

Timeline Creator Technical Documentation

Introduction

Purpose

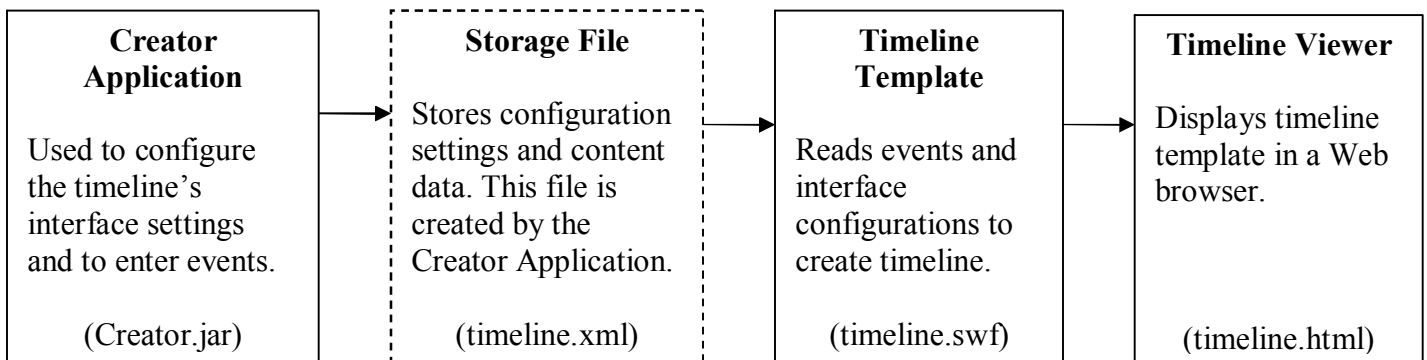
The Timeline Creator tool allows instructors, students, and researchers without multimedia development skills to develop an interactive multimedia timeline for teaching or presentation purposes. The resulting timeline can be published on the World Wide Web or presented directly from a computer. This document explains how to use the Timeline Creator software to design an interactive multimedia timeline.

How does it work?

This software comes with three components.

- Creator Application (Creator.jar)
- Timeline Template (timeline.swf)
- Timeline Viewer File (timeline.html)

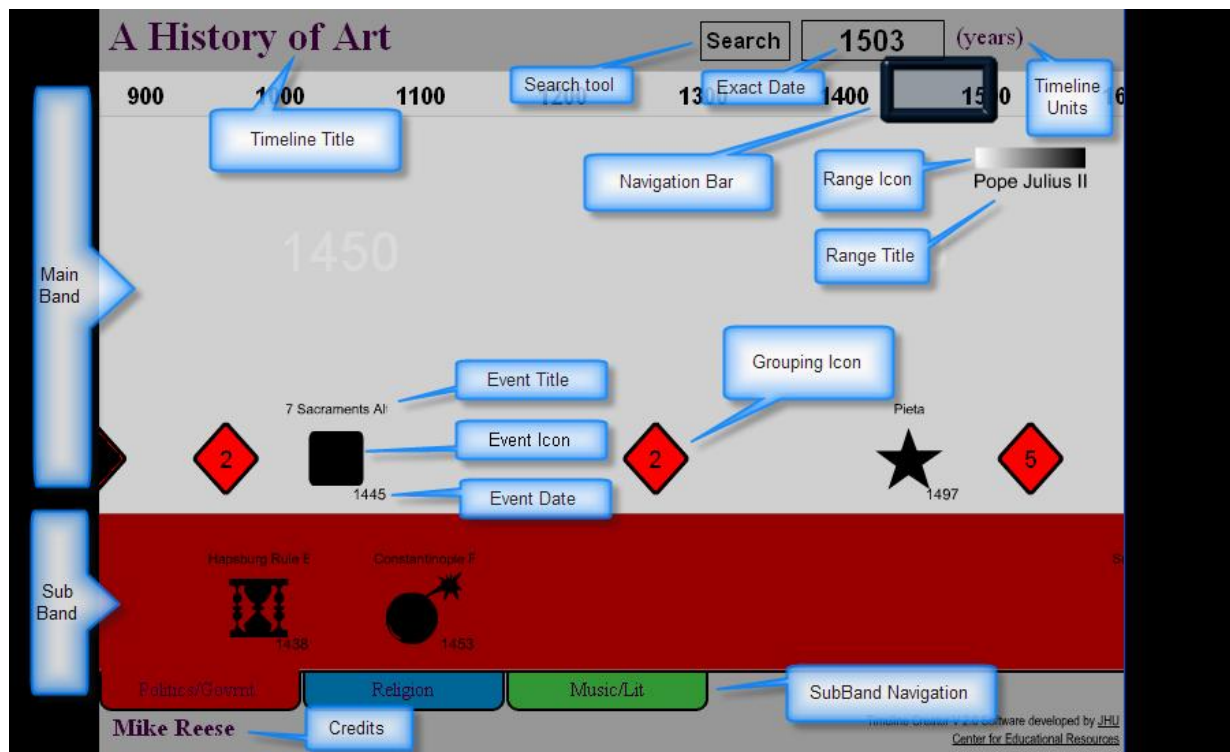
The Creator Application allows the designer to enter the events and to configure the Timeline Template interface. The Creator Application creates and saves the events and interface configurations to a storage file. The Timeline Template reads the events and configurations saved in the storage file. The Template then creates the timeline. The Timeline Viewer is an HTML file that allows a user to view the Timeline Template in a Web browser.



