



# Installation and Quick Start Manual

Version 3.2



July 2000

<b>Content</b>	<b>Page</b>
<b>Introduction</b>	3
<b>1. General Concepts</b>	4
<b>1.1 Components</b>	5
<b>1.2 Versions</b>	5
1.2.1 Free Version	5
1.2.2 Professional Version	5
<b>2. Installation</b>	6
<b>2.1 Requirements</b>	6
2.1.1 Hardware Requirements	6
2.1.2 Space Requirements	6
2.1.3 Installation Order	7
<b>2.2 Backup Server Installation Using the Traditional Unix/Linux Installation Procedure</b>	8
2.2.1 TARGZ Packages / Download	8
2.2.2 TARGZ Packages / CD-Rom	11
<b>2.3 Installation Using the RPM Installation Procedure / CD-Rom or Download</b>	13
<b>3. Validation Guide</b>	15
<b>3.1 Backup Server Validation</b>	15
3.1.1 Start Arkeia and Login	16
3.1.2 Create a NULL Tape Drive Definition	17
3.1.3 Create a NULL Drivepack Definition	19
3.1.4 Create a NULL Tape Pool Definition	21
3.1.5 Create a NULL Tapes Definition	23
3.1.6 Create a Test Savepack	26
3.1.7 Perform an Interactive Backup Using the NULL Definitions Created	29
<b>3.2 Client Validation</b>	31
3.2.1 Start Arkeia and Login	31
3.2.2 Create a Test Savepack	32
3.2.3 Perform an Interactive Backup Using the NULL Definitions Created	36
<b>3.3 Set up of Your First Backup to a Real Tape</b>	38
3.3.1 Start Arkeia and Login	38
3.3.2 Create a Tape Drive Definition	41
3.3.3 Create a Drive Pack Definition	42
3.3.4 Create a Tape Pool Definition	44
3.3.5 Create a Tape Definition	46
3.3.6 Perform an Interactive Backup Using the Definitions Created	49

**Knox Software Corp.**  
**Arkeia 4.2**  
**Installation and Quick Start Manual**

Thank you for choosing Arkeia.

The *Install & Quick Start Manual* gives you the essential information to run a quick test of Arkeia., but does not replace the Administrator Manual and the Advanced Manual. For more detailed technical information, please refer directly to the Administrator's Manual.

This software is used in accordance with the terms and conditions of a License Agreement. The License Agreement is valid for all network machines running Arkeia.

# **1. GENERAL CONCEPTS**

## **1.1 Components**

Arkeia is a high performance network backup product that supports a wide variety of operating systems, hardware platforms, tape drives and tape libraries. It is based on the client server model and is composed of three major components:

**Server**  
**Client**  
**Graphical User Interface (GUI)**

Each component has the specific responsibilities outlined below:

### ***Server Component Responsibilities:***

- Provide central catalog/index of all backups
- Manage tape drive(s) and tape library(s)
- Manage multiple simultaneous backup/restore processes
- Manage network connectivity
- Multiplex datastreams to/from client machines
- Initiate scheduled backups

### ***Client Component Responsibilities:***

- Send data from client machine to backup server during backups
- Place data on client machine during restore operations
- Optionally compress/encrypt data during backup/restore
- Provide native file system access to client machine

### ***GUI Component Responsibilities:***

- Provide easy to use setup and operation screens to the backup administrator
- Tape drive definitions
- Tape library definitions
- Tape pool definitions
- Tape definitions
- Savepack definitions (logical backup group)
- Scheduled backup definitions
- Provide a user interface to desktop users to restore their own files
- Provide a UI to help-desk operators to restore desktop files on behalf of others

According to the role of each computer, one or more Arkeia components must be installed. This will be more fully described in the installation section.

## **1.2. Versions**

### ***1.2.1 Free Version***

A free version of Arkeia is available. It can back up one Linux Backup server and two Linux / Windows 95/98 clients.

To install the free version choose *server-shareware* instead of *server*.

### ***1.2.2 Professional Version***

You can test Arkeia during 30 days for free.

## **2. INSTALLATION**

### **2.1. Requirements**

#### *2.1.1 Hardware Requirements*

Arkeia requires the following hardware configuration:

- a computer able to run your operating system and TCP/IP
- 32 MB RAM
- a SCSI tape drive

#### *2.1.2 Space Requirements*

<b>Arkeia Component</b>	<b>OS Platform</b>	<b>Space required</b>
<b>Server</b>	Unix/Linux	25 MB + Catalog
<b>Client</b>	Unix/Linux	7 MB
	Windows NT	9 MB
	Windows 95/Windows 98	7 MB
<b>GUI</b>	Unix/Linux	5 MB
	Windows NT	5 MB + 10 MB for Java
	Windows 95/Windows 98	5 MB + 10 MB for Java

The online catalog is the file index of the backup tapes. It is located on the Arkeia backup server and needs about 1% of data stored, i.e. 1 MB for every 100 MB of backed up data.

**Note:**

The backups' validity will influence the size of Arkeia's database.

### 2.1.3 Installation Order

In order to successfully install Arkeia, you should first install and validate the Arkeia backup server machine prior to installing the client machines.

The following table shows the correct order of installation:

<b>Role of the Machine</b>	<b>Arkeia Component</b>	<b>Installation Order</b>
<b>Arkeia Backup Server</b>	Client	1
	Server	2
	GUI (optional)	3
<b>Arkeia Client</b>	Client	1
	GUI (optional)	2
<b>Arkeia GUI only</b>	GUI	1

Install all three Arkeia components on your backup server machine:

**Client**  
**Server**  
**GUI**

You have several possibilities to install Arkeia on your computer. The next paragraphs describe the following cases:

- download Arkeia TARGZ packages from the Arkeia web site at: [www.arkeia.com](http://www.arkeia.com)
- install Arkeia TARGZ packages from a CD-Rom
- download RPM packages from the Arkeia web site or install them from the CD-Rom

## 2.2 Backup Server Installation Using the Traditional Unix/Linux Installation Procedure

### 2.2.1 TARGZ Packages / Download

#### Download procedure:

- Download the Arkeia client, server, and GUI software from the Arkeia web site or ftp site into a temporary directory. The Arkeia packages will have a name similar to the following:
  - client-4.2.12-1.tar.gz
  - server-4.2.6-1.tar.gz or server-shareware-4.2.6-1.tar.gz (free version)
  - gui-4.2.6-1.tar.gz
- Unzip the files by entering:
  - # gunzip client-4.2.12-1.tar.gz
  - # gunzip server-4.2.6-1.tar.gz
  - # gunzip gui-4.2.6-1.tar.gz
- Un-tar the files by entering:
  - # tar xf client-4.2.12-1.tar
  - # tar xf server-4.2.6-1.tar
  - # tar xf gui-4.2.6-1.tar

```

[roo@caladan download]# ls -al
total 5173
drwxrwxrwx  2 root   root      144 Jul 10 13:08 .
drwxrwxrwt  7 root   root      444 Jul 10 13:05 ..
-rw-r--r--  1 root   root    664565 Jul 10 12:27 client-4.2.11-2.tar.gz
-rw-r--r--  1 root   root   1815273 Jul 10 12:29 gui-4.2.5-1.tar.gz
-rw-r--r--  1 root   root   2808506 Jul 10 12:31 server-4.2.5-1.tar.gz
[roo@caladan download]# gunzip client-4.2.11-2.tar.gz
[roo@caladan download]# gunzip gui-4.2.5-1.tar.gz
[roo@caladan download]# gunzip server-4.2.5-1.tar.gz
[roo@caladan download]# ls -al
total 5905
drwxrwxrwx  2 root   root      135 Jul 10 13:09 .
drwxrwxrwt  7 root   root      444 Jul 10 13:05 ..
-rw-r--r--  1 root   root    829440 Jul 10 12:27 client-4.2.11-2.tar
-rw-r--r--  1 root   root   2099200 Jul 10 12:29 gui-4.2.5-1.tar
-rw-r--r--  1 root   root    3112960 Jul 10 12:31 server-4.2.5-1.tar
[roo@caladan download]# tar xf client-4.2.11-2.tar
[roo@caladan download]# tar xf gui-4.2.5-1.tar
[roo@caladan download]# tar xf server-4.2.5-1.tar
[roo@caladan download]# ls -al
total 5905
drwxrwxrwx  5 root   root      223 Jul 10 13:10 .
drwxrwxrwt  7 root   root      444 Jul 10 13:05 ..
drwxr-xr-x  2 root   root      155 Jun 28 13:27 client-4.2.11-2
-rw-r--r--  1 root   root    829440 Jul 10 12:27 client-4.2.11-2.tar
drwxr-xr-x  2 root   root      156 Jun 14 21:04 gui-4.2.5-1
-rw-r--r--  1 root   root   2099200 Jul 10 12:29 gui-4.2.5-1.tar
drwxr-xr-x  2 root   root      155 Jun 14 15:00 server-4.2.5-1
-rw-r--r--  1 root   root    3112960 Jul 10 12:31 server-4.2.5-1.tar
[roo@caladan download]#

```

Fig 1 - Command Lines to Unzip and Un-tar Files



**Installation Procedure:**

1. Install the client software first by entering:
 

```
# cd client-4.2.12-1
# ./install
```
2. You will be asked to enter the main Knox directory. The default installation directory is `/usr/knox`. If you agree, press *Enter*. If this does not meet your local standards, enter the correct directory before continuing.
3. After the KNOX directory is specified, you are asked for the temporary working directory. The default choice is the current directory. In our example we will use it with no modification. If there is not enough space on the current filesystem, enter the name of a directory with more space.
4. Once the temporary working directory is specified, you must provide the name of the Backup Server. This should be the hostname of the machine you are installing currently.
5. As soon as the program asks you to confirm the start of the installation, press *Enter* to start the process.

**Note:**

You can stop the process with *Control-c* or by entering *n* on the command line.

```
[root@caladan download]# ls -al
total 5905
drwxrwxrwx  5 root  root    223 Jul 10 13:10 .
drwxrwxrwt  7 root  root    444 Jul 10 13:05 ..
drwxr-xr-x  2 root  root    155 Jun 28 13:27 client-4.2.11-2
-rw-r--r--  1 root  root  829440 Jul 10 12:27 client-4.2.11-2.tar
drwxr-xr-x  2 root  root    156 Jun 14 21:04 gui-4.2.5-1
-rw-r--r--  1 root  root  2099200 Jul 10 12:29 gui-4.2.5-1.tar
drwxr-xr-x  2 root  root    155 Jun 14 15:00 server-4.2.5-1
-rw-r--r--  1 root  root  3112960 Jul 10 12:31 server-4.2.5-1.tar
[root@caladan download]# cd client-4.2.11-2
[root@caladan client-4.2.11-2]# ./install
I1800020 main: ***** Start of installation *****
I1800020 distrbinstall: The path is /tmp/download/client-4.2.11-2
I1801200 mkplinstall: Installing "opbs" Version "4.2.11-2" ("Arkeia client")
I1801210 mkplinstall: OS: "Linux" Version "2.2.5"
Q1801002 *** Enter main KNOX directory [/usr/knox] ? (q to quit)

I1801170 validateknox: Got from user $KNOX='/usr/knox'
I1801180 validateknox: Directory $KNOX='/usr/knox' OK
Q1801002 *** Enter the temporary directory [.] ? (q to quit)

I1801170 validatetmpdir: Got tmpdir = '.'
I1801180 validatetmpdir: Directory tmpdir='.' OK
Q1802005 *** Enter the hostname of your main backup server [] ? (q to quit)
caladan
I1801350 ailchk: tmpspace needed: 5000 KB, available in '/': 2469012 KB
I1801360 ailchk: knoxspace needed: 2500 KB, available in '/usr': 5511192 KB
Q1800001 *** OK to start installation in '/usr/knox' (y/n) [y] ? (q to quit)

```

Fig. 2.1 - Command Line for the Installation of the Client(s)

```

xterm
I1801170 validatetmpdir: Got tmpdir =',.'
I1801180 validatetmpdir: Directory tmpdir=',.' OK
Q1802005 *** Enter the hostname of your main backup server [] ? (q to quit)
caladan
I1801350 aiiCHK: tmpspace needed: 5000 KB, available in '/': 2469012 KB
I1801360 aiiCHK: knoxspace needed: 2500 KB, available in '/usr': 5511192 KB
Q1800001 *** OK to start installation in '/usr/knox' (y/n) [y] ? (q to quit)

I1802020 untz: Uncompressing and extracting 'obstar.z'...
I1802050 untz: 'obstar.z' extracted successfully
I1801060 mkfsu: /etc/default/fsu written ('/usr/knox')
I1804210 docopy: Installing files...
I1804190 cpltree: Tree './knox/nls' successfully installed
I1804190 cpltree: Tree './knox/bin/nlservd' successfully installed
I1804190 cpltree: Tree './knox/bin/NLSERVD' successfully installed
I1802090 updservices: '$KNOX/nlp/services' updated successfully
I1802130 updauth: '$KNOX/nlp/auth.cfg' updated successfully
I1804190 cpltree: Tree './knox/nlp' successfully installed
I1801520 mklusrbin: Created command 'NLSERVD' in '/usr/bin'
I1802160 autoinrc: Invocation of NLSERVD has been inserted in '/etc/rc.d/rc.local'
I1802190 startnlservd: Daemon '/usr/bin/NLSERVD' will start automatically at boot
I1804190 cpltree: Tree './knox/log' successfully installed
I1804190 cpltree: Tree './knox/bin' successfully installed
I1804190 cpltree: Tree './knox/obs' successfully installed
I1802240 instlicserv: ADMINSEVER 'caladan' successfully installed
I1802260 runnlservd: Starting new nlservd...
I1802290 runnlservd: New nlservd successfully started, pid is 1708
I1800010 myexit: ***** End of installation (0) *****
[root@caladan client-4.2.11-2]#

```

*Fig. 2.2 - Command lines for the Installation of the Client(s)*

The installation of the client is now complete. Repeat the process described above for the server and GUI components.

The installation process will automatically fill in two key variables.

- Backup Server name, and
- MAIN Knox Directory.

Therefore, installing the server and GUI is as simple as:

- `cd ../server-4.2.6-1` or `cd ../server-shareware-4.2.6-1` ( free version )
- `./install`

Press *Enter* to integrate the default values.

Wait for the installation to be completed, then enter:

- `cd ../gui-4.2.6-1`
- `./install`

Press *Enter* to integrate the default values. Wait for the installation to be completed.

You have now successfully completed the installation of the client, server and GUI components on the Arkeia backup server machine.

## 2.2.2 TARGZ packages / CD Rom

Go into the correct directory of your operating system, for example:

- #cd /mnt/cdrom
- #cd arkeia/linux/intel/TARGZ/libc6

1. Install the client software first by entering:
 

```
# cd client-4.2.12-1
# ./install
```
2. You will be asked to enter the main Knox directory. The default installation directory is `/usr/knox`. If you agree, press *Enter*. If this does not meet your local standards, enter the correct directory before continuing.
3. After the KNOX directory is specified, you are asked for the temporary working directory. The default choice is the current directory. Therefore, **you have to enter another directory** as you are currently in the CD-Rom directory.  
Example : `/tmp`
4. Once the temporary working directory is specified, you must provide the name of the Backup Server. This should be the hostname of the machine on which you are currently installing Arkeia.
5. As soon as the program asks you to confirm the start of the installation, press *Enter* to start the process.

