



## Portable Operating Systems for the Personal Computer: BartPE and KNOPPIX

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### Abstract

- This poster demonstrates how two operating environments that boot and run from a CD-ROM drive are used as platforms for managing technology and delivering instruction. Built from Windows XP or 2003 installation media, BartPE provides a GUI-based environment that is useful for managing employee and public-access computers. KNOPPIX provides a convenient and portable delivery method for educating librarians and end-users on Linux and open source software. Although based on disparate platforms, both provide a vast array of applications that can support a library's dual-mission of delivering effective information technology services and literacy programs.

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### Distinctions

	BartPE	KNOPPIX
Licensing	Mostly Proprietary	NonProprietary (Open-source)
Platform	Windows XP or 2003	Linux
CD Capacity Requirements	Under 550 MB	700 MB or higher
Cost	Partially Free	Free

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## Similarities

	BartPE	KNOPPIX
Networking	Yes	Yes
Supported Devices	Requires installation of some drivers for maximum support.	Recognizes most devices automatically with little intervention.
GUI	Nu2Menu	KDE, IceWM, Fluxbox, TWM
VNC/RDP Support	TightVNC (VNC), Remote Desktop Client (RDP)	KRDesktop (Supports VNC and RDP)

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## BartPE Requirements

- Building (PE Builder):
  - Windows XP (SP1 or higher) or 2003 Installation Media
  - Recordable CD or DVD Drive
  - ISO Burning Software (Nero, Easy CD Creator, etc.)
- Executing:
  - Valid Windows License
  - 128 MB RAM
  - Compatible SVGA Graphics Adapter
  - Intel-compatible CPU (i586 or later)
  - Bootable CD/DVD Drive

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## BartPE Components

- PE Builder
  - Builds BartPE from Windows Installation Media.
- Drivers
  - Minimal included. Others can be easily installed.
- Plugins/Applications
  - Minimal included. Others can be easily installed.

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## System Administration with BartPE

- Disk Management (DiskPart)
- Imaging and Cloning (Symantec Ghost, Drive SnapShot)
- Malware Removal
  - Viruses (Clam Antivirus, McAfee)
  - Spyware (AD-AWARE)
- File Management (A43)

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## BartPE Links

- BartPE and PE Builder
  - <http://www.nu2.nu/pebuilder/>
- Plugins
  - <http://winpe.sourceforge.net/>
- Help and Support
  - <http://www.911cd.net/>

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## KNOPPIX Requirements

- Intel-compatible CPU (i486 or later)
- 20 MB (without GUI) or 96 MB (with GUI) RAM. 256 MB Recommended.
- Bootable CD/DVD Drive
- Compatible SVGA Graphics Adapter

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## KNOPPIX Components

- Debian Linux
- GUI Desktop Environment (KDE)
- Productivity Software (OpenOffice)
- Viewers and Plug-ins (Firefox, Xpdf, etc.)
- X Multimedia System (XMMS)
- MS-Windows Compatibility
- System Administration Tools

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## KNOPPIX USES

- Educational Tool
  - Sand box for experimenting with Linux.
- System Administration
  - Ideal for partitioning and formatting hard drives (QTParted)
- System Recovery
  - Great for recovering files from a system that won't boot.
- Linux Workstation (Complete Desktop Environment)
- Linux Server (SSH, Samba, Apache, etc.)
- KIOSK

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## KNOPPIX Links

- KNOPPIX Home
  - <http://www.knopper.net/knoppix/index-en.html>
- Help and Support
  - <http://www.knoppix.net/>
- Wikiverse
  - <http://knoppix.wikiverse.org/>

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## Other LiveCDs of Interest

- List of LiveCDs  
<[http://en.wikipedia.org/wiki/List\\_of\\_LiveCDs](http://en.wikipedia.org/wiki/List_of_LiveCDs) >
- SystemRescueCd  
<<http://www.sysresccd.org/index.en.php>>
- Ultimate Boot CD  
<<http://www.ultimatebootcd.com/>>
- Windows PE  
<<http://www.microsoft.com/licensing/programs/sa/support/winpe.mspx>>
- Gnopix <<http://www.gnopix.org/>>

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