## Veterans Personal Finance System (VPFS)

# VistAMigrate Data Migration Guide

Version 1.0



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U.S. Department of Veterans Affairs Health Systems Design & Development

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## **History of Revisions**

ii

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#### **About This Document**

## **Document Purpose**

The purpose of the VistAMigrate Data Migration Guide is to provide a step-by-step guide to the data migration process. The document provides instructions for the entire migration process from installing any MUMPS (M) patches required for running data diagnostics to finalizing the migration on the Java side.

#### **Document Audience**

The audience for this document includes:

- All stakeholders with a role to play in data migration
- Local Information Resource Management (IRM) and Automated Data Processing Application Coordinator (ADPAC)
- Enterprise Management Center (EMC), Enterprise VistA Support (EVS) and National Training and Education Office (NT&EO)

#### **Conventions Used in this Document**

Format	Indicates
bold	A control that you click, such as a button, icon, or link, or a field label.  Example: Click <b>Deploy</b> .
Courier - normal	Text that appears on the screen or in a log file.  Example: Table created.
Courier - bold	Text that you type.  SQL> quit
<pre><courier> italic and enclosed in angle brackets</courier></pre>	A variable that you replace with the specified text  Enter password: <sysdba password=""></sysdba>

#### **Additional Resources**

For additional documentation, go to the VHA Application Modernization website:

http://vista.med.va.gov/migration/index.htm

## 1. Overview of VistAMigrate

The Department of Veterans Health Administration (VHA) is in the process of reengineering a number of legacy applications, moving from the MUMPS-based Veterans Health Information Systems and Technology Architecture (VistA) environment to the Veterans Affairs (VA's) standard modern environment, which includes Oracle for the database environment and The Java 2 Platform, Enterprise Edition (J2EE) for the application software environment. The redesigned applications will use the Oracle database and the BEA WebLogic Application Server, built using the J2EE open source platform running on Red Hat Linux servers. The database will be centralized for all facilities at the VAEMC, and applications will be accessible via a secure, 508-compliant Web browser front end.

VistAMigrate is the tool that VPFS (Veterans Personal Funds System) can use to migrate current demographic data from VistA legacy to reengineering applications. VistAMigrate includes reports that you use to analyze your production data in preparation for migration. After you have thoroughly analyzed and cleaned your data, you can cut over to the production environment. After cutover, you will still be able to access VistA legacy for reporting purposes and to view historical information; but you will not be able to make changes to data in the legacy system.

## 2. Preparing to Migrate Data from PFOP to VPFS

#### 2.1 Overview

VPFS is the mini-banking system used to manage the accounts of VHA patients in the VHA hospital system. VPFS replaces the Personal Funds of Patients (PFOP) system that was used previously. VPFS looks different from PFOP because it is a web-based application; however, its design and functionality are modeled after PFOP. You can perform all of the functions in VPFS that were available in PFOP, with the exception of a few functions that are no longer needed because of the new built-in security controls.

One of the major changes is that VPFS is a centralized system. With PFOP, each site used a stand-alone copy of the software and there were differences between local versions, such as data structures, business rules, etc. With VPFS, all sites access the same centralized application using a web browser over the VHA secure Intranet. VPFS stores all data for all sites in one centralized database. Access to the data in the database is controlled by security software that limits access according to your VistA site and user role

Data that is migrated from the PFOP to the VPFS include: patient name and identifying information, patient type and status, account limits, balance, and other related information. The balance from each existing PFOP account will be carried forward as a single transaction (BALCARFWD) to start each new VPFS account. All deferred transactions will also be migrated.

To get the balance information, the migration process will automatically insert a record based on an extract of current balance and associated data. If the migration is being performed from a manual system, the Patient Funds Clerk (PFC) can perform a deposit transaction (using the defined process for moving from a manual system to VPFS). From this point of view, it is not necessary to migrate more than current data. However, since at the time of cutover there may be transactions with deferral dates (so that their amounts are not included in the Total Available until these deferral dates are reached), all deferred transactions will be brought over.

**Note**: Go to PFOP to review past transaction history. The transaction history in VPFS will begin with the migrated transactions and the initial balance carried forward.

Some of the data that is displayed in VPFS comes from other files and cannot be updated through VPFS:

- Patient File Data: Address, Guardian information, date of birth, SSN, Claim Number, etc. are provided by the Patient File and refreshed with the most current information each time you access VPFS. Changes to patient file data must be made at the source in the Patient File.
- **Standard Data Service (SDS)**: The standard State list, Country list, and Institution list are provided by SDS. Changes to these standard lists must be made by the SDS group.

## 2.2 Flow of Data through VistAMigrate

The following diagram shows the flow of the data from M through VistAMigrate and into the Oracle production tables.

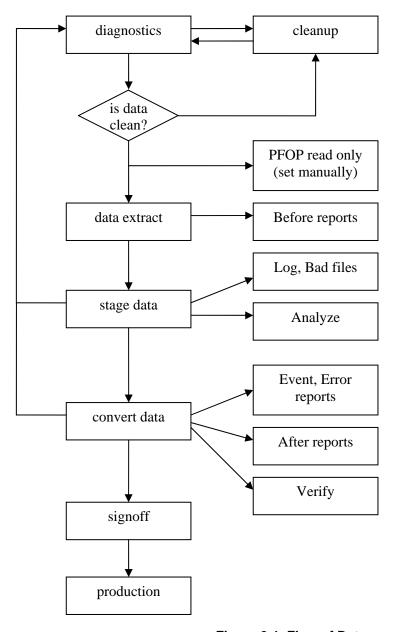


Figure 2-1. Flow of Data

## 2.3 Groups/Roles in Data Migration

Individuals from a number of different groups have roles in the data migration, both for field testing and for the national rollout. These groups and roles are described in the following table:

Table 2-1. Groups and Roles

Group	Role
Field Test Site	<ul> <li>Various resources:</li> <li>Champion (site "owner": supervise local activities)</li> <li>Business users (cleanup data)</li> <li>Local IRM / Site Manager (set up VistA User Accounts for use by Authentication and Authorization service)</li> <li>Local fiscal staff (participate in evaluation of migrated data)</li> </ul>
Project team	<ul> <li>Development owners of the application:</li> <li>Responsible for support through field testing</li> <li>Drive field testing</li> <li>Responsible for all preparations for implementation through field testing</li> </ul>
Project Implementation Office (PIO)	<ul> <li>Provide coordination between the EMC hosting site, EVS, Health Systems Design &amp; Development (HSD&amp;D), and the local sites.</li> <li>Notify the hosting site of scheduled deployment dates.</li> <li>Work with the NT&amp;EO</li> <li>Participate in pre-testing activities in order to provide advice and get familiar with the project to plan for post-testing activities.</li> </ul>
Hosting Site and EMC	<ul> <li>Provide and maintain the hardware.</li> <li>Provide and maintain the software environment.</li> </ul>
EVS	<ul> <li>Provide advice and support in pre-testing activities (e.g. candidate site contacts)</li> <li>Ongoing support of the post-testing project</li> <li>Participate in pre-testing activities in order to provide advice and get familiar with the project so as to plan for post-testing activities</li> </ul>
National Training and Education Office (NT&EO)	<ul><li>Training oversight</li><li>Training plan and materials oversight</li></ul>
Technical Support Office (TSO)	<ul> <li>Technical assistance for data cleanup</li> <li>Provide training for VistAMigrate</li> <li>Coordinate with the sites to complete the migration</li> </ul>

## 2.4 Preparation Checklist

The data migration process involves a number of steps that begin well before the actual cutover. Tasks to perform prior to the beginning of data cleanup are listed in the table below, which can be filled in for each site and used as a checklist.

**Table 2-2. Preparation Checklist** 

Task	Assigned To	Due Date	Comments
Identify roles:  Who is the data owner for the site?  Who will be responsible for the data cleanup?  Who will participate in the data cleanup?  Who will support data cleanup?  Who will ensure that the appropriate staff members have access to the Diagnostic Routine on the PFOP Menu?			Although one person will be primarily responsible for ensuring that the data is properly cleansed, many others may participate in the actual cleanup. These people should be subject matter experts who are familiar with what data is valid, and who know the business rules.  Since there is one centralized database and one centralized application server, local IRM do not have to support the actual application. But, they will be critical in supporting the M patch that runs the diagnostic routine and in providing access to it.
Identify staff filling each of the above roles.			The person performing this task must have the authority to commit staff resources to specific data cleanup tasks.
Hold a site stakeholders' meeting, including all above staff.			This meeting is to explain what each role is supposed to do, to provide training in the process and tool, and to review the data migration schedule for the site.
Train participating site staff.			Training includes how to perform the data cleanup.
Review the current state of the data.			Identify any special problems or issues that will have to be resolved during cleanup.

Task	Assigned To	Due Date	Comments
Review the detailed schedule for cleanup.			
Determine how normal functioning will be affected by the data migration dates.			For example: Will this affect the reconciliation process?
Perform detailed contingency planning in the event of a data migration failure.			
Decide on the site's data migration error reporting and notification process.			
Install Diagnostic Patch 15 on the local VistA legacy application to be used to perform data cleanup.			This step must be performed by local IRM or the ADPAC staff.
Install Migration Patch 16 on the local VistA legacy application to be used to perform the data extract when cleanup is complete.			The Extract will be executed from the VistAMigrate tool, not from the local VistA application menu.  This step must be performed by local IRM or the ADPAC staff.
Install Patch 17, which locks down the VistA legacy application.			This step must be performed by local IRM or the ADPAC staff.
It is highly recommended that you set up a Data Migration binder for your site and ensure that all persons involved understand the use of the binder.			This binder is very important because it will contain the history of your data migration (such as the Diagnostic reports and documentation of error corrections).

## 2.5 Patient Funds Data Migration Process

Before deploying reengineered applications, each site cycles through the data migration steps shown in Figure 2-2:

- The diagnosis / cleanup process (shown in yellow) is performed in the M environment a number of times to ensure that data is clean and ready for migration.
- The steps in the reengineered environment (shown in white) are performed using the VistAMigrate software tool. You can restart the data migration process at any point and go back to the M environment to clean up data as long as you have not performed the final step.
- The final step (shown in blue) moves the data into the production tables in the new environment. At this point the site begins to use the reengineered application for all data entry. Patch 17 is installed in the M environment to lock data entry in the legacy application. Reporting functions remain available for auditing purposes.

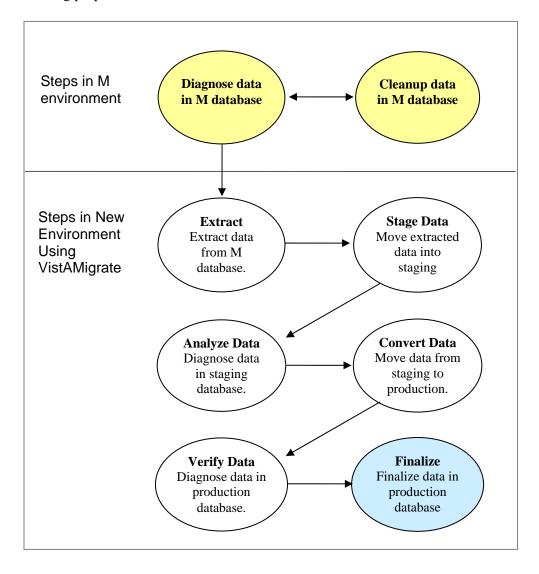


Figure 2-2. The Data Migration Process

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## 2.6 Data Migration Task Assignments

You may want to use the following table to record data migration task assignments, due dates, and comments.

**Table 2-3. Data Migration Task Assignments** 

Task	Assigned To	Due Date	Comments
Run the Diagnostic routine and perform data cleanup in the M environment.			
Document results of each run and store results in a binder.			
When data is sufficiently clean, obtain sign-off on readiness to migrate the data.			
Run the M Diagnostic step.			
Run the M Extract step			
Run the Stage Data step.			
Run the Analyze Data step.			
Using the Analyze report, verify that the data is sufficiently clean to migrate.			
If data is not sufficiently clean, you can perform one of the following steps:  • Re-run the Diagnostic routine and perform data cleanup in the M environment. After data is cleaned up, re-run the migration process again.  (OR)  • Run the Convert Data step.  Run the Verify Data step to verify that there is no data loss or			
that there is no data loss or corruption.			
Run the M Diagnostic Summary and Detail reports again in the VistA legacy application.			

Task	Assigned To	Due Date	Comments
Compare the M Diagnostic reports from before and after the migration to ensure the data has not changed.			
Evaluate the migration results to ensure that they meet the Data Migration Success Criteria. (See 2.9. Data Migration Success Criteria)			
Obtain sign-off on the results of the data migration.			
Finalize the data migration.			
In production, continue to monitor the application and the data.			

## 2.7 Overview of Steps in the M Environment

Before You Begin:	Complete all the preparation tasks in section 2.4 Preparation Checklist before you begin the data migration process.
	For descriptions and instructions for installing Patches 15, 16, and 17, see the documentation bundled with the patches or see Appendix E of this document.
	For assistance using Patch 15 to diagnose and clean up data in the M environment, see the <i>PRPF Data Diagnostic Patch User Guide</i> .

Staff at the local site complete the following data migration steps in the M environment as shown in yellow (shaded) shapes in the Figure 2-2. This is an iterative process. Cycle through these steps repeatedly until you are confident that your data will migrate successfully.

- 1. **Diagnostics**: Run the diagnostic routine in the M environment to check for errors, such as invalid date format or missing social security number (SSN).
- 2. **Review**: Review the summary and detailed error reports that are produced by the diagnostic routine to identify errors that need to be corrected before migrating data to the reengineered application.
- 3. **Cleanup**: Use the M-system menu options to clean data by correcting any data errors found in the summary and detailed error reports produced by the diagnostic routine.

**Notes:** Cleanup should be performed by staff members who understand the data and the business rules. If necessary, authorized users can clean up the data by going into the M code using standard processes and documenting changes. It is important to correct any data that violates the rules imposed by the FileMan data dictionary's input transform for a field. Such data errors could cause the migration process to fail.

4. **Repeat** steps 1 through 3 to diagnose, review, and clean up data until you are satisfied that the data is clean enough to migrate to the new database.

## 2.8 Overview of Steps in Reengineered Environment

Once staff at the local site determine that data is clean and that it meets migration standards, the designated VistAMigrate user completes the data migration steps in the reengineered environment as shown in the un-shaded shapes in Figure 2-2. For details about using VistAMigrate, see Chapter 4. Migrating Data Using VistAMigrate.

Complete these steps in VistAMigrate:

- 1. Run **M Diagnostics** to verify that the data is clean and ready for migration.
- 2. Run **M Extract** to extract the data from the M environment and view the extract results.
- 3. Run **Stage Data** to move the extracted data into the Oracle staging database.
- 4. Run **Analyze Data** to run diagnostics on the staged data to check for errors in the Oracle staging environment.
- 5. Run **Convert Data** to move the data from the Oracle staging database to the Oracle production database.
- 6. Run **Verify Data** to run diagnostics on the production data to check for errors in the Oracle production environment.
- 7. **Final Steps**: Business owners and other stakeholders determine whether the results look accurate and whether the site is ready to finalize the migration:
  - **Start Over**: If the site is not ready to finalize the migration, restart the process.
  - **Finalize**: If the site is ready, finalize the migration, begin using the reengineered application, and use M Patch 17 to disable data entry in the legacy application.

## 2.9 Data Migration Success Criteria

The data migration success criteria must be met in order to proceed with using the reengineered application in a production environment.

Note:	If some records fail to load, it is expected that users will re-enter identified missing records in the VPFS system. For related information in Business Rules, refer to Appendix B Business Rules.
	All fields derived from calculations are accurate.
	All Calde desired from coloulations are accounts
	All transformations to the data can be traced to a business rule.
	None of the data (individual field values) was lost.
	None of the data was corrupted.
	No records failed to load or were unaccounted for.

## 3. Performing Diagnostics and Data Cleanup in the M Environment

Diagnostics and data cleanup is an iterative process that typically requires several cycles of error checking and correcting before data for the site can be migrated. The Diagnostic routine checks all of the data for a number of identified errors that may prevent the data from migrating successfully. The Data Diagnostic Report produces both a summary and a detailed report, that you use as a reference to locate and correct data errors. You can print or view the reports online.

Generally, you use the VistA menu options to correct errors. However, if this is not feasible, ask your local ADPAC representative to coordinate the cleanup of data owned by other groups.

**Note**: All data cleanup cycles must be completed 2 weeks prior to the beginning of the actual data migration for the site. Several days before cutover, there will be one more run of the Diagnostic routine to check the data quality prior to beginning the data migration process.

To access the Patient Funds Diagnostic reports:

- 1. Log on to PFOP as PRPF Supervisor.
- 2. Open the Patient Funds Supervisor Menu [PRPF SUPERVISOR].
- 3. Select PRPF DATA DIAGNOSTIC REPORT.

After a short period, dots appear to indicate that the report is running, the Patient Funds Diagnostic Summary report is displayed. The DEVICE: prompt appears.

- 4. Do any of the following:
  - Let the report print to the screen using ;132;999, then copy and paste the report to a text editor.
  - Turn on capture to file in KEA.
  - Enter a printer name to print both the summary and detail versions of the Patient Funds Diagnostic Summary report.

DEVICE: <your\_printer>

Both reports are printed on the printer you specified. File the reports in the site's data migration binder.

• Enter a file name to save both the reports to file.

DEVICE: <folderlfile\_name>

A file containing both versions of the report is saved to the location and file name that you specified.

• To exit without saving or printing the reports, enter the caret symbol (^).

**Note**: For additional information, refer to the PRPF Data Migration Patch User Guide.

## 3.1 Patient Funds Diagnostic Summary Report

The Patient Funds Diagnostic Summary report is designed to be a quick and easy way for you to validate all data that will be involved with the migration of the Patient Funds package to the new VPFS application.

The diagnostic report generates a Summary Report, which is intended to be a quick reference to the amount of data elements that are not validating correctly. The Summary Report contains the total number of patient accounts processed and the total balance of all patient accounts at the time the summary was generated. For a sample of this report, see Appendix D.

