OpenSpending Data Model

for use with Invantive SQL
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1 SQL Driver for openspending.nl API

Invantive SQL is the fastest, easiest and most reliable way to exchange data with the openspending.nl API.

Use the “Search” option in the left menu to search for a specific term such as the table or column description. When you already know the term, please use the “Index” option. When you can’t find the information needed, please click on the Chat button at the bottom or place your question in the user community. Other users or Invantive Support will try to help you to our best.

OpenSpending is an online web service on the budget and spending of governments in the Netherlands. It includes data from various sources, including IV3 of CBS.

openspending.nl API Clients

Invantive SQL is available on many user interfaces (“clients” in traditional server-client paradigm). All Invantive SQL statements can be exchanged with a close to 100% compatibility across all clients and operating systems (Windows, MacOS, Linux, iOS, Android).

The clients include Microsoft Excel, Microsoft Power BI, Microsoft Power Query, Microsoft Word and Microsoft Outlook. Web-based clients include Invantive Cloud, Invantive Bridge Online as OData proxy, Invantive App Online for interactive apps, Online SQL Editor for query execution and Invantive Data Access Point as extended proxy.

For technical users there are command-line editions of Invantive Data Hub running on iOS, Android, Windows, MacOS and Linux. Invantive Data Hub is also often used for enterprise server applications such as ETL. High-volume replication of data taken from the openspending.nl API into traditional databases such as SQL Server (on-premise and Azure), MySQL, PostgreSQL and Oracle is possible using Invantive Data Replicator. Invantive Data Replicator automatically creates and maintains openspending.nl datawarehouses, possibly in combination with data from over 70 other (cloud) platforms. Data Replicator supports data volumes up to over 1 TB and over 5.000 companies. The on-premise edition of Invantive Bridge offers an openspending.nl ADO.net provider.

Monitor API Calls

When a query or DML-statement has been executed on Invantive SQL a developer can evaluate the actual calls made to the openspending.nl API using a query on sessionios@DataDictionary. As an alternative, extensive request and response logging can be enabled by setting log-native-calls-to-disk to true. In the %USERPROFILE%\Invantive\NativeLogs folder Invantive SQL will create log files per API request and response.

Specifications

The SQL driver for openspending.nl does not support partitioning. Define one data container in a database for each company in openspending.nl to enable parallel access for data from multiple companies.

An introduction into the concepts of Invantive SQL such as databases, data containers and partitioning can be found in the Invantive SQL grammar.

The configuration can be changed using various attributes during log on and use. A full list of configuration options is listed in the driver attributes.
The catalog name is used to compose the full qualified name of an object like a table or view. The schema name is used to compose the full qualified name of an object like a table or view. On openspending.nl the comparison of two texts is case sensitive by default.

Changes and bug fixes on the openspending.nl SQL driver can be found in the release notes. There is currently no specific section on the Invantive forums for openspending.nl. Please reach out to other users of openspending.nl by leaving a question or contact request.

Driver code for use in settings.xml: OpenSpendingNl

Alias: osnl
Recommended alias: osnl

More technical documentation as provided by the supplier of the openspending.nl API on the native API connection used can be found at http://openspending.nl/api/v1/doc.

General documentation on openspending.nl is available at http://openspending.nl/pagina/data

Updated: 12-12-2020 19:01 using Invantive SQL version 20.1.301-BETA+3023.

2 SQL Driver Attributes for openspending.nl API

The SQL driver for openspending.nl has many attributes that can be finetuned to improve handling in scenarios with unreliable network connections to the API server of openspending.nl or high-volumes of data. Also, many drivers have driver-specific attributes to finetune actual behaviour or handle data not matching specifications.

The openspending.nl driver attributes are assigned a default value which seldom requires change. However, changes can be applied when needed on four levels, which are reflected in the table below by separate checkmarks:

- Connection string: the connection string from the settings*.xml file and applied during log on.
- Set SQL statement: a set SQL-statement to be executed once connection has been established.
- Drivers file: the providers.xml file (obsolete starting release 17.32).
- Log on: value to be specified interactively by user during log on in a user interface.

The connection string for openspending.nl can be found in the settings*.xml file used for the database. Settings*.xml files are typically located in the %USERPROFILE%\invantive folder in most deployment scenarios. The reference manuals contain instructions how to relocate the settings*.xml files. Each data container of a database in the connection string can have a connectionString element specifying the name and values of attributes. Both name and value must be properly escaped according to XML-semantics. Actual application of the value is solely done during log on. A new connection must be established to change the value of a driver attribute using a connection string.

