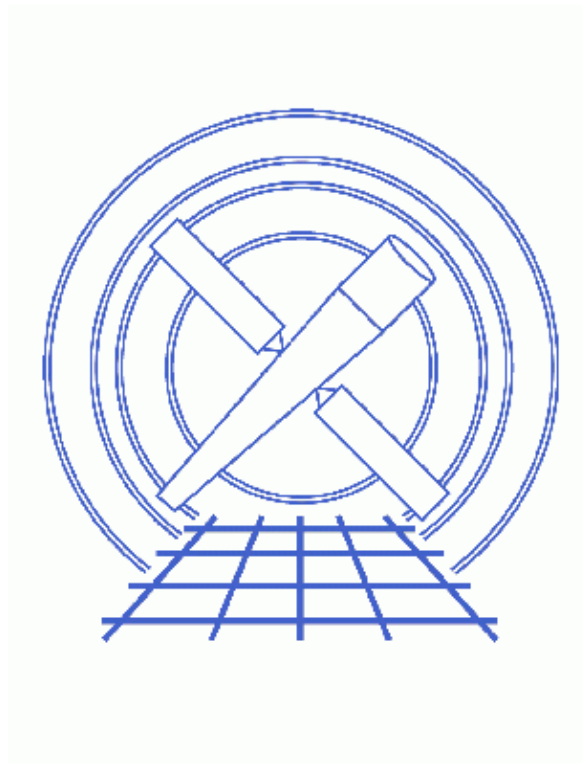


# Starting CIAO



## ***CIAO 3.4 Science Threads***

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# Starting CIAO

## *CIAO 3.4 Science Threads*

### Overview

**Last Update:** 1 Dec 2006 – updated for CIAO 3.4: CIAO version; changed `asphist` example to `dmgti` example

#### *Synopsis:*

We describe below how to call the configuration file (which sets up the necessary environment for CIAO) for the cases when you have CIAO 3.4 only or both CIAO 3.3.0.1 and CIAO 3.4 installed on your system. We also discuss how to restart CIAO 3.4 and start FTOOLS and CIAO so that they can be used together.

*Proceed to the [HTML](#) or [hardcopy \(PDF: \[A4\]\(#\) / \[letter\]\(#\)\)](#) version of the thread.*

## Running CIAO 3.4

If you have run earlier versions of CIAO, we suggest that you first remove some of the files that may have been placed in your home directory. These files include: `.cxc.ds.csh`, `.cxc.ds.sh`, `.sm.cxc.ds`, and `.bak` versions of these files. If you have not changed your `.CXCdefaults` file then you can also delete this file (and its backup). It is also safest if you remove all your parameter files, since there have been some changes since CIAO 3.3.0.1 (*remember to reset the parameters that are important to your analysis*, such as those in `ardlib.par`).

To use the CIAO software, you must first run a setup script. If you do not have an alias set up for this, we suggest the following (replace the string `/soft/ciao` by the location of the CIAO software on your system; see [this FAQ](#) if you do not know which shell you are using):

- `csh/tcsh` users should add the following to their `$HOME/.cshrc` file.

```
alias ciao "source /soft/ciao/bin/ciao.csh"
```

- `bash` users should add the following to their `$HOME/.login` file.

```
alias ciao=". /soft/ciao/bin/ciao.bash"
```

- `ksh` users should add the following to their `$HOME/.login` file.

```
alias ciao=". /soft/ciao/bin/ciao.ksh"
```

Then, when you wish to use CIAO, you can just type "ciao", which produces:

```
unix% ciao
CIAO configuration is complete...
CIAO version      : CIAO 3.4 Sunday, November 19, 2006
Proposal Toolkit version : Cycle 9 Sunday, November 19, 2006
bin dir          : /soft/ciao/bin
```

It is only necessary to do this once per terminal/window.

