OZ Server

User Guide for OZ Scheduler

FOR CS

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What is OZ Scheduler?

OZ Scheduler is a task-scheduling server for OZ Report. OZ Scheduler connects with OZ Server to automatically create a report and publish it to the web or send it through email. In case of email, the administrator can use presets to publish the report at a specific date and time. Also, the administrator can send the report to a pre-configured email address.

OZ Scheduler is useful for batch jobs that process large data or reports, which are created repeatedly and periodically. Users can register the scheduling task through OZ Enterprise Manager.

With OZ Scheduler, you can schedule the entire process of creating and distributing periodical reports and batch reports. Periodical reports are distributed at a certain time on a daily, weekly or monthly basis. Batch reports involve large-scale data processing.

Additionally, you can distribute the scheduler reports to the email address of a person who is already registered in OZ Scheduler.

To run OZ Scheduler, perform the following steps:

1. Set the OZ Scheduler home path and port number.
2. Set the type of viewer that runs the task.
3. Set the Java home path.
4. Setup the OZ Scheduler license file.
5. Run the OZ Scheduler executable file.

Set the OZ Scheduler home path and port number
In a text editor, open the ozscheduler.properties file located in the %SCH_HOME%\conf folder. Set the OZ Scheduler home path and port number.

```
path.oz.scheduler.home=../

SchedulerPort=9521

…
```

Set the type of viewer that runs the task

In a text editor, open the [scheduler_server.properties](#) file located in the %SCH_HOME%\conf folder. Set the ViewerType to one of ActiveX, Applet, or NONE.

```
…

ViewerType=ActiveX

…
```

Set Java home path

In a text editor, open the scheduler.bat (scheduler.sh on Unix) file located in the %SCH_HOME%\bin folder. Set the JAVA_HOME path to the JRE installation path.

```
…

set JAVA_HOME=..\..\jre

…
```

Setup OZ Scheduler license file

Copy the license file ozlicense.xml issued to you to the %SCH_HOME%\license folder.

To change the path and name of the license file, change the "path.scheduler.license" option in the [ozscheduler.properties](#) file located in the %SCH_HOME%\conf folder.

```
…

path.scheduler.license=%SCH_HOME%/license/ozlicense.xml

…
```

Run the OZ Scheduler executable file

Run the startup script (scheduler.bat or scheduler.sh) located in the %SCH_HOME%\bin folder.

Setting up OZ Scheduler options

OZ Scheduler provides the following configuration files to set options for the OZ Scheduler operation:

- [ozscheduler.properties](#)

- [scheduler_server.properties](#)

- [scheduler_server_log.properties](#)

- [html5manager.properties](#)

- [TaskHoliday.xml](#)

ozscheduler.properties

Set the home path and port number of OZ Scheduler. Path of various OZ Scheduler environment setup files are also defined. If any environment setup file is changed, you must restart the OZ Scheduler.

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path.oz.scheduler.home

Set the OZ Scheduler home path.

SchedulerPort

Set the OZ Scheduler port number.

path.scheduler.file

Set the path of the scheduler_server.properties file.

path.scheduler.license

Set the path of the ozlicense.xml file.

path.scheduler_log.file

Set the path of the scheduler_server_log.properties file.

path.taskholiday.file

Set the path of the TaskHoliday.xml file.

path.html5manager.file

Set the path of the html5manager.properties file.

scheduler_server.properties

Set the OZ Scheduler execution options, such as email notification on error, email information, file path, viewer type, timeout, task holiday, etc.

ErrorNotifyToSender

Set the email notification on task error.

MailFrom

Set the sender email address.

SMTPServer

Set the SMTP server URL.

SMTPServerPort

Set the SMTP server TCP port number.

SMTPUserID

Set the user ID for SMTP authentication. If you set the SMTPUserID_encrypted option, SMTPUserID is ignored.

SMTPUserPassword

Set the password for SMTP authentication. If you set the SMTPUserPassword_encrypted option, SMTPUserPassword is ignored.

SMTPUserID_encrypted

Set the encrypted user ID for SMTP authentication.

SMTPUserPassword_encrypted

Set an encrypted password for SMTP authentication.

SMTPConnectionTimeout

Set the SMTP server connection timeout(sec).

SMTPSendTimeout

Set the SMTP email sending timeout(sec).

EnableSSL

Set whether to use SSL.

MailSendRetryCount

Set the number of retries when email transmission fails. The maximum value is 32767.

MailSendRetryPeriodTime

Set the email retry interval in seconds.

PrefixSubjectMessage

Set the prefix for the subject.

JavaMail

Set specific options for the email server that sends the results of the task execution in the form "Key=Value". To run this option, the javax.mail.jar file in the %SCH_HOME% \UniversalDriver folder must be started.