The set SQL statement can be executed after log on. The syntax is: set NAME VALUE, or for a distributed database: set NAME@ALIAS VALUE. In some scenarios you may need to enclose the driver attribute name in square brackets to escape it from parsing, for instance when a reserved SQL keyword is part of the name. The new value takes effect straight after execution of the set-statement. The set-statement can be executed as often as needed during a session.
Driver attributes that can be interactively set to a value are typically presented in the log on window. Depending on the platform and design decisions of the user interface designer, some or all of the available driver attributes can have been made available.

The openspending.nl driver can be configured using the following attributes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Origin</th>
<th>Default Value</th>
<th>Set from Connection String</th>
<th>Set from SQL-Statement</th>
<th>Set from Driver's File</th>
<th>Set from Log On</th>
</tr>
</thead>
<tbody>
<tr>
<td>analysis-enforce-row-uniqueness</td>
<td>Use for analysis only! Enforce rows to be unique.</td>
<td>Shared</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>api-url</td>
<td>URL to access the API.</td>
<td>OData</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bulk-delete-page-size-rows</td>
<td>Number of rows to delete per batch when bulk deleting</td>
<td>Shared</td>
<td>10000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>bulk-insert-page-size-bytes</td>
<td>Approximate maximum size in bytes of batch when bulk inserting</td>
<td>Shared</td>
<td>100000000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>bulk-insert-page-size-rows</td>
<td>Number of rows to insert per batch when bulk inserting</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-400-bad-request-max-tries</td>
<td>Maximum number of tries when OData server reports bad format during retrieval of data.</td>
<td>OData</td>
<td>30</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-400-bad-request-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when OData server reports that the API server is unavailable during retrieval of data.</td>
<td>OData</td>
<td>5000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-400-bad-request-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when OData server reports that the API server is unavailable during retrieval of data.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-400-bad-request-sleep-multiplier</td>
<td>Multiplication factor for sleep between retries OData server reports that the API server is unavailable during retrieval of data.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-422-bad-request-max-tries</td>
<td>Maximum number of tries when OData server reports unprocessable entity during retrieval of data.</td>
<td>OData</td>
<td>30</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-422-bad-request-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when OData server reports unprocessable entity during retrieval of data.</td>
<td>OData</td>
<td>5000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>dow nload-error-422-bad-request-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when OData server reports unprocessable entity during retrieval of data.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>dow nload-error-422-bad-request-sleep-multiplier</td>
<td>Multiplication factor for sleep between retries OData server reports unprocessable entity during retrieval of data.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-429-too-many-requests-max-tries</td>
<td>Maximum number of tries when the website reports that too many requests have been made during a timeslot of one minute or one day.</td>
<td>OData</td>
<td>10</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Origin</td>
<td>Default Value</td>
<td>Set from Connection String</td>
<td>Set from SQL-Statement</td>
<td>Set from Driver's File</td>
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</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
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<td>5000</td>
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<td>OData</td>
<td>60000</td>
<td>✓</td>
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<td>Multiplication factor for sleep between retries when the website reports that too many requests have been made during a timeslot of one minute or one day.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-502-server-unavailable-max-tries</td>
<td>Maximum number of tries when OData server reports a bad gateway during retrieval of data.</td>
<td>OData</td>
<td>30</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-502-server-unavailable-initial-ms</td>
<td>Initial sleep in milliseconds between retries when OData server reports a bad gateway during retrieval of data.</td>
<td>OData</td>
<td>10000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-502-server-unavailable-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when OData server reports that a bad gateway is unavailable during retrieval of data.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-502-server-unavailable-sleep-multiplier</td>
<td>Multiplication factor for sleep between retries OData server reports a bad gateway during retrieval of data.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-503-server-unavailable-max-tries</td>
<td>Maximum number of tries when OData server reports that the API server is unavailable during retrieval of data.</td>
<td>OData</td>
<td>30</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-503-server-unavailable-initial-ms</td>
<td>Initial sleep in milliseconds between retries when OData server reports that the API server is unavailable during retrieval of data.</td>
<td>OData</td>
<td>5000</td>
<td>✓</td>
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<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-504-gateway-ay-timeout-max-tries</td>
<td>Maximum number of tries when the website reports a gateway ay timeout.</td>
<td>OData</td>
<td>10</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-504-gateway-ay-</td>
<td>Initial sleep in milliseconds between retries when the website reports a gateway ay.</td>
<td>OData</td>
<td>5000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
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<td>Code</td>
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<tr>
<td>timeout-sleep-initial-ms</td>
<td>gateway timeout.</td>
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<tr>
<td>dow nload-error-504-gateway ay-timeout-sleep-max-ms</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-argument-exception-max-tries</td>
<td>Maximum number of tries when an argument exception is returned when downloading a blob.</td>
<td>OData</td>
<td>10</td>
<td>✓</td>
<td>✓</td>
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<td>dow nload-error-argument-exception-sleep-multiplier</td>
