



## **TSO/E REXX Programming; Part II**

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**Duration:** Up to 5 Days (Depending upon selected content.)

**Audience:**

Delegates may be new to REXX, or have some exposure to REXX but need to underpin their experience by formal training.

**Pre-requisites:**

An understanding of computer concepts is assumed.

A working knowledge of TSO/ISPF is required. This can be gained from our z/OS TSO/ISPF Workshop. A knowledge of REXX equivalent to the content of Part I is also deemed appropriate.

**Course Objectives**

Was about the syntax and structure of the language, this is all about exploiting REXX with other components of z/OS. Whilst all modules could be covered, the thinking is that only the required modules would be selected providing focused flexibility with respect to content.

**Course Content**

**Module 10: TSO/E Commands and Output Capture**

List TSO/E Command plus IDCAMS affiliations  
List of TSO/E built-in Functions  
List the member of a PDS(E); TSO/E LISTDS command  
Trapping command output; OUTTRAP Built-in Function  
IDCAMS ALTER Command versus TSO/E RENAME  
Delete a data set or member; IDCAMS versus TSO/E DELETE  
Print a data set; IDCAMS PRINT versus TSO/E PRINTDS, plus the TSO/E OUTDES command  
TSO/E SUBMIT Command  
RACF Commands

**Module 11: Invoking non-REXX programs**

The TSO/E CALL Command  
The TSO/E EXEC Command  
The REXX LINK Environment  
Pass and receive fixed length data; LINKPGM Environment  
Pass and receive data of amended length; LINKMVS Environment  
Search order for all LINK environments



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Return Codes from LINKPGM and LINKMVS

### **Module 12: Using the SDSF Interface**

Add/Delete SDSF Environment

Issuing SDSF primary commands; ISFEXEC instruction

Special panel commands and variable

Using the WHO and QUERY commands

Various Return Codes

Issuing SDSF line commands; ISFACT instruction

The SPOOL variables

Capturing JES2 SPOOL output to a data set

Issuing z/OS commands; ISFSLASH and its variables

### **Module 13: ISPF Overview & Panels**

ISPF structure

Libraries and data sets

Assigning alternative libraries; LIBDEF Command

Checking library status; ISPLIBD Command

ISPF Services; Browse, Control, Display, Edit, Select, VGET, VPUT and View

Establishing default libraries via TSO LOGON procedure

Diagnostic aids

ISPF in Batch

Starting ISPF; ISPSTART Command

ISPF Panel Components; )ATTR, )BODY, )INIT, )REINIT and )PROC

HELP Panels and Messages described

Panel logic; IF / ELSE, GOTO, EXIT

Panel Functions; PFK, TRUNC and VER

Embedding REXX on ISPF Panels

Testing Panels and Functions

### **Module 14: ISPF Variables & Tables**

ISPF Variable Pools; Function pool, Shared pool and Profile pool

Defining variables on the panel

Using pre-defined variables

Using Input and output fields as variables

Using Variables in )INIT, )REINIT, and )PROC

Saving variables - VPUT

Acquiring variables - VGET

Handling short variable names – ZVARS

Control Variables



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Variables in Tables

What are Tables

Positioning within a Table; TBTOP, TBBOTTOM, and TBSKIP

Table management; TBCREATE, TBOPEN, TBADD, TBDELETE, TBGET, TBPUR, TBMOD, TBSORT and TBQUERY

Table display; TBDISPL

Table disposition; TBEND, TBCLOSE and TBSAVE

### **Module 15: ISPF File Tailoring**

Service overview

FTOPEN Service

FTCLOSE Service

FTINCL Service

File tailoring control statements

Conditional selection

Handling character conflicts

Nesting files

Variable assignments

Tables and File Tailoring

### **Module 16: ISPF Library Management**

Overview of instruction relationships

Data set processing; LMINIT, LMOPEN, LMGET, LMPUT, LMCLOSE, LMFREE, LMERASE and LMRENAME

PDS/PDSE processing; LMMFIND, LMMADD, LMMDEL, and LMMREN and LMMREP

Simulate ISPF 3.3; LMCOPY and LMMOVE

Simulate ISPF 3.4; LMDINIT, LMDDISP, LMDLIST and LMDFREE

Library Management Return Codes

LMMFIND statistics

### **Module 17: Accessing z/OS UNIX System Services**

Checking UNIX access; SYSCALLS Built-in Function

Awareness of variable isolation

Permission bit settings

Creating and reading a z/OS UNIX System Services file

Alternatives to readfile and writefile; EXECIO instruction

z/OS UNIX System Service file allocation using TSO ALLOC and BPXWDYN



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### **Module 18: REXX with DB2 and SQL**

Ensuring DB2 is available; SUBCOM command and RXSUBCOM Built-in Function

Making DB2 the default environment; ADDRESS DSNREXX instruction

Connecting to DB2; DSNREXX "CONNECT"

Prohibited SQL statements

SQL statement rules

Using variable

Cursor and Statement naming

The difference between DB2 and REXX variables

Error handling

DB2 Command interface; -DIS and -TERM commands