Using DatabaseBridge (Easydb) with Multi-Company / Multi-Year ISAM File Structures

When migrating multi-company, multi-year or otherwise *multi-instance* ISAM data layouts to isCOBOL DatabaseBridge (easydb), it is common for customers to maintain multiple directories containing identical file structures, for example:

/C01/data/clients
/C02/data/clients
/C03/data/clients
...

DatabaseBridge can handle these scenarios through a combination of EFD directives and iscobol.easydb properties.

This article explains how to configure these elements so that a single EDBI routine can serve multiple physical file locations.

1. **Define the Base Table Name Using an EFD Directive**
   Each ISAM file that will be managed by easydb must declare an EFD directive to define the base table name:

```
>>efd file=clients
fd clifil.
01 cli-rec.
   05 cli-key  pic x(6).
   05 cli-name pic x(30).
```

   The value provided in “file=” becomes the logical base name used during table resolution.

2. **Managing Multi-Directory Structures with iscobol.easydb.dirlevel**
   iscobol.easydb.dirlevel tells easydb how many directory levels above the file should be incorporated into the generated table name.

   Example scenario
   Data directories:
   /C01/data/clients
   /C02/data/clients
   The file is two directory levels below /C01 or /C02, so:
   iscobol.easydb.dirlevel=2
   With this setting, DatabaseBridge constructs table names like:
   - c01dataclients >> from /C01/data/clients
   - c02dataclients >> from /C02/data/clients

3. **Mapping Table Names to EDBI Routines Using iscobol.easydb.mapping**
   Because directory levels alter the final table name, the EDBI routine must be explicitly associated using the mapping property.
   For the previous example:
   iscobol.easydb.mapping=*clients=clients
   This instructs the runtime to route any file whose final table name ends with “clients” to the EDBI_clients routine.

   Notes on mapping behavior
   - You may use the wildcard * (only wildcard supported).
   - The first match wins, order matters.
   - Dots in filenames become underscores. Example: file1.db must be mapped as file1_db=file1.

4. Complete Runtime Configuration
   In addition to the two properties above, the runtime configuration still requires JDBC properties specific to the database being used and the iscobol.file.index property set to easydb:
   Example (partial):
   iscobol.file.index=easydb
   iscobol.easydb.prefix=srv
   iscobol.easydb.commit_count=1
   iscobol.easydb.dirlevel=2
   iscobol.easydb.mapping=*clients=clients
   iscobol.jdbc.driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
   iscobol.jdbc.url=jdbc:sqlserver://localhost:1433;user=sa;password=TheAdminPass;encrypt=false;DatabaseName=VERYANT;sendStringParametersAsUnicode=false
   ...

Summary
When working with multi-company/multi-year ISAM file layouts, DatabaseBridge can dynamically redirect file I/O to different database tables based on directory structure. The combination of:
- EFD table name definition
- Directory-based table naming (dirlevel)
- EDBI routine mapping (mapping)
allows a single file definition and a single EDBI routine to service many physical file instances cleanly and reliably.