



ANRI National Archives of the Republic of Indonesia

Prosedur, Tata Cara & Metode Alihmedia Arsip

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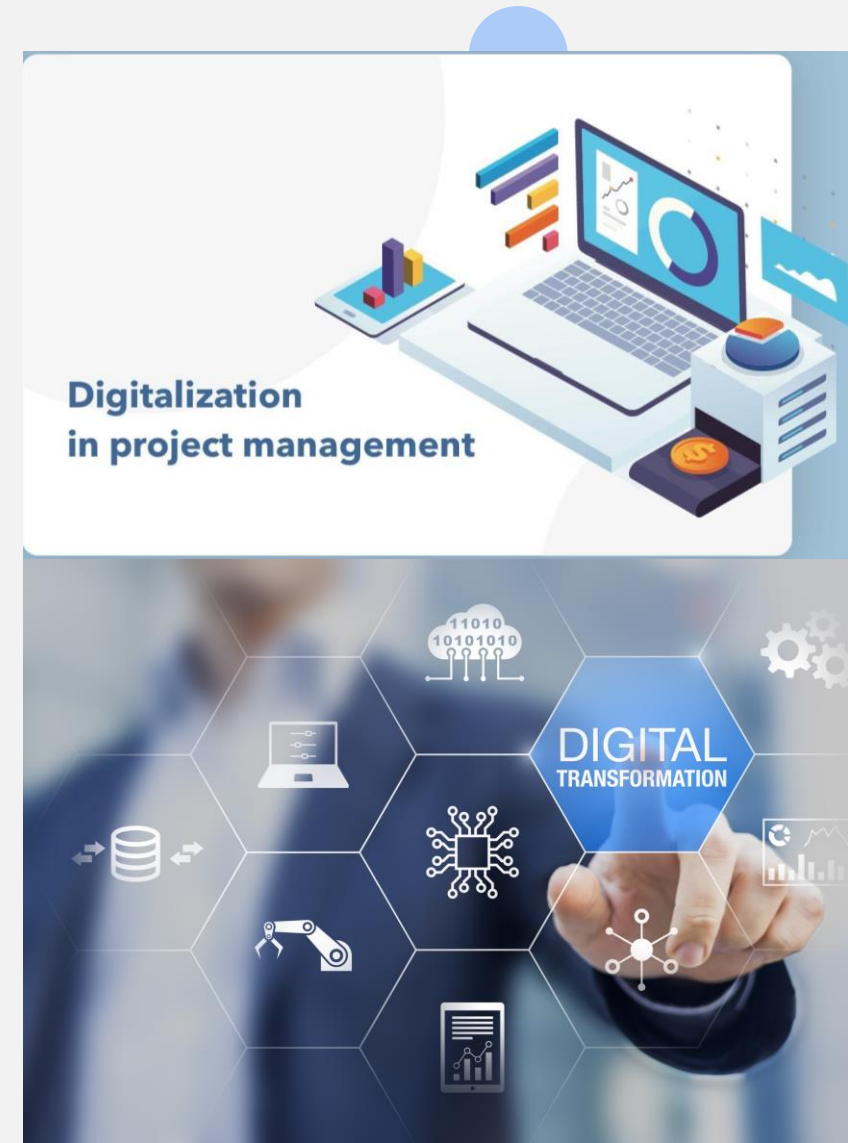


- ❑ RECORDS MANAGEMENT TRAINING, STOCKHOLM, 2007 AND BEIJING, 2008
- ❑ SEAPAVAA CONFERENCE, MANILA 2008, JAKARTA 2009, BANGKOK 2010, KUALA LUMPUR 2011
- ❑ WORKSHOP AUDIOVISUAL ARCHIVES, SINGAPORE 2008
- ❑ WORKSHOP PRESERVATION OF ARCHIVAL RECORDS, SINGAPORE 2017
- ❑ TRAINING PRESIDENTIAL RECORDS MANAGEMENT, KOICA SEOUL-KOREA, 2019

Archive Digitization Preparation

The Policy of Digitization

1. Prepare planning for digitization activities;
 - a) Identify the number of digital files to be created;
 - b) Identify Digital Storage capacity;
 - c) Identify HR number and capacity;
 - d) Determine the priority of archives to be digitized;
 - e) Create a Project Management document, which contains the activities and targets to be achieved and the person in charge in a clear and measurable time frame;
2. Establish a digitization implementation team;
3. Prepare a list of archives to be digitized; and
4. Prepare archive metadata to be digitized.



Kenapa harus segera Digital?

1. Penyelamatan arsip dalam berbagai media
2. Arsip terancam tidak bisa dibuka (obsolete)
3. Arsip terancam rusak



Create a Project Management document

Planning



Mapping a successful project in the context of your overall digital transformation and business goals

Resourcing



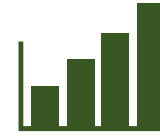
Selecting the team and other critical resources required

Pilot program & Testing



Testing the process with a representative subset of your overall collection

Document Preparation



Preparing document for scanning by removing staples, clips, sticky notes and be ready

Scanning



Capture all images with the scanner. Make sure with quality and procedure

Quality Control

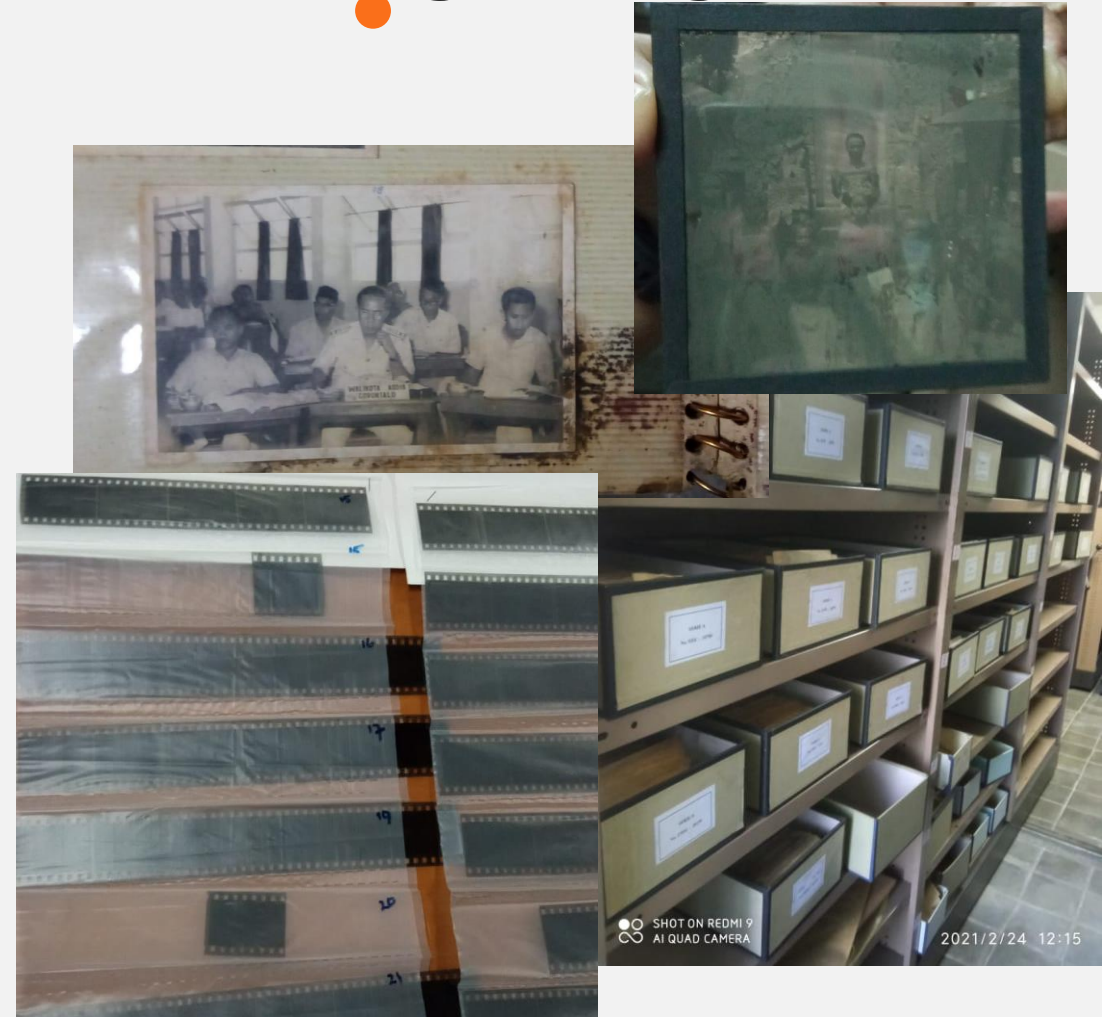


Control all result of digital files, check from damaged, virus, integrated and associated with metadata into digital repository

Identify the condition of records will be Digitizing



Peta terlipat atau digulung dalam jangka wkt lama, kertas robek

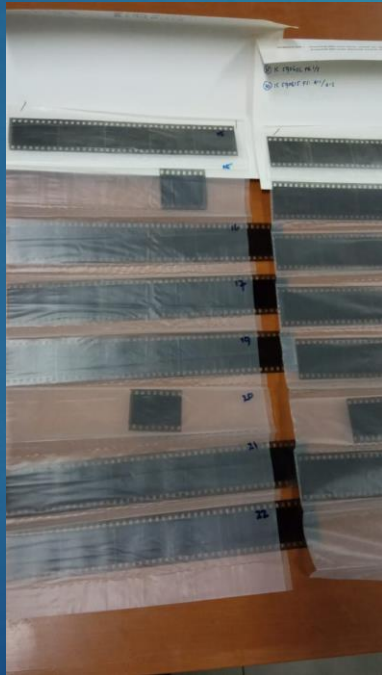


Photographic negatives and prints are commonly found in archives, stores in unsuitables enclosure

PHOTOGRAPHIC MATERIAL

Negative FOTO

- Photographic negatives and prints are commonly found in archives, stores in unsuitable enclosure



33.105
negatives

Dari
3.474.532
Foto

PHOTOGRAPHIC MATERIAL

Resiko

- Glue or acid on material
- Jamur
- Glass photograph
- Album

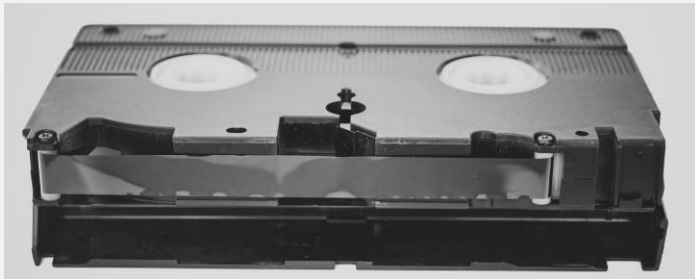


PHOTOGRAPHIC MATERIAL

In order to minimise the risk of damage:

