1 Introduction

A Daemon process is process that runs in the background and is not associated with a controlling terminal. They are often started when the system is bootstrapped and terminate only when the system is shut down. UNIX systems have numerous daemons running in the background, performing different administrative tasks.

Different ways to start a daemon:

1. During the system startup, the System Initialization script can start various daemons.

2. Many network servers like Telnet server, FTP server are started by the inetd superserver, which itself is started in step 1

3. The execution of the programs on a regular basis is done by the cron daemon and all the programs that it invokes run as daemons.

4. The execution of programs at one time in the future is specified by the at command. The cron daemon initiates this and all these programs are run as daemons.

5. Daemons can be started from the terminal, either in the foreground or in the background. This is done when testing the daemon or restarting the daemon.

2 Characteristics and Properties of Voronoi diagrams

1.

2.

3 Algorithms

The GNU C library provides functions to submit messages to the Syslog facility: These functions only work to submit messages to the Syslog facility on the same system. To submit a message to the Syslog facility on another system, use the socket I/O functions to write a UDP datagram to the syslog UDP port on that system.

Incremental algorithm

Divide and Conquer

Fortunes Algorithm

Lloyd's algorithm

4 Applications

1.

2.

```
openlog("lpd", LOG_PID ,  LOG_LPR);
syslog(LOG_ERR, "open error for %s: %m", filename);
```

Here, the priority argument is specified as a combination of a level and a facility. In addition to syslog, many platforms provide a variant that handles variable argument lists.

```
#include <syslog.h>
#include <stdarg.h>
void vsyslog(int priority, const char *format, va_list arg);
```

Most syslogd implementations will queue messages for a short time. If a duplicate message arrives during this time, the syslog daemon will not write it to the log. Instead, the daemon will print out a message similar to "last message repeated N times."

5 Syslog Example Program

Here is an example of openlog, syslog, and closelog:

This example sets the logmask so that debug and informational messages get discarded without ever reaching Syslog. So the second syslog in the example does nothing.

```
// A basic example of the syslog function.
#include <syslog.h>
#include<stdio.h>
#include<stdlib.h>
int main(int argc, char **agrv)
```

```
{
setlogmask (LOG_UPTO (LOG_NOTICE));
openlog ("exampleprog", LOG_CONS | LOG_PID | LOG_NDELAY, LOG_LOCAL1);
syslog (LOG_NOTICE, "Program started by User \%d", getuid ());
syslog (LOG_INFO, "This is a demo of syslog");
closelog ();
return 0;
}
```

References

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[3] Stevens;W. Richard , Rago;Stephen A - *Advanced Programming in UNIX System Environment.* Addison Wesley Professional, 2nd Edition, 2005.

[4] syslog.conf: Linux/Unix Command,
http://linux.about.com/od/commands/l/blcmdl5_syslogc.htm.

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http://www.linuxselfhelp.com/gnu/glibc/html_chapter/libc_18.html