Patient Care Encounter (PCE)

Technical Manual

Version 1.0

August 1996

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REVISION HISTORY

DATE	VERSION	DESCRIPTION	AUTHOR
12/2017	PX*1*219	Made updates to sections: 2.1, 15.1. Added section 2.2.3.	Tim Dawson/ Rishan Chandarana
11/2016	OI&T TW Updates and Section 508 remediation	VIMM 2.0 IPT/BAM enhancements	Seema Chaudry/ Raymond Steele
08/2016	PX*1*216	Made updates to sections: 2.1, 3.1, 10.1, 10.5, 10.6, 10.8, 15.3. Added sections 10.15 thru 10.19.	Alan Monosky/ Levi Teitelbaum/ Kathy Steele
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01/2016	PX*1*210	Made updates to sections: 2.1, 6.4, 6.5, 10, 15.3. Added section 15.2 and formatting edits.	Levi Teitelbaum/ Alan Monosky/ Shelita Davis /Kathy Steele
03/2015	PX*1*206	Updates to Skin Test and Immunization information.	Alan Monosky/ Kathy Steele

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12/2014	PX*1*201	Remediated doc for 508 compliance	Helena Gilbert
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03/2005	Manual updated to show changes with Patch PX*1*151 See section:		Berry Anderson/ Beverly Jones

DATE	VERSION $$CLNCK^SDUTL2(CLN,DSP	DESCRIPTION	AUTHOR
11/2004	Manual updated to comply with SOP 192-352 Displaying Sensitive Data		Corinne Bailey/ Beverly Jones

PATIENT CARE ENCOUNTER (PCE) TECHNICAL MANUAL

TABLE OF CONTENTS

1.0   Introduction

1.1. PURPOSE OF PCE

Patient Care Encounter (PCE) helps sites collect, manage, and display outpatient encounter data (including providers, procedure codes, and diagnostic codes) in compliance with the 10/1/96 Ambulatory Care Data Capture mandate from the Undersecretary of Health.

Patient Care Encounter (PCE) adds to current VISTA (DHCP) patient information by capturing clinical data resulting from a patient encounter, including problems treated, procedures done and provider information, as well as immunizations, skin tests, treatments, and patient education.

The goal of PCE is to provide an underlying database structure, which enables the collection and management of clinical data from multiple data collection sources, including scanners, user interfaces, and non-interactive ancillary interfaces. The key users of this clinical data are clinicians, management, Quality Assurance, and Scheduling personnel.

1.2. FUNCTIONALITY

The primary functions exported with Version 1.0 of PCE are:

- Collection and management of outpatient encounter data.

- Presentation of outpatient encounter data through Health Summary components and Clinical Reports.

Outpatient encounter data is captured through interactive and non-interactive interfaces.

1.2.1. Interactive interfaces

- Online data capture through a user interface developed with List Manager tools.

- Online data capture in which Scheduling integrates with PCE to collect checkout information.

1.2.2. Non-interactive interfaces

- PCE Device Interface, which supports the collection of encounter form data from scanners such as PANDAS, TeleForm, and Automated Information Collection System (AICS), also supports workstation collection of outpatient encounter data.

- PCE application programming interfaces (API), which supports the collection of outpatient encounter data from ancillary packages such as Laboratory, Radiology, Text Integration Utility (TIU), and Computerized Patient Record System (CPRS).

1.3. IMPACT OF PCE ON IRM

Sites must evaluate functionality exported with PCE and then choose to implement the portions that will enhance current data collection practices at their facilities.

PCE will need a clinical coordinator to help facilitate data capture implementation and health summary type modifications.

Patient Care Encounter is used as a clinical repository for data from many data collection sources, including scanning devices such as PANDAS and TELEFORM, the Automated Information Collection System (AICS), or the Graphical User Interface (GUI) physician workstation, as well as manual data entry options in Scheduling and PCE. The table below lists estimated disk space requirements for PCE/Visit Tracking for four levels of facility complexity. Estimates are based on adding 83k to the database for every 100 encounters, where each encounter averages two procedures, one diagnosis, and one provider. Each visit averages 1.9 encounters, based on stop code reporting per visit transmitted to Austin.

Complexity Level	Average # of Ambulatory Visits/Year	Estimated Disk Space Requirements/Year
1	254,018	400mb
2	149,101	234mg
3	92,761	146mb
4	71,371	112mb

1.3.1. MSM Sites

Increase your Stack/Stop to 24k to avoid STKOV errors, and the size of your partitions to 85k to avoid PGMOV errors.

1.3.2. SAC Exemption

PCE has requested an exemption to SAC 2.2.7, which states the maximum routine size.

To avoid PGMOV errors, add an entry and exit action to dynamically increase/decrease the partition size as described below for the following options:

- Appointment Management [SDAM APPT MGT]
- Appointment Check-in/Check-out [SDAM APPT CHECK IN/OUT]
- Add/Edit Stop Codes [SDADDEDIT]
- Check-in/Unsched. Vsit [SDI]
- Make Appointment [SDM]
- Multiple Appointment Booking [SDMULTIBOOK]
- Disposition an Application [DG DISPOSITION APPLICATION]
- Disposition Log Edit [DG DISPOSITION EDIT]
- Entry action: S %K=85 D INT^%PARTSIZ

- Exit action: S %K=40 D INT^%PARTSIZ

1.3.3. DSM Sites

Expand string length for data and global references to accommodate Standards and Conventions (SAC) 2.3.2.2, which extends the full evaluated length of a global reference to 200 characters.

Since the current default for maximum global reference length is 128 for DSM sites, do the following:

What UCI: **MGR**

YOU'RE IN UCI: **MGR,DEV**

>D ^VOLMAN

Volume Management Utilities

1. ADD   (ADD^VOLMAN)
2. CREATE   (CREATE^VOLMAN)
3. EXTEND   (EXTEND^VOLMAN)
4. MAXIMUM GLOBALS   (MAXGLO^VOLMAN2)
5. STRING LENGTH   (EXPSTR^VOLMAN2)

Select Option > 5. STRING LENGTH

Volume Set to set EXPANDED STRING LENGTH flag for   > ^TMP

Expanded string length for data and global references is currently DISALLOWED on this Volume Set:

  255 bytes is the maximum data length, and

  128 bytes is the maximum global reference length.

When you enable expanded strings and global references on a Volume Set, then:

  512 bytes is the maximum data length, and

  249 bytes is the maximum global reference length.

*** WARNING *** Once you have enabled a Volume Set for use with expanded strings and subscripts, that flag may NOT be reset.

Allow expanded string lengths on Volume Set ^TMP [Y OR N] ? <N> Y

Expanded string length is now ENABLED on Volume Set ^TMP.

```
Note:  The new settings will not take effect until the DSM
configuration is shut down and re-started on all nodes.
```

1.4.   IMPACT OF PCE ON PROVIDERS

Providers will be impacted by PCE through entry and retrieval of outpatient encounter data. Below is a scenario demonstrating a possible sequence of events:

1. A provider has a patient encounter (appointment, walk-in, telephone call, Hospital Based Home Care (HBHC), etc.).

Materials available to a provider that relate to PCE:

- Health Summary with new components summarizing previous encounters, and a health reminders component with reminders based on clinical repository data.

- Encounter Form (hard copy or workstation with pre-defined terminology for the provider's clinic/service type). This is the instrument for documenting the encounter information.

2. The provider enters encounter information directly into PCE or onto an encounter form.

3. A data entry clerk scans the encounter form or manually enters the information from the encounter form into PCE. Scanned encounter data is passed to the PCE Device Interface Module, where the data is stored in PCE files. The encounter data is automatically passed from PCE to Scheduling for clinical workload reporting and billing purposes.

Types of Encounter Form data collected and stored in PCE:

- Encounters

- Providers

- Problems/Diagnosis/symptoms treated at visit

- CPT procedures performed

- Immunizations (CPT-mappable)

- Immunization Contraindications/Refusals

- Skin tests (CPT-mappable)

- Patient education

- Exams (non-CPT-mappable

- Treatments (non-CPT-mappable)

4. The provider may later view information relating to these encounters on clinical reports or on health summaries. Reminders and maintenance information relating to patients can also be printed on health summaries.

2.0   Implementation and Maintenance

2.1. IMPLEMENTATION

1. Assign PCE Menu and Options

PCE IRM Main Menu

(This menu includes all options exported with PCE.)

  SP   PCE   Site Parameters Menu ...

        SITE PCE Site Parameters Edit

        RPT   PCE HS/RPT Parameter Menu ...

        PRNT PCE HS/RPT Parameters Print

        HS   PCE HS Disclaimer Edit

        RPT   PCE Report Parameter Edit

        DISP PCE Edit Disposition Clinics

  TBL PCE Table Maintenance ...

        INFO PCE Information Only ...

        ACT   Activate/Inactivate Table Items ...

        CED   Education Topic Copy

        DEF   Immunization Default Responses Enter/Edit

        DEWO PCE Delete Encounters W/O Visit

        ED   Education Topic Add/Edit

        EX   Examinations Add/Edit

        HF   Health Factors Add/Edit

        IM   Immunizations Add/Edit
              **> Out of order: Do not use!
              Placed out of order by PX*1*201

        LOT   Immunization Lot Add/Edit/Display

        SK   Skin Tests Add/Edit
              **> Out of order: Do not use!
              Placed out of order by PX*1*206

        TR   Treatments Add/Edit

DE   PCE/SD Debugging Utilities ...

        U   User's Visit Review

        V   PCE V File Cross Reference Repair

INFO   PCE Information Only ...

    ACT   Activate/Inactivate Table Items ...

    E   Exams

    ET   Education Topics

    H   Health Factors

    I   Immunizations
      **> Out of order: Do not use!
      Placed out of order by PX*1*201

    S   Skin Tests

      **> Out of order: Do not use!
      Placed out of order by PX*1*206

    T   Treatments

    ED   Education Topic List

    EDI   Education Topic Inquiry

    EX   Exam List

    HF   Health Factors List

    IM   Immunizations List

    SK   Skin Tests List

    TR   Treatments List

    CM   PCE Code Mapping List

RM   PCE Reminder Maintenance Menu ...

    RL   List Reminder Definitions

    RI   Inquire about Reminder Item

    RE   Add/Edit Reminder Item

    RC   Copy Reminder Item

    RA   Activate/Inactivate Reminders

    RT   List Reminder Types Logic

    TL   List Taxonomy Definitions

    TI   Inquire about Taxonomy Item

    TE   Edit Taxonomy Item

    TC   Copy Taxonomy Item

    TA   Activate/Inactivate Taxonomies

CR   PCE Clinical Reports ...

PA   Patient Activity by Clinic

CP   Caseload Profile by Clinic

WL   Workload by Clinic

DX   Diagnoses Ranked by Frequency

LE   Location Encounter Counts

PE   Provider Encounter Counts

HOME   Directions to Patient's Home Add/Edit

CO   PCE Coordinator Menu ...

SUP   PCE Encounter Data Entry - Supervisor

PCE   PCE Encounter Data Entry

DEL   PCE Encounter Data Entry and Delete

NOD   PCE Encounter Data Entry without Delete

TBL   PCE Table Maintenance ...

INFO PCE Information Only ...

HOME   Directions to Patient's Home Add/Edit

MDR   CIDC Missing Data Report

PARM   PCE HS/RPT Parameters Menu ...

DIS   Accounting Of Immunization Disclosures Report

DIE   PCE Device Interface Error Report

DISP PCE Edit Disposition Clinics

CL   PCE Clinician Menu

RPT   PCE Clinical Reports ...

ENC   PCE Encounter Data Entry and Delete

INFO PCE Information Only...

HOME   Directions to Patient's Home Add/Edit

Assign the PCE IRM Main Menu to the IRM person who will maintain and set up the package and who will need access to all of the PCE options.

2.2.   PCE IRM MAIN MENU DESCRIPTIONS

2.2.1. PX SITE PARAMETER MENU – Site Parameter Menu

This menu includes all options that deal with defining and displaying entries in the PCE PARAMETERS file (#815). The PCE Site Parameters Edit option includes all editable fields, for IRM/ADPAC use. The PCE HS/RPT Parameter Print option can be included on a Health Summary Coordinator's menu if the coordinator is involved with the definition of Clinical Reminders to be printed on the Health Summary.

This option is also included on the PCE Coordinators menu and the PCE Reports option menu. The PCE HS Parameters option can be included on a Health Summary Coordinators menu, and is included on the PCE Coordinator's menu.

This user should be familiar with the PCE Reminders and the use of the reminder disclaimer on the "Clinical Maintenance" and "Clinical Reminder" components. The PCE Report Parameters Setup option can be included on a PCE Coordinator's menu to setup the local file definitions to use to represent Emergency Clinics and various categories of Lab tests by the PCE Report Module.

2.2.2. PXTT TABLE MAINTENANCE – PCE Table Maintenance

The options on this menu are used to add or edit the types of data to be collected by PCE such as Health Factors, Patient Education, etc. Once these tables have been defined, the table entries will be selectable for encounter data entry (PCE package) and encounter form definitions (AICS package). The patient information collected based on these table definitions is viewable on Health Summaries. This menu also includes options to edit the Clinical Reminder/Health Maintenance definitions, based on your site's clinical terminology in the tables. Once reminder criteria have been defined, they may be included in the Health Summary Type definitions for the "Clinical Reminder" and "Health Maintenance" Components.

These options may be used in conjunction with the "PCE Information Only" menu options to manage the contents of the files or tables supporting PCE.

The option PCE Delete Encounters W/O Visit has been created to provide a routine utility to remove Encounters that have missing Visits. (This is described in detail in the text of patch PX*1*153.)

2.2.3. PXQ PCE/SD DEBUGGING UTILITIES – PCE/SD Debugging Utilities

Main menu for the PCE/Scheduling Debugging Utilities. Below is a description of options.

PXQ USER REVIEW – User's Visit Review

This is a report of the visits and the files that store the visit-related information.

PX V File Repair – PCE V File Cross Reference Repair

This option provides a number of options that allow the user to both report on and fix broken V File Cross References.

Details regarding both of these options are covered in Appendix A-11 of the User Manual Appendices document. Details regarding the User's Visit Review option are covered in the User Manual.

2.2.4. PXTT PCE INFORMATION ONLY – PCE Information Only

This is a menu of options that list information about the files/tables used by PCE. Some of the files/tables determine what clinical data will be collected as the sites' clinical terminology for specific categories of data such as Immunizations, Skin Tests, Patient Education, and Treatments. The reminder lists allow the user to see what the clinical reminders definitions are for use with the Health Summary package.

2.2.5. PXRM REMINDER MENU – PCE Reminder Maintenance Menu

This is the menu for editing reminder logic and making queries about the files involved with Clinical Reminders and Clinical Maintenance components in the Health Summary package.

2.2.6. PXRR CLINICAL REPORTS – PCE Clinical Reports

This is a menu of PCE clinical reports that clinicians can use for summary level information about their patients, workload activity, and encounter counts.

2.2.7. PX EDIT LOCATION OF HOME – Directions to Patient's Home Add/Edit

This option lets you enter directions to a patient's home; especially useful for Hospital-Based Home Care staff. The Health Summary package contains a new PCE component that displays the directions entered through this option.

2.2.8. PX PCE CLINICIAN MENU – PCE Clinician Menu

This menu contains PCE options that may be useful to the clinician.

2.2.9. PX PCE COORDINATOR MENU – PCE Coordinator Menu

This is the menu for the ADPAC for PCE. It includes all of the user interface options as well as the options for file maintenance. The data entry options may be assigned to clerk and/or clinician menus as needed. The HS and Report parameter options manage fields for site specific preferences/definitions in the Health Summary and PCE Reports.

The first four options/menus are used by IRM staff or coordinators who will be responsible for setting up PCE, maintaining the entries in the PCE tables (such as Patient Education, Immunization, Treatments, etc.), and defining the clinical reminders/maintenance system for your site. Data entry options on the PCE Coordinator and PCE Clinician Menus should be assigned as follows:

- Assign PCE Encounter Data Entry – Supervisor to users who can document a clinical encounter and can also delete any encounter entries, even though they are not the creator of the entries.

- Assign PCE Encounter Data Entry to data entry staff who can document a clinical encounter and who can delete their own entries.

- Assign PCE Encounter Date Entry and Delete to users who can document a clinical encounter and can also delete any encounter entries, even though they are not the creator of the entries.

- Assign PCE Encounter Data Entry without Delete to users who can document a clinical encounter, but should not be able to delete any entries, including ones that they have created.

Set PCE Site Parameters using the PCE Site Parameters Menu on the PCE IRM Menu. This menu includes all options that deal with defining and displaying entries in the PCE PARAMETERS file (815) and all editable fields for IRM/ADPAC use.

2.3. PCE SITE PARAMETER MENU

2.3.1. PX PCE SITE PARAMETERS EDIT – PCE Site Parameters Edit

This option is used to edit entries in the PCE PARAMETERS file. The parameters that are set are used as the default controls for the user interface when it starts up. You can set your default view as Appointment or Encounter and a range of dates.

2.3.2. PX HS DISCLAIMER EDIT – PCE HS Disclaimer Edit

This option is used to specify a Site Reminder Disclaimer to be used by the Health Summary package whenever the Health Summary "Clinical Maintenance" and "Clinical Reminder" components are displayed in a Health Summary.

2.3.3. PX HS/RPT PARAMETERS PRINT – PCE HS/RPT Parameters Print

This option prints the current PCE Parameter definitions that are used by Health Summary and some of the PCE Reports.

2.3.4. PX REPORT PARAMETER EDIT – PCE Report Parameter Edit

This option is used to define parameters that will be used by the PCE Report Module. The report edit option allows your site to specify which clinics in file 44 represent "Emergency Room" clinics, and what Lab tests from file 60 should be used for looking up patient data for Glucose, Cholesterol, LDL Cholesterol, and HBA1C lab results. These fields are used by the reports Caseload Profile by Clinic, and Patient Activity by Clinic. To get a printout of current definitions in the PCE Parameters fields for these fields, use the PCE HS/RPT Parameters Print.

2.3.5. PCE EDIT DISPOSITION CLINICS – PCE Edit Disposition Clinics

This option is used to define which clinics are used as Administrative Disposition Clinics.

The PCE HS/RPT Parameter Print and PCE HS Parameters options can be included on a Health Summary Coordinator's menu if the coordinator is involved with the definition of Clinical Reminders to be printed on the Health Summary. These options are also included on the PCE Coordinator menu and the PCE Reports option menu.

PCE exports a disclaimer to appear on Health Summaries: Default Reminder Disclaimer:

The following disease screening, immunization, and patient education recommendations are offered as guidelines to assist in your practice.

These are only recommendations, not practice standards. The appropriate utilization of these for your individual patient must be based on clinical judgment and the patient's current status.

If your site determines it would prefer a site defined reminder disclaimer instead of the disclaimer distributed by PCE, use the HS Disclaimer Edit option to define your site's disclaimer text. This disclaimer appears on the top of each display of Health Summary "Clinical Maintenance" and "Clinical Reminder" components.

The PCE Report Parameters Edit option can be included on a PCE Coordinator's menu to set up the local file definitions to use to represent Emergency Clinics and various categories of Lab tests by the PCE Report Module. The Caseload Profile by Clinic and Patient Activity by Clinic reports track Critical Lab Values and Emergency Room Visits.

The PCE Report Parameter Edit option allows your site to specify which clinics in file 44 represent "Emergency Room" clinics and what tests from the Laboratory Test file (#60) should be used for looking up patient data for Glucose, Cholesterol, LDL Cholesterol and HBA1C lab results. (This is necessary since the Laboratory Test File is not standardized and each site may have customized it differently.)

2.4. PCE HS/RPT PARAMETERS PRINT EXAMPLE

Select PCE HS/RPT Parameter Menu Option:prnt PCE HS/RPT Parameters Print

```
DEVICE:   VAX    RIGHT MARGIN: 80// [ENTER]
PCE HS/RPT PARAMETERS PRINT          MAY 21,1996  11:52  PAGE 1
-------------------------------------------------------
PARAMETERS related to HEALTH SUMMARY
-------------------------------------
Default Reminder Disclaimer:
    The following disease screening, immunization and patient education
recommendations are offered as guidelines to assist in your practice.
    These are only recommendations, not practice standards.
    The appropriate utilization of these for your individual
    patient must be based on clinical judgment and the
    patient's current status.
Site Reminder Disclaimer (Replaces default disclaimer if defined):
PARAMETERS related to PCE REPORTS
--------------------------------
Report ER Clinic Names: EYE
Report Glucose Names: URINE GLUCOSE
Report Cholesterol Names: CHOLESTEROL
Report LDL Cholesterol Names:
Report HBA1C Names:
```

2.5. PCE SITE PARAMETERS EDIT

The default Startup View may be set to Appointment or Visit/Encounter. We recommend that you set the default Startup View to Appointment, which displays all the appointments that have been made during the default date range.

The default date range is determined by values that are defined for the Date Offset fields. There are four Date Offset fields. The first two, Beginning Patient Date Offset and Ending Patient Date Offset, determine the default date range for display of patient data. The last two, Beginning Hos Loc Date Offset and Ending Hos Loc Date Offset, determine the default date range for display of patient data based on hospital location (clinic or ward). A number subtracted from today's date is the Beginning Patient Date Offset (e.g., -30) and a number added to today's date is the Ending Patient Date Offset (e.g., 1). Do not put in specific dates, but count backwards and forward from the current date.

The Multiple Primary Diagnosis prompt lets sites that use scanning devices choose whether to receive warnings or not have the encounter processed if more than one diagnosis is listed as primary.

You can also set the switch-over date from using the Scheduling interface for checkouts and dispositions, and the starting date for displaying PCE data on Health Summaries.

Select PCE IRM Main Menu Option: SP PCE Site Parameter Menu

- SITE   PCE Site Parameters Edit
- RPT   PCE HS/RPT Parameter Menu ...
- DISP   PCE Edit Disposition Clinics

Select PCE Site Parameter Menu Option: SI PCE Site Parameters Edit

Select PCE PARAMETERS ONE: 1

- STARTUP VIEW: ENCOUNTER
- BEGINNING PATIENT DATE OFFSET: -30//[ENTER]
- ENDING PATIENT DATE OFFSET: 1//[ENTER]
- BEGINNING HOS LOC DATE OFFSET: -7//[ENTER]
- ENDING HOS LOC DATE OFFSET: 0//[ENTER]
- RETURN WARNINGS: YES//[ENTER]
- MULTIPLE PRIMARY DIAGNOSES: RETURN WARNING//?   If errors are returned by the Device Interface then the whole encounter is not processed.

   Choose from:

   0   RETURN WARNING

   1   RETURN ERROR

MULTIPLE PRIMARY DIAGNOSES: RETURN WARNING//[ENTER]

SD/PCE SWITCH OVER DATE: JUL 1,1996

HEALTH SUMMARY START DATE: JUL 28,1996 Select PCE PARAMETERS ONE: [ENTER]

2. Review entries contained in PCE Supporting Files: Data is exported for Education Topics, Examinations, Health Factors, Immunizations, Skin Tests, and Treatments. With the exception of "treatments" data was exported with a status of "active." Entries in each of the supporting files should be evaluated and assigned an appropriate status. Use the Activate/Inactivate Table Items Menu option to review and assign a status for entries. Unless you activate current entries or create new entries for "Treatments," users will not be able to add treatments to an encounter.

Example of Activating Treatment Items

Select PCE Coordinator Menu Option: TBL PCE Table Maintenance

Select PCE Table Maintenance Option: ACT Activate/Inactivate Table Items

   E   Exams

   ET   Education Topics

   H   Health Factors

   I   Immunizations
         **> Out of order: Do not use! Placed out
         of order by PX*1*201

S Skin Tests
  **> Out of order: Do not use! Placed out
  of order by PX*1*206

T Treatments

Select Activate/Inactivate Table Items Option:

T Treatments

Select TREATMENT NAME: WOUND CARE

INACTIVE FLAG: INACTIVE// ??

 This field is used to inactivate a treatment type. If this field

 contains a "1" then the treatment is inactive. Inactive treatments

 cannot be selected in the manual data entry process. Treatment

 entries should be made inactive when they are no longer used. Do

 not delete the entry or change the meaning of the treatment entry.

 To make an inactive treatment type active, enter the "@" symbol to

 delete the "1" from the field.

 Choose from:

  1 INACTIVE

INACTIVE FLAG: INACTIVE// @

Select TREATMENT NAME: Continue to enter treatments, as needed.

3. Edit the Report Parameters using the PCE Report Parameter Edit option. This option is used to define parameters that will be used by the PCE Report Module. You need to identify which clinics are considered Emergency Room clinics by clinicians. You also need to identify the lab test names that are used by your site to identify the following types of Lab tests: Glucose, Cholesterol, LDL Cholesterol, and HBA1C.

To get a printout of current definitions in the PCE Parameters fields for these fields, use the PCE HS/RPT Parameters Print.

Example of Editing Report Parameters:

Select PCE Coordinator Menu Option: parm PCE HS/RPT Parameter Menu

 PRNT PCE HS/RPT Parameters Print

 HS PCE HS Disclaimer Edit

 RPT PCE Report Parameter Edit

Select PCE HS/RPT Parameter Menu Option: RPT PCE Report Parameter Edit

Select PCE PARAMETERS ONE: 1

Select ER CLINIC NAME: eye

Are you adding 'EYE' as a new REPORT ER CLINIC NAMES (the 1ST for this PCE PARAMETERS)? y (Yes)

Select ER CLINIC NAME: 2a

Are you adding '2A' as a new REPORT ER CLINIC NAMES (the 2ND for this PCE PARAMETERS)? y (Yes)

Select ER CLINIC NAME: [ENTER]

Select GLUCOSE NAMES: ?

 Answer with REPORT EMERGENCY CLINICS GLUCOSE NAMES

    You may enter a new REPORT EMERGENCY CLINICS, if you wish

    Enter the name(s) of the BLOOD GLUCOSE lab assays as they appear in

    the Laboratory Test (60) file . DO NOT INCLUDE Glucose Tolerance or Fluid

    Glucose test names.

    LAB TEST STORED ONLY AT THE "CH" NODE

 Answer with LABORATORY TEST NAME, or LOCATION (DATA NAME), or

    PRINT NAME

 Do you want the entire LABORATORY TEST List? n (No)

Select GLUCOSE NAMES: glu

    1   GLUCAGON

    2   GLUCOSE

    3   GLUCOSE, OTHER

    4   GLUTAMINE

    5   GLUTETHIMIDE

TYPE '^' TO STOP, OR

CHOOSE 1-5:

    6   GLU   URINE GLUCOSE

CHOOSE 1-6: 6 URINE GLUCOSE

  Are you adding 'URINE GLUCOSE' as

    a new REPORT EMERGENCY CLINICS (the 1ST for this PCE PARAMETERS)? y (Yes)

Select GLUCOSE NAMES:[ENTER]

Select CHOLESTEROL NAMES: ??

    This field will contain the names of any and all TOTAL CHOLESTEROL

    assays as they appear in the Laboratory Test (60) file to allow the clinic

reporting module of the Patient Care Encounter Package to monitor Quality

of Care Markers. Entries should be made either by IRM personnel or

Clinic coordinator.

