

Simple Profiles

User Interface

TODO see issues.

High level logical flow

- C# app is a ran to populate/update `Map.PackageTable` see `SqlServerUtilities`

At package runtime:

Package runs as usual at end of package `DQMF.dbo.SetAuditPkgExecution` is called with `@pIsProcessStart = 0` and `AutoTest.dbo.uspAutoTestPackage` is called:

1. `AutoTest.dbo.uspProfilePackageTables` is called

For each table in `Map.PackageTable` for this package `AutoTest.dbo.uspProfileTable` is called thereby populating: `AutoTest.dbo.TableProfile`, `AutoTest.dbo.ColumnProfile`, and `AutoTest.dbo.ColumnHistogram` are populated.

2. `AutoTest.dbo.uspUpdateAlerts` is called and `AutoTest.dbo.Alert` table is popualted.
3. `AutoTest.dbo.uspSendAlertEmails` is called

If rows exist in `AutoTest.dbo.Alert` for this package execution single summary email is sent with

Procedure list

`AutoTest.dbo.uspProfileTable`

For a given table: Profiles a single table and populates profile tables: `AutoTest.dbo.TableProfile`, `AutoTest.dbo.ColumnProfile`, and `AutoTest.dbo.ColumnHistogram`

`AutoTest.dbo.uspProfilePackageTables`

For a given package: Calls `AutoTest.dbo.uspProfileTable` for each table in `Map.PackageTable`

AutoTest.dbo.uspUpdateAlerts

Merge statement is executed to update/insert **AutoTest.dbo.Alert** from profile tables.

AutoTest.dbo.uspSendAlertEmails

For a given package execution: **AutoTest.dbo.Alert** is queried and if alerts are found an alert email is sent using **msdb.dbo.sp_send_dbmail**

Table list

Profile tables

logging tables that profile results.

- **AutoTest.dbo.TableProfile** one row per package execution per table per profile execution
- **AutoTest.dbo.ColumnProfile** one row per column of a table profiled
- **AutoTest.dbo.ColumnHistogram** one row per column value of a table profiled

Control tables

- **AutoTest.dbo.Alert** controls content of alert emails. one row per alerted violation. a violation can be in terms of a profiled table, column or a column value.
- **Map.PackageTable** one row per table in a package data flow task. indirectly controls which tables are profiled at runtime (see **AutoTest.dbo.vwPackageProfileTable**).
- **AutoTest.dbo.vwPackageProfileTable** controls which tables are profiled at package runtime. queries **Map.PackageTable**. one row per table per table to be profiled.

Changes to existing package runtime

- The existing **DQMF.dbo.SetAuditPkgExecution** proc is extended to call new proc **AutoTest.dbo.uspProfilePackage** when **@pIsProcessStart = 0**
- **AutoTest.dbo.uspProfileTable** populates 3 profile tables
 - **AutoTest.dbo.TableProfile**
 - * **TableProfileDate**
 - * **DatabaseName**
 - * **SchemaName**

- * TableName
- * RecordCount
- * PkgExecKey
- AutoTest.dbo.ColumnProfile
 - * ColumnProfileDate
 - * DatabaseName
 - * TableName
 - * ColumnName
 - * DistinctCount
 - * PkgExecKey
- AutoTest.dbo.ColumnHistogram
 - * ColumnHistogramDate
 - * DatabaseName
 - * TableName
 - * ColumnName
 - * ColumnValue
 - * ValueCount
 - * PkgExecKey