The Library of Congress
National Library Service for the
Blind and Physically Handicapped

Approved by the Director, NLS/BPH

Date 11/13/06

Specification: # 1202

Title: Requirements for Distribution Source Files, Review Copies, and Blank Recordable Compact Disc

Date: November 2006

Technical Certification

Engineering	11-13-06 Date
Quality Assurance	11-6-06 Date
Production Control	11-9-06 Date
Chief, MDD	Nov 13 2006 Date

Background

The National Library Service for the Blind and Physically Handicapped (NLS), Library of Congress, administers a free library service to eligible residents of the United States and American citizens living abroad who cannot hold, handle, or read standard print media because of a temporary or permanent visual or physical limitation.

Using federal funds, NLS annually publishes approximately two thousand books and seventy magazines in audio and braille formats. Titles are selected to appeal to a wide variety of interests. Books and magazines are narrated and duplicated to a high professional standard. The number of copies produced of any title is dependent on anticipated reader demand.

Playback machines and their accessories are designed to facilitate convenient use by blind and physically handicapped people, provide maximum reliability under environmental conditions that are sometimes harsh, and survive handling that may be technically unsophisticated or inadvertently abusive. The equipment plays program materials in a special format compatible with NLS machines. All materials and equipment in the program can be sent to users and returned to libraries postage free.

A cooperating network of fifty-seven regional libraries and seventy-five subregional libraries circulates recorded and braille materials to a readership of some seven hundred thousand adults and children out of a potential eligible population of three million. Magazine subscriptions are provided on a direct-mail basis from the producers. Users must generally deal with service centers in distant cities and communicate by mail, e-mail, or phone with little or no personal contact. All materials come and go through a mail-order system. Fifty percent of the users are more than sixty-four years old and depend on the NLS program for their major source of entertainment and their connection with the print world; ninety-five percent read recorded materials, five per cent read braille.

Users are informed about new books, magazines, and services through two bimonthly publications, annual catalogs, web-based catalogs, and subject bibliographies produced by NLS, as well as various publications produced and circulated by the regional and subregional libraries.

User Materials

Contractors who consider submission of a bid to produce books, equipment, or other program products should be cognizant of the consumer-responsive nature of the program, and that the specifications for these products have been developed to meet the special need of readers in the program. Materials are produced with those needs foremost in mind and improved through constant monitoring and consumer input. Contractors are expected to familiarize themselves with the equipment-handling practices of blind and physically handicapped clientele and ensure that the equipment they produce will stand up under this type of use. A high degree of quality workmanship and product reliability is mandated by the product specification.

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Introduction

This specification defines requirements for digital audio (WAV) files for books produced for the National Library Service for the Blind and Physically Handicapped (NLS), Library of Congress, and the compact discs on which review copies of those books are submitted. These books will be distributed in both analog cassette and digital-talking book (DTB) formats.

The WAV files are of two types, the first type contains the actual content of the book (called review files) and is used in both distribution formats. The second type contains information used only in the DTB format; and are referred to as DTB-specific WAV files. Two DTB-specific WAV files are required. One contains the opening announcements recorded specifically for the DTB. (Those recorded for the cassette version are part of the review file for side one of the book.) The other contains audio clips used by the DTB's Navigation Control File (NCX). These clips hold the book's title and author and all of its headings referenced by the NCX.

NLS Specification 1203 defines requirements for the set of files comprising a DTB. In some areas, its requirements supersede those of this specification. It is therefore essential that producers of DTBs reference both this specification and NLS Specification 1203 to ensure full compliance with all NLS requirements.

1. Scope

This document describes requirements for the following:

a. Distribution source files for review and distribution copies of books produced under NLS contracts

b. Review copies from distribution source files of books produced under NLS contracts

c. Qualification of blank recordable compact discs used to produce review copies

2. Reference Documents and Definitions of Terms

The versions of the following documents in effect on the date a contract is awarded shall form a part of this specification. In the event of conflict between the publications referenced herein and the content of this specification, this specification shall be considered a superseding requirement.

2.1 American National Standards Institute (ANSI)

ANSI/ASQC Z1.4
Sampling Procedures and Tables for Inspection by Attributes

The document cited above is available from:
American National Standards Institute, Inc.
11 West 42nd Street
New York, NY 10036

2.2 International Standards Organization (ISO)

ISO 9660
Information processing- Volume and file structure of CD-ROM for information interchange

ISO/IEC 13490-2
Information technology- Volume and file structure of read-only and write-once compact disk media for information interchange
Part 2: Volume and file structure
(This publication is also referred to as the Orange Book.)

