

DATABASE CONNECTORS

MS Access database connector –

automatically indexes Access data bases and .mdb files on discs.

The user selects a specific file format, and all files of the type become available for search upon indexing.

Quite often there may be an extensive number of **MS Access** files on a user's computer or on the corporate network. It may become a long process to manually connect each of them as a data source and then choose the required fields for indexation.

System Requirements

- 3 GHz Pentium Processor
- 1GB Ram
- 30 MB Hard disk (+ additional space for indexes, depends on the volume of information to be indexed)
- MS ADO installed

ARCHITECTURE

MS Access database



Connector

SearchInform Server



SearchInform Client



DataBase fields connector – indexes any SQL data bases. Either a field or a group of fields within one record can serve as a unit for indexing.

SearchInform contains a ready data source for connecting to any database that have an installed in the system **ADO** driver or a ready **ODBC** connection.

Minimum Recommended Server Specifications

- 3 GHz Pentium Processor
- 1GB Ram
- 30 MB Hard disk (+ additional space for indexes, depends on the volume of information to be indexed)

ARCHITECTURE

Relational Database Management System



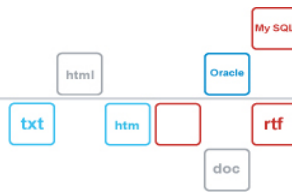
Connector

SearchInform Server



SearchInform Client





DATABASE CONNECTORS

Lotus Notes – ready data source for connecting to any database that has Lotus Notes drivers installed in its system.

SearchInform contains a ready data source for connecting to any database that has **Lotus Notes** drivers installed in its system.

Minimum Recommended Server Specifications

3 GHz Pentium Processor
1GB Ram
30 MB Hard disk (+ additional space for indexes, depends on the volume of information to be indexed)
IBM Lotus Notes client installed

ARCHITECTURE



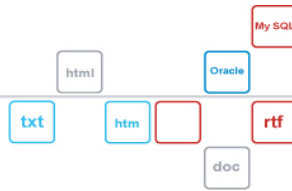
SourceSafe Connector – connector enabling you to conduct search in the SourceSafe source code storage system. This system is designed not only for storing codes, but also for properly organizing the programmers' work with them. This is especially relevant for large-scale software developing companies. Installing **SearchInform SourceSafe Connector** enables you to set up fast and convenient full text search in SourceSafe system databases.

Minimum Recommended Server Specifications

3 GHz Pentium Processor
1GB Ram
30 MB Hard disk (+ additional space for indexes, depends on the volume of information to be indexed)
MS SourceSafe installed

ARCHITECTURE





DATABASE CONNECTORS

Database SQL - indexes SQL databases. A user-defined SQL query may be processed as a basic indexing unit.

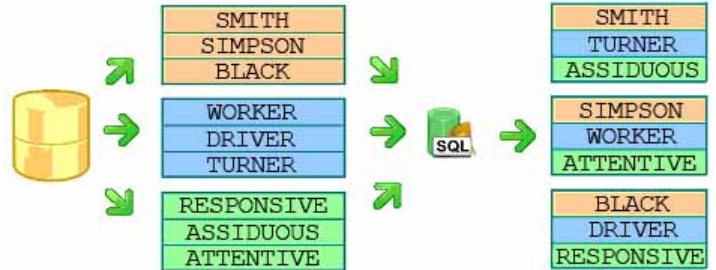
Overview

Normally information is scattered among numerous tables. That is why the ability to handle entities from different tables and search by attribute in databases is a crucial and one of the most convenient ways to search.

The dataset from different tables may contain a detailed description of the object searched, including additional information on these objects. By supporting the Entity-Relationship Model, the solution can build a task-specific dataset capable of aggregating separate pieces of object-related information.

Pattern Example

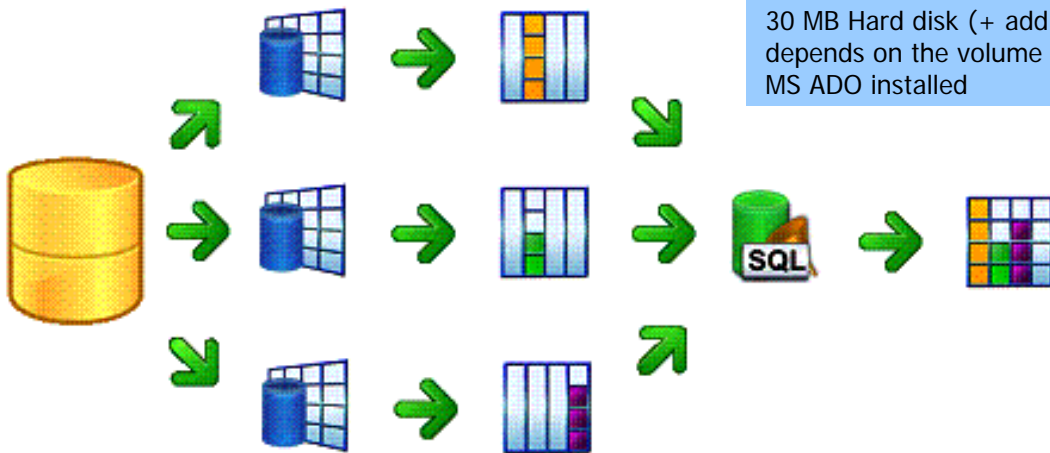
Although the dataset may come from numerous tables, it is considered as one.



