

Benefits

- Reduces CPU and I/O usage
- Improved productivity is easily measured and analyzed.
- Effectively used to process any data accessible by UltraQuest

Overview

With the use of UltraQuest One Pass, a performance optimizer, UltraQuest delivers reporting power with even greater efficiency. One Pass processes several requests at once with a single pass through a database. As a result, it addresses the constant data processing need for minimizing mainframe resources usage. One Pass is ideal for sites where the costs associated with data access are an important consideration due to either the complexity or volume of data, and where many reports are run frequently from the same set of data.

What One Pass Does

One Pass accesses data once while preparing multiple reports, thus saving much of the processing time and resources associated with reporting. To see how One Pass saves resources, it helps to understand the process of a request and how the data is stored.

There are three steps in processing a request: SETUP, ACCESS and REPORT.

- **SETUP.** In the Setup phase, LIST command components are analyzed to decide which parts of the database should be read.
- **ACCESS.** During the ACCESS Phase, the databases are read, based on the information saved during the Set Up phase. Data selection options, such as SELECT, WHERE and IF parameters, are evaluated to minimize the number of records read and DEFINEd items are also evaluated. For each instance of data that passes the selection criteria, records are saved in one or more sort files.
- **REPORT.** In the Report phase, records from sort files are read and merged, and data is formatted and written to the printer or report file.

One Pass Processing

To use One Pass, multiple requests are grouped in a One Pass "package," which begins with a ONEPASS SAVE command and ends with a ONEPASS REPORT command.

When UltraQuest encounters a ONEPASS SAVE command it goes through a Setup phase similar to that for a single LIST request, analyzing each request in the package and storing pertinent information for each one.

The ONEPASS REPORT command triggers the Access phase, which is where most One Pass processing occurs.

UltraQuest searches the database, instance by instance, releasing instances to the appropriate sort files for each report. If there are SELECT commands in effect, UltraQuest tests to see to which sort files, if any, a record should be released. A record may be used for multiple reports, or none at all.

After UltraQuest processes the entire database and creates the sort files for all the reports, the Report phase begins, using the information saved during the Access phase to format the reports.

Saving Resources

One Pass produces resource savings in three primary areas: DASD, I/O, Shared DEFINES and message traffic.

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