## 3.2 Patient Funds Diagnostic Detail Report

At the end of the summary report a prompt appears asking if you would like to generate the detail report. Typically, the error count in the summary report provides all the information that you need to view your progress in cleaning up data and generating the detail report is not necessary.

**Note**: The detail report can be quite large. Before you generate the detail report, check the notation at the end of the summary report indicating how many lines will be in the detail report. (See the highlighted text in the sample below.)

NOTE: In addition to the summary report there is an available detail report, this report can be sent to any device or flat file if required.

#### >>>> The detail diagnostic report will contain 2550 lines.

If you still desire the detail report, then please input the name of the device that the report will be sent to.

If the detail report is not desired then input  $"^"$  at the device prompt and the detail report will not print.

To access the detail report, at the DEVICE prompt, do one of the following:

- To display the report on the screen, accept the defaults.
- To print the report, enter the name of a printer.
- To save the report to a flat file, enter a file name.
- To return to the Supervisor's Menu without displaying, printing, or saving the report, enter \(^{\dagger}\).

The detail report records consist of a series of data fields (STATION ID, ERR#, NAME, DESC, VALUE). Each field is separated by the delimiter "A". All detail records can be imported into a spreadsheet and sorted or generated into other reports. The detail report is sorted by default in the order of Station-id then by error number and then by patient name. For a sample of this report, see Appendix D.

- **PFOP data**: If an asterisk (\*) appears by the error number on the summary report, the data for the field is owned by PFOP and can be edited by PFOP. Patient Funds staff can use the appropriate VistA Patient Funds menu options to correct the data for each patient.
- Non- PFOP data: If no asterisk (\*) appears by the error number on the summary report, the data for the field is not editable by Patient Funds staff. Contact your ADPAC to coordinate changes to data that is owned by other packages.

## 3.3 Correcting Patient Funds Errors

This section provides tips for correcting errors in the M environment.

**Note**: If you cannot correct the error through the local VistA legacy application, or if there are too many of a certain type of error to correct easily manually, follow the appropriate chain of command to escalate the issue. This may include asking the EVS team for assistance.

- Use the appropriate VistA Patient Funds menu options to make your corrections.
- It is highly recommended that you keep a log of the corrections you make and store the log in your site's Data Migration binder. The log should note what the errors were, who corrected them, and the date corrected.
- Decide how to handle cases where required data is missing. You may decide to replace missing data with a default value. For example: If a date field is missing the day part of the date, provide a default day value such as "01." Be sure to document your decisions and document any data that you will need if you decide to re-enter any records or data after cutover.
- Repeat the Diagnosis and Data Cleanup process until the Summary Report shows a count of 0 for any actual errors, or until the site data owners have decided that the data is sufficiently clean to migrate even if it still contains errors that will not stop the automated migration process.
- It is recommended that you hold a weekly data cleanup review to share findings with other sites to improve the process and to ensure successful migration for all sites. Sites can work together to:
  - Develop consistent approaches for specific kinds of errors. For example: In the case of missing data in the day field, sites may decide to make the correction the same way, such as entering 1 for a missing day.
  - Share frequently asked questions (FAQs).
  - Recommend modifications to diagnostic routines.

## 4. Migrating Data Using VistAMigrate

Once your site data owners have approved data for migration to the reengineered environment, you are ready to proceed with the migration steps in the reengineered environment. Use the VistAMigrate software tool to migrate data.

**Note**: Contact the system administrator for your site to gain access to VistAMigrate. This application uses the same access and verify codes that you use to access your VistA system, however an additional security key (PRPF\_DATA\_MIGRATION\_USERS) is required.

## 4.1 Accessing VistAMigrate

To access VistAMigrate:

1. Open a web browser and go to http://<host>:<port>/vistaMigrate/
The VistAMigrate Login page opens.

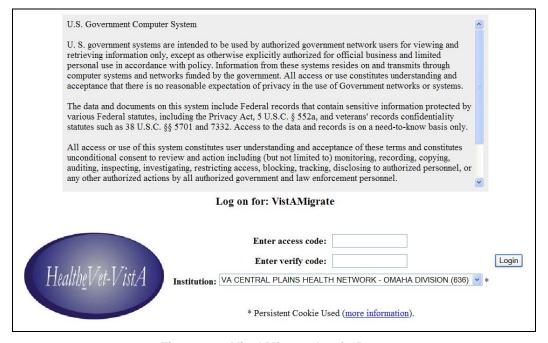


Figure 4-1. VistAMigrate Login Page

- 2. Enter your VistAMigrate login information:
  - a. **Enter access code**: Enter the VistAMigrate access code for the site.
  - b. **Enter verify code**: Enter the VistAMigrate verify code for the site.
- 3. **Institution**: Select the site from the dropdown list of institutions.
- 4. Click **Login**.

The Pick Project page opens.



Figure 4-2. VistAMigrate Pick Project page

- 5. Select from the dropdown list, the reengineered application to which you want to migrate data.
- 6. Click OK.

**Loading...** flashes on the page while the application loads, then one of the following occurs:

- If this is the first or a restarted VistAMigrate session for the site, the Welcome page opens. Continue with the next section.
- If the data migration process was previously started for the site, the page opens for the last step accessed. Continue with the section for that step.

## 4.2 VistAMigrate Welcome Page

The VistAMigrate Welcome page provides the following:

- A banner across the top of the page displays migration status information for your site. This banner appears on all VistAMigrate pages and is refreshed with current information as you move through the data migration steps. See Section 1. Banner for more information.
- A navigation bar in the left panel of the page provides access to steps in the data migration process. This navigation bar appears on all VistAMigrate pages and displays your progress through the data migration steps. See Section 4.2.2 Navigation Bar for more information.
- Overview text appears in the main panel of the Welcome page providing an overview of the data migration steps. This area of the page will display logs and reports as you move through the migration steps. See Section 4.2.3 Description of Steps for more information.

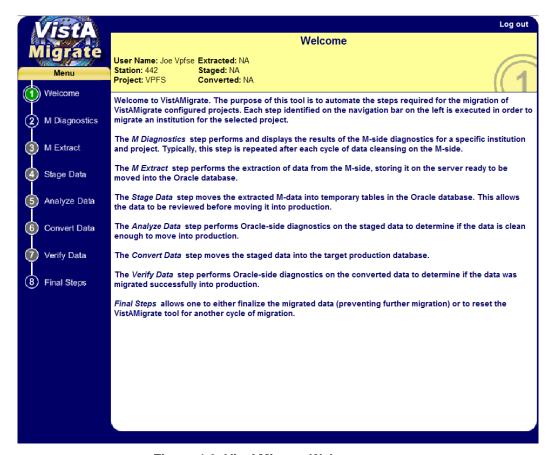


Figure 4-3. VistAMigrate Welcome page

#### 4.2.1 Banner

The Banner at the top of each VistAMigrate page displays migration status information for the site that you are logged into. Status information is updated as you move through the data migration steps:

- User Name: The name of the user associated with the Access Code used to log in.
- **Station:** A code identifying the site/institution.
- **Project**: The name of the reengineered application to which you are migrating data.

#### • Extracted:

- o Main Records: Total number of patient funds accounts extracted from the VistA legacy database.
- O Total Records: Total number of data records in the extract file. This number includes records of all types (patient demographics, patient account information, income source information, transactions, remarks, suspense data, etc.). Each patient will have multiple data records in the extract file; the number of records is determined by the data for that patient.
- Staged: Total number of records moved using structure query language (SQL)\*Loader to the Oracle staging tables for analysis. The number of Main Records should match the number of Main Records extracted. The number of Total Records includes a header record and will, therefore, be one greater than the total number of records extracted.

• Converted: Total number of records converted and moved from the Oracle staging tables to the Oracle production tables. After you complete the data migration, this number may be less than the total number of Staged records because records with errors will have been removed.

#### 4.2.2 Navigation Bar

Use the navigation bar in the left panel to access the steps in the VistAMigrate data migration process. The steps must be performed in sequence from top to bottom. For example: You must perform the M Diagnostics step within the VistA Migrate application before you can perform the M Extract step, and the M Extract step before you can perform the Stage Data step. You can, however, start over at any point.

**Note**: Selecting a step will not automatically run that step. You need to click the Run button for that step to run it.

Selecting a step that has already been run will display the report for the previous run and give you the option to re-run that step.

#### 4.2.2.1 Starting Over

The steps of the data migration process are iterative. Repeat the steps as many times as necessary to make sure the data is clean for a successful migration. When you repeat a step, data that was previously reported is cleared. For example: If you repeat step 2 M Diagnostics, any data reported from previous routines in steps 3-7 will be cleared. Another way to clear data is to click the **Start Over** button on the Final Steps page. You can go to the Final Steps page and start over any time during the data migration process as long as the migration has not been finalized.

The steps on the navigation bar are color coded as follows:

- Green: Indicates that no action is required. The Welcome step is always green.
- **Blue**: Indicates that the task is enabled and available for use.
- **Yellow**: During processing, yellow swirls in the blue circle on the navigation bar indicating that the system is working on the task. When the system is done, the navigation circle becomes solid yellow until you complete the step.
- **Gray**: Indicates that the task is disabled until predecessor actions are performed.
- **Red**: Indicates that an error was returned and displayed. You cannot go on to the next step until the error is corrected.

#### 4.2.3 Description of Steps

- **Welcome**: Read the overview provided on the VistAMigrate Welcome page.
- **M Diagnostics**: Perform this step to check data in the M environment for errors. Repeat this step each time you correct data.
- **M Extract**: Perform this step to extract your clean data from the M environment. Repeat this step each time you correct data.
- **Stage Data**: Perform this step to move extracted data to the staging database. Repeat this step each time you extract data.

- Analyze Data: Perform this step to run diagnostics on the data that you moved to the staging database to determine whether your data is clean enough to move to production. Repeat this step each time you stage data.
- **Convert Data**: Perform this step to move data from the staging database to the production database.
- **Verify Data**: Perform this step to run Oracle-side diagnostics to determine whether the data was migrated successfully into the production database.
- **Final Steps**: After you have determined whether the data was migrated successfully, use this step to do one of the following:
  - o **Start Over**: If you determine that data was not migrated successfully, reset VistAMigrate and start the entire process over.
  - **Finalize**: Once you determine that data was migrated successfully, finalize the data migration.

**Note**: This step will prevent any future data migration.

#### 4.2.4 Process Running Indicator

When you click the **Run** button to run a step in VistAMigrate, the process running indicator appears until the process is completed.



Figure 4-4. Process Running Indicator

To stop the process and reload the previous results, click the button on the right of the indicator.

## 4.3 M Diagnostics

In this step you run the M diagnostic routine to check for errors in the data in the VistA legacy database.

This step produces diagnostic reports that list errors based on the business rules in Appendix B. As previously noted, this generates the same reports as the new VistA option released with patch PRPF\*3.0\*15. See Appendix D for sample reports.

Use the diagnostic summary and detail reports that are produced by this routine:

- During data cleanup, to evaluate the state of a site's data. The goal is that each time you run the report after data cleanup, the error count will change to reflect the error correction.
- After data cleanup, to determine whether the data can be successfully migrated and cutover can take place.

**Important**: M Diagnostics does not modify data; it is a reporting tool only.

Any changes to be made for data cleanup must be made to the data in VistA. Refer to the Minimum Requirements to Migrate listed in the business rules for the criteria each field must meet to successfully migrate. The business rules are located in Appendix B in this document, or in the PRPF Data Diagnostic Patch User Guide that accompanies patch PRPF\*3.0\*15.

#### To run M Diagnostics:

- 1. In the navigation bar in the left panel, click **2 M Diagnostics**. The M Diagnostics page opens.
  - If Run Diagnostics has *not* been run on this site before or if you are starting over, no reports will be shown.
  - If Run Diagnostics has been run on this site before, the most current diagnostic reports are shown from a previous or the current VistAMigrate session.



Figure 4-5. M Diagnostics page

#### 2. Click the **Run Diagnostics** button.

The M diagnostic routines run. Once complete, the Summary and Detail tabs appear on the page with the Patient Funds Diagnostic Summary Report displayed.

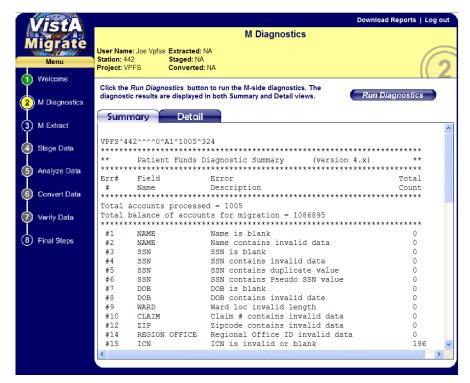


Figure 4-6. M Diagnostics Page with Sample Diagnostic Summary Report

#### 3. Do the following:

- Review the Diagnostic Summary Report. This report shows counts for each of the error conditions identified.
- Click the **Detail** tab to review the Detail report. This report shows selected data for each record containing an error.
- Optional: Click **Download Reports** to download a zip file containing both reports. Save the
  file to an appropriate location, naming it so that it is identifiable as a Diagnostic Summary
  and Detail report.

**Note:** These reports are UNIX-formatted text files. They will not appear correctly in NotePad. Use WordPad or another application such as Excel that can display UNIX-formatted text correctly.

Before you print the reports, change the page orientation to landscape.



Figure 4-7. M Diagnostics Page with Detail Report

#### 4.4 M Extract

In this step you execute the M Extract routine that extracts a copy of the data to be migrated from the VistA legacy environment to an extract file that will be used by the Stage Data step.

The report for this step shows the contents of this extract file exactly as it was transferred from VistA. In most cases you would only need to review this report to validate specific data values after completing the migration process, or to determine the cause of an error found during migration.

**Important**: M Extract does not modify data.

#### To run M Extract:

- 1. In the navigation bar in the left panel, click **3 M Extract**. The M Extract page opens.
  - If M Extract has *not* been run on this site before or if you started over, no data will be shown.
  - If M Extract has been run on this site before, the most current data are shown from a previous or the current VistAMigrate session.



Figure 4-8. M Extract Page

#### 2. Click Run Extract.

The M extract routines run. Once complete, the extract results appear on the page. Use the vertical scroll bar to view the full list of results on the page. If a large amount of data has been extracted, there may be left and right arrows at the bottom of the page you can use to move through the pages of data (use the right arrow to go to the next page of data, or the left arrow to go to the previous page).



Figure 4-9. M Extract Page with Extract Results

#### 3. Do the following:

- Review the Extract results.
  - The fields in the Extract report are delimited by the circumflex character (^). If a record has null values in the field(s) at the end of the record, the ^ is not necessarily repeated. For a sample of this report, see Appendix D.
- Optional: Click **Download Reports** to download a zip file containing the report. Save the file to an appropriate location, naming it so that it is identifiable as an Extracts report.

**Note:** This report is a UNIX-formatted text file. It will not appear correctly in NotePad. Use WordPad or another application such as Excel that can display UNIX-formatted text correctly.

Before you print the report, change the page orientation to landscape.

#### 4.5 Stage Data

In the Stage Data step, you execute the Run Data Staging process, which uses Oracle SQL\*Loader to read the data from the file generated by the M Extract routine and load the data into temporary (staging) tables in the Oracle database. These tables correspond to the record types in the extract file. No records are excluded by validation requirements at this point, since the aim is to bring all of the data into the Oracle environment for analysis.

Run Data Staging generates two files that appear on the Stage Data page:

• The **Log file**: SQL\*Loader generates this file, which lists the number of records that loaded or failed to load in each table, including the conditions applied to each. This is a critical step in the verification of the migration as it ensures that no records are lost.

• The **Bad file**: SQL\*Loader generates this file if any records were rejected from the load because they contained errors. These errors may be caused by data that is too long for a particular field, or data that contains control characters (such as new line, etc.). Do not edit the extract file to try to fix any rejected records! Instead, site owners must correct the data in PFOP and repeat the data migration process.

To move migrated data to the staging tables:

- 1. In the navigation bar in the left panel, click **4 Stage Data**. The Stage Data page opens.
  - If Stage Data has *not* been run on this site before or if you started over, no data will be shown.
  - If Stage Data has been run on this site before, the most current data are shown from a previous or the current VistAMigrate session.

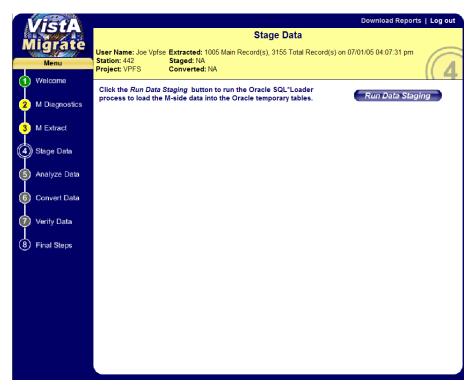


Figure 4-10. Stage Data page

#### 2. Click Run Data Staging.

The Stage Data routines run. Once complete, the **Log** tab and log file appear. If any records with errors were present, the **Bad** tab also appears.

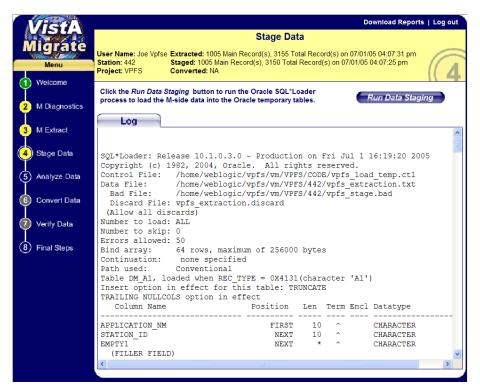


Figure 4-11. Stage Data Page with Log File

#### 3. Do the following:

- Review the Stage Data Log file.
  - The first part of this report shows a list of all the staging tables, including the column names, position, maximum length and data type.
  - o Following this is a list of records that were rejected or discarded from the staging tables, along with an explanation of the error that caused the record to be rejected. If any records were rejected, those records need to be reviewed and the reason they were rejected should be understood. You may need to look at the Extract report, or back in the VistA files.
  - o Rejected records are typically caused by a particular piece of data exceeding the maximum length for that field.
  - O Discarded records are those that do not fit the record format for any of the known record types. This is typically caused by a line-feed or other control character in the data.
  - Next, the report shows a table-by-table summary of how many rows were loaded or rejected from each table.
  - At the bottom of the log, there are 4 lines summarizing the total logical records skipped, read, rejected, or discarded. Rows not loaded due to data errors will be counted in the total records rejected.
- If the **Bad** tab is displayed, click the Bad tab to view the list of records containing errors. Information in this report can help you find the reason that records were rejected.
- Optional: Click Download Reports to download a zip file containing both of the reports.

