

# Sistema Banatuak

## Laborategia: denbora zerbitzuak Unix-en (SunOS, Linux)

### 1 Denbora sinkronizaziorako funtzioak (man orria aztertu)

SunOS-en (sisd00.gi.ehu.es):

```
gettimeofday / gettimeofday  
adjtime, gethrtime, rtc
```

Linux-en (acpt00.gi.ehu.es):

```
gettimeofday / gettimeofday  
adjtimex, clockdiff, hwclock, setclock, timeconfig
```

### 2 Network Time Protocol (NTP, sisd00.gi.ehu.es makinan)

```
ps -fe | grep xntpd -ntp-ko daemon-a  
ntpq, ntp_adjtime, ntp_gettime, ntpdate, ntptrace
```

NTP zerbitzariak UPV/EHU-n (Gipuzkoako kanpusetik):

- Ikerkuntza sarea: *ordua.sc.ehu.es*
- Irakaskuntza sarea: *ntp1.gc.ehu.es*, *ntp2.gc.ehu.es*

```
ntpq      -programa abiatzeko  
ntp> peers  
ntp> quit -irteteko
```

SunOS-en laguntzatik:

*peers* obtains a list of in-spec peers of the server, along with a summary of each peer's state. Summary information includes:

- The address of the remote peer
- The reference ID (0.0.0.0 if the ref ID is unknown)
- The stratum of the remote peer
- The type of the peer (local, unicast, multicast or broadcast) when the last packet was received
- The polling interval in seconds
- The reachability register, in octal
- The current estimated delay offset and dispersion of the peer, all in seconds