---

## Restarting CIAO 3.4

The startup script will not allow you to restart CIAO in a session, instead reporting the following:

```
unix% ciao
ERROR: The current environment is configured for:
CIAO version      : CIAO 3.4 Sunday, November 5, 2006
Proposal Toolkit version : Cycle 9 Sunday, November 5, 2006
bin dir           : /soft/ciao/bin
Please use the '-o' option to override the previous setup.
```

If you wish to restart CIAO – perhaps because you have changed the configuration – then you should either start CIAO in a different window or use the override option. If you do *not* use the bourne shell then you can use the "-o" option:

```
unix% ciao -o
CIAO configuration is complete...
The CIAO setup for this window has changed from
CIAO version      : CIAO 3.4 Sunday, November 19, 2006
Proposal Toolkit version : Cycle 9 Sunday, November 19, 2006
bin dir           : /soft/ciao/bin
To:
CIAO version      : CIAO 3.4 Sunday, November 19, 2006
Proposal Toolkit version : Cycle 9 Sunday, November 19, 2006
bin dir           : /soft/ciao/bin
```

In the bourne shell you have to set the ASCDS\_OVERRIDE variable to 1 before "dotting" the script:

```
unix% ASCDS_OVERRIDE=1
unix% ./soft/ciao/bin/ciao.ksh
CIAO configuration is complete...
The CIAO setup for this window has changed from
CIAO version      : CIAO 3.4 Sunday, November 19, 2006
Proposal Toolkit version : Cycle 9 Sunday, November 19, 2006
bin dir           : /soft/ciao/bin
To:
CIAO version      : CIAO 3.4 Sunday, November 19, 2006
Proposal Toolkit version : Cycle 9 Sunday, November 19, 2006
bin dir           : /soft/ciao/bin
```

---

## Switching between CIAO 3.3.0.1 and CIAO 3.4

The only major concern if you wish to switch between different version of CIAO is the location of your parameter files, since there are some differences between most versions. We suggest that you have two directories and change the \$PFILES variable to point to the correct one. For example, assuming CIAO 3.3.0.1 is installed in /soft/ciao3.3.0.1 and CIAO 3.4 in /soft/ciao:

```
unix% alias oldciao 'source /soft/ciao3.3.0.1/bin/ciao.csh'
unix% oldciao
CIAO configuration is complete...
CIAO version      : CIAO 3.3 Wednesday, November 16, 2005
Proposal Toolkit version : Cycle 8 Wednesday, November 16, 2005
bin dir           : /soft/ciao/bin

unix% echo $PFILES
```

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```
/home/username/cxcds_param;/soft/ciao3.3.0.1/param
unix% mkdir $HOME/cxcds_param3.3.0.1
unix% setenv PFILES "/home/username/cxcds_param3.3.0.1;/soft/ciao3.3.0.1/param"

unix% punlearn dmgti
unix% plist dmgti

Parameters for /home/username/cxcds_param3.3.0.1/param/dmgti.par

    infile =                Input MTL file
    outfile =               Output GTI file
    userlimit =             User defined limit string
    (mtlfile = none)       Optional output smoothed/filtered MTL file
    (lkupfile = none)     Lookup table defining which MTL columns to check against (NONE)
    (smooth = yes)        Smooth the input MTL data?
    (kernel = default)    Data Model creation/copy kernel
    (clobber = no)        Clobber output file if it exists?
    (verbose = 0)         Debug level
    (mode = ql)
```

and in a *different* window, using the suggested alias to start CIAO 3.4:

```
unix% ciao
CIAO configuration is complete...
CIAO version      : CIAO 3.4 Sunday, November 19, 2006
Proposal Toolkit version : Cycle 9 Sunday, November 19, 2006
bin dir          : /soft/ciao/bin

unix% echo $PFILES
/home/username/cxcds_param;/soft/ciao/param

unix% punlearn dmgti
unix% plist dmgti

Parameters for /home/username/cxcds_param/asphist.par

    infile =                Input MTL file
    outfile =               Output GTI file
    userlimit =             User defined limit string
    (mtlfile = none)       Optional output smoothed/filtered MTL file
    (lkupfile = none)     Lookup table defining which MTL columns to check against (NONE)
    (smooth = yes)        Smooth the input MTL data?
    (clobber = no)        Clobber output file if it exists?
    (verbose = 0)         Debug level
    (mode = ql)
```

In this case, the `kernel` parameter has been removed from the CIAO 3.4 version of the help file. You can also see that the information is being read from two separate locations. If you do follow this scheme, you may wish to set up a "CIAO 3.3.0.1"; alias to perform the renaming automatically (this is for `cs`h/`tc`sh users):