The documents cited above are available from:

Global Engineering Documents
15 Inverness Way East
Englewood, CO 80112

2.3 National Library Service for the Blind and Physically Handicapped

NLS Specification 300
Book Mastering

NLS Specification 1203
Construction of Digital Talking Books

The documents cited above are available from:
National Library Service for the Blind and Physically Handicapped
1291 Taylor Street NW
Washington, DC 20542

Or from:
http://www.loc.gov/nls/specs

2.4 Audio Engineering Society

AES17
AES standard method for digital audio engineering
Measurement of digital audio equipment

The document cited above is available from:
Audio Engineering Society
60 East 42nd Street, Room 2520
New York, NY 10165-2520

2.5 Internet Engineering Task Force Network Working Group

The MD5 Message-Digest Algorithm (RFC 1321, April 1992)

http://www.ietf.org/rfc/rfc1321.txt

2.6 Definitions of Terms

The information interchange terms used in this document are defined in ISO publications 9660 and ISO/IEC 13490-2. The following terms are not defined in the ISO publications cited above, but are applicable to this document.

a. Distribution source file (DSF)- The digital audio file or files of a complete book that has been narrated and recorded in the NLS designated style and is the source of all review copies and all distribution copies.

b. Review copy- The composite of all review files needed to make a complete book.

c. Review file- A file copied from the DSF to a recordable compact disc. Each review file represents one complete side of an NLS standard 4-track, 15/16 ips cassette book.

d. WAV file- A linear PCM file. Waveform - Audio File Format, "Multimedia Programming Interface and Data Specification v1.0" as issued by IBM and Microsoft, 1991.

This is described in appendix A of European Broadcasting Union Technical Specification 3285, http://www.ebu.ch/CMSimages/en/tec_doc_t3285_tcm6-10544.pdf

e. DTB- The complete set of files comprising a digital talking book as defined by NLS Specification 1203.

f. Checksum File- An XML file containing MD5 checksums of the source files.

3. Requirements

3.1 Conformance with NLS Specification 300

Each review file shall conform with applicable requirements cited in NLS Specification 300.

3.2 Conversion from Analog Prohibited

Conversion of analog recordings to digital format under this specification is not permitted.

3.3 Technical

3.3.1 The disc on which the Review File is copied

Each Review File shall be copied on a new blank recordable compact disc (CD-R). Rewritable compact discs (CD-RW) are not acceptable. Each recordable compact disc shall have a capacity not to exceed 700 megabytes and be manufactured with the following properties:

1. A maximum disc eccentricity not greater than plus or minus 50 microns
2. Silver or gold reflective layer
3. Phthalocyanine dye
4. An opaque surface

3.3.2 Technical Characteristics of Review Files

3.3.2.1 Producing the Review Copy

a. There shall be no sample rate conversion, data compression, or alteration of any kind when the review copy is copied from the distribution source file.
b. Writing to the CD-R must be a single-session recording procedure according to ISO 9660 standard with Joliet extensions.
c. Overburned or fixated-for-append discs are not acceptable.
d. All files on a CD-R shall be in the root directory.
e. A review file shall be named “nnnnnsmm.wav”, where “nnnnn” is the five-digit book number and “mm” is the two-digit side number (e.g., 56123s07.wav). All alphabetic characters shall be in lower case.

3.3.2.2 Review File Configuration

a. Each review file shall be written to a CD-R as linear PCM data in WAV file format.

b. Each review file shall be written at a sample rate of 44.1 kHz, 16 bits per sample, with dither, block alignment = 2.

c. Each CD-R, except the CD-R containing the Side-One review file, shall contain only one review file, a checksum file, and no other files.

d. The CD-R containing Side-One shall also contain the DTB-specific WAV files defined in section 3.4 and a checksum file. If the size of the DTB-specific WAV files exceeds the remaining capacity of the CD-R containing Side One, all of the DTB-specific WAV files shall be placed on a separate CD-R with a checksum file.

3.3.2.3 Review File Duration

The duration of each review file shall conform to applicable requirements cited in NLS Specification 300.

3.3.2.4 Review Copy Signal Level for the Spoken Text

The average RMS signal level for the spoken text in the review copy shall be not less than -24 dB FS, nor greater than -18 dB FS.

3.3.2.5 Review Copy Signal Level for Index Tones

The RMS signal level for all index tones (see NLS Specification 300) in the review copy shall be -26 dB FS, plus or minus 2 dB.

3.3.2.6 Background Noise Level in the Review Copy

The RMS background noise level in the review copy shall not exceed -72 dB FS, A-weighted. Background noise includes both acoustical and electrical noise.

