



Creating Connection with Hive

Intellicus Enterprise Reporting and BI Platform



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For details, visit: <http://www.intellicus.com/acknowledgements.htm> .

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Connection with Hive

Intellicus Server supports multiple database connections. A database connection needs to be configured for Intellicus to fetch data for reports and to access metadata. You need to have Super Administrator privileges to be able to setup database connections.

Hive, a data warehouse infrastructure is built on top of Hadoop which provides tools to enable easy data summarization, Adhoc querying of large datasets stored in Hadoop files.



Note: The license should contain the tag as "Big Data" for creating Hive Connection. Under Administration>Configure>License "BigData" shall be available.

Administration > Configure > License

Databases	Server	Client	Viewer	Adhoc Wizard	Portal Menu
Report Server Licensing					
ADHocPowerViewer					Yes
APIDes					Yes
AdhocRun					Yes
AdhocToolbar					Yes
AdhocWiz					Yes
AdvProps					Yes
Archiving					Yes
AsyncExec					Yes
AuditLog					Yes
AuthTypes					ALL
BigData					All
CPU					4
CabDeploy					Yes
Charts					ALL

Figure 1: License tab showing Big Data.

About Database connection

Using Intellicus Database configuration screen you can work on connections. To get Database connections page click Navigation > Administration > Configure > Databases.

On this screen, you can

- Add a new database connection
- Update an existing database connection
- Remove an existing database connection
- Test a database connection's validity

The already available connections are listed on the left of the Databases page.

The screenshot displays the 'Administration > Configure > Databases' interface. At the top, there are navigation tabs: Databases, Server, Client, Viewer, Adhoc Wizard, Portal Menu, Print Settings, License, and Config Files. Below these are action buttons: Add, Modify, Delete, Refresh Schema, Import OLAP Cubes, and Add Driver. A status message indicates '* Maximum Connections Allowed: 99'. On the left, a 'Connections' list shows: DemoReportDB, DemoRepositoryDB (selected), ReportDB, and RepositoryDB. The main configuration area for 'DemoRepositoryDB' includes:

- Connection Name: DemoRepositoryDB
- Provider: H2 (org.h2.Driver)
- Path: ../data/DemoRepository
- Username: [empty] Password: [empty] (with checkboxes for Blank and Runtime)
- URL: [masked] (with checkbox for Mask URL)
- Charset Encoding: [empty]
- Is Default: [unchecked]
- Is Repository: [checked]
- Read Only: [checked] (Allow Select clause and Procedure only)
- Pool Settings: Initial Connection(s) = 5, Resubmit Time = 30 Sec(s), Incremental Size = 5, Max. Connections = 30
- Database Time Zone: [empty]
- Encrypted: [checked], Unencrypted: [unchecked]
- Cache: Metadata Cache Purge Frequency = Boot Up

A 'Get Configuration File' button is located at the bottom of the configuration area.

Figure 2: Connection Configuration page.

Filter list of existing connections

List of connections can be filtered by:

- Starting character (Starts with)
- Characters that appear anywhere in the connection name (Contains)

Hive Connection

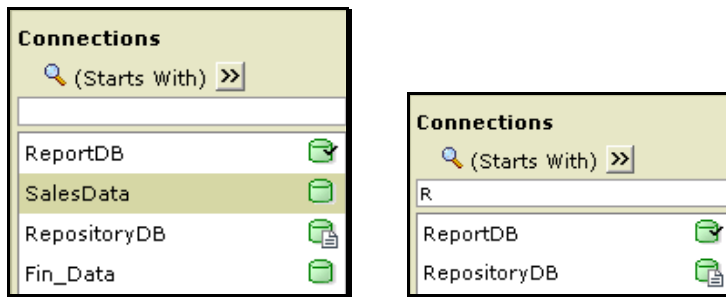




Figure 3: Filtering list of connections

On **Connections** page, check the option on right of  .
To get the right option there, click  and select *Start with* or *Contains*.
Specify character(s) in the textbox.

The list will be filtered (not case sensitive) as per the criteria.

Buttons on the page

- **Add:** To start configuring a new connection.
- **Modify:** To modify selected connection.
- **Delete:** To delete selected connection.
- **Refresh Schema:** To manually refresh schema of the selected connection.
- **Import OLAP Cubes:** For OLAP type connections, open the dialog to import cubes.

