

# Backup3G 5.1 New Features

August 17 2007

# Backup3G Configuration



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- Tools: Browse Folders
- Tools: Add Items
- Tools: Drives
- Tools: Media Library
- Tools: Settings
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# Installation

## Backup Master

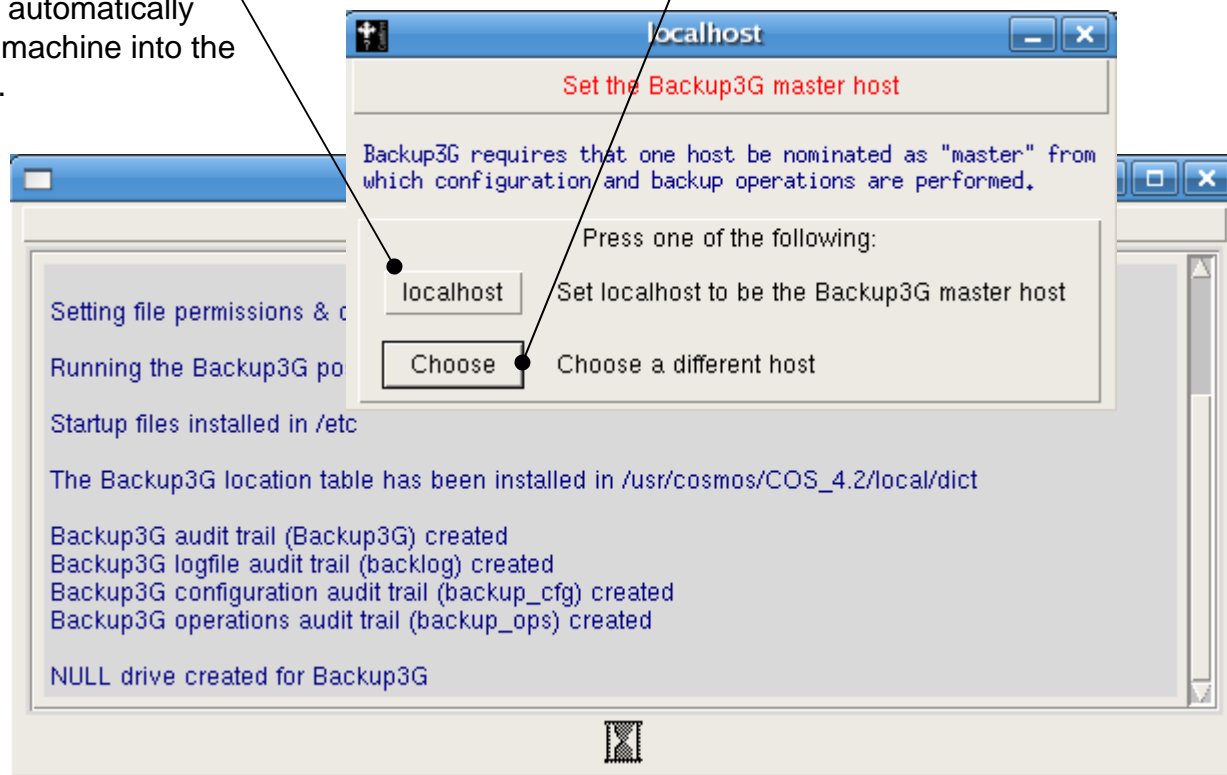
Select a machine as Backup Master

This will automatically add the machine into the hostinfo.

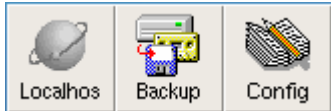
## Backup Client

Select the master as the host.

Ensure that master is found in /etc/hosts or the DNS.

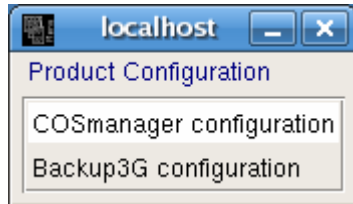


# Backup Configuration



## New Layout

Integrated Interface



## View

Configure Drives, Database Items, Settings

## Tools

Configure Drives, Settings, Tables.

Virtual Tape Library & Database Items, **(add-on module)**

## Help

Online Help

Release Notes

Online Issue Reporting

Online Updates

## Audit Trail

Operations logs

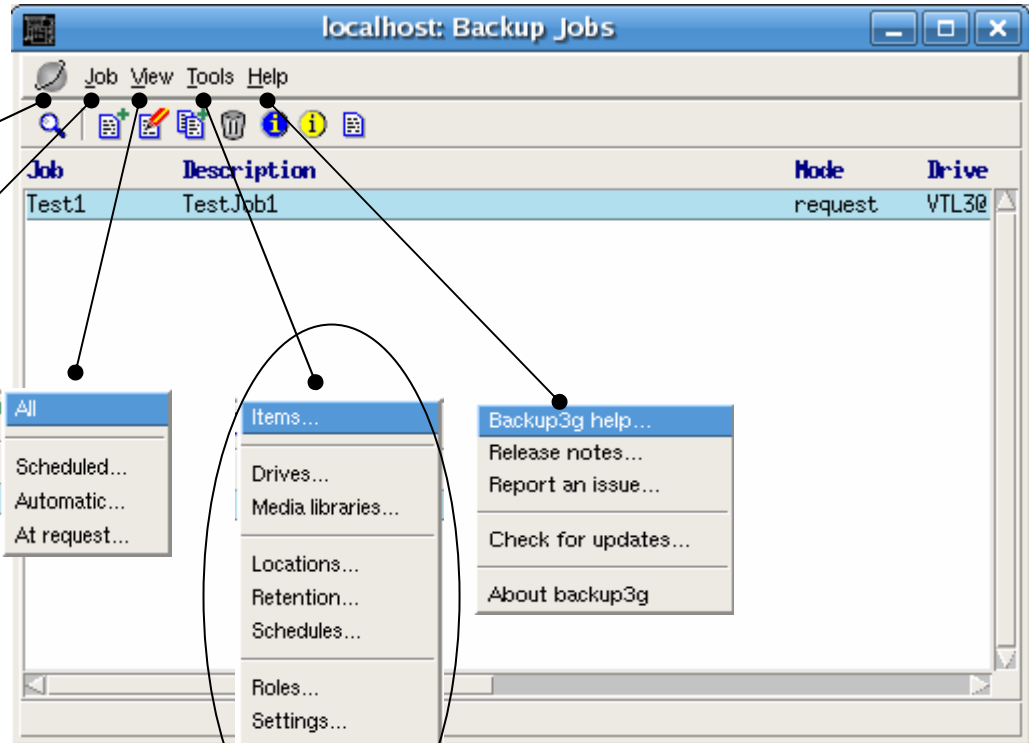
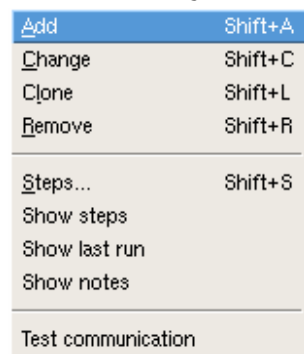
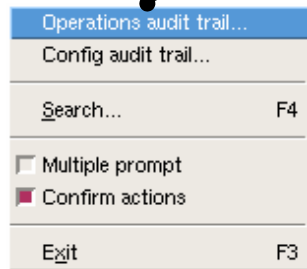
Configuration logs

## Job

Test communication

Show Last Run

Show Notes



# Job: Configuration (1)



## Enable/Disable

To enable or disable the backup job.  
Automatic jobs will not run. Instead it will appear in the Backup3G Audit Trail.

## Secondary Storage

Make a secondary copy of the media.  
You can also schedule this to run at a later time.

The screenshot shows the 'workshop: Change Backup Job' window with several sub-sections: 'Schedule backup', 'Run backup', 'Backup storage', and 'Notes file'. The 'Enabled?' checkbox is checked and set to 'yes'. The 'Append to' dropdown menu is circled in red. Two smaller dialog boxes are open: 'Enable/Disable Backup Job Options' and 'Backup Job Duplication Options'. The 'Enable/Disable Backup Job Options' dialog shows 'Enabled?' is unchecked, with 'Re-enable on' and 'Disable on' dates. The 'Backup Job Duplication Options' dialog shows 'Duplicate?' is checked, 'Day' is set to 'Immediate', and 'Retain media for' is set to 'Forever'. At the bottom, there are 'Exit' and 'Accept' buttons.

# Job: Configuration (2)

## Notification

Specify who should receive emails.

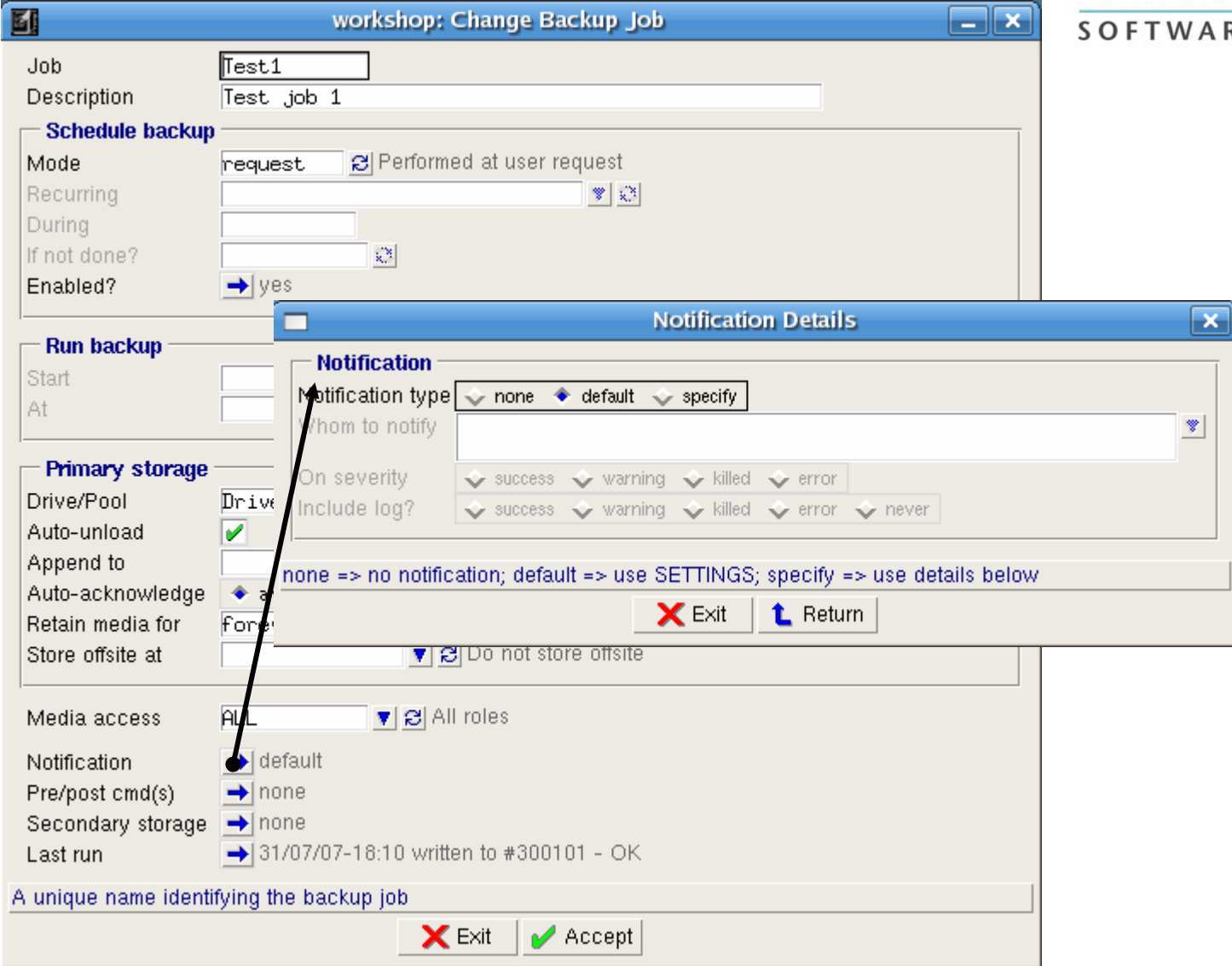
None : No one should receive emails.

