

Understanding Connection Parameters

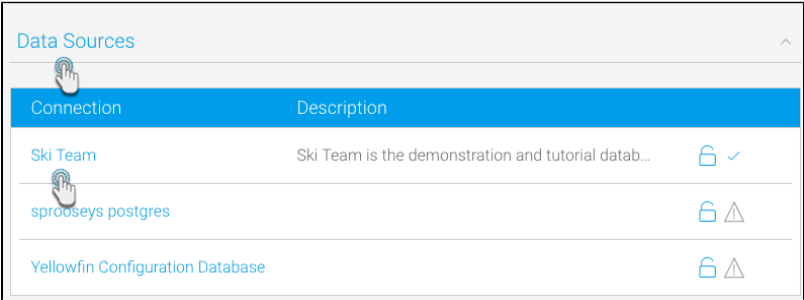
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Overview

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Once you have created a data source connection, you can view or modify its advanced connection parameters. This is done by accessing the Connection page in the Administration module.

To access this page, follow the steps:

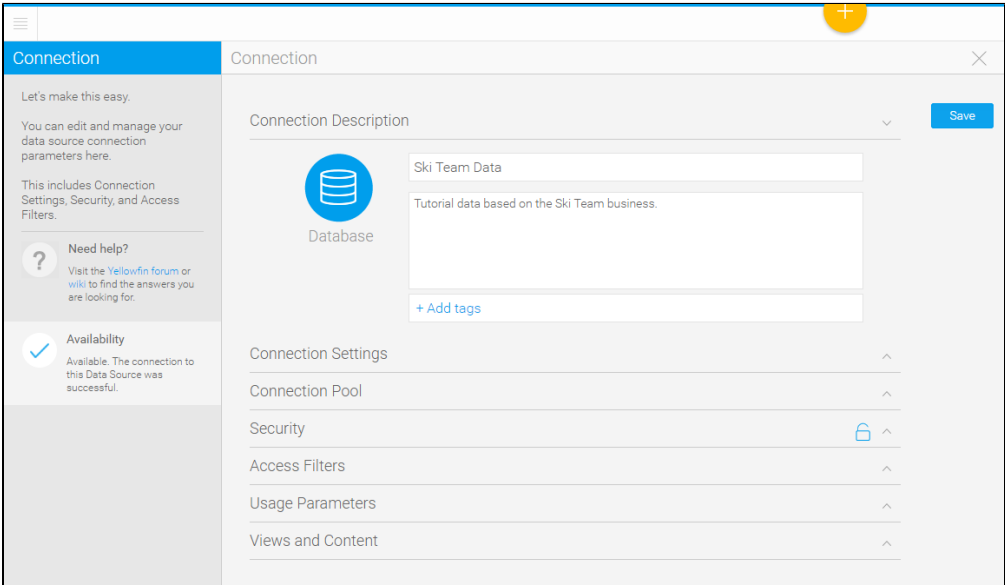
1. Navigate to Administration > Admin console, and expand the **Data Sources** tab.
2. Click on a connection name to access the Connection page.



3. From here you will have a range of options, split into the groups explored below.

Connection Description

This section allows you to define the basic metadata for your connection. These items should be descriptive as users will need them in order to identify the connection when building content.



Name	Description
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Database name	Name of the database connection.
Database description	Provide a description of the connection.

Connection Settings

These are the connection parameters that need to be defined in order for Yellowfin to know how to access your database.

You will be presented with a list of parameters that relates to the type of database you have chosen to connect to, as each database may require different options. However, the common parameters are explained below.

The screenshot shows the 'Connection' settings window in Yellowfin. It includes a sidebar with instructions and a main area with various configuration fields. The 'Connection Method' is set to 'JDBC', 'Authentication Adapter' to 'Standard Authentication', and 'Database Type' to 'Microsoft SQL Server'. Other fields include 'Database Host' (localhost), 'Database Port' (1433), and 'Database Name' (NewSkiTeam).

