



z/OS Introduction and Workshop

Job Entry Subsystem (JES)

Unit Objectives

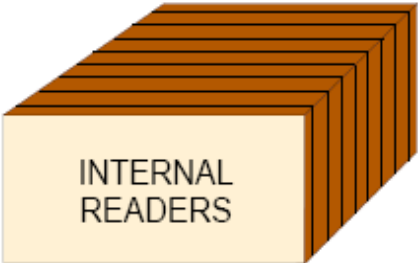
After completing this unit, you should be able to:

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

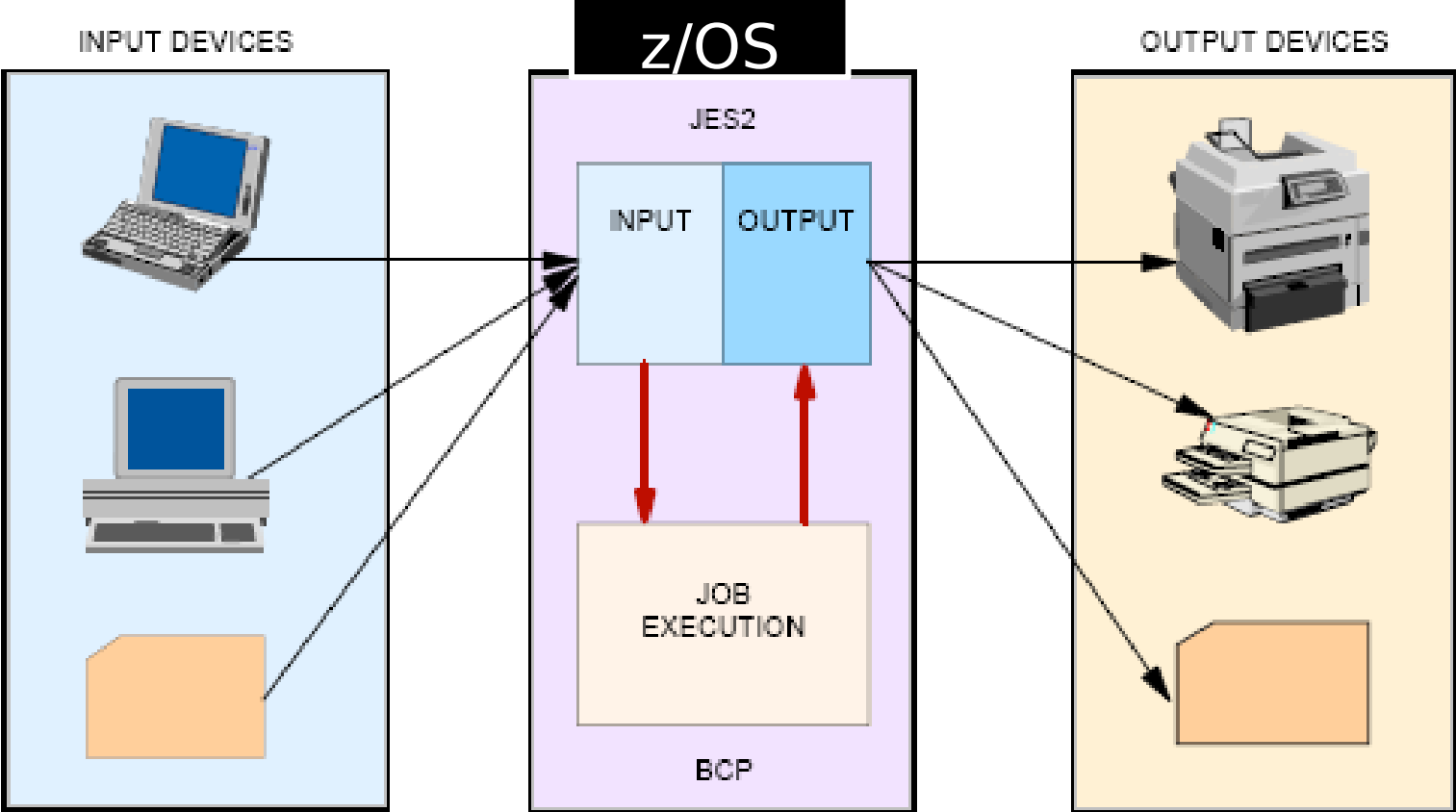
Job Management

JES2/JES3

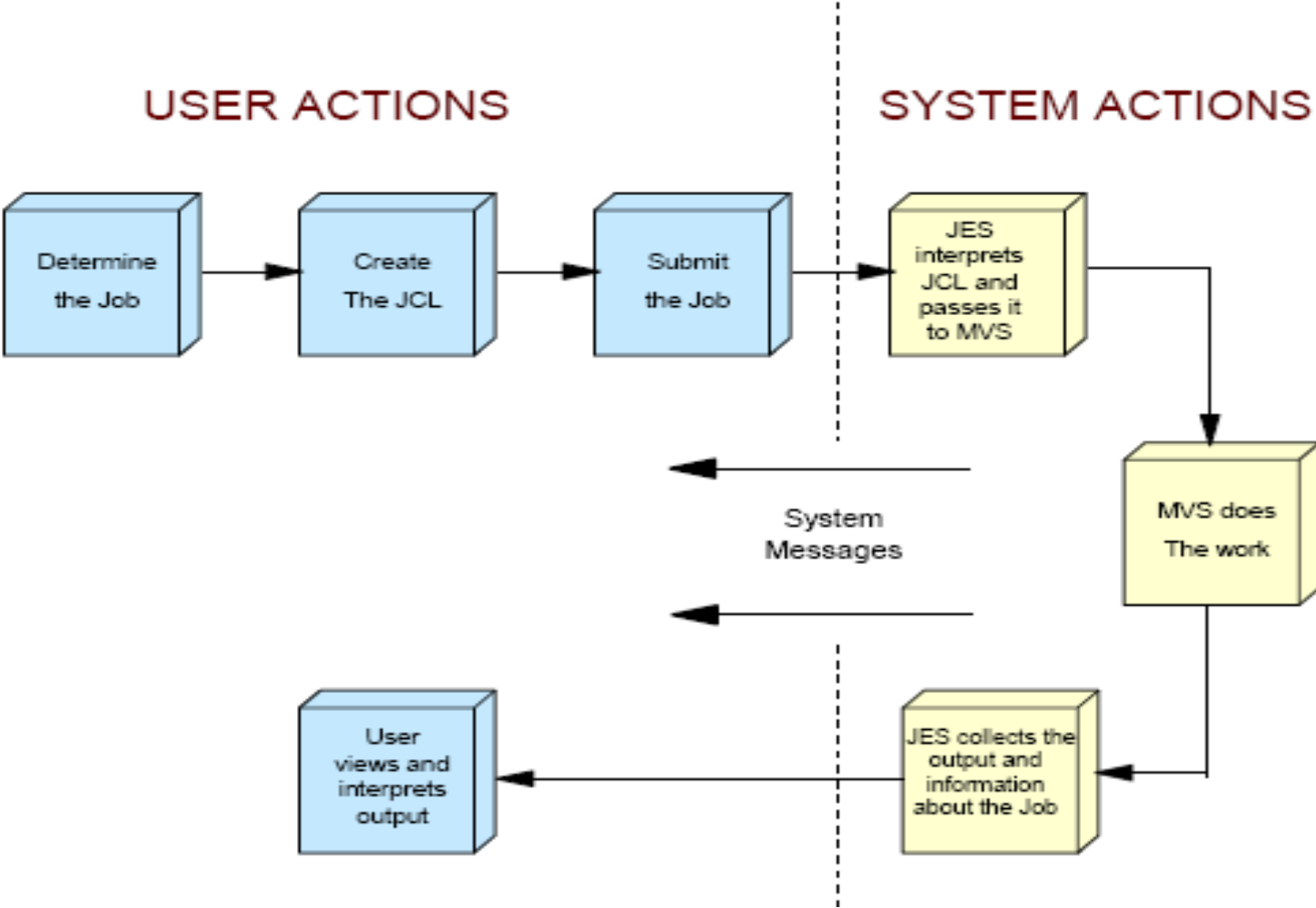
```
//JN JOB  
//S1 EXEC PGM=  
//DDN DD DSN=
```



JES Functions



JCL Related Actions



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.