Select CHOLESTEROL NAMES: chol

    1 CHOLESTEROL

    2 CHOLESTEROL CRYSTALS

    3 CHOLINESTERASE

    4 CHOLYLGLYCINE

CHOOSE 1-4: 1

 Are you adding 'CHOLESTEROL' as

  a new REPORT CHOLESTEROL NAMES (the 1st for this PCE PARAMETERS)? Y (Yes)

Select LDL CHOLESTEROL NAMES: ??

    This field will contain the names of any and all LDL CHOLESTEROL assays

    as they appear in the Laboratory Test (60) file to allow the clinic

    reporting module of the Patient Care Encounter Package to monitor

    Quality Assurance

Select LDL CHOLESTEROL NAMES: CHOLYLGLYCINE

 Are you adding 'CHOLYLGLYCINE' as a new REPORT LDL CHOLESTEROL NAMES (the 1ST for this PCE PARAMETERS)? y (Yes)

Select LDL CHOLESTEROL NAMES:[ENTER]

Select HBA1C NAMES: ?

 Answer with REPORT HBA1C NAMES

    You may enter a new REPORT HBA1C NAMES, if you wish

    Enter the name(s) of the Glycosolated Hemoglobin assays as they

    appear in the Laboratory Test (60) file.

    LABS STORED ONLY AT THE "CH" NODE

 Answer with LABORATORY TEST NAME, or LOCATION (DATA NAME), or

    PRINT NAME

 Do you want the entire LABORATORY TEST List? n (No)

Select HBA1C NAMES: glycoSYLATED HEMOGLOBIN A1C

 Are you adding 'GLYCOSYLATED HEMOGLOBIN A1C' as

  a new REPORT HBA1C NAMES (the 1ST for this PCE PARAMETERS)? y (Yes)

Select HBA1C NAMES:[ENTER]

Select PCE PARAMETERS ONE:[ENTER]

4. Make sure the following EVENTS are on the appropriate ITEM protocols:

EVENT   PROTOCOL

SDAM PCE EVENT ITEM multiple of the PXK VISIT DATA EVENT

IBDF PCE EVENTS ITEM multiple of the PXK VISIT DATA EVENT

PXK SDAM TO V-FILES   ITEM multiple of the SDAM APPOINTMENT
        EVENTS

IBDF PCE EVENTS ITEM multiple of PXCA DATA EVENT

VSIT PATIENT STATUS   ITEM multiple of DGPM MOVEMENT EVENTS.

Example of EVENT placement on PROTOCOLS

[DVF,DEV]>D P^DI

VA FileMan 21.0

Select OPTION: INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: PROTOCOL   (3091 entries)

Select PROTOCOL NAME: PXK VISIT DATA EVENT   VISIT RELATED DATA

ANOTHER ONE: SDAM APPOINTMENT EVENTS   Appointment Event Driver

ANOTHER ONE: PXCA DATA EVENT   PCE Device Interface Module's Data Event

ANOTHER ONE:DGPM MOVEMENT EVENTS....

STANDARD CAPTIONED OUTPUT? Yes// [ENTER] (Yes)

Include COMPUTED fields: (N/Y/R/B): NO// [ENTER] - No record number (IEN), no Computed Fields

NAME: PXK VISIT DATA EVENT   ITEM TEXT: VISIT RELATED DATA

 TYPE: extended action   CREATOR: EATON,DENIS

 DESCRIPTION: This is a Protocol that PIMS can hook onto to find the data

 that was collected by PCE using List Manager, Scanning etc.

 PIMS has developed a protocol, SDAM PCE EVENT, which will use the visit related data to do an auto-checkout.

ITEM: SDAM PCE EVENT

ITEM: IBDF PCE EVENT

 EXIT ACTION: K PXKSPX   ENTRY ACTION: S PXKSPX=1

 TIMESTAMP: 56796,37384

NAME: SDAM APPOINTMENT EVENTS   ITEM TEXT: Appointment Event Driver

 TYPE: extended action   CREATOR: EATON,DENIS

 PACKAGE: SCHEDULING

 DESCRIPTION: This extended action contains all the actions that need to

 be performed when an action is taken upon an appointment, such as checking in.

ITEM: ORU PATIENT MOVMT

ITEM: IBACM OP LINK   SEQUENCE: 1

ITEM: DG MEANS TEST REQUIRED

ITEM: VAFED EDR OUTPATIENT CAPTURE

ITEM: SDAM LATE ENTRY   SEQUENCE: 2

ITEM: RMPR SCH EVENT   SEQUENCE: 3

ITEM: DVBA C&P SCHD EVENT   SEQUENCE: 8

ITEM: PXK SDAM TO V-FILES

  ENTRY ACTION: D ANC^SDVSIT2   TIMESTAMP: 56796,37371

NAME: PXCA DATA EVENT

  ITEM TEXT: PCE Device Interface Module's Data Event

 TYPE: extended action   CREATOR: EATON,DENIS

 DESCRIPTION: This is the event point invoked by PCE Device Interface Module
when it has not found any errors in the data passed to it. This makes the data available
to other users of the data including users of any Local data that may be included.

ITEM: IBDF PCE EVENT

  TIMESTAMP: 56796,37383

NAME: DGPM MOVEMENT EVENTS   ITEM TEXT: MOVEMENT EVENTS v 5.0

 TYPE: extended action   CREATOR: SCHLEHUBER,PAMELA

 PACKAGE: REGISTRATION

 DESCRIPTION:

  At the completion of a patient movement the following events

  take place through this option:

 1. The PTF record is updated when a patient is admitted,

    discharged or transferred.

 2. The appointment status for a patient is updated to 'inpatient'

    for admissions and 'outpatient' for discharges. Admissions

    to the domiciliary have an 'outpatient' appointment status.

 3. When a patient is admitted, dietetics creates a dietetic

patient file entry and creates an admission diet order.

When a patient is discharged, all active diet

orders are discontinued. If a patient is absent or on

pass, the diet orders are suspended.

 4. Inpatient Pharmacy cancels all active orders when a patient is admitted, discharged or on unauthorized absence. A patient cannot be given Unit Dose meds unless s/he is admitted to a ward. The patient can receive IV meds; however. When a patient is transferred, an inpatient system parameter is used to determine whether or not the orders should be cancelled. When a patient goes on authorized absence, the inpatient system parameter is used to determine whether the orders should be cancelled, placed on hold or no action taken. When a patient returns from authorized absence any orders placed on hold will no longer be on hold.

5. With ORDER ENTRY/RESULTS REPORTING v2.2,

MAS OE/RR NOTIFICATIONS may be displayed to

USERS defined in an OE/RR LIST for the patient. These notifications

are displayed for admissions and death discharges.

 FILE LINK: 11754;DIC(19,

ITEM: ORU AUTOLIST

ITEM: ORU PATIENT MOVMT

ITEM: FHWMAS

ITEM: GMRVOR DGPM

ITEM: PSJ OR PAT ADT

ITEM: IB CATEGORY C BILLING   SEQUENCE: 10

ITEM: DG MEANS TEST DOM   SEQUENCE: 8

ITEM: DGJ INCOMPLETE EVENT   SEQUENCE: 6

ITEM: DGOERR NOTE   SEQUENCE: 7

ITEM: DGPM TREATING SPECIALTY EVENT   SEQUENCE: 1

ITEM: VAFED EDR INPATIENT CAPTURE

ITEM: SD APPT STATUS   SEQUENCE: 2

ITEM: GMRADGPM MARK CHART

ITEM: YS PATIENT MOVEMENT

ITEM: DVB ADMISSION HINQ

ITEM: VSIT PATIENT STATUS

 TIMESTAMP: 56803,40994

Select PROTOCOL NAME: [ENTER]

5. Use the Visit Tracking Parameters Edit option to ensure that the entries in the VISIT TRACKING PARAMETERS file (#150.9) are correct. (This option is not on a menu – go through MenuMan to access it.) The post-installation routine ^VSITPOST, which is called automatically by the installation process, checks to see if the VISIT TRACKING PARAMETERS file (#150.9) has an entry. If not, it will configure it with default values.

Answer the SITE PART OF VISIT ID prompt with TEST ACCOUNT if this is in your test or training account.

Answer with the three-letter identifier for your facility if you are in production.

Example of Editing Visit Tracking Parameters

>D ^XUP

Select OPTION NAME: VSIT TRACKING PARM EDIT Visit Tracking Parameters edits.

Select VISIT TRACKING PARAMETERS NAME: 1

DEFAULT TYPE: VA//[ENTER]

DEFAULT INSTITUTION: Enter your institution name here

Select PACKAGE: PCE PATIENT CARE ENCOUNTER   PX

        ...OK? Yes// [ENTER] (Yes)

  PACKAGE: PCE PATIENT CARE ENCOUNTER//[ENTER]

  ACTIVE FLAG: ON//[ENTER]

Select PACKAGE: SCHEDULING   SD

        ...OK? Yes// [ENTER] (Yes)

  PACKAGE: SCHEDULING//[ENTER]

  ACTIVE FLAG: OFF// ON

Select PACKAGE: ORDER ENTRY/RESULTS REPORTING   OR

        ...OK? Yes// [ENTER] (Yes)

  PACKAGE: ORDER ENTRY/RESULTS REPORTING//[ENTER]

  ACTIVE FLAG: ON//[ENTER]

Select PACKAGE:[ENTER]

SITE PART OF VISIT ID: ??

    This is a three letter identifier for this computer system that is

    unique in the VA, or "TEST" of a test account. This is appended after a

    "-" onto the sequence number to form the unique Visit Id in the VA

    system. It is important that this is set to the correct value and not

    changed.

Choose from:

   ALBANY, NY   ALN

   ALBUQUERQUE, NM   ALB

   ALEXANDRIA, LA   ALX

   ALLEN PARK, MI   ALL   (continuing to display all sites)

Select VISIT TRACKING PARAMETERS NAME:[ENTER]

    6. Create a PXCA PCE ERROR BULLETIN mail group in MAIL GROUP file (#3.8):

>D P^DI

VA FileMan 20.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: MAIL GROUP// [ENTER]

EDIT WHICH FIELD: ALL// [ENTER]

Select MAIL GROUP NAME: PXCA PCE ERROR BULLETIN

  ARE YOU ADDING 'PXCA PCE ERROR BULLETIN' AS

   A NEW MAIL GROUP (THE 65TH)? Y (YES)

Select MEMBER: USER,JOE

 ARE YOU ADDING 'USER,JOE' AS A NEW MEM (THE 1ST FOR THIS MAIL GROUP)?Y(YES)

Select MEMBER: [ENTER]

DESCRIPTION:

  1>A mail group to send error bulletin messages from PXCA.

  2>Used by "PXCA PCE ERROR BULLETIN" bulletin.

  3>[ENTER]

EDIT Option: [ENTER]

TYPE: PU public

ORGANIZER:[ENTER]

COORDINATOR: USER,ANOTHER//[ENTER]

Select AUTHORIZED SENDER:[ENTER]

ALLOW SELF ENROLLMENT?: NO

REFERENCE COUNT:[ENTER]

LAST REFERENCED:[ENTER]

RESTRICTIONS: LOCAL

Select MEMBER GROUP NAME:[ENTER]

Select REMOTE MEMBERS:[ENTER]

Select DISTRIBUTION LIST:[ENTER]

Select MAIL GROUP NAME:[ENTER]

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: MAIL GROUP// BULLETIN   (86 entries)

EDIT WHICH FIELD: ALL// MAIL GROUP   (multiple)

  EDIT WHICH MAIL GROUP SUB-FIELD: ALL// [ENTER]

THEN EDIT FIELD:[ENTER]

Select BULLETIN NAME: PXCA PCE ERROR BULLETIN

Select MAIL GROUP: PXCA PCE ERROR BULLETIN

ARE YOU ADDING 'PXCA PCE ERROR BULLETIN' AS

  A NEW MAIL GROUP (THE 1ST FOR THIS BULLETIN)? Y (YES)

Select MAIL GROUP:[ENTER]

Select BULLETIN NAME:[ENTER]

7. Create VSIT CREATE ERROR as a mail group (as described above) adding appropriate members. Visit Tracking sends a message to this mail group when it has an error that prevents it from creating a visit.

8. Activate PCE components in the Health Summary Component file.

9. Implement the PCE Reminder/Maintenance items to appear on Health Summaries.

The Clinical Reminders feature of PCE uses a combination of PCE Table Maintenance options, PCE Clinical Reminders options, PCE Taxonomy options, Health Summary Create/Modify Health Summary Type options, and AICS Encounter Form options. The PCE User Manual Appendices document (Appendix A) provides a more detailed description of developing and customizing clinical reminders.

Follow the steps below, as applicable, to implement Clinical Reminders.

```
Note:  Most of these steps are optional, to be performed only if
you want to modify items to meet site needs.
```

Use the List Reminder Definitions option to print the nationally distributed reminder definitions (both the "VA" and "VA-*" prefixed). Determine if you want to use the distributed definitions.

Example of List Reminder Definitions (1st page)

Select PCE IRM Main Menu Option: rm PCE Reminder Maintenance Menu

  RL List Reminder Definitions

  RI Inquire about Reminder Item

  RE Add/Edit Reminder Item

  RC Copy Reminder Item

  RA Activate/Inactivate Reminders

  RT List Reminder Types Logic

  TL List Taxonomy Definitions

  TI Inquire about Taxonomy Item

  TE Edit Taxonomy Item

TC   Copy Taxonomy Item

TA   Activate/Inactivate Taxonomies

Select PCE Reminder Maintenance Menu Option: RL List Reminder Definitions

DEVICE: [ENTER]   VAX   RIGHT MARGIN: 80// [ENTER]

PCE REMINDER/MAINTENANCE ITEM LIST   MAY 22,1996 08:57   PAGE 1

BREAST CANCER SCREEN

Print Name: Breast Cancer Screen

Related VA-* Reminder: 555002

Reminder Description:

  Mammogram should be given every 2 years to female patients, ages 50-69.

  The "VA-*Breast Cancer Screen" reminder is based on the following

  "Breast Cancer Screen" guidelines specified in the "Guidelines for

   Health Promotion and Disease Prevention", M-2, Part IV, Chapter 9.

     Target Condition: Early detection of breast cancer.

   Target Group: All women ages 50-69.

- Identify the reminders that your site wants to implement. Copy, as necessary, using the Copy Reminder Item option. After copying the reminders, you can alter the new reminders to meet your site's needs.

```
Note:  The "VA-" prefix represents the nationally distributed
set. When you copy items, the VA-prefix is dropped. "VA-*"
represents the minimum requirements as defined by the National
Center for Health Promotion (NCHP). As an alternative, you can
create a local site reminder item using the Edit Taxonomy Item
option.
```

- Use the Health Summary package to activate Clinical Reminders and Clinical Maintenance components. Then rebuild the Ad Hoc Health Summary Type.

  a.   Identify which Health Summary Type is used by the implementing clinic.

  b.   Add the Clinical Reminders and/or the Clinical Maintenance components to the Health Summary Type.

  c.   Edit component parameters, identifying desired selection items.

- If a taxonomy definition related to a reminder needs modification, do the following steps:

    a.   Copy the taxonomy using the Copy Taxonomy Item option.

    b.   Modify the taxonomy, using the Edit Taxonomy Item option.

    c.   Copy the related Reminder.

    d.   Modify the Reminder to reflect the newly created taxonomy, using the Add/Edit Reminder Item option.

    e.   As an alternative to copying a taxonomy, local site taxonomy items can be created, using the Edit Taxonomy Item.

Modify the Treatment, Patient Ed, Exam, and Health Factors files, if necessary, through PCE Table Maintenance options. If clinical reminders are not showing up correctly on Health Summaries, see Appendix A-7 in the PCE User Manual Appendices document for troubleshooting information which IRM staff with programmer access can use.

- Coordinate the use of Encounter Forms (through the AICS package) with the use of Health Summary Clinical Maintenance Components. Make sure that the relevant encounter forms contain all appropriate list bubbles for PCE data: Health Factors, Exams, Immunizations, Diagnosis, Patient Education, Procedures, and Skin Tests.

- Inactivate reminders that will not be used, with the Activate/Inactive Reminders option.

11. (Optional) Add Health Summary, Problem List, and Progress Notes as actions on PCE screens to allow quick access to those programs while using PCE.

Example of adding programs to PCE screens

>D P^DI

VA FileMan 21.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: 101 PROTOCOL   (2978 entries)

EDIT WHICH FIELD: ALL// ITEM

EDIT WHICH ITEM SUB-FIELD: ALL// .01 ITEM

THEN EDIT ITEM SUB-FIELD: MNEMONIC

THEN EDIT ITEM SUB-FIELD: [ENTER]

THEN EDIT FIELD: [ENTER]

Select PROTOCOL NAME: PXCE SDAM MENU   Appointment Menu   AV

Select ITEM: PXCE BLANK HS// [ENTER]

  ITEM: PXCE BLANK HS// PXCE GMTS HS ADHOC   Health Summary   HS

  MNEMONIC: HS

Select ITEM: PXCE BLANK PN

    ...OK? Yes//[ENTER] (Yes)

 ITEM: PXCE BLANK PN// PXCE GMRP REVIEW SCREEN   Progress Notes   PN

 MNEMONIC: PN

Select ITEM: PXCE BLANK PL

    ...OK? Yes// [ENTER] (Yes)

 ITEM: PXCE BLANK PL// PXCE GMPL OE DATA ENTRY   Patient Problem List PL

 MNEMONIC: PL

Select ITEM:[ENTER]

Select PROTOCOL NAME: PXCE MAIN MENU

Select ITEM: PXCE BLANK HS// [ENTER]

 ITEM: PXCE BLANK HS// PXCE GMTS HS ADHOC   Health Summary   HS

 MNEMONIC: HS

Select ITEM: PXCE BLANK PN

    ...OK? Yes// [ENTER] (Yes)

 ITEM: PXCE BLANK PN// PXCE GMRP REVIEW SCREEN   Progress Notes   PN

 MNEMONIC: PN

Select ITEM: PXCE BLANK PL

    ...OK? Yes// [ENTER] (Yes)

 ITEM: PXCE BLANK PL// PXCE GMPL OE DATA ENTRY   Patient Problem List PL

 MNEMONIC: PL

Select ITEM: [ENTER]

Select PROTOCOL NAME: [ENTER]

12. Create a DISPOSITION CLINIC for each division in your facility using the "Set-up a Clinic" option on the Scheduling Supervisor Menu. If you are a multi-divisional facility and you want to credit disposition workload for each division, you will need to set up a DISPOSITION CLINIC for each division. Make sure you define each DISPOSITION CLINIC so that it is easily associated with the division for which you want to credit workload.

- If you are a single-division facility, you should define only one DISPOSITION CLINIC.

- The DISPOSITION CLINICS will only be used with Dispositions.

- PCE recommends creating a clinic defined as Disposition, with a Stop Code number of 102. This clinic should be used with all dispositions.

- Use "PCE Edit Disposition Clinics" option located on the "PCE Site Parameter Menu" to enter the DISPOSITION CLINICs that were defined for use with Dispositions for your facility. The purpose of this is to restrict the Hospital Location for a Disposition to DISPOSITION CLINICs only.

- In single-division facilities, the hospital location for Dispositions will be stuffed automatically, and you will not be prompted to select a DISPOSITION HOSPITAL LOCATION.

PCE Edit Disposition Clinics Example

Select PCE Site Parameter Menu Option: PCE Edit Disposition Clinics

Select PCE PARAMETERS ONE: 1

Select DISPOSITION HOSPITAL LOCATIONS: ?

 Answer with DISPOSITION HOSPITAL LOCATIONS

Choose from:

  DISPOSITION 1

  DISPOSITION 2

    You may enter a new DISPOSITION HOSPITAL LOCATIONS, if you wish

Answer with HOSPITAL LOCATION NAME, or ABBREVIATION

 Do you want the entire 58-Entry HOSPITAL LOCATION List? n

Select DISPOSITION HOSPITAL LOCATIONS: DISPOSITION 1

2.6. MAINTENANCE

2.6.1. Table Maintenance Options

The Table Maintenance options let sites add or edit the items in the tables for Health Factors, Patient Education, etc. Once these tables have been defined, the table entries can be selected for encounter data entry (PCE package) and encounter form definitions (AICS package). Scanning encounter forms with the AICS package will provide PCE with patient information that is stored in the V files. The patient information collected based on these table definitions is viewable on Health Summaries (Health Summary package).

This menu also includes options to edit the Clinical Reminder/Health Maintenance definitions, based on your site's clinical terminology in the tables. Once reminder criteria have been defined, they may be included in the Health Summary Type definitions for the "Clinical Reminder" and "Health Maintenance" Components.

Table items that are distributed with the PCE package can be inactivated using the PCE "Activate/Inactivate Table Items" menu. Use the "Inactive Flag" field to make an item "INACTIVE" for selection in the Encounter form definition process and the PCE encounter data entry process. Enter "@" at the "Inactive Flag" field to reactivate an inactivated item.

These options may be used in conjunction with the "PCE Information Only" menu options to manage the contents of the files or tables supporting PCE. Below is a description of the options.

PXTT ACTIVATE/INACTIVATE MENU - Activate/Inactivate Table Items

This option is the main menu option to activate or inactivate the entries in the supporting tables. (e.g., Education Topics, and Health Factors, Treatments).

PXTT COPY EDUCATION TOPICS - Education Topic Copy

This option lets you copy an existing education topic into a new education topic entry in the Education Topics file (#9999999.09). The original education topic to be copied is selected first. If the topic is prefixed with "VA-" the "VA-" will be stripped off the name automatically. The new name must be unique.

PXTT EDIT EDUCATION TOPICS - Education Topic Add/Edit

This option lets you create a new Education Topic or edit an Education Topic that was originally created at your site. Education topics distributed with the PCE package can be inactivated using "Activate/Inactivate Table Items."

PXTT EDIT EXAM - Examinations Add/Edit

This option allows you to create a new name to represent an examination type or edit an examination type that was originally created at your site.

The examination types originally distributed by PCE are a breakdown of potential categories of exams within a Physical Exam.

PXTT EDIT HEALTH FACTORS - Health Factors Add/Edit

This option allows the user to create a new Health Factor or edit a Health Factor that was originally created at your site.

PXTT EDIT IMMUNIZATIONS - Immunizations Add/Edit

    **> Out of order: Do not use! Placed out of order by PX*1*201.

This option allows a user to create a new Immunization type or edit an existing Immunization type that was originally created at your site.

PXTT EDIT IMMUNIZATION LOT – Immunization Lot Add/Edit/Display

    **> Locked with PXV IMM INVENTORY MGR.

This option allows an authorized user to add or update an immunization lot.

PXTT EDIT SKIN TESTS - Skin Tests Add/Edit

    **> Out of order: Do not use! Placed out of order by PX*1*206

This option allows a user to create a new Skin Test table entry or edit a Skin Test table entry that was originally created at your site.

PXTT EDIT TREATMENT - Treatments Add/Edit

This option allows a user to create a new Treatment or edit a Treatment that was originally created at your site.

PXV EDIT DEFAULT RESPONSES - Immunization Default Responses Enter/Edit

This option allows the user to enter or update information in the IMM DEFAULT RESPONSES file (#920.05).

2.6.2. PCE Information Only Menu

This is a menu of options that list information about the files/tables used by the Patient Care Encounter (PCE) package. Some of the files/tables determine what clinical data will be collected as the sites' clinical terminology for specific categories of data such as Immunizations, Skin Tests, Patient Education, and Treatments. Below is a description of the options.

PXTT LIST ACTIVE EDUC TOPICS - Active Educ. Topic List - Detailed

This lists the current detailed definition of the goals and standards defined for the active education topics.

PXTT LIST ALL EDUC TOPICS - Education Topic List

This option prints a brief list of ALL Education Topics using only two fields: Inactive Flag status and Topic Name.

PXTT INQUIRE EDUC TOPIC - Education Topic Inquiry

This option can be used to print the definition of a specific Education Topic definition.

PXTT LIST EXAMS - Exam List

This option lists all of the exam names, with their Active Status, that are defined in the Exam file for use with PCE.

PXTT LIST HEALTH FACTORS - Health Factor List

This option lists the Health Factors by Category, with their Active Status, that have been defined in the Health Factor file for use with PCE.

PXTT LIST IMMUNIZATIONS - Immunization List

This option lists all immunizations, with their Active Status, which have been defined in the Immunization file for use with PCE.

```
Note:  To see what CPT codes may be related to the immunization
entries, print the PCE Code Mapping List.
```

PXTT LIST SKIN TESTS - Skin Test List

This option lists all skin tests, with their Active Status, that have been defined in the Skin Test file for use with PCE.

PXTT LIST TREATMENTS - Treatment List

This option lists all treatments, with their active status, that have been defined in the Treatment file for use with PCE

PX PCE CODE MAPPING LIST - PCE Code Mapping List

This option allows the user to see the mappings (from the PCE CODE MAPPING file (#811.1)) between CPT codes and a related entry in a PCE supporting file. For

example, the CPT code 90732 is related to the Immunization file entry PNEUMOCCOCAL. PCE uses the code mapping relationships to populate multiple files from one data entry step. For example, an entry of PNEUMOCCOCAL in the V Immunization file will also create a CPT entry, 90732 in the V CPT file, which is then passed to PIMS.

```
Note:  As of patch PX*1.0*215, the PCE CODE MAPPING file (#811.1)
has been superseded. The mappings of immunizations and skin tests
to CPT codes are now contained in the CODING SYSTEM multiple of
the IMMUNIZATION (#9999999.14) and SKIN TEST (#9999999.28) files
themselves.
```

2.6.3. PCE Reminder Maintenance Menu

This is the menu for editing reminder logic and making queries about the files involved with Clinical Reminders and Clinical Maintenance components in the Health Summary package. The taxonomy feature of PCE contains expert rules that can provide very timely and pertinent patient information to clinicians on Health Summaries. See the Implementation section of this manual and the PCE User Manual Appendices document (Appendix A) for more detailed information about developing and customizing clinical reminders. Below is a description of the options.

PXRM REMINDERS LIST – List Reminder Definitions

Lists the PCE reminder/maintenance items with their definitions. Active items may be selected for use in the Clinical Reminder and Clinical Maintenance components of the Health Summary package.

PXRM REMINDER INQUIRY – Inquire About Reminder Item

Allows a user to display the definition of how a clinical reminder/health maintenance item is used in the Health Summary "Clinical Reminder" and "Health Maintenance" components.

PXRM REMINDER EDIT – Add/Edit Reminder Item

This option is used to edit the PCE Reminder/ Maintenance Item definitions. Several predefined reminder/maintenance items are distributed with the PCE package based on the Ambulatory Care EP Preventive Health Maintenance Guidelines. Sites may define their own Age Findings, Results Findings, Taxonomy, and Health Factor findings. They may also create routines for computed findings where necessary. Result findings at each site may require modification to represent local use of clinical data named in supporting Lab test, Radiology, Education Topic, Health Factor and PCE Taxonomy data definitions. The distributed reminder item's "Technical Description" will help the coordinator ensure that the reminder definition is modified to reflect local guidelines for reminders.