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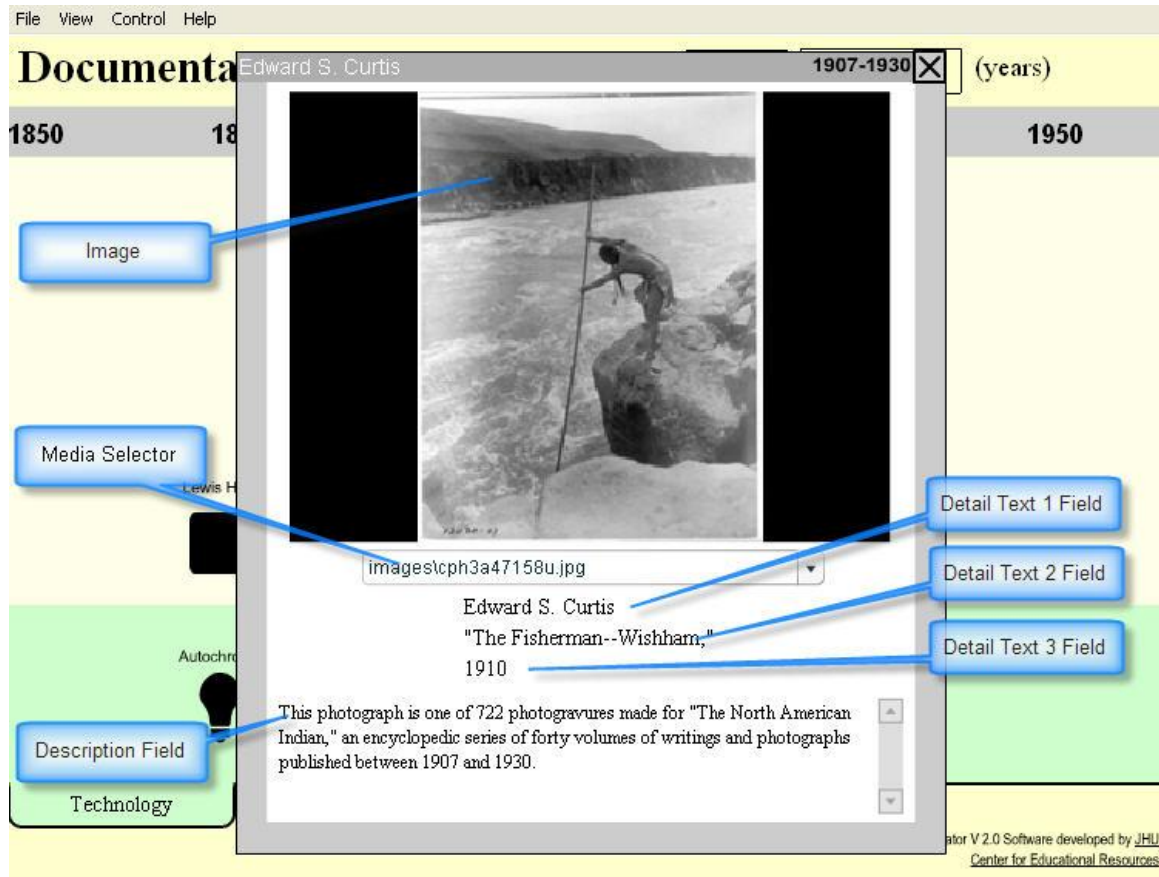
Timeline Template Interface Overview

