DOCUMENT STORAGE SYSTEMS, INC.

DSIO – CORE

Development/Technical Guide

Theodore Fontana

4/22/2014

Date	Revision	Description	Author
04/17/2014	S9 B1	- ADDFAC^DSIO3V2 bug fix - Demographic facility block XML structure corrected - Demographic section reverted back to original VPR with Guardian, Birthplace additions and additional information for facility - Removed contactlist from facility - Updated DSIO IHE DOCUMENT file with DATE/TIME OF IMPORT/EXPORT sorted descending X-REF - DSIO IHE PATIENT LIST - returns items by descending import/export date - Updated DSIO2 - date translation utility - Corrected DSIO CREATE A NOTE visit error returns **A new file (DSIO PERSONS) was created to store FATHER OF FETUS (and other people associated with the patient not already stored in VistA) was used instead of the PATIENT RELATION – RELATIONSHIP – INCOME PERSON files because their use was for people dependent on the patient while FATHER OF FETUS does not assume dependency nor does it interfere with income screening and means test which is the primary person of the PATIENT REALATION file. - Updated DSIO PATIENT file with a FATHER OF FETUS multiple - .01 = Person which is a pointer to a new file DSIO PERSONS - .02 = Associated Pregnancy which is a pointer to the WV PREGNANCY LOG file - Added to the Family(Participant) XML section - DSIO PERSONS fields: .01 NAME .02 SEX 1.1 STREET ADDRESS [LINE 1] 1.2 STREET ADDRESS [LINE 2] 1.3 STREET ADDRESS [LINE 3] 1.4 CITY 1.5 STATE 1.6 ZIP CODE 1.7 PHONE NUMBER - DSIO GET SINGLE VALUE (RPC): - input parameters DFN,ITEM (NEXT CONTACT DATE, INSTITUTION, FATHER OF FETUS) INSTITUTION:	Theodore Fontana

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		IEN^NAME^LATESTDATE^DOMAIN^STREET1^STREET2^CITY^STATE^ZIP^HOMESITE FATHER OF FETUS: **GET CURRENT FATHER OF FETUS BASED OFF MOST RECENT EDC (stored in WV PREGNANCY LOG) IEN^NAME^STREET1^STREET2^STREET3^CITY^STATE^ZIP^PHONE	
04/16/2014	S8 B8	DSIO5 - DSIO Lab trigger logic update to prevent UDEF error when DATA NAME field missing from LAB TEST file (60)	Charles Woodworth
04/14/2014	S8 B7	DSIO FEMALE PATIENT SEARCH – now returns SSN, City, State, and Zip - These have been attached as the 10 through 13 pieces	Theodore Fontana
04/11/2014	S8 B6	- DSIO GET RECORD TEXT - input "B" corrected - Updated RPC: DSIO IS IT CONTROLLED? to check the inactive field - DSIO CREATE A NOTE - Input parameters changed: - DFN,TITLE,NOTE,DATA,SUBJ - DSIO TITLE CONFIGURATION (file) will store visit information for a title - the .03 field of this file uses the SET OF CODES from the VISIT file .07 field (service category)	Theodore Fontana
04/10/2014	S8 B5	RPC: DSIO NEXT CONTACT DATE – changed to DSIO GET SINGLE VALUE - Input Parameters: DFN, ITEM where ITEM = NEXT CONTACT DATE or INSTITUTION - NEXT CONTACT DATE – returns the next contact date for that patient - INSTITUTION returns the home entry in the institution file for that patient o IEN ^ NAME ^ LATESTDATE ^ DOMAIN ^ STREET1 ^ STREET2 ^ CITY ^ STATE ^ ZIP ^ HOMESITE o For later use with multiple facility returns – a HOMESITE of 1 would be default institution RPC: DSIO NOTES BY DFN AND TITLE - Title has been replaced by subject in the return array RPC: DSIO VPR GET PATIENT DATA – is a clone of VPR GET PATIENT DATA** - Changes to demographics - Added Author - Added Participant – does not yet include Father of Fetus	Theodore Fontana

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		**If you are not seeing values for some items then that patient may not have anything stored for that item.	
04/07/2014	S8 B4	CORE: Subject has been added to the following RPCs and their input parameters have changed: • DSIO CREATE A NOTE o DFN, Title, Note, Data, Subject, Visit Date, Visit Location, Visit Type o Visit Date – if not supplied then NOW will be used o Visit Location – required ▪ RPC: ORWU1 NEWLOC will provide a list of locations with the first piece the IEN of the Location and the second piece the name – the first index of the return is a count of total number of locations ▪ The Visit Location parameter for DSIO CREATE A NOTE requires the IEN of the location ▪ ORWU1 NEWLOC has been added to the DSIO GUI CONTEXT • DSIO MAKE ADDENDUM o IEN, Note, Data, Subject • DSIO UPDATE A NOTE o IEN, Note, Data, Subject DDCS: • RPC: DSIO SET NOTE DATA is no longer needed and is being removed • File DSIO NOTE CONTROL will now link to a Reminder Dialog or TIU Document Title • CPRS has been updated to use the OCNT enhancements to the DSIO NOTE DATE files and routines • An option has been created to aid in testing (DSIO SHOW DISCREET DATA) o When running this option it will ask for "TIU NOTE". You can enter the note title and select your note from a list of notes with that title that have been captured or you can use the Broker History from CPRS and use the Note IEN to access the note directly by typing `IEN# at the prompt.	Theodore Fontana
04/02/2014	S8 B3	Retrieve header information for a single note - RPC: DSIO GET RECORD TEXT - updated - TYP INPUT PARAMETER ADDED (optional) - TYP = NULL - WHOLE NOTE WITH DISCREET DATA AND ADDENDA - TYP = H - ONLY THE HEADER - TYP = B - ONLY THE BODY	Theodore Fontana

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		DSIO UPDATE A NOTE – Creates a duplicate header - MUST PASS IN THE BODY ONLY – Use DSIO GET RECORD TEXT "B" DSIO IHE PATIENT LIST - DSIO IHE DOCUMENT File - PATIENT CENTRIC TO SUPPORT PAGING BY PATIENT - DSIO IHE DOCUMENT GUID field - .01/GUID CHANGED TO A MAX OF 50 CHARS - GUID IS REQUIRED TO BE UNIQUE - ALL FIELDS ARE VALIDATED - PAGING TOTALS ARE NOW BASED ON TOTAL DOCUMENTS BY PATIENT DSIO IHE SAVE - RETURN IS -1 for failure OR IEN_OF_DOC^DFN for success DSIO IHE GET DOC - IEN PARAMETER CHANGED TO GUID - PATIENT NAME IS TRANSFORMED TO TITLE CASE DSIO RETURN ENTITY - NAME (PIECE TWO) AND PRIMARY PROVIDER (PIECE 5) ARE FORCED TO TITLE CASE DSIO SAVE NON VA ENTITY - INTERNAL NUMBER OF STATE WAS BEING SAVED WHICH CAUSE DSIO RETURN ENTITY TO RETURN A NUMBER	
04/01/2014	S8 B2	Corrected DSIO IHE PATIENT LIST - Corrected External translation of DT to FM DT in DT^DSIO2 - Corrected the total count for paging Corrected DSIO RETURN ENTITY - DSIO RETURN ENTITY – return state abbreviation instead of full name - DSIO RETURN ENTITY – Single item return list is different than multiple item return - DSIO RETURN ENTITY – Primary contact values does not save and so is not returned	Theodore Fontana
04/01/2014	S8 B1	This build transports data for the TIU DOCUMENT DEFINITION (8925.1) file and only includes entries associated to the MATERNITY TRACKER Document Class. The MATERNITY TRACKER Document Class is transported to update the sub-items (maternity titles). The PROGRESS NOTES Class is transported to update the sub-items (maternity document class).	Theodore Fontana
03/27/2014	S7 B6	**CORE** **1.** Updates to the DSIO OCNT DIALOGS and DSIO	Theodore Fontana

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		OCNT CONFIGURATION files – data has been added for OB H&P Initial. **GUI** **So it turns out that at some update the ComObject was unable to be installed and this was done when runtime packages were introduced. It was a bad time to find that out but the issue has been corrected and the ComObject can be registered and unregister using the command line. There is no longer a use of runtime packages because it required additional files to be installed on the target system – the libraries now pass a pointer to the broker to eachother.** **Known Issues/Errors/Bugs** **1.** The OCNT Vitals section is incomplete – the many components, retrieve and set actions with VistA and the display within a note cannot be easily reproduced without creating a component which will take time. **2.** One included Dialog (not used) is Diagnosis Assessment which would have to be converted from ICD9 to ICD10, but it may not be needed because an OCNT doesn't not function without CPRS (CNTs can be run standalone) **3.** Currently there is no support for TGroupBox for saving, restoring, or writing to the note **4.** No current solution for making dialogs patient centric meaning that data entered in one note can be restored in another. For example: creating a row in the OB Flow Sheet will only be available for that note and no other. **5.** Not all fields in a second order dialog are restored. **6.** Genetic Screening Dialog – minor UI corrections **7.** Physical Exam – minor UI corrections **8.** ROS – minor UI corrections **9.** ReportCollectionItems are not automagically generated for components placed inside a control (TGroupBox, TPanel) **10.** Social Dialog may require additional elements. **11.** Family Assessment Dialog requires alteration for multiple diagnoses – this can be accomplished through the additional family member button on the same form, mother and father have been included for the selection so they should be removed from the front page or both should be molded into one. **12.** General Exam/Physical Exam elements –	

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		removed from OB Flow Sheet, they will have to be added to another dialog. **13.** Assessment and Plan?	
03/21/2014	S7 B5	CORE: New RPC: DSIO IHE PATIENT LIST - Input Parameters DFN and SORT (sort is the same setup as other RPCs that can return a partial list) - Return: The zero node will be a -1 for error or no entries or the total number of entries while all other nodes will be a caret delimited list. VAH>D LIST^DSIO3A(.RET,8,"1,2") ZW @RET ^TMP(12576,"DSIOIHEL",0)=3 ^TMP(12576,"DSIOIHEL",1)="1^1234567891234 5678912345678912345678 9^AYS,SHTS^SEP 23 , 2004@10:53:25^SEP 23, 2004@10:53:25^APHP^IN^THIS IS A TEST^VA^OUTSIDE CLINIC" ^TMP(12576,"DSIOIHEL",2)="2^1234567891234 5678912345678912345679 9^AYS,SHTS^SEP 23 , 2004@10:53:25^SEP 23, 2004@10:53:25^APHP^IN^THIS IS A TEST^VA^OUTSIDE CLINIC" IEN ^ GUID ^ PATIENT ^ DATE OF CREATION ^ DATE OF IMPORT/EXPORT ^ DOCUMENT TYPE ^ DIRECTION (IN/OUT) ^ DOCUMENT TITLE ^ SENDING FACILITY/PROVIDER ^ INTENDED RECIPIENT New RPC: DSIO IHE GET DOC - Input Parameters IEN (the IEN of the DSIO IHE DOCUMENT entry (can be returned from DSIO IHE PATIENT LIST) and XML (XML is optional) - Return: If XML is not passed or not passed as a 1 then the return is intended to be IHE entry minus the DOCUMENT CONTENT – this is returned as a list label^value: VAH>K RET D DOC^DSIO3A(.RET,1) ZW @RET ^TMP(12576,"DSIOIHED",0)="GUID^123456789 1234567891234567891234567 89" ^TMP(12576,"DSIOIHED",1)="PATIENT^AYS,SHT S^8" ^TMP(12576,"DSIOIHED",2)="DT CREATION^SEP 23, 2004@10:53:25"	Theodore Fontana

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		^TMP(12576,"DSIOIHED",3)="DT IMPORT/EXPORT^SEP 23, 2004@10:53:25" ^TMP(12576,"DSIOIHED",4)="DOCUMENT TYPE^APHP" ^TMP(12576,"DSIOIHED",5)="DIRECTION^IN" ^TMP(12576,"DSIOIHED",6)="DOCUMENT TITLE^THIS IS A TEST" ^TMP(12576,"DSIOIHED",7)="SENDING FACILITY/PROVIDER^VA" ^TMP(12576,"DSIOIHED",8)="INTENDED RECIPIENT^OUTSIDE CLINIC" - If XML is ONE then the just the document content for that IEN is passed. RPCs Registered to the DSIO GUI CONTEXT: - VPR DATA VERSION - VPR GET PATIENT DATA - DSIO IHE PATIENT LIST - DSIO IHE GET DOC OCNT: - ReportOrder now only reorders items with the ok button - License information added to source - udlgOBSpread converted - Removed the DSIO CREATE DIALOG RPC and added the functionality to DSIO OCNT DIALOGS - Corrected the entries in DSIO OCNT DIALOGS - Added support to Comboboxes in DSIO OCNT CONFIGURATION - Removed the DSIO OCNT DIALOGS RPC and created DSIO OCNT POPULATE to handle any control needing to be populated from VistA - Currently supports TListBox and TComboBox - Controls populated from VistA with startup values - Supported: TListBox (Dialogs), TComboboxes - Added support for save, restore, and note generation to TComboBox,TListBox - ReportCollection Items can no longer have their OwningObject changed - Cleanedup extra spaces in note - Initial Configuration Data added to note so every extended item can hold data brought in from VistA for inital display (this is not restore or user entered data - this is more on the lines of options in lists that the user would select)	

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		- NoteItem Dialog Return can now only be set as a TMemo or TRichEdit - A message now displays if there is any values from VistA used to restore the OCNT. The user must click "Yes" to retore this values. - Dialogs can now save discreet data - The user will get a message if values of the dialog exists and to click "Yes" in order to restore them. - Added TJvStringGrid to supported Save and Restore Components - Updated the DSIO OCNT CONFIGURATION file to store multi and single valued controls - The creation of the OCNT populates these controls with the values - VistA should always have the control name as uppercase - for lookup puposes - Activated the CPRS TimeOut Timer - Added an AutoSave Timer - Updated the DSIO OCNT DIALOGS file to act as a configuration file - Created the RPC: DSIO OCNT DIALOG POPULATE that mimics the DSIO OCNT POPULATE - Removed the Populate from VistA property from ReportCollectionItems and extended the ability to all components on the OCNT form - Some dialogs use other dialogs and in this case they won't have their IEN set so a RPC (DSIO OCNT DIALOG LOOKUP) was created and added to the DSIO OCNT CONTEXT - Dialogs (Show and ShowModal) both will populate a Dialog from VistA - Corrected Discreet Data TCheckBox and TRadioButton - unchecking is now treated as a value so a change from Checked to unChecked will now restore correctly - VistA configurable control fields have been transformed to uppercase to ensure proper lookup - Only control with data not matching VistA configuration data will be collected to save discreetly - The Discreet Data file system will not recognize Job IDs and will overwrite existing entries of the same job rather than creating new ones - Auto save has been disabled - it was causing	

