Installing cAos with Cinch on CDROM

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Abstract

cinch is the cAos Linux (`http://www.caosity.org/`) installer.

Prerequisites

What you need:

- one blank CD-R (or CD-RW) disk (at least)
- a computer (with CD-RW drive) to burn the Cinch ISO file to disk
- a computer to install cAos on (500 MB disk space, i386 class computer, and 64 MB RAM are approximate minimum hardware requirements)

(the CD burning and install computer could be one and the same).
NOTE: If you have more than one network adapter, and you have problems completing the installation, disable or remove all but one of the network adapters and try installing again. The adapters can be enabled or reinstalled once Cinch is done installing cAos Linux.
NOTE: Though theoritically a i386 or i486 should work, we have not tested the installation on those platforms because boxes with those processors that fulfill the RAM requirement are hard to find. It has been tested on i586 class machines.
Some optional items to have handy are:

- IP address information if you do not use DHCP (but want networking)
- an internet connection (for updates and addtional software installation)

If you have a problem with the cAos installer, please report it to:
`https://bugzilla.caosity.org/`
after, of course, searching there to see that the problem was not previously reported.
If you have a problem with the cAos installer instructions, please report it to me at troj@caosity.org, or use the bugzilla mentioned above.

Preparing for Installation

Get the installation CD ISO image from a mirror (`http://www.caosity.org/index.php?option=com_mirror2&Itemi`
`84`) or from here:

```
$ wget http://mirror.caosity.org/cAos-1/cinch/current/cinch.iso
$ wget http://mirror.caosity.org/cAos-1/cinch/current/MD5SUMS
$ grep iso MD5SUMS | md5sum -c
```

and the last line should output:

```
cinch.iso: OK
```

NOTE: some file downloading programs will not overwrite files by default (wget will put a numeric extension on the file). Make sure you do not already have copies of 'cinch.iso' and 'MD5SUMS' in the download directory.
Put the CD-R (or CD-RW) disk in the CD burning computer's drive and burn the image using software you are familiar with.

Starting the Install

Insert the newly created cAos installer CD into the CD-ROM drive of the cAos install computer. Turn the cAos install computer on and watch the normal BIOS messages flash across the screen. If you are not certain the BIOS is set to boot from the CD-ROM, please enter the BIOS configuration and check (and possibly change) that.

Booting From CD-ROM

The CD should boot with the following message lines:

```
SYSLINUX 2.06 2003-08-22 Copyright (C) 1994-2003 H. Peter Anvin
Loading bzimage....
Loading initrd.img....
```

The 'normal' linux kernel boot and hardware detection messages should then scroll across the screen.

Stage1 Successfully Loaded

The first installer screen should appear. Near the top you should see:

```
You have now entered stage1 of:

  cinch :: The cAos installer! (version 2.0.3)

Installing cAos is a cinch! This installer wiill take you through the
...
```

indicating that everything is going alright so far. Read through the information presented on this screen and then follow the instructions at the bottom:

```
Press [ENTER] to continue...
```

Probing for CDROM

Cinch will probe for the CDROM device and display where it found it:

```
Checking to see if the cinch CDROM is loaded in your drive...

Probing on /dev/hdc... Found the CDROM!

Press [ENTER] to continue...
```

Press the "Enter" key and go forward.

stage1 main menu

The stage 1 menu provides a step by step outline of procedures you must undertake in preparation for stage 2 of the installation process.
Items in the menu are:

```
=> 1. Configure hardware
   2. Configure network interface
   3. Select network mirror
   4. Done Pivot into stage2
   5. Drop to shell
   6. Exit and reboot

[1] >
```

with the item number in the square brackets (”[1]”) before the angle bracket prompt (”¿”) indicating the default value chosen if you just hit the ”Enter” key. The default is also has an equal sign and angle bracket marker (”=¿”) preceding it on the line.
Press the ”Enter” key and configure the hardware.

Hardware Configuration

Cinch will now ask what device you want to load additional drivers from the cdrom or floppy drive. The choice is generally dictated by the method used to start the install, but allowing for either at this point provides more flexibilty.

