

Title: PX USB Virtual Media Features and Operation

No: IPA23-1

Date: Thursday, 06 September, 2007

SUMMARY:

Virtual Media is a method of connecting a remote media source (i.e. CD-ROM drive, USB mass storage drive, floppy disk drive, or virtual implementation of any of them, or ISO images) to a local system (Target computer). The local system (Target computer) then has access to the remote (and possibly virtual) media and can potentially read from and write to that media as if it were physical and local. Some examples of remote media would be where a physical CD/DVD drive of any type is made available remotely for use by a local computer (Target computer).

Virtual Media is a very useful tool for those who need to manage large numbers of computers such as commercial IT data center managers. A Target computer can be made to boot to one of many virtual disks that can perform any variety of tasks such as virus scans of the Target's physical drive and patch management or even complete installation of the operating system on a Target computer.

Minicom's PX USB has Virtual Media capability allows mounting virtually any removable mass storage devices that connected to the Client computer onto the Target server.

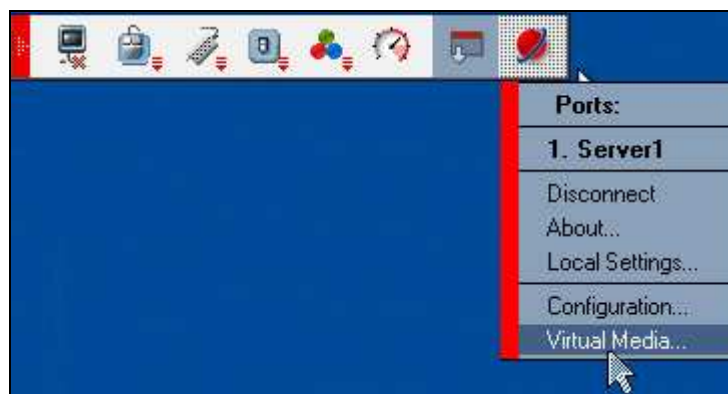
MORE INFORMATION:

With Virtual Media capability you can mount virtually onto the Target server removable mass storage devices connected to the Client computer.

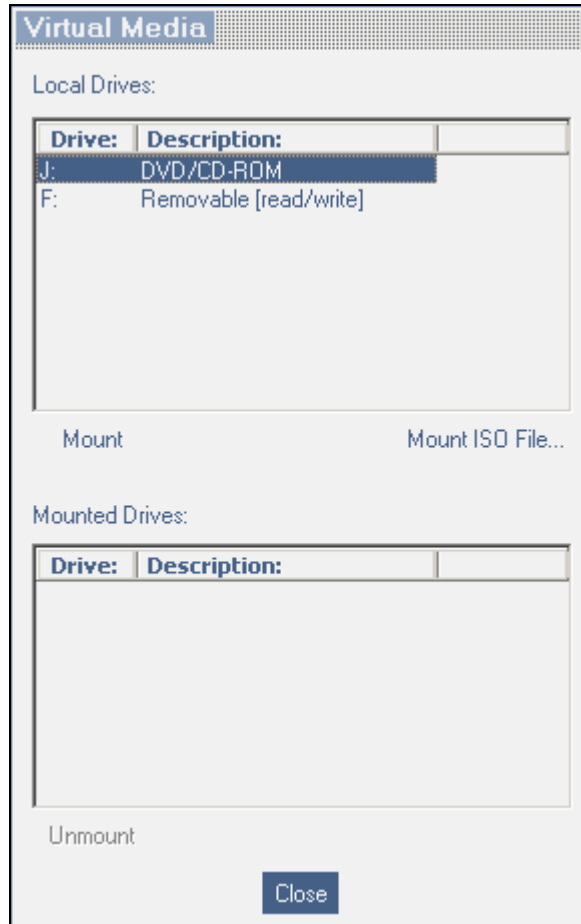
This includes:

- Floppy drive
- CD-ROM
- DVD-ROM
- ISO Image of CD or DVD
- USB Flash Drives (Disk on key tokens)
- Miscellaneous USB memory sticks/cards identified by the operating system as removable mass storage devices

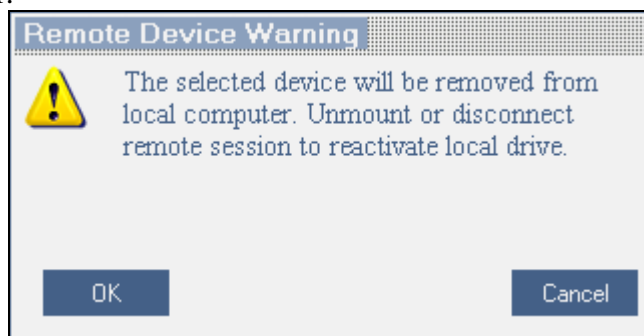
To display the Virtual Media mounting options Right-Click on the ActiveX toolbar Minicom Globe icon. Select the Virtual Media.



