



RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **Data Warehouse Export System (BDW)**

## **Technical Manual**

Version 1.0  
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Office of Information Technology (OIT)  
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## Preface

This manual contains the installation guide for the RPMS Data Warehouse Export System.

The Data Warehouse Export System is an RPMS (Resource and Patient Management System) software application designed for local export of registration and visit data to the IHS National Data Warehouse.

The National Patient Information Reporting System (NPIRS) is a designated organizational unit within the Information Technology Support Center, Division of Information Resources (DIR), Indian Health Service, located in Albuquerque, New Mexico and has been in existence since 1986. The purpose of NPIRS is to provide a broad range of clinical and administrative information to managers at all levels of the Indian health system to allow them to better manage individual patients, local facilities, regional and national programs and to allow IHS Management to provide legislatively required reports to the Administration and Congress. The National Data Warehouse (NDW) project was initiated to upgrade NPIRS to a new, state-of-the-art, enterprise-wide data warehouse environment, to better serve the needs of its users.

This application will allow local RPMS systems to export data to NPIRS' new NDW structure. The data to be exported includes demographic data; third-party eligibility information; patient-based clinical data (e.g., health factors); and encounter-based clinical data (e.g., purpose of visit, procedures, medications, laboratory test results, radiological results). This export will provide for the export of modifications in these data so that the NDW will be able to maintain historical records of changes in these data so information about past as well as current circumstances can be retrieved.

The data is exported via HL7 standard messages. For each registration update and visit update an HL7 message will be generated.

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## 1.0 Implementation and Maintenance

The Data Warehouse Export System occupies the BDW namespace. Options, security locks/keys, templates, routines, and globals are namespaced BDW.

### 1.1 System Requirements

- Kernel Version 8.0 or higher
- FileMan v22 or higher
- IHS Patient Dictionaries (AUPN) v99.1 through patch 14
- PCC Management Reports v3.0 through patch 16
- Taxonomy System v5.1 through patch 7
- XB/ZIB Utilities v3.0 through patch 10
- IHS VA Support Files (AVA) v 93.2 through patch 18
- RPMS Registration v7.0 through patch 5
- GIS Version 3.1 patches 1,2,11,12

(Please note, GIS version 3.1 patch 12 should be installed after the BDW package is installed)

## 2.0 Security Keys

Name	Descriptive Name	Description
BDWZ BACKLOAD MENU	BDW BACKLOAD MENU	This key unlocks the backload menu of the data warehouse software. This key should only be given to the person doing the initial backloading of data to the DW.
BDWZ REG EXPORT	BDW REGISTRATION EXPORT	This key unlocks the option to do a full registration export to the Data Warehouse. This key should only be given to the user doing that initial registration backload.
BDWZMENU	BDW MAIN MENU	This key unlocks the main Data Warehouse menu. It should be assigned to all users who need to run Data Warehouse exports.
BDWZ RESET	BDW RESET LOG	This key unlocks the reset option for the Data Warehouse exports. It should be given to the site manager and area office personnel only.