- Photographs should be handled as little as possible
- Wherever possible provide a copy print or digital access rather than an original print
- However, care should always be taken to ensure that the process of copying or scanning the original does not damage it and some photographs may be too fragile to copy or digitise.
- Wash hands before examining photographs. Hands should be clean and free of lotions and creams. Wearing nitrile gloves is useful for handling dirty containers or outer coverings.
- Use two hands to hold the photograph and if possible, support it with a piece of stiff card, especially if the photograph is fragile or brittle.
- Do not stack loose prints or glass plate negatives on top of each other or place anything on top of photographs as this will damage the surface.
- Do not attempt to flatten rolled or curled prints – they may crack and tear.
 - Do not use adhesive tapes, staples, pins, metal paper clips or rubber bands.
 - Do not eat, drink or smoke near photographs.
 - Do not use ink to label a photograph. Use a HB pencil to write on the reverse of material and do not press hard

Identify the obsolete of records will be Digitizing



Identify the number of digital files to be created

Perhitungan Arsip untuk digitalisasi

NO	URAIAN	SATUAN	JUMLAH KHASANAH ARSIP TAHUN 2021		
			2020	PENAMBAHAN	2021
1	Kertas	Meter	30.370,70	166,1	30.536,80
2	Poster	Lembar	336	48	384
3	Kartografi/Peta	Lembar	131.072	391	131.463
4	Foto	Lembar	3.474.532	591	3.475.123
5	Film	Reel	59.035	20	59.055

Arsip Kertas

(asumsi 1 ML = 5 boks = 3.500 Lembar = 7.000 halaman)

30.370,70 ML -----> 212.594.900 Halaman

Jumlah Arsip / Tahun	Tahun Penyelesaian
50.000	4.252 tahun
100.000	2.126 tahun
500.000	425 tahun
1.000.000	213 tahun

SDM	Peralatan	Jumlah arsip perbulan
10	10	10.000 / bulan
5	5	20.000 / bulan
4	4	25.000 / bulan
2	2	50.000 / bulan

Identify Digital Storage capacity



PAPER

TYPES	BIT-DEPTH	RESOLUTION	FILE SIZE (A4)
B/W	1 bit	600 dpi	1.8 MB
Grayscale	8 bits	400 dpi	14.8 MB
Colour	24 bits	400 dpi	44.3 MB

AUDIO

SAMPLING RATES	BIT-DEPTH	COMPRESSION MODE	PRESERVATION FORMAT / CODEC	FILE SIZE
Above 48 kHz	Above 24 bits	Lossless	FLAC / WAVE	About 480 MB in 1 hour

PHOTOGRAPH

TYPES	SIZE	BIT-DEPTH	RESOLUTION	FILE SIZE (A4)
Printed	Below 8 x 11 inch	B/W : 8 bits colour : 24 bits	4000 pixels	11 MB
	8 x 11 to 11 x 14 inch		6000 pixels	> 11 MB
	Above 11 x 14 inch		8000 pixels	> 11 MB
Film	35 mm to 4x5 inch	B/W : 8 bits Colour : 24 bits	4000 pixels	<100 MB
	4x5 to 8 10 inch		6000 pixels	< 100 MB
	Above 8x10 inch		8000 pixels	< 130 MB

VIDEO & CINEMA/FILM CELLULOID

COLOR SPACES	SUB-SAMPLING RATES	RESOLUTION	COMPRESSION MODE	PRESERVATION FORMAT / CODEC	FILE SIZE
YUV	4:2:2 or 4:4:4	1920 x 1080	Lossless	MKV/FV1	About 105 GB in 30 minutes

The digitalization quality of audio part in video/cinema film is the same as that of the audio

Prepare equipment and tools



Quattro 4450 ScanStation Pro



OS 14000 A0



OS 14000 A1



Film scanner D-Archiver

- 2k quality
- Smooth, precise
- Developed for any old, shrunken, brittle or warped film



Identify Digital Storage capacity



Silent Brick Storage



Storage Server



NAS / SAN Storage

Prepare infrastructure and network



Ruang panel, fire suppression system, access control dan UPS

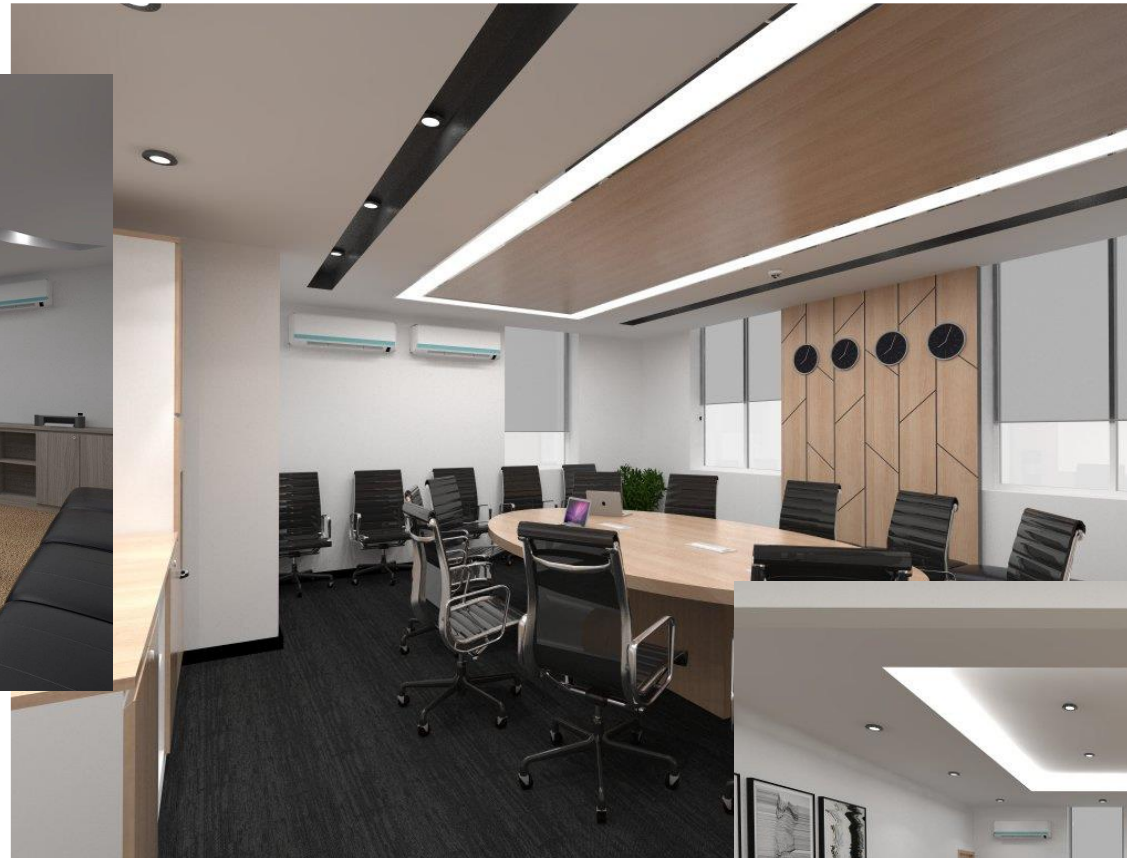


Ruang server, storage dan access system

Prepare infrastructure and network

Ruang Rapat

Ruang NOC Control System



Ruang Staf

Loby Ruang NOC

Pra Digitalisasi

Program & Rencana Strategis

- Cek kondisi khasanah Arsip
- Kondisi akhir yang diharapkan
- Kebutuhan system
- Langkah2 strategis

Tata Kerja (Probis & prosedur)

- Perencanaan
- Penentuan prioritas
- Persiapan
- Metadata
- Metode
- Manajemen mutu
- Penyimpanan
- Evaluasi

Penetapan Sumber Daya

- Arsip yang akan didigitalisasi
- Kualitas hasil
- Format file
- Sarana prasarana
- SDM

Persiapan teknis

- Menyusun perencanaan
- Tim pelaksana
- Daftar Arsip
- metadata

- Identifikasi jumlah file
- Kebutuhan storage
- Kebutuhan SDM
- Skala Prioritas
- Manajemen proyek

Pra Digitalisasi

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SDM	Peralatan	Jumlah arsip perbulan
10	10	10.000 / bulan
5	5	20.000 / bulan
4	4	25.000 / bulan
2	2	50.000 / bulan

Pra Digitalisasi

Perhitungan Arsip untuk digitalisasi

NO	URAIAN	SATUAN	JUMLAH KHASANAH ARSIP TAHUN 2021		
			2020	PENAMBAHAN	2021
8	Rekaman Suara	Kaset	54.716	19	54.735
9	Reel to Reel Sound	Reel	946	0	946
10	Video	Kaset	25.774	1.383	27.157

Arsip Video

yang akan didigitalkan : 25.774 kaset

Rata-rata Durasi : 60 menit

Total Durasi : 1,546,440 menit

Dalam satu hari kerja : 4 jam = 240 menit * 220 harikerja = 52.800 menit

Jumlah Arsip / Tahun	Tahun Penyelesaian
25.774	29,3 tahun
12.887	58,6 tahun
6.443	425 tahun
500	1.510 tahun

SDM	Peralatan	Jumlah arsip perbulan
10	10	50 kaset / bulan
5	5	100 kaset / bulan
4	4	125 kaset / bulan
2	2	250 kaset / bulan

Pra Digitalisasi

Perhitungan storage untuk digitalisasi

Format Arsip	Jumlah Arsip	Storage
PRESERVASI cth: TIFF (40 MB)	100.000	4 TB
AKSES cth: JPEG (5 MB)	100.000	0,5 TB

Format Arsip	Jumlah Arsip	Storage
PRESERVASI cth AVI (10 GB)	500	5 TB
AKSES cth MP4 (1 GB)	500	0,5 TB