### Note:

You can stop the process with *Control-c* or by entering *n* on the command line.

```

[root@caladan libc6]# ls -al
total 17
dr-xr-xr-x  8 root  root    2048 Apr 27 10:35 .
dr-xr-xr-x  5 root  root    2048 Dec 23 1999 ..
-r--r--r--  1 root  root      322 May  9 13:30 TRANS.TBL
dr-xr-xr-x  2 root  root    2048 Apr 21 13:24 arkc-4.1.13-1
dr-xr-xr-x  2 root  root    2048 Feb  8 13:10 client-4.2.9-2
dr-xr-xr-x  2 root  root    2048 Feb 25 2001 gui-4.2.4-1
dr-xr-xr-x  2 root  root    2048 Sep  9 1999 gui-oracle-4.2.1-1
dr-xr-xr-x  2 root  root    2048 Feb 18 15:45 server-4.2.4-1
dr-xr-xr-x  2 root  root    2048 Jan  4 2000 server-shareware-4.2.3-2
[root@caladan libc6]# cd client-4.2.9-2/
[root@caladan client-4.2.9-2]# ./install
I1800020 main: ***** Start of installation *****
I1800020 distrbinstall: The path is /mnt/cdrom/arkeia/linux/intel/TARGZ/libc6/client-4.2.9-2
I1801200 mkplinstall: Installing "opbs" Version "4.2.9-2" ("Arkeia client")
I1801210 mkplinstall: OS: "Linux" Version "2.2.5"
Q1801002 *** Enter main KNOX directory [/usr/knox] ? (q to quit)

I1801170 validateknox: Got from user $KNOX='/usr/knox'
I1801180 validateknox: Directory $KNOX='/usr/knox' OK
Q1801002 *** Enter the temporary directory [.] ? (q to quit)
/tmp
I1801170 validatetmpdir: Got tmpdir = '/tmp'
I1801180 validatetmpdir: Directory tmpdir='/tmp' OK
Q1802005 *** Enter the hostname of your main backup server [] ? (q to quit)
caladan
I1801350 ai1chk: tmpspace needed: 5000 KB, available in '/': 2474840 KB
I1801360 ai1chk: knoxspace needed: 2500 KB, available in '/usr': 5511192 KB
Q1800001 *** OK to start installation in '/usr/knox' (y/n) [y] ? (q to quit)

```

Fig. 3.1 - TARGZ Packages CD-Rom Installation

```

xterm
Q1801002 *** Enter the temporary directory [.] ? (q to quit)
/tmp
I1801170 validatetmpdir: Got tmpdir ='/tmp'
I1801180 validatetmpdir: Directory tmpdir='/tmp' OK
Q1802005 *** Enter the hostname of your main backup server [] ? (q to quit)
caladan
I1801350 ailchk: tmpspace needed: 5000 KB, available in '/': 2474840 KB
I1801360 ailchk: knoxspace needed: 2500 KB, available in '/usr': 5511192 KB
Q1800001 *** OK to start installation in '/usr/knox' (y/n) [y] ? (q to quit)

I1802020 untz: Uncompressing and extracting 'obstar.z'...
I1802050 untz: 'obstar.z' extracted successfully
I1801060 mkfsu: /etc/default/fsu written ('/usr/knox')
I1804210 docopy: Installing files...
I1804190 cpltree: Tree '/tmp/knox/nls' succesfully installed
I1804190 cpltree: Tree '/tmp/knox/bin/nlservd' succesfully installed
I1804190 cpltree: Tree '/tmp/knox/bin/NLSERVD' succesfully installed
I1802090 updservices: '$KNOX/nlp/services' updated successfully
I1802130 updauth: '$KNOX/nlp/auth.cfg' updated successfully
I1804190 cpltree: Tree '/tmp/knox/nlp' succesfully installed
I1801520 mkusrbin: Created command 'NLSERVD' in '/usr/bin'
I1802160 autoinrc: Invocation of NLSERVD has been inserted in '/etc/rc.d/rc.local'
I1802190 startnlservd: Daemon '/usr/bin/NLSERVD' will start automatically at boot
I1804190 cpltree: Tree '/tmp/knox/log' succesfully installed
I1804190 cpltree: Tree '/tmp/knox/bin' succesfully installed
I1804190 cpltree: Tree '/tmp/knox/obs' succesfully installed
I1802240 instlicserv: ADMINSEVER 'caladan' successfully installed
I1802260 runnlservd: Starting new nlservd...
I1802290 runnlservd: New nlservd successfully started, pid is 1774
I1800010 myexit: ***** End of installation (0) *****
[root@caladan client-4.2.9-2]#

```

*Fig. 3.2 - TARGZ Packages CD-Rom Installation*

The installation of the client is now complete. Repeat the process described above for the server and GUI components.

The installation process will automatically fill in two key variables.

- Backup Server name, and
- MAIN Knox Directory.

Therefore, installing the server and GUI is as simple as:

- `cd ../server-4.2.6-1` or `cd ../server-shareware-4.2.6-1` ( free version )
- `./install`

Press *Enter* to integrate the default values.

Wait for the installation to be completed, then enter:

- `cd ../gui-4.2.6-1`
- `./install`

Press *Enter* to integrate the default values Wait for the installation to be completed.

You have now successfully completed the installation of the client, gui and server components on the Arkeia backup server machine.

## 2.3 Installation Using RPM Installation Procedure / CD-Rom or Download

Go into the correct directory (if you work on a CD-Rom)

- #cd /mnt/cdrom
- #cd arkeia/linux/intel/RedHat6.x

The Arkeia RPM packages will have a name similar to the following :

- arkeia-client-4.2.12-1.i386.rpm
- arkeia-server-4.2.6-1.i386.rpm or arkeia-server-shareware-4.2.6-1.i386.rpm (free version)
- arkeia-gui-4.2.6-1.i386.rpm

### Installation Procedure

1. Enter the following commands:  

```
# rpm -Uvh arkeia-client-4.2.12-1.i386.rpm
# rpm -Uvh arkeia-server-4.2.6-1.i386.rpm
# rpm -Uvh arkeia-gui-4.2.6-1.i386.rpm
```

```

[root@caladan rpm]# ls -al
total 3985
drwxrwxrwx  2 root  root    170 Jul 10 14:28 .
drwxrwxrwt  8 root  root    530 Jul 10 14:26 ..
-r--r--r--  1 root  root   476285 Jul 10 14:27 arkeia-client-4.2.9-1.i386.rpm
-r--r--r--  1 root  root  1415176 Jul 10 14:27 arkeia-gui-4.2.4-1.i386.rpm
-r--r--r--  1 root  root   2181011 Jul 10 14:28 arkeia-server-4.2.4-1.i386.rpm
[root@caladan rpm]# rpm -Uvh arkeia-client-4.2.9-1.i386.rpm
arkeia-client
#####
[root@caladan rpm]# rpm -Uvh arkeia-gui-4.2.4-1.i386.rpm
arkeia-gui
#####
[root@caladan rpm]# rpm -Uvh arkeia-server-4.2.4-1.i386.rpm
arkeia-server
#####
[root@caladan rpm]# cd /usr/knox
[root@caladan Knox]# ls -al
total 1
drwxr-xr-x  9 root  root    172 Jul 10 14:33 .
drwxr-xr-x 24 root  root    566 Jul  6 17:37 ..
drwxr-xr-x  4 root  root    198 Jul 10 14:33 arkeia
drwxr-xr-x  3 root  root    110 Jul 10 14:30 arkx
drwxr-xr-x  2 root  root    670 Jul 10 14:33 bin
drwxr-xr-x  4 root  root    293 Jul 10 14:30 gui
drwxr-xr-x  2 root  root     83 Jul 10 14:30 log
drwxr-xr-x  2 root  root    662 Jul 10 14:34 nlp
drwxr-xr-x  2 root  root    137 Jul 10 14:30 obs
[root@caladan Knox]#

```

Fig. 4 - RPM Installation

When installing the client package in your regular client machine, you must modify one configuration file according to the following procedure:

2. Go in the *usr/knox/nlp* directory:  

```
# cd /usr/knox/nlp
```

3. Edit the file *admin.cfg*  
# vi admin.cfg
4. Delete the existing line
5. Add a line with the hostname of your Arkeia backup server
6. Restart the Arkeia daemon process by typing:  
# NLSERVD

## **3. VALIDATION GUIDE**

### **3.1 Backup Server Validation**

The *Validation Guide* walks you through a minimal setup of Arkeia. This setup will allow you to validate that the various components were installed correctly. This is done by creating NULL tapes and NULL tape drives.

To obtain a fast and most accurate setup, please follow exactly the steps in the described order. Once you have successfully completed one step, proceed to the next one. It should take no more than one hour to complete the server and client validation.

As soon as you have run the validation tests of the NULL setup, your system can be configured to work with a real tape drive and can perform real backups.

**Note:**

Field level help is generally provided for all fields. To read the field level help, just tab to or click on a specific field and then press the F1 key.

Please follow each step in the order below:

1. Start Arkeia and Login
2. Create a NULL tape drive definition
3. Create a NULL drivepack definition
4. Create a NULL tape pool definition
5. Create a NULL tapes definition
6. Create a test savepack
7. Perform an interactive backup

### 3.1.1 Start Arkeia and Login

From an xterm prompt, enter *ARKEIA* &.

After a few seconds, the following screen will be displayed:



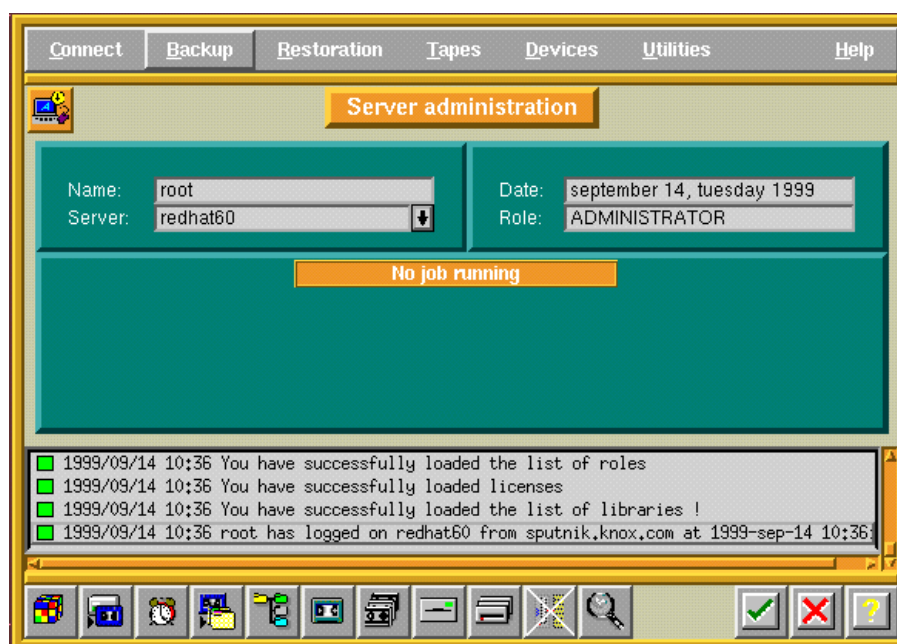
*Fig 5 - Arkeia Welcome Screen*

Make sure that

- the server name is the same as your backup server's hostname.
- the login name is root with no password

Press the check box to login.

After a few seconds, the Arkeia Server Administration screen will be displayed:

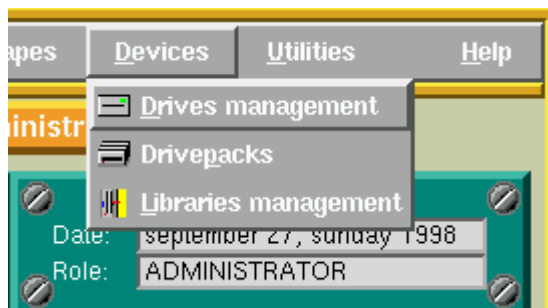


*Fig. 6 - Server Administration Screen*



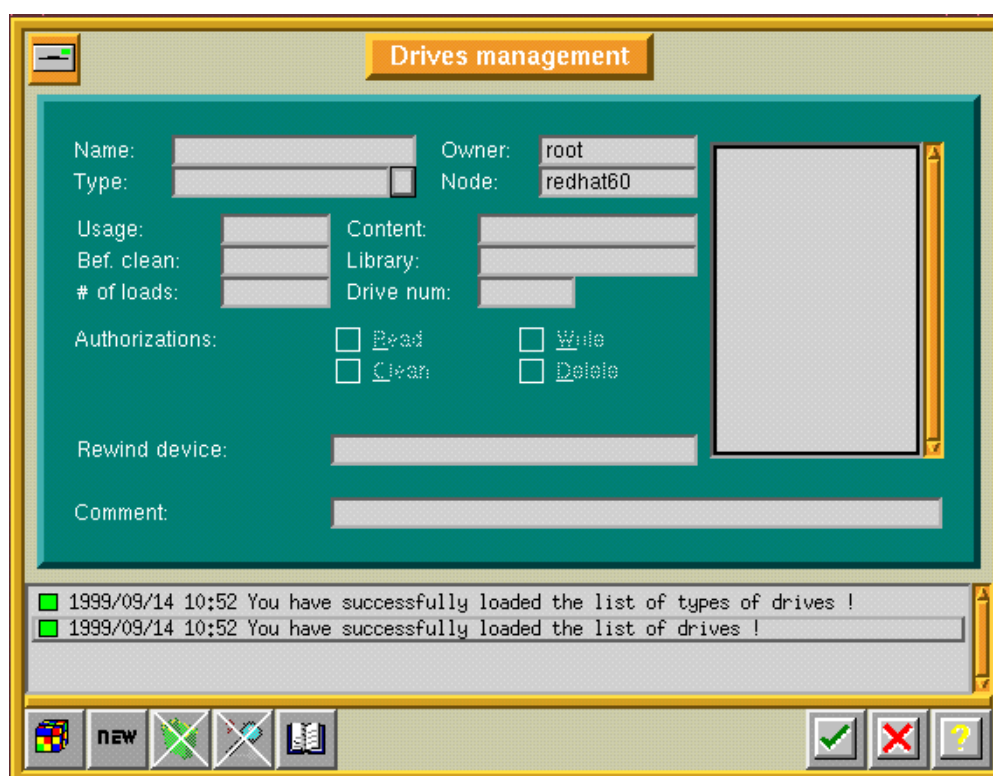
### 3.1.2/ Create NULL Tape Drive Definition

While on the Server Administration screen, choose *Devices* in the menu, then *Drives management* in the pop-up menu:



*Fig. 7.1 - Selecting the Drives Management from the Administration Screen*

The following screen will be displayed:



*Fig. 7.2 - Drives Management Screen Before Modification*

Press the 'NEW' icon and fill in the fields as shown:

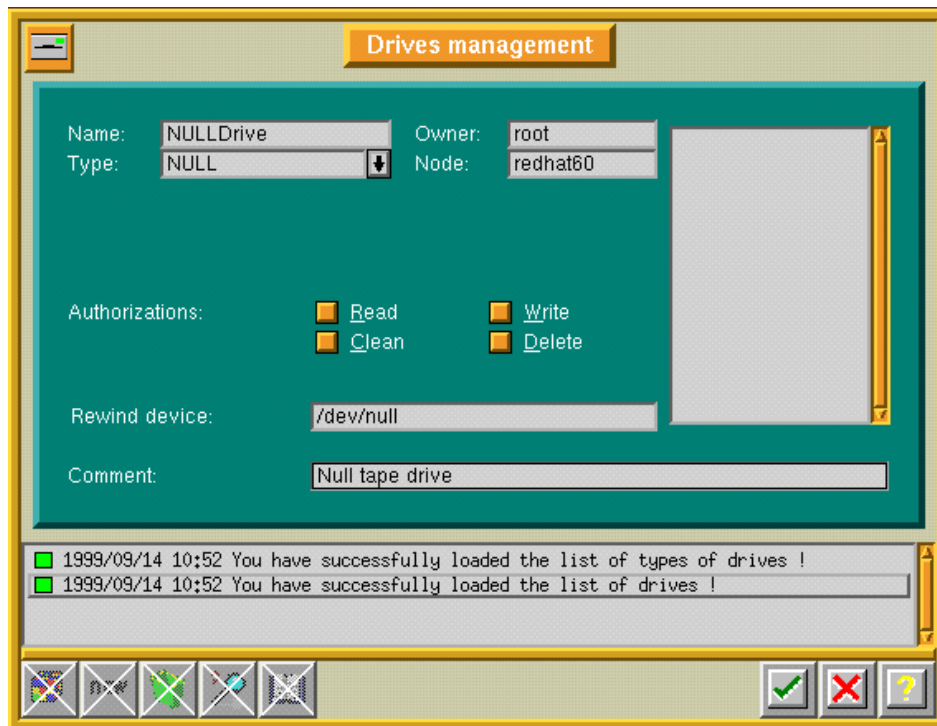


Fig. 7.3 - Drives Management Screen During Modification

Press the check box to record your changes.