PXRM REMINDER COPY – Copy Reminder Item

This option lets you copy an existing reminder item definition into a new reminder item in the PCE Reminder/ Maintenance Item file (#811.9). The original reminder item to be copied is selected first. If the original reminder item is prefixed with "VA-", the "VA-" will be stripped off the name automatically to create the name for the new reminder item.

The new name must be unique. If the new name is not unique, you must enter a unique name for the new reminder item entry. If no name is provided, the new entry will not be created. Once a new name is defined for the new reminder item, the new reminder item can be edited to reflect the local reminder definition.

PXRM (IN)/ ACTIVATE REMINDERS – Activate/Inactivate Reminders

This option is used to make reminders active or inactive.

PXRM TAXONOMY COPY – Copy Taxonomy Item

This option allows you to copy an existing taxonomy definition into a new taxonomy entry in the PCE Taxonomy file (#811.2). The original taxonomy to be copied is selected first. If the original taxonomy is prefixed with "VA," the "VA-" will be stripped off the name automatically to create the name for the new taxonomy entry.

The new name must be unique. If the new name is not unique, the user must enter a unique name for the new taxonomy entry. If no name is provided, the new entry will not be created. Once a new name is defined for the new taxonomy entry, the new taxonomy entry can be edited to reflect the local taxonomy definition.

PXRM TAXONOMY EDIT – Edit Taxonomy Item

This option is used to edit the PCE Taxonomy Item definitions. Several predefined taxonomy items are distributed with the PCE package based on the Ambulatory Care EP Preventative Health Maintenance Guidelines. The distributed taxonomy items all have a "VA-" prefix. To alter a VA- prefixed taxonomy item, first copy it to a different name and then edit the taxonomy to reflect your site's definition for the taxonomy.

PXRM TAXONOMY INQUIRY – Inquire about a Taxonomy Item

This option provides a detailed report of a Taxonomy item's definition, with a list of the actual ICD codes that will meet the taxonomy definition from the ICD Diagnosis and ICD Operation/Procedure files.

PXRM TAXONOMY LIST – List Taxonomy Definitions

This option lists the current definition of taxonomies defined in the PCE Taxonomy file. The PCE Taxonomy file is used to define the coded values from ICD Diagnosis, ICD Operation/ Procedures, and CPT codes that can be viewed as being part of a clinical category (taxonomy). These taxonomy low and high range definitions are used in the Clinical Maintenance and Clinical Reminders components to determine if a patient has coded values in the clinical files that indicate the patient is part of the taxonomy.

PXRM (IN)/ ACTIVATE TAXONOMIES – Activate/Inactivate Taxonomies

This option allows you to activate/inactivate taxonomies.

2.6.4. PCE Clinical Reports

The PCE Clinical Reports options provide clinicians and managers with data never before available. They extract data from various files in VISTA, including laboratory, pharmacy, and PIMS to create output reports, which have been requested by physicians all over the VA. Below is a description of the options.

PXRR PATIENT ACTIVITY BY CL – Patient Activity by Clinic-

This report provides a summary of patient data for one or more clinics as a measure of continuity of care.

PXRR CASELOAD PROFILE BY CL – Caseload Profile by Clinic

This report generates a profile of the patients in a clinic's caseload, given a selected date range. One or more clinics or a stop code may be selected to represent the caseload; it combines PCE encounter, Lab, Radiology, Outpatient Pharmacy, and Admissions data, with report areas of demographics, preventive medicine, quality of care markers, and utilization.

PXRR CLINIC WORKLOAD – Workload by Clinic

This report provides a summary of clinic workload based on the evaluation and management codes associated with encounters occurring within a selected date range. The report will have the most complete information if it is run for a date range where clinic activities have been documented online. The representative period of time for the selected date range may be determined by clinical staff.

PXRR MOST FREQUENT DIAGNOSES – Diagnoses Ranked by Frequency

This report lists the most frequent diagnostic codes (ICD9 or ICD10) and the most frequent diagnostic categories.

PXRR LOCATION ENCOUNTER COUNTS – Location Encounter Counts

This report counts PCE outpatient encounters in a date range by location. The location selection can be based on facility, hospital location(s), or clinic stop(s). The report can be run for all hospital locations or clinic stops in a facility or selected hospital locations or clinic stops.

PXRR PROVIDER ENCOUNTER COUNTS – Provider Encounter Counts

This report lists provider counts related to PCE outpatient encounters (in detailed or summary reports). The selection criteria includes facility, service category, provider, and date range.

3.0   File Descriptions

3.1. PCE PATIENT CARE ENCOUNTER FILES

FILE NUMBER	FILE NAME	GLOBAL	DATA	JOURNALING
811.1	PCE Code Mapping	^PXD(811.1,	YES	
811.2	PCE Taxonomy	^PXD(811.2,	NO	
811.8	PCE Reminder Type	^PXD(811.8,	YES	
811.9	PCE Reminder/ Maintenance Item	^PXD(811.9,	YES	
815	PCE Parameters	^PX(815,	NO	
839.01	PXCA Device Interface Module Errors	^PX(839.01,	NO	ON
839.7	Data Source	^PX(839.7,	YES	
920	Vaccine Information Statement	^AUTTIVIS(	YES	
920.05	Imm Default Responses	^PXV(920.05,	NO	
920.1	Immunization Info Source	^PXV(920.1,	YES	
920.2	Imm Administration Route	^PXV(920.2,	YES	
920.3	Imm Administration Site (Body)	^PXV(920.3,	YES	
920.4	Imm Contraindications	^PXV(920.4,	YES	
920.5	Imm Refusals	^PXV(920.5,	YES	
920.6	Imm Routes To Sites	^PXV(920.6,	YES	
920.71	Imm External Agency	^PXV(920.71,	NO	
9000001	Patient/IHS	^AUPNPAT(	NO	ON
9000010.06	V Provider	^AUPNVPRV(	NO	ON
9000010.07	V POV	^AUPNVPOV(	NO	ON
9000010.11	V Immunization	^AUPNVIMM(	NO	ON
9000010.12	V Skin Test	^AUPNVSK(	NO	ON
9000010.13	V Exam	^AUPNVXAM(	NO	ON
9000010.15	V Treatment	^AUPNVTRT(	NO	ON
9000010.16	V Patient Ed	^AUPNVPED(	NO	ON
9000010.18	V CPT	^AUPNVCPT(	NO	ON
9000010.23	V Health Factors	^AUPNVHF(	NO	ON
9000010.707	V Imm Contra/Refusal Events	^AUPNVICR(	NO	

FILE NUMBER	FILE NAME	GLOBAL	DATA	JOURNALING
9000080.11	V Immunization Deleted	^AUPDVIMM(	NO	
9999999.04	Imm Manufacturer	^AUTTIMAN(	YES	
9999999.06	Location	^AUTTLOC(	NO	
9999999.09	Education Topics	^AUTTEDT(	YES	ON
9999999.14	Immunization	^AUTTIMM(	YES	
9999999.15	Exam	^AUTTEXAM(	YES	
9999999.17	Treatment	^AUTTTRT(	YES	
9999999.27	Provider Narrative	^AUTNPOV(	NO	ON
9999999.28	Skin Test	^AUTTSK(	YES	
9999999.41	Immunization Lot	^AUTTIML(	NO	
9999999.64	Health Factors	^AUTTHF(	YES	ON

811.1⎯PCE CODE MAPPING FILE

This file is used to map entries from two different files such as between CPT codes and a related entry in a PCE supporting file. For example, the CPT code 90732 is related to the Immunization file entry PNEUMOCCOCAL. PCE uses the code mapping relationships to populate multiple files from one data entry step. For example, an entry of PNEUMOCCOCAL in the V Immunization file will also create a CPT entry, 90732 in the V CPT file, which will then be passed to PIMS.

```
NOTE: As of patch PX*1.0*215, this file has been superseded. The
mappings of immunizations and skin tests to CPT codes are now
contained in the CODING SYSTEM multiple of the IMMUNIZATION
(#9999999.14) and SKIN TEST (#9999999.28) files themselves.
```

811.2⎯PCE TAXONOMY FILE

This file stores the taxonomies used by the PCE/Reminders/Maintenance sub-module. A Taxonomy entry in this file allows the coded values in another file to be related as a group, identified by the taxonomy name. Once entries are defined in this file, they can be referenced in the PCE Reminders/ Maintenance Item file to define a group of codes to use for reminders/maintenance. The taxonomy entries may be defined in ranges for ICD Diagnosis, ICD Operation/Procedure, and CPT-coded values.

811.8⎯PCE REMINDER TYPE FILE

This file contains the names of reminder types.

811.9⎯PCE REMINDER/MAINTENANCE ITEM FILE

This file contains the names of reminders and their definitions that can be selected for use in the Health Summary package components:

PCE CLINICAL REMINDERS

This component evaluates patient findings to determine if the reminder is "DUE NOW."

PCE CLINICAL MAINTENANCE

This component evaluates patient findings and reports the findings or lack of findings used to determine if the reminder is due.

815—PCE PARAMETERS FILE

This file has one entry containing parameters used by PCE. Users can set defaults for start-up views (Appointment or Encounter lists), for a range of dates that will be displayed, whether to display warnings if no diagnoses or procedures are passed, and several Health Summary/Reminders/Reports parameters.

839.01—PCE DEVICE INTERFACE MODULE ERROR FILE

This file holds the PXCA and PXKERROR variables when PXK returns error(s) to the device interface.

839.7—DATA SOURCE FILE

This file holds the names of the sources that PCE receives encounter data from — scanning devices, scheduling package, PCE User Interface, etc.

920—VACCINE INFORMATION STATEMENT FILE

This file stores Vaccine Information Statements (VISs). These are information sheets produced by the Centers for Disease Control and Prevention (CDC) that explain both the benefits and risks of a vaccine to vaccine recipients.

920.05—IMM DEFAULT RESPONSES FILE

This file stores the facility default responses for data prompts in the immunization

data entry process.

920.1—IMMUNIZATION INFO SOURCE FILE

This file is a table of standard possible sources from which the information about a particular immunization event was obtained. The data in this file are derived from the CDC-defined Immunization Information Source table (NIP001).

920.2—IMM ADMINISTRATION ROUTE FILE

This file is a table of routes of administration for vaccines/immunization events. The data in this table are from the HL7-defined Table 0162 - Route of Administrations.

920.3— IMM ADMINISTRATION SITE FILE

This is a table of administration sites - areas of the patient's body through which a vaccine/immunization can be administered. The values in this table are from the HL7-defined Table 0163 - Administrative site.

920.4 – IMM CONTRAINDICATIONS FILE

This is a table of contraindications regarding immunizations and skin tests. The data for this table is derived from the CDC table Vaccinations Contraindications.

920.5 – IMM REFUSALS FILE

This is a table of reason for refusal of an immunization or skin test. The data in this file has been derived from the CDC-defined table NIP002 – Substance Refusal Reason.

920.6 – IMM ROUTES TO SITES FILE

This file contains a mapping of applicable immunization administration sites for a

given administration route.

920.71 – IMM EXTERNAL AGENCY

This file is used to maintain a list of external agencies (e.g., State Immunization Information Registries) to whom immunization data has been transmitted. The data in this file is automatically populated and is not editable by the end-user.

V Files – Files Originally from Indian Health Service and Involved in Joint Sharing

In all V-files, the patient name is a pointer to the IHS Patient file, and the visit is a pointer to the visit file. Both of these must exist before data can be entered into any V file. The .01 field may be duplicated in multiple records. Also, a V file can have multiple entries for a visit, to capture multiple procedures, etc. For example, a patient may have several performed; each one would be a separate entry in V-CPT, each pointing to the same patient and visit.

9000010 – VISIT

This file contains a record of all patient visits at health care facilities or by health care providers, including direct outpatient and clinic visits, as well as inpatient encounters with providers of care. All other visit related files, such as purpose of visit (diagnoses), operative procedures, immunizations, examinations, etc. will point to a visit in this file. The records are maintained by date/time of visit, and the patient name field is a pointer to the IHS Patient file, where the patient must exist before data can be added here.

9000010.06 – V PROVIDER

Stores providers related to a visit. There can be multiple providers for a given visit. The primary/ secondary field identifies which provider is considered the primary provider for this visit.

9000010.07 – V POV

Stores problems treated at a visit. At least one purpose of visit (POV) is required for workload and billing purposes for each patient outpatient visit, regardless of the discipline of the provider (i.e. dental, CHN, mental health, etc.). There is no limit to the number of POVs that can be entered for a patient for a given encounter.

9000010.11 – V IMMUNIZATION

This file contains immunizations specific to a particular visit for a particular patient.

9000010.12 – V SKIN TEST

Stores skin tests done at a visit. There will be one record for each type of skin test given to a patient on a given visit. The record is normally created when a skin test is given, and the results, if available, are entered at a later date and matched to the original

record. If results are entered and a skin test given does not exist, a new record is created.

9000010.13 – V EXAM

Stores exams done at a visit that do not map to a CPT code. This file contains exam information specific to a particular visit for a particular patient.

9000010.15 – V TREATMENT

Stores miscellaneous clinical data not fitting into any other V-file global. This file contains a record for each treatment provided to a patient on a given patient visit. There will be multiple treatment records for the same treatment (.01) field based on the date on which it was given.

9000010.16 – V PATIENT ED

Stores patient education done at a visit.

9000010.18 – V CPT

Stores CPT-related services performed at a visit.

9000010.23 – V HEALTH FACTORS

Stores patient health factors as of the visit date.

9000010.707 – V IMM CONTRA/REFUSAL EVENTS

This file is used to document immunization non-administration events, capturing the reasons for not administering immunizations, either that administration was contraindicated or that it was refused by the patient.

9000080.11 – V IMMUNIZATION DELETED

Stores entries that were deleted out of the V IMMUNIZATION file (#9000010.11). Immediately prior to deleting an entry from the V IMMUNIZATION file, a copy of the record is made and filed here.

Supporting Files (evolved from IHS/VA Joint Sharing)

9000001 – Patient/HIS

This file is IHS's primary patient data file. The NAME (.01) field of this file is a pointer to the VA's patient file (#2). Fields in common between the two dictionaries actually exist only in the VA patient file and are referenced by the IHS patient file as computed fields. All other files containing patient data have backward pointers linking them to this file. The linkage is by patient name and the internal FileMan generated number of the ancillary file is the same number used in this file.

9999999.04 – IMM MANUFACTURER

This file is a table of immunization and/or vaccine manufacturers. The data in this file are derived from the CDC (Center for Disease Control) HL7 Table 0227 (Manufacturers of Vaccines (MVX)).

9999999.06 – LOCATION

Dinumed to the Institution file (#4).

9999999.09 – EDUCATION TOPICS

This file contains Patient Education Topics. Patient Education topics are subjects on which a patient needs may receive additional health-related information to facilitate better health care habits. For example, a patient may have had some podiatry work done and therefore was instructed with information about "foot care." The "foot care" information is in this file. It is pointed to by the V Patient Ed file.

9999999.14 – IMMUNIZATION

This file contains a list of Immunizations and is pointed to by the V Immunization file. This file contains a full descriptive name for each Immunization, a shortened name of ten characters used in the Health Summary Immunization components and on other clinical reports.

9999999.15 – EXAM

This file contains a list of Physical Exams and associated codes used to document Examinations performed during an Outpatient or Inpatient Encounter. This file is pointed to by V Exam file. Some of the Exams are used in Surveillance Computations.

9999999.17 – TREATMENT

This file contains Patient Treatments that are not included in the CPT codes, but are needed for clinical documentation. This file is pointed to by the V Treatment file. These treatments generally reflect nursing activities performed during a patient encounter, such as ear irrigation, or instructions or counseling given to a patient for a medical problem.

9999999.27 – PROVIDER NARRATIVE

This file contains each unique NARRATIVE QUALIFIER.

9999999.28 – SKIN TEST

This file contains Skin Tests and their associated codes. It is pointed to by V Skin Test.

9999999.41 – IMMUNIZATION LOT

This file contains the Immunization Manufacturers' LOT NUMBERS for the immunizations/vaccines administered in the VA. The LOT NUMBERs themselves may not be unique, but the combination of LOT NUMBER and MANUFACTURER must form a unique entry. This file also relies on a nightly background task that checks the entries' EXPIRATION DATE field. If the date is equal to that day's date, or has passed, that entry's STATUS is set to EXPIRED.

9999999.64 – HEALTH FACTORS

This file contains Health Factors terms or phrases that describe patient health characteristics (e.g., Current Smoker, Non-Tobacco User), and is pointed to by V Health Factors file. Some entries in this file are categories, used to group related health factors (e.g., Smoking).

4.0   Archiving and Purging

Archiving and purging utilities are not provided in this version of PCE. Initially, PCE was developed to provide a longitudinal database, which would document patient care activities.

5.0   Callable Routines

This package provides APIs as callable entry points for use by other developers, as well as those of the PCE Device Interface, which are described in Appendix A of this manual. These APIs and entry points are all by subscription only.

$$CLNCK^SDUTL2

Patient Care Encounter application was modified to check the clinic associated with an encounter to ensure that its corresponding stop pairs conform to the stop code restriction. The following components were affected:

Routines PXBAPI1, PXCEVSIT and PXCE were modified to call API, $$CLNCK^SDUTL2, which checks to ensure a clinic has valid stop code pairs in accordance with restriction type.

PCE APIs

$$INTV^PXAPI(WHAT,PKG,SOURCE,.VISIT,.HL,.DFN,APPT, LIMITDT,ALLHLOC)

This API should be used by subscribing packages to prompt for Visit and related V-file data. The parameters passed by the subscribing packages determine which prompts will be displayed. If VISIT, HL or DFN are passed by reference (.), a value will be returned for those variables.

5.1.   PARAMETER DESCRIPTION:

WHAT

Required parameter that defines the series of prompts that will be displayed.

INTV - Includes all prompts for the checkout interview:

1. Patient (if not defined)

2. Hospital Location (if not defined)

3. Appointment/Eligibility (Call to Scheduling API if the encounter is not associated with an appointment and is a new encounter.)

4. Check Out Date/Time

5. Service Connected/Classification Questions

   - Service Connected

   - Agent Orange Exposure

   - Ionizing Radiation Exposure

   - SW Asia Conditions

- Military Sexual Trauma

- Head and/or Neck Cancer

- Combat Veteran

- Project 112/SHAD

6. Provider (multiple)

- Provider

- Primary/Secondary Designation

7. Procedures (multiple)

- CPT code

- Quantity

8. Diagnosis (multiple)

- ICD code

- Primary/Secondary Designation

6.0 Enhanced API

The DATA2PCE and PXCA Application Program Interface (API) Files, which are used by other packages to exchange data with the PCE files, were updated to include the CPT associated diagnoses and the diagnosis classifications of SC, CV, AO, IR, EC, MST, HNC, and Project 12/SHAD.

$$DATA2PCE^PXAPI(INPUTROOT,PKG,SOURCE,.VISIT,USER,ERRDISP,.ERRARR AY,PPEDIT,.ERRPROB, .ACCOUNT)

This is a function that will return a value identifying the status of the call. Data that is processed by PCE will be posted on the PXK VISIT DATA EVENT protocol.

6.1. PARAMETER DESCRIPTION:

1. INPUTROOT

(Required) Where INPUTROOT is a unique variable name, either local array or global array, which identifies the defined data elements for the encounter. An example of an INPUTROOT is ^TMP("LRPXAPI",$J) or ^TMP("RAPXAPI",$J). The gross structure of the array includes four additional subscripts (ENCOUNTER, PROVIDER, DX/PL, PROCEDURE and STOP) for defining the data passed. A detailed description of this array and its structure are included below in a table format.

2. PKG

(Required) Where PKG is a pointer to the Package File (9.4).

3. SOURCE

(Required) Where SOURCE is a string of text (3-30 character) identifying the source of the data. The text is the SOURCE NAME field (.01) of the PCE Data Source file (#839.7). If the SOURCE currently does not exist in the file, it will be added. Examples of SOURCE are: "LAB DATA" or "RADIOLOGY DATA" or "PXCE DATA ENTRY" or "AICS ENCOUNTER FORM."

4. VISIT

(Optional) A dotted variable name. Where VISIT is a pointer to the Visit file (9000010), which identifies the encounter that this data should be associated with.

5. USER

(Optional) User who is responsible for add/edit/delete action on the encounter. Pointer to the New Person file (200). If USER is not defined, DUZ will be used.

6. ERRDISP

(Optional) To display errors during development, this variable may be set to "1". If it is defined the errors will be displayed on screen when the error occurs. If ERRDISP is not defined, errors will be posted on the defined INPUTROOT subscripted by "DIERR". BLD^DIALOG is used to manage errors. Review BLD^DIALOG and MSG^DIALOG descriptions included in the FileManager v. 21.0 Programmer Manual on pages 189 - 200.

7. ERRARRAY

(Optional) A dotted variable name. When errors and warning occur, the array will contain the PXKERROR array elements to the caller.

8. PPEDIT

(Optional) Set to 1 if you want to edit the Primary Provider. Only use if for the moment that editing is being done.

9. ERRPROB

(Optional) A dotted variable name. When errors and warnings occur, they will be passed back in the form of an array with the general description of the problem.

10. ACCOUNT

(Optional) A dotted variable name, where ACCOUNT is the PFSS Account Reference associated with the data being passed by the calling application. Each PFSS Account Reference represents an internal entry number in the PFSS ACCOUNT file (375).

Returned Value:

1 If no errors occurred and data was processed.

-1 An error occurred. Data may or may not have been processed. If

   ERR_DISPLAY is undefined; errors will be posted on the INPUT_ROOT

   subscripted by "DIERR".

-2 Unable to identify a valid VISIT. No data was processed.

-3 API was called incorrectly. No data was processed.

ENCOUNTER

All data must be associated with an entry in the VISIT file (9000010). Only one "ENCOUNTER" node may be passed with each call to $$DATA2PCE^PXAPI. The "ENCOUNTER" node documents encounter specific information and must be passed:

1. To create an entry in the VISIT file (#9000010). All provider, diagnosis and procedure data is related to an entry in the VISIT file.

2. To enable adding, editing or deleting existing "ENCOUNTER" node data elements. The VISIT parameter may be passed in lieu of defining an "ENCOUNTER" node.

SUBSCRIPT	DESCRIPTION	REQ/ OPT	DATA FORMAT
"ENCOUNTER",1,"ENC D/T")	This is the encounter date/ time for primary encounters or the date for occasions of service. If the encounter is related to an appointment, this is the appointment date/time. If this is an occasion of service created by an ancillary package, this is the date/time of the instance of care. Imprecise dates are allowed for historical encounters. Encounter date/time may be added, but not edited. *Deletions of encounters can occur only when nothing is pointing to the encounter.	R	FileManager Internal Format for date/time
"ENCOUNTER",1,"PATIE NT")	This is the patient DFN. This cannot be edited or deleted.	R	Pointer to IHS Patient file (9000001)
"ENCOUNTER",1,"HOS	This is the hospital location	R	Pointer to Hospital Location file

SUBSCRIPT	DESCRIPTION	REQ/ OPT	DATA FORMAT
LOC")	where the encounter took place for primary encounters, or this is the ordering location for ancillary encounters.		(44)
"ENCOUNTER",1,"SC")	This encounter is related to a service connected condition.	O	[1 | 0 | null]
"ENCOUNTER",1,"CV")	This encounter is related to Combat Veteran.	O	[1 | 0 | null]
"ENCOUNTER",1,"AO")	This encounter is related to Agent Orange exposure.	O	[1 | 0 | null]
"ENCOUNTER",1,"IR")	This encounter is related to Ionizing Radiation exposure.	O	[1 | 0 | null]
"ENCOUNTER",1,"EC")	This encounter is related to SW Asia Conditions.	O	[1 | 0 | null]
"ENCOUNTER",1,"SHAD ")	This encounter is related to Project 112/SHAD.	O	[1 | 0 | null]
"ENCOUNTER",1,"MST")	This encounter is related to Military Sexual Trauma.	O	[1 | 0 | null]
"ENCOUNTER",1,"HNC")	This encounter is related to Head and/or Neck Cancer via Nose and/or Throat Radium treatment.	O	[1 | 0 | null]
"ENCOUNTER",1,"CHEC KOUT D/T")	This is the date/time when the encounter was checked out.	O	FileManager Internal Format for date/time
"ENCOUNTER",1,"ELIGI BILITY")	This is the eligibility of the patient for this encounter.	O	Pointer to Eligibility Code file (8)
"ENCOUNTER",1,"SERVI CE CATEGORY")	This denotes the type of encounter.	R	A::=Ambulatory Should be used for clinic encounters. "A" s are changed to "I"s by Visit Tracking if patient is an inpatient at the time of the encounter. H::=Hospitalization Should be used for an admission. I::=In Hospital C::=Chart Review T::=Telecommunications N::=Not Found S::=Day Surgery

SUBSCRIPT	DESCRIPTION	REQ/ OPT	DATA FORMAT
			O::=Observation E::=Event (Historical) Documents encounters that occur outside of this facility. Not used for workload credit or 3rd party billing. R::=Nursing Home D::=Daily Hospitalization Data X::=Ancillary Package 　Daily Data "X" s are changed to "D"s by Visit Tracking if patient is an inpatient at the time of the encounter.
"ENCOUNTER",1,"DSS ID")	*This is required for ancillary occasions of service such as laboratory and radiology or telephone encounters	*O	Pointer to Clinic Stop file (40.7)
"ENCOUNTER",1,"APPT")	This is the appointment type of the encounter.	O	Pointer to Appointment Type file (409.1)
"ENCOUNTER",1,"OUTSIDE LOCATION")	Free text location of service if outside the VA. If set, then the type of visit is set to "Other"	O	Free Text (1-50 characters)
"ENCOUNTER",1,"INSTITUTION")	Facility of service. If set, then the type of visit is set to "VA"	O	Pointer to the Location file (#9999999.06) This field points to the Institution file (#4) and has the same internal number as that file. The Location has the same name as the Institution file (#4). The location is also referred to as the Facility
"ENCOUNTER",1,"ENCOUNTER TYPE")	This identifies the type of encounter, e.g., primary encounter, ancillary encounter, etc. A "Primary" designation indicates that the encounter is associated with an appointment or is a standalone. Examples of ancillary encounters include Laboratory and Radiology instances of care.	R	Set of Codes. P::=Primary O::=Occasion of Service S::=Stop Code A::=Ancillary Ancillary packages such a Laboratory and Radiology should pass an "A" C::=Credit Stop
"ENCOUNTER",1,"PARE	This is the parent encounter for which the ENCOUNTER is a	O	Pointer to Visit file (#9000010).

SUBSCRIPT	DESCRIPTION	REQ/ OPT	DATA FORMAT
NT")	supporting encounter. For example, this would be the primary encounter for which this occasion of service supports and should be associated.		
"ENCOUNTER",1,"COM MENT")	Comment	O	Free Text (1-245 characters)
"ENCOUNTER",1,"DELE TE")	This is a flag that denotes deletion of the encounter entry. Encounter will not be deleted if other data is pointing to it.	O	[1	null]

6.2.   PROVIDER

The "PROVIDER" node may have multiple entries (i) and documents the provider, indicates whether he/she is the primary provider, and indicates whether the provider is the attending provider. Comments may also be passed. To delete the entire "PROVIDER" entry, set the "DELETE" node to 1.