Default : Define the list of recipients from "Settings"

Specify : Enter the emails, or the user accounts of the users.

Severity : Emails are only sent when the backup job ends with status : "Success", "Warning", "Killed" or on "Error"

Include Log ? : Attach the logfiles when backup jobs end with status : "Success", "Warning", "Killed", "Error" or "Never" – never send the logs.



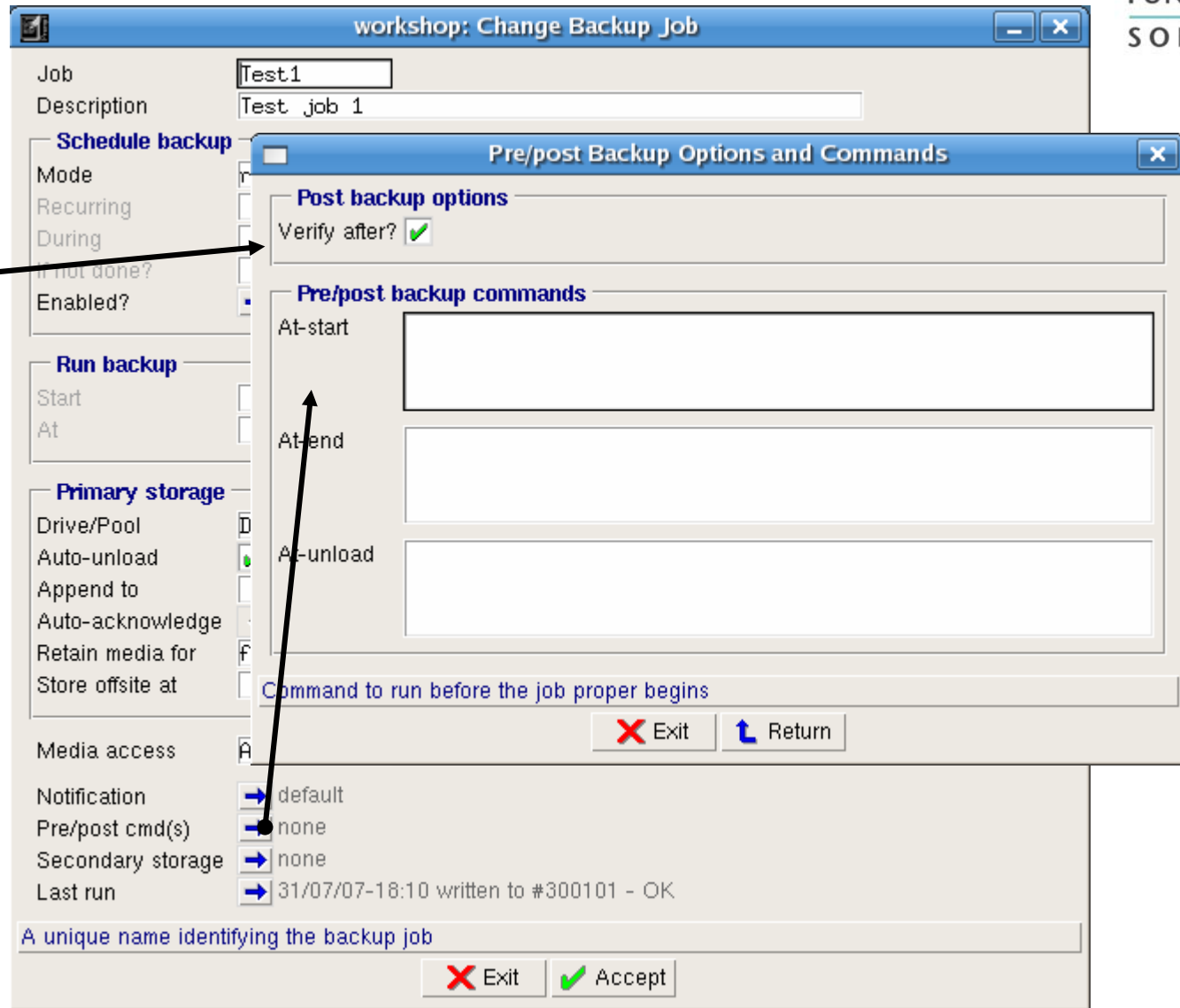
The screenshot shows the 'workshop: Change Backup Job' dialog box. The 'Job' field is 'Test1' and the 'Description' is 'Test job 1'. The 'Schedule backup' section has 'Mode' set to 'request', 'Recurring' set to 'None', 'During' set to 'None', 'If not done?' set to 'None', and 'Enabled?' set to 'yes'. The 'Run backup' section has 'Start' and 'At' fields. The 'Primary storage' section has 'Drive/Pool' set to 'Drive', 'Auto-unload' checked, 'Append to' set to 'None', 'Auto-acknowledge' set to 'All', 'Retain media for' set to 'Forever', and 'Store offsite at' set to 'Do not store offsite'. The 'Media access' section has 'Media access' set to 'All roles'. The 'Notification' section has 'Notification' set to 'default', 'Pre/post cmd(s)' set to 'None', and 'Secondary storage' set to 'None'. The 'Last run' field shows '31/07/07-18:10 written to #300101 - OK'. The 'Notification Details' sub-dialog is open, showing 'Notification type' set to 'default', 'Whom to notify' set to 'None', 'On severity' set to 'success', 'warning', 'killed', 'error', and 'Include log?' set to 'success', 'warning', 'killed', 'error', 'never'. The sub-dialog also contains the text 'none => no notification; default => use SETTINGS; specify => use details below' and 'Exit' and 'Return' buttons.

# Job: Configuration (3)

## Pre/Post Commands

Verify after? : This is used to scan the tape media at the end of the backup job.

You can verify the number of files and the block-size of the tape media.



The screenshot shows the 'workshop: Change Backup Job' dialog box. The main dialog has fields for Job (Test1), Description (Test\_job 1), and various backup options. A sub-dialog titled 'Pre/post Backup Options and Commands' is open, showing 'Post backup options' with 'Verify after?' checked, and three empty text boxes for 'At-start', 'At-end', and 'At-unload' commands. The 'Pre/post backup commands' section is also visible. At the bottom of the sub-dialog are 'Exit' and 'Return' buttons. The main dialog has 'Exit' and 'Accept' buttons at the bottom.

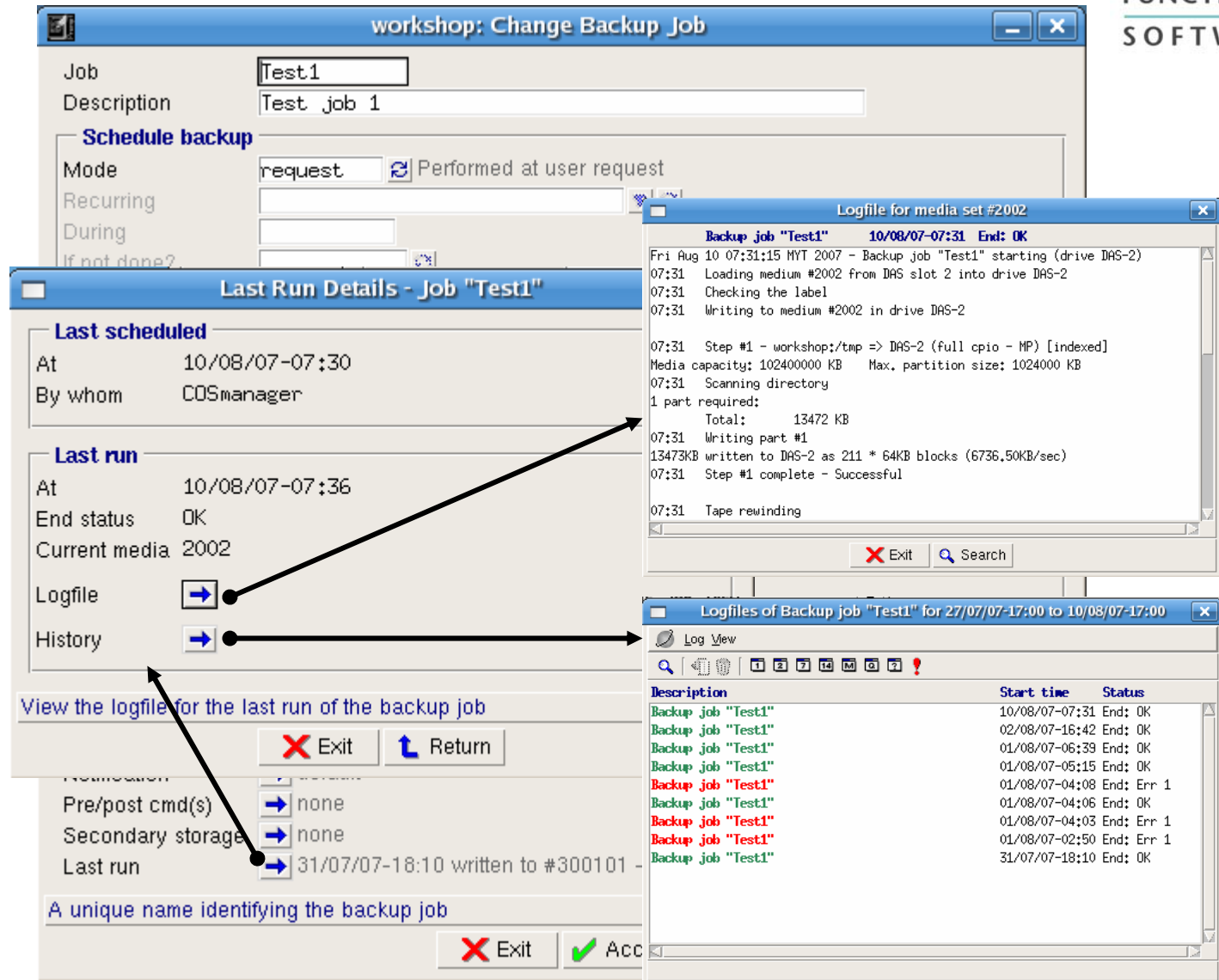
Job	Test1
Description	Test_job 1
<b>Schedule backup</b>	
Mode	
Recurring	
During	
If not done?	
Enabled?	
<b>Run backup</b>	
Start	
At	
<b>Primary storage</b>	
Drive/Pool	D
Auto-unload	<input checked="" type="checkbox"/>
Append to	
Auto-acknowledge	
Retain media for	F
Store offsite at	
<b>Media access</b>	
Notification	→ default
Pre/post cmd(s)	→ none
Secondary storage	→ none
Last run	→ 31/07/07-18:10 written to #300101 - OK

