





DIGITAL PRESERVATION AND FILM HERITAGE

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Prioritizing from Analogue Collection

- Physical/chemical decay
 - Technological obsolesces
 - Customer requests
 - Project born
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Dilemmas



For access	For preservation
Cheap & fast	Expensive & time consuming
Gives good background for preservation decision	Preservation gives as well access
To good copy may minimize real preservation	Though expensive - new digitization may give better options
Easier for mass digitization	Greater satisfaction in result
Gives good impression of the collection as a whole	In depth knowledge on single objects



Our first massdigitization project




Digitizing analogue videotapes

- Obsolete analogue Videoformats
 - U-matic (1969)
 - 1" C (1976)
 - Betacam SP (1982)
 - Danish Shorts & Documentaries 1970-1995
 - Registration of all known titles
 - Registration of all videotapes, incl. missing data
 - Organizing assets
 - Validating content
 - Preparation for digitization
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Timeline

- 2010 UMTS grant on 6M DKK
 - 2010 Decision on establishing a Digital Archive
 - 2011 Registration of collection and Tender for Digital Archive
 - 2012 March: First DIVA Archive running
 - Autumn 2013 Tape collection growth = delay
 - May 2013: Tender for tape digitization
 - June-Sep. 2014 Start-up, tests & final Contract (PID)
 - April 2014 end of project.
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Issues

- Videocodec, Resolution & bitrate
 - Technical QC during digitization
 - Start to end or TC in & out
 - Delivery and return of tapes & files
 - Internal QC and easy ingest in DIVA
 - 25 tapes unreadable
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Selection from 20.000 videotapes

6.200 titles on
1" C, UM & B-SP

3.558 Titles selected
2.300 Hours

1044
U-Matic

1.819
1" C

900
Beta SP

3.763 MXF op1a
(MPEG2 720x608 50Mbt 4:2:2, wav 48kHz 16bit, new
timecode)

Legal Deposit – Digital born

- DCDM (dpx, Tiff, wav)
- DCP (unencrypted, multi subtitles as XML)
- ProRes master - 422 (HQ) or 4444 - 1920x1080
- PAC (DK, UK)
- Trailers + EPK (master, DK+UK subtitles)
- HD-SR (master + audio tracks)
- FINAL MIX (M+E, dialogue, cin & tv, 24&25 fps, stereo & 5.1 etc.) bwav, 48kHz, 24bit

