



An OLS/CTMS Changeling

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Introduction

- Many thanks to the OHSUG for the opportunity to present this poster.
- Many thanks to the OHSUG Planning and Review Committee for their infinite patience in receiving and expeditious review of this presentation.



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Introduction (cont'd)

- This presentation will show how to use Oracle database objects to link Siebel CTMS and OC so that OC data can be displayed in Siebel Clinical in real-time.
 - Scenario
 - Instructions
 - Summary



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Scenario

- We want to show live data in CTMS regarding subject visits, as recorded in Oracle Clinical / RDC.
- In CTMS, we create an OC Subject Visits view under Site Management, to display all subject visits for the selected site.
- We also create an applet to display OC Subject Visits under Subject, so that a CRA or a manager can see the OC record of subject visit status.

...without any VBC/EBCs, integration objects, or inserting a single record!



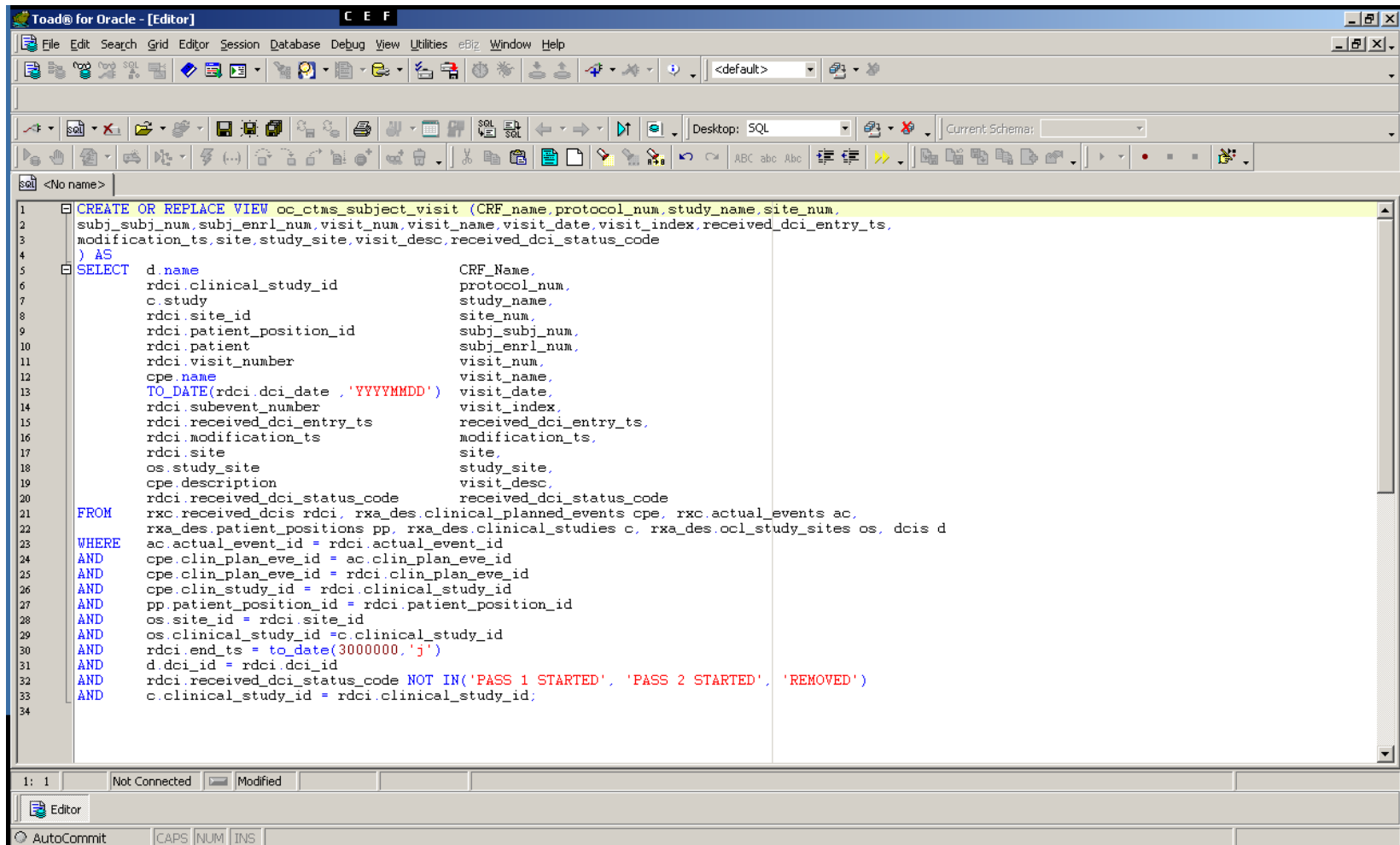
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Instructions

