



Release Notes

DB Gene 4.0.3-fp1

March 27, 2023

Important Notes

Please take into account the following important information when using the new version of **DB Gene 4.0.3-fp1** released on March 27, 2023.

Unlimited DBOS Workers

You can now configure an **unlimited number of workers**. It was, by default, limited to 5.
For more details, please refer to the [DBOS migration guide](#).

Angular & AG Grid Update

DB Gene 4.0.3-fp1 now uses **Angular 15.2.0** and **AG Grid 29.2.0**.

The file `test.ts` that can be found in `.../web/src` and that is generated by previous versions of the *DB Gene/Angular CLI* no longer compiles and needs to be updated.

Python Update

DB Gene now requires **Python 3.7**. It was formerly *Python 3.6*.

Stricter JDL Language

The JDL parsing is now more strict, which **may lead to exceptions** when building your application.
In that case, look carefully at your logs to find the cause of the error, eg:

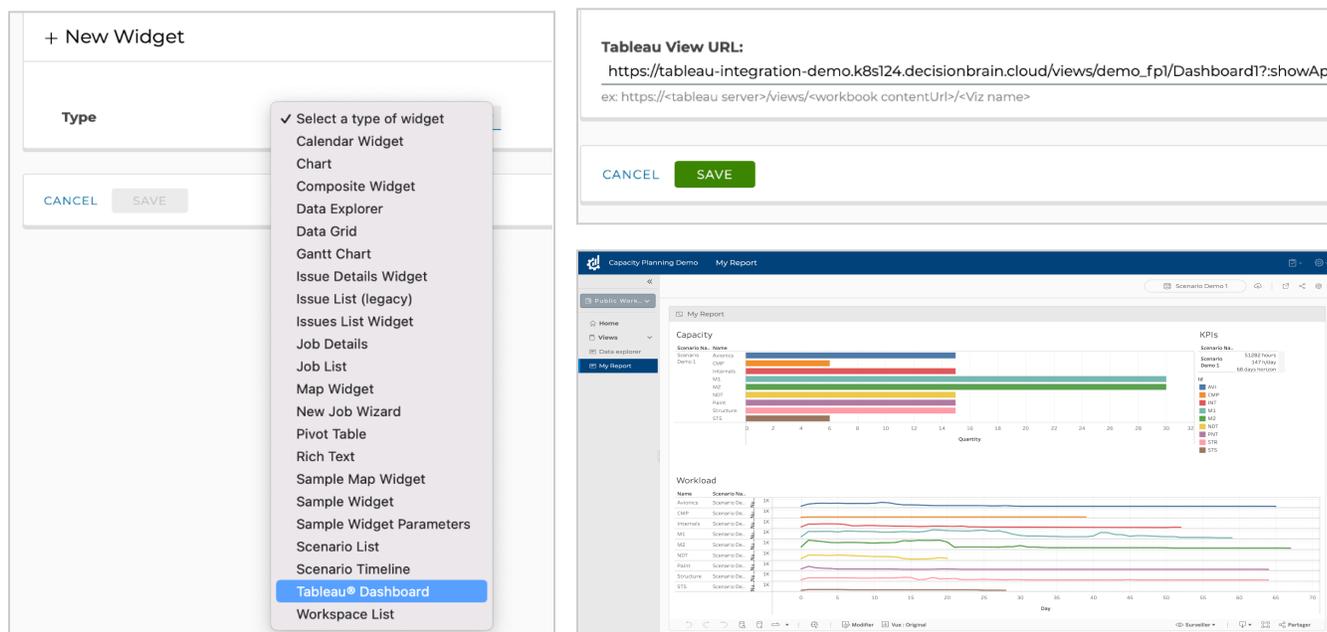
```
// DOM [default.attribute.value] has been removed.  
Use @DefaultValue instead.
```

End-User Features

DB Gene 4.0.3-fp1 introduces several end-user features and improvements regarding Tableau integration, Data Explorer, some new issue-related widgets, a new Gantt chart widget, enhanced Map and Calendar widgets as well as a new separator for the toolbar.

Improved Tableau Integration

When creating a **Tableau integration**, users can now use the **Web Data Connector** to initialize a **Data Source**. Once the visualizations are created in Tableau Desktop, users can then **publish the associated Workbook** on **Tableau Server**, from where they can **modify them** using the online editor and **integrate Tableau sheets or dashboards into Gene**. After doing this, users can then create a Custom View in Gene with the widget “**Tableau Dashboard**”, where they will enter the URL provided by Tableau Server.



This new integration of Tableau within version 4.0.3-fp1 provides users with a new toolbar that shows the scenarios connected to the Tableau data source, their synchronization status as well as buttons to change or refresh the said connection.

