



International Classification of Diseases (ICD)

Technical Manual



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1. Introduction

The International Classification of Diseases (ICD), Clinical Modification is a system of codes and terminology that arranges diseases and injuries into groups according to established criteria. It is based on the design for the classification of morbidity and mortality information for statistical purposes and published by the World Health Organization (WHO). These codes provide an effective means of communication between physicians, patients, and third parties.

ICD V. 18.0 exported the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) classification system containing both diagnostic and procedural codes. Since its initial release in October 2000, the ICD package has had (2) two major changes:

The Code Set Versioning project of 2003-2004 modified the data dictionary and routines so the ICD package can provide time sensitive information based on the date and time service was provided to the patient or the date and time the code and ICD terminology was used. Users can select codes and terminology that were appropriate on a date that an event occurred. (Patches ICD*18.0*7 and ICD*18.0*12)

The release of ICD-10-CM diagnostic codes and terms and ICD-10-PCS procedural coded and terms included the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnostic related codes and terms and the International Classification of Diseases, Tenth Revision, Procedural Classification System (ICD-10-PCS) procedural related codes and terms. (Patch ICD*18.0*57)

1.1 Code Formats

ICD-9-CM Diagnoses Codes

3 – 5 digits
 First digit is alpha (E or V) or numeric
 Digits 2 – 5 are numeric
 Contains a decimal point
 Examples:
 496
 511.9
 V02.61
 E891.8

ICD-10-CM Diagnoses Codes

3 – 7 digits
 Digit 1 is alpha
 Digit 2 is numeric
 Digits 3 – 7 are alpha or numeric
 Not case sensitive
 Contains a decimal point
 Examples:
 A78
 A69.21
 S52.131a

ICD-9-CM Procedure Codes

3 – 4 digits
 All digits numeric
 Contains a decimal point
 Examples:
 43.5
 44.42

ICD-10-PCS Procedure Codes

7 digits
 Either alpha or numeric
 Letters O and I not used
 No decimal point
 Examples:
 0FB03ZX
 0DQ10ZZ

2. Implementation and Maintenance (Post ICD-10)

There are no site-configurable features connected with the ICD package.

Total disk space requirements for the ICD globals are as follows:

Global	Blocks	Bytes	MB
^ICD9	16,337	103,010,968	100.59
^ICD0	9,431	63,468,660	61.98
^ICDS	1	324	0.00
^ICD	327	1,786,772	1.74
^ICM	9	64,268	0.06
^ICDID	4	21,584	0.02
^ICDIP	4	21,508	0.02
Total	26,113	168,374,084	164.42

3. Special Lookup Routine – ICDEXLK

A special lookup program was written for the ICD DIAGNOSIS file #80 and ICD OPERATION/PROCEDURE file #80.1 to navigate through the versioned (date sensitive) data stored in these files. The name of the special lookup is stored in the data dictionary for these files:

```
^DD(80,0,"DIC")="ICDEXLK"
^DD(80.1,0,"DIC")="ICDEXLK"
```

Each time an application makes a ^DIC call to either file 80 or 80.1, the special lookup routine is invoked, provided the FileMan variable DIC(0) does not contain an "I" for "ignore the special lookup."

NOTE: Only the ^DIC call honors the special lookup routine. Those calls that allow the user to specify the indexes (IX^DIC and MIX^DIC1), and the Data Base Server calls (FIND^DIC, \$\$FIND1^DIC, and UPDATE^DIE) all ignore the Special Lookup Program. As a result, the FileMan calls that ignore the Special Lookup Program will not be able to conduct versioned searches or return versioned data so use IX^DIC, MIX^DIC1 FIND^DIC, and \$\$FIND1^DIC with a great deal of care. Never use any FileMan entry point that alters the data in these files (i.e., ^DIE, EN^DIB, ^DIK FILE^DIE, UPDATE^DIE and FILE^DICN)

3.1 Package Special Lookup Variables

The following local variables in the ICD namespace should be NEWed or KILLed by the calling application

3.1.1 ICDVDT Versioning Date (Fileman format)

If this variable is supplied, then only active codes on that date will be included in the selection list.

- | | | |
|----|--------|----------------------|
| 1. | V74.6 | SCREENING FOR YAWS |
| 2. | V77.5 | SCREENING FOR GOUT |
| 3. | V76.9 | SCREEN-NEOPLASM NOS |
| 4. | V76.43 | SCREEN MAL NEOP-SKIN |
| 5. | V78.8 | SCREEN-BLOOD DIS NEC |

If not supplied, the date will default to TODAY and all codes may be selected, active and inactive.

- | | | |
|----|--------|--------------------------------|
| 1. | V74.6 | SCREENING FOR YAWS |
| 2. | V77.5 | SCREENING FOR GOUT |
| 3. | V76.8 | SCREEN-NEOPLASM NEC (Inactive) |
| 4. | V76.9 | SCREEN-NEOPLASM NOS |
| 5. | V76.43 | SCREEN MAL NEOP-SKIN |

3.1.2 ICDSYS Coding System (from file 80.4)

1	ICD	ICD-9-CM
2	ICP	ICD-9 Proc
30	10D	ICD-10-CM
31	10P	ICD-10-PCS

If supplied only codes belonging to the coding system will be included in the selection list.

S ICDSYS=1,X="DIABETES MELLITUS KETOACIDOSIS"

2 matches found

1. 249.11 SEC DM KETOACD UNCCTRLD (Major CC)
2. 249.10 SEC DM KETO NT ST UNCNTR (Major CC)

S ICDSYS=30,X="DIABETES MELLITUS KETOACIDOSIS"

8 matches found

1. E09.11 Drug/chem diabetes mellitus w ketoacidosis w coma
2. E13.11 Oth diabetes mellitus with ketoacidosis with coma
3. E09.10 Drug/chem diabetes mellitus w ketoacidosis w/o coma
4. E10.11 Type 1 diabetes mellitus with ketoacidosis with coma
5. E13.10 Oth diabetes mellitus with Ketoacidosis without coma

If not supplied codes from any coding system will be included in the selection list.

S X="DIABETES MELLITUS KETOACIDOSIS"

10 matches found

1. 249.11 SEC DM KETOACD UNCCTRLD (Major CC)
2. 249.10 SEC DM KETO NT ST UNCNTR (Major CC)
3. E09.11 Drug/chem diabetes mellitus w ketoacidosis w coma
4. E13.11 Oth diabetes mellitus with Ketoacidosis with coma
5. E09.10 Drug/chem diabetes mellitus w ketoacidosis w/o coma

3.1.3 ICDFMT Display Format

Controls the format of the terms and code presented for selection on the selection list, 1-4, default = 1

- 1 Fileman format, code and short text (default)

250.00 DMII WO CMP NT ST UNCNR
- 2 Fileman format, code and description

250.00 DIABETES MELLITUS WITHOUT MENTION OF
COMPLICATION, TYPE II OR UNSPECIFIED
TYPE, NOT STATED AS UNCONTROLLED
- 3 Lexicon format, short text followed by code

DMII WO CMP NT ST UNCNR (250.00)
- 4 Lexicon format, description followed by code

DIABETES MELLITUS WITHOUT MENTION OF
COMPLICATION, TYPE II OR UNSPECIFIED TYPE, NOT
STATED AS UNCONTROLLED (250.00)

3.1.4 Fileman Variables used

The following are FileMan local variables used by the Special Lookup and should be NEWed or KILLed by the calling application

Input

- X** (Optional) User's input. If it exists, DIC(0) should not contain "A" for "Ask"
- DIC** (Required) The file number or an explicit global root in the form ^GLOBAL(or ^GLOBAL(X,Y,
- DIC(0)** (Optional) A string of alphabetic characters which alter how DIC responds. At a minimum this string must be set to null. (Required) Default value for ICD files "AEM"

The following characters are applicable to a versioned file:

- A Ask the entry; if erroneous, ask again
- B Only the B index is used
- E Echo information
- F Forget the lookup value
- I Ignore the special lookup program
- M Multiple-index lookup allowed
- O Only find one entry if it matches exactly
- S Suppresses display of .01
- T Search until user selects or enters ^^
- X EXact match required
- Z Zero node in Y(0), external form in Y(0,0)

The following characters are NOT applicable to a versioned file (not used):

C Versioned cross-references not turned off
 K Primary Key not established
 L Learning a new entry LAYGO not allowed
 N Uppercase, IEN lookup allowed (not forced)
 n ICD has no pure numeric entries
 Q Input is pre-processed, ?? not necessary
 U All values are external
 V Verification is not optional

DIC("A") (Optional) A prompt that is displayed prior to the reading of the X input. If DIC("A") is not defined, a prompt will be supplied by the special lookup routine.

DIC("B") (Optional) The default answer which is presented to the user when the lookup prompt is issued. If a terminal user simply presses the Enter/Return key, the DIC("B") default value will be used, and returned in X. DIC("B") will only be used if it is non-null.

DIC("S") (Optional) DIC("S") is a string of M code that DIC executes to screen an entry from selection. DIC("S") must contain an IF statement to set the value of \$T. Those entries that the IF sets as \$T=0 will not be displayed or selectable. When the DIC("S") code is executed, the local variable Y is the internal number of the entry being screened and the M naked indicator is at the global level @ (DIC_"Y,0")

DIC("W") (Optional) An M command string which is executed when DIC displays each of the entries that match the user's input. The condition of the variable Y and of the naked indicator is the same as for DIC("S"). WARNING: If DIC("W") is defined, it overrides the display of the versioned identifiers for the file. Thus, if DIC("W") is set it will suppress the display of versioned data and there is a risk of displaying unversioned data.

DIC("?N",<file>)=n (Optional) The number "n" should be an integer set to the number of entries to be displayed on the screen at one time when using "?" help in a lookup.

3.1.5 FileMan Variables not used

DIC("DR")
 DIC("PTRIX",<from>,<to>,<file>)
 DIC("T")
 DIC("V")
 DIC("?PARAM",<file>,"INDEX")
 DIC("?PARAM",<file>,"FROM",<subscript>)
 DIC("?PARAM",<file>,"PART",<subscript>)

3.1.6 FileMan Variables KILLED

DLAYGO
DINUM

3.1.7 FileMan Variables Modified

If DIC(0) contains an "L" it will be removed

3.1.8 Output Variables

Always Returned

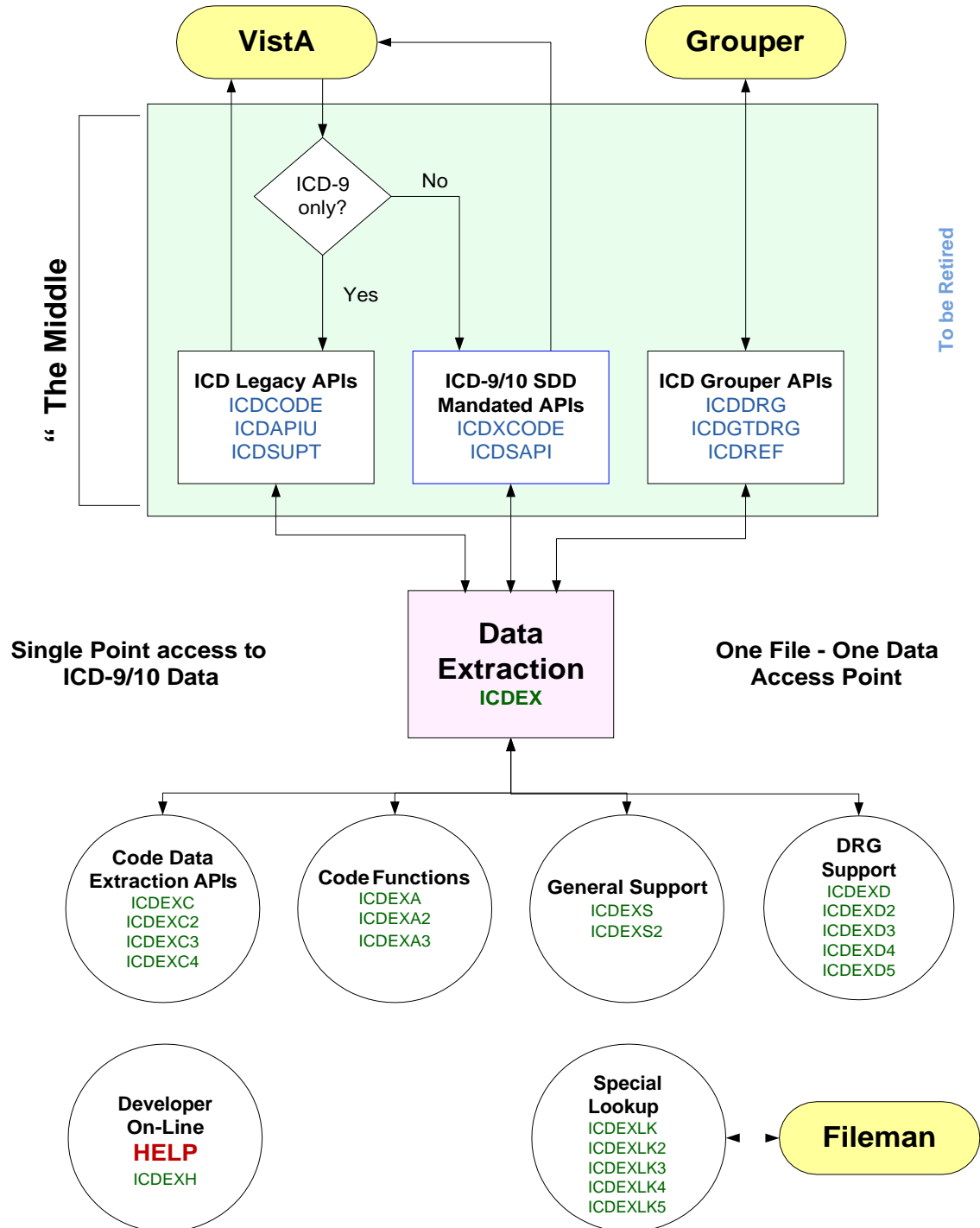
Y	IEN ^ Code	FileMan
---	------------	---------

If DIC(0) contains "Z"

Y(0)	0 Node	FileMan
Y(0,0)	Code	FileMan
Y(0,1)	\$\$ICDDX or \$\$ICDOP	Non-FileMan
Y(0,2)	Long Description	Non-FileMan

4. Applications Programmer Interfaces (APIs)

4.1 Overview (Data Extraction)



4.2 Legacy APIs (ICD-9-CM)

The following APIs are supported under the ICD-9-CM coding system and will continue to be supported throughout the transition to ICD-10. These APIs will be retired once ICD-10 is fully operational. It is suggested that applications use the supported ICD-10 API (which also work with ICD-9 codes) or subscribe to the equivalent data extraction API in the routine ICDEX.

4.2.1 ICDCODE, ICR 3990 (scheduled for retirement)

This Integration Control Registration (ICR) shall be retired 18 months after the ICD-10 implementation date established by the Department of Health and Human Services (HHS).. See equivalent APIs in ICR 5747.

ICD-9 Diagnosis Data

\$\$ICDDX^ICDCODE(CODE,CDT,DFN,SRC) ICR 3990

Input:

```

CODE  Code/IEN (required)
CDT   Date (default = TODAY)
DFN   Not in use
SRC   Source
      0 = exclude local codes
      1 = include local codes

```

Output:

```

Returns a 19 piece string delimited by ^

1  IEN of code in file 80
2  ICD-9 Dx Code (#.01)
3  Identifier String ID;ID;ID
4  Versioned Dx (67 multiple)
5  Unacceptable as Principal Dx (#101)
6  Major Dx Cat (#5)
7  MDC13 (5.5)
8  Compl/Comorb (#70)
9  ICD Expanded (#8) 1:Yes 0:No
10 Status (66 multiple)
11 Sex (#9.5)
12 Inactive Date (66 multiple)
13 MDC24 (#5.7)
14 MDC25 (#5.9)
15 Age Low (#14)
16 Age High (#15)
17 Activation Date (.01 of 66 multiple)
18 Message
19Versioned Complication/Comorbidity (#103)

```

or

-1^Error Description

Recommended Replacement API:
\$\$ICDDX^ICDEX(CODE,CDT,SYS,FMT)
Subscribe to ICR 5747

ICD-9 Procedure Data

\$\$ICDOP^ICDCODE(CODE,CDT,DFN,SRC) ICR 3990

Input:

CODE ICD code or IEN format, (required)
 CDT Date (default = TODAY)
 DFN Not in use
 SRC Source
 0 = exclude local codes
 1 = include local codes

Output:

Returns a 14 piece string delimited by ^

- 1 IEN of code in file 80.1
- 2 ICD-9 code (#.01)
- 3 Id (#2)
- 4 MDC24 (#5)
- 5 Versioned Oper/Proc (67 multiple)
- 6 <null>
- 7 <null>
- 8 <null>
- 9 ICD Expanded (#8) 1:Yes 0:No
- 10 Status (66 multiple)
- 11 Use with Sex (#9.5)
- 12 Inactive Date (66 multiple)
- 13 Activation Date (66 multiple)
- 14Message

or

-1^Error Description

Recommended Replacement API:
\$\$ICDOP^ICDEX(CODE,CDT,SYS,FMT)
Subscribe to ICR 5747

ICD-9 Description

\$\$ICDD^ICDCODE(CODE,'OUTARR',CDT) ICR 3990

Input:

CODE ICD Code or IEN (required)
 ARY Array Name for description

e.g. "ABC" or "ABC("TEST")"
 Default = ^TMP("ICDD", \$J)
 CDT Date (default = TODAY)

Output:

Number of lines in array
 @ARY(1:n) - Versioned Description (68 multiple)
 @ARY(n+1) - blank
 @ARY(n+1) - message: CODE TEXT MAY BE INACCURATE

or

-1^Error Description

** NOTE - USER MUST INITIALIZE ^TMP("ICDD", \$J), IF USED
 **

Recommended Replacement API:
\$\$ICDD^ICDEX(CODE,ARY,CDT,SYS,LEN)
 Subscribe to ICR 5747

ICD-9 Internal Entry Number from Code

\$\$CODEN^ICDCODE(CODE,FILE) ICR 3990

Input:

CODE ICD code (required)
 FILE File Number to search for code
 80 = ICD Dx file
 80.1 = ICD Oper/Proc file

Output:

IEN~global root
 or
 -1~error message

Recommended Replacement API:
\$\$CODEN^ICDEX(CODE,FILE)
 Subscribe to ICR 5747

ICD-9 Code from IEN

\$\$CODEC^ICDCODE(IEN,FILE)

ICR 3990

Input:

IEN IEN of ICD code REQUIRED
FILE File Number to search for code
80 = ICD Dx file
80.1 = ICD Oper/Proc file

Output: ICD code, -1 if not found

Recommended Replacement API:

\$\$CODEC^ICDEX(FILE,IEN)

Subscribe to ICR 5747

4.2.2 ICDAPIU, ICR 3991 (scheduled for retirement)

This Integration Control Registration (ICR) shall be retired 18 months after the ICD-10 implementation date established by the HHS. See equivalent API in ICR 5747.

Status of an ICD-9 Code

\$\$STATCHK^ICDAPIU(CODE,CDT)

ICR 3991

Input:

CODE ICD Code
CDT Date to screen against

Output:

2-Piece String containing Status and IEN

Recommended Replacement API:

\$\$STATCHK^ICDEX(CODE,FILE)

Subscribe to ICR 5747

Next ICD-9 Code in a Sequence

\$\$NEXT^ICDAPIU(CODE)

ICR 3991

Input:

CODE ICD Code REQUIRED

Output:

The Next ICD Code, Null if none

Recommended Replacement API:
\$\$NEXT^ICDEX(CODE,SYS,CDT)
Subscribe to ICR 5747

Previous ICD-9 Code in a Sequence

\$\$PREV^ICDAPIU(CODE)

ICR 3991

Input:

CODE ICD Code REQUIRED

Output:

The Previous ICD Code, Null if none

Recommended Replacement API:
\$\$PREV^ICDEX(CODE,SYS,CDT)
Subscribe to ICR 5747

Activation History of an ICD-9 Code

\$\$HIST^ICDAPIU(CODE,ARY)

ICR 3991

Input:

CODE	ICD Code	REQUIRED
.ARY	Array, passed by Reference	REQUIRED

Output:

Mirrors ARY(0) (or, -1 on error)
 ARY(0) = Number of Activation History Entries
 ARY(<date>) = status where: 1 is Active
 ARY("IEN") = <ien>

Recommended Replacement API:

\$\$HIST^ICDEX(CODE,.ARY,SYS)

Subscribe to ICR 5747

Date Business Rules for ICD-9

\$\$DTBR^ICDAPIU(CDT,CS)

ICR 3991

Input:

CDT	Code Date to check default TODAY
CS	Code System (Default 0 = ICD)

Output:

If CDT < ICD-9 Date and CS=0, use ICD-9 Date
 If CDT < 2890101 and CS=1, use 2890101
 If CDT < 2821001 and CS=2, use 2821001
 If CDT is year only, use first of the year
 If CDT is year and month only, use first of the month

Recommended Replacement API:

\$\$DBTR^ICDEX(CDT,STD,SYS)

Subscribe to ICR 5747

Warning Message – Text may be inaccurate for date

\$\$MSG^ICDAPIU(CDT,CS) ICR 3991

Input:

CDT Code Date to check
FileMan format, Default = TODAY
CS Code System
0:ICD, 1:CPT/HCPCS, 2:DRG, 3:LEX
Default = 0

Output:

User Alert

**Recommended Replacement API: \$\$MSG^ICDEX(CDT,STD,SYS)
Subscribe to ICR 5747**

Activation Periods (active-inactive) for ICD-9 Code

PERIOD^ICDAPIU(CODE,ARY) ICR 3991

Input:

CODE ICD Code (required)
ARY Array, passed by Reference (required)

Output:

ARY(0) = IEN ^ Selectable ^ Error Message

Where IEN = -1 if error
Selectable = 0 for VA Only codes
Error Message if applicable

ARY(Activation Date) = Inactivation Date ^ Short Name

Where the Short Name is versioned as follows:

Period is active Short Description for the date
the period became active

Period is inactive Short Description for the date
the period became inactive

**Recommended Replacement API:
\$\$PERIOD^ICDEX(CODE,.,ARY,SYS)
Subscribe to ICR 5747**

4.3 Supported ICD-9/10 APIs (wrapper APIs)

The following APIs are supported for both the ICD-9 and ICD-10 coding systems and will continue to be supported throughout the transition to ICD-10:

4.3.1 ICDCODE, ICR 5699 (scheduled for retirement)

This Integration Control Registration (ICR) contains interim APIs mandated by the ICD-10 project (formerly referred to as the “ICD wrapper APIs”). All of them call into ICDEX to return data. Applications should replace these APIs with the equivalent APIs in routine ICDEX (ICR 5747) as soon as possible. This ICR shall be retired 36 months after the ICD-10 implementation date established by HHS.

ICD Code Data

`$$ICDDATA^ICDCODE(CSYS,CODE,DATE,FRMT)` **ICR 5699**

Input:

```

CSYS   Coding system, Required
CODE   Code/IEN/variable pointer, Required
DATE   Code Set Date (default = TODAY)
FRMT   Code format "E" external (default)
        "I" internal (IEN)

```

Output:

Diagnosis returns a 20 piece string delimited by "^"

```

1  IEN of code in file 80
2  ICD-9 Dx Code           (#.01)
3  Identifier              (#1.2)
4  Versioned Dx           (67 multiple)
5  Unacceptable as Principal Dx (#1.3)
6  Major Dx Cat           (72 multiple)
7  MDC13                  (#1.4)
8  Compl/Comorb           (103 multiple)
9  ICD Expanded           (#1.7)
10 Status                 (66 multiple)
11 Sex                    (10 multiple)
12 Inactive Date          (66 multiple)
13 MDC24                  (#1.5)
14 MDC25                  (#1.6)
15 Age Low                (11 multiple)
16 Age High               (12 multiple)
17 Activation Date        (66 multiple)
18 Message
19 Complication/Comorbidity (103 multiple)
20 Coding System          (#1.1)

```

Procedures returns A 14 piece string delimited by "^"

1	IEN of code in file 80.1	
2	ICD procedure code	(#.01)
3	Identifier	(#1.2)
4	MDC24	(#1.5)
5	Versioned Oper/Proc	(67 multiple)
6	<null>	
7	<null>	
8	<null>	
9	ICD Expanded	(#1.7)
10	Status	(66 multiple)
11	Use with Sex	(10 multiple)
12	Inactive Date	(66 multiple)
13	Activation Date	(66 multiple)
14	Message	
15	Coding System	(#1.1)

or

-1^Error Description

ICD Code Description

\$\$ICDDESC^ICDXCODE(CSYS, CODE, DATE, .ARY) ICR 5699

Input:

CSYS	Coding system
CODE	ICD Code (required)
CDT	Date (default = TODAY)
.ARY	Array Name passed by reference

Output:

\$\$ICDDESC Number of lines in array

 @ARY(1) - Versioned Description (68 multiple)

 @ARY(2) - blank

 @ARY(3) - message: CODE TEXT MAY BE INACCURATE
 (ICD-9 ONLY)

Status of an ICD Code

\$\$STATCHK^ICDXCODE(CSYS,CODE,DATE) ICR 5699

Input:

CSYS	Coding system
CODE	Code (IEN not allowed)
DATE	Date (default = TODAY)

Output:

2-Piece String containing the code's status and the IEN if the code exists, else -1. The following are possible outputs:

1^IEN	Active Code
0^IEN	Inactive Code
0^-1	Code not Found

Next ICD Code in a Sequence

\$\$NEXT^ICDXCODE(CSYS,CODE) ICR 5699

Input:

CSYS	Coding system	Required
CODE	ICD-10 Code (IEN not allowed)	Required

Output:

\$\$NEXT The Next ICD Code, Null if none

Previous ICD Code in a Sequence

\$\$PREV^ICDXCODE(CSYS,CODE) ICR 5699

Input:

CSYS	Coding system	Required
CODE	ICD-10 Code (IEN not allowed)	Required

Output:

\$\$PREV The Previous ICD Code, Null if none

Activation History of an ICD Code

\$\$HIST^ICDXCODE(CSYS, CODE, ARY)

ICR 5699

Input:

CSYS	Coding system	Required
CODE	ICD Code (IEN not allowed)	Required
.ARY	Array, passed by Reference	Required

Output:

```

$$HIST  Mirrors ARRAY(0) or, -1 on error
ARY(0)  = Number of Activation History Entries
ARY(<date>) = Status      where: 1 is Active
ARY("IEN") = <ien>

```

Activation Periods (active-inactive) for ICD-9 Code

\$\$PERIOD^ICDXCODE(CSYS, CODE, ARY)

ICR 5699

Input:

CSYS	Coding system	Required
CODE	ICD Code (IEN not allowed)	Required
.ARY	Array, passed by Reference	Required

Output:

```

ARY(0) = IEN ^ Selectable ^ Error Message

```

```

Where IEN = -1 if error
Selectable = 0 for VA Only codes
Error Message if applicable

```

```

ARY(Activation Date) = Inactivation Date ^ Short Name

```

```

Where the Short Name is versioned as follows:

```

```

Period is active      Short Description for the date
                       the period became active

```

```

Period is inactive    Short Description for the date
                       the period became inactive

```

```

or -1^0 (no period or error)

```

4.3.2 ICDSAPI, ICR 5757 (scheduled for retirement)

This Integration Control Registration (ICR) contains an interim API mandated by the ICD-10 project (formerly referred to as the “ICD wrapper APIs”). It calls DIC and the ICD Special Lookup ICDEXLK. Applications should replace this API with a call to FileMan (DIC) as soon as possible. This ICR shall be retired 36 months after the ICD-10 implementation date established by HHS.

Search for an ICD Code (DIC)

\$\$\$SEARCH^ICDSAPI(FILE,SCR,DI,VDT,FMT) ICR 5757

Input:

FILEID This can be either a file number, a file root, a file identifier, a coding system or a source abbreviation that can be resolved to a file number.

Number	Root	ID	Coding System	Source Abbreviation
80	^ICD9(	DIAG	1 or 30	ICD or 10D
80.1	^ICD0(	PROC	2 or 31	ICP or 10P

SCREEN This is a string of MUMPS code that is executed to screen an entry from selection. It must contain an IF statement to set the value of \$T. Those entries that the IF statement sets \$T to 0 (false) will not be displayed or selectable.

DISFIL A string of alphabetic characters which alter how the lookup responds. Default value "AEMQZ". DIC(0) will be set to the contents of this parameter.

Parameters applicable to a versioned file

- A Ask the entry; if erroneous, ask again
- B Only the B index is used
- E Echo information
- F Forget the lookup value
- I Ignore the special lookup program
- M Multiple-index lookup allowed
- O Only find one entry if it matches exactly
- S Suppresses display of .01
- T Search until user selects or enters ^^
- X EXact match required
- Z Zero node in Y(0), external form in Y(0,0)

Parameters not applicable to a versioned file and ignored by this lookup

- C Versioned cross-references not turned off

K Primary Key not established
 L Learning a new entry LAYGO not allowed
 N IEN lookup allowed (not forced)
 n ICD has no pure numeric entries
 Q Input is pre-processed, ?? not necessary
 U All values are external
 V Verification is not optional

DATE Versioning Date (Fileman format)

If supplied only active codes on that date will be included in the selection list.

If not supplied, the date will default to TODAY and all codes may be selected, active and inactive.

In both cases the display will be altered based on the date.

FORMAT Output Format

1 Fileman, Code and Short Text (default)

250.00 DMII WO CMP NT ST UNCNTR

2 Fileman, Code and Description

250.00 DIABETES MELLITUS WITHOUT MENTION OF COMPLICATION, TYPE II OR UNSPECIFIED TYPE, NOT STATED AS UNCONTROLLED

3 Lexicon, Short Text and Code

DMII WO CMP NT ST UNCNTR (250.00)

4 Lexicon, Description and Code

DIABETES MELLITUS WITHOUT MENTION OF COMPLICATION, TYPE II OR UNSPECIFIED TYPE, NOT STATED AS UNCONTROLLED (250.00)

Output:

\$\$SEARCH This is the value of Y (below)

Y IEN ^ Code Fileman

or

-1 if not found

If DISFIL/DIC(0) containing the character "Z"

Y(0) 0 Node Fileman

Y(0,0) Code Fileman

Y(0,1) \$\$ICDDX or \$\$ICDOP Non-Fileman
 Y(0,2) Long Description Non-Fileman

4.4 Data Extraction APIs by Subscription

4.4.1 ICDEX, ICR 5747

The following APIs were developed to replace all direct global reads to ICD files 80 and 80.1. To track which applications are extracting data, these APIs are available by subscription only. If there are future changes to the data dictionaries or APIs, the ICD package developers can quickly contact the affected applications to coordinate the changes.

