z/OS Introduction and Workshop

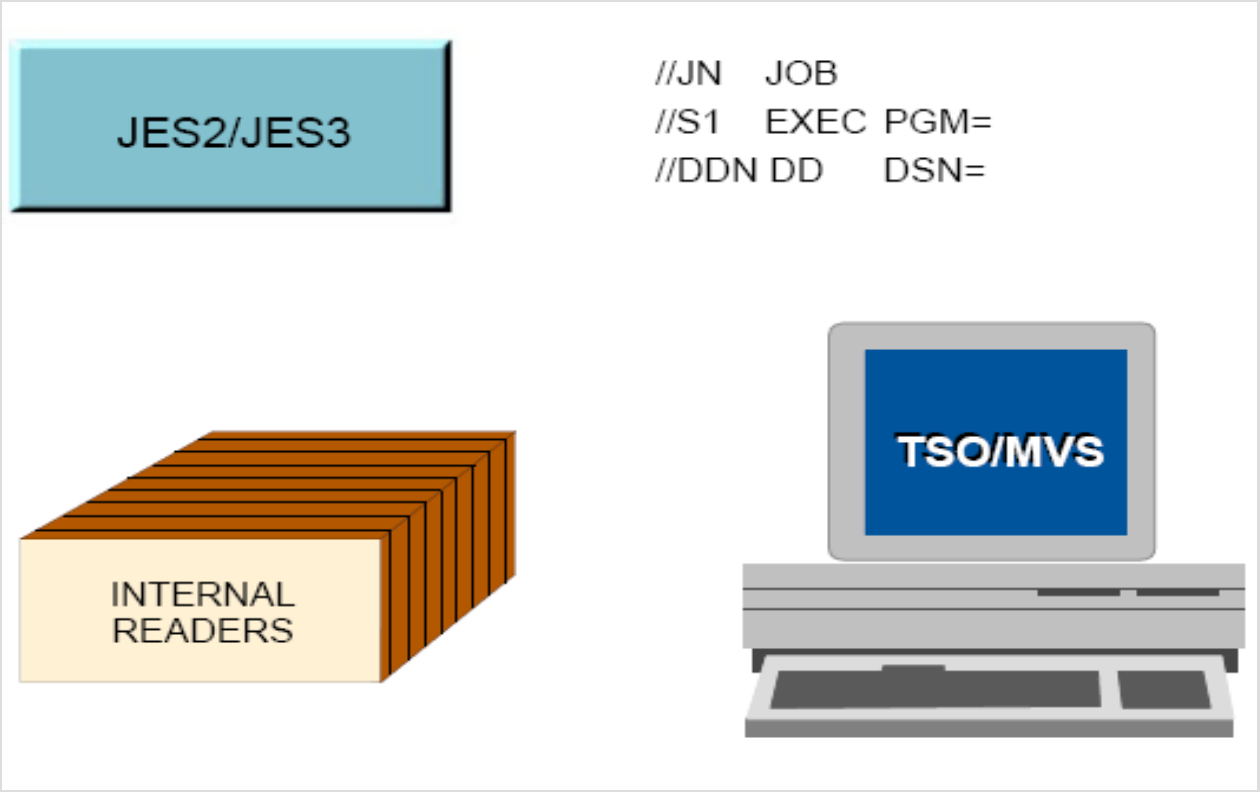
Job Entry Subsystem (JES)

