



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Patient Registration GUI

(AGG)

Technical Manual

Graphical User Interface Extension to the RPMS
Patient Registration Module (AG)

Version 1.0
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Preface

The purpose of this manual is to provide technical information about the Patient Registration graphical user interface (GUI) (AGG) package. The Patient Registration GUI is designed to provide a GUI interface for users to enter and update patient registration data in the Resource and Patient Management System.

Table of Contents

1.0	Introduction.....	1
2.0	Implementation and Maintenance.....	2
2.1	General Information.....	2
2.2	System Requirements	2
2.3	Package-Wide Variables	2
2.4	Security Keys.....	3
3.0	Menu Diagram.....	4
4.0	Routines.....	5
4.1	Routines with Description	5
4.2	Function List	6
4.2.1	\$\$AGE^AGGAGE.....	6
4.2.2	EN^AGGELCHK.....	7
4.2.3	GET^AGGINSUR	7
4.2.4	RET^AGGINSUR.....	8
4.2.5	COMM^AGGPTADD	8
4.2.6	\$\$ETHN^AGGPTDMG	8
4.2.7	\$\$RCE^AGGPTDMG	9
4.2.8	FND^AGGPTLKP	9
4.2.9	\$\$CTRL^AGGUL1.....	9
4.2.10	\$\$DATE^AGGUL1.....	10
4.2.11	\$\$FMTE^AGGUL1.....	10
4.2.12	\$\$HRN^AGGUL1.....	10
4.2.13	\$\$SENS^AGGUL1.....	10
4.2.14	\$\$STC^AGGUL1	10
4.2.15	\$\$TKO^AGGUL1	11
4.2.16	\$\$TMPFL^AGGUL1.....	11
4.2.17	EML^AGGUL1	11
4.2.18	\$\$HRNL^AGGUL2.....	12
4.2.19	\$\$ISREQ^AGGUL2	12
4.2.20	\$\$QUANT^AGGUL2.....	12
4.2.21	PARS^AGGUPPVT	12
4.2.22	TBL^AGGUTB	13
4.2.23	\$\$TBL^AGGWDEF.....	13
4.2.24	\$\$MUL^AGGWDISP	13
4.2.25	LKP^AGGWTBLK.....	14
5.0	Files and Tables	15
5.1	File List	15
5.2	File Access	15

5.3	Cross References	15
5.4	Table File	16
5.4.1	9009068.3 AGG WINDOW DEFINITION	16
5.4.2	9009068.5 AGG ERROR CODES	19
5.4.3	9009068.6 AGG REPORTS	19
5.5	Callable Routines	20
5.6	Published Entry Points	22
6.0	Internal Relations	23
7.0	External Relations	24
7.1	External Calls	24
7.2	Exported Options	26
8.0	Archiving and Purging	27
9.0	Documentation Resources	28
9.1	%INDEX Option	28
9.2	List File Attributes Option	28
10.0	SAC Requirements/Exemptions	30
11.0	Templates, Forms, and Protocols	31
11.1	Print Templates	31
11.2	Sort Templates	31
11.3	Input Templates	31
11.4	List Templates	31
11.5	Forms	31
11.6	Protocols	31
12.0	Patient Registration GUI Windows Client	32
12.1	Description of Development Environment	32
12.2	Patient Registration Windows Client–Install Program Files	32
12.3	Windows Client–List of Object Classes	35
13.0	Accessibility Checklist	43
	Glossary	49
	Contact Information	51

1.0 Introduction

The Patient Registration Graphical User Interface (GUI) software, known as AGG, is a component of the Indian Health Service (IHS) Resource and Patient Management System (RPMS) that provides the ability to enter RPMS registration data via a GUI interface. This manual provides IHS site managers with a technical description of the Patient Registration GUI (AGG) routines, files, menus, cross references, globals, and other necessary information required to effectively manage the system.

All routines, files, options, and keys are namespaced starting with the letters AGG. The file number range for this package is 9009068.3–9009068.3.

2.0 Implementation and Maintenance

The Patient Registration GUI package is designed to work with RPMS through a stand-alone Windows GUI application. This application provides a new user interface to the pre-existing Patient Registration system in the AG namespace.

The GUI Patient Registration interface was designed to allow use concurrently with the current AG Patient Registration package, and has handling for patient record locking where appropriate to avoid save contention issues.

The first version of the Patient Registration GUI does not include 100% of the existing Patient Registration Module functionality, and therefore some functions will still need to be performed through the original character-based interface. These functions are expected to be added in future versions.

2.1 General Information

The following table shows the prerequisite patch requirements.

Package and Version	Associated Patch Designation(s)	Brief Patch Description
Patient Registration (AG)	AG*7.1*8	
BMXNet (BMX)	BMX 4.0	

2.2 System Requirements

Module	Minimum Version	Recommended Version
VA FileMan (DI)	v22.0 Patch 1002	
VA Kernel (XU)	v8.0 Patch 1015	
BMXNet (BMX)	V4.0	v4.0
IHS/VA Utilities (XB)	v3.0 through Patch 11	
Patient Information Management System (PIMS)	v5.3 through Patch 1009	v5.3 through Patch 1011
Patient Registration (AG)	v7.1 through Patch 8	
AUPN Dictionaries/Patient	v99.1 patch 20	v99.1 Patch 21

2.3 Package-Wide Variables

There are no package-wide AGG variables in RPMS.

2.4 Security Keys

There are no specific AGG namespaced security keys. Patient Registration GUI follows the standard AG security keys functionality

3.0 Menu Diagram

There are no new menus in the Patient Registration package. Patient Registration GUI is meant to be a stand-alone GUI interface to RPMS.

4.0 Routines

4.1 Routines with Description

Routine	Description
AGGPRE1	Preinstallation program
AGGAGE	This program returns a patient's age in one of two formats.
AGGARVAL	This program contains special validation checks for the Alternate Resources tab.
AGGCMTCH	This program is copied from the Community Report to be used by the GUI.
AGGDCTRG	This program contains special triggers for the Documents tab.
AGGDCUPD	This program saves the data from the Documents tab.
AGGEDCHK	This program calls the registration edit checks.
AGGELCHK	This program is copied from the eligibility check and is used to validate eligibility information in the GUI.
AGGETRIG	This program contains special triggers for the Eligibility tab.
AGGFMTRG	This program contains special triggers for the Family Member and Contacts tabs.
AGGFTVAL	This program contains special validation checks for the Family/Tribal/NOK tab.
AGGINSUR	This program retrieves specific information about a selected insurance company or all insurance companies.
AGGLOCK	This program locks and unlocks a patient in the GUI if the patient's data is being edited.
AGGMCTRG	This program contains special triggers for Medicare.
AGGMLUPD	This program is a generic filer for a FileMan multiple.
AGGNTEG	This program is the package checksum checker.
AGGPALTR	This program contains special Alt Resources field handling.
AGGPOLCY	This program contains RPCs to retrieve and update private insurance policy members.
AGGPOTH	This program contains special Other Patient Data field handling.
AGGPTADD	This program adds a newly registered patient.
AGGPTDMG	This program is a generic data retrieval for data that is found in a multiple or for data that is found in a many to one situation.
AGGPTHNR	This program calculates and returns a temporary HRN number.
AGGPTLKP	This is the special patient lookup program for the patient registration GUI.
AGGPTNAM	This program is the filer for both aliases and other legal names.
AGGPTNEW	This program contains triggers for adding a new patient.
AGGPTPVI	This program contains special Policy Holder triggers and lookups.
AGGPTPVT	This program builds the private insurance data display.
AGGPTRGO	This program contains triggers for the Other Patient Data tab.
AGGPTSEN	This program contains RPCs to check for a sensitive patient and to send a notification if some accesses a sensitive record.

Routine	Description
AGGPTSSN	This routine creates a pseudo Social Security Number.
AGGPTTRG	This routine contains triggers for the Patient Detail tab.
AGGPTUPD	This routine is the filer for patient data in File 2 and File 9000001.
AGGRFCE	This routine calls the Face Sheet report.
AGGRFCRQ	This routine is called from the Face Sheet to check on missing required fields.
AGGRPAT	This routine retrieves and saves the list of a user's most recently accessed patients.
AGGRPRT	This routine is the Daily Activation Report.
AGGRPRT1	This routine is a continuation of the Daily Activation Report.
AGGRPRT2	This routine is a continuation of the Daily Activation Report.
AGGRPDP	This routine is the Potential Duplicate Patient Report.
AGGRRPT	This routine builds the list of reports for the GUI to display.
AGGUL1	This routine contains miscellaneous AGG utilities.
AGGUL2	This routine contains miscellaneous AGG utilities.
AGGULSC	This routine checks for users having a specified security key.
AGGUPMCD	This routine is the filer for Medicaid.
AGGUPMCR	This routine is the filer for Medicare.
AGGUPPVT	This routine is the filer for Private Insurance.
AGGUTB	This routine contains table utilities.
AGGVER	This routine tracks the version of the software, both RPMS and GUI.
AGGWCHC	This routine returns 'Choice' values for a GUI window definition.
AGGWDEF	This routine returns how a GUI window is defined.
AGGWDISP	This routine is a generic routine that builds a GUI window display.
AGGWOTH	This routine contains other GUI window RPCs.
AGGWTLK	This routine contains GUI window table lists and table lookups.
AGGWTRIG	This routine contains generic GUI window triggers.
AGGWVAL	This routine contains GUI window validations.

