

<b>3. END OF DAY PROCESSES (PRODUCT)</b> .....	<b>2</b>
3.1 LOG ON .....	2
3.2 RESPONSE FILE.....	3
3.3 PROGRESS METER .....	3
3.4 ORDER OF PROCESSING.....	4
3.5 PROCESS SANCTION POINTS .....	5
3.6 PROCESS PENDING DISQUALIFICATION.....	5
3.7 PROCESS 3 MONTH ROLLING AVERAGE FOR PEER GROUP PRICING .....	5
3.8 PROCESS REINSTATE VENDOR AND VENDOR STAMP.....	6
3.9 ADJUST/ARCHIVE/PURGE PROCESS .....	8
3.10 PROCESS ARCHIVE RECORDS .....	11
3.11 SEND/RECEIVE EXTERNAL FILES PROCESS (FTP) .....	12
3.12 IMPORT FILES .....	13
3.13 IMPORT ISSUANCE FILE PROCESS .....	13
3.14 IMPORT BANKING PAID FILE .....	13
3.15 IMPORT FOOD INSTRUMENT FILE.....	14
3.16 EXPORT FILES.....	14
3.17 EXPORT BANKING PRICE FILE .....	14
3.18 EXPORT BANKING STAMP FILE.....	14
3.19 EXPORT BANKING VENDOR FILE.....	14
3.20 EXPORT BANKING NEW FI ISSUANCE FILE .....	15
3.21 EXPORT BANKING FI STOP PAYMENT FILE.....	15
3.22 EXPORT VENDOR FILE.....	15
3.23 PROCESS CDC FILE.....	16
3.24 EXPORT DUAL PARTICIPATION FILE.....	16
3.25 CALCULATIONS FOR COMPUTING 3 MONTH ROLLING AVERAGE .....	18
3.26 PROCESS 3 MONTH ROLLING AVERAGE FOR PEER GROUP PRICING .....	22

### **3. End of Day Processes (Product)**

This chapter will discuss the functions of the End of Day Process application that is run either manually or automatically on the Server at the end of the business day. The main processing for End of Day is designed to run on a server. The application interface does not require interaction from a user. However, there are two exceptions that will require acknowledgement. 1) If the application is started again while it is currently running a message will be issued stating that another instance of the application is already running. 2) If the database table `Currently_Executing` shows a process that is in conflict with End of Day a message will be displayed. The message will display the process name that conflicts with End of Day. For example, the End of Month processes use bank paid/rejected information for food instruments, which End of Day processes. Therefore the two processes must not run simultaneously.

The End of Day administrator controls when End of Day will execute using Schedule Job Administration (Chapter 09) and Windows Task Scheduler. When the administrator adds End of Day to the schedule, the database table `Scheduled_Job_Control` is updated indicating that End of Day is scheduled. This does not actually invoke End of Day to run. End of Day must be scheduled through Window Task Scheduler or some other form of automated scheduler or manually invoked. When invoked, End of Day reads `Scheduled_Job_Control` as the first step before proceeding. If the table indicates scheduled, then processing continues; otherwise, End of Day immediately terminates successfully. This feature provides for the flexibility of keeping End of Day on an automated scheduler to run each day without the need to alter the schedule. It is the `Scheduled_Job_Control` table maintained by the End of Day administrator that determines when the processing actually takes place for the month.

The End of Day Dialog will be initially displayed in a minimized state. The End of Day window can be restored by double clicking the title bar. A progress bar is displayed while the processes are running. All informative and error condition messages are saved to the End of Day event log. The processes run during End of Day are determined by the values that are set for each State Business Rule.

#### **3.1 Log On**

When End of Day Process is started, it will log into the system using a known username and password. This will give the program access to the database tables it needs to get the required information. The user name and password will come out of the registry from the server where End of Day is run:  
`HKEY_LOCAL_MACHINE\SOFTWARE\PDA\<STATE>VENDOR\COMMON\OBJECTOWNER.`

The service name will be taken out of the registry on the server where End of Day is run: `HKEY_LOCAL_MACHINE\SOFTWARE\PDA\<STATE>VENDOR\COMMON\ORACLEDBSERVICENAME.`

### 3.2 Response File

Upon selection of the End of Day Process, the system will check for a Response File on the server where End of Day is run. The End of Day Process will not continue if the response file is missing or sends an unsuccessful message back to the system.

If applicable for your State, End of Day will look for Response file on the server where End of Day is run in the  
\<StateCode>EOD\CSFPISUANCE\RESPONSE and  
CSFPSTOPPAY\RESPONSE folder.

