



Somerset® Research Information and Development History

The combination of Oracle® Partitioning and DBMS_REDEFINITION is a new and novel way to perform data retirement. We at Avalon Consulting Solutions, Inc., never believed that the idea was patentable – nor did we want to patent an idea that can have a broad number of uses aside from data retirement. We have seen too many patent fights result in diminished consumer value and a large waste of resources. Nonetheless, we wanted to stake our claim for this innovative approach so that another organization could not take away our ability to use it.

Somerset® is a software implementation of this data retirement method and has undergone many iterations of testing, tuning, and improvement. This is the value that we license as Somerset® and we are justifiably pleased with the tremendous improvement this tool gives for organizations who are trying to retire data from their large and growing Oracle® databases. There are a number of competitors on the market, but at the time we wrote Somerset®, all of them used SQL deletes to remove unneeded data. After discussing this approach combining Oracle® Partitioning and DBMS_REDEFINITION, we know other consultants who have generated scripts to perform data retirement using this method, but Somerset® represents a stable and tested implementation with robust reporting and error handling.

As a way to maintain the use of the method at the foundation of Somerset®, Kevin Williams, one of the principals of Avalon Consulting Solutions, Inc., decided to compare Somerset® to existing data retirement methods on the market and submit the research as his doctoral dissertation (2016). For those interested, the full-text of the dissertation is available at: https://www.researchgate.net/publication/301283209_A_Design_Science_Approach_to_Deletion_in_Transactional_Processing_Relational_Databases

The dissertation compares Somerset® (in the dissertation called Data Retirement Tool or DRT) against approaches requiring a maintenance outage and SQL deletes (the other method not requiring a database maintenance outage) and performed a number of iterative tests comparing the system load, speed, etc., which showed Somerset® to be dramatically better than SQL delete operations. Some of the most important findings were the substantial improvement using Somerset® during data retirement operations for dramatically reduced UNDO and REDO generation and substantially reduced numbers of Block Changes.

Another outcome of the Somerset® research was that the same method could be used to insert rows in a system – often creating a massive amount of UNDO and REDO load on the system. This is fully available in Somerset® to perform Rapid Insertions. Even if data are not going to be removed or added, Somerset® can be used to rebuild Oracle® tables and with zero downtime allows the tool to be used to migrate tables to different tablespaces and/or different storage characteristics.

Somerset® is available for licensing to direct clients and approved system integrators.