# Sun Cobalt™ Control Station

*Advanced Technical Information*



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# Advanced Technical Information

## Development tools

The Sun Cobalt Control Station provides a collection of utilities to support applications development and server administration. These tools include:

- GNU C/C++ compiler (`gcc`) and libraries
- Support for Java™ runtime environment version 1.3 and JDK™ software from Sun Microsystems, Inc.
- GNU Bourne Again Shell (`bash`)
- Text editors (`emacs`, `vi`, `pico`)
- File system utilities (`ls`, `mv`, `cp`, `ln`, `rm`, `chmod`, `chown`, `chgrp`, `du`, `df`)
- File parsing utilities (`sed`, `awk`, `diff`)
- File display utilities (`cat`, `more`, `less`)
- Search utilities (`find`, `grep`, `which`)
- Archive utilities (`gzip`, `tar`, `cpio`, `rpm`)
- Network utilities (`FTP`, `telnet`, `netstat`, `ping`, `finger`, `mail`, `pine`)
- Programming languages (`perl`, `python`, `tcl/tk`)

These utilities can be found in one of the following directories:

```
/sbin
/bin
/usr/sbin
/usr/bin
```

For an expanded set of development tools, visit the Solutions directory on our Web site at http://www.cobalt.com/solutions/.

Additionally, the Linux distribution on the Sun Cobalt Control Station is based on the Red Hat Linux 6.0 distribution for x86-compatible processor systems.

You can run most pre-compiled x86-based commercial software packages on the Sun Cobalt Control Station, as long as the software does not require a mouse, keyboard or monitor. Ensure that the software is compatible with the Linux 2.2 kernel and the glibc library.

# Configuration files

If necessary, you can change some of the configuration files for the Sun Cobalt Control Station services for development purposes, but this may void your warranty. Please read your warranty card before making any changes.



***Caution:*** Changing any of the following configuration files can dramatically affect the operation of the services configured by means of the Sun Cobalt Control Station's Web-based administration service or the administration service itself.

The services and some of their associated configuration files and directories are the following:

- Email

  ```
  /etc/inetd.conf
  /etc/mail/
  ```

- File transfer protocol (FTP)

  ```
  /etc/proftpd.conf
  ```

- Web

  ```
  /etc/httpd/conf/*.conf
  ```

is accessed through the URL http://<IP address>/testdir/test.html.



***Note:*** <IP address> refers to the IP address or the fully qualified domain name of the Sun Cobalt Control Station.

# Directory structure

The hard disk drive on the Sun Cobalt Control Station is partitioned into four segments. Most of the available disk space is on the partition mounted from `/home/`. It is recommended to do most of your work under this partition. By default, quotas are turned on in this partition and are used extensively by the system software.

## Default home page for the Sun Cobalt Control Station

Once the Sun Cobalt Control Station has been configured, you can access the default home page from the following directory:

```
/home/groups/home/web/
```

This page appears when a user accesses the URL http://<hostname>/.

Users can continue to access the Cobalt Sun Cobalt Control Station Server Desktop by accessing the URL http://<hostname>/login/.

Web content in the directory

```
/home/groups/home/web/
```

is associated with the URL http://<IP address>/.

For example, a file saved as:

```
/home/groups/home/web/testdir/test.html
```

is accessed through the URL http://<IP address>/testdir/test.html.



***Note:*** <IP address> refers to the IP address or the fully qualified domain name of the Sun Cobalt Control Station.

# Scripting languages available

## CGI scripts

The Sun Cobalt Control Station supports common gateway interface (CGI) scripts, such as those written in Perl or C, as well as UNIX® shell scripts.

CGI scripts allow you to develop highly interactive, powerful Web-based applications by building server-side CGI scripts that generate Web pages in response to specific user inputs. These applications range from simple scheduling and conferencing applications to sophisticated electronic commerce solutions.

You can develop CGI scripts on your desktop machine and then transfer them to the Sun Cobalt Control Station through an FTP-based application that allows permission bits to be set to “Executable”.

CGI scripts must use .pl or .cgi filename extensions in order to be executed by the Web server.

Use FTP to upload .cgi and .pl files; use ASCII mode to upload CGI files. Once the file is on the Sun Cobalt Control Station, use your FTP program to make the script executable. You can also use the telnet command:

```
chmod 775 <filename>.cgi
```

The path to Perl is

```
/usr/bin/perl/
```

## PHP

You can save PHP files in any directory on your system, provided that support for PHP embedded scripting is enabled, the PHP file is executable and the file ends with a .php extension.

The Sun Cobalt Control Station is pre-configured with support for embedded PHP scripts.