

# HULFT Integrate

## System Monitoring Guide

Document Release Date: January 8 2019 (The 1st Edition)

# HULFT

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## 1. Before Use

The System Monitoring Guide contains information on how to monitor IntegrateServer.

- System Architecture
- Examples on monitoring system and detecting server error

## **1.1. Precautions**

### **1.1.1. Copyright Notice**

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### **1.1.2. Trademarks**

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## 1.2. About the mark of this document

The rules of the notations in this document are as follows.




- Menu name, tab name, property item name, value, and button name displayed on screen are enclosed with [] and in bold letters. Moreover, the one without title of screens and other function names are enclosed with "" and distinguished from the former.
- "\$INTEGRATE\_HOME" shows the directory where HULFT Integrate is installed. In default, it is "C:\Program Files\hulft\integrate" for Windows version and "<HOME>/Integrate" for UNIX/Linux version.
- "x86 version" means 32bit OS.  
"x64 version" means 64bit OS of 64bit CPU (Intel 64/AMD64).
- Name enclosed with < > is variable value.

Example: \$INTEGRATE\_HOME/server/logs/<Date directory>

- URLs of the Web sites shown in this document are as of November 2018, and are subject to change without notice due to reasons of the Web site.
- "Studio" means "Integrate Studio", and "Studio for Web" means "Integrate Studio for Web".
- The descriptions of the Windows and UNIX/Linux versions of IntegrateServer have been standardized.  
Please replace descriptions of operating system dependent items (such as path delimiter characters) as necessary.
- The numbers beginning with "DSS -" are unique IDs for controlling each corresponding problem.

### 1.3. About the Icons Used in This Guide

This Guide uses the following icons in its explanation.

Icon	Description
	Indicates that there are hints about operations or configurations.
	Indicates that there are warnings about operations or configurations.
	Indicates that there are detailed descriptions in other resources.

## 2. System configuration

How a monitoring of the system is achieved varies depending on the monitoring software installed. However, usually in most cases, a software component called an agent is to be installed in the host IntegrateServer is running and the activities of IntegrateServer are monitored by this agent.

## 3. Monitoring the vital status of IntegrateServer

Monitoring the active state (server's vital status) of IntegrateServer can be achieved by the following ways.

- Monitoring the process of IntegrateServer.
- Monitoring IntegrateServer by executing a script.

### 3.1. Monitoring the process of IntegrateServer

The vital status check can be achieved by monitoring the IntegrateServer process named as follows:

- In Windows: IntegrateServer.exe
- In UNIX: IntegrateServer

Consult the document provided with the monitoring software for how these process names are used.

#### 3.1.1. Guidelines on IntegrateServer process monitoring

It is not possible to determine the service availability or the system in hang up state by monitoring the IntegrateServer process. In order to detect the service condition, monitoring by executing a script is necessary.

## 3.2. Monitoring IntegrateServer by executing a script

Monitoring the availability of the service can be achieved by executing a script that actually performs checks on every aspects of the server. This will bring more accurate results compared to the monitoring of IntegrateServer process. A script can perform periodical checks on the following perspectives:

- Whether the IntegrateServer process is active or not.
- Whether the client tools can be connected to the designated port.
- Whether IntegrateServer is in service and scripts can be executed.

The monitoring software installed can determine of the above by the status code returned by ScriptRunner which can be either 0, if it succeeded or anything else if it failed.



Script contents for operation check is optional. For instance, if the content is just a process flow of Start and End, and will not be effected from outside, you can check the IntegrateServer operation condition.

### 3.2.1. Guidelines on monitoring IntegrateServer by executing a script

A script that is deployed for the IntegrateServer monitoring purpose is not prioritized therefore is executed with the same priority as other scripts that may be running concurrently. In other words, under heavy load, if scripts are on wait, which is not an exception for the script that performs the monitoring.



## 4. Detecting IntegrateServer Errors

IntegrateServer server error can be detected in the server log and server stdout.

### 4.1. How errors are detected

#### Server log

- Target file
  - `$INTEGRATE_HOME/server/logs/server.log`

- What to detect

IntegrateServer sever logs to the server.log file. Any message with ERROR log level is considered severe and needs to be detected. The format used for the log output is as follows:

`<Date Time>|<Log level>|<module>|<message>`

To detect server errors, look for the string "ERROR" in the log level field.

 |ERROR| found in the `<message>` field should not be detected.

#### Server error log

- Target file
  - `$INTEGRATE_HOME/server/logs/server.error.log`

- What to detect

Errors are output to the server error log occasionally by the libraries used by IntegrateServer. "Exception" and "Error" found in the error messages should be detected as well.

### 4.2. Reference

For further details, regards to the logging, consult the section [Integrate Log Guide] in Help.

## 5. Detecting script execution failures

Script exited with error status can be detected by the 「Exit Status」 in the execution log.

### 5.1. Preparation

The output file of the “Execution log” defaults to `$INTEGRATE_HOME/server/logs/<yyyyMMdd>/exec.log` where `yyyyMMdd` is the current system date. The default log location may not be suited when spotting the log file as the output directory path changes accordingly to the date it is created.

The default “Execution Log” location can be changed to a directory at a fixed path. Here is how this is modified.

- File to be modified
  - `$INTEGRATE_HOME/server/conf/dslog.properties`
- Property to look for
  - `execlog`
- Value to be assigned to the property
  - `${EXECLOG_ERROR}`

By defining the above, additional “Execution Log” is output to `$INTEGRATE_HOME/server/logs/exec.log`.

This output contains only the script execution error.

### 5.2. How to detect script execution failure

- Target file
  - `$INTEGRATE_HOME/server/logs/exec.log`

- What to detect

If the file contains error message, the script has failed to execute. The output to the log file can be used to detect script execution failure.

### **5.3. Reference**

For further details, regards to the logging, consult the section [Integrate Log Guide] in Help.

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The 1st edition: January 8 2019

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