URL: http://cxc.harvard.edu/ciao3.4/survey/responses/ciaoeasier.html
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Tasks users cannot easily do now in CIAO

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9 − more timing analysis

10 − fluxes, interactively

12 − I mostly use CIAO to reduce data.  For analysis, I tend to use
     IDL, mostly because canned tasks have very limited use to me.

13 − Doing spectroscopy of extended sources in ACIS can be tricky.
     Exposure correction is slow and cumbersome.

18 − Better support for lightcurves, new gtis, etc....

19 − 1) Easily append ascii data into existing fits tables; something
     like fcreate + dmpaste

     2) Use regions in ds9 region format

21 − Expand dmimgthresh to be able to crop high values as well as low ones.

     Define multiple user models within sherpa.

     Define elliptical annuli in the same way as circular ones, i.e. with
     a single region.

23 − Some of the timing analysis software present in IRAF/PROS is not
     available in CIAO, e.g. "vartst" and "period".  Also, Sherpa
     lacks some of the functionality of XSPEC.  Particularly,
     Sherpa cannot accept a multiplicative or additive model (the XSPEC
     functions "mtable" and "atable"), which are necessary for some data
     analysis.

     These are not critical problems; overall CIAO is extremely useful.

24 − Most things with CIAO are fine, but I would really like to be
     able to do PSF photometry.  I'd also like added functionality in ds9.

27 − It's not about what I would like to be able to do. My issue with CIAO
     is that a patch should be made available immediately if/when bugs are
     identified.

31 − Custom models in SHERPA
     Nice plots in CHIPS

33 − Scriptable access to the Chandra archive would be nice.

35 − I said "yes" but the timing tools need to be improved.

38 − look into the examples in the ahelp files and be able
     to USE them. Many times they simply do not work because
     the syntax is either old or wrong.
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40 − I would like to make timing analysis more quickly and more efficiently.

43 − phased lightcurves
visualize standard gti filtering components as strip−charts

47 − Spectral/imaging analysis of spatially extended sources in CIAO is rudimentary.
For Chandra galaxy and cluster data, tools on the order of IRAF's photometry and
shape analysis set are more appropriate.

Deprojection analysis for extended sources (T(r) for example).

59 − create plots including contour plots to visualize the process of data analysis

64 − Source−searching which takes into account the PSF through matched
filter techniques so that one gets accurate positions out of tools
like wavdetect.

67 − It should have a better library of other astronomy tasks and
tasks should be embedded in a programming (scripting) language that
allows ready passing of results between routines. Embedding s−lang in
ciao helps but there isn't a library as there is in IDL.

71 − Upper limits
Easy flux calculation

72 − better integration between ciao and marx

75 − Easily extract broadband flux estimates

81 − I would like sherpa to have improved line fitting abilities
including routines for photo−ionized plasmas

I would like to see many more threads about fitting spectra
(including continuum fits, line fits) of various sources. In my work I
find there are many difficult and unresolved questions about this.

82 − Tools which specifically target spectra and variability for sources
on multiple obsids.

Scripts for batch mode processing and analysis of greater than hundreds of sources

83 − masking of the image (e.g. exclusion of the point source regions from an exposure map)

84 − interface with IDL/Mathematica, allow other analysis software to use CIAO routines.

90 − Data preparation is unclear. There needs to be one "go−to" up−to−date
manual that spells out things. The manual pages as they are now are
disjointed and confusing about what needs to be done.

99 − The threads are a wonderful idea, but in some places are not
written well. When I hit a wall with the threads, scientists often do
not have the time or interest in helping, which makes that particular
thread useless.

100 − scriptability for many parallel analyses
explanations in the threads of what we're doing and why

102 − It's not that it cannot do it. It is that there is no way to
check that it does it correctly.

103 − 1. calculate flux in sherpa without a model (with pha and arf files)
2. model the acis background in sherpa
3. easily input table models into sherpa

104 − The comments on how to use the software are unsufficient for inexperient users.

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      And when one has finally managed to use a routine, for example fullgarf,
      one then has no idea on what to do with the output files. Quite frustrating.

108 − CIAO is great for getting data processed to the
      analysis point and for low resolution spectra − ACIS only − using
      Sherpa, and for lightcurves. For other analysis I prefer to use IDL

109 − Things which I do outside of CIAO (probably are others, but these were
      the ones that come to mind):
      1) Spectral analysis − I prefer XSPEC, which I find is more reliable
      2) Removing BG flares − easier to do outside of CIAO
      3) READOUT artifact correction for whole chip − no way to do within
         CIAO
      4) Temperature mapping

112 − Fit arbitrary two dimensional models, including links
      between the parameters of different dimensions.

113 − X−ray light curves of zero−order and first−order detected events.

115 − just about everything, ciao is a real piece of crap

117 − I would like to be able to get goodness of fit estimates in Sherpa for
      statistics other than Chips.

      I would like to be able to adaptively smooth large images.

118 − check if a source is a point−like.
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