4.2 Function List

4.2.1 \$\$AGE^AGGAGE

This program is copied from the computed AGE field (2,.033) that calculates the age of a person based on their date of birth(DOB) and either the current date (DT) or their date of death (DOD). It has been modified to use another date passed into this function instead of just the previous two dates, DT and DOD (i.e., age as of the date passed). A qualifier may also be passed indicating that years (YRS), days (DYS), and months (MOS) should be returned.

- Input Parameter Description:
 - D0: Patient IEN
 - PDATE: Other date to compare against patient's DOB
 - QUAL: Include qualifier (YRS, DYS, MOS)
- Output Description:
 - Patient's age

4.2.2 EN^AGGELCHK

This program evaluates the input parameters to determine if the patient has eligibility. If patient is not eligible a message indicating the reason is generated.

- Input Parameter Description:
 - AGB Classification/Beneficiary
 - AGTP Tribe of Membership
 - AGQT Tribe Quantum
 - AGQI Indian Blood Quantum
 - AGEL Eligibility Status

4.2.3 GET^AGGINSUR

This program returns information from the Insured table (9999999.18). It returns the whole table or information on a specific Insured IEN.

- Input Parameter Description:
 - INIEN: Insured IEN
- Output Description:
 - Insured IEN
 - Name
 - Street
 - City
 - State
 - ZIP
 - Phone
 - Status
 - Type

4.2.4 RET^AGGINSUR

This program returns information from the Insured table (9999999.18). It returns information on a specific Insured IEN.

- Input Parameter Description:
 - INIEN: Insured IEN
- Output Description:
 - Insured IEN
 - Name
 - Street
 - City
 - State
 - ZIP
 - Phone
 - Status
 - Type

4.2.5 COMM^AGGPTADD

This program files two fields for the patient in file (9000001.51).

- Input Parameter Description:
 - DFN: Patient IEN
 - AGGPTCDT: Date for date added to file
 - AGGPTCOM: COMMUNITY OF RESIDENCE

4.2.6 \$\$ETHN^AGGPTDMG

This program retrieves the patient's ethnicity information.

- Input Parameter Description:
 - DFN: Patient IEN
 - FLD: Which field to output
- Output Description:
 - Patient's Ethnicity Information

4.2.7 **\$\$RCE^AGGPTDMG**

This program retrieves the patient's race information.

- Input Parameter Description:
 - DFN: Patient IEN
 - FLD: Which field to output
- Output Description:
 - Patient's Ethnicity Information

4.2.8 **FND^AGGPTLKP**

This program finds a set of patients based on the search criteria.

- Input Parameter Description:
 - TEXT: Search text which can include name, SSN, HRN, etc.
 - TYPE: Search type, a code indicating which type of search
 - ALL: If blank, search by users division, if '1,' search all divisions
- Output Description:
 - Patient's IEN
 - Patient's Name
 - HRN
 - SSN
 - DOB
 - DOD
 - Sensitive flag
 - Alias

4.2.9 **\$\$CTRL^AGGUL1**

This program removes all control characters from the string.

- Input Parameter Description:
 - X: Text String
- Output Description:
 - A Text string without control characters.

4.2.10 **\$\$DATE^AGGUL1**

This program converts standard date/time into FileMan date time format.

- Input Parameter Description:
 - DATE: Date
- Output Description:
 - FileMan Date

4.2.11 **\$\$FMTE^AGGUL1**

Convert Fileman Date/Time to 'MMM DD,CCYY HH:MM:SS' format.

- Input Parameter Description:
 - Y: FileMan Date / Time
- Output Description:
 - Formatted date /time

4.2.12 **\$\$HRN^AGGUL1**

This program returns the patient's health record number.

- Input Parameter Description:
 - DFN: Patient IEN
- Output Description:
 - Health Record number for the user's default facility.

4.2.13 **\$\$SENS^AGGUL1**

This program returns a flag indicating if the patient is a sensitive patient or not.

- Input Parameter Description:
 - DFN: Patient IEN
- Output Description:
 - Flag if patient is sensitive or not

4.2.14 **\$\$STC^AGGUL1**

This program returns value for a set of input values.

- Input Parameter Description:
 - FI: FileMan File Number
 - FLD: FileMan Field Number
 - VAL: Code Value
- Output Description:
 - Value

4.2.15 **\$\$TKO^AGGUL1**

This program removes all special characters from the end of the string.

- Input Parameter Description:
 - STR: String of data
 - VAL: Special character to remove
- Output Description:
 - String without trailing special characters.

4.2.16 **\$\$TMPFL^AGGUL1**

This program is to control the temporary file designed for use when converting report text to RPC data strings. Note that UID and DFN are components of the file name.

- Input Parameter Description:
 - MODE(Required)–'R'(Read),'W'(Write),'C'(Close),'D'(Delete)
 - UID(Req'd for modes D,R,W)–Job identifier
 - DFN(Req'd for modes D,R,W)–Patient IEN
- Output Description:
 - Success indicator.

4.2.17 **EML^AGGUL1**

This program updates the patient's previous e-mail addresses.

- Input Parameter Description:
 - DFN: Patient IEN

4.2.18 **\$\$HRNL^AGGUL2**

This program returns a list of all existing HRN(s) for a given patient.

- Input Parameter Description:
 - DFN: Patient IEN
- Output Description:
 - A list of a patient's HRN(s).

4.2.19 **\$\$ISREQ^AGGUL2**

This routine indicates if the file field combination is required.

- Input Parameter Description:
 - FILE: FileMan File
 - FIELD: FileMan Field
- Output Description:
 - Indicator that this field is required or not.

4.2.20 **\$\$QUANT^AGGUL2**

This program performs quantum blood checks.

- Input Parameter Description:
 - AGGPTBLQ: Indian Blood Quantum
 - AGGPTTRQ: Tribal Blood Quantum
 - OTHTOT: Other Tribe Blood Quantum (Totals including new entry)
- Output Description:
 - Indicator if successful or not and an error message if not.

4.2.21 **PARS^AGGUPPVT**

This routine parses a string of parameters into the individual parameters and the values that parameter is being set to.

- Values that are needed:
 - PARMs: String of parameters and values
 - AGIEN: AGG Window Definition IEN
- Output Description:

- A set of individual parameters with their values.

4.2.22 TBL^AGGUTB

This program returns the values for a table.

- Input Parameter Description:
 - FILE: FileMan file number where table resides
 - INAC : If file has an inactive field to check, contains the node and piece in 'NODE;PIECE' format IEN
- Output Description:
 - The values contained within the given table.

4.2.23 \$\$TBL^AGGWDEF

This program gets the IEN associated with a specific table value

- Input Parameter Description:
 - FILE: FileMan file number
 - VALUE: Value within the table
- Output Description:
 - IEN and VALUE combination

4.2.24 \$\$MUL^AGGWDISP

This program returns most recent (last entered) data from a multiple (repeating subfield).

- Input Parameter Description:
 - FILE: FileMan File Number
 - TFLD: Top level field number that references the lower fields
 - LFLD: Lower level field number where data resides
 - DFN: Patient IEN
 - VAL: "I" for internal value, "E" for external value, "B" for both (pair) value, "D" for dates
- Output Description:
 - Most recent data.

4.2.25 LKP^AGGWTBLK

This is the AGG window table look up API

- Input Parameter Description:
 - FNBR: File number to look up value
 - VALUE: Value to look up in File number
 - SCREEN: If this table has special screening logic
- Output Description:
 - Returns a list of matches for the VALUE

5.0 Files and Tables

5.1 File List

File #	Filename	Description
9009068.3	AGG WINDOW DEFINITION	This file contains definitions on each of the GUI windows used by Patient Registration GUI. It includes definitions on where to file data and where to retrieve data from.
9009068.5	AGG ERROR CODES	This file contains a list of matching errors codes in RPMS Patient Registration and maps them to a GUI window.
9009068.6	AGG REPORTS	The file sets up the list of reports used by the Patient Registration GUI.

