



DigCCurr 2009

Digital Curation Tools and Demos II

Mediapedias:

managing the identification of media carriers.

Prometheus:

managing the ingest of media carriers at the NLA.

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Digital Preservation Section, National Library of Australia.

The Problem

Context originally behind these two tools:

- The Library has a relatively small but important collection of digital materials stored on 'common' media carriers such as floppy disks, CDs and DVDs.
- This includes both published and unpublished manuscripts in digital form.
- Content stored on these carriers is at-risk and needs to be ingested into the NLA managed storage system in a systematic manner.



Obsolescence



Factors such as obsolescence of the technology required for access and carrier deterioration already make it difficult for digital preservation solutions to preserve access to digital content.



The Digital Preservation Section at the NLA divided this particular problem into two main components.

1. Understanding the problem. Having mechanisms in place to:

- understand the consequences for collecting content on problematic carrier types;
- identify the carriers types;
- identify the requirements for access each of these carrier types;
- have a place to record information that we found out; and
- share it with others.

Hence Mediapedia.

2. Do something about the Problem. Having mechanisms in place to deal with the less problematic media carriers by designed a system and processes which are:

- semi-automatic;
- modular; scalable (able to deal with multiple carrier types); and
- to automatically harvest and generate appropriate metadata for future access.

Hence Prometheus.

The acquisition of digital materials on carriers is a constantly growing problem. Therefore, the NLA had to address:

- whether to collect content on particular carriers in the first instant;
- processing the carrier backlog; and
- adding to the backlog.



Mediapeddia





Mediapeda



Mediapeda (soon to be a community web-base service for carrier identification and knowledge) aims to:

- be a curated repository for business knowledge and be a 'trusted' sources;
- enable the identification with a low level of audience knowledge;
- cater for both general and specialists audiences;
- contain additional information about dependencies (such as hardware, connectors, interfaces, software, etc.) and access paths for usage which are not currently represented in other sources such as Wikipedia; and
- be a web based service which can be integrated internally or externally to other services.







Media Genre is a categorisation of the carrier(s) of a resource, reflecting in general terms the type of content.

- Data, Microform, Moving Image, Sound, Still Image & Unmediated.

Type of carrier is a categorization of the carrier(s) of a resource, reflecting in general terms the format of the physical storage medium which when in combination with the type of intermediation device enables accessing the resource.

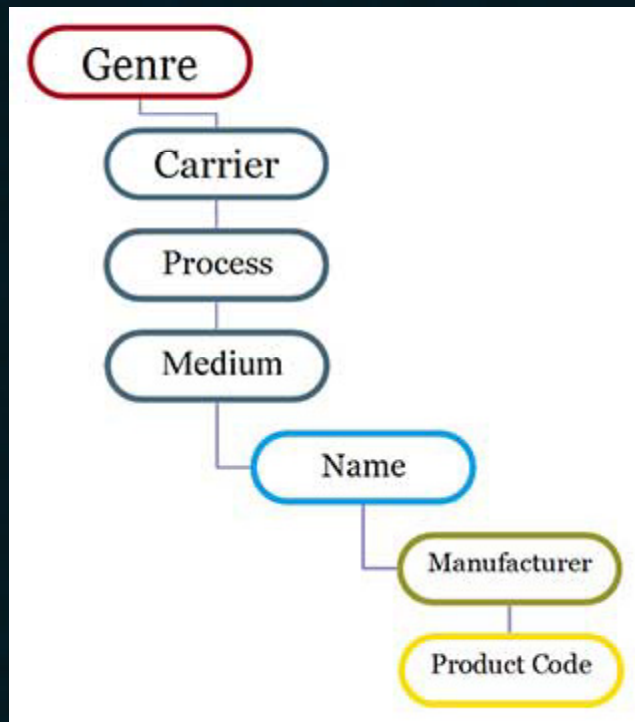
- e.g. tape reel, disc, disc / disk cartridge, cylinder, paper, etc.

Type of process is a categorisation to record the type of process used to record the information on the physical media.

- e.g. magnetic, magnetic/optical, mechanical, optical, photo chemical, photo mechanical, photo digital, solid state, etc.

Form of the recording medium is a categorization of the recording medium, reflecting in general terms the instance of the form of the underlying recording medium.

Name of carrier is a categorization of the common name or registered trademarked name of the physical media carrier utilised to store a resource.




















