DSIO 1.0 (T12) February 10, 2015

Required	WV*1.0*24 V0.04		
KIDS Filename	DSIO_1_T12.KID		
Associated Files	DSIO_1_T12_TITLES.7z		
	oCNTFramework	v0.0.3.15	
	CPRSNoteCOM.dll	v0.0.6.18	
	oCNTDialogs.dll	v0.0.1.24	
	TdlgAbdomPain		
	TdlgBackPain		
	TdlgCoughCongest		
	TdlgDate		
	TdlgDelivery		
	TdlgDischarge		
	TdlgEducation		
GUI(s)	TdlgEstDelivDate		
GOI(S)	TdlgFamily		
	TdlgFetalMov		
	TdlgGenetic		
	TdlgHeadache		
	TdlgHistory		
	TdlgImmunizations		
	TdlgInfectHist		
	TdlgLegPain		
	TdlgMedical		
	TdlgMenstHist		
	TdlgNausea		

TdlgOBExamHx	
TdlgOBSpread	
TdlgPalp	
TdlgPhysicalExam	
TdlgPregHist	
TdlgPreNatal	
TdlgRash	
TdlgROS	
TdlgRTClinic	
TdlgSocial	
TdlgSurgical	
TdlgVagBleed	
TdlgVagDischarge	
TdlgVisualChanges	
TdlgWheezing	
oCNT_OBHP.dll v1.0.0.18	
oCNT_OBFollowUp.dll	v1.0.0.18
oCNT_NursePostpartum.dll	v1.0.0.13

Pre-Installation:

Install patch WV*1.0*24 through the Kernel Installation & Distribution System if not already on you system.

Extract DSIO_1_T12_TITLES.7z to your default directory.

Installation:

Normal KIDS install through Kernel Installation & Distribution System

Post Installation:

Please view the end of this document for a quick overview of using discreet data to fill other VistA fields outside of DSIO.

GUI:

**For systems where the CPRSNoteCOM.dll has been installed replace it with the current version (listed above) – you do not have to register it in this case.

Register the CPRSNoteCOM.dll with the command "regsvr32 CPRSNoteCOM.dll" without quotes in the command window run as administrator.

Please create a Shared Template for your oCNTs with their passed value the full filename of the DLL. **Linking a ComObject to a title will ensure that you use the correct title per oCNT but in order to resume an oCNT you would have to launch as a Template and select the correct title.

Please set the Parameter DSIO OCNT LOCATION with the root path of where all your oCNTs will be stored and set your passed value for the template using this OCNT with the remainder (that being a subfolder (or not) and the name of the OCNT).

Any user's accessing an oCNT should have the DSIO OCNT CONTEXT assigned as a secondary menu option.

```
VistA:
Create these X-References...
______
790 - TO SYNC WITH DSIO AND TRIGGER (PREGNANCY STATUS)
______
AVFD1 MUMPS WHOLE FILE (#790)
     Field: PREGNANCY STATUS (790.16,2)
        1)= D WV\DeltaSIO4($G(DA(1)),$G(DA))
        2)= D WV^DSIO4($G(DA(1)),$G(DA))
AVFD2 MUMPS WHOLE FILE (#790)
     Field: EDD (790.16,3)
        1)= D WV\DeltaSIO4($G(DA(1)),$G(DA))
        2) = D WV^DSIO4(\$G(DA(1)),\$G(DA))
AVFD3 MUMPS WHOLE FILE (#790)
     Field: MENSTRUAL PERIOD END DATE (790.15,2)
        1)= D MH^DSIO4($G(DA(1)),$G(DA))
        2) = D MH^DSIO4(\$G(DA(1)),\$G(DA))
______
8925 - DISCREET DATA FOR NOTES
AVFD1 (#440) FIELD MUMPS IR ACTION
  Short Descr: PUSH DISCREET DATA FOR SIGNED NOTES
   Set Logic: N VFD S VFD=$S(X(1)="COMPLETED":"PUSH^DSIO6(DA)",X(1)="DELE
        TED":"DELETE^DSIO0(DA)",1:"") D:VFD'="" @VFD
   Kill Logic: Q
     X(1): STATUS (8925,.05) (Subscr 1) (forwards)
         Transform (Storage): S X=\$\$GET1^DIQ(8925.6,X_",",.01)
    NO RE-INDEXING ALLOWED!
______
123 - TRIGGER
______
AVFD (#1258) RECORD MUMPS IR ACTION
  Short Descr: Maternity Tracker Trigger logic
   Set Logic: D CON^DSIO5(X(2),X(1))
   Kill Logic: Q
     X(1): TO SERVICE (123,1) (forwards)
     X(2): PATIENT NAME (123,.02) (forwards)
   NO RE-INDEXING ALLOWED!
```