5.2 File Access

File #	Filename	Global	RD	WR	LYG	DD	DEL
900906 8.3	AGG WINDOW DEFINITION	^AGG(9009068 .3,	@	@	@	@	@
900906 8.5	AGG ERROR CODES	^AGG(9009068 .5,	@	@	@	@	@
900906 8.6	AGG REPORTS	^AGG(9009068 .6,	@	@	@	@	@

5.3 Cross References

9009068.3 (AGG Window Definition)

- .01 File Name
B Regular type cross reference
- .02 File Number
C Regular type cross reference
- .06 Group
D Regular type cross reference
- .08 Sub-Definition To
ASUB Regular type cross reference
- .15 Shortcut Key
AD Regular type cross reference

10 Display Columns

- .01 Display Column Name
 - B Regular type cross reference
- .05 Display Order
 - C Regular type cross reference
- .06 Sort Order
 - D Regular type cross reference
- .07 Code
 - AC Regular type cross reference
 - AC Regular type cross reference by whole file
- 3.01 FMAN Field
 - AD Regular type cross reference
- 3.03 Record IEN
 - AE Regular type cross reference
- 3.05 Grid Display Order
 - AF Regular type cross reference
- 3.07 Secondary FMAN Field
 - AG Regular type cross reference

9009068.5 (AGG Error Codes)

- .01 Number
 - B Regular type cross reference

9009068.6 (AGG Reports)

- .01 Report Name
 - B Regular type cross reference

5.4 Table File**5.4.1 9009068.3 AGG WINDOW DEFINITION**

Global: ^AGG(9009068.3,

Field #	Field Name	Subscript	Piece	Type
.001	NUMBER			N
.01	FILE NAME	D0,0	1	F
.02	FILE NUMBER	"	2	F
.03	ACTIVE/INACTIVE	"	3	S
.04	DISPLAY RPC CALL	"	4	F
.05	NON-DISPLAY	"	5	S
.06	GROUP	"	6	S
.07	SUB-DEFINITION	"	7	S
.08	SUB-DEFINITION TO	"	8	P

Field #	Field Name	Subscript	Piece	Type
.09	REFUSAL FILE NUMBER	"	9	F
.1	SUB-FILE NUMBER	"	10	F
.11	SUB-FIELD NUMBER	"	11	F
.12	ADD/EDIT RPC CALL	"	12	F
.13	INITIAL TRIGGER RPC CALL	"	13	F
.14	SECONDARY FILE NUMBER	"	14	F
.15	SHORTCUT KEY	"	15	F
1	SUB-EXECUTABLE	D0,1		K
2.02	DELETE RPC CALL	D0,2	1	F
3	DISPLAY RPC PARAMETER LIST	D0,3,D1,0		
.01	DISPLAY RPC PARAMETER	"	1	F
.02	DISPLAY RPC PARAMETER TYPE	"	2	S
.03	DISPLAY RPC PARAMETER ORDER	"	3	N
4	ADD/EDIT RPC PARAMETER LIST	D0,4,D1,0		
.01	ADD/EDIT RPC PARAMETER	"	1	F
.02	ADD/EDIT RPC PARAMETER TYPE	"	2	S
.03	ADD/EDIT RPC PARAMETER ORDER	"	3	N
5	INIT TRIG RPC PARAMETER LIST	D0,5,D1,0		
.01	INIT TRIG RPC PARAMETER	"	1	F
.02	INIT TRIG RPC PARAMETER TYPE	"	2	S
.03	INIT TRIG RPC PARAMETER ORDER	"	3	N
6	DELETE RPC PARAMETER LIST (Multiple-9009068.37), [6;0]			
.01	DELETE RPC PARAMETER	"	1	F
.02	DELETE RPC PARAMETER TYPE	"	2	S
.03	DELETE RPC PARAMETER ORDER	"	3	N
8.01	VALIDATION RPC	D0,8	1	F
10	DISPLAY COLUMNS	D0,10,D1,0		
.01	DISPLAY COLUMN NAME	"	1	F
.02	INTERNAL COLUMN NAME	"	2	F
.03	COLUMN SIZE	"	3	N
.04	COLUMN TYPE PEND	"	4	S
.05	DISPLAY ORDER	"	5	N
.06	SORT ORDER	"	6	N

Field #	Field Name	Subscript	Piece	Type
.07	CODE	"	7	F
.08	TRIGGER	"	8	S
.09	TRIGGER RPC	"	9	F
.1	TRIGGER CODES	"	10	F
.11	INACTIVE	"	11	S
.12	COLUMN TYPE VIEW	"	12	S
.13	SORT DIRECTION	"	13	S
.14	NEW GROUP	"	14	S
1.01	CODE TYPE	D0,10,D1,1	1	S
1.02	CODE UPPER	"	2	F
1.03	CODE LOWER	"	3	F
1.04	CODE DEFAULT	"	4	F
1.05	CODE ACTION	"	5	S
1.06	CODE REQ/OPT	"	6	S
1.07	CODE EXCLUSION	"	7	F
1.08	MULTIPLE REFERENCE	D0,10,D1,1	8	P
1.09	UNIQUE	"	9	S
1.1	LINK COLUMN CODE	"	10	F
1.11	NO SAVE FLAG	"	11	S
1.12	CASE	"	12	S
2.01	CODE VALIDATION	D0,10,D1,2	1	F
2.02	CODE VALID INPUT	"	2	F
2.03	CODE TABLE	"	3	F
2.04	CODE TABLE LOOKUP	"	4	S
2.05	PROVIDER SCREEN	"	5	S
2.06	TABLE PRELOAD	"	6	S
2.07	DECIMAL PLACES	"	7	F
2.08	ALTERNATE DISPLAY	"	8	F
2.09	TABLE LOOKUP TYPE	"	9	S
3.01	FMAN FIELD	D0,10,D1,3	1	F
3.02	RETRIEVAL FLAG	"	2	S
3.03	RECORD IEN	"	3	S
3.04	GROUP NAME	"	4	F
3.05	GRID DISPLAY ORDER	"	5	N
3.06	ALTERNATE HELP TEXT	"	6	F
3.07	SECONDARY FMAN FIELD	"	7	F
4	TRANSFORM	D0,10,D1,4		K
5	CHOICES (90506.315)			
.01	CHOICES TEXT	D0,10,D1,5,D2,0	1	F

Field #	Field Name	Subscript	Piece	Type
.02	CHOICES CODES	"	2	F
.03	VALIDATION	"	3	S
.04	HELP ASSOC WITH	"	4	F
.05	INACTIVE	"	5	S
.06	ORDER	"	6	N
1	HELP TEXT (90506.3151)			
.01	HELP TEXT	D0,10,D1,5,D2,1,D3,0	1	W
6	TABLE SCREEN	D0,10,D1,6	1	F
7	CODE EDIT	D0,10,D1,7		K
8	CODE DISPLAY EXEC	D0,10,D1,8		K
9.01	LINK RPC	D0,10,D1,9	1	F
9.02	LINK INPUT	"	2	F
10	CLEAR FIELDS (90506.32)			
.01	CLEAR FIELDS		1	F

5.4.2 9009068.5 AGG ERROR CODES

Global: ^AGG(9009068.5,

Field #	Field Name	Subscript	Piece	Type
.01	NUMBER	D0,0	1	N
.02	GUI WINDOW	"	2	P
.03	GUI FIELD	"	3	F
.04	GUI TAB	"	4	F
.05	GUI SHORTCUT KEY	"	5	F
1	GUI TEXT	D0,1,D1,0		
.01	GUI TEXT	"	1	W

5.4.3 9009068.6 AGG REPORTS

Global: ^AGG(9009068.6,

Field #	Field Name	Subscript	Piece	Type
.01	REPORT NAME	D0,0	1	F
.02	RPC NAME	"	2	F
.03	DEFINITION	"	3	P
.04	INACTIVE	"	4	S
.05	DISPLAY	"	5	S

Field #	Field Name	Subscript	Piece	Type
.06	TYPE	"	6	S
.07	NO PARAMETER	"	7	S
.08	TAXONOMY CHECK	"	8	F

5.5 Callable Routines

The following table lists the remote procedures used by the Patient Registration GUI and the associated tag and routine called by the remote procedure. These tags and routines are considered callable entry points available through the GUI interface.

