

DIMI – DIGITAL MIGRATION ORF

Migration is way more than mere Digitization

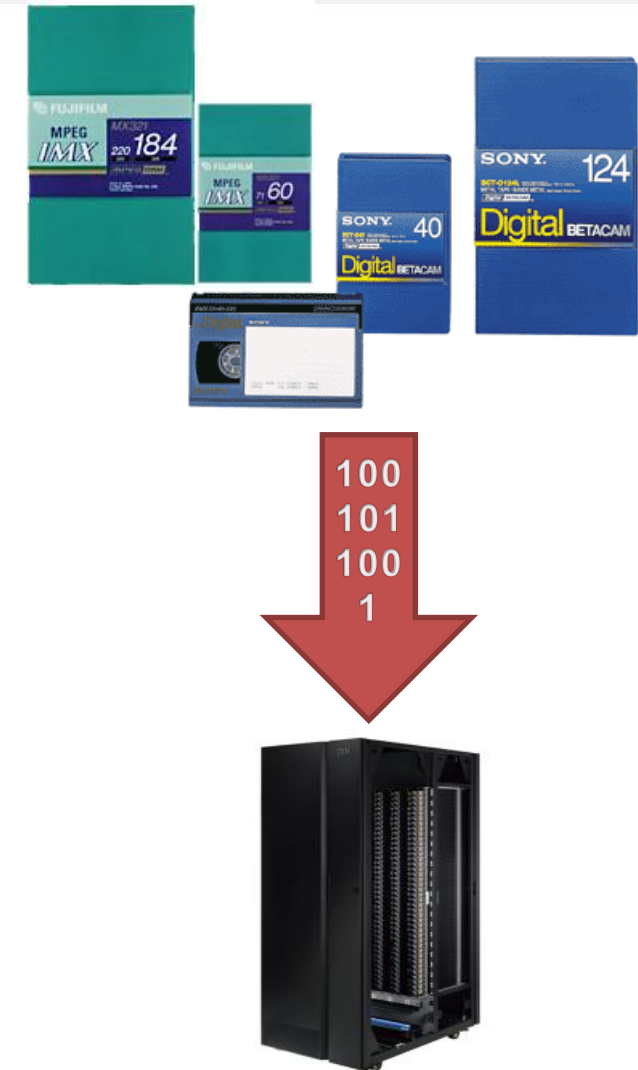
Christoph Bauer – ORF

Peter Schallauer – JOANNEUM RESEARCH

DIMI – DIGITAL MIGRATION

Why?

- ✓ Safeguarding assets
- ✓ Full support of tapeless workflows
- ✓ Safeguarding content
- ✓ Reduction of archive-space
- ✓ Harmonization of workflows and formats



DIMI – DIGITAL MIGRATION

KEY DATA

Amount: ~ 300.000 hours
~ 600.000 tapes

Daily output: ~ 82 hours

Sources: IMX D10
Digital Betacam

Term: 10 years

Start: December 2015
(all-out op: Q1/2016)