3.3.2.7 Date and Time Stamp for the Review Copy

Each file in the Distribution Source File (DSF) shall have a date and time stamp that shows when each file was finalized to produce

the review copy for submission to NLS. The stamp shall have month, day, year, and time in the format of "mm-dd-yyyy" and 24-hour clock time. If a review file requires correction, the Distribution Source File (DSF) from which it came shall be corrected and the new version shall carry the date and time stamp of when the corrected file was finalized to produce the review file for re-submission to NLS.

3.3.3 Error Rate in Review Copies

All review copies must be free from errors that prevent the information from being read. Each review copy submitted to NLS must meet or exceed the following requirements for errors per second averaged over ten seconds:

a. E11- maximum of 100

b. E12- maximum of 100

c. E21- maximum of 100

d. E22- unacceptable

e. E31- maximum of 100

f. E32- unacceptable

g. BLER- maximum of 100

3.3.4 Checksum File

A checksum file shall be present on each CD-R submitted to NLS. This XML file shall contain a checksum for each file on the CD-R with the exception of the checksum file itself. All the files listed in the checksum file shall be present on the CD-R. The checksum shall be calculated using the MD5 algorithm as described in the reference cited in section 2.5 and shall be in the form of thirty-two hexadecimal digits. The checksums shall be generated from the source files prior to their transfer to the CD-R(s). The checksums contained in the checksum file must be identical to the checksums calculated from the source files and to those calculated from the corresponding files stored on the CD-R.

The checksum file shall be named "nnnnnsmm.md5", where "nnnnn" is the five-digit book number and "mm" is the two-digit side number (e.g., 56123s07.md5). All alphabetic characters shall be in lower case. The format of the XML file is described by the following Document Type

Definition (DTD), which shall be placed at the beginning of each checksum file.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE diskcheck [
<!ELEMENT diskcheck (book, file+)>
<!ATTLIST diskcheck
version CDATA #FIXED "1.0"
>
<!ELEMENT book (#PCDATA)>
<!ELEMENT file (filename, checksum)>
<!ATTLIST file
type CDATA #IMPLIED
content CDATA #IMPLIED
>
<!ELEMENT filename (#PCDATA)>
<!ELEMENT checksum (#PCDATA)>
<!ATTLIST checksum
type CDATA #REQUIRED
>

