

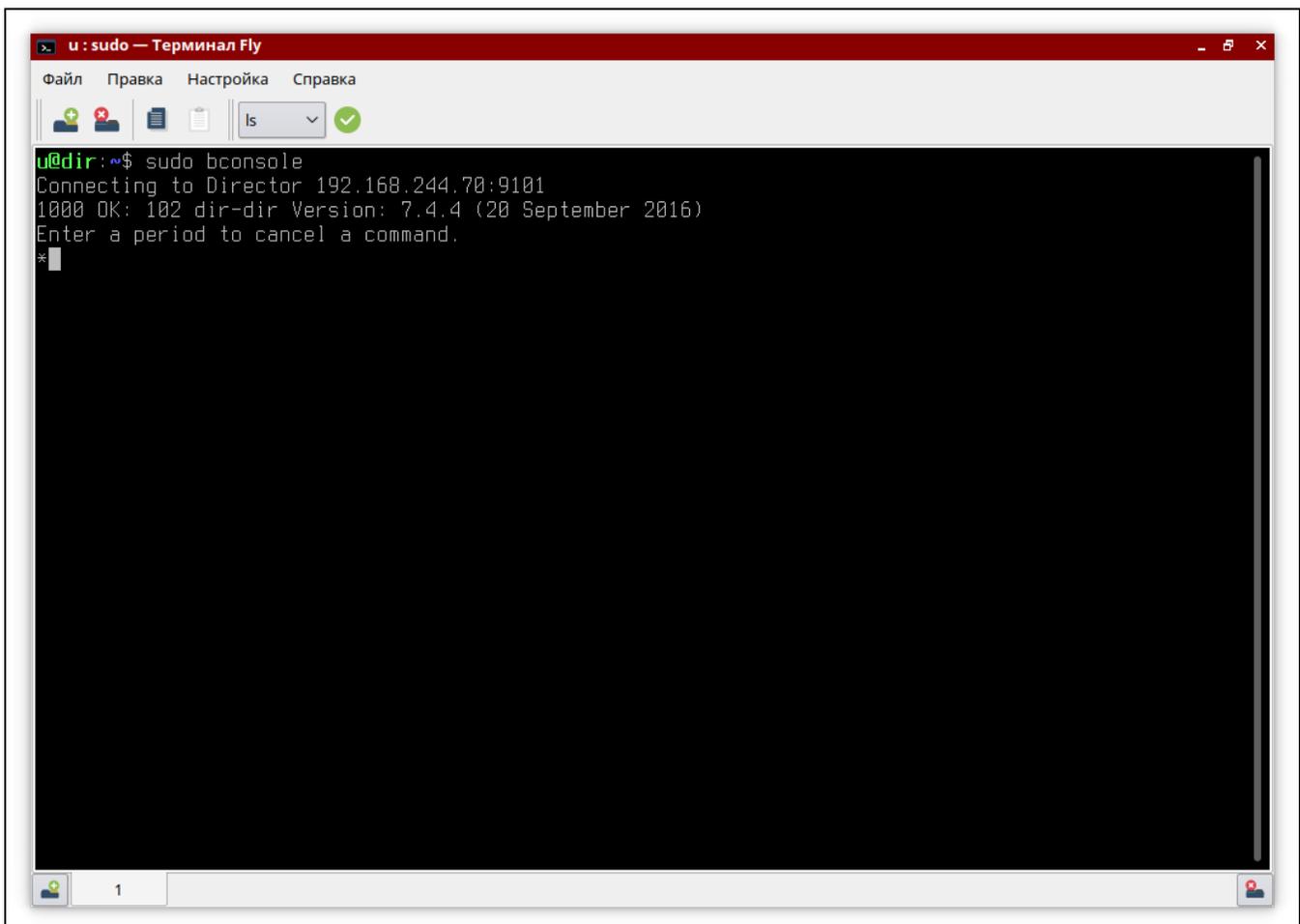
# Bacula:

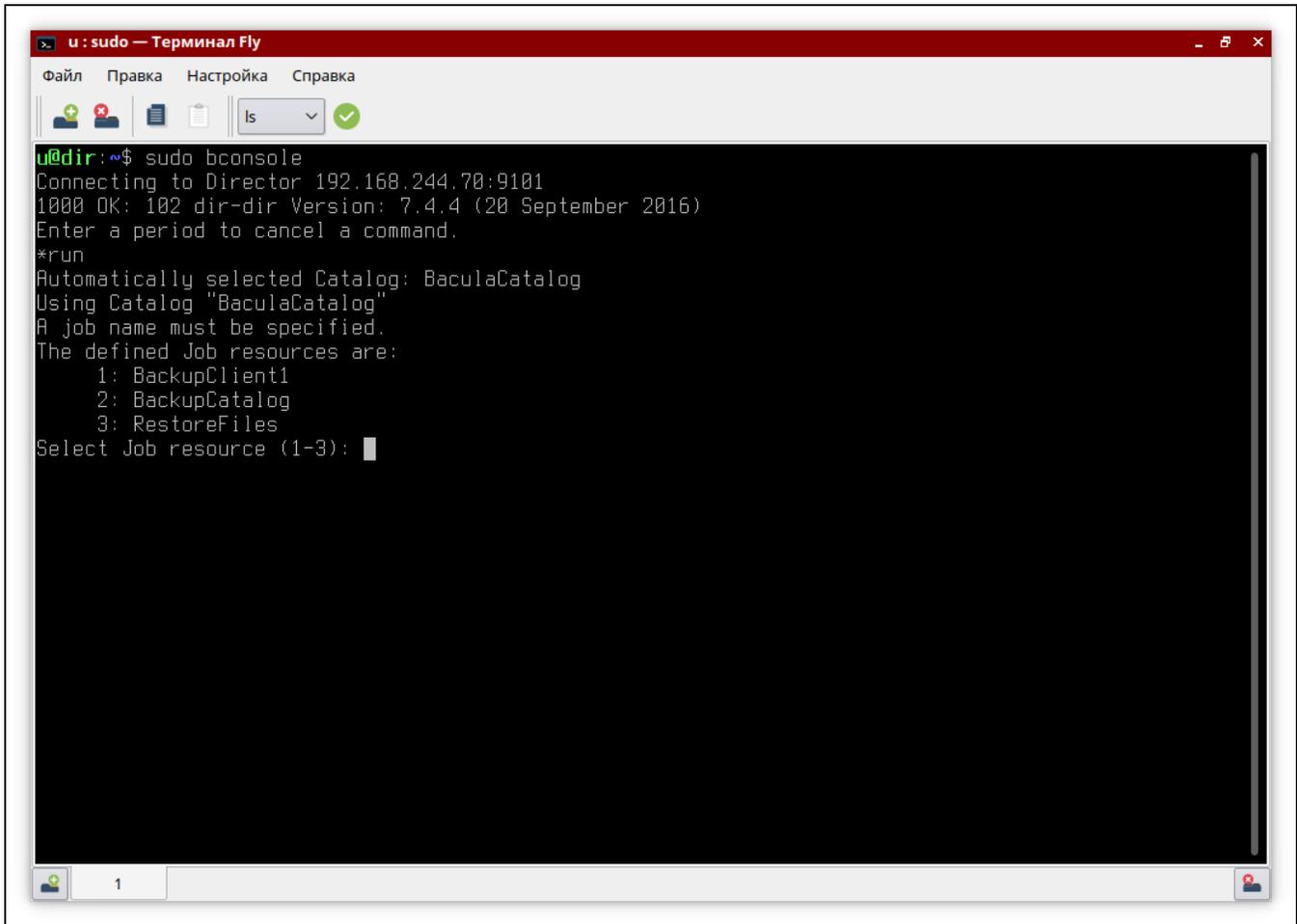
- Bacula:
- Bacula:
  - Bacula Director:
  - Bacula Storage:
  - Bacula FileDaemon ():
- Bacula: .
- Bacula: BackUp and Restore
  - Bacula:
  - Bacula:
- 
- 