If applicable for your State, End of Day will look for Response file on the server where End of Day is run in the EOD\FOODINSTRUMENT\REPOSE folder.

### 3.3 Progress Meter

When the End of Day dialog is restored (not minimized), the progress meter is displayed to inform the user of End of Day processing status. The progress meter displays the percentage complete for the processing of the files. Once the meter reaches 100% the End of Day process is complete.

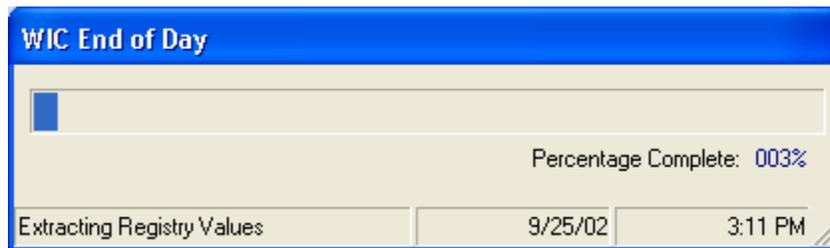


Figure 1– End of Day Dialog

#### 3.3.1 Controls

##### 3.3.1.1 End of Day Percent Complete Progress Bar

This control displays a progress indicator for the End of Day process.

###### 3.3.1.1.1 Characteristics

The progress bar will be enabled when the form is active. It will display, in a graphical display, the percentage of completion.

###### 3.3.1.1.2 Edits

There are currently no edits for this control.

### ***3.3.1.2 End of Day Status Bar***

This control will display three things. The process currently running is displayed in panel one. The current system date is displayed in panel two. The current system time is displayed in the panel three.

#### **3.3.1.2.1 Characteristics**

The status bar will be enabled when the form is active.

#### **3.3.1.2.2 Edits**

There are currently no edits for panel one. For panel two the format will be MM/DD/YYYY. The third panel will have a format of HH:MM AM/PM.

### **3.3.2 Validation of Required Settings Logged messages**

This section describes the processes (navigation) that take place as a result of the actions taken on the End of Day Conflicts.

#### ***3.3.2.1 System Registry Entries***

If the system registry has been updated or corrupted, a system message is written to the log file with the message text, "The system was unable to retrieve the end of month reports file folder name from the registry. Please contact technical support for assistance."

If the required registry entry for End of Day is not found in the Windows System Registry, End of Day Processing will be terminated. A message box will be written to the log file with the message text "A directory or file defined in the Registry for the End of Day process does not exist".

### ***3.4 Order of processing***

The order of processing end of day will be determined by the value in the State Business Rules entity and if applicable for your state. Processes, imports and exports applicable for your state will be processed. Processes are run first, imports second, and exports last.

### **3.5 Process Sanction Points**

Sanction points that no longer apply will be 'rolled-off' the system. The sanction points accumulate over the lifetime of the Vendor contract. These sanction points may no longer be counted against a vendor after a period of time. Each violation has a different expiration date that varies from 0 days to infinite. The End of Day Process will roll-off the expired sanction points that meet certain criteria. This process is applicable for your state if the State Business Rule EOD\_PROCESSSANCTIONPOINTS = 'Y'.

#### **3.5.1 Roll-off points**

If EOD\_PROCESSSANCTIONPOINTS = 'Y' in the StateBusiness rules table, all Sanction points in the Violation table with an ApplyUpTo date greater than the EODLastRunDate in the System Information table and less than or equal to the current system date will be gathered and subtracted from the parent records in the in the FollowUpActivity table and the Event table.

### **3.6 Process Pending Disqualification**

The End of Day process will change a vendor to a Disqualified status if the vendor grace period has expired and the vendor is in a Pending Disqualification status. This process is applicable for your state if the State Business Rule EOD\_PROCESSPENDINGDISQUALIFICATION = 'Y'.

#### **3.6.1 Process Pending Disqualifications**

If EOD\_PROCESSPENDINGDISQUALIFICATION = 'Y' and the TerminationDate in the TermDisqualification table is greater than the EODLastRunDate in the SystemInformationtable and less than or equal to the current system date, the system will change the Vendor from a Pending Disqualification status to a Disqualification status. The system will calculate the ReinstatementDate for the vendor. The ReinstatementDate is calculated by adding the DaysDisqualified in the TermDisqualification table to the current system date for the applicable record. If more than one record exists, the most recent record is applied. The calculated date is added to the ReinstatementDate field in the Vendor table for the associated vendor record.

### **3.7 Process 3 Month Rolling Average for Peer Group Pricing**

An End of Day process will recalculate the peer group average and maximum prices every 2 weeks based upon actual redemption to obtain a 3-month (12 week) rolling average for the peer group food instrument type or food item. This process is applicable for your state if the State Business Rule EOD\_3MONTHROLLINGAVG = 'Y'.

