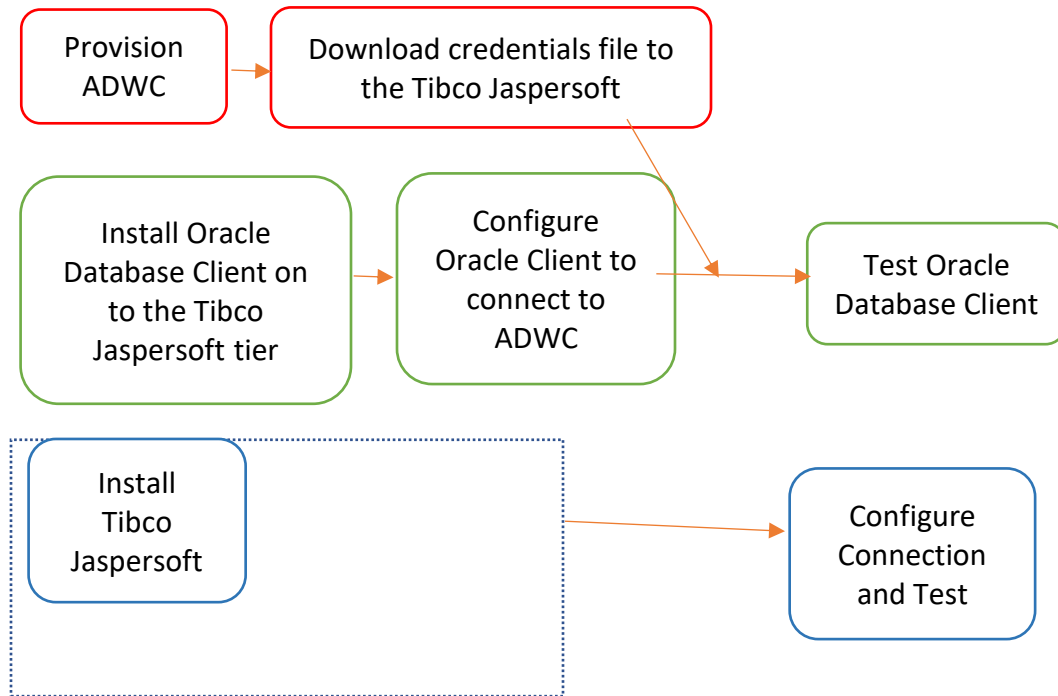# Creating a connection from Tibco Jaspersoft to Oracle Autonomous Data Warehouse (ADW)

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Validation Matrix	Version
Tibco Jaspersoft	7.8
Oracle Client	19.x (19.8 in this example)

Configuration Steps

```
┌──────────────┐    ┌─────────────────────────┐
│ Provision    │──▶ │ Download credentials     │
│ ADWC         │    │ file to the Tibco        │
│              │    │ Jaspersoft               │
└──────────────┘    └─────────────────────────┘

┌──────────────┐    ┌──────────────┐    ┌──────────────┐
│ Install Oracle│──▶│ Configure     │──▶│ Test Oracle  │
│ Database Client│   │ Oracle Client │   │ Database     │
│ on to the Tibco│   │ to connect to │   │ Client       │
│ Jaspersoft tier│   │ ADWC          │   │              │
└──────────────┘    └──────────────┘    └──────────────┘

┌──────────────┐                         ┌──────────────┐
│ Install      │──────────────────────▶ │ Configure    │
│ Tibco        │                         │ Connection   │
│ Jaspersoft   │                         │ and Test     │
└──────────────┘                         └──────────────┘
```

Step 1: Provision ADWC plus Install and Configure Oracle Client

1. Provision Autonomous Data Warehouse Cloud (ADWC) and download the corresponding credentials.zip file to the system that will have the Tibco Jaspersoft installation. For the Oracle documentation to provision ADWC click here. Also check Downloading Client Credentials (Wallets)[1].

2. All connections to Autonomous Data Warehouse Cloud use certificate-based authentication and Secure Sockets Layer (SSL). Uncompress credentials.zip file into a secure folder.

