

URL: <u>http://cxc.harvard.edu/ciao3.4/slangrtl.html</u> Last modified: December 2006

AHELP for CIAO 3.4

# slangrtl

Context: slangrtl

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# Synopsis

S-Lang Run Time Library

# Description

The S-Lang interpreter comes with a pre-defined set of functions for many common operations. This set of functions is known as the S-Lang Run Time Library and is documented in ahelp – where the functions are labelled with a context of slangrtl, so "ahelp –c slangrtl" will list them – and in the <u>slangrtl reference guide</u> of the S-Lang library. The version of S-Lang included in CIAO 3.2 is 1.4.9.

For more information on S–Lang try "ahelp slang" and the "Guide to the S–Lang Language" available at <u>http://www.s–lang.org/docs.html</u>.

The functions in the S-Lang Run Time Library are available from ChIPS, Sherpa, and slsh.

## **Example 1**

ahelp -c slangrtl

This command lists all the functions in the S-lang Run Time Library, together with this file.

### **Example 2**

```
ahelp slangrtl /array/
```

This command lists all the functions in the S-lang Run Time Library which contain the string "array".

## **Example 3**

```
chips> vmessage( "The time is %s", time() )
The time is Fri Jun 13 09:52:57 2003
```

Here we call two functions from the library – vmessage() and time() – to print out the current time. Since the code was being run from ChIPS – it could have been run unchanged from Sherpa – there was no need to

terminate the line with a semi-colon, as required by S-Lang, since this is automatically added for you.

# Example 4

The same routines can also be used with slsh. Here we have a text file containing the above line – this time with a trailing semi–colon since it is not being evaluated from ChIPS or Sherpa – which we then execute using slsh.

unix% cat time.sl vmessage( "The time is %s", time ); unix% slsh time.sl The time is Fri Jun 13 09:56:35 2003

Since the time() function does not take any arguments we do not need to include "()" after its name.

### **CHANGES IN CIAO 3.2**

#### **New functions**

The provide(), require(), append\_to\_slang\_load\_path(), prepend\_to\_slang\_load\_path(), reverse(), shift(), and \_featurep() functions have been added to the S-Lang Run-Time Library in CIAO 3.2. Use "ahelp <name>" for information on each of these functions.

### **CHANGES IN CIAO 3.1**

### Availability of cumsum

The cumsum function is now available from ChIPS and Sherpa. Prior to CIAO 3.1 only code evaluated by slsh could use this function.

#### **New documentation**

The ahelp documentation was updated in CIAO 3.1 to include the variables provided by the S–Lang run–time library. The following variables are now documented (use "ahelp variable" to view): \_NARGS; \_auto\_declare; \_debug\_info; \_slang\_doc\_dir; \_slang\_version; \_slang\_version\_string; \_slangtrace; \_traceback; and errno.

#### ACKNOWLEDGEMENTS

The information for the ahelp pages on the S–Lang Run–Time Library functions and variables was taken from the <u>Intrinsic Function Reference</u> document.

## See Also

slang

<u>slsh</u>

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