



PATIENT DATA EXCHANGE (PDX) TECHNICAL MANUAL

Version 1.5

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Department of Veterans Affairs
VistA Health Systems Design & Development (HSD&D)
Infrastructure and Security Services (ISS)

Revision History

Documentation Revisions

The following table displays the revision history for this document. Revisions to the documentation are based on patches and new versions released to the field.

Date	Revision	Description	Author
11/1993	1.0	Initial Patient Data Exchange V. 1.5 software documentation creation.	Albany, NY OIFO
09/27/04	2.0	<p>Reformatted document to follow ISS styles and guidelines, no other content updates made.</p> <p>Reviewed document and edited for the "Data Scrubbing" and the "PDF 508 Compliance" projects.</p> <p>Data Scrubbing—Changed all patient/user TEST data to conform to HSD&D standards and conventions as indicated below:</p> <ul style="list-style-type: none">• The first three digits (prefix) of any Social Security Numbers (SSN) start with "000" or "666."• Patient or user names are formatted as follows: PDXPATIENT,[N] or PDXUSER,[N] respectively, where the N is a number written out and incremented with each new entry (e.g., PDXPATIENT, ONE, PDXPATIENT, TWO, etc.).• Other personal demographic-related data (e.g., addresses, phones, IP addresses, etc.) were also changed to be generic.	Thom Blom, Oakland, CA OIFO
01/11/05		<p>PDF 508 Compliance—The final PDF document was recreated and now supports the minimum requirements to be 508 compliant (i.e., accessibility tags, language selection, alternate text for all images/icons, fully functional Web links, successfully passed Adobe Acrobat Quick Check).</p>	Thom Blom, Oakland, CA OIFO

Table i: Documentation revision history

Patch Revisions

For a complete list of patches related to this software, please refer to the Patch Module on FORUM.

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Figures and Tables

Orientation

How to Use this Manual

Throughout this manual, advice and instructions are offered regarding the use of the Patient Data Exchange (PDX) software within Veterans Health Information Systems and Technology Architecture (Vista) Infrastructure and Security Services (ISS) software products.

The Patient Data Exchange (PDX) Technical manual is comprised of discrete sections which detail various technical characteristics of the Vista PDX software. This manual was produced to provide necessary information for use in the technical operation of the PDX software, V. 1.5. It should be noted that this manual is intended for use by technical computer personnel and is not designed for use by the typical end user.

This manual uses several methods to highlight different aspects of the material:

- Various symbols are used throughout the documentation to alert the reader to special information. The following table gives a description of each of these symbols:



Symbol	Description
	Used to inform the reader of general information including references to additional reading material
	Used to caution the reader to take special notice of critical information

Table ii: Documentation symbol descriptions

- Descriptive text is presented in a proportional font (as represented by this font).
- Conventions for displaying TEST data in this document are as follows:
 - The first three digits (prefix) of any Social Security Numbers (SSN) will be in the "000" or "666."
 - Patient and user names will be formatted as follows: [Application Name]PATIENT,[N] and [Application Name]USER,[N] respectively, where "Application Name" is defined in the Approved Application Abbreviations document and "N" represents the first name as a number spelled out and incremented with each new entry. For example, in Kernel (KRN) test patient and user names would be documented as follows: KRNPATIENT,ONE; KRNPATIENT,TWO; KRNPATIENT,THREE; etc.
- Sample HL7 messages, "snapshots" of computer online displays (i.e., character-based screen captures/dialogues) and computer source code are shown in a *non*-proportional font and enclosed within a box. Also included are Graphical User Interface (GUI) Microsoft Windows images (i.e., dialogues or forms).
 - User's responses to online prompts will be boldface.
 - The "<Enter>" found within these snapshots indicate that the user should press the Enter key on their keyboard.

- Author's comments are displayed in italics or as "callout" boxes.



Callout boxes refer to labels or descriptions usually enclosed within a box, which point to specific areas of a displayed image.

- All uppercase is reserved for the representation of M code, variable names, or the formal name of options, field/file names, and security keys (e.g., the XUPROGMODE key).



Other software code (e.g., Delphi/Pascal and Java) variable names and file/folder names can be written in lower or mixed case.

How to Obtain Technical Information Online

Exported file, routine, and global documentation can be generated through the use of Kernel, MailMan, and VA FileMan utilities.



Methods of obtaining specific technical information online will be indicated where applicable under the appropriate topic.

Help at Prompts

VistA software provides online help and commonly used system default prompts. In character-based mode, users are strongly encouraged to enter question marks at any response prompt. At the end of the help display, you are immediately returned to the point from which you started. This is an easy way to learn about any aspect of VistA software.

