23.0

RSS Data Model

for use with Invantive SQL

invantive
the SQL company

Contents

1 SQL Driver for RSS 2.0

Invantive SQL is the fastest, easiest and most reliable way to exchange data with RSS 2.0.

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.

RSS version 2.0. RSS is a file format to communicate news messages and other streaming data.

The RSS 2.0 driver covers 3 tables and 70 columns.

RSS 2.0 Clients

Invantive SQL is available on many user interfaces ("clients" in traditional server-client paradigma). 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 RSS 2.0 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 RSS 2.0 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 RSS 2.0 ADO.net provider.

Specifications

The SQL driver for RSS 2.0 does not support partitioning. Define one data container in a database for each company in RSS 2.0 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 2.

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 RSS 2.0 the comparison of two texts is case sensitive by default.

Changes and bug fixes on the RSS 2.0 SQL driver can be found in the release notes. Get access to the RSS 2.0 community through the RSS 2.0 section of the Invantive forums.

Driver code for use in settings.xml: `Rss20`

Alias: `rss`

Recommended alias: `rss`

More technical documentation as provided by the supplier of RSS 2.0 on the native connection used can be found at http://www.rssboard.org/rss-specification.

Updated: 15-06-2022 20:41 using Invantive SQL version 22.0.232-PROD+3445.

2 SQL Driver Attributes for RSS 2.0

The SQL driver for RSS 2.0 has many attributes that can be finetuned to improve handling in scenarios with unreliable network connections to the RSS 2.0 server or high-volumes of data. Also, many drivers have driver-specific attributes to finetune actual behaviour or handle data not matching specifications.

The RSS 2.0 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 RSS 2.0 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 RSS 2.0 driver can be configured using the following attributes:

Code	Description	Origin	Default Value	Set from Connection String	Set from Set SQL-Statement	Set from Drivers File	Set from Log On
analysis-enforce-row-uniqueness	Use for analysis only! Enforce rows to be unique.	Shared	False	✓	✓	✓	

Code	Description	Origin	Default Value	Set from Connection String	Set from Set SQL-Statement	Set from Drivers File	Set from Log On
bulk-delete-page-size-rows	Number of rows to delete per batch when bulk deleting	Shared	10000	✓	✓	✓	
bulk-insert-page-size-bytes	Approximate maximum size in bytes of batch when bulk inserting	Shared	10000000	✓	✓	✓	
bulk-insert-page-size-rows	Number of rows to insert per batch when bulk inserting	Shared	10000	✓	✓	✓	
force-case-sensitive-identifiers	Consider identifiers as case-sensitive independent of the platform capabilities.	Shared	False	✓	✓	✓	
forced-casing-identifiers	Forced casing of identifiers. Choose from Unset, Lower, Upper and Mixed.	Shared		✓	✓	✓	
invantive-sql-compress-sparse-arrays	Whether to compress sparse arrays in result sets during compression.	SQL Engine V1	True	✓	✓	✓	
invantive-sql-correct-invalid-date	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.	SQL Engine V1	False	✓	✓	✓	
invantive-sql-forward-filters-to-data-containers	Whether to forward filters to data containers.	SQL Engine V1	True	✓	✓	✓	
invantive-sql-share-byte-arrays	Whether to share the memory used by identical byte arrays in result sets during compression.	SQL Engine V1	True	✓	✓	✓	
invantive-sql-share-strings	Whether to share the memory used by identical strings in result sets during compression.	SQL Engine V1	True	✓	✓	✓	
invantive-sql-shuffle-fetch-results-data-containers	Whether to shuffle results fetched from data containers.	SQL Engine V1	False	✓	✓	✓	
invantive-use-cache	Whether to cache the results of a query.	SQL Engine V1	True	✓	✓	✓	
log-native-calls-to-disk-max-events	Maximum number of events to register from last activation.	Shared		✓	✓	✓	
log-native-calls-to-disk-max-seconds	Maximum number of seconds to register from last activation.	Shared		✓	✓	✓	
log-native-calls-to-disk-on-error	Registers native calls to data container backend as disk files when an error occurred.	Shared	False	✓	✓	✓	
log-native-calls-to-disk-on-success	Registers native calls to data container backend as disk files when successful.	Shared	False	✓	✓	✓	
log-native-calls-to-trace	Log native calls to data container backend on the trace.	Shared	False	✓	✓	✓	
maximum-length-identifiers	Non-default maximum length in characters of identifier names.	Shared		✓	✓	✓	

Code	Description	Origin	Default Value	Set from Connection String	Set from Set SQL-Statement	Set from Drivers File	Set from Log On
max-url-length-accepted	The maximum accepted URL length before raising an error.	Shared	8000	✓	✓	✓	
max-url-length-desired	The maximum desired URL length.	Shared	8000	✓	✓	✓	
minimum-length-text	Extend all text columns to this length to allow processing of XML that uses longer text values than the XSD specifies.	XML		✓			✓
partition-slot-based-rate-limit-length-ms	Total length in ms across all slots of a partition-based rate limit.	Shared	60000	✓		✓	
partition-slot-based-rate-limit-slots	Number of slots per partition-based rate limit. Null means no slot-based rate limit	Shared		✓		✓	
pre-request-delay-ms	Pre-request delay in milliseconds per request.	Shared	0	✓	✓	✓	
requested-page-size	Preferred number of rows to exchange per round trip; only effective on limited platforms such as AFAS Online	Shared		✓	✓	✓	
requests-parallel-max	Maximum number of parallel data requests from individual partitions on the data container.	Shared	32	✓	✓	✓	
result-set-memory-cache	Action: provide 'empty' to empty.	XML			✓		
slot-based-rate-limit-length-ms	Total length in ms across all slots of a slot-based rate limit.	Shared	60000	✓		✓	
slot-based-rate-limit-slots	Number of slots of a slot-based rate limit. Null means no slot-based rate limit	Shared		✓		✓	
standardize-identifiers	Rewrite all identifiers to the preferred standards as configured by standardize-identifiers-casing and maximum-length-identifiers.	Shared	True	✓	✓	✓	
standardize-identifiers-casing	Rewrite all identifiers to the recommended standard platform-specific casing when changing a data model on a case-dependent platform.	Shared	True	✓	✓	✓	
use-metadata-memory-cache	Whether to use the metadata in memory calculated previously Has only practical use during development on a XML provider.	XML	True	✓	✓	✓	
use-result-memory-cache	Whether to use result sets cached in memory from previous queries that can answer the current query.	XML	False	✓	✓	✓	
xml-directories	{res:itgen_provider_attribute_xml_directories_description}			✓	✓	✓	✓
xml-extension	{res:itgen_provider_attribute_xml_extension_description}		*.rss	✓	✓	✓	✓

Code	Description	Origin	Default Value	Set from Connection String	Set from Set SQL-Statement	Set from Drivers File	Set from Log On
xml-namespaces	Comma-separated list of namespace prefixes and their URI			✓	✓	✓	

3 ChannelItems

Catalog: RSS

The data in this table is partitioned per value of the column.

Retrieve: true

Topic: rss

Base XPath: `/rss/channel`

XPath: `/item`

Table Columns

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

Name	Data Type	Label	Required	Documentation
CATEGORY_DOMAIN_ATTR	string			
CATEGORY	string			
CHANNEL_CATEGORY_DOMAIN_ATTR	string			
CHANNEL_CATEGORY	string			
CHANNEL_CLOUD	string			Allows processes to register with a cloud to be notified of updates to the channel, implementing a lightweight publish-subscribe protocol for RSS feeds.
CHANNEL_COPYRIGHT	string	Channel Copyright		Copyright notice for content in the channel.
CHANNEL_DESCRIPTION	string	Channel Description		Phrase or sentence describing the channel.
CHANNEL_DOCS	string			A URL that points to the documentation for the format used in the RSS file. It's probably a pointer to this page. It's for people who might stumble across an RSS file on a Web server 25 years from now and wonder what it is.
CHANNEL_GENERATOR	string	Channel Generator		A string indicating the program used to generate the channel.

Name	Data Type	Label	Required	Documentation
CHANNEL_IMAGE_DESCRIPTION	string	Image Description		Text that is included in the TITLE attribute of the link formed around the image in the HTML rendering.
CHANNEL_IMAGE_HEIGHT	int64			The height of the image in pixels.
CHANNEL_IMAGE_LINK	string	Image Hyperlink		The URL of the site, when the channel is rendered, the image is a link to the site. (Note, in practice the image <title> and <link> should have the same value as the channel's <title> and <link>.
CHANNEL_IMAGE_TITLE	string	Image Title		Describes the image, it's used in the ALT attribute of the HTML <img> tag when the channel is rendered in HTML.
CHANNEL_IMAGE_URL	string			The URL of the image file.
CHANNEL_IMAGE_WIDTH	int64			The width of the image in pixels.
CHANNEL_LANGUAGE	string(17)	Channel Language		The language the channel is written in. This allows aggregators to group all Italian language sites, for example, on a single page. A list of allowable values for this element, as provided by Netscape, is here. You may also use values defined by the W3C.
CHANNEL_LASTBUILDDATE	string			A date-time displayed in RFC-822 format.
CHANNEL_LINK	string	Channel Hyperlink		The URL to the HTML website corresponding to the channel.
CHANNEL_PUBDATE	string			A date-time displayed in RFC-822 format.
CHANNEL_SKIPDAYS	int64			A hint for aggregators telling them which days they can skip.
CHANNEL_SKIPHOURS	int64			A hint for aggregators telling them which hours they can skip.
CHANNEL_TEXTINPUT_DESCRIPTION	string			Explains the text input area.
CHANNEL_TEXTINPUT_LINK	string			The URL of the CGI script that processes text input requests.
CHANNEL_TEXTINPUT_NAME	string			The name of the text object in the text input area.
CHANNEL_TEXTINPUT_TITLE	string			The label of the Submit button in the text input area.
CHANNEL_TITLE	string	Channel Title		The name of the channel. It's how people refer to your service. If you have an HTML website that contains the same information as your RSS file, the title of your channel should be the same as the title of your website.

