

Towards a PTPD for White Rabbit

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GSI, Darmstadt, 2001-04-14



Status of PTP software in White Rabbit

Current code comes from an RC release of PTPd v2

Such starting point was not up to any quality standard

- The final release is the same, being RC is not the problem
- Part of the ugliness comes from the ugly PTP spec: unavoidable

The code has been taken and heavily modified

- WR hooks have been inserted here and there
- The protocol state machine has one new state
- The packet format uses the optional extension fields
- Major parts have been reindented, so both us and diff are unhappy

In April 2011 PTPd was ported to the SPEC card

- We built a proof of concept ("one to throw away")
- Posix and library dependencies have been removed

Plan for a real WR PTP ("the one to keep")

Major cleanup (or rewrite) of the "official" daemon

- Maintainability is paramount for any serious project
- We require code to be understandable at a glance
 - ♦ We're currently wasting weeks just to understand
 - ♦ We want to save our neighbour from such a pain

Native support for adding extensions

- WR support should not require forking or branching the code base
- A generic and efficient plugin support may benefit other users too

The tools we want to use (known and rock-solid techniques)

- Link-time selections of available features
 - ♦ Support several use cases: standard, WR-extended, WR-node, ...
- ELF sections
 - ♦ Build feature sets from independent source files
- Weak symbols
 - ♦ Default implementations for protocol hooks

Current Status

We are studying the dreadful specification

We are studying the intricate ptp code

We are studying the smart WR implementation

... and strangely enough stuff begins to make sense

We are aiming at drafting a proposal before implementation

- **To be submitted to wr-dev**
- **To be submitted to ptp-dev (?)**