



# Mondo Rescue: A GPL disaster recovery solution

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## Contents

- What is it ?
- Backup with mondoarchive
- Restore with mondorestore
- Extended usages
- Project management
- Future directions



## A GPL disaster recovery solution



- Distribution neutral (Mandriva, Fedora, RHEL, OpenSuSE, SLES, Debian)
- Supports any FS accessible by the kernel (including dual boot systems) and boot loader (+LVM, +SW Raid)
- Supports CD-R[W], DVD[-+]R[W], Tapes, NFS, local FS (ISO9660 files)
- Uses mindi for mini-distro (running or fail-safe kernel)
- Full, differential backups are supported
- CLI + curses based UI



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## Archiving: mondoarchive



- Uses either bzip2, gzip or lzo for data compression
- Uses afio for reliable backup (supports compression on a file basis, ASCII headers, cpio comp.)
- Generates variable size bootable ISO images or burns media / creates tapes
- Use running kernel + modules or a generic set
- ```
/usr/sbin/mondoarchive -O -k /boot/vmlinuz-2.6.16 -p mach1 -E "/usr/share/doc /usr/src /mnt/fs2" -F -N -T /home/mondo/tmp -n server.hpintelco.org:/writer/nfs -d / -s 700M
```



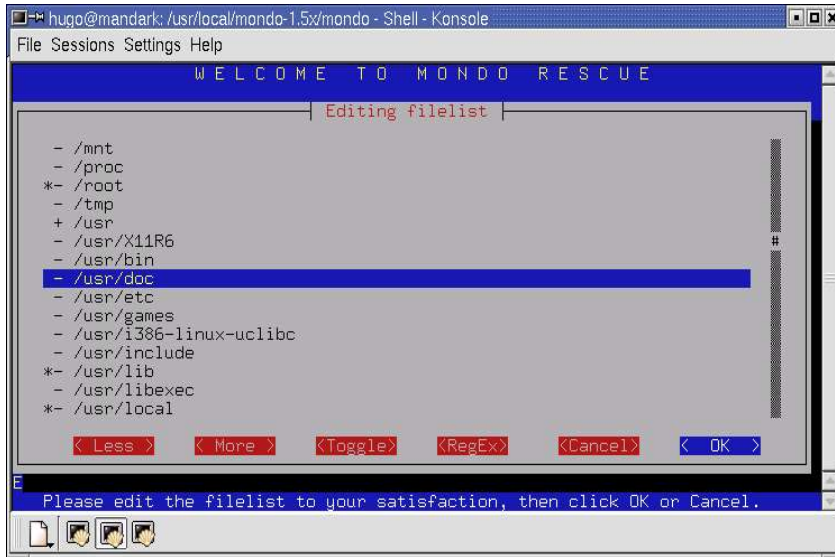
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## Restoring: mondorestore

- From bootable physical medias (floppy, CDs, tapes), images on disks, network, virtual media (Proliant specific) or PXE
- Interactive restore from image files under the OS
- mindi.iso tool set
- Various modes: Automatic, Interactive, Selective, Compare
- Ability to change FS type, layout, SW Raid, even HW configuration.





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## Proliant features



- With the iLO and Virtual Media function, ability to boot from a (central) server hosting (all) ISO images without physical media
- Creates backup with media mounted through iLO.
- Smart Array support
- NIC support
- HP patches





## PXE support

- Using PXE boot ROM, ability to integrate mondo images with a generic deployment server based on pxelinux. (HP Patches)

```
label mondo
```

```
kernel kernel/vmlinuz-mondo
```

```
append root=/dev/ram rw pxe  
initrd=initrd/initrd-mondo.img  
ramdisk_size=32768 prefix=mach1  
load_ramdisk=1 prompt_ramdisk=0  
ipconf=eth1:192.168.0.1:255.255.25  
5.0:192.168.0.255:192.168.0.254  
nfsmount=192.168.0.10:/export/mond  
o ping=5
```





## Cloning support



- Requires knowledge of master and target platforms (potential different drivers)
- All drivers should be part of the mindi image created (either used on master or forced in mindi)
- Use `-H` if master and target are identical hardware platforms
- In other cases, all functions are also available (partition resizing, filesystem type change ...) + hardware adaptation



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## Project Management



- In the project since Dec. 2000 – Project Maintainer since Oct. 2005
- New subversion repository (Thanks BerliOS)
- 5 versions published
- New Build process (Generated pkgs – 2 generations)
- 12 distributions (Thanks Qemu)
- New Website (Thanks Ayo)
- Mondorescue HOWTO Rewritten
- Mailing List activity

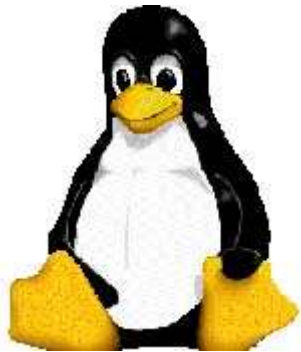


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## Which future ?



“World domination  
(Linus Torvalds)”

- v 2.0.9
  - Debian, Gentoo, Slackware pkgs
  - LVM and md fixes
  - Some limits increased
- V 3.0.0
  - IA-64 port & FreeBSD tests
  - Internationalization
  - Configuration files
  - Code cleanup (memory mngt)
  - Build env. improvements (tests programs, QA, splint, valgrind...)



## Web Resources

- Mondo Rescue main site  
<http://www.mondorescue.org>
- BerliOS version  
<http://mondorescue.berlios.de>
- Busybox  
<http://www.busybox.org>



“The evolution of FLOSS and the Internet are tightly coupled”





## Contact

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(Linux Solution Consultant in the  
HP/Intel Solution Center)

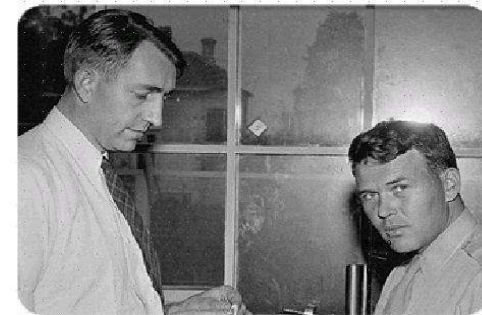
<http://www.hp.com/linux>

”Changes are never easy to  
make.

There is comfort and safety in  
tradition, but change must  
come, no matter how painful  
or expensive it may be.”

*Bill Hewlett*

## Thanks



Linus Torvalds, Richard Stallman,  
Eric Raymond, Nat Makarevitch,  
René Cougnenc, Eric Dumas,  
Rémy Card, Mike Balma, Hugo  
Rabson, Gallig Renaud among  
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Software cause... and my family  
for his patience :-)