1. Create View in OC database.
2. Create custom table in Siebel Tools, and apply to schema.
3. Drop the custom extension table on the backend.
4. Create Database Link between CTMS and OC databases.
5. Create a new View in the CTMS database with the same name as the custom extension table, that Selects from the View in the OC database.
6. Create new objects in Siebel Tools using the new "table".



Create a new View in the OC database



```

Toad@ for Oracle - [Editor]
File Edit Search Grid Editor Session Database Debug View Utilities eBiz Window Help
Desktop: SQL Current Schema:
SQL
1 CREATE OR REPLACE VIEW oc_ctms_subject_visit (CRF_name,protocol_num,study_name,site_num,
2 subj_subj_num,subj_enrl_num,visit_num,visit_name,visit_date,visit_index,received_dci_entry_ts,
3 modification_ts,site,study_site,visit_desc,received_dci_status_code
4 ) AS
5 SELECT d.name                                CRF_Name,
6        rdci.clinical_study_id                protocol_num,
7        c.study                               study_name,
8        rdci.site_id                          site_num,
9        rdci.patient_position_id              subj_subj_num,
10       rdci.patient                           subj_enrl_num,
11       rdci.visit_number                      visit_num,
12       cpe.name                               visit_name,
13       TO_DATE(rdci.dci_date,'YYYYMMDD')     visit_date,
14       rdci.subevent_number                   visit_index,
15       rdci.received_dci_entry_ts             received_dci_entry_ts,
16       rdci.modification_ts                   modification_ts,
17       rdci.site                              site,
18       os.study_site                          study_site,
19       cpe.description                        visit_desc,
20       rdci.received_dci_status_code           received_dci_status_code
21 FROM   rxc.received_dcis rdci, rxa_des.clinical_planned_events cpe, rxc.actual_events ac,
22        rxa_des.patient_positions pp, rxa_des.clinical_studies c, rxa_des.ocl_study_sites os, dcis d
23 WHERE  ac.actual_event_id = rdci.actual_event_id
24        AND cpe.clin_plan_eve_id = ac.clin_plan_eve_id
25        AND cpe.clin_plan_eve_id = rdci.clin_plan_eve_id
26        AND cpe.clin_study_id = rdci.clinical_study_id
27        AND pp.patient_position_id = rdci.patient_position_id
28        AND os.site_id = rdci.site_id
29        AND os.clinical_study_id = c.clinical_study_id
30        AND rdci.end_ts = to_date(3000000,'j')
31        AND d.dci_id = rdci.dci_id
32        AND rdci.received_dci_status_code NOT IN('PASS 1 STARTED', 'PASS 2 STARTED', 'REMOVED')
33        AND c.clinical_study_id = rdci.clinical_study_id;
34
1: 1 Not Connected Modified
Editor
AutoCommit CAPS NUM INS

```



Create custom table in Siebel Tools

Siebel Tools - Siebel Repository - [Columns] C E F

File Edit View Screens Go Query Debug Tools Window Help

Object Explorer

Project: []

Types Detail Flat

- Siebel Objects
 - Applet
 - Application
 - Business Component
 - Business Object
 - Business Service
 - Dock Object
 - EIM Interface Table
 - Entity Relationship Diagram
 - Link
 - Pick List
 - Project
 - Screen
 - Table
 - Column

Properties

Column [CONFLICT_ID]

