TURNING THE PAGES™

Content Management System Guide v 3.2



Contents

- 1. Introduction
- 2. TTP versions explained
- 3. The book-building process explained
- 4. Building a book
- 5. Building a single-sheet item
- 6. Publishing your books using Library Manager
- 7. Creating a kiosk version
- 8. Appendix 1. Asset preparation and specifications
 - Appendix 2. Technical specifications

1. Introduction

The TTP content management system (CMS) is designed to allow non-technical users to build and administer online libraries of TTP books and single-sheet items (e.g. maps), as well as build offline kiosks. It supports the upload of books and single sheet items to both a test and live web address.

This document is designed to give you an overview of how to produce a book or single-sheet item, add interpretative media to that item; manage your library, and give you an insight into how the system works.

2. TTP versions explained

Offline/Online

This version is a web-based version of TTP designed to work in most browsers, both for PCs and tablets/smartphones. The offline version is on a test URL, the online version is identical apart from the fact that it is on a "live" URL. This distinction is made for testing and approval purposes. You cannot edit an online book – it needs to be moved offline first.

Kiosk

The kiosk version is a fully three-dimensional Windows application, with page turns and lighting derived from careful study and modeling of actual books. It has large touchscreen-friendly icons in place of the web versions smaller versions. It is also possible to add a customized screensaver which cycles through large image details from the items in your library.

Accessible

This version is designed for those who are visually impaired, or want to access the item from a device without Javascript or an older browser. Instead of a page turn, it presents static images of the pages to the user, along with text and media. It's WCAG 2.1 AA accessible, and has been tested with screen reading software as well as mobile devices. The screen design is deliberately minimal, to allow your institution's web team to customize these pages via CSS.

The CMS can generate all these versions from a single book-build.

3. The book-building process explained

The process follows the following steps:

- 1. Documentation preparation
- 2. Page image & asset preparation
- 3. Book creation & page sequence import
- 4. Preparation of and addition of interpretative media
- 5. Configure the book

3.1. Documentation

Completion of the documentation if you are building your own books is entirely optional. We've found it's the best way to keep track of versioning and avoid confusion.

If you're creating a very simple book, you may find some of the documentation superfluous to your needs.

First complete the following two documents: FTP general specifications (TTP_book_spec.doc), TTP running order (TTP_running_order.doc)

The document templates are supplied in the TTP Specifications Pack, if you do not have a copy, please contact us. The running order is particularly important as it will be your record of the page sequence and is the only means of cross-referencing your pages with the generic TTP numbering which appears in the application before you enter any custom pagination (which is optional). If you will have more than one book in your digital TTP library, you should append the short book name onto these document file names. You may also wish to complete the TTP Library specification document (TTP_Library_spec.doc), which is for details about your overall library.

3.2. Page image & asset preparation

Once your documentation is complete, the next step is to prepare your page images (or your single-sheet image). The CMS is expecting PNG files, and can be configured to display images in a kiosk of up to 2500 pixels high at 96 dpi. The resolution shown in the kiosk is determined by a value in the TTPCMS.exe.config file called <ImageHeightHi>. The default value is set to 1600 pixels, but, if you want to show images at (eg) 2000 pixels, change this value to 2000 and create PNGs at that size. The more powerful your graphics chipset, the larger files you can use.

If you are creating online books, there is the option to create books with DeepZoom functionality. Similar to the single sheet items, this allows you to ingest page files at any size. The DeepZoom functionality should only be used on books that would benefit from being zoomed in to the finer details. Your source PNG files should also be a minimum of 3000-4000 pixels in the longest axis at 96 dpi to see the benefits.

For single sheet items, you can ingest an image of any size into the CMS, as it will create a DeepZoom version at whatever version you create.

For more information see the Page Image Preparation Guide document.

3.3. Book creation & page sequence import

It is very important at this stage that you check that your sequence is correct and you are happy with it. If you find an error, you will need to fix your page sequence and reimport the images. Any settings and interpretative media will be lost, which is why checking at this stage before the addition of any media is so important. The CMS will warn you if images are of the wrong resolution, or if it seems that the wrong number of images has been supplied.