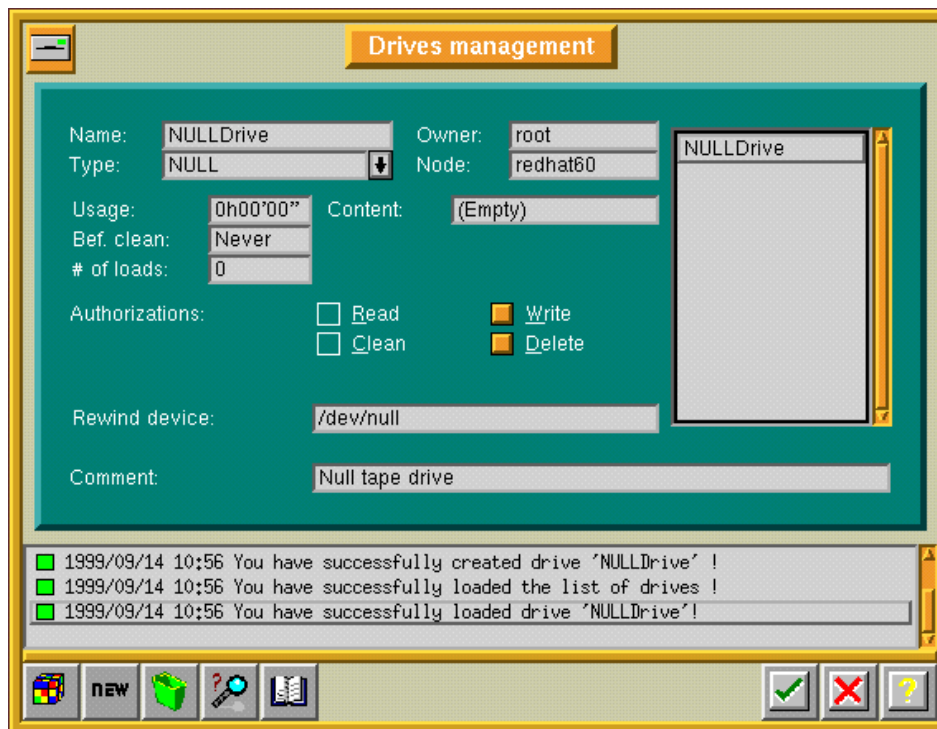


Fig. 7.4 - Example of a set Drives Management Screen

### 3.1.3 Create NULL Drivepack Definition

While on the Server Administration screen, choose *Devices* in the menu, then *Drivepacks* in the pop-up menu:

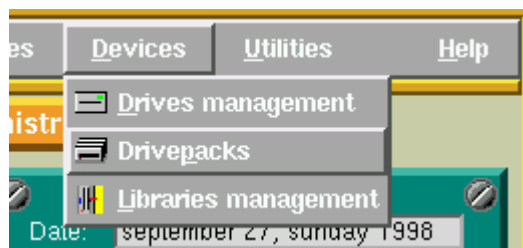


Fig. 8.1 - Selecting the Drivepacks from the Server Administration Screen

The following screen will be displayed:

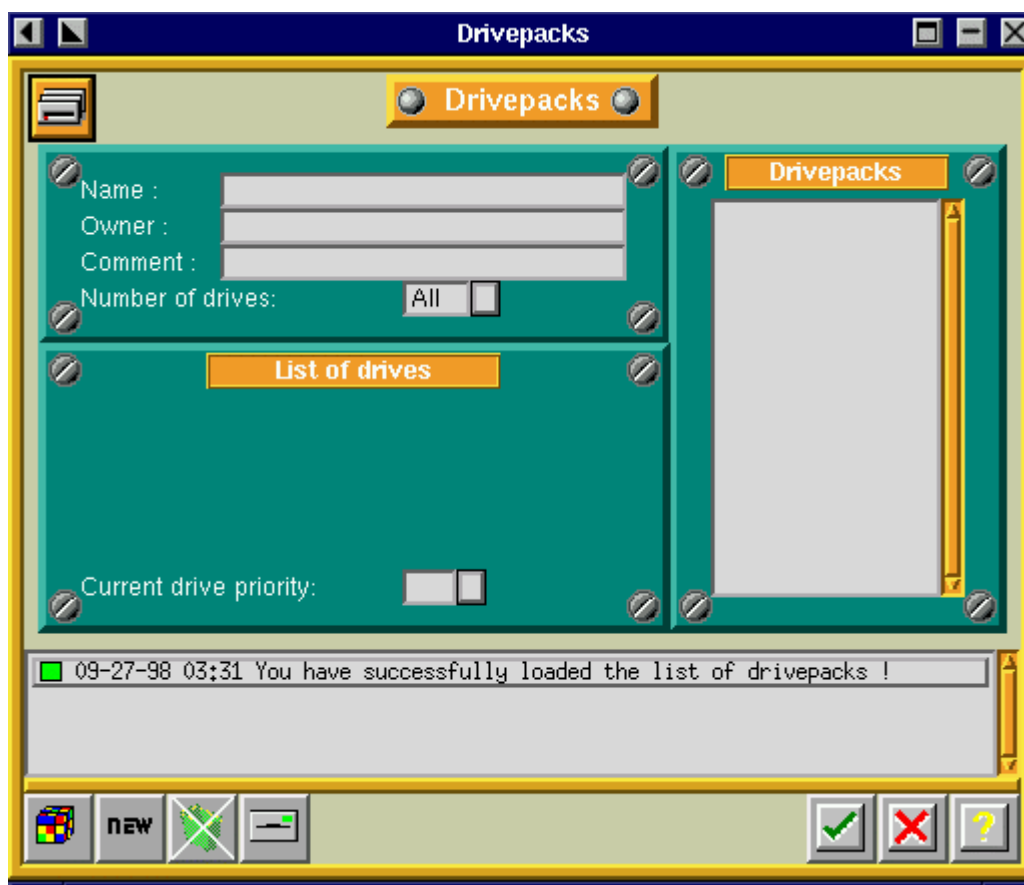
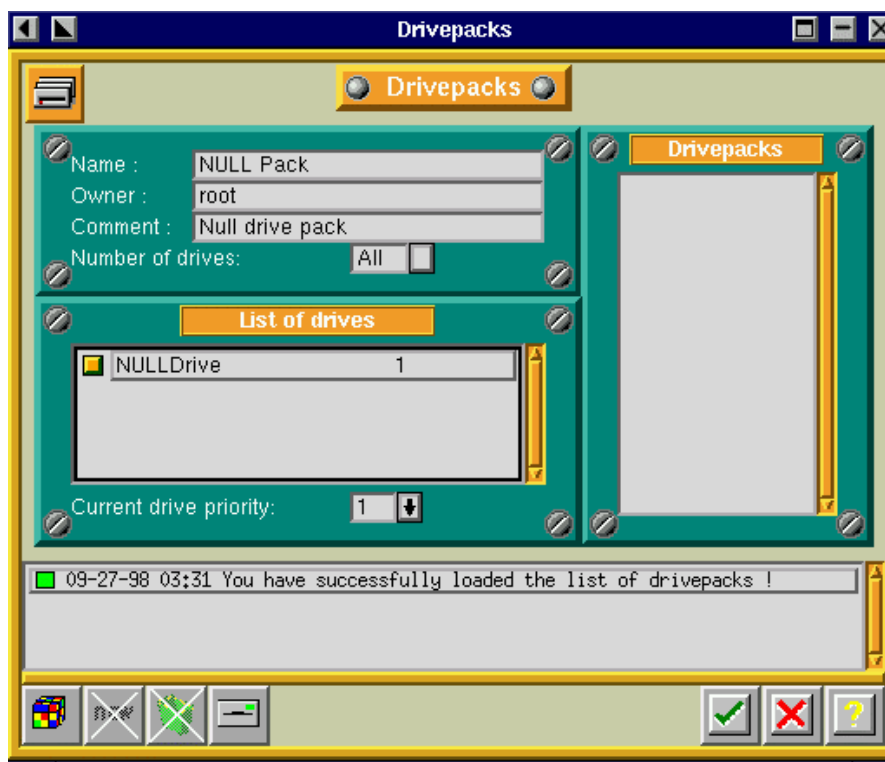


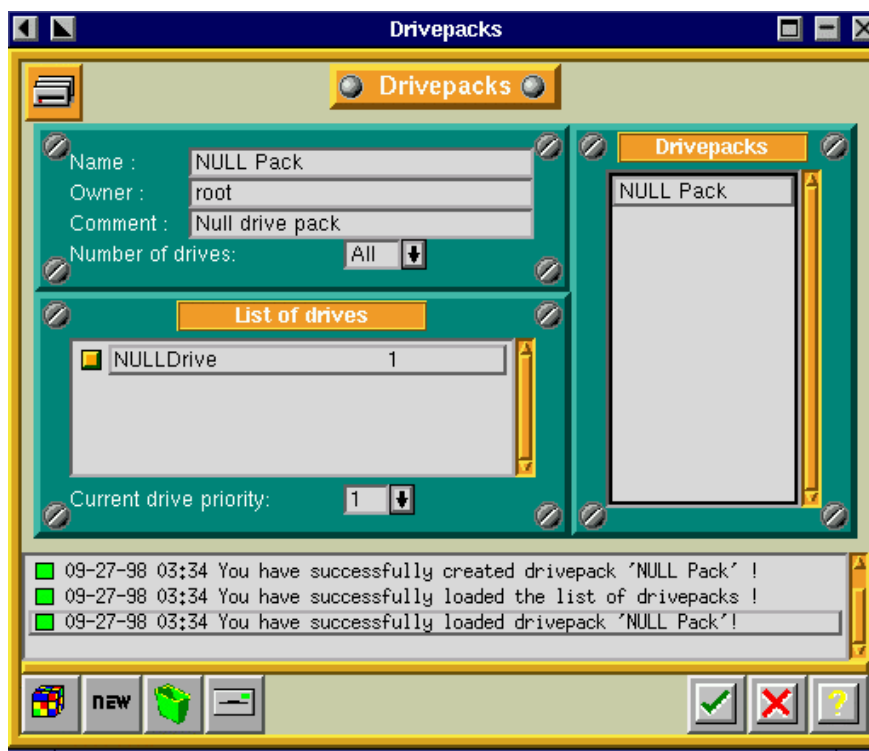
Fig. 8.2 - Drivepack Screen

Press the 'NEW' icon and fill in the screen as shown:



*Fig. 8.3: Drivepack Screen During Modification*

Press the check box to record your selection:

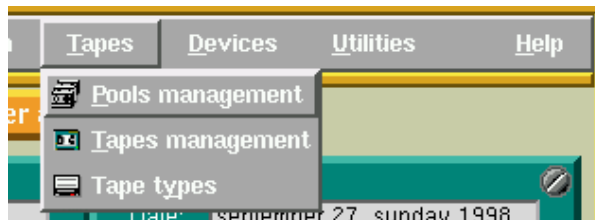


*Fig. 8.4: Example of a Configured Drivepack Screen*

Return to the Server Administration screen by pressing the check box.

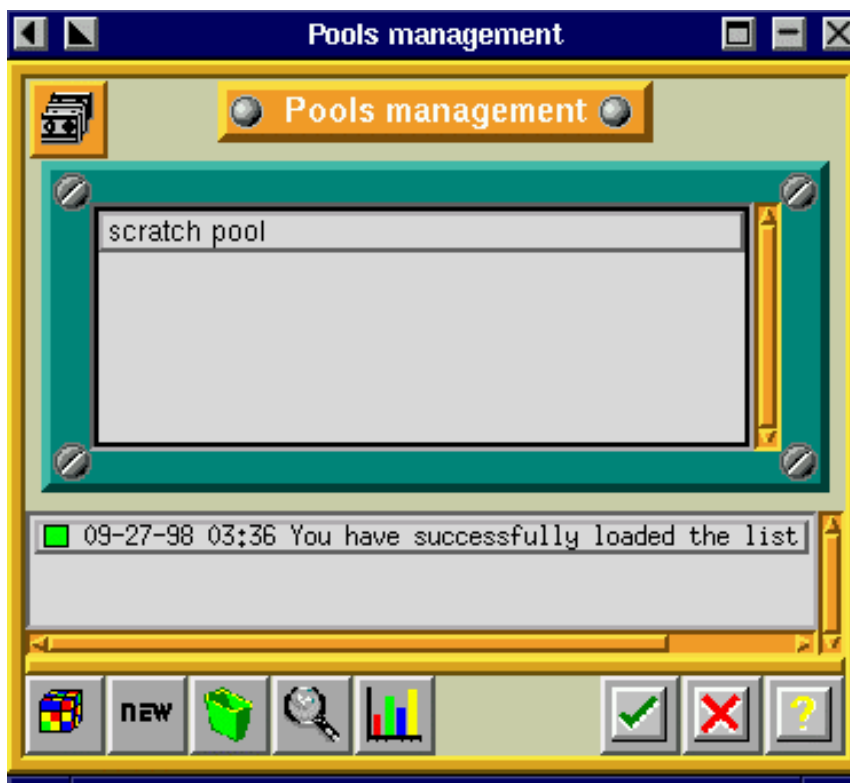
### 3.1.4 Create NULL Tape Pool Definition

While being on the Server Administration screen select *Tapes* in the menu, then choose *Pools management* in the pop-up menu.



*Fig. 9.1 - Selecting the Pool Management from the Server Administration Screen*

The following screen will be displayed:



*Fig. 9.2 - Pools Management Screen*

Click on the 'NEW' button and fill in the fields as shown in the next figure:



Fig. 9.3 - Pool Creation Screen

Press the check box to record your selection.

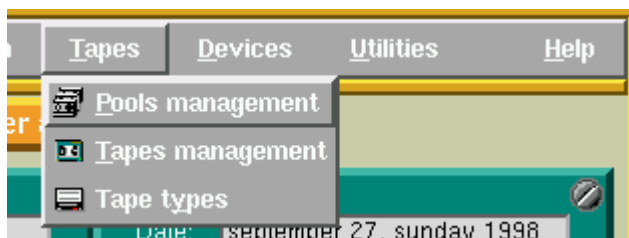


Fig. 9.3 - Example of a Pools Management Screen

Proceed directly to Create null tapes definitions.

### 3.1.5 Create NULL Tapes Definition

While being on the Server Administration screen select *Tapes* in the menu, then choose *Pools Management* in the pop-up menu.



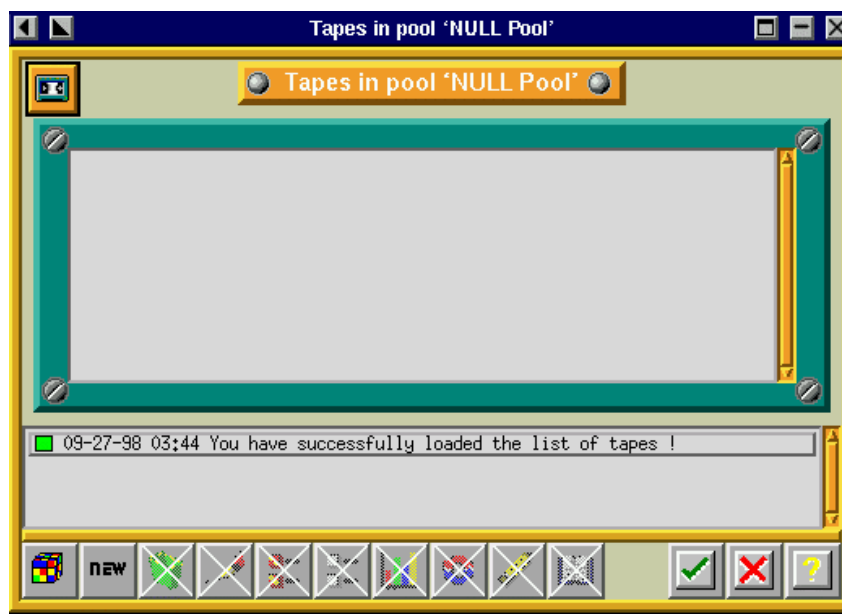
*Fig. 10.1 - Selecting the Pools Management from the Server Administration Screen*

The following screen will display the list of existing pools :



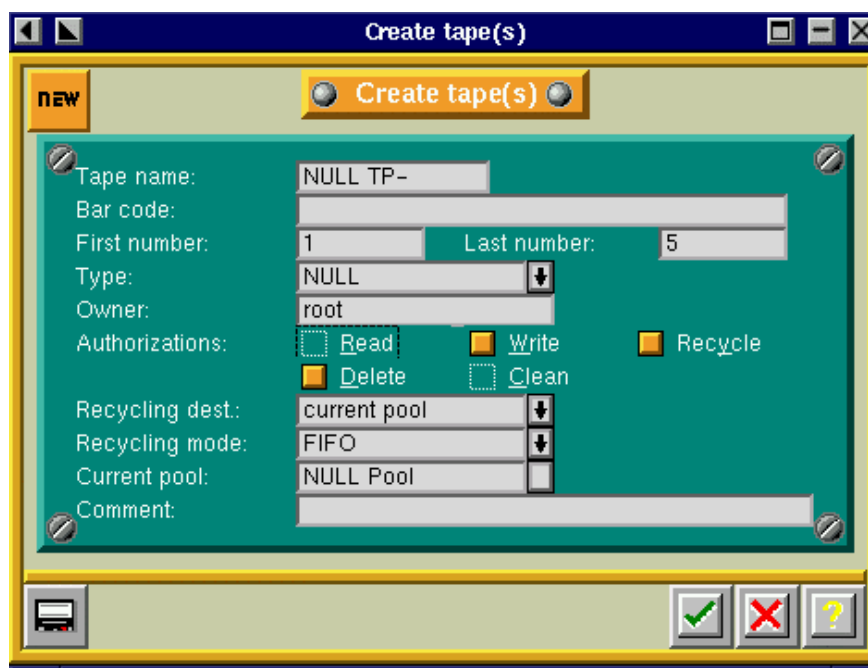
*Fig. 10.2 - Pools Management Screen*

To create tapes, double click on the NULL Pool.



