CGI Advantage® 4

Accounts Receivable
Run Sheets Guide

CGI

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1 Purpose of the System Administration Guide

This manual is intended to help system administrators initiate, configure, monitor, and control all processing for CGI Advantage. The manual has five parts:

- The CGI Advantage System Administration Guide contains information about the CGI Advantage system architecture, and configuration (including the embedded third party components), post-installation setup, security configuration and considerations, workflow, job framework and its usage/maintenance, and other information pertinent to administering the application.
- The CGI Advantage HRM run sheet guides describe each process of CGI Advantage HRM in detail with its input, output, parameters, sort sequence, and selection criteria.
- The CGI Advantage Financial run sheet guides describe each process of CGI Advantage Financial in detail with its input, output, parameters, sort sequence, and selection criteria.
- The CGI Advantage HRM Payroll Engine System Administration Guide describes the system control tables and utilities for CGI Advantage HRM.
- The CGI Advantage VSS System Administration Guide describes each VSS process in detail with its input, output, parameters, sort sequence, and selection criteria.

System administration tasks include setting up and maintaining application security, querying and viewing the application status through logs and reports, managing workflow, setting up and maintaining system tables, and other critical application maintenance tasks.

1.1 Common terms and glossary used

The terms "Job" and "Batch" have been used interchangeably throughout the document. Please note that the CGI Advantage technical architecture is flexible enough to support the execution of jobs/batch processes while the application is available for online usage. In other words, the jobs/batch processes are technically not required to be "offline" processes.

2 Description of Processes

This chapter describes the processes in CGI Advantage that are considered system administration processes. For each process, you see information on these topics:

- Description
- Steps to Run this Process (if applicable)
- When to Run
- Major Input
- Output
- Parameters – Batch and Custom
- Sort Sequence
- Selection Criteria
- Notes
- Problem Resolution

System Wide Batch Parameters:

System wide batch parameter fields are available with each batch program, which provide the path for the input/output directory. These parameters allow sites to easily and quickly update the path for individual batch processes.

System wide batch parameters can be defined at the System Level, Area Level, Chain Job level, Chain Level or Job level. There has to be a default value set for the system wide batch parameters at any of these levels mentioned above so that the process will generate, read or write the respective files from the given location.

System wide batch parameters are defined at the System Level on the System Level Process Parameters (BATSETUP) reference page, searching for the Catalog Label of *Batch Catalog* and then choosing the record-level action of *Edit.*

- **AMSROOT** - Root directory of the batch files (for example, C:\AMSADV30\RTFiles)
- **AMSEXPORT** - For files that are created by the program and need to remain after the job is completed (i.e. cannot be temporary files). This could include interface files that come from/go to third party sources (for example, $AMSROOT\ExportImport).
- **AMSIMPORT** - For files that are used by the program and need to remain after the job is completed (that is, cannot be temporary files). This could include interface files that come from/go to third party sources (for example, $AMSROOT\ExportImport).
- **AMSLOGS** - For batch framework log files. If the job requires its own log files, this is where it is put (for example, $AMSROOT\Logs).
- **AMSPARM** - Batch job parameter files specific to a single job instance only (for example, $AMSROOT\Parms).
- **AMSTEMP** - For temporary files, usually stamped with process ID (for example, C:\TEMP).
- **AMSSPOOL** - Batch job report files, statistic files, exception reports, and so forth. These files may be sent to an OS print queue. File name is usually date and time stamped (for example, $AMSROOT\Spool).

Note:

Assumptions while implementing system wide batch parameters: It is assumed that wherever in the Job processes system wide batch parameter variables (that is, AMSEXPORT, AMSIMPORT, AMSROOT, AMSLOGS, AMSPARM, AMSTEMP, AMSSPOOL) are declared as input parameters, care should be taken to set the overrideable flag for that variable to *true*, otherwise the process may fail.

Pivot Date/Year Validation:

Note:

Assumption for date attributes: Set the Earliest Year (EARLIEST_YEAR) and Latest Year (LATEST_YEAR) on the Application Parameter reference page. When defining the year range, attention should be given to setting a range vast enough to accommodate all system impacts (such as imported transactions). The Job input date/year must lie between the above year range; otherwise, the process will fail.

2.1 Accounts Receivable Batch and Chain Processes

The Accounts Receivable (A/R) subsystem is responsible for billing and collecting money.

Accounts Receivable:

- Tracks who owes money and how much

- Records accounting events for receivables and collections

- Processes billing

- Records money received

- Tracks customer financial and credit history

- Provides reports and inquiries into Accounts Receivable status

The processes that drive Accounts Receivable in CGI Advantage Financial are listed below in alphabetical order:

- Auto Deposit Reconciliation Detail

- Auto Netting Process

- BAI to XML

- Cash Receipt Generation Chain Process

- Collection Agency Referral

- Collection Payment

- Collection Status Update

- CRT Purge

- Delinquent Payment Plan

- Deposit Reconciliation

- Email Generation

- Finance Charge

- Generate Collection Transactions

- Generate Invoice

- Generate Invoice Multithread

- Internal Billing Feeder Validation and Load

- Internal Billing Generate Transaction

- Payment Plan

- Generated Detail Bill

- Generate Statement

- Generate Statement Multithread

- Generate Write-off Transactions

- Issue Payment For Unreserved Credit Balance

- [Manual Deposit Reconciliation](#)

- [Past Due Invoice](#)

- [Past Due Invoice Multithread](#)

- [Past Due Statement](#) (includes the Statement Collection process)

- [Past Due Statement Multithread](#)

- [Payment Plan Maintenance](#)

- [Print Deposit Ticket Batch Process](#)

- [Renewal Notice Generation](#)

- [Update Bank Deposit Balance](#)

Descriptions of these processes are organized in this section in alphabetical order.

2.1.1 Auto Deposit Reconciliation Detail

Job Name	Auto Deposit Reconciliation Detail
Recommended Frequency	Daily
Single Instance Required	Yes
Can be restarted?	No
Reports generated	None

Overview

Auto Deposit Reconciliation Detail moves records from Deposit Reconciliation Detail to Confirmed Deposit Detail. This is a supplemental job for Deposit Recon and should be used as part of a chain. To execute this batch job, the APPCTRL ALT_DPS_TKT_NO should be set to *True*.

The job performs the following steps with these system messages in the job log.

Process Steps	Messages
1. Parameter Validation	- Validating Batch Parameters - Parameters are valid or invalid depending on the Validation. If the parameter is invalid, the invalid value is displayed in the log. - Batch Parameter validation completed
2. Record Selection	- Selecting eligible records - If the selection returns 0 records, then the following message is issued: "No eligible record found". - Number of records (count) selected is displayed. - At the end, the following message is issued: "Selection of records completed."
3. Records Moved	This step does not produce job log messages.

Major Input

- Deposit Reconciliation Detail (DPRECD / R_AP_DPS_RECON_DET)

Batch Parameters

The following are the delivered parameter values, which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Client Name for Report (CLIENT_NM)	An optional name to appear in the report header.	N/A
Commit Block Size (COMMIT_BLOCK)	A required performance parameter that controls the number of records saved in	500

	each instance. If left blank, 500 defaults.	
Transaction Code(s) used on DPRECD for Adjustments (DOC_CD_DPREC_ADJ)	Optional parameter for one or more Transaction Codes used on Deposit Reconciliation Detail for adjustments.	N/A
Transaction Code(s) used on DPRECD for Returns (DOC_CD_DPREC_RTRN)	Optional parameter for one or more Transaction Codes used on Deposit Reconciliation Detail for returns.	N/A
Progression Counter Size (PROG_CTR_SZ)	A required parameter that informs the user how the job is progressing. If left blank, 5,000 defaults.	5000
Process	A technical parameter that dictates whether you want the job to run in Batch mode or Report mode. • *Batch* - Executes the Auto Deposit Recon Detail batch process, which moves records to Confirmed Deposit Detail from Deposit Reconciliation Detail. • *Report* - Generates the Deposit Reconciliation Detail Exception report.	BATCH
Select Block Size (SELECT_BLOCK)	A required performance parameter that controls how many records are selected. If left blank, 500 defaults.	500

Major Output

• Deposit Reconciliation Detail (DPRECD / R_AP_DPS_RECON_DET)

• Confirm Deposit Detail (DPCNFD / AP_DPS_CNFRM_DET)

• Deposit Detail Exception Report

Sort Criteria

BANK_ACCT_CD, EXCP_CD

This only applies when the batch job is run when Process = Report.

Selection Criteria

The following applies when Process = Batch

- Select all the records from Deposit Reconciliation Detail where Deposit Status equals Confirmed and move those records to Confirmed Deposit Detail. These records are then removed from Deposit Reconciliation Detail.

- Select records from Deposit Exception where the Delete Exception flag is set to *No*, deposit Status is set to Exception (3) or null and BAI Code on the Exception Record is valid and active on BAIC. Reconcile those with the corresponding records from Deposit Reconciliation Detail.

- The records processed on the Deposit Exception table that do not have a match are updated to CASH RECT NOT FOUND and Deposit Status = Exception. Records that have been successfully matched on Deposit Reconciliation Detail are updated to a Status of Confirmed and moved to Confirmed Deposit Detail.

- The following applies when Process = Report

  - Select all Records where DEL_FL = 1

Problem Resolution

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	The job ends as Successful when all parameters are valid and at least one record was selected and moved.
Warning (4)	A warning results when no records are selected.
Non-Fatal Error (8)	This job does not end with this return code.
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • Run time exceptions for unexpected situations.
Terminated (16)	The job is terminated by the user.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues.

2.1.2 Automatic Netting

Description

The Automatic Netting process is an offline batch job that adjusts the unreserved credit balance against any outstanding Receivables or Collection transactions. This process creates Cash Receipt modifications to apply unreserved credit balances recorded on a customer account to outstanding receivables or collections within that customer account.

When to Run

Weekly, monthly, quarterly, or on-demand, before running the Issue Payment for Unreserved Credit Balance and Finance Charge processes. This process should be run as part of the Regular Billing process.

Major Input

- System Options (R_GEN_SOPT)

- Customer Account (R_CUST_ACCT)

- Unreserved Credit Balance Detail (R_CR_BAL_DET)

Output

- A modified Cash Receipt (CR) transaction is created to show the reduction in the Unreserved Credit Balance Amount.

- The **Unreserved Credit Balance Amount, Total Unliquidated Amount, and Unliquidated Amounts** on the Customer Accounting Information table are updated.

- Customer Account (R_CUST_ACCT)

- Unreserved Credit Balance Detail (R_CR_BAL_DET)

- Cash Receipt Accounting Line (CR_DOC_ACTG)

- Cash Receipt Vendor Line (CR_DOC_VEND)

Parameters

The Automatic Netting process consists of four batch jobs that are run in a chain:

Job	Parameter	Description	Default Value
Auto Netting	Export Location at Auto Netting Process Job AMSEXPORT	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	-

	Parameter Location at Auto Netting Process Job AMSPARM	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	-
Select/Generate CR	Action Code: Import (ACTN_CD)	Required (and protected) action code that instructs the program to perform a certain action on its records.	171
	File to be loaded : (FILE_NM)	Required (and protected) field that defines what file will be uploaded.	$$AMSEXPORT$$/ AutoNetting.xml
Auto Apply	Parameter File Name: (PARM_FILE)	Required (and protected) field that is used to control the Auto Apply process.	$$AMSPARM$$/Aut oNettingParm.txt
Submit CR	Exception Report File: (EXCEP_REP_FILE_ NM)	Required (and protected) field that defines what file the program is to use to create an exception report.	$$AMSLOGS$$/Aut oNettingExep.txt
	Parameter File: (PARM_FILE)	Required (and protected) field that will be used to define the parameters for submitting the transaction(s)	$$AMSPARM$$/Su bmitCRParm.txt

Sort Sequence

- Vendor Customer Code

- Billing Profile Code

- Unreserved Credit Balance Amount

- Total Outstanding Amount

- Transaction Code

- Department Code

- Transaction ID

- Transaction Version Number

- Transaction Type

- Transaction Vendor Line Number

- Transaction Accounting Line Number

Selection Criteria

The process checks if the Auto Netting Flag on the System Option table is 'true'. If it is, than it selects the customers from the Customer Accounting Information table for which **Unreserved Credit Balance Amount** and Total Unliquidated Amount are greater than zero.

For each selected customer, the process than selects the CR transaction detail from the Unreserved Credit Balance Detail table that created the Unreserved Credit Balance, and applies it to an outstanding Receivable transaction.

Problem Resolution

No database restore is required. Correct the problem and rerun the job executing the program. No restoration of datasets or files from backups is required for this program.

This batch program produces new Advantage transactions, which are subject to the line limit functionality constraints. Sites should ensure that they run this job with parameters set to ensure that the created transactions are within the line limit controls.

2.1.3 BAI to XML

Job Name	BAI to XML
Recommended Frequency	Daily
Single Instance Required	Yes
Can be restarted?	No
Reports generated	None

Overview

This process converts the BAI file sent by the bank into XML format. This batch job can supplement the Auto Deposit Reconciliation Chain Job, Flat to XML. As part of the process, R_BNK_BAL_STG is updated, which is the staging table for the Update Bank Balance job.

Once the BAI File is processed, it copies and archives the successfully processed BAI file within a newly created successful folder, within the directory specified in the AMSROOT_AMSENV job parameter. If the file is not processed successfully, it copies the BAI file into a newly created, reject folder, within the directory specified in the AMSROOT_AMSENV job parameter. The folder where the BAI file is stored contains the current system date.

Process Steps	Messages
1. Parameter Validation	• Validating Batch Parameters • Parameters are valid or invalid depending on the Validation. If the parameter is invalid, the invalid value is displayed in the log. • Batch Parameter validation completed
2. File Creation	• Start and Stop Processing of BAI file(s) • XML successfully created • Total Files Selected • Total Files Processed Successfully • Total Files Failed to Process

Major Input

• BANK BAI file

Batch Parameters

The following are the delivered parameter values which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Export Directory (AMSEXPORT)	A required file location where the XML file is saved.	$$AMSROOT$$/ExportImport
AMSROOT_AMSENV	The required inbound root directory for the BAI folder	$$AMSROOT$$/ExportImport

	location. The base archive location that stores the folders for successfully processed and rejected BAI files.	
Deposit Status Exception (BAI_DPS_STA_EXCP)	A required output parameter that sets the Deposit Exception status for new records. The Default value is 3, Exception.	3
Bank Account Settlement Code (BANK_ACCT_SETTLEMENT_CD)	An optional parameter that allows a user to specify a bank account code. If a bank account code is specified and a record is processed with a BAI_CD = 169 (ACH Credit), the BAI_CD is updated to 295 (ATM Credit). If a Bank Account Code is specified and the inbound file is processed with BAI_CD = 469 (ACH Debit), the BAI_CD is updated to 595 (ATM Debits).	
Cash Receipt Code (CR_DOC_CD)	An optional selection parameter, that can be used when sites have configured BAIC. This parameter ensures that the BAI_CD specified in the bank file has a relationship with the accounts receivable transaction codes. The Bank Deposit Number (BNK_DPS_NM) for this record is updated to the Text Value in the BAI file from the 28th position until the end of the segment. Input values must have a Transaction Type equal to CR.	
Default Bank Deposit Number (DEFAULT_BANK_DPS_NO)	A required output parameter that is used to set the BNK_DPS_NO field on R_AP_DPS_EXCP. If the BAI record did not include a BNK_DPS_NO due to a wire transfer, BNK_DPS_NO is set	

	to this value.	
Default Department (DEFAULT_DEPT_CD)	A required output parameter that sets a default Department Code on a Deposit Exception record that is for activity that did not originate in Advantage.	
File Delimiter (DELIMITER)	The required delimiter to read the input file.	
BAI File Location (INBOUND_SUB_ROOT_DIR)	The required folder where the BAI file is located.	
Transfer Transaction (TRANSFER_DOC_CD)	An optional batch parameter, that can be used when sites have configured BAIC. This parameter ensures that the BAI_CD specified in the bank file has a relationship with the transfer transaction codes. Input values must have a Transaction Type equal to CH.	
XML File Name (XML_FILE)	A required output parameter for a name of the XML file.	R_AP_DPS_EXCP.xml

If the Text segment is not empty:

- Determine if segment ends with '/'. If segment ends with '/', then remove character.

- If the remaining characters are greater than 4 characters, truncate segment to last 4 characters.

- If the 4 characters are numeric, set BNK_DPS_NO

- If the 4 characters are non-numeric, set BNK_DPS_NO to DEFAULT_BANK_DPS_NO.

- If the Text Segment is empty, set value to job parameter DEFAULT_BANK_DPS_NO.

Major Output

- R_BNK_BAL_STG

- XML file

Job Return Codes

If this job does not finish successfully, there is no restarting.

Return Code	Condition
Successful (1)	The job ends as Successful when parameter validation is successful and at least one record was selected and processed.
Warning (4)	A warning results when:

	• A duplicate BAI file is found on R_BNK_BAL_STG. • An error occurs when converting a BAI file into XML file.
Non-Fatal Error (8)	A non-fatal error is issued when R_BNK_BAL_STG fails to update.
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • Run time exceptions for unexpected situations.
Terminated (16)	The job is terminated by the user.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues.

Sort Criteria

None

Selection Criteria

None

Problem Resolution

The following table shows the potential job return codes for this job and recommendations for resolution.

Step 1: Parameter Validation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	Parameters were valid and at least one file is selected for processing.	N/A	N/A
Failed (12)	The job failed due to an invalid or missing required parameter.	Run again with a valid parameter.	N/A
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed before running another instance of the report.	N/A
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the termination needs to be addressed before running another instance of	N/A

		the report.	

Step 2: File Generation

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	XML File generated successfully and R_BNK_BAL_STG was updated successfully.	N/A	N/A
Warning (4)	A warning results when: Duplicate BAI file is processed on R_BNK_BAL_STG. An error occurs when converting a BAI file to an XML file.	If a duplicate file is processed, no action is needed, the duplicate BAI file is placed in the rejected archive folder. If an error is issued converting the BAI file to XML, execute the batch job again for the specified file only.	N/A
Non-Fatal Error (8)	A non-fatal error is issued when R_BNK_BAL_STG fails to update or commit.	Reschedule the batch job and reprocess the BAI file(s).	
Failed (12)	Job failed due to Fatal conditions.	In this step, the job can fail under the following condition. • Encounters any runtime exceptions. If the job fails because of runtime exceptions, investigate the exception reported by the process, resolve the error, and restart the job.	N/A
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed before running another instance of the report.	N/A
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the termination needs to be addressed before running another instance of the	N/A

Possible Return Codes	Condition	Recommendation	Other Instructions
		report.	

2.1.4 Cash Receipt Generation Chain

Chain Name	Cash Receipt Generation Process
Recommended Frequency	Daily or On Demand.
Single Instance Required	Yes
Can be Restarted?	N/A
Reports Generated	Yes, the CR XML Creation job in the chain generates two reports.

Overview

The Cash Receipt (CR) Generation Chain is used to record the payments received from a customer through Lockbox and over the counter transactions. The CR Generation Chain consists of the following batch jobs (each listed below is described in subsequent sections):

1. CR XML Creation

2. CR Upload

3. CR Auto Apply

4. CR Submit

The acceptable job Return Codes (configured in the Configure Chain Job section of the Job Setup in CGI Advantage) for the jobs in the CR Generation Chain are delivered be set to Successful. As with all CGI Advantage chain jobs, these acceptable Return Codes are configurable and may be changed to meet certain requirements. For simplicity this run sheet assumes the chain is configured as delivered, including parameter settings.

Major Input

- Tables

    Automated Transaction Number (ADNT) table

    Coupon Return Table (R_COUPON_RET)

    External Cash Receipt Storage Table (R_EXTR_CASH_RT_STG)

    External Cash Receipt Table (R_EXTR_CASH_RECT)

- Batch Parameters (discussed in the CR XML Creation job)

Major Output

- Cash Receipt Transactions
- Updates to the Coupon Return and External Cash Receipt Storage Table
- Reports
  - CR Generation Detail Report
  - CR Generation Summary Report

Chain Job Return Code

The following table shows the potential Return Codes for the CR Generation Chain. Note that the Chain job will end with the highest Return Code across all of the jobs.

Return Code	Condition
Successful (1)	All of the jobs end successfully
Warning (4)	One of the jobs in the chain ends with a Return Code of "Warning"
Non Fatal Error (8)	One of the jobs in the chain ends with a Return Code of "Non Fatal Error"
Failed (12)	One of the jobs in the chain ends with a Return Code of "Failed"
Terminated (16)	One of the jobs in the chain ends with a Return Code of "Terminated"
System Failure (20)	One of the jobs in the chain ends with a Return Code of "System Failure"

Problem Resolution

Please refer to the individual job "Problem Resolution" section for more details.

Cash Receipt Generation Chain: CR XML Creation Job

Job Name	CR XML creation
Recommended Frequency	Not applicable since this job is part of the chain.
Single Instance Required	Yes
Can be Restarted?	No
Reports Generated	1) CR Generation Detail Report and 2) CR Generation Summary Report.

Overview

The CR XML Creation job is the first job in the CR Generation Chain. The External Cash Receipt Storage (ECDS) table is the major input for this job. Depending on information for each record on the ECDS table, the job will then go to either the user maintained External Cash Receipt (ECRT) table or the system maintained Coupon Return (CRT) table to retrieve information that will be used to create the zero dollar Cash Receipt transactions:

ECDS Coupon ID Populated: If the Coupon ID field on ECDS is populated (lock box payments), the job will use the data from the CRT table to build the CR transactions. AR Dept and AR Unit from the CRT will be used as the Transaction Department and Transaction Unit on the generated CR transactions.

ECDS Coupon ID Null: If the Coupon ID field on ECDS is null (over the counter payments), the program will use the data from the ECRT table to build the CR transaction. The Department and Unit from ECRT will be used as the Transaction Department and Transaction Unit on the generated CR transactions.

This job generates the CR Generation Report that will list all of the CR Transactions created by the Cash Receipt Generation batch process, sorted and grouped by Transaction Department code.

The following table shows the various steps that the CR XML Creation Job goes through and the messages issued at each step.

Process Steps	Messages
1. Parameter Validation	• Validating Batch Parameters • If the parameter is invalid, the invalid value will be displayed in the log along with the error message. • Batch Parameter validation completed
2. Selection of records	• Selecting records from the ECDS table. • If no records are found, the following message will be issued: "No records found on the ECDS table". • Selection of Records completed.

3. Creation of CR XML file	• Creating the CR XML file
	    • Creating the XML file for BFY xxxx
	    • The following message "No matching record is found on the CRT / ECRT table" is written to the log if the ECDS record doesn't have a matching record either on the CRT table or on the ECRT table.
	    • Creation of XML completed
	• CR XML file created.

4. Generating reports and table updates	• Rendering report started • Rendering report completed • Beginning source table updates • Completed source table updates

Restartability Information

This job cannot be restarted. If the job failed due to any reason, the users can schedule a new job after correcting the errors that caused the job to fail.

Major Input

- **Tables**
  - Automated Transaction Number (ADNT) table
  - Coupon Return Table (R_COUPON_RET)

- External Cash Receipt Storage Table (R_EXTR_CASH_RT_STG)
- External Cash Receipt Table (R_EXTR_CASH_RECT)

Batch Parameters

Parameter	Description	Default Value
Export Location at Cash Receipt Generation Process Job	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	$$AMSROOT$$/ExportImport
Parameter Location Cash Receipt Generation Process Job	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	$$AMSROOT$$/Parms
Cash Transfer Bank Account	Required field. Entered bank code will be populated on the generated CR transaction.	
Cash Transfer Prefix (PFX)	Optional field. The transaction prefix to be used with the transaction code and department to find an Automatic Transaction Numbering entry.	
Client Name for Report	Optional field. The Name to be displayed on the Report.	
Transaction Code: (DOC_CD)	Required field. This field refers to the Transaction that will be generated by the Generate Collections process.	CR
Load Parameter File Name (txt)	Required field. Loading Parameter File name.	LoadCRParm.txt
Report Title	Optional field. Report Title.	
Submit Parameter File Name (txt)	Required field. Submit Parameter file name.	SubmitCRParm.txt

Major Output

- CR transaction XML File
- Updates to the Coupon Return Table – Marked for deletion flag will be set to True.
- Updates to the External Cash Receipt Storage table – ECDS selected flag will be set to True.
- SMU job parameter files (Load, Auto Apply and Submit)

- Reports
    - CR Generation Detail Report
    - CR Generation Summary Report

Job Return Code

The following table shows the potential job Return Codes for the CR XML Creation job.

Return Code	Condition
Successful (1)	All the selected payment records are processed successfully
Warning (4)	This Return Code will be issued under two conditions: • No records found on the ECDS table. • No matching records found on the CRT / ECRT tables for the ECDS table records. When this job ends with a Return Code of Warning, the CR transaction XML file is not created and subsequent jobs in the chain are set to Inactive.
Non Fatal Error (8)	N/A
Failed (12)	The job will fail under the following conditions: - Parameters are invalid - Run time exceptions for unexpected situations. - Restart failed because another instance of the CR chain has already been run successfully When this job ends with a Return Code of Failed, the CR transaction XML file is not created and subsequent jobs in the chain are set to Inactive.
Terminated (16)	This Return Code will be issued when the job is terminated by the user. When this job ends with a Return Code of Terminated, subsequent jobs in the chain are set to Inactive.
System Failure (20)	This Return Code will be issued when the job is terminated because of database server or network issues. When this job ends with a Return Code of System Failure subsequent jobs in the chain are set to Inactive.

Sort Sequence

For Coupon Return Table:

1) If the Source Code equals 'R', the sort sequence is,
   Department Code (AR_DEPT_CD)
   ECRT Code (ECRT_CD)
   Coupon Id (COUPON_ID)

2) If the Source Code is other than 'R', the sort sequence is,
   Department Code (AR_DEPT_CD)

> BPRO Code (BPRO_CD)
> Coupon Id (COUPON_ID)

For External Cash Receipt Table:
> Department Code (AR_DEPT_CD)
> ECRT Code (ECRT_CD)

Selection Criteria

- Select distinct BFY from ECDS.
- Select from CRT where CRT is equal to the CRT from ECDS and BFY is equal to the BFY on the ECDS table.
- Select records from ECRT where BFY and the ECRT code equal the BFY and ECRT on the ECDS table.

Problem Resolution

The following table shows the possible Return Codes and recommendations for each processing step.

Step 1: Parameter Validation

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	Successful	N/A	N/A
Warning (4)	N/A	This step doesn't issue this Return Code.	N/A
Non Fatal Error (8)	N/A	This step doesn't issue this Return Code.	N/A
Failed (12)	Required Parameters are not entered. **Sample Message:** Cash Receipt Bank Account code cannot be blank.	Enter the correct Bank Account code and schedule a new job.	
	Entered Parameters are not valid. **Sample Message:** Entered Cash Receipt Bank Account is not valid on the Bank Table.	Enter a valid Bank account code and schedule a new job.	

Possible Return Codes	Condition	Recommendation	Other Instructions
	Failed because of runtime exceptions for an unexpected situation.	Failure reason needs to be investigated before scheduling a new job.	
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated before scheduling a new job.	
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated before scheduling a new job.	

Step 2: Selection of records - This step will be performed only if the parameter validation is successful.

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	The job selected eligible records from the ECDS table.	N/A	N/A
Warning (4)	No records found on the ECDS table. **Sample message:** No records found on the ECDS table.	Confirm that the ECDS table has eligible records and schedule a new job if necessary.	
	No matching records found on the CRT / ECRT tables for all of the ECDS table records. **Sample message:** No matching records found on the CRT /ECRT table for the ECDS table records.	Confirm that the CRT / ECRT table has matching records for the ECDS record (s) and schedule a new job if necessary.	

Possible Return Codes	Condition	Recommendation	Other Instructions
Non Fatal Error (8)	N/A	This step doesn't issue this Return Code.	N/A
Failed (12)	In this step, the job can fail only because of runtime exceptions for an unexpected situation.	Failure reason needs to be investigated before scheduling a new job.	No tables have been updated at this point in the process; therefore, no recovery steps are necessary.
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated before scheduling a new job.	No tables have been updated at this point in the process; therefore, no recovery steps are necessary.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated before scheduling a new job.	No tables have been updated at this point in the process; therefore, no recovery steps are necessary.