The menu looks like this:

```
=> 1. cdrom
   2. floppy
   3. back to main menu

[1] >
```

If the installation was started by booting from the cdrom drive, choose number 1 (”cdrom”) and cinch will try to load drivers from the CDROM device.
If successful, the screen will be cleared and a message will be displayed:

```
Hardware probe complete! The following devices were configured:

  eth0: "Advanced Micro Devices [AMD]|79c970 [PCnet32 LANCE]"
```

and goes on to explain what to do if you have a device that is not listed. At the bottom should be:

```
Press [ENTER] to continue...
```

so follow those instructions to go back to the ”stage1 main menu”.

stage1 main menu

After configuring hardware, the stage 1 menu appears again with a new default:

```
=> 2. Configure network interface
```

so choose that option and go on to configure the network.

DEVICE SELECTION

Choose the network interface device from the list displayed on the screen:

```
What network device should be used?

=> eth0: "Advanced Micro Devices [AMD]|79c970 [PCnet32 LANCE]"

[eth0] >
```

Choose your preferred network device or accept the default with a press of the ”Enter” key and move on.
If the network card refuses to be recognized, please report this occurance on the cAos bugzilla site:
`https://bugzilla.caosity.org/`

Addressing Method

On the ”Addressing Method” screen you will see a menu like this:

```
Method to obtain network configuration?

=> 1. dhcp
   2. static
   3. Exit with no configuration

[1] >
```

Choose ”dhcp” (1) if you are on a network with a DHCP server (could be a server computer or a small firewall/router device), or choose ”static” (2) if you know your IP address information (address, netmask, network, gateway, and dns server). Only choose ”Exit with no configuration” (3) if you only want to install software package from the Cinch cdrom.

DHCP Configuration

On the ”DHCP Configuration” screen you are presented with:

```
Commencing with dhcp configuration...
udhcpc (v0.9.9-pre) started
Sending discover...
Sending select for 192.168.1.2...
Lease of 192.168.1.2 obtained, lease time 21600

Press [ENTER] to continue...
```

if successful, so press the ”Enter” key to move on.

Static IP Configuration

On the ”Static IP Configuration” screen you will be prompted with the following:

```
IP address:
> 192.168.1.2

Subnet mask:
> 255.255.255.0

Network:
```

```
> 192.168.1.0

Gateway:
> 192.168.1.254

Primary DNS Server:
> 192.168.1.1

Press [ENTER] to continue...
```

so enter the correct IP configuration information and press the ”Enter” key to go back to the ”stage1 main menu”.

stage1 main menu

After configuring the network, the stage 1 menu appears again with a new default:

```
=> 3. Select network mirror
```

so choose that option and go on to choose a mirror.

Repository Select

On the ”Repository Select” screen you will choose a cAos repository mirror to pull the latest updated packages from:

```
Select a mirror location:

=> 1. Choose from known mirrors
   2. Select your own mirror
   3. Back to main menu

[1] >
```

Selecting item one will present a list of main cAos mirrors, so you would choose it if you had a network card installed and functioning (and had no local mirror). There are a number of mirrors to choose from, and even an option to probe for the closest (network-wise) mirror to you (recommended for faster network installations).
Item two allows you to choose your own custom repositories, like a local cAos mirror on your LAN (for very fast network installs).
Item three allows you to exit without selecting a mirror, in which case all packages will be installed from the repository located on the CD-ROM (nice for unsupported network cards that will be supported on first boot).

stage1 main menu

After selecting your mirror, the stage 1 menu appears again with a new default:

```
=> 4. Done. Pivot into stage2
```

Since options five (”Drop to shell”) and six (”Exit and reboot”) are for expert users and troubleshooting, choose the default option and go on to ”stage2” of the install.

cinch Stage2 Main Menu

After two screens (”Stage2 Retrieval” and ”Pivot into Stage2”) go by with no need for user input, the ”cinch Stage2 Main Menu” appears with these options:

```
=> 1. Configure and install system
   2. Minimal shell
   3. Reboot
```

Since options two (”Minimal shell”) and three (”Reboot”) are for expert users and troubleshooting, choose the default option and go on to configure and install cAos linux.

Installation and Configuration menu

After selecting your mirror, the stage 2 menu appears for the first time:

```
=> 1. Configure local disk(s)
   2. Select package repository
   3. Select package groups
   4. Install packages
   5. Post install configuration
   6. Installation and configuration complete
   7. Drop to shell

[1] >
```

If you don’t know for certain that your local disks are configured (partitioned and formatted) correctly and prepared for cAos to be installed, select the default, option one.