# Job: Configuration (4)

## Last Run

Provides details of the status of previously run backup jobs. Also provides links to

1. Most recent backup log
2. All backup logs for this job.



The screenshot displays the 'workshop: Change Backup Job' window with the following configuration:

- Job: Test1
- Description: Test job 1
- Schedule backup: request (Performed at user request)
- Mode: request
- Recurring: [empty]
- During: [empty]
- If not done?: [empty]

The 'Last Run Details - Job "Test1"' window shows:

- Last scheduled: At 10/08/07-07:30, By whom COSmanager
- Last run: At 10/08/07-07:36, End status OK, Current media 2002
- Logfile: [button]
- History: [button]

The 'Logfile for media set #2002' window shows the following log entries:

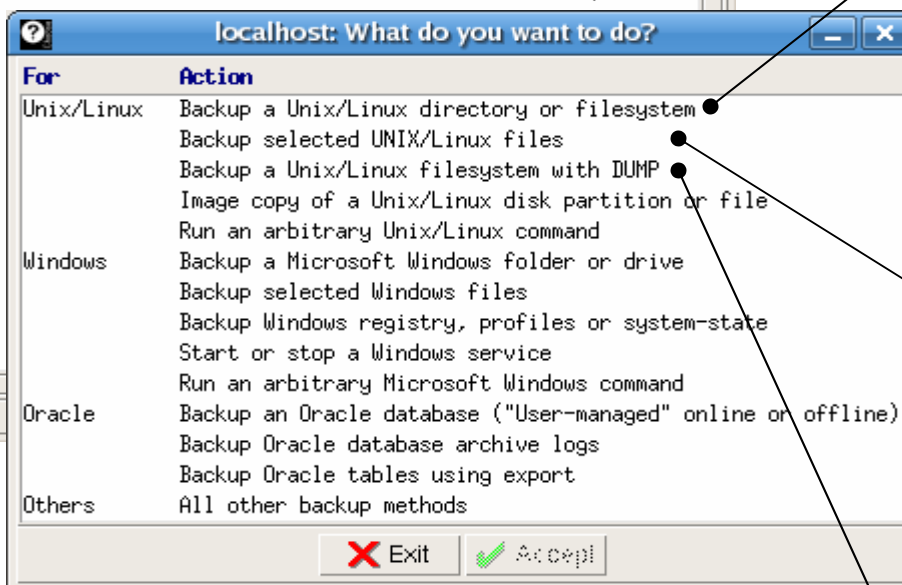
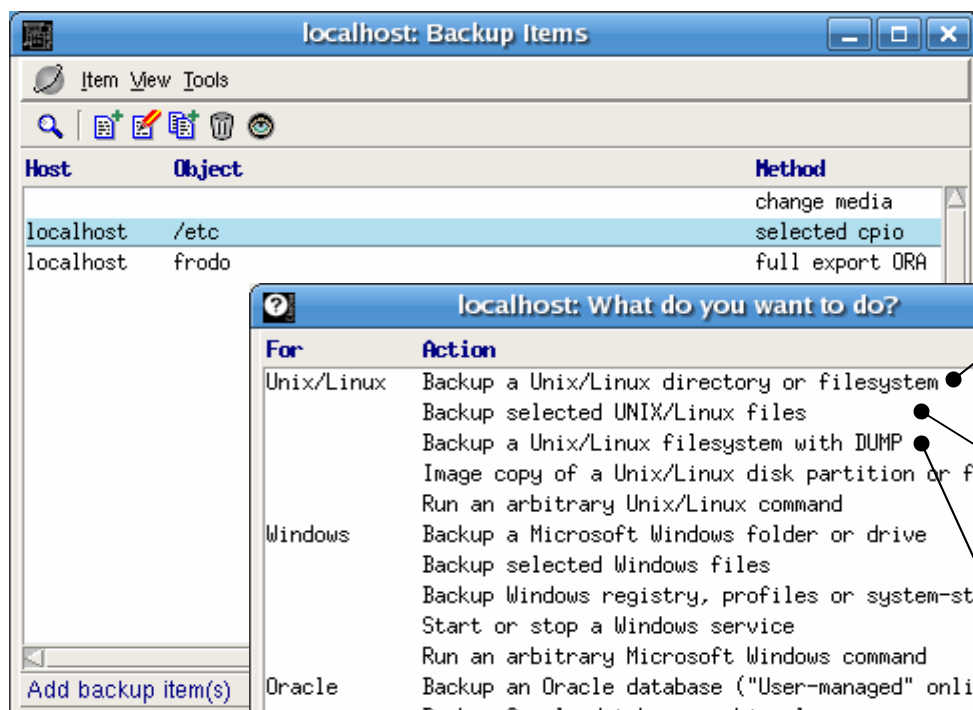
```
Backup job "Test1" 10/08/07-07:31 End: OK
Fri Aug 10 07:31:15 MYT 2007 - Backup job "Test1" starting (drive DAS-2)
07:31 Loading medium #2002 from DAS slot 2 into drive DAS-2
07:31 Checking the label
07:31 Writing to medium #2002 in drive DAS-2
07:31 Step #1 - workshop:/tmp => DAS-2 (full cpio - MP) [indexed]
Media capacity: 10240000 KB Max. partition size: 1024000 KB
07:31 Scanning directory
1 part required:
Total: 13472 KB
07:31 Writing part #1
13473KB written to DAS-2 as 211 * 64KB blocks (6736,50KB/sec)
07:31 Step #1 complete - Successful
07:31 Tape rewinding
```

The 'Logfiles of Backup job "Test1" for 27/07/07-17:00 to 10/08/07-17:00' window shows a table of backup logs:

Description	Start time	Status
Backup job "Test1"	10/08/07-07:31	End: OK
Backup job "Test1"	02/08/07-16:42	End: OK
Backup job "Test1"	01/08/07-06:39	End: OK
Backup job "Test1"	01/08/07-05:15	End: OK
Backup job "Test1"	01/08/07-04:08	End: Err 1
Backup job "Test1"	01/08/07-04:06	End: OK
Backup job "Test1"	01/08/07-04:03	End: Err 1
Backup job "Test1"	01/08/07-02:50	End: Err 1
Backup job "Test1"	31/07/07-18:10	End: OK



# Items: Add Items

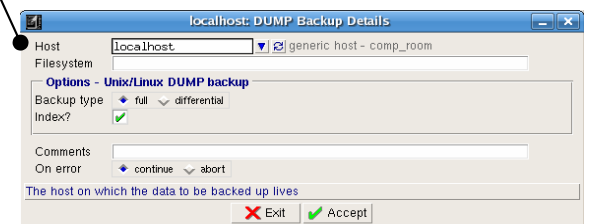
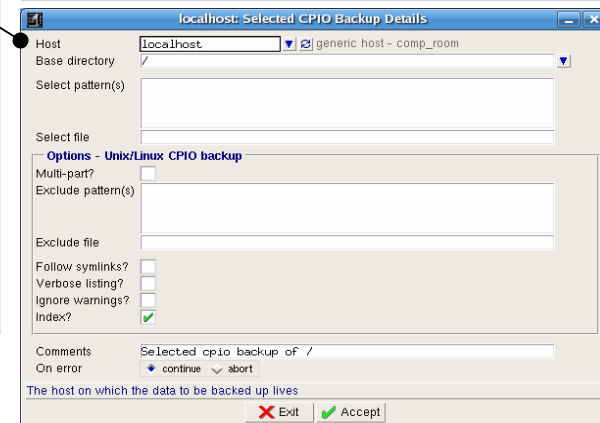
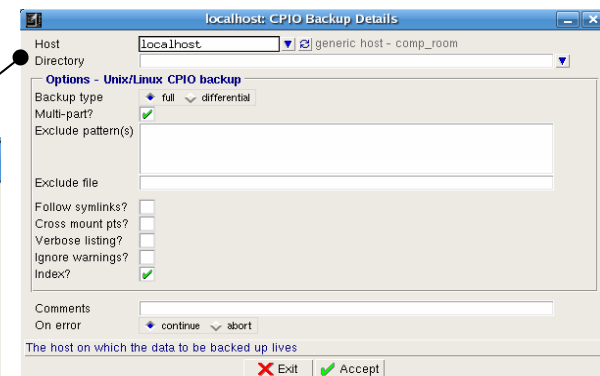


## Method Sensitive Forms

Users can now choose the relevant backup methods they wish to use.

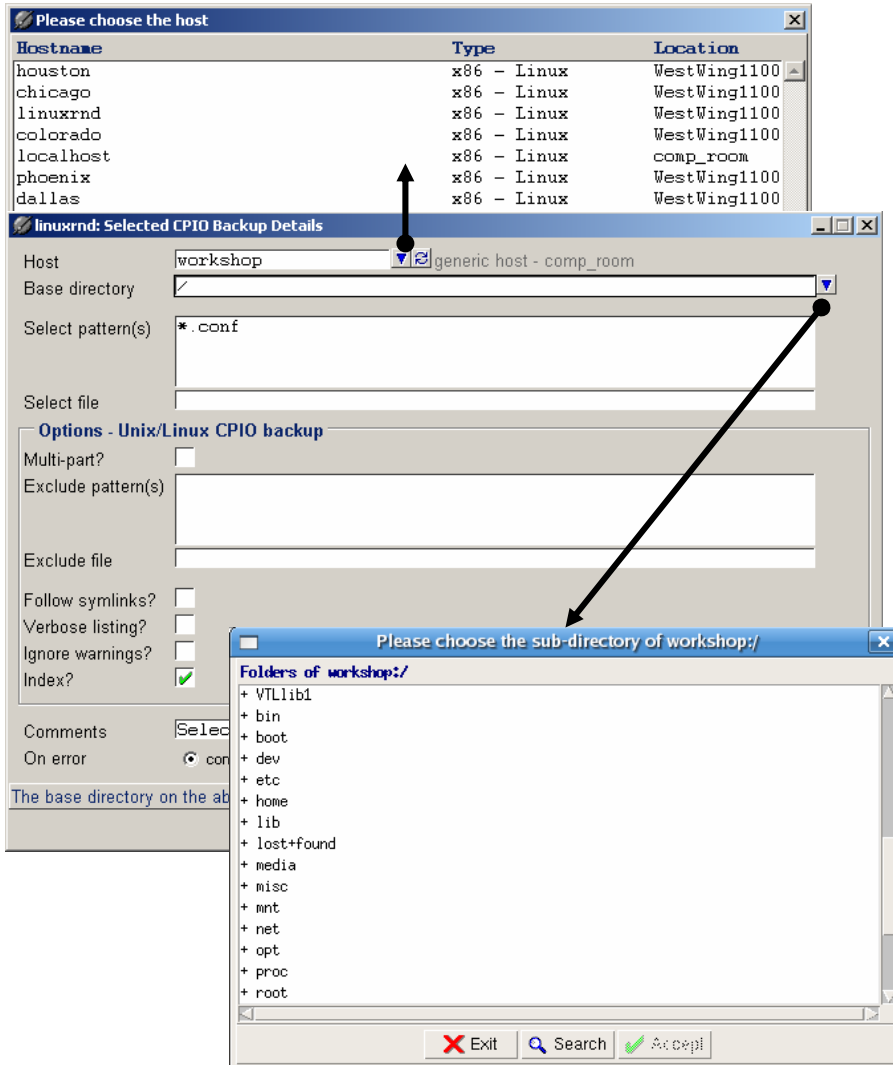
Each method will have its own form.

