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INCREMENTAL REPOSITORY MERGE FOR SIEBEL CRM APPLICATIONS

Incremental Repository Merge is a set of features within Siebel Tools and Database Server Configuration Wizard that makes it easier and faster to uptake Siebel Innovation Packs from Oracle and customer authored custom innovations. Starting with the Siebel Innovation Pack 2013 release, preparing for and executing Incremental Repository Merge is automated and less error prone by using Database Server Configuration wizard. Siebel Tools along with Incremental Repository Merge enables a more agile approach to custom development.

INCREMENTAL REPOSITORY MERGE

KEY FEATURES

- Create small, transportable innovations

- Wizard to import Siebel Innovation Packs

- Mark updates to repository objects with "tags" that allow fine granularity in packaging customizations

- Visually compare two workflow processes or tasks

- Hierarchical report of merge conflicts

- Admin screens for tags and developer conflicts

INCREMENTAL REPOSITORY MERGE

USING DATABASE SERVER

CONFIGURATION WIZARD

KEY FEATURES

- Streamlines end-to-end process for up taking Siebel Innovation Pack

- Better configurability and restart-ability

- Reduces errors with better error handling and validations for user inputs

- Applies IRM easily towards non-development environments (SIT, QA, Production, etc.)

- Automates almost all the steps to the extent possible to reduce manual effort

- Automatically decides whether to execute incremental or normal upgrades based on the customers' existing version

Agile Customer Development

Parallel development can be aided by more frequent merges. Only one developer at a time can check out an object, but their changes can more quickly be applied to all environments since Siebel Delta Files are smaller with less information to compare when merged into another repository. It is faster to create them and import them.

Object Tagging

Another way to improve the agile capabilities of development using Siebel Tools is to use object tagging. Object tagging associates developers with a specific tag or tags. When they do any work in Siebel Tools they must choose a tag under which to do this work. All the work they do is then logged to new tables so that there is a record of their work. When a developer attempts to overwrite the work of another developer they get a warning. Administrators can view reports of these developer conflicts in new views in the user interface.

Using object tagging lets developers further delineate their work even within the definitions of an object. Later, using the tag, developers can extract the work they have done under that or any other tag to be packaged up and moved between environments.
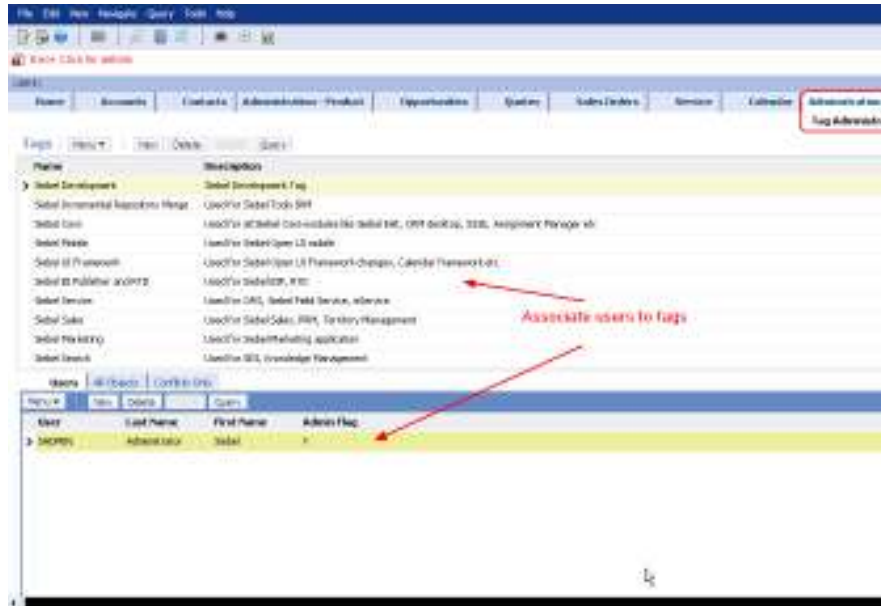
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Figure 1 A new screen and views for developer tag administration and viewing developer conflicts and work.