]>
```

The <book> element shall contain the UID for the DTB. The UID shall consist of the lower-case character string "us-nls-dbnnnnn" where “nnnnn” represents the five-digit book number.”

The <filename> element shall contain the name of the file for which the checksum is calculated.

The “type” attribute on the <checksum> element shall contain the value “MD5.”

3.4 DTB-Specific WAV Files

3.4.1 File of Heading Clips

The file containing the audio clips of the NCX docTitle, docAuthor, and audio navLabels for navPoints and navTargets shall be named “nnnnnhdgs.xxx”, where “nnnnn” is the five-digit book number and “xxx” is the file extension (e.g., 56123hdgs.wav). All alphabetic characters shall be in lower case.

3.4.2 DTB Announcement File

The audio file containing the opening announcements for the DTB shall be named “nnnnnann.xxx”, where “nnnnn” is the five-digit book number and “xxx” is the file extension (e.g., 56123ann.wav). All alphabetic characters shall be in lower case.

3.4.2.1 Content of DTB Announcement File (Except Children's Books)

The contractor shall record the following opening announcements for use with the DTB, for all titles except children's books and where noted:

a. Title

b. Author

c. The prefix, “DB” plus the book number, e.g., "DB56123"

d. "Copyright [date and holder(s)]."

e. " This is a new recording of [book number]."

This announcement shall be used only when the statement "rerecord of [book number]" appears on the Production Authorization Record.

f. "Read by _____." If the annotation contains a sequel note and the assigned narrator differs from the narrator of the previous book in the series, add the following statement: "[previous narrator's name] was unavailable to continue the reading of this series."

g. "This book contains_____ pages."

h. "Approximate reading time: ____ hours, ____ minutes." (Rounded to the nearest five minutes, accurate to within +/- fifteen minutes of the value of “dtb:totalTime.” See NLS specification 1203, section 3.2.5.2)

i. Announcement regarding structure of this digital talking book. (Navigation instructions to be supplied by NLS.)

j. "Library of Congress annotation: . . ." (To be supplied by NLS.)

k. "From the book jacket: . . ." (Publisher's information about the book, excluding reviews. Information may be

given in several locations. Narrator shall read the one most informative selection.)

l. " About the author..."

m. "Other books by (author). . ."

n. Introductory items up to and including the table of contents, such as dedication, introduction, preface, foreword, acknowledgments, other introductory items, and table of contents, in the order in which they appear in the print book. In the table of contents, include page references, preceding each reference with "page"

3.4.2.2 Content of DTB Announcement File (Children's Books)

For children's books, the contractor shall record the following opening announcements for use with the DTB:

a. Title

b. Author

c. "Copyright [date and holder(s)]."

d. "Reading time, _____ minutes." (Rounded to the nearest minute, accurate to within +/- five minutes of the value of “dtb:totalTime.” See NLS specification 1203, section 3.2.5.2.)

e. Dedication, foreword, etc., if these precede the table of contents.

f. Table of contents as it appears in the text, including any page references, preceding each reference with "page"

4. Quality Assurance Provisions

4.1 Classification of Inspections

The inspection requirements specified herein are classified as follows:

a. Qualification inspection- see section 4.4

b. Incoming inspection- see section 4.5

c. Contractor's acceptance inspection- see section 4.6.1

d. NLS acceptance inspection- see section 4.6.2

4.2 Responsibility for Inspection

The contractor is responsible for the performance of all inspection requirements specified herein. NLS reserves the right to perform any of the inspections set forth in this specification when deemed necessary to ensure that products conform to the prescribed requirements.

4.2.1 Test Equipment and Inspection Facilities

The contractor shall ensure that test and inspection facilities of sufficient accuracy, quality, and quantity are established and maintained to permit performance of required inspections. Test equipment shall be calibrated annually.

4.2.2 Responsibility for Compliance

All items must meet all requirements of sections 3 and 5. The inspections set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to NLS for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize the submission of known defective material, either indicated or actual, nor does it commit NLS to acceptance of defective material. Should NLS determine that a significant fault or faults are found in production units within the warranty period, then correction of the fault or faults and production inspections or controls for prevention shall be instituted without additional charge to NLS.

4.2.3 Reporting of Test Results

The contractor shall maintain complete records of all inspection results for the duration of the contract. Copies of these inspection records (in English) shall be provided with each shipment. The records shall include the information necessary to identify the lot, the lot sample, the testing equipment, the inspector, and the date of the test.

4.3 Inspection Conditions

Sampling for inspections shall be performed in accordance with ANSI/ASQC Z1.4.

4.4 Qualification Inspection

Qualification inspection shall be performed on new products and on previously qualified products that have undergone any changes in materials or manufacturing process. All proposed changes shall be reported to the NLS contracting officer in writing, with a statement by the contractor describing the changes and the impact of the changes on the delivered product. NLS reserves the right to require six weeks for the evaluation of qualification samples prior to delivery of products incorporating the changes. The foregoing requirement does not relieve the contractor of any other requirements of this specification or the contract.

4.4.1 Samples and Inspection

The qualification samples shall consist of:

a. Eight recorded and tested CD-Rs

b. Record of test results

c. Eight blank CD-Rs

d. CD-R manufacturer's data sheet

e. Quality procedures

4.4.1.1 Recorded Samples

The contractor shall produce eight recorded sample CD-Rs by writing a full-length review file from a DSF to a blank CD-R. A full-length review file shall have a duration of not less than 87 minutes nor more than 88 minutes, and shall contain at least one index tone. The DSF shall not be produced by analog-to-digital

conversion.

4.4.1.2 Blank Samples

The contractor shall submit eight blank CD-Rs from the same lot as the recorded samples. NLS will inspect these samples for conformance to all requirements of section 3.3.3.

4.4.1.3 Manufacturer's Data

The contractor shall submit manufacturer's published technical data for the CD-R to be qualified. The data shall demonstrate conformance with the requirements of section 3.3.1.

