

Twentieth SpaceWire Working Group meeting

9th (PM), 10th (all day) and 11th (AM) of April 2013

The twentieth SpaceWire Working Group meeting will be held from Tuesday the 9th PM to Thursday the 11th AM of April 2013 at **ESA/ESTEC**, followed by a SpW WG Steering Committee meeting on Thursday the 11th (PM).

Final Agenda (F)

Day 1: Tuesday 9th April (PM) – Einstein

14:00 Meeting opening

- Welcome (Martin Süß, ESA/ESTEC)
- SpaceWire standardisation planning (Martin Süß, ESA/ESTEC)
- Presentation of the meeting agenda (David Jameux, ESA/ESTEC)

14:30 Session 1: System and mission requirements (Convener D. Jameux & W. Gasti, ESA/ESTEC)

This session will be dedicated to the provision of SpaceWire-related Data Handling system requirements from System Integrators and ESA mission teams.

- Bepi Colombo On-Board SpaceWire Networks, Wahida Gasti, ESA/ESTEC, 45 min

15:15 Session 2: SpW Evolutions II – SpaceFibre (Conveners D. Jameux & M. Süß, ESA/ESTEC & S. Parkes, UoD)

This session will be dedicated to various aspects of the development of the SpaceFibre protocol.

- SpaceFibre implementation and demonstration, Steve Parkes, UoDundee, 30 min
- Status report regarding SpaceFibre IP core beta-test opportunity, Mathieu Patte, Astrium (F) & Raoul Grimoldi, CGS, 30 min

16:15 Coffee break

- SpaceFibre interoperability testing in Dundee, Kohei Hosokawa, NEC, 30 min
- Implementation and Interoperability tests of SpaceFibre, Minoru Nakamura, Mitsubishi Electric, 30min
 - Interoperability demonstration

17:45 End of Day 1

19:00 Diner in Hotel-Restaurant Villa de Duinen, Oude Zeeweg 74, Noordwijk aan Zee

Day 2: Wednesday 10th April (all day) – Einstein

09:00 Session 3: SpW Evolutions I – ECSS-ST-E-50-12C Rev.1 (Convener D. Jameux, ESA/ESTEC)

This session will be dedicated to the revision of the current SpaceWire standard in support to the work of the ECSS Working Group.

- Status of the ECSS-ST-50-12C Rev.1 standardisation process, David Jameux, ESA/ESTEC, 45 min
- DC-balanced SpaceWire links with galvanic isolation, longer distances and gigabit rates, Yuriy Sheynin, SUAI, 30 min
- Towards a new specification of physical level for SpaceWire, Steve Parkes, STARDundee, 15 min
- SpaceWire physical level - Status on SpaceWire backplanes at SEA, Alan Senior, SEA, 15 min
- SpW Deployment and Handbook, Roger Peel, 4Links, 15 min

11:00 Coffee break

11:30 Session 4: SpW for C&C (Conveners F. Torelli & C. Honvault, ESA/ESTEC)

This session will be dedicated to SpW-D, support to CCSDS time distribution, and other Command & Control issues for SpaceWire.

- Time-distribution over SpaceWire - status update, Sandi Habinc, Aeroflex Gaisler, 30 min
- Design guideline and software tools for deterministic SpaceWire network using SpaceWire-D, Takayuki Yuasa, ISAS, 20 min
- TRP activity SpW-D detailed specification and prototyping - update status, David Jameux, ESA/ESTEC, 10 min

12:30 Lunch break

14:00 Session 5: SpW Evolutions III – SpW2 (Convener D. Jameux, ESA/ESTEC)

This session will be dedicated to medium term disruptive evolutions of the SpaceWire technology in preparation for the development of the SpaceWire 2 standard.

- Status on the FP7/SPWRT activity, Steve Parkes, UoDundee, 30 min
- SpaceWire-RT IP Core ASIC feasibility analysis, Tatiana Solokhina, ELVEES RnD Center, 20min
- SpaceWire-RT copper line transceivers as a Radiation Tolerant ASIC IP-core project, Sergey Kondratenko, ELVEES RnD Center, 20 min
- Next Generation Space Interconnect Standard, Charles P Collier, US Air Force AFRL, 30 min

15:15 Session 6: SpW component developments (Convener Jørgen Iltstad, ESA/ESTEC)

This session will be dedicated to SpaceWire component development activities.

- ESA IP-Cores Offer: SpaceWire IPs, Luca Fossati, ESA/ESTEC, 30 min
- SpaceWire devices developed in the 3-year SpaceWire R&D by JAXA and Osaka University, Takayuki Yuasa, ISAS, 20 min
- European SpaceWire router development - status update, Sandi Habinc, Aeroflex Gaisler, 30 min
- Follow-Up on Extended Common Mode LVDS Solutions, Volodymyr Burkhay, TELEFUNKEN Semiconductors, 20 min

17:00 Coffee break

- European LVDS development - status update, Sandi Habinc, Aeroflex Gaisler, 30 min

18:00 Session 7: SpaceWire Conferences (Convener M. Süß, ESA/ESTEC & S. Parkes, UoD)

This session will be dedicated to the announcement of SpaceWire-related events in general and to the International SpaceWire Conference in 2013 in particular.

- International SpaceWire Conference 2013 - status 2 months out, Sandi Habinc, Aeroflex Gaisler, 30 min

18:30 End of Day 2

Day 3: Thursday 11th April (AM) - Einstein

09:00 Session 8: SpaceWire Network Management and Protocol Stacks (Conveners G. Rakow, NASA/GSFC, P. Mendham, Bright Ascension)

This session will be dedicated to SpaceWire network management features and protocols such as network discovery and configuration, Electronic Data Sheets, FDIR, and SpaceWire related protocol stacks.

- Status of the Network Discovery Protocols TRP activity, Peter Mendham, Bright Ascension, 45 min
 - **support document:** SpaceWire Plug-and-Play Protocol Specification v1.5.pdf
- The SpaceWire N-MaSS FDIR service suite, John Franklin, Astrium UK, 45 min
- SpaceWire-based Protocols (SbP) stack with a focus on management protocols, David Jameux, ESA/ESTEC, 15 min

10:45 Coffee break

11:15 Session 9: SpW Simulation, Test, and Verification (Convener Y. Sheynin, UoStPg)

This session will be dedicated to the test, verification and simulation tools and requirements.

- MOST – update status, Brice Dellandrea, TAS-F, 30 min
- SpaceWire-RT/SpaceFibre simulation models: implementation and application, Valentin Olenev, SUAI, 30 min

12:15 Meeting close-out (David Jameux, ESA/ESTEC)

- Main outcomes of meeting #20
- Location and date for following meetings

12:30 End of SpW WG meeting #20

12:45 Lunch break

14:00 SpW WG Steering Committee Meeting

Restricted to SpW WG Steering Committee members

17:00 End of SpW WG Steering Committee meeting

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ESA - ESTEC - Electrical Engineering Department - Data Systems Division – D. Jameux – 09/04/2013