Step 3: Creation of CR XML file – This step will be performed only if the job finds eligible records on the ECDS table.

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	XML file is created successfully.	N/A	N/A
Warning (4)	N/A	This step doesn't issue this Return Code.	N/A
Non Fatal Error (8)	N/A	This step doesn't issue this Return Code.	N/A
Failed (12)	In this step, the job can fail only because of runtime exceptions for an unexpected situation	Reason for the failure needs to be investigated. Schedule a new job after resolving the issues.	No tables have been updated at this point in the process; therefore, no recovery steps are necessary.
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated	No tables have been updated at this point in the process;

Possible Return Codes	Condition	Recommendation	Other Instructions
		before scheduling a new job.	therefore, no recovery steps are necessary.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated before scheduling a new job.	No tables have been updated at this point in the process therefore no recovery steps are necessary.

Step 4: Generating reports and source table updates

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	The job created the Report successfully.	N/A	N/A
Warning (4)	N/A	This step doesn't issue this Return Code.	N/A
Non Fatal Error (8)	N/A	This step doesn't issue this Return Code.	N/A
Failed (12)	In this step, the job can fail only because of runtime exceptions for an unexpected situation	Reason for the failure needs to be investigated. Schedule a new job after resolving the issues.	All the table updates will be rolled back if the job encounters any runtime exception; therefore, no recovery steps are necessary.
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated before scheduling a new job.	All the table updates will be rolled back if the job encounters any runtime exception; therefore, no recovery steps are necessary.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated before scheduling a new job.	All the table updates will be rolled back if the job encounters any runtime exception; therefore, no recovery steps are necessary.

Cash Receipt Generation Chain: CR Upload Job

Job Name:	CR Upload Job
Recommended Frequency	Not applicable since this job is part of the chain.
Single instance Required	Yes
Can be restarted?	No
Reports Generated	No

Overview

After the CR XML Creation job has completed and the CR transaction XML file has been created, the next job in the chain, CR Upload, uploads the transactions to the Transaction Catalog using the SysManUtil utility. This process first validates the input parameters (that is, whether the parameter file exists in the specified directory). If the file exists, this job loads the transactions based on the information provided in the parameter file. The job will fail if the parameter file name is blank or the file is not found on the specified directory.

Restart information

This job cannot be restarted. See the "Problem Resolution" section for details when a job ends with a Return Code other than Successful.

Major Input

- CR Transaction XML file
- SMU Parameter File

Batch Parameters

Parameter	Description	Default Value
PARM_FILE	Parameter file to Load Transactions	$$AMSPARM$$/LoadCRParm.txt

Major Output

Draft Cash Receipt Transactions in the catalog.

Batch Return Codes

Refer to the SMU Transaction Upload and Submit actions run sheets in the *CGI Advantage Financial – Utilities Run Sheets* guide for the possible job Return Codes that will be issued in this step.

Sort Sequence

N/A

Selection Criteria

N/A

Problem Resolution

If the job fails to load some or all of the transactions from the XML file into the Transaction catalog, then no new instance of this chain should be executed until all of the transactions in the XML file are loaded into the Transaction Catalog. This is because the XML file will get overwritten if another instance of this chain ran successfully.

If another instance of this chain job ran successfully before loading all the transactions into the catalog then updates made to the ECDS and CRT table records for the transactions that failed to load should be backed out. Transactions that failed to load can be linked to the CR Generation detail report to identify the ECDS and CRT table records which may need to be backed out.

The following table shows the possible Return Codes and recommendations for each processing step.

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	All parameters are valid and all the transactions are loaded successfully.	N/A	N/A
Warning (4)	The input file is empty. **Sample message:** No records found on the input file.	Make sure that the CR XML creation job creates the input file with records.	
	This Return Code will be issued when the job fails to load some of the transactions. **Sample Message:** Unable to load all of the transactions into the catalog.	Analyze the reason for the failure, resolve the issue and load all of the rejected transactions. Until then, no new instance of this chain should be executed.	
Non Fatal Error (8)	This Return Code will be issued when the job failed to load all of the transactions.	Analyze the reason for the failure, resolve the issue and load all of the rejected transactions. Until then, no new instance of this chain should be executed.	

Possible Return Codes	Condition	Recommendation	Other Instructions
Failed (12)	This Return Code will be issued when the parameters are not valid. **Sample Message:** Parameter file could not be located/read.	Make sure that the parameter file exits in the specified folder and schedule a new chain with the prior jobs disabled. Until then, no new instance of this chain should be executed.	
	Failed because of runtime exceptions for an unexpected situation.	Analyze the reason for the failure, resolve the issue and schedule a new chain with the prior jobs disabled. Until then, no new instance of this chain should be executed.	
Terminated (16)	Job is terminated manually by the user.	Analyze the reason for the termination, resolve the issue and schedule a new chain with the prior jobs disabled. Until then, no new instance of this chain should be executed.	
System Failure (20)	Job is terminated because of database server or network issues.	Analyze the reason for the system failure, resolve the issue and schedule a new chain with the prior jobs disabled. Until then, no new instance of this chain should be executed.	

Cash Receipt Generation Chain: CR Auto Apply Job

Job Name:	CR Auto Apply
Recommended Frequency	Not applicable since this job is part of the chain.
Single Instance Required	Yes
Can be Restarted?	No
Reports Generated	No

Overview

All CR transactions created through the CR Generation Chain will have the Vendor Line Auto Apply flag selected and therefore the Auto Apply functionality will be applied to all of the created CR transactions. The Auto Apply functionality in the CR transaction generates the Accounting Lines based on the rules established on the transaction. This job invokes the Auto Apply action on the transactions generated in the CR XML Creation job.

Restart information

This job cannot be restarted. Refer to the "Problem Resolution" section for details when the job ends with a Return Code other than Successful.

Major Input

- SMU job parameter file
- Draft Cash Receipt Transactions in the catalog

Batch parameters:

Parameter	Description	Default Value
PARM_FILE	Parameter File	$$AMSPARM$$/CRAutoApplyParm.txt

Major Output

The Auto Apply action was performed on the CR transactions and the Accounting lines have been generated on those transactions.

Batch Return Codes

The following table shows the potential job Return Codes for the CR Upload job.

Return Code	Condition
Successful (1)	The Auto apply Action was performed on all of the transactions.
Warning (4)	N/A
Non Fatal Error (8)	N/A
Failed (12)	When the input file is not found in the specified directory. Runtime exceptions encountered for any unexpected situations. When the job ends with a Return Code of Failed, subsequent jobs in the chain will be set to Inactive.
Terminated (16)	This Return Code will be issued when the job is terminated by the user. When the job ends with a Return Code of Terminated, subsequent jobs in the chain will be set to inactive.
System Failure (20)	This Return Code will be issued when the job is terminated because of database server or network issues. When this job ends with a Return Code of System Failure, subsequent jobs in the chain will be set to inactive.

Sort Sequence

N/A

Selection Criteria

N/A

Problem Resolution

If this job ends with a Return Code of Failed, Terminated or System Failure, then no new instance of this chain should be executed until "Auto Apply" action is performed on all the transactions loaded in the previous job step. This is because the parameter txt file that contains the transaction IDs on which the Auto Apply action should be applied will get overwritten if another instance of this chain is executed. A new job can be scheduled (within a new chain with the prior jobs disabled) using the same parameter file.

Note: If another instance of this chain job ran successfully before completing the Auto Apply action on all the loaded transactions, then all the loaded transactions should have the Auto Apply action applied manually. The transaction information can be taken from the CR Generation report generated by the CR XML creation job in that chain.

The following table shows the possible Return Codes and recommendations for each processing step.

Possible Return Codes	Condition	Recommendation	Other instructions
Successful (1)	The Auto Apply action is performed on all the transactions.	N/A	N/A
Warning (4)	N/A	This step doesn't issue this Return Code.	N/A
Non Fatal Error (8)	N/A	This step doesn't issue this Return Code.	N/A
Failed (12)	This Return Code will be issued when the input parameter is not found in the specified directory. **Sample Message:** Parameter file could not be located/read	Make sure that the parameter file exits in the specified folder and re-submit the job. Until then no new instance of this chain should be executed.	

Possible Return Codes	Condition	Recommendation	Other instructions
	Failed because of runtime exceptions for unexpected situation	Analyze the reason for the failure, resolve the issue and schedule a new chain with the prior jobs disabled so that the Auto Apply action is performed on all the transactions. Until then no new instance of this chain should be executed.	
Terminated (16)	Job is terminated manually by the user.	Analyze the reason for the termination, resolve the issue and schedule a new chain with the prior jobs disabled so that the Auto Apply action is performed on all the transactions. Until then no new instance of this chain should be executed.	
System Failure (20)	Job is terminated because of database server or network issues	Analyze the reason for the system failure, resolve the issue and schedule a new chain with the prior jobs disabled so that the Auto Apply action is performed on all the transactions. Until then no new instance of this chain should be executed.	

Cash Receipt Generation Chain: CR Submit Job

Job Name:	CR Submit Job
Recommended Frequency	Not applicable since this job is part of the chain
Single Instance Required	Yes
Can be Restarted?	No
Reports Generated	No

Overview

The CR Submit job uses the SysManUtil utility to submit each CR loaded by the CR Upload job for final processing to update the tables, through existing logic, and complete the cash transfer.

Major Input

- SMU job parameter file
- Draft Cash Receipt Transactions in the catalog

Batch parameters:

Parameter	Description	Default Value
PARM_FILE	Parameter File	$$AMSPARM$$/SubmitCRParm.txt

Major Output

Submitted transactions (or rejected transactions).

Batch Return Codes

Refer the SMU Transaction Upload and Submit actions run sheets in the *CGI Advantage Financial – Utilities Run Sheets* guide for the possible job Return Codes that will be issued in this step.

Sort Sequence

N/A

Selection Criteria

N/A

Problem Resolution

If this job ends with a Return Code of Failed, Terminated or System Failure, then no new instance of this chain should be executed until all of the transactions loaded in the previous job step are submitted. This is because the submit parameter txt file that contains the transaction IDs to be submitted will get overwritten if another instance of this chain is executed. Only the submit job in the chain should be rescheduled to submit the remaining transactions. A new job can be scheduled (within a new chain with the prior jobs disabled) using the same parameter file.

Note: If another instance of this chain job ran successfully before submitting all of the loaded transactions, then all of the loaded transactions should be submitted manually. The transaction information can be taken from the CR Generation report generated by the CR XML Creation job in that chain.

The following table shows the possible Return Codes and recommendations for each processing step.

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	All of the transactions submitted successfully.	N/A	N/A
Warning (4)	N/A	This step doesn't issue this Return Code.	N/A
Non Fatal Error (8)	N/A	This step doesn't issue this Return Code.	N/A
Failed (12)	This Return Code will be issued when the input parameter is not found in the specified directory. **Sample Message:** Parameter file could not be located/read.	Make sure that the parameter file exits in the specified folder and schedule a new chain with the prior jobs disabled. Until then no new instance of this chain should be executed.	
	Failed because of runtime exceptions for an unexpected situation.	Analyze the reason for the failure, resolve the issue and schedule a new chain with the prior jobs disabled. Until then no new instance of this chain should be executed.	.
Terminated (16)	Job is terminated manually by the user.	Analyze the reason for the termination, resolve the issue and schedule a new chain with the prior jobs disabled. Until then no new instance of this chain should be executed.	.
System Failure (20)	Job is terminated because of database server or network issues.	Analyze the reason for the system failure, resolve the issue and schedule a new chain with the prior jobs disabled. Until then no new	

Possible Return Codes	Condition	Recommendation	Other Instructions
		instance of this chain should be executed.	

2.1.5 Collection Agency Referral

Chain or Job Name	Collection Agency Referral
Recommended Frequency	Nightly Cycle or can be run on demand
Single Instance Required	Single
Can be restarted?	No
Reports generated	No

Overview

The Collection Agency Referral job is an alternative to the Generate Collection Transactions chain whereby overdue receivables are left on the Receivable transaction type and not transferred to the Referral to Collection Agency transaction type. Instead, flat files are generated to send summary receivable information to one or more collection agencies. The Pending Collection Agency Referral (COLLR) page is then used to track the receivable and not just to determine whether or not the receivable should be sent for collection or not. The Collection Payment and Collection Update Status jobs are both used to make subsequent updates to the COLLR page.

The Collection Agency Referral has the capability to send receivables greater than or equal to a certain amount to one collection agency and those less than the amount to another. When the two-file approach is not needed, the recommendation is to set the threshold amount to a very large amount to ensure all approved receivables are put into a single file to the 'under' collection agency.

This job consists of the following processes and are executed in the following sequence:

1. Parameter Validation

2. Pending Collection Agency Referral (COLLR) Selection

3. Generate the Outbound Collection Referral Interface File(s)

4. Pending Collection Agency Referral (COLLR) Updates

When to Run

Run after the Select for Collection job. If that job was run to load selected receivables as unapproved, time between the jobs must be allocated to allow users to manually approve or upload approvals. If records are loaded as approved but users need time to un-approve, that must be allocated. Only if all are loaded as approved and all should be processed would the two jobs be run back-to-back.

Process Steps	Messages
1. Parameter Validation	• Validating Batch Parameters • Parameters are listed • If the parameter is invalid, an error is logged • Batch Parameter validation completed
2. COLLR Record Selection	• Starting Collection Agency Referral Process • If the selection returns 0 records, then the following

Process Steps	Messages
	message is issued: "No eligible record found". • Number of records (count) selected for each file (by file name) is stated.
3. File Creation	• No Messages
4. COLLR Update	• No Messages • End Collection Agency Referral Process

Restartability

After parameter validation, if the job fails it can be restarted.

Major Input

- Pending Collection Agency Referral (COLLR - R_COLL_RFRL_INPT)

- Receivable Transaction Header (RE_DOC_HDR)

- Receivable Transaction Vendor (RE_DOC_VEND)

- Receivable Transaction Accounting (RE_DOC_ACTG)

- Billing Profile (BPRO - R_BPRO)

- Collection Agency Agreement (COLLA - R_CLAGCY_AGRMT)

Note: The default values listed are those delivered with the software. Actual values may vary based on your site's setup.

Parameter	Description	Default Value
Export Location (AMSEXPORT)	The required location where the collection agency file(s) are written.	$$AMSROOT$$/ExportImport
Billing Profile (BPRO_CD)	An optional selection parameter for the specification of one or more billing profiles. Multiple values can be entered if separated by commas. If left blank, the process selects all billing profiles for the AR Department and AR Unit.	No Default
AR Department (DEPT_CD)	A required selection parameter for a single department, where the wildcard of *ALL* can be used.	No Default
AR Unit (UNIT_CD)	A required selection parameter for a single unit, where the wildcard of *ALL* can be used.	No Default
Dollar Threshold (DOL_THRE)	A required sorting parameter of a dollar amount from 0 to 9,999,999 is entered to control selection to the Over Collection Agreement or Under Collection Agreement.	No Default

Over File Prefix (FNP_OVR)	A required parameter used in the creation of the flat file for the Over-Collection Agency file.	No Default
Under File Prefix (FNP_UND)	A required parameter used in the creation of the flag file for the Under-Collection Agency file.	No Default
Over Collection Agreement (OVR_THRE_AG)	A required selection parameter for a single Collection Agency Agreement for receivables equal to or greater than or equal to the dollar threshold.	No Default
Site ID (REF_SYS_NM)	A required output parameter for a Site ID for the Collection Agency to know who the file is from. The value should be between 1 and 5 in length.	No Default
Under Collection Agreement (UND_THRE_AG)	A required selection parameter for a single Collection Agency Agreement for receivables equal to or less than the dollar threshold.	No Default

Major Output

- Over Threshold Collection Agreement Outbound Referral File

- Under Threshold Collection Agreement Outbound Referral File

- Pending Collection Agency Referral (COLLR - R_COLL_RFRL_INPT)

Return Codes

The following return codes are issued for the Collection Agency Referral process.

Return Code	Condition
Successful (1)	When selected records are processed successfully
Warning (4)	No COLLR records match selection criteria
Non-Fatal Error (8)	This job does not use this return code
Failed (12)	Failed parameter validations
Terminated (16)	The job was terminated by the user.
System Failure (20)	The job was terminated because of database server or network issues.

Sort Criteria

Records are written to each file in the same order found on COLLR.

Selection Criteria

- Select COLLR records where Collection Status = *Approved for Collection*

- From those records, select the associated receivable transactions (RE_DOC_HDR) that meet the following criteria:

    - Transaction Phase = *Final*

    - Transaction Function <> *Cancellation*

    - Outstanding Amount > $0.00

- Of those selected transactions, select the receivable vendor records (RE_DOC_VEND) that match the values entered in the following job parameters:

    - Billing Profile = any value specified in the Billing Profile parameter

    - AR Department = AR_DEPT_CD

    - AR Unit = AR_UNIT_CD

- Of those receivable vendor records, select the first line number from the receivable accounting records (RE_DOC_ACTG) for the summarized file record.

Of those selected receivables assign the Collection Agency Agreement based on the sum of the Accounting Records:

- If the receivable outstanding amount >= Dollar Threshold, then assign the receivable to the Over-Threshold Collection Agreement. For each record assigned, ensure the Receivable Outstanding Amount>= the Receivable Minimum Amount on COLLA.

- Otherwise, assign the Under-Threshold Collection Agreement. For each receivable assigned, ensure the Receivable Outstanding Amount >= the Receivable Minimum Amount on COLLA.

Problem Resolution

No database restore is required. Correct the problem and rerun the job executing the program. No restoration of datasets or files from backups is required for this program.

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	All of the parameters are validated successfully and records selected and processed successfully.	N/A	N/A
Warning (4)	Job ended with a Warning because there are no eligible COLLR records selected. "No records selected for the file"	Verify selection parameters.	
Non-Fatal Error (8)	NA	NA	

Possible Return Codes	Condition	Recommendation	Other Instructions
Failed (12)	Job failed due to parameter validation failure or any Runtime Exception.	In this step, the job can fail under the following two conditions. • Encounters any runtime exceptions • Parameter Validation If the job fails because of the runtime exceptions, investigate the exception reported by the process, resolve the error and restart the job.	
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

2.1.6 Collection Payment

Chain or Job Name	Collection Payment
Recommended Frequency	Nightly Cycle or can be run on demand
Single Instance Required	Single
Can be restarted?	Yes
Reports generated	No

Overview

The Collection Payment job creates a flat file to update collection agencies for any collections that have occurred in Advantage Financial and update the Pending Collection Agency Referral (COLLR) page with information from cash receipts.

Of note:

- Before using this process there have to be controls/procedures put in place to ensure the creation of cash receipts is done with the copy forward action from the receivable and not the auto apply action or only with receivable references at the accounting line of the cash receipt.

- There is an Excluded Cash Receipt Prefix parameter that is intended to eliminate those Cash Receipts created from collection information interfaced over from the collection agency because there is no need to inform them of what they already have recorded with an update in the flat file from Advantage. Such a prefix must be incorporated into this interface.

This job consists of the following processes and executed in the following sequence:

1. Parameter Validation
2. Cash Receipt Selection
3. Generate the Collection Payment Interface File

Process Steps	Messages
1. Parameter Validation	• Validating Batch Parameters • Parameters are listed • If the parameter is invalid, an error is logged • Batch Parameter validation completed
2. Cash Receipt Selection	• Starting Collection Payment Process • If the selection returns 0 records, then the following message is issued: "No eligible record found". • Number of records (count) selected for each file (by file name) is stated.
3. File Creation	• No Messages • End Collection Payment Process

Restartability

- After parameter validation, if the job fails it can be restarted.

Major Input

- Pending Collection Agency Referral (COLLR - R_COLL_RFRL_INPT)

- Cash Receipt Transaction Header (CR_DOC_HDR)

- Cash Receipt Transaction Vendor Line (CR_DOC_VEND)

- Cash Receipt Transaction Accounting Line (CR_DOC_ACTG)

- Billing Profile (BPRO - R_BPRO)

- Collection Agency Agreement (COLLA - R_CLAGCY_AGRMT)

Note: The default values listed are those delivered with the software. Actual values may vary based on your site's setup.

Parameter	Description	Default Value
Export Location (AMSEXPORT)	The required location where the collection agency file(s) are written.	$$AMSROOT$$/ExportImport
Billing Profile (BPRO_CD)	An optional selection parameter for the specification of one or more billing profiles. Multiple values can be entered if separated by commas. If left blank, the process selects all billing profiles for the AR Department and AR Unit.	No Default
Collection Agency (COLL_AGCY)	A required selection parameter for a single Collection Agency Agreement for COLLR selection of receivables in order to locate referencing cash receipts.	No Default
AR Department (DEPT_CD)	A required selection parameter for a single department, where the wildcard of ALL can be used.	No Default
AR Unit (UNIT_CD)	A required selection parameter for a single unit, where the wildcard of ALL can be used.	No Default
Excluded Cash Receipt Prefix (DOC_ID_PRE)	An optional selection parameter to omit certain cash receipts from being selected based on a transaction numbering prefix.	No Default
File Prefix (FNP_OVR)	A required parameter used in the creation of the flat file for the Collection Agency file.	No Default
Collection Date From (FROM_DT)	An optional selection parameter for cash receipt transactions on or after a specific date.	No Default

	Please enter as MM/DD/YYYY	
Collection Date To (TO_DT)	An optional selection parameter for cash receipt transactions on or before a specific date. Please enter as MM/DD/YYYY	No Default
Site ID (REF_SYS_NM)	A required output parameter for a Site ID for the Collection Agency to know who the file is from. The value should be between 1 and 5 in length.	No Default

Major Output

- Collection Payment Interface File.

Return Codes

The following return codes are issued for the Collection Payment process.

Return Code	Condition
Successful (1)	When selected, cash receipt records are processed successfully.
Warning (4)	No cash receipts match selection criteria.
Non-Fatal Error (8)	This job does not use this return code.
Failed (12)	Failed parameter validations.
Terminated (16)	The job was terminated by the user.
System Failure (20)	The job was terminated because of database server or network issues.

Sort Criteria

The order the cash receipts are found on CR_DOC_HDR is the only sorting.

Selection Criteria

- Select Cash Receipt (CR_DO_HDR) records which meet the following criteria:

  - Transaction Phase = *Final*

  - Transaction Function <> *Cancellation*

  - Referenced Transaction Code (RFED_DOC_CD) and Referenced Transaction ID (RFED_DOC_ID) are populated on the Cash Receipt Vendor (CR_DOC_VEND).

  - The referenced transaction information on the Cash Receipt Vendor (REF_DOC_CD, REF_DOC_DEPT_CD, REF_DOC_ID) matches a COLLR record for the Collection Agency Agreement, AR Department, and AR Unit selection parameters.

  - Of those that meet the criteria, the system selects the records that match the values entered in the following job parameters:
    - o   Billing Profile = any value specified in the Billing Profile parameter

- Transaction Record Date (DOC_REC_DT) of CR_DOC_HDR is >= Collection Date Range From <= Collection Date Range To

    o Transaction Record Date falls within the Date Referred to Collection (CL_REF_DT) and Date Returned from Collection (CL_RET_DT) for the associated COLLR record

- If Date Returned from Collection (CL_RET_DT) is blank, then use the Application System Date (APPL_SYS_DT)

Problem Resolution

No database restore is required. Correct the problem and rerun the job executing the program. No restoration of datasets or files from backups is required for this program.

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	All of the parameters are validated successfully and records selected and processed successfully.	N/A	N/A
Warning (4)	Job ended with a Warning because there no eligible records found "No records selected for the file":	Verify the records based on the selection logic	
Non-Fatal Error (8)	NA	NA	
Failed (12)	Job failed due to parameter validation failure or any Runtime Exception.	In this step, the job can fail under the following two conditions. • Encounters any runtime exceptions • Parameter Validation Verify the parameters and restart the job. If the job fails because of the runtime exceptions, investigate the exception reported by the process, resolve the error and restart the job.	
	Failed while restarting the job since another instance of the job has already been run	**Recommendation:** Schedule a new job.	

Possible Return Codes	Condition	Recommendation	Other Instructions
	successfully. **Sample Message**: Cannot restart the job since another instance of this job has already been run successfully.		
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

2.1.7 Collection Status Update

Chain or Job Name	Collection Status Update
Recommended Frequency	Nightly Cycle or can be run on demand
Single Instance Required	Single
Can be restarted?	Yes
Reports generated	No

Overview

The Collection Status Update job updates the Pending Collection Agency Referral (COLLR) page to reflect the closing or the re-opening of a receivable.

For Closing, when the COLLR receivable has an open amount of $0, the following are updated:

- Collection Status (COLL_GEN_STA_IND) to C*losed*
- Date Returned from Collection (CL_RET_DT) to the *Application System Date*
- Return Reason (CL_RET_REA) to *Receivable closed*

For Reopening, when the COLLR receivable has an open amount yet the COLLR record was closed (reason - a referencing Cash Receipt was cancelled because of NSF event) the following are updated:

- Collection Status (COLL_GEN_STA_IND) to *Not Approved for Collection*
- Date Referred to Collection (CL_REF_DT) is cleared
- Date Referred to Collection (CL_RET_DT) is cleared
- Return Reason (CL_RET_REA) is cleared
- Amount Referred to Collection (CL_REF_AMT) is cleared

This job consists of the following processes and executed in the following sequence:

1. Parameter Validation
2. Pending Collection Agency Referral (COLLR) Update

Process Steps	Messages
1. Parameter Validation	- Validating Batch Parameters - Parameters are listed - If the parameter is invalid, an error is logged - Batch Parameter validation completed
2. COLLR Update	- Started Collection Status Update Process - Closing Records - Each receivable closed is listed - Total Number of Records Closed: ## - Reopening Records

Process Steps	Messages
	• Each receivable reopened is listed • Total Number of Records Reopened: ## • Run Ended

Restartability

• After parameter validation, if the job fails it can be restarted.

Major Input

• Pending Collection Agency Referral (COLLR - R_COLL_RFRL_INPT)

• Receivable Transaction Header (RE_DOC_HDR)

Batch Parameters

There are no parameters for this job.

Major Output

• Pending Collection Agency Referral (COLLR - R_COLL_RFRL_INPT)

Return Codes

The following return codes are issued for the Collection Status Update job.

Return Code	Condition
Successful (1)	All of the selected COLLR records are processed successfully.
Warning (4)	No eligible records selected to update. This could be because of the following reasons: • No COLLR records had been reopened or closed.
Non-Fatal Error (8)	This job does not use this return code
Failed (12)	The job fails under the following conditions: • Run time exceptions for unexpected situations.
Terminated (16)	The job was terminated by the user.
System Failure (20)	The job was terminated because of database server or network issues.

Sort Criteria

NA

Selection Criteria

• **For selecting records to be closed:**

  • Select records on COLLR where Collection Status <> *Closed*

- Of those selected, the system selects the associated receivable transactions that meet either of the following criteria:

  Criteria 1:

  o Transaction Phase = *Final*

  o Transaction Function <> *Cancellation*

  o Outstanding Amount = $0.00

  Criteria 2:

  o Transaction Phase = *Final*

  o Transaction Function = *Cancellation*

- **For selecting records to be reopened**

  - Select records on COLLR where Collection Status = *Closed*

  - Of those selected, the system selects the associated receivable transactions that meet the following criteria:

    o Transaction Phase = *Final*

    o Transaction Function <> *Cancellation*

    o Outstanding Amount > $0.00

Problem Resolution

No database restore is required. Correct the problem and rerun the job executing the program. No restoration of datasets or files from backups is required for this program.

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	When the job processes records successfully.	N/A	N/A
Warning (4)	Job ended with a Warning because there are no records to be processed.	N/A	N/A
Non-Fatal Error (8)	NA	NA	N/A
Failed (12)	Job failed due to Fatal conditions.	In this step, the job can fail under the following two conditions. • Encounters any runtime exceptions If the job fails because of the runtime exceptions, investigate the exception reported by the process, resolve the error and	N/A

Possible Return Codes	Condition	Recommendation	Other Instructions
		restart the job. **Recommendation:** Schedule a new job.	
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

2.1.8 CRT Purge

Job Name	CRT Purge
Recommended Frequency	CRT Purge can be run on demand.
Single Instance Required	No
Can be restarted?	No
Reports generated	No

Overview

The CRT Purge job deletes the records from Coupon Return (R_COUPON_RET - CRT) table.

