

Embarcadero® Change Manager™ 5.0 New Features Guide

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New Features Summary

Schema Comparison Integration and Enhancements

Change Manager 5.0 features the complete integration of its schema comparison feature into the application framework. This major interface rework provides an enhanced user experience by providing improvements to versatility, performance, and user comprehension. This includes enhancements to the interface, such as drag and drop functionality when creating jobs, quick type features, and larger editor spaces. Additionally, schema comparison takes advantage of its new framework and offers one-to-many comparison jobs, job history storage, enhanced mapping options, and single step schema refinement.

Configuration Standard Enhancements

Standards Explorer has been removed from the application and all configuration standards are now managed via **Project Explorer**. Additionally, static property definitions are no longer associated with a source. They are simply marked as static and stored as independent values. Furthermore, all configuration comparison jobs, archives, and standards now provide more detailed information regarding the platform versions for the source and target DBMS.

Source Code Control Support

Change Manager now supports source code control through compatible source control plug-ins. All data source definitions, jobs, standards, synchronization scripts, and archives can be stored as specified file formats, placed into a repository, and then shared across multiple instances of the application. This feature functions via the Project Explorer, which organizes definition files and stores them in the system. The **Navigator** is then used in conjunction with the source control system to share these files across a development team or project from within the application interface.

Data Comparison Job Enhancements

The data comparison job process has been improved to provide users with greater control over the job comparison and synchronization process. These enhancements include the ability to specify high-level refinement mapping (by database, schema, or owner) prior to the standard refinement process, which automatically filters mapping selections to a more manageable number on the Mapping tab. Additionally, the **Check Rows from Source** and **Check Rows from Target** commands provide a more precise comparison, as they indicate to the process to only examine the rows in one or the other data source of the job. Finally, the table comparison results display includes paging options to optimize loading and browsing times, and also includes the **Show Rows** command, which filters specified rows from the view automatically.

Job Explorer

The **Job Explorer** view replaces **Change Explorer**, and provides an organized list of data, configuration, and schema comparison jobs from which to explore and manage. It includes enhanced interface and organizational functionality which improves comprehension and the ease at which jobs are set up, managed, and viewed.

Data Source Explorer

The **Auto Discover** button on **Data Source Explorer** scans your system for data sources and automatically adds them to the tree. Additionally, the **Import** command enables you to import new data sources from the Windows registry, Eclipse Data Tools Platform (DTP), TOAD, or other instances of Change Manager. Conversely, the **Export** command enables you to store the current definitions catalog in a file for import purposes on other systems.

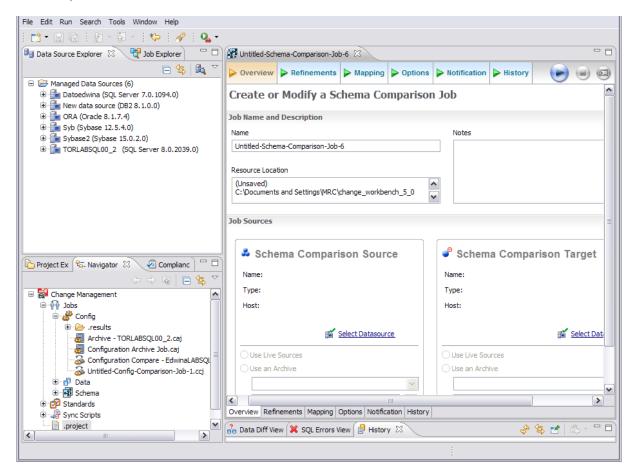
Job Reporting

Job reports can now be generated across all modules in XML, PDF, RTF, CSV, and HTML file formats. Additionally, a preview window is provided to view reports prior to saving and distributing them.

Top New Features

Schema Comparison Integration and Enhancements

Schema comparison provides the ability to capture, compare, and synchronize schema in databases and provide reports on comparison jobs to enable the distribution of the information throughout your working environment. In previous versions of Change Manager, schema comparison was not integrated into the interface in the same format as configuration and data comparison. In version 5, the module is fully integrated and provides the same level of versatility, performance, and comprehension offered by the other modules.



Schema comparison is now fully integrated with Change Manager framework and provides the same level of interface detail as configuration and data comparison functionality.

The following features and enhancements can be utilized via the new interface for schema comparison:

- Drag and drop functionality when setting up schema comparison jobs and archives.
- Quick type features to find and open jobs.
- Quick type features to find available data sources.
- Single step schema refinement.
- Larger editor spaces.

- Simultaneous job execution.
- One-to-many option for comparison jobs.
- Job History storage for comparisons and archives saved in the system.

To start a schema comparison job

• Select File > New > Schema Comparison Job from the Main Menu.