Unit objectives

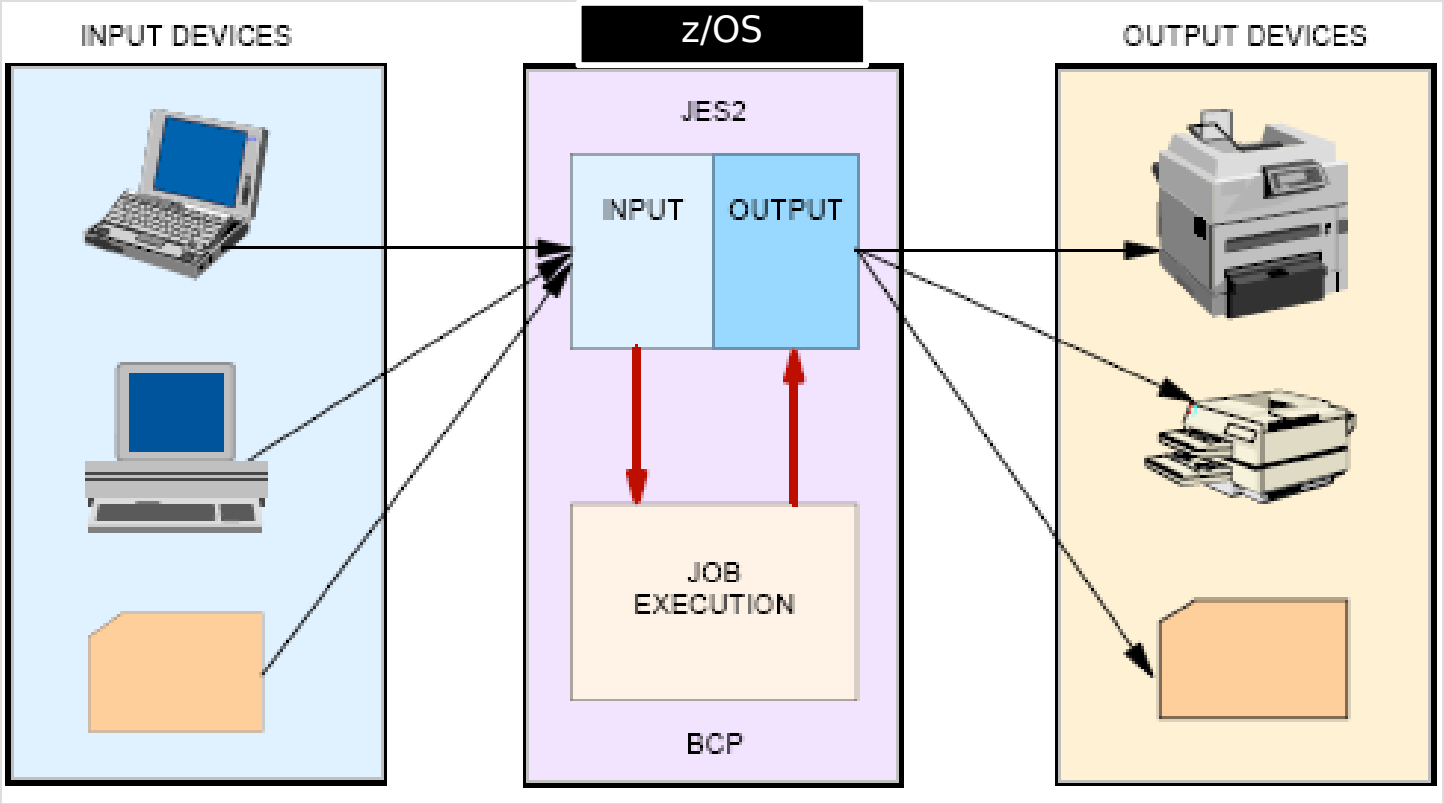
After completing this unit, you should be able to:

- Understand relationship between JCL and JES
- Describe JES spool
- List 3 JES queue types
- Describe JES initiator
- Describe relationship between SDSF and JES

Job Management



JES Functions



What is spooling?

Spooling is a method for queuing and holding data for input or output.

JES uses one or more disk data sets for spooling.

Input jobs and printed output from many jobs are stored in the single (conceptual) spool data set.

