JP1 Version 11

JP1/Data Highway - Automatic Job Executor
Operation manual

3021-3-B46-10(E)
Notices

■ Relevant program products
For details about the supported operating systems and the service packs or patches that are required by JP1/Data Highway - Automatic Job Executor, see the Release Notes.
P-2A41-9DBL JP1/Data Highway - Automatic Job Executor 11-10
P-8141-9DBL JP1/Data Highway - Automatic Job Executor 11-10

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This product includes uCosminexus Primary Server Base as a mass market encryption program.
For details about how to use this product, see the following manual:
Hitachi software manual: Online manual Cosminexus V9.6
http://itdoc.hitachi.co.jp/Pages/document_list/manuals/cosmiv9_en.html
- **Microsoft product name abbreviations**

This manual uses the following abbreviations for product names:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full name or meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>Windows Server 2008</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2008 R2 Datacenter</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2008 R2 Enterprise</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2008 R2 Standard</td>
</tr>
<tr>
<td>Windows</td>
<td>Windows Server 2012</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2012 Standard</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2012 R2 Standard</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2012 Datacenter</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2012 R2 Datacenter</td>
</tr>
<tr>
<td>Windows</td>
<td>Windows Server 2016</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2016 Standard</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows Server(R) 2016 Datacenter</td>
</tr>
<tr>
<td>Windows</td>
<td>Windows 7</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows(R) 7 Enterprise</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows(R) 7 Professional</td>
</tr>
<tr>
<td></td>
<td>Microsoft(R) Windows(R) 7 Ultimate</td>
</tr>
<tr>
<td>Windows</td>
<td>Windows 8</td>
</tr>
<tr>
<td></td>
<td>Windows (R) 8</td>
</tr>
<tr>
<td></td>
<td>Windows (R) 8 Pro</td>
</tr>
<tr>
<td></td>
<td>Windows (R) 8 Enterprise</td>
</tr>
<tr>
<td>Windows</td>
<td>Windows 8.1</td>
</tr>
<tr>
<td></td>
<td>Windows (R) 8.1</td>
</tr>
<tr>
<td></td>
<td>Windows (R) 8.1 Pro</td>
</tr>
<tr>
<td></td>
<td>Windows (R) 8.1 Enterprise</td>
</tr>
<tr>
<td>Windows</td>
<td>Windows 10</td>
</tr>
<tr>
<td></td>
<td>Windows(R) 10 Home</td>
</tr>
<tr>
<td></td>
<td>Windows(R) 10 Pro</td>
</tr>
<tr>
<td></td>
<td>Windows(R) 10 Enterprise</td>
</tr>
</tbody>
</table>


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Revisions

Revisions (3021-3-B46-10(E)) JP1/Data Highway - Automatic Job Executor 11-10

The following OSs were added to the supported OSs:
• Windows Server 2016

The simple wrong letters and omitted letters were corrected without notice.
Preface

In this manual, JP1/Data Highway - Automatic Job Executor is abbreviated as JP1/DH - AJE.

In this manual, JP1/Data Highway - Server is abbreviated as Data Highway - Server or JP1/DH - Server.

This manual describes how to use JP1/DH - AJE.

■ Intended readers

This manual is targeting for the system manager who uses JP1/DH - AJE.

This manual intended for:

• A user has learnt basic operation of Windows.
• A user has learnt basic knowledge of Linux.
• A user has requisite knowledge as a manager of the computers.
• A user has requisite knowledge as a networks manager.
• A user has requisite knowledge as a security manager.
• A user has requisite knowledge in operating and configuring JP1/AJS3 and JP1/Base.
• A user has requisite knowledge in operating Data Highway - Server.

■ Organization of this manual

This manual organized into the following chapters and some appendixes.

1. Overview
   This chapter explains about feature, function and precondition for JP1/DH - AJE.

2. Installation
   This chapter explains about preparation for installation of JP1/DH - AJE.

3. Installation and Setup of JP1/DH - AJE
   This chapter explains about installation and configuration.

4. Operation explanation
   This chapter explains about operation of JP1/DH - AJE.

5. Messages
   This chapter explains about messages which are outputted by JP1/DH - AJE.

6. Troubleshooting
   This chapter explains about resolving the problems that occurred during using JP1/DH - AJE.

Appendix A. List of Files and Folders
   This appendix explains about list of files and folders of JP1/DH - AJE.
Appendix B. Reference Information of This Manual
This appendix explains about reference manual and notation of this manual.

Appendix C. Glossary
This appendix explains about glossary of this manual.

■ Reading procedure
You can read some chapters in this manual as your purpose. We recommend you to read this manual according to the use purpose.

<table>
<thead>
<tr>
<th>The purpose of reading this manual</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>To learn the rough feature, function and precondition for JP1/DH - AJE.</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>To learn the products which is pre-required by JP1/DH - AJE and the system composition for JP1/DH - AJE.</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>To learn the installation and setup method of JP1/DH - AJE.</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>To learn the operation method of JP1/DH - AJE.</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>To learn the meaning of message which was outputted during using JP1/DH - AJE and resolving the problems.</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>To learn resolving the problems that occurred during using JP1/DH - AJE.</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>To learn the list of files and folders, version revisions, reference information and glossary of JP1/DH - AJE.</td>
<td>Appendix</td>
</tr>
</tbody>
</table>

■ JP1/DH - Server notation

Unless otherwise specifically noted, the notation of JP1/DH - Server includes JP1/Data Highway - Server Starter Edition.

■ Conventions: Abbreviation which uses operation description for Windows
The abbreviation which uses operation description for Windows is as follows.

<table>
<thead>
<tr>
<th>Example font or symbol</th>
<th>Convention</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>Square brackets enclose an element that display on screen. (e.g. a button, and a text box).</td>
</tr>
<tr>
<td>[ ] ~ [ ]</td>
<td>Two square brackets enclose two elements (e.g. menu, or icons) which is display on a screen. And it shows how to choose elements.</td>
</tr>
</tbody>
</table>

■ Conventions: Fonts
The following table explains the text formatting conventions used in this manual:

<table>
<thead>
<tr>
<th>Text formatting</th>
<th>Convention</th>
</tr>
</thead>
</table>
| Bold            | Bold characters indicate text in a window, other than the window title. Such text includes menus, menu options, buttons, radio box options, or explanatory labels. For example:  
|                 | • Choose a tab of [Custom Job]                                             |
■ Conventions: Diagrams

This manual uses the following conventions in diagrams:

![Diagram showing various icons representing PC, Server, Database, File, and Input Operation, as well as Time flow, Data flow, Other flow, LAN, and Network]

■ Conventions: Notes

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Convention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note</td>
<td>Contents that end user or a system manager shall take care and shall take action at the time of introduction of this product or after introduction of this product. The contents indicate to work a product function normally and to prevent a security intrusion.</td>
</tr>
<tr>
<td>Supplementary note</td>
<td>The content which emphasizes in particular and the information that helps understanding of the text.</td>
</tr>
<tr>
<td>Related information</td>
<td>The method of resolving the problems that occurred error, and the convenient information of using this product.</td>
</tr>
<tr>
<td>Restriction</td>
<td>The functional restriction of this product.</td>
</tr>
</tbody>
</table>
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Overview

This chapter describes an overview of JP1/DH - AJE.
1.1 JP1/DH - AJE

JP1/DH - AJE is a product which automates data sending and receiving with Data Highway - Server.

Since JP1/DH - AJE is provided as a custom job of JP1/AJS3, it can define the job for data sending and receiving by JP1/AJS3 - View.

Thereby, data sending and receiving can be incorporable into a series of business, and since automatic execution by a scheduler can also be performed, it leads to the increase in efficiency of business.

In addition, a custom job for data sending and receiving which is provided by JP1/DH - AJE is called "DH custom job".
1.2 Composition of JP1/DH - AJE

JP1/DH - AJE consists of the following two programs.

- Job definition program
- Job execution program

Job definition program is a program which defines, registers and changes the DH custom job sending or receiving files and folders for Data Highway - Server by using JP1/AJS3 - View.

Job execution program is a program which sends or receives files and folders for Data Highway - Server according to the contents of DH custom job when DH custom job defined by Job definition program was executed.
This chapter describes how to install JP1/DH - AJE.
2.1 Preparation before installation

The contents of preparation before installation of JP1/DH - AJE are described below.

2.1.1 System configuration

The example of basic system configuration of JP1/DH - AJE system is described below. The following figure shows the composition using Data Highway - Server.

Figure 2–1: System composition using Data Highway - Server

The roles of each hosts which shown in the above figure and the required programs are described below.

(1) Management Client

Management Client is a host which defines and changes DH custom job, and confirms the result of executing DH custom job. You will install JP1/DH - AJE (Job Definition).

When you create two or more Management Clients, you will install JP1/DH - AJE (Job Definition) in all Management Client.
In addition, the number of Management Client which can be created in the system is same as the number of JP1/AJS3 - View which is able to access JP1/AJS3 - Manager. For more information about the number of JP1/AJS3 - View which is able to access JP1/AJS3 - Manager, refer to manual JP1/Automatic Job Management System 3 Design (Configuration) Guide.

The following table shows the requisite OS and programs in Management Client.

Table 2‒1: Requisite OS and programs in Management Client

<table>
<thead>
<tr>
<th>Items</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>• Windows 7&lt;br&gt;• Windows 8&lt;br&gt;• Windows 8.1&lt;br&gt;• Windows 10&lt;br&gt;• Windows Server 2008 R2&lt;br&gt;• Windows Server 2012&lt;br&gt;• Windows Server 2012 R2&lt;br&gt;• Windows Server 2016</td>
</tr>
<tr>
<td>Program</td>
<td>• JP1/AJS3 - View 10-00 or later.&lt;br&gt;• JP1/DH - AJE 11-10 (Job Definition)</td>
</tr>
</tbody>
</table>

(2) Operation Management Server

Operation Management Server is a host which manages the custom job's definition information which was defined by Management Client, or sends the custom job's execution request to Send/Receive Client.

The following table shows the requisite OS and programs in Operation Management Server.

Table 2‒2: Requisite OS and programs in Operation Management Server

<table>
<thead>
<tr>
<th>Items</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>• The OS which JP1/AJS3 - Manager prerequisites.</td>
</tr>
<tr>
<td>Program</td>
<td>• JP1/AJS3 - Manager 10-00 or later.</td>
</tr>
</tbody>
</table>

(3) Send/Receive Client

Send/Receive Client is a host which executes sending and receiving files to Data Highway - Server when it was received the custom job's execution request from Operation Management Server. You will install JP1/DH - AJE (Job Execution) in Send/Receive Client. When you create two or more Send/Receive Client, you will install JP1/DH - AJE (Job Execution) in all Send/Receive Client.

In addition, the number of Send/Receive Client which can be created in the system is same as the number of JP1/AJS3 - Agent which is able to access JP1/AJS3 - Manager For more information about the number of JP1/AJS3 - Agent which is able to access JP1/AJS3 - Manager, refer to manual JP1/Automatic Job Management System 3 Design (Configuration) Guide.

The following table shows the requisite OS and programs in Send/Receive Client.

Table 2‒3: Requisite OS and programs in Send/Receive Client

<table>
<thead>
<tr>
<th>Items</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>• Windows Server 2008 R2</td>
</tr>
<tr>
<td>Items</td>
<td>Software</td>
</tr>
<tr>
<td>-------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| OS    | • Windows Server 2012  
      | • Windows Server 2012 R2  
      | • Windows Server 2016  
      | • Red Hat Enterprise Linux 6 |
| Program | • JP1/AJS3 - Manager 10-00 or later.  
       | or  
       | • JP1/AJS3 - Agent 10-00 or later.  
       | • JP1/DH - AJE 11-10 (Job Execution) |

### (a) About a character code of Linux


**Supplementary note:**
- Because JP1/DH - AJE operates on the system of JP1/AJS3, the prerequisites to support the cluster system of JP1/DH - AJE are the same as those of JP1/AJS3. For more information about configuration of cluster system for JP1/AJS3 system, refer to manual *JP1/Automatic Job Management System 3 Configuration Guide*. You have to install JP1/DH - AJE to the physical host only. The operation of JP1/DH - AJE in cluster system follows the operation of JP1/AJS3 in cluster system.

### (4) Send/Receive Management Server

Send/Receive Management Server is a host which receives files which were sent by Send/Receive Client. Also, when Send/Receive Management Server received the request from Send/Receive Client, it sends data to Send/Receive Client.

The following table shows the requisite OS and programs in Send/Receive Management Server.

**Table 2–4: Requisite OS and programs in Send/Receive Management Server**

<table>
<thead>
<tr>
<th>Items</th>
<th>Software</th>
</tr>
</thead>
</table>
| OS    | • The OS which JP1/DH -Server prerequisites.  
      | or  
      | • The OS which JP1/DH -Server Starter Edition prerequisites |
| Program | • JP1/DH -Server 10-10 or later.  
       | or  
       | • JP1/DH - Server Starter Edition 10-50 or later. |

### 2.1.2 Estimates the resources

Quantity of memory requirements and quantity of disk occupation of JP1/DH - AJE is as follows.

#### (1) Quantity of memory requirements

Quantity of memory requirements of JP1/DH - AJE is as follows.
Table 2‒5: Quantity of memory requirements of JP1/DH - AJE

<table>
<thead>
<tr>
<th>Programs</th>
<th>Quantity of memory requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job definition program</td>
<td>Fixed value: 50 [MB]</td>
</tr>
<tr>
<td></td>
<td>The above value is the value that defined the one DH custom job. When you start the multiple JP1/AJS3 - View and define the DH custom job at the same time, calculate with the following calculation formula.</td>
</tr>
<tr>
<td></td>
<td>fixed value * the number of the DH custom job which defines at the same time</td>
</tr>
<tr>
<td>Job execution program</td>
<td>Fixed value: 21 [MB]</td>
</tr>
<tr>
<td></td>
<td>The above value is the value that executed the one DH custom job. When you execute the multiple DH custom jobs at the same time, calculate with the following calculation formula.</td>
</tr>
<tr>
<td></td>
<td>fixed value * the number of the DH custom job which executes at the same time</td>
</tr>
</tbody>
</table>

(2) Quantity of disk occupation

Quantity of disk occupation of JP1/DH - AJE is as follows.

Table 2‒6: Quantity of disk occupation of JP1/DH - AJE

<table>
<thead>
<tr>
<th>Programs</th>
<th>Quantity of disk occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job definition program</td>
<td>Fixed value: 320 [MB]</td>
</tr>
<tr>
<td></td>
<td>Variable value: 17 [MB]</td>
</tr>
<tr>
<td></td>
<td>(When using the default value in the environment settings file and the number of custom job which defines at the same time is one.)</td>
</tr>
<tr>
<td></td>
<td>Calculation formula of variable values is as follows.</td>
</tr>
<tr>
<td></td>
<td>(Operation log file sizes * The number of backup file) +(Size of the custom job definition file * the number of custom job which defines at the same time)</td>
</tr>
<tr>
<td>Job execution program</td>
<td>Fixed value: 680 [MB]</td>
</tr>
<tr>
<td></td>
<td>Variable value: 18 [MB]</td>
</tr>
<tr>
<td></td>
<td>(When using the default value in the environment settings file and the number of custom job which executes at the same time is one.)</td>
</tr>
<tr>
<td></td>
<td>Calculation formula of variable values is as follows.</td>
</tr>
<tr>
<td></td>
<td>(Operation log file sizes * The number of backup file) +(Size of the custom job definition file * the number of custom job which executes at the same time)</td>
</tr>
<tr>
<td></td>
<td>Size of data to receive:</td>
</tr>
<tr>
<td></td>
<td>When performing reception by Custom Job, contents of the file/folder to receive is temporarily stored in the work folder.</td>
</tr>
</tbody>
</table>
|                           | So, free disk of the same size as the file/folder to receive is required in <Install destination folder of JP1/DH - AJE(Job Execution)>.
|                           | When there are multiple custom jobs to carry out at the same time, size of file/folder to receive is a total value of the size of the file/folder to receive by all custom jobs. |

(a) Operation log file sizes

You can change the operation log file sizes in the environment setting of JP1/DH - AJE.

You have to consider the size of operation log file because the log file includes starting message, exiting message and other messages.

The default value is 5 MB.
When you change the operation log sizes, refer to 3.3.1(1) Environmental configuration file for JP1/DH - AJE (Job Definition) or 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution).

(b) The number of operation logs

You can change the number of operation logs (the number of backup file) in the environment setting of JP1/DH - AJE.

You have to consider the number of operation logs because log file includes starting message, exiting message and other messages.

The default value is 3 areas.

When you change the number of operation logs, refer to 3.3.1(1) Environmental configuration file for JP1/DH - AJE (Job Definition) or 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution).

(c) Size of the Custom job definition file

Custom job definition file is the file which is used for the interface of JP1/DH - AJE and JP1/AJS3. This file is created at the start time of JP1/DH - AJE, and it is removed at the end time of JP1/DH - AJE. The size will be in the range of 0.1MB to 1MB.

When you estimate the quantity of disk occupation, consider the size of definition file as 1MB.

When you will execute the multiple custom jobs by JP1/DH - AJE (Job Execution) at the same time, you have to estimate the size of definition file as follow:

\[ 1\text{MB} \times \text{the number of custom job which executes at the same time} \]
This chapter describes how to install and set up JP1/DH - AJE.
### 3.1 Overview of installation and setup

The following table shows how to install and setup JP1/DH - AJE (Job Execution).

**Table 3–1: Overview of install and setup of JP1/DH - AJE (Job Execution)**

<table>
<thead>
<tr>
<th>Task</th>
<th>Target host</th>
<th>Operation task</th>
<th>Implementation</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation of JP1/DH - AJE (Job Execution)</td>
<td>Send/Receive Client</td>
<td>Install JP1/DH - AJE (Job Execution).</td>
<td>Mandatory</td>
<td>3.2</td>
</tr>
<tr>
<td>Environment setting of JP1/DH - AJE (Job Execution)</td>
<td>Send/Receive Client</td>
<td>Set up operation log file of JP1/DH - AJE (Job Execution), storage folder of files that be used by system and work folder that is used when DH Custom Job runs.</td>
<td>Mandatory</td>
<td>3.3.2</td>
</tr>
<tr>
<td>Registration of server certificate</td>
<td>Send/Receive Client</td>
<td>Register of Data Highway Server certificate to library that is used by JP1/DH - AJE (Job Execution).</td>
<td>Mandatory</td>
<td>3.6</td>
</tr>
<tr>
<td>Consideration for troubleshooting</td>
<td>Send/Receive Client</td>
<td>Backup JP1/DH - AJE (Job Execution) for troubleshooting.</td>
<td>Optional</td>
<td>3.7</td>
</tr>
<tr>
<td>Register login user ID to Data Highway - Server</td>
<td>Send/Receive Management Server</td>
<td>Register login user ID and password to Send/Receive Management Server. JP1/DH - AJE (Job Execution) use the ID and the password for sending or receiving files and folders.</td>
<td>Mandatory</td>
<td>3.5</td>
</tr>
</tbody>
</table>

The following table shows how to install and setup JP1/DH - AJE (Job Definition).

**Table 3–2: Overview of install and setup of JP1/DH - AJE (Job Definition)**

<table>
<thead>
<tr>
<th>Task</th>
<th>Target host</th>
<th>Operation task</th>
<th>Implementation</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation of JP1/DH - AJE (Job Definition)</td>
<td>Management Client</td>
<td>Install JP1/DH - AJE (Job Definition).</td>
<td>Mandatory</td>
<td>3.2</td>
</tr>
<tr>
<td>Environment setting of JP1/DH - AJE (Job Definition)</td>
<td>Management Client</td>
<td>Set up operation log file of JP1/DH - AJE (Job Definition).</td>
<td>Optional</td>
<td>3.3.1</td>
</tr>
<tr>
<td>Consideration for troubleshooting</td>
<td>Management Client</td>
<td>Backup JP1/DH - AJE (Job Definition) for troubleshooting.</td>
<td>Optional</td>
<td>3.7</td>
</tr>
<tr>
<td>Registration DH Custom Job</td>
<td>Management Client</td>
<td>Register DH Custom Job to JP1/AJS3.</td>
<td>Mandatory</td>
<td>3.4</td>
</tr>
</tbody>
</table>
This section describes how to install JP1/DH - AJE.

### 3.2.1 Notes for installation

There are some notes for installation of JP1/DH - AJE.

#### (1) In Windows

- Install this program as an OS user who has Administrators permission. You can't install this program as an OS user who has not permission to write in the registry key.
- When you start the installer as an OS user who has not Administrators permission, a dialog box (UAC dialog) which requests to switch to a user with the Administrators permission may be displayed. If you enter the user name with Administrators permission and password, you will switch to the user and you can start the installer.
- Operate JP1/DH - AJE (Job Execution) on the OS that JP1/DH - AJE (Job Execution) premises.
- Don't specify following folders as the install destination folder of this program.
  1. The root level of the drive (example: C:\)
  2. The install destination folder of other product
  3. The folder that includes multi byte character in the folder name.
- Do not install the Japanese version JP1/DH - AJE (R-1523P-2AA4) and this product (R-1523P-2AAL) on the same host. When the either of them is already installed, install the other JP1/DH - AJE after un installing the JP1/DH - AJE.
- When JP1/DH - AJE is installed for the first time, JP1/DH - AJE is set up to use the language according to the system locale of OS (Control Panel - [Language] - [Administrative] - [Language for non-Unicode programs]). If you change the language which is used by JP1/DH - AJE, refer to 3.3.3 How to change the language of JP1/DH - AJE.
- JP1/DH - AJE may be uninstalled by perfection when carry out cancellation operation of the installation when revise before 10-50 JP1/DH - AJE in later 11-00. In this case after installing before 10-50 JP1/DH - AJE, and having performed environmental setting, please carry out version up to later 11-00.
- Please do not install JP1/DH - AJE before 10-50 in the environment where version later 11-00 was installed in.
- Job execution program is different from version before 10-50 in the installation folder of the default with version to 11-00 or later version.
  before 10-50:
  System drive\Program Files (x86)\Hitachi\JP1DH\AJE
  11-00 or later:
  System drive\Program Files\Hitachi\JP1DH\AJE
- When Version up installation does Job execution program from version before 10-50 to version after 11-00, the installation folder is not changed.

#### (2) In Linux

- Install this program as an OS user who has superuser permission.
- When JP1/DH - AJE is installed for the first time, JP1/DH - AJE is set up to use "Japanese". If you change the language which is used by JP1/DH - AJE, refer to 3.3.3 How to change the language of JP1/DH - AJE.
(3) Windows and Linux common notes

- Carry out installation after confirming that there is the space that is enough for a disk.
- Do not install this program using the terminal service and the remote desktop service, because you might not be able to set up correctly after installation.
- This program does not support remote installation.
- After installation, the rebooting is unnecessary.
- You can install the prerequisite programs and this program in any order. Therefore, you must complete the installation of the prerequisite program by the time of setting the environment setting and executing the program.
- If installation is canceled during installation by any error, confirm information that message dialog displays and reinstall this program.
- Installation of this program may be failed when you specify network drive, shared drive on network or removable disk as the install destination folder of this program. Specify fixed drive as the install destination folder.
- When you carry out the overwrite installation of this program, the registered server certificate is deleted. Therefore, the re-registration of the server certificate is necessary. When you do not perform the re-registration of the server certificate, the DH custom job finishes an error. Refer to 3.6 Register server certificate, and carry out the re-registration of the server certificate by all means.
- If config.xml exists and you overwrite install this program, config.xml does not be overwritten. If you want to initialize config.xml, you should copy config.xml.template to config.xml.
- You can't overwrite install from newer version to older version. In this case, you have to remove this program that already installed and install older version.
- Don't install JP1/DH - AJE (Job Definition) and JP1/DH - AJE (Job Execution) to the same install destination folder.
- When you install this program to cluster system, you have to install the same version of this program to each physical host. In addition, don't install this program to shared-folder.
- The installer of JP1/DH - AJE (Job Definition) is included in the installer of JP1/DH - AJE (Job Execution). If you want to install JP1/DH - AJE (Job Definition), you have to install JP1/DH - AJE (Job Execution) and get the installer of the compression form of JP1/DH - AJE (Job Definition) from the following folder.

On Windows Environment:
   \Definition\jp1dhajed.exe

On Linux Environment:
   /opt/jp1dh/aje/ajee/definition/jp1dhajed.exe

Executes the installer of the compression form and executes the installer (DISK1\setup.exe).
- At execution, the Installer automatically installs the Hitachi Network Objectplaza Trace Library (HNTRLib2). The installation folder is as follows:

On Windows x86 Environment:
   System drive\Program Files\Hitachi\HNTRLib2\

On Windows x64 Environment:
   System drive\Program Files\Hitachi\HNTRLib2\
   or
   System drive\Program Files (x86)\Hitachi\HNTRLib2\

On Linux Environment:
   /opt/hitachi/HNTRLib2
This installation folder is fixed in the system drive. You cannot change the installation folder.

- After you execute installer, it may take time to display install dialog or it may take time to until installation is started. Don't execute installer again if you already execute installer. If you do so, Install of this program may be failed.

### 3.2.2 Procedure of the new installation

The following procedure shows how to install JP1/DH - AJE:

(1) In Windows

1. Log in as an OS user that has Administrator permission to the host that you want to install JP1/DH - AJE.
2. If you want to install JP1/DH - AJE (Job Execution)
   - Choose JP1/Data Highway - Automatic Job Executor from the Hitachi Integrated Installer, and proceed with the installation according to instructions of the installer.
   - The installer of JP1/DH - AJE (Job Definition) is included in the installer of JP1/DH - AJE (Job Execution). If you want to install JP1/DH - AJE (Job Definition), you have to install JP1/DH - AJE (Job Execution) and get the installer of the compression form of JP1/DH - AJE (Job Definition) from the following folder.
     `<Install destination folder of JP1/DH - AJE (Job Execution)>\Definition\jpadhajed.exe`
     In addition, the installer of JP1/DH - AJE (Job Definition) is necessary when you install overwrite of JP1/DH - AJE (Job Definition). Acquire the backup of the installer of JP1/DH - AJE (Job Definition).
3. If you want to install JP1/DH - AJE (Job Definition)
   You get the installer of the compression form of JP1/DH - AJE (Job Definition) from the installer of JP1/DH - AJE (Job Execution) in advance. Executes the installer of the compression form and executes the installer (`\DISK1\setup.exe`). Proceed with the installation according to instructions of the installer.

(2) In Linux

1. Log in as an OS user that has superuser permission to the host that you want to install JP1/DH - AJE (Job Execution).
2. Choose JP1/Data Highway - AJE from the Hitachi PP Installer, and proceed with the installation according to instructions of the installer. For details about how to use the Hitachi Program Product Installer, see 3.2.4 Installation procedure using the Hitachi Program Product Installer.
   - The installer of JP1/DH - AJE (Job Definition) is included in the installer of JP1/DH - AJE (Job Execution). If you want to install JP1/DH - AJE (Job Definition), you have to install JP1/DH - AJE (Job Execution) and get the installer of the compression form of JP1/DH - AJE (Job Definition) from the following folder.
     `(/opt/jp1dh/aje/ajee/definition/jp1dhajed.exe)`
     In addition, the installer of JP1/DH - AJE (Job Definition) is necessary when you install overwrite of JP1/DH - AJE (Job Definition). Acquire the backup of the installer of JP1/DH - AJE (Job Definition).

For more information about the folder which is created after installation, refer to Appendix A. List of Files and Folders.

### 3.2.3 Procedure of the overwrite installation

The overwrite installation is a method to reinstall JP1/DH - AJE to achieve following purposes:

1. Restore the environment state which has already been installed JP1/DH - AJE.
2. Version up JP1/DH - AJE.

(1) In Windows

In overwrite installation, you need not to reenter "User Name", "Organization", and "install destination folder". That information takes over from first installation.