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<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-internet-dow n-max-tries</td>
<td>Maximum number of tries when the Internet connection seems down during retrieval of data.</td>
<td>OData</td>
<td>10</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-internet-dow n-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when the Internet connection seems down during retrieval of data.</td>
<td>OData</td>
<td>10000</td>
<td>✓</td>
<td>✓</td>
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<td>dow nload-error-internet-dow n-sleep-max-ms</td>
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<td>60000</td>
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</tr>
<tr>
<td>dow nload-error-internet-dow n-sleep-multiplier</td>
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<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-io-exception-max-tries</td>
<td>Maximum number of tries when a network I/O connection failure occurs during retrieval of data.</td>
<td>OData</td>
<td>10</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error-io-exception-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when a network I/O connection failure occurs during retrieval of data.</td>
<td>OData</td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>dow nload-error-io-exception-sleep-max-ms</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Code</td>
<td>Description</td>
<td>Origin</td>
<td>Default Value</td>
<td>Set from Connection String</td>
<td>Set from SQL-Statement</td>
<td>Set from Driver files</td>
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</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
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<tr>
<td>dow nload-error-io-exception-sleep-</td>
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<td>2</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>multiplicator</td>
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<td></td>
</tr>
<tr>
<td>dow nload-error-json-exception-max-tries</td>
<td>Maximum number of tries when an invalid JSON body is returned.</td>
<td>OData</td>
<td>3</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
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<td>OData</td>
<td>1000</td>
<td>✅</td>
<td>✅</td>
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</tr>
<tr>
<td>dow nload-error-json-exception-max-tries</td>
<td>Maximum sleep in milliseconds between retries when an invalid JSON body is returned.</td>
<td>OData</td>
<td>10000</td>
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<td>✅</td>
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<td>OData</td>
<td>2</td>
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<td>✅</td>
<td>✅</td>
<td>✅</td>
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<td>sleep-multiplicator</td>
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</tr>
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<td>dow nload-error-other-exception-max-tries</td>
<td>Maximum number of tries when an unqualified error occurs during retrieval of data.</td>
<td>OData</td>
<td>3</td>
<td>✅</td>
<td>✅</td>
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<td>✅</td>
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<td>dow nload-error-other-exception-max-tries</td>
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<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>dow nload-error-other-exception-max-tries</td>
<td>Maximum sleep in milliseconds between retries when an unqualified error occurs during retrieval of data.</td>
<td>OData</td>
<td>30000</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>dow nload-error-other-exception-sleep-</td>
<td>Multiplication factor for sleep between retries when an unqualified error occurs during retrieval of data.</td>
<td>OData</td>
<td>2</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>sleep-multiplicator</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>dow nload-error-socket-exception-max-tries</td>
<td>Maximum number of tries when the network connection is forcible dropped during retrieval of data.</td>
<td>OData</td>
<td>10</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>dow nload-error-socket-exception-max-tries</td>
<td>Initial sleep in milliseconds between retries when the network connection is forcible dropped during retrieval of data.</td>
<td>OData</td>
<td>10000</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>dow nload-error-socket-exception-max-tries</td>
<td>Maximum sleep in milliseconds between retries when the network connection is forcible dropped during retrieval of data.</td>
<td>OData</td>
<td>60000</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
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<tr>
<td>dow nload-error-socket-exception-sleep-</td>
<td>Multiplication factor for sleep between retries when the network connection is forcible dropped during retrieval of data.</td>
<td>OData</td>
<td>2</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>sleep-multiplicator</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>dow nload-error-web-exception-max-tries</td>
<td>Maximum number of tries when a web connection failure occurs during retrieval of data.</td>
<td>OData</td>
<td>10</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>dow nload-error-web-exception-max-tries</td>
<td>Initial sleep in milliseconds between retries when a web connection failure occurs during retrieval of data.</td>
<td>OData</td>
<td>10000</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Origin</td>
<td>Default Value</td>
<td>Set from Conne ction String</td>
<td>Set from Set SQL-Statement</td>
<td>Set from Driver s File</td>
<td>Set from Log On</td>
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</tr>
<tr>
<td>dow nload-error- web-exceptio n-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when a web connection failure occurs during retrieval of data.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-exceptio n-sleep-multiplicato r</td>
<td>Multiplication factor for sleep between retries when a web connection failure occurs during retrieval of data.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-not-implemented-max-tries</td>
<td>Maximum number of tries when the connection reports not implemented.</td>
<td>OData</td>
<td>1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-not-implemented-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when the connection reports not implemented.</td>
<td>OData</td>
<td>5000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-not-implemented-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when the connection reports not implemented.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-not-implemented-sleep-multiplicato r</td>
<td>Multiplication factor for sleep between retries when the connection reports not implemented.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-timeout-max-tries</td>
