HealthInformaticsInitiative
TRANSFORMING VA HEALTH CARE DELIVERY

Virtual Patient Record (VPR) 1.0

Technical Manual
September 2011
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Software Version 1.0

Department of Veterans Affairs (VA)

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VA Health Information Technology

Revision History

Date	Patch or Version	Page	Description	Project Manager	Author
8/21/2018	VPR*1*7	25,31, 32,51, 52,60, 63,64, 67,78, 79,80	Added new data elements to tables	Ken Leonard	Melanie Buechler
8/3/2015	VPR*1*5	7, 10, 21-87	Moved ICRs to end, and data element lists from Routine section to new Appendix A & B	Deb Migliore	Melanie Buechler
6/29/2015	VPR*1*5	4-5, 8-9, 11-56	Removed Patch descriptions; updated Data Domains, ICRs, and Checksums	Deb Migliore	Melanie Buechler
1/16/2015	VPR*1.0*4	6, 12, 43, 44	Updated the VPR*1.0*4 Data Domain section to include Consults and the Updated Routines section to include VPRDGMRC and VPRDPSO; updated the External Relationships section with changes to the ^USC(8932.1 ICB number; updated checksums for VPRDGMRC and VPRDPSO.	Deb Migliore	Cheryl Walton
1/7/2015	VPR*1.0*4	45	Updated the checksum for VPRDTST to reflect a last-minute change.	Deb Migliore	Cheryl Walton
1/2/2015–1/6/2015	VPR*1.0*4 `	All	Updated dates in page footers and on the cover page.	Deb Migliore	Cheryl Walton
1/2/2015–1/6/2015	VPR*1.0*4 `	4	Added a prerequisite instruction for installing VPR*1.0*4.	Deb Migliore	Cheryl Walton
1/2/2015–1/6/2015	VPR*1.0*4 `	7, 8	Added a section describing VPR*1.0*4	Deb Migliore	Cheryl Walton
1/2/2015–1/6/2015	VPR*1.0*4 `	13	Added two new ICRs to the External Relationships section	Deb Migliore	Cheryl Walton
1/2/2015–1/6/2015	VPR*1.0*4 `	41	Added a new routine (VPRTST) to the routine table.	Deb Migliore	Cheryl Walton
1/2/2015–1/6/2015	VPR*1.0*4 `	45, 46	Updated checksums	Deb Migliore	Cheryl Walton
1/2/2015–1/6/2015	VPR*1.0*4 `	47–50	Added a new option (VPR TEST XML) and new examples for VPR TEST XML and VPR TEST JSON	Deb Migliore	Cheryl Walton

Date	Patch or Version	Page	Description	Project Manager	Author
9/11/2013-10/11/2013	VPR*1.0*2	All	Updated title-page fonts to meet end-user documentation standards; updated revision date; updated footer to include package name (re end-user documentation standards); addressed reviewer suggestions and comments; added an installation and a software-availability section to provide information about how to retrieve software and documentation (re end-user documentation standards); added a legal-disclaimers section (re end-user documentation standards); corrected errors in the routines section; updated checksums	Deb Migliore	Cheryl Walton
7/24/2013	VPR*1.0*2	All	Updated title to reflect new patch Updated Overview to add JSON information; added a new (Formatted Data) section to discuss data formatting; added patch information for VPR*1.0*2; added JSON remote procedure call information; added JSON routines; corrected capitalization in routines table; added a JSON example placeholder; added JSON checksums; updated the glossary section	Deb Migliore	Cheryl Walton
7/30/2012	VPR*1.0*1	27	Updated checksum for VPRDPSOR	Deb Migliore	Ruth Markham
6/13/2012	VPR*1.0*1	5-7 11	Updated Clinical Procedures ICRs in Relationships, renumbered the table, increased row height when necessary; changed revised date; fixed typo	Deb Migliore	Ruth Markham
5/18/2012	VPR*1.0*1	2	Added a paragraph about the VPR proxy	Deb Migliore	Ruth Markham

Date	Patch or Version	Page	Description	Project Manager	Author
5/15/12	VPR*1.0*1	All	Changed header colors from blue to black; Corrected formatting issues; Added hyperlinks to revision history; Updated Overview to reflect changes with NwHIN; Added new extract routines for Clinical Observations, Clinical Procedures, Insurance, Exams, Skin Tests, Patient Education; Renamed Pharmacy extract Medications; Renamed Pharmacy Inpatient extract to Inpatient Meds; Renamed Pharmacy Outpatient extract Outpatient Meds; Added Non-VA Meds and IV Fluids/Infusions extracts; Added section for Implementation & Maintenance; Added section for patch description; Modified list of new routines; Updated Routines List with new and modified extract routines; Added section for Security Keys; Updated External relationships table; Added section for Files; Updated Routine List table with new/changed routines and reordered elements alphabetically; Removed elements predecessor, successor, code from VPRDPL routine because they were never populated;	Deb Migliore	Ruth Markham
			Added elements acknowledgement [m], provider, and service to VPRDOR routine; Added element category to VPRDPXHF; Added element encounter to VPRDXIM routine; Added elements clinicStop, provider and type to VPRDSDAM routine (clinicStop was inadvertently missed in the previous version of this TM); Added elements category, images and parent to VPRDTIU routine; Updated Checksums table; Added section Options section; Added a Glossary section;		
08/08/11	VPR*1*0		VPR version 1.0 Release	Deb Migliore	Ruth Markham

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Reference Materials

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Overview

This document provides technical information for Virtual Patient Record (VPR) version 1.0.

VPR 1.0 is a foundation software package component of the Health Management Platform (HMP) architecture, which is part of the Health Informatics Initiative's (hi²'s) scope.

VPR extracts patient data from domains at a local Veterans Health Information Systems and Technology Architecture (VistA) site to provide a cached view of the patient chart. It provides normalized fields with common field names and data structures across domains. VPR includes four remote procedure calls (RPCs): one encompassing routines that extract data from VistA in Extensible Markup Language (XML) format, one encompassing routines that extract VistA data in JavaScript Object Notation (JSON) format, one that calculates checksums for returned data, and one that returns the current VPR version number.

The VPR RPC for XML-formatted data extraction was initially installed in the Nationwide Health Information Network (NwHIN) namespace, which was called NHIN. The NwHIN client used most of the VPR's extract routines in production to get and share data. After this initial installation, VPR RPCs were installed in the VPR's own (VPR) namespace and renumbered as VPR version 1.0. NwHIN could continue to use the extract routines in its NHIN namespace, but would need to access VPR 1.0, or subsequent versions, to take advantage of future extract routine enhancements.

Note: After the VPR package installed its RPCs in its own (VPR) namespace with VPR 1.0, NwHIN began to use VPR 1.0 to take advantage of future extract-routine enhancements. The Virtual Lifetime Electronic Record (VLER) and Joint Legacy Viewer (JLV) are currently the primary users of the RPCs.

Formatted Data

VPR provides XML- and JSON-formatted data to support web applications that transmit data between themselves, servers, and users' browsers.

As its name suggests, XML uses markup to structure and serialize data. This human- and machine-readable format enjoys widespread use as a means of exchanging both text-based documents and structured data. The "XML Example" section of this document contains a snippet of XML-formatted data. JSON is also a human- and machine-readable data-interchange format; however, its creator focused on making it a vehicle for transmiting structured data, rather than narrative documents. Although it uses several JavaScript notation rules to represent structured data, JSON is programming-language agnostic: JSON parser libraries are available for programming languages that range from ActionScript to Visual Basic. (You can find a comprehensive list of available parser libraries on the JSON.org website.)

JSON supports four primitive and two structured data types:
- Primitive data types:
  - Text strings (quotation-mark delimiters)

- o Numbers
- o Booleans
- o Null
- Structured data types:
  - o Objects
  - o Arrays

These data types provide a fluid (free-form) way to serialize data transmissions. For example, developers can represent objects that encompass arrays and arrays that encompass objects. They can also include non-significant white space around JSON's structural elements (curly and block brackets, colons, and commas) to enhance human readability. The "JSON Example" section of this document contains a snippet of JSON-formatted data.

Like XML, JSON supports asynchronous JavaScript and XML (Ajax), which allows web applications to send and receive data to and from web pages. As a result, both formats are viable options for data interchanges involving web applications. Two notable cases in point are HMP, which uses JSON-formatted data, and NwHIN, which uses XML-formatted data.

Implementation and Maintenance

Software Availability

You can download the latest versions of VPR software and documentation, including this manual, via File Transfer Protocol (FTP) from ftp://download.vista.med.va.gov/. This site transmits files from the first available server. You can also download files directly from the following FTP servers:

- Albany   ftp.fo-albany.med.va.gov <ftp://ftp.fo-albany.med.va.gov>
- Hines   ftp.fo-hines.med.va.gov   <ftp://ftp.fo-hines.med.va.gov>
- Salt Lake City   ftp.fo-slc.med.va.gov   <ftp://ftp.fo-slc.med.va.gov>

Patches to the VPR application are available via the National Patch Module (NPM) on the FORUM mail system.

Application Proxy

The VPR package contains an application proxy for connecting to the local VistA system; it is currently being used by the HMP and VLER clients. Do not terminate the VPR Application Proxy from file 200, it must remain active. If your site is experiencing connection issues, please check your entry to make sure it looks similar to the following listing:

NAME: VPR,APPLICATION PROXY   DATE ENTERED: SEP 08, 2011
  SECONDARY MENU OPTIONS: VPR APPLICATION PROXY
  User Class: APPLICATION PROXY   ISPRIMARY: Yes
  PROVIDER KEY (c): 0

Security Keys

The VPR package contains no security keys.

Files

No files are released with VPR at this time.

Parameters

The VPR application includes the following parameters:

VPR Parameter	Description
VPR OBS VIEW TYPE	This parameter names, or names types of, CLiO observation collections that reside in the supplemental pages of flowsheets and group multiple, related observations. The CLiO groupings have no names or descriptions that other applications can display. By naming (or typing) these collections, VPR OBS VIEW TYPE enables applications that are interested in specific groups—such as groups that identify an instance of catheter care (Foley, IV, or drain)—to display the information they contain.
VPR SYSTEM NAME	This parameter holds the local VistA system's name as a hashed hexidecimal (base 16) value. A VPR post-initialization routine calculates this value and places it into the system-level value; it should not be modified.
VPR VERSION	This parameter holds the current version number of the VPR data-extract RPCs in the following form: V.PP, where *V* is the package version number and *PP* is the latest patch number.

Remote Procedure Calls

The VPR application consists of two data extract RPCs, and two supporting RPCs:

Remote Procedure Call	M Entry Point
VPR GET CHECKSUM	CHECK^VPRDCRC
VPR GET PATIENT DATA	GET^VPRD
VPR GET PATIENT DATA JSON	GET^VPRDJ
VPR DATA VERSION	VERSION^VPRD

The VPR GET CHECKSUM RPC retrieves data from VistA and calls routine VPRDCRC to perform CRC32 calculations. VPRDCRC then returns the calculations as checksum values.

The VPR DATA VERSION RPC gets the value of the current VPR version and returns it as a string. Any application with the appropriate Integration Control References (ICRs—formerly called Database Integration Agreements, or DBIAs) can use this RPC to extract the version from VPR software.

VPR GET PATIENT DATA

The VPR GET PATIENT DATA RPC retrieves data from VistA and returns it as XML in a **^TMP** global. Applications with the appropriate ICRs can use this RPC to extract data from VistA. Developers can specify input parameters to determine the types and amounts of data the RPC will extract from VistA. Parameters include:

- Internal entry number (IEN) from PATIENT (#2) file (optionally data file number [DFN] or integration control number [ICN] for remote calls) [required parameter]
- The kinds of data to extract, which may include:
  - Allergies and reactions
  - Appointments
  - Clinical Procedures (medicine and cardiology)
  - Consults
  - Demographics
  - Documents
  - Education topics
  - Exams
  - Flags (Patient Record Flags)
  - Functional Independence Measurements
  - Health Factors
  - Immunizations
  - Insurance policies
  - Labs (by accession, order or panel, or individual result)
  - Medications
  - Observations (CLiO)
  - Orders
  - Problems
  - Procedures (includes Radiology, Surgery, and Clinical Procedures)
  - Radiology exams
  - Skin tests
  - Surgical procedures
  - Visits and encounters
  - Vitals
  - Wellness Reminders
- The date and time from which to begin searching for data [optional]
- The date and time at which to end searching for data [optional]
- The maximum number of items to return per data type [optional]
- The identifier of a single item to return [optional, but TYPE must also be defined when used]
- List of name-value pairs, further refining the search

The output from this RPC is a text array formatted as XML in the temporary global **^TMP("VPR",$J,n)**.