Steps involved in the CRT Purge job are: Parameter Validation and Purging of Records.

Process Steps	Messages
1. Parameter Validation	• The format of batch parameter 'Purge Date' is validated. Purge Date should be in MM/DD/YYYY format. • The following message will be issued if the validation of Purge Date fails: " Invalid Purge Date. The Valid format is mm/dd/yyyy"

2. Purging of Records	• If the Purge Date is entered then records from the Coupon Return (R_COUPON_RET - CRT) table will be deleted depending on the following criteria:
	  a. Marked for delete flag (MARK_DEL_FL) is true.
	  b. Coupon Date <= Parameter Purge Date.
	• If the Purge Date is not entered then records from the Coupon Return (R_COUPON_RET - CRT) table will be deleted depending on the following criteria:
	• Marked for delete flag (MARK_DEL_FL) is true.

Restartability Information

This job does not have the restart capability. If the job fails then the new instance of the job should be scheduled. This will not impact the functionality as every time the job will delete the records where 'Marked for Delete' flag is true. Records deleted in the previous run will be automatically ignored.

Major Input

Tables

• Coupon Return (R_COUPON_RET - CRT) table.

Batch Parameters

Parameter	Description	Default Value
Purge Date (MM/DD/YYYY) (PURGE_DATE)	Optional. Purge Date.	No Default

Major Output

- Coupon Return (R_COUPON_RET - CRT) table

Job Return code

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	The records get deleted successfully.
Warning (4)	• This job does not return this return code.
Non Fatal Error (8)	This job does not return this return code.
Failed (12)	• Invalid Parameters. • Run time exceptions in unexpected situations.
Terminated (16)	This return code will be issued when the job is terminated by the user.
System Failure (20)	This return code will be issued when the job is terminated because of database server or network issues.

Sort Criteria

N/A

Selection Criteria

Marked for Delete Flag on Coupon Return (R_COUPON_RET - CRT) table is true.

The following selection criteria will apply when the value of batch parameter 'Purge Date' is entered:

Coupon Date of Coupon Return (R_COUPON_RET - CRT) table <= Parameter Purge Date

Problem Resolution

Step 1: Parameter Validation:

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful	All of the parameters	N/A	N/A

Possible Return Codes	Condition	Recommendation	Other Instructions
(1)	are validated successfully		
Warning (4)	N/A	This step does not issue this return code.	This step does not issue this return code.
Non Fatal Error (8)	N/A	This step does not issue this return code.	This step does not issue this return code.
Failed (12)	The Date Format of parameter 'Purge Date' is invalid.	Check the Date Format of parameter 'Purge Date'. The Valid format is MM/DD/YYYY	The job should be rescheduled.
Terminated (16)	Job is terminated manually by the user.	The reason for the termination needs to be investigated.	The job should be rescheduled.
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated.	The job should be rescheduled.

Step 2: Purging of Records:

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	Successful	N/A	N/A
Warning (4)	N/A	This step does not issue this return code.	This step does not issue this return code.
Non Fatal Error (8)	N/A	This step does not issue this return code.	This step does not issue this return code.
Failed (12)	Failed because of runtime exceptions for an unexpected situation.	In this step the job can fail with fatal conditions only on encountering unknown exceptions. If that happens, investigate the exception reported by the process and resolve the error.	The job should be rescheduled.
Terminated	Job is terminated	The reason for the	The job

Possible Return Codes	Condition	Recommendation	Other Instructions
(16)	manually by the user.	termination needs to be investigated.	should be rescheduled.
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated.	The job should be rescheduled.

2.1.9 Delinquent Payment Plan

When to Run

On-demand or as part of the nightly systems assurance process

Description

The Delinquent Payment Plan Batch Process is an offline batch job that determines the acceptable number of missed payments allowed for Payment Plans. Similar to the Payment Plan Maintenance Batch Process, when the Delinquent Payment Plan batch process is run, the batch process first reads its job parameters and selects only the Payment Plan table records that match the specified parameters. Parameters for the Delinquent Payment Plan Batch Job are the identical to Payment Plan Maintenance Batch Job where users are able to select Payment Plans based on AR Department, AR Unit, or Billing Profile.

The batch process then initiates the second selection process by selecting only Payment Plans with an active status. The batch process will determine the number of missed payments on the selected Payment Plan by counting the number of zeros on the Collected Amount field on all the Payment Plan Detail records that have been flagged as 'Closed'. If missed payments do not exist for the Payment Plan, then the batch process will bypass the selected Payment Plan table record and continue with the selection process.

If missing payments exist for the Payment Plan, the batch process will then determine if it exceeds the number that is acceptable on SOPT. If the 'Allow Override of Number of Missed Payments' flag is not checked on SOPT, then the batch process will use the value in the 'Automatic Cancellation After Number of Missed Payments' field on SOPT. If the number of missed payments counted on the Payment Plan table is greater than or equal to the value on SOPT, the batch process will cancel the Payment Plan by setting the Status field on the Payment Plan table to 'Cancelled'.

If the 'Allow Override of Number of Missed Payments' flag is selected, then the batch process will search for controls set at the Department/Unit level on the associated Billing Profile table. The batch process will cancel the Payment Plan if the number of missed payments is greater than or equal to the value in the 'Automatic Cancellation After Number of Missed Payments' field on the associated Billing Profile table. If the field on the Billing Profile table is blank, the batch process will return to SOPT and use the value in the 'Automatic Cancellation After Number of Missed Payments' field.

If the 'Automatic Cancellation After Number of Missed Payments' field is blank on both SOPT and BPRO, then the system will end the Delinquent Payment Plan Batch Process. The Delinquent Payment Plan batch job is chained to the Payment Plan Maintenance batch job, allowing it to run in consecutive order.

Major Input

- Payment Plans Master and Detail Tables PSCHD)
- System Options Table SOPT)

Output

- Payment Plans Master Table PSCHD)

Parameters

Batch Parameters

Description (Caption)	Parameter Name	Default Value
AR Department Code	AR_DEPT_CD	
AR Unit Code	AR_UNIT_CD	
Billing Profile Code	BPRO_CD	

- The job parameter page for the Delinquent Payment Plan batch job will have a field called AR Department. If the AR Department field on the job parameters page for the Delinquent Payment Plan Batch Process is populated, then that AR Dept value must be valid on the Department table. If the AR Dept is valid, then the Delinquent Payment Plan Batch Process will search for Payment Plan table records based on the value in the AR Department field.

- The job parameter page for the Delinquent Payment Plan batch job will have a field called AR Unit. If the AR Unit field on the job parameters page for the Delinquent Payment Plan Batch Process is populated, then that AR Unit value must be valid on the Unit table. If AR Unit is valid, then the Delinquent Payment Plan Batch Process will search for Payment Plan table records based on the value in the AR Unit field.

- If the Billing Profile Code field on the job parameters page for the Delinquent Payment Plan Batch Process is populated, then that Billing Profile Code is value must be valid on the BPRO table. If the Billing Profile Code is valid, then the Delinquent Payment Plan Batch Process will search for Payment Plans table records based on the value in the Billing Profile Code field.

Sort Criteria

Selection Criteria

See parameters.

Problem Resolution

If the process was discontinued for any reason, then the job needs to be rescheduled again.

2.1.10 Deposit Reconciliation

Description

The Deposit Reconciliation process maintains consistency between the bank's records and a client's disbursement records within Advantage Financial. The process updates a deposit's status, (for example, from *Outstanding* to *Confirmed* or *Cancelled*), as well as checking for discrepancies between Advantage and the bank.

The Deposit Reconciliation process is comprised of four batch jobs that are chained together. Each step in the process is described below.

Flat File To XML Process

This process converts the flat file sent by the bank into XML format to be uploaded into the Deposit Exception table in the next step.

Deposit Reconciliation Load Process

This process reads the XML file (bank data) generated from the Flat File to XML process and uploads it to the Deposit Exception table.

Automated Deposit Reconciliation Process

This process reconciles the bank's records loaded to the Deposit Exception table with the system records on the Deposit Reconciliation table. Records that can be reconciled (deposit number and outstanding amount match) are marked as Confirmed and moved to the Confirmed Deposit table. Records from the bank file that do not have a match in Advantage are marked as an Exception.

Deposit Exception Report

An exception report will be generated at the end of this process, which will list all the records in the bank file that have no matching bank account number or do not match the amount on the Deposit Reconciliation table.

When to Run

Monthly, weekly, or daily, or on demand

Major Input

- Deposit Reconciliation table (R_AP_DPS_RECON)
- Deposit Exception table (R_AP_DPS_EXCP)
- Reconciliation file from the bank.

Output

The process creates the following:

- Insert a record into Confirmed Deposit table (AP_DPS_ CNFRM)

- Delete records from Deposit Reconciliation table (R_AP_DPS_RECON)

- Delete records from Deposit Exception table (R_AP_DPS_EXCP)

Exception Report - This report is generated at the end of the Deposit Reconciliation process. The Deposit Exception report lists checks that could not be matched between the

Parameters

Job	Parameter	Description	Default Value
Flat To XML	Attribute List (ATTRIBUTE_LIST)	Required Field. The process requires the order of the fields in the bank's data file as a parameter. If site is not expecting BAI Code and Bank Description to be part of the file received from the Bank, then they should use Attribute List 1. If site is expecting BAI Code and Bank Description to be part of the file received from the Bank, then they should use Attribute List 2. Before running, please ensure that the sequence of the attribute listed in this parameter matches the sequence in the flat file provided by the bank for proper conversion. Please leave AMS_ROW_VERS_NO as the last item, although not in the bank file.	**Attribute List 1:** BANK_NO,BANK_ACCT_NO,EXCP_CD,MRCHT_ID,BANK_DPS_NO,BANK_DPS_AM,BANK_STA_PD_DT,DPS_TKT_NO,DPS_AM,DPS_ISS_DT,DPS_STA,DEL_FL,AMS_ROW_VERS_NO **Attribute List 2:** BANK_NO,BANK_ACCT_NO,EXCP_CD,MRCHT_ID,BANK_DPS_NO,BANK_DPS_AM,BANK_STA_PD_DT,DPS_TKT_NO,DPS_AM,DPS_ISS_DT,DPS_STA,DEL_FL,BAI_CD,BANK_DSCR,AMS_ROW_VERS_NO

Job	Parameter	Description	Default Value
	Data Object Name (DATAOBJECT_NAME)	Required Field. This is used to create a Data Object Node in XML.	R_AP_DPS_EXCP
	Delimiter (DELIMITER)	Required Field. Defines what separates the fields in the bank's data file.	,
	Flat File Name (FLAT_FILE)	Required Field. The name of the text file that contains the banks data.	R_AP_DPS_EXCP_1.txt
	XML File Name (XML_FILE)	Required Field. Defines the name of the XML file that will be created by this process.	R_AP_DPS_EXCP_1.xml
	Export Location at Flat To XML Job (AMSEXPORT)	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
	Import Location at Flat To XML Job (AMSIMPORT)	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
DPS REC Load	XML File Name (XML_FILE)	Required Field. Defines the XML file name to be uploaded into the Deposit Exception table. The name corresponds to the file created in the previous job.	R_AP_DPS_EXCP_1.xml

Job	Parameter	Description	Default Value
	Import Location at DPS REC Load Job AMSIMPORT	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
Auto Deposit Recon	Commit Block Size (COMMIT_BLOCK)	Optional field. The value for this parameter should be a positive integer. If not entered, it is defaulted to 500. This parameter is required to control a large number of records to commit and save to the Confirmed Deposits table.	500
	Process (Process)	Required (and protected) field that is used to control the Deposit Reconciliation process.	BATCH
Deposit Exception	Client name for Report (CLIENT_NM)	Optional field. Entry of a value in this field specifies the name that will appear on report.	No Default
	Process (Process)	Required (and protected) field that is used to control the creation of the Deposit Exception Report.	REPORT

Sort Sequence

None

Selection Criteria

Select all the records from the Deposit Reconciliation Table where Deposit Status equals Confirmed. Move those into the Deposit Confirmed table.

Select records from the Deposit Exception Table where delete flag is set to no. Reconcile those with the corresponding records from the Deposit Reconciliation table.

Select records from the Deposit Exception Table where delete flag is set to yes. Delete those from the table.

Problem Resolution

If the process fails for any reason, check to see whether an XML file of the name of the bank's flat file or the name you specified already exists in the Datafiles directory with the current system date and time. If the process did not create an XML file, or the created file is not in the proper format, then correct the problem and rerun the process.

2.1.11 Email Generation

Job Name	Email Generation
Recommended Frequency	On an as needed basis, contingent upon the volume of emails your location is expecting to send out.
Single Instance Required	Yes (it cannot have many instances of the same Billing Type running simultaneously or any Billing Type with the ALL Billing Type)
Can be restarted?	No
Reports generated	No

Overview

This job will identify the Statements, Invoices, Past Due Statements, Past Due Invoices, or Payment Plan emails to be sent. Construct the email and attach the PDF file.

Major Input

- Billing Profile (BPRO)

- Customer Account Options (CACT)

- Invoice (INVQ)

- Statement (STMTQ)

- Payment Plan Print table (PPPT)

- Billing Instruction (BINST)

Major Output

- The system updates the Print Status on the INVQ, or STMTQ, or PPPT to "Printed/Emailed."

Batch Parameters

The following are the delivered parameter values, which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Sender's Email Address	This parameter indicates the email address from which the email originates. This parameter is required if the Billing Profile code is supplied and the Billing Profile record does not have a value set.	If no Sender's Email Address is found on the BPRO record, then the Sender's Address value will come from this batch parameter.

Parameter	Description	Default Value
Email Subject	This parameter is used as the subject of the email when AR Billing is sent by email and the Billing Instruction on the BPRO record is blank. This parameter is required if the Billing Profile Code is supplied and the Billing Profile record does not have a value set. The value supplied here should be a valid entry inside the Billing Instruction table.	If no Email Subject is found on the BPRO record, then the Email Subject value comes from this batch parameter. If the batch parameter is empty, then the Sender's Email Address is used as the Email Subject.
Billing Profile Code (BPRO_CD)	Optional field. The entry of a value in this field controls which Billing Profile is selected by the batch process. If the field is left blank, all Billing Profiles are eligible for selection. Note: Only one billing profile is allowed. If more than one is entered or an invalid value is entered, the job will issue errors in the job log.	No Default
AR Department Code (DEPT_CD)	Optional field. Used in decentralized AR processing.	No Default
AR Unit Code (UNIT_CD)	Optional field. Used in decentralized AR processing.	No Default
Billing Type	1. Generate Invoice 2. Generate Statement 3. Past Due Invoice 4. Past Due Statement 5. Payment Plan 6. ALL [will send emails for Billing Types 1 through 5] Note: The value in this field should be 1, 2, 3, 4, 5, or 6.	As per the Billing Type selected, the system selected the records from the respective table.

Parameter Validation

- If the Sender's email address has value, it performs a validation to ensure the email address is in the correct format. If the Billing Profile is supplied, the Sender Email Address from BPRO is used. If it is also blank, then an error is issued. If no Billing Profile is supplied and this field is blank, the job tries to acquire the value for each email to be sent. This latter aspect is not performed during Parameter Validation but rather during the sending of emails.

- If the Email Subject value is supplied, it should be a valid Billing Instruction Code. If the BPRO parameter has a value, then the Billing Instruction from the BPRO record is acquired and the Billing Instruction Text is used, if not empty. If BPRO is empty and this parameter value is empty, then the acquisition of the Email Subject is deferred until emails are built and sent.

- If BPRO is entered, the system verifies that the value entered is valid on the BPRO table, using the parameters for AR Department Code and AR Unit Code, if supplied.

- If the AR Department Code is entered and is not set to ALL, the system verifies that the Department Code is valid on the Department table.

- If the AR Unit Code is entered and is not set to ALL, the system verifies that the Unit Code exists and is valid on the Unit table.

- Billing Type is required. The value supplied must be a whole number between 1 and 5 inclusive.

Selection Criteria

The system selects records from the INVQ, STMTQ, and PPPT tables where the Print Status is equal to 'Email Pending' or 'Resend Email' and the Schedule Email/Print Date is less or equal to the APPCTRL date.

Common Criteria

The common selection criteria for all of the Billing Types are:

- If the Scheduled Email Date is less than or equal to the APPCTRL date, or if the Paid Scheduled Email Date is less than or equal to the APPCTRL date:

  - The job verifies the value in the BPRO parameter. If a valid BPRO Code was supplied, that BPRO Code is added to the query used to select the records to be processed.

  - The job then verifies if a valid AR Department was supplied. If so, the AR Department is added to the query used to selects the records to be processed.

  - The job then verifies if a valid AR Unit was supplied. If so, the AR Unit is added to the query used to select the records to be processed.

Order by Criteria

The following fields dictate the order of the records processed:

- BPRO Code

- Department Code

- Unit Code.

Return Code	Condition
Successful (1)	All of the selected records are processed successfully.
Warning (4)	A warning results when no eligible records have been found. This could be because of the following reasons: • Sender's Email Address was not supplied and the Billing Profile for an email did not have a Sender's Email Address. • An email could not be sent after having been created. • PDF file could not be found.
Non-Fatal Error (8)	This job does not end with this return code.
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • Run time exceptions for unexpected situations.

Return Code	Condition
Terminated (16)	This return code is issued when the job is terminated by the user. When this job ends with a Return Code of Terminated, subsequent jobs in the chain are set to Inactive.
System Failure (20)	This return code is issued when the job is terminated because of database server or network issues.

2.1.12 Finance Charge

Description

The Finance Charge process assesses fees on delinquent receivables.

The initial setup of the Finance Charge process requires the entry of values on the Finance Charge table. These values define the characteristics of fees used in the Finance Charge process, which directly affect the record selection, calculation, and posting of applicable fees. Also finance charges are to be defined by Department and Unit, Department and a Unit of 'ALL', or Department of 'ALL' and Unit of 'ALL'. Examples of finance charges include Interest, Administrative Fee and Late Fee.

The Finance Charge process generates two types of fees:

- Flat Fee – A fixed fee that may be charged once or on a periodic basis

- Interest – A variable fee, calculated as a percentage of the outstanding amount, which is charged periodically

The interest calculated can be simple or compound. Simple interest is accrued on the outstanding principal only and the compound interest is accrued on the outstanding principal and account distributions with a posting type (Interest, Late Fee, Administrative Fee, NSF Fee, or Other Fee) that has been setup for compound interest on Accounts Receivable options and controls pages. The fees are generated as accounting lines. Fees with the same account distribution (chart of accounts, posting type) are accumulated on one line.

In Advantage Financial, an automatic offline process checks for overdue receivables and imposes applicable penalties. What types of finance charges to use are defined on the System Options table. If override is permitted, different types of finance charges can be used for different billing profiles. In addition, the use of finance charges can also be set up on the Revenue Source table. If override is permitted, the system will use the setup values in the following order: Revenue Source table, Billing Profile table, and System Options table.

Finance charges on late receivables can be deferred using Grace Period Days defined on the System Options table if the **Allow Grace Period on Finance Charges** flag is selected. If the Allow Override of Grace Period Days is selected on SOPT, the Finance Charge process must determine the Number of Grace Period Days specified on the Billing Profile record of each late receivable.

- The Billing Profile record will be retrieved using the existing AR Wildcard logic to find the correct BPRO value.

- Once the correct BPRO record is found, Grace Period Days will be determined as follows:

  - If the Grace Period Days field is populated on BPRO, the BPRO Grace Period Days value will be used by the Finance Charge process.

    o If the Grace Period Days field on BPRO is equal to zero, then grace periods are not considered by the Finance Charge process for this agency/department.

  - If the Grace Period Days field is blank on BRPO, then the value in the Grace Period Days on SOPT for the current Fiscal Year will be used by the Finance Charge process.

The Offline process will take the Finance Charge Code(s) defined on above tables and the AR Department/Unit from the overdue receivables and attempt to find the corresponding Dept/Unit/Finance Charge combination on the Finance Charge Setup table. If an exact match is not found, the process will then attempt to find a matching record on the Finance Charge Setup

table for the AR Department from the Receivable and a Unit of 'ALL'. If a match is not found, the process will then attempt to find a matching record on the Finance Charge Setup table for a Department of 'ALL' and a Unit of 'ALL'. If a match is not found, no finance charges will be applied. Based on the options and controls applied to the receivables, this offline process performs record selection and determines the amount to be posted as penalties to overdue receivables. The record selection process disregards event types that do not accrue finance charges as defined on the Finance Charge Eligibility table. Finance charges associated with a customer account will be suppressed for any receivable when the **Suppress Auto Fin Charge** flag on the Customer Account Options record is set to Yes.

When to Run

Daily, after the Issue Payment for Unreserved Credit Balance and the Auto Netting processes and before the Generate Billing process.

Major Input

- Receivable Transaction Header (RE_DOC_HDR)

- Receivable Transaction Vendor (RE_DOC_VEND)

- Receivable Transaction Accounting Line (RE_DOC_ACTG)

- System Wide Options (R_RV_SOPT)

- Billing Profile (R_BPRO)

- Revenue Source (R_RSRC)

- Finance Charge Setup (R_FIN_CHRG_SETP)

- Finance Charge Eligibility table (R_FIN_CHRG_ELIG)

- Finance Charge Cycle (R_FIN_CHRG_CYCL and R_FIN_CHRG_CYCL_LN)

Output

- The Finance Charge process generates modified Receivable transactions that include additional Accounting Lines with applicable finance charges.

- Finance charge report in the PDF and HTML format. This report will list out the all the Receivables, by customer, that were subjected to the Finance Charge in a particular run.

- Receivable Transaction Header (RE_DOC_HDR)

- Receivable Transaction Vendor (RE_DOC_VEND)

- Receivable Transaction Accounting Line (RE_DOC_ACTG)

Parameters

The Finance Charge process consists of three batch jobs that are run in a chain:

Job	Parameter	Description	Default Value
Finance Charge Process	Department Code AR_DEPT_CD	Optional Field. If entered, then the job will process only those RE transactions with the AR Department Code that matches this parameter value.	Blank
	Unit Code AR_UNIT_CD	Optional Field. If entered, then the job will process only those RE transactions with the AR Unit that matches this parameter value.	Blank
	Billing Profile Code BPRO_CD	Optional Field. Only RE transactions with the specified Billing Profile Code are selected as part of the Finance Charge Process.	Blank.
	Commit Block Size (Default = 100) : (COMMIT_BLK)	Optional Field. Used to set custom commit block size for Finance Charge Process	100
	Export Location at Finance Charge Process Job AMSEXPORT	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	BLANK
	Parameter Location at Finance Charge Job AMSPARM	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	BLANK

Select/Generate RE	Action Code : Import (ACTN_CD)	Required (and protected) action code which instructs the program to perform a certain action on its records.	171
	Exception Report Flag: (EXCEP_REP_FL)	Optional Field. When selected, the Finance Charge Report will be created.	No Default
	File to be loaded : (FILE_NM)	Required (and protected) field that defines what file will be uploaded.	$$AMSIMPORT$$/ REDocuments.xml
Submit RE	Exception Report File: (EXCEP_REP_FILE_ NM)	Required (and protected) field that defines what file the program is to use to create an exception report.	$$AMSLOGS$$/Fin ChrgProcessExep.tx t
	Parameter File: (PARM_FILE)	Required (and protected) field that will be used to define the parameters for submitting the transaction(s)	$$AMSPARM$$/Su bmitREParm.txt

Sort Sequence

N/A

Selection Criteria

- Receivable is past due.

- The accounting line outstanding amount on the receivable is greater than zero.

- The accounting line event type is indicated as eligible on the Finance Charge Eligibility table.

Problem Resolution

No database restore is required. Correct the problem and rerun the job executing the program. No restoration of datasets or files from backups is required for this program.

This batch program produces new Advantage transactions, which are subject to the line limit functionality constraints. Sites should ensure that they run this job with parameters set to ensure that the created transactions are within the line limit controls.

2.1.13 Generate Collection Transactions

Receivables that are significantly past due can be referred to Collections Agency. This can be done online by manually creating a Collection Transaction (CL), or by using the Generate Collection batch process.

There are two sub-processes in the Generate Collection Transactions process:

- **Select for Collection** - Generates the records for the Collection Referral Input table from original receivables.

- **Generate Collection** - Generates Collection transactions from the Collection Referral Input table.

When the Collection Transaction is submitted, the outstanding receivable will be closed.

Select for Collection Process

Description

The Select for Collection process selects past due receivables that meet the criteria for collection as defined on the System Options or Billing Profile tables, and inserts the Receivables transactions into the Pending Collection Agency Referral table that meet the criteria for collections as specified on the System Options or Billing Profile tables.

When to Run

Weekly, monthly, yearly, or on demand.

Major Input

- Receivable Transaction Header (RE_DOC_HDR)

- Receivable Transaction Vendor Line (RE_DOC_VEND)

- Receivable Transaction Accounting Line (RE_DOC_ACTG)

- Billing Profile table (R_BPRO)

- System Wide Options (R_RV_SOPT)

- Collection Agency Agreement (R_CLAGCY_AGRMT)

Output

- Pending Collection Agency Referral (R_COLL_RFRL_INPT)

- Report (Referral Input Exception report)

- Updates to the Receivable transactions

Parameters

Job	Parameter	Description	Default Value
Select Collection	Billing Profile Code (BPRO_CD)	Optional field. Entry of a value in this field controls which Billing Profile is selected by the batch process. If the field is left blank, all Billing Profiles are eligible for selection.	No Default
	Client Name for Report: (CLIENT_NM)	Optional field. Entry of a value in this field specifies the name that will appear on report.	No Default
	Department Code: (DEPT_CD)	Optional field. Used in decentralized AR processing. If the field is left blank, all Departments are eligible for selection.	No Default
	Unit Code: (UNIT_CD)	Optional field. Used in decentralized AR processing. If the field is left blank, all Units are eligible for selection.	No Default
	COMMIT_SIZE	Added COMMIT_SIZE parameter.	

The collection process will select the applicable Collection Agency Agreement record for a particular receivable transaction by looking up on R_CLAGCY_AGRMT for the DEPT_CD/UNIT_CD specified on the receivable. If the record is not found, then look for a record on R_CLAGCY_AGRMT for DEPT_CD/ALL. If that the record is still not found, then look for the record for ALL/ALL.

Sort Sequence

Transaction ID (DOC_ID)

Selection Criteria

- Select submitted receivables that are not cancelled.

- Select records for which the outstanding amount in the receivable header line is greater than zero and greater than the minimum receivable amount.

- Select records for which the **Receivable Type** indicator in the vendor line is *Regular* and the Collection Status indicator is zero.

- Select records for which the receivable accounting line has an outstanding amount greater than zero for event types Bill Earned Revenue and Bill Vendor Refund.

Problem Resolution

No database restore is required. Correct the problem and rerun the job executing the program. No restoration of datasets or files from backups is required for this program.

Generation Collection Process

Description

This process is used to generate the Collection transactions based on data generated in Select for Collections process, in addition to closing the associated receivable. Each receivable record from the Collection Referral Input table that meets the selection criteria will have one Collection transaction generated.

When to Run

Anytime after completion of the Collection Referral Input Load process.

