

# THE FILLMORE GROUP

## Relational Database Solutions

### Customer Success

**Customer:** Philadelphia Stock Exchange

**Industry:** Financial Services Agency

As the first organized securities exchange in the United States, founded in 1790, PHLX, the Philadelphia Stock Exchange, has a rich tradition of innovation. Included in the long list of “firsts” that PHLX boasts is being the first U.S. securities exchange to enter cyberspace with its own site on the World Wide Web.

PHLX contacted IBM Lab Services in Toronto for assistance with a replication implementation needed to satisfy an SCC requirement. Dependent on DB2’s autonomic features, PHLX’s DB2 support staff is minimal, so the TFG consultant, in addition to creating a SQL Replication and DB2 database reconstitution solution, developed and installed a series of scripts to support replication and monitor the DB2 environment.

Using SQL Replication the solution delivers the ability to reconstitute the transaction database at any requested point in time for up to 7 years. Making extensive use of UNIX scripting, ASNCLP, Stored Procedures and other advanced forms of SQL, scripts were developed to build a new replication scenario from the ground up, report any schema changes to the source environment (e.g., new tables, new columns, changes to existing columns) not reflected in an existing replication scenario, and to modify an existing replication scenario depending upon the nature of the schema change - minor – resulting from an alter table, or major - requiring a table to be dropped and recreated.

In addition, a series of scripts were created and run through cron. A summary of these scripts is included below.



These scripts were created and run through cron. These scripts perform the following list of key database tasks:

- Identify and report on any changes to configuration parameters (db2 registry, db cfg, and dbm cfg).
- Identify and report any DDL changes.
- Save copies of key DB2 files and forms of meta-data not included in a traditional DB2 backup.
- Analyze and report on the recoverability of all databases: the existence and availability of backups, the current logging strategy, etc.
- Automate RUNSTATS to be performed upon tables (and indexes) that have stale statistics.
- Automate the maintenance of db2diag.log and other key files, which tend to grow beyond control.
- Report on key monitoring matrixes.
- Report on evolution of storage.