

A

acetate discs 33
 acetate tape 62
 ADAT 71
 Advanced Authoring Format (AAF) 15, 16
 AES 17 8
 AES 28 131
 AES 38 78, 131
 AES audioObject XML schema 19
 AES/EBU 8, 10, 80
 AES3 10
 AES31 11, 112
 AES422 69
 AES57 112
 AIFF 90
 analogue magnetic tape 5, 7, 50, 66
 acetate 32, 33, 45, 50, 62, 144
 azimuth 56, 60, 61
 binders 50, 66, 100
 cleaning 51
 history .. 44, 50, 62, 66, 82, 83, 119, 121, 132, 139
 hydrolysis 50, 51, 66, 101
 maintenance ... 5, 44, 52, 57, 63, 68, 85, 86, 92,
 102, 104, 106, 107, 118, 140
 noise reduction 41, 59, 60, 63
 print-through 61, 62
 PVC 45, 50, 62
 selection of best copy. 5, 33, 45
 wow and flutter 38, 56, 57, 61
 audio specific data storage
 CD-DA 74, 76, 90, 126
 DAT 5, 7, 67–69, 72, 90, 101, 121, 141, 145
 autoloader 103

B

backup 84, 86, 87, 99, 102–104, 106, 110, 111,
 122–124, 125
 BEXT 12, 19, 121
 bias 61
 binders, tape 50–52, 66, 100
 bit depth 4, 8, 11
 Broadcast Wave Format (BWF) 4, 12–14, 18,
 28, 74, 80, 82–84, 90, 97, 98, 112, 121, 122, 126

C

calibration disc 43
 carrier restoration 5, 34, 45, 51, 66, 78
 analogue magnetic tape 51, 66
 CD and DVD 78

coarse groove discs 34, 46
 cylinders 34, 46
 LP recordings 45
 Magnetic digital tape 66
 CD family 74
 Cetrimide 46
 cleaning 5, 34, 35, 46, 51, 57, 66, 67, 78, 79,
 85, 140, 144
 analogue magnetic tape 51
 CD and DVD 78
 coarse groove discs 5, 7
 instantaneous discs 32, 33
 LP records 5, 7
 magnetic digital carriers 66
 record cleaning machines 34, 46
 ultrasound 35, 46
 COA (Contextual Ontology Architecture) 16
 coarse groove discs (78 rpm) 5, 7, 33, 39, 42,
 43, 45, 78, 139, 144, 145
 coercivity 61, 73
 Compact cassette ... 5, 7, 50, 51, 55–57, 59–61, 63,
 66–69, 73, 101, 140, 144
 computers 10, 14, 18, 26, 100, 105, 108, 109, 124, 129
 Contextual Ontology Architecture 16
 cylinder phonographs
 specification 38
 cylinders 32, 34, 35, 37, 38, 39, 43

D

DASH 69, 70
 DASH (Digital Audio Stationary Head)
 See also magnetic digital carriers 69, 70
 DAT 5, 7, 67, 68, 69, 72, 90, 101, 121, 141, 145
 DAT (Digital Audio Tape) See also magnetic digital
 carriers ... 5, 7, 67, 68, 69, 72, 90, 101, 121, 141, 145
 data reduction 11, 81, 82
 data tape 5, 100, 101, 102, 103, 104, 105, 109,
 118, 122, 123, 124, 125
 data tape formats 100, 102
 AIT 101
 autoloaders 103
 backup 87, 99, 102, 103, 104, 106, 110, 111,
 122, 124, 125
 costs 14, 21, 26, 44, 102, 104, 105, 106, 107,
 108, 110, 125, 134, 138, 141
 DLT 101
 DTF 101
 HSM 100, 103, 104, 106, 110, 122
 LTO 101, 104, 106, 111, 123

robotics 102
 table of formats 102
 tape coatings 100
 data vs audio specific storage 77
 dbx 59
 DC 18, 20–27
 DC 15 elements 22
 DC Terms 22, 23
 DCC 69
 DCMI 17, 19, 20, 24–27
 dictation machines 5, 7, 32, 43, 62, 63
 Dictabelt 43
 Dictaphone 43
 Digital Compact Cassette (DCC) See also magnetic
 digital carriers 69
 Digital Mass Storage System (DMSS) 5, 90, 99, 100,
 118, 124
 Digital Mass Storage Systems (DMSS) Principles 90
 digital tape 65, 66, 67, 73
 disc flattening 36, 46, 144
 Dolby 59, 60
 DSD See Super Audio CD (SACD) 81
 DTD 17, 18
 Dublin Core 16, 17, 18, 21–24, 120, 121, 143
 Dublin Core Metadata Initiative 17, 24
 DVD5, 7, 74–82, 88, 90, 118, 126–133, 134–136, 143
 replay See optical disk replay 79
 DVD audio 74, 76, 80