Siebel Delta Files

Unlike a SIF file that contains the entire definition of an object a Siebel Delta File contains only the information necessary to fully define the changes to an object. This makes them smaller with less information. When importing these files into a target repository the import and merge is much quicker since less information must be compared between the target repository and the data in the Siebel Delta File.

A Siebel Delta File is created in the same location as when creating an SIF file.

Siebel Delta Files can be created using a combination of the date and time objects were updated, the development tag created using object tagging or both. This allows fine granularity in what content can be moved from one environment to another.
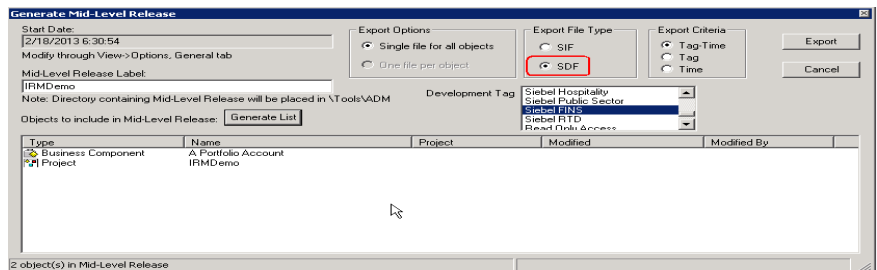
Figure 2 New file type (SDF) creates Siebel Delta Files

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Innovation Pack Deployment Wizard

There is a new wizard in Siebel Tools that will make the installation of Oracle Innovation Packs faster and easier. This wizard is integrated with Database Server Configuration Wizard to automate many of the common steps used for installing ACRs previously and also includes the following automation:

- Apply logical schema to physical database

- Import seed data for selected languages

- Three way merge
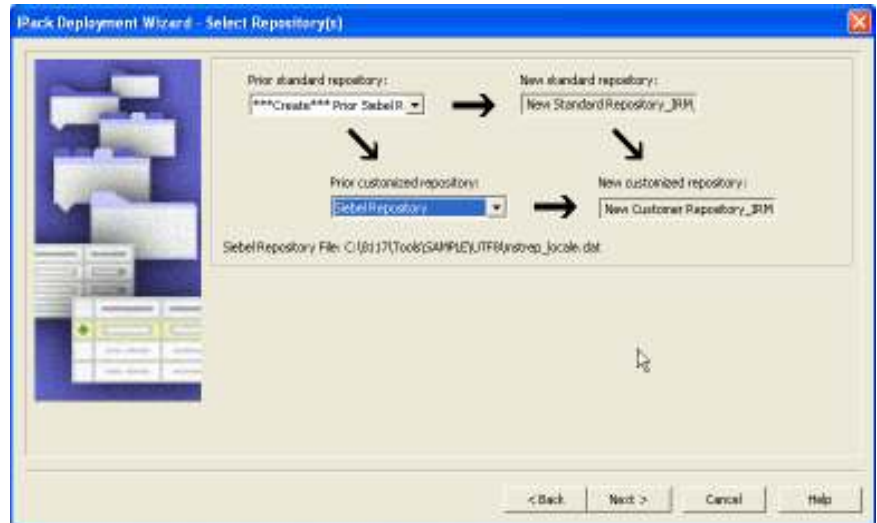
Figure 3 Part of the Innovation Pack Deployment Wizard

