



RACF® Reports On-Demand

The RACFROD ISPF Dialog

Administrative User Guide for Security Personnel

IBM® z/OS® Version 2.3 or later

[Abstract](#)

A guide for RACF® report administration
using ISPF™ services and IBM® DFSort™ ICETool.

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Change History and Update Log

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- Added explanatory text describing the formatted job stream JCL and control statements
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- Based loosely upon an open source systems programming tool (job) titled “ICERACF” (2001) from Nico Rizutto at <http://www.rizzuto.it/tools.htm#> .

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Introduction to RACF Reports On-Demand

The objective of this document is to assist security administration personnel with step-by-step procedures to generate easily and efficiently a generic suite of **IBM Resource Access Control Facility (RACF®)** administrative reports for the IBM® z/OS® Operating System.

RACF provides *auditable, authenticated, controlled, and secure* access to all z/OS mainframe batch and online applications. Moreover, RACF incorporates a robust family of APIs, sample programs, tools, and utilities to enhance the scope and breadth of its capabilities. Using input data generated by one of these utilities, IBM's RACF data base unload utility, IRRDBU00, clients can create customized reports by using more than 90, fully-documented record formats.

IRRDBU00 is documented in [IBM Security Server RACF: Security Administrator's Guide](#), Ch. 13 Working with the RACF database, p. 343, SA23-2289-30. In addition, the RACF database unload utility record types are documented in [IBM Security Server RACF Macro and Interfaces](#), Ch. 9 RACF database unload utility (IRRDBU00) records, p. 351, SA23-2288-30. Both publications are available gratis and online in the IBM Knowledge Center.

RACF Reports On-Demand, RACFROD, is a menu-driven, TSO/ISPF dialog written in REXX. RACFROD generates *non-programmatically* and submits *selectively* for batch (background) execution any combination of 13 individual jobs, each of which processes and reports upon a subset of the RACF IRRDBU00 data records. This mode of operation limits significantly the volume of output generated versus producing all reports in a single job step. Individual output report size is governed by the number of processed RACF IRRDBU00 data records.

By default, *all* 13 reports are generated automatically and formatted in one, single-step, batch job. In either mode of operation, the submitted batch jobs create reports all of which are formatted universally using IBM's *DFSORT™ ICETool* report formatter. The reports can be viewed easily using any JES2 spool display product such as IBM SDSF™ or Phoenix Software International (E)JES®.

Clients are encouraged to configure their TN3270 emulator (e.g. Tom Brennan's VISTA TN3270 or Micro Focus® Reflection or Rumba) in 62x160 display mode to view easily JES2 report output in full-screen mode from a Microsoft Windows® desktop. In addition, RACFROD does not require use of spool archive utility products such as IBM Tivoli® Output Manager or CA Dispatch™ to view reports online.

RACFROD ICETool Report Selection

Launching the RACF Reports On-Demand Application

Upon successfully authenticating and logging on TSO and initiating ISPF, launch the RACF Reports On-Demand (RACFROD) application from ISPF by one of the following two methods. Explanations of each method with screen captures follow below. The outcome of using either method is the same: each displays the RACF Reports On-Demand selection panel, RACFROD.

Method 1:

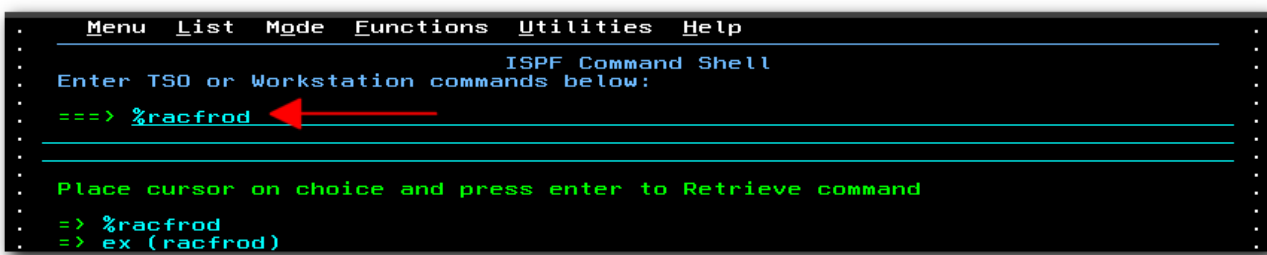
From the ISPF Option 6 Command Shell or any ISPF command line, execute the REXX EXEC **RACFROD**, or

Method 2:

From the ISPF Option 6 Command Shell or any ISPF command line, execute the ISPF command table entry **RACFR**.

Method 1: Using the %RACFROD REXX EXEC

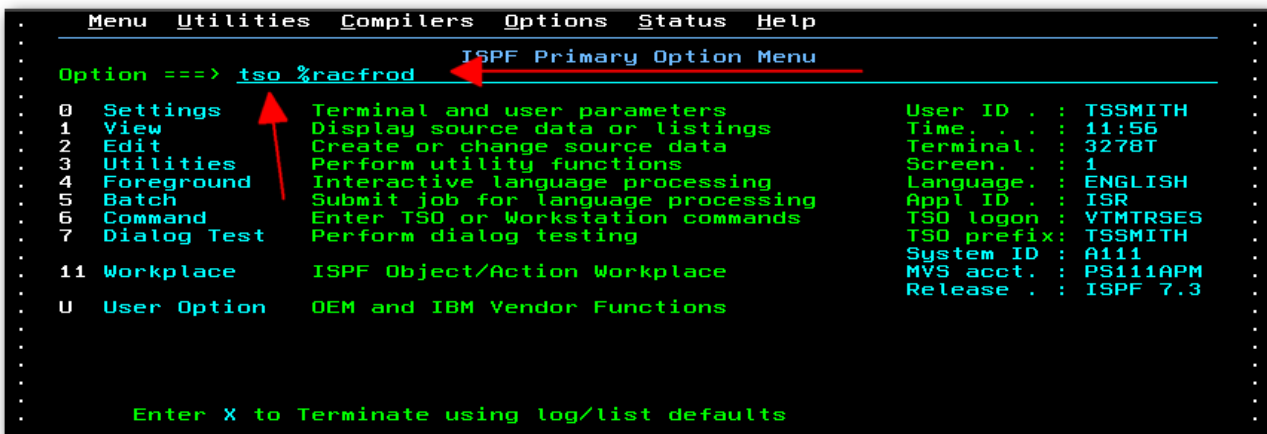
- a. From the ISPF option 6 Command Shell, type **%RACFROD** and press the Enter key. The following screen capture demonstrates launching RACFROD from the ISPF Command Shell.



```
Menu List Mode Functions Utilities Help
ISPF Command Shell
Enter TSO or Workstation commands below:
==> %racfrod
Place cursor on choice and press enter to Retrieve command
=> %racfrod
=> ex (racfrod)
```

