

# **Database Comparison Wizard to Digital Q.DataBase**

## **User Guide**

The DB Comparison Wizard developed by Diasoft is intended for comparing database schemas and row counts between various DBMSs: MS SQL, Oracle Database, PostgreSQL and Digital Q.DataBase.

The DB Comparison Wizard in Digital Q.DataBase is implemented for the operating systems Ubuntu 22.04, Ubuntu 24.04 and Microsoft Windows 10, 11:

- desktop version;
- console version.

## Installation on Linux OS

1. On the workstation, connect the standard package repository.
2. Install the package, for example:

```
sudo apt install ./qdatabaseclient64xid-17-17.4.25112401-ubuntu22_x86_64.deb
```

If the package has already been installed, remove it beforehand:

```
sudo apt remove qdatabaseclient64xid-17
```

After completion of the process, all required files will be installed in the directory `/opt/qdb/bin/db_comparator`; in the desktop version of the OS, new shortcuts will appear in the Start menu (Fig. 1):

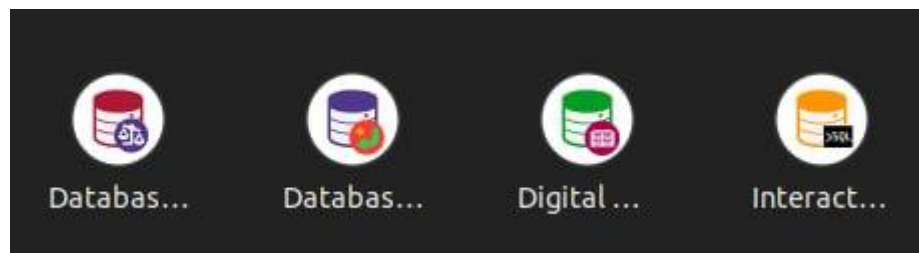


Fig. 1. Startup shortcuts

## Installation on Windows

1. Run the .exe file and click “Next” (Fig. 2):