Major Input

- Pending Collection Agency Referral (R_COLL_RFRL_INPT)
- System Options (R_SOPT)

Output

- Collection Transaction
- Pending Collection Agency Referral (R_COLL_RFRL_INPT)

Parameters

Job	Parameter	Description	Default Value
Generate Collection	Billing Profile Code (BPRO_CD)	Optional field. Entry of a value in this field controls which Billing Profile is selected by the batch process. If the field is left blank, all Billing Profiles are eligible for selection.	No Default

Job	Parameter	Description	Default Value
	Department Code: (DEPT_CD)	Optional field. Used in decentralized AR processing.	No Default
	Transaction Code: (DOC_CD)	Required Field. This field refers to the Transaction that will be generated by the Generate Collections process.	CL
	Transaction Department Code: (DOC_DEPT_CD)	Optional Field. Defines the transaction department to be used with the transaction code and prefix to find an Automatic Transaction Numbering entry. Will appear as the transaction department for all transactions created by the program.	No Default
	Transaction Unit Code: (DOC_UNIT_CD)	Optional Field. Provides security with a unit code enabling transaction access to be secured at a level below department.	No Default

Job	Parameter	Description	Default Value
	Prefix: (PFX)	Optional Field. The transaction prefix to be used with and transaction code and department to find an Automatic Transaction Numbering entry. Will appear in the beginning of all transaction ID's for all transactions created by the program.	No Default
	Unit Code: (UNIT_CD)	Optional field. Used in decentralized AR processing.	No Default
	Export Location at Generate Collection Process Job AMSEXPORT	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
	Parameter Location at Generate Collection Process Job AMSPARM	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
Select/Generate CL	Action Code : Import (ACTN_CD)	Required (and maybe protected) action code that instructs the program to perform a certain action on its records.	171
	Commit Block Size: (COMMIT_BLOCK)	Required field. Controls how many records are committed by the application at one time. The size should be compatible with technical capabilities and performance guidelines.	10

Job	Parameter	Description	Default Value
	Transaction Status: (DOC_STA_CD)	Required field that will be used by the program when loading transactions. Valid values are 1 - Held and 2 - Ready. Transactions loaded as held will not be selected by another process searching for transactions to submitting. Ready transactions will be selected by such a program. Held is often used when some user action will be required.	1
	File to be loaded: (FILE_NM)	Required (and protected) field that defines what file will be uploaded.	$$AMSIMPORT$$/ CollectionDocument. xml
Auto Apply	Parameter File Name: (PARM_FILE)	Required (and protected) field that is used to control the Auto Apply process.	$$AMSPARM$$/Aut oApplyCLParm.txt
Submit CL	Exception Report File: (EXCEP_REP_FILE_N M)	Required (and protected) field that defines what file the program is to use to create an exception report.	$$AMSLOGS$$/Ge nerateCLExep.txt
	Parameter File: (PARM_FILE)	Required (and protected) field that will be used to define the parameters for submitting the transaction(s)	$$AMSPARM$$/Su bmitCLParm.txt

Sort Sequence

Transaction ID (DOC_ID)

Selection Criteria

- Select records that appear on the Collection Referral Input table.

- Select records for which the **Collection Generation** status is *Approved for Collection.*

Notes

Generated Collection transactions will be processed automatically or put on hold depending on the setting of the **Generate Collection Transaction Status** on the System Options table, or – if override is allowed – on the Billing Profile table.

Problem Resolution

No database restore is required. Correct the problem and rerun the job executing the program. No restoration of data sets or files from backups is required for this program.

This batch program produces new Advantage transactions, which are subject to the line limit functionality constraints. Sites should ensure that they run this job with parameters set to ensure that the created transactions are within the line limit controls.

2.1.14 Generate Invoice

Description

The Invoice provides information about details of the outstanding amount for a single customer. Details on the invoice include such things as customer name, customer number, merchant ID, invoice number, PO number, sales order number, billing address, invoice amount, late fees, interest charges, and other charges.

The Invoice Generation process runs on a nightly basis as well as on-request and can generate an Invoice for original or modified receivables. You can also invoke the Invoice Generation process by requesting an original, modified or replacement copy of an Invoice from the Print Inquiry page on Invoice (INVQ).

The Invoice Register report shows a list of all the invoices that were generated successfully, those that were not generated due to errors, and totals for each. Invoice forms generated on-demand are not reflected on this report.

When to Run

Daily as part of the nightly cycle, and on demand.

Major Input

- Invoice Print Inquiry (R_INV_PRN_INQ)

- Billing Profile (R_BPRO)

- Customer Account Options (R_CUST_ACCT_OPT)

- Recevable Transaction Header (RE_DOC_HDR)

- Receivable Transaction Vendor Line (RE_DOC_VEND)

- Receivable Transaction Accounting Line (RE_DOC_ACTG)

- Address (R_AD)

- System Options (R_RV_SOPT)

- Vendor/Customer (R_VEND_CUST)

- Calendar Date (R_CLDT)

Output

- Invoice (R_INV_PRN_INQ)

- Invoice Print History (R_INV_PRN_HIST)

- Invoice Register Report

- Invoice Form - The process also generates the Invoice. The Invoice will be sent to the printer, if the Print Resource Identifier is of type 'Printer'. If the Print Resource Identifier is of type 'PDF' then the Invoice will be generated in PDF format, which can be viewed from the 'View Forms' link.

Parameters

On-Demand Process

Job	Parameter	Description	Default Value
On Demand Invoice	Application Resource Identifier (APPL_RSRC_ID)	Required Field.	No Default
	Print Job Code (PRINT_JOB_NAME)	Required Field.	No Default
	Print Resource ID: (PRINT_RSRC)	Required Field. The Printer/PDF resource id from IPRS which will be of type Printer or PDF.	No Default

Selection Criteria - On-Demand Process

• Select pending records from the Invoice Print Inquiry table where the **Scheduled Invoice Print Date** is less than or equal to current date.

• Select records for which the **Billing Type** on the Billing Profile table is *Invoice* and *Both* and the **Final Statement Indicator** is null.

• Select records for which the **Outstanding Amount** in the receivable header line is greater than or equal to zero.

Sort Sequence

None

Batch Parameters

Parameter	Description	Default Value
Application Resource ID (APPL_RSRC_ID)	A required application resource for printing: Valid values include: GEN_INV_REG, OC_CUST_GEN_INV_REG, OC_DEPT_GEN_INV_REG	GEN_INV_REG
Billing Profile Code (BPRO_CD)	An optional selection parameter where one can be entered for a targeted run or left blank to select all eligible profiles.	No Default
Client Name for Report (CLIENT_NM)	An optional name printed on the Invoice Registry report header.	No Default

Parameter	Description	Default Value
Concatenate Customer Address (CNCAT_CUST_AD)	An optional parameter that when set to "Y", combines the different details of address into a single address field. If set to "N", no concatenation will happen, but all address info will be included in XML as separate fields. If left blank, it will be considered as Y.	Y
Concatenate Mailing Address (CNCAT_CUST_AD)	An optional parameter that when set to "Y", different details of the mailing address will be concatenated into a single address field. If set to "N", no concatenation will happen, but all mail address info will be included in XML as separate fields. If left blank, it will be considered as Y.	Y
Comma-separated Address Field List (CUST_AD_FLDS)	A conditionally required parameter when the value for Concatenate Customer Address parameter is Y. This parameter includes a list of address fields that need to be concatenated. Valid values are: LGL_NM (Legal Name), ALIAS_NM (Alias Name), AD_LN_1(Address Line 1), AD_LN_2 (Address Line 2), CNTY(County), CSZ (City, State and ZIP), and CTRY(Country).	LGL_NM, ALIAS_NM, AD_LN_1, AD_LN_2, CNTY, CSZ, CTRY
Comma-separated mail address field list (MAIL_AD_FLDS)	A conditionally required parameter when the value for the Concatenate Mailing Address parameter is Y. This parameter includes the list of mail address fields that need to be concatenated. Valid values are: SECON_ORG_NM (Mail Secondary Name), STR_1_NM (Street Name 1), STR_2_NM (Street Name 2), STR_3_NM (Street Name 3), CSZ (City, State and ZIP), and CTRY(Country).	SECON_ORG_NM, STR_1_NM, STR_2_NM, STR_3_NM, CSZ, CTRY
COA Fields (COA_FLDS)	An optional parameter with a comma separated list of COA fields for concatenation and included as a field in the XML for printing. If left blank, no line will be generated in XML. Valid values: UNIT_CD, DEPT_CD, FUND_CD, RSRC_CD, FUNC_CD, ACTV_CD, SFUND_CD, SRSRC_CD, SUNIT_CD, SACTV_CD, SFUNC_CD, RPT_CD, SRPT_CD, MJR_PROG_CD, PPC_CD, PROG_CD, PHASE_CD, FPRFL_CD, FPRTY_CD, FLINE_CD, DRSRC_CD, TASK_CD, STASK_CD, TASK_ORD_CD, LOC_CD, SLOC_CD, OBJ_CD, SOBJ_CD, DOBJ_CD, BSA_CD, SBSA_CD, OBSA_CD, OSBSA_CD	No Default

Parameter	Description	Default Value
Department Code (DEPT_CD)	A conditionally required selection field where one can be entered for a targeted run or left blank to select all. In most cases this selection field is optional, but if the Department Logo field is specified, a Department value is required.	No Default
Print Job Name (PRINT_JOB_NAME)	The required print job name. Valid values include: GEN_INV_REG_FORM, GEN_INV_REG_FORM_CUST, GEN_INV_REG_FORM_DEPT	GEN_INV_REG_FORM
Print Resource Identifier (PRINT_RSRC)	The required printing resource where invoices should print. PDFGen is used when generating to PDF files.	No Default
Unit Code (UNIT_CD)	An optional selection field where one can be entered for a targeted run or left blank to select all.	No Default
Commit Block Size (COMMIT_SIZE)	A required performance parameter specifying the number of updates to commit in an instance. If not entered then 100 will default.	100
Sorting Criteria (SORT_CRIT)	A required value for sorting invoices: 1. BPRO and RE Transaction, 2. BPRO and Customer Code, 3. BPRO and Customer Name 4. Transaction Dept and ID	1
State Name (ST_NM)	An optional name to be written to the XML file in the CUST_INFO section as the ST_NM for placement on the invoice.	Blank
Use Updated Vendor/Customer Name (UPD_VEND_NM)	An optional parameter when set to "Y", Legal Name and Alias would be considered from Vendor/Customer data and not the receivable. If left blank, it will be considered as Y.	Y
Use Updated Vendor/Customer Address (UPD_VEND_AD)	An optional parameter when set to "Y", address details would be considered from the Vendor/Customer page and not the receivable. If left blank, it will be considered as Y.	Y
View Forms (VIEW_FORMS)	A required output parameter directing whether or not to send PDF output for viewing with the batch process (Y or N).	N

Parameter	Description	Default Value
Group Revenue Amount (GROUP_REV_AMT)	A required output parameter to direct the job to group the open amounts of all line types into a single amount in the CUST_INFO_INV_CHG_INV_DET section of the XML as the INV_CHG_SUB_TOT field instead of just grouping the open amounts of just lines that are principal.	N
Extended Description (EXT_DESC)	A required output parameter that will write the Extended Description of the first accounting line to the CUST_INFO_INV_CHG_INV_DET section of the XML as EXT_DESC. Please note the Line Description from the first accounting line is already in that section as LN_DESC and the Extended Description from the header is in several sections as the RE_DESC or EXT_DESC.	Y
Generic Text Fields (GENERIC_TXT_FLD_LST)	An optional output parameter that controls which of the generic text fields of the accounting lines are written to the CUST_INFO, CUST_INFO_INV_CHG_INV_DET and CUST_INFO_OTH_CHG_OTH_DET sections. These fields are labeled Generic 1 to 45 before being changed to more meaningful labels. List those by number that should be written, separating values by commas. Invoice forms work will have to supply names the customer will recognize.	No Default
Generic Date Fields (GENERIC_DT_FLD_LST)	An optional output parameter that controls which of the generic date fields of the accounting lines are written to the CUST_INFO,CUST_INFO_INV_CHG_INV_DET and CUST_INFO_OTH_CHG_OTH_DET sections. These fields are labeled Generic Date 1 to 15 before being changed to more meaningful labels. List those by number that should be written, separating values by commas. Invoice forms work will have to supply names the customer will recognize.	No Default
Print Scan Line (PRINT_SCN_LN)	A required output parameter that will direct the job to create a scan line in the XML file as the OCR field in the CUST_INFO section. Please see the scan line section that follows for more information on this feature.	N

Parameter	Description	Default Value
Department Logo (DEPT_LOGO)	An output parameter that when set to *Y* results any Logo File defined on the Department (DEPT) page to be written to the output XML so it can be used by the forms tool instead of a standard file. If *N* there will be no logo file in the XML.	N
Add Billing Profile Code to Customer Number (BPROCD_TO_ACCT_NO)	An output parameter that when set to *True* appends the billing profile code to the end of the customer account code with a dash separating the two for the customer number attribute/form field.	False
Add Department Code to Invoice Number (DEPT_CD_TO_INV_NO)	An output parameter that when set to *True* appends the AR department code to the beginning of the transaction ID with a dash separating the two for the invoice number attribute/form field.	False
Email Lag Days (LAG_DAYS)	An optional output parameter for a number of days between 0 and 99 is used to update the Schedule Email/Print Date for selected records. Upon running the Email Generation process, the record will be selected when the Schedule Email/Print Date is less than or equal to the current date and the record is Email Pending or Resend Email. If left blank, 0 days is assumed, and the Schedule Email/Print Date will be set to the current date so there is no lag when sending the email.	No Default

Selection Criteria – Batch Process

- Select pending records from the Invoice Print Inquiry table where the **Scheduled Invoice Print Date** is less than or equal to current date.

- Select records for which the setting of **Billing Type** on the Billing Profile table is *Invoice* or *Both,* and the **Final Statement Indicator** is null.

- Select records for which the **Outstanding Amount** from the receivable header line is greater than or equal to zero.

Scan Line

A scan line can be written to the XML and then printed on the invoice of Optical Character Recognition.

- The first digit will be from an Application Parameter (APPCTRL) record of PRINT_SCN_LN.

- The second will be from the Receivable transaction

- The third will be the Receivable Transaction ID

- The fourth will be from the 16-digit Outstanding Amount from the Receivable header

- The last digit will be a check digit

For example

Headline	Value
APPCTRL for PRINT_SCN_LN	SH
RE Document Department	RM
RE Document ID	BK0001
RE Outstanding Amount	$3500.00

Alpha characters are converted to a numeric value by using the schema outlined in the table below. Numeric values will be left alone. The check digit would be calculated on the resulting numeric value.

Numeric Value	Alpha Value		
1	A	J	S
2	B	K	T
3	C	L	U
4	D	M	V
5	E	N	W
6	F	O	X
7	G	P	Y
8	H	Q	Z
9	I	R	any other character (except space)

S	H	R	M	B	K	0	0	0	1	3	5	0	0
1	8	9	4	2	2	0	0	0	1	3	5	0	0

Weights are applied left to right with alternate values of 2 and 1 (starting with 2) and spaces are ignored (no weight applied).

- Multiply the weighted digit by the applied weight value

- Add any double-digit results before adding the sum of the entire field or line (using the carry method)

1	8	9	4	2	2	0	0	0	1	3	5	0	0
2	1	2	1	2	1	2	1	2	1	2	1	2	1
2	8	18	4	4	2	0	0	0	1	6	5	0	0
		1+8											
2	8	9	4	4	2	0	0	0	1	6	5	0	0

- Add results of the multiplication to produce the sum:
  2+8+9+4+4+2+0+0+0+1+6+5+0+0 = 41

- Divide the sum by 10 and calculate a remainder: 41/10= Remainder = 1
- Subtract the remainder from 10: 10-1=9. The result of the subtraction is the check digit. If a remainder of 0 is subtracted from 10 (10-0=10), yielding a result of 10, the check digit will be 0.

This example results in the following scan line: SH RM BK0001 0000000000350000 9

Problem Resolution

No database restore is required. Correct the problem and restart the job. No restoration of datasets or files from backups is required for this program.

2.1.15 Generate Invoice Multithread

Description

The Generate Invoice Multithread job is an alternative to the Generate Invoice job with all the same parameters of the Generate Invoice job. A single additional parameter of Thread Count is used to spawn multiple instances of the Generate Invoice job for faster throughput.

Please see the following selection parameter notes:

- For a single Billing Profile keeping Department and Unit blank.

- For a single Department keeping Billing Profile and Unit blank to process all customer accounts for a single department.

- Keeping Billing Profile, Department, and Unit blank to process all customer accounts.

- The job cannot be run using only the Unit as a parameter.

Batch Parameters

Please refer the Generate Invoice job for the description of the batch parameters other than the following:

Parameter	Description	Default Value
Thread Count (THREAD_COUNT)	A required number of jobs to be spawned when selection reveals multiple threads are necessary. If left blank, 2 will default.	2

2.1.16 Internal Billing Feeder Validation and Load

Chain Job Name	Internal Billing Feeder Validation and Load
Recommended Frequency	On demand as files are created and loaded
Single Instance Required	Yes
Can be restarted?	N/A
Reports generated	Exception Report MP Postal Totals by Carrier and Class Report

Overview

The purpose of Internal Billing Feeder File Validation and Load is to validate and load detailed billing records from feeder system input files. It involves checking the accuracy and completeness of the information, structure, and format (.txt) of the input file. Validated records are loaded for review, accounting transactions, and bill generation.

This job is comprised of batch jobs chained together.

1. **Internal Billing Feeder File Validation:** The job validates the data contained in the feeder system data files, creates an XML Internal Billing Feeder Detail table file, and generates the Feeder System Exception report. It has two run modes – Load and Purge.

2. **Internal Billing Feeder Load:** The job loads the XML into the Internal Billing Feeder System Detail using SMU (SysManUtil).

3. **MP Postal Totals by Carrier and Class Report:** The job generates a report demonstrating the detailed breakdown of cost under each Carrier and Class combination. This job can be disabled if not loading a file with Internal Billing Carrier Class information. If not, the job returns as warning.

Major Input

- Internal Billing Feeder System (IBFS / R_IBFS)

    - Feeder System Text File

    - File Location

    - Various validation and load options

- Internal Billing Carrier Class (IBCC / R_IB_IBCC)

    - Used only when Carrier and Class are in the text file

Major Output

- Internal Billing Detail XML file

- Internal Billing Feeder System Staging (IBSTA / R_FS_IBDET)

- Internal Billing Details. (IBDET / R_FS_IBDET)

- Feeder System Exception Report

- MP Postal Totals by Carrier and Class Report

Chain Return Codes

When an active job step in the chain ends with a Return Code of anything other than successful, any remaining job steps have a Run Status of *Inactive.* Please see documentation on individual job steps for possible Return Codes for those steps, as *Warning* and *Non-Fatal Error* are not always possible outcomes.

Problem Resolution

If any of the jobs in the chain failed due to application errors, it is advisable to restart the job after correcting the errors instead of rescheduling the job. Alternatively, a new chain can be submitted that starts with the job that previously failed.

Internal Billing Feeder Validation and Load Chain: Internal Billing Feeder File Validation Job

Job Name	Internal Billing Feeder File Validation
Recommended Frequency	See chain
Single Instance Required	See chain
Can be restarted?	No
Reports generated	Exception Report

Overview

This job validates a feeder system data file received from the feeder system. The process creates an XML file with valid records to be loaded into Internal Billing Details. SysManUtil (SMU) is then used to import data into Internal Billing Detail.

Internal Billing Feeder File Validation supports two run modes, Load, and Purge. Load is the normal mode. Purge is used to remove records where no transactions have yet been generated.

The following table lists the processing steps of the job along with any job log messages.

Process Steps	Messages
1. Parameter Validation	The following messages are displayed in offline mode. • Run Started • Parameters are listed • Validating Batch Parameters • Parameters are valid or invalid depending on the Validation. If the parameter is invalid, the invalid value is displayed in the log. • Parameter validation completed • Parameter validation successful
2. File and Data file validations	• Starting File and Data File Validations • Completed File and Data File Validations • Starting Standard Data Validations • # Feeder System Data File records processed • # Feeder System Data File valid records.

Process Steps	Messages
	• # Feeder System Data File invalid records. • Completed Standard Data Validations • Run Ended
3. XML File Creation	No messaging is done for this step.

Major Input

- Internal Billing Feeder System (IBFS / R_IBFS)
- Internal Billing Carrier Class (IBCC / R_IB_IBCC)
- Feeder System Text File

Parameters

The following are the delivered parameter values, which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Budget Structure ID (BUD_STRU_ID)	A processing parameter of a budget structure ID that is required when the feeder system record is setup to do budget presence checking.	(No Default)
Budget Level ID (BUD_STRU_LVL_ID)	A processing parameter of a budget level ID within the structure that is required when the feeder system record is setup to do budget presence checking. Levels with COA rollups are problematic with this type of editing.	(No Default)
Client Name (CLIENT_NM)	An optional name that appears in the exception report header.	(No Default)
Email Subject Prefix (EMAIL_SUB_PREFIX)	An optional prefix used in the subject line of an email generated for a failed load.	(No Default)
Feeder System (FEED_SYS_CD)	A required input parameter identifying an Internal Billing Feeder System record for other input parameters and validation parameters.	(No Default)
XML File Location (FILE_LOC)	A required location to which the XML file created is written.	$$AMSROOT$$/ExportImport

Parameter	Description	Default Value
File Name (FILE_NM)	An optional feeder system file name when the Feeder System Validation and Load process needs to be run for a file that is not the one on the Internal Billing Feeder System record identified. The name must include the txt extension. The job looks for the file in location mentioned on 'Location of Feeder System Data File on the Internal Billing Feeder System record identified in the Feeder System parameter.	(No Default)
From Email Address (FROM_EMAIL_ADDR)	A required email address for notification if there are any validation issues.	(No Default)
Job ID (JOB_ID)	An input parameter when running in Purge Mode of a single previous Chain Job ID that identifies the records to be purged. If not used, then the from and to job ID parameters must be used.	(No Default)
Job ID From (JOB_ID_FROM)	An input parameter when running in Purge Mode of a starting previous Chain Job ID that identifies lower end of a range of ID to be purged. If not used, then the single job ID parameter must be used.	(No Default)
Job ID To (JOB_ID_TO)	An input parameter when running in Purge Mode of an ending previous Chain Job ID that identifies upper end of a range of ID to be purged. If not used, then the single job ID parameter must be used.	(No Default)
Progression Message Block Size (PROG_CTR_SZ)	A required performance parameter that is used to control job log messaging. If left blank, 100 defaults.	100
Report ID (REPORT_ID)	An optional ID that is written to the report header for routing purposes.	(No Default)
Report Title (REPORT_TITLE)	An optional title that is written to the report header for informational purposes.	(No Default)
Run Mode (RUN_MODE)	A required indication of how the job step functions. 1 – Load or 2 – Purge.	1
User ID (USER_ID)	An optional user ID to use for the load processing step instead of the user that submits the chain.	(No Default)

Major Output

- XML File

- Exception Report

Problem Resolution

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	The job ends as successful when all parameters are valid, all records pass validation, and the XML file is created successfully.
Warning (4)	The job returns Warning under the following conditions: • When there is invalid data in input file and the entire file is rejected
Non-Fatal Error (8)	This job does not end in with this return code.
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • Run time exceptions for unexpected situations. When this job fails, subsequent jobs in the chain are set to *Inactive*.
Terminated (16)	The job is terminated by the user. When this job is terminated, subsequent jobs in the chain are set to *Inactive*.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues. When this job encounters a system failure, subsequent jobs in the chain are set to *Inactive*.

Sort Criteria

Customer Account: Vendor Customer Code, AR Department, AR Unit, Billing Profile

Selection Criteria

N/A

Problem Resolution

The following table shows the possible return codes and recommendations for each processing step.

Step 1: Parameter Validation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All parameters provided are valid.	N/A	N/A
Failed (12)	The job failed due to a fatal condition such as an invalid	Submit another instance with valid parameter.	Address the run time condition before submitting another

Return Code	Condition	Recommendation	Other Instructions
	parameter or unanticipated run time condition.		instance.
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Step 2: File and Data Validation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All records passed validation	N/A	N/A
Warning (4)	When invalid data in input file and the entire file is rejected to load	Correct the data in input file and schedule a new job	?
Terminated (16)	Job is terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Step 3: XML File Creation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	XML file created and saved successfully.	N/A	N/A
Warning (4)	Job sets to Warning when issue in writing or generating the XML output.	The reason for the issue needs to be addressed and job has to be rescheduled.	N/A
Terminated (16)	Job is terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A

Return Code	Condition	Recommendation	Other Instructions
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Internal Billing Feeder Validation and Load Chain: Internal Billing Feeder Load Job

Job Name	Internal Billing Feeder Load
Recommended Frequency	See chain
Single Instance Required	See chain
Can be restarted?	Yes
Reports generated	None

Overview

This job step uses the System Maintenance Utility (SMU) to read the SMU load parameter file created by the first job to load the XML file created by that first job.

Process Steps

The following table lists the processing steps of the job along with any job log messages.

Process Steps	Messages
1. Parameter Validation	• Run Started • Parameters listed • Invalid parameters listed with errors
2. Data Load	• Rows Processed # • Rows Saved # • Rows in Error # • Run Ended

Major Input

- FeederSystem(Chain Job ID).xml

Parameters

The following are the delivered parameter values, which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Action Code (ACTN_CD)	The required action code for SMU.	201

Parameter	Description	Default Value
XML Location and File (FILE_NM)	The required location of the XML file to load. The job derives the XML file name.	$$AMSROOT$$/ExportImport /FeederSystem$$@CHAINJO BID@$$.xml
Generate Stats (GENERATE_STATS)	A required indication of true or false to generate statistics from the load.	TRUE
RESTART (RSTRT_FL)	When the job must be restarted, set this parameter to true, else leave if blank or false.	(Blank)

Major Output

- Internal Billing Feeder System Staging (IBSTA / R_FS_IBDET)

- Internal Billing Details. (IBDET / R_FS_IBDET)

Problem Resolution

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	The job ends as successful when all the contents of the XML file are loaded successfully.
Warning (4)	The job ends with warning when a unique index is violated.
Non-Fatal Error (8)	This job does not end in with this return code
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • Run time exceptions for unexpected situations. When this job fails, subsequent jobs in the chain are set to *Inactive*.
Terminated (16)	The job is terminated by the user. When this job is terminated, subsequent jobs in the chain are set to *Inactive*.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues. When this job encounters a system failure, subsequent jobs in the chain are set to *Inactive*.

Sort Criteria

N/A

Selection Criteria

N/A

Problem Resolution

The following table shows the possible return codes and recommendations for each processing step.

Step 1: Parameter Validation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All parameters provided are valid.	N/A	N/A
Failed (12)	The job failed due to a fatal condition such as an invalid parameter or an unanticipated run time condition.	Submit another instance with valid parameter.	Address the run time condition before submitting another instance.
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Step 2: Data Load

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All records load successfully.	N/A	N/A
Warning (4)	When unique index is violated or duplicate records are loaded	Delete the duplicate records or data and schedule new job	N/A
Terminated (16)	Job is terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Internal Billing Feeder Validation and Load Chain: MP Postal Totals by Carrier and Class Report Job

Job Name	MP Postal Totals by Carrier and Class Report
Recommended Frequency	See chain
Single Instance Required	See chain
Can be restarted?	Yes
Reports generated	MP Postal Totals by Carrier and Class Report

Overview

This job step applies only when the feeder file contains a reference to an Internal Billing Carrier Class. The report provides information on the total of postal charges for each carrier and class combination breaking them up into postal cost, additional cost, and mark up cost.

Process Steps

The following table lists the processing steps of the job along with any job log messages.

Process Steps	Messages
1. Parameter Validation	- Run Started - Parameters listed - Invalid parameters listed with errors
2. Produce Report	- Reports output folders mapped - Rendering report started - Rendering report completed - Run Ended

Major Input

- Internal Billing Carrier Class (IBCC / R_IB_IBCC)
- Feeder System Data file.

Parameters

The following are the delivered parameter values, which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Client Name (CLIENT_NM)	An optional client name for the report header.	(Blank)
Department Code (DEPT_CD)	This is an optional selection criteria for the report. (Enter one or more delimited with a comma, all upper case, leave blank for all) If multiple values are entered then reports are generated for each department.	(Blank)

Parameter	Description	Default Value
Job ID (JOB_ID)	Job ID of the Meter Postage feeder file interface that is used as the selection criteria for the report when run separately from the chain. Enter one or more delimited with a comma.	(Blank)
Report ID (REPORT_ID)	An optional report ID on the report header for distribution purposes.	(Blank)
Block Size (SELECT_BLOCK)	A required performance parameter that controls the number of detail records selected for the report in a single instance.	100

Major Output

- MP Postal Totals by Carrier and Class Report

Problem Resolution

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	The job ends as successful when the report is created successfully.
Warning (4)	The job ends with Warning when there are no records found for report generation
Non-Fatal Error (8)	The job step does not use this return code
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • Run time exceptions for unexpected situations.
Terminated (16)	The job is terminated by the user. When this job is terminated, subsequent jobs in the chain are set to *Inactive*.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues. When this job encounters a system failure, subsequent jobs in the chain are set to *Inactive*.

Sort Criteria

N/A

Selection Criteria

N/A

Problem Resolution

The following table shows the possible return codes and recommendations for each processing step.

