### sftp

Allows you to browse the file system on the SFTP server or transmit the input records to the file.

#### Syntax

sftp PROFILE SUBCOMMAND [OPTIONS] PATH

Required Parameter

**PROFILE**

SFTP connect profile. You can configure the profile in the web console.

**SUBCOMMAND**

Command to be executed in the sftp session: ls, cat, put

* ls: Lists the files in the path specified by PATH on the server.
* cat: Loads the content of the file in the path specified by PATH from the server and assigns it in the **line** field.
* put: Transmits the records ​​of the fields specified by the fields option to the SFTP server as a file. The file is created in the path specified by PATH.

**PATH**

Path to a directory or file. If you use a wildcard (\*) in the file name, you can retrieve all files containing a specific string pattern in the file name (e.g. /var/log/httpd/\* ).

* When **SUBCOMMAND** is ls, you can enter either a directory or a file path.
* When **SUBCOMMAND** is cat, you can enter only the file path.
* When **SUBCOMMAND** is put, you can enter only the file path.

Optional Parameter

The options for each SUBCOMMAND are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Options | `cat` | `put` | `ls` |
| append | O | - | - |
| encoding | O | O | - |
| fields | - | O | - |
| format | O | O | - |
| limit | O | - | - |
| maxsession | - | O | - |
| multisession | - | O | - |
| offset | O | - | - |
| overwrite | - | O | - |
| partition | - | O | - |

**append=BOOL**

Option to enable appending data to the end of the file specified as PATH (default: f).

* t: Appends the field records to the end of the file specified as PATH. If the file does not exist, the file is created. You cannot set this option to t when the overwrite=t.
* f: NOT append the field records to the end of the file specified as PATH. The query fails if the file exists.

When 'append=t', always keep the list order of the 'fields' option the same so that data can be consistent.

**encoding=CHARSET**

Character set (default: utf-8). Use the preferred MIME name or aliases registered in the following document: <https://www.iana.org/assignments/character-sets/character-sets.xhtml>

**fields=FIELD,...**

Fields to be transmitted to the FTP server (default: line). Use comma (,) without any leading or trailing whitespaces as a separator. If there is no line field or the specified field is empty, it is replaced with a hyphen symbol (-) in the output to indicate the field is empty.

**format=FORMAT**

File format (csv, json, tsv, default: plain text).

* csv or tsv
* When **SUBCOMMAND** is cat, the first line is considered a regular record. Field name (column header) is assigned in the form columnN (N is a number starting from 0)
* When **SUBCOMMAND** is put, field names (column header) are assigned with the field names specified by the fields option.
* json
* When **SUBCOMMAND** is cat, it parses the file into the records of key-value pairs line by line. The keys are used as field names, and the values are used as field values.
* When **SUBCOMMAND** is put, it transmits the records consisting of the key-value pairs of the fields specified by the fields option. If the fields option is not specified, records consisting of all field values are transmitted.
* Not specified (plain text)
* When **SUBCOMMAND** is cat, it loades the values to the **line** field line by line.
* When **SUBCOMMAND** is put, it transmits the file in a text format. Values are separated by tab characters in plain text, and empty values (nulls) are replaced with hyphens (-).

**limit=INT**

Number of records to be output when importing files from the SFTP server (default: unlimited).

**maxsession=INT**

Maximum number of sessions when multisession=t (default: 1). If you specify this option without checking whether to use multi-session, the query fails. No matter how large the number is, as many sessions are opened as the number of MaxSessions specified in the sshd\_config file.

**multisession=BOOL**

Option to enable multi-session (default: f). Enable this option after testing because it takes longer to open additional sessions and may result in lower performance than not using it.

* t: Enables multi-session.
* f: Disables multi-session.

**offset=INT**

Number of rows you want to skip when importing files from the SFTP server (default: 0).

**overwrite=BOOL**

Option to enable overwriting the file specified as PATH, if it exists (default: f).

* t: Overwrites the file specified as PATH, if it exists. You cannot set this option to t when the append=t.
* f: NOT overwrite the file specified as PATH, if it exists. The query fails if the file exists.

**partition=BOOL**

Option to enable macro in the PATH (default: f).

* t: Enables macro.
* f: Disables macro.

You can specify PATH to change the directory and file path over time using a macro when partition=t. The available macros are {logtime:FMT} and {now:FMT}. For input examples, refer to Usage #6.

* {logtime:FMT}: Names the directory or file based on the log occurrence time.
* {now:FMT}: Names the directory or file based on the current time.

If you specify a partition option and do not use a macro on the path, the query fails.

#### Usage

Retrieve remote directory files by accessing SSH with an srv profile.

sftp srv ls /

Each query result field has the following meanings:

* **type** (string): dir when it is a directory, file when it is a file
* **is\_link** (boolean): Whether it is a symbolic link
* **name** (string): File name
* **file\_size** (integer): File size, 0 when it is a directory
* **modified\_at** (date): Last modified time
* **uid** (integer): Owner ID
* **gid** (integer): Owned group ID
* **perms** (string): File permission information

Read the first 5 rows of the /logpresso.sh file by accessing the srv profile.

sftp srv cat limit=5 /logpresso.sh

Output only UnloadedClassCount of LoadedClassCount among the JMX class loading logs to the /tmp/class.txt file.

table classloading | sftp srv put fields=UnloadedClassCount,LoadedClassCount /tmp/class.txt

Output the JMX class loading log to the /tmp/class.json file.

table classloading | sftp srv put format=json /tmp/class.json

Output LoadedClassCount, UnloadedClassCount, and TotalLoadedClassCount among the JMX class loading logs to the /tmp/class.csv file.

table classloading | sftp srv put format=csv fields=LoadedClassCount,UnloadedClassCount,TotalLoadedClassCount /tmp/class.csv

Output the LoadedClassCount, UnloadedClassCount, and TotalLoadedClassCount items among the JMX class loading logs to a JSON file. As the file is stored, the year, month and day based on the log time are used as the name of the directory (yyyy/MM/dd) and the hour and minute based on the current time are used as the name of the file (HHmm)

table classloading | sftp srv put format=json partition=t fields=LoadedClassCount,UnloadedClassCount,TotalLoadedClassCount {logtime:/yyyy/MM/dd/}{now:HHmm}.txt