4.4.1.4 Quality Procedures

The contractor shall prepare a written document that describes the quality assurance procedures used to achieve the requirements of this specification. The contractor shall submit this document to the NLS Quality Assurance Section at the beginning of each new contract and at any other time required by NLS. NLS reserves the right to require the contractor to improve quality assurance procedures.

4.4.1.5 Waiver of Qualification Inspection

When the contractor uses NLS qualified products, NLS may waive the qualification inspection requirements.

4.4.2 Inspection

4.4.2.1 Contractor's Inspection

Qualification inspection shall be performed by the contractor on each recorded sample and shall consist of the inspections listed in table I. A signed and dated written record of the inspection results shall be submitted with the qualification samples.

4.4.2.2 NLS Inspection

Qualification inspection will be performed by NLS on each recorded sample and will consist of the inspections listed in table I.

Table I. Examinations, Measurements, and Tests

Qualification Inspection

Requirement	Section	Test Method
All applicable requirements of specification 300	3.1	Audio review
Disc properties	3.3.1	4.7.3.7
Review copy properties	3.3.2.1	4.7.3.1
Review file configuration	3.3.2.2	4.7.3.2
Review file duration	3.3.2.3	4.7.3.3
Signal level - text	3.3.2.4	4.7.3.4.2
Signal level - tone	3.3.2.5	4.7.3.4.3
Background noise level	3.3.2.6	4.7.3.4.4
Date and time stamp	3.3.2.7	4.7.3.5
Error rate	3.3.3	4.7.3.6
Labeling	5.1	Visual review
Packaging	5.2	Visual review

4.5 Incoming Inspection

Incoming inspection shall be performed by the contractor on each lot of CD-Rs.

4.5.1 Sample

The incoming inspection sample shall be chosen at random in accordance with ANSI/ASQC Z1.4 inspection level II for an AQL of 0.65%.

4.5.2 Inspection

4.5.2.1 Error Rate

The contractor shall inspect the incoming inspection sample of CD-Rs for conformance to the requirements of section 3.3.3 using the test method of section 4.7.3.6.

4.6 Acceptance Inspection

4.6.1 Contractor's Acceptance Inspection

Acceptance inspection shall be performed by the contractor on 100% of every review copy and shall consist of the inspections listed in table II.

4.6.2 NLS Acceptance inspection

Acceptance inspection will be performed by NLS on every review copy and will consist of the inspections listed in table II. The checksums calculated from all files on the DTB CD-R(s) will be compared to the corresponding checksums in the checksum file of the disk.

Table II - Acceptance Inspection

Requirement	Section	Test Method
All applicable requirements of specification 300	3.1	Audio review
Review copy properties	3.3.2.1	4.7.3.1
Review file configuration	3.3.2.2	4.7.3.2
Review file duration	3.3.2.3	4.7.3.3
Signal level - text	3.3.2.4	4.7.3.4.2
Signal level - tone	3.3.2.5	4.7.3.4.3
Background noise level	3.3.2.6	4.7.3.4.4
Date and time stamp	3.3.2.7	4.7.3.5
File of heading clips	3.4.1	4.7.3.8
DTB announcement file	3.4.2	4.7.3.9
Labeling	5.1	Visual review
Packaging	5.2	Visual review
Checksum File	3.3.4	4.7.3.10

4.7 Methods of Inspection

4.7.1 Test Environment

Unless otherwise specified, all measurements and tests shall be performed at an ambient temperature of 23 degrees C +/-5 degrees C (73.4 degrees F +/- 9 degrees F) and a relative humidity of between 40% and 70%.

4.7.2 Preliminary Conditioning

Test units shall be subjected to the test environment of 4.7.1 for a period of not less than 24 hours prior to performance of any measurement or test.