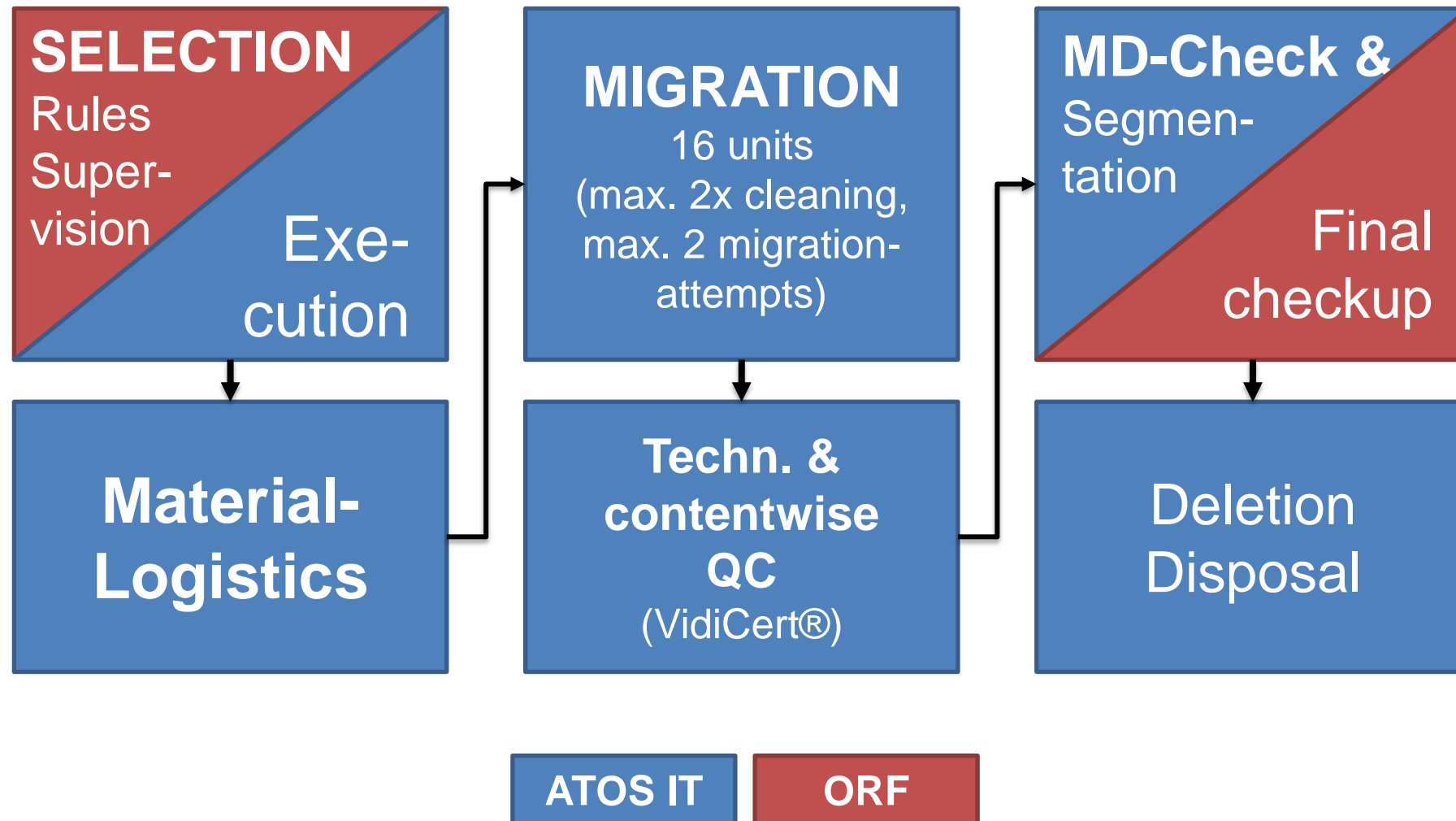
Service Provider: ATOS IT (+NOA+JRS)