Below is an example of a timeline with the interface components labeled. This example is provided to define terms used through this document. A new feature that has been added to the latest Timeline Creator version is the Search tool. This tool allows users to perform a text search of items within the timeline. Upon searching for a key word, a list of results pops up. Users can then click on each list item to find out more information. A corresponding date range appears next to each item, allowing the user to find the exact date in which the event occurs.



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Users can view more information about an event by clicking on the event icon or title and viewing the associated Detail window. Within the Detail window, the event's detail text, description and associated media are displayed. Media that can be displayed in the Detail window can be an image, audio (mp3), or video (flv) file. An example of a detail page is shown below.



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Creating a timeline

Overview

This section describes the five steps in creating a timeline.

1. [Downloading the Timeline Creator software](#)
2. [Opening the Creator Application](#)
3. [Configuring the Interface](#)
4. [Entering Events](#)
5. [Saving the Timeline](#)

This section also describes three other functionalities necessary for maintaining a timeline.

1. [Navigating Between Events](#)
2. [Deleting Events](#)
3. [Editing Events](#)

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Downloading Timeline Creator Software

Software Download

There are three components to the software:

1. Creator Application (Creator.jar) – the software used to configure the timeline interface and to enter content.
2. Timeline Template (timeline.swf) – the Timeline Template reads the content and configuration setting and creates the timeline.
3. Timeline Viewer (timeline.html) – allows a user to view the timeline in a Web browser.

This software is freely available at <http://timeline.cer.jhu.edu>. Follow the directions on the Web site to download and install the software.

Flash Player

Users will need the free Macromedia Flash 7.0 player (or later version) to view the Timeline Template (timeline.swf) file. To test if a computer has the Flash 7.0 Player go to <http://www.adobe.com/products/flashplayer/>. This page also provides access to download the free player.

JAVA

JAVA 1.4.2 or later must be installed on the computer for the Creator.jar file to work. The free JAVA JRE (SDK not needed) install is available for download at <http://www.java.com/en/download/index.jsp>. To check if JAVA is installed:

- Windows - Go to Start-->Settings-->Control Panels. JAVA should be listed as an option.
- MAC - Go to the Applications/Utilities folder. A JAVA folder will exist if it is installed.

Opening the Creator Application

After downloading the software, you can begin creating a timeline.

1. Locate the Creator.jar file on the computer.
2. Double click the Creator.jar file to open the Creator Application.

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Configuring the Interface

The first step in creating a new timeline is to configure the interface. This will allow the designer to define the date range, the color scheme, and standard text fields. Refer to the [Timeline Template Interface Overview](#) section to view where the following settings appear on the timeline interface. Fields that are required to be completed are noted.

