



AUDIO ARCHIVE GOING DIGITAL

**Experiences from the YLE Radio archive
audio digitization project**

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BAAC Annual Conference Oct 4 2012 Helsinki**



Outline

- Yle & the archives
- Clientele and environment
- Digitization, a strategic choice
- Workflows in the archival process
- Metro, Yle's MAM system
- Lessons and future plans

- Budget 440 million euros
- 3100 employees
- 4 + 1 TV channels, 6 radio channels, yle.fi and other Internet services
- 20 regional radio services in Finnish, 5 in Swedish and 1 in Sámi
- 8 regional TV news broadcasts
- 98% of Finns use Yle's services yearly, more than 70 % daily
- Radio production > 200 000 h /year





Who are we for?

Radio archives customers and users:

- Yle's Radio and TV channels, journalists, programme production, news desk
- Independent production companies, joint productions
- Yle's Elävä Arkisto 'Living Archive' web-service yle.fi/elavaarkisto/
- Yle Sales -> private and commercial use
- Research community

= *The Finns*



Co-operation:

KAVA

IASA

DISMARC

Audio archives in Finland



Years in audio archiving

1926 Yleisradio - The Finnish Broadcasting Company

1934 first recording equipment purchased

1939 tape recorders

1955 Tape depository

1961 Audio archive

1987 online catalog

1989 digital production (DAT)

2001 digital archive system

2007 Yle ARMI

(Archives, Media Management and Information Services):

“Talteen, haltuun, käyttöön” : Safe - Managed – Utilized

2010 Integrated MAM-system Metro



The Radio archive collections:

radio programmes, news broadcast, music recordings, radio plays, coverage, sports...

5000 78 rpm shellac records (1935-1950)

250 000 ¼" analog open reel tapes (1950-2005)

50 000 DAT's

35 000 CD-R's

2000 MDI's

80 000 sound effects on 20 000 analog reel tapes

1000 Multi-track 2" analog and DASH tapes

Paper documents



Digitization - strategic issues

Why digitize?

Archival paradigm: Preservation, access and usage, born-digital content

The choice between keeping everything and selecting something:

- no selection: may be cost effective at first, how about for years to come?
- selection: where are the decisions made, based on what assumptions?

Priorisation: where to start and what next?

- obsolete carriers in danger
- content value, production costs
- availability of playback technology
- on-demand service for programme production needs
- changing business environment



The ingest process

- Selection and retrieval of carriers
- Metadata creation and addition (applies for some material)
- Carrier logistics and preparations for playback
- Audio capture in mass digitization unit
- 24 bit/48 KHz BWF Metro import and final check
- Carrier storage after digitization
- Metadata addition
- Restoration (on demand or systematic)
- Scanning the paper documents and catalogues in the radio archive?



Tools of the trade

2 NOA units for mass digitization and ingest:

Unit 1 :

Record: 4 Studer A807s

Medialector : 8 Sony PCM-R500s / Tascam MDCD1

Unit 2 :