Alphabetic Categorized

ASCII Only FALSE

Alias

Cascade Clear N

Comments

Computation Expression

Default 0

Default Insensitivity None

Denormalization FALSE

EIM Processing FALSE

Encrypt Key Specification

FK Column 1:M R

FK Column M:1 R

Force Case

Foreign Key Table

Inactive FALSE

Low Bounded FALSE

Low Truncation

Column List

Tables

Extend Apply/DDL Activate

W	Name	Changed	Project	User Name	Alias	Type	Module	Object
	CX_OC_SUBJ_VIS	✓	Table LifeScience	CX_OC_SUBJ_VIS		Data (Public)		

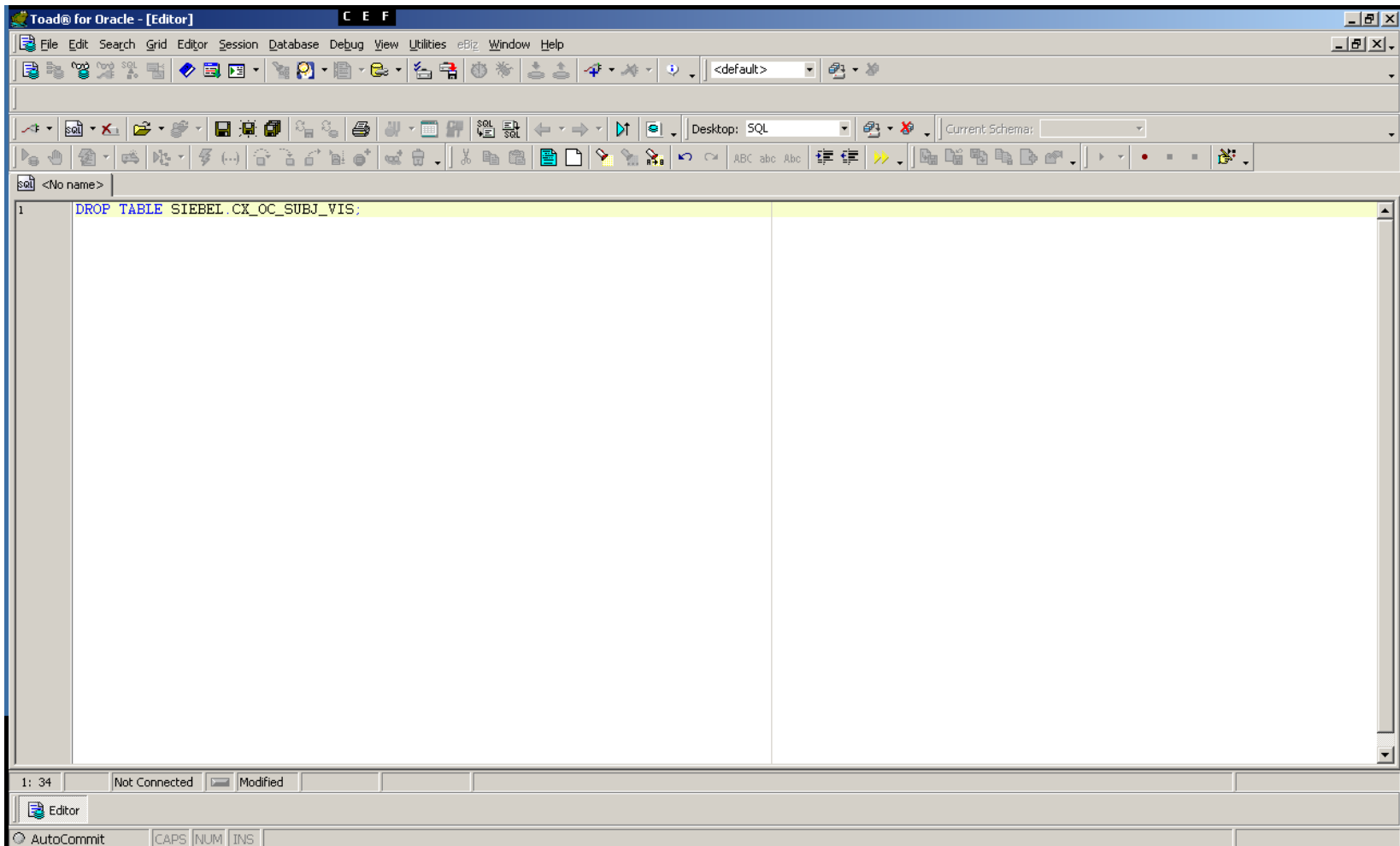
Columns

W	Name	Changed	User Name	Alias	Type	Primary Key	User Key Set	Nullable	Translate	Translation
	CONFLICT_ID	✓	Conflict Id		System	1				
	CREATED	✓	Created		System					
	CREATED_BY	✓	Created By		System					
	CRF_NAME	✓	CRF_NAME		Data (Public)			✓		
	DB_LAST_UPD	✓	DB Last Updated		System			✓		
	DB_LAST_UPD_SRC	✓	DB Last Updated By		System			✓		
	LAST_UPD	✓	Last Updated		System					
	LAST_UPD_BY	✓	Last Updated By		System					
