DBMS Consulting Overview,
Generic TMS Dictionary
Updater Demo, and TMS
Update Scripts for WHODrug



Introduction

- Sunil G. Singh of DBMS Consulting, Inc.
- Specialize in Oracle Pharmaceutical and E-Business implementations and long-term support.
- Thanks to the OCUG for this demo/discussion opportunity.



Agenda

- Present an overview of DBMS Consulting
- Present an overview of TMS Dictionary Updating issues.
- Present an overview of functionality for Generic TMS Dictionary Updater Tool.
- Briefly discuss Certified TMS WHODrug loading and updating scripts and conversion scripts from WHODrug Legacy Type B (INTDIS) format to WHODrug Type C (Vigibase) format.



Overview of DBMS Consulting

- Consulting organization specializing in OPA and Oracle E-Business Suite Apps 11i implementations.
- Specialize in migrations, installation and configuration, technical and functional support and customized training.
- Support can be either long-term on-site support or remote support on an as needed basis.



Overview DBMS Consulting (2)

- Core group of consultants and part-time specialists in several technical areas, about 12 members total for both Oracle ERP/CRM and OPA.
- Started in May 1997 with a customised software development project for SF-36 data.
- Headquartered in New York, with an office in Southern CA.
- All full-time staff travel extensively to client sites and are usually on-call 24-hours.



Overview DBMS Consulting (3)

- DBMS Consulting currently maintains a long-term presence in several companies.
- Additionally, remote support is provided to several organizations.
- Total number of companies that have employed the services of DBMS Consulting for OPA related work is over 30, including CROs, Biotechs, Pharmaceuticals and Medical Device Companies.



Overview DBMS Consulting (4)

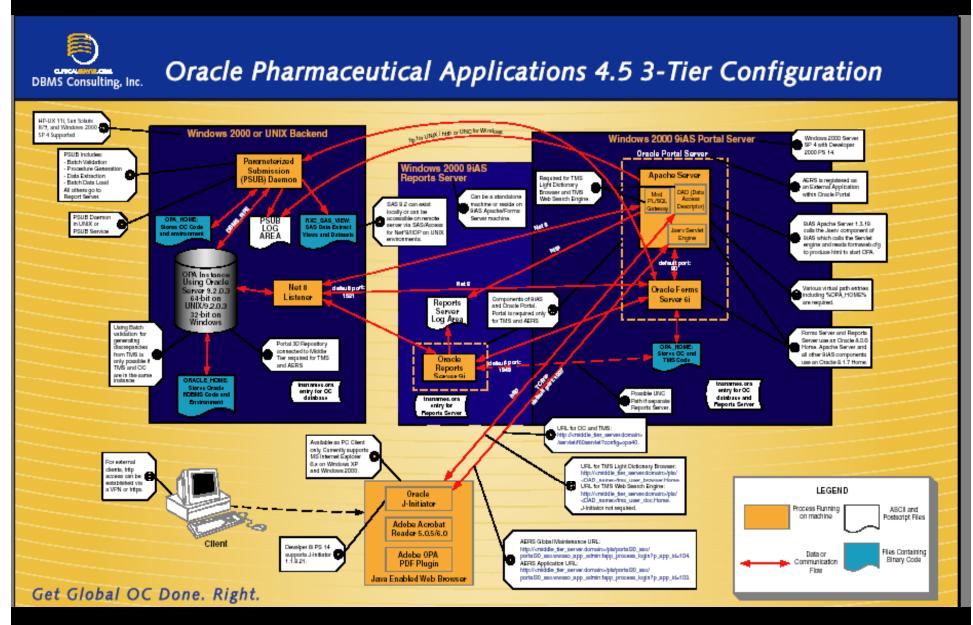
- DBMS is very price competitive and costconscious
- Tremendous effort to reduce expenses to customers.
- Guarantee customer satisfaction on all work or no billing for that work.



Overview DBMS Consulting (5)

- Tremendous technical expertise in Oracle, with most members of DBMS having an Oracle DBA or Development background in either the Pharmaceutical or Financial sector.
- Typically, we are called to solve the most difficult technical issues or to offer strategic implementation advise.
- Created a series of architecture diagrams for the OPA to assist customers with the true understanding of OPA and the myriad configuration options available.







Other OPA-Related Products and Services

- Developing an automated testing tool for the OPA, called OPA-Tester.
- Working with Torsten Adam and PharmaSOL to develop and market the Generic TMS Dictionary Updater.
- Partnership with the WHO-UMC to develop certified loading and update scripts for all WHO dictionaries for TMS, including updating WHODrug Type B to WHODrug Type C Dictionaries already loaded in TMS.
- Full set of Validation test cases for Oracle AERS
- Custom development and integration with other 3rd party tools.
- Flat-rate customized functional and technical OPA training.
- Technical recruiting for Oracle-related requirements
- SF-36 tool for Cardiac Rehabilitation centers in the US.



Background of the TMS Dictionary Updating Issues

- The current process to update a vendor dictionary in TMS, such as WHODrug or MedDRA, requires the creation of an additional update script. The initial loading script for these dictionaries can only be used once, for the initial load.
- The creation or development of this update script is not a straightforward process. It requires either
 - calling tms_load_dictionary.migrateterms which depends on DICT_CONTENT_CODE mappings
 - calling tms_user_mt_dictionary.updateterms which depends on DICT_CONTENT_ID mappings



Background of the TMS Dictionary Updating Issues (2)

- Generally, the effort and resource costs to create these update scripts is much more than effort to create the initial loading scripts.
- Additionally, several other problems exist in the current TMS Dictionary updating process.
 - Existing VTAs need to be manually remapped to new matches, if new autoencoding matches are available
 - Global VTAs need to be manually copied to a Virtual TMS Dictionary domains, since currently Global VTAs are not propagated to the Virtual Dictionary Domain.
 - Impact Reports need to be developed to show potential changes to coded terms and VTs before an actual update is performed in a production environment
 - The Virtual Dictionary Creation and the update to the base dictionary need to occur on the same calendar day.



