

Torbjørn Pedersen / 25.04.2023

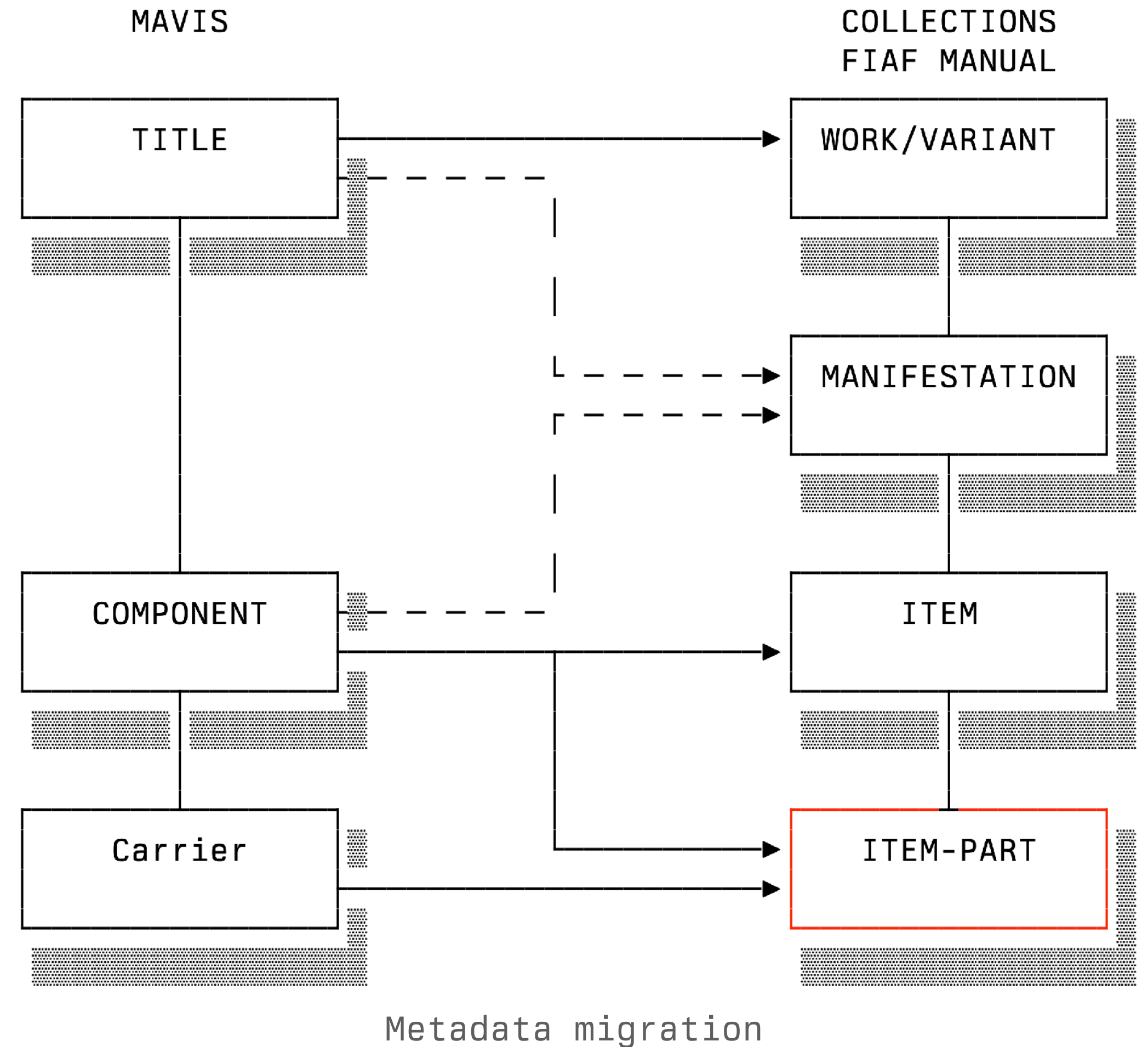
PRESERVATION METADATA AT THE NLN

Present/future concept

MAVIS

“Merged Audio-Visual Information System”

- ▶ CMS: Mavis 1996 → 2024
- ▶ Central system for all AV-materials (still images, sound recordings and moving images,++)
 - ▶ Not just a catalog: names, acquisitions, conditions, treatments, loans, locations, etc.
 - ▶ Analog and digital material
- ▶ Old!
 - ▶ Complicated system integrations (to maintain/ to create) - no modern APIs
 - ▶ Non-standard data model
 - ▶ End of life!
- ▶ Ongoing migration to Axiell Collections (deadline 2024)



Audit

Merknader | Nominasjon | Serier | Standard

Generelt | Navn | Innhold | Koder +emner | F

Tittel Norge, vårt Norge, i toner og bilder

Ansvarsoppl.

Status Originaltittel

Medium Levende bilder

Alternativ Tittler Selvigs Norgesfilm (Tittelvariant)
[NBR M 2009/26]
[NBR M 2000/081]

Type	Tittel
	17938070 Norge, vort Nor
	11 Det vakra Norge
	1897704 [Fra Selvigs Nor
	815855 [Norske kunstner

Relaterte Tittler

Sammendrag Norgesfilm. Om Norges geografi, Innholdsoversikten er skrevet ut fra
1. Norges beliggenhet og størrelse
2. Historie og forfatning.
3. Turistlandet Norge.
4. Det arbeidende Norge: Åkerbru, hjemmeindustri, storindustri.
5. Det kulturelle Norge.
6. Sportslandet Norge.

Nitrat: 8-1 Norge, vårt Norge, i toner og bilder av Titteliste

Komponent Vis Hjelp

Comp Contents | Identifikatorer | Rettigheter | Ref Material | Sh

Generelt | Events | Merknader | Bærere | Kopihistorie | Teknisk

Tittel Norge, vårt Norge, i toner og bilder

Komponent-id 2

Beskrivelse

MaterialGruppe F: Film

Base N: Nitrat

Kategori P: Nitrateksemplar-positivt

Type S: Svart/hvitt-film

Størrelse B: 600m (35mm)

Tekn. kode VKS: Visningskopi stum-format

Antall bærere 10 Copy No.