Forms now make it easier for users to add options to the backup methods.



# Items: Browse Folders

## UNIX/Linux



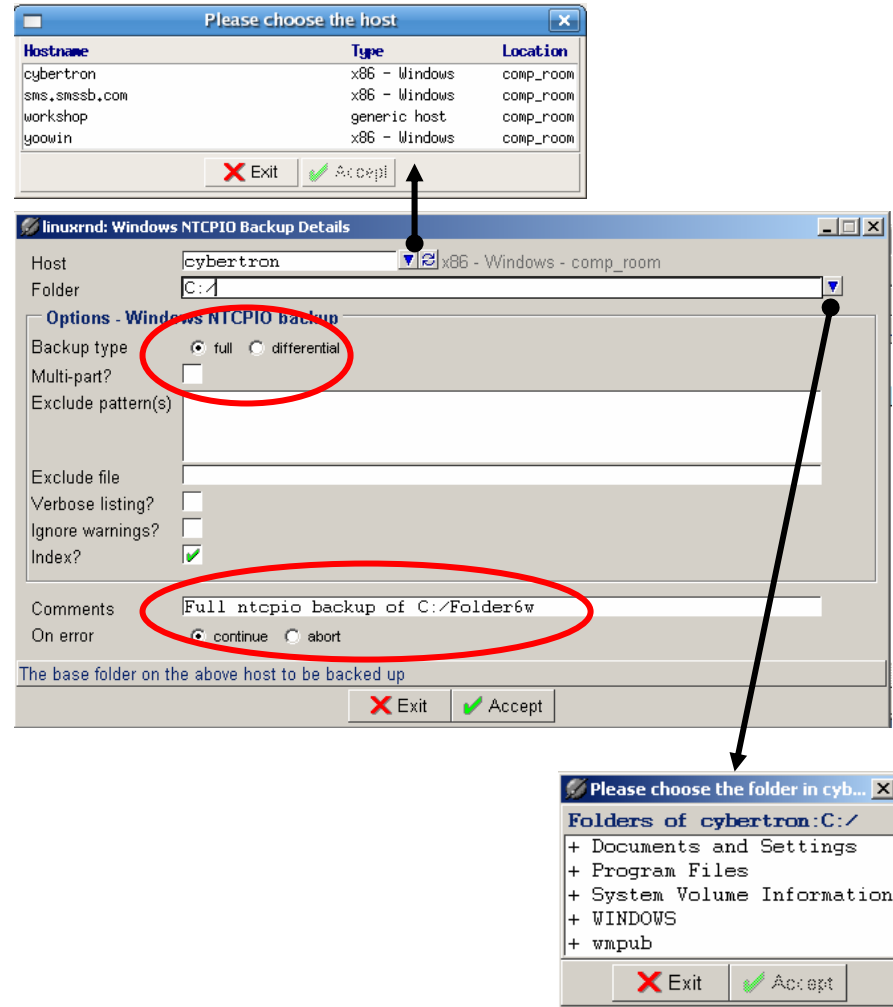
The UNIX/Linux backup configuration interface consists of several windows:

- Please choose the host:** A table with columns Hostname, Type, and Location. The 'workshop' host is selected.

Hostname	Type	Location
houston	x86 - Linux	WestWing1100
chicago	x86 - Linux	WestWing1100
linuxrnd	x86 - Linux	WestWing1100
colorado	x86 - Linux	WestWing1100
localhost	x86 - Linux	comp_room
phoenix	x86 - Linux	WestWing1100
dallas	x86 - Linux	WestWing1100

- linuxrnd: Selected CPIO Backup Details:** Shows host 'workshop' and base directory '/'. The 'Options - Unix/Linux CPIO backup' section includes checkboxes for Multi-part?, Exclude pattern(s), Exclude file, Follow symlinks?, Verbose listing?, Ignore warnings?, and Index? (checked).
- Please choose the sub-directory of workshop/:** A file browser window showing the contents of the workshop directory, including folders like bin, boot, dev, etc, home, lib, lost+found, media, misc, mnt, net, opt, proc, and root.

## Windows



The Windows backup configuration interface consists of several windows:

- Please choose the host:** A table with columns Hostname, Type, and Location. The 'cybertron' host is selected.

Hostname	Type	Location
cybertron	x86 - Windows	comp_room
sms.smsb.com	x86 - Windows	comp_room
workshop	generic host	comp_room
yoowin	x86 - Windows	comp_room

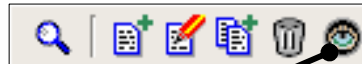
- linuxrnd: Windows NTCPIO Backup Details:** Shows host 'cybertron' and folder 'C:/'. The 'Options - Windows NTCPIO backup' section includes radio buttons for Backup type (full selected, differential), Multi-part?, Exclude pattern(s), Exclude file, Verbose listing?, Ignore warnings?, and Index? (checked). The 'Comments' field contains 'Full ntcpio backup of C:/Folder6w'. The 'On error' section has radio buttons for continue (selected) and abort.
- Please choose the folder in cybertron:C:/:** A file browser window showing the contents of the C:/ drive, including folders like Documents and Settings, Program Files, System Volume Information, WINDOWS, and wmpub.

# Items: Discovery

workshop: Select the hosts to discover filesystems

Hostname	OSversion	IP_address
houston	Fedora Core 4	10.1.1.213
chicago	Fedora Core 4	10.1.1.213
colorado	Fedora Core 4	10.1.1.213
localhost	Fedora Core 5	127.0.0.1
phoenix	Fedora Core 4	10.1.1.213
dallas	Fedora Core 4	10.1.1.213
florida	Fedora Core 4	10.1.1.213
melbourne	Redhat 8	10.1.1.190
perth	Redhat 8	10.1.1.190
queensland	Redhat 8	10.1.1.190
stargate	Fedora Core 5	10.1.1.192
sydney	Redhat 8	10.1.1.190
canberra	Redhat 8	10.1.1.190
jervisbay	Redhat 8	10.1.1.190
workshop		10.1.1.194

Exit Search Accept



workshop: Backup Items

Host	Object	Method
		change media
chicago	/	full cpio - MP
chicago	/boot	full cpio - MP
stargate	frodo	offline ORA
workshop	/etc	full cpio - MP

workshop

Discover filesystems and volumes to backup

Before remote hosts can be backed up by Backup3G they must each be known to COSmanager.

Although not necessary, it is better to install Backup3G on the UNIX/Linux Hosts and EwC on the Windows hosts that are to be backed up be first. This way the discovery process can then test the connectivity to each host.

Would you like to configure the Hosts now?

Exit Discover later

No Already configured - continue

Yes Add hosts now

Discovery - finds existing volumes on the host and creates backup items for each volume.

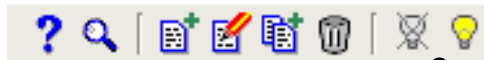
Adds new Items

Discover filesystems for selected host(s) and create items

Contacting chicago ... OK  
Backup item for chicago:/ added  
Backup item for chicago:/boot added

Continue

# Tools: Drives

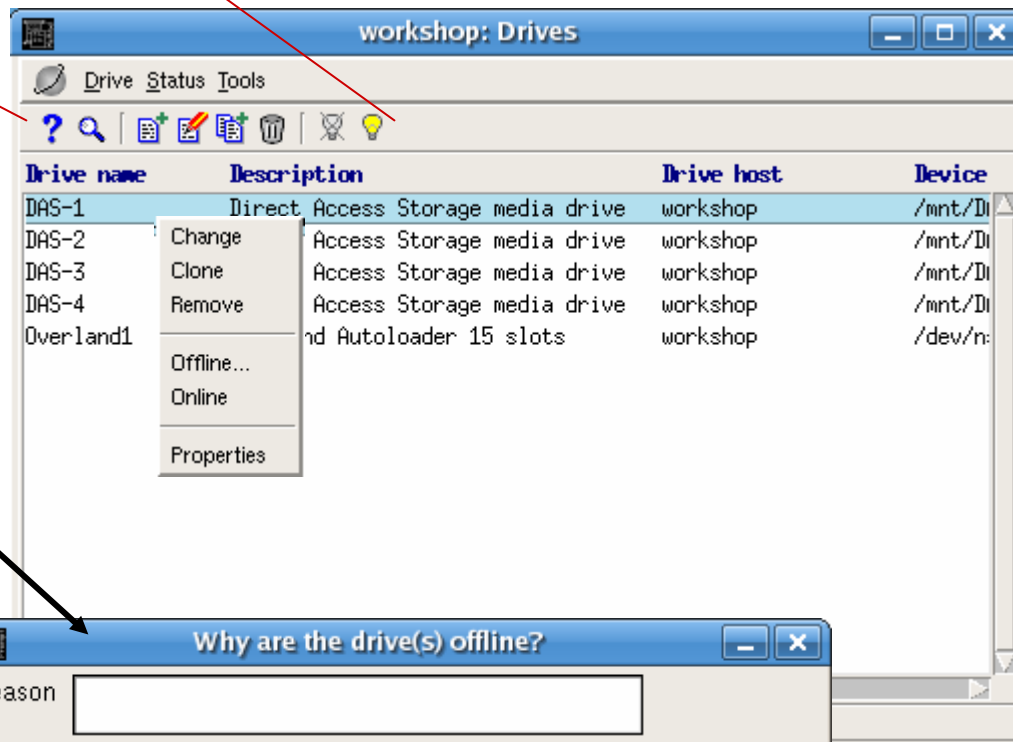


## Offline/Online

New icons for offline/online of drives.

Offline drives will be highlighted in **red**.

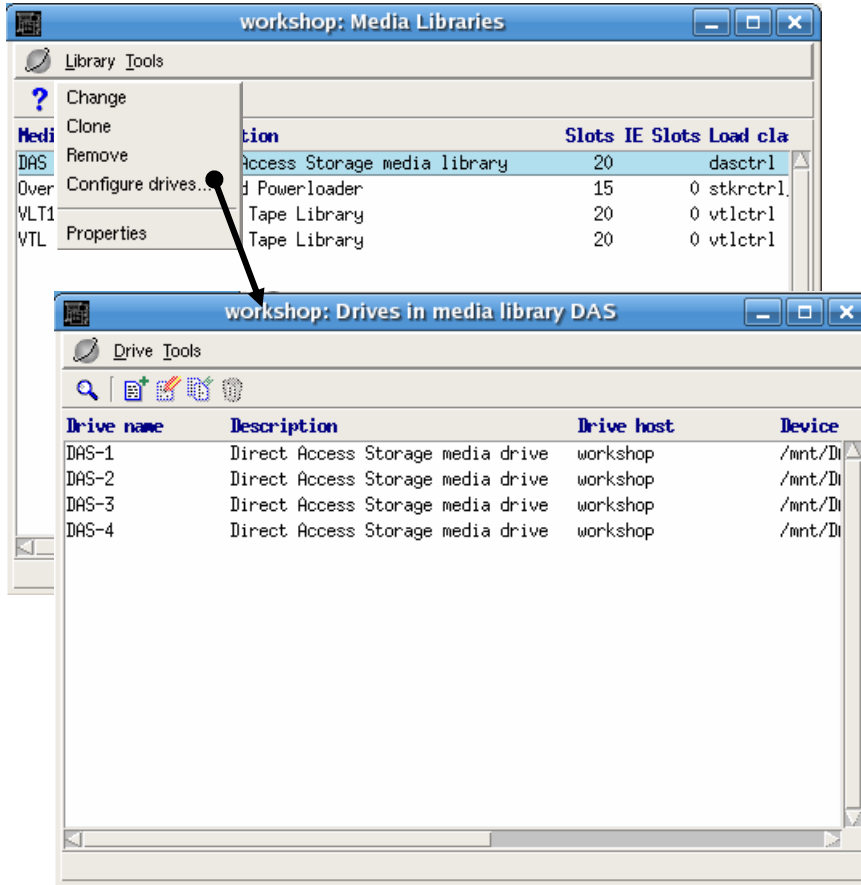
The reason for bringing a drive offline is optional.