Figure 1 Launching RACFROD from the ISPF Option 6 Command Shell using a REXX EXEC

- b. From any ISPF command line type **TSO %RACFROD** and press the Enter key. The TSO keyword *must* be specified, or an error will occur. The following screen capture demonstrates launching RACFROD from the ISPF Primary Option Menu.




```
Menu Utilities Compilers Options Status Help
ISPF Primary Option Menu
Option ==> tso %racfrod
0 Settings Terminal and user parameters User ID . : TSSMITH
1 View Display source data or listings Time. . . : 11:56
2 Edit Create or change source data Terminal. : 3278T
3 Utilities Perform utility functions Screen. . : 1
4 Foreground Interactive language processing Language. : ENGLISH
5 Batch Submit job for language processing Appl ID . : ISR
6 Command Enter TSO or Workstation commands TSO logon : VTMRSES
7 Dialog Test Perform dialog testing TSO prefix: TSSMITH
11 Workplace ISPF Object/Action Workplace System ID : A111
U User Option OEM and IBM Vendor Functions MVS acct. : PS111APM
Release . : ISPF 7.3
Enter X to Terminate using log/list defaults
```

Figure 2 Launching RACFROD from the ISPF Command Line using a REXX EXEC

Method 2: Using the RACFR ISPF command table directive

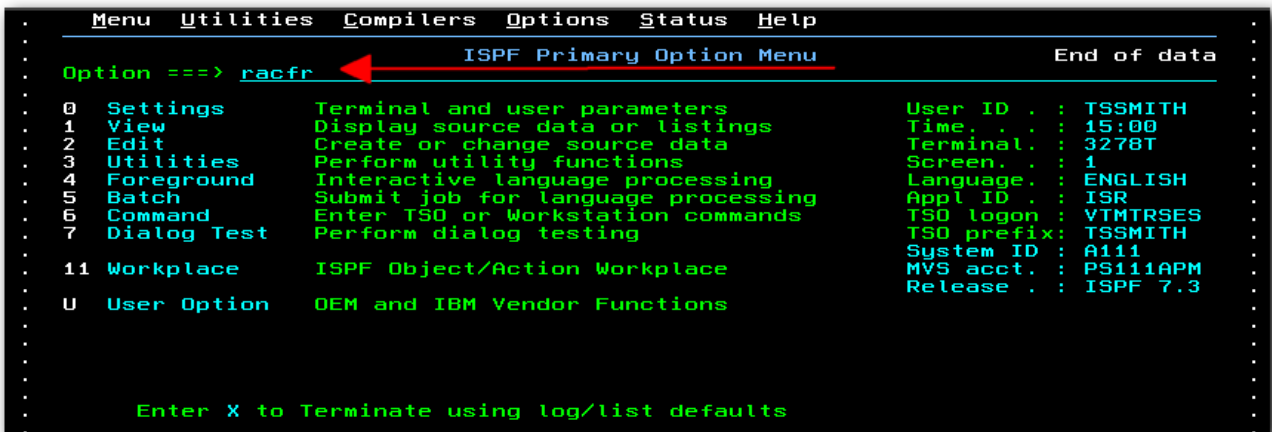
- a. From the ISPF option 6 Command Shell, type **RACFR** and press the Enter key. The following screen capture demonstrates launching RACFROD from the ISPF Command Shell.



```
Menu List Mode Functions Utilities Help
ISPF Command Shell
Enter TSO or Workstation commands below:
==> racfr
Place cursor on choice and press enter to Retrieve command
=> %racfrod
=> ex (racfrod)
=> =====
```

Figure 3 Launching RACFROD from the ISPF Option 6 Command Shell using a Command Table Entry

- b. From any ISPF command line type **RACFR** and press the Enter key. The following screen capture demonstrates launching RACFROD from the ISPF Primary Option Menu.



```
Menu Utilities Compilers Options Status Help
ISPF Primary Option Menu
Option ==> racfr
0 Settings Terminal and user parameters User ID . : TSSMITH
1 View Display source data or listings Time . . : 15:00
2 Edit Create or change source data Terminal . : 3278T
3 Utilities Perform utility functions Screen . : 1
4 Foreground Interactive language processing Language . : ENGLISH
5 Batch Submit job for language processing Appl ID . : ISR
6 Command Enter TSO or Workstation commands TSO logon : VTMTRSES
7 Dialog Test Perform dialog testing TSO prefix: TSSMITH
11 Workplace ISPF Object/Action Workplace System ID : A111
U User Option OEM and IBM Vendor Functions MVS acct. : PS111APM
Release . : ISPF 7.3
Enter X to Terminate using log/list defaults
```

Figure 4 Launching RACFROD from an ISPF Command Line using a Command Table Entry

The RACF Reports On-Demand Display Panel

As displayed in the upper left hand corner of the screen capture below, RACFROD is the name of the RACF Reports On-Demand display panel from which any combination of 13 reports in 14 selections can be made.

The only mandatory field on the panel is the RACF Unload Data Set Name, which must conform to z/OS data set naming conventions as described in the [MVS JCL Reference Manual](#). In addition, the data set name does *not* need to be fully qualified – i.e. enclosed in single quotation marks.

Unless changed, the default data set name is SECURITP.RACF.UNLOAD(0), which in this case represents the most current, site-specific, generation data set for unloaded RACF data. The data set name can be overtyped.

```
----- RACF IRRDBU00: ICETool Reports On-Demand -----
COMMAND ==> _____ Scroll ==> CSR_
Type S or X to generate all reports or select reports by record number.
Optionally, leave S/X fields blank and press Enter to generate all reports, or
select any RecTyp text field using a mouse double click for one report choice.
-----
RACF Unload Data Set Name ==> SECURITP.RACF.UNLOAD(0)_____

S/X  RecTyp  IRRDBU00 Record Name / ICETool Report Headings - (SA23-2289)
-----
-    ALL    Generate all of the following 13 RACF record type reports.
-    100    Group Basic Data - GPBD
           Group, Sup Group, Owner, Create Date, Description
-    102    Group Members - GPMEM
           User, User Authorization, Group
-    200    User Basic Data - USBD
           User, Name, DefGrp, Create/Logon/Revoke Date, Owner,
           Spec, Oper, Revoke
-    205    User Connect Data - USCON
           Group, Owner, Connect Date, Last Connect, Revoke Date,
           User
-    220    User TSO Data - USTSO
           User, Procedure, Size, MaxSize, Unit, Account
-    270    User OMVS (Unix System Services) Data - USOMVS
           User, UID, Home Path, Program
-    400    Data Set Basic Data - DSBD
           Data Set Profile, Gen, UACC, Create Date, Owner,
           Last Referenced, Last Changed, Audit Level, Warning
-    404    Data Set Access - DSACC
           Group, Access, Access Count, Data Set Profile
-    404U   Data Set Access by Group - DSACCG
           Data Set Profile, Access, Access Count, Group
-    500    General Resource Basic Data - GRBD
           Profile Name, Gen, UACC, Create, Owner
-    505    General Resource Access - GRACC
           Profile Name, Group, Access, Access Count
-    505U   General Resource Access by Group - GRACCG
           Class, Profile Name, Access, Access Count, Group
-    540    General Resource Started Task Data - GRST/STDATA
           Profile Name, User, Group, Trust, Priv, Trace
```