To retrieve online documentation in the form of Help in VistA character-based software:

- Enter a single question mark ("?") at a field/prompt to obtain a brief description. If a field is a pointer, entering one question mark ("?") displays the HELP PROMPT field contents and a list of choices, if the list is short. If the list is long, the user will be asked if the entire list should be displayed. A YES response will invoke the display. The display can be given a starting point by prefacing the starting point with an up-arrow ("^") as a response. For example, **^M** would start an alphabetic listing at the letter M instead of the letter A while **^127** would start any listing at the 127th entry.
- Enter two question marks ("??") at a field/prompt for a more detailed description. Also, if a field is a pointer, entering two question marks displays the HELP PROMPT field contents and the list of choices.
- Enter three question marks ("???) at a field/prompt to invoke any additional Help text that may be stored in Help Frames.

Obtaining Data Dictionary Listings

Technical information about files and the fields in files is stored in data dictionaries. You can use the List File Attributes option on the Data Dictionary Utilities submenu in VA FileMan to print formatted data dictionaries.



For details about obtaining data dictionaries and about the formats available, please refer to the "List File Attributes" chapter in the "File Management" section of the *VA FileMan Advanced User Manual*.

Assumptions About the Reader

This manual is written with the assumption that the reader is familiar with the following:

- VistA computing environment (e.g., Kernel Installation and Distribution System [KIDS])
- VA FileMan data structures and terminology
- M programming language

It provides an overall explanation of the use of the Patient Data Exchange (PDX) software. However, no attempt is made to explain how the overall VistA programming system is integrated and maintained. Such methods and procedures are documented elsewhere. We suggest you look at the various VA home pages on the World Wide Web (WWW) for a general orientation to VistA. For example, go to the VHA OI Health Systems Design & Development (HSD&D) Home Page at the following Web address:

<http://vaww.vista.med.va.gov/>

Reference Materials

Readers who wish to learn more about Patient Data Exchange (PDX) documentation should consult the following:

- *Patient Data Exchange (PDX) Installation Guide & Release Notes*
- *Patient Data Exchange (PDX) Technical Manual* (this manual)
- *Patient Data Exchange (PDX) Security Guide*
- *Patient Data Exchange (PDX) User Manual*
- The Patient Data Exchange Home Page at the following Web address:

<http://vaww.vista.med.va.gov/pdx/index.asp>

This site contains additional information and documentation.

VistA documentation is made available online in Microsoft Word format and in Adobe Acrobat Portable Document Format (PDF). The PDF documents *must* be read using the Adobe Acrobat Reader (i.e., ACROREAD.EXE), which is freely distributed by Adobe Systems Incorporated at the following Web address:

<http://www.adobe.com/>

VistA documentation can be downloaded from the Enterprise VistA Support (EVS) anonymous directories or from the Health Systems Design and Development (HSD&D) VistA Documentation Library (VDL) Web site:

<http://www.va.gov/vdl/>



For more information on the use of the Adobe Acrobat Reader, please refer to the "Adobe Acrobat Quick Guide" at the following Web address:

<http://vista.med.va.gov/iss/acrobat/index.asp>



DISCLAIMER: The appearance of any external hyperlink references in this manual does not constitute endorsement by the Department of Veterans Affairs (VA) of this Web site or the information, products, or services contained therein. The VA does not exercise any editorial control over the information you may find at these locations. Such links are provided and are consistent with the stated purpose of this VA Intranet Service.

1. Introduction

The Patient Data Exchange (PDX) software is designed to manage the transfer of patient information (demographics, episodes of care, medications, and diagnostic evaluations) between VA facilities using the MailMan electronic mail utility. Once transferred, this information may be combined with pertinent local information and assembled into a coherent composite record.

Requests for PDX data can be processed manually or automatically. For requests to be processed manually, the site would have to be a member of the Release Group and meet the requirements for automatic processing. Records determined to be "sensitive" and those which exceed the maximum time and occurrence limits for Health Summary components may not be returned automatically and will be held for manual processing.

PDX V. 1.5 uses the List Manager utility extensively. The List Manager is a tool designed to display a list of items. It allows you to select items from the list and perform specific actions against those items.

The software provides numerous system reports (current transactions and work- load) that allow predefined and customizable sorts.

Options

The Following is a brief description of the major options and menus contained in the PDX software:

- Request PDX for Patient—This option is used to electronically request PDX data for a selected patient from another VA facility(s).
- Unsolicited PDX—This option is used to send PDX information to a remote site without having first received a request.
- Process External PDX—This option is used to process PDX requests received from other VA facilities that do not meet the criteria for automatic processing.
- Load/Edit PDX Data—This option allows you to load or edit data fields in your PATIENT file with data from your PDX file.
- Display PDX Data Menu—This menu allows you to display or print PDX data for a selected patient by either transaction or user who requested the information.
- System Reports Menu:
 - Requires Processing Report—This option is used to print a report of all PDX requests that require manual processing.
 - Current Transactions Report Menu—The options on this menu allow you to print reports of PDX transactions on file by several different sorting methods.
 - Workload Reports Menu—The options on this menu allow you to print workload reports of PDX transactions on file by several different sorting methods.

