DB Gene 4.8.0 Release Notes

December 19th, 2025

DB Gene 4.8.0 Release Notes

Note:

DB Gene 4.8.0 introduces several infrastructure updates and deprecations.
They are described in more detail in the DB Gene 4.8.0 Migration Guide, available on the DecisionBrain website.

The following information only focuses on the main changes in this release.

Important Notes

*Please take into account the following important information when using the new version of the **DB Gene 4.8.0**, released on **December 19th, 2025**.*

Updates

DB Gene 4.8.0 introduces the following dependency updates.

Gradle Update

DB Gene 4.8.0 now uses **Gradle 9.1.0**. Formerly, it was version **7.6.4**.

Spring Update

DB Gene 4.8.0 now uses **Spring Boot 3.5.7** and **Spring Framework 6.2.12**.

Formerly, it was version **3.5.5** and **6.2.10.**

MongoDB Update

DB Gene 4.8.0 now uses **MongoDB 8.2.2**. Formerly, it was version **8.0.12**.

PostgreSQL Update

DB Gene 4.8.0 now uses **PostgreSQL 18.1**. Formerly, it was version **15.14**.

This update requires specific attention! Refer to the DB Gene 4.8.0 Migration Guide.

KeycloakUpdate

DB Gene 4.8.0 now uses **Keycloak 26.4.6**. Formerly, it was version **26.3.1**.

RabbitMQ Update

DB Gene 4.8.0 now uses **RabbitMQ 4.2.1**. Formerly, it was version **4.1.3**.

Java JDK Update

DB Gene 4.8.0 now uses **Java JDK 25**. Formerly, it was version **21**.

Angular Update

DB Gene 4.8.0 now uses **Angular 21.0.3**. Formerly, it was version **20.1.7**.

NodeJS Update

DB Gene 4.8.0 now uses **NodeJS 22.21.1**. Formerly, it was version **22.18.0**.

Apache Update

DB Gene 4.8.0 now uses **Apache Commons Text 1.14.0** and **Apache Commons POI 5.5.0**.

Formerly, it was version **1.13.1** and **5.4.1**.

NGINX Update

DB Gene 4.8.0 now uses **NGINX 1.29.2**. Formerly, it was version **1.28.0**.

AG Grid Update

DB Gene 4.8.0 now uses **AG Grid 34.3.0**. Formerly, it was version **34.1.0**.

Deprecations

DB Gene 4.8.0 introduces the following deprecations.

- DBPF-9167 Tableau integration has been removed from Gene. Users can no longer synchronize DB Gene data with a Tableau Server or display Tableau visualizations within DB Gene dashboards. If Tableau remains part of your workflow, you can still export Gene data and manage it manually within Tableau.
- DBPF-9279 `GET /scenario/scenariosIdsAndNames` API in the Scenario Service was deprecated in 4.1.0 and has been removed. `POST /scenario/scenariosIdsAndNames` API should be used instead.
- DBPF-9040 The following expressions have been removed from the Execution Service:
  - `StringExpression#idOfNewScenarioWithMetadata(Expression file, Expression scenarioName, Expression workspaceId, Expression folderId)`
  - `StringExpression#idOfNewScenarioWithMetadata(Expression file, Expression scenarioName, Expression workspaceId, Expression folderId, Expression lockIt)`
  - `StringExpression#idOfNewScenarioWithFolder(Expression scenarioName, Expression workspaceId, Expression folderId)`
- DBPF-9280 The following methods have been marked as deprecated in the Execution Service:
  - `ScenarioData`
    - `getRawData` -- `asFile` or `asInputStream` can be used instead
    - `setRawData` -- `asOutputStream` can be used instead
    - `getIssues` – no replacement
    - `resetModifiedTables` – no replacement
    - `hasErrorsOrWarnings` – no replacement
  - `ScenarioDataExpression`
    - `hasErrorsOrWarnings` – no replacement
    - `issues` – no replacement
- DBPF-9064 The `ScenarioData` DTO is now deprecated in the Backend Service.
- DBPF-8149 `GeneScopedIdentityService` deprecated methods have been removed.