Step 1: Parameter Validation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All parameters provided are valid.	N/A	N/A
Failed (12)	The job failed due to a fatal condition such as an invalid parameter or an unanticipated run time condition.	Submit another instance with valid parameter.	Address the run time condition before submitting another instance.
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Step 2: Produce Report

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	Report is produced successfully.	N/A	N/A
Warning (4)	When Feeder System Code is not eligible to generate Carrier and Class Report	Run the instance for appropriate Feeder System Code.	N/A
Failed (12)	The job failed due to a fatal condition such as an invalid parameter or unanticipated run time condition.	Submit another instance with valid parameter.	Address the run time condition before submitting another instance.
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

2.1.17 Internal Billing Generate Transaction

Chain Job Name	Internal Billing Generate Transaction
Recommended Frequency	On demand
Single Instance Required	Yes
Can be restarted?	Not Applicable
Reports generated	Not Applicable

Overview

The Internal Billing Generate Transaction process involves creating, validating, and submitting transactions using the loaded detail billing records as the main source of information. The types of transactions that are created are Billing transactions.

Based on the selected Billing Transaction Code value setup on the Internal Billing Feeder System, the transaction generation process creates Receivable or Internal Exchange transactions.

This chain job is comprised of the following batch jobs chained together:

1. **Transaction XML Generation**: This process does parameter validation, XML creation, and insertion of records in the Internal Billing Summary (IBFSS / R_FS_IBFSS) table as major tasks.

2. **Transaction Load and Submit**: This process loads and submits the records from XML file generated from the preceding child process. It validates the parameters and loads the records into the Transaction Catalog. If the parameters are not valid, the process issues appropriate message and returns as Failed.

Note: Even though the above jobs in the chain can be run individually by disabling other jobs, it is recommended to always run the entire chain.

Major Input

- Internal Billing Feeder System (IBFS/R_IBFS)

    - Billing Transaction Code

    - Summarization Options

    - Various other transaction generation options

- Internal Billing Details table (IBDET / R_FS_IBDET)

    - Feeder System detail records with Billing Transaction status as Ready to Generate.

Major Output

- Receivable (RE) Transactions

- Internal Exchange (IET) Transactions.

- Billing Transaction Records on Internal Billing Summary (IBFSS / R_FS_IBFSS)

- Billing Transaction Information updates on Internal Billing Details (IBDET / R_FS_IBDET)

Chain Return Codes

When an active job step in the chain ends with a Return Code of anything other than successful, any remaining job steps have a Run Status of *Inactive.* Please see documentation on individual job steps for possible Return Codes for those steps, as *Warning* and *Non-Fatal Error* are not always possible outcomes.

Problem Resolution

If any of the jobs in the chain failed due to application errors, it is advisable to restart the job after correcting the errors instead of rescheduling the job. Alternatively, a new chain can be submitted that starts with the job that previously failed.

Internal Billing Generate Transaction Chain: Transaction XML Generation Job

Job Name	Transaction XML Generation
Recommended Frequency	See chain
Single Instance Required	See chain
Can be restarted?	No
Reports generated	N/A

Overview

Transaction XML Generation performs the below tasks.

- Parameter Validation.

- Create XML file with Billing Transaction Information.

  - For IET - ExportImport/REMSExport_IET_Run ID.xml

  - For RE - ExportImport/REMSExport_RE_Run ID.xml

- Create and insert summary records on the Internal Billing Summary table (IBFSS / R_FS_IBFSS)

- Update the Internal Billing Details table (IBDET / R_FS_IBDET) with Billing Transaction Status and Billing Transaction ID navigation links.

Process Steps

The following table lists the processing steps of the job along with any job log messages.

Process Steps	Messages
1. Parameter Validation	The following messages are displayed in offline mode. • Run started. • Parameters are listed. • Validating Batch parameters. • Parameters are valid or invalid depending on the validation. If the parameter is invalid, then the message for invalid parameter value is displayed in the log. • Parameter validation completed.

Process Steps	Messages
	• Parameter validation successful
2. Summarization of Records	• Selecting eligible records for each feeder system • Summarization of 'Feeder System Name' RE Detail records into TEMP_DTL_SUMMZED table started.". • Total number of 'Feeder System Name' RE records inserted into TEMP_DTL_SUMMZED table : # records. • Total number of 'Feeder System Name' IET records inserted into TEMP_DTL_SUMMZED table : # records • "Run Ended"
3. XML File Creation	• # records 'Feeder System Name' records are included in RE XML. • # records 'Feeder System Name' records are included in IET XML • Generation of IET Transaction XML(/apps/CGIADV/RTFiles/fin/ExportImport/REMSExport_IET_Run ID.xml) completed successfully for No. of Transactions. • Generation of RE Transaction XML(/apps/CGIADV/RTFiles/fin/ExportImport/REMSExport_RE_Run ID.xml) completed successfully for No. of Transactions.

Major Input

- Internal Billing Feeder System (IBFS/R_IBFS)
  - Billing Transaction Code
  - Summarization Options
  - Various other transaction generation options
- Internal Billing Details table (IBDET / R_FS_IBDET)
  - Feeder System detail records with Billing Transaction status as Ready to Generate.

Batch Parameters

The following are the delivered parameter values, which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Export Location of Transaction Upload Job (AMSEXPORT)	A required location to which the XML file created is written.	$$AMSROOT$$/ExportImport
Bank Code (BANK_CD)	A required Bank to be used on IET transactions.	(Blank)

Parameter	Description	Default Value
Billing Unit Code (BILL_DOC_UNIT_CD)	An optional unit used in receivable transaction creation for security purposes.	(Blank)
Commit Block Size (COMMIT_BLOCK)	A required performance parameter that controls the number of records saved in an instance.	100
Event Type for IET (IET_ETYP)	An Event Type to be used on IET transactions if blank on the feeder system detail records.	(Blank)
Event Type for RE with external customers (RE_ETYP_EXT_CUST)	An Event Type to be used on RE transactions for external customers.	(Blank)
Event Type for RE with internal customers (RE_ETYP_INT_CUST)	A Event Type to be used on RE transactions for internal customers.	(Blank)
Select Block Size (SELECT_BLOCK)	A required performance parameter that controls the number of detailed billing line records selected for the report in a single instance.	100

Major Output

- RE / IET XML file

Problem Resolution

The following table shows the possible return codes and recommendations for each processing step.

Return Code	Condition
Successful (1)	The job ends as successful when all parameters are valid, all records pass validation, and the XML file is created successfully.
Warning (4)	The job returns Warning under the following conditions: • No Eligible records are found for processing and summarization. • Invalid attribute value in RE Summarization or IET summarization on Internal Billing Feeder System table. • When the required input attribute value is not available on any record of Internal Billing Details table (IBDET / R_FS_IBDET) to generate the Billing Transaction. • Incorrect Billing Transaction ID option from Internal Billing Feeder System (IBFS / R_IBFS) • When this job returns to Warning, subsequent jobs in the chain are set to *Inactive*.
Non-Fatal Error (8)	Not Applicable

Return Code	Condition
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • No record for Billing Transaction code on ADNT with combination of Transaction Department and Feeder System Code Prefix. • If Billing Transaction Code on Internal Billing Feeder System (IBFS / R_IBFS) is blank • Run time exceptions for unexpected situations. When this job fails, subsequent jobs in the chain are set to *Inactive*.
Terminated (16)	The job is terminated by the user. When this job is terminated, subsequent jobs in the chain are set to *Inactive*.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues. When this job encounters a system failure, subsequent jobs in the chain are set to *Inactive*.

Sort Criteria

• Feeder System code – The records are processed based on the alphabetical descending order of the Feeder system code.

• If there are multiple records with the same feeder system code, the sorting occurs based on the record value in descending order (records with high amount are sorted first).

Selection Criteria

• Records are selected based on Billing Transaction Status = Ready to Generate.

• Feeder system record is active on Internal Billing Feeder System table (IBFS / R_IBFS) and Billing transaction code is specified.

Problem Resolution

The following table shows the possible return codes and recommendations for each processing step.

Step 1: Parameter Validation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All parameters provided are valid.	N/A	N/A
Failed (12)	The job failed due to a fatal condition such as an invalid parameter or an unanticipated run time condition.	Submit another instance with valid parameter.	Address the run time condition before submitting another instance.

Return Code	Condition	Recommendation	Other Instructions
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Step 2: Summarization of Records

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All records passed validation	N/A	N/A
Warning (4)	When invalid value in summarization options on Internal Billing Feeder System (IBFS / R_IBFS)	Correct the value on Internal Billing Feeder System (R_IBFS/IBFS) and schedule a new job.	N/A
Terminated (16)	Job is terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Step 3: XML File Creation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	XML file created and saved successfully.	N/A	N/A
Warning (4)	Job sets to Warning when issue in writing or generating the XML output.	The reason for the issue needs to be addressed and job has to be rescheduled.	N/A
Terminated (16)	Job is terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Internal Billing Generate Transaction Chain: Transaction Load and Submit Job

Job Name	Transaction Load and Submit
Recommended Frequency	See chain
Single Instance Required	See chain
Can be restarted?	Yes
Reports generated	N/A

Overview

Transaction Load and submit loads and submits the records from the XML File, generated by the Transaction XML Generation into the Transaction Catalog.

Process Steps

The following table lists the processing steps of the job along with any job log messages.

Process Steps	Messages
1. Parameter Validation	• Run Started • Parameters listed • Invalid parameters listed with errors
2. Load and Submit	• Records Processed for Load #, Failed #, Succeeded # • Records Processed for Submit #, Failed #, Succeeded # • Records Processed for Resubmit #, Failed #, Succeeded # • Run Ended

Major Input

- RE_(Chain Job ID).xml
- IET_(Chain Job ID).xml

Batch Parameters

Parameter	Description	Default Value
Commit Block (COMMIT_BLOCK_SIZE)	An required performance parameter for the number of records to commit at a time. If left blank, 100 defaults	100
Source Record Location (FILE_INPUT_DIR)	The location of the source file of records. AMSEXPORT is considered as default, if the parameter value is blank.	(Blank)

Parameter	Description	Default Value
File List (FILE_LIST)	A required parameter for list of files to be uploaded with multi-threaded processing. Multiple values have to be comma separated.	REMSExport_RE_$$@CHAINJOBID@$$.xml,REMSExport_IET_$$@CHAINJOBID@$$.xml
Output File Location (FILE_OUTPUT_DIR)	An optional parameter for output location for the file segments. AMSEXPORT is considered as default, if the parameter value is blank.	(Blank)
Bypass Approval (I_SMU_BYPASS_APPROVAL)	A required parameter for bypassing approvals used to determine of Approvals are bypassed for the generated transactions.	TRUE
Transaction Status (I_SMU_DOC_STA_CD)	A required parameter for SMU processing.	2
Logging Frequency (LOG_STATUS_INTERVAL)	A required parameter for logging frequency (in seconds) for controller thread reporting status of child threads to the system log.	100
Mode of Operation (MODE)	A required parameter for mode of operation. (1=Import, 2=Import and Submit, 3=Import and Other Action)	2
Other Action (OTHER_ACTION)	An Optional parameter for an action considered by SMU.	(Blank)
Polling Frequency (SLEEP_INTERVAL)	A required parameter for polling frequency (in seconds) for internal controller thread for checking child processes.	30
Catalog ID (SMU_CTLG_ID)	A required parameter for Catalog ID of the SMU job which is spawned as the child process.	3
Lag time (STAGGER_TIME)	A required parameter in seconds between the spawning of each child process.	20
Transaction Phase (S_SMU_DOC_PHASE_CD)	An optional parameter for SMU. Submit Parameter - Transaction Phase. (Valid values are 0 = No Phase, 1 = Draft, 2 = Pending, 3 = Final, 5= Historical, 6 = Conflict Draft, 7 = Template)	(Blank)
Status of Loaded Transactions (S_SMU_DOC_STA_CD)	A required parameter for transaction Status for loaded transactions (2-Ready, 1-Held).	2

Parameter	Description	Default Value
Name of Exception File (S_SMU_EXCEP_REP_FILE_NM)	A required parameter for name of exception file for the System Maintenance Utility.	ExpRepFlatFile.txt
Exception Detailing (S_SMU_EXCEP_REP_IND)	An optional parameter for exception reporting (1- Detailed, 2-Failed Transactions, 3- Processed Transactions, 4-Failed Transaction Lines, 5- Transaction Status).	(Blank)
Thread Count (THREAD_COUNT)	A required parameter for number of threads to use for processing.	10

Major Output

- Internal Billing Summary (IBFSS / R_FS_IBFSS)

- Internal Billing Details. (IBDET / R_FS_IBDET)

- Submitted RE and IET transactions

Problem Resolution

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	The job ends as successful when all parameters are valid, and transactions are loaded and submitted successfully.
Warning (4)	• The job returns Warning when there is error in submission of records
Non-Fatal Error (8)	The job step does not use this return code
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • When there is error in loading the records • Run time exceptions for unexpected situations.
Terminated (16)	The job is terminated by the user.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues.

Sort Criteria

N/A

Selection Criteria

N/A

Problem Resolution

The following table shows the possible return codes and recommendations for each processing step.

Step 1: Parameter Validation

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All parameters provided are valid.	N/A	N/A
Failed (12)	The job failed due to a fatal condition such as an invalid parameter or an unanticipated run time condition.	Submit another instance with valid parameter.	Address the run time condition before submitting another instance.
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

Step 2: Load and Submit

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All records load successfully.	N/A	N/A
Warning (4)	When error occurs while submission of records	Submit another instance after rectifying error	N/A
Failed (12)	When error occurs while loading of records	Submit another instance after rectifying error	N/A
Terminated (16)	Job is terminated manually by the user.	The reason for the termination needs to be addressed before running another instance.	N/A
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated before running another instance.	N/A

2.1.18 Payment Plan

Description

The Generate Payment Plan Process provides information about the payment plan and the print status of the notices for the payment plans. The process will utilize the Department code, Unit Code, Billing Profile and Form Type entered by User and select records from Payment Plan Print Table, based on the form type to generate any of the following Notices listed below:

- Agreement Notice
- Cancellation Notice
- Reminder Notice
- Completion Notice

If the form type is not mentioned then the process runs for all types of notices and generates the respective notice based on the remaining parameters. If the Printing Status is Original Pending then the Print Schedule Detail table is updated with the Reminder Printed Status as Yes. An entry is entered in the Payment Plan Print History table for the notice generated and the Payment Plan Print Table is updated with the Print Status as "Printed".

When to Run

This process is run on demand.

Major Input

- Payment Plan Print (R_PYMT_SCHED_PRN)
- Billing Profile (R_BPRO)
- Receivable Header (RE_DOC_HDR)
- Receivable Vendor Line (RE_DOC_VEND)
- Receivable Accounting Line (RE_DOC_ACTG)

Output

- Payment Plan Print History (R_PYM_SCH_PRN_HIST)
- Payment Plan Print (R_PYMT_SCHED_PRN)
- Payment Schedule Details (R_PYMT_SCHED_DET)
- Agreement notifications
- Cancellation notifications
- Completion notifications
- Reminder notifications
- The process also generates Payment Plan Agreement, Payment Plan Cancellation, Payment Plan Completion and Payment Plan Reminder Forms. These forms will be sent to the Printer, if the Print Resource Identifier is of type 'Printer'. If the Print Resource Identifier is of type 'PDF' then these forms will be generated in PDF format, which can be viewed from the 'View Forms' link.

Parameters

Parameter	Description	Default Value
Application Resource Identifier (APPL_RSRC_ID)	A required processing parameter of the print resource.	GEN_PYMT_PLAN
Billing Profile BPRO_CD	An optional selection parameter to base selection on billing profile.	No Default
AR Department DEPT_CD	A conditionally required selection field where one can be entered for a targeted run or left blank to select all. In most cases this selection field is optional, but if the Department Logo field is specified, a Department value is required.	No Default
Print Job Code 1 (PRINT_JOB_NAME_1)	A required processing parameter of the print job that signifies the agreement form to generate.	PYMT_PLAN_AGRMT_ FORM
Print Job Code 1 (PRINT_JOB_NAME_2)	A required processing parameter of the print job that signifies the cancellation form to generate.	PYMT_PLAN_CAN_FO RM
Print Job Code 1 (PRINT_JOB_NAME_3)	A required processing parameter of the print job that signifies the completion form to generate.	PYMT_PLAN_CMPLN_ FORM
Print Job Code 1 (PRINT_JOB_NAME_4)	A required processing parameter of the print job that signifies the reminder form to generate.	PYMT_PLAN_REMDR_ FORM
PRINT_RSRC	Required Field. The Printer/PDF resource id from IPRS which will be of type Printer or PDF.	No Default
Payment Plan Notice Generated (PYMT_PLAN_NOT)	A required output parameter that specifies what type of payment plan notice to generate. Valid values include: • 1 - Agreement • 2 - Cancellation • 3 - Completion • 4 - Reminder	No Default
Sorting Criteria (SORT_CRIT)	A required output parameter to define the sorting criteria of the generated forms. Valid values include: • 1 - BPRO and Receivable Transaction • 2 - BPRO and Customer Code • 3 - BPRO and Customer Name • 4 - BPRO and Payment Plan Notice	1

Parameter	Description	Default Value
State Name (ST_NM)	An optional output parameter to provide a name to be printed on the form from the XML instead of having to be defined into the form tool.	
UNIT_CD	An optional selection parameter to base selection on unit.	No Default
View Forms (VIEW_FORMS)	An optional output parameter that when set to *Y* sends forms output to job status inquiries (must be used in conjunction with a PDF print resource). A value of *N* sends forms output directly to print resource destination.	Y
Department Logo: (DEPT_LOGO)	An optional output parameter that when set to *Y* results any Logo File defined on the Department (DEPT) page to be written to the output XML so it can be used by the forms tool instead of a standard file. If set to *N*, there will be no logo file in the XML.	N
Email Lag Days (LAG_DAYS)	An optional output parameter for a number of days between 0 and 99 is used to update the Schedule Email/Print Date for selected records. Upon running the Email Generation process, the record will be selected when the Schedule Email/Print Date is less than or equal to the current date and the record is Email Pending or Resend Email. If left blank, 0 days is assumed, and the Schedule Email/Print Date will be set to the current date so there is no lag when sending the email.	No Default

Upon completion the batch should state if the job was successful, what the parameters were, and the run date and time.

Sort Sequence

Sort Sequence is based on the Sorting Criteria (SORT_CRIT) parameter entered.

1. Sorting Criteria = 1

    Sort Sequence = By BPRO and Receivable Transaction

    (BPRO_CD, DOC_CD, DEPT_CD, UNIT_CD, DOC_ID)

2. Sorting Criteria = 2

    Sort Sequence = By BPRO and Customer Code (BPRO_CD, VEND_CUST_CD)

3. Sorting Criteria = 3

    Sort Sequence = By BPRO and Customer Name (BPRO_CD, VEND_CUST_NM)

4. Sorting Criteria = 4

   Sort Sequence = By BPRO and Payment Plan Notice (BPRO_CD, FORM_TYP)

5. Sorting Criteria = Default

   Sort Sequence = Payment Plan Notice (FORM_TYP)

Selection Criteria

Select records from Payment Plan Print Tablehaving Print Status as Original Pending or Replacement based on the Department code, Unit Code, Billing Profile Code from Billing Profile Table and Form Type entered by User.

Problem Resolution

- Look into the job log for errors.
- If the job fails for any data setup reasons in the Generate Payment Plan process then correct the data setup and schedule a new job.

2.1.19 Generate Detail Bill

Job Name	Generate Detail Bill
Recommended Frequency	On Demand
Single Instance Required	Yes
Can be restarted?	No
Reports generated	Detailed Bill in PDF and Paper forms.

Overview

After the Internal Billing transactions are generated and submitted to final, the batch process 'Generate Detail Bill' can be executed to generate detailed bills in PDF and/or Paper form.

This process can be performed in two ways.

- Online from the IBFSS page or by clicking the Generate Bill action from the transaction level menu.

- Offline via the Generate Detail Bill batch process.

Process Steps	Messages
1. Parameter Validation	The following messages will be displayed in offline and online mode. • Run Started • Parameter validation started. • Parameters are listed. • Validating Batch Parameters • Parameters are valid or invalid depending on the Validation. If the parameter is invalid, the invalid value is displayed in the log. • Parameter validation completed. • Parameter validation Successful
2. Selection of records	• Generate Bill job is scheduled for Offline Printing • Feeder systems records are selected for PDF only setup. • Total Number of Successful Transactions for PDF printing: #". • Total Number of Failed Transactions for PDF printing: # • Total Number of Transactions for PDF printing: # • Completed PDF processing records for Feeder System • Run Ended

Major Input

- Billing Transaction Status is 'Generated' on Internal Billing Details (IBDET / R_FS_IBDET)

- Generate Detail Bill Flag is *True* on Internal Billing Feeder System (IBFS / R_IBFS)

- The Billing transaction status is Final.

Batch Parameters

The following are the delivered parameter values, which may have been updated through Batch Setup to meet local needs.

Parameter	Parameter Description	Default Value
Feeder System (FEED_SYS_CD)	A required parameter defines the source feeder system for which detail bills need to be printed. If running on demand for a special circumstance, this parameter accepts comma separated values.	(No Default)
Billing Transaction Code (BILL_DOC_CD)	An Optional parameter, in cases when the user generates the detailed bill online by clicking Generate Bill on the Internal Billing Summary user interface, the page passes the transaction Code of the record highlighted in the summary grid. If running offline, this field is blank since the job is running for more than one record.	(No Default)
Billing Transaction Department (BILL_DOC_DEPT_CD)	An optional parameter, in cases when the user generates the detailed bill online by clicking Generate Bill on the Feeder Internal Billing Summary user interface, the page will pass the Transaction Department of the record highlighted in the summary grid. If running offline, this field will be blank since the job is running for more than one record.	(No Default)
Billing Transaction ID (BILL_DOC_ID)	An optional parameter, in cases when the user generates the detailed bill online by clicking Generate Bill on the Internal Billing Summary user interface, the page passes the Transaction ID of the record highlighted in the summary grid. If running offline, this field can be blank since the job is running for more than one record.	(No Default)
User ID (USER_ID)	A required parameter, User ID to trigger the Generate bill process	(No Default)
Folder name inside which PDF folders for all feeder systems would reside. PDFs (CNSLDT_PDFS_TO_FLDR)	An optional parameter to create a folder with the name specified as Parameter value. The PDFs generated as part of the process will be saved in the folder. Location of the folder / files when folder is not specified. - /apps/CGIADV/RTFiles/fin/FormsOutput/Forms	(No Default)

Parameter	Parameter Description	Default Value
View Forms (VIEW_FORMS)	A required parameter that defines if the forms needs to be generated as PDF or as a file to be sent for central printing. Y for PDF printing and PDF/Paper printing. N for central printing. If Y, the Print Resource ID must be PDF otherwise an error is generated following the baseline form model. If N, the forms must be compiled to be printed to a physical printer. A non-PDF Print Resource ID must be provided otherwise an error is generated.	Y
Print Resource ID for PDF (PRINT_RSRC_PDF)	A required parameter that defines the destination of the data file. For PDF forms, use PDFGen.	PDFGen
Print Resource ID for Paper (PRINT_RSRC_PAPER)	A required parameter that defines the destination of the data file in Paper forms.	(No Default)

Major Output

- 'View Bill' option in the 3 dot menu on the IBFSS page against each transaction.
- 'Bill Generated' flag is turned 'True' on Internal Billing Summary (IBFSS/ R_FS_IBFSS)
- Detailed bill output in PDF and/or Paper form.
- A folder gets created for Feeder system within the folder name mentioned as job parameter 'CNSLDT_PDFS_TO_FLDR' to save the respective output bill PDFs
- If the CNSLDT_PDFS_TO_FLDR parameter is empty, the PDFs will be saved to a folder 'GenerateDetailBill'

Job Return Codes

If this job does not finish successfully, there is no restarting.

Return Code	Condition
Successful (1)	The job ends as successful when Parameter validation is successful and at least one record was selected and processed. The output is generated for processed records.
Warning (4)	The job step does not use this return code
Failed (12)	The job fails under the following conditions: • Parameters value is invalid. • Required Parameter is not entered. • The Feeder system record on IBFS is Inactive. • Invalid Print Resource ID • Invalid Paper Resource ID

Return Code	Condition
	• User entered is not active on the User_Info table
Terminated (16)	The job is terminated by the user.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues.
Non-Fatal Error (8)	The job step does not use this return code

Sort Criteria

The records are sorted based on Feeder system code alphabetical descending order. The records will be further sorted based on COAs and Record number order if multiple records are to be processed for same feeder system.

Selection Criteria

The process selects the records based on the below criteria.

- The status of the Billing transaction is *Generated*.

- The transaction is submitted to Final.

- The Feeder system is active on the Internal Billing Feeder System table (IBFS / R_IBFS).

- The 'Generate Detailed Bill' field is set to *true* on the Internal Billing Feeder System table (IBFSS / R_FS_IBFSS).

Problem Resolution

The following table shows the potential job return codes for this job

Step 1: Parameter Validation:

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All parameters provided are valid.	N/A	N/A
Warning (4)	The job step does not use this return code	N/A	N/A
Non-Fatal Error (8)	The job step does not use this return code	N/A	N/A
Failed (12)	Job fails due to 'incorrect or invalid parameter value', as below. • User ID is not valid on R_SC_USER_INFO table • PDF Print resource	Correct the parameter value. Schedule a new job.	Verify if the user is active and valid on R_SC_USER_INFO table before updating as parameter value.

Return Code	Condition	Recommendation	Other Instructions
	ID is invalid on R_PRNT_RSRC		
	Job fails due to 'Missing required parameter' as below. • Feeder System Code is required.	Schedule a new job updating the required parameter value	N/A
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed.	If another instance of the job has already been scheduled and run successfully, then this job should not be restarted.
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the System Failure needs to be investigated.	If another instance of the job has already been scheduled and run successfully, then this job should not be restarted.

Step 2: Selection of records

Return Code	Condition	Recommendation	Other Instructions
Successful (1)	All records are selected and processed successfully.	N/A	N/A
Warning (4)	The job step does not use this return code	N/A	N/A
Non-Fatal Error (8)	The job step does not use this return code	N/A	N/A
Failed (12)	Job fails when no eligible records found for processing	Submit another instance with eligible records.	
	Job fails due to failure to retrieve the form pdf from print server.	The reason for failure needs to be addressed and a new instance has to be scheduled.	N/A
Terminated (16)	The job was terminated manually by the user.	The reason for the termination needs to be addressed.	If another instance of the job has already been scheduled and run successfully, then this job should not be restarted.

Return Code	Condition	Recommendation	Other Instructions
System Failure (20)	The job was terminated because of database server or network issues.	The reason for the System Failure needs to be investigated.	If another instance of the job has already been scheduled and run successfully, then this job should not be restarted.

2.1.20 Generate Statement

Job Name	Generate Statement
Recommended Frequency	The Generate Statement process is run on a nightly basis for statement customers according to the Statement frequency set on the Billing Profile table.
Single Instance Required	Yes.
Can be restarted?	Yes.
Reports generated	Yes. A Statement Register is generated detailing statement activity generated during the batch process.

Overview

The Generate Statement batch process generates statement forms with detailed information of all the eligible customers and their corresponding billing profile codes. The details on the form include the customer name, customer account, billing profile code, billing address, total amount due, deposit balance, credit balance, payments received, all the transactions/activities that occurred during the billing cycle, customer refunds (if any), and dunning messages (if any). The process also handles reprinting of replacement statements and generation of the final statements where applicable.

There are two generic types of statements which can be generated from this process: Consolidated Statements and Non-Consolidated Statements. In order to facilitate decentralized control of the billing and collection processes, CGI Advantage® Financial Accounts Receivable supports the ability for sites to set up multiple customer accounts for an individual customer record. While this allows sites to control their billing and collection functions at the department and even the unit level, it can also result in individual customers receiving multiple statements if that customer is associated with more than one customer account. You can set up a customer to receive a Consolidated Statement for all customer accounts instead of one statement for each customer account by configuring the Central Statement fields on the Vendor/Customer (VCUST) table. The Central Statement fields on the VCUST record have no effect on Non-Consolidated Statements, and will only come into play when Statement Details contain a Central Statement BPRO and that Central Statement BPRO Code is being processed by the run executed. For more information about the setup to create Consolidated Statements please refer to the *Accounts Receivable User Guide*. Note that if you enable central statement for a customer who had past statement activities, those past activities as well as any modification, cancellation, or referencing activities yet to occur, will continue to appear on the same statements as before (not consolidated).