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		some problems - a solution possible for future use OCNT ToDo: Priority: - Dialogs: o udlgGenetic2 gathers info from VistA (Incomplete) ▪ This needs to be for any control on a dialog or OCNT that during VistASetUp if it needs "live data" the configuration file will point to a function that will get that data and return it within the RPC to populate the control ▪ udlgGenetic2 is the only dialog of the initial conversion that requires this access o OBSpread Drug Columns and population from VistA - Note: o Accept (Incomplete) o Note form with included elements: (Incomplete) o Header, Body, Discreet Data, Health Factors Minor: - Inform the user that saving was successful or not (Incomplete)	
03/19/2014	S7 B4	• File: DSIO IHE DOCUMENT updated to include GUID as the .01 • File: DSIO IHE DOCUMENT TYPE • RPC: DSIO IHE SAVE updated for use of the changed DSIO IHE DOCUMENT file o Includes data validation o Translates the following date formats for FM compatibility ▪ 9/23/2004 10:53:25 AM ▪ 2009-10-22 05:00:00.0 • Updated DSIO1 (RPC: DSIO CREATE TRACKING LOG) to use a faster method for preparing a word processing field used in DSIO3A (RPC: DSIO IHE SAVE)	Theodore Fontana
03/17/2014	S7 B3	• New File: DSIO IHE DOCUMENT • New File: DSIO IHE DOCUMENT TYPE • New RPC: DSIO IHE SAVE • RPCs registered to the DSIO GUI CONTEXT – DSIO IHE SAVE, TIU AUTHORIZATION Original Request: I'm starting to work on the IHE Outbound Content	Theodore Fontana

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		User Story. We'll need VistA work to complete that story. I think it's a new file and an RPC to save entries. For the RPC, I'd like to be able to save the data using the following parameters. Patient Dfn In/Out Date/Time Creation Date/Time Import/Export Document Type (APHP, APS, APL, APE, MDS, NDS, PPVS, XDR-I) Document Title Sending Facilty/Provider Intended Recipient Document Content (XML) Resolution: The RPC saves the 9 input parameters to a file – everything is required. Since there is not much information on exactly what the data is and if it is to be something already on the system there is very little validation and values may be treated as free text instead of pointers. The current design of the file is flat since its use is unknown and since it is flat a key was made with the assumption that a combination of Patient DFN, Date/Time Import/Export, and In/Out would be unique.	
03/12/2014	S7 B2	See DSIO OCNT documentation for initial release.	Theodore Fontana
03/04/2014	S7 B1	MENU CONTEXT: DSIO GUI CONTEXT had TIU GET RECORD TEXT added as an RPC	Theodore Fontana
02/14/2014	S6 B1	• RPC: XUS CVC added to the DSIO GUI CONTEXT • RPC: DSIO UPDATE A NOTE ○ This will not go to DSIO MAKE ADDENDUM if the user is not allowed to update • RPC: DSIO MAKE ADDENDUM – updated and improved • RPC: DSIO GET RECORD TEXT – The bottom of the return array now lists any addenda. • RPC: DSIO DELETE A NOTE – corrected for failure returns a 0 and 1 for success • RPC: DSIO NOTES BY DFN AND TITLE – Paging has been added and return has changed. The first piece now refers to the list number and there may be several entries with this id – each entry now indicates if it has a linked document. Some notes will be hidden from the user and that's based on TIU	Theodore Fontana

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		business rules. Please see the DSIO Developers Guide for more details. • RPC: DSIO SAVE NON VA ENTITY – confirmed that TYPE is being saved correctly – previous builds may have created bad data and should be deleted. Name logic has been updated to allow the name of the entity to be updated without creating a new record. Changing the name of an entity to a name of an already existing entity is not allowed. • RPC: DSIO RETURN ENTITY – state sometimes returned as a number and this has been corrected. Paging has been added.	
02/06/2014	S5 B3	• Updates to **DSIO5** routine trigger logic for LAB TEST entry. • Add MT lab trigger logic to VistA DATA VERIFICATION routine **LRVER3** • New file created: **DSIO LAB TEST** (19641.33). • Each DSIO LAB TEST entry requires : 1. Site/Specimen (ex. SERUM) 2. Positive LAB VALUE (ex. 5.0) entry to be entered for each test. Equal to or greater than this value will trigger an MT event. 3. Reason text. • Lab test added to the DSIO LAB TEST file (19641.33) will be used to trigger a DSIO LAB TEST event. • Every **LAB TEST** (60) ordered for a patient in CPRS and then resulted using the **VistA LR ACC THEN DATA** menu option, will be checked against the DSIO LAB TEST file. A match will create a FLAGGED patient entry in the DSIO TRACKING HISTORY file. • New source entry, **LAB PREGNANT**, added to the **DSIO TRACKING SOURCE** file (19641.22). • Change reason text for MV Patient to "Pregnant Status Positive"	Charles Woodworth
02/05/2014	S5 B2	• Renamed the Discreet data control files to be more generic and redesigned their behavior so they can work with CNTs, RPCs, and Reminder Dialogs through CPRS ○ DSIO NOTE CONTOL – Will control what note title discreet data elements are captured and if any of those fields identified need to have their data pushed elsewhere. This is a programmer type file and data will be transported with the file. Pushing discreet data fields to other locations requires M knowledge. Currently an MCC NOTE with a "NEXT	Theodore Fontana

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		CONTACT DATE" field with push the data collected to the DSIO PATIENT file (NEXT CONTACT DATE) – it must be a valid date. ○ DSIO NOTE DATA – Will store the note IEN and the discreet data elements ○ DSIO NOTE S,M,WP – The DSIO NOTE DATA file only holds a pointer to these files (S: Single, M: Multiple, WP: Word Processing). When data is captured here the Note and Date is recorded. These entries are not deleted. • DSIO NON-VA ENTITIES – New Field: PRIMARY CONTACT which is a pointer to the same file. • RPC: DSIO SAVE NON-VA ENTITY – The .01 field can now be changed with an input of INPUT(#)=NAME^OLD^NEW VALUE ○ INACTIVE can be set with (Yes,Y,1 and No,N,0) ○ TYPE can be set with (P,PROVIDER and F,FACILITY) • RPC: DSIO RETURN ENTITLES – You can now return a single entity by passing in the IEN or the name of the entry. • RPC: DSIO NOTES BY DFN AND TITLE – The return is now: IEN^STATUS^ENTRY DATE/TIME^AUTHOR/DICTATOR^VISIT LOCATION Saving Discreet Data with a Note: RPCS that can use this are: DSIO CREATE A NOTE, DSIO UPDATE A NOTE, DSIO MAKE ADDENDUM The Data Parameter must look as follows: TYPE^ID^FIELD^VALUE TYPE : S - SINGLE (IGNORES ID) M - MULTIPLE (FIRST FIELD NAME TAKES PRIORITY) WP - WORD PROCESSING (FIRST FIELD NAME TAKES PRIORITY) FIELD : THE LABEL OR CAPTION VALUE : THE VALUE TO BE STORED EXAMPLE ARRAY: S^^LABEL 1^SOME VALUE	

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		S^^LABEL 2^SOME OTHER VALUE M^1^M LABEL^VALUE 1 M^1^M LABEL^VALUE 2 WP^2^WP LABEL^THIS TYPE IS USED MORE FOR A FIELD THAT WP^2^WP LABEL^CONTAINS A LOT OF TEXT THAT'S MEANT TO BE READ WP^2^WP LABEL^TOGETHER.	
01/28/2014	S5 B1	• RPC: DSIO GET TRACKING - Now returns the user name instead of their DUZ • RPC: DSIO NEXT CONTACT DATE - Input Parameters: DFN (Patient IEN) | Return: String ○ Uses a New field in the DSIO PATIENT file (.03 - NEXT CONTACT DATE) which is populated by the MCC CONTACT NOTE discreet data label NEXT CONTACT DATE ○ Discreet data by TIU Notes is controlled by two new files: • FILE: DSIO TIU DISCREET CONTROL - Select a TIU Note Definition, list possible control labels, and provide M code to push the X value out elsewhere • FILE: DSIO TIU DISCREET DATA - When a note is saved or updated with a discreet data array it is saved to this file by patient, note, and the individual elements • RPC: DSIO SAVE NON VA ENTITY - Input Parameters: SAVE (List of fields and values – SAVE(#)=FIELD^VALUE | Return: String (-1^Error Message OR 1^IEN) ○ Fields: NAME, TYPE, INACTIVE, STREET ADDRESS 1, STREET ADDRESS 2, STREET ADDRESS 3, CITY, STATE, ZIP CODE, PHONE NUMBER (HOME), PHONE NUMBER (OFFICE), PHONE NUMBER (CELL), FAX NUMBER ○ NAME is always required ○ This RPC can also be used to edit an entry - name must be provided • RPC: DSIO RETURN ENTITY - Input Parameters: TYP (F: Facilities, P: Providers or null for both) | Return: List (IEN^NAME^TYPE^INACTIVE^STREE ADDRESS 1^STREE ADDRESS 2^STREET ADDRESS 3^CITY^STATE^ZIP CODE^PHONE NUMBER (HOME)^PHONE NUMBER (OFFICE)^PHONE NUMBER (CELL)^FAX NUMBER)	Theodore Fontana

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		• Note Related RPCs will return 0 for failure and 1 for success
		• These RPCs don't (yet?) support cosigner or visit
		• The following applies to CREATE, UPDATE, ADDENDUM
		  ○ Input Parameters:
		  ○ DFN (Patient IEN), IEN (Progress Note IEN), TITLE (Progress Note Title Name), NOTE (as a list), DATA (as a list – array(#)=LABEL/FIELD^VALUE
		  ○ From the above DATA is the discreet data wished to be saved alongside the note. The labels are by the user's discretion.
		• RPC: DSIO CREATE A NOTE - Input Parameters: DFN, TITLE, NOTE, DATA | Return: String
		• RPC: DSIO UPDATE A NOTE - Input Parameters: IEN, NOTE, DATA | Return: String
		• RPC: DSIO MAKE ADDENDUM - Input Parameters: IEN, NOTE, DATA | Return: String
		• RPC: DSIO GET RECORD TEXT - Input Parameters: IEN | Return: List
		• RPC: DSIO DELETE A NOTE - Input Parameters: IEN, JUST (Justification as to why the note is being deleted - string) | Return: String
		• RPC: DSIO SIGN A NOTE - Input Parameters: IEN, SIG (user signature encrypted) | Return: String
		• RPC: DSIO NOTES BY DFN AND TITLE - Input Parameters: DFN, TITLE | Return: List (IEN^STATUS)
		• RPC: DSIO GET NOTE ELEMENT - Input Parameters: - IEN, FLD (the discreet data field/label name) | Return: String (null or value)
		
		TIU DOCUMENT DEFINITIONS for Maternity Care will not be transported with this build	

01/14/2014	S4 B3	• RPC: DSIO FEMALE PATIENT SEARCH node zero of successful paged returns now sets the proper total count. It is generated during the X-REF traverse.	Theodore Fontana
01/08/2014	S4 B2	• The first line of a paged return from a paging remote procedure call is the total number of items.	Theodore Fontana

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		○ DSIO FEMALE PATIENT SEARCH ○ DSIO GET TRACKING • RPC: DSIO GET TRACKING returns source as Title case	
01/05/2014	S4 B1	• The original design of the 19641.21 (DSIO TRACKING HISTORY) file could not support the X-REFs needed in order support the various filtered lists without repeated global and temp global traversing. Thus a new file was created in place of the current History file but the old will not yet be deleted until this new file proves itself the solution. • File: DSIO TRACKING HISTORY ALT (19641.2) – name to be changed later • Various X-REFs created to support paging lists into file 19641.2 • RPCs have been changed to work with the new file. • Routines have been changed to work with the new file. • File 19641 (DSIO PATIENT) has been changed to work with the new file. • RPC: DSIO FEMALE PATIENT FIND does not support paging and is only for search queries of full SSN or First letter of last name + the last four of SSN • RPC: DSIO FEMALE PATIENT SEARCH supports paging and is for a search query of partial name to full name (last,first) or used to return all female patients when the search query is null. • RPC: DSIO GET TRACKING now supports paging. The search queries are "T" for all currently tracked patients, "F" for all currently flagged patients, DFN for all logs for a patient, and F# for all currently flagged logs for a patient. If the search query is null all logs will be returned. • New RPC added to DSIO GUI CONTEXT ***Please see the end of this document for RPC parameter changes and output and configuring Kernel security for the DSIO namespace.**	Theodore Fontana
12/26/2013	S3 B6	• Updates to DSIO5 routine logic for WV PATIENT entry. • Updates to DSIO5 routine logic for CPRS Problem entry. • New file created DSIO CPRS PROBLEM FILE 19641.31 • V72.42 ICD9 code added to DSIO CPRS	Charles Woodworth

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		PROBLEM FILE 19641.31 • Problem entry in CPRS for V72.42 ICD9 code will create entry in the DSIO PATIENT file (19641) • Problem entry in CPRS for V72.42 ICD9 will create a FLAGGED patient entry in the DSIO Tracking History file (19641.21).	
12/18/2013	S3 B5	• Routine DSIO5 created to process VistA trigger events. • Data Definition for WV Patient file (790) entry for Currently Pregnant (790,.13) field modified to trigger a DSIO MT patient event. • The Currently Pregnant prompt for an WV patient can be found on the WV EDIT CASE DATA menu option in VistA. • Currently Pregnant set to yes will create a patient entry in the DSIO PATIENT file (19641). • Currently Pregnant set to yes will create a FLAGGED patient entry in the DSIO Tracking History file (19641.21).	Charles Woodworth
12/16/2013	S3 B3	• Routine DSIO5 created to process VistA trigger events. • Data Definition for WV Patient file (790) entry for Currently Pregnant (790,.13) field modified to trigger a DSIO MT patient event. • The Currently Pregnant prompt for an WV patient can be found on the WV EDIT CASE DATA menu option in VistA. • Currently Pregnant set to yes will create a patient entry in the DSIO PATIENT file (19641). • Currently Pregnant set to yes will create a FLAGGED patient entry in the DSIO Tracking History file (19641.21).	Charles Woodworth
12/13/2013	S3 B4	• RPC: DSIO GET TRACKING the "ALL" type is now pages. The input is as follows: ALL^PAGE#,COUNT : example: ALL^2,4 (second page set of 4) • The input for the DSIO TRACKING HISTORY file how has an input transform to force the date of NOW. To lookup old logs you have to use `IEN.	Theodore Fontana
12/10/2013	S3 B2	• RPC: DSIO GET TRACKING: Reason is returned as text • RPC: DSIO CREATE TRACKING LOG: Accept and Reject actions were not setting when status was 0-2 without a previous log of accept or reject…this has been corrected • Related concepts corrected • RPC: DSIO GET TRACKING: now returns a	Theodore Fontana