The following text contains a snippet of data returned in response to a VPR GET PATIENT DATA RPC call for vitals measurements for VPRTestPatient,One:

```xml
<vital>
<entered value='3050316.115625' />
<facility code='998' name='ABILENE (CAA)' />
<location code='158' name='7A GEN MED' />
<measurements>
<measurement id='14871' vuid='4500634' name='BLOOD PRESSURE'
value='168/68' high='210/110' low='100/60' />
<measurement id='14869' vuid='4500636' name='PULSE' value='72'
high='120' low='60' >
<qualifiers>
<qualifier name='RADIAL' vuid='4688678' />
</qualifiers>
</measurement>
<measurement id='14872' vuid='4500635' name='PAIN' value='1' />
<measurement id='14870' vuid='4688725' name='RESPIRATION' value='18'
high='30' low='8' >
<qualifiers>
<qualifier name='SPONTANEOUS' vuid='4688706' />
</qualifiers>
</measurement>
<measurement id='14868' vuid='4500638' name='TEMPERATURE' value='99'
units='F' metricValue='37.2' metricUnits='C' high='102' low='95' >
<qualifiers>
<qualifier name='ORAL' vuid='4500642' />
</qualifiers>
</measurement>
</measurements
<taken value='3050316.1' />
</vital>
```

VPR GET PATIENT DATA JSON

The VPR GET PATIENT DATA JSON RPC retrieves data from VistA, and returns it as JSON-formatted documents in a **^TMP** global. Applications with appropriate ICRs can use this RPC to extract data from VistA. Developers can specify input parameters to determine the types and amounts of data the RPC will extract from VistA by entering the parameters as a list of name-value pairs. Some of the most commonly used parameters include:

- IEN from PATIENT (#2) file (optionally DFN; ICN for remote calls) [required]
- The kinds of data to extract, which may include:
  - Allergies and reactions
  - Appointments
  - Clinical Procedures (medicine and cardiology)
  - Consults
  - CPT procedures
  - Demographics
  - Documents
  - Education topics
  - Exams
  - Health Factors
  - Immunizations
  - Lab results
  - Medications
  - Observations (CLiO)
  - Orders
  - Problems
  - Purpose of visit (POV)
  - Radiology exams
  - Skin tests
  - Surgical procedures
  - Visits and admissions
  - Vitals
- The date and time from which to begin searching for data [optional]
- The date and time at which to stop searching for data [optional].
- The maximum number of items to return per data type [optional]
- The identifier of a single item to return [optional, but TYPE must also be defined when used]
- Additional name-value pairs, further refining the search [optional]

The RPC's output is a text array formatted as JSON in the temporary global **^TMP("VPR",$J,n)**.

The following text contains a snippet of data returned in response to a VPR GET PATIENT DATA JSON RPC call for vitals measurements for VPRTestPatient, One—the same patient and data returned in the XML example:

```
{"apiVersion":"1.01","params":{"domain":"DEV.HMPDEV.VAINNOVATIONS.US","syst
emId":"F484"},"data":{"updated":"20130718143517","totalItems":5,"items":[{"
displayName":"BP","facilityCode":"500D","facilityName":"SLC-FO HMP
DEV","high":"210\/110","kind":"Vital
Sign","localId":14871,"locationName":"7 WEST MEDICINE",

"locationUid":"urn:va:location:F484:158","low":"100\/60","observed":2005031
61000,"result":"168\/68","resulted":20050316115625,"summary":"BLOOD
PRESSURE 168\/68mm[Hg]","typeCode":"urn:va:vuid:4500634","typeName":"BLOOD
PRESSURE","uid":"urn:va:F484:229:vital:14871","units":"mm[Hg]"}

,
{"displayName":"P","facilityCode":"500D","facilityName":"SLC-FO HMP
DEV","high":120,"kind":"Vital sign","localId":14869,"locationName":"7 WEST
MEDICINE","locationUid":"urn:va:location:F484:158","low":60,"observed":2005
03161000,"qualifiers":[{"name":"RADIAL","vuid":4688678}],"result":72,"resul
ted":20050316115625,"summary":"PULSE 72
\/min","typeCode":"urn:va:vuid:4500636","typeName":"PULSE","uid":"urn:va:F4
84:229:vital:14869","units":"\/min"}

,
{"displayName":"PN","facilityCode":"500D","facilityName":"SLC-FO HMP
DEV","kind":"Vital Sign","localId":14872,"locationName":"7 WEST
MEDICINE","locationUid":"urn:va:location:F484:158","observed":200503161000,
"result":1,"resulted":20050316115625,"summary":"PAIN 1
","typeCode":"urn:va:vuid:4500635","typeName":"PAIN","uid":"urn:va:F484:229
:vital:14872","units":""}

,
{"displayName":"R","facilityCode":"500D","facilityName":"SLC-FO HMP
DEV","high":30,"kind":"Vital Sign","localId":14870,"locationName":"7 WEST
MEDICINE","locationUid":"urn:va:location:F484:158","low":8,"observed":20050
3161000,"qualifiers":[{"name":"SPONTANEOUS","vuid":4688706}],"result":18,"r
esulted":20050316115625,"summary":"RESPIRATION 18
\/min","typeCode":"urn:va:vuid:4688725","typeName":"RESPIRATION","uid":"urn
:va:F484:229:vital:14870","units":"\/min"}
```

Routines

The following table contains the routines included in theVPR package:

Routine	Checksum
VPRD	43397804
VPRDCRC	46793433
VPRDGMPL	30131363
VPRDGMRA	22392321
VPRDGMRC	10985584
VPRDGMV	42263746
VPRDGPF	5569926
VPRDIB	13733802
VPRDJ	22186238
VPRDJ0	83117538
VPRDJ00	58623073
VPRDJ01	39474581
VPRDJ02	44230094
VPRDJ03	49743518
VPRDJ04	48088220
VPRDJ04A	35067136
VPRDJ05	76359424
VPRDJ05V	45875553
VPRDJ06	49853799
VPRDJ07	19635784
VPRDJ08	60175705
VPRDJ08A	39219672
VPRDJ09	36288746
VPRDJT	9998610
VPRDLR	29963842
VPRDLRA	97052919
VPRDLRO	34279293
VPRDMC	61607238
VPRDMDC	58663659
VPRDOR	27908661
VPRDPROC	10655010
VPRDPS	21702415
VPRDPSI	41207623

Routine	Checksum
VPRDPSO	16064542
VPRDPSOR	39578958
VPRDPT	99429749
VPRDPXAM	9620825
VPRDPXED	9831355
VPRDPXHF	10068928
VPRDPXIM	29791486
VPRDPXRM	9085519
VPRDPXSK	9706647
VPRDRA	49387414
VPRDRMIM	24311841
VPRDSDAM	21167478
VPRDSR	30721686
VPRDTIU	90403730
VPRDTST	32685783
VPRDVSIT	106014987
VPRJSON	11235996
VPRJSOND	63619549
VPRJSONE	20857447
VPRP2I << post install routine	236349
VPRPI << post install routine	300624
VPRUTILS	9723974

Options

Name	Description
VPR APPLICATION PROXY	This option allows the VPR connector proxy access to the VistA system.
VPR TEST JSON	This option allows testers to view JSON-formatted results.
VPR TEST XML	This option allows testers to view XML-formatted results.

VPR TEST JSON

The VPR TEST JSON option loops around its DOMAIN and PATIENT prompts, making it easy for testers to display data for successive patients and domains. The option asks for a start date. If testers provide a start date, it also asks for a stop date. The option's start and stop parameters enable testers to limit data displays to a time-bound subset of available data. If testers do not provide a start date, the option does not ask for a stop date and displays all available data for the patient and domain testers specify.

Following is an example of the VPR TEST JSON option, showing the data it returns (the results are truncated, with extra spaces removed).

SELECT OPTION NAME: VPR TEST JSON   VIEW JSON RESULTS
VIEW JSON RESULTS
SELECT PATIENT NAME:
AVIVAPATIENT,TWENTYONE,TWENTYONE AVIVAPATIENT,TWENTYONE
     2-14-34   666000001   YES   SC
VETERAN   PROVIDER,EIGHTEEN PRIMARY CARE TEAM2
ENROLLMENT PRIORITY: GROUP 3   CATEGORY: IN PROCESS   END DATE:
SELECT DOMAIN: VITAL
SELECT START DATE: 11-1-2014 (NOV 01, 2014)
SELECT STOP DATE: 11-1-2014 (NOV 01, 2014)
SELECT TOTAL #ITEMS:
{"APIVERSION":"1.03","PARAMS":{"DOMAIN":"DEV.HMPDEV.VAINNOVATIONS.US"
,"SYSTEMID":"F484"},
"DATA":{"UPDATED":"20150106112207","TOTALITEMS":8,"ITEMS":[
{"DISPLAYNAME":"BP","FACILITYCODE":"500D","FACILITYNAME":"SLC-FO HMP
DEV","HIGH"
:"210\/110","KIND":"VITAL
SIGN","LOCALID":53157,"LOCATIONNAME":"GENERAL MEDICINE
","LOCATIONUID":"URN:VA:LOCATION:F484:23","LOW":"100\/60","OBSERVED":
20141101190
3,"RESULT":"128\/66","RESULTED":20141103143428,"SUMMARY":"BLOOD
PRESSURE 128\/66
MM[HG]","TYPECODE":"URN:VA:VUID:4500634","TYPENAME":"BLOOD
PRESSURE","UID":"URN
:VA:VITAL:F484:237:53157","UNITS":"MM[HG]"}
,
{"DISPLAYNAME":"HT","FACILITYCODE":"500D","FACILITYNAME":"SLC-FO HMP
DEV","KIND"
:"VITAL SIGN","LOCALID":53161,"LOCATIONNAME":"GENERAL
MEDICINE","LOCATIONUID":"U
RN:VA:LOCATION:F484:23","METRICRESULT":180.34,"METRICUNITS":"CM","OBS
ERVED":2014
11011903,"RESULT":71,"RESULTED":20141103143428,"SUMMARY":"HEIGHT 71
IN","TYPECOD
E":"URN:VA:VUID:4688724","TYPENAME":"HEIGHT","UID":"URN:VA:VITAL:F484
:237:53161"
,"UNITS":"IN"}
, {"DISPLAYNAME":"P","FACILITYCODE":"500D","FACILITYNAME":"SLC-FO HMP
DEV","HIGH":
120,"KIND":"VITAL SIGN","LOCALID":53160,"LOCATIONNAME":"GENERAL
MEDICINE","LOCATIONUID":"URN:VA:LOCATION:F484:23","LOW":60,"OBSERVED"
VITAL:F484:237:53160","UNITS":"\/MIN"}
,

VPR TEST XML

The VPR TEST XML option loops around its DOMAIN and PATIENT prompts, making it easy for testers to display data for successive patients and domains. The option asks for a start date, if the data domain supports date filtering; if testers provide a start date, it also asks for a stop date. The option's start and stop parameters enable testers to limit data displays to a time-bound subset of available data. If testers do not provide a start date, the option does not ask for a stop date and displays all available data for the patient and domain testers specify.

Additional search filters may be entered, for domains that support them. If one of those domains is selected, testers may also see 'FILTER' and 'VALUE' prompts. An 'ID' prompt may also appear, allowing a specific data item to be extracted and displayed. Testers may simply press return through any of these filters they do not wish to apply, and execution will fall through to the extract and display.