For Non-Consolidated Statements, based upon the billing location code set for a particular customer account, the statements are addressed to the parent location, customer and/or third party locations. A Consolidated Statement cannot be addressed to any third party locations; it can only be addressed to the parent and/or customer location. In addition, as any Central Statement BPRO must be set up with Statement Billing Type, the Billing Type cannot be changed to something that does not generate statements. Therefore, final statements do not apply to central statements.

The process also creates a register report that lists all of the statements that are generated including originals, replacements, and statements that were not generated due to being suppressed or below minimum. This report will not differentiate between a Consolidated and Non-Consolidated Statement.

Note: Statements are not generated when there is no activity and no balance due.

The following table shows the various steps that the Generate Statement batch job goes through and the messages issued at each step.

Process Steps	Messages
1. Parameter Validation	• The following messages will be displayed: • Validating Batch Parameters. • Parameters are valid or invalid depending on the Validation. If the parameter is invalid, the invalid value will be displayed in the log. It will be followed by this message: "Batch Parameter validation failed". • Batch Parameters validation completed.
2. Update BPRO dates	• The following messages will be displayed: • Selecting eligible records from BPRO table for LAST_STMT_END_DT, NEXT_STMT_END_DT and NEXT_STMT_PRN_DT update. • If the selection returns 0 records, then the following message will be issued: "No eligible record found with NEXT_STMT_PRN_DT = NULL on BPRO table". • Number of BPRO records selected = 'n' • Selection of BPRO records completed. • Updating LAST_STMT_END_DT, NEXT_STMT_END_DT and NEXT_STMT_PRN_DT dates on BPRO table started. • Number of BPRO records updated = 'n' • Updating LAST_STMT_END_DT, NEXT_STMT_END_DT and NEXT_STMT_PRN_DT dates on BPRO table completed.

3. Regular Statement Generation	• The following messages will be displayed:
	• Selecting eligible records from the BPRO table for Regular Statements.
	• Executing count of BPRO records.
	• Count of BPRO records completed.
	• If the selection returns 0 records, then the following message will be issued: "No eligible record found on the BPRO table".
	• Number of BPRO records selected = 'n'
	• Selection of BPRO records completed.
	• Processing for BPRO_CD : 'bxyz', DEPT_CD : 'dxyz', UNIT_CD : 'uxyz'
	• If Non-Consolidated Billing Profile is being processed:
	  • Selecting eligible Customers on CUST_ACCT_OPT table.
	  • If the selection returns 0 records, then the following message will be issued: "No eligible record found on CUST_ACCT_OPT table."
	  • Selection of CUST_ACCT_OPT records completed.
	• If Consolidated Billing Profile is being processed.
	  • Selecting eligible Customers for Central BPRO 'bxyz'.
	  • Selection of eligible Customers for Central BPRO 'bxyz' completed.

Process Steps	Messages
	• Processed 'n' STATD records for Central BPRO 'bxyz' vendor 'vxyz' Dept 'dxyz' Unit 'uxyz'. • Progression Count message: Processed 'n' Customers. Current BPRO 'bxyz' and Vendor is 'vxyz'. • If no records found. • No eligible Customers found for Central BPRO 'bxyz'. • If records found: • Processed 'n' Customer(s) for Central BPRO 'bxyz'. • End Consolidated Billing Profile. • If no eligible record found on STMT_DET table, then the following message will be issued: "No eligible record found on STMT_DET table". • Processed 'n' Customers (where n being the progression counter size.) • Total number of Customers processed = 'n'.
4. Final Statement Generation	• Following messages will be displayed: • Checking BPRO records for Next Statement Print Date <= Job Run Date started. • Checking BPRO records completed. • Selecting eligible records from BPRO table for Final Statements. • If the selection returns 0 records, then the following message will be issued: "No eligible record found on the BPRO table with Final Statement Bill Indicator". • Number of BPRO records selected = 'n'. • Selection of BPRO records completed. • Processing for BPRO_CD : 'bxyz', DEPT_CD : 'dxyz', UNIT_CD : 'uxyz'. • Selecting eligible Customers on CUST_ACCT_OPT table. • If the selection returns 0 records, then the following message will be issued: "No eligible record found on CUST_ACCT_OPT table". • Selection of CUST_ACCT_OPT records completed. • If no eligible record found on STMT_DET table, then the following message will be issued: "No eligible record found on STMT_DET table". • Processed 'n' Customers (where n being the progression counter size.) • Total number of Customers processed = 'n'
5. Replacement Statement Generation	The following messages will be displayed: • Selecting eligible records from STMT_PRN_INQ table for Replacement Statements. • If the selection returns 0 records, then the following message will be issued: "No eligible record found on STMT_PRN_INQ table with print status 'Replacement'". • Number of STMT_PRN_INQ records selected = 'n'.

Process Steps	Messages
	• Selection of STMT_PRN_INQ records completed. • If no eligible record found on BPRO table, then the following message will be issued: "No eligible record found on the BPRO table". • If no eligible record found on CUST_ACCT_OPT table, then the following message will be issued: "No eligible record found on the CUST_ACCT_OPT table". • If no eligible record found on STMT_DET table, then the following message will be issued: "No eligible record found on STMT_DET table". • Processed 'n' Statement records.
6. Creating Reports and .dat file	The following messages will be displayed: • Generating Statement Form Data file started. • Generating Statement Form Data file completed. • Generating Statement Register Data file started. • Generating Statement Register Data file completed. If no statements are generated, then the following message will be issued: "No Statements generated". • Rendering Statement Form Report started. • Rendering Statement Form Report completed. • Rendering Statement Register Report started. • Rendering Statement Register Report completed.

Restartability Information

The job can be restarted if it is failed. If the restart is not the immediate option, then the new job can be rescheduled but before rescheduling the job, the updates done by the failed job should be backed out.   If the job fails after step 2 (Update BPRO dates), then the user can restart the job after resolving the error. If the job is restarted, it will start from the step where it failed. For example, if the job failed in Step 4 (Final Statement Generation) due to some fatal condition (table space error), then if the job is restarted after resolving the table space issue, the job will start from the step Final Statement Generation and not from Step 3 (Regular Statement Generation).

Major Input

Tables

- Statement Detail (R_STMT_DET)
- Billing Profile (R_BPRO)
- Customer Account Options (R_CUST_ACCT_OPT)
- Receivable Header (RE_DOC_HDR)
- Receivable Vendor Line (RE_DOC_VEND)
- Receivable Accounting Line (RE_DOC_ACTG)

- Cash Receipt Header (CR_DOC_HDR)

- Cash Receipt Accounting Line (CR_DOC_ACTG)

- Internal Exchange Transaction Header (IET_DOC_HDR)

- Internal Exchange Transaction Accounting Line (IET_DOC_ACTG)

- General Accounts Refund Header (ABS_DOC_HDR)

- General Accounts Refund Accounting Line (ABS_DOC_ACTG)

- Write-Off Header (WO_DOC_HDR)

- Dunning Message (R_DNG_MSG)

- Address (R_AD)

- System Options (R_RV_SOPT)

- Vendor/Customer (R_VEND_CUST)

- Statement Charge Crosswalk (R_STMT_CHRG_CD_XWK)

Batch Parameters

Parameter	Description	Default Value
Application Resource ID (APPL_RSRC_ID)	A required processing parameter of the print resource.	STMT_OF_ACCT_REG
Print Job Name (PRINT_JOB_NAME)	A required processing parameter of the print job that signifies the form to generate.	STMT_OF_ACCT_REG_FORM
Print Resource ID (PRINT_RSRC)	A required output parameter of the print resource.	No Default
Billing Profile (BPRO_CD)	An optional selection parameter to base selection on billing profile.	No Default
Client Name (CLIENT_NM)	An optional output parameter to supply a name for the report header.	No Default
Commit Block Size (COMMIT_BLOCK)	An optional performance parameter to control the number of records saved in an instance. If left blank, 100 will default.	100
Department (DEPT_CD)	A conditionally required selection field where one can be entered for a targeted run or left blank to select all. In most cases this selection field is optional, but if the Department Logo field is specified, a Department value is required.	No Default
Progression Block Size (PROG_CTR_SZ)	An optional performance parameter to control the progression messaging in the job log. If left blank, 1000 will default.	1000
Select Block Size (SELECT_BLOCK)	An optional performance parameter to control the number of records selected for processing in one instance. If left blank, 1000 will default.	1000

Parameter	Description	Default Value
Sorting Criteria (SORT_CRIT)	A required output parameter to indicate how selected records are sorted. Valid values are: • 1 - BPRO and Customer Code • 2 - BPRO and Customer Name	No Default
State Name (ST_NM)	An optional output parameter to provide a name to be printed on the form from the XML instead of having to be defined into the form tool.	No Default
Unit Code (UNIT_CD)	An optional selection parameter to base selection on unit. If a Central billing profile was supplied, this parameter is ignored and ALL is used.	No Default
View Forms (VIEW_FORMS)	An optional output parameter that when set to *Y* sends forms output to job status inquiries (must be used in conjunction with a PDF print resource). A value of *N* sends forms output directly to print resource destination.	N
Department Logo (DEPT_LOGO)	An optional output parameter that when set to *Y* results any Logo File defined on the Department (DEPT) page to be written to the output XML so it can be used by the forms tool instead of a standard file. If set to *N,* there will be no logo file in the XML.	N
Email Lag Days (LAG_DAYS)	An optional output parameter for a number of days between 0 and 99 is used to update the Schedule Email/Print Date for selected records. Upon running the Email Generation process, the record will be selected when the Schedule Email/Print Date is less than or equal to the current date and the record is Email Pending or Resend Email. If left blank, 0 days is assumed, and the Schedule Email/Print Date will be set to the current date so there is no lag when sending the email.	No Default

Major Output

The following are the reports created:

• Statement Register Report: Can be used to determine which statements were successfully generated and which were not produced.

Following are the table updates:

• Statement Print History (R_STMT_PRN_HIST):

This table is updated for every statement generated. For non-consolidated statements, a record is updated for a particular customer and billing profile code combination. For

consolidated statements, a record is updated for a particular customer and central statement billing profile code combination. This table is updated in Step 3, Step 4 and Step 5.

- Statement Inquiry (R_STMT_PRN_INQ):

  The print status is updated after the statement is generated successfully. This table is updated in Step 3, Step 4 and Step 5.

- Statement Detail (R_STMT_DET):

  The Statement period end date is updated as calculated by the process. This table is updated in Step 3, Step 4 and Step 5.

- Receivable Vendor Line (RE_DOC_VEND):

  The due date for a particular receivable transaction is updated as per the statement date and the lag days on the corresponding billing profile code. This table is updated in Step 3 and Step 4.

- Billing Profile (R_BPRO):

  There are intermediate updates on this table and looking at this table it can be determined how many billing profile codes are processed in the current job cycle.

Job Return code

The following table shows the potential job return codes for the Generate Statement job.

Return Code	Condition
Successful (1)	All of the selected customer records are processed successfully.
Warning (4)	No eligible records found. This could be because of the following reasons: • No eligible record found on the BPRO table for the supplied batch parameter in all three steps - Regular Statement Generation, Final Statement Generation and Replacement Statement Generation. • No eligible record found on the STMT_DET table for the supplied batch parameter in all three steps - Regular Statement Generation, Final Statement Generation and Replacement Statement Generation. • Transaction Header not found for DOC_TYP : XX and DOC_CD : YY combination as DOC_TYP : ZZ is expected. DOC_ID : QQQQQ • The BPRO 'bxyz' is a Consolidated BPRO which is not allowed for final Statements: Error.
Non-Fatal Error (8)	No eligible record is found on the CUST_ACCT_OPT table for the supplied batch parameter in all three steps - Regular Statement Generation, Final Statement Generation and Replacement Statement Generation.
Failed (12)	The job fails under the following conditions: • Parameters are invalid • Run time exceptions for unexpected situations.
Terminated (16)	This return code is issued when the job is terminated by the

Return Code	Condition
	user.
System Failure (20)	This return code is issued when the job is terminated because of database server or network issues.

Sort Criteria

Based on the batch parameter Sorting Criteria (SORT_CRIT)

Selection Criteria

Select records from the Billing Profile for which:

- **Billing Type** is *Statement* or *Both,* or **Final Statement** indicator is not null.
- Where **Process Date** is greater than or equal to **Next Statement Print Date** on the Billing Profile table.
- Select records from the Statement Detail table for which the **Transaction Record Date** is *between* the **Last Statement End Date** and **Next Statement Print Date**.

Problem Resolution

Step 1: Parameter Validation

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	All of the parameters are validated successfully.	N/A	N/A
Warning (4)	N/A	This step does not issue warning code.	N/A
Non Fatal Error (8)	N/A	This step does not issue Non-Fatal code.	N/A
Failed (12)	Required parameter not specified. **Sample Message:** Print Resource Identifier cannot be blank.	Enter Print Resource ID and schedule a new job.	Job should be rescheduled after correcting the parameters.
	Entered parameters are invalid. **Sample Message:** Invalid Sort Parameter. The Sorting Criteria field must be either '1' or '2'.	Enter correct Sorting Criteria value and schedule a new job.	

Possible Return Codes	Condition	Recommendation	Other Instructions
	Entered parameter is zero or a negative number. **Sample Message:** Commit Block Size must be greater than Zero.	Enter a positive integer for commit block size and schedule a new job.	
	Entered parameter is not a valid integer number. **Sample Message:** Select transaction block size must be a positive integer.	Enter a valid positive integer for select transaction block size and schedule a new job.	
	Runtime Exception occurred. **Sample Message**: Error Message: <Runtime Exception Message>	Reason for Runtime Exception needs to be investigated. Correct the problem and schedule a new job.	System error log and VLS log should be investigated to find out possible reason of exception.
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

Step 2: Update BPRO dates

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	LAST_STMT_END_DT, NEXT_STMT_END_DT and NEXT_STMT_PRN_DT dates on BPRO table updated successfully for supplied BPRO.	N/A	N/A
Warning (4)	N/A	This step does not	N/A

Possible Return Codes	Condition	Recommendation	Other Instructions
		issue warning code.	
Non Fatal Error (8)	N/A	This step does not issue Non-Fatal code.	N/A
Failed (12)	Runtime Exception occurred. **Sample Message**: Error Message : <Runtime Exception Message>	Reason for Runtime Exception needs to be investigated. Correct the problem and schedule a new job.	System error log and VLS log should be investigated to find out possible reason of exception.
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

Step 3: Regular Statement Generation

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	All of the customer records process successfully for supplied batch parameters.	N/A	N/A
Warning (4)	No eligible record found on BPRO table. **Sample Message**: No eligible record found on the BPRO table.	Check out for BPRO record in R_BPRO table that satisfies the following condition. NEXT_STMT_PRN_DT <= Process Run Date, (BILL_TYP = 'S' or 'B'), DEPT_CD = Supplied DEPT_CD (if any) and UNIT_CD = Supplied UNIT_CD (if any). Enter the new record in R_BPRO table that	Before rescheduling the job, the updates done on the following table should be backed out: • R_BPRO

Possible Return Codes	Condition	Recommendation	Other Instructions
		satisfies the selection criteria for Regular Statement Generation and schedule a new job.	
	No eligible record found on STMT_DET table. **Sample Message**: No eligible record found on the STMT_DET table.	Check out for Statement record in R_STMT_DET table for supplied batch parameters (BPRO_CD, DEPT_CD and UNIT_CD). If the Billing Profile has Central Statement set to unchecked, look for STATD records with matching Billing Profile code. If the Billing Profile has Central Statement set to checked, look for STATD records with matching Central Statement BPRO code.	
Non Fatal Error (8)	No eligible record found on CUST_ACCT_OPT table. **Sample Message**: No eligible record found on the CUST_ACCT_OPT table.	Check out for Customer Account Detail record in R_CUST_ACCT_OPT table for supplied batch parameters (BPRO_CD, DEPT_CD and UNIT_CD). Enter the new record in R_CUST_ACCT_OPT table for supplied batch parameters (BPRO_CD, DEPT_CD and UNIT_CD) and schedule a new job.	Before rescheduling the job, the updates done on the following table should be backed out: • R_BPRO
	No eligible Customers found for Central BPRO 'bxyz' **Sample Message**: No eligible Customers	Ensure that a Customer is setup with the necessary Central BPRO information. Refer to the *Accounts Receivable User Guide*.	

Possible Return Codes	Condition	Recommendation	Other Instructions
	found for Central BPRO 'bxyz'		
Failed (12)	Runtime Exception occurred. **Sample Message**: Error occurred while processing Statement Detail for BPRO_CD :'bxyz' and VEND_CUST_CD : 'vxyz' : <Runtime Exception Message>	Reason for Runtime Exception needs to be investigated. Correct the problem and restart the job.	If the restart is not the immediate option, then the new job can be rescheduled but before rescheduling the job, the updates done on the following tables should be backed out: • R_STMT_PRN_HIST • R_STMT_PRN_INQ • R_STMT_DET • RE_DOC_VEND • R_BPRO
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

Step 4: Final Statement Generation

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	All of the customer records process successfully for supplied batch parameters.	N/A	N/A
Warning (4)	No eligible record found on BPRO table. **Sample Message**: No eligible record found on the BPRO table.	Check out for BPRO record in R_BPRO table that satisfies the following condition. NEXT_STMT_PRN_DT <= Process Run Date, BILL_TYP = 'I', FNL_STMT_BILL_IND = 'S' OR 'B', DEPT_CD = Supplied DEPT_CD (if any) and UNIT_CD = Supplied	Before rescheduling the job, the updates done on the following table should be backed out: • R_BPRO

Possible Return Codes	Condition	Recommendation	Other Instructions
		UNIT_CD (if any). Enter the new record in R_BPRO table that satisfies the selection criteria for Final Statement Generation and schedule a new job.	
	No eligible record found on STMT_DET table. **Sample Message**: No eligible record found on the STMT_DET table.	Check out for Statement record in R_STMT_DET table for supplied batch parameters (BPRO_CD, VEND_CUST_CD, DEPT_CD and UNIT_CD). Create RE with supplied batch parameter combination and schedule a new job.	
	The BPRO 'bxyz' is a Consolidated BPRO which is not allowed for final Statements: Error.	Change the setup for the Consolidated BPRO record to not be listed as a Final Statement or change the BPRO to no longer be a Consolidated / Central BPRO.	
	The BPRO 'bxyz' is a Consolidated BPRO which is not allowed for final Statements: Error. **Sample Message**: The BPRO 'bxyz' is a Consolidated BPRO which is not allowed for final Statements: Error.	Change the BPRO setup so that it is not a Final Statement.	
Non Fatal	No eligible record	Check out for Customer	Before rescheduling the

Possible Return Codes	Condition	Recommendation	Other Instructions
Error (8)	found on CUST_ACCT_OPT table. **Sample Message**: No eligible record found on the CUST_ACCT_OPT table.	Account Detail record in R_CUST_ACCT_OPT table for supplied batch parameters (BPRO_CD, DEPT_CD and UNIT_CD). Enter the new record in R_CUST_ACCT_OPT table for supplied batch parameters (BPRO_CD, DEPT_CD and UNIT_CD) and schedule a new job.	job, the updates done on the following table should be backed out: • R_BPRO
Failed (12)	Runtime Exception occurred. **Sample Message**: Error occurred while processing STMT_DET records for Final Statement Generation : <Runtime Exception Message>	Reason for Runtime Exception needs to be investigated. Correct the problem and restart the job.	If the restart is not the immediate option, then the new job can be rescheduled but before rescheduling the job, the updates done on the following tables should be backed out: • R_STMT_PRN_HIST • R_STMT_PRN_INQ • R_STMT_DET • RE_DOC_VEND • R_BPRO
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

Step 5: Replacement Statement Generation

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	All of the statement records process successfully for supplied batch	N/A	N/A

Possible Return Codes	Condition	Recommendation	Other Instructions
	parameters.		
Warning (4)	No eligible record found on STMT_PRN_INQ table **Sample Message**: No eligible record found on STMT_PRN_INQ table with print status 'Replacement'.	Check out for statement record in R_STMT_PRN_INQ table that satisfies the following conditions. STMT_PRN_STA = 1 (Replacement Pending), BPRO_CD = Supplied BPRO_CD (if any), DEPT_CD = Supplied DEPT_CD (if any) and UNIT_CD = Supplied UNIT_CD (if any). Set STMT_PRN_STA as Replacement Pending on R_STMT_PRN_INQ table for required records and schedule a new job.	Before rescheduling the job, the updates done on the following table should be backed out: • R_BPRO
	No eligible record found on BPRO table. **Sample Message**: No eligible record found on the BPRO table.	Check out for BPRO (retrieved from R_STMT_PRN_INQ table) in R_BPRO table. Enter the new record in R_BPRO table that satisfies the selection criteria for Replacement Statement Generation and schedule a new job.	
	No eligible record found on STMT_DET table. **Sample Message**: No eligible record found on the STMT_DET table.	Check out for Statement record in R_STMT_DET table for STMT_DT = Statement Due Date and BPRO_CD, VEND_CUST_CD, DEPT_CD and UNIT_CD retrieved from R_STMT_PRN_INQ table.	

Possible Return Codes	Condition	Recommendation	Other Instructions
		Correct the problem and schedule a new job.	
Non Fatal Error (8)	No eligible Customer record found. **Sample Message**: No eligible Customer record found.	For Non-Consolidated Statement check out for Customer Detail record for VEND_CUST_CD (retrieved from R_STMT_PRN_INQ table) in R_CUST_ACCT_OPT table. Enter the new record in R_CUST_ACCT_OPT table that satisfies the selection criteria for Replacement Statement Generation and schedule a new job. For Consolidated Statement ensure that there are records inside of the Statement Detail [STATD] table for that Customer with the Consolidated BPRO value retrieved from the R_STMT_PRN_INQ table.	Before rescheduling the job, the updates done on the following table should be backed out: • R_BPRO
Failed (12)	Runtime Exception occurred. **Sample Message**: Error Message : <Runtime Exception Message>	Reason for Runtime Exception needs to be investigated. Correct the problem and restart the job.	If the restart is not the immediate option, then the new job can be rescheduled but before rescheduling the job, the updates done on the following tables should be backed out: • R_STMT_PRN_HIST • R_STMT_PRN_INQ • R_STMT_DET • RE_DOC_VEND • R_BPRO

Possible Return Codes	Condition	Recommendation	Other Instructions
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

Step 6: Creating Reports and .dat file

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	.dat files, HTML and PDF reports generated successfully.	N/A	N/A
Warning (4)	N/A	This step does not issue warning code.	N/A
Non Fatal Error (8)	N/A	This step does not issue Non-Fatal code.	N/A
Failed (12)	Runtime Exception occurred. **Sample Message**: Error occurred while generating report data file: <Runtime Exception Message>	Reason for Runtime Exception needs to be investigated. Correct the problem and restart the job.	If the restart is not the immediate option, then the new job can be rescheduled but before rescheduling the job, the updates done on the following tables should be backed out: • R_STMT_PRN_HIST • R_STMT_PRN_INQ • R_STMT_DET • RE_DOC_VEND • R_BPRO
Terminated (16)	Job is terminated manually by the user.	Reason for the termination needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.
System Failure (20)	When the job is terminated because of database server or network issues.	Reason for the System Failure needs to be investigated. Schedule a new job.	Job should be rescheduled after correcting the problem.

2.1.21 Generate Statement Multithread

Description

The Generate Statement Multithread job is an addon to the above Generate Statement job. The Generate Statement Multithread job will have all the parameters of the Generate Statement job, in addition to the Generate Statement, the Generate Statement Multithread will have one additional parameter 'Thread Count' the value, as per the values entered in the Thread Count parameter the Generate Statement Multithread job will create multiple instance (spawned) of the Generate Statement job. If the Thread Count parameter is blank, the system will default the value to *2*.

The rest of the process will remain the same as Generate Statement. The Generate Statement Multithread can be run using the following combinations:

- For a single BPRO keeping Department and Unit blank.

- For a single Department keeping BPRO and Unit blank.

- Keeping all BPRO, Department, and Unit blank.

The Generate Statement Multithread cannot be run using only the Unit as a parameter.

Batch Process

Please refer the Generate Statement job for the description of the batch parameters other than the following:

Parameter	Description	Default Value
Thread Count (THREAD_COUNT)	Optional number of Generate Statement jobs to be generated (spawned). If left blank, *2* will be default.	2

2.1.22 Generate Write-off Transactions

Description

Receivable or Collection transactions that are deemed uncollectible can be written-off in a variety of ways in Advantage Financial. Write-off transactions are utilized to record such actions due to the unique processing requirements presented by a Write-off. The Write-off transaction can reference Receivable or Collection transactions containing any of the various receivable event types.

Two sub-processes are involved in the Generate Write-off Transactions process:

- **Select for Write Off process** -- Generates records for the Pending Uncollectible Receivables Input Table from Receivable and Collection transactions.

- **Generate Write-Off Process** -- Generates Write-off transactions from the Pending Uncollectible Receivables Input table and submits them.

Generate Write-off Transactions Chain: Select for Write Off

Description

This process selects transaction data from Receivable and Collection transactions which are significantly past due and updates the Pending Write Off table

When to Run

Nightly or on-demand.

Major Input

- Receivable Transaction Header (RE_DOC_HDR)

- Receivable Transaction Vendor (RE_DOC_VEND)

- Collections Transaction Header (CL_DOC_HDR)

- Collections Transaction Vendor Line (CL_DOC_VEND)

- System Options (R_RV_SOPT)

- Billing Profile (R_BPRO)

- Vendor/Customer (R_VEND_CUST)

Output

- Pending Write Off (R_PUNR_INPT)

- Receivable Transaction Vendor (RE_DOC_VEND)

- Collections Transaction Vendor Line (CL_DOC_VEND)

Parameters

Job	Parameter	Description	Default Value
Select for Write Off	Billing Profile Code: (BPRO_CD)	Optional field. Entry of a value in this field controls which Billing Profile is selected by the batch process. If the field is left blank, all Billing Profiles are eligible for selection.	No Default
	Client Name for Report (CLIENT_NM)	Optional field. Entry of a value in this field specifies the name that will appear on report.	No Default
	AR Department Code (DEPT_CD)	Optional field. Used in decentralized AR processing.	No Default
	AR Unit Code (UNIT_CD)	Optional field. Used in decentralized AR processing.	No Default
	Write Off Percentage: (WO_PC)	Optional Field. Used to specify the percentage of the past due receivable to be written off.	No Default
	COMMIT_BLK	Added COMMIT_BLK parameter to Select for Write Off.	

Sort Sequence

None

Selection Criteria

Select records from eligible Receivable and Collection transactions which are not cancelled and which have an outstanding amount.

Select records from Receivable and Collection transaction header data object where:

- Outstanding amount is greater than zero.

- Transaction is in final phase.

- Transaction is not cancelled.

For the selected records from first criterion, select records from Receivable/Collection transaction vendor lines where Write-off status indicator is *NA Blank*, that is, zero.

Problem Resolution

No database restore is required. If the process does not complete, the updates are rolled back. Correct the problem and execute the job again. No restoration of datasets or files from backups is required for this program.

Generate Write-off Transactions Chain: Generate Write-off Transactions

Description

This process is used to generate the new Write-off transaction(s) from the Pending Write Off table.

The Write-off transaction processor handles posting updates to the Pending Write Off table, the Receivable, and Collection transactions.

When to Run

The Generate Write-off Transactions process may be run while the system is either online or offline. This process should be run after the completion of the Select for Write Off process. It can also be run on demand.