*Fig. 10.3 - Tapes in Pool Screen*

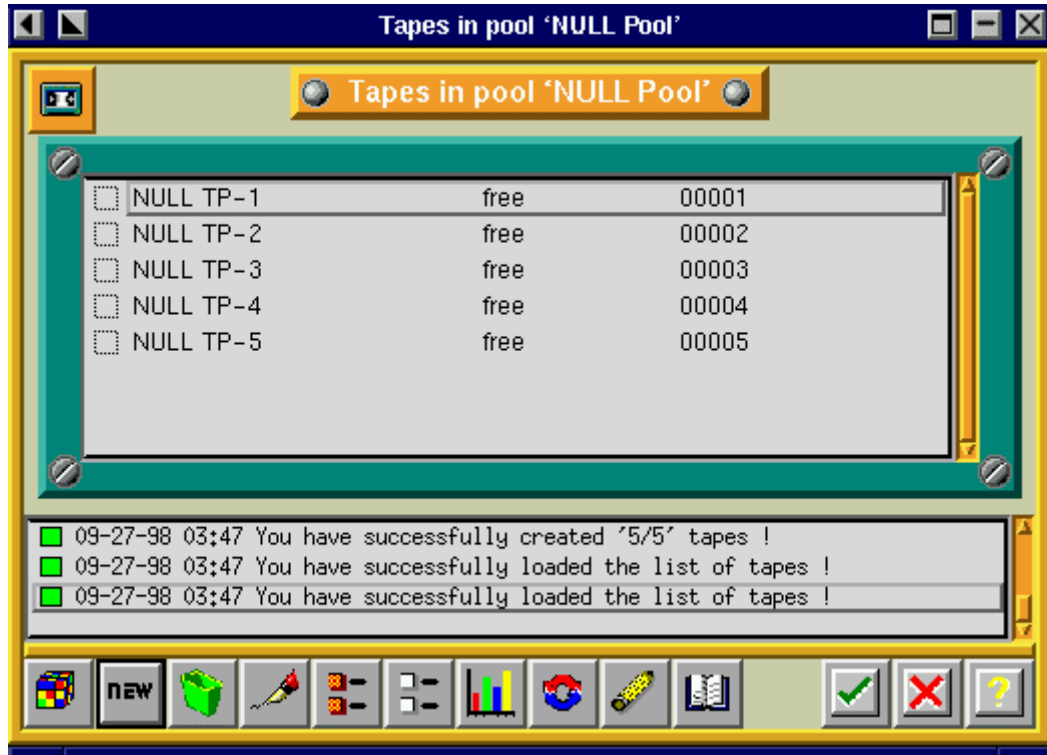
Press the 'NEW' button and fill in the fields as shown:



*Fig. 10.4 - Creation of Tapes Screen*

Press the check box to record your selection. This will create five NULL tapes and close the window. You will automatically return to the previous screen, in which the five NULL tapes will now be displayed:





*Fig. 10.5 - Example of the Tapes in the Pool Screen*

Click on the check box to close this screen, as well as the *Pools Management* screen. You automatically return to the Server Administration screen.

### 3.1.6 Create a Test Savepack

While being on the Server Administration screen select *Backup* in the menu, then choose *Savepacks* in the pop-up menu.

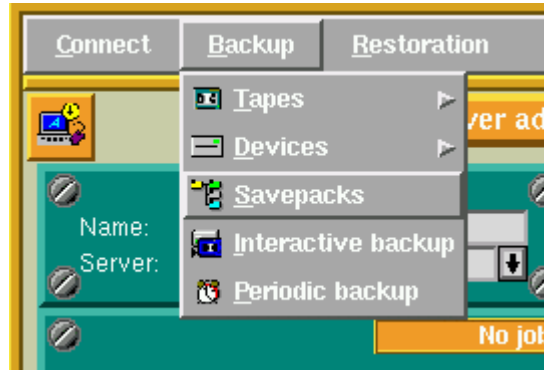


Fig. 11.1 - Selection of the Savepack Screen

The following screen will be displayed:

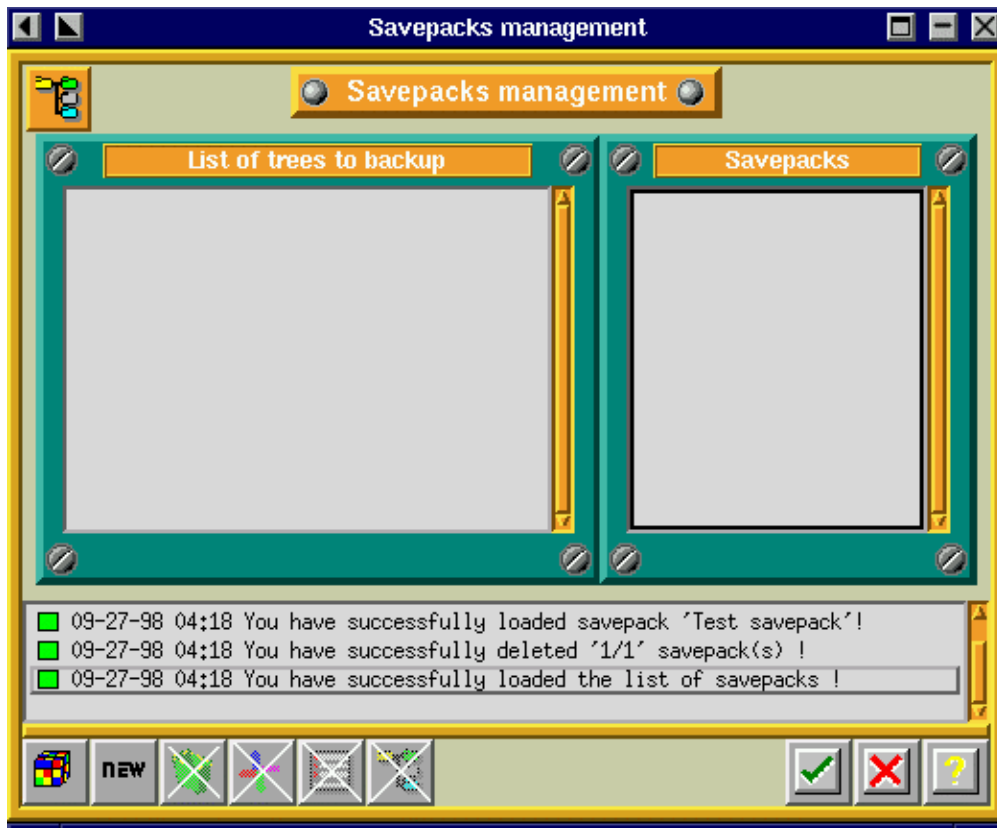
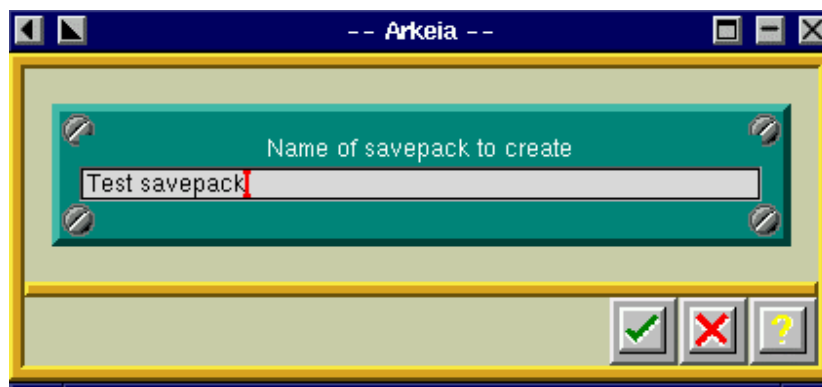


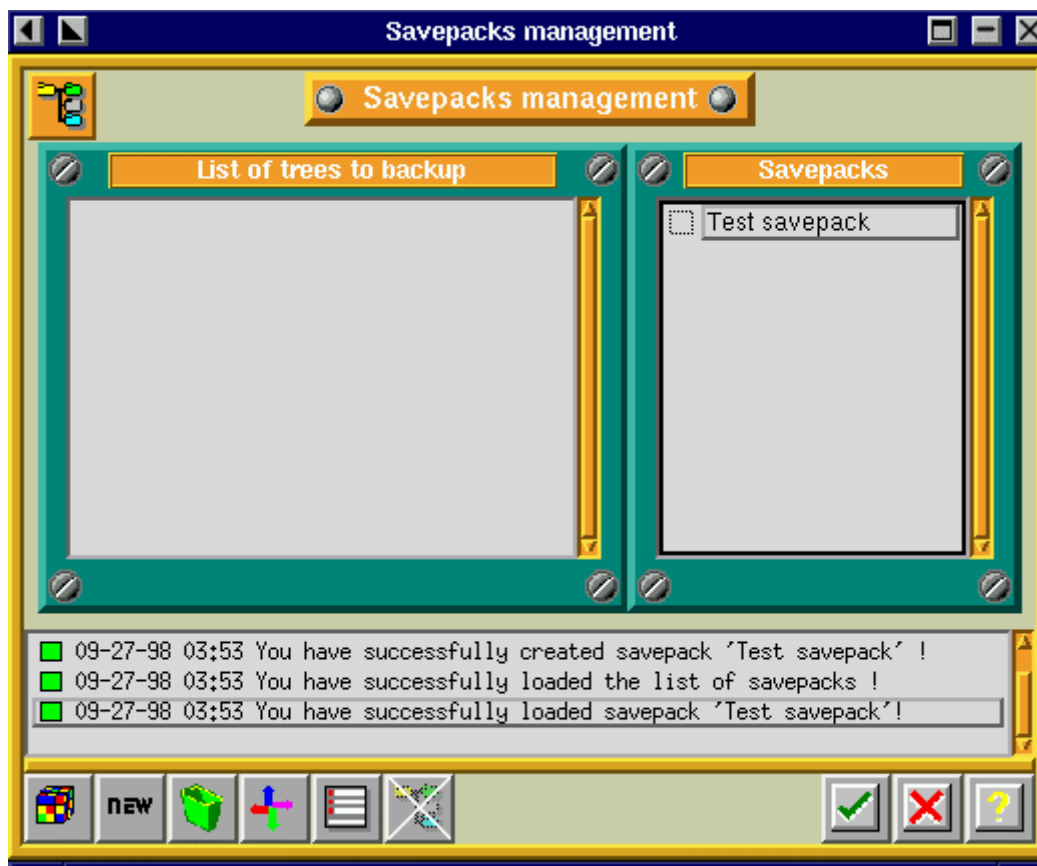
Fig. 11.2 - Savepack Management Screen

Press the 'NEW' button and create a test the savepack as follows:



*Fig. 11.3 - Creation of the Savepack*

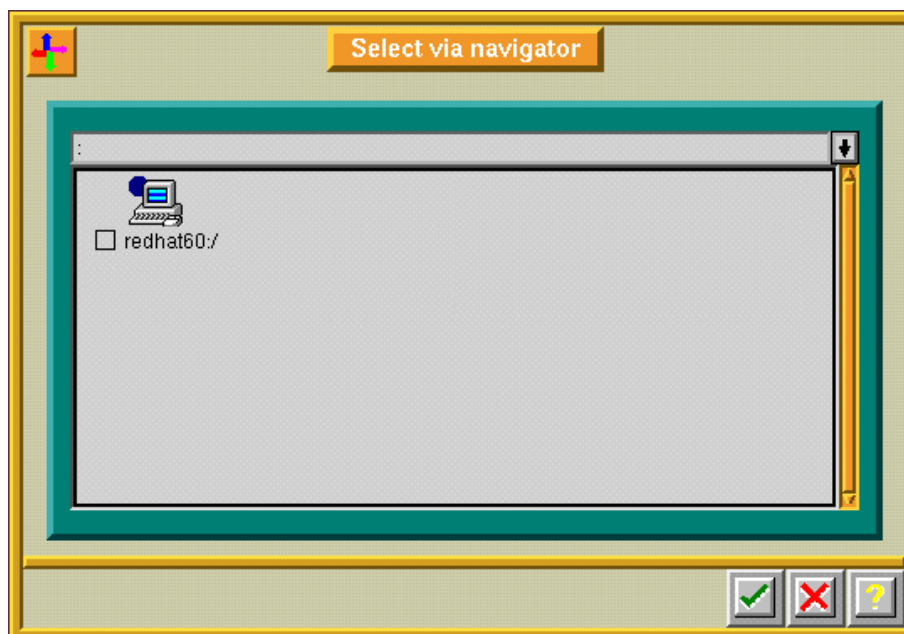
Press the check box to record your selection. You will return to the previous screen:



*Fig. 11.4 - Example of the Savepack Management Screen*

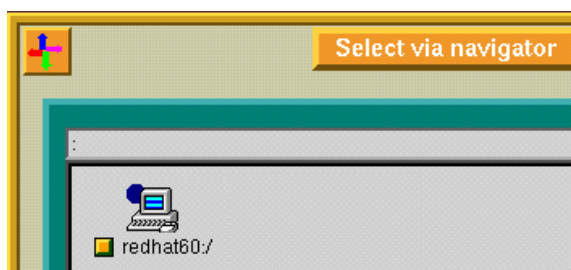
To complete the creation of the savepack, press the 'NAVIGATOR' icon on the navigation bar tool (the four-color arrows).

Then, the following screen will automatically be displayed:



*Fig. 11.5 - Example of the Savepack Navigator*

You should see one icon of a computer with the hostname of your backup server. Select the icon by raising the orange box to its left, as shown in the next figure:



*Fig. 11.6 - Example of the Savepack Navigator*

Press the check box to record your selection. You automatically will return to the Server Administration screen.

### 3.1.7 Perform an Interactive Backup Using the NULL Definitions Created

While being on the Server Administration screen select *Backup* in the menu, then choose *Interactive Backup* in the pop-up menu.

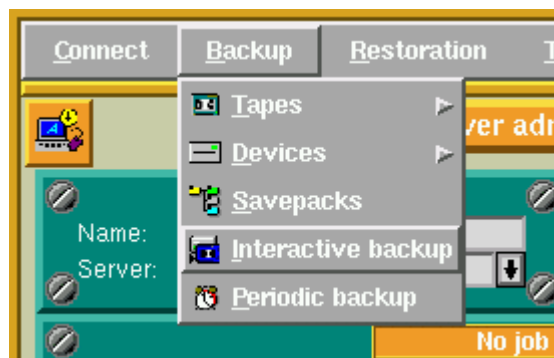


Fig: 12.1 - Selection of the Interactive Backup Screen

The following screen will be displayed:

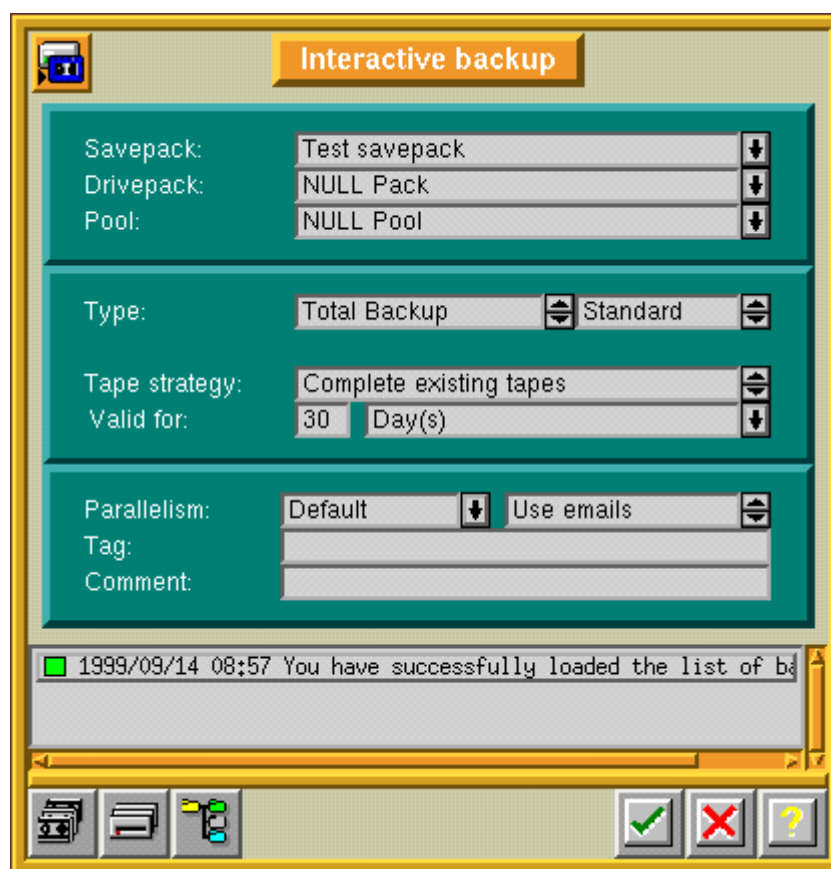
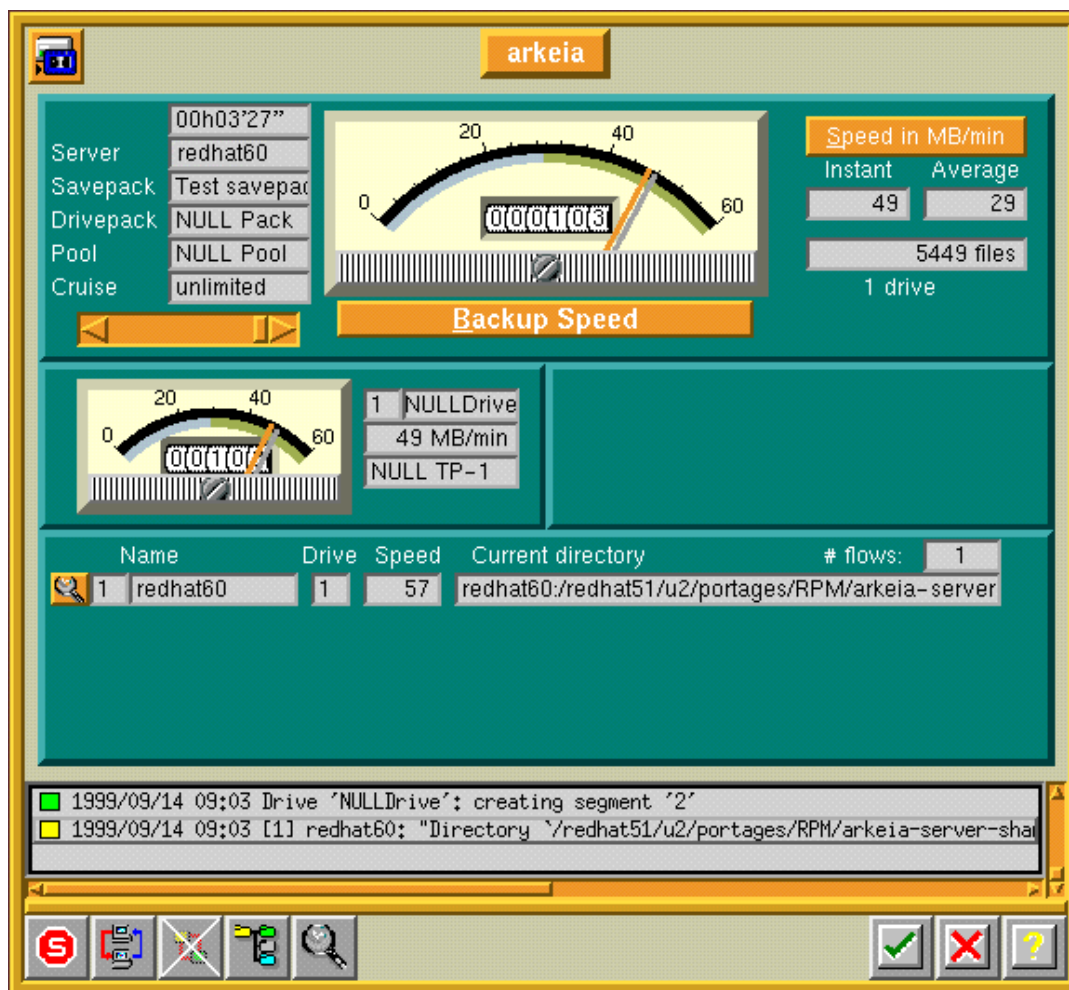


Fig. 12.2 - Interactive Backup Screen

If the Savepack, Drivepack and Pool do not figure on the above screen, scroll the pop-up list of each field and change the selections, so that they match with the screen shown above.

Press the check box to validate your choice and to start the interactive backup. The following screen will be displayed:



*Fig. 12.3 - The Arkeia Backup Screen*

Arkeia is now simulating a backup of your system. The data is being written on a NULL drive, and the speedometer needles start moving. You can cancel the backup simulation by pressing the *Stop* icon on the tool bar.

You have now successfully completed the validation of your **Arkeia backup server**.

## 3.2 Client Validation

This section helps you to setup the Arkeia backup of a client machine.

As soon as you have installed Arkeia on the client machine, you can proceed to the configuration in the following order:

1. Start Arkeia and login
2. Create a test savepack
3. Perform an interactive backup using the null definitions just created

### 3.2.1 Start Arkeia and Login

From an xterm prompt, enter *ARKEIA &*.

After a few seconds, the following screen will be displayed:



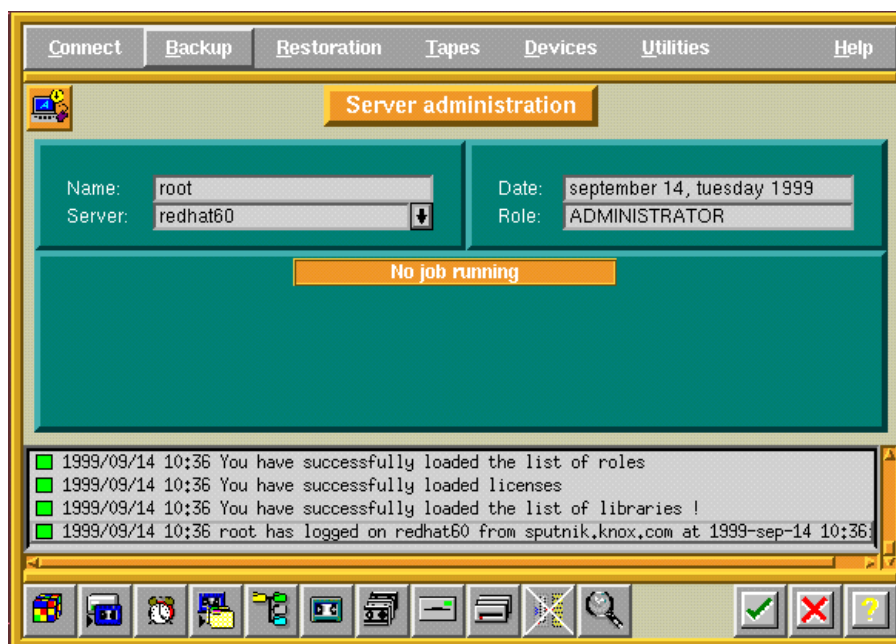
*Fig 13.1 - Arkeia Welcome Screen*

Make sure that

- the server name is the same as your backup server's hostname.
- the login name is root with no password

Press the check box to login.

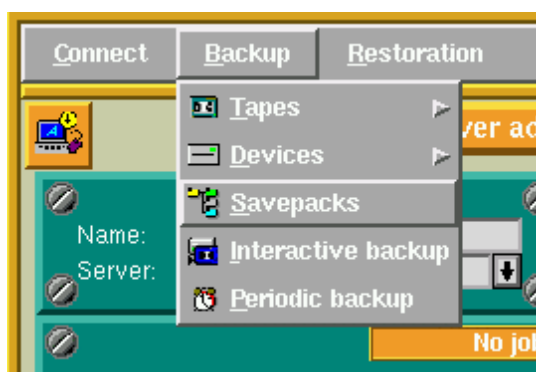
After a few seconds, the Arkeia Server Administration screen will be displayed again:



*Fig. 13.2 - Server Administration Screen*

### 3.2.2 Create a Test Savepack

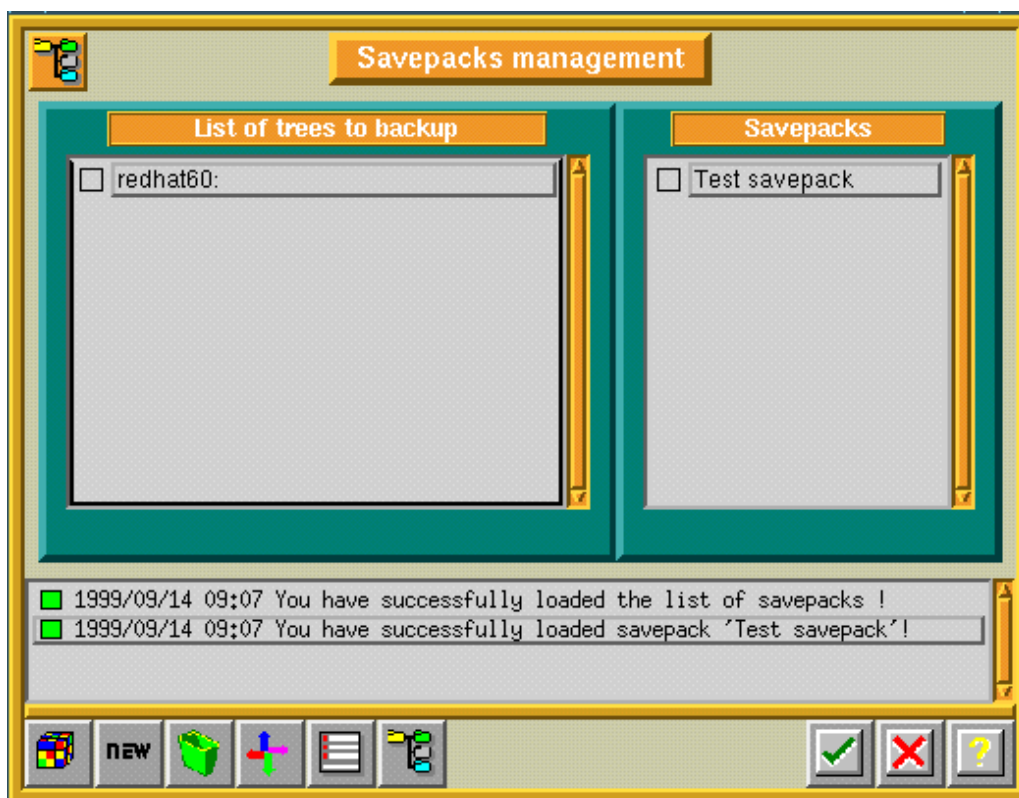
While being on the Server Administration screen select *Backup* in the menu, then choose *Savepacks* in the pop-up menu.



*Fig. 14.1 - Selection of the Savepacks from the Server Administration Screen*

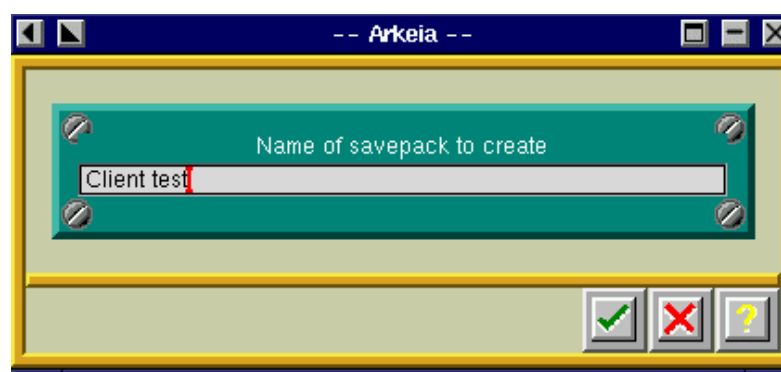


The following screen will be displayed:



*Fig. 14.2 - Savepack Management Screen*

Press the *NEW* button and create a test savepack for your client machine.



*Fig. 14.3 - Creation of the Savepack*

Press the check box to record your selection. You automatically return to the previous screen. The client savepack appears on the savepack list.

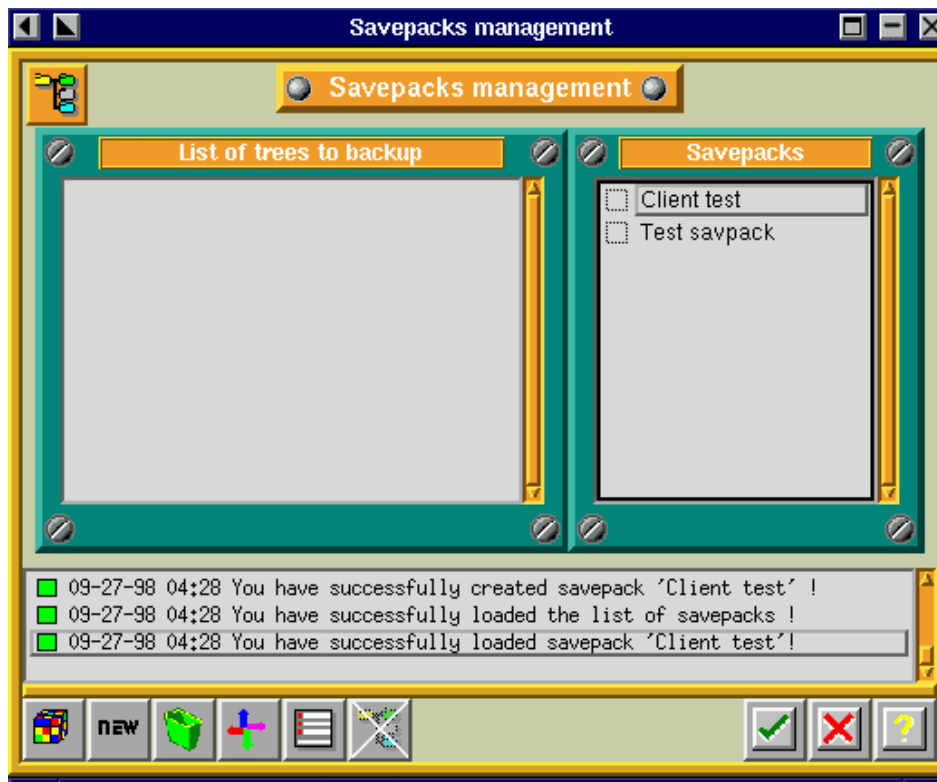


Fig. 14.4 - Savepack Management Screen

To complete the creation of the savepack, press the 'NAVIGATOR' icon on the navigation bar tool (the four-color arrows). Then, the following screen will automatically be displayed:

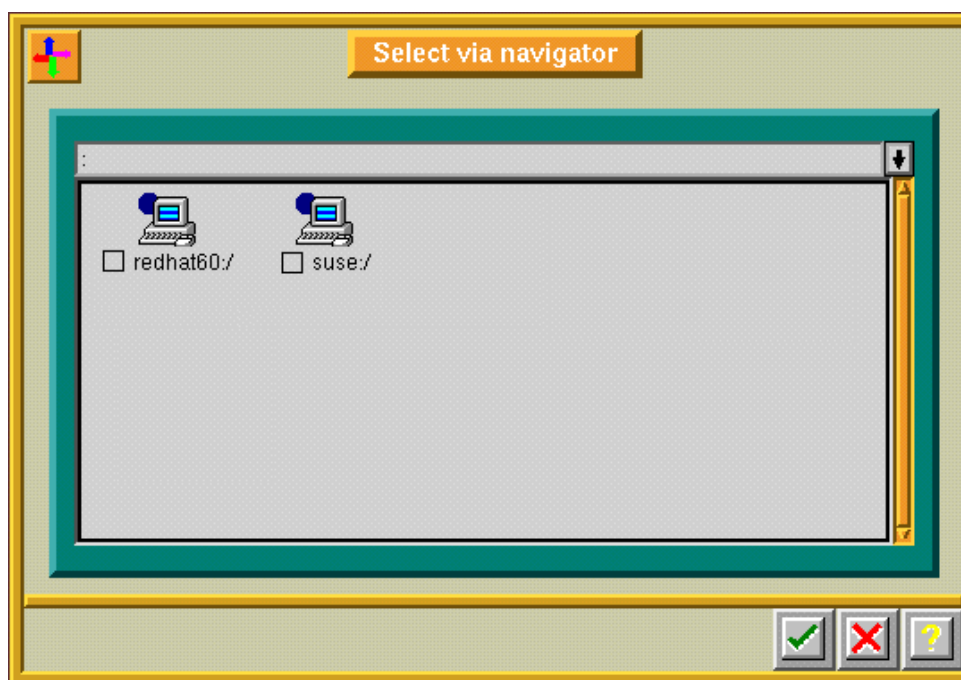
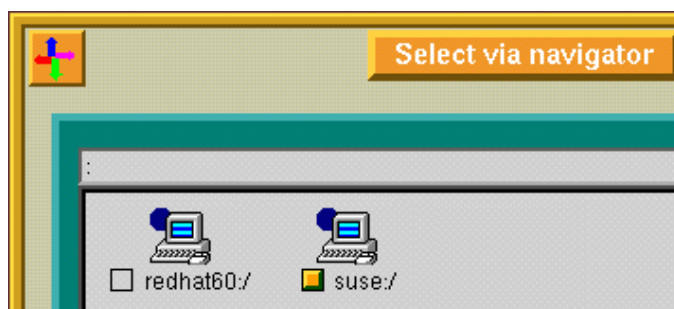


