Training Day 2 Report:

6 June 2024

Doordarshan Bhawan continues to impress with its advanced broadcasting technology and the dedication of its engineers. Today's training focused on the detailed workings of the **ingest room**, the role of the personnel, and the **advanced editing tools used in the edit bay**.

Working in the Ingest Room
The ingest room is a crucial hub in the broadcasting process, ensuring that all incoming feeds are properly managed and routed. The responsibilities and workflows in the ingest room were thoroughly explored today.

Responsibilities of the Ingest Room Personnel:

1. Managing Incoming Feeds:
- Feed Lines: The ingest room receives incoming feed lines from various sources through the MSR (Master Switch Room) screens.
- Continuous Live Feeds: The person in the ingest room continuously receives live feeds from ANI (Asian News International) and Reuters, two prominent news agencies. These feeds are continuously recorded on GV servers to ensure comprehensive news coverage.
- Monitoring and Control: Personnel ensure that all feeds are managed according to the protocols established by the Grass Valley (GV) and Quantel servers.

2. Recording Important Events:
- Live Coverage: For significant events such as live coverage of the Prime Minister or President, the ingest room records the feeds on both GV and Quantel servers.
- VTR Player Usage: These events are also recorded onto disks using VTR (Video Tape Recorder) players. Specifically, the Sony XDCAM series, which includes VTR players, is utilized for this purpose. These devices use Fujifilm PD711DL Professional Discs for recording.

Overview of Sony XDCAM VTR Players and Fujifilm PD711DL Discs

The Sony XDCAM series, including the VTR (Video Tape Recorder) players, is a family of digital recording products that use the Professional Disc (PD) optical disc format. The XDCAM series is widely used in professional broadcast environments for recording, editing, and storing high-definition video.

Key Features of Sony XDCAM VTR Players:

1. Professional Disc (PD) Media:
- PD711DL Fujifilm Discs: These double-layer optical discs offer high storage capacities, typically around 50 GB per disc.
- Reliability: Known for their durability and reliability, PD media is suitable for archival purposes and repeated use in professional settings.

2. Formats and Compatibility:
- HD and SD Recording: XDCAM players and recorders support various video formats, including high-definition (HD) and standard-definition (SD) formats.
- MXF File Format: XDCAM systems record video in the Material Exchange Format (MXF), widely supported in professional editing software.

3. Recording and Playback:
- High-Quality Video: XDCAM VTRs offer high-quality recording with options for different bitrates and resolutions.
- Versatile Playback: These devices can play back footage recorded in multiple formats and resolutions.

4. Editing and Workflow:
- Non-linear Editing: XDCAM footage can be easily ingested into non-linear editing systems (NLEs) for efficient post-production workflows.
- Proxy Files: XDCAM devices can generate low-resolution proxy files for quick review and rough editing.

5. Integration and Connectivity:
- Professional Interfaces: XDCAM VTRs feature a range of professional video and audio interfaces, such as SDI, HDMI, and XLR.
- Network Capabilities: Some models offer network connectivity for remote access and file transfer.

Advantages of Using Sony XDCAM and Fujifilm PD Discs:
- Durability: The optical disc format is resistant to environmental factors like humidity and temperature changes.
- High Capacity: Double-layer discs provide ample storage for extended recording sessions.
- Fast Access: Optical discs allow for quick random access to recorded footage, speeding up editing and retrieval.

Use Cases:
- Broadcasting: XDCAM VTRs are used in television studios for capturing and playing back broadcast content.
- Field Recording: XDCAM's robustness is suitable for on-location shoots and field recording.
- Archiving: The stability of optical disc media is ideal for archiving important footage.

Information About ANI and Reuters

ANI (Asian News International):
- Overview: ANI is a leading news agency in India that provides syndicated multimedia news feed to multiple news bureaus in India and beyond.
- Services: It offers a wide range of services including video news, text news, and photo news. ANI is known for its comprehensive coverage of national and international news.