3.4. Add interpretative & supporting media

Once the page sequence has been imported into the CMS and has been checked, you then have the option to add other media:

- Interpretative text
- Transcription text
- Translation text
- Book-specific Dublin Core metadata
- Page-specific keyword metadata
- Voiceover audio
- Other audio & music excerpts
- Video clips
- Supporting images

All text, audio, image and video as well as pagination and keyword input is optional. You can build a book without any supporting information if you wish. TTP will detect this, and the buttons in the user interface will be ghosted or not appear. For a book where you have entered text for some openings and not for others, the button will disappear or be ghosted where there is none.

3.5. Configure the book

There are a number of settings which will alter the way your book appears. These are explained in the book integration sections.

4. Building a book

With all assets prepared and signed-off, you can now use the CMS to build a book. This walkthrough will assume you have no prior books in your library and want to build a book for the first time. It assumes you're using hardware that meets the CMS requirements. Firstly start the application and log in using a username we will have supplied to you. Click on the "Create a new book" link to the left of the screen.

4.1 Book Details

The first screen is where you enter the general book details.

Title - Appears in the top right corner when a book is being read, as well as in the menu

Short title - Mainly used by the database, but is also used by the loading bar. It should be a single word starting with a letter (not a number) and with no spaces or special characters. Must be a minimum of 4 characters.

Description - Appears in the menu and is limited to approximately 125 characters together with the title. You can always use the Front cover page to add more comprehensive information

Page width / height (mm) - TTP kiosks will accurately reflect the aspect-ratio of the book, as well as its size relative to other books in your library

Reads right to left - Check this box if your book reads right to left (i.e. Hebrew or Arabic manuscripts)

Category - Users can browse only books on the menu panel from one category if they wish. The category menu is only displayed in the online version. Select a category for your book. You can edit the categories available (see below).

Reads right to left – for (eg) Arabic or Hebrew books.

TTP 3.0 Page width / height (px) – A key setting for online books. TTP will draw the book onscreen at this size. Note the following rules:

- If using transparent pages (see below) only allow for a maximum size of 1200px in the longest axis. This is due to the large uncompressed PNG file format. The TTP CMS optimizes these files to make them as small as possible for online use.
- If you're not using transparent pages the default size can go up to 1600px in the longest axis
- If you're enabling the DeepZoom feature the above 2 points still apply and you should not enter the size of your large DeepZoom files. The CMS will

automatically configure the feature when enabled from the files supplied.

TTP 3.0 Max Zoom – You have the option of constraining how far users zoom in to books. 1.0 is the default setting and represents 100% of the source file size (online version only). This does not include the DeepZoom feature. This is the zoom level that the DeepZoom feature will load if enabled.

Material - Specifies how the page will behave as it turns. Vellum pages are much more heavy and rigid than paper ones (kiosk version only).

Bound - Uncheck the checkbox if the book has no rigid cover. You must ensure you're supplying the correct number of images for bound and unbound books.

Transparent Pages – If you've included an alpha channel in your source PNGs then check this box to ensure TTP creates pages with irregular page edges.

DeepZoom – if you are ingesting large files and you want the online version to use the DeepZoom capability, then check this box.

Shadows – Checking this box introduces shadows along the spine in the online version to create more realistic 3D book. When using the DeepZoom feature, the shadows will be added to the DeepZoom images depending on this selection. You cannot change this setting once the book has been created with DeepZoom.

Pre-rotation angle - Enter degrees of rotation. (E.g. -90 if you would like the book to open top to bottom)

DCMI Metadata - We have added a set of Dublin Core Metadata (DCMI) entry fields. Any data entered here will be displayed under the interpretative text associated with the front cover of the book. The search engine will also search against this data.