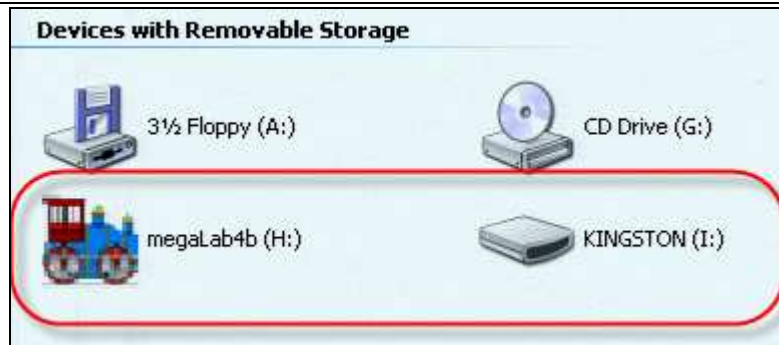
The Virtual Media dialog box appears. All connected mass storage devices appear in the Local Drives section.



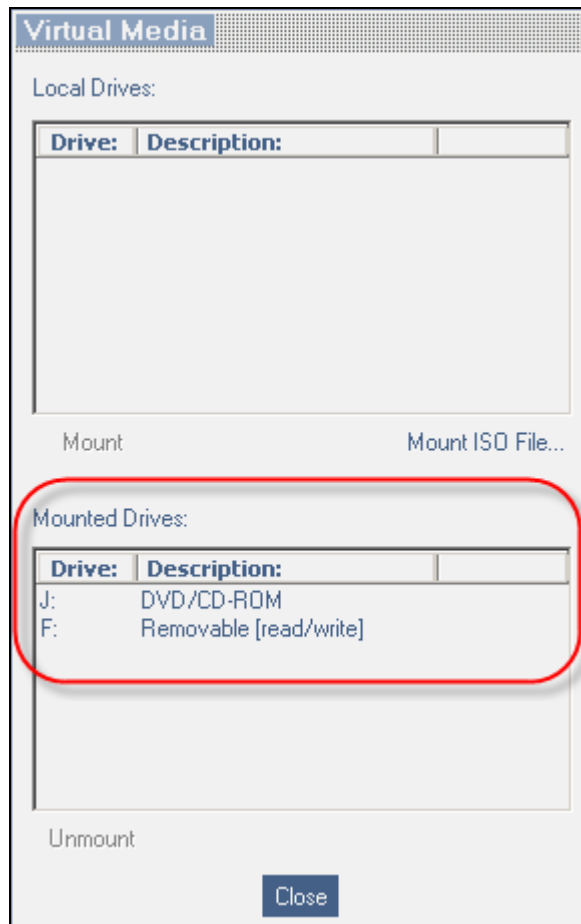
Select the device to be mounted and click Mount. If DVD/CD-ROM is mounted, then no messages would appear and the DVD/CD-ROM will be accessible in both Client and Target computers. If Removable storage is mounted, then a Remote Device Warning message will appear:



Click OK. The Removable device mounts onto the Target Server and appears as a Removable or DVD/CD drive of the Target Server.



It also appears in the Mounted drives section.



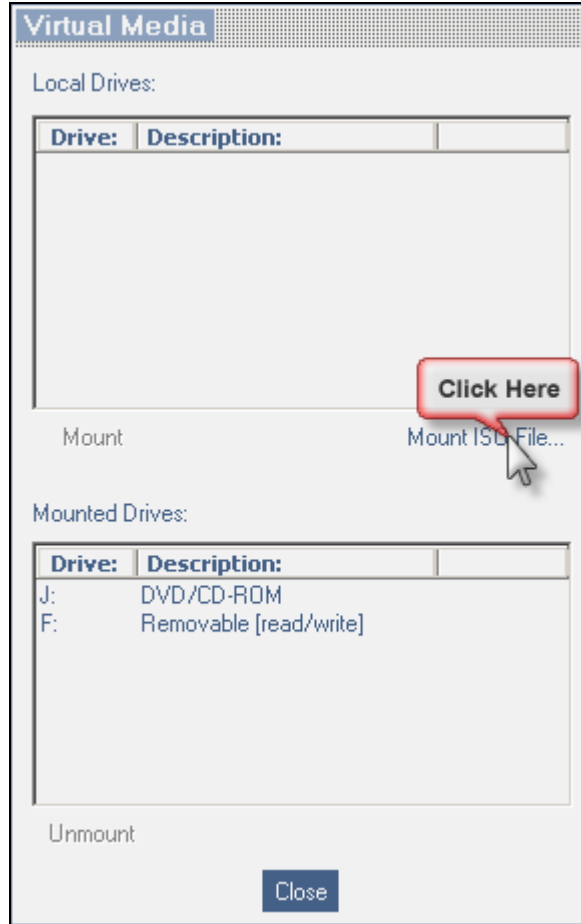
Once mounted, you can use the device during the remote session as if it is connected to the Target Server.