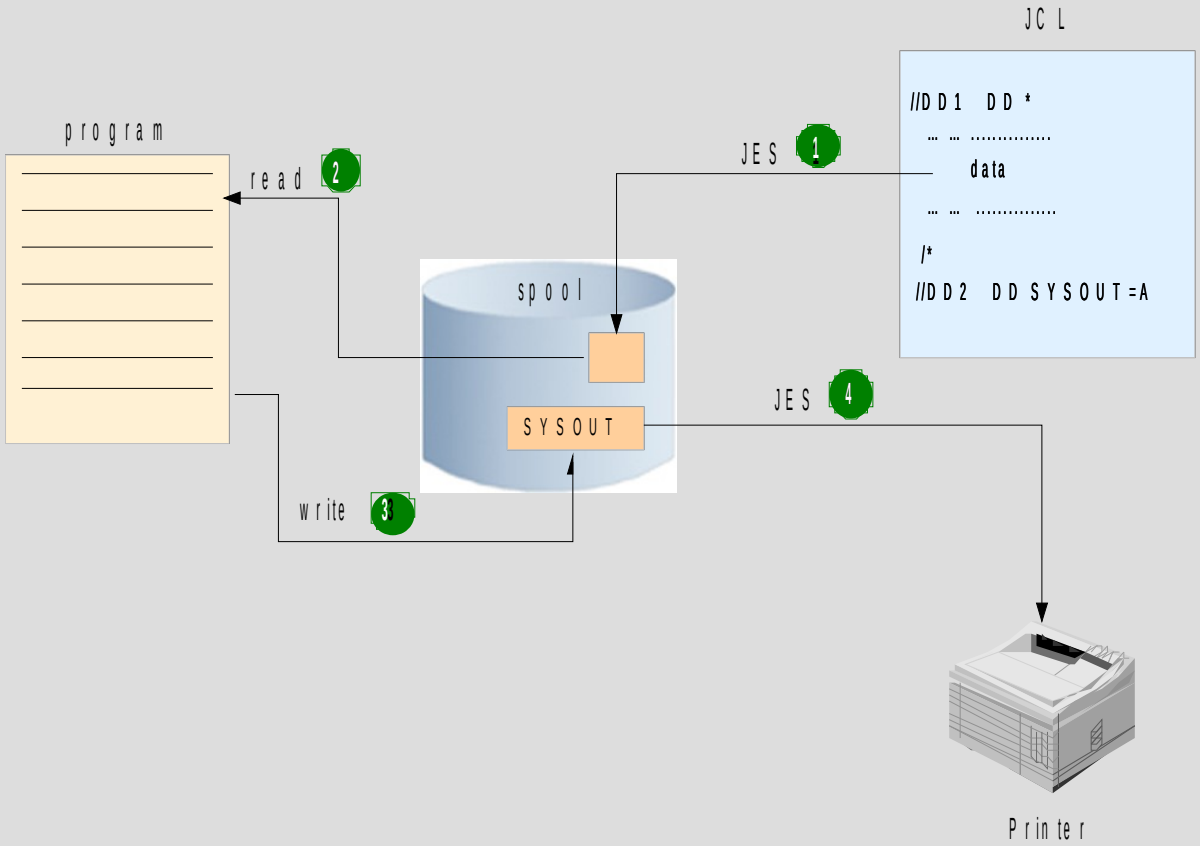
What an initiator does

To run multiple jobs asynchronously, z/OS uses initiators to:

- Ensure that jobs do not conflict in data set usage
- Ensure that single-user devices (tape drives) are allocated correctly
- Find executable programs requested by jobs
- Clean up after the job ends and request the next job

Preventing two users from accessing the same data at the same time is critical to z/OS and the ability to do this is one of the defining characteristics of the operating system.

Spooling

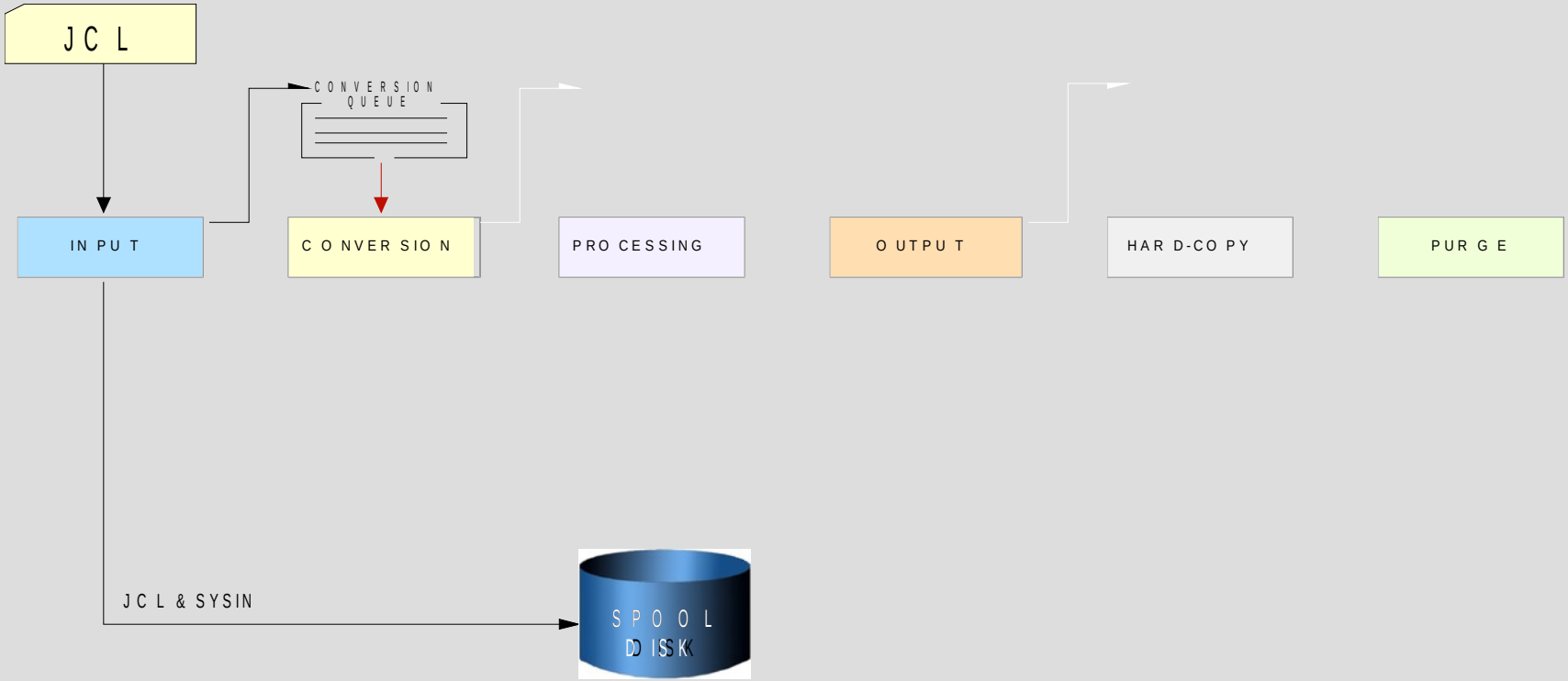

JCL
//DD1 DD *
... ...
data
... ...
/*
//DD2 DD SYSOUT=A
program
read
2
JES
1
spool
SYSOUT
JES
4
write
3
Printer

