



HoopoeFS

Client Manual

For questions: support@hoopoe-cloud.com

Revision History

| Revision | Description | Date |
|-----------------|----------------------------------|-------------|
| 1.0 | Initial version of the document. | 26/8/2009 |
| | | |

Table of Contents

| | |
|--------------------------------------|----------|
| REVISION HISTORY | 2 |
| STARTING WITH HOPOEFS™ CLIENT | 4 |
| Introduction | 4 |
| What is HoopoeFS™? | 4 |
| Features | 4 |
| COMMAND LINE REFERENCE | 5 |
| Commands | 5 |
| Parameters | 5 |
| Global Parameters | 5 |
| Directory commands | 6 |
| MKDIR | 6 |
| RMDIR | 6 |
| RENAME | 6 |
| File commands | 6 |
| CREATE | 6 |
| DELETE | 6 |
| UPLOAD | 6 |
| DOWNLOAD | 7 |
| MOVE | 7 |
| EXAMPLES | 8 |
| Creating a directory | 8 |
| Deleting a directory | 8 |
| Rename a directory | 8 |
| Creating a file | 8 |
| Deleting a file | 8 |
| Uploading a file | 8 |
| Downloading a file | 9 |
| Moving a file | 9 |
| Renaming a file | 9 |

Starting with HoopoeFS™ Client

Introduction

What is HoopoeFS™?

HoopoeFS is a storage service provided as complementary service to the Hoopoe™ cloud infrastructure for GPU computing.

This service allows users to store data for computing on the cloud infrastructure and read back results.

The service was developed with simplicity of use in mind to provide users with a simple to access and intuitive API.

This document lists the features and usage of the command line client available for HoopoeFS. This client supports all of the features exposed by the HoopoeFS service.

Features

Like with normal file-systems, the service supports the following objects:

- **Files** – containing data to compute
- **Directories** – to host multiple file within, allowing better organization of data for the user

For each of the objects above the following operations are supported:

- **Create** – for creating empty, new objects
- **Delete** – for deleting an existing object
- **Rename** – for changing the name of an object

In addition to the above, files also support these operations:

- **Move** – for moving a file between directories
- **Read** – for reading data contained in a stored file
- **Write** – for writing data to a stored file

At the moment, only single level of directories is supported under the root directory of the user.

Command line reference

The name of executable to run is:

hoopoe fs

Users of the application under Linux may execute the following command (using Mono):

mono hoopoe fs

In this manual, we assume usage under Windows®, so Linux users may replace occurrences of "*hoopoe fs*" with "*mono hoopoe fs*" as necessary.

A typical command line of the client is:

hoopoe fs <command> <parameters>

Commands

Available commands are given the following table:

| Command | Description |
|-----------------|---|
| help | Prints help information and usage about commands |
| mkdir | Creates a new directory |
| rmdir | Removed an existing directory |
| delete | Deletes an existing file |
| list | Lists files and directories under the given path (root directory or else) |
| upload | Uploads a local file to be stored under HoopoeFS |
| download | Downloads a file from HoopoeFS to the local file system |
| info | Prints information and statistics about the user storage account |

Parameters

Parameters have the usual for of: *--param=value*

For a full description of available parameters please consult the specific command section.

Global Parameters

The client can accept global parameters that are used across multiple commands.

They may be added or required for every command one executes.

These parameters are:

| Parameter | Description |
|-------------------|--|
| --user | The value is the user name needed to authenticate with the storage service. This parameter is required in all commands to allow proper execution. |
| --password | The value is the password of the username used in the previous line, to successfully authenticate with the storage service. This parameter is required in all commands to allow proper execution. |
| --cd | Sets the current directory to execute commands at. In commands affected by this parameter, the root directory will be replaced by the given path. |
| --verbose | Setting this parameter will enable more information to be printed by the client application - this can be helpful to find some problems. |

Directory commands

MKDIR

Accepts the following parameters:

| Parameter | Description |
|-----------|--|
| --name | Directory name to create under the root directory of the user. This parameter is required. |

RMDIR

Accepts the following parameters:

| Parameter | Description |
|-----------|--|
| --name | Directory name to delete under the root directory of the user. This parameter is required. |

RENAME

Accepts the following parameters:

| Parameter | Description |
|-----------|--|
| --src | Source directory name to rename. This parameter is required. |
| --dst | Destination directory name for rename. This parameter is required. |

File commands

Note: "--cd" parameter applies to all file commands.