Disk Configuration

On the ”Disk Configuration” screen the choices are:

```
=> 1. Assisted workstation configuration (/boot, /, swap, and /home)
   2. Assisted server configuration (/boot, /, swap, /usr, /tmp, var,
      /var/cache, /var/log)
   3. Manual (uses fdisk manually)
   4. Back to main menu

[1] >
```

Here cinch offers some nice automated assistance for those unfamiliar with disk partitioning, or just want to save time, with options one and two. Those who desire more flexibility can choose option three and use ”fdisk” to handle the task manually.

Assisted Disk Configuration

If ”Assisted workstation configuration” was chosen, the following will appear on the screen (the partitions and numbers are an example using a simple configuration):

```
Select a disk to wipe out and partition:

=> hda  4096MB

[hda] >
```

where the ″=¿″ indicator is to the left of the default partion. Type in the partition you wish to choose, or press the ″Enter″ key to accept the default. When you have chosen, the ″Configuring: hda″ screen (following the above example) will appear:

```
The default patition layout is /boot. /, swap, /home in that order. /home
will be given what ever is left over after configuring the other 3 partitions

Select the size of each partition in megabytes (autoconfigured defaults
shown):

/boot      [256] >
/          [2048] >
swap       [123] >
/home      [1669] >
```

allowing you to accept the defaults or modify the automatic configuration choices. After all choices have been made, a short message appears:

```
Paritioning...
```

and then Cinch moves on to the ″Build New File System″ screen.

Assisted General Server Disk Configuration

If ″Assisted server configuration″ was chosen, the following will appear on the screen (the partitions and numbers are an example using a simple configuration):

```
Select a disk to wipe out and partition:

=> hda  10048MB

[hda] >
```

where the ″=¿″ indicator is to the left of the default partion. Type in the partition you wish to choose, or press the ″Enter″ key to accept the default. When you have chosen, the ″Configuring: hda″ screen (following the above example) will appear:

```
The default patition layout is /boot. /, swap, /usr, /tmp, /var, /var/cache.
and /var/log in that order. Left over space will be unassigned.

Select the size of each partition in megabytes (autoconfigured defaults
shown):

/boot      [256] >
/          [2048] >
swap       [123] >
/usr       [2568] >
/tmp       [1024] >
/var       [1024] >
/var/cache [1024] >
/var/log   [512] >
```

allowing you to accept the defaults or modify the automatic configuration choices. After all choices have been made, a short message appears:

```
Paritioning...
```

and then Cinch moves on to the ″Build New File System″ screen.

Disk Partitioning

On this screen is a list of partitions currently on disk and this menu (a simple Linux install used as an example):

```
Here is a list of the current disk partitions:

* hda (4096 MB)
   \_hda1          100 MB        Linux
   \_hda2          256 MB        Linux swap
   \_hda3          3644 MB       Linux

Do you wish to modify the above list using 'fdisk'?

1. yes
2. no / continue

>
```

If you select "1" or "y" you will ask to specify which disk you wish to partition. You can designate a disk by its /dev/ directory filename (hda, sda, or what have you). Once you have entered a disk the installer sends you into 'fdisk' as if you had typed:

```
fdisk /dev/[what-you-entered]
```

at a shell prompt. If you need help with fdisk please look at the man page for fdisk or places on the web like:

`http://www.doc.ic.ac.uk/lab/labman/lookup-man.cgi?fdisk(8)`

After you have modified the disk partitions to your satisfaction write them to disk and select "2" or "n" when asked to repartition to go on to the "Mount Points" screen.

Mount Points

This next screen asks you to map your disk partitions to their corresponding mount point in the files system. Each partition will need a mount point and a file system. For example, a simple configuration (root and swap partitions) would enter this at the prompts:

```
For each of the found partitions, specify the mount point in the system:

 note:
   - 'none' will skip the current partition
   - /boot should exist on ext2 or ext3 due to a bug in grub

/dev/hda1           101 MB
   \_ mount point> /boot
   \_ file system> ext3
   \_ format>      y

/dev/hda2           251 MB
   \_ Configuring as Swap

/dev/hda3           9883 MB
   \_ mount point> /
   \_ file system> xfs
   \_ format>      y
```

NOTE: because of a bug in 'grub', the '/boot' partition (or the '/' partition if a '/boot' partition does not exist) must be either 'ext2' or 'ext3' and not 'xfs'.
If you want 'xfs' to work with 'grub', please support your local grub development team with bug reports and by documenting specific failure modes so that all grub users may benefit. Thank you ever so much.