4.4.2 ICD Code APIs (formerly ICDCODE)

ICD Diagnosis Code Data

\$\$ICDDX^ICDEX(CODE,CDT,SYS,FMT,LOC) ICR 5747

Input:

CODE Code/IEN (required)
 CDT Date (default = TODAY)
 SYS Coding System (taken from file 80.4)
 1 = ICD-9 Diagnosis
 30 = ICD-10 Diagnosis
 FMT Format
 E = External (default)
 I = Internal Entry Number
 LOC Use Local codes
 1 = Yes
 0 = No (default)

Output:

Returns a 20 piece string delimited by ^^"

1	IEN of code in ^ICD9(
2	ICD-9 Dx Code	(#.01)
3	Identifier String ID;ID;ID	File 82
4	Versioned Dx	(67 multiple)
5	Unacceptable as Principal Dx	(#1.3)
6	Major Dx Cat	(72 multiple)
7	MDC13	(#1.4)
8	Compl/Comorb	(103 multiple)
9	ICD Expanded	(#1.7)
10	Status	(66 multiple)
11	Sex	(10 multiple)
12	Inactive Date	(66 multiple)
13	MDC24	(#1.5)
14	MDC25	(#1.6)
15	Age Low	(11 multiple)
16	Age High	(12 multiple)

17 Activation Date (66 multiple)
 18 Message
 19 Complication/Comorbidity (103 multiple)
 20 Coding System (#1.1)
 21 Primary CC Flag (103 multiple)
 22 PDX Exclusion Code (#1.11)

or

-1^Error Description

ICD Procedure Code Data

\$\$ICDOP^ICDEX(CODE,CDT,SYS,FMT)

ICR 5747

Input:

CODE Code/IEN (required)
 CDT Date (default = TODAY)
 SYS Coding System (taken from file 757.03)
 2 = ICD-9 Procedure
 31 = ICD-10 Procedure
 FMT Format
 E = External (default)
 I = Internal Entry Number
 LOC Use Local codes
 1 = Yes
 0 = No (default)

Output:

Returns a 14 piece string delimited by ^^

1 IEN of code in ^ICD0(
 2 ICD procedure code (#.01)
 3 Identifier (#1.2)
 4 MDC24 (#1.5)
 5 Versioned Oper/Proc (67 multiple)
 6 <null>
 7 <null>
 8 <null>
 9 ICD Expanded (#1.7)
 10 Status (66 multiple)
 11 Use with Sex (10 multiple)
 12 Inactive Date (66 multiple)
 13 Activation Date (66 multiple)
 14 Message
 15 Coding System (#1.1)

or

-1^Error Description

ICD Code Description

\$\$ICDD^ICDEX(CODE,ARY,CDT,SYS,LEN) ICR 5747

Input:

CODE Code, external format (required)
 ARY Array Name passed by reference (required)
 CDT Date (optional, default = TODAY)
 SYS Coding System (optional)
 LEN Sting Length (optional, > 27, default 245)

Output:

Number of lines in array
 ARY(1) - Versioned Description (68 multiple)
 If there is a warning message (ICD-9 only):
 ARY(n+1) - blank
 ARY(n+2) - warning message: CODE TEXT MAY BE INACCURATE
 Or -1^Error Description

Internal Entry Number (IEN) from Code

\$\$CODEN^ICDEX(CODE,FILE) ICR 5747

Input:

CODE ICD code (required)
 FILE File Number to search for code
 80 = ICD Dx file
 80.1 = ICD Oper/Proc file

Output:

IEN~Global Root or -1~error message

ICD Code from Internal Entry Number (IEN)

\$\$CODEC^ICDEX(FILE,IEN) ICR 5747

Input:

IEN Internal Entry Number (required)
 FILE File Number 80 or 80.1 (required)

Output:

\$\$CODE An ICD Diagnosis or Procedure code
 or -1 ^ message on error

Retire IA 280, 365, 582, 5388, 5404

Code IEN from Code (BA cross-reference)

\$\$CODEBA^ICDEX(CODE,ROOT) ICR 5747

Input:

CODE ICD Code, either ICD-9 or ICD-10 (required)
 ROOT File Root or Number (required)
 ^ICD9(or 80
 ^ICD0(or 80.1

Output:

IEN IEN for CODE in ROOT or -1 if not found

Code IEN from Code and Coding System (ABA cross-reference)

\$\$CODEABA^ICDEX(CODE,ROOT,SYS) ICR 5747

Input:

CODE ICD Code, either ICD-9 or ICD-10 (required)
 ROOT File Root or Number (required)
 ^ICD9(or 80
 ^ICD0(or 80.1
 SYS File Root or Number (required)
 1 = ICD-9 Diagnosis
 2 = ICD-9 Procedure
 30 = ICD-10 Diagnosis
 31 = ICD-10 Procedure

Output:

IEN IEN for CODE in ROOT for SYS or -1 if not found

File for Code

\$\$CODEFI^ICDEX(CODE) ICR 5747

Input:

CODE ICD code (required)

Output:

FILE File Number
 80 = ICD Dx file
 80.1 = ICD Oper/Proc file
 Null

Coding System for Code and File

\$\$CODECS^ICDEX(CODE,FILE,CDT)

ICR 5747

Input:

CODE ICD code/IEN (required)
 FILE File Number (required)
 80 = ICD Dx file
 80.1 = ICD Oper/Proc file
 CDT Date used to determine Coding
 System (optional, default TODAY)

Output:

SYS 2 piece ^^" delimited string
 1 Coding System
 2 Coding Nomenclature
 1 ^ ICD-9-CM
 2 ^ ICD-9 Proc
 30 ^ ICD-10-CM
 31 ^ ICD-10-PCS

or null if not found

Coding System for IEN and File

\$\$CSI^ICDEX(FILE,IEN)

ICR 5747

Input:

FILE File Number (required)
 IEN IEN in file 80 (required)

Output:

\$\$CSI Coding System
 1 ^ ICD-9-CM
 2 ^ ICD-9 Proc
 30 ^ ICD-10-CM
 31 ^ ICD-10-PCS

or null if not found

Versioned Major Diagnostic Category

\$\$VMDC^ICDEX(IEN,CDT,FMT)

ICR 5747

Input:

IEN IEN in file 80 (required)
 CDT Date to use to Extract MDC (default TODAY)
 FMT Output Format
 0 = MDC only (default)
 1 = MDC ^ Effective Date

Output:

MDC Major Diagnostic Category

Versioned Age Low

\$\$VAGEL^ICDEX(IEN,CDT,FMT)

ICR 5747

Input:

IEN IEN in file 80 (required)
 CDT Date to use to Extract Age Low (default TODAY)
 FMT Output Format
 0 = Age Low only (default)
 1 = Age Low ^ Effective Date

Output:

AGEL Age Low

Versioned Age High

\$\$VAGEH^ICDEX(IEN,CDT,FMT)

ICR 5747

Input:

IEN IEN in file 80 (required)
 CDT Date to use to Extract Age High (default TODAY)
 FMT Output Format
 0 = Age High only (default)
 1 = Age High ^ Effective Date

Output:

AGEH Age High

Versioned Complication/Comorbidity

\$\$VCC^ICDEX(IEN,CDT,FMT)

ICR 5747

Input:

IEN IEN in file 80 (required)
 CDT Date to use to Extract CC (default TODAY)
 FMT Output Format
 0 = CC only (default)
 1 = CC ^ Effective Date

Output:

\$\$VCC Complication/Comorbidity (FMT=0)
 Complication/Comorbidity^Effective Date (FMT=1)

Versioned Complication/Comorbidity Primary Flag

\$\$VCCP^ICDEX(IEN,CDT,FMT)

ICR 5747

Input:

IEN IEN in file 80 (required)
 CDT Date to use to Extract CC Primary Flag (default TODAY)
 FMT Output Format
 0 = CC Primary Flag only (default)
 1 = CC Primary Flag ^ Effective Date ^ External Value

Output:

\$\$VCCP Complication/Comorbidity (FMT=0)
 Complication/Comorbidity ^ Effective Date ^ Value (FMT=1)

Versioned Sex

\$\$VSEX^ICDEX(FILE,IEN,CDT,FMT)

ICR 5747

Input:

FILE File
 80 ICD Diagnosis file
 80.1 ICD Operation/Procedure file
 IEN IEN (required)
 CDT Date to use to Extract Sex (default TODAY)
 FMT Output Format
 0 = Sex only (default)
 1 = Sex ^ Effective Date

Output:

SEX Sex
 M Male
 F Female
 Null

Status/Activation Date/Inactivation Date

\$\$\$AI^ICDEX(FILE,IEN,CDT)

ICR 5747

Input:

FILE File
 80 ICD Diagnosis file
 80.1 ICD Operation/Procedure file
 IEN IEN or code (required)
 CDT Date to use to Extract Status (default TODAY)

Output:

5 piece "^" delimited string

- 1 Status
- 2 Inactivation Date
- 3 Activation Date
- 4 IEN
- 5 Short Text in use on Activation Date (piece 3)

Versioned Short Text

\$\$VST^ICDEX(FILE,IEN,CDT)

ICR 5747

Input:

FILE Global Root/File #/Coding System/SAB
 IEN IEN (required)
 CDT Date to use to Extract Text (default TODAY)

Output:

VST Short Text from either file 80 or 80.1

Versioned Long Text

\$\$VLT^ICDEX(FILE,IEN,CDT)

ICR 5747

Input:

FILE Global Root/File #/Coding System/SAB
 IEN IEN (required)
 CDT Date to use to Extract Text (default TODAY)

Output:

VLT Long Text (description) from either file 80 or 80.1

Versioned Short Text Diagnosis

\$\$VSTD^ICDEX(IEN,CDT) ICR 5747

Input:

IEN IEN (required)
 CDT Date to use to Extract Text (default TODAY)

Output:

VST Short Text from file 80

Versioned Short Text Procedures

\$\$VSTP^ICDEX(IEN,CDT) ICR 5747

Input:

IEN IEN (required)
 CDT Date to use to Extract Text (default TODAY)

Output:

VST Short Text from file 80.1

Versioned Long Text Diagnosis

\$\$VLTD^ICDEX(IEN,CDT) ICR 5747

Input:

IEN IEN (required)
 CDT Date to use to Extract Text (default TODAY)

Output:

VLTD Long Text from file 80

Versioned Long Text Procedures

\$\$VLTP^ICDEX(IEN,CDT) ICR 5747

Input:

IEN IEN (required)
 CDT Date to use to Extract Text (default TODAY)

Output:

VLTP Long Text from file 80.1

Short Description (Formatted)

\$\$\$D^ICDEX(FILE,IEN,CDT,ARY,LEN)

ICR 5747

Input:

IEN Internal Entry Number (Required)
 FILE File Number (Required)
 CDT Date, Default TODAY (Optional)
 .ARY Array Passed by Reference (Optional)
 LEN Text Length (15-79, default 60) (Optional)

Output:

\$\$\$D Short Description OR -1 ^ Error Message
 ARY Description in segment lengths specified

Long Description (Formatted)

\$\$LD^ICDEX(FILE,IEN,CDT,ARY,LEN)

ICR 5747

Input:

IEN Internal Entry Number (Required)
 FILE File Number (Required)
 CDT Date, Default TODAY (Optional)
 .ARY Array Passed by Reference (Optional)
 LEN Text Length (15-79, default 245) (Optional)

Output:

\$\$LD Long Description OR -1 ^ Error Message
 ARY Description in lengths specified

Short Description History

\$\$\$DH^ICDEX(FILE,IEN,ARY)

ICR 5747

Input:

IEN Internal Entry Number (Required)
 FILE File Number (Required)
 .ARY Array Passed by Reference (Optional)

Output:

\$\$\$DH This is a three piece "^" delimited string containing:

- 1 The number of short descriptions found
- 2 The earliest date found
- 3 The latest date found

OR -1 ^ Error Message

ARY This is a local array containing a history

of short descriptions by date:

ARY(0)= # ^ Earliest Date ^ Latest Date
 ARY(0)=Short Description

Long Description History

\$\$LDH^ICDEX(FILE,IEN,ARY)

ICR 5747

Input:

IEN Internal Entry Number (Required)
 FILE File Number (Required)
 .ARY Array Passed by Reference (Optional)

Output:

\$\$LDH This is a three piece "^" delimited string containing:

- 1 The number of long descriptions found
- 2 The earliest date found
- 3 The latest date found

OR -1 ^ Error Message

ARY This is a local array containing a history of long descriptions by date:

ARY(0)= # ^ Earliest Date ^ Latest Date
 ARY(0)=Long Description

4.4.3 ICD API Utilities (formerly ICDAPIU)

Status of an ICD Code

\$\$STATCHK^ICDEX(CODE,CDT,SYS)

ICR 5747

Input:

CODE ICD Code REQUIRED
 CDT Date to screen against (default = TODAY)
 SYS Numeric Coding System (optional, however, if specified it must be correct)

Output:

2-Piece String containing the code's status and the IEN if the code exists, else -1.

The following are possible outputs:

1^IEN Active Code
 0^IEN Inactive Code
 0^-1^Message Code not Found or Error

This API requires the ACT Cross-Reference

^ICD9 ("ACT", <code>, <status>, <date>, <ien>)
 ^ICD0 ("ACT", <code>, <status>, <date>, <ien>)

Date Business Rules (ICD-9/ICD-10)

\$\$DTBR^ICDEX(CDT,STD,SYS)

ICR 5747

Input:

CDT Code Date to check (FileMan format, default=Today)
 STD Standard

- 0 = ICD (Default)
- 1 = CPT/HCPCS
- 2 = DRG

SYS Coding System

- 1 = ICD-9-CM
- 2 = ICD-9-PCS
- 30 = ICD-10-CM
- 31 = ICD-10-PCS

Output:

If CDT < ICD-9 Date and STD=0, use ICD-9 Date
 If CDT < ICD-10 Date and STD=0 and SYS=30, use ICD-10 Date
 If CDT < ICD-10 Date and STD=0 and SYS=31, use ICD-10 Date
 If CDT < 2890101 and STD=1, use 2890101
 If CDT < 2821001 and STD=2, use 2821001
 If CDT is year only, use first of the year
 If CDT is year and month only, use first of the month

Implementation Date

\$\$IMP^ICDEX(SYS,CDT)

ICR 5747

Input:

SYS Coding System

- 1 = ICD-9-CM
- 2 = ICD-9-PCS
- 30 = ICD-10-CM
- 31 = ICD-10-PCS

Output:

\$\$IMP Date the Coding System was Implemented

Warning Message – Text may be inaccurate for date

\$\$MSG^ICDEX(CDT,STD,SYS)

ICR 5747

Input:

CDT Code Date to check (FileMan format, Default = today)
 STD Code System

- 0 ICD (default)
- 1 CPT/HCPCS
- 2 DRG
- 3 LEX

SYS Coding System

- 1 = ICD-9-CM
- 2 = ICD-9-PCS
- 30 = ICD-10-CM
- 31 = ICD-10-PCS

Output:

User Alert Message

Code is Selectable

\$\$SEL^ICDEX(FILE,IEN)

ICR 5747

Input:

FILE File number 80 or 80.1 (required)
 IEN Internal Entry Number (required)

Output:

\$\$SEL Boolean value

- 1 Selectable
- 0 Not Selectable
- 1 on error

Next Code in a Sequence

\$\$NEXT^ICDEX(CODE,SYS,CDT)

ICR 5747

Input:

CODE ICD Code or Null for the first code
 SYS Coding System - see ^ICDS

- 1 = ICD-9-CM
- 2 = ICD-9-PCS
- 30 = ICD-10-CM
- 31 = ICD-10-PCS

CDT Code Date to check
 If CDT is passed, then the code returned is the next active code based on date. If it is not

passed then the next code is returned regardless of status.

Output:

The Next ICD Code, Null if none

Previous Code in a Sequence

\$\$PREV^ICDEX(CODE,SYS,CDT)

ICR 5747

Input:

CODE ICD Code or Null for the last code
 SYS Coding System - see ^ICDS

1 = ICD-9-CM
 2 = ICD-9-PCS
 30 = ICD-10-CM
 31 = ICD-10-PCS

CDT Code Date to check
 If CDT is passed, then the code returned is the previous active code based on date. If it is not passed then the previous code is returned regardless of status.

Output:

The Previous ICD Code, Null if none

Activation History of an ICD Code

\$\$HIST^ICDEX(CODE,ARY,SYS)

ICR 5747

Input:

CODE ICD Code (required)
 .ARY Array, passed by Reference (required)
 SYS Coding System - see ^ICDS

1 = ICD-9-CM
 2 = ICD-9-PCS
 30 = ICD-10-CM
 31 = ICD-10-PCS

Output: Mirrors ARY(0) (or, -1 on error)

ARY(0) = Number of Activation History Entries
 ARY(<date>) = status where: 1 is Active
 ARY("IEN") = <ien>

Activation Periods (active-inactive) for ICD-9 Code

\$\$PERIOD^ICDEX(CODE,ARY,SYS)

ICR 5747

Input:

CODE ICD Code (required)
 ARY Array, passed by Reference (required)
 SYS Coding System - see ^ICDS
 1 = ICD-9-CM
 2 = ICD-9-PCS
 30 = ICD-10-CM
 31 = ICD-10-PCS

Output:

\$\$PERIOD Number of activation periods found

ARY(0) = IEN ^ Selectable ^ Error Message

Where IEN = -1 if error
 Selectable = 0 for VA Only codes
 Error Message if applicable

ARY(Activation Date) = Inactivation Date ^ Short Name

Where the Short Name is versioned as follows:

Period is active Short Description for the date
 the period became active

Period is inactive Short Description for the date
 the period became inactive

\$ORDER BA or ABA Cross-Reference

\$\$OBA^ICDEX(FILE,CODE,SYS,REV)

ICR 5747

Input:

CODE = ICD Code, can be null
 FILE File Number 80 or 80.1
 SYS Coding System (internal) from file 80.4
 REV Reverse \$Order if set to 1

Output:

\$\$OBA Next or Previous Code

This API replaces the need to access the BA cross-reference
 in a FOR loop.

\$\$OBA(<file>,<code>,<system>) replaces:

\$O(^ICD9("BA",(<code>_" ")) and
 \$O(^ICD0("BA",(<code>_" "))

F S CODE=\$\$OBA^ICDEX(80,CODE,1) Q:'\$L(CODE) D
 F S CODE=\$\$OBA^ICDEX(80,CODE,30) Q:'\$L(CODE) D
 F S CODE=\$\$OBA^ICDEX(80.1,CODE,2) Q:'\$L(CODE) D
 F S CODE=\$\$OBA^ICDEX(80.1,CODE,31) Q:'\$L(CODE) D

Retire IA 5388, 5404

\$ORDER D or AD Cross-Reference

\$\$OD^ICDEX(FILE,WORD,SYS,REV)

ICR 5747

Input:

FILE File Number 80 or 80.1
 WORD Word, can be null or a 2 piece string containing Word and IEN where the word is stored
 SYS Coding System (internal)
 Acceptable values can be found on the ASYS cross-reference. At the time of this writing, it includes:

File 80
 1 ICD-9-CM
 30 ICD-10-CM

File 80.1
 2 ICD-9 Proc
 31 ICD-10-PCS

REV Reverse \$Order if set to 1

Output:

2 Piece "^" delimited string
 1 WORD Next or Previous word in D Index
 2 IEN Internal Entry Number where WORD is found

Retire IA 5388, 5404

Date Last Modified

\$\$DLM^ICDEX(FILE,IEN,FIELD,CDT)

ICR 5747

Input

FILE File Number 80 or 80.1 (required)
 IEN Internal Entry Number (required)
 FIELD Field Number of Versioned Data (optional)

File 80

10	Sex	5;0
11	Age Low	6;0
12	Age High	7;0
66	Status	66;0
67	Diagnosis	67;0
68	Description	68;0
71	DRG Grouper	3;0
72	Major Diagnostic Category	4;0
103	Complication/Comorbidity	69;0

File 80.1

10	Sex	3;0
66	Status	66;0
67	Operation/Procedure	67;0
68	Description	68;0
71	DRG Grouper	2;0

If the field is passed, then the date last modified (based on date) for the field is returned. If the field is not passed, then the date last modified (based on date) for the record at IEN is returned.

CDT Date to base output on (default is today)
Business rules apply

Output:

\$\$DLM Date Last Modified
or -1 ^ message on error

Select Coding System (Interactive)

\$\$CS^ICDEX(FILE,FMT)

ICR 5747

Input

FILE File Number 80 or 80.1 (optional)
If not provided, you will be prompted for the ICD File, there is no default value.

FMT Format

E Display External only (default)
I Display Internal with External

Output

\$\$CS 2 piece "^" delimited string
1 Coding System (internal)

2 Coding System (external)

or -1 on error or non-selection
 ^^ double up-arrows
 ^ timeout or single up-arrow

4.4.4 ICD Support (formerly ICDSUPT)

Effective Date and Status

\$\$EFF^ICDEX(FILE,IEN,CDT)

ICR 5747

Input:

FILE File number 80/80.1 (required)
 IEN ICD IEN (required)
 EDT Date to check (FileMan format) (required)

Output:

A 3 piece "^" delimited string

1 Status
 1 - Active
 0 - Inactive
 2 Inactivation Date
 3 Activation Date

-or-

-1^error message

Initial Activation Date

\$\$IA^ICDEX(FILE,IEN)

ICR 5747

Input:

FILE Global Root/File Number (Required)
 IEN Internal Entry Number (Required)

Output:

\$\$IA Initial Activation Date OR -1 ^ Error Message

Last Activation Date

\$\$LA^ICDEX(FILE,IEN,CDT)

ICR 5747

Input:

IEN Internal Entry Number (Required)
 FILE Global Root/File Number (Required)
 CDT Date (default = TODAY) (Optional)

Output:

\$\$LA Last Current Activation Date OR -1 ^ Error Message

Last Inactivation Date

\$\$LI^ICDEX(FILE,IEN,CDT) ICR 5747

Input:

IEN Internal Entry Number (Required)
FILE Global Root/File Number (Required)
CDT Date (default = TODAY) (Optional)

Output:

\$\$LI Last Current Inactivation Date OR -1 ^ Error Message

Last Status

\$\$LS^ICDEX(FILE,IEN,CDT) ICR 5747

Input:

IEN Internal Entry Number (Required)
FILE Global Root/File Number (Required)
CDT Date (default = TODAY) (Optional)

Output:

\$\$LS Last Status (1/0) OR -1 ^ Error Message

Convert Code to a Numeric Value

\$\$NUM^ICDEX(CODE) ICR 5747

Input:

CODE ICD CODE (required)

Output:

NUM Numerical representation of CODE

or

-1 on error

Convert Numeric Value to a Code

\$\$COD^ICDEX(NUM) ICR 5747

Input:

NUM Numerical representation of an ICD Code (required)

Output:

CODE ICD Code
 or
 null on error

Internal or External Format

\$\$IE^ICDEX(CODE) ICR 5747

Input:

CODE ICD code or IEN

Output:

\$\$IE Set of Codes
 I X is in an internal format (IEN)
 E X is in an external format (Code)
 Null on error

Resolve File Number

\$\$FILE^ICDEX(SYS) ICR 5747

Input:

X File/Identifier/Coding System/Code (required)

Output:

FILE File Number or -1 on error

Resolve Global Root

\$\$ROOT^ICDEX(SYS) ICR 5747

Input:

X File Number, File Name, Root, Identifier
 or Coding System (required)

Output:

ROOT Global Root for File or null

Diagnosis/Procedure file Header Node

\$\$HDR(FILE)

ICR 5747

Input:

X File Number or Global Root
 80 or ^ICD9(
 80.1 or ^ICD0(

Output:

\$\$HDR Diagnosis/Procedure File Header Node

Replaces ICR 2435 and 2436

Resolved Coding System Version (uses file 80.4)

\$\$VER(SYS,REL)

ICR 5747

Input:

SYS Pointer to the coding system file 80.4
 REL Indicates the relationship of the output coding system to the input coding system (Optional)

0 N/A - Return the current version (default)
 1 Return the next version
 -1 Return the previous version

Output

\$\$VER This is a 5 piece string containing:

1 Coding System (pointer to file 80.4)
 2 Coding System Nomenclature
 3 Coding System Abbreviation
 4 File Number containing the Coding System
 5 Date Coding System was Implemented

or

-1 on error

Resolved Coding System (uses file 80.4)

\$\$SYS^ICDEX(SYS,CDT,FMT)

ICR 5747

Input:

SYS System/Source Abbreviation/System Identifier/Code
 CDT Date (optional)
 FMT Output Format (optional)

I Internal (default)
 E External
 B Both Internal ^ External

Output:

\$\$\$SYS System (numeric or alpha)

Internal	External
1	ICD-9-CM
2	ICD-9 Proc
30	ICD-10-CM
31	ICD-10-PCS

or
 -1 on error

Coding System Information (uses file 80.4)

\$\$SINFO^ICDEX(SYS,CDT)

ICR 5747

Input:

SYS	System/Source Abbreviation/System Identifier/Code
CDT	Date (optional)

Output:

\$\$SINFO System Info (numeric or alpha)

Internal	External
1	IEN to file 80.4
2	Coding System
3	Coding System Nomenclature
4	Coding system Abbreviation
5	File where the Coding System is stored
6	Implementation Date

or
 -1 on error

Coding System Name

\$\$SNAM^ICDEX(SYS)

ICR 5747

Input:

SYS	Numeric System Identifier (field 1.1)
-----	---------------------------------------

Output:

\$\$SYS Character System Name
 or -1 on error

Source Abbreviation

\$\$SAB^ICDEX(SYS,CDT) ICR 5747

Input:

X Source Abbreviation or Identifier
 Y Date used to determine SAB

Output:

\$\$SAB 3 Character System Identifier

Exclude from Lookup

\$\$EXC^ICDEX(FILE,IEN) ICR 5747

Input:

FILE File number 80 or 80.1
 IEN Internal Entry Number

Output:

\$\$EXC Boolean value 1 = Yes 0 = No

4.4.5 DRG Grouper Support

Is Code 1 a Condition of Code 2

\$\$ISA^ICDEX(IEN1,IEN2,FIELD) ICR 5747

Input:

IEN1 This is the internal entry number (IEN) of a code in file 80 that has a relationship with the code at IEN2 IEN1 is equivalent to Fileman's DA and identifies a code stored in a multiple in field 20, 30, 40 or pointed to by field 1.11.

IEN2 This is the internal entry number (IEN) of a code in file 80 that may have other codes (IEN1) associated with it. IEN2 is equivalent to Fileman's DA(1) and identifies the code in the .01 field.

FIELD This is a field number in file 80 that contains

one or more ICD codes that have a relationship to the main entry. Acceptable field numbers and the type of relationships to check include:

Field	Relationship
20	Code 1 Not Used With Code 2
30	Code 1 Required With Code 2
40 or 1.11	Code 1 Not Considered CC With Code 2

Output:

\$\$ISA Boolean value

1 Yes/The relationship is True
0 No/The relationship is False

Field	Answers the Question
20	Code 1 (identified by IEN1) is not used with Code 2 (identified by IEN2)
30	Code 1 (identified by IEN1) is required with Code 2 (identified by IEN2)
40 or 1.11	Code 1 (identified by IEN1) is not considered Complication/Comorbidity (CC) with Code 2 (identified by IEN2)

Is an ICD Code Valid

\$\$ISVALID^ICDEX(FILE,IEN,CDT)

ICR 5747

Input:

FILE File or global root
IEN Internal Entry Number
CDT Effective date to use (default TODAY)

Output:

\$\$ISVALID This is a Boolean value
1 if the code is valid
0 if the code is not valid

Does a Condition Exist

\$\$EXIST^ICDEX(IEN,FIELD)

ICR 5747

Input:

IEN Internal Entry to file 80
FIELD Type of condition to check

20 Code Not Used With
 30 Code Required With
 40 Code Not Considered CC With

Output:

\$\$EXIST Boolean value

1 Yes/True
 0 No/False

Field Answers the Question

Field	Answers the Question
20	Are there any codes required with this code (IEN)
30	Are there any codes that should not be used with this code (IEN)
40	Are there any codes that are not considered Complication/Comorbidity (CC) with this code (IEN)

DRGs for a Fiscal Year

\$\$GETDRG^ICDEX(FILE,IEN,CDT,MDC)

ICR 5747

Input

FILE ICD file number used to retrieve the DRGs (Required):

80 = ICD Diagnosis file
 80.1 = ICD Operation/Procedure file

IEN Internal Entry Number (IEN) in the file specified (Required)

CDT This is the Code Set Versioning date (Fileman format) used to identify the DRGs that were appropriate on that date (optional, default TODAY)

MDC Major Diagnostic Category (pointer to file 80.1) used as a screen to limit the DRGs to a MDC. This input parameter only applies to the OPERATIONS/PROCEDURE file 80.1 which has multiple MDCs, each with a possibility of multiple DRGs.

Output

3 piece semi-colon delimited string

1 DRGs delimited by ^
 2 Fiscal Year
 3 Status flag

0 inactive
1 active

Example output:

907^908^909^;3071001;1

On Error:

-1;No DRG level;0

MDC DRGs

MD^ICDEX(FILE,IEN,CDT,ARY,FLAG)

ICR 5747

Input

FILE File Number/Identifier
IEN Internal entry in file
CDT Code Set Versioning Date
.ARY Array name passed by reference
FLAG Flag I=Internal (default)
E=External

Output

ICD Procedures file 80.1 (multiple MDC)

ARY(<fiscal year>,<MDC>)=DRG^;FY;STA
ARY(<fiscal year>,<MDC>)="DRG^DRG^;FY;STA

If Flag contains "E"

ARY(<fiscal year>,"E",<MDC>)=MDC Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E",<MDC>)=MDC Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E","FY")=External FY

ICD Diagnosis file 80 (single MDC)

ARY(<fiscal year>,<MDC>)="DRG^DRG^;FY;STA

If Flag contains "E"

ARY(<fiscal year>,"E",<MDC>)=MDC Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E","FY")=External FY

NOTE: If no Fiscal Year found for the input date then the first (earliest) Fiscal Year is used.

Convert External Date to FM

\$\$EFM^ICDEX(EDT)

ICR 5747

Input:

X External Date

Output:

\$\$EFM Internal Fileman Date

Replaces unsupported \$\$DGY2K^DGPTOD0 (X)

FY 4 Digit Year from Fileman Date

\$\$FY^ICDEX(CDT)

ICR 5747

Input:

X Internal Fileman Date

Output:

\$\$FY FY Year YYYY

Replaces unsupported \$\$FY^DGPTOD0 (X)

Versioned MDC for Diagnosis

\$\$VMDCDX^ICDEX(IEN,CDT)

ICR 5747

Input

IEN Internal Entry Number file 80
CDT Code Set Versioning Date

Output

\$\$VMDCDX Versioned MDC

Versioned MDC for Operations/Procedure

\$\$VMDCOP^ICDEX(IEN,MDC,CDT)

ICR 5747

Input

IEN Internal Entry Number file 80
MDC Major Diagnostic Category
CDT Code Set Versioning Date

Output

\$\$VMDCOP 4 piece "^" delimited string

1	Fiscal Year	Fileman format
2	MDC	Pointer to file 80.3
3	Fiscal Year	pointer to sub-file 80.171 (formerly known as DADRGFY)
4	MDC	pointer to sub-file 80.1711 (formerly known as DAMDC)

Set up an Array of MDCs

MDCG^ICDEX(IEN,CDT,ARY)

ICR 5747

Input

IEN ICD Diagnosis (IEN)
 CDT Code Set Versioning Date
 .ARY Array name passed by reference

Output

ARY Array listing MDCs for all DRGs

ARY=MDC
 ARY (MDC)=""

Multiple MDC for Operation/Procedure Code

\$\$MDCT^ICDEX(IEN,CDT,ARY,FMT)

ICR 5747

Input:

IEN Internal Entry Number for file 80.1
 CDT Code Set Versioning Date
 .ARY Array of MDCs passed by reference (required)
 FMT Output Format (optional)

- 0 Boolean value only (default)
- 1 2 piece "^" delimited string
 - 1 Boolean value
 - 2 String of matching MDCs delimited by ";"

Output:

\$\$MDCT Boolean value

- 0 The ICD Procedure code identified by IEN does not include any of the MDCs passed in .ARY(MDC) on the date specified (CDT)
- 1 The ICD Procedure code identified by IEN includes one or more of the MDCs passed in .ARY(MDC) on the date specified (CDT)

Check for Default MDC

\$\$MDCD^ICDEX(IEN,MDC)

ICR 5747

Input:

IEN Internal Entry Number for file 80.1
MDC Major Diagnostic Category
CDT Code Set Versioning Date (optional)
If not passed, the first FY is used

Output:

\$\$MDCD Boolean value

0 MDC Does not exist
1 MDC Exist

Major Diagnostic Category Name

\$\$MDCN^ICDEX(IEN)

ICR 5747

Input:

IEN Internal Entry Number for file 80.3

Output:

\$\$MDCN Major Diagnostic Category Name

Replaces ICR 1586

Major O.R. Procedure

\$\$MOR^ICDEX(IEN)

ICR 5747

Input:

IEN Internal Entry Number for file 80.1

Output:

\$\$MOR Major O.R. Procedure

Unacceptable as Principle Diagnosis

\$\$UPDX^ICDEX(IEN)

ICR 5747

Input:

IEN Internal Entry Number for file 80

Output:

\$\$PDX Boolean value only (default)

0 No, Code is Acceptable as Principle DX

1 Yes, Code is Unacceptable as Principle DX

Code NOT Used With

\$\$NOT^ICDEX(IEN,SUB,FMT)

ICR 5747

Input:

IEN Internal Entry Number in file 80

SUB TMP global array subscript name.
If not provided, the subscript
"ICDNOT" will be used.

FMT Format of Output
0 - Total number only (default)
1 - Total number with global array

Output:

\$\$NOT The number of ICD codes that can not
be used with the ICD code identified
by IEN (FMT=0 or 1)

TMP global array as follows (FMT=1):

^TMP ("SUB", \$J, IEN)=CODE

^TMP ("SUB", \$J, "B", (CODE_ " "), IEN)=""

Code Required With

\$\$REQ^ICDEX(IEN,SUB,FMT)

ICR 5747

Input:

IEN Internal Entry Number in file 80
 SUB TMP global array subscript name.
 If not provided, the subscript
 "ICDREQ" will be used.
 FMT Format of Output
 0 - Total number only (default)
 1 - Total number with global array

Output:

\$\$REQ The number of ICD codes requires when
 the ICD code identified by IEN is used.
 (FMT=0 or 1)

TMP global array as follows (FMT=1):

```
^TMP("SUB", $J, IEN)=CODE
^TMP("SUB", $J, "B", (CODE_ " "), IEN)=""
```

Code not Considered CC With

\$\$NCC^ICDEX(IEN,SUB,FMT)

ICR 5747

Input:

IEN Internal Entry Number in file 80
 SUB TMP global array subscript name.
 If not provided, the subscript
 "ICDNCC" will be used.
 FMT Format of Output
 0 - Total number only (default)
 1 - Total number with global array

Output:

\$\$NCC The number of ICD codes not considered
 as Complication/Comorbidity with the
 ICD code identified by IEN.
 (FMT=0 or 1)

TMP global array as follows (FMT=1):

```
^TMP("SUB", $J, IEN)=CODE
^TMP("SUB", $J, "B", (CODE_ " "), IEN)=""
```

Codes are taken from the DRG CC EXCLUSIONS
 file #82.13. If not found, and the code
 is a legacy code (ICD-9) then the codes
 will be taken from the ICD CODES NOT CC
 WITH field #40.

ICD Identifier was found for Code

\$\$ICDID^ICDEX(FILE,ID,CODE) ICR 5747

Input:

FILE File Number or root (required)
 80 or ^ICD9 or 80.1 or ^ICD0
 ID Diagnosis/Procedure code identifier (required)
 CODE Diagnosis/Procedure code IEN (required)

Output:

\$\$ICDID Boolean value
 1 if identifier was found
 0 if identifier was not found
 or upon error -1^error message

ICD Identifier String (legacy)

\$\$IDSTR^ICDEX(FILE,IEN) ICR 5747

Input:

FILE File Number or root (required)
 80 or ^ICD9 or 80.1 or ^ICD0
 IEN Diagnosis/Procedure code IEN (required)

Output:

\$\$IDSTR String of Identifiers delimited by a semi-colon
 ID;ID;ID

All ICD Identifiers assigned to a Code

\$\$ICDIDS^ICDEX(FILE,CODE,,ARY) ICR 5747

Input:

FILE File Number or root (required)
 80 or ^ICD9 or 80.1 or ^ICD0
 CODE Diagnosis/Procedure code IEN (required)
 ARY Array Name passed by reference (required)

Output:

\$\$ICDIDS Number of Identifiers found
 0 (zero) if no identifiers found
 or upon error -1^error message
 ARY Array of identifiers found
 ARY(<identifier)=""

ICD is own CC – Return CC

\$\$ISOWNCC^ICDEX(IEN,CDT,FMT)

ICR 5747

Input:

IEN Internal Entry Number for file 80 (required)
 CDT Date to use to extract CC (default TODAY)
 FMT Output Format
 0 = CC only (default)
 1 = CC ^ Effective Date

Output:

\$\$ISOWNCC Complication/Comorbidity (CC)

DX is Own CC	Format	Output
Yes	0	CC Value
Yes	1	CC Value ^ Effective Date
No	N/A	0 (zero)

or upon error -1^error message

DRG Complication/Comorbidity/Major CC

\$\$ICDRGCC^ICDEX(DRG,CDT)

ICR 5747

Input:

DRG Internal Entry Number for file 80.2 (required)
 CDT Date to use to extract CC/MCC flag
 (default TODAY)

Output:

\$\$ICDRGCC Complication/Comorbidity/Major CC flag

- 0 No CC or MCC
- 1 CC present
- 2 MCC present
- 3 CC or MCC present

or upon error -1^error message

Inquire to the ICD Files (interactive)

INQ^ICDEX

ICR 5747

User will be prompted for:

Effective Date
File
Code

Displays

Code
Short Text
Description
Description Warnings (if any)
 Text may be inaccurate, Effective Date
 Predates Code Set Versioning
 Predates Coding System Implementation
 Predates Initial Activation Date
Activation Warnings (if any)
 Code is Inactive
 Code is pending (activated in the future)

Get Effective date in range (interactive)

EFD^ICDEX

ICR 5747

Prompts for Effective Date for DRG grouper

The lower boundary for the date is the ICD-9 implementation date October 1, 1978.