This calculation will **not** replace the manually calculated Average Price for each food item unless EBT is enabled. The manually calculated average price for each food item is needed for state office obligations, reporting and rebates when paper FIs are issued. It will replace the manually calculated Average and Maximum Prices for the Food Instrument Type and Peer Group.

### **3.7.1 Process 3 Month Rolling Average**

For Paper Food Instruments:

The system will calculate the 3-month rolling average every 2 weeks by selecting issued food instruments that have been redeemed over the last 12 weeks. It will calculate the average redemption amount (the mean) within each food instrument type and vendor peer group combination and update the AvgPrice column in the PEERGROUPFOODINSTTYPEPRICE table. For each vendor peer group and food instrument type it will determine the standard deviation value (the mean of the mean) and increase the maximum price by the value set for the EOD\_3MONTH\_ROLLING\_AVG\_NBR\_STD\_DEVIATIONS business rule to determine the standard deviation. This information is stored in the Price column of the PEERGROUPFOODINSTTYPEPRICE table.

For EBT:

The system will calculate the 3-month rolling average every 2 weeks by selecting redeemed EBT (electronic benefit transactions) over the last 12 weeks. It will calculate the average redemption amount (the mean) within each food item and vendor peer group combination and update the AvgPrice column in the PEERGROUPFOODITEM table. For each vendor peer group and food item it will determine the standard deviation value (the mean of the mean) and increase the maximum price by the value of one standard deviation. This information is stored in the MaxPrice column of the PEERGROUPFOODITEM table.

The AvgPrice and Price columns in the PEERGROUPFOODINSTTYPEPRICE table will be updated by selecting FI with EBT redemption over the last 12 weeks, summing the peer group food item average price and max price for each food item and its quantity on the FI to set the FI Type average price and price.

### **3.8 Process Reinstate Vendor and Vendor Stamp**

The end of day process will reinstate vendors and vendor stamps

### **3.8.1 Reinstate Vendor and Vendor Stamp**

The system will update all vendors, if the Reinsate.ReinstateDate is <= the current system date and the Reinsate.UpdateRecord = 'U'. The end of day process will set the Vendor.CurrentStatus = '3' (enrolled). The system will update the StatusHistory table with the change in vendor status information.

If the ReinstateVendorStamp flag = 'Y', the system will update the VendorStampHistory with the change in stamp information. The system will remove the vendor from the TermDisqualification table. The system will remove the DeactBankEffective date from the TerminateStamp table for the reinstated stamp number for the primary vendor stamp number (Vendor.StampNumber). The system will set the Reinsate.UpdateRecord = 'N' for the VendorID

### 3.9 Adjust/Archive/Purge Process

The End of Day process will change (or move) a participant to Agency '88' when the participant is no longer eligible for WIC. This process is applicable for your state if the State Business Rule EOD\_PROCESSADJUSTMENTSHIDES = 'Y'.

#### 3.9.1 Process Adjust Records

If EOD\_PROCESSADJUSTMENTSHIDES = 'Y', the system will update Member records to the appropriate status depending on the following criteria.

ADJUST RULES FOR EOD	ACTION
Child records over the Age defined in the State Business Rule. <i>MaximumChildAge</i> and not in a valid certification process.	Change to Categorically Ineligible
Women over the Age defined in the State Business Rule. <i>MaximumWomanAge</i> and not in a valid certification process.	Change to Categorically Ineligible
<p>Participants who have been certified for more for more days than the value of the <i>CertLimitWithPendingIDProof</i> business rule without Proof of ID will be marked as terminated. Homeless participants are excluded from this process.</p> <p>If the participant is an Infant or a Child, this is determined by validating the Member.IdentificationProof value = 'PendingIDProofValueChild' business rule and the current system date is greater than the <i>CertLimitWithPendingIDProof</i> business rule and Household.Homeless value is 'N' or null.</p> <p>or</p> <p>If the participant is a Woman, this is determined by</p>	Mark as terminated

