

What's news in Solaris 10

Bánházi Antal

toni@componentsoft.eu



What`s news in Solaris 10

– Redefined boot

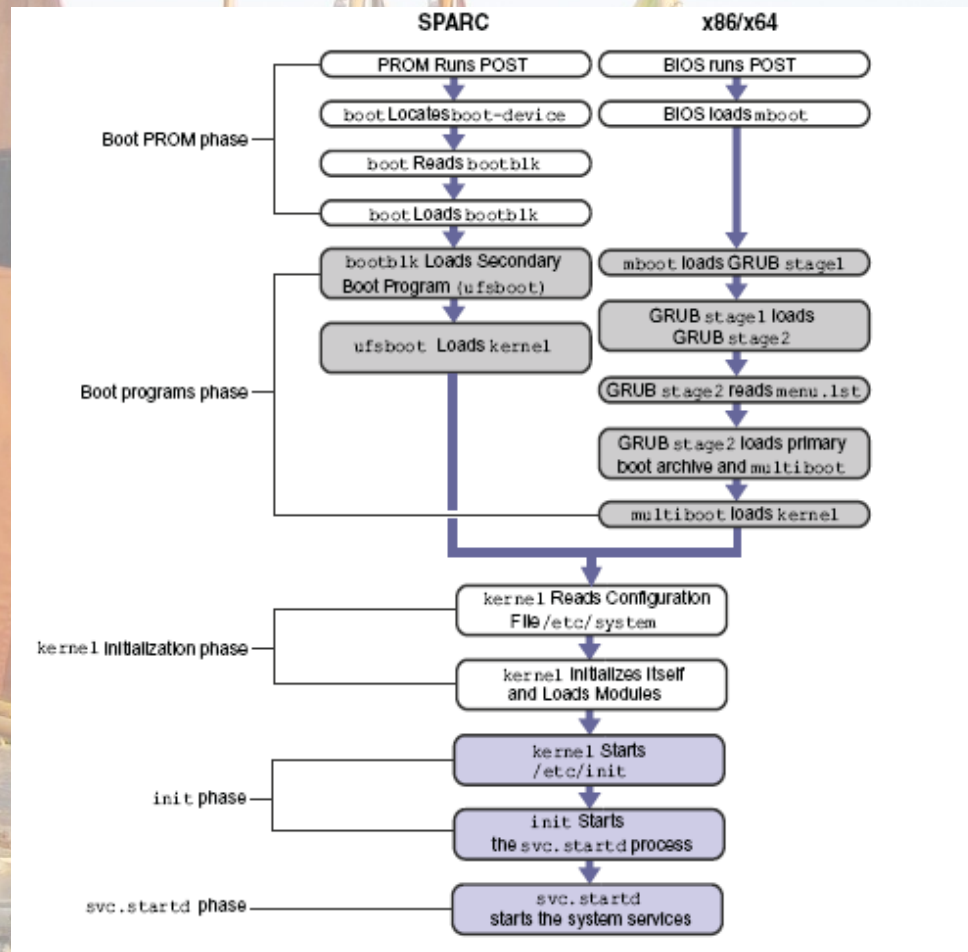
- Generally redesigned SPARC boot
- Boot from ZFS (x86 and SPARC)

– ZFS features

– Zone features



Traditional Solaris boot



New boot concept

- Use of boot archive
- Use of ramdisk image during installation and failsafe session
- Similarity between SPARC and x86 boot process



Boot archive

- Primary and failsafe
- Located in /platform/... directory



SPARC boot phases

– OBP phase

- Unchanged
- Load VTOC and bootblk into memory

– Booter phase

- Boot archive is read and executed
- Only this phase needs file system knowledge