**Note:** These reports are UNIX-formatted text files. They will not appear correctly in NotePad. Use WordPad or another application such as Excel that can display UNIX-formatted text correctly.

Before you print the reports, change the page orientation to landscape.

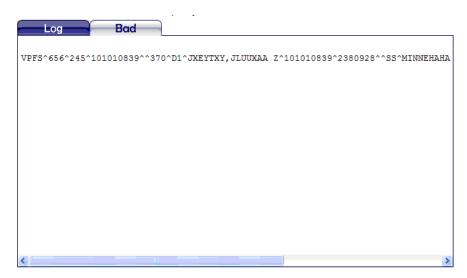


Figure 4-12. Stage Data Page with Bad File Data

For samples of these reports, see Appendix D.

## 4.6 Analyze Data

After you run Stage Data to load the extracted data into the temporary staging tables in the Oracle database, use the Analyze Data step to check the staged data to make sure it meets the Minimum Requirements to Migrate detailed in the business rules listed in Appendix B. This process produces a report listing each business rule and errors or warnings for any records violating that rule.

To analyze the staged data:

- 1. In the navigation bar in the left panel, click **5 Analyze Data**. The Analyze Data page opens.
  - If Analyze Data has *not* been run on this site before or if you started over, no data will be shown.
  - If Analyze Data has been run on this site before, the most current data are shown from a previous or the current VistAMigrate session.

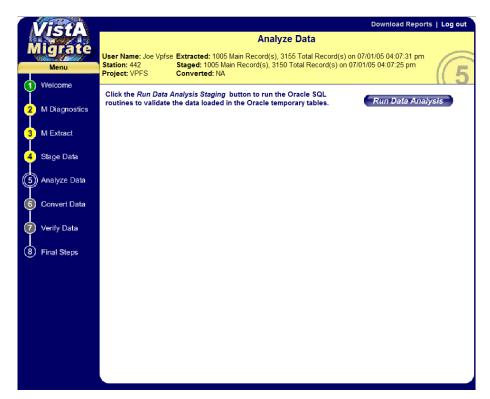


Figure 4-13. Analyze Data Page

#### 2. Click Run Data Analysis.

The Data Analysis routines run. Once completed, the Log tab and VPFS – Analyze Report appear.

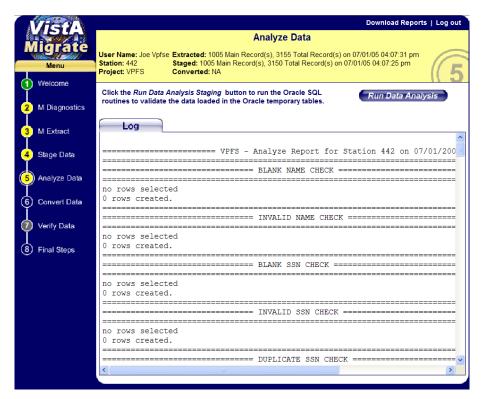


Figure 4-14. Analyze Data Page with VPFS - Analyze Report

#### 3. Do the following:

- Review the Analyze Report.
  - Each section of this report checks a different data validation criteria or business rule. The report will display both error and warning conditions. Errors will prevent a patient from being migrated, warnings are informational. If there are any records listed for a given item, those records need to be reviewed and the reason they appear in the report should be understood. Refer to the business rules in Appendix B for a description of each item. This report can also be compared against the M Diagnostics reports that were generated in the first step of the migration.
  - O At the end of the report are some informational sections providing a higher level view of the data being migrated. Compare the Total Account Balance (under Total for All Accounts) against the Total balance of accounts for migration line at the top of the M Diagnostic Summary. Also compare the number of deferred transactions (under Total for All Accounts) against the number of deferred transactions (line item 46) in the Diagnostic Summary. These values should be equal.
- Optional: Click **Download Reports** to download a zip file containing the report.

**Note:** This report is a UNIX-formatted text file. It will not appear correctly in NotePad. Use WordPad or another application such as Excel that can display UNIX-formatted text correctly.

Before you print the report, change the page orientation to landscape.

For a sample of the Analyze Data report, see Appendix D.

#### 4.7 Convert Data

This step populates the Oracle production tables with converted data from the temporary staging tables. The conversion procedure will format the data as needed by VPFS, converting VistA dates to Oracle dates, assigning default values to replace blanks, etc., according to the business rules listed in Appendix B. After you are satisfied that there are no errors in the Oracle staging environment, use the Convert Data step to move the data to the Oracle production environment.

Important: Any patients identified as having data with errors during the Analyze Data step will be removed from the staging tables and will not be migrated during the Convert Data routine or appear in the Convert Data log. A file containing the extracted data records for the rejected patients will be available after you run this step. Be sure to use the **Download Reports** option to save a copy of this log at that time.

To move data to the Oracle production environment:

- 1. In the navigation bar in the left panel, click **6 Convert Data**. The Convert Data page opens.
  - If Convert Data has *not* been run on this site before or if you started over, no data will be shown.
  - If Convert Data has been run on this site before, the most current data are shown from a previous or the current VistAMigrate session.



Figure 4-15. Convert Data Page

#### 2. Click Run Data Conversion.

The Data Conversion routines run. Once complete, the Results tab and Results file appear. If any records with errors were present, the Errors tab also appears.



Figure 4-16. Convert Data Page with Results

#### 3. Do the following:

• Review the Convert Data **Results**.

This shows a "progress report" as each type of data is processed. Verify that each process completed successfully. If any process failed, the **Errors** tab will contain a technical description of any errors. Contact the EMC technical representative.

- If the Errors tab is displayed, click the Errors tab to view the list of records containing errors.
- Optional: Click **Download Reports** to download a zip file containing the reports and the file containing the patient records that had errors during the Analyze Step.

**Note:** These reports are UNIX-formatted text files. They will not appear correctly in NotePad. Use WordPad or another application such as Excel that can display UNIX-formatted text correctly.

Before you print the reports, change the page orientation to landscape.



Figure 4-17. Convert Data Page with Errors

The Errors report displays each error and identifies the procedure in which it occurred. For samples of the Convert Data reports, see Appendix D.

### 4.8 Verify Data

This step executes a script that checks the migrated production data for a variety of potential migration and conversion errors. The log that is produced by this step provides all of the following data:

- Non-migrated patient account list
- Patient account list
- Inactive accounts with non-zero balances
- Transactions list
- Deferred transactions list
- Account balances check

- Migrated totals check
- Income source check
- Remarks count check
- Non-converted special remarks list
- Non-converted general remarks list

To verify data in the Oracle production environment:

- 1. In the navigation bar in the left panel, click **7 Verify Data**. The Verify Data page opens.
  - If Verify Data has *not* been run on this site before or if you started over, no data will be shown.
  - If Verify Data has been run on this site before, the most current data are shown from a previous or the current VistAMigrate session.



Figure 4-18. Verify Data Page

#### 2. Click Run Data Verification.

The Data Verification routines run. Once complete, the Log tab and Log file appear.

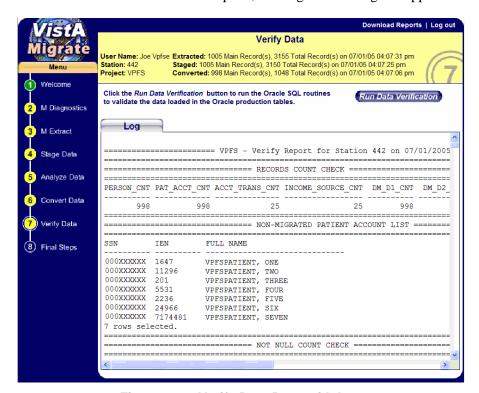


Figure 4-19. Verify Data Page with Log

#### 3. Do the following:

- Review the Verify Report. This report is intended to allow you to verify that the patient data was migrated as expected.
  - The list of patients that were not migrated is shown in the Non-migrated Patient Account List section. This list should match the Patient Accounts with Errors section of the Analyze report.
  - o The list of patients that migrated successfully is shown in the Patient Account List section.
  - Compare the Total of Account Balances, Number of Deferred Transactions, and Total of Deferred Amounts in the Migrated Totals Check section against the values in the Total for Migrated Accounts section in the Analyze report.
- Optional: Click **Download Reports** to download a zip file containing the report.

**Note:** This report is a UNIX-formatted text file. It will not appear correctly in NotePad. Use WordPad or another application such as Excel that can display UNIX-formatted text correctly.

Before you print the report, change the page orientation to landscape.

For samples of the VPFS Verify Data Report produced by Verify Data, see Appendix D.

### 4.9 Final Steps

This step provides two options:

- **Finalize**: Choose the Finalize option only if you are ready for final cutover.
- **Start Over**: Choose the Start Over option if you need to clear all previous runs and start the VistAMigrate data migration process over with M Diagnostics.

Prior to choosing **Finalize**, re-run the M Diagnostic reports **from the VistA legacy application**. Compare the M Diagnostic reports from before and after the migration process to verify that additional deferred transactions have not been created in PFOP during the migration process and that data has not been corrupted during the conversion. Some of the data values may not be identical. Analyze any discrepancies and verify that the changes are due to documented business rules. See Appendix B for business rules.

To perform the final steps:

1. In the navigation bar in the left panel, click **8 Final Steps**. The Final Steps page opens.



Figure 4-20. Final Steps Page

#### 4.9.1 Finalizing Data Migration

To finalize data migration and cut over to VPFS:

#### Caution: You will no longer be able to run/re-run migration if you choose the Finalize option!

#### Click Finalize.

The Finalize routines run. When complete:

- o A message is displayed indicating that the data migration is finalized.
- o The reengineered application is available for your site to register patients and manage accounts.
- O VistAMigrate routines are disabled for this institution. The circles for the steps in the navigation bar become green. You will be able to access the step pages, to view and download the final reports.
- O Contact your local IRM staff to install Patch 17. Data entry in the VistA legacy application is disabled for this institution. Legacy data is available for viewing and reporting only.

**Note**: When a site has finalized the migration in step 8 of the data migration process, VistAMigrate will disallow any further migrations of PFOP data into VPFS for that site. At this point, the PRPF\_DATA\_MIGRATION\_USERS security key should be removed from the legacy VistA accounts for all users at that site to disable user access to VistAMigrate.

• Click **Download Reports**. This will download a zip file containing all reports and files generated during the migration process.

**Note:** These files are UNIX-formatted text files. They will not appear correctly in NotePad. Use WordPad or another application such as Excel that can display UNIX-formatted text correctly.

#### 4.9.2 Resetting VistAMigrate to Start Over

To clear all previous data migration runs for this institution and start over:

**Important!** Be sure to click **Download Reports** to download a zip file containing all reports and files generated during the migration process.

**Note:** These files are UNIX-formatted text files. They will not appear correctly in NotePad. Use WordPad or another application such as Excel that can display UNIX-formatted text correctly.

#### Click Start Over.

The Start Over routines run. The system clears any data from prior runs, including files and database data, and resets the counts.

# **Appendix A. Frequently Asked Questions**

The following table provides answers to the most frequently asked questions about data migration.

**Table A-1. Frequently Asked Questions** 

Question	Answer	
Will I be able to use the VistA legacy application after cutover?	After cutover, the VistA legacy application will be available for viewing data and running reports, but data entry will be disabled.	
What happens to the legacy data if the migration fails at cutover?	If the actual migration <i>cutover</i> fails, the VistA legacy application will be turned back on with all of its current functionality.	
If we use the reengineered application for a while and then something goes wrong, can we go back to the legacy application?	No. Once you start using the reengineered application, the legacy data becomes out of sync with the new data. Moving between the two systems would make reconciliation of data difficult. You may be asked to perform functions manually while the problem is being fixed and tested. Once the reengineered application is made available to you again, you will need to enter your manual records into the system.	
How will we regain the data we entered in the reengineered application in the event of a failure?	The database will be backed up on a nightly basis. If either the database or the application goes down, the last database backup can be restored and the data extracted.	
After cutover, will dual / parallel systems be run until it is determined that the reengineered application is stable?	No. However, the reengineered application will be closely monitored through several business cycles (e.g. reconciliations) to determine that it is stable.  It is recommended that you print reports frequently so that you can track the data you have entered.	
How should I report defects I discover during field testing?	Remedy will be used in field testing and reported to the VPFS team and tracked also in ClearQuest. A process is being developed which will be followed.	
What support is provided during field testing?	During field testing, the Rapid Response Team will provide help during business hours nationwide.  Plans for support of the production system after cutover are TBD.	
What are the criteria for deciding to go ahead in production?	See Section 2.9 Data Migration Success Criteria.	



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## **Appendix B. Migration Business Rules**

The table in this appendix is intended for users who are ready to attempt to migrate their data to the reengineered environment. It lists the minimum requirements that each data element must meet in order for a record to be migrated to the new database.

Unless otherwise stated, blank values are allowed.

**Note**: The diagnostic routine that you run via the new menu option Database Diagnostic Report [PRPF DATA DIAGNOSTIC REPORT] and in VistAMigrate will identify invalid or missing data. Data not meeting the Minimum Requirements to Migrate in the table below needs to be corrected because records not meeting these requirements will *not* be migrated to VPFS.

## **Migration Business Rules**

**Table B-1. Migration Business Rules** 

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
1	470	NAME, #.01	Patient name cannot be blank.	Patient name cannot be blank.	Pointer to File 2
2	470	NAME, #.01	Patient name cannot contain values other than alpha characters, one comma, apostrophe, and space after first name.  Must be 3-30 characters,	Patient name must be 3-30 characters.	Some names being migrated will contain data that is considered invalid now (special characters) but was valid in the past.  Pointer to File 2
3	470	SSN, #50	SSN cannot be blank.	SSN cannot be blank.	Computed from File 2, #.09
4	470	SSN, #50	SSN must be 9 digits.	SSN must be 9 digits or 9 digits followed by a 'P' to allow for pseudo-SSN.	Allow 'P' as an optional 10 <sup>th</sup> character for pseudo-SSN. Computed from File 2, #.09

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
5	470	SSN, #50	SSN cannot be a duplicate.	SSN cannot be a duplicate at any station.	Computed from File 2, #.09
6	470	SSN, #50	SSN contains pseudo SSN value.	Not an error; pseudo-SSN values are allowed.	Computed from File 2, #.09
7	470	DOB, #51	DOB cannot be blank.	DOB cannot be blank.	Computed from File 2, #.03
8	470	DOB, #51	DOB must be a valid VistA date.	DOB must be 7 digits, in VistA date format.  Imprecise dates will be defaulted to the first of the month or year during migration.	Imprecise dates having a '00' for the month and/or day will be defaulted to '01'.  Computed from File 2, #.03
9	470	WARD, #52	Ward must be 2-30 characters.	Ward must be 2-30 characters.	Computed from File 2, #.1
10	470	CLAIM NUMBER, #53	Claim Number must be 'SS' or 7-9 digits.	Claim Number must be 'SS' or 7-9 digits.	Computed from File 2, #.313
11	470	ZIP CODE, #59	ZIP Code must be 5 digits.	Not migrated.	Computed from File 2, #.116
12	470	REGIONAL OFFICE, #8	NA	Not migrated.	
13	2	INTEGRATION CONTROL NUMBER (ICN), #991.01	ICN cannot be a duplicate.	ICN cannot be duplicate at any station.	
14	2	ICN, #991.01	ICN must be at least 1 character.	ICN must be 1-10 digits, optionally followed by a 'V' and a 6 digit checksum. An additional 6 digit prefix and 6 digit suffix are allowed for future use.	Allows current ICN format (10V6), with or without the checksum, and future ICN format (16V12).

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
15	470	PROVIDER AUTH RESTRICT, #10.7	Provider Name cannot contain values other than alpha characters, one comma, apostrophe, and space. (Must meet VistA standard naming requirements.)	Provider Name must be 3-30 characters.	M Diagnostic Summary: item only validates name if present. This field can be blank. It is not associated with item #20 and will not increment the report counter if an error is registered on item #20.  Pointer to File 200 source.
16	470	DATE OF CURRENT RESTRICTION, #10.5	Date of Current Restriction must be a valid VistA date.	Date of Current Restriction must be 7 digits in VistA date format.  Imprecise dates are not allowed.  Cannot be blank if patient type is restricted (R) or limited unrestricted (L).	Month or day cannot be 00.
17		Demographic record	Missing demographic record for account. Record must be present.	Demographic record must exist for account.	
18	470	ACCOUNT STATUS, #1	Account Status must be A, I or blank.	Account Status must be A, I, or blank. Blanks will be defaulted to A during migration.	A nightly update process will set active/inactive: if zero balance & no transactions for 30+ days, set to I.  The number of blank entries will be displayed in the M Diagnostic Summary and Analyze Report.
19	470	PATIENT TYPE, #2	Patient Type must be L, R, U, X or blank.	Patient Type must be L, R, U, X, or blank. Blanks will be defaulted to U during migration.	The number of blank entries will be displayed in the M Diagnostic Summary and Analyze Report.
20	470	PROVIDER AUTH RESTRICT, #10.7	Provider Name cannot be blank if the Patient Type is restricted or limited unrestricted.	Provider Name cannot be blank if the Patient Type is restricted (R) or limited unrestricted (L).	