Mounting an ISO image file.

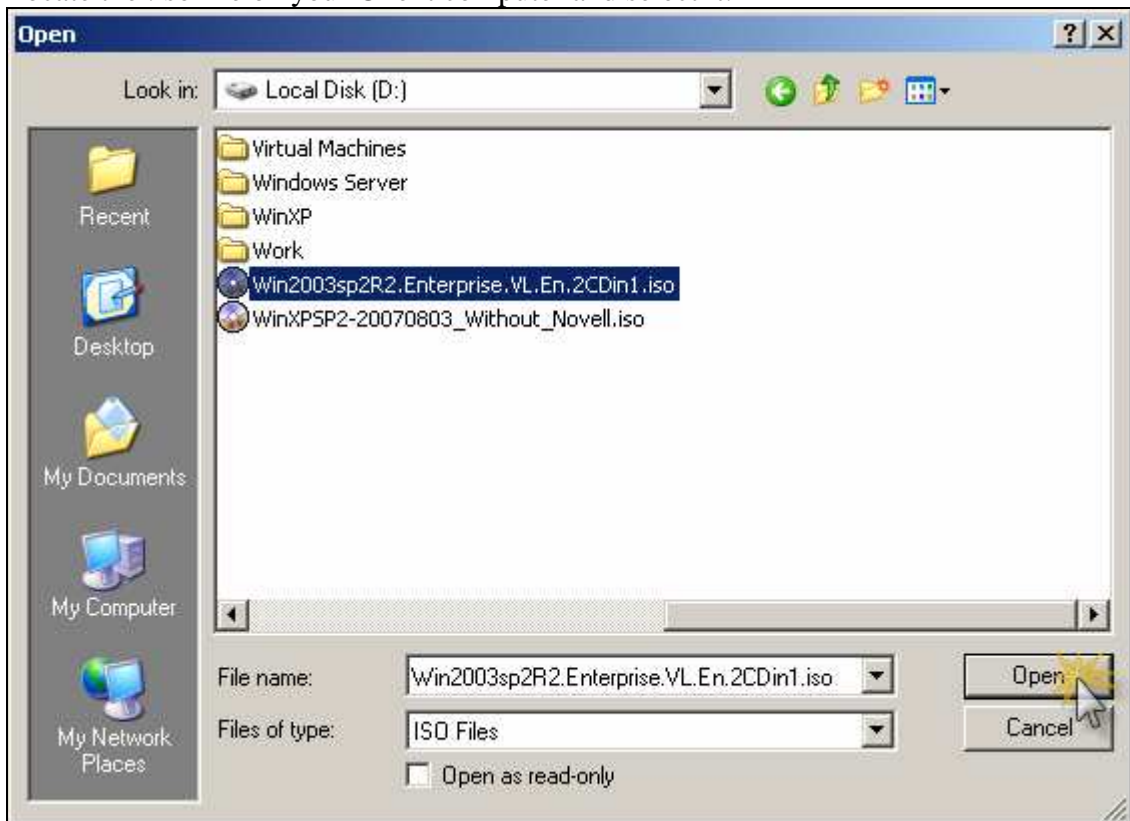
An ISO image (.iso) is a disk image of an ISO 9660 file system. ISO 9660 is an international standard originally devised for storing data on CD-ROM. More loosely, it refers to any optical disc image, even a UDF image.

As is typical for disc images, in addition to the data files that are contained in the ISO image, it also contains all the file system metadata, including boot code, structures, and attributes. All of this information is contained in a single file. These properties make it an attractive alternative to physical media for the distribution of software that requires this additional information as it is simple to retrieve over the Internet.

