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# **NewgenONE OmniDocs**

## Logs Management and NGLogger Configuration Guide

Version: 11.3

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# 1 Preface

This guide describes the NG logger functionality implemented for OmniDocs 10.1 Patch 6.

## 1.1 Revision history

Revision Date	Description
June 2024	Initial publication

## 1.2 Intended audience

This NG logger implementation guide is intended for IT system administrators. The reader must be familiar with the Microsoft Windows operating system. The reader must also know about running different application servers on Windows machines. The reader must have administrative rights.

## 1.3 Documentation feedback

To provide feedback or any improvement suggestions on technical documentation, you can write an email to [info@newgensoft.com](mailto:info@newgensoft.com).

To help capture your feedback effectively, it is requested that you share the following information in your email.

- Document name:
- Version:
- Chapter, topic, or section:
- Feedback or suggestions:

## 2 Logs management

The Log messages provide the required information to understand what the application does internally. Writing log messages must be as efficient as possible so that it doesn't affect the performance of your application. You need to be able to adapt the logging details to different deployment environments and situations.

All the logs of OmniDocs are managed and created using the NGLogger Library. The NGLogger Library is responsible for logging various types of information such as errors, XML data, transactions, console logs, and more in the NGLogs folder at a centralized location. This library provides cabinet or module-wise logging for different modules.

Additionally, the NGLogger Library offers the functionality to log at specified locations as configured in the *Omni\_Configurations.xml* file, which is located within the working directory of the application server. This logger is implemented in all modules of the OmniDocs server, including SMS, Wrapper, Alarm Mailer, Scheduler, Thumbnail manager, and others.

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**NOTE:**

The NGLogs library can also be utilized by custom applications to capture their logs. For more information, refer to the [FAQs](#) section.

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## 3 Log names with NG logger

The log names with the NG logger are as follows:

- OmniDocs EJB log names with NG logger:

OmniDocs EJB logs	Log name with NG logger
Xml	XML
Error	Error
Transaction	Transaction
Threshold	TimeThreshHold
Connection	APIConsole
Client_Exception	Error

- OmniDocs Image server log name with NG logger:

IS logs	Log name with NG logger
Jerr	Error
ImgSrv_IS	Console
SMSClient	ApiConsole

- Wrapper log names with NG logger:

Wrapper logs	Wrapper log name with NG logger
Xml	XML
Error	Error
Transaction	Transaction
Threshold	TimeThreshHold
Connection	APIConsole
Client_Exception	Error

- SMS log names with NG logger:

SMS logs	Log name with NG logger
Client	Console
SMSError	Error
Connection	ApiConsole
SmsThreshold	SizeThreshHold
ConThreshold	TimeThreshHold
Diagnostic	Error
SmsTransaction	Transaction

- Scheduler log names with NG logger

Scheduler Logs	Log name with NG Logger
Scheduler	XML Console Error
CompScheduler	XML Console Error

## 4 Log paths with NG logger

The log paths with the NG logger are as follows:

Application server	Default location of nglogs (when path not set)
JBoss EAP	<ul style="list-style-type: none"> <li>OmniDocs logs: &lt;Installation-Directory&gt;\bin\nglogs\&lt;CabinetName&gt;\OmniDocs_Logs\LogFile (XML.log)</li> <li>Image server logs: &lt;Installation-Directory&gt;\bin\nglogs\&lt;CabinetName&gt;\ISLogs\LogFile (Error.log)</li> </ul>
WebLogic	<ul style="list-style-type: none"> <li>OmniDocs logs: &lt;Installation-Directory&gt;\user_projects\domains\&lt;domain-name&gt;\nglogs\OmniDocs_Logs\LogFile (XML.log)</li> <li>Image server logs: &lt;Installation-Directory&gt;\user_projects\domains\&lt;domain-name&gt;\nglogs\ISLogs\LogFile (Error.log)</li> </ul>
Websphere (Setup with shared library)	<ul style="list-style-type: none"> <li>OmniDocs logs: &lt;Installation-Directory&gt;\AppServer\profiles\&lt;profile-name&gt;\nglogs\OmniDocs_Logs\LogFile (XML.log)</li> <li>Image server logs: &lt;Installation-Directory&gt;\AppServer\profiles\&lt;profile-name&gt;\nglogs\ISLogs\LogFile (Error.log)</li> </ul>
Websphere (Setup without Shared Library)	<ul style="list-style-type: none"> <li>OmniDocs logs: &lt;Installation-Directory&gt;\AppServer\profiles\&lt;profile-name&gt;\nglogs\OmniDocs_Logs\LogFile (XML.log)</li> <li>Image server logs: &lt;Installation-Directory&gt;\AppServer\profiles\&lt;profile-name&gt;\nglogs\ISLogs\LogFile (Error.log)</li> </ul>

## 5 Types of OmniDocs logs

This section describes the types of logs in OmniDocs.

