



RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **Referred Care Information Systems/EHR Component**

## **(BMC)**

### **Installation Guide & Release Notes**

Version 4 Patch 7  
May 2011

Office of Information Technology (OIT)  
Division of Information Resource Management  
Albuquerque, New Mexico

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## 1.0 Installation Notes

**Prefix:** BMC

**Current Version:** 4.0 Patch 7

### 1.1 Contents of Distribution

File	Description
IHSReferredCare.PatientReferral.vor	Object File for Referral tab (EHR)
IHSReferredCare.Referral.vor	Object File for RCIS tab (EHR)
IHSReferredCare.PatientReferral.dll	DLL file (EHR)
IHSReferredCare.Referral.dll	DLL file (EHR)
bmc_0400.07k	KIDS build for BMC v4.0 patch 7 (RPMS)
bmc_0400.07n	Notes File for BMC v4.0 patch 7 (RPMS)
bmc_0400.07i.pdf	Install Guide
bmc_0400.07o.pdf	User Guide Addendum

### 1.2 Required Resources

1. Electronic Health Record (EHR) v1.1
2. BMC v4.0
3. BJMD v1.0 (For C32 Reporting)
4. ICare Management System 2.0
5. AGG Visual Registration v1.0
6. Order Entry/Results Reporting v3.0 patch 190
7. Veterans Administration (VA) FileMan 22 or higher
8. VA Kernel 8 or higher
9. Indian Health Service (IHS) Dictionaries (Patient) v99.1 patch 16
10. Taxonomy Package v5.1 patch 5
11. IHS Dictionaries (Pointers) AUT v98.1 patch 20
12. Lexicon 2.0

13. IHS International Classification of Disease (ICD)/Current Procedural Terminology (CPT) Lookup & Grouper AICD v3.51 patch 7

## **1.3 Before You Begin: Installation Issues**

All EHR and Resource and Patient Management System (RPMS) users should be logged off the system during the installation process.

Installation will require administrator access to the VueCentric System Management Utility (VcManager).

## 2.0 Installation Instructions

### 2.1 KIDS Distribution

1. Load the Distribution into Kernel Installation and Distribution System (KIDS) using Option 1 on the KIDS Installation menu. The distribution was released in a file named bmc\_0400.07k.
2. Verify the load using Option 2 on the KIDS Installation menu.
3. Consider using Options 3 and 4 on the KIDS Installation menu to print and compare the Transport.
4. Install the distribution using Option 6 on the Installation menu.
5. For results, read the generated MailMan message, or use the KIDS Install File Print option to view/print the BMC\*4.00\*7 entry.
6. The postinstall routine, BMC4P6, will deliver a patch installation mail message to local users that hold the BMCZMENU, XUMGR, XUPROG, or XUPROGMODE security key.

### 2.2 Mailman Setup

#### 2.2.1 RCIS Parameters

Review the settings listed under RCIS Menu | MGT | ESP (Edit Site Parameters)

Under the “Mailman/Alert Parameter” option, verify that the following items (Figure 2-1) are all set to YES.

```
***** UPDATE BULLETIN/MESSAGE RELATED RCIS SITE PARAMETERS *****  
                WHEN ADDING/EDITING A REFERRAL  
  
PROMPT TO SEND MESSAGE FOR CHS REFERRALS?  YES  
PROMPT TO SEND MESSAGE FOR IHS REFERRALS?  YES  
PROMPT TO SEND MESSAGE FOR OTHER REFERRAL TYPE?  YES  
PROMPT TO SEND MESSAGE FOR IN-HOUSE REFERRALS?  YES  
Auto Send Alert to Referring Physician:  YES  
Auto Send Alert to Patient's Primary Provider:  YES  
  
Print Patient Name in subject line of Message:  YES
```


Figure 2-1: Referred Care Information System (RCIS) parameter

## 2.2.2 Mailman Groups

In order for the Contract Health (CHS) staff to receive mailman messages for new referrals created in EHR, updates will need to be made to the following BMC mail groups using Fileman:

- BMC CHS ALERT
- BMC IHS ALERT
- BMC INHOUSE ALERT
- BMC OTHER ALERT

If there are site-created alerts that also begin with BMC (Figure 2-2), then the last alert on the list will need to be included in the following update.



```
Select MAIL GROUP NAME: BMC
  1  BMC CHS ALERT
  2  BMC IHS ALERT
  3  BMC INHOUSE ALERT
  4  BMC OTHER ALERT
  5  BMC SITE SPECIFIC
CHOOSE 1-5:
```

Figure 2-2: List of BMC mail groups

For the BMC CHS ALERT, BMC IHS ALERT, and the last BMC mail group on the list, perform the following steps:

1. Add the CHS staff to the list of members for the mail group.
2. Verify that the TYPE field is set to PUBLIC.
3. Set the AUTHORIZED SENDER field to blank or empty.

