

DATA SUBMISSION, COMPUTER PROCESSING, AND CALCULATION REVIEW

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LIST OF ACRONYMS & ABBREVIATIONS

AD	ANTIDUMPING
CEP	CONSTRUCTED EXPORT PRICE
CFR	CODE OF FEDERAL REGULATIONS
CONNUM	CONTROL NUMBER
COP	COST OF PRODUCTION
CRP	CALCULATION REVIEW PANEL
CRU	CENTRAL RECORDS UNIT
CST	COMPUTER SUPPORT TEAMS
CV	CONSTRUCTED VALUE
DOC	DEPARTMENT OF COMMERCE
EP	EXPORT PRICE
FR	FEDERAL REGISTER
HM	HOME MARKET
IA	IMPORT ADMINISTRATION
ITA	INTERNATIONAL TRADE ADMINISTRATION
LAN	LOCAL AREA NETWORK
MAX	MAXIMUM

LIST OF ACRONYMS & ABBREVIATIONS

MIN	MINIMUM
N	NUMERIC
NMISS	NUMBER MISSING
OCS	OFFICE OF COMPUTER SERVICES
OD	OFFICE DIRECTOR
OIT	OFFICE OF INFORMATION TECHNOLOGY
PC	PERSONAL COMPUTER
PM	PROGRAM MANAGER

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References:

NONE

INTRODUCTION

This chapter covers the following computer-related functions for investigations and **administrative reviews**: (1) the roles of the computer support teams and computer control procedures; (2) file handling procedures for using and storing computer antidumping (AD) files; (3) programming procedures for performing AD database analysis and margin calculations on the PC; and (4) calculation review panel (CRP) procedures for checking computer output. The chapter is divided into two parts, the narrative section and the attachments. The attachments are designed to be used as separate, stand-alone check lists.

I. COMPUTER SUPPORT TEAMS AND COMPUTER CONTROL PROCEDURES

In mid-1995, Import Administration (IA) reorganized its computer operations by reassigning many of the SAS© computer programmers from IA's Office of Information Technology (OIT) to three, newly-formed computer support teams (CST) located in the Office of Investigations, Office of Antidumping Compliance, and Office of Agreements Compliance. In 1996, these CSTs were reassigned to individual DAS offices as part of the reorganization of IA. In addition to bringing programming support closer to the case analysts, the CST's have implemented new computer control procedures for handling, processing, and storing computer files and for improving the accuracy and consistency of computer calculations. To better understand these changes, it is important to know some of the reasons for shifting from a "mainframe computer environment" to a "PC environment."

When the President transferred AD enforcement activities from Customs to the Department of Commerce (DOC) in 1980, case analysts performed AD margin calculations by using calculators, and handwritten spread sheets. In the 1981 carbon steel investigations, a small group from IA's Office of Policy started computer processing operations using SAS© software on the mainframe computer at the National Institutes of Health (NIH) in Bethesda, MD. Subsequently, as computer databases grew in size and the calculations became more complex, Policy's OIT took over responsibility in IA for loading computer tapes, writing and running SAS© computer programs, and providing computer printouts to the case analyst. In 1992, IA shifted most of its computer operations to the DOC's Office of Computer Services (OCS) mainframe computer in Springfield, VA. In addition to mainframe

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computers, IA began work in 1994 to build its part of the ITA LAN network by upgrading existing PCs or buying new PCs. By mid-1994, everyone in IA had a desktop PC with enough processing capability to use PC SAS®.

These computer hardware changes plus IA's budgetary need to reduce expensive, mainframe computer costs resulted in a decision to shift most of IA's computer processing from a centralized computer office of mainframe programmers to a decentralized system where case analysts program on their desktop PCs. Although there are still some cases where the mainframe computer is needed, the desktop PC is the predominant computer platform in all of IA. If necessary, mainframe computer programming can be done by the CST members.

The shift to a PC environment, however, raises concerns about quality control. Previously, computer database and program files were stored at secure locations on the mainframe computer, and a team of experienced SAS® programmers used standard programs to create case and company specific margin calculations. Now, with computer files being stored on individual desktop PCs, the analyst and supervisor or program manager (PM) must ensure that case databases and program files are preserved permanently once an investigation or administrative review is completed. Furthermore, since many case analysts may not use PC SAS® enough to maintain their programming proficiency, there are the added responsibilities of providing case analysts with periodic training to refresh computer skills, with updated standard computer programs, and with procedures for reviewing computer calculations.

The purpose of the CSTs is to meet the needs of case analysts in the PC environment. The CSTs are responsible for developing quality control procedures (file handling and computer programming) and for providing computer training and various technical support services. To help enforce file handling procedures, the CSTs maintain log books to track the location of database and program files. The CSTs promote programming controls by updating the calculation methodologies in the standard programs. Refresher computer training classes are conducted by the CSTs to ensure that case analysts are kept current in their knowledge of the standard programs and computer skills. Finally, the CSTs create quarterly updates of AD exchange rates, serve as liaison to OIT, Customs, and other units, and provide computerized U.S. import statistics.

