SpaceWire Working Group Meeting # 15

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ESTEC
18/10/2010

SpW WG : *ESA JAXA NASA ROSCOSMOS INDUSTRY*

The SpaceWire Working Group is a forum aiming at promoting the usage of SpaceWire links, routers, nodes and networks. It has the additional mandate to steer new developments of devices, tools and protocols.

Mandate of the WG is manifold:

- To **share information** related to the implementation of on-board networks based on the SpaceWire standard

- To prepare for the **SpaceWire standard maintenance and evolution**

- To review and discuss **Services** supported by networks on-board spacecraft (e.g. CCSDS SOIS Support, PnP)

- To define or register (via PID allocations) a set of Protocols (e.g RMAP, CPTP, SpW-D) for SpaceWire links, nodes and routers

Information is exchanged openly in a collaborative spirit in full respect of intellectual property rights (responsibility of each participant).

European Space Agency

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Working Group composition

- WG Mtg participants and people expressing interest in SpW Technology

- Fully open to Industry (worldwide)

- Agency members act as focal points for national industrial and intra-agencies activities

- Agency members and Convenors participate in the SpW WG Steering committee (InterAgency meeting)

Tools and websites:

- http://spacewire.esa.int

- http:// spacewire.esa.int/WG/spacewire

  - Registration to the SpaceWire WG Mailing List can be done easily via: http://spacewire.esa.int/contact.php. By registering to the mailing list, you will be informed on WG events.

  - Registration to SpW WG meetings can be done via:http://spacewire.esa.int/swirewg/

    (Userid: SpWlink Password SpW4space).

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Scope Meeting #15

- **SpW networks used for C&C and High Throughput Transfers (SpW-D)** (Convenors: Ph. Armbruster, ESA/ESTEC & S. Parkes, UoD)

- **SpW Evolutions and Standard Revision** (Convenors: D. Jameux, ESA/ESTEC & M. Suess, ESA/ESTEC)

- **SpaceWire-PnP** (Convenors G. Rakow, NASA/GSFC, C. Taylor, ESA/ESTEC & P.Mendham, SciSys)

- **SpW Deployment and Handbook** (Convenor, B. Cook, 4Links)

- **SpW Test, Verification and "Certification"** (Convenor Y. Sheynin, UoStPg)

- **SpW Products ESA brochure** (ESA)

- **SpaceWire International Conferences**: SpWIC 2010 – (St Petersburg RU) and SpWIC 2011 (San Antonio TX,US)

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Day 1: Monday 18th October (PM) – Room Einstein

14:00   **Welcome and Introduction** (Philippe Armbruster, ESA/ESTEC)

14:15   **Session 1: SpW New Protocols** (Convenor Martin Suess, ESA/ESTEC)

- Proposal for CCSDS time distribution over SpW (M. Isomaki & S.Habinc, Aeroflex-Gaisler)
Support Document: CCSDS Unsegmented Code Transfer Protocol

14:45   **Session 2: SpW –D** (Convenors Ph. Armbruster, ESA/ESTEC and S. Parkes, UoD)

- SpW-D An Introduction (S.Parkes / UoD)   Support document: SpaceWire- D Protocol Draft B

15:00   *Coffee break*

15:15   Presentation on SpW-D requirements and their assessment (A. Tavoularis, Teletel)
Support Document: Analysis and Assessment of the SpW-D Draft B Specification
16:45   Presentation on results of the Jaxa analysis for the SpW-D draft specification (T.Yamada,   JAXA)
Support Document: Presentation on SpW-D
17:15
- Presentation on SpW-D Preliminary Protocol Implementation – Parameter Identification and Trade-Off Analysis (Albert Ferrer Florit, UoD-ESA/ESTEC) Support document: Draft presentation on SpW-D
- Demonstration (Albert Ferrer Florit, UoD-ESA/ESTEC)

Discussion

18:45   *End of Day 1*

Day 2: Tuesday 19th October (AM) – Room Einstein

09:00   Wrap-up Session 2 – Conclusions and Dispositions

10:00   Session 3: SpW Evolution and standard revision (Convenor D.Jameux, ESA/ESTEC)

- Introduction: SpW evolutions, standard update (SpaceWire 1.1), backward compatibility, SpaceWire 2.0

- SpW evolutions: presentation of aggregated change requests from the Working Group and related technical discussions, possibly to agree on technical choices

13:00   Lunch break

Day 2: Tuesday 19th October (PM) – Room Einstein

14:00   SpW standard update:

- Presentations (D. Jameux et al.) on the proposed new SpW ECSS   standard, including clarifications and some of the new features discussed earlier; discussion and possible agreement on some amendments to the standard

- SpW evolutions that belong more to SpaceWire 2.0 that to the next issue of the standard