Figure 5 The RACF Reports On-Demand Report Selection Panel

Key Fields on the RACF Reports On-Demand Selection Panel

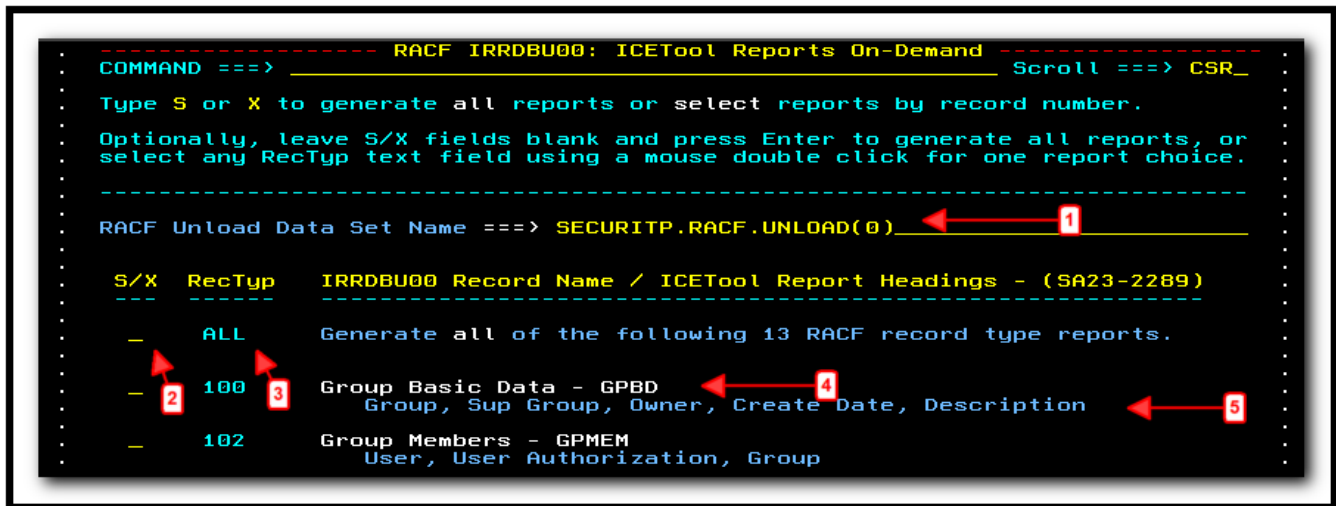


Figure 6 The Five Key Fields on the RACF Reports On-Demand Selection Panel

Five key fields are highlighted above on the RACFROD selection panel. By design, *nothing* other than the RACF unload data set name needs to be entered in the panel. **Simply press the Enter key.** RACFROD generates the tailored JCL and ICETool control statements for *all* 13 reports and subsequently displays the executable content using the ISPF PDF editor.

1. **RACF Unload Data Set Name** – The RACF unload data set name is a mandatory, input data set name. It contains IRRDBU00 data records to be processed by DFSort and ICETool. The default data set name is SECURITP.RACF.UNLOAD(0), but it may be changed freely. The RACF unload utility, IRRDBU00, unloads (i.e. creates) a new generation of data by this name (typically daily) from the RACF data base. The maximum number of retained generations is site specific and may be viewed using IDCAMS LISTCAT.
2. **S/X** – This input field is the report selection choice in which the client types one of the characters S, s, X, or x to initiate batch control statement generation. If ALL is selected, JCL, DFSort, and ICETool control statements are generated for all 13 RACF reports. If a combination of ALL and one or more subsequent report selections is made, RACFROD will ignore individual selections and defaults to processing all 13 reports. No error message is produced.
3. **RecTyp** – Apart from ALL, this text field is the IRRDBU00 record type number (or variation thereof) to be used as input to ICETool processing. The record types are documented in [IBM Security Server RACF Macro and Interfaces](#), Ch. 9, RACF database unload utility (IRRDBU00) records.
4. **IRRDBU00 Record Name** - The IBM-assigned name (text) for the given record number is highlighted in white. The record names are documented in [IBM Security Server RACF Macro and Interfaces](#), Ch. 9, RACF database unload utility (IRRDBU00) records.
5. **DFSort ICETool Report Headings** – As coded in the ICETool control statements, these self-describing headers displayed below the IRRDBU00 Record Name appear at the top of each ICETool report.

Point and Shoot: Report Selection and Job Stream Generation by Mouse

As stated previously, the **RecTyp** column consists of self-describing IRRDBU00 record type numbers or variations thereof. Each of these 14 RecTyp text fields is 3-4 characters in length. More important, however, each text string is **mouse-sensitive**. IBM refers to this characteristic of an ISPF panel definition as a *'point-and-shoot'* (or PNTS) text field.