File name	Parent folder	Description
XML.log	NGLogs	Stores I/O XML.
Error.log	NGLogs	Stores Error messages and printStackTraces.
Console.log	NGLogs	Stores debug information.
Transaction.log	NGLogs	Stores API name and API execution time.
Query.Log	NGLogs	It stores queries executed on the database.
SizeThreshHold.log	NGLogs	Stores the I/O XML when the size exceeds some given limit.
TimeThreshHold.log	NGLogs	Stores the I/O XML when the timely execution of the API exceeds some given limit.

## 6 Problems and corresponding logs to check

The table provides information to identify which logs to check for various issues related to OmniDocs and its modules.

S. No.	Problem	Logs to check
1.	Issues related to OmniDocs login	OmniDocs EJB and web error, XML logs
2.	Issues related to Wrapper	Wrapper logs, EJB logs
3.	Issue related to OSA	Wrapper logs both transaction Free and cabinet specific, OmniDocs EJB logs.
4.	Issues related to Document operation like upload, view	SMS logs and ISlogs

### Analyzing server module types of logs:

- Error (to check the stack trace of errors)
- Transaction (to check API names and execution times)
- XML (to check the input and output of APIs)
- Console (for searching, process checkout & check-in cases)

## 7 Calculating size consumed by product logs

This section outlines the default size calculations for product logs to ensure adequate storage capacity.

- Total number of modules: 9
- Total number of files printed in each module: 7 (approx)
- Size of each file: 10MB (by default)
- Max recommended backup index for each file: 20 (by default)

### Calculation of log size:

- Size of 1 module with default configurations:  $7 \text{ files/module} * 10\text{MB/file} * 20 \text{ backups} = 1400\text{MB} (1.4\text{GB})$
- Size for 9 modules:  $1400\text{MB/module} * 9 \text{ modules} = 12600\text{MB} (12.6\text{GB})$

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#### NOTE:

- Ensure you have approximately 13GB of available space to accommodate the default product logs.
  - The above size calculation is per cabinet, for each cabinet the size can be multiplied.
  - The mentioned size is only for product logs.
  - You can calculate the size of custom logs similarly if using nglogger.
  - Refer to the [FAQs](#) section for implementing nglogger to print custom logs.
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# 8 Managing and configuring NGLogs for Application servers

This section provides detailed instructions on how to generate and update NGLogs for different application servers, including JBoss, WebSphere, and WebLogic. Follow the specific guidelines for each server type to ensure correct log configuration and management, as well as to configure logs for the Application server

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**NOTE:**

For nlogs framework log4j2.x JARS are supported.

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## 8.1 Setting the path of OmniDocs logs

This section details the configuration of the log path for OmniDocs logs and where they are stored.

- OmniDocs logs are stored in the *nlogs* folder.
- The log path is configurable and can be updated in the *Omni\_Configurations.xml* file in the *NGLogger* library.
- If the path is not set, logs are saved in the default *NGlogs* location.
- Path: *\$App\_Server\_Home/Newgen/NGlogs*
- Configure the OmniDocs logs path in *NGLog\_Configurations.xml* file as per the application server. Following are the default location of the *NGLog\_Configurations.xml* file.
  - **For JBOSS:** *\$App\_Server\_Home/modules/omnidocs\_library/main* folder.
  - **For Web Logic:** *<WEBLOGIC\_DOMAIN>/lib*
  - **For WebSphere:** *<WEBSHERE\_PROFILE>/omnidocs\_library*

In this file, set the location of logs in the *<path>* tag for:

```
<PathInfo>
  <Location>
    <Name>NG_Config_Location</Name>
    <Path></Path>
    <CustomProperty></ CustomProperty>
  </Location>
  <Location>
    <Name>NG_Logs_Location</Name>
    <Path></Path>
    <CustomProperty></ CustomProperty>
  </Location>
</PathInfo>
```

- **NG\_Config\_Location** — Set path of the folder in which the OmniDocs Configuration files are placed.  
For example, if Path is set to *D:\OD10.1\jboss-eap-7.1.0\jboss-eap-7.1\bin\omniflowconfiguration*. In this case, the system checks the logger configuration xml file in *D:\OD10.1\jboss-eap-7.1.0\jboss-eap-7.1\bin\omniflowconfiguration\nglogconfig* folder.
- **NG\_Logs\_Location** — Set folder path in which server creates the log files. Set the path of *<JBOSS\_HOME>\bin* folder. The server creates the *nglogs* folder in this folder. All the logs are created in this folder *<JBOSS\_HOME>\bin\nglogs*.

## 8.2 Supporting log4j jar

Ensure compatibility and optimal functionality by configuring supported *log4j.jar* versions for App servers.