The following procedure shows how to overwrite install JP1/DH - AJE:

1. Log in as an OS user that has Administrator permission to the host that you want to install JP1/DH - AJE.

2. In overwrite installation of JP1/DH - AJE (Job Execution)
   - Stop JP1/DH - AJE (Job Execution) on the Send/Receive management server. If DH Custom Jobs are running, stop them. In addition, don't run DH Custom Jobs during overwrite installation.
   - Choose JP1/Data Highway - Automatic Job Executor from the Hitachi Integrated Installer, and proceed with the installation according to instructions of the installer.

3. In overwrite installation of JP1/DH - AJE (Job Definition)
   - Stop JP1/DH - AJE (Job Definition) on the Management client. Close all DH Custom Job definition windows.
   - Executes \DISK1\setup.exe that you have got from install destination of JP1/DH - AJE (Job Execution) in advance. Proceed with the installation according to instructions of the installer.

(2) In Linux

1. Log in as an OS user that has superuser permission to the host that you want to install JP1/DH - AJE (Job Execution).

2. Choose JP1/Data Highway - Automatic Job Executor from the Hitachi PP Installer, and proceed with the installation according to instructions of the installer. For details about how to use the Hitachi Program Product Installer, see 3.2.4 Installation procedure using the Hitachi Program Product Installer.

Note:
   - When you carry out the overwrite installation or update installation of this program, it is necessary for you to do the re-registration of the server certificate. For more information see 3.6 Register server certificate.

3.2.4 Installation procedure using the Hitachi Program Product Installer

This subsection describes the following operations that you perform by using the Hitachi Program Product Installer:

- Starting the Hitachi Program Product Installer
- Using the Hitachi Program Product Installer to install JP1/DH - AJE
- Using the Hitachi Program Product Installer to uninstall JP1/DH - AJE
- Using the Hitachi Program Product Installer to check the versions of currently installed Hitachi products

(1) Starting the Hitachi Program Product Installer

1. Set the JP1/DH - AJE distribution media.

2. Mount the distribution media. For details about how to mount the distribution media, see the documentation for the OS.

   /bin/mount -r -o mode=0544 /dev/cdrom /mnt/cdrom
   The directory and file names of the distribution media might be seen differently depending on the environment.
   Enter a file name in the same form as displayed by the `ls` command.
   `/mnt/cdrom/X64LIN/setup` /mnt/cdrom

   **Note:**
   - For `/mnt/cdrom`, specify the mount-point directory for the distribution media.

4. Unmount the distribution media.
   After installation is complete, unmount the distribution media. For details about how to unmount the distribution media, see the documentation for the OS.
   `/bin/umount` /mnt/cdrom

   **Note:**
   - For `/mnt/cdrom`, specify the mount-point directory for the distribution media.

---

(2) **Using the Hitachi Program Product Installer to install JP1/DH - AJE**

1. In the initial screen of the Hitachi Program Product Installer, enter I.
   A list of program products that can be installed is displayed.

2. Position the cursor at the product that you want to install, and then press the space bar to select that product.

3. Enter I.
   Installation of JP1/DH - AJE starts. After installation is complete, you can redisplay the initial screen by entering Q.

(3) **Using the Hitachi Program Product Installer to uninstall JP1/DH - AJE**

1. Start the Hitachi Program Product Installer by executing the following command:
   `/etc/hitachi_setup`

2. In the initial screen that is displayed, enter D.
   A list of program products that can be uninstalled is displayed.

3. Position the cursor at the product that you want to uninstall, and then press the space bar to select the product.

4. Enter D.
   The selected program product is uninstalled. You can redisplay the initial screen by entering Q.

(4) **Using the Hitachi Program Product Installer to check the versions of currently installed Hitachi products**

1. Start the Hitachi Program Product Installer by executing the following command:
   `/etc/hitachi_setup`

2. In the initial screen that is displayed, enter L.
   A list of currently installed Hitachi program products is displayed.
3.3 Environment settings of JP1/DH - AJE

This section describes the procedure of environment settings of JP1/DH - AJE.

Note:
• Don't edit files except for the environmental configuration file of data transfer command, the environmental configuration file (config.xml) and the batch file for the information collection tool (In Windows: dhaje_log.bat, In Linux: dhaje_log.sh).

3.3.1 How to change settings of JP1/DH - AJE (Job Definition)

In JP1/DH - AJE (Job Definition), you can change settings about operation log file by using environmental configuration file (config.xml).

In JP1/DH - AJE (Job Definition), you can change the following settings by using environmental configuration file (config.xml):

1. Language that JP1/DH - AJE (Job Definition) will use.
2. Settings of the operation log file.
   You can change the output folder, the log output level, the log file size, and the number of log backup files for the operation log file.

If you use JP1/DH - AJE (Job Definition) by using default value, changing config.xml is unnecessary.

Note:
• If you specified invalid value to config.xml, DH Custom Job definition window doesn't be displayed.
• The character code of config.xml is UTF-8. Do not save config.xml as other character codes. If you do so, the DH Custom Job definition window may not be displayed.
• If you change InfoLogSize and InfoLogBackCount, remove mmap folder that is created under the log output folder. If you don't so, those changes aren't effective.
• Do not specify path name that includes multi-byte code to LogOutDir.
• Language to make agree with JP1/AJS3. For more details, see the manual "JP1/Automatic Job Management System 3 Configuration Guide".
• When the system locale of OS and Language that this program uses aren't identical, the result of logs and messages may not be displayed correctly.

Supplementary note:
• If you use JP1/DH - AJE (Job Definition) in a cluster system, use the same environment settings file of JP1/DH - AJE (Job Definition) for the active node and for the standby node. In addition, specify the shared folder on the shared disk as the output log folder.

(1) Environmental configuration file for JP1/DH - AJE (Job Definition)

The detail of Environmental configuration file is as follows:

1. File path
   <Installation folder of JP1/DH - AJE (Job Definition)>\settings\config.xml

2. Format of the environmental configuration file
   The format of the environmental configuration file is as follows:

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<config>
   <MessageLanguage>en</MessageLanguage>
```
3. Details of definition items

The tag name, definition item, and default value of the environmental configuration file is as follows:

Table 3–3: Definition items of the environmental configuration file of JP1/DH - AJE (Job Definition)

<table>
<thead>
<tr>
<th>Tag name</th>
<th>Definition items</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessageLanguage</td>
<td>Specify language that JP1/DH - AJE (Job Definition) will use. Specify MessageLanguage as follows:</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>• ja</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JP1/DH - AJE (Job Definition) will use Japanese.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• en</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JP1/DH - AJE (Job Definition) will use English.</td>
<td></td>
</tr>
<tr>
<td>LogOutDir</td>
<td>Specify the destination folder of outputting operation log files. The maximum length of the destination folder name depends on OS.</td>
<td>%ALLUsersProfile%\Hitachi\jp1\jp1_default\JP1DH\AJE\AJED\log</td>
</tr>
<tr>
<td></td>
<td>The total of length of folder name and length of log file name must be less than the limit of file name length of OS.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specify suitable value to LogOutDir.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If you specified the following folder to LogOutDir, the DH Custom Job window isn't displayed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• A folder that doesn't exist.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• A folder that can't read or write by OS user who uses DH Custom Job window.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>You should make the LogOutDir folder before you use DH Custom Job window. In addition, you should add read/write permissions to the folder for OS users who uses DH Custom Job window.</td>
<td></td>
</tr>
<tr>
<td>InfoLogLevel</td>
<td>Specify the output level of the operation log as follows:</td>
<td>info</td>
</tr>
<tr>
<td></td>
<td>• error</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outputs only the error level (E).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• warn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outputs the error level (E) and the warning level (W).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• info</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outputs the error level (E), the warning level (W), and the information level (I).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When you specify other value to InfoLogLevel, the DH Custom Job window isn't displayed.</td>
<td></td>
</tr>
<tr>
<td>InfoLogSize</td>
<td>Specify the maximum size of the operation log file by an integer number.</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>The minimum of InfoLogSize is 5(MB), and the maximum is 16(MB). When you specify the value outside the above range, the DH Custom Job window isn't displayed.</td>
<td></td>
</tr>
<tr>
<td>InfoLogBackCount</td>
<td>Specify the number of the backup files of operation log file by an integer number. The minimum of InfoLogBackCount is 3, and the maximum is 64.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>When you specify the value outside the above range, the DH Custom Job window isn't displayed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The name of operation log file is as follows:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• dhajed_information[x].log ([x] is an integer number.)</td>
<td></td>
</tr>
</tbody>
</table>
3.3.2 How to change settings of JP1/DH - AJE (Job Execution)

In JP1/DH - AJE (Job Execution), you can change the following settings by using environmental configuration file (config.xml):

1. Language that JP1/DH - AJE (Job Execution) will use.
2. Settings of the operation log file.
   You can change the output folder, the log output level, the log file size, and the number of log backup files for the operation log file.
3. The location of outputting of files that is used by system.
4. Setting about operation of the system.
5. The location of work folder that is used by running of DH Custom Job.

If you use JP1/DH - AJE (Job Execution) by using default value, changing config.xml is unnecessary.

Note:
- If you specified invalid value to config.xml, DH Custom Job is not executed.
- The character code of config.xml is UTF-8. Do not save config.xml as other character codes. If you do so, DH Custom Job may not be executed.
- If you change InfoLogSize and InfoLogBackCount, remove mmap folder that is created under the log output folder. If you don't so, those changes aren't effective.
- Do not specify path name that includes multi-byte code to LogOutDir.
- Language to make agree with JP1/AJS3. For more details, see the manual "JP1/Automatic Job Management System 3 Configuration Guide".
- When the system locale of OS and Language that this program uses aren't identical, the result of logs and messages may not be displayed correctly.

Supplementary note:
- If you use JP1/DH - AJE (Job Execution) in a cluster system, use the same environment settings file of JP1/DH - AJE (Job Execution) for the active node and for the standby node. In addition, specify the shared folder on the shared disk as the output log folder.

(1) Environmental configuration file for JP1/DH - AJE (Job Execution)

The detail of Environmental configuration file is as follows:

(a) In Windows

1. File Path
   <Installation folder of JP1/DH - AJE (Job Execution)>\settings\config.xml

2. Format of the environmental configuration file
   The format of the environmental configuration file is as follows:

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<config>
   <MessageLanguage>en</MessageLanguage>
   <LogOutDir>C:\ProgramData\Hitachi\jp1\jp1_default\JP1DH\AJE\AJEE\log</LogOutDir>
</config>
```

3. Installation and Setup of JP1/DH - AJE

JP1/Data Highway - Automatic Job Executor Operation manual
3. Details of definition items

The tag name, definition item, and default value of the environmental configuration file is as follows:

Table 3-4: Definition items of the environmental configuration file of JP1/DH - AJE (Job Execution) (In Windows)

<table>
<thead>
<tr>
<th>Tag name</th>
<th>Definition Items</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessageLanguage</td>
<td>Specify language that JP1/DH - AJE (Job Execution) will use. Specify MessageLanguage as follows:</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>• ja</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JP1/DH - AJE (Job Execution) will use Japanese.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• en</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JP1/DH - AJE (Job Execution) will use English.</td>
<td></td>
</tr>
<tr>
<td>LogOutDir</td>
<td>Specify the destination folder of outputting operation log files.</td>
<td>%ALLUsersProfile%\Hitachi\jpl\jpl_default\JP1DH\AJE\AJEE\log</td>
</tr>
<tr>
<td></td>
<td>The maximum length of the folder name depends on OS.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The total of length of folder name and length of log file name must be less than the limit of file name length of OS.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specify suitable value to LogOutDir.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If you specified the following folder to LogOutDir, the DH Custom Job isn't executed.</td>
<td></td>
</tr>
<tr>
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<td>• A folder that doesn't exist.</td>
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<td></td>
<td>• A folder that can't read by OS user who executes DH Custom Job.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>You should make the LogOutDir folder before you execute DH Custom Job.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In addition, you should add read/write permissions to the folder for OS users who executes DH Custom Job.</td>
<td></td>
</tr>
<tr>
<td>InfoLogLevel</td>
<td>Specify the output level of the operation log as follows:</td>
<td>info</td>
</tr>
<tr>
<td></td>
<td>• error</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outputs only the error level (E).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• warn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outputs the error level (E) and the warning level (W).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• info</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outputs the error level (E), the warning level (W), and the information level (I).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When you specify other value to InfoLogLevel, the DH Custom Job isn't executed.</td>
<td></td>
</tr>
<tr>
<td>InfoLogSize</td>
<td>Specify the maximum size of the operation log file by an integer number.</td>
<td>5</td>
</tr>
<tr>
<td>Tag name</td>
<td>Definition Items</td>
<td>Default value</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>InfoLogSize</td>
<td>The minimum of InfoLogSize is 5(MB), and the maximum is 16(MB). When you specify the value outside the above range, the DH Custom Job isn't executed.</td>
<td>5</td>
</tr>
</tbody>
</table>
| InfoLogBackCount | Specify the number of the backup files of operation log file by an integer number.  
The minimum of InfoLogBackCount is 3, and the maximum is 64. When you specify the value outside the above range, the DH Custom Job isn't executed.  
The name of operation log file is as follows: dhajee_information[x].log ([x] is an integer number.) | 3             |
| RecvListDir  | Specify the storage folder of files that is used by system.  
The maximum length of the folder name depends on OS.  
The length of folder name + 49 must be less than the limit of file name length of OS.  
Specify suitable value to RecvListDir.  
If you specified the following folder to RecvListDir, the DH Custom Job isn't executed.  
• A folder that doesn't exist.  
• A folder that can't read or write by OS user who executes DH Custom Job.  
You should make the RecvListDir folder before you execute DH Custom Job.  
In addition, you should add read/write permissions to the folder for OS users who executes DH Custom Job.  
If you changed the value of RecvListDir, you should make a folder that is named "list", and add the same permissions of RecvListDir. | %ALLUsersProfile%\Hitachi\jp1\jp1_default\JP1DH\AJE\AJEE\work |               |
| CmdJreHome   | This is the install destination folder of library that is used by JP1/DH - AJE (Job Execution). This item is set at the time of installation automatically. Do not change this item. When designation of the install destination folder of library includes an error, the DH Custom Job isn't executed. | \%ALLUsersProfile%\Hitachi\jp1\jp1_default\JP1DH\AJE\AJEE\work |               |
| SendRecvTemp | Specify work folder that is used by running of DH Custom Job.  
If you specified the following folder to SendRecvTemp, the DH Custom Job isn't executed.  
• A folder that doesn't exist.  
• A folder that can't read or write by OS user who executes DH Custom Job. | %ALLUsersProfile% shows the environment variable of the Windows (Common data storage folder for all users). |               |
| ResumeCount  | When the disorder that can reopen during data transmission and reception occurs, set the maximum number of times (ResumeCount) of retry of the reopening.  
The minimum of ResumeCount is 0, and the maximum is 2147483647. When you specify the value outside the above range, the DH Custom Job isn't executed. | 12            |
| ResumeWaitTime | When the disorder that can reopen during data transmission and reception occurs, set waiting time (ResumeWaitTime) until the reopening in seconds.  
The minimum of ResumeWaitTime is 0(second), and the maximum is 3600(second). When you specify the value outside the above range, the DH Custom Job isn't executed. | 300           |
<table>
<thead>
<tr>
<th>Tag name</th>
<th>Definition Items</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SuspendResumeCount</td>
<td>When the suspended state during data transmission and reception occurs, set the maximum number of times (SuspendResumeCount) of retry of the reopening. The minimum of SuspendResumeCount is 0, and the maximum is 2147483647. When you specify the value outside the above range, the DH Custom Job isn't executed.</td>
<td>24</td>
</tr>
<tr>
<td>SuspendResumeWaitTime</td>
<td>When the suspended state during data transmission and reception occurs, set waiting time (SuspendResumeWaitTime) until the reopening in seconds. The minimum of SuspendResumeWaitTime is 0(second), and the maximum is 2147483647(second). When you specify the value outside the above range, the DH Custom Job isn't executed.</td>
<td>3600</td>
</tr>
</tbody>
</table>

#1: The default value is decided by the system locale of OS that is defined at the installation of JP1/DH - AJE (Job Execution).
- System locale is Japanese: jp
- System locale is English: en

(b) In Linux

1. File Path
   /opt/jp1dh/aje/ajee/settings/config.xml

2. Format of the environmental configuration file
   The format of the environmental configuration file is as follows:

   ```xml
   <?xml version="1.0" encoding="UTF-8" ?>
   <config>
     <MessageLanguage>jp</MessageLanguage>
     <LogOutDir>/var/opt/jp1dh/aje/ajee/log</LogOutDir>
     <InfoLogLevel>info</InfoLogLevel>
     <InfoLogSize>5</InfoLogSize>
     <InfoLogBackCount>3</InfoLogBackCount>
     <RecvListDir>/opt/jp1dh/aje/ajee/recvlist</RecvListDir>
     <CmdJreHome>/opt/jp1dh/aje/ajee/csmi/jdk/jre</CmdJreHome>
     <SendRecvTemp>/var/opt/jp1dh/aje/ajee/work</SendRecvTemp>
     <ResumeCount>12</ResumeCount>
     <ResumeWaitTime>300</ResumeWaitTime>
     <SuspendResumeCount>24</SuspendResumeCount>
     <SuspendResumeWaitTime>3600</SuspendResumeWaitTime>
   </config>
   ```

3. Details of definition items
   The tag name, definition item, and default value of the environmental configuration file is as follows:

   Table 3–5: Definition items of the environmental configuration file of JP1/DH - AJE (Job Execution) (In Linux)

<table>
<thead>
<tr>
<th>Tag name</th>
<th>Definition Items</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessageLanguage</td>
<td>Specify language that JP1/DH - AJE (Job Execution) will use. Specify MessageLanguage as follows:</td>
<td>jp(#1)</td>
</tr>
<tr>
<td></td>
<td>• ja                                                                                     JP1/DH - AJE (Job Execution) will use Japanese.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• en                                                                                     JP1/DH - AJE (Job Execution) will use English.</td>
<td></td>
</tr>
<tr>
<td>Tag name</td>
<td>Definition Items</td>
<td>Default value</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| LogOutDir    | Specify the destination folder of outputting operation log files. The maximum length of the folder name depends on OS. The total of length of folder name and length of log file name must be less than the limit of file name length of OS. Specify suitable value to LogOutDir. If you specified the following folder to LogOutDir, the DH Custom Job isn't executed.  
  - A folder that doesn't exist.  
  - A folder that can't read by OS user who executes DH Custom Job. You should make the LogOutDir folder before you execute DH Custom Job. In addition, you should add read/write permissions to the folder for OS users who executes DH Custom Job. | /var/opt/jpldh/aje/ajee/log                                                    |
| InfoLogLevel | Specify the output level of the operation log as follows:  
  - error  
    Outputs only the error level (E).  
  - warn  
    Outputs the error level (E) and the warning level (W).  
  - info  
    Outputs the error level (E), the warning level (W), and the information level (I).  
When you specify other value to InfoLogLevel, the DH Custom Job isn't executed. | info                                                                 |
| InfoLogSize  | Specify the maximum size of the operation log file by an integer number. The minimum of InfoLogSize is 5(MB), and the maximum is 16(MB). When you specify the value outside the above range, the DH Custom Job isn't executed. | 5                                                                         |
| InfoLogBackCount | Specify the number of the backup files of operation log file by an integer number. The minimum of InfoLogBackCount is 3, and the maximum is 64. When you specify the value outside the above range, the DH Custom Job isn't executed. The name of operation log file is as follows: dhajee_information[x].log (\(x\) is an integer number.) | 3                                                                         |
| RecvListDir  | Specify the storage folder of files that is used by system. The maximum length of the folder name depends on OS. The length of folder name + 49 must be less than the limit of file name length of OS. Specify suitable value to RecvListDir. If you specified the following folder to RecvListDir, the DH Custom Job isn't executed.  
  - A folder that doesn't exist.  
  - A folder that can't read or write by OS user who executes DH Custom Job. You should make the RecvListDir folder before you execute DH Custom Job. In addition, you should add read/write permissions to the folder for OS users who executes DH Custom Job. If you changed the value of RecvListDir, you should make a folder that is named "list", and add the same permissions of RecvListDir. | /opt/jpldh/aje/ajee/recvlist                                                   |
### 3.3.3 How to change the language of JP1/DH - AJE

If you want to change the language of JP1/DH - AJE, change the language by the following procedure:

#### (1) JP1/DH - AJE (Job Definition)

1. Change the value of MessageLanguage of the Environmental configuration file for JP1/DH - AJE (Job Definition).
   For details, see 3.3.1 How to change settings of JP1/DH - AJE (Job Definition).

#### (2) JP1/DH - AJE (Job Execution)

   For details, see 3.3.2 How to change settings of JP1/DH - AJE (Job Execution).
2. Change the value of DEF_MESSAGE_LOCALE of the environmental configuration file of the data transfer
command.

The detail of the environmental configuration file of the data transfer command is as follows:

1. File path

   In Windows
   <Installation folder of JP1/DH - AJE (Job Execution)>in\DWClient\Const.properties

   In Linux
   /opt/jp1dh/aje/aje/bin/DWClient/Const.properties

2. Format of the environmental configuration file

   DEF_MESSAGE_LOCALE=
   

3. Details of definition items

<table>
<thead>
<tr>
<th>Tag name</th>
<th>Definition items</th>
<th>Default value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEF_MESSAGE_LOCALE</td>
<td>Specify language that the data transfer command will use.</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>Specify DEF_MESSAGE_LOCALE as follows:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ja</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JP1/DH - AJE (Job Execution) will use Japanese.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• en</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JP1/DH - AJE (Job Execution) will use English.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>You can specify the above values by using lowercase and uppercase.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If you didn't specify any value as DEF_MESSAGE_LOCALE, the data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>command will use Japanese.</td>
<td></td>
</tr>
<tr>
<td>Other Tags</td>
<td>Not publication</td>
<td></td>
</tr>
</tbody>
</table>

   #1: In Windows, the default value is decided by the system locale of OS that is defined at the installation of JP1/DH - AJE.
   - System locale is Japanese: jp
   - System locale is English: en
   In Linux, the default value is set up jp (Japanese).

   Note:
   • If you changed the language of AJE, suit the language to "Language type of the system" of JP1/AJS3 (JP1/AJS3 is the prerequisite product of JP1/DH - AJE). If you don't so, the result of command may not be displayed correctly, and the command may be failed.
   • When language of JP1/DH - AJE (Job Definition) is different from JP1/DH - AJE (Job Execution), use an ASCII code. If you don't so, the result of command may not be displayed correctly, and the command may be failed.
   • If you want to use AJE using Japanese, the following settings are necessary.
     A) In the setting of "Region and Language", set "Japanese (Japan)" to "Format" or "Standards and formats".
     B) In the setting of "Region and Language", set "Japanese (Japan)" to "Language for non-Unicode programs".
     If you don't so, multibyte characters doesn't output correctly to log files.
   • The language of the system menu of Windows, and the language of detailed error messages that is outputted by OS are decided by the system local of OS.
### 3.4 Register DH Custom Job

This section describes the procedure of registration DH Custom Job to JP1/AJS3 - View.

**JP1/DH - AJE (Job Execution)** varies in contents to register by the OS.

### In Windows

On Management client, you should register DH Custom Job to JP1/AJS3 - View.

If there are some Management clients, you should register DH Custom Job to each Management clients.

The procedure of registration of DH Custom Job is as follows:

1. Display the [Register Custom Jobs] dialog box by following steps.
   - Select [All Program] from Windows [Start] menu.
   - Select [JP1_Automatic Job Management System 3 - View].
   - Select [Register Custom Jobs].

2. Click [Add] button of the [Register Custom Jobs] dialog box.
   - [Set Properties of Custom Job] dialog box is displayed.

3. Specify following information to the each setting items of the [Set Properties of Custom Job] dialog box.

   **Table 3‒7: Setting items of [Set Properties of Custom Jobs] dialog box (In Windows)**

<table>
<thead>
<tr>
<th>Definition items</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter the Custom Job name &quot;DHAJEW&quot;. Or, You can enter any name of up to 8 bytes.</td>
</tr>
<tr>
<td>comment</td>
<td>Enter any comment up to 40 bytes. This value is the default name of new Custom Jobs. If you don’t specify &quot;comment&quot;, The value of &quot;Name&quot; is the default name of new Custom Jobs.</td>
</tr>
<tr>
<td>Definition program</td>
<td>Specify the execution file name of JP1/DH - AJE (Job Definition) with an absolute path. The execution file exists on the Management client. For example: <code>&lt;Installation folder of JP1/DH - AJE (Job Definition) on the Management client&gt; \bin\dhajed.exe</code></td>
</tr>
<tr>
<td>Execution program</td>
<td>Specify the execution file name of JP1/DH - AJE (Job Execution) with an absolute path. The execution file exists on the Send/Receive Client. For example: <code>&lt;Installation folder of JP1/DH - AJE (Job Execution) on the Send/Receive Client&gt; \bin\dhajee.exe</code></td>
</tr>
<tr>
<td>Version</td>
<td>Specify &quot;0600&quot;.</td>
</tr>
<tr>
<td>Class name</td>
<td>Specify &quot;DHAJEW&quot;</td>
</tr>
<tr>
<td>Job type</td>
<td>Chooses the [PC Job].</td>
</tr>
</tbody>
</table>

**Supplementary note:**

- If you uses JP1/DH - AJE (Job Execution) on the following status:
  A) You installed JP1/DH - AJE (Job Execution) into some Send/Receive clients.
  B) The install destination folder of JP1/DH - AJE (Job Execution) are different on each hosts.
  You should use "Environment setting parameter". "Environment setting parameter" is a function of JP1/AJS3.
  In this case, you should specify [[JP1_DEFAULT|logical-host]\JP1NBQAGENT\Variable] to "Execution program".

For more details, see the section "Defining variables for work paths used during job execution" of the manual "JP1/Automatic Job Management System 3 Configuration Guide"
Note:
- You should use the values in the above table as version, class name and job type. If you change them, the icon of Custom Job of JP1/DH - AJE may not be displayed on the [Jobnet Editor] window of JP1/AJS3 - View.
- You should register the Custom Job of JP1/DH - AJE for Windows only one thing. If you register the Custom Job two or more, Custom Job may not be executed by inconsistent.

4. Click [OK] button.

5. If the version of JP1/AJS3 - view is less than 10-00, you should copy the icon file for Windows from the install destination folder of JP1/DH - AJE to the storage folder of Custom Job images of JP1/AJS3 - view. If the version of JP1/AJS3 - view is 10-00 or later, you can skip this step.
   - The icon file of DH Custom Job
   - The storage folder of Custom Job images of JP1/AJS3 - View

6. Check the Custom Job of JP1/DH - AJE which you registered.
   Displays the [Jobnet Editor] window of JP1/AJS3 - View and select the Custom Job tab of the icon list. Check the icon of the Custom Job is displayed.

In Linux

On Management client, you should register DH Custom Job to JP1/AJS3 - View.

If there are some Management clients, you should register DH Custom Job to each Management clients.

The procedure of registration of DH Custom Job is as follows:

1. Display the [Register Custom Jobs] dialog box by following steps.
   - Select [All Program] from Windows [Start] menu.
   - Select [JP1_Automatic Job Management System 3 - View].
   - Select [Register Custom Jobs].

2. Click [Add] button of the [Register Custom Jobs] dialog box.
   [Set Properties of Custom Job] dialog box is displayed.

