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 AHELP for CIAO 3.4

## writeascii

Context: [varmm](#)

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### Synopsis

S-Lang function to create an ASCII output file from S-Lang arrays

### Syntax

```
writeascii( filename, col1 )
writeascii( filename, col1, col2 )
writeascii( filename, col1, col2, ..., colN )
```

### Description

Write the supplied S-lang arrays (i.e. "col1", "col2", ...) to an ASCII file. To write to stdout (i.e. the screen) or stderr use a filename of "stdout" or "stderr" respectively, without the quotes.

### Example 1

Here we create two columns, and then write them to an ASCII file called foo.dat.

```
chips> x = [1:10];
chips> y = sin(x) + 0.5 * x;
chips> writeascii("foo.dat",x,y);
```

As the output is an ASCII file, it can be accessed using standard UNIX tools, such as cat:

```
unix% cat foo.dat
1      1.34147
2      1.9093
3      1.64112
4      1.2432
5      1.54108
6      2.72058
7      4.15699
8      4.98936
9      4.91212
10     4.45598
```

## Example 2

Instead of writing to a file, we can use `writeascii()` to write to the screen (ie `stdout`). This can also be achieved using the `"printarr()"` Varmm function, although it is limited to printing out only one array. This example also shows how you can access a field within a S–Lang structure, here the second column read from the file "foo.dat".

```
chips> foo = readfile("foo.dat")
chips> writeascii(stdout,foo.col2)
1.34147
1.9093
1.64112
1.2432
1.54108
2.72058
4.15699
4.98936
4.91212
4.45598
```

## Example 3

The default format used to print out the column data may not match your needs; for instance it may not display enough significant figures. The format used can be changed by calling the `set_float_format()` function from the S–Lang Run–Time Library. In the following example we change the format to use the format `%13.6e`, which means to use exponential notation with 6 numbers after the decimal point and placed within a space 13 characters wide.

```
chips> a = [0:10:2] / 3.0
chips> b = 10^a
chips> writeascii( stdout, a, b )
0      1
0.666667      4.64159
1.333333 21.5443
2      100
2.66667 464.159
3.33333 2154.43
chips> set_float_format( "%13.6e" )
chips> writeascii( stdout, a, b )
0.000000e+00      1.000000e+00
6.666667e-01      4.641589e+00
1.333333e+00      2.154435e+01
2.000000e+00      1.000000e+02
2.666667e+00      4.641589e+02
3.333333e+00      2.154435e+03
chips> set_float_format( "%g" )
```

Note that all the columns are printed using this format and that we reset the format to the default value ("`%g`") to avoid changing the layout of other commands, such as `print()` and `printarr()`.

## Bugs

See the [bugs page for the Varmm library](#) on the CIAO website for an up–to–date listing of known bugs.

## See Also

*modules*

[varmm](#)

*varmm*

[fits\\_bitpix](#), [readarf](#), [readascii](#), [readbintab](#), [readfile](#), [readimage](#), [readpha](#), [readrdb](#), [readrmf](#), [writefits](#)

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