- PDX Edit Files Menu:
 - Add/Edit Fields to Encrypt—This option provides the ability to encrypt selected data fields in the PDX transmission.
 - Edit Maximum Limits for Automatic Processing—This option is used to edit the maximum time and occurrence limits that your site is willing to allow for automatic processing of a PDX transaction.
 - Add/Edit Outgoing Group—This option is used to create outgoing groups and add/edit/delete remote facilities in those groups.
 - Edit Parameter File—This option is used to set up site specific PDX parameters.
 - Add/Edit Segment Group Options—These three options are used to create segment groups (selected group of data segments).
 - Add/Edit Release Group—This option is used to enter/edit facilities into the release group for automatic processing of PDX requests.
- Purging Menu—These three options provide purging capabilities by default age, user defined age, or user defined date.

2. Implementation and Maintenance

All users of the PDX software must set up an electronic signature in order to utilize the software. This can be accomplished through the Edit Electronic Signature Code option of the User's Toolbox menu.

As an optional security measure, this software provides the ability to encrypt data using existing data encryption methods. Sites wishing to encrypt certain fields will have to turn the flag on through the Edit Parameter File option and add those fields to the ENCRYPTED FIELD file (#394.73).

All site specific parameters can be established through the Edit Parameter File option of the PDX Edit Files menu.



For further instruction on implementation of this software, including the setup of the release group and mail groups, please refer to the "Installation Guide" section in the *PDX Release Notes & Installation Guide*.

Namespace Conventions

The namespace assigned to the PDX software is VAQ.

Integrity Checker

The VAQNTEG routine checks integrity for other PDX routines.

SACC Exemptions/Non-Standard Code

There are no SACC exemptions or non-standard code in the PDX software.

Resource Requirements

Sites will see growth in the following 3 PDX files.

- VAQ - TRANSACTION file (394.61) 200 bytes per entry*
- VAQ - DATA file (394.62) 50 bytes per entry*
- VAQ - WORKLOAD file (394.87) 110 bytes per entry*

*Since variable fields are in these records, average record size was determined by sampling test sites.

It was determined that a single transaction on average will generate 185 data records. This was determined by taking the total number of entries in the VAQ - DATA file and dividing by the total number of entries in the VAQ - TRANSACTION file.

Implementation and Maintenance

Disk storage requirements are estimated at approximately 10K per transaction. This was determined by taking the 185 data records at 50 bytes each plus a single transaction record at 200 bytes plus a variable number of workload records at 110 bytes each and dividing the total by 1024 bytes.

Global Growth can be controlled by the purge features of PDX.

3. Routines

Routines to Map

There are no routines to map in the PDX software.

Callable Routines

\$\$PDX^VAQUIN01

Description

This API can be used for both request and unsolicited request. It utilizes time and occurrence limits for Health Summary, which are pieces on the segment root array. These pieces need to be set by the developer. If these are not included, the defaults in the site's VAQ - PARAMETER file (#394.81) will be used.

Required Variables

VAQOPT	REQ = request, UNS = unsolicited
VAQDFN	IFN of patient in PATIENT file (#2)
VAQNM	Name of patient
VAQISSN	Patient Social Security Number (no dashes)
VAQIDOB	Patient's Date of Birth (external format)
DOMROOT	Array of domains (full global reference)
SEGROOT	Array of segments (full global reference)
NOTROOT	Array of who to notify (only used for request)
TLIMIT	Time limit for Health Summary
OLIMIT	Occurrence limit for Health Summary

External Calls

- LDREQ^VAQREQ06
- LDUNS^VAQREQ06
- PID^VADPT6
- WORKDONE^VAQADS01

Example

```
S X=$$PDX^VAQUIN01("REQ",DFN,,,,,DOMROOT,SEGROOT)
S X=$$PDX^VAQUIN01("UNS",,"PATIENT NAME","123549898",,"DOMROOT,SEGROOT)
```

Routine List with Descriptions

Below is a list of routines associated with the PDX software, excluding pre- and post-init routines:

Routine	Description
VAQADM2, VAQADM21	PDX server main entry point
VAQADM22	Automatic processing of results
VAQADM23	Check segments against maximum limits for automatic processing.
VAQADM5	Generate PDX transmissions
VAQADM50, VAQADM51	Main entry point for generating PDX transmissions
VAQADS01	Logs work being done by PDX
VAQAUT	User authentication routine
VAQBUL, VAQBUL01, VAQBUL02, VAQBUL03, VAQBUL04, VAQBUL05, VAQBUL06, VAQBUL07	Builds and sends bulletins
VAQCON, VAQCON0	Build message for transaction
VAQCON1	Create stub MailMan message
VAQCON2	Determines MailMan sender
VAQCON3	Construct user block
VAQCON4	Construct domain block
VAQCON5	Construct segment block
VAQCON6	Construct patient block
VAQCON7	Construct data block
VAQCON8	Construct display block
VAQCON93, VAQCON94	Builds and sends PDX V. 1.0 message
VAQCON95	Builds a pharmacy PDX V. 1.0 message
VAQCON96	Builds a PIMS PDX V. 1.0 message
VAQCON97, VAQCON98	Builds a data block for PDX V. 1.0 message
VAQCON99	Builds a header block for PDX V. 1.0 message
VAQDBI	Extract data segments contained in a PDX transaction
VAQDBIH1	Determines if PDX segment is Health Summary