- DBPF-9040, DBPF-9036 **(4.7.2)** Several deprecated methods from **`idOfNewScenarioWithFolder`** and **`idOfNewScenarioWithMetadata`** have been removed. Also, the deprecated **`DbrfImportTask`** has been removed.

- DBPF-9038 The deprecated method **`tableApi.getPressedKeyCodes()`** has been removed. Use **`tableApi.getLastUserInteractionEvent`** instead to know if modifier keys are pressed.

- DBPF-8623 **(4.7.2)** The deprecated pagination option in the Data Grid/Explorer widgets has been removed. They now use the AG Grid Server-Side Row Model.

- DBPF-9106 The *Show legend entries* option, which applies to series with a *Split by* option, has been removed. It allowed displaying a single legend entry for the series, or an entry for each split value. This does not make sense for pie charts since the legend shows colors for the categories, not the series.

- DBPF-8733 **(4.7.2)** The deprecated **`fromSelection`** property has been removed from the Filter Widget custom controller **`GeneEntityFilter`**.

- DBPF-7778, DBPF-5605 The following endpoints have been removed from the DBOS REST API:

  - **`POST /files`**. Use **`POST /datastorage/temporary`** instead
  - **`GET /buckets/{bucketId}`**. Use **`GET /buckets/{bucketId}/definition`** and **`GET /buckets/{bucketId}/content`** instead

  The following fields have also been removed; all replacement fields can be filled with the **`dataStorageUri`** provided by **`POST /datastorage/temporary`** endpoint:

  - **`BucketCreation.data`** and **`BucketCreation.fileId`**. Use **`BucketCreation.dataStorageUri`** instead
  - **`JobParameter.data`** and **`JobParameter.uri`**. Use **`JobParameter.dataStorageUri`** instead
  - **`BlobDefinition.uri`**. Use **`BlobDefinition.dataStorageUri`** instead

  Note that the **`ExecutionContext.getBucket`** has been replaced with **`ExecutionContext.getBucketData`**.

  Finally, the deprecated parameters inputs and outputs (type **`Parameter`**) have been removed from the DBOS Task interface.

