
Review of RACF SETROPTS

(A Brief Tutorial)

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Abstract

- The SETROPTS command in RACF (mainframe computer security software) is where you set options.
- You can see how the options are set by issuing
- SETR LIST.
- In this session we will review the most important of these options, in the order shown by SETR LIST.
- To make life simpler, we break the listing into **five sections**.
- Note that some options don't show if you don't have AUDITOR.

Section One, the First Line

Looks Like This:

```
ATTRIBUTES = INITSTATS  
WHEN(PROGRAM – BASIC)  
TERMINAL(READ)  
SAUDIT CMDVIOL OPERAUDIT
```

Section One, the First Line

- **ATTRIBUTES = INITSTATS** (timestamp user record)
- **WHEN(PROGRAM – BASIC)** (activates checking in the PROGRAM resource class; BASIC vs. ENHANCED)
- **TERMINAL(READ)** (default terminal access)
- **SAUDIT** (log events only possible because of SPECIAL; two uses)
- **CMDVIOL** (log command violations)
- **OPERAUDIT** (log events only possible because of OPERATIONS; two uses)

Section Two, the Resource Classes Stuff

Starts with: **STATISTICS =**

And Ends with:

LOGOPTIONS "DEFAULT"

Section Two, the Resource Classes Stuff

- **STATISTICS =**
- **AUDIT CLASSES=**
- **ACTIVE CLASSES =**
- **GENERIC PROFILE**
- **GENERIC COMMAND CLASSES**
- **GENLIST CLASSES =**
- **GLOBAL CHECKING CLASSES =**
- **SETR RACLIST CLASSES =**
- **GLOBAL=YES RACLIST ONLY =**

Section Two, the Resource Classes Stuff

The LOGOPTIONS:

- LOGOPTIONS "ALWAYS" CLASSES =
- LOGOPTIONS "NEVER" CLASSES =
- LOGOPTIONS "SUCCESSSES" CLASSES =
- LOGOPTIONS "FAILURES" CLASSES =
- LOGOPTIONS "DEFAULT" CLASSES =

Section Two, the Resource Classes Stuff

Some Classes to Consider:

- **DASDVOL, DIGTCERT, DSNR, FACILITY (no backstop), GLOBAL, JESSPOOL, MQADMIN (ssid.RESLEVEL), NODES, OPERCMDS, PROGRAM, PROPCNTL, RACFVARS, SDSF, SERVAUTH, STARTED, SURROGAT, TAPEVOL, TEMPDSN, TSOAUTH, UNIXPRIV, VTAMAPPL, WRITER**

Section Three, Userid and Dataset Stuff

**Starts with: AUTOMATIC DATASET
PROTECTION**

And Ends with:

GROUP DATA SET MODELLING

Section Three, Userid and Dataset Stuff

- **AUTOMATIC DATASET PROTECTION IS NOT IN EFFECT***
- **ENHANCED GENERIC NAMING IS IN EFFECT**
- **REAL DATA SET NAMES OPTION IS ACTIVE**
- **JES-BATCHALLRACF OPTION IS ACTIVE**
- **JES-XBMALLRACF OPTION IS ACTIVE**
- **JES-EARLYVERIFY OPTION IS NOT ACTIVE***
- **PROTECT-ALL OPTION IS IN EFFECT**
- **TAPE DATA SET PROTECTION IS ACTIVE**
- **SECURITY RETENTION PERIOD IN EFFECT IS 60 DAYS**

*** = this option is considered obsolete)**

Section Three, Userid and Dataset Stuff

- **ERASE-ON-SCRATCH IS ACTIVE**
(ERASE-ON-SCRATCH BY SECLEVEL IS NOT ACTIVE)
- **SINGLE LEVEL NAME PREFIX IS RACFPFX**
- **LIST OF GROUPS ACCESS CHECKING IS ACTIVE.**
- **INACTIVE USERIDS ARE NOT BEING AUTOMATICALLY REVOKED.**
- **DATA SET MODELLING NOT BEING DONE FOR GDGS. ***
- **USER DATA SET MODELLING IS NOT BEING DONE. ***
- **GROUP DATA SET MODELLING IS NOT BEING DONE. ***

(* = this option is considered obsolete)

Section Four, Password Stuff

PASSWORD PROCESSING OPTIONS:

- **PASSWORD CHANGE INTERVAL IS 30 DAYS.**
- **PASSWORD MINIMUM CHANGE INTERVAL IS 2 DAYS.**
- **MIXED CASE PASSWORD SUPPORT IS IN EFFECT.**

Section Four, Password Stuff

- **32 GENERATIONS OF PREVIOUS PASSWORDS BEING MAINTAINED.**
- **AFTER 3 CONSECUTIVE UNSUCCESSFUL PASSWORD ATTEMPTS, A USERID WILL BE REVOKED.**
- **PASSWORD EXPIRATION WARNING LEVEL IS 3 DAYS.**

Section Four, Password Stuff

INSTALLATION PASSWORD SYNTAX RULES:

- **RULE 1 LENGTH(4:5) LLLLL**
- **LEGEND:**
- **A-ALPHA C-CONSONANT L-ALPHANUM N-NUMERIC V-VOWEL W-NOVOWEL *-ANYTHING**
- **c-MIXED CONSONANT m-MIXED NUMERIC v-MIXED VOWEL \$-NATIONAL**

- **DEFAULT RVARV PASSWORD IS IN EFFECT FOR THE SWITCH FUNCTION.**
- **DEFAULT RVARV PASSWORD IS IN EFFECT FOR THE STATUS FUNCTION.**

PASSWORD PHRASES and other password operands belong in a separate tutorial.

Section Five, the Other Stuff

Starts with:

SECLEVELAUDIT IS INACTIVE

And Ends with:

**SECONDARY LANGUAGE DEFAULT : ENU /
AMERICAN**

**Today we'll consider only one of
these, leaving the rest of Section
Five for a separate tutorial.**

Section Five, the Other Stuff

- **SECLEVELAUDIT IS INACTIVE**
 - **SECLABEL AUDIT IS IN EFFECT**
 - **SECLABEL CONTROL IS IN EFFECT**
 - **GENERIC OWNER ONLY IS IN EFFECT**
 - **COMPATIBILITY MODE IS IN EFFECT**
 - **MULTI-LEVEL QUIET IS IN EFFECT**
 - **MULTI-LEVEL STABLE IS IN EFFECT**
 - **NO WRITE-DOWN IS IN EFFECT.**
- CURRENT OPTIONS:**
- **"MLS WARNING" OPTION IS IN EFFECT**

Section Five, the Other Stuff

- **MULTI-LEVEL SECURE IS IN EFFECT.
CURRENT OPTIONS:**
- **"MLS WARNING" OPTION IS IN EFFECT**
- **MULTI-LEVEL ACTIVE IS IN EFFECT.
CURRENT OPTIONS:**
- **"MLACTIVE FAIL" OPTION IS IN EFFECT**
- **CATALOGUED DATA SETS ONLY, IS IN
EFFECT. CURRENT OPTIONS:**
- **"CATDSNS WARNING" OPTION IS IN
EFFECT**

Section Five, the Other Stuff

- **USER-ID FOR JES NJEUSERID IS :
?????????**
- **USER-ID FOR JES UNDEFINEDUSER IS :
+++++**
- **PARTNER LU-VERIFICATION
SESSIONKEY INTERVAL
MAXIMUM/DEFAULT IS 30 days**
- **APPLAUDIT IS IN EFFECT**
- **ADDCREATOR IS IN EFFECT**
- **KERBLVL = 0**

Section Five, the Other Stuff

MULTI-LEVEL FILE SYSTEM IS IN EFFECT

MULTI-LEVEL INTERPROCESS

COMMUNICATIONS IS IN EFFECT

**MULTI-LEVEL NAME HIDING IS NOT IN
EFFECT**

**SECURITY LABEL BY SYSTEM IS NOT IN
EFFECT**

**PRIMARY LANGUAGE DEFAULT : ENU /
AMERICAN**

**SECONDARY LANGUAGE DEFAULT : ENU /
AMERICAN**

Section Five, the Other Stuff

If **ADDCREATOR** is **IN EFFECT**, then every time someone creates a new dataset rule or resource rule, then his userid is automatically permitted with **ALTER** permission.

Auditors sometimes react to this.

Summary and Call to Action

We've Covered the Major Parts of the SETROPTS Listing and What They Mean. We've Indicated Which Ones Might Be Most Important, and the Ones Auditors Will Likely Notice.

We Hope This Has Filled In a Few Gaps Or Reminded You of Some Options You Want to Check

Thanks for Your Kind Attention