Record: 3 Studer A807s

In test: NOA CDLector

Sonic SoundBlade HD for audio restoration

WaveLab workstations for editing, copying and lightweight restoration



Mass digitization unit 1

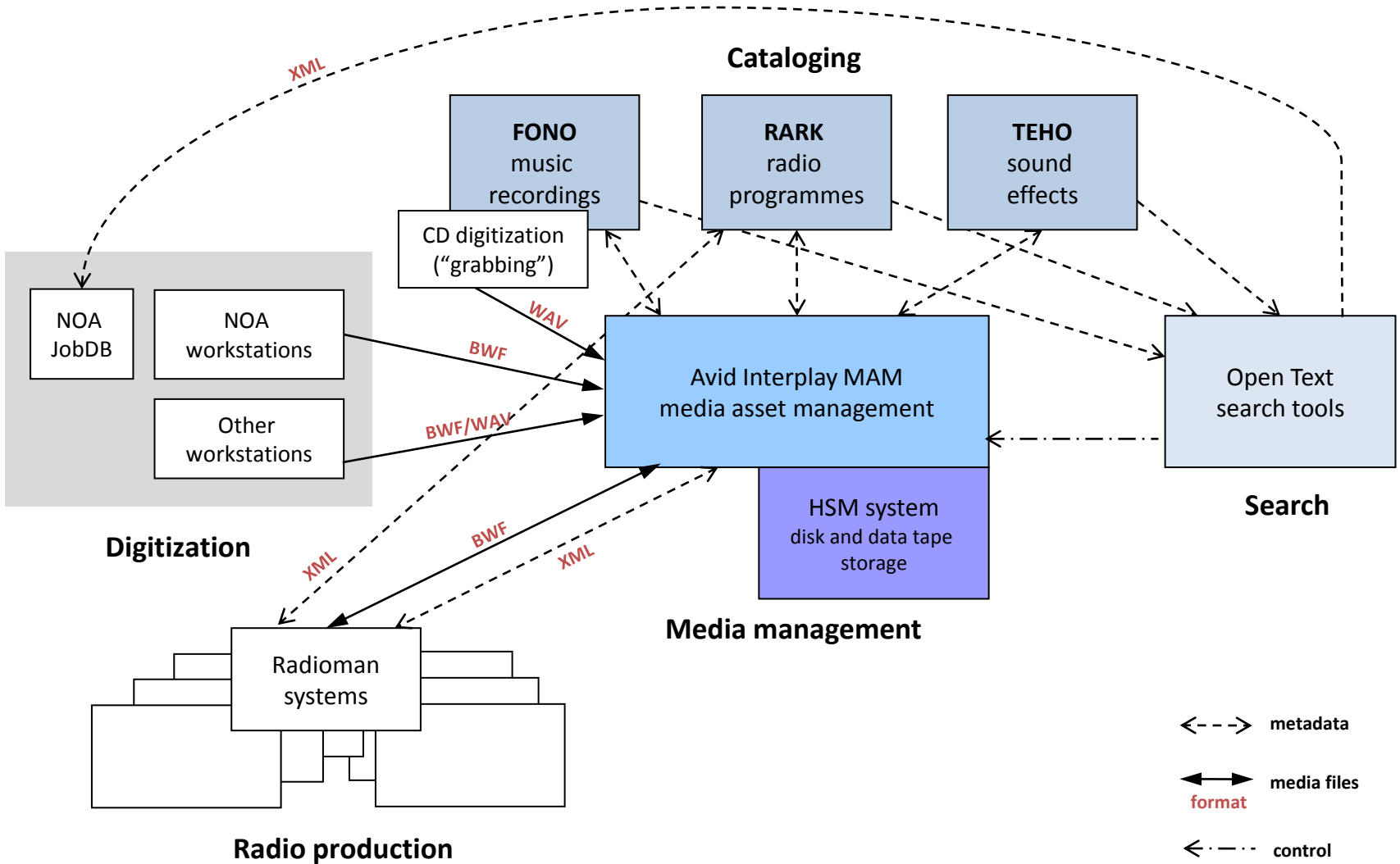


yle Restauration





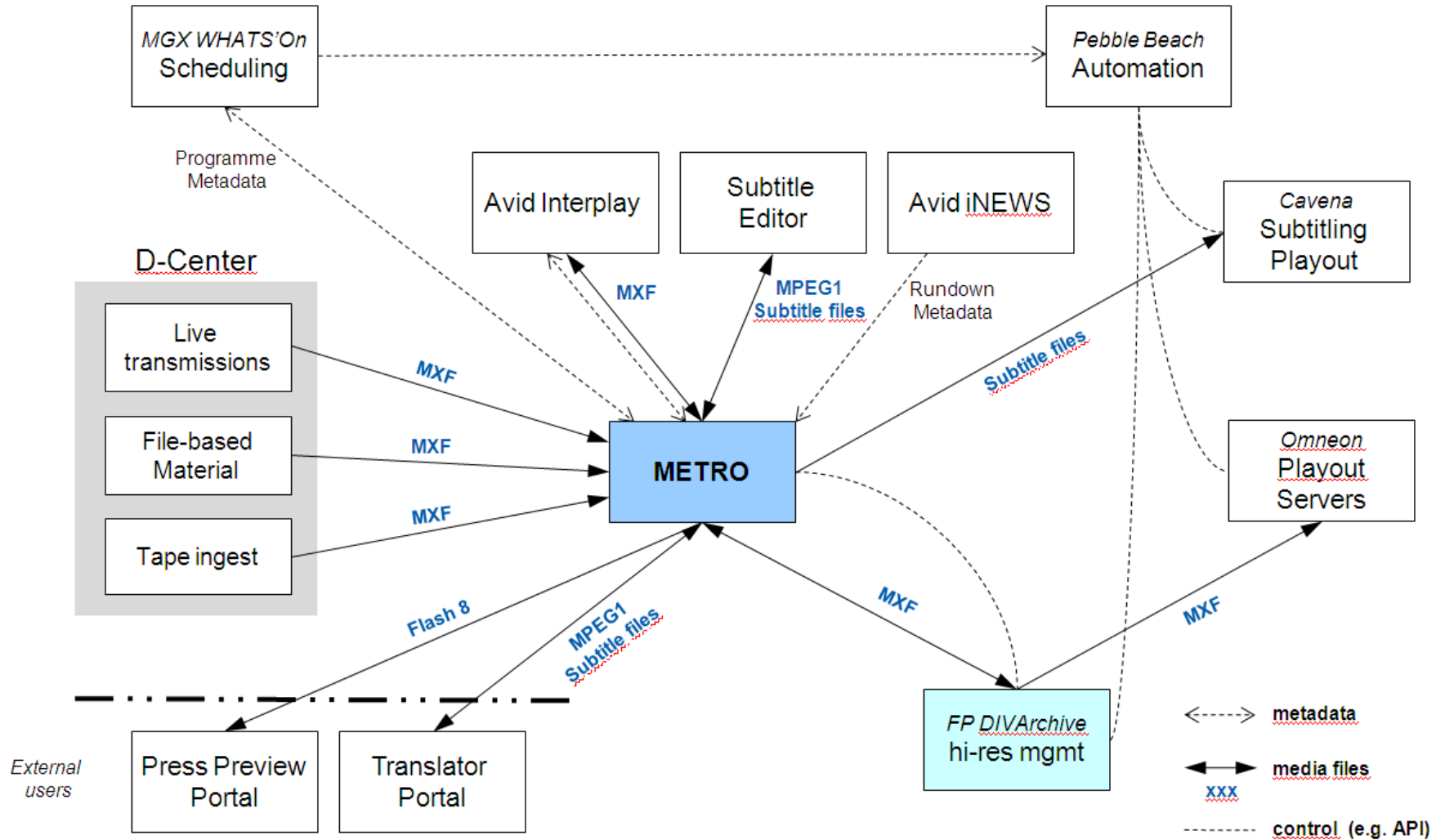
YLE METRO for audio





METRO

TV - interfacing with planning, production and delivery systems





METRO

Number of users

Status as 28.5.2012

- currently > 4 100 registered users
- ~ 3 000 users logged in at least once
- normally 150 - 200 concurrent users

Number of objects

- Video Objects ~ 600 000
- Audio Objects ~ 1 600 000
- Image Objects ~ 375 000

Amount of material **2 * 1,5 PB** (peta bytes)

- hires video: 2 x 1,4 PB, browse video: ~25 TB
- hires audio: 2 x 100 TB
- 1,5 - 3,0 TB new material/working day - 0,5 TB/day in weekends
- ~ 50 TB new material each month

Number of processed workflows

- ~ 6 500 import/export/subworkflows processed daily



METRO

Video objects

- programme 125 000 metadata of 477 000 programmes
- clip 61 000 raw material etc
- web clip 15 000 YLE Living Archive clips
- trailer 9 000 metadata of 15 000 trailers
- footage 43 000 EBU, Reuters and inhouse material