E

equalisation 5, 32, 38, 39, 40, 41, 47, 48, 56, 57,
 58, 59, 60, 63
 78 rpm discs 40
 analogue magnetic tape 59
 coarse groove electrics 40
 coarse groove standards 40
 flat (definition) footnote 41
 LP records 48
 equalization
 chart 42, 45, 47, 49
 error measurement
 CD-R and DVD 67, 131, 133, 135
 DAT 67
 Extensible Markup Language (see also XML) ... 16

F

field recording 2, 19, 52, 65, 69, 83, 84, 86, 87,
 88, 89, 90, 139
 AB parallel pair 86, 87
 ATrac 81, 83

microphones 32, 42, 84, 85, 86, 87, 88
 MP3 10, 13, 83, 109, 116, 124
 MS (Mid-Side) 86, 87
 selection of field recording equipment 84
 testing and maintenance 85
 XY crossed pair 86, 87
 Field Recording Standards 83
 file formats 10, 11, 12, 19, 90, 92
 flat copy 41
 format obsolescence 101, 137
 Functional Requirements for Bibliographic Records
 (FRBR) 16–17, 21, 27

G

gelatine 33, 34

H

hard disc drives 74, 101, 105–110, 118, 122–127, 136
 cost 108
 disk only storage 105
 Firewire 109
 life 105
 monitoring 109
 RAID 105, 106, 108, 123, 124
 reliability 105
 SATA/ATA 109
 SCSI 109
 USB 109
 Hierarchical Storage Management (HSM) 100,
 103, 104, 106, 110–111, 122
 hill-and-dale See also vertical cut disc 32
 historical and obsolete mechanical formats 32
 acetate discs 33
 cleaning 34, 46
 coarse groove records 32
 equalisation 40
 replay equipment 36
 replay speed 39
 restoration 34, 46
 selection of best copy 32
 tracking force 37, 39
 hydrolysis 50, 51, 66, 101
 treatment of tapes 51, 66

I

IASA-TC 03 2, 4, 5, 115, 141, 144
 ID3 13
 instantaneous disc 32, 33, 36
 Issues with DVD Audio 80

Index

J

- JHOVE 19, 97
- jitter.....9, 10, 132, 133
- JSTOR..... 19, 97

L

- lacquer disc **32–37**, 127, 141
- lateral cut discs 32, 33, 36, 37, 45
- lifespan 6, 135
- LP records 5, 7, 32, 45–49
 - cleaning..... 45
 - history 45
 - replay equalisation..... 48
 - replay equipment 47

M

- magnetic digital carriers 5, 65, 66, 67, 90
 - cleaning..... 66
 - DASH..... 69, 70
 - DAT . 5, 7, 67, 68, 69, 72, 90, 101, 121, 141, 145
 - DCC..... 69
 - Minidisc..... 81, 82, 84
 - Pro-Digi 70
 - replay equipment 5, 6, 11, 37, 43, 44, 48, 50, 57, 61, 62, 63, 72, 73, 77, 80, 82, 132, 143
 - selection of best copy..... 65
 - video tape formats 5, 7, 65, 73, 100
- magneto optical (MO) disks 5, 137
- MARC..... 1, 23, 24, 144
- Material Exchange Format (MXF)..... 11, 16, 97
- MD see Minidisc 19, 81, 82
- metadata. 2, 4, 5, 11, **12–27**, 28, 29, 38, 39, 41, 44, 63, 65, 67, 69, 73, 76, 77, 79, 80, 83, 88, 89, 91–99, 103, 112, 116, 117, 119, 121, 122, 132, 138
 - BEXT 12, 19, 121
 - COA (Contextual Ontology Architecture) . 16
 - DC 18, 21–25
 - DC 15 elements 22
 - DC Terms..... 23
 - DCMI 17, **22–25**, 27
 - DTD..... 17, 18
 - Dublin Core 16, 17, 18, 21, 22, 24, 120, 121, 143
 - Dublin Core Metadata Initiative 17, 24
 - Extensible Markup Language see XML. 16
 - FRBR (Functional Requirements for Bibliographic Records)..... 16–17, 21, 27
 - ID3 13
 - MARC 16, 23, 24, 25, 144

