Oracle Tuxedo Application Rehosting Workbench

Release Notes

12*c* Release 2 (12.1.3)

April 2014

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Oracle Tuxedo Application Rehosting Workbench , 12*c* Release 2 (12.1.3)

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Table 1 Revision History

Revision Date	Summary of Change
April, 2014	12c Release 2 (12.1.3)

This topic contains the following sections:

- About This Product
  - Key Features and Components
- What's New in This Release
- Installation
- Platform Support
- Limitations and Known Issues

About This Product

Oracle Tuxedo Application Rehosting Workbench (Tuxedo ART Workbench) helps to accelerate rehosting projects by automating code and data migration, configuring and running compiles of

migrated programs, creating runtime Tuxedo configurations for CICS, IMS, and batch applications, executing file and database reload tasks, and deploying migrated artifacts. It is built on a sophisticated foundation of advanced language processing technology that has been used to simplify and accelerate many large migration projects.

Sophisticated parsing and transformation capabilities are used by Workbench language processing tools to adapt COBOL code between compiler dialects, transform JCL to job scripts and adapt SQL calls for differences between DB2 and the Oracle database. Workbench data migration tools provide complete analysis of all data definitions and access patterns, which is then used to generate data schemas on target and produce data unload, reload, and validation utilities that completely automate the movement of file and relational data between systems. Configuration tools generate initial Tuxedo ubbconfigs, which can be used as is to start Tuxedo domains or extended if needed.

Workbench provides great migration accuracy, which minimizes the risk, cost and time of testing and debugging, and results in much faster project delivery. It is highly efficient, and has been used on very large applications with over 20 million lines of code. The tools can be used repeatedly to produce incremental changes as new components are added in or parameters or rule sets are adjusted. Once Workbench settings have been finalized for a specific project through a pilot, the mass migration of application components and any maintenance changes can be accomplished quickly and easily.

The automation of the migration process is key to success - it provides accuracy, uniformity, consistency, and assures high productivity, resulting in less risk and faster results. Companies that were deterred from migrating mainframe applications in the past due to long projects, high cost and heavy risk, can now accomplish these migrations - independently or with the help of Oracle Consulting or partner SIs - much quicker and achieve a much faster ROI.

Key Features and Components

Tuxedo ART Workbench provides a set of code and data migration tools, configuration tools, and application build and deployment tools - all integrated through Eclipse plug-in. Its key features are:

- Migration Life Cycle Plug-in for Eclipse, which provides a project configuration and navigation, reporting pane, tool menu and related wizards, and online tutorial in a cheat sheet format.
- Cataloger tool for application asset inventory and dependency checking

- COBOL Migrator for adaptation of Online and Batch COBOL programs and related assets (Copybooks, 3270 BMS/MFS screens, etc.) to Tuxedo Application Runtimes for CICS, IMS, and Batch
- JCL Converter for migration of JCL jobs and related assets (PROCs, SYSINs) to Tuxedo Application Runtime for Batch
- DB2 and File Converters for automated schema mapping and generation of bulk data migration tools for DB2, VSAM, QSAM, PDS, GDGs and other mainframe datasets guided by Copybooks and DDL definitions
- Tools for automated generation of build makefiles and Tuxedo/ART runtime configuration artifacts
- Wizards for running application build, bulk data migration, and deployment processes
- Extensibility through custom scripts and extended rules for project-specific COBOL, SQL, and JCL modifications

What's New in This Release

Tuxedo ART Workbench Release 2 (12.1.3) includes the following new features and enhancements:

- Migration Life Cycle Plug-in for Eclipse
  - Usability enhancements for ART menu wizards
  - Extensibility enhancements to support customized pre-/post-processing scripts in each phase.
  - Simplified library dependency identification in Analyze > Define Scope wizard
  - Build/Configure/Deploy/Run enhancements to support ART for IMS.
  - Enhanced support for components with MBCS characters in SQL DDL, COBOL SQL column name, JCL comments, etc.
- JCL Converter
  - SYSIN/SYSTSIN enhancements:
    - Provides a new mechanism for external SYSIN/SYSTSIN reference resolution using full name.
    - Supports external SYSIN/SYSTSIN override.