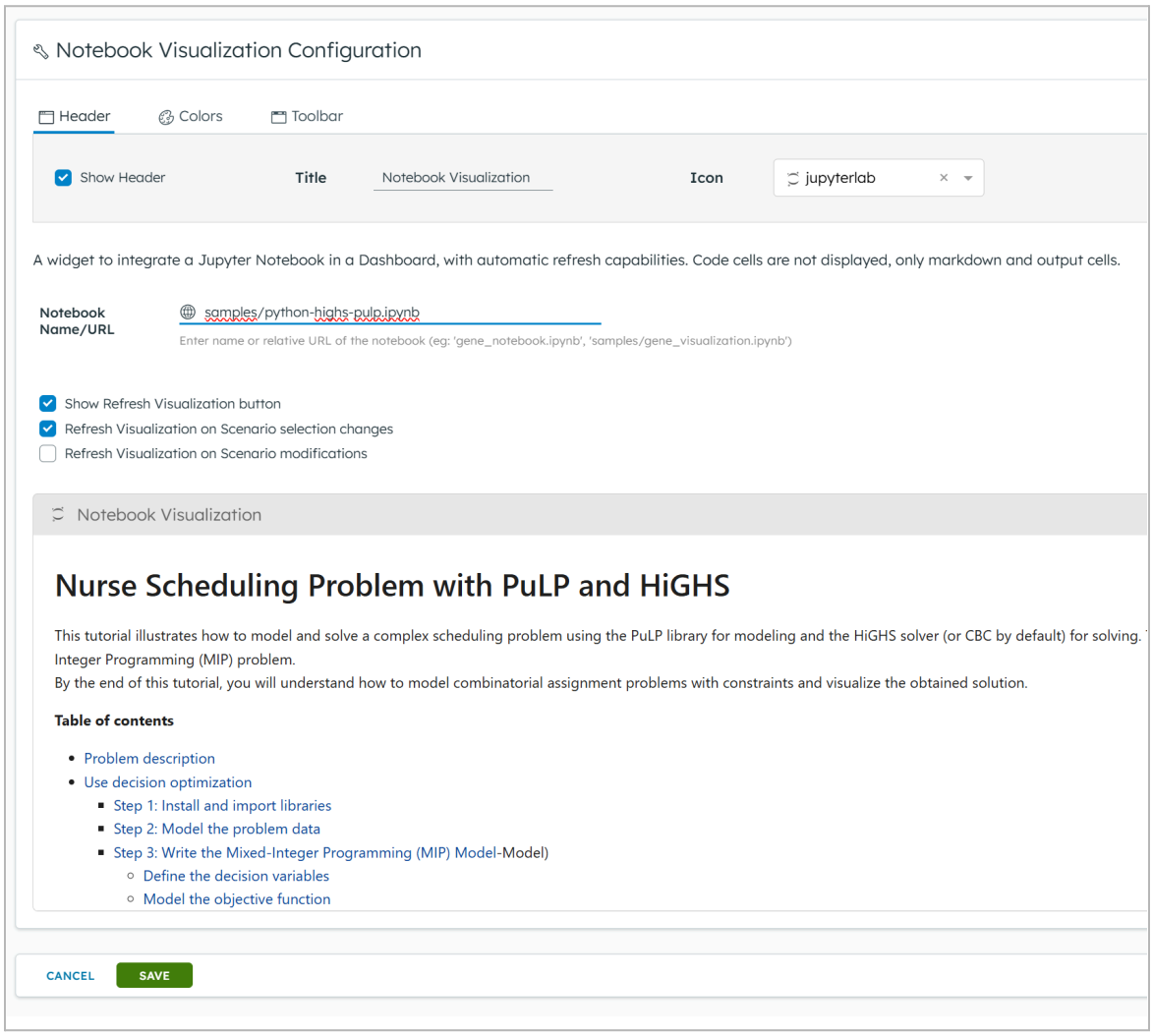
End-User Features

DB Gene 4.8.0 introduces improvements to import and export workflows, new notebook-related features, and refinements to existing dashboards and configuration options.

New Jupyter Notebook Samples Using the HiGHS Solver (4.7.1)

DBPF-7644

Two new Jupyter Notebook samples using HiGHS (High-performance parallel linear optimization software) library are now available in the samples folder.
These samples are supported for all scaffoldings (internal and external) in both the DB Gene and Gene Online environments.

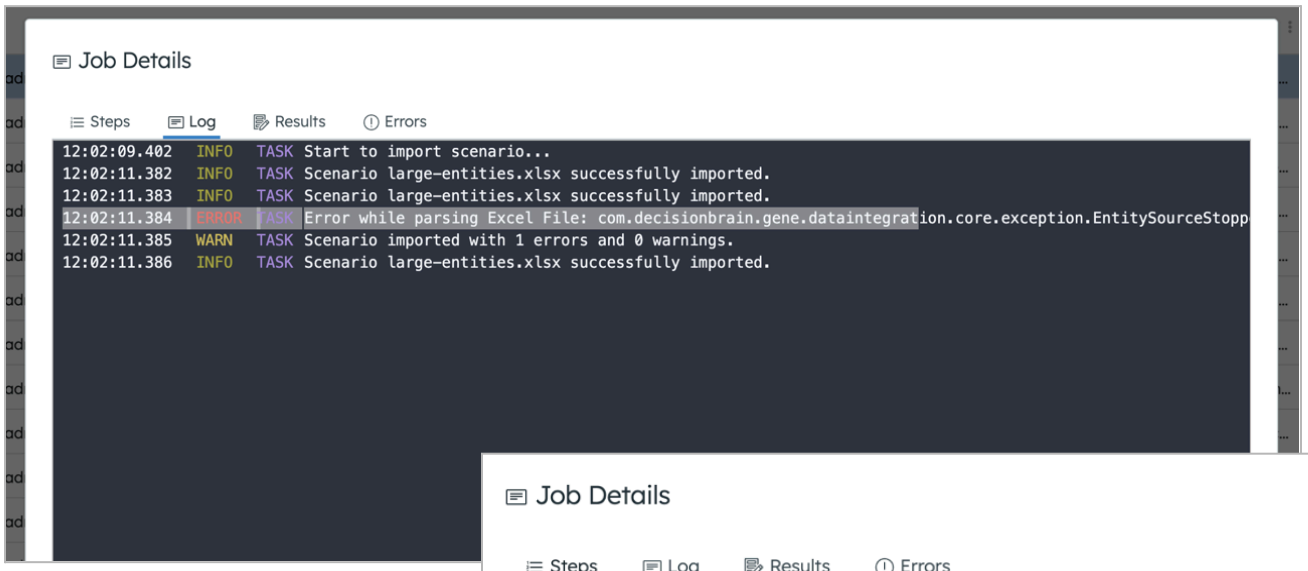


Improved Import/Export

DOC-1060 (DBPF-9043), DOC-1379 (DBPF-9306)