Following is an example of the VPR TEST XML option, showing the data it returns (the results are truncated, with extra spaces removed).

```
SELECT OPTION NAME:    VPR TEST XML    VIEW XML RESULTS
 VIEW XML RESULTS
 SELECT PATIENT NAME:    AVIVAPATIENT,TWENTYONE    2-14-34
666000001
  YES    SC VETERAN                    PROVIDER,EIGHTEEN  PRIMARY
CARE TEAM2
  ENROLLMENT PRIORITY: GROUP 3    CATEGORY: IN PROCESS    END DATE:
 SELECT DOMAIN: VITALS
 SELECT START DATE: 11-1-2014  (NOV 01, 2014)
 SELECT STOP DATE: 11-1-2014  (NOV 01, 2014)
 SELECT TOTAL #ITEMS:
 <RESULTS VERSION='1.02' TIMEZONE='-0700' >
 <VITALS TOTAL='1' >
 <VITAL>
 <ENTERED VALUE='3141103.143428' />
 <FACILITY CODE='500D' NAME='SLC-FO HMP DEV' />
 <LOCATION CODE='23' NAME='GENERAL MEDICINE' />
 <MEASUREMENTS>
 <MEASUREMENT ID='53157' VUID='4500634' NAME='BLOOD PRESSURE'
VALUE='128/66'
 UNITS='MM[HG]' HIGH='210/110' LOW='100/60' />
 <MEASUREMENT ID='53161' VUID='4688724' NAME='HEIGHT' VALUE='71'
UNITS='IN'
 METRICVALUE='180.34' METRICUNITS='CM' />
 <MEASUREMENT ID='53160' VUID='4500636' NAME='PULSE' VALUE='92'
UNITS='/MIN'
 HIGH='120' LOW='60' />
 <MEASUREMENT ID='53164' VUID='4500635' NAME='PAIN' VALUE='2' />
 <MEASUREMENT ID='53163' VUID='4500637' NAME='PULSE OXIMETRY'
VALUE='95'
 UNITS='%' HIGH='100' LOW='50' />
 <MEASUREMENT ID='53159' VUID='4688725' NAME='RESPIRATION'
VALUE='16'
 UNITS='/MIN' HIGH='30' LOW='8' />
 <MEASUREMENT ID='53158' VUID='4500638' NAME='TEMPERATURE'
VALUE='98.5'
 UNITS='F' METRICVALUE'53162' VUID='4500639' NAME='WEIGHT'
```

External Relationships

The following table contains information about which ICRs cover usage of which routines and global references.

Reference	ICR(DBIA)	Package
^AUPNPROB	5703	Problem List
^AUPNVSIT	2028	PCE Patient Care Encounter
^AUTTHF	4295	PCE Patient Care Encounter
^DGPM	1865	Registration
^DGS(41.1)	3796	Registration
^DGSL(38.1)	767	Registration
^DIC(31)	733	HINQ
^DIC(40.7)	557	Scheduling
^DIC(42)	723	Registration
^DPT	5597	Registration
^DPT	5708	Registration
^GMR(120.5)	4753	Gen. Med. Rec. – Vitals
^GMR(120.86)	3449	Adverse Reaction Tracking
^LAB(61)	524	Laboratory
^LR	525	Laboratory
^LRO(68)	1963	Laboratory
^LRO(69)	2407	Laboratory
^MDC(704.101)	5748	Clinical Procedures
^MDC(704.102)	5809	Clinical Procedures
^MDC(704.1122)	5999	Clinical Procedures
^MDC(704.116)	5995	Clinical Procedures
^MDC(704.1161)	5996	Clinical Procedures
^MDC(704.117)	5810	Clinical Procedures
^MDC(704.118)	5811	Clinical Procedures
^OR(100)	5771	Order Entry/Results Reporting

Reference	ICR(DBIA)	Package
^ORA(102.4)	5769	Care Management
^ORD(100.98)	873	Order Entry/Results Reporting
^ORD(101.43)	2843	Order Entry/Results Reporting
^PSB(53.79)	5909	Bar Code Med Admin (BCMA)
^PXRMINDX	4290	PCE Patient Care Encounter
^RADPT	2480	Radiology/Nuclear Medicine
^RARPT	5605	Radiology/Nuclear Medicine
^SRF(130)	5675	Surgery
^SRO(136)	4872	Surgery
^TIU(8925.1)	2321	Text Integration Utilities
^TIU(8925.1)	5677	Text Integration Utilities
^TIU(8926.1)	5678	Text Integration Utilities
^USC(8932.1)	4984	Kernel
^USR(8930)	6088	Authorization/Subscription Utility
^USR(8930.1)	6089	Authorization/Subscription Utility
^WV(790.05)	5772	Women's Health
DGACT	2248	Registration
DGPFAPI	3860	Registration
GMPLUTL2	2741	Problem List
GMRCAPI	6082	Consult/Request Tracking
GMRCGUIB	2980	Consult/Request Tracking
GMRCSLM1	2740	Consult/Request Tracking
GMRVUT0	1446	Gen. Med. Rec. – Vitals
GMVRPCM	5702	Gen. Med. Rec. – Vitals
ICDEX	5747	DRG Grouper
LR7OR1	2503	Laboratory
LR7OU1	2955	Laboratory
LRPXAPI	4245	Laboratory
LRPXAPIU	4246	Laboratory

Reference	ICR(DBIA)	Package
MDPS1	4230	Clinical Procedures
ORCD	5493	Order Entry/Results Reporting
ORQ1	3154	Order Entry/Results Reporting
ORQ12	5704	Order Entry/Results Reporting
ORX8 [$$OI, $VALUE]	2467	Order Entry/Results Reporting
ORX8 [$$PKGID]	3071	Order Entry/Results Reporting
ORX8 [EN]	871	Order Entry/Results Reporting
PSOORRL	2400	Outpatient Pharmacy
PXAPI	1894	PCE Patient Care Encounter
PXPXRM	4250	PCE Patient Care Encounter
PXRMMHV	4811	Clinical Reminders
RMIMRP	4745	Functional Independence
SROESTV	3533	Surgery
TIUCNSLT	5546	Text Integration Utilities
TIUCP	3568	Text Integration Utilities
TIULQ	2693	Text Integration Utilities
TIULX	3058	Text Integration Utilities
TIUSROI	5676	Text Integration Utilities
TIUSRVLO [$$IMGCNT]	4751	Text Integration Utilities
TIUSRVLO [$$RESOLVE]	2834	Text Integration Utilities
TIUSRVLO [CONTEXT]	2865	Text Integration Utilities
TIUSRVR1	2944	Text Integration Utilities
TIUVPR	6077	Text Integration Utilities
USRLM	2324	Authorization/Subscription Utility
VADPT2	325	Registration
XUSAP	4677	Kernel
XUSTAX	4911	Kernel

Glossary

Term	Description
CLiO	Clinical Observations
CRC	Cyclic Redundancy Check
DBIA	Database Integration Agreement
EDIS	Emergency Department Integration Software
hi²	Health Informatics Initiative
HMP	Health Management Platform
ICR	Integration Control Reference
IV	Intervenous
JLV	Joint Legacy Viewer
JSON	JavaScript Object Notation
NwHIN	Nationwide Health Information Network
PCE	Patient Care Encounter
PTF	Patient Treatment File
UID	Universal Identifier
RPC	Remote Procedure Call
VistA	Veterans (Health) Information System Technology Architecture
VLER	Virtual Lifetime Electronic Record
VPR	Virtual Patient Record
XML	Extensible Markup Language

Appendix A—XML Tables

Following are tables that list the data elements returned by the VPR GET PATIENT DATA RPC. All input parameters are optional to refine the extract, except for TYPE. All searches are performed reverse-chronologically to return the most recent data, unless otherwise noted.

Allergy/Adverse Reaction Tracking (GMRA)

Input parameters:	TYPE	"reactions" [required]
[optional]	START	VA FileMan date to filter on 'entered'
	STOP	VA FileMan date to filter on 'entered'
	MAX	Use *not recommended*, as reactions are *not* sorted
	ID	PATIENT ALLERGIES (#120.8) file ien
	FILTER	none

Elements	Attributes	Content
assessment	value	not done or nka
comment *	id	number
	enteredBy	NEW PERSON (#200) Name
	entered	VA FileMan date.time
	commentType	O or E (observed or error)
	commentText	string
drugClass *	name	VA DRUG CLASS (#50.605) Classification
	vuid	VA DRUG CLASS (#50.605) VUID
drugIngredient *	name	DRUG INGREDIENTS (#50.416) Name
	vuid	DRUG INGREDIENTS (#50.416) VUID
entered	value	VA FileMan date.time
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	PATIENT ALLERGIES (#120.8) ien
localCode	value	VA FileMan variable pointer
mechanism	value	ALLERGY, PHARMACOLOGIC, or UNKNOWN
name	value	string
reaction *	name	string
	vuid	number
removed	value	boolean (1 or 0)
severity	value	MILD, MODERATE, or SEVERE
source	value	O or H (observed or historical)
type	value	any combination of DFO
verified	value	any combination of DRUG,FOOD,OTHER
vuid	value	VUID number

* = may be multiple

Clinical Observations (MDC)

Input parameters: TYPE   "observations" [required]

[optional]   START   VA FileMan date to filter on 'observed'

STOP   VA FileMan date to filter on 'observed'

MAX   use with caution, as search is performed chronologically

ID   OBS (#704.117) file ID (#.01) value

FILTER   none

Elements	Attributes	Content
bodySite	code	VUID number
	name	string
comment	value	string
entered	value	VA FileMan date.time
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	OBS (#704.117) ID
location	code	HOSPITAL LOCATION (#44) ien
	name	HOSPITAL LOCATION (#44) Name
method	code	VUID number
	name	string
name	value	string
observed	value	VA FileMan date.time
position	code	VUID number
	name	string
product	code	VUID number
	name	string
quality	code	VUID number
	name	string
range	value	Unknown, Normal, Out of Bounds Low, Out of Bounds High, Low, High
status	value	Verified
units	code	VUID number
	name	string
value	value	string
vuid	value	VUID number

Clinical Procedures (MC)

Input parameters: TYPE   "clinicalProcedures" [required]

    [optional]

START		VA FileMan date to filter on 'dateTime'
STOP		VA FileMan date to filter on 'dateTime'
MAX		number of most recent procedures to return
ID		variable pointer to CP data file/item
FILTER("text")		**1** or **0**, to include 'content' text of report

Elements	Attributes	Content
category	value	CP
consult	value	CONSULT (#123) ien
dateTime	value	VA FileMan date.time
document *	id	TIU DOCUMENT (#8925) ien
	localTitle	TIU DOCUMENT DEFINITION (#8925.1) Name
	nationalTitle	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
	vuid	VUID number
	content	word processing text
encounter	value	VISIT (#9000010) ien
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
hasImages	value	boolean (1 or 0)
id	value	variable pointer
interpretation	value	Normal, Abnormal, Borderline, Incomplete, or Machine Resulted
location	code	HOSPITAL LOCATION (#44) ien
	name	HOSPITAL LOCATION (#44) Name
name	value	string
order	code	ORDER (#100) ien
	name	string
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200) Service/Section
requested	value	VA FileMan date.time
status	value	string

* = may be multiple

Clinical Reminders (PXRM)

Not all clinical reminders that may appear in CPRS will be available via this extract. Only the nationally exported "wellness" reminders, those marked for Patient usage and shown in MyHealtheVet, are processed and returned at run time.

Input parameters:	TYPE	"reminders" [required]
[optional]	START	none
	STOP	none
	MAX	none
	ID	REMINDER DEFINITION (#811.9) file ien
	FILTER	none

Elements	Attributes	Content
class	code	N
	name	NATIONAL
detail		word-processing text
due	value	VA FileMan date.time, DUE NOW, N/A, or CNBD
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	REMINDER DEFINITION (#811.9) ien
lastDone	value	VA FileMan date.time, or UNKNOWN
name	value	REMINDER DEFINITION (#811.9) Print Name
status	value	DUE NOW, DUE SOON, NOT DUE, RESOLVED, or N/A
summary		word-processing text

Consult/Request Tracking (GMRC)

Input parameters:	TYPE	"consults" [required]
[optional]	START	VA FileMan date to filter on 'requested'
	STOP	VA FileMan date to filter on 'requested'
	MAX	number of most recent consult requests to return
	ID	REQUEST/CONSULTATION (#123) file ien
	FILTER("text")	**1** or **0**, to include 'content' text of report

Elements	Attributes	Content
document *	id	TIU DOCUMENT (#8925) ien
	localTitle	TIU DOCUMENT DEFINITION (#8925.1) Name
	nationalTitle	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
	vuid	VUID number
	content	word-processing text
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	REQUEST/CONSULTATION (#123) ien
name	value	string
orderID	value	ORDERS (#100) ien
procedure	value	GMRC Procedure #123.3 Name or 'Consult'
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1)1 Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200 Service/Section
provDx	code	ICD code
	name	ICD Description
	system	ICD or 10D
reason	value	word-processing text
requested	value	VA FileMan date.time
result	value	string
service	value	REQUEST SERVICES (#123.5) Name
status	value	ORDER STATUS (#100.01) Name
type	value	C or P
urgency	value	string

* = may be multiple

Functional Independence Measurements (RMIM)

The assessment scores are often entered by multiple clinicians, but the set as a whole will not be returned until all 18 numeric scores are available; a sub-total for each section of scores will also then be included.