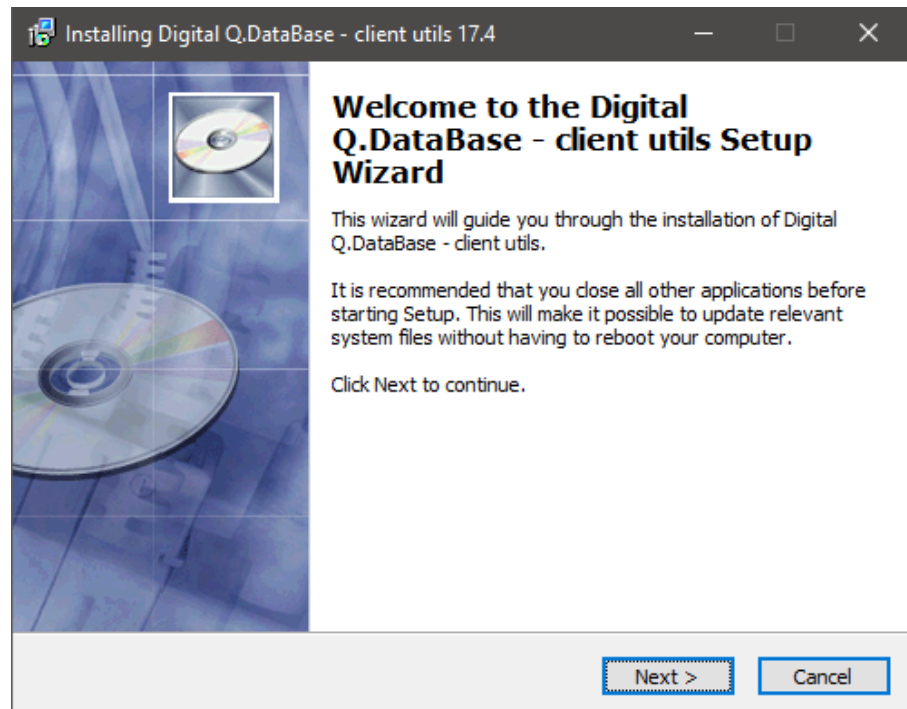


Fig. 2. Setup Wizard: Welcome

2. Select the installation folder and click “Next” (Fig. 3):

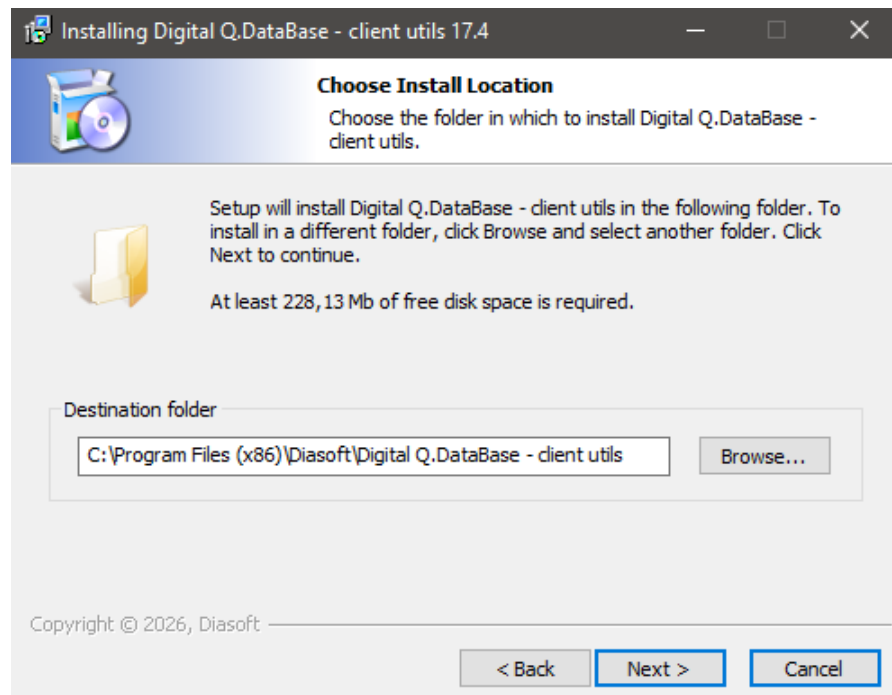


Fig. 3. Setup Wizard: Installation folder

3. Select additional shortcuts and click “Next” (Fig. 4):

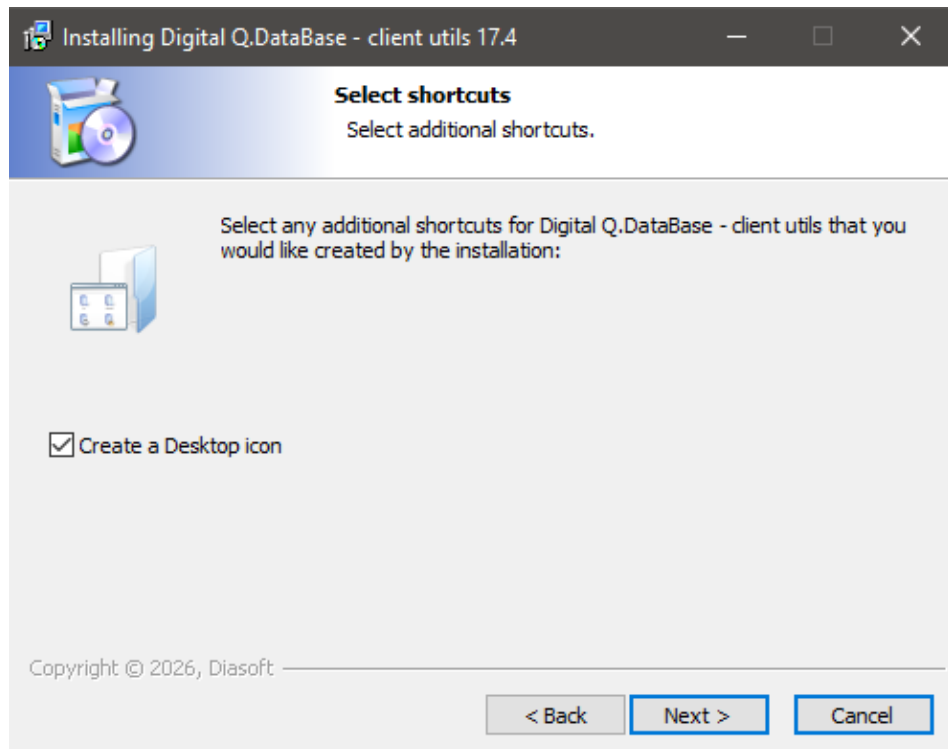


Fig. 4. Setup Wizard: Shortcuts

4. Review the installation settings and click “Install” (Fig. 5):

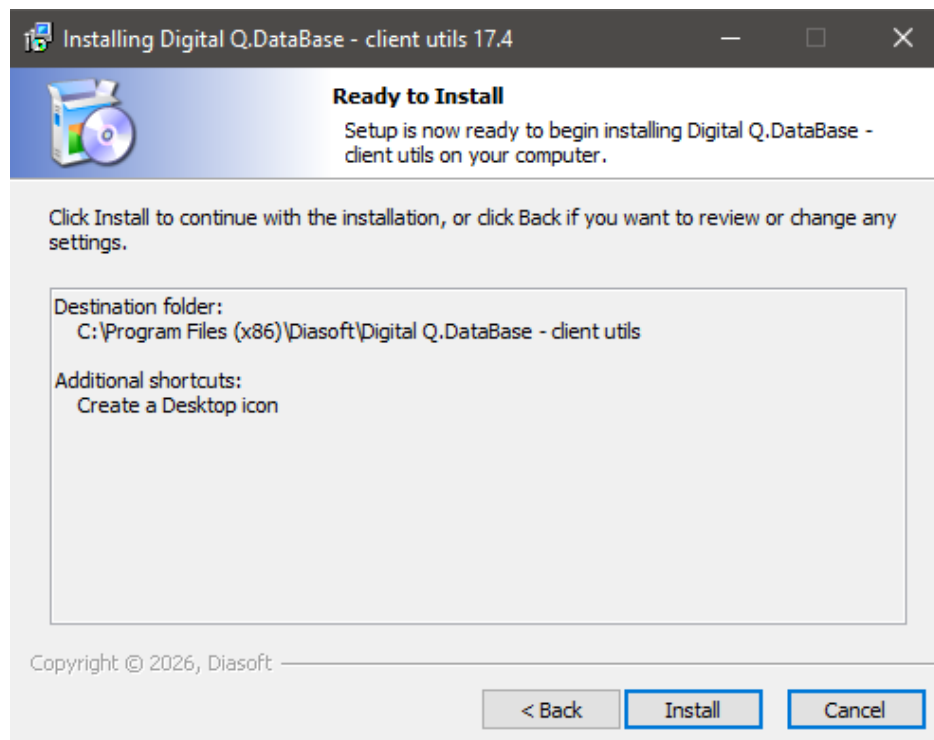


Fig. 5. Setup Wizard: Review settings

5. Wait for the installation to finish and click “Finish” (Fig. 7):

