TIBCO BusinessEvents® Enterprise Edition

Migration Guide

Version 6.3.1 | September 2024

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Before You Begin

To maintain uniformity, the following terms have been used in the TIBCO BusinessEvents Studio UI and the product documentation:

- TIBCO ActiveSpaces software version 2.x is referred to as *Legacy ActiveSpaces*.
- TIBCO ActiveSpaces software version 4.6.1 and later are referred to as *ActiveSpaces*.

For details about the supported versions, see the *Readme.txt* file available at the TIBCO BusinessEvents® Enterprise Edition Product Documentation page.

Rule Management Server Prerequisite

In addition to Legacy ActiveSpaces as cluster and cache provider, you can also configure TIBCO BusinessEvents Rule Management Server (RMS) with the following combinations:

Cluster	Cache	Store
Apache Ignite	Apache Ignite	None/Shared Nothing/RDBMS/Store Providers (TIBCO ActiveSpaces and Cassandra)
TIBCO FTL	Apache Ignite	None/Shared Nothing/RDBMS/Store Providers (TIBCO ActiveSpaces and Cassandra)
TIBCO FTL	No cache	TIBCO ActiveSpaces

By default, Apache Ignite is used as the cluster and cache provider.

For more information about configuring these for your RMS project, see *TIBCO BusinessEvents Configuration Guide*.

Third-Party Software Documentation References

For complete details about the third-party software used in the project, see its documentation.

Note: When you obtain third-party software or services, it is your responsibility to ensure you understand the license terms associated with such third-party software or services and comply with such terms.

Third-Party Software Documentation

Software	Used as	Documentation Reference URL
TIBCO ActiveSpaces 4.6.1 and above	Store provider	TIBCO ActiveSpaces documentation
TIBCO ActiveSpaces 2.x	Cluster and Cache provider	TIBCO ActiveSpaces documentation
Apache Kafka	Channel	Apache Kafka documentation
Confluent Schema Registry	Schema Registry	Confluent documentation
TIBCO Messaging - Schema Repository for Apache Kafka	Schema Registry	TIBCO Messaging - Schema Repository for Apache Kafka documentation
Apache Pulsar	Channel	Apache Pulsar documentation
Apache Cassandra	Store provider	Apache Cassandra documentation
GridGain	Data Center Replication	GridGain documentation
TIBCO FTL	Cluster provider	TIBCO FTL documentation

Software	Used as	Documentation Reference URL
Apache Ignite	Cluster and Cache provider	Apache Ignite documentation
InfluxDB	Metrics store provider	InfluxDB documentation
Grafana	Application metrics visualization	Grafana documentation
Ignite CDC	Data Center Replication	Apache Ignite documentation
Control Plane	Metrics store provider	TIBCO® Platform Documentation
Apache Maven	Native Maven projects	Apache Maven Documentation

Migrating Projects from TIBCO BusinessEvents Version 5.x to 6.x

You can use this guide to upgrade TIBCO BusinessEvents projects from version 5.x to version 6.x by following the described migration strategies and processes.

Important: For details about support policies for TIBCO BusinessEvents version 5.x and supported software, see the announcement on TIBCO Support Portal.

To know about Licensing details, see the *Pricing Definition* file available at the TIBCO BusinessEvents® Enterprise Edition Product Documentation page.

After installing TIBCO BusinessEvents version 6.x, to migrate existing projects, you must import them to TIBCO BusinessEvents Studio® and then migrate the project data.

1. Importing Projects from TIBCO BusinessEvents Version 5.x to 6.x
2. Migrating Project Data

Importing Projects from TIBCO BusinessEvents Version 5.x to 6.x

When you migrate projects from TIBCO BusinessEvents version 5.x to 6.x, there is a shift in the entity lookup strategy in cache and stores from object table-based legacy ID lookup to key-based ID lookup.

To know the detailed differences between the key-based and legacy lookup strategies, see the Primary Key Strategies topic in the *TIBCO BusinessEvents Administration*.