Routine	Description
	component
VAQDBIH2	Validates time limits of Health Summary component
VAQDBIH3	Determines if PDX segment is Health Summary component (without FM calls)
VAQDBII1	Holds references to PDX extracted data
VAQDBIM, VAQDBIM0	Extract Means Test data
VAQDBIM1	Extract Means Test data, screen 1
VAQDBIM2	Extract Means Test data, screen 2
VAQDBIM3	Extract Means Test data, screen 3
VAQDBIM4	Extract Means Test data, screen 4
VAQDBIP	Extracts PDX information
VAQDBIP1, VAQDBIP2, VAQDBIP5, VAQDBIP8	Extracts PDX pharmacy information
VAQDBIP3	Extracts PIMS minimum patient dataset information
VAQDBIP4, VAQDBIP6, VAQDBIP7	Extracts PIMS registration information
VAQDIS01	Display minimal data
VAQDIS10	Display PDX by patient
VAQDIS11	Selection screen for display by patient
VAQDIS12	Selection screen for display by requestor
VAQDIS15	Display segments for display
VAQDIS16	General display for all segments
VAQDIS17	Device selector for display
VAQDIS20	Sets up state and county variables
VAQDIS21	Builds display array for minimal data
VAQDIS22, VAQDIS23, VAQDIS24, VAQDIS25, VAQDIS26, VAQDIS27, VAQDIS28, VAQDIS29, VAQDIS30, VAQDIS31, VAQDIS32, VAQDIS33	Builds display array for PIMS data
VAQDIS40, VAQDIS41, VAQDIS42, VAQDIS43	Builds display array for pharmacy data
VAQEXT01, VAQEXT06	Builds array for manual processing
VAQEXT02, VAQEXT04	Displays array for manual processing
VAQEXT03	Process manual PDX transactions
VAQEXT05	Checks time and occurrence limits for manual processing
VAQFIL10, VAQFIL11	Files header block

Routines

Routine	Description
VAQFIL12	Files domain block
VAQFIL13	Files user block
VAQFIL14	Files comment block
VAQFIL15	Files patient block
VAQFIL16	Files segment block
VAQFIL17	Files display block
VAQFIL18	Files all data block
VAQFILE	Creates a stub entry in the VAQ - TRANSACTION file
VAQFILE1	Performs add/edit/delete functions on VAQ - DATA file
VAQHSH	Encrypt a display array
VAQHSH1	Encrypt/decrypt routines
VAQINITY	Send install message
VAQLED01	Load/edit status screen
VAQLED02	Sets up differences between PDX and local data base
VAQLED03	Display possible matches screen
VAQLED04	Creates compare arrays for load/edit
VAQLED05	Load/edit differences screen
VAQLED07	Display minimal data, add new patient
VAQLED09	Load/edit help messages
VAQLED10	Prompts for patient in load/edit
VAQNTEG, VAQNTEG0	Integrity routines
VAQPAR1, VAQPAR10	Preparse PDX V. 1.0 transmission
VAQPAR11	Parses data block for PDX V. 1.0 message
VAQPAR6, VAQPAR60	Parses PDX V. 1.0 transmission
VAQPAR61	Parses PDX V. 1.5 message block
VAQPSE01	PDX Health Summary driver
VAQPSE02, VAQPSE03	Extract Means Test billing data for PDX
VAQPSE04	Build display set for extracted PDX billing data
VAQPSL, VAQPSL1, VAQPLS2, VAQPSL3	List Manager routines created from list templates
VAQPUR, VAQPUR10, VAQPUR11	Purging routines
VAQREQ01	Request patient data status screen
VAQREQ02	Request patient data request screen
VAQREQ03	Request patient data, ask domain/segment

Routine	Description
VAQREQ04	Request patient data, ask segment
VAQREQ05	Request PDX record, copy domain
VAQREQ06	Transmit data to VAQ - TRANSACTION file
VAQREQ07	Create notify list, request screen
VAQREQ08	Comment for unsolicited request
VAQREQ09	Request patient data help messages
VAQREQ10	Prompts for patient for request and unsolicited request
VAQREQ11	Prompts and checks for time and occurrence limits for request and unsolicited request
VAQUIN01	Programmer entry point for sending PDX requests (API)
VAQUPD1	Recreates all extraction arrays for a transaction
VAQUPD2	Builds display for all segments and transactions
VAQUPD25	Pulls extraction array out of VAQ - DATA file
VAQUTL1, VAQUTL2, VAQUTL3, VAQUTL4, VAQUTL92, VAQUTL93, VAQUTL94	Utility routines
VAQUTL95	Sets commonly used variables
VAQUTL96	PDX transaction lookup
VAQUTL97	PDX patient lookup
VAQUTL98	Builds various tables
VAQUTL99	Various function calls
VAQXRF1, VAQXRF2, VAQXRF3	Builds MUMPS cross-references for PDX files

