

# libptrg manual

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## 1 Important Remarks

- in order to avoid problems ptdic should be run on a worker node PC, because ptdic and ptss sometimes consume too much memory for a DCS board
- ptdic and ptss should be of the same version  
ptdic -h displays the version and ptss displays its version at start-up
- for the TLMU initialization a DIM timeout value of 20s should be used, for CBB 5s is enough
- for correct behavior of the counter publishing done in ptss both CBB and TLMU have to be initialized otherwise timeouts will occur which affect the publishing performance
- currently advised FPGA bitfile versions:  
**CBB: r5033, TLMU: r4643**

## 2 Release-History

**x.x.x** Release-date: yyyy-mm-dd / SVN: 5034

### Changes:

- removed some warnings during the compilation
- corrected documentation

### Known Problems:

- **not yet tested at all!**

**1.3.2** Release-date: 2012-08-07 / SVN: 5030

### Changes:

- fixing rpm build (added installed file ptss\_start.sh to package)

- fixed start up script (sourcing /etc/profile)

**Known Problems:**

- installed in the cavern (Jochen and Felix), using CBB r5033 and TLMU r4643, see logbook entry [https://alice-logbook.cern.ch/logbook/date\\_online.php?p\\_cont=comd&p\\_cid=478659](https://alice-logbook.cern.ch/logbook/date_online.php?p_cont=comd&p_cid=478659)

**1.3.1** Release-date: 2012-08-06 / SVN: 5026

**Changes:**

- fixing rpm build (added ptss\_start.sh to dist)
- fixed start up script (sourcing /etc/profile)

**Known Problems:**

- not yet tested in the cavern
- rpm build still broken

**1.3.0** Release-date: 2012-08-06 / SVN: 5024

**Changes:**

- fixed compilation on SLC5 x86\_64
- added init script for the ptss daemon on the dcs board
- distributing the hosts.pretrigger file with the packages
- added script ptss\_start.sh (which kills and restarts ptss as a daemon)

**Known Problems:**

- rpm package generation fails
- not yet tested in the cavern

**1.2.1** Release-date: 2011-02-28 / SVN: 4545

**Changes:**

- fixed TLMU counter publishing problem

**Known Problems:**

- not yet tested in the cavern

**1.2.0** Release-date: 2010-12-20 / SVN: 4342

**Changes:**

- added CNT\_TLMU\_USRATE and CNT\_TLMU\_MSRATE to the slowly published services, should be run with TLMU r4258
- not leaking memory anymore, reduced overall memory consumption by about a factor of two [SVN: 4332]
- removed obsolete `ptss_server` from `ptss`
- reorganized file structure:

- added `src` folder containing the whole C++ source code (including headers) with sub directories `old` for source which was used in former version and some experimental source, `reglist` containing all files concerning the automatic reglist generation as well as `playxsvf_2010-06` for the corresponding source code.
- removed obsolete `pxsvf` source code
- `examples` folder containing the usage examples
- prepared rpm generation for Scientific Linux 5 [SVN: 4335]

**Known Problems:**

- TLMU counter publishing prints out 0 instead of 4, 1 instead of 5 and so on

**1.1.5** Release-date: 2010-11-16 / SVN: 4254

**Changes:**

- added `CNT_TLMU_IMASK` to the slowly published services

**Known Problems:**

- leaking memory, should be killed and restarted once per day to be safe
- not yet tested in cavern

**1.1.4** Release-date: 2010-10-06 / SVN: 4185

**Changes:**

- fixed wrong `SCSN` port/ring selection

**Known Problems:**

- tested in cavern, working but leaking memory (should be killed and restarted once per day to be safe)

**1.1.3** Release-date: yyyy-mm-dd / SVN: 4181

**Changes:**

- fixed wrong target address selection

**Known Problems:**

- `SCSN` feb access is not working

**1.1.2** Release-date: 2010-10-01 / SVN: 4174

**Changes:**

- fixed deadlock which occurred while resetting a CB

**Known Problems:**

- `SCSN` reset causes a rbytes size mismatch (`ptscsn_raw::reset(...)`), error is suppressed because the reset is working in spite of that error
- `SCSN` feb access is not working

**1.1.1** Release-date: 2010-09-29 / SVN: 4171

**Changes:**

- secured SCSN mux with the SCSN mutex (rewrite of SVN revision 4168)

**Known Problems:**

- SCSN reset crashes, because it is causing a deadlock
- SCSN feb access is not working

**1.1.0** Release-date: 2010-09-28 / SVN: 4169 (w/o 4168!)

**Changes:**

- fixed bug in PTSCSN\_RAW causing malicious read-outs of the TLMU
- added TLMU sht11 temperature and humidity readout and publishing
- added version and SVN revision output to ptss and ptbic

**Known Problems:**

- not yet tested in the pit
- suspicion on problems with the SCSN muxer (thread-safety)

**1.0.2** Release-Date: 2010-08-30 / SVN: 4119

**Changes:**

- updated TLMU counter readout, readout every 30s, 1s measurement time

**Known Problems:**

- link-monitor errors
- Bug in SCSN access of TLMU (multiple address access fails), problem caused by changes done in 1.0.1
- If TLMU is not configured counter publishing will suffer from read timeouts caused by the 576x48bit TLMU counters which then take about 1.5 minutes every 30-40s

**1.0.1** Release-Date: 2010-08-23 / SVN: 4096

**Changes:**

- first preparations for the readout of the 576 48bit TLMU counters
- improved communication thread-safety
- removed “# Timeout = ... message”
- increased timeout time of the DIM service to prevent a timeout while initializing TLMU

**Known Problems:**

- version was never tested in the ALICE cavern

**1.0.0** Release-Date: 2010-08-09 / SVN: 4073

**Changes:**

- new dim service with integer array datatype
- integrated SCSN reset in ptdic
- added readout of LUT0/1 counters to ptss
- updated rpm/ipkg generation

**Known Problems:**

- version was never tested in the ALICE cavern

**r4022** Release-Date: 2010-06-29 / SVN: 4022

**Changes:**

- probably last version released by Ken

**Known Problems:**

- problems with the TLMU initialization
- errors in LUT reading (according to Joerg Lehnert, via mail 2010-08-05)

### 3 Open Issues

- `ptscsn_raw::reset(...)` uses a receive frame size test which is causing an error all the time. For now the error is suppressed.