Technical Video Services (TVS) Information & Guidelines for Teams

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A – GENERALITY

Fundamental Function

- TVS delivers the central video signal for this competitions.
- TVS has a number of clients and must be capable of serving the following users:
  - NF Teams (Coaches/Sport Scientists/Team Leaders)
  - HOC Services; Video wall, public screens if Live TV not available
  - Video on Demand (VOD) streamed on the internet where appropriate

TVS : Video production process

siwidata
[SPORT: INFORMATION: TECHNOLOGY]

SIWIDATA : switching the final TVS A and B feed

hit the roof

HTR : setup/operate (TVS) cams

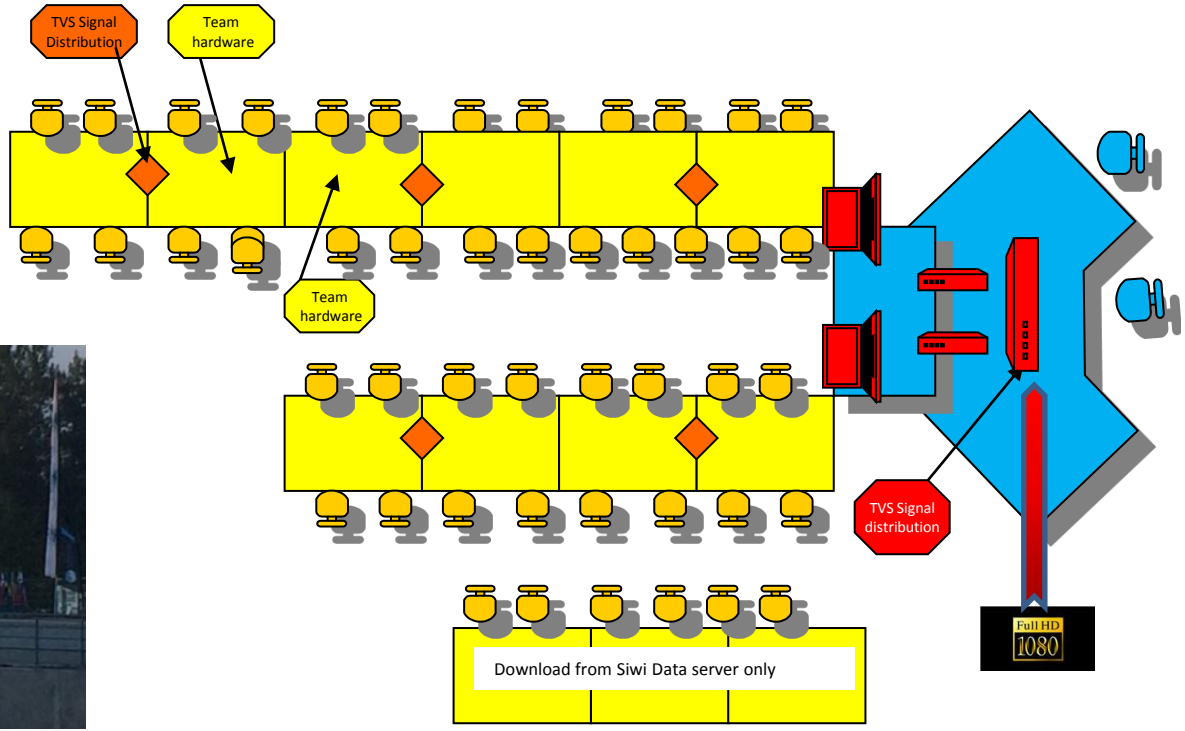
TVS : Teamwork

- TVS staff are a mix of :
  - 1 Technical Volunteer provide by ICF (TVS co-ordinator)
  - 3 Technical Volunteers provide by organisers (switcher/video production)
  - Professional companies : HTR & SIWIDATA
  - National Team members (supporters)

B – TECHNICAL VIDEO DISTRIBUTION CENTRE

LAYOUT & WAY TO WORK

- **2 solutions :**
  - Capture Live feed HD 1080i
  - Download Video via Siwidata Server



ORGANISERS SERVICES & REGULATION

The organisers will provide:

- Only one power socket (Euro standard), so please bring your own power strip if you need more sockets.
- Stickers to mark your workplace (from ICF TVS/HOC).
- The TVS tent will have 2 TV screens with the technical video feed (even, odd).

Regulations :

- Only one LAN port per nation is provide by ICF TVS to access to the SIWIDATA LAN network (for results and file downloads).
- Teams wishing to use the TVS service must be connected at least 30 minutes before the start of the competition/so any technical difficulties can be resolved before the race begins.
- For anything connecting to the SIWIDATA LAN network (for results and file downloads) connecting them to any other networks (LAN/ Wifi) or any cloud solutions (dropbox, google, onedrive…) is forbidden.
- Please shutdown any cloud functions during race time on all devices with local internet access via WiFi, to support a good internet performance for all.