Date	Revision	Description	Author
		"P", "L", and "C" as the first piece of each line	
12/06/2013	S3 B1	• ORWPT SELECT is now a part of the DSIO GUI CONTEXT. • Removed sudo flagging, all entries are now required to have an action status set. • Cleaned up the X-REFs and RPCs to work with the updated behavior as stated above. • The DSIO TRACKING SOURCE file now as a new field (SYSTEM) for internal entries used for triggers and the dashboard. System sources are stored in UPPERCASE. • RPC: DSIO CREATE TRACKING LOG now has a fifth parameter (SOR –source). It is not required and will use DASHBOARD as a system source if none is supplied. • The system sources will not show up in the return for RPC: DSIO SELECT LIST. • The DSIO TRACKING HISTORY file will now store the name rather than the pointer for SOURCE and REASON entries to protect from deletes and edits. • Improved and corrected RPC: DSIO GET TRACKING please see DSIO GET TRACKING examples.txt for additional details. • Added the "T" type to RPC: DSIO GET TRACKING to return a list of all currently tracked patients. See above. The build will transport and install data when first being installed at a site.	Theodore Fontana
12/03/2013	S2 B7	• RPC: DSIO CREATE TRACKING LOG – corrected the error when setting the status of a patient for the first time. • Input transform on the action field for the Tracking Log now requires the oldest sudo flagged entry to be set before a newer one can be; however, a new log of Start, Stop, Accept, or Reject will bypass this leaving those sudo flagged logs flagged. • A new action X-REF has been created to support the behavior of this field.	Theodore Fontana
12/02/2013	S2 B6	• RPC: DSIO SET TRACKING STATUS removed • FILE: 19641.21 (TRACKING HISTORY) updated to use the EVENT TYPE (ACTION) field • This file has revised X-REFs to aid in the functionality of this field • RPC: DSIO CREATE TRACKING LOG working with the ACTION field Workflows allow for multiple flagged, accept, and	Theodore Fontana

Date	Revision	Description	Author
		reject entries. If tracking has been started then it must stop before it can be started and vice versa. If a log is created as accept, reject, start, or stop after a flagged log then that flagged log will remain as flagged. *Please see the RPC Documentation for this build.	
11/27/2013	S2 B5	• Added Reminder RPCs to the DSIO GUI CONTEXT – like Alerts and Progress Notes some of these will later be removed from this context • Added a new field to the DSIO TRACKING HISTORY file - .06 Action (Event Type) which is a Set of Codes type (0:STOP,1:START,2:FLAG,3:REJECT,4:ACCEPT) • A action X-Ref as created to support the behavior of this field • New RPC: DSIO CREATE TRACKING LOG – this is much like DSIO SET TRACKING STATUS except the input parameter STAT is ACT. SETS THE TRACKING STATUS OF A PATIENT FROM A TRACKING HISTORY LOG THE SYSTEM THEN CREATES ANOTHER LOG INDICATING THAT THE TRACKING STATUS OF A PATIENT HAS CHANGED. Start, Stop, Flag, Accept(does nothing), Reject(does nothing) The first three will change the current tracking status of a patient with Start being Yes (Patient is being tracked), Stop being No (Patient is not being tracked), and Flag being Flagged (Patient is Flagged). This is an editable field therefore, if the user changes an earlier entry's action status it will still change the status of the Patient.	Theodore Fontana
11/26/2013	S2 B4	• RPC: DSIO PATIENT SEARCH now accounts for sensitive patients • RPC DSIO GET TRACKING has been renamed to DSIO SET TRACKING STATUS • RPC DSIO SET TRACKING STATUS will not validate both internally and externally the STAT input parameter • RPCs have been registered to the DISO GUI CONTEXT to support Sensitive Patients, Alerts, and Progress Notes	Theodore Fontana

Date	Revision	Description	Author
11/22/2013	S2 B3	• RPC: DSIO TRACKING RECORD will no longer return system messages unless it is a critical failure otherwise success is 1^SUCCESS. • You can now add reason that don't already exist in the reason file. • Proper case is used to add new entries thus "TEST" and "Test" and everything in-between are different entries. • RPC: DSIO GET TRACKING is a return of a global array the wrapping flag is now set to true – it will not return a single line. • The Date Time format has changed to MM/DD/YYYY@HH:MM:SS • The currently tracking status is now returned as 0, 1, or 2 • RPC: DSIO PATIENT SEARCH now returns currently tracking status as 0, 1, or 2 • RPC: DSIO SELECT LIST can now add and delete entries. This RPC will always return a list unless an error is encountered. • Proper case applies. • The TRACKING DATE, PATIENT, TRACKING STATUS, and USER for Tracking Logs are now uneditable fields. This build will no longer include data.	Theodore Fontana
11/21/2013	S2 B2	• Removed bad entries from the DSIO TRACKING SOURC/REASON files. • RPC: DSIO SELECT LIST can now delete an entry/input parameters have changed • RPC: DSIO TRACKING RECORD is no longer set to only set the tracking status of a patient to yes. Thus status is required. Input parameters have changed. There was an error when the patient didn't already exist in the DSIO Patient file – the patient entry will now be created. Returned messages are now in proper case. • RPC: DSIO GET TRACKING will now sort in descending order. New and cleaned up X-References. Now supports Currently Flagged Entries for a Patient and All Currently Flagged Entries for all Currently Flagged Patients. • Changed field names between files for consistency. **See RPC Documentation at the end of the document.	Theodore Fontana
11/19/2013	S2 B1	Please see components and RPC documentation at the end of this document. This build will also remove the Sprint 1 builds that were incorrectly namespaced – they have been replaced.	Theodore Fontana

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Components

Files			
	DSIO PATIENT	19641	Additional patient centric data elements not already part of VistA.
	DSIO NON-VA ENTITIES	19641.1	Providers and facilities not belonging to the VA.
	DSIO PERSONS	19641.11	Stores people related to the patient without marriage or a dependency related nature.
	DSIO TRACKING HISTORY	19641.2	A list of dated records for use with the MCC dashboard by to track, stop tracking, or flag a patient for tracking.
	DSIO TRACKING SOURCE	19641.22	The application that is creating the tracking log.
	DSIO TRACKING REASON	19641.23	A listing of reasons why a patient is being or flagged for tracking.
	DSIO CPRS PROBLEM	19641.31	
	DSIO LAB TEST	19641.33	
	DSIO NOTE CONTROL	19641.4	A listing of TIU Document Titles and Reminder Dialogs that will allow discreet data to be saved. It also holds any M Code to execute for data elements that need additional processing outside of DDCS.
	DSIO NOTE DATA	19641.41	This file links DSIO NOTE S, M, and WP discreet data entries to the TIU Document.
	DSIO NOTE S	19641.43	This is a single valued discreet data entry.
	DSIO NOTE M	19641.44	This is a multi-valued discreet data entry.
	DSIO NOTE WP	19641.45	This is a word processing type discreet data entry.
	DSIO OCNT CONFIGURATION	19641.48	This file contains startup data for an OCNT by TIU Document Title.
	DSIO OCNT DIALOGS	19641.49	This file contains the Delphi data needed to create an OCNT dialog form and its startup data.
	DSIO TITLE CONFIGURATION	19641.5	This file contains visit

			information required to create TIU Documents through the MCC Dashboard.
	DSIO IHE DOCUMENT	19641.6	This file stores the IHE Documents.
	DSIO IHE DOCUMENT TYPE	19641.61	This file stores the IHE Document types.

Routines		
	DSIO0	DSIO OCNT Support
	DSIO1	DSIO RPCs
	DSIO2	DSIO X-References and Utilities
	DSIO3	DSIO TIU Support
	DSIO3A	DSIO IHE Support
	DSIO3V1	DSIO VPR for IHE
	DSIO3V2	DSIO VPR for IHE
	DSIO3V3	DSIO VPR for IHE
	DSIO4	DSIO RPCs
	DSIO5	DSIO Trigger

Options		
	DSIO GUI CONTEXT	RPCs for use with the MCC Dashboard.
	DSIO OCNT CONTEXT	RPCs for use with oCNTs.

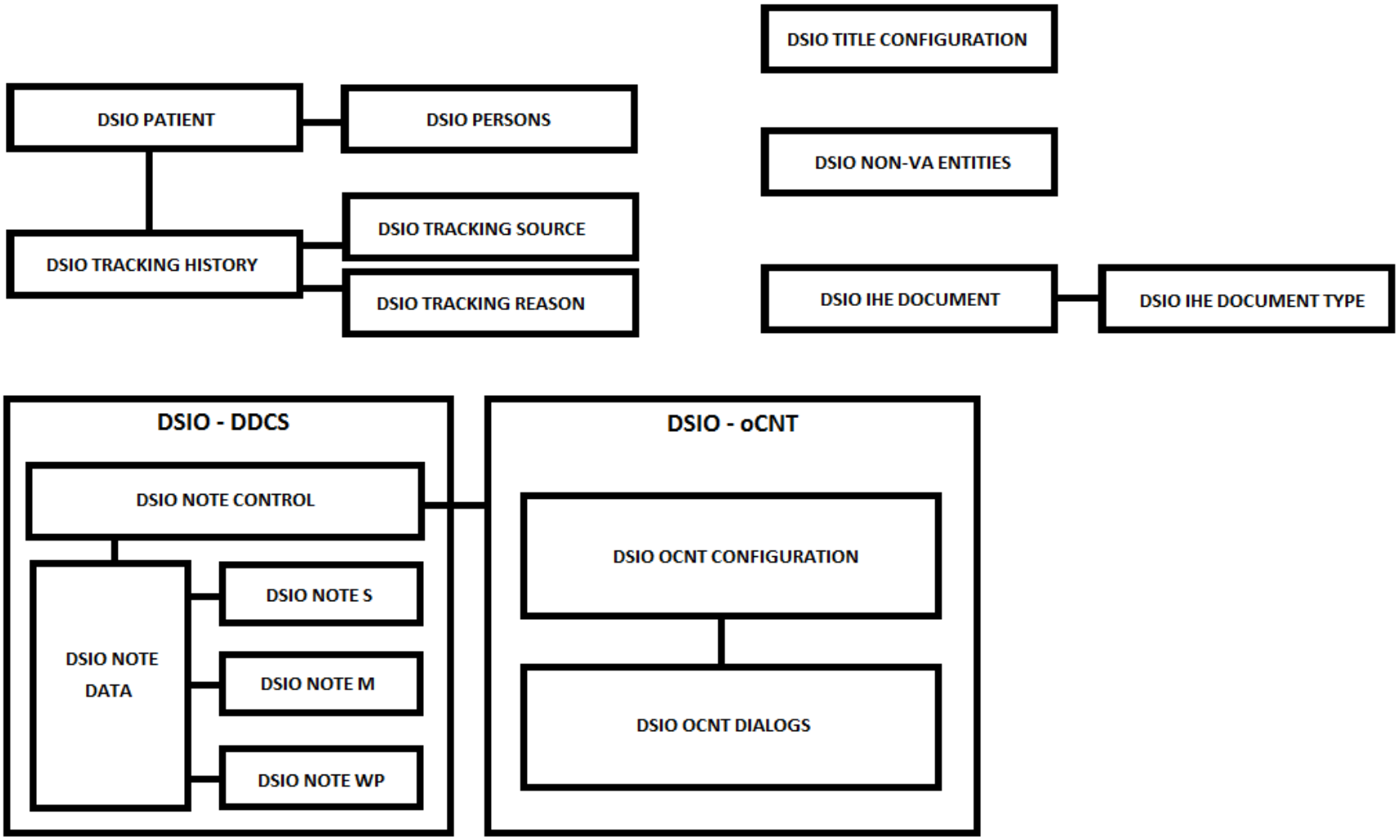
Security Keys		
	DSIO ADMIN	

Parameter Definitions		
	DSIO OCNT LOCATION	This is the root directory path where oCNTs are stored.

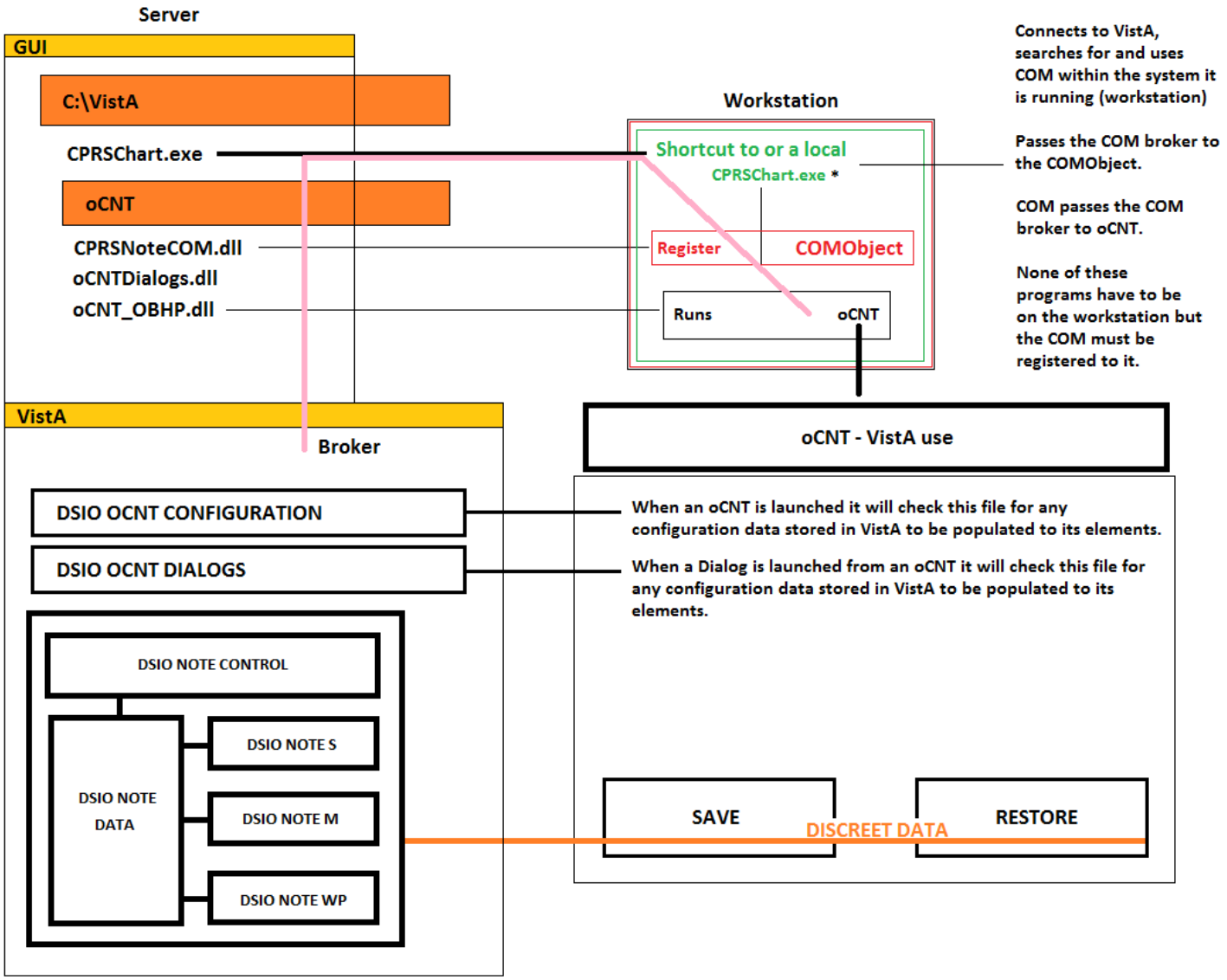
Remote Procedures	
	DSIO CREATE TRACKING LOG
	DSIO FEMALE PATIENT FIND
	DSIO FEMALE PATIENT SEARCH
	DSIO GET TRACKING
	DSIO SELECT LIST
	DSIO GET SINGLE VALUE
	DSIO SAVE NON VA ENTITY
	DSIO RETURN ENTITY
	DSIO CREATE A NOTE
	DSIO UPDATE A NOTE
	DSIO MAKE ADDENDUM
	DSIO GET RECORD TEXT
	DSIO DELETE A NOTE
	DSIO SIGN A NOTE