Fig. 14.5 - Navigator Screen

**Note:**

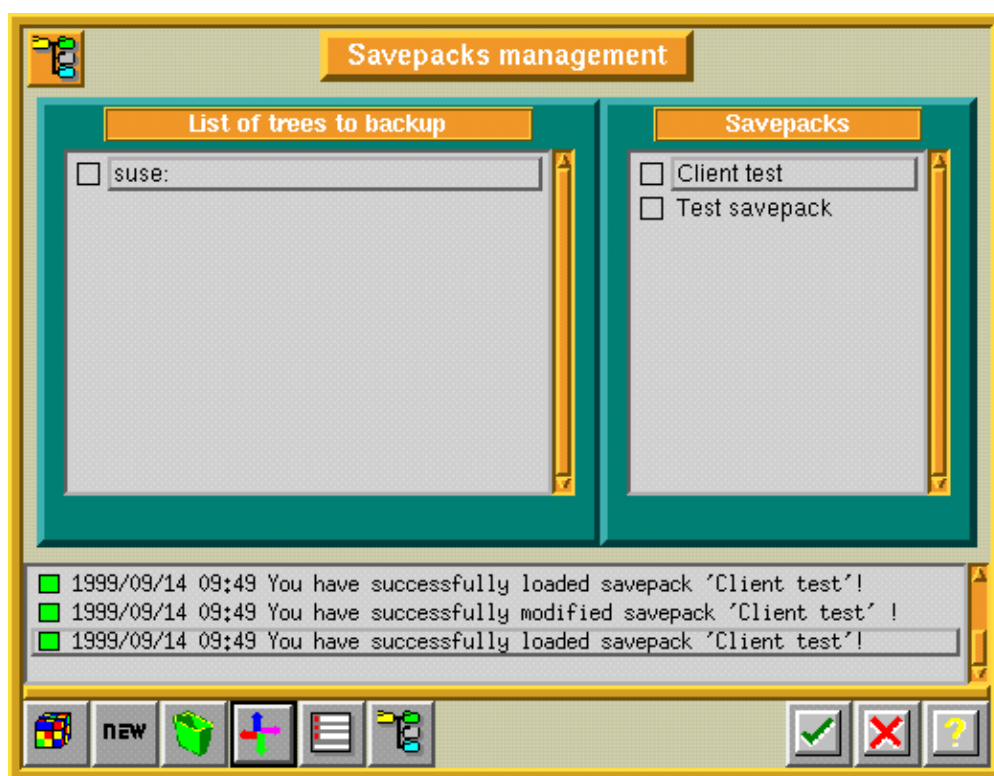
You now have two icons on the navigator screen: one for your server machine and the other for your client machine.

Select the client machine you want to backup by raising the orange box to its left. See below for an example.



*Fig. 14.6 - Example of the Navigator Screen*

Press the check box to record your selection.



*Fig. 14.7 - Example of the Savepack Management Screen*

Exit this screen by pressing the check box and return to the Server Administration screen.

### 3.2.3 Perform an Interactive Backup Using the NULL Definitions Created

From the Server Administration screen select *Backup* in the menu, then choose *Interactive Backup* in the pop-up menu.

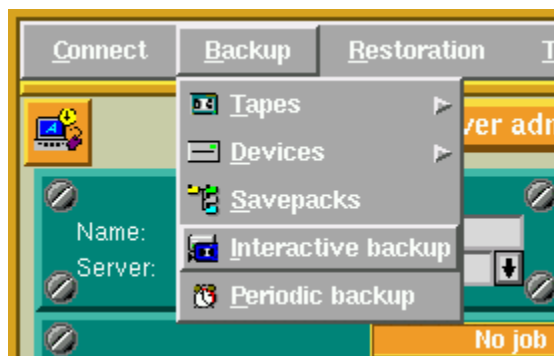


Fig. 15.1 - Selecting the Interactive Backup Screen

The following screen will be displayed.

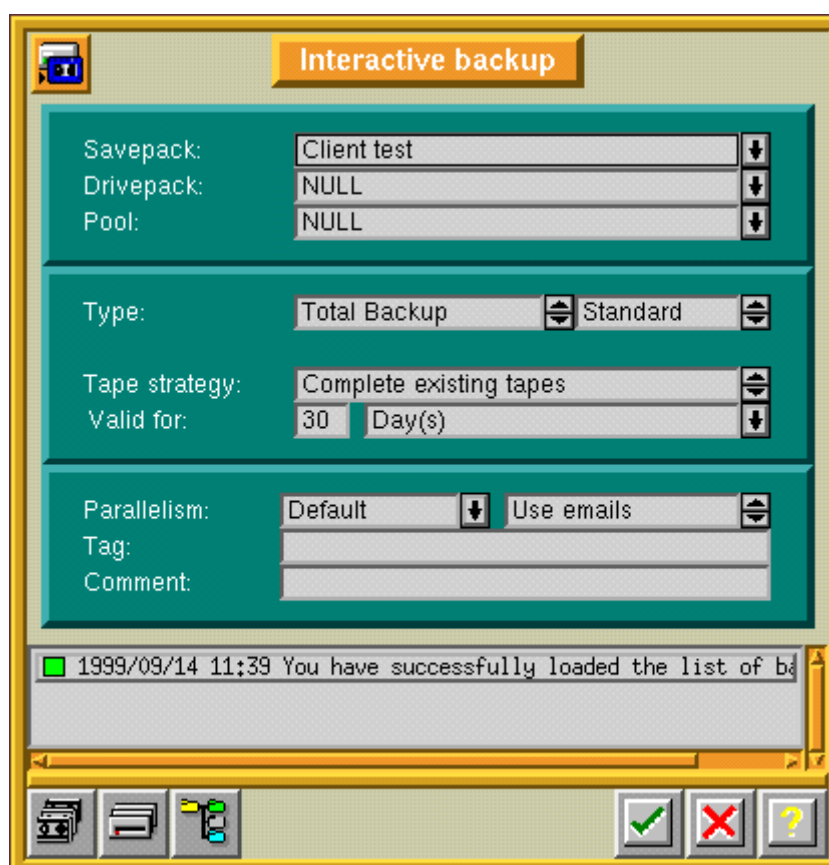


Fig. 15.2 - Interactive Backup Screen

If the *Savepack*, *Drivepack* and *Pool* do not figure on the above screen, scroll the pop-up list of each field and change the selections, so that they match with the screen shown above.

Press the check box to validate your choice and to start the interactive backup. The following screen will be displayed:

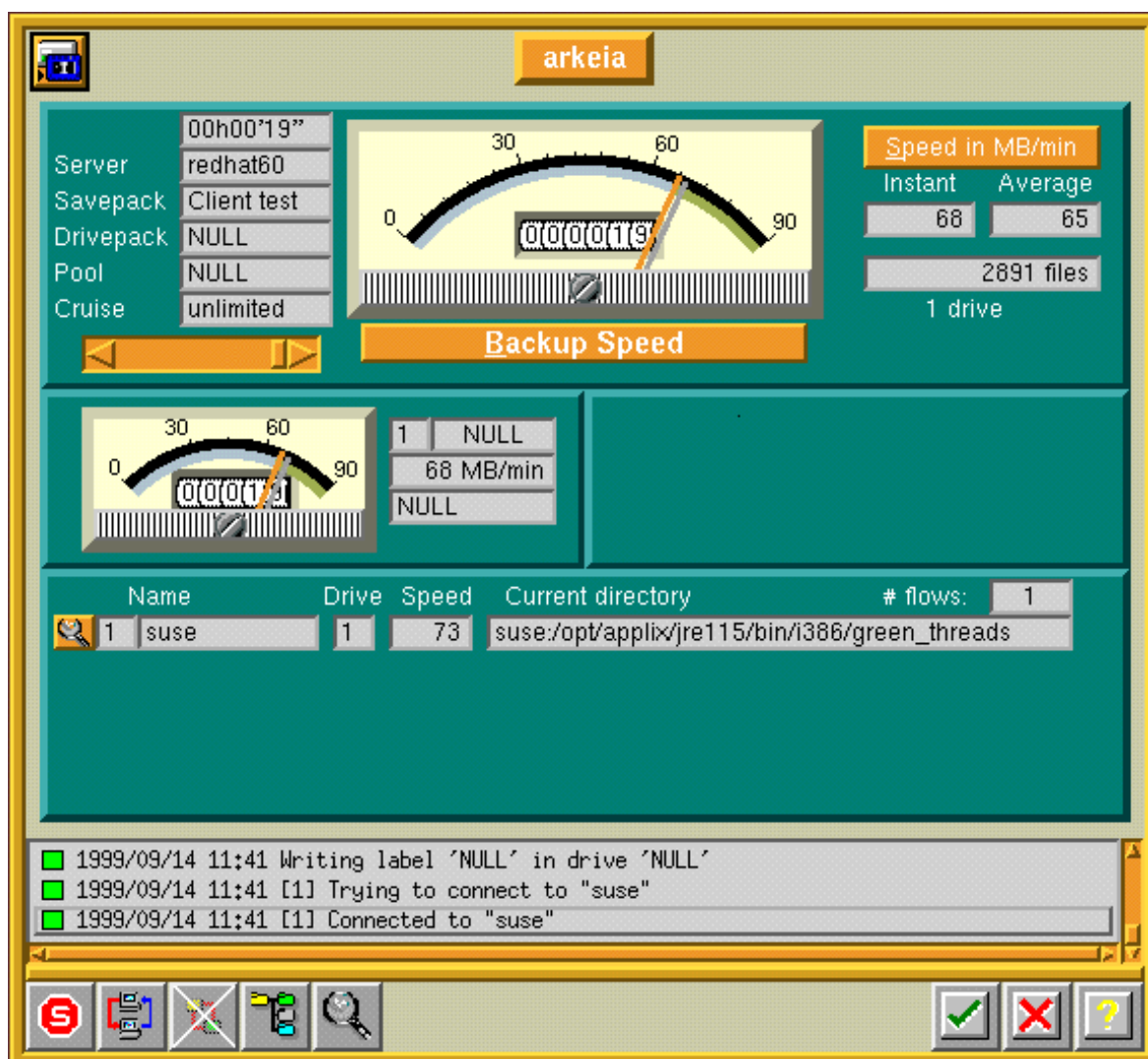


Fig. 15.3 - The Arkeia Backup Screen

Arkeia is now simulating a backup of your system. The data is being written on a NULL drive, and the speedometer needles start moving. You can cancel the backup simulation by pressing the *Stop* icon on the tool bar.

You have now successfully completed the validation of your **Arkeia client machine**.

### 3.3 Setup of Your First Backup to a Real Tape

This section helps you to set up Arkeia to perform a backup of your machine(s) on a real tape drive. For this operation, it is necessary that you already have installed and validated the server (see section 3.1 and 3.2).

For the set up proceed to the configuration in the following order:

1. Start Arkeia and login
2. Create a tape drive definition
3. Create a drivepack definition
4. Create a tape pool definition
5. Create a tape definition
6. Perform an interactive backup

#### 3.3.1 Start Arkeia and Login

From an xterm prompt, enter *ARKEIA &*.

After a few seconds, the following screen will be displayed:



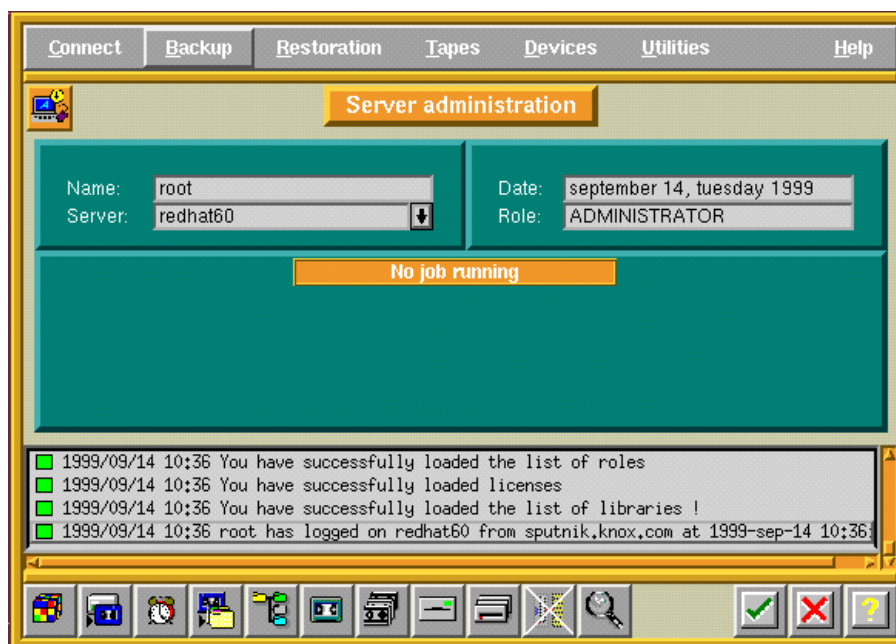
*Fig 16.1 - Arkeia Welcome Screen*

Make sure that

- the server name is the same as your backup server's hostname.
- the login name is root with no password

Press the check box to login.

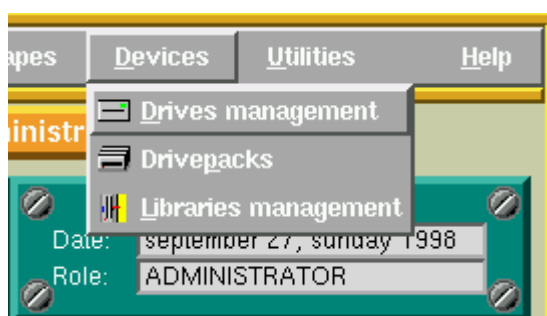
After a few seconds, the Arkeia Server Administration screen will be displayed:



*Fig. 16.2 - Server Administration Screen*

### **3.3.2 Create a Tape Drive Definition**

While on the Server Administration screen, choose *Devices* in the menu, then *Drives management* in the pop-up menu:



*Fig. 17.1 - Selecting the Drives Management from the Administration Screen*

The following screen will be displayed:

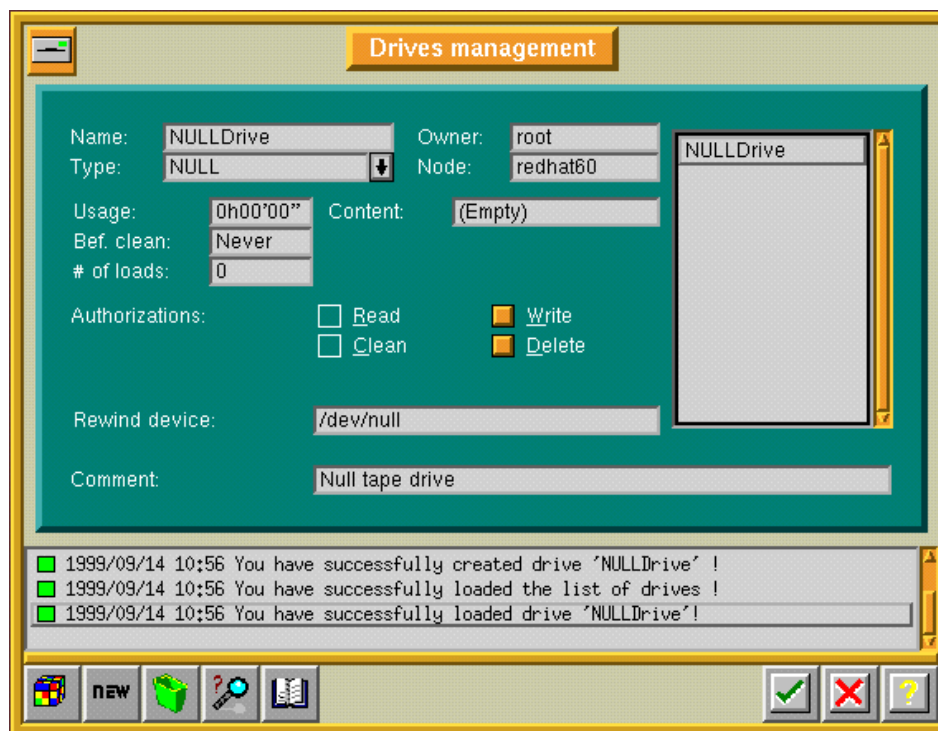


Fig. 17.2 - Drive Management Screen before modification

Press the 'NEW' icon and fill in the fields as shown:

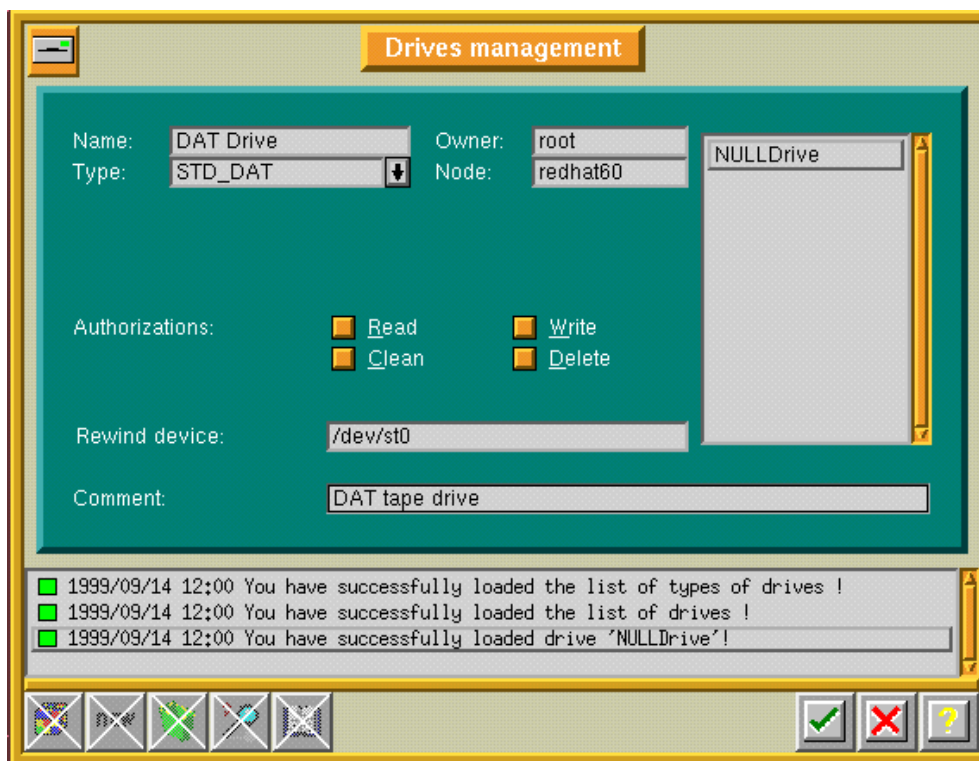


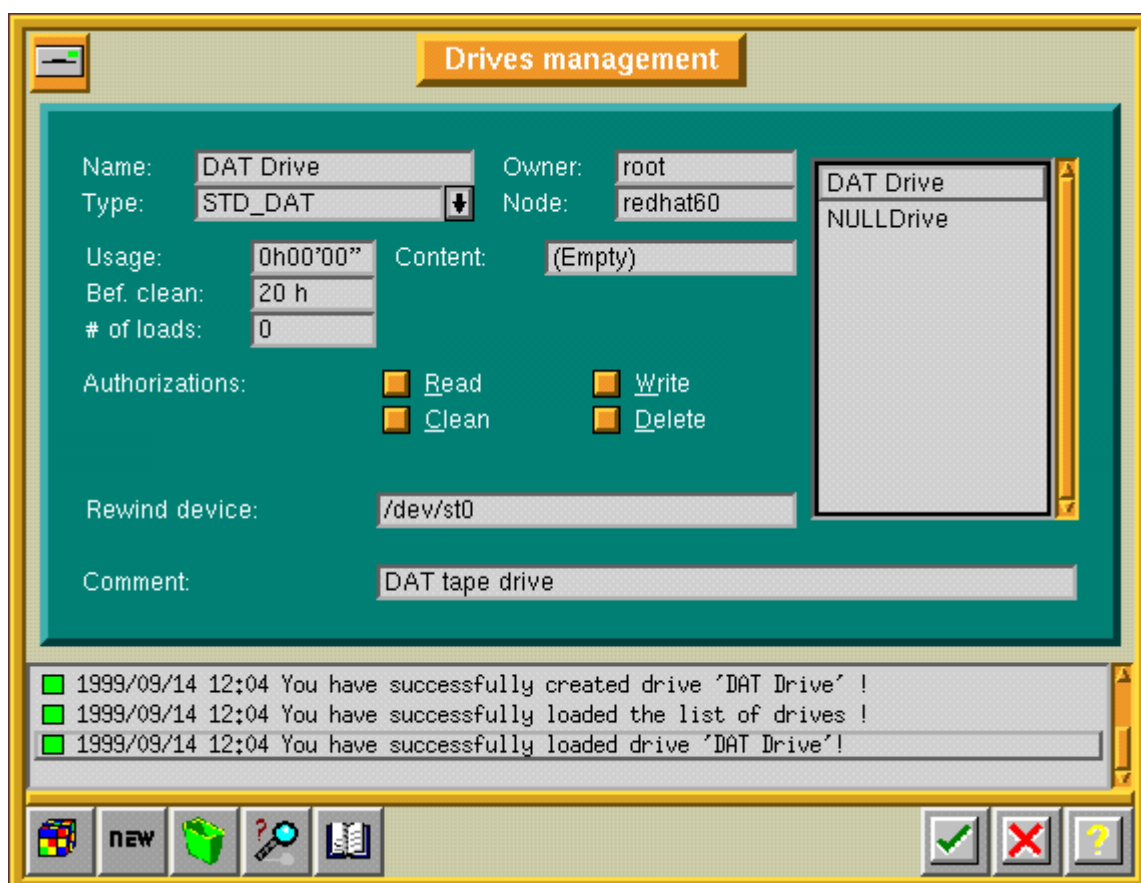
Fig. 17.3 - Example of modification of the Drives Management Screen



**Note:**

The rewind-device is set to `/dev/st0`. This is a Linux specific device name. Place the cursor in the rewind device field and press F1 for additional information regarding the name of rewind devices for other platforms. If your tape drive is not located on `/dev/st0` please change the rewind device to the correct device name.

As soon as you have specified the control device press the check box to record your selection. You will obtain the following screen automatically:



*Fig. 17.3 - Example of modified Drives Management Screen*

Click the check box to return to the Server Administration screen.

### 3.3.3 Create a Drivepack Definition

From the Server Administration screen select *Devices* in the menu, then choose *Drivepacks* in the pop-up menu.

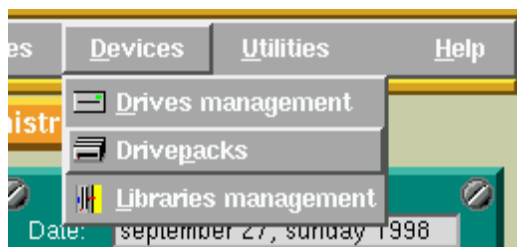


Fig. 18.1 - Selection of the Drivepacks Screen

The following screen will be displayed:

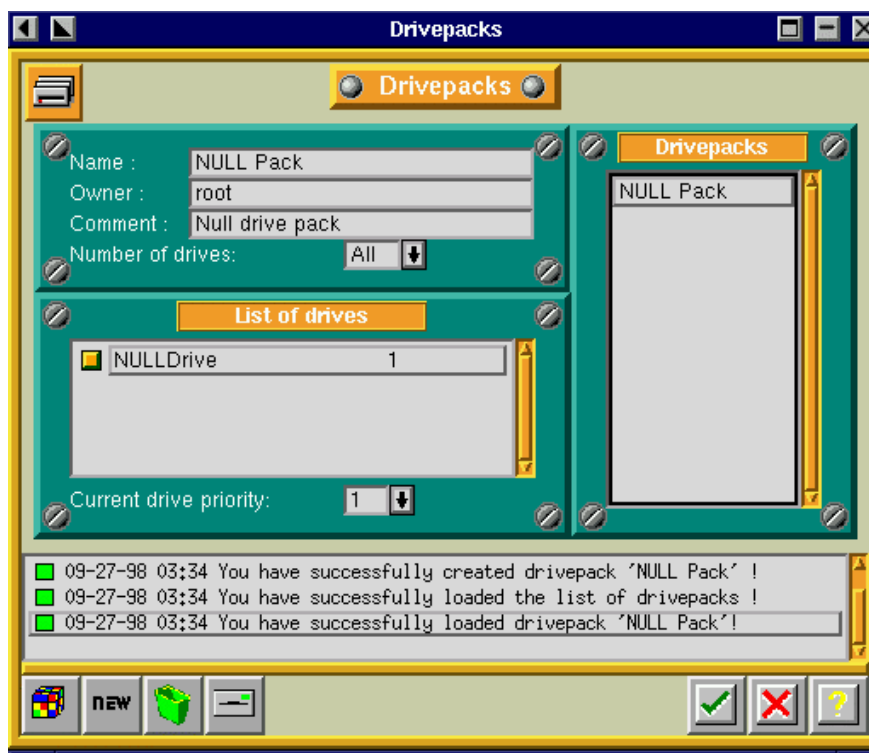


Fig. 18.2 - Drivepack Screen before modification

Press the 'NEW' icon and fill in the screen as shown:

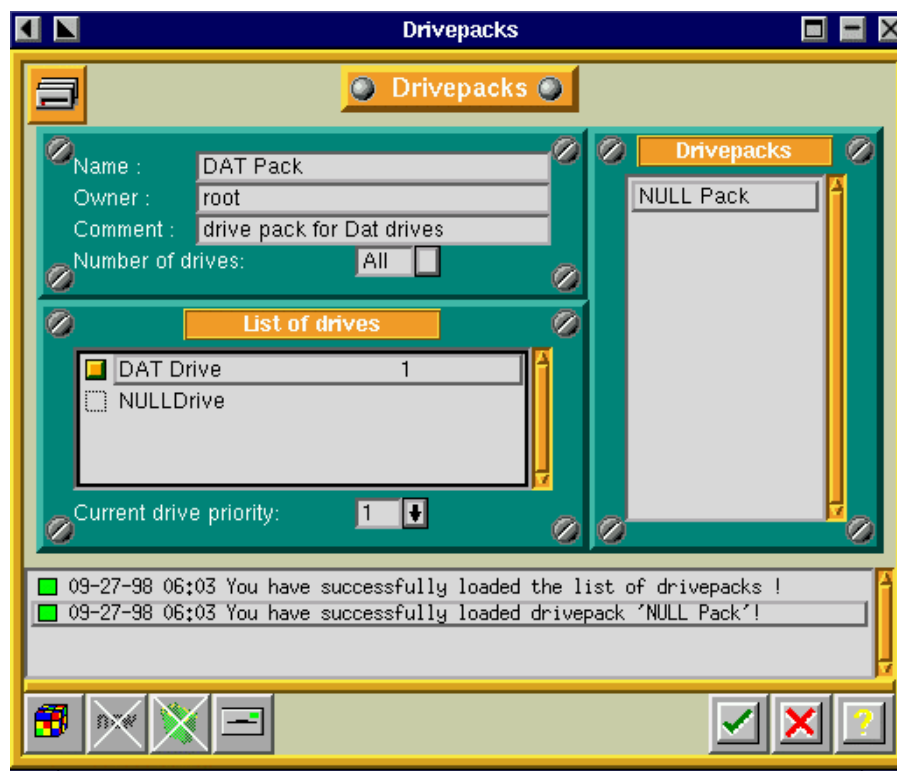


Fig. 18.3 - Creation of a new Drivepack

Press the check box to record your selection.

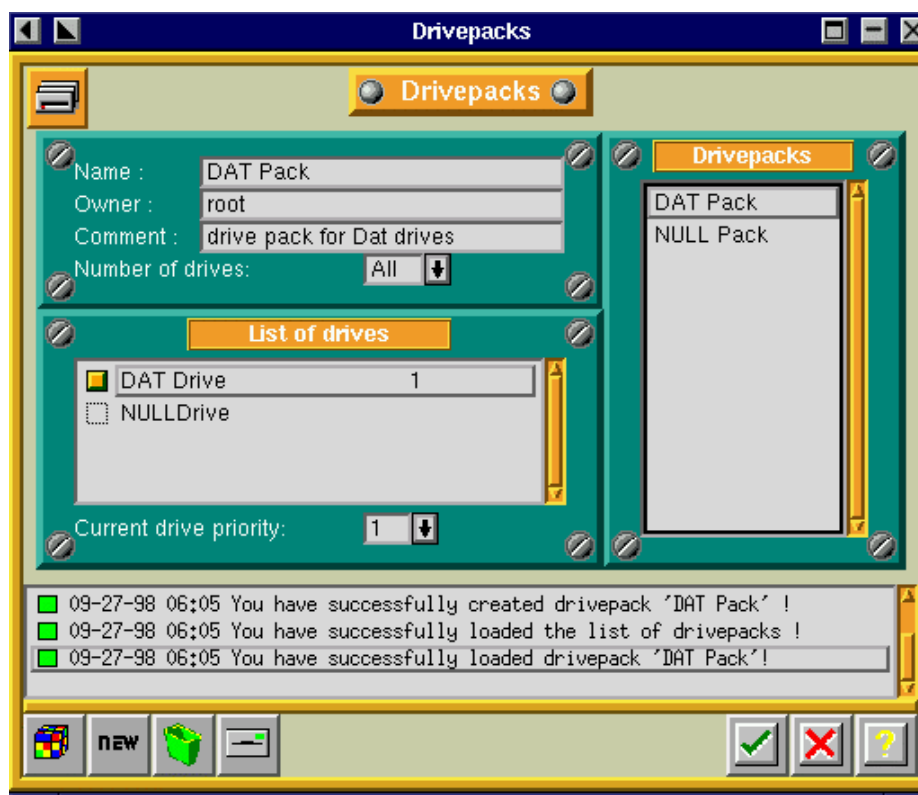
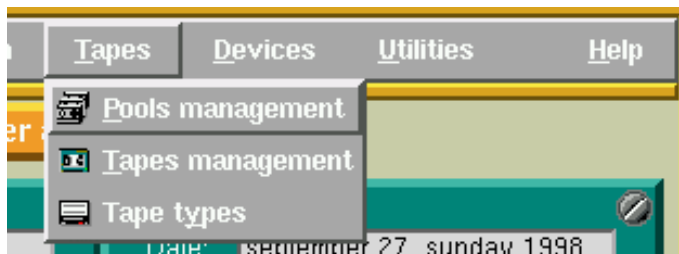


Fig. 18.4 - Modified Drivepacks Screen

Press the check box to return to the Server Administration screen.

