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# History Lesson

- ▶ Okt-Dec 2008: AIF conception
- ▶ "interactive installer as proof of concept"
- ▶ 2009-01: Creation of releng team: Aaron, Gerhard, me
- ▶ 2009.02: AIF as experimental alternative
- ▶ 2009.08: switched to aif + proper releng env
- ▶ later: more improvements



- ▶ Odd ducks
- ▶ Least accurately depicted team
- ▶ Devs: Aaron, Gerhard, me
- ▶ Community: Matthias Dienstbier, Gerardo Exequiel Pozzi (djgera), ..

<http://projects.archlinux.org/>

- ▶ archiso (vs archboot, larch, archiso-live)
- ▶ aif
- ▶ official installation guide (vs beginners guide)
- ▶ build environment (TU server)

# AIF Features

- ▶ interactive
- ▶ automatic/unattended
- ▶ cli and ncurses mode
- ▶ disk editor with rollback (ext4, LVM, dm\_crypt, ..)
- ▶ automatic config population
- ▶ framework
- ▶ test suite



## Arch Linux Installation Framework

### Manage filesystems

Use the UP and DOWN arrows to navigate menus. Use TAB to switch between buttons and ENTER to select. Here you can manage your filesystems, block devices and virtual devices (device mapper). Note that you don't \*need\* to specify opts, labels or extra params if you're not using lvm, dm\_crypt, etc.

<b>/dev/sda</b>	<b>raw-&gt;no_fs</b>
/dev/sda1	raw->ext2;yes;/boot;no_opts;no_label;no_params
/dev/sda2	raw->dm_crypt;yes;no_mountpoint;no_opts;encrypted;
/dev/mapper/encrypted	dm_crypt->lvm-pv;yes;no_mountpoint;no_opts;no_labe
/dev/mapper/encrypted	lvm-pv->lvm-vg;yes;no_mountpoint;no_opts;myvg;/dev
/dev/mapper/myvg	lvm-vg(myvg)->lvm-lv;yes;no_mountpoint;no_opts;roo
/dev/mapper/myvg-root	lvm-lv(root)->ext4;yes;/;no_opts;no_label;no_param
<b>DONE</b>	-

100%

< **OK** >

<Cancel>

```
Disabling all swap space...  
Phase 1: Creating filesystems & blockdevices  
Making ext2 filesystem on /dev/sda1  
Making dm_crypt filesystem on /dev/sda2  
Making lvm-pv filesystem on /dev/mapper/encrypted  
Making lvm-vg filesystem on /dev/mapper/encrypted+
```

```
[root@archiso ~]# aif -p automatic -c /usr/share/aif/examples/fancy-install-on-sda
Welcome to Arch Linux Installation Framework
Automatic procedure running the fancy-install-on-sda example config. this will
install a system with lvm on top of dm_crypt. THIS WILL ERASE AND OVERWRITE YOUR
/dev/sda. IF YOU DO NOT WANT THIS PRESS CTRL+C WITHIN 10 SECONDS
Partitioning /dev/sda
Disabling all swap space...
Phase 1: Creating filesystems & blockdevices
Making ext2 filesystem on /dev/sda1
Making dm_crypt filesystem on /dev/sda2
Please enter your passphrase to encrypt the device (with confirmation)
Enter LUKS passphrase:
Verify passphrase:
Please enter your passphrase to unlock the device
Enter passphrase for /dev/sda2:
Making lvm-pv filesystem on /dev/mapper/sda2crypt
Making lvm-vg filesystem on /dev/mapper/sda2crypt+
^[[2^[[2Making lvm-lv filesystem on /dev/mapper/cryptpool
```

```
:: Loading Keyboard Map: ANSI-dvorak [DON]
INIT: Entering runlevel: 3
:: Starting Syslog-NG [DON]
:: Starting Network [DON]
:: Mounting Network Filesystems [DON]
:: Starting Cron Daemon [DON]
swap 19 : OK
lvmlv cryptpool cryptroot 800.00 MB : NOT OK (1)
mount /dev/mapper/cryptpool-cryptroot on / type xfs (rw) : OK
mount /dev/mapper/cryptpool-cryphome on /home type xfs (rw) : OK
file /etc//test_file : OK
file //test_file : OK
file /root//test_file : OK
file /home//test_file : OK
file /var//test_file : OK
file /usr/bin/ssh : OK
nofile /sbin/mkfs.reiserfs : OK
nopcode sudo : OK
ping: unknown host archlinux.org
ping 2 archlinux.org : NOT OK (2)
ONE OR MORE TESTS FAILED!

Arch Linux 2.6.30-ARCH (myhost) (vc/1)

myhost login: _
```

# AIF Missing features / Goals

- ▶ simplify blockdevice code
- ▶ btrfs
- ▶ SSD fs (NILFS?)
- ▶ Softraid
- ▶ Integration between pxe and automated installs

# AIF Overview

- ▶ bash
- ▶ libraries. libui-sh
- ▶ procedures, partial procedures
- ▶ module
- ▶ profiles (config files)
- ▶ phases, workers

# Release model

- ▶ dream world: every kernel release
- ▶ misconceptions ("I need to reinstall", "You can use any image", ...)
- ▶ real world: ??

questions? demo? code exploring? my use case?

arch-releng

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