Overview of Generic TMS Dictionary Updater Tool

- As a solution to all of these problems, DBMS Consulting and PharmaSOL have developed a tool to perform updates based upon the initial TMS loading script.
- The idea behind this tool is to leverage an organization's existing investment in their initial loading scripts without having to re-invent and develop specialized updating scripts
- The Generic TMS Dictionary Updater also provides powerful impact reports which will predict the effect of an update on a given TMS environment without actually performing this update



Specific Advantages of the TMS Dictionary Updater Tool

- The Generic TMS Dictionary Updater Tool works independently of the TMS Dictionary structure, i.e., it works for updating any valid TMS Dictionary structure regardless of external Vendor dictionaries, such as WHODrug and MedDRA, or internal custom dictionaries.
 - Group Level Classifications
 - Updates to non-derivable levels
 - Primary Path and Primary Link Dictionary Structures
- Tremendous cost savings to existing TMS customers since update scripts need not be developed, tested, and validated for each dictionary



Specific Advantages of the TMS Dictionary Updater Tool (2)

- Predictive update impact reports can be generated as soon as the TMS_PREDICT_CONTENTS and TMS_PREDICT_RELATIONS are loaded with the initial loading script
- Automatic reclassification of VTAs when an exact autoencoding match exists
- Very simple interface to use and operate
- Very simple installation procedure



Updating a TMS dictionary using the TMS Dictionary Updater

- Identify the new source data for an update (such as MedDRA 6.1 distribution)
- Load the Data into TMS predict tables as if it was an initial TMS Dictionary Load, using the existing procedures and code.
- Before Activation, launch the Generic TMS Dictionary Updater
- Run the impact Reports to see the potential inserts to Dictionary Levels and Reclassified VTAs



Updating a TMS dictionary using the TMS Dictionary Updater (2)

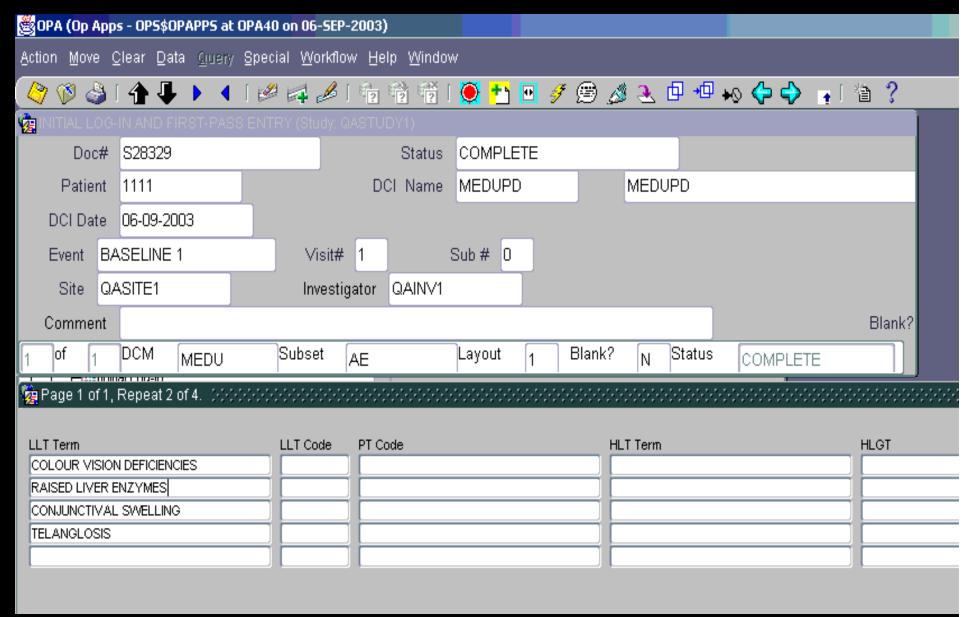
- Launch the Prepare PREDICT step, spawning Batch jobs in the database
- Examine the Declassification Report, which shows all Declassified VTAs
- Optionally run Activation in Check Mode or Transfer Mode.



