TSO/E LOGON: What Are My Options?

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Eric Rosenfeld
rosenfel@us.ibm.com

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Agenda

- In the beginning …
- Exits
- Fullscreen vs. Line Mode
- UADS and RACF Defined Users
- Mixed Case Passwords
- Password Phrases
- VERIFYAPPL
- LOGONHERE
- Password Preprompting (Coming Soon)
In The Beginning...

- LOGON command
  - Line Mode
  - All parameters needed to be specified
  - Some prompting for values not specified

  ```
  \_LOGON\_user_identity\____________________________________________________>
  |_/password_____________________|
  |_/new_password_|
  >\_________________________________________________________________________>
  |_ACCT(account)_|   |_PROC(procedure_name)_|   |_SIZE(integer)_|
  >\|_________   __|__|_________|_____________________________________________>
  |_NONOTICES_|    |_NOMAIL_|      |_PERFORM(value)_|       |_RECONNECT____|
  |_NORECONNECT_|
  >\_________________________________________________________________________><
  |_SECLABEL(security_label)_|      |_GROUP(name)_|      |_OIDCARD_|
  ```

Exits - Possible Uses

- IKJEFLD – pre-prompt
  - Supply or change values that users specify on the LOGON command
  - Supply system attributes and user attributes (UPT, PSCB)
  - Provide your own JCL statements
  - Validate the logon information that users enter
  - Display your own logon panel
  - Prevent a user from logging on to TSO/E

- IKJEFLD1 – pre-prompt (authorized)
  - All IKJEFLD uses
  - Supply the first TSO/E command to be executed in the user's session
  - Supply SYSOUT and job classes for the PSCB
  - Supply the primary and secondary language values

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Exits - Possible Uses

- IKJEFLN1 – pre-display
  - Supply information for fields on the logon panel

- IKJEFLN2 – post-display
  - Process fields on the logon panel
  - Validate data on the logon panel
  - Re-prompt for data
  - Display help panels

Exits - Possible Uses ...

- IKJEFLD3 – post-prompt
  - Examine the JCL statements
  - Modify the JCL statements
  - Provide additional JCL statements
  - Terminate the LOGON command

- IKJEFLD2 – LOGOFF
  - Clean up storage obtained by the logon exit
  - Control re-logons
  - Gather accounting information
Fullscreen vs. Line Mode

- Fullscreen
  - Most prompting done on panel
  - Prefills info from last LOGON
- Line Mode
  - All info provided in line mode
  - Only prompted for required data
  - No ability to see last LOGON info

UADS and RACF Defined Users

- **UADS**
  - Administered by ACCOUNT command/subcommands
  - Can set some authorities
    - JCL, OPER, ACCOUNT, MOUNT, RECOVER
- **RACF**
  - Administered by RACF ADDUSER/ALTUSER commands
  - TSO segment contains previous LOGON information
  - RACF general resource profiles define access rights
  - Additional fields displayed on LOGON panel (e.g. group, seclabel)
  - Recommended data store
    - Keep emergency IDs in UADS (Revoked in RACF) for disaster recovery
- **UADS and RACF**
  - Basic info stored in RACF
  - Additional info stored in UADS (e.g. proc, acct)
UADS User

account
ACCOUNT
list (IBMUSER)
IBMUSER USER ATTRIBUTES: OPER ACCT JCL NOMOUNT RECOVER
INSTALLATION ATTRIBUTES, IN HEX: 0000
MAXSIZE: NOLIM
USER PROFILE TABLE:
00380000000000000000000020000001 IBMUSER
DESTINATION = CENTRAL SITE DEFAULT
HOLD MSGCLASS= (DEFAULT)
JOB CLASS = (DEFAULT)
MESSAGE CLASS= (DEFAULT)
SYSOUT CLASS = (DEFAULT)
NO PERFORMANCE GROUPS
(*)
(*)
IKJACCNT PROCSIZE= 4096K, UNIT NAME= SYSALLDA

RACF User

lu ibmuser tso
USER=IBMUSER NAME=:::::::::::::::::::: OWNER=IBMUSER CREATED=90.317
DEFAULT-GROUP=SYS1 PASSDATE=93.056 PASS-INTERVAL=N/A PHRASEDATE=N/A
ATTRIBUTES=SPECIAL OPERATIONS
ATTRIBUTES=AUDITOR
REVOKE DATE=NONE RESUME DATE=NONE
LAST-ACCESS=15.221/09:07:18
CLASS AUTHORIZATIONS=NONE
NO-INSTALLATION-DATA
NO-MODEL-NAME
LOGON ALLOWED (DAYS) (TIME)
---------------------------------------------
ANYDAY ANYTIME
GROUP=SYS1 AUTH=JOIN CONNECT-OWNER=IBMUSER CONNECT-DATE=93.134
CONNECTS= 2.505 UACC=READ LAST-CONNECT=15.221/09:07:18
CONNECT ATTRIBUTES=NONE
REVOKE DATE=NONE RESUME DATE=NONE
SECURITY-LEVEL=NONE SPECIFIED
CATEGORY-AUTHORIZATION
NONE SPECIFIED
SECURITY-LABEL=SYMULI
DEFINITION OF THIS SECURITY LABEL IS:
NO INFORMATION IS AVAILABLE
RACF User (cont)