Pra Digitalisasi

JENIS ARSIP

Kertas

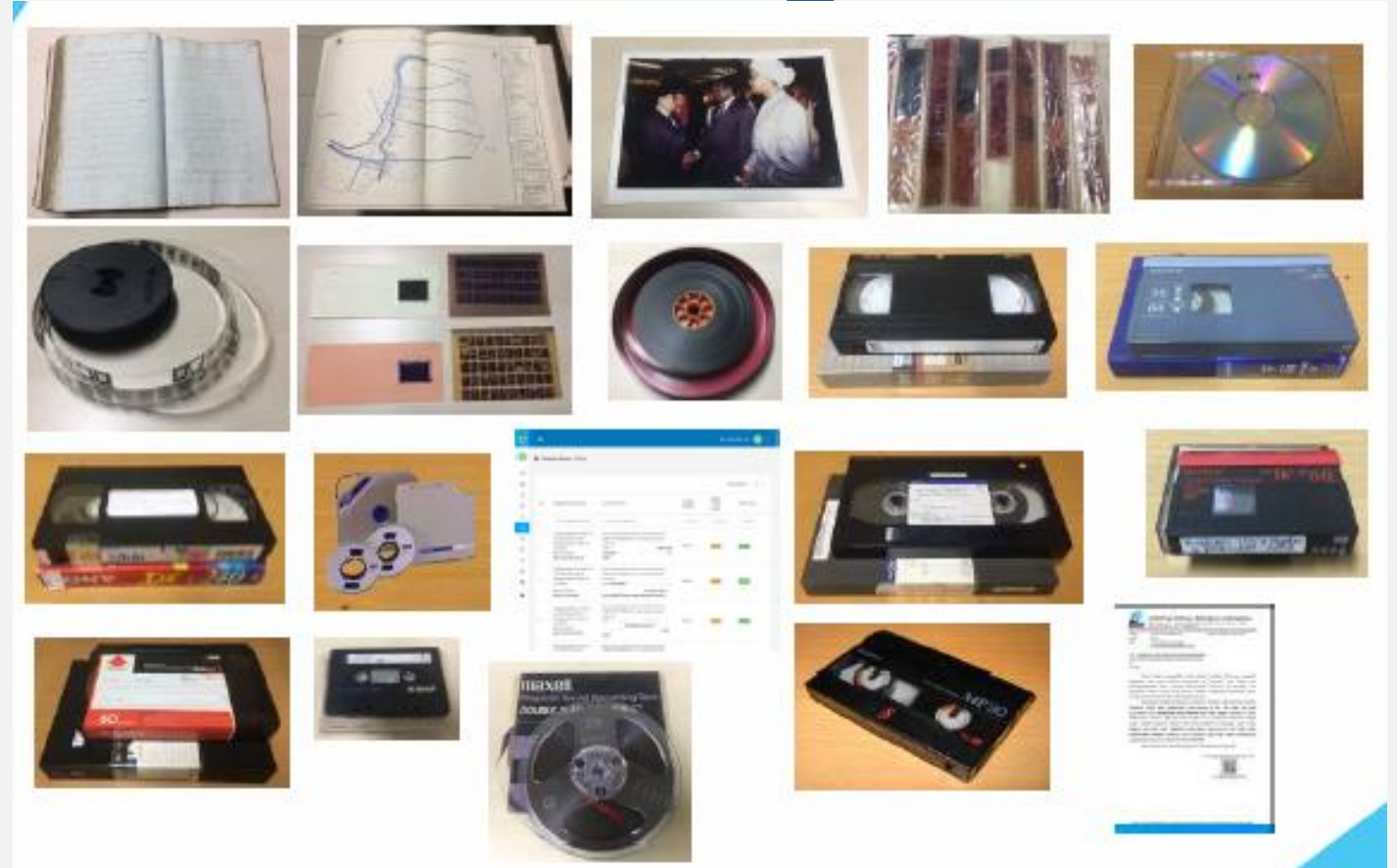
- Lembaran kertas
- Naskah / dokumen
- Buku / jilidan
- Peta kartografi, kearsitekturan
- Foto positif

Audio Visual

- Film reel celluloid
- Foto negative/klise
- Foto glass
- Mikroofilm/mikrofische
- Video tape magnetic
- Rekaman suara /sound reel
- Piringan hitam

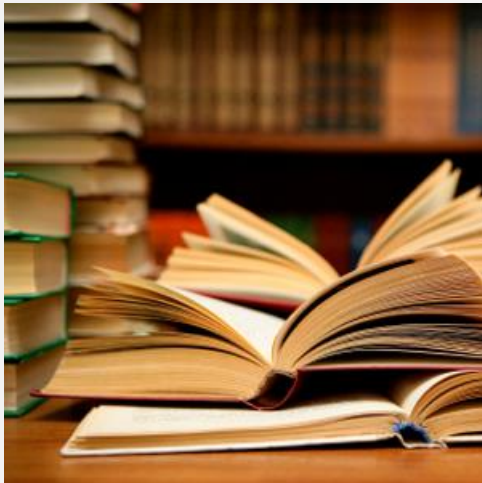
Electronic

- File digital – Server storage
- Memory card
- CD / DVD
- LTO Tape



Arsip Kertas

- Internal factors that influence the durability of paper is the physical condition of the paper itself.
- Good acidity between 7-8.5
- Oxidation: color fading
- Hydrolysis: reduces strength of cellulose fibers and paper strength



- Wood pulp contains lignin which breaks down to produce yellow-brown substances as well as acids
- The additives leave residual acids in the paper, which further break down the cellulose
- This deterioration is hastened by exposure to heat, high humidity, visible and ultraviolet light.

Arsip film

Photographic film (bahan film) adalah bahan reaktif yang secara kimiawi menyimpan rangkaian gambar yang bisa ditampilkan dengan sorotan cahaya (proyeksi)

- Film diproyeksikan dengan sorotan lampu terang pada image film dengan membuka shutter kamera proyeksi, dikombinasikan speed shutter dan film speed



Carrier



transmisi



Film seluloid adalah film yang dibuat dengan bahan baku pita seluloid melalui proses kimiawi dan dipertunjukkan kepada khalayak dengan sistem proyeksi.

Arsip video

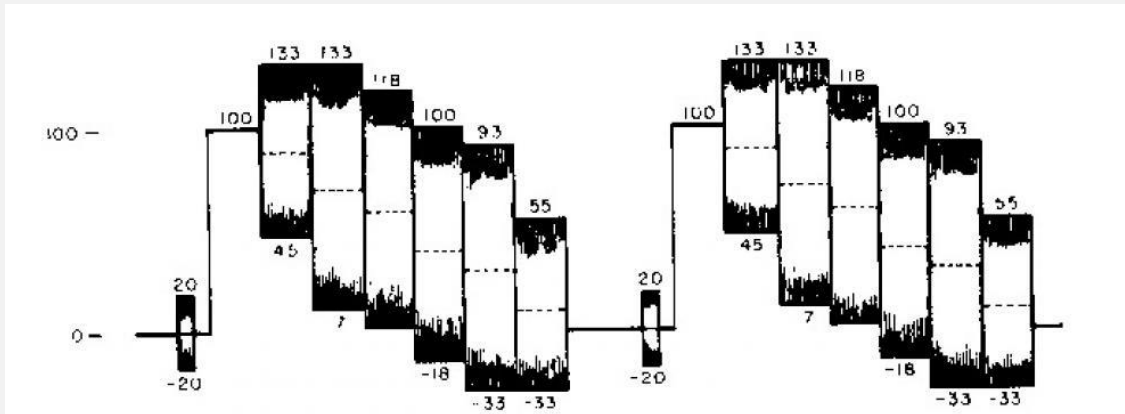
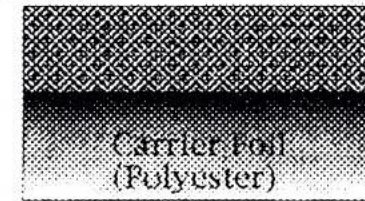
Video dapat menunjukkan gambar bergerak elektronik (berlawanan dengan fotografi) yang ditampilkan di layar televisi atau komputer, atau merupakan singkatan untuk media atau format terkait, seperti rekaman video, kaset video, atau kaset video

The Composition of Magnetic Tape

40% Magnetic Particles
40% Binder
20% Pores

Binder
Urethane Elastomer
Lubricants
Abrasives

Magnetic Particles
Ferric Oxide
Chromium Dioxide
Metal Particle



Pelaksanaan Digitalisasi



Alat Scanner



ADF & Flatbed Scanner



Reel Film Scanner



Positive & Negative Photo Scanner



Microfilm & Microfische Scanner



Book Scanner
Overhead Scanner A2



Overhead Scanner A1



Pelaksanaan Digitalisasi



Player Video



Turntable Vinyl Player



Audio Tape Player



HDV Player



Betacam Player



DVCAM Player



MiniDV Player



Umatic Player



VHS Player



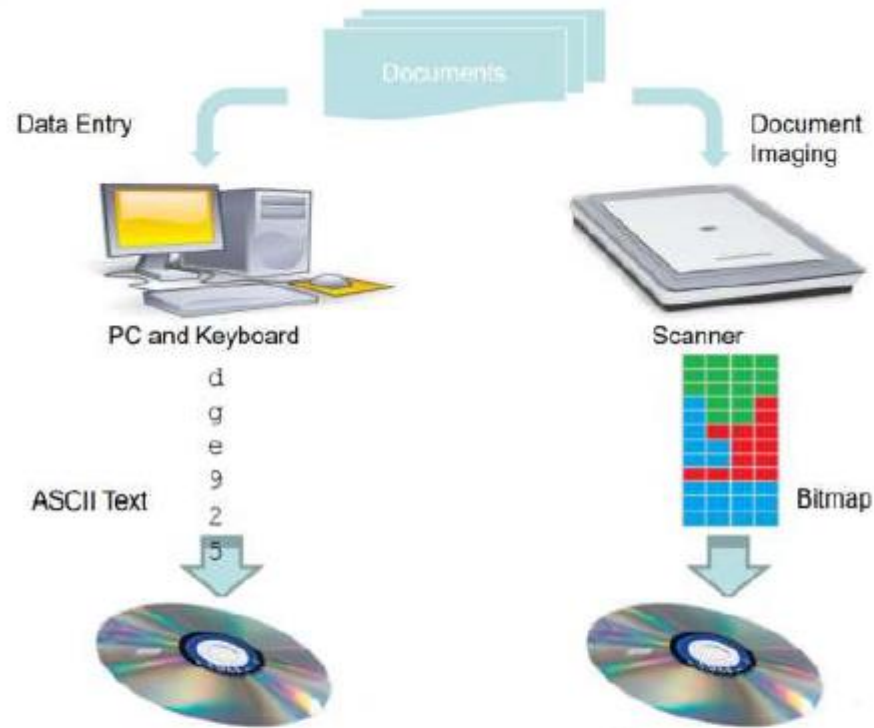
Open Reel Player



Pelaksanaan Digitalisasi



Raster Vs Vector



Vector (Geometric)
Format: Notepad, Microsoft Word,
Excel etc.
Size: 2 to 3 Kilo Bytes per Page