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"PROVIDER",i,"NAME")	Provider's IEN.	R	Pointer to NEW PERSON file (200)
"PROVIDER",i,"PRIMAR Y")	Indicator that denotes this provider as the "primary" provider for the encounter.	O	[1	0	null]
"PROVIDER",i,"ATTENDI NG")	Indicator that denotes this provider as the attending provider.	O	[1	0	null]
"PROVIDER",i,"COMME NT")	Comment	O	Free text (1 - 245 characters)
"PROVIDER",i,"DELETE")	This is a flag that denotes deletion of the Provider entry.	O	[1	null]

6.3.   DX/PL

The "DX/PL" node may have multiple entries (i) and documents diagnoses and/or problems. Only active ICD-9-CM or ICD-10-CM codes will be accepted. The "DX/PL" node adds diagnoses to the PCE database as well as adding an active or inactive diagnosis or problem to the Problem List. If a diagnosis or problem already exists on the Problem List, this node may be used to update it. To delete the entire "DX/PL" entry from PCE (not Problem List); set the "DELETE" node to 1.

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"DX/PL",i,"DIAGNOSIS")	Diagnosis code	O	Pointer to ICD Diagnosis file

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
			(80)
"DX/PL",i,"PRIMARY")	Code that specifies that the diagnosis is the "primary" diagnosis for this encounter. Only one "primary" diagnosis is recorded for each encounter.	N/A	"P"::=Primary "S"::=Secondary Alternatively 1::=Primary 0::=Secondary
"DX/PL",i,"ORD/RES")	Code that specifies that the diagnosis is either an "ordering" diagnosis or is a "resulting" diagnosis or both for this encounter.	N/A	"O"::=Ordering "R"::=Resulting "OR"::=Ordering and Resulting
"DX/PL",i,"LEXICON TERM")	This is a term that is contained in the Clinical Lexicon.	O	Pointer to the Expressions file (757.01)
"DX/PL",i,"PL IEN")	This is the problem IEN that is being acted upon. *This node is required to edit an existing problem on the Problem List.	*O	Pointer to Problem List file (9000011)
"DX/PL",i,"PL ADD")	*This is required to Add a diagnosis/problem to the Problem List. "1" indicates that the entry should be added to the Problem List.	O	[1	0	null]
"DX/PL",i,"PL ACTIVE")	This documents whether a problem is active or inactive. The Default is Active if not specified.	O	A::=Active I::=Inactive
"DX/PL",i,"PL ONSET DATE")	The date that the problem began.	O	FileManager Internal Format for date.
"DX/PL",i,"PL RESOLVED DATE")	The date that the problem was resolved.	O	FileManager Internal Format for date.
"DX/PL",i,"PL SC")	This problem is related to a service connected condition.	O	[1	0	null]
"DX/PL",i,"PL CV")	This problem is related to Combat Veteran.	O	[1	0	null]
"DX/PL",i,"PL AO")	This problem is related to Agent Orange exposure.	O	[1	0	null]
"DX/PL",i,"PL IR")	This problem is related to Ionizing Radiation exposure.	O	[1	0	null]
"DX/PL",i,"PL EC")	This problem is related to	O	[1	0	null]

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
	SW Asia Conditions.		
"DX/PL",i,"PL SHAD")	This problem is related to Project 112/SHAD.	O	[1 | 0 | null]
"DX/PL",i,"PL MST")	This problem is related to Military Sexual Trauma.	O	[1 | 0 | null]
"DX/PL",i,"PL HNC")	This problem is related to Head and/or Neck Cancer.	O	[1 | 0 | null]
"DX/PL",i,"NARRATIVE")	The provider's description of the diagnosis/problem. *If NARRATIVE is not passed for a diagnosis/problem, the Description from the ICD Diagnosis file (80) will be used as the default.	*O	Free text (2-245 characters)
"DX/PL",i,"CATEGORY")	A term that denotes a grouping or category for a set of related diagnosis/problem.	N/A	Free text (2-245 characters)
"DX/PL",i,"ENC PROVIDER")	Provider who documented the diagnosis/problem.	R/Add	Pointer to New Person file (200)
"DX/PL",i,"EVENT D/T")	Date/Time Diagnosis was documented.	N/A	FileManager Internal Format for date/time
"DX/PL",i,"COMMENT")	Comment	O	DX Free Text (1-245 char) PL Free Text (3-60 char)
"DX/PL",i,"DELETE")	This is a delete flag used to denote deletion of the diagnosis entry.	N/A	[1 | null]

6.4. PROCEDURE

The "PROCEDURE" node may have multiple entries (i). Only active CPT/HCPCS codes will be accepted. The "PROCEDURE" node documents the procedure(s), the number of times the procedure was performed, the diagnosis the procedure is associated with and the narrative that describes the procedure. It also enables documentation of the provider who performed the procedure, the date/time the procedure was performed and any comments that are associated with the procedure. To delete the entire "PROCEDURE" entry, set the "DELETE" node to 1.

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"PROCEDURE",i,"PROCEDURE")	Procedure code	R	Pointer to CPT file (81)

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"PROCEDURE",i,"MODIFIERS", MODIFIER=""	Modifiers associated with procedure.	O	External pointer to CPT Modifier file (81.3).
"PROCEDURE",i,"QTY")	Number of times the procedure was performed.	R	Whole number > 0
"PROCEDURE",i,"DIAGNOSIS")	The first diagnosis that is associated with the identified procedure and is the primary diagnosis associated with this procedure.	O	Pointer to ICD Diagnosis file (80)
"PROCEDURE",i,"DIAGNOSIS 2")	The second diagnosis that is associated with the identified procedure.	O	Pointer to ICD Diagnosis file (80)
"PROCEDURE",i,"DIAGNOSIS 3")	The third diagnosis that is associated with the identified procedure.	O	Pointer to ICD Diagnosis file (80)
"PROCEDURE",i,"DIAGNOSIS 4")	The fourth diagnosis that is associated with the identified procedure.	O	Pointer to ICD Diagnosis file (80)
"PROCEDURE",i,"DIAGNOSIS 5")	The fifth diagnosis that is associated with the identified procedure.	O	Pointer to ICD Diagnosis file (80)
"PROCEDURE",i,"DIAGNOSIS 6")	The sixth diagnosis that is associated with the identified procedure.	O	Pointer to ICD Diagnosis file (80)
"PROCEDURE",i,"DIAGNOSIS 7")	The seventh diagnosis that is associated with the identified procedure.	O	Pointer to ICD Diagnosis file (80)
"PROCEDURE",i,"DIAGNOSIS 8")	The eighth diagnosis that is associated with the identified procedure.	O	Pointer to ICD Diagnosis file (80)
"PROCEDURE",i,"NARRATIVE")	The provider's description of the procedure performed. *If NARRATIVE is not passed for a procedure, the Short Name from the CPT file (81) will be used as the default.	*O	Free text (2-245 characters)
"PROCEDURE",i,"CATEGORY")	A term that denotes a grouping or category for a set of related procedures.	O	Free text (2-245 characters)
"PROCEDURE",i,"ENC PROVIDER")	Provider who performed the procedure.	O	Pointer to New Person file (200)
"PROCEDURE",i,"ORD PROVIDER")	Provider who ordered the procedure.	O	Pointer to New Person file

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
			(200)
"PROCEDURE",i,"ORD REFERENCE")	Order reference for the ordered procedure.	O	Pointer to Order file (100)
"PROCEDURE",i,"EVENT D/T")	Date/Time procedure was done.	O	FileManager Internal Format for date/time
"PROCEDURE",i,"DEPARTMENT")	A 3-digit code that defines the service area. Missing Department Codes will be assigned a Department Code. The Department Code will be the Stop Code associated (in the HOSPITAL LOCATION file, #44) with the Hospital Location of the patient visit.	O	108::=Laboratory 160::=Pharmacy 419::=Anesthesiology 423::=Prosthetics 180::=Oral Surgery 401::=General Surgery 402::=Cardiac Surgery 401::=General Surgery 402::=Cardiac Surgery 403::=Otorhinolaryngology (ENT) 404::=Gynecology 406::=Neurosurgery 407::=Ophthalmology 409::=Orthopedics 410::=Plastic Surgery (inc. H&N) 411::=Podiatry 412::=Proctology 413::=Thoracic Surgery 415::=Peripheral Vascular 457::=Transpla

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
			ntation 105::=General Radiology 109::=Nuclear Medicine 109::=Cardiology Studies (Nuclear Med) 115::=Ultrasound 703::=Mammography 150::=CT Scan 151::=Magnetic Resonance Imaging 152::=Angio-Neuro-Interventional 421::=Vascular Lab
"PROCEDURE",i,"COMMENT")	Comment	O	Free Text (1-245 characters)
"PROCEDURE",i,"DELETE")	This is a flag that denotes deletion of the Procedure entry.	O	[1	null]

6.5. SKIN TEST

The "SKIN TEST" node may have multiple entries (i). To delete the entire "SKIN TEST" entry, set the "DELETE" node to 1.

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"SKIN TEST",i,"TEST")	Skin Test code	R	Pointer to Skin Test file (9999999.28)
"SKIN TEST",i,"READING")	Numeric measurement of the surface area tested (in millimeters).	O	Whole number between 0 and 40 inclusive.
"SKIN TEST",i,"RESULT")	Results of the Skin Test.	O	P ::=Positive D ::=Doubtful N ::=Negative O ::=No Take
"SKIN TEST",i,"D/T READ")	Date/Time Skin Test was read.	O	FileManager Internal Format for date/time
"SKIN TEST",i,"DIAGNOSIS")	The primary diagnosis that is	O	Pointer to ICD

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
	associated with the identified Skin Test.		Diagnosis file (80)
"SKIN TEST",i,"DIAGNOSIS 2")	The second diagnosis that is associated with the identified Skin Test.	O	Pointer to ICD Diagnosis file (80)
"SKIN TEST",i,"DIAGNOSIS 3")	The third diagnosis that is associated with the identified Skin Test.	O	Pointer to ICD Diagnosis file (80)
"SKIN TEST",i,"DIAGNOSIS 4")	The fourth diagnosis that is associated with the identified Skin Test.	O	Pointer to ICD Diagnosis file (80)
"SKIN TEST",i,"DIAGNOSIS 5")	The fifth diagnosis that is associated with the identified Skin Test.	O	Pointer to ICD Diagnosis file (80)
"SKIN TEST",i,"DIAGNOSIS 6")	The sixth diagnosis that is associated with the identified Skin Test.	O	Pointer to ICD Diagnosis file (80)
"SKIN TEST",i,"DIAGNOSIS 7")	The seventh diagnosis that is associated with the identified Skin Test.	O	Pointer to ICD Diagnosis file (80)
"SKIN TEST",i,"DIAGNOSIS 8")	The eighth diagnosis that is associated with the identified Skin Test.	O	Pointer to ICD Diagnosis file (80)
"SKIN TEST",i,"ENC PROVIDER")	Provider who performed the Skin Test.	O	Pointer to New Person file (200)
"SKIN TEST",i,"EVENT D/T")	Date/Time Skin Test was done.	O	FileManager Internal Format for date/time
"SKIN TEST",i,"COMMENT")	Comment	O	Free Text (1-245 characters)
"SKIN TEST",i,"READER")	The person who read the skin test.	O	Pointer to New Person file (200)
"SKIN TEST",i,"ORD PROVIDER")	The provider who ordered this skin test.	O	Pointer to New Person file (200)
"SKIN TEST",i,"D/T PLACEMENT RECORDED")	The date and time of documentation of the placement of the skin test.	O	FileMan Internal Format for date/time
"SKIN TEST",i,"ANATOMIC LOC")	The anatomic location of skin test placement.	O	Pointer to Imm Administration Site (Body) file (920.3)
"SKIN TEST",i,"D/T READING RECORDED")	The date and time of documentation of the reading of the skin test.	O	FileMan Internal Format for date/time
"SKIN TEST",i,"READING	Comment related to the reading	O	Free Text field

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
COMMENT")	of the patient's skin test.		(1-245 characters)
"SKIN TEST",i,"DELETE")	This is a flag that denotes deletion of the Skin Test entry.	O	[1	null]

6.6. IMMUNIZATION

The "IMMUNIZATION" node may have multiple entries (i). To delete the entire "IMMUNIZATION" entry, set the "DELETE" node to 1.

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"IMMUNIZATION",i,"IMMUN")	Immunization code	R	Pointer to Immunization file (9999999.14)
"IMMUNIZATION",i,"SERIES")	Series specifies the sequence of the series for the immunization that was administered.	O	P ::=Partially complete C ::=Complete B ::=Booster 1 ::=Series1 thru 8::=Series8
"IMMUNIZATION",i,"REACTION")	Observed reaction to the immunization.	O	0 ::=None 1 ::=Fever 2 ::=Irritability 3 ::=Local reaction or swelling 4 ::=Vomiting 5 ::=Rash or itching 6 ::=Lethargy 7 ::=Convulsions 8 ::=Arthritis or arthralgias 9 ::=Anaphylaxis or collapse 10 ::=Respiratory distress 11 ::=Other
"IMMUNIZATION",i,"CONTRAINDICATED")	This field may be used to indicate that this immunization should not be administered again. "1" indicates that the immunization should not be given to the patient in the future	O	[1 | 0 | null]
"IMMUNIZATION",i,"DIAGNOSIS")	The primary diagnosis	O	Pointer to ICD

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
	that is associated with the identified Immunization.		Diagnosis file (80)
"IMMUNIZATION",i,"DIAGNOSIS 2")	The second diagnosis that is associated with the identified Immunization.	O	Pointer to ICD Diagnosis file (80)
"IMMUNIZATION",i,"DIAGNOSIS 3")	The third diagnosis that is associated with the identified Immunization.	O	Pointer to ICD Diagnosis file (80)
"IMMUNIZATION",i,"DIAGNOSIS 4")	The fourth diagnosis that is associated with the identified Immunization.	O	Pointer to ICD Diagnosis file (80)
"IMMUNIZATION",i,"DIAGNOSIS 5")	The fifth diagnosis that is associated with the identified Immunization.	O	Pointer to ICD Diagnosis file (80)
"IMMUNIZATION",i,"DIAGNOSIS 6")	The sixth diagnosis that is associated with the identified Immunization.	O	Pointer to ICD Diagnosis file (80)
"IMMUNIZATION",i,"DIAGNOSIS 7")	The seventh diagnosis that is associated with the identified Immunization.	O	Pointer to ICD Diagnosis file (80)
"IMMUNIZATION",i,"DIAGNOSIS 8")	The eighth diagnosis that is associated with the identified Immunization.	O	Pointer to ICD Diagnosis file (80)
"IMMUNIZATION",i,"ENC PROVIDER")	Provider who performed the Immunization.	O	Pointer to New Person file (200)
"IMMUNIZATION",i,"EVENT D/T")	Date/Time Immunization was done.	O	FileManager Internal Format for date/time
"IMMUNIZATION",i,"COMMENT")	Comment	O	Free Text (1-245 characters)
"IMMUNIZATION",i,"LOT NUM")	The lot number of the Immunization entered for this event.	O	Pointer to Immunization Lot file (#9999999.41)
"IMMUNIZATION",i,"INFO SOURCE")	The source of the information obtained for this immunization event.	O	Pointer to Immunization Info Source file (#920.1)
"IMMUNIZATION",i,"ADMIN ROUTE")	The method this vaccine was administered.	O	Pointer to Imm Administration Route file (#920.2)

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"IMMUNIZATION",i,"ANATOMIC LOC")	The area of the patient's body through which the vaccine was administered.	O	Pointer to Imm Administration Site (Body) file (#920.3)
"IMMUNIZATION",i,"DOSE")	The amount of vaccine product administered for this immunization.	O	Numeric (between 0 and 999, 2 fractional digits).
"IMMUNIZATION",i,"DOSE UNITS")	The units that reflect the actual quantity of the vaccine product administered.	O	Pointer to the UCUM Codes file (#757.5).
"IMMUNIZATION",i,"VIS",SEQ #,0)	The Vaccine Information Statement (VIS) offered to or given to the patient before administration of the immunization, and the date it was offered or given.	O	Format: VISIEN^DATE "VISIEN" is a pointer to the Vaccine Information Statement file (#920). "DATE" is a date (without time) in FileManager internal format. Note: If the caller is updating a previously recorded immunization: 1) If the caller passes in VIS data in the "VIS" subscript, the system will purge the previously filed VIS data before filing the updates. 2) If the caller does not pass in any VIS data, the previously filed VIS data

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
			persists. 3) If the caller wants to delete the previously filed VIS without replacing it with anything else, that is done explicitly by setting the "VIS" subscript as follows: "IMMUNIZATION",i,"VIS")="@"
"IMMUNIZATION",i,"REMARKS", SEQ #,0)	Comments related to the immunization encounter with the patient.	O	Free-text in the format of a FileManager word-processing field. Note: If the caller is updating a previously recorded immunization: 1) If the caller passes in remarks in the "REMARKS" subscript, the system will purge the previously filed remarks before filing the updates. 2) If the caller does not pass in any remarks, the previously filed remarks persist. 3) If the caller wants to delete the

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
			previously filed remarks without replacing it with anything else, that is done explicitly by setting the "REMARKS" subscript as follows: "IMMUNIZATION",i, "REMARKS") ="@"
"IMMUNIZATION",i,"ORD PROVIDER")	The provider who ordered the immunization.	O	Pointer to New Person file (#200).
"IMMUNIZATION",i,"WARNING ACK")	This field indicates acknowledgement of a contraindication/refusal event warning for this immunization with the decision to proceed with administration.	O	[1	0	null]
"IMMUNIZATION",i,"OVERRIDE REASON"	This is the reason for overriding the warning of existing contraindication and/or refusal reasons.	O	Free Text (3-245 characters)
"IMMUNIZATION",i,"DELETE")	This is a flag that denotes deletion of the Immunization entry.	O	[1	null]

6.7. IMM CONTRA/REFUSAL

The "IMM CONTRA/REFUSAL" node may have multiple entries (i). To delete the entire "IMM CONTRA/REFUSAL" entry, set the "DELETE" node to 1.

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"IMM CONTRA/REFUSAL",i,"CONTRA/REFUSAL")	The Contraindication or Refusal Reason.	R	Variable Pointer to: IMM Contraindication Reasons file (920.4) or IMM Refusal Reasons file (920.5).

SUBSCRIPT	DESCRIPTION	REQ/OPT	DATA FORMAT
"IMM CONTRA/REFUSAL",i,"IMMUN")	The immunization contraindicated or refused.	R	Pointer to Immunization file (9999999.14)
"IMM CONTRA/REFUSAL",i,"WARN UNTIL DATE")	The date until a warning should be given for this contraindication/refusal.	O	FileManager Internal Format for date.
"IMM CONTRA/REFUSAL",i,"EVENT D/T")	The date/time of this contraindication/refusal event.	O	FileManager Internal Format for date/time.
"IMM CONTRA/REFUSAL",i,"ENC PROVIDER")	This is the provider who recorded the contraindication/refusal event.	O	Pointer to New Person file (#200).
"IMM CONTRA/REFUSAL",i,"COMMENT")	Comment	O	Free Text (1-245 characters).
"IMM CONTRA/REFUSAL",i,"DELETE")	This is a flag that denotes deletion of the IMM Contra/Refusal entry.	O	[1	null]

6.8. EXAMPLE OF DATA PASSED USING $DATA2PCE^PXAPI

Below is an example of data passed to $$DATA2PCE^PXAPI where Laboratory is the ancillary package reporting the data.

$$DATA2PCE^PXAPI("^TMP(""LRPXAPI"",$J)",182,"LAB DATA")

This is an example where Laboratory passes two laboratory tests (Glucose and CPK) that were collected on 3/27/03 at 12:00 P.m. The provider who resulted the tests is Fred Jones. This occasion of service is defined as an Ancillary Package Daily Data (X). There are two diagnoses to support the tests, both of which are non–service connected; however, both are associated with Agent Orange exposure.

^TMP("LRPXAPI",543173595,"DX/PL",1,"DIAGNOSIS")=465
^TMP("LRPXAPI",543173595,"DX/PL",1,"PRIMARY")=1
^TMP("LRPXAPI",543173595,"DX/PL",1,"PL SC")=0
^TMP("LRPXAPI",543173595,"DX/PL",1,"PL AO")=1
^TMP("LRPXAPI",543173595,"DX/PL",2,"DIAGNOSIS")=466
^TMP("LRPXAPI",543173595,"DX/PL",2,"PL SC")=0
^TMP("LRPXAPI",543173595,"DX/PL",2,"PL AO")=1
^TMP("LRPXAPI",543173595,"ENCOUNTER",1,"DSS ID") = 59
^TMP("LRPXAPI",543173595,"ENCOUNTER",1,"ENC D/T") = 3030328
^TMP("LRPXAPI",543173595,"ENCOUNTER",1,"HOS LOC") = 19

^TMP("LRPXAPI",543173595,"ENCOUNTER",1,"PATIENT") = 281
^TMP("LRPXAPI",543173595,"ENCOUNTER",1,"SERVICE CATEGORY") = X
^TMP("LRPXAPI",543173595,"PROCEDURE",1,"ENC PROVIDER") = 58
^TMP("LRPXAPI",543173595,"PROCEDURE",2,"ORD PROVIDER") = 66
^TMP("LRPXAPI",543173595,"PROCEDURE",1,"EVENT D/T") = 3030327.12
^TMP("LRPXAPI",543173595,"PROCEDURE",1,"PROCEDURE") = 82950
^TMP("LRPXAPI",543173595,"PROCEDURE",1,"DIAGNOSIS") = 465
^TMP("LRPXAPI",543173595,"PROCEDURE",1,"DIAGNOSIS 2") = 466
^TMP("LRPXAPI",543173595,"PROCEDURE",1,"MODIFIER",22)=""
^TMP("LRPXAPI",543173595,"PROCEDURE",1,"QTY") = 1
^TMP("LRPXAPI",543173595,"PROCEDURE",2,"ENC PROVIDER") = 58
^TMP("LRPXAPI",543173595,"PROCEDURE",2,"ORD PROVIDER") = 66
^TMP("LRPXAPI",543173595,"PROCEDURE",2,"EVENT D/T") = 3030327.12
^TMP("LRPXAPI",543173595,"PROCEDURE",2,"PROCEDURE") = 82552
^TMP("LRPXAPI",543173595,"PROCEDURE",2,"QTY") = 1

6.9. $$CLNCK^SDUTL2(CLN,DSP)

This API will be used by the subscribing package to check the clinic associated with an encounter to ensure that its corresponding stop pairs conform to the stop code restriction. Effective 10/1/2003, stop codes (also known as DSS Identifiers) are assigned a restriction type of primary, secondary, or either. Primary types can only be used in the primary stop code position; secondary types can only be used in the secondary stop code position; and those with a type of either can be used in the primary or secondary stop code position. Stop codes that have a restriction type of primary or secondary will also have a restriction date to track when the stop code is designated as a restricted stop code.

Parameter Description:

CLN   The internal entry number of the clinic from file #44.

DSP   Interactive display of error message, 1 - Display or 0 No Display

Returned Value:

1   If clinic has conforming stop codes.

0^error   If clinic has non-conforming stop codes plus error message.

7.0   External Relations

PCE is dependent upon the following V*IST*A packages:

PACKAGE NAME	MINIMUM VERSION
Kernel	8.0
VA FileMan	21
Patient Information Management System (PIMS)	5.3
Order Entry/Results Reporting (OE/RR)	2.5

Automated Information Collection System (AICS)	2.1
PCE Patient/IHS Subset (PXPT)	1.0

8.0 Package-Wide Variables

No package-wide variables have been defined for use throughout the Patient Care Encounter package.

The PX namespace is reserved for use by PCE; however, the joint sharing of files between the Department of Veterans Affairs and the Indian Health Service has necessitated use of some AU-name spaced variables established for use by the Indian Health Service and by the Department of Veterans Affairs to facilitate joint sharing.

9.0 Integration Control Registrations

Integration Control Registrations (ICRs) are available on the DBA menu on Forum.

10.0 Remote Procedure Call

10.1. PX SAVE DATA

An integration control registration (ICR #6023) for the remote procedure call PX SAVE DATA is available for subscription by calling applications.

NAME: PX SAVE DATA   TAG: SAVE

 ROUTINE: PXRPC   RETURN VALUE TYPE: SINGLE VALUE

 AVAILABILITY: PUBLIC   APP PROXY ALLOWED: Yes

 DESCRIPTION:

 The purpose of this RPC is to allow the calling application to save data

 to PCE, such as Immunization data. See the Integration Control

 Registration document for the full description of the data needed.

INPUT PARAMETER: PCELIST   PARAMETER TYPE: LIST

 MAXIMUM DATA LENGTH: 10000   REQUIRED: YES

 SEQUENCE NUMBER: 1

 DESCRIPTION:

 PCELIST (n)= HDR ^ Encounter Inpatient? ^ Note has CPT codes? ^ Visit

     string [Encounter location; Encounter date/time; Encounter

     Service category] (REQUIRED)

   (n)=VST^DT^Encounter date/time

   (n)=VST^PT^Encounter patient (DFN) (n)=VST^HL^Encounter location

   (n)=VST^VC^ Encounter Service Category

If applicable:

(n)=VST^PR^ Parent for secondary visit

(n)=VST^OL^ Outside Location for Historical visits

(n)=VST^SC^ Service Connected related?

(n)=VST^AO^ Agent Orange related?

(n)=VST^IR^ Ionizing Radiation related?

(n)=VST^EC^ Environmental Contaminates related?

(n)=VST^MST^ Military Sexual Trauma related?

(n)=VST^HNC^ Head and/or Neck Cancer related?

(n)=VST^CV^ Combat Vet related?

(n)=VST^SHD^ Shipboard Hazard and Defense related?

(n)=PRV(+: add, -: delete) ^ Provider IEN ^^^ Provider Name ^
   Primary Provider?