3. Specify following information to the each setting items of the [Set Properties of Custom Jobs] dialog box.

Table 3–8: Setting items of [Set Properties of Custom Jobs] dialog box (In Linux)

<table>
<thead>
<tr>
<th>Definition items</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Enter the Custom Job name “DHAJEL”. Or, You can enter any name of up to 8 bytes.</td>
</tr>
<tr>
<td>comment</td>
<td>Enter any comment up to 40 bytes. This value is the default name of new Custom Jobs. If you don't specify &quot;comment&quot;, The value of &quot;Name&quot; is the default name of new Custom Jobs.</td>
</tr>
<tr>
<td>Definition program</td>
<td>Specify the execution file name of JP1/DH - AJE (Job Definition) with an absolute path. The execution file exists on the Management client. For example: &lt;Installation folder of JP1/DH - AJE (Job Definition) \bin\dhaajed.exe</td>
</tr>
<tr>
<td>Execution program</td>
<td>Specify the execution file name of JP1/DH - AJE (Job Execution) with an absolute path. The execution file exists on the Send/Receive Client.</td>
</tr>
</tbody>
</table>
### Definition items

<table>
<thead>
<tr>
<th>Definition items</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Execution program</td>
<td><code>/opt/jp1dh/aje/ajee/bin/dhajee.sh</code></td>
</tr>
<tr>
<td>Version</td>
<td>Specify &quot;0600&quot;.</td>
</tr>
<tr>
<td>Class name</td>
<td>Specify &quot;DHAJEL&quot;.</td>
</tr>
<tr>
<td>Job type</td>
<td>Chooses the [PC Job].</td>
</tr>
</tbody>
</table>

**Note:**
- You should use the values in the above table as version, class name and job type. If you change them, the icon of Custom Job of JP1/DH - AJE may not be displayed on the [Jobnet Editor] window of JP1/AJS3 - View.
- You should register the Custom Job of JP1/DH - AJE for Linux only one thing. If you register the Custom Job two or more, Custom Job may not be executed by inconsistent.

4. Click [OK] button.

5. If the version of JP1/AJS3 - view is less than 10-00, you should copy the icon file for Linux from the install destination folder of JP1/DH - AJE to the storage folder of Custom Job images of JP1/AJS3 - view. If the version of JP1/AJS3 - view is 10-00 or later, you can skip this step.

   - The icon file of DH Custom Job

   `<Install destination folder of JP1/DH - AJE (Job Definition)\customCUSTOM_PC_DHAJEL.gif`

   - The storage folder of Custom Job images of JP1/AJS3 - View

   `<Install destination folder of JP1/AJS3 - View>\image\custom`

6. Check the Custom Job of JP1/DH - AJE which you registered.

   Displays the [Jobnet Editor] window of JP1/AJS3 - View and select the Custom Job tab of the icon list. Check the icon [ ] of the Custom Job is displayed.
3.5 Setting of Data Highway - Server side

3.5.1 Register login user ID

You should register login user ID and password for logging in Data Highway - Server.

When I perform data transmission and reception using DH custom job from JP1/Data Highway - Automatic Job Executor, I cannot appoint "Login by Certification" of the certification method. Please appoint "Login by Password" or "LDAP authentication".

For more information about settings, refer to the manual *JP1/Data Highway - Server System Administrator Guide*.

3.5.2 Setting of the compress method of the delivery policy

When the compress method of the delivery policy can be chosen, please be sure to set "Extended" to the compress method of the delivery policy.

When "Standard" is specified, if you perform the transmission that is specified folders, an error of "DWCO2207_E Cannot specify [-resumestatus] option because of including folders." will occur and the transmission has failed.

For more information about settings, refer to the manual *JP1/Data Highway - Server System Administrator Guide*. 
3.6 Register server certificate

JP1/DH - AJE (Job Execution) needs the server certificate of the Data Highway - Server for Sending or Receiving files or folders.

Before you use JP1/DH - AJE (Job Execution), you should get the server certificate from Data Highway - Server that you want to send or receive files or folders, and register the server certificate to library that is used by JP1/DH - AJE (Job Execution).

You should register the server certificate to JRE on all Send/Receive clients.

The procedure of registration of the server certificate is as follows:

1. Access to the Data Highway - Server that you want to send/receive by using Web browser.

2. Click the key mark that is displayed next to the URL, and display [Website Identification] dialog box. Click the [View certificates] button. [Certificate] dialog box is displayed.

Figure 3–1: View certificates

3. Select [Details] tab and Click [Copy to the file...].

5. The [Export File Format] dialog box will be displayed. Select [DER encoded binary X509 (.CER)] from "Select the format you want to use:" Click [Next].

6. The [File to Export] dialog box is displayed. Enter file name to the File name text box and click [Next].

7. The [Completing the Certificate Export Wizard] dialog box is displayed. Click [Finish].

8. The [The export was successful] dialog box is displayed. The server certificate exports to the file that you specified on [File to Export] dialog box.

9. Run command prompt, and change current directory to the library directory under the JP1/DH - AJE (Job Execution). Then, run the following command.

   In Windows
   ```
   keytool -import -alias [The alias of server certificate] -file [The path name of the server certificate file] -keystore < Installation folder of JP1/DH - AJE (Job Execution) >\csmi\jdk\jre\lib\security\cacerts -storepass changeit
   ```
Specify any name of server certificate to the alias of server certificate.
For example: Installation folder of JP1/DH - AJE (Job Execution) is "C:\Program Files\HITACHI\JP1DH\AJE", and the value of CmdJreHome is "C:\AJE\server.cer":

```
> cd "C:\Program Files\HITACHI\JP1DH\AJE\AJEE\csmi\jdk\jre\bin"
> keytool -import -alias test1 -file "C:\AJE\server.cer" -keystore "C:\Program Files\HITACHI\JP1DH\AJE\AJEE\csmi\jdk\jre\lib\security\cacerts" -storepass changeit
```

In Linux

```
/opt/jp1dh/aje/ajee/csmi/jdk/jre/bin/keytool -import -alias [The alias of server certificate] -file [The path name of the server certificate file] -keystore /opt/jp1dh/aje/ajee/csmi/jdk/jre/lib/security/cacerts -storepass changeit
```

Specify any name of server certificate to the alias of server certificate.
In Linux, appoint the keytool in full path.
For example: The value of CmdJreHome is "/opt/server.cer":

```
$ cd /opt/jp1dh/aje/ajee/csmi/jdk/jre/bin
$ /opt/jp1dh/aje/ajee/csmi/jdk/jre/bin/keytool -import -alias test1 -file /opt/server.cer -keystore /opt/jp1dh/aje/ajee/csmi/jdk/jre/lib/security/cacerts -storepass changeit
```

10. The keytool command asks you "Trust this certificate? [no]". Enter "yes" and press return.

11. Registration is completed.

**Note:**
When you carry out the overwrite installation or update installation of this program, the registered server certificate is deleted. Therefore, when you carry out the overwrite installation or update installation of this program, carry out the registration of the server certificate. When you do not register the server certificate, the DH custom job finishes an error.
3.7 Consideration for troubleshooting

This section describes what you should do before any trouble occurs.

It is vital to plan such measures in advance so that the system can be restored with little impact should an unpredictable event occur.

3.7.1 Setup of the information collection tool

When any trouble occurs on JP1/DH - AJE (Job Execution), collect data by using the collection information tool. We recommend customizing the information collection tool before any trouble occurs.

For customizing, see 6.3.2(1)(a) About the information collection tool.

3.7.2 Back up the system

We recommend back up the system periodically in case of any troubles.

Timing and acquisition method of back up is as follows:

(1) Timing which backs up

The timing which backs up the system in addition to periodical backup is shown below.

- When JP1/DH - AJE is set up
- When the settings of JP1/DH - AJE is changed
- Before carrying out overwrite installation (restoration or upgrade) of the JP1/DH - AJE
- When shifting JP1/DH - AJE to another host

(2) Back up acquisition method

(a) Back up of JP1/DH - AJE (Job Definition)

1. Copy Environmental configuration file (config.xml) to any folder.

(b) Back up of JP1/DH - AJE (Job Execution)

1. Copy Environmental configuration file (config.xml) to any folder.
2. Copy all files and folders those are included in the following folder to any folder:
   The folder that is defined as RecvListDir in Environmental configuration file (config.xml).

See Appendix A. List of Files and Folders about detail of files and folders.

About how to restore the above backup files, See 6.4 Restore.

About <RecvListDir>, see 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution).
3.8 Uninstalling of JP1/DH - AJE

This section describes how to uninstall JP1/DH - AJE.

3.8.1 Uninstallation of JP1/DH - AJE

(1) The notes for uninstallation

There are some notes for uninstallation of JP1/DH - AJE.

(a) In Windows

• Uninstall this program as an OS user who has Administrators permission. You can't uninstall this program as an OS user who has not permission to write in the registry key.

(b) In Linux

• Uninstall this program as an OS user who has superuser permission.
• All folders are deleted when you uninstall. Therefore, when you carry out installation after uninstallation, it becomes the initial state at the time of the new installation. When you want to maintain a state before the uninstallation, carry out backup before uninstallation, and carry out restore work after installation. For more information see 3.7.2 Back up the system and 6.4 Restore.

(c) Windows and Linux common notes

• Do not uninstall this program using the terminal service and the remote desktop service, because you might not be able to uninstall this program correctly.
• After uninstallation, the rebooting OS is unnecessary.
• If uninstallation was canceled during uninstallation by any error, you may not be able to uninstall this program. In this case, reinstall this program and uninstall this program again.

(2) Procedure of the uninstallation

The following procedure shows how to uninstall JP1/DH - AJE.

(a) In Windows

1. Log in as an OS user that has Administrator permission to the host that you want to uninstall JP1/DH - AJE.
2. In uninstallation of JP1/DH - AJE (Job Definition)
   • Stop JP1/DH - AJE (Job Definition) on the Management client. Close all DH Custom Job definition windows.
   • Remove Data Highway - Automatic Job Executor (Job Definition) from "Add or Remove Programs" or "Programs and features" of the control panel of the Windows.
3. In uninstallation of JP1/DH - AJE (Job Execution)
   • Stop JP1/DH - AJE (Job Execution) on the Send/Receive management server. If DH Custom Jobs are running, stop them. In addition, don't run DH Custom Jobs during uninstallation. The uninstallation of this program may fail when processes of this program is running during uninstallation.
   • Remove Data Highway - Automatic Job Executor(Job Execution) from "Add or Remove Programs" or "Programs and features" of the control panel of the Windows.
4. Remove some files manually after installation. Even if uninstalled this product, some files will not be removed. Remove the following files manually after uninstallation of this program.

1. The case of uninstallation of JP1/DH - AJE (Job Definition)
   • All files in the installation folder of JP1/DH - AJE (Job Definition).
     %ALLUsersProfile%\Hitachi\jp1\jp1_default\JP1DH\AJE\AJED\log
   • All files in the folder that is specified as the destination folder of outputting operation log files in the environmental configuration file.

2. The case of uninstallation of JP1/DH - AJE (Job Execution)
   • All files in the installation folder of JP1/DH - AJE (Job Execution).
     %ALLUsersProfile%\Hitachi\jp1\jp1_default\JP1DH\AJE\AJEE\log
   • All files in the folder that is specified as the destination folder of outputting operation log files in the environmental configuration file.
   • All files in the folder that is specified as the storage folder of files that is used by system.
   • All files in the folder that is specified as work folder that is used by running of DH Custom Job.

(b) In Linux

1. Log in as an OS user that has superuser permission to the host that you want to uninstall JP1/DH - AJE (Job Execution).

2. Choose JP1/Data Highway - Automatic Job Executor from uninstallation of the Hitachi PP Installer, and carry out uninstallation. For details about how to use the Hitachi Program Product Installer, see 3.2.4 Installation procedure using the Hitachi Program Product Installer.

3. Remove some files manually after installation. Even if uninstalled this product, some files will not be removed. Remove the following files manually after uninstallation of this program.
   • All files in the installation folder of JP1/DH - AJE (Job Execution).
   • All files in the folder that is specified as the destination folder of outputting operation log files in the environmental configuration file.
   • All files in the folder that is specified as the storage folder of files that is used by system.
   • All files in the folder that is specified as work folder that is used by running of DH Custom Job.
This chapter describes how to operate JP1/DH - AJE.
4.1 The types of DH Custom Jobs

This section describes about the type of DH Custom Jobs.

There are two types for DH Custom Jobs:

1. Send Custom Job
2. Receive Custom Job

4.1.1 Send Custom Job

Send Custom Job is a Custom Job that sends files or folders to Data Highway - Server. The following figure shows the basic operation of Send Custom Job.

Figure 4–1: The basic operation of Send Custom Job

4.1.2 Receive Custom Job

Receive Custom Job is a Custom Job that receives files and folders from Data Highway - Server. The following figure shows the basic operation of Receive Custom Job.
Figure 4–2: The basic operation of Receive Custom Job

1. Register Custom Jobs
2. Execute Custom Jobs
3. Send/Receive Client
4. Define Custom Jobs

Receive Files

Files to transfer
4.2 Definition of a DH Custom Job

4.2.1 The procedure of definition of a DH Custom Job

The following procedure shows how to define a DH Custom Job.

1. Display the map area of the [Jobnet Editor] window of JP1/AJS3 - View.
2. Choose a tab of [Custom Job], and select [Exclusive edit] check box.
3. Drag a job icon [ ] of JP1/DH - AJE and drop it in the map area.

![Figure 4‒3: The [Jobnet Editor] window](image)

When the Job execution program is for Linux, the indication of the icon of DH custom job is [ ].

**Note:**
- In the case of the system that both DH custom job for Windows and DH custom job for Linux are available, do not choose a wrong icon.

4. The Custom Job of JP1/DH - AJE is added in a map area of Jobnet, and the [Define Details - [Custom Job]] dialog box is displayed.
5. Define the definition items of the common items of the **[Define Details - [Custom Job]]** dialog box as follows.

**Table 4–1: The common items of **[Define Details - [Custom Job]]** dialog box**

<table>
<thead>
<tr>
<th>Item name</th>
<th>Definition method</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Unit name]</td>
<td>The unit name of custom job. Use a character string of up to 30 bytes.</td>
<td>mandatory</td>
</tr>
<tr>
<td>[Comment]</td>
<td>The comment of custom job. Specify a character string of up to 80 bytes.</td>
<td>optional</td>
</tr>
<tr>
<td>[Exec-agent]</td>
<td>Job Execution Agent Name that execute the Custom Job. Specify a character string of up to 255 bytes.</td>
<td>mandatory</td>
</tr>
</tbody>
</table>

6. Define the definition items of the Definition page of the **[Define Details - [Custom Job]] dialog box** as follows.

**Table 4–2: The items of the Definition page of the **[Define Details - [Custom Job]]** dialog box**

<table>
<thead>
<tr>
<th>Item name</th>
<th>Definition method</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Priority]</td>
<td>Choose the priority of the custom job execution. You can set None, or 1 to 5.</td>
<td>optional</td>
</tr>
<tr>
<td>[Standard output]</td>
<td>Specify the name of the standard output file to be used for job execution. Use a character string of up to 511 bytes. Specify a full path file name.</td>
<td>optional</td>
</tr>
<tr>
<td>[Standard error]</td>
<td>Specify the name of the standard error output file to be used for job execution. Use a character string of up to 511 bytes. Specify a full path file name.</td>
<td>optional</td>
</tr>
<tr>
<td>[End judgment]</td>
<td>Rule</td>
<td>optional</td>
</tr>
</tbody>
</table>
When you choose [Judgment by threshold] in [End judgment], specify the warning threshold of a return code in the range of 0 to 2,147,483,647.

When you choose [Judgment by threshold] in [End judgment], specify the abnormal threshold of a return code in the range of 0 to 2,147,483,647.

When you choose [Normal if specified file exists] or [Normal if file was updated] in [End judgment], specify the file name. You can use a character string of up to 511 bytes for the file name.

Select whether to retry execution when the program ends in an error.

If Yes is selected for Retry on abnormal end, specify the range of return codes for which to retry jobs. The value you can specify is in the range of 1 to 4,294,967,295.

When Yes is selected for Retry on abnormal end, specify the maximum number of times a job can be retried. You can specify a value in the range from 1 to 12.

When Yes is selected for Retry on abnormal end, specify how long the system waits between the error occurring and retrying the job. You can specify a value in the range from 1 to 10 (minutes).

Specify the name of OS user of host for job execution. Use a character string of up to 63 bytes.

When you click Details button, displays [DH Custom Job Definition] window.

7. Define the definition items of the Attributes page of the [Define Details - [Custom Job] dialog box] as follows.

Table 4‒3: The items of the attributes page of the [Define Details - [Custom Job]] dialog box

<table>
<thead>
<tr>
<th>Item name</th>
<th>Definition method</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold</td>
<td>Specify whether to place the unit in the hold status in advance.</td>
<td>optional</td>
</tr>
<tr>
<td>Type</td>
<td>Set the unit type to Normal or Recovery.</td>
<td>optional</td>
</tr>
<tr>
<td>Set timeout period</td>
<td>Select whether to set a time-out period for the Custom Job execution.</td>
<td>optional</td>
</tr>
<tr>
<td>Timeout period</td>
<td>When you choose [yes] in [Set timeout period], specify the timeout period in minutes. The value that you can specify is in the range of 1 to 1,440 minutes. Specify Timeout period carefully. If it isn't enough, processing of Custom job will be terminated in halfway.</td>
<td>optional</td>
</tr>
<tr>
<td>Delayed end</td>
<td>Specify whether to monitor delayed end of jobs based on time required for execution. Select the Time-required-for-execution check box to monitor delayed end of jobs.</td>
<td>optional</td>
</tr>
</tbody>
</table>
### Item name | Definition method | Designation
--- | --- | ---
Delayed end | When you select the Time-required-for-execution check box, specify the time required for execution for a job in the range of 1 to 1,440 minutes. | optional
Owner | Specify the Unit owner. Use a character string of up to 31 bytes. | optional
JP1 resource groups | Specify The JP1 resource group name. Use a character string of up to 63 bytes. | optional
Executed by | Select the user who executes the job. You can select either of the following.  
  • [User who registered]  
    The JP1 user who registered the custom job executes the custom job.  
  • [User who owns]  
    The JP1 user who owns the custom job executes the job.  
  The default value is [User who registered]. | optional

8. After definition of each items of the [Define Details - [Custom Job]] window, click Details button of the Definition page on the [Define Details - [Custom Job]] window, then displays [DH Custom Job Definition] window.

**Figure 4–5:** The [DH Custom Job Definition] window

For definition of a Send Custom Job or a Receive Custom Job by using the [DH Custom Job Definition] window, see the following table and define items of each window.

<table>
<thead>
<tr>
<th>Window name</th>
<th>Send Custom Job</th>
<th>Receive Custom Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Transmission Setting (Send)] window</td>
<td>Need to define</td>
<td>N/A</td>
</tr>
<tr>
<td>[Transmission Setting(Receive)] window</td>
<td>N/A</td>
<td>Need to define</td>
</tr>
<tr>
<td>[Base Setting] window</td>
<td>Need to define</td>
<td>Need to define</td>
</tr>
</tbody>
</table>
Note:
- If the language that job definition program uses is English, don't use multi-byte characters for definition of DH custom job. If you do so, the data transfer command may be failed because the multi-byte characters will be change to the invalid characters. Do not specify surrogate pairs characters for definition of DH Custom Job. If you do so, might be changed to the invalid characters because the character is not recognized correctly. It is not checked whether it is the characters which it cannot use.
- When the [DH Custom Job Definition] window doesn't be displayed by an error (e.g. The invalid config.xml is specified), OK button on the [Define Details - [Custom Job]] window will be enabled. In this case, click Cancel button and close the [DH Custom Job Definition] window. Then, define a custom job by using the [DH Custom Job Definition] window again. If you click OK button in the above case, invalid DH Custom Job will be registered and you can't edit it. If you made such Custom Job, delete it.

9. Click OK button on the [DH Custom Job Definition] window, and returns to the [Define Details - [Custom Job]] window. Check the specified contents, and click OK button on the [Define Details - [Custom Job]] window. The custom job for JP1/DH - AJE is defined on the [Jobnet Editor] window.

4.2.2 The [Transmission Setting (Send)] window

The [Transmission Setting (Send)] window defines some information of "Send". For example, files or folders that you want to send, recipients, and information of the mail.

The information of the mail is used for sending mail from Data Highway - Server to the recipients.

Select Transmission Settings page form the [DH Custom Job Definition] window and select [Send] on the Transfer type drop-down list. The [Transmission Setting (Send)] window will be displayed.

Figure 4–6: The [Transmission Setting (Send)] window

The details of items and contents of the [Transmission Setting (Send)] window as follows:
### Table 4–5: The definition items of the [Transmission Setting (Send)] window

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Description</th>
<th>AJS macro variables allowed</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transfer type</strong></td>
<td>Select the type of custom job that you want to define. Select &quot;Send&quot;.</td>
<td>No</td>
<td>mandatory</td>
</tr>
<tr>
<td><strong>Recipients: Type</strong></td>
<td>Select the type of mail that sends to recipients. Select one from &quot;TO&quot;, &quot;CC&quot;, or &quot;BCC&quot;.</td>
<td>No</td>
<td>mandatory</td>
</tr>
<tr>
<td><strong>Recipients: Email address</strong></td>
<td>Specify the email address or the group name (English) of recipients. This item must be a string of from 1 to 256 characters. When @ (at mark) is not included in the value, the value is registered as a group name. The multi-byte character, Colon and double quote are prohibited characters for this item. In addition, special symbol (₃₄₅₆₇₈₉⁰) and Half space cannot specify at the same time.</td>
<td>Yes</td>
<td>mandatory</td>
</tr>
<tr>
<td><strong>Recipients: Name</strong></td>
<td>Specify the name of recipients. This item must be a string of from 1 to 30 characters. Furthermore, you can't use the following symbols as this item: / \ * : ! &quot; &lt; &gt; ^ \ \ $. In addition, special symbol (₃₄₅₆₇₈₉⁰) and Half space cannot specify at the same time. When you specify the group name in the Recipients, the designation here is ignored.</td>
<td>Yes</td>
<td>optional</td>
</tr>
<tr>
<td><strong>Recipients: Division</strong></td>
<td>Specify the Division of recipients. This item must be a string of from 1 to 30 characters. Colon and double quote are prohibited characters for this item. In addition, special symbol (₃₄₅₆₇₈₉⁰) and Half space cannot specify at the same time. When you specify the group name in the Recipients, the designation here is ignored.</td>
<td>Yes</td>
<td>optional</td>
</tr>
<tr>
<td><strong>Subject</strong></td>
<td>Specify the Subject of the mail. This item must be a string of from 1 to 30 characters. Double quote are prohibited characters for this item. In addition, special symbol (₃₄₅₆₇₈₉⁰) and Half space cannot specify at the same time.</td>
<td>Yes</td>
<td>optional</td>
</tr>
<tr>
<td><strong>Message text</strong></td>
<td>Specify body of the mail. This item must be a string of from 1 to 1,000 characters. Double quote are prohibited characters for this item.</td>
<td>Yes</td>
<td>optional</td>
</tr>
<tr>
<td><strong>Send Files/Folders</strong></td>
<td>Specify files or folders that you want to send to recipients on the agent host carrying out DH custom job. Specify an absolute path name for this item. This item must be a string of from 1 to 255 characters. Double quote are prohibited characters for this item.</td>
<td>Yes</td>
<td>mandatory</td>
</tr>
<tr>
<td><strong>Open password</strong></td>
<td>Specify the open password. The open password is required when you send files or folders to the recipients that are not registered to Data Highway - Server. This item must be a string of from 6 to 32 characters. This item must consist of two or more types of character from number, uppercase alphabet, lowercase alphabet, and symbols.</td>
<td>No</td>
<td>#1</td>
</tr>
</tbody>
</table>
### Open password
You can use the following characters as symbols.

!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~

AJS macro variables allowed: No

<table>
<thead>
<tr>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
</tr>
</tbody>
</table>

### Confirm open password
Specify the same strings that you specified as the open password.

This item is used for confirmation of the open password.

AJS macro variables allowed: No

<table>
<thead>
<tr>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
</tr>
</tbody>
</table>

### Behavior when other job is executing
Select the behavior of DH custom job from the following two types.

- **[Ended Immediately]**
  - When the DH custom job runs during other DH custom job is running, the DH custom job ends immediately.

- **[Wait for the end of other job]**
  - When the DH custom job runs during other DH custom job is running, the DH custom job waits for the end of previous DH custom job in seconds that you specified.
    - If timeout occurred, the DH custom ends without anything.
    - If you select **[Wait for the end of other job]**, specify seconds from 0 to 86,400.

AJS macro variables allowed: No

<table>
<thead>
<tr>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory</td>
</tr>
</tbody>
</table>

If you send files or folders to recipients that are registered to Data Highway - Server, specification is unnecessary.

#### Supplementary note:
- You can specify 10 recipients on the [Transmission Setting (Send)] window. However, if the maximum number of destinations is limited 9 or less by the delivery policy of Data Highway - Server, the running of the DH custom job that is specified 10 recipients will fail. Confirm the delivery policy and specify the valid numbers of recipients.
- When there is a recipient that is specified the name or the division and Email address is empty, the error dialog box will be displayed.
- You can specify 10 files or folders on the [Transmission Setting (Send)] window. However, if the maximum number of files is limited 9 or less by the delivery policy of Data Highway - Server, the running of the DH custom job that is specified 10 files or folders will fail. Confirm the delivery policy and specify the valid numbers of files or folders.
- AJS macro variable is a function of JP1/AJS3 for automating the task that includes tasks that changed values during executing jobs.
- When you specify the group name in the Recipients, specify the group name (English).
- Cannot select the compress level and the compress method when you send the data. The compress level and the compress method follow the delivery policy of Data Highway - Server. When several compress level are selected, the highest priority is applied. The priority is as follows.
  1. No compression
  2. STRONG
  3. MIDDLE
  4. WEAK

  And, When the compress method of the delivery policy can be chosen, please be sure to set "Extended" to the compress method of the delivery policy. When "Standard" is specified, if you perform the transmission that is specified folders, an error of "DWCO2207_E Cannot specify [-resumestatus] option because of including folders." will occur and the transmission has failed.
- The maximum size of the file or folder which is sent obeys setting of Data Highway - Server. For details, see the manual [JP1/Data Highway - Server Configuration and Administration Guide].

#### Note:
- Do not specify, as the file name or the folder name, a path beginning with a network drive name. A network drive is reconnected after a user logs on to Windows. If the user does not log on to Windows, the system may not be able to recognize the path name of the execution file. Specify a path beginning with a computer name such as `\computer-name\shared-folder\file-name`
  Do not use a path beginning with a network drive name.
4.2.3 The [Transmission Setting (Receive)] window

The [Transmission Setting (Receive)] window defines some information of "Receive". For example, the folder name that stores received files or folders, overwriting files or folders.

Select Transmission Settings page form the [DH Custom Job Definition] window and select [Receive] on the Transfer type drop-down list. The [Transmission Setting (Receive)] window will be displayed.