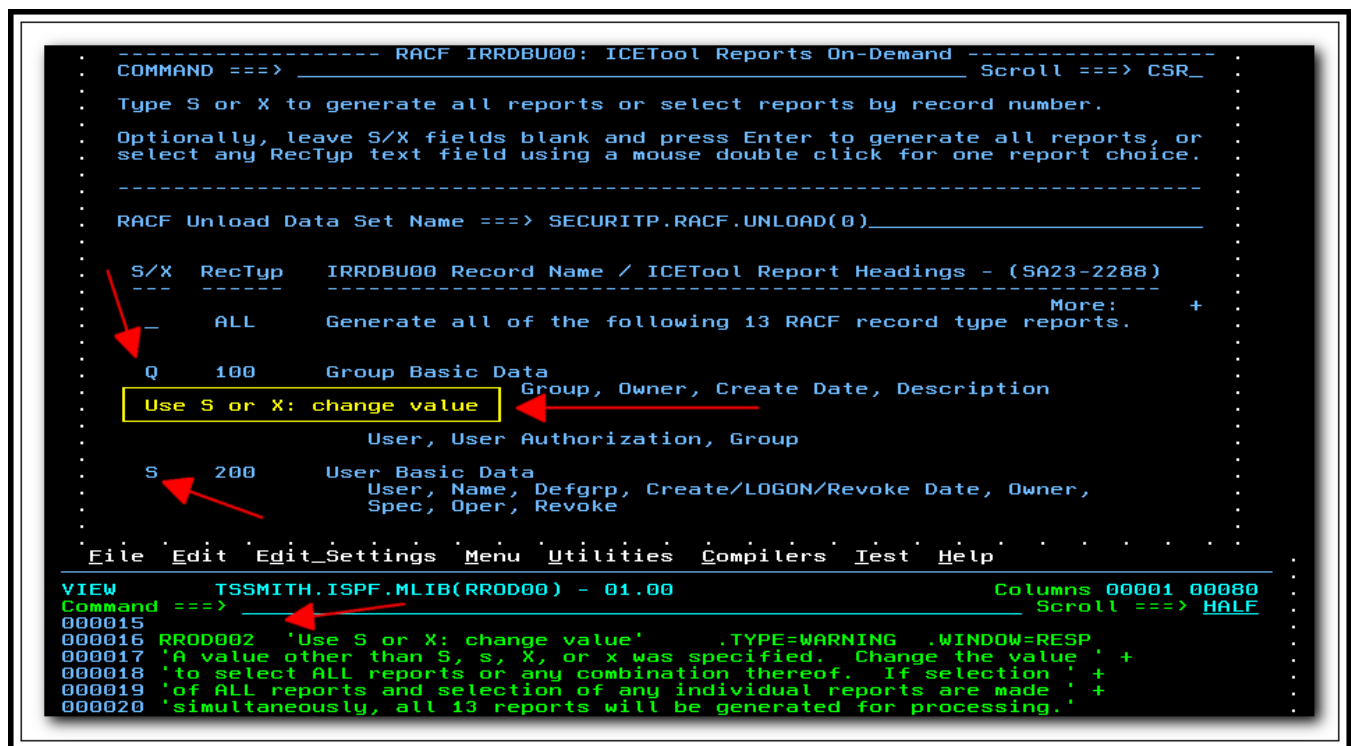
By placing one's mouse cursor on the designated point-and-shoot text and double clicking, RACFROD will automatically expedite selection of that individual report for batch processing, bypass any requirement to specify a S/X selection choice of S, s, X, or x, and generate report JCL, DFSort, and ICETool job control statements.

Upon completion of this process (technically known as ISPF 'file tailoring'), the client is placed directly into a PDF edit session. Henceforth, no further interaction with the selection panel is possible. The batch job is fully composed – i.e. tailored. At the client's discretion, the job stream can be edited further and/or submitted immediately to JES2 for batch execution.

Error handling: Correcting Erroneous S/X Selection Choices

If in the process of selecting a report in the S/X input field, a client erroneously enters a value other than S, s, X, x, RACFROD will display error message RROD002 **"Use S or X: change value"**. In the following example, the letter "Q" was typed mistakenly when selecting **RecTyp 100, Group Basic Data**, followed by a correct value of "S" for **RecTyp 200, User Basic Data**.

To clear error message RROD002, simply press the Enter key to unlock the keyboard, change the "Q" to a "S" (or blank to deselect), make any other selections or erasures, and press Enter to proceed.



```
----- RACF IRRDBU00: ICETool Reports On-Demand -----
COMMAND ==> _____ Scroll ==> CSR_

Type S or X to generate all reports or select reports by record number.

Optionally, leave S/X fields blank and press Enter to generate all reports, or
select any RecTyp text field using a mouse double click for one report choice.

-----
RACF Unload Data Set Name ==> SECURITP.RACF.UNLOAD(0)_____

S/X  RecTyp  IRRDBU00 Record Name / ICETool Report Headings - (SA23-2288)
-----
-    ALL      Generate all of the following 13 RACF record type reports.      +
Q    100      Group Basic Data
                        Group, Owner, Create Date, Description
                        User, User Authorization, Group
Use S or X: change value
S    200      User Basic Data
                        User, Name, Defgrp, Create/LOGON/Revoke Date, Owner,
                        Spec, Oper, Revoke

File Edit Edit_Settings Menu Utilities Compilers Test Help

VIEW      TSSMITH.ISPF.MLIB(RROD00) - 01.00      Columns 00001 00080
Command ==> _____ Scroll ==> HALF
000015
000016 RROD002 'Use S or X: change value' .TYPE=WARNING .WINDOW=RESP
000017 'A value other than S, s, X, or x was specified. Change the value ' +
000018 'to select ALL reports or any combination thereof. If selection ' +
000019 'of ALL reports and selection of any individual reports are made ' +
000020 'simultaneously, all 13 reports will be generated for processing.'
```

Figure 7 Correcting an Erroneous S/X Selection Value

Interpreting, Submitting, & Canceling RACF Job Streams

As discussed previously, upon completion of report selection, file tailoring takes place and the client is placed in a PDF edit session. The PDF editor displays the NOTES message block, the JOB and JECL statements, the invoking batch ICETool JCL, DFSort control statements, and ICETool utility control statements used to format the selected RACF report(s).

Displayed below are the 'notes block', the JOB, and the JECL statements generated by ISPF file tailoring for the subject ICETool report. The 13 consecutive "**=NOTE=**" statements are non-data records, which are not included with the generated job stream or submitted to JES2 for batch processing. They are easily removed from display by typing "RESET" (or RES) on the PDF Command line; in addition, they may be hidden using the "EXCLUDE" (or X) line command.

NOTE: Observe the following '**Message to RACFROD Users**' as it describes client interaction with the editor that controls subsequent dialog processing.

1. **To SUBMIT** the following job control statements to JES2 for batch processing and immediately terminate the current ISPF EDIT session, **press the PF3** program function key.
2. **To CANCEL** the EDIT session and discard the following generated job control statements, **type CAN or CANCEL** in the Command line and then **press the Enter** key. No batch job is submitted.

To comply with installation processing and security requirements, examine and change as appropriate lines 1-2, the JOB statement and its continuation, and line 3, the JES2 JECL (JES Execution Control Language) JOBPARM statement. The JOBPARM LINES parameter, L=999999, specifies the maximum value or action to be taken by JES2 when output generation exceeds 999,999 lines.

```

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT TSSMITH.ISP04301.A111.SPFTMP1.CNTL Columns 00001 00080
Command ==> Scroll ==> HALF
***** Top of Data *****
=NOTE= -----> Message to RACFROD Users <-----
=NOTE=
=NOTE= To SUBMIT the following job control statements to JES2 for batch
=NOTE= processing and immediately terminate the current ISPF EDIT session,
=NOTE= press the PF3 program function key.
=NOTE=
=NOTE= To CANCEL the EDIT session and discard the following generated job
=NOTE= control statements, type CAN or CANCEL in the Command line and then
=NOTE= press the Enter key.
=NOTE= -----> Message to RACFROD Users <-----
=NOTE=
000001 //TSSMITHR JOB (PS111APM,32),'RACF ICETOOL Reports',CLASS=A,
000002 // MSGLEVEL=(1,1),MSGCLASS=X,NOTIFY=TSSMITH,REGION=0M
000003 /*JOBPARM L=999999
000004 /*
000005 /* ----- *
000006 /* RACF Reports On-Demand *
000007 /* *
000008 /* z/OS Security Server RACF Security Administrator's Guide *
000009 /* SA23-2289 *
000010 /* z/OS Security Server RACF Macros and Interfaces *
000011 /* SA23-2288 *
000012 /* *
000013 /* ----- *
000014 /* Extract generic, data set, and group data from RACF IRRDBU00 *
000015 /* ----- *
000016 /*
000017 /*

```

Figure 8 File Tailoring Output: NOTEs Block and JOB Statements

The screen capture on the following page represents the completely tailored batch job stream for a single, [RecTyp 100 Group Basic Data](#) report.