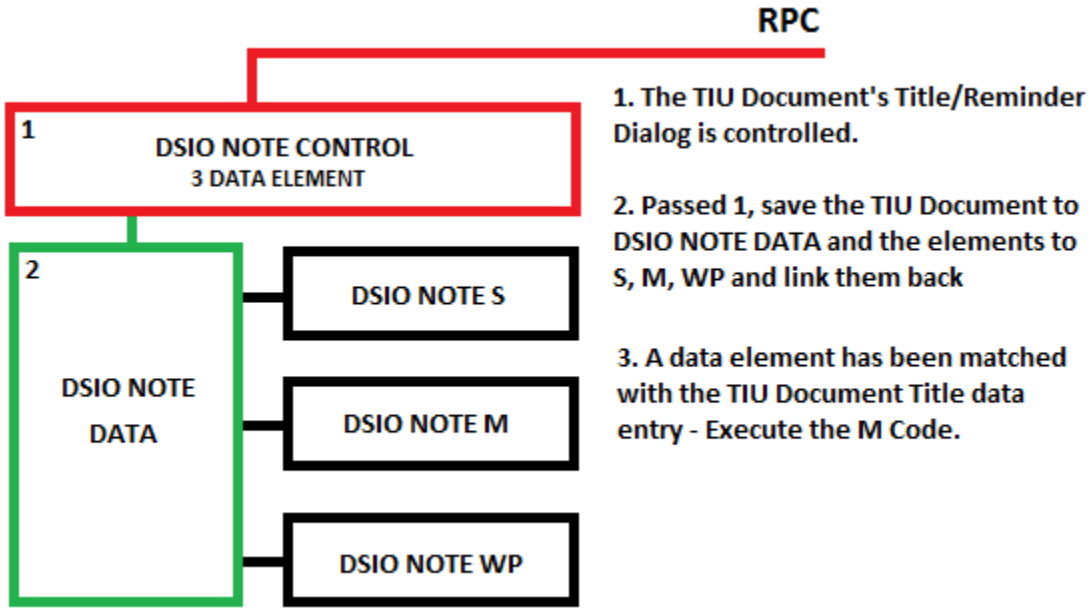
	DSIO NOTES BY DFN AND TITLE
	DSIO GET NOTE ELEMENT
	DSIO IS IT CONTROLLED?
	DSIO IHE SAVE
	DSIO IHE PATIENT LIST
	DSIO IHE GET DOC
	DSIO VPR GET PATIENT DATA
	DSIO OCNT GET LOCATION
	DSIO OCNT STORE
	DSIO OCNT RESTORE
	DSIO OCNT DIALOG POPULATE
	DSIO OCNT DIALOG LOOKUP

ARCHITECTURE



oCNT WITH DDCS




RPC
1
DSIO NOTE CONTROL
3 DATA ELEMENT
2
DSIO NOTE
DATA
DSIO NOTE S
DSIO NOTE M
DSIO NOTE WP
1. The TIU Document's Title/Reminder Dialog is controlled.
2. Passed 1, save the TIU Document to DSIO NOTE DATA and the elements to S, M, WP and link them back
3. A data element has been matched with the TIU Document Title data entry - Execute the M Code.

OCNT with DDCS

The DSIO oCNTs can only be run through the CPRS TIU Note ComObject functionality and so cannot run standalone nor can they access VistA without it being through CPRS. The OCNT uses ICPRSBroker which is set up in CPRSNoteCOM.dll using uExtndComBroker.pass to behave like ORNet before it is passed to the called OCNT. Before it is passed to the called OCNT the ComObject will use it to retrieve the OCNT root path using the RPC DSIO OCNT GET LOCATION which uses the parameter DSIO OCNT LOCATION. Once it has this value it will concatenate it with the passed value to find and launch the called OCNT.

Once an OCNT is launched the OCNT will loop through all of its owned components and use the RPC - DSIO OCNT POPULATE to lookup any of these components by name and TIU Document IEN which in turn is used to check the DSIO OCNT CONFIGURATION file to look under for the TIU Document Title and if in the file will check if the component name also exists and if so, will retrieve any associated value(s). If the RPC returns a value it will be used to set the component. The idea here is to allow OCNT selection type components to be changed by a site by site basis without the need for redevelopment. This same functionality is performed by DSIO OCNT DIALOG POPULATE when a dialog is opened but uses the DSIO OCNT DIALOGS file.

When an OCNT is closed, finished, or saved it will loop through all of its ReportCollection Items and build an array and once finished it will pass this array to VistA using the RPC - DSIO OCNT STORE which will then save the data associated by component and TIU Document discreetly. The APIs and files used for this process is part of the DSIO - DDCS (Discreet Data Control and Storage) package; for more information please refer to the DSIO_DDCS.pdf document. Likewise, when an OCNT dialog is OK'ed it will loop through all of its owned components and will use the same RPC to store all of its components and their values discreetly.

DDCS

Saving data discreetly using this system means saving the name of individual elements or what they intend to represent along with their data associated to a TIU Document. In order to use this there must be a TIU Document created with a title that exists within the DSIO NOTE CONTROL file or you must be running a Reminder Dialog in CPRS when that Reminder Dialog has been added to the DSIO NOTE CONTROL file. Both the Reminder Dialog and the TIU Document (either by an OCNT or DSIO TIU Support RPC) use the RPC - DSIO OCNT STORE.

DSIO OCNT STORE takes the TIU Document IEN as the first parameter as saves the elements to DSIO NOTE S, M, or WP depending on the type of component and links them to DSIO NOTE DATA under the TIU Document. DSIO NOTE CONTROL allows the process to occur while matching any element that is passed in its DATA multiple and executes stored M code upon finding a match associated to a TIU Document Title.

CORE

Beyond the DDCS and the OCNT blocks the DSIO CORE consists of the DSIO PATIENT file which is DSIO's center when extending VistA with patient specific information. DSIO PERSONS is pointed to by DSIO PATIENT to extend the patient's relations where the PATIENT RELATION and INCOME PERSON file would be inappropriate. One such example is the DSIO's need for a Father of Fetus but such a relationship does not imply marriage (the space RELATIONSHIP) nor does it imply dependency which is the main use of the PATIENT RELATION file. DSIO PATIENT also has a TRACKING STATUS field whose value is determined by entries in the DSIO TRACKING HISTORY file which points to the DSIO TRACKING SOURCE and DSIO TRACKING REASON files – this two additional tracking type files merely provide more flexibility than a set of codes field type would allow.

DSIO TITLE CONFIGURATION allows for DSIO TIU Supported type RPCs to create TIU Documents without requiring the user to select a visit each time. This functionality is only intended for use with DSIO TIU Document Titles used in the Maternity Tracker Dashboard. Such notes are Event or telecommunication service type notes. The DSIO CREATE A NOTE RPC will not create a note unless the title exists in this file and appropriate visit information has been configured.

DSIO NON-VA ENTITIES covers the storage of both facilities and providers not related to the VA.

DSIO IHE DOCUMENT covers the storage of IHE documents and the information related to their import or export, patient centric, and requiring a unique GUID across the file. DSIO IHE DOCUMENT TYPE is used to provide greater flexibility than a set of codes field type would allow. These XML based documents are created from VistA using the Maternity Tracker Dashboard with the use of DSIO VPR

APIs

$$NAME^DSIO2

Reference Type

Category GENERAL

Description This API transforms a patient's name as it is in the .01 field of the patient file (LASTNAME,FIRSTNAME MI) to title case (Lastname,Firstname MI).

Format `$$NAME^DSIO2(NAM)`

Input Parameters NAM: The patient's name as it appears in the .01 field of the patient file.

NAME^DSIO2(NAM) — Example

```
VAH>W $P(^DPT(8,0),U)
AYS,SHTS
VAH>W $$NAME^DSIO2($P(^DPT(8,0),U))
Ays,Shts
```

$$DT^DSIO2

Reference Type

Category GENERAL

Description This API transforms an external Date/Time to FileMan DT.

Format `$$DT^DSIO2(VAL)`

Input Parameters VAL: This is a date/Time value originally intended for use with formats not compatible with DT^DILF but has been extended to use this API as well.

NAME^DSIO2(NAM) — Example

```
VAH>W $$DT^DSIO2("9/23/2004 10:53:25 AM")
3040923.105325
VAH>W $$DT^DSIO2("2009-10-22 05:00:00.0")
3091022.05
```

Remote Procedure Calls

Categories	
GENERAL	
NOTES	Unlike many other RPCs for DSIO a failure results in a 0 rather than a -1.
TRACKING	
OCNT	Please refer to OCNT documentation.
DDCS	Please refer to DDCS documentation.
IHE	

DSIO FEMALE PATIENT SEARCH

Reference Type

Category GENERAL

Description The purpose of this RPC is to provide a GUI with a listing of female patients. Due to the nature of the KEY input parameter it can also be used to find a patient or a set of patients by name.

Format `PATIENT2^DSIO1(.RET,KEY,SORT)`

Input Parameters

KEY: This is a string of text representing patient names starting with their last name to their first name INCLUDING the comma (,) in between. It can be one character to a full name.

SORT: This input parameter must be formatted as PAGE#,COUNT# (the comma is required). The COUNT portion of this parameter will control how many entries in the list will be returned and the PAGE portion will identify the increment by COUNT of the entries returned. Thus if there are 4 entries, a SORT of 1,2 will be entries 1 and 2 and 2,2 will return entries 3 and 4.

Output GLOBAL ARRAY

Success: Multi Lines of:

The zero node will return the total number of entries returned.

DFN ^ LASTNAME,FIRSTNAME ^ SSN(LAST 4) ^ DATE OF BIRTH ^ VETERAN STATUS ^ LOCATION(WARD) ^ ROOM/BED^SERVICE CONNECTED ^ CURRENTLY TRACKING ^ SSN ^ CITY ^ STATE ^ ZIP

Failure: -1^Patient(s) not found.

PATIENT2^DSIO1(.RET,KEY,SORT) — Example

```
VAH>D PATIENT2^DSIO1(.RET,"A") ZW @RET
^TMP(13268,"DSIO PATIENT",0)=3
^TMP(13268,"DSIO PATIENT",1)="751^Acmpatient,One^0939^9/19/1939^YES^7B^^NO^2^666
660939^WASHINGTON^DISTRICT OF COLUMBIA^02030"
^TMP(13268,"DSIO PATIENT",2)="8^Ays,Shts^3333^3/15/1921^YES^3ES^^YES^0^101013333
^MAYBERRY^KANSAS^12345"
^TMP(13268,"DSIO PATIENT",3)="126^Azdhshts,Jxaalshula^*SENSITIVE*^*SENSITIVE*^NO
^3E NORTH^3E-100-2^NO^0^101015454^NEW KRANSTON^ALASKA^12345"

VAH>D PATIENT2^DSIO1(.RET,"dkjfkdjfkjdfjdkfj") ZW @RET
^TMP(20708,"DSIO PATIENT",0)="-1^Patient(s) not found."
```

DSIO FEMALE PATIENT FIND

Reference Type

Category GENERAL

Description The purpose of this RPC is to try to find a specific patient either by their SSN, last four, or the first letter of their last name plus their last four. There is still a possibility to find more than one patient but the list will be much narrower than DSIO FEMALE PATIENT SEARCH.

Format `PATIENT1^DSIO1(.RET,KEY)`

Input Parameters KEY: This can be either a set of 4 or 9 number as an SSN in a ###-##-#### format or as a letter + ####.

Output ARRAY

Success	Multi Lines of: DFN ^ LASTNAME,FIRSTNAME ^ SSN(LAST 4) ^ DATE OF BIRTH ^ VETERAN STATUS ^ LOCATION(WARD) ^ ROOM/BED ^ SERVICE CONNECTED ^ CURRENTLY TRACKING
Failure	-1^Patient not found.

PATIENT1^DSIO1(.RET,KEY) — Example

```
VAH>D PATIENT1^DSIO1(.RET,666660939) ZW RET
RET(0)="751^Acmpatient,One^0939^9/19/1939^YES^7B^^NO^2"

VAH>D PATIENT1^DSIO1(.RET,"666-66-0939") ZW RET
RET(0)="751^Acmpatient,One^0939^9/19/1939^YES^7B^^NO^2"

VAH>D PATIENT1^DSIO1(.RET,"A0939") ZW RET
RET(0)="751^Acmpatient,One^0939^9/19/1939^YES^7B^^NO^2"

VAH>D PATIENT1^DSIO1(.RET,0930) ZW RET
RET(0)="-1^Patient not found."
```

DSIO GET SINGLE VALUE

Reference Type

Category GENERAL

Description This RPC will return the value stored in the NEXT CONTACT DATE field of DSIO PATIENT, the institution, or the FATHER OF FETUS of the current Pregnancy from the DSIO PATIENT file.

Format `GET^DSIO4(.RET,DFN,ITEM)`

Input Parameters

DFN: Patient Internal Entry Number

ITEM: The value to retrieve ("NEXT CONTACT DATE", "INSTITUTION", "FATHER OF FETUS")

Output SINGLE VALUE

Success	Value
	INSTITUTION: IEN ^ NAME ^ LATESTDATE ^ DOMAIN ^ STREET1 ^ STREET2 ^ CITY ^ STATE ^ ZIP ^ HOMESITE FATHER OF FETUS: IEN ^ NAME ^ STREET1 ^ STREET2 ^ STREET3 ^ CITY ^ STATE ^ ZIP ^ PHONE

GET^DSIO4(.RET,DFN,ITEM) — Example

```
VAH>K RET D GET^DSIO4(.RET,8,"NEXT CONTACT DATE") ZW RET
RET="DEC 12, 2014"

VAH>K RET D GET^DSIO4(.RET,8,"INSTITUTION") ZW RET
RET="500^VAMC ALBANY^3140422^SMA.FO-ALBANY.MED.VA.GOV^VA MEDICAL CENTER^1 3RD sT
.^ALBANY^NEW YORK^12180-0097"

VAH>K RET D GET^DSIO4(.RET,8,"FATHER OF FETUS") ZW RET
RET="4^Blah,Blah Father Of Fetus^^^^^^^"
```

DSIO SAVE NON VA ENTITY

Reference Type

Category GENERAL

Description This RPC will create or edit an entry in the DSIO NON-VA ENTITIES file.

