

RACF Administration

Course Summary

Description

The RACF Administration class provides students with a comprehensive understanding of how RACF works. RACF commands and RACF panels are taught and the student will have an opportunity to execute RACF commands in a lab environment. They will build a RACF group structure, define USER profiles, protect datasets and other general resources, permit users and groups to datasets and general resources, and more. This class teaches the 'why' not just the 'how'. It provides the student with the knowledge they need to understand how best to secure the environment. They will learn what auditors will look for in a well-secured environment. Practical examples are used throughout the course material. In addition, helpful hints are provided to give the student an understanding of how to improve performance, lessen administrative tasks, and streamline the security environment for ease of administration. The online labs give the student time to practice the commands as line commands, in online panels, in batch, and in commands lists. For more detail on specific topics included in the course, please refer to the course topic detail below.

Topics

- Overview of z/OS and RACF Concepts
- User Administration
- Group Structure and Administration
- Decentralized RACF Security Administration
- Dataset Protection
- General Resource Protection
- CICS Protection
- RACF Global Options
- Search Function
- RACF Reporting
- RACF Command Tips and RACF Utilities

Audience

This course is designed for security managers, RACF security administrators, z/OS system programmers or auditors.

Prerequisites

There are no prerequisites for this course, however, since RACF runs under the z/OS operating system, some basic familiarity with that environment including TSO is helpful.

Duration

Four days

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Course Outline

I. Overview of z/OS and RACF Concepts

This section provides a high-level system overview of various z/OS operating system components. It relates these system components to resources that a security administrator may need to protect. The intent is to provide background information to the security topics which are to follow so as to give a security administrator an understanding of what they are protecting. It also lays the groundwork of how RACF works within the operating environment.

II. User Administration

The student will learn how to define a user to RACF. They will learn the commands to define, alter, and delete user profiles using both the RACF line commands and RACF panels. Various parameters of the RACF ADDUSER, ALTUSER, DELUSER, PASSWORD commands are explained. The student will also learn several of the most common user profiles segments such as TSO, CICS and OMVS.

III. Group Structure and Administration

This topic will introduce the student to the RACF group structure. They will also learn how to build and modify the structure using the ADDGROUP, ALTGROU and DELGROUP RACF commands or through the ISPF/PDF panels. The class will discuss various examples of group structure implementations.

IV. Decentralized RACF Administration

The student will learn the differences between system administrators and group-level administrators. The concept of 'scope-of-group' is reviewed. User attributes such as SPECIAL, OPERATIONS and AUDITOR are discussed and how the group structure affects their authority.

V. Dataset Protection

The student will learn about DATASET profiles and how to administer dataset protection. They will define dataset profiles using the RACF ADDSD, ALTDSD and DELDSD commands or through the use of the ISPF/PDF panels. The student will learn how to permit users and groups to datasets using the PERMIT command and panel. Also covered is a discussion of protecting data on tape versus disk, the difference between discrete versus generic dataset profiles,

standard and conditional access lists, how RACF determines which profile protects a data set and more.

VI. General Resources Protection

The student will learn about general resources, what they are, what they protect and how to administer the profiles within these unique classes. We'll discuss protecting access to applications, logon procedures, programs, CICS transactions and protecting TSO commands. Several general resource classes are covered including the TCICSTRN, GCICSTRN, PROGRAM, STARTED, SURROGAT, FACILITY, and many more. The student will learn how to administer the general resource profiles using the RACF line command or panels. They will also learn how to use the PERMIT command or use the panel in order to permit users and groups to general resources. Also covered are the Global Access Checking Table defined through the GLOBAL class and an explanation of what the class POSIT values are and how POSIT affects command execution.

VII. CICS Protection

This topic will expand the students' knowledge by probing further into CICS protection. They will learn the difference between a RACF member class versus grouping class, how to protect transactions using profiles in both types of classes, how to protect CICS programs and CICS applications, how to give a user class authority to administer CICS profiles and how to refresh CICS in-storage profiles.

VIII. RACF Global Options

The student will learn how RACF can be configured using the global options command, SETROPTS. They will learn how to set the password rules for the environment, how to activate and deactivate classes of resources, how to enable protection for datasets and general resources, how RACF uses in-storage profiles and when these profile need to be refreshed, audit settings and more. How to interpret a SETROPTS listing will be explained. Students may bring a sample of their SETROPTS listing to discuss with instructor.

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I. SEARCH Function

The functionality of the SEARCH command will be explained. The student will learn how the search command can help them find what they are looking for in RACF.

IX. RACF Reporting

The student will learn about the reporting options available in RACF. The class will also review the vast amount of information included in the auditor DSMON reports and learn what auditors will typically look for in a RACF environment. Several DSMON reports are reviewed in class.

X. RACF Command Tips and RACF Utilities

The student will learn various command tips and short cuts. They will also learn how to execute RACF commands in command lists (CLISTs), REXX execs and JCL. The RACF cross reference utility and remove ID utility is explained and how they can be used to keep the RACF environment clean, up-to-date and manageable. Finally, a review of the various RACF manuals, the help command, and an explanation of other ways the student can obtain additional information about RACF is provided so the student can find help if and when they should need it.