

Backup and Recovery Recommendations for TS2000 Activity Analysis

Introduction

The TS2000 Activity Analysis application has a periodic cycle of data updates corresponding to individuals' entering their activity hours. This will vary from individual to individual but it is assumed that activity hours will be entered on a weekly basis with timesheets being completed (submitted) at the end of each month.

Each office will run a commit timesheets process at the end (or within a few days after the end) of each month. The commit process consolidates timesheet data on a "batch" basis and populates analysis reporting and pivot fact tables in the database.

Normal operation of TS2000 Activity Analysis therefore results in bulk database inserts once a month. End-user data entry is expected to occur daily with peaks at the end of each week with maximum data entry activity occurring in the last week of each month.

The back-up and maintenance strategy recommended reflects this normal pattern of data entry activity.

Recommended Back-up and Maintenance Strategy

Use of the SQL Server 2000 Maintenance Planner is recommended. For normal operation the following settings are recommended.

1. Reorganise data and index pages

Settings
Reorganise with original amount of free space
Schedule: Monthly, day 5 of every 1 month(s) at 00:00AM

2. Perform database integrity checks

Settings
Check database integrity including indexes
Attempt to repair any minor problems
Perform tests before doing backups
Schedule: Weekly, every 1 week(s) on Sun at 00:00AM

3. Database Back-up Plan

Settings
Back-up the data base a part of the maintenance plan
Verify the integrity of the back-up on completion
Location of back-up (Tape or Disk)
Schedule: Monthly, day 5 of every 1 month(s) at 00:00AM

4. Transaction Log Back-up Plan

Settings
Back-up the transaction log a part of the maintenance plan
Verify the integrity of the back-up on completion
Location of back-up (Tape or Disk)
Schedule: Weekly, every 1 week(s) on Sun at 00:00AM

Recovery

In the event that a backup is required to restore lost data the above back up strategy will recovery data to the level of a timesheet week and would require (at worst) up to four transaction log back-ups to be applied, following recovery of the last full back-up, to recover the state of the database to the end of the week prior to the data loss incident.

Post Recovery

Operations staff should run the TS2000 Activity Analysis system checker (systemCheck.asp - script invoked from the browser). This reports on minimum level system functionality and database integrity and should be run before a recovered TS2000 Activity Analysis is made available to timesheet-users.

Timesheet-users would then need to check their timesheets and re-enter missing activity hours for the current week up to the point of the data loss incident.

If a data loss incident occurs following the commit process and prior to scheduled back-up then after timesheet-users have completed verifying their timesheets local administrators will also need to re-run their commits.

Assumptions

- (a) It is assumed that operations staff will arrange for appropriate backing-up of the SQL Server Master database.
- (b) It is assumed that operations staff will choose a back-up device inline with their own operational procedures.