Name	Tag	Routine
AGG ACKNOWLEDGE TRIGGER	ACK	AGGDCTRG
AGG ADD NEW PATIENT	ADD	AGGPTADD
AGG ALT RES AOB TRG	AOB	AGGPALTR
AGG BUILD PRIVATE INS	BLD	AGGPTPVT
AGG BUILD WINDOW DISPLAY	BLD	AGGWDISP
AGG BUILD WINDOW MANY	MANY	AGGPTDMG
AGG BUILD WINDOW MULTIPLE	MUL	AGGPTDMG
AGG CHECK DIVISION	REG	AGGVER
AGG CHECK SENSITIVE PATIENT	CHK	AGGPTSEN
AGG CITY COMMUNITY TRIGGER	CTY	AGGWTRIG
AGG COMMUNITY REPORT	EN	AGGCMTCH
AGG COMMUNITY TRIGGER	COMM	AGGWTRIG
AGG DAILY REG ACTIVITY REPORT	EN	AGGRPRT
AGG DAILY REPORT	EN	AGGRPRT
AGG DATE MOVED TRIGGER	DTM	AGGWTRIG
AGG DELETE POLICY MEMBER	DEL	AGGPOLCY
AGG DOCUMENTS TRIGGER	DOC	AGGDCTRG
AGG DUP PAT REPORT	EN	AGGRPTDP
AGG EC RELATION TRIGGER	ECREL	AGGFMTRG
AGG ELIGIBILITY VALID	EN	AGGELCHK
AGG EMER CONTACT TRIGGER	EC	AGGFMTRG
AGG ERROR SCREEN	FND	AGGEDCHK
AGG GET INSURANCE DATA	GET	AGGINSUR
AGG GET PAT LIST	GET	AGGRPAT
AGG GET POLICY MEMBERS	EN	AGGPOLCY
AGG GET PSEUDO SSN	GTMP	AGGPTSSN
AGG GET TABLE	TAB	AGGUTB

Name	Tag	Routine
AGG GET TEMP PAT HRN	GTMP	AGGPTHRN
AGG GET WINDOW CHOICE	EN	AGGWCHC
AGG GET WINDOW DEF TABLE	TAB	AGGWTBLK
AGG GET WINDOW DEFINITION	EN	AGGWDEF
AGG HOLDER DATES	DATE	AGGPOLCY
AGG HOMELESS TRIGGER	HSTS	AGGPTRGO
AGG HSHLD INCOME TRIGGER	HINC	AGGPTRGO
AGG INSUR GROUP TRIGGER	GRP	AGGWTRIG
AGG INSUR INITIAL TRIG	INIT	AGGPTPVI
AGG INTERNET ACCESS TRIGGER	INTR	AGGPTRGO
AGG LOCK PATIENT	LOCK	AGGLOCK
AGG LOOKUP INSURANCE	INS	AGGPTPVI
AGG LOOKUP PATIENTS	FND	AGGPTLKP
AGG MEDICAID INIT TRIG	INIT	AGGARVAL
AGG MEDICAID TRIGGER	TRIG	AGGUPMCD
AGG MEDICARE ELIG TRIGGER	ELG	AGGMCTRG
AGG MEDICARE ELIG VAL	VAL	AGGARVAL
AGG MEDICARE PART D TRIGGER	ECCOV	AGGMCTRG
AGG MEDICARE ROI TRIGGER	ROI	AGGUPMCR
AGG MEDICARE TRIGGER	TRIG	AGGUPMCR
AGG MEMBER TRIGGER	MBTR	AGGPOLCY
AGG MIGRNT TRIGGER	MSTS	AGGPTRGO
AGG NEW PATIENT TRIGGER	INIT	AGGPTNEW
AGG NEXT OF KIN TRIGGER	NK	AGGFMTRG
AGG NK RELATION TRIGGER	NKREL	AGGFMTRG
AGG NPP TRIGGER	NPP	AGGDCTRG
AGG OTH PAT ETH TRG	ETH	AGGPTRGO
AGG OTH PAT PRM TRG	PLNG	AGGPTRGO
AGG OTH TRB INIT TRIG	INITOTH	AGGETRIG
AGG OTHER PATIENT INIT TRG	INIT	AGGPTRGO
AGG PAT EMPL STATUS TRIGGER	EMP	AGGPTTRG
AGG PAT SSN TRIGGER	SSN	AGGPTTRG
AGG PATIENT EDIT CHECK	CHK	AGGEDCHK
AGG PATIENT ELIG TRIGGER	INIT	AGGETRIG
AGG PATIENT FACE SHEET	EN	AGGRFCE
AGG PATIENT INT ACC METH	INTAM	AGGPOTH
AGG PATIENT LANGUAGES	LANG	AGGWOTH
AGG PERSONAL DETAIL TRIGGER	INIT	AGGPTTRG
AGG POLICY HOLDER LOOKUP	POL	AGGPTPVI

Name	Tag	Routine
AGG POLICY HOLDER PAT TRIG	PTN	AGGPTPVI
AGG POLICY HOLDER PATIENT	PAT	AGGPTPVI
AGG POLICY HOLDER SAME TRIG	SAM	AGGPTPVI
AGG POLICY HOLDER TRIGGER	EN	AGGPTPVI
AGG POLICY MEMBER NUMBER TRIG	MEM	AGGWTRIG
AGG POLICY MEMBER TRIGGER	INIT	AGGPOLCY
AGG QUANTUM VALIDATION	QNT	AGGFTVAL
AGG REPORT LIST	EN	AGGRRPT
AGG SAVE PAT LIST	SAVE	AGGRPAT
AGG SEND SENSITIVE NOTIFY	NOT	AGGPTSEN
AGG UNLOCK PATIENT	UNLOCK	AGGLOCK
AGG UPDATE A MULTIPLE RECORD	UPD	AGGMLUPD
AGG UPDATE ALIASES	ALIAS	AGGPTNAM
AGG UPDATE DOCUMENTS	UPD	AGGDCUPD
AGG UPDATE LEGAL NAMES	LEGL	AGGPTNAM
AGG UPDATE MEDICAID	UPD	AGGUPMCD
AGG UPDATE MEDICARE	UPD	AGGUPMCR
AGG UPDATE PATIENT	UPD	AGGPTUPD
AGG UPDATE POLICY MEMBER	UPOL	AGGPOLCY
AGG UPDATE PRIVATE INSUR	UPD	AGGUPPVT
AGG UPDATE SPECIAL MULTIPLES	UPD	AGGPOTH
AGG VALIDATE KEY	KEYCHK	AGGULSC
AGG VALIDATE MCD ELIG	MCDELG	AGGARVAL
AGG VERSION INFO	EN	AGGVER
AGG VET CLAIM TRIGGER	CLM	AGGWTRIG
AGG VETERAN TRIGGER	VET	AGGWTRIG
AGG WINDOW DATA VALIDATION	VAL	AGGWVAL
AGG WINDOW TABLE LOOKUP	LKP	AGGWTBLK

5.6 Published Entry Points

Patient Registration GUI has no callable published entry points at this time.

6.0 Internal Relations

All functions within this application work independently but are dependent on the normal Patient Registration module (AG).

There are no documented internal relations in AGG.