Reuters:
- Overview: Reuters is an international news organization headquartered in London. It is one of the largest and most respected news agencies in the world.
- Services: Reuters provides real-time multimedia news feed, covering news events globally, including politics, business, technology, and more. It is renowned for its accuracy, speed, and comprehensive news coverage.

Qube Editor in the Edit Bay

Qube Editor:
The Qube editor, developed by Quantel (now part of Grass Valley), is a high-performance non-linear editing system used in professional broadcast and post-production environments. It integrates seamlessly with Quantel servers and provides a range of powerful tools for editing, effects, and finishing.

Key Features of Qube Editor:
1. Non-linear Editing (NLE):
- Qube provides a robust NLE environment, allowing editors to work on video and audio tracks with precision and flexibility.
- It supports multi-layer editing, enabling complex timelines with multiple video and audio tracks.

2. Real-time Performance:
- Designed for real-time editing and playback, Qube ensures smooth performance even with high-resolution content.
- Leverages the power and database of Quantel servers to deliver real-time effects and transitions without rendering delays.

3. Integrated Workflows:
- Qube integrates seamlessly with other Quantel and Grass Valley products, facilitating streamlined workflows from ingest to playout.
- Supports collaborative workflows, allowing multiple editors to work on the same project simultaneously.

4. Advanced Effects and Compositing:
- Includes a wide range of built-in effects and compositing tools, enabling editors to create sophisticated visual effects directly within the editing interface.
- Supports keyframing, color correction, and advanced compositing techniques.

5. Media Management:
- Provides robust media management capabilities, including metadata tagging, media organization, and efficient search functions.
- Integrates with Quantel servers to manage large volumes of media assets efficiently.

6. Flexible Format Support:
- Supports a wide range of video and audio formats, making it versatile for different production requirements.
- Includes support for high-definition (HD) and standard-definition (SD) formats, as well as various file-based workflows.

7. User Interface:
- The Qube interface is designed to be intuitive and user-friendly, with customizable workspaces and toolsets to suit different editing styles.
- Provides a timeline-based editing environment with drag-and-drop functionality, real-time previews, and advanced trimming tools.

Advantages of Qube Editor:
- Efficiency: Qube's integration with Quantel servers and real-time performance enhances editing efficiency, reducing the time needed to complete projects.
- Collaboration: Its collaborative capabilities allow multiple users to work on the same project, improving team productivity.
- High Quality: The system supports high-quality video and audio editing, ensuring that the final output meets professional broadcast standards.

Edit Bay Systems:
- The systems in the edit bay area are connected to the servers and are used to take raw clips from the ingest room and then edit them accordingly for broadcasting. This integration ensures a seamless flow of media from ingestion to final broadcast, enhancing the overall efficiency and quality of the production process.

Key Takeaways

- **Role of Ingest Room Personnel**: The critical role of the personnel in managing incoming feeds and ensuring the proper recording of significant events was emphasized. The continuous recording of live feeds from ANI and Reuters ensures comprehensive news coverage.
- **Integration of Technology**: The seamless integration of GV and Quantel servers, along with the use of Sony XDCAM and Fujifilm PD711DL discs, showcases the advanced technological framework at Doordarshan.
- **Data Management and Recording**: Efficient data management and high-quality recording are essential for maintaining broadcast standards and archiving important content.
- **Advanced Editing**: The use of Qube editor in the edit bay enhances the editing capabilities, allowing for real-time, high-quality video production.

Conclusion

The second day of training provided a comprehensive understanding of the ingest room operations and the vital role played by the personnel in managing incoming feeds and recording significant events. The use of advanced technology like Sony XDCAM and Fujifilm PD711DL discs ensures high-quality recording and efficient workflows, supporting the professional broadcasting environment at Doordarshan News. The continuous live feeds from ANI and Reuters further enhance the overall news coverage, ensuring that viewers receive timely and accurate information. Additionally, the Qube editor in the edit bay offers powerful non-linear editing capabilities, streamlining the production process and ensuring high-quality output. The systems in the edit bay are seamlessly connected to the servers, facilitating the smooth transition from raw footage to broadcast-ready content.