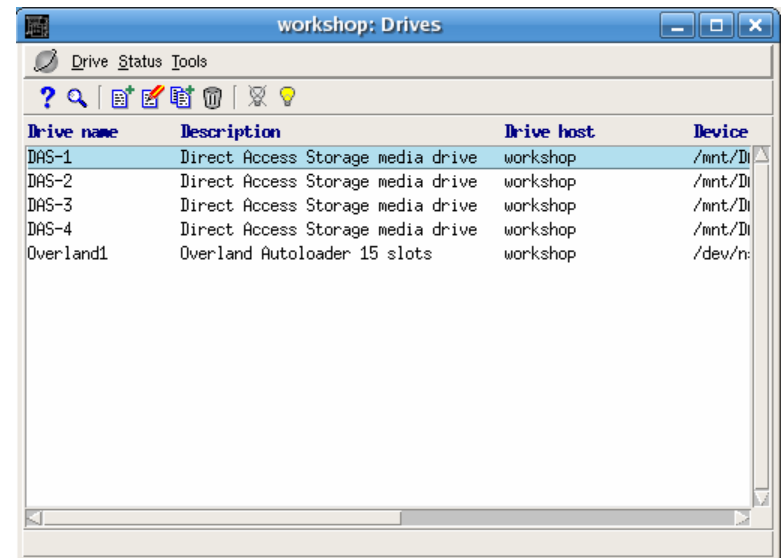
The screenshot shows the 'workshop: Drives' application window. It features a toolbar with icons for help, search, add, edit, delete, refresh, and lightbulb. Below the toolbar is a table with columns: Drive name, Description, Drive host, and Device. The table lists several drives, with DAS-1 highlighted in red. A context menu is open over DAS-1, showing options: Change, Clone, Remove, Offline..., Online, and Properties. Below the main window, a dialog box titled 'Why are the drive(s) offline?' is open, containing a text field for 'Reason' and buttons for 'Exit' and 'Accept'.

Drive name	Description	Drive host	Device
DAS-1	Direct Access Storage media drive	workshop	/mnt/Di
DAS-2	Change Access Storage media drive	workshop	/mnt/Di
DAS-3	Clone Access Storage media drive	workshop	/mnt/Di
DAS-4	Remove Access Storage media drive	workshop	/mnt/Di
Overland1	rd Autoloader 15 slots	workshop	/dev/n:

# Tools: Media Library



**Note** if you view “Drives” as in the previous slide, it will display all drives.



## Configure drives

Only drives associated with the Library are shown here.

# Tools: Settings

## Settings

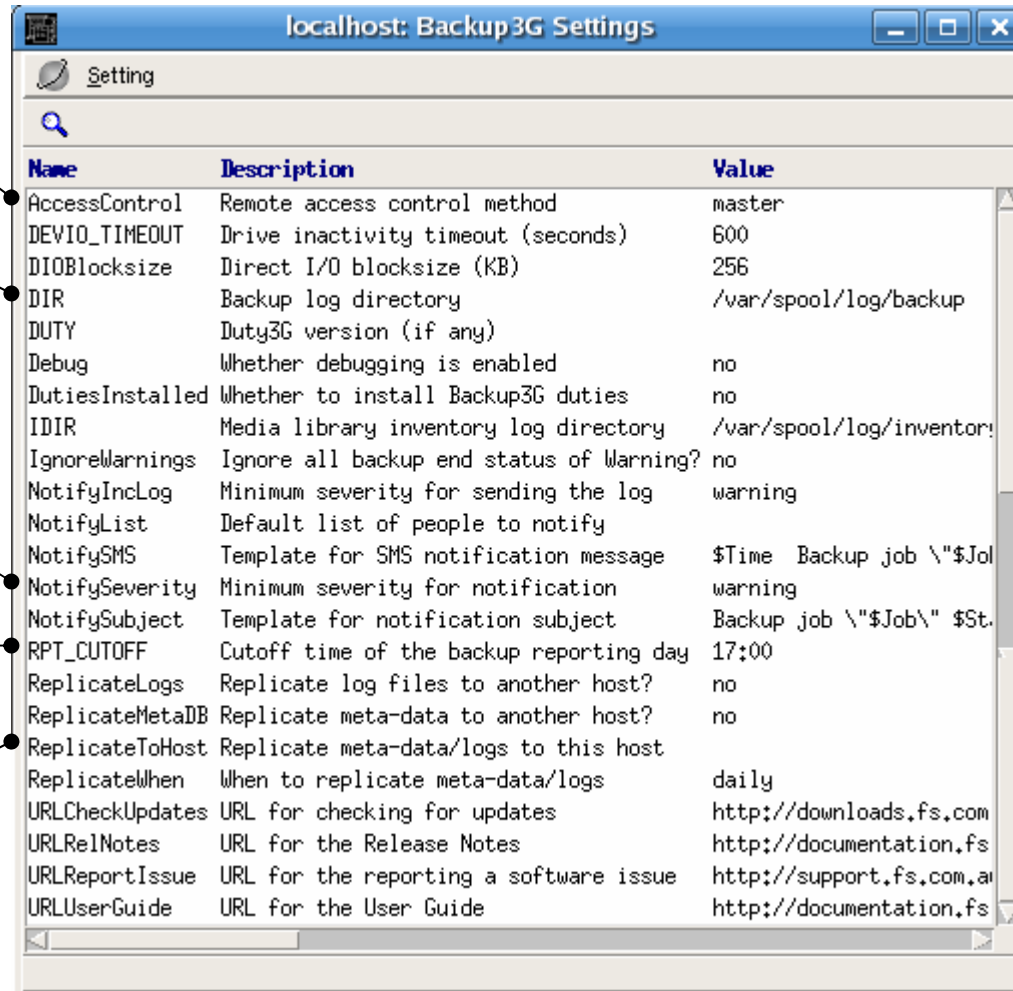
Master or Per-host

DIR – Specify the backup log directory here. Need to restart Backup3G afterwards.

Notification and severity

Report Cutoff Time

Replicate to server, when and which server.



Name	Description	Value
AccessControl	Remote access control method	master
DEVIO_TIMEOUT	Drive inactivity timeout (seconds)	600
DIOBlocksize	Direct I/O blocksize (KB)	256
DIR	Backup log directory	/var/spool/log/backup
DUTY	Duty3G version (if any)	
Debug	Whether debugging is enabled	no
DutiesInstalled	Whether to install Backup3G duties	no
IDIR	Media library inventory log directory	/var/spool/log/inventor:
IgnoreWarnings	Ignore all backup end status of Warning?	no
NotifyInLog	Minimum severity for sending the log	warning
NotifyList	Default list of people to notify	
NotifySMS	Template for SMS notification message	\$Time Backup job \" \$Job
NotifySeverity	Minimum severity for notification	warning
NotifySubject	Template for notification subject	Backup job \" \$Job\" \$St.
RPT_CUTOFF	Cutoff time of the backup reporting day	17:00
ReplicateLogs	Replicate log files to another host?	no
ReplicateMetaDB	Replicate meta-data to another host?	no
ReplicateToHost	Replicate meta-data/logs to this host	
ReplicateWhen	When to replicate meta-data/logs	daily
URLCheckUpdates	URL for checking for updates	http://downloads.fs.com
URLRelNotes	URL for the Release Notes	http://documentation.fs
URLReportIssue	URL for the reporting a software issue	http://support.fs.com,a
URLUserGuide	URL for the User Guide	http://documentation.fs

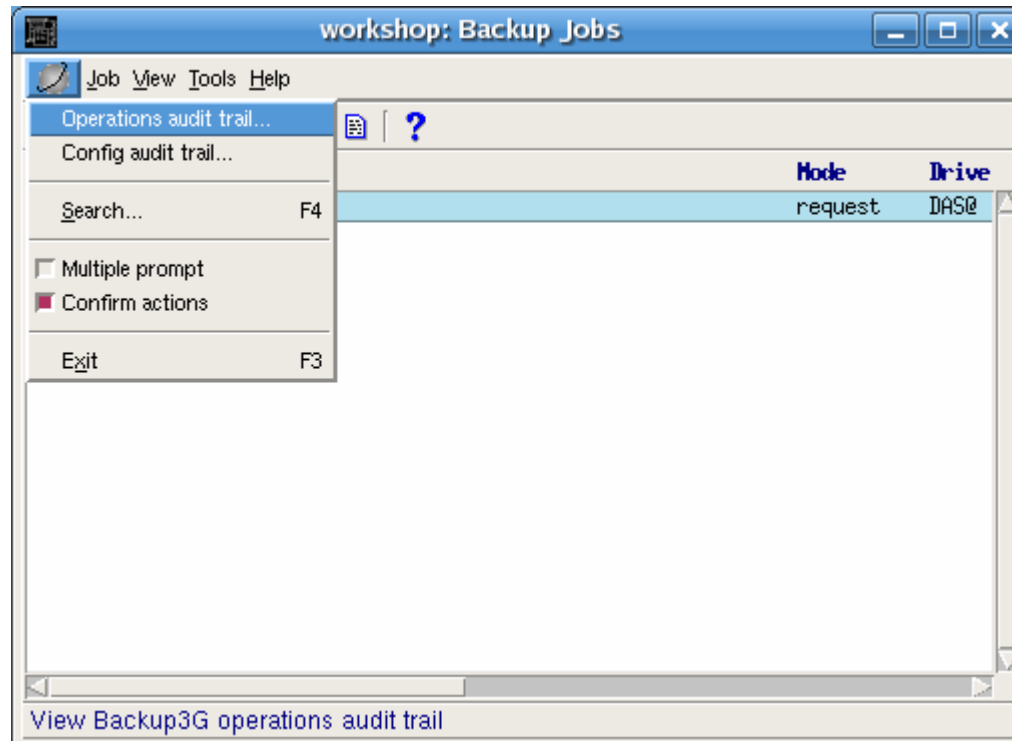
# Audit Trail: Operations & Config

## Operations

A record of all operations performed and by which user.

## Configuration

A record of all configuration changes (both old and new values are recorded), and performed by which user.