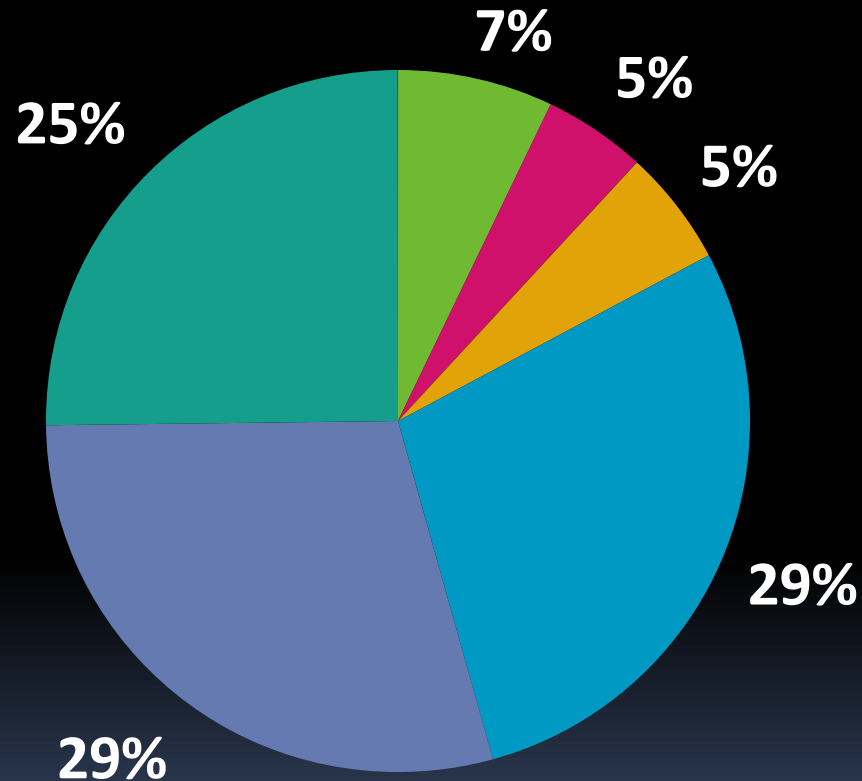
Files at DFI Digital Archive

	2012	2013	2014	TOTAL
DCDM	21	29	82	132
DCP	72	214	329	615
TRAILERS	470	249	124	843
AUDIO	232	268	188	688
OTHER	6	3	2	11
MASTER	2.656	5.116	2.723	10.495
TOTAL	3.457	5.879	3.448	12.784

TB at DFI Digital Archive

	2012	2013	2014	TOTAL
DCDM	25,52	28,66	37,44	91,62
DCP	4,93	9,76	13,04	27,73
TRAILERS	0,90	0,91	0,55	2,36
AUDIO	1,57	1,44	1,85	4,87
OTHER	0,13	0,04	0,45	0,62
MASTER	37,48	106,48	44,27	188,23
TOTAL	70,54	147,30	97,60	315,44