Categories - To edit or add a new category, go to the "Manage your collection" menu and select "Categories". We have pre-set these to Contemporary; Literature; Musical; Religious & Science and Nature. You can add your own or edit the names of the existing ones. Be aware that retrospectively renaming categories which have already been chosen for existing books will change the category name of those books. There is no delete function.

When you've entered the book details, click on "Go to image selection" to choose your page image sequence.

4.2 Page image sequence selection [1]

4.2.1. Click on "Browse" to navigate to the folder on your hard drive where you have stored your prepared (ie cutout, resized and renamed) PNG files.

4.2.2. Then select "**Import images**". This will convert your PNGs to the compressed and encrypted .ttp file format for the kiosk version and also PNG and Jpg files for the web version. You should now see the page images start to appear on the screen, adhering to the alpha-numeric file naming sequence. Depending on how many pages you have in your book, and the speed of your computer, this may take a few seconds or several minutes, as the size, resolution and format of each file is checked here. For DeepZoom books, this may take considerably longer.

Once all the files have been converted & imported, the two ghosted buttons become active.

IMPORTANT: This is your final chance to check that your image sequence is correct. It is not possible to amend the sequence after this stage.

You should be looking at:

- 1. The front binding
- 2. All the verso and recto folios seen together in their constituent openings
- 3. The back binding and spine together

If you see an error – it is best to "Go to item summary" > "make book" and then delete the object from your library manager. You will then need to exit the CMS and amend your page image file sequence and build the book again.

3. Select "Add opening details" to go to the front cover of the book where you can begin adding interpretative media.

Otherwise select "Go to item summary" where you can simply save the book as it is (and configure the advanced settings if you wish). We recommend going to the item summary and making the book at this stage. It can then be checked once more before adding any further details.

4.3 Opening details

Layout & functions

In this section you can work through the entire book adding as much related media as you want (text, audio, video and supplementary images).

The left-hand pane contains tabs for inputting opening-specific text as well as opening-specific media, book-wide text, book-wide media and keywords. You can also add custom pagination. If you add multiple text or media items in any opening, they will be accessible via a sub-menu which is automatically generated. You can alter the order in which items appear using the "Position" field.

The right-hand side contains a large view of the page images, the one you should see first is the front cover. You can resize the view by using the "Zoom" slider (a mouse-wheel works here too). You can also drag the page image around to pan across. Type an opening number (refer to column 5 of your running order document) into the "Go to opening" entry field under the large image and click "Go" to navigate directly to that opening.

At the top above the image viewer is a thumbnail navigator. You can use the slider and arrows to navigate through the book.

Interpretative text addition

Text is entered on a per-opening or book-wide basis. You can also include html tags to style text.

To do this begin all text should begin with a tag and end it with a tag, so the CMS will know you're entering html. Then you can use tags such as for bold and <i> for italic. If you're inputting text as html, then you will need to use
 tags for line breaks and for paragraphs. If you don't want this control over formatting, then you can simply enter plain text.

Tab name	Field name	Typical Content
Opening text	Position	1
Opening text	Title	Header text
Opening text	Body	Interpretative text/transcription
Opening text	Custom button label	Alternative label (Default is "Read") Max 9-11 characters
Book-wide text	Title or	Header text
Book-wide text	Body	Transcription/translation/poem/ background information
Book-wide text	Custom button label	Alternative label (Default is "Read") Max 9- 11 characters
	•	,

Field name	Typical content
Custom pagination:	By default, TTP applies standard pagination to a book. In the application, the toolbar caption would be "Cover" and the first opening "p2 & 3". If you want use more precise pagination then you can enter that here. (e.g. "ff.2r – 3v" or in the case of an abridged book: "p11 & p15"). This field will limit your text entry to 12 characters.
.Keywords:	Enter any terms you wish here which are not included elsewhere (e.g. themes and alternate spellings of names). The Search function also searches this field.

4.4. Supporting Media addition

Progress through the book using the slider now and add text and audio as you wish. There are two ways in which supporting audio, video or still image media can be displayed in TTP. Click on these tabs to add media.