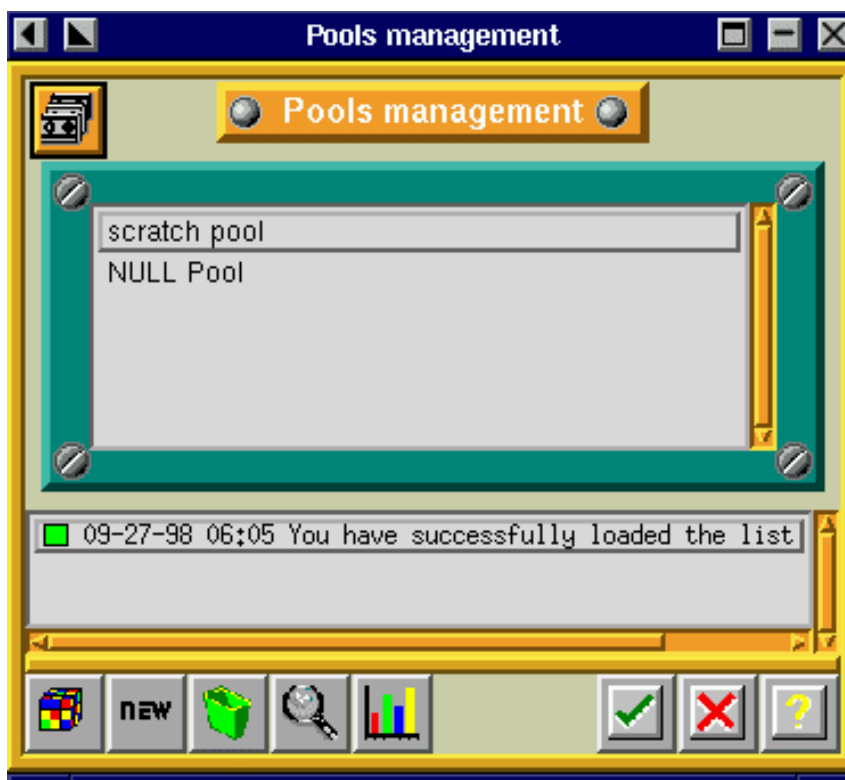
### 3.3.4 Create a Tape Pool Definition

While on the Server Administration screen, choose *Tapes* in the menu, then *Pools Management* in the pop-up menu:



*Fig. 19.1 - Selecting the Pools Management Screen*

The following screen will be displayed:



*Fig. 19.2 - Pools Management Screen*

Click on the 'NEW' button and fill in the fields as shown below:



Fig. 19.3 - Pool Creation Screen

Press the check box to record your selection. Then, the following screen will be displayed:

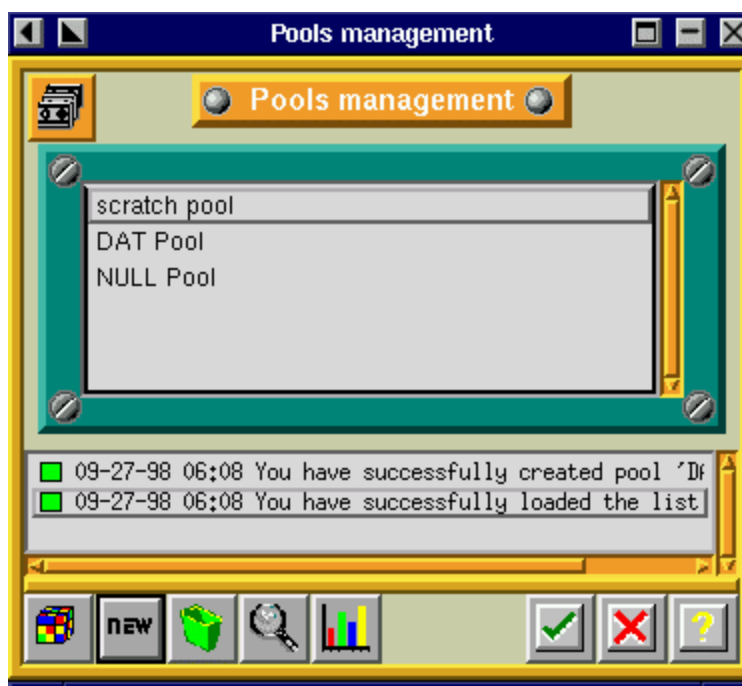


Fig. 19.4 - Pools Management Screen

### 3.3.5 Create a Tape Definition

To make sure that the pools management screen is displayed, choose *Tapes* in the menu, then *Pools Management* in the pop-up menu while being on the Server Administration screen:

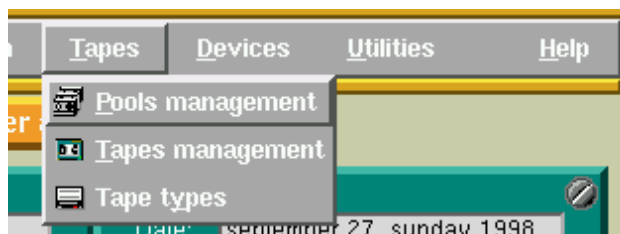


Fig. 20.1 - Selecting the Pools Management Screen

The following screen will be displayed:



Fig. 20.2 - Pools Management Screen

To create tapes within the DAT Pool, select and double click on DAT Pool. The following screen will be displayed:

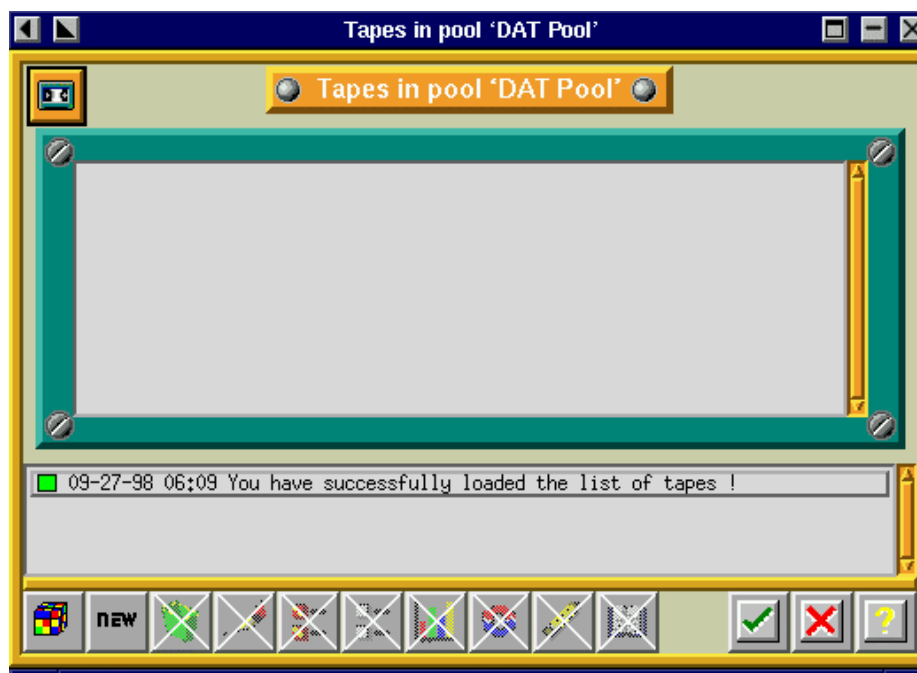


Fig. 20.3 - Tapes in Pool 'DAT Pool' Screen

Press the 'NEW' button and fill in the fields has shown:

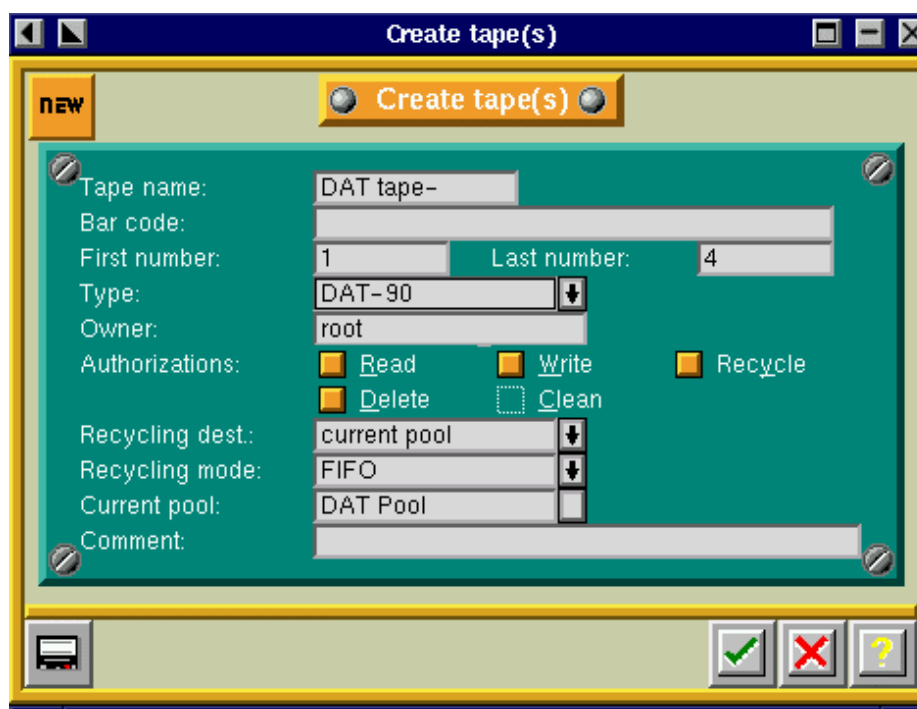
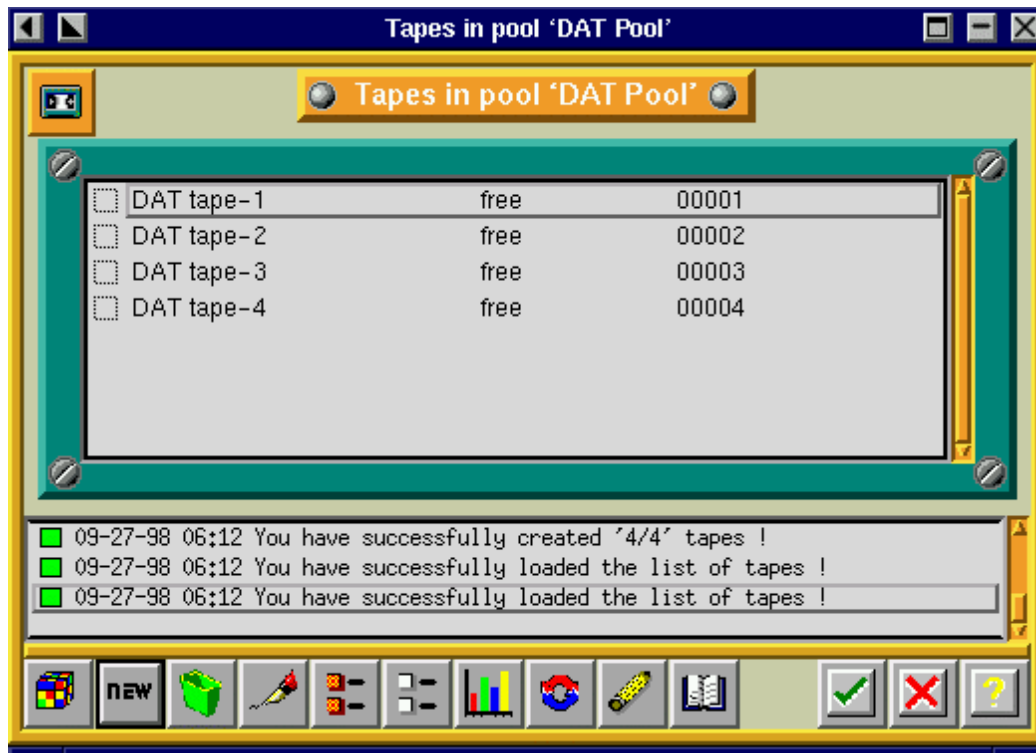


Fig. 20.4 - Create Tape(s) Screen

**Note:**  
 You must select the correct type of your tape in the 'Type'-Field. This example uses 90 m DAT tapes. If you use other tapes, choose the correct type in the pop-up menu.

Press the check box to record your selection. The following screen will display the 4 DAT tapes that you just created:



*Fig. 20.5 - Example for Tapes in Pool 'DAT Pool'*

Close this window and the *Pools Management* screen by clicking the check box. You will automatically return to the *Server Administration* screen.



### 3.3.6 Perform an Interactive Backup Using the Definitions Created

Place a new unused tape in your tape drive.

While being on the Server Administration screen, select *Backup* on the menu and *Interactive Backup* in the pop-up menu.

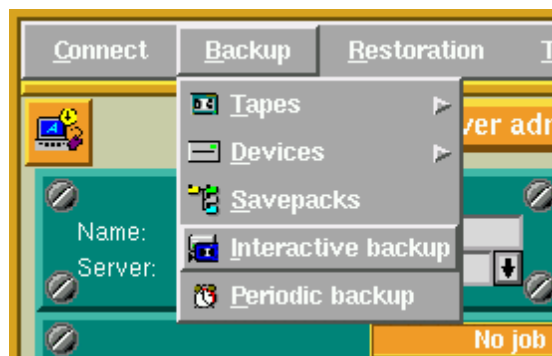


Fig. 21.1 - Selecting the Interactive Backup Screen

The following screen will be displayed:

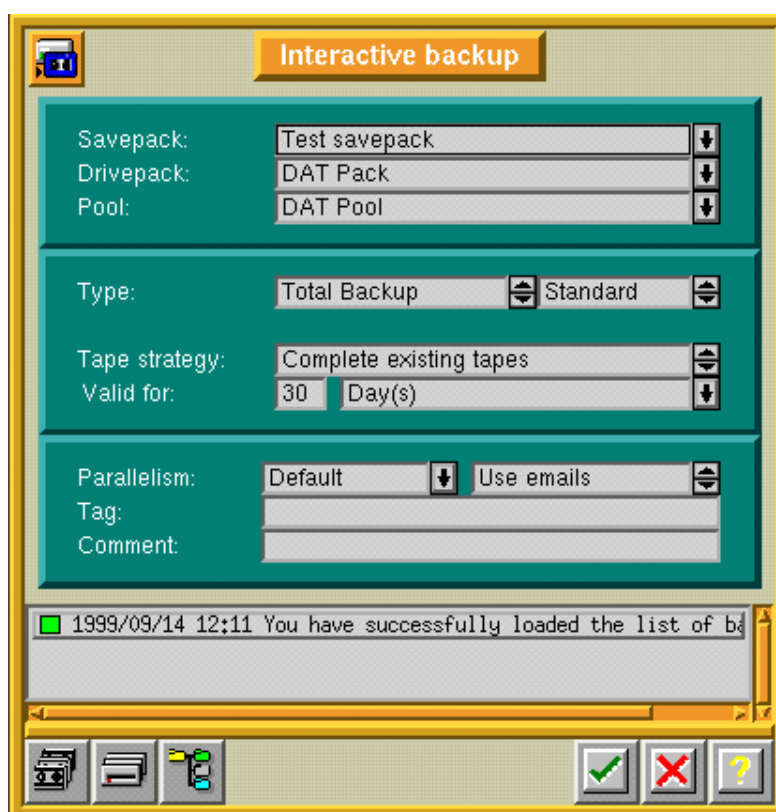


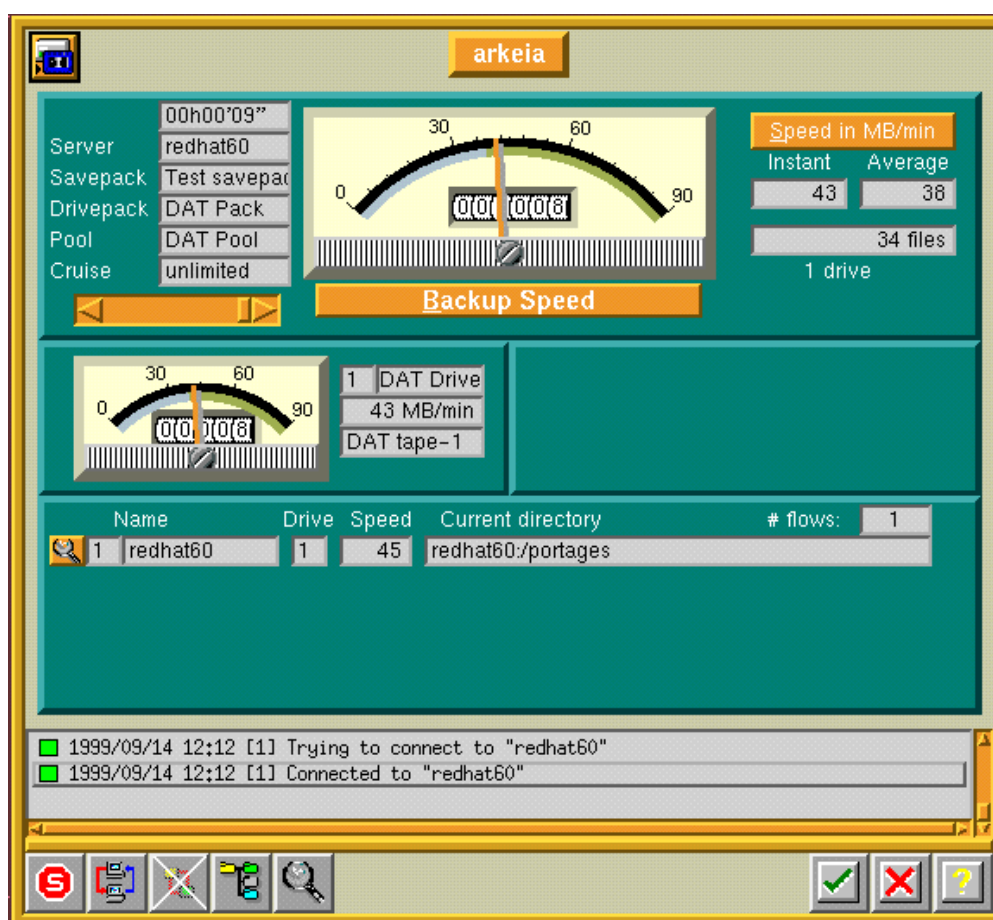
Fig. 21.2 - Interactive Backup Screen

**Note:**

Make sure that

- the Savepack field is set to 'Test savepack'.
- the Drivepack field is set to 'DAT Pack'. This contains your DAT drive.
- that the Pool field is set to 'DAT Pool'. This contains your DAT tapes.

As soon as this is done, press the check box to start the interactive backup. A screen similar to the following one will be displayed:



*Fig. 21.3 - Interactive Backup Screen*

Arkeia is now backing up your system. The data is being written on your tape drive. Once the speedometer needles start moving, you can cancel the backup by pressing the *Stop* icon. Click on *yes* when you are asked for a confirmation.

**You have now successfully completed a real backup of your Arkeia backup server.**

Personal Notes:

