## nov18-94

## **ADAS Bulletin**

Dr. Jalota has been placing batches of ADAS data and off-line utilisation programs onto the assigned workstations at the various institutions. This note is firstly to explain the documentation and notification procedures we are using.

Documentation is being placed in the /.../adas/ file space under three headings

- 1. *Bulletins:* files named as /../adas/docs/bulletin/<date>.ps where <date> is of the form <month><day>-<year> [eg. **nov18-94** (this bulletin)].
- 2. *Usernotes:* files named as /../adas/docs/usernotes/<library code>/<code name>.ps where <library code> is the associated Fortran library name [eg. adaslib, adas2xx, etc.] and <code name> is the Fortran subroutine name [eg. ssxb, xxsxb etc.]
- 3. *Manual:* files named as /../adas/docs/manual/chap<i>-<nn>.ps where <i> denotes chapter number from the ADAS User Manual and <nn> denotes the subchapter. The manual has been split into these sub-chapters for easy of interrogation.

All these files are 'postscript' files. Use of postscript is convenient since we can embed figures etc. in the documentation.

Bulletins will be issued every two months. They draw attention to new programs and data upgrades placed on your workstation. Also they will be used to communicate interesting developments or experience gained with ADAS.

User notes are issued with new library routines. These are routines which allow access to ADAS data as well as other utilities for use in your own codes. The usernote name identifies the location of the Fortran executable module library and the note itself gives the purpose and usage. This is by reproducing in the user note the 'header information' from the routine which lists calling parameters etc. We shall not be making the source Fortran accessible, but just the object modules and executables. The usernotes will also be assembled in the ADAS manual as an appendix.

At this time, the following codes have been put in place:

code ssxb xxssxb spec xxspec sszd	<u>location</u> adas5xx adas5xx adas5xx adas5xx adas5xx	<u>purpose</u> extracts ionisation per photon coefficients allows change of default file names extracts photon emissivity coefficients allows change of default file names extracts state resolved zero density electron impact ionisation rate coefficients
xxsszd spzd xxspzd sbms xxsbms	adas5xx adas5xx adas5xx adas3xx adas3xx	allows change of default file names extracts zero density radiative power coefficients allows change of default file names extracts beam stopping coefficients allows change of default file names
i4fctn i4unit r8fctn xfesym	adaslib adaslib adaslib adaslib	converts character string to integer obtains or changes an integer used for output units converts character string to real*8 returns an element symbol given the nuclear charge

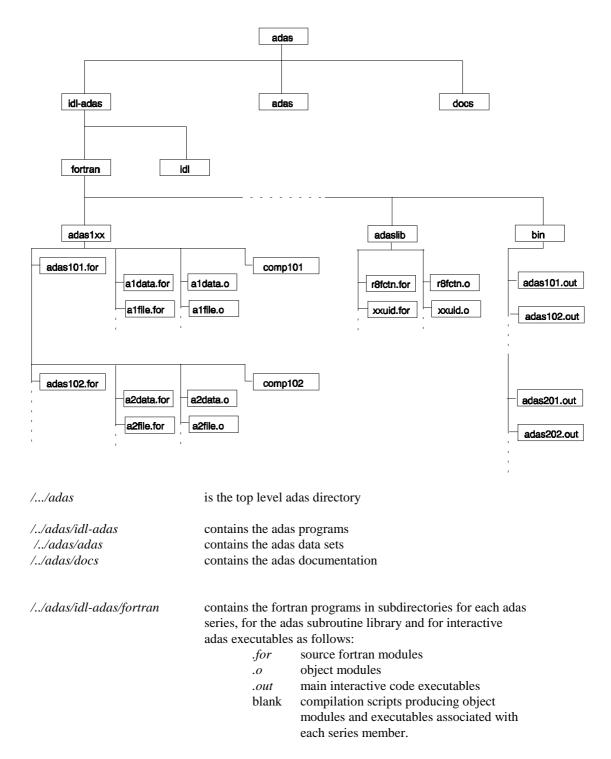
xxeiz0	adaslib	returns an element nuclear charge given the
		element symbol
xxsple	adaslib	interpolates/extrapolates data using cubic splines
xxuid	adaslib	allows change of default user name for filespace

and data in the following categories:

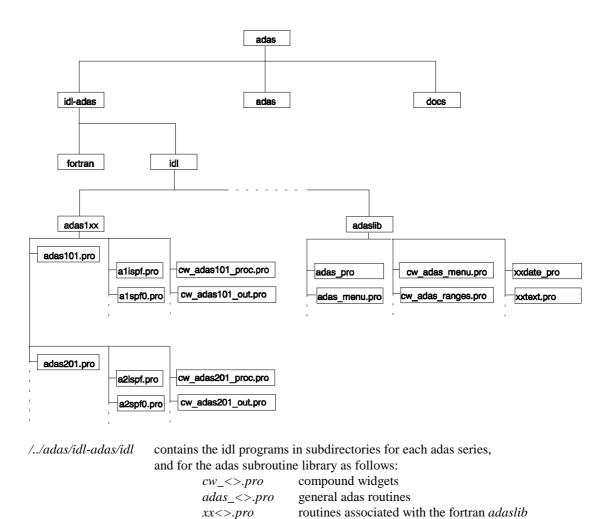
<u>type</u> adf07	<u>code association</u> sszd	<u>sublibraries</u> ionelec	notes common usage JET data
adf13	ssxb	ionelec sxb93#he sxb93#be sxb93#c sxb93#o sxb93#cr sxb93#mo	common usage JET data complete helium data complete beryllium data complete carbon data complete oxygen data neutral chromium data neutral beryllium data
adf15	spec	ionelec pec93#he pec93#be pec93#c pec93#o pec93#cr pec 93#mo	common usage JET data complete helium data complete beryllium data complete carbon data complete oxygen data neutral chromium data neutral beryllium data
adf19	spzd	ionelec pzd79	common usage JET data carbon, oxygen,silicon data
adf21	sbms	bms93#h bms93#he	hydrogen beam stopping data helium beam stopping data

## **ADAS** file structure on workstations

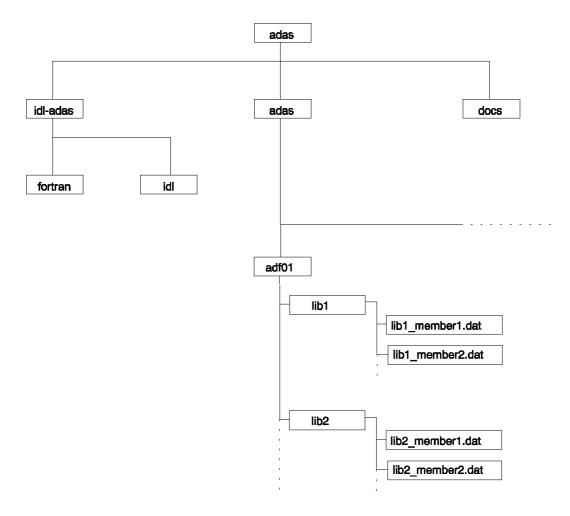
The layout of programs and data sets are as in the following pages:



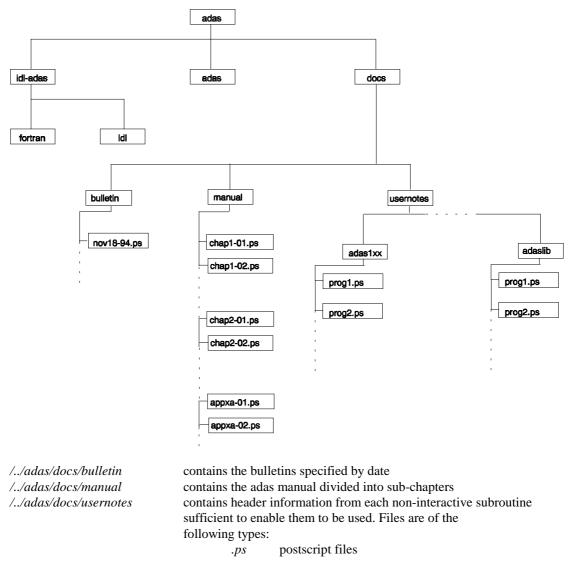
**Note:** The source fortran is not readable by the general user. Specification of calling parameters are given in the adas documentation so that the object module libraries can be used.



**Note:** The idl routines are all readable by the general user. They may prove useful in tailoring idl to particular local usages.



**Note:** The adas datasets are all readable and usable by the general user but must not be copied to third parties outside the ADAS project without the express permission of the owner.



**Note:** Postscript files can be printed directly on postscript printers, displayed on SUN workstations with *pageview* and on DEC workstations with *CDA reader*.