Opening Media:

Available on a per-opening basis. Useful for audio commentary or narration

Book-wide media:

Available throughout the book universally. Useful for general information, overview or contextual material

Adding media is done in the same way for either category:

Field Name	What is this?
File	Use the browse button to add the location of the media file to add (MP3/WMV/JPG/PNG/OGS/OGV/MP4)
Position	Position in the menu of media items for that opening (if applicable). 1 is the first item in a list.
Button label	Button label text
Caption	Caption text which appears on the menu of media items for that opening (the menu will appear if there is more than one media) and on the panel

	header of the media window.
Display panel width/height	Specifies the dimensions of the display panel in pixels. Videos will fit to the window, whereas with images - scrollbars will appear if the panel is smaller than the image, and if an image is larger than the panel zoom buttons will appear to allow users to magnify the image (kiosk only).
Language specific	If you add an item that is language-specific, you can specific which language it refers to here.
Add encoding variant	For complete cross-browser compatibility, currently (2020) .mp3 for audio and .mp4 for video should suffice. Previously there was a need to add variants to embrace all browsers. For kiosks a .wmv file is required for video.

When you're done, click on "Go to summary". If you are working on a book with a large number of pages, you can click on the "Save changes" button to prevent changes being lost in the event of a crash or power outage.

4.5. Book summary

The summary screen allows you to check some basic details of the book. If you are satisfied that they are correct, you can click on "Make book". This will save your work and create a book.

Advanced Settings

These settings allow you to precisely control how a book appears. It will take a bit of time and effort to become accustomed to the way these settings affect the appearance of the book. The settings will often have a knock-on effect (in particular the first four on the list) and you may need to tweak other settings subsequently. **There is no revert button**. So until you are more familiar with the way these settings work, we would recommend keeping a note of the original settings (or take a screenshot before you start) so that you can easily rectify any errors. These setting apply only to the kiosk version.

Here is a set of definitions of what the settings do:

Field Name	Description
Stack Pages	The user may want to change this setting if they are experiencing poor performance. Be aware that changing the default parameters means the page and spine spacing will have to be manually adjusted. It is very rare to need to change this setting.

	Default: If the book has less than 40 pages then 0; otherwise 40
Page spacing	This variable allows you to adjust how the pages are spaced out at their external edges – useful if for example you have a spine and very few pages. Default: Dynamic upon instantiation
Spine spacing	The amount of space between the pages along the spine. The automatic default parameters spread the pages across the spine. As with page spacing, there may be cases where you want to adjust this. To move all the pages to the front of the spine, enter a value of 0.0001 for example.
	Default: Dynamic upon instantiation
Cover width/ height (mm)	Alter these settings if you would like the binding to appear larger or smaller in relation to the pages.
	Default: The page width & height you entered at the book details screen.
Cover turn time	The duration of the cover turn time in milliseconds. To make the cover open faster, decrease this value, to slow it down, increase it. Default: 2000
	Sometimes there may be a gap between pages where the inside spine is visible. By default the application shows the reverse of the spine scan. Gaps can be disguised by using a colour which is closest to the paper/vellum colour.
Spine inside colour (hex)	Alternatively if there are no gaps in between the pages but a big gap at the end next to the inside back cover – it is better to use the colour closest the adjacent inside back cover image,
	To change the colour enter an 8 character hexadecimal colour value with "FF" preceding it (e.g. FF000000 = black).
	Default: FF (0% opacity)
Spine inside colour scale	If you set the spine inside colour – it will still not be visible unless you adjust this setting. Try a value of around 0.97 first and adjust as necessary. Showing a little of the spine binding top and bottom, adds a more realistic appearance.
	Default: 0
Verso/ Recto	Instead of loading all the scans of the entire book, TTP only loads the ones it needs, and uses one page as a "dummy" to fill the spine with the appropriate number. This is called a "stack page". TTP uses a page from the