	MODIFICATION_NUM	✓	Modification Number		System					
	MODIFICATION_TS	✓	MODIFICATION_TS		Extension			✓		
	PROTOCOL_NUM	✓	PROTOCOL_NUM		Extension			✓		
	RECEIVED_DCI_ENTRY_TS	✓	RECEIVED_DCI_ENTRY_TS		Extension			✓		
	RECEIVED_DCI_STATUS_CODE	✓	RECEIVED_DCI_STATUS_CODE		Extension			✓		
	ROW_ID	✓	Row Id		System	✓				
	SITE_NUM	✓	SITE_NUM		Extension			✓		
	SUBJ_ENRL_NUM	✓	SUBJ_ENRL_NUM		Extension			✓		
	SUBJ_SUBJ_NUM	✓	SUBJ_SUBJ_NUM		Extension			✓		
	VISIT_DATE	✓	VISIT_DATE		Extension			✓		
	VISIT_DESC	✓	VISIT_DESC		Extension			✓		
	VISIT_INDEX	✓	VISIT_INDEX		Extension			✓		
	VISIT_NAME	✓	VISIT_NAME		Extension			✓		
	VISIT_NUM	✓	VISIT_NUM		Extension			✓		

Item: 1 of 22 Language:ENU



Drop the custom extension table on the backend





Create Database Link between CTMS and OC databases

The screenshot shows the Toad for Oracle - [Editor] interface. The main editor window contains the following SQL code:

```
1 CREATE PUBLIC DATABASE LINK "OCDB_PROD"  
2 USING 'ODCB_PROD';
```