4.7.3 Test Methods

4.7.3.1 Review Copy

Test with CDX analyzer, or equivalent, for conformance to the requirements of 3.3.2.1, part b and 3.3.2.1, part c.

4.7.3.2 Review File Configuration

Examine with audio editor for conformance with the requirements of 3.3.2.2, parts a and b. Examine disk directory for conformance with the requirements of 3.3.2.2, parts c and d.

4.7.3.3 Review File Duration

Examine with audio editor for conformance with the requirements of 3.3.2.3.

4.7.3.4 Signal Levels

4.7.3.4.1 Reference Level

Full-scale signal level is equal to 0 dB FS and is defined in AES17. It is the amplitude of a 997 Hz sine wave whose positive peak value reaches the positive full scale, leaving the negative maximum code unused.

RMS signal level in dB FS is calculated using the formula:

$$L = 20 \times \log_{10}\sqrt{1/N \sum x(n)^2} - 20 \times \log_{10}\sqrt{1/N \sum ref\,(n)^2}$$

where *x* is a set of N samples of the signal to be measured and *ref* is a set of N samples of the 0 dB FS sine wave. Average RMS signal level shall be measured using a section of the signal no less than 1 minute in length.

4.7.3.4.2 Spoken text

Select a section of the review file no less than one minute in length and measure the unweighted RMS level in dB FS for conformance to the requirement of 3.3.2.4.

4.7.3.4.3 Index Tones

Select a section of the review file between words that contains an index tone. Play the selection as a loop and measure the un-weighted RMS level in dB FS for conformance to the requirement of 3.3.2.5.

4.7.3.4.4 Background Noise

Select a quiet section of the review file at least one second long between words. Apply an A-weighting filter to the selection and measure the RMS noise for conformance to the requirement of 3.3.2.6.

4.7.3.5 Date and Time Stamp

Inspect the label visually for conformance to requirements cited in section 3.3.2.7.

4.7.3.6 Error Rate

Test with CDX analyzer or equivalent for conformance to the requirements of 3.3.3.

4.7.3.7 Disc Properties

Examine manufacturer's published technical data for conformance to the requirements of 3.3.1.

4.7.3.8 Heading Clip File

Examine the heading clip file for conformance with the requirements of 3.4.1.

4.7.3.9 DTB Announcement File

Examine the DTB announcement file for conformance with the requirements of 3.4.2.

4.7.3.10 Checksum File

Calculate the checksum, as described in section 3.3.4, for each file on the CD-R (with the exception of the checksum file) and confirm that it exactly matches the corresponding checksum in the checksum file.

4.8 Warranty

The contractor shall provide a full unconditional warranty that the review copy conforms to requirements set forth in this specification for a full calendar year. The warranty period shall begin on the date of review copy approval by the NLS Quality Assurance Section.

5. Labeling and Packaging

Note: For labeling and packaging of digital talking books see NLS Specification1203.

5.1 Labeling

For drawings that show examples, see figures 1 and 2.

5.1.1 Label on the Disc

Discs may be labeled with a paper label, or by ink-jet or thermal printing directly on the disc. All discs in a review copy must be labeled with the same labeling process.

5.1.1.1 Paper Label

When paper labels are used, the labels shall be of white stock and conform to the following:

1. Each label shall be a circular label that has a center cutout. The diameter of the label shall be a nominal 116 millimeters and the diameter of the center cutout shall be a nominal 46 millimeters.