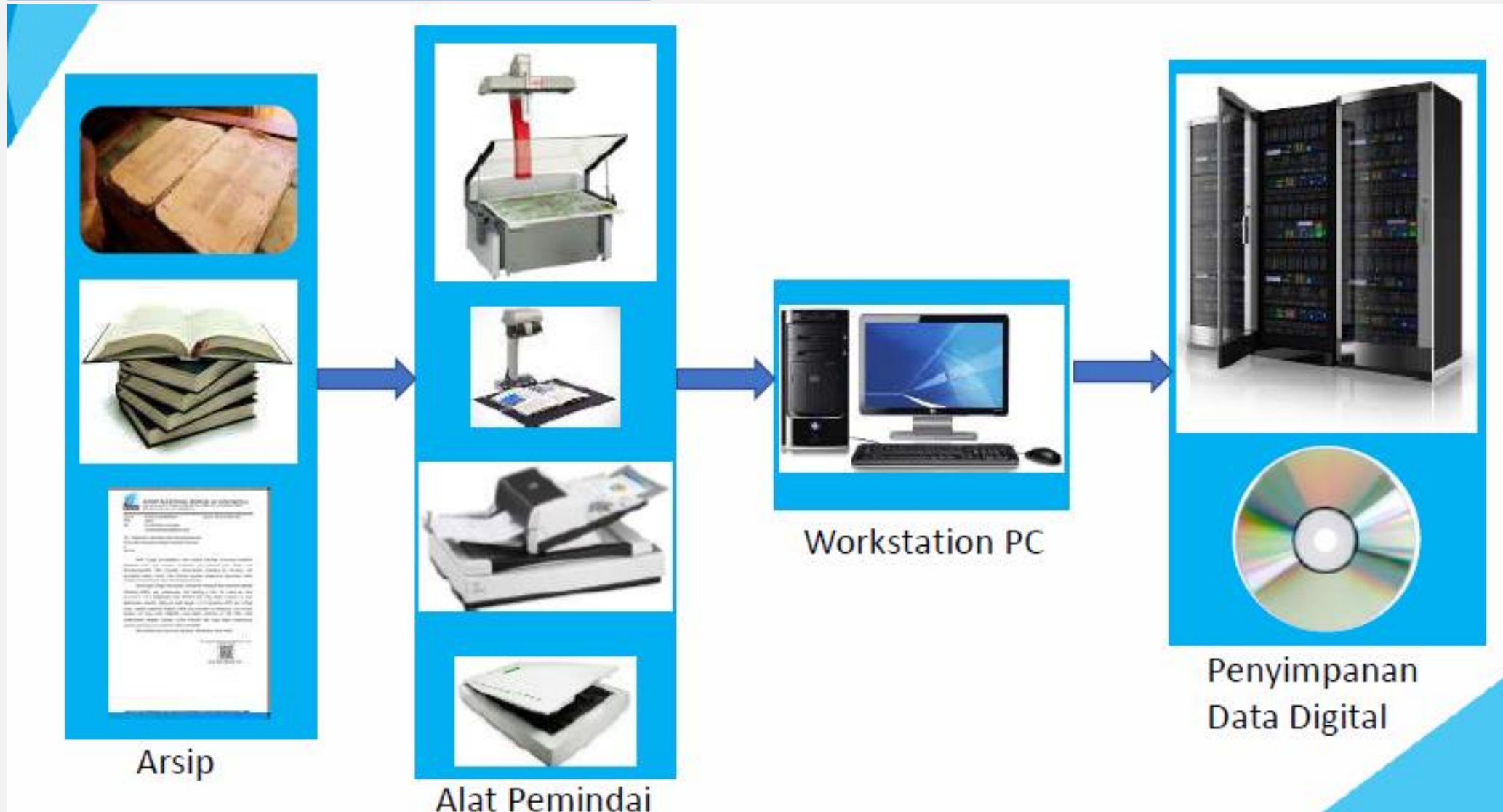
- Raster
- Format: BMP, TIFF, JPEG, PDF etc.
- Size: 50 Kilo Bytes to 20 Mega bytes per Page



Pelaksanaan Digitalisasi



Alihedia kertas




Pelaksanaan Digitalisasi



Standar minimum kualitas hasil Alihedia kertas

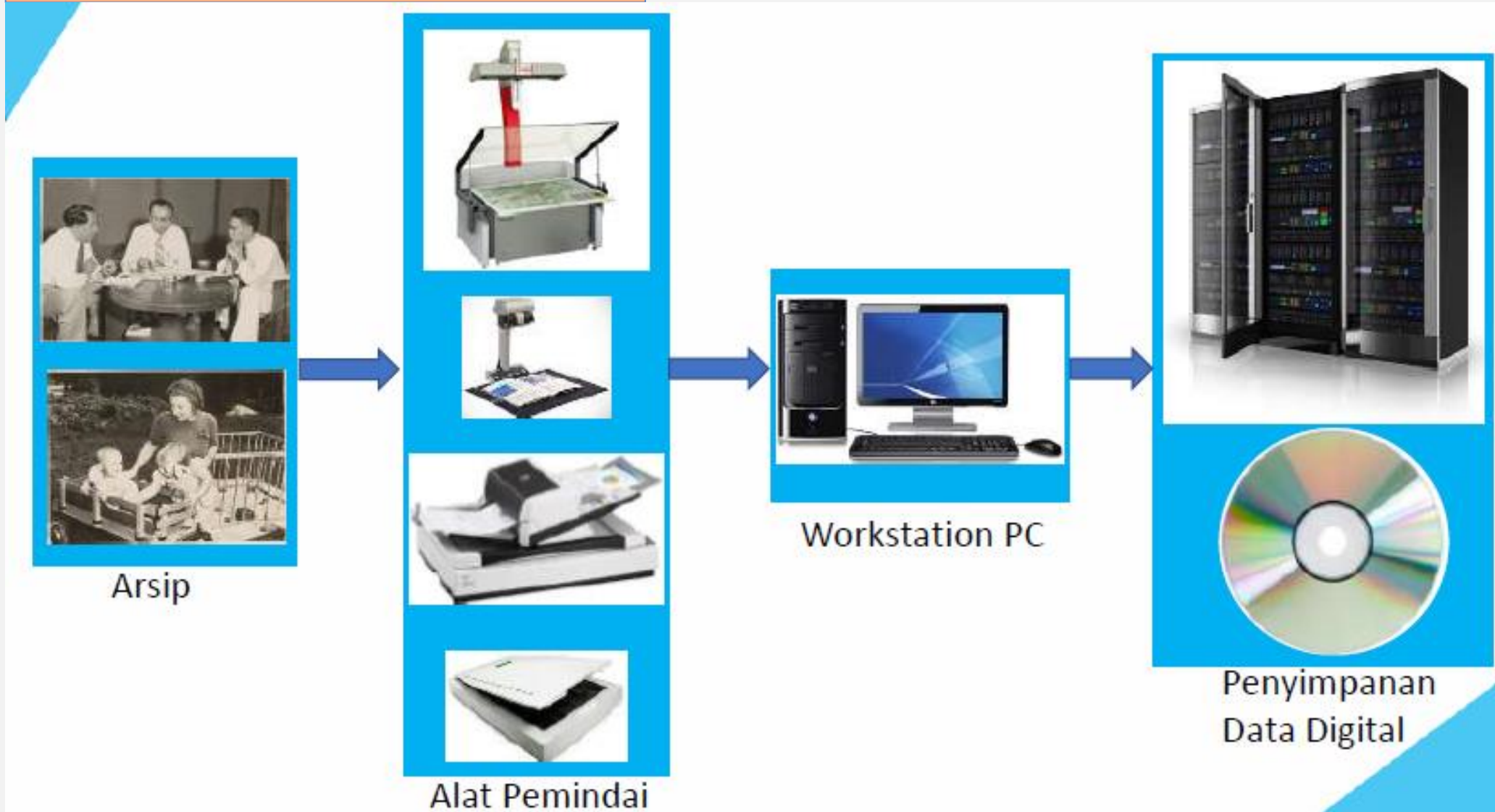


	Kebutuhan Preservasi	Kebutuhan Akses
- Teksual	300dpi, 24 bit color TIFF uncompressed	300dpi, 24 bit color JPG/PDF
Cropping - Teksual	 <p>Seluruh fisik arsip tercan, tidak terpotong, sesuai aslinya, dengan melebihi +1cm di semua sisi arsip.</p>	 <p>Seluruh fisik arsip tercan, tidak terpotong, sesuai aslinya Hanya yang ada informasi yang di-cropping</p>

Pelaksanaan Digitalisasi





Alihedia Foto



Pelaksanaan Digitalisasi



Standar minimum kualitas hasil Alihedia foto

	Kebutuhan Preservasi	Kebutuhan Akses
- Foto	600dpi, 24 bit color TIFF uncompressed	600dpi, 24 bit color JPG/PDF
Cropping		
	Kebutuhan Preservasi	Kebutuhan Akses
- Foto	 <p>Seluruh fisik arsip terscan, tidak terpotong, sesuai aslinya, dengan <u>melembihkan ±1cm</u> di semua sisi arsip.</p>	 <p>Seluruh fisik arsip terscan, tidak terpotong, sesuai aslinya, <u>Hanya yang ada informasi</u> yang di-cropping</p>

Pelaksanaan Digitalisasi



Alihedia Kartografi-kearsitekturan



Arsip



Alat Pemindai



Workstation PC





Penyimpanan
Data Digital

Pelaksanaan Digitalisasi



Standar minimum kualitas hasil Alihedia kartografi

	Kebutuhan Preservasi	Kebutuhan Akses
- Kartorektur	400dpi, 24 bit color TIFF uncompressed	400dpi, 24 bit color JPG/PDF
Cropping		
	Kebutuhan Preservasi	Kebutuhan Akses
- Kartografi, Lukisan, Poster, Pamflet	 <p>Seluruh fisik arsip terscan, tidak terpotong, sesuai aslinya, dengan melebihi $\pm 1\text{cm}$ di semua sisi arsip.</p>	 <p>Seluruh fisik arsip terscan, tidak terpotong, sesuai aslinya, Hanya yang ada informasi yang di-cropping</p>

Pelaksanaan Digitalisasi



Alihedia Mikrofilm-mikrofische



Arsip



Alat Pemindai



Workstation PC



Penyimpanan
Data Digital

Pelaksanaan Digitalisasi



Standar minimum kualitas hasil Alihedia kartografi

	Kebutuhan Preservasi	Kebutuhan Akses
- Tekstual	300dpi, 24 bit color TIFF uncompressed	300dpi, 24 bit color JPG/PDF



Pelaksanaan Digitalisasi



TIFF Vs JPEG Vs PDF

TIFF Uncompressed	JPEG	PDF
Appropriate digital format for digital preservation	Suitable digital format for access	Suitable digital format for access
Huge file size Cth : 40MB	Smaller file size Cth : 8MB	Smaller file size Cth : 9MB
No Compression – No data loss / data equal to 100% of the original material	Lossy Compression – Have loss of data	Lossy Compression – Have loss of data
Best Quality!	Better Quality	Better Quality
Suitable for image / graphic	Suitable for image / scanned document	Suitable for text / image