(n)=POV(+: add, -: delete) ^ ICD diagnosis code ^ Category ^
   Narrative (Diagnosis description) ^ Primary Diagnosis? ^
   Provider String ^ Add to Problem List? ^^^ Next comment
   sequence # if saving comments

(n)=COM^COM (Comments) ^ Next comment sequence # ^ @ = no
   comments added

(n)=CPT (+: add, -: delete) ^ Procedural CPT code ^ Category ^
   Narrative (Procedure description) ^ Quantity ^ Provider IEN
   ^^^ [# of modifiers; Modifier code/Modifier IEN ^ Next
   comment sequence # ^

(n)=IMM (+: add, -: delete) ^ Immunization IEN ^ Category ^
   Narrative (Immunization description/name) ^ Series ^
   Encounter Provider ^ Reaction ^ Contraindicated? ^ ^
   Next comment sequence # ^ CVX ^ Event Info Source HL7 Code;IEN ^
   Dose;Units;Units IEN ^
   Route Name;HL7 Code;IEN ^ Admin Site Name;HL7 Code;IEN ^ Lot#;IEN
   ^ Manufacturer ^ Expiration Date ^ Event Date and Time ^ Ordering
   Provider ^ VIS1 IEN/VIS1 Date;VISn IEN/VISn Date;...^Remarks Start
   Seq #;End Seq # ^ Warning Ack ^ Override Reason (Seq #)

(n)=SK (+: add, -: delete) ^ Skin Test IEN ^ Category ^
 Narrative (Skin Test description/name) ^ Results ^ Enc Provider ^
 Reading ^ D/T Read ^ Event D/T ^ Next comment sequence # ^
 Reader ^ Ordering Provider ^ Anatomic Location of Placement;
 HL7 Code;IEN ^ Reading Comment (Seq #)

(n)=PED (+: add, -: delete) ^ Patient Education IEN ^ Category ^
 Narrative (Patient Education description/name) ^ Level of
 understanding ^^^^^ ^^ Next comment sequence #

(n)=HF (+: add, -: delete) ^ Health Factor IEN ^ Category ^
 Narrative (Health Factor description/name) ^ Level ^^^^^ Next
 comment sequence # ^ Get Reminder

(n)=XAM(+: add, -: delete) ^ Exam IEN ^ Category ^ Narrative
 (Exam description/name) ^ Results ^^^^^ Next comment sequence
 #

(n)=ICR (+: add, -: delete) ^ Variable Pointer IMM
 Contraindication Reasons/IMM Refusal Reasons ^ Category ^
 Narrative ^ Immunization IEN ^ Warn Until Date ^ Event
 Date/Time ^ Enc Provider IEN ^ ^ Next comment sequence #

INPUT PARAMETER: LOC   PARAMETER TYPE: LITERAL
 MAXIMUM DATA LENGTH: 40   REQUIRED: NO
 SEQUENCE NUMBER: 2
 DESCRIPTION:
This is the hospital location. This is not used when the information is
 from an outside source.

INPUT PARAMETER: PKGNAME   PARAMETER TYPE: LITERAL
 MAXIMUM DATA LENGTH: 60   REQUIRED: YES
 SEQUENCE NUMBER: 3
 DESCRIPTION:
 The package name that is sending the data to PCE. This should be the
 full package name, such as PATIENT CARE ENCOUNTERS.

INPUT PARAMETER: SRC   PARAMETER TYPE: LITERAL
 MAXIMUM DATA LENGTH: 60   REQUIRED: YES
 SEQUENCE NUMBER: 4

DESCRIPTION:

The source of the data - such as VLER E-HEALTH EXCHANGE.

RETURN PARAMETER DESCRIPTION:

The only return will be the one passed back to the calling application.

A -2 indicates that the routine PXAI found an issue even though the

original input values appeared to be correct.

A -3 indicates that the input parameters were not properly defined.

A 1 indicate success.

10.2. PXVIMM ADMIN CODES

```
NAME: PXVIMM ADMIN CODES                  TAG: IMMADMCD
  ROUTINE: PXVRPC4                        RETURN VALUE TYPE: ARRAY
 DESCRIPTION:
 Returns immunization administration CPT codes.
INPUT PARAMETER: PXDATE                   PARAMETER TYPE: LITERAL
  REQUIRED: NO                            SEQUENCE NUMBER: 1
 DESCRIPTION:
 Code status will be based off this date. (Optional; Defaults to TODAY).
 RETURN PARAMETER DESCRIPTION:
 PXRSLT(0) = Count of elements returned (0 if nothing found)
 PXRSLT(n) =
    Note: Only active codes (based off PXDATE) are returned.
    1: "CPT-ADM" or "CPT-ADD"
    2: Code
    3: Variable pointer. e.g., IEN;ICPT(
    4: Short Description
```

10.3. PXVIMM ADMIN ROUTE

```
NAME: PXVIMM ADMIN ROUTE                  TAG: IMMROUTE
  ROUTINE: PXVRPC2                        RETURN VALUE TYPE: ARRAY
 DESCRIPTION:
 Returns entries from the IMM ADMINISTRATION ROUTE file (920.2).
INPUT PARAMETER: FILTER                   PARAMETER TYPE: LITERAL
  REQUIRED: NO                            SEQUENCE NUMBER: 1
 DESCRIPTION:
 Filter. Possible values are:
    R:XXX - Return entry with IEN XXX.
    H:XXX - Return entry with HL7 Code XXX.
    N:XXX - Return entry with #.01 field equal to XXX
    S:X   - Return all entries with a status of X.
            Possible values of X:
                A - Active Entries
                I - Inactive Entries
                B - Both active and inactive entries

 Defaults to "S:B".
INPUT PARAMETER: PXVSITES                 PARAMETER TYPE: LITERAL
  REQUIRED: NO                            SEQUENCE NUMBER: 2
 DESCRIPTION:
Controls if the available sites for a give route are returned.
```

```
RETURN PARAMETER DESCRIPTION:
PXVRSLT(0)=Count of elements returned (0 if nothing found)
PXVRSLT(n)=IEN^Name^HL7 Code^Status (1:Active, 0:Inactive)

If PXVSITES=1, the sites for a given route will also be returned.
   o If only a subset of sites are selectable for a route, that list will
     be returned in:
        PXVRSLT(n+1)=SITE^Site IEN 1
        PXVRSLT(n+2)=SITE^Site IEN 2
        PXVRSLT(n+x)=SITE^Site IEN x
   o If all sites are selectable for a route, the RPC will return:
        PXVRSLT(n+1)=SITE^ALL
   o If no sites are selectable for a route, the RPC will return:
        PXVRSLT(n+1)=SITE^NONE
equal 0, and there will be no data returned in the subsequent subscripts.
```

10.4. PXVIMM ADMIN SITE

```
NAME: PXVIMM ADMIN SITE               TAG: IMMSITE
  ROUTINE: PXVRPC2                     RETURN VALUE TYPE: ARRAY
 DESCRIPTION:
 Returns entries from the IMM ADMINISTRATION SITE (BODY) file (920.3).
INPUT PARAMETER: FILTER                PARAMETER TYPE: LITERAL
  REQUIRED: NO                         SEQUENCE NUMBER: 1
 DESCRIPTION:
 Filter. Possible values are:
    R:XXX - Return entry with IEN XXX.
    H:XXX - Return entry with HL7 Code XXX.
    N:XXX - Return entry with #.01 field equal to XXX
    S:X   - Return all entries with a status of X.
            Possible values of X:
                A - Active Entries
                I - Inactive Entries
                B - Both active and inactive entries

 Defaults to "S:B".
 RETURN PARAMETER DESCRIPTION:
 Returns:
    PXVRSLT(0)=Count of elements returned (0 if nothing found)
    PXVRSLT(n)=IEN^Name^HL7 Code^Status (1:Active, 0:Inactive)

When filtering based off IEN, HL7 Code, or #.01 field, only one entry will
be returned in PXVRSLT(1).

When filtering based off status, multiple entries can be returned. The
first entry will be returned in subscript 1, and subscripts will be
incremented by 1 for further entries. Entries will be sorted
alphabetically.

If no entries are found based off the filtering criteria, PXVRSLT(0) will
equal 0, and there will be no data returned in the subsequent subscripts.
```

10.5. PXVIMM ICR LIST

```
NAME: PXVIMM ICR LIST                 TAG: GETICR
  ROUTINE: PXVRPC5                     RETURN VALUE TYPE: ARRAY
 DESCRIPTION:
```

```
 Returns entries from the IMM CONTRAINDICATION REASONS (#920.4) and IMM
 REFUSAL REASONS (#920.5) files.
INPUT PARAMETER: PXFILE                    PARAMETER TYPE: LITERAL
  REQUIRED: NO                             SEQUENCE NUMBER: 1
 DESCRIPTION:
 Which file to pull from.
 (Optional; Leave this null to pull entries from both files)
 Possible values are:
    "920.4" - Only return entries from IMM CONTRAINDICATION REASONS
              (#920.4)
    "920.5" - Only return entries from IMM REFUSAL REASONS (#920.5)
INPUT PARAMETER: FILTER                    PARAMETER TYPE: LITERAL
  REQUIRED: NO                             SEQUENCE NUMBER: 2
 DESCRIPTION:
 Filter (Optional; Defaults to "S:A")
 Possible values are:
    R:X   - Return entry with IEN X (PXFILE must be passed in with this
            option).
    C:X^Y - Return entry with Concept Code^Coding System X^Y (used only for
            #920.4).
    H:X   - Return entry with HL7 Code X (used only for #920.5).
    N:X   - Return entry with #.01 field equal to X
    I:X   - Return all active entries that are selectable for Immunization
            IEN X.
    S:A   - Return all active entries.
    S:I   - Return all inactive entries.
    S:B   - Return all entries (both active and inactive).
 RETURN PARAMETER DESCRIPTION:
 PXRSLT(0)=Count of elements returned (0 if nothing found)
 For 920.4 Entry:
    PXRSLT(n)=IEN;PXV(920.4,^Name^Status (1:Active, 0:Inactive)^Code|Coding
              System^NIP004^Contraindication/Precaution^Allergy-Related
              (1:Yes, 0:No)
 For 920.5 Entry:
    PXRSLT(n)=IEN;PXV(920.5,^Name^Status (1:Active, 0:Inactive)^HL7 Code
```

10.6. PXVIMM IMM DETAILED

```
NAME: PXVIMM IMM DETAILED                  TAG: IMMRPC
  ROUTINE: PXVRPC4                         RETURN VALUE TYPE: GLOBAL ARRAY
  WORD WRAP ON: TRUE
DESCRIPTION:
 Returns a detailed Immunization record
INPUT PARAMETER: PXIMM                     PARAMETER TYPE: LITERAL
  REQUIRED: YES                            SEQUENCE NUMBER: 1
 DESCRIPTION:
 Pointer to #9999999.14 (Required)
INPUT PARAMETER: PXDATE                    PARAMETER TYPE: LITERAL
  REQUIRED: NO                             SEQUENCE NUMBER: 2
 DESCRIPTION:
 Immunization status and Codes will be based off this date
 (Optional; Defaults to NOW)
INPUT PARAMETER: PXLOC                     PARAMETER TYPE: LITERAL
  REQUIRED: NO                             SEQUENCE NUMBER: 3
 DESCRIPTION:
 Used to determine Institution, when filtering Lot and Defaults (Optional).
  Possible values are:
```

```
      "I:X": Institution (#4) IEN #X
      "V:X": Visit (#9000010) IEN #X
      "L:X": Hopital Location (#44) IEN #X


If PXLOC is not passed in OR could not make determination based off input,
then default to DUZ(2), and if DUZ(2) is not defined, default to Default
Institution.
RETURN PARAMETER DESCRIPTION:
^TMP("PXVIMMRPC",$J,0)
   1:  1 - Immunization was found. The "1" node will be returned, but the
             other nodes are optional.
      -1 - Immunization was not found; no other nodes will be returned
^TMP("PXVIMMRPC",$J,1)
   Note: Status (in the 5th piece) is determined as follows:
      - If PXDATE is today, the status is based off the Inactive Flag
        (#.07)
      - If PXDATE is different than today, we will look when an update was
        last made to the Immunization file (based off the Audits). If there
        have not been any changes since PXDATE, we will get the status
        based off the Inactive Flag, otherwise, we will get the status for
        that date by calling GETSTAT^XTID.
   1: "IMM"
   2: #9999999.14 IEN
   3: Name (#.01)
   4: CVX Code (#.03)
   5: Status (1: Active; 0: Inactive)
   6: Selectable for Historic (#8803)
   7: Mnemonic (#8801)
   8: Acronym (#8802)
   9: Max # In Series (#.05)
  10: Combination Immunization (Y/N) (#.2)
  11: Reading Required (#.51)
^TMP("PXVIMMRPC",$J,x)
   1: "VIS"
   2: #920 IEN
   3: Name (#920,#.01)
   4: Edition Date (#920,#.02)
   5: Edition Status (#920,#.03)
   6: Language (#920, #.04)
   7: 2D Bar Code (#100)
   8: VIS URL (#101)
^TMP("PXVIMMRPC",$J,x)
   1: "CDC"
   2: CDC Product Name (#9999999.145, #.01)
^TMP("PXVIMMRPC",$J,x)
   1: "GROUP"
   2: Vaccine Group Name (#9999999.147, #.01)
^TMP("PXVIMMRPC",$J,x)
   1: "SYNONYM"
   2: Synonym (#9999999.141, #.01)
^TMP("PXVIMMRPC",$J,x)
   Note: Only active codes (based off PXDATE) are returned.
   1: "CS"
   2: Coding System (#9999999.143, #.01)
   3: Code (#9999999.1431,#.01)
   4: Variable pointer. e.g., IEN;ICPT(
   5: Short Description
```

```
^TMP("PXVIMMRPC",$J,x)
   Note: Only active lots for the given division are returned.
         Also, the Expiration date must be >= PXDATE
   1: "LOT"
   2: #9999999.41 IEN
   3: Lot Number (#9999999.41, #.01)
   4: Manufacturer (#9999999.04, #.01)
   5: Expiration Date (#9999999.41, #.09)
   6: Doses Unused (#9999999.41, #.12)
   7: Low Supply Alert (#9999999.41, #.15)
   8: NDC Code (#9999999.41, #.18)
^TMP("PXVIMMRPC",$J,x)
   Note: Only active contraindications are returned
   1: "CONTRA"
   2: #920.4 variable pointer: IEN;PXV(920.4,
   3: Name (#920.4, #.01)
   4: Status (1:Active, 0:Inactive)
   5: Code|Coding System (#920.4, #.02 and .05)
   6: NIP004 (#920.4, #.04)
   7: Contraindication/Precaution (#920.4, #.06)
^TMP("PXVIMMRPC",$J,x)
   1: "DEF"
   2: Default Route (#920.051, #1302)
   3: Default Site (#920.051, #1303)
   4: Default Dose (#920.051, #1312)
   5: Default Dose Units (#920.051, #1313)
   6: Default Dose Units (external format) (#920.051, #1313)
^TMP("PXVIMMRPC",$J,x)
   1: "DEFC"
   2: Default Comments (#920.051, #81101)
```

10.7. PXVIMM IMM FORMAT

```
NAME: PXVIMM IMM FORMAT                    TAG: GETTEXT
 ROUTINE: PXVRPC6                          RETURN VALUE TYPE: ARRAY
DESCRIPTION:
This RPC takes an input array of immunization properties set from the GUI.
It returns a formatted text of an immunization for use in documentation.
INPUT PARAMETER: INPUT                     PARAMETER TYPE: LIST
 REQUIRED: YES                             SEQUENCE NUMBER: 1
DESCRIPTION:
 INPUT(n)=IMM ^ Imm IEN ^  ^ Date Administered (for immunizations) / Date
          Contra-Refusal Event Documented (for contra/refusals) ^ Warn
          Until Date (for contra/refusals) ^ Series ^ Refusal reason ^
          Contraindication Reason ^ Ordered By ^ Administered By (for VA
          administered) / Documented By (for historical) ^ Document Type
          ("Historical"/"Administered") ^ Information Source
     (n)=LOC ^ File #44 IEN ^  ^  ^ Outside Location (for historicals)
     (n)=ROUTE ^ Route ^ Site ^ Dosage
     (n)=VIS ^ VIS Name ^ Edition Date ^ Language
     (n)=LOT ^ Lot # ^ Manufacturer ^ Exp Date
     (n)=COM ^ Comment
     (n)=OVER ^ Override Reason
 RETURN PARAMETER DESCRIPTION:
 Formatted text of an immunization for use in documentation.
```

10.8. PXVIMM IMM LOT

```
NAME: PXVIMM IMM LOT                       TAG: ILOT
  ROUTINE: PXVRPC1                         RETURN VALUE TYPE: GLOBAL ARRAY
  WORD WRAP ON: TRUE
 DESCRIPTION:
 This RPC returns information from the IMMUNIZATION LOT file
 (#9999999.41).
INPUT PARAMETER: FILTER                    PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 30                  REQUIRED: NO
  SEQUENCE NUMBER: 1
 DESCRIPTION:
This input parameter is used to specify the IMMUNIZATION LOT file
 records to be returned. Possible values:
    R:XXX - return entry with ien XXX
    N:XXX - return entry with lot number XXX
    S:A   - return list of all active lot numbers
    S:I   - return list of all inactive lot num
    S:B   - return list of all lot numbers, active and inactive

 If this parameter is null, it defaults to "S:B".
INPUT PARAMETER: PXVI                      PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 1                   REQUIRED: NO
  SEQUENCE NUMBER: 2
 DESCRIPTION:
 This optional input parameter is used to return an alternate array with
 record data in a caret delimited string. If this parameter is null or 0,
 the return defaults to the other array.
    1 - return alternate array with internal values in delimited string
INPUT PARAMETER: PXLOC                     PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 30                  REQUIRED: NO
  SEQUENCE NUMBER: 3
 DESCRIPTION:
 This optional input parameter is used to specify the institution
 (division) for which records should be returned at multidivisional
 facilities that may have immunization inventory specific to divisions.
 Possible values are:
   "I:X": Institution (#4) IEN #X
   "V:X": Visit (#9000010) IEN #X
   "L:X": Hopital Location (#44) IEN #X
 If determination cannot be made based off input, then default to DUZ(2),
 and if DUZ(2) is not defined, default to Default Institution.
 RETURN PARAMETER DESCRIPTION:
 Returns with PXVI not equal to 1:
    PXVRETRN  - returned information is stored in ^TMP("PXVLST",$J))
              - return info format: Data Element Name^Data Element Value
              -       error format: -1^error message

 For each record returned in the global array, the top value returned will
 indicate the record number in the array and the total number of records
 returned, e.g., "RECORD^1 OF 3".

 This RPC returns the internal entry number (IEN) of the record and data in
 external format from the following data fields in the IMMUNIZATION LOT
 file:
    - LOT NUMBER (#.01)
```

```
    - MANUFACTURER (#.02)
    - STATUS (#.03)
    - VACCINE (#.04)
    - EXPIRATION DATE (#.09)
    - ASSOCIATED VA FACILITY (#.1)
    - DOSES UNUSED (#.12)
    - LOW SUPPLY ALERT (#.15)
    - NDC CODE (VA) (#.18)

  Example Global Array Returned:
   ^TMP("PXVLST",$J,"P92A8769LN 1",0)="RECORD^1 OF 1"
                                .001)="IEN^6"
                                 .01)="LOT NUMBER^P92A8769LN"
                                 .02)="MANUFACTURER^SCLAVO, INC."
                                 .03)="STATUS^ACTIVE"
                                 .04)="VACCINE^ANTHRAX"
                                 .09)="EXPIRATION DATE^DEC 31, 2016"
                                  .1)="ASSOCIATED VA FACILITY^ALBANY"
                                 .12)="DOSES UNUSED^94"
                                 .15)="LOW SUPPLY ALERT^10"
                                 .18)="NDC CODE (VA)^"

  Example Global Array Returned if No Records Found:
   ^TMP("PXVLST",$J,0)="0 RECORDS"

  Example error messages:
   ^TMP("PXVLST",$J,0)="-1^Invalid input value"
   ^TMP("PXVLST",$J,0)="-1^Invalid input for immunization lot IEN"
   ^TMP("PXVLST",$J,0)="-1^Invalid input for lot number"

Returns with PXVI equal to 1:
   PXVRETRN  - returned information is stored in ^TMP("PXVLST",$J))

   Each record is a caret-delimited list of values. Within the
   caret-delimited list, for fields with different internal and external
   values, both the internal and external values are included, delimited
   by a tilde (~) as indicated below:
    Piece# Field# Field Name
    ------ ------ ----------
    1             IEN
    2      .01    LOT NUMBER
    3      .02    MANUFACTURER  (Internal~External)
    4      .03    STATUS (Internal~External)
    5      .04    VACCINE (Internal~External)
    6      .09    EXPIRATION DATE (Internal~External)
    7      .12    DOSES UNUSED
    8      .15    LOW SUPPLY ALERT
    9      .18    NDC CODE (VA) (Internal~External)
   10      .1     ASSOCIATED VA FACILITY (Internal~External)

  Example Alternate Global Array:
   ^TMP("PXVLST",$J,0)=1 RECORD
                      6)="6^P92A8769LN^49~SCLAVO, INC.^0~ACTIVE^41~ANTHRAX^
                          3161231~DEC 31, 2016^93^10^~^500~ALBANY"
```

10.9. PXVIMM IMM MAN

```
NAME: PXVIMM IMM MAN                    TAG: IMAN
  ROUTINE: PXVRPC1                      RETURN VALUE TYPE: GLOBAL ARRAY
  WORD WRAP ON: TRUE
 DESCRIPTION:
 This RPC returns information from the IMM MANUFACTURER file
 (#9999999.04).
INPUT PARAMETER: FILTER                 PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 80               REQUIRED: NO
  SEQUENCE NUMBER: 1
 DESCRIPTION:
 This input parameter is used to specify the IMMUNIZATION LOT file
 records to be returned. Possible values:
    R:XXX - return entry with ien XXX
    M:XXX - return entry with MVX code XXX
    N:XXX - return entry with imm manufacturer name XXX
    S:A   - return list of all active manufacturers
    S:I   - return list of all inactive manufacturers
    S:B   - return list of all manufacturers, active and inactive

 If this parameter is null, it defaults to "S:B".
INPUT PARAMETER: PXVDATE                PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 7                REQUIRED: NO
  SEQUENCE NUMBER: 2
 DESCRIPTION:
 This optional input parameter is used in determining status. Input
 should be in VA FileMan date format. The default value is the current
 date.
INPUT PARAMETER: PXVI                   PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 1                REQUIRED: NO
  SEQUENCE NUMBER: 3
 DESCRIPTION:
 This optional input parameter is used to return an alternate array with
 record data in a caret delimited string. If this parameter is null or 0,
 the return defaults to the other array.
    1 - return alternate array with internal values in delimited string
 RETURN PARAMETER DESCRIPTION:
 Returns with PXVI not equal to 1:
    PXVRETRN  - returned information is stored in ^TMP("PXVLST",$J))
              - return info format: Data Element Name^Data Element Value
              -        error format: -1^error message

 For each record returned in the global array, the top value returned will
indicate the record number in the array and the total number of records
 returned, e.g., "RECORD^1 OF 3".

 This RPC returns the internal entry number (IEN) of the record and data
 in external format from the following data fields in the IMM
 MANUFACTURER file:
   - NAME (#.01)
   - MVX (#.02)
   - INACTIVE FLAG (#.03)
   - CDC NOTES (#201)
   - STATUS (computed by Data Standardization utility)
```

```
    Example Global Array Returned:
    ^TMP("PXVLST",$J,"WYETH-AYERST 1",0)="RECORD^1 OF 1"
                                   .001)="IEN^55"
                                   .01)="NAME^WYETH-AYERST"
                                   .02)="MVX CODE^WA"
                                   .03)="INACTIVE FLAG^INACTIVE"
                                   201)="CDC NOTES^became WAL, now owned by
                                         Pfizer"
                            "STATUS")="STATUS^INACTIVE"


    Example Global Array Returned if No Records Found:
    ^TMP("PXVLST",$J,0)="0 RECORDS"


    Example error messages:
    ^TMP("PXVLST",$J,0)="-1^Invalid input value"
    ^TMP("PXVLST",$J,0)="-1^Invalid input for manufacturer IEN"
    ^TMP("PXVLST",$J,0)="-1^Invalid input for MVX code"
    ^TMP("PXVLST",$J,0)="-1^Invalid input for manufacturer name"

 Returns with PXVI equal to 1:
     PXVRETRN  - returned information is stored in ^TMP("PXVLST",$J))

     Each record is a caret-delimited list of values. Within the
     caret-delimited list, for fields with different internal and external
     values, both the internal and external values are included, delimited
     by a tilde (~) as indicated below:
      Piece# Field# Field Name
      ------ ------ ----------
      1             IEN
      2      .01    NAME
      3      .02    MVX CODE
      4      .03    INACTIVE FLAG (Internal~External)
      5      201    CDC NOTES
      6             STATUS (computed by Data Standardization utility)
```

10.10.   PXVIMM IMM SHORT LIST

```
NAME: PXVIMM IMM SHORT LIST              TAG: IMMSHORT
  ROUTINE: PXVRPC4                       RETURN VALUE TYPE: ARRAY
 DESCRIPTION:
 Returns a short list of immunizations.
INPUT PARAMETER: FILTER                  PARAMETER TYPE: LITERAL
  REQUIRED: NO                           SEQUENCE NUMBER: 1
 DESCRIPTION:
 Filter (Optional; Defaults to "B")
 Possible values are: ;
    "A": Only return active entries
    "H": Only return entries marked as Selectable for Historic
    "B": Return both active entries and those marked as Selectable for
         Historic
INPUT PARAMETER: PXDATE                  PARAMETER TYPE: LITERAL
  REQUIRED: NO                           SEQUENCE NUMBER: 2
DESCRIPTION:
 Date (optional; defaults to TODAY)
 Used for determining immunization status (both for filtering and for
 return value)
 RETURN PARAMETER DESCRIPTION:
```

```
PXRTRN(x)
   Note: Status (in the 5th piece) is determined as follows:
      - If PXDATE is today, the status is based off the Inactive Flag
        (#.07)
      - If PXDATE is different than today, we will look when an update was
        last made to the Immunization file (based off the Audits). If there
        have not been any changes since PXDATE, we will get the status
        based off the Inactive Flag, otherwise, we will get the status for
        that date by calling GETSTAT^XTID.
   1: "IMM"
   2: #9999999.14 IEN
   3: Name (#.01)
   4: CVX Code (#.03)
   5: Status (1: Active; 0: Inactive)
   6: Selectable for Historic (#8803)
   7: Mnemonic (#8801)
   8: Acronym (#8802)
PXRTRN(x)
   1: "CDC"
   2: CDC Product Name (#9999999.145, #.01)
```

10.11.   PXVIMM IMMDATA

```
NAME: PXVIMM IMMDATA                         TAG: IMMDATA
  ROUTINE: PXVRPC3                           RETURN VALUE TYPE: GLOBAL ARRAY
  WORD WRAP ON: TRUE
 DESCRIPTION:
 Returns entries from the IMMUNIZATION file (9999999.14).
INPUT PARAMETER: FILTER                      PARAMETER TYPE: LITERAL
  REQUIRED: NO                               SEQUENCE NUMBER: 1
 DESCRIPTION:
 This parameter is used to specify the IMMUNIZATION file records to be
 returned. Possible values:
    R:XXX - return entry with ien XXX
    S:A   - return list of active immunizations
    S:H   - return list of [selectable for] historic immunizations
    S:*   - return all records regardless of their status

If this parameter is null, it defaults to "S:A".
INPUT PARAMETER: SUBFILES                    PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 1                     REQUIRED: NO
  SEQUENCE NUMBER: 2
 DESCRIPTION:
 A value of 1 or Y indicates that all subfile multiples should be included.
 RETURN PARAMETER DESCRIPTION:
 The first record of the returned array contains the count of records
 being returned.
 Each record is a caret-delimited list of values.
 Piece# Field# Field Name
 ------ ------ ----------
 1             IEN
 2      .01    NAME
 3      .02    SHORT NAME
 4      .03    CVX CODE
 5      .05    MAX # IN SERIES
 6      .07    INACTIVE FLAG
 7      8801   MNEMONIC
```

```
8      8802   ACRONYM
9      8803   SELECTABLE FOR HISTORIC
(These subfiles are included when the SUBFILES parameter is set to 1)
 (Each multiple is separated by the pipe (|) character)
10     2      CDC FULL VACCINE NAME
11     3      CODING SYSTEM
                 (For each CODING SYSTEM, there are multiple CODE values.)
                 (CODING SYSTEM1~CODE1;;CODE2|CODING SYSTEM2~CODE3;;CODE4)
12     4      VACCINE INFORMATION STATEMENT
                 (VIS1-IEN~VIS1-NAME|VIS2-IEN~VIS2-NAME)
13     5      CDC PRODUCT NAME
14     7      VACCINE GROUP NAME
15     10     SYNONYM
16     99.991 EFFECTIVE DATE/TIME
                 (There are date/time and status fields in each multiple.)
                 (EFFECTIVE DATE/TIME1~STATUS1|EFFECTIVE DATE/TIME2~STATUS2)
```