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
21	470	PATIENT STATUS, #3	Patient Status must be A, R, C, N, X or blank.	Patient Status must be A, R, C, N, X, or blank. Blanks will be defaulted to X during migration.	The number of blank entries will be displayed in the M Diagnostic Summary and Analyze Report.
22	470	INDIGENT, #4	Indigent indicator must be Y, N or blank.	Indigent must be Y, N, or blank. Blanks will be defaulted to N during migration.	The number of blank entries will be displayed in the M Diagnostic Summary and Analyze Report.
23	470	APPORTIONEE \$, #5	Apportionee \$ cannot be less than 0 or greater than 99,999.00.	Apportionee \$ must be a number greater than or equal to 0, or blank. A warning will be displayed if value is greater than 99,999.	Populates income source type and amount during conversion.
24	470	GUARDIAN \$, #6	Guardian \$ cannot be less than 0 or greater than 99,999.00.	Guardian \$ must be a number greater than or equal to 0, or blank. A warning will be displayed if value is greater than 99,999.	Populates income source type and amount during conversion.
25	470	INSTITUTION AWARD, #7	Institutional Award \$ cannot be less than 0 or greater than 99,999.00.	Institutional Award \$ must be a number greater than or equal to 0, or blank.  A warning will be displayed if value is greater than 99,999.	Populates income source type and amount during conversion.
26	470	OTHER ASSETS, #9	Other Assets \$ cannot be less than 0 or greater than 99,999.00.	Other Assets \$ must be a number greater than or equal to 0, or blank. A warning will be displayed if value is greater than 99,999.	Populates income source type and amount during conversion.

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
27	470	STORED BALANCE, #14	Stored Balance cannot be less than 0 or greater than 99,999.	Stored Balance must be a number must be a number greater than or equal to 0, or blank. If blank, will default to 0.	Blank value will default to 0.
				A warning will be displayed if value is greater than 99,999.	
				Must equal sum of Stored Private Source Balance and Gratuitous Source Balance.	
28	470	STORED PRIVATE SOURCE, #15	Stored Private Source Balance cannot be less than 0 or greater than 99,999.	Stored Private Source Balance must be a number greater than or equal to 0, or blank. If blank, will default to 0.	Blank value will default to 0.
				A warning will be displayed if value is greater than 99,999.	
29	470	STORED GRATUITOUS, #16	Stored Gratuitous Balance cannot be less than 0 or greater than 99,999.	Stored Gratuitous Balance must be a number greater than or equal to 0, or blank. If blank, will default to 0.	Blank value will default to 0.
				A warning will be displayed if value is greater than 99,999.	
30	470	AMOUNT RESTRICTED PER MONTH, #17	Amount Restricted / Month cannot be less than 0 or greater than 99,999.	Amount Restricted / Month must be a number between 0 and 99,999.	Blank value means no restriction limit.
31	470	AMOUNT RESTRICTED PER WEEK, #18	Amount Restricted / Week cannot be less than 0 or greater than 99,999.	Amount Restricted / Week must be a number between 0 and 99,999.	Blank value means no restriction limit.
32	470	AMOUNT RESTRICTED PER MONTH / WEEK, #17, 18	Restricted Monthly Amount cannot be less than 5 times the Weekly Amount.	Display a warning if the Restricted Monthly Amount is less than 5 times the Weekly Amount.	

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
33	470	AMOUNT RESTRICTED PER MONTH / WEEK, #17, 18	Restricted Monthly Amount cannot be less than the Weekly Amount.	Restricted Monthly Amount cannot be less than the Weekly Amount.	
	470	MONTHLY RESTRICTION BALANCE 1, #21	NA	Monthly Restricted Balance cannot be less than 0 or greater than 99,999.	Not checked in M Diagnostic.
	470	WEEKLY RESTRICTION BALANCE 1, #22	NA	Weekly Restricted Balance cannot be less than 0 or greater than 99,999.	Not checked in M Diagnostic.
34	470	MINIMUM BALANCE #1;#23	Minimum Balance cannot be less than 0 or greater than 99,999.	Minimum Balance must be a number greater than or equal to 0, or blank.  A warning will be displayed if value is greater than 99,999.	Blank value means no minimum balance.
35	470	MAXIMUM BALANCE #1, #24	Maximum Balance cannot be less than 0 or greater than 99,999	Maximum Balance must be a number greater than or equal to 0, or blank.  A warning will be displayed if value is greater than 99,999.	Blank value means no maximum balance.
36	470	Balance record	Missing balance record for account. Record must be present.	Balance record must exist for account.	
37	470	PAYEE, #1 of SubFile INCOME SOURCE #470.05	Income source Payee cannot be blank.	Income source Payee cannot be blank.	
38	470	AMOUNT, #2 of SubFile INCOME SOURCE, #470.05	Income source Amount cannot be blank.	Income source Amount cannot be blank.	

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
39	470	AMOUNT, #2 of SubFile INCOME SOURCE, #470.05	Income Amount cannot be less than 1 or greater than 99,999.00.	Income Amount must be a number greater than or equal to 0. A warning will be displayed if value is greater than 99,999.	PFOP does not allow values less than 1, but checks for values less than 1 are possible.
40	470	FREQUENCY, #3 of SubFile INCOME SOURCE, #470.05	Income source Frequency must be D, W, M, Y, X, V, O or blank.	Income source Frequency must be D, W, M, Y, X, V, O or blank.	M Diagnostic Summary: The number of blank entries will be displayed in the summary.
41	470	STATION NAME, #73	Station ID cannot be blank or unassigned.	Station ID must be a valid station ID*.	* If blank, parent station ID will be inserted as the default station ID during migration. M Diagnostic: Although the Summary Report does count these errors, they are not displayed in the Detail Report to save space. Pointer to File 4.
42	470	STATION NAME, #73	Station ID must be valid. (Must exist in File 4, Institution table.)	Station ID must be a valid station ID*. Station ID must be the division ID being migrated or a child of that station.  (Must exist in the SDS Institution table.)	* If blank, parent station ID will be inserted as the default station ID during extraction. Pointer to File 4.
	470	GENERAL INFORMATION/ REMARKS, #34	NA	General Remarks cannot be more than 2000 characters.	Not checked by M Diagnostic A Description that is too long will be truncated to 2000 characters during migration.

46

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
	470	SPECIAL REMARKS, #35	NA	Special Remarks cannot be more than 2000 characters.	Not checked by M Diagnostic A Description that is too long will be truncated to 2000 characters during migration.
43	470	SUSPENSE DATE, #.01 of SubFile SUSPENSE DATE, #32	Suspense Date must be a valid VistA date.	Suspense Date must be 7 digits in VistA date format. Imprecise dates are not allowed. Cannot be blank.	Detail report contains two types of errors reported: 43.1 - Suspense date is blank 43.2 - Suspense date is not valid
44	470	ITEM ID, #.01 of SubFile ID, #470.04, of SubFile SUSPENSE DATE, #32	Suspense ID cannot be blank or more than 40 characters.	Suspense ID cannot be blank or more then 50 characters.	Detail report contains two types of errors reported: 44.1 - Suspense ID is blank 44.2 - Suspense ID < 1 or > 40 characters
45	470	FULL DESCRIPTION, #1, of SubFile ID, #470.04, of SubFile SUSPENSE DATE, #32	Suspense Text cannot be blank or more than 255 characters.	Suspense Text cannot be blank or more than 255 characters.	Detail report contains two types of errors reported:  45.1 - Suspense description is blank  45.2 - Suspense description < 1 or > 255 characters  Maximum length cannot be verified in the Analyze Report.  A Description that is too long will be truncated to 255 characters during migration.
		Invalid suspense item	NA	Cannot have a Suspense Item record (S2) without a corresponding Suspense Date record (S1).	Not checked by M Diagnostic.  Verify the integrity of the suspense records in the extraction file.

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
46	470	DEFERRED CREDIT REF #, #31	Display a count of the deferred transactions.	NA	M Diagnostic Summary: Shows count of deferred transactions. Is not an error and does not display in the Detail Report.
47	470.1	Transaction record	Missing transaction record or record is blank. Record must be present.  Deferred Credit Reference Number must match the Transaction ID.	NA	See comment below:

#### 47 - Comment

Master Transaction IDs should always be the same as the Deferred Credit Reference Number with an 'M' appended to the end. The 'M' is stripped off when doing this check.

Important Note: If you find that there are deferred transactions that have Master Transaction IDs (.01 field of file 470.1) that do not match the Deferred Credit Reference number (the .01 field of an entry in file 470 field 31, which is also the IEN of file 470.1) this indicates:

- 1. The Master transaction counter in file 470.3 is out of sync. This must be corrected or the counter will continue to be incorrect for all future transactions in Patient Funds. Each site has the following two options for resolving this matter:
  - a. Correct the transaction counter by contacting IRM to register a Remedy ticket. This is recommended so transactions will be in sync for future transactions.
  - b. Leave the transaction counter out of sync. This option is not recommended but is acceptable. If transactions are not corrected, transactions will be out of sync in VistA but will have no negative effect on VPFS data or the Patient Funds migration.
- 2. Master Transaction IDs do not match the Deferred Credit Reference Numbers. Each site has the following three options for resolving this matter:
  - a. Let the deferred transaction clear or move up the deferred date so the transaction will clear sooner.
  - b. Correct the transactions that do not have a matching Master Transaction ID by contacting IRM to register a Remedy ticket. This is recommended so transactions in the past will be in sync.
  - c. Leave the transactions that do not have matching Master Transaction IDs unchanged. This option is not recommended but is acceptable. If transactions are not corrected transactions will be out of sync in VistA but this will have no negative effect on VPFS data or the Patient Funds migration.

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
48	470.1	PATIENT NAME, #1	Patient name must match the deferred transaction name.	NA	Pointer to PATIENT FUNDS FILE, #470 which is a pointer to PATIENT FILE, #2
49	470.1	TRANSACTION ID, #.01	Transaction ID cannot be blank. Transaction ID must match the transaction ID for the patient	NA	
50	470.1	AMOUNT, #3	account.  Transaction Amount cannot be blank, less than .01 or greater than 99,999.	Transaction Amount must be a number between 0 and 99,999 and cannot be blank.  Must equal sum of Private Source Amount and Gratuitous Source Amount.	
	470	LAST TRANSACTION DATE, #	NA	Last Transaction Date must be 7 digits, in VistA date format. Imprecise dates are not allowed.	Not checked in M Diagnostic.
	470.1	DEFERRAL DATE, #19	NA	Deferral Date must be 7 digits, in VistA date format and cannot be blank. Imprecise dates are not allowed.	Not checked in M Diagnostic.
51	470.1	TRANSACTION DATE, #4	Transaction Date must be a valid VistA date and cannot be blank.	Transaction Date must be 7 digits, in VistA date format and cannot be blank. Imprecise dates are not allowed.	
52	470.1	DATE TRANSACTION ENTERED, #5	Transaction Entered Date must be a valid VistA date and cannot be blank.	Transaction Entered Date must be 7 digits, in VistA date format and cannot be blank. Imprecise dates are not allowed.	
53	470.1	REFERENCE, #6	Reference must be 1-10 characters and cannot be blank.	Reference must be 1-10 characters and cannot be blank.	

ID	File	Field	PFOP / M Diagnostic Business Rule	VPFS Business Rule (Minimum Requirements to Migrate)	Comment
54	470.1	DEPOSIT/ WITHDRAWAL, #7	Deposit/Withdrawal field must be D or W and cannot be blank.	Deposit/Withdrawal field must be D or W and cannot be blank.	
55	470.1	CASH/CHECK/ OTHER, #8	Cash/Check/Other field must be 1, 2, or 3 and cannot be blank.	Cash/Check/Other field must be 1, 2, or 3 and cannot be blank.	
56	470.1	SOURCE, #9	Transaction Income Source must be P, G, or B and cannot be blank.	Transaction Income Source must be P, G, or B and cannot be blank.	
57	470.1	FORM, #10	Form cannot be blank and must be a value in the standard Form list (user-maintained, in table).	Form cannot be blank.  Display warning if Form value is not in the standard Form list in VPFS.	Form is a pointer to File 470.2.
58	470.1	PRIVATE SOURCE AMT, #11	Private Source Amount cannot be less than .01 or greater than 99,999, but can be blank.	Private Source Amount must be between 0 and 99,999. Either the Private or Gratuitous Amount must <i>not</i> be blank.	
59	470.1	GRATUITOUS AMOUNT, #12	Gratuitous Source Amount cannot be less than .01 or greater than 99,999, but can be blank.	Gratuitous Amount must be between 0 and 99,999. Either Private or Gratuitous Amount must <i>not</i> be blank.	
60	470.1	PATIENT FUNDS CLERK, #13	Patient Funds Clerk cannot be blank and must exist in File 200.	Patient Funds Clerk must be 3-35 characters and cannot be blank.	Pointer to NEW PERSON FILE, #200

# **Appendix C. Extraction File Layouts**

## **PFOP Extraction File Layout, VPFS Mapping**

Table C-1. PFOP Extraction File Layout, VPFS Mapping

				PF	OP EXTRA	CTION FILE LAYOUT - VPF	S MAPPING		
KEY	' <b>:</b>	A1 - header D1 - demographics 1 D2 - demographics 2 B1 - balance 1 B2 - balance 2	T1 - tr S1 - s S2 - s S3 - s I1 - in	usper usper usper	nse 1 nse 2 nse 3	R1 - general remarks 1 R2 - general remarks 2 X1 - special remarks 1 X2 - special remarks 2			
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
A1	1	"VPFS"							
	2	Station ID							
	3	version and run date							
	4	filler							
	5	filler							
	6	rec#						"0"	
	7	rec type						"A1"	
	8	# patient accounts processed							
	9	total # recs in file							
		VistA job #						(internal VistAMigrate use only)	
D1	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	у
	3	IEN			person	ien_id			

**KEY:** A1 - header T1 - transaction 1 R1 - general remarks 1 D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

		bz - balance z	11 - Income 1						
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	4	SSN			person	ssn_nbr			
	5	ICN			person	icn			
	6	rec#							
	7	rec type						"D1"	
	8	name	30		person, patient_account	full_nm	vc 150	Uppercase Populate patient_account. patient_upper_last_nm and patient_account.patient_cd (first character of last name, last 4 digits of SSN not counting the 'P').	у
	9	SSN	11	у	person	ssn_nbr	vc 9	Change to 10.  Accommodate pseudo-SSNs, which have a P on the end.  Digits 1-9 numeric, digit 10 = 'P'	у
	10	DOB	7		patient_account	birth_dt	date	Standard M date format. For example: 2210303 (03/03/1921) where first digit indicates century (1=18, 2=19, 3=20) Check for "imprecise date."	у
	11	ward	30		patient_account	ward_nm	vc 30	Uppercase 2-30 chars	у

**KEY:** A1 - header T1 - transaction 1 R1 - general remarks 1 D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

		DZ - Dalai ice Z	11 - Income 1						
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	12	claim #	9		person	claim_nbr	vc 11		у
	13	address 1	35					Address fields are not migrated (address 1-3, city, state, zip) since these will be refreshed on first use and/or the first night.	у
	14	address 2	30						у
	15	address 3	30						у
	16	city	15						у
	17	state	30						у
	18	zip	10						у
	19	prov name	30		patient_account	physician_nm	vc 100		
	20	division id			patient_account	station_cd	vc 10	Also converted to instn_id via institution table, set in person, patient_account, etc. instn_id field.	у
		n/a			patient_account	patient_cd	vc 5	First char of last name, last 4 digits of SSN (excluding the P in position 10 of SSN).	
D2	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							

A1 - header T1 - transaction 1 KEY: R1 - general remarks 1 D1 - demographics 1 S1 - suspense 1

R2 - general remarks 2 X1 - special remarks 1 X2 - special remarks 2 D2 - demographics 2 S2 - suspense 2 S3 - suspense 3 B1 - balance 1

		B2 - balance 2	ance 2 I1 - income 1							
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA	
	4	SSN								
	5	ICN								
	6	rec#								
	7	rec type						"D2"		
	8	patient IEN		у	person	ien_id	n 18			
	9	account status	1	у	patient_account	acct_status_ind	vc 1	Upper: I, A Default = A		
	10	patient type	1		patient_account	patient_type_cd	vc 1	Upper: L, R, U, X Default = U		
	11	patient status	1		patient_account	patient_status_cd	vc 1	Upper: A, R, C, N, X Default = X		
	12	indigent	1		patient_account	indigent_ind	vc 1	Upper: Y, N Default = N		
	13	apportionee \$	9,2		income_source	income_source_amt	n 18,2	income_source.income_source _txt = 'APPORTIONEE' and income_source.income_source _amt = appor\$		
	14	guardian \$	9,2		income_source	income_source_amt	n 18,2	income_source.income_source _txt = 'GUARDIAN' and income_source.income_source _amt = guard\$		

A1 - header T1 - transaction 1 KEY: R1 - general remarks 1 D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1 B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	15	institut award \$	9,2		income_source	income_source_amt	n 18,2	income_source.income_source _txt = 'OTHER ASSETS' and income_source.income_source _amt = other assets\$	
	16	regional office	7		patient_account	patient_ro_cd	vc 5	Corresponds to institution.station_cd but no FK	
	17	other assets \$	9,2		income_source	income_source_amt	n 18,2	income_source.income_source _txt = 'INSTITUTIONAL AWARD' and income_source.income_source	
								_amt = institut award\$	
	18	date of last trans			patient_account	last_trans_entered_dt	date	M date conversion, imprecise date check	
	19	date of current restr			patient_account	current_restriction_dt	date	M date conversion, imprecise date check	
	20	prov IEN						Do not migrate.	
	21	prov converted						Do not migrate.	
B1	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							
	4	SSN							

KEY: A1 - header T1 - transaction 1 R1 - general remarks 1
D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2
D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

			100 L The modern of the control of t						
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	5	ICN							
	6	rec#							
	7	rec type						"B1"	
	8	bal carr fwd	10,2					Do not migrate.	
	9	priv carr fwd	10,2					Do not migrate.	
	10	grat carr fwd	10,2					Do not migrate.	
	11	stored bal	10,2	у	patient_account	total_balance_amt	18,2	Default = 0 Use to create initial d/w: (stored bal - deferred that is being migrated separately) Can use to check: VPFS stored bal should be same as this amount (chk in temp table).	
	12	stored priv	10,2	у	patient_account	private_source_balan ce_amt	18,2	Default = 0 as above for private.	
	13	stored grat	10,2	у	patient_account	gratuitous_balance_a mt	18,2	Default = 0 as above for gratuitous.	
	14	amt restr per month	8,2		patient_account	monthly_restriction_li mit_amt	18,2		
	15	amt restr per week	8,2		patient_account	weekly_restriction_li mit_amt	18,2		

**KEY:** A1 - header T1 - transaction 1 R1 - general remarks 1 D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

pe	M Extr 6	M Extr Field	M Len	V req	V.T.I.I.		V type/ len		from VistA
	16				V Table	V Field	/pe/	Conversion Rules	m itA
		restriction month	9 (date )					Do not migrate.	
	17	restriction week #	4					Do not migrate.	
	18	monthly restr balance	8,2		patient_account	actual_monthly_restri ction_amt	18,2	Default = 0	
	19	weekly restr balance	8,2		patient_account	actual_weekly_restric tion_amt	18,2	Default = 0	
B2	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							
	7	rec type						"B2"	
	8	min bal 1	9,2		patient_account	min_one_limit_amt	18,2		
	9	max bal 1	9,2		patient_account	max_one_limit_amt	18,2		

KEY: A1 - header T1 - transaction 1 R1 - general remarks 1
D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2
D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

		bz - balance z	11 - Income 1						
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	10	min bal 2	9,2					Do not migrate	
	11	max bal 2	9,2					Do not migrate	
T1	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							
	7	rec type						"T1"	
	8	deferred date						Same as deferral date at end of record.	
	9	trans id	12		account_transaction	master_trans_cd	vc 20		
	10	patient IEN							
	11	patient trans #	5,0					Do not migrate.	
	12	amount	10,2		account_transaction	trans_amt	18,2	Default = 0	
	13	trans date	date		account_transaction	trans_dt	date	M date conversion, imprecise date check	

KEY: A1 - header T1 - transaction 1 R1 - general remarks 1
D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2
D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

		DZ - Dalarice Z	Tr - income r						
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	14	date trans entered	date		account_transaction	trans_entered_dt	date	M date conversion, imprecise date check	
	15	ref	7		account_transaction	reference_txt	vc 35		
	16	d/w	1		account_transaction	trans_type_ind	vc 1	Upper: D, W	
	17	c/c/o	1	У	account_transaction	payment_type_cd	vc 1	1, 2, 3 (= cash, check, other, but store number)	
	18	source	1		account_transaction	source_type_ind	vc 1	Upper: P, G, B	
	19	form	11		account_transaction	form_nbr	vc 12		
	20	priv amt	7		account_transaction	private_source_amt	18,2	Default = 0	
	21	grat amt	7		account_transaction	gratuitous_amt	18,2	Default = 0	
	22	pfc	14		account_transaction	user_id	vc 12	Turn off any trigger (such as to "sys").	
	23	e-sig	30					Do not migrate.	
	24	rmks	35		account_transaction	trans_rmks_txt	vc 255		
	25	validation code	20					Do not migrate.	
	26	bal carr fwd	10,2					Do not migrate.	