Visually Compare Workflows or Tasks

A new utility is included in Siebel Tools with 8.1.1.10 that will allow developers to visually compare two workflow processes or tasks. Much of the time after an upgrade is spent tediously inspecting what might have changed between two workflow processes or two tasks. With the Workflow/Task Visual Comparison Utility finding changes is instant.
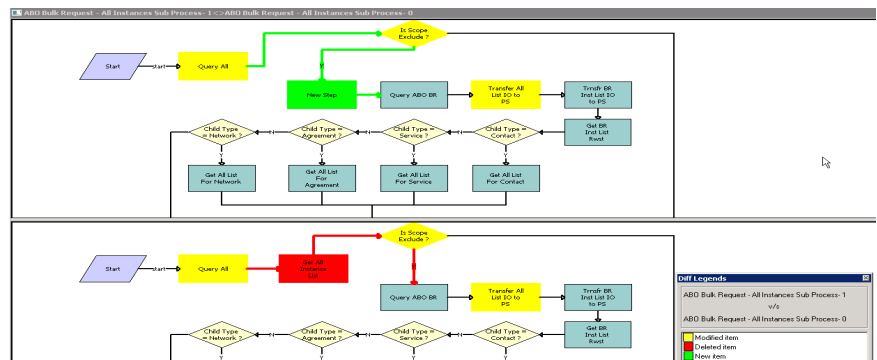
Figure 4 Two workflow processes compared using the new utility. Red indicates a step has been deleted, green means a new step, and yellow

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means an updated step

Double click any step to get a side by side comparison of the properties for that step in each version of the process or task.
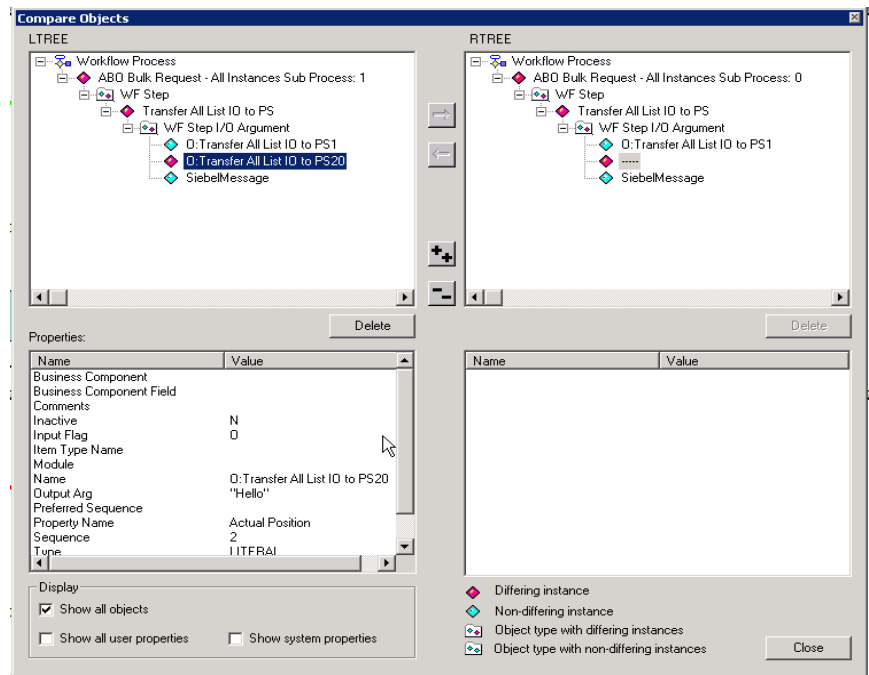
Figure 5 Side by side comparison of a step from each workflow process version

Merge Conflict Hierarchical Report

We have transformed the flat views of merge conflict data and presented them in a new report that allows developers to go through the tree of a particular object and see exactly what has changed. Furthermore, if an object on which the currently selected object depends has changed developers can drill down on that object and find out how it changed and get a better idea of the testing effort involved. This should make the task of resolving conflicts faster and easier as well as give insight for testing efforts after the merge.

