Modules

Currently Loaded Modulefiles:

   1) Base/yale_hpc   3) MPI/OpenMPI/1.6.5(default)

   2) Langs/Intel/14

env output

```
MKLROOT=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mkl
MANPATH=/home/apps/fas/MPI/OpenMPI/1.6.5-intel/share/man:/home/apps/fas/Langs/Intel/ic
sxe/2013.1.046/composer_xe_2013_sp1.2.144/man/en_US:/usr/share/man:/opt/moab/share/m
an:
MKL_LINK=-L/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mkl/l
ib/intel64 -Wl,--start-group -lmkl_intel_lp64 -lmkl_intel_thread -lmkl_core -Wl,--end-group
-lpthread -lm
HOSTNAME=compute-14-1.local
IPPROOT=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/ipp
INTEL_LICENSE_FILE=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.1
44/licenses:/opt/intel/licenses:/home/apps/fas/Licenses/intel_site.lic
TERM=xterm
SHELL=/bin/bash
HISTSIZE=1000
SSH_CLIENT=10.191.63.253 50094 22
LIBRARY_PATH=/home/apps/fas/MPI/OpenMPI/1.6.5-intel/lib:/home/apps/fas/Langs/Intel/icsxe/
2013.1.046/composer_xe_2013_sp1.2.144/ipp/../compiler/lib/intel64:/home/apps/fas/Langs/Int
el/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/ipp/lib/intel64:/home/apps/fas/Langs/Intel/i
csxe/2013.1.046/composer_xe_2013_sp1.2.144/compiler/lib/intel64:/home/apps/fas/Langs/Inte
l/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mkl/lib/intel64:/home/apps/fas/Langs/Intel/ic
sxe/2013.1.046/composer_xe_2013_sp1.2.144/tbb/lib/intel64/gcc4.4
PERL5LIB=/opt/moab/lib/perl5
FPATH=/home/apps/fas/MPI/OpenMPI/1.6.5-intel/include:/home/apps/fas/Langs/Intel/icsxe/20
13.1.046/composer_xe_2013_sp1.2.144/mkl/include:/home/apps/fas/Langs/Intel/icsxe/2013.1.0
46/composer_xe_2013_sp1.2.144/mkl/include/intel64/lp64
QTDIR=/usr/lib64/qt-3.3
QTINC=/usr/lib64/qt-3.3/include
MIC_LD_LIBRARY_PATH=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.
2.144/mpirt/lib/mic:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.14
4/compiler/lib/mic:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144
/mkl/lib/mic:/opt/intel/mic/coi/device-linux-release/lib:/opt/intel/mic/myo/lib:/home/apps/fas/
Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/tbb/lib/mic
SSH_TTY=/dev/pts/2
ANT_HOME=/opt/rocks
USER=bs744
```

LD_LIBRARY_PATH=/home/apps/fas/MPI/OpenMPI/1.6.5-intel/lib:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mpirt/lib/intel64:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/ipp/../compiler/lib/intel64:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/ipp/lib/intel64:/opt/intel/mic/coi/host-linux-release/lib:/opt/intel/mic/myo/lib:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/compiler/lib/intel64:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mkl/lib/intel64:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/tbb/lib/intel64/gcc4.4

MIC_LIBRARY_PATH=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/tbb/lib/mic

ROCKS_ROOT=/opt/rocks

CPATH=/home/apps/fas/MPI/OpenMPI/1.6.5-intel/include:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/ipp/include:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mkl/include:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/tbb/include

YHPC_COMPILER=Intel

OMPI_MCA_orte_precondition_transports=f20cd2d28f432704-15e3f8c3bb8e89d6

NLSPATH=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/compiler/lib/intel64/locale/%l_%t/%N:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/ipp/lib/intel64/locale/%l_%t/%N:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mkl/lib/intel64/locale/%l_%t/%N:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/debugger/gdb/intel64_mic/py26/share/locale/%l_%t/%N:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/debugger/gdb/intel64/py26/share/locale/%l_%t/%N:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/debugger/intel64/locale/%l_%t/%N

MAIL=/var/spool/mail/bs744

PATH=/home/apps/fas/MPI/OpenMPI/1.6.5-intel/bin:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mpirt/bin/intel64:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/debugger/gdb/intel64_mic/py26/bin:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/debugger/gdb/intel64/py26/bin:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/bin/intel64:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/bin/intel64_mic:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/debugger/gui/intel64:/home/apps/fas/Modules:/usr/lib64/qt-3.3/bin:/opt/moab/bin:/usr/local/bin:/bin:/usr/bin:/usr/local/sbin:/usr/sbin:/sbin:/usr/java/latest/bin:/opt/rocks/bin:/opt/rocks/sbin:/home/apps/bin:/home/fas/cpsc424/bs744/bin

YHPC_COMPILER_MINOR=2

TBBROOT=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/tbb

F90=ifort

PWD=/home/fas/cpsc424/bs744/cs424/lab2

LMFILES=/home/apps/fas/Modules/Base/yale_hpc:/home/apps/fas/Modules/Langs/Intel/14:/home/apps/fas/Modules/MPI/OpenMPI/1.6.5