CREATE

Accepts the following parameters:

| Parameter | Description |
|-----------|---|
| --name | File name to create. This parameter is required. |
| --cd | Sets current directory to create the file. If this parameter is not set, then root directory is assumed. This parameter is optional. |

DELETE

Accepts the following parameters:

| Parameter | Description |
|-----------|--|
| --name | File name to delete. This parameter is required. |
| --cd | Sets current directory to delete the file from. If this parameter is not set, then root directory is assumed. This parameter is optional. |

UPLOAD

Accepts the following parameters:

| Parameter | Description |
|-----------|-------------|
|-----------|-------------|

| | |
|---------------|--|
| --name | Local file name or path to upload. The file will be created with the same name in the HoopoeFS storage. This parameter is required. |
| --cd | Sets current directory to upload the file to. If this parameter is not set, then root directory is assumed. This parameter is optional. |

DOWNLOAD

Accepts the following parameters:

| Parameter | Description |
|---------------|--|
| --name | File name download. A local file with the same name will be created in the current directory of the user. This parameter is required. |
| --cd | Sets current directory to download the file from. If this parameter is not set, then root directory is assumed. This parameter is optional. |

MOVE

Accepts the following parameters:

| Parameter | Description |
|------------------|--|
| --src | Source file name to move/rename. This parameter is required. |
| --dst_dir | Destination directory name for move operation. This parameter is optional. |
| --dst | Destination file name for rename. This parameter is required. |
| --cd | Sets current directory for the source file. If this parameter is not set, then root directory is assumed. This parameter is optional. |

Examples

Creating a directory

The following command will create a directory named "test_data" under the root directory of the user's storage account.

```
hoopoe fs mkdir --name=test_data --user=sample@hoopoe-cloud.com --password=test123
```

Deleting a directory

The following command will delete a directory named "test_data" under the root directory of the user's storage account.

Note: Deleting a directory is a recursive operation, which means that all content under that directory will be deleted.

```
hoopoe fs rmdir --name=test_data --user=sample@hoopoe-cloud.com --password=test123
```

Rename a directory

The following command will rename a directory named "test_data" to "tester_data" under the root directory of the user's storage account.

```
hoopoe fs rename --src=test_data --dst=tester_data --user=sample@hoopoe-cloud.com --password=test123
```

Creating a file

The following command will create an empty file named "samples.bin" under the root directory of the user's storage account.

```
hoopoe fs create --name=samples.bin --user=sample@hoopoe-cloud.com --password=test123
```

This command will create the same file under the "test_data" directory.

```
hoopoe fs create --name=samples.bin --cd=test_data --user=sample@hoopoe-cloud.com --password=test123
```

Deleting a file

The following command will delete a file named "samples.bin" under the root directory of the user's storage account.

```
hoopoe fs delete --name=samples.bin --user=sample@hoopoe-cloud.com --password=test123
```

This command will delete the same file located under the "test_data" directory.

```
hoopoe fs delete --name=samples.bin --cd=test_data --user=sample@hoopoe-cloud.com --password=test123
```

Uploading a file

The following command will upload a local file named "input.dat" to the root directory of the user's storage account.

```
hoopoe fs upload --name=input.dat --user=sample@hoopoe-cloud.com --password=test123
```

This command will upload the same file under the "test_data" directory.

```
hoopoe fs upload --name=input.dat --cd=test_data --user=sample@hoopoe-cloud.com --password=test123
```

Another option is to upload a file using a relative path in the local file-system.

```
hoopoe fs upload --name=../input.dat --cd=test_data --user=sample@hoopoe-cloud.com --password=test123
```

Downloading a file

The following command will download a file named "output.dat" from the root directory of the user's storage account.

```
hoopoe fs download --name=output.dat --user=sample@hoopoe-cloud.com --password=test123
```

This command will download the same file from the "test_data" directory.

```
hoopoe fs download --name=output.dat --cd=test_data --user=sample@hoopoe-cloud.com --password=test123
```

Moving a file

The following command will move a file named "temp.dat" from the root directory to a directory named "test_data" in the user's storage account.

```
hoopoe fs move --src=output.dat --dst_dir=test_data --user=sample@hoopoe-cloud.com --password=test123
```

This command will move a file named "temp.dat" between directories, the source named "test_data_src" to a directory named "test_data_dst" in the user's storage account.

```
hoopoe fs move --src=output.dat --cd=test_data_src --dst_dir=test_data_dst --user=sample@hoopoe-cloud.com --password=test123
```

Renaming a file

The following command will rename a file named "temp.dat" to "output" under the root directory of the user's storage account.

```
hoopoe fs move --src=temp.dat --dst=output.dat --user=sample@hoopoe-cloud.com --password=test123
```

This command will perform the same rename under the "test_data" directory.

```
hoopoe fs move --src=temp.dat --dst=output.dat --cd=test_data --user=sample@hoopoe-cloud.com --password=test123
```