

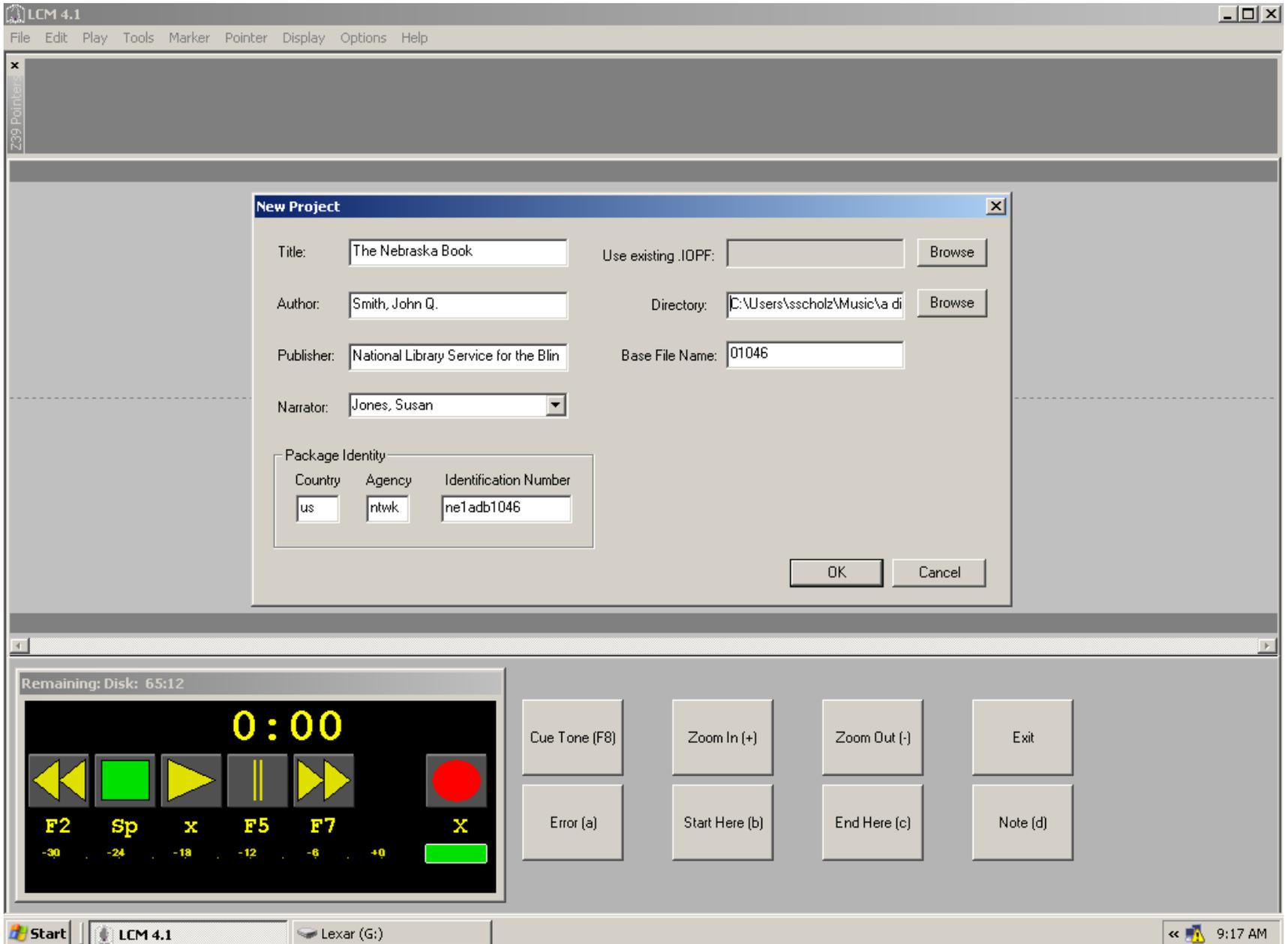
Digital Markup Using LCM

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Create a New Project in LCM

- Title: **The Colorado Book**
- Author: **Smith, Susan Q.**
- Publisher: **National Library Service for the Blind and Physically Handicapped, Library of Congress**
- Narrator: **Jones, John**
- Package Identity: Country: **us** Agency: **ntwk**
Identification Number: **co1adb8213**
- Use existing .IOPF: *n/a*
- Directory: **C:\Books to Edit\Books for Markup\DB8213 The Colorado Book**
- Base File Name: **08213**