### 3.0 Routines

BDW1BLR	IHS/CMI/LAB - DW EXPORT REG DATA BACKLOAD VIA HL7
BDW1VBL	IHS/CMI/LAB - MAIN DRIVER DW VISIT BACKLOAD
BDW1VBL2	IHS/CMI/LAB - DW process visit during backload
BDW1VBLE	IHS/CMI/LAB - log error during backload of visits
BDW1VBLI	IHS/CMI/LAB - Initialization for DW Visit backloading
BDW1VBLL	IHS/CMI/LAB - Display log of dw visit backload
BDW1VBLR	IHS/CMI/LAB - RESET visit backload log
BDW1VBLZ	IHS/CMI/LAB - rerun visit backload log
BDWA	IHS/CMI/LAB - dw export reg data - old version
BDWA0	IHS/CMI/LAB - DW EXPORT - OLD, NOT USED
BDWA1	IHS/CMI/LAB - DW EXPORT - OLD, NOT USED
BDWAID	IHS/CMI/LAB - UNIQUE REGISTRATION RECORD ID
BDWBAN	IHS/CMI/LAB - BANNER FOR DATA WAREHOUSE
BDWBHL	IHS/CMI/LAB - BDW Populate Various DW1 HL7 Segments
BDWBHL1	IHS/CMI/LAB - BDW Populate Various DW1 HL7 Segments
BDWCVAR	IHS/CMI/LAB - visit audit report
BDWDDR	IHS/CMI/LAB - Main Driver EXPORT DATE RANGE
BDWDDR2	IHS/CMI/LAB - reexport in date range
BDWDLOG	IHS/CMI/LAB - DISPLAY DW EXPORT LOG DATA AUGUST 14, 1992
BDWDWPX	IHS/CMI/LAB - RPMS report for DW export-3/12/2004 12:46:58 PM
BDWDWPX1	IHS/CMI/LAB - RPMS report for DW export-3/12/2004 12:46:58 PM
BDWEPRN	IHS/CMI/LAB - Display TX ERRORS AUGUST 14, 1992
BDWIN1	IHS/CMI/LAB - BDW Create Insurance Array for GIS DW1 Export
BDWPRE	IHS/CMI/LAB - PRE/POST INIT
BDWPURG	IHS/CMI/LAB - PURGE DW LOG
BDWQ	IHS/CMI/LAB - BDW Place Holder for Destinations
BDWRDR	IHS/CMI/LAB - MAIN DRIVER DW EXPORT
BDWRDR2	IHS/CMI/LAB - DW PROCESS VISIT
BDWRDR21	IHS/CMI/LAB - CONT PROCESS
BDWRDRI	IHS/CMI/LAB - INIT FOR DW
BDWRDRI2	IHS/CMI/LAB - INIT FOR DW EXPORT
BDWRDRI3	IHS/CMI/LAB - INIT CONT DW
BDWRED1	IHS/CMI/LAB - REDO CONT
BDWREDO	IHS/CMI/LAB - REDO A RUN
BDWRERR	IHS/CMI/LAB - LOG ERROR
BDWRSET	IHS/CMI/LAB - RESET TX LOG AUGUST 14, 1992
BDWSR	IHS/CMI/LAB - DW REPORT
BDWSR1	IHS/CMI/LAB - DW REPORT 1
BDWSR2	IHS/CMI/LAB - DW REPORT 2
BDWSRP	IHS/CMI/LAB - DW REPORT PRINT
BDWSRP5	IHS/CMI/LAB - DW REPORT PRINT CONT
BDWUTIL	IHS/CMI/LAB - DW UTILITIES
BDWUTIL1	IHS/CMI/LAB -

43 ROUTINES

## 4.0 Files and Tables

### 4.1 File List

FILE	GLOBAL	NAME
90212.1	^BDWSITE	BDW SITE FILE
90212.2	^BDWERRC	BDW ERROR CODES
90212.3	^BDWVARD	BDW VISIT AUDIT RECORD DEFINITION
90213	^BDWXLOG	BDW DATA WAREHOUSE EXPORT LOG
90214	^BDWBLOG	BDW VISIT BACKLOAD FILE
90215	^BDWRBLOG	BDW REG BACKLOAD LOG

### 4.2 File Access

FILE (#)	GLOBAL	RD	WR	LYG	DD	DEL
90212.1	^BDWSITE	M	M	M	@	@
90212.2	^BDWERRC	M	@	@	@	@
90212.3	^BDWVARD	@	@	@	@	@
90213	^BDWXLOG	M	M	M	@	@
90214	^BDWBLOG	M	M	M	@	@
90215	^BDWRBLOG	M	M	M	@	@

### 4.3 Cross References

#### File #90212.1

B REGULAR

Field: NAME (90212.1,.01)

1)= S ^BDWSITE("B", \$E(X,1,30),DA)=""  
 2)= K ^BDWSITE("B", \$E(X,1,30),DA)

