

Database-To-Database Sync Tool

Overview:

The Database-to-Database Sync Tool (D2D Sync Tool) is a lightweight utility designed to eliminate integration challenges between systems that require real-time data synchronization.

It operates by detecting and transferring newly added records from a source database to a target database—regardless of the database type, table name, or field structure.

This makes the tool suitable for integrating heterogeneous systems and automating data exchange without complex development work.

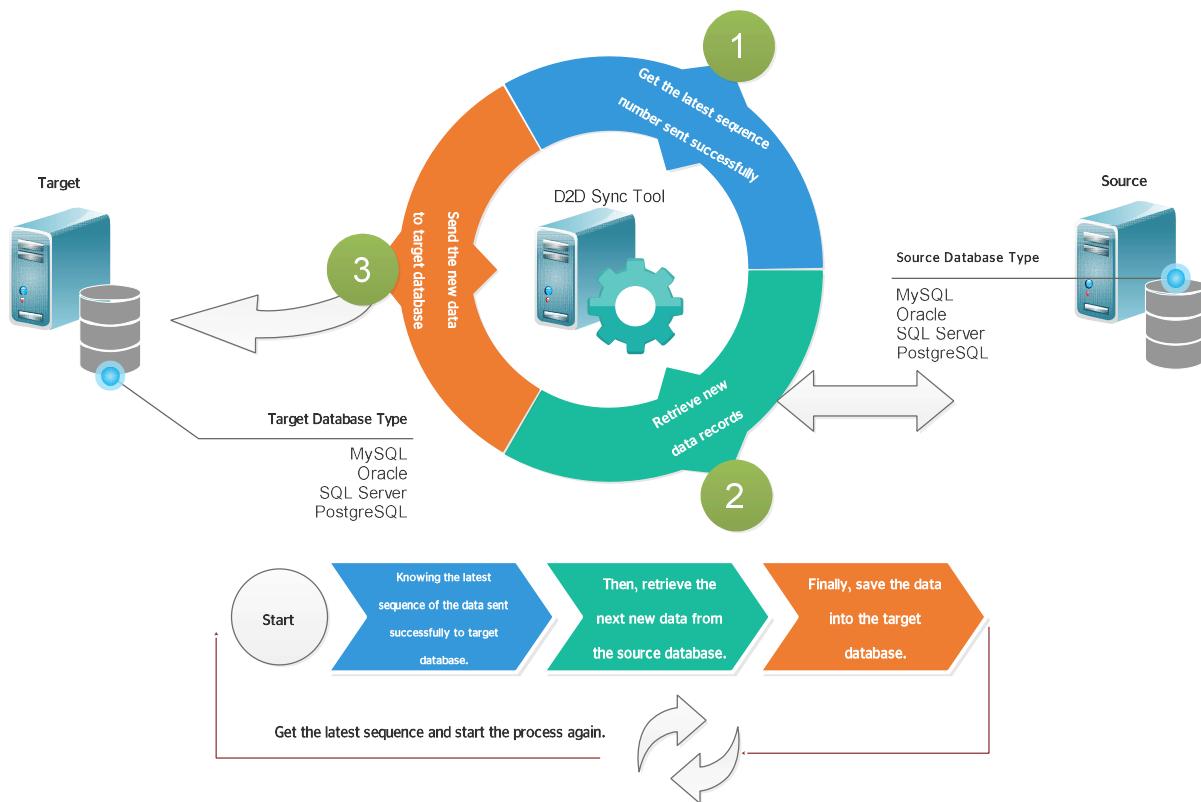


Figure 1 D2D Sync Tool Process

How It Works

The D2D Sync Tool consists of two main components:

1. Configuration Application (GUI)

The graphical interface is used to configure all synchronization parameters, including:

- Selecting the **source database connection**.
- Choosing the **source table or view**.
- Selecting the **source fields** intended for synchronization (up to 10 fields in the current version).
- Selecting the **target database connection**.
- Choosing the **target table**.
- Mapping the **source fields** to the **target fields**.
- Setting the **starting sequence number**.
 - If set to **0**, the system transfers *all* existing records from source to target.
 - Otherwise, it synchronizes only new records moving forward.

2. Windows Service

The background service handles the synchronization process:

- Monitors the source database for new records.
- Transfers new entries to the target database in real time.
- Automatically switches to **Idle Mode** when no new records are available.
- Returns to **Active Mode** immediately upon detecting new data.

No Local Database Required

All tool settings are stored in a simple **INI configuration file**, eliminating the need for creating or managing a separate settings database.

System Performance:

The system performance depends on the database connection of both source and target databases. However, the data sync if both databases in same machine the sync rate will be 166 records per second.

System Performance

Performance depends on the network and database connection between source and target. When both databases reside on the same machine, the tool can achieve a synchronization speed of approximately:

- ◆ **166 records per second**

This efficiency makes the tool suitable for high-volume environments and continuous data flow.