**KEY:** A1 - header T1 - transaction 1 R1 - general remarks 1 D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

		B2 - balance 2	11 - Inc	ome	1				
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	27	priv bal carr fwd	10,2					Do not migrate.	
	28	grat bal carr fwd	10,2					Do not migrate.	
	29	deferral date	date		account_transaction	deferral_dt	date	M date conversion, imprecise date check	
	30	signature conversion completed	1					Do not migrate.	
	31	signature code date/time	date/ time (char 20)					Do not migrate.	
					account_transaction	countin_deferred_bal ance_ind	vc 1	Default = Y for migration only (since we have only deferred recs)	
					account_transaction	countin_restricted_ba lance_ind	vc 1	No default. Will be used as users start to do withdrawals. Only deposits being migrated (deferred, and stored balance)	
					account_transaction	running_balance_amt	18,2	Populated by trigger.	
S1	1	"VPFS"						Each suspense date record (S1) can have multiple suspense items (S2) associated with that date.	

KEY: A1 - header T1 - transaction 1 R1 - general remarks 1
D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2
D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

		B2 - balance 2	11 - Income 1						
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							
	7	rec type						"S1"	
	8	suspense date	date		suspense	suspense_dt	date	M date conversion, imprecise date check	
S2	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							
	7	rec type						"S2"	
	8	item ID	40		suspense	item_nm	vc 50	Must be unique within IEN and suspense date.	
	9	full descr	127		suspense	item_desc_txt	vc 255	Suspense item descriptions may be split to create suspense	

**KEY:** A1 - header T1 - transaction 1 R1 - general remarks 1 D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1 B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
								description extension (S3) records if they are too long. Concatenate with S3.	
S3	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							
	7	rec type						"S3"	
	8	item ID	40		suspense	item_nm	vc 50	Match with S2.	
	9	full descr	127		suspense	item_desc_txt	vc 255	Concatenate with S2.	
l1	1	"VPFS"							
	2	Station ID						All recs include station id, ien, ssn, for linking.	
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							

**KEY:** A1 - header T1 - transaction 1 R1 - general remarks 1 D1 - demographics 1 S1 - suspense 1 R2 - general remarks 2

D2 - demographics 2 S2 - suspense 2 X1 - special remarks 1
B1 - balance 1 S3 - suspense 3 X2 - special remarks 2

		bz - palarice z	11 - Income 1						
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	7	rec type						"I1"	
	8	income source	25		income_source	income_source_txt	vc 50		
	9	payee			income_source	payee_nm	vc 50		
	10	amount	8,2		income_source	income_souce_amt	18,2	Default = 0.	
	11	freq	1		income_source	freq_cd	1	Upper: D, W, M, Y, X, V, O	
R1	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							
	7	rec type						"R1"	
	8	gen rmks	127		patient_account	general_rmks_txt	255	Remarks may be split to create extension (R2) records if they are too long.  Concatenate with R2.	
R2	1	"VPFS"							
	2	Station ID			_			All recs include station id, ien, ssn, for linking.	

KEY:	A1 - header	T1 - transaction 1	R1 - general remarks 1
	D1 - demographics 1	S1 - suspense 1	R2 - general remarks 2

X1 - special remarks 1 X2 - special remarks 2 D2 - demographics 2 S2 - suspense 2 B1 - balance 1 S3 - suspense 3

		B2 - balance 2	11 - inc	come	1				
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							
	7	rec type						"R2"	
	8	gen rmks						Multiple remarks extension (R2) records can exist for each R1. Concatenate with R1.	
X1	1	"VPFS"							
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.	
	3	IEN							
	4	SSN							
	5	ICN							
	6	rec#							
	7	rec type						"X1"	
	8	spec rmks	127		patient_account	special_rmks_txt	2000	Remarks may be split to create extension (X2) records if they are too long.  Concatenate with X2.	
X2	1	"VPFS"		_					

	PFOP EXTRACTION FILE LAYOUT - VPFS MAPPING										
KEY:		A1 - header D1 - demographics 1 D2 - demographics 2 B1 - balance 1 B2 - balance 2	emographics 1 S1 - suspense 1 emographics 2 S2 - suspense 2 alance 1 S3 - suspense 3			R1 - general remarks 1 R2 - general remarks 2 X1 - special remarks 1 X2 - special remarks 2					
Rec Type	M Extr Field #	M Extr Field	M Len	V req	V Table	V Field	V type/ len	Conversion Rules	from VistA		
	2	Station ID						All records include Station ID, IEN, SSN, and ICN for linking.			
	3	IEN									
	4	SSN									
	5	ICN									
	6	rec#									
	7	rec type						"X2"			
	8	spec rmks						Multiple remarks extension (X2) records can exist for each X1. Concatenate with X1.			

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# Appendix D. VistAMigrate Report Samples

This appendix contains sample portions of the reports, logs, and error files produced by the routines that you perform while moving through the data migration process in VistAMigrate.

## **Diagnostic Summary Report**

This report is accessed in both of the following ways:

- In the VistA legacy application: Select the function Database Diagnostic Report.
- In VistAMigrate: Select step 2 M Diagnostics

The Diagnostic Summary Report lists the number of occurrences for each type of error, and also lists how many deferred transactions are to be migrated (this is not an error). The following table lists descriptions of the information in the fields on the Diagnostic Summary Report.

Table D-1. Description of Diagnostic Summary Report

Field	Description
Error #	Code assigned to the error type.
Field Name	Name of the field where the error occurred.
<b>Error Description</b>	Description of the error.
<b>Total Count</b>	Number of occurrences of the specific type of error.
Total Accounts processed =	Total number of patient records processed by the M diagnostics routine.

	2^^^0^A1^1006^1	55^000666625 *********************************	*****								
** Patient Funds Diagnostic Summary LEGACY RPC (version 5.9) **											
Run Date: FEB 27, 2006 Run Time: 10:30:01 **											
Total accounts processed = 1006 **											
Total balance of accounts for migration =\$1,085,425.00 **											
***************************************											
Err#	Field	Error	Total								
#	Name	Description	Count								
*****	* * * * * * * * * * * * * * * *	************	*****								
#1	NAME	Name is blank	1								
#2	NAME	Name contains invalid data	3								
#3	SSN	SSN is blank	0								
#4	SSN	SSN contains invalid data	0								
#5	SSN	SSN contains duplicate value	0								
#6	SSN	SSN contains Pseudo SSN value	0								
#7	DOB	DOB is blank	0								
#8	DOB	DOB contains invalid date	0								
#9	WARD	Ward loc invalid length	0								
#10	CLAIM	Claim # contains invalid data	0								
#11	ZIP	Zipcode contains invalid data	0								
#12	REGION OFFICE	Regional Office ID invalid data	0								
#13	ICN	ICN Duplicate	0								
#14	ICN	ICN invalid or blank	1								
#15	PROVIDER AUTHR	Provider Name contains invalid data	15								
*#16	PROVID AUTH DT	Date of current restriction invalid date	0								
*#17	NO BALANCE REC	Balance record data missing	0								
*#18	ACCOUNT STATUS	Account status not (A),I,Blank=0	0								
*#19	PATIENT TYPE	Patient type not L,R,(U),X,Blank=197	0								
*#20	PAT TYPE/PHY	Patient type L or R without Phy name	5								
*#21	PATIENT STATUS	Patient Status not A,R,C,N,(X),Blank=722	0								
*#22	INDIGENT	Indigent status not (N),Y,Blank=722	0								
*#23	APPORTIONEE \$	Apportionee amount < \$0 or > \$99,999	2								
*#24	GUARDIAN \$	Guardian amount < \$0 or > \$99,999	2								
*#25	INSTITUT AWARD	Institutional award < \$0 or > \$99,999	2								
*#26	OTHER ASSETS	Other assets < \$0 or > \$99,999	1								

```
*#27
        STORED BALANCE Stored balance < $0 or > $99,999
*#28
        STORED PRIVATE Stored private < $0 or > $99,999
                                                                        1
*#29
        STORED GRATUIT Stored gratuitous < $0 or > $99,999
                                                                         2
*#30
       RESTRCT MONTH
                        Restricted Monthly < $0 or > $99,999
                                                                        0
*#31
       RESTRCT WEEKLY
                        Restricted Weekly < $0 or > $99,999
                                                                        0
*#32
       RESTRCT AMT ER
                       Restrict Mnthly amount > (5X) weekly amt
                                                                        32
*#33
       RESTRCT AMT ER Restrict Mnthly amount < weekly amt
*#34
       MINIMUM BAL
                        Minimum balance #1 < $0 or > $99,999
                                                                         2
*#35
       MAXIMUM BAL
                        Maximum balance #1 < $0 or > $99,999
                                                                        2
       NO BALANCE REC Balance record missing for account
*#36
*#37
       INCOME PAYEE
                        Income payee blank, Income source present
                                                                        1
*#38
        INCOME AMOUNT
                        Invalid income amount, Income source present
*#39
       INCOME AMOUNT
                       Income amount < $1 or > $99,999
                                                                        n
                        Income frequency not D,W,M,Y,X,V,O,Blank=5
*#40
       INCOME FREQCY
*#41
       STATION ID
                        Station ID blank or unassigned
                                                                         863
#42
       STATION ID
                        Station ID invalid
                                                                        0
*#43
       SUSPENSE DATE
                        Suspense date has invalid date
                                                                        0
*#44
       SUSPENSE ID
                        Suspense ID has Invalid data
                                                                        0
*#45
        SUSPENSE TEXT
                        Suspense text is < 1 or > 255 characters
                                                                        0
       DEFERRED TRANS There are 2 deferred transactions
*#46
*#47
       TRANSACTION ID Transaction ID mis-match with IEN
*#48
       PATIENT NAME
                       Patient name does not match deferred trans
                                                                        n
*#49
       PATIENT TRANS # Patient transaction # invalid
*#50
       DEFR AMOUNT Deferred amount invalid
*#51
       TRANSACTN DATE Transaction date Invalid
                                                                        0
*#52
       {\tt DT\ TRAN\ ENTD} \qquad {\tt Date\ transaction\ entered\ Invalid}
                                                                        0
*#53
       REFERENCE
                        Reference Invalid < 1 or > 10 in length
                                                                        0
       DEPOSIT/WTHDRWL Deposit/Withdrawal status Invalid
*#54
*#55
       CASH/CHECK/OTR Cash/Check/Other status Invalid
                                                                        Λ
*#56
        SOURCE
                        Transaction source invalid
*#57
                        Form does not match
        FORM
        PRVT SOURCE AMT Private source amount invalid or < 0 or > 99999 0
*#58
*#59
        GRATUITOUS AMT Gratuitous amount invalid or < 0 or > 99999
*#60
       PEUNDS CLERK
                       PFunds clerk invalid
```

#### Detail

The Detail report provides detail of each record in the Diagnostic Summary Report that contains an error. Use this information to diagnose the problem and locate the record containing the error so that you can correct it. The following is a sample portion of the M Diagnostic Detail report. For more information about the fields that are in the patient record, see Appendix C – Extraction File Layouts.

```
STATION ID=442^ERR#=2^NAME=AAA_X,CXTHW_16481^DESC=Patient Name contains invalid data^VALUE=>AAA_X,CXTHW<br/>
STATION ID=442^ERR#=15^NAME=AAA_X,CXTHW_16481^DESC=Provider name contains invalid data^VALUE=>:TUXRS,AHXYLUI H III<br/>
STATION ID=442^ERR#=15^NAME=FAXEU,AHTADH GUHI_7184376^DESC=Provider name contains invalid data^VALUE=>:TUXRS,AHXYLUI H III<br/>
STATION ID=442^ERR#=15^NAME=SLWW,CDZZDH Y_2159^DESC=Provider name contains invalid data^VALUE=>:TUXRS,AHXYLUI H III<br/>
STATION ID=442^ERR#=20^NAME=SLWW,CDZZDH Y_2159^DESC=Provider name contains invalid data^VALUE=>:TUXRS,AHXYLUI H III<br/>
STATION ID=442^ERR#=20^NAME=LLBH,UDJELUI Q_11296^DESC=No Physician name for L or R^VALUE=>R<br/>
STATION ID=442^ERR#=23^NAME=LLBH,UDJELUI Q_11296^DESC=Apportionee $ out of range either < 0 or > $99,999.00^VALUE=>120000<br/>
STATION ID=442^ERR#=24^NAME=LLBH,UDJELUI Q_11296^DESC=Guardian $ out of range either < 0 or > $99,999.00^VALUE=>120000<br/>
STATION ID=442^ERR#=25^NAME=LLBH,UDJELUI Q_11296^DESC=Institutional award out of range either < 0 or > $99,999.00^VALUE=>130000<
```

(truncated)



## **M Extract Results**

After you run the M Extract routine, the results of the extract routine are displayed in a flat file on the M Extract page as shown below. This flat file contains the following record types. The structure of each of these records is listed in Appendix C – Extraction File Layouts.

A1 - header D1 - demographics 1 D2 - demographics 2 B1 - balance 1 B2 - balance 2	T1 - transaction 1 S1 - suspense 1 S2 - suspense 2 S3 - suspense 3 I1 - income 1	R1 - general remarks 1 R2 - general remarks 2 X1 - special remarks 1 X2 - special remarks 2
---	--	--

```
VPFS^442^(VER#4.9) RUN-DATE@TIME=FEB 27, 2006@10:30:18^^^0^A1^1006^3184^548539125
VPFS^442^22^666019138^1002052393V697258^1^D1^BLEU,CXEY P^666019138^2196665^^SS^123 EASY ST^BUILDING 1^Apartment
101°BOOMTOWN°27°54321°BRUIHSS,UXKHUS Z JR°442
VPFS^442^22^666019138^1002052393V697258^2^D2^22^I^L^N^N^999^888^777^6010^200^3000822^^1728
VPFS^442^22^666019138^1002052393V697258^3^B1^^^^00^0100^25^3050600^964^0^0
VPFS^442^22^666019138^1002052393V697258^4^B2^20^10000^25^9999
VPFS^442^22^666019138^1002052393V697258^5^11^BOB JONES^JIM JONES^5^W
VPFS^442^22^666019138^1002052393V697258^9^R1^GENERAL REMARKS LINE 2 FFFFFFFF FFFFFFF GGGGGGG HHHHHHHH
VPFS^442^22^666019138^1002052393V697258^10^R1^IIIIIIIII JJJJJJJJJ
VPFS^442^22^666019138^1002052393V697258^13^X1^
VPFS^442^22^666019138^1002052393V697258^15^X1^DFDSFSDFSADF DFDFDFDFS
```

(truncated)



## Stage Data Log File

The Stage Data log file is generated by Oracle SQL\*Loader. This log will provide detail about any records that were rejected. (The middle of the log file has been truncated in this example.)