<td>Maximum number of tries when the connection reports a timeout.</td>
<td>OData</td>
<td>10</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-timeout-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when the connection reports a timeout.</td>
<td>OData</td>
<td>5000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-timeout-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when the connection reports a timeout.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-timeout-sleep-multiplicato r</td>
<td>Multiplication factor for sleep between retries when the connection reports a timeout.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-unauthorized-max-tries</td>
<td>Maximum number of tries when the connection reports an unauthorized error.</td>
<td>OData</td>
<td>1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-unauthorized-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when the connection reports an unauthorized error.</td>
<td>OData</td>
<td>5000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-unauthorized-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when the connection reports an unauthorized error.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>dow nload-error- web-unauthorized-sleep-multiplicato r</td>
<td>Multiplication factor for sleep between retries when the connection reports an unauthorized error.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Origin</td>
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<td>Set from Connection String</td>
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<td>Set from Log On</td>
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<td>-----------------</td>
</tr>
<tr>
<td>force-case-sensitive-identifiers</td>
<td>Consider identifiers as case-sensitive independent of the platform capabilities.</td>
<td>Shared</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>forced-casing-identifiers</td>
<td>Forced casing of identifiers. Choose from Unset, Lower, Upper and Mixed.</td>
<td>Shared</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>http-disk-cache-compression-level</td>
<td>Compression level for the HTTP disk cache, ranging from 1 (little) to 9 (intense). Default is 5.</td>
<td>Shared</td>
<td>5</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>http-disk-cache-directory</td>
<td>Directory where HTTP cache is stored.</td>
<td>Shared</td>
<td>C:\Users\gle3.WS212\Invantive\Cache\http\gle3\shared</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>http-disk-cache-ignore-write-errors</td>
<td>Whether to ignore write errors to disk cache.</td>
<td>Shared</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>http-disk-cache-max-age-sec</td>
<td>Maximum acceptable age in seconds for use of data in the HTTP disk cache.</td>
<td>Shared</td>
<td>2592000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>http-get-timeout-ms</td>
<td>HTTP GET timeout (ms).</td>
<td>OData</td>
<td>300000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>http-memory-cache-compression-level</td>
<td>Compression level for the HTTP memory cache, ranging from 1 (little) to 9 (intense). Default is 5.</td>
<td>OData</td>
<td>5</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>http-memory-cache-max-age-sec</td>
<td>Maximum acceptable age in seconds for use of data in the HTTP memory cache.</td>
<td>OData</td>
<td>14400</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>http-post-timeout-ms</td>
<td>HTTP POST timeout (ms).</td>
<td>OData</td>
<td>300000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ignore-http-400-errors</td>
<td>Ignore HTTP 400 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ignore-http-401-errors</td>
<td>Ignore HTTP 401 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ignore-http-402-errors</td>
<td>Ignore HTTP 402 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ignore-http-403-errors</td>
<td>Ignore HTTP 403 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ignore-http-404-errors</td>
<td>Ignore HTTP 404 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ignore-http-422-errors</td>
<td>Ignore HTTP 422 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ignore-http-429-errors</td>
<td>Ignore HTTP 429 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Origin</td>
<td>Default Value</td>
<td>Set from Connection String</td>
<td>Set from Set SQL-Statement</td>
<td>Set from Driver File</td>
<td>Set from Log On</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>ignore-http-500-errors</td>
<td>Ignore HTTP 500 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ignore-http-502-errors</td>
<td>Ignore HTTP 502 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invalid-json-on-get-max-tries</td>
<td>Maximum number of tries when the JSON received on GET is invalid.</td>
<td>OData</td>
<td>10</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invalid-json-on-get-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when the JSON received on GET is invalid.</td>
<td>OData</td>
<td>10000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invalid-json-on-get-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when the JSON received on GET is invalid.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invalid-json-on-get-sleep-multiplicator</td>
<td>Multiplication factor for sleep between retries when the JSON received on GET is invalid.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invalid-json-on-post-max-tries</td>
<td>Maximum number of tries when the JSON received on POST is invalid.</td>
<td>OData</td>
<td>1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invalid-json-on-post-sleep-initial-ms</td>
<td>Initial sleep in milliseconds between retries when the JSON received on POST is invalid.</td>
<td>OData</td>
<td>10000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invalid-json-on-post-sleep-max-ms</td>
<td>Maximum sleep in milliseconds between retries when the JSON received on POST is invalid.</td>
<td>OData</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invalid-json-on-post-sleep-multiplicator</td>
<td>Multiplication factor for sleep between retries when the JSON received on POST is invalid.</td>
<td>OData</td>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invantive-sql-correct-invalid-date</td>
<td>Whether to correct dates considered invalid since they are before 01-01-1753. When nullable, they are removed. Otherwise they are replaced by 01-01-1753.</td>
<td>SQL Engine V1</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invantive-sql-forward-filters-to-data-containers</td>
<td>Whether to forward filters to data containers.</td>
<td>SQL Engine V1</td>
<td>True</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invantive-sql-shuffle-fetch-results-data-containers</td>
<td>Whether to shuffle results fetched from data containers.</td>
<td>SQL Engine V1</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>invantive-use-cache</td>
<td>Whether to cache the results of a query.</td>