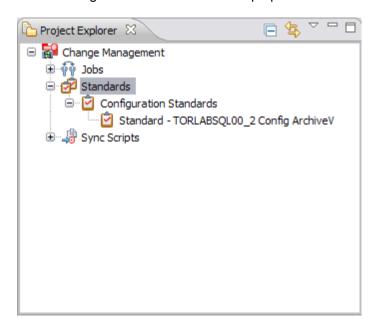
To start a schema archive job

• Select File > New > Schema Archive Job from the Main Menu.

Configuration Standard Enhancements

Configuration standards are specific to configuration comparison jobs and were previously stored in **Standards Explorer**. This view has been removed, and all standards are now managed and controlled on the interface via **Project Explorer**.

Project Explorer provides a view that organizes jobs, standards, and synchronization scripts into tree-structured project folders for management and source control purposes.



Project Explorer stores configuration standards in a tree for management and source control purposes.

To explore and manage configuration standards

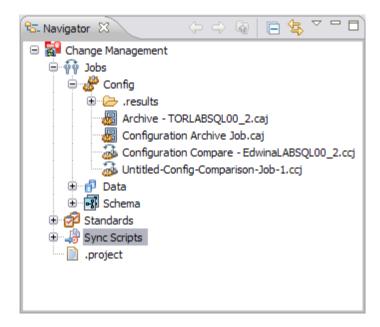
Navigate to Project Explorer and expand the Standards node. All standards that are saved
in the system are displayed by standard name. You can open a standard by double-clicking on
the job you want to access. Additionally, when using standards in jobs, drag and drop the
standard from Project Explorer into the appropriate source or target box.

Source Code Control Support

Change Manager files can now be integrated and shared with source control systems such as Concurrent Versions System (CVS).

These systems provide a repository for project files and are aimed specifically at team programming and resource sharing by multiple people working in the environment. Most source control systems also provide versioning, and Change Manager supports this feature as well.

Source control is managed in the **Navigator**, a new view that provides a directory tree of XML files generated whenever a comparison job, standard, or archive is created or modified in Change Manager that contain definition values of the specified element. If a source control system has been implemented, these files share a common repository, and individuals working in Change Manager can store, update, and view files created by other members of the team.



The Navigator View provides quick access to all definition files in the system for use with source control systems when sharing files across a team of administrators and/or developers.

To utilize Source Control System features in Change Manager

Change Manager can be integrated with source control systems such as Concurrent Versions System (CVS) and Visual Source Safe (VSS).

Source control systems provide a repository for project files and are aimed specifically at team programming environments where developers can work on the same code simultaneously and merge it as needed. Most source control systems provide versioning as well, which provides backup instances of code when development regression is required.

Typically, a source control system repository and its associated files are updated by individual members of a development team as they add and modify files in the project. Work is shared in this manner as the project evolves, and the latest work is always available in a given project as individuals can update files from the specified Change Manager directory to the branch repository and vice-versa.

The Navigator provides an interface for accessing these files in the Change Manager development environment. Job files and archive versions are stored as XML files and synchronization scripts are stored as text, in a specified directory for the purpose of sharing them in some manner of third-party source control system.

For more information regarding the implementation of source control systems, as well as the client and tool application software and how it integrates with Change Manager (built on the Eclipse platform framework for source sharing and version control systems), consult the third-party documentation provided with these plug-ins and/or applications.

All source code control actions much be manually performed.

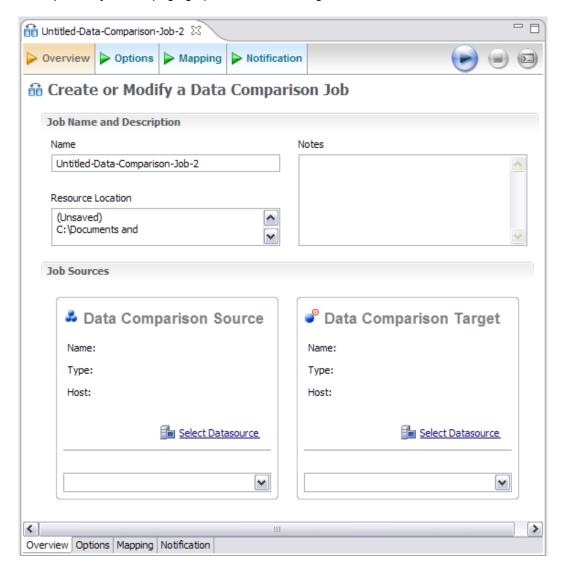
Note: Change Manager 5.0 is built on the Eclipse 3.3 framework. Consequently, any source code control plug-in designed to work with Eclipse 3.3 can also be implemented in Change Manager 5.0.