# Backup3G Operations



- Jobs
- Recovery
- Media
- New Librarian Controls
- Duplicate
- Drive
- Library
- Monitor
- Audit Trail: Backup Jobs



# Jobs (1)

## Outstanding / At Request Quick Buttons

A short-cut to change the view between Outstanding and At-request Backup Jobs

## Run Now

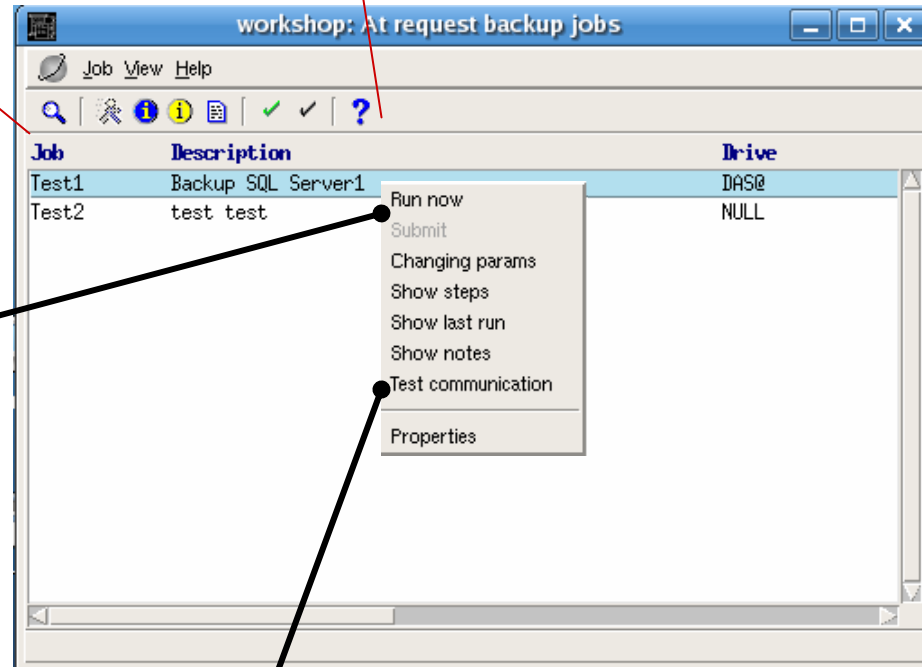
To run a backup job, you must right-click on the job, and select "Run now".

No more double-clicking of the job to run it.

However, you can double-click on a "Scheduled" job, to "Kickoff" a backup job.



Backup3G online Help



## Test Communication

Will perform test communication on all the servers defined in the "Backup Steps".

# Jobs (2)

## Show Steps

Show all backup items associated with this job

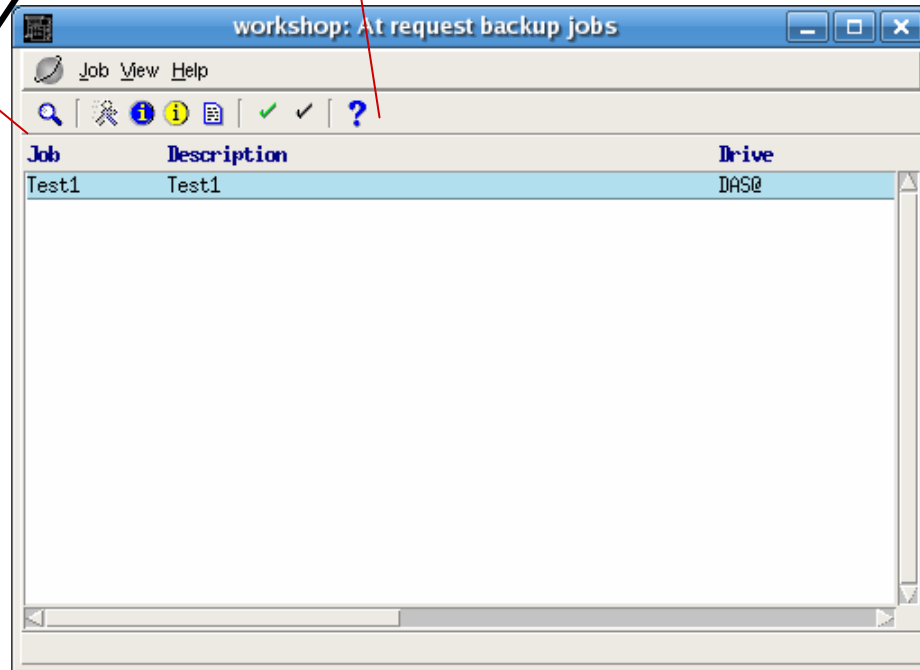
## Show Last Run

Show details of last job:  
status, time it was run,  
links to backup logs

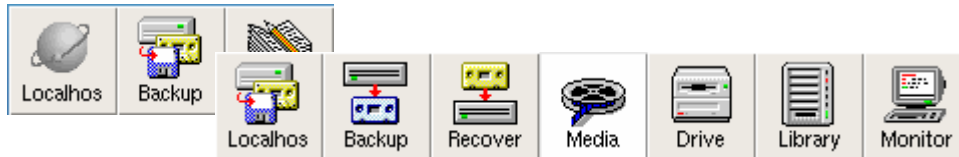
## Notes

Notes can be text or html files.

These are specified in the **Job-configuration**, and are located in `/usr/cosmos/backup_5.1/local/notes`



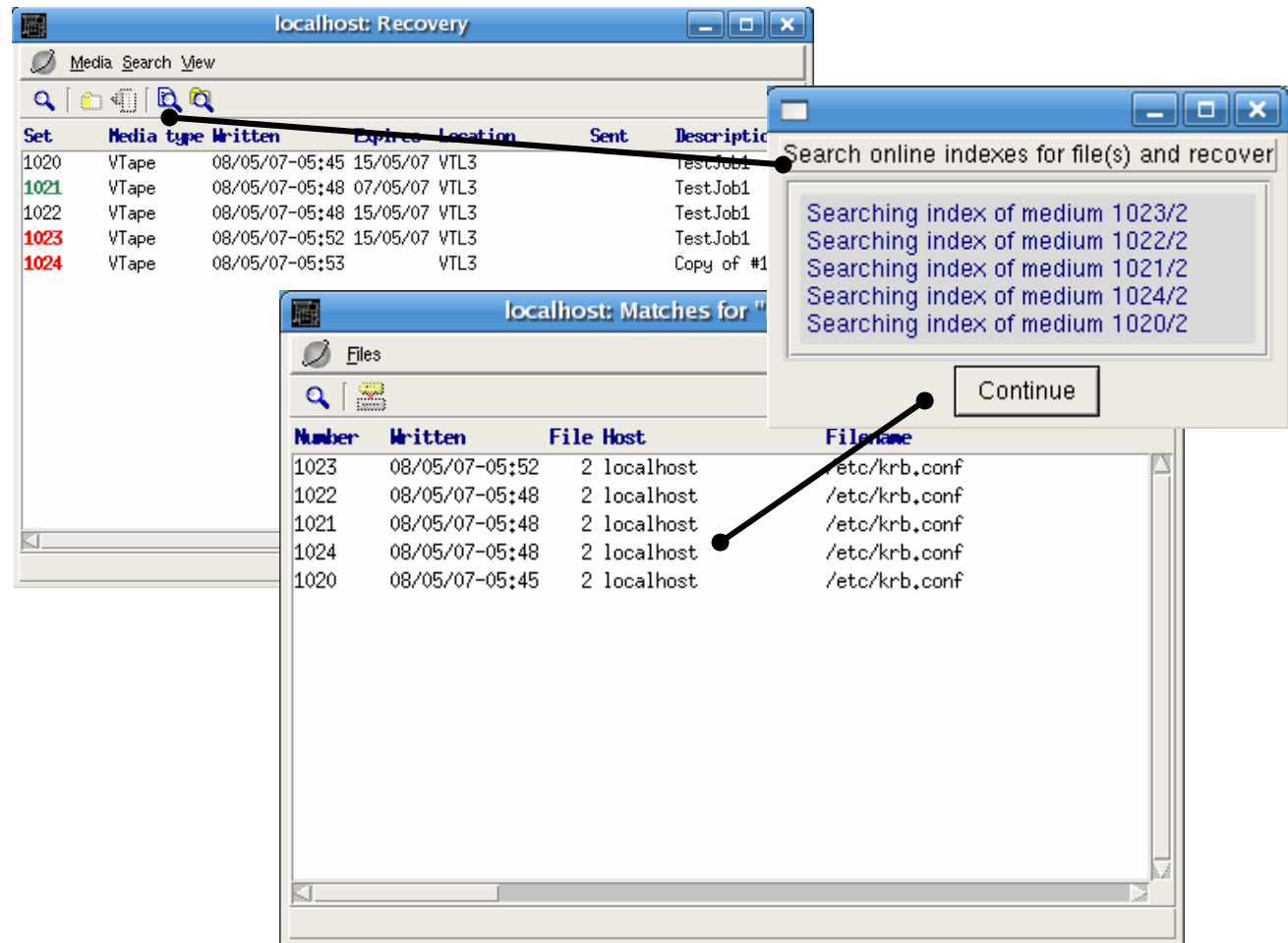
# Recovery



## Recovery

Retain Index when  
backup step fails

Restore Files from  
search list



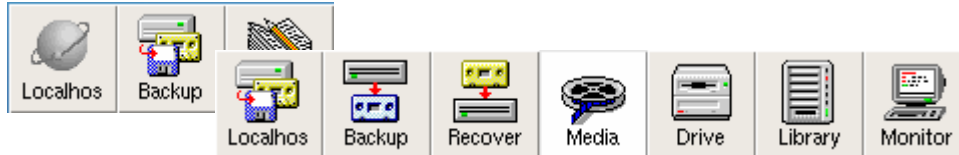
The screenshot shows the 'localhost: Recovery' application window. It features a 'Media Search View' with a search bar and a table of backup sets. A search dialog box is open, displaying a list of search results for the file '/etc/krb.conf'.