Pelaksanaan Digitalisasi



Alihmedia Film



Arsip



Alat Pemindai



Workstation PC





Penyimpanan
Data Digital

Pelaksanaan Digitalisasi



Standar minimum kualitas hasil Alihedia Film

	Kebutuhan Preservasi	Kebutuhan Akses
- Citra Bergerak (Film reel)	AVI / MXF, 25fps 1080 FullHD ,color [RAW file - (File Video terpisah dengan File Audio)]	MP4, 25fps, 1080 FullHD [Video – Audio tersinkronisasi]
Cropping		
	Kebutuhan Preservasi	Kebutuhan Akses
- Film	 Lubang perforasi terscan	 Tanpa lubang perforasi

Pelaksanaan Digitalisasi



Alihedia Video



Arsip



Alat Pemindai +
Video Mixer



Workstation PC +
Analog Digital
Converter

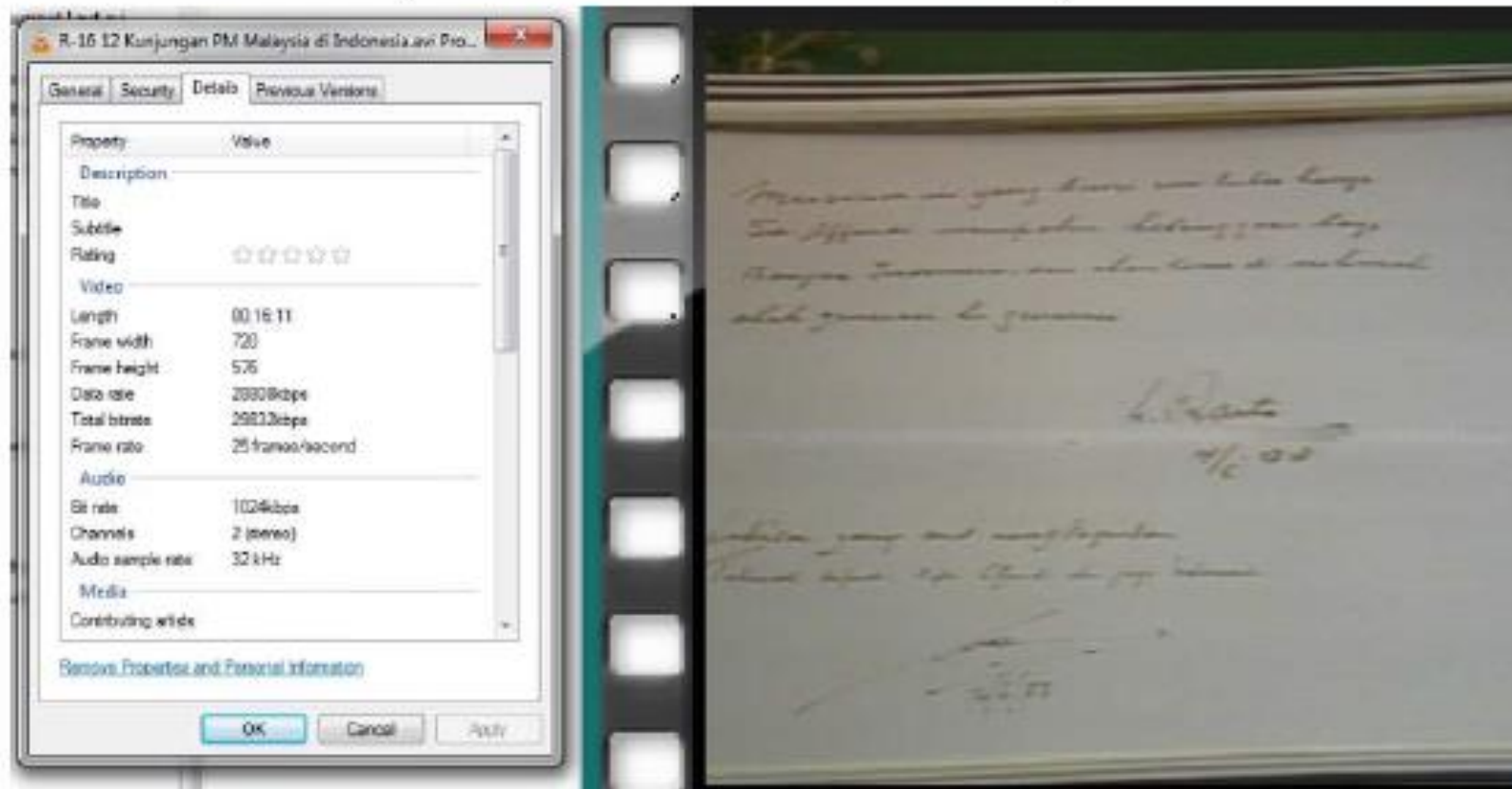


Penyimpanan
Data Digital

Pelaksanaan Digitalisasi

Standar minimum kualitas hasil Alihedia Video

	Kebutuhan Preservasi	Kebutuhan Akses
- Video Cassette	AVI, 25fps	MP4, 25fps



Pelaksanaan Digitalisasi

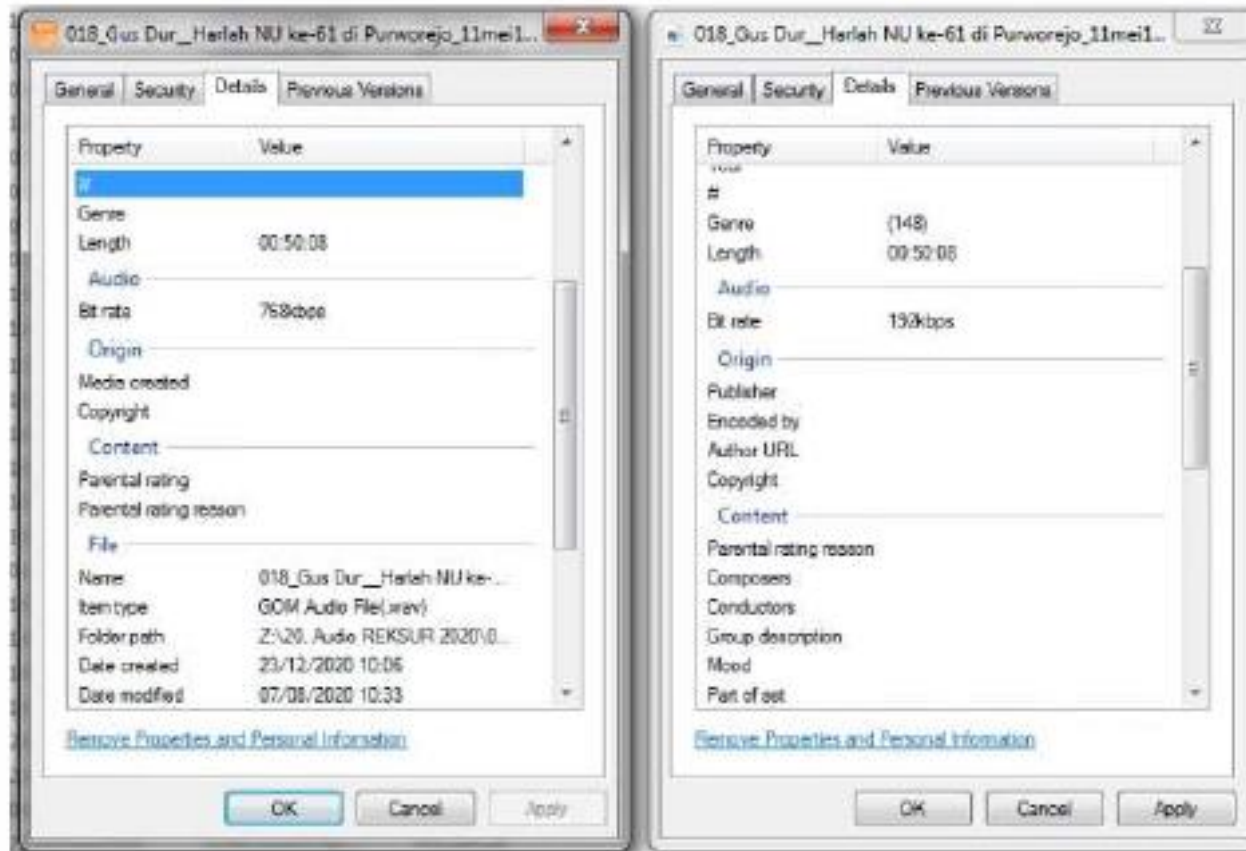
Alihedia Audio/Rekaman suara



Pelaksanaan Digitalisasi

Standar minimum kualitas hasil Alihedia Audio

	Kebutuhan Preservasi	Kebutuhan Akses
- Rekaman suara	WAV, 192kbps, 44,1Hz	MP3, 192kbps, 44,1Hz



Pelaksanaan Digitalisasi



Standar minimum kualitas hasil Alihedia

	Kebutuhan Preservasi	Kebutuhan Akses
- Teksual	300dpi, 24 bit color TIFF uncompressed	300dpi, 24 bit color JPG/PDF
- Foto	600dpi, 24 bit color TIFF uncompressed	600dpi, 24 bit color JPG/PDF
- Kartorektur	400dpi, 24 bit color TIFF uncompressed	400dpi, 24 bit color JPG/PDF
- Rekaman suara	WAV, 192kbps, 44,1Hz	MP3, 192kbps, 44,1Hz
- Citra Bergerak (Film reel)	AVI / MXF, 25fps 1080 FullHD ,color [RAW file - (File Video terpisah dengan File Audio)]	MP4, 25fps, 1080 FullHD [Video – Audio tersinkronisasi]
- Video Cassette	AVI, 25fps	MP4, 25fps
- Lukisan Pamflet, Poster	600dpi, 24 bit color TIFF uncompressed	600dpi, 24 bit color JPG/PDF

Semakin detail gambar/
semakin banyak informasi
warna yang direkam 

semakin besar ukuran file/
semakin banyak kapasitas
storage yang dibutuhkan.

Pasca Digitalisasi

Foldering & File name

Penamaan File

NEGARA_PEMILIK_KHAZANAH_NOMOR_NO.ITEM.JPG

Contoh:

ID_ANRI_SETNEG RI 1960-1970_05_0005.JPG

Keterangan :

Nomor (05) artinya berkas/file ke -5 (ada sekian puluh file)
Nomor item (0005) artinya item ke 5 (ada sekian ribu item dalam satu file), dst

✳ ID_ANRI_PETA BPS JAWA TENGAH 1980_5011-4105-1179-0001	09/11/2021 14:28	IrfanView TIF File	293.988 KB
✳ ID_ANRI_PETA BPS JAWA TENGAH 1980_5011-4105-1179-0002	25/08/2021 10:03	IrfanView TIF File	253.784 KB
✳ ID_ANRI_PETA BPS JAWA TENGAH 1980_5011-4105-1179-0003	25/08/2021 10:04	IrfanView TIF File	250.659 KB
✳ ID_ANRI_PETA BPS JAWA TENGAH 1980_5011-4105-1179-0004	09/11/2021 14:30	IrfanView TIF File	287.018 KB
✳ ID_ANRI_PETA BPS JAWA TENGAH 1980_5011-4105-1179-0005	25/08/2021 10:08	IrfanView TIF File	252.496 KB
✳ ID_ANRI_PETA BPS JAWA TENGAH 1980_5011-4105-1179-0006	25/08/2021 10:10	IrfanView TIF File	249.458 KB
05-1179-0007	25/08/2021 10:14	IrfanView TIF File	253.875 KB
05-1179-0008	25/08/2021 10:16	IrfanView TIF File	258.270 KB
05-1179-0009	25/08/2021 10:18	IrfanView TIF File	257.302 KB
05-1179-0010	25/08/2021 10:20	IrfanView TIF File	249.924 KB
05-1179-0011	25/08/2021 10:21	IrfanView TIF File	252.996 KB
05-1179-0012	25/08/2021 10:23	IrfanView TIF File	257.902 KB
05-1179-0013	25/08/2021 10:24	IrfanView TIF File	256.220 KB
05-1179-0014	25/08/2021 10:25	IrfanView TIF File	248.480 KB
05-1179-0015	09/11/2021 14:32	IrfanView TIF File	294.157 KB
05-1179-0016	25/08/2021 10:30	IrfanView TIF File	246.451 KB
05-1179-0017	25/08/2021 10:31	IrfanView TIF File	250.734 KB
05-1179-0018	25/08/2021 10:32	IrfanView TIF File	261.022 KB
05-1179-0019	25/08/2021 10:33	IrfanView TIF File	252.284 KB
05-1179-0020	25/08/2021 10:36	IrfanView TIF File	260.696 KB
05-1179-0021	09/11/2021 14:34	IrfanView TIF File	291.744 KB

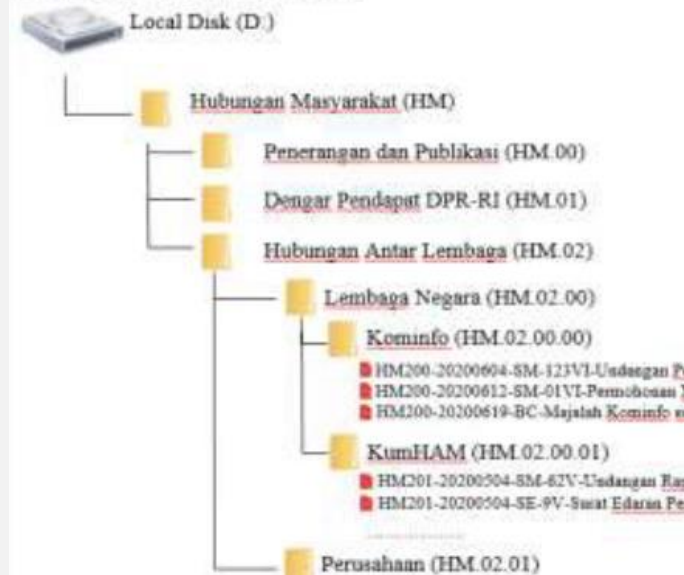
Pasca Digitalisasi

Foldering & File name

KODE KLASIFIKASI ARSIP DI LINGKUNGAN ARSIP NASIONAL REPUBLIK INDONESIA	
FUNGSI FASILITATIF	
HM. HUBUNGAN MASYARAKAT	
00. Penerangan dan Publikasi	Naskah-naskah yang berkaitan dengan kegiatan penerangan terhadap masyarakat di bidang kearsipan dan non kearsipan melalui kegiatan publikasi seperti wawancara, wartawan, konferensi pers/press release, media masa (Televisi, Radio, Surat Kabar), dan tanggapan terhadap berita media massa, termasuk layanan informasi publik.
01. Dengar Pendapat/Hearing DPR-RI	Naskah-naskah yang berkaitan dengan kegiatan dengar pendapat/hearing dengan DPR.
02. Hubungan Antar Lembaga	
02.00 Lembaga Negara	Naskah-naskah yang berkaitan dengan kegiatan hubungan antar Kementerian/Lembaga Negara dan Pemerintah Daerah.
02.01 Organisasi Kearsipan Nasional dan Internasional	Naskah-naskah yang berkaitan dengan organisasi-organisasi kearsipan.
02.02 Perusahaan	Naskah-naskah yang berkaitan dengan kegiatan hubungan antar lembaga dengan pihak perusahaan (BUMN, BUMD dan Swasta).
02.03 Organisasi Kemasyarakatan	Naskah-naskah yang berkaitan dengan kegiatan hubungan antar lembaga dengan organisasi kemasyarakatan.
02.04 Perguruan Tinggi/Sekolah	

Contoh :

STANDAR PENAMAAN



Contoh :

STANDAR FOLDERING

(mengikuti **Klasifikasi / Original Order**)



Pasca Digitalisasi

QC Hasil Alihmedia

1. Kebenaran metadata and nama file
 2. Ukuran dan posisi gambar
 3. Batas pinggir dan margin
 4. Kelengkapan dan cropping images
 5. Setiap file mewakili satu lembar/1 nomor
 6. Format file termasuk format pengembangan, jumlah bit, tipe image and resolusi
1. File hasil digitalisasi dalam berbagai media/format, berbagai size, platform
 2. Prevent the corrupt / damage file
 3. Tempat simpan yang sesuai
 - a) CD/DVD, Flasdisk/hardisk ext/ server NAS/SAN, server permanent
 4. Verifikasi dan autentikasi file yang dimasukkan :
 - a) Check data integrity with checksum method
 - b) Check file capability for OS
 - c) Virus scanning
 - d) Check file identity & file character
 - e) Metadata file

Pasca Digitalisasi

Contoh Prosedur Digitalisasi

4M + 1E

MATERIAL – Obyek alih media (Arsip)

- *Assessment* Kondisi Fisik Arsip
- *Assessment* Nilai Informasi Arsip
- *Assessment* Tingkat Penggunaan (Frekwensi Akses)

MAN - *Assessment* SDM

- *Assessment* Keahlian (*Capability*): Skill
- *Assessment* Kinerja (*Capacity*): Jumlah SDM, Kecepatan kerja

METHODE - Metode Alih Media

- Digitalisasi - Standar Kualitas
- *Microfilming*
- *Copying*

MACHINE - Ketersediaan Sarana/Prasarana

- Peralatan
- Ruang Simpan

ENVIRONMENT - Lingkungan

- Tuntutan Jaman / Kebijakan

***MONEY** - Anggaran

Persiapan
&
Penelitian

Menetapkan
Pedoman

Pelaksanaan

Autentikasi
&
Legalisasi

Persiapan
&
Penelitian

Menetapkan
Pedoman

Pelaksanaan

Autentikasi
&
Legalisasi

Penetapan Obyek alih media (Arsip)

- Judul Arsip
- Jumlah

Penetapan Tim Alih Media

- Struktur
- Tupoksi

Penetapan Metode Alih Media

- Tahapan
- SOP
- Tupoksi

Penetapan Autentikasi dan Legalitas

- Metode Autentikasi
UU.14/2008 UU.11/2008 PP.28/2012
..... dsb
- Metode Legalitas → PP.88/1999 & PP.28/2012

Pasca Digitalisati

Loss of information



ook de oorzaken van hoofdpijn werden aangegeven en het is altijd nog heel de narigheid te voorkomen dan te moeten genezen.

OM TE LEEREN LEZEN, door F. H. N. Bloemink Bij G. B. Van Goor Zonen te Gouda.

Een alleraardigste serie leesboekjes voor de jeugd, in vier deeltjes, waarin de elementaire beginselen van het lezen en de proefde wijze (met behulp van frische prentjes en goed onderscheid tusschen de

bezitten. Ongeloofelijk, welke eigenschappen en kennis een winkelier zich moet aankweken om zijn zaak bloeiend te maken.

Op de eerste plaats: goede inkoop, goede etaleur- en reclamekunst en verder een reuzen-geduld en een ontzettend aanpassingsvermogen, om alle klanten gemakkelijk en vlug te bedienen.

Ter illustroering van het geduld het volgende: Een dame komt de winkel binnen, en wil zich een japon aanschaffen. Ze heeft al iets in de etalage gezien, en had gaarne, dat het er even uitge-



DE CENTRALE TWEDE BLAD BINNENLAND

UIT HET BUITENLAND

Fransche Partij-verhoudingen. - Wat Oorlogschepen kosten. - De militaire dienstdienst in België

De Parijs is een congres gehouden van de radicaal en de met hen verwante groep, die zich de socialistisch-radicalen noemt, om de houding voor de toekomst te bepalen, voornamelijk met het oog op de Kamer-verkiezingen van

VOETBAL

R. K. Federatie.
PROGRAMMA ZONDAG 6 NOV.
Eerste klas A.
Wilhelmina-Casuar.
O. V. G. - V. V. H.
Kloster - R. K. O. N. S.
Valkenburg-Armda.
Eerste klas B.
Union-Kölping.
MULO - R. K. T. V. V.
Venlo-Notionmagum.
Hees-Genep.
Overgang A.
Achilles-Tukkers.
't Heerenberg-Prins Hendrik.
Overgang B.
Wiskracht-Litwijn.
R. K. A. V. - De Meer.

TIJDSCHRIFTEN
Katholiek Sociaal Weekblad.
Aanleider: Mr. P. J. M. AALBERSE.

VOOR DEN MIDDENSTANDE?

Zie nu maar, dat een winkelier zijn geld zoo maar verdient... en wat een hebzuchtige taal... nu wil moet worden.

En nu zijn taalkennis. Bij een palantaris komt een buitenman een vraag om steelen scher. De winkelier snapt hem niet en vraagt, wat hij aankan moet.

Wat, zegt de buitenman, zoon ding, waarmee je knipt, en staen schaar dus.

't Is markting, dus er zijn ook buitenvrouwen. Een er van slapt 'n winkel binnen en vraagt een aapspelletje. De winkelier vraagt of ze een kaartspel moet hebben. 'O, nee, dat niet. Nee, 'n spel moest het zijn, om de

Pasca Digitalisati

OCR Accuracy

81.0, H. Smit, Oostwoud 83.3, J. O. Wijdenes, Lambertschaag 85.8, S. Mol, Berkhout 82.7, A. Bloem, Beemster 84.6, K. Zijp Kz., W.-Waard 83.9, K. Kaan Kz., W.-Waard 83.6, W. Metselaar Wieringerwaard 84.4, J. Buurs, Beemster 81.5, P. Zeeman, Beemster 81.4, Jb. Houter, Schellinkhout 81.3, A. Kaan Kz., W.-Waard 81.0 p.