Figure 4–7: The [Transmission Setting (Receive)] window

![Transmission Setting (Receive) Window](image)

The details of items and contents of the [Transmission Setting (Receive)] window as follows:

Table 4–6: The definition items of the [Transmission Setting (Receive)] window

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Description</th>
<th>AJS macro variables allowed</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer type</td>
<td>Select the type of custom job that you want to define. Select &quot;Receive&quot;.</td>
<td>No</td>
<td>mandatory</td>
</tr>
<tr>
<td>Receive folder</td>
<td>Specify the receive folder name on the agent host carrying out DH custom job. Specify an absolute path name for this item. This item must be a string of from 1 to 255 characters. Double quote are prohibited characters for this item.</td>
<td>Yes</td>
<td>mandatory</td>
</tr>
</tbody>
</table>
| Behavior for receiving the same name file / folder | Select the behavior of the DH custom job when the DH custom job received the same file or folder that is included in the "Receive folder".  
  - When "Do not overwrite" is selected: The receiving of the file or the folder will be skipped when the same file or folder exists in the "Receive folder".  
  - When "Overwrite" is selected: The receiving of the file or the folder won't be skipped and overwrite the file or folder in the "Receive folder". | No                           | mandatory     |
<table>
<thead>
<tr>
<th>Item Name</th>
<th>Description</th>
<th>AJS macro variables allowed</th>
<th>Specification</th>
</tr>
</thead>
</table>
| **Behavior in the state without a file / folder to receive** | Select the behavior of the DH custom job when the DH custom job received nothing.  
- When "Ended normally" is selected:  
  When the DH custom job received nothing, the DH custom job returns normal end (Return code: 0).  
- When "Ended with Warning" is selected:  
  When the DH custom job received nothing, the DH custom job returns warning (Return code: 1). | No                         | mandatory          |
| **Behavior when other job is executing**      | Select the behavior of DH custom job from the following two types.  
- **[Ended Immediately]**  
  When a DH custom job runs during other DH custom job is running, the DH custom job ends immediately.  
- **[Wait for the end of other job]**  
  When a DH custom job runs during other DH custom job is running, the DH custom job waits for the end of previous DH custom job in seconds that you specified.  
  If timeout occurred, the DH custom ends without anything.  
If you select **[Wait for the end of other job]**, specify seconds from 0 to 86,400.  
Furthermore, the DH custom job will be ended with the return code 8 when the previous running DH custom job is a "Receive Custom Job" even though you selected "Ended Immediately" or "Wait for the end of other job". | No                         | mandatory          |

**Supplementary note:**  
- AJS macro variable is a function of JP1/AJS3 for automating the task that includes tasks that changed values during executing jobs.  
  See *JP1/Automatic Job Management System 3 Overview*.  

**Note:**  
- Specify the following folder as the "Receive folder".  
  - A folder that already exists.  
  - A folder that can read or write by OS user who runs the DH custom job.  
  If you don't specify a folder like the above, the execution of the Receive Custom Job will fail.  
- The DH custom job returns code 4 when the following conditions are satisfied.  
  1. "Do not overwrite" is selected in "Behavior for receiving the same name file / folder".  
  2. There is one or more same files in the "Receive folder" when the DH custom job  
  For example, there is the file B in the "Receive folder".  
  And then, you execute a Receive Custom Job that receives the file A, the file B, and the file C.  
  In this case, the Receive Custom Job will receive the file A and the file C, but the Receive Custom Job will skip receiving of the file B.  
  The Receive Custom Job will return code 4.  
  If you don't want to recognize the above case as an error, modify the threshold value of End judgment of the **[Define Details - [Custom Job]]** dialog box.  
- Do not specify, as the file name or the folder name, a path beginning with a network drive name. A network drive is reconnected after a user logs on to Windows. If the user does not log on to Windows, the system may not be able to recognize the path name of the execution file. Specify a path beginning with a computer name such as \computer-name\shared-folder\folder-name. Do not use a path beginning with a network drive name.  
- You can specify a string of from 1 to 255 as "Receive folder". But, when the DH custom job receives a file or a folder, the length of a file name will be:  
  The length of "Receive folder name" + the length of "a file name that the DH custom job received"
So, if the length of file name over the limit of OS, the execution of a DH custom job will be failed. Specify "Receive folder" with considering the length of received filename.

- When a folder is included in contents to receive, the length of the following folders name is necessary: the length of "<Installation folder of JP1/DH - AJE (Job Execution)>\bin\DWClient\work" which is specified as the [Transmission Setting (Receive)] window + the length of "a folder name that the DH custom job received". So, if the length of file name over the limit of OS, the execution of a DH custom job will be failed. When you do the transmission and reception that appointed a folder, specify folder name of the transmission and reception with considering the length of the folder name.
- By the reception for Linux, reception file / folder is made using umask level 000.

### 4.2.4 The [Base Setting] window

The [Base Setting] window defines some information about the "Send/Receive Management Server". For example, the server name of Data Highway - Server, the login ID and the password for Data Highway - Server, and information about proxy server.

Select Base Settings page form the [DH Custom Job Definition] window. The [Base Setting] window will be displayed.

**Figure 4–8: The [Base Setting] window**

The details of items and contents of the [Base Setting] window as follows:

**Table 4–7: The definition items of the [Base Setting] window**

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Description</th>
<th>AJS macro variables allowed</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection server URL</td>
<td>Specify the URL of Data Highway - Server that the DH custom job sends or receives files or folders. This item must be a string of from 1 to 256 characters. Double quote are prohibited characters for this item.</td>
<td>Yes</td>
<td>mandatory</td>
</tr>
<tr>
<td>User ID</td>
<td>Specify the user ID for logging in to the connection server. This item must be a string of from 1 to 256 characters.</td>
<td>Yes</td>
<td>mandatory</td>
</tr>
<tr>
<td>Item Name</td>
<td>Description</td>
<td>AJS macro variables allowed</td>
<td>Specification</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>User ID</td>
<td>The multi-byte character and double quote are prohibited characters for this item.</td>
<td>Yes</td>
<td>mandatory</td>
</tr>
<tr>
<td>Password</td>
<td>Specify the password for logging in to the connection server. This item must be a string of from 1 to 256 characters. Authentication system of the login user appoints a password registered with a directory server of the connection at the time of &quot;LDAP authentication system&quot;. The multi-byte character and double quote are prohibited characters for this item.</td>
<td>No</td>
<td>mandatory</td>
</tr>
<tr>
<td>Set proxy</td>
<td>Select whether the DH custom job use a proxy server or not.</td>
<td>No</td>
<td>optional</td>
</tr>
<tr>
<td></td>
<td>• When check box is not selected, the DH custom job doesn't use proxy server.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• When check box is selected, the DH custom job uses proxy server.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Host name</td>
<td>Specify the host name or the IP address of the proxy server. This item must be a string of from 1 to 256 characters. Double quote are prohibited characters for this item.</td>
<td>Yes</td>
<td>#1</td>
</tr>
<tr>
<td>Port number</td>
<td>Specify the port number of the proxy server. This item must be a number from 0 to 65,535.</td>
<td>Yes</td>
<td>#1</td>
</tr>
<tr>
<td>Auth ID</td>
<td>Specify the authentication ID of the proxy server. This item must be a string of from 1 to 256 characters. The multi-byte character and double quote are prohibited characters for this item.</td>
<td>Yes</td>
<td>#1</td>
</tr>
<tr>
<td>Auth password</td>
<td>Specify the authentication password of the proxy server. This item must be a string of from 1 to 256 characters. The multi-byte character and double quote are prohibited characters for this item.</td>
<td>No</td>
<td>#1</td>
</tr>
</tbody>
</table>

#1 This item is mandatory when "Set proxy" check box is selected.

**Supplementary note:**
- AJS macro variable is a function of JP1/AJS3 for automating the task that includes tasks that changed values during executing jobs. See *JP1/Automatic Job Management System 3 Overview*.

**Note:**
- When you specify the same connection server URL in the basic setting of Receive Custom Jobs, you must specify the same strings. If you specify different strings, those are regarded different connection server URL. For example, "https://dh-server.com" and "https://dh-server.com/" is regarded different connection server URL.
4.3 Execution of a DH custom job

This section describes how to execute a DH custom job.

When you finish that define Jobnet which includes the custom job, you register jobnet for execution with JP1/AJS3 - View.

Check the following points before you register jobnet.

- The user who registers jobnet is the JP1 user who has the privilege to manipulate the custom job.

For more information about registering jobnets for execution, see the manual *JP1/Automatic Job Management System 3 Operator's Guide*.

<table>
<thead>
<tr>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Do not some operation on the connection server of the custom job.(ex: Send, Receive, and remove file). This may cause failure of execution of the custom job.</td>
</tr>
</tbody>
</table>

4.3.1 The execution of multiple DH custom jobs at the same time

Custom jobs that use the same user ID cannot be executed at the same time.

If custom jobs that use the same user ID executes at the same time, only one custom job is executed.

And then, the executions of other custom jobs are as follows and it becomes the error:

1. **If you ran DH Custom Jobs at the same time, and DH Custom Jobs consisted of All Send Custom Jobs or DH Custom Jobs consisted of the combination of some Send Custom Jobs and a Receive Custom Job, and Selected [Ended Immediately] for [Behavior when other job is executing] in All Custom Jobs:**

   All custom jobs except the executing custom job are ended and return code 8.

2. **If you ran DH Custom Jobs at the same time, and DH Custom Jobs consisted of All Send Custom Jobs or DH Custom Jobs consisted of the combination of some Send Custom Jobs and a Receive Custom Job, and Selected [Wait for the end of other job] for [Behavior when other job is executing] in All Custom Jobs:**

   All custom jobs except the executing custom job wait the end of the executing custom job for specified seconds. When the execution custom job is ended, one custom job that is in waiting status is executed. If there is some custom job in waiting status, a custom job is executed randomly. If the seconds that specified as [Behavior when other job is executing] has gone, all custom jobs in waiting status are ended and return code 8.
(3) If you ran DH Custom Jobs at the same time, and DH Custom Jobs consisted of All Receive Custom Jobs:

All custom jobs except the executing custom job are ended immediately and return code 8.

And then, the error message "DWCO1114_E Failed to write to a received list.", "DWCO1115_E Failed to read a received list" or "DWCO1116_E Failed to create a received list." is displayed.

Furthermore, when some custom jobs that specified the same folder as Receive folder are executed at the same time, the error message "DWCO1301_E Failed to receive a file/folder. A file/folder with the same name already exists in the destination folder and cannot be rewritten." may be displayed.

4.3.2 Resume function

Resume function is a function to resume processing without finishing processing immediately, in the range that you appointed with the environmental configuration file, when the disorder that can resume during data transmission and reception occurs, or when the suspended state during data transmission and reception occurs (It is a function to resume stopped transfer halfway).

(1) Control of the resumption

It is not necessary for a user to be conscious of control of the resumption. The DH custom job performs control of the resumption automatically. You set "time before starting the resumption" (the retry interval) and "the number of times to resumption" (the retry number of times) to the environmental configuration file. It resumes processing in the range that you appointed with the environmental configuration file.

(2) Item of the environmental configuration file controlling the resumption

You set "time before starting the resumption" (the retry interval) and "the number of times to resume" (the retry number of times) to the environmental configuration file (config.xml).

You set "items to use at the time of an obstacle" and "items to use at the time of suspended" separately.

- items to use at the time of an obstacle
  ResumeCount, ResumeWaitTime
  In the case of default setting, it establishes the interval of 300 seconds (5 minutes) and resumption is tried 12 times.

- items to use at the time of suspended
  SuspendResumeCount, SuspendResumeWaitTime
  In the case of default setting, it establishes the interval of 3600 seconds (60 minutes) and resumption is tried 24 times.

For more information see 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution).

(3) When resumption failed

Even if it performs resumption for the number of times of the resumption maximum (number of times of a retry) defined as the environment settings file, when the data transmission and reception are not resumed, DH custom job finish abnormally or finish in the state of a stop. Since the resume function is effective only in execution of DH custom job, resumption cannot be performed after DH custom job is completed. When DH custom job finish abnormally or finish in the state of a stop, it is necessary to perform DH custom job again because the data transfer has not completed. And
the data of an abnormal end or a stop in the Data Highway - Server remains till the delivery expired. When you become
unnecessary, delete them with the function of Data Highway - Server.

Note:

- DH custom job does not have functions that change the state of the data transmission and reception to the suspended from all over the
  practice. Function to change to the state of the suspended is offered in Data Highway - Server.
  For details, see the manual JP1/Data Highway - Server System Administrator Guide.

4.3.3 Reception of the delivery in which the storage expiry date has expired

When you are going to receive the delivery in which the storage expiry date has expired, the DH custom job is ended
and return code 4 (end with warning). And then, the error message "DWCO1065_W Cannot receive the delivery because
it expired." is displayed.
4.4 Check the execution result of a DH Custom Job

This section describes how to confirm the custom jobs' progresses and the execution results.

4.4.1 How to check the custom job’s progress

You can check the custom job's progress in JP1/AJS3 - View.

For details, see the manual *JP1/Automatic Job Management System 3 Operator's Guide*.

4.4.2 How to check the custom job execution result

(1) The return code of the DH custom job

You can confirm the result of running of a DH custom job by the return code from a DH custom job.

You can see the return code by the [Jobnet Monitor] window of JP1/AJS3 - View.

For details, see the manual *JP1/Automatic Job Management System 3 System Design (Work Tasks) Guide Checking the return code of a job*.

Figure 4‒9: The return code of [Monitor Details] dialog box

The detail of code and content of return codes of DH custom job are as follows:
Table 4‒8: The codes and contents of the return codes of DH custom job.

<table>
<thead>
<tr>
<th>Return code</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>The DH custom job ended normally. If the DH custom job is a Receive Custom Job, the DH custom job received all files.</td>
</tr>
</tbody>
</table>
| 1           | The DH custom job ended with warning. This code is returned when the following condition is satisfied:  
  - The custom job is a Receive Custom Job.  
  - There is no file that the custom job receives.  
  - "Ended with Warning" is selected for "Behavior in the state without a file / folder to receive" in the custom job. |
| 2           | The DH custom job ended in the state of the suspended. You have to rerun the DH custom job, because The data transmission is not completed. |
| 3           | The DH custom job ended, because transfer denied. You have to rerun the DH custom job, after waiting for a refusal state of the transfer to be removed in the Data Highway - Server side. |
| 4           | The DH custom job ended with warning.  
  - This code is returned when the following condition is satisfied:  
    - Some tasks ended abnormally but other tasks ended normally. |
| 8           | The DH custom job doesn't be executed because of another DH custom job already be running. |
| 16          | The file transfer command ended abnormally. |
| 32          | Java VM ended abnormally. |
| 64          | Java VM could not be run. Confirm the folder name which you appointed in the "install destination folder of library that is used by JP1/DH -AJE (Job Execution) <CmdJreHome>" of Environment configuration file(config.xml). |
| 200         | An error occurred in the interface between JP1/AJS3 - Agent (or JP1/AJS3 - Manager) and JP1/DH - AJE. |
| 201         | An attempt to read the environmental configuration file (config.xml) has failed. |
| 202         | An attempt to output a log has failed. |
| 203         | An attempt to output a command property file has failed. |
| 204         | The custom job could not execute the file transfer command. The causes are as follow:  
  - An attempt to output the message file was failed.  
  - The environmental configuration file was invalid. |
| 205         | An attempt to license management has failed. |
| 206         | The fatal failure occurred in JP1/DH - AJE. |
| 207         | The failure that prevents running of the file transfer command has occurred in JP1/DH - AJE. |
| 209         | An attempt to license management has failed. |

### (2) Execution Result Details

You can see the information that DH custom job has outputted on the [Execution Result Details] dialog box.

The [Execution Result Details] dialog box is displayed by clicking the [Details...] button of the [Monitor Details] dialog box.
(a) When the execution of the custom job has ended normally:

- **Send Custom Job**
  The message that file transfer is ended normally is displayed.
  The following figure is an example:

  **Figure 4–11: An example the [Execution Result Details] dialog box when Send has succeeded**

- **Receive Custom Job**
  The message that file transfer is ended normally is displayed.
  In addition, file names and folder names that the custom job has received is displayed.
  The following figure is an example:
Figure 4–12: An example the [Execution Result Details] dialog box when Receive has succeeded

![Execution Result Details dialog box when Receive has succeeded](image)

(b) When the execution of the custom job has failed:

The error message is displayed.

The following figure is an example:

Figure 4–13: An example the [Execution Result Details] dialog box when a custom job has failed

![Execution Result Details dialog box when a custom job has failed](image)
4.5 The notes for DH Custom Jobs

This section describes the notes of using a DH custom job.

4.5.1 When a DH custom job was terminated forcibly:

When a DH custom job is running, the custom job may be terminated forcibly.

This occurs in the following cases:

- You have terminated the DH custom job forcibly.
- When the Timeout period is specified to the custom job and the timeout has occurred. About Timeout period, see Table 4-3.
- When you choose forcibly termination of the job for stopping services of JP1/AJS3.

In Windows, the file transfer will be continued when the file transfer has running and the DH custom job was terminated forcibly (In Linux, the file transfer will be terminated forcibly).

But "-1" is set to the return code of the custom job by JP1/AJS3, so you cannot confirm whether the file transfer has succeeded or not from the window of JP1/AJS3 - View.

In the above case, confirm the status by the following procedure and solve it.

1. See the operation log file that includes the contents that the DH custom job was forcibly terminated.

2. Judge the status from the contents that was included in the log file.

   The following table shows the contents of operation log file and the status:

   Table 4–9: The contents of the operation log file and the status

<table>
<thead>
<tr>
<th>The contents of the operation log file</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>A</td>
</tr>
<tr>
<td>KDJH9300 Data Highway - Automatic Job Executor (Job Execution) has started.</td>
<td>B</td>
</tr>
<tr>
<td>KDJH9360 Data Highway - Automatic Job Executor (Job Execution) has started to execute the Send file (The data transfer command UPLOAD). Command Line: Command Line</td>
<td>C</td>
</tr>
<tr>
<td>or KDJH9364 Data Highway - Automatic Job Executor (Job Execution) has started to execute the Receive file (The data transfer command DOWNLOAD). Command Line: Command Line</td>
<td></td>
</tr>
<tr>
<td>or KDJH9368 Data Highway - Automatic Job Executor (Job Execution) has started to execute Resume the Send file (The data transfer command RESUME). Command-line : Command Line</td>
<td></td>
</tr>
<tr>
<td>or KDJH9370 Data Highway - Automatic Job Executor (Job Execution) has started to execute Resume the Receive file (The data transfer command RESUME). Command-line : Command Line</td>
<td></td>
</tr>
<tr>
<td>KDJH9361 Data Highway - Automatic Job Executor (Job Execution) has finished executing the Send file (The data transfer command UPLOAD). Command Line: Command Line</td>
<td>D</td>
</tr>
<tr>
<td>or KDJH9365 Data Highway - Automatic Job Executor (Job Execution) has finished executing the Receive file (The data transfer command DOWNLOAD). Command Line: Command Line</td>
<td></td>
</tr>
<tr>
<td>KDJH9301 Data Highway - Automatic Job Executor (Job Execution) has finished its processing</td>
<td>E</td>
</tr>
</tbody>
</table>
The contents of the operation log file

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>KDJH9369 Data Highway - Automatic Job Executor (Job Execution) has finished executing Resume the Send file (The data transfer command RESUME). Return Code: Return code of the data transfer command</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>KDJH9371 Data Highway - Automatic Job Executor (Job Execution) has finished executing Resume the Receive file (The data transfer command RESUME). Return Code: Return code of the data transfer command</td>
</tr>
</tbody>
</table>

3. If the status is "A" or "B", rerun the DH custom job.

4. If the status is "D" or "E" and there is a succeeding job, run the succeeding job.

5. If the status is "C", confirm the status of "Send" or "Receive" by the following procedures:

   1. Log in to the Data Highway - Server using the connection server URL, the User ID, and the password.
   2. If the custom job was a "Send Custom Job", see the Out-box and confirm the result of "Send". If "Send" has ended successfully and there is a succeeding job, run the succeeding job. If "Send" has failed, wait until the transmission is completed.
   3. If the custom job was a "Receive Custom Job", see the In-box and confirm the result of "Receive". If "Receive" has ended successfully and there is a succeeding job, run the succeeding job. If "Receive" has failed and there is a succeeding job, run the succeeding job, after having waited until the reception was completed.

4.5.2 The action if the result of running of a DH custom job is the error or the warning

See the return code of the custom job and investigate the cause, and then solve the problem and rerun the DH custom job. See 4.4.2(1) The return code of the DH custom job about the return code of JP1/DH - AJE.

In addition, if the custom job was a "Receive Custom Job", an incomplete file or a folder may be left in the receive folder which was specified by the DH custom job. In that case, delete an unnecessary file or the folder.

4.5.3 The notes for seeing log files

When you see log files, copy it and see the copied file. Some programs that you use to see the log file impose an exclusive control lock on the log file. If a DH custom job definition window runs or a DH custom job runs during the log file was locked, the log may not output correctly.
This chapter lists the messages that JP1/DH - AJE might output.
5.1 Classification of the messages

The classification of a message is described below.

During operating, the message of JP1/AJS3 which is pre-required program of JP1/DH - AJE and the message of JP1/Base which is pre-required program of JP1/AJS3 will output as well as the message of JP1/DH - AJE.

The following tables show the correspondence between the message ID and their references.

Table 5-1: Correspondence between Message ID and their references which describe the details of the message

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Manual</th>
</tr>
</thead>
<tbody>
<tr>
<td>The message which begin with &quot;KDJIH&quot;</td>
<td>Chapter 5.5 Common Messages  &lt;br&gt; Chapter 5.6 Message of JP1/DH - AJE (Job Definition)  &lt;br&gt; Chapter 5.7 Message of JP1/DH - AJE (Job Execution)  &lt;br&gt; Chapter 5.8 Message of the installer</td>
</tr>
<tr>
<td>The sub-message which begin with &quot;DWCO&quot;</td>
<td>Chapter 5.9 Messages of the data transfer command</td>
</tr>
<tr>
<td>The message which begin with &quot;KAJP&quot;</td>
<td>JP1/Base Messages</td>
</tr>
<tr>
<td>The message which begin with &quot;KAVA&quot;</td>
<td>JP1/Automatic Job Management System 3 Messages</td>
</tr>
<tr>
<td>The message which begin with &quot;KAIU&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KNAM&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KAVC&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KAVS&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KAVT&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KAVU&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KAVV&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KFP&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KNAC&quot;</td>
<td></td>
</tr>
<tr>
<td>The message which begin with &quot;KNAD&quot;</td>
<td></td>
</tr>
</tbody>
</table>
5.2 Message formats

The message formats are described below.

The message formats are constructed from message ID and the message text.

5.2.1 Message formats

(1) The message which begin with "KDJH"

The message formats which are outputted by JP1/DH - AJE are constructed from message ID and the message text. The message formats are as follows.

<table>
<thead>
<tr>
<th>KDJHnnnn-Z Message text</th>
</tr>
</thead>
</table>

Message ID shows the following contents.

K
  Indicates the system ID.

DJH
  Indicates the message is a JP1/DH message.

nnnn
  Displays the message's serial number.

Z
  Indicates the message type.
  
  • E
    "E" means this message is an error message.
    It shows that the system error occurred.
    After output the message, processing is suspended.
  
  • W
    "W" means the message is a warning message.
    It shows that something wrong in the user operation or other.
    After output the message, the processing continues.
  
  • I
    "I" means the information message.
    It provides information to the user.
  
  • Q
    "Q" means the Inquiry message.
    It asks to a user to select an action.

(2) The sub-message which begin with "DWCO"

This outputs the message which the data transfer command outputs as a sub-message to a Contents part of the KDJH9381-E. In addition, this outputs the message which the data transfer command outputs as a sub-message to the KDJH9390-I.
5.3 Format of message explanations

The format to explain the message is as follows.

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Message text</th>
</tr>
</thead>
</table>

Message explanations

(S)
Text indicating the processing performed by the system.

(O)
Text indicating the action to be taken by the operator when the message is output.

Note:
- A part, be described with Italic type in the message text, is changed depending on the state.
5.4 The outputting destination of the message

The outputting destination of the message is described below.

The table below shows the outputting destination where JP1/DH - AJE outputs the each kind of message. Note that the outputting destination is different depending on the types of message.

The outputting destination is described like explanatory notes in the table.

(Explanatory notes)
- stdout: The standard output
- stderr: The standard error output
- Operation log: the operation log file of JP1/DH - AJE.
- Dialog: The message dialog box
- Job Definition: JP1/DH - AJE (Job Definition)
- Job Execution: JP1/DH - AJE (Job Execution)
- --: The message is not output.

Table 5–2: The outputting destination of messages

<table>
<thead>
<tr>
<th>Message ID</th>
<th>stdout</th>
<th>stderr</th>
<th>Operation log</th>
<th>Dialog</th>
</tr>
</thead>
<tbody>
<tr>
<td>KDJH9000-E</td>
<td>--</td>
<td>Job Execution</td>
<td>--</td>
<td>Job Definition</td>
</tr>
<tr>
<td>KDJH9001-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9002-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9003-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9004-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9029-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9039-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9059-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9061-E</td>
<td>--</td>
<td>Job Execution</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>KDJH9062-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9063-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9064-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9065-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9066-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9100-I</td>
<td>--</td>
<td>--</td>
<td></td>
<td>Job Definition</td>
</tr>
<tr>
<td>KDJH9101-I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9130-I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9131-I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9132-I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9133-I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Message ID</td>
<td>Outputting destination</td>
<td>Operation log</td>
<td>Dialog</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>KDJH9102-E</td>
<td>--</td>
<td>stdout</td>
<td>Job Definition</td>
<td></td>
</tr>
<tr>
<td>KDJH9134-E</td>
<td>--</td>
<td>stderr</td>
<td>Job Definition</td>
<td></td>
</tr>
<tr>
<td>KDJH9135-E</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KDJH9136-E</td>
<td>--</td>
<td></td>
<td></td>
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</tbody>
</table>

5. Messages

JP1/Data Highway - Automatic Job Executor Operation manual 77
5.5 Common Messages

KDJH9000-E

The environmental configuration file could not be read. Cause: \textit{Cause-of-error}

The environmental configuration file could not be read.

(S)
Terminates the processing.

(O)
Check the displayed \textit{Cause-of-error}, and remove the error factor with one or more of the procedures described below:

• Check whether the environmental configuration file exists.
• Check whether the execution user of DH Custom Job has the permission to read the environmental configuration file.
• Check whether you do not change the format of the environmental configuration file.
• When you remove the environmental configuration file, copy the template file into the environmental configuration file. When you have spoiled the file, copy the template file and specify the environmental values again as needed.

KDJH9001-E

The contents of the environmental configuration file are invalid. Cause: \textit{Cause-of-error}

The contents of the environmental configuration file are invalid.

(S)
Terminates the processing.

(O)
Check the displayed \textit{Cause-of-error}, and remove the error factor with one or more of the procedures described below:

• Check whether you do not change the tag name of the setting items in the environmental configuration file.
• Check whether the settings you specified in the environmental configuration file is valid.

KDJH9002-E

An unexpected error occurred during the reading of the environmental configuration file. Cause: \textit{Cause-of-error}

An unexpected error occurred during the reading of the environmental configuration file.

(S)
Terminates the processing.

(O)
Contact the system administrator.
KDJH9003-E
An installation folder name of the program cannot be acquired.

An installation folder name of the program cannot be acquired.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9004-E
An unexpected error occurred during the reading of property file name

An unexpected error occurred during the reading of property file name.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9029-E
An unexpected error occurred during the reading of the environmental configuration file. Terminates the processing of Data Highway - Automatic Job Executor.

An unexpected error occurred during the reading of the environmental configuration file.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9039-E
An unexpected error occurred. Terminates the processing of Data Highway - Automatic Job Executor.

An unexpected error occurred during the booting of JP1/DH - AJE.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9059-E
A log file cannot be output. Cause: Cause-of-error Terminates the processing of Data Highway - Automatic Job Executor.

An operation log file or an internal trace log file cannot be output.
(S)
Terminates the processing.

(O)
Check the displayed Cause-of-error, and remove the error factor with one or more of the procedures described below:

- Check whether the folder name which you specified as the log output folder in the environmental configuration file is valid.
- Check whether the execution user has the permission to write the folder which you specified as the log output folder in the environmental configuration file.
- Check whether other users access the log file so that the log file is locked.