7.0 External Relations

7.1 External Calls

Routine	is Invoked by:
^%DT	AGGRPRT,AGGUL1
DD^%DT	AGGRPRT1,AGGRPRT2
NOW^%DTC	AGGRPRTDP
^%ZISC	AGGRPRT1
\$\$DEFDIR^%ZISH	AGGUL1
\$\$DEL^%ZISH	AGGUL1
\$\$PWD^%ZISH	AGGUL1
CLOSE^%ZISH	AGGUL1
OPEN^%ZISH	AGGUL1
^%ZTER	AGGARVAL, AGGCMTCH, AGGDCTRG, AGGEDCHK, AGGELCHK, AGGFMTRG AGGFTVAL, AGGINSUR, AGGLOCK, AGGMCTRG, AGGMLUPD, AGGPALTR AGGPOTH, AGGPTLKP, AGGPTPVI, AGGPTPVT, AGGPTRGO, AGGPTSEN AGGPTTRG, AGGPTUPD, AGGRFCE, AGGRPAT, AGGRPRT, AGGRPRTDP
AGGRRPT, AGGUTB, AGGVER, AGGWCHC, AGGWDEF, AGGWDISP, AGGWOTH	AGGWTBLK, AGGWTRIG, AGGWVAL
CHKRHI^AG	AGGRFCE
CTR^AG	AGGCMTCH, AGGRPRT, AGGRPRT1, AGGRPRT2
NOW^AG	AGGRPRT, AGGRPRT1
\$\$AETH^AGAPIPAT	AGGPTUPD
\$\$DETH^AGAPIPAT	AGGPTUPD
ARACE^AGAPIPAT	AGGPTUPD
DRACE^AGAPIPAT	AGGPTUPD
LOADCAT^AGCAT	AGGPTDMG
^AGDATCK	AGGEDCHK, AGGRFCE
\$\$CHKDEATH^AGEDERR	AGGRPRTDP
EDITCHEK^AGEDERR	AGGEDCHK
FETCHER^AGEDERR	AGGEDCHK
START^AGFACE	AGGRFCE
\$\$AGE^AGGAGE	AGGWTRIG, AGGWVAL
DTEME^AGGARVAL	AGGWVAL
DTEMS^AGGARVAL	AGGWVAL
EN^AGGELCHK	AGGWVAL
GET^AGGINSUR	AGGPTPVT
RET^AGGINSUR	AGGUL2
COMM^AGGPTADD	AGGPTUPD
\$\$ETHN^AGGPTDMG	AGGPTRGO
\$\$RCE^AGGPTDMG	AGGPTRGO
FND^AGGPTLKP	AGGPTPVI
^AGGRFCRQ	AGGRFCE
PRINT^AGGRPRT1	AGGRPRT
SCAN^AGGRPRT1	AGGRPRT
^AGGRPRT2	AGGRPRT
\$\$CTRL^AGGUL1	AGGCMTCH, AGGRFCE
\$\$DATE^AGGUL1	AGGARVAL, AGGDCUPD, AGGMCTRG, AGGMLUPD, AGGPALTR, AGGPOLCY AGGPOTH, AGGPTADD, AGGPTLKP, AGGPTNAM, AGGPTSSN, AGGPTUPD AGGRPRT, AGGUPMCD, AGGUPMCR, AGGUPPVT, AGGWTRIG, AGGWVAL AGGARVAL, AGGDCTRG, AGGMCTRG, AGGPOLCY, AGGPOTH, AGGPTDMG AGGPTLKP, AGGPTPVI, AGGPTPVT, AGGUL1, AGGUL2, AGGUPMCD AGGUPMCR, AGGWDISP, AGGWOTH, AGGWTRIG, AGGWVAL
\$\$FMTE^AGGUL1	AGGPOLCY, AGGPTLKP, AGGPTTRG
\$\$HRN^AGGUL1	AGGPOLCY, AGGPTLKP, AGGPTTRG
\$\$SENS^AGGUL1	AGGPTLKP
\$\$STC^AGGUL1	AGGEDCHK, AGGINSUR

\$STKO^AGGUL1	AGGDCUPD , AGGMLUPD , AGGPOTH , AGGPTDMG , AGGPTLKP , AGGPTPVI
AGGPTPVT , AGGPTUPD , AGGRFCE , AGGUL1 , AGGUL2 , AGGUTB , AGGWCHC	AGGWDEF , AGGWDISP , AGGWOTH , AGGWTBLK , AGGWTRIG
\$\$TMPFL^AGGUL1	AGGCMTCH , AGGRFCE , AGGRPRT , AGGRPDP
EML^AGGUL1	AGGPTUPD
\$\$HRNL^AGGUL2	AGGPTLKP
\$\$ISREQ^AGGUL2	AGGWVAL
\$\$QUANT^AGGUL2	AGGFTVAL , AGGWVAL
PARS^AGGUPPVT	AGGPOLCY
TBL^AGGUTB	AGGWTBLK
\$\$TBL^AGGWDEF	AGGETRIG , AGGPTNEW
\$\$MUL^AGGWDISP	AGGPTRGO
LKP^AGGWTBLK	AGGPTPVI
HDR^AGGWTRIG	AGGARVAL , AGGUPMCD , AGGUPMCR
UP^AGGWTRIG	AGGARVAL , AGGUPMCD , AGGUPMCR
EP^AGINS	AGGPTDMG
^AGPATCNT	AGGRPRT , AGGRPRT1 , AGGRPRT2
^AGREPT2	AGGRPRT1
\$\$USED^AGUTILS	AGGUPMCD , AGGWVAL
CENTER^AGUTILS	AGGRPDP
WRAP^AGUTILS	AGGRPDP
^AGVAR	AGGEDCHK , AGGPALTR , AGGPTRGO
\$\$AGE^AUPNPAT	AGGAGE
EN^DDIOL	dd9009068.3 , dd9009068.31
PSEU^DGRPDD1	AGGPTSSN
NOTICE^DGSEC4	AGGPTSEN
SENS^DGSEC4	AGGPTSEN
^DIC	AGGDCUPD , AGGPALTR , AGGPOLCY , AGGPTADD , AGGPTNAM , AGGUL1 AGGUPMCR , AGGUPPVT
\$\$FIND1^DIC	AGGPOTH , AGGPTADD , AGGPTDMG , AGGRFCE , AGGRPRT , AGGWCHC AGGWDEF , AGGWDISP , AGGWOTH , AGGWTRIG
FIND^DIC	AGGPTLKP , AGGPTPVI , AGGVER , AGGWTBLK
FILE^DICN	AGGDCUPD , AGGMLUPD , AGGPOLCY , AGGPOTH , AGGPTADD , AGGPTNAM AGGUPMCD , AGGUPMCR , AGGUPPVT
DT^DICRW	AGGRPDP , AGGUTB , AGGWVAL
\$\$GET1^DID	AGGPTUPD , AGGUTB , AGGWTBLK
FIELD^DID	AGGPTPVI , AGGUL1 , AGGUL2 , AGGWDEF , AGGWDISP , AGGWTBLK
^DIE	AGGPTADD , AGGPTUPD
FILE^DIE	AGGDCUPD , AGGMLUPD , AGGPOLCY , AGGPOTH , AGGPTADD , AGGPTNAM AGGPTUPD , AGGUL1 , AGGUPMCD , AGGUPMCR , AGGUPPVT
UPDATE^DIE	AGGPOTH
WP^DIE	AGGDCUPD , AGGMLUPD , AGGPTADD , AGGPTUPD
^DIK	AGGPRE1 , AGGPTDEL , AGGPTNAM , AGGUPMCD
\$\$IENS^DILF	AGGDCUPD , AGGMLUPD , AGGPOLCY , AGGPOTH , AGGPTDMG , AGGPTNAM AGGPTPVT , AGGUL1 , AGGUPMCD , AGGUPMCR , AGGUPPVT , AGGVER AGGWCHC , AGGWDEF , AGGWDISP , AGGWOTH , AGGWTRIG , AGGWVAL AGGMLUPD , AGGPTDMG , AGGPTUPD , AGGUTB , AGGWDISP , AGGWTBLK
\$\$ROOT^DILFD	AGGUTB , AGGWTBLK
\$\$VFILE^DILFD	AGGUL1
\$\$FMTE^DILIBF	dd9009068.3 , dd9009068.31
^DIM	AGGARVAL , AGGDCTRG , AGGETRIG , AGGFMTRG , AGGLOCK , AGGMCTRG AGGPOLCY , AGGPOTH , AGGPTDMG , AGGPTLKP , AGGPTNEW , AGGPTPVI AGGPTPVT , AGGPTRGO , AGGPTTRG , AGGRPRT1 , AGGRPRT2 , AGGRRPT AGGUL1 , AGGUL2 , AGGUPMCR , AGGUTB , AGGVER , AGGWCHC , AGGWDEF AGGWDISP , AGGWOTH , AGGWTBLK AGGWTRIG , AGGWVAL
GETS^DIQ	AGGDCUPD , AGGMLUPD , AGGPOTH , AGGPTDMG , AGGPTPVT , AGGPTRGO AGGPTUPD , AGGWDISP , AGGWOTH
\$\$FORMAT^DPTNAME	AGGWTRIG , AGGWVAL
\$\$DT^XLFD	AGGLOCK
\$\$FMADD^XLFD	AGGLOCK , AGGRPAT
\$\$FMTE^XLFD	AGGCMTCH , AGGRPAT , AGGRPRT , AGGUL1
\$\$NOW^XLFD	AGGARVAL , AGGCMTCH , AGGDCTRG , AGGDCUPD , AGGEDCHK , AGGELCHK

	AGGFMTRG, AGGFTVAL, AGGINSUR, AGGLOCK, AGGMCTRG, AGGMLUPD
	AGGPALTR, AGGPOTH, AGGPTADD, AGGPTLKP, AGGPTPVI, AGGPTPVT
	AGGPTRGO, AGGPTSEN, AGGPTTRG, AGGPTUPD, AGGRFCE, AGGRPAT
	AGGRPRT, AGGRPTDP, AGGRRPT, AGGUPMCR, AGGUTB, AGGVER
	AGGWCHC, AGGWDEF, AGGWDISP, AGGWOTH
	AGGWTBLK, AGGWTRIG, AGGWVAL
STDNAME^XLFNAME	AGGWDISP
\$\$F^XLFNAME1	AGGPTADD, AGGPTLKP
\$\$REMDBL^XLFNAME1	AGGPTLKP
\$\$STRIP^XLFSTR	AGGARVAL, AGGCMTCH, AGGPTPVT, AGGRFCE, AGGRPRT, AGGRPTDP
	AGGUL1, AGGUL2, AGGWDISP, AGGWVAL
\$\$SUP^XLFSTR	AGGCMTCH, AGGPTDMG, AGGPTLKP, AGGWTRIG