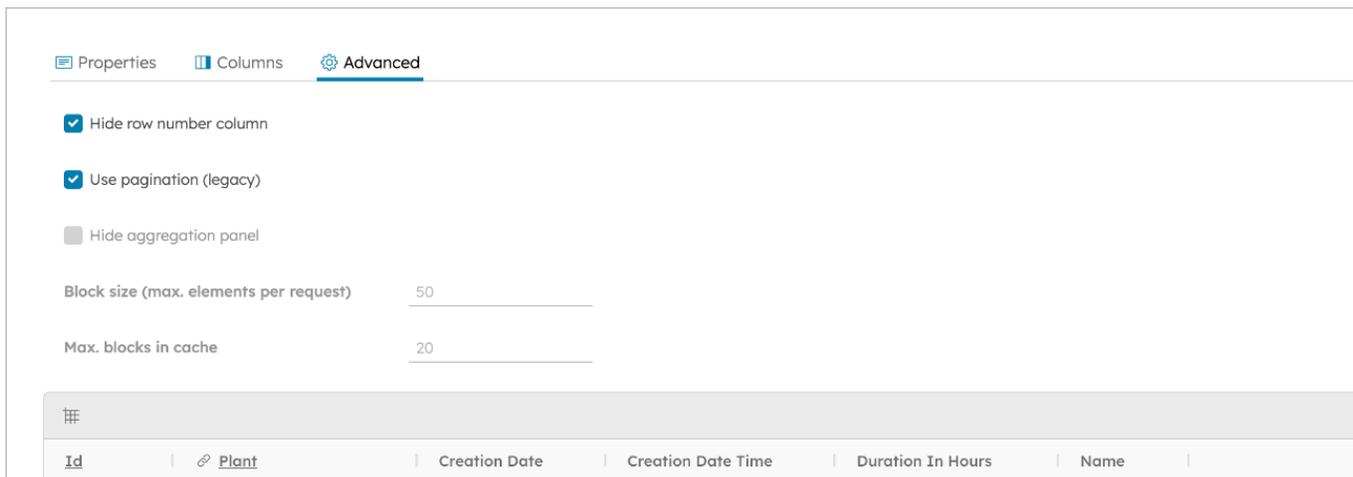


Improved Data Explorer

The widget “Data Explorer” has been improved as:

- It no longer uses pagination. This feature can however be restored through the menu via the tab “Advanced” by checking the box “Use pagination (legacy)”.

In the same tab, users can also modify the configuration of blocks and cache size to apply when not in pagination mode.



	Id	Plant	Creation Date	Creation Date Time	Duration In Hours	Name
6	ID8846	FRA Paris				M1
7	ID3014	UK London				M1
8	ID2498	FRA Paris				M1
9	ID4272	FRA Nice				M1
10	ID8691	SNG Singapore				M1
11	ID0599	FRA Paris				M1
12	ID9643	USA Paris				M1
13	ID0901	UK London				M1
14	ID7591	FRA Nice				M1
15	ID3140	SNG Singapore				M1
16	ID7795	USA Paris				M1
17	ID7937	UK London				M1
18	+ Add new rows					
19	Copy Ctrl+C					
20	Copy With Headers					
21	Cut Ctrl+X					
22	Paste Ctrl+V					
23	Paste as new rows					
24	Chart Range					
25	Export					

	Id	Plant	Creation Date	Creation Date Time
1	REP			<NULL>
2	PRE	FRA Paris	<NULL>	<NULL>
!	PAI	SNG Singapore	<NULL>	<NULL>
!	PAI	SNG Singapore	<NULL>	<NULL>
5	Values for attributes id, plant should be unique			
+	<NULL>	<NULL>	<NULL>	<NULL>
	LNS	USA Paris		

- A new single column indicating the row number now replaces the “data-edition”, “issue” and “selection” columns. It also displays, instead of the number, the icons , or to indicate a data edit, the addition of a row or an issue on said row.
- Row selection is now performed by clicking on or range-selecting the row numbers instead of by selecting cells with the mouse.
- “Paste as new rows” is now available in the context menu (on Chrome browser only).
- “Add new rows” is now accessible from the toolbar or the context menu and creates as many rows as currently highlighted, right above the topmost selected cell or row.

New Data Issue-Related Widgets

Version 4.0.3-fp1 provides DB Gene with two new widgets to work with data issues and easily fix them.

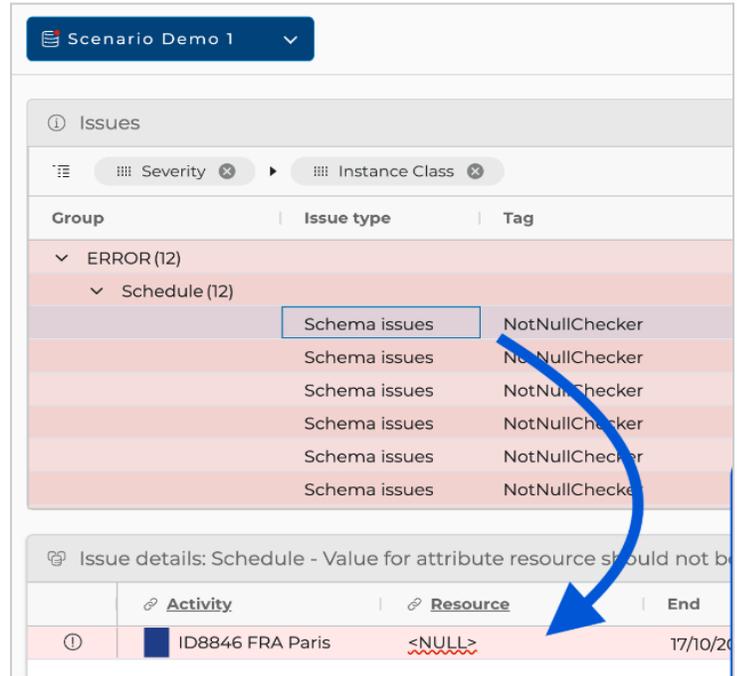
The Widget “Issue List”

This widget can be used to display Schema issues and/or Data issues. This way, users can group issues by severity, issue type, tag, message or Entity type.

The Widget “Issue Details”