Home

Mediopedia



Mediopedia Modules

1.2.058 - based upon SP1.0v5

 Calendar	 Projects	 Members
 Manufacturers	 Genres	 Candidates
 Holotypes	 Variants	 To Do Lists
 Notes Log	 Timesheets	 Expenses
 About	 Preferences	 Help

Common Processes

Misc. Modules

Secondary Modules

Documents

Candidate
Line Items

To Do
Items

Holotype
Line Items

*The buttons contained on this tab
are not "primary" modules of
Mediopedia*

*Once pressed, each of these
"secondary" module buttons will
navigate to a basic Table View
screen for that specific module.*

Add: Glossary, Data Dictionary and Standards (aka Help pop-up)

Glossary

Standards

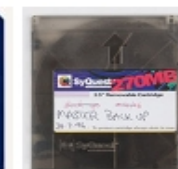
Images

Data Dictionary

Preservation

Migration Links

Based upon open source FileMaker template - FM Starting Point 1.0v5 • © 2009 Copyright All Rights Reserved





Search

Mediapeda



Media Genre

Carrier Type

Process Type

Medium Type

Name Product

Manufacturer

Product Code

Market Sector

"Hold the SHIFT key to select multiple Genres"

Press "Enter" to start Search!

Physical Dimensions: Height
Units = mm Width

Diameter
Depth
Running Length

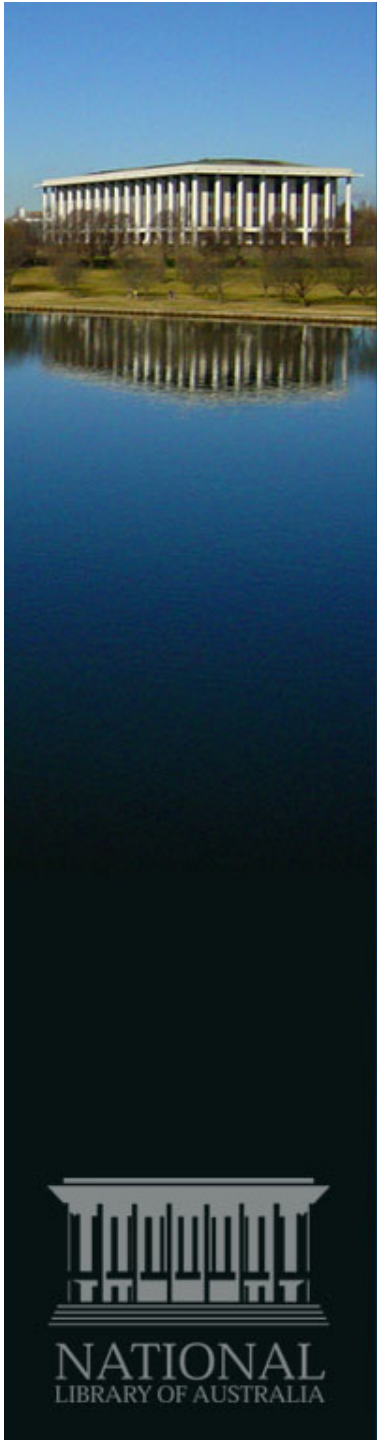
Distinguishing Features

Marketed Capacity

Materials

Conservation Assessment





Holotypes

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H000004

Candidate

Holotype Details

List View

Table View

Documentation

[Print Holotype](#)

[Email Holotype](#)

[View List Report](#)

Basic Info

Genre and Notes

Image Management

HolotypeID_Legacy H000004

Data

Zip Disk

floppy disk

magnetic

disk cartridge

HolotypeID: H000004

Carrier Type: disk cartridge

Process Type: magnetic

Medium Type: floppy disk

Name: Zip Disk

Standards: EDU: ZIP

Dimensional Info

Height: 98 mm

Width: 97 mm

Diameter: 5 mm

Depth: 5 mm

Running Length (Min>Max):

Holotype Status: Candidate

Add Line Item

Stretch window to view more line items

ID	Name of Variant Product	Product Code	Manufacturer	Prod. Start > Stop	Required Device
V0000166	Zip 100 Disk	32605	lomega	12/12/19	lomega Zip 100*, 250 or 750*
V0000167	Zip 250 Disk	32628	lomega		lomega Zip 250 or 750*
V0000168	Zip 750 Disk	750 MB	lomega, Fujifilm,		lomega Zip 750