KDJH9061-E

Failed to load license management library. Details: Details

Failed in the road of the license management library.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9062-E

The product information registration file could not be read. Details: Details

Failed in the reading of the product information registration file.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9063-E

The form of the product information registration file is wrong. Details: Details

Form injustice of the product information registration file.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9064-E

The product information registration file is not found. Or the product information of the confirmation target does not exist in the product information registration file. Details: Details
A product information registration file does not exist or there is not product information for the confirmation in a product information registration file.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9065-E
An error occurred in license management library. Details: Details

An error occurred in a license management library.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9066-E
An unexpected error occurred in license management library. Details: Details

An unanticipated error occurred in a license management library.

(S)
Terminates the processing.

(O)
Contact the system administrator.
5.6 Message of JP1/DH - AJE (Job Definition)

**KDJH9100-I**

<table>
<thead>
<tr>
<th>Data Highway - Automatic Job Executor (Job Definition) has started.</th>
</tr>
</thead>
</table>

JP1/DH - AJE (Job Definition) has started.

(S) None

(O) None

**KDJH9101-I**

<table>
<thead>
<tr>
<th>Data Highway - Automatic Job Executor (Job Definition) has finished its processing.</th>
</tr>
</thead>
</table>

JP1/DH - AJE (Job Definition) has finished its processing.

(S) None

(O) None

**KDJH9102-E**

<table>
<thead>
<tr>
<th>Data Highway - Automatic Job Executor (Job Definition) cannot start. Details: Detailed-information</th>
</tr>
</thead>
</table>

JP1/DH - AJE (Job Definition) cannot start.

(S) Terminates the processing.

(O) JP1/AJS3-View triggers JP1/DH - AJE (Job Definition) to start. Otherwise, JP1/DH - AJE (Job Definition) cannot start. If the message is output when you use JP1/AJS3-View to trigger JP1/DH - AJE (Job Definition), contact the system administrator.

**KDJH9110-E**

<table>
<thead>
<tr>
<th>Boot program has failed getting the installation path of Data Highway - Automatic Job Executor (Job Definition). : Detailed-information, Error code : Error Code</th>
</tr>
</thead>
</table>

The boot program of JP1/DH - AJE (Job Definition) has failed getting the installation path of JP1/DH - AJE (Job Definition).

(S) Terminates the processing.

(O) Contact the system administrator and request removal of the cause of an error.
KDJH9111-E
Boot program of Data Highway - Automatic Job Executor (Job Definition) has failed with an unexpected error.

The boot program of JP1/DH - AJE (Job Definition) has failed with an unexpected error.

(S)
Terminates the processing.

(O)
Contact the system administrator and request removal of the cause of an error.

KDJH9112-E
Boot program of Data Highway - Automatic Job Executor (Job Definition) has failed outputting to a log file.
Cause: Cause-of-error.

The boot program of JP1/DH - AJE (Job Definition) has failed outputting to a log file.

(S)
Terminates the processing.

(O)
Contact the system administrator and request removal of the cause of an error.

KDJH9129-E
Because an unexpected error occurred, Data Highway - Automatic Job Executor (Job Definition) finished the processing.

An unexpected error occurred in JP1/DH - AJE (Job Definition).

(S)
Terminates the processing.

(O)
Contact the system administrator and request removal of the cause of an error.

KDJH9130-I
Data Highway - Automatic Job Executor (Job Definition) starts to read the Custom Job definition file.

JP1/DH - AJE (Job Definition) starts to read the Custom Job definition file.

(S)
None

(O)
None

KDJH9131-I
Data Highway - Automatic Job Executor (Job Definition) has finished reading the Custom Job definition file.

JP1/DH - AJE (Job Definition) has finished reading the Custom Job definition file.
<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>KDJH9132-I</td>
<td><strong>Data Highway - Automatic Job Executor (Job Definition) starts to write the Custom Job definition file.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>JP1/DH - AJE (Job Definition) starts to write the Custom Job definition file.</strong></td>
</tr>
<tr>
<td></td>
<td>None</td>
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<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>KDJH9133-I</td>
<td><strong>Data Highway - Automatic Job Executor (Job Definition) has finished writing the Custom Job definition file.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>JP1/DH - AJE (Job Definition) has finished writing the Custom Job definition file.</strong></td>
</tr>
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<td>None</td>
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<td></td>
<td>None</td>
</tr>
<tr>
<td>KDJH9134-E</td>
<td>An attempt to read the Custom Job definition file has failed. Details: Detailed-information Cause: Cause-of-error</td>
</tr>
<tr>
<td></td>
<td>An attempt to read the Custom Job definition file has failed.</td>
</tr>
<tr>
<td></td>
<td>Terminates the processing.</td>
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<tr>
<td></td>
<td>Contact the system administrator and request removal of the cause of an error.</td>
</tr>
<tr>
<td>KDJH9135-E</td>
<td>The form of the Custom Job definition file is wrong. Details: Detailed-information</td>
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<td></td>
<td>The form of the Custom Job definition file is wrong.</td>
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<td></td>
<td>Terminates the processing.</td>
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<tr>
<td></td>
<td>When this error occurred during the definition of the DH Custom Job after modifying the invalid config.xml, click the cancel button on the Detail Definition - Custom Job window and define the DH Custom Job again.</td>
</tr>
</tbody>
</table>
When you clicked the OK button on the Detail Definition - Custom Job window after this error occurred and created the DH Custom Job, delete the job and define the DH Custom Job again.

With except for the above-mentioned case, if you do not define the job with the following method before executing JP1/DH - AJE (Job Definition), then contact the system administrator.

- As one of the method to define the job, you can register the job by executing the ajsdefine command after you defined the unit in the Unit Definition File. If you registered the custom job of JP1/DH - AJE by this method, remove the error factor after you confirmed the information which contained in the message with the Unit Definition File. In addition, for more information the Unit Definition File, refer to the manual JP1/Automatic Job Management System 3 Command Reference.

KDJH9136-E

An attempt to output the Custom Job definition file has failed. Details: Detailed-information Cause: Cause-of-error

An attempt to output the Custom Job definition file has failed.

(S)
Terminates the processing.

(O)
Check the displayed cause-of-error, and remove an error factor.

- If the detailed-information mentions a particular filename, make sure that an execution user has the permission to write and read the file or the storage folder of the file.

KDJH9160-E

Specify the valid Name of Recipients. The Name of Recipients must be either the character string of no more than 30 characters or the Job Management Partner 1/AJS3 macro variable.

In addition, the sign ( / \ ? * : | "<>@^) cannot be used for the Name of Recipients. The Name of Recipients consists of a blank only or a period (.) only cannot be used, either.

The specified Name of Recipients is invalid.

(S)
Returns to the previous window.

(O)
Check whether the value you specified as the Name of Recipients is valid, and if the value is invalid please specify the valid one.

KDJH9161-E

Specify the valid E-mail address of Recipients. The E-mail address of Recipients must be either the character string of no more than 256 characters or the Job Management Partner 1/AJS3 macro variable.

In addition, the sign ( : " ) cannot be used for The E-mail address of Recipients.

The E-mail address of Recipients is invalid.

(S)
Returns to the previous window.
Check whether the value you specified as the E-mail address of Recipients is valid, and if the value is invalid please specify the valid one.

**KDJH9162-E**

Specify the valid Division of Recipients. The Division of Recipients must be either the character string of no more than 30 characters or the Job Management Partner 1/AJS3 macro variable. In addition, the sign ( ; "') cannot be used for Division of Recipients.

The Division of Recipients is invalid.

(S)

Returns to the previous window.

(O)

Check whether the value you specified as the Division of Recipients is valid, and if the value is invalid please specify the valid one.

**KDJH9163-E**

Specify the valid Subject. The Subject must be either the character string of no more than 30 characters or the Job Management Partner 1/AJS3 macro variable. In addition, the sign ("') cannot be used for Subject.

The specified Subject is invalid.

(S)

Returns to the previous window.

(O)

Check whether the value you specified as the Subject is valid, and if the value is invalid please specify the valid one.

**KDJH9164-E**

Specify the valid Message text. The Message text must be either the character string of no more than 1000 characters or the Job Management Partner 1/AJS3 macro variable. In addition, the sign ("') cannot be used for Message text.

The specified Message text is invalid.

(S)

Returns to the previous window.

(O)

Check whether the value you specified as the Message text is valid, and if the value is invalid please specify the valid one.

**KDJH9165-E**

Specify the valid Send Files/Folders. The Send Files/Folders must be either the character string of no more than 255 characters or the Job Management Partner 1/AJS3 macro variable.

5. Messages
In addition, the sign (") cannot be used for Send Files/Folders.

The specified Send Files/Folders is invalid.

(S)
  Returns to the previous window.

(O)
  Check whether the value you specified as the Send Files/Folders is valid, and if the value is invalid please specify the valid one.

**KDJH9166-E**

Specify the valid Open password. The Open password must be the alphanumeric character or sign which is more than 6 and no more than 32 and consists of more than 2 of 4 types (number, English lower-case character, English upper-case character, sign). The following character can be used for a sign.

! "#$%&'()*+,-./:;<=>?@\]^_`{|}~

The specified Open password is invalid.

(S)
  Returns to the previous window.

(O)
  Check whether the value you specified as the Open password is valid, and if the value is invalid please specify the valid one.

**KDJH9167-E**

Specify the valid Wait for the end of other job. The Wait for the end of other job must be the number within the range from 0 to 86400.

The specified Wait for the end of other job is invalid.

(S)
  Returns to the previous window.

(O)
  Check whether the value you specified as the Wait for the end of other job is invalid is valid, and if the value is invalid please specify the valid one.

**KDJH9168-E**

Specify the valid E-mail address of Recipients. The E-mail address of Recipients is mandatory.

There is the Recipients as which the E-mail address/group name is not specified.

(S)
  Returns to the previous window.

(O)
  Specify the E-mail address/group name into the Recipients.
Specify the valid Confirm open password. Open password differs from Confirm open password.

Open password differs from Confirm open password.

(S)
Returns to the previous window.

(O)
Specify the same contents as Open password as Confirm open password.

Specify the valid Receive folder. The Receive folder must be either the character string of no more than 255 characters or the Job Management Partner 1/AJS3 macro variable. In addition, the sign (") cannot be used for Receive folder.

The specified Receive folder is invalid.

(S)
Returns to the previous window.

(O)
Check whether the value you specified as the Receive folder is valid, and if the value is invalid please specify the valid one.

Specify the valid Wait for the end of other job. The Wait for the end of other job must be the number within the range from 0 to 86400.

The specified Wait for the end of other job is invalid.

(S)
Returns to the previous window.

(O)
Check whether the value you specified as the Wait for the end of other job is invalid is valid, and if the value is invalid please specify the valid one.
Specify the valid Connection server URL. The Connection server URL must be either the character string of no more than 256 characters or the Job Management Partner 1/AJS3 macro variable.

The specified Connection server URL is invalid.

(S) Returns to the previous window.

(O) Check whether the value you specified as the Connection server URL is valid, and if the value is invalid please specify the valid one.

Specify the valid User ID. The User ID must be either the character string of no more than 256 characters or the Job Management Partner 1/AJS3 macro variable.

The specified User ID is invalid.

(S) Returns to the previous window.

(O) Check whether the value you specified as the User ID is valid, and if the value is invalid please specify the valid one.

Specify the valid Password. The Password must be the character string of no more than 256 characters.

The specified Password is invalid.

(S) Returns to the previous window.

(O) Check whether the value you specified as the Password is valid, and if the value is invalid please specify the valid one.

Specify the valid Host name of Set proxy. The Host name of Set proxy must be either the character string of no more than 256 characters or the Job Management Partner 1/AJS3 macro variable.

The specified Host name of Set proxy is invalid.

(S) Returns to the previous window.

(O) Check whether the value you specified as the Host name of Set proxy is valid, and if the value is invalid please specify the valid one.
KDJH9214-E
Specify the valid Port number of Set proxy. The Port number of Set proxy must be either the number within the range from 0 to 65535 or the Job Management Partner 1/AJS3 macro variable.

The specified Port number of Set proxy is invalid.

(S)
Returns to the previous window.

(O)
Check whether the value you specified as the Port number of Set proxy is valid, and if the value is invalid please specify the valid one.

KDJH9215-E
Specify the valid Auth ID of Set proxy. The Auth ID of Set proxy must be either the character string of no more than 256 characters or the Job Management Partner 1/AJS3 macro variable.

The specified Auth ID of Set proxy is invalid.

(S)
Returns to the previous window.

(O)
Check whether the value you specified as the Auth ID of Set proxy is valid, and if the value is invalid please specify the valid one.

KDJH9216-E
Specify the valid Auth password of Set proxy. The Auth password of Set proxy must be the character string of no more than 256 characters.

The specified Auth password of Set proxy is invalid.

(S)
Returns to the previous window.

(O)
Check whether the value you specified as the Auth password of Set proxy is valid, and if the value is invalid please specify the valid one.

KDJH9250-E
An unexpected error occurred during the booting of Data Highway - Automatic Job Executor (Job Definition).
Details: Detailed-information, Error code: Error Code
An unexpected error occurred during the booting of JP1/DH - AJE (Job Definition).

(S)
Terminates the processing.

(O)
Contact the system administrator and request removal of the cause of an error.
An unexpected error occurred during the executing of JP1/DH - AJE (Job Definition).

(S)
Terminates the processing.

(O)
Contact the system administrator and request removal of the cause of an error.
5.7 Message of JP1/DH - AJE (Job Execution)

KDJH9300-I

Data Highway - Automatic Job Executor (Job Execution) has started.

JP1/DH - AJE (Job Execution) has started.

(S) None

(O) None

KDJH9301-I

Data Highway - Automatic Job Executor (Job Execution) has finished its processing.

JP1/DH - AJE (Job Execution) has finished its processing.

(S) None

(O) None

KDJH9302-E

Data Highway - Automatic Job Executor (Job Execution) cannot start.

(S) Terminates the processing.

(O) JP1/AJS3-Manager/Agent triggers JP1/DH - AJE (Job Execution) to start. Otherwise, JP1/DH - AJE (Job Execution) cannot start. If the message is output when you use JP1/AJS3 to trigger JP1/DH - AJE (Job Execution), contact the system administrator.

KDJH9310-E

Boot program has failed getting the installation path of Data Highway - Automatic Job Executor (Job Execution). :

Detailed-information, Error code : Error Code

The boot program of JP1/DH - AJE (Job Execution) has failed getting the installation path of JP1/DH - AJE (Job Execution).

(S) Terminates the processing.

(O) Contact the system administrator and request removal of the cause of an error.
KDJH9311-E
Boot program of Data Highway - Automatic Job Executor (Job Execution) has failed with an unexpected error.

The boot program of JP1/DH - AJE (Job Execution) has failed with an unexpected error.

(S)
Terminates the processing.

(O)
Contact the system administrator and request removal of the cause of an error.

KDJH9330-E
The form of the Custom Job definition is wrong. Details: Parameter name

The form of the DH Custom Job definition which JP1/DH - AJE (Job Execution) tried to execute is invalid.

(S)
Terminates the processing.

(O)
If you defined the Job Definition with the import function of JP1/AJS3, import it again after confirming the contents or re-create it after removing the job which you defined. If the message is output when you do not use the import function, contact the system administrator.

KDJH9331-E
An attempt to output the Command Property File has failed. Cause: Cause-of-error

An attempt to output the Command Property File has failed.

(S)
Terminates the processing.

(O)
Check the displayed Cause-of-error, and remove an error factor.

▪ If the Cause-of-error mentions a particular filename, make sure that an execution user has the permission to write and read the file or the storage folder of the file.

KDJH9332-E
An attempt to output the Message File has failed. Cause: Cause-of-error

An attempt to output the Message File has failed.

(S)
Terminates the processing.

(O)
Check the displayed Cause-of-error, and remove an error factor.

▪ If the Cause-of-error mentions a particular filename, make sure that an execution user has the permission to write and read the file or the storage folder of the file.
KDJH9333-E

The Received list management file could not be read. Cause: *Cause-of-error*

The file which a system uses could not be read. (The Received list is the file which the system is using.)

(S)
Terminates the processing.

(O)
Check the displayed *Cause-of-error*, and remove an error factor.

• Make sure the folder which is defined at `<RecvListDir>` in the environment setting file of the Job execution program exist. When the folder exists, make sure that an execution user has the permission to read the file or the storage folder. For more information `<RecvListDir>`, refer to 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution).

KDJH9334-E

The contents of the Received list management file are invalid. Cause: *Cause-of-error*

The contents of the file which a system uses are invalid. (The Received list is the file which the system is using.)

(S)
Terminates the processing.

(O)
Check the displayed *Cause-of-error*, and remove the error factor with one or more of the procedures described below:

• Overwrite the folder which is defined at `<RecvListDir>` in the backed up environment setting file of the Job execution program. For more information, refer to 6.4.2 Restore of JP1/DH - AJE (Job Execution).

• If there is no backup file, delete files under the folder which is defined at `<RecvListDir>` in the environment setting file of the Job execution program. Then the file which has already been received may be received again. For more information `<RecvListDir>`, refer to 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution).

KDJH9335-E

An unexpected error occurred during the reading of the Received list management file. Cause: *Cause-of-error*

An unexpected error occurred during the reading of the file which a system uses. (The Received list is the file which the system is using.)

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9336-E

An unexpected error occurred during the reading of the Received list management file. Terminates the processing of Data Highway - Automatic Job Executor.

5. Messages
An unexpected error occurred during the reading of the file which a system uses. (The Received list is the file which the system is using.)

(S)
Terminates the processing.

(O)
Contact the system administrator.

**KDJH9337-E**

The sign (≠"<>|^\%) and a space cannot be specified in the same item. Cause: *Cause-of-error*

DH Custom Job cannot be executed because the sign (≠"<>|^\%) and a space are specified in the same item on the Custom Job Definition.

(S)
Terminates the processing.

(O)
If you defined the Job Definition with the import function of JP1/AJS3, import it again after confirming the contents or re-create it after removing the job which you defined. If the message is output when you do not use the import function, contact the system administrator.

**KDJH9338-E**

The sign (") cannot be specified. Cause: *Cause-of-error*

DH Custom Job cannot be executed because the sign (") is specified on the Custom Job Definition.

(S)
Terminates the processing.

(O)
If you defined the Job Definition with the import function of JP1/AJS3, import it again after confirming the contents or re-create it after removing the job which you defined. If the message is output when you do not use the import function, contact the system administrator.

**KDJH9340-I**

The environment variable was set up. The environment variable : DW_CMD_JRE_HOME=*Installation folder of JAVA* USERNAME=*User name* USERNAME(HASH)=*Hash value of user name* TMP=*Temporary folder*

Job execution program set up the environment variable.

(S)
None

(O)
None

**KDJH9350-I**

The other process is processing the Received list management file. The analysis processing the Received list management file is executed again.
Two or more processes accessed simultaneously for the file which a system uses. (The Received list is the file which the system is using.)

(S)
After having waited for monitoring interval, the program continues processing.

(O)
When this message is output in succession, and DH custom job becomes the error.

• Please delete it if the lock file which a system uses exists, for Linux.
  Lock file name:
  In Windows:
The folder that is defined as <RecvListDIR> in the environmental configuration file of JP1/DH - AJE (JobExecution)/recvuserlist.xml.lck
  In Linux:
  /opt/jp1dh/aje/aje/recvlist/recvuserlist.xml.lck
• If you executed DH custom job concurrently, please review the maximum number of concurrently executable jobs.

KDJH9360-I
Data Highway - Automatic Job Executor (Job Execution) has started to execute the Send file (The data transfer command UPLOAD). Command-line : Command-line

JP1/DH - AJE (Job Execution) has started executing the Send file (The data transfer command UPLOAD).
(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

(S)
  None

(O)
  None

KDJH9361-I
Data Highway - Automatic Job Executor (Job Execution) has finished executing the Send file (The data transfer command UPLOAD). Command-line : Command-line

JP1/DH - AJE (Job Execution) has finished executing the Send file (The data transfer command UPLOAD).
(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

(S)
  None

(O)
  None

KDJH9362-I
Send file (The data transfer command UPLOAD) ended normally.
Send file *(The data transfer command UPLOAD)* ended normally.

(In Windows, the part of *the data transfer command* displays it with DWClient.bat. In Linux, the part of *the data transfer command* displays it with DWClient.sh.)

(S) None

(O) None

**KDJH9363-E**

An error occurred during the processing of Send file *(The data transfer command UPLOAD).*

An error occurred during the processing of Send file *(The data transfer command UPLOAD).*

(In Windows, the part of *the data transfer command* displays it with DWClient.bat. In Linux, the part of *the data transfer command* displays it with DWClient.sh.)

(S) Terminates the processing.

(O) Confirm the sub-message on the Execution Result Details dialog which is outputted by DH Custom Job, or confirm the sub-message on the KDJH9390-I which is outputted by DH Custom Job, and make a request to the Send file again after removing the error factor.

**KDJH9364-I**

Data Highway - Automatic Job Executor (Job Execution) has started to execute the Receive file *(The data transfer command DOWNLOAD).* Command-line : *Command-line*

JP1/DH - AJE (Job Execution) has started to execute the Receive file *(The data transfer command DOWNLOAD).*

(In Windows, the part of *the data transfer command* displays it with DWClient.bat. In Linux, the part of *the data transfer command* displays it with DWClient.sh.)

(S) None

(O) None

**KDJH9365-I**

Data Highway - Automatic Job Executor (Job Execution) has finished executing the Receive file *(The data transfer command DOWNLOAD).* Command-line : *Command-line*

JP1/DH - AJE (Job Execution) has finished executing the Receive file *(The data transfer command DOWNLOAD).*

(In Windows, the part of *the data transfer command* displays it with DWClient.bat. In Linux, the part of *the data transfer command* displays it with DWClient.sh.)
Receive file (The data transfer command DOWNLOAD) ended normally.

(Receive file (The data transfer command DOWNLOAD) ended normally.  
(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

KDJH9367-E
An error occurred during the processing of Receive file (The data transfer command DOWNLOAD).

An error occurred during the processing of Receive file (The data transfer command DOWNLOAD).  
(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

(S) Terminates the processing.

(O) Confirm the sub-message on the Execution Result Details dialog which is outputted by DH Custom Job, or confirm the sub-message on the KDJH9390-I which is outputted by DH Custom Job, and make a request to the Receive file again after remove the error factor.

KDJH9368-I
Data Highway - Automatic Job Executor (Job Execution) has started to execute resumption the Send file (The data transfer command RESUME). Command-line : Command Line

Data Highway - Automatic Job Executor (Job Execution) has started to execute resumption the Send file (The data transfer command RESUME).  
(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

(S) None

(O) None
Data Highway - Automatic Job Executor (Job Execution) has finished executing resumption the Send file (The data transfer command RESUME). Return Code: Return code of the data transfer command.

Data Highway - Automatic Job Executor (Job Execution) has finished executing resumption the Send file (The data transfer command RESUME).

(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

(S)
None

(O)
None

Data Highway - Automatic Job Executor (Job Execution) has started to execute resumption the Receive file (The data transfer command RESUME). Command-line: Command Line

Data Highway - Automatic Job Executor (Job Execution) has started to execute resumption the Receive file (The data transfer command RESUME).

(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

(S)
None

(O)
None

Data Highway - Automatic Job Executor (Job Execution) has finished executing resumption the Receive file (The data transfer command RESUME). Return Code: Return code of the data transfer command.

Data Highway - Automatic Job Executor (Job Execution) has finished executing resumption the Receive file (The data transfer command RESUME).

(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

(S)
None

(O)
None

5. Messages

AJ SJOBNAME: Job name, AJS_AJSCONF: Scheduler service name, AJSEXECID: Job execution ID, JobID: Job number, COMMAND: (UPLOAD or DOWNLOAD), Return Code: Return code of the data transfer command.
The send/receive data command displays the above result when the command ended normally.

(\(S\))

None

(\(O\))

The send/receive data command displays this message when the command ended normally.

- The value outputted to AJSJOBNAME, AJS_AJSCONF, AJSEXECID and JobID is the value of environment variable which is set by JP1/AJS3. Use the command when you need to specify the job of JP1/AJS3. For more information the environment variable, refer to the manual *JP1/Automatic Job Management System 3 Command Reference*.
- The value outputted to COMMAND indicates the send/receive data command which was executed by JP1/AJS3 is whether the send command or the receive command.
- The return code of the send/receive data command is outputted to Return Code.

**KDJH9381-E**

| AJSJOBNAME: Job name, AJS_AJSCONF: Scheduler service name, AJSEXECID: Job execution ID, JobID: Job number, COMMAND: (UPLOAD or DOWNLOAD), Return Code: Return code of the data transfer command, Contents: The message starts with Message ID(DWCxxxx-E) among messages the data transfer command displays.(If two or more messages exist, display message which is combined with comma (,) and these messages.) |

The send/receive data command displays the above result when the command ended abnormally.

(\(S\))

Terminates the processing.

(\(O\))

The send/receive data command displays this message when the command ended abnormally. Confirm the contents of error which occurred during the executing of the send/receive data command, and make a request to execute the send/receive data command again after removing the error factor.

- Check whether the settings you specified in the DH Custom Job Definition window is valid.
- Check whether the settings of Data Highway - Server you specified is valid.
- The value outputted to AJSJOBNAME, AJS_AJSCONF, AJSEXECID and JobID is the value of environment variable which is set by JP1/AJS3. Use the command when you need to specify the job of JP1/AJS3. For more information the environment variable, refer to the manual *JP1/Automatic Job Management System 3 Command Reference*.
- The value outputted to COMMAND indicates the send/receive data command which was executed by JP1/AJS3 is whether the send command or the receive command.
- The return code of the send/receive data command is outputted to Return Code.
- The error message of the executed send/receive data command is displayed in the Contents.

This message is displayed when there are no files to receive and you selected "Ended with Warning" at "Behavior in the state without a file/folder to receive" on the Receive custom job dialog. In this case, message "Receiving file not found." is displayed in the Contents.

**KDJH9390-I**

*The sub-message on the Execution Result Details dialog which is outputted by DH Custom Job*
The sub-message on the Execution Result Details dialog which is outputted by DH Custom Job is outputted line by line.

(S)
None

(O)
None

KDJH9460-E
An unexpected error occurred. Details: *Detailed-information*

An unexpected error occurred.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9461-E
An exception occurred during the executing of the command. Command name: *Command name* Details: *Detailed-information*

An exception occurred during the executing of the command.

(S)
Terminates the processing.

(O)
Contact the system administrator.

KDJH9462-E
The data transfer command cannot start.

The data transfer command cannot start.

(In Windows, the part of the data transfer command displays it with DWClient.bat. In Linux, the part of the data transfer command displays it with DWClient.sh.)

(S)
Terminates the processing.

(O)
Check the following contents and request again after remove the error factor.
- If the data transfer command does not exist, perform an overwrite installation to recover the data transfer command.
5.8 Message of the installer

KDJH9901-E
This platform is unsupported. Installation will now be cancelled.

You are going to install the product into the unsupported platform.

(S)
Installation will now be cancelled.

(O)
Install the product into the supported platform.

KDJH9902-E
The login account does not have the permissions necessary for installation or un-installation.
Please log in as a user with administrator permissions.

The login account does not have the administrator permissions.

(S)
The installation or un-installation has finished, and the system returns to the before situation which the installer executes.

(O)
Install or uninstall with the administrative account.

KDJH9903-E
The specified installation folder path is too long.
Specify the installation folder path again.

The specified installation folder path is too long.

(S)
Return to the specification dialog of installation folder path.

(O)
Specify the valid installation folder path. The installation folder path must be the character string of no more than 45bytes.

KDJH9904-E
The specified folder: 'The specified folder path' is invalid, incomplete or cannot be writable.

The specified folder is invalid, incomplete or cannot be writable.

(S)
Return to the specification dialog of installation folder path.

(O)
Specify the writable folder as installation folder path.
KDJH9905-E
Unable to overwrite installation because the new version of Data Highway - Automatic Job Executor has already been installed. Install the Data Highway - Automatic Job Executor again after un-installation of the installed Data Highway - Automatic Job Executor.