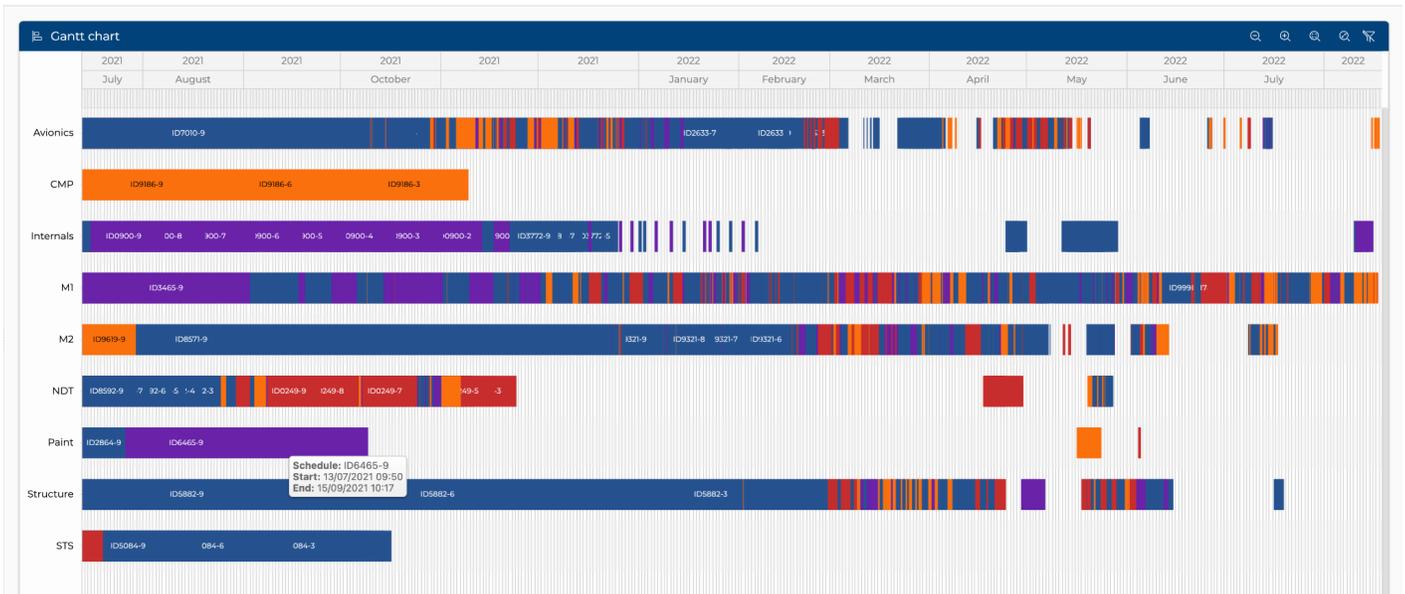
Whenever the user selects an issue in the widget “Issue List”, the widget “Issue Details” will show the corresponding data rows and allow the user to fix the data issues in a convenient way.

Note that this widget can only be used on a dashboard along with the widget “Issue List”.



New Gantt Chart Widget

Version 4.0.3-fp1 implements an out-of-the-box Gantt chart. This first version is limited in terms of features and provides read-only visualizations of the data.



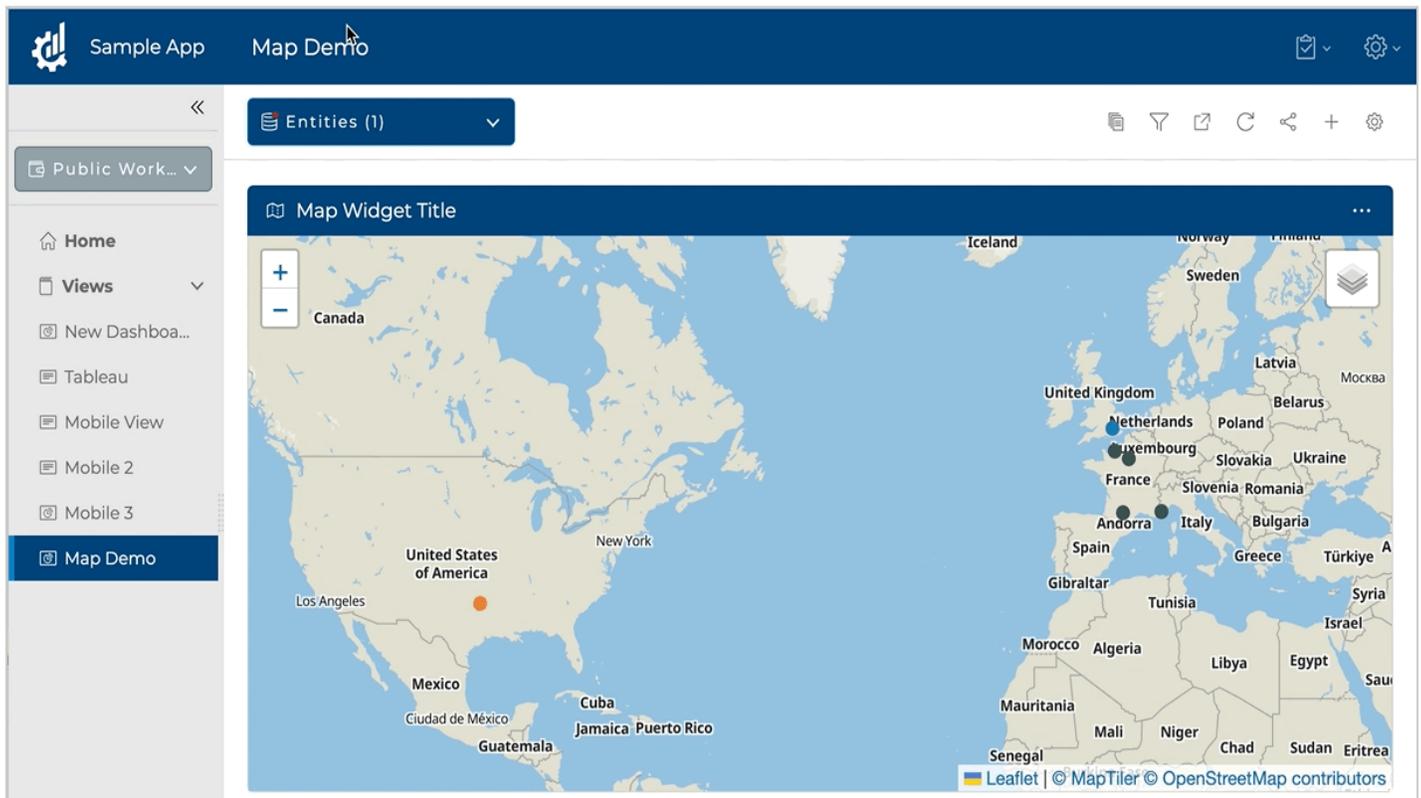
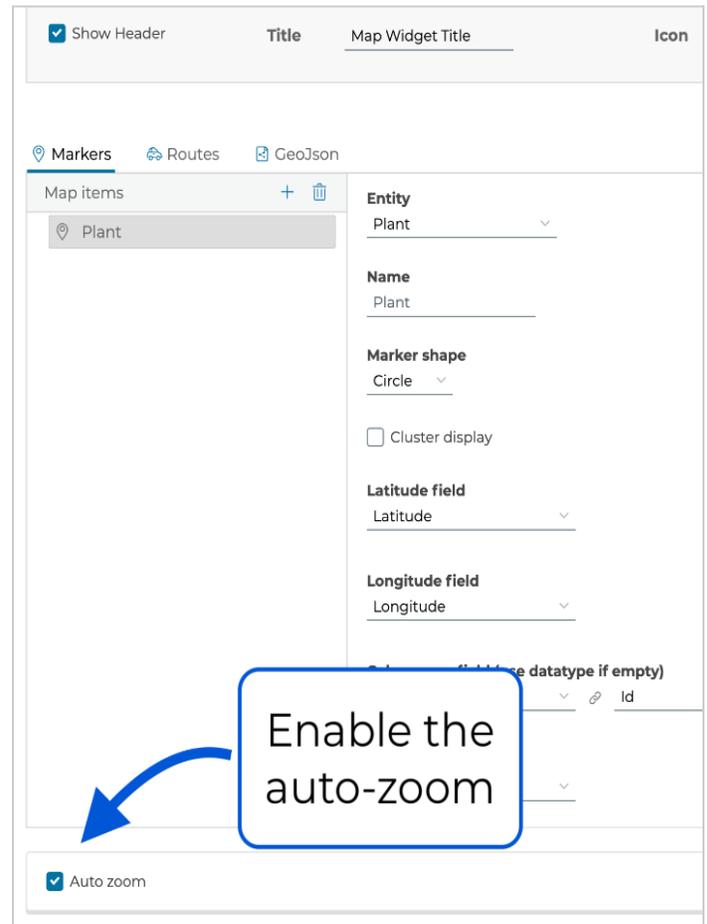
It demonstrates very good performances with large datasets thanks to optimized canvas rendering techniques.