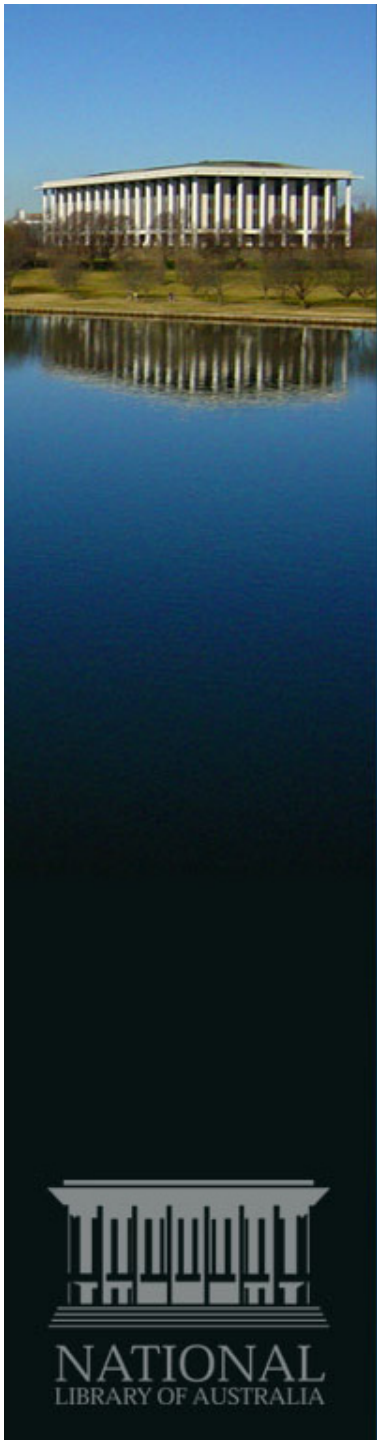
Created By: Digital Preservation

Date:

Modified By: Digital Preservation

Date: 17/02/09







Variants

HomeCalendarProjectsManufacturersGenresCandidatesHolotypesVariants

V0000166 Zip 100 Disk

Variant DetailsList ViewTable ViewDocumentation

View Variants List Report?

Basic InfoDataSoundStill ImageMicroformMoving ImageUnmediated

Data

Zip 100 Diskfloppy diskmagnetic disk cartridge



Image 1 Label: Top / ObverseImage 2 Label: Bottom / Reverse

Assessment: Digital Preservation assistance required for transfer from existing media to the managed digital storage system. (modest effort)

File Path: image:images/data/_13c.jpgFile Path: image:images/data/_14c.jpg

HolotypeID: H000004

Carrier Type: disk cartridge

Process Type: magnetic

Medium Type: floppy disk

Standards: EDU: ZIP

Dimensions: Height: 98 mmWidth: 97 mmDiameter: Depth: 5 mmRunning Length:

Product Name: Zip 100 Disk

Product Code: 32605

Manufacturer: lomega

Marketed Capacity: usually pre-formatted to Mac and PC

Market: ☒ Professional ☐ Consumer

Distinguishing Features: produced in various colours besides gray

Materials: Magnetic floppy disk media within rigid sturdy plastic cartridge.

Status:

Created By: D ElfordDate: 27/09/07Modified By: digipresDate: 19/02/09





Variants

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V000166 Zip 100 Disk

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[Basic Info](#)
[Data](#)
[Sound](#)
[Still Image](#)
[Microform](#)
[Moving Image](#)
[Unmediated](#)
Zip 100 Disk
1/2" open reel
magnetic tape reel
[Additional Requirements](#)
[Asseted Devices](#)
[Magnetic Disk/Cartridges](#)
[Magnetic Tape](#)
[Magnetic-Optical](#)
[Optical](#)
[Solid State](#)

DP AssetID	Process	Carrier	MFG	Model	Manifestation	Interface	Form Factor	READ	WRITE
DP00022	magnetic	disc cartridge	lomega	Zip 250 USB	External	USB 1.0		250 Mb. 100 Mb.	250 Mb. 100 Mb.
DP00159	magnetic	disc cartridge	lomega	ZIP 100 USB #31714	External	USB 1.0		100 Mb.	100 Mb.
DP00387	magnetic	disc cartridge	lomega	ZIP SKU# 32328 750	Internal	APATA	5.25"	750 Mb. 250 Mb. 100 Mb.	750 Mb. 250 Mb.
DP00388	magnetic	disc cartridge	lomega	ZIP SKU# 32328 750	Internal	APATA	5.25"	750 Mb. 250 Mb. 100 Mb.	750 Mb. 250 Mb.
DP00395	magnetic	disc cartridge	lomega	ZIP 100 Internal	Internal	IDE	3.5"	100 Mb.	100 Mb.
DP00414	magnetic	disc cartridge	lomega	ZIP SKU# 32324	Internal	APATA	5.25"	750 Mb. 250 Mb. 100 Mb.	750 Mb. 250 Mb.
DP00415	magnetic	disc cartridge	lomega	ZIP 100 Z100USB	External	USB 1.0		100 Mb.	100 Mb.
DP00473	magnetic	disc cartridge	lomega	Zip 100 Z100S2 SCSI	External	SCSI		100 Mb.	100 Mb.