The upper boundary for date is either

3 years from the ICD-10 implementation date or
3 years from TODAY

Whichever is further into the future

Input:

None

Output:

\$\$EFF 3 piece ^ delimited string

1	Date Fileman format	nnnnnnn
2	Date External Short Format	mm/dd/yyyy
3	Date External Long Format	Mmm dd, yyyy

Primary Diagnosis Exclusion Code

\$\$PDXE^ICDEX(IEN)

ICR 5747

Input

IEN Internal Entry Number (IEN) for file #80

Output

\$\$PDXE Pointer to DRG CC Exclusions file #82.13

DRG Information

\$\$DRG^ICDEX(IEN,CDT)

ICR 5747

Input:

CODE DRG code, internal or external format (Required)
 CDT Date, FileMan format (default = TODAY)
 If CDT < 10/1/1978, use 10/1/1978
 If CDT > DT, validate with In/Activation Dates
 If CDT is year only, use first of the year
 If CDT is year and month, use first of the month

Output:

Returns an 22 piece string delimited by the up-arrow (^) the pieces are:

- 1 DRG name (field #.01)
- 2 Weight (field #2)
- 3 Low Trim (days) (field #3)
- 4 High Trim (days) (field #4)
- 5 MDC (field #5)
- 6 Surgery Flag (field #.06)
- 7 <null>
- 8 Avg Length of Stay (days) (field 10)
- 9 Local Low Trim Days (field #11)
- 10 Local High Trim Days (field #12)
- 11 <null>
- 12 Local Breakeven (field #13)
- 13 Activation Date (.01 of the 66 multiple)
- 14 Status (.03 of the 66 multiple)
- 15 Inactivation Date (.01 of the 66 multiple)
- 16 Effective date (.01 of the 66 multiple)
- 17 Internal Entry Number (IEN)
- 18 Effective date (.01 of the 66 multiple)
- 19 Reference (field #900)
- 20 Weight (Non Affil) (field #7)
- 21 Weight (Int Affil) (field #7.5)
- 22 Message

DRG Description (formatted)

\$\$DRGDES^ICDEX(IEN,CDT,ARY,LEN)

ICR 5747

Input:

IEN Internal Entry Number of DRG file 80.2
 CDT Date to screen against (default = TODAY)
 .ARY Output Array passed by reference
 LEN Length of each array node
 Missing Defaults to 79
 Less than 25 Defaults to 25

Output:

\$\$DRGD Number of lines in description output array
 ARY Description in array of length specified

DRG Description (unformatted)

\$\$DRGD^ICDEX(IEN,CDT,ARY,LEN)

ICR 5747

Input:

CODE ICD Code, Internal or External Format (required)
 ARY Output Array Name for description
 e.g. "ABC" or "ABC("TEST")"
 Default = ^TMP("DRGD", \$J)
 CDT Date to screen against (default = TODAY)
 If CDT < 10/1/1978, use 10/1/1978
 If CDT > DT, use DT
 If CDT is year only, use first of the year
 If CDT is year/month only, use first of the month

Output:

\$\$DRGD Number of lines in description output array
 ARY Description in array
 @ARY(1:n) - Description (lines 1-n) (field 68)
 @ARY(n+1) - Blank
 @ARY(n+1) - Message: CODE TEXT MAY BE INACCURATE

or

-1^Error Description

** NOTE - USER MUST INITIALIZE ^TMP("DRGD", \$J), IF USED **

Get the DRG Weighted Work Unit (WWU)

\$\$DRGW^ICDEX(CODE)

ICR 5747

Input:

IEN Internal Entry Number file 80.2

Output:

\$\$WT Weight

Replaces ICR 48

Get the DRG Code of an IEN

\$\$DRGC^ICDEX(IEN)

ICR 5747

Input:

IEN Internal Entry Number file 80.2

Output:

\$\$DRGC Code (field .01)

Replaces ICR 370

Get the IEN of a DRG Code

\$\$DRGN^ICDEX(CODE)

ICR 5747

Input:

CODE DRG code

Output:

\$\$DRGN IEN of DRG code

or

-1 on error

Calculate Effective Date from Patient Data

\$\$GETDATE^ICDEX(IEN)

ICR 5747

Input:

IEN Internal Entry Number of the PTF file #45

Output:

\$\$GETDATE Returns the correct "EFFECTIVE DATE" for a patient to uses retrieving and calculating DRG/ICD/CPT data (default TODAY)

Derived from:

Census Date	^DGPT	0;13	ICR 5822
Discharge Date	^DG(45.86	0;1	ICR 5821
Surgery Date	^DGPT(D0,"S"	0;1	ICR 5822
Movement Date	^DGPT(D0,"M"	0;10	ICR 5822

Input:

4.4.6 Special Lookup

Special Lookup called by Fileman (DIC)

LK^ICDEX
ICDEXLK

ICR 5747
ICR 5747

This is the Special Lookup program for files 80 and 80.1. Only the ^DIC call honors the special lookup routines. Those calls that allow the user to specify the indexes (IX^DIC and MIX^DIC1), and the Data Base Server calls (FIND^DIC, \$\$FIND1^DIC, and UPDATE^DIE) all ignore the Special Lookup Program. Also, if DIC(0) contains an "I" then the Special Lookup program will be ignored.

Local Variables NEWed or KILLed by Calling Application

ICDVDT Versioning Date (Fileman format) (OLD, CSV)

If supplied only active codes on that date will be included in the selection list.

If not supplied, the date will default to TODAY and all codes may be selected, active and inactive.

In both cases the display will be altered based on the date.

ICDSYS Coding System (from file 80.4) (NEW)

1	ICD	ICD-9-CM
2	ICP	ICD-9 Proc
30	10D	ICD-10-CM
31	10P	ICD-10-PCS

ICDFMT Display Format (numeric, 1-4) (NEW)

1 = Fileman format, code and short text (default)

250.00 DMII WO CMP NT ST UNCNTR

2 = Fileman format, code and description

250.00 DIABETES MELLITUS WITHOUT MENTION OF
COMPLICATION, TYPE II OR UNSPECIFIED
TYPE, NOT STATED AS UNCONTROLLED

3 = Lexicon format, short text followed by code

DMII WO CMP NT ST UNCNTR (250.00)

4 = Lexicon format, description followed by code

DIABETES MELLITUS WITHOUT MENTION OF
COMPLICATION, TYPE II OR UNSPECIFIED TYPE, NOT
STATED AS UNCONTROLLED (250.00)

Special Lookup

^DD(80,0,"DIC")="ICDEXLK"
^DD(80.1,0,"DIC")="ICDEXLK"

FileMan Variables

X If DIC(0) does not contain an A, then the variable X must be defined equal to the value you want to find in the requested Index(es).

DIC Global root or File Number

^ICD9(or 80
^ICD0(or 80.1

DIC(0) (Optional) A string of characters which alter how DIC responds. Default value for ICD files "AEM"

Applicable to a versioned file

A Ask the entry; if erroneous, ask again
B Only the B index is used
E Echo information
F Forget the lookup value
I Ignore the special lookup program
M Multiple-index lookup allowed
O Only find one entry if it matches exactly
S Suppresses display of .01
T Search until user selects or enters ^^
X EXact match required
Z Zero node in Y(0), external form in Y(0,0)

Not Applicable to a versioned file

C Versioned cross-references not turned off
K Primary Key not established
L Learning a new entry LAYGO not allowed
N Uppercase, IEN lookup allowed (not forced)
n ICD has no pure numeric entries
Q Input is pre-processed, ?? not necessary
U All values are external
V Verification is not optional

DIC("A") (Optional) A prompt that is displayed prior to the reading of the X input. If DIC("A") is not defined, a prompt will be supplied by the special lookup routines.

DIC("B") (Optional) The default answer which is presented to the user when the lookup prompt is issued. If a terminal user simply presses the Enter/Return key, the DIC("B") default value will be used, and returned in X. DIC("B") will only be used if it is non-null.

DIC("S") (Optional) DIC("S") is a string of M code that DIC executes to screen an entry from selection. DIC("S") must contain an IF statement to set the value of \$T. Those entries that the IF sets as \$T=0 will not be displayed or selectable. When the DIC("S") code is executed, the local variable Y is the internal number of the entry being screened and the M naked indicator is at the global level @ (DIC_"Y,0").

DIC("W") (Optional) An M command string which is executed when DIC displays each of the entries that match the user's input. The condition of the variable Y and of the naked indicator is the same as for DIC("S"). If DIC("W") is defined, it overrides the display of any identifiers of the file. Thus, if DIC("W")="", the display of identifiers will be suppressed.

DIC("?N",<file>)=n
 (Optional) The number "n" should be an integer set to the number of entries to be displayed on the screen at one time when using "?" help in a lookup.

FileMan Variables not used:

DIC("DR")
 DIC("PTRIX",<from>,<to>,<file>)
 DIC("T")
 DIC("V")
 DIC("?PARAM",<file>,"INDEX")
 DIC("?PARAM",<file>,"FROM",<subscript>)
 DIC("?PARAM",<file>,"PART",<subscript>)

FileMan Variables KILLed:

DLAYGO
 DINUM

Output

Y	IEN ^ Code	Fileman
If DIC(0) contains "Z"		
Y(0)	0 Node	Fileman
Y(0,0)	Code	Fileman
Y(0,1)	\$\$ICDDX or \$\$ICDOP	Non-Fileman
Y(0,2)	Long Description	Non-Fileman

Silent Lookup (GUI)

\$\$LKTX^ICDEX(X,ROOT,CDT,SYS,VER,OUT)

ICR 5747

Input

TXT Text to Search for (Required)

Diagnosis or Procedure Code
Diagnosis or Procedure Descriptive Text

ROOT Global Root/File # to Search (Fileman DIC, Required)

^ICD9(
^ICD0(

CDT Date (default = TODAY) (Optional)

SYS Coding System (Optional but encouraged)

1 ICD-9-CM
2 ICD-9 Proc
30 ICD-10-CM
31 ICD-10-PCS

VER Versioned Lookup

0 No, include all codes, active and inactive
1 Yes, include only Active codes for date CDT

OUT Output Format

1 Fileman, Code and Short Text (default)

250.00 DMII WO CMP NT ST UNCNTR

2 Fileman, Code and Description

250.00 DIABETES MELLITUS WITHOUT MENTION OF
COMPLICATION, TYPE II OR UNSPECIFIED
TYPE, NOT STATED AS UNCONTROLLED

3 Lexicon, Short Text and Code

DMII WO CMP NT ST UNCNTR (250.00)

4 Lexicon, Description and Code

DIABETES MELLITUS WITHOUT MENTION OF
COMPLICATION, TYPE II OR UNSPECIFIED TYPE,
NOT STATED AS UNCONTROLLED (250.00)

Output (if successful)

\$\$LK Number of entries found

Global Array of entries found:

```

^TMP (ID,$J,"SEL")
^TMP (ID,$J,"SEL",0)=# of entries
^TMP (ID,$J,"SEL",#)=IEN ^ Display Text
    
```

Where ID is a package namespaced subscript:

```

ICD9 - for the Diagnosis file #80
ICD0 - for the Operations/Procedure file #80.1
    
```

Local Variables used but NEWed or KILLed Elsewhere

DIC(0)

Extract Fileman Y Variable

Y(ROOT,IEN,CDT,FMT) ICR 5747

Input

```

ROOT      Global Root (DIC) or file Number
IEN       Internal Entry Number
CDT       Versioning date (default TODAY)
FMT       Format of output
           0   Standard Fileman Y IEN ^ CODE
           1   Expanded Y as if DIC(0) contained a "Z"
    
```

Output

```

Y          IEN ^ Code          Fileman Compliant

If FMT greater than 0

Y(0)      0 Node (Code)       Fileman Compliant
Y(0,0)    .01 Field (Code)    Fileman Compliant
Y(0,1)    $$ICDDX or $$ICDOP  Non-Fileman
Y(0,2)    Long Description     Non-Fileman
    
```

TOKEN(ROOT,ROOT,SYS,.ARY) ICR 5747

Input

```

TEXT      This is a text string to parse.
ROOT      This is a global root or file number (required)
           ^ICD9( or 80
           ^ICD0( or 80.1
SYS       This is the coding system (Required)
           1 or ICD or ICD-9-CM
           2 or ICP or ICD-9 Proc
           30 or 10D or ICD-10-CM
           31 or 10P or ICD-10-PCS
    
```

Output

```

.ARY      This is the output array passed by reference
           containing words parsed from the input string TEXT
           and arranged by frequency of use (Required)
    
```

ARY (USE, SYS) =WORD

Where USE is the number of times the word was used in the file identified by ROOT and coding system SYS and WORD is a single word found in designated coding system

\$\$WORD(WORD,ROOT,SYS)

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Input

WORD This is a single word.
 ROOT This is a global root or file number (required)
 ^ICD9(or 80
 ^ICD0(or 80.1
 SYS This is the coding system (Required)
 1 or ICD or ICD-9-CM
 2 or ICP or ICD-9 Proc
 30 or 10D or ICD-10-CM
 31 or 10P or ICD-10-PCS

Output

\$\$WORD This is a Boolean value indicating if a word is contained in a set (file or system).

1 = Word was found

If ROOT is not supplied, the word was found in either file 80 or 80.1

If SYS is not supplied, the word was found in the file designated by ROOT in any coding system in the file

If both ROOT and SYS are supplied, the word was found in the specified coding system

0 = Word was not found

5. Files

The ICD data dictionaries may not be modified. The file descriptions of these files will be so noted.

5.1 Globals to Journal

There are no globals to journal in the ICD package.

5.2 File List

<u>File #</u>	<u>File Name</u>	<u>Global</u>
80	ICD DIAGNOSIS	^ICD9(
80.1	ICD OPERATION/PROCEDURE	^ICD0(
80.2	DRG	^ICD
80.3	MAJOR DIAGNOSTIC CATEGORY	^ICM
80.4	ICD CODING SYSTEMS	^ICDS(
82	DRG DIAGNOSIS IDENTIFIER CODES	^ICDID(
82.1	DRG PROCEDURE IDENTIFIER CODES	^ICDIP(
82.11	DRG PROCEDURE CODE COMBINATIONS	^ICDIDP(
82.12	DRG DIAGNOSIS CODE COMBINATIONS	^ICDIDD(
82.13	DRG CC EXCLUSIONS	^ICDCCEX(

5.3 Condensed Data Dictionary Listing

5.3.1 ICD DIAGNOSIS file #80

FIELD NUMBER	FIELD NAME
.01	CODE NUMBER (RF), [0;1]
1.1	CODING SYSTEM (*P80.4'), [1;1]
1.11	PDX EXCLUSION CODE (P82.13'), [1;11]
1.2	IDENTIFIER (F), [1;2]
1.3	UNACCEPTABLE AS PRINCIPAL DX (S), [1;3]
1.4	MDC13 (NJ2,0), [1;4]
1.5	MDC24 (S), [1;5]
1.6	MDC25 (S), [1;6]
1.7	ICD EXPANDED (S), [1;7]
1.8	EXCLUDE FROM LOOKUP (CJ1), [;]
1.9	POA EXEMPT (S), [1;9]
10	SEX (Multiple-80.04), [5;0]
	.01 SEX EFFECTIVE DATE (D), [0;1]
	1 SEX (S), [0;2]
11	AGE LOW (Multiple-80.011), [6;0]
	.01 AGE LOW EFFECTIVE DATE (D), [0;1]
	1 AGE LOW (NJ2,0), [0;2]
12	AGE HIGH (Multiple-80.012), [7;0]
	.01 AGE HIGH EFFECTIVE DATE (D), [0;1]
	1 AGE HIGH (NJ3,0), [0;2]
20	ICD CODES NOT TO USE WITH (Multiple-80.01), [N;0]
	.01 ICD CODE NOT TO USE WITH (MP80'X), [0;1]
30	ICD CODES REQUIRED WITH (Multiple-80.02), [R;0]
	.01 ICD CODE REQUIRED WITH (MP80'X), [0;1]
40	ICD CODES NOT CC WITH (Multiple-80.03), [2;0]
	.01 ICD CODE NOT CC WITH (MP80'), [0;1]
66	STATUS (Multiple-80.066), [66;0]
	.01 STATUS EFFECTIVE DATE (RD), [0;1]
	.02 STATUS (RS), [0;2]
67	DIAGNOSIS (Multiple-80.067), [67;0]
	.01 DIAGNOSIS EFFECTIVE DATE (MRD), [0;1]
	1 DIAGNOSIS (RF), [0;2]
68	DESCRIPTION (Multiple-80.068), [68;0]
	.01 DESCRIPTION EFFECTIVE DATE (MRD), [0;1]
	1 DESCRIPTION (RF), [1;1]
	2 NON-SDO DESCRIPTIVE KEYWORDS (F), [2;1]
71	DRG GROUPER (Multiple-80.071), [3;0]
	.01 DRG GROUPER EFFECTIVE DATE (MMD), [0;1]
	1 DRG (Multiple-80.711), [1;0]
	.01 DRG (MP80.2'), [0;1]
72	MAJOR DIAGNOSTIC CATEGORY (Multiple-80.072), [4;0]
	.01 MDC EFFECTIVE DATE (MD), [0;1]
	1 MDC (P80.3'), [0;2]
73	DRG DIAGNOSIS IDENTIFIER CODES (Multiple-80.073), [73;0]
	.01 DRG DIAGNOSIS IDENTIFIER CODE (MP82'), [0;1]
103	COMPLICATION/COMORBIDITY (Multiple-80.0103), [69;0]
	.01 CC EFFECTIVE DATE (D), [0;1]
	1 COMPLICATION/COMORBIDITY (S), [0;2]

2 PRIMARY (S), [0;3]

5.3.2 ICD OPERATION/PROCEDURE file #80.1

FIELD NUMBER	FIELD NAME
.01	CODE NUMBER (RF), [0;1]
1.1	CODING SYSTEM (*P80.4'), [1;1]
1.2	IDENTIFIER (F), [1;2]
1.5	MDC24 (S), [1;5]
1.7	ICD EXPANDED (S), [1;7]
1.8	EXCLUDE FROM LOOKUP (CJ1), [;]
10	SEX (Multiple-80.11), [3;0]
	.01 SEX EFFECTIVE DATE (D), [0;1]
	1 SEX (S), [0;2]
20	MAJOR O.R. PROC (F), [M;1]
66	STATUS (Multiple-80.166), [66;0]
	.01 STATUS EFFECTIVE DATE (RD), [0;1]
	.02 STATUS (RS), [0;2]
67	OPERATION/PROCEDURE (Multiple-80.167), [67;0]
	.01 OPER/PROCEDURE EFFECTIVE DATE (MRD), [0;1]
	1 OPERATION/PROCEDURE (RF), [0;2]
68	DESCRIPTION (Multiple-80.168), [68;0]
	.01 DESCRIPTION EFFECTIVE DATE (MRD), [0;1]
	1 DESCRIPTION (RF), [1;1]
	2 NON-SDO DESCRIPTIVE KEYWORDS (F), [2;1]
71	DRG GROUPER (Multiple-80.171), [2;0]
	.01 DRG GROUPER EFFECTIVE DATE (MD), [0;1]
	1 MAJOR DIAGNOSTIC CATEGORIES (Multiple-80.1711), [1;0]
	.01 MAJOR DIAGNOSTIC CATEGORY (MP80.3'), [0;1]
	1 DRG (Multiple-80.17111), [1;0]
	.01 DRG (MP80.2'), [0;1]
73	DRG PROCEDURE IDENTIFIER CODES (Multiple-80.173), [73;0]
	.01 DRG PROCEDURE IDENTIFIER CODE (MP82.1'), [0;1]

5.3.3 DRG file 80.2

FIELD NUMBER	FIELD NAME
.001	NUMBER (NJ4,0), []
.01	NAME (R), [0;1]
.06	SURGERY (S), [0;6]
1	DESCRIPTION (Multiple-80.21), [1;0]
	.01 DESCRIPTION (MF), [0;1]
2	WEIGHT (NJ8,3), [0;2]
3	LOW TRIM(days) (NJ2,0), [0;3]
4	HIGH TRIM(days) (NJ3,0), [0;4]
5	MDC# (RP80.3'), [0;5]
7	WEIGHT(nonAffil) (NJ8,2), [0;7]
7.5	WEIGHT(IntAffil) (NJ8,2), [0;11]
10	AVG LENGTH OF STAY(days) (NJ8,2), [0;8]
11	LOCAL LOW TRIM(Days) (NJ2,0), [0;9]
12	LOCAL HIGH TRIM(Days) (NJ3,0), [0;10]
13	LOCAL BREAKEVEN (NJ5,1), [0;12]


```

14     ACTIVATION DATE (D), [0;13]
15     INACTIVE (S), [0;14]
16     INACTIVATION DATE (D), [0;15]
20     FISCAL YEAR WEIGHTS&TRIMS (Multiple-80.22), [FY;0]
      .01 FISCAL YEAR WEIGHTS&TRIMS (MDX), [0;1]
      2   WEIGHT (NJ9,3), [0;2]
      2.5 WEIGHT(nonAffil) (NJ7,2), [0;8]
      2.6 WEIGHT(IntAfill) (NJ8,2), [0;10]
      3   LOW TRIM(days) (NJ2,0), [0;3]
      4   HIGH TRIM(days) (NJ3,0), [0;4]
      4.5 AVG LENGTH OF STAY(days) (NJ9,2), [0;9]
      5   *** (NJ5,0), [0;5]
      6   LOCAL LOW TRIM(days) (NJ2,0), [0;6]
      7   LOCAL HIGH TRIM(days) (NJ3,0), [0;7]
30     BREAKEVEN FISCAL YEAR/QUARTER (Multiple-80.23), [BE;0]
      .01 BREAKEVEN FISCAL YEAR/QUARTER (NJ3,0XO), [0;1]
      1   SERVICE (Multiple-80.24), [S;0]
          .01 SERVICE (SX), [0;1]
              1   BREAK EVEN DAYS (RNJ5,1), [0;2]
          2   MEDICAL CENTER BREAKEVEN (RNJ5,1), [0;2]
66     EFFECTIVE DATE (Multiple-80.266), [66;0]
      .01 EFFECTIVE DATE (RD), [0;1]
      .03 STATUS (RS), [0;3]
      .05 MDC# (RP80.3'), [0;5]
      .06 SURGERY (RS), [0;6]
68     DESCRIPTION (VERSIONED) (Multiple-80.268), [68;0]
      .01 EFFECTIVE DATE (MD), [0;1]
      1   DESCRIPTION (Multiple-80.2681), [1;0]
          .01 DESCRIPTION (MF), [0;1]
71     DRG GROUPER EFFECIVE DATE (Multiple-80.271), [2;0]
      .01 DRG GROUPER EFFECIVE DATE (D), [0;1]
      1   REFERENCE (F), [0;3]
900    REFERENCE (F), [MC1;1]

```

5.3.4 MAJOR DIAGNOSTIC CATEGORY file 80.3

FIELD NUMBER	FIELD NAME
.001	NUMBER (NJ2,0), []
.01	NAME (R), [0;1]
1	DISORDER/PROCEDURE (Multiple-80.31), [1;0]
	.01 DISORDER/PROCEDURE (MF), [0;1]
	1 SURGERY (S), [0;2]
	2 DRGa (NJ3,0), [0;3]
	3 DRGb (NJ3,0), [0;4]
	4 DRGc (NJ3,0), [0;5]
	5 DRGd (NJ3,0), [0;6]
	6 DRGe (NJ3,0), [0;7]
	7 DRGf (NJ3,0), [0;8]
	99 MUMPS CODE (Multiple-80.32), [1;0]
	.01 MUMPS CODE (MF), [0;E1,200]

5.3.5 ICD CODING SYSTEMS file 80.4

FIELD NUMBER	FIELD NAME
.001	ICD CODING SYSTEM (NJ4,0), []
.01	ICD CODING SYSTEM NOMENCLATURE (F), [0;1]
.02	CODING SYSTEM ABBREVIATION (F), [0;2]
.03	ICD FILE (*P1'), [0;3]
.04	IMPLEMENTATION DATE (D), [0;4]

5.3.6 DRG DIAGNOSIS IDENTIFIER CODES File #82

FIELD NUMBER	FIELD NAME
.01	IDENTIFIER CODE (RF), [0;1]
1	DESCRIPTION (RF), [0;2]

5.3.7 DRG PROCEDURE IDENTIFIER CODES File #82.1

FIELD NUMBER	FIELD NAME
.01	IDENTIFIER CODE (RF), [0;1]
1	DESCRIPTION (RF), [0;2]

5.3.8 DRG PROCEDURE CODE COMBINATIONS file #82.11

FIELD NUMBER	FIELD NAME
.01	IDENTIFIER CODE (RP82.1'), [0;1]
1	BLOCK (Multiple-82.111), [BL;0]
.01	BLOCK (MRNJ4,0), [0;1]
1	ONE OF (Multiple-82.1111), [ONE;0]
.01	ONE OF (MRMP80.1'), [0;1]
2	WITH ONE OF 1 (Multiple-82.1112), [WITH1;0]
.01	WITH ONE OF 1 (MRP80.1'), [0;1]
3	WITH ONE OF 2 (Multiple-82.1113), [WITH2;0]
.01	WITH ONE OF 2 (MRP80.1'), [0;1]
4	WITH ONE OF 3 (Multiple-82.1114), [WITH3;0]
.01	WITH ONE OF 3 (MRP80.1'), [0;1]
5	WITH ONE OF 4 (Multiple-82.1115), [WITH4;0]
.01	WITH ONE OF 4 (MRP80.1'), [0;1]
6	MDC (Multiple-82.1116), [MDC;0]
.01	MDC (MRP80.3'), [0;1]
1	DRG (Multiple-82.11161), [DRG;0]
.01	DRG (MRP80.2'), [0;1]

5.3.9 DRG DIAGNOSIS CODE COMBINATIONS file #82.12

FIELD NUMBER	FIELD NAME
.01	IDENTIFIER CODE (RP82'), [0;1]
1	BLOCK (Multiple-82.121), [BL;0]
.01	BLOCK (MRNJ4,0), [0;1]
1	ONE OF (Multiple-82.1211), [ONE;0]
.01	ONE OF (MRP80'), [0;1]
2	WITH ONE OF 1 (Multiple-82.1212), [WITH1;0]
.01	WITH ONE OF 1 (MRP80'), [0;1]
3	WITH ONE OF 2 (Multiple-82.1213), [WITH2;0]
.01	WITH ONE OF 2 (MRP80'), [0;1]
4	WITH ONE OF 3 (Multiple-82.1214), [WITH3;0]
.01	WITH ONE OF 3 (MRP80'), [0;1]
5	WITH ONE OF 4 (Multiple-82.1215), [WITH4;0]
.01	WITH ONE OF 4 (MRP80'), [0;1]
6	MDC (Multiple-82.1216), [MDC;0]
.01	MDC (MRP80.3'), [0;1]
1	DRG (Multiple-82.12161), [DRG;0]
.01	DRG (MRP80.2'), [0;1]

5.3.10 DRG CC EXCLUSIONS file #82.13

FIELD NUMBER	FIELD NAME
.01	EXCLUSION CODE (RF), [0;1]
1	PDX (Multiple-82.131), [1;0]
.01	PDX (MRP80'), [0;1]

5.4 Detailed Data Dictionary Listing

Using Fileman, select the "DATA DICTIONARY UTILITIES" menu, then select the "LIST FILE ATTRIBUTES" option. At the "START WITH WHAT FILE" prompt, enter one of the ICD file numbers (80 for diagnosis, 80.1 for procedures, or 80.4 for coding systems). Accept default values for the remaining prompts. This will display a detailed listing of the selected file.

6. Routines

Legacy Routines	ICDAPIU	API Utilities
	ICDCODE	Get Code Data
DRG Routines	ICDDRG*	DRG Calculations
	ICDGTDRG	Get DRG Data
	ICDREF	DRG Reference
	ICDSUPT	DRG Support
	ICDTBL*	Tables
Data Extraction Routines	ICDXCODE	Interim ICD-9/10
	ICDEX*	Data Extraction
Lookup/Help	ICDEXLK*	Special Lookup
	ICDSAPI	Interim ICD-9/10 DIC call
	ICDDIC	DIC/Prototype
	ICDDICA	DIC/Prototype
	ICDHLPD	Diagnostic Identifiers
	ICDHLPO	Operation Identifiers
	ICDID	File Identifiers
	ICDCOD	Inquire to ICD Codes
Cross-Reference	ICDIDX*	Re-Index
	ICDIDX2	Re-Index Histories
	ICDTOKN	Parse Text to Words
No longer used	ICDUPDT	Update Protocol

A complete listing of routines with checksums can be displayed using the XTSUMBLD-CHECK option. At the "New or Old Checksums" prompt, enter "new" and when prompted for "Package" or "Build," select "Package." When prompted for "All routines," respond "No" and enter the namespace ICD* (include the asterisk). You will be presented with a complete list of routines and checksums for the ICD package.

7. Templates

None

8. Options

8.1 ICD DRG GROUPER

Menu Text: DRG Grouper

DESCRIPTION: Used to calculate DRG based on Diagnosis and Operation/Procedure codes entered.

Runs Routine ICDDRGM

9. Protocols

9.1 ICD CODE UPDATE EVENT

ICR 4126

TEXT: ICD Code Update

TYPE: Extended Action

DESCRIPTION: Protocol Event for Notifying Applications that an update to File #80 or File #80.1 has occurred. It is commonly invoked by the LEXICAL SERVICES PROTOCOL when the Lexicon installs ICD data.

