Information Collection

Issue	01
Date	2024-10-31

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Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang
Shenzhen 518129
People's Republic of China

Website: https://www.huawei.com

Email: support@huawei.com

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1 Overview

The information collection tool is used to collect logs, configurations, and other information of devices. This tool supports one-click collection, batch collection, customization of collection items, data compression, and progress display. Moreover, you can use this tool to collect the logs of storage devices in a specific period and the SMART information of storage devices.

The following are common operations:

- Add a device.
- Set an information collection task.
- Collect information.
- Split logs.
- Open the collection directory.
- Change the collection directory.

You can click **List of Supported Devices** to view the supported device models and versions.

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2 Tool Usage

About This Chapter

This chapter describes the details about how to use the tool.

2.1 Information Collection Process
This section describes the information collection process.

2.2 Adding a Device
This operation enables the system to add a device that you want manage and maintain.

2.3 Setting an Information Collection Task
This operation allows you to set the information collection items, and modify the device information.

2.4 Changing the Collection Directory
This operation enables you to change the collection directory, facilitating system management and maintenance.

2.5 Splitting Logs
The log splitting function allows you to split an over-sized log package before you upload it and helps you quickly upload log information.

2.6 Collecting Information
This operation allows you to collect information about selected devices. The information collection is used to upload debugging information from a specified node to an external server. Debugging information contains logs and configuration information and is used by technical support engineers to analyze the running status of devices. Before transferring the debugging information out of the user's network, ask the user's permission.

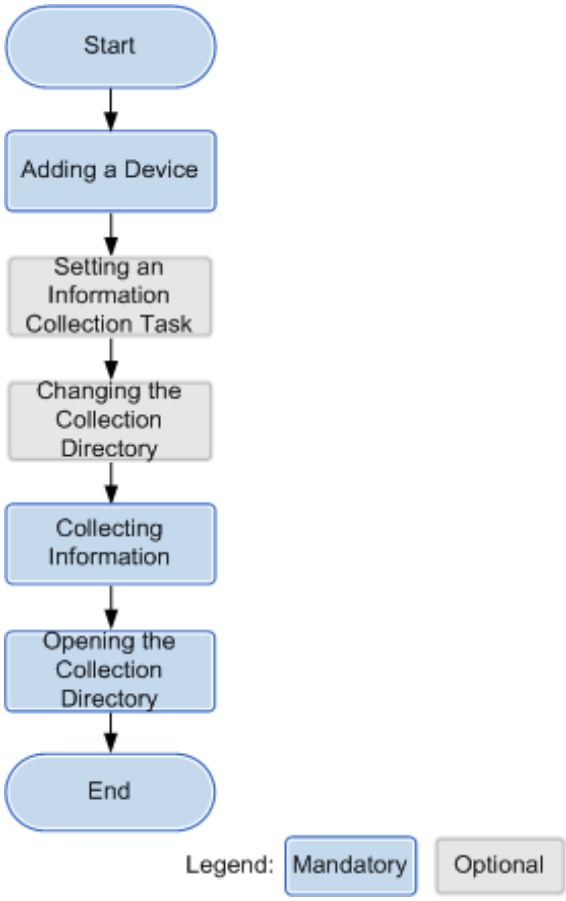
2.7 Opening the Collection Directory
This operation enables you to view collection result files, facilitating system management and maintenance.

2.1 Information Collection Process

This section describes the information collection process.

Figure 2-1 shows the information collection process.

Figure 2-1 Information collection process



NOTE

Information collection settings are mandatory for scale-out devices.

2.2 Adding a Device

This operation enables the system to add a device that you want manage and maintain.

Prerequisites

You have obtained the username, password, port, and IP address or IP address segment of the device.

Procedure

Step 1 Click **Add Devices**.

The position of the button varies for different tools. The **Add Device Step 2-1: Basic Information** page is displayed.

Step 2 Under **Add Policy**, select a way to add devices.

- **Specify IP Address**: Add one device by providing its IP address.

- **Specify IP Segment**: Add multiple devices by providing their IP address range.

Step 3 (Optional) Select **No Proxy** or **SSH Forward** under **Select Proxy**.

