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## **How to enable Apache, OC4J and OPMN logging in R12**

Whenever we raise SR with Oracle support for R12 application logging related issue, they will ask to produce the logging details by enabling the Apache, OC4J and OPMN components and its services. If we compare to 11i, Oracle Applications R12 introduces new easy way in order to enable logging for any of the components that are being used within it. Step by step instructions about how to enable logging of these components are as follow.

- **Oracle Configuration Home for Apache, OC4J & OPMN is**  
\$ORA\_CONFIG\_HOME/10.1.3

Apache server is still being used and its configuration path is as following:  
\$ORA\_CONFIG\_HOME/10.1.3/Apache/Apache/conf

But OC4J services, by default Oracle Applications R12 creates 3 OC4J instances:

1. OACore: runs OA Framework-based applications
2. Forms: runs Forms-base applications
3. OAFM (Oracle Apps Fusion Middleware): runs web services, mapviewer, ascontrol

- **Configuration files path for the above 3 OC4J instances is:**  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/oacore/config  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/forms/config  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/oafm/config

- **Configuration files used to adjust log file path for the above 3 OC4J instances are:**  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/oacore/application-deployments/oacore/orion-application.xml  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/forms/application-deployments/forms/orion-application.xml  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/oafm/application-deployments/oafm/orion-application.xml

- **Log files types:**

Oracle Applications / E-Business Suite R12 can be configured to generate one of two types of logs files as following:

1. Plain text (default):
  - No log rotation available
  - Log files need to be manually removed
2. Oracle Diagnostics Logging (ODL) XML:
  - Logs rotation based on filesize, directory size

R12 logs by default are configured to generate plain text

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- **Log files locations:**

All log files are written in one home ( \$LOG\_HOME ) which is by default the (logs) directory under (\$INST\_TOP ).

Please note that after enabling the logging for any of the following services we need to bounce the services in order the changes to take effect.

- **Steps to enable Apache logging:**

Apache Logging ( Plain Text )

- 1) Edit the file \$ORA\_CONFIG\_HOME/10.1.3/Apache/Apache/conf/httpd.conf and set LogLevel warn (s\_apache\_loglevel in context file)
- 2) Bounce the apache
- 3) Now access the home URL or reproduce the issue.
- 4) Collect the following logfiles from \$LOG\_HOME/ora/10.1.3/Apache/access\_log and \$LOG\_HOME/ora/10.1.3/Apache/error\_log.

Values that can be set to LogLevel variable in httpd.conf file

LogLevel = emerg,alert,crit,error,warn,notice,info,debug.

Apache Logging (ODL Logging)

- 1) Set the following parameters in file \$ORA\_CONFIG\_HOME/10.1.3/Apache/Apache/conf/httpd.conf  
OraLogMode [oracle|odl|apache]  
OraLogSeverity [message type]:[message level]

Message type: INTERNAL\_ERROR, ERROR, WARNING, NOTIFICATION & TRACE

Message level: 1-32 (1 most severe, 32 least)

- 2) Bounce the apache
- 3) Try to access the home URL or reproduce the issue.
- 4) Collect the logfiles from \$LOG\_HOME/ora/10.1.3/Apache/oracle

- **Steps to enable OC4J logging:**

Log file path is specified in the file are as follows :

\$ORA\_CONFIG\_HOME/10.1.3/j2ee/oacore/application-deployments/oacore/orion-application.xml  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/forms/application-deployments/forms/orion-application.xml  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/oafm/application-deployments/oafm/orion-application.xml

1. Open the file to set the following log level  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/[oacore, forms, oafm]/config/j2ee-logging.xml

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2. Go to the location located as  
logger name='oracle' level='NOTIFICATION:1' .....
3. Set the desired logging using following values  
message type:message level  
Message type: INTERNAL\_ERROR, ERROR, WARNING, NOTIFICATION & TRACE  
Message level: 1-32 (1 most severe, 32 least)
4. Locate the log file path from the file  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/oacore/application-deployments/oacore/orion-application.xml  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/forms/application-deployments/forms/orion-application.xml  
\$ORA\_CONFIG\_HOME/10.1.3/j2ee/oafm/application-deployments/oafm/orion-application.xml  
(This can be identified with tag : log file path=... /log)
5. Bounce the OC4J instance and reproduce the issue
6. Collect the log files from the following locations .

**Plain text:**

```
$LOG_HOME/ora/10.1.3/j2ee/oacore/oacore_[default_group_1]/application.log  
$LOG_HOME/ora/10.1.3/j2ee/forms/forms/forms_[default_group_1]/application.log  
$LOG_HOME/ora/10.1.3/j2ee/oafm/oafm_[default_group_1]/application.log
```

**ODL Log:**

```
$LOG_HOME/ora/10.1.3/j2ee/oacore/oacore_[default_group_1]/log.xml  
$LOG_HOME/ora/10.1.3/j2ee/forms/forms/forms_[default_group_1]/log.xml  
$LOG_HOME/ora/10.1.3/j2ee/oafm/oafm_[default_group_1]/log.xml
```

➤ **Steps to enable OPMN logging:**

There are 3 log files generated:

- (opmn.log): contains commands, exit status
- (opmn.dbg): contains debug log messages
- (opmn.out): contains stdout & stderr messages

- 1) Open the file \$ORA\_CONFIG\_HOME/10.1.3/opmn/conf/opmn.xml to set the logging parameter
- 2) Logging is enabled per component (internal, ons or pm)
- 3) Levels that can be set are (component codes) as following:  
none, fatal, error, warn, notify (written to .log)  
debug1, debug2, debug3, debug4 (written to .dbg)

Ex :

```
opmnctl set target=log comp=warn  
opmnctl set target=debug comp=debug1
```

- 4) Bounce opmn services and reproduce the issue

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- 5) Collect the opmn log files generated in \$LOG\_HOME/ora/10.1.3/opmn  
opmn.log , opmn.dbg and opmn.out

PLEASE NOTE : Logfiles can be enabled for rotation using parameter  
s\_opmn\_log\_rotation\_size, s\_opmn\_log\_rotation\_time in opmn.xml

**Components (Services) Status & Logs:**

1. We can check the status of the services/components by passing 'status' parameter to any AD script in \$ADMIN\_SCRIPTS\_HOME.

adapcctl.sh status

2. The various logs written while starting and stopping the services are created in (\$LOG\_HOME/appl/admin/log/), the logs files are:

TNS Listener Start/Stop log	- adalnctl.txt
Fulfillment Server Start/Stop log	- jtffmctl.txt
Oracle HTTP Server start/stop log	- adapcctl.txt
Concurrent Managers and ICM start/stop log	- adcmctl.txt
Forms OC4J start/stop log	- adformsctl.txt
OACore OC4J start/stop log	- adoacorectl.txtq
OAFM OC4J start/stop log	- adoafmctl.txt
OPMN start/stop log	- adopmnctl.txt

(adstpall.log) and (adstrtal.log) will record the messages while starting or stopping all services.