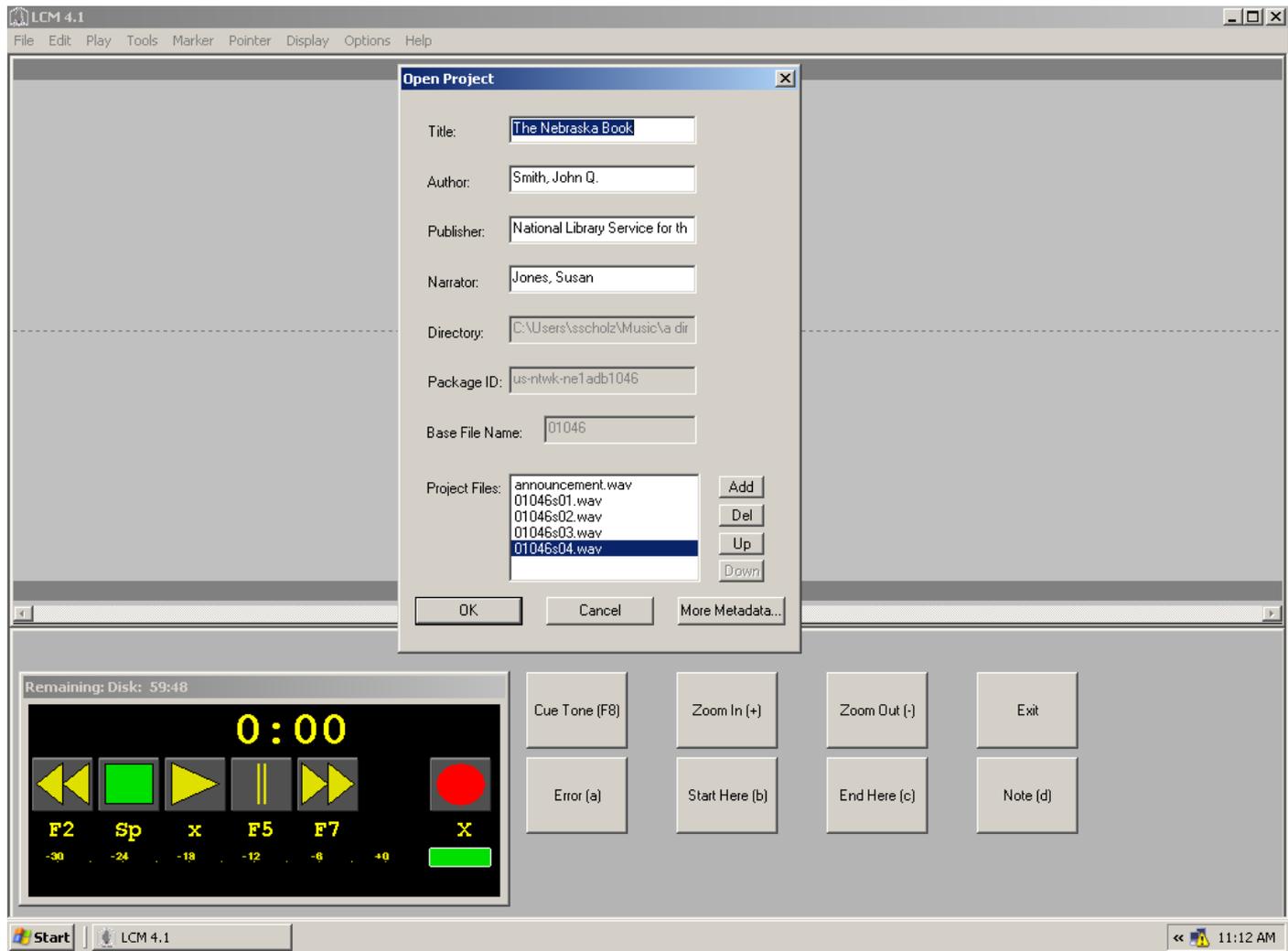


Add (or) Record Your Project to LCM

- LCM audio Files you will need to create a DTB:
 - title.wav
 - author.wav
 - announcement.wav
 - Side files (e.g.; 08213s01.wav, 08213s02.wav, 08213s03.wav, etc...)

Define Navigation Pointers

- Use the “Class Attributes” table to develop a list of Primary Nav Pointers you would like to apply to your DTB
- Class Attributes for DTBs can be found in:
 - LCM (Options menu, Primary Navigation tab)
 - Spec. #1203 “Construction of Digital Talking Books.” Table IV. November 2006. pp. 33-35
 - Network Guideline NG03: 2008. “Requirements for Digital Talking Books to Ensure Correct Operation in DS1 and DA1 Players.” Table 1. pp. 22-24



Note: The announcement.wav file should be the first in the list and the Side files should be in numerical order. The “title.wav” and “author.wav” files do not appear in this list of Project Files; however, you can easily access these files if you open one of the files listed, click on the “File” menu and click on “Record Title” or “Record Author.”

Define Nav Pointers (con't)

- The “name” of the Pointer should follow the format in the Class Attribute column of the Class Attributes Table