Confirming Partition Configuration

From the mapping you have just done, the computers /etc/fstab file will be constructed and you are asked to confirm that the information contained in it is correct:

```
These are the filesystems that will be created:

   /dev/hda1    /boot   ext3
   /dev/hda2    none    swap
   /dev/hda3    /       xfs

Are you satisfied with the above configuration?

=> 1. yes
   2. no

[yes] >
```

Inspect the fstab entries and type ”2” or ”n” if you need to go back and change something, or ”1” or ”y” to move on to the ”Build New File System” screen.

Building New File System

After partitioning is complete, the informational ”Building New File System” screen appears for your inspection:

```
Creating ext3  on /dev/hda1
Creating xfs on /dev/hda2
Creating swap on /dev/hda3
Creating xfs on /dev/hda5

Mounting File systems:
   /dev/hda2 at /newroot/
   /dev/hda1 at /newroot/boot
   /dev/hda5 at /newroot/home
   /dev/hda3 as swap
```

NOTE: To see the output of ’mke2fs’ and ’mkswap’ for each partition, change to virtual terminal three (vt3, press the Alt+F3 key combination to get there). Change back to vt1 (Alt+F1) to see the installation menu again. Syslog information is available on vt4 (Alt+F4).
To continue installing, follow the instructions when they appear at the bottom of the screen:

```
Press [ENTER] to continue...
```

to move on, in this case back to the ”Installation and Configuration menu” screen.

Installation and Configuration menu

After configuring you local disk, the stage 2 menu appears again with a new default:

```
   1. Configure local disk(s)
=> 2. Select package repository
   3. Select package groups
   4. Install packages
   5. Post install configuration
   6. Installation and configuration complete
```

```
   7. Drop to shell

[2] >
```

Select the default, option ”2”, to continue.

cAos Repository Selection

This screen describes the different cAos repositories and allows you to choose one to augment the packages available on CDROM (if you are using the CDROM installation):

```
Which cAos network repository do you wish to install from?

=> 1. chilled - Package of the lowest known 'safe' versions (good for servers)
   2. certified - Most recent packages which have gone through QA testing
   3. crazy - This includes the newest untested packages. DEVELOPERS ONLY!!!
   4. none - Just install using the packages on this CDROM

[1] >
```

Choose the default to be safe, or select a choice that serves your purposes best. After choosing you will return to the ”Installation and Configuration menu”.

Installation and Configuration menu

After configuring you local disk, the stage 2 menu appears again with a new default:

```
   1. Configure local disk(s)
   2. Select package repository
=> 3. Select package groups
   4. Install packages
   5. Post install configuration
   6. Installation and configuration complete
   7. Drop to shell

[3] >
```

Select the default, option ”3”, to continue on to the ”Select Package Groups For Installation” screen.

Select Package Groups For Installation

A series of screens will appear, each with a package group name, description, and a prompt for a ”y” or ”n” (and defaulting to one of the two). All package groups selected for installation are in addition to the ”core” group of packages (to install the smallest number of packages, answer ”n” at all prompts):

```
(base): Base Utilties

   This should almost always be installed. It contains packages that are
   commonly used on a standard Unix/Linux system.

   note: This is NOT the specification for the core group itself.

[y] >
```

The default is ”y”, and it is recommended to install this unless you desire a very ”stripped down” installation.

```
(network): Network Utilties

   Install this if you plan on using this system on a network. It contains
   packages like openssh, ncftp, wget, etc...

[y] >
```

The default is ”y”, and it is recommended to install this unless this computer will not be connected to a network.

```
(desktop gnome x multimedia): Desktop Applications

   This will install a working X and Gnome desktop. Select this if you are
   planning on using this system as a desktop or you require GUI application
   support.

[y] >
```

The default is ”y”, and it is recommended to install this unless this computer will be operated via command line interface only.

```
(devel): Development tools and libraries

   Selecting this will installa core development environment on your system.
   This should be installed if you plan on compiling any packages from source.

[n] >
```