#### File #90212.2

B REGULAR

Field: ERROR CODE (90212.2,.01)

1)= S ^BDWERRC("B", \$E(X,1,30),DA)=""  
 2)= K ^BDWERRC("B", \$E(X,1,30),DA)

#### File #90212.3

B REGULAR

Field: RECORD ID (90212.3,.01)

1)= S ^BDWVARD("B", \$E(X,1,30),DA)=""  
 2)= K ^BDWVARD("B", \$E(X,1,30),DA)

**Subfile #90212.311**

B REGULAR

Field: PIECE (90212.311,.01)

1)= S ^BDWVARD(DA(1),11,"B",\$E(X,1,30),DA)=""

2)= K ^BDWVARD(DA(1),11,"B",\$E(X,1,30),DA)

**File #90213**

B REGULAR

Field: BEGINNING DATE (90213,.01)

1)= S ^BDWXLOG("B",\$E(X,1,30),DA)=""

2)= K ^BDWXLOG("B",\$E(X,1,30),DA)

**Subfile #90213.05101**

B REGULAR

Field: VISIT (90213.05101,.01)

1)= S ^BDWXLOG(DA(1),51,"B",\$E(X,1,30),DA)=""

2)= K ^BDWXLOG(DA(1),51,"B",\$E(X,1,30),DA)

**File #90214**

B REGULAR

Field: BEGINNING DATE (90214,.01)

1)= S ^BDWBLOG("B",\$E(X,1,30),DA)=""2)= K

^BDWBLOG("B",\$E(X,1,30),DA)

**Subfile #90214.05101**

B REGULAR

Field: VISITS SKIPPED (90214.05101,.01)

1)= S ^BDWBLOG(DA(1),51,"B",\$E(X,1,30),DA)=""2)= K

^BDWBLOG(DA(1),51,"B",\$E(X,1,30),DA)

**File #90215**

B REGULAR

Field: EXPORT DATE (90215,.01)

1)= S ^BDWRBLOG("B",\$E(X,1,30),DA)=""2)= K

^BDWRBLOG("B",\$E(X,1,30),DA)



## 4.4 Table File

**FILE #: 90212.1 BDW SITE FILE**  
**GLOBAL: ^BDWSITE(**

FIELD #	FIELD NAME	SUBSCRIPT	PIECE	TYPE
.001	NUMBER			N
.01	NAME	D0,0	1	P
.02	SOFTWARE INSTALLED DATE	"	2	D
.03	*DELAY	"	3	N
.04	DATE COMPLETE REG EXPORT DONE	"	4	D
.05	NUMBER OF VISITS TO BACKLOAD	"	5	N
.06	DATE VISIT BACKLOAD COMPLETED	"	6	D
.07	SEND VISIT AUDIT REPORT?	"	7	S
1101	TURN OFF ADDED PATCH 6 DATA?	D0,11	1	S
1201	HFS DIRECTORY	D0,12	1	F

**FILE #: 90212.2 BDW ERROR CODES**  
**GLOBAL: ^BDWERRC(**

FIELD #	FIELD NAME	SUBSCRIPT	PIECE	TYPE
.01	ERROR CODE	D0,0	1	F
.02	DESCRIPTION	"	2	F
1	LONG DESCRIPTION	(90212.21)		
.01	LONG DESCRIPTION	D0,1,D1,0	1	W

**FILE #: 90212.3 BDW VISIT AUDIT RECORD DEFINITION**  
**GLOBAL: ^BDWARD(**

FIELD #	FIELD NAME	SUBSCRIPT	PIECE	TYPE
.01	RECORD ID	D0,0	1	F
1101	ELEMENTS (90212.311)			
.01	PIECE	D0,11,D1,0	1	N
.02	ELEMENT	"	2	F
1	GET VALUE	D0,11,D1,1		K