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Figure 6 A shot of the Hierarchical Merge Conflict Report

Incremental Repository Merge Using Siebel Database Configuration Wizard in IP2013

Streamlined Process

The uptake of a Siebel Innovation Pack is now simpler and more user-friendly. Incremental Repository Merge process now uses the Siebel Database Server Framework. The Siebel Database Server Configuration Wizard takes user inputs and then invokes the Siebel Upgrade Wizard. This upgrade wizard executes all the required steps based on the inputs provided by the user. New command line utilities to execute incremental repository merge directly have been provided which are invoked by the Siebel Upgrade Wizard.

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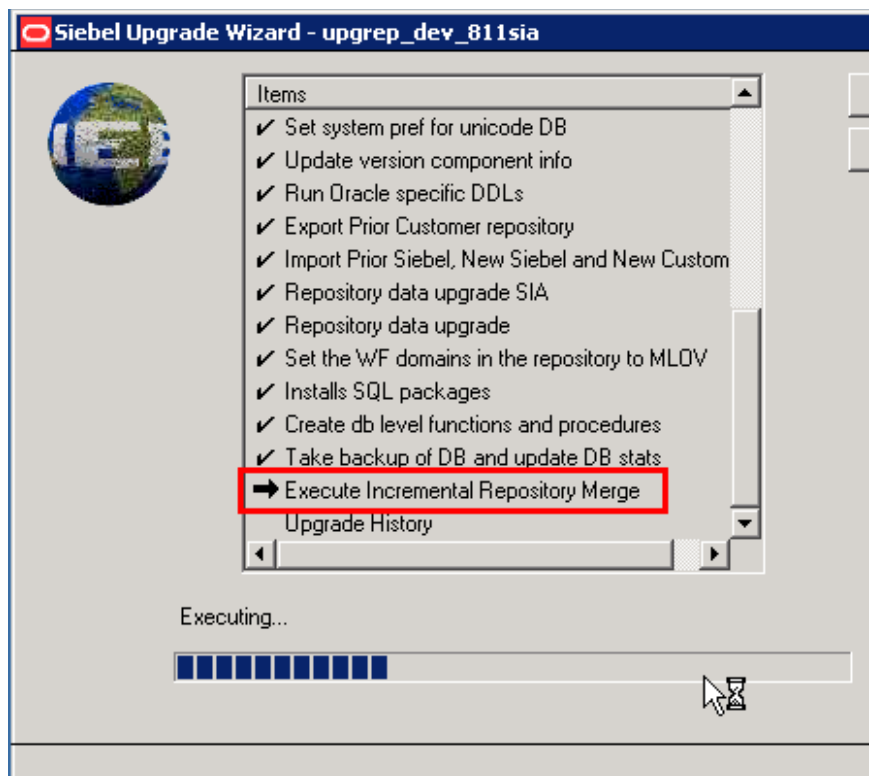
Faster Repository Merge

The merge algorithm has been optimized and indexes added to improve the performance of both repository merge and incremental repository merge. New indexes are created during the upgrade wizard process and just before starting merge. These temporary indexes are deleted once the merge is complete so that they do not affect the performance of the applications.

Conflict Resolution – Resolve Only Critical Conflicts

Another enhancement to this release is the separation of critical and non-critical conflicts after merge. Once the repository merge is completed, the user has to resolve merge conflicts. This step has been made easier by separating critical and non-critical conflicts. Users have to resolve only the critical conflicts. Once conflict resolution is done, the "Conflict Resolution Completed" checkbox has to be ticked. This ensures that the next steps are not executed until conflicts are resolved.

Figure 7 Existing Application Upgrade – Attribute differences screen has been enhanced to display critical conflicts, non-critical conflicts and all conflicts.

Apply Innovation Pack to Non-Development Environments

Once the Innovation Pack has been applied on the development environment and the testing is completed, the content can be applied on to other non-development environments such as production test, SIT, QA, production, etc. The schema and repository files have to be copied from the development environment to the non-development environment and then same Database Configuration Wizard has to be executed by selecting the "Production" environment option.

Hardware and Software, Engineered to Work Together

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