All RACFROD jobs include the following job control language DD (data definition) names: **DFSMSG**, **TOOLMSG**, and **DBUDATA**.

1. **DFSMSG**:
This DDNAME is specific to DFSort and is its system output (SYSOUT) message data set.
2. **TOOLMSG**:
This DDNAME is specific to ICETool and is its system output (SYSOUT) message data set.
3. **DBUDATA**:
This DDNAME is the ICETOOL input file. It consists of physical sequential data unloaded from the RACF data base by IRRDBU00 with a typical DCB=(DSORG=PS-E, RECFM=VB, LRECL=4096, BLKSIZE=24576).

The **GPBD**, **TEMP100**, and **L100CNTL** DDNAMEs (and other report-specific variations thereof) are generated for each selected report type. They are declared by the DFSORT and ICETOOL in-stream control statements, **[SORT](#)** and **[DISPLAY](#)**, and follow **TOOLIN DD ***. As unique, report-specific control statements, SORT and DISPLAY define and govern all aspects of DFSort and ICETool processing including the formation of their respective DDNAMEs.

1. **GPBD** (and report-specific variations thereof):
This DDNAME is specific to ICETool and is the formatted RecTyp 100 Group Basic Data report (the batch output).
2. **TEMP100** (and report-specific variations thereof):
This DDNAME is specific to ICETool and is a temporary work file used to format the RecTyp 100 Group Basic Data report.

3. **L100CNTL** (and report-specific variations thereof):

This DDNAME consists of in-stream, DFSort control statements used to sort the RecTyp 100 records found in the DBUDATA input file.

```

File Edit Edit_Settings Menu Utilities Compilers Test Help
EDIT TSSMITH.ISP04301.A111.SPFTMP1.CNTL Columns 00001 00080
Command ==> Scroll ==> HALF
***** ***** Top of Data *****
----- 13 Line(s) not Displayed -----
000001 //TSSMITHR JOB (PS111APM,32),'RACF ICETOOL Reports',CLASS=A,
000002 // MSGLEVEL=(1,1),MSGCLASS=X,NOTIFY=TSSMITH,REGION=0M
000003 //*JOBPARM L=999999
000004 //*
000005 //* ----- *
000006 //* RACF Reports On-Demand *
000007 //* *
000008 //* z/OS Security Server RACF Security Administrator's Guide *
000009 //* SA23-2289 *
000010 //* z/OS Security Server RACF Macros and Interfaces *
000011 //* SA23-2288 *
000012 //* ----- *
000013 //* Extract generic, data set, and group data from RACF IRRDBU00 *
000014 //* ----- *
000015 //* Select generic classes and sort them by CLASS and PROFILE *
000016 //* ----- *
000017 //*
000018 //*
000019 //*
000020 //*
000021 //*
000022 //ICETOOL EXEC PGM=ICETOOL,PARM='MSGPRT=ALL'
000023 //ADUDATA DD DUMMY
000024 //DFSMSG DD SYSOUT=*
000025 //TOOLMSG DD SYSOUT=*
000026 //SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(400,50))
000027 //SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(400,50))
000028 //SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(400,50))
000029 //SORTWK04 DD UNIT=SYSDA,SPACE=(CYL,(400,50))
000030 //*
000031 //DBUDATA DD DISP=SHR,DSN=SECURITP.RACF.UNLOAD(0)
000032 //*
000033 //* ----- *
000034 //* ICETOOL processing and output formatting of IRRDBU00 data *
000035 //* ----- *
000036 //*
000037 //GPBD DD SYSOUT=*
000038 //*
000039 //TEMP100 DD DISP=(,DELETE,DELETE),SPACE=(CYL,(100,100,0))
000040 //*
000041 //TOOLIN DD *
000042 SORT FROM(DBUDATA) TO(TEMP100) USING(L100)
000043 DISPLAY FROM(TEMP100) LIST(GPBD)
000044 BLANK
000045 TITLE('GROUP BASIC DATA') DATE TIME PAGE
000046 HEADER('GROUP') ON(10,8,CH)
000047 HEADER('SUP GROUP') ON(19,8,CH)
000048 HEADER('OWNER') ON(39,8,CH)
000049 HEADER('CREATE DATE') ON(28,10,CH)
000050 HEADER('DESCRIPTION') ON(62,60,CH)
000051 //*
000052 //L100CNTL DD *
000053 SORT FIELDS=(10,8,CH,A)
000054 INCLUDE COND=(5,4,CH,EQ,C'0100')
000055 OPTION VLSHRT
000056 //*

```

Figure 9 File Tailoring Output: Key IRRDBU00 and ICETOOL DDNAMEs

Sample RACF ICETool Reports

Displaying the Discrete JES2 Output Report Data Sets

The SDSF JOB Data Set Display is presented by using the ? line command from the Held Output Queue Display.

Rows 4-5 are the DFSort and ICETool report data sets, DFSMSG and TOOLMSG. They contain the real-time processing statistics and any error messages generated during DFSort and ICETool processing, respectively. Reviewing these data sets is generally unnecessary except during software development of new reports or should real-time errors occur during execution of the batch job.

Rows 6-18 are the 13 RACF IRRDBU00 ICETool reports, one per data set and any one of which can be viewed by typing the character S in the NP column on the left.