You are trying to perform a version down.

(S)
Installation will now be cancelled.

(O)
Unable to install with version down. Install JP1/DH - AJE again after un-installing the new version of JP1/DH - AJE.

KDJH9906-E
Unable to overwrite installation because the registry information could not be acquired. Install Data Highway - Automatic Job Executor again after un-installing the installed Data Highway - Automatic Job Executor.

Unable to overwrite installation because the registry information could not be acquired.

(S)
The installation or un-installation has finished, and the system returns to the before situation which the installer executes.

(O)
Install or uninstall with the administrative account.

KDJH9907-E
An attempt to install the Hitachi trace library has failed. (Detailed-information) Contact the system administrator.

An attempt to install the Hitachi trace library has failed.

(S)
Installation will now be cancelled.

(O)
Check the permissions of folders and files under the following folder.

System drive\Program Files# \Hitachi

If the installation media has been invalid, contact the developing agency.

#
If your operating system is Windows 64 bits version, interpret "Program files" as "Program files (x86)".

KDJH9908-E
An unexpected error occurred. (Detailed-information) Contact the system administrator.

An unexpected error occurred.

(S)
Installation will now be cancelled.
Check the permissions of installation folder path, and install JP1/DH - AJE again. When the error still occurred, get the installation logs and contact the developing agency.

Normally, the installation logs are outputted to the following folder.

Windows folder\Temp\HCDINST

The default of Windows folder is "C:\WINDOWS ".

<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>KDJH9909-E</td>
<td>An attempt to install the Hitachi Java library has failed. <em>(Detailed-information)</em> Contact the system administrator.</td>
</tr>
<tr>
<td></td>
<td>An attempt to install the Hitachi Java library has failed.</td>
</tr>
<tr>
<td></td>
<td>(S) Installation will now be cancelled.</td>
</tr>
<tr>
<td></td>
<td>(O) Contact the system administrator and request removal of the cause of an error.</td>
</tr>
<tr>
<td>KDJH9921-E</td>
<td>Failed to load license management library.</td>
</tr>
<tr>
<td></td>
<td>Failed in the road of the license management library.</td>
</tr>
<tr>
<td></td>
<td>(S) Installation will now be cancelled.</td>
</tr>
<tr>
<td></td>
<td>(O) Contact the system administrator and request removal of the cause of an error.</td>
</tr>
<tr>
<td>KDJH9922-E</td>
<td>An error occurred in license management library. <em>(Details)</em></td>
</tr>
<tr>
<td></td>
<td>An error occurred in a license management library.</td>
</tr>
<tr>
<td></td>
<td>(S) Installation will now be cancelled.</td>
</tr>
<tr>
<td></td>
<td>(O) Contact the system administrator and request removal of the cause of an error.</td>
</tr>
<tr>
<td>KDJH9923-E</td>
<td>Unable to overwrite installation because the evaluation version of the different version of Data Highway - Automatic Job Executor has already been installed. Install the Data Highway - Automatic Job Executor again after un-installation of the installed Data Highway - Automatic Job Executor.</td>
</tr>
<tr>
<td></td>
<td>The overwrite installation for evaluation version varying in a version.</td>
</tr>
</tbody>
</table>
Installation will now be cancelled.

Cannot install, a version in different evaluation copy. Please install it again after a version uninstalled different evaluation copy.

KDJH9924-E

Unable to overwrite installation of the evaluation version over the product version of Data Highway - Automatic Job Executor. Install the Data Highway - Automatic Job Executor again after un-installation of the installed Data Highway - Automatic Job Executor.

The overwrite installation from product version to evaluation version.

Installation will now be cancelled.

Cannot install from product version to evaluation version. Please install it again after uninstalling a product version.

KDJH9925-E

The registration time limit of the license passed. Contact the system administrator.

The registration time limit of the license passed.

Installation will now be cancelled.

Contact the system administrator and confirm the registration time limit of the license.
The list of messages of the data transfer command is as follows.

### Table 5-3: The list of messages

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Message contents</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWCO1001_I</td>
<td>Command start.</td>
<td>Notify that the data transfer command has been started.</td>
</tr>
<tr>
<td>DWCO1002_I</td>
<td>Command finished.</td>
<td>Notify that the data transfer command was finished.</td>
</tr>
<tr>
<td>DWCO1031_I</td>
<td>Ready to sending is started. (Command Line Arguments: {0})</td>
<td>Notify that the ready to sending is started. Command Line Arguments is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1032_I</td>
<td>Ready to sending is ended. (Delivery ID: {0})</td>
<td>Notify that the ready to sending is ended. Delivery ID is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1036_I</td>
<td>Sending a file to the server is started. (File/Folder path: {0}, File/Folder size: {1} Byte, Last modified time: {2})</td>
<td>Notify that the sending a file to the server is started.</td>
</tr>
<tr>
<td></td>
<td>{0} : File/Folder path</td>
<td>{1} : File/Folder size</td>
</tr>
<tr>
<td></td>
<td>{2} : Last modified time</td>
<td></td>
</tr>
<tr>
<td>DWCO1037_I</td>
<td>Sending a file to the server is ended. (File ID: {0}, File/Folder size: {1} Byte, Last modified time: {2})</td>
<td>Notify that the sending a file to the server is ended.</td>
</tr>
<tr>
<td></td>
<td>{0} : File ID</td>
<td>{1} : File/Folder size</td>
</tr>
<tr>
<td></td>
<td>{2} : Last modified time</td>
<td></td>
</tr>
<tr>
<td>DWCO1041_I</td>
<td>Sending files completed.</td>
<td>Notify that sending files was completed.</td>
</tr>
<tr>
<td>DWCO1042_I</td>
<td>Calculation of the file digest was skipped.</td>
<td>Notify that calculation of the file digest was skipped.</td>
</tr>
<tr>
<td>DWCO1043_I</td>
<td>Calculation of the file digest is started. (File/Folder path: {0}, File/Folder size: {1} Byte, Last modified time: {2})</td>
<td>Notify that the calculation of the file digest is started.</td>
</tr>
<tr>
<td></td>
<td>{0} : File/Folder path</td>
<td>{1} : File/Folder size</td>
</tr>
<tr>
<td></td>
<td>{2} : Last modified time</td>
<td></td>
</tr>
<tr>
<td>DWCO1044_I</td>
<td>Calculation of the file digest is ended. (Digest: {0}, File/Folder size: {1} Byte, Last modified time: {2})</td>
<td>Notify that the calculation of the file digest is ended.</td>
</tr>
<tr>
<td></td>
<td>{0} : Digest</td>
<td>{1} : File/Folder size</td>
</tr>
<tr>
<td></td>
<td>{2} : Last modified time</td>
<td></td>
</tr>
<tr>
<td>DWCO1051_I</td>
<td>Ready to receiving is started. (Command Line Arguments: {0})</td>
<td>Notify that the ready to receiving is started. Command Line Arguments is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1052_I</td>
<td>Ready to receiving is ended. (Number of new file: {0})</td>
<td>Notify that the ready to receiving is ended. Number of new file is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1056_I</td>
<td>Receiving a file from the server is started. (Delivery ID: {0}, File ID: {1}, File/Folder path: {2}, File/Folder size: {3})</td>
<td>Notify that the receiving a file from the server is started.</td>
</tr>
<tr>
<td></td>
<td>{0} : Delivery ID</td>
<td>{1} : File ID</td>
</tr>
<tr>
<td></td>
<td>{2} : File/Folder path</td>
<td>{3} : File/Folder size</td>
</tr>
<tr>
<td>DWCO1057_I</td>
<td>Receiving a file from the server is ended. (Delivery ID: {0}, File ID: {1}, File/Folder path: {2}, File/Folder size: {3}, Last modified time: {4})</td>
<td>Notify that the receiving a file from the server is ended.</td>
</tr>
<tr>
<td></td>
<td>{0} : Delivery ID</td>
<td>{1} : File ID</td>
</tr>
<tr>
<td></td>
<td>{2} : File/Folder path</td>
<td>{3} : File/Folder size</td>
</tr>
<tr>
<td></td>
<td>{4} : Last modified time</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DWCO1057_I</td>
<td>Receiving a file from the server is ended. (Delivery ID: {0}, File ID: {1}, File/Folder path: {2}, File/Folder size: {3}, Last modified time: {4})</td>
<td>{4} : Last modified time</td>
</tr>
</tbody>
</table>
| DWCO1059_I | Moving a file is started. (Source path: {0}, Destination path: {1}, File/Folder size: {2}, Last modified time: {3}) | Notify that the moving a file is started. {0} : Source path  
{1} : Destination path  
{2} : File/Folder size  
{3} : Last modified time |
| DWCO1060_I | Moving a file is ended. (Source path: {0}, Destination path: {1}, File/Folder size: {2}, Last modified time: {3}) | Notify that the moving a file is ended. {0} : Source path  
{1} : Destination path  
{2} : File/Folder size  
{3} : Last modified time |
| DWCO1061_I | Received a file/folder. (Delivery ID: {0}, File ID: {1}, File/Folder name: {2}) | Notify that the delivery was received. The following contents are outputted for each parameter.  
{0} : Delivery ID  
{1} : File ID  
{2} : File/Folder name |
| DWCO1062_I | A file/folder was overwritten because a file/folder with the same name already exists. (Delivery ID: {0}, File ID: {1}, File/Folder name: {2}) | Notify that the file/folder was overwritten because the same name file/folder was already existed in the output folder. The following contents are outputted for each parameter.  
{0} : Delivery ID  
{1} : File ID  
{2} : File/Folder name |
| DWCO1063_W | Cannot receive a file/folder. It might be caused by the following reasons. The delivery expired. The number of times you download this file is limited. You exceeded your download limit. (Delivery ID: {0}, File ID: {1}, File/Folder name: {2}) | Cannot receive the delivery because of the following reasons.  
• The delivery expired.  
• The number of times you download this file is limited.  
• You exceeded your download limit. Although the download of this delivery is skipped, the delivery is added to the Received List File. If you want to receive this delivery when this limitation is cancelled, refer to Delivery ID and receive the delivery by Web. The following contents are outputted for each parameter.  
{0} : Delivery ID  
{1} : File ID  
{2} : File/Folder name |
<p>| DWCO1064_W | The delivery contains only message. (Delivery ID: {0}) | Although files are not downloaded because the delivery contains only message, the delivery is treated as finishing receiving. Delivery ID is outputted to {0} parameter. |
| DWCO1065_W | Cannot receive the delivery because it expired. (Delivery ID: {0}) | Cannot receive the delivery because it expired. Although the download of this delivery is skipped, the delivery is added to the Received List File. Delivery ID is outputted to {0} parameter. |</p>
<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
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</tr>
</thead>
<tbody>
<tr>
<td>DWCO1066_W</td>
<td>Cannot receive the delivery because the sender was deleted or inactivated or there is no available delivery rule. (Delivery ID: {0})</td>
<td>Cannot receive the delivery because the sender was inactivated or deleted or there is no available delivery rule. Although the download of this delivery is skipped, the delivery is added to the Received List File. Delivery ID is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1067_W</td>
<td>Cannot receive the delivery because the delivery was deleted just before you started downloading or the approver of the delivery was deleted. (Delivery ID: {0})</td>
<td>Cannot receive the delivery because the delivery was deleted just before you started downloading or the approver of the delivery was deleted. Although the download of this delivery is skipped, the delivery is added to the Received List File. Delivery ID is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1068_W</td>
<td>Failed to verify the file/folder. (Delivery ID: {0}, File ID: {1}, File/Folder name: {2})</td>
<td>Failed to verify the file/folder which was downloaded. The downloaded file is deleted. (The file on the Server is not deleted.) The download of this delivery is skipped. The following contents are outputted for each parameter. {0} : Delivery ID {1} : File ID {2} : File/Folder name</td>
</tr>
<tr>
<td>DWCO1069_W</td>
<td>Cannot receive a file/folder because the file/folder was deleted. (Delivery ID: {0}, File ID: {1}, File/Folder name: {2})</td>
<td>Cannot download because the file was deleted. Although the download of this delivery is skipped, the delivery is added to the Received List File. The following contents are outputted for each parameter. {0} : Delivery ID {1} : File ID {2} : File/Folder name</td>
</tr>
<tr>
<td>DWCO1070_W</td>
<td>Cannot receive the delivery because a file/folder with the same name already exists. (Delivery ID: {0}, File ID: {1}, File/Folder name: {2})</td>
<td>Notify that the download was skipped because the same name file/folder was already existed in the output folder. The following contents are outputted for each parameter. {0} : Delivery ID {1} : File ID {2} : File/Folder name</td>
</tr>
<tr>
<td>DWCO1071_I</td>
<td>Verification of the file digest was skipped.</td>
<td>Notify that verification of the file digest was skipped.</td>
</tr>
<tr>
<td>DWCO1101_E</td>
<td>An option [{0}] must be specified only once.</td>
<td>Do not specify two or more same options. Two or more specified options are outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1102_E</td>
<td>Arguments must be a pair of an option key and its value.</td>
<td>The option key only or value only was specified to argument of the date transfer command. Specify the pair of the option key and its value.</td>
</tr>
<tr>
<td>DWCO1103_E</td>
<td>Option [{0}] is invalid.</td>
<td>Specify the valid option. The invalid option is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1104_E</td>
<td>Please Specify option [{1}].</td>
<td>The indispensable option is not specified. Specify the indispensable option. The indispensable option is outputted to {1} parameter.</td>
</tr>
<tr>
<td>DWCO1105_E</td>
<td>Please specify option [{1}] within [{0}] characters.</td>
<td>The number of characters of the value which is specified to the option is over the maximum number of characters of the option.</td>
</tr>
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</table>

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<th>Code</th>
<th>Description</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>DWCO1106_E</td>
<td>The maximum number of email addresses you can specify to [-to</td>
<td>-cc</td>
</tr>
<tr>
<td></td>
<td>The maximum number of the email address which can be specified is outputted to (0) parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1107_E</td>
<td>An email address must be between ([1]) and ([2]) characters.</td>
<td>Check the number of characters of the email address.</td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>(1) : The minimum number of characters of the email address</td>
</tr>
<tr>
<td></td>
<td>(2) : The maximum number of characters of the email address</td>
<td></td>
</tr>
<tr>
<td>DWCO1108_E</td>
<td>The number of files you can specify to [-file] must be between ([1]) and ([2]).</td>
<td>Check the number of specified files.</td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>(1) : The minimum number of files which can be specified to [-file] option</td>
</tr>
<tr>
<td></td>
<td>(2) : The maximum number of files which can be specified to [-file] option</td>
<td></td>
</tr>
<tr>
<td>DWCO1109_E</td>
<td>The specified files/folders do not exist or cannot be read. (Path: (0))</td>
<td>Check the following condition.</td>
</tr>
<tr>
<td></td>
<td>• The certificate file is existed in the specified file/folder.</td>
<td>• The certificate file is existed in the specified file/folder.</td>
</tr>
<tr>
<td></td>
<td>• The command has the permission to read the certificate file.</td>
<td>• The command has the permission to read the certificate file.</td>
</tr>
<tr>
<td></td>
<td>• The character code of the certificate file is suitable.</td>
<td>• The character code of the certificate file is suitable.</td>
</tr>
<tr>
<td></td>
<td>The path of the specified file/folder is outputted to (0) parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1110_E</td>
<td>Please specify an integer number between ([1]) to ([2]) for option ([3]).</td>
<td>Specify the integer number which is in the suitable range for the option.</td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>(1) : The minimum number of integer of the option which can be specified</td>
</tr>
<tr>
<td></td>
<td>(2) : The maximum number of integer of the option which can be specified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) : Option</td>
<td></td>
</tr>
<tr>
<td>DWCO1112_E</td>
<td>The settings of Command Property File is wrong. (Setting: (0), Value: (1))</td>
<td>The setting of the Command Property File (property.xml) is wrong. Check the following setting.</td>
</tr>
<tr>
<td></td>
<td>• &quot;PASSWORD&quot; or &quot;CERTIFICATION&quot; is specified for Authentication method.</td>
<td>• &quot;PASSWORD&quot; or &quot;CERTIFICATION&quot; is specified for Authentication method.</td>
</tr>
<tr>
<td></td>
<td>• When &quot;Login by Certification&quot; is specified for Authentication method, the path of the certificate file is specified.</td>
<td>• When &quot;Login by Certification&quot; is specified for Authentication method, the path of the certificate file is specified.</td>
</tr>
<tr>
<td></td>
<td>• When &quot;Login by Certification&quot; is specified for Authentication method, the password of the certificate file is specified.</td>
<td>Execute again after modifying the setting.</td>
</tr>
<tr>
<td></td>
<td>Execute again after modifying the setting.</td>
<td>The following contents are outputted for each parameter.</td>
</tr>
<tr>
<td></td>
<td>(0) : The item name of the setting</td>
<td>(0) : The item name of the setting</td>
</tr>
<tr>
<td></td>
<td>(1) : The value of the setting</td>
<td>(1) : The value of the setting</td>
</tr>
<tr>
<td>DWCO1113_E</td>
<td>The selected files/folders do not exist or cannot be read. (Path: (0))</td>
<td>Check the following condition.</td>
</tr>
<tr>
<td></td>
<td>• The specified file/folder is existed.</td>
<td>• The specified file/folder is existed.</td>
</tr>
<tr>
<td></td>
<td>• The command has the permission to write the specified file/folder.</td>
<td>• The command has the permission to write the specified file/folder.</td>
</tr>
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</table>
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<tr>
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<tr>
<td>DWCO1113_E</td>
<td>The selected files/folders do not exist or cannot be read. (Path: {0})</td>
<td>The path of the specified file/folder is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO1114_E</td>
<td>Failed to write to a received list. (Path: {0})</td>
<td>Check the command has the permission to write the specified Received List File.</td>
</tr>
<tr>
<td></td>
<td>The path of the specified Received List File is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1115_E</td>
<td>Failed to read a received list. (Path: {0})</td>
<td>Check the command has the permission to read the specified Received List File.</td>
</tr>
<tr>
<td></td>
<td>The path of the specified Received List File is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1116_E</td>
<td>Failed to create a received list. (Path: {0})</td>
<td>Check the command has the permission to write the path of the specified Received List File.</td>
</tr>
<tr>
<td></td>
<td>The path of the specified Received List File is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1117_E</td>
<td>Please specify option either [{0}] or [{1}].</td>
<td>Specify option either -message or -messagefile.</td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>{0} : The message (-message option)</td>
</tr>
<tr>
<td></td>
<td>{1} : The message file (-messagefile option)</td>
<td></td>
</tr>
<tr>
<td>DWCO1118_E</td>
<td>Cannot specify an unnecessary parameter. (parameter: {0})</td>
<td>Cannot appoint an unnecessary value.</td>
</tr>
<tr>
<td></td>
<td>The unnecessary parameter is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1121_E</td>
<td>Please specify message in a file within [{2}] characters.</td>
<td>Specify the message in the file within 4096 characters. 4096 is outputted to {2} parameter.</td>
</tr>
<tr>
<td>DWCO1122_E</td>
<td>An open password must be between [{1}] and [{2}] characters.</td>
<td>Check the number of characters of the open password.</td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>{1} : The minimum number of characters of the open password</td>
</tr>
<tr>
<td></td>
<td>{2} : The maximum number of characters of the open password</td>
<td></td>
</tr>
<tr>
<td>DWCO1123_E</td>
<td>An open password must be between [{1}] and [{2}] characters and must contain two or more types of characters.</td>
<td>Check the number of characters and the type of the open password.</td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>{1} : The minimum number of characters of the open password</td>
</tr>
<tr>
<td></td>
<td>{2} : The maximum number of characters of the open password</td>
<td></td>
</tr>
<tr>
<td>DWCO1124_E</td>
<td>An open password includes restricted strings.</td>
<td>The open password includes restricted strings.</td>
</tr>
<tr>
<td>DWCO1130_E</td>
<td>Please specify a name between [{0}] and [{1}] characters.</td>
<td>Check the number of characters of the name.</td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>{0} : The minimum number of characters of the name</td>
</tr>
<tr>
<td></td>
<td>{1} : The maximum number of characters of the name</td>
<td></td>
</tr>
<tr>
<td>DWCO1131_E</td>
<td>A name includes restricted strings.</td>
<td>Specify the string which can be used for the name again. Cannot use the following symbol for the name.</td>
</tr>
<tr>
<td></td>
<td>Specifying the string which can be used for the name again.</td>
<td>/ \ ? * :</td>
</tr>
<tr>
<td></td>
<td>In addition, the name which consists of only blanks or only period (.) cannot be used.</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
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</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DWCO1132_E</td>
<td>You can specify options[-toname</td>
<td>-ccname</td>
</tr>
<tr>
<td>DWCO1133_E</td>
<td>Please specify a between [0] and [1] characters.</td>
<td>Check the number of characters of the division. The following contents are outputted for each parameter. {0} : The minimum number of characters of the division {1} : The maximum number of characters of the division</td>
</tr>
<tr>
<td>DWCO1134_E</td>
<td>You can specify options[-todivision</td>
<td>-ccdivision</td>
</tr>
<tr>
<td>DWCO1135_E</td>
<td>A group name must be between [0] and [1] characters.</td>
<td>Check the number of characters of the group name. The following contents are outputted for each parameter. {0} : The minimum number of characters of the group name {1} : The maximum number of characters of the group name</td>
</tr>
<tr>
<td>DWCO1142_E</td>
<td>Please specify a address type [TO</td>
<td>CC</td>
</tr>
<tr>
<td>DWCO1143_E</td>
<td>Number of columns in the destination file is missing. (Path:{0}, line:{1}, Value:{2})</td>
<td>Number of columns of address which was appointed in the destination file is missing. The following contents are outputted for each parameter. {0} : The destination file path {1} : Line {2} : Number of columns</td>
</tr>
<tr>
<td>DWCO1144_E</td>
<td>An email address must be between [0] and [1] characters. (Path:{2}, line:{3}, Value:{4})</td>
<td>Check the number of characters of the email address which was appointed in the destination file. The following contents are outputted for each parameter. {0} : The minimum number of characters of the email address {1} : The maximum number of characters of the email address {2} : The destination file path {3} : Line {4} : The specified value</td>
</tr>
<tr>
<td>DWCO1145_E</td>
<td>A group name must be between [0] and [1] characters. (Path:{2}, line:{3}, Value:{4})</td>
<td>Check the number of characters of the group name which was appointed in the destination file. The following contents are outputted for each parameter.</td>
</tr>
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<thead>
<tr>
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</tr>
</thead>
</table>
| DWCO1145_E   | A group name must be between [{0}] and [{1}] characters. (Path:{2}, line:{3}, Value:{4})                                                                                                                   | {0} : The minimum number of characters of the group name  
{1} : The maximum number of characters of the group name  
{2} : The destination file path  
{3} : Line  
{4} : The specified value                                           |
| DWCO1146_E   | Please specify a name between [{0}] and [{1}] characters. (Path:{2}, line:{3}, Value:{4})                                                                                                                   | Check the number of characters of the name which was appointed in the destination file.  
The following contents are outputted for each parameter.  
{0} : The minimum number of characters of the name  
{1} : The maximum number of characters of the name  
{2} : The destination file path  
{3} : Line  
{4} : The specified value                                           |
| DWCO1147_E   | A name includes restricted strings. (Path:{0}, line:{1}, Value:{2})                                                                                                                                               | Specify the string which can be used for the name which was appointed in the destination file.  
Cannot use the following symbol for the name.  
/\?*:\"<>@^  
In addition, the name which consists of only blanks or only period (.) cannot be used.  
The following contents are outputted for each parameter.  
{0} : The destination file path  
{1} : Line  
{2} : The specified value                                           |
| DWCO1148_E   | Please specify a division between [{0}] and [{1}] characters. (Path:{2}, line:{3}, Value:{4})                                                                                                                  | Check the number of characters of the division which was appointed in the destination file.  
The following contents are outputted for each parameter.  
{0} : The minimum number of characters of the division  
{1} : The maximum number of characters of the division  
{2} : The destination file path  
{3} : Line  
{4} : The specified value                                           |
| DWCO1149_E   | The maximum number of email addresses/group names you can specify to [-destinationfile] is [{0}].                                                                                                               | The address which was appointed in the destination file is over the maximum number of the address which can be specified.  
The maximum number of the address which can be specified is outputted to {0} parameter. |
<p>| DWCO1201_E   | User authentication failed.                                                                                                                                                                                  | The user authentication for Data Highway - Server was failed. Check the User ID or Password which is defined in the Command Property File. |
| DWCO1203_E   | Failed to delete log files which expires.                                                                                                                                                                   | The data transfer command cannot be executed because the password expires. Specify the new password. |
| DWCO1207_E   | LDAP authentication system error occurred.                                                                                                                                                                  | An error occurred by the connection to a directory server by LDAP authentication system.      |
| DWCO1301_E   | Failed to receive a file/folder. A file/folder with the same name already exists in the destination folder and cannot be rewritten. (Delivery ID:{0}, File ID:{1}, Path:{2}) | Cannot overwrite this file or folder because the same name file or folder is already existed in the specified destination folder. Check the file or folder. |</p>
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Reason</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWCO1301_E</td>
<td>Failed to receive a file/folder. A file/folder with the same name already</td>
<td>The following contents are outputted for each parameter.</td>
<td>{0} : Delivery ID, {1} : File ID, {2} : Path</td>
</tr>
<tr>
<td></td>
<td>exists in the destination folder and cannot be rewritten. (Delivery ID: {0},</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>File ID: {1}, Path: {2})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWCO1302_E</td>
<td>Failed to receive a file/folder. The saved file/folder in a temporary folder</td>
<td>Cannot move the file which was saved in the temporary disk space to the</td>
<td>{0} : Delivery ID, {1} : File ID, {2} : Path</td>
</tr>
<tr>
<td></td>
<td>cannot be moved to the destination folder. (Delivery ID: {0}, File ID: {1},</td>
<td>specified destination folder. Check the permission of the destination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Path: {2})</td>
<td>folder to access. The file is saved in the temporary disk space, so move</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>it to the destination folder. The following contents are outputted for</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>each parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1303_E</td>
<td>Failed to receive a file/folder. (Delivery ID: {0}, File ID: {1}, Details:</td>
<td>The following reasons are considered.</td>
<td>{0} : Delivery ID, {1} : File ID, {2} : Details of reason</td>
</tr>
<tr>
<td></td>
<td>{2})</td>
<td>• The delivery was deleted just before receiving files.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The user who was executing receiving was deleted.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The other reason.</td>
<td></td>
</tr>
<tr>
<td>DWCO1304_E</td>
<td>Failed to create a folder. (Path: {0})</td>
<td>Check the command has the permission to create the folder, and execute</td>
<td>{0} : Path</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the command with the user who has the permission to create the folder.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The file path is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1305_E</td>
<td>Failed to create a folder because a file with the same name already exists</td>
<td>There is the file whose name is the same as the name of folder the</td>
<td>{0} : Path</td>
</tr>
<tr>
<td></td>
<td>in the destination folder. (Path: {0})</td>
<td>command creates. Execute the command again after deleting the file.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The folder path is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1401_E</td>
<td>Failed to send files. (Details: {0})</td>
<td>Failed to send files. Refer to the Details reason, and improve the</td>
<td>{0} : Details of reason</td>
</tr>
<tr>
<td></td>
<td></td>
<td>setting of Users, Groups and Delivery Rules.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Details reason is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1402_E</td>
<td>Failed to get delivery rules. Please check the destinations.</td>
<td>Failed to get the Delivery Rules which is applied all of the specified</td>
<td>{0} : Path</td>
</tr>
<tr>
<td></td>
<td></td>
<td>addresses. Improve the settings of the address.</td>
<td></td>
</tr>
<tr>
<td>DWCO1403_E</td>
<td>The capacity of selected files was over the limitation. (File path: {0},</td>
<td>Make the size of the sending file within the limitation of file size.</td>
<td>{0} : File path of the sending file, {1} : Byte</td>
</tr>
<tr>
<td></td>
<td>File size: {1} Byte)</td>
<td>The following contents are outputted for each parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1404_E</td>
<td>The total size of specified files is over the maximum size of the delivery</td>
<td>Make the total size of the sending file within the limitation of total</td>
<td>{0} : Total size of the specified sending file, {1} : Maximum total size</td>
</tr>
<tr>
<td>Code</td>
<td>Message</td>
<td>Details</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>DWCO1405_E</td>
<td>The number of receivers is over the maximum number of the delivery policy. (Specified receivers:{0}, Maximum number of receivers:{1})</td>
<td>Make the number of the specified address within the maximum number of address.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>{0} : The number of the specified address</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{1} : Maximum number of address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWCO1406_E</td>
<td>The number of files is over the maximum number of the delivery policy. (Specified files:{0}, Maximum number of files:{1})</td>
<td>Make the number of the specified sending file within the maximum number of files.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>{0} : The number of the specified sending file</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{1} : Maximum number of files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWCO1407_E</td>
<td>Failed to send files. If the sender is a guest user,</td>
<td>Check the execution parameter is correct.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If the sender is a guest, check the Limit Number of Uses.</td>
<td>If the sender is a guest, check the Limit Number of Uses.</td>
<td></td>
</tr>
<tr>
<td>DWCO1408_E</td>
<td>The capacity of selected files was over the limitation. You can send each file up to 3.96 bytes when you use compress options. (File path:{0}, File size: {1}Byte)</td>
<td>The capacity of selected files was over the limitation. Make each file size within 3.96 GB.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>{0} : File path</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{1} : File size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWCO1409_E</td>
<td>Open password (-openpassword option) is needed to send to unregistered addresses.</td>
<td>The open password (-openpassword option) is not specified. Execute the command again after specifying the open password (-openpassword option).</td>
<td></td>
</tr>
<tr>
<td>DWCO1410_E</td>
<td>The capacity of selected folder was over the limitation. You can send each folder up to 3.96 bytes. (Folder path:{0}, Folder size:{1}Byte)</td>
<td>The capacity of selected folder was over the limitation. Make each folder size within 3.96 GB.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The following contents are outputted for each parameter.</td>
<td>{0} : Folder path</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{1} : Folder size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWCO1411_E</td>
<td>A number of files and folders in a folder were over the limitation. You can send the number of files and folders in each folder up to {0}. (Folder path:{1}, Folder/File num: {2}).</td>
<td>A number of files and folders in a folder were over the limitation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{0} : Maximum number of Folder/File</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>{1} : Folder/File path</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>{2} : Folder/File num</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWCO1412_E</td>
<td>The specified group does not exist or is not a group that can be sent. (Group name:{0})</td>
<td>Check the address group. The group name is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1501_I</td>
<td>Log files which expires have been deleted.</td>
<td>Notify that log files were deleted.</td>
<td></td>
</tr>
<tr>
<td>DWCO1502_I</td>
<td>Failed to delete log files which expires.</td>
<td>Notify that the deletion of log files was failed.</td>
<td></td>
</tr>
<tr>
<td>DWCO1705_E</td>
<td>Failed to parse a XML. (Details: {0})</td>
<td>The format of the Server Parameter File is invalid. Improve the format of the file. Details reason is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1706_E</td>
<td>Failed to generate a XML. (Details: {0})</td>
<td>Contact a system administrator. Details reason is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1803_E</td>
<td>Failed to output information of deliveries to a XML file. (Path:{0})</td>
<td>Check the command has the permission to write the specified file. The path of XML file is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Additional Information</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>DWCO1901_E</td>
<td>An unexpected error occurred.</td>
<td>An unexpected error occurred. The server may be busy. Execute the command again later. If the same error occurs when you execute the command again and again, contact a technical support. And, the execution user may be deleted on executing the command. Contact a representation user or a group administrator.</td>
<td></td>
</tr>
<tr>
<td>DWCO1902_E</td>
<td>Unable to start the application because initialization of logs failed.</td>
<td>The contents of the Log Setting File have errors. If you re-install this application, this error may be resolved.</td>
<td></td>
</tr>
<tr>
<td>DWCO1903_E</td>
<td>Unable to start the application because reading message files failed.</td>
<td>The contents of the Setting File have errors. If you re-install this application, this error may be resolved.</td>
<td></td>
</tr>
<tr>
<td>DWCO1904_E</td>
<td>Unable to start the application because reading setting files failed.</td>
<td>The contents of the Setting File have errors. If you re-install this application, this error may be resolved.</td>
<td></td>
</tr>
<tr>
<td>DWCO1905_E</td>
<td>Cannot use a temporary folder. (Path: {0})</td>
<td>The data transfer command uses the temporary folder. Check the command has the permission to write files in the temporary disk space which was described in the log. The path of the temporary folder is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1906_E</td>
<td>An error occurred in connection with the server. (Details: {0})</td>
<td>Refer to the Details reason, and improve the network settings. The Details reason is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1907_E</td>
<td>The server is busy. Please try again later.</td>
<td>The server is busy and it returns the HTTP status code 503 (Service Unavailable). Execute the command again later.</td>
<td></td>
</tr>
<tr>
<td>DWCO1908_E</td>
<td>The session have been time-out. Please try again.</td>
<td>The session has been timed-out. Login again.</td>
<td></td>
</tr>
<tr>
<td>DWCO1909_E</td>
<td>The server returned an error. (Details: {0})</td>
<td>Refer to the Details reason, and improve the setting of Users, Groups and Delivery Rules. The Details reason is outputted to {0} parameter.</td>
<td></td>
</tr>
<tr>
<td>DWCO1911_E</td>
<td>The operation of getting a lock for concurrent control timed out.</td>
<td>The data transfer command has already been executed in the same PC. Since the data transfer command cannot be executed at the same time, execute it again after the executing data transfer command is finished. And, the command may have not the permission to write to temporary folders. Check the suitable temporary folder is specified. When the command is cooperated with JP1/DH - AJE, check the existence and writing permission of the folder which is specified at SendRecvTemp tag in the Environment Setting File (config.xml).</td>
<td></td>
</tr>
<tr>
<td>DWCO1912_E</td>
<td>The connection with the server for communication of a file/folder failed.</td>
<td>Since the server is busy, the connection with the server for communication is failed. Execute the command again later.</td>
<td></td>
</tr>
<tr>
<td>DWCO1913_E</td>
<td>The server returned an error. Server does not support this command.</td>
<td>The command or command option that the server does not support is used. Check support of the server.</td>
<td></td>
</tr>
<tr>
<td>DWCO1999_E</td>
<td>Unable to start the application.</td>
<td>Failed in start of The data transfer command. Contact a system administrator.</td>
<td></td>
</tr>
<tr>
<td>DWCO2201_W</td>
<td>The file transfer was suspended by the server command.</td>
<td>The command was suspended by the server command. When you resume the file transfer, execute the RESUME command.</td>
<td></td>
</tr>
</tbody>
</table>