#### **Top Portion**

```
SQL*Loader: Release 10.2.0.1.0 - Production on Mon Feb 27 10:30:55 2006
Copyright (c) 1982, 2005, Oracle. All rights reserved.
                 D:\vmdata\VPFS\CODE\vpfs load temp.ctl
Control File:
                 D:\vmdata\VPFS\442\vpfs_extraction.txt
D:\vmdata\VPFS\442\vpfs_stage.bad
Data File:
  Bad File:
  Discard File: none specified
 (Allow all discards)
Number to load: ALL
Number to skip: 0
Errors allowed: 50
Bind array:
                 64 rows, maximum of 256000 bytes
Continuation:
                  none specified
Path used:
                 Conventional
Table DM_A1, loaded when REC_TYPE = 0X4131(character 'A1')
Insert option in effect for this table: APPEND
TRAILING NULLCOLS option in effect
                                  Position
                                              Len Term Encl Datatype
   Column Name
APPLICATION_NM
                                       FIRST
                                                10
STATION_ID
                                                10
                                                              CHARACTER
EMPTY1
                                        NEXT
                                                              CHARACTER
  (FILLER FIELD)
EMPTY2
                                        NEXT
                                                               CHARACTER
  (FILLER FIELD)
EMPTY3
                                        NEXT
                                                               CHARACTER
  (FILLER FIELD)
REC_NUM
REC TYPE
                                        NEXT
                                                10
                                                               CHARACTER
                                        NEXT
                                                 2
                                                               CHARACTER
NUM PAT ACCNTS
                                                10
                                                               CHARACTER
                                        NEXT
NUM RECS IN FILE
                                        NEXT
                                                10
                                                              CHARACTER
Table DM D1, loaded when REC TYPE = 0X4431(character 'D1')
Insert option in effect for this table: APPEND
TRAILING NULLCOLS option in effect
                                              Len Term Encl Datatype
   Column Name
                                  Position
APPLICATION NM
                                           1
                                                1.0
                                                              CHARACTER
                                                              CHARACTER
STATION ID
                                        NEXT
                                                10
PAT_IEN
                                        NEXT
                                                15
                                                              CHARACTER
SSN
                                        NEXT
                                                10
                                                              CHARACTER
PAT_ICN
REC_NUM
REC_TYPE
                                        NEXT
                                                30
                                                              CHARACTER
                                        NEXT
                                                10
                                                              CHARACTER
                                        NEXT
                                                              CHARACTER
FULL NAME
                                        NEXT
                                               150
                                                              CHARACTER
SSN1
                                        NEXT
                                                10
                                                              CHARACTER
DOB
                                        NEXT
                                                10
                                                              CHARACTER
WARD
                                        NEXT
                                                30
                                                              CHARACTER
CLAIM_NBR
                                        NEXT
                                                              CHARACTER
ADDR1
                                        NEXT
                                                              CHARACTER
                                                35
                                                              CHARACTER
                                        NEXT
ADDR3
                                                              CHARACTER
                                                              CHARACTER
STATE
                                        NEXT
                                                 2
                                                              CHARACTER
ZIP
                                        NEXT
                                                              CHARACTER
PROV NAME
                                        NEXT
                                               100
                                                              CHARACTER
DIVISION ID
                                        NEXT
                                                10
                                                              CHARACTER
```

#### **Bottom Portion**

```
......
Table DM S123, loaded when REC TYPE = 0X5333(character 'S3')
Insert option in effect for this table: APPEND
TRAILING NULLCOLS option in effect
   Column Name
                                  Position Len Term Encl Datatype
APPLICATION NM
                                                               CHARACTER
STATION ID
                                        NEXT
                                                 10
                                                               CHARACTER
PAT_IEN
                                        NEXT
                                                              CHARACTER
                                                 15
SSN
                                        NEXT
                                                              CHARACTER
                                                 10
PAT_ICN
REC_NUM
REC_TYPE
                                        NEXT
                                                 30
                                                              CHARACTER
                                        NEXT
                                                              CHARACTER
                                                 10
                                        NEXT
                                                              CHARACTER
                                                  2
\mathtt{ITE}\overline{\mathtt{M}}\,\mathtt{\_ID}
                                        NEXT
                                                 50
                                                              CHARACTER
ITEM_DESC
                                                              CHARACTER
                                        NEXT
                                                255
value used for ROWS parameter changed from 64 to 49
Record 42: Rejected - Error on table DM_S123, column STATION_ID.
Field in data file exceeds maximum length
Record 43: Rejected - Error on table DM_S123, column APPLICATION_NM.
Field in data file exceeds maximum length
Record 45: Discarded - failed all WHEN clauses.
Record 47: Rejected - Error on table DM_S123, column STATION_ID.
Field in data file exceeds maximum length
Record 49: Discarded - failed all WHEN clauses.
Record 51: Discarded - failed all WHEN clauses.
Record 53: Rejected - Error on table DM_S123, column STATION_ID.
Field in data file exceeds maximum length
Table DM A1:
  1 Row successfully loaded.
  O Rows not loaded due to data errors.
  3191 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM D1:
  1006 Rows successfully loaded.
  O Rows not loaded due to data errors.
  2186 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM D2:
  1006 Rows successfully loaded.
O Rows not loaded due to data errors.
  2186 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM B1:
  1006 \overline{\text{Rows}} successfully loaded.
  O Rows not loaded due to data errors.
  2186 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM B2:
  15 Rows successfully loaded.
  0 Rows not loaded due to data errors.
  3177 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM I1:
  15 Rows successfully loaded.
  O Rows not loaded due to data errors.
  3177 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM R1 R2:
  72 Rows successfully loaded.
  O Rows not loaded due to data errors.
  3120 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
```

Table DM R1 R2:

```
0 Rows successfully loaded.
  O Rows not loaded due to data errors.
  3192 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM X1 X2:
  24 Rows successfully loaded.
  0 Rows not loaded due to data errors.
  3168 Rows not loaded because all WHEN clauses were failed.
  0 Rows not loaded because all fields were null.
Table DM X1 X2:
  0 Rows successfully loaded.
  0 Rows not loaded \bar{d}ue to data errors.
  3192 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM T1:
  2 Rows successfully loaded.
  O Rows not loaded due to data errors.
  3190 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM S123:
  9 Rows successfully loaded.
  0 Rows not loaded due to data errors.
  3183 Rows not loaded because all WHEN clauses were failed.
  0 Rows not loaded because all fields were null.
Table DM S123:
  29 Rows successfully loaded.
  4 Rows not loaded due to data errors.
  3159 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Table DM S123:
  0 Rows successfully loaded.
  O Rows not loaded due to data errors.
  3192 Rows not loaded because all WHEN clauses were failed.
  O Rows not loaded because all fields were null.
Space allocated for bind array:
                                                 255094 bytes (49 rows)
      buffer bytes: 1048576
Read
Total logical records skipped:
                                        Λ
Total logical records read:
                                      3192
Total logical records rejected:
                                        4
Total logical records discarded:
                                         3
Run began on Mon Feb 27 10:30:55 2006
Run ended on Mon Feb 27 10:30:56 2006
Elapsed time was:
                      00:00:01.24
CPU time was:
                      00:00:00.32
```

### Stage Data Bad File

The Stage Data "Bad" file contains the raw records from the extract file that could not be staged. Use this file in conjunction with the Stage Data log file to determine what data is causing any rejected records.

```
IF ITEM^THIS IS TEXT FO
R A SEPERATE ITEM
IF ITEM^THERE IS A BLANK LINE BEFORE THIS ONE
IF ITEM^THIS IS A SEPERATE ITEM TEXT ENTERY WITH 2 BLANK LINES BEFORE IT.
```



This page intentionally blank.

## **Analyze Report**

The Analyze Data Report contains detail for any patient records containing warnings or errors.

=======	======= VPFS - Analyze Report	for Station	442 on 02/27/2006 1	10:02 AM ========	===
	Patient Name field cannot be b		REC_NUM		
666024936	NAME-MISSING-SSN#666024936	39665	2886		
1 row crea	ated.				
=======		== INVALID N	AME ========		
Rule: The	Patient Name field must be bet	ween 3 and 3	0 characters.		
no rows se	elected				
0 rows cre	eated.				
		==== BLANK S	SN ========		
Rule: The	SSN field cannot be blank.				
no rows se	elected				
0 rows cre	eated.				
		=== INVALID	SSN =======		
Rule: The	SSN field must be 9 digits. An	optional 10	th character 'P' is	allowed (for pseudo-SSN)	•
0 rows cre	eated.				

Rule: Duplicate SSNs are not allowed. (Check within data for this station.)
no rows selected
O rows created.
DUPLICATE SSN (ANY STATION)
Rule: Duplicate SSNs are not allowed. (Check within data at any station.)
no rows selected
O rows created.
PSEUDO SSN (WARNING)
Rule: The SSN field contains a pseudo-SSN value (10th character is a 'P').
no rows selected
INVALID ICN ===================================
Rule: The ICN field must be between 1 to 10 digits, optionally followed by a 'V' and a 6 digit checksum. An additional 6 digit prefix and 6 digit suffix are also allowed for future use. SSN IEN REC_NUM PAT_ICN
666000363 29534 2393 -1
1 row created.
Rule: Duplicate ICNs are not allowed. (Check within data for this station.)
no rows selected
O rows created.

======================================
Pula Pumlianta IONa and material (Charle within data at any station )
Rule: Duplicate ICNs are not allowed. (Check within data at any station.)
no rows selected
0 rows created.
======================================
Rule: The DOB field cannot be blank.
Rule: The DOB Tield Califor be blank.
no rows selected
0 rows created.
======================================
Rule: The DOB field must be a valid VistA date. (Imprecise dates are allowed.)
no rows selected
no lows selected
0 rows created.
0 10 10 010 010 010 010 010 010 010 010
>> 0 records with an imprecise date of birth will be set to the first day of the month/year.
>> 0 records with an imprecise date of birth will be set to the first day of the month/year.
======================================
INVALID WARD LENGTH
======================================
INVALID WARD LENGTH
Rule: The Ward field must be between 2 and 30 characters.
INVALID WARD LENGTH
Rule: The Ward field must be between 2 and 30 characters.
Rule: The Ward field must be between 2 and 30 characters.  no rows selected
Rule: The Ward field must be between 2 and 30 characters.  no rows selected
Rule: The Ward field must be between 2 and 30 characters.
Rule: The Ward field must be between 2 and 30 characters.  no rows selected
Rule: The Ward field must be between 2 and 30 characters.  no rows selected
Rule: The Ward field must be between 2 and 30 characters.  no rows selected
Rule: The Ward field must be between 2 and 30 characters.  no rows selected  0 rows created.
Rule: The Ward field must be between 2 and 30 characters.  no rows selected  0 rows created.

```
Rule: The Claim Number field must be between 7 and 9 digits or 'SS'.
no rows selected
0 rows created.
______
Rule: The Account Status field must be an 'A' or 'I'. (Blanks will be set to 'A'.)
no rows selected
0 rows created.
     O records with a blank account status will be set to A (Active).
______
Rule: The Patient Type field must be 'L', 'R', 'U', or 'X'. (Blanks will be set to 'U'.)
no rows selected
0 rows created.
    197 records with a blank patient type will be set to U (Unknown).
>>
______
______
Rule: The Provider Name field cannot be blank for type 'L' or 'R' patients.
SSN
   IEN
        REC NUM PAT TYPE PRVDR NAME
666010009 1647
         247
             R
666012001 11296
         994
             R
666012006 201
         50
             R
666019004 2236
         346
             R
666046008 37939
         2852
             R
5 rows created.
```

Rule: The Provider Name field must be between 3 and 30 characters.

no rows selected

0 rows created.

Rule: The Current Restriction Date field cannot be blank for type 'L' or 'R' patients.

#### CURRENT

SSN	IEN	REC_NUM	PAT TYPE	DATE
666019008 666023064 666026702 666026849 666028954 666035039 666046598 666054826 666057730	22 16481 24966 20598 16490 23846 37939 11081 29192	1 1338 1975 1625 1346 1914 2852 981 2348	L R R R R R R R R	
666067760	7174481	3106	R	

10 rows selected.

10 rows created.

Rule: The Current Restriction Date field must be a valid VistA date. (Imprecise dates are NOT allowed.) no rows selected

O rows created.

Rule: The Patient Type field must be 'A', 'N', 'R', 'C', or 'X'. (Blanks will be set to 'X'.)

```
no rows selected
0 rows created.
    722 records with a blank patient status will be set to X (Unknown).
______
Rule: The Indigent field must be 'Y', or 'N'. (Blanks will be set to 'N'.)
no rows selected
0 rows created.
    722 records with a blank indigent status will be set to N (No).
______
______
Rule: The Apportionee Amount cannot be less than 0. Amounts over 99,999 are displayed as warnings.
            APPORTIONEE
SSN
    IEN
        REC NUM
              AMOUNT
_______
       995
666010001 11296
           110000
666010004 2236
        347
            110000
0 rows created.
______
______
Rule: The Guardian Amount cannot be less than 0. Amounts over 99,999 are displayed as warnings.
             GUARDIAN
SSN
    IEN
        REC NUM
              AMOUNT
```

0 rows created.

666010001 11296

666000024 2236

995

347

120000

110000

Rule: The Inst. Award Amount cannot be less than 0. Amounts over 99,999 are displayed as warnings.

# INSTITUTIONAL REC\_NUM AWARD AMOUNT

666012000 11296 995 130000 666010000 2236 347 141000

IEN

0 rows created.

SSN

Rule: The Other Assets Amount cannot be less than 0. Amounts over 99,999 are displayed as warnings.

OTHER ASSETS NUM AMOUNT

SSN IEN REC\_NUM AMOUNT
666066664 2236 347 140000

0 rows created.

Rule: The Account Balances cannot be less than 0. Balances over 99,999 are displayed as warnings. The Stored Balance must also equal the sum of the Private and Gratuitous Balances.

			PRIVALE	GRATUTIOUS
			SOURCE	SOURCE
		STORED	STORED	STORED
IEN	REC_NUM	BALANCE	BALANCE	BALANCE
8339	861	809000	809000	0
148	30	\$1400	0	1400
27228	2094	123123	0	123123
27068	2076	150000	0	150000
	8339 148 27228	8339 861 148 30 27228 2094	IEN     REC_NUM     BALANCE       8339     861     809000       148     30     \$1400       27228     2094     123123	SOURCE   STORED   STORED   STORED

1 row created.

0 rows created.

0 rows created.

1 row created.

Rule: The Restriction Balances or Limits cannot be less than 0 or more than 99,999. The Monthly Limit cannot be less than the Weekly Limit.

Monthly Limits less than 5x the Weekly Limits are displayed as warnings.

		011011 011	MONTHLY			
						RESTRICTED
SSN	IEN	REC_NUM			LIMIT	
666010666	267	0.0			50	
666010009	1647	2/0	0	0	2.0	E
666010537	3050	562	0	0	60.00 60.00 200	15 00
666010008	2254	354	0	0	60	15.00
666011007	330	76	0	0	60.00	15.00
666010008 666011007 666010011	11296	996	0	0	200	500
666018770	3402	484	0	0	100	25
666015802	3008	451	0	0	125	30
666015870	3590	502	0	0	60.00	15.00
666015888	578	126	0	0		250
666019102		361	0	0	60.00	
666019198		423	0	0	200	50
666019889		3	0	0	100	25
666019624		348	0		5000	
666022222			0		60.00	
666022238			0	0	60.00	
666023331		332	0	0	100	25
666024444				75	200	50
666025515			0		100	
666026766			0	0	120	30
666026665 666035556			0	0	60 20	15 35
666040665			0			15.00
666045445			0	0	100	25
666044562			0	0	200	50
666049766	19138	1524	0	0		15.00
666054826	11081	983	0	0	100	25
CCC0F0F14	25201	2000	0			15.00
666065772	30958	2520	0	0	60.00	15.00
666058514 666065772 666067430	29192	2350	0	0	100	25
666067760			0	0	20	25
666085822		3176	0	0	100	25

<sup>32</sup> rows selected.

<sup>0</sup> rows created.

<sup>0</sup> rows created.

<sup>0</sup> rows created.

<sup>0</sup> rows created.

_		
./	rows	created.

Rule: The Min / Max Balances cannot be less than 0. Balances over 99,999 are displayed as warnings.

		1,1 11,1	ITAA
		BALANCE	BALANCE
IEN	REC_NUM	ONE	ONE
11296	997	120000	900000
22668	1796	100	110000
27625	2140	110000	190000
	11296 22668	11296 997 22668 1796	BALANCE IEN REC_NUM ONE

0 rows created.

0 rows created.

Rule: The Balance Record (B1) is missing.

no rows selected

0 rows created.

Rule: The Income Source Payee field cannot be blank. SSN  $$\tt IEN$$   ${\tt REC\_NUM}$   ${\tt INCOME}$  SOURCE

SSN IEN REC\_NUM INCOME\_SOURCE PAYEE

666067760 7174481 3111 nev

1 row created.

Rule: The Income Amount field cannot be blank.

SSN IEN REC\_NUM INCOME\_SOURCE AMOUNT

666013608 5531 685 SELF

1 row created.	
INVALID INCOME AMO	
======= INVALID INCOME AND	
Rule: The Income Amount cannot be less than 0. Amounts or	ver 99,999 are displayed as warnings.
no rows selected	
0 rows created.	
INVALID FREQUENCY (	
Rule: The Frequency Code field must be 'D', 'W', 'M', 'Y'	', 'X', 'V', 'O', or blank.
no rows selected	
0 rows created.	
BLANK STATION II	
Rule: The Station ID field cannot be blank.	
no rows selected	
0 rows created.	
======= INVALID STATION D	ID ========
Rule: The Station ID field must be the station being mign SSN IEN FULL NAME	rated (e.g. 442) or a child of that station (e.g. 4429AA). STATION ID
666014270 3402 VPFSPATIENT,1	6569AA
666015802 3008 VPFSPATIENT,2 666017673 148 VPFSPATIENT,3	679 512
666049465 27228 VPFSPATIENT,4	656
4 rows created.	

========	=========	=== PATIENT COUNTS BY STATION ID (INFO) ====	=======================================
Information STATION ID	Only: Display COUNT	e number of patients at each station present	in this migration.
442	995		
4429AA	7		
512	1		
656	1		
6569AA	1		
679	1		
6 rows sele	cted.		
========	=========		=======================================
========	=========	======= INVALID GENERAL REMARKS ========	=======================================
========	========		
		eld cannot be more than 2000 characters (wil	l be truncated to 2000 char.).
no rows sel	ected		
		======= INVALID SPECIAL REMARKS ========	=======================================
Rule: The S	pecial Remarks	eld cannot be more than 2000 characters (wil	l be truncated to 2000 char.).
no rows sel	ected		
		======== invalid suspense date ========	=========
Rule: The S	uspense Date f	d must be a valid VistA date. (Imprecise dat	es and blanks are NOT allowed.)
no rows sel	ected		
0 rows crea	ted.		
========		======================================	==========
=======	========		=======================================
Rule: The S	uspense ID fie	cannot be blank.	
no rows sel	ected		
0 rows crea	ted.		