Figure 7-1: Routines Not Marked As Entry Point

None of the generated taxonomy programs (CREATED BY ^ATXSTX) have EPs.		
PSEU^DGRPDD1	AGGPTSSN	VA routine
NOTICE^DGSEC4	AGGPTSEN	VA routine
SENS^DGSEC4	AGGPTSEN	VA routine
\$\$FORMAT^DPTNAME	AGGWTRIG, AGGWVAL	VA routine
STDNAME^XLFNAME	AGGWDISP	VA routine
\$\$F^XLFNAME1	AGGPTADD, AGGPTLKP	VA routine
\$\$REMDBL^XLFNAME1	AGGPTLKP	VA routine
Callable Routines - Published Entry Points		

Figure 7-2: START^AGFACE;PEP-Prints the Face Sheet from TaskMan

7.2 Exported Options

There are no exported menu options in Patient Registration GUI since the interface to this module is via GUI applications only. Therefore the only option is the option that allows for RPC calls.

Option Name	Description
AGGRPC	This option hosts RPCs in the AGG namespace.

8.0 Archiving and Purging

There is no archiving or purging in this package at this time.

9.0 Documentation Resources

This section describes a few methods to generate Patient Registration GUI system technical documentation.

9.1 %INDEX Option

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

Running %INDEX for a specified set of routines allows users 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 Patient Registration GUI package, type the **AGG*** namespace at the “Routine(s)?>” prompt.

9.2 List File Attributes Option

This VA FileMan option allows users 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

For a comprehensive listing of Care Management Event Tracking package files, see Section 6.0.

10.0 SAC Requirements/Exemptions

Patient Registration GUI has no SAC exemptions requested at this time.

11.0 Templates, Forms, and Protocols

11.1 Print Templates

There are no print templates in this package.

11.2 Sort Templates

There are no sort templates in this package.

11.3 Input Templates

There are no input templates in this package.

11.4 List Templates

There are no list templates in this package.

11.5 Forms

There are no forms in this package.

11.6 Protocols

There are no protocols in this package.

12.0 Patient Registration GUI Windows Client

12.1 Description of Development Environment

The Patient Registration GUI application was developed using the programming language C# within Microsoft Visual Studio 2008 IDE. Patient Registration GUI is written to utilize the MS .NET 2.0 framework. All new classes created for the Patient Registration GUI application exist within the namespace `IndianHealthService.PatientReg`.

In addition to the standard .NET object classes, the Patient Registration GUI application also uses commercially available Windows form controls from Infragistics. All the controls used were part of a package of controls named Infragistics NetAdvantage for Windows Forms 2009 Vol. 1.

In addition, the Patient Registration GUI application also utilizes the BMX version 4.0 software to facilitate security authentication and communication between the GUI Windows application and the RPMS server data. All data retrieval and updates are handled through the RPCs defined in the AGGRPC and BMXRPC namespaces.

All of the dynamic link library files (dll files) upon which Patient Registration GUI depend are delivered with the Patient Registration GUI application install package and are stored in the Patient Registration GUI program directory. The default Patient Registration GUI install directory is: `C:\Program Files\Indian Health Service\Patient Registration`. There are no Active-X/COM files installed or registered with the Patient Registration GUI application.

12.2 Patient Registration Windows Client–Install Program Files

A list of all files installed with the Patient Registration GUI application is given below. These files are installed into the main Patient Registration application folder, which defaults to `C:\Program Files\Indian Health Service\Patient Registration GUI {Version Number}`.

Filename	Assembly Version	Description
agg-PatientReg.exe	1.0.0.44	This is the main Patient Registration executable used to launch and run the application.

Filename	Assembly Version	Description
BMXNET40.dll	4.0.0.2	This is the windows dll portion of the BMX software released by IHS. The Patient Registration GUI application utilizes the 4.0 version of BMX.
BMXWIN40.dll	4.0.0.2	This is the windows dll portion of the BMX software released by IHS. The Patient Registration GUI application utilizes the 4.0 version of BMX.
agg-IHSControlLibrary1.dll	1.0.33.0	The iCareControlLibrary1 is a VS 2008 collection of custom UI controls used by the iCare client.
bqi-ultraGridToolBar.dll	1.0.3904.17809	The ultraGridToolBar is a custom VS 2008 UI control that handles the set of buttons for search, print, copy, and export to MS Excel on each datagrid in the application.
RichTextBoxPrintControl.dll	1.0.0.0	This class extends the RichTextBox control to allow for generation of formatted print documents in print preview and print to printer functions. Specifically, this is used to print character based reports pulled from RPMS and displayed in the application.
MAIN.ico		This is the main icon file.
Patient_Registration_v1.chm		Compiled html file that contains the online help for the application.

The files listed below are all part of a set of enhanced IU controls from Infragistics called NetAdvantage for Windows Forms Version 2009 Vol. 1.

Filename	Assembly Version	Description
Infragistics2.Documents.v9.1.dll	9.1.20091.2085	Infragistics Document Engine that allows export of PDF and XML formats
Infragistics2.Excel.v9.1.dll	9.1.20091.2085	This file contains helper classes that allow export to MS Excel format without requiring that MS Excel is installed on the client machine.
Infragistics2.Shared.v9.1.dll	9.1.20091.2085	This file contains general functions and types common to all of the Infragistics controls.
Infragistics2.Win.Misc.v9.1.dll	9.1.20091.2085	This is a set of other miscellaneous functions and datatypes used when working with the other Infragistics classes.

Filename	Assembly Version	Description
Infragistics2.Win.UltraWin CalcManager.v9.1.dll	9.1.20091.2085	This dll file contains functionality to allow definition of functions and calculations with the Win.UltraGrid enhanced datagrid class.
Infragistics2.Win.UltraWin Chart.v9.1	9.1.20091.2085	This dll file contains functionality used when charting patient measurements from PCC over time.
Infragistics2.Win.UltraWin DataSource.v9.1.dll	9.1.20091.2085	This dll file contains functionality to create manage datasources that can be used with the Win.UltraGrid, etc.
Infragistics2.Win.UltraWin Editors.v9.1.dll	9.1.20091.2085	This dll file contains enhanced UI input controls such as the calendar date picker and special comboboxes.
Infragistics2.Win.UltraWin Grid.ExcelExport.v9.1.dll	9.1.20091.2085	This file contains the classes used to handle export of information from UltraGrid datagrid to MS Excel format.
Infragistics2.Win.UltraWin Grid.v9.1.dll	9.1.20091.2085	The UltraGrid is an enhanced data-bound datagrid used to display tabular data to the user. This also allows users to sort, filter, arrange columns, and select rows of data at run-time.
Infragistics2.Win.UltraWin ListBar.v9.1.dll	9.1.20091.2085	The UltraWinListBar is used to aid with navigation to forms.
Infragistics2.Win.UltraWin ListView.v9.1.dll	9.1.20091.2085	The UltraWinListView is a user interface control to display lists of items.
Infragistics2.Win.UltraWin PrintPreviewDialog.v9.1.dll	9.1.20091.2085	This file contains classes to handle print preview windows for printable items with the application. Allows for zoom, page layout adjustments, etc.
Infragistics2.Win.UltraWin Schedule.v9.1.dll	9.1.20091.2085	This file contains classes for scheduling controls for uses such as calendar, week views and month views, etc.
Infragistics2.Win.UltraWin StatusBar.v9.1.dll	9.1.20091.2085	The UltraWinStatus bar provides the enhanced status bar used at the bottom of form to provide status text and row counts.
Infragistics2.Win.UltraWin TabbedMdi.v9.1.dll	9.1.20091.2085	The classes within this file provide a way to present multiple forms within a tabbed interface style.
Infragistics2.Win.UltraWin TabControl.v9.1.dll	9.1.20091.2085	The UltraWinTabControl provides an enhanced tab UI interface used on forms to present multiple pages of data.
Infragistics2.Win.UltraWin Toolbars.v9.1.dll	9.1.20091.2085	This file contains classes to handle the toolbars, menu and context menus within Windows forms.

