Morphix

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Outline

- what is morphix?
- parts of morphix
- syslinux
- morphix base
- morphix main modules
- morphix mini modules
- morphix example cd's
- building your own
What is morphix?

- based on knoppix
- based on debian unstable
- livecd distribution
- modular for easy customization
- designed to make custom distributions
parts of morphix

- syslinux boot loader
- MorphixBase
- MorphixMain modules
- MorphixMini modules
syslinux

- 2.88mb floppy image
- loads linux kernel
- loads miniroot.gz image
- uncompressed MorphixBase
Morphix base

- base os
- base X and network config.
- 32MB compressed
- ~80MB uncompressed
- compressed loop fs
Morphix Main modules

- specialized packages
- any custom packages
- chrooted by main module
- morphix/ directory has init.sh
- init.sh run by base module.
Morphix Mini modules

- config files.
- custom scripts
- morphix/ directory has init.sh
- init.sh run after main modules
- typically very small
- not chrooted
morphix example cd's

- morphix project provides 4 cd images
  - LightGUI
  - KDE
  - Gnome
  - Game
- Base your cd on one, or make your own.
Building your own morphix

Tools needed:

- cloop-utils (compress and uncompress compressed loop file systems)
- mkisofs / cdrecord
- disk space

Start with one of the morphix images

Mount the image and look around: 'mount -o loop Morphix.iso /mnt/'
Building your own morphix

- syslinux image is in base/boot.img
- base morphix is in base/morphix
- main modules are in /mainmod
- mini modules are in /minimod
Building your own Morphix

- syslinux image is a fat/dos 2.88mb floppy image.
- base, main, mini modules are all compressed loop filesystems.
Building your own Morphix

- extract_compressed_fs module > module.iso
- create_compressed_fs module module.module.iso > module
Building your own Morphix

- extract main > main.iso
- mount -o loop main.iso /mnt/main
- mkdir /tmp/main
- cp -a /mnt/main/* /tmp/main/
- chroot /tmp/main/
- Can now use dpkg, apt-get, etc
Building your own Morphix

- can support multisession adding modules.
- new versions based on 2.6.x kernels.
Some Morphix Examples

- clusterix
- Gnoppix
- PilotLinux
- Ubuntu Live
- GIS Morphix
references

- http://www.morphix.org
- http://www.debian.org
- http://www.knopper.net/knoppix/