The *finstall* project

Your chance to bikeshed... :)

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Motivation

- sysinstall

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- Cosmetic
  - Old, curses-based application
  - User interface is nonuniform, nonintuitive and ugly
- Objective
  - No support for "modern" devices
    - sound cards, video cards, cpufreq, WiFi
  - No support for modern FreeBSD features
    - GEOM, gjournal, ZFS, rc.d "fancy" output, MAC

Demotivation

- Sysinstall has some features not easily replicated in a GUI installer
  - Works over a serial console
  - Works on many platforms
  - Not resource intensive
  - Has (limited) support for scripted installs
- These features will NOT be replicated in the (first version of) `finstall`

Goals

- To run on modern off-the-shelf i386 and AMD64 hardware with VESA or similar graphics
- Concentrate on supporting installation and configuration of FreeBSD base, not (at first) of packages (except for 1st time installs)
- To be reusable as a configuration tool
- Extensible (with in reason) to support more features later

The Plan

- Separate backend and frontend parts, allow backend to be used over network (plan for remote installs)
- First front-end will be GTK-based, written in Python (pyGTK)
- Run of a Live CD (bail to console if X11 crashes / no driver / etc)
- Use the Live CD binaries directly to perform install (mtree planned)

"Artist's depiction"

Some ideas…

- Offer multiple "levels of verbosity": novice / standard / expert
  - Novice should only ask critical questions (e.g. "do you want your disk wiped and OS replaced with FreeBSD?")
  - Standard should offer more control, manual partitioning and formatting
  - Expert should offer the user fine control (e.g. software RAID)

Bikeshed time

- Use GPT by default or not?
- Use GEOM_LABEL pervasively?
- Don't do GUI installer and switch to web installer from start?
- Frontend-backend communication – use XML-RPC?
- Default file system: UFS, UFS+gjournal, UFS+SU, ZFS?

Bikeshed time - the defaults

If no useful discussion happens...

- No GPT, use (ancient) MSDOS+BSDlabels
- Use GEOM_LABELs pervasively
- GTK GUI front-end
- XML-RPC for frontend-backend comm.
- Default file system: UFS+gjournal
- Install SMP kernel (already default in HEAD)

Additional ideas

- If time permits...
- Scripted installs
- Framework for configuring 3rd party packages (at least attempt to parse rc.d scripts and give knobs)
- Additional user interfaces

The End

- Thanks:
  - To FreeBSD Foundation for funding the trip to BSDCan
  - To Google for sponsoring the project & part of the expenses here
- Questions?

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Project homepage: http://wiki.freebsd.org/finstall