When you migrate the TIBCO BusinessEvents projects from version 5.x, the legacy lookup strategy is disabled and TIBCO BusinessEvents projects are migrated to the new ID lookup implementation by default. You might continue to use the legacy ID in the migrated projects (in select cases) with some configurations in the project. However, using the legacy ID lookup strategy is discouraged.

Tip: It is advisable to modify the existing project implementation to adopt the key-based lookup capability for improved TIBCO BusinessEvents Enterprise Edition engine performance and better compatibility with modern stores.

Note:

- Opening an existing workspace containing TIBCO BusinessEvents 5.x projects in TIBCO BusinessEvents Studio of version 6.x migrates the projects to TIBCO BusinessEvents version 6.x automatically.
- As part of the project migration, the `.beproject` file is deleted. The information in the `.beproject` file is transferred to their corresponding sections in the pom.xml.

Importing projects with New ID Lookup

To migrate projects with the new ID lookup implementation, perform the following tasks:

Procedure

1. Import an existing project into TIBCO BusinessEvents version 6.x workspace using the existing TIBCO BusinessEvents Studio project import utility option.

   For a detailed process, see the Importing Projects in TIBCO BusinessEvents Studio topic in TIBCO BusinessEvents Studio in *TIBCO BusinessEvents Developer Guide*.

   Alternatively, you can also use a command-line utility `studio-tools` to import an existing project into TIBCO BusinessEvents version 6.x workspace. After successfully running the utility, open the project in the TIBCO BusinessEvents Studio version 6.x.

   For a detailed process, see the Importing an Existing Project from the CLI topic in the *TIBCO BusinessEvents Developer Guide*.

2. If the TIBCO BusinessEvents 5.x project has modified object management configurations to use Apache Ignite or TIBCO FTL clustering with either ActiveSpaces 4.x Store or Apache Ignite cache with or without persistence, then make the corresponding changes in the project CDD file.

3. If the TIBCO BusinessEvents 5.x project contains functions that are no longer supported under the new key-based lookup or have been updated in TIBCO BusinessEvents version 6.x, then modify the project design and the implementation by using the equivalent functions supported with TIBCO BusinessEvents version 6.x.

   The validation errors are provided in TIBCO BusinessEvents version 6.x BusinessEvents Studio for some unsupported functions.

4. Rebuild the project EAR by using the TIBCO BusinessEvents Studio 6.x.

   For a detailed process, see the Compiling Project and Building an EAR File topic in the *TIBCO BusinessEvents Developer Guide*.

Unsupported functions with TIBCO BusinessEvents Version 6.x

Under the new key-based lookup with TIBCO BusinessEvents version 6.x, the ID (@id) for concept and event entities is of object data type instead of long data type. With this change in the function definition, the following functions now expect an object or string value instead of long value:

- `Instance.getById()`
- `Event.getById()`
- `Cluster.DataGrid.CacheLoadConceptById()`
- `Cluster.DataGrid.CacheLoadEventById()`

For the functions that are no longer supported with TIBCO BusinessEvents version 6.x under the new key-based lookup, you must update the function definitions in the project implementation with their equivalent functions supported in version 6.x.

The following table lists these unsupported functions and their equivalent functions with 6.x.

Functions supported with TIBCO BusinessEvents version 5.x	Equivalent functions supported with TIBCO BusinessEvents version 6.x	Comments
`Instance.getByExtId()`	`Instance.getByKeysByUri()`	Use when a custom

Functions supported with TIBCO BusinessEvents version 5.x	Equivalent functions supported with TIBCO BusinessEvents version 6.x	Comments
		primary key is configured for the entity For details about key-based lookup, see the Primary Key Strategies topic in *TIBCO BusinessEvents Administration* Guide. For function details, see TIBCO BusinessEvents Functions Reference available at TIBCO BusinessEvents® Enterprise Edition Product Documentation.
	`Instance.getByExtIdByUri()`	Use when custom primary key is not configured hence extId is used as primary key For details about key-based lookup, see the Primary Key Strategies topic in *TIBCO BusinessEvents Administration* Guide. For function details, see TIBCO BusinessEvents Functions Reference