The screenshot shows the 'Timeline Creator' application window with the 'Interface Configuration' tab selected. The window contains various input fields for configuring a timeline. Numbered callouts (Step 1 through Step 13) point to specific elements:

- Step 1:** Points to the 'Interface Configuration' tab.
- Step 2:** Points to the 'Timeline Title' field, which contains 'A History of Art'.
- Step 3:** Points to the 'Timeline Start' field, which contains '300'.
- Step 4:** Points to the 'Timeline Stop' field, which contains '1700'.
- Step 5:** Points to the 'Units' field, which contains 'years'.
- Step 6:** Points to the 'Gradation' field, which contains '100'.
- Step 7:** Points to the 'Main Color' field, which has a 'Background' button.
- Step 8:** Points to the 'Border Color' field, which has a 'Border' button.
- Step 9:** Points to the 'Text Color' field, which has a 'Text' button.
- Step 10:** Points to the 'Text Font' dropdown menu, which is set to 'Serif'.
- Step 11:** Points to the 'Band 1 Color' field, which has a 'Band 1' button.
- Step 12:** Points to the 'Band 2 Color' field, which has a 'Band 2' button.
- Step 13:** Points to the 'Credits' field, which contains 'Mike Reese'.

The form includes the following fields and buttons:

- Timeline Title:** A History of Art
- Timeline Start:** 300
- Timeline Stop:** 1700
- Units:** years
- Gradation:** 100
- Main Color:** Background
- Border Color:** Border
- Text Color:** Text
- Text Font:** Serif
- Band 1 Title:** Politics/Govrnt.
- Band 1 Color:** Band 1
- Band 2 Title:** Religion
- Band 2 Color:** Band 2
- Band 3 Title:** Music/Lit
- Band 3 Color:** Band 3
- Band 4 Title:**
- Band 4 Color:**
- Band 5 Title:**
- Band 5 Color:**
- Detail 1 Title:** Creator
- Detail 2 Title:** Medium
- Detail 3 Title:** Style
- Detail 4 Title:** Location
- Credits:** Mike Reese

1. Click the Interface Configuration tab. The screen above will appear.
2. Enter a timeline title (30 characters – approximate limit).
3. Choose the start and stop dates for the timeline. These numbers define the minimum and maximum dates, respectively, displayed on the timeline.
(required)

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4. Choose the units for the timeline (e.g., years, minutes) to be displayed at the top of the timeline.
(required)
5. Set the gradation spacing. This number defines the frequency of dates displayed between the start and stop date on the navigation bar.
(required)
6. Choose the main band color.
NOTE: The default is to choose a color swatch. However, the HSB color value can be entered directly by choosing the HSB tab. The RGB color value can be entered directly by choosing the RGB tab.
7. Choose the border color displayed on edges of the Timeline Template interface.
NOTE: The default is to choose a color swatch. However, the HSB color value can be entered directly by choosing the HSB tab. The RGB color value can be entered directly by choosing the RGB tab.
8. Choose the text color.
NOTE: This affects the text color on all bands and detail pages. The default is to choose a color swatch. However, the HSB color value can be entered directly by choosing the HSB tab. The RGB color value can be entered directly by choosing the RGB tab.
9. Choose the font type. This affects the text on all bands and detail pages. Serif fonts include fonts like Times New Roman and Courier. Sans Serif fonts include fonts like Arial and Helvetica.
 - This is an example of a serif font.
 - This is an example of san serif font.
10. Choose the title for each subband (15 characters – approximate limit).
NOTE: Up to five subbands can be titled. While it is not required to have a subband, a subband will only appear on the timeline if it is assigned a title.
11. Choose the color for each subband.
NOTE: The default is to choose a color swatch. However, the HSB color value can be entered directly by choosing the HSB tab. The RGB color value can be entered directly by choosing the RGB tab.
12. Choose the label for the four text fields on the detail window. The labels chosen appear on all details accessed from any band (15 characters – approximate limit).
13. Enter credits (50 characters – approximate limit).

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Entering Events

This section describes how to enter individual events that populate the timeline. The events tab contains two sections: top and bottom areas. The top area displays events previously entered. The bottom area allows the designer to add new events or update previously entered events.