C – TECHNICAL ASPECTS FOR "DOWNLOAD VIDEO VIA SIWIDATA SERVER "

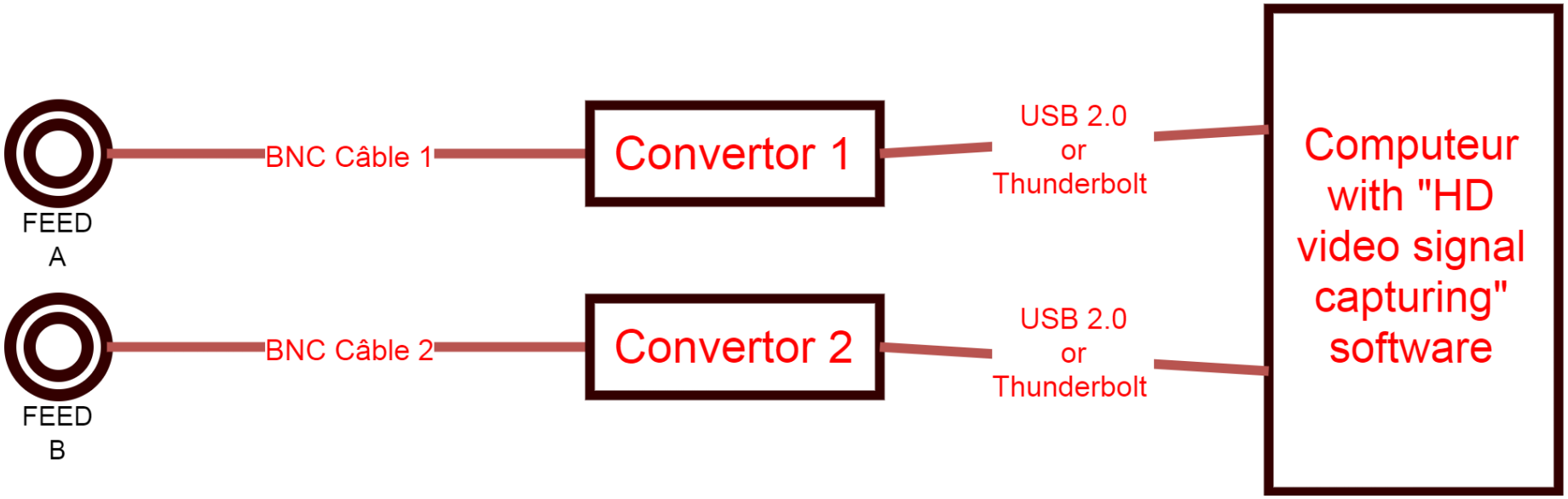
Principles & materials

- Teams will be able to download complete runs of particular Athletes from the SIWIDATA server instead of capturing it themselves.

- For the download solution, all teams have to provide a LAN cable (min. Cat 5, and 8-10m long) with a nation label (e.g. FRA or France) on each plug.

D – TECHNICAL ASPECTS FOR "CAPTURE LIVE FEED"

General LAYOUT



Video connections - Cabling (1)

- Video feeds will be provided in TVS tent up to an access point using BNC connectors.
- There will be enough HD access points for every team.
- Each team will have 2 access points (one EVEN/B and one ODD/A video feed).
- You will need a set of reductions to connect your hardware to BNC connectors with video feeds.
- **Important:**
  - we are asking that teams bring their own 2 BNC cables (one each for Feed A and Feed B).
  - The cables should be standard R59 or R6 (broadcast HD quality).

Video connections - Cabling (2)

- **Required Standard:**
  - RG 59, 20 AWG = 57m max. range for HD Signal
  - RG6, 18 AWG = 87m max. range for HD Signal

- These cables need to be between 4 to 5 meters long.

- These standards cover surely the next two upcoming generations of HD-SDI and VCS/analog as well, if these cables are less than 10 meter long. The cost of the cable should be under 25 euro.

- This will enable and guarantee the best available quality video signal for YOUR analysis.

Convertor – Solution 1

Black Magic h.264 Pro recorder

- Specialized hardware which can be connected using USB 2.0 to your computer.
- It allows to capture video from wide range of connections (composite - SD, digital SD – SDI, digital HD – HD-SDI, HDMI).
- It converts video directly to MP4 format to save space on your harddrive.
- Price ca. €470

Convertor – Solution 2

Black Magic UltraStudio Mini Recorder

- Small converter which allows to connect to High definition HD-SDI or HDMI video source.
- It uses Thunderbolt interface on computer side. Need to check your computer for compatibility.
- Conversion to MP4 or other formats is made on the computer side
- It requires powerful computer.
- Price ca. €140

Software solutions

- There are approximately 2 external solutions for HD video signal capturing on the market today which can be used for HD-SDI video source.
- Check also the compatibility with your video analysis software (e.g Dartfish 7 or Gamebreaker supports HD video capturing using Black Magic convertors).
- Suggested solution and technical support can be also found on websites of your video software :
  - http://www.dartfish.com
  - http://www.sportstec.com

Where to find support ?

- There will be a ICF TVS coordinator available for your questions and help at each ICF event and also for you preparation if needed.

- **contact:**
  - Hans-Peter Weiss (ICF TVS coordinator)
  - E-Mail : hape.weiss@t-online.de
  - Skype: hans-peter.weiss

END