Figure 3-1: PDX routine list

4. Files

File List

File Number	File Name	Global
394	*PDX TRANSACTION	^VAT(394,
394.1	*PDX DATA	^VAT(394.1,
394.2	*PDX PARAMETER	^VAT(394.2,
394.3***	*PDX STATUS	^VAT(394.3,
394.4	*PDX STATISTICS	^VAT(394.4,
394.61	VAQ - TRANSACTION	^VAT(394.61,
394.62	VAQ - DATA	^VAT(394.62,
394.71***	VAQ - DATA SEGMENT	^VAT(394.71,
394.72**	VAQ - ENCRYPTION METHOD	^VAT(394.72,
394.73***	VAQ - ENCRYPTED FIELDS	^VAT(394.73,
394.81	VAQ - PARAMETER	^VAT(394.81,
394.82	VAQ - RELEASE GROUP	^VAT(394.82,
394.83	VAQ - OUTGOING GROUP	^VAT(394.83,
394.84	VAQ - SEGMENT GROUP	^VAT(394.84,
394.85***	VAQ - STATUS	^VAT(394.85,
394.86	VAQ - AUTO-NUMBERING	^VAT(394.86,
394.87	VAQ - WORKLOAD	^VAT(394.87,
394.88**	VAQ - WORK	^VAT(394.88,

Figure 4-1: PDX file list

*Starred for deletion

*** File comes with data which will overwrite existing data, if specified

File Descriptions

VAQ - TRANSACTION File (#394.61)

This file holds information describing each PDX transaction.

VAQ - DATA File (#394.62)

This file holds the patient information passed through PDX.

VAQ - Data Segment File (#394.71)

This file defines each data segment currently supported by PDX.

VAQ - Encryption Method File (#394.72)

This file defines each encryption method currently supported by PDX.

VAQ - Encrypted Fields File (394.73)

This file contains all fields that should be encrypted in PDX Requests and Unsolicited PDXs transmitted by the facility. This file is only relevant when encryption has been turned on.

VAQ - PARAMETER File (#394.81)

This file contains site specific information concerning the use of PDX.

VAQ - Release Group File (#394.82)

This file contains the facilities that have been granted "automatic processing". In order for a request to be automatically processed, the requesting facility must have an entry in this file.

VAQ - Outgoing Group File (#394.83)

This file contains groups of facilities commonly accessed using PDX.

VAQ - Segment Group File (#394.84)

This file contains groups of data segments commonly referenced by the facility. Groups marked as Public may be referenced by all users of PDX. Groups marked as Private may only be referenced by the individual that created the group.

VAQ - STATUS File (#394.85)

This file defines all possible statuses of a PDX transaction.

VAQ - Auto-Numbering File (#394.86)

This file is used to implement auto-numbering in the PDX files. Fields with auto-numbering capability will have an entry in this file.

VAQ - WorkLoad File (#394.87)

This file contains statistics concerning the workload done using PDX. PDX workload is considered to be requesting patient information from another facility, manually processing requests from another facility, and uploading PDX data to the PATIENT File. Work done by the PDX Server is also stored in this file.

VAQ - WORK File (#394.88)

This file contains the type of work being tracked by the VAQ - WORKLOAD file.

File Flow Chart

File Name (#)	Points To (File & #)	Pointed To By (File & #)
*PDX TRANSACTION (#394)	PATIENT (#2)	*PDX DATA (#394.1)
	*PDX STATUS (#394.3)	
*PDX DATA (#394.1)	*PDX TRANSACTION (#394)	NA
*PDX PARAMETER (#394.2)	INSTITUTION (#4)	NA
	DOMAIN (#4.2)	
*PDX STATUS (#394.3)	NA	*PDX TRANSACTION (#394)
		*PDX STATISTICS (#394.4)
*PDX STATISTICS (#394.4)	PATIENT (#2)	NA
	*PDX STATUS (#394.3)	