II. COMPUTER FILE HANDLING PROCEDURES

Computer file handling procedures for investigations and reviews, which are outlined in Attachment 9-1,

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are designed to control the process of receiving respondents' electronic media, processing and certifying the databases on the media, and storing database and program files. These procedures involve interaction between a number of players: the Central Records Unit (CRU), OIT, the three CSTs, and case analysts. CRU, OIT, and the CSTs maintain log books to track the flow of computer media, database files, and tape cartridges.

A. Database Processing and Storage Controls

Database controls consist of procedures for converting respondents' electronic media into usable databases and for certifying all submitted databases to the official case file. When CRU receives a computer submission, it uses the following procedures:

1. Receipt of Respondents' Computer Media

Appendix II of the AD questionnaire requires respondents to submit all computer media to CRU in a separate enclosure from the narrative response. CRU records receipt of the computer submission in its log book; however, nothing from the computer submission enters the official file. Finally, CRU delivers both the computer submission and the narrative response to the case analyst.

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For your reference, the CRU log is posted daily on the IA LAN, currently under s:\ia\crufiles\dailylog.

2. Media Processing and Database Storage

The case analyst must send all electronic media, file formatting instructions, and copies of respondent's printout through the CST to OIT. OIT will process the databases on the media (if necessary), will store the media and copies of the original databases, and will return printouts of the databases through the CST to the analyst for certification.

If the databases are on diskette or tape cartridge and are in usable SAS© or Lotus format, the analyst may decide to load the data onto the desktop PC before sending the media to OIT. In this case, the analyst must first scan the disk for viruses before loading the files onto the PC. Also, be sure to use the sequential database names assigned by OIT rather than respondent's database name. Although Appendix II of the AD questionnaire gives instructions to respondents for naming computer files, it is important to be consistent by using the OIT file names.

3. Certify IA Database to the Official File

The IA printout contains a copy of the first 50 lines of the database, a "Min-Max" Table, and a File Contents List and a data storage form (see Attachment 9-3). The case analyst should compare the IA printout with the respondent's printout for proper formatting and data accuracy. For a complete list of procedures, see Attachment 9-2.

If there are any errors on the IA database, contact the CST for advice. If re-processing is necessary, fill out an ADP Analysis Request form describing the problem, and send the request, a copy of the respondent's printout, and the IA

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printout to OIT through the CST. After re-processing, OIT returns the revised database printout to the analyst through the CST.

When the IA printout matches respondent's printout, prepare the Database Certification memo (refer to Attachment 9-3). The memo consists of the standard cover page with attached copies of respondent's printout and the corresponding pages from the IA printout. Send the Database Certification memo with attachments to the official case file at CRU.

Every database submitted by respondents during a proceeding must be certified to the case file, regardless of whether the database is ever used in AD calculations. Since the electronic media are delivered directly to the case analyst, there is no entry in the official case file of the database submission. Thus, the Database Certification memo serves two purposes: to enter sample pages of each submitted database into the official record and to confirm that the database generated by IA from respondent's media is accurate.

4. Store All Certified Databases on Tape Cartridge

All certified databases used for calculations on desktop PCs must be stored on a tape cartridge. After database certification, the case analyst requests OIT through CST to load the certified database onto the tape cartridge. OIT will return the tape cartridge to the case analyst. Initially, OIT will create a new tape cartridge for each response submitted for processing. Subsequent databases for that respondent should be put onto the same tape cartridge. At the end of the proceeding, therefore, all the databases and program files for a particular respondent will be stored on a single tape cartridge.

B. Program Storage Controls

Program storage procedures are used to send all database and program files on a tape cartridge to OIT for permanent storage (refer to Attachment 9-1). Following a preliminary determination or preliminary results of a review, the case analyst will request that OIT make a copy of the cartridge for storage and return the original cartridge to the analyst for use in the final. After the final determination or final results of a review, the tape cartridge with all files from the preliminary and final will be sent by the analyst to OIT for permanent storage. In case of a clerical error allegation or a court remand, the appropriate tape cartridge will be sent by OIT to the analyst. Once the remand is completed, the analyst will

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transfer all new files onto the tape cartridge and will return the cartridge to OIT for storage.

C. File Handling on the Desktop PC: Using Sytos Plus Software, Tape Cartridges, and Windows' File Manager

In order to implement the file handling procedures described above, it is important to master the use of tape cartridges, Sytos software, and Windows' File Manager. The CSTs conduct training classes to demonstrate the brief instructions given below.

Attachment 9-4, "Using Sytos Plus Software," outlines the two basic uses of Sytos software and the tape cartridges:

1. "Restore" procedure for transferring data from the tape cartridge to the C drive on the PC, and
2. "Backup-append" procedure for transferring data from the C drive of a PC to the tape cartridge.

