

二 HFDS 的 Shell 操作

1) 基本语法

`bin/hadoop fs` 具体命令

2) 命令大全

`[atguigu@hadoop102 hadoop-2.7.2]$ bin/hadoop fs`

```
[-appendToFile <localsrc> ... <dst>]
[-cat [-ignoreCrc] <src> ...]
[-checksum <src> ...]
[-chgrp [-R] GROUP PATH...]
[-chmod [-R] <MODE[,MODE]... | OCTALMODE> PATH...]
[-chown [-R] [OWNER][:[GROUP]] PATH...]
[-copyFromLocal [-f] [-p] <localsrc> ... <dst>]
[-copyToLocal [-p] [-ignoreCrc] [-crc] <src> ... <localdst>]
[-count [-q] <path> ...]
[-cp [-f] [-p] <src> ... <dst>]
[-createSnapshot <snapshotDir> [<snapshotName>]]
[-deleteSnapshot <snapshotDir> <snapshotName>]
[-df [-h] [<path> ...]]
[-du [-s] [-h] <path> ...]
[-expunge]
[-get [-p] [-ignoreCrc] [-crc] <src> ... <localdst>]
[-getfacl [-R] <path>]
[-getmerge [-nl] <src> <localdst>]
[-help [cmd ...]]
[-ls [-d] [-h] [-R] [<path> ...]]
[-mkdir [-p] <path> ...]
[-moveFromLocal <localsrc> ... <dst>]
[-moveToLocal <src> <localdst>]
[-mv <src> ... <dst>]
[-put [-f] [-p] <localsrc> ... <dst>]
[-renameSnapshot <snapshotDir> <oldName> <newName>]
[-rm [-f] [-r|-R] [-skipTrash] <src> ...]
[-rmdir [--ignore-fail-on-non-empty] <dir> ...]
[-setfacl [-R] [{-b|-k} {-m|-x <acl_spec>} <path>][--set <acl_spec> <path>]]
[-setrep [-R] [-w] <rep> <path> ...]
[-stat [format] <path> ...]
[-tail [-f] <file>]
[-test [-defsz] <path>]
[-text [-ignoreCrc] <src> ...]
[-touchz <path> ...]
[-usage [cmd ...]]
```

3) 常用命令实操

(0) 启动 Hadoop 集群（方便后续的测试）

```
[atguigu@hadoop102 hadoop-2.7.2]$ sbin/start-dfs.sh
```

```
[atguigu@hadoop103 hadoop-2.7.2]$ sbin/start-yarn.sh
```

(1) -help: 输出这个命令参数

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -help rm
```

(2) -ls: 显示目录信息

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -ls /
```

(3) -mkdir: 在 hdfs 上创建目录

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -mkdir -p /sanguo/shuguo
```

(4) -moveFromLocal 从本地剪切粘贴到 hdfs

```
[atguigu@hadoop102 hadoop-2.7.2]$ touch kongming.txt
```

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -moveFromLocal ./kongming.txt  
/sanguo/shuguo
```

(5) --appendToFile : 追加一个文件到已经存在的文件末尾

```
[atguigu@hadoop102 hadoop-2.7.2]$ touch liubei.txt
```

```
[atguigu@hadoop102 hadoop-2.7.2]$ vi liubei.txt
```

输入

san gu mao lu

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -appendToFile liubei.txt  
/sanguo/shuguo/kongming.txt
```

(6) -cat : 显示文件内容

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -cat /sanguo/shuguo/kongming.txt
```

(7) -tail: 显示一个文件的末尾

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -tail /sanguo/shuguo/kongming.txt
```

(8) -chgrp、-chmod、-chown: linux 文件系统中的用法一样，修改文件所属权限

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -chmod 666  
/sanguo/shuguo/kongming.txt
```

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -chown atguigu:atguigu  
/sanguo/shuguo/kongming.txt
```

(9) -copyFromLocal: 从本地文件系统中拷贝文件到 hdfs 路径去

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -copyFromLocal README.txt /
```

(10) -copyToLocal: 从 hdfs 拷贝到本地

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -copyToLocal  
/sanguo/shuguo/kongming.txt ./
```

(11) -cp : 从 hdfs 的一个路径拷贝到 hdfs 的另一个路径

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -cp /sanguo/shuguo/kongming.txt  
/zhuge.txt
```

(12) -mv: 在 hdfs 目录中移动文件

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -mv /zhuge.txt /sanguo/shuguo/
```

(13) -get: 等同于 copyToLocal, 就是从 hdfs 下载文件到本地

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -get /sanguo/shuguo/kongming.txt ./
```

(14) -getmerge : 合并下载多个文件, 比如 hdfs 的目录 /aaa/下有多个文件:log.1,
log.2,log.3,...

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -getmerge  
/user/atguigu/test/* ./zaiyiqi.txt
```

(15) -put: 等同于 copyFromLocal

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -put ./zaiyiqi.txt /user/atguigu/test/
```

(16) -rm: 删除文件或文件夹

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -rm /user/atguigu/test/jinlian2.txt
```

(17) -rmdir: 删除空目录

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -mkdir /test
```

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -rmdir /test
```

(18) -du 统计文件夹的大小信息

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -du -s -h /user/atguigu/test
```

```
2.7 K /user/atguigu/test
```

```
[atguigu@hadoop102 hadoop-2.7.2]$ hadoop fs -du -h /user/atguigu/test
```

```
1.3 K /user/atguigu/test/README.txt
```

```
15 /user/atguigu/test/jinlian.txt
```

```
1.4 K /user/atguigu/test/zaiyiqi.txt
```

(19) -setrep: 设置 hdfs 中文件的副本数量

```
[atguigu@hadoop102 ~]$ hadoop fs -setrep 10 /sanguo/shuguo/kongming.txt
```

Permission	Owner	Group	Size	Last Modified	Replication	Block Size	Name
-rw-r--r--	atguigu	supergroup	0 B	2018/1/23 下午4:11:10	10	128 MB	kongming.txt

这里设置的副本数只是记录在 NameNode 的元数据中，是否真的会有这么多副本，还得看 DataNode 的数量。因为目前只有 3 台设备，最多也就 3 个副本，只有节点数的增加到 10 台时，副本数才能达到 10。