Display Filter View Print Options Search Help												
SDSF JOB DATA SET DISPLAY - JOB TSSMITHR (JOB07940)								DATA SET DISPLAYED				
COMMAND INPUT ==>								SCROLL ==> CSR				
PREFIX=** DEST=(ALL) OWNER=TSSMITH SYSNAME=												
NP	####	DDNAME	StepName	ProcStep	DSID	Owner	C	Dest	Rec-Cnt	Page-Cnt	Byte-Cnt	CC
	1	JESMSGLG	JES2		2	TSSMITH	X	LOCAL	20		924	1
	2	JESJCL	JES2		3	TSSMITH	X	LOCAL	78		4,202	1
	3	JESYSMSG	JES2		4	TSSMITH	X	LOCAL	707		45,555	1
	4	DFSMSG	ICETOOL		115	TSSMITH	X	LOCAL	990		67,924	1
	5	TOOLMSG	ICETOOL		116	TSSMITH	X	LOCAL	267		14,798	1
	6	DSACC	ICETOOL		117	TSSMITH	X	LOCAL	15,139		494,678	1
	7	DSACCG	ICETOOL		118	TSSMITH	X	LOCAL	6,439		388,478	1
	8	DSBD	ICETOOL		119	TSSMITH	X	LOCAL	1,880		265,565	1
	9	GPBD	ICETOOL		120	TSSMITH	X	LOCAL	432		31,453	1
	10	GPMEM	ICETOOL		121	TSSMITH	X	LOCAL	6,656		134,457	1
	11	GRACC	ICETOOL		122	TSSMITH	X	LOCAL	6,850		480,312	1
	12	GRACCG	ICETOOL		123	TSSMITH	X	LOCAL	7,660		521,061	1
	13	GRBD	ICETOOL		124	TSSMITH	X	LOCAL	2,048		261,154	1
	14	STDATA	ICETOOL		125	TSSMITH	X	LOCAL	111		9,889	1
	15	USBD	ICETOOL		126	TSSMITH	X	LOCAL	1,269		145,986	1
	16	USCON	ICETOOL		127	TSSMITH	X	LOCAL	11,942		468,831	1
	17	USOMVS	ICETOOL		128	TSSMITH	X	LOCAL	158		11,814	1
	18	USTSO	ICETOOL		129	TSSMITH	X	LOCAL	139		9,903	1

Figure 10 SDSF JOB Output Data Set Display by ICETool Report DDNAME

Record Type 100 [GPBD] - Group Basic Data

Output headings: Group Basic Data, Group, Sup Group, Owner, Create Date, Description

Display	Filter	View	Print	Options	Search	Help

SDSF OUTPUT DISPLAY TSSMITHR JOB07904			DSID	120	LINE 0	COLUMNS 02- 161
COMMAND INPUT ==>						SCROLL ==> CSR
***** TOP OF DATA *****						
T100/GPBD - Group Basic Data			12/27/19	12:11:47	- 1 -	
Group	Sup Group	Owner	Create Date	Description		

ADLTPROF	SFADP	SFADP	2019-08-13	ADULT PROBATION FLASH		
ADLTPROP	SFADP	SFADP	2019-07-16	ADULT PROBATION PRODUCTION		
ADLTPROT	SFADP	SFADP	2019-07-16	ADULT PROBATION TEST		
ADMDIV00	SFADM	SFADM	2019-07-16	SFADM DIVISION 00		
ADMSEC00	SFADM	SFADM	2019-07-16	SFADM SECTION 00		
ADPDIV00	SFADP	SFADP	2019-07-16	SFADP DIVISION 00		
ADPSEC00	SFADP	SFADP	2019-07-16	SFADP SECTION 00		
AIRDIV00	SFAIR	SFAIR	2019-07-16	SFAIR DIVISION 00		
AIRDIV02	SFAIR	SFAIR	2019-07-16	SFAIR DIVISION 02		
AIRJOBS	SFAIR	SFAIR	2019-07-16	00APA AIRPORT COMMISSION JOBS		
ATDSE000	SEATR	SEATR	2019-07-16	SEATR SECTION 00		

Figure 11 Record Type 100 [GPBD] - Group Basic Data

Record Type 102 [GPMEM] - Group Members

Output headings: Group Members, Group, User, User Auth

```

Display  Filter  View  Print  Options  Search  Help
-----
SDSF OUTPUT DISPLAY TSSMITHR JOB07904  DSID    121 LINE 0          COLUMNS
COMMAND INPUT ==>                                SCROLL ==
***** TOP OF DATA *****
T102/GPMEM - Group Members          12/27/19          12:11:49          - 1 -

Group :  ADMDIV00

User      User Auth
-----
ICBURTO   USE
ICCHEPA   USE
ICCHSAN   USE
ICCLARM   USE
ICFARLE   USE
ICFLORN   USE
ICGIANV    USE
ICGUEVD   USE

```

Figure 12 Record Type 102 [GPMEM] - Group Members

Record Type 200 [USBD] - User Basic Data

Output headings: User Basic Data, User, Name, DefGrp, Create Date, Logon Date, Revoke Date, Owner, Spec, Oper, Revoke

Display Filter View Print Options Search Help									

SDSF OUTPUT DISPLAY TSSMITHR JOB07904 DSID 126 LINE 0				COLUMNS 02- 161					
COMMAND INPUT ==> _				SCROLL ==> CSR					
***** TOP OF DATA *****									
T200/USBD - User Basic Data				12/27/19		12:11:52		- 1 -	

User	Name	DefGrp	Create Date	Logon Date	Revoke Date	Owner	Spec	Oper	Revoke

irrcerta	CERTAUTH Anchor		2019-07-16			irrcerta	NO	NO	YES
irrmulti	Criteria Anchor		2019-07-16			irrmulti	NO	NO	YES
irrsitec	SITE Anchor		2019-07-16			irrsitec	NO	NO	YES
ACFBKUP	SECURITY BACKUP	SFTIS	2019-07-16	019-07-16		SYS1	NO	NO	NO
ACFCICSM	NETWORK-TP ACFCICSM	SYSJOBS	2019-07-16	019-07-16		SYS1	NO	YES	NO
ACFCICSP	NETWORK-TP ACFCICSP	SYSJOBS	2019-07-16	019-11-07		SYS1	NO	YES	NO
ACFCICST	NETWORK-TP ACFCICST	SYSJOBS	2019-07-16	019-12-27		SYS1	NO	YES	NO
ACFFAMSA	NETOWRK-TP ACFFAMSA	SYSJOBS	2019-07-16	019-12-26		SYS1	NO	YES	NO
ACFFAMSC	NETWORK-TP ACFFAMSC	SYSJOBS	2019-07-16	019-12-26		SYS1	NO	YES	NO
ACFFAMSF	NETWORK-TP ACFFAMSF	SYSJOBS	2019-07-16	019-12-26		SYS1	NO	YES	NO

Figure 13 Record Type 200 [USBD] - User Basic Data

Record Type 205 [USCON] - Group Connections

Output headings: Group Connections, User, Group, Owner, Connect Date, Last Connect, Revoke Date

```

Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY TSSMITHR JOB07940 DSID 127 LINE 0 COLUMNS 02-
COMMAND INPUT ==> _ SCROLL ==> C
***** TOP OF DATA *****
T205/USCON - Group Connections 12/27/19 15:52:35 - 1 -

User : ACFBKUP

Group Owner Connect Date Last Connect Revoke Date
-----
DTISSEC SYS1 019-07-16
SFTIS SYS1 019-07-16
TISDIV02 SYS1 019-07-16
TISSEC03 SYS1 019-07-16
T205/USCON - Group Connections 12/27/19 15:52:35 - 2 -

User : ACFCICSM

Group Owner Connect Date Last Connect Revoke Date
-----
DTISNETJ SYS1 019-07-16
SYSJOBS SYS1 019-07-16
TISDIV02 SYS1 019-07-16
TISSEC03 SYS1 019-07-16
T205/USCON - Group Connections 12/27/19 15:52:35 - 3 -

User : ACFCICSP