The outline in Attachment 9-4 is written for Sytos Plus version 1.32, and is intended to illustrate the basic uses of Sytos Plus software. The CSTs will provide more comprehensive training for all versions of Sytos Plus.

It is important that analysts first check the version of Sytos Plus currently installed on their PCs. Part I of this attachment explains how to do this check.

The next section of the outline illustrates the restore procedure for retrieving databases from tape cartridges. It is extremely important that analysts note the destination of the databases copied onto the C drive during the restore process. This information can also

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be found on the label of the cartridge. Once the files have been copied onto the C drive, File Manager can be used to move the files into another directory.

The outline then reviews the backup-append procedure for copying databases and program files onto a tape cartridge. It is extremely important that analysts accurately identify all program files and databases used in the calculations, regardless of whether the files are in PC SAS, Lotus, or some other format. Also included should be any other database that may not have been used in the calculations. Last, the outline explains how to print a label of the contents of the tape cartridge. Properly labeling the cartridge is crucial to final storage of the cartridge with OIT and will be of utmost importance for later retrieval.

Use File Manager to organize work areas on the C drive. Create a separate directory for the databases and the programs. A suggested path structure is as follows:

For databases: C:\SAS\CASE NAME\CO NAME\SDS\Ex: (C:\SAS\PASTA\ARRIGHI\SDS\

In this example all Arrighi databases would be stored in this location.

For programs: C:\SAS\CASE NAME\CO NAME\PRG\Ex: (C:\SAS\PASTA\ARRIGHI\PRG\

In this example all programs for Arrighi would be stored in this location.

To create subdirectories using File Manager, do the following:

1. Click on the C drive and SAS subdirectory
2. Select File / Create Directory
3. Enter the names of your subdirectories with a back slash (\) between them

Once the work areas have been created, use File Manager to move the databases from their current location to the newly created areas.

To move files, do the following:

1. Highlight the files to be moved (use Shift to select 2 or more)
2. Select File / Move

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3. Type the name of the desired location and select OK

III. PROGRAMMING PROCEDURES

The basic elements of the new PC programming procedures for investigations and reviews are validated databases, proper calculation methodologies, the best computer platform, and standard programs. The purpose of the procedures is to improve the accuracy and consistency of computer calculations. Calculation accuracy occurs when a program has been thoroughly checked. Accuracy is a function of both using validated databases in standard programs and checking calculations for computational and substantive correctness. Calculation consistency occurs when every program uses the same standard calculation methodology. Consistency is achieved by insuring that the standard programs conform with current AD calculation methodology and by providing training to maintain AD concepts and computer skills.

A. Validate Database for Use in AD Calculations

After database certification, the case analyst must compare the variables of each certified database with the information in the narrative response to see if the data accurately reflect the instructions in the AD questionnaire. This process is of critical importance. If variables are coded wrong or are not entered according to AD specifications, the database may not be usable for AD purposes.

It is important to examine two aspects of each variable. First, inspect the values of the variable to see if the values follow the instructions in the questionnaire. For example, examine the values of the product characteristics to confirm that they follow the questionnaire, or make sample calculations of imputed credit or inventory carrying charges to check calculation accuracy. Second, examine the relationship, if any, of the variable to other variables in the database. For instance, check the affiliation and customer category of each customer, or look for payment dates that precede shipment dates.

Check the data and the narrative response for special groups of sales that, for example, are outside the scope or are out of the **ordinary course of trade**. Examine the per-unit price adjustments as a percent of gross unit price to find out the relative importance of each adjustment. Compare the total number of sales, total quantity, and total gross value from the database to the questionnaire.

Many of the computer techniques for data validation are contained in Attachment 9-5, "Database

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Validation Procedures for SAS© Databases.” Although this attachment is written for PC SAS© data, the concepts can be applied to other types of databases.

Throughout this process, the case analyst should make a record of all special database changes or variable re-calculations. At the end of this process, the case analyst, program manager, and CST members, if appropriate, should decide whether the database is valid for use in AD calculations or if supplemental data is needed.

B. Prepare Calculation Methodology for Use in Programming

As anyone who has ever completed a complex PC SAS program can testify, it is important to know the calculation methodology before starting to program. The computer run request form from previous mainframe programming days has been eliminated. At this point, however, the CSTs have not developed a PC version of the run request. Responsibility for developing the calculation methodology rests with the case analyst and the program manager.

C. Select the Best Computer for Processing the Size of the Databases

Based on our experience with the computer equipment at hand, the CSTs strongly recommend selecting the best computer based on the combined size of the U.S. database plus the appropriate **home market** or third country database. Since PC SAS uses the available space on the C-drive of the PC, a secondary factor to consider is the amount of available space on the hard drive.