:

```
sudo bconsole
```

bconsole.conf ,

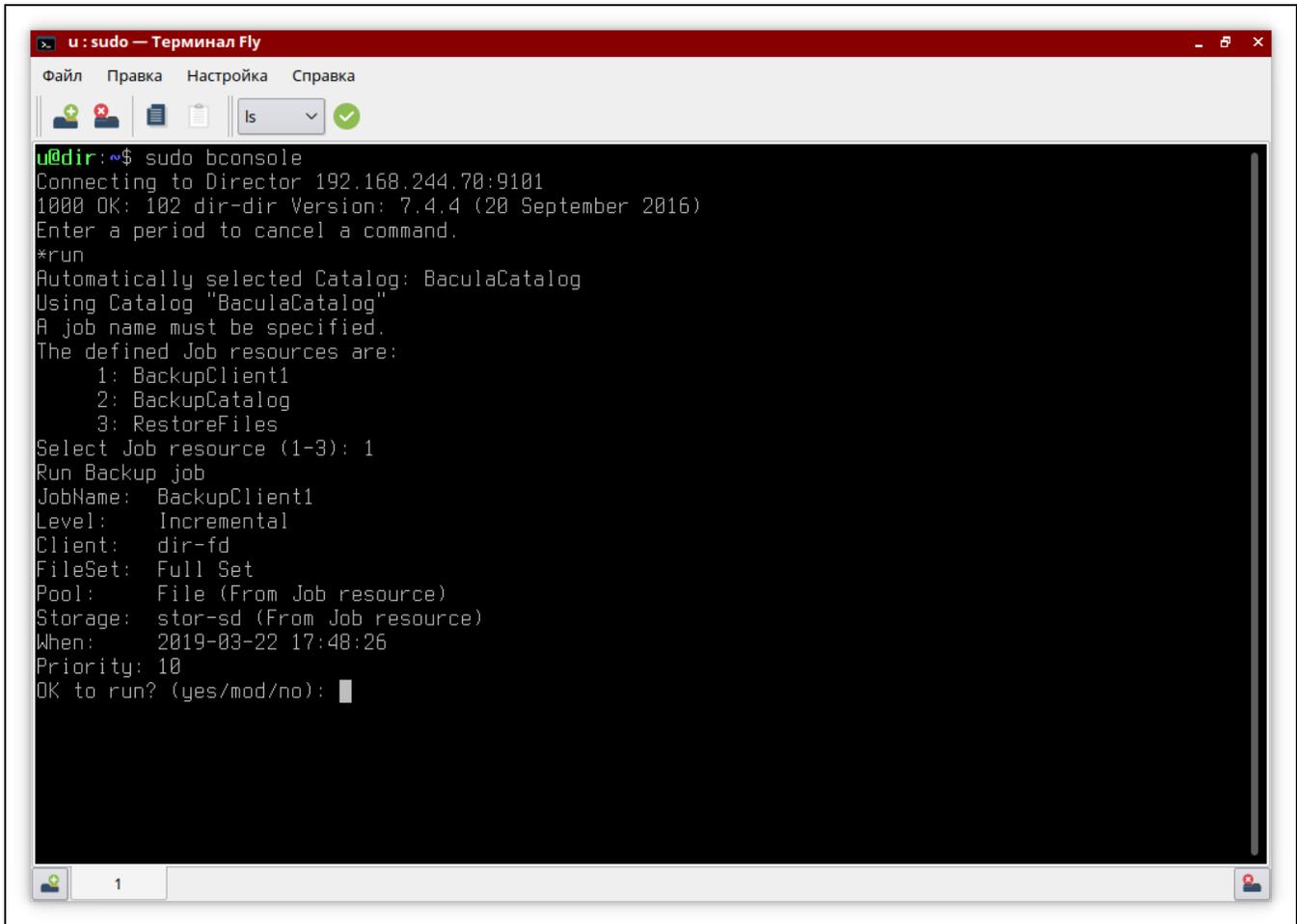




The image shows a terminal window titled "u : sudo — Терминал Fly". The window has a menu bar with "Файл", "Правка", "Настройка", and "Справка". Below the menu bar is a toolbar with icons for adding, deleting, and copying files, a search box containing "ls", and a green checkmark icon. The terminal content is as follows:

```
u@dir:~$ sudo bconsole
Connecting to Director 192.168.244.70:9101
1000 OK: 102 dir-dir Version: 7.4.4 (20 September 2016)
Enter a period to cancel a command.
*run
Automatically selected Catalog: BaculaCatalog
Using Catalog "BaculaCatalog"
A job name must be specified.
The defined Job resources are:
  1: BackupClient1
  2: BackupCatalog
  3: RestoreFiles
Select Job resource (1-3): █
```

At the bottom of the terminal window, there is a status bar with a user icon on the left, the number "1" in the center, and another user icon on the right.



yes no - . mod

, "Incremental" "Full"

```
u: sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
Automatically selected Catalog: BaculaCatalog
Using Catalog "BaculaCatalog"
A job name must be specified.
The defined Job resources are:
  1: BackupClient1
  2: BackupCatalog
  3: RestoreFiles
Select Job resource (1-3): 1
Run Backup job
JobName: BackupClient1
Level: Incremental
Client: dir-fd
FileSet: Full Set
Pool: File (From Job resource)
Storage: stor-sd (From Job resource)
When: 2019-03-22 17:48:26
Priority: 10
OK to run? (yes/mod/no): mod
Parameters to modify:
  1: Level
  2: Storage
  3: Job
  4: FileSet
  5: Client
  6: When
  7: Priority
  8: Pool
  9: Plugin Options
Select parameter to modify (1-9):
```

```
u: sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
OK to run? (yes/mod/no): mod
Parameters to modify:
 1: Level
 2: Storage
 3: Job
 4: FileSet