Samling

Magasin sted N1: Nitratlager I

Første hyllesign FP 20020567 Eske-i

First Curr. Loc.

First Perm. Loc.

Tilgjengelighet Tilgjengelig

Språk	Funksjon

Nitrat Bærer: 8-1-1 Norge, vårt Norge, i toner og bilder av Tittel: 8 Norge, vår...

Bærer Vis Hjelp

Ref Material

Generelt | Merknader | Tilstand | Behandling | Kopihistorie | Ordre | Lån/Movement | Identifikatorer

Beskrivelse	Grad	Kontrolldato	Assessed By	Merknader
Innkopierte skjøter	2	27.09.2019	Nyrud, Ann Kristin	Stedvis
Revnet	1	27.09.2019	Nyrud, Ann Kristin	Lokalt
Løs emulsjon	1	27.09.2019	Nyrud, Ann Kristin	Mot midten av rullen.
Tannhjulsskader	1	27.09.2019	Nyrud, Ann Kristin	Ca 20-30 cm langt stykke på 4. tekstplakat
"Brekke"	1	27.09.2019	Nyrud, Ann Kristin	Lokalt
Grove riper	1	27.09.2019	Nyrud, Ann Kristin	Lokalt
Perforeringsskader	2	27.09.2019	Nyrud, Ann Kristin	Stedvis
Dårlig/løse skjøter	3	27.09.2019	Nyrud, Ann Kristin	Stedvis
Synlige overflateskader	1	27.09.2019	Nyrud, Ann Kristin	Små hull i emulsjonen i starten av rullen
Alizarin	1	27.09.2019	Nyrud, Ann Kristin	Lokalt
Krympet	3	27.09.2019	Nyrud, Ann Kristin	Tekstplakater 1,28-1,43%. Bilder 0,4%
Grove riper	3	05.11.1996	Walls, Andrew	Kun lokalt
Krympet	3	05.11.1996	Walls, Andrew	Agfa 0,7% Geve
Perforeringsskader	2	05.11.1996	Walls, Andrew	
Svake riper	2	05.11.1996	Walls, Andrew	Over mesteparte
Fettstift	1	05.11.1996	Walls, Andrew	Kun lokalt

Bærer tilstand: Tannhjulsskader av Nitrat: 8-1 N...

Tilstand Vis Hjelp

Tilstand **TS: Tannhjulsskader** Grad 1: Litt

Merknader Ca 20-30 cm langt stykke på 4. tekstplakat.

Assessed By Nyrud, Ann Kristin Dato 27.09.2019 - 09:41:51

Registrert av

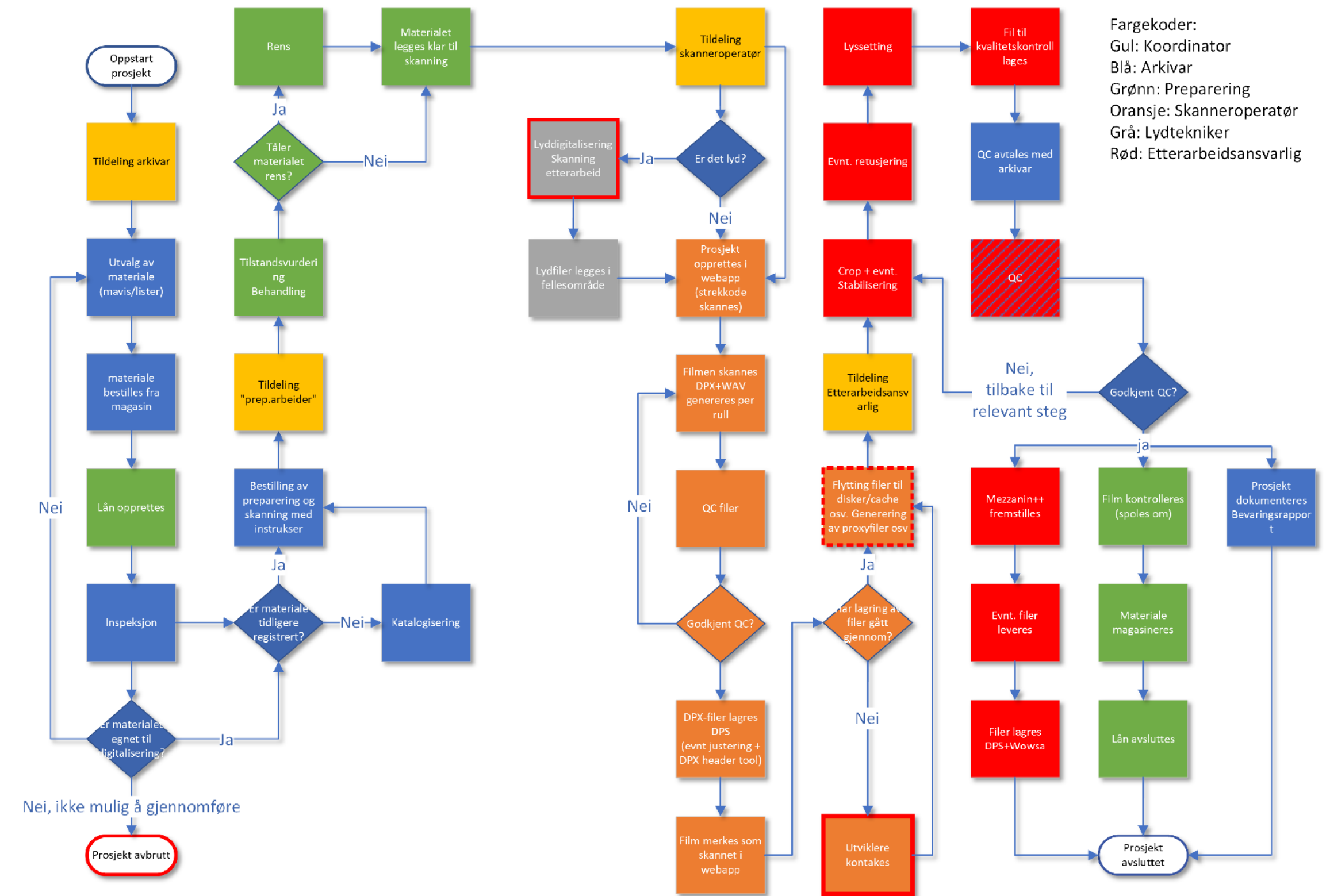
Akkvisisjoner | Tittler | Enheter | Låner | Movement | Ordre