- Assign each Pointer a unique hotkey, any color, and click the Add Pointer button
- Add Primary Level 2 or 3 pointers and Secondary Markers (e.g.; Exclusions) as needed

LCM 4.1 - Project: The Nebraska Book

File Edit Play Tools Marker Pointers

C:\Users\sscholz\Music\audio dir

LCM Options

Devices | Key Assignments | Options | Primary Navigation | Secondary Navigation

Select a template and press "Use Template" to create pointer nodes. Select "Save Template" to save current pointer nodes to template.

Use Template | Delete Template | Save Template

Pointer Templates

Select any node on the tree below and press "Add Pointer" to add a new pointer. Use "Update Pointer" to modify a node's current values.

Add Pointer | Delete Selected Pointer | Update Selected Pointer

Enter Pointer Name

Name: Hotkey: Color: Class Attributes:

Pointers	Color	Hotkey
title/author	R = 255, G = 0, B = 0	Hotkey: 1
contents	R = 255, G = 128, B = 0	Hotkey: 2
foreword	R = 255, G = 255, B = 0	Hotkey: 3
part	R = 0, G = 128, B = 0	Hotkey: 4
chapter	R = 0, G = 0, B = 255	Hotkey: 5
epilogue	R = 0, G = 0, B = 128	Hotkey: 6
close	R = 64, G = 0, B = 128	Hotkey: 7