9000011 - TRIGGER

AVFD (#1259) RECORD MUMPS IR ACTION Short Descr: Maternity Tracker Trigger logic Set Logic: D PRO^DSIO5(X(2),X(1))

Kill Logic: Q

X(1): DIAGNOSIS (9000011,.01) (forwards) X(2): PATIENT NAME (9000011,.02) (forwards)

NO RE-INDEXING ALLOWED!

Description of Changes and Enhancements

Functionality **VistA M enhancements for Maternity Care**

Customer VA

C	ategory Inno	vation
T#	Date	Notes
12	02/10/2015	DSIO_1_T12.KID
-		cted ND1^DIC should be used instead of \$\$GET1^DIQ HECK^DSIO2 should be used to check DSIO PATIENT
11	02/09/2015	DSIO_1_T11.KID
- - -	X-Refs are no	tside components. ow a post install. v0.04 submitted.
10	02/09/2015	DSIO_1_T10.KID
	Added hook Created the PATIENT2 Created the	•
9	02/03/2015	DSIO_1_T9.KID
New	19641 83 File	e changes

- 19641.83 File changes
 - .01 (DFN) renamed to PATIENT
 - .01 is now DINUMed
 - Changes to DSIO803 made for DSIO3 have been merged into DSIO3
- DSIO803 deleted
- Added an additional parameter to SORT^DSIO2 (EXC) to facilitate the merge listed above

- Triggers for Pregnancy, Consults, Problems are handled by DSIO4 rather than DSIO5 DISO5 still handles LABs
- DSIO5U had an API to check DSIO PATIENT for a patient and add this should have been CHECK^DSIO2
- SORT^DSIO5U moved to SORTA^DSIO2, DSIO5U deleted
- No longer supporting the 63.04 X-Ref (AVFD) or the mod to LRVER3
- Updated the AVFD X-REF for Consults and Problems from DSIO4 to DSIO5
- Rebuilt file 19641.33 (DSIO TRIGGER LAB TEST)
- Rewrote DSIO5 (lab trigger); it is now an RPC that will: RPC: DSIO CHECK CONTROLLED LABS

; Process:

- ; 1) Loop through the ^PXRMINDX(63,"IP" OR "PI" for female patients for
- ; controlled labs. "IP" is item/patient for subscripted by test then
- by patient and is the direction on this RPC.
- ; ^PXRMINDX(63,"PI",1,3,2980224.1,"19;CH;7019774.9;386")=""
- ; 2) If the .05 of the LRIDT of 63.04 equals the specimen in the control
- ; then check the first piece of the test node.
- ; \$\$GET1^DIQ(63.04,7019774.9_","_19_",",.05,"I")
- ; ^LR(19,"CH",7019774.9,386)="11.1^L^^755"
- ; 3) If the result is a number and is => the control result then create
- ; a tracking log.
- ; 4) If the result is not a number then check if the result is equal to
- ; any special value listed in the control file.
- Rewrote the AGET subroutine for RPC: DSIO GET ORDER LIST
 - Provided the date conversion
- Corrected the SORT^DSIO2 API to allow the conversion of multiple date fields
- Corrected the SORT^DSIO2 API to allow the conversion of multiple title case fields

