4Links : Report on the SpaceWire Handbook

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Introduction

The SpaceWire Handbook will become an ECSS Handbook, providing:

- A comprehensive introduction to the technology;
- Guidance on how to implement SpaceWire well;
- Warnings on how to avoid the mistakes of others;
- Advice on how to ensure interoperability;
- Awareness of forthcoming SpaceWire developments.
- A Bibliography of recommended reading materials

Topics

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This list is still growing:

- Background:
  Introduction to SpaceWire; Purpose; History; major milestones
- The SpaceWire Protocols:
  - ECSS-E-ST-50-12C SpaceWire;
  - ECSS-E-ST-50-51C Protocol IDs;
  - ECSS-E-ST-50-52 RMAP;
  - ECSS-E-ST-50-53 CCSDS Packet Transfer.
- Physical layer Interconnections:
  LVDS Signals and Levels; Grounding; Backplanes; codecs

More Topics

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Further topics include:

- SpaceWire network architectures:
  Point-to-point; Routers; Addressing; Blocking
- The RMAP Protocol
- FDIR (Failure Detection, Isolation and Recovery)
- SpaceWire Verification and Validation
- Supporting Components
- Test Equipment

Timetable

Our current goals are:

This meeting:

- To establish links with contributors
- To identify a small panel of active reviewers

End June 2012:

- Initial Draft of whole handbook to active reviewers

Next WG [October 2012]:

- Circulate Draft Handbook for review with the WG papers
- Receive and incorporate all feedback