

ABENDED JOBS IN ETHICON

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a *Johnson & Johnson* company



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➤ Jobs

Jobs are programmed tasks in the UNIX server. These belong to a Schedule and are set to be run.

Every Job has its script in UNIX. Through these scripts it can take two kinds of action:

- Run a UBE in JD Edwards
- Execute a UNIX script. Also, these scripts can perform different tasks:
 - Working with Files in the Server
 - Calling a SQL script in a Database.
 - Other tasks

❖ Alerts

*Available scripts for the server are located in **/eth/oblib/sh***

Often, UNIX receives alerts. These mean there was some problem with a Job. These alerts will be delivered to us by the regarding team.

This is an example:

Hi,

Mailing you the details of alert received:

```
Job ETHJP870 ABENDED in schedule ETHPFING on server E1NAP84A  
E1NAP84A      9012 5 ETHJP870                ethbat  
/eth/objlib/sh/sys_runbat.s\040fin_r553111e_r553112e.s\040pd\0  
40-br_plnt\040USE02M -32768 1 2012062501170000 0 4640 0 13  
40581800 0 26460 0 99 ETHPFING      4640
```

Please look into the issue.

Marked in bold letter is the most useful information of the Alert:

- ✓ Job's Name
- ✓ "Abended" (Ended Abnormally)
- ✓ Regarding Schedule
- ✓ Regarding Server
- ✓ Path of the executed script

Course of Action

Receiving the Alert marks the beginning of the work that has to be done. After collecting the information we must determine if the Job had associated an SQL script or a JDE UBE.

Easiest way of knowing whether the job runs an UBE or a Script is looking in into the log.

➤ Checking the log

The folder `/opt/e1nap84a/maestrod/stdlist` contains logs for Jobs run. There are folders ordered by date, so we will have to know when the script was run. Remember that many scripts start on a date and finish after midnight, so if we get an Alert, the job may have started the day before and the log shows up in that folder.

To check it, follow these steps:

1. `cd /opt/e1nap84a/maestrod/stdlist`
2. `ls -lst`

```
$ pwd
/opt/e1nap84a/maestrod/stdlist
$ ls
2012.06.18  2012.06.20  2012.06.22  2012.06.24  2012.06.26  2012.06.28  logs
2012.06.19  2012.06.21  2012.06.23  2012.06.25  2012.06.27  2012.06.29  traces
$
```

3. choose the correct folder for the date the job run
4. `grep [job name] *`
5. `more [filename]`

Remember that UBEs are run by the `sys_runjde.s` script. So if this script is present in the path, it means this is surely an UBE. But take note that `sys_runbat.s` runs other commands which may call any other script. To be sure, check the table explained below to discard it runs a UBE.

➤ **LOGS: UBEs vs. Script**

```

                                SCRIPT
=====
= JOB   : E1NAP84A#ETHPFINA.ETHJPOTC31
= USER  : ethbat      Luis Roman,,,
= JCLFILE : /eth/objlib/sh/otc_mk_hsship.sh
= Job Number: 15696
= Tue 07/03/12 22:58:19 EDT
=====

TWS for UNIX/JOBMANRC 8.2.1
AWSBIS307I Starting /opt/e1nap84a/maestrod/jobmanrc /eth/objlib/sh/otc_mk_hsship.sh
TWS for UNIX (HPUX)/JOBINFO 8.2.1 (9.5)
Installed for user 'maestrod'.
Locale LANG set to "C"
=====
= Exit Status      : 0
= System Time (Seconds) : 0   Elapsed Time (Minutes) : 0
= User Time (Seconds)  : 0
= Tue 07/03/12 22:58:19 EDT
=====

```

```

                                UBE
=====
= JOB   : E1NAP84A#ETHPMOTC2.ETHJPOTC28
= USER  : ethbat      Luis Roman,,,
= JCLFILE : /eth/objlib/sh/runjde.s ETHJPOTC28
= Job Number: 1536
= Tue 07/03/12 22:43:49 EDT
=====

                                (...)

User ID = MFGPOWER
Job ID = ETHJPOTC28
UBE Name = R55INVAD
UBE Version = ETH0001
Job Queue = ETHLRJ02
Job Number = 14655100
Job Priority = 5
JDE Log = N
JDE Debug Log = N
Synchronous Execution = N
Error Level = 1
Job Type = S
Allocation Method = N
Logging (Y/N) = Y
successful completion
=====
= Exit Status      : 0
= System Time (Seconds) : 1   Elapsed Time (Minutes) : 14
= Tue 07/03/12 22:57:53 EDT
=====

```

➤ **If the Job runs an UBE:**

Check the UBE associated to the Job by looking the job up in the **F59888** table in JDE.