3. Download the Oracle Database Client[2] to the system where Tibco Jaspersoft is installed. Validate that the Oracle Database Client can communicate with ADWC, and since it is installed on the same system as Tibco Jaspersoft, it ensures that Tibco Jaspersoft is also configured correctly.

4. Edit the `sqlnet.ora` file, replacing "?/network/admin" with the name of the folder containing the client credentials.

    For example, on Linux:

    ```
    WALLET_LOCATION = (SOURCE = (METHOD = file) (METHOD_DATA =
    (DIRECTORY="/home/adwc_credentials")))

    SSL_SERVER_DN_MATCH=yes
    ```

    For example, on Windows:

    ```
    WALLET_LOCATION = (SOURCE = (METHOD = file) (METHOD_DATA =
    (DIRECTORY="C:\Work_files\Workdata\wallets")))

    SSL_SERVER_DN_MATCH=yes
    ```

5. Create the `TNS_ADMIN` environment variable and set it to the location of the secure folder containing the credentials file you saved in Step 3. The `tnsnames.ora` file provided with the credentials zip file contains three database service names identifiable as `high`, `medium` and `low`. The predefined service names provide different levels of performance and concurrency for Autonomous Data Warehouse Cloud. Use one of these service names in your `ConnectString.`

6. Test the Oracle Client with Oracle SQL*Plus

    ```
    sqlplus password/\"Password\"@ConnectString
    ```
    or

---

[1] https://docs.oracle.com/en/cloud/paas/autonomous-data-warehouse-cloud/user/connect-download-wallet.html#GUID-B06202D2-0597-41AA-9481-3B174F75D4B1

[2] https://www.oracle.com/technetwork/database/database-technologies/instant-client/overview/index.html

```
sqlplus /nolog
sql> set define off
sql> connect username/password@connectString
```

If the connection is successful you are ready to move to the next step.

Step 2. Install a JDK and the JDBC Drivers
The JDBC drivers are certified with a JDK version.
- ojdbc8.jar is certified with JDK8, JDK9, JDK11
- ojdbc10.jar is certified with JDK10, JDK11

Install the appropriate JDK

The JDBC client driver can be downloaded from www.oracle.com. The 19.8 drivers can be found at [JDBC Driver and UCP Downloads](#)[3]. Download either `ojdbc8-full.tar.gz` or `ojdbc10-full.jar.gz`

Step 3. Install **Tibco Jaspersoft**

If there is a pre-existing Tibco Jaspersoft installed jump to Step 4 which describes the steps to configure ADWC as a target.
To install Tibco Jaspersoft software please refer to the Install [Documentation](#)[4].

