Vignette Studio II Manual

Authors:
Ayush Arora
Robert Teese

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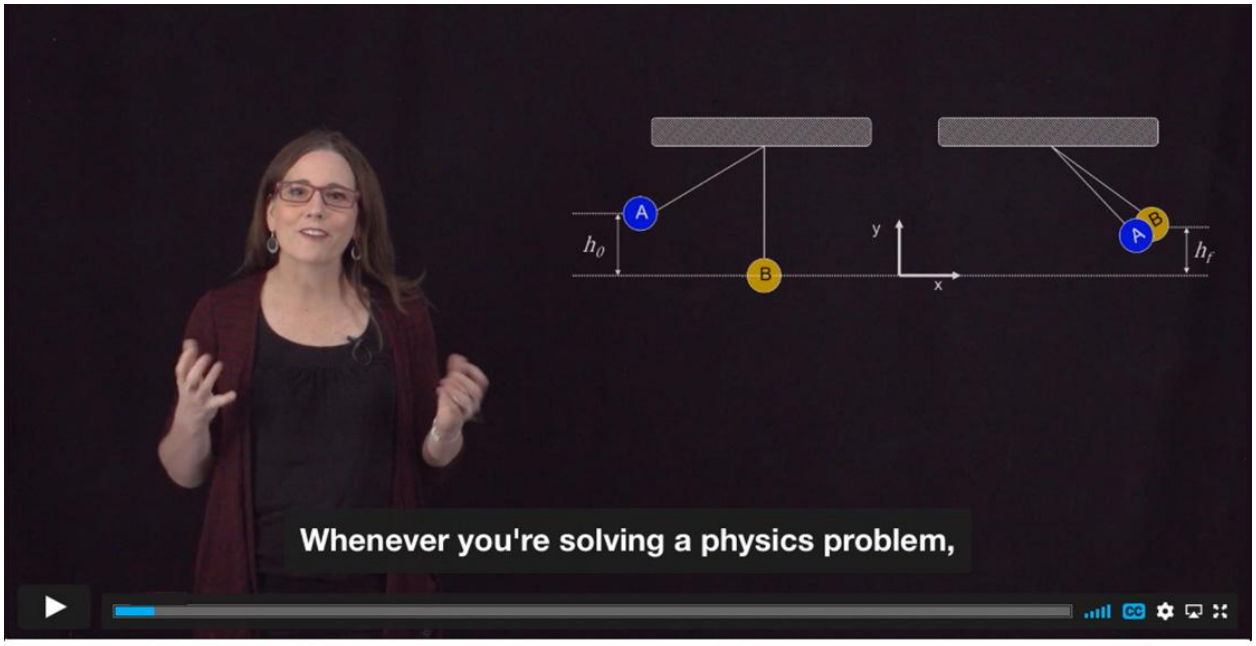

Q1: Choose *all* of the following physics principles we should use to solve this problem:

- ☐ A. Conservation of Total Mechanical Energy
- ☐ B. Conservation of Momentum
- ☐ C. Newton's 2nd Law

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INTRODUCTION

Vignette Studio II is an application for creating online activities that are web-based, interactive, and include videos of real people. Students using the activities watch videos, read text and answer questions. Depending on the student's choice to a multiple-choice or multiple-select question, the activity will either proceed to another page or return to the question so the student can try again. This question-based branching can be as simple or as complex as you wish. The activities are intended to be used as tutorials or lectures, not homework, so the individual questions are not graded. Instead, students should receive a small amount of course credit for finishing an activity.

The original Vignette Studio was created for making Interactive Video Vignettes. The name "vignettes" has persisted, so any activity made with Vignette Studio or Vignette Studio II is often called a vignette, regardless of whether it is an Interactive Online Lecture, an Interactive Video-Enhanced Tutorial, or an online activity of your own design. In this manual, any activity made with Vignette Studio II will be called a vignette.

Vignettes may be exported as SCORM files that can be uploaded to most Learning Management Systems (LMS), such as Blackboard, Canvas or Moodle. A SCORM vignette can interact with the gradebook in the LMS to automatically assign completion credit. When a student finishes the vignette, a grade item in the LMS will be assigned a score of 100%. You can define the grade item name and amount of credit when you upload the vignette to the LMS.

Vignette Studio II is designed for a wide range of users. People with only a limited knowledge of the HTML markup language will be able to create vignettes using preformatted template pages. On the other hand, people familiar with HTML, CSS, Bootstrap 5 and JavaScript will be able to extensively format their vignettes and add new features.

Installation

To use Vignette Studio II you need a desktop or laptop computer with Java installed. Go to https://java.com for a free download. Double-click the Vignette Studio icon to launch it. On a Macintosh, you may need to right-click and choose *Open with Jar Launcher* the first time you launch it. If this does not work, see the tips on page 18.

Page Sections

A vignette made with Vignette Studio II consists of a series of pages. The user navigates from one page to another by clicking either the *Continue to Next Page* button or the *Back to Previous Page* button.