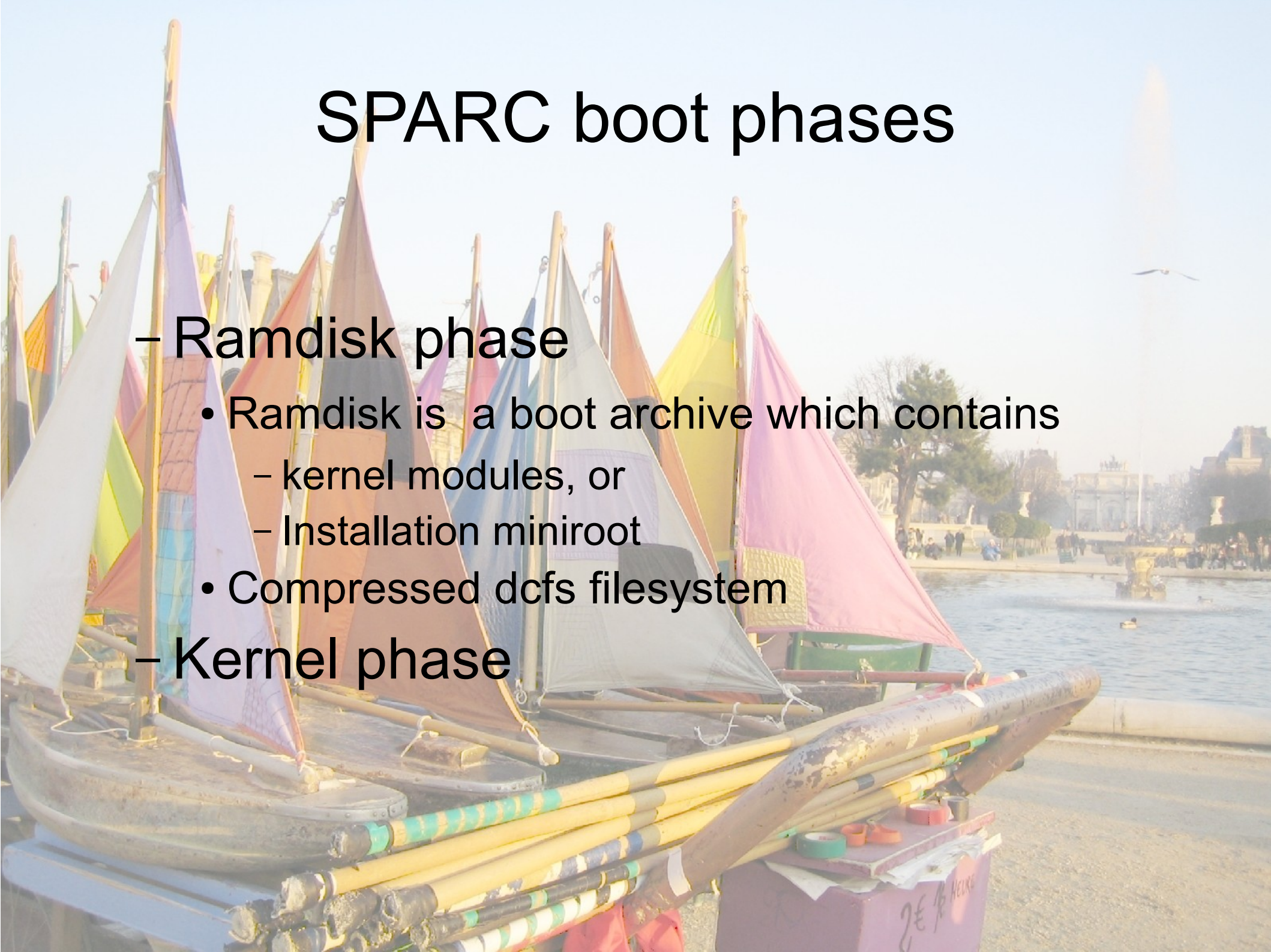


SPARC boot phases

– Ramdisk phase

- Ramdisk is a boot archive which contains
 - kernel modules, or
 - Installation miniroot
- Compressed dcfs filesystem