Name	Description
Connection Method	Shows the type of connection that was specified when creating a connection. Cannot be changed.
Authentication Adapter	Specify an authentication method for the database adapter. Options include: Standard authentication: connects to the database with a specified user. The user details need to be provided with this option. Also employs the user of the connection pool by establishing permanent connections, i.e, they are not deleted after use. Pass-through authentication: connects to the database using the security implemented at the database, i.e. there is no need to specify a database user account here. Creates a new connection for each query, while honouring the connection pool limit. Standard authentication (no pooling): similar to the standard authentication that connects to the database using a specified user. However the connection pool works differently: connections are still created as per the pool's limits, but idle connections are deleted, only to be created again when needed./=
Database Type	Change the database type. This is only suitable for situations where your data has moved to a different source. Ensure that the new data source has the same table structure as the previous one.
Database Mode*	Select the mode for your database.
Database Name*	Specify or update the name for your database.
Username	Username of the user account to connect to the database with.
Password	Allows to you change the saved password to the database account, by clicking on the Click here to change password link.
Schema	Specify the schema to be used with this database connection, if your database contains multiple schemas.

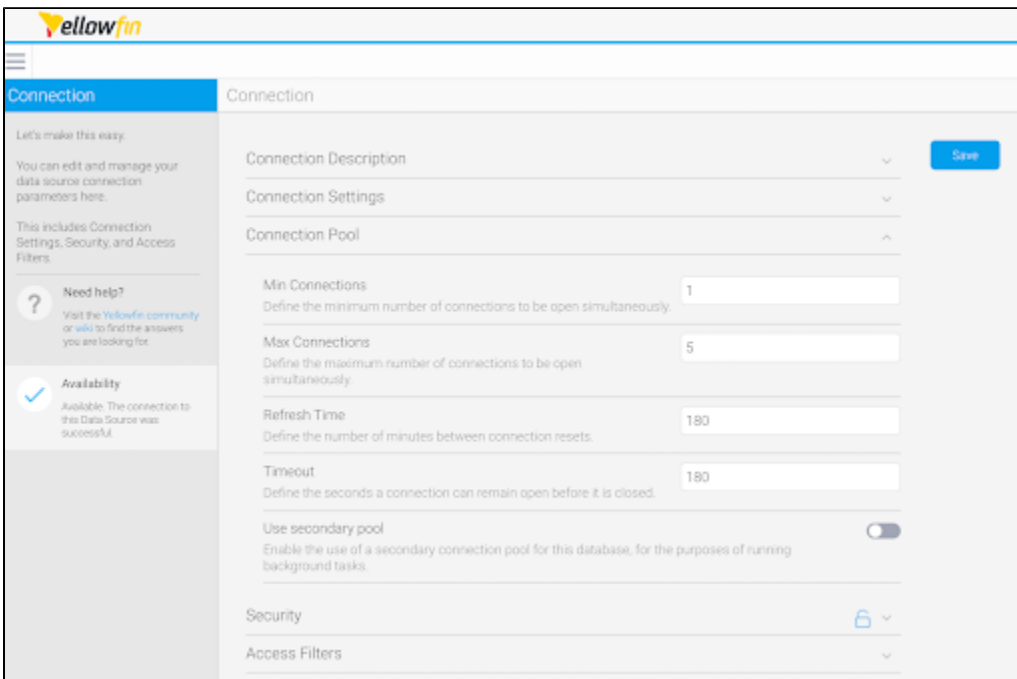
Isolation Level	Choose an isolation level to use for this database connection; this refers to the degree to which a transaction is isolated from being modified by transactions. Options include:  The supported levels of isolation depend on your database type. • Read Uncommitted: Includes modified data that is not yet committed in the database when running transactions. Not ideal, as the uncommitted data might get deleted or modified further. • Read Committed: Only reads data that has been committed. Ignores uncommitted data. • Repeatable Reads: Does not read modified data that has not been committed, however includes new values even if they're uncommitted. • Serializable: Treats transactions as they occur, i.e. serially rather than concurrently. Learn more about this here.
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*These are database specific parameters.

Connection Pool

The connection pool section allows you to specify the number of database connections that can be open simultaneously, the refresh and timeout rates, and if a secondary connection pool can be used.

A **connection pool** is a collection of connections between Yellowfin and your database; each connection processes a single database query, so the limit set in the pool ensures how many queries will be processed simultaneously. This warrants too many queries from being processed and slowing down the system's performance.



Name	Description
Min Connections	The minimum number of connections that can be opened simultaneously.
Max Connections	The maximum number of connections to be opened simultaneously.
Refresh Time	Define how long should a connection be created for. When this limit is reached, and the connection is not processing a transaction, the connection gets deleted. A new connection will be created if required.
Timeout	At times a query can take too long to run (for example if processing large amounts of data). Use this to specify how long a single query should run before it's cancelled.