Team: ORF: 2,5 FTE
ATOS IT: 8,7 FTE

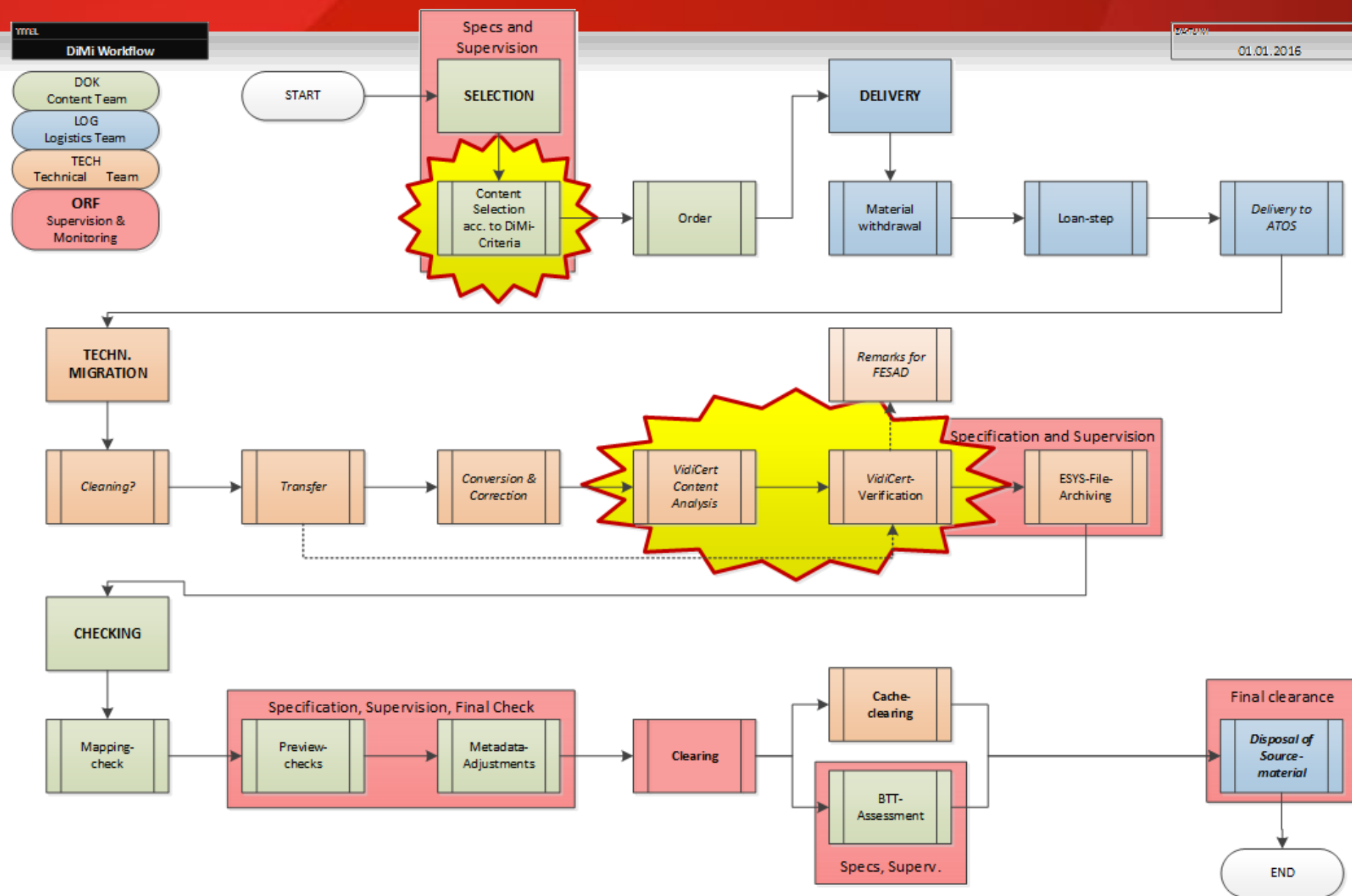


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WORKFLOW (Schematical Overview)



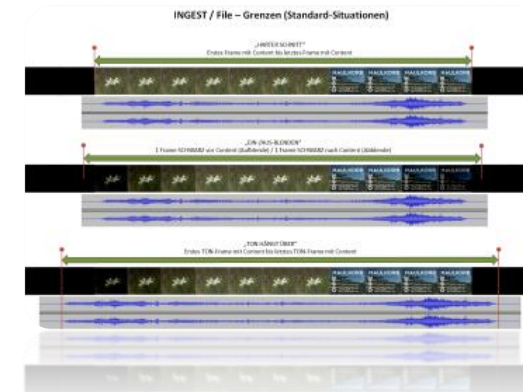
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ERSTELLT VON
BRUNO CHRISTOPH - 1002

