Common Errors

There are two basic types of errors that can lead to job failure. They are:

- JCL ERROR
- JOB ABEND

JCL errors

A JCL error can be a syntactical or an allocation error. Both these errors are detected by JES and when an error occurs, job is not taken for processing. You can browse your job's outlist to know the errors in detail for all types of errors. The outlist is available in one of the SPOOL volumes and written in WORK volume when you want to browse/edit.

To do so, specify MSGCLASS=X, where X is the hold class.

Common JCL Errors

Some of the common errors, the reasons, and their solutions are discussed below.

1. `JOB JOBNAME(####) EXPRESS CANCELLED BY INPUT SERVICE`

   Reason: Error occurred in job

   Solution: Check the jobcard for syntax and resubmit the job.

2. `JOBCARD INVALID`

   Reason: Job statement ended with comma, but continuation line is missing or coded after 16th column.

   Solution: Rectify the above-mentioned error and resubmit the job.

3. `JOB JOBNAME(####) JOB REJECTED`

   Reason: Time parameter is missing in the job.

   Solution: Check the jobcard for missing TIME parameter or any other parameter, which has to be coded. Resubmit the job.

4. `JOB JOBNAME(####) FAILED BY INTERPRETER`

   Reason: Possible reasons are as follows:
   a) Undefined operation field
   b) Operation filed does not terminate with a comma/blank
   c) Job has no job steps
   d) Incorrect use of apostrophes in the parameter field
   e) Extra blank is coded between parameters of operand fields

Solution: Check for the above errors and resubmit the job.

5. `JOB JOBNAME(####) FAILED BY INITIATOR`
   `JOB JOBNAME,STEP=STEPNAME,PROC=PROCNAME`

   Reason: The required parameters are not passed or one or some of the specified parameters are incorrect.

   Solution: Include all the necessary parameters and resubmit the job.

6. `JOB JOBNAME(####) JOB FAILED - JCL ERROR`

   Reason: Dataset not found

   Solution: Check for the existence of the dataset or check the dataset name and resubmit the job.

JOB ABEND Error

An error can be an abend. When a job abends, termination messages are written to the console and to message log regardless of any MSGLEVEL parameter coding in the JOB statement.

An ABEND can be the result of:

- *A program logic error*
- *Execution time exceeds the amount coded in the time parameter*
- *A program is not found in the coded library*
- *A hardware or system failure*
- *Space constraints after the program started executing*

DD Statement Errors

Mostly errors in DD statement are common JCL logic errors. Some of these errors are as follows:

- If a DD statement is omitted for a particular dataset, which is referred by the application program, the OS is unable to locate it.
- If a DD statement is coded twice, the OS ignores the first occurrence and assumes the second to be the intended statement
- If two similar DD statements describe the same dataset, both will be allocated. The application program will however, only use the second description.

Considerable time is wasted, as these types of errors are not recognized by the system until after job processing has started.

Return Code Reference

All utilities communicate processing results to you via the return code, which is a 4-digit number that you can test in subsequent job steps with the COND parameter. Following are some of the return codes used by each IBM utility.

IEBGENER	
0000	Successful completion
0004	Warning error; probable successful completion
0008	User requested processing of dataset labels only
0012	Unrecoverable error; step terminates
0016	User routine passed 0016 (rarely used)
IDCAMS	
0000	Successful execution
0004	Problem in a noncritical function; not usually fatal
0008	Error in requested function; some aspect bypassed
0012	Serious logical error; function abandoned
0016	Severe error; IDCAMS command processing terminated
DFSORT	
0000	Successful execution
0004	(Not used)
0008	(Not used)
0012	(Not used)
0016	I/O error or out of sequence error; step terminated
0020	//SYSOUT DDname or message DDname missing