Er waren in 't geheel 102 stieren.

KAMER VAN KOOPHANDEL EN FABRIEKEN.

In de gehouden vergadering waren alle leden tegenwoordig. Na lezing en goedkeuring der notulen van de vorige vergadering kwam aan de orde het antwoord van Burgemeester en Wethouders, ontvangen op eene missive van de Kamer, waarbij bezwaar werd gemaakt tegen de toepassing der verordening op de vleeschkeuring ten aanzien van oude reusel. Dit artikel toeh,

81.0, H. Smit, Oostwoud 83.3, J. O. Wijdenes, Lambertschaag 85.8, S. Mol, Berkhout 82.7, A. Bloem, Beemster 84.6, K. Zijp Kz., W.-Waard 83.9, K. Kaan Kz., W.-Waard 83.6, W. Metselaar Wieringerwaard 84.4, J. Buurs, Beemster 81.5, P. Zeeman, Beemster 81.4, Jb. Houter, Schellinkhout 81.3, A. Kaan Kz., W.-Waard 81.0 p.

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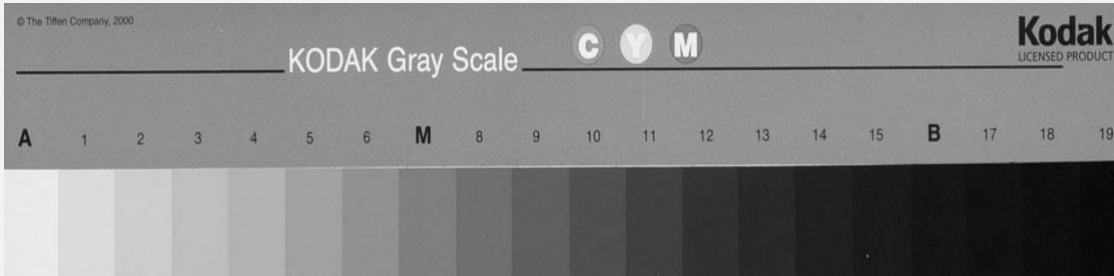
Er waren in 't geheel 102 stieren.

KAMER VAN KOOPHANDEL EN FABRIEKEN.

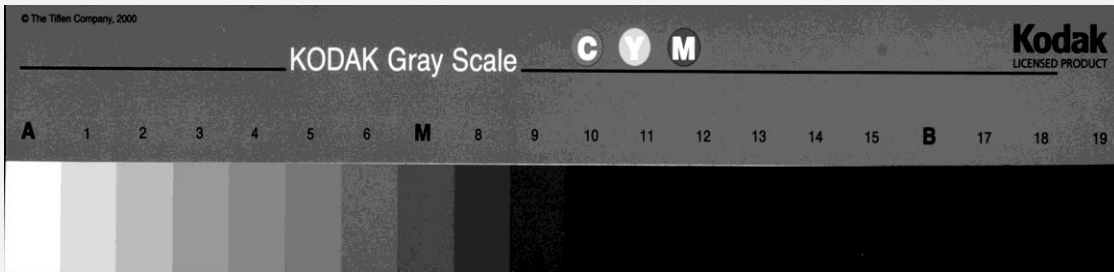
In de gehouden vergadering waren alle leden tegenwoordig. Na lezing en goedkeuring der notulen van de vorige vergadering kwam aan de orde het antwoord van Burgemeester en Wethouders, ontvangen op eene missive van de Kamer, waarbij bezwaar werd gemaakt tegen de toepassing der verordening op de vleeschkeuring ten aanzien van oude reusel. Dit artikel toeh,

Pasca Digitalisasi

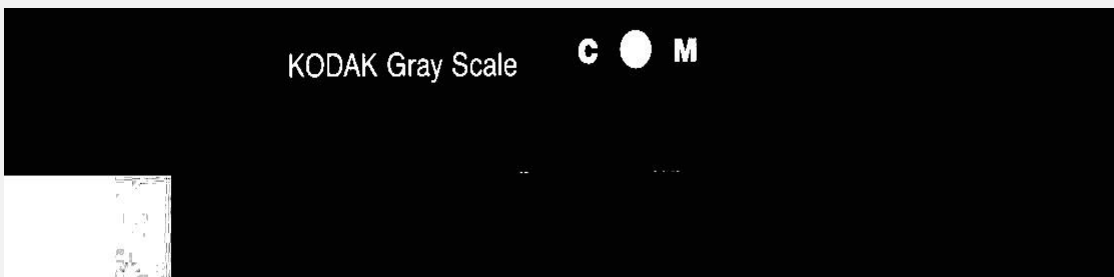
Metamorfoze



Low-contrast
Gamma 1.4 - 2



High-contrast
Gamma 2.5 – 3.5



Bitonal
Gamma infinite

METODE

Archival management processes

“Digital encoding has become the dominant way in which we create, shape and exchange information, but this dependence carries **many risks**.

As digital technology advances, hardware and software may become outmoded and information may become inaccessible

Other users may be unable to understand or use data

Access and use restrictions may make it difficult for others to re-use data

The ability to identify the location of data may be lost

The current custodian of the data may cease to exist

The ones we trust to look after the digital holdings may let us down”

(<http://www.alliancepermanentaccess.org/>)

There is no proven solution yet for digital preservation

Dutch “Archiefbesluit” says that the responsible manager must guarantee that the information will endure 100 years. This is impossible in these times for digital information.

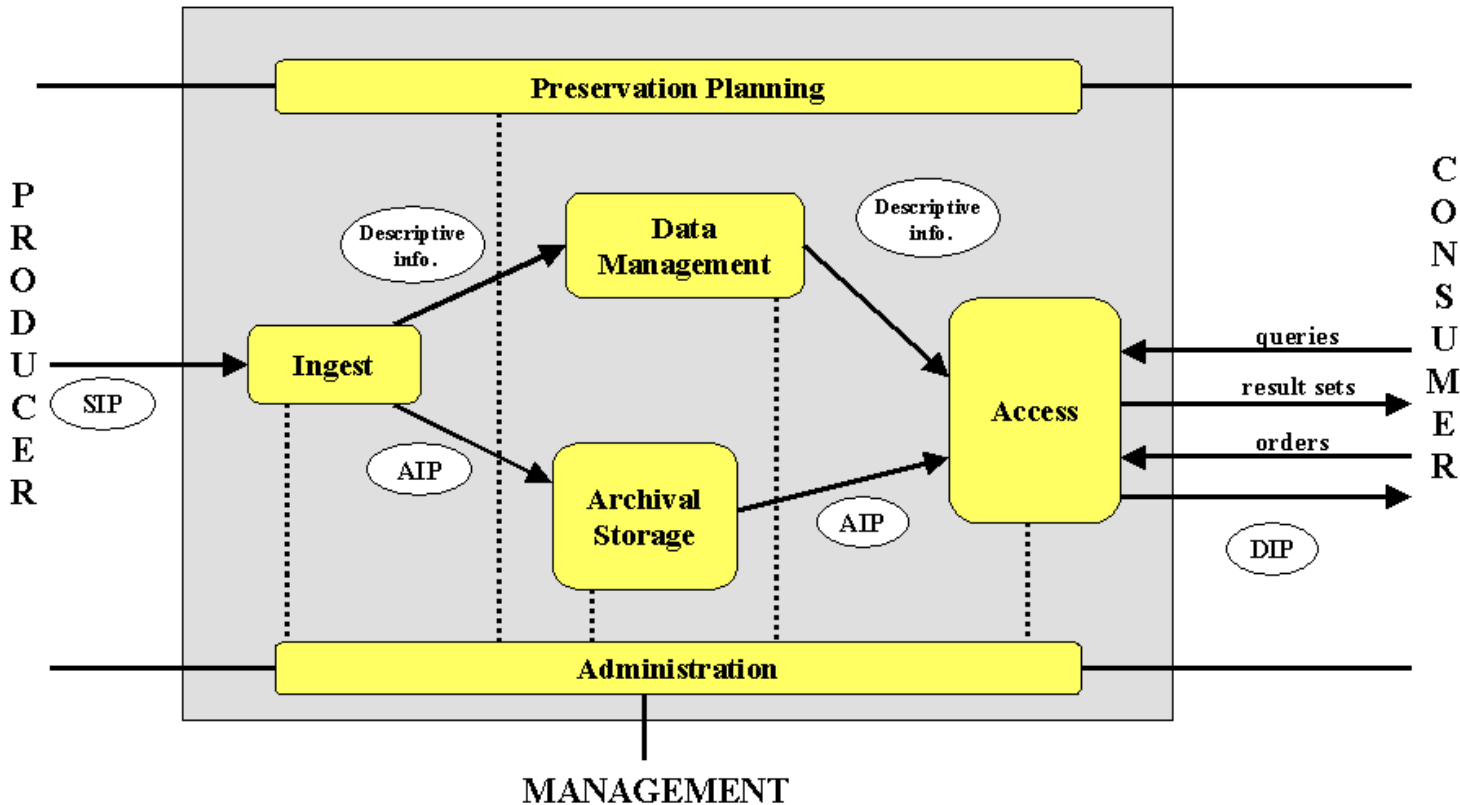
However, there is a lot going on on global, international and national level to get to solutions

Much the same principles for analogue archives apply to digital archives e.g. identification, provenance, authenticity

One Archival Management System for all types of objects is preferable and feasible

METODE

Business Process Model OAIS (ISO 14721)



The work of the Data Curator

Preservation policy:

- Importance of the information (e.g. evidence, historical value)
- Technical possibilities (e.g. file formats)
- Costs and benefits (preservation budget)
- Short-, mid- and long-term planning