16:00   Session 4: SpaceWire related activities

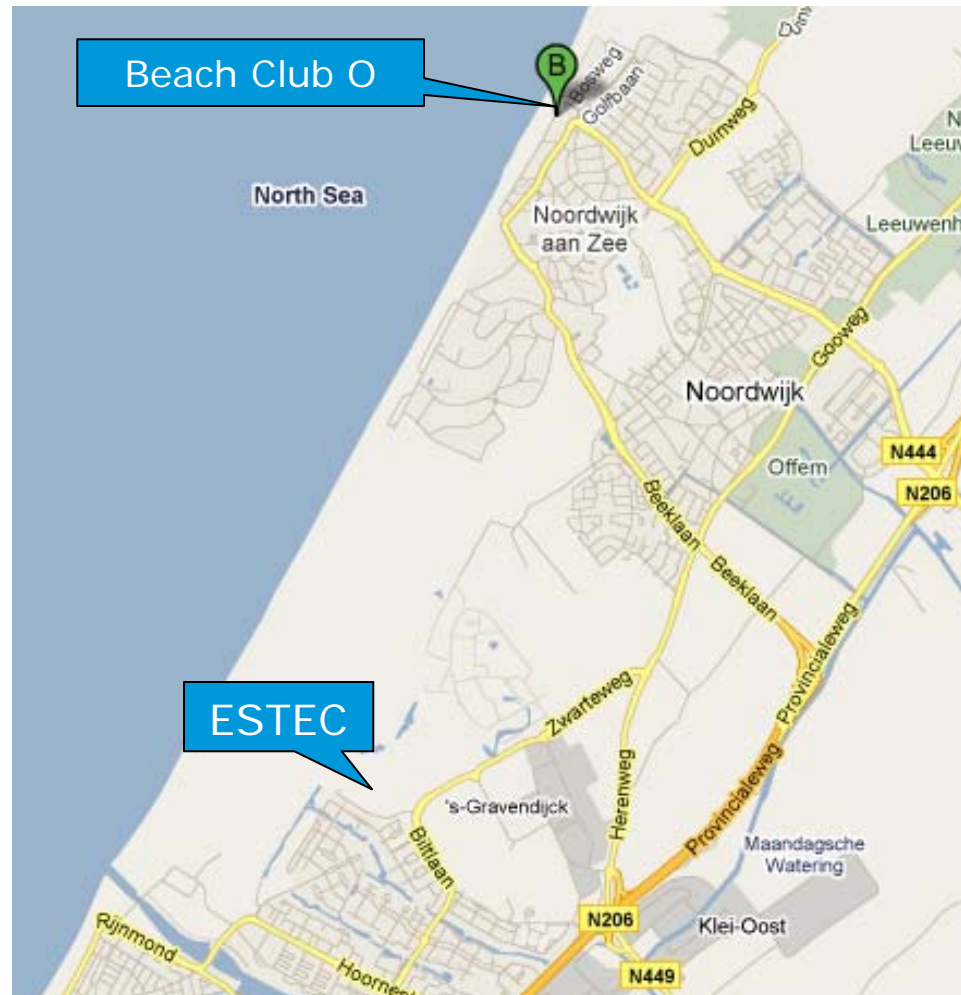- Presentation on SpaceWire Traffic Simulator (TAS-F)
- AOB

17:30-18:00   End of day 2

19:00   *Social event : SpW WG Gathering - Beach Club O, Noordwijk*

Beach Club O (*)

* : nice weather not guaranteed

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Beach Club O - Directions

Beach Club O

ESTEC

09:00 Session 5 SpaceWire PnP (Convenor Ch. Taylor, ESA/ESTEC & P.Mendham, SciSys)

- Introduction to SpW PnP (P.Mendham, SciSys)
- Presentations on PnP (H.Hihara/NTS Space, M.Isomaki/Aeroflex Gaisler, L. Onishchenko/UoST, M.Suess/ESA/ESTEC)

  Support document SpaceWire-PnP Protocol Definition Issue 2.1

10:20   Information on Network Discovery Protocols intended ITT on SpW PnP (D.Jameux, ESA/ESTEC)

10:30   *Coffee break*

10:45 Session 6 Other topics
- SpW Deployment and Handbook (Convenor, B. Cook, 4Links)
- SpW Test, Verification and "Certification" (Convenor Y. Sheynin, UoStPg)
- SpW Products ESA brochure
- SpaceWire International Conferences: SpWIC 2010 – (St Petersburg RU) and SpWIC 2011 (San Antonio TX,US)

12:30/13:00   *End of SpW WG meeting*

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Escape Dance Room

Escape

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14:00   SpW WG St Committee

SpW WG Steering Committee Meeting

Restricted to SpW WG Steering Committee members

17:00   *End SpW WG Mtg #15*