YHPC_COMPILER_MAJOR=0

JAVA_HOME=/usr/java/latest

```
IDB_HOME=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/bin/intel64
GDB_CROSS=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/debugger/gdb/intel64_mic/py26/bin/gdb-mic
DOMAIN=omega
LANG=en_US.iso885915
MODULEPATH=/home/apps/fas/Modules
MOABHOMEDIR=/opt/moab
YHPC_COMPILER_RELEASE=14
LOADEDMODULES=Base/yale_hpc:Langs/Intel/14:MPI/OpenMPI/1.6.5
KDEDIRS=/usr
F77=ifort
CXX=icpc
SSH_ASKPASS=/usr/libexec/openssh/gnome-ssh-askpass
HISTCONTROL=ignoredups
SHLVL=1
HOME=/home/fas/cpsc424/bs744
MKL_LINK_SEQUENTIAL=-L/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp
1.2.144/mkl/lib/intel64 -Wl,--start-group -lmkl_intel_lp64 -lmkl_sequential -lmkl_core
-Wl,--end-group -lpthread
FC=ifort
LOGNAME=bs744
QTLIB=/usr/lib64/qt-3.3/lib
CVS_RSH=ssh
SSH_CONNECTION=10.191.63.253 50094 10.191.10.209 22
MODULESHOME=/usr/share/Modules
LESSOPEN=||/usr/bin/lesspipe.sh %s
arch=intel64
CC=icc
INCLUDE=/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mkl/include:/home/apps/fas/Langs/Intel/icsxe/2013.1.046/composer_xe_2013_sp1.2.144/mkl/include/intel64/lp64
MPI_PATH=/home/apps/fas/MPI/OpenMPI/1.6.5-intel
G_BROKEN_FILENAMES=1
BASH_FUNC_module()=() {    eval `/usr/bin/modulecmd bash $*`
}
_=/bin/env
OLDPWD=/home/fas/cpsc424/bs744
```

Output of task1

```
/lustre/home/client/fas/cpsc424/bs744
/lustre/home/client/fas/cpsc424/bs744/cs424/lab2
compute-20-1
compute-20-1
```

compute-14-16

compute-14-16

Message printed by master: Total elapsed time is 0.000062 seconds.

From process 1: I worked for 4 seconds after receiving the following message:

        Hello, from process 0.

From process 2: I worked for 8 seconds after receiving the following message:

        Hello, from process 0.

From process 3: I worked for 12 seconds after receiving the following message:

        Hello, from process 0.

real   0m15.385s

user   0m2.010s

sys   0m0.134s

Message printed by master: Total elapsed time is 0.000057 seconds.

From process 2: I worked for 4 seconds after receiving the following message:

        Hello, from process 0.

From process 3: I worked for 8 seconds after receiving the following message:

        Hello, from process 0.

From process 1: I worked for 12 seconds after receiving the following message:

        Hello, from process 0.

real   0m13.299s

user   0m2.000s

sys   0m0.125s

Message printed by master: Total elapsed time is 0.000053 seconds.

From process 3: I worked for 4 seconds after receiving the following message:

        Hello, from process 0.

From process 1: I worked for 8 seconds after receiving the following message:

        Hello, from process 0.

From process 2: I worked for 12 seconds after receiving the following message:

        Hello, from process 0.

real   0m13.307s

user   0m2.028s

sys   0m0.098s

Output of task2

/lustre/home/client/fas/cpsc424/bs744

/lustre/home/client/fas/cpsc424/bs744/cs424/lab2

compute-20-1

compute-20-1

compute-14-16

compute-14-16

Message from process 1: Hello master, from process 1 after working 4 seconds.

Message from process 2: Hello master, from process 2 after working 12 seconds.
Message from process 3: Hello master, from process 3 after working 8 seconds.
Message printed by master: Total elapsed time is 18.000351 seconds.

real   0m21.271s
user   0m11.024s
sys   0m0.126s
Message from process 1: Hello master, from process 1 after working 12 seconds.
Message from process 2: Hello master, from process 2 after working 8 seconds.
Message from process 3: Hello master, from process 3 after working 4 seconds.
Message printed by master: Total elapsed time is 21.000532 seconds.

real   0m22.288s
user   0m14.008s
sys   0m0.128s
Message from process 1: Hello master, from process 1 after working 4 seconds.
Message from process 2: Hello master, from process 2 after working 12 seconds.
Message from process 3: Hello master, from process 3 after working 8 seconds.
Message printed by master: Total elapsed time is 18.000620 seconds.

real   0m19.286s
user   0m11.024s
sys   0m0.107s

Output of Task3

/lustre/home/client/fas/cpsc424/bs744
/lustre/home/client/fas/cpsc424/bs744/cs424/lab2
compute-20-1
compute-20-1
compute-14-16
compute-14-16
Message from process 1: Hello master, from process 1 after working 8 seconds.
Message from process 2: Hello master, from process 2 after working 4 seconds.
Message from process 3: Hello master, from process 3 after working 12 seconds.
Message printed by master: Total elapsed time is 15.000358 seconds.

real   0m18.179s
user   0m8.171s
sys   0m0.123s
Message from process 1: Hello master, from process 1 after working 8 seconds.
Message from process 2: Hello master, from process 2 after working 12 seconds.
Message from process 3: Hello master, from process 3 after working 4 seconds.
Message printed by master: Total elapsed time is 15.000376 seconds.

```
real     0m16.295s
user     0m8.018s
sys      0m0.115s
Message from process 1: Hello master, from process 1 after working 8 seconds.
Message from process 2: Hello master, from process 2 after working 4 seconds.
Message from process 3: Hello master, from process 3 after working 12 seconds.
Message printed by master: Total elapsed time is 15.000368 seconds.


real     0m16.285s
user     0m8.018s
sys      0m0.116s
```