Pointers

Show Buttons

OK | Cancel | Help

11:50 11:51 11:52 11:53 11:54

Remaining: Time: 75:57 Disk: 5

12

F2 Sp x

-30 -24 -18

+ 0 dB

12:13 12:14 12:15 12:16 12:17 secs

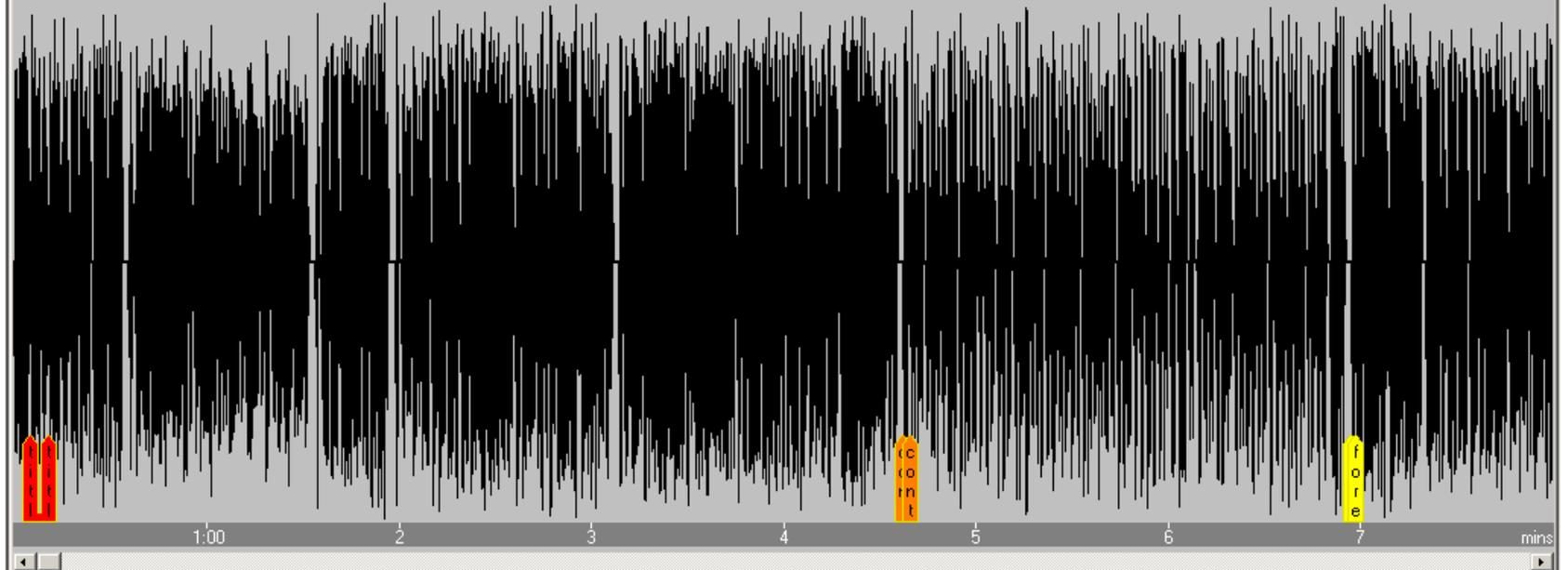
Start LCM 4.1 - Project: The... 12:11 PM

Apply Nav Pointers to Your Project

- Primary pointers are used in pairs and should surround the heading of the element being “marked-up” (e.g.; “Part 1”, “Chapter 1”, “Epilogue”...)
- Exclusion pointers (Secondary pointers) should surround the entire audio that needs to be excluded (e.g.; “End of Side 1. To continue, turn the cassette over.”)
- Do not use Exclusion pointers within the Announcement file. Instead, delete any material within this file that you do not want included in the DTB
- Apply all desired Pointers to your project files

title/author	contents	forward	part	chapter	epilogue	close	exclude
1	2	3	4	5	6	7	e

C:\Users\sscholz\Music\A directory of digital talking books\The Nebraska Book\announcement.wav + 0 dB



Remaining: Time: 75:57 Disk: 59:47

0:00


F2
-30


Sp
-24


x
-19


F5
-12


F7
-6


x
+0



Cue Tone (F8)

Zoom In (+)

Zoom Out (-)

Exit

Error (a)

Start Here (b)

End Here (c)

Note (d)

LCM 4.1 - Project: The Nebraska Book

File Edit Play Tools Marker Pointer Display Options Help

title/author	contents	foreword	part	chapter	epilogue	close	exclude
1	2	3	4	5	6	7	e

C:\Users\sscholz\Music\A directory of digital talking books\The Nebraska Book\01046s01.wav + 0 dB

3:00 5 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 mins

Remaining: Time: 0:36 Disk: 59:47

87:20

F2 **Sp** **x** **F5** **F7** **X**

 -30 -24 -18 -12 -6 +0

Cue Tone (F8) Zoom In (+) Zoom Out (-) Exit

Error (a) Start Here (b) End Here (c) Note (d)