There are four distinct sections in each page. The header and footer are the same on every page. The buttons are also the same, except that some of the buttons may be deactivated and hidden on some pages. The page content is what distinguishes one page from another. You can make the content on a page as long as you wish, but try to keep it short to reduce cognitive load.

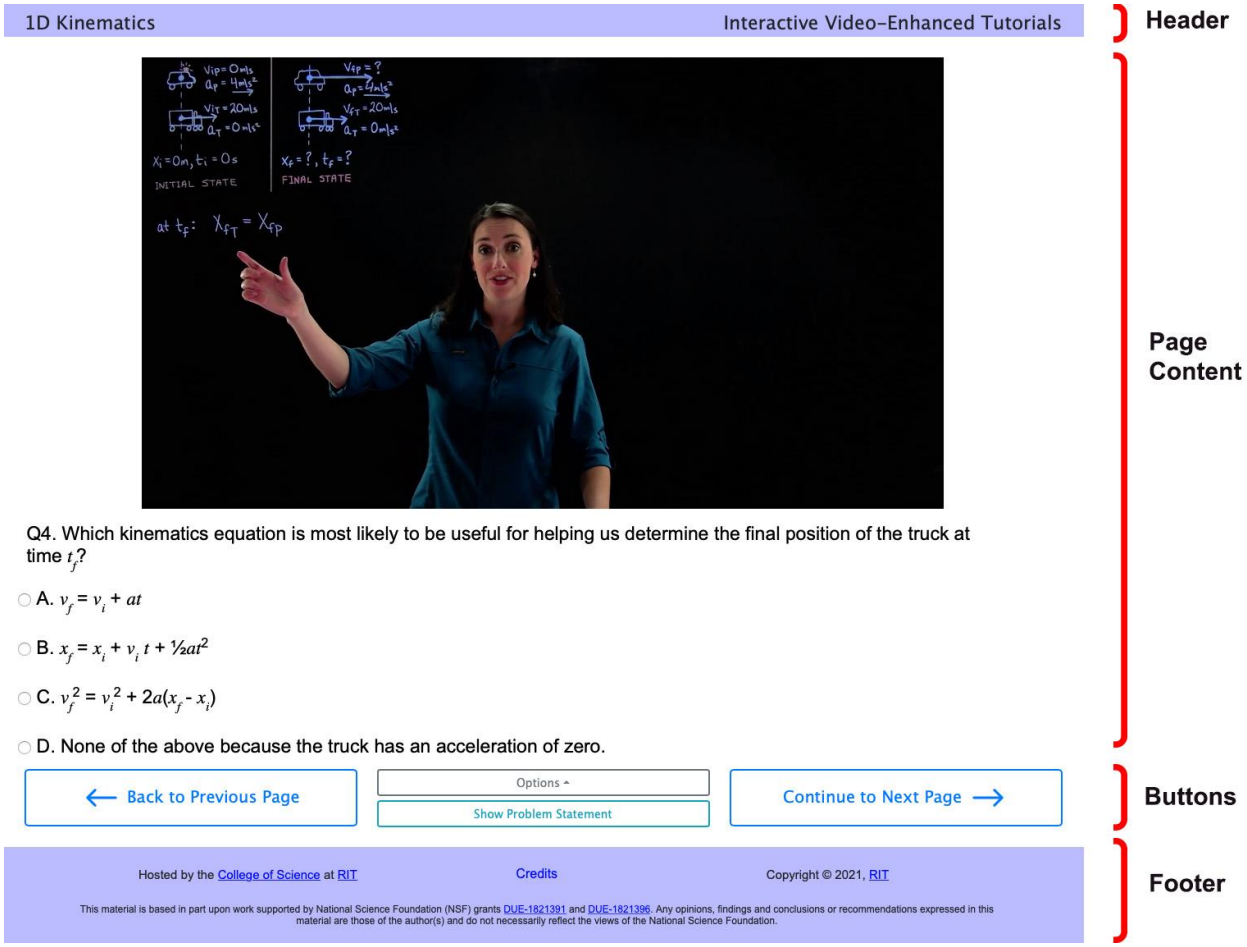

Figure 1. A vignette page

Using Vignette Studio II to Author Vignettes

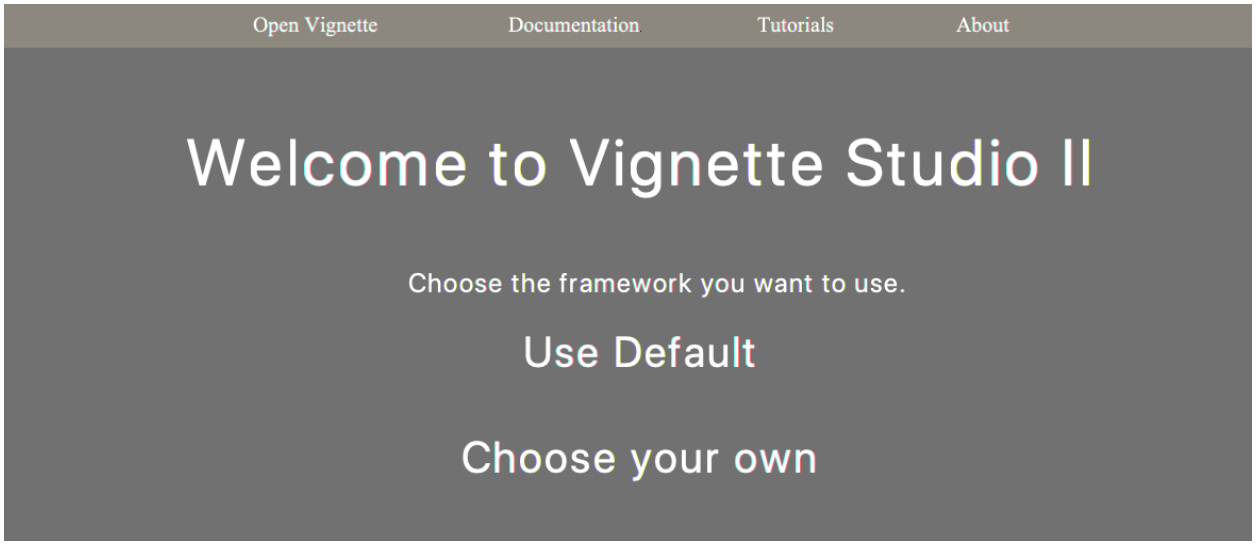

Figure 2. Startup Screen

Vignette Studio II makes it easy for you to author a vignette by giving you a pallet of pre-made templates for the pages. A collection of page templates is called a framework. The default framework is designed for authoring Interactive Video-Enhanced Tutorials. If you use the default framework in your project, you can customize the look and feel of each page as well as the content to suit your needs. It is also possible to use a custom framework for your project. The startup screen has buttons so you can either use the default framework or choose an external one.

The Open Vignette button lets you open a previously-saved vignette for editing.

The Documentation button opens this user manual.

In a future version of the application, the Tutorials button will open a tutorial on how to use Vignette Studio II.

