

**IBM InfoSphere
Information
Server**

Lesson 3: Executing and Monitoring
Jobs



Lesson Objectives

- On completion of this lesson, you will be able to:
- Executing and Monitoring Jobs
 - Introduction to Datastage Director
 - Options to run job



Executing and Monitoring Jobs

DataStage Director



- Use to run and schedule jobs
- View runtime messages
- Can invoke directly from Designer
 - Tools > Run Director

Tasks that can be performed by the DataStage Director.



Schedule, run, and monitor jobs



View job status, logs, and schedules



Filter the displayed events

DataStage Director



How to run jobs?

- You can open Director from within Designer by clicking Tools>Run Director.
- In a similar way, you can move between Director and Designer.
- There are two methods for running a job:
 - Run it immediately.
 - Schedule it to run at a later time or date.
- To run a job immediately:
 - Select the job in the Job Status view.
 - The job must have been compiled.
 - Click Job>Run Now or click the Run Now button in the toolbar.
 - The Job Run Options window is displayed.

DataStage Director



- The DataStage Director window is divided into two panes:
 - The Job Category pane lists all of the jobs in the repository.
 - The right pane shows one of three views: Status view, Schedule view, or Log view.
- DataStage Director menu options:

Menu Option	Description
Project	Open another project, print, or exit.
View	Display or hide the toolbar, status bar, buttons, or job category pane, specify sorting order, change views, filter entries, show more details, or refresh the screen.
Search	Start a text search dialog box.
Job	Validate, run, schedule, stop, or reset a job, purge old entries from the job log file, delete unwanted jobs, clean up job resources (if this is enabled), set default job parameter values.
Tools	Monitor running jobs, manage job batches, start the DataStage Designer.
Help	Displays online help.

DataStage Director

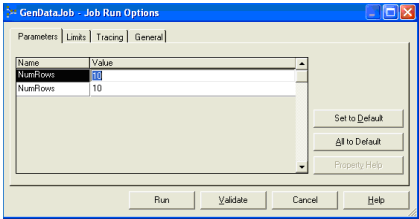


- DataStage Director has three view options:
 - The Status view displays the status, date and time started, elapsed time, and other run information about each job in the selected repository category.
 - The Schedule view displays job scheduling details.
 - The Log view displays all of the events for a particular run of a job.

Run Options



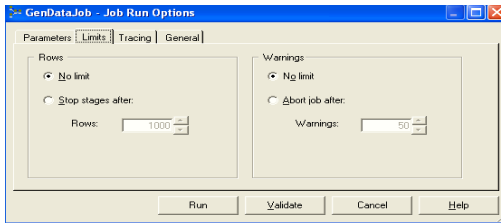
- The Job Run Options window is displayed when you click Job>Run Now.
- This window allows you to stop the job after:
 - A certain number of rows.
 - A certain number of warning messages.
- Click Run to run the job after it is validated. The Status column displays the status of the job run.



Run Options (Cont...d)



- The Job Run Options window is displayed when you click Job>Run Now.
- This window allows you to stop the job after:
 - A certain number of rows.
 - A certain number of warning messages.
- Click Run to run the job after it is validated. The Status column displays the status of the job run.



Director Status View



WebSphere DataStage Director - HAWKYMldstage

WebSphere DataStage and QualityStage Director

Project View Search Job Tools Help

dirstage

- dirstage
- dirstage - JSTrain
- Jobs
- Jobs

Job name	Status	Started	On date	Last ran	On...	Elapsed...	Description
GenDataJob	Finished	01:38 PM	11/14/2006	01:41 PM	11/...	00:02:03	This job generates employee data.

Status of jobs: 1 entities

Server time: 11/14/2006 10:09 PM

Director Log View



- Click the Log button in the toolbar to view the job log.
- The job log records events that occur during the execution of a job.
- These events include *control events*, such as the starting, finishing, and aborting of a job; informational messages; warning messages; error messages; and program-generated messages.