<td>SQL Engine V1</td>
<td>True</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>join-set-points-per-request</td>
<td>Maximum number of values in a request when executing a join set.</td>
<td>OData</td>
<td>60</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>limit-partition-calls-left</td>
<td>Minimum number of remaining API calls on a partition towards a hard limit. When below, an error is raised.</td>
<td>OData</td>
<td>500</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>log-native-calls-to-disk</td>
<td>Registers native calls to data container backend as disk files.</td>
<td>Shared</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Origin</td>
<td>Default Value</td>
<td>Set from Connection String</td>
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<td>-----------------</td>
</tr>
<tr>
<td>log-native-calls-to-trace</td>
<td>Log native calls to data container backend on the trace.</td>
<td>Shared</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>maximum-length-identifiers</td>
<td>Non-default maximum length in characters of identifier names.</td>
<td>Shared</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>max-odata-filters</td>
<td>The maximum number of OData filter elements.</td>
<td>OData</td>
<td>100</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>max-url-length-accepted</td>
<td>The maximum accepted URL length before raising an error.</td>
<td>Shared</td>
<td>8000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>max-url-length-desired</td>
<td>The maximum desired URL length.</td>
<td>Shared</td>
<td>8000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>metadata-cache-max-age-sec</td>
<td>Maximum acceptable age in seconds for re-use of metadata.</td>
<td>OData</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>partition-slot-based-rate-limit-length-ms</td>
<td>Total length in ms across all slots of a partition-based rate limit.</td>
<td>Shared</td>
<td>60000</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>partition-slot-based-rate-limit-slots</td>
<td>Number of slots per partition-based rate limit. Null means no slot-based rate limit.</td>
<td>Shared</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>pre-request-delay-ms</td>
<td>Pre-request delay in milliseconds per request.</td>
<td>Shared</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>requested-page-size</td>
<td>Preferred number of rows to exchange per round trip; only effective on limited platforms such as AFAS Online</td>
<td>Shared</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>requests-parallel-max</td>
<td>Maximum number of parallel data requests from individual partitions on the data container.</td>
<td>Shared</td>
<td>32</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>simulate-http-400-errors</td>
<td>Simulate HTTP 400 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>simulate-http-400-errors-percentage</td>
<td>Percentage of simulated HTTP 400 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>simulate-http-401-errors</td>
<td>Simulate HTTP 401 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>simulate-http-401-errors-percentage</td>
<td>Percentage of simulated HTTP 401 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>simulate-http-403-errors</td>
<td>Simulate HTTP 403 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>simulate-http-403-errors-percentage</td>
<td>Percentage of simulated HTTP 403 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>simulate-http-429-errors</td>
<td>Simulate HTTP 429 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Origin</td>
<td>Default Value</td>
<td>Set from Connetion String</td>
<td>Set from Set SQL-Statement</td>
<td>Set from Driver File</td>
<td>Set from Log On</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------</td>
<td>---------------</td>
<td>----------------------------</td>
<td>----------------------------</td>
<td>---------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>simulate-http-429-errors-percentage</td>
<td>Percentage of simulated HTTP 429 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>simulate-http-500-errors</td>
<td>Simulate HTTP 500 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>simulate-http-500-errors-percentage</td>
<td>Percentage of simulated HTTP 500 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>simulate-http-502-errors</td>
<td>Simulate HTTP 502 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>simulate-http-502-errors-percentage</td>
<td>Percentage of simulated HTTP 502 errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>simulate-http-protocol-errors</td>
<td>Simulate HTTP protocol errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>simulate-http-protocol-errors-percentage</td>
<td>Percentage of simulated HTTP protocol errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>simulate-http-timeout-errors</td>
<td>Simulate HTTP timeout errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>False</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>simulate-http-timeout-errors-percentage</td>
<td>Percentage of simulated HTTP timeout errors when exchanging results with the OData endpoint.</td>
<td>OData</td>
<td>0</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>slot-based-rate-limit-length-ms</td>
<td>Total length in ms across all slots of a slot-based rate limit.</td>
<td>Shared</td>
<td>60000</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>slot-based-rate-limit-slots</td>
<td>Number of slots of a slot-based rate limit. Null means no slot-based rate limit</td>
<td>Shared</td>
<td>True</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>standardize-identifiers</td>
<td>Rewrite all identifiers to the preferred standards as configured by standardize-identifiers-casing and maximum-length-identifiers.</td>
<td>Shared</td>
<td>True</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>standardize-identifiers-casing</td>
<td>Rewrite all identifiers to the recommended standard platform-specific casing when changing a data model on a case-dependent platform.</td>
<td>Shared</td>
<td>True</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use-batch-insert</td>
<td>Whether to use batch insert.</td>
<td>OData</td>
<td>True</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use-http-disk-cache-read</td>
<td>Whether to use HTTP responses from previous queries stored on disk to answer the current query.</td>
<td>Shared</td>
<td>True</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use-http-disk-cache-write</td>
<td>Whether to memorize HTTP responses on disk.</td>
<td>Shared</td>
<td>True</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use-http-memory-cache-read</td>
<td>Whether to use HTTP responses from previous queries stored in</td>
<td>OData</td>
<td>True</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3 Schema: Native
3.1 Tables
3.1.1 NATIVEPLATFORMSCALARREQUESTS: openspending.nl Native Platform Scalar Requests