- Configure **SSH Forward**.
  a. Select **SSH Forward**.
  b. Go to **System Config**.
     - If SSH has not been added, the **Information** dialog box is displayed. Click **OK**. The **System Config** dialog box is displayed.
     - If SSH has been added, click **Config**. The **System Config** dialog box is displayed.
  c. Click on the right of **SSH Forwards**. Enter **SSH forward name**. Click **OK**.

     NOTE

     Alternatively, you can select an existing SSH forward and click to delete it.
  d. Click the button to the right of **Forward Node Details**. Then enter **IP address**, **Username**, **Password**, and **Port**.

     NOTE

     You can also select an added node and click to delete the node.
  e. Click **OK**. The SSH forward configuration is complete. You can click **Config** to modify the SSH forward information.

NOTE

- If you need the SSH forward, select **SSH Forward** in **Select Proxy**. Otherwise, select **No Proxy**.
- Currently, the OSs supporting the SSH forward function are SUSE 10 Linux, SUSE 11 Linux, and Solaris 11.

Step 4 (Optional) Click **Customize Authentication** in the lower left corner of the page to select an authentication method.

The default value is **Username and password authentication**. If PublicKey is needed, select **Publickey authentication** or **Username and password authentication and Publickey authentication**.

Step 5 Click **OK**.

Click **Next** in the **Add Device** dialog box. The **Add Device Step 2-2: Configure Information** dialog box is displayed.

- Information configuration when **Username and password authentication** is selected
- Information configuration when **Publickey authentication** is selected
- Information configuration when **Username and password authentication and Publickey authentication** is selected

Step 6 Under **Login Information**, enter **Username**, **Password**, and **Port** for logging in to the device.

NOTE

- The default port number is **22**.
- Obtain the default device login username and password from the device administrator or related documents.
- If **Publickey authentication** is selected, you only need to fill in **Username** and **Port**.

Step 7 (Optional) Select **Need Debugging Password** and enter **Debugging Password**.

NOTE

You can use the debugging password to go to the debugging mode of the device. Click **View** in **Login Information** to check the models and versions of the devices that support debugging passwords.

Step 8 (Optional) In the **Publickey Authentication** area, enter the key and password.

NOTE

- The **Username and password authentication and Publickey authentication** method supports mid-range and entry-level unified storage devices of V300R005C00 and later versions as well as S5000 T series V100R005C30 storage devices. The former supports RSA-2048 and DEA-2048 encryption algorithms, while the latter the AES-128 encryption algorithm.
- If **Publickey authentication** is selected, **Username** and **Port** in the **Login Information** area are mandatory, and **Key** and **Password** in the **Publickey Authentication** area are mandatory.
- If **Username and password authentication and Publickey authentication** is selected, **Username**, **Password**, and **Port** in the **Login Information** area are mandatory, and **Key** and **Password** in the **Publickey Authentication** area are mandatory.

Step 9 Click **Finish**. The device is successfully added.

- When an SSH server is added for the first time or the fingerprint of an SSH server changes, a message is displayed asking whether you want to continue to register the SSH server.
- When a device is added for the first time or a device certificate is not trusted, a message is displayed indicating that the connection is not trusted.

----End

2.3 Setting an Information Collection Task

This operation allows you to set the information collection items, and modify the device information.

Prerequisites

The device has been added into the device management list and is not in information collection.

Procedure

Step 1 Click **Setting** corresponding to the device on the **Information Collection** page.

The **Set Device Information Collection** dialog box is displayed.

Step 2 (Optional) Set the device information collection time.

