



Legac-E Education

Operator Commands via the Input Stream

There are often allusions to the ability to enter Operator Commands, be they z/OS or JES commands, via the input stream. z/OS includes this capability and has done since its earliest incarnation when consoles were mechanical devices prone to breakdown. The ability to enter Operator Commands via a physical card reader provided a means of allowing the system to function in what otherwise might have been a major failure.

The capability is still present **BUT** any recommendation to use this feature needs a caveat, as just because the system includes a feature does not mean it is available for use. In the system I managed between 2003 and 2016 both the issuing of Operator Commands and the use of the Internal Reader were strictly controlled to ensure that one user could not disrupt another. I would expect the same to be true in any well managed environment as the Operations Department provides availability based on Service Level Agreements (SLAs) and it is not best practice to allow that responsibility to be usurped.

When are Instream Commands actioned?

There is no coordination between any job containing an in-stream command and the commands execution. Input stream commands are executed once the Interpret and Conversion phase part of the input process is complete, which may be well ahead of actual job execution.

Operator Command Controls

There are two places which can dictate whether an input stream command is allowed or not;

- JES2 Initialization Parameters. (There are presumably JES3 equivalents but I have not worked with JES3.)
- The security product, RACF (IBM), ACF2 (CA), TopSecret (CA) or any other equivalent.



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JES2 Initialization Parameters

The main control is the **COMMAND** keyword of the **JOBCLASS** definition within the JES2 Initialization Parameters which typically is set to **IGNORE**. This means that not only will the command not be executed it will not be displayed in the job stream either.

The **INTRDR** definition has a keyword **AUTH** which controls the execution of JES Command Language (JECL), that is those JES2 commands which begin **/*name** such as **/*PRINT**, **/*JOBPARM** etc.

There is also a **BATCH** keyword for the **INTRDR** definition in the JES2 Initialization Parameters which determines whether **SYSOUT=(, INTRDR)** will be honoured).

RACF Controls

Within RACF there is a resource class known as **OPERCMDS** which can be used to authorize specific commands whether they are z/OS Commands or JES2 Commands. It is often the case that general users have the ability to issue the following commands:

- Information commands such as **DISPLAY (D)**
- Commands which aid management of their own jobs, for instance allowing them to cancel their jobs but not necessarily jobs of other users.

System management Commands like **STOP (P)**, **VARY (V)** are generally restricted.

There is more information about command interfaces at <http://legac-e.co.uk/GENdocs/cmdinput.pdf> .