Set	Media type	Written	Expires	Location	Sent	Description
1020	VTape	08/05/07-05:45	15/05/07	VTL3		TestJob1
1021	VTape	08/05/07-05:48	07/05/07	VTL3		TestJob1
1022	VTape	08/05/07-05:48	15/05/07	VTL3		TestJob1
1023	VTape	08/05/07-05:52	15/05/07	VTL3		TestJob1
1024	VTape	08/05/07-05:53		VTL3		Copy of #1

Number	Written	File Host	Filename
1023	08/05/07-05:52	2 localhost	/etc/krb.conf
1022	08/05/07-05:48	2 localhost	/etc/krb.conf
1021	08/05/07-05:48	2 localhost	/etc/krb.conf
1024	08/05/07-05:48	2 localhost	/etc/krb.conf
1020	08/05/07-05:45	2 localhost	/etc/krb.conf

# Media

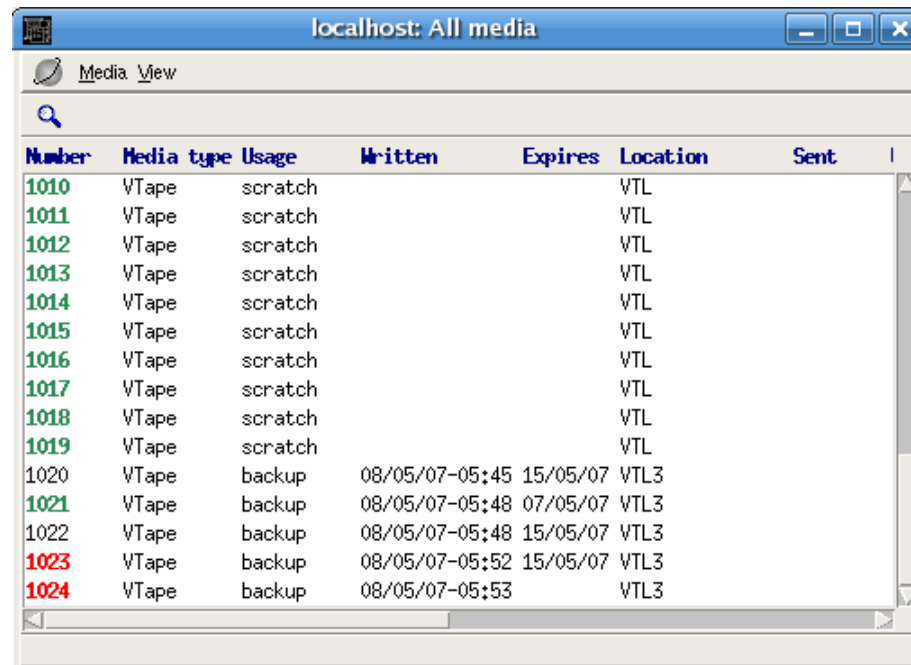


## Status of Tape media by colour

Green : Available Tape Media

Black : Used Tapes that are within the retention period.

Red : Mark as bad.



Number	Media type	Usage	Written	Expires	Location	Sent
1010	VTape	scratch			VTL	
1011	VTape	scratch			VTL	
1012	VTape	scratch			VTL	
1013	VTape	scratch			VTL	
1014	VTape	scratch			VTL	
1015	VTape	scratch			VTL	
1016	VTape	scratch			VTL	
1017	VTape	scratch			VTL	
1018	VTape	scratch			VTL	
1019	VTape	scratch			VTL	
1020	VTape	backup	08/05/07-05:45	15/05/07	VTL3	
1021	VTape	backup	08/05/07-05:48	07/05/07	VTL3	
1022	VTape	backup	08/05/07-05:48	15/05/07	VTL3	
1023	VTape	backup	08/05/07-05:52	15/05/07	VTL3	
1024	VTape	backup	08/05/07-05:53		VTL3	

# New Librarian Controls

## New Options for Librarian-role

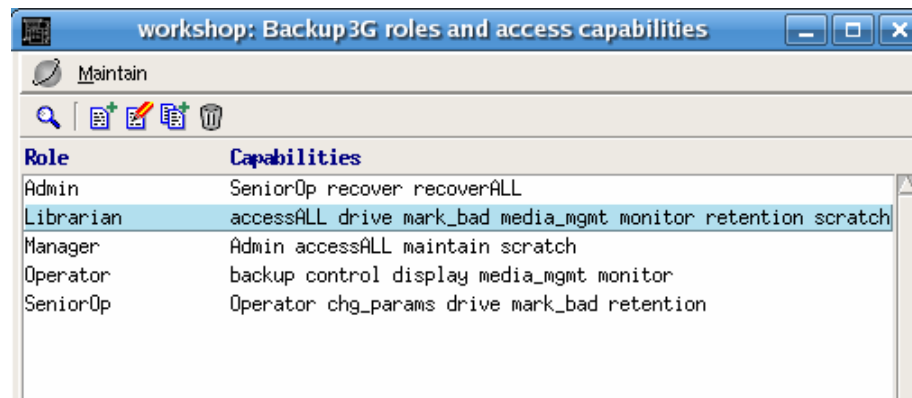
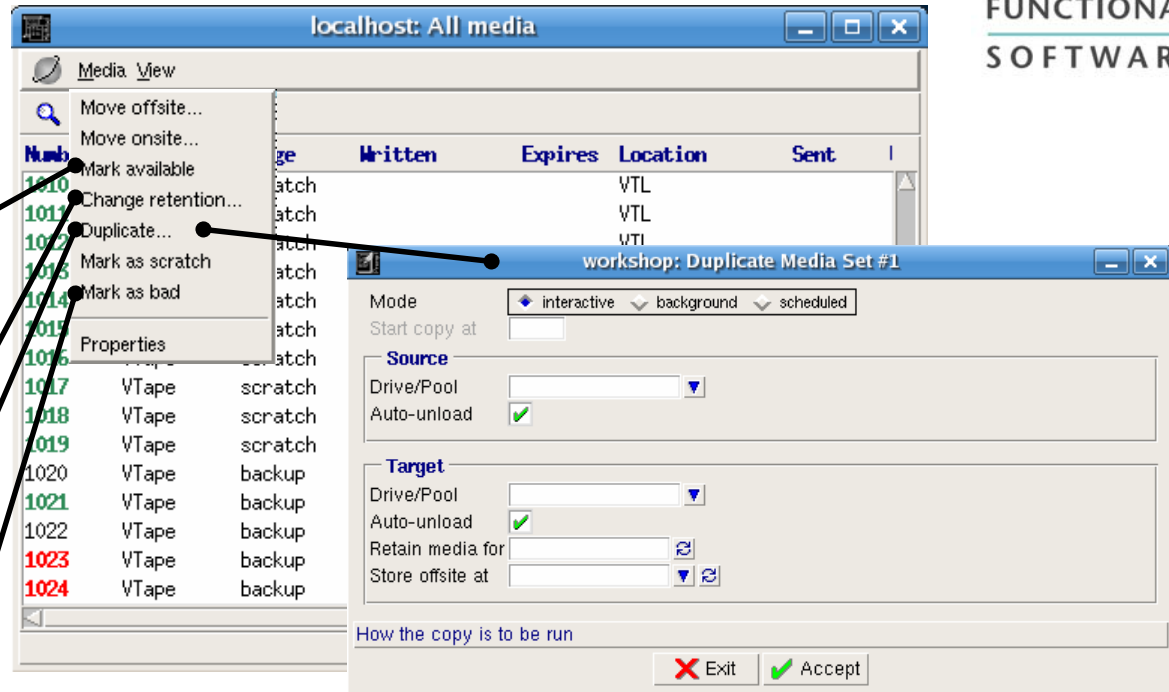
**Mark available** : Set “Expires” day to “Yesterdays” date. This makes the media available for backup. However, the Media Index is still available for use in Recovery-process.

**Change Retention** : Change the date that the media will expire on.

**Duplicate** : Make a copy of the current media. Target media can be different type of media. i.e. You can copy from DLT4 tapes to an LTO3 tape.

You can also schedule the “COPY” to begin at a later time.

**Mark as bad** : Mark the media as unusable. It will no longer be used for future backups.



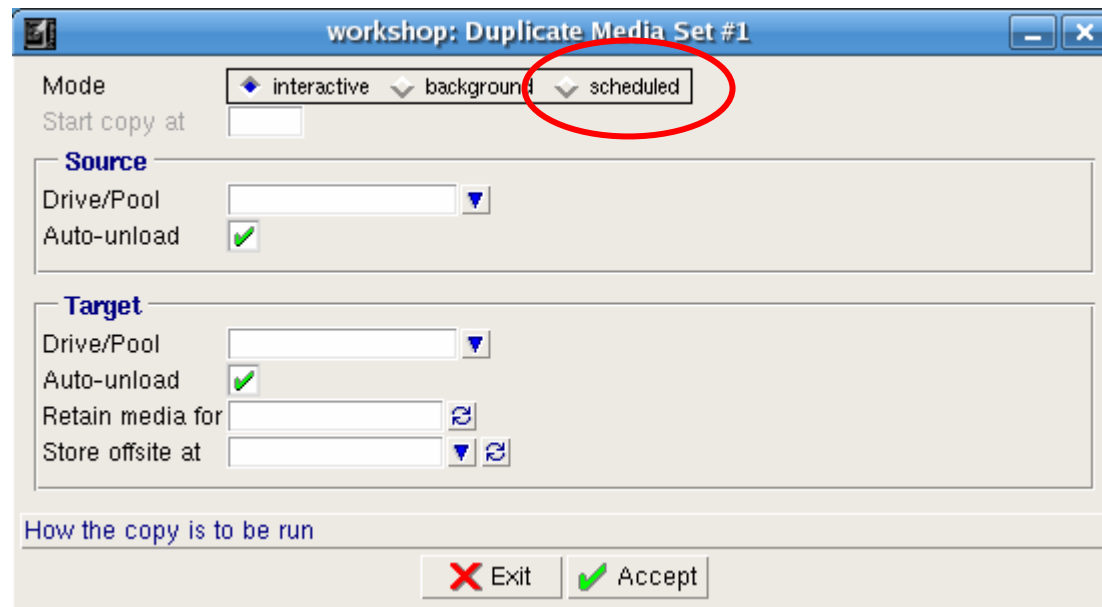
# Duplicate

## Mode

Interactive : Make a copy of the tape media, allow user to interact with prompts (i.e. insert new media... etc)

Background : Run copy-job in the background.

Scheduled : Schedule the copy-job to run at a later time.