TSO INFORMATION
---------------
ACCTNUM= MVS420
PROC= REL5PROC
SIZE= 00050000
MAXSIZE= 00000000
USERDATA= 0000
COMMAND= ispf

User Profile Table (previous LOGON Info) stored, but not listed

RACF Password Options

- SETROPTS (Set RACF Options)
  SETR LIST
  
  PASSWORD PROCESSING OPTIONS:
  THE ACTIVE PASSWORD ENCRYPTION ALGORITHM IS KDFAES
  PASSWORD CHANGE INTERVAL IS 30 DAYS.
  PASSWORD MINIMUM CHANGE INTERVAL IS 1 DAYS.
  MIXED CASE PASSWORD SUPPORT IS IN EFFECT
  SPECIAL CHARACTERS ARE ALLOWED.
  10 GENERATIONS OF PREVIOUS PASSWORDS BEING MAINTAINED.
  AFTER 3 CONSECUTIVE UNSUCCESSFUL PASSWORD ATTEMPTS, A USERID WILL BE REVOKED.
  PASSWORD EXPIRATION WARNING LEVEL IS 3 DAYS.
  NO INSTALLATION PASSWORD SYNTAX RULES ARE PRESENT.
Mixed Case Passwords

• Enabled by RACF
  – SETROPTS PASSWORD(MIXEDCASE | NOMIXEDCASE)

• TSO/E honors RACF setting
  – Will roll password to upper case if MIXEDCASE not in effect
  – Otherwise will leave as is
  – RACF will allow mixed case password to “match” upper case password in DB until user defines first mixed case password

TSO/E Parmlib

• IKJTSOxx member defines TSO/E attributes
• Set/Modified by:
  – PARMLIB user command
    PARMLIB U(xx)
  – SET console command
    SET IKJTSO=xx

• LOGON statement controls LOGON options

LOGON PASSPHRASE(ON | OFF)
  VERIFYAPPL(ON | OFF)
  LOGONHERE(ON | OFF)
  PASSWORDPREPROMPT(ON | OFF)

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Password Phrases

- Enabled via LOGON Statement in IKJTSOxx
  - LOGON PASSPHRASE(ON | OFF)
- Only applies to Fullscreen LOGON
- A password or password phrase can be used
  - Length determines what was used
    - 1-8 Password
    - >8 Phrase
  - In RACF V2R2 a ‘Phrase Only’ user can be defined
- Panel is modified to allow phrases
- If password expired will re-prompt in same field as password
- To change New Password before expiration select option at bottom of panel

LOGON Panel - Phrase

Enter LOGON parameters below: RACF LOGON parameters:

User ID: 
Password: 
Procedure: TSO/MVS: 
Next User: 
Size: 
Perform: 
Comments: 

Enter an ‘X’ before each option desired below: 
-Help PF3/EXIT — Logoff PF11 Must be PF10 Disconnect — IDBoard
You may request specific help information by entering a ‘Y’ in any entry field.
VERIFYAPPL

- Enabled via LOGON Statement in IKJTSOxx
  - LOGON VERIFYAPPL(ON | OFF)

- Passes application ID to RACF when verifying user
- Can restrict access to TSO by APPL class profiles
- Can implement that only daily statistics be taken when using TSO

LOGONHERE

- Enabled via LOGON Statement in IKJTSOxx
  - LOGON LOGONHERE(ON | OFF)

- Make LOGON RECONNECT work even if the user is not disconnected
- Allows LOGON when IKJ56411I TSOLOGON RECONNECT REJECTED -USERID userid IN USE is issued otherwise
Password Prepromting

- Enabled via LOGON Statement in IKJTSOxx
  - LOGON PASSWORDPREPROMPT(ON | OFF)
- Enforces that userid and password entered prior to displaying panel
- Applies to password phrases also
- Will not provide evidence of an existing user if authentication fails
- Ensures that previous logon information is not displayed prior to successful authentication
- Processing occurs after IKJEFLD and IKJEFLD1
  - If other existing exits interrogate/alter Userid or Password in additional processing they may need to be altered before activating
    - Includes RACROUTE REQUEST=VERIFY Exits
- Shipped via PTFs for APAR OA44855 at V1R13, V2R1 and V2R2
Password Preprompting

Password Preprompting
Where Have We Been?

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References:
TSO/E Command Reference
TSO/E Customization
TSO/E System Programming Command Reference