```

Figure 14 Record Type 205 [USCON] - Group Connections

Record Type 220 [USTSO] - User TSO Data

Output headings: User TSO Data, User, Proc, Size, MaxSize, Unit, Account

Display	Filter	View	Print	Options	Search	Help

SDSF OUTPUT DISPLAY TSSMITHR JOB07940 DSID 129 LINE 0						COLUMNS 1
COMMAND INPUT ==> _						SCROLL ==
***** TOP OF DATA *****						
T220/USTSO - User TSO Data 12/27/19 15:52:37 - 1 -						

User	Proc	Size	MaxSize	Unit	Account	

ICAJOST	VTAMTSO	0000004096	0000006144	SYSALLDA	PS123CPD	
ICASCAN	VTAMTSO	0000004096	0000006144	SYSALLDA	PS261IPT	
ICASPIR		0000000000	0000000000	SYSALLDA		
ICBENSO	VTAMTSO	0000004096	0000006144	SYSALLDA	PS735FMS	
ICBURRU	VTAMTSO	0000004096	0000006144	SYSALLDA	PS	
ICCHAUG	VTAMTSO	0000004096	0000006144	SYSALLDA	PS725AFC	
ICCHKWA	VTAMTSO	0000004096	0000006144	SYSALLDA	PS735FMS	
ICCHOJO	VTAMTSO	0000004096	0000006144	SYSALLDA	PS311PPS	
ICCHOWE	VTAMTSO	0000004096	0000006144	SYSALLDA	PS	

Figure 15 Record Type 220 [USTSO] - User TSO Data

Record Type 270 [USOMVS] - User OMVS (Unix System Services) Data

Output headings: User OMVS Data, User, UID, Home Path, Program

Display	Filter	View	Print	Options	Search	Help

SDSF OUTPUT DISPLAY TSSMITHR JOB07940		DSID	128	LINE 0	COLUMNS 02- 161	
COMMAND INPUT ==>					SCROLL ==> CSR	
***** TOP OF DATA *****						
T270/USOMVS - User OMVS Data		12/27/19	15:52:40	- 1 -		

User	UID	Home Path	Program			

ACFCICSP	0000000000	/				
ACFCICST	0000000000	/				
ACFFAMSA	0000000000	/				
ACFFAMSC	0000000000	/				
ACFFAMSF	0000000000	/				
ACFFAMS0	0000000000	/				
ACFFAMS1	0000000000	/				
ACFFAMS3	0000000000	/				
ACFFAMS4	0000000000	/				
ACFFAMS6	0000000000	/				
ACFSTCID	0010000023	/				
AIA0000A	0010000093	/	/bin/echo			
APSW3300	0010000111	/	/bin/echo			
APSW4000	0010000039	/	/bin/echo			
APSW6500	0010000045	/	/bin/echo			
BPXAS	0000000000	/	/bin/sh			

Figure 16 Record Type 270 [USOMVS] - User OMVS Data

Record Type 400 [DSBD] - Data Set Basic Data

Output headings: Data Set Basic Data, Data Set Profile, Gen, UACC, Create Date, Owner, Last Referenced, Last Changed, Audit Level, Warning

Display Filter View Print Options Search Help								

SDSF OUTPUT DISPLAY TSSMITHR JOB07940 DSID 119 LINE 0			COLUMNS 02- 161					
COMMAND INPUT ==>			SCROLL ==> CSR					
***** TOP OF DATA *****								
T400/DSBD - Data Set Basic Data			12/27/19	15:52:42	- 1 -			
Data Set Profile	Gen	UACC	Create Date	Owner	Last Referenced	Last Changed	Audit Level	Warning

ADLTPROF.**	YES	NONE	2019-08-14	SYS1	2019-08-14	2019-08-14	FAIL	NO
ADLTPROP.**	YES	NONE	2019-08-10	SYS1	2019-08-10	2019-08-10	FAIL	NO
ADLTPROT.**	YES	NONE	2019-08-10	SYS1	2019-08-10	2019-08-10	FAIL	NO
CATALOG.**	YES	READ	2019-07-16	SYS1	2019-07-16	2019-07-16	FAIL	NO
CATALOG.MASTER	YES	READ	2019-09-18	SYS1	2019-09-18	2019-09-18	FAIL	NO
CEA.*	YES	NONE	2019-07-19	SYS1	2019-07-19	2019-07-19	FAIL	NO
CICSLOGR.CIC**,**	YES	NONE	2019-07-16	SYS1	2019-07-16	2019-07-16	FAIL	NO
CICSLOGR.FAM**,**	YES	NONE	2019-07-16	SYS1	2019-07-16	2019-07-16	FAIL	NO

Figure 17 Record Type 400 [DSBD] - Data Set Basic Data

Record Type 404 [DSACC] - Data Set Access

Output headings: Data Set Access, DataSet Profile, Group, Access, Access Count

```

Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY TSSMITHR JOB07940 DSID 117 LINE 0 COLUMNS 02
COMMAND INPUT ==> _ SCROLL ==>
***** TOP OF DATA *****
T404/DSACC - Data Set Access 12/27/19 15:52:45 - 1 -

DataSet Profile: ADLTPROF.**

Group Access Access Count
-----
DTISCMS ALTER 0000
DTISHOJ ALTER 0000
SFPOL READ 0000
SYS1 ALTER 0000
TISSEC03 UPDATE 0000
T404/DSACC - Data Set Access 12/27/19 15:52:45 - 2 -

DataSet Profile: ADLTPROP.**

Group Access Access Count
-----
DTISCMS ALTER 0000

```

Figure 18 Record Type 404 [DSACC] - Data Set Access

Record Type 404(U) [DSACCG] - Data Set Access by Group

Output headings: Data Set Access by Group, Group, Data Set Profile, Access, Access Count

Display	Filter	View	Print	Options	Search	Help

SDSF OUTPUT DISPLAY TSSMITHR JOB07940 DSID 118 LINE 0 COLUMNS 02- 161						
COMMAND INPUT ==> SCROLL ==> CSR						
***** TOP OF DATA *****						
T404U/DSACCG - Data Set Access by Group 12/27/19 15:52:47 - 1 -						
Group: ACFBKUP						
Data Set Profile Access Access Count						

SYS1.ACF.** ALTER 0000						
T404U/DSACCG - Data Set Access by Group 12/27/19 15:52:47 - 2 -						
Group: ACFSTCID						
Data Set Profile Access Access Count						

SYS1.** ALTER 0000						
T404U/DSACCG - Data Set Access by Group 12/27/19 15:52:47 - 3 -						

Figure 19 Record Type 404(U) [DSACCG] - Data Set Group Access

Record Type 500 [GRBD] - General Resource Basic Data

Output headings: General Resource Basic Data, Class, Profile Name, Gen, UACC, Create Date, Owner, Last Referenced, Last Changed, Audit Level, Warning