 Created By:

 Date:

 Modified By:

 Date:




Holotypes

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H000023

Candidate

Holotype Details

[List View](#)[Table View](#)[Documentation](#) Print
Holotype Email
Holotype[View List Report](#)

Basic Info

Genre and Notes

Image Management

HolotypeID_Legacy H000023

Sound

Compact Cassette format analogue

1/8"

magnetic tape cassette



HolotypeID: H000023
Carrier Type: tape cassette
Process Type: magnetic
Medium Type: 1/8"
Name: Compact Cassette format
analogue audio tape,
Standards: EBU: CCA

Dimensional Info

Height: 100 mm
Width: 63 mm
Diameter: 12 mm
Running Length (Min>Max):

Holotype Status: Candidate

Add Line Item

Stretch window to view more line items

ID	Name of Variant Product	Product Code	Manufacturer	Prod. Start	Stop	Required Device	
V0000417	Computer Cassette C-20		Micron	1983	1996	Compact Cassette player	✗
V0000248	Compact Cassette	BASF LPR 35	BASF	1963	1996	Compact Cassette player	✗

Created By: Digital Preservation

Date:

Modified By: Digital Preservation

Date: 16/02/09





Variants

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V0000248 BASF C90 Compact Cassette

[Variant Details](#)[List View](#)[Table View](#)[Documentation](#)[View Variants List Report](#)

Basic Info

Data

Sound

Still Image

Microform

Moving Image

Unmediated

Sound

BASF C90 Compact Cassette

1/8"

magnetic tape cassette



Image 1 Label: Top / Obverse

Image 2 Label: Bottom / Reverse

Assessment: [User can access and review media using a current standard environment. \(minimal effort\)](#)

Summary:

File Path:

image:images/sound/

Filename:

P9247695c.jpg

File Path:

image:images/sound/

Filename:

P9247695c.jpg

Status:

HolotypeID: **H000023**

Carrier Type: tape cassette

Process Type: magnetic

Medium Type: 1/8"

Standards: EBU: CCA

Dimensions:

Height: 100 mm Width: 63 mm

Diameter: Depth: 12 mm

Running Length:

Product Name: BASF C90 Compact Cassette

Product Code: BASF LPR 35

Manufacturer: BASF

Marketed Capacity: 23 minutes per side (C46)

Market: ☒ Professional ☐ Consumer

Distinguishing Features: mostly double sided use with sides designated A or B

Materials: plastic casing with various oxide coatings upon various tape

Created By: D Elford

Date: 28/09/07

Modified By: National Library of Australia

Date: 24/03/09





Variants

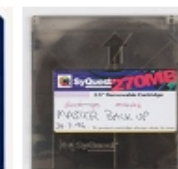
[Home](#)[Calendar](#)[Projects](#)[Manufacturers](#)[Genres](#)[Candidates](#)[Holotypes](#)[Variants](#)