The screenshot shows the Timeline Creator application window. The 'Events' tab is selected, displaying a list of events. A blue callout box labeled 'Stored Events Section' points to the event list. The bottom section, labeled 'Events Entry Section', shows the form for editing the 'Pieta' event.

Stored Events Section

Title	Start	End	Band	Icon	Hide Detail
7 Sacraments Altarpiece	1445	1450	main	square	no
Annuciation	1472		main	square	no
Portinari Altarpiece	1474	1476	main	square	no
Pieta	1497	1500	main	star	no
Eve	1507		main	square	no
S. Maria della Consolazione	1508	1606	main	diamond	no
Sistine Chapel	1508	1512	main	square	no
Isenheim Altarpiece	1510	1515	main	square	no
Sistine Madonna	1512		main	square	no
Last Judgement	1534		main	square	no
St. Peter's Cathedral	1550	1569	main	diamond	no
Annknr Thom	1850	1900	sub1	circle	yes

Events Entry Section

These data will be located in the main band [Help?](#)

Title:

Band: Start: End:

Icon: ☐ Hide Detail ☐ Hide Event

Navigation buttons: |<< First, < Previous, Next >, Last >>|, Delete Event, Update Event, Add Event

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To add an event, complete the following steps. Fields that are required to be completed are noted.

The screenshot shows the 'Timeline Creator' application window. At the top is a menu bar with 'File', 'View', and 'Help'. Below it are two tabs: 'Events' (selected) and 'Interface Configuration'. The 'Events' tab contains a table with the following data:

Title	Start	End	Band	Icon	Hide Detail
7 Sacraments Altarpiece	1445	1450	main	square	no
Annuciation	1472		main	square	no
Portinari Altarpiece	1474	1476	main	square	no
Pieta	1497	1500	main	star	No
Eve	1507		main	square	no
S. Maria della Consolazione	1508	1606	main	diamond	no
Sistine Chapel	1508	1512	main	square	no
Isenheim Altarpiece	1510	1515	main	square	no
Sistine Madonna	1512		main	square	no
Last Judgement	1534		main	square	no
St. Peter's Cathedral	1550	1569	main	diamond	no
Annknr Thom	1850	1900	subt	circle	yes

Below the table are two tabs: 'General' (selected) and 'Detail'. The 'General' tab contains the following fields and controls:

- Title:** A text field containing 'Pieta'.
- Band:** A dropdown menu showing 'main'.
- Start:** A text field containing '1497'.
- End:** A text field containing '1500'.
- Icon:** A dropdown menu showing a star icon and the text 'star'.
- Hide Detail:** A checkbox that is currently unchecked.
- Hide Event:** A checkbox that is currently unchecked.

At the bottom of the window are several navigation buttons: '<< First', '< Previous', 'Next >', 'Last >>', 'Delete Event', 'Update Event', and 'Add Event'. A 'Help?' button is also present near the top right of the form area.

1. Click the Events tab.
2. Click the General tab. The screen above will appear.
3. Enter a title for the event that will be shown on the timeline.
4. Choose the band on which the event should be shown. **(required)**
5. Enter a start date. **(required)**
6. Enter a stop date. (not required, except for range events defined in step 7 below)
7. Choose an icon. **(required)**

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Note: All icons will be displayed at the start date defined in step 4, except for Range icons. The range icon will display a bar that is drawn from the start to the end date on the main band. Due to size constraints, Range icons cannot be displayed on subbands.

8. Click Hide Detail to enter and save the Detail information but not allow the end user to access it on the timeline. This function allows designers to selectively release content.
9. Click Hide Event to enter and save the event information but not allow the end user to view it on the timeline. This function allows designers to selectively release content.
10. To enter extra information about the event, click the Detail tab. The following screen appears. If no detail information is to be entered, go to Step 16.

