



WDR

High Definition Production at WDR

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Aspects for HD-production

- The picture quality of the HD-format is exceeding the quality of high-end SD-formats like Digital Betacam. As well the classical domains of filmproduction can be managed with HD as a high quality format.
- Therefore HD is brilliant for any kind of high end TV-production and international distribution.
- Programs with high value in filmstock and usability for future programming should be produced in HD right from today.
- Shooting progressive in combination with high resolution is the best platform to convert video to film.
- The HD-formats are becoming more and more a common program-exchange-format for international distribution.
- The possibility of downconverting HD to SD is making HD format also best for SD production.

Programformats

- Under the explained general conditions HD-technology is the best productionplatform for the following programformats:
- **Drama Production, Primetime Program, Weekly Soap, Comedy**
- **Trailerproduction, including extensive postproduction and complex compositing.**
- **Documentation and Reenactment**



Acquisition equipment

4 Camcorder HDW 750



- Operation, functionality and dimensions of HD-camcorder is very similar to IMX tape-Camcorder, type MSW-900P or XDCAM-Camcorder, type PDW-530P.
- Capturing is done in 1080 x 1920, 25p or 50i. This is depending on the way of distribution (TV or cinema).
- To use the HD-camcorder in combination with standard-definition-equipment, the unit is equipped with SDI-outputboard. (steadicam, craneoperation)
- High-Definition Zoomlenses:
 - **Fujinon HA 18**
 - **Fujinon HA 13**

Acquisition equipment

- **ZEISS Digi Primes**

To reach the picture quality and benefits of prime lenses WDR is using a set of ZEISS Digi Prime lenses. The major field of application is drama-production.



- For field-monitoring and quality check lightweight LCD-displays an full 1080x1920 displays are used in production environment.



HDV-Equipment



- WDR is using 6 additional HVR-Z1 Camcorder
- This unit is used as a backup-camera for HDCAM environment, crashcamera or journalist-type camcorder.
- Under critical productioncondition the HDV-equipment is a good choice to shoot in HD with a lightweight and small equipment. In some cases WDR is producing 45 minute documentaries just with HDV equipment.
- For some musicproductions WDR decided to produce with up to three HDV-camcorders in a multicamera environment.
- Postproduction was done in SD and in HD on final cut pro.
- Integration of HDV to NLE-editing systems is realized with Miranda HDV/i-link to HD-SDI bridge.
- Usually HDV-tape is directly transferred to HDCAM for postproduction.

Qualifications

- In general - operation of HD-camcorder and basic knowledge of shooting video is nearly the same than with SD-equipment.
- Precision of focussing must be much more accurate than with SD-equipment.
- Camcorder-setup is delivering a wide range of adjustments for improvement of picture-style and -quality.
- Therefor WDR set up a special training on HD-cameratechniques and operation for cameramen, assistants and technicians.