stack image	middle of the book by default, but you can change it if that page is by chance damaged or of a noticeably different colour. This can also be a hexadecimal colour like the spine inside colour if you wish. Default: Dynamic (uses middle recto & verso pages)
Custom view distance	This affects the 'size' at which the book appears. To make the book look bigger on screen - decrease the value. To make it look larger - increase the value. This setting is one of the most commonly adjusted values for kiosk versions – because the monitor resolution is known and hence this is an easy way to size the book for optimal display. Default: 1.9
Custom view angle	The amount of 'tilt' at which the book is viewed. This is expressed in degrees to the horizontal, so 90 means you are looking at the book face on. To make more foreshortened, you could enter a value of 70 for example. Default: 90
Custom menu image page number	If you wish to display a different page other than the cover image in the thumbnails menu you can specify one here. Use the TTP page number from column 2 of the running order document. Default: Front cover
Pages offset x	This shifts the horizontal positioning of the pages - this is sometimes needed with books that have hundreds of pages where the pages shift out of line with the spine. Default: 0
Custom prompt	This prompt appears top right of the screen the first time a book loads. Default: "Touch and drag to turn the page"

5. Building a single-sheet item

As well as books, the content management system can integrate flat objects into your library. For example: maps; charters; scrolls; artworks; prints; photographs and letters. These objects are often very large in dimension and file size. TTP has been developed to accommodate source images of up to 1 Gb in size, allowing you to present maps or scrolls at their native captured size, in turn allowing users to see even the smallest detail. The CMS accepts JPEG, TIFF and PNG file formats for single-sheet items.

In TTP Online we use Deep Zoom technology to allow this, and in TTP kiosks we use some technology we developed called SteveDragon. Both only load those portions of the file that you need, at the correct resolution for the level of magnification you are using. As users pan around, new portions are dynamically downloaded, and as users zoom in, higher resolution images are loaded. The result is a fluid user experience, even online with very large file sizes.

5.1 Single Sheet Item details

To create a single sheet item, enter the details in the same way as for a book (see section 3.1 of this guide). Only the following variables differ:

Short title	For single-sheet items this should be the same as the file name used for ingest.
Width and height (px)	TTP uses these dimensions to convert your source file into a TTP-compatible version. This should be the dimensions of the source image.
Scrollable	Check this option to enable a scrollbar to quickly navigate through an item (kiosk only).
Vertical	Check this option for a portrait format scroll that is best viewed from top to bottom (kiosk only).

As with building books, we have added a set of **Dublin Core Metadata (DCMI)** entry fields. Any data entered here will be displayed under the interpretative text for the item. The search engine will also search against this data.

In addition, there are 'Advanced' and 'Super Advanced' settings. These allow precise configurations for the generation of the SteveDragon image tiles. These can be useful for unusually- shaped items, but the default settings should be adequate. Get in touch with us if you would like to experiment with these settings.

When you've entered the item details correctly, click on "Go to image selection" to choose your scan in the same way as for a book.

5.2 Item details - When the item has been processed, click on "Add item details" to add text or media to the item. The way to add text & media is exactly the same as for a book – except that there is only 1 instance.

When you've finished adding media, click on "Go to summary" in the bottom right corner to check details. If the details all seem accurate, click on "Make single sheet item" and the item will be added to your library.

6. Publishing your books using Library Manager

Having clicked on "Make book" or "Make single sheet item" you will then be taken to the "Library Manager" screen. Here you can see at a glance all the books and single-sheet items you've made and their status.

There are three categories of item status:

- 1. Pending items
- 2. Offline items
- 3. Online items

6.1. Pending items

Pending items are purely local to the computer you built them on. This is where your new items will be. No files have been uploaded as yet and you can preview these within the CMS. A pending item has four options available: "Edit", "Delete", "View TTP 3.0 preview" and "Publish to offline".

Here, as in Offline items, you can click on "Edit" to change item details, opening details and advanced settings. When editing a book, you can save your changes at any point by clicking on "Save". Note that "Save" does not re-make a book, just allows you to save the changes locally in case you want to finish editing the book later on. To re-make the book so you can preview your changes, go to the summary screen and click on "Update book".