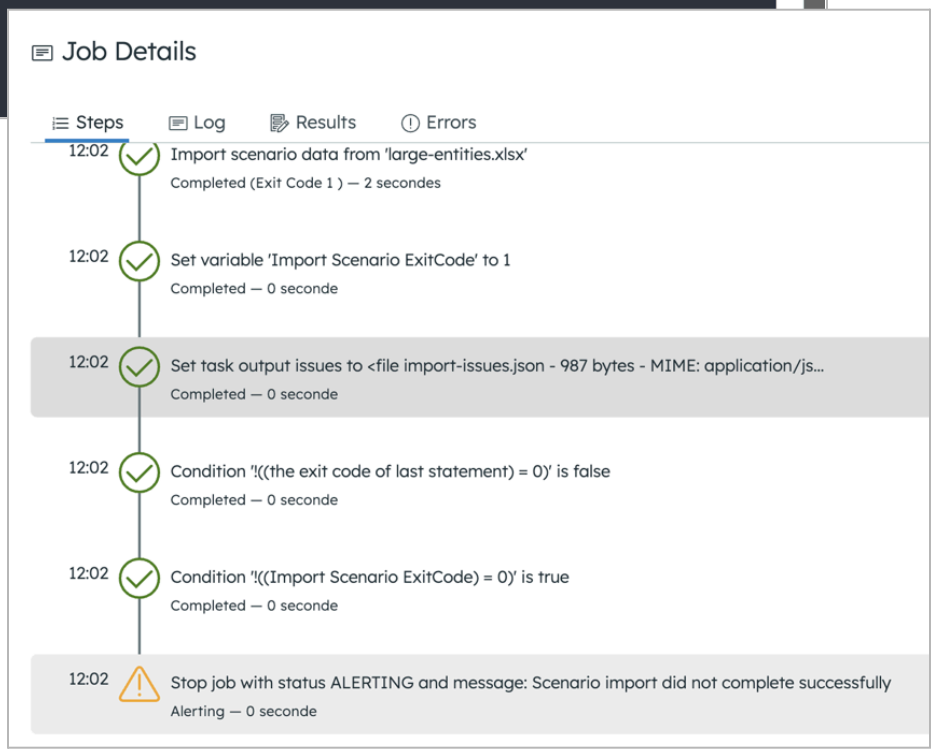
The import service now stops immediately when encountering connection errors, such as a PostgreSQL database being unavailable (e.g., down or unreachable).

Before, instead of throwing an immediate connection error, the service attempted to process every row of the table. Now, there is only one log related to the error, and the job completes with the *ALERTING* status.



In addition, in the Data Service, **`DataClient#importScenarios`** now has a new filter parameter to filter which table to import; if null or empty, all tables will be imported.

Moreover, the scenario export dialog has been reworked to use the scenario name by default.



Improved Schema Checkers (4.7.1)

DBPF-9082

In the Data Service, the severity of the following schema checkers can now be configured through properties or environment variables.

- *Min Value:*

  `services.data.schema-checkers.bounds.min.severity: ERROR (default)`

- *Max Value:*

  `services.data.schema-checkers.bounds.max.severity: ERROR (default)`

- *Max Length:*

  `services.data.schema-checkers.length.string-max-length.severity: ERROR (default)`

One common use case of changing those severities is to reduce their severity from *ERROR* to *WARNING* so that affected scenarios can still be used with the scenario comparison feature.

Improved Modals API

DBPF-9263

The **`GeneModalComponent`** has been reworked to inject a modal configuration using a token.

