

# Clareti VME

DB/Fastfilter

Transforming the way VME works for you

## DB/FastFilter reduces database recovery times by up to 90%

### Overview

DB/FastFilter is the result of a collaboration between Fujitsu and Gresham Computing. Is one of a range of products designed to maximise database availability and builds on the success of previous products.

- DB/Fastdump - unrivalled as the fastest method of dumping IDMSX databases and used by over 90% of VME sites.
- DB/FastIC - checks the integrity of your database off-line using either a DB/Fastdump or an IDMSX\_DUMP file.

Now DB/FastFilter improves the efficiency of your operations still further. By using IDMSX recovery journals, DB/FastFilter is able to provide a reliable integrity check of your data from an in-service 'snapshot', without interrupting the IDMSX service.

With DB/FastFilter, you can also reduce database recovery times by up to 90% when compared with the usual roll forward times from an unfiltered journal.

All database updates are logged automatically by IDMSX in a Recovery Journal. This records the after image of each record every time it is changed. Although this is very thorough, in order to recover the database following a failure, the system must be rolled forward from the last security dump by re-applying

every single change to the database since the last dump was taken. Of course all that is actually required is the most recent after image of each database record.

DB/FastFilter simply takes the Recovery Journal and produces a new file containing the most recent updates.

### Benefits

- Faster recovery times in the event of database failures.
- Predictable recovery times provided by statistical analysis.
- Data integrity checking without closing the database service.
- Increased confidence in database consistency from more frequent integrity checking.
- Faster recovery times may reduce the need for duplexing.
- Enhancement of IDMSX dumping strategy.
- By retaining the 'FastFiltered' journal the need for daily dumps is reduced, giving more time back to the user.
- Customers benefit from the most experienced independent support service available to IDMSX users.

### HOW DB/FASTFILTER WORKS

DB/FastFilter takes one or more recovery journals as input and produces a single 'filtered' journal as

output. This filtered journal contains the last update to each database record. With potentially hundreds of updates to a single record, the filtered journal is good deal smaller than the full recovery journal - this dramatically shortens the recovery time in event of a database failure.

DB/FastFilter also sorts the 'after images' in ascending database page number order, reducing the number of database IO's and head movement on the disk during recovery thus making the process far more efficient. The process of filtering the recovery journal is per journal in stand alone mode. It does not impact upon the normal running of a database service and can even be run on a different journals may be stored on disk or tape.

DB/FastFilter produces statistics for both the journals read and written and also records the number of database pages written to the filtered journal. This allows accurate estimates of the time to recover from a database failure. DB/FastFilter is compatible with DB/FastIC through a FastFilter optional add-on to DB/FastIC. This extends the use of DB/FastFilter to allow integrity checks on inflight dumps taken by either DB/Fastdump or IDMSX\_DUMP whilst the database is being updated. The FastFilter option uses a parameter to

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the DB/FastIC OFFLINE\_INTEGRITY\_CHECK command, called JOURNALFILES, which takes as input the names of one or more filtered journals.

With this option installed, DB/FastIC can carry out a full integrity check on an 'in-service' dump, because it applies the updates it finds in the filtered journals to each page from the dump before checking the page contents. The result is that you can both secure and check the integrity of your IDMSX database without ever stopping applications from having full update access.

DB/FastFilter can also benefit your IDMSX dumping strategy – instead of dumping your database daily you can dump one day and use the 'filtered journals' files in conjunction with the dump, to provide security over the next two or more days – without significantly increasing recovery times.

## About Gresham

Gresham Computing plc (LSE:GHT) specialises in the provision of real-time financial solutions to banks and corporates, and has a well-deserved reputation for technical excellence, reliability and a strong service culture. Our storage division helps the largest data users to better manage the unrelenting growth of data.

## Further information

For more information on how Clareti System Management can help your company visit

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