Audio Objects

- audio 1 200 000 radio programmes and audio clips
- music 335 000 Record Library's music recordings
- sound effect 40 000 inhouse sound effects
- amount 200 000 h audio material
- metadata 3 000 000 entries in Radio catalog database

Image Objects

- image 330 000 metadata of 375 000 images



METRO GUI & PLAYER

Avid Interplay Media Asset Manager Desktop - Windows Internet Explorer

http://metro.yle.fi:12520/WSMViewerWS/(S(gv5xyw4Stq4e545tuugk1es))/WSM.aspx?accesskey=304488bf-460d-40dd-8881-56c8f3118cb&User=SALOSPE&language=FI

Interplay Media Asset Manager Desktop Logged in as: SALOSPE [Logout](#)

Please select a command

Workspace

- Import Avid IPLAY HKI
- Import Avid IPLAY NEWS
- Import Avid IPLAY TRE ja alue
- Export to Avid IPLAY HKI
- Export to Avid IPLAY NEWS
- Export to Avid IPLAY TRE
- Export to Avid Standalone (Alueet ja ei-play yksiköt)
- Import Trolli other files
- Tee digitointitilaus
- Selaa digitointitilauksia
- Export to Quicktime
- Import from TEHO
- Import from FONO
- Import from RARK
- Import from Radioman
- Export to Radioman YLEX
- Export to Radioman YLE Radio Suomi
- Export to Radioman YLE Radio X3M
- Export to Radioman YLE Radio 1
- Export to Radioman Radiouutiset ja - urheilu
- Export to Radioman YLE Radio Vega
- Export to Radioman YLE Sami Radio
- Export audio to User Workstation
- Export Hi-Res MXF
- Export to DVD
- Import Image Collection
- Export images to user folder
- EBU News
- REUTERS News
- Omat kansiot
- Omat EDL kansiot
- Armi
- TVLT
- EDL folder

Folder content

Search for orders

Hits per page 25 Search Show a

Orders 1 - 25 of 14

No.	TITLE	PROGRESS	STATE
1	Turhuuden markkinoilla_RARK_DIG-287313-0	<div style="width: 100%;"></div>	Completec
2	Radioateleeje esittää: Akustine_RARK_DIG-706976-0	<div style="width: 100%;"></div>	Completec
3	Radioateleeje esittää: thaka b_RARK_DIG-706975-0	<div style="width: 100%;"></div>	Completec
4	Radioateleeje esittää: Jumala j_RARK_DIG-706969-0	<div style="width: 100%;"></div>	Completec
5	M-studio 2011 (kamarimusiikki) _RARK_DIG-2301605-0	<div style="width: 100%;"></div>	Completec
6	M-studio 2011 (kamarimusiikki) _RARK_DIG-2301604-0	<div style="width: 100%;"></div>	Completec
7	M-studio 2011 (kamarimusiikki) _RARK_DIG-2301603-0	<div style="width: 100%;"></div>	Completec
8	M-studio 2011 (kamarimusiikki) _RARK_DIG-2301602-0	<div style="width: 100%;"></div>	Completec
9	RSO:n konsertti 9.2.2012_RARK_DIG-2301556-0	<div style="width: 100%;"></div>	Completec
10	RSO:n konsertti 9.2.2012_RARK_DIG-2301558-0	<div style="width: 100%;"></div>	Completec
11	RSO:n konsertti 9.2.2012_RARK_DIG-2301557-0	<div style="width: 100%;"></div>	Completec
12	Tanskan katsaus. Montferamat_RARK_DR1-1318350	<div style="width: 100%;"></div>	Completec