Format `SENT^DSIO4(.RET,.SAVE)`

Input Parameters

SAVE: This is a list of caret delimited values with the first piece as the field and the second piece as the value. Only in the case of the NAME field is a third piece accepted and that is the change the value of NAME. Setting any of these pieces without a value will delete the current value for that field.

SAVE(0)= "NAME^PROVIDER 1^NEW PROVIDER NAME"
SAVE(1)="TYPE^"
SAVE(2)="INACTIVE^"
SAVE(3)="PRIMARY CONTACT^"
SAVE(4)="STREET ADDRESS 1^"
SAVE(5)="STREET ADDRESS 2^"
SAVE(6)="STREET ADDRESS 3^"
SAVE(7)="CITY^"
SAVE(8)="STATE^"
SAVE(9)="ZIP CODE^"
SAVE(10)="PHONE NUMBER (HOME)^"
SAVE(11)="PHONE NUMBER (OFFICE)^"
SAVE(12)="PHONE NUMBER (CELL)^"
SAVE(13)="FAX NUMBER^"

Output SINGLE VALUE

Success	1^IEN
Failure	-1^ERROR MESSAGE

SENT^DSIO4(.RET,.SAVE) — Example

```
S SAVE(0)="NAME^TEST DOC PROVIDER^TEST DOC FACILITY"
S SAVE(1)="TYPE^F"
S SAVE(3)="STREET ADDRESS 1^vxVISTA WAY"
S SAVE(4)="PHONE NUMBER (HOME)^"

VAH>D Q^DI

VA FileMan 22.0

Select OPTION: 1  ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: DSIO NON-VA ENTITIES//
EDIT WHICH FIELD: ALL//

Select DSIO NON-VA ENTITIES NAME: ??

   Choose from:
   ANOTHER PROVIDER
   FACILITY 1
   PROVIDER 123
   TEST

         You may enter a new DSIO NON-VA ENTITIES, if you wish

VAH>S SAVE(0)="NAME^TEST DOC PROVIDER"
VAH>S SAVE(1)="TYPE^P"
VAH>S SAVE(2)="STREET ADDRESS 1^VISTA WAY"
VAH>S SAVE(3)="STATE^FL"
VAH>S SAVE(4)="PHONE NUMBER (HOME)^1234567896"

VAH>K RET D SENT^DSIO4(.RET,.SAVE) ZW RET
RET="1^5"

VAH>D Q^DI

VA FileMan 22.0

Select OPTION: INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: DSIO NON-VA ENTITIES//
Select DSIO NON-VA ENTITIES NAME: `5  TEST DOC PROVIDER
ANOTHER ONE:
STANDARD CAPTIONED OUTPUT? Yes//   (Yes)
Include COMPUTED fields:  (N/Y/R/B): NO//  - No record number (IEN), no Computed
 Fields

NAME: TEST DOC PROVIDER                 TYPE: PROVIDER
  STREET ADDRESS 1: VISTA WAY           STATE: FLORIDA
  PHONE NUMBER (HOME): 1234567896

VAH>K SAVE

VAH>S SAVE(0)="NAME^TEST DOC PROVIDER^TEST DOC FACILITY"
VAH>S SAVE(1)="TYPE^F"
VAH>S SAVE(3)="STREET ADDRESS 1^vxVISTA WAY"
VAH>S SAVE(4)="PHONE NUMBER (HOME)^"

VAH>K RET D SENT^DSIO4(.RET,.SAVE) ZW RET
RET="1^5"

VAH>D Q^DI
```

```
VA FileMan 22.0

Select OPTION: INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: DSIO NON-VA ENTITIES//
Select DSIO NON-VA ENTITIES NAME: `5  TEST DOC FACILITY
ANOTHER ONE:
STANDARD CAPTIONED OUTPUT? Yes//   (Yes)
Include COMPUTED fields:  (N/Y/R/B): NO// BOTH Computed Fields and Record Number
 (IEN)

NUMBER: 5                                NAME: TEST DOC FACILITY
  TYPE: FACILITY                         STREET ADDRESS 1: vxVISTA WAY
  STATE: FLORIDA
```

DSIO RETURN ENTITY

Reference Type

Category GENERAL

Description This RPC will return a list of entries from the DSIO NON-VA ENTITIES file. When TYP is set to "F" only facilities will be returned, for "P" only providers, and when TYP is a number or a name it will return the record for that entry only.

Format `RENT^DSIO4(.RET,TYP)`

Input Parameters

TYP:	This input parameter will narrow the return list – "F": Facilities, "P": Providers, # or NAME for a single entry, or null for all entries.
SORT:	This input parameter must be formatted as PAGE#,COUNT# (the comma is required). The COUNT portion of this parameter will control how many entries in the list will be returned and the PAGE portion will identify the increment by COUNT of the entries returned. Thus if there are 4 entries, a SORT of 1,2 will be entries 1 and 2 and 2,2 will return entries 3 and 4.

Output GLOBAL ARRAY

Success	Multi Lines of: The zero node will return the total number of entries returned. IEN ^ NAME ^ TYPE ^ INACTIVE ^ PRIMARY CONTACT ^ STREET ADDRESS 1 ^ STREET ADDRESS 2 ^ STREET ADDRESS 3 ^ CITY ^ STATE ^ ZIP CODE ^ PHONE NUMBER (HOME) ^ PHONE NUMBER (OFFICE) ^ PHONE NUMBER (CELL) ^ FAX NUMBER
Failure	-1^No entries found.

RENT^DSIO4(.RET,TYP) — Example

```
VAH>D RENT^DSIO4(.RET,"") ZW @RET
^TMP("DSIO RENTRET",5292,0)=4
^TMP("DSIO RENTRET",5292,1)="2^ANOTHER^FACILITY^^^^^^^SOUTH DAKOTA^^^^^"
^TMP("DSIO RENTRET",5292,2)="1^NEW^PROVIDER^^^2345 LANE^^^BIG CITY^GUAM^12345^^^^"
^TMP("DSIO RENTRET",5292,3)="3^TEST^FACILITY^^^^^^^^^^^^"
^TMP("DSIO RENTRET",5292,4)="4^TEST P^PROVIDER^^^^^^^^^^^^"

VAH>D RENT^DSIO4(.RET,"P") ZW @RET
^TMP("DSIO RENTRET",5292,0)=2
^TMP("DSIO RENTRET",5292,1)="1^NEW^PROVIDER^^^2345 LANE^^^BIG CITY^GUAM^12345^^^^"
^TMP("DSIO RENTRET",5292,2)="4^TEST P^PROVIDER^^^^^^^^^^^^"

VAH>D RENT^DSIO4(.RET,"F") ZW @RET
^TMP("DSIO RENTRET",5292,0)=2
^TMP("DSIO RENTRET",5292,1)="2^ANOTHER^FACILITY^^^^^^^SOUTH DAKOTA^^^^^"
^TMP("DSIO RENTRET",5292,2)="3^TEST^FACILITY^^^^^^^^^^^^"

VAH>D RENT^DSIO4(.RET,1) ZW @RET
^TMP("DSIO RENTRET",5292,0)="1^NEW^PROVIDER^^^^2345 LANE^^^BIG CITY^^12345^^^^^"

VAH>D RENT^DSIO4(.RET,"F","1,1") ZW @RET
^TMP("DSIO RENTRET",5292,0)=2
^TMP("DSIO RENTRET",5292,1)="2^ANOTHER^FACILITY^^^^^^^SOUTH DAKOTA^^^^^"

VAH>D RENT^DSIO4(.RET,"F","2,1") ZW @RET
^TMP("DSIO RENTRET",5292,0)=2
^TMP("DSIO RENTRET",5292,1)="3^TEST^FACILITY^^^^^^^^^^^^"

VAH>D RENT^DSIO4(.RET,"F","1,2") ZW @RET
^TMP("DSIO RENTRET",5292,0)=2
^TMP("DSIO RENTRET",5292,1)="2^ANOTHER^FACILITY^^^^^^^SOUTH DAKOTA^^^^^"
^TMP("DSIO RENTRET",5292,2)="3^TEST^FACILITY^^^^^^^^^^^^"
```

DSIO SELECT LIST

Reference Type

Category GENERAL

Description This RPC will return a list of entries, add an entry, or delete an entry from the DSIO TRACKING REASON or DSIO TRACKING SOURCE files.

Format `SELECT^DSIO1(.RET,TYP)`

Input Parameters

TYP: When this input parameter is set to "S" it will return a list of entries that are not marked as system from the DSIO TRACKING SOURCE file; likewise, it will do the same for the DSIO TRACKING REASON file when it is set to "R".

To add an entry:

(S or R)^ENTRY NAME^A

To delete an entry:

(S or R)^ENTRY NAME^D

Output ARRAY

Success	Multi Lines of the entry name.
Failure	-1^ERROR MESSAGE

SELECT^DSIO1(.RET,TYP) — Example

```
VAH>K RET D SELECT^DSIO1(.RET,"S") ZW RET
RET(0)="-1^No entries."

VAH>K RET D SELECT^DSIO1(.RET,"R") ZW RET
RET(0)="Other"
RET(1)="Postpartum/lactation"
RET(2)="Pregnant"
RET(3)="Problem List Pregnant"
RET(4)="Rec Test"
RET(5)="Test"

VAH>K RET D SELECT^DSIO1(.RET,"S^SOURCE^A") ZW RET
RET(0)="Source"

VAH>K RET D SELECT^DSIO1(.RET,"R^TEST^D") ZW RET
RET(0)="Other"
RET(1)="Postpartum/lactation"
RET(2)="Pregnant"
RET(3)="Problem List Pregnant"
RET(4)="Rec Test"
```

DSIO CREATE TRACKING LOG

Reference Type

Category TRACKING

Description This RPC creates a tracking log in the DSIO TRACKING HISTORY file. The ACTION(.02) used to create the entry may or may not change the status of the patient depending on their current TRACKING STATUS(.02) within the DSIO PATIENT file.

Format `REC^DSIO1(.RET,DFN,ACT,RES,.COM,SOR)`

Input Parameters

DFN: Patient Internal Entry Number

ACT: This action represents the purpose of the entry and potentially the status of the patient.

'0' FOR STOP
'1' FOR START
'2' FOR FLAG
'3' FOR REJECT
'4' FOR ACCEPT

RES: A caret delimited string of human readable reasons as to why this tracking entry is being created. These reasons are also saved in the DSIO TRACKING REASON file.

RES="REASON 1^REASON 2"

COM: A list of formatted lines that will be identified as a comment and placed in a word processing field (COMMENT(2)) of the DSIO TRACKING HISTORY file. This is a simple numbered list.

COM(0)="This would be the first line of the comment."

SOR: This is the source or origin of the tracking entry. Some of the system entries are "DASHBOARD" and "FILEMAN". These entries are saved in the DSIO TRACKING SOURCE file.

Output

SINGLE VALUE	
Success	1^SUCCESS
Failure	-1^ERROR MESSAGE

Note

When the Patient's TRACKING STATUS is:

0 – NO = No, the patient is not being tracked.

When the patient's tracking status is NO and a tracking entry of START is created the patient's status will become YES.

Likewise, if a tracking entry of FLAG were to be created the patient's tracking status would become FLAG.

Additionally, but not necessary, if an entry of STOP was created the tracking status would be set to NO.

1 – YES = Yes, the patient is being tracked.

When the patient's tracking status is YES a tracking entry of NO will change their status to NO. FLAG entries do not change the status of the patient when their status is YES; however, if a FLAG entry where to be rejected it would change the status of the patient to NO.

2 – FLAG = Please review, this patient may need to be tracked.

If a patient is set as FLAG then a tracking entry of ACCEPT will YES their status while a REJECT will NO their status.

Likewise, but not necessary, an entry of START or STOP will change their status to YES or NO respectably.

REC^DSIO1(.RET,DFN,ACT,RES,.COM,SOR) — Example

```
VAH>D Q^DI

VA FileMan 22.0

Select OPTION: 1  ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: DSIO PATIENT//
EDIT WHICH FIELD: ALL//

Select DSIO PATIENT:    AYS,SHTS
PATIENT: AYS,SHTS//
TRACKING STATUS: FLAG//

VAH>S COM(0)="THIS IS A TEST COMMENT"

VAH>D REC^DSIO1(.RET,8,"START","TEST",.COM,"OTHER") ZW RET
RET="1^SUCCESS"

VAH>ZW ^DSIO(19641.2,8)
^DSIO(19641.2,8,0)=8
^DSIO(19641.2,8,1,0)="^19641.24D^2^2"
^DSIO(19641.2,8,1,1,0)="3140105.195605^2^10000000052^PROBLEM LIST"
^DSIO(19641.2,8,1,1,1,0)="^19641.241P^1^1"
^DSIO(19641.2,8,1,1,1,1,0)="PROBLEM LIST PREGNANT"
^DSIO(19641.2,8,1,1,1,"B","PROBLEM LIST PREGNANT",1)=""
^DSIO(19641.2,8,1,1,2,0)="^19641.242^1^1^3140205^"
^DSIO(19641.2,8,1,1,2,1,0)="PREGNANT PROBLEM DIAG SET IN CPRS"
^DSIO(19641.2,8,1,2,0)="3140205.185552^1^10000000329^OTHER"
^DSIO(19641.2,8,1,2,1,0)="^19641.241P^1^1"
^DSIO(19641.2,8,1,2,1,1,0)="TEST"
^DSIO(19641.2,8,1,2,1,"B","TEST",1)=""
^DSIO(19641.2,8,1,2,2,0)="^^1^1^3140205"
^DSIO(19641.2,8,1,2,2,1,0)="THIS IS A TEST COMMENT"
^DSIO(19641.2,8,1,"B",3140105.195605,1)=""
^DSIO(19641.2,8,1,"B",3140205.185552,2)=""

VAH>D Q^DI

VA FileMan 22.0

Select OPTION: 1  ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: DSIO PATIENT//
EDIT WHICH FIELD: ALL//

Select DSIO PATIENT:    AYS,SHTS
PATIENT: AYS,SHTS//
TRACKING STATUS: YES//
```

DSIO GET TRACKING

Reference Type

Category TRACKING

Description This RPC will return a list of all tracking history entries, all currently tracked patients, all currently flagged patients, all entries for a patient, or all currently flagged entries for a patient.

Format `TRCLIST^DSIO1(.RET,TYP,SORT)`

Input Parameters

TYP: Note (TIU DOCUMENT) internal entry number.

SORT: This input parameter must be formatted as PAGE#,COUNT# (the comma is required). The COUNT portion of this parameter will control how many entries in the list will be returned and the PAGE portion will identify the increment by COUNT of the entries returned. Thus if there are 4 entries, a SORT of 1,2 will be entries 1 and 2 and 2,2 will return entries 3 and 4.