Job flow through the system

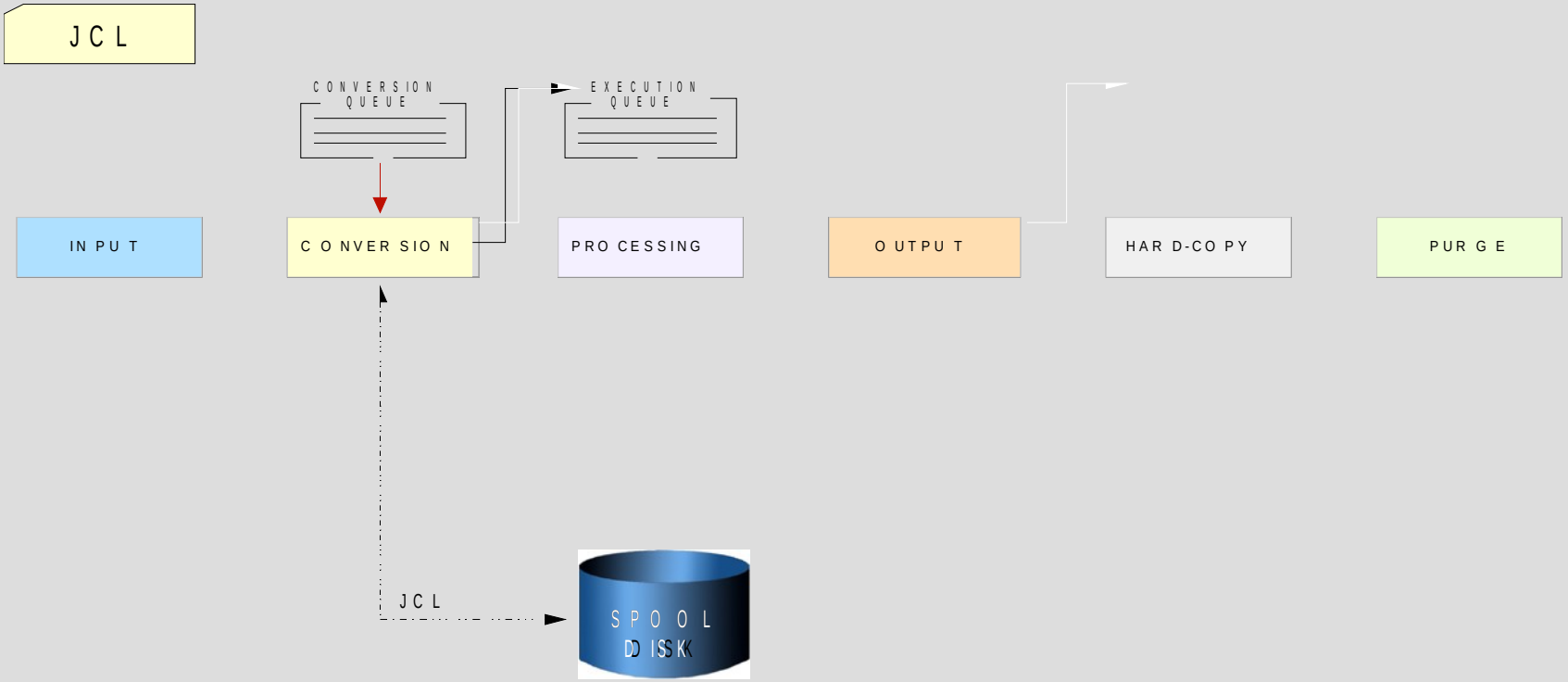
During execution, a job goes through the following phases:

- Input
- Conversion
- Processing
- Output
- Print (to hardcopy or a console display)
- Purge