Direct access to native API.

Catalog: OpenSpendingNL

Schema: Native

Alias: npt

Label: Native Platform Scalar Requests

Documentation:
The NativePlatformScalarRequests table provides direct access to the native API protocol over an established connection to the openspending.nl API server. It will contain a new row for every row inserted with a native API request in PAYLOAD_TEXT with the results of unaltered forwarding of the payload to the openspending.nl API server.

Retrieve: true
Insert: true
Update: false
Delete: false

View Columns

The columns of the view NATIVEPLATFORMSCALARREQUESTS are shown below. Each column has an SQL data type. A new non-null value must be provided for every required column at all times during insert.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Label</th>
<th>Required</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLOB_PREFERRED</td>
<td>boolean</td>
<td>BLOB Preferred</td>
<td>☑</td>
<td>Indicator whether a BLOB result is preferred over text.</td>
</tr>
<tr>
<td>BOL_RESPONSE_CACHE_MAX_AGE_SEC</td>
<td>int32</td>
<td>Response Cache Maximum Age (sec)</td>
<td>☐</td>
<td>Maximum age in seconds of Bridge Online response cache entries to be used.</td>
</tr>
<tr>
<td>CONTENT_TYPE</td>
<td>string(240)</td>
<td>Content Type</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>DATE_ENDED</td>
<td>datetime</td>
<td>End Date</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>DATE_STARTED</td>
<td>datetime</td>
<td>Start Date</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Data Type</td>
<td>Label</td>
<td>Required</td>
<td>Documentation</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------------------</td>
<td>-------------------------------</td>
<td>----------</td>
<td>---------------</td>
</tr>
<tr>
<td>DRY_RUN</td>
<td>boolean</td>
<td>Run without Actions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERROR_MESSAGE_CODE</td>
<td>string(30)</td>
<td>Error Message Code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERROR_MESSAGE_TEXT</td>
<td>string(4000)</td>
<td>Error Message Text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HTTP_DISK_CACHE_MAX_AGE_SEC</td>
<td>int32</td>
<td>HTTP Disk Cache Maximum Age (sec)</td>
<td></td>
<td>Maximum age in seconds of HTTP disk cache entries to be used.</td>
</tr>
<tr>
<td>HTTP_DISK_CACHE_SAVE</td>
<td>boolean</td>
<td>Save HTTP Disk Cache</td>
<td></td>
<td>Whether results can be stored in HTTP disk cache.</td>
</tr>
<tr>
<td>HTTP_DISK_CACHE_USE</td>
<td>boolean</td>
<td>Use HTTP Disk Cache</td>
<td></td>
<td>Whether results can be fetched from HTTP disk cache.</td>
</tr>
<tr>
<td>HTTP_MEMORY_CACHE_MAX_AGE_SEC</td>
<td>int32</td>
<td>HTTP Memory Cache Maximum Age (sec)</td>
<td></td>
<td>Maximum age in seconds of HTTP memory cache entries to be used.</td>
</tr>
<tr>
<td>HTTP_MEMORY_CACHE_SAVE</td>
<td>boolean</td>
<td>Save HTTP Memory Cache</td>
<td></td>
<td>Whether results can be stored in HTTP memory cache.</td>
</tr>
<tr>
<td>HTTP_MEMORY_CACHE_USE</td>
<td>boolean</td>
<td>Use HTTP Memory Cache</td>
<td></td>
<td>Whether results can be fetched from HTTP memory cache.</td>
</tr>
<tr>
<td>HTTP_METHOD</td>
<td>string(30)</td>
<td>HTTP Method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORIG_SYSTEM_GROUP</td>
<td>string(4000)</td>
<td>Original System Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORIG_SYSTEM_REFERENCE</td>
<td>string(4000)</td>
<td>Original System Reference</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAYLOAD_TEXT</td>
<td>string</td>
<td>Payload</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESULT_BLOB</td>
<td>byte[]</td>
<td>Result BLOB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESULT_TEXT</td>
<td>string</td>
<td>Result Text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUCCESSFUL</td>
<td>boolean</td>
<td>Successful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIMEOUT_SEC</td>
<td>int32</td>
<td>Timeout (sec)</td>
<td></td>
<td>Timeout in seconds.</td>
</tr>
<tr>
<td>TRANSACTION_ID</td>
<td>int32</td>
<td>Transaction ID</td>
<td></td>
<td>Incrementing ID of the transaction.</td>
</tr>
<tr>
<td>URL</td>
<td>string(4000)</td>
<td>URL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 Schema: OpenSpendingNL
4.1 Tables
4.1.1 documents: openspending.nl Documents

Catalog: OpenSpendingNL

Schema: OpenSpendingNL

Primary Keys: id

Label: Documents

This is a read-only table. The openspending.nl API may not support changing the data or the Invantive SQL driver for openspending.nl does not cover it. In the latter case, please use the table NativePlatformScalarRequests to upload data to the openspending.nl API.

Select openspending.nl API URL: /documents/?limit=1000