Output	GLOBAL ARRAY	
	Success	A list of entries when (in all cases the first piece is the identifier with "L" = Log (the second piece will then be the IENS of the historical entry), "C" = Comment, "P" = Patient (the second piece will then be the DFN of the patient). TYP = ("",ALL), DFN, "F"+DFN Get all logs, Get all logs for a patient, Get currently flagged entries for a patient: L ^ IENS ^ TRACKING DT(E) ^ DFN ^ LASTNAME,FIRSTNAME ^ USER ^ ACTION ^ SOURCE ^ REASON|REASON C ^ IENS ^ COMMENT TYP = "T" Get all currently tracked patients: P ^ DFN ^ LASTNAME,FIRSTNAME ^ LAST 4 ^ DOB ^ PHONE ^ EDD TYP = "F" Get all currently flagged patients: P ^ DFN ^ LASTNAME,FIRSTNAME ^ LAST 4 ^ DOB ^ PHONE ^ REASON
	Failure	-1^No entries found.

TRCLIST^DSIO1(.RET,TYP,SORT) — Example

```
VAH>K @RET D TRCLIST^DSIO1(.RET,"ALL") ZW @RET
^TMP(20708,"DSIO TRACK",0)=96
^TMP(20708,"DSIO TRACK",1)="L^2,8^2/5/2014@18:55:52^8^Ays,Shts^Fontana,Theo F^1^
Other^Test"
^TMP(20708,"DSIO TRACK",2)="C^2,8^THIS IS A TEST COMMENT"
^TMP(20708,"DSIO TRACK",3)="L^2,751^1/10/2014@14:47:53^751^Acmpatient,One^Roista
ff,Chief O^2^Dashboard^"
^TMP(20708,"DSIO TRACK",4)="L^1,100011^1/5/2014@19:58:56^100011^Phlutxy,Ixyyl^Cp
rsnurse,One^2^Problem List^Problem List Pregnant"
^TMP(20708,"DSIO TRACK",5)="C^1,100011^PREGNANT PROBLEM DIAG SET IN CPRS"
^TMP(20708,"DSIO TRACK",6)="L^1,8^1/5/2014@19:56:05^8^Ays,Shts^Cprsnurse,One^2^P
roblem List^Problem List Pregnant"
^TMP(20708,"DSIO TRACK",7)="C^1,8^PREGNANT PROBLEM DIAG SET IN CPRS"
^TMP(20708,"DSIO TRACK",8)="L^1,751^1/5/2014@19:09:42^751^Acmpatient,One^Roistaf
f,Chief O^2^Problem List^Problem List Pregnant"
^TMP(20708,"DSIO TRACK",9)="C^1,751^PREGNANT PROBLEM DIAG SET IN CPRS"

VAH>K @RET D TRCLIST^DSIO1(.RET,"T") ZW @RET
^TMP(20708,"DSIO TRACK",0)=1
^TMP(20708,"DSIO TRACK",1)="P^8^Ays,Shts^3333^3/15/1921^715-458-8777^EDD"

VAH>K @RET D TRCLIST^DSIO1(.RET,"F") ZW @RET
^TMP(20708,"DSIO TRACK",0)=4
^TMP(20708,"DSIO TRACK",1)="P^751^Acmpatient,One^0939^9/19/1939^^"
^TMP(20708,"DSIO TRACK",2)="P^500^Ccmpatient,^3744^5/4/1933^^"
^TMP(20708,"DSIO TRACK",3)="P^299^Hhp,Ixpy^2869^8/28/1969^8509998888^"
^TMP(20708,"DSIO TRACK",4)="P^100011^Phlutxy,Ixyyl^7655^7/8/1961^^Problem List P
regnant"

VAH>K @RET D TRCLIST^DSIO1(.RET,8) ZW @RET
^TMP(20708,"DSIO TRACK",0)=2
^TMP(20708,"DSIO TRACK",1)="L^2,8^2/5/2014@18:55:52^8^Ays,Shts^Fontana,Theo F^1^
Other^Test"
^TMP(20708,"DSIO TRACK",2)="C^2,8^THIS IS A TEST COMMENT"
^TMP(20708,"DSIO TRACK",3)="L^1,8^1/5/2014@19:56:05^8^Ays,Shts^Cprsnurse,One^2^P
roblem List^Problem List Pregnant"
^TMP(20708,"DSIO TRACK",4)="C^1,8^PREGNANT PROBLEM DIAG SET IN CPRS"

VAH>K @RET D TRCLIST^DSIO1(.RET,"F751") ZW @RET
^TMP(20708,"DSIO TRACK",0)=2
^TMP(20708,"DSIO TRACK",1)="L^2,751^1/10/2014@14:47:53^751^Acmpatient,One^Roista
ff,Chief O^2^Dashboard^"
^TMP(20708,"DSIO TRACK",2)="L^1,751^1/5/2014@19:09:42^751^Acmpatient,One^Roistaf
f,Chief O^2^Problem List^Problem List Pregnant"
^TMP(20708,"DSIO TRACK",3)="C^1,751^PREGNANT PROBLEM DIAG SET IN CPRS"
```

DSIO CREATE A NOTE

Reference Type

Category NOTES

Description This RPC creates a TIU Document and saves discreet data passed in through its fourth input parameter. The data is associated with the note and can be later retrieved simply by using the note IEN. This RPC uses TIU APIs and condenses many of them into one call which includes authentication, locking, and unlocking.

Format `CREATE^DSIO3(.RET,DFN,TITLE,.NOTE,.DATA,SUBJ)`

Input Parameters

DFN: Patient Internal Entry Number

TITLE: The name of the entry to the TIU DOCUMENT DEFINITION file (8925.1) whose TYPE(.04) is TITLE.

NOTE: A list of formatted lines that will be placed in the body of the note. This is a simple numbered list.

NOTE(0)="This would be the first line of the note."

DATA: A list of values to be saved discreetly and associated to the identified note. Each entry in this list consists of four pieces delimited by caret – TYPE^ID^FIELD^VALUE.

Where TYPE = S, M, WP which means single, multiple, and word processing.

ID is a unique number that associates multiple entries of the list to belong to one entry for VistA.

FIELD is the name of the caption or label that identifies the VALUE which is the fourth piece of a list entry.

DATA(0)="S^^LABEL 1^SOME VALUE"
DATA(1)="S^^LABEL 2^SOME OTHER VALUE"
DATA(2)="M^1^M LABEL^VALUE 1"
DATA(3)="M^1^M LABEL^VALUE 2"
DATA(4)="WP^2^WP LABEL^THIS TYPE IS USED MORE FOR A FIELD THAT"
DATA(5)="WP^2^WP LABEL^CONTAINS A LOT OF TEXT THAT'S MEANT TO BE READ"
DATA(6)="WP^2^WP LABEL^TOGETHER."

SUBJ: The note subject (optional) – this is not the title.

Output	SINGLE VALUE	
	Success	NOTE IEN^1^1 NOTE IEN = The TIU DOCUMENT IEN 1^1 = the page number and total number of pages of the Note
	Failure	0^ERROR MESSAGE

CREATE^DSIO3(.RET,DFN,TITLE,.NOTE,.DATA) — Example

```
VAH>S NOTE(0)="THE FIRST LINE"
VAH>S NOTE(1)="THE SECOND LINE"

VAH>S DATA(0)="S^^LABEL 1^SOME VALUE"
VAH>S DATA(1)="S^^LABEL 2^SOME OTHER VALUE"
VAH>S DATA(2)="M^1^M LABEL^VALUE 1"
VAH>S DATA(3)="M^1^M LABEL^VALUE 2"
VAH>S DATA(4)="WP^2^WP LABEL^THIS TYPE IS USED MORE FOR A FIELD THAT"
VAH>S DATA(5)="WP^2^WP LABEL^CONTAINS A LOT OF TEXT THAT'S MEANT TO BE READ"
VAH>S DATA(6)="WP^2^WP LABEL^TOGETHER."

VAH>D CREATE^DSIO3(.RET,8,"MCC NOTE",.NOTE,.DATA) ZW RET
RET="5156^1^1"

VAH>ZW ^DSIO(19641.41,+RET)
^DSIO(19641.41,5156,0)=5156
^DSIO(19641.41,5156,1,0)="^19641.411AV^4^4"
^DSIO(19641.41,5156,1,1,0)="19;DSIO(19641.43,"
^DSIO(19641.41,5156,1,2,0)="20;DSIO(19641.43,"
^DSIO(19641.41,5156,1,3,0)="18;DSIO(19641.44,"
^DSIO(19641.41,5156,1,4,0)="4;DSIO(19641.45,"
^DSIO(19641.41,5156,1,"B","18;DSIO(19641.44,",3)=""
^DSIO(19641.41,5156,1,"B","19;DSIO(19641.43,",1)=""
^DSIO(19641.41,5156,1,"B","20;DSIO(19641.43,",2)=""
^DSIO(19641.41,5156,1,"B","4;DSIO(19641.45,",4)=""

VAH>ZW ^DSIO(19641.44,18)
^DSIO(19641.44,18,0)="M LABEL"
^DSIO(19641.44,18,1,0)="^19641.46A^2^2"
^DSIO(19641.44,18,1,1,0)="VALUE 1"
^DSIO(19641.44,18,1,2,0)="VALUE 2"
^DSIO(19641.44,18,1,"B","VALUE 1",1)=""
^DSIO(19641.44,18,1,"B","VALUE 2",2)=""
^DSIO(19641.44,18,2)="5156^O^3140205.175114"

VAH>ZW ^DSIO(19641.43,19)
^DSIO(19641.43,19,0)="LABEL 1"
^DSIO(19641.43,19,1)="SOME VALUE"
^DSIO(19641.43,19,2)="5156^O^3140205.175114"

VAH>ZW ^DSIO(19641.43,20)
^DSIO(19641.43,20,0)="LABEL 2"
^DSIO(19641.43,20,1)="SOME OTHER VALUE"
^DSIO(19641.43,20,2)="5156^O^3140205.175114"

VAH>ZW ^DSIO(19641.45,4)
^DSIO(19641.45,4,0)="WP LABEL"
^DSIO(19641.45,4,1,0)="^^3^3^3140205"
^DSIO(19641.45,4,1,1,0)="THIS TYPE IS USED MORE FOR A FIELD THAT"
^DSIO(19641.45,4,1,2,0)="CONTAINS A LOT OF TEXT THAT'S MEANT TO BE READ"
^DSIO(19641.45,4,1,3,0)="TOGETHER."
^DSIO(19641.45,4,2)="5156^O^3140205.175114"
```

DSIO SIGN A NOTE

Reference Type

Category NOTES

Description This RPC is used to electronically sign a TIU Document.

Format `SIGN^DSIO3(.RET,IEN,SIG)`

Input Parameters

	IEN:	Note (TIU DOCUMENT) internal entry number.
	SIG:	This is the user's electronic signature encrypted.

Output

SINGLE VALUE	
Success	1
Failure	0^ERROR MESSAGE

CREATE^DSIO3(.RET,DFN,TITLE,.NOTE,.DATA) — Example

```
VAH>D GET^DSIO3(.RET,5134) ZW @RET
^TMP("TIUVIEW",20708,1)=" LOCAL TITLE: MCC NOTE
          "
^TMP("TIUVIEW",20708,2)="STANDARD TITLE: WOMENS HEALTH NOTE
         "
^TMP("TIUVIEW",20708,3)="DATE OF NOTE: FEB 04, 2014@09:40:37  ENTRY DATE: FEB 04
, 2014@09:40:37      "
^TMP("TIUVIEW",20708,4)="      AUTHOR: FONTANA,THEO F       EXP COSIGNER:
                    "
^TMP("TIUVIEW",20708,5)="     URGENCY:                              STATUS: UNSIGN
ED                       "
^TMP("TIUVIEW",20708,6)=""
^TMP("TIUVIEW",20708,7)="LINE 1"
^TMP("TIUVIEW",20708,8)="TEST FOR THE ACTUAL LINE ONE"
^TMP("TIUVIEW",20708,9)=" "
^TMP("TIUVIEW",20708,10)=""
^TMP("TIUVIEW",20708,11)=""
^TMP("TIUVIEW",20708,12)=""
^TMP("TIUVIEW",20708,13)="----------------- DISCREET DATA FIELDS ---------------
--"
^TMP("TIUVIEW",20708,14)="LABEL 1: SOME VALUE"
^TMP("TIUVIEW",20708,15)="LABEL 2: SOME OTHER VALUE"
^TMP("TIUVIEW",20708,16)="M LABEL: VALUE 1"
^TMP("TIUVIEW",20708,17)="         VALUE 2"
^TMP("TIUVIEW",20708,18)="WP LABEL: THIS TYPE IS USED MORE FOR A FIELD THAT"
^TMP("TIUVIEW",20708,19)="          CONTAINS A LOT OF TEXT THAT'S MEANT TO BE RE
AD"
^TMP("TIUVIEW",20708,20)="          TOGETHER."

VAH>D SIGN^DSIO3(.RET,5134,$$ENCRYP^XUSRB1(123456))
..
VAH>D GET^DSIO3(.RET,5134) ZW @RET
^TMP("TIUVIEW",20708,1)=" LOCAL TITLE: MCC NOTE
          "
^TMP("TIUVIEW",20708,2)="STANDARD TITLE: WOMENS HEALTH NOTE
         "
^TMP("TIUVIEW",20708,3)="DATE OF NOTE: FEB 04, 2014@09:40:37  ENTRY DATE: FEB 04
, 2014@09:40:37      "
^TMP("TIUVIEW",20708,4)="      AUTHOR: FONTANA,THEO F       EXP COSIGNER:
                    "
^TMP("TIUVIEW",20708,5)="     URGENCY:                              STATUS: COMPLE
TED                      "
^TMP("TIUVIEW",20708,6)=""
^TMP("TIUVIEW",20708,7)="LINE 1"
^TMP("TIUVIEW",20708,8)="TEST FOR THE ACTUAL LINE ONE"
^TMP("TIUVIEW",20708,9)=" "
^TMP("TIUVIEW",20708,10)="/es/ THEO F FONTANA"
^TMP("TIUVIEW",20708,11)=""
^TMP("TIUVIEW",20708,12)="Signed: 02/06/2014 15:47"
^TMP("TIUVIEW",20708,13)="----------------- DISCREET DATA FIELDS ---------------
--"
^TMP("TIUVIEW",20708,14)="LABEL 1: SOME VALUE"
^TMP("TIUVIEW",20708,15)="LABEL 2: SOME OTHER VALUE"
^TMP("TIUVIEW",20708,16)="M LABEL: VALUE 1"
^TMP("TIUVIEW",20708,17)="         VALUE 2"
^TMP("TIUVIEW",20708,18)="WP LABEL: THIS TYPE IS USED MORE FOR A FIELD THAT"
^TMP("TIUVIEW",20708,19)="          CONTAINS A LOT OF TEXT THAT'S MEANT TO BE RE
AD"
^TMP("TIUVIEW",20708,20)="          TOGETHER."
```

DSIO MAKE ADDENDUM

Reference Type

Category NOTES

Description This RPC allows the creation of addenda to TIU Documents; the user must first pass TIU Authentication.

Format `ADDEN^DSIO3(.RET,IEN,.NOTE,.DATA,SUBJ)`

Input Parameters

IEN: Note (TIU DOCUMENT) internal entry number.

NOTE: A list of formatted lines that will be placed in the body of the note. This is a simple numbered list.

NOTE(0)="This would be the first line of the note."

