



Co-Processing Toolkit

for z/OS | Launcher : Dataset Pipes : Batch : SFTP

An Introduction To

z/OS Hybrid Batch Processing

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- z/OS[®], zEnterprise[®], and zBX[®] are registered trademarks of IBM Corporation

z/OS Hybrid Batch Processing

1. The ability to execute a program or script on a virtual server from a z/OS batch job step
2. The target program may already exist and should require little or no modification
3. The target program's input and output are redirected from/to z/OS spool files or datasets
4. The target program may easily access other z/OS resources: DDs, data sets, POSIX files and programs
5. The target program's exit code is adopted as the z/OS job step condition code

Requires enablement software...

Co:Z Co-Processing Toolkit

- Co:Z Launcher starts a program on a target server and redirects standard streams back to jobstep DDs
- The target program can use Co:Z DatasetPipes commands to access z/OS resources:
 - ✓ **fromdsn/todsn** – read/write a z/OS DD or data set
 - ✓ **fromfile/tofile** – read/write a z/OS Unix file
 - ✓ **cozclient** – run z/OS Unix command
- Data security
 - ✓ Uses OpenSSH for network security
 - ✓ Job owner SAF profile used to qualify access to resources
 - ✓ `ssh-tunnel=false` for better performance in secure environments
- Free (commercial support licenses are available)

Hybrid Batch – Hello World

- Simple example illustrating the principles of Hybrid Batch Processing
- Launch a process on a remote Linux server
 - ✓ Write a message to stdout
 - ✓ In a pipeline:
 - Read the contents of a dataset from a jobstep DD
 - Compress the contents using the Linux gzip command
 - Write the compressed data to the z/OS Unix file system
 - ✓ Exit with a return code that sets the jobstep CC

Linux on z / zBX

z/OS

Linux on z / zBX

z/OS

```
//HYBRIDZ JOB ()  
//RUN EXEC PROC=COZPROC,  
//  ARGS='u@linux'  
//SYSOUT DD SYSOUT=*  
//STDOUT DD SYSOUT=*  
//INPUT DD DSN=MY.DATA  
//STDIN DD *  
echo "Hello $(uname)!"  
fromdsn -b DD:INPUT |  
gzip -c |  
tofile -b /tmp/out.gz  
exit 4  
//
```

Linux on z / zBX

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← - - - - -

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z/OS

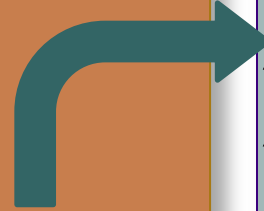
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CO:Z Co-Processing Toolkit

Linux on z / zBX

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CO:Z Co-Processing Toolkit

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CO:Z Co-Processing Toolkit

Linux on z / zBX

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z/OS

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/tmp/out.gz

Linux on z / zBX

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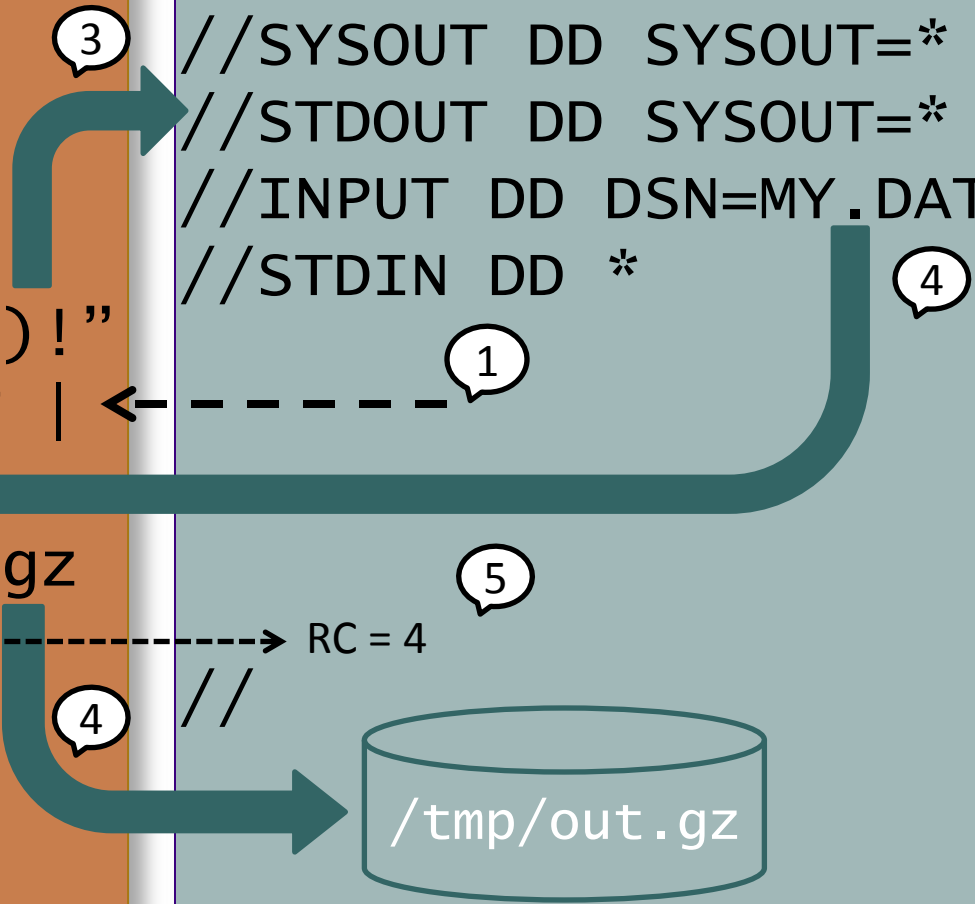
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Hello World: Hybrid Batch

1. A script is executed on a virtual server from a z/OS batch job step
2. The script uses a program that already exists -- gzip
3. Script output is redirected to z/OS spool
4. z/OS resources are easily accessed using fromdsn, tofile, etc...
5. The script exit code is adopted as the z/OS job step CC

For More Information

- Visit our website: <http://dovetail.com>
 - ✓ Hybrid Batch Information:
<http://dovetail.com/solutions.html>
 - ✓ Case Study: Updating a Linux database from z/OS batch
<http://dovetail.com/products/casestudysqlldr.html>

- Or, email us at: info@dovetail.com