\_\_\_\_\_\_\_ Rule: The Suspense Text field cannot be blank. SUSPENSE SUSPENSE SUSPENSE SSN IEN DATE TEXT 666017673 148 HERE IS A D 6 rows selected. 1 row created. Rule: Ensure the necessary records exist to build a complete suspense item (minimum of 1 S1 and 1 S2). Suspense Items (S2) without a corresponding Suspense Date (S1) no rows selected Suspense Text (S3) without a corresponding Suspense Item (S2) no rows selected 0 rows created. 0 rows created. \_\_\_\_\_\_ \_\_\_\_\_\_ Rule: The Transaction Amounts cannot be less than 0 or more than 99,999. The Transaction Amount cannot be blank, and one of either the Private Amount or Gratuitous Amount must not be blank. The Transaction Amount must also equal the sum of the Private Source and Gratuitous Amounts. no rows selected 0 rows created. 0 rows created.

0 rows created.
0 rows created.
0 rows created.
Rule: The Last Transaction Date field must be a valid VistA date. (Imprecise dates are NOT allowed.) no rows selected  0 rows created.
Rule: The Deferral Date field must be a valid VistA date. (Imprecise dates and blanks are NOT allowed.) no rows selected
0 rows created.
Rule: The Transaction Date field must be a valid VistA date. (Imprecise dates and blanks are NOT allowed.) no rows selected
0 rows created.
Rule: The Transaction Entered Date field must be a valid VistA date. (Imprecise dates and blanks are NOT allowed.
0 rows created.

======================================
Rule: The Reference field must be between 1 and 10 characters and cannot be blank.
no rows selected
0 rows created.
======================================
Rule: The Deposit/Withdrawal Code field must be 'D' or 'W'.
no rows selected
0 rows created.
INVALID CASH/CHECK/OTHER STATUS
Rule: The Cash/Check/Other Code field must be '1', '2', or '3'.
no rows selected
0 rows created.
INVALID SOURCE
Rule: The Source Code field must be 'P', 'G', or 'B'.
no rows selected
0 rows created.
======================================
Rule: The Form field cannot be blank. Form values not in the standard Forms list are displayed as warnings
no rows selected
0 rows created.

\_\_\_\_\_\_ Rule: The Patient Funds Clerk field must be between 3 and 35 characters and cannot be blank. no rows selected 0 rows created. \_\_\_\_\_\_ Information Only: no rows selected \_\_\_\_\_\_ Information Only: GRATUITOUS PRIVATE SOURCE SOURCE ACCOUNT STORED STORED STORED SSN IEN STATUS BALANCE BALANCE BALANCE 666011585 32300 \$.00 \$.00 \$.00 666015806 1186 \$.00 \$.00 \$.00 NaN 666017673 148 \$.00 \$1,400.00 Α 666019238 507 \$.00 \$.00 Α \$.00 \$.00 \$.00 666019624 2236 \$.00 Α 666022238 3600 \$.00 \$.00 \$.00 Α \$.00 666039076 24254 \$.00 \$.00 Α 666047363 29534 А \$.00 \$.00 \$.00 666048128 22668 Α \$.00 \$.00 \$.00 666048595 16528 \$.00 \$.00 \$.00 Α 666049742 19138 \$.00 \$.00 \$.00 Α 666051920 27625 Α \$.00 \$.00 \$.00 666052928 28582 Α \$.00 \$.00 \$.00 666061997 27972 \$.00 \$.00 \$.00 14 rows selected. ========= DEFERRED TRANSACTIONS BALANCE LIST (INFO) ============================= \_\_\_\_\_\_\_ Information Only: PRIVATE GRATUITOUS SOURCE SOURCE PRIVATE GRATUITOUS STORED STORED STORED TRANS TRANS TRANS

SSN	IEN	BALANCE	BALANCE	BALANCE	AMT	AMT	AMT
666035039	23846	\$200.00	\$.00	\$200.00	\$200.00	\$.00	\$200.00
666084319	7179975	\$10.00	\$10.00	\$.00	\$10.00	\$10.00	\$.00

DD TTTAME GD A MITTMOTTO

Information Only:

SSN	IEN	STORED BALANCE	PRIVATE SOURCE STORED BALANCE	GRATUITOUS SOURCE STORED BALANCE
666010088 666010653 666017766 666012511 666016543 666014577 666022277 666028791 666028491 666025116 666025116 666025116 666032555 666049465 666053711 666063755 666067760 666071083	367 8339 2344 11296 201 3402 16683 2159 16481 7173155 2244 19626 20598 16490 31754 27228 40556 37168 36880 7178549 7174481 27068	\$190.00 \$809,000.00 \$275.00 \$10.00 \$10.00 \$110.00 \$805.00 \$35.00 \$90.00 \$130.00 \$120.00 \$120.00 \$110.00 \$450.00 \$123,123.00 \$160.00 \$10.00 \$10.00 \$10.00 \$10.00	\$190.00 \$809,000.00 \$275.00 \$10.00 \$14.00 \$110.00 \$805.00 \$9.00 \$130.00 \$120.00 \$130.00 \$120.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00 \$100.00	\$.00 \$.00 \$.00 \$100.00 \$50.00 \$.00 \$.00 \$.00 \$.00 \$.00 \$.
0000.1000		7230,000.00	φ.00	7250,000.00

22 rows selected.

TOTAL FOR ALL ACCOUNTS:

	TOTAL	DEFERRED		TOTAL
ACCOUN	IT BALANCE	TRANSACTIONS	DEFERRED	AMOUNT
\$1,0	85,425.00	2	:	\$210.00

TOTAL FOR MIGRATED ACCOUNTS (EXCLUDING PATIENT ACCOUNTS WITH ERRORS):

TOTAL DEFERRED TOTAL ACCOUNT BALANCE TRANSACTIONS DEFERRED AMOUNT

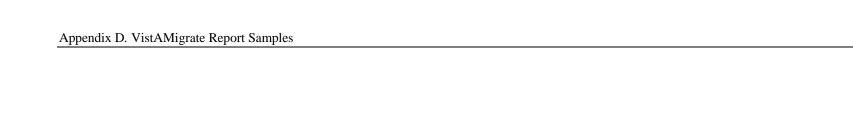
\$961,093.00 1 \$10.00

>>> >> NOTE: THE FOLLOWING PATIENT ACCOUNTS HAVE ERRORS AND WILL NOT BE MIGRATED! <>< <<

#### 33 rows updated.

SSN	IEN	FULL NAME
666010088	367	VPFSPATIENT,1
		VPFSPATIENT, 2
666012511	11296	VPFSPATIENT, 3
666012546	201	VPFSPATIENT, 4
666013608	5531	VPFSPATIENT, 5
666014270	3402	VPFSPATIENT, 6
666015802	3008	VPFSPATIENT, 7
666015888	578	VPFSPATIENT, 8
666017673	148	VPFSPATIENT,9
666019138	22	VPFSPATIENT, 10
666019624	2236	VPFSPATIENT, 12
666023064	16481	VPFSPATIENT, 13
666024315	2244	VPFSPATIENT, 14
666024936	39665	VPFSPATIENT,15
666026702	24966	VPFSPATIENT,16
666026849	20598	VPFSPATIENT,17
666028954	16490	VPFSPATIENT,18
666035039	23846	VPFSPATIENT,19
666046598	37939	VPFSPATIENT, 20
666047363	29534	VPFSPATIENT, 21
666049465	27228	VPFSPATIENT, 22
	11081	VPFSPATIENT, 23
666067730	29192	VPFSPATIENT, 24
666067760	7174481	VPFSPATIENT, 25

24 rows selected.



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### **Convert Data Results**

The Convert Data results file contains a log of the steps performed while converting the patient data.

```
mainVPFS Process Started on 02/27/2006 10:33:28.)
preConversionCheck Process Started on 02/27/2006 10:33:28.)
preConversionCheck Institution record check completed on 02/27/2006 10:33:28.)
preConversionCheck Blank name check completed on 02/27/2006 10:33:28. 0 Records converted.)
preConversionCheck Blank SSN check completed on 02/27/2006 10:33:28. 0 Records converted.)
preConversionCheck Duplicate SSN check completed on 02/27/2006 10:33:28. 0 Records converted.)
preConversionCheck Duplicate IEN/DFN check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Blank division id check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid division id check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck L/R patient type with no physician name check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid indigent code check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Income source present but blank payee check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Income source present but blank amount check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Valid income amount check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid frequency check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid account status type check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid patient type check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid patient status check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid deposit/withdraw check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid cash/check/other status check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid transaction source check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Invalid transaction amount check completed on 02/27/2006 10:33:29. 0 Records converted.)
preConversionCheck Record counts check completed on 02/27/2006 10:33:29.)
preConversionCheck Process Completed on 02/27/2006 10:33:29. 982 Records converted.)
prepDates Process Started on 02/27/2006 10:33:29.)
prepDates dm d1.dob conversion completed on 02/27/2006 10:33:29.)
prepDates dm_d2.date_last_trans conversion completed on 02/27/2006 10:33:29.)
prepDates dm d2.date curr restr conversion completed on 02/27/2006 10:33:30.)
prepDates dm t1.deferral dt conversion completed on 02/27/2006 10:33:30.)
prepDates dm t1.trans date conversion completed on 02/27/2006 10:33:30.)
prepDates dm t1.date trans entered conversion completed on 02/27/2006 10:33:30.)
prepDates dm d1.division id match completed on 02/27/2006 10:33:30.)
prepDates Process Completed on 02/27/2006 10:33:30.)
insertPerson Process Started on 02/27/2006 10:33:30. 982 Records converted.)
insertPerson Process Completed on 02/27/2006 10:33:31. 982 Records converted.)
insertPatientAccount Process Started on 02/27/2006 10:33:31.)
insertPatientAccount Process Completed on 02/27/2006 10:33:34. 982 Records converted.)
insertIncomeSource Process Started on 02/27/2006 10:33:34.)
insertIncomeSource Insert from DM I1 completed on 02/27/2006 10:33:35.)
insertIncomeSource Insert from DM D2, apportionee$ completed on 02/27/2006 10:33:35.)
insertIncomeSource Insert from DM_D2, guardian$ completed on 02/27/2006 10:33:35.)
insertIncomeSource Insert from DM D2, institut award$ completed on 02/27/2006 10:33:35.)
insertIncomeSource Insert from DM D2, other assets$ completed on 02/27/2006 10:33:35.)
insertIncomeSource Process Completed on 02/27/2006 10:33:35. 17 Records converted.)
insertAccountTransaction Process Started on 02/27/2006 10:33:35.)
insertAccountTransaction Insert from DM T1 completed on 02/27/2006 10:33:36.)
insertAccountTransaction Insert for BALCARFWD, private source amount w/ no corresponding deferred trans completed on 02/27/2006 10:33:36.)
insertAccountTransaction Insert for BALCARFWD, gratuitous amount w/ no corresponding deferred trans completed on 02/27/2006 10:33:36.)
insertAccountTransaction Insert for BALCARFWD, private amount > private deferred trans sum completed on 02/27/2006 10:33:36.)
insertAccountTransaction Insert for BALCARFWD, gratuitous amount > gratuitous deferred trans sum completed on 02/27/2006 10:33:36.)
insertAccountTransaction Update of verification status completed on 02/27/2006 10:33:37.)
insertAccountTransaction Update of child institution id completed on 02/27/2006 10:33:37.)
```

```
insertAccountTransaction Process Completed on 02/27/2006 10:33:37. 14 Records converted.) updateRunningBalance Process Started on 02/27/2006 10:33:37.) updatePunningBalance Process Completed on 02/27/2006 10:33:37.) updateDeferredAvailableBalance Process Started on 02/27/2006 10:33:37.) updateDeferredAvailableBalance Process Completed on 02/27/2006 10:33:37.) updateGeneralRemarks Process Started on 02/27/2006 10:33:37.) updateGeneralRemarks Process Completed on 02/27/2006 10:33:40.) updateSpecialRemarks Process Completed on 02/27/2006 10:33:40.) updateSpecialRemarks Process Started on 02/27/2006 10:33:40.) updateSpecialRemarks Process Completed on 02/27/2006 10:33:41.) insertSuspense Process Started on 02/27/2006 10:33:42.4 Records converted.) postConversionCheck Process Started on 02/27/2006 10:33:42.9 postConversionCheck Process Completed on 02/27/2006 10:33:42.9
```

#### **Errors**

If there were any errors encountered during conversion, those will be detailed in a separate Errors log file.

04/07/2005 17:40:00 Error in preConversionCheck: 1 records found with patient type L or R without provider name.

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## **Verify Report**

The Verify Data Report contains data that will assist in determining whether the migration was successful. By comparing the Verify Report against the Analyze Report, you can determine that there were no patients unexpectedly dropped during data conversion. (Some data portions of the report have been truncated in this example.)

			, nopolo lo	r Station 44	2 011 02/2//							
=======	=======================================	=======	RECORD COUN	T CHECK ====	=======	=======		=======				
PERSON_CNT	PAT_ACCT_CNT	ACCT_TRAN	S_CNT INCOM	IE_SOURCE_CNT	DM_D1_CNT	DM_D2_CNT	DM_B1_CNT	DM_B2_CNT	DM_I1_CNT	DM_T1_CNT	ı	
982	982		14	17	982	982	982	8	7	1		
========		======= :	NOT NULL CO	UNT CHECK ==				=======				
DOB NOT NULL	CURRENT RESTRICTN DATE	ENTERED NOT NULL	$\overline{ extsf{D}} extsf{OB}$	DATE NOT NULL	ENTERED	NOT NULL	GUARDN\$		OTHER ASSETS\$	DEFERRAL DATE	DM_T1 TRANS DATE NOT NULL	DM_T1 TRANS ENTERED DATE NOT NULL
982	24	970	982	24	970	4	2	4	0	1	1	1
		=======================================	NON-MIGRATE	D PATIENT AC	COUNT LIST							
		=======================================	NON-MIGRATE	D PATIENT AC	COUNT LIST							

666028954	VPFSPATIENT,	16	16490
666035039	VPFSPATIENT,	17	23846
666046598	VPFSPATIENT,	18	37939
666047363	VPFSPATIENT,	19	29534
666049465	VPFSPATIENT,	20	27228
666054826	VPFSPATIENT,	21	11081
666067730	VPFSPATIENT,	22	29192
666067760	VPFSPATIENT,	23	7174481

24 rows selected.

SSN	FULL NAME	PAT CODE	STATION	CLAIM NBR	WARD	ACCT STATUS	PAT TYPE	PAT STATUS	CURRENT RESTRICTN DATE	DOB	LAST TRANS ENTERED DATE	TOTAL BALANCE
666063555	VPFSPATIENT, 1	A3555	4429AA	SS		A	U	C		12/29/1924	06/21/2005	\$110.00
666025116	VPFSPATIENT, 2		4429AA	SS		A	U	X		01/07/1941	06/21/2005	\$120.00
666045322	VPFSPATIENT, 3	A5322	442	SS		I	U	X		12/23/1938	08/25/1997	\$.00
666020487	VPFSPATIENT, 4	A0487	442	SS		I	U	X		06/16/1920	05/26/1993	\$.00
666059361	VPFSPATIENT, 5	A9361	442	SS		I	U	X		04/19/1936	10/05/1992	\$.00
666035810	VPFSPATIENT, 6	A5810	442	SS		I	U	X			06/01/1993	\$.00
666056812	VPFSPATIENT, 7	A6812	442	SS		I	U	X			03/17/1995	\$.00
666072494	VPFSPATIENT, 8	A2494	442	SS		I	U	X		08/28/1929	12/17/2001	\$.00
		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			•••••		• • • • • • • • • •	•			
666030099	VPFSPATIENT, 0	Y0099 4		SS		I		X		04/12/1930		\$.00
666051696	VPFSPATIENT, 9	Y1696 4		SS		I		X		03/03/1923	, ,	\$.00
666014535	VPFSPATIENT, 10	Y4535 4		SS		I	U	X		11/29/1899		\$.00
666035862	VPFSPATIENT, 11	Y5862 4		SS		I		X		08/04/1948		\$.00
666072044	VPFSPATIENT, 12	Z2044 4		SS				X		10/29/1922		\$.00
666016895	VPFSPATIENT, 13	Z6895 4		SS				C		06/19/1912		\$.00
666038798	VPFSPATIENT, 14	Z8798 4		SS				X		06/18/1921		\$.00
666075939	VPFSPATIENT, 15	Z5939 4		SS				X		06/29/1956		\$.00
666031719	VPFSPATIENT, 16	Z1719 4						X		06/06/1953		\$.00
666027197	VPFSPATIENT, 17	Z7197 4	42	SS		I	U	X		12/15/1920	08/16/1993	\$.00
TOTAL												\$961,093.00
												7,02,000

982 rows selected.

SSN FULL NAME ACCOUNT STATUS TOTAL BALANCE

TOTAL

no rows selected

 	=====	
 TRANSACTIONS	LIST	
 	=====	

		TRANS	DEFERRAL	TRANS
SSN	FULL NAME	NUMBER REFERENCE TEXT	TRANS DATE DATE TRANS AMI	TYPE USER ID
666063555	VPFSPATIENT, 21	187 Initial VPFS deposit from PFOP	. 02/27/2006 \$110.00	D migration
666025116	VPFSPATIENT, 22	177 Initial VPFS deposit from PFOP	. 02/27/2006 \$120.00	D migration
666071083	VPFSPATIENT, 23	189 Initial VPFS deposit from PFOP	. 02/27/2006 \$150,000.00	D migration
666010653	VPFSPATIENT, 24	183 Initial VPFS deposit from PFOP	. 02/27/2006 \$809,000.00	D migration
666016669	VPFSPATIENT, 25	184 Initial VPFS deposit from PFOP	. 02/27/2006 \$275.00	D migration
666053711	VPFSPATIENT, 26	178 Initial VPFS deposit from PFOP	. 02/27/2006 \$100.00	D migration
666024180	VPFSPATIENT, 27	186 Initial VPFS deposit from PFOP	. 02/27/2006 \$90.00	D migration
666051958	VPFSPATIENT, 28	185 Initial VPFS deposit from PFOP	. 02/27/2006 \$160.00	D migration
666084319	VPFSPATIENT, 29	176 TEST DEF	01/27/2006 02/06/2006 \$10.00	D migration
666021252	VPFSPATIENT, 30	181 Initial VPFS deposit from PFOP	. 02/27/2006 \$110.00	D migration
666032555	VPFSPATIENT, 31	180 Initial VPFS deposit from PFOP	. 02/27/2006 \$3.00	D migration
666022681	VPFSPATIENT, 32	179 Initial VPFS deposit from PFOP	. 02/27/2006 \$805.00	D migration
666067490	VPFSPATIENT, 33	182 Initial VPFS deposit from PFOP	. 02/27/2006 \$110.00	D migration
666067490	VPFSPATIENT, 34	188 Initial VPFS deposit from PFOP	. 02/27/2006 \$200.00	D migration
TOTAL			\$961,093.00	ı

14 rows selected.