Standardverdier | Admin | Hjelp

SCANNING/POST-PROCESSING WORKFLOW

► Preservation processes tend follow predefined steps with predefined roles responsible

► **Film archivist:** Selection of materials, decisions on project scope etc. → Creation of “**Smartsheet**” preservation order



Simplified digitalisation workflow

Main data table with columns: Bestillings-nummer, S., Filmtittel / Program, Antall ruller lyd, Antall ruller bilde, Mavisnr. / URN / Hyllesignatur, Nitrat, Ønsker Wtg..., Tåler Wtg..., Planlagt visning, Levert... frist, Bredder, Visnings-hastighet, Visnings-format, Format, Størrelse, Ekstern post-produks..., Merknader, Status, Bestiller, Mottatt, Bestiller/ Ansvarlig arkivar, Ansvarlig på digital film, Go... av Stig, Bestilt fra magasin, Arkivar, Prep, Rens..., Lyd-digit... iseri..., Skanning, Etter-prod, Godkjent av arkivar, Levert kund..., YouTu..., Framskrit..., Avslutt... dato

Summary dashboard with charts and tables: Bestillinger (52 Filmer, 133 Filnull, 450 ø alder), Lengde (Pie chart: 29, 5, 7, 2, 2), Status filmer (Bar chart: 1, 3, 23, 10, 4, 8, 2, 11), Venteliste (47 Filmer, 125 Filnull), Nitratandel (Pie chart: 22, 30), Status ruller (Bar chart: 1, 10, 4, 8, 2, 11), Klar til skanning (Table with columns: Tittel, Nitrat, Created, Leveringsfrist, Ansvarlig på digital film, Bredder, Ønske Wtga), Klar til Etterarbeid (Table with columns: Tittel, Created, Leveringsfrist, Planlagt visning, Ansvarlig på digital film, Mavis / UR Hyllesignatur)

SMARTSHEET Workflow/processing tool

FILM PREPARATION

- ▶ **Preparers:** Condition reporting → Manually documented in Mavis
- ▶ **Preparers:** Treatment → Manually documented in Mavis
- ▶ **Preparers:** Cleaning → manually documented in Mavis
- ▶ **High detail! Track changes in material**

Nitrat Bærer: 8-1-2 Norge, vårt Norge, i toner og bilder av Tittel: 8 Norge, vår...

Bærer Vis Hjelp

Ref Material

Generelt Merknader Tilstand Behandling Kopihistorie Ordre Lån/Movement Identifikatorer

Beskrivelse	Grad	Kontrolldato	Assessed By	Merknader
Svake riper	1	08.10.2019	Finseth, Tor Magne	Stedvis. Langsgående riper.
Synlige overflateskader	1	08.10.2019	Finseth, Tor Magne	Lokalt. Et "plusstegn" skrappt inn
Klebrige taperester/skjøter	1	08.10.2019	Finseth, Tor Magne	Lokalt.
Innkopierte skjøter	1	08.10.2019	Finseth, Tor Magne	Bred cementskjøt delvis inn på
Fettstift	1	08.10.2019	Finseth, Tor Magne	Utydelig skrift innkopiert. 3/4 ut
"Brekke"	1	08.10.2019	Finseth, Tor Magne	Lokalt. Svak brekk.
Fettstift	1	08.10.2019	Finseth, Tor Magne	Notis fra stift: "en hel scene ut r
Fettstift	1	08.10.2019	Finseth, Tor Magne	Notis fra stift: "Mellomliggende
Løs emulsjon	1	08.10.2019	Finseth, Tor Magne	Lokalt. Ser ut som små blemm
Synlige overflateskader	1	08.10.2019	Finseth, Tor Magne	Liten emulsjonsskade på starte
Kantskader	1	08.10.2019	Finseth, Tor Magne	Lokalt. Tilklippet.
Perforeringsskader	2	08.10.2019	Finseth, Tor Magne	Stedvis.
Dårlig/løse skjøter	3	08.10.2019	Finseth, Tor Magne	Stedvis.
Alizarin	1	08.10.2019	Finseth, Tor Magne	Lokalt.
Krympet	3	08.10.2019	Finseth, Tor Magne	Kodak 1,98%, Geveart 1,41%, A
Grove riper	3	28.11.1996	Walls, Andrew	Kun Lokalt
Svake riper	2	28.11.1996	Walls, Andrew	Langs mesteparten av rull
Krympet	3	06.11.1996	Walls, Andrew	Agfa 0,7%, Geveart 1,4%
Perforeringsskader	2	06.11.1996	Walls, Andrew	
Fettstift	1	06.11.1996	Walls, Andrew	Kun lokalt

Condition tab

Bærer tilstand: Svake riper av Nitrat: 8-1 Norge, ...

Tilstand Vis Hjelp

Tilstand Grad

SR: Svake riper 1: Litt

Merknader

Stedvis. Langsgående riper.

Assessed By Dato

Finseth, Tor Magne 08.10.2019 - 10:21:42

Registrert av

TMFIN (Finseth, Tor Magne)

Condition event

Bærer behandling: Tørket med sprit av Nitrat: 8...

Behandling Vis Hjelp

Behandling Plassering

TS: Tørket med sprit

Merknader

Klebrige taperester forsøkt utbedret med sprit og perk. Forsatt noe taperester igjen på slutten av rullen.

