Setting on Linux computers to operate APDCAM

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To optimize network throughput for APDCAM the network buffer sizes have to be set larger than default. This is done (as root) by adding two lines to /etc/rc.d/rc.local:

```
echo 1000000 > /proc/sys/net/core/rmem_default
echo 1000000 > /proc/sys/net/core/rmem_max
```

The above commands set this buffer to 1 Mbyte. This takes effect on next reboot. If the following two commands are run the buffer sizes are changed immediately:

```
sysctl -w net.core.rmem_max=1000000
sysctl -w net.core.rmem_default=1000000
```

If at compilation of the APDTest program a file `sys/capability.h` was missing. It is included in package libcap-dev which had to be installed:

```
apt-get install libcap-dev
```

The APDTest program needs to lock large amount of memory in physical space. This is normally not allowed. To allow it two lines should be added to file `/etc/security/limits.conf`:

```
apd hard memlock 2000000000
apd soft memlock 2000000000
```

Here apd is the name of the used under which the APDTest program is to be run. 2000000000 indicates that 2 Gbyte is the maximum lockable memory. As the program stores about 100 Mbyte/s this allows up to 20 s measurement. Thi setting takes effect when the user logs in.

The APDTest program can be compiled by
make clean
make all
After this copy the APDTest program to the directory where the APDCAM IDL package is and copy linapd.so to /lib64.

The next setting to be done is to allow receiving UDP packets from unknown sources. Firewalls in many case block incoming UDP packets from machines which did not receive packets from the same port. APDTest uses 4 UDP ports for data receiving: 57000 through 57003. These should be opened or in some way receive enabled.