RepositoryFileRootPath

Set the repository path.

RepositoryFileDeleteTime

Set time in minutes to delete repository file. The default value is 0.

RepositoryUniqueFileName

Set whether to save the file as a different name when the file name created after executing the task is a duplicate name. When the file name is duplicated, the file is created by adding (1) at the end of the file name set in the task. Does not work properly when the file format is html.

SchedulingInfoFilePath

Set the path where the task file (*.ozs) is saved.

TempRepositoryFilePath

Set the temporary file path for task processing.

TempRepositoryDeleteDay

Set the maximum number of days to store temporary files generated from executing a task. If the value is set to greater than 0, the temporary files created earlier than the maximum number of days to store are automatically deleted. If 0 or an incorrect value is set, files are not deleted.

ExternalProgramFilePath

Set the path of an external program to be integrated with OZ Scheduler.

ViewerType

Set the type of viewer to execute a task. Set to one of ActiveX, Applet, and NONE. If you set NONE, OZ Scheduler does not allow the OZU creation task and print task. However, the report creation task can export report to OZD file.

ViewerConcurrentCount

Set the maximum number of viewers, which can run concurrently. For example, if you set ViewerConcurrentCount to 5 and run 8 tasks, first 5 tasks will run concurrently and later 3 tasks. The maximum value is 32767. If you set to n, OZ Scheduler considers the maximum value 32767.

ViewerTimeout

Set the execution timeout in seconds for viewer. If a viewer could not complete the task within timeout period, kill and restart it and continue. Set the adequate timeout value for large data reports.

TaskRetry

Set whether to retry the task. Set the value greater than 0.

TaskHoliday

Set whether to use the holiday option. OZ Scheduler does not execute the tasks on holidays registered in the TaskHoliday.xml file.

OZ_UDE.AliasName.classname

Set the alias to the class to run UDE.Class name to run UDE should be in the format "packagename.classname".

IdleTime.Classname

Set the name of the class to run at idle timeout.

IdleTime.Overtime

Set the idle timeout time in seconds. If set to 0, this option does not apply. When the idle time exceeds, the class set by IdleTime.Classname is executed. In this case, the task set in the scheduler is converted to Wait state.

LimitedViewerCount_MemoryPercentage

Set the Java heap memory usage that limit the number of appletviewer concurrently running (%). If set to 0, this option does not apply. This option is applied only when "ViewerType" is "Applet" and "ViewerConcurrentCount" is "n".

scheduler_server_log.properties

Set options for the OZ Scheduler logging system.

General Option

Priority

Set the log level priority.

Value	Description
DEBUG	Error, warning, transaction information and scheduler information.
ERROR	Error only.
INFO	Error, warning and transaction information.
WARN	Error and warning.

REMOVE_PARAM_FILE

Remove the parameter file after completing tasks. The parameter file is a temporary file having task information.

Value	Description
true	Always remove.
false	Remove only when the task succeeded.

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Value	Description
none	Always not remove.

CONSOLE Option

CONSOLE.Type

Set the console log type.

Value	Description
Stdout	Logging to standard output.

CONSOLE.Layout

Set the pattern of console log contents. The reserved words that can be set in the pattern are as follows:

Value	Description
c	Log the OZ Scheduler category name. Category name have a hierarchical structure and output level can be set, for example %c{2}.
d	Record the date and time. You can use a custom date format or Log4j date format options (ABSOLUTE, DATE, ISO8601).
m	Log the OZ Scheduler event name.
n	Log a newline character.
p	Log the log level.

Value	Description
r	Log the number of milliseconds elapsed from the startup of OZ Scheduler until the creation of the logging event.
t	Log the name of the thread that generated logging event.
%	Log the percent sign.

CONSOLE.Async

Set whether to use the buffering function.

ROLLING_FILE Option

ROLLING_FILE.Type

Set the rolling file log type. The value can only be set to "RollingFile".

ROLLING_FILE.Layout

Set the rolling file log format. Please refer to the reserved words section of "CONSOLE.Layout".

ROLLING_FILE.File

Set the path and name of rolling file log file.

ROLLING_FILE.Append

Set whether to enable or disable appending rolling file log to the log file.

ROLLING_FILE.MaxBackupIndex

Set the maximum serial number of backup rolling file log file. The oldest file is deleted if there are backup log files exceeding the max serial number.

ROLLING_FILE.MaxFilesize

Set the max file size of rolling file log file. When the size of log file exceeds the maximum size, the current log file is renamed with the serial number and new log file is started. For example, if the log file name is OZSchedulerMainLog.log, it is renamed to OZSchedulerMainLog.log.1 and a new OZSchedulerMainLog.log file is started.

ROLLING_FILE.ImmediateFlush

Set whether to enable or disable to flush log buffer to the log file immediately.