ADJUST RULES FOR EOD	ACTION
<p>validating the Member.IdentificationProof value = 'PendingIDProofValueWoman" business rule and the current system date is greater than the <i>CertLimitWithPendingIDProof</i> business rule and Household.Homeless value is 'N' or null.</p>	
<p>Participants who have been certified for more days than the value of the <i>CertLimitWithPendingResidencyProof</i> business rule without Proof of Residency will be marked as terminated. Homeless participants are excluded from this process</p> <p>For all WIC Categories, this is determined by validating the Member.ResidencyProof value = 'PendingResidencyProofValue" business rule and the current system date is greater than the <i>CertLimitWithPendingResidencyProof</i> business rule and Household.Homeless value is 'N' or null.</p>	<p>Mark as terminated</p>
<p>Participants who have been certified with pending proof of income eligibility for more days than the value of the <i>CertLimitWithPendingIncomeProof</i> business rule without additional income information that includes a proof of income.</p> <p>For all WIC Categories, this is determined by validating the IncomeContact.PendingProof value = 'Y' and the current system date is greater than the <i>CertLimitWithPendingIncomeProof</i> business rule.</p>	<p>Mark as terminated</p>
<p>Categorically ineligible participants.</p>	<p>Mark as terminated</p>
<p>Participants who have been certified with delayed blood for more days than the value of the</p>	<p>Mark as terminated</p>

ADJUST RULES FOR EOD	ACTION
<i>CertLimitWithDelayedBlood</i>	
Participants who have failed to pick up food instruments for two consecutive months or have failed to re-certify for 31 days past their certification due date who are not in a new certification process	Mark as terminated
Participants who have been certified with risk factor 503 (Presumptive Eligibility) for more days than the value of the <i>CertLimitWithRF503NoHW</i> business rule without a height/weight measurement contact	Mark as terminated
Participants who have been certified with risk factor 503 (Presumptive Eligibility) for more days than the value of the <i>CertLimitWithRF503NoBlood</i> business rule without a blood work contact	Mark as terminated
<p>Participant who have started a certification attempt but did not complete within the time allowed</p> <p>Adjust Certification Records:</p> <p>Participants with a WICSTATUS of Pregnant (P) and a certification has been started but not completed within the number of days defined in the business rule <i>IncompCertLimitPregnant</i> from the certification start date, the participant's certification record is changed to ineligible.</p> <p>Participants whose household record indicates he/she is a Migrant and a certification has been started but not completed within the number of days defined in the <i>IncompCertLimitMigrant</i> business rule from the certification start date, the participant's certification record is changed to ineligible.</p> <p>All Participants with the exception of pregnant women and immigrants, if a certification has been started but not completed within the number of days in the <i>IncompCertLimitOther</i> business rule from the certification start date, the participant's certification record is changed to ineligible.</p>	<p>Change certification to ineligible and queue Ineligibility notice</p>

<b>ADJUST RULES FOR EOD</b>	<b>ACTION</b>
Infant to a child when the infant reaches his or her first birthday unless they are currently in a new certification attempt. A pseudo-certification record will be created for the child, and all applicable risk factors will be carried forward from infant to the child pseudo-certification record.	Change WIC Category from I to C
Synchronize the certification information in the Member table to the certification information in the CertContact table when the current certification start date is greater than the certification start date in the Member table.	Update the Member table with the CertContact information.
Update the Valid Certification flag when the participant is no longer in a valid certification	Update Valid Certification flag
Reset all On Premises times for the household members	Reset OnPremisesTime in Member Record

### **3.10 Process Archive Records**

The End of Day Process automatically archives records by changing the Agency ID in the Member table to '88'. Agency '88' is used to indicate the member is archived from the active system and will not be visible to the user in the Service Site Application. The member is used for historical reporting, and is not used for current reporting.

<b>ARCHIVE RULES FOR EOD</b>	<b>ACTION</b>
Participants who have not been back for 60 days after applying for WIC	Move to agency '88'
Participant was terminated more than 6 months ago and has not been serviced and they are not currently in a new certification attempt.	Move to agency '88'
Participant whose last certification attempt was ineligible more than 6 months ago and has not been serviced.	Move to agency '88'

### 3.10.1 Process Purge Records

The End of Day Process automatically archives records by deleting them from the system database.

PURGE RULES FOR EOD	ACTION
Purge Household records that have no members	Delete Household record
Purge Event Logs older than 14 days.	Delete EventLog records
Purge Business Hours Older than 90 days	Call Appointment Scheduler Purge
Purge Appointments at least 3 months old	Call Appointment Scheduler Purge
Purge Class Enrollments older than 7 months	Call Appointment Scheduler Purge
Purge Group Education Classes older than 7 months	Call Appointment Scheduler Purge
Purge Holidays older than 90 days	Call Appointment Scheduler Purge

### 3.11 Send/Receive External Files Process (FTP)

If your state has both Covansys front-end and back-end system the End of Day process will run FTP processes to Send/Receive external files. This process is applicable for your state if the State Business Rule EOD\_SENDRECEIVEEXTERNALFILES = 'Y'. Refer to Chapter 07 - Send\_Receive (FTP or Dialup) (EOD).doc for more information on this process.

