Training Day 8 Report:

14 June 2024

Comprehensive Overview of Doordarshan News Broadcasting Workflow

On the eighth day of training at Doordarshan News, we consolidated our understanding of the entire broadcasting workflow, from data ingestion to live broadcasting and archiving. This report summarizes all the key aspects discussed throughout the previous training sessions, including the use of AP ENPS, server management, PCR operations, graphics integration, and archiving practices.

Ingest Room Operations

The ingest room is the initial point where data from various sources, such as journalist reports, social media footage, and other media, are collected. Here are the key operations:

- **Data Collection**: Data from sources like YouTube, social media, and raw footage are collected.
- **Ingestion and MOS ID**: Data is ingested to GV and Quantel servers, and MOS IDs are simultaneously provided to ENPS (Electronic News Production System), managed by SHAF Broadcast Pvt Ltd.
- **Ingest Room Systems**: These systems include various switches for feed lines, main RTR output, and destination routing.
- **Whole Output Display**: The ingest room also contains a wholer that displays the whole output for monitoring purposes.

AP ENPS in the Newsroom

AP ENPS is the core system used in the newsroom where journalists, producers, graphic designers, and other staff prepare news bulletins.

- **Story Creation and Editing**: Journalists use ENPS for writing and editing news stories. The system provides comprehensive scriptwriting tools and real-time collaboration features.
- **Rundown Management**: Producers organize stories into rundowns, determining the sequence and timing of each segment for the broadcast. ENPS ensures that all elements are synchronized and up-to-date.
- **Graphics Integration**: Graphic designers use ENPS to manage and integrate visual elements into the news stories.
- **Security and Privacy**: Doordarshan prioritizes security and privacy, especially for sensitive information. An on-premise system like ENPS is preferred over cloud-based solutions to mitigate security risks.

Detailed Functionality of AP ENPS

- **Media Object Server (MOS) Protocol**: Enables seamless communication between ENPS and other newsroom systems, such as video servers, graphics systems, and teleprompters.
- **GV and Quantel Servers**:
    - **SQ Edit**: For editing video clips stored on the servers.
    - **SQ Cut**: For trimming video segments.
    - **SQ View**: For previewing video content.
    - **SQ Play**: For managing video playback during broadcasts.
- **WASP 3D Sting Server**: Used for integrating 3D graphics into broadcasts, allowing preview and management of graphical elements.

Production Control Room (PCR) Operations

The PCR is crucial for live broadcasts and overall broadcast management:

- **Live News Bulletin**: The PCR team manages live broadcasts with precision and dedication.
- **Screens**: Large screens display outputs from FS1, FS2, ME1, ME2, DD News TCR, AS1, AS2, CASPER1, CASPER2, and GFX.
    - **FS (Frame Synchronizer)**: Outputs full-screen video feeds.
    - **ME (Mix Effects)**: Handles video effects and transitions.

    - **TCR (Technical Control Room)**: Shows live previews.
    - **AS (Auxiliary Services)**: Additional services and feeds.
    - **CasperCG**: Software used for graphics and video playout.
- **Producer Role**: The producer selects shots from ENPS using MOS addresses and schedules them for broadcast.
- **Teleprompter**: Managed by a dedicated person who provides text for the news anchor. A teleprompter displays scrolling text that the anchor reads.
- **Graphics and Video Editors**: Work on integrating graphics and video edits in real-time.
- **Sound Systems**: Include Studer Vista1 and Yamaha MG16XU for audio management.
- **Video Wall**: Displays multiple video feeds for monitoring and management.
- **Maintenance Team**: Present in the PCR to handle rare server errors and make necessary changes to systems like ENPS.

Live Stream and OB Van Integration

- **Direct Feed Line**: In case of live streams, the PCR takes a direct feed line from OB vans or other outside broadcasting systems. Immediate edits such as adding graphics are made, and the live content is broadcasted seamlessly.

Archiving and Data Management

Doordarshan uses advanced systems to archive important content securely:

- **Black Pearl Spectra Tape Management System**: Used for long-term storage of important videos, such as the PM's oath-taking ceremony.
    - **Functionality**: Manages storage using tapes, ensuring data safety and longevity.
    - **Storage Capacity**: The system handles large volumes of data efficiently.
    - **Robotic System**: Automates the management and retrieval of tapes.
- **Reason for Tape Usage**: Doordarshan prefers tapes over cloud storage for security reasons, as tapes are less vulnerable to damage compared to Blu-ray discs or SD cards.

Comparative Analysis

- **Private Channels**: Channels like NDTV and Zee News use similar systems such as Octopus.
- **Social Media Outlets**: Organizations like Newslaundry and Lallantop, which focus on social media, do not use comprehensive newsroom systems like ENPS.

Conclusion

The training at Doordarshan News provided an in-depth understanding of their broadcasting workflow, emphasizing the importance of security, precision, and efficiency. From data ingestion to live broadcasting and archiving, each step is meticulously managed using advanced systems like AP ENPS, Quantel and GV servers, and the Black Pearl Spectra Tape Management System. The integration of these technologies ensures the smooth and secure operation of Doordarshan's news broadcasting, making it a robust and reliable system for delivering news to the public.

Open-Source Newsroom Management and Visualization Tools

1. **Newscoop**
    - **Overview**: Newscoop is an open-source content management system (CMS) specifically designed for newsrooms. It allows you to create, manage, and publish news articles, and it can be used to simulate a newsroom environment.
    - **Features**:
        - Article creation and editing
        - User management and permissions
        - Workflow management
        - Multi-platform publishing
    - **Website**: Newscoop
2. **Superdesk**
    - **Overview**: Superdesk is an open-source newsroom management system designed for journalists and newsrooms. It provides tools for content creation, editing, and publishing, and integrates with various other systems.
    - **Features**:
        - Real-time collaboration
        - Editorial workflow management
        - Integration with other CMS and publishing tools
        - Analytics and reporting
    - **Website**: Superdesk
3. **Libris**
    - **Overview**: Libris is an open-source platform for managing digital assets, which can be useful for newsrooms to manage video, audio, and image files.
    - **Features**:
        - Digital asset management
        - Metadata tagging and search
        - Integration with other CMS and newsroom tools
    - **Website**: Libris

Tools for Visualizing Workflows and Data

1. **Grafana**
    - **Overview**: Grafana is an open-source platform for monitoring and visualizing metrics. It can be used to create dashboards that visualize various aspects of newsroom workflows and server metrics.
    - **Features**:
        - Customizable dashboards
        - Integration with a wide range of data sources
        - Alerting and reporting
    - **Website**: Grafana

2. **Kibana**
    - **Overview**: Kibana is an open-source data visualization tool that works with Elasticsearch. It can be used to visualize and explore data stored in Elasticsearch, making it useful for analyzing newsroom operations and content metrics.
    - **Features**:
        - Interactive data visualizations
        - Real-time data exploration
        - Integration with Elasticsearch
    - **Website**: Kibana
3. **Mattermost**
    - **Overview**: Mattermost is an open-source collaboration tool that can be used for communication and collaboration within a newsroom environment.
    - **Features**:
        - Real-time chat and messaging
        - File sharing and collaboration
        - Integration with other tools and systems
    - **Website**: Mattermost

While no open-source tool can fully replicate the proprietary features of AP ENPS, using a combination of open-source newsroom management systems, collaboration tools, and data visualization platforms can help us create a similar environment on your personal computer. These tools provide flexibility, customization, and the ability to manage various aspects of news production workflows, giving you valuable insights into how such systems operate.
