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MISC-2022-03 Making big data look small

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By careful choice of data structure, One can make big data look small.

When do we start?

Steve Uhler
sau@wwmpd.com

Additional submitted attachment is included below.

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By careful choice of data structure, One can make big data look small.

In my prior comment, MISC-2022-03 Protection of confidential information and data access I explain a simple, low cost, and reliable method to protect confidential information while allowing easy data access for all.

The structure I chose for storage was one of dividing the data up for rapid and random data access. Just like a set of encyclopedias are divided into volumes, one can retrieve utility's smart meter volume data for a day.

Let's say a utility has 750,000 smart meters. Each day's set of data is about 12,000 bytes. 750,000 times 12,000 is 9,000,000,000 bytes (9 GB) total.

The data structure has 6 fields, all integers, integers process much faster than floating point or alpha fields. Each day file has 96 records. 576 pieces of data in each file. 750,000 times 96 is 72,000,000 records total. 750,000 times 576 is 432,000,000 pieces of data total.

Retrieval queries selecting circuits reduces the amount of data and is the likely method for the study of a circuit. These queries are processed by a static web server, probably the fastest data retrieval available, very low cost also.

Once retrieved, reporting software will find friendly dBase files. From there, a handful of queries will process the data. The code will be uniform and reusable with very little editing.

When do we start?

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