Tietokanta: RARA

HAKU: Hakutulokset

Tee uusi haku Hakuhistoria Vie Metroon Valitse tietokanta Tulosta

Löytyi 1161 dokumenttia, joista tällä sivulla 1-50

Näytettävät tiedot: Koko dokumentti

		Ensianpvm	Aanituspvm	metro
1	<input type="checkbox"/> Suomen reunavartiolaitos ja Rudolf Hoisti.	19630112		
2	<input type="checkbox"/> Ratkaisun vuosi 1940. Tohtori Markku Reimaan haastattelu. KÄYTTÖRAJOITUS. Materiaalinaluauha.		19790202	
3	<input type="checkbox"/> Sotavankien tietokilpailu.	19400124	19400124	
4	<input type="checkbox"/> Radionäyttely sortavalassa 20-23.10.1938, katkelmia		19381018	
5	<input type="checkbox"/> Baltiaa kiertämässä 03.	19670206	19670206	
6	<input type="checkbox"/> Baltiaa kiertämässä 01.	19670123	19670121	
7	<input type="checkbox"/> Baltiaa kiertämässä 02.	19670130	19670125	
8	<input type="checkbox"/> Tänään iltpäivällä ma 13.12.1999. Presidentinvaalit 2000.	19991213		
9	<input type="checkbox"/> Tänään iltpäivällä ma 15.11.1999.	19991115		
10	<input type="checkbox"/> Tänään iltpäivällä ma 8.11.1999.	19991108		
11	<input type="checkbox"/> Tänään iltpäivällä la 20.11.1999.	19991120		
12	<input type="checkbox"/> Suomen ulkopolitiikka ETYK:in huippukokouksesta Euroopan Unioniin 07. Lännettymisen alku.	19990526	19990505	
13	<input type="checkbox"/> Tänään iltpäivällä ma 20.9.1999.	19990920		
14	<input type="checkbox"/> Tänään kymmeneltä pe 26.3.1999.	19990326		
15	<input type="checkbox"/> Satavuotista Marttatorioikkia ja Femina Balticaa. Naisten tunti.	19990919	19990916	
16	<input type="checkbox"/> Tänään iltpäivällä ti 13.3.1990.	19900314		
17	<input type="checkbox"/> Tänään iltpäivällä ke 1.3.1995	19950301		
18	<input type="checkbox"/> Kolmen jälkeen Seija Walliuksen seurassa. Ihmisiä ja elämää Virossa.	19990827	19990826	
19	<input type="checkbox"/> Herää Suomi 3.1.1991. Matti Haran vieraina Kavo Laurila ja Erkki Tiihonen.	19910103	19910103	

at ... 2 Windows E... 5 Microsoft ... 5 Microsoft ... digistrategia ... Desktop 20:56

Trusted sites 100%



METRO GUI & PLAYER

The screenshot displays the Avid Interplay Media Asset Manager Desktop interface. On the left, a workspace pane lists various tasks such as 'Import Avid IPLAY HKI', 'Export to Avid IPLAY NEWS', and 'Import from RARK'. The central area features a video player for 'Viro, kirkonkellot_TEHO_37563' with a timeline showing 00:00:07.616 / 00:03:08.160. The player includes standard playback controls (play, stop, previous, next) and an audio channel section with 'Track 1' and 'Channel 1 2' options. On the right, a table lists media items with columns for 'Länsianpvm', 'Aantyspvm', and 'mietro'. The table contains 19 rows of data, including titles like 'Satavuotista Marttahistoriikka ja Femina Balticaa. Naisten tunti.' and 'Tänään iltpäivällä ti 13.3.1990.'.

	Länsianpvm	Aantyspvm	mietro
	19630112		
astattelu.		19790202	
	19400124	19400124	
nia		19381018	
	19670206	19670206	
	19670123	19670121	
	19670130	19670125	
it 2000.	19991213		
	19991115		
	19991108		
	19991120		
Euroopan Unioniin	19990526	19990505	
	19990920		
	19990326		
	19990919	19990916	
	19900314		
	19950301		
	19990827	19990826	
	19910103	19910103	



Lessons learned, plans for future

- hang on to the original carriers and related metadata
- before migration is over, prepare for the next
- double check everything after updates, both system and organization
- archivists think about the future

To do-list:

- large scale CDR-ingest, data model support
- multi-track recordings, both on tapes and hard disks
- offline metadata in tape binders, cataloging cards, publications etc.
- new cataloging & import system

Thank You! Questions?



Your Story