The default is ”n”, but it is recommended to install this if you plan to do any software development on this computer.

```
(server): General Server Packages

   This will install packages like VSFTPD, Apache, Samba, etc... Select this
   if you will be using this system as a server and would like a general server
   installation.

[n] >
```

The default is ”n”, and it is recommended to only install this package if you plan to use this computer as a general server.

```
(clustering): Clustering/HPC

   Installing this will install cluster type development tools and the
   Warewulf cluster toolkit.

[n] >
```

The default is ”n”, but it is recommended to install this if you plan to do any cluster or high performance computing software development on this computer.
After all of these questions have been answered, a list of package groups chosen for installation will appear:

```
The following package groups are marked for installation:

Core
Base Utilities
```

```
  Network Utilities
  Desktop Utilities

  Press [Enter] to continure...
```

This list is what is chosen if one follows all the defaults. Press the ”Enter” key to return to the ”Installation and Configuration menu” screen.

Installation and Configuration menu

After choosing package groups, the stage 2 menu appears again with a new default:

```
     1. Configure local disk(s)
     2. Select package repository
     3. Select package groups
  => 4. Install packages
     5. Post install configuration
     6. Installation and configuration complete
     7. Drop to shell

  [4] >
```

Select the default, option ”4”, to continue on to the ”Building Default File System Configuration” screen.

Building Default File System Configuration

This screen displays output from cinch as it creates the base file system,

```
  Creating default system file structure
     directory paths
     mounting /mnt/cdrom (/dev/hdc)
     creating default files
        some generic files
        /etc/modules.conf
        /etc/sysconfig/network-scripts/ifcfg-*
        /etc/resolv.conf
        /etc/fstab
        /etc/grub.conf
        /etc/yum.conf
        /boot/grub/grub.conf -> /etc/grub.conf
        /boot/grub/device.map
        /etc/sysconfig/network
        /etc/sysconfig/network-scripts/examples
        /etc/hosts
```

then displays:

```
  Press [ENTER] to continue...
```

so press the ”Enter” key to move on to the ”Beginning YUM Installation” screen.

Beginning YUM Installation

The first line displayed on this screen is:

```
Doing base system install...
```

followed by 'yum' output as it copies all the RPM package header files from the CDROM cAos repository. After gathering these it examines them and determines whether it needs to add any other packages to the pile it must copy to satisfy dependencies when installing the base system.
When "yum" is satisfied that it knows what packages to copy, it begins copying the RPM software package files. This will take a while, depending on the speed of your CDROM and/or computer.
After all RPMs have been copied they will be installed. This will take a while, but is dependent on the speed of the install computer's hardware (processor, bus, disks).
The last few lines displayed on this screen will be:

```
System has been installed...

Press [ENTER] to continue...
```

so press the "Enter" key to return to the "Installation and Configuration menu" screen.

Installation and Configuration menu

After installing packages, the stage 2 menu appears again with a new default:

```
   1. Configure local disk(s)
   2. Select package repository
   3. Select package groups
   4. Install packages
=> 5. Post install configuration
   6. Installation and configuration complete
   7. Drop to shell

[5] >
```

Select the default, option "5", to continue on to the "Installing bootloader" screen.

Installing bootloader

This screen prompts you with:

```
Installing the bootloader...

What device do you want to install the bootloader on? [/dev/hda]

>
```

with the square brackets around the suggested default. Enter the device you want the bootloader installed to, or press the "Enter" key to accept the default value.
You will see a positive message if everything went well, and "grub-install" output is displayed on vt3 (Alt+F3) for interested parties. After the bootloader completes installation successfully, cinch will move on to the "Password Configuration" screen.

Password Configuration

Next you will prompted to change (and confirm) the root password:

```
Creating /etc/shadow

Setting Default root password
Changing password for user root.
New UNIX password:
Retype new UNIX password:
```

If all goes well you will see this output:

```
passwd: all authentication tokens updated successfully.
```

The installation will then continue on to the next screen.

X Configuration

This screen prompts you with:

```
Do you wish to configure X at this time? [1]

1) yes
2) no

>
```

if you have installed the X Windows package group. The default is ”1” (yes), but you can run the ”Xconfigurator” program (in the /usr/X11R6/bin/ directory) at a later time if you wish to put off X configuration.
When you exit ”Xconfigurator”, or if you choose not to use it during installation, you will return once again to the ”Installation and Configuration menu” screen.