Name	Data Type	Label	Required	Documentation
CHANNEL_TTL	int64			ttl stands for time to live. It's a number of minutes that indicates how long a channel can be cached before refreshing from the source.
COMMENTS	string			URL of a page for comments relating to the item.
DESCRIPTION	string	Description		The item synopsis.
ENCLOSURE_LENGTH_ATTR	int64			Size in bytes
ENCLOSURE_TYPE_ATTR	string			MIME media-type of the enclosure
ENCLOSURE_URL_ATTR	string			URL where the enclosure is located
ENCLOSURE	string			
GUID_ISPERMALINK_ATTR	boolean			
GUID	string			
INTERFACE_URL	string(4000)	Interface URL	☑	
LINK	string	Hyperlink		The URL of the item.
PUBDATE	string			A date-time displayed in RFC-822 format.
SOURCE_URL_ATTR	string			
SOURCE	string			
TITLE	string	Title		The title of the item.

4 Channels

Catalog: RSS

The data in this table is partitioned per value of the column.

Retrieve: true

Topic: rss

Base XPath: `/rss`

XPath: `/channel`

Table Columns

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

Name	Data Type	Label	Required	Documentation
CATEGORY_DOMAIN_ATTR	string			
CATEGORY	string			
CLOUD	string			Allows processes to register with a cloud to be notified of updates to the channel, implementing a lightweight publish-subscribe protocol for RSS feeds.

Name	Data Type	Label	Required	Documentation
COPYRIGHT	string	Copyright		Copyright notice for content in the channel.
DESCRIPTION	string	Description		Phrase or sentence describing the channel.
DOCS	string			A URL that points to the documentation for the format used in the RSS file. It's probably a pointer to this page. It's for people who might stumble across an RSS file on a Web server 25 years from now and wonder what it is.
GENERATOR	string	Generator		A string indicating the program used to generate the channel.
IMAGE_DESCRIPTION	string	Image Description		Text that is included in the TITLE attribute of the link formed around the image in the HTML rendering.
IMAGE_HEIGHT	int64			The height of the image in pixels.
IMAGE_LINK	string	Image Hyperlink		The URL of the site, when the channel is rendered, the image is a link to the site. (Note, in practice the image <title> and <link> should have the same value as the channel's <title> and <link>.
IMAGE_TITLE	string	Image Title		Describes the image, it's used in the ALT attribute of the HTML <img> tag when the channel is rendered in HTML.
IMAGE_URL	string			The URL of the image file.
IMAGE_WIDTH	int64			The width of the image in pixels.
INTERFACE_URL	string(4000)	Interface URL	☑	
LANGUAGE	string(17)	Language		The language the channel is written in. This allows aggregators to group all Italian language sites, for example, on a single page. A list of allowable values for this element, as provided by Netscape, is here. You may also use values defined by the W3C.
LASTBUILDDATE	string			A date-time displayed in RFC-822 format.
LINK	string	Hyperlink		The URL to the HTML website corresponding to the channel.
PUBDATE	string			A date-time displayed in RFC-822 format.
RSS_VERSION_ATTR	decimal	Version		
SKIPDAYS	int64			A hint for aggregators telling them which days they can skip.
SKIPHOURS	int64			A hint for aggregators telling them which hours they can skip.

Name	Data Type	Label	Required	Documentation
TEXTINPUT_DESCRIPTION	string			Explains the text input area.
TEXTINPUT_LINK	string			The URL of the CGI script that processes text input requests.
TEXTINPUT_NAME	string			The name of the text object in the text input area.
TEXTINPUT_TITLE	string			The label of the Submit button in the text input area.
TITLE	string	Title		The name of the channel. It's how people refer to your service. If you have an HTML website that contains the same information as your RSS file, the title of your channel should be the same as the title of your website.
TTL	int64			ttl stands for time to live. It's a number of minutes that indicates how long a channel can be cached before refreshing from the source.

5 ReallySimpleSyndications

Catalog: RSS

The data in this table is partitioned per value of the column.

Retrieve: true

Topic: rss

Base XPath: `/rss`

Table Columns

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

Name	Data Type	Label	Required	Documentation
INTERFACE_URL	string(4000)	Interface URL	☑	
VERSION_ATTR	decimal	Version		

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