Improved Map Widget

Version 4.0.3-fp1 also provides DB Gene with a new feature called “**Auto-zoom**” that automatically adapts the zoom level and centers the map position to display all the relevant data. Every time the user selects a different scenario, the auto-zoom is automatically triggered.

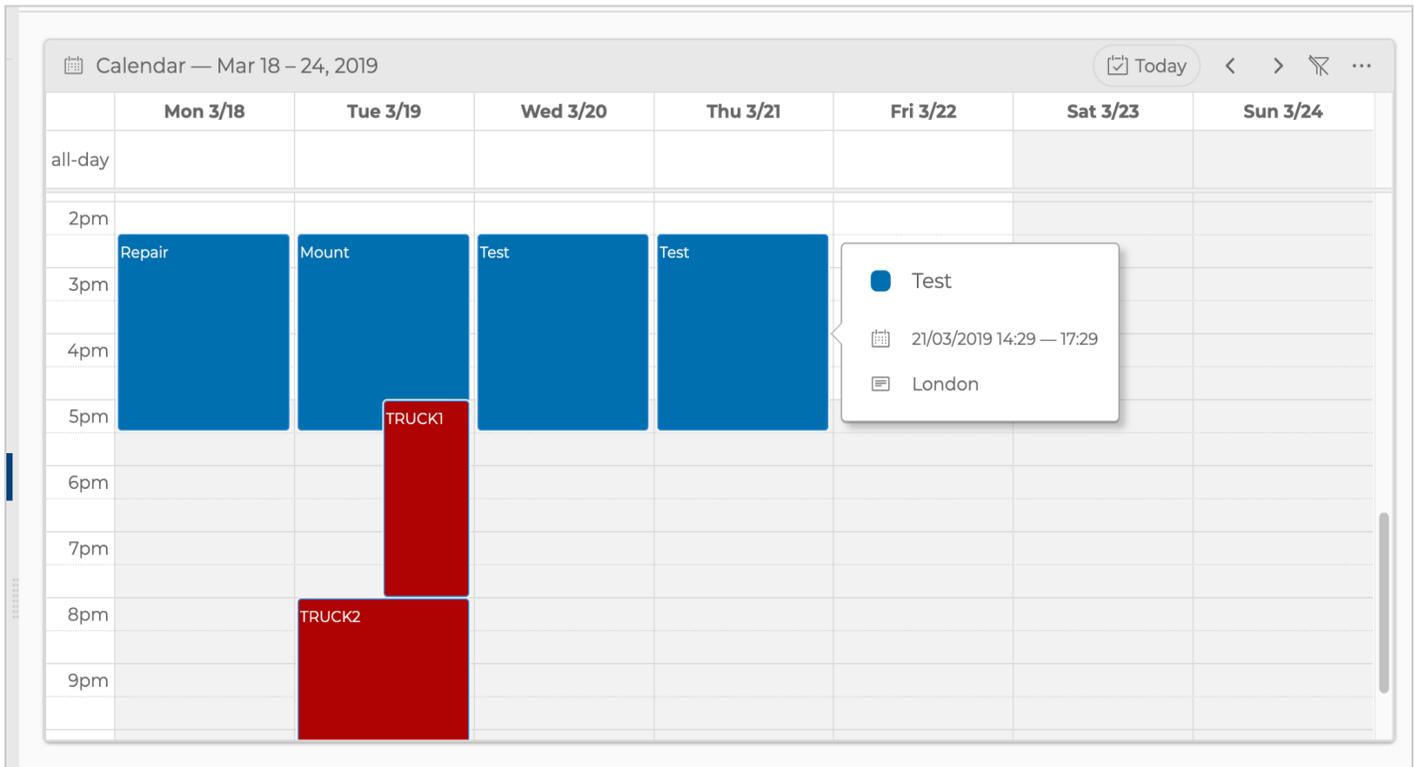
Auto-zoom is enabled by default. To enable or disable it, users need to tick the corresponding option in the configuration view.