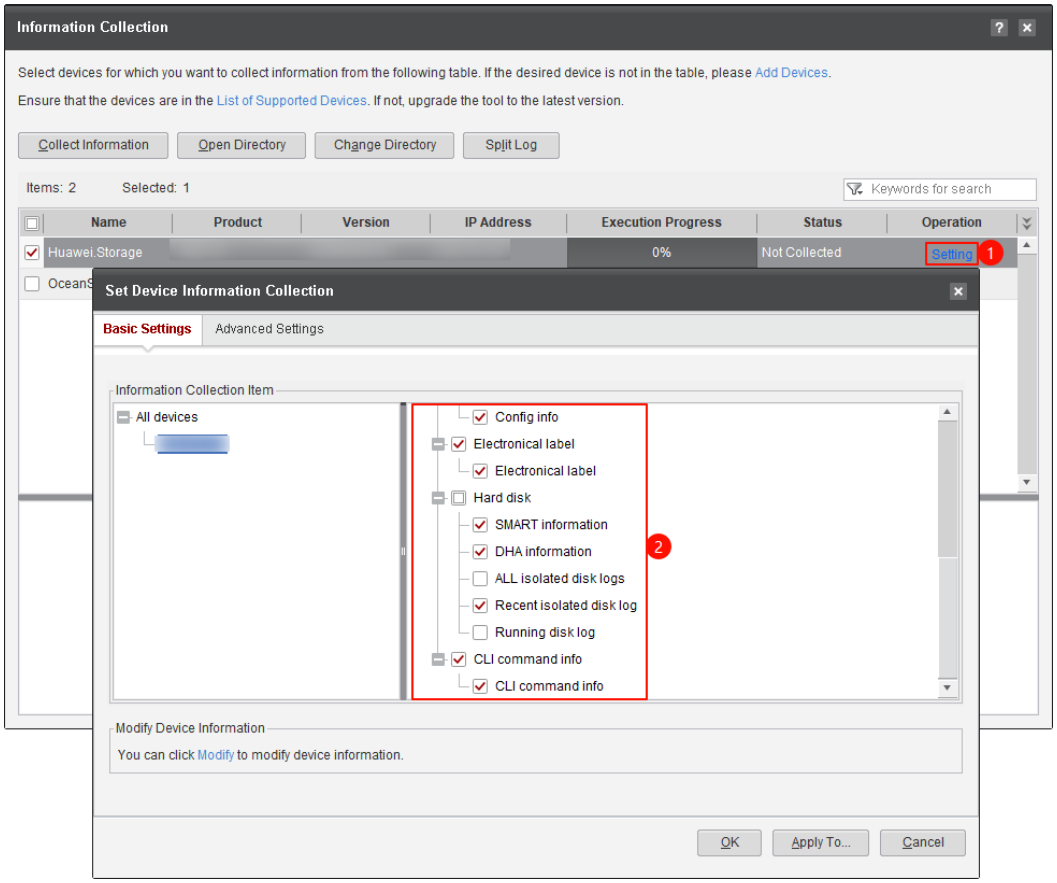
You can select **Latest day**, **Latest week**, or **Latest month**, or customize the period.

NOTE

Certain devices do not support the **Collection Period** function.

Step 3 Set the information collection items.

Take the flash storage device as an example. The left panel shows the IP addresses of selected devices and the right panel shows the information items to be collected. Select the information items that you want to collect. If a device has integrated multiple devices, the left panel may show multiple devices. Move the cursor over a device to view the device's model and version.



NOTE

- The **Set Device Information Collection** page varies according to products.
- The tool can collect information about faulty or specified disks as required.
  - Collecting information of faulty disks

    In the right pane, select **All isolated disk logs** or **Recent isolated disk logs**.
  - Collecting information about specified disks