Performed By Dato

Finseth, Tor Magne 08.10.2019 - 10:27:31

Registrert av

TMFIN (Finseth, Tor Magne)

Treatment event

SCANNING/POST-PROCESSING WORKFLOW

► Digital lab technicians: Scanning

► **Mavis integrated application** → automatic creation of new **Mavis** records (DPX/WAVs) with copying history, tech metadata, scanner parameters, URNs. **Harvests all relevant data.**

► **Mavis integrated application** → preservation packages and proxies generated and preserved automatically with **METS**

► Digital lab technicians: Post-processing (restoration, grading, etc)

► **Mavis integrated application** → automatic creation of new **Mavis** records (preservation master) with copying history, tech metadata, URNs.

► **Mavis integrated application** → preservation packages and proxies generated and preserved automatically with **METS**

► Easy creation of rich and consistent metadata

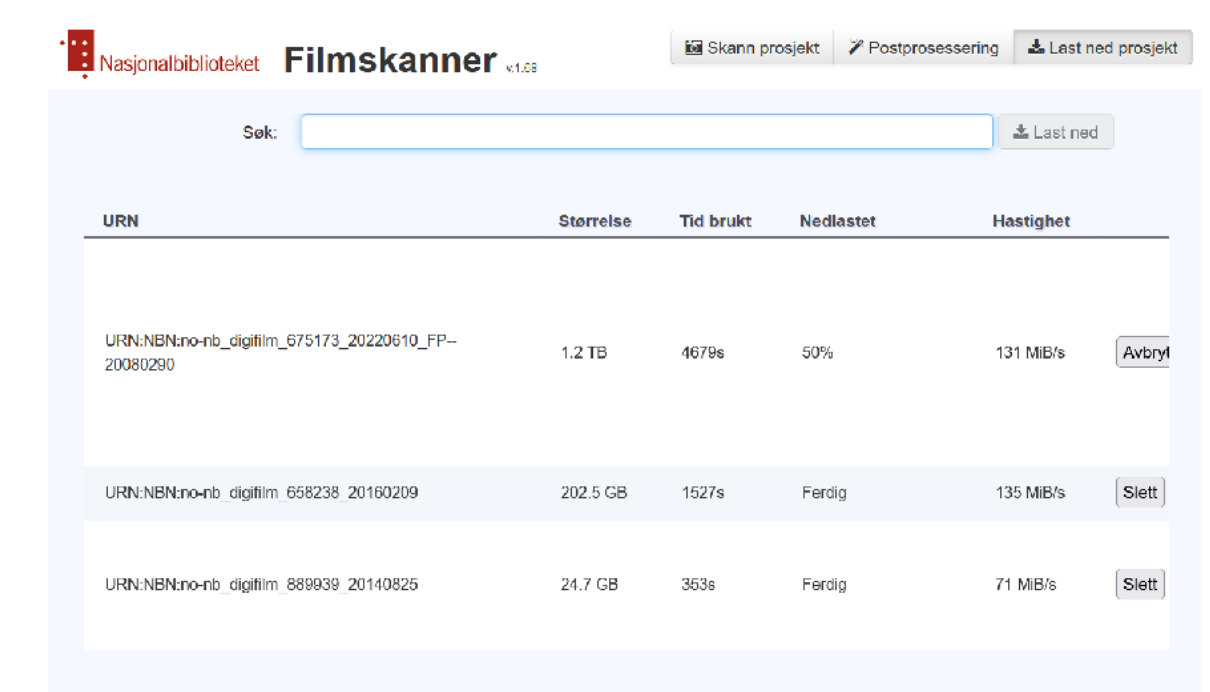
► Digital lab technicians use smartsheet (+ additional smartsheets), but does not use Mavis...

► Anything not defined by system integration has to be documented manually! Decisions and tools used by lab technicians not documented systematically!

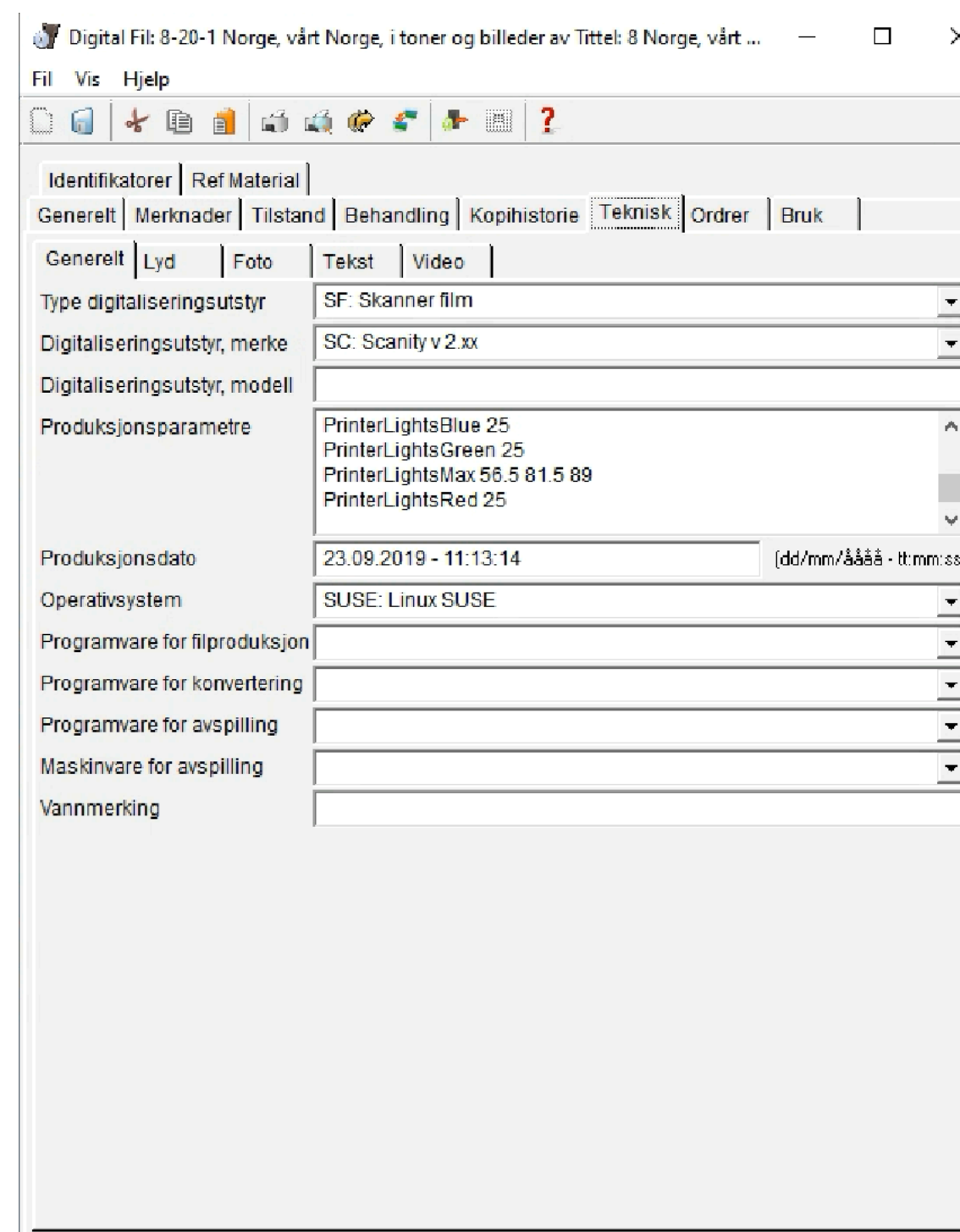
► Lack of resources for maintenance/updates → Current integrations strict and inflexible



