

DOCUMENT STORAGE SYSTEMS, INC.

DSIO – ALERTS with SMART

Development/Technical Guide

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Date	Revision	Description	Author
01/10/14	T3	RPC: ORATR ALERT TYPE was created for ComObject support but is no longer needed so it's being deleted.	Theodore Fontana
		<div>CPRSCart.exe</div> <div>v 1.0.29.24</div> <ul style="list-style-type: none"> • Every first run of a SMART Alert will try to launch a COMObject even if it is set as a dialog type. If it is a dialog type it will display after the COMObject. - CORRECTED • A non-programmer user, after launching a SMART Alert will not have access to SMART until re-launching CPRS. (This is by design, there's an option in the CPRS tools menu (Always Show SMART Notifications), if this is set then you will see it during patient selection and for notification next.) 	
01/07/14	T2	<ul style="list-style-type: none"> • VFD TAR CONTROL file (21695.5) <ul style="list-style-type: none"> ◦ Updated the X-REFs "C", "CR", and "D" and "AC" or OR NOTIFICATIONS. ◦ These X-REFs are subscribed by OR NOTIFICATION. Since OR NOTIFICATION is required to produce a SMART Alert this items should not be calculated without accounting for OR NOTIFICATION, thus when OR NOTE... is deleted (even if the items ORDERABLE ITEM, LAB TEST, REMINDER DIALOG is not) their X-REFs will be. Likewise, their X-REFs are restored when an OR NOTE... is set. • DSIOE – Environment Check Routine <ul style="list-style-type: none"> ◦ OR*3.0*358 is required to be installed before this build. If it is not this routine will cancel the install. ◦ This routine checks to see if routines XQALSET and ORWDX are in the same state as they were in development right before applying the SMART Alert mods. If they are not (they are a different version of the routine or have already been modified) then the environment check will have them skipped on install. ◦ This routine (DSIOE) is deleted after install. • DSIOE – Post Install Routine <ul style="list-style-type: none"> ◦ This routine will add all ORATR RPCs presently on the system to the OR CPRS GUI CHART CONTEXT. <p>This routine will prompt the user if they would like to change the current version of CPRS.</p>	Theodore Fontana
		<div>CPRSCart.exe</div> <div>v 1.0.29.23</div>	

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		Set a stringlist variable for SMART Alerts to be created on initialization to correct an error that would occur when the TAR.dll was not included in the CPRSChart.exe directory which prevented users from going beyond patient select.	
12/30/13	T1	<ul style="list-style-type: none"> • VFD TAR CONTROL: <ul style="list-style-type: none"> ◦ Field .02 now reads TIU TEMPLATE and points to file 8927. This field is also screen for only display those template entries that appear to be Reminder Dialogs or ComObjects. ◦ Field .01 of multiple 2 (OR NOTIFICATIONS) is now screened to use the AB X-REF to only show OR NOTIFICATIONS that are not already associated with a VFD TAR CONTROL TYPE. ◦ The ORDERABLE ITEM multiple (1) supported a whole file X-REF that has been modified to use the OR NOTIFICATION as the first subscript. • TRNSFRM^ORATR has been modified to support the modified X-REFs and now relies on the AB X-REF to update piece 5 (IEN of the VFD TAR CONTROL file) of XQAID instead of using ORDERABLE ITEM which created the potential for a mismatch. • TEMPLATE^ORATRPC has been modified to us the TIU TEMPLATE IEN. • New RPC: ORATR ALERT TYPE <p>*For more detailed documentation: \\dsshqfs\R and D\Source\DSIO - Maternity Tracker\TEST\CPRS\SMART Alert.docx</p>	Theodore Fontana

Contents

SMART ALERTS	4
DSIO and SMART ALERTS	4
VistA Side	5
Installation	5
Triggering SMART Alerts	5
Client Side	8

SMART ALERTS

Currently, there is no effective way to monitor or track results (to include normal, abnormal and incomplete test results and normal, abnormal and incomplete breast cancer screenings such as mammograms) in CPRS which can potentially cause unnecessary delay in and lack of appropriate follow-up care for patients. In addition, there is no system in place within CPRS that has the capacity to identify, monitor and track all women with normal, abnormal and incomplete mammogram results and assess sequential milestones in the diagnostic work up and treatment. Paired with National clinical reminders and the proposed tracking of normal, abnormal and incomplete test results capability, this modification to the current system would improve detection, diagnosis, treatment and management of breast cancer in the Veterans Health Administration (VHA).

A request from Patient Care Services and the Women Veterans Health Strategic Health Care Group was made to modify the current Computerized Patient Record System (CPRS) to include a tracking system for normal, abnormal and incomplete test results and breast cancer screening services. The result is that the New Models of Care (NMOC) Women's Health Sub-initiative has undertaken the responsibility of creating an automated solution that will monitor and track normal, abnormal and incomplete mammography test results.

*OR*3.0*358: Patch Description – Scott Presnell – 02/14/2014*

DSIO and SMART ALERTS

Maternity Tracker applies some bug fixes to SMART as well as expanding its functionality to launch COMObjects from Alerts.

The following documentation contains steps describing the bare minimum required to use SMART (for more information on SMART please refer to the OR*3.0*358 patch description.) and only serves to aid the Maternity Tracker team in using SMART; the changes made to SMART do not alter configuration or the usage of SMART.