10. Integration Control Registrations (ICRs) Summary

10.1 ICRs with ICD as the Custodian

10.1.1 Retired/Withdrawn

Files

ICR	File	Scope	Subscriber	Status	Date
368	^ICD9(	Private	IB	Retired	Nov 15, 2008
369	^ICD0(	Private	IB	Retired	Nov 15, 2008
647	^ICD9(	Private	IB	Retired	Nov 15, 2008
1161	^ICD9(	Private	VAM	Retired	Nov 15, 2008
1275	^ICD9(	Private	GMTS	Retired	Nov 15, 2008
1276	^ICD0(	Private	GMTS	Retired	Nov 15, 2008
1294	^ICD9(	Controlled	PX/TIU/OR	Retired	Nov 15, 2008
1487	^ICD9(	Private	ACKQ	Retired	Nov 15, 2008
3482	^ICD9(	Controlled	DENT	Withdrawn	Nov 26, 2001
3840	^ICD9(	Controlled	N/A	Withdrawn	Apr 02, 2003
5028	^ICD9(	Controlled	PL	Withdrawn	Aug 21, 2007
5682	^ICD10DX(	Private	LEX	Withdrawn	Jun 07, 2011

ICR	File	Scope	Subscriber	Status	Date
5683	^ICD10PR(	Private	LEX	Withdrawn	Jun 07, 2011
10082	^ICD9(	Supported	All	Withdrawn	NOV 15,2008
10083	^ICD0(	Supported	All	Withdrawn	NOV 15,2008

Routine

ICR	Routine	Scope	Subscriber	Status	Date
5684	ICDXCD	Supported	All	Withdrawn	Jun 08, 2011
5685	ICDXAU	Supported	All	Withdrawn	Jun 08, 2011
5686	ICDXLK	Supported	All	Withdrawn	Jun 08, 2011

Other

ICR	Component	Scope	Subscriber	Status	Date
5758	Protocol	Controlled	PL/GMRC/PXRM	Withdrawn	Jan 03, 2012

10.1.2 Active/Pending

Files

ICR	File	Scope	Subscriber	Status	Date
48	^ICD	Private	YS	Active	Jul 25, 1990
280	^ICD9(	Private	HBH	Active	Sep 13, 1993
365	^ICD9(	Private	QAM	Active	Mar 03, 1994
370	^ICD(	Private	IB/DSS	Active	Mar 09, 1994
582	^ICD9(	Private	ICR	Active	Apr 21, 2003
1586	^ICM	Controlled	IBD/PX	Active	Aug 08, 1996
2435	^ICD9(	Private	PXRM	Active	Jun 19, 1998
2436	^ICD0(	Private	PXRM	Active	Jun 19, 1998
4485	^ICD9(	Private	LEX	Active	Jul 28, 2004
4486	^ICD0(	Private	LEX	Active	Jul 28, 2004
4487	^ICD(	Private	LEX	Active	Jul 28, 2004
4488	^ICM(	Private	LEX	Active	Jul 28, 2004
5388	^ICD9(	Supported	All	Active	Mar 16, 2009
5404	^ICD0(	Supported	All	Active	Mar 17, 2009
5755	^ICDS	Private	LEX	Pending	Dec 24, 2011

Routines

ICR	Routine/Entry	Scope	Subscriber	Status	Date
371	ICDDRG	Controlled	IB/YS	Active	Mar 09, 1994

ICR	Routine/Entry	Scope	Subscriber	Status	Date
	ICDDRG				
3990	ICDCODE	Supported	All	Active	Mar 12, 2003
	\$\$ICDDX(CODE,CDT,DFN,SRC)				
	\$\$ICDOP(CODE,CDT,DFN,SRC)				
	\$\$ICDD(CODE,'OUTARR',CDT)				
	\$\$CODEN(CODE,FILE)				
	\$\$CODEC(CODE)				
3991	ICDAPIU	Supported	All	Active	MAR 12,2003
	\$\$STATCHK(CODE,CDT)				
	\$\$NEXT(CODE)				
	\$\$PREV(CODE)				
	\$\$HIST(CODE,ARY)				
	\$\$DTBR(CDT,CS)				
	\$\$MSG(CDT,CS)				
	PERIOD(CODE,ARY)				
4052	ICDGTDRG	Supported	All/FB/IB/DG	Active	Jul 14, 2003
	\$\$DRG(CODE,EDT)				
	\$\$GETDRG(CODE,DGNDT,FILE)				
	\$\$GETDATE(PATNUM)				
	\$\$ISVALID				
	\$\$DRGD(CODE,ARRAY,DFN,DATE)				
5699	ICDXCODE	Supported	All	Pending	Aug 02, 2011
	\$\$ICDDATA(CSYS,CODE,DATE,FRMT)				
	\$\$ICDDDESC(CSYS,CODE,DATE,OUTARR)				
	\$\$HIST(SYS,CODE,.ARY)				
	\$\$NEXT(SYS,CODE)				
	\$\$PREV(SYS,CODE)				
	\$\$STATCHK(SYS,CODE,CDT)				
	\$\$PERIOD(SYS,CODE,.ARY)				
5747	ICDEX	Controlled	LEX/PRCA/IB/FB	Pending	Nov 06, 2011
	HELP^ICDEX				
	\$\$ICDDX(CODE,CDT,SYS,FMT)				
	\$\$ICDOP(CODE,CDT,SYS,FMT)				
	\$\$ICDD(CODE,.ARY,CDT,SYS,LEN)				
	\$\$CODEN(CODE,FILE)				
	\$\$CODEC(FILE,IEN)				
	\$\$CODEBA(CODE,ROOT)				
	\$\$CODEABA(CODE,ROOT,SYS)				
	\$\$CODEFI(CODE)				
	\$\$CODECS(CODE,FILE,CDT)				

ICR	Routine/Entry	Scope	Subscriber	Status	Date
	\$\$CSI(FILE,IEN)				
	\$\$VMDC(IEN,CDT,FMT)				
	\$\$VAGEL(IEN,CDT,FMT)				
	\$\$VAGEH(IEN,CDT,FMT)				
	\$\$VCC(IEN,CDT,FMT)				
	\$\$VCCP(IEN,CDT,FMT)				
	\$\$VSEX(FILE,IEN,CDT,FMT)				
	\$\$SAI(FILE,IEN,CDT)				
	\$\$VST(FILE,IEN,CDT)				
	\$\$VLT(FILE,IEN,CDT)				
	\$\$VSTD(IEN,CDT)				
	\$\$VSTP(IEN,CDT)				
	\$\$VLTD(IEN,CDT)				
	\$\$VLTP(IEN,CDT)				
	\$\$SD(FILE,IEN,CDT,.ARY,LEN)				
	\$\$LD(FILE,IEN,CDT,.ARY,LEN)				
	PAR(.ARY,LEN)				
	\$\$STATCHK(CODE,CDT,SYS)				
	\$\$DTBR(CDT,STD,SYS)				
	\$\$IMP(SYS,CDT)				
	\$\$MSG(CDT,STD,SYS)				
	\$\$SEL(FILE,IEN)				
	\$\$NEXT(CODE,SYS,CDT)				
	\$\$PREV(CODE,SYS,CDT)				
	\$\$HIST(CODE,.ARY,SYS)				
	\$\$PERIOD(CODE,.ARY,SYS)				
	\$\$OBA(FILE,CODE,SYS,REV)				
	\$\$OD(FILE,WORD,SYS,REV)				
	\$\$DLM(FILE,IEN,FIELD,CDT)				
	\$\$CS(FILE,FMT)				
	\$\$EFF(FILE,IEN,CDT)				
	\$\$IA(FILE,IEN)				
	\$\$LA(FILE,IEN,CDT)				
	\$\$LI(FILE,IEN,CDT)				
	\$\$LS(FILE,IEN,CDT)				
	\$\$NUM(CODE)				
	\$\$COD(NUM)				
	\$\$IE(CODE)				
	\$\$FILE(SYS)				
	\$\$ROOT(SYS)				

ICR	Routine/Entry	Scope	Subscriber	Status	Date
	\$\$\$SYS(SYS,CDT,FMT)				
	\$\$\$INFO(SYS,CDT)				
	\$\$\$NAM(SYS)				
	\$\$\$AB(SYS,CDT)				
	\$\$EXC(FILE,IEN)				
	\$\$VER(SYS,REL)				
	\$\$HDR(FILE)				
	\$\$ISA(IEN1,IEN2,FIELD)				
	\$\$ISVALID(FILE,IEN,CDT)				
	\$\$EXIST(IEN,FIELD)				
	\$\$GETDRG(FILE,IEN,CDT,MDC)				
	MD(FILE,IEN,CDT,.ARY,FLAG)				
	\$\$EFM(CDT)				
	\$\$FY(CDT)				
	\$\$VMDCDX(IEN,CDT)				
	\$\$VMDCOP(IEN,MDC,CDT)				
	\$\$REF(IEN,CDT)				
	MDCG(IEN,CDT,.ARY)				
	\$\$MDCT(IEN,CDT,.ARY,FMT)				
	\$\$MDCD(IEN,MDC,CDT)				
	\$\$MDCN(IEN)				
	\$\$MOR(IEN)				
	\$\$UPDX(IEN)				
	\$\$NOT(IEN,SUB,FMT)				
	\$\$REQ(IEN,SUB,FMT)				
	\$\$NCC(IEN,SUB,FMT)				
	\$\$ICDID(FILE,ID,CODE)				
	\$\$IDSTR(FILE,IEN)				
	\$\$ICDIDS(FILE,IEN,.ARY)				
	\$\$ISOWNCC(IEN,CDT,FMT)				
	\$\$ICDRGCC(DRG,CDT)				
	INQ				
	EFD(X)				
	PDXE(IEN)				
	\$\$DRG(CODE,CDT)				
	\$\$DRGW(IEN)				
	\$\$DRGDES(IEN,CDT,.ARY,LEN)				
	\$\$DRGD(CODE,OUTARR,CDT)				
	\$\$DRGN(CODE)				
	\$\$DRGC(IEN)				

ICR	Routine/Entry	Scope	Subscriber	Status	Date
	\$\$GETDATE(IEN)				
	LK				
	\$\$LKT(X,ROOT,CDT,SY,VER,OUT)				
	Y(ROOT,IEN,CDT,FMT)				
	TOKEN(X,ROOT,SY,..ARY)				
	WORD(X,ROOT, SY)				
5757	ICDSAPI	Supported	All	Pending	DEC 29,2011
	\$\$SEARCH(FILE,SCR,FMPAR,CDT)				

Other

ICR	Component	Scope	Subscriber	Status	Date
2184	GROUP	Private	PXRM	Active	Oct 15, 1997
4126	Protocol	Supported	All	Active	Jul 21, 2003

10.1.3 Planned for Retirement

ICR	Scope		Replace with
48	Private	YS	\$\$DRGW^ICDEX(IEN)
280	Private	HBH	\$\$CODEC^ICDEX(FILE,IEN)
365	Private	QAM	\$\$CODEC^ICDEX(FILE,IEN)
370	Private	IB/DSS	\$\$DRGC^ICDEX(IEN) and \$\$DRGDES^ICDEX(IEN,CDT,ARY,LEN)
582	Private	IMR	\$\$CODEC^ICDEX(FILE,IEN)
1586	Subscription	AICS/PCE	\$\$MDCN^ICDEXD2(IEN)
2435	Private	PXRM	\$\$HDR^ICDEX(FILE)
2436	Private	PXRM	\$\$HDR^ICDEX(FILE)
3990	Supported	ICDCODE	Appropriate ICDEX APIs
3991	Supported	ICDAPIU	Appropriate ICDEX APIs
4052	Supported	ICDGTDRG	Appropriate ICDEX APIs
5388	Supported	File 80	\$\$CODEC^ICDEX(FILE,IEN) \$\$IA^ICDEXS(FILE,IEN) \$\$CODEABA^ICDEXC(CODE,ROOT,SY) \$\$OBA^ICDEXA3(FILE,CODE),SY,REV) and \$\$OD^ICDEXA3(FILE,WORD,SY,REV)
5404	Supported	File 80.1	\$\$CODEC^ICDEX(FILE,IEN) \$\$IA^ICDEXS(FILE,IEN) \$\$CODEABA^ICDEXC(CODE,ROOT,SY) and \$\$OBA^ICDEXA3(FILE,CODE),SY,REV)
5699	Supported	ICDXCODE	Appropriate ICDEX APIs
5757	Supported	ICDSAPI	DIC Special Lookup

11. ICRs Supporting External References

11.1 External Global References

Global Reference	ICR/SACC
^%ZOSF("RSEL"	ICR 10096
^%ZOSF("RSUM"	ICR 10096
^%ZOSF("TEST"	ICR 10096
^%ZOSF("UCI"	ICR 10096
^%ZOSF("UCICHECK"	ICR 10096
^DG(45.86,	ICR 5821
^DGPT(	ICR 5822
^DISV(	ICR 510
^DPT(	ICR 10035
^TMP(NAME,\$J)	SACC 2.3.2.5.1
^UTILITY(\$J	ICR 10011
^XTMP(	SACC 2.3.2.5.2

11.2 External Routine References

Routine Reference	ICR
^%DT	ICR 10003
DD^%DT	ICR 10003
^%DTC	ICR 10000
^%ZIS	ICR 10086
HOME^%ZIS	ICR 10086
^%ZISC	ICR 10089
^%ZTLOAD	ICR 10063
CLRMSG^DDS	ICR 5846
HLP^DDSMSG	ICR 5847
^DIC	ICD 10006
IXALL^DIK	ICR 10013
^DIM	ICR 10016
\$\$GET1^DIQ	ICR 2056
EN^DIQ1	ICR 10015
^DIR	ICR 10026
^DIWP	ICR 10011
\$\$DT^XLFDT	ICR 10103
\$\$FMADD^XLFDT	ICR 10103
\$\$FMTE^XLFDT	ICR 10103
\$\$UP^XLFSTR	ICR 10103

Routine Reference	ICR
H^XUS	ICR 10044

12. Archiving and Purging

Archiving and purging capabilities are not applicable as the data is a national table.

13. External/Internal Relations

Minimums of VA FileMan V. 22.0, Kernel V. 8.0, PCE V. 1.0, and PIMS (MAS) V. 5.3 are required to run this package.

14. Package-wide Variables

ICDVDT This variable always refers to a versioning date (FileMan format) used during lookups to determine if a code or text is active or inactive. It also is used by the file 80 and 80.1 identifiers to display a code. It is commonly set to the date that service was provided to the patient. If not provided, TODAY is used.

15. SACC Exemptions/Non-Standard Code

A SACC exemption was granted on May 9, 2013 to the Clinical Lexicon package (distribution package for ICD data) for the purpose of enabling unsubscribed global kills in the pre-install using FileMan DIU2 utility. This is used when a “full file” distribution is made (delete file 80/80.1 and replace). The exemption reads as follows:

Clinical Lexicon requests an exemption to use \$ZU in the pre and post install routines for future LEX patches. This exemption will expire with the release of LEX 3.0. Calling \$ZU(68,28,0) to enable an unsubscribed global kill prior to installing the latest ICD files leaves the possibility that a global will be killed by another process during a lengthy installation. Placing the call in the pre (or post) install, instead of making the call manually before and after the install, cuts this window down to a few seconds.

16. How to Generate Online Documentation

This section describes some of the various methods by which users may secure ICD technical documentation. Online technical documentation pertaining to the ICD software, in addition to that, which is located in the help prompts, may be generated through utilization of several kernel options. These include XINDEX and VA FileMan List File Attributes. Further

information about other utilities, which supply online technical documentation, may be found in the Kernel Reference Manual.

16.1 XINDEX

This option analyzes the structure of a routine(s) to determine in part if the routine(s) adheres to *VistA* Programming Standards. The XINDEX output may include the following components: compiled list of errors and warnings, routine listing, local variables, global variables, naked globals, label references, and external references. By running XINDEX for a specified set of routines, the user is afforded the opportunity to discover any deviations from *VistA* Programming Standards which exist in the selected routine(s) and to see how routines interact with one another, that is, which routines call or are called by other routines.

To run XINDEX for the ICD package, specify the following namespace at the "routine(s) ?>" prompt: ICD*. ICD initialization routines, which reside in the UCI in which XINDEX is being run, as well as local routines found within the ICD namespace, should be omitted at the "routine(s)? >" prompt. To omit routines from selection, preface the namespace with a minus sign (-).

16.2 List File Attributes

This VA FileMan option allows the user to generate documentation pertaining to files and file structure. Utilization of this option via the "Standard" format will yield the following data dictionary information for a specified file(s): file name and description, identifiers, cross-references, files pointed to by the file specified, files which point to the file specified, input templates, print templates, and sort templates. In addition, the following applicable data is supplied for each field in the file: field name, number, title, global location, description, help prompt, cross-reference(s), input transform, date last edited, and notes.

Using the "Global Map" format of this option generates an output which lists all cross-references for the file selected, global location of each field in the file, input templates, print templates, and sort templates. For a comprehensive listing of CPT files, please refer to the Files section of this manual.

17. Security

17.1 General Security

The ICD data dictionaries may not be modified.

17.2 Security Keys

There are no security keys in the ICD package.

17.3 VA FileMan Access Codes

Below is a list of recommended VA FileMan access codes associated with each file contained in the CPT package. This list may be used to assist in assigning users appropriate VA FileMan access codes.

FILE #	FILE NAME	DD ACCESS	RD ACCESS	WR ACCESS	DEL ACCESS	LAYGO ACCESS
80	ICD DIAGNOSIS	@	D	@	@	@
81.1	ICD OPERATION/PROCEDURE	@	D	@	@	@

18. Appendix A: Integration Control Registrations Detailed

18.1 Integration Control Registration Status

The following Integration Control Registration (ICR) status is as of June, 25, 2012, and is subject to change:

ICR	Coverage	Scope	Status	Comments
48	DRG file #80.2 field 2	Private	Active	Planned Retirement
280	ICD Diagnosis file #80, field .01	Private	Active	Planned Retirement
365	ICD Diagnosis file #80, field .01	Private	Active	Planned Retirement
368	ICD Diagnosis file #80, fields 3, 9.5, and 100	Private	Retired	Nov 15, 2008
369	ICD Procedure file #80.1, fields 4 and 102	Private	Retired	Nov 15, 2008
370	DRG file #80.2 fields .01 and 1	Private	Active	Planned Retirement
371	Routine ICDDRG	Subscription	Active	
582	ICD Diagnosis file #80, field .01	Private	Active	Planned Retirement
647	ICD Diagnosis file #80, field .01 and 3	Private	Retired	Nov 15, 2008
1161	ICD Diagnosis file #80, field .01 and 3	Private	Retired	Nov 15, 2008
1275	ICD Diagnosis file #80, field .01, 3 and 10	Private	Retired	Nov 15, 2008
1276	ICD Procedure file #80.1, fields .01, 4 and 10	Private	Retired	Nov 15, 2008
1294	ICD Diagnosis file #80, fields .01, 3, 5, 10, 100, 102, "AB", "BA" and "D"	Subscription	Retired	Nov 15, 2008
1487	ICD Diagnosis file #80, fields .01, 3 and "BA"	Private	Retired	Nov 15, 2008
1586	ICD MDC file 80.3 field .01	Subscription	Active	Planned Retirement
2184	Application Group PXRS	Private	Active	
2435	ICD Diagnosis file #80 0 (zero) node	Private	Active	Planned Retirement
2436	ICD Procedure file #80.1 0 (zero) node	Private	Active	Planned Retirement
3482	ICD Diagnosis file #80 change notification	Subscription	Pending	To be Withdrawn
3840	Access to DRG File #80.2	Subscription	Withdrawn	
3990	Routine ICDCODE APIs	Supported	Other	Scheduled to be Retired *
3991	Routine ICDAPIU APIs	Supported	Active	Scheduled to be Retired *
4052	Routine ICDGTDRG APIs	Supported	Active	

4485	ICD Diagnosis file #80 privileges	Private	Active	
4486	ICD Procedure file #80.1 privileges	Private	Active	
4487	ICD DRG file #80.2 privileges	Private	Active	
4488	ICD MDC file 80.3 privileges	Private	Active	
5028	ICD Diagnosis file #80 .01 and "AST"	Subscription	Pending	
5388	ICD Diagnosis file #80 fields .01, "AB", "BA", "D", "AST" and "ACT"	Supported	Active	Scheduled to be Retired *
5404	ICD Procedure file #80.1 fields .01, "BA" and "ACT"	Supported	Active	Scheduled to be Retired *
5682	ICD-10 Diagnosis file 8010	Private	Pending	To be Withdrawn
5683	ICD-10 Procedure file 8010.1	Private	Pending	To be Withdrawn
5684	Routine ICDXCD	Supported	Pending	To be Withdrawn
5685	Routine ICDXAU	Supported	Pending	To be Withdrawn
5686	Routine ICDXLK Special Lookup	Supported	Pending	To be Withdrawn
5699	Routine ICDCODE APIs	Supported	Pending	Scheduled to be Retired *
5747	Routine ICDEX APIs	Subscription	Pending	Replaces 280, 365, 582, 3990, 3991, 5388 AND 5404
5755	ICD Coding System file 80.4 privileges	Private	Pending	
5757	Routine ICDSAPI	Supported	Pending	Scheduled to be Retired *
5758	ICD CODE UPDATE EVENT Protocol	Subscription	Pending	
5773	Routine ICDEXLK	Supported	Pending	
10082	ICD Diagnosis file #80, fields .01, 3, 5, 9.5, 10, 100, 102, "ACT" and "BA"	Supported	Retired	Nov 15, 2008
10083	ICD Procedure file #80.1 fields .01, 4, 9.5, 10, 100, 102, "ACT" and "BA"	Supported	Retired	Nov 15, 2008

* Scheduled to be retired 18 months after the ICD-10 implementation date

18.2 ICD as a Subscriber

1118 ICD Codes update in PTF

CUSTODIAL PACKAGE: REGISTRATION

SUBSCRIBING PACKAGE: DRG GROUPER

USAGE: Private

ENTERED: JAN 11, 1995

STATUS: Active

EXPIRES:

DURATION: Till Otherwise Agr VERSION:

FILE: 45.89

ROOT: DIC (45.89,

DESCRIPTION:

TYPE: File

This is to enable the annual DRG Grouper ICD release to include updates to the PTF Expanded Code file (#45.89). New entries are added, updating fields .01, CATEGORY; and .02, DIAGNOSIS/PROCEDURE CODE. Several codes

are inactivated, adding entries to their .03, INACTIVE DATE field.

1153 Package File References Cleanup

CUSTODIAL PACKAGE: KERNEL
SUBSCRIBING PACKAGE: DRG GROUPER
USAGE: Controlled Subscri ENTERED: FEB 24,1995
STATUS: Active EXPIRES:
DURATION: Next Version VERSION:
FILE: 9.4 ROOT: DIC(9.4)
DESCRIPTION: TYPE: File

Loop through the "C" cross-reference on the PACKAGE file and delete any extra entries with the subscribing package namespace. Where necessary, the name of a package may be changed to make it unique.

4306 LEXICAL SERVICES UPDATE Protocol

CUSTODIAL PACKAGE: LEXICON UTILITY
SUBSCRIBING PACKAGE: DRG GROUPER
The subscribing protocol is: ICD CODE UPDATE EVENT
USAGE: Controlled Subscri ENTERED: DEC 3,2003
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: ROOT:
DESCRIPTION: TYPE: Other

This protocol is used to notify other applications and processes when the Lexicon Utility or the Lexicon Change file is updated.

The Lexicon is updated using a temporary maintenance global, ^LEXM. This global is processed by the routine LEXXGI. Once processed, this protocol is triggered and the global ^LEXM is deleted.

Required Variable LEXSCHG Array contains a listing of those Lexicon Files (#757 - 757.41) that were updated as a result of a recent install. In the case of the CHANGE LOG (file #757.9), new changes to SDO controlled files will be indicated by file number and the internal entry number to the CHANGE LOG.

The variable LEXSCHG is created while processing the Lexicon Maintenance global ^LEXM. It will indicate what files were updated.

Example:

```
LEXSCHG(757,0)=""  
LEXSCHG(757.001,0)=""  
LEXSCHG(757.01,0)=""  
LEXSCHG(757.02,0)=""  
LEXSCHG(757.1,0)=""  
LEXSCHG(757.11,0)=""  
LEXSCHG(757.9,0)=""  
LEXSCHG(757.9,2)=80  
LEXSCHG(757.9,3)=80.1  
LEXSCHG(757.9,4)=81  
LEXSCHG(757.9,"B",80,2)=""  
LEXSCHG(757.9,"B",80.1,3)=""  
LEXSCHG(757.9,"B",81,4)=""
```

If ICD-9-CM and/or CPT-4 changes are included in the ^LEXM global, then the following entries will be found in the local array LEXSCHG:

```
LEXSCHG(80,0)=""
LEXSCHG(80.1,0)=""
LEXSCHG(81,0)=""
```

4404 ID Nodes in ICD Dx file (#80)

CUSTODIAL PACKAGE: VA FILEMAN
SUBSCRIBING PACKAGE: DRG GROUPER

```
USAGE: Private          ENTERED: APR 22,2004
STATUS: Active          EXPIRES:
DURATION: Till Otherwise Agr  VERSION:
FILE: 80                ROOT: DD(80)
```

DESCRIPTION: TYPE: File

The Code Text Descriptors project modifies the identifier on the DIAGNOSIS (#3) field in the ICD DIAGNOSIS file (80).

The new identifier makes a function call into \$\$IDDXS^ICDID to return versioned data for both the DIAGNOSIS and the status in the INACTIVE FLAG. The function has only one input parameter: the Internal Entry Number for file #80. Routine ICDID will also look to see if the package namespaced variable ICDVDT is in the environment. ICDVDT is a versioning date. If ICDVDT is not found in the environment (not supplied) then TODAY will be used and the DIAGNOSIS and INACTIVE FLAG for TODAY will be displayed. If the variable ICDVDT is found in the environment, and is a date other than TODAY, then the appropriate DIAGNOSIS and INACTIVE FLAG will be displayed for the date.

The identifier will be changed to:

```
^DD(80,0,"ID",3)= D EN^DDIOL((" " _$IDDXS^ICDID(+Y)),"","?0")
```

This will be exported in the combined build CTD UTIL 1.0, containing ICPT*6.0*19, ICD*18.0*12 and LEX*2.0*30.

4405 ID Nodes in ICD OP file (#80.1)

CUSTODIAL PACKAGE: VA FILEMAN
SUBSCRIBING PACKAGE: DRG GROUPER

```
USAGE: Private          ENTERED: APR 22,2004
STATUS: Active          EXPIRES:
DURATION: Till Otherwise Agr  VERSION:
FILE: 80.1              ROOT: DD(80.1)
```

DESCRIPTION: TYPE: File

The Code Text Descriptors project modifies the identifier on the OPERATION/PROCEDURE (#4) in the ICD OPERATION/PROCEDURE file (80.1).

The new identifier makes a function call into \$\$IDOPS^ICDID to return versioned data for both the OPERATION/PROCEDURE and the status in the INACTIVE FLAG. The function has only one input parameter: the Internal Entry Number for file #80.1. Routine ICDID will also look to see if the package namespaced variable ICDVDT is in the environment. ICDVDT is a versioning date. If ICDVDT is not found in the environment (not supplied)

then TODAY will be used and the OPERATION/PROCEDURE and INACTIVE FLAG for TODAY will be displayed. If the variable ICDVDT is found in the environment, and is a date other than TODAY, then the appropriate OPERATION/PROCEDURE and INACTIVE FLAG will be displayed for the date.

The identifiers will be changed to:

```
^DD(80.1,0,"ID",4)= D EN^DDIOL((" "_$$IDOPS^ICDID(+Y)),",", "?0")
```

This will be exported in the combined build CTD UTIL 1.0, containing ICPT*6.0*19, ICD*18.0*12 and LEX*2.0*30.

4406 ID Nodes in DRG file (#80.2)

CUSTODIAL PACKAGE: VA FILEMAN

SUBSCRIBING PACKAGE: DRG GROUPER

USAGE: Private	ENTERED: APR 22,2004
STATUS: Active	EXPIRES:
DURATION: Till Otherwise Agr	VERSION:
FILE: 80.2	ROOT: DD(80.2)
DESCRIPTION:	TYPE: File

The Code Text Descriptors project modifies the identifier on the INACTIVE (#15) field of the DRG file (80.2).

The new identifier makes a function call into \$\$IDDGS^ICDID to return versioned data for both the DESCRIPTION and the status in the INACTIVE field. The function has only one input parameter: the Internal Entry Number for file #80.2. Routine ICDID will also look to see if the package namespaced variable ICDVDT is in the environment. ICDVDT is a versioning date. If ICDVDT is not found in the environment (not supplied) then TODAY will be used and the DESCRIPTION and INACTIVE fields for TODAY will be displayed. If the variable ICDVDT is found in the environment, and is a date other than TODAY, then the appropriate DESCRIPTION and INACTIVE fields will be displayed for the date.

The identifiers will be changed to:

```
^DD(80.2,0,"ID",15)= D EN^DDIOL((" "_$$IDDGS^ICDID(+Y)),",", "?0")
```

This will be exported in the combined build CTD UTIL 1.0, containing ICPT*6.0*19, ICD*18.0*12 and LEX*2.0*30.

5415 ICD Diagnosis File 80 Identifier Update

CUSTODIAL PACKAGE: VA FILEMAN

SUBSCRIBING PACKAGE: DRG GROUPER

Patch ICD*18.0*40 deletes the DIAGNOSIS field #3 from the ICD Diagnosis file #80. The DRG Grouper package needs permission to delete the file identifiers associated with this field and then set a replacement identifier in the data dictionary.

This agreement is one time only and expires with the installation of ICD*18.0*40.

USAGE: Private	ENTERED: MAR 19,2009
STATUS: Active	EXPIRES:

DURATION: Till Otherwise Agr VERSION:
FILE: 0 ROOT: DD(80,
DESCRIPTION: TYPE: File
^DD(80,0,'ID')
Direct Kill of the following DD node in the Post-Install:

^DD(80,0,"ID",3)=
D EN^DDIOL((" " _ \$\$IDDXS^ICDID(+Y)),",", "?0")

Direct Set of the following DD node in the Post-Install:

^DD(80,0,"ID",8)=
D EN^DDIOL((" " _ \$\$IDDXF^ICDID(+Y)),",", "?0")

NOTE: Field #8 is the ICD EXPANDED field and is used to distinguish between national codes and VA codes. The identifiers are being moved from the deleted fields to a static field.

5416 ICD Procedure File 80.1 Identifier Update

CUSTODIAL PACKAGE: VA FILEMAN
SUBSCRIBING PACKAGE: DRG GROUPER

Patch ICD*18.0*40 deletes the OPERATION/PROCEDURE field #4 from the ICD Procedure file #80.1. The DRG Grouper package needs permission to delete the file identifiers associated with this field and then set a replacement identifier in the Data Dictionary.

This agreement is one time only and expires with the installation of ICD*18.0*40.

USAGE: Private ENTERED: MAR 19,2009
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 0 ROOT: DD(80.1,
DESCRIPTION: TYPE: File
^DD(80.1,0,'ID')
Direct Kill of the following DD node in the Post-Install:

^DD(80.1,0,"ID",4)=
D EN^DDIOL((" " _ \$\$IDOPS^ICDID(+Y)),",", "?0")

Direct Set of the following DD node in the Post-Install:

^DD(80.1,0,"ID",8)=
D EN^DDIOL((" " _ \$\$IDOPF^ICDID(+Y)),",", "?0")

NOTE: Field #8 is the ICD EXPANDED field and is used to distinguish between national codes and VA codes. The identifiers are being moved from the deleted fields to a static field.

5821 Census Date

CUSTODIAL PACKAGE: REGISTRATION
SUBSCRIBING PACKAGE: DRG GROUPER

The ICD DRG Grouper needs to access the Census Date to compute the Effective Date.

USAGE: Private ENTERED: JUL 1,2012

STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 45.86 ROOT: DG(45.86,
DESCRIPTION: TYPE: File
GLOBAL REFERENCE:
^DG(45.86,D0,0)
.01 DATE 0;1 Direct Global Read & w/Fileman
This field contains the census date as established by VACO.

5822 Census/Discharge/Movement/Surgery Dates

CUSTODIAL PACKAGE: REGISTRATION
SUBSCRIBING PACKAGE: DRG GROUPE

The ICD DRG Grouper needs to access the Census Date, the Movement Date, the Surgery Date, and the Discharge date to compute the Effective Date.

USAGE: Private ENTERED: JUL 1,2012
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 45 ROOT: DGPT(
DESCRIPTION: TYPE: File
GLOBAL REFERENCE:
^DGPT(D0,0)
13 CENSUS DATE 0;13 Direct Global Read & w/Fileman
This is a pointer to the PTF CENSUS DATE file #45.86

GLOBAL REFERENCE:
^DGPT(D0,70)

5846 Clear ScreenMan Help Area

CUSTODIAL PACKAGE: VA FILEMAN
SUBSCRIBING PACKAGE: DRG GROUPE

The ICD Grouper package need to call CLRMSG^DDS inside of its special lookup routines (ICDEXLK*) to allow the special lookup routines to operate inside of ScreenMan. After displaying the selection list and asking for user response, the special lookup needs to clear the Help Area.

USAGE: Controlled Subscri ENTERED: SEP 28,2012
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
DESCRIPTION: TYPE: Routine

ROUTINE: DDS
COMPONENT: CLRMSG
This API clears the contents of the Help area.

5847 Write to ScreenMan Help Area

CUSTODIAL PACKAGE: VA FILEMAN
SUBSCRIBING PACKAGE: DRG GROUPE

The ICD Grouper package need to call HLP^DDSMSG inside of its special lookup routines (ICDEXLK*) to allow the special lookup routines to operate inside of ScreenMan. This API allows the display of the

selection list and prompting for user response in the Help Area.

USAGE: Controlled Subscri ENTERED: SEP 28,2012
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
DESCRIPTION: TYPE: Routine

ROUTINE: DDSMSG

COMPONENT: HLP

This API places text in ScreenMan's Help area.

18.3 ICD as a Custodian

48 ^ICD Weight

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: MENTAL HEALTH

USAGE: Private ENTERED: JUL 25,1990
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.2 ROOT: ICD(
DESCRIPTION: TYPE: File
^ICD(D0,0)
2 WEIGHT 0;2 Read w/Fileman
Used for lookups.

280 ^ICD9(Code

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: HOSPITAL BASED HOME CARE

USAGE: Private ENTERED: SEP 13,1993
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80 ROOT: ICD9(
DESCRIPTION: TYPE: File

We are requesting that a sharing agreement be established between the Hospital Based Home Care software and the Global ^ICD9(for the following fields.

FIELD	.01	(node: 0, piece: 1)	TYPE OF ACCESS	READ
GLOBAL	^ICD9(

365 ^ICD9(Code

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: CLINICAL MONITORING SYSTEM

USAGE: Private ENTERED: MAR 3,1994
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80 ROOT: ICD9(
DESCRIPTION: TYPE: File

Read access to the following fields:

FIELDS:

ELEMENT	FILE	DD NUMBER
DD LEVEL	FIELD #	
CODE NUMBER	ICD DIAGNOSIS	
1	0 .01	80

370 ^ICD DRG Number/Description

CUSTODIAL PACKAGE: DRG GROUPER
 SUBSCRIBING PACKAGE: INTEGRATED BILLING
 DSS EXTRACTS

USAGE: Private ENTERED: MAR 9,1994
 STATUS: Active EXPIRES:
 DURATION: VERSION:

FILE: 80.2 ROOT: ICD(
 DESCRIPTION: TYPE: File

Request to store pointers to the DRG (#80.2) file from Integrated Billing. The pointers are needed to retrieve data from the file at the time that claims are generated.

Request to directly reference the following fields in the DRG (#80.2) file:

Field Name (#)	Location	Reason
NAME (.01)	0;1	Print and display the DRG number
DESCRIPTION (1)	^ICD(ien,1,1,0)	Print and display the DRG name

371 ICDDRG

CUSTODIAL PACKAGE: DRG GROUPER
 SUBSCRIBING PACKAGE: INTEGRATED BILLING
 MENTAL HEALTH

USAGE: Controlled Subscri ENTERED: MAR 9,1994
 STATUS: Active EXPIRES:
 DURATION: Till Otherwise Agr VERSION:

FILE: ROOT:
 DESCRIPTION: TYPE: Routine

ROUTINE: ICDDRG
 COMPONENT: ICDDRG
 VARIABLES: ICDEXP Type: Input
 ICDDMS Type: Input
 ICDDX(1,2, Type: Input
 ICDDRC(1,2 Type: Input
 SEX Type: Input
 ICDDRG Type: Output

Did patient expire during episode?
 Patient transfer to acute facility?
 Patient have irregular discharge?
 Set of pointers (X) to diagnosis codes in file #80.
 Set of pointers (X) to procedures in file #80.1.
 Patient gender (M-Male F-Female)|
 Pointer to assigned DRG in file #80.2.

The routine call is made to calculate interim DRGs to determine the expected length for a visit.

582 ^ICD9(Code

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: ICR - IMMUNOLOGY CASE REGISTRY
USAGE: Private ENTERED: APR 21,2003
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80 ROOT: ICD9(
DESCRIPTION: TYPE: File
^ICD9(D0,0)
.01 CODE NUMBER 0;1 Read w/Fileman

1586 ^ICM Name

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: AUTOMATED INFO COLLECTION SYS
PCE PATIENT CARE ENCOUNTER
USAGE: Controlled Subscri ENTERED: AUG 8,1996
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.3 ROOT: ICM(
DESCRIPTION: TYPE: File
This will enable reads both directly and through FileMan the code name in the MAJOR DIAGNOSTIC CATEGORY file (#80.3)

^ICM(D0,0)
.01 NAME 0;1 Direct Global Read & w

2184 PXR Application Group

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: CLINICAL REMINDERS
USAGE: Private ENTERED: OCT 15,1997
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: ROOT:
DESCRIPTION: TYPE: Other
Clinical Reminders use the application group PXR for screening taxonomy selections. The following files need to belong to this application group:
File 80 - ICD DIAGNOSIS, File 80.1 - ICD OPERATION/PROCEDURE File 81 - CPT

2435 ^ICD9(^ICD9(0)

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: CLINICAL REMINDERS
USAGE: Private ENTERED: JUN 19,1998
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80 ROOT: ICD9
DESCRIPTION: TYPE: File
Clinical Reminders needs to be able to determine when a new version of file 80 has been installed in order to keep its expanded taxonomy cache current. In order to do this we would like to do a direct read of pieces 3 and 4 of the file header, ^ICD9(0).