Items from production year

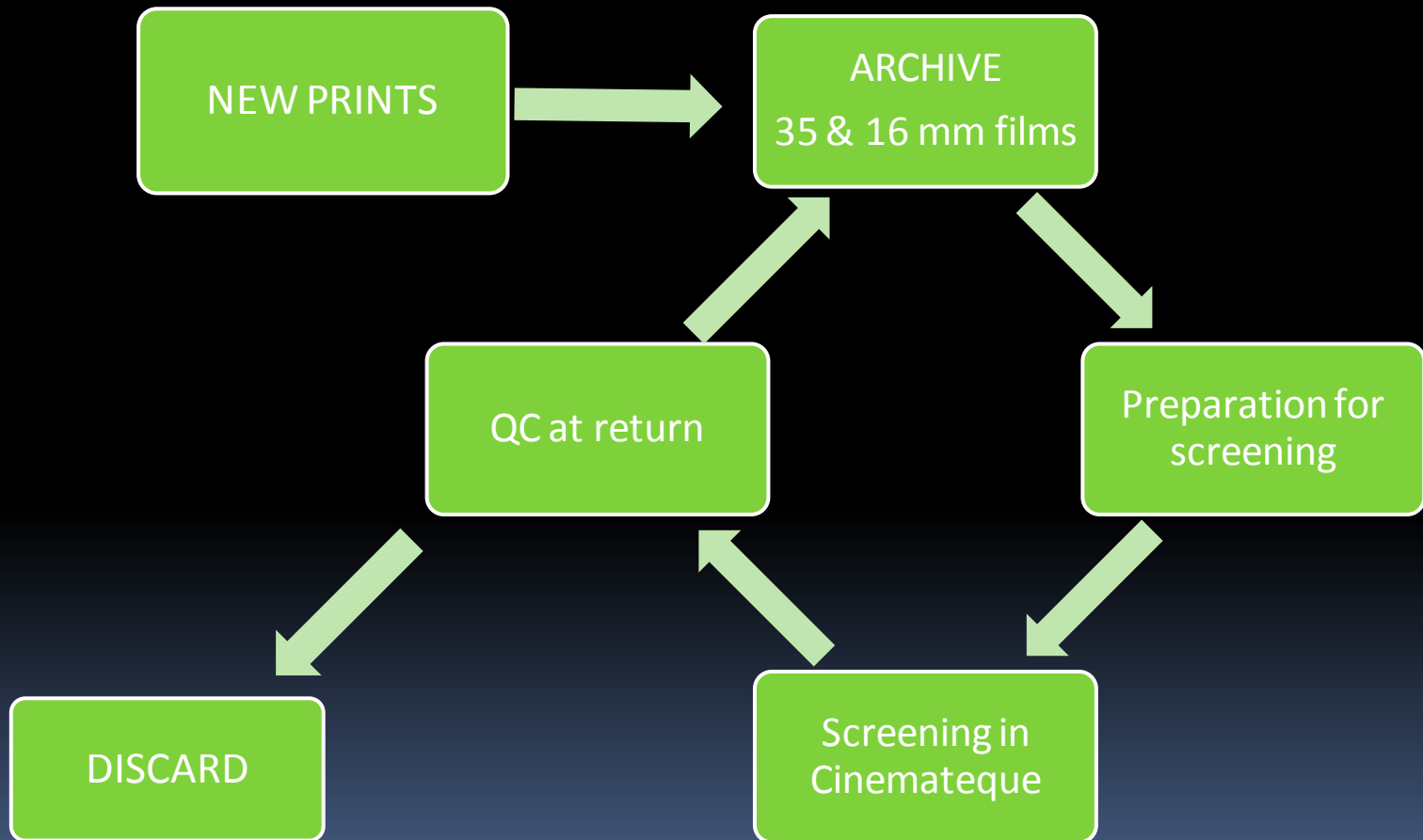


■ -1930 ■ 1931-1950 ■ 1951-1970 ■ 1971-1990 ■ 1991-2010 ■ 2011-

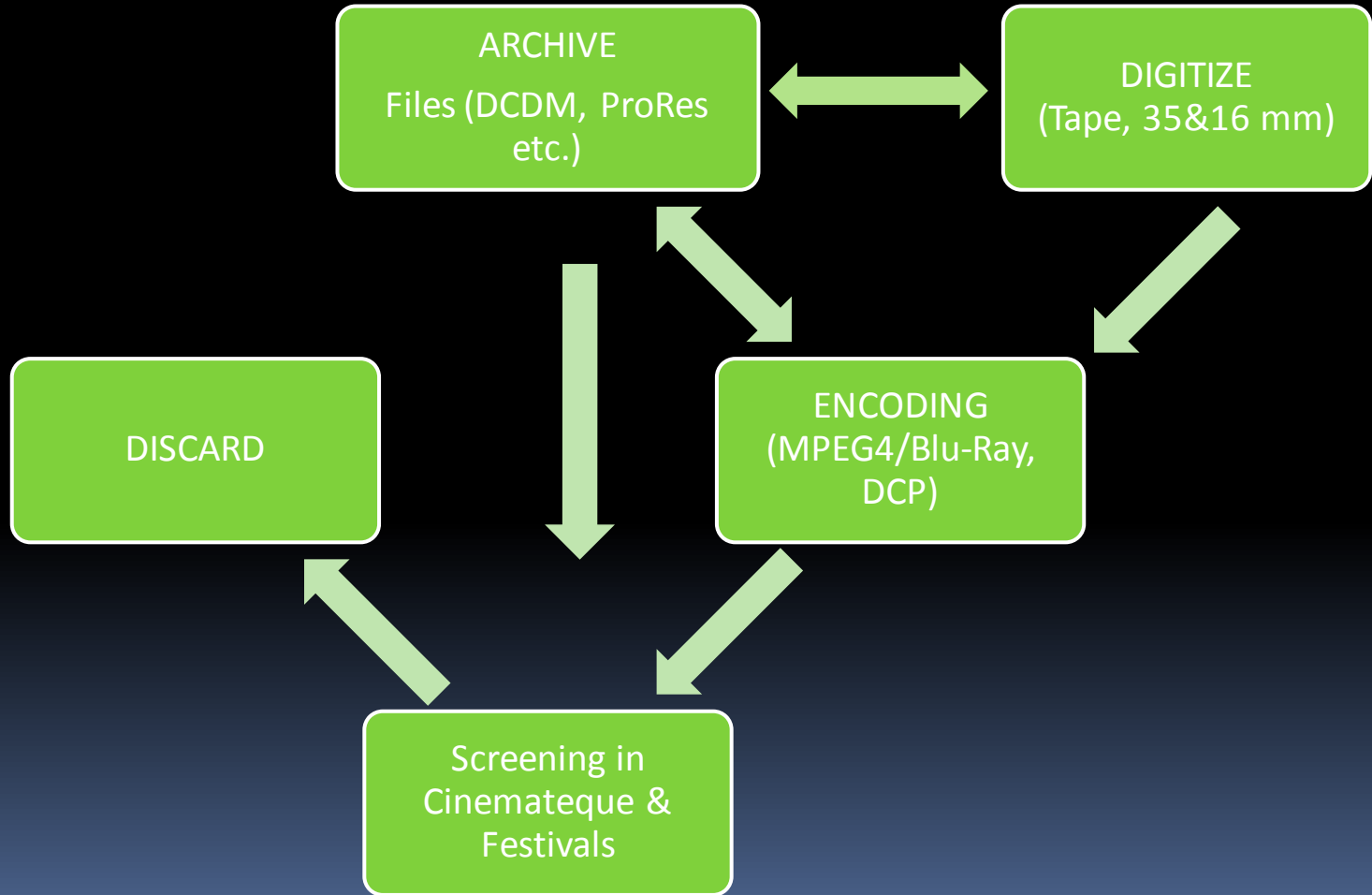


A GAME CHANGER IN THE ANALOGUE COLLECTION

Traditional analogue workflow



Current digital workflow





Change of Paradigm for Foreign films in Film Archives

- No new titles in the archive
- Existing prints the only accessible materials in Cinema quality
- Discard of surplus, never seen prints and worn-out prints
- Reduction of analogue collection in general
- Reduced access to analogue collection
- Improved service for digital objects
- Digitization of foreign prints needed - if we want HD Access to historical foreign films

<http://filmarkivet.dk>

The screenshot shows the homepage of Filmarkivet, the Danish Film Institute. At the top left is the logo 'FILM ARKIVET' and 'DET DANSKE FILMINSTITUT'. The top navigation bar includes links for 'OM DFI', 'ABONNEMENT', 'SIDEOVERSIGT', 'PRESSERUM', 'KONTAKT', and 'ENGLISH', along with a search bar labeled 'SKRIV SØGEORD'. Social media buttons for Facebook (41 likes), Google+ (+1), and Twitter (2) are visible. A horizontal menu below the header lists categories: 'Nyheder', 'Filmhuset', 'Filmdatabasen', 'Tal & fakta', 'Branche og Støtte', and 'Børn & unge'. Under 'Nyheder' are