Insert openspending.nl API URL: /documents/?limit=1000

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## Table Columns

The columns of the table `documents` are shown below. Each column has an SQL data type.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Label</th>
<th>Required</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>calendar_year</td>
<td>int32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>created_at</td>
<td>datetime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>document</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gov_code</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gov_type</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_aggregation</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_code</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_country</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_created_at</td>
<td>datetime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_display_kind</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_id</td>
<td>int32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_intro</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_kind</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_latitude</td>
<td>double</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_location</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_longitude</td>
<td>double</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_metrics</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_name</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_resource_uri</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_slug</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_state</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_updated_at</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>government_website</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>id</td>
<td>int32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kind</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>parsed_at</td>
<td>datetime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>period</td>
<td>int32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>plan</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>resource_uri</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>updated_at</td>
<td>datetime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>url</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.1.2 entries: openspending.nl Entries

Catalog: OpenSpendingNL
Schema: OpenSpendingNL
Primary Keys: document_id
Label: Entries

This is a read-only table. The openspending.nl API may not support changing the data or the Invantive SQL driver for openspending.nl does not cover it. In the latter case, please use the table NativePlatformScalarRequests to upload data to the openspending.nl API.

Select openspending.nl API URL: /entries/?limit=1000
Insert openspending.nl API URL: /entries/?limit=1000
Update openspending.nl API URL: /entries/?limit=1000
Delete openspending.nl API URL: /entries/?limit=1000

Field Selection Method: NotRequired

Table Columns

The columns of the table entries are shown below. Each column has an SQL data type.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Label</th>
<th>Required</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>calendar_year</td>
<td>int32</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>code_cat</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>code_main</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>code_sub</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>direction</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>document_id</td>
<td>int32</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>gov_code</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>gov_type</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>labels</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>period</td>
<td>int32</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>plaatsing</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>resource_uri</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>type</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>value</td>
<td>string</td>
<td></td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

4.1.3 governments: openspending.nl Governments

Catalog: OpenSpendingNL
Schema: OpenSpendingNL
Primary Keys: id
Label: Governments
This is a read-only table. The openspending.nl API may not support changing the data or the Invantive SQL driver for openspending.nl does not cover it. In the latter case, please use the table NativePlatformScalarRequests to upload data to the openspending.nl API.