DATA: A list of values to be saved discreetly and associated to the identified note. Each entry in this list consists of four pieces delimited by caret – TYPE^ID^FIELD^VALUE.

Where TYPE = S, M, WP which means single, multiple, and word processing.

ID is a unique number that associates multiple entries of the list to belong to one entry for VistA.

FIELD is the name of the caption or label that identifies the VALUE which is the fourth piece of a list entry.

DATA(0)="S^^LABEL 1^SOME VALUE"
DATA(1)="S^^LABEL 2^SOME OTHER VALUE"
DATA(2)="M^1^M LABEL^VALUE 1"
DATA(3)="M^1^M LABEL^VALUE 2"
DATA(4)="WP^2^WP LABEL^THIS TYPE IS USED MORE FOR A FIELD THAT"
DATA(5)="WP^2^WP LABEL^CONTAINS A LOT OF TEXT THAT'S MEANT TO BE READ"
DATA(6)="WP^2^WP LABEL^TOGETHER."

SUBJ: The note subject (optional) – this is not the title.

Output

SINGLE VALUE	
Success	IEN ^ LAST PAGE ^ TOTAL PAGES
Failure	0^ERROR MESSAGE

ADDEN^DSIO3(.RET,IEN,.NOTE,.DATA) — Example

```
VAH>D GET^DSIO3(.RET,5177) ZW @RET
^TMP("TIUVIEW",10360,1)=" LOCAL TITLE: MCC NOTE
          "
^TMP("TIUVIEW",10360,2)="STANDARD TITLE: WOMENS HEALTH NOTE
          "
^TMP("TIUVIEW",10360,3)="DATE OF NOTE: FEB 13, 2014@09:50     ENTRY DATE: FEB 13
, 2014@09:50          "
^TMP("TIUVIEW",10360,4)="      AUTHOR: FONTANA,THEO F       EXP COSIGNER:
                     "
^TMP("TIUVIEW",10360,5)="     URGENCY:                              STATUS: COMPLE
TED                        "
^TMP("TIUVIEW",10360,6)=""
^TMP("TIUVIEW",10360,7)="   *** MCC NOTE Has ADDENDA ***"
^TMP("TIUVIEW",10360,8)=""
^TMP("TIUVIEW",10360,9)="NEWEST NOTE"
^TMP("TIUVIEW",10360,10)="TO BE HAD"
^TMP("TIUVIEW",10360,11)="NEW LINE"
^TMP("TIUVIEW",10360,12)=" "
^TMP("TIUVIEW",10360,13)="/es/ THEO F FONTANA"
^TMP("TIUVIEW",10360,14)=""
^TMP("TIUVIEW",10360,15)="Signed: 02/13/2014 09:50"
^TMP("TIUVIEW",10360,16)=""
^TMP("TIUVIEW",10360,17)="02/13/2014 ADDENDUM                       STATUS: UNSIG
NED"
^TMP("TIUVIEW",10360,18)="NEWEST NOTE"
^TMP("TIUVIEW",10360,19)="TO BE HAD"
^TMP("TIUVIEW",10360,20)="NEW LINE"
^TMP("TIUVIEW",10360,21)=" "
^TMP("TIUVIEW",10360,22)=""
^TMP("TIUVIEW",10360,23)=""
^TMP("TIUVIEW",10360,24)=""
^TMP("TIUVIEW",10360,25)="----------------- DISCREET DATA FIELDS ---------------
--"
^TMP("TIUVIEW",10360,26)="NEXT CONTACT DATE: DEC 12,2014"

VAH>D GET^DSIO3(.RET,5178) ZW @RET
^TMP("TIUVIEW",10360,1)=" LOCAL TITLE: Addendum
          "
^TMP("TIUVIEW",10360,2)="DATE OF NOTE: FEB 13, 2014@09:52:08  ENTRY DATE: FEB 13
, 2014@09:52:08       "
^TMP("TIUVIEW",10360,3)="      AUTHOR: FONTANA,THEO F       EXP COSIGNER:
                     "
^TMP("TIUVIEW",10360,4)="     URGENCY:                              STATUS: UNSIGN
ED                         "
^TMP("TIUVIEW",10360,5)=""
^TMP("TIUVIEW",10360,6)="NEWEST NOTE"
^TMP("TIUVIEW",10360,7)="TO BE HAD"
^TMP("TIUVIEW",10360,8)="NEW LINE"
^TMP("TIUVIEW",10360,9)=" "
^TMP("TIUVIEW",10360,10)=""
^TMP("TIUVIEW",10360,11)=""
^TMP("TIUVIEW",10360,12)=""
^TMP("TIUVIEW",10360,13)=""
^TMP("TIUVIEW",10360,14)="=============================================================
========================"
^TMP("TIUVIEW",10360,15)=""
^TMP("TIUVIEW",10360,16)=" --- Original Document ---"
^TMP("TIUVIEW",10360,17)=""
^TMP("TIUVIEW",10360,18)="02/13/14 MCC NOTE:"
^TMP("TIUVIEW",10360,19)="NEWEST NOTE"
^TMP("TIUVIEW",10360,20)="TO BE HAD"
```

```
^TMP("TIUVIEW",10360,21)="NEW LINE"
^TMP("TIUVIEW",10360,22)=" "
^TMP("TIUVIEW",10360,23)="/es/ THEO F FONTANA"
^TMP("TIUVIEW",10360,24)=""
^TMP("TIUVIEW",10360,25)="Signed: 02/13/2014 09:50"
^TMP("TIUVIEW",10360,26)="----------------- DISCREET DATA FIELDS ---------------
--"
^TMP("TIUVIEW",10360,27)="NEXT CONTACT DATE: DEC 12,2014"
```

DSIO UPDATE A NOTE

Reference Type

Category NOTES

Description This RPC is used to update the body of a TIU document which requires TIU Authentication and if it passes it uses ADDEND. Thus in most cases the note must be signed in order to be updated.

Format `SET^DSIO3(.RET,IEN,.NOTE,.DATA,SUBJ)`

Input Parameters

IEN: Note (TIU DOCUMENT) internal entry number.

NOTE: A list of formatted lines that will be placed in the body of the note. This is a simple numbered list.

NOTE(0)="This would be the first line of the note."

DATA: A list of values to be saved discreetly and associated to the identified note. Each entry in this list consists of four pieces delimited by caret – TYPE^ID^FIELD^VALUE.

Where TYPE = S, M, WP which means single, multiple, and word processing.

ID is a unique number that associates multiple entries of the list to belong to one entry for VistA.

FIELD is the name of the caption or label that identifies the VALUE which is the fourth piece of a list entry.

DATA(0)="S^^LABEL 1^SOME VALUE"
DATA(1)="S^^LABEL 2^SOME OTHER VALUE"
DATA(2)="M^1^M LABEL^VALUE 1"
DATA(3)="M^1^M LABEL^VALUE 2"
DATA(4)="WP^2^WP LABEL^THIS TYPE IS USED MORE FOR A FIELD THAT"
DATA(5)="WP^2^WP LABEL^CONTAINS A LOT OF TEXT THAT'S MEANT TO BE READ"
DATA(6)="WP^2^WP LABEL^TOGETHER."

SUBJ: The note subject (optional) – this is not the title.

Output

SINGLE VALUE	
Success	IEN ^ LAST PAGE ^ TOTAL PAGES
Failure	0^ERROR MESSAGE

SET^DSIO3(.RET,IEN,.NOTE,.DATA) — Example

```
VAH>D CREATE^DSIO3(.RET,8,"MCC NOTE",.NOTE,.DATA) ZW RET
RET="5179^1^1"

VAH>D GET^DSIO3(.RET,5179) ZW @RET
^TMP("TIUVIEW",10360,1)=" LOCAL TITLE: MCC NOTE
          "
^TMP("TIUVIEW",10360,2)="STANDARD TITLE: WOMENS HEALTH NOTE
         "
^TMP("TIUVIEW",10360,3)="DATE OF NOTE: FEB 13, 2014@10:06:18  ENTRY DATE: FEB 13
, 2014@10:06:18      "
^TMP("TIUVIEW",10360,4)="      AUTHOR: FONTANA,THEO F       EXP COSIGNER:
                     "
^TMP("TIUVIEW",10360,5)="     URGENCY:                              STATUS: UNSIGN
ED                     "
^TMP("TIUVIEW",10360,6)=""
^TMP("TIUVIEW",10360,7)="NEWEST NOTE"
^TMP("TIUVIEW",10360,8)="TO BE HAD"
^TMP("TIUVIEW",10360,9)="NEW LINE"
^TMP("TIUVIEW",10360,10)=" "
^TMP("TIUVIEW",10360,11)=""
^TMP("TIUVIEW",10360,12)=""
^TMP("TIUVIEW",10360,13)=""
^TMP("TIUVIEW",10360,14)="----------------- DISCREET DATA FIELDS ---------------
--"
^TMP("TIUVIEW",10360,15)="NEXT CONTACT DATE: DEC 12,2014"

VAH>ZW NOTE
NOTE(0)="NEWEST NOTE"
NOTE(1)="TO BE HAD"
NOTE(2)="NEW LINE"

VAH>S NOTE(3)="UPDATE A NOTE TEXT"

VAH>K RET D SET^DSIO3(.RET,5179,.NOTE) ZW RET
RET="5179^1^1"

VAH>D GET^DSIO3(.RET,5179) ZW @RET
^TMP("TIUVIEW",10360,1)=" LOCAL TITLE: MCC NOTE
          "
^TMP("TIUVIEW",10360,2)="STANDARD TITLE: WOMENS HEALTH NOTE
         "
^TMP("TIUVIEW",10360,3)="DATE OF NOTE: FEB 13, 2014@10:07:25  ENTRY DATE: FEB 13
, 2014@10:06:18      "
^TMP("TIUVIEW",10360,4)="      AUTHOR: FONTANA,THEO F       EXP COSIGNER:
                     "
^TMP("TIUVIEW",10360,5)="     URGENCY:                              STATUS: UNSIGN
ED                     "
^TMP("TIUVIEW",10360,6)=""
^TMP("TIUVIEW",10360,7)="NEWEST NOTE"
^TMP("TIUVIEW",10360,8)="TO BE HAD"
^TMP("TIUVIEW",10360,9)="NEW LINE"
^TMP("TIUVIEW",10360,10)="UPDATE A NOTE TEXT"
^TMP("TIUVIEW",10360,11)=" "
^TMP("TIUVIEW",10360,12)=""
^TMP("TIUVIEW",10360,13)=""
^TMP("TIUVIEW",10360,14)=""
^TMP("TIUVIEW",10360,15)="----------------- DISCREET DATA FIELDS -----------------"
^TMP("TIUVIEW",10360,16)="NEXT CONTACT DATE: DEC 12,2014"
```

DSIO DELETE A NOTE

Reference Type

Category NOTES

Description This RPC allows a user to attempt to delete a note which must first pass TIU Authentication. Running this RPC without using the optional parameter, JUST, could fail the delete if TIU Authentication asks for it and so, must then be called again with justification.

Format `DELETE^DSIO3(.RET,IEN,JUST)`

Input Parameters

IEN:	Note (TIU DOCUMENT) internal entry number.
JUST:	This is just a string of text that will be saved off as the reason as to why the user needs to delete the note.

Output

SINGLE VALUE	
Success	1^SUCCESS
Failure	-1^ERROR MESSAGE

DELETE^DSIO3(.RET,IEN,JUST) — Example

```
VAH>D DELETE^DSIO3(.RET,5179) ZW RET
RET=1

VAH>D GET^DSIO3(.RET,5179) ZW @RET
^TMP("DSIO TIUVIEW",10360,0)=0
```

DSIO GET RECORD TEXT

Reference Type

Category NOTES

Description This RPC will return the TIU Document with any discreet data appended below the note separated by a line of dashes and a header.

Format `GET^DSIO3(.RET,IEN,TYP)`

Input Parameters

IEN:	Note (TIU DOCUMENT) internal entry number.
TYP:	Pass null for whole note with discreet data and addenda, "H" to return the header only, or "B" to return the body only.

Output GLOBAL ARRAY

Success	If null then return a list of formatted lines representing the TIU Document, discreet data (if any), and addenda (if any). In both cases there is a separator; however, if there is no data then the separator will not be included. If "H" then return a list of formatted lines representing the TIU Document with just the header. If "B" then return a list of formatted lines representing the TIU Document with just the body of the note.
Failure	0

GET^DSIO3(.RET,IEN,TYP) — Example

```
VAH>K RET D GET^DSIO3(.RET,5158) ZW @RET
^TMP("TIUVIEW",20708,1)=" LOCAL TITLE: MCC NOTE
          "
^TMP("TIUVIEW",20708,2)="STANDARD TITLE: WOMENS HEALTH NOTE
          "
^TMP("TIUVIEW",20708,3)="DATE OF NOTE: FEB 06, 2014@11:06:15  ENTRY DATE: FEB 06
, 2014@11:06:15       "
^TMP("TIUVIEW",20708,4)="      AUTHOR: FONTANA,THEO F       EXP COSIGNER:
                     "
^TMP("TIUVIEW",20708,5)="     URGENCY:                              STATUS: UNSIGN
ED                        "
^TMP("TIUVIEW",20708,6)=""
^TMP("TIUVIEW",20708,7)="LINE 1"
^TMP("TIUVIEW",20708,8)="LINE 2"
^TMP("TIUVIEW",20708,9)=" "
^TMP("TIUVIEW",20708,10)=""
^TMP("TIUVIEW",20708,11)=""
^TMP("TIUVIEW",20708,12)=""
^TMP("TIUVIEW",20708,13)="----------------- DISCREET DATA FIELDS ---------------
--"
^TMP("TIUVIEW",20708,14)="LABEL 2: SOME OTHER VALUE"
^TMP("TIUVIEW",20708,15)="M LABEL: VALUE 1"
^TMP("TIUVIEW",20708,16)="         VALUE 2"
^TMP("TIUVIEW",20708,17)="NEXT CONTACT DATA: DEC 12,2014"
^TMP("TIUVIEW",20708,18)="WP LABEL: THIS TYPE IS USED MORE FOR A FIELD THAT"
^TMP("TIUVIEW",20708,19)="          CONTAINS A LOT OF TEXT THAT'S MEANT TO BE RE
AD"
^TMP("TIUVIEW",20708,20)="          TOGETHER."

VAH>D GET^DSIO3(.RET,5185) ZW @RET
^TMP("TIUVIEW",10360,1)=" LOCAL TITLE: MCC NOTE
          "
^TMP("TIUVIEW",10360,2)="STANDARD TITLE: WOMENS HEALTH NOTE
          "
^TMP("TIUVIEW",10360,3)="DATE OF NOTE: FEB 13, 2014@14:46:43  ENTRY DATE: FEB 13
, 2014@14:46:43       "
^TMP("TIUVIEW",10360,4)="      AUTHOR: FONTANA,THEO F       EXP COSIGNER:
                     "
^TMP("TIUVIEW",10360,5)="     URGENCY:                              STATUS: COMPLE
TED                       "
^TMP("TIUVIEW",10360,6)=""
^TMP("TIUVIEW",10360,7)="   *** MCC NOTE Has ADDENDA ***"
^TMP("TIUVIEW",10360,8)=""
^TMP("TIUVIEW",10360,9)="LINE 1"
^TMP("TIUVIEW",10360,10)=" "
^TMP("TIUVIEW",10360,11)="/es/ THEO F FONTANA"
^TMP("TIUVIEW",10360,12)=""
^TMP("TIUVIEW",10360,13)="Signed: 02/13/2014 14:47"
^TMP("TIUVIEW",10360,14)=""
^TMP("TIUVIEW",10360,15)="02/13/2014 ADDENDUM                      STATUS: UNSIG
NED"
^TMP("TIUVIEW",10360,16)="LINE 1"
^TMP("TIUVIEW",10360,17)=" "
^TMP("TIUVIEW",10360,18)=""
^TMP("TIUVIEW",10360,19)=""
^TMP("TIUVIEW",10360,20)=""
^TMP("TIUVIEW",10360,21)="----------------------- ADDENDA ---------------------
--"
^TMP("TIUVIEW",10360,22)="5188^Addendum^UNSIGNED^FEB 13, 2014@14:47:59^FONTANA,T
HEO F"
```

DSIO NOTES BY DFN AND TITLE

Reference Type

Category NOTES

Description This RPC will return a list of notes along with identifying information that use the passed note titled for the identified patient.