„Viennese specialities“

- Selection und control via content
 - Prioritisation of „relevant“ content
 - Optimization of process by tailored selection
- Manual operation of migration-step
- Complete technical & content QC
 - Best possible result-guarantee
- Manual metadata-checks und –adjustment
- „Clean-Desk“ Policy
 - 72h from vault to checked and complete usability of migrated content



Selection – the perfect control-tool

- Selection via content
 - Prioritisation of „relevant“ content
 - Ad hoc migration possible
 - Full support of production and broadcast-needs
 - High internal satisfaction
- Selection of “optimal” sources
 - compilation of optimal packages
 - for optimal workload on all sections
 - prevention/reduction of backlogs
 - sorting out of “troublemakers”



Selection – the doing and the results

- Monthly “content-conference”
 - Prioritisation lists
 - Workflow-optimization
- Use of DiMi-content
 - immediate re-use
 - ORFIII – full programs
 - source for new productions
 - “Broadcast-Prep”
 - full use of the DiMi-advantages



DIGITAL – Institute for Information and Communication Technologies



VidiCert Technical and Content QC in the ORF DiMi Project

Peter Schallauer

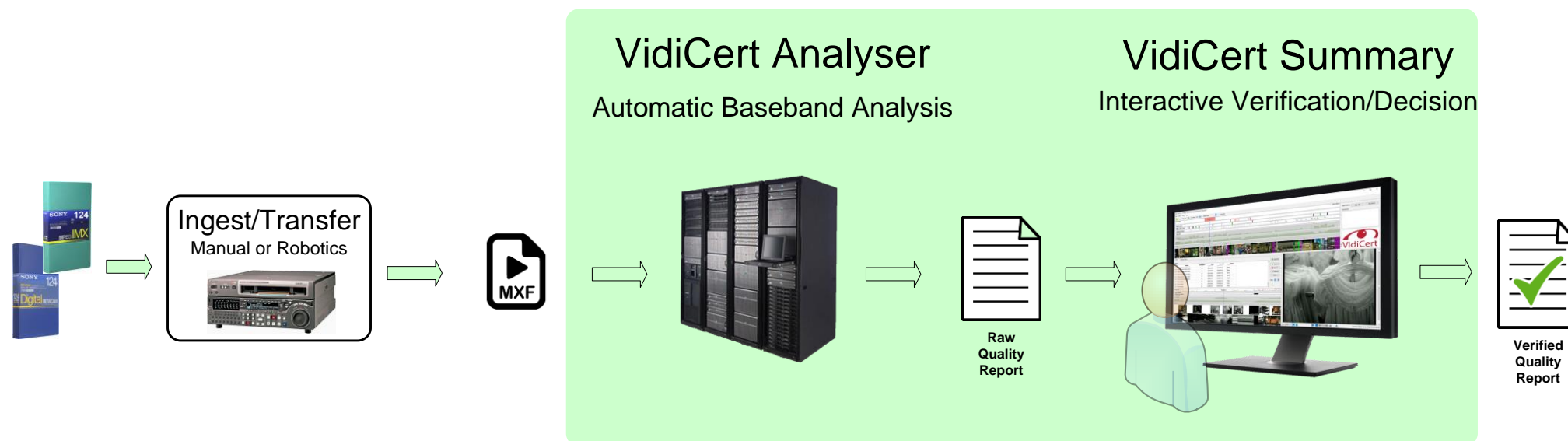
Warsaw, 15 Oct. 2016

ORF DiMi QC Needs

- Maximise content value for re-use
- Migrate with best AV quality possible
 - from last generation (IMX, DigiBETA)
 - or generations before (M2, 1“, etc.)
- Ensure that content in created program files is correct and complete
 - Destruction of tapes desired directly after migration!