Q5STYP	Q5JOBQUE	Q5JOBQUE	Q5VERS	Q5OSTNM	Q5JOBPT	Q5USER	Q5AUTOPIRT	Q5JOBLOG2	Q5JOBDEBUG	Q5FDSYMC	Q5ENV
ETHJP700		R007011	ETH0001			FINPOWER	N	N	N	N	
ETHJP701		R007021	ETH0002			FINPOWER	N	N	N	N	
ETHJP702		R007031	ETH0002			FINPOWER	N	N	N	N	
ETHJP703	FINMTQUE1	R006707	ETH0001			FINPOWER	N	N	N	N	
ETHJP704		R006701	ETH0002			FINPOWER	N	N	N	N	
ETHJP705		R006702	ETH0002			FINPOWER	N	N	N	N	
ETHJP706		R047001A	ETH0001			FINPOWER	N	N	N	N	
ETHJP708		R04701	ETH0002			FINPOWER	N	N	N	N	
ETHJP709		R04702A	ETH0001			FINPOWER	N	N	N	N	
ETHJP710		R0911T	ETH0001			FINPOWER	N	N	N	N	
ETHJP711		R09410	ETH0002			FINPOWER	N	N	N	N	
ETHJP712		R094121	ETH0002			FINPOWER	N	N	N	N	
ETHJP715		R097001	ETH0001			FINPOWER	N	N	N	N	
ETHJP716		R09705	ETH0002	5		FINPOWER	N	N	N	N	
ETHJP717		R09706	ETH0001			FINPOWER	N	N	N	N	
ETHJP718	FINPOST0	R1502	ETH0014	5		FINPOWER	N	N	N	N	
ETHJP721		R41542	ETH0001			FINPOWER	N	N	N	N	
ETHJP722		R550001M	ETH00001			FINPOWER	N	N	N	N	

This screenshot shows how the table has the job set. For Example, ETHJP700 runs R007011 with the ETH0001 version.

Next step will be to check the job status for the run of this UBE in the Work Submitted Jobs (WSJ).

Queue	Status	Description	Priority	Type	User	Job Details	Host	Job #	Environment	Origination Host	Process ID	Date Job Submitted
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	1438556	PO7333	etrap04a	6750	5/11/01
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	1438554	PO7333	etrap04a	6401	6/28/01
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	1438553	PO7333	etrap04a	25310	5/14/01
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	1438552	PO7333	etrap04a	4340	5/15/01
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	1438551	PO7333	etrap04a	7781	5/16/01
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	14401481	PO7333	etrap04a	24205	5/17/01
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	14400318	PO7333	etrap04a	14023	5/18/01
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	14414478	PO7333	etrap04a	17399	5/18/01
FINMTQUE1	D	Done	5	UBE	FINPOWER	R007011_ETH0001_14	etrap04a	14416886	PO7333	etrap04a	17358	5/21/01

Here we can check the status of the UBE by filtering by the known time/date of the run.

➤ **If the Status in Done or Processing**

Very often, the UNIX server loses connection with JDE and marks the Job as Abended. But many times the UBE ended well in JDE. If the job ended well in JDE, we will have to inform the

Midrange Team to mark this job as Successful in UNIX. Note that until this is done the whole schedule will be stopped.



RE Job ETHJP804 ABENDED in schedule CF12169AAAAAAQZ on server E1NAP84A.oft

Email example of these messages

If the status is processing it means the UBE took longer than considered in the scheduled. Special care will have to be taken. We can wait for it to finish and check the status.

- If the status is Error

Then this UBE failed and must be considered. In these cases the jdelog and jddebug (unless they have been activated) will not tell much. The Logic of the UBE has to be analyzed to determine if running it again would compromise data, if it would not, it can be marked for **Rerun**. This is adequate in cases where the Database connection failed midrun, for example. Calling a rerun will then continue with the scheduled jobs in the thread. If this has to be avoided when, for example, rerunning the previous job to the erroneous one, it can be called "**Ad Hoc**" so it does not follow the entire thread.

- **The Midrange Team**

Midrange Team is usually responsible for running Jobs in **Maestro**, so we will have to inform them how to proceed in the event of an abending job.

Here are some examples of requests for Midrange.



RE Job ETHJPF17 ABENDED in schedule ETHPPRO7 on server E1NAP84A .msg



RE Job ETHJP1014 ABENDED in schedule ETHSP1014 on server E1NAP84A .msg



RE Job ETHJPOTC25 ABENDED in schedule ETHPMOTC2 on server E1NAP84A

INC000007268076.msg

➤ **If the Job runs a script**

If the job runs a script we have to find what caused it to fail. To do this we can look into the log of the job.