Note that the menu has been simplified as “Markers”, “Routes” and “Geo.Json” layers are now configurable through different tabs.



Improved Calendar Widget

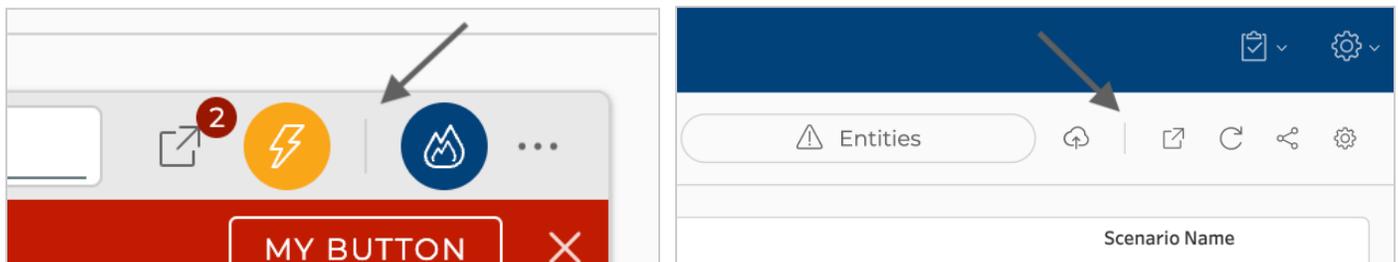
The Calendar widget is now supporting the creation of multiple series, on different data types. Users can also configure which views (day/week/month) are accessible.



New Toolbar Separator

The **GeneToolBarElement** API now includes the `GeneSeparatorElement` which allows the creation of separators in both view and widget toolbars.

The provided sample controller `SampleCustomButtonAndMenuController` illustrates how to use it.



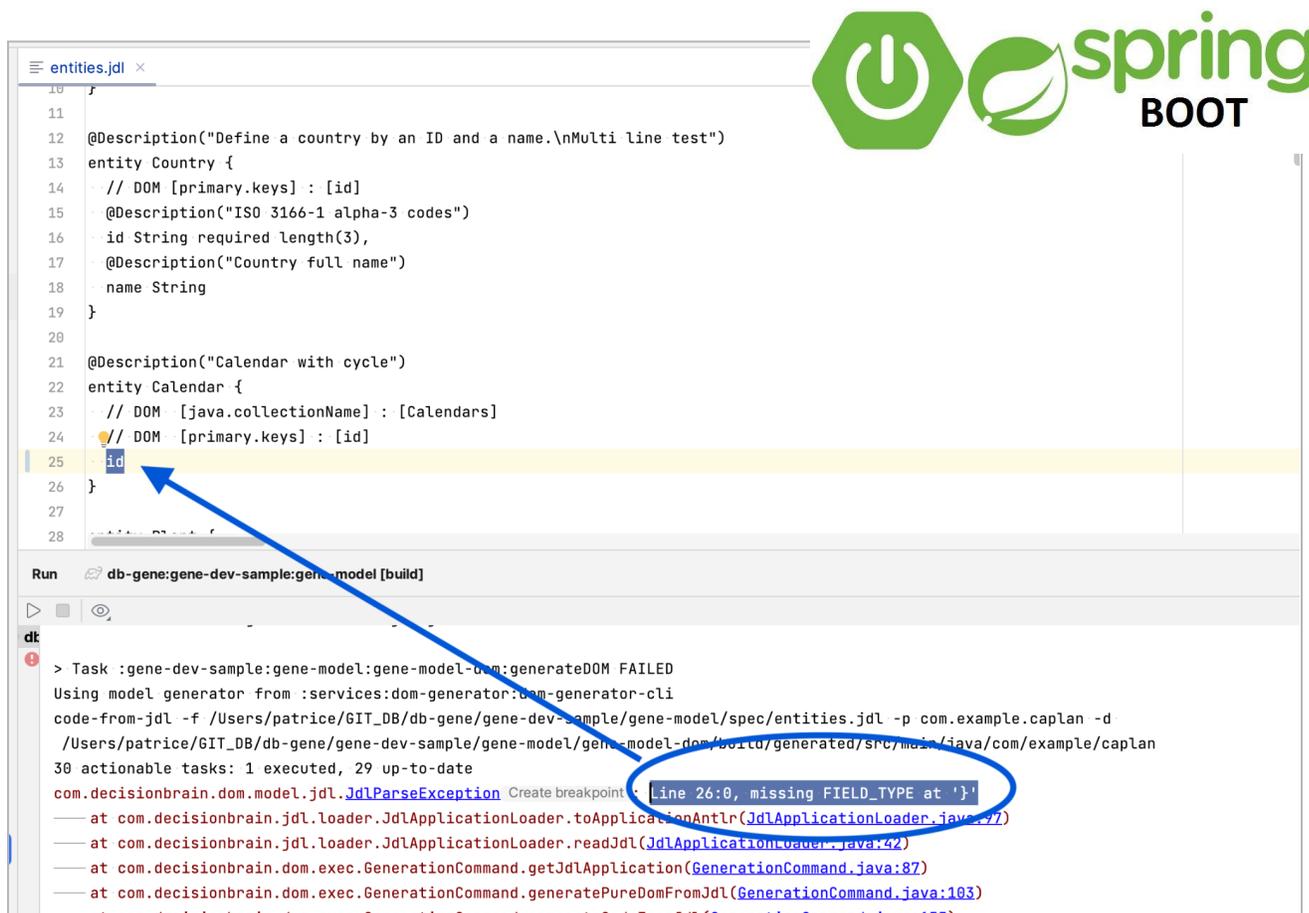
Technical Features

DB Gene 4.0.3-fp1 introduces several technical features and improvements, especially via library updates, regarding the use of Spring Boot 3 & Spring 6, Swagger UI for REST API and ANTLR JDL Parser.