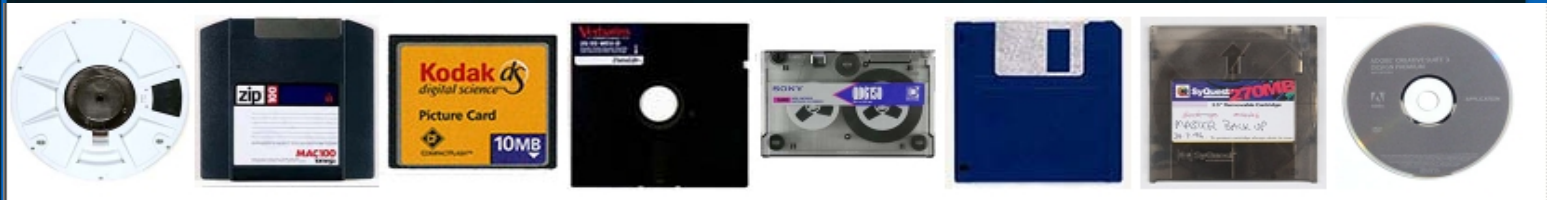
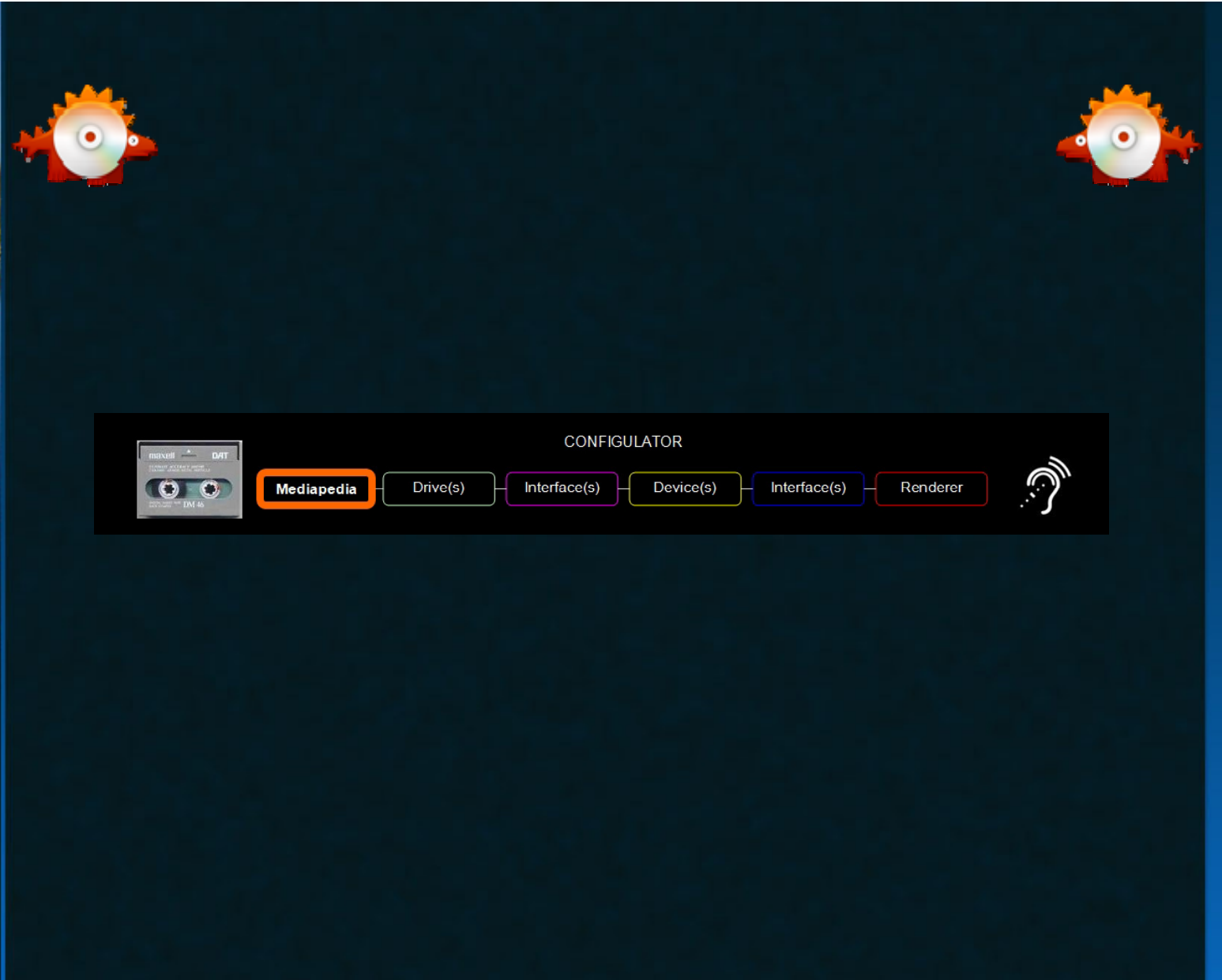
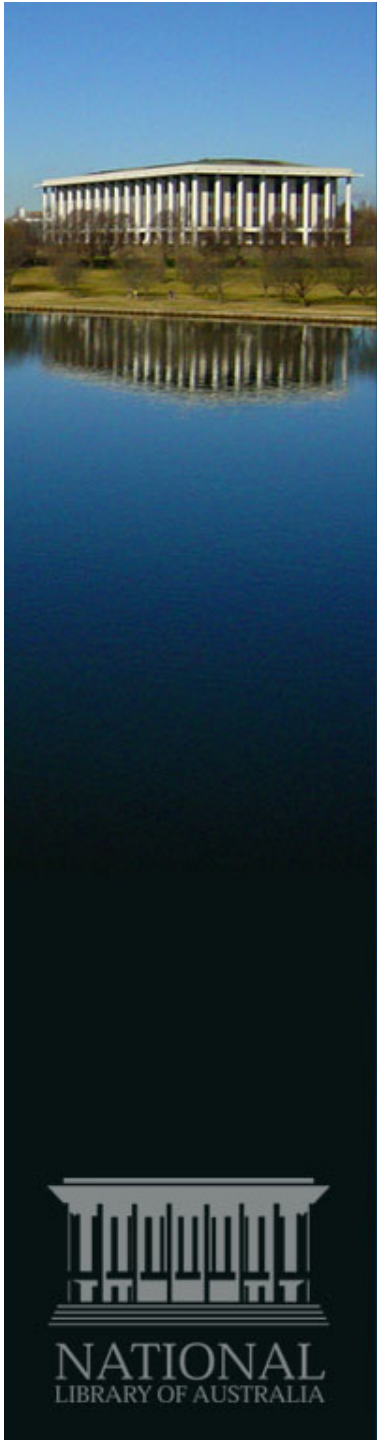
V0000248 BASF C90 Compact Cassette