File Name (#)	Points To (File & #)	Pointed To By (File & #)
VAQ – TRANSACTION (#\$394.61)	PATIENT (#2)	VAQ – DATA (#394.62)
	NEW PERSON (#200)	
	VAQ - DATA SEGMENT (#394.71)	
	VAQ - ENCRYPTION METHOD (#394.72)	
	VAQ – STATUS (#394.85)	
	VAQ - AUTO-NUMBERING (#394.86)	
VAQ – DATA (#394.62)	VAQ – TRANSACTION (#394.61)	NA
	VAQ - DATA SEGMENT (#394.71)	
	VAQ - AUTO-NUMBERING (#394.86)	
VAQ - DATA SEGMENT (#394.71)	HEALTH SUMMARY COMPONENT (#142.1)	VAQ – TRANSACTION (#394.61)
		VAQ – DATA (#394.62)
		VAQ - SEGMENT GROUP (#394.84)
		VAQ – WORKLOAD (#394.87)
VAQ - ENCRYPTION METHOD (#394.72)	NA	VAQ – TRANSACTION (#394.61)
		VAQ – PARAMETER (#394.81)
VAQ - ENCRYPTED FIELDS (#394.73)	VAQ - AUTO-NUMBERING (#394.86)	NA
VAQ – PARAMETER (#394.81)	INSTITUTION (#4)	NA
	DOMAIN (#4.2)	
	VAQ - ENCRYPTION METHOD (#394.72)	
VAQ - RELEASEGROUP (#394.82)	INSTITUTION (#4)	NA
	DOMAIN (#4.2)	
	NEW PERSON (#200)	
VAQ – OUTGOING GROUP (#394.83)	INSTITUTION (#4)	NA
	DOMAIN (#4.2)	
	NEW PERSON (#200)	
VAQ – SEGMENT GROUP (#394.84)	NEW PERSON (#200)	NA
	VAQ - DATA SEGMENT	

File Name (#)	Points To (File & #)	Pointed To By (File & #)
	(#394.71)	
VAQ – STATUS (#394.85)	NA	VAQ – TRANSACTION (#394.61)
VAQ - AUTO-NUMBERING (#394.86)	NA	NA
VAQ – WORKLOAD (#394.87)	PATIENT (#2)	NA
	NEW PERSON (#200)	
	VAQ - DATA SEGMENT (#394.71)	
	VAQ – WORK (#394.88)	
VAQ – WORK (#394.88)	NA	VAQ – WORKLOAD (#394.87)

Figure 4-2: PDX file flowchart

Templates

Input Templates

File#	Template	Description
394.71	VAQ EDIT FILE	Enter maximum time and occurrence limits
394.73	VAQ EDIT FILE	Enter VAQ - ENCRYPTED FIELDS file data
394.81	VAQ EDIT FILE	Enter VAQ - PARAMETER file data
394.82	VAQ EDIT FILE	Enter VAQ - RELEASE GROUP file data
394.83	VAQ EDIT FILE	Enter VAQ - OUTGOING GROUP file data
394.84	VAQ EDIT FILE	Enter segment group data
	VAQ EDIT FILE (PRIVATE)	Enter segment group data (private)
	VAQ EDIT FILE (PUBLIC)	Enter segment group data (public)

Figure 4-3: PDX Input templates

Print Templates

File#	Template	Description
394.61	VAQ CUR. TRANSACTIONS REPORT	Generates current transaction report
	VAQ REQUIRES PROCESSING REPORT	Generates requires processing report
394.71	VAQ DATA SEGMENT LIST	Generates data segment listing
394.87	VAQ WORK-LOAD REPORT	Generates workload report

Figure 4-4: PDX Print templates

Sort Templates

File#	Template	Description
394.61	VAQ REQUIRES PROCESSING	Sorts transactions by transaction number of those transactions that requires processing
	VAQ TRANSACTIONS BY AUTHORIZER	Sorts transactions by authorizer
	VAQ TRANSACTIONS BY DATE SENT	Sorts transactions by date and time of request
	VAQ TRANSACTIONS BY FACILITY	Sorts transactions by authorizing site
	VAQ TRANSACTIONS BY PATIENT	Sorts transactions by patient
	VAQ TRANSACTIONS BY RECEIPT	Sorts transactions by date and time of reply
	VAQ TRANSACTIONS BY REQUESTOR	Sorts transactions by requestor
	VAQ TRANSACTIONS BY STATUS	Sorts transactions by current status
394.87	VAQ WORK-LOAD BY DATE	Sorts type of work by date
	VAQ WORK-LOAD BY FACILITY	Sorts type of work by remote facility
	VAQ WORK-LOAD BY PATIENT	Sorts type of work by patient
	VAQ WORK-LOAD BY WORK	Sorts type of work by type of work

