

**CaptureQueryPlans**

**Purpose:**

The CaptureQueryPlans stored procedure captures query execution statistics and plans from the SQL Server Dynamic Management Views (DMVs). It allows for flexible querying, optionally inserting captured data into a historical table, and provides verbose output for debugging purposes.

**Parameters**

* @ElapsedTimeThreshold (BIGINT): Specifies the threshold for elapsed time in microseconds. Queries with average elapsed time above this threshold will be considered. The default value is 2000000 (2 seconds).
* Queries with average elapsed time above this threshold will be considered.
* @WhatIf (BIT): Controls whether to show data without inserting (1) or to insert data into the QueryPlanHistory table (0). The default is 1.
* @Verbose (BIT): Controls whether to print the SQL statements being executed for debugging purposes. The default is 0.

**Functionality**

1. **SQL Query Construction**:
   * Constructs a SQL query to capture query plans and execution statistics from sys.dm\_exec\_query\_stats, sys.dm\_exec\_sql\_text, and sys.dm\_exec\_query\_plan.
   * Optionally joins with sys.databases to include the database name.
   * Applies the elapsed time threshold to filter queries.
2. **Execution Based on Parameters**:
   * **If @Verbose = 1**: Prints the SQL statement for debugging.
   * **If @WhatIf = 1**: Executes the constructed query to show data without inserting.
   * **If @WhatIf = 0**: Uses a MERGE statement to insert or update the captured data into the QueryPlanHistory table. If @Verbose is enabled, it prints the SQL statements.

**Usage Examples**

1. **Test 1: Show data without inserting (Verbose by default does not need to be added)**

EXEC dbo.CaptureQueryPlans @WhatIf = 1;

1. **Test 2: Show data without inserting**

EXEC dbo.CaptureQueryPlans @WhatIf = 1, @Verbose = 1;

1. **Test 3: Show all plans from a particular stored procedure**

EXEC dbo.CaptureQueryPlans @StoredProcName = 'SaveProcessLogItem', @ElapsedTimeThreshold = 0;

1. **Test 4: Insert data and show the code**

EXEC dbo.CaptureQueryPlans @WhatIf = 0, @Verbose = 1;

1. **Test 5: Insert data without showing the code (Verbose by default does not need to be added)**

EXEC dbo.CaptureQueryPlans @WhatIf = 0, @Verbose = 0;