### **3.12 Import Files**

Files created for import to the COVANSYS system are placed in the required directories by the COVANSYS system, an external system or the user. Some files are received for the sole purpose of exchanging data with systems that do not have the COVANSYS front-end applications. The function of moving, copying, backing up and archiving all import files is a manual function performed by the user. The COVANSYS system will then import all files according to the State Business Rules. The registry key for the import file directory is HKEY\_LOCAL\_MACHINE\SOFTWARE\PDA\  
<STATE>VENDOR\VendorEOD\ReceiveFromDirectory

### **3.13 Import Issuance File Process**

The End of Day process will import Food Instrument Issuance data from an ASCII file format. This process is applicable for your state if the State Business Rule EOD\_ISSUANCEFILEIMPORT = 'Y'.

#### **3.13.1 Process Issuance File**

If EOD\_ISSUANCEFILEIMPORT = 'Y' and an Issuance file is located in the \\<STATECODE>EOD\ISSUANCE\ **directory**, the End of Day Process will Add/Update the Issuance data in the associated Food Instrument tables. Refer to Chapter 05 – Banking Files (ASCII) (EOD).doc for specifics on the ASCII file layout. If an import file is found then it will be processed, if not the process is bypassed. If multiple import files are found for a process then the import files will be processed in order from oldest to newest based on import file date and time stamp. Import files are renamed after processing so they will not be processed more than once.

### **3.14 Import Banking Paid File**

The End of Day process will import Banking Paid data from an ASCII file format. This process is applicable for your state if the State Business Rule EOD\_BANKINGPAIDFILEIMPORT = 'Y'.

#### **3.14.1 Process Banking Paid File**

If EOD\_BANKINGPAIDFILEIMPORT = 'Y' and a Banking Paid file is located in the \\<STATECODE>EOD\BANKING\ **directory**, the End of Day Process will Add/Update Food Instrument Paid/Rejected data in the associated Food Instrument tables. Refer to Chapter 05 – Banking Files (ASCII) (EOD).doc for specifics on the ASCII file layout. If an import file is found then it will be processed, if not the process is bypassed. If multiple import files are found for a process then the import files will be processed in order from oldest to newest based on import file date and time stamp. Import files are renamed after processing so they will not be processed more than once.

### **3.15 Import Food Instrument File**

SOAP/XML import for the Food Instrument file is no longer applicable.

### **3.16 Export Files**

The files created by the COVANSYS system are placed in specific directories for the user to locate. Some files are generated for the sole purpose of exchanging data with systems that do not have the COVANSYS front-end applications. The function of moving, copying, backing up and archiving all export files is a manual function performed by the user. The registry key for the export file directory is HKEY\_LOCAL\_MACHINE\SOFTWARE\PDA<STATE>VENDOR\VendorEOD\SendToDirectory.

### **3.17 Export Banking Price File**

The End of Day process will export Peer Group Pricing data to an ASCII file format. This process is applicable for your state if the State Business Rule EOD\_BANKINGPRICEFILEEXPORT = 'Y'.

#### **3.17.1 Create Banking Price File**

If EOD\_BANKINGPRICEFILEEXPORT = 'Y', the End of Day Process will export the Peer Group Food Instrument Type Price data to an ASCII flat file. The file naming convention is <STATECODE>BP#####.TXT and is stored in the \\<STATECODE>EOD\BANKING directory. Refer to Chapter 05 - Banking Files (ASCII) (EOD).doc for specifics on the ASCII file layout.

### **3.18 Export Banking Stamp File**

The End of Day process will export Vendor Stamp data to an ASCII file format. This process is applicable for your state if the State Business Rule EOD\_BANKINGSTAMPFILEEXPORT = 'Y'.

#### **3.18.1 Create Banking Stamp File**

If EOD\_BANKINGSTAMPFILEEXPORT = 'Y', the End of Day Process will export the Vendor Stamp data to an ASCII flat file. The file naming convention is <STATECODE>BS#####.TXT and is stored in the \\<STATECODE>EOD\BANKING directory. Refer to Chapter 05 - Banking Files (ASCII) (EOD).doc for specifics on the ASCII file layout.

### **3.19 Export Banking Vendor File**

The End of Day process will export Vendor demographics data to an ASCII file format. This process is applicable for your state if the State Business Rule EOD\_BANKINGVENDORFILEEXPORT = 'Y'.

### **3.19.1 Create Banking Vendor File**

If EOD\_BANKINGVENDORFILEEXPORT = 'Y', the End of Day Process will export the Vendor demographics data to an ASCII flat file. The file naming convention is <STATECODE>BV#####.TXT and is stored in the \\<STATECODE>EOD\BANKING directory. Refer to Chapter 05 - Banking Files (ASCII) (EOD).doc for specifics on the ASCII file layout.