Computer Platform	Combined Size of US Plus HM or TC Databases
PC-486	0 - 50,000 Observations
Pentium	50,001 - 100,000 Observations
OCS Mainframe	Over 100,000 Observations

D. Using the Standard PC SAS Programs

There are three standard PC SAS programs: arm’s-length test, concordance (or model match), and AD

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margin programs. These three programs have been developed over time by the CSTs and incorporate the current AD methodology. Although the standard programs have been designed to cover as many situations as possible, some tailoring is always needed to account for the vagaries in different databases or calculation methodologies. A full explanation of each of these programs, including SAS programming techniques and AD methodologies, is not possible in this chapter. The CST, however, will cover the programming techniques in, and calculation methodologies of, the standard programs in special training sessions.

Attachments 9-6 and 9-7 cover some of the key points to remember when checking the AD concordance and AD margin programs, respectively. These points are mostly computer programming areas, not methodological or substantive areas. The CSTs will hold training classes on AD programs to demonstrate the computer skills needed to run the programs and the calculation methodology built into these programs.

IV. CALCULATION REVIEW PANEL (CRP)

All preliminary and final Federal Register (FR) notices and memos should be in the office of the Assistant Secretary for IA at least seven calendar days prior to the due date of the determination (always check with your supervisor or PM to determine if this or some other time frame is currently in effect). During this seven-day period, the CRP convenes to review all calculations included in the determination. At the conclusion of this review, the CRP must draft a memo for the relevant office director (OD) explaining its findings. This memo should be to the OD within one business day of the conclusion of the review.

A. CRP Staffing and Procedures

The CRP chairman (a rotating position among the PMs on a six-month basis in some offices) selects a panel (designating one as panel head) and notifies the office director, PM, and panel of the selection. The size of the panel can vary depending on the type of case involved. If there is sufficient time prior to the CRP, the case analyst, in consultation with the PM, should arrange an internal review panel utilizing case analysts from within the program.

B. Case Analyst Responsibilities

The case analyst should be prepared to explain all elements of the calculations and to tie the numbers to

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source documents. The case analyst should also be prepared to tie the total quantity and value used in the weighted-average margin calculation to the totals reported in the response to section A of the questionnaire and the **verification** report. The case analyst is also required to explain any dropped sales. If the Office of Accounting is involved, the accountant must attend the review panel. Always advise your supervisor or PM of the time and place for the panel.

The case analyst must provide the following documents for use by the CRP in advance of the CRP convening:

1. copies of the concurrence memo (“analysis” memo in some offices);
2. the portion of the FR notices which describes comparison methodologies (“Fair Value Comparisons” section of the FR for investigations) ; and
3. copies of the computer program (log and output) for each analyst on the panel.

The case analyst must bring the following documents to the CRP:

1. responses;
2. **verification** report; and
3. sample printouts of the databases submitted by the respondent.

C. CRP Responsibilities

Panel members must read the FR notice and concurrence memo to understand the methodology used in the calculations. The panel members should complete the following assignments during the calculation review:

1. make sure that the programs are using the right databases;
2. check the printout submitted by respondents against the DOC printout of the tape to make sure that the right variable names are being used in the programming;
3. review LOTUS and PC SAS programs to ensure calculation methodology is correct;
4. check product matches and examine the basis for identical or like comparisons (if

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- necessary) to ensure appropriate products are compared;
5. check individual calculations on the printouts to ensure that all programmed additions, conversions, etc. are occurring the way the program calls for them;
 6. examine a large sample of source documents to ensure proper methodology in making computations;
 7. for an investigation, check all weighted-average margin calculations for individual companies and the all other company rates. For a review, check the calculation of the new cash deposit rate, several individual margin calculations for export price (EP) sales, and the overall margin calculation for **constructed export price** (CEP) sales, if appropriate. Also check to see that appropriate margins are specified for companies not seeking a review; and
 8. check to ensure that the calculation methodology reflected in the computer programs is consistent with FR language describing the calculation of EP, CEP, and normal value.

D. CRP Errors Correction

All errors discovered by the CRP must be discussed with the supervisor or PM, case analyst and panel leader in attendance. All adjustments to calculations for errors found must be reviewed by the panel. Once the calculations are approved by the panel, the results are reported to the CRP chairperson, the appropriate office director and the director of the Office of Accounting (as appropriate). The panel leader must then complete a memo to the office director stating that the panel was completed and identifying the errors noted and corrected.

DATA SUBMISSION, COMPUTER PROCESSING, AND CALCULATION REVIEW**Attachment 9-1****Summary of Computer Control Procedures**

1. Database Processing and Storage Controls
 - a. Receipt of Respondent's Electronic Media
 - i. Respondent's media are delivered to CRU.
 - ii. CRU logs and delivers the media to the case analyst.
 - b. Media Processing and Database Storage
 - i. Analyst sends media, format sheets, and respondent's printout through CST to OIT.
 - ii. OIT processes the media, saves the databases, and sends a printout of the databases through CST to the case analyst.
 - c. Certify IA Database to Official Case File
 - i. Analyst checks IA printout with respondent's printout for format and data accuracy.
 - ii. If necessary, database corrections are sent through CST to OIT for re-processing.
 - iii. Otherwise, case analyst prepares and sends "Database Certification Memo" to the official case file.
 - a. Store Certified Databases on Tape Cartridge
 - i. Case analyst requests through CST that OIT load the certified databases onto the tape cartridge.
 - ii. OIT returns the tape cartridge through CST to the case analyst.
2. Program Storage Controls
 - a. Preliminary Determinations or Results
 - i. Analyst transfers all database and program files onto the tape cartridge and sends the cartridge through the CST to OIT.