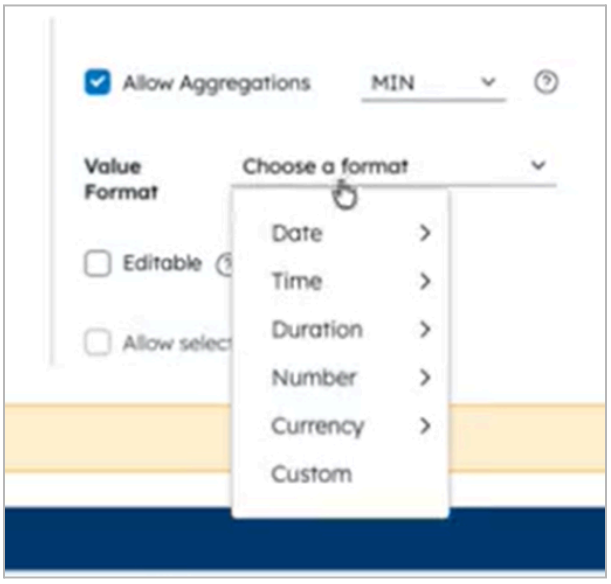
To migrate your classes implementing this interface, refer to the **DB Gene 4.8.0 Migration Guide**.

Improved Pivot Table Widget

DBPF-9261, DOC-1168 (DBPF-8749)

In the Pivot Table widget configurator, the new ValueFormat option appears as a dropdown selector.

In addition, the **`PivotTableComponent`** custom controller has been reworked to improve connection with AG Grid, break down complex functions, make **`PivotTableController`** methods optional, add a new class to handle the data source configuration, and allow setting the widget header CSS classes dynamically.



Improved Sample Custom Controller for the Gantt Chart Widget (4.7.2)

DBPF-9144

The Sample Gantt Chart controller *Sample Controller Load Data*, which implements a custom data model building, has been updated. It now allows the configuration of a series to be optional

Improved Documentation for the Data Grid/Explorer Custom Controller

DOC-1341 (DBPF-9150)

The Data Grid/Explorer custom controller documentation in `gene-table-controller.model.ts` has been improved.

Improved Documentation Chatbot

DBPF-9307

The base image for the Documentation Chatbot has been updated to 1.0.1 in the scaffolding.

The name of the base image is added as a label for the Docker image.

Technical Features

Version 4.8.0 delivers important performance improvements to the DB Gene and DBOS services and APIs. It also enhances Gradle and Kubernetes configurations for safer and more optimized deployments.

Improved Scenario Data Management in the Backend Service and the Execution Service

DBPF-9064

DB Gene 4.8.0 provides significant performance improvements by reducing memory consumption at multiple levels. Data is now streamed and processed more efficiently, enabling even larger scenarios to be handled reliably without causing application instability.

For instance, when processing scenarios and exchanging data with the Data Service, the collector objects (the manipulated scenario) are now stored in temporary files.

Improved Interface for DBOS Tasks

DBPF-5605

The `Task.execute` method, which can be implemented to create a DBOS worker task, has been modified to remove deprecated parameters.

Gateway now provides rate limit protection

DBPF-7357

The Gateway Service supports rate limitation to protect back-end services from excessive or abusive traffic. Rate limitation can be configured to control the number of requests allowed per service within a given time window, and to set burst capacities for short spikes.

Configuration is performed via environment variables or YAML files and can be customized per service or globally using a default profile. For more details, see the rate limit configuration guide.

Improved Base Images

DBPF-8828, **DBPF-8504**

DBOS and Gene UBI base images for Java services and workers have been replaced with BellSoft images, which are smaller and have a better vulnerability surface.

In addition, several CVEs related to the base image upgrade of Java services have been fixed.

Improved Configuration of the Content Security Policy

DBPF-8507, **DBPF-8508**

For better security, the Content Security Policy configuration now defines default, more restrictive values for some directives.

Improved Gradle Files

DBPF-8830, **DBPF-9339**

The code replicate plugin is now applied only to the root project, the DSL is now simpler to use, and some minor changes have been implemented to adapt to Gradle 9.

Improved Endpoint Probes for Kubernetes

DOC-726 (**DBPF-7667**)

In Kubernetes, live and readiness probes have been enabled for the Gateway, Web Client, JupyterLab, and Documentation Chatbot endpoints.