For the BMC INHOUSE ALERT and BMC OTHER ALERT, perform the following steps:

1. Add the CHS staff to the list of members for the mail group.
2. Set the TYPE field to PRIVATE.
3. Set the AUTHORIZED SENDER field to blank.
4. Exit the mail group edit.
5. Reenter the same mail group and set the TYPE field back to PUBLIC. This refreshes the TYPE field so that it will behave as a public mail group.

```
INPUT TO WHAT FILE: MAIL GROUP//  
EDIT WHICH FIELD: ALL//  
  
Select MAIL GROUP NAME: BMC CHS ALERT  
NAME: BMC CHS ALERT//  
Select MEMBER: DEMO, CHS//  
MEMBER: DEMO, CHS//  
TYPE:  
Select MEMBER:  
DESCRIPTION:  
A Bulletin is sent when a CHS Type Referral is entered  
Edit? NO//  
TYPE: public//  
ORGANIZER: ADAM,ADAM//  
COORDINATOR:  
Select AUTHORIZED SENDER:  
ALLOW SELF ENROLLMENT?:  
REFERENCE COUNT: 29//  
LAST REFERENCED: MAY 6,2011//  
RESTRICTIONS:
```

Figure 2-3: Fileman screen capture for Mailman Group update

## 2.3 EHR-Referred Care Component Installation

The EHR installation procedure includes these three stages:

1. Adding two dll files to the lib folder on the EHR network share
  - a. IHSReferredCare.PatientReferral.dll
  - b. IHSReferredCare.Referral.dll
2. Importing two .vor files to VueCentric Object Registry
  - a. IHSReferredCare.PatientReferral.vor
  - b. IHSReferredCare.Referral.vor
3. Modifying Provider template to add two referral components

**Note:** For Citrix and Terminal Server setups, ensure that the shared files on the server are updated. Desktop setups will need the local files updated on each workstation.

### 2.3.1 Stage 1–DLL Files

- Copy the two .dll files into the EHR lib folder on the main EHR network share.
  - IHSReferredCare.PatientReferral.dll
  - IHSReferredCare. Referral.dll

## 2.3.2 Stage 2–VOR Files

1. Open vcManager.exe located in EHR\bin or EHR\util folder.

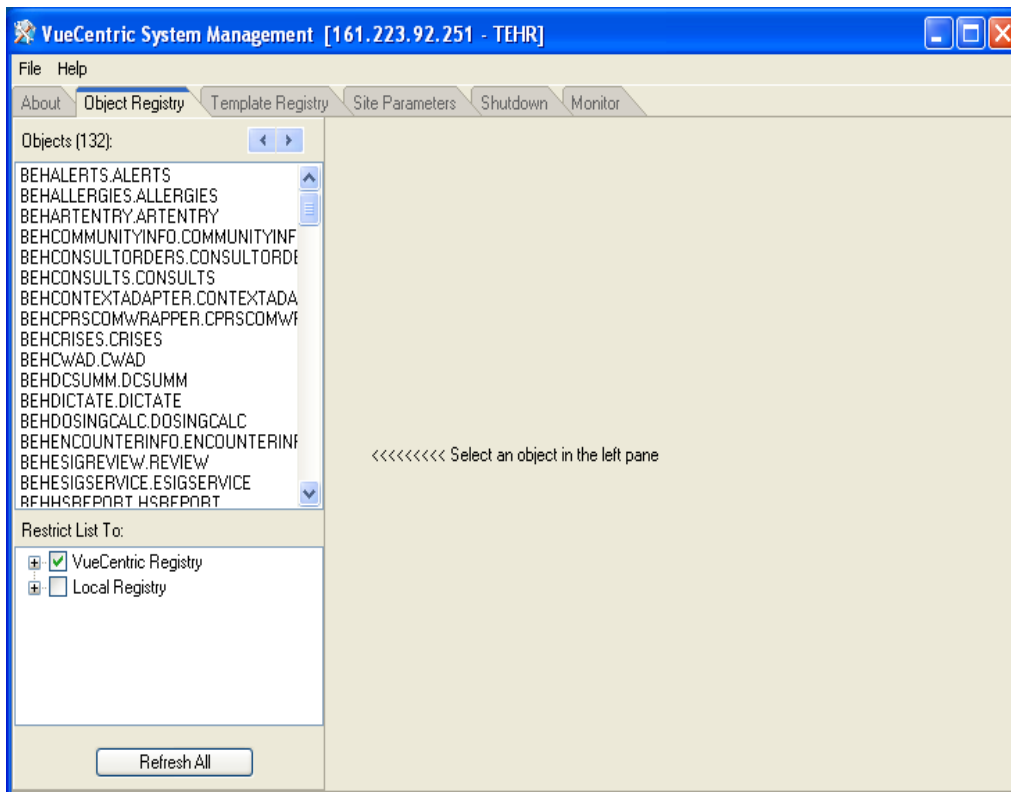


Figure 2-4: VC Manager Screen

2. Select the **Object Registry** tab.
3. Go to **File | Import**.
4. Select **IHSReferredCare.PatientReferral.vor** and click open to import.



