



Software Survey Results

Presented here are the results from the CXC Software User Survey conducted in March 2003. Each of 108 anonymous respondents was assigned a number in order to correlate answers within the survey. Note that a set of numbers was skipped in this process, resulting in comments being numbered up to "126"; this error in no way affects the survey results.

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User Information

Total number of respondents: 108

How they described themselves:

- Undergraduate Student: 2
- Graduate Student: 21
- Post-doctoral Researcher: 23
- Astronomer who occasionally works in X-Rays: 3
- X-Ray Astronomer: 39
- Other: 20 ([List](#))

Level of experience with scientific analysis software:

- New User: 8
 - Occasional User: 11
 - Regular User: 46
 - Expert User: 36
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CIAO Tools and Applications

What kinds of CIAO analysis tasks do you perform most often?

	Never	Rarely	Sometimes	Often	Always
ACIS Imaging Spatial	10	9	21	22	34
HRC Imaging Spatial	51	19	12	3	0
ACIS Imaging Spectral	8	6	16	36	32
ACIS HETG Grating Spectral	34	11	19	20	11
ACIS LETG Grating Spectral	45	15	14	10	2
HRC LETG Grating Spectral	55	8	12	11	2
ACIS Timing	43	19	16	8	3
HRC Timing	63	10	7	4	1

Can you easily perform these tasks using CIAO?

- Yes: 52
- Sometimes: 46
- No: 5

Responses: Tasks users cannot easily do now.

How often do you use the following CIAO command-line tools, scripts, or applications?

	Never	Rarely	Sometimes	Often	Always
ahelp	2	6	28	47	16
chips	29	18	22	19	6
csmooth	33	16	20	18	6
detecttools	47	13	11	14	9

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dmcopv	3	2	12	41	41
dmfilth	50	17	18	3	1
dmgroup	29	16	22	14	11
dmimg2jpg	46	18	14	10	3
dmlist	8	9	18	28	35
firstlook	66	14	6	7	0
lightcurve	24	14	28	21	9
mkgrmf	35	14	22	17	8
mkpsf	43	22	16	10	0
prism	42	14	15	18	5
psextract	29	15	19	17	15
sherpa	33	14	21	16	13
s-lang as embedded in CIAO	37	21	21	9	3

Responses: Other command-line tools used often.

These responses have also been collected into the following table:

Tool	Number of Votes
dmextract	16
mkrmf	11
acis_process_events	11
mkarf	9
ftools	6
dmhedit	5
mkwarf	5
detect tools	4
mkexpmap	4
Isis	4

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mkgarf	4
dmstat	4
Three votes each: destreak, dmimgcalc, dmregrid, fullgarf, merge_all, mkinstmap, tgextract, tg_resolve_events, s-lang embedded in Isis	
Two votes each: acisreadcorr, apply_acisabs, dmcoords, dmmerge	
One vote each: acis_set_arplib, acisspec, asphist, dmkeypar, hrc_process_events, mkeypar, plist, pset, reproject_events, xspec	

How often do you use the following packages to analyze Chandra data?

	Never	Rarely	Sometimes	Often	Always
External (<u>List</u>)	24	1	9	15	19
FTOOLS (<u>List</u>)	9	13	18	23	14
IDL	29	4	11	15	32
IRAF	52	19	11	2	0
ISIS	43	12	5	11	13
PINTofALE	69	5	2	2	6
PROS	69	10	6	0	0
SPEX	73	10	2	0	0
XMMSAS	63	12	3	2	2
XRONOS	70	8	2	5	0
XSPEC	13	11	21	20	30
Other (<u>List</u>)	14	1	4	10	1

Responses:

- CIAO features users liked best.
 - CIAO features that should be added or improved.
 - CIAO features users liked the least.
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How do you compare using CIAO to other astronomical analysis systems?

	No Opinion	Much More Difficult	Somewhat More Difficult	About Equal	Somewhat Easier	Much Easier
CIAO vs. other systems	8	4	14	39	24	10

Responses: Features that make other data analysis packages easier to use than CIAO.

CIAO Documentation

Do you read any of the following CIAO documents?

	Never	Rarely	Sometimes	Often	Always
Ahelp Pages	1	4	31	45	19
Analysis Guides	15	20	38	23	4
Dictionary	36	34	18	5	2
FAQ	31	28	27	7	3
Manuals	7	21	37	30	5
Threads	1	5	15	40	39
Why? Topics	33	24	21	8	3

How do you rate the following with regard to documentation?

	No Opinion	Poor	Marginal	Satisfactory	Good	Excellent
Completeness	10	4	18	29	34	5
Ease of use	6	4	10	34	37	9
Technical content	8	5	17	38	31	1

Responses:

- CIAO documentation features that users liked best.