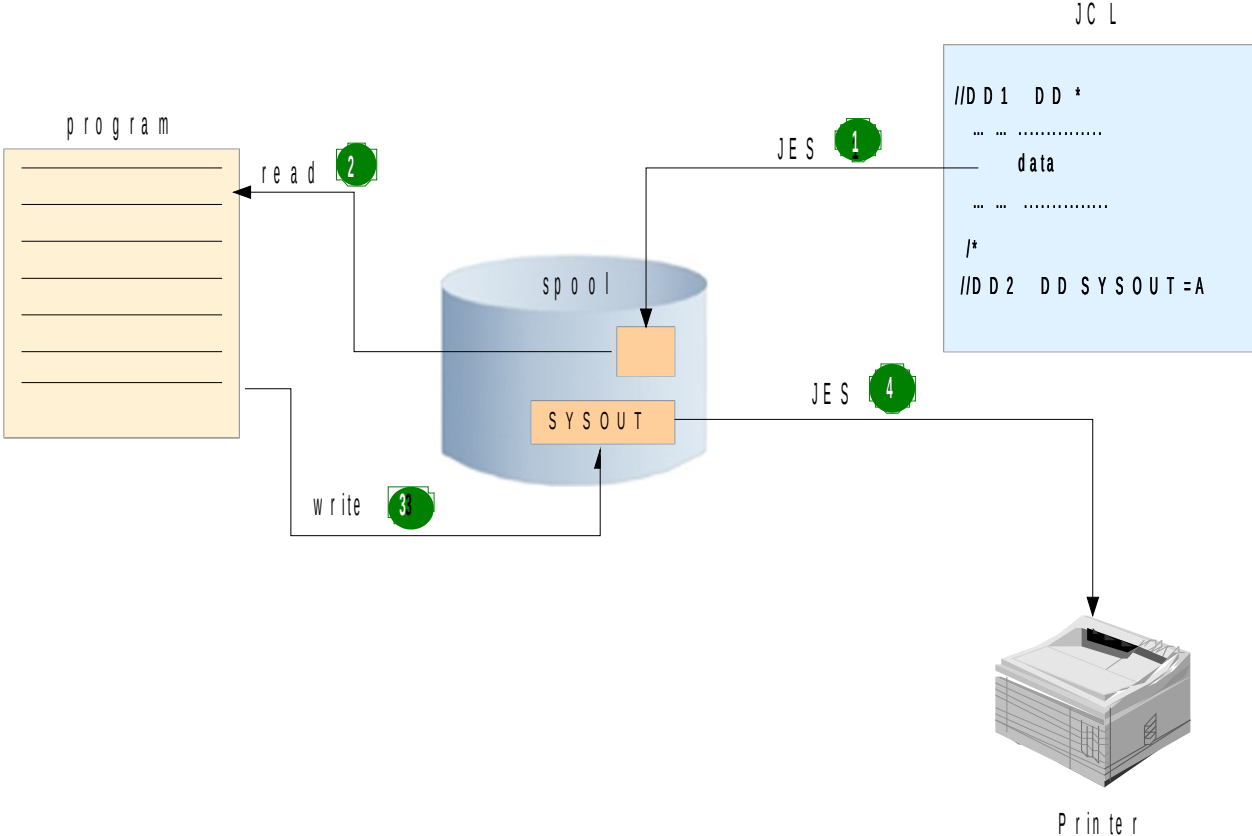
What is an initiator

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