– Kernel phase



Boot archive related commands

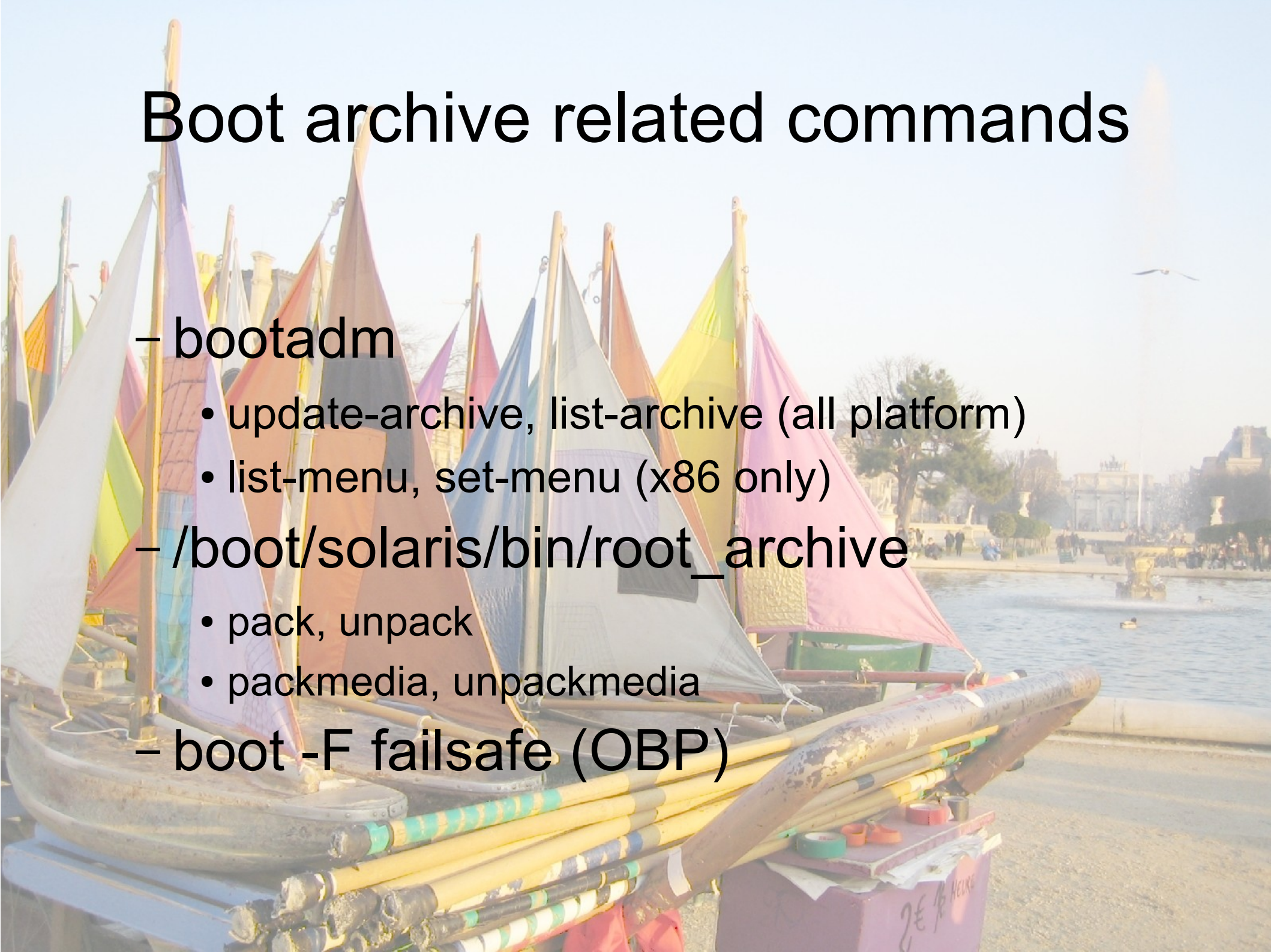
– bootadm

- update-archive, list-archive (all platform)
- list-menu, set-menu (x86 only)

– /boot/solaris/bin/root_archive

- pack, unpack
- packmedia, unpackmedia

– boot -F failsafe (OBP)



ZFS root file system

- Text based interactive install
- Flash archive not supported
- Changed boot command on SPARC
 - boot -L (list available boot environments)
 - boot -Z *pool* (boot from *pool*)
- Changes on x86
 - findroot keyword instead of root keyword in menu.lst
 - bootsign file
 - Linux GRUB can not boot Solaris

ZFS root file system

- Live upgrade support of ZFS root
 - Migration from UFS to ZFS
 - Creation new ZFS based boot environment on several ways



Some interesting ZFS features

- Storage pool properties
- Zfs rollback without umount
- Refquota
- Failmode
- Delegated administration
- Hot-plug enhancement
- ...



Zone what's news

– Update on attach

- `zoneadm attach -u` update none-global zone's packages

– Separate default route on shared-IP

- defrouter property in net scope

– Zonepath on ZFS



Zone what's news

– zone.cpu-cap resource control

- Upper limit of cpu resource (similar to memory capping)

– New brand types

- solaris8
- solaris9
- cluster