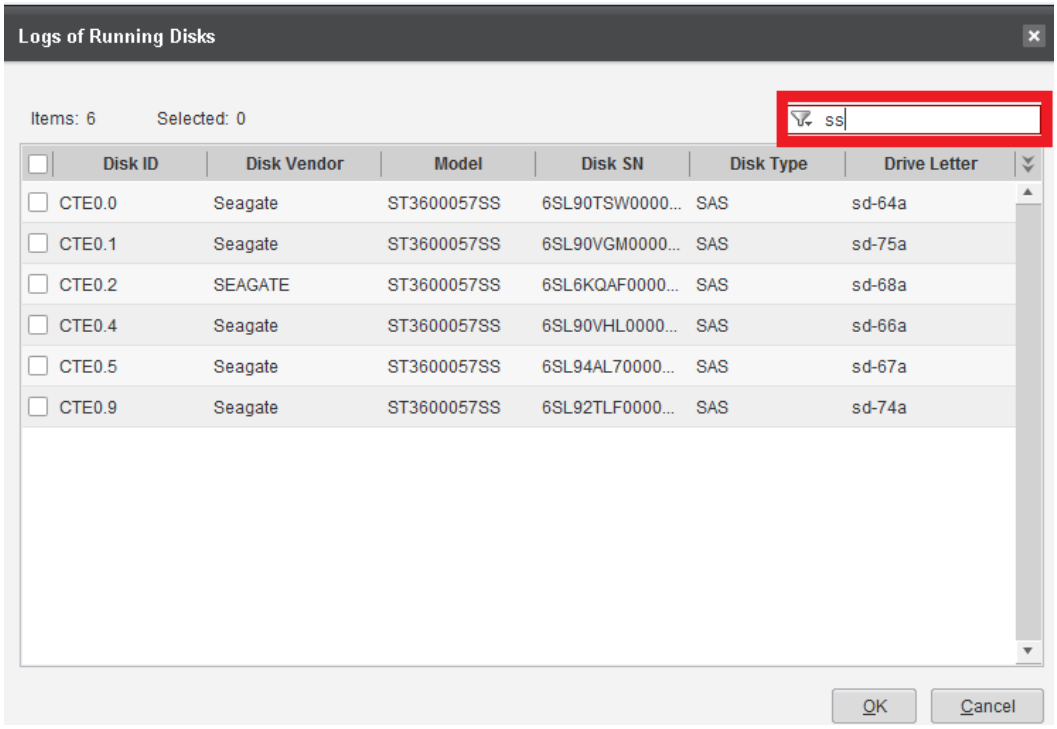
    In the right pane of the window, find **Running disk log** and select it.

    The **Logs of Running Disks** dialog box is displayed. The basic information about the disks is listed in a table.

    Enter keywords in the upper right corner of the dialog box to filter disk information in the table. The keywords are case-insensitive.

    You can select check boxes to collect information about the corresponding items. To select all items, select the check box at the table heading in the upper left corner of the window.

    As shown in the following figure, enter **ss** in the search box. The tool automatically displays all the disk information that contains **ss**. Select the disks whose information you want to collect.



    To apply the selected information, click **OK**.

    To cancel the modification, click **Cancel**.

Step 4 (Optional) Modify device information.

1. Click **Modify**.

   The **Modify** dialog box is displayed.
2. Modify **Username**, **Password**, **Port**, and **Debugging Password**.
3. Click **OK** or **Apply To**.
   - Click **OK**. The device information is modified successfully.
   - Click **Apply To**. Select one or more devices, and click **OK**. The modified device information will be applied to other devices selected.

Step 5 (Optional) Click the **Advanced Settings** tab page and set advanced settings for information collection.

NOTE

Certain devices do not support the **Advanced Settings** function. This function varies with product models. For details about the settings, see the corresponding routine maintenance guide.

Step 6 Click **OK**. An information collection task is set for the device.

----End

2.4 Changing the Collection Directory

This operation enables you to change the collection directory, facilitating system management and maintenance.

Procedure

Step 1 On the **Information Collection** page, click **Change Directory** to go to the **Select Directory** dialog box.

Step 2 Set a new collection directory on the **Select Directory** page.

Step 3 Click **Save**. The collection directory is changed.

NOTE

The collection directory can contain only letters, digits, underscores (_), periods (.), and non-consecutive spaces.

----End

2.5 Splitting Logs

The log splitting function allows you to split an over-sized log package before you upload it and helps you quickly upload log information.

Context

- The system can split only the log package in *.7z format collected by the information collection tool and whose size is less than 2 GB.
- The split log package is saved in the same path as the source log package, and the source log package is retained after the splitting.
- Log splitting applies only to flash storage devices.

Procedure

Step 1 On the **Information Collection** page, click **Split Log**.

The **Split Log** dialog box is displayed.

Step 2 Set log splitting parameters.

1. In the **Source file** area, click **Browse** and select a log package that you want to split.

   The **Select Log Package** dialog box is displayed.
2. Select a compressed log package that you want to split and click **OK**.
3. In the **Log splitting setting** area, configure **Start time** and **End time**.
4. Click **Browse** and select a path to save the package that is split.
5. Click **Start Splitting**. In the lower part of the **Split Log** dialog box, the splitting progress and result are displayed.
6. Click **Open Log Path** to open the path that saves the split logs.