Most scripts output a log of the actions it performs, there will be logged all the errors. UBEs also will leave a log in these folders, but only scripts make a detailed log with the actions performed.

Knowing the date, enter the folder

Enter the log file.

- Jobs that may not log to /opt/e1nap84a/maestro/stdlist

We will have to find the path of the log ourselves by looking into the script's code. There, the path of the log file will be set.

➤ **Analyzing the Errors**

There may be all kinds of Errors. When the script fails, the log will show a line with the message:

- = Exit Status : 1

"Exit Status: 1" means an abnormal ending. "Exit Status: 0" on the contrary, means a normal ending.

➤ **Common Errors**

Some errors are most common:

- **ORA ERRORS:** These are error messages from an Oracle Database. These occur when the script executes an SQL script in a database. We can search the internet for a definition of the Error and that will tell us what the error was. For example, **ORA-02437** would show up if the script failed because of a duplicated primary key.
- Disconnections from the Database.

➤ **Schedules**

Schedules are the programmed set of jobs that run one after the other in a thread. This must be taken into account when deciding to Rerun a job whether normally or *Ad hoc*.

Always check updated Schedules for Ethicon

Contact **DL-NA NCS Production Control** and ask for Updated Schedules and Jobs for Ethicon regularly.

E1NAP84A_SCHS.txt	E1NAP84A_JOBS.txt
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➤ Understanding the Schedule

```
SCHEDULE E1NAP84A#ETHPPRO7
      ON   MO, TU, WE, TH, FR
      CARRYFORWARD
:
ETHJPF15
      AT 1430
ETHJPF16
      FOLLOWS ETHJPF15
ETHJPF17
      FOLLOWS ETHJPF16
ETHJPF18
      FOLLOWS ETHJPF17
END
```

*This example shows the complete **ETHPPRO7** Schedule. It belongs to **E1NAP84a** server.*

- See how the first Job, ETHJPF15 is set to start 1430, 2:30 pm EST.
- ETHJPF16 is set to start when ETHJPF15 finishes and the following jobs are set in a thread.
- Note that when a job follows another, it will only run if that Job ends successfully.

➤ More Examples:

```
SCHEDULE E1NAP84A#ETHPFINC
      ON   MO, TU, WE, TH, FR
      CARRYFORWARD
:
ETHJP736
      AT 2115
      FOLLOWS ETHPMFGE.ETHJP665
```

(...)

In this example, **ETHJP736** is set to follow a Job belonging to a different **Schedule**

```
SCHEDULE E1NAP84A#ETHPPLNJ
  ON    MO, TU, WE, TH
  AT    1700
  CARRYFORWARD
:
  ETHJP429
  AT    1800
  ETHJP446
  FOLLOWS ETHPFINA.ETHJP822,
  ETHPFINB.ETHJP785,
  JDENAP05#ETHSP005.ETHJPP103
  (...)

```

In this example, **ETHJP446** is set to follow a job in a different **Server** and **Schedule**.

➤ Useful Commands in UNIX

- cd : change directory
 - cd /opt/e1nap84a/maestrod/stdlist
- cd .. : move one folder upwards
- pwd: current directory
- ls : list all files and folders in current directory
- ls -l : list with details
- find . -name [name] : search for a file **by its name** in the current directory
 - find . -name abc will show all files named abc
 - find . -name abc* will show files beginning with "abc"
 - find . -name *abc* will show all files containing abc in the name
- grep [text] * : searches files in the current directory for matches to the text **inside** the files
- more [name] : open a text file

➤ Dictionary, key words

Job: Programmed task

Abended: Abnormal Ending

Script: a program to be executed

UBE: a JD Edwards Report

Version: JDE Object that can modify a Report. It is used to run UBES.

UNIX: an operative system runs in the Ethicon Server

Schedule: Set of jobs meant to be run in order

WSJ: Work Submitted Jobs. A tool inside JD Edwards.

Alert: Message sent by the UNIX server about any problem regarding Jobs.

ORA Errors: Error Codes provided by an Oracle Database.

Re run: A way to run Jobs. Running again normally

Ad hoc: A way to run Jobs. Runs the job in its own separate thread.

Thread: set of jobs to be run one after the other.

MAESTRO: Is the tool used to create and manage all scheduled Jobs in the Servers.

Production Control: The Team in charge of modifying the schedules.

Midrange: The team in charge of rerunning, holding and general actions regarding abended jobs.