In the picture above if we request "attentive worker", the search will return the record for Mr. Simpson.

Minimum Recommended Server Specifications

- 3 GHz Pentium Processor
- 1GB Ram
- 30 MB Hard disk (+ additional space for indexes, depends on the volume of information to be indexed)
- MS ADO installed



ARCHITECTURE



DATABASE CONNECTORS

Database update – ability to track changes introduced into the database since last indexing. Widely used in geographically distributed systems with single data processing center.

UPDATING

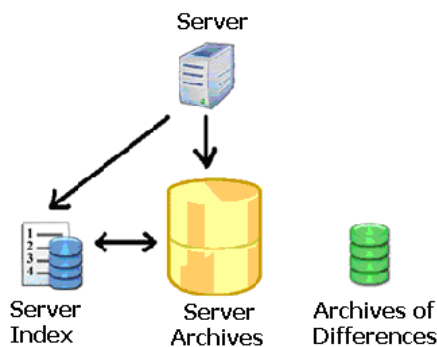
Let's take a three level structure, where the levels are 'center', 'regional level' and 'district level'.

The modified data is received in three stages:

- *Receiving current data scan from database server*
- *Picking out modified data*
- *Forming the update package*

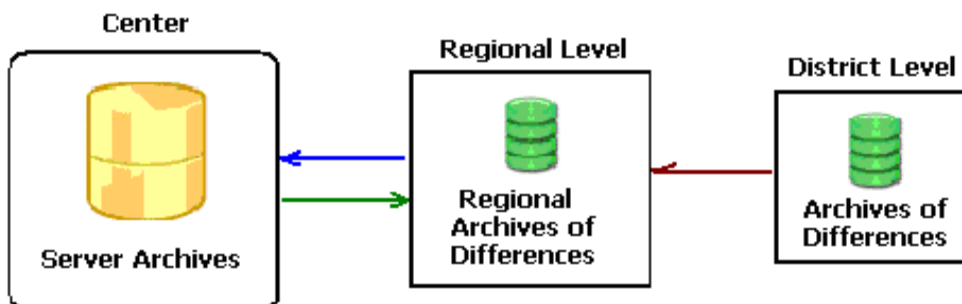
The data collecting *district server* initiates the update for the district level. This server includes:

- *Server Index*
- *Server Archives*
- *Archives of differences*



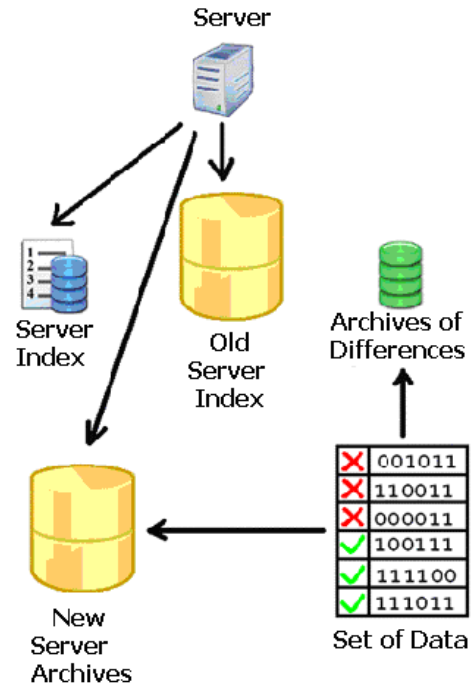
- **Server index** contains information on data stored in the databases and helps us determine whether any changes were introduced to certain database fields.
- **Server archives** are used for storing the current scan for data received from databases. The archive always has a unique conformity to the server index and represents the scan for latest update.
- **The archives of differences** represent the structure with information on the changes introduced since last update.

Once updated, the storage contains data all on new, updated and deleted information and operations.



Minimum Recommended Server Specifications

3 GHz Pentium Processor
1GB Ram
30 MB Hard disk (+ additional space for indexes, depends on the volume of information to be indexed)
MS ADO installed



To receive an update, the server creates new server archives. While the new data is being received, the server accesses data collection tables and checks its availability in the server index. Data hashing algorithms are used to compare the data. While the server accesses the tables, the data is transferred to another storage and the server marks up the old storage. If a new or updated record is identified, the relevant information is retrieved to the tracker storage. Once the verification is complete, the server accesses the old storage to locate the records deleted and labels them accordingly.

Once the data is updated, the server builds a number of tracker archives. The number of *archives of difference* depends on that of databases that were used for indexing. Then the obtained tracker data archives are sent to the regional center.

Finally, the regional center transfers the tracker data to the head office and the data is replicated in the main functional storage.