### **3.20 Export Banking New FI Issuance File**

The End of Day process will export New FI Issuance data to an ASCII file format. This process is applicable for your state if the State Business Rule EOD\_BANKINGISSUANCEFILEEXPORT = 'Y'.

#### **3.20.1 Create Banking New FI Issuance File**

If EOD\_BANKINGISSUANCEFILEEXPORT = 'Y', the End of Day Process will export the New Food Instrument Issuance Bank data to an ASCII flat file. The file naming convention is <STATECODE>BI#####.TXT and is stored in the \\<STATECODE>EOD\BANKING. Refer to Chapter 05 - Banking Files (ASCII) (EOD).doc for specifics on the ASCII file layout.

### **3.21 Export Banking FI Stop Payment File**

The End of Day process will export the FI Stop Payment data to an ASCII file format. This process is applicable for your state if the State Business Rule EOD\_BANKINGSTOPPAYFILEEXPORT = 'Y'.

#### **3.21.1 Create Banking FI Stop Payment File**

If EOD\_BANKINGSTOPPAYMENTFILEEXPORT = 'Y', the End of Day Process will export the Food Instrument Stop Payment Bank data to an ASCII flat file. The file naming convention is <STATECODE>BY#####.TXT and is stored in the \\<STATECODE>EOD\BANKING directory. Refer to Chapter 05 - Banking Files (ASCII) (EOD).doc for specifics on the ASCII file layout.

### **3.22 Export Vendor File**

The End of Day process will export the Vendor demographics data to an XML file format using SOAP methods. This process is applicable for your state if the State Business Rule EOD\_VENDORFILEEXPORT = 'Y'.

### 3.22.1 Create Vendor File

If EOD\_VENDORFILEEXPORT = 'Y', the End of Day Process will export the Vendor Demographics data to an XML file. The file is stored in the \\<STATECODE>EOD\VENDOR\REQUEST directory. Refer to Chapter 06 - SOAP\_XML Files (EOD).doc for specifics on the XML file layout.

### 3.23 Process CDC File

If a CDC file exists in the C:\WICCDCFiles\ Subfolders: Pediatric or Pregnancy, the End of Day process will submit the files as defined by the information listed in the COMMREQUEST table. If the SENDEMAIL value is 'Y' in the COMMREQUEST table then E-Mail will be sent along with the files to notify the CDC that the files were sent. If the SENDEMAIL value is "N" then the files are sent but no E-Mail notification is sent

### 3.24 Export Dual Participation File

This process is applicable for your state if the State Business Rule EOD\_EXTERNALDUALPARTICIPATION = 'Y'.

If an External Dual Participation file exists in the \\<STATECODE>EOD ExtDualPart\ directory, the End of Day process will submit the files as defined by the information listed in the COMMREQUEST table. If the SENDEMAIL value is 'Y' in the COMMREQUEST table then E-Mail will be sent along with the files to notify the State Of Oklahoma that the files were sent. If the SENDEMAIL value is "N" then the files are sent but no E-Mail notification is sent. Once the files are sent they are placed in the C:\<STATECODE>EOD ExtDualPart\Sent\ directory.

The External Dual Participation file is generated quarterly during the End of Month processing and placed in the ExtDualPart directory. The End of Day processing will detect when the new file is found and the flat file will be exported from the ITO Agency to the State of Oklahoma. The file naming convention is **DUALMMYY.DAT**

#### 3.24.1 Dual Participation File Layout

Field	Length	Type
LastName	15	Char
FirstName	13	Char
MiddleInitial	1	Char
DateOfBirth	8	Date

<b>Field</b>	<b>Length</b>	<b>Type</b>
Address	30	Char
City	20	Char
CertStartDate	8	Date
WICStatus	1	Char
IssueDate	8	Date
State	2	Char
CertEndDate	8	Date
NextPUDueDate	8	Date
Redeemed1Date	8	Date
Redeemed2Date	8	Date
Redeemed3Date	8	Date
Redeemed4Date	8	Date
Redeemed5Date	8	Date
Redeemed6Date	8	Date
Redeemed7Date	8	Date
Redeemed8Date	8	Date
Redeemed9Date	8	Date
Redeemed10Date	8	Date
Redeemed11Date	8	Date
Redeemed12Date	8	Date
Redeemed2Date	8	Date
RedeemedEnd1Date	8	Date
RedeemedEnd2Date	8	Date