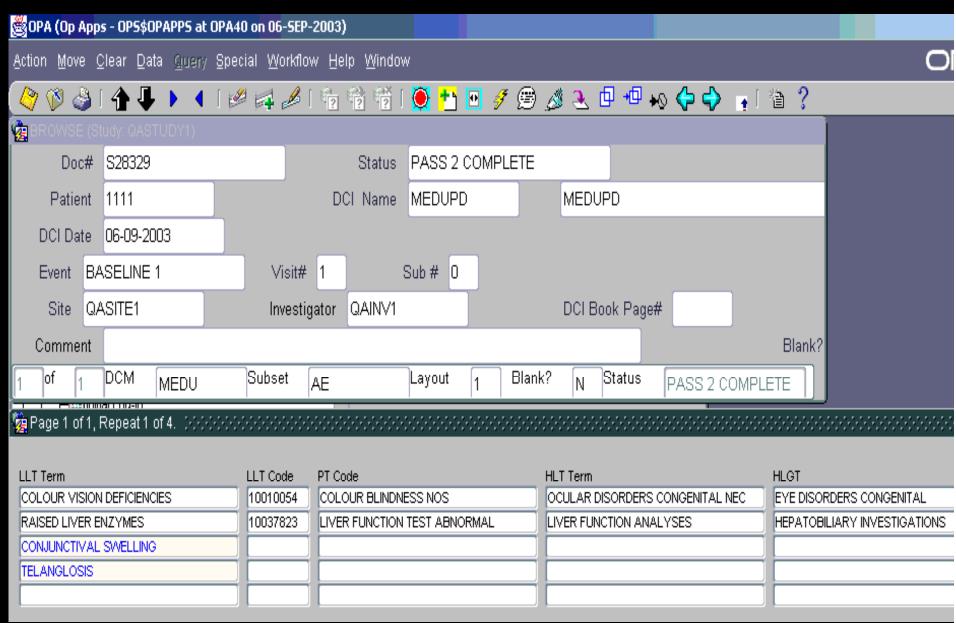
Test case example with MedDRA 6.0 to MedDRA 6.1 data

- Using a subset of the MedDRA 6.1 update from 6.0, we have created a set of walk-through screen shots of a MedDRA update using the Generic TMS Dictionary Updater
 - New LLTs
 - Conjuctival Swelling (LLT 10060702) linked to PT Conjunctival Oedema (PT 10010726)
 - Telanglosis (LLT 10060714) linked to PT Capillary Disorder NOS (10007190)
 - LLTs which become Non-Current
 - Colour Vision Deficiencies (LLT 10010054)
 - Raised Liver Enzymes (LLT 10037823)