Data Comparison Job Enhancements

Data comparison jobs provide the ability to compare the data repositories of two specified data sources at the table and row levels. In Change Manager 5.0, the job creation process has been enhanced to provide more comprehensive results, as well as supply users with additional options for fine tuning the job process.

This includes:

- A high-level refinement mapping option that enables users to select a database, schema, or owner prior to entering the lower-level refinement process.
- New job execution and result options, including source/target row specification when running a comparison job, and paging options when viewing the results.

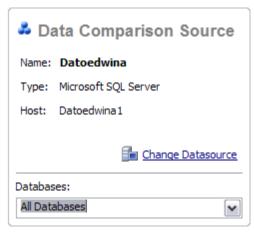


The Data Comparison Job Editor provides a number of new options, including high-level mapping refinement and new execution and results parameters.

High-Level Mapping Refinements

On the **Overview** tab of the Data Comparison Job Editor, drop down menus have been added to the **Source** and **Target** boxes.

When you specify a source or target data source in these boxes and click the drop down, the menu populates with the owners, databases, or schema of the data source (depending on the platform). Choose an item from the list provided to specify mapping at a high-level. When selected, the lower-level selections on the **Mapping** tab are automatically filtered to reflect your higher level choice.



The drop down menu provided beneath the Source and Target comparison boxes enables you to select an owner, schema, or database to filter out mapping objects at a higher level than the Mapping tab provides.

New Job Comparison Options

On the **Options** tab of the Data Comparison Job Editor, two new options are provided in the **Comparison Options** section:

- Check Rows from Source
- Check Rows from Target

The **Check Rows from Source** option enables you to specify that the job process will examine the rows that exist in the source tables, while the **Check Rows from Target** option specifies that the job process will examine the rows in the target tables.

If you de-select either of these options, the rows on the specified data source will not be included in the comparison, enabling you to define static comparisons between the two data sources.

✓ Check rows from source

Check rows that exist in source tables. If this option is unchecked, the rows that only exist on the source tables won't be included in the results.

✓ Check rows from target

Check rows that exist in target tables. If this option is unchecked, the rows that only exist on the target tables won't be included in the results.

The Comparison Options selection panel includes two new options: Check Rows from Source and Check Rows from Target.

New Job Results Options

The **Database Results** tab contains a **Show Rows** section that contains a series of new row filtering parameters:

- All
- Mismatched
- Source
- Only Source
- Target
- Only Target

These options define how result rows are displayed in the results tables above. This feature enables you to show only the row comparisons you want to view. If you choose to generate a synchronization script, the system automatically generates it based on the selection you have made in the **Show Rows** option.

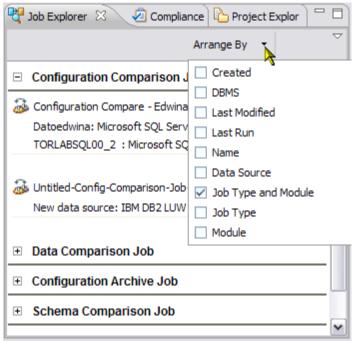


The Show Rows parameters enable you to specify what rows are shown after you have run a data comparison job in the results tables.

Job Explorer

Job Explorer replaces the old **Change Explorer** view for providing an organized list of data, configuration, and schema jobs to explore and manage. It includes enhanced interface features and organizational functionality to improve comprehension and the speed at which jobs can be set up, managed, and viewed in the development environment.

Jobs are organized by date created, source and target platform types, last modified, last executed, job name, data source name, job type, and module. You can use **Job Explorer** when searching for jobs of a specific name or type.



Job Explorer is used to manage jobs in the system and enables you to quickly sort, filter, and retrieve through a variety of categories and options.

To use Job Explorer

Navigate to the **Job Explorer** view in the workbench and click **Arrange By**. When you select
a new category, the jobs are automatically re-sorted based on your selection, with each job
categorized as a node beneath the category title in the view. You can open a job by doubleclicking its name in the window and it will automatically open in the appropriate editor.

Data Source Explorer

Data Source Explorer now provides an **Auto Detect Data Sources** button for manually searching for data sources in pre-existing catalogs to add to Change Manager.

Similar to the autosearch function when you first install and run Change Manager, when you click the **Auto Detect Data Sources** button, Change Manager searches all available sources for data source definitions and then prompts you to add them to the view. This enables you to quickly and efficiently add new data sources to the system from a variety of different definition sources, without having to manually add them one at a time beyond Change Manager's initial search.