Input parameters:	TYPE	"functionalMeasurements" [required]
[optional]	START	VA FileMan date to filter on 'admitted', chronologically
	STOP	VA FileMan date to filter on 'admitted', chronologically
	MAX	Use *not recommended*, as measurements are *not* sorted
	ID	FUNCTIONAL INDEPENDENCE (#783) file ien
	FILTER("text")	**1** or **0**, to include 'content' text of report

Elements	Attributes		Content
admitClass	value		1, 2, or 3
admitted	value		FileMan
assessment *	type		admission, discharge, interim, follow up, or goals
	cognitiveScore		number, 5-35
	motorScore		number, 13-91
	totalScore		number, 18-126
	values	eat	number, 1-7
		groom	number, 1-7
		bath	number, 1-7
		dressUp	number, 1-7
		dressLo	number, 1-7
		toilet	number, 1-7
		bladder	number, 1-7
		bowel	number, 1-7
		transChair	number, 1-7
		transToilet	number, 1-7
		transTub	number, 1-7
		locomWalk	number, 1-7
		locomStair	number, 1-7
		comprehend	number, 1-7
		express	number, 1-7
		interact	number, 1-7
		problem	number, 1-7
		memory	number, 1-7
		walkMode	W, C, or B (walk, wheelchair, or both)
		comprehendMode	A, V, or B (auditory, visual, or both)
		expressMode	V, N, or B (vocal, non-vocal, or both)

Elements	Attributes		Content
care	value		CONTINUUM OF CARE, ACUTE, or SUBACUTE
case	value		number
discharged	value		VA FileMan date
document *	id		TIU DOCUMENT (#8925) ien
	localTitle		TIU DOCUMENT DEFINITION (#8925.1) Name
	nationalTitle		TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
	vuid		VUID number
	content		word-processing text
facility	code		INSTITUTION (#4) Station Number
	name		INSTITUTION (#4) Name
id	value		FUNCTIONAL INDEPENDENCE (#783) ien
impairmentGroup	value		string
interruption *	transfer		VA FileMan date
	return		VA FileMan date
interruptionCode	value		string
name	value		Functional Independence Measurement
onset	value		VA FileMan date

* = may be multiple

Integrated Billing (IB)

Input parameters: TYPE   "insurancePolicies" [required]
      [optional]   START   none
                       STOP   none
                       MAX   use not recommended, as policies are not sorted
                       ID   none
                       FILTER("status")   desired status codes, see ^IBBDOC for possible values
                                          [default = "**RB**"]

Elements	Attributes		Content
company	id		INSURANCE COMPANY (#36) ien
	name		INSURANCE COMPANY (#36) Name
	address	streetLine1	INSURANCE COMPANY (#36) Street Address [1]
		streetLine2	INSURANCE COMPANY (#36) Street Address [2]
		streetLine3	INSURANCE COMPANY (#36) Street Address [3]
		city	INSURANCE COMPANY (#36) City
		stateProvince	INSURANCE COMPANY (#36) State
		postalCode	INSURANCE COMPANY (#36) Zip
	telecom		INSURANCE COMPANY (#36) Phone Number
effectiveDate	value		VA FileMan date.time
expirationDate	value		VA FileMan date.time
facility	code		INSTITUTION (#4) Station Number
	name		INSTITUTION (#4) Name
groupName	value		GROUP PLAN (#355.3) Group Name
groupNumber	value		string
id	value		DFN;company id;Group Plan (#355.3) ien
insuranceType	code		TYPE OF PLAN (#355.1) ien
	name		TYPE OF PLAN (#355.1) Name
relationship	value		PATIENT, SPOUSE, NATURAL CHILD, EMPLOYEE, ORGAN DONOR, INJURED PLAINTIFF, MOTHER, FATHER, SIGNIFICANT OTHER, LIFE PARTNER, or OTHER RELATIONSHIP
subscriber	id		string
	name		string

Laboratory (LR)

Input parameters: TYPE   "labs" [required]
     [optional]   START   VA FileMan date to filter on 'collected'
                   STOP   VA FileMan date to filter on 'collected'
                   MAX   number of most recent accessions to return
                   ID   LAB DATA (#63) file ien string
                   FILTER("type")   desired 'type' code(s) [default = **CH**]

Elements	Attributes	Content
collected	value	VA FileMan date.time
comment	value	string
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
groupName	value	accession number string
high	value	string
id	value	LAB DATA (#63) ien string
interpretation	value	L, L*, H, H* or null
labOrderID	value	number
localName	value	LAB TEST (#60) Print Name
loinc	value	LOINC code
low	value	string
performingLab	value	string
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200) Service/Section
orderID	value	ORDERS (#100) ien
result	value	string
resulted	value	VA FileMan date.time
sample	value	COLLECTION SAMPLE (#62) Name
specimen	code	TOPOGRAPHY (#61) SNOMED Code
	name	TOPOGRAPHY (#61) Name
status	value	completed or incomplete
test	value	LAB TEST (#60) Name
type	value	CH or MI
units	value	string
vuid	value	VUID number

Accessions

The same results can also be returned grouped by the accessioned specimen; this is the only Lab domain that will return pathology data, and the recommended domain for retrieving microbiology results.

Input parameters:	TYPE	"accessions" [required]
[optional]	START	VA FileMan date to filter on 'collected'
	STOP	VA FileMan date to filter on 'collected'
	MAX	Number of most recent accessions to return
	ID	LAB DATA (#63) file ien string
	FILTER("type")	desired 'type' code(s)
	FILTER("text")	**1** or **0**, to include 'content' text of report

Elements	Attributes	Content
collected	value	VA FileMan date.time
comment	value	string
document *	id	TIU DOCUMENT (#8925) ien
	localTitle	TIU DOCUMENT DEFINITION (#8925.1) Name
	nationalTitle	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
	vuid	VUID number
	content	word-processing text
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
groupName	value	accession number string
id	value	LAB DATA (#63) ien string
labOrderID	value	number
name	value	ACCESSION (#68) Area
pathologist	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200) Service/Section
provider	code	NEW PERSON (#200) ien

Elements	Attributes	Content
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200 Service/Section
resulted	value	VA FileMan date.time
sample	value	COLLECTION SAMPLE (#62) Name
specimen	code	TOPOGRAPHY (#61) SNOMED Code
	name	TOPOGRAPHY (#61) Name
status	value	completed or incomplete
type	value	CH, MI, CY, EM, SP, or AU
value *	id	LAB DATA (#63) file ien string
	test	LAB TEST (#60) Name
	result	string
	interpretation	L, L*, H, H* or null
	units	string
	low	string
	high	string
	localName	LAB TEST (#60) Print Name
	loinc	LOINC code
	vuid	VUID number
	order	ORDERS (#100) ien
	performingLab	string

* = may be multiple

Panels

Results can also be returned grouped by order or panel within an accession. Because Lab can purge its order information, results are found by first searching the ORDERS (#100) file then retrieving the associated results from the LAB DATA (#63) file.

Input parameters:	TYPE	"panels" [required]
[optional]	START	FileMan date to filter on date order released
	STOP	FileMan date to filter on date order released
	MAX	number of most recent orders to return
	ID	ORDERS (#100) file IEN
	FILTER("type")	desired 'type' code(s)

Elements	Attributes	Content
collected	value	VA FileMan date.time
comment	value	string
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
groupName	value	accession number string
id	value	ORDERS (#100) ien
labOrderID	value	ORDERS (#100) Package Reference string
name	value	LAB TEST (#60) Name
order	code	ORDERS (#100) ien
	name	LAB TEST (#60) Name
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200) Service/Section
resulted	value	VA FileMan date.time
sample	value	COLLECTION SAMPLE (#62) Name
specimen	code	TOPOGRAPHY (#61) SNOMED Code
	name	TOPOGRAPHY (#61) Name
status	value	completed or incomplete
type	value	CH or MI
value *	id	LAB DATA (#63) file ien string
	test	LAB TEST (#60) Name
	result	string
	interpretation	L, L*, H, H* or null

Elements	Attributes	Content
	units	string
	low	string
	high	string
	localName	LAB TEST (#60) Print Name
	loinc	LOINC code
	vuid	VUID number
	performingLab	string

* = may be multiple

Orders (OR)

Most order views in CPRS include actions on orders as separate items; this extract will return only the current snapshot of each order found, unless the view requested is specific to actions (i.e., unsigned).

Input parameters:	TYPE	"orders" [required]
[optional]	START	VA FileMan date to filter on 'released' or 'entered'
	STOP	VA FileMan date to filter on 'released' or 'entered'
	MAX	number of most recent orders to return
	ID	ORDERS (#100) file ien string
	FILTER("view")	desired 'view' code, see ^ORQ1 for possible values [default = 6 (Released Orders), sorted by 'released']

Elements	Attributes	Content
acknowledgement *	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	date	VA FileMan date.time
codingSystem	code	string (national code)
	name	CPT, NLT, or LNC
content		word-processing text
discontinued	date	VA FileMan date.time
	by	NEW PERSON (#200) ien
	byName	NEW PERSON (#200) Name
	reason	string
entered	value	VA FileMan date.time
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
group	value	DISPLAY GROUP (#100.98) Short Name
id	value	ORDERS (#100) ien string
location	code	HOSPITAL LOCATION (#44) ien
	name	HOSPITAL LOCATION (#44) Name
name	code	ORDERABLE ITEMS (#101.43) ien
	name	ORDERABLE ITEMS (#101.43) Name
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone

Elements	Attributes	Content
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200) Service/Section
released	value	VA FileMan date.time
resultID	value	string (corresponds to 'id' in other domains)
service	value	PACKAGE (#9.4) Prefix
signatureStatus	value	ON CHART w/written orders, ELECTRONIC, NOT SIGNED, NOT REQUIRED, ON CHART w/printed orders, NOT REQUIRED due to cancel/lapse, SERVICE CORRECTION to signed order, DIGITALLY SIGNED, or ON PARENT order
signed	value	VA FileMan date.time
signer	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200) Service/Section
start	value	VA FileMan date.time
status	code	ORDER STATUS (#100.01) Abbreviation
	name	ORDER STATUS (#100.01) Name
	vuid	ORDER STATUS (#100.01) VUID
stop	value	VA FileMan date.time
type	value	DISPLAY GROUP (#100.98) Mixed Name
vuid	value	VUID number

* = may be multiple

Patient Care Encounter (PX)

Exams

Input parameters:	TYPE	"exams" [required]
[optional]	START	VA FileMan date to filter on 'dateTime'
	STOP	VA FileMan date to filter on 'dateTime'
	MAX	number of most recent exams to return
	ID	V EXAM (#9000010.13) file ien
	FILTER	none

Elements	Attributes	Content
comment	value	string
dateTime	value	VA FileMan date.time
encounter	value	VISIT (#9000010) ien
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	V EXAM (#9000010.13) ien
name	value	EXAM (#9999999.15) Name
result	value	string

Education Topics

Input parameters:	TYPE	"educationTopics" [required]
[optional]	START	VA FileMan date to filter on 'dateTime'
	STOP	VA FileMan date to filter on 'dateTime'
	MAX	number of most recent education instances to return
	ID	V PATIENT ED (#9000010.16) file ien
	FILTER	none

Elements	Attributes	Content
comment	value	string
dateTime	value	VA FileMan date.time
encounter	value	VISIT (#9000010) ien
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	V PATIENT ED (#9000010.16) ien
name	value	EDUCATION TOPICS (#9999999.09) Name
result	value	string

Health Factors

Input parameters:	TYPE	"healthFactors" [required]
[optional]	START	VA FileMan date to filter on 'recorded'
	STOP	VA FileMan date to filter on 'recorded'
	MAX	number of most recent factors to return
	ID	V HEALTH FACTORS (#9000010.23) file ien
	FILTER	none