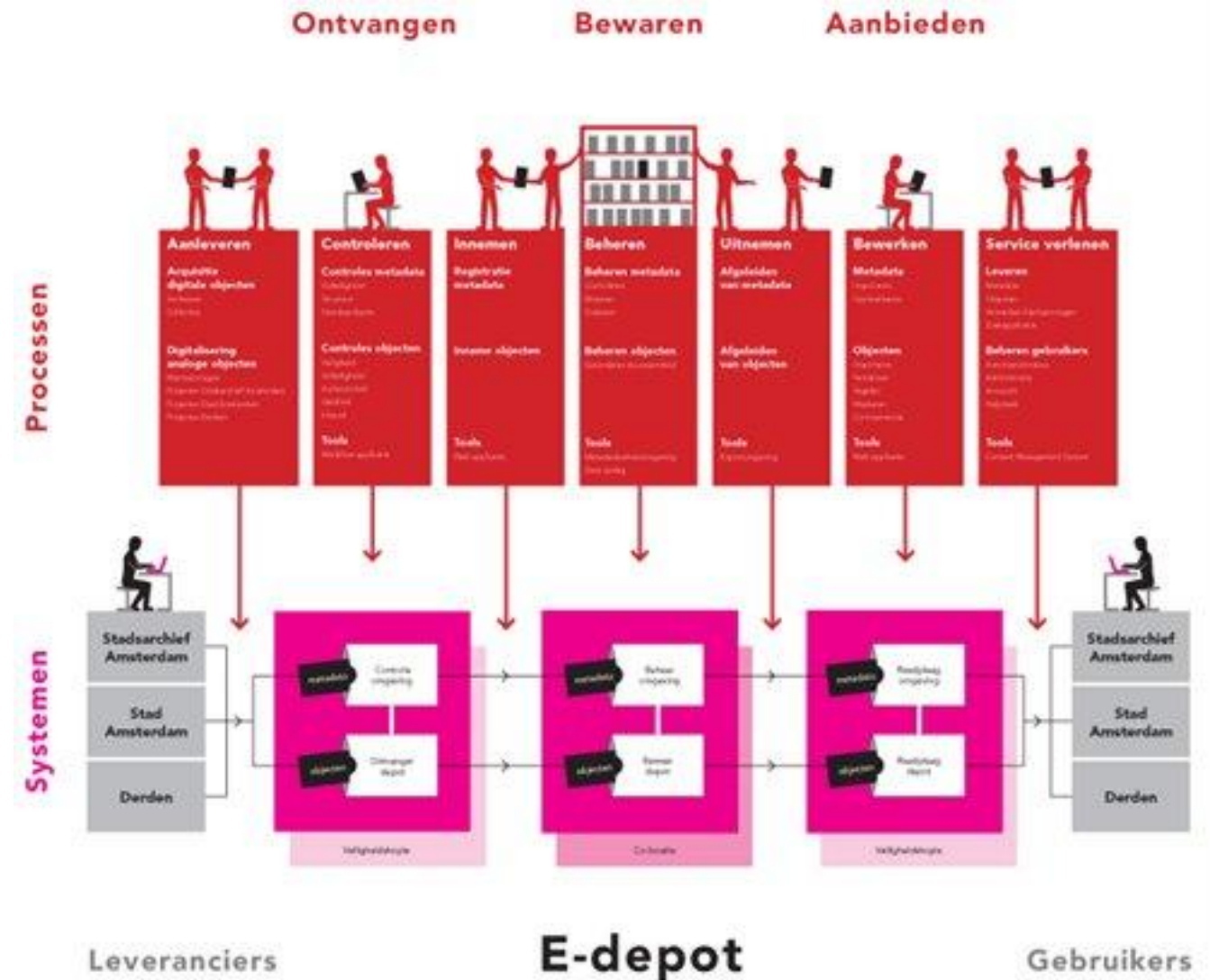
Data curation

- Metadata management
- Conversion
- Migration
- Security
- Availability and accessibility
- Documenting curation activities

METODE

Archival management processes

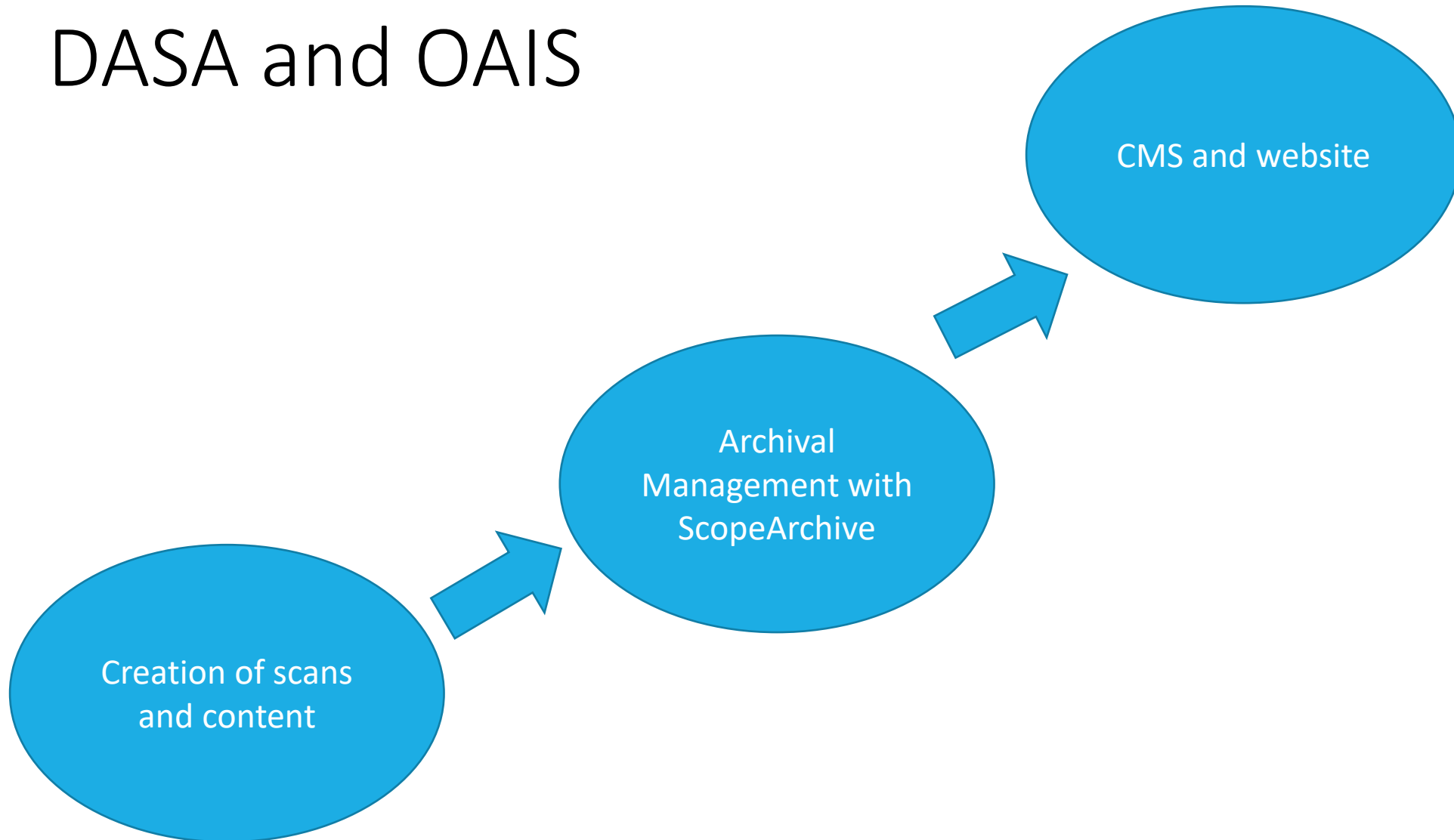
- Appraisal, ingest and import
- Archives Plan
- Description
- Logistics
- Use
- Conversions and migrations
- Disposal
- Export
- Quality control



METODE

Archival management processes

DASA and OAIS



METODE

Architecture Metadata and Applications

Metadata are the nervous system of all archival management

The right order to preserve context and retain the principle of provenance: The Archival Plan

The standard metadata schema: ISO 23081

International metadata standards:

ICA: ISAD(G), ISAAR(CPF), ISDIAH

PREMIS, METS

EAD (data-exchange)

Applications for archival management

General archival management (analog and digital): Scope Archive

Dedicated software for preservation: FEDORA, DSPACE

Dedicated software for quality control: JHOVE, DROID

METODE

Quality management & Risk Management

Operational Risks digital preservation

- actions of people -- action, or lack of action, taken by people either deliberately or accidentally that impact cyber security
- systems and technology failures -- failure of hardware, software, and information systems
- failed internal processes -- problems in the internal business processes that impact the ability to implement, manage, and sustain cyber security, such as process design, execution, and control
- external events -- issues often outside the control of the organization, such as disasters, legal issues, business issues, and service provider dependencies
(http://www.schneier.com/blog/archives/2011/08/taxonomy_of_ope.html)

METODE

Costs and benefits

Is digital preservation cheaper than analog conservation?

Nobody knows ...

Some European examples for developing cost models

Danish National Library <http://www.costmodelfordigitalpreservation.dk/>

German National Library: DP4Lib

http://dp4lib.langzeitarchivierung.de/index_downloads.php.de

DANS, Dutch Service for long-term archiving:

<http://www.dans.knaw.nl/en/content/categorieen/projecten/costs-digital-archiving-vol-2>

United Kingdom, LIFE Cost model project:

<http://www.life.ac.uk/blog/category/digital-preservation/>

METODE

Create Infrastructure

Project in the first year

1. Create basic infrastructure (maybe in the cloud)
 - Archival Management Software (f.e. ScopeArchive with remote access)
 - Storage Facilities (scalable)
2. Create a basic Archives Plan and Metadatascheme
 - Creation through workshops, then implementation in AMS
3. Start working with a modest amount of representative holdings
 - Import metadata (f.e. inventories) in AMS
 - Ingest digital holdings in AMS
4. Develop a plan for the journey in the next years (roadmap)
 - Test and evaluate first step
 - Design roadmap

METODE

Create Infrastructure

Architec-ture	Component	Year 1	Year 2	Year 3	Year N
ICT	Software	General AMS software (Saas) with basic levels and forms for limited amount of users	Extension of users, and use of software functions Dedicated preservation software	Complete software suite for AMS	etc
	Storage	Basic pilot storage facility	Extension and stabilizing	Extension and maintenance	
Informa-tion	Metadata	General Archives Plan (AP) General standards Pilot import and registration inventories, loans and containers	Extension AP and standards Extension types of registration Imports and registration	Maintenance AP and standards Imports and registration	
	Archives and collections	Pilot imports digital files (ingest)	First imports digital files according to procedure Pilot preservation activities	Stabilizing and extension of imports Extension preservation activities	
Business	Managing information	Pilot procedures archival management with AMS Plan for following years	First steps in TQM Extension of procedures	Completing procedures Start of audits	
	Using information	Pilot exports and queries	Extension of use possibilities	Stabilizing existing, and extension of new, possibilities	

The DASA project



DASA 1.0

- Web storage in CMS
- Publishing content on DASA website
- Under construction

www.sejarah-nusantara.anri.go.id

DASA 1.1

- Production Content team
 - Secondary entries
 - Articles for Harta Karun
 - Production is operational
- Production Scan Team
 - Facilities are present
 - Production due to start

DASA 1.2

- Archival Management, preservation
 - Pilot is operational
 - Report ready next December

Thank you



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