NAME

in.rwhod, rwhod – system status server

SYNOPSIS

/usr/sbin/in.rwhod [**–m** [*ttl*]]

AVAILABILITY

SUNWcsu

DESCRIPTION

in.rwhod is the server which maintains the database used by the **rwho**(1) and **ruptime**(1) programs. Its operation is predicated on the ability to broadcast or multicast messages on a network.

in.rwhod operates as both a producer and consumer of status information. As a producer of information it periodically queries the state of the system and constructs status messages which are broadcast or multicast on a network. As a consumer of information, it listens for other **in.rwhod** servers' status messages, validating them, then recording them in a collection of files located in the directory **/var/spool/rwho**.

The **rwho** server transmits and receives messages at the port indicated in the **rwho** service specification, see **services**(4). The messages sent and received, are of the form:

```
struct  outmp {
        char    out_line[8];    /* tty name */
        char    out_name[8];    /* user id */
        long    out_time;       /* time on */
};

struct  whod {
        char    wd_vers;
        char    wd_type;
        char    wd_fill[2];
        int     wd_sendtime;
        int     wd_recvtime;
        char    wd_hostname[32];
        int     wd_loadav[3];
        int     wd_boottime;
        struct  whoent {
                struct  outmp we_utmp;
                int     we_idle;
        } wd_we[1024 / sizeof (struct whoent)];
};
```

All fields are converted to network byte order prior to transmission. The load averages are as calculated by the **w**(1) program, and represent load averages over the 5, 10, and 15 minute intervals prior to a server's transmission. The host name included is that returned by the **uname**(2) system call. The array at the end of the message contains information about the users who are logged in to the sending machine. This information includes the contents of the **utmp**(4) entry for each non-idle terminal line and a value indicating the time since a character was last received on the terminal line.

Messages received by the **rwho** server are discarded unless they originated at a **rwho** server's port. In addition, if the host's name, as specified in the message, contains any unprintable ASCII characters, the message is discarded. Valid messages received by **in.rwhod** are placed in files named **whod.***hostname* in the directory **/var/spool/rwho**. These files contain only the most recent message, in the format described above.

Status messages are generated approximately once every 60 seconds. **in.rwhod** performs an **nlist**(3E) on **/dev/ksyms** every 10 minutes to guard against the possibility that this file is not the system image currently operating.

OPTIONS

–m [*ttl*] Use the rwho IP multicast address (224.0.1.3) when transmitting. Receive announcements both on this multicast address and on the IP broadcast address. If *ttl* is not specified **in.rwhod** will multicast on all interfaces but with the IP TimeToLive set to 1 (that is, packets will not be forwarded by multicast routers.) If *ttl* is specified **in.rwhod** will only transmit packets on one interface and setting the IP TimeToLive to the specified *ttl*.

FILES

/dev/ksyms system namelist

/var/spool/rwho/rwhod/.*
information about other machines

SEE ALSO

ruptime(1), **rwho**(1), **w**(1), **uname**(2), **nlist**(3E), **services**(4), **utmp**(4)

WARNINGS

This service can cause network performance problems when used by several hosts on the network. It is not run at most sites by default. If used, include the multicast option (**-m**).

NOTES

This service takes up progressively more network bandwidth as the number of hosts on the local net increases. For large networks, the cost becomes prohibitive.

in.rwhod should relay status information between networks. People often interpret the server dying as a machine going down.