workshop: Duplicate Media Set #1

Mode  interactive  background  scheduled

Start copy at

**Source**

Drive/Pool  ▼

Auto-unload

**Target**

Drive/Pool  ▼

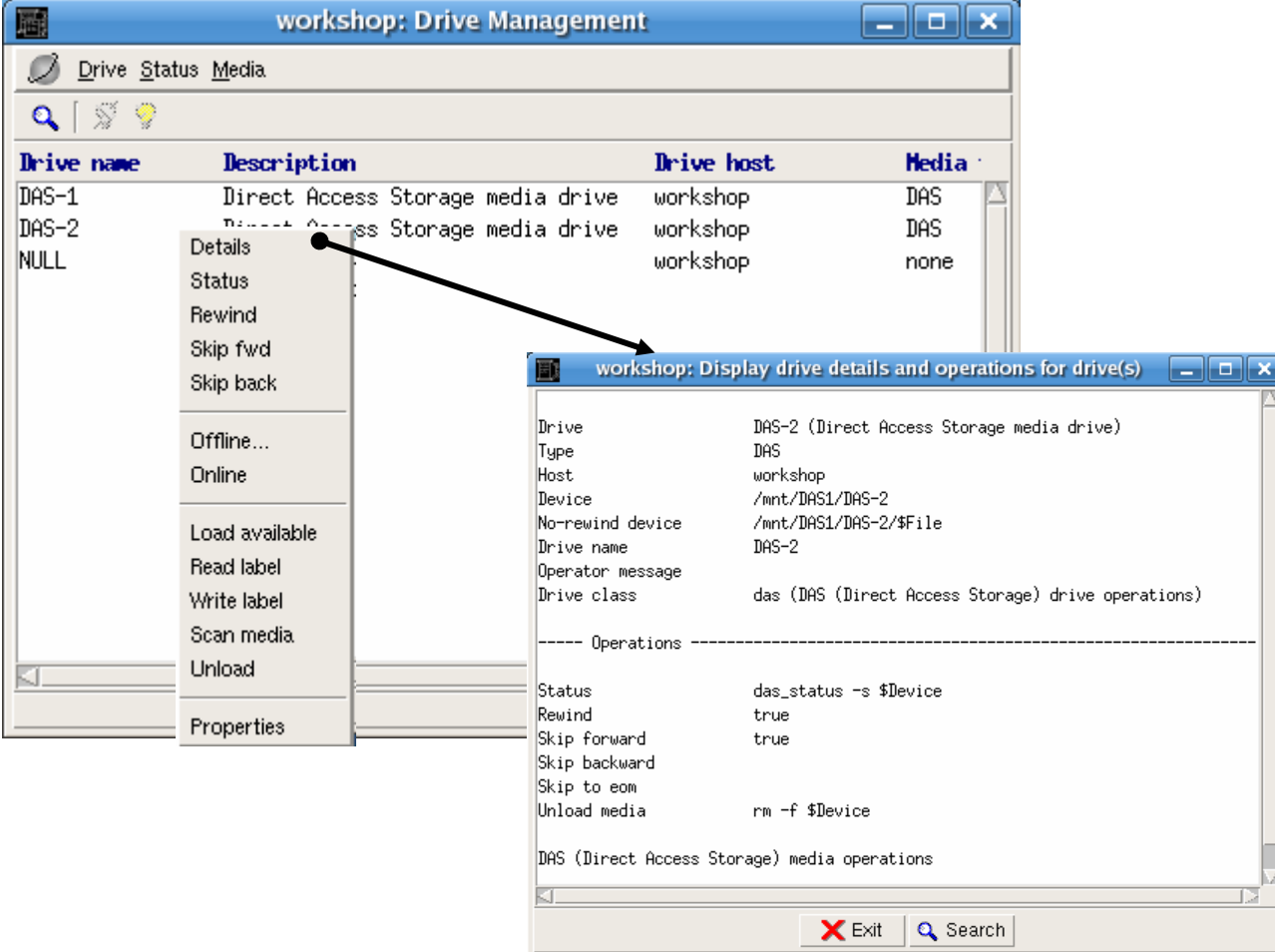
Auto-unload

Retain media for  ↻

Store offsite at  ▼ ↻

How the copy is to be run

# Drive



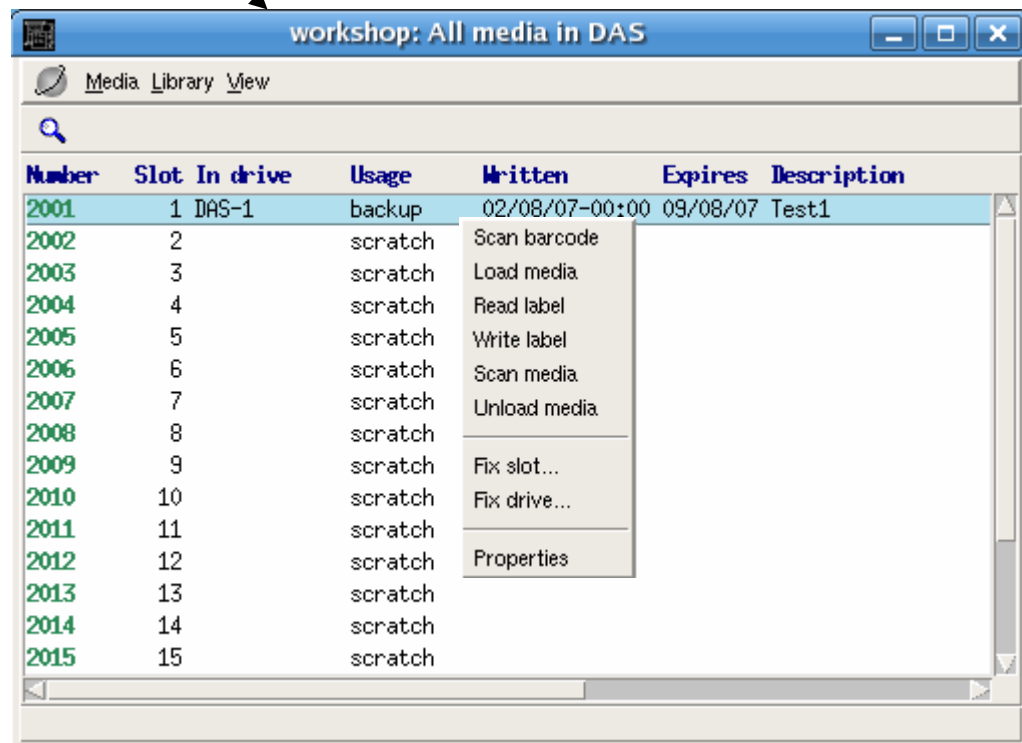
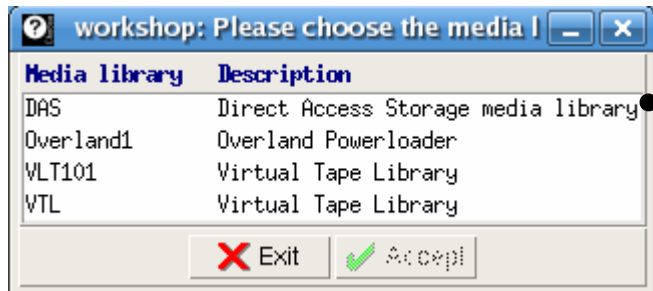
The screenshot shows the 'workshop: Drive Management' application window. It features a table with columns for Drive name, Description, Drive host, and Media. A context menu is open over the 'DAS-2' row, with an arrow pointing to the 'Details' option. A secondary window, 'workshop: Display drive details and operations for drive(s)', is open, showing detailed information for DAS-2, including its type, host, device path, and various operations like status, rewind, and unload.

Drive name	Description	Drive host	Media
DAS-1	Direct Access Storage media drive	workshop	DAS
DAS-2	Direct Access Storage media drive	workshop	DAS
NULL		workshop	none

Drive	DAS-2 (Direct Access Storage media drive)
Type	DAS
Host	workshop
Device	/mnt/DAS1/DAS-2
No-rewind device	/mnt/DAS1/DAS-2/\$File
Drive name	DAS-2
Operator message	
Drive class	das (DAS (Direct Access Storage) drive operations)
----- Operations -----	
Status	das_status -s \$Device
Rewind	true
Skip forward	true
Skip backward	
Skip to eom	
Unload media	rm -f \$Device
DAS (Direct Access Storage) media operations	

# Library

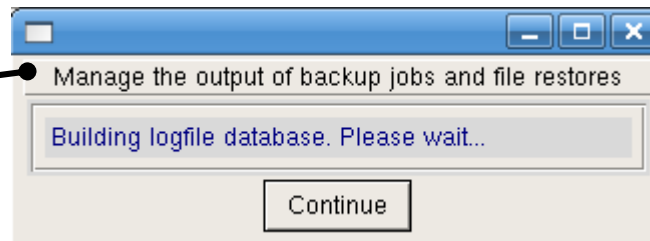




# Manage Logs

## Building Database

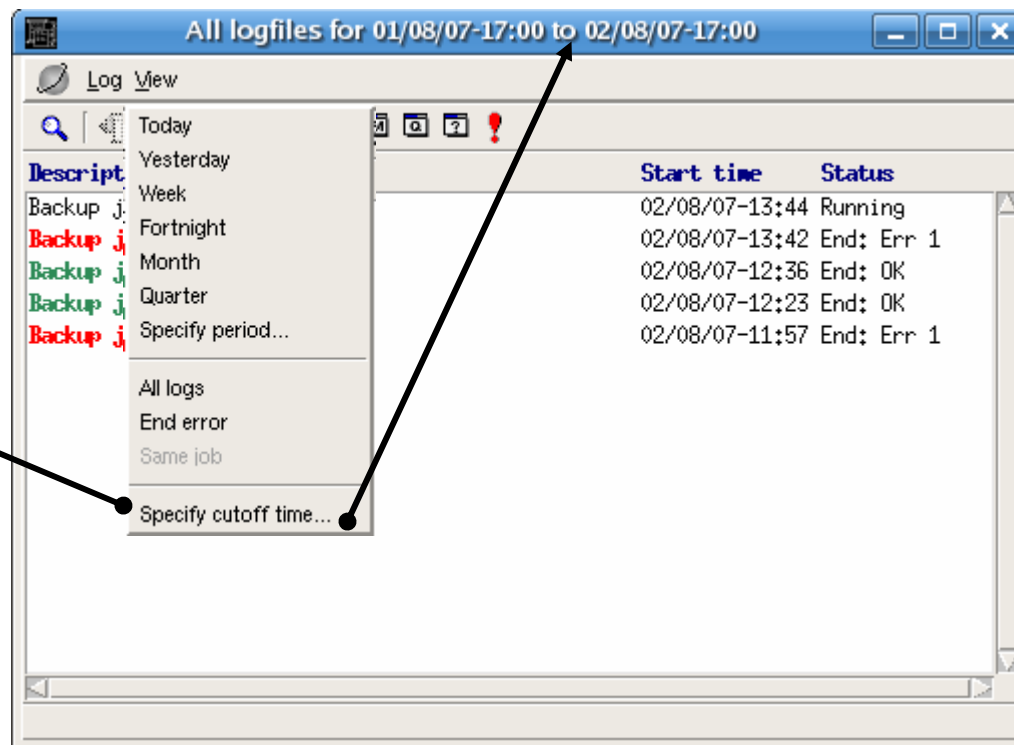
This will usually occur the first time that Backup3G is run.



## Cutoff time

This is the specified period that defines 1 day.

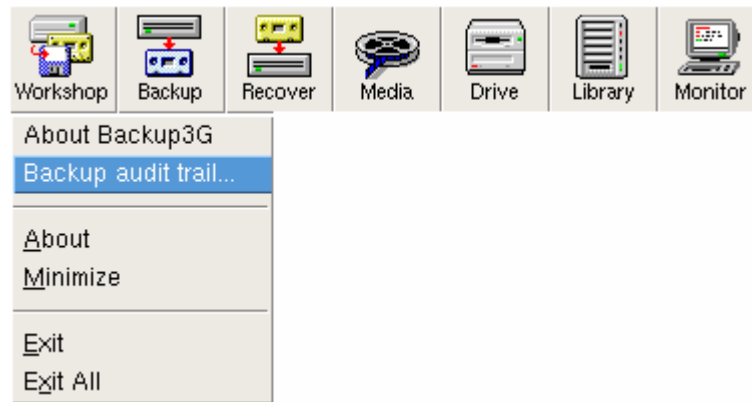
If the cut-off time is 17:00 (5:00pm), and you perform a search for all jobs run on August 01, 2007, it will display only those jobs that begin on **August 01, 2007 17:00 until August 02, 2007 17:00**.



# Audit Trail: Backup Jobs

## Audit Trail

A record of the status of all backup jobs, and who performed the job at what time.



# Backup3G

- Changes to setup and configuration
  - Notification
  - Secondary copy
  - Append
- Easier to manage, more user friendly interface
- Enhanced Media and Drive Management
- Extra Settings for better control of Backup3G environment
  - Meta-database replication
  - Notification
  - Access control
- Additional Audit Trails
  - Backup3G
  - Backup operations
  - Backup configuration
  - Media library inventory
  - Media library movements

# Backup3G 5.1 New Features

Thank You