creates matching AA Values for the reversal)
- The process will also move the Deferral Schedule line from history back to the open table, and mark the Recognition Event as “reversed”. NOTE: each time a recognition is posted, the Deferral Module tracks the event in a historical table. The table tracks which Deferral Schedule lines were recognized.

There is no user interface for this process other than the financials Transaction Entry window that is part of Dynamics GP. The reversal of the recognition information in the Deferral Schedule will happen automatically.

Field	Function

Deferral Utilities	**CCDA**
The Deferral and Recognition processes are designed with some ability to automatically recover in the event of a failure. The Deferral Utilities can be used (1) force a reversal of the last deferral or recognition in the event the automated recovery does not work, (2) reverse the most recent successful deferral or recognition, and (3) manually initiate a deferral for a specified SOP Batch ID. Navigation: Tools >> Utilities >> Sales >>Deferral Utilities  One aspect of the recovery plan is saving the auto-generated Journal Entries into a batch, rather than auto-posting. In the event the system is not able to automatically recover, the Deferral or Recognition journal entry can be easily deleted from GP. Deleting an unposted Journal Entry is a simple task whereas attempting to recover from an incorrect posted JE, or partially posted JE is much more complex. The Recovery window is used to force an “undo” of the most recent process. For example, if there is a severe failure in the Deferral process, there could be a partially created Journal Entry, partially created AA Values, partially created Deferral Schedules, and records in the Deferral Activity table and some records in the Deferral History table.	

The Task options are:

1- Recover Failed Deferral
2- Recover Failed Recognition
3- Defer a SOP Batch

#1 and #3 would normally be used together. If a failure occurs during the deferral process, and the system cannot recover, #1 can force the system to reverse whatever progress it made in creating the deferral. The user would then select #3, enter the Batch Number, and click Process to restart the deferral. The process will:

- Delete the open journal entry header/lines, and AA Values. The JE must not have been posted. If the JE has been posted the process will not continue.
- Remove deferral schedule lines
- Remove records for the deferral from the activity and history tables

#2 is different than reversing a successful recognition (see earlier section about Reversing Recognition). This utility will force an undo of an incomplete recognition. The process will:

- Delete the open journal entry header/lines, and AA Values. The JE must not have been posted. If the JE has been posted the process will not continue.
- Move deferral schedule lines back into the open table
- Remove recognition activity records from history
- Clear any remaining records from the open activity table

This “resets” the system to the state prior to starting the last recognition.

“Reversing” a recognition is very similar, but it is initiated from the Journal Entry window to take advantage of the existing functionality in GP to reverse a journal entry and the AA values automatically. The reversing process will then execute the “recovery” process to move deferral schedule records from history back into the open table.

Field	Function

Legacy Deferral Schedule Import	**CCDA**
The Deferral Schedule table will have a large number of fields for cross-reference and reporting purposes, but which are not needed for importing an existing Deferral Schedule. For importing a deferral schedule from a legacy system, the following fields are the minimum required. See the table definition for wDefSchedOpen for a complete column listing. Any of the data for wDefSchedOpen can be provided if available. • Document Number* • Distribution Sequence Number* • Revenue Recognition Date* • Amount • Transaction Account Index (i.e. the SALES account index from a sales invoice distribution) • Deferral Account Index (i.e. the account index to which the deferred revenue was posted) (*) = KEY Fields Distribution Sequence Number: in GP a sales invoice can have an unlimited number of distributions (there is a one to many relationship between the sales document and the distributions). The Distribution Sequence Number is a 17-digit numeric field that increments for each distribution line. If the legacy data does not have a similar concept, a numeric value should be generated (the Document Number & Sequence Number pair must be unique, but Sequence Number can be duplicated on different documents). The information described above must be provided in a CSV file. Dynamics GP does not use the Account Number, but rather an index (a number) that refers to the Account. The source information must be mapped so that the Account Number from the legacy system is mapped to the new Account Index when the COA is created in GP.	