 5: Client
 6: When
 7: Priority
 8: Pool
 9: Plugin Options
Select parameter to modify (1-9): 1
Levels:
 1: Full
 2: Incremental
 3: Differential
 4: Since
 5: VirtualFull
Select level (1-5): 1
Run Backup job
JobName: BackupClient1
Level: Full
Client: dir-fd
FileSet: Full Set
Pool: File (From Job resource)
Storage: stor-sd (From Job resource)
When: 2019-03-22 17:48:26
Priority: 10
OK to run? (yes/mod/no):
```

```
u: sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
2: Storage
3: Job
4: FileSet
5: Client
6: When
7: Priority
8: Pool
9: Plugin Options
Select parameter to modify (1-9): 1
Levels:
1: Full
2: Incremental
3: Differential
4: Since
5: VirtualFull
Select level (1-5): 1
Run Backup job
JobName: BackupClient1
Level: Full
Client: dir-fd
FileSet: Full Set
Pool: File (From Job resource)
Storage: stor-sd (From Job resource)
When: 2019-03-22 17:48:26
Priority: 10
OK to run? (yes/mod/no): yes
Job queued. JobId=11
You have messages.
*
```

```
u: sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
Elapsed time:      1 sec
Priority:          10
FD Files Written:  282
SD Files Written:  282
FD Bytes Written: 374,000 (374.0 KB)
SD Bytes Written: 408,989 (408.9 KB)
Rate:             374.0 KB/s
Software Compression: 96.5% 28.9:1
Snapshot/VSS:     no
Encryption:       no
Accurate:         no
Volume name(s):   Vol-0011
Volume Session Id: 1
Volume Session Time: 1553263344
Last Volume Bytes: 1,264,227 (1.264 MB)
Non-fatal FD errors: 0
SD Errors:        0
FD termination status: OK
SD termination status: OK
Termination:      Backup OK

22-map 17:50 dir-dir JobId 11: Begin pruning Jobs older than 6 months .
22-map 17:50 dir-dir JobId 11: No Jobs found to prune.
22-map 17:50 dir-dir JobId 11: Begin pruning Files.
22-map 17:50 dir-dir JobId 11: No Files found to prune.
22-map 17:50 dir-dir JobId 11: End auto prune.

*
*
```