Major Input

- Pending Write-Off (R_PUNR_INPT)

- Billing Profile (R_BPRO)

- System Options (R_RV_SOPT)

Output

Write-Off Transaction

Parameters

Job	Parameter	Description	Default Value
Generate Write Off	Billing Profile Code: (BPRO_CD)	Optional field. Entry of a value in this field controls which Billing Profile is selected by the batch process. If the field is left blank, all Billing Profiles are eligible for selection.	No Default

Job	Parameter	Description	Default Value
	Department Code (DEPT_CD)	Optional field. Used in decentralized AR processing.	No Default
	Transaction Code: (DOC_CD)	Required Field. This field refers to the Transaction that will be generated by the Write-off process.	No Default
	Transaction Department Code: (DOC_DEPT_CD)	Required field. The transaction department to be used with the transaction code and prefix to find an Automatic Transaction Numbering entry. Will appear as the transaction department for all transactions created by the program.	No Default
	Transaction Unit Code: (DOC_UNIT_CD)	Optional field to provide security with a unit code enabling transaction access to be secured at a level below department.	No Default
	Prefix: (PFX)	Required field. The transaction prefix to be used with the transaction code and department to find an Automatic Transaction Numbering entry. Will appear in the beginning of all transaction ID's for all transactions created by the program.	No Default
	Unit Code: (UNIT_CD)	Optional field. Used in decentralized AR processing.	No Default

Job	Parameter	Description	Default Value
	Export Location at Generate Write Off Process Job AMSEXPORT	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
	Parameter Location at Generate Write Off Process Job AMSPARM	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
Select/Generate WO	Action Code : Import (ACTN_CD)	Required (and protected) action code which instructs the program to perform a certain action on its records.	171
	Commit Block Size: (COMMIT_BLOCK)	Required field. Controls how many records are committed by the application at one time. The size should be compatible with technical capabilities and performance guidelines	10
	Transaction Status: (DOC_STA_CD)	Required field that will be used by the program when loading transactions. Valid values are 1 - Held and 2 - Ready. Transactions loaded as held will not be selected by another process searching for transactions to submitting. Ready transactions will be selected by such a program. Held is often used when some user action will be required.	1

Job	Parameter	Description	Default Value
	File to be loaded: (FILE_NM)	Required (and protected) field that defines what file the program is to use. Often used for XML files to load or TXT files to read in for instructions.	$$AMSIMPORT$$/ WODocument.xml
Auto Apply	Parameter File Name: (PARM_FILE)	Required (and protected) field that is used to control the Auto Apply process.	$$AMSPARM$$/Aut oApplyWOParm.txt
Submit WO	Exception Report File: (EXCEP_REP_FILE_ NM)	Required (and protected) field that defines what file the program is to use to create an exception report.	$$AMSLOGS$$/Ge nerateWOExep.txt
	Parameter File: (PARM_FILE)	Required (and protected) field that will be used to define the parameters for submitting the transaction(s).	$$AMSPARM$$/Su bmitWOParm.txt

Sort Sequence

None

Selection Criteria

Select records from Pending Write Off table where Write-off generation status is *Approved for collection*.

Note

Generated Write-off transactions will be processed automatically or put on hold depending on the setting of the **Generate Write-off Transactions in this Status** field on the System Options table, or – if override is allowed – on the Billing Profile table.

Problem Resolution

No database restore is required. If the process does not complete, updates are rolled back. Correct the problem and execute the job again. No restoration of datasets or files from backups is required for this program.

This batch program produces new Advantage transactions, which are subject to the line limit functionality constraints. Sites should ensure that they run this job with parameters set to ensure that the created transactions are within the line limit controls.

2.1.23 Issue Payments for Unreserved Credit Balance

Description

In CGI Advantage Financial, cash receipt transactions are used to record monies collected. If a cash receipt transaction results in an overpayment and the **Automatic Netting** flag is checked on the System Options table, the overpayment are tracked as unreserved credit balance in the system. This unreserved credit balances are refunded to a customer automatically after a user-defined waiting period.

- **Department Code (DEPT_CD)** - Values in this field should match the Department used with the Billing Profile. This field is required when Billing Profile field is populated.

- **Unit Code (UNIT_CD)** - Values in this field should match the Unit used with the Billing Profile. This field is required when Billing Profile field is populated.

- **Prefix (PFX)** - Required field.

When to Run

Daily, weekly, quarterly, or on demand.

This process should be run after the Automatic Netting process and before the Generate Regular Billing process.

Major Input

- Unreserved Credit Balance (R_CR_BAL_DET)

- System Options (R_SOPT)

- Billing Profile (R_BPRO)

Output

- Unreserved Credit Balance (R_CR_BAL_DET)

- Pending Credit Refund (R_PEND_CR_RFND)

- General Accounting Expenditure Header (GAX_DOC_HDR)

- General Accounting Expenditure Vendor Line (GAX_DOC_VEND)

- General Accounting Expenditure Accounting Line (GAX_DOC_ACTG)

Parameters

The following parameters are required for running the Unreserved Credit Balance process.

Job	Parameter	Description	Default Value
Credit Refund	Billing Profile Code: (BPRO_CD)	Optional field. Entry of a value in this field controls which Billing Profile is selected by the batch process. If the field is left blank, all Billing Profiles are eligible for selection.	No Default
	Department Code: (DEPT_CD)	Required FieldRequired filed. Used in decentralized AR processing.	No Default
	Transaction Code: (DOC_CD)	Required Field. This field refers to the Transaction that will be generated by the Generate Payment for UCB process.	No Default
	Transaction Department Code: (DOC_DEPT_CD)	Required field. The transaction department to be used with the transaction code and prefix to find an Automatic Transaction Numbering entry. Will appear as the transaction department for all transactions created by the program.	No Default
	Transaction Unit Code: (DOC_UNIT_CD)	Optional field. Provides security with a unit code enabling transaction access to be secured at a level below department.	No Default

Job	Parameter	Description	Default Value
	Prefix: (PFX)	Required field. The transaction prefix to be used with the transaction code and department to find an Automatic Transaction Numbering entry. Will appear in the beginning of all transaction ID's for all transactions created by the program.	No Default
	Unit Code (UNIT_CD)	Optional field. Used in decentralized AR processing.	No Default
	Export Location at Credit Refund Job AMSEXPORT	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
	Parameter Location at Credit Refund Job AMSPARM	Required (** **Refer to Note**: Assumptions for SWBP on page no. 7)	No Default
Select/Generate Refund	Action Code : Import (ACTN_CD)	Required (and protected) action code that instructs the program to perform a certain action on its records.	171
	Commit Block Size: (COMMIT_BLOCK)	Required field. Controls how many records are committed by the application at one time. The size should be compatible with technical capabilities and performance guidelines.	10
	Transaction Status:	Required field that will be used by the	1

Job	Parameter	Description	Default Value
	(DOC_STA_CD)	program when loading transactions. Valid values are 1 - Held and 2 - Ready. Transactions loaded as held will not be selected by another process searching for transactions to submitting. Ready transactions will be selected by such a program. Held is often used when some user action will be required.	
	File to be loaded : (FILE_NM)	Required (and protected) field that defines what file will be uploaded.	$$AMSIMPORT$$/IssuePayments.xml
Submit GAX	Exception Report File: (EXCEP_REP_FILE_NM)	Required (and protected) field that defines what file the program uses to create an exception report.	IssuePaymentsExep.txt
	Parameter File: (PARM_FILE)	Required (and protected) field that will be used to define the parameters for submitting the transaction(s).	SubmitGaxParm.txt

Sort Sequence

- Billing Profile Code
- Number of days for credit balance
- Vendor Customer Code
- Transaction Code
- Department Code
- Transaction ID
- Transaction Version Number
- Transaction Accounting Line Number
- Unreserved Credit Balance Amount

Selection Criteria

- Customer Refund Flag on System Option table, or if override is allowed, on the Billing Profile table is 'true'.

- Days between **Current Date** and **Transaction Record Date** on the Credit Balance Detail table is greater than **Number of days for credit balance** on the System Options table, or if override is allowed, on the Billing Profile table.

- **Unreserved Credit Balance Amount** on the Credit Balance Detail table is greater than zero.

Notes

Generated GAX transactions will be processed automatically if the **Process Payment Transaction** flag is checked on the System Options table, or if override is allowed, on the Billing Profile table.

Problem Resolution

This batch program produces new Advantage transactions, which are subject to the line limit functionality constraints. Sites should ensure that they run this job with parameters set to ensure that the created transactions are within the line limit controls.

This batch program produces new Advantage transactions, which are subject to the line limit functionality constraints. Sites should ensure that they run this job with parameters set to ensure that the created transactions are within the line limit controls.

2.1.24 Manual Deposit Reconciliation

Job Name	Manual Deposit Reconciliation
Recommended Frequency	Daily
Single Instance Required	Yes
Can be restarted?	No
Reports generated	None

Overview

Manual Deposit Reconciliation moves records from Deposit Recon Detail (DPRECD) to Confirmed Deposit Detail (DPCNFD) when records are manually matched through Deposit Reconciliation Management (DPRCM). If a record is unmatched on DPRCM, then the records are removed from Confirmed Deposit Detail (DPCNFD) and reinserted into Deposit Reconciliation Detail (DPRECD).

Process Steps	Messages
1. Parameter Validation	• Validating Batch Parameters • Batch Parameter validation completed
2. Processing of Records	• Selecting eligible records • If the selection returns 0 records, then the following message is issued: "No eligible record found". • Number of records (count) selected is displayed. • At the end, the following message is issued: "Selection of records completed." • Number of records Processed

Major Input

- Deposit Reconciliation Detail (DPRECD / R_AP_DPS_REC_DET)

- Confirmed Deposit Detail (DPCNFD / AP_DPS_CNFRM_DET)

Batch Parameters

The following are the delivered parameter values which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Bank Account Code (BANK_ACCT_CD)	A required selection parameter that specifies a single bank for processing.	
Commit Block Size (COMMIT_BLOCK)	A required performance parameter that controls updates. If not specified, 100 defaults.	100

Adjustment Transactions (DOC_CD_DPREC_ADJ)	A required parameter that lists one or more transaction codes used on DPRECD for adjustments. The transactions specified for this parameter validate if the Deposit Amount (DPS_AM) on Deposit Reconciliation Detail is greater than zero. When the Deposit Amount (DPS_AM) is positive, it is added to Receipts Amount (ADJ_RCPT_AM) on Bank Daily Balance (R_ABAL_BK_DPS). When the Deposit Amount is negative, it is added to Adjustment Issue Amount (ADJ_ISSUE_AM) on Bank Daily Balance (R_ABAL_BK_DPS).	
Return Transactions (DOC_CD_DPREC_RTRN)	A required parameter that lists the Transaction Code(s) used on DPRECD for Returns. The transactions specified for this parameter validate if the Deposit Amount (DPS_AM) on Deposit Reconciliation Detail is greater than zero. If the Deposit Amount (DPS_AM) is positive, it adds this amount to Bank Daily Balance (R_ABAL_BK_DPS) Return Receipts Amount (RET_RCPT_AM). If the Deposit Amount (DPS_AM) is negative, it adds the amount to Bank Daily Balance (R_ABAL_BK_DPS) Adjustment Issue Amount (RET_ISSUE_AM).	

Major Output

- Deposit Reconciliation Detail (DPRECD / R_AP_DPS_REC_DET)

- Confirmed Deposit Detail (DPCNFD / AP_DPS_CNFRM_DET)

Sort Criteria

Match Group Number (MATCH_GP_NO)

Selection Criteria

None

Problem Resolution

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	The job ends as Successful when parameter validations are successful and at least one record was successfully processed.
Warning (4)	This job does not end with this return code
Non-Fatal Error (8)	This job ends as a Non-Fatal Error when: • Error is issued when committing changes to transactions. • Non-Fatal error needs to be investigated before rescheduling a new job.
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • Run time exceptions for unexpected situations.
Terminated (16)	The job is terminated by the user.
System Failure (20)	A system failure is issued when the job is terminated because of database server or network issues.

2.1.25 Past Due Invoice

Description

The collection letter provides information about the details of overdue balances for a single invoice. Details included are customer name, customer number, Merchant ID, invoice number, PO number, sales order number, billing address past due amount, late fee, interest charge, and other charges and the dunning message text.

The Past Due Invoice process runs on a nightly basis, as well as on request, and generates a dunning notice or collection letter for each invoice that meets late criteria based on the schedule defined on the Collection Control table.

A register report shows a list of past due invoices that were generated successfully, those that were not generated due to errors, and totals for each. Dunning notices and collection letters generated on-demand are not reflected on this report.

When to Run

Daily as part of the nightly cycle, and on demand

Major Input

- Invoice Print Inquiry (R_INV_PRN_INQ)

- Billing Profile (R_BPRO)

- Customer Account Options (R_CUST_ACCT_OPT)

- Receivable Transaction Header (RE_DOC_HDR)

- Receivable Transaction Vendor (RE_DOC_VEND)

- Receivable Transaction Accounting Line (RE_DOC_ACTG)

- Collection Control (R_COLL_CTRL_DET)

- Dunning Message (R_DNG_MSG)

- Collection Letter (R_COLL_LTR)

- Address (R_AD)

- System Options (R_RV_SOPT)

- Vendor Customer (R_VEND_CUST)

- Calendar Date (R_CLDT)

Output

- Invoice Print Inquiry (R_INV_PRN_INQ)

- Invoice Print History (R_INV_PRN_HIST)

- Report (Register)

- The process also generates the Invoice. The Invoice will be sent to the Printer, if the Print Resource Identifier is of type 'Printer'. If the Print Resource Identifier is of type 'PDF' then the Invoice will be generated in PDF format, which can be viewed from the 'View Forms' link.

Parameters

On-Demand Process

These parameters need to be passed when run as an on-demand process.

Job	Parameter	Description	Default Value
On Demand Invoice	Transaction Code (DOC_CD)	Protected Field.	Defaults from the Invoice Selected
	Transaction Dept (DOC_DEPT)	Protected Field.	Defaults from the Invoice Selected
	Transaction ID (DOC_ID)	Protected Field.	Defaults from the Invoice Selected
	Customer (VEND_CUST_CD)	Protected Field.	Defaults from the Invoice Selected
	Billing Profile (BPRO_CD)	Protected Field.	Defaults from the Invoice Selected
	Next Collection Action Date (NEXTSCH_COLACTN_DT)	The date the next collection action is scheduled for this client/ invoice.	No Default
	Last Dunning Message (LASTSCH_DN_MSGCD)	The Dunning Message code associated with the most recently scheduled Dunning Message transmittal.	Defaults from Collection Control table.
	Next Dunning Message (NEXTSCH_DN_MSGCD)	The Dunning Message code associated with the next scheduled Dunning Message transmittal	Defaults from Collection Control table.
	Last Collection Letter (LASTSCH_COLLTR_CD)	The collection letter code associated with the most recently scheduled collection letter transmittal.	Defaults from Collection Control table.

Job	Parameter	Description	Default Value
	Next Collection Letter (NEXTSCH_COLLTR_CD)	The collection letter code associated with the next scheduled collection letter transmittal.	Defaults from Collection Control table.
	COMMIT_SIZE	Commit Block Size. If not entered then defaulted to 100.	100
	State Name	Optional. Name of State to be printed on report header.	Blank

Sort Sequence

None

Selection Criteria - On-Demand Process

- Select records from the Invoice Print Inquiry table where **Next Collection Action Date** is less than or equal to current system date.

- Select records from the Billing Profile table where Billing Type is *Invoice* and **Final Statement Indicator** is null.

- Select records from receivable header line where outstanding amount is greater than zero.

- Select records from receivable vendor line where **Due Date** is less than System Date.

Batch Process

Parameter	Description	Default Value
Billing Profile Code (BPRO_CD)	An optional selection parameter where one can be entered for a targeted run or left blank to select all eligible profiles.	No Default
Client Name for Report (CLIENT_NM)	An optional name printed on the Invoice Registry report header.	No Default
Department Code (DEPT_CD)	A conditionally required selection field where one can be entered for a targeted run or left blank to select all. In most cases this selection field is optional, but if the Department Logo field is specified, a Department value is required.	No Default
Print Resource Identifier (PRINT_RSRC)	The required printing resource where invoices should print. PDFGen is used when generating to PDF files.	No Default

Parameter	Description	Default Value
Unit Code (UNIT_CD)	An optional selection field where one can be entered for a targeted run or left blank to select all.	No Default
Sorting Criteria (SORT_CRIT)	A required value for sorting invoices: 1. BPRO and RE Transaction, 2. BPRO and Customer Code, 3. BPRO and Customer Name 4. Transaction Dept and ID	1
State Name (ST_NM)	An optional name to be written to the XML file in the CUST_INFO section as the ST_NM for placement on the invoice.	Blank
Commit Block Size (COMMIT_SIZE)	A required performance parameter specifying the number of updates to commit in an instance. If not entered then 100 defaults.	100
View Forms (VIEW_FORMS)	A required output parameter directing whether or not to send PDF output for viewing with the batch process (Y or N). Not, the print resource must be a PDF one.	N
Application Resource ID (APPL_RSRC_ID)	A required application resource for printing.	INV_PAST
Dunning Notices Print Job Name (PRINT_JOB_NAME_DUNN)	The required print job name for Dunning Notice.	INV_DUN_PAST_FORM
Collection Letters Print Job Name (PRINT_JOB_NAME_COLL)	The required print job name for Collection Letters.	INV_COLL_PAST_FORM
Group Revenue Amount (GROUP_REV_AMT)	A required output parameter to direct the job to group the open amounts of all line types into a single amount in the CUST_INFO_INV_CHG section of the XML as the TOT field instead of just grouping the open amounts of just lines that are principal.	N
Generic Text Fields (GENERIC_TXT_FLD_LST)	An optional output parameter that controls which of the generic text fields of the accounting lines are written to the CUST_INFO and CUST_INFO_INV_CHG sections. These fields are labeled Generic 1 to 45 before being changed to more meaningful labels. List those by number that should be written, separating values by commas. Invoice forms work will have to supply names the customer will recognize.	No Default

Parameter	Description	Default Value
Generic Date Fields (GENERIC_DT_FLD_LST)	An optional output parameter that controls which of the generic date fields of the accounting lines are written to the CUST_INFO and CUST_INFO_INV_CHG sections. These fields are labeled Generic Date 1 to 15 before being changed to more meaningful labels. List those by number that should be written, separating values by commas. Invoice forms work will have to supply names the customer will recognize.	No Default
Print Scan Line (PRINT_SCN_LN)	A required output parameter that will direct the job to create a scan line in the XML file as the OCR field in the CUST_INFO section. Please see the scan line section that follows for more information on this feature.	N
Department Logo: (DEPT_LOGO)	An optional output parameter that when set to Y results any Logo File defined on the Department (DEPT) page to be written to the output XML so it can be used by the forms tool instead of a standard file. If N there will be no logo file in the XML.	N
Add Billing Profile Code to Customer Number (BPROCD_TO_ACCT_NO)	An option to append the billing profile code to the end of the customer account code with a dash separating the two for the customer number attribute/form field.	False
Add Department Code to Invoice Number (DEPT_CD_TO_INV_NO)	An option to append the AR department code to the beginning of the transaction ID with a dash separating the two for the invoice number attribute/form field.	False
Email Lag Days (LAG_DAYS)	An optional output parameter for a number of days between 0 and 99 is used to update the Schedule Email/Print Date for selected records. Upon running the Email Generation process, the record will be selected when the Schedule Email/Print Date is less than or equal to the current date and the record is Email Pending or Resend Email. If left blank, 0 days is assumed, and the Schedule Email/Print Date will be set to the current date so there is no lag when sending the email.	No Default

Selection Criteria - Batch Process

- Select records from the Invoice Print Inquiry table where **Next Collection Action Date** is less than or equal to today's date.

- Select records from the Billing Profile table where Billing Type is *Invoice.*

- Select records from receivable header where **Outstanding Amount** is greater than zero.

- Select record from receivable vendor line where:

- **Due Date** is less than system date

- Suppressed flag is false

Problem Resolution

No database restore is required. Correct the problem and restart the job. No restoration of datasets or files from backups is required for this program.

2.1.26 Past Due Invoice Multithread

Description

The Past Due Invoice Multithread job is an alternative to the above Past Due Invoice job with all the same parameters of the Past Due Invoice job. A single additional parameter of Thread Count is used to spawn multiple instances of the Generate Invoice job for faster throughput.

Please see the following selection parameter notes:

- For a single Billing Profile keeping Department and Unit blank.

- For a single Department keeping Billing Profile and Unit blank to process all customer accounts for a single department.

- Keeping Billing Profile, Department, and Unit blank to process all customer accounts.

- The job cannot be run using only the Unit as a parameter.

Batch Parameters

Please refer the Past Due Invoice job for the description of the batch parameters other than the following:

Parameter	Description	Default Value
Thread Count (THREAD_COUNT)	A required number of jobs to be spawned when selection reveals multiple threads are necessary. If left blank, *2* will be default.	2

2.1.27 Past Due Statement

Description

The dunning message and collection letter processing for statement customers is similar to that for invoice customers. The dunning messages and collection letters are generated based on the schedule defined on the Collection Control table. Dunning messages and collection letters for statements are generated based on the oldest past due receivable.

Similar to Statements, you can set up a customer to receive a Consolidated Past Due Statement for all customer accounts instead of one past due statement for each customer account. For more information about the setup, please refer to the *Accounts Receivable User Guide*. Note that if you enable central statement for a customer who had existing open receivables, those open receivables that are overdue will continue to appear on the same past due statements as before (not consolidated). If the Regular Statement was generated as a Consolidated Statement, and the Past Due Statement needs to be generated, it too will be consolidated across all Billing profiles / AR Departments / AR Units for a Customer where the Statement Inquiry [STMTQ] record was designated as a Central Statement.

The collection letter report provides the information about the details of overdue balances for a single customer. Details include the customer name, customer number, billing profile code, billing address, total past. It also shows details such as due amount, late fee, interest charge, and other charges of all the statements, sorted by due date.

The Collection Letter Register shows a list of collection letters that were generated successfully, those that were not generated due to errors, and totals for each.

When to Run

The Past Due Statement batch process should be run as a part of periodic Statement Generation process.

Major Input

- Statement Detail (R_STMT_DET)

- Statement Print Inquiry (R_STMT_PRN_INQ)

- Billing Profile (R_BPRO)

- Customer Account Options (R_CUST_ACCT_OPT)

- Receivable Transaction Header (RE_DOC_HDR)

- Receivable Transaction Vendor Line (RE_DOC_VEND)

- Receivable Transaction Accounting Line (RE_DOC_ACTG)

- Collection Control (R_COLL_CTRL_DET)

- Dunning Message (R_DNG_MSG)

- Collection Letter (R_COLL_LTR)

- Address (R_AD)

- System Options (R_RV_SOPT)

- Vendor/Customer (R_VEND_CUST)

Output

- Statement Print History (R_STMT_PRN_HIST)

- Statement Detail (R_STMT_DET)

- Report (Register)

Parameters

Batch Process

Parameter	Description	Default Value
Application Resource Identifier (APPL_RSRC_ID)	A required processing parameter of the print resource.	STMT_OF_ACCT_PAST
Billing Profile (BPRO_CD)	An optional selection parameter to base selection on billing profile.	No Default
Client Name (CLIENT_NM)	An optional output parameter to supply a name to the header of the report.	No Default
Commit Block Size (COMMIT_BLOCK)	A optional performance parameter specifying the number of updates to commit in an instance. If not entered then 100 defaults.	100
Department (DEPT_CD)	A conditionally required selection field where one can be entered for a targeted run or left blank to select all. In most cases this selection field is optional, but if the Department Logo field is specified, a Department value is required.	No Default
Print Job Name (PRINT_JOB_NAME)	A required processing parameter of the print job that signifies the form to generate.	STMT_OF_ACCT_PAST_ FORM
Print Resource ID (PRINT_RSRC)	A required output parameter of the print resource.	No Default
Select Block Size (SELECT_BLOCK)	An optional performance to control the number of records selected in a single instance for processing. If left blank 1000 defaults.	1000
Sorting Criteria (SORT_CRIT)	Valid Sorting Criteria: 1. By BPRO and Customer Code 2. By BPRO and Customer Name	1
State Name (ST_NM)	An optional name to be printed in the output XML.	Blank

Parameter	Description	Default Value
Unit Code (UNIT_CD)	An optional selection parameter to base selection on unit. If the supplied Billing Profile is a central billing profile, then this parameter is not used.	No Default
View Forms (VIEW_FORMS)	An optional output parameter that when set to Y sends forms output to job status inquiries (must be used in conjunction with a PDF print resource). A value of N sends forms output directly to print resource destination.	N
Department Logo (DEPT_LOGO)	An optional output parameter that when set to Y results any Logo File defined on the Department (DEPT) page to be written to the output XML so it can be used by the forms tool instead of a standard file. If N there will be no logo file in the XML.	N
Email Lag Days (LAG_DAYS)	An optional output parameter for a number of days between 0 and 99 is used to update the Schedule Email/Print Date for selected records. Upon running the Email Generation process, the record will be selected when the Schedule Email/Print Date is less than or equal to the current date and the record is Email Pending or Resend Email. If left blank, 0 days is assumed, and the Schedule Email/Print Date will be set to the current date so there is no lag when sending the email.	No Default

Sort Sequence

The value of the Sorting Criteria parameter determines the sort sequence.

Selection Criteria - Batch Process

- Select records from the Billing Profile table where **Billing Type** is *Statement* or *Both*.

- For non-consolidated past due statements, select records from the Customer Account Options table where **Suppressed Past Due** flag is "false." For consolidated past due statements, select records from the Vendor/Customer table where **Suppress Past Due Central Statement** flag is "false."

- Select records where receivable vendor line where **Oldest Due Date** is less than system date.

- Select records where **Outstanding Amount** in receivable header line is greater than zero.

Problem Resolution

No database restore is required. Correct the problem and restart the job. No restoration of data sets or files from backups is required for this program.

2.1.28 Past Due Statement Multithread

Description

The Past Due Statement Multithread job is an alternative to the above Past Due Statement job with all the same parameters of the Generate Invoice job. A single additional parameter of Thread Count is used to spawn multiple instances of the Generate Invoice job for faster throughput.

Please see the following selection parameter notes:

- For a single Billing Profile keeping Department and Unit blank.

- For a single Department keeping Billing Profile and Unit blank to process all customer accounts for a single department.

- Keeping Billing Profile, Department, and Unit blank to process all customer accounts.

- The job cannot be run using only the Unit as a parameter.

Batch Parameters

Please refer the Past Due Statement job for the description of the batch parameters other than the following:

Parameter	Description	Default Value
Thread Count (THREAD_COUNT)	A required number of jobs to be spawned when selection reveals multiple threads are necessary. If left blank, *2* will be default.	2

2.1.29 Payment Plan Maintenance

When to Run

On-demand or as part of the nightly systems assurance process

Description

1. Maintaining Payment Plan Information on the Payment Plan Detail Table

The Payment Plan Maintenance batch process is an automatic offline process that tracks the dates, amounts, and payments on the Payment Plan table. When the process is run, the batch process first reads the job parameters set for the batch job and selects only the Payment Plan table records matching the specified parameters. Parameters for the batch process allow users to select Payment Plans based on AR Unit, AR Department, or Billing Profile.

The batch process then initiates the second selection process by selecting only Payment Plans with an active status. When a Payment Plan table record is selected, the Payment Plan Maintenance Batch Process will proceed to the associated Payment Plan Detail record lines and attempt to update the current open record line. In chronological order, the batch process reads the Schedule Payment Date on all Payment Plan Detail record lines that are not flagged as 'closed'. When a Schedule Payment Date is found less than or equal to the system date, the batch process will close the selected Payment Plan Detail record line and determine if the Payment Plan is completed.

A Payment Plan is considered completed when the Outstanding Amount is liquidated for the referenced Receivable. When the Outstanding Amount is equal to zero after the closing of a Payment Plan Detail record line, the batch process will set the Status of the Payment Plan to 'Completed' and cause the Payment Plan flag to be unchecked on the referenced Receivable.

If the outstanding balance is not paid in full by the specified End Date on the Payment Plan table, then the batch process will check to see if an additional lag period is provided by the Final Payment Plan Lag field on the System Options table.

If the Final Payment Plan Lag field is blank or equal to zero, then the Payment Plan Maintenance Batch Process will cancel the Payment Plan. If the value in the Final Payment Plan Lag field is greater than zero, the Payment Plan Maintenance Batch Process will uncheck the last Payment Plan Detail record line and allow the Payment Plan to remain active.

If open payment periods exist for the Payment Plan Detail table, the Payment Plan Maintenance batch process will update the next open Payment Plan Detail record line and determine if any unpaid balance exists from the previous payment period. If the customer had under-paid the scheduled amount, then the unpaid balance will be carried forward to the next open record line. The Balance Forward Amount for the selected open record line will equal zero if no unpaid balance exists from the previous period.

