

1. INTRODUCTION

This document provides guidance for quickly configuring, running, and testing the *clientNode.pl* Perl script, which is part of the larger SRD software suite. Users may download the client software from the CCAC User Portal at

<https://help.ccac.hpc.mil/heue/>

All supported architectures share the same download tarball. Much of this documentation is taken from the man pages within the package.

2. PREREQUISITES

The client requires a working Perl installation. The majority of Linux distributions will work without modification. The same is true for Mac OS X. Windows users may install either Cygwin or ActiveState Perl. In addition to Perl, the TurboVNC (v1.0) software package must be installed on your workstation and may be obtained on the CCAC User Portal.

3. CONFIGURATION

Client installation begins with locating a suitable directory to place the package contents. There are no restrictions on this location. All configuration settings for the client are localized in file *ClientSite.pm*. This file divides the configuration into operating system types, so one site file may be used across the supported Perl flavors; ActiveState, Cygwin, and Linux Perl. A template, *ClientSite.pm.tmpl*, is provided in the distribution as a starting point.

Configuration reduces to providing site-specific executable names and path descriptions. The following variables will need to be edited to meet your sites requirements. You need only update those sections pertinent to the architecture you are running from.

a. **\$ENV{PATH}**

The path environment for all client commands. This must include the paths to the executables listed below and the standard system directories. All SRD commands are taint checked so this variable will override the user's standard path.

b. **\$defaultSite**

For clients with alternate SRD sites available, this variable defines the default site. It must match a 'name' entry in %remote below. This value may be overridden via the HARDASITE environment variable.

c. **\$vncPassword**

The name of the `vncpassword` command from the TurboVNC package, generally 'vncpasswd'. You need not specify the path, just the basename. This command is not available on Windows.

d. \$vncViewer

The name of the `vncviewer` command from the TurboVNC package, generally 'vncviewer'. You need not specify the path, just the basename. Windows clients should include the .exe extension.

e. %remote

This variable maps local site names to remote hostnames and remote executables. The syntax is as follows;

```
'name' => [ 'fqh', '/fqp/loginNode.pl' ],
```

where 'name' is any string you wish to refer to a site as, fqh is the fully qualified hostname of a login host, and /fqp/loginNode.pl is a fully qualified path to the loginNode.pl script located on that host. For example, the Utility Server at ERDC would be defined with

```
'erdc' => [ 'us.erdh.hpc.mil', '/app/SRVS/pkivnc/bin/loginNode.pl' ],
```

f. \$vglClient

The name of the `vglclient` executable provided by TurboVNC. This is a placeholder as the connection model is not yet supported. Windows clients should include the .exe extension.

4. RUNNING

With the *ClientSite.pm* file configured, the client may be started with

```
clientNode.pl
```

By default, the client will communicate with the host defined in **\$defaultSite** above. Terse help is available within the client by issuing

```
sitePrompt> help help
```

A full description of the commands and arguments available with the SRD Perl client are available via

```
perldoc clientNode.pl
```

5. TESTING

Unit tests are available to test the client functionality. The tests are located in the `t` directory of the install package. At a minimum, you should test your ClientSite configuration changes as shown below. Full testing is recommended but not required. If your site has gnu make installed, the software suite may be tested with

<code>cd t</code>	
<code>make RUNTYPE=client ClientSite</code>	Test just the ClientSite changes.
<code>make client</code>	Test the entire software suite.

Without make, the tests will need to be run manually for every file located in variables `COMMONFILES` and `CLIENTFILES` in the Makefile. The command syntax differs slightly for Linux/Windows users. Linux/Mac users would test with

```
cd t
env RUNTYPE=client ./ClientSite.t
env RUNTYPE=client ./Command.t
env RUNTYPE=client ./AllOtherFiles.t
```

Windows users can test as shown below. Full testing requires a running X11 server. If no such a server is available, failures of all x11 related tests should be expected in *ClientNode.t*.

```
cd t
env RUNTYPE=client
perl -T ClientSite.t
perl -T Command.t
perl -T AllOtherFiles.t
```

6. MORE HELP

Users are encouraged to read the User Guide and the User FAQ located in the *manuals/* directory of the unpacked distribution. Many initial questions will be answered there.

Additional Perl-specific documentation may be found within the Perl modules themselves. Interested users should begin with the following three overviews;

```
perldoc Intro.pm
perldoc clientNode.pl
perldoc ClientSite.pm
```