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- ii. OIT stores the tape cartridge and sends a duplicate tape cartridge with all files through CST to the case analyst for use in the final.
 - iii. Analyst sends paper copies of all program files to CRU for the official case file.
- b. Final Determinations or Results
- i. Analyst transfers all database and program files onto the tape cartridge and sends the cartridge through the CST to OIT.
 - ii. Analyst sends paper copies of all program files to CRU for the official case file.
- c. Remand Determinations or Clerical Error Corrections
- i. Duplicate tape cartridge is sent from OIT through CST to case analyst.
 - ii. Case analyst transfers all database and program files onto the tape cartridge and sends the cartridge through the CST to OIT.
 - iii. Analyst sends paper copies of all program files to CRU for the official case file.

DATA SUBMISSION, COMPUTER PROCESSING, AND CALCULATION REVIEW**Attachment 9-2****Database Certification Procedures**

Once you receive your database, the first step is to certify the accuracy of the database. This outline describes techniques for checking IA databases for proper format and data accuracy.

1. Check the IA Printout with Respondent's Printout
 - a. To generate a printout of a SAS computer database, use the PROC PRINT procedure in SAS to get a printout of the first 50 observations in the database.

```
PROC PRINT DATA=filename (OBS=50);  
TITLEn 'FIRST 50 SALES OBSERVATIONS (filename)'; RUN;
```

- b. Check that all variables on respondent's printout are in the IA printout. In general, it does not matter whether the variables are in the same order. The number of variables in each database must match.
 - c. Find corresponding lines in each printout, and check the values of each variable in those lines. Check five to ten different lines of data for accuracy, making sure that all character values are fully displayed and that all decimal places are shown.
 - d. It is important that the variable names in the IA printout clearly represent the true meaning of the variable. If it is necessary to rename a variable, use the RENAME option in SAS rather than reprocessing the database in OIT.

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- e. Consult with the computer support team before resubmitting the database for reprocessing with OIT.
2. Prepare the Database Certification Memo for the Official Case File
 - a. Once the IA printout matches respondent's printout, fill out the attached cover sheet of the Database Certification Memo. Attach to the cover sheet a copy of each IA printout and the matching copy of respondent's printout.
 - b. The Database Certification Memo serves two purposes:
 - i. To put copies of the databases into the official case file, and
 - ii. To confirm that the IA printout, generated from respondent's electronic media, matches respondent's own printout.

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Attachment 9-3

Database Certification Memo

Case Number: _____
Inv ___ **POR** _____ / _____
Business Proprietary for
Official File Only

Date: _____

Analyst: _____

Program Manager: _____

IA Unit: _____

Product: _____

Country: _____

This memo certifies that the Department received from _____ the following electronic media containing the noted databases. Attached are sample sales transactions produced by the Department, along with the corresponding sales transactions of respondent's printout. Public versions of these databases exist on record as provided by respondent in their narrative submission.

Media Received: _____ **Media Type:** 9-track Tape / Tape Cartridge / Diskette

Attachment 9-4

DATA SUBMISSION, COMPUTER PROCESSING, AND CALCULATION REVIEW**Using SYTOS PLUS Software (DOS Version 1.32)**

1. Enter Sytos Plus from the Direct Access Menu and Determine the Sytos Plus Version
 - a. From the IA LAN Menu, select the [MS DOS Prompt] icon. At the “H:\” prompt, type “MENU,” press [ENTER] twice to arrive at the Direct Access Menu, and select [Tape Backup] to enter the Sytos Plus Main Menu.
 - b. To see which version of Sytos Plus is being used, select [Procedures]-[About Sytos Plus] from the Sytos Plus Main Menu, check the version, and press [ESC=CANCEL] to return to the Main Menu. The instructions below are for version 1.32. If you have another version, contact the Computer Support Team.
2. RESTORE Procedure - Transfer Data from Tape Cartridge to C-Drive on PC
 - a. From the Sytos Plus Main Menu, select [Procedures]-[Load]-[Full Restore] to choose the restore procedure, and select [F2=OK] to enter the Restore Procedures screen.
 - b. To transfer all files from the tape cartridge to the C-drive, go to step 2c below. To transfer selected files from the tape cartridge to the C-drive, do the following:
 - i. Select [Source Files] from the Restore Procedures screen. If the message, “This Volume is not in the Volume Utility” appears, select [F2], which allows Sytos to add the name of the volume to the Volume List.

