

# Partner

Usually, when an application adds a record to a partitioned file, the value of the primary key determines which disk volume stores the record. Over time, however, this event can lead to an uneven distribution of records across the various partitions in a file. Ultimately, this can cause an application outage due to a file full condition, or it can compromise application performance due to excessive disk input/output (I/O).

Rearranging the partitions in the file solves the problem of uneven record distribution, but to do this, users must specify the lowest primary key value for the records to be stored in each partition. The choice of these key values is critical to the successful redistribution of records within the file's partitions.

Organizations need a solution that provides the exact information necessary to determine the key values that will lead to the desired distribution of records in a partitioned file quickly and accurately.



## The Partner Solution

Partner is an easy-to-use reporting tool for Enscribe or SQL/MP partition analysis. Partner produces a comprehensive report, which includes the following:

- ▶ A histogram of key ranges within the partition
- ▶ The closest key to a desired percentage of the file
- ▶ A skeleton FUP or SQLCI obey file to help create the new partitions

Partner works by examining the records in a file partition and grouping them according to their primary key values. Each group represents a subset of the records in the file. For example, group 1 might represent records with keys in the range “AAAA” to “AABB,” group 2 from “AABC” to “BBBB,” etc.

Partner produces a report showing the key ranges for each group, together with the number of records that fall within the group. Partner can also produce a FUP or SQLCI script, which contains the keys for the selected partition points. The script can be used to repartition the file with minor modifications.

## Analyze Key-Sequenced Files

Partner analyzes Enscribe or SQL/MP key-sequenced files, including alternate key files, and produces a detailed report showing the distribution of keys in the file. The program can be used to analyze non partitioned files, a single partition from a partitioned file or all partitions of a partitioned file.

Partner can also produce a FUP or SQLCI script template that can be used to split a partition or to create a new set of partitions for the file. The FUP or SQLCI script allows users to insert the correct volume names for the new partitions.

## Employ Flexible Analysis Options

Depending on the size and type of file, Partner offers several analysis options — full scan for smaller files and random sample methods that estimate key distribution — both without incurring the I/O costs of reading all the records.

- ▶ *Full Scan* — To determine the exact number of records in each key range, Partner reads all records in the file undergoing examination. Although this produces accurate results, the cost may be prohibitive for very large files.
- ▶ *Random Sample of Data Blocks* — Partner reads a random sample of data blocks in the file and estimates the distribution of keys based on the records in these blocks. The accuracy of this method depends on the sample size as a proportion of the total number of data blocks in the file. Users can specify the sample size used, which provides the ability to influence the trade-off between cost and accuracy.
- ▶ *Index Level* — Partner reads all of the index blocks at a specified index level. The accuracy of this method depends primarily on the index level selected. Index level 1 — the first level “above” the data blocks — provides the most accurate estimate. This method provides a good compromise between accuracy and speed, and is recommended for most situations.

### Non-Key Field Analysis

Although Partner’s main purpose is to analyze the distribution of primary key values, it can also be used to analyze non-key field values. This can be used to help to plan new indexes, or to help with the conversion of a file from entry-sequenced to key-sequenced format.

- ▶ Produces a comprehensive report
- ▶ Examines the records in a file partition and groups them according to their primary key values
- ▶ Produces a report showing the key ranges for each group, together with the number of records that fall within the group
- ▶ Produces a FUP or SQLCI script, which contains the keys for the selected partition points and can be used to repartition the file with minor modifications
- ▶ Analyzes Enscribe or SQL/MP key-sequenced files, including alternate key files, and produces a detailed report showing the distribution of keys in the file
- ▶ Analyzes non partitioned files, a single partition from a partitioned file or all partitions of a partitioned file
- ▶ Produces a FUP or SQLCI script template that can be used to split a partition or to create a new set of partitions for the file
- ▶ Offers several analysis options — full scan for smaller files and random sample methods that estimate key distribution — both without incurring the I/O costs of reading all the records
- ▶ Runs under the HP NonStop™ operating system to support partitioned files
- ▶ Operates on any HP NonStop server running HP NonStop Version D20 or later

features  
at a glance

Partner is developed and supported by Merlon Software Corporation

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