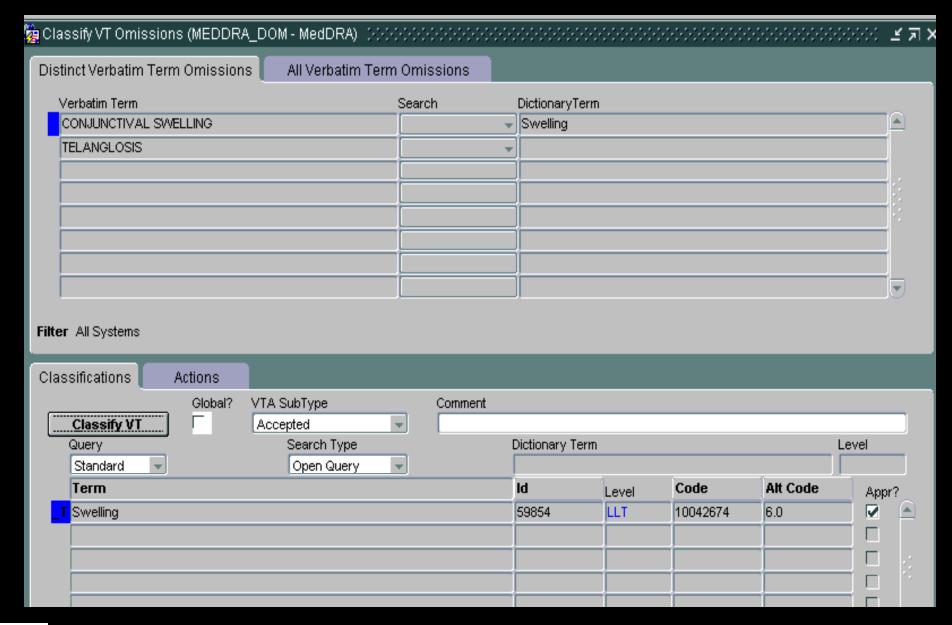




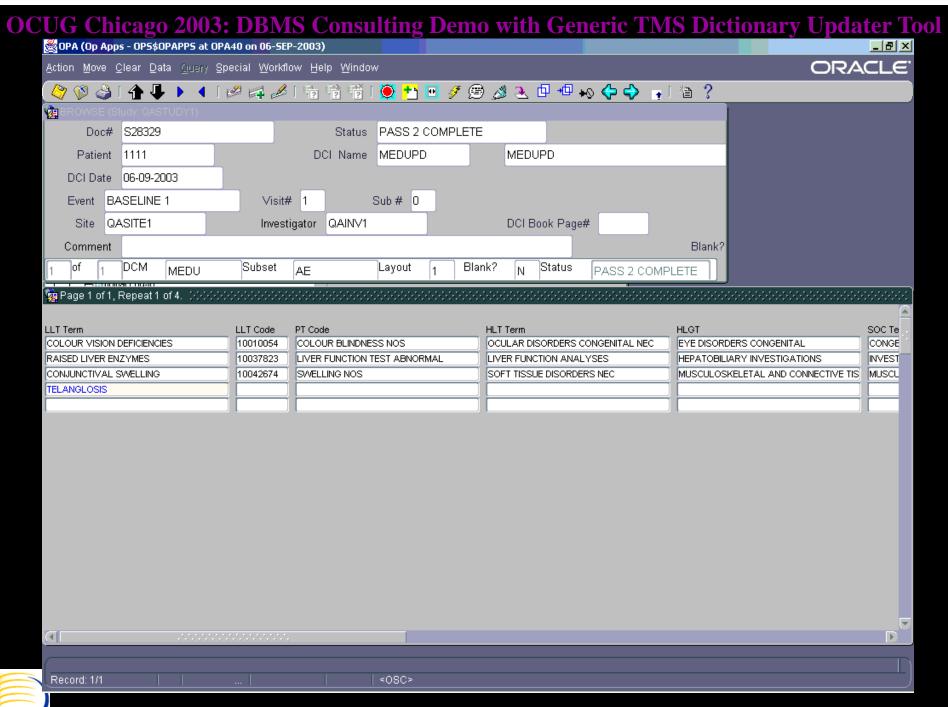






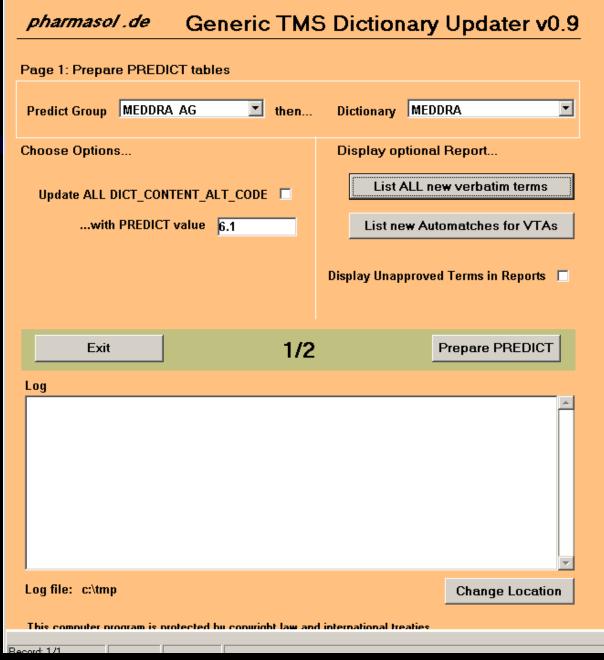




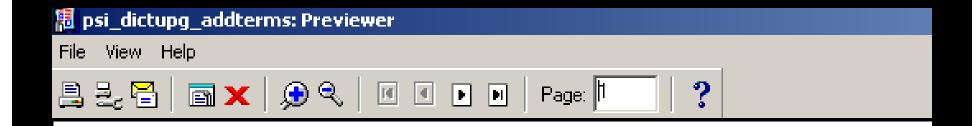


Name A	Size	Туре
psi_dictupg_addterms.rep	216 KB	REP File
psi_dictupg_declassify.rep	180 KB	REP File
psi_dictupg_tmspool.plb	95 KB	PLB File
psi_dictupg_tmspool.pls	7 KB	PLS File
🕎 psi_setup.sql	1 KB	SQL File
PSIDICT.fmx	111 KB	FMX File











Dictionary Upgrade Added Terms

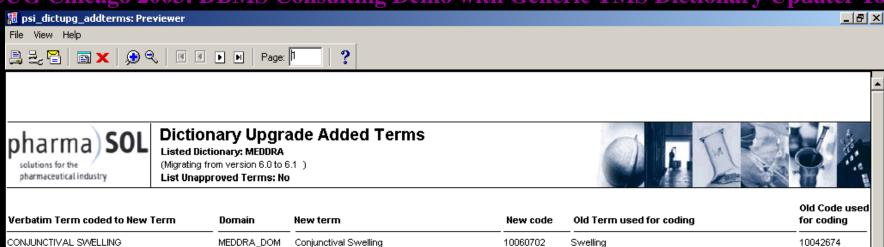
Listed Dictionary: MEDDRA

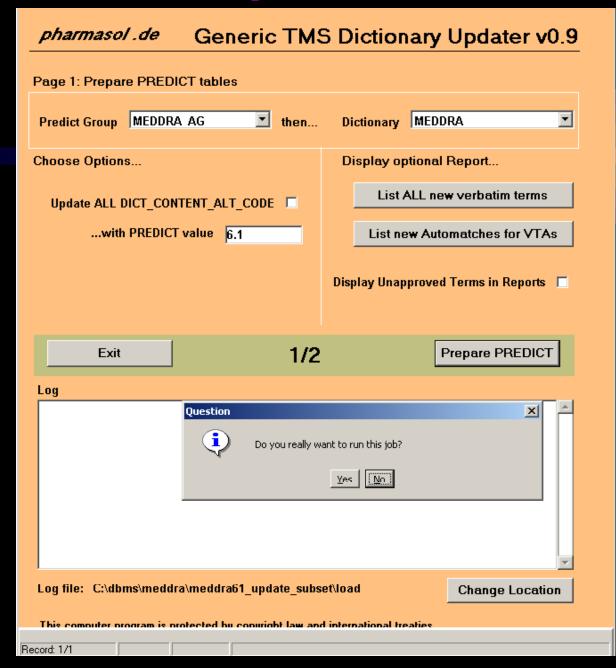
(Migrating from version 6.0 to 6.1)