`/backups "Vol-00**".`

`- Bacula , Bacula .`

:

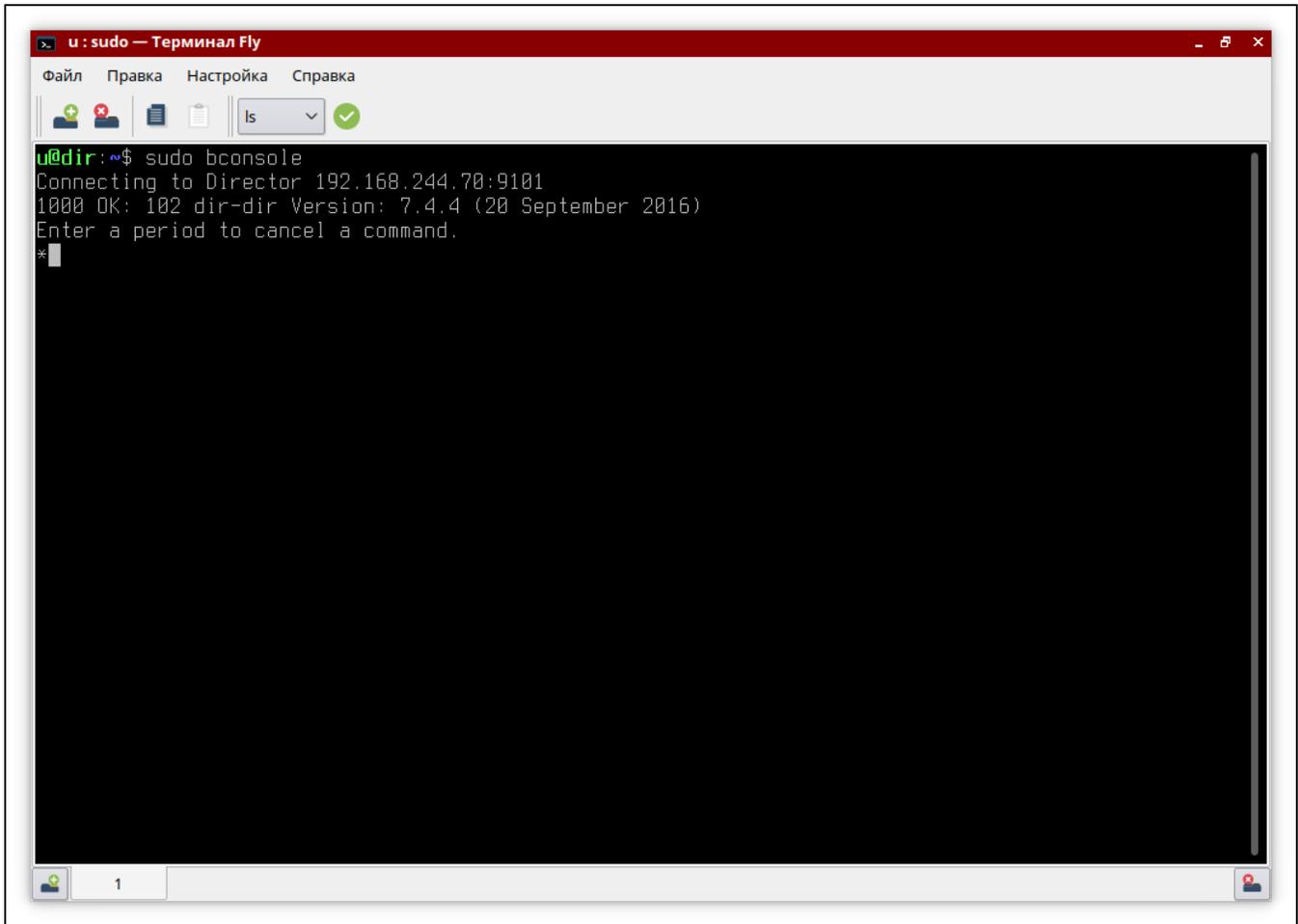
```
sudo journalctl -xe
```

`"bconsole" "exit".`

:

```
sudo bconsole
```

`bconsole.conf ,`



```
u: sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
u@dir:~$ sudo bconsole
Connecting to Director 192.168.244.70:9101
1000 OK: 102 dir-dir Version: 7.4.4 (20 September 2016)
Enter a period to cancel a command.
*restore
Automatically selected Catalog: BaculaCatalog
Using Catalog "BaculaCatalog"

First you select one or more JobIds that contain files
to be restored. You will be presented several methods
of specifying the JobIds. Then you will be allowed to
select which files from those JobIds are to be restored.

To select the JobIds, you have the following choices:
 1: List last 20 Jobs run
 2: List Jobs where a given File is saved
 3: Enter list of comma separated JobIds to select
 4: Enter SQL list command
 5: Select the most recent backup for a client
 6: Select backup for a client before a specified time
 7: Enter a list of files to restore
 8: Enter a list of files to restore before a specified time
 9: Find the JobIds of the most recent backup for a client
10: Find the JobIds for a backup for a client before a specified time
11: Enter a list of directories to restore for found JobIds
12: Select full restore to a specified Job date
13: Cancel
Select item: (1-13): █
```

20 "1". "9".

"JobId" .

"JobId" = 11.

```
u: sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
u@dir:~$ sudo bconsole
Connecting to Director 192.168.244.70:9101
1000 OK: 102 dir-dir Version: 7.4.4 (20 September 2016)
Enter a period to cancel a command.
*restore
Automatically selected Catalog: BaculaCatalog
Using Catalog "BaculaCatalog"

First you select one or more JobIds that contain files