- Material Exchange Format metadata (MXF).... 11, 16, 97
- METS (Metadata Encoding and Transmission Standard) ... 13, 14, 18–21, 24, 97, 99, 119, 121
- MODS 16, 18, 21, 24, 25, 144
- MP3 10, 13, 83, 109, 116, 124
- MPEG-7 13, 16
- OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting)..... 16, 24, 117, 144
- ontologies 2, 16, 17, 27
- OWL 17
- PREMIS..... 12, 17, 19, 26, 82, 112, 145
- preservation metadata 5, 17, 18–19, 88, 112, 140
- RDF..... 17, 18, 21, 23, 24, 25, 28
- SMPTE 9, 16, 68, 97, 144
- XML... 15, 18, 19, 21, 26, 88, 97, 114, 116, 121
- metal stampers 37, 38
 - replay of..... 37
- METS (Metadata Encoding and Transmission Standard) 13, 14, **18–21**, 24, 97, 99, 119, 121
- microphones 32, 42, 84, 85, 86, 87, 88
- MIDI 7, 57, 76
- Minidisc..... 81, 82, 84
- MODS 16, 18, 21, 24, 25, 144
- MP3..... 10, 13, 83, 109, 116, 124
- MPEG-7 13, 16
- Mylar see also polyester tape..... 50, 60

N

- Nagra-D 69, 70
- Network Attached Storage (NAS).... 108, 110, 124

O

- OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting)..... 16, 24, 117, 144
- OAIS (Reference Model for an Open Archival Information System) ... 2, 27, 93–99, 110, 112, 114, 115, 118, 119, 120, 122, 139
- ontologies..... 2, 16, 17, 27
- optical disk..... 5, 7, 126, 129
- optical disk recording
 - CD failure rates..... 134
 - CD testing 130, 132
 - CD-Recordable..... 74, 76, 77, 78, 79, 90, 126–137, 143, 144, 145
 - costs 129
 - DVD-Recordable 74, 76, 79, 126–137
 - dyes..... 74, 127, 128, 130, 131, 132
 - error measurement 67, 131, 133, 135

error recommendations. 131, 133
 introduction. 74
 life. 74
 life expectancy. 130, 132
 recording formats. . . 32, 43, 73, 81, 83, 84, 90, 139
 Red Book. 76, 132
 Yellow Book. 76, 132
 optical disk replay
 CD family. 74
 selection of best copy. 5, 33
 Super Audio CD (SACD) 81
 time factor. 140
 optical replay 36, 40
 coarse groove recordings. 36, 38, 40
 LP records 38, 47
 OWL 17

P

persistent identifier. 28
 phthalocyanine *see also* optical disk recording. . . 127, 130, 132
 piano rolls. 7
 polyester tape 50, 62, 66
 PREMIS. 12, 17, 19, 26, 82, 112, 145
 preservation
 aim of. 6
 digital. 2, 4, 6, 8, 9, 20, 65, 90, 91, 112, 114, 118, 126, 138, 139, 141, 144
 preservation metadata . . 5, 17, 18, 19, 26, 88, 112, 140
 PRESTO 50, 145
 print-through 61, 62
 Pro-Digi 70
 Pro-Digi *see also* magnetic digital carriers 70
 PVC tape 50, 62