Previewing

Click on "View TTP 3.0 preview" to launch a local kiosk version of your Turning the Pages library of pending items inside the CMS. You can turn the pages of books and check all your media. When you've finished checking the item, click on the arrow tab

next to **Preview** to hide the preview window. If you have found any errors in the text or audio, now is the time to click on "**Edit**" and go and rectify them.

6.2. Offline items

Once you're ready to test your online versions, click "Publish to offline". The CMS will establish a connection and upload all relevant files to the designated test web server (the CMS will be pre-configured to either the Armadillo server or your institution's one). This may take some time depending on the number of pages and the speed of your internet connection. Progress indicators will keep you informed of the upload status.

Under "Offline items" you will see that the CMS has created two versions of your item: TTP 3.0 and Accessible. This is useful for going through approval cycles, or building items in advance of when they are needed to go live. You can preview these and make any last edits before going live.

6.3. Online items - Once the item has been approved, you can then take it live by clicking on "**Take online**", which means it will join any other items you may have at your live TTP web address. From being online an item can be taken offline at any time, where it can be edited or deleted.

7. Creating a kiosk version [SEP]

To create a kiosk version, go to "Manage your collection" on the top menu bar and select "Create kiosk". You will be presented with a list of items in your library, both pending items and offline items.

In step one, select the checkboxes for the items you want to include, then click "Next".

Step two allows you to browse for a destination directory or create one such as 'My First Kiosk'.

Step three allows you to configure how the kiosk will work. The settings here are: *Multitouch* – checking this allows for features like pinch-to-zoom and rotation to be enabled on compatible monitors

Single-touch page turns – allows users to just touch a page for it to turn, rather than have to drag it

Display cursor – offers the option of hiding the cursor for kiosks

Show DCMI data – Dublin Core metadata only visible on the front cover

Auto-display cover text – sometimes you may want to bring up cover text by default Memory-saver mode – on lower-end computers you may need to enable this to reduce memory usage

Page turn speed – alters the speed at which pages turn, although this is also constrained

by the graphics card of the kiosk PC

Log statistics – you can create .csv log files of TTP usage if you want

Set Up an attractor loop – TTP can have it's own attractor loop or screensaver, follow instructions here to direct the CMS to the relevant images. You can also change the interval before the screensaver kicks in, as well as the text displayed on screen.

Auto-launch item – if TTP detects only one item in your kiosk, it will launch it. If there are multiple items, you can specify which one (if any) you would like to launch by default).

In step four you can change the order in which items appear in the menu if you have a kiosk containing more than one book.

Finally, step five allows you to create the kiosk. You can copy the resulting folder to any TTP-compliant PC (Windows 7, 8, 10 with .NET Framework 3.5 and .NET 4.0 for multitouch) and run the application. To do this double-click on "Kiosk.exe".

If you wish to add your institution's logo to your kiosk version, simply create your logo (refer to "Screensaver_logo_image_preparation_guide.pdf for guidance") and place it in the same directory as "LocalApp.exe" on the server. Ensure that the xml tag called <logo_file> in "ttp_config.xml" contains the file name of your logo including the suffix.

If you require any assistance please do not hesitate to contact us: Email: ttp@armadillosystems.com Telephone: 020 7043 1057

We welcome your feedback on the CMS or this guide.

Appendix 1. Asset preparation and specifications

Detailed guidelines and specifications on asset capture and preparation are provided in the TTP Specifications Pack.

A1.1. PNG page image format

Currently the CMS accepts PNG files at 1600 pixels on the longest axis at 96 dpi. The PNG file format was chosen at this stage for a number of reasons:

- It is a conventional industry-standard format
- Lossless compression means good image quality
- Reduced file size compared to TIFF (you may want to keep TIFFs or PSDs as master files)
- Alpha channel support allows for uneven pages edges whe size of 1600 pixels which we've specified, allows for an acceptable trade- off between final file size and quality. TTP can support files up to the limit of the CPU and graphics card but at larger sizes download times rise, and consumer-grade PCs struggle with page turning animations Where you can control the hardware (i.e. kiosk versions) it is possible to use 2500 pixels vertical resolution for better image quality.