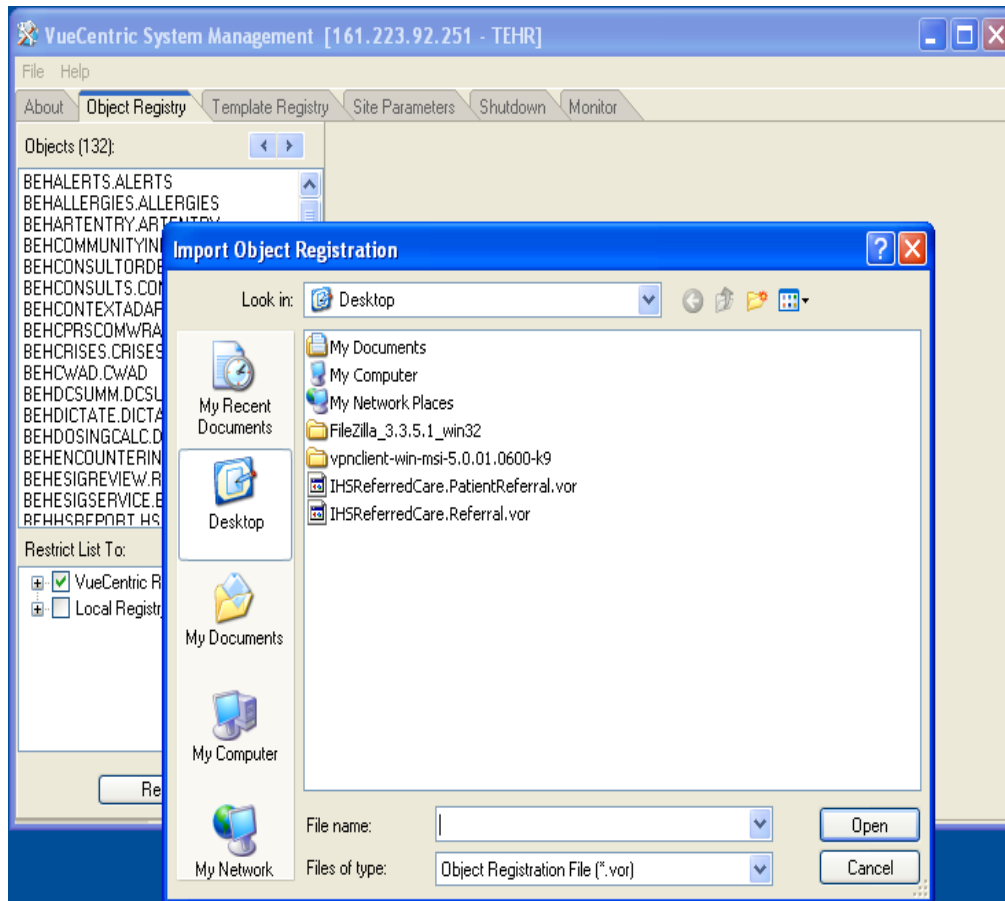


Figure 2-5: Select Import Object screen

5. Click **Apply** to save the information.

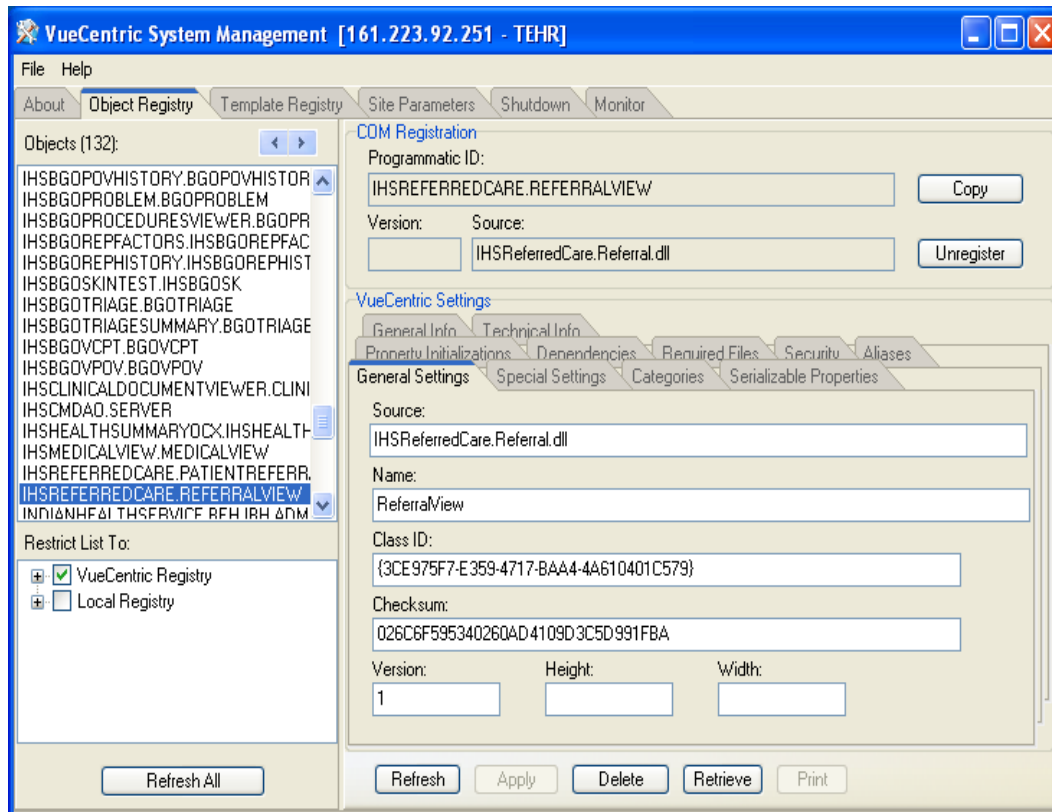


Figure 2-6: Object Loaded view in VC Manager

6. Repeat the Import (Steps 3–5) for the IHSReferredCare.Referral.vor file.
7. Close the VC Manager application when complete.