2. The label may not interfere with disc playback in any manner.
3. The label shall not be distorted, off center, or misaligned.

4. The label must adhere firmly and uniformly to the label area without any bubbling, slipping, or peeling.

5.1.1.2 Label Information

The print for each label shall be 14-point Times New Roman in black ink. No writing with any type of marking pen is permitted on either the disc or paper label. The label shall contain the following information.

a. Book number without prefix (e.g., 56123)

b. Book title

c. Date and time of most recently altered file contained on the disc. See section 3.3.2.7 for format.

d. Disc Number

i. For review files: the designation "Side" followed by the side number of the total number of sides in the book (e.g., Side 1 of 5)

ii. For DTB-specific WAV files if on separate disc: the designation "DSW" followed by the disc number of the total number of discs containing DTB-specific WAV files (e.g., DSW 1 of 1).

e. Producer code as used on NLS production authorization record

f. File Name

i. For review files: file name (e.g., 56123s01.wav). When DTB-specific WAV files are also contained on the disc, add: "DTB-specific WAV Files".

ii. For DTB-specific WAV files if on separate disc: "DTB-specific WAV Files".

5.2 Packaging

For drawings that show examples, see figures 3 and 4.

5.2.1 The Box for Storing Review Discs

5.2.1.1 Each review copy shall be enclosed in a disc storage box provided by NLS.

5.2.1.2 Only one disc shall be put in a sleeve. Each disc shall be positioned in a sleeve so that when the flap is folded down the disc label shall be facing the flap and

the disc shall be fully covered.

5.2.1.3 The CD-R(s) shall be inserted in the storage box(es) in the following order: review file CD-R(s); DTB-specific WAV file CD-R(s), if any.

5.2.2 Label on the Disc Storage Box

The label shall be white card stock, 67 pound minimum, with dimensions of 5 by 8 inches. The label shall be positioned behind the clear plastic overlay of the box so that it covers the face of the box and the holes in the spine of the box. The printing on each label shall be 14-point Times New Roman in black ink. The label shall contain the following information.

Book number without prefix (e.g., 56123)

a. Book title

b. Range of discs in this box and total number of discs in all boxes (e.g., 1-9 of 9; or 1-10 of 20, 11-20 of 20)

c. Box number of total number of boxes (e.g., Box 1 of 4)

d. Producer code as used on NLS production authorization record

For drawing that shows example disc orientation in a sleeve, see figure 3.

For drawing that shows example label layout and label position on a disc storage box, see figure 4.

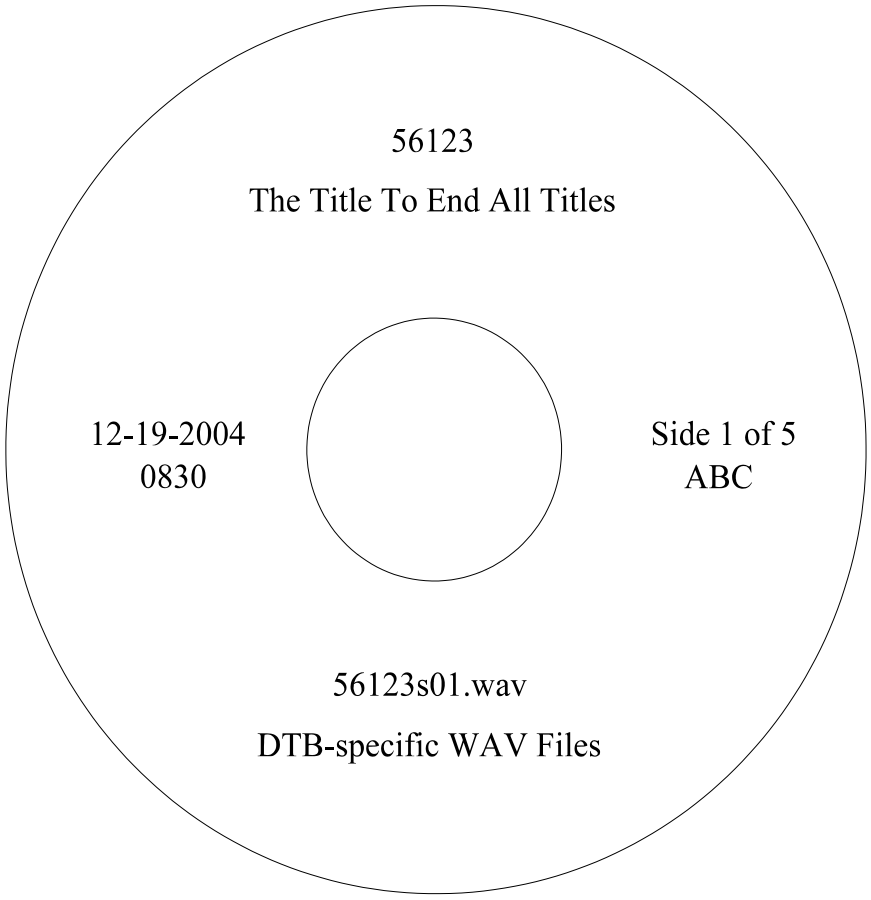
5.2.3 Packaging Review Copies for Shipment to NLS

Review copies must be packaged for shipment to NLS in a manner that will provide a high degree of protection during shipment.

6. Notes:

6.1 The Clover Systems CDX analyzer may be obtained from:

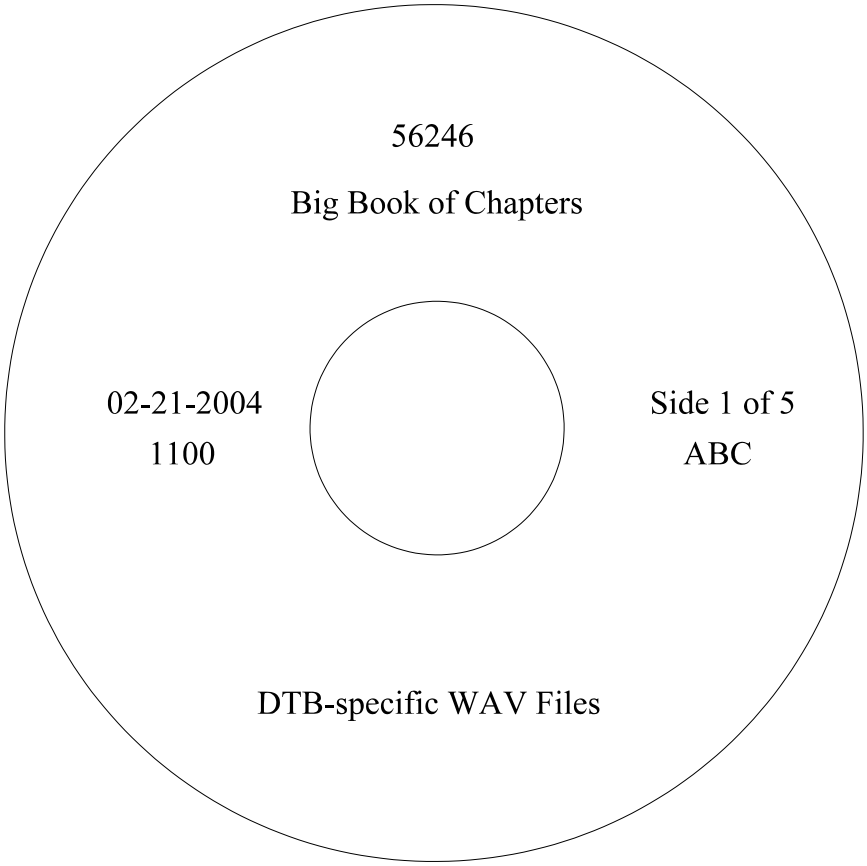
Clover Systems
Lake Forest, CA 92630 USA
(949) 598-0700
http://www.cloversystems.com



Label Information
Side 1 Review File Disc

(Where DTB-specific WAV files are present)

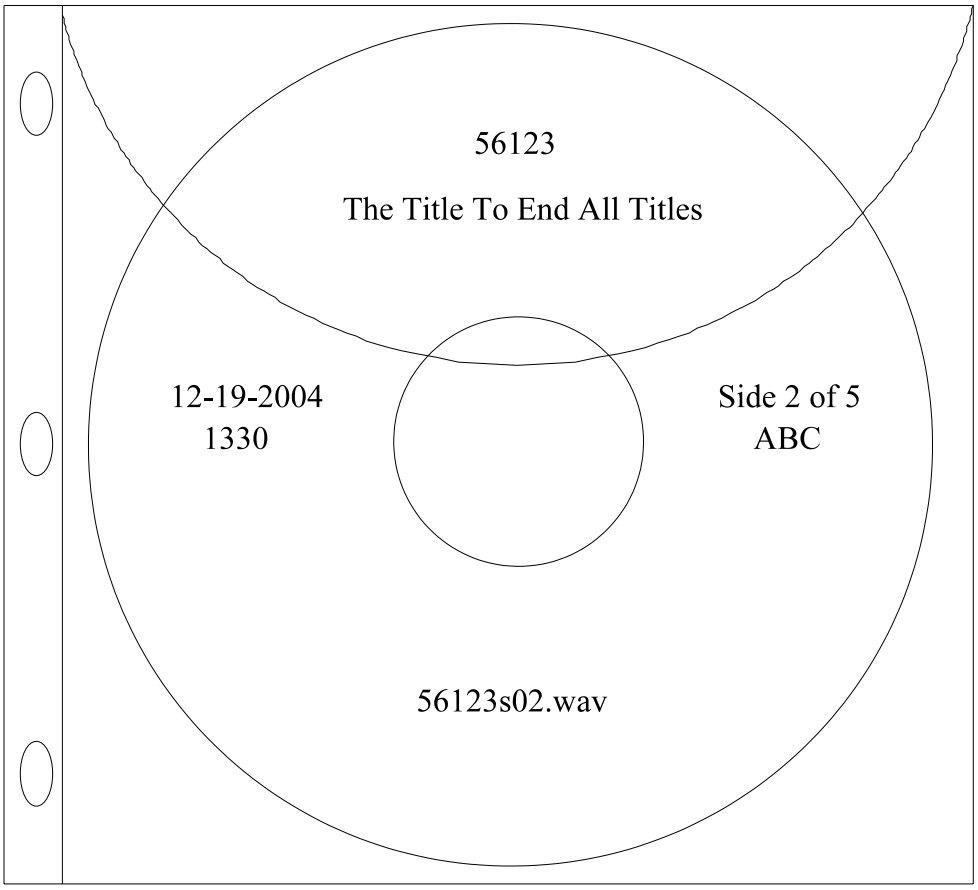
Figure 1



Label Information

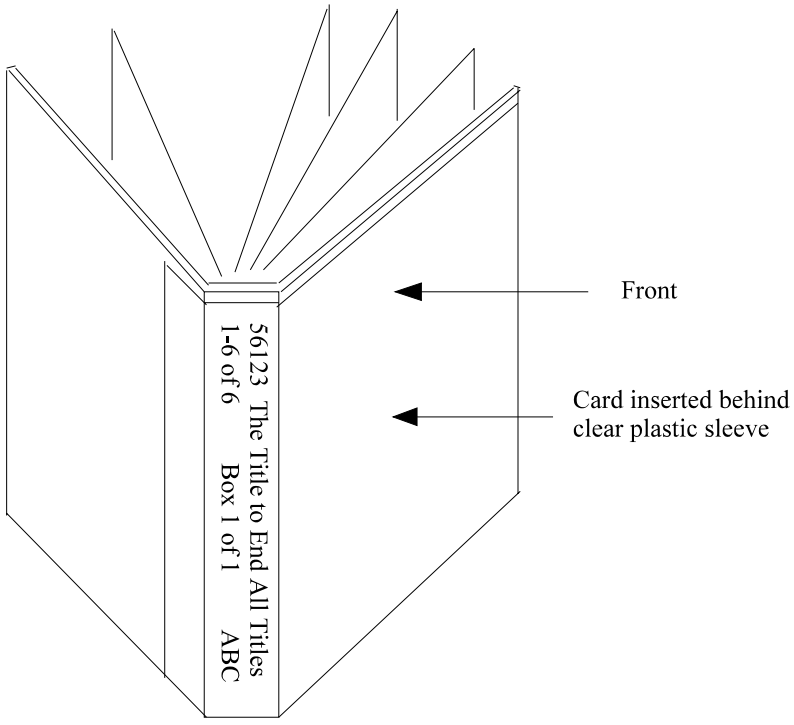
DTB-specific WAV File Disc

Figure 2



Disc Orientation

Figure 3



Box Label Layout

56123	The Title To End All Titles	
1-6 of 6	Box 1 of 1	ABC

Spine Information Layout

Figure 4