Adding a Hive Connection

Administration > Configure > Databases

Databases Server Client Viewer Adhoc Wizard Portal Menu Print Settings License Config Files

* Maximum Connections Allowed: 99

Add Modify Delete Refresh Schema Import OLAP Cubes Add Driver

Connections

(Starts With) >>

- DemoReportDB
- DemoRepositoryDB
- Oracle

Connection Name: DemoReportDB

Provider: H2 org.h2.Driver

Path: /data/DemoReportDB

Username: Password: Blank Runtime

URL: Mask URL

Charset Encoding:

Is Default:
Is Repository:
Read Only:
(Allow Select clause and Procedure only)

Pool Settings

Initial Connection(s): Incremental Size:
Resubmit Time: Sec(s) Max. Connections:

Database Time Zone:

Encrypted Unencrypted

Cache

MetaData Cache Purge Frequency:

Figure 4: Adding a connection

- Click **Add** button.
Fill in the information.
 - a. **Connection Name:** A connection is uniquely identified by its Connection Name. The name will be listed in Connection related dropdowns across the application. Users who design query objects and reports will select a connection they want to use to fetch report data.
 - b. **Provider:** A Provider is a set of libraries that communicates with a database. Intellicus supports all popular databases. Select the provider from the dropdown that will be used by this connection. The driver class that will be loaded for the selected provider will be displayed next to the dropdown.

Hive Connection

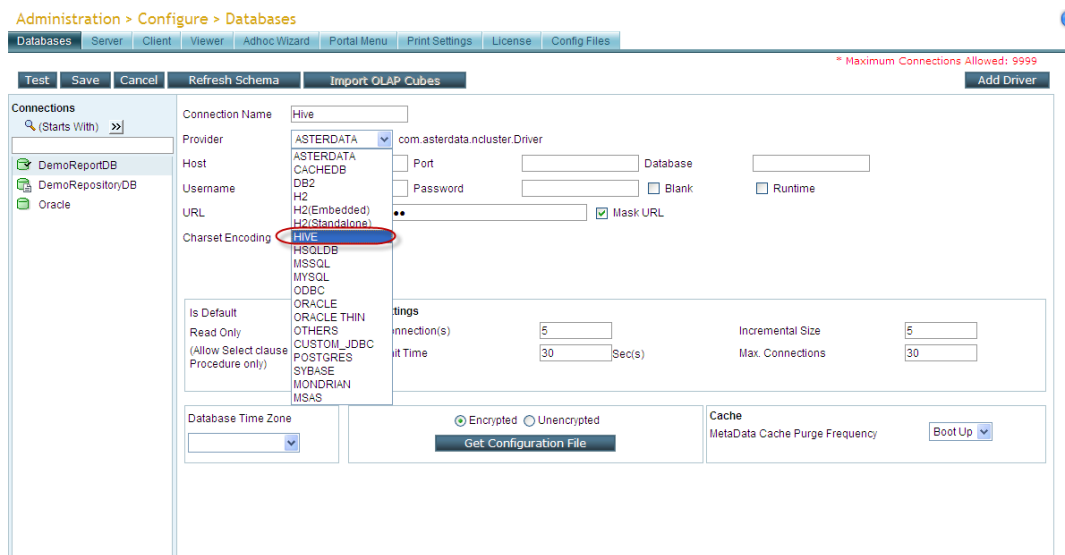


Figure 5: Select the Provider as Hive

- c. **Driver Version:** Presently 0.5.0 is supported.
 - d. **Host:** The IP or name of the machine where database is installed.
 - e. **Port:** The port at which database server listens.
 - f. **Database:** Specify name of the database to connect to.
 - g. **Default:** Check Is Default checkbox to use this connection as the application default data connection. Unless specified exclusively, application will use default connection to fetch report data. This connection will be selected when you select (default) in Connection dropdown across the application.
 - h. **Read Only:** User may create an SQL while working with the application. To keep your database safe against any accidental or incorrect execution of any Create, Update or Delete queries, check Read Only checkbox to make sure only SQLs having read operations are executed on this connection.
- Click **Test** button to test the validity of the connection detail.
 - Click **Save** Button.



Note: Intellicus does not support Hive as a repository.

Hive Connection

The screenshot shows the 'Hive Connection' configuration window. At the top, there are tabs for 'Add', 'Modify', 'Delete', 'Refresh Schema', and 'Import OLAP Cubes'. On the right, there is a 'Maximum Connections Allowed: 100' indicator and an 'Add Driver' button. The left sidebar shows a list of connections: DemoReportDB, DemoRepositoryDB, Hive (selected), and Oracle. The main configuration area includes the following fields and options:

- Connection Name: Hive
- Provider: HIVE (org.apache.hadoop.hive.jdbc.HiveDriver)
- Driver Version: 0.5.0
- Host: 192.168.152.58 | Port: 10000 | Database: default
- Username: | Password: | Blank | Runtime
- URL: | Mask URL
- Charset Encoding: |
- Is Default: | Read Only: (Allow Select clause and Procedure only)
- Pool Settings: Initial Connection(s): 5 | Incremental Size: 5 | Resubmit Time: 30 Sec(s) | Max. Connections: 30
- Database Time Zone: |
- Encryption: Encrypted | Unencrypted | [Get Configuration File](#)
- Cache: Metadata Cache Purge Frequency: Boot Up

Figure 6: Hive connection added

Click connection name to view its complete details.

Once the database connection is created it can be used to create report entities like query objects, report objects etc.

