MilaX - OpenSolaris small LiveCD distro

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Can Solaris become as small as DSL?
MilaX
LiveCD, LiveUSB
Virtualizing MilaX
LiveCD, LiveUSB

Qemu
VirtualBox
VMware
MilaX advantages

- Small size
- Fast boot
- Loading live image from RAM
- Booting from various storage devices
- People can try small Solaris without installing on the harddisk.
- All Solaris features: dtrace, zfs, zones, e.t.c
- Latest drivers and bugfixes
- Two versions: desktop and server
When MilaX is the best choice?

- Old PC's
- Not enough RAM
- Not enough free disk space
- Fast and small server (0.3.1 server)
- Fast developing (0.3.1 server)
- Virtual testing
MilaX Filesystem

- HSFS Filesystem (/usr mount)
- LOFI Pseudo Device
- /.cdrom/usr.zlib
- HSFS Filesystem (.cdrom mount)
- MilaX Live CD

- Ramdisk 105mb, UFS Root FS
  /, /lib, /dev, /devices, /var

- /usr (RAM < 512mb)
- /usr, /alex, /root, /tmp

- Ramdisk
- Swap
- RAM

- Ram > 512MB
Milax 0.3.1 Apps

Desktop version

- Gtk-Terminal, Beaver, Netsurf, Sylpheed, Midnight Commander, emelFM, XMMS, Xpdf, VNC viewer, Rdesktop, Nmap, gFTP, gPicview, Conky, XChat, Xpad.

Server version

- Apache, PHP, Samba and NFS servers, GCC, GMake, Midnight Commander, Pine, Mutt, Elinks, Lynx.
MilaX first boot

- Login to system as alex with pass: alex
- Access for root - through su with pass: root
- To manually start the X-Windows system use startx command.
- Switching X Keyboard Layout in runtime: Alt-Shift or click on a fbxkb icon on the bottom right of IceWM panel.
Creating a Solaris partition

(alex@milax)# fdisk /dev/rdsk/c3d0p0
No fdisk table exists. The default partition for the disk is:
   a 100% "SOLARIS System" partition

Type "y" to accept the default partition, otherwise type "n" to edit the
partition table.
y
Creating a slice for the root fs

partition> p

Current partition table (unnamed):

Total disk cylinders available: 1302 + 2 (reserved cylinders)

<table>
<thead>
<tr>
<th>Part</th>
<th>Tag</th>
<th>Flag</th>
<th>Cylinders</th>
<th>Size</th>
<th>Blocks</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>unassigned</td>
<td>wm</td>
<td>3 - 264</td>
<td>2.01GB</td>
<td>(262/0/0) 4209030</td>
</tr>
<tr>
<td>1</td>
<td>swap</td>
<td>wm</td>
<td>265 - 395</td>
<td>1.00GB</td>
<td>(131/0/0) 2104515</td>
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<tr>
<td>2</td>
<td>backup</td>
<td>wu</td>
<td>0 - 1301</td>
<td>9.97GB</td>
<td>(1302/0/0) 20916630</td>
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<tr>
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<td>0</td>
<td>0</td>
<td>(0/0/0) 0</td>
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<td>0</td>
<td>(0/0/0) 0</td>
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<td>0</td>
<td>0</td>
<td>(0/0/0) 0</td>
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<tr>
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<td>wm</td>
<td>0</td>
<td>0</td>
<td>(0/0/0) 0</td>
</tr>
<tr>
<td>7</td>
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<td>0</td>
<td>0</td>
<td>(0/0/0) 0</td>
</tr>
<tr>
<td>8</td>
<td>boot</td>
<td>wu</td>
<td>0</td>
<td>7.84MB</td>
<td>(1/0/0) 16065</td>
</tr>
<tr>
<td>9</td>
<td>alternates</td>
<td>wm</td>
<td>1 - 2</td>
<td>15.69MB</td>
<td>(2/0/0) 32130</td>
</tr>
</tbody>
</table>

partition> label
ZFS-boot installation on HD

```
(root@milax)# zfsinstall c4d0s0
Starting to copy data from UFS root to /zfsroot - this may take some time.
```
(alex@milax)$ pfexec usbcopy milax03.usb

Found the following USB devices:
0: /dev/rdsk/c4t0d0p0 953.5 MB Kingston DataTraveler 2.0 1.00

Enter the number of your choice: 0

WARNING: All data on your USB storage will be lost.
Are you sure you want to install to
Kingston DataTraveler 2.0 1.00, 953 MB at /dev/rdsk/c4t0d0p0 ?(y/n) y

umount: warning: /dev/dsk/c4t0d0s0 not in mnttab
umount: /dev/dsk/c4t0d0s0 not mounted

Copying image to USB device
7744+0 records in
7744+0 records out
126877696 bytes (127 MB) copied, 57.9422 s, 2.2 MB/s
real 0m57.950s
user 0m0.011s
sys 0m0.304s

Installing grub to USB device /dev/rdsk/c4t0d0s0

Completed copy to USB
Apache2+PHP5 on MilaX server

Get HTTP Server in two minutes!

Boot 0.3.1 server Live CD or Live-USB.

Enable apache 2.2:

```bash
(alex@milax)$ pfexec /etc/init.d/apache stop
```

```bash
(alex@milax)$ pfexec svcadm enable http
```

Enable ftp if needed:

```bash
(alex@milax)$ pfexec svcadm enable ftp
```
Next steps

- Sparc version
- Transition on IPS and creation of MilaX own pkg repository
- Live image size and booting speed reduction
- User interface improvements
Resources

- http://www.milax.org
- http://www.genunix.org/distributions/dss/
- http://www.opensolaris.org/os/project/milax/
- http://wiki.sun.com/display/BigAdmin/
Thank you!

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