```
alias oldciao 'source /soft/ciao3.3.0.1/bin/ciao.csh \!*; setenv PFILES "$HOME/cxcds_param3.3.0.1/param'; punlearn dmgti; plist dmgti'
```

This alias sources the startup script – passing along any command–line options you may supply – then changes the `$PFILES` environment variable to point to the correct parameter directory for CIAO 3.3.0.1 and ensures that said directory exists. The `ciao` alias can remain untouched since we use the default parameter directory for CIAO 3.4 in this example.

---

## Configuring CIAO

The CIAO configuration process no longer *requires* that you have any CIAO configuration files in your home directory, nor will the setup script write anything to your home directory during execution. If, however, you

## Starting CIAO – CIAO 3.4

would like a custom configuration (e.g., to change your `PFILES` environment variable if you want to store your parameter files in a different location) then you may copy the relevant setup script (e.g., `ciao.csh`, `ciao.ksh`, `ciao.bash` or `ciao.sh` as given above) to your home directory, make the changes you require, and use that copy instead.

Similarly, you no longer *need* the CIAO X resources file (`.CXCdefaults`) in your home directory, since the CIAO GUIs will use the copy in the installation directory if there is no local copy. If you wish to customize the settings – as this file is used to configure the appearance of the GUI applications – simply

```
unix% cp $ASCDS_INSTALL/config/system/CXCdefaults ~/.CXCdefaults
```

and edit your copy (`$ASCDS_INSTALL` is set up by the configuration script and contains the installation directory of CIAO).

---

## CIAO and FTOOLS

Both CIAO and FTOOLS use parameter files to store parameter values for tools, and provide tools for manipulating these files (e.g. plist, pset, punlearn; they have the same name in both systems). The location of the parameter files is taken from the `$PFILES` environment variables for CIAO and FTOOLS.

*We recommend that you start FTOOLS before CIAO.* Here is an example of starting version 6.x of FTOOLS and CIAO 3.4:

```
unix% setenv HEADAS /soft/lheasoft/headas/sparc-sun-solaris2.8; \  
source $HEADAS/headas-init.csh  
  
unix% ciao  
CIAO configuration is complete...  
CIAO version      : CIAO 3.4 Sunday, November 19, 2006  
Proposal Toolkit version : Cycle 9 Sunday, November 19, 2006  
bin dir           : /soft/ciao/bin
```

Change the `HEADAS` path to match your local installation. Note this syntax applies only to C Shell variants (`csh`, `tcsh`); for further details on starting FTOOLS, including other shells, refer to the Installing HEASoft instructions.

The `$PFILES` variable has been set up to use both the CIAO and FTOOLS directories:

```
unix% echo $PFILES  
/home/username/cxcds_param:/home/username/pfiles;/soft/ciao/contrib/param:  
/soft/ciao/param:/soft/lheasoft/headas/sparc-sun-solaris2.8/syspfiles
```

---

## Caveat: Conflicts with Other Software Packages

There are some known conflicts between CIAO and other software or system libraries and tools. Be sure to read the "Other Software Packages" bug page for a list of these issues.

## History

- 04 Jan 2005 updated for CIAO 3.2: version numbers; minor change to `asphist` parameter file
- 20 Jun 2005 CIAO 3.2.2 patch: change to `asphist` parameter file
- 28 Jul 2005 added Caveat: CIAO and and IDL (Mac OS X only) section
- 23 Aug 2005 renamed "Caveat: CIAO and and IDL (Mac OS X only)" section to "Caveat: Conflicts with Other Software Packages".
- 01 Dec 2005 updated for CIAO 3.3: version numbers
- 01 Dec 2005 CIAO and FTOOLS section updated for FTOOLS 6.x
- 01 Dec 2006 updated for CIAO 3.4: CIAO version; changed `asphist` example to `dmgti` example

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URL: [http://cxc.harvard.edu/ciao/threads/ciao\\_startup/](http://cxc.harvard.edu/ciao/threads/ciao_startup/)

Last modified: 1 Dec 2006