Functions supported with TIBCO BusinessEvents version 5.x	Equivalent functions supported with TIBCO BusinessEvents version 6.x	Comments
		available at TIBCO BusinessEvents® Enterprise Edition Product Documentation.
`Instance.getByIdByUri()`	`Instance.getById()`	The URI is not needed when getting by ID object with TIBCO BusinessEvents version 6x as ID object already has type detail.
`Event.getByExtId()`	`Event.getByExtIdByUri()`	For function details, see TIBCO BusinessEvents Functions Reference available at TIBCO BusinessEvents® Enterprise Edition Product Documentation.
`Cluster.DataGrid.CacheLoadConceptByExtId()`	`Cluster.DataGrid.CacheLoadConceptByExtIdByUri()`	Use when custom primary key is not configured hence extId is used as primary key For function details, see the Cache Related Functions topic in *TIBCO BusinessEvents Developer Guide*.

Functions supported with TIBCO BusinessEvents version 5.x	Equivalent functions supported with TIBCO BusinessEvents version 6.x	Comments
	`Cluster.DataGrid.CacheLoadConceptByKeysByUri()`	Use when a custom primary key is configured for the entity For function details, see the Cache Related Functions topic in *TIBCO BusinessEvents Developer Guide*.
`Cluster.DataGrid.CacheLoadConceptsByExtId()`	`Cluster.DataGrid.CacheLoadConceptsByExtIdByUri()`	For function details, see the Cache Related Functions topic in *TIBCO BusinessEvents Developer Guide*.
`Cluster.DataGrid.CacheLoadEventByExtId()`	`Cluster.DataGrid.CacheLoadEventByExtIdByUri()`	For function details, see the Cache Related Functions topic in *TIBCO BusinessEvents Developer Guide*.
`Cluster.DataGrid.CacheLoadConceptIndexedByExtId()`	`CacheLoadConceptByKeysByUri()`	Use when custom primary key is configured. For function details, see the Cache Related Functions topic in *TIBCO BusinessEvents Developer Guide*.
	`CacheLoadConceptByExtIdByUri()`	Use when custom primary key is not configured.

Functions supported with TIBCO BusinessEvents version 5.x	Equivalent functions supported with TIBCO BusinessEvents version 6.x	Comments
		For function details, see the Cache Related Functions topic in *TIBCO BusinessEvents Developer Guide*.

Note: The `*ByUri` functions work with both legacy and new ID lookup strategies.

Importing Projects with Legacy ID Lookup

To migrate projects with the legacy ID lookup implementation, perform the following tasks:

Procedure

1. To continue using legacy ID-based lookup when migrating existing projects into TIBCO BusinessEvents version 6.x workspace, you must first setup the environment in the BE_HOME for a project. For a detailed process, see Enabling the Legacy Lookup Strategy.
2. Import an existing project into TIBCO BusinessEvents version 6.x workspace using the existing TIBCO BusinessEvents Studio project import utility option.

   For a detailed process, see the Importing Projects in TIBCO BusinessEvents Studio topic in TIBCO BusinessEvents Studio in *TIBCO BusinessEvents Developer Guide*.

   Alternatively, you can also use a command-line utility `studio-tools` to import an existing project into TIBCO BusinessEvents version 6.x workspace. After successfully running the utility, open the project in the TIBCO BusinessEvents Studio version 6.x.

   For a detailed process, see the Importing an Existing Project from the CLI topic in the *TIBCO BusinessEvents Developer Guide*.

3. If the TIBCO BusinessEvents 5.x project has modified Object Management configurations to use Apache Ignite or TIBCO FTL clustering with either ActiveSpaces 4.x Store or Apache Ignite Cache with or without persistence, make the corresponding changes in the project CDD file.
4. If the TIBCO BusinessEvents 5.x project has used `StudioUtil.buildClasses` and `StudioUtil.buildEar` catalog functions then you must update project to remove `useLegacyCompiler` boolean parameter from these functions.
5. Rebuild the project EAR using the TIBCO BusinessEvents Studio 6.x.

   For a detailed process, see the Compiling Project and Building an EAR File topic in the *TIBCO BusinessEvents Developer Guide*.