Filename	Assembly Version	Description
Infragistics2.Win.UltraWinTree.v9.1.dll	9.1.20091.2085	The UltraWinTree allows presentation of data in a tree style layout where the user is able to drill down into categories of data.
Infragistics2.Win.v9.1.dll	9.1.20091.2085	This file contains classes used at a high level to control application-wide styles and appearances and interface with Windows XP themes, etc.

12.3 Windows Client–List of Object Classes

A list of the new object classes used within the Windows application is included below. All of the specified class names exist within the namespace IndianHealthService.PatientReg,

Class Name	Assembly	Description
AggWindowDisplay	Agg-PatientReg.exe	Generic display window class for the various display areas contained in the tab page areas.
AggWindowDisplayTypes	Agg-PatientReg.exe	Enumeration class for the different window display types used in the interface.
DAliasAdd	Agg-PatientReg.exe	This DAliasAdd class accepts a new alias name value from the user
DAltResourcesDetail	Agg-PatientReg.exe	The DAltResourcesDetail class displays Date of Signature, Release of Information, AOB date and Insurance (Medicaid, Medicare and Private Insurance views)
DChoiceDlg	Agg-PatientReg.exe	The DChoiceDlg class allows the user to select one or more selections in a generic dialog as a list of radio buttons or checkboxes
DDateofSignatureEdit	Agg-PatientReg.exe	The DDateofSignatureEdit class is used to gather Release of Information and AOB Dates.

Class Name	Assembly	Description
DDeathInformation	Agg-PatientReg.exe	The DDeathInformation class is used to display death information.
DDeathInformationEdit	Agg-PatientReg.exe	The DDeathInformationEdit class is used to gather death information.
DDisplayAllErrors	Agg-PatientReg.exe	The DDisplayAllErrors class is used to display all current errors for a selected patient. This is a form wrapper for DErrorChecks which provides the error information in a grid format.
DEmergencyContactNextofKinEdit	Agg-PatientReg.exe	The DEmergencyContactNextofKinEdit class is used to gather patient emergency contact and next of kin information.
DErrorChecks	Agg-PatientReg.exe	The DErrorCheck class is used to display all current errors for the selected patient.
DFamilyDetail	Agg-PatientReg.exe	The DFamilyDetail class is used to display family detail information.
DFamilyDetailEdit	Agg-PatientReg.exe	The DFamilyDetail class is used to gather family detail information.
DGenEdit	Agg-PatientReg.exe	The DGenEdit class is a table-driven dynamic data entry form that can be used to provide an interface to simpler RPMS data entry screens.
DGenEditForm	Agg-PatientReg.exe	This class simply provides a prewrapped DGenEdit control in a form with appropriate default form settings preconfigured.
DInputBox	Agg-PatientReg.exe	The DInputBox class provides a generic user input form. Updated in to allow masked input and encryption for electronic signature functionality.

Class Name	Assembly	Description
DInsuranceGroupByType	Agg-PatientReg.exe	The DInsuranceGroupByType is used to add a groupbox to insurances by type (Medicaid, Medicare and Private Insurance)
DInternetAccess	Agg-PatientReg.exe	The DOtherLanguagesAdd is used to gather internet access method for patient.
DLegalNames	Agg-PatientReg.exe	The DLegalNames class is used to display legal names information.
DLegalNamesAdd	Agg-PatientReg.exe	The DLegalNamesAdd class is used to gather new legal names information.
DLegalNamesEdit	Agg-PatientReg.exe	The DLegalNamesEdit class is used to edit existing legal names information.
DMedicaidEdit	Agg-PatientReg.exe	The DMedicaidEdit class is used to add/edit Medicaid information.
DMedicaidEligibilityEdit	Agg-PatientReg.exe	The DMedicaidEligibilityEdit class is used to add/edit Medicaid Eligibility information.
DMedicaidView	Agg-PatientReg.exe	The DMedicaidView class is used to display Medicaid information.
DMedicareEdit	Agg-PatientReg.exe	The DMedicareEdit class is used to add/edit Medicare information.
DMedicareEligibilityEdit	Agg-PatientReg.exe	The DMedicareEligibilityEdit class is used to add/edit Medicare Eligibility information.
DMedicareView	Agg-PatientReg.exe	The DMedicareView class is used to display Medicare information.
DMiniRegistration	Agg-PatientReg.exe	
DMsgBox	Agg-PatientReg.exe	The DMsgBox class provides a generic message box that displays a message to the user when the application is performing a task that must complete before the user can continue.

Class Name	Assembly	Description
DNextofKin	Agg-PatientReg.exe	The DNextofKin class is used to display next of kin information.
DNextofKinEdit	Agg-PatientReg.exe	The DNextofKinEdit class is used to gather next of kin information.
DOtherLanguagesAdd	Agg-PatientReg.exe	The DOtherLanguagesAdd is used to gather other languages used by patient.
DOtherPatientData	Agg-PatientReg.exe	The DOtherPatientData class is used to display other patient data information.
DOtherPatientDataEdit	Agg-PatientReg.exe	The DOtherPatientDataEdit class is used to gather other patient data information.
DOtherTribeAdd	Agg-PatientReg.exe	The DOtherTribeAdd class is used to gather other tribe information for tribal.
DPatientDemoEdit	Agg-PatientReg.exe	The DPatientDemoEdit class is used to gather patient demographic information.
DPatientDemographics	Agg-PatientReg.exe	The DPatientDemographics class is used to display other patient demographic information.
DPatientDupCheck	Agg-PatientReg.exe	The DPatientDupCheck class is used to present the user with a list of potential matches for a given set of patient demographics.
DPatientEmergencyContact	Agg-PatientReg.exe	The DPatientEmergencyContact class is used to display other patient emergency contact information.
DPatientEmergencyEdit	Agg-PatientReg.exe	The DPatientEmergencyEdit class is used to gather patient emergency contact information.
DPatientRegDocuments	Agg-PatientReg.exe	The DPatientRegDocuments class is used to display other patient documents information.

Class Name	Assembly	Description
DPatientRegDocumentsEdit	Agg-PatientReg.exe	The DPatientRegDocuments class is used to gather patient documents information.
DPatientRegMain	Agg-PatientReg.exe	The DPatientRegMain class provides the main form for the Patient Reg application. It currently contains a explorer bar and panel space to load patient data. Closing the main form will exit the application.
DPatientScan	Agg-PatientReg.exe	The DPatientScan class allows a user to select a patient from RPMS.
DPatientViewControl	Agg-PatientReg.exe	The DPatientViewControl class provides a form to allow the user to view and manage an individual patient. This form contains patient demographic data, tab control with Demographics/ER Contact, Family/Tribal/NOK, Alt Resources, Veternan/Documents, Other Patient Data and Reg Notes.
DPersonalDetailEdit	Agg-PatientReg.exe	The DPersonalDetailEdit class is used to gather other patient demographic information.
DPersonalDetails	Agg-PatientReg.exe	The DPersonalDetails class is used to display other patient demographic information.
DPrivateInsuranceEdit	Agg-PatientReg.exe	The DPrivateInsuranceEdit class is used to add/edit private insurance information.
DPrivateInsuranceMemberEdit	Agg-PatientReg.exe	The DPrivateInsuranceMemberEdit class is used to add/edit private insurance member information.

Class Name	Assembly	Description
DPrivateInsurancePatientScan	Agg-PatientReg.exe	The DPrivateInsurancePatientScan class allows a user to pick a patient while on the private insurance edit form.
DPrivateInsurancePolicyScan	Agg-PatientReg.exe	The DPrivateInsurancePolicyScan class allows a user to pick a policy holder while on the private insurance edit form.
DPrivateInsuranceView	Agg-PatientReg.exe	The DPrivateInsuranceView class is used to display private insurance information.
DRegisterPatient	Agg-PatientReg.exe	The DRegisterPatient class is used to provide the user dialog for adding a new patient to the system.
DRegNotes	Agg-PatientReg.exe	The DRegNotes class is used to display patient registration notes.
DRegNotesEdit	Agg-PatientReg.exe	The DRegNotesEdit class is used to gather patient registration notes.
DSearchText	Agg-PatientReg.exe	The DSearchText class allows users to search richtextbox controls to implement Find functionality
DSelectInsurance	Agg-PatientReg.exe	The DSelectInsurance class provides a form to allow users to select insurance from the RPMS system based on name searches.
DSelectPatient	Agg-PatientReg.exe	The DSelectPatient class provides a form to allow users to select patients from the RPMS system based on name, HRN, and DOB searches.
DSplash	Agg-PatientReg.exe	The DSplash class provides the initial splash screen displayed when starting the application to show startup progress and installed version.