Format `LIST^DSIO3(.RET,DFN,TITLE,SORT)`

Input Parameters

DFN: Patient Internal Entry Number

TITLE: The name of the entry to the TIU DOCUMENT DEFINITION file (8925.1) whose TYPE(.04) is TITLE.

SORT: This input parameter must be formatted as PAGE#,COUNT# (the comma is required). The COUNT portion of this parameter will control how many entries in the list will be returned and the PAGE portion will identify the increment by COUNT of the entries returned. Thus if there are 4 entries, a SORT of 1,2 will be entries 1 and 2 and 2,2 will return entries 3 and 4.

Output GLOBAL ARRAY

Success	Multi Lines of: The zero node will return the total number of entries returned. LIST ITEM ^ IEN ^ SUBJECT(1701) ^ STATUS(.05) ^ ENTRY DATE/TIME(1201) ^ AUTHOR/DICTATOR(1202) ^ VISIT LOCATION(1211) ^ LINKED DOC(.06) Linked Document: O:## = Original Document's IEN A:## = Addenda Document's IEN
Failure	0^ERROR MESSAGE

LIST^DSIO3(.RET,DFN,TITLE,SORT) — Example

```
VAH>D LIST^DSIO3(.RET,751,"MCC NOTE") ZW @RET
^TMP(23292,"DSIO LISTRET",0)=5
^TMP(23292,"DSIO LISTRET",1)="1^5187^^COMPLETED^FEB 13, 2014@14:46:45^FO
NTANA,THEO F^^A:5189;A:5190;"
^TMP(23292,"DSIO LISTRET",2)="1^5189 to 5187^Addendum^UNSIGNED^FEB 13, 2014@14:4
8:06^FONTANA,THEO F^^O:5187"
^TMP(23292,"DSIO LISTRET",3)="1^5190 to 5187^Addendum^UNSIGNED^FEB 13, 2014@14:4
8:08^FONTANA,THEO F^^O:5187"
^TMP(23292,"DSIO LISTRET",4)="2^5186^^COMPLETED^FEB 13, 2014@14:46:44^FO
NTANA,THEO F^^"
^TMP(23292,"DSIO LISTRET",5)="3^5185^^COMPLETED^FEB 13, 2014@14:46:43^FO
NTANA,THEO F^^A:5188;"
^TMP(23292,"DSIO LISTRET",6)="3^5188 to 5185^Addendum^UNSIGNED^FEB 13, 2014@14:4
7:59^FONTANA,THEO F^^O:5185"
^TMP(23292,"DSIO LISTRET",7)="4^5184^^UNSIGNED^FEB 13, 2014@14:46:41^FON
TANA,THEO F^^"
^TMP(23292,"DSIO LISTRET",8)="5^5183^^UNSIGNED^FEB 13, 2014@14:46:37^FON
TANA,THEO F^^"

VAH>D LIST^DSIO3(.RET,751,"MCC NOTE","1,1") ZW @RET
^TMP(23292,"DSIO LISTRET",0)=5
^TMP(23292,"DSIO LISTRET",1)="1^5187^^COMPLETED^FEB 13, 2014@14:46:45^FO
NTANA,THEO F^^A:5189;A:5190;"
^TMP(23292,"DSIO LISTRET",2)="1^5189 to 5187^Addendum^UNSIGNED^FEB 13, 2014@14:4
8:06^FONTANA,THEO F^^O:5187"
^TMP(23292,"DSIO LISTRET",3)="1^5190 to 5187^Addendum^UNSIGNED^FEB 13, 2014@14:4
8:08^FONTANA,THEO F^^O:5187"

VAH>D LIST^DSIO3(.RET,751,"MCC NOTE","2,1") ZW @RET
^TMP(23292,"DSIO LISTRET",0)=5
^TMP(23292,"DSIO LISTRET",1)="1^5186^^COMPLETED^FEB 13, 2014@14:46:44^FO
NTANA,THEO F^^"

VAH>D LIST^DSIO3(.RET,751,"MCC NOTE","6,1") ZW @RET
^TMP(23292,"DSIO LISTRET",0)="0^No notes found."
```

DSIO VPR GET PATIENT DATA

Reference Type

Category IHE

Description This RPC retrieves the requested data from VistA, and returns it in ^TMP("VPR",$J,n) as XML.

Format `GET^DSIO3V1(.VPR,DFN,TYPE,START,STOP,MAX,ID,FILTER)`

Input Parameters

DFN:	Patient Internal Entry Number.
TYPE:	The kind(s) of data to return, which may include: accession, allerg, appointment, clinicalproc, consult, demograph, document, factor, flag, immunization, skin, exam<>, educat, insur, polic, lab, panel, med, pharm, observ, order, patient, problem, procedure, reaction, surg, visit, vital, rad, xray, new, author, family, providers
START:	The date/time from which to begin searching for data [optional].
STOP:	The date/time at which to end searching for data [optional].
MAX:	The maximum number of items to return per data type [optional].
ID:	The identifier of a single item to return [optional, but TYPE must also be defined when used].
FILTER:	List of name-value pairs, further refining the search.

Output

GLOBAL ARRAY	
Success	Text array formatted as XML
Failure	Text array formatted as XML

GET^DSIO3V1(.VPR,DFN,TYPE,START,STOP,MAX,ID,FILTER) — Example

```
VAH>D GET^DSIO3V1(.RET,8,"author") ZW @RET
^TMP("VPR",13268,1)="<results version='1.1' timeZone='-0500' >"
^TMP("VPR",13268,2)="<author total='1' >"
^TMP("VPR",13268,3)="<current_user>"
^TMP("VPR",13268,4)="<address streetLine1='1155 MAIN ST' streetLine2='APT 207' c
ity='JUPITER' stateProvince='FLORIDA' postalCode='33458' />"
^TMP("VPR",13268,5)="<class value='TECHNICIAN' />"
^TMP("VPR",13268,6)="<facilities>"
^TMP("VPR",13268,7)="<facility code='500' name='VAMC ALBANY' latestDate='3140422
' domain='SMA.FO-ALBANY.MED.VA.GOV' >"
^TMP("VPR",13268,8)="<address  streetLine1='VA MEDICAL CENTER' streetLine2='1 3R
D sT.' city='ALBANY' stateProvince='NEW YORK' postalCode='12180-0097' />"
^TMP("VPR",13268,9)="</facility>"
^TMP("VPR",13268,10)="</facilities>"
^TMP("VPR",13268,11)="<name value='FONTANA,THEO F' />"
^TMP("VPR",13268,12)="<npi value='' status='NEEDS ENTRY' />"
^TMP("VPR",13268,13)="<telecomList>"
^TMP("VPR",13268,14)="<telecom usageType='H' value='(850)291-6704' />"
^TMP("VPR",13268,15)="</telecomList>"
^TMP("VPR",13268,16)="<type value='FULL TIME' />"
^TMP("VPR",13268,17)="</current_user>"
^TMP("VPR",13268,18)="</author>"
^TMP("VPR",13268,19)="</results>"
```

DSIO IHE GET DOC

Reference Type

Category IHE

Description This RPC will return the contents of the DSIO IHE DOCUMENT file unless one is passed as the XML parameter in which case only the xml document will be returned.

Format `DOC^DSIO3A(.RET,GUID,XML)`

Input Parameters

GUID: GUIDs identify objects such as interfaces, manager entry-point vectors (EPVs), and class objects. A GUID is a 128-bit value consisting of one group of 8 hexadecimal digits, followed by three groups of 4 hexadecimal digits each, followed by one group of 12 hexadecimal digits. The following example GUID shows the groupings of hexadecimal digits in a GUID: 6B29FC40-CA47-1067-B31D-00DD010662DA

XML: If a one is passed then instead of return the information about the document the xml document itself will be returned.

Output GLOBAL ARRAY

Success	FIELD ^ VALUE If XML=1 then the contents of DOCUMENT CONTENT (2)
Failure	-1

DOC^DSIO3A(.RET,GUID,XML) — Example

```
VAH>D DOC^DSIO3A(.RET,"133456789123456789951236528747777777") ZW @RET
^TMP(13268,"DSIOIHED",0)="PATIENT^Drmpatient,Ten"
^TMP(13268,"DSIOIHED",1)="GUID^133456789123456789951236528747777777"
^TMP(13268,"DSIOIHED",2)="DT CREATION^DEC 17, 2013"
^TMP(13268,"DSIOIHED",3)="DT IMPORT/EXPORT^APR 16, 2014@12:55:06"
^TMP(13268,"DSIOIHED",4)="DOCUMENT TYPE^APHP"
^TMP(13268,"DSIOIHED",5)="DIRECTION^IN"
^TMP(13268,"DSIOIHED",6)="DOCUMENT TITLE^DAMN TITLE"
^TMP(13268,"DSIOIHED",7)="SENDING FACILITY/PROVIDER^SENDING FACILITY"
^TMP(13268,"DSIOIHED",8)="INTENDED RECIPIENT^RECIPIENT"

VAH>D DOC^DSIO3A(.RET,"133456789123456789951236528747777777",1) ZW @RET
^TMP(13268,"DSIOIHED",19641.62,"6,715,",2,1)="<XML - THIS IS THE XML BLOCK>"
^TMP(13268,"DSIOIHED",19641.62,"6,715,",2,2)="</XML>"
```

DSIO IHE PATIENT LIST

Reference Type

Category IHE

Description This RPC will return a list of IHE Documents by patient.

Format `LIST^DSIO3A(.RET,DFN,SORT)`

Input Parameters

DFN: Patient Internal Entry Number.

SORT: This input parameter must be formatted as PAGE#,COUNT# (the comma is required). The COUNT portion of this parameter will control how many entries in the list will be returned and the PAGE portion will identify the increment by COUNT of the entries returned. Thus if there are 4 entries, a SORT of 1,2 will be entries 1 and 2 and 2,2 will return entries 3 and 4.

Output

GLOBAL ARRAY	
Success	Multi Lines of: The zero node will return the total number of entries returned. IEN ^ GUID ^ DATE OF CREATION ^ DATE OF IMPORT/EXPORT ^ TYPE ^ DIRECTION ^ TITLE ^ SENDING FAC ^ INTENDED RECIPIENT
Failure	-1

LIST^DSIO3A(.RET,DFN,SORT) — Example

```
VAH>D LIST^DSIO3A(.RET,715) ZW @RET
^TMP(13268,"DSIOIHEL",0)=5
^TMP(13268,"DSIOIHEL",1)="6^133456789123456789951236528747777777^DEC 17, 2013^AP
R 16, 2014@12:55:06^APHP^IN^DAMN TITLE^SENDING FACILITY^RECIPIENT"
^TMP(13268,"DSIOIHEL",2)="5^133456789123456789951236528745644444^DEC 17, 2013^AP
R 16, 2014@12:49:30^APHP^IN^DAMN TITLE^SENDING FACILITY^RECIPIENT"
^TMP(13268,"DSIOIHEL",3)="1^123456789123456789951236528745692315^MAR 25, 2014@10
:23^MAR 26, 2014@11:16:56^APHP^IN^ANTEPARTUM HISTORY & PHYSICAL^UNKNOWN^UNKNOWN"
^TMP(13268,"DSIOIHEL",4)="2^133456789123456789951236528745692315^MAR 25, 2014@10
:23^MAR 26, 2014@11:16:56^APHP^IN^ANTEPARTUM HISTORY & PHYSICAL^UNKNOWN^UNKNOWN"
^TMP(13268,"DSIOIHEL",5)="4^133456789123456789951236528745695555^DEC 17, 2013^DE
C 17, 2013^APHP^IN^DAMN TITLE^SENDING FACILITY^RECIPIENT"
```

DSIO IHE SAVE

Reference Type

Category IHE

Description This RPC will save an IHE Document and the information about it – data is validated before saving so there cannot be partial saves.

Format `SAVE^DSIO3A(.RET,GUID,DFN,DIRECT,DTC,DTIE,DTYE,TITLE,FAC,REC,DOC)`

Input Parameters

GUID:	GUIDs identify objects such as interfaces, manager entry-point vectors (EPVs), and class objects. A GUID is a 128-bit value consisting of one group of 8 hexadecimal digits, followed by three groups of 4 hexadecimal digits each, followed by one group of 12 hexadecimal digits. The following example GUID shows the groupings of hexadecimal digits in a GUID: 6B29FC40-CA47-1067-B31D-00DD010662DA
DFN:	Patient Internal Entry Number.
DIRECT:	I(N) or O(UT)
DTC:	Date and time of creation.
DTIE:	Date and time of import/export (optional). If not supplied then NOW will be used.
DTYE:	Document Type – these types are stored within the DSIO IHE DOCUMENT TYPE file and must be within this file to pass validation.
TITLE:	Free text of 1 to 100 characters in length.
FAC:	Free text of 1 to 50 characters in length.
REC:	Free text of 1 to 50 characters in length.
DOC:	An array of XML representing the IHE Document.

Output

SINGLE VALUE	
Success	IENS ^ IEN/DFN
Failure	-1^Error Message

SAVE^DSIO3A(.RET,GUID,DFN,DIRECT,DTC,DTIE,DTYE,TITLE,FAC,REC,DOC) — Example

```
VAH>D SAVE^DSIO3A(.RET,"133456789123456766951236528745695555",8,"IN","DEC 17,
2013",,"APHP","ANOTHER TITLE","SENDING FACILITY","RECIPIENT",.XML) ZW RET
RET="-1^The GUID is invalid or not unique."

VAH>D SAVE^DSIO3A(.RET,"133456789123556766951236528745695555",8,"IN","DEC 17,
2013",,"APHP","ANOTHER TITLE","SENDING FACILITY","RECIPIENT",.XML) ZW RET
RET="3^8"
```