^ICD9(0)

2435 ^ICD0(^ICD0(0)

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: CLINICAL REMINDERS

USAGE: Private ENTERED: JUN 19,1998
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.1 ROOT: ICD0

DESCRIPTION: TYPE: File

Clinical Reminders needs to be able to determine when a new version of file 80.1 has been installed in order to keep its expanded taxonomy cache current. In order to do this we would like to do a direct read of pieces 3 and 4 of the file header, ^ICD0(0).

^ICD0(0)

3990 ICDCODE Legacy APIs

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE:

USAGE: Supported ENTERED: MAR 12,2003
STATUS: Other EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: ROOT:

DESCRIPTION: TYPE: Routine

This agreement contains the references to routine ICDCODE for the supported APIs. These entry points will retrieve ICD code related data.

All entry points will return

-1^error description in an error condition. in an error condition.

ROUTINE: ICDCODE
COMPONENT: \$\$ICDDX(CODE,CDT,DFN,SRC)
VARIABLES: CODE Type: Input

ICD Diagnosis Code, IEN or .01 format
(Required)

CDT Type: Input

Code Date to check. (Optional)

If CDT < 10/1/1978, use 10/1/1978.
If CDT > DT, validate with newest
effective dates
If CDT is year only, use first of the
year
If CDT is year and month only, use
first of the month
Default = Today (FileMan format)

DFN Type: Input

This variable is not used and not
supported at this time.

SRC Type: Input

This is the Source Flag. (Optional)

- 0 = exclude local VA codes, use national codes only (default)
- 1 = include local VA codes and national codes

\$\$ICDDX Type: Output

19 piece "^" delimited string containing the following information:

Piece	Description
1	IEN in ^ICD9(
2	ICD DX Code (#.01)
3	Identifiers (#2)
4	Versioned Dx Short Name (#67)
5	Unacceptable as Principal Dx (#101)
6	Versioned Major Dx Category (#72)
7	MDC13 (#5.5)
8	Do not use, see piece 19 for CC
9	ICD Expanded (#8)
10	Status (#66)
11	Sex (#9.5)
12	Inactive Date (#66)
13	MDC24 (#5.7)
14	MDC25 (#5.9)
15	Age Low (#14)
16	Age High (#15)
17	Activation Date (#66)
18	Message - Notice of Textual Inaccuracy
19	Versioned Complication Comorbidity (CC) (#103)

or

-1^Error Description

Extrinsic function that returns basic information for an ICD Diagnosis Code.

COMPONENT: \$\$ICDOP (CODE, CDT, DFN, SRC)

VARIABLES: CODE Type: Input

ICD Procedure Code, IEN or .01 format (Required)

CDT Type: Input

Code Date to check. (Optional) (Fileman Format)

If CDT < 10/1/1978, use 10/1/1978.

If CDT > DT, validate with newest effective dates

If CDT is year only, use first of the

year
If CDT is year and month only, use
first of the month
Default = Today (FileMan format)

DFN Type: Input

This variable is not used and not supported at this time.

SRC Type: Input

This is the Source Flag. (Optional)

0 = exclude local VA codes, use
national codes only (default)
1 = include local VA codes and national
codes

\$\$ICDOP Type: Output

14 piece "^" delimited string containing
the following information:

Piece	Description
-----	-----
1	IEN in ^ICD9(
2	ICD Procedure Code (#.01)
3	Identifiers (#2)
4	MDC24 (#5)
5	Versioned Oper/Proc (#67)
6	<null>
7	<null>
8	<null>
9	ICD Expanded (#8)
10	Status (#66)
11	Use with Sex (#9.5)
12	Inactive Date (#66)
13	Activation Date (#66)
14	Message - Notice of Textual Inaccuracy

or

-1^Error Description

Extrinsic function that returns basic information for an
ICD Operation/Procedure Code.

COMPONENT: \$\$ICDD(CODE, 'OUTARR', CDT)

VARIABLES: CODE Type: Input

ICD Diagnosis or Procedure Code
(Required)

OUTARR Type: Both

Array to store description
name of array - e.g. "ABC" or
"ABC("TEST")"
or temp array. Default =
^TMP("ICDD", \$J)

The calling routine is responsible for killing
^TMP("ICDD",\$J) after the call, if used.

On return, the array contains corresponding lines of text of the code's versioned description (field 68).
OUTARR(1) = 1st line of versioned description (field #68)
OUTARR(last) = last line of versioned description (field #68)
OUTARR(last+1) = blank line
OUTARR(last+2) = NOTICE OF TEXTUAL INACCURACY
where last+2 is the value returned by \$\$ICDD.

CDT Type: Input

Code Date to check - not used currently,
Included in anticipation of future need.

Default = Today (FileMan format)
If CDT < 10/1/1978, use 10/1/1978.
If CDT > DT, use most recent description
If CDT is year only, use first of the year
If CDT is year and month only, use first of the month

\$\$ICDD Type: Output

Contains number of lines (number of subscripts) in the description (array)

Extrinsic function that returns the full description of a code, from the "1" node (field 10) of the ICD9 file or the ICD0 file.

COMPONENT: \$\$CODEN(CODE,FILE)

VARIABLES: CODE Type: Input

ICD Code REQUIRED

FILE Type: Input

File Number in which to check for ICD code

80 for ICD Diagnosis file
80.1 for ICD Operation/Procedure file

\$\$CODEN Type: Output

String, containing the following information in the following "~" pieces:

Piece	Description
=====	=====
1	ien of the ICD Code
2	"^ICD9(" if FILE=80; "^ICD0(" if FILE=80.1

Extrinsic function that returns the internal entry number

and the global root of an ICD Code.

COMPONENT: \$\$CODEC(CODE)
VARIABLES: CODE Type: Input
Internal entry number of an ICD Code.
\$\$CODEC Type: Output
ICD Code
Extrinsic function that returns the ICD Code of an ien.

3991 ICDAPIU Legacy APIs

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE:

USAGE: Supported ENTERED: MAR 12,2003
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: ROOT:

DESCRIPTION: TYPE: Routine
This contains the references to routine ICDAPIU for the supported APIs to be released with v.20.0 of ICD.

These include extrinsic functions for retrieving Code History, performing Status checks, retrieving Next/Previous Codes, retrieving Dates based on the Business Rules, and retrieving a notice of a code's textual inaccuracy.

ROUTINE: ICDAPIU
COMPONENT: \$\$STATCHK(CODE,CDT)
VARIABLES: CODE Type: Input

ICD Code REQUIRED

CDT Type: Input

Code Date to check, Default = Today
(FileMan format)
If CDT < 10/1/1978, use 10/1/1978.
If CDT > DT, validate with newest
In/Activation Dates
If CDT is year only, use first of the
year
If CDT is year and month only, use
first of the month

\$\$STATCHK Type: Output

String, containing the following
information in the following "^" pieces:

Piece	Description
=====	=====
1	STATUS where 1:active; 0:inactive
2	IEN of code, -1 if not found

Extrinsic function that returns the Status of an ICD Code.

COMPONENT: \$\$NEXT(CODE)
VARIABLES: CODE Type: Input
\$\$NEXT Type: Output

ICD Code REQUIRED

The Next ICD Code, Null if there is none.
Extrinsic function that returns the Next ICD Code (active
or inactive)

COMPONENT: \$\$PREV(CODE)

VARIABLES: CODE Type: Input

ICD Code REQUIRED

\$\$PREV Type: Output

The Previous ICD Code, Null if there is
none.

Extrinsic function that returns the Previous ICD Code
(active or inactive)

COMPONENT: \$\$HIST(CODE,ARY)

VARIABLES: CODE Type: Input

ICD Code REQUIRED

.ARY Type: Both

Array, passed by Reference

ARY (which was passed by reference) is
returned as follows: ARY(0) = number of
history entries, -1 if error ARY(date) =
STATUS where 1:active; 0:inactive
'date' is in FileMan
format ARY("IEN") = Internal Entry Number
of ICD Code

\$\$HIST Type: Output

The number of activation history entries
are returned, -1 if error

Extrinsic function that returns the activation history of
an ICD Code.

COMPONENT: \$\$DTBR(CDT,CS)

VARIABLES: CDT Type: Input

Code Date to check, Default = Today
(FileMan format)

If CDT is year only, use first of the
year

If CDT is year and month only, use
first of the month

CS Type: Input

Code System (0:ICD, 1:CPT/HCPCS, 2:DRG,
Default=0)

\$\$DTBR Type: Output

If CDT < 10/1/1978 and CS=0, return
10/1/1978 If CDT < 1/1/1989 and CS=1,
return 1/1/1989 If CDT < 10/1/1982 and
CS=2, return 10/1/1982 Otherwise, return
CDT

Extrinsic function that returns a date after applying
several Business Rules, depending on the Coding System.

COMPONENT: \$\$MSG(CDT,CS)

VARIABLES: CDT Type: Input

Code Date to check, Default = Today

(FileMan format)
If CDT is year only, use first of the year
If CDT is year and month only, use first of the month

CS Type: Input

Code System (0:ICD, 1:CPT/HCPCS, 2:DRG, 3:LEX, Default=0)

\$\$MSG Type: Output

A warning stating: "CODE TEXT MAY BE INACCURATE"

Extrinsic function that returns a message to inform someone that the code text may be inaccurate.

COMPONENT: PERIOD (CODE,ARY)
VARIABLES: COD Type: Input

ICD Code REQUIRED

ARY Type: Output

Array, passed by Reference REQUIRED

Function that returns Activation/Inactivation Period in ARY

ARY(0) = IEN (or, -1 if error) ARY(Act_date) =
Inactivation Date^Versioned Short Name Text (field #67)

4052 ICDGTD RG

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: FEE BASIS
INTEGRATED BILLING
REGISTRATION

USAGE: Supported ENTERED: JUL 14,2003
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: ROOT:
DESCRIPTION: TYPE: Routine

ROUTINE: ICDGTD RG
COMPONENT: \$\$DRG (CODE,EDT)
VARIABLES: CODE Type: Input

REQUIRED - DGN code, ien or .01 value

EDT Type: Input

OPTIONAL - Effective date, default = today (Fileman format)

\$\$DRG Type: Output

If DRG code DOES exist in the database then the function returns a "^" delimited string with the following pieces:

- 1 DRG name (field #.01)
- 2 Weight (field #2)
- 3 Low Trim (days) (field #3)
- 4 High Trim (days) (field #4)
- 5 MDC (field #5)
- 6 Surgery Flag (field #.06)
- 7 <null>

- 8 Avg Length of Stay (days) (field 10)
- 9 Local Low Trim Days (field #11)
- 10 Local High Trim Days (field #12)
- 11 <null>
- 12 Local Breakeven (field #13)
- 13 Activation Date (.01 field of the 66 multiple)
- 14 Status (.03 field of the 66 multiple)
- 15 Inactivation Date (.01 field of the 66 multiple)
- 16 Effective date (.01 field of the 66 multiple)
- 17 Internal Entry Number (IEN)
- 18 Effective date of CSV (.01 field of the 66 multiple)

If DRG code DOES NOT exist in the database then the function returns a "^" delimited string with the following pieces:

- 1 -1
- 2 NO SUCH ENTRY
- 14 Status 0=inactive

This DBIA contains a supported DRG API call that can be used to access data contained in DRG file (# 80.2). Returns a string of information from the DRG file (#80.2) for a given DRG code and effective date.

COMPONENT: \$\$GETDRG (CODE,DGNDT,FILE)

VARIABLES: CODE Type: Input

REQUIRED - IEN number of the #80 or #80.1 file

DGNDT Type: Input

OPTIONAL - Effective date, default = today (Fileman format)

FILE Type: Input

REQUIRED - file to access - 9:ICD9 (#80), 0:ICD0 (#80.1)

\$\$GETDRG Type: Output

If the code exists in the database, then the function returns a string with ";" delimiters:

DRG(s) associated with the code (delimited by "^") - can be 1+ (piece 1);Effective date (piece 2);status flag (piece 3)

If the code DOES NOT exist in the database then the function returns:

Piece #1 : -1 Piece #2 : error message
 Piece #3 : Status = 0 = Inactive

This DBIA contains a supported DRG API call that can be used to access data contained in the ICD DIAGNOSIS CODE file (#80) or the ICD OPERATION/PROCEDURE CODE file (#80.1). It returns a string of information from the file for a given ICD DIAGNOSIS or OPERATION/PROCEDURE CODE and effective date.

COMPONENT: \$\$GETDATE (PATNUM)

VARIABLES: PATNUM Type: Input

REQUIRED - ien or .01 value for PTF file (#45)

\$\$GETDATE Type: Output

The function returns a Fileman-formatted date of the proper date to be used as the effective date. This date can be either the census, discharge, surgery, or movement date. If all previous dates are undefined, today's date is returned.

This DBIA contains a supported DRG API call that can be used to access data in the PTF file (#45). It returns the proper effective date for a patient to use in accessing Code Set Versioned data.

COMPONENT: \$\$ISVALID

VARIABLES: CODE Type: Input

REQUIRED - IEN number of the #80 or #80.1 file entry

DGNDDT Type: Input

OPTIONAL -Effective date, default = today (Fileman format)

FILE Type: Input

REQUIRED - file to access - 9:ICD9(#80), 0:ICD0(#80.1)

\$\$ISVALID Type: Output

Returns 1 if the code is active/valid for the effective date or 0 if it is undefined or inactive.

This DBA contains a supported DRG API call that can be used to determine if an ICD DIAGNOSIS CODE (#80) or ICD OPERATION/ PROCEDURE CODE (#80.1) is active for a given effective date. This API is designed for use in DIC("S") Fileman calls.

COMPONENT: \$\$DRGD (CODE,ARRAY,DFN,DATE)

VARIABLES: CODE Type: Input

This is either a DRG Code or an Internal Entry Number (IEN) in the DRG file (#80.2)

ARRAY Type: Both

An array name in which to store the returned versioned description. If no name is provided, the default name will be ^TMP("DRGD",\$J,. The calling routine is responsible for killing ^TMP("DRGD",\$J) after the call, if used.

On return, the array contains corresponding lines of text of the code's versioned description (field 68)

ARRAY(1) = 1st line of description
ARRAY(last) = last line of description
ARRAY(last+1) = blank line
ARRAY(last+2) = NOTICE OF TEXTUAL

INACCURACY

where last+2 is the value returned by \$\$DRGD.

DATE Type: Input

This is a Fileman compliant date. Time is ignored. If the date is not supplied, then today's date is used. The DRG description (long text) will be appropriate for that date. If no text is found that corresponds with the date provided, the oldest possible text will be returned and an message will be returned that the "text may be inaccurate".

DFN Type: Input

This is a pointer to the Patient File #2 (for future use)

Extrinsic function that returns the full versioned description of a Diagnostic Related Group (DRG) code, from the 68 node (field 68) of the DRG file.

4126 ICD CODE UPDATE EVENT Protocol

CUSTODIAL PACKAGE: DRG GROUPER

SUBSCRIBING PACKAGE:

USAGE: Supported

ENTERED: JUL 21,2003

STATUS: Active

EXPIRES:

DURATION: Till Otherwise Agr VERSION:

FILE:

ROOT:

DESCRIPTION:

TYPE: Other

attached package protocols will be notified of a code set update.

Packages may attach protocols using KIDS' "USE AS LINK FOR MENU ITEMS"

ROUTINE:

COMPONENT: ICD CODE UPDATE EVENT

VARIABLES: Notify applications that ICD codes have been updated.

4485 ^ICD9(Lexicon

CUSTODIAL PACKAGE: DRG GROUPER

SUBSCRIBING PACKAGE: LEXICON UTILITY

USAGE: Private

ENTERED: JUL 28,2004

STATUS: Active

EXPIRES:

DURATION: Till Otherwise Agr VERSION:

FILE: 80

ROOT: ICD9(

DESCRIPTION:

TYPE: File

Lexicon Utility has all privileges as though it were the custodial

package.

4486 ^ICD0 Lexicon

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: LEXICON UTILITY
USAGE: Private ENTERED: JUL 28,2004
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.1 ROOT: ICD0(
DESCRIPTION: TYPE: File
Lexicon Utility has all privileges as though it were the custodial package.

4487 ^ICD(Lexicon

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: LEXICON UTILITY
USAGE: Private ENTERED: JUL 28,2004
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.2 ROOT: ICD(
DESCRIPTION: TYPE: File
Lexicon Utility has all privileges as though it were the custodial package.

4488 ^ICM(Lexicon

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: LEXICON UTILITY
USAGE: Private ENTERED: JUL 28,2004
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.3 ROOT: ICM(
DESCRIPTION: TYPE: File
Lexicon Utility has all privileges as though it were the custodial package.

5028 ^ICD9(Problem List

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: PROBLEM LIST
USAGE: Controlled Subscri ENTERED: AUG 21,2007
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80 ROOT: ICD9('AST'
DESCRIPTION: TYPE: File
This agreement will allow Problem List to determine if a particular ICD9 code has a new description change. This agreement is to view the cross reference "AST" to determine if a new description exists.

^ICD9(D0,67,D1,0)

.01 VERSION DATE 0;1 Read w/Fileman
This is the date the
diagnosis text was first used.

This agreement will use the "AST" cross reference from file #80 -

^ ICD9("AST", (CODE_ " "), EFF, IEN1, IEN2)

5388 ^ICD9(Interim ICR

CUSTODIAL PACKAGE: DRG GROUPER

SUBSCRIBING PACKAGE:

USAGE: Supported ENTERED: MAR 16,2009
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80 ROOT: ICD9(
DESCRIPTION: TYPE: File

Applications may conduct Fileman lookups of ICD Diagnosis file #80 provided the 0 (zero) node is not returned as part of the output from the lookup. Applications may also point to the ICD Diagnosis file #80. This agreement provides very limited access to file 80, primarily the .01 field and selected cross-references. Additional access to file 80 is given through the use of APIs in routines ICDCODE and ICDAPIU.

^ICD9(D0,0)
.01 CODE NUMBER 0;1 Direct Global Read & w

^ICD9('AB',
Direct global read of the "AB" cross reference.

^ICD9('BA',
Direct global read of the "BA" cross reference.

^ICD9('D',
Direct global read of the "D" cross reference.

^ICD9('AST',
Direct global read of the "AST" cross reference.

^ICD9('ACT'
Direct global read of the "ACT" cross reference.

5404 ^ICD0(Interim ICR

CUSTODIAL PACKAGE: DRG GROUPER

SUBSCRIBING PACKAGE:

USAGE: Supported ENTERED: MAR 17,2009
STATUS: Active EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.1 ROOT: ICD0(
DESCRIPTION: TYPE: File

Applications may conduct Fileman lookups of ICD Operation Procedure file #80.1 provided the 0 (zero) node is not returned as part of the output from the lookup. Applications may also point to the ICD Operation/Procedure file #80.1. This agreement provides very limited access to file 80.1, primarily the .01 field and selected cross-references. Additional access to file 80.1 is given through the use of APIs in routines ICDCODE and ICDAPIU.

^ICD0(D0,0)
.01 CODE NUMBER 0;1 Direct Global Read & w

^ICD0('BA',

Direct global read of the "BA" cross reference.

^ICD0('ACT')

Direct global read of the "ACT" cross reference.

5699 ICDXCODE Wrapper (2 file solution)

CUSTODIAL PACKAGE: DRG GROUPER

SUBSCRIBING PACKAGE:

USAGE: Supported

ENTERED: AUG 2,2011

STATUS: Pending

EXPIRES: APR 1,2016

DURATION:

VERSION:

DESCRIPTION:

TYPE: Routine

Routine ICDXCODE was developed to replace ICDCODE during the ICD-10 project to navigate between the ICD-9 Diagnosis file 80 and the ICD-10 Diagnosis file 8010 under the two file solution. The two file solution had the ICD-9 codes and ICD-10 codes stored in two separate files. This solution was abandoned in favor of the one file solution where both ICD-9 and ICD-10 are stored in the same file (ICD Diagnosis file 80). A one file solution of these APIs can be found in the routine ICDEX (ICD Data Extraction) Routine ICDXCODE will be exported to support applications through the transition between the one and two file solutions. It will be retired 18 months after the ICD-10 compliance date.

ROUTINE: ICDXCODE

COMPONENT: \$\$ICDDATA(CSYS, CODE, DATE, FRMT)

Extract general data of ICD Diagnosis and/or Procedures.

VARIABLES: Input

CSYS

Coding System (Required)

Code Type

Diagnosis: DIAG

Procedure: PROC

Code File

ICD-9 Diagnosis: ICD9 or 80

ICD-10 Diagnosis: ICD10DX or 8010

ICD-9 Procedure ICD0 or 80.1

ICD-10 Procedure ICD10PR or 8010.1

If Code Type is used (DIAG/PROC) then the input parameter date will be used to determine if the output is ICD-9 or ICD-10. Dates before the ICD-10 implementation will return ICD-9 data, and dates on or after the ICD-10 implementation will return ICD-10 data.

VARIABLES: Input

CODE

This is an ICD code or an Internal Entry Number (IEN) or a Variable Pointer:

IEN;ICD9(

IEN;ICD0(

IEN;ICD10DX(

IEN;ICD10PR(

VARIABLES: Input DATE
Date in Fileman format. If not supplied it defaults to TODAY. This date is normally the date that service was provided to the patient (i.e. visit date, movement date, or date of onset).

VARIABLES: Input FRMT
Format of the input CODE (optional)

"E" = external format
"I" = internal format (IEN)

If supplied, it must be consistent with the CODE input parameter.

If a variable pointer is passed as CODE, then "I" internal format is assumed.

VARIABLES: Output \$\$ICDXCODE
Diagnosis Code Passed:

A 19 piece caret (^) delimited string

- 1 IEN of code in file 80/8010
- 2 ICD-9/ICD-10 Diagnosis Code (#.01)
- 3 Id (#2)
- 4 Versioned Diagnosis Short Name (67 multiple)
- 5 Unacceptable as Principal Diagnosis (#101)
- 6 Major Dx Cat (#5)
- 7 MDC13 (5.5)
- 8 Compl/Comorb (#70)
- 9 ICD Expanded (#8) 1:Yes 0:No (ICD-9 only)
- 10 Status (66 multiple)
- 11 Sex (#9.5)
- 12 Inactive Date (66 multiple)
- 13 MDC24 (#5.7)
- 14 MDC25 (#5.9)
- 15 Age Low (#14)
- 16 Age High (#15)
- 17 Activation Date (.01 of 66 multiple)
- 18 Message (ICD-9 only)
- 19 Versioned Complication/Comorbidity (#103)

Procedure Code Passed:

A 14 piece caret (^) delimited string

- 1 IEN of code in file 80.1/8010.1
- 2 ICD-9/ICD-10 code (#.01)
- 3 Id (#2)
- 4 MDC24 (#5)
- 5 Versioned Oper/Proc (67 multiple)
- 6 <null>
- 7 <null>
- 8 <null>
- 9 ICD Expanded (#8) 1:Yes 0:No (ICD-9 only)

10 Status (66 multiple)
11 Use with Sex (#9.5)
12 Inactive Date (66 multiple)
13 Activation Date (66 multiple)
14 Message

or

-1^Error Description

COMPONENT: \$\$ICDESC (CSYS, CODE, DATE, OUTARR)
This API returns the long description of either an ICD-9 or ICD-10 code.

VARIABLES: Input CSYS
Coding System (Required)

Code Type
Diagnosis: DIAG
Procedure: PROC

Code File
ICD-9 Diagnosis: ICD9 or 80
ICD-10 Diagnosis: ICD10DX or 8010
ICD-9 Procedure ICD0 or 80.1
ICD-10 Procedure ICD10PR or 8010.1

Code System
ICD-9 Diagnosis 1
ICD-10 Diagnosis 30
ICD-9 Procedure 2
ICD-10 Procedure 31

If Code Type is used (DIAG/PROC) then the input parameter date will be used to determine if the output is ICD-9 or ICD-10. Dates before the ICD-10 implementation date will return ICD-9 data, and dates on or after the ICD-10 implementation date will return ICD-10 data.

VARIABLES: Input CODE
This is an ICD code (Required)

It can be an ICD-9 Diagnosis Code, ICD-9 Procedure code, an ICD-10 Diagnosis Code or an ICD-10 Procedure code. The code should be consistent with the Coding System (first input parameter)

VARIABLES: Input DATE
Date in Fileman format. If not supplied it defaults to TODAY. This date is normally the date that service was provided to the patient (i.e. visit date, movement date, or date of onset). The date is used to return the appropriate description for the date service was provided.

VARIABLES: Both OUTARR
 Input: Array Name

 e.g. "ARY", "ABC" or "ABC("TEST")"
 Default = ^TMP("ICDD", \$J)

 If ^TMP("ICDD", \$J) is used, the calling
 application is responsible for killing the global
 variable when no longer needed.

 Output

 @ARY(1) = Versioned Description (68 multiple)
 @ARY(2) = Blank (ICD-9 only)
 @ARY(3) = Message (ICD-9 only):
 CODE TEXT MAY BE INACCURATE

VARIABLES: Output \$\$ICDDDESC
 Number of lines in output array

COMPONENT: \$\$HIST(SYS, CODE, .ARY)
 This API returns the effective dates and status from the
 code's status history.

VARIABLES: Input SYS
 This is a pointer to the CODING SYSTEM file
 80.4

 1 = ICD-9-CM
 2 = ICD-9-PCS
 30 = ICD-10-CM
 31 = ICD-10-PCS

VARIABLES: Input CODE
 This is an ICD Code (IEN not allowed)

VARIABLES: Both .ARY
 This is a local array name passed by reference
 that will contain the output.

 ARY(0) = Number of Activation History
 Entries or -1 on error

 ARY(<date>) = Status where: 1 is Active
 ARY("IEN") = <ien>

VARIABLES: Output \$\$HIST
 This output variable mirrors ARY(0) if histories
 are found or, -1 on error.

COMPONENT: \$\$NEXT(SYS, CODE)
 This API returns the next code in a sequence.

VARIABLES: Input SYS
 This is a pointer to the CODING SYSTEM file
 80.4

1 = ICD-9-CM
2 = ICD-9-PCS
30 = ICD-10-CM
31 = ICD-10-PCS

VARIABLES: Input CODE
This is an ICD Code (IEN not allowed)

VARIABLES: Output \$\$NEXT
The Next ICD Code, or the first ICD code if CODE
is null or null if CODE is the last ICD code.

COMPONENT: \$\$PREV(SYS, CODE)
This API returns the previous ICD code in a sequence.

VARIABLES: Input SYS
This is a pointer to the CODING SYSTEM file
80.4

1 = ICD-9-CM
2 = ICD-9-PCS
30 = ICD-10-CM
31 = ICD-10-PCS

VARIABLES: Input CODE
This is an ICD Code (IEN not allowed)

VARIABLES: Output \$\$PREV
The Previous ICD Code, or the last ICD code if
CODE is null or null if CODE is the first ICD
code.

COMPONENT: \$\$STATCHK(SYS, CODE, CDT)
This API returns the status of a code and the code's Internal
Entry Number (IEN).

VARIABLES: Input SYS
This is a pointer to the CODING SYSTEM file
80.4

1 = ICD-9-CM
2 = ICD-9-PCS
30 = ICD-10-CM
31 = ICD-10-PCS

VARIABLES: Input CODE
This is an ICD Code (IEN not allowed)

VARIABLES: Input CDT
This is a date in Fileman format that will be used
to determine the status of CODE. (Optional,
default = TODAY)

VARIABLES: Output \$\$STATCHK
This is a 2-piece "^" delimited string containing
the code's status and the IEN if the code exists,
else -1. The following are possible outputs:

1^IEN Active Code
0^IEN Inactive Code
0^-1 Code not Found

COMPONENT: \$\$PERIOD(SYS, CODE, .ARY)
This API returns activation periods (from/to dates).

VARIABLES: Input SYS
This is a pointer to the CODING SYSTEM file
80.4

1 = ICD-9-CM
2 = ICD-9-PCS
30 = ICD-10-CM
31 = ICD-10-PCS

VARIABLES: Input CODE
This is an ICD Code (IEN not allowed)

VARIABLES: Both .ARY
This is a local array name passed by reference
that will contain the output.

ARY(0) = IEN ^ Selectable ^ Error Message

Where IEN = -1 if error
Selectable = 0 for unselectable
Error Message if applicable

ARY(Activation Date) = Inactivation Date^Short Name

Where the Short Name is versioned as follows:

Period is active Short Description for the date
the period became active

Period is inactive Short Description for the date
the period became inactive

5747 ICDEX ICD Data Extraction

5747 NAME: ICD Data Extraction

CUSTODIAL PACKAGE: DRG GROUPER

SUBSCRIBING PACKAGE: LEXICON UTILITY

The LEXICON UTILITY has access to all APIs listed in
this ICR as if it were the Custodial Package.

ACCOUNTS RECEIVABLE

ACCOUNT RECEIVABLE (PRCA) package will use the
following APIs:

\$\$CODEC^ICDEX
\$\$CODECS^ICDEX

INTEGRATED BILLING

INTEGRATED BILLING (IB) will use the following APIs:

\$\$SYS^ICDEX
\$\$CODEABA^ICDEX
\$\$STATCHK^ICDEX
\$\$ICDDX^ICDEX
\$\$ICDOP^ICDEX
\$\$LS^ICDEX

FEE BASIS

FEE BASIS (FB) package will use the following APIs:

\$\$GETDRG^ICDEX
\$\$STATCHK^ICDEX
\$\$CODEC^ICDEX
\$\$CODEABA^ICDEX
\$\$CODEN^ICDEX
\$\$SD^ICDEX

PROSTHETICS

PROSTHETICS (RMPR) will use the following APIs:

\$\$SINFO^ICDEX
\$\$CSI^ICDEX
\$\$STATCHK^ICDEX
\$\$ICDDX^ICDEX
\$\$VLT^ICDEX
\$\$LS^ICDEX
\$\$CODEC^ICDEX

SCHEDULING

SCHEDULING (SD) will use the following APIs:

\$\$IMP^ICDEX
\$\$CSI^ICDEX
\$\$VER^ICDEX
\$\$SYS^ICDEX
\$\$LS^ICDEX
\$\$ICDDX^ICDEX
\$\$VLT^ICDEX

REGISTRATION

REGISTRATION (DG) will use the following APIs:

\$\$CSI^ICDEX
\$\$CODEC^ICDEX
\$\$CODEN^ICDEX
\$\$CODEABA^ICDEX
\$\$LS^ICDEX
\$\$NOT^ICDEX
\$\$REQ^ICDEX
\$\$SYS^ICDEX
\$\$VLT^ICDEX
\$\$SINFO^ICDEX
\$\$CS^ICDEX
\$\$ICDDX^ICDEX

\$\$VST^ICDEX

CLINICAL REMINDERS

CLINICAL REMINDERS (PXR) will use the following APIs:

\$\$CODEN^ICDEX
\$\$CODEABA^ICDEX
\$\$ICDDX^ICDEX
\$\$ICDOP^ICDEX
\$\$NEXT^ICDEX
\$\$PREV^ICDEX
\$\$IMP^ICDEX
\$\$ROOT^ICDEX
\$\$HDR^ICDEX
\$\$CODEC^ICDEX
\$\$CSI^ICDEX
\$\$SINFO^ICDEX

PHARMACY BENEFITS MANAGEMENT

PHARMACY BENEFITS MANAGEMENT (PSU) will use the following APIs:

\$\$CSI^ICDEX
\$\$ICDDX^ICDEX
\$\$ICDOP^ICDEX

CLINICAL CASE REGISTRIES

CLINICAL CASE REGISTRIES (ROR) will use the following APIs:

\$\$CSI^ICDEX
\$\$VSEX^ICDEX
\$\$UPDX^ICDEX
\$\$CODEC^ICDEX
\$\$CODEABA^ICDEX
\$\$VSTD^ICDEX
\$\$VLTD^ICDEX
\$\$VSTP^ICDEX
\$\$VLTP^ICDEX
\$\$FILE^ICDEX
\$\$VLT^ICDEX
\$\$VST^ICDEX
\$\$CODEN^ICDEX
\$\$ICDDX^ICDEX
\$\$ICDOP^ICDEX
\$\$SNAM^ICDEX

CLINICAL PROCEDURES

CLINICAL PROCEDURES (MD) will use the following APIs:

\$\$ICDDX^ICDEX
\$\$CSI^ICDEX
\$\$IMP^ICDEX
\$\$SINFO^ICDEX

SPINAL CORD DYSFUNCTION

SPINAL CORD DYSFUNCTION (SPN) package will use the following APIs:

\$\$OBA^ICDEX
\$\$CODEBA^ICDEX
\$\$CSI^ICDEX
\$\$CODEABA^ICDEX
\$\$VLT^ICDEX
\$\$VST^ICDEX

HOSPITAL BASED HOME CARE

HOSPITAL-BASED HOME CARE (HBH) will use the following APIs:

\$\$SYS^ICDEX
\$\$CODEC^ICDEX
\$\$VSTD^ICDEX
\$\$SAI^ICDEX
\$\$CSI^ICDEX

EVENT CAPTURE

EVENT CAPTURE (EC) package will use the following APIs:

\$\$SINFO^ICDEX
\$\$ICDDX^ICDEX
\$\$CODEN^ICDEX

AUTOMATED INFO COLLECTION SYS

AUTOMATED INFO COLLECTION SYS (IBD) package will use the following APIs:

\$\$SINFO^ICDEX

LAB SERVICE

LAB SERVICES (LR) will use the following APIs:

\$\$CODEC^ICDEX
\$\$ICDDX^ICDEX
\$\$ICDOP^ICDEX
\$\$IMP^ICDEX
\$\$SINFO^ICDEX
\$\$CSI^ICDEX
\$\$SD^ICDEX
\$\$SNAM^ICDEX
\$\$CODEN^ICDEX

QUASAR

QUASAR (ACKQ) will use the following APIs:

\$\$CODEC^ICDEX
\$\$CSI^ICDEX
\$\$CODEN^ICDEX

EMERGENCY DEPARTMENT

EMERGENCY DEPARTMENT (EDP) package will use the following APIs:

\$\$ICDDX^ICDEX
\$\$ICDOP^ICDEX
\$\$CODEC^ICDEX

PROBLEM LIST

PROBLEM LIST (GMPL) will use the following APIs:

\$\$CODEC^ICDEX
\$\$CSI^ICDEX
\$\$SAB^ICDEX

PCE PATIENT CARE ENCOUNTER

PATIENT CARE ENCOUNTER - PCE (PX) will use the following APIs:

\$\$CODEC^ICDEX
\$\$CODEN^ICDEX
\$\$CSI^ICDEX
\$\$SINFO^ICDEX
\$\$LD^ICDEX
\$\$IE^ICDEX

MENTAL HEALTH

MENTAL HEALTH (YS) will use the following APIs:

\$\$SINFO^ICDEX

SURGERY

SURGERY (SR) package will use the following APIs:

\$\$CODEN^ICDEX
\$\$LS^ICDEX
\$\$SYS^ICDEX
\$\$VST^ICDEX
\$\$CODEABA^ICDEX
\$\$OBA^ICDEX
\$\$CSI^ICDEX
\$\$CODEC^ICDEX

ORDER ENTRY/RESULTS REPORTING

ORDER ENTRY/RESULTS REPORTING (OR) will use the following APIs:

\$\$CODECS^ICDEX
\$\$CSI^ICDEX
\$\$SAB^ICDEX

TEXT INTEGRATION UTILITIES

TEXT INTEGRATION UTILITIES (TIU) will use the following APIs:

\$\$CODECS^ICDEX

USAGE: Controlled Subscri ENTERED: NOV 6,2011
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:

DESCRIPTION: TYPE: Routine
Application Programmer Interfaces (APIs) in this routine were developed to remove the need for direct global access to either the DIAGNOSIS file 80 or OPERATIONS/PROCEDURE file 80.1.