Sprint 27 Builds

- Moved the restore method to the show of the base form to allow checking and getting the user response before VistA setup – VistA setup is meant to occur first but that also means that dialogs are restored before the user can say no and the old data is deleted.
 - Embedded forms like Prenatal on OB H&P Initial will be cleared if restoration is denied.
- Medical History Other is now included within the note
- OB Exam Uterus: Normal, Uterus: Abnormal (Size included for both)
- Updated the FetusBabyCount observation for the delivery dialog (S10694)
- Corrected a bug with Delivery baby multiples showing two but only showing one tab
- Corrected a bug with Dialogs throwing an error when closed, this was intended to allow embedded dialogs to be saved so they could be restored
- Embedded dialogs are now saved when triggered by oCNT saving by report items
- GUI side configuration enhancements
- Corrected a bug will embedded dialogs were not being saved thus could not be restored (the
 - Prenatal tab of Initial and Follow-Up can now be restored.)
- Fix to Restore M code
- Completed RPC DSIO OCNT CLEAR NOTE DATA and added it to the oCNT base when a note is asked to be restored and the user says no then that interface data and all attached dialogs are deleted
- When a note's status is "DELETED" then all note data elements and the note within 19641.41 is deleted FetusBabyCount observation trigger corrected
- Fixed the multiple spin edit on the delivery dialog Corrected page number in GUI side configuration

- Corrected the report output in the OB Exam dialog,
 - Uterus will not report Uterus rather than Rectum
 - Corrected the status value of Rectum
- Added WITHIN (a new API in DSIO2) (DSIO2)
- Corrected an issue with observation values being returned as title case (the baby mixed case issue) (DSIO4P2)

8 01/12/2015 DSIO 1 T8.KID

Including trigger file and routine changes:

- Problem (9000011)
 - New Style X-Ref (AVFD)
 - Now handled by DSIO4
- Lab Data (63)
 - Routine LRVER3 with mod
 - New Style X-Ref (AVFD)
- Request/Consultation (123)
 - New Style X-Ref (AVFD)
 - Now handled by DSIO4
- File DSIO TRIGGER CPRS PROBLEM changed to DSIO TRIGGER PROBLEM
- Added routine WVTDALRT with mod to correct VA undefined error with DI
- Added updated education item list

7 12/19/2014 DSIO 1 T7.KID

CORE/oCNT - Does NOT adversely affect current functionality of the dashboard

- All dropdowns have been extended to 7 points beyond their longest item built into the oCNT base for Dialogs and the oCNT base form
- The contraceptives for Menstrual History has been updated to a dropdown and populated
- Maternal Information
 - Has had Formula added to Feeding Method and Breast has been changed to Breast Milk
 - Contraceptives has been changed to a dropdown and populated
 - Note created has been updated
- Delivery Information
 - In the Neonatal Information section change the label "Demised" to "Demise"
 - In the Neonatal Information section, within the baby tab, change the label 'Sex' to 'Gender'
 - In the Neonatal Information section, within the baby tab, under the label which is currently 'Sex' and will be changed to 'Gender' and unknown added
 - "BirthWeight" changed to "Birth Weight"
 - A second box was added for APGAR score
 - "Was Baby sent to a NICU?" changed to "NICU Admission"
 - Removed Tubal Sterilization
 - Added Nexplanon implant checkbox and label to Other Procedures section
 - Added IUD Insertion checkbox and label to the Other Procedures section
 - Changed label "Primary for Repeat Elective" to "Primary"
 - Changed the label "Reasons for Cesarean" to "Indications for Cesarean"
 - Moved section Indications for Cesarean (formerly named: Reasons for Cesarean) above "Incision" section
 - In the Indications for Cesarean (formerly named: Reasons for Cesarean) section, added "Elective"
 - Changed "Failed forceps/vacuum" to "Failed vacuum" and "failed forceps" in the Primary

and Secondary drop down choices

- Changed the label of the box labeled "Incision" to "Uterine Incision"
- Updated the Pull and Push functionality of this dialog
- Added updated education items to the Education dialog

6	11/07/14	DSIO_1	T6.KID
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VistA