Use secondary pool	Enable this to employ the use of a secondary pool. This pool will only be used for managing background processing, unlike the first one that's ideal for front end processing. If enabled, you can specify connection and timeout limits specific to this pool, as described in the above configurations.
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Security

This section allows you to define who has access to this data source connection, and what they can do with it.

There are two main options available:

1. **Public:** allow all users with required role permissions to access and use this connection for view creation and freehand SQL reports.
2. **Private:** allow only specified users, with required role permissions, to access and use this connection for view creation and freehand SQL reports.

If you set the data source to **private** you will then need to define specific users, or groups of users, to have access to the connection. Each user can be assigned one of the following levels of access;

1. **Read:** allows users to see views based on this data source in the data sources and views page, and when creating a report.
2. **Update:** allows users to create, edit, or copy either a view or freehand SQL report based on this data source, as well as the above **Read** level of access.
3. **Delete:** allows the user to **Delete** this data source connection, as well as both of the above **Read** and **Update** levels of access.

Access Filters

This list allows you to add new, and manage existing, access filters.

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Connection

Connection

Let's make this easy.
You can edit and manage your data source connection parameters here.
This includes Connection Settings, Security, and Access Filters.

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Need help?
Visit the [Yellowfin forum](#) or [wiki](#) to find the answers you are looking for.

✓

Availability
Available. The connection to this Data Source was successful.

Connection Description

Connection Settings

Connection Pool

Security

Access Filters

Name

None Found

Configure Reference Types

Add

Usage Parameters

Views and Content

Save

See [Restricting Data with Access Filters](#) for more information.

Usage Parameters

This section allows you to define some general settings related to the use of this data source.

Connection

Connection

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✓

Availability
Available. The connection to this Data Source was successful.

Usage Parameters

Max Rows Returned
Specify if there should be a limit to the number of rows returned by queries run on this connection.

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Define a limit for the number of rows returned by queries run on this connection.

Analysis Max Rows Returned
Specify if there should be a limit to the number of rows returned by queries run on this connection when we are running analysis queries, such as Assisted Insights and Signal analysis.

Writable
Specify if the system can write to this database, rather than just read.

Time zone
Specify the time zone associated with this database connection and any related schedules.

Broadcast
Specify if content based on this connection can be broadcast.

Subscribe
Specify if content based on this connection can be subscribed to.

Data Profiling
Data Profiling is available in views using this data source.

Client

Data Source

Inherit Access Filters from client source

Inherit Access Filters from client source

Name	Description
Max rows returned	Enable this toggle to limit the total rows returned by a database query. This ensures system performance is not compromised in case a query returns a large result.
Max rows returned (limit)	Specify a maximum number of rows that can be returned from a database base, if the above parameter is enabled. This limit can also be viewed and modified in the report builder.

Analysis max rows returned	Enable this toggle to limit the total rows returned by a database query during automated analysis. This configuration works similarly to the one above, however it is only specific to queries performed during automated analysis, i.e for Signals and Assisted Insights.
Analysis max rows returned (limit)	Specify a maximum number of rows that can be returned from a database base, if the above parameter is enabled. This limit can also be viewed and modified in the report builder when editing an auto analysis report.
Writable	Enable this to make your database writable so data can be saved into it. This is suitable for Caching and Data Transformations that require the result to be outputted to a source. Note: This is not supported by all databases. Yellowfin performs a test after saving to ensure your database is writable.
CSV default	Choose this data source to be the default one to load CSV data into. This can only be possible if the source is writable. Note that only a single source can be assigned as the default at a time.
Time zone	Select a suitable time zone for this data source connection. This is ideal for scheduling.
Broadcast	Enable this to permit broadcasting data based on this data source connection. Content broadcasting will only be supported, if this is enabled.
Subscribe	Enable this to permit personal broadcasting data based on this data source connection.
Data profiling	Enable this to permit data profiling at the view level.
Inherit Access Filters from client source	Enable this to inherit access filters configured in client organizations. This is suitable if your client org has its own database repository, and you have access filters to restrict data access.

Views & Content

This allows you to view a list of content that has been created based on this data source connection.

The screenshot shows the Yellowfin 'Views and Content' interface. On the left, a sidebar under the 'Connection' tab provides instructions and a status check. The main area, titled 'Views and Content', shows a list of reports generated from the 'Ski Team' data source. The reports include 'Agency Benchmark' (Top N Agencies compared to all other Agencies by demographic), 'Agency Sales over Time' (View agency sales by agency type over time), and 'Athlete' (An athlete KPI report used to highlight KPI dashboard tab functionality).

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