Enabling the Legacy Lookup Strategy

The legacy lookup strategy is the entity lookup strategy from TIBCO BusinessEvents version 5.x where an entity instance can be fetched or loaded into working memory by specifying its Long ID or extId with or without specifying its URI.

In TIBCO BusinessEvents version 6.3.0, the legacy lookup strategy is disabled and the migrated projects use the new ID (Key-based Lookup) implementation by default. To continue using the legacy ID in the migrated TIBCO BusinessEvents projects, follow the process:

Procedure

1. To use the legacy ID mode, set the following properties:

Property	Location	Action
`be.engine.id.useLegacy`	`studio.tra` file located at `BE_HOME/bin/studio/eclipse/configuration/`	Set the property to `true`. The property already exists in the `studio.tra` file in the commented out form.
	`be-engine.tra` file located at `BE_HOME/bin/` or project CDD file at the cluster level	For runtime configuration, add the property and set it to `true`.
	`be-storedeploy.tra` file located at `BE_HOME/bin/` or project CDD file at the cluster level	For JDBC deployment, before creating the SQL scripts in Studio or with the `be-storedeploy` utility on command line, add the property and set it to `true`.
`TIBCO.BE.function.catalog.getbykeys`	`studio.tra` file located at `BE_HOME/bin/studio/eclipse/configuration/`	Set the property to `false` to use legacy ID. **Note:** If the the value of the Legacy Id for previous version is set to `true` in the pom.xml file, then it is set to `true` in the current version.

2. Restart TIBCO BusinessEvents Studio.

Result

- The `Cluster.DataGrid.*ByExtId` catalog function is available for use.
- The object table is used for store or cache lookups.

Migrating Project Data

After you import the project, you must migrate the project data. The data migration process depends on the entity lookup strategy (new ID or legacy ID) and the persistence option implemented in the project.

For migrating the project data, following are the considerations:

- By default, the TIBCO BusinessEvents projects are migrated to the new ID implementation.
- You can migrate TIBCO BusinessEvents projects irrespective of the store or persistence mode.
- The **Check for Duplicates** feature in an agent cluster configuration is no longer supported in new ID. It was used to check the cluster-wide duplicates across entities. If the TIBCO BusinessEvents version 5.x project has the **Check for Duplicates** feature enabled, then you must refactor the project to remove this dependency.

  For details about project refactoring, see the Element Refactoring Operations topic in *TIBCO BusinessEvents Developer Guide*.

  Duplicate checks within entities continue to be supported.
- You can choose between refactoring or lift-and-shift strategies to migrate project data based on the factors such as migration timeline, efforts, the complexity of use-cases, and licensing.

For possible data migration options and respective processes, see Data Migration Options.

Note: Download and install the third-party supported software (database or external data grids) used in the project to the versions supported with TIBCO BusinessEvents version 6.x. For details about the installation and configurations for third-party software, see their respective documentation.

For details about the supported versions, see the *Readme.txt* file available at the TIBCO BusinessEvents® Enterprise Edition Product Documentation page.