**FILE #: 90213 BDW DATA WAREHOUSE EXPORT LOG**  
**GLOBAL: ^BDWXLOG(**

FIELD #	FIELD NAME	SUBSCRIPT	PIECE	TYPE
.001	NUMBER			N
.01	BEGINNING DATE	D0,0	1	D
.02	ENDING DATE	"	2	D
.03	RUN START DATE/TIME	"	3	D
.04	RUN STOP DATE/TIME	"	4	D
.05	COUNT OF VISITS SKIPPED (ALL)	"	5	N
.06	COUNT OF TXS (REG+PCC)	"	6	N
.07	EXPORT TYPE	"	7	S
.08	COUNT OF VISITS PROCESSED	"	8	N

FIELD #	FIELD NAME	SUBSCRIPT	PIECE	TYPE
.09	RUN LOCATION	"	9	P
.11	# REG MESSAGES	"	11	N
.12	MESSAGE HEADER	"	12	F
.13	RUN TIME	"	13	F
.14	TRAILER MESSAGE #	"	14	F
.15	TRANSMISSION STATUS	"	15	S
.16	PROCESSING ERROR ENCOUNTERED	"	16	P
.18	NUMBER OF VISITS EXPORTED	"	18	N
.21	AUDIT FILE	"	21	F
2101	VISITS (90213.2101)			
.01	VISIT	D0,21,D1,0	1	P
.02	TX GEN'D	"	2	S
.03	MESSAGE #	"	3	F
3101	DEMO PATIENT RECORDS	D0,31	1	N
3102	ZERO DEPENDENT ENTRIES	"	2	N
3103	DELETED VISITS NEVER SENT	"	3	N
3104	NO PATIENT	"	4	N
3105	NO LOCATION OF ENC	"	5	N
3106	NO TYPE OF VISIT	"	6	N
3107	NO SERVICE CATEGORY	"	7	N
3108	ADDS	"	8	N
3109	MODS	"	9	N
3110	DELETES	"	10	N
3111	MFI VISITS SKIPPED	"	11	N
4101	PATIENTS EXPORTED (90213.4101)			
.01	PATIENTS EXPORTED	D0,41,D1,0	1	P
.02	BASE RECORD	"	2	D
.03	DEMO RECORD	"	3	D
.04	ALIAS	"	4	D
.05	CHART	"	5	D
.06	ELIG	"	6	D
.07	MESSAGE #	"	7	F
5101	VISITS WITH ERRORS (90213.05101)			
.01	VISIT	D0,51,D1,0	1	P
.03	MSG	"	3	F
9901	TRAILER REPORT (90213.99)			<input type="checkbox"/>
.01	TRAILER REPORT	D0,99,D1,0	1	W

**FILE #: 90214 BDW VISIT BACKLOAD FILE**  
**GLOBAL: ^BDWBLOG(**

FIELD #	FIELD NAME	SUBSCRIPT	PIECE	TYPE
.001	NUMBER			N

FIELD #	FIELD NAME	SUBSCRIPT	PIECE	TYPE
.01	BEGINNING DATE	D0,0	1	D
.02	ENDING DATE	"	2	D
.03	RUN START DATE/TIME	"	3	D
.04	RUN STOP DATE/TIME	"	4	D
.05	COUNT OF VISITS SKIPPED	"	5	N
.06	COUNT OF TXS	"	6	N
.08	COUNT OF VISITS PROCESSED	"	8	N
.09	RUN LOCATION	"	9	P
.12	MESSAGE HEADER	"	12	F
.13	RUN TIME	"	13	F
.14	MESSAGE TRAILER	"	14	F
.15	TRANSMISSION STATUS	"	15	S
.16	PROCESSING ERROR ENCOUNTERED	"	16	P
.18	NUMBER OF VISITS EXPORTED	"	18	N
.19	LAST VISIT EXPORTED	"	19	N
.21	AUDIT FILE	"	21	F
3101	DEMO PATIENT RECORDS	D0,31	1	N
3102	ZERO DEP ENTRIES	"	2	N
3103	DELETED VISITS NEVER SENT	"	3	N
3104	NO PATIENT	"	4	N
3105	NO LOCATION OF ENC	"	5	N
3106	NO TYPE OF VISIT	"	6	N
3107	NO SERVICE CATEGORY	"	7	N
3108	MFI VISITS SKIPPED	"	8	N
5101	VISITS SKIPPED (90214.05101)			
.01	VISITS SKIPPED	D0,51,D1,0	1	P
.03	MESSAGE	"	3	F