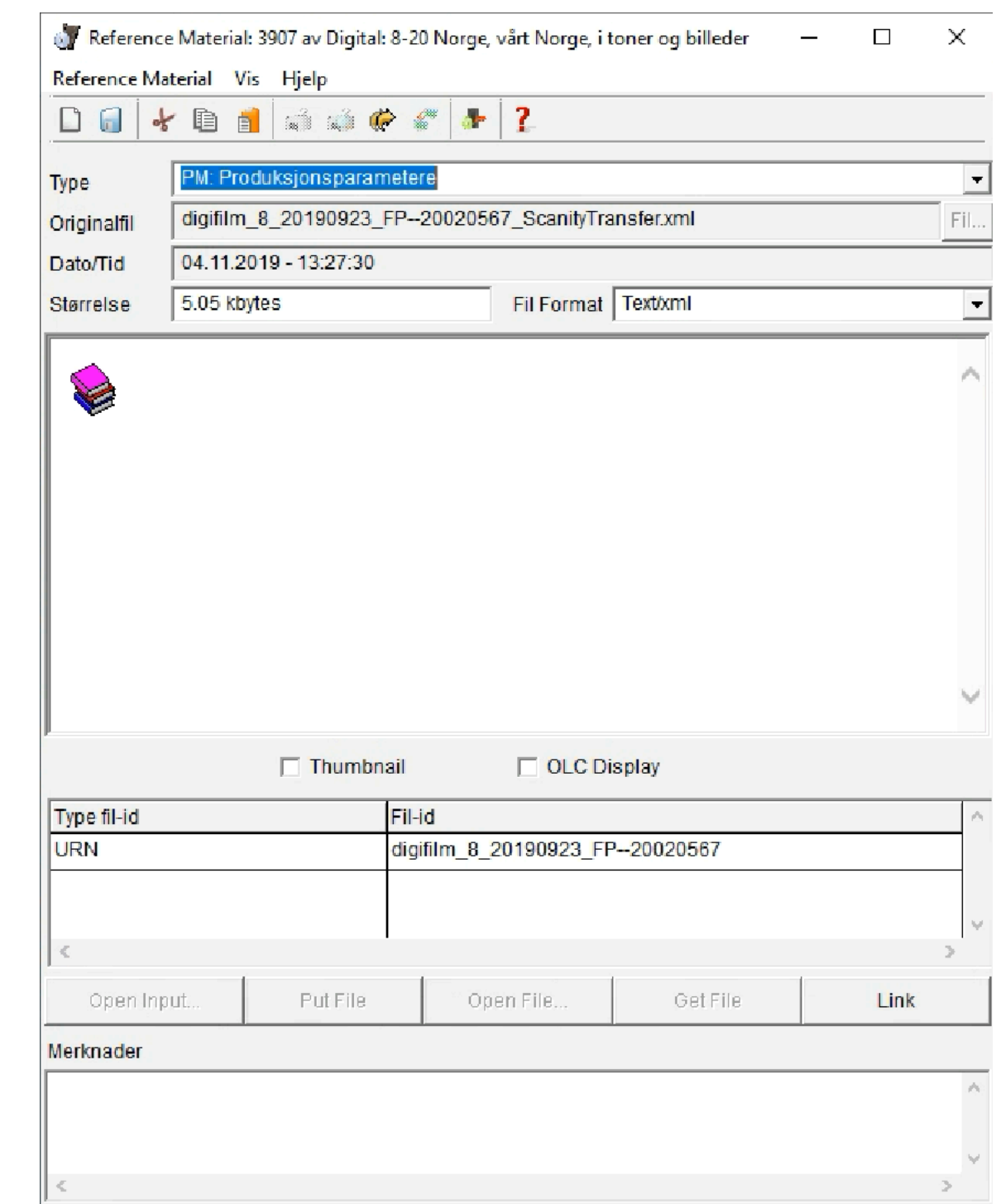
Film scanner web application



Film scanner web application



Digital carrier record: technical details (DPX)



Reference material record: Scanner parameters

BONUS SLIDE

Captured scanner parameters

- ▶ Document information that documents parameter choices influencing your resulting files
 - ▶ What is the result of the scanning process? What is the result further processing in the scanner?
- ▶ Scanner capture parameters
 - ▶ Light intensity / RGB balance
 - ▶ Selected light source (if multiple available options, like the Scanity's different red LEDs)
 - ▶ HDR/Triple flashes/etc
- ▶ Scanner processing parameters
 - ▶ Color space/gamma manipulations etc. (Log/Lin is not enough, document log/lin flavour)
 - ▶ Specific LUTs used
 - ▶ Scaling/downsampling
- ▶ This information is useful! Provides context to your scans: Eg. Did the scanned film have very high density, or was the scanner lights set up in a faulty manner?
- ▶ Information not found in the DPX header (to my knowledge)