Figure 4-5: PDX Sort templates

5. Exported Options

```
Patient Data Exchange (VAQ (MENU) MAIN)
|
|--DIS Display PDX Data -----TRN Display PDX by
   [VAQ (MENU)                    Transaction [VAQ
   DISPLAY PDX]                   PDX DISPLAY
                                   (TRN)]
                                   -----
                                   USER Display PDX by
                                   User [VAQ PDX
                                   DISPLAY (USER)]

|--EDT PDX Edit Files -----ENC Add/Edit Fields
   [VAQ (MENU) EDIT                to Encrypt [VAQ
   FILES]                          (EDIT) ENCRY
                                   FIELDS]
                                   **LOCKED: VAQ
                                   EDIT FILE**
                                   -----
                                   MAX Edit maximum
                                   limits for
                                   automatic
                                   processing [VAQ
                                   (EDIT) MAX
                                   LIMITS]
                                   **LOCKED: VAQ
                                   EDIT FILE**
                                   -----
                                   OUT Add/Edit
                                   Outgoing Group
                                   [VAQ (EDIT)
                                   OUTGOING GROUP]
                                   -----
                                   PAR Edit Parameter
                                   File [VAQ (EDIT)
                                   PARAMETER]
                                   **LOCKED: VAQ
                                   EDIT FILE**
                                   -----
                                   PRIV Add/Edit Segment
                                   Group - Private
                                   [VAQ (EDIT)
                                   SEGMENT GRP -
                                   PRIV]
                                   -----
                                   PUBL Add/Edit Segment
                                   Group - Public
                                   [VAQ (EDIT)
                                   SEGMENT GRP -
                                   PUBL]
                                   **LOCKED: VAQ
                                   EDIT FILE**
                                   -----
                                   REL Add/Edit Release
                                   Group [VAQ
                                   (EDIT) RELEASE
                                   GROUP]
                                   **LOCKED: VAQ
                                   EDIT FILE**
                                   -----
                                   SEG Add/Edit Segment
```

Exported Options

		Group - All [VAQ (EDIT) SEGMENT GRP - ALL] **LOCKED: VAQ EDIT FILE**

	--LD	Load/Edit PDX Data [VAQ PDX LOAD/EDIT] **LOCKED: VAQ LOAD**
-PRGE Purging [VAQ (MENU) PURGING] **LOCKED: VAQ PURGE**	-----	DFLT Purge using default age [VAQ PDX PURGE]
	-----	AGE Purge using user defined age [VAQ PURGE BY ENTERED LIFE]
	-----	DATE Purge using user defined date [VAQ PURGE BY ENTERED DATE]

	-----	PRO Process External PDX [VAQ PDX PROCESS EXTERNAL]

	-----	REQ Request PDX for Patient [VAQ PDX REQUEST]
-RPRT System Reports [VAQ (MENU) SYSTEM REPORTS] **LOCKED: VAQ RPT**	-----	PROC Requires Processing Report [VAQ REQUIRES PROCESSING]
	-----	TRAN Current Transactions Report [VAQ (MENU) CUR TRANSACTIONS]
	-----	FAC Sort by remote facility [VAQ TRANSACTIONS BY FACILITY]
	-----	GNRT Sort by user that generated request [VAQ TRANSACTIONS BY REQUESTOR]
	-----	PAT Sort by patient's name [VAQ TRANSACTIONS BY PATIENT]
	-----	RCVD Sort by date received [VAQ TRANSACTIONS BY