Q

quantisation 10, 65, 76
 quarter track heads. 54

R

radio transcription discs 32, 37
 RAID (Redundant Array of Inexpensive (or Independent) Disks) 105, 106, 108, 123, 124
 R-DAT *see also* magnetic digital carriers . . . 5, 7, 67, 68, 69, 72, 90, 101, 121, 141, 145
 RDF. 17, 18, 21, 23, 24, 25, 28
 Red Book. 76, 132
 reel tape *see also* analogue magnetic tape. . . . 5, 7, 50, 52, 56, 57, 59, 61, 62, 63, 66, 69, 73, 139, 140

replay equipment
 analogue cassette 56
 analogue reel tape. 52
 coarse groove discs 36
 DVD 77
 LP records 47
 magnetic digital carriers 67
 replay speed. 38, 57, 63
 capstan-less machines. 57
 cassette. 56
 coarse groove discs 39
 cylinders. 39
 LP records 48
 reel 57
 restoration *see also* carrier restoration 5

S

sampling rate 8, 11, 13, 14, 17, 71, 83, 121
 SCSI. 104, 105, 109, 129, 143
 selection of best copy. 5, 33
 analogue magnetic tape 50
 CD 76
 coarse groove records (78 rpm) 32, 45
 cylinders. 32, 45
 DVD 76
 instantaneous discs 33
 LP records 45
 magnetic digital carriers 65
 selection of field recording equipment. 84
 signal extraction. . . 1, 2, 4, 5, 6, 31, 65, 67, 76, 83, 139, 140, 142
 Small Scale Approaches to Digital Storage Systems. 1, 2, 11, 13, 118–125
 archival storage 105, 122
 basic metadata. 12, 121
 configuration 118
 description of system 119
 hardware 123
 partnerships and backup 125
 preservation planning. 122
 repository software 120
 risks. 124
 SMPTE 9, 16, 68, 97, 144
 sound cards 10
 Sources of Metadata. 26–27
 speed
 capstan-less machines. 57
 cassette. 56
 coarse groove discs 39

Index

cylinders 39
 LP records 48
 reel 57
 speed see *also* replay speed. 38, 57, 63
 standards 2, 3, 4, 5, 8, 9, 11, 13, 15, 16, 17, 21, 24, 25, 26, 27, 32, 39, 43, 45, 48, 53, 55, 56, 58, 59, 61, 65, 66, 71, 72, 76, 77, 80, 83, 88, 92, 97, 104, 112, 114, 117, 118, 120, 128, 129, 131, 132, 133, 135, 140, 144
 analogue tape 55, 58
 analogue tape heads 53, 54
 CD 76, 129
 coarse groove recordings (78 RPM) 43
 cylinders 39
 digital audio cassette 69
 digital reel formats 69
 DVD 76, 129
 field recording 83
 LP recordings 48
 magnetic digital tape 66
 RIAA 45
 sound cards 10
 storage formats see *also* target formats. 5, 83
 styli 33, 36, 38, 41, 47, 48
 coarse groove records 36
 cylinder 37
 LP records 47
 Super Audio CD (SACD) 81
 issues 81
 survey of endangered carriers 50

T

tape
 digital 65, 66, 67, 73
 tape libraries (data) 102, 103, 104
 tape speeds 53
 tape see *also* analogue magnetic tape
 analogue 50, 52, 58, 61, 63, 67, 73
 target formats 118
 archival storage 99, 112
 CD-R and DVD-R 130
 TelCom 59
 test disc see *also* calibration disc 38, 43, 47
 test record see *also* calibration disc 47, 48, 135
 testing and maintenance (field recording) 85
 tracking, digital tape 68, 72, 79
 tracking, disc 37, 38, 39, 47
 turntable
 specification 37, 48
 turntables 38

U

U-Matic 71
 UNESCO 90, 141, 143, 145

V

vertical cut recording 32, 37
 video soundtrack 11
 video tape based audio formats 70
 video tapes 5, 7, 65, 66, 70, 73, 100
 videocassettes 71
 vinyl records see *also* LP records. 5, 7, 33, 36, 45, 46, 47, 144

W

wav (Wave) 4, 9, 11, 12, 18, 19, 28, 32, 74, 80, 81, 83, 84, 90, 97, 98, 112, 126
 wax cylinders 32
 web 15, 16, 24, 27, 28, 76, 96, 116, 117, 120, 135, 143, 144
 Web 2.0 27
 wire recordings 5, 7, 62, 63, 124
 wordclock 10

X

XACML 114
 XML 15, 18, 19, 21, 26, 88, 97, 114, 116, 121

Z

Z39.50 26, 116
 Z39.85- NISOZ3985 21