PRESERVATION REPORTING

- ▶ **Film archivist:** quality control acceptance → Manually entered preservation report in Mavis.
 - ▶ Overarching description of entire project + previous steps of note + achievement of goals
 - ▶ Very time consuming, puts pressure on limited archivist resources
 - ▶ Preservation report at work level (single, non-repeatable field!)
- ▶ Records get messy and chaotic if they have undergone multiple or complex preservation processes

Tittel: 8 Norge, vårt Norge, i toner og bilder

Tittel Vis Hjelp

Audit | Merknader | Nominasjon | Serier | Standardtittel | Identifikatorer | Ref Material | Sammendrag

Generelt | Navn | Innhold | Koder +emner | Produksjon | Komponenter | **Preservering**

Norskrelevant?

Akkvisisjon prioritet

Historisk verdi: 2: Høy verdi

Bevaringsstatus: Restaurert, komplett

Merknader

Etter visning av brukseksemplar (komponent 13) på Stumfilmdager i Tromsø 2006 viser det seg at den er veldig grønn selv om den var et forsøk på å gjenskape ambertintning. Restaurering må bli tatt opp igjen og nytt brukseksemplar lages, og da muligens i svart-hvitt. Komponent 13 skal frasorteres når restaurering er fullført. Det finnes ikke fullstendig dup.pos/sikringseksemplar så det må også lages. Bildenegativ er registrert som sikringseksemplar, men skal være kopieringseksemplar. Kopihistorien er mangelfull og bør kompletteres om mulig. TFØR 11.09.06

Bevaringsrapport for film
8 NORGE, VÅRT NORGE, I TONER OG BILLEDER (1929)

Sammendrag
NORGE, VÅRT NORGE, I TONER OG BILLEDER (1929) ble restaurert ved Nasjonalbiblioteket i 1998-1999. Dette er ikke bevaringsrapport for arbeidet som ble gjort da, men er først og fremst om det arbeidet som ble gjort i 2009.

I 1998-1999 ble det laget tre visningskopier, en i svart-hvitt av første del av filmen, en i farge av første del av filmen ("sepiatonet?") og en som skulle tilsvare en "ambertintet" kopi (bevart på fargefilm) av hele filmen. Det ble også laget en arbeidskopi i svart-hvitt, antakelig som visningskopi av hele filmen, og antakelig fra duplikat negativ siden lengden er lik på disse to komponentene (for lite data registrert her også til å kunne si sikkert).

Ved visning på en filmfestival på 2006 viste det seg at den "ambertintede" visningskopien som ble vist, ikke hadde god fargegjengivelse og det ble bestemt å lage duplikat positiv i svart-hvitt for å fullføre bevaringen for deretter å kassere den "ambertintede" visningskopien. Duplikat negativet laget i 1998 ble hentet fram, og det ble laget svart-hvitt duplikatpositiv fra denne. Duplikat positiv ble sendt til skanning etter kvalitetskontroll.

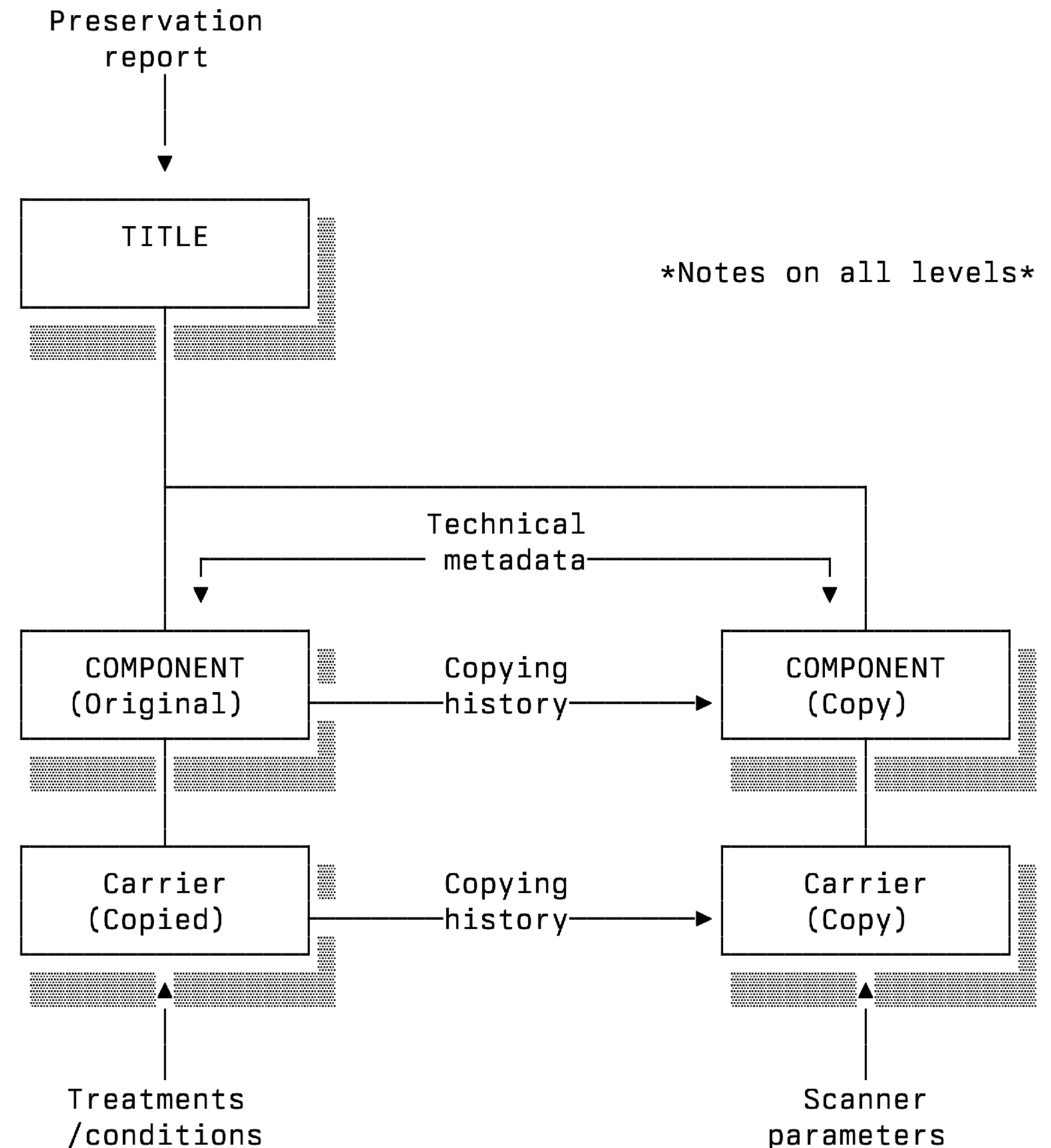
Kildematerial/originalmaterial/utgangsmaterial
Kopihistorien for duplikat negativ laget i 1998-1999 var ikke registrert i Mavis så vi kan ikke