Display	Filter	View	Print	Options	Search	Help		

SDSF OUTPUT DISPLAY TSSMITHR JOB07940 DSID 124 LINE 0				COLUMNS 02- 161				
COMMAND INPUT ==>				SCROLL ==> CSR				
***** TOP OF DATA *****								
T500/GRBD - General Resource Basic Data		12/27/19	15:52:50	- 1 -				
Class : \$VPS								
Profile Name	Gen	UACC	Create Date	Owner	Last Referenced	Last Changed	Audit Level	Warning

VPS.ALL	NO	NONE	2019-07-16	IBMUSER	2019-07-16	2019-07-16	FAIL	NO
T500/GRBD - General Resource Basic Data		12/27/19	15:52:50	- 2 -				
Class : ACCTNUM								
Profile Name	Gen	UACC	Create Date	Owner	Last Referenced	Last Changed	Audit Level	Warning

PS111APM	NO	READ	2019-07-16	IBMUSER	2019-07-16	2019-07-16	FAIL	NO
PS111NWK	NO	READ	2019-07-16	IBMUSER	2019-07-16	2019-07-16	FAIL	NO
PS111USA	NO	READ	2019-07-16	IBMUSER	2019-07-16	2019-07-16	FAIL	NO
PS115AAA	NO	READ	2019-07-16	IBMUSER	2019-07-16	2019-07-16	FAIL	NO
PS115ABA	NO	READ	2019-07-16	IBMUSER	2019-07-16	2019-07-16	FAIL	NO
PS115ACA	NO	READ	2019-07-16	IBMUSER	2019-07-16	2019-07-16	FAIL	NO
PS115ADB	NO	READ	2019-07-16	IBMUSER	2019-07-16	2019-07-16	FAIL	NO

Figure 20 Record Type 500 [GRBD] - General Resource Basic Data

Record Type 505 [GRACC] - General Resource Access

Output headings: General Resource Access, Class, Profile Name, Group, Access, Access Count

```

Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY TSSMITHR JOB07940 DSID 122 LINE 0 COLUMNS 02- 161
COMMAND INPUT ==> SCROLL ==> CSR
***** TOP OF DATA *****
T505/GRACC - General Resource Access 12/27/19 15:52:52 - 1 -

Class : $VPS

Profile Name Group Access Access Count
-----
VPS.ALL SYS1 ALTER 0000
VPS.ALL TISSEC01 READ 0000
VPS.ALL TISSEC03 READ 0000
T505/GRACC - General Resource Access 12/27/19 15:52:52 - 2 -

Class : ACCTNUM

Profile Name Group Access Access Count
-----
PS111APM SYS1 ALTER 0000
PS111NWK SYS1 ALTER 0000
PS111USA SYS1 ALTER 0000
PS115AAA DTISPROP READ 0000
PS115AAA SYS1 ALTER 0000
PS115ABA DTISPROP READ 0000

```

Figure 21 Record Type 505 [GRACC] - General Resource Access

Record Type 505(U) [GRACCG] - General Resource Access by Group

Output headings: General Resource Access by Group, Group, Class, Profile Name, Access, Access Count

```

Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY TSSMITHR JOB07937 DSID 123 LINE 0 COLUMNS 02- 161
COMMAND INPUT ==> SCROLL ==> CSR
***** TOP OF DATA *****
T505U/GRACCG - General Resource Access by Group 12/27/19 15:33:57 - 1 -

Group : ACFCICSP

Class Profile Name Access Access Count
-----
SURROGAT DFT1TFAM.DFHINSTL READ 0000
SURROGAT DFT2TFAM.DFHINSTL READ 0000
T505U/GRACCG - General Resource Access by Group 12/27/19 15:33:57 - 2 -

Group : ACFCICST

Class Profile Name Access Access Count
-----
FACILITY IRR.DIGTCERT.LIST READ 0000
FACILITY IRR.DIGTCERT.LISTRING READ 0000

```

Figure 22 Record Type 505(U) [GRACCG] - General Resource Access by Group

Record Type 540 [STDATA/GRST] - General Resource Started Task Data

Output headings: Started Task Segment, Profile Name, User, Group, Trust, Priv, Trace

```

Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY TSSMITHR JOB07940  DSID   125 LINE 0          COLUMNS 02- 161
COMMAND INPUT ==>                               SCROLL ==> CSR
***** TOP OF DATA *****
T540/STDATA - Started Task Segment          12/27/19          15:52:57          - 1 -

Profile Name                                User              Group             Trust             Priv             Trace
-----
*.**
ACFBKUP.**                                ACFSTCID          DTISOPJSJ         NO                NO                NO
ANTAS000.**                              ANTAS000          SYS1              YES               YES               NO
ANTMAIN.**                                ANTMMAIN          SYS1              YES               NO                NO
APPC.**                                    APPC              SYS1              NO                NO                NO
APSW3300.**                              APSW3300          SYS1              NO                NO                NO
APSW4000.**                              APSW4000          SYS1              NO                NO                NO
APSW6500                                APSW6500          SYS1              YES               YES               NO
APSW6500.**                              APSW6500          SYS1              NO                NO                NO
ASCH.**                                    ASCH              SYS1              NO                NO                NO

```

Figure 23 Record Type 540 [STDATA/GRST] - General Resource Started Task Data

IBM Technical Publications & Online Resources

IBM z/OS Security Server RACF and TSO/E technical publications are available online and may be downloaded *gratis* from the IBM Knowledge Center.

<https://www.ibm.com/it-infrastructure/z/zos>

<https://www-01.ibm.com/servers/resourceLink/svc00100.nsf/pages/zOSV2R3Library?OpenDocument>

z/OS Security Server RACF: Complete Publications Library

https://www.ibm.com/support/knowledgecenter/SSLTBW_2.3.0/com.ibm.zos.v2r3.ich/ich.htm

Hyperlinks to frequently used RACF publications:

<u>Document Name</u>	<u>Publication No.</u>
1. z/OS Security Server RACF Macros and Interfaces	SA23-2288
2. z/OS Security Server RACF Security Administrator's Guide	SA23-2289
3. z/OS Security Server RACF Messages and Codes	SA23-2291
4. z/OS Security Server RACF General User's Guide	SA23-2298 ← Recommended

z/OS Introduction: An IBM Redbooks Video Course

<https://www.redbooks.ibm.com/redbooks.nsf/redbookabstracts/crse0304.html?Open>

TSO/E Information Roadmap: Complete Publications Library

https://www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zc100/tso.htm

TSO/E Primer

https://www.ibm.com/support/knowledgecenter/SSLTBW_2.4.0/com.ibm.zos.v2r4.e0zc100/tso.htm?mhsrc=ibmse_arch_a&mhq=TSO%2FE

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