- Only *log4j-2x.jar* are supported.
- Remove any *log4j.jar*s in the product libraries that differ from the required version.
- Put entries in *Module.xml* for corresponding *log4j jars* and *nglogger* (in case of JBoss only)

## 8.3 Ensuring consistency in modules and WAR files

Maintain consistency in module and WAR file configurations.

- Ensure all modules Wrapper, SMS, Scheduler, Thumbnail Manager, Alarm Mailer and others and WAR files, including custom wars, contain the same nglogger or log4j jars as those in *\$App\_Server\_Lib*.
- If jars differ, replace them with those in the *\$App\_Server\_Lib* directory.
- The log path is configurable and can be updated in the *Omni\_Configurations.xml* file in the *NGLogger* library.
- If the path is not set, logs are saved in the default *NGlogs* location.
- Path: *\$Installed\_OmniDocs\_Folder/\$OmniDocs\_Module/Newgen/NGlogs folder*

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### NOTE:

- *\$Installed\_OmniDocs\_Folder* refer as the *OmniDocs installation location*.
  - */\$OmniDocs\_Module* refer as the *OmniDocs module name like Wrapper, SMS, Scheduler, Thumbnail Manager, Alarm Mailer*.
-

## 8.4 Checking logger levels

Verify and adjust logger levels in the *log4j2xConfig* file for optimal debugging and logging efficiency.

- Path:  
*\$App\_Server\_Home\Newgen\NGConfig\omniflowconfiguration\nglogconfig\log4j2xConfig.xml*
- Logger levels must be set to Debug.
- Example snippet:

```
<Logger name="{Logger_Name_Prefix}NGJSONLogger" level="debug"
additivity="false">
<AppenderRef ref="{Logger_Name_Prefix}NGJSONLogger" />
</Logger>
```

## 8.5 Checking logger Mode configuration

- LoggerMode must be 2 in *nglogconfig.ini*.
- Path:  
*\$App\_Server\_Home\Newgen\NGConfig\omniflowconfiguration\nglogconfig\nglogconfig.ini*

## 8.6 Setting folder permissions

Ensure that the *nglogs* and *nglogconfig* folders have full access permissions for the necessary users.

Set Permissions:

- Right-click the folder, then select **Properties** from the context menu.
- Navigate to the Security tab.
- Set the value to 0777 or Full control to grant complete rights.

## 8.7 Cleaning and updating logs

This section provides steps for cleaning and updating logs in the specified directories, ensuring optimal log management practices.

1. Delete all cabinet folders from  
*\$App\_Server\_Home\Newgen\NGConfig\omniflowconfiguration\nglogconfig*, except for the specified four XML files.
  - *log4j1xConfig.xml*
  - *log4j2xConfig.xml*
  - *MaskingFieldsInfo*
  - *Nglogconfig.ini*
2. Delete all cabinet folders present in *Nglogs*.
3. Clear the cache and restart the complete server.

## 8.8 If OmniDocs utilities running as Windows services

If OmniDocs utilities SMS, Wrapper, Alarm Mailer, Scheduler, and Thumbnail Manager are running as Windows services, unregister the Windows services and register with updated JARs. Follow the document to unregister and register the Windows services located at the below link:

<https://ftp.newgen.co.in/~OmniDocs/ADDONS/ODWindowsService/OmniDocs%20Windows%20Service%20Version%203.0.zip>

## 9 Setting OmniDocs logs paths

This section includes activities required to set the path for OmniDocs logs.

1. OmniDocs logs are formed in the *nglogs* folder. The path of logs is configurable and can be updated in the *NGLog\_Configurations.xml* file in the *NGLogger* library. If the path is not set, logs are formed at the location (default location) given in the following table.

Application server	Default location of nglogs (when path not set)
JbossEAP	<Installation-Directory>\bin\nglogs.
WebLogic	<Installation-Directory>\user_projects\domains\<domain-name>\nglogs.
Websphere (Setup with shared library)	<Installation-Directory>\AppServer\profiles\<profile-name>\nglogs.
Websphere (Setup without shared library)	<Installation-Directory>\AppServer\profiles\<profile-name>\ nglogs.