[Variant Details](#)[List View](#)[Table View](#)[Documentation](#)[View Variants List Report](#)[Basic Info](#)[Data](#)[Sound](#)[Still Image](#)[Microform](#)[Moving Image](#)[Unmediated](#)**BASF C90 Compact Cassette****1/2" open reel****magnetic tape reel**[Additional Requirements](#)[Asseted Devices](#)[Materials: Tape Variants](#)[Materials: Disc Variants](#)[Materials Issues](#)[Tape Digitisation](#)Sound Tape ID Product Name Product Code Process ProdStart ProdStop Application_Binder Oxide Base Life Expectancy Life MFG Life Community BaseThickness OxideThickness TotalThickness BackTreated Coercivity Coercivity KA_M Retentivity Retentivity mT Remanence Remanence SatFlux

Remarks

Web Reference - Materials

Created By: Date: Modified By: Date: 





Prometheus



PROMETHEUS

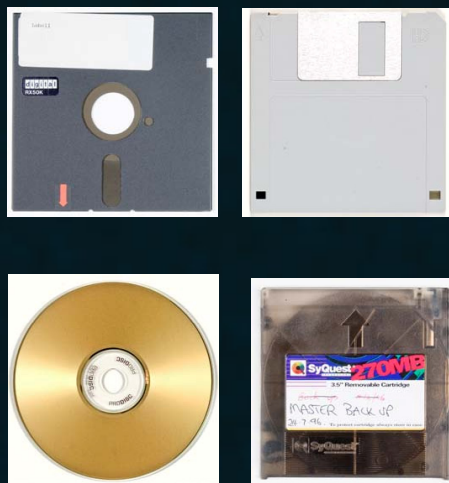
digital preservation tool



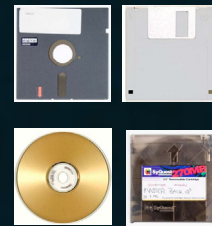
NATIONAL
LIBRARY OF AUSTRALIA



Centralised Model



De-Centralised Model



Select Media Type

Please contact Digital Preservation if your media is not listed here.

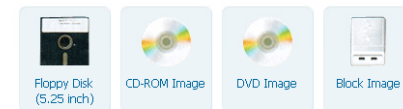


Cancel

Select Media Type

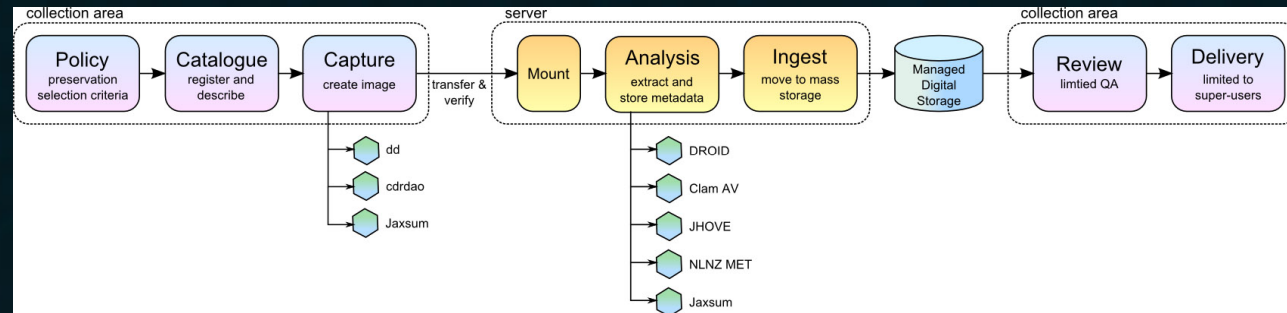


Available only to Digital Preservation




Cancel


Data Model



- dd for Windows, at <http://www.chrysocome.net/dd>
- cdrdao, at <http://cdrdao.sourceforge.net/>
- Jaxsum Java checksum utility, at <http://sourceforge.net/projects/jacksum/>
- DROID automatic file format identification tool, at <http://droid.sourceforge.net/wiki/index.php/Introduction>
- JHOVE object validation environment, at <http://hul.harvard.edu/jhove/>
- National Library of New Zealand Metadata Extraction Tool, at <http://meta-extractor.sourceforge.net/>