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- ii. In the Source Files screen, select the appropriate drive on the tape cartridge.
 - iii. Press the Space Bar key until the “Not Selected” status marker appears.
 - iv. Select [F5-Directory] to see the Directory Tree of all sub-directories on the cartridge drive. Highlight the appropriate sub-directory.
 - v. Select [F5-Files] to display all the files on the sub-directory. For each needed file, press the Space Bar key until the “Selected” status marker appears.
 - vi. Select [F2-OK] three times to return to the Main Menu.
 - c. To transfer all or selected files from the tape cartridge onto the C-drive on the PC:
 - i. Select [F6-Run Procedure] from the Sytos Plus Main Menu.
 - ii. During this process, the “Restore” screen appears, showing the location and names of all files that were copied onto the C-drive of the PC.
 - iii. When the files are copied to the C-drive, the “Final Status” screen appears. Select [F2-OK] to return to the Sytos Plus Main Menu.
3. BACKUP Procedure - Transfer Data from the C-drive of the PC to the Data Cartridge for Storage
 - a. From the Sytos Plus Main Menu, select [Procedures]-[Load]-[Incr Backup-Append] to choose the backup procedure, and select [F2-OK] to enter the Backup-Append screen. Backup-Append copies additional files to the blank, unused part of the tape and, thus, avoids over-writing any files already stored on the tape cartridge.
 - b. To transfer all files from the C-drive of the PC to the tape cartridge, go to step 3c below. To transfer selected files from the C-drive to the tape cartridge, do the following:
 - i. Select [Source Files] from the Backup-Append screen.
 - ii. In the Source Files screen, select the appropriate PC drive and press the Space Bar key until the “Not Selected” status marker appears.
 - iii. Select [F5-Directory] to see the Directory Tree of all sub-directories on the PC drive. Highlight the appropriate sub-directory.
 - iv. Select [F5-Files] to display all the files on the sub-directory. For each needed file,

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- press the Space Bar key until the “Selected” status marker appears.
- v. Select [F2-OK] three times, to return to the Main Menu.
- c. To transfer all or selected files from the C-drive onto the tape cartridge:
- i. Select [F6-Run Procedure] from the Sytos Plus Main Menu.
 - ii. The “Backup” screen appears, showing the locations and names of all files that were copied to the unused, blank part of the tape cartridge.
 - iii. When the files are appended onto the tape cartridge, the “Final Status” screen appears. Select [F2-OK] to return to the Sytos Plus Main Menu.
- d. To print a hard copy list of the files on the tape cartridge (“Tape Cartridge Log”):
- i. Select [Utilities]-[Volumes] from the Sytos Plus Main Menu.
 - ii. In the Volume Utilities screen, highlight the volume name of the tape cartridge.
 - iii. Select [F8-View] to displays a copy of the Tape Cartridge Log.
 - iv. Select [R4-Print] to access the Print screen.
 - v. In the Print screen, highlight “The Printer,” and press [F2-OK] to print the log.
4. Exit Sytos Plus
- a. To exit Sytos Plus, select [F3-Exit] from the Main Menu. If the message, “The Current Procedure has been edited but has not been saved,” appears, select [F2] to exit.

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- b. At the Direct Access Menu, press [F10] and type "FORCE" to exit.
- c. At the DOS prompt, type "EXIT" to return to the IA LAN.

DATA SUBMISSION, COMPUTER PROCESSING, AND CALCULATION REVIEW**Attachment 9-5****Database Validation Procedures for SAS Databases**

After certifying the database to the official case file, the next step is to validate the contents of the database using the AD questionnaire, respondent's narrative response, and computer checks for internal consistency. The validation procedures will show whether the database is usable for AD calculations or whether a supplemental database is needed.

1. Check Database for Dates Outside the Period and Negative Quantity or Price
 - a. The first check of the database is to find out if all the sales are within the **period of investigation** or **period of review** and whether there are any sales with zero or negative values for quantity or gross unit price.
 - b. For a database containing sales during January-December 1999 and with quantity (QTYU) and gross unit price (GRSUPRU) variables, the following SAS code will check for negative values of quantity or price and for dates outside the period:

```
DATA US NEGDATA OUTDATES;  
SET filename;  
IF QTYU LE 0 OR GRSUPRU LE 0 THEN OUTPUT NEGDATA;  
ELSE IF '01JAN99'D LE [date] LE '31DEC99'D THEN OUTPUT US;  
ELSE OUTPUT OUTDATES; RUN;
```

NOTE: In **administrative reviews**, there may be cases for which you should not delete transactions with dates outside the **period of review**. Always check with your supervisor or PM to confirm whether it is appropriate to delete such sales from your database.

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- c. If there are no negative or zero values for quantity or gross unit price, then the database, NEGDATA, will have no observations. Likewise, if there are no dates outside the period, then the database, OUTDATES, will have no observations.