### 2.3.3 Stage 3–Provider Template

1. Open the EHR application and log in.
2. Right-click the header to display a context menu.
3. Select **Design Mode** (see Figure 2-7).

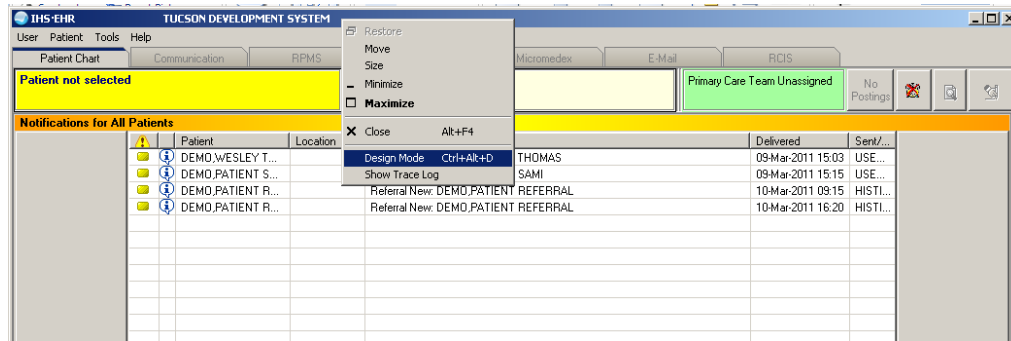


Figure 2-7: Design Mode option

4. Select the **Layout Manager** from the **Design** menu (Figure 2-8).
5. Highlight **Tabbed Notebook** and click **Properties**.

