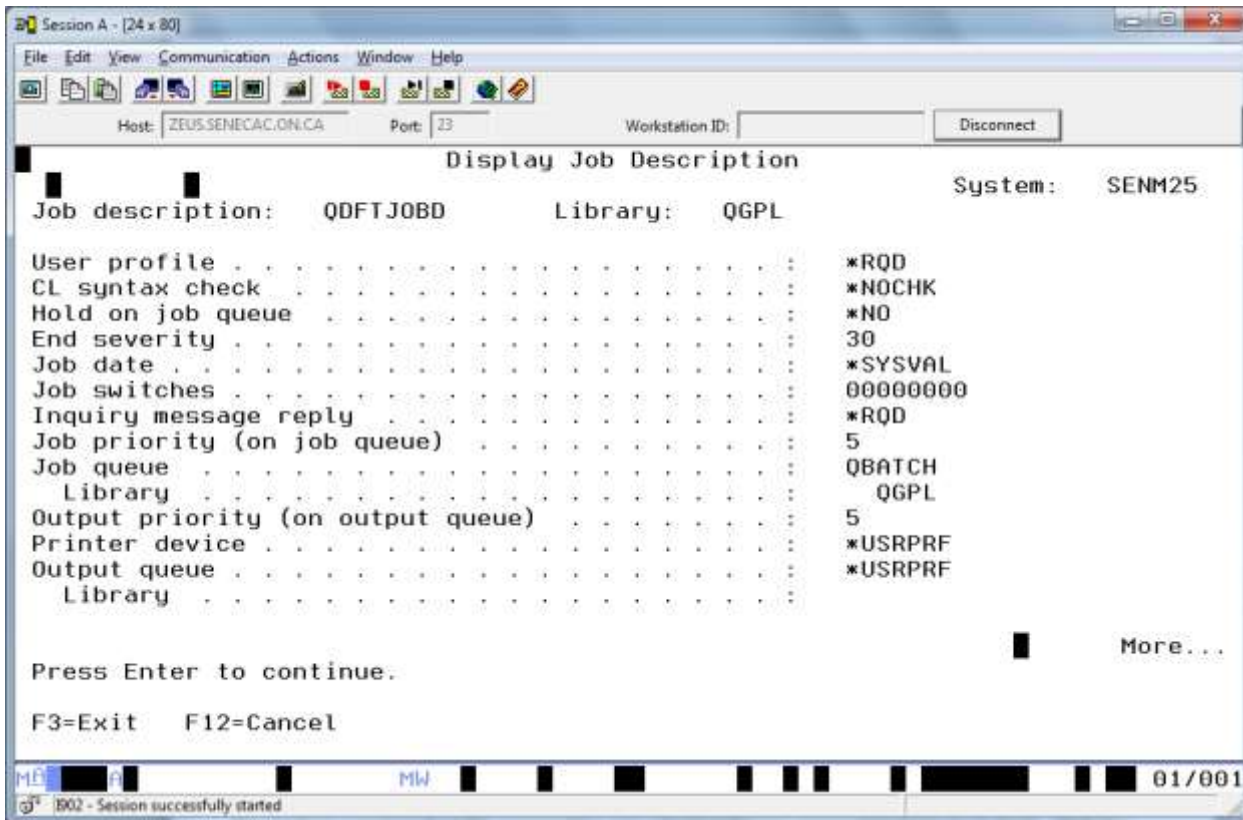


## Jobs and Subsystems

Work needs to be organized, managed and completed on the Power System. This work is arranged into various jobs that may consist of a CL command or the execution of one or more application programs.

A job is a unit of work that is done on the system. A job should include all the required computer programs, files and instructions to the operating system for accomplishing a task.

The system maintains information about all aspects of every job and this data is available to you on the Work with Job screen. (WRKSBMJOB and option 5 beside a Job) A job number is assigned and a job description will be associated with the job that will indicate the default job queue to use. A job priority on the job queue, output priority on the output queue would be some of the information found in a job description.



A job runs in a subsystem. A subsystem is a work management environment that supports various types of jobs. A subsystem is made up of resources such as a subsystem description (the blueprint or plan that describes the kind of work the subsystem is tuned to handle); main storage to allow the system for loading and running of programs (pools); display stations to start and run interactive jobs; job queues to start batch jobs; and communication devices and locations.

Two of the most common categories of jobs are Interactive and Batch.

An interactive job is started when you sign on the system and ends when you log off. You interact with the system at the command line by entering CL commands, selecting menu choices or running various programs. Eventually you will sign off the system and this interactive conversation is terminated.

A batch job can be handled by the system without a continuous collaboration between the user and system to get work accomplished.

Job status attributes will tell you when the job entered the system and when it started running. You can check this information for a batch job to check if the job has been running too long possibly in a never-ending loop.