**FILE #: 90215BDW REG BACKLOAD LOG**  
**GLOBAL: ^BDWRBLOG(**

FIELD #	FIELD NAME	SUBSCRIPT	PIECE	TYPE
.01	EXPORT DATE	D0,0	1	D
.02	END TIME	"	2	D
.029	ELAPSED TIME	COMPUTED		
.03	PATIENTS PROCESSED	D0,0	3	N
.04	PERFORMED BY	"	4	P
.05	HL7 MESSAGES GENERATED	"	5	N
.06	SITE WHERE RUN	"	6	P
.07	HEADER MESSAGE NUMBER	"	7	N
.08	TRAILER MESSAGE NUMBER	"	8	N

## **5.0 Archiving and Purging**

There is no archiving and purging in this package.

## 6.0 External Relations

### 6.1 External Calls

This package calls the following documented entry points:

Routine	is invoked by:
^%DT	dd90212.1, dd90213, dd90213.4101, dd90214, dd90215
DD^%DT	BDWRDRI2,BDWRDRI3,BDWSR,BDWSRP,BDWSRP5
^%DTC	BDW1VBLI,BDWCVAR,BDWDDR,BDWDWPX,BDWRDR21,BDWRDRI,BD WUTIL
C^%DTC	BDWDDR,BDWRDRI2,BDWRDRI3
COMMA^%DTC	BDWDDR,BDWRDR
H^%DTC	dd90215
NOW^%DTC	BDW1VBL,BDWBHL,BDWDDR,BDWRDR,BDWREDO
HOME^%ZIS	BDW1BLR,BDW1VBLI,BDWA,BDWCVAR,BDWDDR,BDWRDRI
^%ZISC	BDWBHL
\$\$OPEN^%ZISH	BDWBHL
^%ZTLOAD	BDW1VBLI,BDWBHL,BDWDDR,BDWRDRI
QNTCVT^AGTX1	BDWDWPX
\$\$START1^APCLDF	BDWUTIL1
\$\$CLINIC^APCLV	BDWUTIL
\$\$PRIMPOV^APCLV	BDWUTIL1
\$\$PRIMPROV^APCLV	BDWUTIL
\$\$SECPOV^APCLV	BDWUTIL1
\$\$SECPROV^APCLV	BDWUTIL
\$\$CPT^AUPNCPT	BDWDDR2,BDWUTIL
^AUPNPAT	BDW1VBL2,BDWCVAR,BDWRDR2,BDWRDR21
\$\$HRN^AUPNPAT	BDWEPRN
\$\$MCD^AUPNPAT	BDWUTIL1
\$\$MCR^AUPNPAT	BDWUTIL1
\$\$PI^AUPNPAT	BDWUTIL1
KILL^AUPNPAT	BDW1VBL,BDWCVAR,BDWDDR,BDWRDR,BDWREDO
\$\$UID^AUPNVISIT	BDW1VBL,BDWDDR,BDWRDR
\$\$CHK^BHLBCK	BDW1BLR,BDW1VBLI
\$\$DW1A08^BHLEVENT	BDW1VBL2,BDWRDR2
\$\$DW1HDR^BHLEVENT	BDW1BLR,BDW1VBL,BDWDDR,BDWRDR,BDWREDO
\$\$DW1REG^BHLEVENT	BDW1BLR,BDWRDR,BDWREDO
\$\$DW1TRLR^BHLEVENT	BDW1BLR,BDW1VBL,BDW1VBLR,BDWDDR,BDWRDR,BDWREDO
^DIC	BDW1VBLI,BDW1VBLR,BDWDDR,BDWDLOG,BDWEPRN,BDWPRES,BDWRDR21,BDWRDR2,BDWRSET,BDWSR
IX^DIC	BDWPRES
FILE^DICN	BDW1BLR,BDW1VBLI,BDWA
DT^DICRW	BDW1VBLI,BDWCVAR,BDWDDR,BDWDWPX,BDWRDRI