Field	Length	Type
RedeemedEnd3Date	8	Date
RedeemedEnd4Date	8	Date
RedeemedEnd5Date	8	Date
RedeemedEnd6Date	8	Date
RedeemedEnd7Date	8	Date
RedeemedEnd8Date	8	Date
RedeemedEnd9Date	8	Date
RedeemedEnd10Date	8	Date
RedeemedEnd11Date	8	Date
RedeemedEnd12Date	8	Date
ITO-OR-STATE	4	Char

### **3.25 Calculations for computing 3 Month Rolling Average**

#### **3.25.1 Paper FIs Food Instrument Type Average and Maximum Price**

Sum the paid amounts from FIs redeemed over the last twelve weeks (today minus twelve weeks).

Caveats: The goal is to cover all WIC approved food benefits issued on the FI. The clients are instructed to select least expensive items and the vendors are trained accordingly. At one standard deviation, the paper FI Type food items really need to be grouped on a single FI in a manner such that the items are habitually redeemed in full more often than not. At one standard deviation, if the 50% clients are consistently not redeeming the tuna at all and only part of the carrots and beans then it is possible that the maximum price could fall short for the client who redeems the full set of full food benefits on the FI. This grouping of food benefits on a single FI to support the max price at the bank will be covered in training.

We may need to provide a variable allowing the user to choose a 1, 2, or 3 standard deviations to apply. By mathematical convention, applying one standard deviation of its average, 68.3% of your dataset is generally included. At two standard deviations, 95.4% within plus/minus these two standard deviations of your average is generally included. At three standard deviations, 99.7% of your price data is generally included.

### 3.25.2 EBT Food Item Type Average and Maximum Price

Sum the paid amounts from EBTs (FICs) redeemed over the last twelve weeks (today minus twelve weeks).

Caveats: The goal is to cover all WIC approved food benefits. The clients are instructed to select least expensive items and the vendors are trained accordingly. One standard deviation may well cover the prices at the food item level. It depends upon how disparate the price variance is in the WIC approved manufacturers products, the generic milk and juice compared to the WIC approved name brands.

We may need to provide a variable allowing the user to choose a 1, 2, or 3 standard deviations to apply. By mathematical convention, applying one standard deviation of its average, 68.3% of your dataset is generally included. At two standard deviations, 95.4% within plus/minus these two standard deviations of your average is generally included. At three standard deviations, 99.7% of your price data is generally included.

### 3.25.3 Calculation

#### Calculate Pricing:

Average Price = Mean Redemption Amount over twelve weeks

Maximum Price = Redemption Amount over twelve weeks plus one standard deviation

#### Normal Distribution of Data:

A normal distribution of data means that most of the examples in a set of data are close to the “average,” while relatively few examples tend to one extreme or the other.

**Standard Deviation:** A measure describing how close members of a data set are in relation to each other. The standard deviation is kind of the “mean of the mean” (average variance of an average), and often can help you find a pattern in the data. The standard deviation can be found by taking the square root of the variance. If the variance is 25, the standard deviation is 5.

**Square Root:** One of two equal factors of a given number. For example, 5 is a square root of 25 because  $5 * 5 = 25$ . Another square root of 25 is -5 because  $(-5) * (-5) = 25$ . The +5 is called the principle square root of 25.

#### Two Variance Methods:

- biased variance and standard deviation
- unbiased variance and standard deviation

Biased or Unbiased Variance Method:

For the Unbiased Method = Divide the result by the count of items in the set of data minus 1 item (standard variance value)

For the Biased Method = Divide the result by the count of items in the set of data (forcing a result of a lower variance value or a deviated variance)

The Unbiased Variance method provides a common deviation value. You should use the Unbiased Method, because it is the standard default method, unless there is a business reason to understand and use a deviated variance

In both variance method examples in the document, you begin with all three items in the data set count to produce the mean or average value.

To determine the Biased variance value, use the full count of the items in the dataset that were used to calculate the mean (average). Because the Biased Variance Method results in a lower variance value (a deviated rate below the standard variance), you do not reduce the dataset count by one.

**Terms Used:**

x = one value in the set of data

(the redeemed amount)

avg(x) = the average of all the values x in your set of data, the mean

- Paper FIs: (the sum of the redeemed amounts for the last twelve weeks by peer group and food instrument type)
- EBT: (the sum of the redeemed amounts for the last twelve weeks by peer group and food item)

n = the number of values (item count) in the set of data

**Business Rules:**

A State Business Rule defines the number of standard deviation to apply to the mean. If the State Business Rule EOD\_3MONTH\_ROLLING\_AVG\_NBR\_STD\_DEVIATIONS= '1' then one standard deviation is applied.