Elements	Attributes	Content
category	code	HEALTH FACTORS (#9999999.64) ien
	name	HEALTH FACTORS (#9999999.64) Category
comment	value	string
encounter	value	VISIT (#9000010) ien
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	V HEALTH FACTORS (#9000010.23) ien
name	value	HEALTH FACTORS (#9999999.64) Factor
recorded	value	VA FileMan date.time
severity	value	MINIMAL, MODERATE, or HEAVY/SEVERE

Immunizations

Input parameters: TYPE "immunizations" [required]

[optional] START VA FileMan date to filter on 'administered'
STOP VA FileMan date to filter on 'administered'
MAX Number of most recent immunizations to return
ID V IMMUNIZATION (#9000010.11) file ien
FILTER none

Elements	Attributes	Content
administered	value	VA FileMan date.time
bodySite	code	IMM ADMINISTRATION SITE (#920.3) HL7 Code
	name	IMM ADMINISTRATION SITE (#920.3) Site
comment	value	string
contraindicated	value	boolean (1 or 0)
cpt	code	CPT Code
	name	CPT Short Name
cvx	value	CVX Code
documentedBy	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
dose	value	string
encounter	value	VISIT (#9000010) ien
expirationDate	value	VA FileMan date.time
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	V IMMUNIZATION (#9000010.11) ien
location	value	HOSPITAL LOCATION (#44) Name
lot	value	IMMUNIZATION LOT (#9999999.41) Lot Number
manufacturer	value	IMMUNIZATION LOT (#9999999.41) Manufacturer
name	value	IMMUNIZATION (#9999999.14) Name
orderingProvider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
reaction	value	string
route	code	IMM ADMINISTRATION ROUTE (#920.2) HL7 Code
	name	IMM ADMINISTRATION ROUTE (#920.2) Route
series	value	PARTIALLY COMPLETE, COMPLETE, BOOSTER, SERIES 1-8
source	code	IMMUNIZATION INFO SOURCE (#920) HL7 Code
	name	IMMUNIZATION INFO SOURCE (#920) Source

units	value	string
vis [m]	date	VA FileMan date
	name	VACCINE INFORMATION STATEMENT (#920) Name
	editionDate	VA FileMan date
	language	string

Skin Tests

Input parameters: TYPE   "skinTests" [required]
      [optional]   START   VA FileMan date to filter on 'dateTime'
                STOP   VA FileMan date to filter on 'dateTime'
                MAX   Number of most recent skin tests to return
                ID   V SKIN TEST (#9000010.12) file ien
                FILTER   none

Elements	Attributes	Content
comment	value	string
dateTime	value	VA FileMan date.time
encounter	value	VISIT (#9000010) ien
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	V SKIN TEST (#9000010.12) ien
name	value	SKIN TEST (#9999999.28) Name
result	value	string

Patient Record Flags (DGPF)

Input parameters: TYPE   "flags" [required]
        [optional]   START   none
                    STOP   none
                    MAX   none
                    ID   DFN~PRF variable pointer string
                    FILTER   none

Elements	Attributes	Content
approvedBy	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
assigned	value	FileMan date.time
category	value	I (NATIONAL) or II (LOCAL)
content		word-processing text
document	code	TIU DOCUMENT (#8925) ien
	name	TIU DOCUMENT DEFINITION (#8925.1) Name
id	value	DFN~PRF variable pointer string
name	value	PRF NATIONAL FLAG (#26.15) or PRF LOCAL FLAG (#26.11) Name
origSite	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
ownSite	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
reviewDue	value	VA FileMan date
type	value	PRF TYPE (#26.16) Name

Pharmacy (PS)

All meds may be requested by omitting any filters, but more commonly a single type of medications is pulled at a time, as shown in the following tables. The PS API sorts meds by expiration date and will include orders that expire on or after the START value but omit those that do not begin until after the STOP value. As each type is processed in sequence, use of MAX is discouraged with multiple types. An alternate domain name is available for each med type that will instead run reverse-chronologically on the ORDERS (#100) file, filtering by the 'ordered' date without regard to medication type; thus, MAX may be safely used and return the most recent set of orders of the desired type(s). Set TYPE to "pharmacy" to use this method instead.

Inpatient (Unit Dose) Medications

Input parameters:	TYPE	"meds" [required]
[optional]	START	VA FileMan date to filter on 'expires', chronologically
	STOP	VA FileMan date to filter on 'expires', chronologically
	MAX	number of most recent inpatient med orders to return
	ID	ORDERS (#100) file ien
	FILTER("vaType")	"I"

Elements	Attributes		Content
currentProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
dose *	dose		string
	units		string
	unitsPerDose		number
	noun		string
	route		MEDICATION ROUTES (#51.2) Abbreviation
	schedule		ADMINISTRATION SCHEDULE (#51.1) Name
	duration		string
	conjunction		A, T, or E
	doseStart		VA FileMan date.time
	doseStop		VA FileMan date.time
	order		ORDERS (#100) ien
facility	code		INSTITUTION (#4) Station Number

Elements	Attributes		Content
	name		INSTITUTION (#4) Name
form	value		DOSAGE FORM (#50.606) Name
id	value		ORDERS (#100) ien
IMO	value		boolean (1 or 0)
location	code		HOSPITAL LOCATION (#44) ien
	name		HOSPITAL LOCATION (#44) Name
medID	value		NON-VERIFIED ORDERS (#53.1) ien_"P;I", or UNIT DOSE ORDERS (#55.06) subfile ien_"U;I"
name	value		PHARMACY ORDERABLE ITEM (#50.7) Name, Form
ordered	value		VA FileMan date.time
orderID	value		ORDERS (#100) ien
orderingProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
parent	value		ORDERS (#100) ien
pharmacist	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
product *	code		DRUG (#50) ien
	name		DRUG (#50) Generic Name
	role		D
	concentration		string
	order		ORDERS (#100) ien
	class	code	VA DRUG CLASS (#50.605) Code
		name	VA DRUG CLASS (#50.605) Classification
		vuid	VA DRUG CLASS (#50.605) VUID
	vaGeneric	code	VA GENERIC (#50.6) ien
		name	VA GENERIC (#50.6) Name
		vuid	VA GENERIC (#50.6) VUID
	vaProduct	code	VA PRODUCT (#50.68) ien
		name	VA PRODUCT (#50.68) Name
		vuid	VA PRODUCT (#50.68) VUID
sig	value		string
start	value		VA FileMan date.time
status	value		active, hold, historical, or not active
stop	value		VA FileMan date.time
vaStatus	value		ORDER STATUS (#100.01) Name

Elements	Attributes		Content
vaType	value		I

* = may be multiple

IV Fluids (Infusions)

Input parameters:	TYPE	"meds" [required]	
[optional]	START	VA FileMan date to filter on 'expires', chronologically	
	STOP	VA FileMan date to filter on 'expires', chronologically	
	MAX	Number of most recent infusion orders to return	
	ID	ORDERS (#100) file ien	
	FILTER("vaType")	"**V**"	

Elements	Attributes		Content
currentProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
dose *	route		MEDICATION ROUTES (#51.2) Abbreviation
	schedule		Administration Schedule #51.1 Name
facility	code		INSTITUTION (#4) Station Number
	name		INSTITUTION (#4) Name
id	value		ORDERS (#100) ien
ivLimit	value		string
location	code		HOSPITAL LOCATION (#44) ien
	name		HOSPITAL LOCATION (#44) Name
medID	value		NON-VERIFIED ORDERS (#53.1) ien_"P;I", or IV ORDERS (#55.01) subfile ien_"V;I"
name	value		Pharmacy Orderable Item #50.7 Name, Form
ordered	value		VA FileMan date.time
orderID	value		ORDERS (#100) ien
orderingProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address

Elements	Attributes		Content
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
pharmacist	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
product *	code		DRUG (#50) ien
	name		DRUG (#50) Generic Name
	role		A or B
	concentration		string
	class	code	VA DRUG CLASS (#50.605) Code
		name	VA DRUG CLASS (#50.605) Classification
		vuid	VA DRUG CLASS (#50.605) VUID
	ordItem	code	PHARMACY ORDERABLE ITEM (#50.7) ien
		name	PHARMACY ORDERABLE ITEM (#50.7) Name, Form
	vaGeneric	code	VA GENERIC (#50.6) ien
		name	VA GENERIC (#50.6) Name
		vuid	VA GENERIC (#50.6) VUID
	vaProduct	code	VA PRODUCT (#50.68) ien
		name	VA PRODUCT (#50.68) Name
		vuid	VA PRODUCT (#50.68) VUID
rate	value		string
start	value		VA FileMan date.time
status	value		active, hold, historical, or not active
stop	value		VA FileMan date.time
vaStatus	value		ORDER STATUS (#100.01) Name
vaType	value		V

* = may be multiple

Outpatient Medications

Input parameters:	TYPE	"meds" [required]
[optional]	START	VA FileMan date to filter on 'expires', chronologically
	STOP	VA FileMan date to filter on 'expires', chronologically
	MAX	Number of most recent outpatient med orders to return
	ID	ORDERS (#100) file ien
	FILTER("vaType")	"**O**"

Elements	Attributes		Content
currentProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
daysSupply	value		number
dose *	dose		string
	units		string
	unitsPerDose		number
	noun		string
	route		MEDICATION ROUTES (#51.2) Abbreviation
	schedule		ADMINISTRATION SCHEDULE (#51.1) Name
	duration		string
	conjunction		A, T, or E
	doseStart		VA FileMan date.time
	doseStop		VA FileMan date.time
expires	value		VA FileMan date
facility	code		INSTITUTION (#4) Station Number
	name		INSTITUTION (#4) Name
fill *	fillDate		VA FileMan date
	fillRouting		W, M, or C
	releaseDate		VA FileMan date
	fillQuantity		number
	fillDaysSupply		number
	partial		boolean (1 or 0)
fillCost	value		number
fillsAllowed	value		number
fillsRemaining	value		number
form	value		DOSAGE FORM (#50.606) Name

Elements	Attributes		Content
id	value		ORDERS (#100) ien
lastFilled	value		VA FileMan date.time
location	code		HOSPITAL LOCATION (#44) ien
	name		HOSPITAL LOCATION (#44) Name
medID	value		PENDING OUTPATIENT ORDERS (#52.41) ien_"P;O", or PRESCRIPTION (#52) file ien_"R;O"
name	value		PHARMACY ORDERABLE ITEM (#50.7) Name, Form
ordered	value		VA FileMan date.time
orderID	value		ORDERS (#100) ien
orderingProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
pharmacist	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
prescription	value		string
product *	code		DRUG (#50) ien
	name		DRUG (#50) Generic Name
	role		D
	concentration		string
	class	code	VA DRUG CLASS (#50.605) Code
		name	VA DRUG CLASS (#50.605) Classification
		vuid	VA DRUG CLASS (#50.605) VUID
	vaGeneric	code	VA GENERIC (#50.6) ien
		name	VA GENERIC (#50.6) Name
		vuid	VA GENERIC (#50.6) VUID
	vaProduct	code	VA PRODUCT (#50.68) ien
		name	VA PRODUCT (#50.68) Name
		vuid	VA PRODUCT (#50.68) VUID
ptInstructions	value		string
quantity	value		number
routing	value		W, M, or C
sig	value		string
start	value		VA FileMan date.time
status	value		active, hold, historical, or not active
stop	value		VA FileMan date.time
supply	value		boolean (1 or 0)
type	value		Prescription

Elements	Attributes		Content
vaStatus	value		ORDER STATUS (#100.01) Name
vaType	value		O

* = may be multiple

Non-VA Medications

Input parameters:	TYPE	"meds" [required]	
[optional]	START	VA FileMan date to filter on 'expires', chronologically	
	STOP	VA FileMan date to filter on 'expires', chronologically	
	MAX	Number of most recent non-VA med orders to return	
	ID	ORDERS (#100) file ien	
	FILTER("vaType")	"**N**"	

Elements	Attributes		Content
currentProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
dose [m]	dose		string
	units		string
	unitsPerDose		number
	noun		string
	route		MEDICATION ROUTES (#51.2) Abbreviation
	schedule		ADMINISTRATION SCHEDULE (#51.1) Name
facility	code		INSTITUTION (#4) Station Number
	name		INSTITUTION (#4) Name
form	value		DOSAGE FORM (#50.606) Name
id	value		ORDERS (#100) ien
location	code		HOSPITAL LOCATION (#44) ien
	name		HOSPITAL LOCATION (#44) Name
medID	value		NON-VA MED ORDERS (#55.05) subfile ien_"N;O"
name	value		PHARMACY ORDERABLE ITEM (#50.7) Name, Form
ordered	value		VA FileMan date.time
orderID	value		ORDERS (#100) ien