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 5: Select the most recent backup for a client
 6: Select backup for a client before a specified time
 7: Enter a list of files to restore
 8: Enter a list of files to restore before a specified time
 9: Find the JobIds of the most recent backup for a client
10: Find the JobIds for a backup for a client before a specified time
11: Enter a list of directories to restore for found JobIds
12: Select full restore to a specified Job date
13: Cancel
Select item: (1-13): 3
Enter JobId(s), comma separated, to restore: 11
```

```
u: sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
To select the JobIds, you have the following choices:
 1: List last 20 Jobs run
 2: List Jobs where a given File is saved
 3: Enter list of comma separated JobIds to select
 4: Enter SQL list command
 5: Select the most recent backup for a client
 6: Select backup for a client before a specified time
 7: Enter a list of files to restore
 8: Enter a list of files to restore before a specified time
 9: Find the JobIds of the most recent backup for a client
10: Find the JobIds for a backup for a client before a specified time
11: Enter a list of directories to restore for found JobIds
12: Select full restore to a specified Job date
13: Cancel
Select item: (1-13): 3
Enter JobId(s), comma separated, to restore: 11
You have selected the following JobId: 11

Building directory tree for JobId(s) 11 ... ++++++
233 files inserted into the tree.

You are now entering file selection mode where you add (mark) and
remove (unmark) files to be restored. No files are initially added, unless
you used the "all" keyword on the command line.
Enter "done" to leave this mode.

cwd is: /
$
```

"ls" (L - ) .