ORF DiMi QC Approach

- QC to ensure „Save Migration“
 - Ideally full manual QC of program files from start to end
 - 1.5- 2 hrs per content hr
 - Realistically semi-automatic QC
 - Automatic analysis results guides operator to suspicious sections



- Throughput June-Sept. 16: 112 hrs/working day with 3 full-time QC operators
- Apx. **13 minutes per content hr for both, technical and content QC**

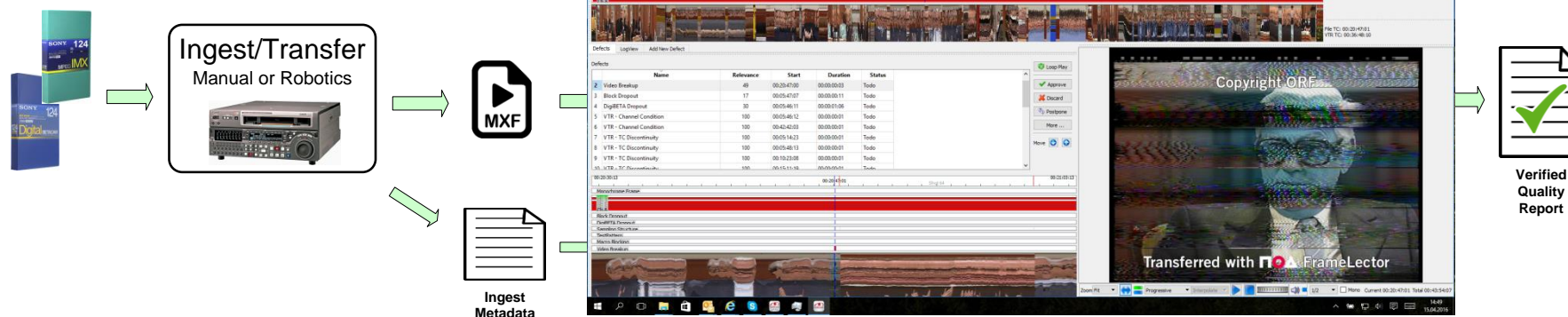
ORF DiMi

QC of AV Technical Quality

- Detect video player and earlier generation problems
 - VidiCert baseband detectors for digital and analogue tape migration issues
 - DigiBETA Dropout
 - Block Dropout (for any DCT based encoding format)
 - Macroblocking
 - Video Breakup (off-lock, TBC hit...)
 - Black, Test Pattern, Field Order



- Integration of VTR player info (e.g. captured by NOA, Cube-Tec, Jordi or other systems)
 - Video and Audio Channel Condition
 - RF Level of video head
 - TC discontinuities