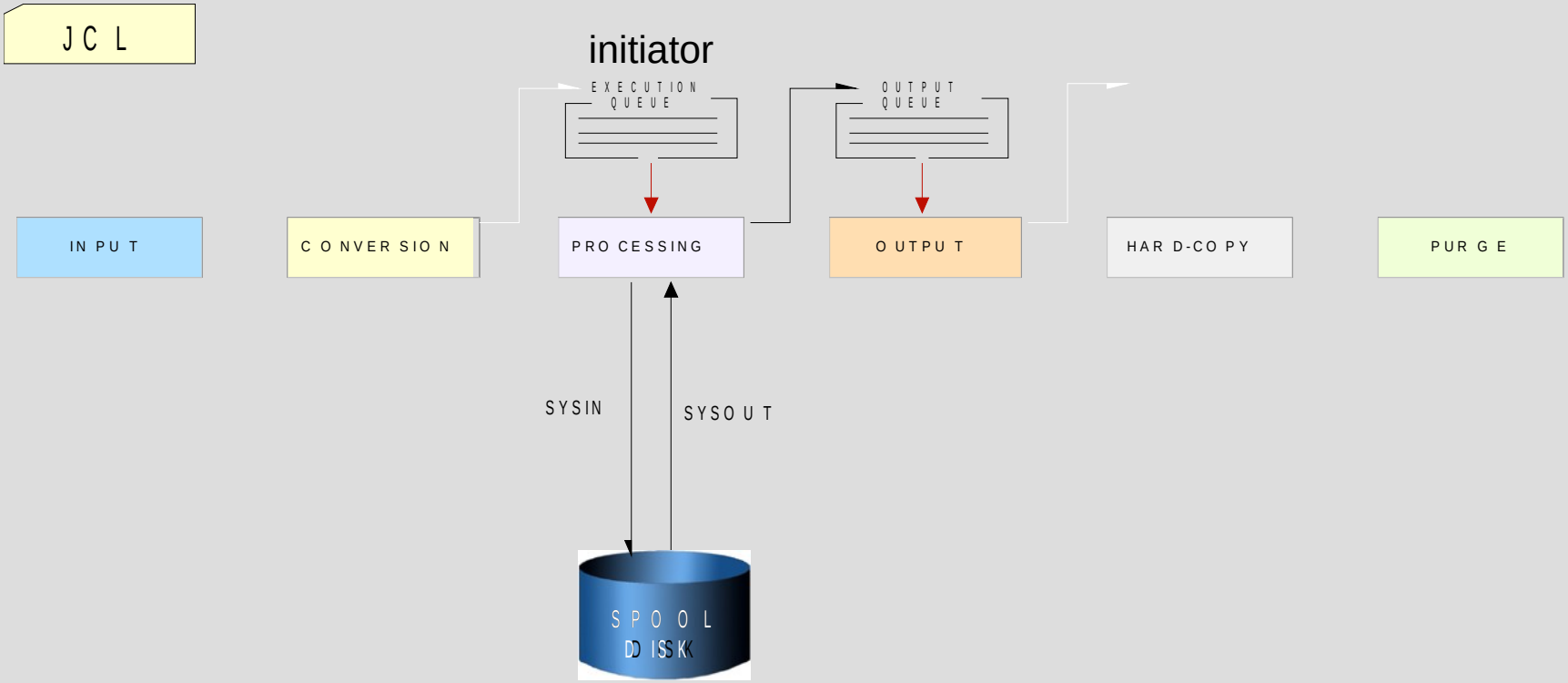
Phases of job flow: input



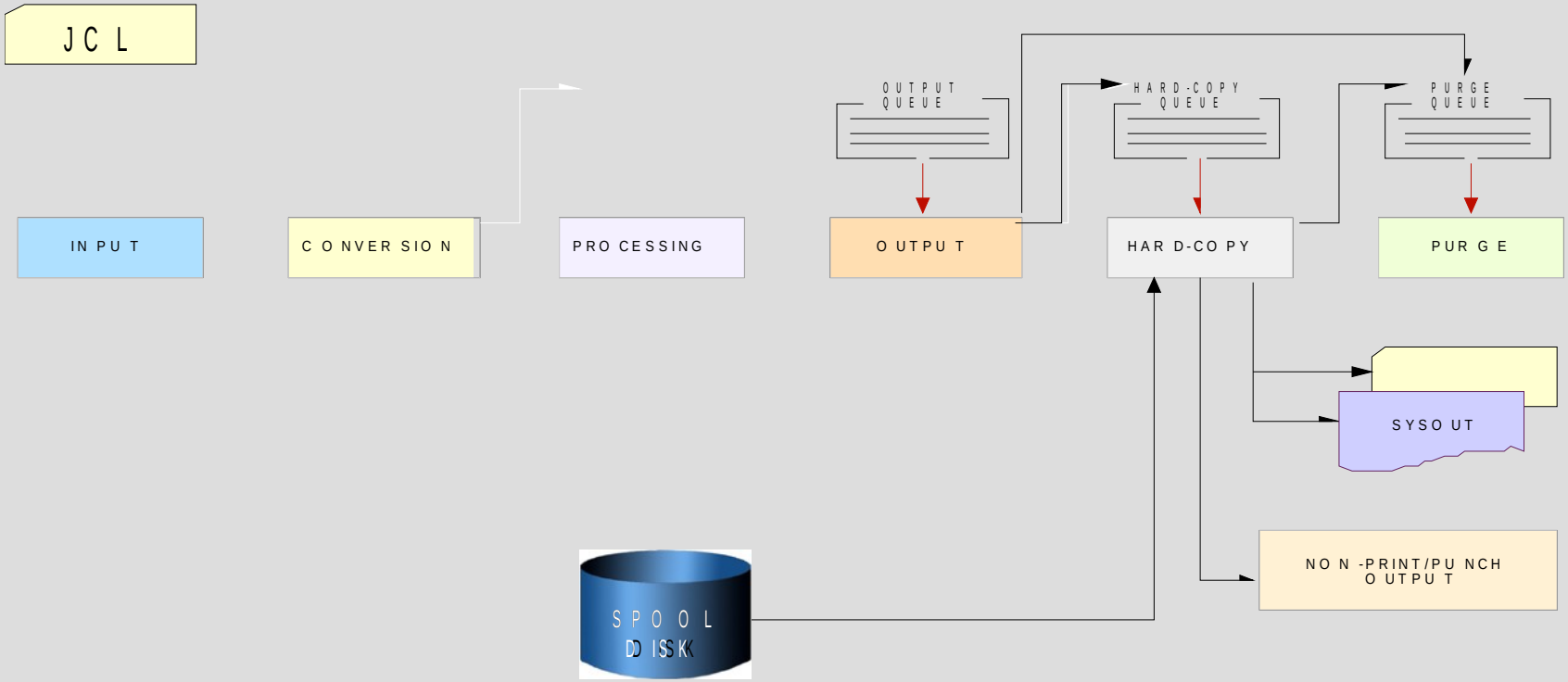
Phases of job flow: conversion



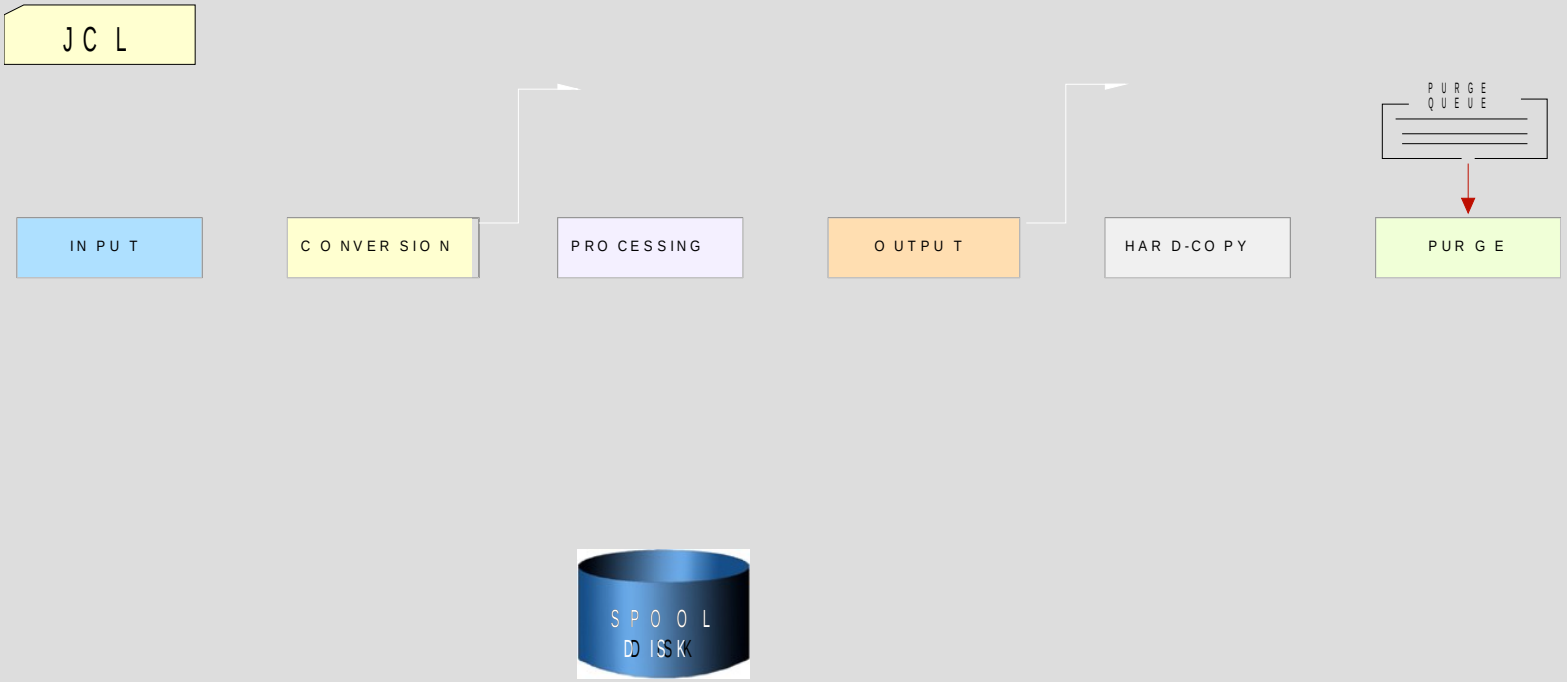
Phases of job flow: execution



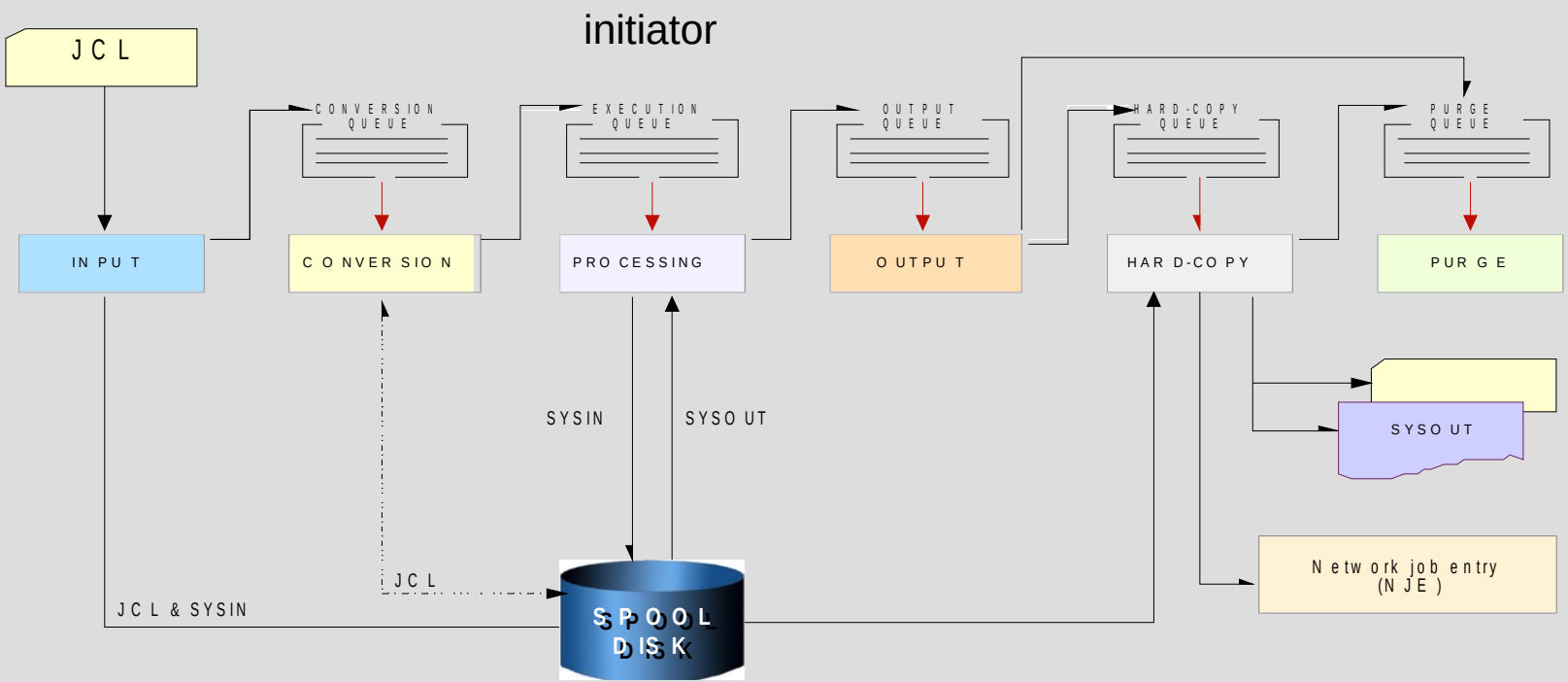
Phases of job flow: output and hardcopy



Phases of job flow: purge



Job flow through the system



JES Initiators

//MYJOB JOB 1,CLASS=A

where CLASS=jobclass

In a JES2 system, the assigned job class can affect whether or how a job is executed.

A job class can be defined during JES2 initialization as 'Held'. The system holds any job assigned to this class until the operator releases

Use the CLASS parameter to assign the job to a class. The class you should request depends on the characteristics of the job and your installation’s rules for assigning classes.