Please see the image preparation guide for more details on how to prepare images, specifically PNGs with and without alpha channels.

If you have a PC with a powerful graphics chipset (i.e. Intel HD4000 or above), you can increase the size of the PNGs for the CMS, which will allow users to magnify them further without loss of quality. To ingest images of (eg) 2500 pixels, output the files at this height and open the file "TTPCMS.exe.config" at the root of the TTP CMS directory. Find the setting

<setting name="ImageHeightHi" serializeAs="String"> <value>1600</value>
and change the 1600 value to 2500, saving the file when you're done. The CMS will
now output files for kiosk books at 2500pixels high.

A1.2. Page image file naming

The key issue with the CMS is how it recognises files. TTP works on the model of a content- agnostic "empty vessel" wireframe, that has images applied to it only at runtime. It can therefore only know where to position these images if the file-naming is correct. The model we have adopted is a simple alpha-numeric one, starting with the front cover and ending with the spine. So, we would recommend a file sequence such as:

My_old_book_0001.png (the cover)

My_old_book_0002.png (inside front cover)

You could break the sequence above by including: 0067.PNG (no alphabetic prefix) My old book89.png (inconsistent spacing) My_book_0056.png (inconsistent naming)

Notice that, as TTP seeks to build a real book, it does require, if the book is bound, covers and inside covers, as well as a spine. If a book is unbound (i.e. a non-rigid cover) the sequence remains the same, but in the CMS you can specify the fact that a book is unbound.

A1.3. Text preparation and implementation

You can input as much or as little text as you like into the TTP CMS. The application allows for the full book title, an abbreviated single word title (used only by the database), a short book description which appears in the menu, and text for each opening.

The CMS allows you to input text for each opening as well as on a book-wide basis (not on a per page basis as each page is seen as part of an opening). The CMS allows for multiple text panels per opening. This has been designed to allow for curatorial interpretation and transcription, but institutions have used it for translation, additional commentary, and related material.

The text format supported by TTP is either plain text or simple html, therefore the best format for using in conjunction with the CMS is a single Notepad or TextEdit document (or equivalent – rather than Word as it introduces proprietary formatting) file, with the text for each opening clearly labeled. We have provided an example in the TTP Specifications Pack. Complex formatting (i.e. tables etc) are not supported. As with all other assets, all text should be signed-off before being used as the source for CMS input. Text can be copied and pasted for each opening directly. This avoids re-keying and helps minimise errors on input.

Additionally the CMS supports the inclusion of keywords. These are not exposed to the user, but are indexed by the search engine. This can be useful to allow for alternate spellings that are not mentioned in any commentary or transcription (i.e. Sri Lanka versus Ceylon or Shakespeare versus Shakespeare) or to pick up words that users might search on but are not mentioned in the commentary.

Each text button label is set by default to "Read" and "Read more". This can be

customised at the opening level in the CMS, but bear in mind there is an approximately 10-12 character limit to preserve toolbar formatting.

A1.4. Audio

TTP supports the integration of unlimited audio files per opening, which are accessed via the media button (the label can also be customized). The files should be .mp3 format. This format has been chosen because of its non-proprietary nature and good compression.

A1.5. Video

Turning the Pages can support the inclusion of video files on a per-opening, or universal basis (i.e. the same video available throughout the book). TTP supports the .WMV file format for kiosks and .mp4 should be used for the online version via the "Add encoding variant" option in the media addition phase.

Appendix 2. CMS Technical Specifications

To run the TTP content management system, you will need to be running a Windows OS computer with the following minimum specifications:

Windows OS with .NET Framework 3.5 and 4.0 for multitouch kiosk previews 4GbRAM, Core i3 processor or faster (Core i5 & 8GbRAM recommended).

For the technical requirements for the online version of TTP, please see http://ttp.onlineculture.co.uk/technical/ as the requirements change as new browsers are released.