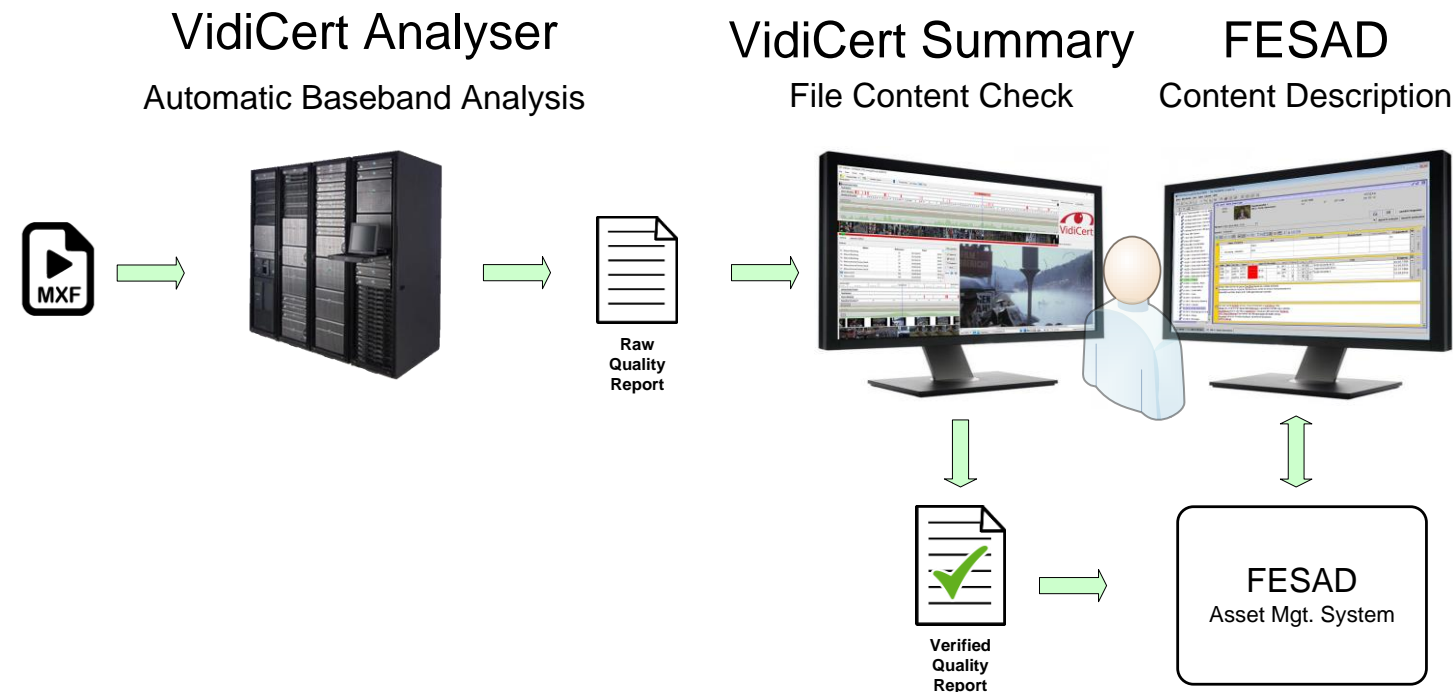


ORF DiMi Evaluation AV Technical Errors

- Evaluation period: June – Sept. 16
- 9708 h content, 11885 files, ~49 min per file
- # of verified AV defects
 - 5990 Video Breakup (Analog Syncr. Errors)
 - 5032 VTR TC Discontinuity
 - 4263 VTR Channel Condition
 - 1841 DigiBETA Dropout
 - 1518 Block Dropout
 - 1448 Macroblocking
 - 1762 Black Frames
 - 426 Grey Frames
 - 219 Test Pattern
 - 40 Field Order Error
- Verified AV technical errors are stored in VidiCert QC report (MPEG-7 XML)
- QC report is stored in FESAD system for future use, e.g. on demand restoration

ORF DiMi Content QC

- Ensure consistency between file content and its archive MAM description
- Supported **content QC** functions
 - is file content correct and complete
 - start/end timecodes consistent
 - audio channel allocation/encoding/content consistent
 - scanning type (interlaced, progressive, pull-down) and field order consistent
 - overall AV quality statement
- QC may results in
 - MAM metadata updates
 - Re-Ingest
 - QC report is made available to ORF for immediate actions and is stored in FESAD for future use
 - Overall QC comments stored in VidiCert QC report



ORF DiMi Evaluation

Service Provider to ORF Communication

- QC operator provides **overall comments per file/program**
- Pre-defined comments developed with ORF and Atos
- Comments (June to Sept. 16)
 - 9952 No comment (everything Ok after QC, includes also files with FESAD metadata updated)
 - 1016 Strong analog errors on tape
 - 374 Strong digital errors on tape
 - 199 Strong VTR time code discontinuities
 - 81 Ingest error
 - 65 Useful content before/after program
 - 54 Strong digital and analog errors on tape
 - 14 Audio channel content missing or faulty
 - 5 File timecode wrong
 - 1 Wrong program
- 104 Other comments (non-predefined ones)

ORF DiMi

QC Benefits

- Migrate with best possible AV quality to file based environment
 - ➡ To maximise content value for re-use

- Ensure that content in created program files is correct and complete
 - ➡ To sleep well, especially when tapes are destructed

- Document QC results
 - ➡ For future use, e.g. to enable efficient restoration on demand

Contacts

The DiMi Project



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Quality Control



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VidiCert

www.vidicert.com