2. Check General Database and Variable Characteristics

- a. The general characteristics of a SAS database can be found on a File Contents List, which is created by using the PROC CONTENTS procedure in SAS. For each SAS database, the File Contents List shows specific characteristics for the entire database, such as the total number of observations and variables and for the variables, the “attributes” of each variable. The attribute of a computer variable refers to whether the data values of the variable are defined as numeric data or as alphanumeric (that is, character) data.
- b. The SAS code for creating the File Contents List:

```
PROC CONTENTS DATA=filename;  
TITLEn 'FILE CONTENTS FOR filename';  
RUN;
```

- c. Use the File Contents List, the IA printout, and the narrative response to do the following:
 - i. Total number of observations and total number of variables in each database.
 - ii. Check that the product control number (“CONNUM”) and product characteristics are the same attribute in every database (sales, cost, and **constructed value**). It is not important that these variables are numeric or character, but it is important that they have the same attributes in each database for SAS merging purposes.

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- iii. Check that the quantity, gross unit price, and price adjustment variables are in numeric format.
 - d. As an alternative to creating a printed File Contents List, use the Libraries icon on the SAS Menu bar. This will produce a quick, on screen “File Contents List” which can be used in the same way as the File Contents List.
3. Check Numeric Variables
 - a. The Min-Max Table, which is created by using the SAS PROC MEANS procedure, lists all numeric variables in the database. For each variable, the list shows the number of observations with numeric values (N), the number of observations with missing values (NMISS), the minimum value (MIN), maximum value (MAX), and average value (MEAN).
 - b. The SAS code for creating a Min-Max table:

```
PROC MEANS DATA=filename N NMISS MIN MAX MEAN;  
WEIGHT QTYx; TITLEn 'MIN-MAX TABLE FOR ALL NUMERIC  
VARIABLES (filename)'; RUN;
```
 - c. Use the Min-Max table to check for:
 - i. Each variable will have a value for N and NMISS. If NMISS = 0, then the value for N will be the total number of observations in the database. If NMISS is greater than zero, then the sum of NMISS and N will equal the total observations. Missing values for numeric variables, represented by a single dot in the database, are different than zero values. The AD questionnaire instructs respondents to place a zero, not a missing value, for numeric variables which are not applicable. A numeric variable which contains numbers as well as missing values can cause serious programming errors in SAS.
 - ii. If you use the “WEIGHT QTYx” statement in PROC MEANS, then the MEAN will be weight-averaged by the QTYx variable. If you omit “WEIGHT QTYx,” then MEAN will be a simple average.

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- iii. The quantity and gross unit price variables must have minimum values that are positive. Negative or zero minimum values indicate that there probably are returned sales which, by definition, are not in the **ordinary course of trade**.
- iv. SAS dates will appear on the Min-Max table as “date numbers” rather than as formatted character dates (such as 01 JAN 99). The reason for this is that SAS uses calendar date “values” by converting dates to integers representing the number of days between January 1, 1960, (date value equal zero) and the specified date. To see if any sales are outside the period, refer to section 4 of this outline.
- v. The price adjustment variables (including **discounts**, **rebates**, movement charges, direct selling expenses, indirect selling expenses, and packing expenses) can have zero or positive minimum values. Zero values indicate that there was no charge for certain sales, which is normal for some sales.
- vi. In general, **cost of production** and **constructed value** variables must have positive minimum values. Zero minimum values may be acceptable, but negative minimum values are not. Consult with the case accountant when zero or negative minimum values occur in COP or CV databases.

4. Check Character Variables

- a. To check the values of any SAS character variable, use the PROC SUMMARY procedure in SAS. Unlike PROC MEANS, which requires numeric calculations, PROC SUMMARY can produce the various combinations of character variables without, for example, having to calculate the quantity for each group.

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- b. Character data are commonly found among the product characteristics variables. Knowing which character values have been used as product characteristics will reveal the product mix of the **home market** or U.S. sales.
- c. The SAS code for creating a sequential list of all the values in CHAR1 and CHAR2:

```
PROC SORT DATA=filename;  
BY CHAR1 CHAR2;  
PROC SUMMARY NOPRINT DATA=filename;  
BY CHAR1 CHAR2;  
OUTPUT OUT=SUMMCHAR (DROP=_FREQ_ _TYPE);  
PROC PRINT DATA=SUMMCHAR;  
TITLEn 'ALL VALUES FOR PRODUCT CHARACTERISTICS  
(filename)';  
RUN;
```

- d. Check the values in the printout with the AD questionnaire to see if respondent used the correct character codes or if the respondent added any additional codes. Examine the corresponding product characteristic codes in the **home market**, third country, and U.S. databases to insure that the codes are identical and consistent. If new codes are used, check the narrative response for definitions of the new codes. Once this information has been checked, then the product concordance program can be started.
5. Compare Total Quantity and Value in Database and in Section A Response
 - a. After checking for dates outside the period and for negative quantity or price, it is important to compare the total quantity and value of the database sales with the Section A totals in the narrative response.