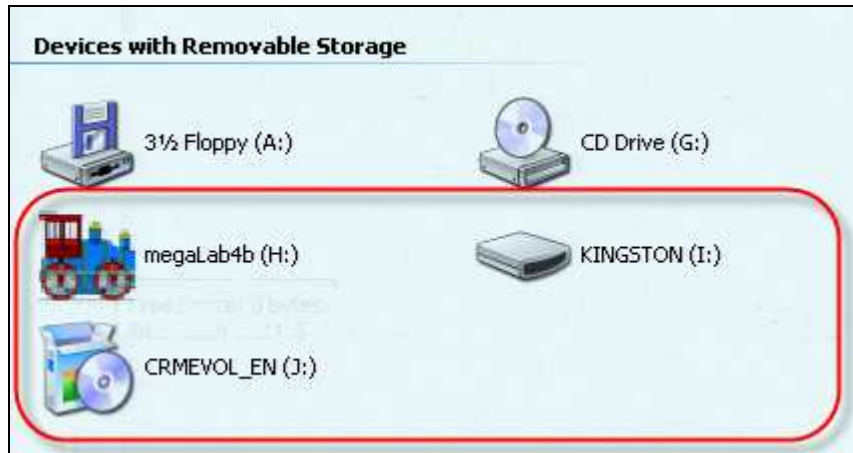
To mount an ISO file, click Mount ISO File:



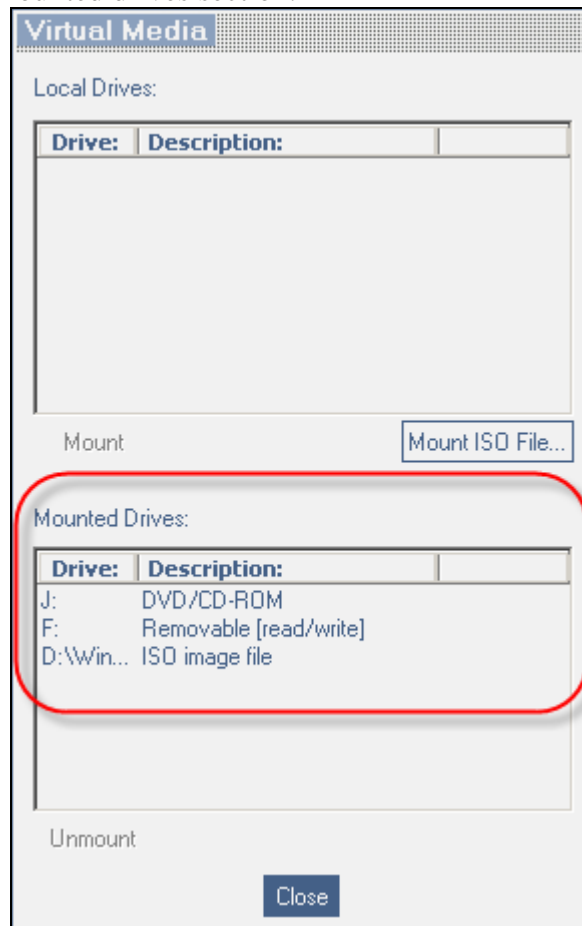
Locate the .iso file on your Client computer and select it:



Click Open. The .iso file mounts onto the Target Server and appears as a DVD/CD drive of the Target Server.



It also appears in the Mounted drives section.



To dismount the Virtual Media drive, select it in the Mounted Drives section and press Unmount button.

Things to know during operation of the Virtual Media:

Because Virtual Media emulates USB 1.1 over TCP connection it has a number of limitations which govern the Virtual Media compatibility and operation.

- Virtual Media emulates USB 1.1. It doesn't emulate USB 2.0
- Virtual Media redirects the Clients local DVD/CD or removable mass storage devices to a Target computer during the open client session only. This means if the remote client session disconnects, the mounted drives will be automatically dismounted in the Target computer.
- Maximum data transfer speed of the Virtual Media doesn't exceed 5.0 Mb/s
- Only drives identified by the Client Operating System as Drives with Removable Storage can be mounted as a Virtual Media. Many USB attached hard disks identify themselves to the Operating System as Hard Disk Drives and can't be used for Virtual Media mounting.
- Booting from mounted virtual media drive is possible only if the Target computer supports boot from USB attached storage.
- Currently, it is not possible to boot a Target computer from Linux distribution mounted as a Virtual Media.
- Windows CD/DVD or its modifications as Winternals ERD Commander, WinPE, BartPE, or similar can be used for booting the Target computer when mounted as a Virtual Media.
- Mounting Removable mass storage devices as USB Flash Drives (Disk on key tokens) or miscellaneous USB memory sticks/cards will remove them from Client Operating System and redirect with Read/Write access permissions to the Target computer to ensure integrity of Write operation.
- Connection timeout will not occur all the time the Virtual Media is remained mounted.

COMMENTS:

PX USB with firmware version 3.0.2.27 or higher has Virtual Media capabilities. Older versions of PX USB may not have this capability or may have a limited set of features.