Elements	Attributes		Content
orderingProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
product [m]	code		DRUG (#50) ien
	name		DRUG (#50) Generic Name
	role		D
	concentration		string
	class	code	VA DRUG CLASS (#50.605) Code
		name	VA DRUG CLASS (#50.605) Classification
		vuid	VA DRUG CLASS (#50.605) VUID
	vaGeneric	code	VA GENERIC (#50.6) ien
		name	VA GENERIC (#50.6) Name
		vuid	VA GENERIC (#50.6) VUID
	vaProduct	code	VA PRODUCT (#50.68) ien
		name	VA PRODUCT (#50.68) Name
		vuid	VA PRODUCT (#50.68) VUID
sig			string
start			VA FileMan date.time
status			active, hold, historical, or not active
stop			VA FileMan date.time
type			OTC
vaStatus			ORDER STATUS (#100.01) Name
vaType			N

* = may be multiple

Problem List (GMPL)

Input parameters: TYPE "problems" [required]
 [optional] START VA FileMan date to filter on 'onset'
  STOP VA FileMan date to filter on 'onset'
  MAX Use *not recommended*, as problems are *not* sorted
  ID Problem file #9000011 ien
  FILTER("status") desired 'status' code

Element	Attributes	Content
acuity	code	A or C
	name	ACUTE or CHRONIC
codingSystem	value	ICD or 10D
comment	id	number
	enteredBy	NEW PERSON (#200) Name
	entered	VA FileMan date
	commentText	string
entered	value	date
exposure *	value	AO, IR,PG,HNC,MST,CV,or SHAD
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
icd	value	ICD code
icdd	value	ICD Description
id	value	PROBLEM (#9000011) ien
location	value	HOSPITAL LOCATION (#44) name
name	value	PROVIDER NARRATIVE (#9999999.27) Narrative
onset	value	VA FileMan date
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
removed	value	boolean (1 or 0)
resolved	value	VA FileMan date
sc	value	boolean (1 or 0)
sctc	value	SNOMED Concept Code
sctd	value	SNOMED Designation Code
sctt	value	SNOMED Preferred Text
service	value	SERVICE (#49) Name
status	code	A or I
	name	ACTIVE or INACTIVE
unverified	value	boolean (1 or 0)
updated	value	VA FileMan date

 * = may be multiple

Radiology/Nuclear Medicine (RA)

Input parameters: TYPE   "radiologyExams" [required]

        [optional]   START   VA FileMan date to filter on 'dateTime'

                      STOP   VA FileMan date to filter on 'dateTime'

                      MAX   Number of most recent exams to return

                      ID   EXAMINATIONS (#70.03) sub-file ien string

                      FILTER("text")   **1** or **0**, to include 'content' text of report

Elements	Attributes	Content
case	value	number
category	value	RA
dateTime	value	VA FileMan date.time
document *	id	TIU DOCUMENT (#8925) ien
	localTitle	TIU DOCUMENT DEFINITION (#8925.1) Name
	nationalTitle	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
	vuid	VUID number
	status	Verified, Released/NotVerified, or Electronically Filed
	content	word-processing text
encounter	value	VISIT (#9000010) ien
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
hasImages	value	boolean (1 or 0)
id	value	EXAMINATIONS (#70.03) subfile ien string
imagingType	code	IMAGING TYPE (#79.2) Abbreviation
	name	IMAGING TYPE (#79.2) Type of Imaging
interpretation	value	string
location	code	HOSPITAL LOCATION (#44) ien
	name	HOSPITAL LOCATION (#44) name
modifier *	code	CPT Modifier
	name	CPT Modifier Name
name	value	RAD/NUC MED PROCEDURES (#71) Name
order	code	ORDERS (#100) ien
	name	ORDERABLE ITEMS (#101.43) Name
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification

Elements	Attributes	Content
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200) Service/Section
radOrderID	value	RAD/NUC MED ORDERS (#75.1) ien
status	value	COMPLETE, CANCELLED, EXAMINED, WAITING FOR EXAM, or CALLED FOR EXAM
type	code	CPT Code
	name	CPT Description
urgency	value	STAT, ASAP, or ROUTINE

* = may be multiple

Registration (DPT)

Input parameters: TYPE   "demographics" [required]
    [optional]   START   none
                  STOP   none
                  MAX   none
                  ID   PATIENT (#2) file ien
                  FILTER   none

Elements	Attributes		Content
address	streetLine1		string
	streetLine2		string
	streetLine3		string
	city		string
	stateProvince		STATE (#5) Name
	postalCode		string
admitted	id		PATIENT MOVEMENT (#405) ien
	date		PATIENT MOVEMENT (#405) Date/Time
alias *	fullName		string
	familyName		string
	givenNames		string
attending	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
bid	value		String
died	value		VA FileMan date
disability *	printName		DISABILITY CONDITION (#31) Name
	scPercent		number
	sc		boolean (1 or 0)
dob	value		VA FileMan date
eligibility *	name		ELIGIBILITY (#8) Name
	primary		boolean (1 or 0)
eligibilityStatus	value		PENDING [RE]VERIFICATION or VERIFIED
ethnicity *	value		ETHNICITY (#10.2) HL7 Value

Elements	Attributes		Content
exposure *	value		AO, IR, PG, HNC, MST, or CV
facility *	id		INSTITUTION (#4) Station Number
	name		INSTITUTION (#4) Name
	latestDate		VA FileMan date.time
	domain		DOMAIN (#4.2) Name
	homeSite		boolean (1 or 0)
familyName	value		string
flag *	name		PRF NATIONAL FLAG (#26.15) or PRF LOCAL FLAG (#26.11) Name
	text		string
fullName	value		string
gender	value		M, F, or UN
givenNames	value		string
icn	value		ICN number
id	value		PATIENT (#2) ien
inpatient	value		boolean (1 or 0)
language	code		ISO 639 2-character language code
	name		string
location	code		HOSPITAL LOCATION (#44) ien
	name		HOSPITAL LOCATION (#44) Name
locSvc	code		M, S, P, NH, NE, I, R, SCI, D, B, or NC
	name		MEDICINE, SURGERY, PSYCHIATRY, NHCU, NEUROLOGY, INTERMEDIATE MED, REHAB MEDICINE, SPINAL CORD INJURY, DOMICILIARY, BLIND REHAB, or NON-COUNT
lrdfn	value		number
maritalStatus	value		D, M, W, S, N, or U
meansTest	value		MEANS TEST STATUS (#408.32) Name
pcAssigned	value		VA FileMan date
pcProvider	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
	address	streetLine1	string
		streetLine2	string
		streetLine3	string
		city	string

Elements	Attributes		Content
		stateProvince	STATE (#5) Name
		postalCode	string
pcTeam	code		TEAM (#404.51) ien
	name		TEAM (#404.51) Name
pcTeamMember	code		NEW PERSON (#200) ien
	name		NEW PERSON (#200) Name
	officePhone		NEW PERSON (#200) Office Phone
	analogPager		NEW PERSON (#200) Voice Pager
	fax		NEW PERSON (#200) Fax Number
	email		NEW PERSON (#200) Email Address
	taxonomyCode		PERSON CLASS (#8932.1) X12 Code
	providerType		PERSON CLASS (#8932.1) Provider Type
	classification		PERSON CLASS (#8932.1) Classification
	specialization		PERSON CLASS (#8932.1) Area of Specialization
	service		NEW PERSON (#200) Service/Section
race *	value		RACE (#10) HL7 Value
religion	value		RELIGIOUS PREFERENCE (#13) Name
roomBed	value		string
sc	value		boolean (1 or 0)
scPercent	value		number
sensitive	value		boolean (1 or 0)
servicePeriod	value		PERIOD OF SERVICE (#21) Name
site	code		INSTITUTION (#4) Station Number
	name		INSTITUTION (#4) Name
specialty	code		FACILITY TREATING SPECIALTY (#45.7) ien
	name		FACILITY TREATING SPECIALTY (#45.7) Name
ssn	value		string
support *	contactType		NOK or ECON
	name		string
	relationship		string
	address	streetLine1	string
		streetLine2	string
		streetLine3	string
		city	string
		stateProvince	STATE (#5) Name
		postalCode	string
	telecom	usageType	H, MC, or WP
		value	string
telecom	usageType		H, MC, or WP
	value		string
veteran	value		boolean (1 or 0)
ward	code		WARD LOCATION (#42) ien
	name		WARD LOCATION (#42) Name

* = may be multiple

Scheduling (SDAM)

The Scheduling API sorts appointments by dateTime chronologically; while past appointments are available, the default view is to extract a patient's future appointments.

Input parameters: TYPE "appointments" [required]
   [optional] START VA FileMan date to filter on 'dateTime' [default = TODAY]
       STOP VA FileMan date to filter on 'dateTime' [default = all future]
       MAX Number of [future] appointments to return
       ID Inverse visit string ("**servCatg;date.time;locationIEN**")
       FILTER none

Elements	Attributes	Content
apptStatus	value	SCHEDULED/KEPT, INPATIENT, NO-SHOW, CANCELLED BY PATIENT, CANCELLED BY CLINIC, RESCHEDULED, NO ACTION TAKEN
clinicStop	code	CLINIC STOP (#40.7) AMIS Stop Code
	name	CLINIC STOP (#40.7)7 Name
dateTime	value	VA FileMan date.time
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	serviceCategory code;dateTime;HOSPITAL LOCATION (#44) ien
location	value	HOSPITAL LOCATION (#44) Name
patientClass	value	AMB, IMP, or EMER
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
service	value	MEDICINE, SURGERY, PSYCHIATRY, NHCU, NEUROLOGY, INTERMEDIATE MED, REHAB MEDICINE, SPINAL CORD INJURY, DOMICILIARY, BLIND REHAB, or RESPITE CARE
serviceCategory	code	A, I, or H
	name	AMBULATORY, INPATIENT VISIT, or HOSPITALIZATION
type	code	APPOINTMENT TYPE (#409.1) ien
	name	APPOINTMENT TYPE (#409.1) Name
visitString	value	HOSPITAL LOCATION (#44) ien;dateTime; serviceCategory code

Surgery (SR)

Input parameters:	TYPE	"surgeries" [required]
[optional]	START	VA FileMan date to filter on 'dateTime'
	STOP	VA FileMan date to filter on 'dateTime'
	MAX	number of most recent surgical procedures to return
	ID	SURGERY (#130) file ien
	FILTER("text")	**1** or **0**, to include 'content' text of report

Elements	Attributes	Content
category	value	SR
dateTime	value	VA FileMan date
document *	id	TIU DOCUMENT (#8925) ien
	localTitle	TIU DOCUMENT DEFINITION (#8925.1) Name
	nationalTitle	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
	vuid	VUID number
	content	word-processing text
encounter	value	VISIT (#9000010) ien
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	SURGERY (#130) ien
modifier *	code	CPT Modifier
	name	CPT Modifier Name
name	value	string
opReport	id	TIU DOCUMENT (#8925) ien
	localTitle	TIU DOCUMENT DEFINITION (#8925.1) Name
	nationalTitle	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
	vuid	VUID number
otherProcedure *	code	CPT Code
	name	CPT Description
provider	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization

Elements	Attributes	Content
	service	NEW PERSON (#200) Service/Section
status	value	COMPLETED or ABORTED
type	code	CPT Code
	name	CPT Description

Text Integration Utilities (TIU)

Input parameters: TYPE "documents" [required]
[optional] START VA FileMan date to filter on 'referenceDateTime'
STOP VA FileMan date to filter on 'referenceDateTime'
MAX Number of most recent documents to return
ID TIU DOCUMENTS (#8925) file ien
FILTER("category") desired 'category' code
FILTER("status") "completed", "unsigned", or "all" (for current user)
FILTER("loinc") LOINC code (see list below table)
FILTER("text") **1** or **0**, to include 'content' text of report