<b>Routine</b>	<b>is Invoked by:</b>
^DIE	BDW1BLR,BDW1VBL,BDW1VBLI,BDW1VBLR,BDWBHL,BDWDDR,BDWRDR
	BDWRDR21,BDWRDRI,BDWREDO
^DIK	BDW1BLR,BDW1VBLI,BDW1VBLR,BDWDDR,BDWRDR,BDWRDRI,BDWRSET
IX1^DIK	BDW1VBL,BDWDDR,BDWPRE,BDWRDR,BDWREDO
^DIM	dd90212.311
\$\$GET1^DIQ	BDWAID,BDWBHL,BDWDWPX,BDWIN1
EN^DIQ	BDW1VBLR,BDWRSET
EN^DIQ1	BDWSR2,BDWSRP
^DIR	BDW1BLR,BDW1VBL,BDW1VBLI,BDW1VBLI,BDW1VBLR,BDWCVAR
	BDWDDR,BDWDLOG,BDWEPRN,BDWPURG,BDWRDR,BDWRDRI,BDWRDRI2
	BDWRED1,BDWREDO,BDWRSET,BDWSRP
EN^DIU2	BDWPRE
\$\$DATE^INHUT	BDW1VBL2,BDW1VBLI,BDWBHL,BDWCVAR,BDWDDR,BDWDWPX,BDWIN1
^XBDQUE	BDW1VBLI,BDWDLOG,BDWEPRN,BDWSR
\$\$VAL^XBDIQ1	BDW1VBLI,BDWDDR,BDWDLOG,BDWEPRN,BDWIN1,BDWRDR,BDWSR2
	BDWSRP5,BDWUTIL,BDWUTIL1
\$\$VALI^XBDIQ1	BDWUTIL,BDWUTIL1
\$\$DIR^XBDIR	BDWA
^XBFMK	BDW1BLR,BDW1VBL,BDW1VBLI,BDWA,BDWDDR,BDWEPRN,BDWRDR,BDWRDRI2,BDWREDO
\$\$EXTSET^XBFUNC	BDWRDR2
^XBGSAVE	BDW1VBLI,BDWA,BDWCVAR,BDWDDR,BDWDWPX,BDWRDRI
VIEWR^XBLM	BDW1VBLI,BDWDLOG
EN^XBVK	BDW1BLR,BDW1VBL,BDW1VBLR,BDWA,BDWCVAR,BDWDDR,BDWEPRN
	BDWRDR,BDWREDO,BDWSR
\$\$FMADD^XLFDI	BDW1VBLI,BDW1VBLR,BDWBHL,BDWRDR,BDWRDRI2,BDWREDO,BDWSR
\$\$FMTE^XLFDI	BDW1VBLI,BDW1VBLI,BDWA,BDWDDR,BDWDLOG,BDWEPRN,BDWRDR
\$\$NOW^XLFDI	BDW1BLR,BDW1VBL,BDW1VBL2,BDW1VBLI,BDWA,BDWBHL,BDWCVAR,BDWDLOG,BDWDWPX
\$\$CJ^XLFSTR	BDWPRE
^XMB	BDWRDRI2,BDWRDRI3
BMES^XPDUTL	BDWPRE
MES^XPDUTL	BDWPRE
\$\$NOJOURN^ZIBGCHAR	BDW1VBL,BDWA

## 6.2 Callable Routines

There are no published entry points in this package.