"mark home/" ,

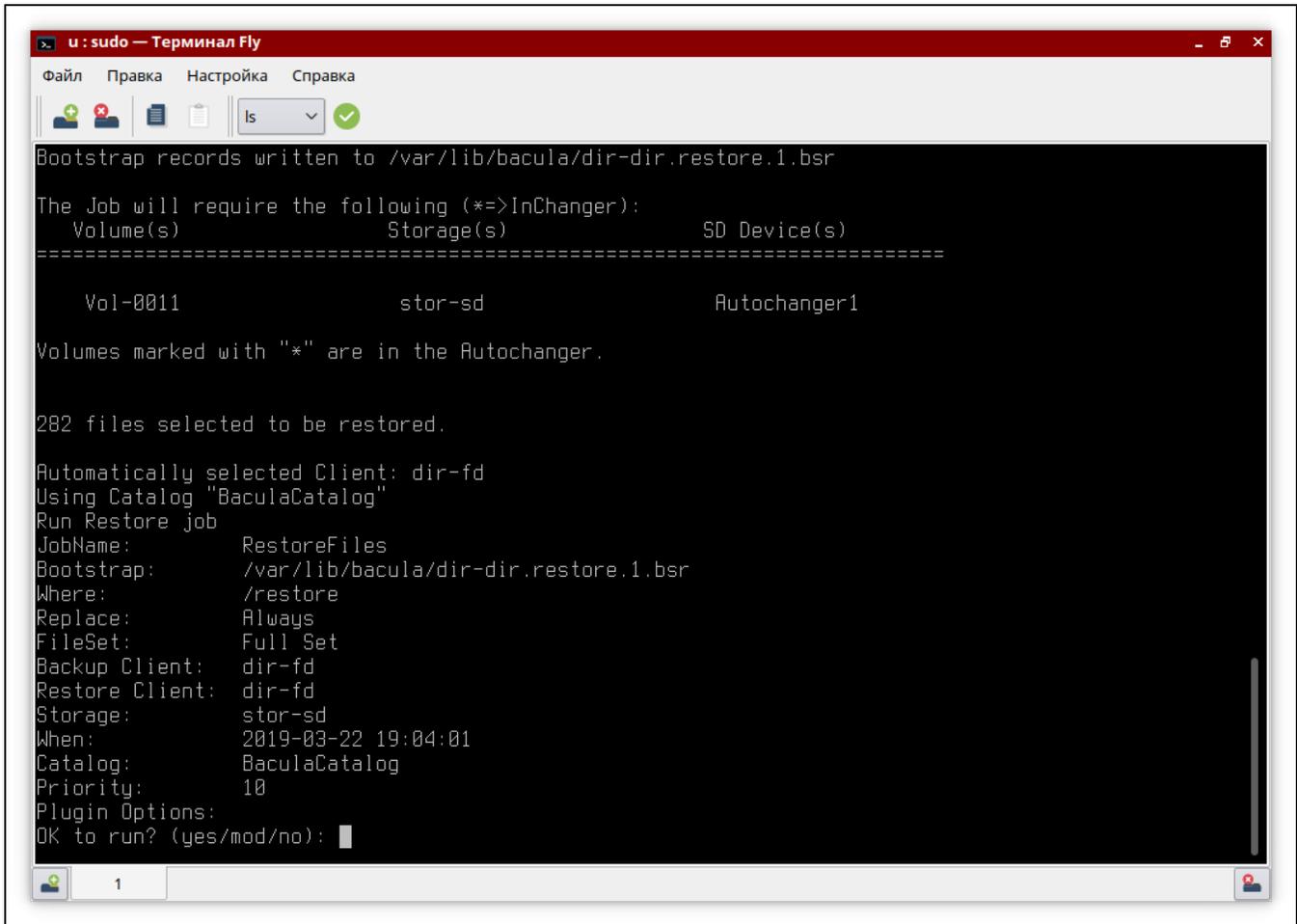
```
u: sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
3: Enter list of comma separated JobIds to select
4: Enter SQL list command
5: Select the most recent backup for a client
6: Select backup for a client before a specified time
7: Enter a list of files to restore
8: Enter a list of files to restore before a specified time
9: Find the JobIds of the most recent backup for a client
10: Find the JobIds for a backup for a client before a specified time
11: Enter a list of directories to restore for found JobIds
12: Select full restore to a specified Job date
13: Cancel
Select item: (1-13): 3
Enter JobId(s), comma separated, to restore: 11
You have selected the following JobId: 11

Building directory tree for JobId(s) 11 ... ++++++
233 files inserted into the tree.

You are now entering file selection mode where you add (mark) and
remove (unmark) files to be restored. No files are initially added, unless
you used the "all" keyword on the command line.
Enter "done" to leave this mode.

cwd is: /
$ ls
home/
$ mark home/
282 files marked.
$
```