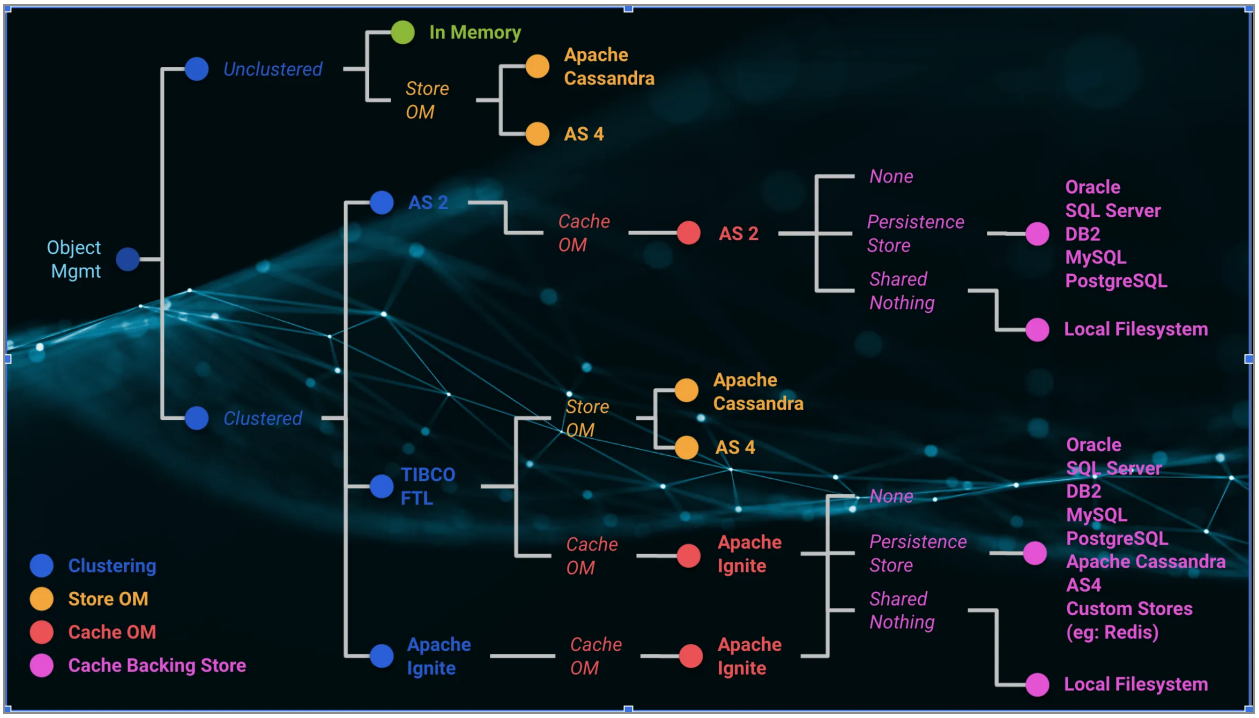
Data Migration Options

When migrating project data, you can evaluate the object management approach for your project requirements such as In-Memory(Unclustered) or Cache(Clustered) depending on the TIBCO BusinessEvents version 6.x supported options.

With TIBCO BusinessEvents version 5.x, the default cache provider is TIBCO ActiveSpaces version 2.x with or without persistence option.
With TIBCO BusinessEvents version 6.x, for clustered object management, you can use Apache Ignite as a cache and cluster provider, TIBCO FTL as a cluster provider with existing ActiveSpaces 2.x. For details about the ActiveSpaces 2.x support, see the announcement on TIBCO Support Portal.

The following image provides the graphical illustration of a possible object management strategy for a project:

Figure 1: Object Management Strategy for a Project



Note:

- For the object management configurations that are using internal ActiveSpaces 2.x cache, TIBCO recommends refactoring the project design or adopt the newly supported Apache Ignite cache provider.
- The minimum supported versions for data migration to new stores are ActiveSpaces version 2.3 and later, and TIBCO BusinessEvents version 5.5.0 and later.

The following table summarizes the possible options and respective data migration processes:

Existing TIBCO BusinessEvents 5.x configurations	Possible TIBCO BusinessEvents 6.x migration options	Required migration processes
• In Memory • External ActiveSpaces 2.x Cache • No Persistence	• Unclustered • ActiveSpaces 4.x Store Option	Requires project redesigning ActiveSpaces 4.x store functions are provided with TIBCO BusinessEvents version 6.x.
	• Unclustered • External Apache Ignite Cache	Requires project redesigning and catalog functions implementation in TIBCO BusinessEvents Catalog functions are provided with TIBCO BusinessEventsversion 6.3.1.
	• Clustered • ActiveSpaces 4.x Store option	Requires project redesigning ActiveSpaces 4.x store functions are provided with TIBCO BusinessEvents version 6.x.
	• Clustered • Apache Ignite Cluster	Requires project redesigning

