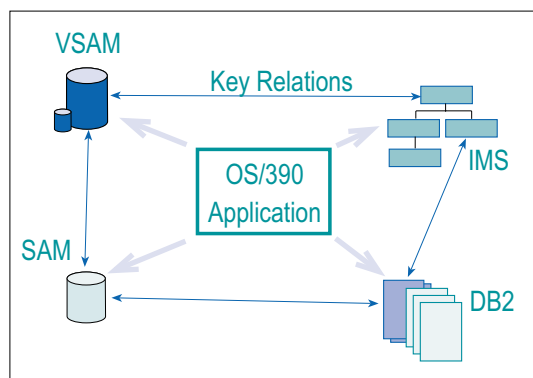


D-SECT

Select, Extract, Collect, and Transform

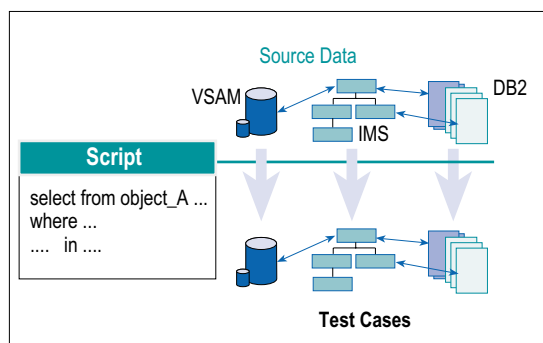
Complex mainframe applications (z/OS, OS/390) that have grown over the years, work with varied files and databases, and relate through the contents of fields. It is often necessary to transfer current data from one environment to another, e.g. from production into a test environment. Sometimes a simple file copy can achieve this but normally it is a complicated business to create continuously the required coherent data extracts.

There are many reporting and data extraction tools but these do not address the real problems. Either they require additional programming to relate transactions (e.g. when a VSAM key has to match a DB2 column), or the secure



infrastructure of a mainframe shop with separate environments for development, test and production can be compromised.

This leads to a considerable effort required to create consistent test cases when maintenance or development work has been done.



D-SECT does more than that

With D-SECT you can create SQL-like queries for typical file organizations such as:

- DB2 databases (relational)
- IMS, DL/1 databases (hierarchical)
- VSAM datasets and
- Sequential files.

The Selection Criteria

The queries may be linked as desired through field relationships, e.g. the content of a field in a VSAM file can be used as an argument in a WHERE clause and this WHERE can result in a SELECT for IMS segments.

To further qualify selection and quantity the REXX language can be used in addition to SQL commands. This facilitates user-modifications to any fields or to the entire data structure.

The number of test cases generated can be limited with a simple command, e.g. "select 1000 test cases" or "select every 100th case". You may specify that a test case only be selected when the chain is complete, that is, when the case occurs in all related files.

The Selection Modification & Output

Output options allow overwriting, partial replacement or additions to data through flexible parameters. The output can be made on the same computer/LPAR or onto another one.

The selected data retains the original format, i.e. IMS stays IMS and VSAM stays as VSAM. But if desired, one can have D-SECT convert the data. This way the selected data can be output in DIE format to a PC or transferred to another platform. All necessary conversion is handled by D-SECT.

A D-SECT script contains SQL clauses for selection, D-SECT commands to control output and optional REXX statements for further modification of fields and variables. The script is referred to by name within D-SECT and may be called from within another script.

One can also alter the output to allow for alternations through user specified algorithms (e.g. ageing, data scrambling, ...)

D-SECT supports the separation of processing layers such as development, quality assurance tests and production environments on computers or LPARs within a SYSPLEX.

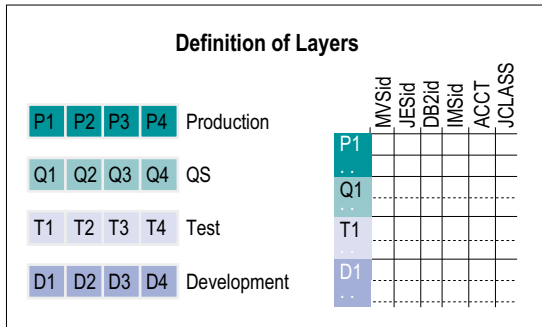
D-SECTs Object/Layer Concept

Usually development will already be working on a newer version of an application while the previous version is still in production. This means that the production data doesn't have the same layout as the data required to test.

D-SECT's Object/Layer concept automatically takes care of the tailoring required for data structures. The various processing areas such as Development-1, Test, Development-2, QA, and Production, are defined as layers, as outlined in the following illustration.

Test Data for heterogeneous Environments

A D-SECT object contains amongst other things the description of the data layout, i.e. the record formats, the table and segment descriptions. An object exists once within a layer and may be defined differently in each layer. When the data of an object is transferred from one



processing area (layer) to another and the data descriptions are different, D-SECT will automatically process the conversion of the data to the new format.

D-SECT as an Extraction Tool

D-SECT is by no means limited to creation and maintenance of test data. In the same way it can be used to extract data from mainframe applications for any desired purpose. A data warehouse or any other application on another platform, or a web application could be regularly supplied with data from the z/OS databases. The D-SECT runtime process consists of a chain of batch jobs that can be run under the control of a job scheduling system.

HotCopy propagation

D-SECT extracts data - HotCopy propagates data. What's the difference? D-SECT takes data from a source environment and transfers it to a target environment. That is a batch process – the selection process extracts the data from the source as it exists at that point in time and carries

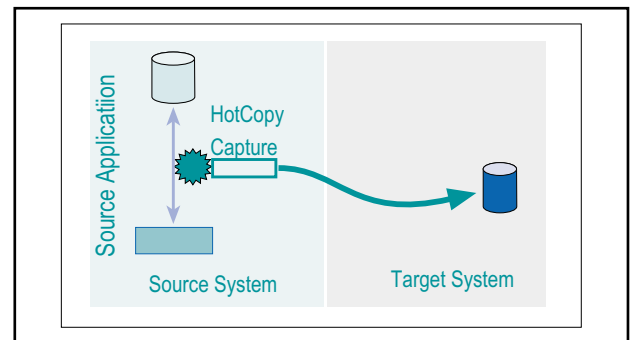
it into the target environment. HotCopy's data capture module recognises changes to the source data "on the fly" and continuously transfers these to the target environment. This means the target database is constantly kept up to date and synchronised with the source, e.g. a legacy IMS application has been in use for years and now its data is to be passed on to a new web application or used to regularly update a data warehouse.

This can be handled using HotCopy. To propagate data with HotCopy, no changes at all are required in the source, i.e. to the IMS application. The target could be a DB2 database or some other relational DB-system on any platform. HotCopy transfers the data asynchronously to the target ensuring the source application is not detained nor does it suffer any performance impact.

Supported source applications: CICS/VSAM, CICS/DL1, IMS and Batch with VSAM, DL/1 and DB2.

Targets may be any of the platforms OS/390, UNIX (e.g. LINUX), Windows (NT, 2000, XP).

D-SECT and HotCopy



While D-SECT contains its own driver and uses it to extract data according to the statements in a script, HotCopy is driven by the source application itself. When changes occur in the source application data, such as inserts, deletes or updates, they will be recognised by HotCopy's capture mechanisms and propagation is automatically initiated.

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