A State Business Rule defines the variance method use when calculating the standard deviation. If the State Business Rule EOD\_3MONTH\_ROLLING\_AVG\_VARIANCE\_METHOD= 'B' then the biased variance method is applied.

**Formula Used:**

- Count the number of items in the set of data for the beginning value of n.
- Find the average value of all items in the set of data. Average Price = Mean Redemption Amount over twelve weeks

- For each value x, subtract the overall avg (x) from each x. When result is negative it means that x is below the mean.
- Multiply that result by itself (otherwise known as determining the square of that value). The result is positive.
- Sum up all those positive squared values.
- For the Biased Method = Divide that result by (n).
- For the Unbiased Method = Divide that result by (n-1).
- Find the square root of that last number, the variance, for the value of the standard deviation of your set of data. The standard deviation is the positive square root of the variance, the mean of the mean.
- **Maximum Price = Average Price** plus one standard deviation.

For the data set example {1,2,3} there are a total of three items in the set of data, therefore the value of n begins at 3

- $n=3$  for the total of three items in the set of data
- $1+2+3 = 6$  for the total of the value of all items in the set of data  
 $6 / 3 = 2$  to find the average value of the set of data
- $1-2 = -1$ ;  $2-2 = 0$ ;  $3-2 = 1$
- $-1 * -1 = 1$ ;  $0 * 0 = 0$ ;  $1 * 1 = 1$
- $1 + 0 + 1 = 2$
- Biased Method:  $2 / 3 = .666666666$  or  $.667$
- Unbiased Method:  $2 / 2 = 1$
- Biased Method: the square root of  $.667$  is  $.8168$  rounded to 82 cents  
Unbiased Method: the square root of  $1$  is  $1$
- Biased Method:  $2 + .82 = 2.82$  (results in a lower variance value)  
Unbiased Method:  $2 + 1 = 3$  (results in a standard variance value)

The **biased** variance is:

$$\frac{(1-2)^2 + (2-2)^2 + (3-2)^2}{(3)} = .666666666 \text{ or } .667$$

The standard deviation is the square root of the biased variance, which equals:

$$\sqrt{.667} = .8168$$

The mean plus one standard deviation for the biased variance equals:

$$2 + .8168$$

The **unbiased** variance is:

$$(1-2)^2 + (2-2)^2 + (3-2)^2$$

$$\frac{\text{---}}{\text{---}} = 1$$

(3-1)

The standard deviation is the square root of the unbiased variance, which equals:

$$\sqrt{1} = 1$$

The mean plus one standard deviation for the unbiased variance equals:

$$2 + 1$$

### **3.26 Process 3 Month Rolling Average for Peer Group Pricing**

An End of Day process will recalculate the peer group average and maximum prices every 2 weeks based upon actual redemption to obtain a 3-month (12 week) rolling average for the peer group food instrument type or food item. This process is applicable for your state if the State Business Rule EOD\_3MONTHROLLINGAVG = 'Y'.

This calculation will **not** replace the manually calculated Average Price for each food item unless EBT is enabled. The manually calculated average price for each food item is needed for state office obligations, reporting and rebates when paper FIs are issued. It will replace the manually calculated Average and Maximum Prices for the Food Instrument Type and Peer Group.

#### **3.26.1 Process 3 Month Rolling Average**

##### **For Paper Food Instruments:**

The system will calculate the 3-month rolling average every 2 weeks by selecting issued food instruments that have been redeemed over the last 12 weeks. It will calculate the average redemption amount (the mean) within each food instrument type and vendor peer group combination and update the AvgPrice column in the PEERGROUPOODINSTTYPEPRICE table. For each vendor peer group and food instrument type it will determine the standard deviation value (the mean of the mean) and increase the maximum price by the value of one standard deviation. This information is stored in the Price column of the PEERGROUPOODINSTTYPEPRICE table.

**For EBT:**

The system will calculate the 3-month rolling average every 2 weeks by selecting redeemed EBT (electronic benefit transactions) over the last 12 weeks. It will calculate the average redemption amount (the mean) within each food item and vendor peer group combination and update the AvgPrice column in the PEERGROUPFOODITEM table. For each vendor peer group and food item it will determine the standard deviation value (the mean of the mean) and increase the maximum price by the value of one standard deviation. This information is stored in the MaxPrice column of the PEERGROUPFOODITEM table.

The AvgPrice and Price columns in the PEERGROUPFOODINSTTYPEPRICE table will be updated by selecting FI with EBT redemption over the last 12 weeks, summing the peer group food item average price and max price for each food item and its quantity on the FI to set the FI Type average price and price.