10.12.   PXVIMM INFO SOURCE

```
NAME: PXVIMM INFO SOURCE               TAG: IMMSRC
 ROUTINE: PXVRPC2                      RETURN VALUE TYPE: ARRAY
 DESCRIPTION:
 Returns entries from the IMMUNIZATION INFO SOURCE file (920.1).
INPUT PARAMETER: FILTER                PARAMETER TYPE: LITERAL
 REQUIRED: NO                          SEQUENCE NUMBER: 1
 DESCRIPTION:
 Filter. Possible values are:
    R:XXX - Return entry with IEN XXX.
    H:XXX - Return entry with HL7 Code XXX.
    N:XXX - Return entry with #.01 field equal to XXX
    S:X   - Return all entries with a status of X.
            Possible values of X:
               A - Active Entries
               I - Inactive Entries
               B - Both active and inactive entries

 Defaults to "S:B".
 RETURN PARAMETER DESCRIPTION:
 Returns:
    PXVRSLT(0)=Count of elements returned (0 if nothing found)
    PXVRSLT(n)=IEN^Name^HL7 Code^Status (1:Active, 0:Inactive)

 When filtering based off IEN, HL7 Code, or #.01 field, only one entry will
 be returned in PXVRSLT(1).

 When filtering based off status, multiple entries can be returned. The
 first entry will be returned in subscript 1, and subscripts will be
 incremented by 1 for further entries. Entries will be sorted
 alphabetically.

 If no entries are found based off the filtering criteria, PXVRSLT(0) will
 equal 0, and there will be no data returned in the subsequent subscripts.
```

10.13.   PXVIMM VICR EVENTS

```
NAME: PXVIMM VICR EVENTS               TAG: GETVICR
 ROUTINE: PXVRPC5                      RETURN VALUE TYPE: ARRAY
```

```
 DESCRIPTION:
 Returns "active" entries from the V IMM CONTRA/REFUSAL EVENTS file
 (#9000010.707) that are related to the given patient and immunization.
 "Active" is defined as entries where the Event Date and Time is >= PXDATE
 and the Warn Until Date is null or greater than PXDATE.
INPUT PARAMETER: DFN                     PARAMETER TYPE: LITERAL
  REQUIRED: YES                          SEQUENCE NUMBER: 1
 DESCRIPTION:
 Pointer to file #2.
INPUT PARAMETER: PXVIMM                  PARAMETER TYPE: LITERAL
  REQUIRED: YES                          SEQUENCE NUMBER: 2
 DESCRIPTION:
 Pointer to #9999999.14.
INPUT PARAMETER: PXDATE                  PARAMETER TYPE: LITERAL
  REQUIRED: NO                           SEQUENCE NUMBER: 3
 DESCRIPTION:
 Used to determine if entry is "active" (Optional; Defaults to TODAY)
INPUT PARAMETER: PXFORMAT                PARAMETER TYPE: LITERAL
  REQUIRED: NO                           SEQUENCE NUMBER: 4
 DESCRIPTION:
 Format that return array should be returned (Optional; Defaults to "L")
 Possible values are:
    "L": Return a caret-delimited list of entries.
    "W": Returns a warning message.
 RETURN PARAMETER DESCRIPTION:
 PXRSLT(0)=Count of elements returned (0 if nothing found)
 If PXFORMAT="L":
    PXRSLT(n)="VICR" ^ V IMM Contra/Refusal Events IEN ^ Visit IEN ^
              Contra/Refusal variable pointer | Contra/Refusal Name ^
              Immunization IEN | Name ^ Warn Until Date ^ D/T Recorded ^
              Event D/T ^ Encounter Provider IEN | Name
    PXRSLT(n)="COM" ^ Comments
 If PXFORMAT["W":
    PXRSLT(n)=Warning text
```

10.14. PXVIMM VIS

```
NAME: PXVIMM VIS                         TAG: IVIS
  ROUTINE: PXVRPC1                       RETURN VALUE TYPE: GLOBAL ARRAY
  WORD WRAP ON: TRUE
 DESCRIPTION:
 This RPC returns information from the VACCINE INFORMATION STATEMENT file
 (#920).
INPUT PARAMETER: FILTER                  PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 55                REQUIRED: NO
  SEQUENCE NUMBER: 1
 DESCRIPTION:
 This input parameter is used to specify the VACCINE INFORMATION
 STATEMENT file records to be returned.
    R:XXX - return entry with ien XXX
    N:XXX - return entry with VIS name XXX
    S:A   - return list of all active VISs
    S:I   - return list of all inactive VISs
    S:B   - return list of all VISs, active and inactive

 If this parameter is null, it defaults to "S:B".
INPUT PARAMETER: PXVDATE                 PARAMETER TYPE: LITERAL
```

```
 MAXIMUM DATA LENGTH: 7                 REQUIRED: NO
 SEQUENCE NUMBER: 2
DESCRIPTION:
This optional input parameter is used in determining status. Input
should be in VA FileMan date format. The default value is the current
date.
RETURN PARAMETER DESCRIPTION:
Returns:
  PXVRETRN  - returned information is stored in ^TMP("PXVLST",$J))
            - return info format: Data Element Name^Data Element Value
            -       error format: -1^error message

For each record returned in the global array, the top value returned will
indicate the record number in the array and the total number of records
returned, e.g., "RECORD^1 OF 3".

 This RPC returns the internal entry number (IEN) of the record and data
in external format from the following data fields in the VACCINE
 INFORMATION STATEMENT file:
   - NAME (#.01)
   - EDITION DATE (#.02)
   - EDITION STATUS (#.03)
   - LANGUAGE (#.04)
   - VIS TEXT (#2) (word-processing)
   - 2D BAR CODE (#100)
   - VIS URL (#101)
   - STATUS (computed by Data Standardization utility)

 Example Global Array Returned:
 (Stored in ^TMP("PXVLST",$J,"SHINGLES VIS 1",)
    0)="RECORD^1 OF 1"
 .001)="IEN^27"
 .01)="NAME^SHINGLES VIS"
 .02)="EDITION DATE^OCT 06, 2009"
 .03)="EDITION STATUS^CURRENT"
 .04)="LANGUAGE^ENGLISH"
 2,1)="VIS TEXT 1^Shingles  Vaccine: What you need to know "
   2)="VIS TEXT 2^ "
   3)="VIS TEXT 3^1. What is shingles?"
   4)="VIS TEXT 4^ "
   5)="VIS TEXT 5^Shingles is a painful skin rash, often with blisters. It
       is also called "
   .
   .
   .
   117)="VIS TEXT 117^ "
   118)="VIS TEXT 118^Department of Health and Human Services"
   119)="VIS TEXT 119^Centers for Disease Control and Prevention"
 100)="2D BAR CODE^25308869830002021109100 6"
 101)="VIS URL^http://www.immunize.org/vis/shingles.pdf"
 "STATUS")="STATUS^ACTIVE"

 Example Global Array Returned if No Records Found:
 ^TMP("PXVLST",$J,0)="0 RECORDS"

 Example error messages:
 ^TMP("PXVLST",$J,0)="-1^Invalid input value"
```

```
^TMP("PXVLST",$J,0)="-1^Invalid input for VIS IEN"
^TMP("PXVLST",$J,0)="-1^Invalid input for VIS name"
```

10.15.   PXVIMM IMM DISCLOSURE

```
NAME: PXVIMM IMM DISCLOSURE          TAG: SETDIS
  ROUTINE: PXVRPC9                    RETURN VALUE TYPE: SINGLE VALUE
DESCRIPTION:
 Save immunization disclosure information.
INPUT PARAMETER: VIMM                PARAMETER TYPE: LITERAL
  REQUIRED: YES                      SEQUENCE NUMBER: 1
DESCRIPTION:
 V Immunization IEN.
INPUT PARAMETER: AGENCY              PARAMETER TYPE: LITERAL
  REQUIRED: YES                      SEQUENCE NUMBER: 2
DESCRIPTION:
 Agency Name this record was disclosed to.
INPUT PARAMETER: DATE                PARAMETER TYPE: LITERAL
  REQUIRED: YES                      SEQUENCE NUMBER: 3
DESCRIPTION:
 Date/Time this record was disclosed.
INPUT PARAMETER: TIMEZONE            PARAMETER TYPE: LITERAL
  REQUIRED: YES                      SEQUENCE NUMBER: 4
DESCRIPTION:
 Time zone of the Date/Time (either as the 3-character time zone
 designation or the UTC time offset, in the format -/+HHMM).
RETURN PARAMETER DESCRIPTION:
 0^error message - If we could not save the disclosure information (either
                   the RPC was called incorrectly, or the V Immunization
                   IEN did not exist).
1               - Successfully saved the disclosure information.
2^error message - We attempted to save the disclosure information, but
                   encountered an error when filing the data to the
                   database.
```

10.16.   PXVIMM VIMM DATA

```
NAME: PXVIMM VIMM DATA               TAG: RPC
  ROUTINE: PXVRPC7                    RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: SUBSCRIPTION          WORD WRAP ON: FALSE
DESCRIPTION:
 Returns immunization records from the V Immunization and V Immunization
 Deleted file. There are two methods for defining the criteria to determine
which records to return.

   1. A specific list of record IDs can be passed in, and only those
      records will be returned (if they exist on the system). When called
      in this way, the list of records should be passed in LIST, and FILTER
      should not be defined (if both LIST and FILTER are defined, only the
      records listed in LIST will be returned, and the search criteria in
      FILTER will be ignored).

      If an invalid IEN was passed in, the following error will be
      returned: "Record with IEN #xxx does not exist."

      If the record could not be returned for some other reason, the
      following error will be returned: "Unable to return record with IEN
```

```
         #xxx."


  2. A time range (and other filter criteria) can be passed in FILTER, and
     a list of records that meet that criteria will be returned. Any
     record last modified or deleted (if FILTER("INC DELETE")=1) within
     that time range will be returned.

     To limit the number of records returned, FILTER("MAX") can be set to
     the maximum number of records to be returned. The RPC will return a
     value called "BOOKMARK". That value can be used to call the RPC
     again, this time passing in the "BOOKMARK" value in
     FILTER("BOOKMARK") (all other parameters should be defined exactly as
     when previously called), and the RPC will return the next n number of
     records that meet the search criteria, and starting where the
     previous call left off. So for example, if there are 1,000 records
     that meet the search criteria, and FILTER("MAX") is set to return a
     maximum of 100 records, the RPC will need to be called 10 times in
     order to return all 1,000 records. Each subsequent time the RPC is
     called, the caller would set FILTER("BOOKMARK") to the bookmark value
     returned in the previous call. The caller would know when they reach
     the end and that there are no more records to be returned, when the
     RPC returns TOTAL ITEMS=0.

 Note: All date/time references are to be in FileMan format.
INPUT PARAMETER: FILTER                  PARAMETER TYPE: LIST
  REQUIRED: NO                           SEQUENCE NUMBER: 1
DESCRIPTION:
 Search criteria (Optional).
        ("START") - Start date/time to begin search from (Defaults to T-1)
         ("STOP") - Stop date/time to end search (if time is not
                    specified, midnight is assumed). (Defaults to T-1)
  ("DATA SRC EXC") - A semi-colon delimited list of Data Source names (in
                    external format) (e.g., SRC1;SRC2;SRCn). (Optional)
                    Any immunization record whose DATA SOURCE matches one
                    of the data names in this list will be filtered out,
                    and will not be returned.
          ("MAX") - The maximum number of records to return (defaults to
                    99)
     ("BOOKMARK") - If wanting to get the next n number of records, the
                    bookmark value returned in the previous call should be
                    passed here. (Optional)
   ("INC DELETE") - Flag to control if records should also be returned
                    from the V IMMUNIZATION DELETED file. (defaults to
                    "1").
                    1 - Include records from both the V IMMUNIZATION and V
                        IMMUNIZATION DELETED files
                    0 - Only include records from the V IMMUNIZATION file.
INPUT PARAMETER: LIST                    PARAMETER TYPE: LIST
  REQUIRED: NO                           SEQUENCE NUMBER: 2
DESCRIPTION:
 A list of record numbers (IENs) to return. (Optional)
To specify an IEN from the V IMMUNIZATION file, set LIST(IEN)="".
To specify an IEN from the V IMMUNIZATION DELETED file, set
LIST(IEN_"D")=""  (e.g., PXLIST("123D")="").
INPUT PARAMETER: DATE                    PARAMETER TYPE: LITERAL
  REQUIRED: NO                           SEQUENCE NUMBER: 3
DESCRIPTION:
```

```
 A date in FileMan format. (Optional)
It is used when the caller wants to see how the records being returned
changed since that date. When populated, it is used in a number of ways:
   1. Additions: If a record was added after that date, and later edited,
      we will return the record as if it's a new record (i.e., TYPE="ADD")
      (even though it's truly an edited record), as from that date's
      perspective this is a new record.
   2. Edits: a) We will return two versions of an edited record. One, will
      be the way the record existed on that date (i.e.,
      TYPE="UPDATE-BEFORE"). Two, will be the current state of the record
      (i.e., TYPE="UPDATE-AFTER"). b) if no significant changes have been
      made to this record since that date (i.e., the record was edited
      after that date, but none of the fields that are returned in this
      call were modified with that edit), then we will not return this
      record, as nothing significant changed since that date.
   3. Deletes: a) If a record was added after that date and later deleted,
      we won't return the record, as on that date the record did not exist,
      and the current record is deleted, so nothing really changed since
      that date. b) If a record was edited after that date and then
      deleted, the deleted record will be returned the way it existed on
      that date, as from that date's perspective that is what the deleted
      record looked like.
INPUT PARAMETER: DEMOGRAPHICS           PARAMETER TYPE: LITERAL
  REQUIRED: NO                          SEQUENCE NUMBER: 4
DESCRIPTION:
 Return patient demographics? (1=Yes/0=No). (Defaults to "1").
RETURN PARAMETER DESCRIPTION:
 A list of records that meet the search criteria.

 Each item returned will contain an immunization object, and if
 demographics are requested, a patient object.

 The immunization object can be called: IMM-ADD, IMM-DELETE, IMM-UPDATE,
IMM-UPDATE-BEFORE, or IMM-UPDATE-AFTER.
   o IMM-ADD - Used when the immunization record is a "new" record.
   o IMM-DELETE - Used when the immunizatin record is a deleted record.
  o IMM-UPDATE - Used wehn the immunizatin record was edited (and the
     caller did not pass in DATE).
   o IMM-UPDATE-BEFORE/IMM-UPDATE-AFTER - Used when the immunizatin record
     was edited and the called passed in DATE. Two objects will be
     returned. The IMM-UPDATE-BEFORE object will be the way the record
     existed before that date, and the IMM-UPDATE-AFTER will be the current
     state of the record.

 For more details on the fields and attributes of the immunization and
patient objects, please see the documentation.
```

The following is a table that list the data elements returned by the RPC.

ELEMENTS	ATTRIBUTES	CONTENT
TOTAL ITEMS		Number of immunization records being returned.
FACILITY ID		Institution #4 Station Number (The system's default Institution.)

ELEMENTS	ATTRIBUTES	CONTENT
BOOKMARK		String. (To return next n number of records after bookmark.)
PATIENT		
FACILITY[n]	NAME	Institution #4 Name (All known VA facilities where a patient visited in the last 12 months; pulled from the Treating Facility File (#391.91)).
	STATION NUMBER	Institution #4 Station Number
NAME (Last, First M)		Patient #2 Name
ADDRESS	STREET 1	Patient #2 Street Address 1
	STREET 2	Patient #2 Street Address 2
	STREET 3	Patient #2 Street Address 3
	CITY	Patient #2 City
	STATE	Patient #2 State
	ZIP	Patient #2 Zip
PHONE		Patient #2 Phone Residence
ICN		Patient #2 Integration Control Number (with checksum)
DFN		Patient #2 IEN
DOB		Patient #2 Date of Birth
SEX		Patient #2 Sex
RACE[n]	NAME	Patient #2 Race Information
	HL7 CODE	Race #10 HL7 Value
ETHNICITY[n]	NAME	Patient #2 Ethnicity Information
	HL7 CODE	Ethnicity #10.2 HL7 Value
PLACE OF BIRTH	CITY	Patient #2 Place of Birth[City]
	STATE	Patient #2 Place of Birth[State]
MOTHER MAIDEN NAME		Patient #2 Mother's Maiden Name
DATE OF DEATH		Patient #2 Date of Death
SUPPORT[n]	TYPE	NOK = Next of Kin ECON = Emergency Contact
	NAME	string
	RELATIONSHIP	string
	PHONE	string

ELEMENTS	ATTRIBUTES	CONTENT
	STREET 1	string
	STREET 2	string
	STREET 3	string
	CITY	string
	STATE	State #5 Name
	ZIP	string
IMMUNIZATION		
ID		V Immunization #9000010.11 IEN
IMMUNIZATION	IEN	Immunization #9999999.14 IEN
	NAME	Immunization #9999999.14 Name
CVX		Immunization File #9999999.14 CVX Code
FACILITY	NAME	Institution #4 Name (Administering facility)
	STATION NUMBER	Institution #4 Station Number
INFO SOURCE	IEN	Immunization Info Source #920 IEN
	NAME	Immunization Info Source #920 Name
	HL7 CODE	Immunization Info Source #920 HL7 Code
COMPLETION STATUS		"COMPLETE" (Currently stuffing all records with "COMPLETE".)
MANUFACTURER	IEN	Imm Manufacturer #9999999.04 IEN
	NAME	Imm Manufacturer #9999999.04 Name
	MVX CODE	Imm Manufacturer #9999999.04 MVX Code
ADMINISTERED DATE TIME		V Immunization #9000010.11 Event Date and Time If Event Date and Time is null then default to Visit Date/Time.
LOT NUMBER	IEN	Immunization Lot #9999999.41 IEN
	NAME	Immunization Lot #9999999.41 Lot Number
SERIES		PARTIALLY COMPLETE, COMPLETE, BOOSTER, SERIES 1-8
DOSE		V Immunization #9000010.11 Dose

ELEMENTS	ATTRIBUTES	CONTENT
DOSE UNITS		V Immunization #9000010.11 Dose Units
EXPIRATION DATE		Immunization Lot #9999999.41 Expiration Date
ADMIN ROUTE	IEN	Imm Administration Route #920.2 IEN
	NAME	Imm Administration Route #920.2 Route
	HL7 CODE	Imm Administration Route #920.2 HL7 Code
ADMIN SITE	IEN	Imm Administration Site (Body) # 920.3 IEN
	NAME	Imm Administration Site (Body) # 920.3 Site
	HL7 CODE	Imm Administration Site (Body) # 920.3 HL7 Code
ENCOUNTER PROVIDER	IEN	New Person #200 IEN
	NAME	New Person #200 Name
	NPI	New Person #200 NPI
	VPID	New Person #200 VPID
DOCUMENTER	IEN	New Person #200 IEN
	NAME	New Person #200 Name
	NPI	New Person #200 NPI
	VPID	New Person #200 VPID
DATE RECORDED		V Immunization #9000010.11, Date and Time Recorded
DATA SOURCE	IEN	PCE Data Source #839.7 IEN
	NAME	PCE Data Source #839.7 Source Name
VACCINE GROUPS[n]		Immunization #9999999.14 Vaccine Group Name
WARNING ACK		V Immunization #9000010.11 Warning Acknowledged
OVERRIDE REASON		V Immunization #9000010.11 Warning Override Reason
CODING SYSTEM[n]	Name of coding system (e.g. CPT)	Immunization #9999999.14 Coding System
COMMENTS		V Immunization #9000010.11 Comments
CONTRAINDICATED		V Immunization #9000010.11 Contraindicated
LOCATION	IEN	Hospital Location #44 IEN
	NAME	Hospital Location #44 Name
REACTION		V Immunization #9000010.11 Reaction
ORDERING PROVIDER	IEN	New Person #200 IEN
	NAME	New Person #200 Name
	NPI	New Person #200 NPI

ELEMENTS	ATTRIBUTES	CONTENT
	VPID	New Person #200 VPID
VIS OFFERED[n]	DATE OFFERED	V Immunization File #9000010.11, Sub-file 9000010.112 Date VIS Offered/Given
	IEN	Vaccine Information Statement #920 IEN
	NAME	Vaccine Information Statement #920 Name
	EDITION DATE	Vaccine Information Statement #920 Edition Date
	LANGUAGE	Language #.85 Name
VISIT		Visit #9000010 IEN
VISIT DATE TIME		Visit #9000010 IEN Visit/Admit Date&Time
PATIENT	DFN	Patient #2 IEN
	NAME	Patient #2 Name

10.17. PXVSK DEF SITES

```
NAME: PXVSK DEF SITES                   TAG: SKSITES
  ROUTINE: PXVRPC8                      RETURN VALUE TYPE: ARRAY
  AVAILABILITY: SUBSCRIPTION
DESCRIPTION:
 Returns a list of default administration sites for skin tests.
RETURN PARAMETER DESCRIPTION:
 (0)=Count of elements returned (0 if nothing found)
 (n)=IEN^NAME
```

10.18. PXVSK SKIN SHORT LIST

```
NAME: PXVSK SKIN SHORT LIST             TAG: SKSHORT
  ROUTINE: PXVRPC8                      RETURN VALUE TYPE: ARRAY
  AVAILABILITY: SUBSCRIPTION
DESCRIPTION:
 Returns active list of skin tests.
INPUT PARAMETER: DATE                   PARAMETER TYPE: LITERAL
  REQUIRED: NO                          SEQUENCE NUMBER: 1
DESCRIPTION:
 Used for determining skin test status. (Defaults to TODAY).
RETURN PARAMETER DESCRIPTION:
 (0)=Count of elements returned (0 if nothing found)
 (n)=SK^IEN^NAME^PRINT NAME
 (n)=CS^Coding System^Code^Variable pointer^Short Description
```

10.19. PXVSK V SKIN TEST LIST

```
NAME: PXVSK V SKIN TEST LIST            TAG: SKLIST
  ROUTINE: PXVRPC8                      RETURN VALUE TYPE: ARRAY
  AVAILABILITY: SUBSCRIPTION
DESCRIPTION:
```

```
 Returns a list of V Skin Test entries that have been placed within the
 last x days. The number of days to look back is defined in the PXV SK DAYS
BACK parameter.
INPUT PARAMETER: DFN                      PARAMETER TYPE: LITERAL
  REQUIRED: YES                           SEQUENCE NUMBER: 1
DESCRIPTION:
 Only V Skin Test entries for this patient will be returned.
INPUT PARAMETER: SKINTEST                 PARAMETER TYPE: LITERAL
  REQUIRED: YES                           SEQUENCE NUMBER: 2
DESCRIPTION:
 Skin Test IEN. Only V Skin Test entries for this Skin Test will be
returned.
INPUT PARAMETER: DATE                     PARAMETER TYPE: LITERAL
  REQUIRED: NO                            SEQUENCE NUMBER: 3
DESCRIPTION:
 The system will search back x number of days from this date. Defaults to
 TODAY.
RETURN PARAMETER DESCRIPTION:
 (0)=Count of elements returned (0 if nothing found)
 (n)=DATERANGE^Start Date^Stop Date
 (n)=PLACEMENT^IEN^Skin Test Name^Date/Time of Placement
```

11.0 Generating Online Documentation

11.1. ROUTINES

The namespace for the PCE package is PX. Some AU* routines are distributed by PCE. Use the Kernel option, List Routines [XUPRROU], to print a list of any or all of the PCE routines. This option is found on the Routine Tools [XUPR-ROUTINE-TOOLS] menu on the Programmer Options [XUPROG] menu, which is a sub-menu of the Systems Manager Menu [EVE] option.

Select Systems Manager Menu Option: programmer Options

- Select Programmer Options Option: routine Tools

- Select Routine Tools Option: list Routines

- Routine Print

Want to start each routine on a new page: No// [ENTER]

routine(s) ? > PX*

The first line of each routine contains a brief description of the general function of the routine. Use the Kernel option, First Line Routine Print [XU FIRST LINE PRINT] to print a list of just the first line of each Health Summary subset routine.

- Select Systems Manager Menu Option: programmer Options

- Select Programmer Options Option: routine Tools

- Select Routine Tools Option: First Line Routine Print

PRINTS FIRST LINES

- routine(s) ? >PX*

11.2. GLOBALS

Globals exported by PCE include ^PX, ^PXD, and ^AU*. Use the Kernel option, List Global [XUPRGL], to print a list of any of these globals. This option is found on the Programmer Options menu [XUPROG], which is a sub-menu of the Systems Manager Menu [EVE] option.

- Select Systems Manager Menu Option: programmer Options

- Select Programmer Options Option: LIST Global

- Global ^^PX*

11.3. FILES

The number-spaces assigned to PCE include 800-839.99, 920.xx, and 9000001, 900010.xx, and 9999999.xx. Use the VA FileMan option, List File Attributes [DILIST] to print a list of these files.

11.4. XINDEX

XINDEX is a routine that produces a report called the VA Cross-Referencer. This report is a technical and cross-reference listing of one routine or a group of routines. XINDEX provides a summary of errors and warnings for routines that do not comply with VA programming standards and conventions, a list of local and global variables and what routines they are referenced in, and a list of internal and external routine calls. XINDEX is invoked from programmer mode: D ^XINDEX. When prompted to select routines, enter PX*.

11.5. DATA DICTIONARIES

The Data Dictionaries (DDs) are considered part of the online documentation. Use VA FileMan option #8 (DATA DICTIONARY UTILITIES) to print DDs.

>D P^DI

VA FileMan 21.0

Select OPTION: DATA DICTIONARY UTILITIES

Select DATA DICTIONARY UTILITY OPTION: LIST FILE ATTRIBUTES

 START WITH WHAT FILE: V MEASUREMENT// 9000010 VISIT

                        (1 entry)

    GO TO WHAT FILE: VISIT// <RET>

Select LISTING FORMAT: STANDARD// <RET>

DEVICE: PRINTER

12.0 Troubleshooting and Helpful Hints

- The Automated Information Collection System (AICS) package includes a Print Manager that allows sites to define reports that should print along with the

encounter forms. This can save considerable time preparing and collating reports for appointments. See the Automated Information Collection System User Manual for instructions.

- You can add Health Summary, Problem List, and Progress Notes as actions to PCE, to allow quick access to these programs. When you press the [RETURN] key at the quit prompts (or up-arrow out), you are automatically returned to PCE.