You could run a program from the command line interactively and it may require several minutes to finish. While the job is running, the screen is frozen and you do not have access to the command line.

Another choice would be to use the submit job command and allow this job to run in the background.

```

Jobq1 -----
Jobq2 ----- QBATCH Subsystem
Jobq3-----

JobqA -----
JobqB -----QINTER Subsystem

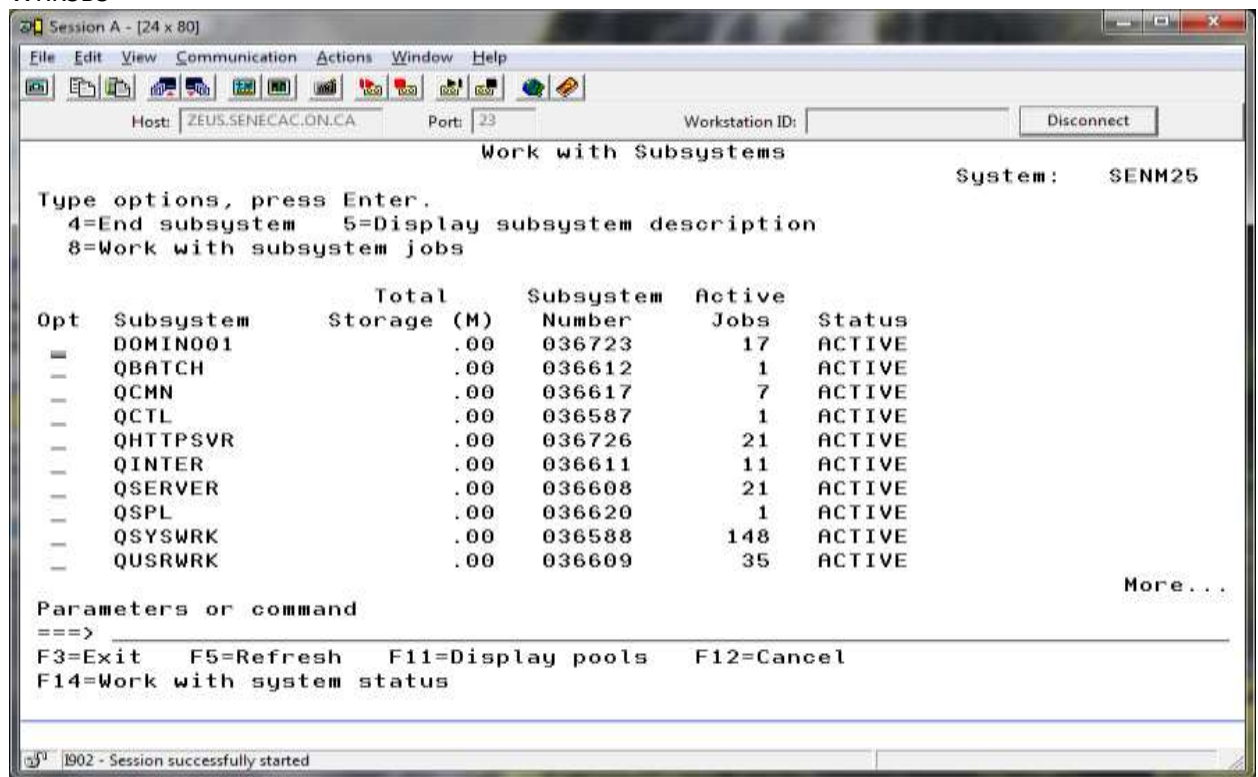
```

The QINTER subsystem is tuned to give a faster response than QBATCH. You would use the QBATCH subsystem for your program that freezes the screen for several minutes and continue to interact at the command line with the QINTER subsystem.

Jobq1	Status	Priority	Work to Do
FirstJob	HLD	3	a simple task printing a report
SecondJob	ACTV	5	a series of tasks –update customer with daily batched daily sales Analyze customer sales patterns Print Reports
ThirdJob	RLS	5	Delete Old Unused Objects
FourthJob	RLS	2	Process 100,000 records

Which job is running, which job should run next? What would happen if the QBATCH subsystem was held?

### WRKSBS



## QBATCH Subsystem

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECAC.ON.CA Port: 23 Workstation ID: Disconnect

Display Job Queue Entries

Subsystem description: QBATCH Status: ACTIVE System: SENM25

Seq Nbr	Job Queue	Library	Max Active	-----Max by Priority-----	1	2	3	4	5	6	7	8	9
10	QBATCH	QGPL	50		*	*	*	*	*	*	*	*	*
20	QS36EVOKE	QGPL	*NOMAX		*	*	*	*	*	*	*	*	*
50	QXTSRCH	QGPL	*NOMAX		*	*	*	*	*	*	*	*	*

Press Enter to continue.