JES – Startup JCL & Parameters

```
//JES2       PROC
//IEFPROC EXEC PGM=HASJES20
//PROC00      DD  DSN=VENDOR.PROCLIB,DISP=SHR
//              DD  DSN=SVTSC.PROCLIB,DISP=SHR
//              DD  DSN=LVL0.PROCLIB,DISP=SHR
//              DD  DSN=SYS1.PROCLIB,DISP=SHR
//HASPPARM  DD  DSN=VENDOR.PARMLIB(JES2420A),DISP=SHR
//HASPLIST    DD  DDNAME=IEFRDER
```

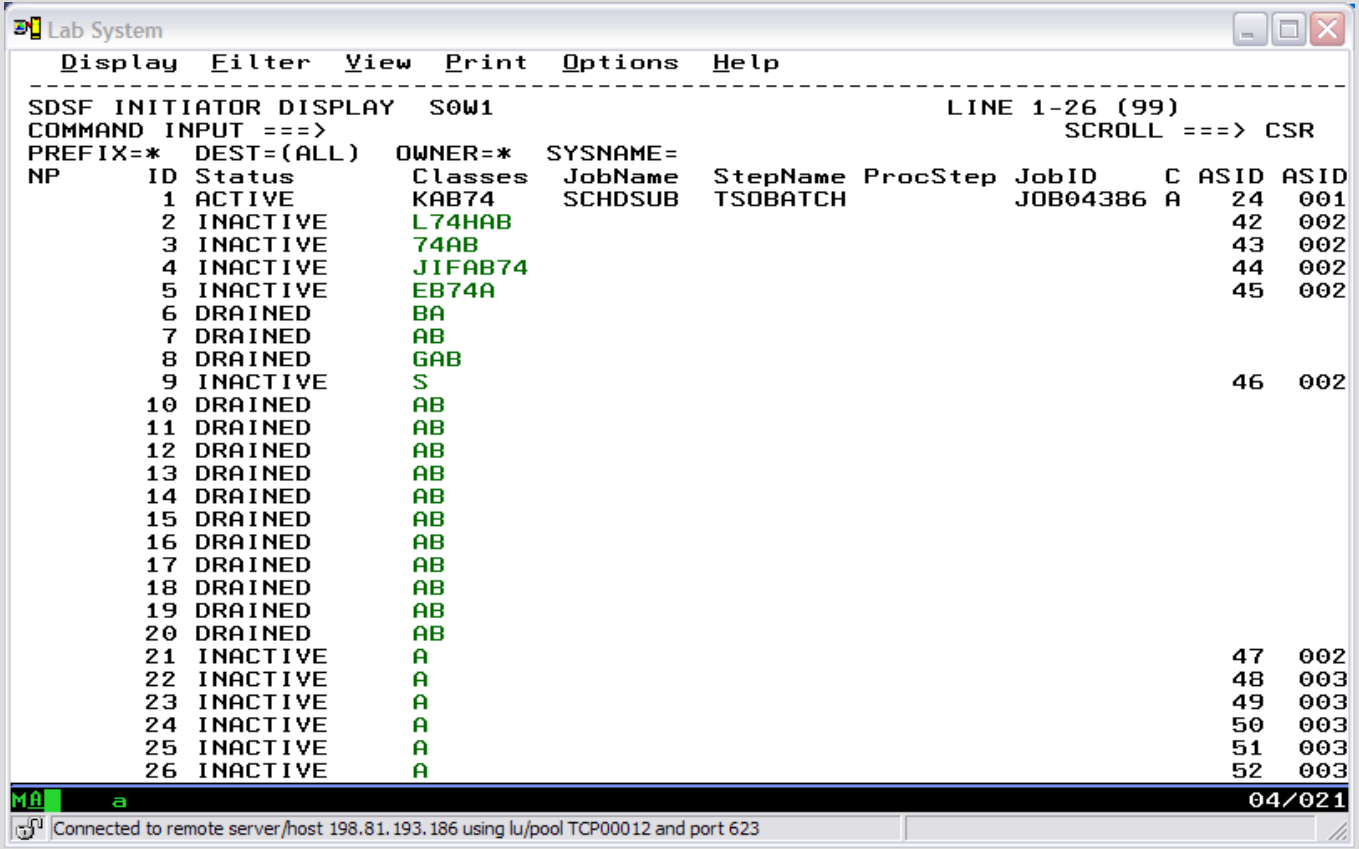
JES2 Job Initiator Parameter Definitions

VENDOR.PARMLIB(JES2420A)

```
INITDEF  PARTNUM=99
I(1)     NAME=1,
         CLASS=KAB74
I(2)     NAME=2,
         CLASS=L74HAB
I(3)     NAME=3,
         CLASS=74AB
I(4)     NAME=4,
         CLASS=JIFAB74
I(5)     NAME=5,
         CLASS=EB74A
I(6)     NAME=6,
         CLASS=B,
         DRAIN
```

```
JOBCLASS(A) ACCT=NO,
         PGMRNAME=NO,
         TIME=(1440,00),
         REGION=1M,
         COMMAND=VERIFY,
         BLP=YES,
         AUTH=ALL,
         MSGLEVEL=(1,1),
         COPY=NO,
         HOLD=NO,
         JOURNAL=NO,
         LOG=YES,
         OUTPUT=YES,
         PROCLIB=00,
```

SDSF Display of JES Initiators



z/OS Internet Library (JES2 Manuals)

JES2 Bookshelf

- Commands
- Initialization and Tuning Guide
- Initialization and Tuning Reference
- Introduction

Unit summary

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