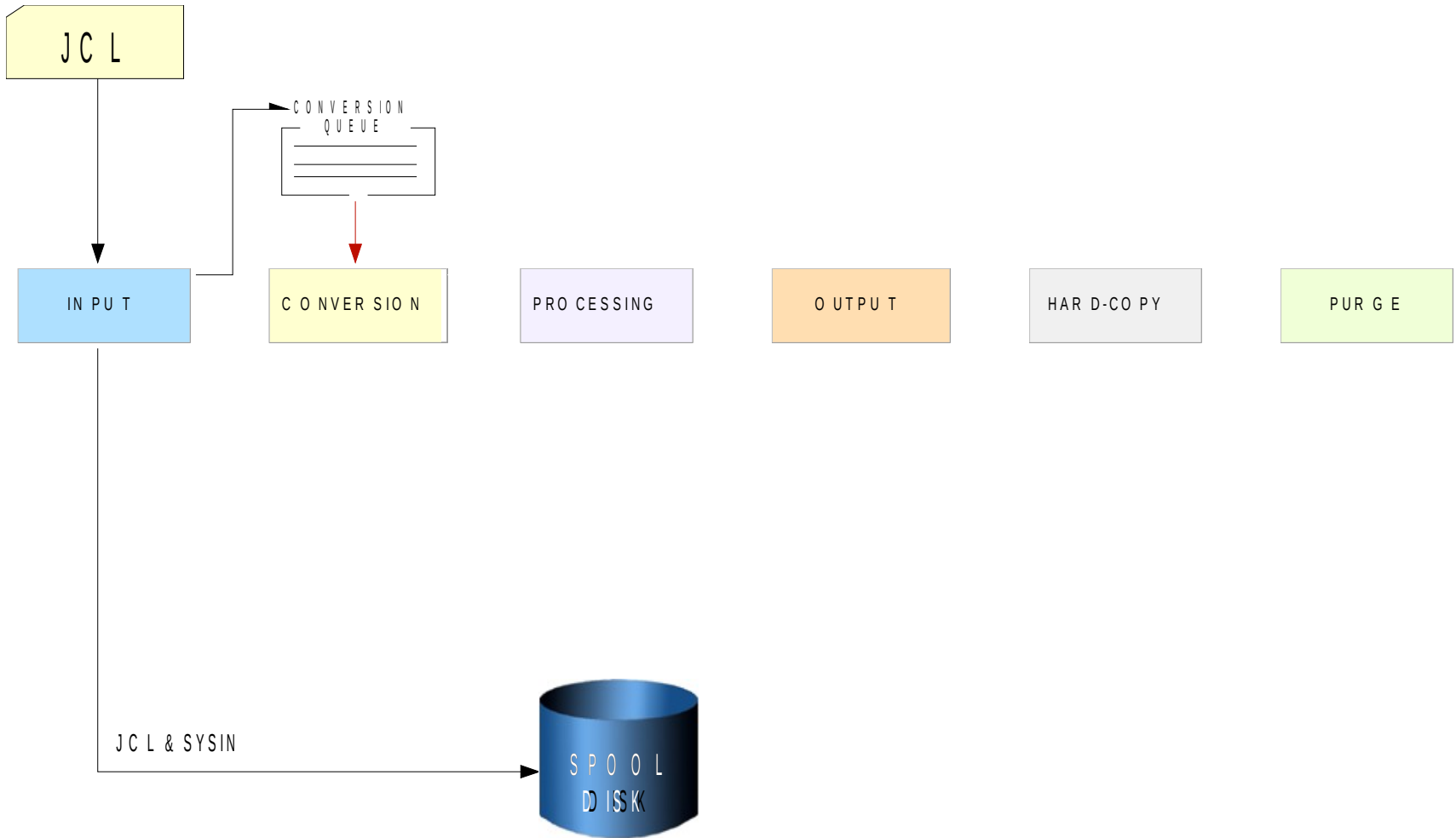


Job flow through the system