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digital preservation workbench

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LogoutAboutHelp

Search

My Jobs

My JobsCreate or Find Job

Assigned

Name	Priority	Last Update
Victorian government gazette 1862	High	14 Oct 08, 01:54 PM
Victorian government gazette 1877	High	14 Oct 08, 12:21 PM
Victorian Post Office directory 1888 (Wise)	High	14 Oct 08, 11:45 AM
Victoria police gazette compendium 1901-1905	High	13 Oct 08, 04:09 PM
Solo piano 2	Medium	13 Oct 08, 03:25 PM

Working

Name	Status	Priority	Last Update
West Tanami	Working	Medium	13 Oct 08, 10:45 AM
Choices: stories of young women's experiences with binge drinking: a short film	Working	High	13 Oct 08, 09:29 AM
Then we were three: building a stronger, healthier relationship	Working	High	13 Oct 08, 09:20 AM
Instant families: building a stronger, healthier relationship	Working	High	13 Oct 08, 09:04 AM
Taking the first step: building a stronger, healthier relationship	Working	High	13 Oct 08, 08:59 AM

Finished

Name	Status	Priority	Last Update
Nature conservation (estuarine crocodile) conservation plan 2007 and management program 2007 - 2017	Finished	High	13 Oct 08, 08:44 AM
Queensland Police Gazette: compendium 1916-1920	Finished	High	10 Oct 08, 03:31 PM
Little Billabong: Hume Highway duplication	Finished	High	10 Oct 08, 02:48 PM





Create or Find Job

Confirm Details

Bib ID	4502292
Author	Cronin, Stephen, 1960-
Title	Vocalise [music] : for choir and audio track/ Stephen Cronin.
Description	1 vocal score (9 p.) ; 30 cm. + 1 CD-ROM
Holdings	Choose holdings: <input type="text" value="MUS Nmt 783.16 C947"/> ▼

[Start again](#)[Cancel](#)[Check for Existing Jobs](#)



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Search

My Jobs

My Jobs ▶ East Yilgarn 1:100000 2006 Update - [Rename](#)

MediaBrowse Captured FilesDelete job

Add mediaeg. CD, disk, network file...

Part Name <small>See naming</small>	Status	Media Type	
▶ East Yilgarn 1:100000 2006 Update Disc 2 of 2	Ready	<i>click 'Edit' to select</i>	Edit
▶ East Yilgarn 1:100000 2006 Update Disc 1 of 2	Ready	<i>click 'Edit' to select</i>	Edit

Job
Details

Bibliographic
Information

Copyright
Information

Notes &
Metadata

Bibliographic Information

Bib ID 4222802
[Change catalogue record](#)

Holdings MAP Nmt 7815 (Ask at the Map Reading Room Desk)

nla.dp-n41022
[Change holdings](#)

Author Geological Survey of Western Australia.


Title East Yilgarn
[cartographic material] /
Geological Survey of
Western Australia.


Description
2 DVD-ROMs : col. ; 4 3/4 in.

System Details
System requirements:
GeoVIEWER.WA has been designed
for the Windows operating system and
has been tested to run on Windows
NT4/ME/2000/XP.





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My Jobs

My Jobs ▶ East Yilgarn 1:100000 2006 Update - [Rename](#)

MediaBrowse Captured FilesDelete job

Add mediaeg. CD, disk, network file...

Part Name <small>See naming</small>	Status	Media Type	
East Yilgarn 1:100000 2006 Update Disc 2 of 2	Ready	<small>click 'Edit' to select</small>	Edit
Add notes & metadata to part Delete part			
Annotations			
File Format	Documents: Acrobat PDF files. Image files: ECW format. Edit Delete		
System Details	GeoVIEWER.WA has been designed for the Windows operating system and has been tested to run on Windows NT4/ME/2000/XP. Edit Delete		
East Yilgarn 1:100000 2006 Update Disc 1 of 2	Ready	<small>click 'Edit' to select</small>	Edit
Add notes & metadata to part Delete part			
Annotations			
File Format	Database files: ESRI shapefiles, MapInfo MID/MIF, MS Access. Documents/metadata: Acrobat PDF files. Image files: ECW format. Edit Delete		
System Details	GeoVIEWER.WA has been designed for the Windows operating system and has been tested to run on Windows NT4/ME/2000/XP. Edit Delete		

Job Details

Bibliographic Information

Copyright Information

Notes & Metadata

Bibliographic Information

Bib ID 4222802
[Change catalogue record](#)

Holdings MAP Nmt 7815 (Ask at the Map Reading Room Desk)

nla.dp-n41022
[Change holdings](#)

Author Geological Survey of Western Australia.