Class Name	Assembly	Description
DTableLookup	Agg-PatientReg.exe	The DTableLookup class provides the ability for users to search for items for generic table search. This is implemented in support of the DGenEdit class for generic form generation.
DTextView	Agg-PatientReg.exe	The DTextView class provides the user the ability to view text detail such as visit detail, lab detail, etc. for review in the application.
DToast	Agg-PatientReg.exe	The DToast class provides the display of Notifications received by Patient Registration GUI displayed as a pop-up message that will appear and disappear like other MS notifications.
DTribalMembership	Agg-PatientReg.exe	The DTribalMembership class is used to display patient registration notes.
DTribalMembershipEdit	Agg-PatientReg.exe	The DTribalMembershipEdit class is used to gather patient registration notes.
DValAddRemove	Agg-PatientReg.exe	The DValAddRemove class allows users to select one or more values from RPMS tables
DVeteranInformation	Agg-PatientReg.exe	The DVeteranInformation class is used to display veteran information.
DVeteranInformationEdit	Agg-PatientReg.exe	The DVeteranInformationEdit class is used to gather veteran information.
LabelLookup	Agg-PatientReg.exe	The LabelLookup class is a custom user control implemented in DGenEdit for table lookups when the RPMS table is too big to display as a combobox

Class Name	Assembly	Description
PatientLookup	Agg-PatientReg.exe	The PatientLookup class is a custom user control implement in DPatientViewControl to allow users to do a patient search from the main menu.
PatientRegDocumentManager	Agg-PatientReg.exe	The PatientRegDocumentManager class provides the framework for RPMS session connectivity, authentication, and other sign-on tasks. It also serves as the main document controller for the application by managing a list of open patients, document locking, and logic to handle cleanup on application exit.
PtDocument	Agg-PatientReg.exe	The PtDocument class is the primary patient object based on the RPMS patient file
ToastHelper	Agg-PatientReg.exe	The ToastHelper class describes the arguments used for the event arguments when the user opens the Notifications form from the Notification window.
iCareUtilities	Agg-PatientReg.exe	The iCareUtilities class contains utility functions shared with the iCare application
ultraGridToolBar	bqi-ultraGridToolBar.exe	The ultraGridToolBar class is a Toolbar control that provides printing, exporting, copy, and search for a bound ultraGrid (Infragistics control).
MultiltemEditor	agg-IHSControlLibrary1.dll	This is a grid editing control that allow display/editing of multicolumn subrecord data within a single data entry form.
TabFormattedTextBox	agg-IHSControlLibrary1.dll	Custom user control for formatted text entry.

13.0 Accessibility Checklist

Indian Health Service (IHS) Section 508 36 CFR Part §1194.21 Software Applications and Operating Systems Checklist

Software application and version:	IHS Patient Registration Version 1.0		
Manufacturer/Contractor/Developer:	Vangent, Inc		
Tester:		Date:	Sept 2010

- **Fully Compliant (FC):** All instances are Fully Compliant
- **Non-Compliant (NC):** All instances are Noncompliant
- **Partially Compliant (PC):** Requires further explanation
- **Not Applicable (N/A):** Standard is not applicable to this application

Compliance is defined as meeting the requirement set forth in the Section 508 Technical Standards 36 CFR Part 1194, <http://www.access-board.gov/sec508/guide/>.

Any item not rated as fully compliant needs an explanation as to why the standard was not met. Enter the ID number and an explanation in the space provided at the end of the checklist.

ID	36 CFR Part 1194.21: Software Applications and Operating Systems Standards & Checklist Test Question	FC	PC	NC	N/A
1	<p>(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.</p> <p>Can you navigate and use all aspects of the application using only the keyboard?</p>	FC-w/minor			

ID	36 CFR Part 1194.21: Software Applications and Operating Systems Standards & Checklist Test Question	FC	PC	NC	N/A
2	<p>(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.</p> <p>Are all of the accessibility options that were previously set still available?</p>	FC			
3	<p>(c) A well defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.</p> <p>Is the focus well defined?</p>	FC			
4	<p>(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.</p> <p>Can the screen reader distinguish and read all controls to the user, such as prompts for edit fields, text, radio buttons, checkboxes, menus, and toolbars?</p>		PC at present testing is pending with Assistive Technology products		

ID	36 CFR Part 1194.21: Software Applications and Operating Systems Standards & Checklist Test Question	FC	PC	NC	N/A
5	<p>(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.</p> <p>Do individual icons used to identify controls, status indicators, or other programmatic elements mean the same thing throughout the application?</p>	FC			
6	<p>(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.</p> <p>Is all text presented in the application readable by assistive technologies?</p>	FC— Testing is Pending with Assistive Technology Products			
7	<p>(g) Applications shall not override user selected contrast and color selections and other individual display attributes.</p> <p>Does the software not override user-selected contrast and color selections and other individual display attributes or settings?</p>	FC			
8	<p>(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.</p> <p>If animated objects exist, does the information conveyed by the animated object exist in another mode, i.e., captions?</p>	FC			

ID	36 CFR Part 1194.21: Software Applications and Operating Systems Standards & Checklist Test Question	FC	PC	NC	N/A
9	<p>(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.</p> <p>If color is the sole means used to prompt a response, indicate an action, distinguish a visual element, or convey information, is the information displayed in another mode? For example: If the color red indicates negative numbers, are those numbers also represented with a negative sign (-)?</p>	FC			
10	<p>(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.</p> <p>If users can adjust color and contrast settings, are a variety of color and contrast settings available to choose from?</p>				N/A
11	<p>(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.</p> <p>If any flashing or blinking objects or text occurs in the application, are the frequencies less than 2 Hz and greater than 55Hz?</p>	FC			
12	<p>(l) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.</p> <p>Can you navigate and follow links and forms with the keyboard?</p>	FC– Pending			
	<p>Can the electronic forms be used with assistive technologies?</p>				

ID	36 CFR Part 1194.21: Software Applications and Operating Systems Standards & Checklist Test Question	FC	PC	NC	N/A
	Can a screen reading program read all prompts, directions, explanations, or instructions on the form and understand the purpose of each field?				
13	Documentation Are all manuals and documentation provided in electronic format, as well as text files, including text descriptions of any charts, graphs, pictures, or graphics of any nature?	FC– Pending			

Enter the ID number and an explanation for any Partially Compliant (PC) or Noncompliant (NC) results from above.

ID	Explanation
1	Currently all functionality in the application is accessible via keyboard except for changing sort order and applying list filters to datagrid lists. Staff is working with the vendor of the grid to find a way to make this functionality available by keyboard only, but it is not considered a critical functionality. The most important data lists have user customizable column order and sort screens that are accessible via the keyboard-only usage.
4	Testing with screen-reading assistive technology software is pending. It is anticipated that the application will need some tweaking to work effectively with screen reading software; however, all components used in development claim to meet 508 compliance measures and each control makes accessibility-related properties available to help the screen-reader software. Therefore the application will be able to meet compliance, but may need adjustments with respect to accessibility properties.
6	See comment on Item #4. One challenge for the Patient Registration GUI application is that by its very nature it involves working with long lists of patients, laboratory results, GPRA data, etc. This may be challenging to convey in a practical way via screen reading software, but the current design seems to be as appropriate as any for handling long lists.
10	Patient Registration GUI uses Windows system/theme colors for all controls in the application, and does not offer any functionality within Patient Registration GUI itself to modify the colors, etc.
12	Testing is pending. See Comment #4 and #6.
13	All documentation is being prepared using IHS form templates and documentation standards and guidelines.

Application Results:

Fully Compliant __ Partially Compliant __ Noncompliant __ N/A __

Additional Comments:

This initial review is based on application status prior to alpha/beta testing. Testing related to 508 compliance will continue and improvements will continue to be made prior to national release and potentially thereafter.

Glossary

API

Application Programmer Interface

COTS

Commercial off the Shelf. Refers to commercially available software applications.

DOB

Date of Birth

GOTS

Government off the Shelf. Refers to existing Government-owned and developed software applications.

GUI

Graphical User Interface

HRN

Health Record Number within RPMS

I/T/U

Abbreviation referring to all IHS direct, tribal, and urban facilities. Using the abbreviation I/T/U generally refers to all components of the Indian healthcare system.

IHS

Indian Health Service

ITSC

Information Technology Support Center. Currently referred to as Office of Information Technology (OIT).

OIT

Office of Information Technology. The organization within IHS that is responsible for developing and maintaining RPMS and related IT functions.

RPMS

Resource and Patient Management System. A series of integrated software components that includes clinical, administrative, and financial functions.

SAC

Standards and Convention

SQA

Software Quality Assurance. The office within OIT responsible for ensuring that the system conforms to RPMS Programming Standards and Conventions.

SRD

Software Requirements Document

UI

User Interface

VMS

Virtual Memory System

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