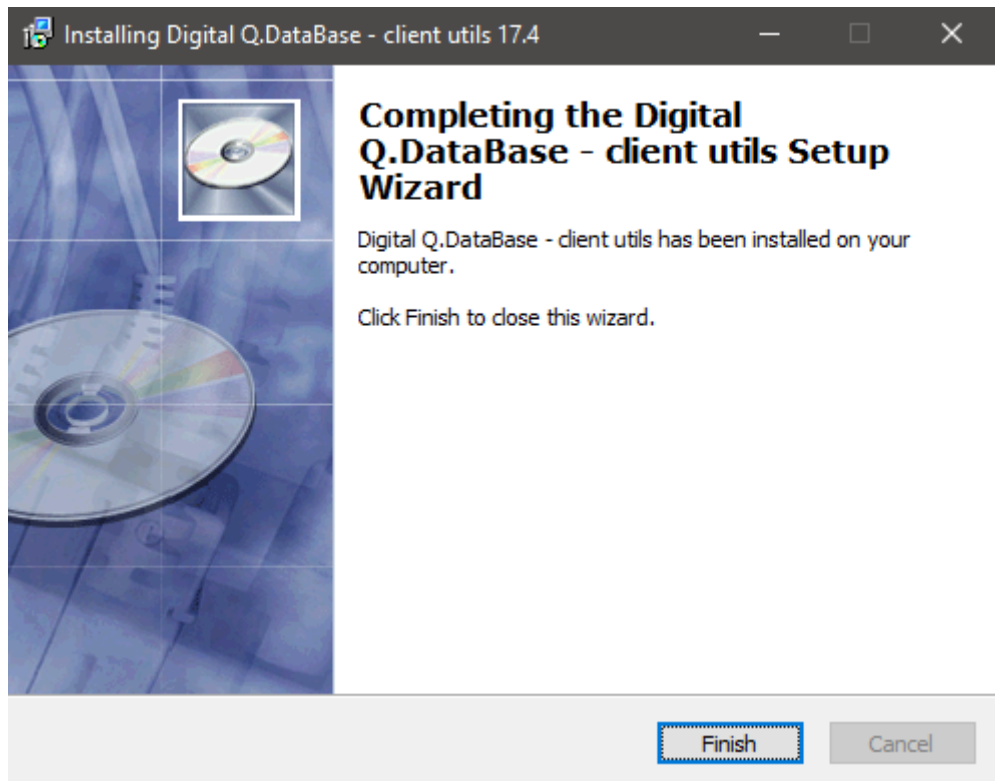


Fig. 6. Setup Wizard: Completion

After completion, the corresponding shortcuts will be created in the Start menu and on the desktop (Fig. 7):



Fig. 7. Installation result

## Working with the Desktop Application

1. Launch the DB Comparison Wizard using the shortcut and click “Next” (Fig. 8).

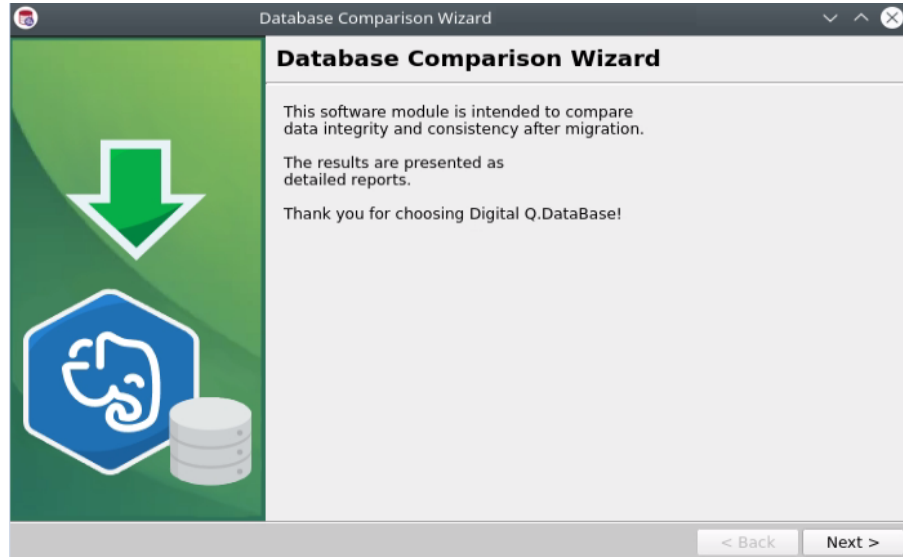


Fig. 8. Welcome screen

2. Select the DBMS containing the source database for comparison and click “Next” (Fig. 9):
  - Microsoft SQL Server;
  - Oracle Database;
  - PostgreSQL.