The screenshot shows the 'Timeline Creator' application window. The 'Events' tab is active, displaying a table of events. The 'Detail' tab is selected, showing a form for entering event details. Blue callout boxes indicate the following steps:

- Step 10:** Points to the 'Detail' tab.
- Step 11:** Points to the 'Detail Text 1' field.
- Step 12:** Points to the 'Media Item 1' field.
- Step 14:** Points to the 'Select Main Media Item' radio buttons.
- Step 15:** Points to the 'Description' text area.
- Step 13:** Points to the 'Browse' button next to the 'Media Item 1' field.
- Step 16:** Points to the 'Add Event' button.

Title	Start	End	Band	Icon	Hide Detail
7 Sacraments Altarpiece	1445	1450	main	square	no
Annuciation	1472		main	square	no
Portinari Altarpiece	1474	1476	main	square	no
Pieta	1497	1500	main	star	No
Eve	1507		main	square	no
S. Maria della Consolazione	1508	1606	main	diamond	no
Sistine Chapel	1508	1512	main	square	no
Isenheim Altarpiece	1510	1515	main	square	no
Sistine Madonna	1512		main	square	no
Last Judgement	1534		main	square	no
St. Peter's Cathedral	1550	1569	main	diamond	no
Annknr Thnm	1550	1569	sub1	circle	yes

Detail Form Fields:

- Detail Text 1: Michelangelo
- Detail Text 2: Sculpture
- Detail Text 3: Renaissance
- Detail Text 4: St. Peter's, Vatican City
- Media Item 1: ../Examples of Timelines/art/images/pieta.jpg
- Media Item 2:
- Media Item 3:
- Media Item 4:
- Select Main Media Item: ☒ Item 1 ☐ Item 2 ☐ Item 3 ☐ Item 4
- Description: Michelangelo's masterpiece. Notice the smooth polish of the marble, the young face of Mary, and the way the Christ figure almost slides off her lap. Compare this to sculp

Navigation Buttons: |<< First, < Previous, Next >, Last >>|, Delete Event, Update Event, Add Event

11. Enter content for the Detail text 1-4 fields.

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12. Associate a media file (if applicable) to the event. In the current version of Timeline Creator, video and audio files can now be associated as well as images. These media files will appear in the media selector when the event's icon is clicked.
Note: The acceptable media type and format are as follows; Images (jpg, gif, png); Audio (mp3); Video (flv).
13. To associate a file, enter the media file path or locate the file on your computer by clicking the **Browse** button.
Note: The path is a relative path, which means it is the location and name of the media file on your computer that is relative to the location of your Timeline files. If the media files are saved in the same folder as the timeline.swf file then the path is simply the file name with the file extension.
14. Select Main Media Item, this item will be displayed at the top of the event description box.
15. Enter a description. This is a long text field at the bottom of the detail window.
16. Click the **Add Event** button at the bottom of the window. Event information will be temporarily stored in the top of the Creator window. The event information is not permanently stored until the next step, Saving the Timeline.

Saving the Timeline Storage File

To save the events and interface configurations in the storage file, complete the following steps.

1. Click the **File** menu in the top left corner of the window.
2. Click the Save option. A Save window will appear. A warning message will display if there are any errors with your timeline (e.g., stop date is earlier than start date, required fields aren't completed). You may save the timeline without correcting errors, but it is not recommended. Some errors will prevent the timeline.xml from being re-opened in the Creator Application.



3. Navigate to the folder where the timeline.swf file is located.
4. Enter the filename "timeline.xml". **NOTE: The filename must be named "timeline.xml".** The timeline.swf file is programmed to look for the file timeline.xml.

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Navigating Between Events

1. To navigate between events, click on any row in the event list in the top half of the window.
2. Navigate using the arrow keys on the keyboard or clicking the |<<First, <Previous, Next>, or Last>>| buttons at the bottom of the screen.

The screenshot shows the Timeline Creator application window. The top menu bar includes File, View, and Help. Below the menu is a tabbed interface with 'Events' and 'Interface Configuration'. The 'Events' tab displays a table of events. The 'Detail' tab is active, showing fields for event details and a description.