   NOTE

   The name of the split package contains all key information and log information within the set time range, for example, **Data_5600V3_20160614163508_cut_20160614163618.7z**. You can search for the package based on your needs.
7. Click **Close**.

----End

2.6 Collecting Information

This operation allows you to collect information about selected devices. The information collection is used to upload debugging information from a specified node to an external server. Debugging information contains logs and configuration information and is used by technical support engineers to analyze the running status of devices. Before transferring the debugging information out of the user's network, ask the user's permission.

Prerequisites

- A device has been added to the device management list.
- The interval between the two information collection is suggested more than 5 minutes.

Procedure

Step 1 On the **Information Collection** page, select devices from the device list and click **Collect**.

NOTE

Ensure that the current device is included in the list of supported devices. Otherwise, upgrade the tool to the latest version.

Step 2 If an information collection task has been set for the device, the system collects information in accordance with the task's settings. If no information collection task has been set for the device, the system collects information in accordance with the default settings.

The information collection result folder is named by the device's IP address. The file name extension is ***.7z**.

Step 3 After the device's information is collected, you can open the collection directory to view the collection result file.

----End

2.7 Opening the Collection Directory

This operation enables you to view collection result files, facilitating system management and maintenance.

Procedure

Step 1 On the **Information Collection** page, click **Open Directory** to go to the collection directory.

There are folders named by devices' IP addresses in the collection directory. Devices' information collection result files are stored in the folders.

----End

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3 FAQs

About This Chapter

This chapter answers the frequently asked questions (FAQs) about the tool.

3.1 Why Is the System Busy Message Displayed When Information Collection Fails?

3.2 Why Are the Displayed Disks Incomplete When the Information Collection Tool Is Collecting Running Disk Logs?

3.3 What Can I Do After the Inspection or Information Collection Task for Removing a Node From a Scale-Out Storage Device Fails?

3.4 There Are Multiple Files in the Collection Directory After Information Collection and a .tmp File also exists. Which One Is the Actual Collection File?

3.1 Why Is the System Busy Message Displayed When Information Collection Fails?

Question

Why is the system busy message displayed when information collection fails?

Answer

Certain devices do not support operations by multiple users. If a device is being used by more than one user, the information collection fails and the message indicating that the system is busy is displayed.

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3.2 Why Are the Displayed Disks Incomplete When the Information Collection Tool Is Collecting Running Disk Logs?

Question

Why are the displayed disks incomplete when the information collection tool of a version earlier than OceanStor V300R006C10 and V300R002C00 (OceanStor Dorado) is collecting running disk logs?

Answer

For versions earlier than OceanStor V300R006C10 and V300R002C00 (OceanStor Dorado), the information collection tool cannot collect internal disk logs across controllers due to product restriction. If you need to collect internal disk logs on other controllers, delete the IP address of the current device and add the IP address of another controller and collect such logs again.

3.3 What Can I Do After the Inspection or Information Collection Task for Removing a Node From a Scale-Out Storage Device Fails?

Question

What can I do after the inspection or information collection task for removing a node from a scale-out storage device fails?

Answer

After a scale-out storage device is added on SmartKit, a node is removed from the cluster. SmartKit fails to obtain correct cluster information, and the inspection or information collection fails. Select the cluster and update its information on SmartKit. Then, perform the inspection or information collection again.

3.4 There Are Multiple Files in the Collection Directory After Information Collection and a .tmp File also exists. Which One Is the Actual Collection File?

Question

There are multiple files in the collection directory after information collection and a .tmp file also exists. Which one is the actual collection file?

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Answer

The .tmp file is the actual collection file. Delete **.tmp** from the .tmp file name. Collected information is compressed using 7z. When compressing file B into file A, 7z generates temporary file **A.tmp**. After the compression is complete, 7z deletes file A and renames file **A.tmp** as file A. However, file A may not be deleted occasionally because of high CPU usage of 7z, and then **A.tmp** fails to be renamed.

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