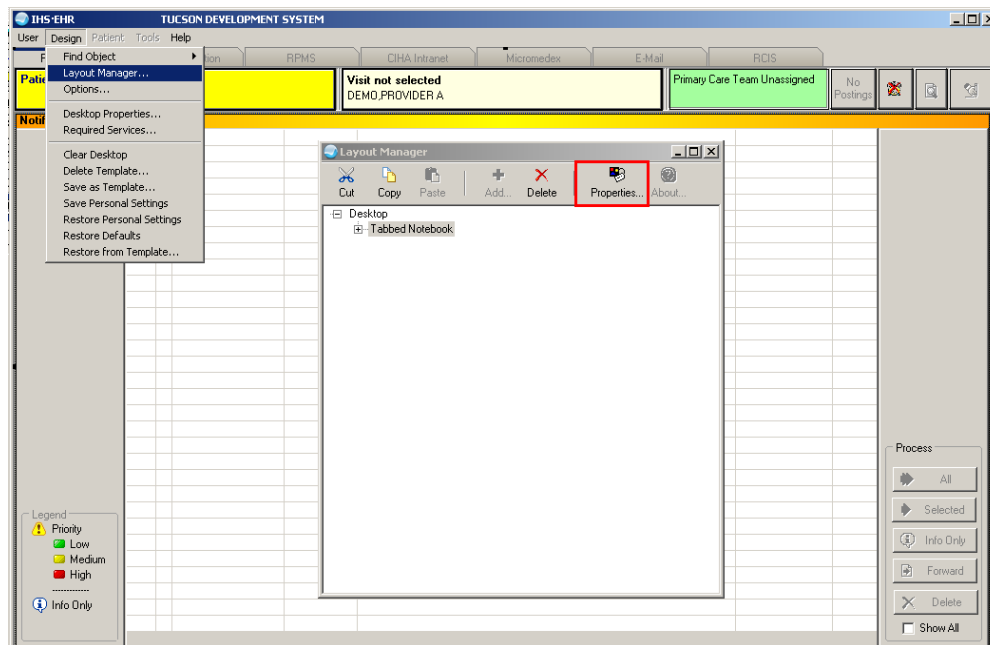


Figure 2-8: Design menu: Layout Manager

6. Select the **Tab Editor** and add a new tab named **RCIS**. Click **OK**.

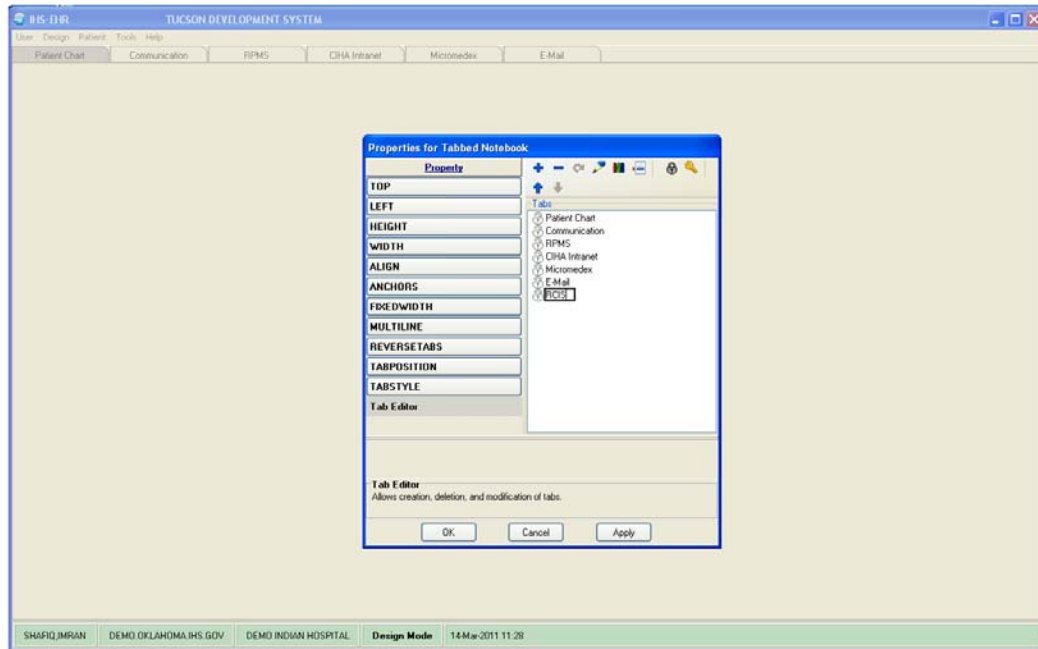


Figure 2-9: EHR Designer Mode—Create new RCIS tab

7. To add an object to the new **RCIS** tab, click **Add (+)** and expand the **Type | Object** list (Figure 2-10).
8. Select the **ReferralView** object from the list and click **Add**.

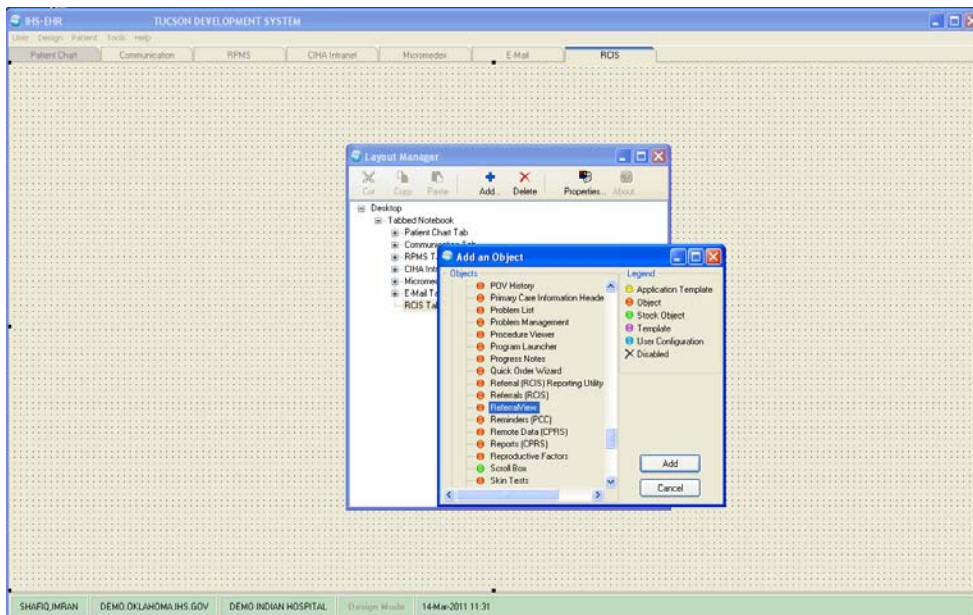


Figure 2-10: EHR Designer Mode—Add ReferralView object to RCIS tab

9. Open the properties for **ReferralView** and select **Align–All** to expand the component inside the **RCIS** tab.

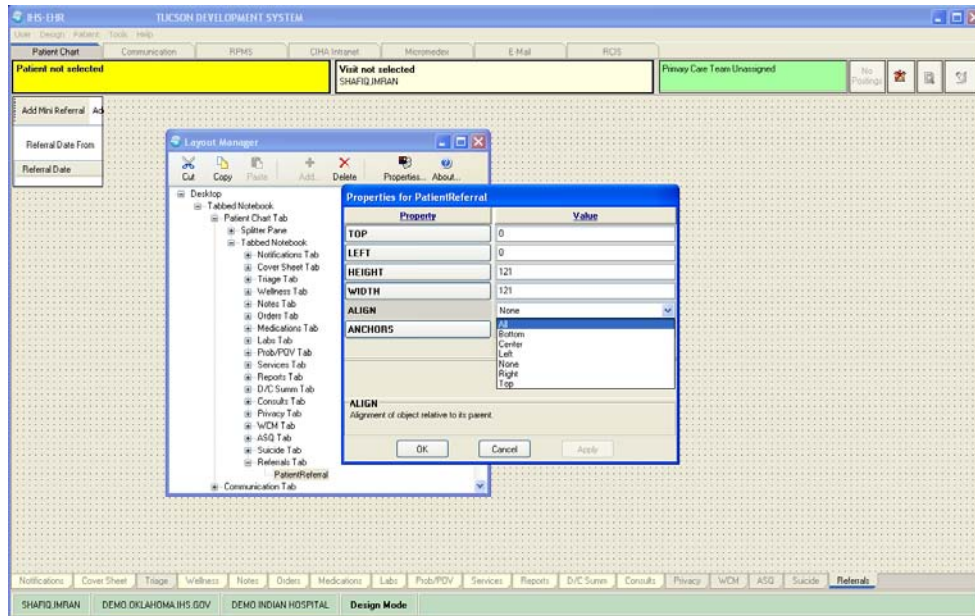


Figure 2-11: EHR Designer Mode–Align Setting in Object Properties

10. Now to add another new tab under the **Patient Chart** tab using the Layout Manager.
11. Open the properties for the Tabbed Notebook located under **Patient Chart**.