List Unapproved Terms: No

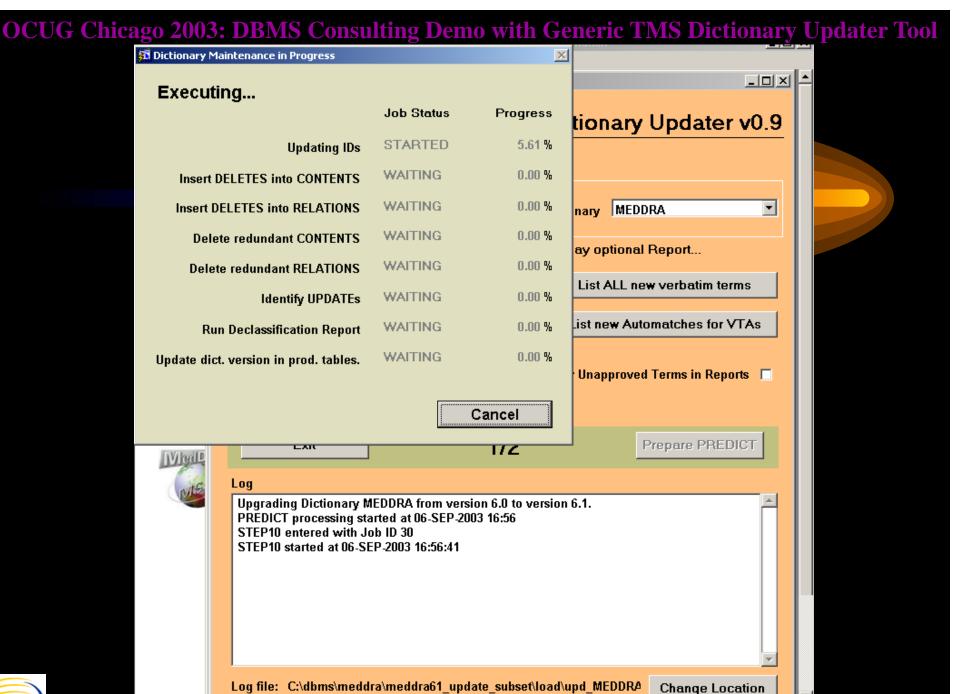
New term	New code	New Level
Conjunctival Swelling	10060702	LLT
Telanglosis	10060714	LLT