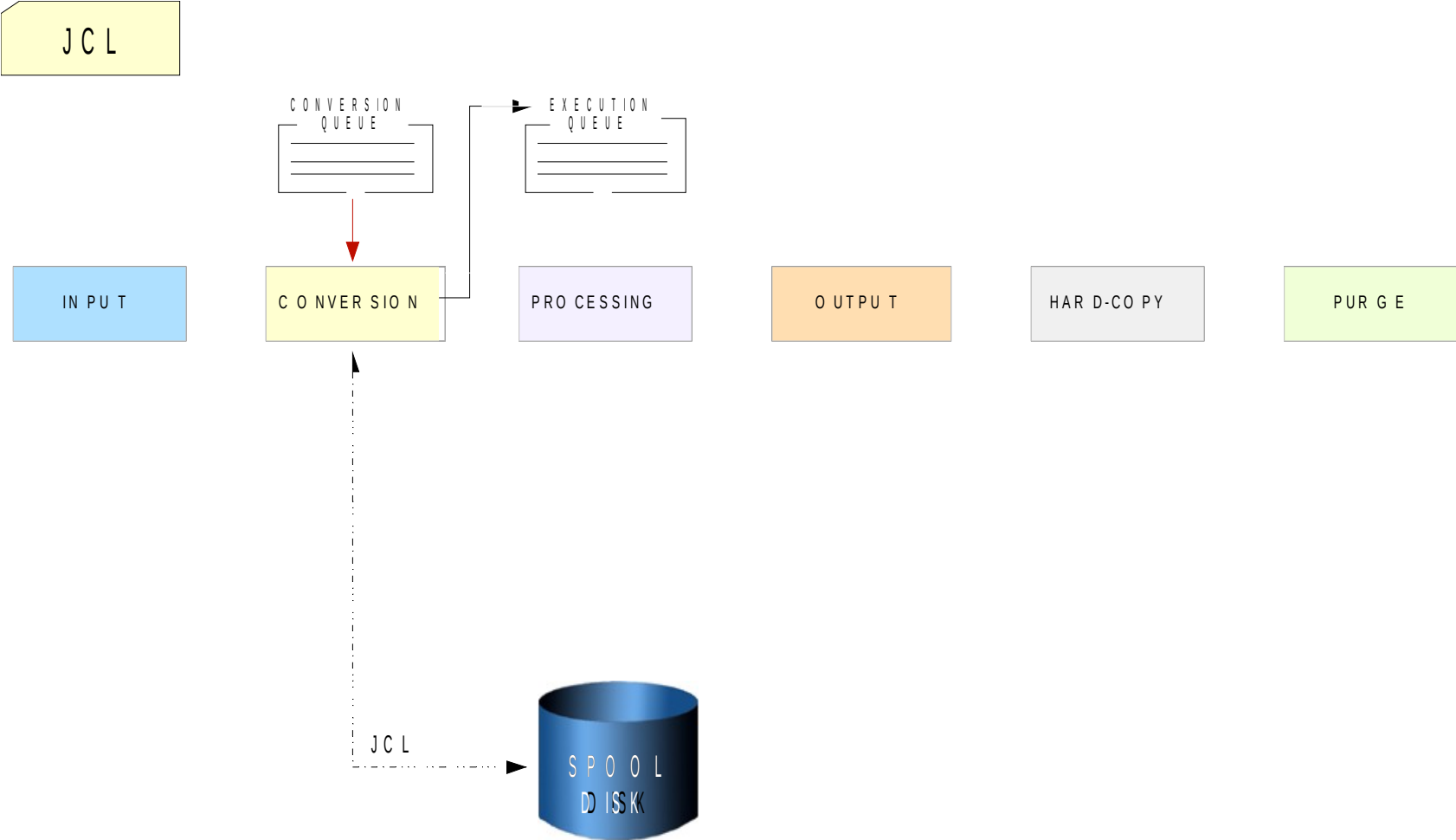
During execution, a job goes through the following phases:

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

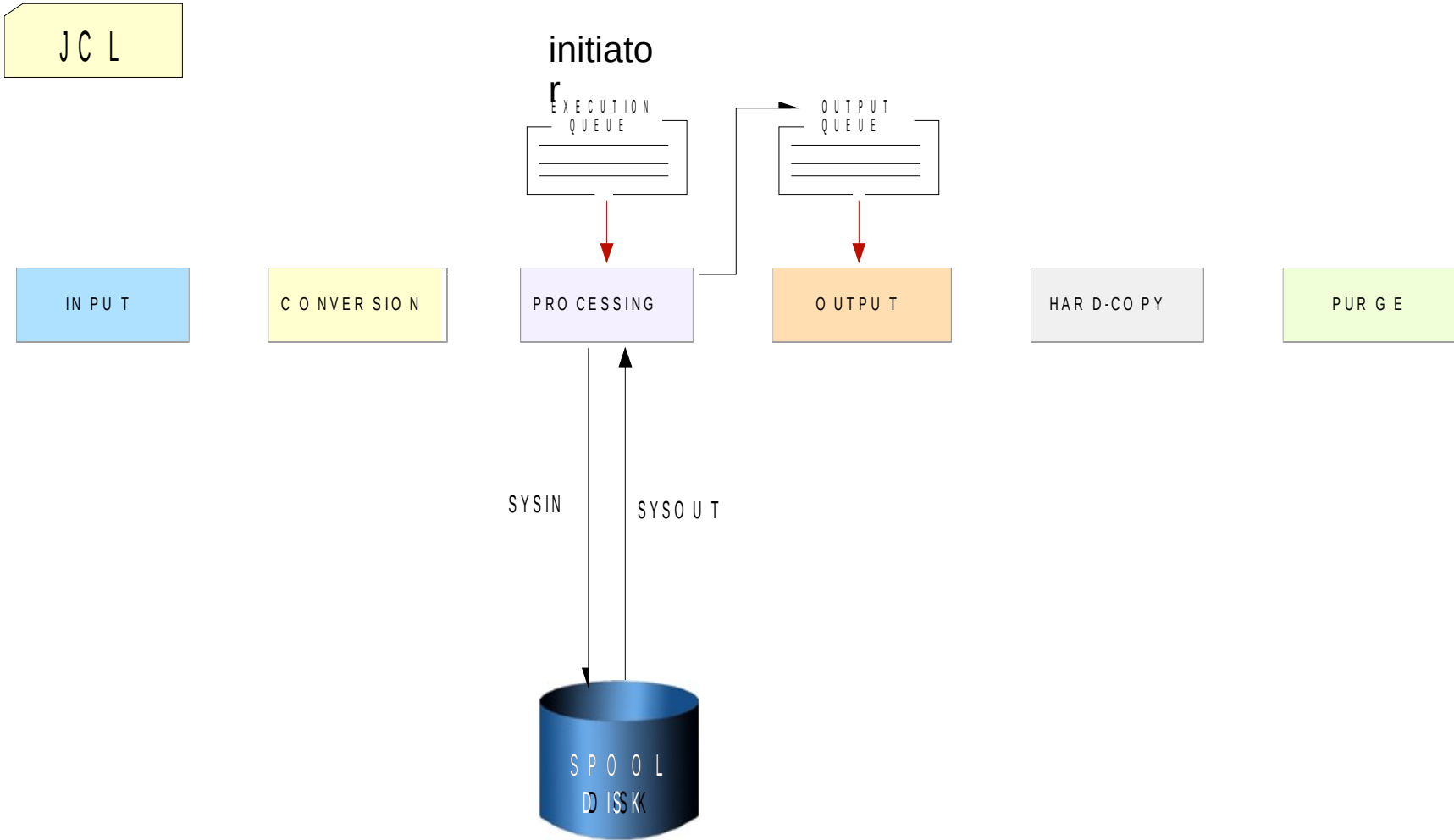
Phases of job flow: input



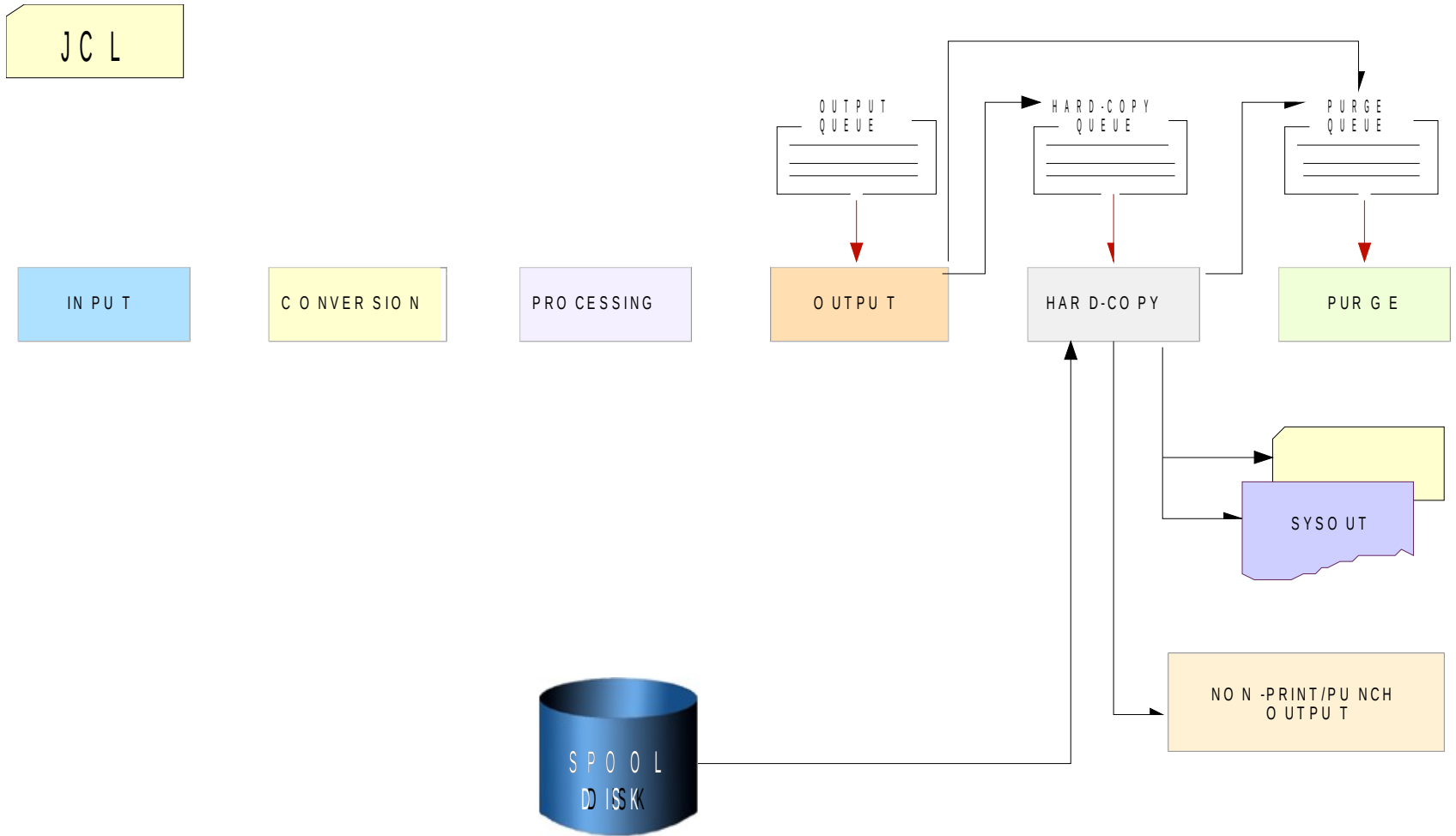
Phases of job flow: conversion



Phases of job flow: execution



Phases of job flow: output and hardcopy



Phases of job flow: purge

JCL

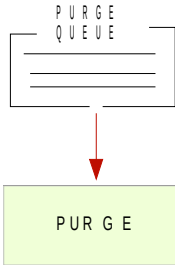
INPUT

CONVERSION

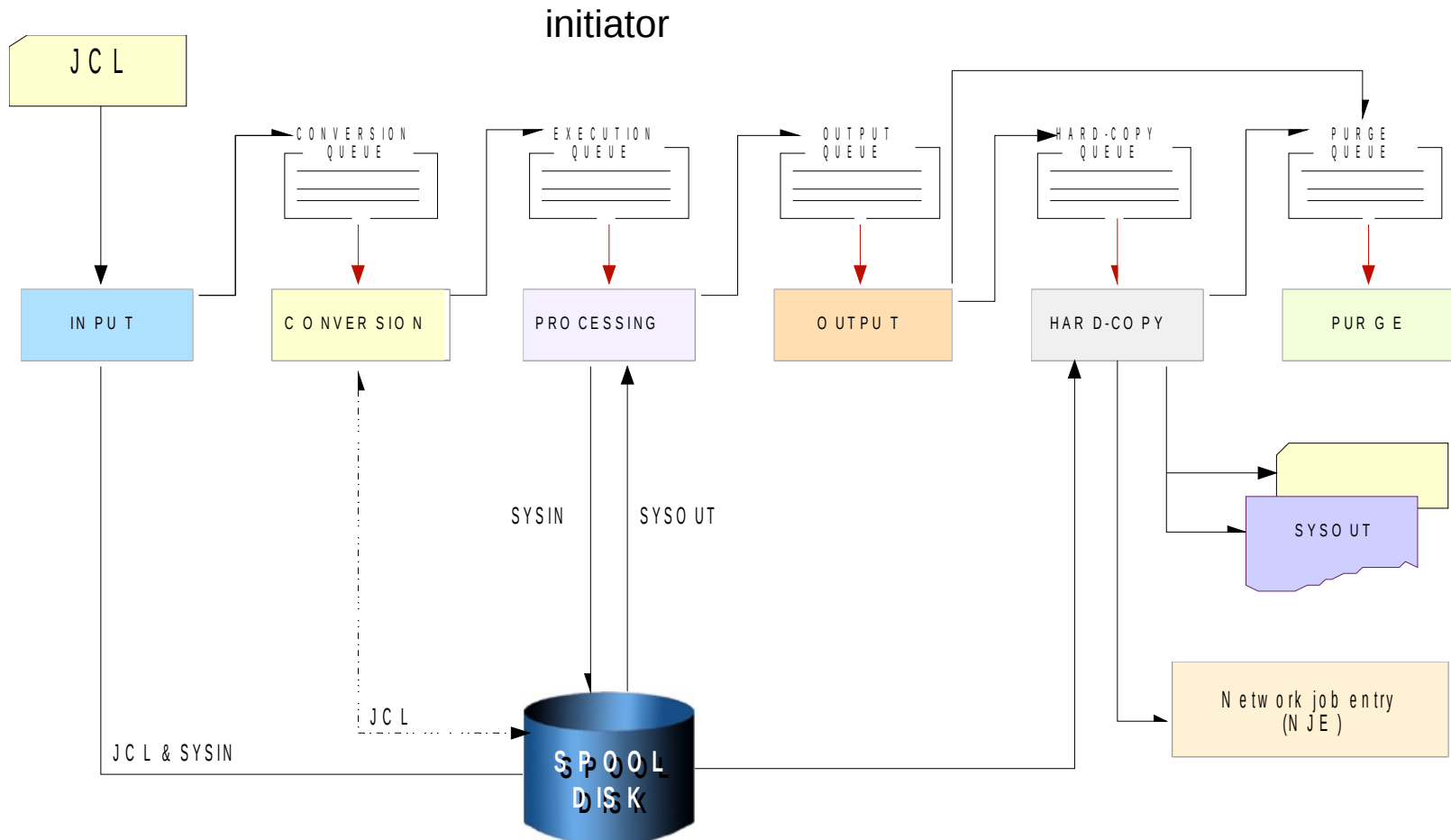
PROCESSING

OUTPUT

HARD-COPY



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=BAA,
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

```

Lab System
-----
Display Filter View Print Options Help
-----
SDSF INITIATOR DISPLAY S0W1                               LINE 1-26 (99)
COMMAND INPUT ==>                                         SCROLL ==> CSR