Existing TIBCO BusinessEvents 5.x configurations	Possible TIBCO BusinessEvents 6.x migration options	Required migration processes
	• Apache Ignite Internal Cache	
	• Clustered • TIBCO FTL Cluster • Apache Ignite Internal Cache	Requires project redesigning
• In Memory • External ActiveSpaces 2.x Cache • DB Persistence (shared among other applications)	• Unclustered • External Apache Ignite Cache	Requires project redesigning and catalog functions implementation in TIBCO BusinessEvents Catalog functions are provided with TIBCO BusinessEvents version 6.3.1.
• In Memory • External ActiveSpaces 2.x Cache • DB Persistence (not shared among other applications)	• Clustered • Apache Ignite Cluster • Apache Ignite Internal Cache	Requires project CDD changes for Apache Ignite cluster or cache configurations
	• Clustered • TIBCO FTL Cluster • Apache Ignite Internal Cache	Requires project CDD changes for TIBCO FTL or Apache Ignite, cluster or cache configurations

Existing TIBCO BusinessEvents 5.x configurations	Possible TIBCO BusinessEvents 6.x migration options	Required migration processes
• Cache • Internal ActiveSpaces 2.x Cache • Persistence: None	• Clustered • TIBCO FTL • Apache Ignite Cache • Persistence None • With new ID or legacy ID Implementation	Requires project CDD changes for TIBCO FTL and Apache Ignite configurations **Note:** Running the migration utility and data migration steps are not required.
	• Clustered • Apache Ignite Cache • Apache Ignite Cluster • Persistence None • With new ID or legacy ID implementation	Requires project CDD changes for Apache Ignite cache or cluster configurations **Note:** Running the migration utility and data migration steps are not required.
• Cache • Internal ActiveSpaces 2.x Cache • Persistence: Shared All	• Clustered • TIBCO FTL • Apache Cassandra or ActiveSpaces 4.x Store	Requires project redesigning for the No Cache option Requires store option implementation For details, see "Configuring ActiveSpaces as a Backing Store" and "Configuring Apache Cassandra as a Store Provider" in the *TIBCO BusinessEvents Configuration Guide*.
	• Clustered	Requires project CDD changes for cache or cluster configurations

Existing TIBCO BusinessEvents 5.x configurations	Possible TIBCO BusinessEvents 6.x migration options	Required migration processes
	• TIBCO FTL or Apache Ignite Cluster • Apache Ignite Cache with legacy ID implementation • Shared-All Persistence	**Note:** Migration of data is not required because when using the legacy ID, the database setup is the same for TIBCO BusinessEvents version 5.x (w/ActiveSpaces 2.x) and version 6.x (w/Apache Ignite).
	• Clustered • TIBCO FTL or Apache Ignite Cluster • Apache Ignite Cache with new ID implementation • Shared-All Persistence	Requires project CDD changes for cache configurations Requires creation of new tables as the table structure is different with new ID implementation in TIBCO BusinessEvents version 6.x and then migrating data from old tables to new tables. **Note:** The scripts to create new tables and migrate data from old tables to new tables are provided with TIBCO BusinessEvents version 6.3.1. To generate these scripts, use the CLI Script `be-storedeploy` or Studio UI option as: (**Project -> Export -> TIBCO BusinessEvents -> Backingstore Deployment**. See, Data Migration Scripts Generation. Projects containing unreferenced objects or scheduled events require an additional property setting, see allowAdjust property

Existing TIBCO BusinessEvents 5.x configurations	Possible TIBCO BusinessEvents 6.x migration options	Required migration processes
		setting for further details.
• Cache • Internal ActiveSpaces 2.x Cache • Persistence: Shared Nothing	• Clustered • TIBCO FTL or Apache Ignite Cluster • Apache Ignite Cache with legacy ID implementation or new ID implementation • Shared-Nothing Persistence	Requires project CDD changes for cluster or cache configurations Requires running the migration utility `be-storedeploy` to migrate data from ActiveSpaces to Apache Ignite and generate the files for Apache Ignite or TIBCO FTL cluster. For details about the `be-storedeploy` utility options, see the Generating Deployment Scripts for a Store topic in *TIBCO BusinessEvents Developer Guide*. **Note:** TIBCO BusinessEvents version 5.x cache agent and the ActiveSpaces Metaspace must be up and running. For details about starting the agents, see the *TIBCO BusinessEvents Administration* guide. For a detailed process, see the Migrating Data from TIBCO BusinessEvents version 5.6.x to New Id topic in *TIBCO BusinessEvents Developer Guide*.