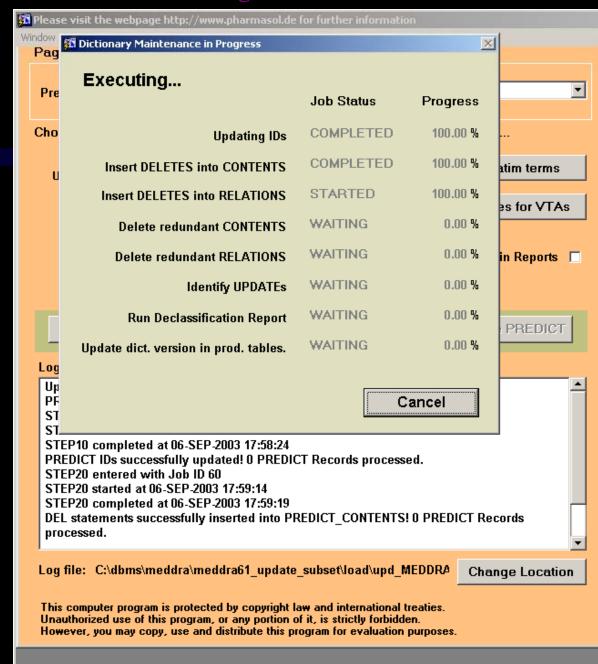




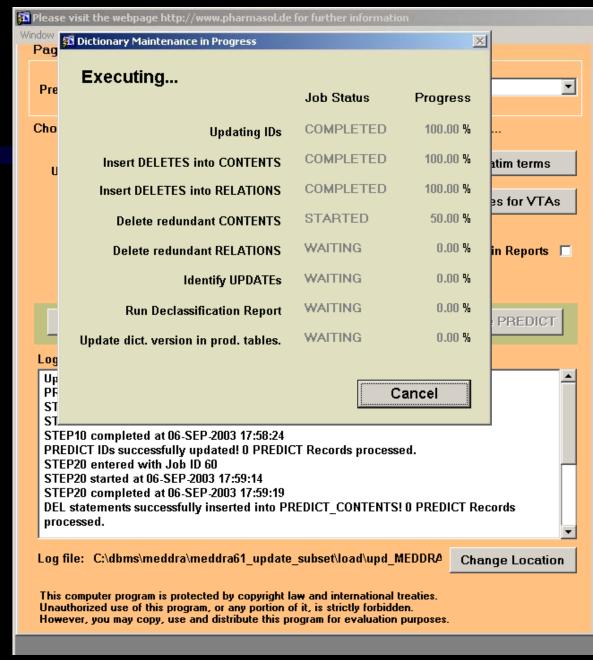




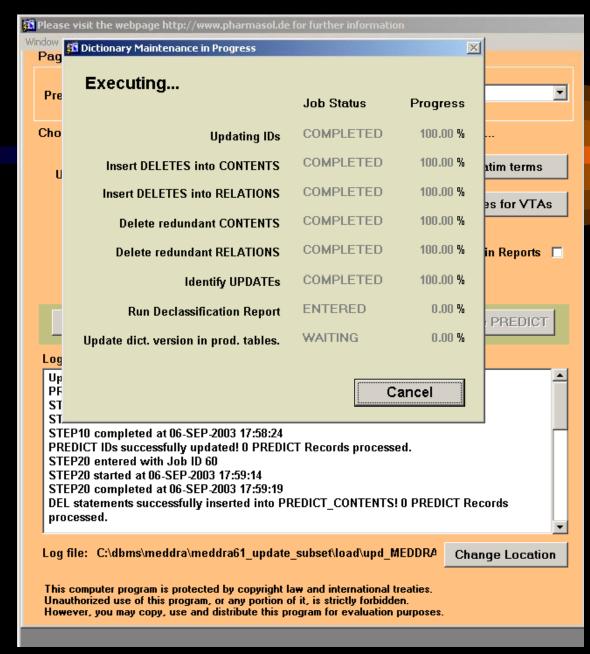
















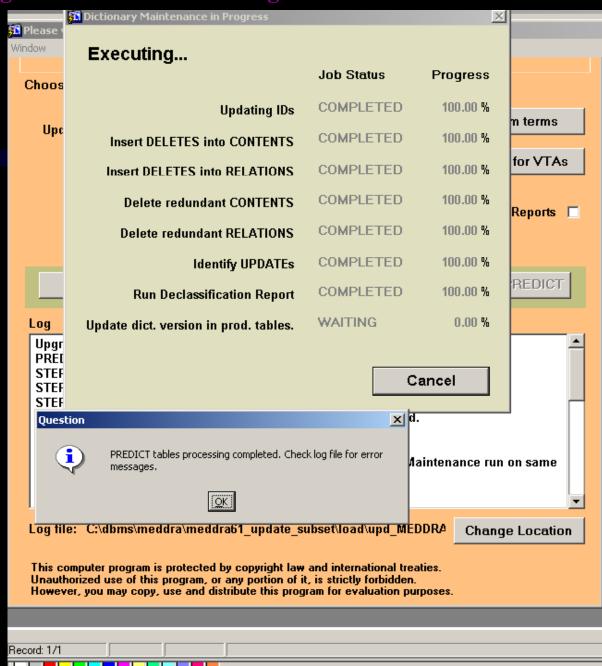


Dict. Upgrade VTA Declassifications

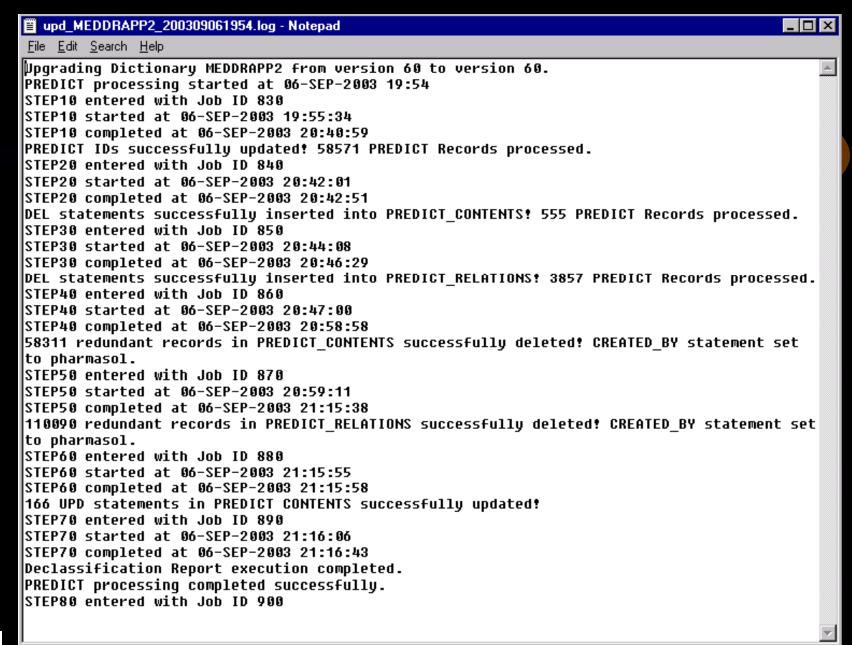
Dictionary: MEDDRAMigrating from version 6.0 to 6.1

Declassified Verbatim Terms	Domain	Declass. Reason
COLOUR VISION DEFICIENCIES	MEDDRA_DOM	TERM DELETED
CONJUNCTIVAL SWELLING	MEDDRA_DOM	NEW AUTOMATCH
RAISED LIVER ENZYMES	MEDDRA_DOM	TERM DELETED