The COMObject enhancement allows, if needed, alerts to open oCNTs where generating a note is more involved than the free text or reminder dialog options.

For a detailed listing of DSIO CPRS changes please refer to DSIO CPRS documentation.

Vista Side

Besides SMART you may see other names used to reference this project which are TAR and ATR.

Installation

Required Builds – In Order	
SMARTREMINDERS.PRD	OR
OR*3.0*358	OR
There are two routines that OR*3.0*358 requires to be modified that DSIO will install if the checksum corresponded to the routine that was modified at the time of the build. If this is unsuccessful then please refer to the OR*3.0*358 documentation.	
DSIO_ORATR_1_OT3.KID	DSIO

Triggering SMART Alerts

A SMART Alert is triggered off of an OR Notification so SMART Alerts are not alerts without the original alert system – it merely piggy backs off of existing alerts and if that existing alert has been identified in the VFD TAR CONTROL file then further action is taken to create a SMART Alert.

Therefore, to create a SMART Alert we need to create an entry in the VFD TAR CONTROL file.

VFD TAR CONTROL		
TYPE	This is the name of your control.	REQ
TIU TEMPLATE	This is the template that will be executed for this type of SMART Alert. These TIU Templates can only be Reminder Dialogs or COMObjects.	REQ
INITIAL NOTE	This is the name of the note used as the initial plan of care. This needs to be a TITLE.	REQ
INACTIVE	Turn off the alert.	
RECIPIENTS	<p>Set of codes indicating default provider recipients of a notification by their title or relationship to the patient. Notifications can be set up with any or all of the following codes:</p> <p>P (Primary Provider): deliver notification to the patient's Primary Provider.</p> <p>A (Attending Physician): deliver notification to the patient's Attending Physician.</p> <p>T (Patient Care Team): deliver notification to the patient's primary care Team.</p> <p>M (PCMM Team): deliver notification to users/providers linked to the patient via PCMM Team Position assignments.</p>	REQ

	<p>E (Encounter Provider): deliver notification to the encounter provider who is associated with the health factors generating this notification.</p> <p>R (PCMM Primary Care Practitioner): deliver notification to the patient's PCMM Primary Care Practitioner.</p> <p>S (PCMM Associate Provider): deliver notification to the patient's PCMM Associate Provider.</p>	
TRANSMIT TO BCR	If this field is marked YES, all the collected information for this type of notification will be transmitted to the Breast Care Registry (BCR). Otherwise, no information will be transmitted.	
ORDERABLE ITEM	This is the name of an orderable item that is associated with this type of TAR notification. You can have more than one orderable item.	
OR NOTIFICATION	This is an OR/EE NOTIFICATION that is associated with this type of TAR notification. This is what makes a SMART alert – if this is not set then there is no alert. There can be more than one notification that triggers a SMART Alert; however, an OR Notification can only be applied to a SMART Control entry ONCE. So if you don't see it listed then it is already being used by another entry.	REQ
DEFAULT TEXT	This is the default text for a TAR notification and will only be used if there is no other text associated with the notification.	
LAB TEST	This is a LABORATORY TEST that is associated with this type of TAR notification.	
REMINDER DEFINITION	This is a REMINDER DEFINITION that is associated with this type of TAR. If this reminder is true, a notification will be sent.	

SMART Alert Control Entry Creation — Example

```
VAH>D Q^DI

VA FileMan 22.0

Select OPTION: 1  ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: REMINDER DEFINITION// VFD TAR CONTROL
                               (6 entries)
EDIT WHICH FIELD: ALL//

Select VFD TAR CONTROL TYPE: SMART
  Are you adding 'SMART' as a new VFD TAR CONTROL (the 7TH)? No// Y  (Yes)
TIU TEMPLATE: OB H
  1  OB H&P INITIAL
  2  OB H&P INITIAL FLOWSHEET
CHOOSE 1-2: 1  OB H&P INITIAL
INITIAL NOTE: OB
  1  OB F/U NOTE          TITLE
      Std Title: OB GYN H & P NOTE
  2  OB H&P INITIAL          TITLE
      Std Title: OB GYN H & P NOTE
  3  OB H&P INITIAL FLOWSHEET      TITLE
      Std Title: WOMENS HEALTH NOTE
  4  OB MANAGED CARE          TITLE
      Std Title: WOMENS HEALTH NOTE
  5  OB NOTE          TITLE
      Std Title: WOMENS HEALTH NOTE
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 2  OB H&P INITIAL      TITLE
      Std Title: OB GYN H & P NOTE
INACTIVE:
RECIPIENTS: PATMERS
Select ORDERABLE ITEM:
Select OR NOTIFICATIONS: 70  PAP SMEAR RESULTS
  Are you adding 'PAP SMEAR RESULTS' as
    a new OR NOTIFICATIONS (the 1ST for this VFD TAR CONTROL)? No// Y  (Yes)
Select OR NOTIFICATIONS:
DEFAULT TEXT:
Select LAB TEST:
Select REMINDER DEFINITION:
```

Client Side

Please ensure that the TAR.dll is in the same directory as the CPRS executable (CPRSChart.exe) and CPRS should be a version of 1.0.29.24 at the minimum.