- New File: DSIO OCNT ACTION to replace the .05 field of the DSIO OCNT DIALOGS (19641.49) file
 - These actions control if a dialog should be submitted as soon as it is saved, to not saving or not to be restored
- Discreet Data updated
- Observations of EDD by calculation have been corrected
 - o Forth piece is the EDD but if not provided the EDD will be calculated
- LMP observation corrected (8665-2), other observations for LMP removed
- Lactation observation fixed
- DSIO DELETE MCC CHECKLIST and DSIO DELETE MCC PAT CHLIST added
- Updated DSIO SAVE NON VA ENTITY to protect from possible duplicates
- Fields: GENDER, BIRTH WEIGHT, and STILLBORN added to the DSIO FETUS/BABY file
- Added configuration and push logic to support the PREGNANCY HISTORY oCNT Dialog

oCNT (OB H&P Initial and OB Follow Up)

- OB H&P Initial configured to reset the OB Flow Sheet (configured in VistA in DSIO OCNT DIALOG)
- Updated the PREGNANCY HISTORY dialog to populate using the patient's pregnancies and to push data back down to DSIO PREGNANCY HISTORY and DSIO FETUS/BABY once the note is completed/signed
- Calculating EDD by LMP will clear the LMP tab of vitals and update the LMP field with the LMP selected for EDD calculation
- Disappearing controls seems to be resolved
- Education selection dialog on the Plan tab. The selected items will be restored between notes.
- First tab is now named "Overview"
- Corrected resizing where the controls on the tabs were not moving to the right if the oCNT is expanded

Known Issues

Cannot tab through Prenatal, EDD, and LMP tabs

5	10/27/14	DSIO_1_T5.KID
4	06/27/2014	DSIO_1_T4.KID
3	03/28/2014	DSIO_1_T3.KID

Known Issues/Pending Items

VistA

- **1.** DSIO UPDATE A NOTE Creates a duplicate header
- 2. Add "Subject" to DSIO notes RPC's (?)
- **3.** Retrieve header information for a single note
- **4.** DSIO RETURN ENTITY return state abbreviation instead of full name
- **5.** DSIO RETURN ENTITY Single item return list is different than multiple item return
- 6. DSIO RETURN ENTITY Primary contact values does not save and so is not returned
- 7. Correct External translation of DT to FM DT in DT^DSIO2
- 8. DSIO IHE PATIENT LIST total count different for paging
- **9.** Pregnancy Status RPCs
- **10.** Lactation Status RPCs

- 11. EDD RPCs
- 12. Patient Non-VA Care RPCs
- 13. Patient Summary RPC
- 14. TIU Note Title Export/Import

oCNT

- 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 removed from OB Flow Sheet, they will have to be added to another dialog.
- **13.** Assessment and Plan?
- 14. Dialog Restore not working for not TListBox dialogs
- **15.** Command buttons confusing to the user merge the two layouts remove parameter
- **16.** Indicate to the user that they have seen a dialog/tab
- **17.** Make the oCNTDialogs.dll path the same as the oCNTs remove parameter
- 2 | 12/31/2013 | DSIO_1_T2.KID
 - Added file DSIO CPRS PROMBLEM (19641.31) to the build it is transported with data.
- 1 | 12/30/2013 | DSIO_1_T1.KID
 - First T Build
 - Only minor changes made to meet standards and practices.
 - Cross References created on files outside of DSS control where changed to AVFD
 (action type) (otherwise, it would be VFD...). VFD is a DSS owned namespace and
 sorts to the bottom of existing cross references.
 - Routines DSIO5 referenced MV when WV was intended.
 - The transporting of DD changes to files not owned by DSS should not transport more than the bare minimum. Therefore, 790 DD update only includes field .13 and 9000011 only includes field .02. These are the fields that include the VFD cross reference.
 - File security changed on all DSIO files.