Title record: Preservation tab w/
report

MAVIS

Preservation metadata core building blocks

- ▶ **Preservation report** → Text field at title level
- ▶ **Copying history** → Relation between carriers (and components for practical reasons)
- ▶ **Treatments/conditions** → basic events related to carrier
- ▶ **Scanner parameters** → Range of fields and related reference file at carrier level
- ▶ **Technical metadata** → Range of fields at component
 - ▶ Not preservation metadata per se, but generated/enriched as part of the preservation process.
 - ▶ Automatically entered for new digital records



PRINCIPLES MOVING FORWARD

Keep the pros, lose the cons...

1. CMS as master system for metadata + compliance to metadata standards

- ▶ All metadata in one location
- ▶ Manifestation level opens new possibilities
- ▶ Reference files as metadata

2. Extended use of workflow tools

- ▶ Increased user friendliness/Easier data-entry
- ▶ Better control over processes
- ▶ Workflow processing generates metadata
- ▶ Easier automation

3. More detailed documentation

- ▶ Expanded use of events (and event-like entities)
- ▶ Reference files as metadata

1. CMS AS METADATA MASTER

- ▶ **Requirements:** Standardised metadata, easier system integrations/ modern APIs, configurable system
 - ▶ Achieved through implementation of Axiell Collections
- ▶ **Benefits:**
 - ▶ Manifestation level
 - ▶ Preservation type manifestations → Grouping of preservation items in the catalog hierarchy
 - ▶ Preservation report → Manifestation Simplifies our current long-form prose preservation reports
 - ▶ Information in controlled manifestation fields (eg. Dates, responsible personell, scope, etc.)
 - ▶ All records can have related reference materials in Collections
 - ▶ No need for controlled fields for *everything*. Files can be attached to records - Extracted file header information, scanner parameters, mediainfo, mediatrace reports etc.)
 - ▶ Media files as metadata (media reference files are "worth a thousand words")



Media reference files attached to conditions

2. EXTENDED USE OF WORKFLOW TOOLS

- ▶ **Requirement:** Workflow process tool should be able to read/write to Axiell Collections.
 - ▶ Hopefully achieved through implementation of Axiell Flow (or other tool)
- ▶ **Benefits:**
 - ▶ Better overview and coordination of processes and progress
 - ▶ Tasks can be assigned to roles/individuals
 - ▶ Simplified data entry (eg. through the use of forms)
 - ▶ Easier for non-catalogers to add metadata, more consistent formatting
 - ▶ Metadata entered at the correct catalog "coordinates"
 - ▶ Orders related to the actual catalog records
 - ▶ Access to catalog metadata in the workflow interface
 - ▶ History of orders a record has been part of
 - ▶ Easier system integrations
 - ▶ Workflows can consist of both human steps and machine data processing steps (eg. moving files, RAWcooked packaging)

The screenshot shows a web-based workflow tool interface. At the top, there is a header bar with the following information: Strekkode: AV1000008909, Tittel: Trollopninga, Tekniker: AUTO_ABM_PHOTO, and buttons for 'Åpne i SAMO' and 'Status'. Below the header, the interface is divided into several sections:

- Fysisk objekt:** A form with various input fields and dropdown menus. Fields include 'Beerertittel' (Trollopninga), 'Tittel fra', 'Teknisk kode', 'Emballasjestørrelse', 'Visningsformat/Aspect ratio' (4:3 Full frame 1,33:1), 'Videosystem/Region' (PAL), 'Videolyd', 'Fabrikat', 'Typebetegnelse', 'Land', 'Spillbarhet' (Spillbar), 'Spillbarhet merknad', and 'Etikettmerknader' (Merknader).
- Behandlinger:** A section for adding treatments. It includes a dropdown for 'Behandling', a 'Merknad' field, a 'Date' field (26.04.2023 09:19), and a 'Tekniker (Mavis-kode)' field with a minus sign. A 'Legg til behandling' button is on the right.
- Tilstander:** A section for adding states. It includes a dropdown for 'Tilstand', a 'Merknad' field, a 'Grad' dropdown, a 'Date' field (26.04.2023 09:19), and a 'Tekniker (Mavis-kode)' field with a minus sign. A 'Legg til Tilstand' button is on the right.
- ID'er:** A section for adding external IDs. It includes a 'Legg til eksternt id' button.

Below these sections, there are two main panels:

- Digitaliseringer:** A table with columns for 'AV1000026443_01_0001', 'NBR-BLUEFISH-05', and a status indicator (three green circles). There are also icons for a list and a help/info symbol.
- Referansebilder vis bilder:** A section showing a reference image of a Panasonic JVC PRO video cassette tape. The image includes a barcode and the text '66'. Below the image is a file name: AV1000026443_01_ref_0001.tif.