NT_EVENT Option

NT_EVENT.Type

Set the NT event log type. The value can only be set to "NTEvent".

NT_EVENT.Layout

Set the NT event log format. Please refer to the reserved words section of "CONSOLE.Layout".

NT_EVENT.Threshold

Set level of log to be sent to NT event. It should be higher level than the level set by Priority option.

SYSLOG Option

SYSLOG.Type

Set the Unix system log type. The value can only be set to "Syslog".

SYSLOG.Layout

Set the Unix system log format. Please refer to the reserved words section of "CONSOLE.Layout".

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SYSLOG.Threshold

Set the log level to be sent to Unix. The log level should be higher than the level set in the Priority option.

SYSLOG.SyslogHost

Set the IP address of Unix host.

SYSLOG.Facility

Set the Unix system log facility for the log message.

SYSLOG.FacilityPrinting

Set whether to enable or disable to add facility.

ResultLog Option

ResultLog.RollingType

Set the result log type.

Value	Description
DailyRollingFile	Create a log file as defined by the ResultLog.DatePattern option.
RollingFile	Create a log file as defined by the ROLLING_FILE.File option.

ResultLog.MaxBackupIndex

Set the maximum serial number for the backup file of the result log file generated by task processing. If the backup log files exceeds the maximum serial number, the oldest backup log file is deleted.

ResultLog.MaxFileSize

Set the maximum size for the result log file generated by task processing. If the size of log file exceeds the maximum size, the current log file is renamed with the serial number and a new log file is started.

ResultLog.DatePattern

Set the backup cycle of log files and the pattern of the backup file name. For example, if you set it to "yyyy-MM", the log will be backed up on the first day of each month, and the backup file will be named "resultlog.log.2020-01", "resultlog.log.2020-02", and so on.

Set the patterns as described in the table below:

Value	Description
yyyy-MM	The first day of each month
yyyy-ww	The first day of each week
yyyy-MM-dd	Midnight of every day
yyyy-MM-dd-HH	On time every day
yyyy-MM-ddt	12 and 24 o'clock every day
yyyy-MM-dd-HH-mm	Every minute

MONITOR Option

MONITOR.Active

Set whether to activate or deactivate monitor log.

MONITOR.File

Set file path and name of monitor log.

MONITOR.Append

Set whether to enable or disable to append monitor log to the log file.

MONITOR.MaxBackupIndex

Set the maximum serial number of backup monitor log file. If the backup monitor log files exceeds the maximum serial number, the oldest backup monitor log file is deleted.

MONITOR.MaxFileSize

Set the maximum monitor log file size. If the size of the monitor log file exceeds the maximum size, the current log file is renamed with the serial number and a new log file is started. For example, if the log file name is monitor.log, it is changed to monitor.log.1 and a new monitor.log file is started.

MONITOR.ImmediateFlush

Set whether to enable or disable to flush log buffer to the log file immediately.

MONITOR.point

Set the time point to start log in monitor log. Use comma (,) as a separator to set multiple time points.

Value	Description
END	Log after task completion.
EXE	Log while task processing.
REQ	Log when task requests.

OZ_UDL Option

OZ_UDL.Active

Set whether to use the user defined monitor log.

OZ_UDL.Class

Set the class that implements the user defined monitor log interface.

html5manager.properties

Set the path and retention time of temporary files if OZ Scheduler is used for HTML5 viewer binding.

RepositoryFileRootPath

Set path of the temporary file.

ServerURL

Set the server URL to create report files. Default value is OZ Server URL that has the report. If you set the empty value, the alias.serverURL option of the html5manager.properties file in the OZ Server is applied.

DeleteFileTime

Set the delete time in minutes for temporary files. Default value is 20. If you set an invalid value, the default value is used.

DeleteFileImmediately

Set whether to delete temporary files immediately. Temporary files are deleted immediately when using this feature, regardless of the value of the DeleteFileTime option.

TaskHoliday.xml

Set options for a task holiday.

Set the task holiday option.

Task holidays are the days when a task is not executed.

TASK-HOLIDAY-ROOT

Set the holiday information root.

TASK-HOLIDAYGROUP

Set the task holiday group.

Value	Description
name	The name of the Holiday group. The name cannot include ";" and it should be different from name of "TASK-HOLIDAY".
ITEM ref	The name of the task holiday to be included in Task holiday group.

TASK-HOLIDAY

Set the holiday information.

Value	Description
name	The holiday name. The name cannot include ";" and it should be different from name of "TASK-HOLIDAYGROUP".
baseday	The base date of the holiday.

Value	Description
type	Calendar type. Set either to "solar" or "lunar".
start	The start date of the holiday.
end	The end date of the holiday.