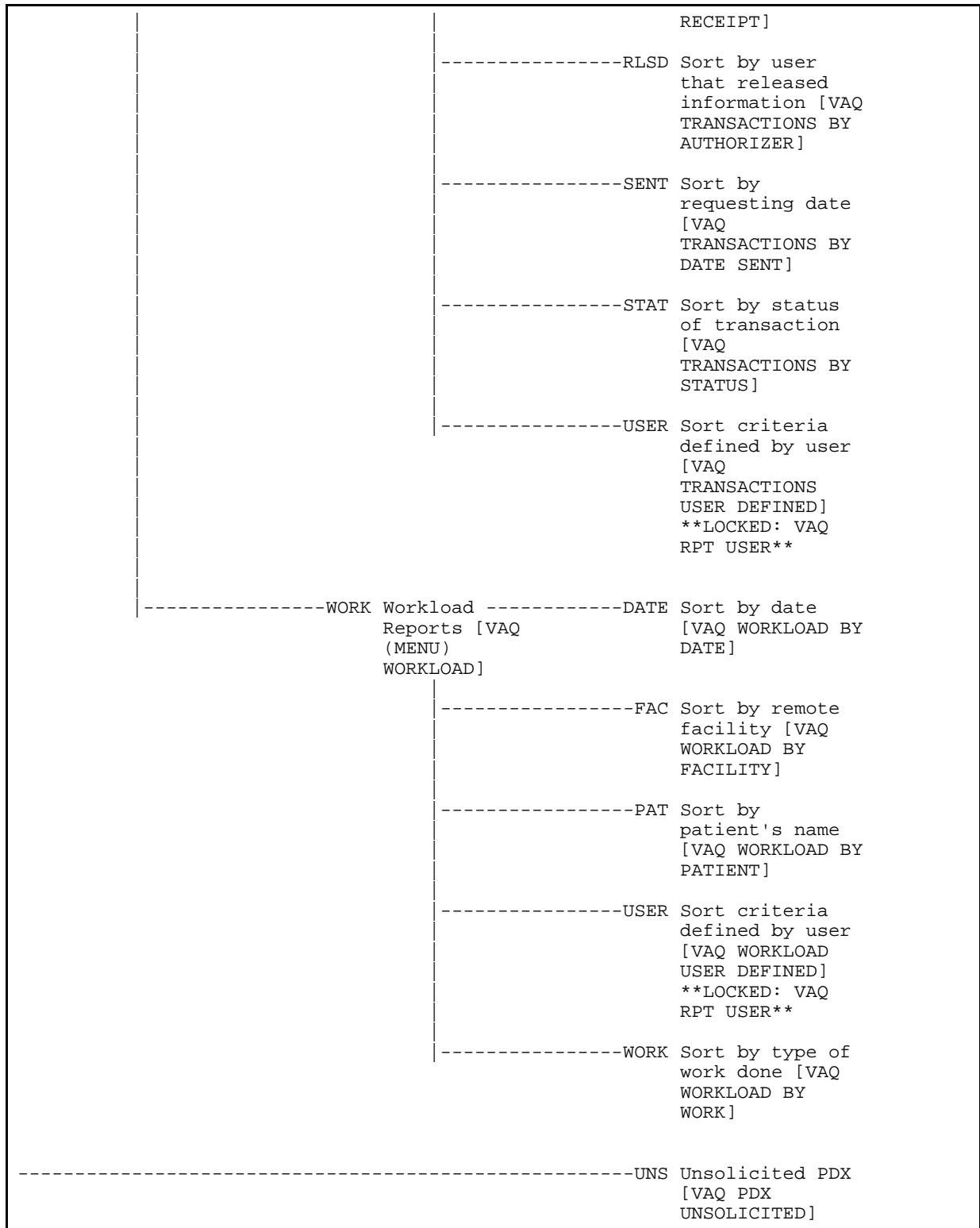


Figure 5-1: Exported options—Generated Menu Tree

6. Archiving and Purging

Archiving

There are no archiving capabilities in the PDX software.

Purging

Three PDX purging options are available. They provide purging capabilities defined by default age, user defined age, or user defined date. The date the last status was assigned to the transaction is the date used in determining when transactions will be flagged for purging.

Purge using default age Option

This option is used to purge PDX transactions and their associated data based on the value found in the PDX parameter, LIFETIME OF DATA. The Purger automatically adds three days to the parameter value. Once transactions are older than this value, they are flagged for purging and automatically purged when this option is utilized. The recommended value for the LIFETIME OF DATA parameter is 15 days.

Purge using user defined age Option

This option is used to purge PDX transactions and their associated data based on an age entered by the user. The Purger automatically adds three days to the user-entered value. Once transactions are older than this value, they are flagged for purging and automatically purged when this option is utilized. The default value displayed with the prompt is the entry in the PDX site parameter, LIFETIME FOR DATA.

Purge using user defined date Option

This option is used to purge PDX transactions and their associated data based on a date entered by the user (date must be before three days ago). Transactions older than this value will be automatically purged when this option is utilized.

7. External/Internal Relations

External Relations

The following minimum software versions or higher are required in order to install this version of PDX.

Kernel	7.0
VA FileMan	19.0
VA MailMan	7.0
PIMS	5.3
Pharmacy	5.6
Integrating Billing	1.5
Health Summary	1.2
OE/RR	1.96
Allergy Tracking	2.2

Internal Relations

Any PDX option in the OPTION file (#19) that is a menu option should be able to run independently provided the user has the appropriate keys and VA FileMan access.

8. Software-wide Variables

There are no software-wide variables in the PDX software.

Key Variables

PDX System-wide Variables

DFN internal entry number of the PATIENT file (#2).

Glossary

DATA SEGMENT	Comprised of Health Summary, Means Test, Copay, and specially created PDX components.
DOMAIN	A facility's electronic mail address.
MNEMONIC	A device or code intended to assist memory.
OUTGOING GROUP	A group of remote facilities. Creating outgoing groups allows for expeditious sending of PDX requests as they may be sent to all the facilities contained in the group with one entry, the outgoing group name.
PDX	Patient Data Exchange
RELEASE GROUP	A group of sites defined in the VAQ - RELEASE GROUP file through FileMan. Requests for sites you enter in your release group will be processed automatically upon receipt. Conversely, your requests will be processed automatically by sites that have your site defined in their release group.
REMOTE SITE	The facility with which your site is exchanging data. If you are requesting a PDX, the site you are requesting the data from would be the remote site. If you receive a request for a PDX, the site requesting the data would be the remote site.
SEGMENT GROUP	A group of selected data segments.
TRANSACTION	A number automatically assigned to a PDX request when the number message is originated and/or received.



For a comprehensive list of commonly used infrastructure- and security-related terms and definitions, please visit the ISS Glossary Web page at the following Web address:

<http://vista.med.va.gov/iss/glossary.asp>

For a list of commonly used acronyms, please visit the ISS Acronyms Web site at the following Web address:

<http://vista/med/va/gov/iss/acronyms/index.asp>

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