- CIAO documentation features which are missing or need improvement.

Image Display Applications

How often do you use the following image display applications? (Free software)

	Never	Rarely	Sometimes	Often	Always
aipsview	81	1	3	2	0
aladin	72	6	7	2	0
ds9	0	1	10	22	66
fitsview / xfitsview	73	4	8	2	0
gaia	77	3	2	2	0
gimp	46	21	11	9	2
karma	79	4	0	1	1
POW (fv)	57	5	15	9	3
saomage	59	14	10	5	2
saotng	68	14	4	1	0
skycat / jskycat	75	7	4	0	0
ximtool	67	13	6	2	1
xv	20	14	29	21	7
Other (<u>List</u>)	25	0	0	10	4

How often do you use the following image display applications? (Commercial software)

	Never	Rarely	Sometimes	Often	Always
idl	25	6	20	9	30
mathematica	61	17	5	5	1
matlab	79	6	0	0	0
photoshop	61	10	12	4	0
Other (<u>List</u>)	28	0	1	5	1

Responses:

- Can you make publication quality images in a journal's desired format?
 - Image display features which are missing.
 - Image display features users like the most.
 - Image display features users like the least.
 - Reasons for using one particular image display application.
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Current and Future Portable Systems

Window Managers / Desktops

Which window manager/desktop do you use now?

Which will you use in the next year?

	Currently	In the next year
CDE (dtwm)	35	28
fvwm	21	18
Gnome/sawfish	23	27
kde/kwm	25	30
OpenLook (olwm/olvwm)	7	7
Other (<u>List</u>)	13	17

Workstations

- **Sun Sparc/Solaris**

Which version of Solaris do you use now?

Which will you use in the next year?

	Currently	In the next year
Solaris 2.6	9	7
Solaris 7	4	2

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Solaris 8	39	31
Solaris 9	1	10
Other (<u>List</u>)	4	3

• **Compaq Alpha / Tru64 Unix**

*Which version of the OS do you use now?
Which will you use in the next year?*

	Currently	In the next year
Compaq Tru64 Unix 4.0f	4	3
Compaq Tru64 Unix 5.0	2	1
Compaq Tru64 Unix 5.1	2	3
Other Tru64 version	0	0
Alpha linux	0	0

PC Systems

• **PC–Linux (x86)**

*Which version of the PC–Linux (x86) OS do you use now?
Which will you use in the next year?*

	Currently	In the next year
Redhat 6.2	19	13
Redhat 8.0	24	42
SuSE 7.x	2	3
SuSE 8.x	2	3
Debian 2.x	9	5
Debian 3.0	8	13
Mandrake 8.x	2	1
Mandrake 9.0	2	3

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Slackware 8.0	1	1
Other (<u>List</u>)	17	11

• **Apple PowerPC (G3–G4)**

Interested in a PowerPC port?

- ◆ Yes: 31
- ◆ No: 22

Which version of the OS do you use now?

Which will you use in the next year?

	Currently	In the next year
Mac OS 10.2	23	31
Linux PPC	0	0

• **Windows XX**

Interested in a Windows port?

- ◆ Yes: 12
- ◆ No: 51

Which version of the OS do you use now?

Which will you use in the next year?

	Currently	In the next year
Windows 2000	7	4
Windows XP Pro	8	10
Other (<u>List</u>)	4	4

Web Browsers

Which browser do you use now?

Which will you use in the next year?

	Currently	In the next year
Netscape Communicator 4.x	49	29
Netscape 6.x	11	15

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Netscape 7.x	23	30
Mozilla 1.x	37	42
Microsoft Internet Explorer 5.x	6	3
Opera 6	2	5
Konqueror 2.2	6	6
Other (<u>List</u>)	11	12

Memory

How much memory do you have available?

How much will you have in the next year?

	Currently	In the next year
<= 128 Mb	7	2
256 Mb	15	11
512 Mb	27	21
1 Gb	35	41
2 Gb	12	17
=> 4 Gb	7	9

Software Installation

What kind of installation do you generally use?

- Individual: 28
- System Manager: 36
- Both: 35

What pieces of software are you generally installing?

- ATOMDB: 44
- CALDB: 70
- CIAO: 78

- NRA: 32

Proposal Tools and Applications

*How often do you use the followin Proposal Tools?
For each, indicate if you use the web or the portable version.*

	Web	Portable	Never	Rarely	Sometimes	Often	Always
Colden	42	6	24	9	17	12	8
Dates	22	4	38	10	10	4	1
EAviwer	13	2	46	6	5	2	0
Obsvis	32	15	22	11	22	9	6
Pimms	52	17	12	5	22	22	18
Precess	25	5	32	10	13	4	3

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URL:
<http://cxc.harvard.edu/ciao3.4/survey/index.html>
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