These entry points are meant to replace the following active/retired ICRs:

48	Private	YS File 80.2	Weight (2)
280	Private	HBH File 80	Code (.01)
365	Private	QAM File 80	Code (.01)
368	Private	IB File 80	Retired Nov 15, 2008
369	Private	IB File 80.1	Retired Nov 15, 2008
370	Private	IB/DSS 80.2	DRG Name (.01)
582	Private	IMR File 80	Code (.01)
647	Private	IB File 80	Retired Nov 15, 2008
1161	Private	VAM File 80	Retired Nov 15, 2008
1275	Private	GMTS File 80	Retired Nov 15, 2008
1276	Private	GMTS File 80.1	Retired Nov 15, 2008
1294	Subscription	PCE/TIU/OR File 80	Retired Nov 15, 2008
1487	Private	ACKQ File 80	Retired Nov 15, 2008
1586	Subscription	AICS/PCE File 80.3	MDC Name (.01)
2435	Private	PXRM File 80 Hdr	^ICD9(0)
2436	Private	PXRM File 80.1 Hdr	^ICD0(0)
3990	Supported	Routine ICDCODE	To be retired Apr 2016
3991	Supported	Routine ICDAPIU	To be retired Apr 2016
4052	Supported	Routine ICDGTDRG	
5028	Subscription	GMPL File 80	
5388	Supported	File 80	Code (.01), AB/BA/D/AST/ACT To be retired Apr 2016
5404	Supported	File 80.1	Code (.01), BA/ACT To be retired Apr 2016
5699	Supported	Routine ICDXCODE	To be retired Apr 2016
5757	Supported	Routine ICDSAPI	To be retired Apr 2016
10082	Supported	File 80	Retired Nov 15, 2008
10083	Supported	File 80.1	Retired Nov 15, 2008

ROUTINE: ICDEX
COMPONENT: HELP
This is an interactive help entry point for the input and output variables for the APIs contained in the routine ICDEX.

COMPONENT: \$\$ICDDX(CODE,CDT,SYS,FMT,LOC)
This entry point extracts data for an ICD-9 or ICD-10 code in the DIAGNOSIS file 80.

This entry point is intended to replace the ICD-9 Legacy API \$\$ICDDX^ICDCODE (ICR 3990) and \$\$ICDDATA^ICDXCODE (ICR 5699), providing a single point of entry for ICD diagnostic data.

VARIABLES: Input CODE
This is an ICD diagnosis code in either the external or internal format. If the internal format is used, then the input variable FMT must be set to "I" (Required).

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to identify the code and text that was appropriate for the date passed in this input parameter. (Optional, if not supplied, TODAY will be used)

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). The following coding systems are found in file 80:

1 = ICD-9 Diagnosis
30 = ICD-10 Diagnosis

(Optional, but highly encouraged)

VARIABLES: Input FMT
This variable tells the API if the CODE is in External or Internal format.

"E" = External (default)
"I" = Internal Entry Number

(Conditional, required if CODE is in internal format)

VARIABLES: Output \$\$ICDDX
This is a 20 piece string delimited by "^"

1	IEN of code in ^ICD9(
2	ICD-9 Dx Code	(#.01)
3	Identifier	(#1.2)
4	Versioned Dx	(67 multiple)
5	Unacceptable as Principal Dx	(#1.3)
6	Major Dx Cat	(72 multiple)
7	MDC13	(#1.4)
8	Compl/Comorb	(103 multiple)
9	ICD Expanded	(#1.7)
10	Status	(66 multiple)
11	Sex	(10 multiple)
12	Inactive Date	(66 multiple)
13	MDC24	(#1.5)
14	MDC25	(#1.6)
15	Age Low	(11 multiple)
16	Age High	(12 multiple)
17	Activation Date	(66 multiple)
18	Message	
19	Complication/Comorbidity	(103 multiple)
20	Coding System	(#1.1)
21	Primary CC Flag	(103 multiple)
22	PDX Exclusion Code	(#1.11)

or

-1^Error Description

VARIABLES: Input LOC
This is a boolean flag used to indicate if the API is to use local VA codes. It only applies to ICD-9 for backwards compatibility.

1 = Use local VA codes
0 = Do not use local VA codes (default)

COMPONENT: \$\$ICDOP (CODE, CDT, SYS, FMT, LOC)
This entry point extracts data for an ICD-9 or ICD-10 code in the OPERATIONS/PROCEDURE file 80.1

This entry point is intended to replace the ICD-9 Legacy API \$\$ICDOP^ICDCODE (ICR 3990) and \$\$ICDDATA^ICDXCODE (ICR 5699), providing a single point of entry for ICD procedural data.

VARIABLES: Input CODE
This is an ICD operation/procedure code in either the external or internal format. If the internal format is used, then the input variable FMT must be set to "I" (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to identify the code and text that was appropriate for the date passed in CDT. (Optional, if not supplied, TODAY will be used)

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). The following coding systems are found in file 80.1:

2 = ICD-9 Procedures
31 = ICD-10 Procedures

(Optional, but highly encouraged)

VARIABLES: Input FMT
This variable tells the API if the CODE is in External or Internal format.

"E" = External (default)
"I" = Internal Entry Number

(Conditional, required if CODE is in internal format)

VARIABLES: Output \$\$ICDOP
This is a 15 piece string delimited by "^"

1	IEN of code in ^ICD0(
2	ICD procedure code	(#.01)
3	Identifier	(#1.2)
4	MDC24	(#1.5)
5	Versioned Oper/Proc	(67 multiple)
6	<null>	

7	<null>	
8	<null>	
9	ICD Expanded	(#1.7)
10	Status	(66 multiple)
11	Use with Sex	(10 multiple)
12	Inactive Date	(66 multiple)
13	Activation Date	(66 multiple)
14	Message	
15	Coding System	(#1.1)

or

-1^Error Description

VARIABLES: Input LOC
 This is a boolean flag used to indicate if the API is to use local VA codes. It only applies to ICD-9 for backwards compatibility.

1 = Use local VA codes
 0 = Do not use local VA codes (default)

COMPONENT: \$\$ICDD (CODE, .ARY, CDT, SYS, LEN)
 This API returns the long description of either an ICD-9 or ICD-10 code.

This entry point is intended to replace the ICD-9 Legacy API \$\$ICDD^ICDCODE (ICR 3990) and \$\$ICDDDESC^ICDXCODE (ICR 5699), providing a single point of entry for ICD diagnosis/procedure descriptions.

VARIABLES: Input CODE
 This is an ICD-9 or ICD-10 code in external format only (Required).

VARIABLES: Input .ARY
 This is the name of a local array, passed by reference that will contain the output of this API. (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to identify the text that was appropriate for the date passed in this input parameter. (Optional, if not supplied, TODAY will be used)

VARIABLES: Input SYS
 This is an ICD coding system identifier (taken from file 80.4). The following coding systems are found in files 80 and 80.1:

1 = ICD-9 Diagnosis file 80
 2 = ICD-9 Procedure file 80.1
 30 = ICD-10 Diagnosis file 80
 31 = ICD-10 Procedure file 80.1

(Optional, but highly encouraged)

VARIABLES: Input LEN
This is the text string length of the description placed in array .ARY. (Optional, if passed it must be greater than 27 based on the longest word found in a diagnosis or procedure description and not greater than 245. If not passed it defaults to 245 characters based in the input transformation)

VARIABLES: Output \$\$ICDD
This is the number of lines in the output array .ARY or if an error occurs, -1^Error Message

VARIABLES: Output ARY
This is a local array, passed by reference, containing the long description of an ICD code with string lengths defined by LEN when passed or 245 characters. If there is a warning message about text accuracy (ICD-9 only) it will be appended to the end of the message preceded by a blank line.

ARY(1) - Description (length of LEN)
ARY(n) - Description (continued if necessary)

If there is a warning message (ICD-9 only):

ARY(n+1) - blank
ARY(n+2) - message: CODE TEXT MAY BE INACCURATE

COMPONENT: \$\$CODEN(CODE,FILE)
This API returns the Internal Entry Number (IEN) of a ICD code.

This entry point is intended to replace the ICD-9 Legacy API \$\$CODEN^ICDCODE (ICR 3990). It is also intended to replace the need for direct global access of the 'BA' cross-reference in ICRs 5388 and 5404.

VARIABLES: Input CODE
This is an ICD-9 or ICD-10 code in external format only (Required).

VARIABLES: Input FILE
This is the file number where the CODE is stored, either 80 or 80.1 (Required)

VARIABLES: Output \$\$CODEN
This is the Internal Entry Number (IEN) of CODE in file FILE appended by a tilde "~" and the global root FILE:

IEN~^ROOT

or -1^Error Message on error

COMPONENT: \$\$CODEC (FILE, IEN)
This entry point returns the ICD-9 or ICD-10 code from a specified ICD file and Internal Entry Number (IEN).

This entry point is intended to replace the ICD-9 Legacy API \$\$CODEC^ICDCODE (ICR 3990). It is also intended to replace the need for direct global access in ICRs 280, 365, 582, 5388, and 5404.

VARIABLES: Input FILE
This is the ICD file number used to retrieve the code (Required)

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is the internal entry number in FILE were the code to be retrieved is stored (Required)

VARIABLES: Output \$\$CODEC
This is either the ICD code stored at the Internal Entry Number IEN in the file identified by the FILE input parameter, or upon error:

-1 ^ Error Message

COMPONENT: \$\$CODEBA (CODE, ROOT)
This entry point returns the internal entry number (IEN) of a code found in the 'BA' cross-reference in the file specified.

This entry point is provided in lieu of ICD-9 Legacy entry point \$\$CODEN^ICDCODE (ICR 3990) which will crash with a <MAXNUMBER> error if the code passed has the letter 'E' in the middle of the code (example, ICD-10 procedure code 041E499 would be interpreted as scientific notation). \$\$CODEBA^ICDEX is much safer.

If you already know the coding system, please use \$\$CODEABA^ICDEX instead.

This entry point replaces the need for direct global read access of the 'BA' cross-reference allowed by ICRs 5388 and 5404.

VARIABLES: Input CODE
This is either an ICD Diagnosis code or ICD Procedure code (Required)

VARIABLES: Input ROOT
This is the global root (or file number) where the code is stored (Required)

VARIABLES: Output \$\$CODEBA
This is the internal entry number (IEN) in the specified file where the code is stored or -1 if

not found.

COMPONENT: \$\$CODEABA (CODE,ROOT,SYS)

This entry point returns the internal entry number (IEN) of a code found in the system specific 'ABA' cross-reference in the file specified.

This entry point is provided in lieu of ICD-9 Legacy entry point \$\$CODEN^ICDCODE (ICR 3990) and new entry point \$\$CODEBA^ICDEX.

Entry point Comparison:

\$\$CODEN^ICDCODE will crash if the code has the letter 'E' in the middle of the code. Do not use it.

\$\$CODEBA^ICDEX is safer but it will fail to return the correct IEN if ICD-9 and ICD-10 ever have a similar code.

\$\$CODEABA^ICDEX will neither crash or fail to return the correct IEN.

VARIABLES: Input CODE
This is either an ICD Diagnosis code or ICD Procedure code (Required)

VARIABLES: Input ROOT
This is the global root (or file number) where the code is stored (Optional if SYS is supplied)

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). The following coding systems are found in files 80 and 80.1:

1 = ICD-9 Diagnosis file 80
2 = ICD-9 Procedure file 80.1
30 = ICD-10 Diagnosis file 80
31 = ICD-10 Procedure file 80.1

This API will look for the code on one of the system specific cross-references:

^ICD9("ABA",1,CODE,IEN) ICD-9 Diagnosis
^ICD9("ABA",30,CODE,IEN) ICD-10 Diagnosis
^ICD0("ABA",2,CODE,IEN) ICD-9 Procedure
^ICD0("ABA",31,CODE,IEN) ICD-10 Procedure

If not supplied, the API will attempt to determine the system based on code and file.

(Optional, but highly encouraged)

VARIABLES: Output \$\$CODEABA
This is the internal entry number (IEN) in the

specified file where the code is stored or -1 if not found.

COMPONENT: \$\$CODEFI (CODE)
This entry point tries to resolve which file has an ICD code on file.

VARIABLES: Input CODE
This is either an ICD Diagnosis code or ICD Procedure code (Required)

VARIABLES: Output \$\$CODEFI
This is the ICD file number where the specified code was found:

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

or NULL if not found or could not resolve to a single file.

COMPONENT: \$\$CODECS (CODE, FILE, CDT)
This entry point tries to resolve the Coding System based on a code, a file and a date.

VARIABLES: Input CODE
This is either an ICD Diagnosis code or ICD Procedure code (Required)

VARIABLES: Input FILE
This is the ICD file number used to resolve the coding system:

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

(Optional, but encouraged) If not supplied, an attempt to resolve the input variable FILE will be made using the entry point \$\$CODEFI (CODE).

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to resolve the coding system.

This date is ONLY used if a code is found in both ICD-9 and ICD-10 systems. If that ever happens, the date passed will determine the coding system. If the date passed is before the ICD-10 implementation date it will be considered an ICD-9 code and if it is on or after the ICD-10 implementation date then it will be considered ICD-10.

VARIABLES: Output \$\$CODECS
This is a 2 piece "^" delimited string containing:

1 Coding System (pointer to file 80.4)

2 Coding Nomenclature (commonly used name)

Example output values:

1^ICD-9-CM
30^ICD-10-CM
2^ICD-9 Proc
31^ICD-10-PCS

NULL if the API cannot resolve the coding system based on code, file and date.

COMPONENT: \$\$CSI(FILE,IEN)

This entry point returns the Coding System for an Internal Entry Number (IEN).

VARIABLES: Input FILE

This is the ICD file number used to retrieve the coding system (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN

This is an Internal Entry Number (IEN) in the file specified (Required).

VARIABLES: Output \$\$CSI

This is a pointer to the ICD CODING SYSTEMS file #80.4

COMPONENT: \$\$VMDC(IEN,CDT,FMT)

This entry point retrieves the versioned Major Diagnostic Category (MDC) for a diagnostic code in the DIAGNOSIS file 80.

VARIABLES: Input IEN

This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input CDT

This is the Code Set Versioning date (Fileman format) used to identify the Major Diagnostic Category that was appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Input FMT

This is a flag used to determine the output format. Acceptable values are 0 and 1 (Optional, default value is 0).

FMT = 0 Major Diagnostic Category (MDC)
FMT = 1 MDC^Effective Date

VARIABLES: Output \$\$VMDC

This is the Major Diagnostic Category (MDC) that was appropriate for the date passed and the diagnosis code identified by input parameter IEN.

The output may also have a second "^" delimited piece containing the MDC Effective Date if the input parameter FMT is set to 1.

COMPONENT: \$\$VAGEL (IEN,CDT,FMT)
This entry point retrieves the versioned Age Low value for a diagnostic code in the DIAGNOSIS file 80. Age Low is the minimum age value for an age range for which the diagnostic code can be applied.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to identify the Age Low value that was appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Input FMT
 This is a flag used to determine the output format. Acceptable values are 0 and 1 (Optional, default value is 0).

 FMT = 0 Age Low
 FMT = 1 Age Low^Effective Date

VARIABLES: Output \$\$VAGEL
 This is the Age Low that was appropriate for the date passed and the diagnosis code identified by the input parameter IEN. The output may also have a second "^" delimited piece containing the Age Low Effective Date if the input parameter FMT is set to 1. Null if Age Low not found for date.

COMPONENT: \$\$VAGEH (IEN,CDT,FMT)
This entry point retrieves the versioned Age High value for a diagnostic code in the DIAGNOSIS file 80. Age High is the maximum age value for an age range for which the diagnostic code can be applied.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to identify the Age High value that was appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Input FMT
 This is a flag used to determine the output format. Acceptable values are 0 and 1 (Optional, default value is 0).

FMT = 0 Age High
FMT = 1 Age High^Effective Date

VARIABLES: Output \$\$VAGEH
 This is the Age High that was appropriate for the date passed and the diagnosis code identified by the input parameter IEN. The output may also have a second "^" delimited piece containing the Age High Effective Date if the input parameter FMT is set to 1. Null if Age High is not found for date.

COMPONENT: \$\$VCC (IEN,CDT,FMT)
 This entry point retrieves the versioned Complication Comorbidity (CC) designation for a diagnostic code in the DIAGNOSIS file 80. A diagnostic code can be designated as:

 Non-Complication Comorbidity (Non-CC)
 Complication Comorbidity (CC)
 Major Complication Comorbidity (MCC)

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to identify the CC designation value that was appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Input FMT
 This is a flag used to determine the output format. Acceptable values are 0 and 1 (Optional, default value is 0).

FMT = 0 CC designation
FMT = 1 CC designation^Effective Date

VARIABLES: Output \$\$VCC
 This is the CC designation that was appropriate for the date passed and the diagnosis code identified by the input parameter IEN. The output may also have a second "^" delimited piece containing the CC designation Effective Date if the input parameter FMT is set to 1.

 0 = Non-Complication Comorbidity (Non-CC)
 1 = Complication Comorbidity (CC)
 2 = Major Complication Comorbidity (MCC)

 Null if not found for date

COMPONENT: \$\$VSEX (FILE,IEN,CDT,FMT)
 This entry point retrieves the versioned sex designation for a diagnostic or procedure code in either the ICD DIAGNOSIS file 80 or the ICD OPERATION/PROCEDURE file 80.1. If a sex designation exist then the diagnosis or procedure should be

applied only to that sex.

VARIABLES: Input FILE
This is the ICD file number used to retrieve the sex designation:

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in either the DIAGNOSIS file 80 or OPERATION/PROCEDURE file 80.1 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to identify the sex designation value that was appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Input FMT
This is a flag used to determine the output format. Acceptable values are 0 and 1 (Optional, default value is 0).

FMT = 0 Sex designation
FMT = 1 Sex designation^Effective Date

VARIABLES: Output \$\$VSEX
This is the sex designation that was appropriate for the date passed and the code identified by the input parameter IEN. The output may also have a second "^" delimited piece containing the sex designation Effective Date if the input parameter FMT is set to 1.

M = Male
F = Female
Null if sex is N/A or not found for date

COMPONENT: \$\$SAI (FILE, IEN, CDT)
This entry point retrieves the Status, Activation date and Inactivation date for a diagnosis or procedure on a specified date.

VARIABLES: Input FILE
This is the ICD file number used to retrieve the status and effective dates:

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in either the DIAGNOSIS file 80 or OPERATION/PROCEDURE file 80.1 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to retrieve the status and effective dates that were appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Output \$\$\$SAI
This is a 6 piece "^" delimited string

- 1 Status
- 2 Activation Date
- 3 Inactivation Date
- 4 IEN
- 5 Code
- 6 Short Text

If the status is active, the short text will be the most recent.

If the status is inactive, the short text will be the text in use on the date it was inactivated.

Null if no status for date.

COMPONENT: \$\$VST(FILE,IEN,CDT)
This entry point retrieves the Versioned Short Text for an diagnosis or procedure on a specified date.

VARIABLES: Input FILE
This is the ICD file number used to retrieve the Versioned Short Text:

- 80 = ICD Diagnosis file
- 80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in either the DIAGNOSIS file 80 or OPERATION/PROCEDURE file 80.1 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to retrieve the Versioned Short Text that was appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Output \$\$VST
This is the Versioned Short Text from either file 80 (DIAGNOSIS) or 80.1 (OPERATION/PROCEDURE) that was appropriate for the date passed and the code identified by the input parameter IEN. Null if not found.

COMPONENT: \$\$VLT(FILE,IEN,CDT)
This entry point retrieves the Versioned Long Text (description) for a diagnosis or procedure on a specified

date.

VARIABLES: Input FILE
This is the ICD file number used to retrieve the Versioned Long Text (description):
80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in either the DIAGNOSIS file 80 or OPERATION/PROCEDURE file 80.1 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to retrieve the Versioned Long Text (description) that was appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Output \$\$VLT
This is the Versioned Long Text (description) from either file 80 or 80.1 that was appropriate for the date passed and the code identified by the input parameter IEN. Null if not found.

COMPONENT: \$\$VSTD (IEN,CDT)
This entry point retrieves the Versioned Short Text for a diagnosis on a specified date.

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to retrieve the Versioned Short Text that was appropriate for the date passed (Optional, if not passed TODAY is used).

VARIABLES: Output \$\$VSTD
This is the Versioned Short Text from file 80 that was appropriate for the date passed and the code identified by the input parameter IEN. Null if not found.

COMPONENT: \$\$VSTP (IEN,CDT)
This entry point retrieves the Versioned Short Text for a procedure on a specified date.

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the OPERATION/PROCEDURE file 80.1 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to retrieve the Versioned Short Text

that was appropriate for the date passed
(Optional, if not passed TODAY is used).

VARIABLES: Output \$\$VSTP
 This is the Versioned Short Text from file 80.1
 that was appropriate for the date passed and the
 code identified by the input parameter IEN. Null
 if not found.

COMPONENT: \$\$VLTD (IEN, CDT)
 This entry point retrieves the Versioned Long Text
 (description) for a diagnosis on a specified date.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the
 DIAGNOSIS file 80 (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman
 format) used to retrieve the Versioned Long Text
 (description) that was appropriate for the date
 passed (Optional, If not passed TODAY is used).

VARIABLES: Output \$\$VLTD
 This is the Versioned Long Text (description) from
 file 80 that was appropriate for the date passed
 and the code identified by the input parameter
 IEN. Null if not found.

COMPONENT: \$\$VLTP (IEN, CDT)
 This entry point retrieves the Versioned Long Text
 (description) for a procedure on a specified date.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the
 OPERATION/PROCEDURE file 80.1 (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman
 format) used to retrieve the Versioned Long Text
 (description) that was appropriate for the date
 passed (Optional, If not passed TODAY is used).

VARIABLES: Output \$\$VLTP
 This is the Versioned Long Text (description) from
 file 80.1 that was appropriate for the date passed
 and the code identified by the input parameter
 IEN. Null if not found.

COMPONENT: \$\$SD (FILE, IEN, CDT, .ARY, LEN)
 This entry point retrieves the Versioned Short Text for a
 procedure on a specified date. This entry point is similar to
 \$\$VST except you can elect to have the Short Text returned in
 a local array and you can specify the string lengths of the
 text in the array.

VARIABLES: Input FILE

This is the ICD file number used to retrieve the Versioned Short Text (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an internal entry number (IEN) in either file 80 or 80.1 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to retrieve the Versioned Short Text that was appropriate for the date passed (Optional, If not passed TODAY is used).

VARIABLES: Input .ARY
This is a local array name passed by reference that will contain the Short Text output.

VARIABLES: Input LEN
This is a number greater than 27 and less than 246 representing the desired text string lengths for the Short Text output. If specified, the output will be parsed into strings not to exceed the length specified (Optional, default 245)

VARIABLES: Output \$\$SD
This is the Versioned Short Text from either file 80 or 80.1 that was appropriate for the date passed and the code identified by the input parameter IEN. If not found:

-1^Error Message

VARIABLES: Output ARY
If passed, this is a local array containing the number of text lines, the effective date of the Short Text and the text. If the input parameter LEN (length) is specified and the length is shorter than the Short Text, then the Short Text will be parsed into test strings not to exceed LEN.

ARY(0)=# lines ^ effective date
ARY(1)=Short Text

LEN is defined shorter than text

ARY(0)=# lines ^ effective date
ARY(1)=String length not to exceed LEN
ARY(n)=String length not to exceed LEN

Null if not found

COMPONENT: \$\$LD (FILE, IEN, CDT, .ARY, LEN)
This entry point retrieves the Versioned Long Text

(description) for a procedure on a specified date. This entry point is similar to \$\$VLT except you can elect to have the Long Text (description) returned in a local array and you can specify the string lengths of the text in the array.

VARIABLES: Input FILE
This is the ICD file number used to retrieve the Versioned Long Text (description) (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an internal entry number (IEN) in either file 80 or 80.1 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to retrieve the Versioned Long Text (description) that was appropriate for the date passed (Optional, If not passed TODAY is used).

VARIABLES: Input .ARY
This is a local array name passed by reference that will contain the Long Text (description) output.

VARIABLES: Input LEN
This is a number greater than 27 and less than 246 representing the desired text string lengths for the Long Text (description) output. If specified, the output will be parsed into strings not to exceed the length specified (Optional, default 245)

VARIABLES: Output \$\$LD
This is the Versioned Long Text (description) from either file 80 or 80.1 that was appropriate for the date passed and the code identified by the input parameter IEN. If not found:

-1^Error Message

VARIABLES: Output ARY
If passed, this is a local array containing the number of text lines, the effective date of the Long Text (description) and the text. If the input parameter LEN (length) is specified and the length is shorter than the Long Text (description), then the Long Text (description) will be parsed into test strings not to exceed LEN.

ARY(0)=# lines ^ effective date
ARY(1)=Long Text (description)

LEN defined shorter than text

ARY(0)=# lines ^ effective date
ARY(1)=String length not to exceed LEN
ARY(n)=String length not to exceed LEN

COMPONENT: PAR(.ARY,LEN)
This entry point takes text in a local array (passed by reference) and parses it into string lengths not to exceed the length specified.

VARIABLES: Input .ARY
This is a local array name passed by reference and contains the text to be parsed into strings not to exceed the length specified.

ARY(1) = Unparsed Text

VARIABLES: Input LEN
This is a number representing the desired text string lengths for the text found in ARY().
(Optional, default length 79)

VARIABLES: Output ARY
This is a local array containing the input text parsed so that each text string length does not exceed the length specified.

ARY(1)=Parsed Text length not to exceed LEN
ARY(n)=Parsed Text length not to exceed LEN

COMPONENT: \$\$STATCHK(CODE,CDT,SYS)
This entry point is used to determine the status (active or inactive) of a ICD code.

VARIABLES: Input CODE
This is either an ICD diagnosis or procedure code (external format) (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to retrieve the code's status, internal entry number (IEN) and effective date that was appropriate for the date passed
(Optional, If not passed TODAY is used)

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). The following coding systems are found in files 80 and 80.1:

- 1 = ICD-9 Diagnosis
- 30 = ICD-10 Diagnosis
- 2 = ICD-9 Procedures
- 31 = ICD-10 Procedures

(Optional, but encouraged, if doesn't exist it will try to determine coding system by input

parameter CODE)

VARIABLES: Output \$\$STATCHK
 This is a three piece "^" delimited string

- 1 Status 1 = Active, 0 = Inactive
- 2 IEN or -1 on error
- 3 Effective Date or error message

Error 0 ^ -1 ^ Error message
Active Code 1 ^ IEN ^ Effective Date
Inactive Code 0 ^ IEN ^ Effective Date

COMPONENT: \$\$DTBR (CDT, STD, SYS)
 This entry point returns the business rule date for a coding system. This is in earliest date possible for a coding standard and/or a coding system.

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to resolved the business rule date. (Optional, if not passed TODAY is used)

VARIABLES: Input STD
 This is a coding standard from a Standards Development Organization (SDO). A standard may have one or more coding systems. (Optional, default is 0)

- 0 = ICD (Default)
- 1 = CPT/HCPCS
- 2 = DRG

VARIABLES: Input SYS
 This is an ICD coding system identifier (taken from file 80.4). (Optional, there is no default value for this parameter, if it does not exist then it is not used)

The following coding systems are found in files 80 and 80.1:

- 1 = ICD-9 Diagnosis
- 30 = ICD-10 Diagnosis
- 2 = ICD-9 Procedures
- 31 = ICD-10 Procedures

VARIABLES: Output \$\$DTBR
 Date adjusted by business rules:

If Standard (SDT) = 0 (ICD)

- If CDT < 2781001 use 2781001
- If CDT < 3131001 and SYS=30, use 3131001
- If CDT < 3131001 and SYS=31, use 3131001

If Standard (SDT) = 1 (CPT/HCPCS)

If CDT < 2890101 use 2890101

If Standard (SDT) = 2 (DRG)

If CDT < 2821001 use 2821001

If CDT is year only, use first of the year If CDT is year and month only, use first of the month

COMPONENT: \$\$IMP(SYS,CDT)
This entry point returns the date a coding system was implemented (taken from file 80.4).

VARIABLES: Input SYS
This is a coding system (taken from file 80.4) or a coding system identifier that can be resolved to a coding system.

1 = ICD-9-CM
2 = ICD-9-PCS
30 = ICD-10-CM
31 = ICD-10-PCS

DX, DIAG, 80, ^ICD9(

1 = ICD-9-CM if CDT is before the ICD-10 implementation date
30 = ICD-10-CM if CDT is on or after the ICD-10 implementation date

PR, PROC, OPER, 80.1, ^ICD0(

2 = ICD-9-CM if CDT is before the ICD-10 implementation date
31 = ICD-10-CM if CDT is on or after the ICD-10 implementation date

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to resolve the coding system parameter SYS (Optional, if not passed TODAY is used)

VARIABLES: Output \$\$IMP
This is the date that a coding system identified by the input parameters SYS and CDT was implemented in Fileman format or on error:

-1 ^ Error message

COMPONENT: \$\$MSG(CDT,STD,SYS)
This entry point returns a warning message that the text may be inaccurate for the date specified. It applies only to ICD-9 Diagnosis and Procedures.

VARIABLES: Input CDT

This is the Code Set Versioning date (Fileman format) used to determine the accuracy of the text being returned (Optional, if not passed TODAY is used)

VARIABLES: Input STD
This is a coding standard from a Standards Development Organization (SDO). A standard may have one or more coding systems. (Optional, default is 0)

0 = ICD (Default)
1 = CPT/HCPCS
2 = DRG

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). (Optional, there is no default value for this parameter, if it does not exist then it is not used)

The following coding systems are found in files 80 and 80.1:

1 = ICD-9 Diagnosis
30 = ICD-10 Diagnosis
2 = ICD-9 Procedures
31 = ICD-10 Procedures

VARIABLES: Output \$\$MSG
If coding system is not ICD-10 and the date passed is before the Code Set Versioning project Oct 1, 2002, then this variable is set to the warning message, "CODE TEXT MAY BE INACCURATE" otherwise it is null.

COMPONENT: \$\$SEL(FILE,IEN)
This entry point determines if an entry in a file is selectable by calling applications.

VARIABLES: Input FILE
This is an ICD file number:
80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the file specified.

VARIABLES: Output \$\$SEL
This is a Boolean value:
1 Entry IEN in file FILE is Selectable
0 Entry IEN in file FILE is NOT Selectable

or

-1 on error

COMPONENT: \$\$NEXT (CODE, SYS, CDT)
This entry point returns the Next code in a sequence of codes in a coding system.

VARIABLES: Input CODE
This is either an ICD diagnosis, an ICD procedure code or null to retrieve the first code in a sequence.

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). (Optional)

The following coding systems are found in ICD files 80 and 80.1:

1 = ICD-9 Diagnosis
30 = ICD-10 Diagnosis
2 = ICD-9 Procedures
31 = ICD-10 Procedures

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to determine the next code being returned (Optional, there is no default value for this parameter)

If CDT date is not passed then this entry point will return the next code, regardless of status (active or inactive)

If CDT date is passed then this entry point will return the next active code.

VARIABLES: Output \$\$NEXT
This is the next code in a sequence of codes. If the input code is null, then it will return the first code of the sequence of codes. If a date is passed in the input parameter CDT, then it will return the next active code in a sequence of codes.

COMPONENT: \$\$PREV (CODE, SYS, CDT)
This entry point returns the Previous code in a sequence of codes in a coding system.

VARIABLES: Input CODE
This is either an ICD diagnosis, an ICD procedure code or null to retrieve the last code in a sequence.

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). (Optional)

The following coding systems are found in ICD files 80 and 80.1:

1 = ICD-9 Diagnosis
30 = ICD-10 Diagnosis
2 = ICD-9 Procedures
31 = ICD-10 Procedures

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to determine the Previous code being returned (Optional, there is no default value for this parameter)

If CDT date is not passed then this entry point will return the previous code, regardless of status (active or inactive)

If CDT date is passed then this entry point will return the previous active code.

VARIABLES: Output \$\$PREV
This is the previous code in a sequence of codes. If the input code is null, then it will return the last code of the sequence of codes. If a date is passed in the input parameter CDT, then it will return the previous active code in a sequence of codes.

COMPONENT: \$\$HIST(CODE, .ARY, SYS)
This entry point returns a code's activation history.

VARIABLES: Input CODE
This is an ICD diagnosis or procedure code.

VARIABLES: Input .ARY
This is a local array name passed by reference that will contain the code's activation history.

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). (Optional)

The following coding systems are found in ICD files 80 and 80.1:

1 = ICD-9 Diagnosis
30 = ICD-10 Diagnosis
2 = ICD-9 Procedures
31 = ICD-10 Procedures

VARIABLES: Output \$\$HIST
This is set equal to the number of history entries in the local array ARY or -1 if there is an error or the code is not found.

VARIABLES: Output ARY
This is a local array containing the history records

ARY(0) = Number of History Entries
ARY(<effective date>,<status>) = comment

COMPONENT: \$\$PERIOD (CODE, .ARY, SYS)
This entry point returns all the activation periods for a code. An activation period is defined as the period of time between the beginning activation effective date and the ending inactivation effective date. If the code is still active the period will have an activation date without an inactivation date.