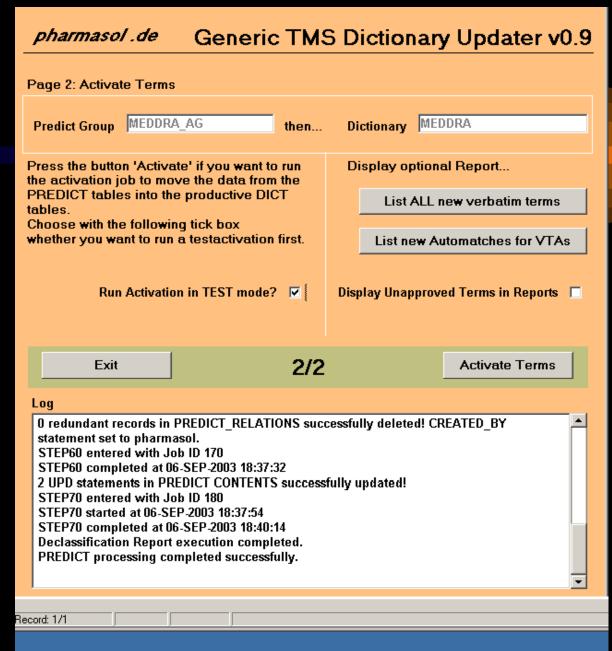




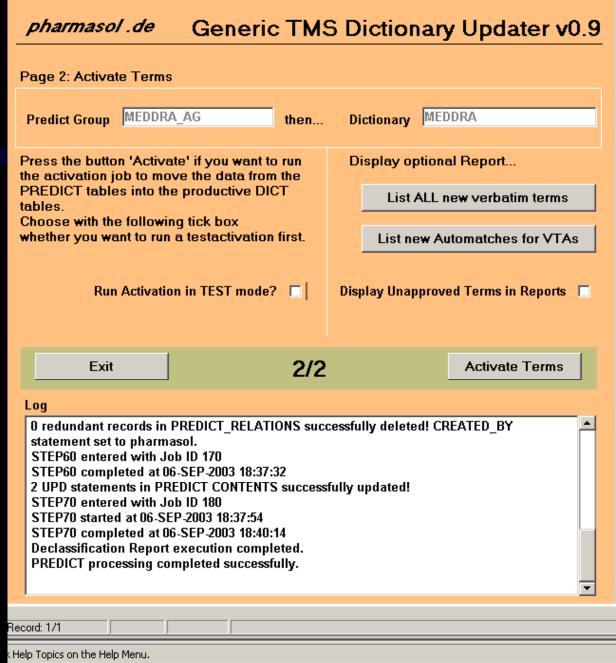






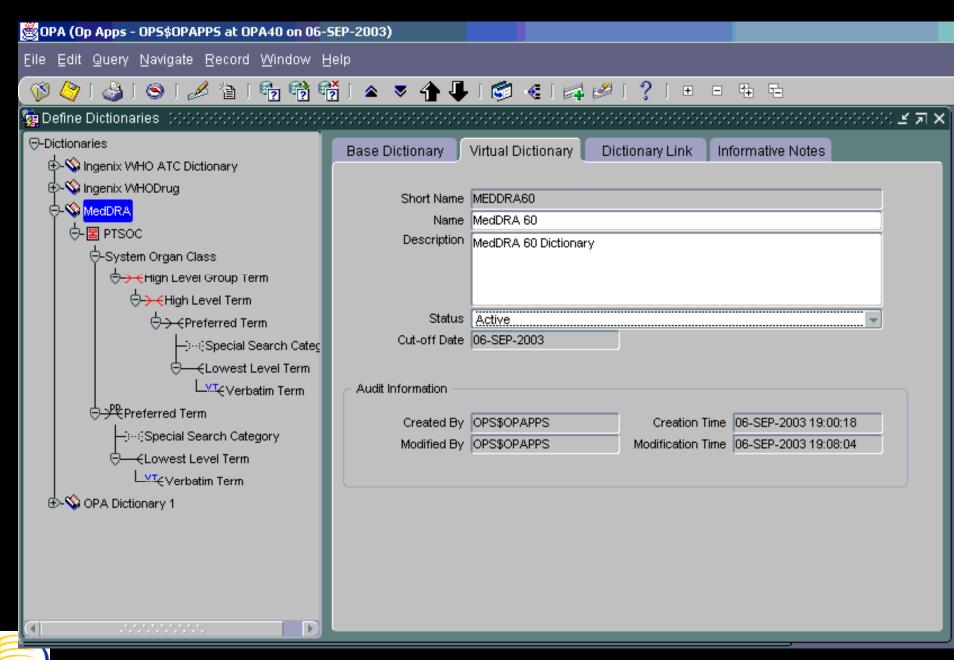


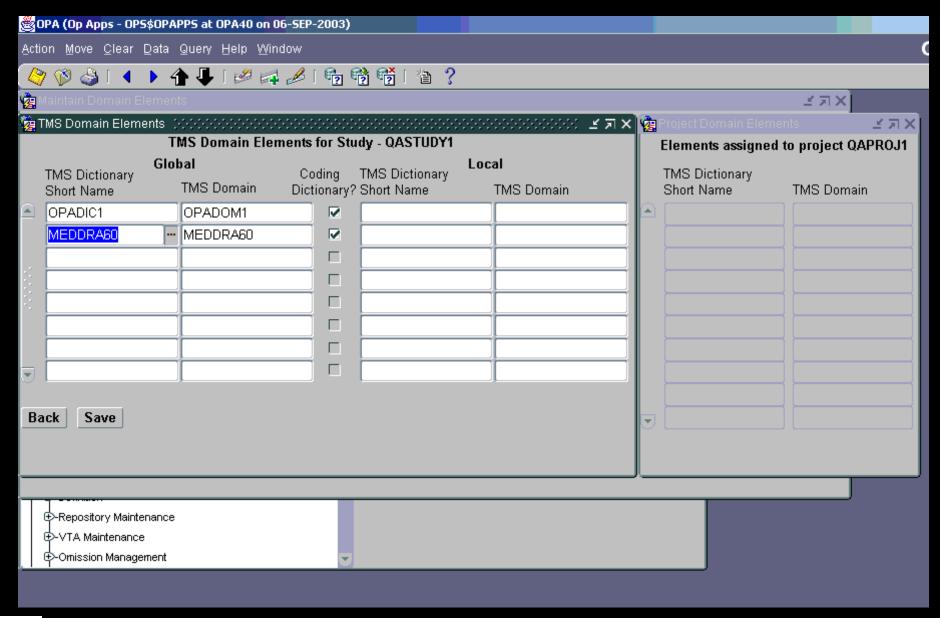






OCUG Chicago 2003: DBMS Consulting Demo with Generic TMS Dictionary Updater Tool OPA (Op Apps - OPS\$OPAPPS at OPA40 on 06-SEP-2003) ORACLE' Action Move Clear Data Query Special Workflow Help Window Doc# S28329 PASS 2 COMPLETE Patient 1111 DCI Name MEDUPD MEDUPD DCI Date 06-09-2003 Event BASELINE 1 Sub# 0 Visit# 1 Site QASITE1 QAINV1 DCI Book Page# Investigator Comment Blank? DCM Subset Blank? Status Layout PASS 2 COMPLETE MEDU AΕ 🤖 Page 1 of 1, Repeat 1 of 4. <Univ> **HLGT** LLT Term LLT Code PT Code **HLT Term** SOC To COLOUR VISION DEFICIENCIES RAISED LIVER ENZYMES CONJUNCTIVAL INFECTIONS, IRRITATIONS / OCULAR INFECTIONS, IRRITATIONS AND INF CONJUNCTIVAL SWELLING 10060702 CONJUNCTIVAL OEDEMA TELANGLOSIS 10060714 NON-SITE SPECIFIC VASCULAR DISORDERS VASCULAR DISORDERS NEC VASC CAPILLARY DISORDER NOS <08C> Record: 1/1







OCUG Chicago 2003: DBMS Consulting Demo with Generic TMS Dictionary Updater Tool OPA (Op Apps - OPS\$OPAPPS at OPA40 on 06-SEP-2003) ORACLE' Action Move Clear Data Query Special Workflow Help Window Doc# S28329 PASS 2 COMPLETE Patient 1111 DCI Name MEDUPD MEDUPD DCI Date 06-09-2003 Event BASELINE 1 Sub# 0 Visit# 1 Site QASITE1 QAINV1 DCI Book Page# Investigator Comment Blank? DCM Subset Blank? Status Layout **I**MEDU AF PASS 2 COMPLETE 🤖 Page 1 of 1, Repeat 1 of 4. 💢 🔀 PT Code LLT Term LLT Code HLT Term HLGT SC CC COLOUR VISION DEFICIENCIES 10010054 COLOUR BLINDNESS NOS OCULAR DISORDERS CONGENITAL NEC EYE DISORDERS CONGENITAL RAISED LIVER ENZYMES 10037823 LIVER FUNCTION TEST ABNORMAL LIVER FUNCTION ANALYSES HEPATOBILIARY INVESTIGATIONS IN MUSCULOSKELETAL AND CONNECTIVE TIS CONJUNCTIVAL SWELLING 10042674 SWELLING NOS SOFT TISSUE DISORDERS NEC TELANGLOSIS <08C> Record: 1/1

Validation

- Developing a Validation Document Set
 - Requirements Specification
 - Functional Test Protocol
 - SDLC Development and Configuration Management Protocol
 - User and Installation Guide
- Validation process is the comparison of updated dictionaries using the Generic TMS Dictionary Updater of standard MedDRA and WHODrug dictionary to initial loads of the more current version (e.g. compare update of MedDRA 5.1 to 6.0 against the data for an initial MedDRA 6.0 load)
- Additional comprehensive test cases for VTA declassification and reclassification and report accuracy.



Ongoing enhancements

- Web Enabled version
- Use of user-defined External Search Objects for automatic VTA reclassification
- Patient information on reports