Title East Yilgarn [cartographic material] / Geological Survey of Western Australia.

Description
2 DVD-ROMs : col. ; 4 3/4 in.

System Details
System requirements:
GeoVIEWER.WA has been designed for the Windows operating system and has been tested to run on Windows NT4/ME/2000/XP.

Notes
Title from disc label. Disk contains datasets on geology, geophysics,





Select Media Type

Please contact Digital Preservation if your media is not listed here.



CD-ROM or
DVD-ROM



External Hard
Disk or USB



Floppy Disk
(3.5 inch)



File

Cancel



Solo piano 2

Media

Browse Captured Files

[Print file list](#)

[Job
Details](#)

[Bibliographic
Information](#)

[Copyright
Information](#)

[Notes &
Metadata](#)

[-] original_arrangement:

[-] part: nla.dp-n4564

image: nla.dp-n4564.bin size: 206142K last modified: 13.10.2008

toc: nla.dp-n4564.toc size: 206142K last modified: 13.10.2008

[-] directory: fileSystem

[-] directory: audio

file: 01.wav size: 28929K last modified: 01.01.1970

file: 02.wav size: 25640K last modified: 01.01.1970

file: 03.wav size: 15230K last modified: 01.01.1970

file: 04.wav size: 21112K last modified: 01.01.1970

file: 05.wav size: 33336K last modified: 01.01.1970

file: 06.wav size: 33336K last modified: 01.01.1970

Bibliographic Information

Bib ID 4468523

Holdings MUS Nmt 786.2 M657

nla.dp-n4562

Author Millward, Frank.

Title Solo piano 2 [music] /
music by Frank Millward.

Description
28 p. of music ; 30 cm. + 1 CD-ROM.

System Details
System requirements: Adobe Acrobat
version 6 or later.

Notes
Cover title. Spiral binding.





Thought for food : a discussion on the issues of GM technology as they relate to food and agriculture, November 12 2008.

Media

Browse Captured Files

Delete job

Mark entire job complete

Part Name <small>See naming</small>	Status	Media Type
▶ Disk two: panel discussion	Completed	CD/DVD-ROM
▶ Disk one : opening presentations	Completed	CD/DVD-ROM

Job
Details

Bibliographic
Information

Copyright
Information

Notes &
Metadata

Job Details

Job Number	1123
Owner	Christine Hawkins
Date Added	28 Oct 08, 01:48 PM
Last Update	28 Oct 08, 01:48 PM
Priority	Medium
Status	Working





Problems so far

- Even though it is 'open source', it would only work for others with significant effort. It is linked to NLA specific closed databases/services
- Too much redundant metadata
- In some cases cataloguers are not entering meaningful data
- Web service bottlenecks
- Database bottlenecks



The Project Status

Current Status:

- Version 1.0 beta finished July 2008
- User acceptance testing and bug-fixing July-August 2008
- Handed to IT for further enhancements August 2008 (Versions 1.1-1.3)
- Version 1.4 for release June 2009 (to include: reporting, system optimisation, metadata review, part-stubs)





The Incredible Team





Everything, for Everyone
Forever



Mediopedia Mediopedia Information

<http://www.nla.gov.au/mediopedia/>



Prometheus Sourceforge Website:

<http://prometheus-digi.sourceforge.net/>

Prometheus Articles:

Elford, D., del Pozo, N., Mihajlovic, S., Pearson, D., Clifton, G. and Webb, C. 2008. Media Matters: developing processes for preserving digital objects on physical carriers at the National Library of Australia. In World Library and Information Congress: 74th IFLA General Conference and Council 10-14 August 2008, Québec, Canada
www.ifla.org/IV/ifla74/papers/084-Webb-en.pdf.

Pearson, D. 2008. Titans in the Library: Prometheus Unbinds At-risk Data. In Gateways Dec 2008.
<http://www.nla.gov.au/pub/gateways/issues/96/story02.htm>.



PROMETHEUS
digital preservation tool