

# SPACEWIRE STANDARD EVOLUTION

## Session: SpaceWire Standardisation

### Short Paper

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#### **ABSTRACT**

SpaceWire has been standardised as in the ECSS-E-50-12A standard published in 2003. Since then many groups worked on the development of SpaceWire links, nodes routers and networks and on the application of this technology in space systems. In the past years the standardisation effort aimed at the definition of higher level protocols such as RMAP which is awaiting its standardisation in the ECSS-E-50-11 standard called SpaceWire Protocols. In parallel the SpaceWire Working Group is discussing new concepts and additional protocols like SpW PnP and SpW-RT.

Partially through the experience gained with the implementation real systems and partially through the development of these new concepts several issues have been identified for the update of the ECSS-E-50-12A standard. Among those are the specification of SpaceWire cables and connectors, the introduction of interrupts using the same side channelling mechanism as time codes, the introduction of a configuration port 0 also for nodes and the specification of a time-out for SpaceWire routers. All these issues will be introduced in the next update of the SpaceWire standard which still will aim to maintain backwards compatibility.

The papers will list and describe the modifications which have been discussed up to now and provide the reasoning behind them. The discussion on the detailed specifications within the SpaceWire Working Group will be started in 2009. Any suggestions and points for update beyond what has been described in the paper are welcome for discussion.