For detailed processes, see the Cluster Configurations For Your Project topic in the *TIBCO BusinessEvents Configuration Guide*.

For additional custom implementations or references, see the TIBCO BusinessEvents Github page.

allowAdjust property setting

Migrating projects with legacy ID and shared all persistence to new ID requires an additional property setting for projects containing:

- Concepts with parent-child relationship which may have unreferenced contained or reference concepts saved in the project database as historical data.
- Unreferenced contained or reference concept type attribute references in entity tables for deleted objects.
- Parent references for deleted objects in the entity, secondary, workitems or statemachine database tables.
- ParentProcess Id references for deleted objects.
- Database with scheduled events (created with legacy ID) in workitems table during migration to the new ID.
- A simple process.

To handle such project data migrations, set the property `be.engine.id.migrated.allowAdjust` to `true` in the project CDD or in the `be-engine.tra` file located at *`BE_HOME`*`\bin\`. The default value is `false`.

This property allows adjusting the deserializer to read legacy IDs of entities in the database even when the project is running with new IDs.

For projects with scheduled events, when all the earlier scheduled events are triggered and there are no more old events in the workitems table, this property is ineffective and can be removed.

Data Migration Scripts Generation

For the shared all or store persistence configurations, you can migrate an existing database data from legacy ID format to new ID format by using the migration scripts.

To generate the migration and supportive SQL scripts, connect to an existing database used in a project by using the **Backingstore Deployment** utility in TIBCO BusinessEvents Studio. The supported databases are Oracle, MS SQL, MySQL and PostgreSQL.

You can also generate these migration scripts for a project using the `be-storedeploy` utility from the CLI.

For a detailed process, see the Generating Deployment Scripts for a Store topic in *TIBCO BusinessEvents Developer Guide*.

When ID migration script is executed on the existing legacy ID database, it copies all the data to the new ID format by setting the extId as the primary key for all entities in database tables. The script adds a unique value wherever extId value is null for the rows in

the existing database tables and also maintains all the reference and containment relationships of the data.

TIBCO Documentation and Support Services

For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the Product Documentation website, mainly in HTML and PDF formats.

The Product Documentation website is updated frequently and is more current than any other documentation included with the product.

Product-Specific Documentation

The documentation for this product is available on the TIBCO BusinessEvents® Enterprise Edition Documentation page.

To directly access documentation for this product, double-click the file at the following location:

TIBCO_HOME`/release_notes/TIB_businessevents-enterprise_6.3.1_docinfo.html`

where *TIBCO_HOME* is the top-level directory in which TIBCO products are installed. On Windows, the default *TIBCO_HOME* is `C:\tibco`. On UNIX systems, the default *TIBCO_HOME* is `/opt/tibco`.

Other TIBCO Product Documentation

When working with TIBCO BusinessEvents Enterprise Edition, you may find it useful to read the documentation of the following TIBCO products:

- TIBCO ActiveSpaces®: It is used as the cluster, cache, or store provider for the TIBCO BusinessEvents Enterprise Edition project.
- TIBCO FTL®: It is used as the cluster provider for the TIBCO BusinessEvents Enterprise Edition project.

How to Access Related Third-Party Documentation

When working with TIBCO BusinessEvents® Enterprise Edition, you may find it useful to read the documentation of the following third-party products:

- Apache Ignite
- Apache Kafka
- Confluent Kafka Schema Registry
- TIBCO Messaging - Schema Repository for Apache Kafka
- Apache Pulsar
- GridGain
- Apache Cassandra
- Grafana
- InfluxDB
- OpenTelemetry
- Control Plane
- Apache Maven

How to Contact Support for TIBCO Products

You can contact the Support team in the following ways:

- To access the Support Knowledge Base and getting personalized content about products you are interested in, visit our product Support website.
- To create a Support case, you must have a valid maintenance or support contract with a Cloud Software Group entity. You also need a username and password to log in to the product Support website. If you do not have a username, you can request one by clicking **Register** on the website.

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gain full value from TIBCO products. In addition, users can submit and vote on feature requests from within the TIBCO Ideas Portal. For a free registration, go to TIBCO Community.

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