TATA CONSULTANCY SERVICES
Experience certainty.

Generation Data Groups (GDG)

Copyright © 2011 Tata Consultancy Services Limited

Content

- Introduction
- Creation of GDG
- Creating generations
- Altering GDG definition
- Deleting GDG

Introduction

- Generation Data Groups or GDGs are a group of data sets which are related to each other chronologically and functionally.
- These related Data Sets share a unique Data Set Name.
- Every GDG data set has a Generation number and Version number assigned to it.

'TRT101.DAILY.REPORT.G0001V00'

'TRT102. DAILY.REPORT.G0002V00'

'TRT103. DAILY.REPORT.G0003V00' <-- Current Version

Generation Number -> GaaaaVnn

aaaa is between 0000 to 9999

nn is between 00 to 99

Introduction

- In JCL, we refer current version with 0 (Ex. TRT101.DAILY.REPORT.(0))
  new version to be created with +1 (Ex. TRT101.DAILY.REPORT(+1))
  older versions refer with -1 -2 -3 etc....
  (Ex. TRT101.DAILY.REPORT(-1)) <- OLDER VERSION

- In JCL we refer a generation with the subscript notation as follows:

  TRT101.DAILY.REPORT.G0000V00 as TRT101.DAILY.REPORT(-2)
  TRT101.DAILY.REPORT.G0001V00 as TRT101.DAILY.REPORT(-1)
  TRT101.DAILY.REPORT.G0002V00 as TRT101.DAILY.REPORT(0)

Creation of GDG

- Before using GDG , need to create GDG index and model. IDCAMS utility is used to create GDG index.

```
 //GDGINDX   JOB  (W234),'TCS'
//STEP1   EXEC PGM=IDCAMS
 //SYSIN    DD   *
   DEFINE GDG(TRT101.DAILY.REPORT)     -
              LIMIT(10)                -
              NOEMPTY                  -
              SCRATCH)
 /*
 //
```

NAME - This parameter is used to specify the name of the data set that is to be created.

LIMIT - This parameter is used to specify the total number of generations that the GDG may contain

EMPTY/NOEMPTY - These two parameters are mutually exclusive. EMPTY specifies that all existing generations of the GDG are to be uncataloged whenever the generations of GDG reached the maximum limit

NOEMPTY - specifies that only the oldest generation of the GDG is to be un cataloged if the limit is reached

SCRATCH/NOSCRATCH - These two parameters are mutually exclusive. SCRATCH parameter specifies that whenever entry of the GDG is removed from the index, it should be deleted physically and uncataloged. NOSCRATCH parameter specifies that whenever entry of the GDG is removed from the index, it should be uncataloged, not physically deleted

Creating Model

- After creating the index a model dataset has to be created (this is optional). This model data set contains specifications for the DCB sub parameters for all data sets that will belong to that GDG. Programmer can override this default values if he want.

```
//CRMODEL  JOB (123),'TCS'
//STEP1  EXEC PGM=IEFBR14
//MODEL1 DD   DSN=TRT101.DAILY.REPORT.MODEL,
//            DISP=(NEW,KEEP,DELETE),
//            SPACE=(TRK,(1,1),
//            DCB=(LRECL=80,RECFM=FB,BLKSIZE=800)
//SYSOUT DD SYSOUT=*
```

Creating generations

- The GDG datasets are sequential datasets. Hence, IEFBR14 or IEBGENER can be used to create the generations.

```
 //TXXXXXJ  JOB    ,,NOTIFY=&SYSUID,CLASS=D
//STEP1    EXEC  PGM=IEFBR14
//DD1       DD    DSN=TRT101.DAILY.REPORT(+1),
//                DISP=(NEW,CATLG),
//                SPACE=(TRK,(1,1)),
//                DCB=TRT101.DAILY.REPORT.MODEL
```

Altering GDG definition

- IDCAMS utilities with ALTER command is used to alter the GDG attributes.

```
//TXXXXXJ  JOB    ,,NOTIFY=&SYSUID,CLASS=D
//STEP1 EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
    ALTER TRT101.DAILY.REPORT EMPTY NOSCRATCH
/*
//
```

Deleting GDG

- To delete a base entry :

```
//TXXXXXJ    JOB ,,NOTIFY=&SYSUID,CLASS=D
//STEP1      EXEC PGM=IDCAMS
//SYSPRINT   DD SYSOUT=*
//SYSIN      DD *
       DELETE TRT101.DAILY.REPORT PURGE
/*
```

- To delete an allocated GDG base and deletes all GDG datasets :

```
//TXXXXXJ    JOB ,,NOTIFY=&SYSUID,CLASS=D
//STEP1      EXEC PGM=IDCAMS
//SYSPRINT   DD SYSOUT=*
//SYSIN      DD *
       DELETE TRT101.DAILY.REPORT PURGE FORCE
/*
```

Deleting GDG

- To delete a specific generation of a GDG use IEFBR14.

```
//DELETE  JOB  (TCS456),'TCS'
//STEP1   EXEC PGM=IEFBR14
//DEL1    DD   DSN=TRT101.DAILY.REPORT(0) <-- Current Version
//             DISP=(OLD,DELETE,DELETE)
//
```

TATA CONSULTANCY SERVICES
Experience certainty.

Thank You

IT Services
Business Solutions
Outsourcing

TCS Internal