Downgrade Workflow SD-Postproduction

HD Cameramaterial



HDW 2000/J-H3
HDCAM

SDI

Avid Symphony / Mediacomposer



- Downgrade while ingesting
HD 16:9 to SD 16:9



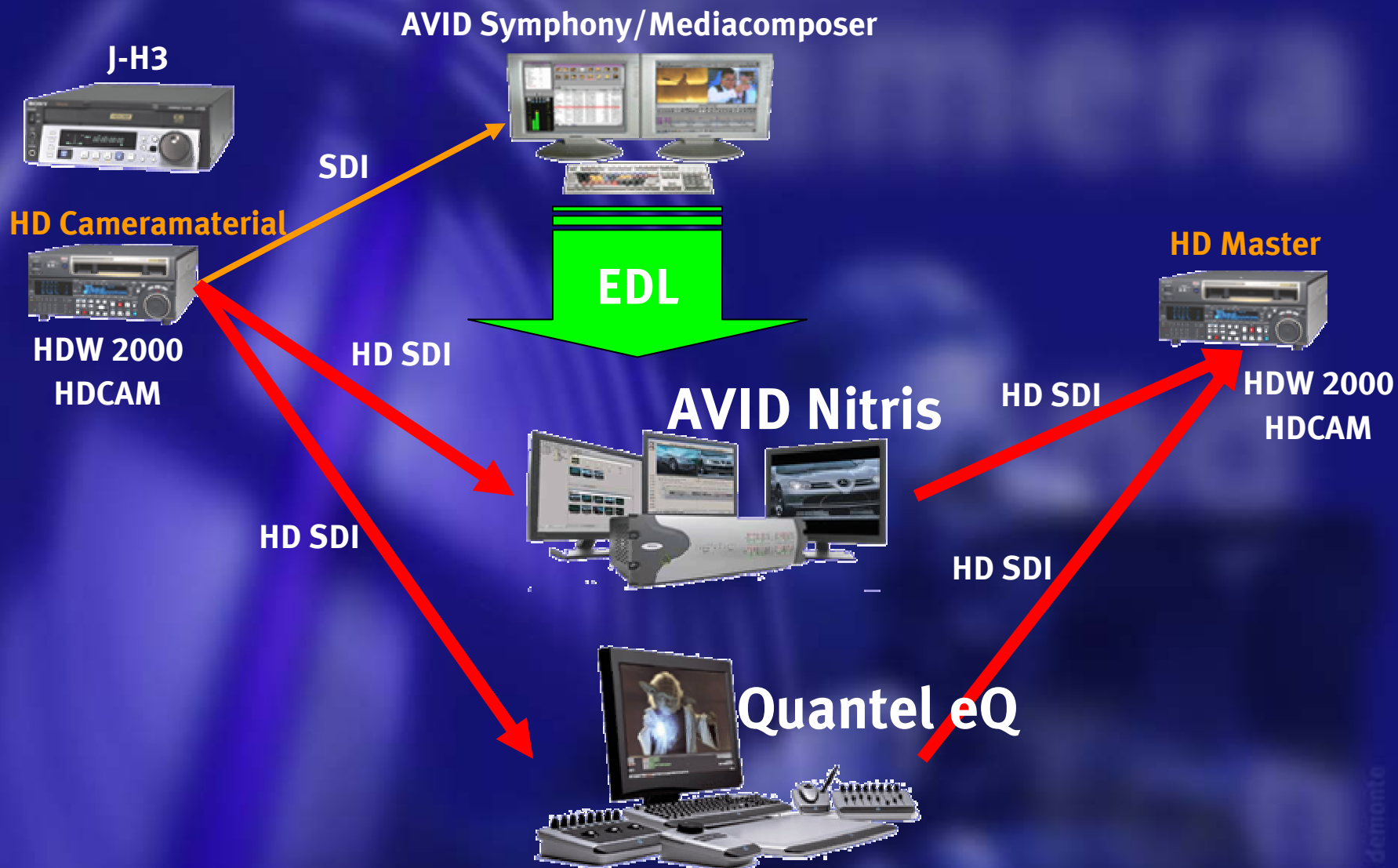
Downgrade Workflow SD-Postproduction



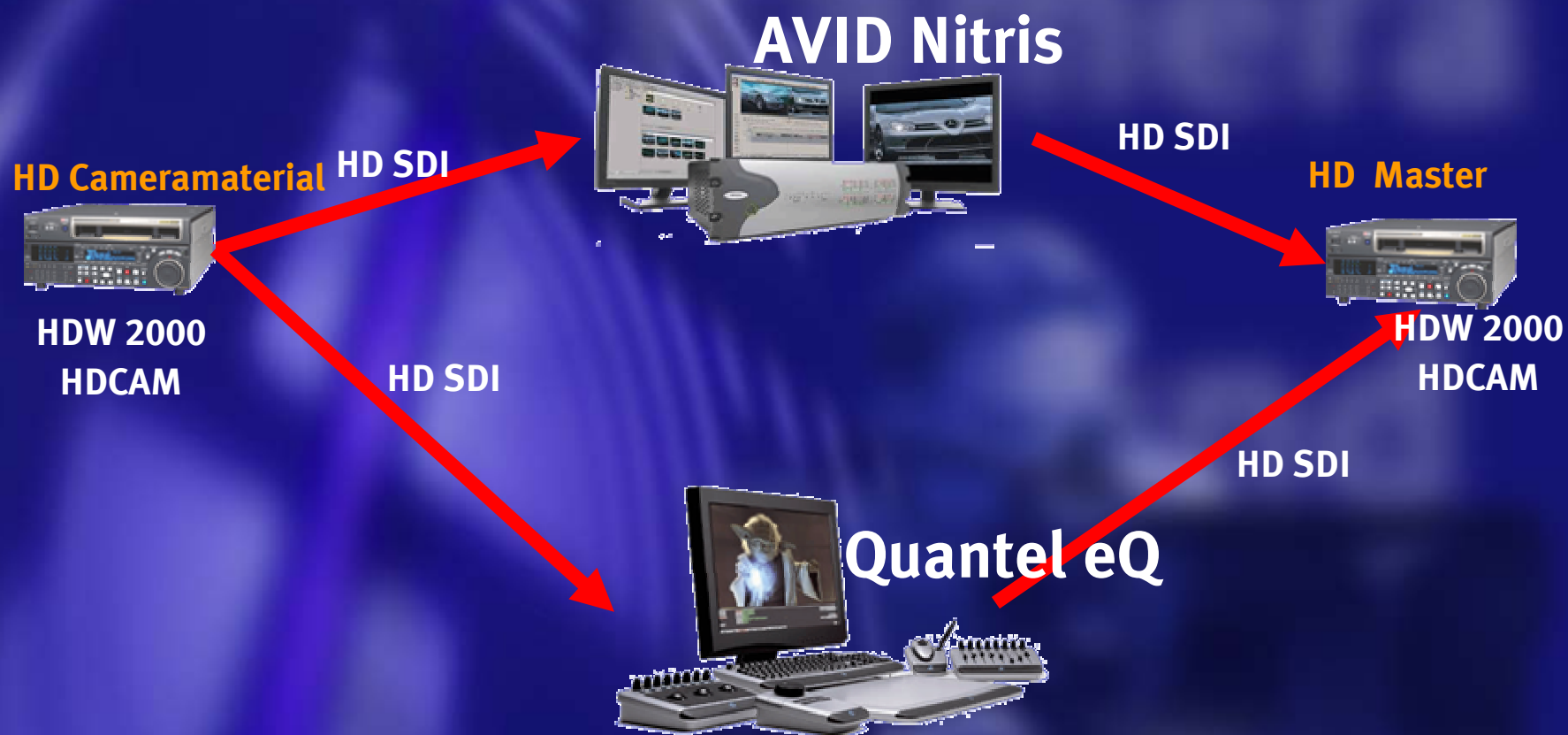
- Downgrade while ingesting from HD 16:9 to:
- SD 16:9
- SD 4:3
- Digitising in proxy-quality
- Editing in proxy-quality
- Online-batching in SD-high resolution
- Colorcorrection in SD-quality at Pandorra Pogle



Workflow SD-Offline / HD Online



Workflow HD Editing



- **Flußlandschaften – Oder**
educational program
HDCAM 1080i/25
- **Mansfeld – Land der Legenden**
HDCAM 1080i/25
- **Westart Meisterwerke**
40 episodes, 5 minutes
HDCAM 1080i/25
- **Rendezvous mit dem Tod: Kennedy und Castro**
Documentary for ARD, 90Minuten
in co-production with NHK
HDCAM 1080p/25 and HDV 1080i/25
- **Suche nach dem Glück**
4 episodes, 45 minutes
HDCAM 1080i/25 and HDV 1080i/25

Thank You for Your attention