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- b. The SAS code to calculate the total quantity and value of each CONNUM and for the entire database:

```
PROC SORT DATA=filename;  
BY CONNUM;
```

```
PROC MEANS NOPRINT DATA=filename;  
BY CONNUM;  
VAR GRSUPRU;  
WEIGHT QTYU;  
OUTPUT OUT=TOT (DROP=_FREQ_ _TYPE_)  
N=SALES SUMWGT=TOTQTY SUM=TOTVALUE;
```

```
PROC PRINT DATA=TOT;  
SUM SALES TOTQTY TOTVALUE;  
TITLEn 'TOTAL SALES, QTY, AND GROSS VALUE (filename)';  
RUN;
```

- c. The output will give the total number of sales, total quantity, and total gross value for each CONNUM along with the grand totals for all sales at the bottom of the listing.

DATA SUBMISSION, COMPUTER PROCESSING, AND CALCULATION REVIEW**Attachment 9-6****Tips for Checking the AD Concordance Program**

Section of Program	Comment
Titles	Ensure that your program is properly titled.
1. Create A Database Of All Unique US Connum & Product Characteristics With VCOMU & TCOMU	<p>Ensure that the latest US database is used in program.</p> <p>Ensure that the product characteristics are correct and note type and length of each.</p> <p>Ensure that each connum represents a unique set of product characteristics and costs.</p> <p>If applicable, ensure that the latest CV database is used and carefully review CV data.</p>
2. Create a Database Of All Unique HM Connum & Product Characteristics With VCOMH	<p>Ensure that the latest HM database is used in program.</p> <p>Ensure that the product characteristics are correct and note type and length of each.</p> <p>Ensure that each connum represents a unique set of product characteristics and costs.</p> <p>If applicable, ensure that the latest COP database is used and carefully review COP data.</p>
3. For Each US Product, Keep All HM Products That Are Within The 20-Percent DIFMER Test.	Ensure that any revised variables are used in DIFMER and DIFPCT equations.

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Section of Program	Comment
Titles	Ensure that your program is properly titled.
4a. Convert US and HM Product Characteristics To Numeric Codes	Ensure accurate number and length of variables used. Ensure accurate assignment of product characteristics.
4b. Calculate US-HM Differences And String Together As DIFCODE	Ensure accurate assignment of product characteristics. Ensure accurate length of DIFCODE. Ensure accurate variables names are used in KEEP statement.
5. For Each US Product, Select The Best DIFCODE With The Lowest DIFPCT.	Proc Sort arranges the matches for selection.
6. Identify US Product(s) Which Have No Concordance Product	These products would have CV comparisons.
7. Create The Concordance Database	No Comment.
8. Output A Permanent SAS Concordance File	Ensure proper naming of permanent data set on both the Data Step and the Proc Print statement.

DATA SUBMISSION, COMPUTER PROCESSING, AND CALCULATION REVIEW**Attachment 9-7****Tips for Checking the AD Margin Calculation Program**

Section of Program	Comment
Titling	Ensure that your program is properly titled.
Exchange Rates	Ensure that the new AD Exchange Rates are used and that the appropriate investigation/review rate is selected.
PART 1: FOREIGN SALES	Ensure that the latest HM database is used in program. Ensure that any HM sales which failed the Arm's Length Test are deleted. Carefully review NETPRIH and NPRICOP price strings and note currency of each variable.
PART 2: COST TEST	Ensure that the latest COP database is used in program. If applicable, carefully review RCOP equation. Note name of CONNUM variable on COP database for merge with HM database.
PART 3: WEIGHTED- AVERAGE Normal values	Ensure that all relevant variables are included in each weighted-average. Ensure that the title of each weighted-average output is correct. Ensure the weighted-average CV reflects the proper CV averages.

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Section of Program	Comment
Titling	Ensure that your program is properly titled.
PART 4: CONCORDANCE FOR MATCHING FOREIGN AND U.S. PRODUCTS	Ensure that the correct concordance file is used in program. Ensure that there is processing on each of the weighted-average normal values database. Ensure that the title of each weighted-average concordance output is correct.
PART 5: NET U.S. PRICE	Ensure that the latest U.S. database is used in the program. Carefully review NETPRIU price string and note currency of each variable. Ensure that the respective U.S. variables are used in the weighted-averages as in Weighted-Average Normal values . Ensure that the title of each weighted-average output is correct.
PART 6: PRODUCT MATCHING	Ensure that the DROP statement on each of the Data Steps reflects variables names used in Weighted-Average Normal values outputs. Review FLAG assignment within each of the Data Steps
PART 7: Constructed value	Ensure that the latest CV database is used in program. Review CV equation.

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Section of Program	Comment
Titling	Ensure that your program is properly titled.
PART 8: OFFSET AND MARGIN CALCULATIONS	Note currency of all variables used in FUPDOL. Ensure proper FLAG assignments are used for printing. Ensure that the title of each matching group is correct.