- Since problems can occur if you delete patients (the internal entry number of the file can be reassigned, causing discrepancies in the data), we recommend that you NOT delete any patients.

- If clinical reminders are not showing up correctly on Health Summaries, see the *PCE User Manual Appendices* document, *Appendix A-7*, for troubleshooting information regarding which IRM staff with programmer access can access.

- If you see zeroes instead of numbers on encounter dates (e.g., 00/00/95 or 01/00/96) – on reports or encounter displays – they are for Historical Encounters where the exact date is not known.

12.1. SHORTCUTS

- After entering a diagnosis, a prompt for Provider Narrative appears. If you don't want to enter additional descriptive information, press the [ENTER] key, and the ICD9 or ICD10 short description for the diagnosis will be stored in the Provider Narrative field. (This only works if you're entering directly into the PCE user interface.)

More Shortcuts

- After Diagnosis has been entered, if the Provider Narrative is an exact match, you can enter = and the diagnosis will be duplicated here.

- The equals sign (=) can also be used as a shortcut when selecting an action plus encounters or appointments from a list in a single response (e.g., Select Action: ED=2).

- To quickly add or edit encounter information, select an appointment number at the first appointment screen.

12.2. DEVICE INTERFACE ERROR REPORT

The PCE Device Interface Error Report lets you look up PCE device interface errors by Error Number, Error Date and Time, Encounter Date and Time, or by Patient Name.

Select PCE Coordinator Menu Option: die PCE Device Interface Error Report

    Select one of the following:

- ERN   Error Number
- PDT   Processing Date and Time
- EDT   Encounter Date and Time

- PAT   Patient Name

Look up PCE device interface errors based on: ERN//   Error Number

Enter the beginning error number: (1-4): 1// [ENTER]

Enter the ending error number: (1-4): 4// [ENTER]

DEVICE: HOME//   [ENTER] VAX   RIGHT MARGIN: 80// [ENTER]

                            Aug 08, 1996 4:05:09 pm Page 1
                    PCE Device Interface Error Report

Report based on Error Numbers 1 through 26.

Error Number: 1

  Patient: PCEPATIENT,ONE 000-45-6789

  Hospital Location: DIABETES CLINIC

  Encounter date: May 06, 1996@14:53:17

  Processing date: May 06, 1996@16:18:53

  File: 9000010.07 (V POV) IEN: 0 Field .04 (PROVIDER NARRATIVE)

  Error message: Missing Required Fields

  Node: Missing

     Original: Missing

      Updated: Missing

  File: 9000010.07 (V POV) IEN: 0 Field .04 (PROVIDER NARRATIVE)

  Error message: Missing Required Fields

  Node: Missing

     Original: Missing

      Updated: Missing   ETC.

13.0 Glossary

AICS: Automated Information Collection System, formerly Integrated Billing, the program that manages the definition, scanning, and tracking of Encounter Forms.

Action: A functional process that a clinician or clerk uses in the PCE computer program. For example, "Update Encounter" is an action that allows the user to pick an encounter and edit information that was previously entered (either through PCE or the PIMS Checkout process), or add new information (such as an immunization or patient education).

Ambulatory Care Data Capture project: A project assigned to coordinate the efforts of various VISTA (DHCP) software packages to meet the 10/1/96 outpatient minimum data set mandate from the Under Secretary for Health.

Ancillary Service: (Occasion of Service) A specified instance of an act of service involved in the care of the patient or consumer that is not an encounter.

Appointment: A scheduled meeting with a provider at a clinic; an appointment can include several encounters involving other providers, tests, procedures, etc.

Checkout Process: Part of Medical Administration (PIMS) appointment processing. The checkout process documents administrative and clinical data related to the appointment.

Clinician: A doctor or other provider in the medical center who is authorized to provide patient care.

Encounter: A contact between a patient and a provider who has responsibility for assessing and treating the patient at a given contact, exercising independent judgment. A patient can have multiple encounters per visit.

Encounter Form: A paper form used to display and collect data pertaining to an outpatient encounter, developed by the AICS package.

Episode of Care: Many encounters for the same problem can constitute an episode of care. An outpatient episode of care may be a single encounter or can encompass multiple encounters over a long period of time. The definition of an episode of care may be interpreted differently by different professional services even for the same problem. Therefore, the duration of an episode of care is dependent on the viewpoints of individuals delivering or reviewing the care provided.

Health Summary: A Health Summary is a clinically oriented, structured report that extracts many kinds of data from VISTA and displays it in a standard format. The individual patient is the focus of health summaries, but health summaries can also be printed or displayed for groups of patients. The data displayed covers a wide range of health-related information such as demographic data, allergies, current active medical problems, laboratory results, etc.

Indian Health Service (IHS): IHS developed a computer program similar to VA's VISTA containing the Patient Care Component (PCC) from which PCE and many of its components were derived.

Inpatient Visit: Inpatient encounters include the admission of a patient to a VAMC and any clinically significant change related to treatment of that patient. For example, a treating specialty change is clinically significant, whereas a bed switch is not. The clinically significant visits created throughout the inpatient stay would be related to the inpatient admission visit. If the patient is seen in an outpatient clinic while an Inpatient, this is treated as a separate encounter.

Integrated Billing (IB): A VISTA package responsible for identifying billable episodes of care, creating bills, and tracking the whole billing process through to the passing of charges to Accounts Receivable (AR). Includes the Encounter Form utility.

MCCR: Medical Care Cost Recovery, a VISTA entity that supports Integrated Billing and many data capture pilot projects related to PCE.

Minimum Data Set: Each ambulatory encounter and/or ancillary service with associated provider, procedure, and diagnosis information must be reported to the National Patient Care Data Base (NPCDB), as of 10/1/96.

NPCDB: National Patient Care Data Base, a database located in the Austin Accounting Center.

Occasion of Service: A specified instance of an act of service involved in the care of a patient or consumer that is not an encounter. These occasions of service may be the result of an encounter; for example, tests or procedures ordered as part of an encounter. A patient may have multiple occasions of service per encounter or per visit.

Outpatient Encounter: Outpatient encounters include scheduled appointments and walk-in unscheduled visits. A clinician's telephone communications with a patient may be represented by a separate visit entry.

Outpatient Visit: The visit of an outpatient to one or more units or facilities located in or directed by the provider maintaining the outpatient health care services (clinic, physician's office, hospital/medical center) within one calendar day.

Person Class: As part of the October 1, 1996 mandate, VAMCs must collect provider information. The provider information reported is the "Person Class" defined for all providers associated with ambulatory care delivery. All VAMC providers must be assigned a Profession/ Occupation code (Person Class) so that a Person Class can be associated with each ambulatory patient encounter.

Provider: The entity that furnishes health care to a consumer. It includes a professionally licensed practitioner who is authorized to operate a health care delivery facility—an individual or defined group of individuals who provides a defined unit of health care services (defined = codable) to one or more individuals at a single session.

Stop Code: A three-digit number corresponding to an additional stop/service a patient received in conjunction with a clinic visit. Stop code entries are used so that medical facilities may receive credit for the services rendered during a patient visit. After 10/1/96, stop codes will become DSS Identifiers.

Visit: The visit of a patient to one or more units of a facility within one calendar day.

Visit Tracking: A VISTA utility that creates and manages entries in the Visit file that links patient-related information for patient encounters.

VISTA: Veterans Information System Technology Architecture, the new name for DHCP.

14.0 Appendix A – Developer Guide – PCE Device Interface Module

PCE Device Interface module local array structures exported with PCE.

14.1. CONVENTIONS

An Error Suspension file records data that fails the verification process
or if there are errors in storing.

1. In listings of valid values [1 | 0 | null]

1 denotes TRUE or YES

0 denotes FALSE or NO

null denotes VALUE NOT SUPPLIED BY DATA CAPTURE APPLICATION

2. The PCE Device Interface uses a locally name-spaced array (called
LOCAL in this document) with the following gross structure to
receive data from an external device. Developers should use an
array in their namespace to represent the LOCAL array. It is
possible that data from multiple providers was captured for the
encounter. The ENCOUNTER node records information about the
"main" provider. It is mandatory that this person be identified
in the ENCOUNTER node. Data will NOT be moved to VISTA if such a
provider is not identified on the ENCOUNTER node. The remaining
nodes in the LOCAL(array [VITALS, DIAGNOSIS, PROCEDURE,
PROBLEM...] are specific to the particular PROVIDER associated
with the data on that node. If the provider is unknown, (for
example, the identity of the nurse who took the vitals was not
captured on a scanned encounter form) the provider subscript
<PROVIDER IEN> may be set to zero except provider is required for
PROBLEM. This is a concession to reality, and should not be
encouraged. If a provider CAN be identified, they SHOULD be
identified.

Locally name-spaced array:

    LOCAL("DIAGNOSIS/PROBLEM",<PROVIDER IEN>)

    LOCAL("PROBLEM",<PROVIDER IEN>)

    LOCAL("SOURCE")

    LOCAL("ENCOUNTER")

    LOCAL("DIAGNOSIS",<PROVIDER IEN>)

    LOCAL("PROCEDURE",<PROVIDER IEN>)

    LOCAL("PROVIDER",<PROVIDER IEN>)

    LOCAL("IMMUNIZATION",<PROVIDER IEN>)

    LOCAL("SKIN TEST",<PROVIDER IEN>)

    LOCAL("EXAM",<PROVIDER IEN>)

    LOCAL("PATIENT ED",<PROVIDER IEN>)

    LOCAL("HEALTH FACTORS",<PROVIDER IEN>)

    LOCAL("VITALS",<PROVIDER IEN>)

Vitals are not processed by PCE but are passed to the Vitals/Measurement package.

    LOCAL("LOCAL",

        This data doesn PCE and will not be

        processed by PCE, but it may be used to pass local data

        to a local process (see protocol for local data

        processing).

 3. The Encounter and Source nodes are required; the rest are optional.

 4. All entries in the local array are resolved to internal values as defined below.

 5. By convention; use a DUZ = .5 (the POSTMASTER) as a default when one cannot be determined. This is only for tasked jobs on some systems.

 6. The data in the ENCOUNTER, PROCEDURE, and DIAGNOSIS/ PROBLEM or DIAGNOSIS nodes are the minimal set for capturing Workload starting 10/1/96. The data in the rest of the nodes with the associated providers build on the clinically relevant data set and are not used for workload.

 7. While ENCOUNTER, PROCEDURE, and DIAGNOSIS/PROBLEM or

DIAGNOSIS values are required to capture workload and generate a \
bill, they may not be present in every data set passed through this
event point. For example, data on Vitals may be collected by a Nurse
and passed through the event point for storage independent of
other data associated with the encounter. Because of this, these
are NOT required values in this version.

8. If there is a different (ancillary) hospital location for this
patient encounter, you have to do a separate encounter. Separate
calls for each hospital location are required.

14.2.   REQUIRED INPUT

LOCAL(LOCAL(is a local array as defined in the remainder
             of this document. Developers should use an array in
             their namespace to represent the LOCAL array; e.g.,
             IBDFPCE.

14.3.   RESULT RETURNED

PXCASTAT   1 = event processing occurred and the data was
             passed to DHCP.
             0 = event processing could not occur. There is data
             in LOCAL("ERROR" explaining why.

LOCAL("ERROR" as described below. Denotes Errors. Data associated
             with the error was not filed. The node does not
             exist if errors do not occur.
             LOCAL("ERROR",<NODE>,<PROVIDER
             IEN>,<i>,<PIECE>)="Free text message^REJECTED VALUE"

Where   <NODE>   ::= "ENCOUNTER" | "VITALS" |
                   "DIAGNOSIS" | "PROCEDURE" |
                   "PROBLEM" | rest of list|
             <PROVIDER IEN> ::=   internal entry number of
                   provider. Is 0 (ZERO) for ENCOUNTER
                   and SOURCE
                 <i> ::= sub-entry 'i' for that provider
                     Is 0 (ZERO) for ENCOUNTER, SOURCE

and PROVIDER

<PIECE>   ::= $P(selector in

LOCAL(<NODE>,<PROVIDER IEN>,<i>)

that failed.

The value of <PIECE> may be 0

(ZERO) if a problem is found that

does not relate to a single

specific piece.

LOCAL("WARNING"   as described below. Denotes problems with the

data that did not prevent processing. Processing

continued after the warnable condition was detected.

The node does not exist if warning, conditions do

not occur. Warnings do NOT affect the value of

PXCASTAT.

LOCAL("WARNING",<NODE>,<PROVIDER IEN>,<i>,<PIECE>)

="Free text message^QUESTIONABLE VALUE"

Where   <NODE>   ::=   "ENCOUNTER" | "VITALS" |

"DIAGNOSIS" | "PROCEDURE" |

"PROBLEM"

<PROVIDER IEN>   ::=   internal entry number of

provider. Is 0 (ZERO) for ENCOUNTER

and SOURCE

<i>   ::= sub-entry 'i' for that provider

Is 0 (ZERO) for ENCOUNTER, SOURCE,

and PROVIDER

<PIECE>   ::= $P(selector in

LOCAL(<NODE>,<PROVIDER IEN>,<i>) in

question.

The value of <PIECE> may be 0

(ZERO) if a problem is found that

does not relate to a single

specific piece.

Entry Point for processing the data in the foreground

FOREGND^PXCA(.LOCAL,.PXCASTAT)   All data for the event driver is

to be stored in the local array, LOCAL(, in the proper format by the source prior to calling this entry point. This entry point validates and

verifies the data and then if there are no validation errors, the data is processed in the foreground. Computation by the source will not continue until all processing is completed by any and all 'down-stream' protocol event points.

Entry Point for processing the data in the background on the Host

BACKGND^PXCA(.LOCAL,.PXCASTAT)   All data for the event driver is

to be stored in the local array, LOCAL(, in the proper format by the source prior to calling this entry point. This entry point validates and verifies the data and then if there are no validation errors, the data is processed in the background via TASKMAN. Computation by the source may continue.

Entry Point for data validation

VALIDATE^PXCA(.LOCAL) The data in the local array, LOCAL(, is validated and verified, but is not processed. Use of this entry point by your application will result in the data being validated twice, since it is validated prior to processing by the FOREGND^PXCAEP and BACKGND^PXCAEP entry points. If a piece of data cannot be validated, an entry is placed in the LOCAL("ERROR" node as described above

Protocol for local data processing

PXCA DATA EVENT Other developers who wish to use any of the data in the local array, including local additions, can attach a protocol that

calls their routines to the item multiple of this protocol. This protocol is activated if there are no errors in the data validation and after PCE has processed the data.

For data unique to the encounter

SOURCE data LOCAL("SOURCE") = 1^2^3^4^5, where:

Piece 1

    Data Source

    Required for PCE

    Required for SD

    Format: DATA SOURCES file (#839.7)

Piece 2

    DUZ

    Required for PCE

    Required for Scheduling

Piece 3

    Form numbers

Not stored by PCE Piece 4

Batch ID

Not stored by PCE Piece 5

Record ID

Not stored by PCE

Encounter data LOCAL("ENCOUNTER") =

1^2^3^4^5^6^7^8^9^10^11^12^13^14^15^16^17^18, where:

LOCAL("ENCOUNTER",modifier[E;1/.01]) = ""

Piece 1

Appointment Date/Time

Required for PCE

Required for Scheduling

Format: Fileman Date/Time

Piece 2

Patient DFN

Required for PCE

Required for Scheduling

Format: Pointer to IHS PATIENT file (#9000001)

Piece 3

Hospital Location IEN

Each hospital location is a separate encounter P,S

Format: Pointer to HOSPITAL LOCATION file (#44)

Piece 4

Provider IEN

This is the person that saw the Patient at the scheduled date and

time.

Required for PCE

Format: Pointer to NEW PERSON file (#200)

Piece 5

Visit CPT code IEN

Format: Pointer to TYPE OF VISIT (#357.69)

Piece 6

SC Condition

Format: [1 | 0 | null]

Piece 7

AO Condition

Format: [1 | 0 | null]

Piece 8

IR Condition

Format: [1 | 0 | null]

Piece 9

EC Condition

Format: [1 | 0 | null]

Piece 10

MST Condition

Format: [1 | 0 | null]

Piece 13

Eligibility Code IEN

Format: Pointer to ELIGIBILITY CODE file (#8)

Piece 14

Check-out date and time

Format: Fileman Date/Time

Piece 15

Provider indicator (relates to 4)

Required for PCE

Format: Set of Codes

P ::= Primary

S ::= Secondary

Piece 16

Attending Physician IEN

(May or may not be the same as 4)

Format: Pointer to NEW PERSON file (#200)

Piece 17

HNC Condition

Format: [1 | 0 | null]

Piece 18

CV Condition

Format: [1 | 0 | null]

All of the remaining entries in the LOCAL(array are specific to a particular Provider associated with the data on that node. If the provider is unknown, (for example, the identity of the nurse who took the vitals isn't recorded on a scanned encounter form), the provider subscript <PROVIDER IEN> may be set to zero.

Diagnosis and/or Problems, specific to one provider

We recommend that you use these nodes instead of the separate Diagnosis and Problem nodes.

If no Diagnosis and/or Problems, $D(LOCAL("DIAGNOSIS/PROBLEM")) is true.

LOCAL("DIAGNOSIS/PROBLEM",<PROVIDER IEN>, i) =

1^2^3^4,...17^18 where:

Piece 1

Diagnosis Code IEN

Required for PCE

Required for Scheduling

Format: Pointer to ICD DIAGNOSIS file (#80)

Piece 2

Diagnosis Specification Code

Required for PCE

N/A for Problem List

Format: Set of Codes

P ::= Primary

S ::= Secondary

Piece 3

Clinical Lexicon Term IEN

Format: Pointer to EXPRESSIONS file (#757.01)

Piece 4

Problem IEN

Required by Problem List for existing

Format: Pointer to PROBLEM LIST file (#9000011)

Piece 5

    Add to Problem List

    N/A for PCE

    Required by Problem List for new problem

    Format: [1 | 0 | null]

Piece 6

    Problem Active?

    Default is Active if not specified

    N/A for PCE

    Format: Set of Codes

        A ::= Active

        I ::= Inactive

Piece 7

    Problem Onset Date

    N/A for PCE

    Format: Fileman Date/Time

Piece 8

    Problem Resolved Date

    N/A for PCE

    Format: Fileman Date/Time

Piece 9

    SC Condition

    Format: [1 | 0 | null]

Piece 10

    AO Condition

    Format: [1 | 0 | null]

Piece 11

    IR Condition

    Format: [1 | 0 | null]

Piece 12

    EC Condition

    Format: [1 | 0 | null]

Piece 13

Provider Narrative

Required for PCE

Required by Problem List for new problem

Format: free text, 2-80 Characters

Piece 14

Category Header for Provider Narrative

N/A for Problem List

Format: free text, 2-80 Characters

Piece 15

MST Condition

Format: [1 | 0 | null]

Piece 16

HNC Condition

Format: [1 | 0 | null]

Piece 17

CV Condition

Format: [1 | 0 | null]

Piece 18

Order/Resulting

Format: Set of Codes

O ::= Ordering

R ::= Resulting

B ::= Both Ordering and Resulting

LOCAL("DIAGNOSIS/PROBLEM",<PROVIDER IEN>,i,"NOTE") = 1, where:

Piece 1

Provider N/A for PCE

Format: free text, 3-60 Characters

NOTE: If the NOTE node is not needed, it does not have to exist.

NOTE: Information is passed to Problem List if there is data for any of

the positions 5-8 on the "DIAGNOSIS/PROBLEM" node or if there is

"NOTE" node.

NOTE: A provider is required to add a new problem to the Problem List.

Diagnosis data list, specific to one provider, for Problems being treated at this encounter:

If no Diagnoses, then '$D(LOCAL("DIAGNOSIS",<PROVIDER IEN>))is true.

LOCAL("DIAGNOSIS",<PROVIDER IEN>,i) = 1^2^3^4^...^13^14 where:

Piece 1

    Diagnosis code IEN

    Required for PCE

    Required for Scheduling

    Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 2

    Diagnosis specification code

    Will default to "S" if blank

    Format: Set of Codes.

        P ::= Primary

        S ::= Secondary

Piece 3

    SC Condition

    Format: [1 | 0 | null]

Piece 4

    AO Condition

    Format: [1 | 0 | null]

Piece 5

    IR Condition

    Format: [1 | 0 | null]

Piece 6

    EC Condition

    Format: [1 | 0 | null]

Piece 7

    Associated Problem IEN

    Format: Pointer to PROBLEM LIST file 9000011

Piece 8

Physician's term for Diagnosis

Required for PCE

Format: free text, 2-80 Characters

Piece 9

Physician's term for Category Header

May have been used as a grouping for a set of related Diagnosis

which the provider selected from

Format: free text, 2-80 Characters

Piece 10

Lexicon IEN

Format: Pointer to EXPRESSIONS File (#757.01)

Piece 11

MST Condition

Format: [1 | 0 | null]

Piece 12

HNC Condition

Format: [1 | 0 | null]

Piece 13

CV Condition

Format: [1 | 0 | null]

Piece 14

Order/Resulting

Format: Set of Codes

   O ::= Ordering

   R ::= Resulting

   B ::= Both Ordering and Resulting

NOTE: PCE recommends using the DIAGNOSIS/PROBLEM node so that the diagnosis can point to the problem that it relates to.

Procedures data list, specific to one provider

If no Procedures, then '$D(LOCAL("PROCEDURE",<PROVIDER IEN>)) is true.

LOCAL("PROCEDURE",<PROVIDER IEN>,i) = 1^2^3^4^5^6^7^8^9^10^
   11^12^13^14,(pieces defined below)

LOCAL("PROCEDURE",<PROVIDER IEN>,i,modifier[E;1/.01]) = ""

Piece 1

    CPT4 Procedure code

    Required by PCE for V CPT file (Procedures)

        if this field is blank then will be stored in V TREATMENT file

    Required for Scheduling

    Format: Pointer to CPT file (#81)

Piece 2

    Quantity Performed

    Required for PCE

    Required for Scheduling

    Format: number > 0

Piece 3

    Procedure specification code

    For CPT only.

    Format: Set of Codes

        P ::= Primary

        S ::= Secondary

Piece 4

    Date/Time Procedure performed

    Format: Fileman Date/Time

Piece 5

    Primary Associated Diagnosis IEN For this CPT only.

    Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 6

    Physician's term for Procedure

    Required for PCE

    Format: free text, 2-80 Characters

Piece 7

    Physician's term for Category Header

    May have been used as a grouping for a set of related Procedures

which the provider selected from

Format: free text, 2-80 Characters

Piece 8

1st Secondary Associated Diagnosis IEN For this CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 9

2nd Secondary Associated Diagnosis IEN For this CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 10

3rd Secondary Associated Diagnosis IEN For this CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 11

4th Secondary Associated Diagnosis IEN For this CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 12

5th Secondary Associated Diagnosis IEN For this CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 13

6th Secondary Associated Diagnosis IEN For this CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 14

7th Secondary Associated Diagnosis IEN For this CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

NOTE: If a Procedure doesn't have a

CPT code, it can be passed without one and will be stored in the

V Treatment file but will not be used for workload or billing.

Problem data list, specific to one provider

If no Problems, then '$D(LOCAL("PROBLEM",<PROVIDER IEN>)) is true.

LOCAL("PROBLEM",<PROVIDER IEN>,i) = 1^2^3^4^5^...^15 where:

Piece 1

Problem Name

Required for new Problem List, i.e. if Pos. 10 is null

Format: free text

Piece 2

Problem Onset Date

Format: Fileman Date/Time

Piece 3

Problem Active?

Default is ACTIVE if not specified

Format: [1 | 0 | null]

Piece 4

Problem Date Resolved

Format: Fileman Date/Time

Piece 5

SC Condition

Format: [1 | 0 | null]

Piece 6

AO Condition

Format: [1 | 0 | null]

Piece 7

IR Condition

Format: [1 | 0 | null]

Piece 8

EC Condition

Format: [1 | 0 | null]

Piece 9

ICD Code value {optional}

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 10

Problem IEN

Must be null if new problem

Required for editing existing Problem

Format: Pointer to PROBLEM LIST file 9000011

Piece 11

Physician's term for Problem

Null if new problem

Format: free text, 60 Characters Max

Piece 12

Lexicon IEN

Format: Pointer to EXPRESSIONS File (#757.01)

Piece 13

MST Condition

Format: [1 | 0 | null]

Piece 14

HNC Condition

Format: [1 | 0 | null]

Piece 15

CV Condition

Format: [1 | 0 | null]

NOTE: The data in this node is passed to Problem List. A Provider is required to add a new problem to the Problem List. When a new problem is added to the Problem List, the problem IEN is not required. If data is passed to edit existing data, the problem IEN must be passed.

NOTE: It is better to use the DIAGNOSIS/PROBLEM node so that the Diagnosis can point to the problem that it relates to.

Provider data list, specific to one provider

Use this node to pass of additional providers which do not have data associated with them.

If no additional Providers, then '$D(LOCAL("PROVIDER",< PROVIDER IEN>)) is true.

LOCAL ("PROVIDER",<PROVIDER IEN>= 1^2 where:

Piece 1

Provider indicator

Required for PCE

Format: Set of Codes.

P: = Primary

S: = Secondary

Piece 2

Attending

Format: [1|0| null]

NOTE: If a provider is on the Encounter node and also on this node
then the data on this node will be used for Primary/Secondary indicator.
Immunization data list, specific to one provider
If no immunization entries, then '$D(LOCAL("IMMUNIZATION",<PROVIDER IEN>))
is true.
LOCAL ("IMMUNIZATION",<PROVIDER
IEN>,i)=1^2^3^4^5^6^7^8^9^10^11^12^13^14^15

Piece 1

Immunization

Required for PCE

Format: Pointer to IMMUNIZATION File (9999999.14)

Piece 2

Series

Format: Set of Codes.

P::=Partially complete

C::=Complete

B::=Booster

1::=Series1

8::=Series8

Piece 4

Reaction

REACTION Field (9000010.11,.06) SET

Format: Set of Codes.

'0' FOR NONE

'1' FOR FEVER;

'2' FOR IRRITABILITY;

'3' FOR LOCAL REACTION OR SWELLING;

'4' FOR VOMITING;

'5' FOR RASH OR ITCHING;

'6' FOR LETHARGY;

'7' FOR CONVULSIONS;

'8' FOR ARTHRITIS OR ARTHRALGIAS;

'9' FOR ANAPHYLAXIS OR COLLAPSE;

'10' FOR RESPIRATORY DISTRESS;

'11' FOR OTHER;

Piece 5

Contraindicated

Format: [1|0|null]

Piece 6

Event D/T

Format: Fileman Date/Time

Piece 7

Remarks

Format: Comment

Piece 8

Primary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80

Piece 9

1st Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 10

2nd Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 11

3rd Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 12

4th Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 13

5th Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 14

6th Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 15

7th Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Skin Test data list, specific to one provider

If no skin test entries, then '$D(LOCAL("SKIN TEST",<PROVIDER IEN>))

is true. LOCAL ("SKIN TEST",<PROVIDER

IEN>,i)=1^2^3^4^5^6^7^8^9^10^11^12^13

Piece 1

SKIN TEST

Required for PCE

Format: Pointer to SKIN TEST File (9999999.28)

Piece 2

READING

Format: Whole number between 0 and 40 inclusive

Piece 3

RESULT

Format: Set of Codes.