### 6.3 Exported Options

<b>OPTION NAME</b>	<b>OPTION TEXT</b>
BDW BACKLOAD LOG DISP	Display Visit Backload Log Entry
BDW BACKLOAD MENU	Backload Data Menu
BDW BACKLOAD RESET	Reset DW Visit Backload Log
BDW BACKLOAD VISITS	Generate Visits for Backloading the Data Warehouse
BDW CREATE PAT REG AUDIT	Create Patient Reg Update Audit File
BDW DATE RANGE EXPORT	Export to Data Warehouse for a Date Range
BDW DISPLAY LOG	Display Log Entry
BDW EDIT DELAY VALUE	Edit the Delay Value
BDW GENERATE TXS	Generate Data Warehouse Export Records
BDW LIST ERRORS	List PCC Visits Not Exported
BDW PURGE VISIT PTS	Purge Log Entries
BDW REDO	Re-Run a Previously Run Data Warehouse Export
BDW REG BL LOG	Display Full Registration Backload Log Entry
BDW RESET LOG	Reset Failed Log Entry
BDW SUMMARY REPORT	Data Warehouse Export Summary Report
BDW VISIT AUDIT REPORT	Create Visit Audit Report
BDWA DW EXPORT	Data Warehouse Full Registration Export
BDWMENU	PCC Data Warehouse Export Menu

## 7.0 Internal Relations

All users should be given the access to the appropriate options and keys to them, as needed. All of the options in this system stand alone.



## 8.0 How to Generate Online Documentation

The file number range for this package is 90212-90215. The namespace is BDW. All templates, routines, screen forms, etc. begin with BDW.

This section describes some of the methods by which users can generate IHS Data Warehouse Export system technical documentation. Online technical documentation pertaining to the IHS Data Warehouse Export software, in addition to that which is located in the help prompts and on the help screens throughout the IHS Data Warehouse Export System package, can be generated through the use of several Kernel options. These include, but are not limited to, the following:

- %INDEX
- Menu Management
- Inquire Option
- Print Option File
- VA FileMan
- Data Dictionary Utilities
- List File Attributes

Entering question marks at the “Select...Option” prompts can also provide users with valuable technical information. For example, a single question mark (?) lists all options that can be accessed from the current option. Entering two question marks (??) lists all options accessible from the current one, showing the formal name and lock for each. Three question marks (???) displays a brief description for each option in a menu, whereas an option name preceded by a question mark (?OPTION) shows extended help, if available, for that option.

For a more exhaustive option listing and further information about other utilities that supply online technical information, please consult the DHCP Kernel Reference manual.

### 8.1 %INDEX

This option analyzes the structure of a routine to determine in part if the routine adheres to RPMS Programming Standards. The %INDEX output can include the following components:

- Compiled list of errors and warnings
- Routine listing
- Local variables
- Global variables

- Naked globals
- Label references
- External references

By running %INDEX for a specified set of routines, you are afforded the opportunity to discover any deviations from RPMS Programming Standards that exist in the selected routines and to see how routines interact with one another (i.e., which routines call or are called by other routines).

To run %INDEX for the IHS Data Warehouse Export System package, specify the BDW namespace at the Routine(s)?> prompt.

## 8.2 Inquire Option

This menu management option provides the following information about a specified option:

- Option name
- Menu text
- Option description
- Type of option
- Lock (if any)

In addition, all items on the menu are listed for each menu option. To secure information about IHS Data Warehouse Export System options, you must specify the BDW namespace.

## 8.3 Print Option File

This utility generates a listing of options from the Option file (#19). You can choose to print all of the entries in this file or you can specify a single option or range of options. For a list of IHS Data Warehouse Export System options, please refer to the Exported Options section of this manual.