Since the legacy deferral schedules will not have matching “historical” sales transactions with AA Values, a special import table (wDefLegacysAAValues) is provided to store AA information for the imported transactions. The deferral module normally will reference the source transaction’s AA Values when creating the deferral JE and recognition JE, but for imported transactions it will look to the import table. To import AA information, the following must be provided: • Document Number* • Distribution Sequence Number* • aaTrxDimID* (AA Transaction Dimension ID) • aaTrxCodeID (AA Transaction Dimension Code ID) (*) = KEY fields The information must be provided in a CSV file. NOTE: AA does not directly use a Dimension or Code in its AA Values table. AAG00400 – Dimensions Table. Each Dimension is assigned a numeric ID by the system (i.e. STARTDATE might be 7). AAG00404 – Dimension Dates Table. Each Date for a Dimension is assigned an ID. So 5/15/2010 could be 3). To perform the import, all of the AA data must first be populated (not covered by this estimate) so that the “codes” already exist and have been assigned a system ID. The import source file should reference those IDs. So a sample record would look like this: STDINV2217, 100, 7, 3 The source files must be provided in the requested format. We will not provide the data mapping, nor validate the integrity of the files. We will validate that the data imported completely and accurately.	

Tables	
Table Name	**Columns (* = KEY)**
wDefSetup (WxxxxDefSetup)	SetupKey*
	ActivateModule
	DefThreshold
	aaClientDimCode
	aaProductDimCode
	aaCaseDimCode
	aaStartDateDimCode
	aaEndDateDimCode
	aaDeferDimCode
	aaMarketDimCode
	aaTypeDimCode
	aaUnderwriterDimCode
	aaMedexID
	aaState
	aaCountry
	DefID (currency) – a sequence number, incr each time a new SOP Batch is posted
	RecID (currency) – a seq num that increments for each Recognition transaction
wDefAccts (WxxxxDefAccts)	ActIndx* (originating distribution account index—rev or exp)
	DefActIdx (deferral account index)
As the deferral process adds each deferred SOP distribution to the Distribution JE, it creates a deferral schedule for the distribution. This table tracks the originating transaction, keys to the deferral JE, and keys to the recognition JE. When lines are recognized they are moved out of this table into wDefSchedHist.	
wDefSchedOpen (WxxxxDefSchedOpen)	DefID*

	DocSource* (ddl, 1=SOP). No other values yet.
	DocNumber*
	DocType*
	SEQNUMBR* (distribution seq, maps to original trxn distribution line)
	Date* (date on which to recognize revenue)
	TrxnAcctIdx (source acct idx—i.e. the SALES account. When AP is done this would be an EXP acct)
	DefAcctIdx (the deferral acct idx). Pulled from Setup
	DefJE (JE that deferred the SOP posting)
	DefJESeq (currency. Maps to GL Sequence line for the SALES dist being deferred)
	RecJE (JE that recongnized the revenue)
	RecJESeq (currency. Mpas to the GL Sequence line for the SALES dist when revenue is recognized)
	Amount (currency. The amount to be recognized on the Date specified above).
	aaStartDate (date)
	aaEndDate (date)
	aaClient (string = CustomerNumber)
	aaProduct (string = Item Number)
	aaCase (string 30)
	aaMarket (str 30)
	aaType (str 30)
	aaUnderwriter (str 30)
	aaMedexID(str 30)
	aaState (str 30)
	aaCountry (str 30)
	aaData (array 10, string 30)
wDefSchedHist (WxxxxDefSchedHist)	Copy of open

wDefLegacyAAValues (WxxxxDefLegacyAAValues)	DocNumber*
	DocType*
	SEQNUMBR*
	aaTrxDimID*
	aaTrxCodeID
As SOP successfully posts an invoice to history, it is captured and added to this table. When SOP posting completes, the deferral process initiates and reads this table to locate the invoices that need to be deferred. As they are processed the records are moved to wDefHist. These are system tables and not used for reporting.	
wDefActivity (WxxxxDefActivity)	DefID* (currency)
	SOPNumber*
	UserID
	DeferralMethod (ddl, 1=monthly). Provided to support possibility of different methods in the future.
wDefHist (wxxxxDefHist)	DefID* (currency)
	SOPNumber*
	DeferralMethod
	DefJE
Records identified by the recognition window will be added to this table at the start of the recognition process. As each line is added to the recognition JE it is moved to the wDefRecHist table. These are system tables and not used for reporting.	
wDefRecActivity (WxxxxDefRecActivity)	RecID*
	DocSource* (ddl, 1=SOP). No other values yet.
	DocNumber*
	DocType*
	SEQNUMBR* (distribution seq)
	Date*
	UserID
	DefID

wDefRecHist (WxxxxDefRecHist)	RecID*
	DocSource* (ddl, 1=SOP). No other values yet.
	DocNumber*
	DocType*
	SEQNUMBR* (distribution seq)
	Date*
	UserID
	DefID
	RecJE (recognition journal entry)
	Reversed (cb)