Start | LCM 4.1 - Project: The... | 12:21 PM

Export Your Project

- Click on File, Export Project, & Conversion
- Click OK for “Export Navigation Options”
- Enter any desired additional information about your project in the DTB Metadata window
- Export Options settings:
 - Input: Sample Rate: **44100** Channels: **1**
 - AMRWB+ Output: Frame Type: **23** ISF Index: **8**
 - Media Unit Size (megabytes): **476**
 - Limit SMIL file size to: **100** KB

LCM 4.1 - Project: The Nebraska Book

File Edit Play Tools Marker Pointer Display Options Help

title/author 1	contents 2	forward 3	part 4	chapter 5	epilogue 6	close 7	exclude e
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C:\Users\sscholz\Music\A directory of digital audio files

Export Options

Input

Sample Rate: 44100

Channels: 1

AMRWB+ Output

Frame type: 23

ISF Index: 8

Mode: AMR-WB+ Mono

Bit Rate: 24.00 kbps

Bandwidth: 12.8 khz

AMRWB+ MP3

Encoder Speed/Quality: Fast

Media Unit size (megabytes): 476

Limit SMIL file size to: 100 KB

Post-export Command:

Changes made here will only affect this Export operation.

OK Cancel

Remaining: Time: 44:21 Disk: 59:46

0:00

F2 Sp x F5 F7 X

-30 -24 -19 -12 -6 +0

Error (a) Start Here (b) End Here (c) Note (d) Exit

239 Points

+ 0 dB

mins

Start LCM 4.1 - Project: The... 12:31 PM

Encrypting Your DTB

- After export is complete, copy the DTB subfolder within your project file and paste it onto the NLS DRM (DropProtect.bat) icon
- Your Return Code should = 0
- If it is anything other than “0” your DTB will not play correctly on the DS1/DA1

Z39 Pointer

```

C:\WINDOWS\system32\cmd.exe

XALAN: Xalan Java 2.7.0(org.apache.xalan.transformer.TransformerIdentityImpl--jar:file:/C:/PDTB2-Network/Components/lib/xalan.jar!/org/apache/xalan/transformer/TransformerImpl.class)
XERCES: Xerces-J 2.7.1(org.apache.xerces.jaxp.DocumentBuilderImpl--jar:file:/C:/PDTB2-Network/Components/lib/xercesImpl.jar!/org/apache/xerces/jaxp/DocumentBuilderImpl.class)
Using log file = !C:\PDTB2-Network\Log\01046.log!
encryptDTBContentFiles() 13 manifest items, pper = 6923 / 1000 + 7.
Normal completion. Return code = 0

C:\PDTB2-Network>pause
Press any key to continue . . .

```

Remaining: Disk: 32:19

0 : 00

F2 Sp x F5 F7 X

-30 -24 -18 -12 -6 +0

Cue Tone (F8)	Zoom In (+)	Zoom Out (-)	Exit
Error (a)	Start Here (b)	End Here (c)	Note (d)