"done" :



:

- :
- ( )
- 
- 
- 
- 
- ( , - )
- 
- 
- 

"mod".

```
u : sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
-----
Volume(s)          Storage(s)         SD Device(s)
-----
Vol-0011           stor-sd            Autochanger1

Volumes marked with "*" are in the Autochanger.

282 files selected to be restored.

Automatically selected Client: dir-fd
Using Catalog "BaculaCatalog"
Run Restore job
JobName:           RestoreFiles
Bootstrap:         /var/lib/bacula/dir-dir.restore.1.bsr
Where:             /restore
Replace:           Always
FileSet:           Full Set
Backup Client:     dir-fd
Restore Client:    dir-fd
Storage:           stor-sd
When:              2019-03-22 19:04:01
Catalog:           BaculaCatalog
Priority:           10
Plugin Options:
OK to run? (yes/mod/no): yes
Job queued. JobId=12
You have messages.
*
1
```

```
u : sudo — Терминал Fly
Файл  Правка  Настройка  Справка
ls
22-мар 19:13 dir-fd JobId 12: Warning: Encountered 3 xattr errors while doing restore
22-мар 19:13 stor-sd JobId 12: Forward spacing Volume "Vol-0011" to file: block 0:843144.
22-мар 19:13 stor-sd JobId 12: End of Volume at file 0 on device "FileChgr1-Dev1" (/backups/files1)
, Volume "Vol-0011"
22-мар 19:13 stor-sd JobId 12: End of all volumes.
22-мар 19:13 stor-sd JobId 12: Elapsed time=00:00:01, Transfer rate=408.9 K Bytes/second
22-мар 19:13 dir-dir JobId 12: Bacula dir-dir 7.4.4 (202Sep16):
  Build OS:          x86_64-pc-linux-gnu debian 9.0
  JobId:             12
  Job:               RestoreFiles.2019-03-22_19.13.22_11
  Restore Client:    dir-fd
  Start time:        22-мар-2019 19:13:25
  End time:          22-мар-2019 19:13:25
  Files Expected:    282
  Files Restored:    282
  Bytes Restored:    11,824,376
  Rate:              0.0 KB/s
  FD Errors:         0
  FD termination status: OK
  SD termination status: OK
  Termination:      Restore OK

22-мар 19:13 dir-dir JobId 12: Begin pruning Jobs older than 6 months .
22-мар 19:13 dir-dir JobId 12: No Jobs found to prune.
22-мар 19:13 dir-dir JobId 12: Begin pruning Files.
22-мар 19:13 dir-dir JobId 12: No Files found to prune.
22-мар 19:13 dir-dir JobId 12: End auto prune.
*
```

**/restore**

- Bacula , Bacula

:

```
sudo journalctl -xe
```

"bconsole" "exit".