VARIABLES: Input CODE
This is either an ICD diagnosis or procedure code.

VARIABLES: Input .ARY
This is a local array name passed by reference that will contain the code's activation periods.

VARIABLES: Input SYS
This is an ICD coding system identifier (taken from file 80.4). (Optional)

The following coding systems are found in ICD files 80 and 80.1:

1 = ICD-9 Diagnosis
30 = ICD-10 Diagnosis
2 = ICD-9 Procedures
31 = ICD-10 Procedures

VARIABLES: Output \$\$PERIOD
This is a 2 piece "^" delimited string if successful and 3 piece "^" delimited string if unsuccessful or error.

1 IEN of code
2 Code is selectable (boolean 1/0)

or on error

-1 ^ 0 ^ Error Message

VARIABLES: Output ARY
This is a local array containing the Periods of activation for the code

ARY(0)

This is a 2 piece "^" delimited string if successful and a 3 piece "^" delimited string if unsuccessful or error.

1 IEN of code

2 Code is selectable (boolean 1/0)

or on error

-1^0^Error Message

ARY(Activation Date) = Inactivation Date^Short
Name

Where the Short Name is the Versioned text, and
the

text is versioned as follows:

Period is active - Text for TODAY's date
Period is inactive - Text for inactivation date

COMPONENT: \$\$OBA(FILE, CODE, SYS, REV)

This entry point is used to \$ORDER through the BA or ABA
cross-references and replaces the need to access the BA/ABA
cross-references in a FOR loop. This entry point is meant to
replace BA cross-reference in ICRs 5388 and 5404.

\$\$OBA(<file>, <code>, <system>) replaces:

\$O(^ICD9("BA", (<code>_ " "))) and
\$O(^ICD0("BA", (<code>_ " ")))

Examples:

F S CODE=\$\$OBA(80, CODE, 1) Q: '\$L(CODE) D
F S CODE=\$\$OBA(80, CODE, 30) Q: '\$L(CODE) D
F S CODE=\$\$OBA(80.1, CODE, 2) Q: '\$L(CODE) D
F S CODE=\$\$OBA(80.1, CODE, 31) Q: '\$L(CODE) D

VARIABLES: Input FILE

This is the ICD file number used to determine the
global root to \$ORDER through (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input CODE

This is either an ICD diagnosis or procedure code
to \$ORDER from (required):

\$O(^ROOT("BA", (CODE_ " ")))
\$O(^ROOT("ABA", SYS, (CODE_ " ")))

VARIABLES: Input SYS

This is either an ICD diagnosis or procedure

This is an ICD coding system identifier (taken
from file 80.4). (Optional)

The following coding systems are found in ICD
files 80 and 80.1:

1 = ICD-9 Diagnosis
30 = ICD-10 Diagnosis
2 = ICD-9 Procedures
31 = ICD-10 Procedures

If the coding system can be identified then the "BA" cross-reference is ignored and the \$ORDER will be performed on the "ABA" cross-reference:

```
$O(^ROOT("ABA",SYS,(CODE_" ")))
```

The "ABA" cross-reference is a coding system specific cross-reference.

VARIABLES: Used **REV**
This is a Reverse \$ORDER flag, if set to 1, the \$ORDER operation will be in the reverse direction of "BA" or "ABA" cross-reference (Optional, default is 0, \$ORDER forward)

If equal to 1

```
$O(^ROOT("BA", (CODE_" ")), -1)  
$O(^ROOT("ABA",SYS, (CODE_" ")), -1)
```

VARIABLES: Output **\$\$OBA**
This is the Next or Previous Code in the "BA" or "ABA" cross-reference depending on the \$ORDER direction established by the input parameter REV.

COMPONENT: \$\$OD(FILE,WORD,SYS,REV)
This entry point is used to \$ORDER through the "D" or "AD" cross-reference and replaces the need to access the D/AD cross-references in a FOR loop. This entry point is meant to replace the D cross-reference in ICRs 5388 and 5404.

\$\$OD(<file>,<word>,<system>) replaces:

```
$O(^ICD9("D", (<word>_" "))) and  
$O(^ICD0("D", (<word>_" ")))
```

Examples:

```
F S WORD=$$OD(80,WORD,1) Q:'$L(WORD) D  
F S WORD=$$OD(80,WORD,30) Q:'$L(WORD) D  
F S WORD=$$OD(80.1,WORD,2) Q:'$L(WORD) D  
F S WORD=$$OD(80.1,WORD,31) Q:'$L(WORD) D
```

VARIABLES: Input **FILE**
This is the ICD file number used to determine the global root to \$ORDER through (Required):

```
80 = ICD Diagnosis file  
80.1 = ICD Operation/Procedure file
```

VARIABLES: Input **WORD**
This is a one or two piece "^" delimited string

-
- 1 WORD This is a single word parsed from the codes description.
 - 2 IEN This is the internal entry number where the description can be found that contains the parsed word

WORD and IEN can be null.

\$\$OD \$ORDER through "WORD^IEN" on either the D or AD cross-references

Coding System unknown: \$O(^ROOT("D",WORD,IEN))

Coding System known:

\$O(^ROOT("AD",SYS,WORD,IEN))

VARIABLES: Input

SYS

This is an ICD coding system identifier (taken from file 80.4). (Optional)

The following coding systems are found in ICD files 80 and 80.1:

- 1 = ICD-9 Diagnosis
- 30 = ICD-10 Diagnosis
- 2 = ICD-9 Procedures
- 31 = ICD-10 Procedures

If the coding system can be identified then the "D" cross-reference is ignored and the \$ORDER will be performed on the "AD" cross-reference:

\$O(^ROOT("AD",SYS,(CODE_" ")))

The "AD" cross-reference is a coding system specific cross-reference.

VARIABLES: Input

REV

This is a Reverse \$ORDER flag, if set to 1, the \$ORDER operation will be in the reverse direction of "D" or "AD" cross-reference (Optional, default is 0, \$ORDER forward)

If equal to 1

\$O(^ROOT("D",WORD)),-1)

\$O(^ROOT("AD",SYS,WORD)),-1)

VARIABLES: Output

\$\$OD

This is a 2 piece "^" delimited string containing the Next or Previous Word in the "D" or "AD" cross-reference and accompanying IEN depending on the \$ORDER direction established by the input parameter REV.

WORD^IEN taken from cross-references

^ROOT("D",WORD,IEN) or
^ROOT("AD",SYS,WORD,IEN)

COMPONENT: \$\$DLM(FILE,IEN,FIELD,CDT)

This entry point returns the date a record or field was last modified. If the field number is passed, then the date last modified (based on date) for the field is returned. If the field is not passed, then the date last modified (based on date) for the record at IEN is returned. The following are valid versioned fields:

File 80

10	Sex	5;0
11	Age Low	6;0
12	Age High	7;0
66	Status	66;0
67	Diagnosis	67;0
68	Description	68;0
71	DRG Grouper	3;0
72	Major Diagnostic Category	4;0
103	Complication/Comorbidity	69;0

File 80.1

10	Sex	3;0
66	Status	66;0
67	Operation/Procedure	67;0
68	Description	68;0
71	DRG Grouper	2;0

VARIABLES: Input FILE

This is the ICD file number used to determine the global root to \$ORDER through (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN

This is an Internal Entry Number (IEN) in the file specified (Required)

VARIABLES: Input FIELD

This is the field number of a versioned data element in the file specified. (Optional, with no default value)

If the field number is provided then this API will return the date that the field was last modified.

If the field number is not provided then this API will return the date that the record was last modified.

VARIABLES: Input CDT

This is the Code Set Versioning date (Fileman format) used to determine the date last modified (Optional, if not provided then TODAY is used)

VARIABLES: Output \$\$DLM
This is the date last modified for the record identified by the input parameters FILE and IEN. If the input parameter FIELD is set to a valid versioned field then this will be the date that the field was last modified.

or -1 ^ message on error

COMPONENT: \$\$CS (FILE,FMT,CDT)
This is an interactive entry point to select a coding system.

VARIABLES: Input FILE
This is the ICD file number used to select a coding system (Optional, if not provided you will be prompted for an ICD file Number):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input FMT
This is a flag to determine the display format for the prompts:

E Display External only (default)
I Display External with Internal

Prompt using External only, default:

FMT=E 1 ICD-9-CM
 2 ICD-10-CM

Prompt using External with Internal:

FMT=I 1 ICD-9-CM (#1)
 2 ICD-10-CM (#30)

VARIABLES: Input CDT
This is an optional date to use in selecting a coding system. If passed, only coding systems with an implementation date on or before the date passed are selectable (optional)

VARIABLES: Output \$\$CS
This is a 2 piece "^" delimited string

1 Coding System (internal) 2 Coding System (external)

or -1 on error or non-selection or ^^ double up-arrows or ^ timeout or single up-arrow

COMPONENT: \$\$EFF (FILE, IEN, CDT)

This entry point returns a codes status, inactivation date and activation date (replaces EFF^ICDSUPT)

VARIABLES: Input FILE
This is an ICD file number (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the file specified (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to determine the status and effective dates on the date specified (Optional, if not provided then TODAY is used)

VARIABLES: Output \$\$EFF
This is a 3 piece "^" delimited string

1 Status
1 - Active
0 - Inactive
2 Inactivation Date
3 Activation Date

or
-1^error message

COMPONENT: \$\$LA(FILE,IEN,CDT)
This entry point returns the last activation effective date based on a date passed.

VARIABLES: Input FILE
This is an ICD file number (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the file specified (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to determine the last activation date based on the date specified (Optional, if not provided then TODAY is used)

VARIABLES: Output \$\$LA
This is the last activation date (Fileman format)
or

-1^Not activated on or before date specified

COMPONENT: \$\$LI (FILE, IEN, CDT)
This entry point returns the last inactivation effective date based on a date passed.

VARIABLES: Input FILE
 This is an ICD file number (Required):
 80 = ICD Diagnosis file
 80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the file specified (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to determine the last inactivation date based on the date specified (Optional, if not provided then TODAY is used)

VARIABLES: Output \$\$LI
 This is the last inactivation date (Fileman format) or
 -1^Not inactivated on or before date specified

COMPONENT: \$\$LS (FILE, IEN, CDT)
This entry point returns the last code status based on a date passed.

VARIABLES: Input FILE
 This is an ICD file number (Required):
 80 = ICD Diagnosis file
 80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the file specified (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to determine the last code status based on the date specified (Optional, if not provided then TODAY is used)

VARIABLES: Output \$\$LS
 This is the last code status based on the date passed.
 1 - Active
 0 - Inactive
 or
 -1^No status on or before date specified

COMPONENT: \$\$NUM(CODE)
This entry point converts a code to a numeric representation
(found on the AN cross-reference)

VARIABLES: Input CODE
This is either an ICD diagnosis or procedure code
(Required) (This is the opposite of \$\$COD)

VARIABLES: Output \$\$NUM
This is a numeric representation of a code.

COMPONENT: \$\$COD(NUM)
This entry point converts a numeric representation of a code
to a code (found on the AN cross-reference)

VARIABLES: Input NUM
This is a numeric representation of an ICD
diagnosis or procedure code (This is the opposite
of \$\$NUM)

VARIABLES: Output \$\$COD
This is an ICD diagnosis or procedure code.

COMPONENT: \$\$IE(CODE)
This entry point determines if a code is in an external or
internal format without plusing (+) the code.

If you have an ICD-10 code with the letter "E in the center
and plus it you will receive a MAXNUMBER error.

Example: If you plus (+) the ICD-10 procedure code "041E499"
it will be interpreted as a scientific notation (E499 is a
really big number). Applications that plus the ICD code can
use this entry point to safely determine a code's format.

VARIABLES: Input CODE
This is either an ICD diagnosis or procedure code
(Required)

VARIABLES: Output \$\$IE
This is a set of codes as follows:

I CODE is in an internal format (IEN)
E CODE is in an external format (Code)

or

Null on error

COMPONENT: \$\$FILE(SYS)
This entry point will return an ICD file number.

VARIABLES: Input SYS
This is a coding system, a global root or a file
identifier.

Global roots ^ICD9(and ^ICD0(are acceptable

Coding Systems can be found in file 80.4 File
Identifier: DX or PR
DIAG or PROC or OPER

VARIABLES: Output \$FILE
 This is an ICD file number 80 or 80.1

 or -1 on error

COMPONENT: \$\$ROOT(SYS)
 This entry point will return an ICD global root.

VARIABLES: Input SYS
 This is a coding system, file number, a file
 identifier or even an ICD code, provided the code
 is unique to a file.

 Coding Systems can be found in file 80.4 File
 Number 80 or 80.1 File Identifier: DX or PR
 DIAG or PROC or OPER

VARIABLES: Output \$\$ROOT
 This is a global root ^ICD9(or ^ICD0(or Null on
 error

COMPONENT: \$\$SYS(SYS,CDT,FMT)
 This entry point will return a coding system.

VARIABLES: Input SYS
 This can be either a Coding System name,
 Abbreviation, system identifier (uses date) or a
 code.

 Coding System Names: ICD-9-CM, ICD-9 Proc,
 ICD-10-CM or ICD-10-PCS

 Coding System Abbreviations: ICD, ICP, 10D or 10P

 System Identifier (with date CDT)

 Date is before the ICD-10 implementation date

 DIAG, ICD9, 80, DX = 1
 PROC, OPER, ICD0, ICP9, 80.1, PR = 2

 Date is on or after the ICD-10 implementation
 date

 DIAG, ICD9, 80, DX = 30
 PROC, OPER, ICD0, ICP9, 80.1, PR = 31

 An ICD code

 If an ICD code is unique to an ABA
 cross-reference then the Coding System
 can be determined from a code

```

^ICD9("ABA",1,(CODE_" ")) = 1
^ICD9("ABA",30,(CODE_" ")) = 30
^ICD9("ABA",2,(CODE_" ")) = 2
^ICD9("ABA",31,(CODE_" ")) = 31

```

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to determine the coding system based on a system identifier (Optional, if not provided then TODAY is used)

VARIABLES: Input FMT
This is a single character identifying the desired output format (Optional, default is "I"):

```

I Internal (default)
E External
B Both Internal ^ External

```

VARIABLES: Output \$\$\$SYS
This is the Coding System in the format specified by the input parameter FMT:

FMT=I	FMT=E	FMT=B
Internal	External	Both
1	ICD-9-CM	1^ICD-9-CM
2	ICD-9 Proc	2^ICD-9 Proc
30	ICD-10-CM	30^ICD-10-CM
31	ICD-10-PCS	31^ICD-10-PCS

or

```
-1 on error
```

COMPONENT: \$\$\$SINFO(SYS,CDT)
This entry point returns coding system information taken from file 80.4.

VARIABLES: Input SYS
This can be either a Coding System name, Abbreviation, system identifier, file number or a code. (system identifier and code uses date).

Coding System Names:

```

ICD-9-CM
ICD-9 Proc
ICD-10-CM or
ICD-10-PCS

```

Coding System Abbreviations:

```
ICD, ICP, 10D or 10P
```

System Identifier/File Number (with date CDT)

Date is before the ICD-10 implementation date

DIAG, ICD9, 80, DX = 1
PROC, OPER, ICD0, ICP9, 80.1, PR = 2

Date is on or after the ICD-10 implementation date

DIAG, ICD9, 80, DX = 30
PROC, OPER, ICD0, ICP9, 80.1, PR = 31

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to determine the coding system based on a system identifier (Optional, if not provided then TODAY is used)

VARIABLES: Output \$\$\$SINFO
This is a 6 piece "^" delimited string

1	IEN to file 80.4
2	Coding System
3	Coding System Nomenclature
4	Coding system Abbreviation
5	File where the Coding System is stored
6	Implementation Date

or

-1 on error

COMPONENT: \$\$\$SNAM(SYS)
This entry point returns the coding system name.

VARIABLES: Input SYS
This is a pointer to the coding system file 80.4

VARIABLES: Output \$\$\$SNAM
This the coding system name, file 80.4 (.01)

ICD-9-CM
ICD-9 Proc
ICD-10-CM
ICD-10-PCS

Or -1 on error

COMPONENT: \$\$\$SAB(SYS,CDT)
This entry point returns the coding system abbreviation.

VARIABLES: Input SYS
This can be either a Coding System name, Abbreviation, system identifier (uses date) or a code.

Coding System Names: ICD-9-CM, ICD-9 Proc,
ICD-10-CM or ICD-10-PCS

Coding System Abbreviations: ICD, ICP, 10D or 10P

System Identifier (with date CDT)

Date is before the ICD-10 implementation date

DIAG, ICD9, 80, DX = 1
PROC, OPER, ICD0, ICP9, 80.1, PR = 2

Date is on or after the ICD-10 implementation date

DIAG, ICD9, 80, DX = 30
PROC, OPER, ICD0, ICP9, 80.1, PR = 31

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to determine the source abbreviation based on a system identifier (Optional, if not provided then TODAY is used)

VARIABLES: Output \$\$SAB
3 Character Coding System abbreviation, file 80.4 (.02)

ICD
ICP
10D
10P

Or -1 on error

COMPONENT: \$\$EXC(FILE,IEN)
This entry point returns a boolean value indicating if an entry in the specified file is to be excluded from lookup. If it is to be excluded, then the entry will not be placed on the selection list for a user to select from. Used primarily for the special lookup.

VARIABLES: Input FILE
This is an ICD file number:
80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the file specified.

VARIABLES: Output \$\$EXC
Boolean value
1 = Yes, exclude from lookup
0 = No, include in the lookup

COMPONENT: \$\$ISA(IEN1,IEN2,FIELD)

This entry point returns a boolean value indicating that one code is a "condition" of another. Conditions include:

- Code 1 is Not Used With Code 2
- Code 1 is Required With Code 2
- Code 1 is Not Considered CC With Code 2

VARIABLES: Input IEN1
This is the internal entry number (IEN) of a code in file 80 that has a relationship with the code at IEN2 IEN1 is equivalent to Fileman's DA and identifies a code stored in a multiple in field 20, 30, 40 or pointed to by field 1.11.

VARIABLES: Input IEN2
This is the internal entry number (IEN) of a code in file 80 that may have other codes (IEN1) associated with it. IEN2 is equivalent to Fileman's DA(1) and identifies the code in the .01 field.

VARIABLES: Input FIELD
This is a field number in file 80 that contains one or more ICD codes that have a relationship to the main entry. Acceptable field numbers and the type of relationships to check include:

Field	Relationship
20	Code 1 Not Used With Code 2
30	Code 1 Required With Code 2
40 or 1.11	Code 1 Not Considered CC With Code 2

VARIABLES: Output \$\$ISA
This is a Boolean value

1	Yes/The relationship is True
0	No/The relationship is False

Field	Answers the Question
-----	-----
20	Code 1 (identified by IEN1) is not used with Code 2 (identified by IEN2)
30	Code 1 (identified by IEN1) is required with Code 2 (identified by IEN2)
40 or 1.11	Code 1 (identified by IEN1) is not considered Complication Comorbidity (CC) with Code 2 (identified by IEN2)

COMPONENT: \$\$EXIST(IEN, FIELD)
This entry point determines if special condition ICD codes exist.

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the
DIAGNOSIS file 80 (Required)

VARIABLES: Input FIELD
This is a field number in file 80 that contains
one or more ICD codes that have a relationship to
the main entry (Required) Acceptable field
numbers to check include:

20 Code Not Used With
30 Code Required With
40 Code Not Considered CC With

VARIABLES: Output \$\$EXIST
Boolean value

1 Yes/True, codes exist
0 No/False, codes do not exist

Field Answers the Question

20 Are there any codes that should
not be used with this code (IEN)
30 Are there any codes required
with this code (IEN)
40 Are there any codes that are not
considered CC with this code
(IEN)

COMPONENT: \$\$GETDRG(FILE,IEN,CDT,MDC)
This entry point returns a string of DRGs for an ICD Diagnosis
or Procedure code.

VARIABLES: Input FILE
This is the ICD file number used to retrieve the
DRGs (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the file
specified (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman
format) used to identify the DRGs that were
appropriate on that date (Optional, if not passed
then TODAY is used)

VARIABLES: Input MDC
This is a Major Diagnostic Category (pointer to
file 80.3) used as a screen to limit the DRGs to
an MDC. This input parameter only applies to the
ICD OPERATIONS/PROCEDURE file 80.1 which has
multiple MDCs, each with a possibility of multiple

DRGs (Conditional)

VARIABLES: Output \$\$GETDRG
3 piece semi-colon ";" delimited string

- 1 DRGs delimited by ^
- 2 Fiscal Year
- 3 Status flag
- 0 inactive
- 1 active

Example output:

907^908^909^;3071001;1

On Error:

-1;No DRG level;0

COMPONENT: MD (FILE, IEN, CDT, .ARY, FLAG)
This entry point returns an array of Major Diagnostic Categories (MDCs) and Diagnosis Related Groups (DRGs)

VARIABLES: Input FILE
This is the ICD file number used to retrieve the Major Diagnostic Categories (Required):

- 80 = ICD Diagnosis file
- 80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the file specified (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to identify the MDCs that were appropriate on that date (Optional, if not passed then TODAY is used) NOTE: If no Fiscal Year is found for the input date then the first (earliest) Fiscal Year is used.

VARIABLES: Input .ARY
This is a local array name passed by reference that will contain a list of MDCs by effective date

VARIABLES: Input FLAG
This is a flag that determines the output format:

- I = Internal (default) Internal values are always returned
- E = Include External values with Internal values

VARIABLES: Output ARY
ICD Procedures file 80.1 (multiple MDC)

ARY(<fiscal year>,<MDC>)=DRG^;FY;STA
ARY(<fiscal year>,<MDC>)="DRG^DRG^;FY;STA

If Flag contains "E"

ARY(<fiscal year>,"E",<MDC>)=MDC Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E",<MDC>)=MDC Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E","FY")=External FY

ICD Diagnosis file 80 (single MDC)

ARY(<fiscal year>,<MDC>)="DRG^DRG^;FY;STA

If Flag contains "E"

ARY(<fiscal year>,"E",<MDC>)=MDC Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E",<MDC>,<DRG>)=DRG Name
ARY(<fiscal year>,"E","FY")=External FY

NOTE: If no Fiscal Year found for the input date
then the first (earliest) Fiscal Year is used.

COMPONENT: \$\$EFM(CDT)

This entry point converts an external date to a Fileman
internal date. This entry point replaces unsupported
\$\$DGY2K^DGPTOD0(X)

VARIABLES: Input CDT

External date (Required), examples of valid dates:

JAN 20 1957 or 20 JAN 57
1/20/57 or 012057
T (for TODAY)
T+1 (for TOMORROW), T+2, etc.
T-1 (for YESTERDAY)
T-3W (for 3 WEEKS AGO), etc.

VARIABLES: Output \$\$EFM

Internal Fileman Date

or -1 on error

COMPONENT: \$\$FY(CDT)

This entry point returns the 4 digit fiscal year for a
specified date. This entry point replaces unsupported
\$\$FY^DGPTOD0(X)

VARIABLES: Input CDT

This is an internal Fileman date.

VARIABLES: Output \$\$FY

This is a 4 digit fiscal year (YYYY) for the date

specified or null on error.

COMPONENT: \$\$VMDCDX (IEN, CDT)
This entry point returns the versioned Major Diagnostic Code for an ICD Diagnosis.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to identify the MDCs that was appropriate on that date (Optional, if not passed then TODAY is used)

VARIABLES: Output \$\$VMDCDX
 This is a single MDC (pointer to file 80.3) active on the date specified.

COMPONENT: \$\$VMDCOP (IEN, MDC, CDT)
This entry point returns the versioned Major Diagnostic Codes for an ICD Procedure.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the OPERATION/PROCEDURE file 80.1 (Required)

VARIABLES: Input MDC
 This is a Major Diagnostic Category (pointer to file 80.3) used as a screen to limit the results to a single MDC (Required)

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to identify the MDC that was appropriate on that date (Optional, if not passed then TODAY is used)

VARIABLES: Output \$\$VMDCOP
 4 piece "^" delimited string

 1 Fiscal Year, Fileman format
 2 MDC, pointer to file 80.3
 3 Fiscal Year, pointer to sub-file 80.171 (formerly DADRGFY)
 4 MDC, pointer to sub-file 80.1711 (formerly DAMDC)

COMPONENT: MDCG (IEN, CDT, .ARY)
This entry point sets up an array of MDCs (later used in \$\$MDCT)

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to identify the MDCs that were appropriate on that date (Optional, if not passed then TODAY is used)

VARIABLES: Input .ARY
This is a local array name passed by reference that will contain a list of MDCs (Required)

VARIABLES: Output ARY
This is an array listing MDCs for all DRGs associated with a diagnosis on the date specified.

ARY(MDC)=""
ARY(MDC)=""

COMPONENT: \$\$MDCT(IEN,CDT,.ARY,FMT)
This entry point compares a single entry in the ICD OPERATIONS/PROCEDURE file 80.1 to an array of Major Diagnostic Categories to see if the ICD procedure is assigned to one or more of the MDCs in the array.

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the OPERATIONS/PROCEDURE file 80.1 (Required)

VARIABLES: Input CDT
This is the Code Set Versioning date (Fileman format) used to identify the MDCs that were appropriate on that date (Optional, if not passed then TODAY is used)

VARIABLES: Input .ARY
This is a local array passed by reference containing a list of MDCs for comparison (Required)

VARIABLES: Input FMT
This is a flag defining the output format (optional):

0 Boolean value only (default)
1 2 piece "^" delimited string

1 Boolean value
2 String of matching MDCs delimited by ";"

VARIABLES: Output \$\$MDCT
Boolean value

0 The ICD Procedure code identified by IEN does not include any of the MDCs passed in .ARY(MDC) on the date specified (CDT)

1 The ICD Procedure code identified by IEN

includes one or more of the MDCs passed
in .ARY(MDC) on the date specified (CDT)

Assuming the following input parameters:

IEN=4
CDT=3111110
ARY(2)=""
ARY(21)=""

Output format when input parameter FMT=0
(default)

\$\$MDCCT(IEN,CDT,.ARY) = "1"

Output format when input parameter FMT=1

\$\$MDCCT(IEN,CDT,.ARY) = "1^2;21"

COMPONENT: \$\$MDCD(IEN,MDC,CDT)

This entry point checks for a Major Diagnostic Category MDC in
the ICD OPERATION/PROCEDURE file.

VARIABLES: Input IEN

This is an Internal Entry Number (IEN) in the
OPERATIONS/PROCEDURE file 80.1 (Required)

VARIABLES: Input MDC

This is a Major Diagnostic Category (pointer to
file 80.3) (Required)

VARIABLES: Input CDT

This is the Code Set Versioning date (Fileman
format) used to identify the MDCs that were
appropriate on that date (Optional, if not passed
then the first FY is used)

VARIABLES: Output \$\$MDCD

Boolean value

0 MDC does not exist on date specified

1 MDC exist on date specified

COMPONENT: \$\$MOR(IEN)

This entry point returns the Major O.R. Procedure string

VARIABLES: Input IEN

This is an Internal Entry Number (IEN) in the
OPERATIONS/PROCEDURE file 80.1 (Required)

VARIABLES: Output \$\$MOR

Major O.R. Procedure or Null if the procedure is
not defined as a Major O.R. Procedure or is not
found

Major O.R. Procedure definitions include:

1 Bowel	2 Chest	3
Lymphoma/Leukemia	4 Joint 5	Pancreas/Liver
6 Pelvic 7	Shoulder/Elbow	8
Thumb/Joint 9	Head/Neck	A Cardio M
Musculoskeletal	B Spine	

COMPONENT: \$\$SUPDX(IEN)
 This entry point determines if a diagnosis is unacceptable as a principle diagnosis.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Output \$\$SUPDX
 Boolean value, answers the question:
 Is the diagnosis UNACCEPTABLE as a Principle DX?
 1 Yes Code is Unacceptable as Principle DX
 0 No Code is Acceptable as Principle DX

COMPONENT: \$\$NOT(IEN, SUB, FMT)
 This entry point returns the number of ICD codes that cannot be used with a specified code. It can also return a global array containing a list of the codes that cannot be used with the specified code.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input SUB
 This is a subscript name used in a ^TMP global array (Optional, if not provided, the subscript "ICDNOT" will be used)
 ^TMP(SUB, \$J)

VARIABLES: Input FMT
 This is a flag defining the output format.
 0 - Total number only (default)
 1 - Total number with global array

VARIABLES: Output \$\$NOT
 The number of ICD codes that cannot be used with the ICD code identified by IEN (FMT=0 or 1)
 TMP global array as follows (FMT=1):
 ^TMP(SUB, \$J, IEN)=CODE
 ^TMP(SUB, \$J, "B", (CODE_ " "), IEN)=""

COMPONENT: \$\$REQ(IEN, SUB, FMT)
 This entry point returns the number of ICD codes that are

required when the specified code is used. It can also return a global array containing a list of the codes that are required when the specified code is used.

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input SUB
This is a subscript name used in a ^TMP global array (Optional, if not provided, the subscript "ICDREQ" will be used)

^TMP (SUB,\$J)

VARIABLES: Input FMT
This is a flag defining the output format.

0 - Total number only (default)
1 - Total number with global array

VARIABLES: Output \$\$REQ
The number of ICD codes required when the ICD code identified by IEN is used. (FMT=0 or 1)

TMP global array as follows (FMT=1):

^TMP (SUB,\$J,IEN)=CODE
^TMP (SUB,\$J,"B", (CODE_ " "), IEN)=""

COMPONENT: \$\$NCC (IEN,SUB,FMT)
This entry point returns the number of ICD codes that are not considered CC with a specified code. It can also return a global array containing a list of the codes that are not considered CC with a specified code.

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the DIAGNOSIS file 80 (Required)

VARIABLES: Input SUB
This is a subscript name used in a ^TMP global array (Optional, if not provided, the subscript "ICDNCC" will be used)

^TMP (SUB,\$J)

VARIABLES: Input FMT
This is a flag defining the output format.

0 - Total number only (default)
1 - Total number with global array

VARIABLES: Output \$\$NCC
The number of ICD codes not considered CC with the code identified by IEN. (FMT=0 or 1)

TMP global array as follows (FMT=1):

```
^TMP (SUB,$J,IEN)=CODE
^TMP (SUB,$J,"B", (CODE_ " "),IEN)=""
```

COMPONENT: LK
Special Lookup (called by DIC)

This is the Special Lookup program for files 80 and 80.1. Only the ^DIC call honors the special lookup routines. Those calls that allow the user to specify the indexes (IX^DIC and MIX^DIC1), and the Data Base Server calls (FIND^DIC, \$\$FIND1^DIC, and UPDATE^DIE) all ignore the Special Lookup Program. Also, if DIC(0) contains an "I" then the Special Lookup program will be ignored.

This routine uses a majority of the variables used in calling Fileman ^DIC. In addition to the Fileman variables, there are three special variables that aid in controlling the lookup that can be set and killed by the calling application;

Versioning Date (Fileman format)

```
ICDVDT or
^TMP ("ICDEXLK", $J, "ICDVDT") = <versioning date>
```

Coding System (from file 80.4)

```
ICDSYS or
^TMP ("ICDEXLK", $J, "ICDSYS") = <coding system>
```

Display Format (numeric, 1-4) (new)

```
ICDFMT or
^TMP ("ICDEXLK", $J, "ICDFMT") = <display format>
```

VARIABLES: Input ICDVDT
Versioning Date (Fileman format)

```
ICDVDT or
^TMP ("ICDEXLK", $J, "ICDVDT") = <date>
```

This is a Code Set Versioning Date (in Fileman format). If set, it must also be killed by the calling application.

If supplied, it is assumed that the lookup is to be a versioned lookup and only active codes on that date will be included in the selection list.

If not supplied, the date will default to TODAY and all codes may be selected, active and inactive.

In both cases the display will be altered based on the date.

VARIABLES: Input ICDSYS
Coding System (from file 80.4)

ICDSYS or
^TMP("ICDEXLK",\$J,"ICDSYS")=<coding system>

This is the Coding System taken from file 80.4.
If set, it must be killed by the calling
application. It may be any of the following:

1	ICD	ICD-9-CM
2	ICP	ICD-9 Proc
30	10D	ICD-10-CM
31	10P	ICD-10-PCS

If supplied, the lookup will only look in the
cross-references specific for that coding system.

VARIABLES: Input ICDFMT
Display Format (numeric, 1-4)

ICDFMT or
^TMP("ICDEXLK",\$J,"ICDFMT")=<display format>

This is a flag defining a Display Format (numeric,
1-4). If set, it must be killed by the calling
application.

1 = Fileman format, code and short text
(default)

250.00 DMII WO CMP NT ST UNCNR

2 = Fileman format, code and description

250.00 DIABETES MELLITUS WITHOUT
MENTION OF COMPLICATION,
TYPE II OR UNSPECIFIED TYPE,
NOT STATED AS UNCONTROLLED

3 = Lexicon format, short text followed
by code

DMII WO CMP NT ST UNCNR (250.00)

4 = Lexicon format, description followed
by code

DIABETES MELLITUS WITHOUT MENTION OF
COMPLICATION, TYPE II OR UNSPECIFIED
NOT STATED AS UNCONTROLLED (250.00)

VARIABLES: Input X
This is the user's input, if not available the
user will be prompted for input.

VARIABLES: Input

FILEMAN

FileMan Variables used

DIC, DIC(0), DIC("A"), DIC("B"),
DIC("S"), DIC("W"), DIC("?N",<file>)

FileMan Variables not used:

DIC("DR"),DIC("PTRIX",<fm>,<to>,<file>),
DIC("T"), DIC("V"), DIC("?PARAM")

DIC(0) parameters applicable to a versioned file

A Ask the entry; if erroneous, ask again
B Only the B index is used
E Echo information
F Forget the lookup value
I Ignore the special lookup program
M Multiple-index lookup allowed
O Only find one entry if it matches exactly
S Suppresses display of .01
T Search until user selects or enters ^^
X EXact match required
Z Zero node in Y(0), external form in Y(0,0)

DIC(0) parameters NOT applicable to a versioned
file and not used

C Versioned cross-references not turned off
K Primary Key not established
L Learning a new entry LAYGO not allowed
N Uppercase, IEN lookup allowed (not forced)
n ICD has no pure numeric entries
Q Input is pre-processed, ?? not necessary
U All values are external
V Verification is not optional

FileMan Variables KILLed:

DLAYGO
DINUM

VARIABLES: Output

Y

Fileman Compliant:

Y IEN ^ Code

If DIC(0) containing "Z"

Y(0) 0 Node

Y(0,0) Code

Non-Fileman Compliant, DIC(0) contains "Z"

Y(0,1) \$\$ICDDX or \$\$ICDOP

Y(0,2) Long Description

COMPONENT: `$$LKTX (X,ROOT,CDT,SYS,VER,OUT)`
This entry point is a lookup for text in either file 80 or 80.1 It is similar to the special lookup except there is no prompt for input or display for selection (silent) and intended for GUI applications.