5. Messages

JP1/Data Highway - Automatic Job Executor Operation manual
<p>| DWCO2202_E | The file transfer was canceled by the server command. | The command was canceled by the server command. Cannot resume the file transfer. When you want to send/receive files again, send/receive newly. |
| DWCO2203_E | The file transfer was canceled because the function of file transfer is invalid. | Contact a system administrator, and request the permission to transfer files. |
| DWCO2206_E | Cannot specify [-resumestatus] option because the compress method is set to delivery policy. | When the command is not cooperated with JP1/DH - AJE, specify &quot;No compression&quot; to Compress Level of Delivery Policy. When the command is cooperated with JP1/DH - AJE and when Compress Method of Delivery Policy can be chosen, specify &quot;Extended&quot; to Compress Method of Delivery Policy. |
| DWCO2207_E | Cannot specify [-resumestatus] option because of including folders. (Path:{0}) | When the command is not cooperated with JP1/DH - AJE, specify the sending files except for folders again. When the command is cooperated with JP1/DH - AJE and when Compress Method of Delivery Policy can be chosen, specify &quot;Extended&quot; to Compress Method of Delivery Policy. The file path is outputted to {0} parameter. |
| DWCO2221_E | Failed to read a resuming status file. (Path:{0}) | Check whether the resumption information file is existed and readable. The file path is outputted to {0} parameter. |
| DWCO2222_E | Failed to write a resuming status file. (Path:{0}) | Check whether the resumption information file is existed and writable. In the case, the command may be unable to resume the sending/receiving. When the command cannot resume, send/receive newly. The file path is outputted to {0} parameter. |
| DWCO2301_I | Resuming sending files was completed. | Resuming sending files was completed. |
| DWCO2302_E | Failed to resume sending. (Details:{0}) | Correspond according to the Details reason. In the case, the command may be unable to resume the sending. When the command cannot resume the sending, send with the UPLOAD command newly. The Details reason is outputted to {0} parameter. |
| DWCO2303_E | Failed to resume sending because of changing the file. (Path:{0}) | Cannot resume the sending because the file has been changed. When you want to send again, send with the UPLOAD command newly. The file path is outputted to {0} parameter. |
| DWCO2304_E | Failed to resume sending because the delivery is not exist. (Delivery ID:{0}) | Cannot resume the sending because the delivery is not existed. Send with the UPLOAD command newly. The Delivery ID is outputted to {0} parameter. |
| DWCO2305_E | Failed to resume sending because the delivery is not send by command. (Delivery ID:{0}) | Cannot resume the delivery which is not sent with the sending command. Send with the UPLOAD command newly. The Delivery ID is outputted to {0} parameter. |
| DWCO2306_E | Failed to resume sending. It may be that the delivery has been cancelled or the sending has already been completed. (Delivery ID:{0}) | The sending has been canceled or completed. When you want to send again, send with the UPLOAD command newly. The Delivery ID is outputted to {0} parameter. |
| DWCO2307_E | Failed to resume sending. It may be that the delivery rule or the delivery policy is changed / deleted. | Delivery Rules, Delivery Policy and Address User which were used at sending newly may be changed or deleted. Execute again after returning the setting of them. |</p>
<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWCO2308_E</td>
<td>Failed to resume sending because the compress method is set to delivery policy.</td>
<td>Specify &quot;No compression&quot; to Compress Level of Delivery Policy.</td>
</tr>
<tr>
<td>DWCO2309_W</td>
<td>Failed to resume sending because the previous sending process is ongoing. Please try again later. (Delivery ID: {0})</td>
<td>Cannot resume the sending because the previous sending process is ongoing on the server. Execute the command again later. The Delivery ID is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO2310_E</td>
<td>Failed to resume sending because the delivery was expired. (Delivery ID: {0})</td>
<td>Cannot resume the sending because the delivery was expired. When you want to send again, send with the UPLOAD command newly. The Delivery ID is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO2321_I</td>
<td>Resuming a receiving file was completed.</td>
<td>Resuming a receiving file was completed.</td>
</tr>
<tr>
<td>DWCO2322_E</td>
<td>Failed to resume receiving. (Details: {0})</td>
<td>Correspond according to the Details reason. In the case, the command may be unable to resume the receiving. When the command cannot resume the sending, send with the UPLOAD command newly. The Details reason is outputted to {0} parameter.</td>
</tr>
<tr>
<td>DWCO2401_E</td>
<td>This operation is not permitted. Please check that a user is right. (Details: {0})</td>
<td>Execute again by a suitable user. The Details reason is outputted to {0} parameter.</td>
</tr>
</tbody>
</table>
This chapter describes how to solve problems that occurred in JP1/DH - AJE.
6.1 The procedure to solve problems

This section describes the procedure to solve problems.

1. Confirmation of the problem
   Confirm the problem when the trouble occurs. See the message that is outputted to the operation log file, the dialog box, and the [Execution Result Details] dialog box of JP1/AJS3 - View. See 5.5 Common Messages - 5.9 Messages of the data transfer command about the cause of the message and the solve procedures. In addition, see 6.2 The types of log files and the storage folders of log file about the messages that are outputted by JP1/DH - AJE. If you couldn't find the outputted message in 5.5 Common Messages - 5.9 Messages of the data transfer command, the message may be a message of JP1/AJS3 or JP1/Base. In this case, see 5.1 Classification of the messages and see the suitable manual to solve the trouble.

2. Corrective action
   See 6.5 Corrective actions for each problems and solve the trouble.

3. Collection data for troubleshooting
   When you can't solve the problem, you need to collect data for troubleshooting. See 6.3 The data to be collected when you can't solve a problem and collect data for troubleshooting. After collecting data, contact to the system administrator.

4. Restore
   If you have already backup JP1/DH - AJE, you can restore JP1/DH - AJE to the status that you made backup.
6.2 The types of log files and the storage folders of log file

This section describes the types of log files and the storage folders of log file.

6.2.1 The type of log files

The log files that are outputted by JP1/DH - AJE are as follows:

(1) Operation log file

This file stores the operation log of the JP1/DH - AJE.

There are two log files.

The operation log file for JP1/DH - AJE (Job Definition) and the operation log file for JP1/DH - AJE (Job Execution).

(a) The file path

\%AllUsersProfile\%\Hitachi\jp1\jp1_default\JP1DH\AJE\AJED\log\dhajed_information\[x\].log

\%AllUsersProfile\% shows the environment variable of the Windows (Common data storage folder for all users).

\[x\] is the number of backup files of the operation log file.

\[x\] is the integer value from 1 to the maximum number of the backup files.

The maximum number of the backup files is defined as InfoLogBackCount in the environmental configuration file.

For detail about InfoLogBackCount, see 3.3.1(1) Environmental configuration file for JP1/DH - AJE (Job Definition).

• The file path of the operation log for JP1/DH - AJE (Job Execution)

1. In Windows

\%AllUsersProfile\%\Hitachi\jp1\jp1_default\JP1DH\AJE\AJEE\log\dhajee_information\[x\].log

\%AllUsersProfile\% shows the environment variable of the Windows (Common data storage folder for all users).

2. In Linux

/var/opt/jp1dh/aje/ajee/log/dhajee_information\[x\].log

\[x\] is the number of backup files of the operation log file.

\[x\] is the integer value from 1 to the maximum number of the backup files.

The maximum number of the backup files is defined as InfoLogBackCount in the environmental configuration file.

For detail about InfoLogBackCount, see 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution)

Supplementary note:

• If you changed LogOutDir in the environmental configuration file, the operation log files are created under the folder that you specified as LogOutDir. For detail about LogOutDir, see 3.3.1(1) Environmental configuration file for JP1/DH - AJE (Job Definition) or 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution).
(b) The output information

The following information is outputted to the operation log file.

Table 6-1: The output information to the operation log file

<table>
<thead>
<tr>
<th>Item name</th>
<th>Length</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Fixed length (4 digits)</td>
<td>The serial number of the trace records.</td>
</tr>
<tr>
<td>Date</td>
<td>Fixed length (10 digits)</td>
<td>The date that the trace record was outputted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: yyyy/mm/dd</td>
</tr>
<tr>
<td>Time</td>
<td>Fixed length (12 digits)</td>
<td>The time that the trace record was outputted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: hh:mm:ss.sss</td>
</tr>
<tr>
<td>Application name</td>
<td>Fixed length (16 characters)</td>
<td>DH - AJE</td>
</tr>
<tr>
<td>Process ID</td>
<td>Fixed length (8 digits)</td>
<td>The process ID</td>
</tr>
<tr>
<td>Thread ID</td>
<td>Fixed length (8 digits)</td>
<td>The thread ID</td>
</tr>
<tr>
<td>Message ID</td>
<td>Fixed length (16 characters)</td>
<td>KDJHnnnn-Z</td>
</tr>
<tr>
<td></td>
<td></td>
<td>K: Denotes the system identifier. DJH: Indicates that the message is a JP1/DH - AJE message. nnnn: Displays the message's serial number. Z: Indicates the message type: E:Error W:Warning I:Information</td>
</tr>
<tr>
<td>Type</td>
<td>Fixed length (5 characters)</td>
<td>The log level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: ERR, WARN, INFO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ERR: Indicates outputting Error message only.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WARN: Indicates outputting Error and Warning message.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INF: Indicates outputting Error, Warning and Information message.</td>
</tr>
<tr>
<td>Message text</td>
<td>Variable length</td>
<td>The message text of JP1/DH - AJE</td>
</tr>
</tbody>
</table>

Also, the following headers are outputted at the beginning of outputting the log.

```
0 5 22 31 42 47
**** DH - AJE Process ID File size Number of backup logs 00000002CRLF
0 5 66 83 116
OS&version Local host name Timezone Date&time beginning of trace CRLF
0 5 50 59 68 90
yyy/mm/dd hh:mm:ss.sss pid tid message-id message(locale=LOCAL) CRFCF
```
6.3 The data to be collected when you can't solve a problem

This section describes that the data to be collected when you can't solve a problem.

If you can't solve the problem, collect the data by the following procedures.

6.3.1 The procedure of collecting the data of JP1/DH - AJE (Job Definition)

Collect only the log files for JP1/DH - AJE (Job Definition).

Copy the files that are included in the following folder to any folder.

%ALLUsersProfile%\Hitachi\jp1\jp1_default\JP1DH\AJE\AJED\log

%AllUsersProfile% shows the environment variable of the Windows (Common data storage folder for all users).

But if you changed LogOutDir in the environmental configuration file, copy the files that are included in the LogOutDir to any folder. For detail about LogOutDir, see 3.3.1(1) Environmental configuration file for JP1/DH - AJE (Job Definition).

6.3.2 The procedures for collecting the data of JP1/DH - AJE (Job Execution)

If you can't solve the problem, collect the following two data:

1. The data that relates to JP1/DH - AJE (Job Execution)
2. The data that relates to JP1/AJS3

Collect the data by the following procedures.

(1) The procedures for collecting the data that relates to JP1/DH - AJE (Job Execution)

Use the information collection tool for collecting the data that relates to JP1/DH - AJE (Job Execution).

The detail about the information collection tool is as follows:

(a) About the information collection tool

The information collection tool is a batch file.

In Windows

1. The file path

   <The install destination folder of JP1/DH - AJE (Job Execution)>\tools\dhaje_log.bat

2. The function

   This tool collects the following data as files
# Table 6–2: The data that is collected by the information collection tool (In Windows)

<table>
<thead>
<tr>
<th>Items</th>
<th>Assumed size [KB]</th>
<th>Contents</th>
<th>Storage file or folder of the collected data</th>
</tr>
</thead>
<tbody>
<tr>
<td>The files under the install destination folder ob JP1/DH - AJE (Job Execution)</td>
<td>524,000+ (The operation log file size * the number of the backup files of the operation log file)</td>
<td>The files under the install destination folder of JP1/DH - AJE</td>
<td>file\sdata\DHAJE\</td>
</tr>
<tr>
<td>The log files</td>
<td>Variable by the environment settings</td>
<td>The log files of JP1/DH - AJE (Job Execution)</td>
<td>The case of a default: file\pdata\log\dhajee_information[x].log</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>When you change the destination of the log file: file@cdata\log_custom\dhajee_information[x].log</td>
</tr>
<tr>
<td>The registry information about JP1/DH - AJE (Job Execution)</td>
<td>20</td>
<td>The contents of the following registry keys:</td>
<td>registry1.txt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HKEY_LOCAL_MACHINE\SOFTWARE\HITACHI\JP1DH\AJE\AJEE</td>
<td></td>
</tr>
<tr>
<td>The process list of OS</td>
<td>20</td>
<td>• Image name</td>
<td>tasklist.txt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Process ID</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Session name</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Session</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Memory usage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Status</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• User name</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CPU time</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Window title</td>
<td></td>
</tr>
<tr>
<td>The system information of OS</td>
<td>15</td>
<td>• Host Name</td>
<td>systeminfo.txt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• OS Name</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• OS Version</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• OS Manufacturer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• OS Configuration</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• OS Build Type</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Registered Owner</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Registered Organization</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Product ID</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Original Install Date</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• System Boot Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• System Manufacturer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• System Model</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• System Type</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Processor(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• BIOS Version</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Windows Directory</td>
<td></td>
</tr>
<tr>
<td>Items</td>
<td>Assumed size [KB]</td>
<td>Contents</td>
<td>Storage file or folder of the collected data</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>The system information of OS</td>
<td>15</td>
<td>• System Directory&lt;br&gt;• Boot Device&lt;br&gt;• System Locale&lt;br&gt;• Input Locale&lt;br&gt;• Time Zone&lt;br&gt;• Total Physical Memory&lt;br&gt;• Available Physical Memory&lt;br&gt;• Virtual Memory: Max Size&lt;br&gt;• Virtual Memory: Available&lt;br&gt;• Virtual Memory: In Use&lt;br&gt;• Page File Location(s)&lt;br&gt;• domain&lt;br&gt;• Logon Server&lt;br&gt;• Hotfix(s)&lt;br&gt;• Network Card(s)</td>
<td>systeminfo.txt</td>
</tr>
<tr>
<td>The system information of Windows event log</td>
<td>Variable by the server condition</td>
<td>• Log Name&lt;br&gt;• Source&lt;br&gt;• Date&lt;br&gt;• Event ID&lt;br&gt;• Task&lt;br&gt;• Level&lt;br&gt;• Opcode&lt;br&gt;• Keyword&lt;br&gt;• User&lt;br&gt;• User Name&lt;br&gt;• Computer&lt;br&gt;• Description</td>
<td>evevtsystem.txt</td>
</tr>
<tr>
<td>The application information of Windows event log</td>
<td>Variable by the server condition</td>
<td>• Log Name&lt;br&gt;• Source&lt;br&gt;• Date&lt;br&gt;• Event ID&lt;br&gt;• Task&lt;br&gt;• Level&lt;br&gt;• Opcode&lt;br&gt;• Keyword&lt;br&gt;• User&lt;br&gt;• User Name&lt;br&gt;• Computer&lt;br&gt;• Description</td>
<td>eventapp.txt</td>
</tr>
<tr>
<td>The information of netstat</td>
<td>2</td>
<td>All connections and listening ports</td>
<td>netstate.txt</td>
</tr>
<tr>
<td>The information of netstat</td>
<td>2</td>
<td>Ethernet statistics</td>
<td>netstate.txt</td>
</tr>
<tr>
<td>The information of netstat</td>
<td>2</td>
<td>Address and port numbers</td>
<td>netstatn.txt</td>
</tr>
<tr>
<td>The information of netstat</td>
<td>2</td>
<td>Routing table</td>
<td>netstatr.txt</td>
</tr>
<tr>
<td>The information of netstat</td>
<td>2</td>
<td>Per-protocol statistics</td>
<td>netstats.txt</td>
</tr>
<tr>
<td>Program files that used by system</td>
<td>Variable by the server condition</td>
<td>Program files that used by system</td>
<td>Not publication</td>
</tr>
</tbody>
</table>
The registry1.txt is made if JP1/DH - AJE (Job Execution) is installed in a 32bit OS, and the registry2.txt is made if JP1/DH - AJE (Job Execution) is installed in a 64bit OS.

Make sure there is enough space as the output destination of the information collection tool. In addition, don't run DH custom jobs during the running of the information collection tool. If you run a DH custom job during the running of the information collection tool, the running of the DH custom job may fail.

During practice of information collection tool, please do not access output destination of the information collection tool.

And then, don't move the information collection tool. Use it in the installed place.

3. The execute permission
An OS user who has Administrators privilege.

4. The procedure of running the information collection tool
1. If a problem occurred in a host that JP1/DH - AJE is installed, log in to the host as an OS user who has the administrator's privilege.
2. If you want to change the output destination of information that is collected by the information collection tool, edit the tool (dhaje_log.bat) by an editor, and changes the "OUT_DIR_CUST" to the folder that you want to output information. The folder name that you specified as the "OUT_DIR_CUST" shouldn't be enclosed by double quotes even though the folder name includes spaces.
   Example:
   ```
   set OUT_DIR_CUST=C:\temp\JP1DHAJE
   ```

3. You edit The information collection tool (dhaje_log.bat) by editors and, for CUST_LOG_DIR or CUST_RCV_DIR or CUST_WRK_DIR, set the folder name which you changed, when you change modifiable item "the destination folder of outputting operation log files <LogOutDir >" or "the storage folder of files that is used by system <RecvListDir>" or "work folder that is used by running of DH Custom Job <SendRecvTemp>" in Environment configuration file(config.xml). The folder name that you specified as the "OUT_DIR_CUST" shouldn't be enclosed by double quotes even though the folder name includes spaces.
   Example:
   ```
   set CUST_LOG_DIR=C:\temp\JP1DHAJE\log
   set CUST_RCV_DIR=C:\temp\JP1DHAJE\recvlist
   set CUST_WRK_DIR=C:\temp\JP1DHAJE\work
   ```

4. Execute the information collection tool.

5. The exit status code

<table>
<thead>
<tr>
<th>Exit status code</th>
<th>Meaning</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal</td>
<td>The collection of information has finished normally.</td>
</tr>
<tr>
<td>1</td>
<td>Warning</td>
<td>The running of the information collection tool was canceled.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the output destination folder already existed, the tool asks to a user</td>
</tr>
<tr>
<td></td>
<td></td>
<td>whether the tool remove the folder or not.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the user select &quot;N&quot;, the tool does not remove the folder, stop the running, and return the exit status code.</td>
</tr>
<tr>
<td>10</td>
<td>Error</td>
<td>The collection of information has failed.</td>
</tr>
</tbody>
</table>

6. The storage folder of the result of running of the information collection tool
If you didn't change the OUT_DIR_CUST, the result of running of the information collection tool is stored in the following folder:
%TEMP% means the environment value %TEMP% of Windows.

Note:
The following cases, the information collection tool (dhaje_log.bat) returns to initial state. When you change contents of the information collection tool (dhaje_log.bat), carry it out after editing the information collection tool (dhaje_log.bat) again.

- When you carry out the update installation from 10-00 version to 10-10 or later version.
- When you carry out the update installation from 10-10 or 10-50 version to 11-00 or later version.

In Linux

1. The file path

   `/opt/jp1dh/aje/ajee/tools/dhaje_log.sh`

2. The function

   This tool collects the following data as files

   Table 6‒4: The data that is collected by the information collection tool (In Linux)

<table>
<thead>
<tr>
<th>Items</th>
<th>Assumed size [KB]</th>
<th>Contents</th>
<th>Storage file or folder of the collected data</th>
</tr>
</thead>
<tbody>
<tr>
<td>The files under the install destination folder ob JP1/DH - AJE (Job Execution)</td>
<td>501,000+ (The operation log file size * the number of the backup files of the operation log file)</td>
<td>The files under the install destination folder of JP1/DH - AJE</td>
<td>file/sdata</td>
</tr>
</tbody>
</table>
   | The log files | Variable by the environment settings | The log files of JP1/DH - AJE (Job Execution) | The case of a default: file/pdata/log/ dhajee_information[x].log
When you change the destination of the log file: file/cdata/log_custom/ dhajee_information[x].log |
   | The process list of OS | 20 | • List of processes starting in the system | Process.txt |
   | The system information of OS | 20 | • Information of the system | systeminfo.txt |
   | The information of syslog | Variable by the system condition | • syslog files | syslog/ |
   | The information of netstat(**1**) | 2 | All connections and listening ports | netstata.txt |
   | The information of netstat(**1**) | 2 | Ethernet statistics | netstate.txt |
   | The information of netstat(**1**) | 2 | Address and port numbers | netstatn.txt |
   | The information of netstat(**1**) | 2 | Routing table | netstatr.txt |
   | The information of netstat(**1**) | 2 | Per-protocol statistics | netstats.txt |
   | The patch information of OS | Variable by the system condition | The patch information of OS | rpminfo.txt |

6. Troubleshooting

JP1/Data Highway - Automatic Job Executor Operation manual
<table>
<thead>
<tr>
<th>Items</th>
<th>Assumed size [KB]</th>
<th>Contents</th>
<th>Storage file or folder of the collected data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program files that used by system</td>
<td>Variable by the send/receive condition</td>
<td>Program files that used by system</td>
<td>Not publication</td>
</tr>
</tbody>
</table>

#1:
netstat command may not be installed by a version of Linux. In this case the information of netstat is not acquired.