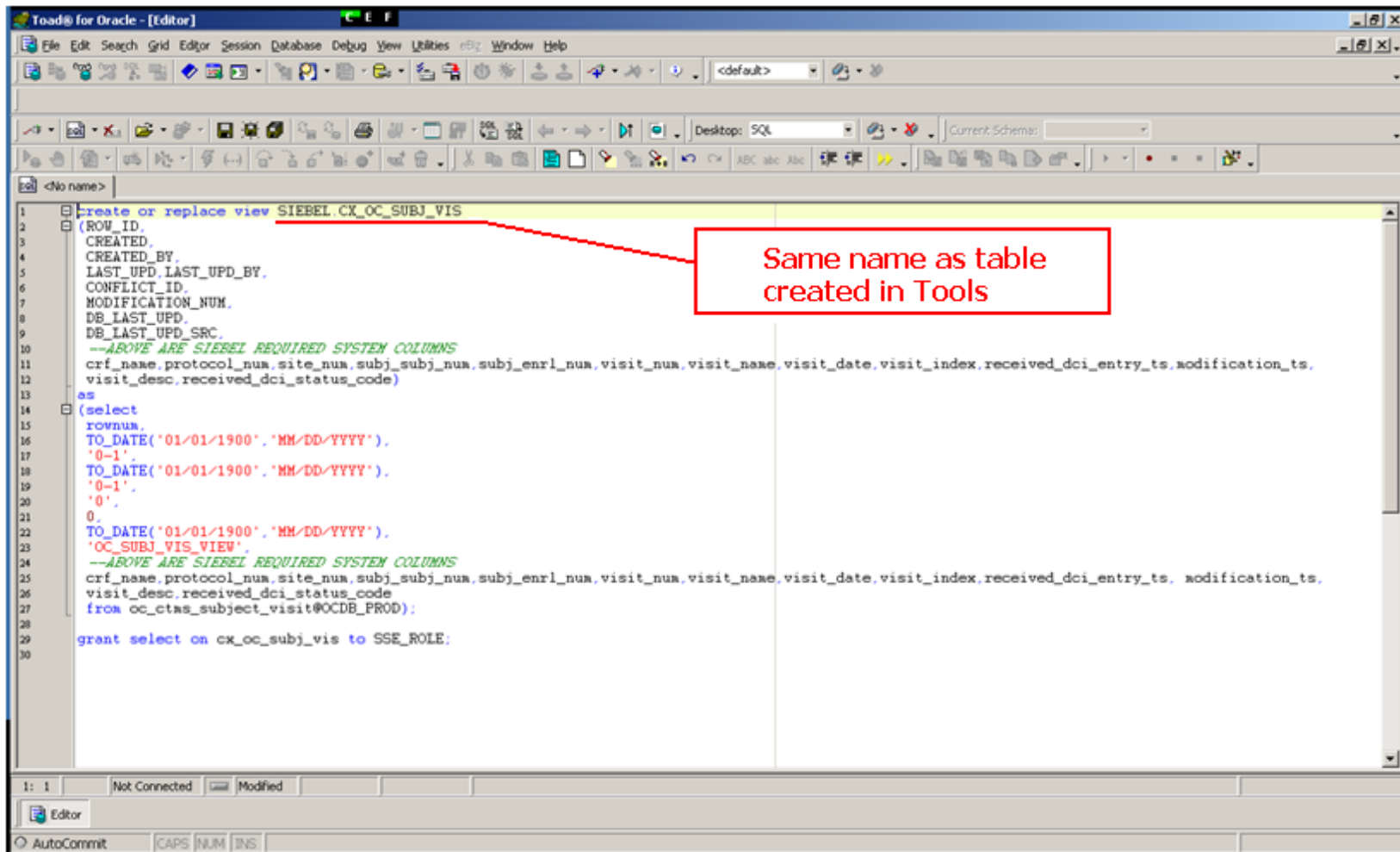
The code is highlighted in yellow. A red-bordered box on the right side of the editor contains the text:

This is executed on the Siebel CTMS database

The status bar at the bottom of the editor shows "2: 19", "Not Connected", and "Modified". The bottom-left corner of the window has an "Editor" tab and "AutoCommit" checked. The bottom-right corner has "CAPS", "NUM", and "INS" options.



Create a new View in the CTMS database



```
1 create or replace view SIEBEL_CX_OC_SUBJ_VIS
2 (ROV_ID,
3  CREATED,
4  CREATED_BY,
5  LAST_UPD, LAST_UPD_BY,
6  CONFLICT_ID,
7  MODIFICATION_NUM,
8  DB_LAST_UPD,
9  DB_LAST_UPD_SRC,
10 --ABOVE ARE SIEBEL REQUIRED SYSTEM COLUMNS
11 crf_name, protocol_num, site_num, subj_subj_num, subj_enrl_num, visit_num, visit_name, visit_date, visit_index, received_dci_entry_ts, modification_ts,
12 visit_desc, received_dci_status_code)
13 as
14 (select
15  rovnua,
16  TO_DATE('01/01/1900', 'MM/DD/YYYY'),
17  '0-1',
18  TO_DATE('01/01/1900', 'MM/DD/YYYY'),
19  '0-1',
20  '0',
21  0,
22  TO_DATE('01/01/1900', 'MM/DD/YYYY'),
23  'OC_SUBJ_VIS_VIEW',
24  --ABOVE ARE SIEBEL REQUIRED SYSTEM COLUMNS
25  crf_name, protocol_num, site_num, subj_subj_num, subj_enrl_num, visit_num, visit_name, visit_date, visit_index, received_dci_entry_ts, modification_ts,
26  visit_desc, received_dci_status_code
27  from oc_ctas_subject_visit@OCDB_PROD);
28
29 grant select on cx_oc_subj_vis to SSE_ROLE;
30
```

Same name as table created in Tools



Create new objects in Siebel Tools

Siebel Tools - Siebel Repository - [Fields]