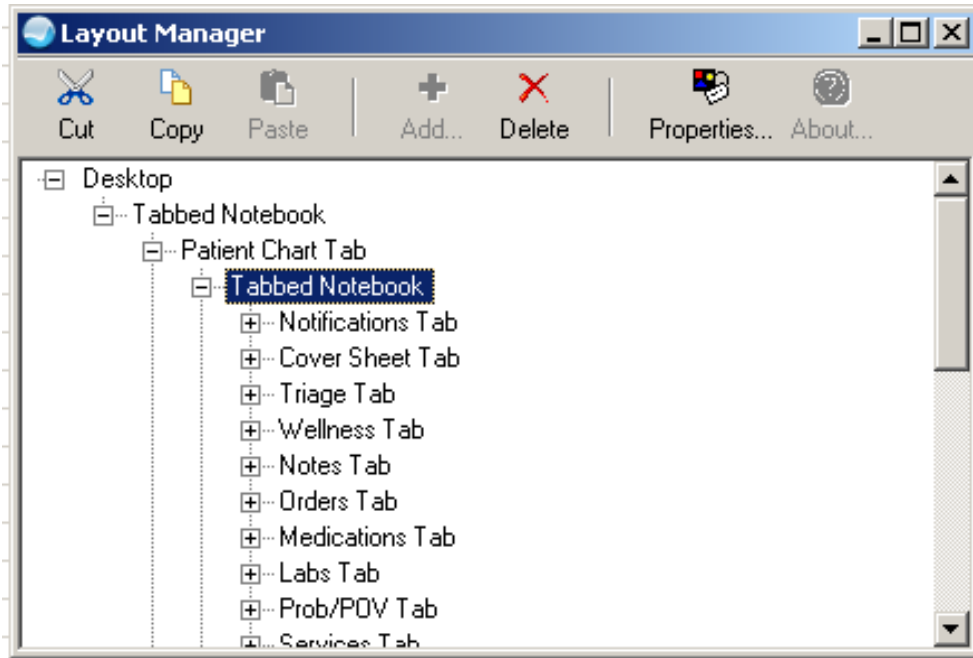


Figure 2-12: EHR Designer Mode–Layout Manager Close-up

12. Use the Tab Editor to add a new tab named **Referrals** and click **OK**.

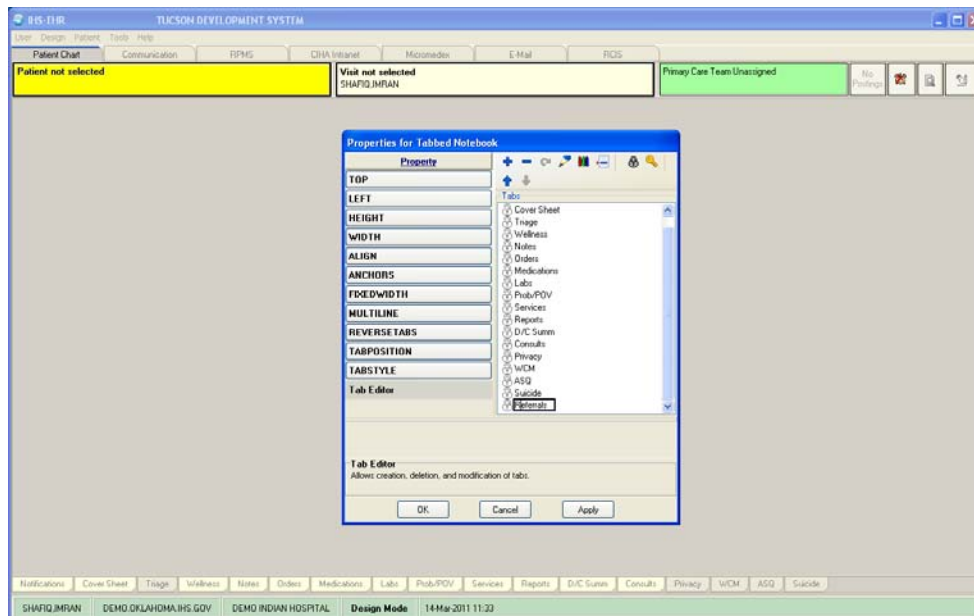


Figure 2-13: EHR Designer Mode–Add tab to Patient Chart

13. Add an Object to the new **Referrals** tab and select the **PatientReferral** object (see Steps 7–8).



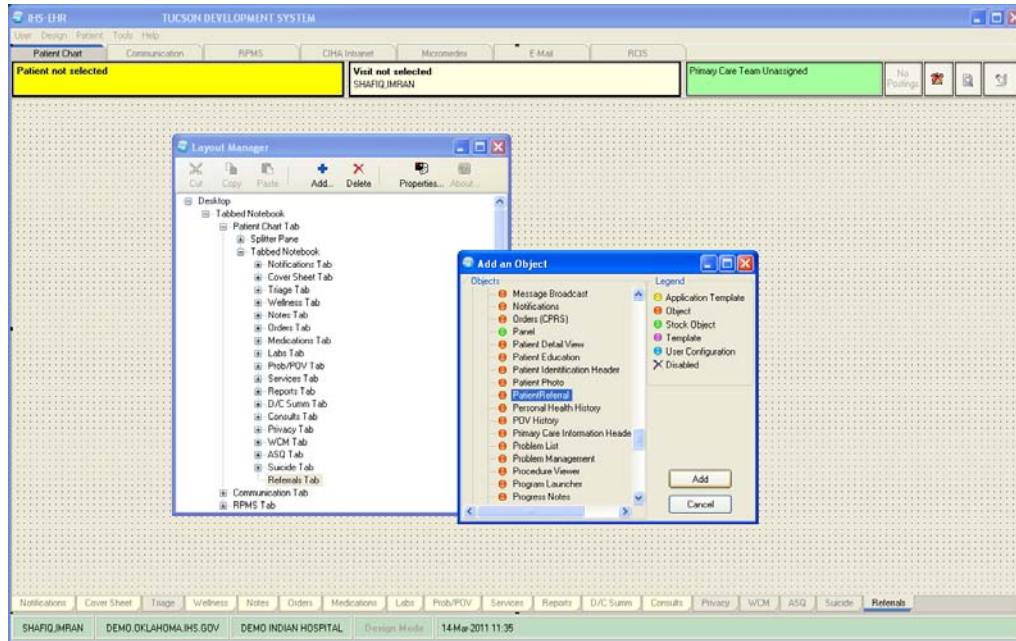


Figure 2-14: EHR Designer Mode–Add **PatientReferral** object to **Referrals** tab

14. Select **Align–All** in the **PatientReferral** properties to expand the component inside the **Referrals** tab (See Figure 2-11)

15. Save the design to the Provider template. The Provider template is generally titled **%Provider**.

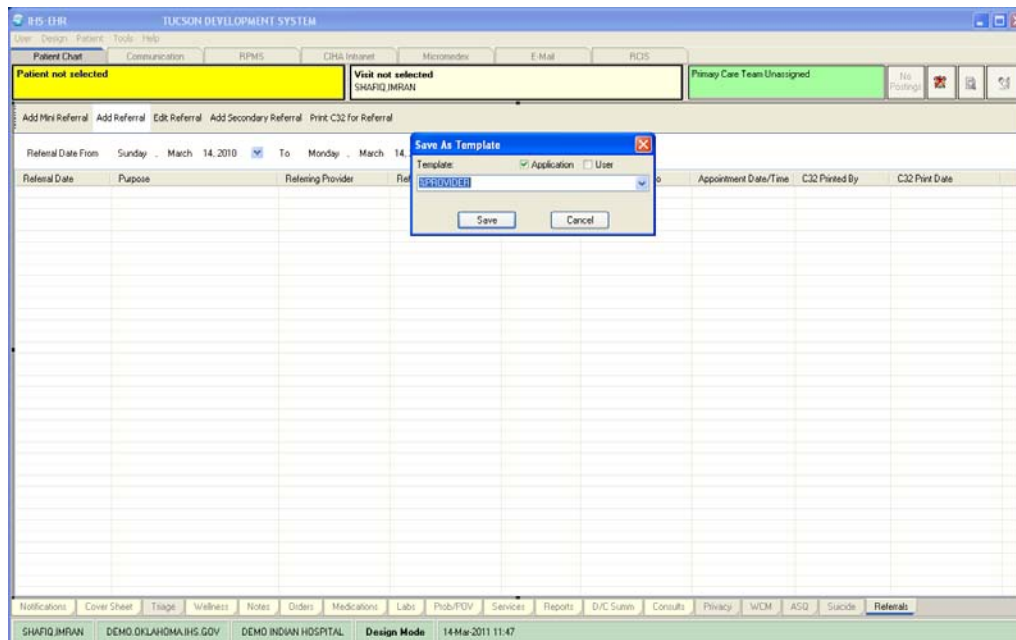


Figure 2-15: EHR Designer Mode–Save As screen for Provider template

### 3.0 Installation Verification

1. Log in to EHR as a Provider.
2. The **RCIS** tab should show referrals authored by the currently logged-in provider (see below).

The screenshot shows the 'RCIS' tab in the IHS EHR system. The window title is 'IHS EHR TUJCSO DEVELOPMENT SYSTEM'. The menu bar includes 'User', 'Patient', 'Tools', and 'Help'. Below the menu bar are tabs for 'Patient Chart', 'Communication', 'RIMS', 'DHA Intranet', 'Micromedex', 'E-Mail', and 'RCIS'. The 'RCIS' tab is active, displaying a table of referrals. The table has columns for Chart Number, Patient Name, Referral Date, Purpose, Referring Provider, Referral Number, CHS Status, Facility Referred To, Appointment Date/Time, and C32 Printed By. The data is filtered for the date range 'Wednesday, March 09, 2011' to 'Wednesday, March 09, 2011'. The table contains five rows of data.

