

Periscope Installation Guide

Login

First login to the HLRB2, e.g., via SUN Rayhalle at Informatik TU München.

(Generierung eines internen public key hier oder in die UserGuide ???)

Generate a internal RSA key on the HLRB2 in your ssh directory (this is essential for agent communication):

Commands:

1. `mkdir ~/.ssh`
2. `cd ~/.ssh`
3. `ssh-keygen -t rsa`
4. **type twice ENTER (for no passphrase)**
5. `cat id_rsa.pub >> authorized_keys`

Checkout Periscope

First set the environment variables `CVS_RSH` and `CVSROOT`:

```
export CVS_RSH=/usr/bin/ssh
```

```
export CVSROOT=:ext:xxxx@atbode71.lrr.in.tum.de:/home/epcache/  
repository
```

Replace xxxx in the CVS access with your Informatik userid.

Checkout Periscope with the command `cvs checkout psc`.

You will be asked for your password on the Informatics systems (atbode71.lrr.in.tum.de).

In the psc directory you find the files `Makefile.defs.linux-ia64` and

`PSC_bashrc_hlrb2`.

The file `Makefile.defs.linux-ia64` is necessary to compile Periscope on the HLRB2.

In the `PSC_bashrc_hlrb2` you can find definitions of environment variables and module instructions (according to module concept on HLRB2).

PSC_bashrc_hlrb2

```
export CVS_RSH=/usr/bin/ssh
```

```
export CVSROOT=:ext:xxxx@atbode71.lrr.in.tum.de:/home/epcache/
repository
```

Load the necessary modules

```
module load liblrz ace xerces_periscope papi/3.5
```

```
export PERISCOPE_ROOT=$HOME/psc
export PERISCOPE_ARCH=.ia64
```

```
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$PERISCOPE_ROOT/
mrimonitor
export PATH=$PATH:$PERISCOPE_ROOT/bin:$PERISCOPE_ROOT/
registry:/bin:$PERISCOPE_ROOT/mriclient
```

```
#Xercesc XML Parser Lib and libxml
export LIBXML_ROOT=$PERISCOPE_ROOT
```

```
export PERISCOPE_DEBUG=1
```

- Replace `xxxx` in the CVS access with your Informatik userid (variable `CVSROOT`).
- The module `liblrz` enables the usage of LRZ utility and/or `cpuset` library.
- The module `ace` is for using the ACE library (communication environment; see <http://www.cs.wustl.edu/~schmidt/ACE.html>).
- The module `xerces_periscope` is necessary to use the XERCES library (XML parser; see <http://xerces.apache.org/xerces-c/>).
- The module `papi/3.5` is for using the PAPI library (hardware performance counter; see <http://www.lrz-muenchen.de/services/software/programmierung/papi>).
- Append the content of `PSC_bashrc_hlrb2` to your own `~/ .bashrc`. This is essential for agent communication via ssh.

Compile

Run `make` in `~/psc`.

(The Makefile should include the file `Makefile.defs.linux-ia64.`)