File Edit View Screens Go Query Debug Tools Window Help

Object Explorer

Project: ** All Projects **

Types Detail Flat

- Siebel Objects
 - Applet
 - Application
 - Business Component
 - BusComp View Mo
 - Field
 - Join
 - Multi Value Field
 - Multi Value Link
 - Single Value Field
 - Business Object
 - Business Service
 - Dock Object
 - ECM Interface Table

Properties

Field [CRF Name]

Alphabetic Categorized

Calculated	FALSE
Calculated Value	
Column	CRF_NAME
Comments	
Currency Code Fi	
Dest Field	
Disable Search	FALSE
Disable Sort	FALSE
Exchange Date F	
Force Active	FALSE
Force Case	
Hidden	FALSE
Immediate Post C	FALSE
Inactive	FALSE
Internal Pick App	

Field List

Business Components

W	Name	Changed	Project	Cache Data	Table	Class	Data Source	Dirty Reads	Distinct	En
	OC Subject Visit	✓	OHSUG 2010 FTW		OX_OC_SUBJ_VIS	CSSBusComp		✓		

Fields

W	Name	Changed	Calculated	Calculated Value	Join	Column	Currency Code Field	Dest Field
	CRF Name	✓				CRF_NAME		
	DCI Entry Received Date	✓				RECEIVED_DCI_ENTRY_TS		
	DCI Status Code	✓				RECEIVED_DCI_STATUS_CODE		
	Modification Date	✓				MODIFICATION_TS		
	Protocol Number	✓				PROTOCOL_NUM		
	Site Number	✓				SITE_NUM		
	Subject Enrollment Number	✓				SUBJ_ENRL_NUM		
	Subject Number	✓				SUBJ_NUM		
	Visit Date	✓				VISIT_DATE		
	Visit Description	✓				VISIT_DESC		
	Visit Index	✓				VISIT_INDEX		
	Visit Name	✓				VISIT_NAME		
	Visit Number	✓				VISIT_NUM		

Ready

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Language:ENU



Create new objects in Siebel Tools (continued)

Siebel Tools - Siebel Repository - [Links]

File Edit View Screens Go Query Debug Tools Window Help

Object Explorer

Project: ** All Projects **

Types Detail Flat

- Single Value Field
- Business Object
- Business Service
- Dock Object
- EIM Interface Table
- Entity Relationship Diagram
- Link
- Pick List
- Project
- Screen
- Table
- Task
- View
- Web Page

Properties

Link [Clinical Protocol Site/OC Subject Visit]

Alphabetic Categorized

Cascade Delete None

Child Business CoOC Subject Visit

Comments

Destination Field Site Number

Inactive FALSE

Inter Child Column

Inter Child Delete FALSE

Inter Parent Column

Inter Table

Module

Name Clinical Protocol Site

No Associate FALSE

No Delete FALSE

No Insert FALSE

No Inter Delete FALSE

Link List

Links

W	Name	Changed	Project	Parent Business Component	Child Business Component	Source Field	Destination Field
>	Clinical Protocol Site/OC Subject Visit	✓	OHSUG 2010 FTW	Clinical Protocol Site	OC Subject Visit	Site Number	Site Number
	Clinical Subject/OC Subject Visit	✓	OHSUG 2010 FTW	Clinical Subject	OC Subject Visit	Subject Number	Subject Number

Ready

Item: 1 of 2

Language:ENU



Summary

Using this technique you will be able to:

- Quickly answer some common Siebel CTMS integration requests.
- Create integration solutions that do not require scheduling, error checking, or execution logging.
- Offer users the ability to securely peer into any remote Oracle system from the comfort of their Siebel CTMS.



Other Thoughts

Restrictions

- The data presented in CTMS that is in the Oracle Clinical database will be read-only in Siebel. This is usually desirable anyway as Oracle Clinical / RDC will be the system of record.

Relationships with Extension/Intersection Tables

- Custom Siebel Extension/Intersection Tables are a good way to make the read-only data from OC appear to contain editable fields. Just create a new extension table to your new “table”.

Migrations & Legacy Systems

- Dev2prod will (re)create the physical table, a manual table drop and (re)creation of the View is required post-migration.
- This concept could be used to selectively offer legacy data access after a new CTMS is implemented as a replacement.



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Thank You

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