SSN FULL NAME	TRANS DEFERRAL NUMBER TRANS DATE DATE	PATIENT TOTAL BALANCE	PATIENT DEFERRED BALANCE	PATIENT AVAILABLE BALANCE	TRAN TRANS AMT TYPE	MASTER IS TRANS E CODE
666084319 VPFSPATIENT, 65	176 01/27/2006 02/06/2006	\$10.00	\$10.00	\$.00	\$10.00 D	6392M
TOTAL					\$10.00	

SSN	PATIENT TOTAL BAL	PATIENT AVAILABLE BAL	PATIENT DEFERRED BAL	PATIENT PRIVATE SRC BAL	PATIENT GRATUITOUS BAL	TRANS AMT	PRIVATE SRC	GRATUITOUS AMT	MASTER RUNNING TRANS BAL CODE
666010653 666016669 666021252 666022681 666025116 666032555 666051958 666053711	\$809,000.00 \$275.00 \$110.00 \$805.00 \$90.00 \$120.00 \$3.00 \$160.00	\$809,000.00 \$275.00 \$110.00 \$805.00 \$90.00 \$120.00 \$3.00 \$160.00 \$100.00	\$.00 \$.00 \$.00 \$.00 \$.00 \$.00 \$.00	\$809,000.00 \$275.00 \$110.00 \$805.00 \$90.00 \$120.00 \$160.00 \$100.00	\$.00 \$.00 \$.00 \$.00 \$.00 \$.00 \$.00	\$809,000.00 \$275.00 \$110.00 \$805.00 \$90.00 \$120.00 \$3.00 \$160.00 \$100.00	\$809,000.00 \$275.00 \$110.00 \$805.00 \$90.00 \$120.00 \$3.00 \$160.00	\$.00 \$.00 \$.00 \$.00 \$.00 \$.00 \$.00	\$809,000.00 \$275.00 \$110.00 \$805.00 \$90.00 \$120.00 \$3.00 \$160.00 \$100.00
666063555	\$110.00	\$110.00	\$.00	\$.00	\$110.00	\$110.00	\$.00	\$110.00	\$110.00

\$150,000.00 \$150,000.00

\$110.00 \$310.00

\$10.00 6392M

\$.00 \$200.00

\$150,310.00

\$.00

666067490 666067490 666071083 666084319	\$310.00 \$310.00 \$150,000.00 \$10.00	\$310.00 \$310.00 \$150,000.00 \$.00	\$.00 \$.00 \$.00 \$10.00		\$200.00 \$150,000.00	\$200.00 \$150,000.00 \$10.00	\$110.00 \$.00 \$.00 \$10.00
TOTAL					-	\$961,093.00	\$810,783.00
14 rows se	lected.						
========		====== MIGRAT	ED TOTALS CHE	ECK ======			
PATIENT AC		BALANCES DEFER	NUMBER		TOTAL OF D AMOUNTS		
		61,093.00		1	\$10.00		
						.========	
=======				-=======			
SSN	FULL NAME		INCOME SOU	JRCE	INCO	OME SOURCE AMT F	REQ
666039856 666039856 666019127 66601256 66601256 666024180 666035137 666019865	VPFSPATIENT, VPFSPATIENT, VPFSPATIENT, VPFSPATIENT, VPFSPATIENT, VPFSPATIENT, VPFSPATIENT, VPFSPATIENT, VPFSPATIENT, VPFSPATIENT, VPFSPATIENT,	42 43 44 45 46 47 48 49	GUARDIAN INSTITUTIC APPORTIONE APPORTIONI INSTITUTIC INSTITUTIC INSTITUTIC APPORTIONE APPORTIONE GUARDIAN	EE EE DNAL AWARD DNAL AWARD DNAL AWARD		\$.00 \$50.00 \$100.00 \$600.00 \$600.00 \$9,228.00 \$26,736.00 \$178.00 \$100.00	
10 rows se	lected.						
PAT_ACCSPECIAL RM.	======================================	======= REMARK ====================================	S COUNT CHECK  PAT_ACCT  RAL RMKS DN  NOT NULL NO	( ======== ========= DM 1_R1_R2 DT_NULL			======
	16 16	18	53	53	54		
=======			NVERTED SPEC	IAL REMARKS	LIST ======		

no rows selected

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## **Appendix E. Local M Patches for Patient Funds**

Use the three patches provided for VPFS to diagnose, migrate, and finalize the migration of data from PFOP to VPFS.

## **Diagnostic Patch PRPF\*3.0\*15**

Use PRPF\*3.0\*15 (Patch 15) to diagnose errors and clean your data in the M environment before you migrate to the reengineered environment. Install and use Diagnostic Patch 15 well in advance of your actual data migration to make sure that your data is clean and ready to be migrated.

**Note:** Patch 15 is a reporting tool only. It does not prevent records with errors from being extracted from the M environment. Later, when you run the Analyze step on your extracted data in the reengineered environment, records with errors will be moved to an error file and will *not* be migrated.

#### Patch 15 does the following:

- Menu Option: Patch 15 adds a new menu option that allows users of the Patient Funds package to
  initiate a database diagnostic analysis. This database analysis is restricted to files relating to the
  Patient Funds package. The new menu option Database Diagnostic Report [PRPF DATA
  DIAGNOSTIC REPORT] appears on the Patient Funds Supervisor menu [PRPF SUPERVISOR] and
  requires the PRPF SUPERVISOR key.
  - o **Summary Report**: The database analysis produces a diagnostic summary report of invalid or missing data elements. The diagnostic summary report provides access to a detail report.
  - O **Detail Report**: The detail report includes specific break out information regarding all invalid or missing data elements that are in the summary report.

**Note**: To use the Database Diagnostic Report remotely via a VistALink call, you must enable the following Secondary Menu Options; XUPS VISTALINK, PRPF RPC UTILS, XUS KAAJEE WEB LOGON.

Following is a sample of the Supervisor menu including the Database Diagnostic Report menu option:

Select Patient Funds (INTEGRATED) System Option: 8 Supervisor Menu Add/Edit Patient Funds Forms 2 Enter/Edit Remarks Codes 3 Clear Account Lock 4 Deferral Date Edit 5 Productivity Report 6 Update Patient Status for ALL Accounts 7 Verify and Correct Balance 8 Archive Patient Funds Transactions Summarize & Purge Patient Funds Transactions 10 Date Variance Report Negative Balance Report 11 Database Diagnostic Report 12 Select Supervisor Menu Option:

## Migration Patch PRPF\*3.0\*16

Use Migration Patch 16 to migrate data from legacy PFOP to reengineered VPFS. This patch does all of the following:

- Remote Procedure Calls (RPC) Functionality: Patch 16 adds new Patient Funds RPC functionality that enables the VPFS migration application to transfer specific Patient Funds legacy data to the reengineering system. This new functionality is not added to the legacy Patient Funds menu because this functionality is intended for use as an RPC only. This RPC is invoked by VistALink from an outside migration server.
- **Proxy User for Nightly Updates**: This patch uses a post install routine PRPFMR2 that will create a proxy user account for the VPFS application to use during nightly updates with all legacy systems. The post install results create entries in the Patch 16 installation report. The patch installation report will always contain one of three possible responses from the proxy account install process:
  - Message 1: THE VPFS APPLICATION PROXY USER ACCOUNT HAS BEEN SUCCESSFULLY CREATED!

If message 1 is displayed in the patch 16 installation report, the account was created and no further action is required.

• Message 2: WARNING: THE VPFS APPLICATION PROXY USER ACCOUNT ALREADY PRESENT!!

If message 2 is displayed in the patch 16 installation report, the account was already present and the reason for this should be known by IRM. If there are any questions as to why the account is already present it should be investigated.

• Message 3: ERROR: THE VPFS APPLICATION PROXY USER ACCOUNT COULD NOT BE CREATED!!!

If message 3 is displayed in the patch 16 installation report, there was a problem and IRM should be approached for a resolution and patch 16 should be reinstalled.

- M Code and VistA Configuration: Patch 16 installs two Remote Procedure Calls (RPCs) that are invoked by VistALink and are used in the production and transfer of final migration data:
  - [PRPF DATABASE EXTR]
  - [PRPF DATABASE DIAG]

Patch 16 creates the context menu option [PRPF RPC UTILS] to control access to the new RPCs.

- **Security Keys**: Patch 16 adds the following security keys to the Patient Funds namespace, which are intended for use in controlling the access level or role of a VPFS user.
  - PRPF\_ACCOUNT\_OVERDRAW
  - PRPF BASIC OFFICIAL USER
  - PRPF BASIC PFC
  - PRPF\_DEFERRAL\_OVERRIDE
  - PRPF FISCAL MANAGEMENT
  - PRPF LEAD PFC
  - PRPF PFC SUPER
  - PRPF\_RESTRICTION\_OVERRIDE
  - PRPF VPFS SECURITY ADMIN
  - PRPF\_VPFS\_SYSTEM\_ADMIN
  - PRPF\_DATA\_MIGRATION\_USERS

### Patch PRPF\*3.0\*17

**Important**:

Patch 17 is intended for installation in a VistA environment that has successfully completed the migration process for the Patient Funds package and is ready to *disable* all write privileges to the legacy VistA Patient Funds package.

Load **Patch PRPF\*3.0\*17** after data is successfully migrated to the reengineered environment. **Patch PRPF\*3.0\*17** disables data entry menu options from the PFOP package while allowing all reports to continue to function normally. Files owned by the PRPF namespace are modified to require @ privilege to allow any changes to the PRPF namespaced files. The security keys required for this patch are listed in the patch description.

Table E-1. VistA Files Owned by the PRPF Namespace

File #	File Name
470	PATIENT FUNDS
470.1	PATIENT FUNDS MASTER TRANSACTION
470.2	PATIENT FUNDS FORMS
470.3	PATIENT FUNDS TRANSACTION COUNTER
470.5	PATIENT FUNDS TEMPORARY TRANSACTION
470.6	PATIENT FUNDS REMARKS CODE
470.9	PATIENT FUNDS ARCHIVE HISTORY

The following VistA Patient Funds menu options will be disabled by Patch 17 and are not intended to be reinstated:

```
[PRPF ADDRESS EDIT]
                                Address Edit
                                Archive Patient Funds Transactions
[PRPF ARCHIVE]
[PRPF CHANGE ACCOUNT STATUS]
                                Change Account Status (ACTIVE/INACTIVE)
[PRPF DEFERRAL DATE EDIT]
                               Deferral Date Edit
                                Add/Edit Patient Funds Forms
[PRPF FORMS EDIT]
[PRPF GUARDIAN EDIT]
                                Guardian Edit
[PRPF LONG REGISTRATION]
                              Long Form Registration
[PRPF MULTIPLE POST]
                               Multiple Transaction Posting
[PRPF POST]
                               Post Patient Funds Transaction
                              Post Balance Carried Forward from Manual System
[PRPF POST BAL CAR FWD]
                               Summarize & Purge Patient Funds Transactions
[PRPF PURGE]
[PRPF REGISTRATION]
                                Add/Edit Patient Account
[PRPF REMARKS CODE EDIT]
                               Enter/Edit Remarks Code
                               Edit Selected Patient Data
[PRPF SELECTED DATA EDIT]
[PRPF SHORT REGISTRATION]
                                Short Form Registration
[PRPF SUSPENSE ADD]
                                Add/Edit Suspense Item
[PRPF SUSPENSE DATE DELETE]
                               Kill Complete Suspense Date for Individual Patient
[PRPF SUSPENSE ITEM DELETE]
                                Delete Individual Suspense Item
[PRPF UPDATE STATUS (ALL)]
                                Update patient Status for ALL Accounts
[PRPF VERIFY & CORRECT]
                                Verify and Correct Balance
[PRPF TASKMAN UPDATE STATUS]
                                Update Patient Status for ALL Accounts (TASKMAN)
```

• Disable scheduled TaskMan tasks: Any scheduled TaskMan tasks that are related to the Patient Funds namespace [PRPF] such as;

```
Out of Balance Report (TASKMAN) [PRPF TASKMAN OUT OF BALANCE]
Update Patient Status for ALL Accounts (TASKMAN) [PRPF TASKMAN UPDATE STATUS]
Negative Balance Report (TASKMAN) [PRPF TASKMAN NEGATIVE BAL]
```

or any locally created tasks related to Patient Funds will be disabled permanently.

- File attribute change process: This patch will also use a post install routine PRPFMR3 which will change the write, delete, and Laygo attribute for any VistA user of the Patient Funds files mentioned above. These changes will affect any standard VistA user that has been given specific file access due to the site installing Kernel Part III. If any FileMan privilege has been granted to a user for use within VistA the user will now not be able to add, edit, or delete data within the Patient Funds files. These changes will only have limited effects on VistA users with programmer or DBA level privileges. When the post install routine completes execution it will be deleted for security reasons therefore the checksum can not be verified after patch installation. The post install results will create entries in the patch 17 installation report. The patch installation report will always contain one of two possible responses from the fileattribute change process:
- Message 1: PATIENT FUNDS FILE ACCESS HAS BEEN SUCCESSFULLY UPDATED! Then the attributes to the Patient Funds files and any user that has specific access to Patient Funds files has been successfully updated.
- Message 2: ERROR: PATIENT FUNDS FILE ACCESS HAS -NOT- BEEN SUCCESSFULLY UPDATED!!"
  Then there was a problem and IRM should be approached for a resolution and patch 17 will then need to be re-installed.

# **Appendix F. Acronyms and Abbreviations**

Term	Definition
ADPAC	Automated Data Processing Application Coordinator
API	Application Program Interface
ASIS	Application Structure and Integration Services
C&A	Certification and Accreditation
CHISS	Common Health Information Security Services
CI	Configuration Item
COTS	Commercial Off The Shelf
CPU	Central Processing Unit
CRUD	Create, Read, Update, Delete
CSS	Cascading Style Sheets
DAS	Delegated Administration Service
DBMS	Database Management System
DHTML	Dynamic HyperText Markup Language
DN	Distinguished Name
DOS	Disk Operating System
DSS	Decision Support System
EAR	Enterprise Archive
EJB	Enterprise Java Bean
EIS	Enterprise Information System
ERD	Entity Relationship Diagram
ETL	Extract, Transform, Load
FK	Foreign Key
FTP	File Transfer Protocol
HIPAA	Health Insurance Portability and Accountability Act
HIS	Health Information System
HL7	Health Level 7
HTML	HyperText Markup Language
HTTP	HyperText Transfer Protocol
HTTPS	HyperText Transfer Protocol Secure
ICN	Integration Control Number
IIG	Impact Innovations Group
IP	Internet Protocol
IFCAP	Integrated Patient Funds Distribution, Control Point Activity, Accounting and

Term	Definition	
	Procurement	
IPF	Integrated Patient Funds	
J2EE	Java <sup>™</sup> 2 Platform, Enterprise Edition	
JAAS	Java Authentication and Authorization Service	
JCA	Java Connector Architecture	
JDBC	Java Database Connectivity	
JDK	Java Development Kit	
JMS	Java Message Service	
JNDI	Java Naming Directory Interface	
JSP	Java Server Page	
JSTL	Java Standard Tag Library	
JTA	Java Transaction API	
JVM	Java Virtual Machine	
KAAJEE	Kernel Authentication and Authorization for J2EE	
LAN	Local Area Network	
LDAP	Lightweight Directory Access Protocol	
LLC	Limited Liability Corporation	
М	MUMPS	
MAC	Media Access Controller	
MUMPS	Massachusetts Universal Multi Programming System	
MVC	Model View Controller	
OCI	Oracle Call Interface	
ocs	Office of Cyber Security	
PFC	Patient Funds Clerk	
PFCS	Patient Funds Clerk Supervisor	
PATS	Patient Advocate Tracking System	
PFOP	Personal Funds of Patients	
PK	Primary Key	
PKI	Public Key Infrastructure	
РМ	Project Manager	
PSD	Person Service Demographics	
PSL	Person Service Lookup	
QA	Quality Assurance	
QCI	Quality Control Inspector	

Term	Definition	
QCP	Quality Control Plan	
RBAC	Role Based Access Control	
RDBMS	Relational Database Management System	
RO	Regional Office	
RPC	Remote Procedure Call	
SCM	Software Configuration Management	
SCMP	Software Configuration Management Plan	
SD&D	System Design & Development	
SDD	System Design Document	
SDK	Software Development Kit	
SDL	Software Development Library	
SDLC	Software Development Life Cycle	
SEPG	Software Engineering Process Group	
SI	System Implementation	
SME	Subject Matter Expert	
SOAP	Simple Object Access Protocol	
sow	Statement of Work	
SQA	Software Quality Assurance	
SQAP	Software Quality Assurance Plan	
SQL	Standard Query Language	
SRS	Software Requirements Specification	
SSL	Secure Sockets Layer	
TBD	To Be Determined	
TLD	Tag Descriptor Library	
URI	Uniform Resource Identifier	
URL	Uniform Resource Locator	
VA	Veterans Affairs	
VAX	VAX (Virtual Address eXtension) is an established line of mid-range server computers from the Digital Equipment Corporation (DEC).	
VHA	Veterans Health Administration	
VistA	Veterans Information Systems Technology Architecture	
VMS	Virtual Machine System (operating system for VAX computers)	
VPFS	Veterans Personal Finance System	
WAN	Wide Area Network	
WAR	Web Archive	

Term	Definition
XDE	Extensible Development Environment
XHTML	Extensible HyperText Markup Language
XML	Extensible Markup Language