Elements	Attributes	Content
category	value	PN, DS, CR, CP, SR, RA, LR, C, W, A, or D
clinician [m]	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	role	A, S, or C
	dateTime	VA FileMan date.time
	signatureBlock	string
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization
	service	NEW PERSON (#200) Service/Section
content		word-processing text
documentClass	value	TIU DOCUMENT DEFINITION (#8925.1) Name
encounter	value	VISIT (#9000010) ien
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
id	value	TIU DOCUMENTS (#8925) ien
images	value	number
localTitle	value	TIU DOCUMENT DEFINITION (#8925.1) Name

Elements	Attributes	Content
loinc	value	LOINC code
nationalTitle	code	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1) VUID
	name	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
nationalTitleRole	code	TIU LOINC ROLE (#8926.3) VUID
	name	TIU LOINC ROLE (#8926.3) Role
nationalTitleService	code	TIU LOINC SERVICE (#8926.5) VUID
	name	TIU LOINC SERVICE (#8926.5) Service
nationalTitleSetting	code	TIU LOINC SETTING (#8926.4) VUID
	name	TIU LOINC SETTING (#8926.4) Setting
nationalTitleSubject	code	TIU LOINC SUBJ MATTER DOMN (#8926.2) VUID
	name	TIU LOINC SUBJECT MATTER DOMAIN (#8926.2)
nationalTitleType	code	TIU LOINC DOCUMENT TYPE (#8926.6) VUID
	name	TIU LOINC DOCUMENT TYPE (#8926.6) Doc Type
parent	value	TIU DOCUMENTS (#8925) ien
referenceDateTime	value	VA FileMan date.time
status	value	TIU STATUS (#8925.6) Name, in lowercase
subject	value	string

LOINC codes currently in use with VLER:

11488-4	Consultation Note
18726-0	Radiology Studies
18842-5	Discharge Summarization Note
26441-6	Cardiology Studies
27895-2	Gastroenterology Endoscopy Studies
27896-0	Pulmonary Studies
27897-8	Neuromuscular Electrophysiology Studies
27898-6	Pathology Studies
28570-0	Procedure Note (unspecified)
28619-5	Ophthalmology Studies
28634-4	Miscellaneous Studies
29752-3	Perioperative Records
34117-2	History & Physical Note

Because there is no direct link in VistA between the TIU titles and LOINC codes, the above list of codes has been manually mapped to existing TIU search capabilities. The 'loinc' attribute will only be returned when a group of documents is requested using the loinc filter and will be the same value passed into the extract.

Visits/PCE (PX)

Input parameters:	TYPE	"visits" [required]
[optional]	START	VA FileMan date to filter on 'dateTime'
	STOP	VA FileMan date to filter on 'dateTime'
	MAX	Number of most recent visits to return
	ID	VISIT (#9000010) file ien
	FILTER("text")	**1** or **0**, to include 'content' text of report

Elements	Attributes	Content
cpt *	code	CPT Code
	name	CPT Short Name
creditStopCode	code	CLINIC STOP (#40.7) AMIS Stop Code
	name	CLINIC STOP (#40.7) Name
dateTime	value	VA FileMan date.time
document *	id	TIU DOCUMENT (#8925) ien
	localTitle	TIU DOCUMENT DEFINITION (#8925.1) Name
	nationalTitle	TIU VHA ENTERPRISE STANDARD TITLE (#8926.1)
	vuid	VUID number
	content	word-processing text
facility	code	INSTITUTION (#4) Station Number
	name	INSTITUTION (#4) Name
icd *	code	ICD Code
	name	ICD Description
	system	ICD or 10D
	narrative	V POV (#9000010.07) Provider Narrative
	ranking	P or S
id	value	VISIT (#9000010) ien
location	value	HOSPITAL LOCATION (#44) Name
patientClass	value	AMB, IMP, or EMER
provider *	code	NEW PERSON (#200) ien
	name	NEW PERSON (#200) Name
	role	P, S, or A
	primary	boolean (1 or 0)
	officePhone	NEW PERSON (#200) Office Phone
	analogPager	NEW PERSON (#200) Voice Pager
	fax	NEW PERSON (#200) Fax Number
	email	NEW PERSON (#200) Email Address
	taxonomyCode	PERSON CLASS (#8932.1) X12 Code
	providerType	PERSON CLASS (#8932.1) Provider Type
	classification	PERSON CLASS (#8932.1) Classification
	specialization	PERSON CLASS (#8932.1) Area of Specialization

Elements	Attributes	Content
	service	NEW PERSON (#200) Service/Section
reason	code	ICD Code
	name	ICD Description
	system	ICD or 10D
	narrative	V POV (#9000010.07) Provider Narrative
service	value	MEDICINE, SURGERY, PSYCHIATRY, NHCU, NEUROLOGY, INTERMEDIATE MED, REHAB MEDICINE, SPINAL CORD INJURY, DOMICILIARY, BLIND REHAB, or RESPITE CARE
serviceCategory	code	A, H, I, C, N, T, S, O, E, R, D, or X
	name	AMBULATORY, HOSPITALIZATION, IN HOSPITAL, CHART REVIEW, NOT FOUND, TELECOMMUNICATIONS, DAY SURGERY, OBSERVATION, EVENT (HISTORICAL), NURSING HOME, DAILY HOSPITALIZATION DATA, ANCILLARY PACKAGE DAILY DATA
stopCode	code	CLINIC STOP (#40.7) AMIS Stop Code
	name	CLINIC STOP (#40.7) Name
type	code	CPT Code
	name	CPT Short Name
visitString	value	HOSPITAL LOCATION (#44) ien;dateTime; serviceCategory code
Included with admissions:		
admission		PATIENT MOVEMENT (#405) ien
arrivalDateTime		VA FileMan date.time
departureDateTime		VA FileMan date.time
ptf		PTF (#45) ien
roomBed		string
specialty		FACILITY TREATING SPECIALTY (#45.7) Name

* = may be multiple

Vital Measurements (GMV)

Input parameters: TYPE   "vitals" [required]

         [optional]   START   VA FileMan date to filter on 'taken'

                       STOP   VA FileMan date to filter on 'taken'

                       MAX   Number of measurement sets to return (by 'taken')

                       ID   GMRV VITAL MEASUREMENT (#120.5) file ien, or

                                                  VA FileMan date.time to match 'taken' & return the set

                       FILTER   none

Elements	Attributes		Content
entered	value		VA FileMan date.time
facility	code		INSTITUTION (#4) Station Number
	name		INSTITUTION (#4) Name
location	code		HOSPITAL LOCATION (#44) ien
	name		HOSPITAL LOCATION (#44) Name
measurement *	id		GMRV VITAL MEASUREMENT (#120.5) ien
	vuid		VUID number
	name		GMRV VITAL TYPE (#120.51) Name
	value		string
	units		string
	metricValue		number
	metricUnits		C, cm, or kg
	high		number
	low		number
	bmi		number
	qualifier *	name	GMRV VITAL QUALIFIER (#120.52) Qualifier
		vuid	GMRV VITAL QUALIFIER (#120.52) VUID
removed *	value		INCORRECT DATE/TIME, INCORRECT READING, INCORRECT PATIENT, INVALID RECORD
taken	value		VA FileMan date.time

* = may be multiple

Appendix B—JSON Tables

Following are tables that list the data elements returned by the VPR GET PATIENT DATA JSON RPC. All input parameters are optional to refine the extract, except for domain, and are passed in as list subscripts, i.e. FILTER("parameter")=value. All searches are performed reverse-chronologically to return the most recent data, unless otherwise noted.

Allergy/Adverse Reaction Tracking (GMRA)

Input parameters: domain "allergy" [required]
[optional] start VA FileMan date to filter on 'entered'
stop VA FileMan date to filter on 'entered'
max Use *not recommended*, as reactions are *not* sorted
id Patient Allergies file #120.8 ien
uid Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
entered	
facilityCode	
facilityName	
historical	
kind	
localId	
products	name
	vuid
reactions *	name
	vuid
reference	
removed	
summary	
uid	
verified	

* = may be multiple

Clinical Observations (MDC)

Input parameters: domain   "obs" [required]
       [optional]   start   VA FileMan date to filter on 'observed'
                stop   VA FileMan date to filter on 'observed'
                max   Use with caution, as search is performed chronologically
                id   OBS (#704.117) file ID (#.01) value
                uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
bodySiteCode	
bodySiteName	
comment	
entered	
facilityCode	
facilityName	
interpretationCode	
interpretationName	
localId	
locationName	
locationUid	
methodCode	
methodName	
observed	
qualifiers *	code
	name
	type
result	
setID	
setName	
setStart	
setStop	
setType	
statusCode	
statusName	
typeCode	
typeName	
uid	
units	

Clinical Procedures (MDC)

Input parameters: domain "procedure" [required]

[optional] start VA FileMan date to filter on 'dateTime'
stop VA FileMan date to filter on dateTime
max Number of most recent procedures to return
id Variable pointer to CP data file/item
uid Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
category	
consultUid	
dateTime	
encounterUid	
facilityCode	
facilityName	
hasImages	
interpretation	
kind	
localId	
name	
orderUid	
providers	providerName
	providerUid
requested	
results *	localTitle
	nationalTitle
	uid
statusName	
uid	

* = may be multiple

Consult/Request Tracking (GMRC)

Input parameters: domain   "consult" [required]
       [optional]   start   VA FileMan date to filter on 'dateTime'
                stop   VA FileMan date to filter on 'dateTime'
                max   Number of most recent consult requests to return
                id   REQUEST/CONSULTATION (#123) file ien
                uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
category	
consultProcedure	
dateTime	
facilityCode	
facilityName	
interpretation	
localId	
orderName	
orderUid	
providerName	
providerUid	
provisionalDx	code
	name
	system
reason	
results *	localTitle
	nationalTitle
	uid
service	
statusName	
typeName	
uid	
urgency	

* = may be multiple

Laboratory (LR)

Input parameters: domain   "lab" [required]
        [optional]   start   VA FileMan date to filter on 'observed'
                         stop   VA FileMan date to filter on 'observed'
                         max   Number of most recent accessions to return
                         id   LAB DATA (#63) file ien string
                         uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)
                         category   CH, MI, or AP [default = all]

Elements	Attributes	
bactRemarks		
categoryCode		
categoryName		
comment		
displayName		
facilityCode		
facilityName		
gramStain *	result	
groupName		
groupUid		
high		
interpretationCode		
interpretationName		
labOrderId		
localId		
low		
observed		
orderUid		
organisms *	drugs	interp
		name
		restrict
		result
	name	
	qty	
organizerType		
result		
resulted		
results *	localTitle	
	nationalTitle	
	resultUid	
	uid	
sample		
specimen		

Elements	Attributes	
statusCode		
statusName		
typeCode		
typeId		
typeName		
uid		
units		
urineScreen		

* = may be multiple

Orders (OR)

Input parameters:	domain	"order" [required]
[optional]	start	VA FileMan date to filter on date released
	stop	VA FileMan date to filter on date released
	max	Number of most recent orders to return
	id	ORDERS (#100) file ien string
	uid	Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
adminTimes	
clinicians *	name
	role
	signedDateTime
	uid
content	
displayGroup	
entered	
facilityCode	
facilityName	
localId	
locationName	
locationUid	
name	
oiCode	
oiName	
oiPackageRef	
predecessor	
providerName	
providerUid	
results *	uid
scheduleName	
service	

Elements	Attributes
start	
statusCode	
statusName	
statusVuid	
stop	
successor	
uid	

* = may be multiple

Patient Care Encounter (PX)

CPT Procedures

Input parameters: domain   "cpt" [required]
         [optional]   start   VA FileMan date to filter on 'entered'
                           stop   VA FileMan date to filter on 'entered'
                           max   number of most recent procedures to return
                           id   V CPT (#9000010.18) file ien
                           uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements
comment
cptCode
encounterName
encounterUid
entered
facilityCode
facilityName
localId
locationName
locationUid
name
quantity
type
uid

Exams

Input parameters: domain   "exam" [required]
         [optional]   start   VA FileMan date to filter on 'entered'
                              stop   VA FileMan date to filter on 'entered'
                              max   Number of most recent exams to return
                              id   V EXAM (#9000010.13) file ien
                              uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements
comment
encounterName
encounterUid
entered
facilityCode
facilityName
localId
locationName
locationUid
name
result
uid

