The Scam Programming Language  
designed and developed by: John C. Lusth  
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Scam  
Scam is a nifty little language that looks a lot like Scheme, but is so much more. Scam is:  
• an impure functional language with Scheme-like syntax  
• a language where writing iterators like while and for is possible purely through function definition  
• a language where everything is a function, including define and set! – overloading these functions can be fun!  
• a fully object-oriented language with trivial syntax and easy-to-comprehend semantics  
• a language with programmer-controlled delayed evaluation  
• a language with built-in garbage collection  
• a language that optimizes tail-recursion  
• a language that supports multi-threading  

Scam's homepage is http://beastie.cs.ua.edu/scam.  

Scam versus Scheme  
For Scheme programmers, here is a list of important differences: quick hits.  

Downloads  
Latest Scam versions:  
• 32-bit Linux tarball (libreadline6) - scam-2.4b-i386.tgz  
• 64-bit Linux tarball (libreadline7) - scam-2.4b-amd64.tgz  
• 64-bit Mac tarball - scam-2.4a-OSX_64.tgz  

Installation Notes  
To install Scam, perform the following steps (using scam-2.4b-amd64.tgz as an example - make sure you use the right package for your particular system). Note: Windows 10 users must have the Linux Bash subsystem installed. Other versions of Windows are not supported. To begin:  
1. In a bash shell, make a directory named scam that hangs off your home directory. Move into that directory:  
   mkdir ~/scam  
   cd ~/scam  
2. Set your architecture:  
   export arch=`dpkg --print-architecture`  
3. Retrieve the tarball:  
   wget beastie.cs.ua.edu/scam/scam-2.4b-amd64.tgz  
   #change, if necessary  
   Mac users may need to use verb!curl -O! instead of verb!wget!.  
4. Extract the files in the tarball:  
   tar xzvf scam-2.4b-amd64.tgz  
5. Copy the scam executable to a directory in your path:  
   cp scam ~/bin  
   # if you have your own bin  
   or you can put verb!/scam! in your path. If you don’t know what a path is, then do this instead:  
   sudo cp scam /usr/bin  
6. It’s unlikely, but you may need to install the readline library. On a Debian system like Ubuntu, you would issue the following command:  
   sudo apt-get install libreadline7  
   Look to the interwebs for instructions on how to install readline on other systems.  
If you have trouble installing Scam, send a message to lusth@cs.ua.edu.
Learning more about Scam
There is an Open Source reference manual that delves into Scam in detail. It is called *The Scam Reference Manual*.

The reference manual gives the nuts and bolts on the syntax and semantics of Scam.

About this website
This website is rendered in the *Old School* style. *Old School* is known for its somewhat spartan, but clean and crisp, no-nonsense, get-down-to-brass-tacks appearance. *Old School* was invented by Tim Berners-Lee during the latter part of the last century. It is made a bit more flashy using a style sheet.

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