links for 'Nyheder fra DFI' and 'Kommende kort- og dokumentarfilm'. Under 'Filmhuset' are 'FILMupdate' and 'Film og EU 2012'. Under 'Filmdatabasen' are 'Instagram' and 'Nyheder til biblioteker'. Under 'Tal & fakta' is 'Temaer'. Under 'Branche og Støtte' is 'Presseklip'. Under 'Børn & unge' is 'Kommende biograffilm'. The main content area features a breadcrumb trail 'DU ER HER: FORSIDEN / FILMHUSET / FILMARKIVET' followed by the large heading 'FILMARKIVET'. Below this, a paragraph states: 'Bevaring, restaurering, indsamling og formidling af film er Filmarkivets vigtigste opgaver.' Another paragraph says: 'Filmarkivet rummer den danske filmskat. Her findes næsten alt - fra de allertidligste nitratfilm til de nyeste digitale optagelser.' To the right, a section titled 'SE OGSÅ' lists 'Dansk Filmhistorie', 'Se film på nettet - Filmcentralen og Filmstriben', and 'Kosmorama - NYE ARTIKLER'. At the bottom right, a large heading reads 'IDENTIFICER EN FILM'. On the left side of the page, there is a vertical sidebar with a list of links: 'Om filmarkivet', 'Brug af filmarkivet', 'Pligtaflevering', 'Bevaring', 'Læsestof', and 'Identificér en film/Identify a Film'. The bottom right corner of the page contains the email address 'jacobt@dfi.dk'.

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