z/VSE Samples

General samples

- **VSE User Examples** (1.2MB, ZIP)
  Originally part of the VSE Documentation CD-ROM/DVD

VSAM samples

- **CATLG API** (160KB, ZIP)
  VSAM Catalog Management Application Programming Interface

REXX samples

- **REXX/VSE Introduction** (51KB)
  Bernd Dowedeit, REXX/VSE Development, IBM
- **REXX/VSE Enhancements** (191KB)
- **Invoking REXX from Cobol, C, and PLI** (34KB)
  These sample demonstrates basics for invoking a REXX function from higher level languages like Cobol, C, and PLI. These samples make either use of ARXJCL or ARXEXEC to call REXX from a non-REXX program.
- Writing an external REXX function: **REXXFUNC**
  These sample demonstrates basics for coding of an external function in REXX. Besides producing a function result, REXXFUNC demonstrates usage of function parameters
- Writing an external REXX function: **REXXFUN2**
  These sample demonstrates basics for coding of an external function in REXX. Besides producing a function result, REXXFUN2 demonstrates setting of REXX variables using the Variable Pool Access Interface ARXEXCOM.
- **ARXOCSRV.ZIP - Operator Communication Exit to run REXX procedures** (zip, 6KB)
  This operator communication exit allows to start REXX programs from the console using the AR command "MSG *pid*". Every invoked REXX program runs in its own subtask. Since a REXX program is executed within a subtask, there exist some restrictions for the allowed REXX/VSE statements (at least ADDRESS JCL commands and the functions REXXIPT and OPERMSG cannot be used).
- **REXX/VSE VSAMIO Samples** (zip, 15KB)
  Demonstrates the usage of the VSAMIO command.
- **Sample SCANVSAM.ZIP** (zip, 5KB)
  Scans VSAM files for a string.
- **Sample SCANSLIB.ZIP** (zip, 16KB)
  Scans VSE library members for a string.
- **REXX/VSE Socket Samples** (zip, 22KB)
  Several REXX Socket programs.
- **Article about REXX/VSE Socket programming** (120KB)
  From the VSE/ESA Software Newsletter, First/Second Quarter, 2000 . It contains an

introduction into Socket Programming together with code samples demonstrating usage of the SOCKET function.
- Accesing POWER queue entries (txt, 6KB)
  REXX program to copy a POWER queue entry in LST or PUN queue.
- REXX/VSE Automated Console (zip, 269KB)
  Bernd Dowedeit, REXX/VSE Development, IBM
- Sample SORTMULT.ZIP (zip, 2KB)
  Sorts a stem according to multiple zone definitions in ascending or descending order.
- MonitorConsoleWithRexxAndSendSNMPTrap.job (txt, 2KB)
  Monitors the z/VSE console and sends an SNMP trap when a specific message appears.
- REXX/VSE program that scans VSE library members for a string (zip, 16KB)
  Gerard Martinelli, IBM France
- Transfer SCRT89 records via the Host Transfer File (HTF) from the host to a workstation for further processing using SCRT (10KB)
  This example demonstrates how to utilize REXX/VSE to copy records from one VSAM ESDS dataset to another while prepending FTP block mode headers.
  Jens Remus, IBM

Sample REXX code coming with the VSE system

Some sample REXX code comes already with the system. Among them are sample programs to manage VSE/POWER jobs (REXXJMGR, REXXWAIT), and to provide an interactive REXX prompter (REXXTRY). They are shipped within sub library PRD1.BASE. An overview of these programs is given in 'Automated Operation Demos' (Examples) within Chapter 14 of the REXX/VSE Reference Manual.

- The REXX console program to act upon certain messages displayed at the console is called **REXXCO**. It is described in subchapter REXX Console Application Framework of Chapter 14.
- **IESWAITR.PROC** in IJSYSRS.SYSLIB synchronizes startup of CICS-, TCP/IP- and other partitions according to console messages and open reply-ids.
- **REXXPRTL.PROC** in IJSYSRS.SYSLIB together with skeletons SKRXPRT* in ICCF-library 59 can be used to manage the hardcopy file (since VSE/ESA 2.6). REXXPRTL checks whether message *0D20E HARD COPY FILE SHOULD BE PRINTED* has appeared at the console since its previous execution. If yes, a PRINTLOG-job is automatically started.
- **DMPMGR.PR**OC in IJSYSRS.SYSLIB together with skeleton SKDMPMGR in ICCF-library 59 can be used to manage the dump file (since VSE/ESA 2.6). DMPMGR determines the current size of the dump file. If the size has reached a certain limit, appropriate actions are started.

- Skeletons **SKSECTX*** in ICCF-library 59 are provided for migration from CICS/VSE to CICS/TS. They create security definitions for CICS/TS transactions based on either the output of the CICS/VSE Security Migration Aid, on macro DFHPCT.A, or based on a library member containing CICS/VSE DFHCSDUP definitions. These REXX migration programs are described in chapter VSE/ESA 2.4/2.5 Security of the Hints and Tips for z/VSE (PDF, 900KB).