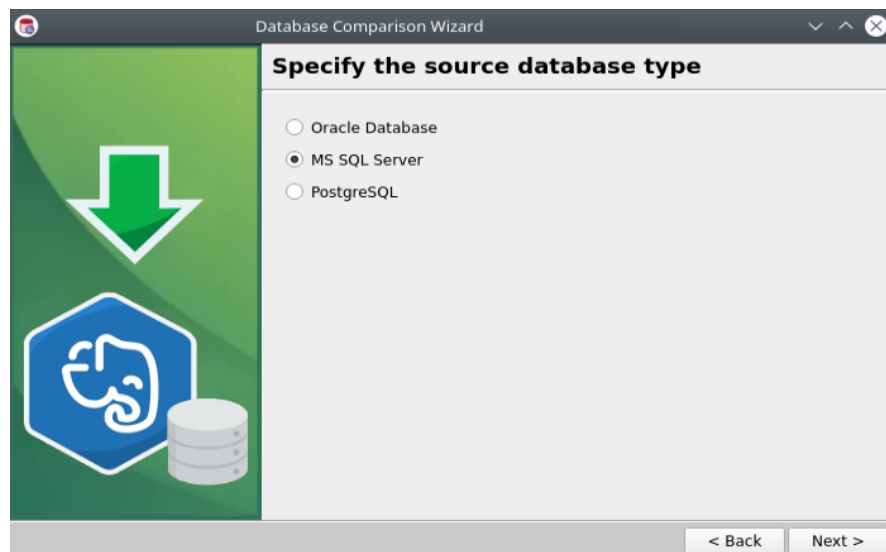


Fig. 9. Source DBMS selection

3. Specify the parameters for connecting to the source database (Fig. 10).

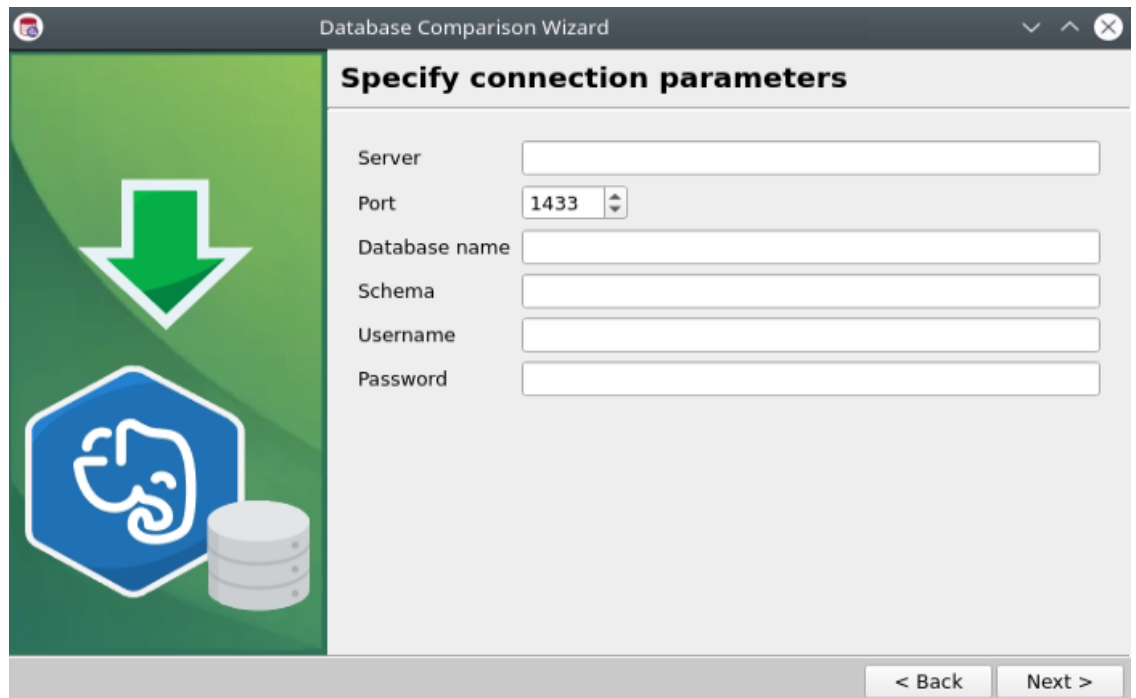


Fig. 10. Source database connection parameters

4. Specify the parameters for connecting to the target database (Digital Q.DataBase) and click "Next".

5. Verify all specified parameters and click "Next" (Fig. 11).