Simplified video cataloging through forms (with automated mediatrace, mediainfo + qctools reporting, reference images etc)

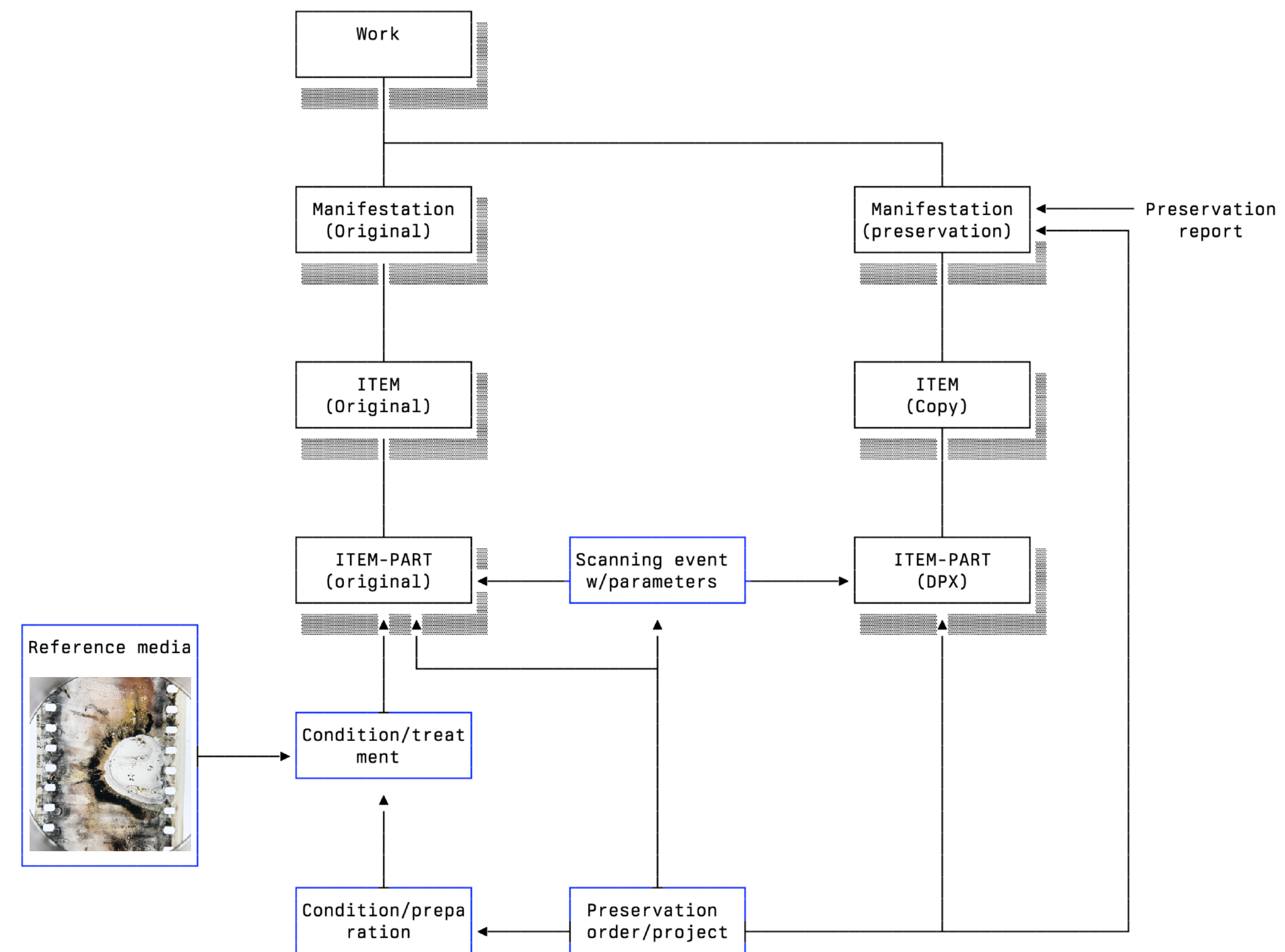
3. MORE DETAILED DOCUMENTATION

“Treatment events”

- ▶ **Requirement:** Configuration of fields missing from Mavis, more flexible CMS data model
 - ▶ Achieved through implementation of Axiell Collections
- ▶ **Benefits:**
 - ▶ New and more advanced “treatment events” (records related to a record, rather than metadata on a record)
 - ▶ Expanded view of treatments lets us document more (eg. Scanning, grading etc. A DCDM is the result of attached events)
 - ▶ New event entities can hold complex metadata
 - ▶ Can be related to any and multiple record in the Collections → can function as nodes relating two records together
 - ▶ Eg. Copying history as scanning event related to scanned film material and the produced DPX sequence. Scanner parameters could sit at the event.
 - ▶ Reference material allows for more metadata to be entered into the catalog
 - ▶ Simplifies preservation report: instead of stating “I did x, y and z etc.” that information can be added as events/treatment metadata, by whoever actually performed the action

WORKFLOW CONCEPT

- ▶ The order itself (with its instructions, type etc.) is a record in an orders database
- ▶ The steps of the workflow are automatically created as events/treatments of the material, as the step is performed (eg. an "assessment/preparation for scanning" step)
 - ▶ Allows for better/easier capture of some metadata (eg. to complete the grading step and save the files, the operator has to add some metadata (what software was used, was a reference used, etc.)
 - ▶ Why go to the full, complex catalog post to assess materials if you can go to a simple interface where you only have access to the exact fields you need?
- ▶ Any metadata entered through the workflows end up at the correct fields in the CMS (eg. A new condition is added)
- ▶ You create metadata just by going through the workflow steps
- ▶ Order history and relations can document the reason for/ what initiated some metadata to be created. Eg. You could relate all treatments to a workflow assessment/treatment step, which again is related to an order for example)



CONTACT INFO

- ▶ torbjorn.pedersen@nb.no
- ▶ [Linkedin](#)
- ▶ [Homepage](#)