F3=Exit F12=Cancel

Bottom

MA [redacted] -S MW [redacted] 01/001

1902 - Session successfully started

## QINTER Subsystem

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECAC.ON.CA Port: 23 Workstation ID: Disconnect

Display Job Queue Entries

Subsystem description: QINTER Status: ACTIVE System: SENM25

Seq Nbr	Job Queue	Library	Max Active	-----Max by Priority-----	1	2	3	4	5	6	7	8	9
10	QINTER	QGPL	*NOMAX		*	*	*	*	*	*	*	*	*
20	QS36MRT	QGPL	*NOMAX		*	*	*	*	*	*	*	*	*

Press Enter to continue.

F3=Exit F12=Cancel

Bottom

MA [redacted] MW [redacted] 01/001

1902 - Session successfully started

Which subsystems have more system resources allocated?

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECAC.ON.CA Port: 23 Workstation ID: Disconnect

Work with Subsystems

System: SENM25

Type options, press Enter.

4=End subsystem 5=Display subsystem description  
8=Work with subsystem jobs

Opt	Subsystem	Total Storage (M)	-----Subsystem Pools-----									
			1	2	3	4	5	6	7	8	9	10
=	DOMIN001	.00	2									
-	QBATCH	.00	2									
-	QCMN	.00	2									
-	QCTL	.00	2									
-	QHTTSPVR	.00	2									
-	QINTER	.00	2	3								
-	QSERVER	.00	2									
-	QSPL	.00	2	4								
-	QSYSWRK	.00	2									
-	QUSRWRK	.00	2									

More...

Parameters or command  
===>

F3=Exit F5=Refresh F11=Display system data F12=Cancel  
F14=Work with system status

1902 - Session successfully started

Too much CPU is being used here:

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECAC.ON.CA Port: 23 Workstation ID: Disconnect

Work with System Status

SENM25

10/17/12 16:33:19

% CPU used . . . . .	99.9	Auxiliary storage:	
% DB capability . . . . .	.0	System ASP . . . . .	977.1 G
Elapsed time . . . . .	00:00:01	% system ASP used . . .	13.7485
Jobs in system . . . . .	10252	Total . . . . .	977.1 G
% perm addresses . . . . .	.016	Current unprotect used :	19973 M
% temp addresses . . . . .	11.914	Maximum unprotect . . .	44041 M

Type changes (if allowed), press Enter.

System Pool	Pool Size (M)	Reserved Size (M)	Max Active	-----DB-----	---Non-DB---		
				Fault	Pages	Fault	Pages
1	301.39	140.24	+++++	.0	.0	.0	.0
2	2935.44	42.87	1512	.0	.0	.0	.0
3	421.83	.44	72	.0	.0	1.8	4.5
4	36.95	.00	5	.0	.0	.0	.0

Bottom

Command  
===>

F3=Exit F4=Prompt F5=Refresh F9=Retrieve F10=Restart F12=Cancel  
F19=Extended system status F24=More keys

1902 - Session successfully started

## WRKACTJOB

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Host: ZEUS.SENECAC.ON.CA Port: 23 Workstation ID: Disconnect

Work with Active Jobs SENM25

10/17/12 16:33:52

CPU %: 100.0 Elapsed time: 00:00:05 Active jobs: 328

Type options, press Enter.

2=Change 3=Hold 4=End 5=Work with 6=Release 7=Display message

8=Work with spooled files 13=Disconnect ...

Opt	Subsystem/Job	User	Type	CPU %	Function	Status
—	QPADEV000B	DY233D40	INT	.0	CMD-WRKACTJOB	RUN
—	QPADEV000C	DY233D05	INT	.0	PGM-LAB4CL	DSPW
—	QPADEV000D	DY233A08	INT	.0	MNU-PROGRAM	DSPW
—	QPADEV000P	DY233C20	INT	.0	MNU-PROGRAM	DSPW
—	QPADEV000T	DY233B13	INT	19.1	PGM-LAB4START	RUN
—	QPADEV000W	DY400B14	INT	.0	CMD-STRSEU	DSPW
—	QPADEV000X	DY233B13	INT	29.6	PGM-LAB4START	RUN
—	QPADEV0001	DY233B19	INT	.0	MNU-PROGRAM	DSPW
—	QPADEV0002	DY233B13	INT	14.2	PGM-LAB4START	RUN

More...

Parameters or command  
==>

F3=Exit F5=Refresh F7=Find F10=Restart statistics  
F11=Display elapsed data F12=Cancel F23=More options F24=More keys

1902 - Session successfully started

Sign on a second time.

Look for your two interactive jobs. One will be your out of control program and the other will be your WRKACTJOB function.

Use option 4 to end your out of control program.