Installation and Configuration menu

After post installation configuration tasks, the stage 2 menu appears again with a new default:

```
    1. Configure local disk(s)
    2. Select package repository
    3. Select package groups
    4. Install packages
    5. Post install configuration
=> 6. Installation and configuration complete
    7. Drop to shell

[5] >
```

Select the default, option ”6”, to return to the ”cinch Stage2 Main Menu” screen.

cinch Stage2 Main Menu

Now that configuration and installation is complete, this menu reappears with a new default:

```
   1. Configure and install system
   2. Minimal shell
=> 3. Reboot

[3] >
```

so choose ”3” or press return to reboot the newly installed cAos system. Before rebooting, there is one more screen.

Unmounting Filesystems

This screen prompts you with:

```
Unmounting CDROM

Unmounting /newroot/proc/bus/usb
Unmounting /newroot//proc
Unmounting /newroot/boot
Unmounting /newroot/

Don’t forget to remove the CDROM from the drive!

Press [ENTER] to continue...
```

so remove the CDROM and press the ”Enter” key.

First Boot

On reboot, grub loads and provides a:

```
cAos: Community Linux release 1.0 (Yoda) (2.4.25-6.caos)
```

and a nice graphical cAos symbol and URL background.
Press the ”Enter” key to continue (or wait the 10 seconds for grub to timeout and continue automatically) and watch the kernel and system initialization messages scroll across the screen.
At the end you will see a caos login prompt:

```
cAos: Community Linux release 1.0 (Yoda)
localhost login:
```

Login and have fun.

Installing Additional Packages

After login, you can install additional packages with ’yum’, but you will have to reconfigure it first because the CD cinch install sets the yum software package repository to the CDROM drive. If you have networking set up, and an internet connection, edit ’/etc/yum.conf’ so that it contains this:

```
[main]
cachedir=/var/cache/yum
debuglevel=2
logfile=/var/log/yum.log
pkgpolicy=newest
distroverpkg=caos-release
installonlypkgs=linux linux-smp kernel kernel-smp
```

```
#[core]
#name=cAos CDROM - core
#baseurl=file:///mnt/cdrom/cAos-1//i386

[net_certified]
name=cAos certified
baseurl=http://mirror.caosity.org/cAos-1/certified/i386

#[net_crazy]
#name=cAos crazy
#baseurl=http://mirror.caosity.org/cAos-1/crazy/i386
```

and save the file. Uncomment the ”crazy” stanza if you want to have access to new and untested packages via 'yum'. Then try a few 'yum' commands:

```
$ yum update
$ yum install gnome
$ yum install openssh-server
$ yum install warewulf
$ yum --installroot /vnfs/warewulf install warewulf-node
```

and use it to keep your cAos Linux system updated with the latest versions of software packages (and other fun things):

```
$ yum check-update
$ yum -y update
$ yum update 'openssh*'
$ yum search 'openssh*'
$ yum info 'openssh*'
```

NOTE: yum is capable of using wildcard characters when searching for packages, but the patterns should be protected from the shell: put single quotes (') around them. Also make note that the example about uses 'update', not 'upgrade' (because 'upgrade' is deprecated).
NOTE: To finish the gnome (and XFree86) installation in the example above you will have to execute some configuration commands for X (for now):

```
$ xf86config
```

or you can try this (but it may fail):

```
$ X -configure
$ mv /root/XF86Config.new /etc/X11/XF86Config
```

and then start up X windows:

```
$ startx
```

and hopefully you will have a functional (if sparse) gnome desktop environment.
For more information about 'yum', use the 'man yum' command and look at these articles:

`http://www.phy.duke.edu/~rgb/General/yum_article/yum_article/`
`http://www.phy.duke.edu/~rgb/General/yum_HOWTO/yum_HOWTO/`

Other Documents and Formats

There is at least one other document explaining the installation of cAos with cinch, and that is located here:

```
ftp://ftp.owlriver.com/pub/local/ORC/buildfarm/cinch-README.txt
```

There are also other formats available for this document:

```
isoinstall.pdf
isoinstall.ps
isoinstall.tex
isoinstall.dvi
```

And there is the cinch floppy installation document located here:

```
http://mirror.caosity.org/cAos-1/docs/install/
```