2. Open the *NGLogConfigurations.xml* file present at:

Application server	Location of NGLog_Configurations.xml
JbossEAP	<Installation-Directory>\server\<instance-name>\lib\NGLog_Configurations.xml
WebLogic	<Installation-Directory>\user_projects\domains\<domain-name>\Jars\NGLogConfigurations.xml
Websphere (Setup with shared library)	<Installation-Directory>\AppServer\profiles\<profile-name>\omnidocs_library\NGLog_Configurations.xml
Websphere (Setup without shared library)	<Installation-Directory>\AppServer\lib\NGLogConfigurations.xml

3. In this file, set the location of logs in the <path> tag for:

```
<PathInfo>
  <Location>
    <Name>NG_Config_Location</Name>
    <Path></Path>
    <CustomProperty></ CustomProperty>
  </Location>
  <Location>
    <Name>NG_Logs_Location</Name>
    <Path></Path>
    <CustomProperty></ CustomProperty>
  </Location>
</PathInfo>
```

**CustomProperty** — *CustomProperty* holds a variable name whose value is defined at the JVM level in case of cluster deployment. Custom Property variable's value is appended to the value of <Path> tag to determine the final location.

## 10 Troubleshooting for NGLogs

- **Ensure log4j.jar placement:**
  - The log4j.jar must be located only in *\$App\_Server\_Lib*.
  - Incorrect placement can cause inconsistencies and ambiguities in log printing.
  - To verify, download the *find.class* tester from:  
<https://ftp.newgen.co.in/~OmniDocs/OmniDocsCommon/Drivers/Find%20Class.zip>
  - Check for common classes:
    - For log4j 1.x jar: *org.apache.log4j.Logger*
    - For log4j 2.x jar: *org.apache.logging.log4j.Logger*
- **Define different paths for multiple JVMs:**
  - If multiple application server instances are used, ensure each instance has a unique *nglogconfig* path defined in the *Omni\_Configurations.xml*.
  - This prevents logs from multiple instances being printed to the same location.
  - Path: *\$App\_Server\_Lib\Omni\_Configurations.xml*

# 11 Frequently Asked Questions

Commonly asked questions regarding log configuration and log size management.

## 1 How to implement the nglogger?

To implement nglogger, follow these steps:

1. Add *nglogger* and *ngutility.jar* to the library.
2. Utilize the provided method to print logs and create custom folders:

```
public static void writeXmlLog(String strCabinet, String  
strModule, String input1)
```

Parameters:

- **strCabinet:** Pass the Cabinet Name or Engine Name.
- **strModule:** Pass the name for creating the folder.
- **input1:** Pass the input XML.

Make sure to adhere to the correct syntax and order of parameters while using the method for logging and folder creation.

Similarly, *writeConsoleLog* and *writeErrorLog* methods can be fetched.

## 2 How to set the MaxfileSize and MaxBackupIndex of the logs?

To configure the *MaxFileSize* and *MaxBackupIndex* for logs, follow these steps in the *log4j2xConfig* file located at

*\$App\_Server\_Home\Newgen\NGConfig\omniflowconfiguration\nglogconfig\log4j2xConfig.xml*.

By default, *MaxBackupIndex* is set to 20 and *MaxSize* is 10 Mb.

- **MaxBackupIndex:**
  - Determines the number of backup files kept before the oldest is erased.
  - Set to a positive integer value.
  - If set to zero, no backup files are retained, and the log file is truncated when it reaches *MaxFileSize*.

```
<Policies>  
  <SizeBasedTriggeringPolicy size="10MB" />  
</Policies>  
<DefaultRolloverStrategy max="20" />
```

- Make sure to save the changes and restart the server for the new log settings to take effect. Adjust the values according to your logging requirements.

### 3 Why are logs exceeding the size set in log4j2xconfig.xml?

If multiple Application server instances are used, ensure the same number of *nglogconfig* paths are defined in *Omni\_Configurations.xml* to avoid logs being printed to the same location.

Path: *\$App\_Server\_Lib\Omni\_Configurations.xml*

### 4 How to configure NGLogs as per date format?

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**NOTE:**

Configuring NGLogs as per the date format is not recommended according to product specifications. Adjusting these settings may lead to performance issues and excessive space consumption.

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Path for configuration:

*\$App\_Server\_Home\Newgen\NGConfig\omniflowconfiguration\nglogconfig\log4j2xConfig.xml*

In the *log4j2xConfig* file, the following changes need to be made:

```
<appender name="{Logger_Name_Prefix}$NGerrorLogger"
class="org.apache.log4j.DailyRollingFileAppender">
  <layout class="org.apache.log4j.PatternLayout">
    <param name="ConversionPattern" value="[%d{dd MMM YYYY
HH\:mm\:ss,SSS}] - %n%m%n"/>
  </layout>
  <param name="DatePattern" value="'.'yyyy-MM-dd" />
  <param name="file" value="{Log_Location_Prefix}$/Error.log"/>
</appender>
```

Steps to Perform:

1. Modify these changes in *log4j2xConfig* as per the example provided.
2. Clear all the folders from *nglogConfig* except these XML files:
  - log4j1xConfig.xml
  - log4j2xConfig.xml
  - MaskingFieldsInfo.xml
  - Nglogconfig.ini
3. Clear the cache.
4. Restart the server for the changes to take effect.