VARIABLES: Input X
 This is a string of text to search for.

VARIABLES: Input ROOT
 This is either a global root or file number to indicate either the DIAGNOSIS file 80 or the OPERATIONS/PROCEDURE file 80.1

VARIABLES: Input CDT
 This is the Code Set Versioning date (Fileman format) used to determine the status of a code (active or inactive) It normally represents the date that service was provided to the patient (HIPAA). However, it may also represent the date of onset, visit date or movement date depending on the application calling the lookup.

VARIABLES: Input SYS
 This is a coding system identifier (pointer to file 80.4)

 1 = ICD-9-CM
 2 = ICD-9-PCS
 30 = ICD-10-CM
 31 = ICD-10-PCS

VARIABLES: Input VER
 This is the versioned flag (boolean) to indicate if the lookup is to be versioned or not:

 0 No Include all codes, active
 and inactive

 1 Yes Include only Active codes
 for date specified

VARIABLES: Input OUT
 This is a flag that defines the output format:

 1 Fileman, Code and Short Text (default)

 250.00 DMII WO CMP NT ST UNCNTR

 2 Fileman, Code and Description

 250.00 DIABETES MELLITUS WITHOUT
 MENTION OF COMPLICATION TYPE
 II OR UNSPECIFIED TYPE, NOT
 STATED AS UNCONTROLLED

3 Lexicon, Short Text and Code
DMII WO CMP NT ST UNCNTR (250.00)

4 Lexicon, Description and Code
DIABETES MELLITUS WITHOUT MENTION OF
COMPLICATION, TYPE II OR UNSPECIFIED,
NOT STATED AS UNCONTROLLED (250.00)

VARIABLES: Output \$SLK
 This is the number of entries found

 The entries will be included in a ^TMP Global
 Array:

 ^TMP(ID,\$J,"SEL")
 ^TMP(ID,\$J,"SEL",0)=# of entries
 ^TMP(ID,\$J,"SEL",#)=IEN ^ Display Text

 Where ID is a package namespaced subscript:

 ICD9 - for file #80
 ICD0 - for file #80.1

COMPONENT: \$\$VER(SYS,REL)
 This API returns the current Coding System version, the
 previous Coding System version or the next Coding System
 version based on input parameters.

VARIABLES: Input SYS
 This is a pointer to the coding system file 80.4

VARIABLES: Input REL
 This input parameter indicates the relationship of
 the output coding system to the input coding
 system (Optional)

 0 N/A - Return the current version (default)
 1 Return the next version
 -1 Return the previous version

VARIABLES: Output \$\$VER
 This is a 5 piece string containing:

 1 Coding System (pointer to file 80.4)
 2 Coding System Nomenclature
 3 Coding System Abbreviation
 4 File Number containing the Coding System
 5 Date Coding System was Implemented or
 -1 on error

COMPONENT: Y(ROOT,IEN,CDT,FMT)
 Given the global root or file number, the Internal Entry
 Number (IEN) and a date, this API will return the equivalent
 of FileMan's output variable Y without having to perform the
 lookup.

VARIABLES: Input ROOT
This is either an ICD global root or file number.

VARIABLES: Input IEN
This is an Internal Entry Number in the file identified by the input parameter ROOT.

VARIABLES: Input CDT
This is a code set versioning date used to returned versioned (date sensitive) data from the ICD files.

VARIABLES: Input FMT
This is a output format flag (optional, default 0).

0 Return standard Fileman Y - IEN ^ CODE
1 Return Expanded Y as if DIC(0) contained a "Z"

VARIABLES: Output Y
Input parameter FMT = 0 or 1

Y = IEN ^ Code

Input parameter FMT = 1

FileMan Compliant

Y(0) = 0 Node (aka Code)
Y(0,0) = .01 Field (aka Code)

Non-FileMan Compliant

Y(0,1) = \$\$ICDDX or \$\$ICDOP
Y(0,2) = Versioned Long Description

COMPONENT: TOKEN(TEXT,ROOT,SYS,ARY)
This API parses text into words/tokens and saves them in a local array for later processing. Words and tokens not found in the file and coding system identified by the input parameters are not included in the output array.

VARIABLES: Input TEXT
This is a text string to parse.

VARIABLES: Input ROOT
This is a global root or file number (required)

^ICD9(or 80
^ICD0(or 80.1

VARIABLES: Input SYS
This is the coding system (Required)

1 or ICD or ICD-9-CM

2 or ICP or ICD-9 Proc
30 or 10D or ICD-10-CM
31 or 10P or ICD-10-PCS

VARIABLES: Both .ARY
This is the output array passed by reference that contains a list of words parsed from the input string X and arranged by frequency of use

ARY(0)=# of words
ARY(#)=word

The least frequently used word will be ARY(1) and the most frequently used word will be ARY(\$O(ARY("),-1)). Words not found in the file and coding system will not appear in the parsed array.

COMPONENT: \$\$WORD(WORD,ROOT,SYS)
This API determines if a word is found in a file or a coding system identified by the input parameters

VARIABLES: Input WORD
This is a single word.

VARIABLES: Input ROOT
This is a global root or file number (optional)

^ICD9(or 80
^ICD0(or 80.1

VARIABLES: Input SYS
This is the coding system (Optional)

1 or ICD or ICD-9-CM
2 or ICP or ICD-9 Proc
30 or 10D or ICD-10-CM
31 or 10P or ICD-10-PCS

VARIABLES: Output \$\$WORD
This is a Boolean value indicating if a word is contained in a set (file or system).

1 = Word was found

If ROOT is not supplied, the word was found in either file 80 or 80.1

If SYS is not supplied, the word was found in the file designated by ROOT in any coding system in the file

If both ROOT and SYS are supplied, the word was found in the specified coding system

0 = Word was not found

COMPONENT: `$$ICDIDS (FILE, CODE, ARY)`
This API returns an array of Diagnosis or Procedure code Identifiers used in the calculation of DRG groups.

VARIABLES: Input `FILE`
This is the ICD file number used to retrieve the identifier codes (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input `CODE`
This is an Internal Entry Number (IEN) in the file specified (Required).

VARIABLES: Both `ARY`
This is a local array of identifiers found for the code identified input parameters `FILE` and `CODE`.

`ARY(<identifier>)=""`

VARIABLES: Output `$$ICDIDS`
This is the number of identifiers found for the code identified by the input parameters `FILE` and `CODE`, or upon error:

-1^error message

COMPONENT: `$$ICDID (FILE, ID, CODE)`
This API checks if a specified ICD identifier exist for a code identified by the input parameters `FILE` and `CODE`.

VARIABLES: Input `FILE`
This is the ICD file number used to retrieve the identifier codes (Required):

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input `ID`
This is a Diagnosis or Procedure code identifier (required)

VARIABLES: Input `CODE`
This is an Internal Entry Number (IEN) in the file specified (Required).

VARIABLES: Output `$$ICDID`
Boolean value

1 if identifier was found for code
0 if identifier was not found for code

or upon error -1^error message

COMPONENT: `$$ISOWNCC (IEN, CDT, FMT)`
This API returns the Complication/Comorbidity (CC) value for

an ICD Diagnosis code when the primary diagnosis is its own CC/MCC.

VARIABLES: Input IEN
This is the Internal Entry Number (IEN) of the ICD Diagnosis file #80.

VARIABLES: Input CDT
Date to use to extract CC (default TODAY)

VARIABLES: Input FMT
This is a flag that controls the output format:
0 = CC only (default)
1 = CC ^ Effective Date

VARIABLES: Output \$\$ISOWNCC
Complication/Comorbidity (CC)

DX is Own CC	Format	Output
Yes	0	CC Value
Yes	1	CC Value ^ Effective Date
No	N/A	0 (zero)

or upon error -1^error message

COMPONENT: \$\$ICDRGCC (DRG,CDT)
This API returns the CC/MCC flag from DRG file #80.2

VARIABLES: Input DRG
This is an Internal Entry Number for the DRG file 80.2 (required)

VARIABLES: Input CDT
Date to use to extract CC/MCC flag (default TODAY)

VARIABLES: Output \$\$ICDRGCC
This is the Complication/Comorbidity/Major CC flag

0	No CC or MCC
1	CC present
2	MCC present
3	CC or MCC present

or upon error -1^error message

COMPONENT: \$\$DRG (CODE,CDT)
This API returns basic information about a DRG.

VARIABLES: Input CODE
DRG code, internal or external format (Required)

VARIABLES: Input CDT
Date to check status for, FileMan format (default = TODAY)

If CDT < 10/1/1978, use 10/1/1978
If CDT > DT, validate with In/Activation Dates
If CDT is year only, use first of the year
If CDT is year and month, use first of the month

VARIABLES: Output \$\$DRG

Returns an 22 piece string delimited by the up-arrow (^) the pieces are:

- 1 DRG name (field #.01)
- 2 Weight (field #2)
- 3 Low Trim (days) (field #3)
- 4 High Trim (days) (field #4)
- 5 MDC (field #5)
- 6 Surgery Flag (field #.06)
- 7 <null>
- 8 Avg Length of Stay (days) (field 10)
- 9 Local Low Trim Days (field #11)
- 10 Local High Trim Days (field #12)
- 11 <null>
- 12 Local Breakeven (field #13)
- 13 Activation Date (.01 field, 66 multiple)
- 14 Status (.03 field, 66 multiple)
- 15 Inactivation Date (.01 field, 66 multiple)
- 16 Effective date (.01 field, 66 multiple)
- 17 Internal Entry Number (IEN)
- 18 Effective date (.01 field, 66 multiple)
- 19 Reference (field #900)
- 20 Weight (Non Affil) (field #7)
- 21 Weight (Int Affil) (field #7.5)
- 22 Message

or

-1^Error Description

COMPONENT: \$\$DRGD (CODE,ARY,CDT)

Returns an unformatted DRG Description.

VARIABLES: Input CODE

ICD Code, Internal or External Format (required)

VARIABLES: Both ARY

Input: Name of Output Array for description

e.g. "ABC" or "ABC("TEST")"

Default = ^TMP("DRGD", \$J)

Output: Description in array

@ARY(1:n) - Description (lines 1-n)

@ARY(n+1) - Blank

@ARY(n+1) - Warning Message

or

-1^Error Description

NOTE:

User must initialize ^TMP("DRGD",\$J) if used. The data is place in the array unformatted, exactly as it is in the DESCRIPTION multiple (sub-files #80.068 or #80.168)

SEE ALSO:

\$\$DRGDES^ICDEX(IEN,CDT,.ARY,LENGTH) to retrieve the description formatted into string lengths specified by input parameter for length.

VARIABLES: Input CDT
Date to screen against (default = TODAY)

If CDT < 10/1/1978, use 10/1/1978
If CDT > DT, use DT
If CDT = year only, use 01/01/yyyy
If CDT = year & month, use mm/01/yyyy

VARIABLES: Output \$\$DRGD
This is the number of lines in description output array.

COMPONENT: \$\$DRGDES (IEN,CDT,ARY,LEN)
This API returns the DRG Description formatted into string lengths specified by the calling application.

VARIABLES: Input IEN
Internal Entry Number of DRG file 80.2

VARIABLES: Input CDT
Date to screen against (default = TODAY)

VARIABLES: Both .ARY
This is a local array passed by reference containing the DRG description. The text is formatted into string lengths specified by the LEN input parameter.

VARIABLES: Input LEN
Length of line of the description in the output array

Missing Defaults to 79
Less than 25 Defaults to 25

VARIABLES: Output \$\$DRGDES
This is the number of lines in description output array.

COMPONENT: \$\$DRGN (CODE)
This API returns the Internal Entry Number (IEN) of the DRG specified by a DRG code.

VARIABLES: Input CODE
This is a DRG code.

VARIABLES: Output \$\$DRGN
This is the IEN of the DRG code specified.

COMPONENT: \$\$EFD (X)
This is an interactive API that will prompt the user for an effective date in a range of dates.

VARIABLES: Output \$\$EFD
This is a 3 piece "^" delimited string containing an effective date in both internal and external formats:

- 1 Date Fileman format nnnnnnn
- 2 Date External Short Format mm/dd/yyyy
- 3 Date External Long Format Mmm dd, yyyy

or

- "^^" if the user enters double up-arrows
- "^" if the user enters a single up-arrow
- " " if the user times out

The earliest possible date is Oct 1, 1978, the initial ICD implementation date in the VA.

If today's date is less than the implementation date of ICD-10, then the latest possible date is 3 years from the ICD-10 implementation date.

If today's date is greater than the implementation date of ICD-10, then the latest possible date is 3 years from today's date.

COMPONENT: \$\$GETDATE (IEN)
This API calculates the Effective Date to use retrieving ICD/DRG data based on a patient's treatment.

VARIABLES: Input IEN
This is an Internal Entry Number of the PTF file #45

VARIABLES: Output \$\$GETDATE
This is the correct "EFFECTIVE DATE" for a patient to be used retrieving DRG/ICD/CPT data (default TODAY)

"EFFECTIVE DATE" Derived from:

Census Date	^DGPT	0;13
Discharge Date	^DG(45.86	0;1
Surgery Date	^DGPT(D0,"S"	0;1

Movement Date ^DGPT(D0,"M" 0;10
Default \$\$NOW^XLFDT

COMPONENT: \$\$IA(FILE,IEN)
This API returns an codes Initial Activation Date based on a file number and the codes Internal Entry Number. The Initial Activation date may be different from the Last Activation date (see \$\$LA) if the code was re-used.

VARIABLES: Input FILE
 This is a Global Root or File Number for either the ICD Diagnosis or ICD Procedure files (Required)

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the specified file (Required)

VARIABLES: Output \$\$IA
 Initial Activation Date

 OR

 -1 ^ Error Message

COMPONENT: \$\$IDSTR(FILE,IEN)
This API returns a string of ICD identifier associated with either an ICD Diagnosis or ICD Procedure code (supports legacy APIs)

VARIABLES: Input FILE
 File Number or root (required)

 80 or ^ICD9 = File #80
 80.1 or ^ICD0 = File #80.1

VARIABLES: Input IEN
 This is a Diagnosis/Procedure code IEN (required)

VARIABLES: Output \$\$IDSTR
 This is a string of Identifiers delimited by a semi-colon

 ID;ID;ID

COMPONENT: \$\$ISVALID(FILE,IEN,CDT)
This API determine is an ICD code is valid.

VARIABLES: Input FILE
 This is a file number or global root for either the ICD Diagnosis file or the ICD Procedure file

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the file specified.

VARIABLES: Input CDT

This is the date to use to determine if the code is valid for date (default TODAY)

VARIABLES: Output \$\$ISVALID
 This is a Boolean value

 1 if the code is valid
 0 if the code is not valid

COMPONENT: \$\$PDXE (IEN)
 This API returns the Primary Diagnosis Exclusion Code.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) for the ICD
 Diagnosis file #80

VARIABLES: Output \$\$PDXE
 This is a pointer to DRG CC Exclusions file #82.13

COMPONENT: \$\$REF (IEN, CDT)
 This API returns the name of the DRG Reference Table.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) of the DRG
 file #80.2

VARIABLES: Input CDT
 Effective date to use (default TODAY)

VARIABLES: Output \$\$REF
 Table reference associated with a DRG entry or
 null if not found

COMPONENT: \$\$VCCP (IEN, CDT, FMT)
 This API returns the CC Primary Flag for a diagnosis.

VARIABLES: Input IEN
 This is an Internal Entry Number (IEN) in the ICD
 Diagnosis file 80 (required)

VARIABLES: Input CDT
 This is the date to use to Extract CC Primary Flag
 (default TODAY)

VARIABLES: Input FMT
 Is is a flag to determine the output format
 (optional):

 0 = CC Primary Flag only (default)
 1 = CC Prim Flag^Effective Date^Value

VARIABLES: Output \$\$VCCP
 This the CC Primary Flag in one of two formats:

 CC Primary Flag only (FMT=0)
 CC Primary Flag^Effective Date^Value (FMT=1)

COMPONENT: \$\$DRGW(IEN)
This API returns the DRG Weighted Work Unit (WWU)

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) of the DRG file 80.2

VARIABLES: Output \$\$DRGW
This is the Weighted Work Unit (WWU) for a DRG

COMPONENT: \$\$DRGC(IEN)
This API returns the DRG code.

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) of the DRG file 80.2

VARIABLES: Output \$\$DRGC
This is a DRG Code (field .01)

COMPONENT: \$\$MDCN(IEN)
This API returns the name of a Major Diagnostic Category (MDC)

VARIABLES: Input IEN
This is the Internal Entry Number (IEN) for file 80.3

VARIABLES: Output \$\$MDCN
This is a Major Diagnostic Category Name

COMPONENT: \$\$HDR(FILE)
This API returns the header node of either file 80 or 80.1.

VARIABLES: Input FILE
This is a File Number or Global Root

80 or ^ICD9(
80.1 or ^ICD0(

VARIABLES: Output \$\$HDR
This is the header node of either the ICD Diagnosis file 80 or the Operation Procedure file 80.1

^ICD9(0)
^ICD0(0)

COMPONENT: \$\$IEN(CODE,ROOT,SYS)
This API returns an internal entry number for a code based on file/global root and coding system.

This API is similar to \$\$CODEABA^ICDEX except it will also return IENs for codes excluded from lookup and VA Local Codes. Its primary purpose to support file maintenance. Use with great caution.

DO NOT USE in any application that requires codes and text to

be versioned (date sensitive).

VARIABLES: Input CODE
This is an ICD Diagnosis or Procedure Code from either the ICD-9 or ICD-10 coding systems (required)

VARIABLES: Input ROOT
This is a file number or global root (optional)

^ICD9(or 80
^ICD0(or 80.1

VARIABLES: Input SYS
This is a coding system (optional)

1 = ICD-9 Diagnosis
2 = ICD-9 Procedure
30 = ICD-10 Diagnosis
31 = ICD-10 Procedure

VARIABLES: Output \$\$IEN
Returns the Internal Entry Number (IEN) for a CODE or -1 if not found

COMPONENT: \$\$SDH(FILE,IEN,ARY)
This API returns a history of Short Description changes by date.

VARIABLES: Input FILE
This is an ICD file number:

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the file specified.

VARIABLES: Input .ARY
This is a local array name passed by reference that will contain the code's short description history.

VARIABLES: Output \$\$SDH
This is a three piece "^" delimited string containing:

1 The number of short descriptions found
2 The earliest date found
3 The latest date found

VARIABLES: Output ARY
This is a local array containing a history of Short Descriptions by date:

ARY(0)= # ^ Earliest Date ^ Latest Date

ARY (DATE)=Long Description

COMPONENT: \$\$LDH (FILE, IEN, ARY)
This API returns a history of Long Description changes by date.

VARIABLES: Input FILE
This is an ICD file number:

80 = ICD Diagnosis file
80.1 = ICD Operation/Procedure file

VARIABLES: Input IEN
This is an Internal Entry Number (IEN) in the file specified.

VARIABLES: Input .ARY
This is a local array name passed by reference that will contain the code's long description history.

VARIABLES: Output \$\$LDH
This is a three piece "^" delimited string containing:

1 The number of long descriptions found
2 The earliest date found
3 The latest date found

OR -1 ^ Error Message

VARIABLES: Output ARY
This is a local array containing a history of Long Descriptions by date:

ARY(0)= # ^ Earliest Date ^ Latest Date
ARY (DATE)=Long Description

5755 ^ICDS Lexicon

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: LEXICON UTILITY

USAGE: Private ENTERED: DEC 24,2011
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.4 ROOT: ICDS(
DESCRIPTION: TYPE: File

Lexicon Utility has all privileges as though it were the custodial package.

5757 ICDSAPI ICD Search Wrapper (2 file solution)

5757 NAME: SEARCH ICD FILES
CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE:

USAGE: Supported ENTERED: DEC 29,2011

STATUS: Pending
DURATION:

EXPIRES: APR 1,2016
VERSION: 18

DESCRIPTION: TYPE: Routine

Routine ICDSAPI was developed as a wrapper routine for DIC lookups during the ICD-10 project to navigate between the ICD-9 Diagnosis file 80 and the ICD-10 Diagnosis file 8010 under the two file solution. The two file solution had the ICD-9 codes and ICD-10 codes stored in two separate files. This solution was abandoned in favor of the one file solution where both ICD-9 and ICD-10 are stored in the same file (ICD Diagnosis file 80). A one file solution of these APIs can be found in the routine ICDEXLK (ICD Data Extraction, special lookup). Routine ICDSAPI will be exported to support applications through the transition between the one and two file solutions. It will be retired 18 months after the ICD-10 compliance date.

ROUTINE: ICDSAPI

COMPONENT: \$\$SEARCH(FILE,SCR,FMPAR,CDT)

This API conducts a search of the ICD files (80 or 80.1) for a code, a diagnosis or a procedure using Fileman. This API was developed at a time when ICD-10 and ICD-9 codes were in different file (aka, the two file solution). It is being maintained at the request of the calling applications. Now the ICD-10 and ICD-9 codes are in the same file (aka, the one file solution). While this API still works, a much better option is available using the special lookup routine in file 80 and 80.1.

VARIABLES: Input FILE

This can be either a file number, a file root, a file identifier, a coding system or a source abbreviation that can be resolved to a file number.

Root	ID	System	Coding Abbreviation	Source Number
80	^ICD9(	DIAG	1 or 30	ICD or 10D
80.1	^ICD0(	PROC	2 or 31	ICP or 10P

VARIABLES: Input SRC

This is a string of MUMPS code that is executed to screen an entry from selection. It must contain an IF statement to set the value of \$T. Those entries that the IF statement sets \$T to 0 (false) will not be displayed or selectable.

VARIABLES: Input FMPAR

This is the Fileman Lookup parameter consisting of a string of alphabetic characters which that alter how the lookup responds. Default value is "AEMQZ". DIC(0) will be set to the contents of this parameter.

Parameters applicable to a versioned file

A Ask the entry; if erroneous, ask again
B Only the B index is used
E Echo information

F Forget the lookup value
I Ignore the special lookup program
M Multiple-index lookup allowed
O Only find one entry if it matches exactly
S Suppresses display of .01
T Search until user selects or enters ^^
X EXact match required
Z Zero node in Y(0), external form in Y(0,0)

Parameters not Applicable to a versioned file and ignored by this lookup

C Versioned cross-references not turned off
K Primary Key not established
L Learning a new entry LAYGO not allowed
N Uppercase, IEN lookup allowed (not forced)
n ICD has no pure numeric entries
Q Input is pre-processed, ?? not necessary
U All values are external
V Verification is not optional

VARIABLES: Input

CDT

This is the Code Set Versioning Date (Fileman format)

If supplied only active codes on that date will be included in the selection list.

If not supplied, the date will default to TODAY and all codes may be selected, active and inactive.

In both cases the display will be altered based on the date.

VARIABLES: Output

\$\$SEARCH

This is the value of Fileman's Y output variable.

Y IEN ^ Code
or
-1 iF not found

5758 ICD CODE UPDATE EVENT Protocol

CUSTODIAL PACKAGE: DRG GROUPER

SUBSCRIBING PACKAGE: PROBLEM LIST

PROBLEM LIST (GMPL) attaches protocol GMPL SELECTION LIST CSV EVENT that generates a mail message containing inactivated ICD codes on the selection list.

CONSULT/REQUEST TRACKING

CONSULTS (GMRC) attaches protocol ORCM GMRC CSV EVENT that generates a mail message consult or procedure quick orders that have an inactive ICD code.

CLINICAL REMINDERS

CLINICAL REMINDERS (PXRM) attaches protocol PXRM CODE SET UPDATE ICD that generates a mail message containing inactive code in the dialog file 801.41.

USAGE: Controlled Subscri ENTERED: JAN 3,2012
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: ROOT:
DESCRIPTION: TYPE: Other
This protocol is used to notify other applications and processes when the ICD-9/10 Code Set is updated.

This is an extended action protocol. Applications may attach actions on this protocol that should be taken in the event of an ICD update.

NOTE: This protocol is commonly invoked by the LEXICAL SERVICES UPDATE protocol when there is a change in ICD data.

5773 DD(80 and DD(80.1 Special Lookup

CUSTODIAL PACKAGE: DRG GROUPER
SUBSCRIBING PACKAGE: VA FILEMAN

Fileman calls this Special Lookup routine when the variable DIC(0) does not contain the letter "I" (Ignore Special Lookup).

USAGE: Controlled Subscri ENTERED: FEB 24,2012
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: ROOT:
DESCRIPTION: TYPE: File
Applications may conduct Fileman lookups of ICD Diagnosis file #80 and the ICD OPERATIONS/PROCEDURE file #80.1 using ^DIC and the Special Lookup routine ICDEXLK. Applications may also point to these files.

A special lookup program was written for the ICD DIAGNOSIS file #80 and ICD OPERATION/PROCEDURE file #80.1 to navigate through the versioned (date sensitive) data stored in these files. The Name of the special lookup is stored in the Data Dictionary for these files:

```
^DD(80,0,"DIC")="ICDEXLK"  
^DD(80.1,0,"DIC")="ICDEXLK"
```

Each time an application makes a ^DIC call to either file 80 or 80.1, the special lookup routine is invoked, provided the FileMan variable DIC(0) does not contain an "I" for "ignore the special lookup."

NOTE: Only the ^DIC call honors the special lookup routine. Those calls that allow the user to specify the indexes (IX^DIC and MIX^DIC1), and the Data Base Server calls (FIND^DIC, \$\$FIND1^DIC, and UPDATE^DIE) all ignore the Special Lookup Program. As a result, the FileMan calls that ignore the Special Lookup Program will not be able to conduct versioned searches or return versioned data so use IX^DIC, MIX^DIC1 FIND^DIC, and \$\$FIND1^DIC with a great deal of care. Never use any FileMan entry point that alters the data in these files (i.e., ^DIE, EN^DIB, ^DIK FILE^DIE, UPDATE^DIE and

FILE^DICN)

Package Special Lookup Variables

The following local variables in the ICD namespace should be NEWed or KILLed by the calling application. The global variables may be used in instances where local environment variables get NEWed and the special lookup values need to be retained. The calling application is responsible for KILLing the ^TMP global variables.

Versioning Date (Fileman format)

ICDVDT or ^TMP("ICDEXLK", \$J, "ICDVDT")=<versioning date>

If supplied only active codes on that date will be included in the selection list.

1. V74.6 SCREENING FOR YAWS
2. V77.5 SCREENING FOR GOUT
3. V76.9 SCREEN-NEOPLASM NOS
4. V76.43 SCREEN MAL NEOP-SKIN
5. V78.8 SCREEN-BLOOD DIS NEC

If not supplied, the date will default to TODAY and all codes may be selected, active and inactive.

1. V74.6 SCREENING FOR YAWS
2. V77.5 SCREENING FOR GOUT
3. V76.8 SCREEN-NEOPLASM NEC (Inactive)
4. V76.9 SCREEN-NEOPLASM NOS
5. V76.43 SCREEN MAL NEOP-SKIN

Coding System (from file 80.4)

ICDSYS or ^TMP("ICDEXLK", \$J, "ICDSYS")=<coding system>

- | | | |
|----|-----|------------|
| 1 | ICD | ICD-9-CM |
| 2 | ICP | ICD-9 Proc |
| 30 | 10D | ICD-10-CM |
| 31 | 10P | ICD-10-PCS |

If supplied only codes belonging to the coding system will be included in the selection list.

S ICDSYS=1,X="DIABETES MELLITUS KETOACIDOSIS"

2 matches found

1. 249.11 SEC DM KETOACD UNCNTRLD (Major CC)
2. 249.10 SEC DM KETO NT ST UNCNTR (Major CC)

S ICDSYS=30,X="DIABETES MELLITUS KETOACIDOSIS"

8 matches found

1. E09.11 Drug/chem diabetes mellitus w

-
- 2. E13.11 Oth diabetes mellitus with ketoacidosis w coma
 - 3. E09.10 Drug/chem diabetes mellitus w ketoacidosis w/o coma
 - 4. E10.11 Type 1 diabetes mellitus with ketoacidosis with coma
 - 5. E13.10 Oth diabetes mellitus with Ketoacidosis without coma

If not supplied codes from any coding system will be included in the selection list.

S X="DIABETES MELLITUS KETOACIDOSIS"

10 matches found

- 1. 249.11 SEC DM KETOACD UNCNTRLD (Major CC)
- 2. 249.10 SEC DM KETO NT ST UNCNT (Major CC)
- 3. E09.11 Drug/chem diabetes mellitus w ketoacidosis w coma
- 4. E13.11 Oth diabetes mellitus with Ketoacidosis with coma
- 5. E09.10 Drug/chem diabetes mellitus w ketoacidosis w/o coma

Display Format (numeric, 1-4)

ICDFMT or ^TMP("ICDEXLK", \$J, "ICDFMT")=<display format>

Controls the format of the terms and code presented for selection on the selection list, 1-4, default = 1

- 1 Fileman format, code and short text (default)
 - 250.00 DMII WO CMP NT ST UNCNTR
- 2 Fileman format, code and description
 - 250.00 DIABETES MELLITUS WITHOUT MENTION OF COMPLICATION, TYPE II OR UNSPECIFIED TYPE, NOT STATED AS UNCONTROLLED
- 3 Lexicon format, short text followed by code
 - DMII WO CMP NT ST UNCNTR (250.00)
- 4 Lexicon format, description followed by code
 - DIABETES MELLITUS WITHOUT MENTION OF COMPLICATION, TYPE II OR UNSPECIFIED TYPE, NOT STATED AS UNCONTROLLED (250.00)

Fileman Variables used

The following are FileMan local variables used by the Special

Lookup and should be NEWed or KILLED by the calling application

Input

- X (Optional) User's input. If it exists, DIC(0) should not contain "A" for "Ask"
- DIC (Required) The file number or an explicit global root in the form ^GLOBAL(or ^GLOBAL(X,Y,
- DIC(0) (Optional) A string of alphabetic characters which alter how DIC responds. At a minimum this string must be set to null. (Required) Default value for ICD files "AEM"

The following characters are applicable to a versioned file

- A Ask the entry; if erroneous, ask again
- B Only the B index is used
- E Echo information
- F Forget the lookup value
- I Ignore the special lookup program
- M Multiple-index lookup allowed
- O Only find one entry if it matches exactly
- S Suppresses display of .01
- T Search until user selects or enters ^^
- X EXact match required
- Z Zero node in Y(0), external form in Y(0,0)

The following characters are NOT applicable to a versioned file (not used)

- C Versioned cross-references not turned off
- K Primary Key not established
- L Learning a new entry LAYGO not allowed
- N Uppercase, IEN lookup allowed (not forced)
- n ICD has no pure numeric entries
- Q Input is pre-processed, ?? not necessary
- U All values are external
- V Verification is not optional

- DIC("A") (Optional) A prompt that is displayed prior to the reading of the X input. If DIC("A") is not defined, a prompt will be supplied by the special lookup routine.
- DIC("B") (Optional) The default answer which is presented to the user when the lookup prompt is issued. If a terminal user simply presses the Enter/Return key, the DIC("B") default value will be used, and returned in X. DIC("B") will only be used if it is non-null.
- DIC("S") (Optional) DIC("S") is a string of M code that DIC executes to screen an entry from selection. DIC("S") must contain an IF statement to set the value of \$T.

Those entries that the IF sets as \$T=0 will not be displayed or selectable. When the DIC("S") code is executed, the local variable Y is the internal number of the entry being screened and the M naked indicator is at the global level @(DIC_"Y,0")

DIC("W") (Optional) An M command string which is executed when DIC displays each of the entries that match the user's input. The condition of the variable Y and of the naked indicator is the same as for DIC("S").
WARNING: If DIC("W") is defined, it overrides the display of the versioned identifiers for the file. Thus, if DIC("W") is set it will suppress the display of versioned data and there is a risk of displaying unversioned data.

DIC("?N",<file>)=n (Optional) The number "n" should be an integer set to the number of entries to be displayed on the screen at one time when using "?" help in a lookup.

FileMan Variables not used

DIC("DR")
 DIC("PTRIX",<from>,<to>,<file>)
 DIC("T")
 DIC("V")
 DIC("?PARAM",<file>,"INDEX")
 DIC("?PARAM",<file>,"FROM",<subscript>)
 DIC("?PARAM",<file>,"PART",<subscript>)

FileMan Variables KILLed

DLAYGO
 DINUM

FileMan Variables Modified

If DIC(0) contains an "L" it will be removed

Output Variables

Always Returned

Y	IEN ^ Code	FileMan
---	------------	---------

If DIC(0) contains "Z"

Y(0)	0 Node	FileMan
Y(0,0)	Code	FileMan
Y(0,1)	\$\$ICDDX or \$\$ICDOP	Non-FileMan
Y(0,2)	Long Description	Non-FileMan

5780 ^ICDS(Supported
 CUSTODIAL PACKAGE: DRG GROUPER

SUBSCRIBING PACKAGE:

USAGE: Supported ENTERED: MAR 5,2012
STATUS: Pending EXPIRES:
DURATION: Till Otherwise Agr VERSION:
FILE: 80.4 ROOT: ICDS(
DESCRIPTION: TYPE: File

This is a static file containing information about ICD coding systems.
Applications may conduct FileMan lookups and point to this file.

Use the API \$\$SINFO^ICDEX(IEN) to retrieve the information about an ICD
Coding System (ICR 5747)

19. Glossary

TERM	MEANING
API	Application Programmer Interface
CMS	Centers for Medicare and Medicaid Services
CSV	Code Set Versioning
DBIA	Database Integration Agreement
ICD-9-CM	International Classification of Diseases, Ninth Revision, Clinical Modification
ICD-9 Proc	International Classification of Diseases, Ninth Revision, Procedural Classification System
ICD-10-CM	International Classification of Diseases, Tenth Revision, Clinical Modification
ICD-10-PCS	International Classification of Diseases, Tenth Revision, Procedural Classification System
KIDS	Kernel Installation Distribution System
SDO	Standard Development Organization
VISTA	Veterans Health Information Systems and Technology
WHO	World Health Organization