PREFIX=*  DEST=(ALL)  OWNER=*  SYSNAME=
NP      ID  Status      Classes  JobName  StepName ProcStep  JobID      C  ASID  ASID
-----
1      1  ACTIVE      KAB74   SCHDSUB  TSOBATCH JOB04386  A   24   001
2      2  INACTIVE   L74HAB
3      3  INACTIVE   74AB
4      4  INACTIVE   JIFAB74
5      5  INACTIVE   EB74A
6      6  DRAINED   BA
7      7  DRAINED   AB
8      8  DRAINED   GAB
9      9  INACTIVE   S
10     10  DRAINED   AB
11     11  DRAINED   AB
12     12  DRAINED   AB
13     13  DRAINED   AB
14     14  DRAINED   AB
15     15  DRAINED   AB
16     16  DRAINED   AB
17     17  DRAINED   AB
18     18  DRAINED   AB
19     19  DRAINED   AB
20     20  DRAINED   AB
21     21  INACTIVE   A
22     22  INACTIVE   A
23     23  INACTIVE   A
24     24  INACTIVE   A
25     25  INACTIVE   A
26     26  INACTIVE   A
                                         46   002
                                         47   002
                                         48   003
                                         49   003
                                         50   003
                                         51   003
                                         52   003
MA a
-----
Connected to remote server/host 198.81.193.186 using lu/pool TCP00012 and port 623
04/021
  
```

z/OS Internet Library (JES2 Manuals)

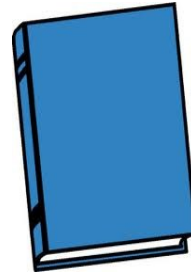
JES2 Bookshelf

Commands

Initialization and Tuning Guide

Initialization and Tuning Reference

Introduction



Unit Summary

Having completed 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