

Assignment 2

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Job Submission and Output Handling with Zowe Explorer

(USS) Objective

1. Submit JCL jobs using Zowe CLI (USS).
2. Redirect output to files.
3. Check job status and output.
4. Practice condition code handling.
5. Use JCL procedure (PROC) and overrides.

Theory

Job Control Language (JCL) is a scripting language used on IBM mainframe operating systems to instruct the system on how to execute a batch job. When a job is submitted, the Job Entry Subsystem (JES) reads the JCL, schedules the job for execution, and manages its output.

A key parameter on the JOB statement is MSGCLASS (Message Class). This parameter determines the destination of the job's system logs, including execution messages and JCL listings. By changing the MSGCLASS value, a user can route this output to different destinations. For example, MSGCLASS=H typically holds the output in the system spool, allowing the user to view it online through an interface like Zowe Explorer, which is essential for debugging and verifying job execution. This assignment uses a simple program, IEFBR14, which does nothing but provides a return code of 0, allowing for the safe testing of the JCL submission and output

1. Submitting a Job

JCL (Job Control Language) is used on mainframes to instruct the system how to execute a job. A job generally

contains:

- JOB Statement → Identifies the job.
- EXEC Statement → Tells which program/utility to run.
- DD Statement → Defines input and output datasets.

2. Redirecting Output

The output of a JCL job can be directed to different destinations using the DD statements.

Common options:

- SYSOUT=* → Sends output to the system spool (default). ▪

SYSOUT=A/H/... → Routes output to specific JES output classes.

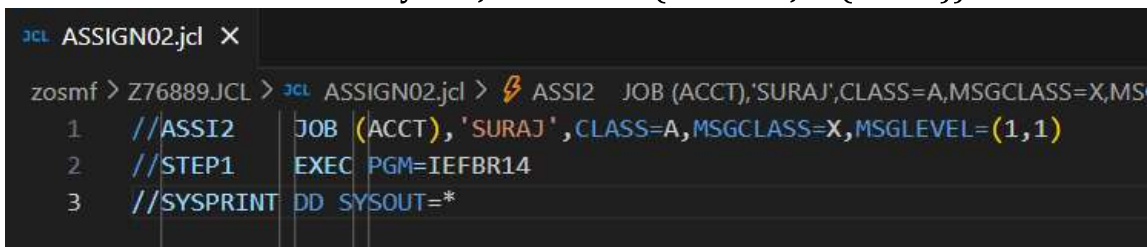
- DD DSN=dataset.name → Redirects output to a dataset.

By default, job results (SYSOUT) are sent to the spool. If required, SYSOUT can be redirected to a dataset to

preserve job logs for later use.

Step 1: Create a Simple JCL

Create a member ASSI2 in your JCL dataset (Z76889.JCL(ASSI2)):



```

JCL ASSIGN02.jcl X
zosmf > Z76889.JCL > JCL ASSIGN02.jcl > ASSI2 JOB (ACCT),'SURAJ',CLASS=A,MSGCLASS=X,MSGLEVEL=(1,1)
1 //ASSI2 JOB (ACCT), 'SURAJ', CLASS=A, MSGCLASS=X, MSGLEVEL=(1,1)
2 //STEP1 EXEC PGM=IEFBR14
3 //SYSPRINT DD SYSOUT=*
  
```

Step 2: Submit the Job

Run in terminal (USS/PowerShell with Zowe CLI installed):



```

PS C:\Users\ASUS\OneDrive\Desktop\cc_chat\Db2_challenge> zowe obs submit data-set "Z76889.JCL(ASSI2)" > submit.txt
  
```

This saves the submission log (JOBID, JOBNAME, status) into submit.txt.

Check log:

```

• (base) PS D:\mainframe> cat submit.txt
jobid: JOB00272
retcode: null
jobname: ASSI2
status: INPUT
○ (base) PS D:\mainframe>

```

Step 3: Check Job Status

```

• (base) PS D:\mainframe> zowe jobs view job-status-by-jobid JOB00272
jobid: JOB00272
retcode: CC 0000
jobname: ASSI2
status: OUTPUT
○ (base) PS D:\mainframe>

```

Step 4: Redirect Job Output

```

• (base) PS D:\mainframe> zowe jobs view all-spool-content JOB00272 > job_output.txt
• (base) PS D:\mainframe> cat job_output.txt
Spool file: JESMSGLD (ID #2, Step: JES1)
1
      J E S 2  J O B  L O G  --  S Y S T E M  S O W 1  --  M O D E  S V S C 3 E S 2
@
23.36.46 JOB00272 ---- TUESDAY, 09 SEP 2025 ----
23.36.46 JOB00272 IRR010I USERID I76893 IS ASSIGNED TO THIS JOB.
23.36.46 JOB00272 ICH70001I Z76893 LAST ACCESS AT 23:46:47 ON TUESDAY, SEPTEMBER 9, 2025
23.36.46 JOB00272 SHASP375 ASSI2 STARTED - INIT 1 - CLASS A - SYS 3000
23.36.46 JOB00272 ----TIMINGS (MEMS)-----
-----PAGING COUNTS-----
23.36.46 JOB00272 -STEPNAME PROCTSTEP RC EXCP CORR TCN SRR CLOCK SERV WORKLOAD PAGE SWAP VIO S
MOPS
23.36.46 JOB00272 -STEP1 00 2 0 00 00 0 BATCH 0 0 0
@
23.36.46 JOB00272 -ASSI2 FROMD: SMPV-SMHAL TOTAL-TCB CPU TIME= 00 TOTAL ELAPSED TIME= 0
23.36.46 JOB00272 SHASP395 ASSI2 ENDED - RC=0000
@----- JES2 JOB STATISTICS -----
- 09 SEP 2025 JOB EXECUTION DATE
- 1 CARDS READ
- 38 SYSOUT PRINT RECORDS
- 0 SYSOUT PUNCH RECORDS
- 1 SYSOUT SPOOL KBYTES
- 0.00 MINUTES EXECUTION TIME

Spool file: JESJCL (ID #3, Step: JES2)
1 //ASSI2 JOB (ACCT),'SMHAL',CLASS=A,MSGCLASS=X,MSGLEVEL=(1,1) JOB00272
2 //STEP1 EXEC PGM=IEFBR14
3 //SYSPRINT DD SYSOUT=*

Spool file: JESVSMD (ID #4, Step: JES2)
ICH70001I Z76893 LAST ACCESS AT 23:46:47 ON TUESDAY, SEPTEMBER 9, 2025
IEF0111I ASSI2 IS USING THE FOLLOWING JOB RELATED SETTINGS:
SMW=AM27/E,PIOT SIZE=52K,DSNMQSH=DISALLOW,DSNBAS=JOB

```

Conclusion:

Through this exercise, we learned how to submit JCL jobs in the z/OS environment using Zowe CLI from the Unix System Services (USS) interface. We also practiced redirecting job submission logs and spool outputs to external files for easy storage and analysis.