If a customer overpays the scheduled amount in the previous payment period, then the overpaid balance will be applied to the Balance Forward Amount on the last Payment Plan Detail record line, causing the Balance Forward Amount on the last record line to become negative. Consequently, the Balance Forward Amount for the selected open record line will be equal to zero. The values in the Total Amount Due fields are calculated following the Balance Forward Amount. The Total Amount Due is equal to the Amount Due plus the Balance Forward Amount.

2. Schedule Reminder Notifications on the Payment Plan Print Table

Every payment period on the Payment Plan Detail table has a Schedule Print Date that allows the system to schedule Reminder Notifications for print. The Payment Plan Maintenance Batch Process will schedule the Reminder Notification on the date specified by the Schedule Print Date.

For all active Payment Plans selected, the Payment Plan Maintenance Batch Job will read the Schedule Print Date on every record line that has not been flagged as 'closed'. If a Schedule Print Date on a Payment Plan Detail record line is found to be less than or equal to the system date, the batch process will determine if a Payment Plan Reminder Notification should be scheduled for print on the Payment Plan Print table. The batch process first looks to SOPT to verify that the 'Payment Plan Reminder Notification' field is populated. If the field is populated and its allow override flag is not, the batch process will schedule a Reminder Notification for print by writing a new record to the Payment Plan Print table.

If 'Allow Override of Reminder Notification' flag is selected on SOPT, then the system will bypass the controls on SOPT and select the Billing Profile that matches the Dept/Unit combination on the Payment Plan table. The batch process will write a record to the Payment Plan Print table if the 'Payment Plan Reminder Notification' field is populated on the corresponding Billing Profile table.

However, if the 'Payment Plan Reminder Notification' field is not populated on the corresponding Billing Profile table, then the batch process will return to SOPT. The batch process will write a record to the Payment Plan Print table if the 'Payment Plan Reminder Notification' field is populated on SOPT.

If the 'Payment Plan Reminder Notification' field is blank on both SOPT and BPRO, then the batch process will not schedule a Reminder Notification for the corresponding Payment Plan.

3. Verify the Lag Period on active Payment Plans

The Payment Plan Maintenance Batch Process will provide an extended time-period to allow payments to be received after the specified End Date. The number of days allowed for the extension is specified in the Final Payment Plan Lag field on the System Options table. If the extension is provided, the Payment Plan Maintenance Batch Process will not close the last Payment Plan Detail record line for Payment Plans with an outstanding balance. If the Outstanding Amount is paid in full during the extended period, the Payment Plan Maintenance batch process will set the Payment Plan to 'Completed'. If the Outstanding Amount is not paid within the extended period, then the batch process will 'Cancel' the Payment Plan.

4. Purge Payment Plans marked for Deletion

The Payment Plan Maintenance Batch Process will purge all Payment Plans marked for deletion. Payment Plans must be manually marked for removal by changing the value in the Status field to 'Ready to be Deleted' on the Payment Plan table. The batch process will select and remove the 'Ready to be Deleted' Payment Plans.

Major Input

- Payment Plans Master and Detail Tables (PSCHD)
- System Options Table (SOPT)

Output

- Payment Plans Master and Detail Tables (PSCHD)
- Payment Plan Print Table (PPPT)

Parameters

Batch Parameters

Description (Caption)	Parameter Name	Default Value
AR Department Code	AR_DEPT_CD	
AR Unit Code	AR_UNIT_CD	
Billing Profile Code	BPRO_CD	

- The job parameter page for the Payment Plan Maintenance batch job has a field called AR Department. If the AR Department field on the job parameters page for the Payment Plan Maintenance Batch Process is populated, then that AR Dept value must be valid on the Department table. If the AR Dept is valid, then the Payment Plan Maintenance Batch Process will search for Payment Plan table records based on the value in the AR Department field.

- The job parameter page for the Payment Plan Maintenance batch job has a field called AR Unit. If the AR Unit field on the job parameters page for the Payment Plan Maintenance Batch Process is populated, then that AR Unit value must be valid on the Unit table. If AR Unit is valid, then the Payment Plan Maintenance Batch Process will search for Payment Plan table records based on the value in the AR Unit field.

- If the Billing Profile Code field on the job parameters page for the Payment Plan Maintenance Batch Process is populated, then that Billing Profile Code must be valid on the BPRO table. If the Billing Profile Code is valid, then the Payment Plan Maintenance Batch Process will search for Payment Plans table records based on the value in the Billing Profile Code field.

Sort Criteria

Selection Criteria

See parameters.

Problem Resolution

N

2.1.30 Print Deposit Ticket

Description

This Print Deposit Ticket process groups cash receipts and prints a deposit tickets.

If the Print Deposit flag is "true" on the System Options table, when a Cash Receipt transaction is processed, a row is inserted in the Deposit Ticket table.   In order to print a deposit ticket, select the Cash Receipts that should be included in an individual deposit and select Save. The next available Deposit Ticket Number and Deposit Date will automatically be inferred onto the table. Then, use the **Print** button on the Deposit Ticket table to print a deposit ticket.

After a deposit ticket is printed, the deposit ticket number and deposit date are updated to the Cash Receipt transaction. In addition, if **Use Deposit Reconciliation** is selected on the System Options table, the Print Deposit Ticket process inserts a new record in the Deposit Reconciliation and Deposit Detail tables with the deposit ticket number and deposit date. Records of the printed cash receipts are removed from the Deposit Ticket table.

When to Run

Deposit tickets can be printed on-request.

Major Input

- System Options (R_RV_SOPT)

- Print Deposit Ticket (R_PRN_DPS_TKT)

- Bank (R_AP_BANK_ACCT)

Output

- Cash Receipt Header (CR_DOC_HDR)

- Cash Receipt Vendor Line (CR_DOC_VEND)

- Deposit Reconciliation (R_AP_DPS_RECON)

- Deposit Detail (AP_DPS_RF)

- Bank (R_AP_BANK_ACCT)

- Report (Deposit Ticket)

- The process also generates the Deposit Ticket Form. The form will be sent to the Printer, if the Print Resource Identifier is of type 'Printer'. If the Print Resource Identifier is of type 'PDF' then the form will be generated in PDF format, which can be viewed from the 'View Forms' link.

Parameters

These parameters need to be passed for this on-demand process.

Job	Parameter	Description	Default Value
Print Deposit Ticket	Application Resource Identifier (APPL_RSRC_ID)	Required Field.	PRN_DPS_TKT
	Print Job Name (PRINT_JOB_NAME)	Required Field.	PRN_DPS_TKT_FORM
	Print Resource Identifier: (PRINT_RSRC)	Required field. The Printer/PDF resource id from IPRS which will be of type Printer or PDF.	PRN_DPS_TKT_FORM
	View Forms (VIEW_FORMS)	Optional Field. View Forms: Y to send forms output to job status inquiries (must use a PDF print resource). N to send forms output directly to print resource destination.	N

Sort Sequence

None

Selection Criteria

Print records from the Print Deposit Ticket table that have been selected for printing.

Problem Resolution

No database restore is required. Correct the problem and rerun the job executing the program. No restoration of datasets or files from backups is required for this program.

2.1.31 Renewal Notice Generation

Job Name	Renewal Notice Generation
Recommended Frequency	This batch process can be run on demand.
Single Instance Required	No
Can be restarted?	Yes
Reports generated	No reports are generated. Forms are generated.

Overview

The Renewal Notice Generation Batch process generates the License Renewal Notification forms. The process reads records from License Renewal Data Storage (LIC_RNEW_DT_STRG - LRDS), with the Selected indication of *false* and creates an XML file from which Renewal Notices are generated.

This process works in two different ways depending upon the value of the Central Remit setting on each External Cash Receipt (R_EXTR_CASH_RECT - ECRT) record.

- *True*: An entry is written to Coupon Return (CRT) for that record, the LRDS Selected indication is set to *True,* and the record is added to the XML file.

- *False*: The LRDS Selected indication is set to *True* and the record is added to the XML file.

License Renewal Data Storage (LRDS) has the Distribution field to specify where each form should be sent after it has printed. The values of *Central Distribution* and *Department Distribution* are written to the XML file.

The various steps in the Renewal Notice Generation Batch process are:

Process Steps	Messages
1. Parameter Validation	- Validating Batch Parameters - Parameters are valid or invalid depending on the Validation. If the parameter is invalid, the invalid value is displayed in the log. - Batch Parameter validation completed
2. Record selection	- The number of records selected is listed. - If the selection returns 0 records, then the following message is issued: "No Matching Data found in LRDS table".
3. Generation of DAT file	- The DAT file gets generated to print the forms.

Restartability Information

If the job fails in the Record Selection step, then it can be restarted after resolving the error. If the job is restarted, it will select the next set of records and won't start from the beginning.

The restart of this job may produce wrong results if another instance of this job has been scheduled and ran successfully before restarting the failed job. This is because this other instance of the job will update the 'Selected Flag' on License Renewal Data Storage (LRDS) to

true and will insert the records into Coupon Return (CRT). Therefore, the restart job will not pick up any more records from LRDS as it will always looks for LRDS records where the Selected indication is *false*.

Major Input

Tables

- License Renewal Data Storage table (LIC_RNEW_DT_STRG - LRDS)
- External Cash Receipt table (R_EXTR_CASH_RECT - ECRT)

Batch Parameters

Parameter	Description	Default Value
Department (DEPT_CD)	An optional selection parameter.	No Default
Print Resource (PRINT_RSRC)	The required printing resource where notices are printed. PDFGen is used when generating to PDF files.	No Default
Sort Criteria (SORT_PRINT_LIC)	A required value for sorting notices: 1 - External Customer Code, Renewal Number and Renewal Type, 2 - Renewal Type, External Customer Code and Renewal Number, 3 - Renewal Type and Renewal Number	No Default
Bar Code Content (BAR_CD_CNT)	A required output parameter controlling the content of the bar code generated: 1 - Coupon ID, ECRT Code, Renewal Number and R. 2 - Department Code, Renewal Date, Amount Due, Late Amount Due are added along with Coupon ID, ECRT Code, and Renewal Number.	1
Concatenate Location (CNCT_LOC)	An optional output parameter that when set to Y (yes) results in the City, State, and Zip being concatenated in the XML for later forms generation.	N

Major Output

- License Renewal Data Storage (LIC_RNEW_DT_STRG - LRDS)

- Coupon Return (R_COUPON_RET - CRT)
- DAT file

Job Return Code

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	Selected records were processed successfully.
Warning (4)	This job does not issue this return code.
Non-Fatal Error (8)	This job does not issue this return code.
Failed (12)	The job will fail under the following conditions: • Parameters are invalid • Run time exceptions for unexpected situations.
Terminated (16)	This return code is issued when the job is terminated by the user.
System Failure (20)	This return code is issued when the job is terminated because of database server or network issues.

Sort Criteria

The records are sorted depending upon the value of the SORT_PRINT_LIC parameter.

Selection Criteria

Those records on License Renewal Data Storage (LRDS) and External Cash Receipt (ECRT) are selected where the value of the department of LRDS matches the value of the selection department parameter and the Selected indication of LRDS is false and the values of ECRT Code, Dept Code, and Unit Code on both the tables match.

Problem Resolution

Step 1: Parameter Validation:

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	Parameters are validated successfully.	N/A	N/A
Failed (12)	Required Parameters are not entered **Sample Message:** Print Resource should be entered to print the Form.	Enter the Print Resource.	Reschedule the job.
	Entered Parameters	Enter a valid Print	Reschedule the

Possible Return Codes	Condition	Recommendation	Other Instructions
	are not valid. **Sample Message:** 1. Print Resource Identifier entered is invalid. 2. The Department entered is invalid.	Resource Identifier. Enter a valid Department Code.	job.
	Failed because of runtime exceptions for an unexpected situation.	The reason for the failure needs to be investigated before rescheduling the job.	Reschedule the job.
Terminated (16)	Job is terminated manually by the user	The reason for the termination needs to be investigated.	Reschedule the job.
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated.	Reschedule the job.

Step 2: Record Selection:

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	Successful	N/A	N/A
Warning (4)	No records were found to match selection criteria.	Review selection criteria against data to ensure correct criteria.	N/A
Failed (12)	Failed because of runtime exceptions for an unexpected situation.	In this step the job can fail with fatal conditions only on encountering unknown exceptions. If that happens, investigate the exception reported by the process and resolve the error.	The job can either be restarted or rescheduled.
Terminated (16)	Job is terminated manually by the user	The reason for the termination needs to be investigated.	The job can either be restarted or rescheduled.
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated.	The job can either be restarted or rescheduled.

Step 3: Generation of DAT file:

Possible Return Codes	Condition	Recommendation	Other Instructions
Successful (1)	DAT file generated successfully.	N/A	N/A
Failed (12)	Failed because of runtime exceptions for an unexpected situation.	In this step the job can fail with fatal conditions only on encountering unknown exceptions. If that happens, investigate the exception reported by the process.	The job can either be restarted or rescheduled.
Terminated (16)	Job is terminated manually by the user.	The reason for the termination needs to be investigated.	The job can either be restarted or rescheduled.
System Failure (20)	When the job is terminated because of database server or network issues.	The reason for the System Failure needs to be investigated.	The job can either be restarted or rescheduled.

2.1.32 Update Bank Deposit Balance

Job Name	Update Bank Deposit Balance
Recommended Frequency	This job should be run daily. On days when the Outstanding Check process, the Deposit Reconciliation process, or any other process that produces cash entries is run, it is important to make sure the Update Bank Deposit Balance job runs after these jobs complete, as these jobs update tables that feed into the Update Bank Deposit Balance batch job.
Single Instance Required	Yes
Can be restarted?	No
Reports generated	No

Overview

The Bank Deposit Balance (BDB) page provides the user with a snapshot of the details of bank deposit balances, which include Open Deposits, Return Items, Adjustments, Total Bank Balance, Book Balance, and Variances.

The Update Bank Deposits Balance process inserts a record to the Bank Deposit Balance (BDB) page for each 'Active' or 'Closing' bank account code on the Bank Account (BANK) page. Banks that are marked as 'Closed' on the Bank Account page are not processed by the Bank Deposits Balance job. The Update Bank Deposit Balance process loads data into the new Bank Deposit Balance table and compares the information from the bank with the information on Deposit Reconciliation (DPREC) before populating the Bank Deposit Balance (BDB) page.

Process Steps	Messages
1. Parameter Validation	- Validating Batch Parameters - Parameters are valid or invalid depending on the validation. If the parameter is invalid, the invalid value will be displayed in the log. - Batch Parameter validation completed
2. Selection of Records Deposit Balance Calculation	- Selecting eligible records - If the selection returns 0 records, then the following message will be issued: "No eligible bank staging file found". - Number of records processed (count) will be displayed. - At the end, the following message will be issued: "Deposit Balance Calculation Ended"
3. Selection of Records for Deposit Balance Calculation for Manually Reconciled Bank	- Selecting eligible records - If the selection returns 0 records, then the following message will be issued: "No eligible Bank Accounts found in BANK table".

Process Steps	Messages
Accounts	

Steps in running this process

1. The BAI to XML job needs to be executed before the Update Bank Deposit Balance job is run. BAI to XML updates R_BNK_BAL_STG.

Major Input

- Bank Balance Staging (R_BNK_BAL_STG)
- Bank Deposit Balance (BDB / R_ABAL_BK_DPS)
- BANK (R_AP_BANK_ACCT)
- Deposit Reconciliation (R_AP_DPS_RECON)

Batch Parameters

The following are the delivered parameter values which may have been updated through Batch Setup to meet local needs.

Parameter	Description	Default Value
Charge Transaction, Transaction Code(s) (CH_DOC_ACTG_ DOC_CD)	Transaction Code(s) used in calculating the Book Balance amount details from CH Accounting Line(s).	(No Default)
Cash Receipt, Transaction Code(s) (CR_DOC_HDR_D OC_CD)	Transaction Code(s) used in calculating the Book Balance amount details from CR Header.	(No Default)
Adjustment Receipts and Issue, Transaction Code(s) (DOC_CD_ADJ_R CPT_ISS)	Transaction Code(s) used in calculating Adjustment Receipt Balance and Return Issue Balance.	(No Default)
Return Receipts and Issue, Transaction Code(s) (DOC_CD_RTRN_ RCPT_ISS)	Transaction Code(s) used in calculating Return Receipt Balance and Return Issue Balance.	(No Default)

Parameter	Description	Default Value
Transaction Codes to update Bank Balance Process Flag (DOC_CD_UPDT_BNK_BAL_FL)	Transaction Code(s) used in updating the Bank Balance Process flag on the Deposit Reconciliation Detail page.	(No Default)

Major Output

- New entries on Bank Deposit Balance (BDB / R_ABAL_BK_DPS)

Sort Criteria

When gathering eligible records from the Bank Balance Staging table (R_BNK_BAL_STG), records are sorted by the Balance Date (BANK_BAL_DT) in ascending order. When gathering eligible records from the Bank page (BANK / R_AP_BANK_ACCT), records are sorted by the Bank Account Code (BANK_ACCT_CD) value in ascending order.

Selection Criteria

During the selection of eligible records for the Deposit Balance Calculation, a record is considered eligible if the record listed in the Bank Balance Staging table (R_BNK_BAL_STG) has a value of false for the Bank Process Status flag (BANK_PROCESS_STA). For bank records with Automated Reconciliation flag set to true, the application will look back one day from the date set on the Bank Balance Staging table (R_BNK_BAL_STG) to insert the Closing Balance information on the Bank Deposit Balance page and also set the Balance Date one day forward from the beginning date that was on the Bank Balance Staging table (R_BNK_BAL_STG). Any transactions to make adjustments on the Bank Deposit Balance page will need to be at least one additional day past the Balance Date reflected on the Bank Deposit Balance page after the initial run of the process for the banks with the Automated Reconciliation flag set to true.

During the selection of eligible records for the Deposit Balance Calculation for Manually Reconciled Bank Accounts, a record is considered eligible if the record listed on the Bank page (BANK / R_AP_BANK_ACCT) does not have a value of Closed in the Bank Account Status (BANK_ACCT_STA) field.

For full usage of the batch job, the charge transaction specified should have a sub type of Bank Transfer (TRF). This transaction sub type will insert records into Deposit Reconciliation. This process is not recommended for use with transactions that have 'Modify' selected as an Allowable Element on DCTRL for the transaction.

Problem Resolution

If the process fails for any reason, the user can rerun the batch job. As records are processed via the Bank Balance Staging table (R_BNK_BAL_STG), Bank Process Status Flag (BANK_PROCESS_STA) is set to true. If the job fails for any reason, the job will select the next available record where Bank Process Status Flag is False. This job does not have a restart point.

The following table shows the potential job return codes for this job.

Return Code	Condition
Successful (1)	The job ends as successful when parameter validation is successful and at least one record was selected and processed.
Warning (4)	A warning results when no eligible records have been found. This could be because of the following reasons: • No records matched the selection criteria for the Deposit Balance Calculation • No records matched the selection criteria for the Deposit Balance Calculation for Manually Reconciled Bank Accounts.
Non-Fatal Error (8)	This job does not end with this return code.
Failed (12)	The job fails under the following conditions: • Parameters are invalid. • Run time exceptions for unexpected situations.
Terminated (16)	This job does not end with this return code.
System Failure (20)	This job does not end with this return code.

2.2 Accounts Receivable Report Processes

The Accounts Receivable report run sheets included in this section:

- Aging Receivables
- Aging Summary by Customer
- Aging Summary by Department
- Due RE Detail Report
- Finance Charge Report
- RSRC Summary

2.2.1 Aging Receivables

Description

The Aging Receivables Report classifies outstanding Receivables by the amount of time they are overdue. On the report, the Receivables can be classified as not due, 0-30 days overdue, 31-60 days overdue, 61-90 days overdue and over 90 days overdue. The Receivables with no due date are attributed to the No Due Date column.

The Aging Receivables Report can be run in Summary or Detailed mode. In Summary mode, the report summarizes all Receivable amounts to the Transaction Department level and prints the department-wide No Due Date, Not Due, 0-30 days overdue, 31-60 days overdue, 61-90 days overdue and over 90 days overdue totals; at the end, the grand totals are also printed. In Detailed mode, the report lists individual Receivables, classifying their amounts in one of the No Due Date, Not Due, 0-30 days overdue, 31-60 days overdue, 61-90 days overdue and over 90 days overdue columns. The Detailed mode report also calculates and prints totals for Billing Profile, Transaction Unit and Transaction Department.

Generally, the Aging Receivables Report selects all outstanding Receivables from the Transaction Catalog. The report provides five additional parameters to exclude from selection summary Receivables, disputed Receivables, disputed Receivable lines, Receivables with legal action initiated and. Receivables that are associated with active payment plans. Each of the five exclusion parameters can be set to 'Y' (to exclude corresponding Receivables) or 'N' (to include corresponding Receivables). The exclusion parameters affect selection in the same way regardless of whether the Aging Receivables Report is run in Summary or Detailed mode.

When to Run

This process can be run on demand or on daily, weekly or monthly basis.

Major Input

Receivable (RE) transactions on Transaction Catalog (RE_DOC_ACTG, RE_DOC_VEND, RE_DOC_HDR).

Output

Aging Receivables Report, generated in PDF and HTML format.

Parameters

Job	Parameter	Description	Default Value
Aging Receivables	CLIENT_NM	Client Name appearing on report	No default value.
	REPORT_ID	Report ID	No default value

Job	Parameter	Description	Default Value
	REPT_TYP_IND	Report Type (1 - Detailed, 2 - Summary) Required	2 (Summary)
	EXCL_SUMM_REC	Exclude Summary Receivables (Y/N) Required	Y
	EXCL_DISP_LN	Exclude Disputed Lines (Y/N) Required	Y
	EXCL_DISP_REC	Exclude Disputed Receivables (Y/N) Required	Y
	EXCL_LGL_REC	Exclude Legal Action Receivables (Y/N) Required	Y
	EXCL_PMT_PLAN	Exclude Receivables with Payment Plans (Y/N) Required	Y
	LEGEND	Legend	No default value

Sort Sequence

Receivables are sorted by Transaction Department, Transaction Unit, Billing Profile, AR Department, AR Unit, and Record Date.

Selection Criteria

- Aging Receivables Report selects outstanding final Receivable (RE) transactions from Transaction Catalog. Cancelled transaction are not selected.

- If Exclude Summary Receivables parameter is 'Y', summary Receivables are bypassed.

- If Exclude Disputed Lines parameter is 'Y', disputed Receivable accounting lines are bypassed.

- If Exclude Disputed Receivables parameter is 'Y', disputed Receivable transactions are bypassed.

- If Exclude Legal Action Receivables parameter is 'Y', Receivables with the Legal Action flag selected are bypassed.

- If Exclude Receivables with Payment Plans parameter is 'Y', Receivables with the Payment Plan flag selected are bypassed.

Problem Resolution

If a problem was encountered, reschedule the Aging Receivables report job. The report does not change any data, and thus can be re-run as many times as needed.

2.2.2 Aging Summary By Customer

Description

The Aging Summary By Customer Report summarizes outstanding receivable amounts by the past due period and the customer account (customer code + billing profile). All receivables with an outstanding amount greater than zero are selected and sorted by customer account. Totals are calculated for all records within the same past due period for a customer account. Each line in the report displays a customer account along with the total outstanding receivable amounts for each past due period and for all periods. A grand total line displays the total outstanding receivable amounts for each past due period and for all periods for all customer accounts.

When to Run

This process can be run on demand, daily, weekly or monthly basis.

Major Input.

RE_DOC_VEND

Output

Aging Summary By Customer Report is generated in PDF and HTML format.

Parameters

Job	Parameter	Description	Default Value
Aging Summary By Customer	CLIENT_NM	Client Name for Report	No default value

Sort Criteria

Records are sorted on the Customer Account code.

Selection Criteria

The selection is based on whether due date is less than or equal to system date or is null.

Problem Resolution

If the process was discontinued for any reason, then the job needs to be rescheduled again.

2.2.3 Aging Summary By Department

Description

The Aging Summary By Department Report summarizes outstanding receivable amounts by the past due period and the department. The department is the agency to which a receivable accounting event belongs, and corresponds to the Agency coded on individual receivable lines (not the Agency in the receivable number). The selection process selects all receivable lines with an outstanding amount greater than zero and sort them by agency. For each record selected, the due date is used to classify the past due period. Totals are calculated for all records within the same past due period for an agency. Each line in the report displays an agency code, the agency name, and the total outstanding receivable amounts for each past due period and for all periods. A grand total line displays the outstanding receivable amounts for each past due period and for all periods for all agencies.

When to Run

This process can be run on demand, daily, weekly or monthly basis.

Major Input.

RE_DOC_VEND

Output

Aging Summary By Department Report is generated in PDF and HTML format.

Parameters

Job	Parameter	Description	Default Value
Aging Summary By Department	CLIENT_NM	Client Name for Report	No default value

Sort Criteria

Records are sorted on the Department code.

Selection Criteria

The selection is based on whether due date is less than or equal to system date or is null.

Problem Resolution

If the process was discontinued for any reason, then the job needs to be rescheduled again.

2.2.4 Due RE Detail Report

Description

The Due RE Detail Report lists past due receivables by customer. All receivables with an outstanding amount greater than zero and a due date before the system date are selected and sorted by customer. For each record selected, a line will be written to the report listing the Vendor/Customer Code, Vendor/Customer Name, Due Date, RE Date, Receivable Number, and the outstanding amount under the appropriate past due period.

When to Run

This process can be run on demand, daily, weekly or monthly basis.

Major Input

RE_DOC_VEND

Output

The Due RE Detail Report is generated in PDF and HTML format.

Parameters

Job	Parameter	Description	Default Value
Due RE Detail Report	CLIENT_NM	Client Name for Report	No default value

Sort Criteria

Records are sorted on the Customer code.

Selection Criteria

The selection is based on whether the Due Date on the receivable is less than System Date.

Problem Resolution

If the process was discontinued for any reason, then the job needs to be rescheduled again.

2.2.5 Finance Charge Report

Description

The Finance Charge Report is used to view all the receivables on which finance charges are applied on a particular date, which will be equal to the receivable transaction creation date.

When to Run

This process can be run on demand, daily, weekly or monthly basis.

Major Input.

RE_DOC_ACTG, CVL_PRTY_PSTNG

Output

The Finance Charge Report is generated in PDF and HTML format.

Parameters

Job	Parameter	Description	Default Value
Finance Charge Report	CLIENT_NM	Client Name for Report	No default value
	DOC_CREA_DT	Finance Charge Date	No default value

Selection Criteria

Only those receivable transactions which are final, not cancelled, created on the date passed as a job parameter and having posting pair type of either B or C or D or F are selected.

Problem Resolution

If the process was discontinued for any reason, then the job needs to be rescheduled again.

2.2.6 RSRC Summary

Description

The Revenue Source Summary Report is used to track all accounts receivable revenue transactions during a user-defined date range.

The Revenue Source Summary Report will be organized into uncollected revenue, written-off revenue, and collected revenue.

- **Uncollected Revenue** – RE/CL transactions with non-blank revenue source.
- **Written-off Revenue** – WO transactions with non-blank revenue source.
- **Collected Revenue** – CR transactions with non-blank revenue source. These include CR transactions with or without reference to RE/CL transactions.

When a WO or CR references a RE or CL, the common routine will reverse the RE/CL postings (hence reduces the uncollected revenue). As a result, there will be no double counting of revenue.

Totals will be calculated for each revenue source within each department. A grand total will be provided for all selected records.

When to Run

This process can be run on demand, daily, weekly or monthly basis.

Major Input

DOC_ACTG

Output

The Revenue Source Summary report is generated in PDF and HTML format.

Parameters

Job	Parameter	Description	Default Value
RSRC Summary	CLIENT_NM	Client Name for Report	No default value
	DOC_DEPT_CD	Transaction Department Code	No default value
	STRT_DT	Start Date	No default value
	END_DT	End Date	No default value
	RSRC_CD	Revenue Source Code	No default value

Sort Criteria

Selected records will be sorted by Department, Revenue Source, and Transaction ID.

Selection Criteria

Select records satisfying the following criteria:

1. Record comes from an accounts receivable transaction (RE, CL, CR, WO).

2. Revenue source is not blank.

3. Acceptance date is between the user-defined date ranges inclusive.

Problem Resolution

If the process was discontinued for any reason, then the job needs to be rescheduled again.