Title	Start	End	Band	Icon	Hide Detail
Annuciation	1472		main	square	no
Portinari Altarpiece	1474	1476	main	square	no
Pieta	1497	1500	main	star	No
Eve	1507		main	square	no
S. Maria della Consolazione	1508	1606	main	diamond	no
Sistine Chapel	1508	1512	main	square	no
Isenheim Altarpiece	1510	1515	main	square	no
Sistine Madonna	1512		main	square	no
Last Judgement	1534		main	square	no
St. Peter's Cathedral	1550	1569	main	diamond	no
Angkor Thom	850	900	sub1	circle	yes
Portinari Altarpiece	1474		sub1	square	no

These data will be located in the detail window

Detail Text 1: Michelangelo
Detail Text 2: Sculpture
Detail Text 3: Renaissance
Detail Text 4: St. Peter's, Vatican City

Media Item 1: ../Examples of Timelines/art/images/pieta.jpg
Media Item 2:
Media Item 3:
Media Item 4:

Select Main Media Item: ☒ Item 1 ☐ Item 2 ☐ Item 3 ☐ Item 4

Description: Mary, and the way the Christ figure almost slides off her lap. Compare this to sculpture to the strong features of Michelangelo's Mose's sculpture.

|<< First < Previous Next > Last >>|

Delete Event Update Event Add Event

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Deleting Events

To delete an event navigate to the event as described above in the [Navigating Between Events](#) section, then click the **Delete Event** button at the bottom of the screen.



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Editing Events

Two methods are available for updating content for individual events.

I. Enter information directly in the bottom half of the Creator window.

1. Navigate to the event to be changed as described above in the [Navigating Between Events](#) section.
2. Double click on the event field to be changed in the top half of the screen.
NOTE: The event content will automatically populate the General and Detail tabs in the bottom of the window.
3. Change the information on the General and Detail tabs.
4. Click the **Update Event** button

The screenshot shows the 'Timeline Creator' application window. At the top is a menu bar with 'File', 'View', and 'Help'. Below it are two tabs: 'Events' (selected) and 'Interface Configuration'. The 'Events' tab contains a table with the following data:

Title	Start	End	Band	Icon	Hide Detail
Annuciation	1472		main	square	no
Portinari Altarpiece	1474	1476	main	square	no
Pieta	1497	1500	main	star	No
Eve	1507		main	square	no
S. Maria della Consolazione	1508	1606	main	diamond	no
Sistine Chapel	1508	1512	main	square	no
Isenheim Altarpiece	1510	1515	main	square	no
Sistine Madonna	1512		main	square	no
Last Judgement	1534		main	square	no
St. Peter's Cathedral	1550	1569	main	diamond	no
Angkor Thom	850	900	sub1	circle	yes
Unknown Battle	1100		sub1	circle	yes

Below the table are two tabs: 'General' (selected) and 'Detail'. The 'General' tab contains the following fields:

These data will be located in the main band Help?

Title:

Band: Start: End:

Icon: ☐ Hide Detail ☐ Hide Event

At the bottom of the window are several buttons: '<< First', '< Previous', 'Next >', 'Last >>', 'Delete Event', 'Update Event', and 'Add Event'.

Steps 1 & 2

Step 3

Step 4

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II. Enter information directly in the top half of the Creator window.

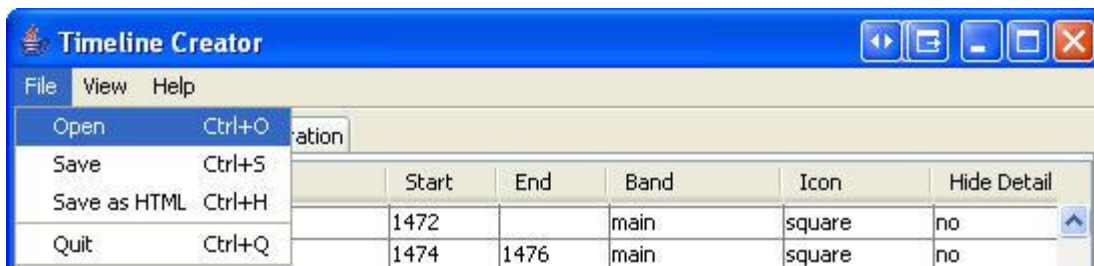
1. Navigate to the event to be changed as described above in the [Navigating Between Events](#) section.
2. Click on the field you want to edit. Type in the new information.
3. Press the Enter key.