Protected Books

Shortcut to ProtectDTB

```
01046 - Notepad
File Edit Format View Help
2012-04-27 13:52:22,140 INFO NLS -DTB Encryption Protector version 1.2.05 - 2009/04/27 08:25 AM EDT (build RSC0059)
2012-04-27 13:52:22,140 INFO NLS === Start DTB Encryption at Fri Apr 27 13:52:21 MDT 2012
2012-04-27 13:52:22,140 INFO NLS -Using output directory = |C:\PDTB2-Network\ProtectedBooks\01046|
2012-04-27 13:52:22,140 INFO NLS -Using facade directory = |C:\PDTB2-Network\Facade|
2012-04-27 13:52:22,140 INFO NLS -Using public key file = |C:\PDTB2-Network\Publickeys\us-nls.ntwk-1.pub.kxo|
2012-04-27 13:52:22,140 INFO NLS -Using AO file = |C:\PDTB2-Network\Components\template.ao|
2012-04-27 13:52:22,140 INFO NLS -Using input directory = |C:\Users\sscholz\Music\ a directory of digital talking b
2012-04-27 13:52:22,140 INFO NLS -Public Key File found. |C:\PDTB2-Network\Publickeys\us-nls.ntwk-1.pub.kxo|
2012-04-27 13:52:22,140 INFO NLS -Key Exchange object file being used.
2012-04-27 13:52:22,156 INFO NLS -Headings audio file NOT being encrypted
2012-04-27 13:52:22,156 INFO NLS -3gp mime types are allowed (converted to 3gpp)
2012-04-27 13:52:22,171 INFO NLS -DTBuid: us-ntwk-neladb1046
2012-04-27 13:52:22,171 INFO NLS -Created the manifestMap return code = 0
2012-04-27 13:52:22,171 INFO NLS -Created the spineMap return code = 0
2012-04-27 13:52:22,218 INFO NLS -Created the facade OPF return code = 0
2012-04-27 13:52:22,218 INFO NLS -ID of headings file = hdgs
2012-04-27 13:52:22,250 INFO NLS -Created the facade return code = 0
2012-04-27 13:52:22,265 INFO NLS -Created the new AO return code = 0
2012-04-27 13:52:22,484 INFO NLS -Created the Encryption Keys return code = 0
2012-04-27 13:52:23,390 INFO NLS -Encrypted audio file 01046ann.3gp!
2012-04-27 13:52:23,578 INFO NLS -Copying 01046hdgs.3gp to output directory, unchanged. Media type: audio/3gp I
2012-04-27 13:52:23,593 INFO NLS -Copying ncx110.dtd to output directory, unchanged. Media type: text/xml ID:
2012-04-27 13:52:23,593 INFO NLS -Copying oebpkg101.dtd to output directory, unchanged. Media type: text/xml ID
2012-04-27 13:52:23,609 INFO NLS -Copying oeb1.ent to output directory, unchanged. Media type: text/xml ID: pk
2012-04-27 13:52:23,640 INFO NLS -DTDs to be found in: C:\Users\sscholz\Music\ a directory of digital talking books
2012-04-27 13:52:23,812 INFO NLS -Encrypted smil file 01046.smil!
2012-04-27 13:52:23,859 INFO NLS -Copying dtbssmil110.dtd to output directory, unchanged. Media type: text/xml I
2012-04-27 13:52:24,500 INFO NLS -Encrypted audio file 01046-0001.3gp!
2012-04-27 13:52:25,640 INFO NLS -Encrypted audio file 01046-0002.3gp!
2012-04-27 13:52:26,562 INFO NLS -Encrypted audio file 01046-0003.3gp!
2012-04-27 13:52:27,265 INFO NLS -Encrypted audio file 01046-0004.3gp!
2012-04-27 13:52:27,812 INFO NLS -Encrypted DTB Content Files return code = 0
2012-04-27 13:52:27,828 INFO NLS -Created Encrypted NCX return code = 0
2012-04-27 13:52:28,312 INFO NLS -Created the Protected OPF return code = 0
2012-04-27 13:52:28,312 INFO NLS -Final return code is 0
2012-04-27 13:52:28,312 INFO NLS === End time is Fri Apr 27 13:52:28 MDT 2012
2012-04-27 13:52:28,312 INFO NLS === Loaded in 6.37 seconds.
2012-04-27 13:52:28,312 INFO NLS -Normal program completion. Return code = 0
2012-04-27 13:52:28,312 INFO NLS === Final return code = 0
```

Protected Books
Shortcut to ProtectDTB

Test DTB on DTBM

- Copy and paste your protected DTB file onto a cartridge and test the book on a DTBM
- If your DTB does not play correctly on the DTBM, double check all information that you initially entered in the “New Project” fields (viewable when you open your project)
- If there is an issue with your Nav pointers, review their placement and adjust as needed
- Export and test your project again for QA

For Further Assistance

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