Make sure there is enough space as the output destination of the information collection tool. In addition, don't run DH custom jobs during the running of the information collection tool. If you run a DH custom job during the running of the information collection tool, the running of the DH custom job may fail.

During practice of information collection tool, please do not access output destination of the information collection tool.
And then, don't move the information collection tool. Use it in the installed place.

3. The execute permission
An OS user who has superuser privilege.

4. The procedure of running the information collection tool
1. If a problem occurred in a host that JP1/DH - AJE is installed, log in to the host as an OS user who has the superuser's privilege.
2. If you want to change the output destination of information that is collected by the information collection tool, edit the tool (dhaje_log.sh) by an editor, and changes the "OUT_DIR_CUST" to the folder that you want to output information. The folder name that you specified as the "OUT_DIR_CUST" shouldn't be enclosed by double quotes even though the folder name includes spaces.
Example:
```bash
OUT_DIR_CUST="/tmp/ajee/backlog"
```
3. You edit The information collection tool(dhaje_log.sh) by editors and, for CUST_LOG_DIR or CUST_RCV_DIR or CUST_WRK_DIR, set the folder name which you changed, when you change modifiable item "the destination folder of outputting operation log files <LogOutDir >" or "the storage folder of files that is used by system <RecvListDir>" or "work folder that is used by running of DH Custom Job <SendRecvTemp>" in Environment configuration file(config.xml).
Example:
```bash
CUST_LOG_DIR="/tmp/DHAJE/log"
CUST_RCV_DIR="/tmp/DHAJE/recvlist"
CUST_WRK_DIR="/tmp/DHAJE/work"
```

4. Execute the information collection tool.

5. The exit status code

### Table 6‒5: The exit status code of the information collection tool

<table>
<thead>
<tr>
<th>Exit status code</th>
<th>Meaning</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal</td>
<td>The collection of information has finished normally.</td>
</tr>
<tr>
<td>1</td>
<td>Warning</td>
<td>The running of the information collection tool was canceled.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the output destination folder already existed, the tool asks to a user</td>
</tr>
<tr>
<td></td>
<td></td>
<td>whether the tool remove the folder or not.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the user select &quot;N&quot;, the tool does not remove the folder, stop the running, and return the exit status code.</td>
</tr>
<tr>
<td>10</td>
<td>Error</td>
<td>The collection of information has failed.</td>
</tr>
</tbody>
</table>
6. The storage folder of the result of running of the information collection tool
   If you didn't change the OUT_DIR_CUST, the result of running of the information collection tool is stored in
   the following folder:

   /tmp/ajee/backlog/information

(2) The collecting information of JP1/AJS3

The collecting information of JP1/AJS3 is needed for investigation of the source of a problem.

The following information is needed.

(a) The DH custom job definition information

the getting method of the definition information.

(b) The information of JP1/AJS3 - Manager or JP1/AJS3 - Agent that DH custom jobs
    have been executed on them.

See JP1/Automatic Job Management System 3 Troubleshooting Collecting data for troubleshooting about the getting
method of the information.
6.4 Restore

This section describes the procedure to restore JP1/DH - AJE.

6.4.1 Restore of JP1/DH - AJE (Job Definition)

1. New install the program or overwrite install the program.
2. Overwrite the environmental configuration file (config.xml) from the backup folder to the environmental configuration file included in the install destination folder.

6.4.2 Restore of JP1/DH - AJE (Job Execution)

1. New install the program or overwrite install the program.
2. Overwrite the environmental configuration file (config.xml) from the backup folder to the environmental configuration file included in the install destination folder.
3. Overwrite the all files and folders that are included in the following folder from the backup folder:
   - The folder that is defined as <RecvListDIR> in the environmental configuration file of JP1/DH - AJE (Job Execution)

See Appendix A. List of Files and Folders about each files and folders. See 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution) about <RecvListDir>.
6.5 Corrective actions for each problems

This section describes troubles that may happen on JP1/DH - AJE, and then explains how to take action for each problem.

6.5.1 Problems of JP1/DH - AJE (Job Definition)

Troubles that may happen on JP1/DH - AJE (Job Definition), and how to take action for each trouble, are described below.

(1) The icon of DH custom job isn't displayed on JP1/AJS3 - View

**Cause**

1. The version of JP1/AJS3 - View is lower than 10-00, and you didn't copy the icon file of DH custom job to a folder that included in the JP1/AJS3 - View.

2. In Windows, the Class name that you specified at registration of DH custom job wasn't "DHAJEW".

   In Linux, the Class name that you specified at registration of DH custom job wasn't "DHAJEL".

**Action**

Log in to JP1/AJS3 - View again after taking the following actions.

1. Copy the icon file of DH custom job to a folder that included in the JP1/AJS3 - View. For the details, see 3.4 Register DH Custom Job.

2. In Windows, make sure the Class name of the registration information of DH custom job is "DHAJEW".

   In Linux, make sure the Class name of the registration information of DH custom job is "DHAJEL".

(2) The [DH Custom Job Definition] window wasn't displayed from JP1/AJS3 - View

**Cause**

1. The environmental configuration file was invalid.

2. The environmental configuration file didn't exist.

3. The OS user who executed JP1/AJS3 - View didn't have the permission of reading of the environmental configuration file.

4. The memory was insufficient.

5. The free space of the folder <System drive of Windows>\temp was insufficient.

6. The OS user who executed JP1/AJS3 didn't have the permission of reading or writing to the folder < System drive of Windows>\temp.

7. You specified invalid file to the Definition program at registration of DH custom job.

**Action**

Take the following actions, and push Cancel button on the [Define Details - [Custom Job]] dialog box. The [Define Details - [Custom Job]] dialog box will be closed. And then, define a DH custom job again.

1. Make sure the contents of the environmental configuration file are correct.

2. If the environmental configuration file didn't exist, make the environmental configuration file by copying the template file. And then change the contents of the file as appropriate to the operation of JP1/DH - AJE.
3. Grant the reading permission of the environmental configuration file to the OS user who uses JP1/AJS3 - View.
4. Stop unnecessary processes to free the memory.
5. Increase the free size of the <Windows system drive>\temp folder.
6. Grant the reading and writing permission to the <Windows system drive>\temp folder to the OS user who uses JP1/AJS3 - View.
7. Make sure the execution file that you specified as Definition program on the [Set Properties of Custom Jobs] dialog box. For detail, see 3.4 Register DH Custom Job.

(3) An error occurred at definition or modification of a DH custom job

**Cause**

1. The memory was insufficient.
2. The free space of the folder <System drive of Windows>\temp was insufficient.
3. The OS user who executed JP1/AJS3 didn't have the permission of reading or writing to the folder <System drive of Windows>\temp.

**Action**

1. Stop unnecessary processes to free the memory.
2. Increase the free size of the <Windows system drive>\temp folder.
3. Grant the reading and writing permission to the <Windows system drive>\temp folder to the OS user who uses JP1/AJS3 - View.

(4) An error occurred during reading a DH custom job

**Cause**

1. The memory was insufficient.
2. The OS user who executed JP1/AJS3 didn't have the permission of reading or writing to the folder <System drive of Windows>\temp.

**Action**

1. Stop unnecessary processes to free the memory.
2. Grant the reading and writing permission to the <Windows system drive>\temp folder to the OS user who uses JP1/AJS3 - View.

6.5.2 Problems of JP1/DH - AJE (Job Execution)

Troubles that may happen on JP1/DH - AJE (Job Execution), and how to take action for each trouble, are described below.

(1) JP1/AJS3 - View couldn't run a DH custom job

**Cause**

1. The environmental configuration file was invalid.
2. The environmental configuration file didn't exist.
3. Files that are used by the system are invalid. Those files are included in the <RecvListDir> folder.
4. The OS user who executed JP1/AJS3 - Agent or JP1/AJS3 - Manager didn't have the permission of reading of the environmental configuration file.
5. The memory was insufficient.
6. You specified invalid file to the Execution program at registration of DH custom job.

**Action**

1. Make sure the contents of the environmental configuration file are correct.
2. If the environmental configuration file didn't exist, make the environmental configuration file by copying the template file. And then change the contents of the file as appropriate to the operation of JP1/DH - AJE.
3. If there are backup files of files that are used by system, overwrite them to files that are included in the <RecvListDir> folder. If there are not backup files, remove the recvuserlist.xml in the <RecvListDir> folder and remove all files under the <RecvListDir>\list folder. In this case, some file that you already received might be received again. For detail of <RecvListDir>, see 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution).
4. Grant the reading permission of the environmental configuration file to the OS user who uses JP1/AJS3 - Manager or JP1/AJS3 - Agent.
5. Stop unnecessary processes to free the memory.
6. Make sure the execution file that you specified as Execution program on the [Set Properties of Custom Jobs] dialog box. For detail, see 3.4 Register DH Custom Job.

(2) **An error occurred during reading a DH custom job**

**Cause**

1. The memory was insufficient.
2. The definition of a DH custom job that was invalid. Definitions of DH custom job are registered to JP1/AJS3 - Manager or JP1/AJS3 - Agent.

**Action**

1. Stop unnecessary processes to free the memory.
2. Remove the custom job that has failed to read, and then define the same custom job again.

(3) **An error occurred during Send or Receive**

**Cause**

1. The contents of the base setting were invalid.
2. JP1/DH - AJE could not connect to the Data Highway - Server.
3. Invalid files or invalid folders were specified as the Send Files or the Send Folders of the custom job.
4. The OS user who ran the DH custom job didn't have the access permission to the files or the folders for sending.
5. The OS user who ran the DH custom job didn't have the access permission to the folder for receiving.
6. The file that had been used by the system wasn't removed.
7. The server certificate has not been registered.

**Action**

1. Make sure the contents of the base setting of the DH custom job.
2. Make sure that you can log in to the Data Highway - Server using the contents of the base setting of the DH custom job.

3. Make sure that the files or folders that are specified on the [Transmission Setting (Send)] window exist.

4. Grant the access permission for the files or folders that are specified on the [Transmission Setting (Send)] window to the OS user.

5. Grant the permission to the OS user, for creating files and folders in the folder for receiving.

6. Remove the following file.

   ![Folder specification]

   X means an integer value.

   See 3.3.2(1) Environmental configuration file for JP1/DH - AJE (Job Execution) about <SendRecvTemp>.

   In Linux, delete it if the lock file which a system uses exists.

   In Windows

   The folder that is defined as <RecvListDIR> in the environmental configuration file of JP1/DH - AJE (JobExecution)/recvuserlist.xml.lck

   In Linux

   /opt/jp1dh/aje/ajee/recvlist/recvuserlist.xml.lck

7. Register the server certificate. See 3.6 Register server certificate.

### 6.5.3 Problems in the cluster system

The following procedure describes how to recover JP1/DH - AJE when you used JP1/DH - AJE in a cluster system and the failover has occurred by any failure.

**How to recover**

Recover JP1/DH - AJE by the following procedure:

1. Solve the cause of the failure after the failover.

2. Make sure whether any DH custom jobs which were running in the primary node exist.

3. If the status of the DH custom jobs that were running is "Killed" or "Unknown end status", log in to the Data Highway - Server and make sure the status of the Send or the Receive that was executed by the DH custom jobs. If the Send or the Receive was incomplete, execute the DH custom jobs again.
Appendix
A. List of Files and Folders

The appendix lists the names of the files and folders for JP1/DH - AJE.

A.1 List of Files and Folders JP1/DH - AJE (Job Definition)

The following table shows list of files and folders of JP1/DH - AJE (Job Definition).

Table A–1: List of Files and Folders for JP1/DH - AJE (Job Definition)

<table>
<thead>
<tr>
<th>File name/Folder name</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation folder of JP1/DH - AJE (Job Definition)</td>
<td>Program installation folder</td>
</tr>
<tr>
<td><code>\bin</code></td>
<td>Storage folder of program files</td>
</tr>
<tr>
<td><code>dhajed.exe</code></td>
<td>Program file for starting JP1/DH - AJE (Job Definition) program</td>
</tr>
<tr>
<td><code>\csmi</code></td>
<td>Storage folder of program files that used by system.</td>
</tr>
<tr>
<td><code>*</code></td>
<td>Program files that used by system</td>
</tr>
<tr>
<td><code>\custom</code></td>
<td>Storage folder of the Custom job icon</td>
</tr>
<tr>
<td><code>CUSTOM_PC_DHAJEW.gif</code></td>
<td>Custom job icon for Windows</td>
</tr>
<tr>
<td><code>CUSTOM_PC_DHAJEL.gif</code></td>
<td>Custom job icon for Linux</td>
</tr>
<tr>
<td><code>\lib</code></td>
<td>Storage folder of library files</td>
</tr>
<tr>
<td><code>dhajed.jar</code></td>
<td>Program file of JP1/DH - AJE (Job Definition)</td>
</tr>
<tr>
<td><code>messages.properties</code></td>
<td>Message file(Japanese)</td>
</tr>
<tr>
<td><code>message_en.properties</code></td>
<td>Message file(English)</td>
</tr>
<tr>
<td><code>*</code></td>
<td>Program files that used by system</td>
</tr>
<tr>
<td><code>\log</code></td>
<td>Storage folder of log file</td>
</tr>
<tr>
<td><code>*</code></td>
<td>Program log files that used by system (Not publication)</td>
</tr>
<tr>
<td><code>\settings</code></td>
<td>Storage folder of setting files</td>
</tr>
<tr>
<td><code>config.xml</code></td>
<td>Environment configuration file</td>
</tr>
<tr>
<td><code>config.xml.template</code></td>
<td>Template file of Environment configuration file</td>
</tr>
<tr>
<td><code>Readme_ja.txt</code></td>
<td>Readme file(Japanese)</td>
</tr>
<tr>
<td><code>Readme_en.txt</code></td>
<td>Readme file(English)</td>
</tr>
<tr>
<td><code>Version.txt</code></td>
<td>Version information</td>
</tr>
<tr>
<td><code>ProductInfo.txt</code></td>
<td>Product classification</td>
</tr>
<tr>
<td><code>\patch_backup_dir</code></td>
<td>Patch backup folder</td>
</tr>
<tr>
<td><code>*</code></td>
<td>Patch backup files</td>
</tr>
<tr>
<td><code>PATCHLOG.TXT</code></td>
<td>Patch log file</td>
</tr>
<tr>
<td><code>%ALLUsersProfile%\Hitachi\jp1\jp1_default\JP1DH \AJE\AJED\log</code></td>
<td>Storage folder of log file(1)</td>
</tr>
</tbody>
</table>
### A.2 List of Files and Folders JP1/DH - AJE (Job Execution) for Windows

The following table shows list of files and folders of JP1/DH - AJE (Job Execution).

#### Table A–2: List of Files and Folders for JP1/DH - AJE(Job Execution)

<table>
<thead>
<tr>
<th>File name/Folder name</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation folder of JP1/DH - AJE (Job Execution)</td>
<td>Program installation folder</td>
</tr>
<tr>
<td>\bin</td>
<td>Storage folder of program files</td>
</tr>
<tr>
<td></td>
<td>dhajee.exe</td>
</tr>
<tr>
<td>\DWClient</td>
<td>Storage folder of the data transfer command files</td>
</tr>
<tr>
<td></td>
<td>Const.properties</td>
</tr>
<tr>
<td></td>
<td>Const.properties.template</td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td>\csmi</td>
<td>Storage folder of library files that used by system</td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td>\lib</td>
<td>Storage folder of library files</td>
</tr>
<tr>
<td></td>
<td>dhajee.jar</td>
</tr>
<tr>
<td></td>
<td>messages.properties</td>
</tr>
<tr>
<td></td>
<td>messages_en.properties</td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td>\settings</td>
<td>Storage folder of setting files</td>
</tr>
<tr>
<td></td>
<td>config.xml</td>
</tr>
<tr>
<td></td>
<td>config.xml.template</td>
</tr>
<tr>
<td>\recvlist</td>
<td>Storage folder of program files that used by system</td>
</tr>
<tr>
<td></td>
<td>recvuserlist.xml</td>
</tr>
<tr>
<td></td>
<td>recvuserlist.xml.lck</td>
</tr>
<tr>
<td>\list</td>
<td>Storage folder of program files that used by system</td>
</tr>
<tr>
<td></td>
<td>receivedlist_&lt;UUID&gt;.txt</td>
</tr>
<tr>
<td>\tools</td>
<td>Storage folder of batch file for collecting information</td>
</tr>
<tr>
<td></td>
<td>dhaje_log.bat</td>
</tr>
<tr>
<td></td>
<td>dhaje_log.bat.template</td>
</tr>
</tbody>
</table>

---

#1: %AllUsersProfile% shows the environment variable of the Windows (Common data storage folder for all users).
A.3 List of Files and Folders JP1/DH - AJE (Job Execution) for Linux

The following table shows list of files and folders of JP1/DH - AJE (Job Execution).

Table A–3: List of Files and Folders for JP1/DH - AJE(Job Execution)

<table>
<thead>
<tr>
<th>File name/Folder name</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>/opt/jp1dh/aje/ajee</td>
<td>Program installation folder</td>
</tr>
<tr>
<td>\bin</td>
<td>Storage folder of program files</td>
</tr>
<tr>
<td>dhajee.sh</td>
<td>Program file for starting JP1/DH - AJE (Job Execution) program</td>
</tr>
<tr>
<td>\DWClient</td>
<td>Storage folder of the data transfer command files</td>
</tr>
<tr>
<td>Const.properties</td>
<td>The environmental configuration file of the data transfer command</td>
</tr>
<tr>
<td>Const.properties.template</td>
<td>The template file of the environmental configuration file of the data transfer command</td>
</tr>
<tr>
<td>*</td>
<td>Program files that used by system (Not publication)</td>
</tr>
<tr>
<td>\csmi</td>
<td>Storage folder of library files that used by system</td>
</tr>
<tr>
<td>*</td>
<td>Library files that used by system</td>
</tr>
<tr>
<td>\lib</td>
<td>Storage folder of library files</td>
</tr>
<tr>
<td>File name/Folder name</td>
<td>Contents</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------</td>
</tr>
<tr>
<td>dhajee.jar</td>
<td>Program file of JP1/DH - AJE (Job Execution)</td>
</tr>
<tr>
<td>messageslin.properties</td>
<td>Message file (Japanese)</td>
</tr>
<tr>
<td>messageslin_en. Properties</td>
<td>Message file (English)</td>
</tr>
<tr>
<td></td>
<td>Program files that used by system (Not publication)</td>
</tr>
<tr>
<td>\settings</td>
<td>Storage folder of setting files</td>
</tr>
<tr>
<td>config.xml</td>
<td>Environment configuration file</td>
</tr>
<tr>
<td>config.xml.template</td>
<td>Template file of Environment configuration file</td>
</tr>
<tr>
<td>\recvlist</td>
<td>Storage folder of program files that used by system</td>
</tr>
<tr>
<td>recvuserlist.xml</td>
<td>A file that used by system</td>
</tr>
<tr>
<td>recvuserlist.xml.lck</td>
<td>A lock file that used by system</td>
</tr>
<tr>
<td>\list</td>
<td>Storage folder of program files that used by system</td>
</tr>
<tr>
<td>receivedlist_&lt;UUID&gt;.txt</td>
<td>A file that used by system</td>
</tr>
<tr>
<td>\tools</td>
<td>Storage folder of batch file for collecting information</td>
</tr>
<tr>
<td>dhaje_log.sh</td>
<td>The information collection tool</td>
</tr>
<tr>
<td>dhaje_log.sh.template</td>
<td>Template file of the information collection tool</td>
</tr>
<tr>
<td>\work</td>
<td>Work folder</td>
</tr>
<tr>
<td></td>
<td>A file that used by system (Not publication)</td>
</tr>
<tr>
<td>\definition</td>
<td>Storage folder of the installer file of JP1/DH - AJE (Job Definition).</td>
</tr>
<tr>
<td>jp1dhajed.exe</td>
<td>The installer file of JP1/DH - AJE (Job Definition) compression type.</td>
</tr>
<tr>
<td>\newconfig</td>
<td>Storage folder of program files that used by system</td>
</tr>
<tr>
<td></td>
<td>A file that used by system (Not publication)</td>
</tr>
<tr>
<td>dhajee_version.dat</td>
<td>Version information management file</td>
</tr>
<tr>
<td>/var/opt/jp1dh/aje/ajee</td>
<td>Storage folder of log/patch file</td>
</tr>
<tr>
<td>/log</td>
<td>Storage folder of log file</td>
</tr>
<tr>
<td>\mmap</td>
<td>Management folder for operation log files</td>
</tr>
<tr>
<td>dhajee_information[x].log</td>
<td>Operation log files</td>
</tr>
<tr>
<td></td>
<td>Program log files that used by system (Not publication)</td>
</tr>
<tr>
<td>/patch_backup_dir</td>
<td>Patch backup folder(#1)</td>
</tr>
<tr>
<td></td>
<td>Patch backup file(#1)</td>
</tr>
<tr>
<td>update.log</td>
<td>Patch log file(#1)</td>
</tr>
<tr>
<td>patch_history</td>
<td>Patch history file(#1)</td>
</tr>
</tbody>
</table>

They are files/folder made at the time of a patch program application of JP1/DH - AJE.
B. Related Information of This Manual

This appendix describes related information for reading this manual.

B.1 Related publications

This manual related to some manuals that listed below. Refer to these manuals as you need.

In addition, the systems of the manual are different by the version of related product.

Interpret it for a manual depending on a using version.

About JP1/Data Highway - Server

JP1 Version 11 Job Management: Getting Started (High-speed Transfer of Huge Files) (3021-3-B41(E))
JP1 Version 11 JP1/Data Highway - Server Configuration and Administration Guide (3021-3-B42(E))
JP1 Version 11 JP1/Data Highway - Server Administrator Guide (3021-3-B44(E))

About JP1/Automatic Job Management System 3

JP1 Version 11 Job Management: Getting Started (Job Scheduler) (3021-3-B11(E))
JP1 Version 11 JP1/Automatic Job Management System 3 Overview (3021-3-B12(E))
JP1 Version 11 JP1/Automatic Job Management System 3 Configuration Guide (3021-3-B15(E))
JP1 Version 11 JP1/Automatic Job Management System 3 Administration Guide (3021-3-B16(E))
JP1 Version 11 JP1/Automatic Job Management System 3 Troubleshooting (3021-3-B17(E))
JP1 Version 11 JP1/Automatic Job Management System 3 Command Reference (3021-3-B19(E))
JP1 Version 11 JP1/Automatic Job Management System 3 Messages (3021-3-B21(E))

About JP1/Base

JP1 Version 11 JP1/Base User's Guide (3021-3-A01(E))
JP1 Version 11 JP1/Base Messages (3021-3-A02(E))
JP1 Version 11 JP1/Base Function Reference (3021-3-A03(E))

B.2 Conventions: Abbreviations

This manual uses following abbreviations for product names.

But, the full name or meaning is used if necessary.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full name or meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP1/AJS3</td>
<td>JP1/AJS3 - Agent</td>
</tr>
<tr>
<td></td>
<td>JP1/Automatic Job Management System 3 - Agent</td>
</tr>
<tr>
<td></td>
<td>JP1/AJS3 - Manager</td>
</tr>
<tr>
<td></td>
<td>JP1/Automatic Job Management System 3 - Manager</td>
</tr>
</tbody>
</table>
### B.3 Conventions: Using abbreviations

This manual uses the following abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full name or meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSV</td>
<td>Comma Separated Values</td>
</tr>
<tr>
<td>FAQ</td>
<td>Frequently Asked Question</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>HTTP</td>
<td>HyperText Transfer Protocol</td>
</tr>
<tr>
<td>HTTPS</td>
<td>HyperText Transfer Protocol over Secure Socket Layer</td>
</tr>
<tr>
<td>ID</td>
<td>Identification Data</td>
</tr>
<tr>
<td>Java VM</td>
<td>Java Virtual Machine</td>
</tr>
<tr>
<td>LAN</td>
<td>Local Area Network</td>
</tr>
<tr>
<td>OS</td>
<td>Operating System</td>
</tr>
<tr>
<td>PC</td>
<td>Personal Computer</td>
</tr>
<tr>
<td>UAC</td>
<td>User Account Control</td>
</tr>
<tr>
<td>UNC</td>
<td>Universal Naming Convention</td>
</tr>
<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
</tr>
<tr>
<td>WOW64</td>
<td>Windows On Windows 64</td>
</tr>
<tr>
<td>XML</td>
<td>eXtensible Markup Language</td>
</tr>
</tbody>
</table>

### B.4 Conventions: Meaning of "Administrators permissions"

In this manual, Administrators permissions refer to Administrators permissions for the local PC. The local user, domain user, or user of the Active Directory environment can perform tasks requiring Administrators permissions if granted Administrators permissions for the local PC.

### B.5 Conventions: KB, MB, GB and TB

This manual uses the following conventions:
• 1 KB (kilobyte) is 1,024 bytes.
• 1 MB (megabyte) is $1,024^2$ bytes.
• 1 GB (gigabyte) is $1,024^3$ bytes.
• 1 TB (terabyte) is $1,024^4$ bytes.
C. Glossary

(A) Authentication system
A manage the information of "authentication system" to login Data Highway - Server.

There are "standard authentication system" and "LDAP authentication system" in "authentication system".

(C) Custom job
A predefined job for executing a task with a specific purpose. JP1/AJS3 provides standard custom jobs such as file transfer and job requests to a mainframe. In addition, you can register your own frequently used jobs as custom jobs. When registering a custom job, you can represent it by creating an icon with a special shape and design, and you can create a dialog box for entering job information.

To use a custom job, the requisite program for the job must be installed.

(D) Data Highway - Server
A product that performs high speed and large size file transfer via internet.

Delivery
In this manual, "Delivery" is used to indicate that Data Highway - Server transmits and receives messages and files.

Delivery ID
It is ID for specifying uniquely the transmission and reception data which Data Highway - Server manages. It is used when operating specific data by the data transfer command or the data transfer management command.

Delivery policy
The rule for sending files or folders on "Data Highway - Server". For example, the maximum size of file or the delivery expiration.

DH custom job
A custom job that uploads data to Data Highway - Server or receives data from Data Highway - Server.

(I) In-box
The reception data to the user whom Data Highway - Server manages.
Job definition program
A program cooperates with JP1/AJS3 - Manager or JP1/AJS3 - Agent and defines a DH custom job.

Job execution program
A program cooperates with JP1/AJS3 - Manager or JP1/AJS3 - Agent and executes a DH custom job.

JP1/AJS macro variable
A variable defined for a succeeding job for referencing information received in an event. By defining a macro variable name in an event job, you can pass the event information to a succeeding job or jobnet.

Specify macro variables in the form ?AJS2xxxxxxxxx?:name-of-information-to-pass.

LDAP authentication system
When log in to Data Highway - Server, it is authentication system to authenticate with a directory server.

Out-box
The data which the user whom Data Highway - Server manages transmitted.

Receive
In this manual, "Receive" is used to indicate the manipulation of downloading data from "Data Highway - Server".

Receive custom job
A DH custom job that downloads data from Data Highway - Server.

Send
In this manual, "Send" is used to indicate the manipulation of uploading data to Data Highway - Server.

Send custom job
A DH custom job that uploads data to Data Highway - Server.

Standard authentication system
It is authentication system which is standard when login to Data Highway - Server.
There is two "authentic method". "Login by Password" uses a user ID and a password. "Login by Certification" uses an electronic certificate.
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