

Simple Profiles

Deployment

1. Sql Backend

PowerShell script: `deploy_script.ps1` drops and creates all AutoTest objects on specified server.

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