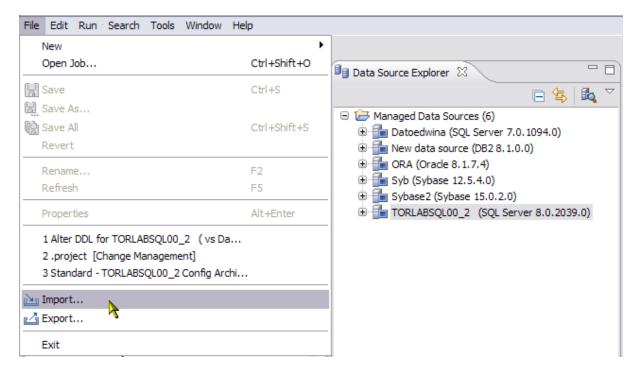


The Data Source Explorer view bar now features the Auto Detect Data Sources button, which initiates a catalog source and prompts you to register any newly discovered data sources to Change Manager.

To search for new data sources

Click the icon in **Data Source Explorer**. A window indicates that Change Manager is searching for any data source definitions in the system. If it finds any, it will prompt you and then automatically register your selections in the application.

In addition to **Auto Detect Data Sources**, Data Source Explorer also features the **Import** and **Export** commands, which enable you to import definition files from the Windows registry, Eclipse Data Tools Platform (DTP), TOAD, and other instances of Change Manager, or export the current list of registered data sources to a file for the import purposes on other systems.



The Import and Export commands enable you to import data source definitions from other sources, or export Change Manager's current registry to a source file.

To import data source definitions from other source providers

Highlight Data Source Explorer and select File > Import from the Main Menu. The Import
dialog opens and prompts you through a series of options that specify the type of file to import,
and the source provider. Complete the steps and click OK. Data Source Explorer is
automatically populated with the new definitions from the imported file.

To export the current data source catalog

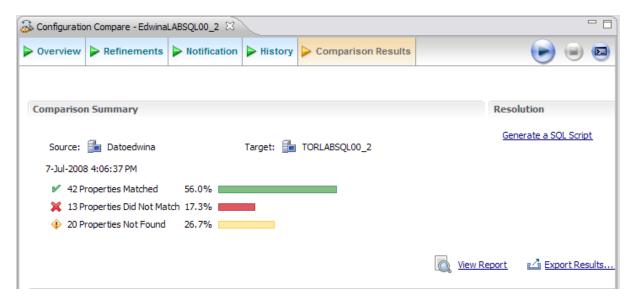
Highlight Data Source Explorer and select File > Export from the Main Menu. The Export
dialog opens and prompts you through a series of options that specify the type of file to export
into, and what individual data source definitions you want to provide. Complete the steps and
click OK. The definitions file is stored in the directory path you specified.

Job Reporting

New file formats are provided for the generation of job reports, and options are provided for all job facets of schema, configuration, and data comparisons. Additionally, a **Preview Report** command is provided that enables you to open a view of the report prior to saving it for the purposes of previewing the information.

Jobs are created on the **Results** tab of the specified editor whenever you execute the job. The **View Report** command automatically opens a report of the job in a separate window that can be read on screen, sent to your printer, or saved to disk.

In addition to the **View Report** command, the **Export Results** command enables you to produce a report file in a specified file format at a directory location of your choosing.



Job Reporting commands are available on the results tabs of the schema, data, and configuration job editors.

To view a report

 When a job has executed, click View Report. A new window opens that contains the details of the executed job in a formatted display. Use the icon buttons at the top of the window to print, save, or otherwise retain the information generated by the report.

To export the results of a report

When a job has executed, click Export Results. The Export Results dialog opens and
provides a directory path field and file format options. Specify the directory where you want the
report to be saved and choose its file format. Click Finish to complete the export.

Additional Resources

Licensing Your Embarcadero Technologies Product

All Embarcadero Technologies products include a 14-day trial period. To continue using the product without interruption, we recommend that you license it as soon as possible. To license your product, use the License Request Wizard found in the Help menu of your respective product. If you have not yet purchased your Embarcadero Technologies product, contact sales@embarcadero.com, or uk.sales@embarcadero.com for sales in the EMEA region.

Embarcadero Technologies Product Support

The Embarcadero Technologies Web site is an excellent source for additional product information, including white papers, articles, FAQs, discussion groups, and the Embarcadero Knowledge Base. Go to www.embarcadero.com/resources, or click any of the links below, to find:

- Documentation
- Online Demos
- <u>Technical Papers</u>
- <u>Discussion Groups</u>
- Knowledge Base

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We encourage you to open technical support cases via the <u>Technical Support request form</u> at the <u>Embarcadero Technologies Web site</u>. For additional information about Embarcadero Technologies Technical Support, go to the Support page on our Web site.

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