Spring Boot 3 Library update

In version 4.0.3-fp1, both Gene and DBOS now use Spring Boot 3 and Spring 6. On top of the security updates, this new version will allow users in the next versions of the platform to produce native images, with faster start time and lower resource usage.

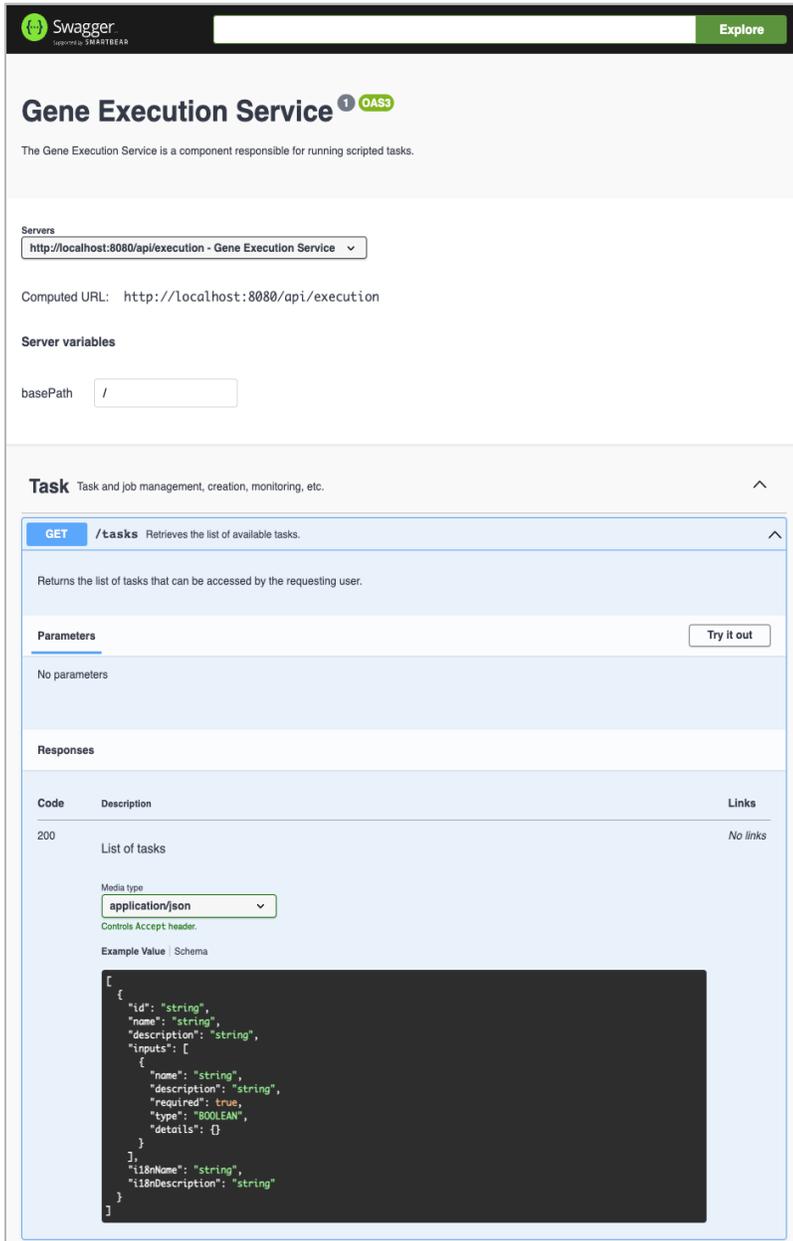
See <https://github.com/spring-projects/spring-boot/wiki/Spring-Boot-3.0-Release-Notes> for more information.



```
10 }
11
12 @Description("Define a country by an ID and a name.\nMulti line test")
13 entity Country {
14   // DOM [primary.keys] : [id]
15   @Description("ISO 3166-1 alpha-3 codes")
16   id String required length(3),
17   @Description("Country full name")
18   name String
19 }
20
21 @Description("Calendar with cycle")
22 entity Calendar {
23   // DOM [java.collectionName] : [Calendars]
24   // DOM [primary.keys] : [id]
25   id
26 }
27
28
```

Run db-gene:gene-dev-sample:gene-model [build]

```
dt
> Task :gene-dev-sample:gene-model:gene-model-dom:generateDOM FAILED
Using model generator from :services:dom-generator:dom-generator-cli
code-from-jdl -f /Users/patrice/GIT_DB/db-gene/gene-dev-sample/gene-model/spec/entities.jdl -p com.example.caplan -d
/Users/patrice/GIT_DB/db-gene/gene-dev-sample/gene-model/gene-model-dom/build/generated/src/main/java/com/example/caplan
30 actionable tasks: 1 executed, 29 up-to-date
com.decisionbrain.dom.model.jdl.JdlParseException: Create breakpoint: Line 26:0, missing FIELD_TYPE at ''
    at com.decisionbrain.jdl.loader.JdlApplicationLoader.toApplicationAntlr(JdlApplicationLoader.java:27)
    at com.decisionbrain.jdl.loader.JdlApplicationLoader.readJdl(JdlApplicationLoader.java:42)
    at com.decisionbrain.dom.exec.GenerationCommand.getJdlApplication(GenerationCommand.java:87)
    at com.decisionbrain.dom.exec.GenerationCommand.generatePureDomFromJdl(GenerationCommand.java:103)
    at com.decisionbrain.dom.exec.GenerationCommand.generateCodeFromJdl(GenerationCommand.java:135)
```




Swagger UI for REST API

It is now possible to launch new jobs with a more user-friendly graphical interface as the REST API Gene Execution Service has been improved in DB Gene version 4.0.3-fp1 to now integrate *Swagger UI* both for documentation and testing.