Customer and Vendor REXX samples

Disclaimer: IBM does not make any representations or endorsement of any of the products or services listed here which are provided by non-IBM sources. That information was provided by the named source. In any event, IBM shall not incur any liability by listing the following information.

- RXLOGGER Console Message SYSLOG client (zip, 8KB)
  Written by Kenneth Ripple. RXLOGGER is an RFC3164 compliant SYSLOG client that can be used to forward selected z/VSE Console Messages to a SYSLOG Daemon (SYSLOG server) running on another platform.
- Samples from Rich Smrcina - RSMRCINA.ZIP (zip, 23KB)
  POWERCMD - issue VSE/POWER commands from a batch job
  CICSFILE - enable/open or close a CICS file from a batch job
  COPYRPT - copy VSE/POWER LST qeue entries from a batch job
  RXLSTCAT - execute the IDCAMS LSTCAT function on a VSAM catalog and reformat the listing.
- Sample REXXFUNC.ZIP (zip, 11KB)
  Written by Pat Talley. Demonstrates how to include self-written functions into REXX/VSE.
- Date, Time and TOD-Clock handling in REXX (zip, 6KB)
  Written by Willi Kuhn.
- A REXX based CGI for TCP/IP for VSE to display system activity in a web browser (zip, 14KB)
  Written by Willi Kuhn.

POWER samples

- Job Exit sample program (txt, 25KB)
- Network Receiver exit routine (txt, 48KB)
  Includes a section to locate OPTU (Optional Parameter Text Unit) in NJE Dataset Header record.
- Output Exit sample program (txt, 31KB)
- Network transmitter exit routine (txt, 55KB)
- Spool-Access Support sample program PWRSASEX (txt, 126KB)

LE samples

- Common COBOL/VSE Application for use in CICS and BATCH Environments (15KB)
- Writing Language Environment Main Assembler Applications for CICS/TS on z/VSE (520KB)
- Coding Techniques for Mixed Language Applications under LE/VSE (involving Assembler) (143KB)
- Sample Exit to force LE/CICS wide option settings (46KB)
- Sample Exit to use JCL UPSI switches with COBOL/VSE and LE/VSE (30KB)

Sample code from IBM and customers

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- A SUSE Linux start/stop script for the IBM VSE Virtual Tape Server
  Place the script into the VTAPE server's directory and run "./vtaped.sh install". This will install the VTAPE server as service. To uninstall, run "./vtaped.sh uninstall".
  Jens Remus, IBM
- Archive SMF records created by DMF (zip, 14KB)
  On z/VSE, the Data Management Facility (DMF) collects SMF logging entries which are created by CICS TS and the Basic Security Manager (BSM). Here we provide example jobs which show you how to archive the SMF records and how to create security reports.
  Helmut Hellner, IBM
- REXX Dump Management procedures (zip, 13KB)
  REXX procedures for automated dump management in z/VSE.
  Willi Kuhn
- LDAP enabled CICS signon transaction (zip, 8KB)
  This ZIP archive contains source files for the LDAP enabled CICS signon transaction LDSN that can be used as replacement for CESN.
- COBOL socket programming example (zip, 10KB)
  This ZIP archive contains the source files for the article on "LE/VSE Socket Programming" in Issue 16 of the VSE/ESA Newsletter.
- CICS Program-Autoinstall Program (zip, 9KB)
  A CICS Program-Autoinstall Program that automatically sets DATALOCATION=ANY if the autoinstalled program is AMODE=ANY.
  Willi Kuhn
- CICS Error Recovery Program (zip, 15KB)
  Two examples from Robert Botsis and Tom Cluster
- Display PUB (zip, 4KB)
  Batch program for displaying device type codes of the PUB table.
  Ron Campbell
- Host Transfer File batch utility (zip, 122KB)
  Documentation (PostScript and flat files) included.
  Klaus-Dieter Wacker, VSE Development, IBM

- **PL/I CPI-C programming interface (via APPCCMD calls)** (zip, 414KB)
  Neale Ferguson, New South Wales, Australia
- **Retrieve the value of a // SETPARM statement or simulate the setting of a // SETPARM statement** (zip, 5KB)
  Robert Botsis
- **Four REXX/VSE procedures** (zip, 23KB)
  POWERCMD - issue VSE/POWER commands from a batch job.
  CICSFILE - enable/open or close a CICS file from a batch job.
  COPYRPT - copy VSE/POWER LST queue entries from a batch job.
  RXLSTCAT - execute the IDCAMS LSTCAT function on a VSAM catalog and reformat the listing.
  Rich Smrcina, Grede Foundries, Milwaukee
- **Sample source code for creating REXX function** (zip, 11KB)
  Referred to in Issue 18 of the VSE/ESA Newsletter.
  Pat Talley
- **Send commands from applications to VSE/POWER for execution; get and/or put to POWER queues** (zip, 67KB)
  Robert Botsis
- **Source code and compile jobs for LE/VSE socket programming** (zip, 10KB)
  Ingo Adlung, VSE Development, IBM
- **Version of DFHPEP which sends error messages to system console or to an e-mail user** (zip, 14KB)
  Robert Botsis

Terms and conditions for sample programs

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