    - Supports Dynamically Concatenated SYSIN
  - File Catalog enhancement

    When enabled, this feature preserves VOLUME references in JCL and maps DSNs into logical Volumes on the target platform. During File Reload process the file will be stored in (and cataloged with), a specified path when this feature is enabled. For DSN references to be resolved using the File Catalog during JCL execution, ensure the File Catalog option is also enabled in ART for BATCH (the batch runtime) configuration.
  - Enhanced support for IDCAMS commands and options:
    - Support LISTCAT command.
    - Support options for "expiration date" in different commands, the options including: EXPDT, RETPD, TO and FROM.
    - Support option VOLUMN in commands DEFINE, LISTCAT and ALLOCATE.
  - Preservation of NJE job routing cards in JCL
- FILE Converter
  - New mapping tools to extract mainframe file catalog information to populate Datamap.re and mapper.re configuration files
  - Enhanced file accessors for supporting CICS file operations with RBA & GENERIC options
  - Enhanced transcoding support for Variable Length (VB) files
  - Support for reverse transcoding (ASCII to EBCDIC) when batch output files have to be transferred back to the mainframe
  - Support for transcoding data buffers for remote IMS DB access using ODBA Proxy in ART for IMS
  - Improved performance for file transcoding and loading converted VSAM files to RDBMS tables
  - Added flag for converting to Record Sequential files by default, with support converting both RECFM=FB and RECFM=VB files
- COBOL Migrator
  - Enhanced recognition of CICS verbs and parameters in EXEC CICS blocks
  - Enhanced recognition and handling of embedded DB2 SQL in EXEC SQL blocks, including support for:

    - Common table expressions defined in WITH clause,
    - Isolation-clause and fetch-first-clause used in SELECT INTO statement,
    - Sequence expressions NEXT VALUE and PREVIOUS VALUE,
    - LEFT OUTER JOIN TABLE clause,
    - DB2 functions, such as POSITION, INSERT, OVERLAY, IFNULL, etc.
- DB2 Converter
  - Support for converting DB2 DDL PARTITION BY RANGE clause in DB2 CREATE TABLE or CREATE INDEX statements to Oracle SQL.
  - RDBMS Table Load and Unload tool set for generating utilities to load data from a file to RDBMS table and unload RDBMS table to a file compatible with IBM DSNUTILB output on z/OS.
- Miscellaneous
  - Control of Output Message Level in the Output from Workbench Tools.

    Introduces message-level control and assigns levels to each output message, so you can specify the levels of messages to be displayed. Default setting is to output only messages with levels higher than INFO.

Installation

See the Oracle Tuxedo ART Workbench Installation Guide for installation information.

Platform Support

Tuxedo ART Workbench 12c Release 2 (12.1.3) supported platforms are listed in the Supported Platforms of the Oracle Tuxedo ART Workbench Installation Guide.

Limitations and Known Issues

The following sections describe Tuxedo ART Workbench limitations and known issues.

Tuxedo ART Workbench does not support the following:

Limitations

- COBOL program files with multiple programs (Nested programs)

- Migration of DB2 DDL comments
- JCL IDCAMS DEFINE/DELETE ALTERNATE INDEX commands
- JCL IDCAMS PRINT, BLDINDEX commands
- JCL DSNSTEP2 SQLFORMAT with non-Oracle embedded SQL format
- In IKJEFT01/1A/1B when RUN command is used to execute DB2 utilities, PARM()/PARMS() are not supported

Known Issues

- After Tuxedo ART Workbench conversion, you must revert data type COMP-5 to BINARY in MQ API calls, since that is the data type required by IBM MQ client libraries.

See Also

- Oracle Tuxedo ART Workbench Installation Guide
- Oracle Tuxedo ART Workbench Reference Manual
- Oracle Tuxedo ART Workbench Users Guide