Step 3: Configuring **Tibco Jaspersoft** to connect with ADWC

- Tibco Jaspersoft recommends using the native Oracle Driver "Oracle Net Client" this is what's listed in the Tibco Jaspersoft manual and uses TNS based connection to connect to ADWC securely using TCPS connection protocol. Since we have tested the validity of connection to ADWC using SQL*Plus, we can use the same connect string to connect to ADWC.
- Force Tibco Jaspersoft to ignore the embedded (shipped) JDK and use the JDK installed in Step 2, above
  Edit the file "`Jaspsersoft Studio Professional.ini`" and remove the line identifying the VM. This will be similar to:
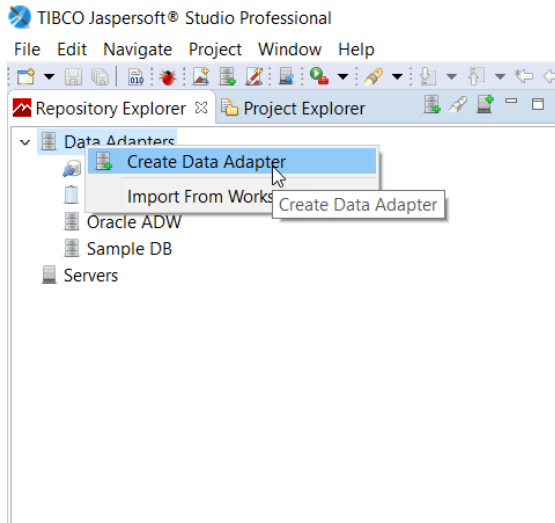 ```
  -vm
  features/jre.win32.win32.x86_64.feature_1.8.0.u151/jre
  /bin
  ```
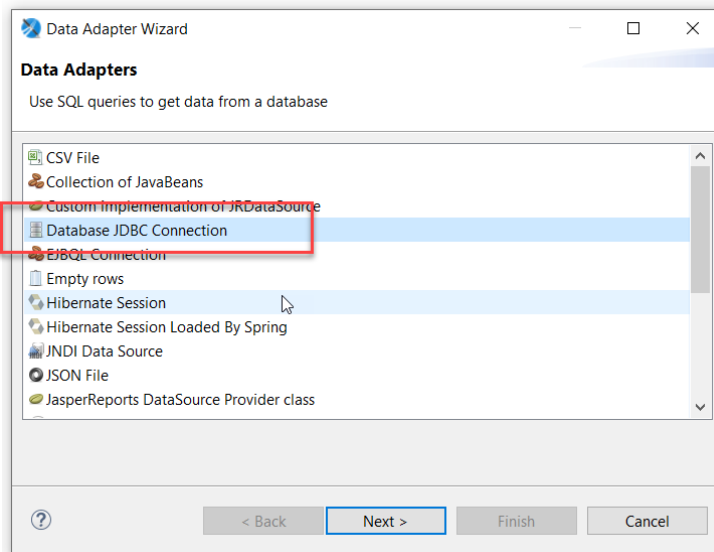
---

[3] https://www.oracle.com/database/technologies/appdev/jdbc-ucp-19-8-c-downloads.html
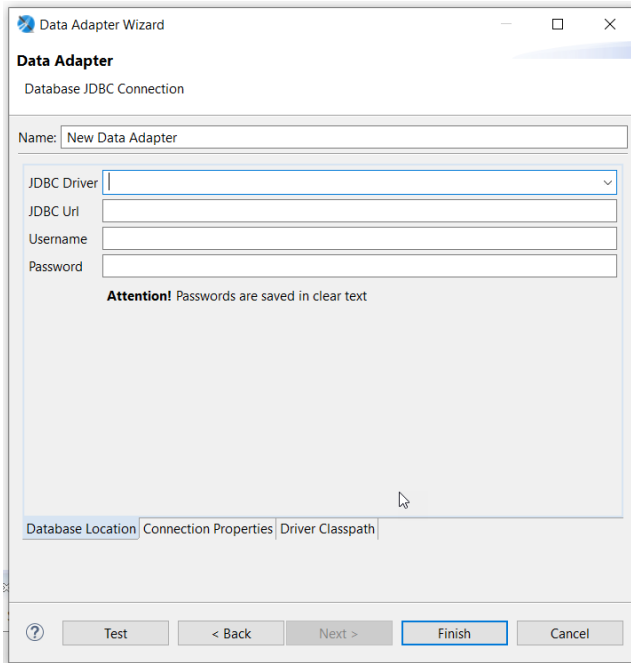[4] https://www.jaspersoft.com/getting-started

- In the Repository Explorer,
  1. right-click to "Create Data Adapter"



  2. Choose a Database JDBC Connection



  3. Enter the following details in to the create pane:

**Name:** Oracle ADW (choose a name)
**JDBC Driver:** `oracle.jdbc.driver.OracleDriver`
**JDBC URL:**
`jdbc.oracle.thin@:testy_medium?TNS_ADMIN=C:\\Work_files\\Work_data\wallets\TESTY`
**Username:** `admin`
**Password:** \*\*\*\*\*\*\*\*\*\*\*\*

The entry for the JDBC Driver is oracle.jdbc.driver.OracleDriver
Update components of the JDBC URL entry with values corresponding to your system. In the example:
`testy_medium` is a TNS alias (present in your tnsnames.ora file – see STEP 1, above) corresponding to *DBName_service* where service is `high`, `medium`, or `low`.

`TNS_ADMIN` is the directory in STEP 1, above, into which the wallet file was expanded.

Username is `admin`

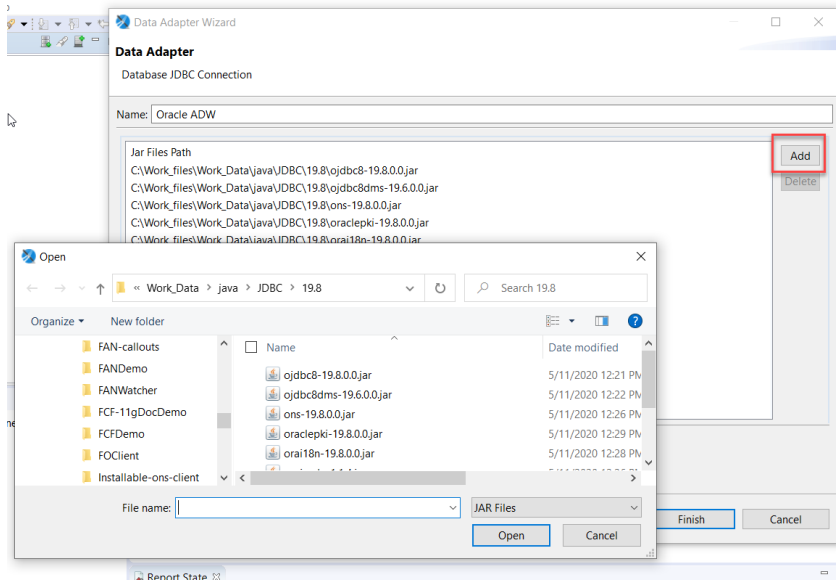Password was set when you created your Autonomous Database.

For example:

**4.** Select the "Driver Classpath" tab



and "Add" the following jar files from the directory you unzipped the client driver into in STEP 2, above.

Classpath must include:

```
ojdbc8.jar   (or ojdbc10.jar)
oraclepki.jar
osdt_cert.jar
osdt_core.jar
```
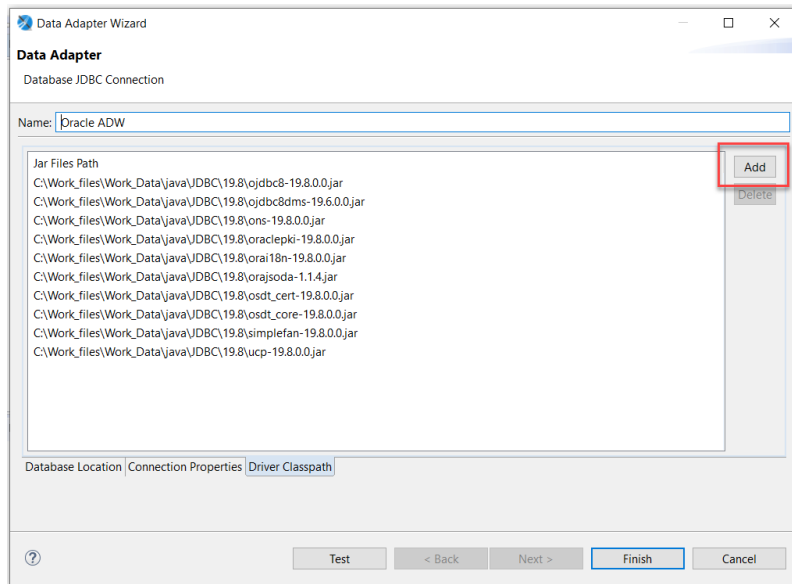
and can optionally include:

```
orai18n.jar
orajsoda.jar
ojdbc8dms.jar
ons.jar
simplefan.jar
ucp.jar
```
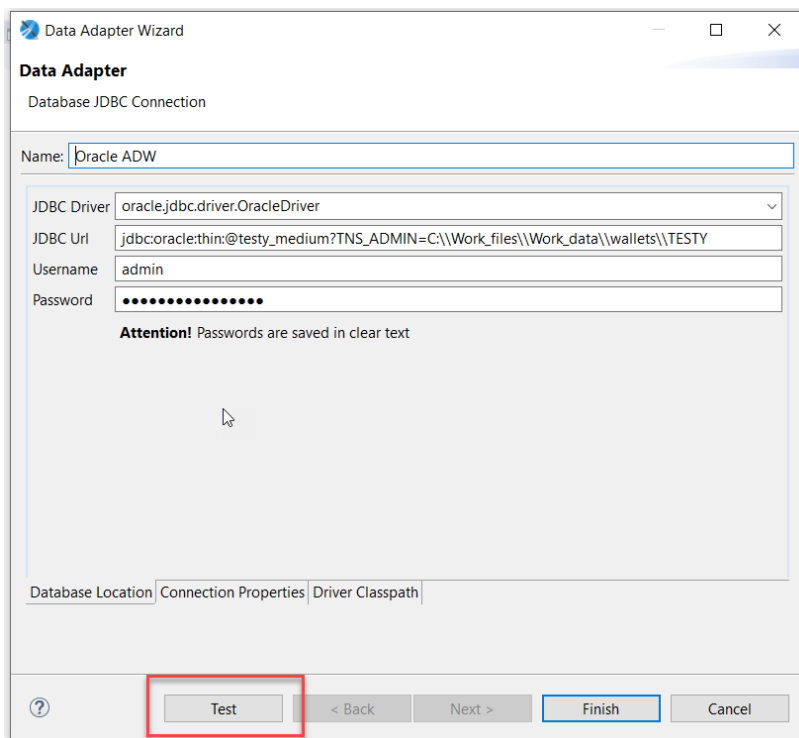
Note that the names shown here, omit version numbers that may exist in later downloads.

There is no harm in configuring all jars, this covers all potential needs.

**5.** Complete classpath:

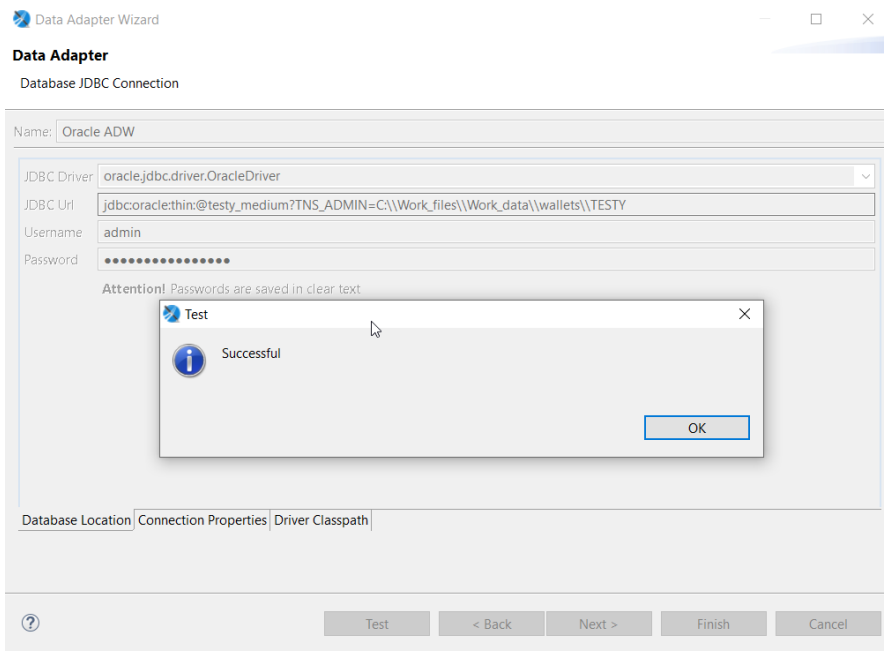- **"Test"** the connection:



A message will indicate successful configuration:

- Select "Finish" to save the adapter.