ANTLR JDL Parser

Gene JDL parser now internally uses an *ANTLR* grammar and parser, which improves the robustness of the parser and also allows to have more specific error messages when trying to use a JDL containing syntax errors.



Changelog

Story

- DBPF-4440 As a UI user, I want to configure the map widget to auto-zoom on available data
- DBPF-4441 Multi-series support in calendar widget
- DBPF-4454 Gene Gantt Chart v0.1
- DBPF-4460 Map configuration simplification
- DBPF-4462 GeneTable – Create add multiple rows
- DBPF-4463 GeneTable – Paste as new rows
- DBPF-4468 Multi Scenarios Picker
- DBPF-4475 As an integrator, I can programmatically launch a new job and retrieve the solution
- DBPF-4476 As an integrator, I can programmatically send excel scenario files as job inputs
- DBPF-4479 As a UI user, I can see all issues rows in the issue widget
- DBPF-4481 As a UI user, I can group the issues by issue type and/or entity type
- DBPF-4482 As a UI user, I can filter the issues by severity and/or by entity type
- DBPF-4483 As a UI user, I can drill down and up from one or more issues to the faulty row(s)
- DBPF-4485 As a developer user, I can configure a task so that it triggers a tableau refresh on a specific scenario
- DBPF-4486 As a UI user, I want to refresh my Tableau report
- DBPF-4489 Route configuration improvements
- DBPF-4491 As a UI user, I want to configure the calendar widget to show only one day
- DBPF-4492 As a UI user, I want to configure which calendar views a user can see
- DBPF-4500 GeneTable – Default pasting
- DBPF-4501 Markers tool-tip & pop-up improvements
- DBPF-4532 [Calendar] Improving Visualization
- DBPF-4535 [Composite widget] Rephrasing warning message
- DBPF-4536 [Composite widget] Minimum widget size
- DBPF-4539 [Charts widget] Typos
- DBPF-4541 [Rich text widget] Minimum widget size

DBPF-4605 Gene Gantt Chart v0.1

DBPF-4611 Testing tickets from Christmas Sprint

DBPF-4613 As a user, I want to see the scenarios associated to a tableau widget

DBPF-4637 Column filter does not have CLEAR option [Issues widget]

DBPF-4651 As a developer user, I can write a JDL file with a simplified syntax

DBPF-4673 Clicking on a row number should select the whole row [Data Explorer]

DBPF-4680 As a user, I can trigger the refresh of the data associated to a Tableau workbook and change the associated scenarios without writing code

DBPF-4745 As a Tableau expert, I have data to support the creation of my workbook

Epic

DBPF-4471 Libraries update

Task

DBPF-2189 Monitor GoogleMaps bug/fix on types version

DBPF-2928 When logging in a job with an exception, add the message of the exception to the log

DBPF-3471 KPI Widget Comparison (>2 Scenarios)

DBPF-3645 JDL Improvement - Support multilines annotations

DBPF-3844 GeneWidgetController – Allow providing css classnames

DBPF-4238 Adapt Helm charts to ISTIO

DBPF-4448 Old One - Spring Boot 3 Migration

DBPF-4450 JDL Grammar & Parser

DBPF-4455 Tableau V1++ Discussion

DBPF-4461 Adjust gene-sample values file for DB cluster k8s124

DBPF-4473 [KEYCLOAK] Upgrade to Keycloak 20

DBPF-4493 Update the dev sample to add geo data

DBPF-4495 Upgrade the fullcalendar library

DBPF-4555 Create an Endpoint that provide Gene model for the Tableau WDC.

DBPF-4556 [DBOS] Upgrade to Keycloak 20

DBPF-4559 [DBOS] Upgrade to Spring Boot 3

DBPF-4561 [DBOS] Upgrade to latest OpenAPI generator Gradle plugin

DBPF-4562 JDL syntaxes convergence

DBPF-4581 [GENE] Upgrade to Spring boot 3

DBPF-4582 [KEYCLOAK] Upgrade to Spring boot 3

DBPF-4583 [LIBS] Upgrade platform-utils to Spring boot 3

DBPF-4585 [GENE] Upgrade to Angular 15

DBPF-4587 [GENE] Upgrade to Keycloak 20 (and DBOS)

DBPF-4594 [RABBITMQ] Create Gitlab project

DBPF-4597 [DBOS] Use DB Rabbitmq image

DBPF-4599 [GENE] Use DB Rabbitmq image

DBPF-4623 Check final version of beta dependencies

DBPF-4632 Add GeoJSON field to data model + GeoJSON sample data

DBPF-4656 Add IntelliJ run config to git for gene-dev-sample

DBPF-4682 Rework Tableau Integration unit test

DBPF-4685 MultiScenario Picker - CSS Tweaks

DBPF-4689 WDC Model – Expose a GeneScenario Type

DBPF-4693 [Technical debt] Fix the sonar quality gate of the current release

DBPF-4704 Fixed ids for Keycloak client

DBPF-4722 Support multi filter in GeneTable

DBPF-4723 Gantt - Misc. bugs & improvements

DBPF-4729 preventDataReload Method not working in GeneScenarioTimelineComponent

DBPF-4739 Gantt Chart – Configurator broken + Locales missing

DBPF-4810 GeneWidget & Views toolbar – GeneSeparatorElement

DBPF-4840 Issues Details Widget had no message when Scenario has no issues

Bug

DBPF-320 Notification of the optim engine should NOT rely on worker implementation

DBPF-2061 GeneIdentityFilter called 3 times per http calls

DBPF-2835 SonarQube - Fix DoS attack vulnerabilities in dom-generator's JdlParser.java TextUtil.java