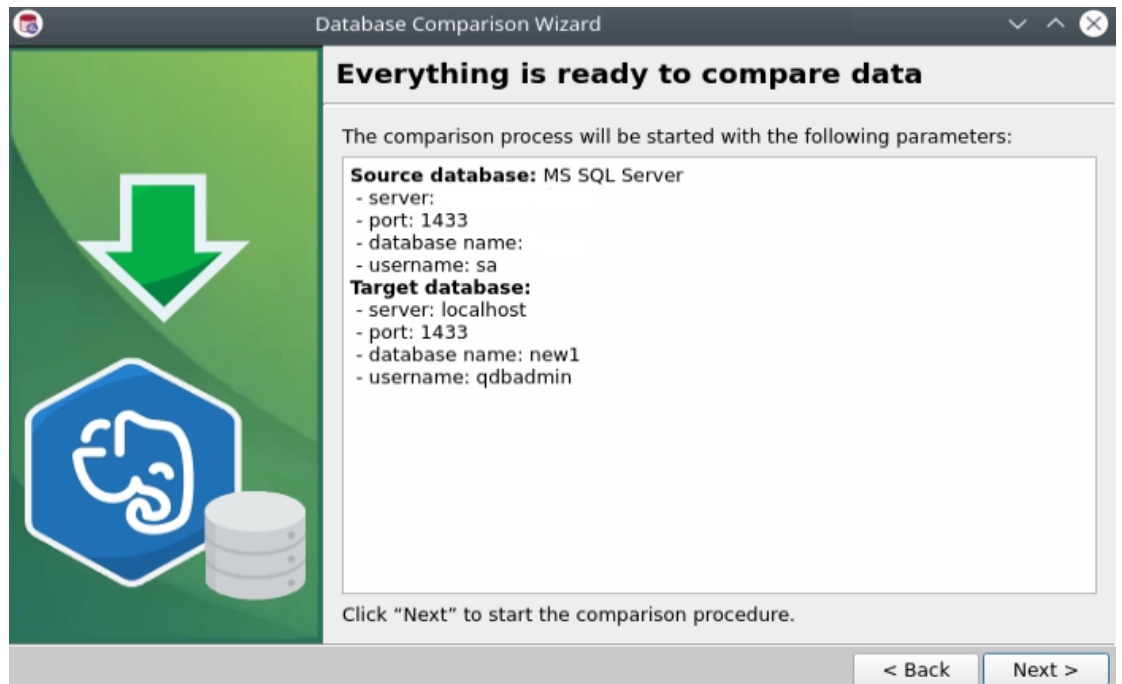


Fig. 11. Verification of specified parameters

6. Wait for successful database comparison (Fig. 12).

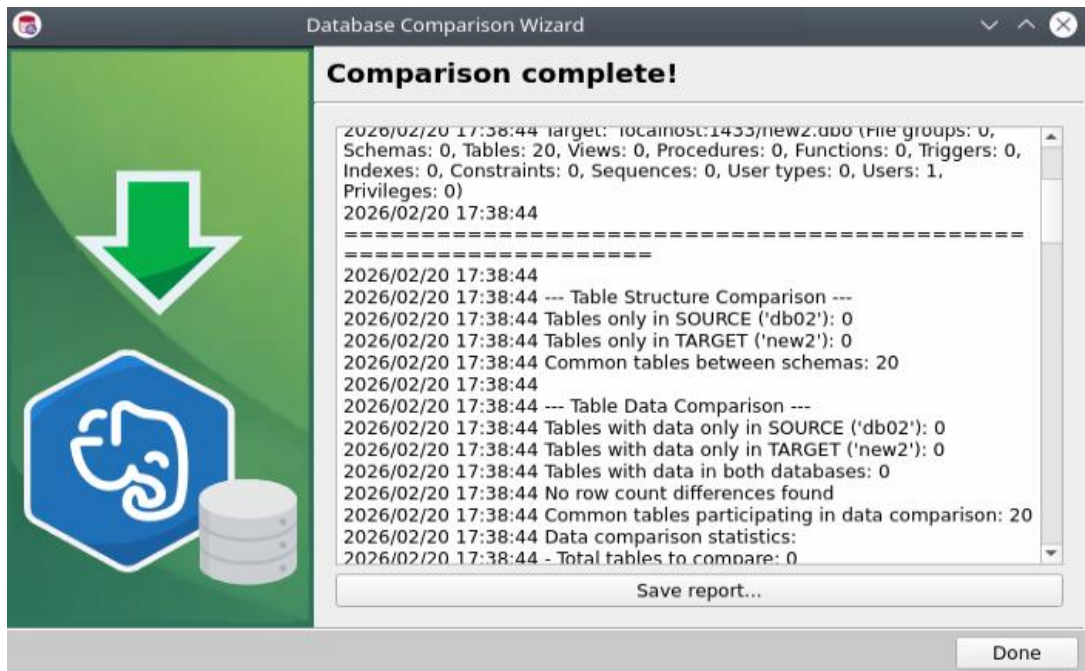


Fig. 12. Successful database comparison

## Working with the Console Application

### Preliminary Steps

The tool uses YAML files for configuration. For convenience, specific templates have been created for each DBMS:

- /opt/qdb/config/db\_comparator\_templates/mssql\_config\_template.yaml — template for MSSQL
- /opt/qdb/config/db\_comparator\_templates/oracle\_config\_template.yaml — template for Oracle
- /opt/qdb/config/db\_comparator\_templates/pg\_config\_template.yaml — template for PostgreSQL
- /opt/qdb/config/db\_comparator\_templates/config\_template.yaml — general template

### Configuration Examples

#### 1.1.Main Parameters

-config

Path to the configuration file

Required parameters:

-config

Path to the configuration file

Running the Console DB Comparison Wizard

Run the executable file from the directory /opt/qdb/bin/db\_comparator:

Storage of Migration Files

Temporary migration files are stored in the directory:

#### Usage Examples

Comparing MS SQL and Q.DataBase databases

This command compares the original MS SQL database with the one migrated to Digital Q.DataBase.

Comparing Oracle and Q.DataBase databases

This command compares the original Oracle database with the one migrated to Digital Q.DataBase.

Comparing PostgreSQL and Q.DataBase databases

This command compares the original PostgreSQL database with the one migrated to Digital Q.DataBase.

```
database: "your_target_database"  
schema: "dbo"
```

1.2.To compare an Oracle database with Digital Q.DataBase, create the configuration file oracle\_qdb.yaml with the following parameters:

```

# Source configuration
source_config:
  db_type: oracle # Database type: mssql, postgres or oracle
  server: "your_source_server"
  port: 1521
  user: "your_source_user"
  password: "your_source_password"
  database: "your_source_database"
  schema: "dbo"

# Target configuration
target_config:
  db_type: postgres # Database type: mssql, postgres or oracle
  server: "your_target_server"
  port: 1521
  user: "your_target_user"
  password: "your_target_password"
  database: "your_target_database"
  schema: "dbo"

```

1.3.To compare a PostgreSQL database with Digital Q.DataBase, create the configuration file pg\_qdb.yaml with the following parameters:

```

# Source configuration
source_config:
  db_type: postgres # Database type: mssql, postgres or oracle
  server: "your_source_server"
  port: 5432
  user: "your_source_user"
  password: "your_source_password"
  database: "your_source_database"
  schema: "dbo"

# Target configuration
target_config:
  db_type: postgres # Database type: mssql, postgres or oracle
  server: "your_target_server"
  port: 5445
  user: "your_target_user"
  password: "your_target_password"
  database: "your_target_database"
  schema: "dbo"

```

## Main Parameters

-config	Путь к конфигурации	путь к файлу
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### Detailed Parameter Description:

Required Parameters:

-config  
Path to the configuration file

### Running the Console DB Comparison Wizard

Run the executable file from the directory /opt/qdb/bin/db\_comparator:

```
./db_compare_mssql [parameter]
```

```
./db_compare_oracle [parameter]
```

```
./db_compare_pg [parameter]
```

### Storage of Migration Files

Temporary migration files are stored in the directory:

```
~/.qdbcompare/db_comparison/db_compare_<DatabaseName>_<UserName  
>
```

### Usage Examples

#### Comparing MS SQL and Q.DataBase databases

```
db_compare_mssql -config  
/opt/qdb/config/db_comporator_templates/mssql_qdb.yaml
```

This command compares the original MS SQL database with the one migrated to Digital Q.DataBase.

#### Comparing Oracle and Q.DataBase databases

```
db_compare_oracle -config  
/opt/qdb/config/db_comporator_templates/oracle_qdb. yaml
```

This command compares the original Oracle database with the one migrated to Digital Q.DataBase.

### Comparing PostgreSQL and Q.DataBase databases

```
db_compare_pg -config /opt/qdb/config/  
db_comporator_templates/pg_qdb.yaml
```

This command compares the original PostgreSQL database with the one migrated to Digital Q.DataBase.