P::=Positive

N::=Negative

D::=Doubtful

0::=No Take

Piece 4

Date Read

Format: Fileman Date/Time

Piece 5

Date of Injection

Format: Fileman Date/Time

Piece 6

Primary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80

Piece 7

1st Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 8

2nd Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 9

3rd Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 10

4th Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 11

5th Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 12

6th Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Piece 13

7th Secondary Associated Diagnosis IEN For this mapped CPT only.

Format: Pointer to ICD DIAGNOSIS File (#80)

Examination data list, specific to one provider

If no examination entries, then '$D(LOCAL("EXAM",<PROVIDER IEN>))

is true.

LOCAL ("EXAM",<PROVIDER.IEN>")=1^2

Piece 1

EXAM

Required for PCE

Format: Pointer to EXAM File (9999999.15)

Piece 2

RESULT

Format: Set of Codes.

A::=Abnormal

N::=Normal

Patient Education data list, specific to one provider

If no Patient Education entries, then '$D(LOCAL("PATIENT ED",<PROVIDER IEN>)) is true. LOCAL ("PATIENT ED",<PROVIDER IEN>,i)=1^2

Piece 1

Topic

Required for PCE

Format: Pointer to EDUCATION TOPICS File (9999999.09)

Piece 2

Level of Understanding

Format: Set of Codes.

1::=Poor

2::=Fair

3::=Good

4::=Group - No Assessment

5::=Refused

Health Factors data list, specific to one provider

If no Health Factors entries, then

 '$D(LOCAL("HEALTH FACTORS",<PROVIDER IEN>)) is true. LOCAL ("HEALTH FACTORS",<PROVIDER IEN>,i)=1^2

Piece 1

Health Factor

Required for PCE

Format: Pointer to HEALTH FACTORS File (9999999.64)

Piece 2

Level/Severity

Format: Set of Codes.

M::=Minimal

MO::=Moderate

H::=Heavy/Severe

Vitals data list, specific to one provider

If no Vitals, then '$D(LOCAL("VITALS",<PROVIDER IEN>)) is true.

LOCAL("VITALS",<PROVIDER IEN>,i) = 1^2^3^4, where:

Piece 1

Type

Required for PCE

Format: Set of Codes.

    AG::= ABDOMINAL GIRTH

    AUD::= AUDIOMETREY

    BP::= BLOOD PRESSURE

    FH::= FUNDAL HEIGHT

    FT::= FETAL HEART TONES

    HC::= HEAD CIRCUMFERENCE

    HE::= HEARING

    HT::= HEIGHT

    PU::= PULSE

    RS::= RESPIRATIONS

    TMP::=TEMPERATURE

    TON::=TONOMETRY

    VC::= VISION CORRECTED

    VU::= VISION UNCORRECTED

    WT::= WEIGHT

Piece 2

    Value

    Required for PCE

    Format: Numeric

Piece 3

    Units

    Not stored; used for conversions

    Format: Set of Codes.

        C::=Centigrade (degrees)

        CM::=Centimeter

        F::= Fahrenheit (degrees)

        IN::=Inches

        KG::=Kilograms

        LB::=Pounds

Piece 4

Date/Time Measurement taken

Format: Fileman Date/Time

If the TYPE is HT: If the UNIT is CM it is converted to IN so that it   can be stored. If the UNIT is "" it is assumed to be IN. If the TYPE is WT   If the UNIT is KG it is converted to LB so that it can be stored. If the UNIT is "" it is assumed to be LB. If the TYPE is TMP If the UNIT is C it is   converted to F so that it can be stored. If the UNIT is "" it is assumed to be F.

NOTE: This data is passed to the Vitals/Measurement package for

validation and storage.

Local data list, specific to one provider

If no local entries, then '$D(LOCAL("LOCAL",<PROVIDER IEN>)) is true.

LOCAL("LOCAL",<PROVIDER IEN>,i) = Site Specific data encoding

Pieces All

Site Specific data encoding

Not stored in PCE

Format: Site Specific

NOTE: LOCAL("LOCAL" where "LOCAL" is replaced by locally namespaced

string.

15.0 Appendix B – PCE Security

PCE security is maintained through menu assignment and VA FileMan protection.

15.1. MENU ASSIGNMENT

PCE exports one main menu, the PCE IRM Menu, which contains several sub-menus.

- SP   PCE Site Parameters Menu ...
- TBL   PCE Table Maintenance ...
- DE   PCE/SD Debugging Utilities ...
- INFO PCE Information Only ...
- RM   PCE Reminder Maintenance Menu ...
- CR   PCE Clinical Reports ...
- HOME   Directions to Patient's Home Add/Edit
- CO   PCE Coordinator Menu ...
- CL   PCE Clinician Menu

Assign the PCE IRM Main Menu to the IRM person who will maintain and set up the package, including reminder items and will need access to all of the PCE options.

The first four options/menus will be used by IRM staff or coordinators who are responsible for setting up PCE, maintaining the entries in the PCE tables (such as Patient Education, Immunization, Treatments, etc.), and defining the clinical reminders/maintenance system for your site.

Assign the PCE Coordinator Menu to the Application Coordinator who teach and support PCE. The PCE Coordinator Menu contains all of the supporting options/menus, plus the data entry options.

Assign the PCE Clinician Menu to clinicians who enter or edit data, use clinical reports, need the PCE Information Only menu to see the basis for reminders, and might add or edit directions to a patient's home for display on a health summary.

Assign Directions to Patient's Home Add/Edit to anyone who needs to enter directions to a patient's home-especially useful for Hospital-Based Home Care staff (directions can be viewed on Health Summaries).

Assign PCE Encounter Data Entry - Supervisor to users who can document a clinical encounter and can also delete any encounter entries, even though they are not the creator of the entries. This action also allows adding and editing in fields not asked in the other PCE Encounter Data Entry options.

Assign PCE Encounter Data Entry to data entry staff who can document a clinical encounter and who can delete their own entries.

Assign PCE Encounter Date Entry and Delete to users who can document a clinical encounter and can also delete any encounter entries, even though they are not the creator of the entries.

Assign PCE Encounter Data Entry without Delete to users who can document a clinical encounter, but should not be able to delete any entries, including ones that they have created.

15.2. SECURITY KEYS

The following security key is associated with the PCE package.

SECURITY KEY	DESCRIPTION
PXV IMM INVENTORY MGR	This key is assigned to users responsible for immunization inventory management.

15.3. VA FILEMAN FILE PROTECTION

The following VA FileMan file protection has been assigned to the files exported by PCE and Visit Tracking.

FILE NUMBER	NAME	DD	RD	WR	DEL	LAY
150.1	ANCILLARY DSS ID	@		@	@	@
150.2	VSIT SITE CODES	@		@	@	@
150.9	VISIT TRACKING PARAMETERS	@			@	@
811.1.	PCE Code Mapping	@		@	@	@

FILE NUMBER	NAME	DD	RD	WR	DEL	LAY
811.2	PCE Taxonomy	@			@	
811.8	PCE Reminder Type	@			@	@
811.9	PCE Reminder/ Maintenance Item	@			@	
815	PCE Parameters	@			@	@
839.01	PXCA Device Interface Module Errors	@				
839.7	PCE Data Source	@			@	
920	Vaccine Information Statement	@		@	@	@
920.05	Imm Default Responses	@	@	@	@	@
920.1	Immunization Info Source	@	@	@	@	@
920.2	Imm Administration Route	@		@	@	@
920.3	Imm Administration Site (Body)	@		@	@	@
920.4	Imm Contraindications Reasons	@		@	@	@
920.5	Imm Refusals Reasons	@		@	@	@
920.6	Imm Routes To Sites	@	@	@	@	@
920.71	Imm External Agency	@	@	@	@	@
9000001	Patient/HIS	@				
9000010.06	V Provider	@				
9000010.07	V POV	@				
9000010.11	V Immunization	@				
9000010.12	V Skin Test	@				
9000010.13	V Exam	@				
9000010.15	V Treatment	@				
9000010.16	V Patient Ed	@				
9000010.18	V CPT	@				
9000010.23	V Health Factors	@				
9000010.707	V Imm Contra/Refusal Events	@	@	@	@	@
9000080.11	V Immunization Deleted	@	@	@	@	@
9999999.04	Imm Manufacturer	@		@	@	@
9999999.06	Location	@				
9999999.09	Education Topics	@			@	
9999999.14	Immunization	@		@	@	@
9999999.15	Exam	@			@	
9999999.17	Treatment	@			@	

FILE NUMBER	NAME	DD	RD	WR	DEL	LAY
9999999.27	Provider Narrative	@			@	
9999999.28	Skin Test	@		@	@	@
9999999.41	Immunization Lot	@	@	@	@	@
9999999.64	Health Factors	@			@	

15.4. ACCESS RECOMMENDED FOR SITES USING KERNEL PART III

FILE NUMBER	NAME	USER	COORDINATOR
811.1.	PCE Code Mapping	R	R
811.2	PCE Taxonomy	R	RW
811.8	PCE Reminder Type	R	RW
811.9	PCE Reminder/ Maintenance Item	R	RW
815	PCE Parameters	R	RW
839.01	PXCA Device Interface Module Errors	RWDL	RWDL
839.7	PCE Data Source	RL	RL
9000001	Patient/HIS	RWL	RWL
9000010.06	V Provider	RWDL	RWDL
9000010.07	V POV	RWDL	RWDL
9000010.11	V Immunization	RWDL	RWDL
9000010.12	V Skin Test	RWDL	RWDL
9000010.13	V Exam	RWDL	RWDL
9000010.15	V Treatment	RWDL	RWDL
9000010.16	V Patient Ed	RWDL	RWDL
9000010.18	V CPT	RWDL	RWDL
9000010.23	V Health Factors	RWDL	RWDL
9999999.06	Location	R	R
9999999.09	Education Topics	R	RWL
9999999.14	Immunization	R	RWL
9999999.15	Exam	R	RWL
9999999.17	Treatment	R	RWL
9999999.27	Provider Narrative	RWL	RWL
9999999.28	Skin Test	R	RWL
9999999.64	Health Factors	R	RWL

Visit Tracking

FILE NUMBER	NAME	USER	COORDINATOR
150.1	Ancillary DSS ID	R	R
150.2	Visit Site Codes	R	R
150.9	Visit Tracking Parameters	R	RW
9000010	Visit	RWDL	RWDL

16.0 Appendix C – Visit Tracking Technical Information

16.1. INTRODUCTION

The Visit Tracking software is designed to link patient-related information in a file structure that will allow meaningful reporting and historically accurate categorization of patient events and episodes of care.

16.2. BACKGROUND

This version of Visit Tracking is a hybrid of a Visit Tracking module developed by and operating at Indian Health Service (IHS) facilities as part of their Patient Care Component (PCC) and Visit Tracking V. 1.0 developed by the Dallas Information Systems Center (ISC) for the Joint Venture Sharing (JVS) sites and operating at Albuquerque, NM. The primary data file (VISIT file #9000010) developed by IHS is used with some additional fields and modifications for VA needs. The supporting software was developed with the intent to operate without modification in either facility.

16.3. RELATIONSHIP TO OTHER PACKAGES

Visit Tracking is not a stand-alone application. Other packages will normally call PCE, which will handle the calls to Visit Tracking.

Where appropriate, VISTA packages will be able to link an event to a patient visit entry, thereby linking that event to any number of events occurring throughout the hospital during the patient's visit or admission. By linking events to a "visit," historical information surrounding that event can be retrieved from the VISIT file (#9000010) that might ordinarily be unknown, such as the patient's eligibility at time of the event, the category of patient, or the Hospital Location.

16.4. FUNCTIONS PROVIDED

The Visit Tracking system provides three primary functions:

- Creating and/or matching a visit record using input criteria and user interaction (optionally)
- Providing a list of visits matching input criteria
- Maintaining the VISIT file (#9000010) and its records

Visit Tracking is a utility that can be used by a variety of VISTA modules, with potential benefits for clinical, administrative, and fiscal applications. Visit Tracking will allow VISTA packages to link an event to a patient visit entry, thereby linking that event to any number of events occurring throughout the hospital during the patient's outpatient and/or inpatient episode.

16.5. BENEFITS

- The VISIT file (#9000010) will be a key file in the implementation of the clinical repository.

- The VISIT file provides a home for documenting when and where other facility events have occurred.

- Medical Care Cost Recovery (MCCR) can obtain billing information related to a clinic visit, a step towards itemized billing.

- Visit Tracking provides an environment for relating clinical information to the service visit for workload tracking or query by service views, as well as by the aggregate clinic visit view.

- Users have the potential to control the Visit level of granularity while reviewing patient information (e.g., only view visits from the primary clinic visit level: an aggregate view or only ancillary visits).

- The date and time stamp on clinic and ancillary visits could be useful for retrospective work flow analysis. It may be exploitable as a Clinical Event Summary file useful to researchers doing longitudinal patient studies.

- A breakdown of clinical care provided by primary and secondary providers could help document the clinical experience of trainees (including residents, interns, and other clinicians) who require this information for privileging and credentialing purposes.

- Visit tracking has the capability to generate patient activity reports that are based on accurate historical information.

- The category of patient receiving care can be identified based on a specific episode of care.

- Medical data can be stored for historical purposes without the requirements of specific fields, except for the patient and date.

- Visit tracking has the ability to associate ancillary services provided to a patient with a DSS ID, admission, and non-patient encounter (phone contact, pharmacy mail-out, etc.)

16.6. DEPENDENCIES

Visit Tracking depends on Patient Care Encounter (PCE). **V***IST***A** packages that will support and/or use Visit Tracking will require some programming modifications.

16.7. VISIT CREATION

The creation of visits is facilitated by the Visit Tracking module. In order to ensure a consistent implementation of visit creation across packages, each package needs to have an agreement with the Visit Administrator to create visits.

```
The key to the creation of visits will be to ensure the clinical
meaningfulness of visits.
```

Additionally, when a package works out an agreement with Visit Tracking, it must add the triggered cross-reference ADD^AUPNVSIT, SUB^AUPNVSIT, as well as a regular (whole file) cross-reference on the Visit pointer. This ensures that the visit will not be

removed by Visit Tracking utilities because the dependent entry counter has been updated.

Two Approaches for Creating Clinical Visits

1. A team of providers can be associated with a primary clinical visit (this is the traditional view taken by IHS).

2. A primary clinic visit can represent the primary provider's care, and a separate visit can be created to reflect the secondary provider's care.

Additionally, the VISIT file will be able to provide a breakdown of other ancillary services provided during the clinically significant visit. Laboratory or Radiology occasions of service are other examples of services provided that could have a separate visit reflecting the service involvement related to a clinic appointment on the same day. DSS and Outpatient Workload will benefit from a service breakdown.

16.8. IRM RESPONSIBILITY

IRM will be responsible for updating the VISIT TRACKING PARAMETERS file (#150.9). IRM will also have the capability to indicate if a package is active or inactive. No other maintenance is required by IRM.

16.9. GUIDELINES FOR DEVELOPERS

This section describes the guidelines to be used for VA developers populating visits in the Visit file. These guidelines are based on a combination of the experience of Albuquerque's joint venture sharing, IHS' PCC pilot test at Tucson VAMC, MCCR data capture pilots, HSR&D workload reporting studies at Hines VAMC, and DMMS/DSS event data capture.

The purpose of the VISIT file in the VA:

The VISIT file has multiple purposes. The primary role is to record when and where clinical encounters related to a patient have occurred. Visits will be recorded for both Outpatient and Inpatient encounters. The initial focus of the Visit file will be for tracking outpatient encounter activity.

- Outpatient encounters include scheduled appointments and walk-in unscheduled visits.

- Inpatient encounters include the admission of a patient to a VAMC and any clinically significant change related to treatment of that patient. For example, a treating specialty change is clinically significant, whereas a bed switch is not. The clinically significant visits created throughout the inpatient stay are related to the inpatient admission visit.

- If the patient is seen in a clinic while an Inpatient, a separate visit will be created representing the appointment visit – this visit is related to the Admission visit.

- A clinician's telephone communications with a patient may be represented by a separate visit.

- The clinical visits can be viewed from two approaches: 1) a team of providers can be associated with a primary clinical visit (this is the traditional view taken by IHS); or 2) a primary clinic visit can represent the primary provider's care, and a separate visit can be created to reflect the secondary provider's care.

- Additionally, the VISIT file can provide a breakdown of other ancillary services provided during the clinically significant visit. Laboratory or Radiology services are other examples of services provided that could have a separate visit reflecting the service involvement related to a clinic appointment on the same day.

16.10.   SUPPORTED ENTRY POINTS

Creating visit entries in the VISIT file is not a free-for-all. Packages wishing to create visits or call Visit Tracking must publish agreements with the DBA. The DBA office provides oversight on agreements.

16.11.   CONVENTIONS

Italic formatting indicates argument names that are replaced with actual values. The notation ".argument" indicates a call by reference.

```
Note:  [  ] indicates optional choices; {  } indicates required
choices.
```

Refer to the section "Description of VISIT file fields" to see which fields are required, which ones will generate default values, and which ones can be used in matching/screening when selecting preexisting visits.

16.12.   CREATE AND/OR MATCH VISIT USING INPUT CRITERIA

^VSIT

(See the Package-Wide Variables section)

INPUT: VSIT   <visit date [and time] in FM format>

(time will default to 12 noon if not specified)

DFN   <patient file pointer>

[VSIT(0)   <a string of characters that defines how the visit

processor will function, see package-wide

variables>

[VSIT("<xxx>")]   <array with mnemonic subscript>

(used in match logic if VSIT(0)["M")

(for SVC, TYP, INS, CLN, ELG, LOC)

Note: For multiple field values use [<field

value>[^...]]

        i.e., VSIT("SVC")="H^D" (will find both)

        VSITPKG   <package name space>

OUTPUT: VSIT(<ien   N^S[^1]

       where: N   <internal entry number of visit>

           or -1 if could not get a visit

           or -2 if calling package is not active

           in Visit Package Parameters

       S   <value of .01 field of visit>

       1   <indicates that a new visit was added>

       VSIT(<ien>,<xxx>) returns the data that is stored in the Visit file

16.13.   UPDATE DEPENDENT ENTRY COUNTER

These calls are customarily done through a MUMPS cross reference on the pointer field. The input parameter X is set by FileMan.

ADD^AUPNVSIT

Increase the dependent entry count by one.

       INPUT   X   Visit IEN

SUB^AUPNVSIT

Decrease the dependent entry count by one   INPUT   X   Visit IEN

$$PKG2IEN^VSIT(PKG)

Returns a pointer to the Package file when you pass in the package namespace

       INPUT   PKG   Package namespace

       OUTPUT   Pointer to the package in the Package file #9.4

$$PKG^VSIT(PKG,VALUE)

Entry point to add or edit package to multiple in tracking param

       INPUT   PKG   Package Name Space

                VALUE   Value on the ON/OFF flag under package

                          Multiple 1=ON 0=OFF

$$PKGON^VSIT(PKG)

Returns the active flag for the package

       INPUT   PKG   Package Name Space

       OUTPUT   1 the package can create visits

                          0 the package cannot create visits

                          -1 called wrong or could not find package in VT

parameters file

$$IEN2VID^VSIT(IEN)

Returns the Visit ID when you pass in a pointer to a visit

      INPUT   IEN   Visit IEN

      OUTPUT   Visit ID

$$VID2IEN^VSIT(VID)

Returns a pointer to a visit when you pass in the Visit ID

      INPUT   VID   Visit ID

      OUTPUT   Visit IEN

$$LOOKUP^VSIT(IEN,FMT,WITHIEN)

Look up a visit and return all of its information

      INPUT   IEN   Visit IEN OR the Visit's ID

in, where:

                        I ::= internal format

                        E ::= external format

                        B ::= both internal and external format

                        B is the default if anything other than "I" or "E"

                        WITHIEN 0 if you do not want the ien of the visit

as the first subscript

                        1 if you do. "1" is the default.

      OUTPUT   -1 if IEN was not a valid IEN or Visit ID

                        otherwise returns IEN

                        VSIT(<ien>,<xxx>)

           or   VSIT(<xxx>) depending on the value of WITHIEN

                        The array is all of the fields in the visit file. If both

                        internal and external format are returned the

                        format is: internal^external

SELECTED^VSIT(DFN,SDT,EDT,HOSLOC,ENCTYPE,NENCTYPE,SERVCAT,NSERVCAT,LASTN)

Returns selected visits depending on screens passed in.

      INPUT   DFN DFN   of Patient (only required input)

                     SDT   Start Date

EDT	End Date
HOSLOC	Hospital Location
ENCTYPE	Encounter types to include
NENCTYPE	Encounter types to exclude
SERVCAT	Service Categories to include
NSERVCAT	Service Categories to exclude
LASTN	How many starting with the Date and

going backwards until have that many

or all of them, whichever is first

16.14.   ONLY THE DFN IS REQUIRED

Encounter types are a string of all the encounter types wanted. e.g. "OA" for only Ancillary and Occasion of service. Not Encounter types is a string of all the encounter types not wanted. e.g. "T" for do not include Telephone. If Encounter types and Not Encounter types are null or not passed then all encounter types will be included. Service Categories is a string of all the service categories to include. If none are passed, all is assumed. For example, "H" for just historical, "T" for just Telephone, "AIT" for ambulatory (in and out patient) and Telephone. Not Service categories is a string of all the service categories to not include.

OUTPUT   ^TMP("VSIT",$J,vsit ien,#)

> Piece 1:: Date and Time from the Visit File Entry
>
> Piece 2:: Hospital Location ien (pointer to file#44)_";"_
>
>> External Value
>>
>> If service category = "H" then this Piece becomes
>>
>> the following:: Location of Encounter
>>
>> ien (Pointer to file #9999999.06)_";"_External
>>
>> Value
>
> Piece 3:: Service Category (Value of field .07 set of codes)
>
> Piece 4:: Service Connected (Value of field 80001 External
>
>> Value)
>
> Piece 5:: Patient Status in/out (Value of field 15002 set of
>
>> codes)
>
> Piece 6:: Clinic Stop ien (Pointer to file # 40.7) ";" External
>
>> value)

$$HISTORIC^VSIT(IEN)

Returns a flag indicating whether the visit is historical.

       INPUT   IEN   Visit IEN

       OUTPUT   1 if it is an Historical visit ("E" in #.07)

                              0 if it is not an Historical visit.

                              -1 if the IEN is bad

MODIFIED^VSIT(IEN)

Sets the Date Last Modified (.13) field to NOW

       INPUT   IEN   Visit IEN

KILL^VSITKIL(IEN)

Deletes the visit if there is no files pointing to it. Before deleting checks all the backware pointers to see if the visit is being pointed to.

       INPUT   IEN   Visit IEN

16.15.   PACKAGE-WIDE VARIABLES

Visit Tracking V2.0 has no package-wide variables requiring SACC exemptions. Package developers making calls to Visit Tracking must clean up locally created variables before exiting the application option.

The following are local package-wide variables under the VSIT namespace.

VSIT(<xxx>) Variable Names for VISIT file fields,

file: 9000010, global: ^AUPNVSIT(Where <xxx> is a general reference to the field mnemonic.

KEY	INDICATES
r	indicated a required field
m	matching/screening logic can/does apply
s	system generated
e	strongly encouraged

Key   Variable   Description

       .001   VSIT("IEN")   NUMBER (visit internal entry number)

rm   .01   VSIT("VDT") VISIT/ADMIT DATE&TIME (date)

s   .02   VSIT("CDT") DATE VISIT CREATED (date)

m   .03   VSIT("TYP") TYPE (set)

rm   .05   VSIT("PAT") PATIENT NAME (pointer PATIENT file

                        #9000001) (IHS file DINUMed to PATIENT

                        file #2)

Key			
m	.06	VSIT("INS")	LOC. OF ENCOUNTER (pointer LOCATION file #9999999.06) (IHS file DINUMed to INSTITUTION file #4)
	.07	VSIT("SVC")	SERVICE CATEGORY (set)
me	.08	VSIT("DSS")	DSS ID (pointer to CLINIC STOP file)
	.09	VSIT("CTR")	DEPENDENT ENTRY COUNTER (number)
	.11	VSIT("DEL")	DELETE FLAG (set)
	.12	VSIT("LNK")	PARENT VISIT LINK (pointer VISIT file #9000010)
	.13	VSIT("MDT")	DATE LAST MODIFIED (date)
	.18	VSIT("COD") ;	CHECK OUT DATE&TIME (date)
	.21	VSIT("ELG")	ELIGIBILITY (pointer ELIGIBILITY CODE file #8)

Key	Variable	Description
mr	.22	VSIT("LOC")	HOSPITAL LOCATION (pointer HOSPITAL LOCATION file #44)
	.23	VSIT("USR")	CREATED BY USER (pointer NEW PERSON file #200)
	.24	VSIT("OPT")	OPTION USED TO CREATE (pointer OPTION file #19)
	.25	VSIT("PRO")	PROTOCOL (pointer PROTOCOL file #101)
	.26	VSIT("ACT")	PFSS ACCOUNT REFERENCE (pointer PFSS ACCOUNT file #375)
	2101	VSIT("OUT")	OUTSIDE LOCATION (free text)
	80001	VSIT("SC")	SERVICE CONNECTED (set)
	80002	VSIT("AO"	AGENT ORANGE EXPOSURE (set)
	80003	VSIT("IR")	IONIZING RADIATION EXPOSURE (set)
	80004	VSIT("EC")	SW ASIA CONDITIONS (set)
	80005	VSIT("MST")	MILITARY SEXUAL TRAUMA (set)
	80006	VSIT("HNC")	HEAD AND/OR NECK CANCER (set)
	80007	VSIT("CV")	COMBAT VETERAN
	80008	VSIT("SHAD")	PROJ 112/SHAD (set)
	15001	VSIT("VID")	VISIT ID (free text)

15002	VSIT("IO")	PATIENT STATUS IN/OUT (set)
15003	VSIT("PRI")	ENCOUNTER TYPE (set)
81101	VSIT("COM")	COMMENTS
81202	VSIT("PKG")	PACKAGE (pointer PACKAGE file #9.4)
81203	VSIT("SOR")	DATA SOURCE (pointer PCE DATA SOURCE file #839.7)

VSIT(0)   A string of characters that defines how the visit processor will function.

F   Force adding a new entry.

I   Interactive mode

E   Use patient's primary eligibility if not defined on call with VSIT("ELG").

N   Allow creation of new visit.

D   Look back "n" number of days for match, defaults to one (1). D[<number of days>] i.e., VSIT(0)="D7" e.g., VSIT(0)="D5" (visit date to visit date - 4) use "D0" to require exact match on visit date and time.

M   Impose criteria on matching/screening of visits. Uses the VSIT(<xxx>) array: Matching elements must equal their corresponding field.

DFN   Internal entry number of the patient file.

VSIT   The date (and time) of the visit.

VSIT(<ien>   N^S[^1]

where:

N = <internal entry number of visit>

S = <value of .01 field of visit>

1 = <indicates that a new visit was added

^TMP("VSITDD",$J,<xxx><visit subscript>;<field #>;<node>;<piece>; <error message>

VSITPKG   Package Name Space