- DBPF-3098 GeneTable - Charts Category formatter not using renderer logic
- DBPF-3289 Generator does not create the .yo-rc.json file anymore
- DBPF-3459 Test & Document: session-tracking mechanism
- DBPF-3537 Bad Excel import when a JDL attribute has an underscore in its name
- DBPF-3689 Fix feign client documentation
- DBPF-3701 CSS Broken in "New Job Button" task input configurator
- DBPF-3704 When editing the config of an existing data explorer, sometimes adding a new column does not work
- DBPF-3706 Scenario picker text input loses focus
- DBPF-3723 Unaligned Chart Legend while in comparison
- DBPF-3942 Data Grid fails to display Custom Activity in particular conditions
- DBPF-4345 Rich text widget overflows
- DBPF-4428 JobInstance END_TIME field not set upon job completion
- DBPF-4444 Chart filter not immediately populated
- DBPF-4457 DataGrid - per column "hide color" hint option no longer visible
- DBPF-4459 Composite Widget – Split bar not visible when sidebar is collapsed
- DBPF-4467 Map Widget Configurator shows Non Business Object Types
- DBPF-4469 Line chart bug: zero values not displayed
- DBPF-4470 [Charts] Changing Series Title in Widget Chart Configurator does not work
- DBPF-4497 OWASP Gradle plugin failure
- DBPF-4499 [Widget configurator] Changing the title in KPI widget configurator has no effect
- DBPF-4589 Rabbitmq "consumer_timeout" value make DBOS job have some errors once they exceed 30 minutes
- DBPF-4620 Bug when exporting 2 columns with the same value
- DBPF-4626 Aggregation Queries – Exception with multiple scenarios
- DBPF-4630 Series for pie charts cannot be defined [Chart widget configurator]
- DBPF-4631 Pie charts in scenario comparison mode do not switch around [Charts]
- DBPF-4634 Adding rows with + sign does not work unless a row is selected
- DBPF-4636 De-selecting Gene Issues or Schema Issues has no effect [Issues widget]
- DBPF-4641 Added attribute by Gene generates bug while accessing application with link to LDAP
- DBPF-4642 Standard table does not support sorting on its own attribute integer type when has null value

- DBPF-4644 Title is not showing [Issue Details Widget]
- DBPF-4646 Column order is not saved [Data Explorer configurator]
- DBPF-4648 Auto-zoom behaviour is not consistent [Map widget]
- DBPF-4649 Job list endpoints return too much details on the owner of the job
- DBPF-4652 The CI fails due to trivy time-outs
- DBPF-4659 "Not blank" & "Blank" filters not supported
- DBPF-4668 Job list does not paginate anymore
- DBPF-4670 When adding multiple rows at the same time, sometimes the row numbers are not consistent
- DBPF-4671 Advanced settings not working [Data Explorer]
- DBPF-4674 Pasting bugs [Data edition]
- DBPF-4676 Default text color should not be white [Calendar widget]
- DBPF-4677 Inverted background option cannot be unticked [Calendar widget]
- DBPF-4679 Conditional formatting does not work for inverted background events [Calendar widget]
- DBPF-4683 The build fails during the trivy step due to a missing jgroups jar
- DBPF-4694 Job Status is cut on Job List
- DBPF-4698 [DBOS] OPTIMSERVER_SERVICE_MAXPARALLELDONDEMANDWORKERS default value should be unlimited
- DBPF-4702 An empty widget can be created [Issue List widget]
- DBPF-4706 KPI - scenario comparison exception in data service
- DBPF-4711 Data API – Wrong Join (missing rows)
- DBPF-4715 Icons of Series Type do not fit in the frame [Charts widget configurator]
- DBPF-4719 Widget with a KPI box with errors can be created [Composite widget]
- DBPF-4725 Fix scaffolding sonar issues
- DBPF-4728 [Charts] Legend for split series DOC-394
- DBPF-4731 Box larger than widget frame [Composite widget]
- DBPF-4737 Possible double load data when initializing custom palette
- DBPF-4740 Gantt - labels disappearing on pan
- DBPF-4749 GeneTable – Loading deadlock on fast scroll
- DBPF-4752 Tableau widget do not display the refresh button on first display
- DBPF-4753 Gantt - refresh issue when scrolling to the top with the vertical scrollbar

- DBPF-4755 Update build image to use trivy v0.38.1
- DBPF-4756 Timeline - exception when adding comment
- DBPF-4758 Cut, copy with headers and copy with group headers do not work [Data Explorer]
- DBPF-4765 GraphQL API may be broken
- DBPF-4769 [DataGrid] When adding a grid the first entity is selected but the data loading fails
- DBPF-4771 [Data Grid] Filter value does not seem to work anymore
- DBPF-4792 [Trash bin] Scenario/folder names have the last letter cut out
- DBPF-4800 [Chart] Split legend displays tokenized BK
- DBPF-4802 [Views and Dashboard Configurator] Surprise checkbox appeared when grouping view in folders
- DBPF-4803 KPI widget no longer working
- DBPF-4807 Can't access API key management in DBOS UI
- DBPF-4809 Exception while trying to delete too many rows
- DBPF-4811 [Data Explorer] Multiple error pop-up boxes appear when pressing enter
- DBPF-4816 Error 500 when using API Key on DBOS in the scaffolding
- DBPF-4829 [Gantt Chart] Grouping by a scalar field does not seem to work
- DBPF-4830 [Chart] Wrong font in tooltip
- DBPF-4832 [Issue details] Add message about the use of instanceKey
- DBPF-4839 Tableau Widget was missing translation
- DBPF-4841 Issue Widget was not showing Issues
- DBPF-4852 Scaffolding breaks during yarn install due to mismatching @fullcalendar versions
- DBPF-4853 Chart was creating internal server error
- DBPF-4860 [Dashboards] Some widgets were refreshed when receiving event related to other scenarios
- DBPF-4861 [Data Explorer] Changing current scenario did not trigger refresh
- DBPF-4866 scaffolded python worker dockerfile invalid python version arg declaration