- Global VTA propagation to Virtual Dictionary Domains
- Automatic viewing of job log files
- Browse button for Log directory settings



Overview TMS Loading/Update Scripts for WHO Dictionaries

- DBMS Consulting has a partnership with the WHO-UMC to produce the certified TMS Loading scripts for the new Type C (Vigibase) and existing WHODrug (Type B) format
- Certified update scripts for existing TMS Customers with legacy WHODrug format who wish to use new WHODrug Type C (Vigibase) format
- This update retains the previous TMS structure used by customers based on the WHODrug structure previously defined in the TMS documentation.



Overview TMS Loading/Update Scripts for WHO Dictionaries (2)

- Since Type C is now based on a new key of Medicinalprod_id, this Medicinalprod_id must be mapped to the previous key, which is the concatenation of Drug Record Number with Sequence1 with Sequence2
- DBMS Consulting and WHO-UMC have worked on a mapping algorithm to join these two sets of keys.
- Additionally, some specific techniques must be employed to overcome the classification level uniqueness requirement in TMS, since the Drug Name itself is no longer unique, but was previously unique
- See more in the DBMS Consulting, WHO-UMC presentation on migrating to the Type C structure from a Type B format on 9-Sep-2003 in the TMS Focus Group



Development and Testing process for WHODrug Updates

- Dictionary update files and cumulative dictionary files are released to DBMS on a quarterly basis.
- WHO-UMC provides specific data on number of expected records, checksums and specific pieces of data and their expected derivations.
- DBMS loads a new dictionary and updates the previous quarter's dictionary.
- DBMS and WHO-UMC verify the expected records, checksums and the specific test cases/expected derivations in a test protocol document.
- WHO-UMC certifies that specific quarter's initial load and update into TMS.



Current Products in Development

- Initial Certified TMS Loading scripts for Vigibase WHODrug format into a new TMS format.
- Certified Update TMS Loading scripts for Vigibase WHODrug format into existing (Type B) TMS structures.
- Tested and certified update scripts for WHODrug 1Q 2003 for new (Vigibase) TMS structures



Overview of Future Development

- Special WHODrug autoencoder for TMS.
- Concatenated ATC -> Level Detail certified WHODrug structure.
- Certified WHOArt and ICD TMS
 Dictionary Loading/Update Scripts.



Q&A.

- Please come to Booth 3 with any additional questions and more detailed demos, and also for:
 - Free Flashlight
 - More Brochures, posters and cards