## 8.4 List File Attributes

This VA FileMan option allows you to generate documentation pertaining to files and file structure. Using the Standard format of this option yields the following data dictionary information for a specified file:

- File name and description
- Identifiers
- Cross-references

- Files pointed to by the file specified
- Files that point to the file specified input, print, and sort templates

In addition, the following applicable data is supplied for each field in the file:

- Field name, number, title, and description
- Global location
- Help prompt
- Cross-references
- Input transform
- Date last edited
- Notes

Using the Global Map format of this option generates an output that lists the following information:

- All cross-references for the file selected
- Global location of each field in the file
- Input, print, and sort templates

## 9.0 SAC Exemptions

This program uses a standard global for export of data to the Data Warehouse. The global is called ^BDWDATA (and is killed at the root level).

The kill of these unsubscripted globals has been approved by the Standards and Conventions committee.

## 10.0 Glossary

### **Archiving**

The storing of historical or little-used data off-line (often on tape).

### **Banner**

A line of text with a user's name and domain.

### **Browser**

An interactive application that displays ASCII text on a terminal that supports a scroll region. The text can be in the form of a word-processing field or sequential local or global array. The user is allowed to navigate freely within the document.

### **Callable Entry Points**

Places in a routine that can be called from an application program.

### **Cross-reference**

An indexing method whereby files can include pre-sorted lists of entries as part of the stored database. Cross-references (x-refs) facilitate look-up and reporting.

### **Entry Point**

Entry point within a routine that is referenced by a "DO" or "GOTO" command from a routine internal to a package.

### **File**

A set of related records or entries treated as a single unit.

### **FileMan**

The database management system for RPMS.

### **Global**

In MUMPS, global refers to a variable stored on disk (global variable) or the array to which the global variable may belong (global array).

### **ICD**

International Classification of Diseases.

### **INDEX (%INDEX)**

A Kernel utility used to verify routines and other MUMPS code associated with a package. Checking is done according to current ANSI MUMPS standards and RPMS programming standards. This tool can be invoked through an option or from direct mode (>D ^%INDEX).

**IRM**

Information Resource Management. The IHS personnel responsible for information systems management and security.

**Kernel**

The set of MUMPS software utilities that function as an intermediary between the host operating system and application packages, such as Laboratory and Pharmacy. The Kernel provides a standard and consistent user and programmer interface between application packages and the underlying MUMPS implementation. These utilities provide the foundation for RPMS.

**Menu**

A list of choices for computing activity. A menu is a type of option designed to identify a series of items (other options) for presentation to the user for selection. When displayed, menu-type options are preceded by the word "Select" and followed by the word "option" as in Select Menu Management option: (the menu's select prompt).

**Namespace**

A unique set of 2 to 4 alpha characters that are assigned by the database administrator to a software application.

**Option**

An entry in the Option file. As an item on a menu, an option provides an opportunity for users to select it, thereby invoking the associated computing activity. Options may also be scheduled to run in the background, non-interactively, by TaskMan.

**Patient Care Component (PCC)**

The central repository for data in the Resource and Patient Management System (RPMS).

**Queuing**

Requesting that a job be processed at a later time rather than within the current session.

**Routine**

A program or sequence of instructions called by a program that may have some general or frequent use. MUMPS routines are groups of program lines that are saved, loaded, and called as a single unit via a specific name.

**UCI**

User Class Identification: a computing area.

**Up-Hat (^)**

A circumflex, also known as a “hat” or “caret,” that is used as a piece delimiter in a global. The up-hat is denoted as “^” and is typed by pressing Shift+6 on the keyboard.

**Utility**

A callable routine, line tag, or function. A universal routine usable by anyone.

**Variable**

A character or group of characters that refers to a value. MUMPS recognizes 3 types of variables: local variables, global variables, and special variables. Local variables exist in a partition of the main memory and disappear at sign-off. A global variable is stored on disk, potentially available to any user. Global variables usually exist as parts of global arrays.

## 11.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

**Phone:** (505) 248-4371 or (888) 830-7280 (toll free)

**Fax:** (505) 248-4363

**Web:** <http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm>

**Email:** [support@ihs.gov](mailto:support@ihs.gov)