The screenshot shows the 'WebSphere DataStage Director - HAWKVAdstage' window. The 'Log' button in the toolbar is highlighted. The log table displays the following data:

> Occurred	> On date	Type	Event
1:39:20 PM	11/14/2006	Control	Starting Job GenDataJob (...)
1:40:20 PM	11/14/2006	Info	Environment variable settings: (...)
1:40:21 PM	11/14/2006	Info	Parallel job initiated
1:40:21 PM	11/14/2006	Info	DSH script (...)
1:40:31 PM	11/14/2006	Info	main_program: IBM WebSphere DataStage Enterprise Edition 8.0.0 (...)
1:40:37 PM	11/14/2006	Info	main_program: orcdgeneral loaded (...)
1:40:37 PM	11/14/2006	Info	main_program: Echo (...)
1:40:39 PM	11/14/2006	Info	main_program: Explanation (...)
1:40:47 PM	11/14/2006	Info	main_program: Dump (...)
1:40:47 PM	11/14/2006	Info	main_program: APT configuration file: C:/IBM/InformationServer/Server/Conf...
1:40:47 PM	11/14/2006	Info	main_program: This step has no datasets (...)
1:41:06 PM	11/14/2006	Info	main_program: Schemas (...)
1:41:06 PM	11/14/2006	Info	PeekEmployees.D: EmpID:10000 Name:aaaaa HireDate:1960-01-01 (...)
1:41:06 PM	11/14/2006	Info	Employees.D: Output D produced 10 records
1:41:06 PM	11/14/2006	Info	PeekEmployees.D: EmpID:10005 Name:aaaaaaaaaaaaaaaaaaaa HireDate:1960-01-01 (...)
1:41:06 PM	11/14/2006	Info	main_program: Step execution finished with status = OK
1:41:06 PM	11/14/2006	Info	main_program: Startup time: 0.33; production run time: 0.01
1:41:18 PM	11/14/2006	Info	Parallel job reports successful completion
1:41:18 PM	11/14/2006	Control	Finished Job GenDataJob

Log for job: GenDataJob | 19 entries (filtered) | Server time: 11/14/2006 02:15 PM

Message Details



➤ Double-click on a message to open it up and read the details

Event Detail

Server: [HAWKVM]Project: [dstage]User: [HAWKVM\demohawk]

Job No: [18]Job name: [GenDataJob]Invocation:

Event Number: [12]Event type: [Info]Timestamp: [11/14/2006 1:41:06 PM]

Message Id: [IIS-DSEE-TOPK-00003]

Close

Next

Previous

Copy

Help

Message:

PeekEmployees.0: EmplD:10000 Name:aaaaa HireDate:1960-01-01
PeekEmployees.0: EmplD:10001 Name:bbbbbb HireDate:1960-01-02
PeekEmployees.0: EmplD:10002 Name:cccccccccccccccccccccccccccc HireDate:1960-01-03
PeekEmployees.0: EmplD:10003 Name:dd HireDate:1960-01-04
PeekEmployees.0: EmplD:10004 Name:eeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee HireDate:1960-01-05
PeekEmployees.0: EmplD:10005 Name:ffffffffffffffff HireDate:1960-01-06
PeekEmployees.0: EmplD:10006 Name:gggggggggggggggggggggggggggggg HireDate:1960-01-07
PeekEmployees.0: EmplD:10007 Name:hhhhhhhhhhhhhh HireDate:1960-01-08
PeekEmployees.0: EmplD:10008 Name:iiiiiiiiiiiiiiii HireDate:1960-01-09

Other Director Functions



- Schedule job to run on a particular date/time
- Clear job log of messages
- Set job log purging conditions
- Set Director options
 - Row limits
 - Abort after x warnings

Running Jobs from Command Line



- `dsjob -run -param numRows=10 dx444 GenDataJob`
 - Runs a job
 - Use `-run` to run the job
 - Use `-param` to specify parameters
 - In this example, `dx444` is the name of the project
 - -In this example, `GenDataJob` is the name of the job
- `dsjob -logsum dx444 GenDataJob`
 - Displays a job's messages in the log
- Documented in "Parallel Job Advanced Developer's Guide"

Q&A

1. Which stage can be used to display output data in the job log?
2. Which stage is used for documenting your job on the job canvas?
3. What command is used to run jobs from the operating system command line?



Q&A

1. Peek stage
2. Annotation stage
3. dsjob -run



Unit summary



- Having completed this unit, you should be able to:
- Design a simple Parallel job in Designer
- Define a job parameter
- Use the Row Generator, Peek, and Annotation stages in a job
- Compile your job
- Run your job in Director
- View the job log