Education Topics

Input parameters: domain   "education" [required]
         [optional]   start   VA FileMan date to filter on 'entered'
                              stop   VA FileMan date to filter on 'entered'
                              max   Number of most recent education instances to return
                              id   V PATIENT ED (#9000010.16) file ien
                              uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements
comment
encounterName
encounterUid
entered
facilityCode
facilityName
localId
locationName
locationUid
name
result
uid

Health Factors

Input parameters:	domain	"factor" [required]
[optional]	start	VA FileMan date to filter on 'entered'
	stop	VA FileMan date to filter on 'entered'
	max	Number of most recent factors to return
	id	V HEALTH FACTORS (#9000010.23) file ien
	uid	Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements
categoryName
categoryUid
comment
display
encounterName
encounterUid
entered
facilityCode
facilityName
kind
localId
locationName
locationUid
name
severityName
severityUid
summary
uid

Immunizations

Input parameters: domain   "immunization" [required]

[optional]   start   VA FileMan date to filter on 'administeredDateTime'

stop   VA FileMan date to filter on 'administeredDateTime'

max   Number of most recent immunizations to return

id   V IMMUNIZATION (#9000010.11) file ien

uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements
administeredDateTime
comment
contraindicated
cptCode
cptName
encounterName
encounterUid
facilityCode
facilityName
localId
locationName
locationUid
name
performerName
performerUid
reactionCode
reactionName
seriesCode
seriesName
summary
uid

Purpose of Visit

Input parameters: domain   "pov" [required]
          [optional]   start   VA FileMan date to filter on 'entered'
                        stop   VA FileMan date to filter on 'entered'
                        max   Number of most recent reasons to return
                        id   V POV (#9000010.07) file ien
                        uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements
comment
encounterName
encounterUid
entered
facilityCode
facilityName
icdCode
localId
locationName
locationUid
name
type
uid

Skin Tests

Input parameters: domain   "skin" [required]
          [optional]   start   VA FileMan date to filter on 'entered'
                        stop   VA FileMan date to filter on 'entered'
                        max   Number of most recent exams to return
                        id   V SKIN TEST (#9000010.12) file ien
                        uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements
comment
dateRead
encounterName
encounterUid
entered
facilityCode
facilityName
localId
locationName
locationUid
name

Elements
reading
result
uid

Pharmacy (PS)

Medications

Input parameters: domain   "med" [required]
       [optional]   start   VA FileMan date to filter on date released
                       stop   VA FileMan date to filter on date released
                       max   number of most recent med orders to return
                       id   ORDERS (#100) file ien
                       vaType   I, O, or N

Elements	Attributes
administrations *	dateTime
	status
comment	
dosages *	adminTimes
	complexConjunction
	complexDuration
	dose
	relatedOrder
	relativeStart
	relativeStop
	routeName
	scheduleFreq
	scheduleName
	scheduleType
	start
	stop
	units
facilityCode	
facilityName	
fills *	daysSupplyDispensed
	dispenseDate
	partial
	releaseDate
	routing
	quantityDispensed
IMO	
lastFilled	

Elements	Attributes
localId	
medStatus	
medStatusName	
medType	
name	
orders	daysSupply
	fillCost
	fillsAllowed
	fillsRemaining
	locationName
	locationUid
	ordered
	orderUid
	pharmacistName
	pharmacistUid
	predecessor
	prescriptionId
	providerName
	providerUid
	quantityOrdered
	successor
	vaRouting
overallStart	
overallStop	
parent	
patientInstruction	
productFormName	
products *	drugClassCode
	drugClassName
	ingredientCode
	ingredientCodeName
	ingredientName
	ingredientRole
	relatedOrder
	strength
	suppliedCode
	suppliedName
qualifiedName	
sig	
stopped	
supply	
type	

Elements	Attributes
uid	
vaStatus	
vaType	

* = may be multiple

Infusions

Input parameters:	domain	"med" [required]
[optional]	start	VA FileMan date to filter on date released
	stop	VA FileMan date to filter on date released
	max	Number of most recent med orders to return
	id	ORDERS (#100) file ien
	vaType	"**V**"

Elements	Attributes
administrations *	dateTime
	status
comment	
dosages	adminTimes
	duration
	ivRate
	restriction
	routeName
	scheduleFreq
	scheduleName
	scheduleType
facilityCode	
facilityName	
IMO	
localId	
medStatus	
medStatusName	
medType	
name	
orders	locationName
	locationUid
	ordered
	orderUid
	pharmacistName
	pharmacistUid
	predecessor
	providerName
	providerUid

Elements	Attributes
	successor
overallStart	
overallStop	
products *	drugClassCode
	drugClassName
	ingredientCode
	ingredientCodeName
	ingredientName
	ingredientRole
	relatedOrder
	strength
	suppliedCode
	suppliedName
	volume
qualifiedName	
stopped	
type	
uid	
vaStatus	
vaType	

* = may be multiple

Problem List (GMPL)

Input parameters: domain   "problem" [required]
       [optional]   start   none
                       stop   none
                       max   Use *not recommended*, as problems are *not* sorted
                       id   Problem file #9000011 ien
                       status   A or I [default = all]

Elements	Attributes
acuityCode	
acuityName	
comments *	comment
	entered
	enteredByCode
	enteredByName
entered	
facilityCode	
facilityName	
icdCode	
icdName	
localId	
locationName	
locationUid	
onset	
problemText	
providerName	
providerUid	
removed	
resolved	
serviceConnected	
statusCode	
statusName	
uid	
unverified	
updated	

* = may be multiple

PTF (DG)

Input parameters:	domain	"ptf" [required]
[optional]	start	VA FileMan date to filter on movement date
	stop	VA FileMan date to filter on movement date
	max	Number of most recent treatment codes to return
	id	PTF (#45) file ien
	uid	Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements
arrivalDateTime
dischargeDateTime
encounterName
encounterUid
facilityCode
facilityName
icdCode
icdName
localId
principalDx
uid

Radiology/Nuclear Medicine (RA)

Input parameters: domain   "image" [required]

[optional]   start   VA FileMan date to filter on 'dateTime'

    stop   VA FileMan date to filter on 'dateTime'

    max   Number of most recent exams to return

    id   EXAMINATIONS (#70.03) sub-file ien string

    uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
case	
category	
dateTime	
diagnosis *	code
	lexicon
	primary
encounterName	
encounterUid	
facilityCode	
facilityName	
hasImages	
imageLocation	
imagingTypeUid	
interpretation	
kind	
localId	
locationName	
locationUid	
name	
orderName	
orderUid	
providers	providerName
	providerUid
results	localTitle
	uid
statusName	
summary	
typeName	
uid	
verified	

* = may be multiple

Registration (DPT)

Input parameters: domain   "patient" [required]
         [optional]   start   none
                       stop   none
                       max   none
                       id   PATIENT (#2) file ien
                       uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes	
addresses *	city	
	postalCode	
	stateProvince	
	streetLine1	
	streetLine2	
aliases	familyName	
	fullName	
	givenNames	
briefId		
dateOfBirth		
died		
disability *	disPercent	
	name	
	sc	
	vaCode	
eligibility *	name	
	primary	
eligibilityStatus		
ethnicities *	ethnicity	
exposures *	name	
	uid	
facilities *	code	
	homeSite	
	latestDate	
	localPatientId	
	name	
	systemId	
familyName		
flags *	name	
	text	
fullName		
genderCode		
genderName		
givenNames		

Elements	Attributes	
icn		
inpatient		
languageCode		
languageName		
localId		
maritalStatuses	code	
	name	
meansTest		
pcProviderName		
pcProviderUid		
pcTeamMembers *	name	
	position	
	uid	
pcTeamName		
pcTeamUid		
races *	race	
religionCode		
religionName		
sensitive		
servicePeriod		
ssn		
supports *	addresses *	city
		postalCode
		stateProvince
		streetLine1
		streetLine2
	contactTypeCode	
	contactTypeName	
	name	
	relationship	
	telecomList *	telecom
		usageCode
		usageName
telecoms *	telecom	
	usageCode	
	usageName	
uid		
veteran	isVet	
	lrdfn	
	serviceConnected	
	serviceConnectionPercent	

* = may be multiple

Scheduling (SDAM)

The Scheduling API sorts appointments by dateTime chronologically; while past appointments are available, the default view is to extract a patient's future appointments.

Input parameters: domain   "appointment" [required]
     [optional]   start   VA FileMan date to filter on 'dateTime' [default = TODAY]
               stop   VA FileMan date to filter on 'dateTime' [default = all future]
               max   Number of [future] appointments to return
               id   Inverse visit string ("servCatg;date.time;locationIEN")
               uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
appointmentStatus	
categoryCode	
categoryName	
checkIn	
checkOut	
comment	
dateTime	
facilityCode	
facilityName	
localId	
locationName	
locationUid	
patientClassCode	
patientClassName	
providers	providerName
	providerUid
reasonName	
service	
stopCodeName	
stopCodeUid	
summary	
typeCode	
typeName	
uid	

* = may be multiple

Surgery (SR)

Input parameters: domain   "surgery" [required]
      [optional]   start   VA FileMan date to filter on 'dateTime'
                    stop   VA FileMan date to filter on 'dateTime'
                    max   Number of most recent surgical procedures to return
                    id   SURGERY (#130) file ien
                    uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
category	
cpt	
dateTime	
encounterName	
encounterUid	
facilityCode	
facilityName	
kind	
localId	
providers *	providerName
	providerUid
results *	localTitle
	nationalTitle
	uid
statusName	
summary	
typeCode	
typeName	
uid	

* = may be multiple

Text Integration Utilities (TIU)

Input parameters:	domain	"document" [required]
[optional]	start	VA FileMan date to filter on 'referenceDateTime'
	stop	VA FileMan date to filter on 'referenceDateTime'
	max	Number of most recent documents to return
	id	TIU DOCUMENTS (#8925) file ien
	uid	Universal ID for item (**urn:va:domain:SYS:DFN:id**)
	category	PN, CR, C, W, A, D, DS, SR, CP, LR, or RA
	status	"completed", "unsigned", or "all" (for current user)
	text	**1** or **0**, to include 'content' text of document

Elements	Attributes	
attendingName		
attendingUid		
documentClass		
documentTypeCode		
documentTypeName		
encounterName		
encounterUid		
entered		
facilityCode		
facilityName		
images		
localId		
localTitle		
nationalTitle	title	
	vuid	
nationalTitleRole	role	
	vuid	
nationalTitleService	service	
	vuid	
nationalTitleSetting	setting	
	vuid	
nationalTitleSubject	subject	
	vuid	
nationalTitleType	type	
	vuid	
parent		
referenceDateTime		
statusName		
subject		
text *	clinicians *	name
		role

Elements	Attributes	
		signature
		signedDateTime
		uid
	content	
	dateTime	
	status	
	uid	
uid		
urgency		

* = may be multiple

Visits/PCE (PX)

Input parameters: domain   "visit" [required]

[optional]   start   VA FileMan date to filter on 'dateTime'
                              stop   VA FileMan date to filter on 'dateTime'
                              max   Number of most recent visits to return
                              id   VISIT (#9000010) file ien
                              uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
categoryCode	
categoryName	
checkOut	
current	
dateTime	
documents *	localTitle
	nationalTitle
	uid
facilityCode	
facilityName	
localId	
locationName	
locationUid	
movements *	dateTime
	localId
	locationName
	locationUid
	movementType
	providerName
	providerUid
	specialty
patientClassCode	
patientClassName	
providers *	primary
	providerName
	providerUid
	role
reasonName	
reasonUid	
roomBed	
service	
specialty	
stay	arrivalDateTime
	dischargeDateTime

Elements	Attributes
stopCodeName	
stopCodeUid	
summary	
typeName	
uid	

* = may be multiple

Vital Measurements (GMV)

Input parameters: domain   "vital" [required]
        [optional]   start   VA FileMan date to filter on 'observed'
                    stop   VA FileMan date to filter on 'observed'
                    max   Number of measurement sets to return (by 'taken')
                    id   GMRV VITAL MEASUREMENT (#120.5) file ien, or
                                   VA FileMan date.time to match 'taken' and return the set
                    uid   Universal ID for item (**urn:va:domain:SYS:DFN:id**)

Elements	Attributes
displayName	
facilityCode	
facilityName	
high	
kind	
localId	
locationName	
locationUid	
low	
metricResult	
metricUnits	
observed	
qualifiers *	name
	vuid
removed	
result	
resulted	
summary	
typeCode	
typeName	
uid	
units	

* = may be multiple