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Opening previously saved timelines

To edit information or add new events to a previously saved timeline, complete the following steps.

1. Click the **File** menu in the top left corner of the window.
2. Click the Open option. An Open window will appear.
3. Navigate to the folder with the storage file (timeline.xml).
4. Select the timeline.xml file.
5. Click the **Open** button.

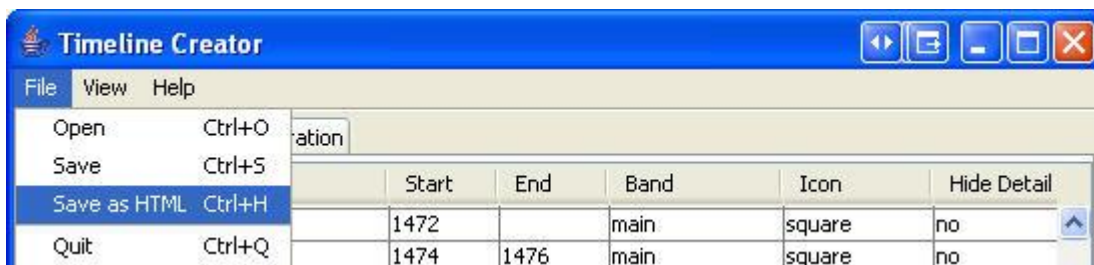


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Saving the Timeline as HTML

The timeline can be saved as a static HTML page for printing purposes or to allow the timeline to be read by accessibility devices. To save a timeline as a static HTML page, complete the following steps.

1. Click the **File** menu in the top left corner of the window.
2. Click the **Save as HTML** option. A Save window will appear.
3. Navigate to the folder where the file will be saved.
4. Enter a filename.
NOTE: Use the extension *.html or htm.
5. Click the **Save** button.



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Publishing Content to a Web server

The files that need to be uploaded to the Web server are the timeline.xml, timeline.swf, timeline.html, and any media files defined in the Detail tabs for each event. Use an FTP client (e.g., CuteFTP, WS-FTP) to publish content to a Web Server. Consult the documentation for the FTP client on how to use the FTP software.

Contact info

This tool was developed at Johns Hopkins University's Center for Educational Resources. The project web site, <http://timeline.cer.jhu.edu>, contains background about the project, software updates, and troubleshooting tips. The product team is continually looking for feedback to improve the tool. Submit your comments or questions on the project web site or email them to timeline@jhu.edu.

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Known Issues

- 1) Event Descriptions not saved when "Save as HTML" is used - When viewing the "timeline-preview.html" file, after "Saving as HTML", all of the descriptions for the events aren't available.
- 2) Some xml files created with the previous version of the Creator Application don't load in the Flash Timeline Template. In this case, open up the xml file in the new Creator Application and save it. Opening the newly saved file in the new Flash Timeline Template should work correctly.
- 3) Images not appearing in Detail Window - Users must use Flash Player 7.0 or later to view images on an Event's detail popup window. The latest viewer is available at <http://www.adobe.com/products/flashplayer/>.
- 4) The Creator App will start, but will not save the timeline.xml file if JAVA 1.4.2 or later is not installed. The latest version of the JAVA JRE (SDK is not needed) can be downloaded at <http://www.java.com/getjava/>.
- 5) Foreign Characters - Non-standard English characters will appear in the Creator Application and will be stored correctly in the XML file. However, the special characters will cause the Flash Timeline Template to not display.