Components:

Type: SINGLE PACKAGE National Package: NO

File #	File Name	Update DD	Send Sec. Code	Data Comes w/ file	Site Date	RSLVPTRS	User Override
19641	DSIO PATIENT	YES	YES	NO			
19641.01	DSIO MENSTRUAL HISTORY	YES	YES	NO			
19641.03	DSIO EDD HISTORY	YES	YES	NO			
19641.1	DSIO OUTSIDE ENTITIES	YES	YES	NO			
19641.11	DSIO PERSON	YES	YES	NO			
19641.112	DSIO FETUS/BABY	YES	YES	NO			
19641.12	DSIO OBSERVATIONS	YES	YES	NO			
19641.122	DSIO OBSERVATION CATEGORY	YES	YES	NO			
19641.123	DSIO OBSERVATION PUSH	YES	YES	YES	REPL	NO	NO
19641.124	DSIO PUSH HISTORY	YES	YES	NO			
19641.13	DSIO PREGNANCY HISTORY	YES	YES	NO			
19641.2	DSIO TRACKING HISTORY	YES	YES	NO			
19641.22	DSIO TRACKING SOURCE	YES	YES	YES	MERG	NO	NO
19641.23	DSIO TRACKING REASON	YES	YES	YES	MERG	NO	NO
19641.31	DSIO TRIGGER PROBLEM	YES	YES	YES	REPL	YES	NO
19641.33	DSIO TRIGGER LAB TEST	YES	YES	YES	REPL	YES	NO
19641.35	DSIO TRIGGER CONSULT	YES	YES	YES	REPL	NO	NO
19641.4	DSIO NOTE CONTROL	YES	YES	NO]	Install Populat	es
19641.401	DSIO REPORT ITEMS	YES	YES	YES	REPL	NO	NO
19641.402	DSIO REMINDER ELEMENTS	YES	YES	NO		UPDATE REM	
19641.41	DSIO NOTE DATA	YES	YES	NO			
19641.45	DSIO NOTE ELEMENT	YES	YES	NO			
19641.48	DSIO OCNT CONFIGRUATION	YES	YES	YES	REPL	NO	NO
					itle Refere	nces Updated	via Install
19641.49	DSIO OCNT DIALOGS	YES	YES	YES	REPL	NO	NO
19641.492	DSIO OCNT ACTION	YES	YES	YES	REPL	NO	NO
19641.4941	DSIO OCNT SHARED DATA	YES	YES	NO			
19641.5	DSIO TITLE CONFIGURATION	YES	YES	NO]	Install Populates	
19641.6	DSIO IHE DOCUMENT	YES	YES	NO			
19641.61	DSIO IHE DOCUMENT TYPE	YES	YES	YES	REPL	NO	NO
19641.7	DSIO MCC CHECKLIST	YES	YES	NO			
19641.71	DSIO MCC CHECKLIST TYPE	YES	YES	YES	REPL	NO	NO
19641.72	DSIO MCC CHECKLIST DCT	YES	YES	YES	MERG	NO	NO
19641.73	DSIO MCC CHECKLIST CAT	YES	YES	YES	MERG	NO	NO
19641.74	DSIO MCC CHECKLIST COMSTAT	YES	YES	YES	MERG	NO	NO
19641.76	DSIO MCC PATIENT CHECKLIST	YES	YES	NO			
19641.8	DSIO EDUCATION	YES	YES	NO			
19641.81	DSIO PATIENT EDUCATION	YES	YES	NO			
19641.83	DSIO PREG TIU LINK	YES	YES	NO			
19641.99	DSIO CODES	YES	YES	NO			

Key

	Transporting Data
	Information

ROUTINE:

PRE-INIT: DSIOC)P	POST-INIT: DSIO99	142489134
NAME	CHECKSUM	DESCRIPTION	
DSIO0	148893274	DSIO OCNT SUPPORT	
DSIO01	218863768	DSIO OCNT PUSH SUPPORT	
DSIO02	2345576	DSIO OCNT PUSH UTILITIES	
DSIO03	2900228	DSIO OCNT GUI CONFIGURATION	
DSIO1	167011007	DSIO GENERAL RPCS	
DSIO2	140893379	DSIO X-REFERENCES AND UTILITII	ES
DSIO3	152126779	DSIO TIU AND IHE SUPPORT	
DSIO4	56752682	DSIO PREGNANCY X-REF AND FILE SUPPORT	
DSIO5	11715703	DSIO TRIGGERS	
DSIO6	153319176	DSIO DISCREET DATA	
DSIO7	128583458	DSIO VPR FOR IHE	
DSIO8	164625090	DSIO EDUCATION RPCs	
DSIO9	37416125	DSIO PERSON	
DSIO10	138716758	DSIO OBSERVATION AND PREGNA	ANCY
DSIO11	121364627	DSIO MCC CHECKLIST	
DSIO12	27912995	DSIO CLINICAL RPCS	
DSIO13	4169346	DSIO ORDER RPCS	
DSIO98	10623240	DSIO PUSH AND LOG	

OPTION:

DSIO GUI CONTEXT
DSIO OCNT CONTEXT
DSIO UPDATE REMINDER ELEMENTS
DSIO EVAL LABS

SECURITY KEY:

DSIO OCNT CONFIGURATION

PARAMETER DEFINITION:

DSIO OCNT LOCATION	
DSIO EVAL LABS NOW	

REMOTE PROCEDURES:

OSIO CREATE A NOTE
OSIO CREATE TRACKING LOG
OSIO DDCS STORE (DIRECT)
OSIO DDCS STORE (TASK)
DSIO DELETE A NOTE
DSIO DELETE MCC CHECKLIST
OSIO DELETE MCC PAT CHKLST

DCIO FENANI E DATIENIT FINID
DSIO FEMALE PATIENT STARCH
DSIO FEMALE PATIENT SEARCH
DSIO GET EDUCATION ITEMS
DSIO GET AGG CUECKUST
DSIO GET MCC CHECKLIST
DSIO GET MCC PATIENT CHECKLIST
DSIO GET NOTE ELEMENT
DSIO GET NOTIFICATIONS/ALERTS
DSIO GET OBSERVATIONS
DSIO GET ORDER DETAIL
DSIO GET ORDER LIST
DSIO GET PATIENT EDUCATION
DSIO GET PERSON
DSIO GET PREG DETAILS
DSIO GET PREG OBSERVATIONS
DSIO GET PROVIDER
DSIO GET RECORD TEXT
DSIO GET REMINDER DETAIL
DSIO GET REMINDER LIST
DSIO GET TIU NOTES
DSIO GET TRACKING
DSIO IHE GET DOC
DSIO IHE PATIENT LIST
DSIO IHE SAVE
DSIO IS IT CONTROLLED?
DSIO MAKE ADDENDUM
DSIO OCNT CANCEL AUTOSAVE
DSIO OCNT CLEAR NOTE INTERFACE
DSIO OCNT DIALOG IMPORT
DSIO OCNT DIALOG LOOKUP
DSIO OCNT DIALOG POPULATE
DSIO OCNT GET LOCATION
DSIO OCNT IMPORT
DSIO OCNT POPULATE
DSIO OCNT RESTORE
DSIO ORQQAL LIST
DSIO ORQQPL LIST
DSIO ORQQPS LIST
DSIO ORQQVI VITALS
DSIO PATIENT INFORMATION
DSIO RETURN ENTITY
DSIO SAVE EDUCATION ITEM
DSIO SAVE MCC CHECKLIST
DSIO SAVE MCC PAT CHECKLIST
DSIO SAVE NON VA ENTITY
DSIO SAVE OBSERVATION

DSIO SAVE PATIENT EDUCATION
DSIO SAVE PERSON
DSIO SAVE PREG DETAILS
DSIO SELECT LIST
DSIO SET PATIENT INFORMATION
DSIO SIGN A NOTE
DSIO UPDATE A NOTE
DSIO VPR GET PATIENT DATA
DSIO OCNT GET REPORT ITEM
DSIO OCNT SAVE REPORT ITEM
DSIO CHECK CONTROLLED LABS