Chart Number	Patient Name	Referral Date	Purpose	Referring Provider	Referral Number	CHS Status	Facility Referred To	Appointment Date/Ti...	C32 Printed By
323289	DEMO PATIENT REFERRAL	MAR 09, 2011	CT SCAN	DEMO PROVIDER A	5059011100146	PENDING	<UNKNOWN>		
323289	DEMO PATIENT REFERRAL	MAR 09, 2011	CT SCAN	DEMO PROVIDER A	5059011100147	PENDING	<UNKNOWN>		
373746	DEMO PATIENT SAMI	MAR 09, 2011	SUR	DEMO PROVIDER A	5059011100154	APPROVED	GASTINEAU MD KIRK	MAR 12, 2011@13:00	
114319	DEMO WESLEY THOMAS	MAR 09, 2011	THYROID STABILIZATION	DEMO PROVIDER A	5059011100160	PENDING	LOVELACE HEALTH SY...	MAR 15, 2011@14:30	
373746	DEMO PATIENT SAMI	MAR 09, 2011	SUR	DEMO PROVIDER A	5059011100154 - A2	PENDING	GASTINEAU MD KIRK		

Figure 3-1: RCIS tab window

3. Go to the **Patient Chart** tab..
4. Select a patient.
5. The **Referrals** tab under patient chart should display the referrals for the patient as shown below.



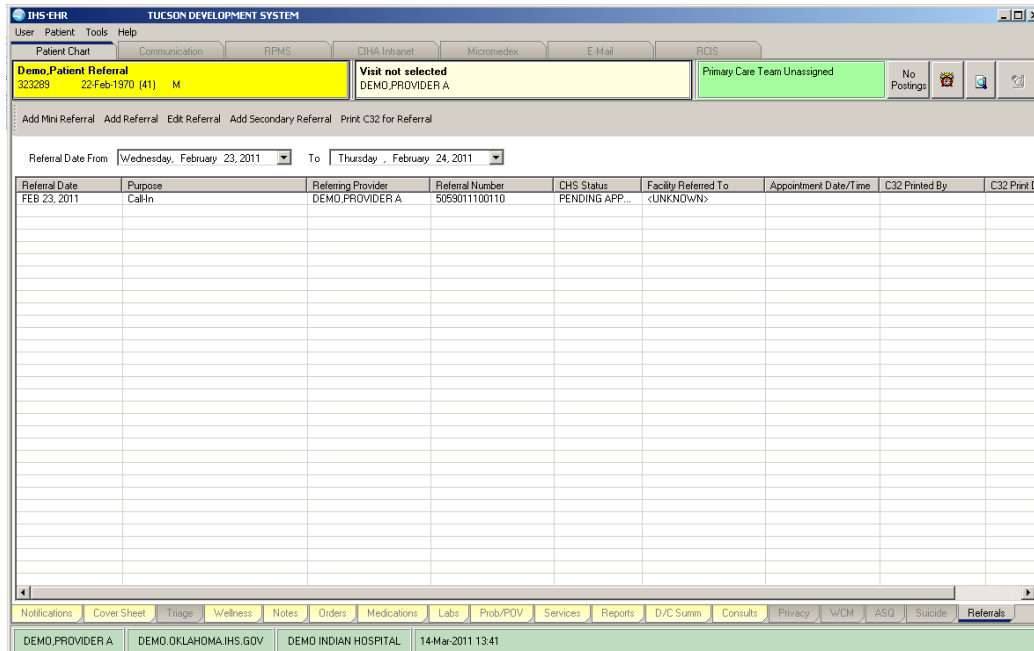


Figure 3-2: Referrals tab under Patient Chart

**Note:** The following verification steps will only work at sites that have the MPI/C32 module installed.

6. Select a referral from the list.
7. Click **Print C32 for referral**.
8. A C32 document should display in a separate window (refer to Figure 3-3).
9. Click **Print** to select a printer and then click **OK**.

**Clinical Document**  
Continuity of Care Document - CCD for GENERATELIST PATIENT ONE at DEMO IHS CLINIC  
Created On: March 11, 2011

**Patient:** GENERATELIST PATIENT ONE      **MRN:** 8995\_P49 ; 20046

**Birthdate:** \*\*      **Sex:** Female

**Guardian:** March 15, 1970      **Next of Kin:**

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**Conditions or Problems**

Date	Name	Status	ICD-9
01/19/2011	Coronary Atherosclerosis Of Unspecified Type Of Vessel,native Cr Graft	Active	414.00
08/04/2010	Exercise Induced Bronchospasm		493.81

**Allergies and Adverse Reactions**

No Allergy Information for the report generation criteria. However, some allergy information may come from the problem list and may be included in the Condition module

**Encounters**

Date/Time	Location	Clinic	Description
02/10/2011 16:52:00	DEMO IHS CLINIC	GENERAL	Service Category: AMBULATORY
02/09/2011 10:31:00	DEMO IHS CLINIC	GENERAL	Service Category: DAY SURGERY
01/19/2011 19:14:00	DEMO IHS CLINIC	GENERAL	Service Category: AMBULATORY
01/19/2011 12:00:00	DEMO IHS CLINIC	PHARMACY	Service Category: AMBULATORY

Figure 3-3: Example of C32 Report

## Contact Information

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

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

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

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

**E-mail:** [support@ihs.gov](mailto:support@ihs.gov)