Select openspending.nl API URL: /governments/?limit=1000
Insert openspending.nl API URL: /governments/?limit=1000
Update openspending.nl API URL: /governments/?limit=1000
Delete openspending.nl API URL: /governments/?limit=1000

Field Selection Method: NotRequired

### Table Columns

The columns of the table governments are shown below. Each column has an SQL data type.

<table>
<thead>
<tr>
<th>Name</th>
<th>Data Type</th>
<th>Label</th>
<th>Required</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>aggregation</td>
<td>string</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>code</td>
<td>string</td>
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</tbody>
</table>

#### 4.1.4 labels: openspending.nl Labels

Catalog: OpenSpendingNl
Schema: OpenSpendingNl
Primary Keys: code
Label: Labels

This is a read-only table. The openspending.nl API may not support changing the data or the Invantive SQL driver for openspending.nl does not cover it. In the latter case, please use the table NativePlatformScalarRequests to upload data to the openspending.nl API.
Select openspending.nl API URL: /labels/?limit=1000
Insert openspending.nl API URL: /labels/?limit=1000
Update openspending.nl API URL: /labels/?limit=1000
Delete openspending.nl API URL: /labels/?limit=1000
Field Selection Method: NotRequired

### Table Columns

The columns of the table labels are shown below. Each column has an SQL data type.

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<tr>
<th>Name</th>
<th>Data Type</th>
<th>Label</th>
<th>Required</th>
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<tr>
<td>direction</td>
<td>string</td>
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<tr>
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<td></td>
<td>□</td>
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<tr>
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<td>□</td>
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</tbody>
</table>

### 4.1.5 metrics: openspending.nl Metrics

Catalog: OpenSpendingNL
Schema: OpenSpendingNL
Primary Keys: id
Label: Metrics

This is a read-only table. The openspending.nl API may not support changing the data or the Invantive SQL driver for openspending.nl does not cover it. In the latter case, please use the table NativePlatformScalarRequests to upload data to the openspending.nl API.

Select openspending.nl API URL: /metrics/?limit=1000
Insert openspending.nl API URL: /metrics/?limit=1000
Update openspending.nl API URL: /metrics/?limit=1000
Delete openspending.nl API URL: /metrics/?limit=1000
Field Selection Method: NotRequired

### Table Columns

The columns of the table metrics are shown below. Each column has an SQL data type.

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</tbody>
</table>
### 4.1.6 transaction_columns: openspending.nl Transaction Columns

Catalog: OpenSpendingNL  
Schema: OpenSpendingNL  
Primary Keys: id  
Label: Transaction Columns

This is a read-only table. The openspending.nl API may not support changing the data or the Invantive SQL driver for openspending.nl does not cover it. In the latter case, please use the table `NativePlatformScalarRequests` to upload data to the openspending.nl API.

**Select openspending.nl API URL:** `/transactions/columns/?limit=1000`  
**Insert openspending.nl API URL:** `/transactions/columns/?limit=1000`  
**Update openspending.nl API URL:** `/transactions/columns/?limit=1000`  
**Delete openspending.nl API URL:** `/transactions/columns/?limit=1000`  

Field Selection Method: NotRequired

### Table Columns

The columns of the table `transaction_columns` are shown below. Each column has an SQL data type.

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<tr>
<td>document_byline</td>
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<td>document_document</td>
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<td>document_government_aggregation</td>
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<td>document_government_code</td>
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<td>document_government_longitude</td>
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</tbody>
</table>
### 4.1.7 transaction_views: openspending.nl Transaction Columns

Catalog: OpenSpendingNl

Schema: OpenSpendingNl

Primary Keys: id

Label: Transaction Columns

This is a read-only table. The openspending.nl API may not support changing the data or the Invantive SQL driver for openspending.nl does not cover it. In the latter case, please use the table NativePlatformScalarRequests to upload data to the openspending.nl API.

Select openspending.nl API URL: /transactions/views/?limit=1000

Insert openspending.nl API URL: /transactions/views/?limit=1000

Update openspending.nl API URL: /transactions/views/?limit=1000

Delete openspending.nl API URL: /transactions/views/?limit=1000

Field Selection Method: NotRequired

**Table Columns**

The columns of the table transaction_views are shown below. Each column has an SQL data type.

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