The About button opens a page with details about the development of Vignette Studio II. It also shows the version numbers for Vignette Studio II and for the Java installation.

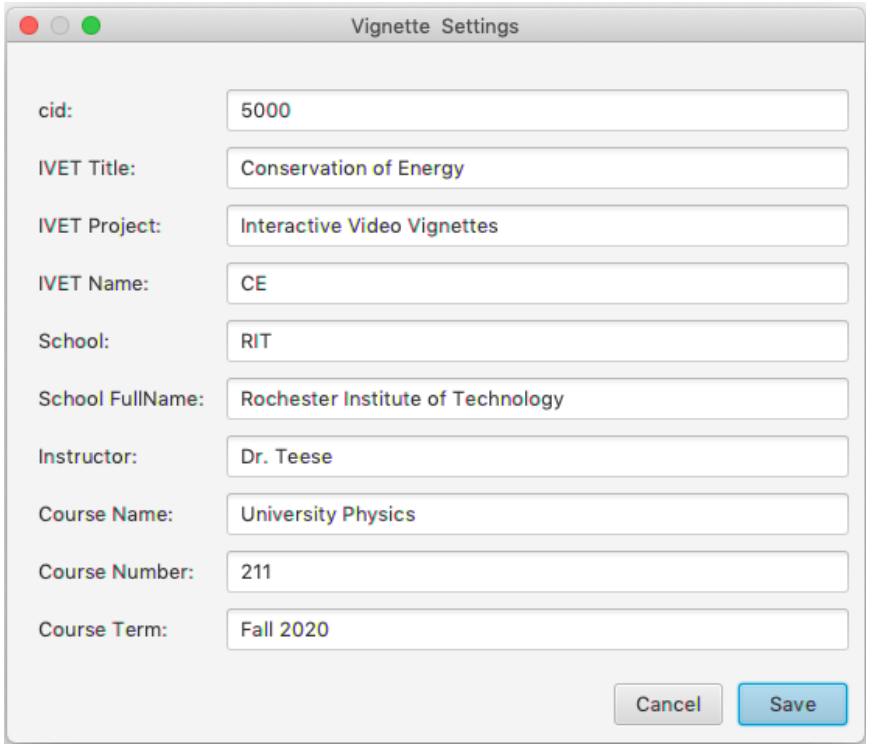

Figure 3. Vignette Settings

The settings window lets you set variables that will be used in your vignette. The **cid** is a number that you can define to identify the course of instruction in which the vignette will be used. It is optional, and will not be displayed in the vignette.
The **IVET Title** is the title of your vignette. It will show up on the header of every page.
The **IVET Project** is the name of the project to which your vignette belongs. If it is not part of a project, use some other name or phrase that identifies its group or genre. Do not leave it blank, because it will appear in the header of every page.
The **IVET Name** will be the filename of the resulting vignette. A good choice might be the initials of the title.
School should be an abbreviation of the full name of the school where the vignette will be used. **School FullName** may be shown on the login page. The remaining variables may also be shown on the login page.

Clicking the Save button will take you to the main screen of Vignette Studio II, shown on the next page.

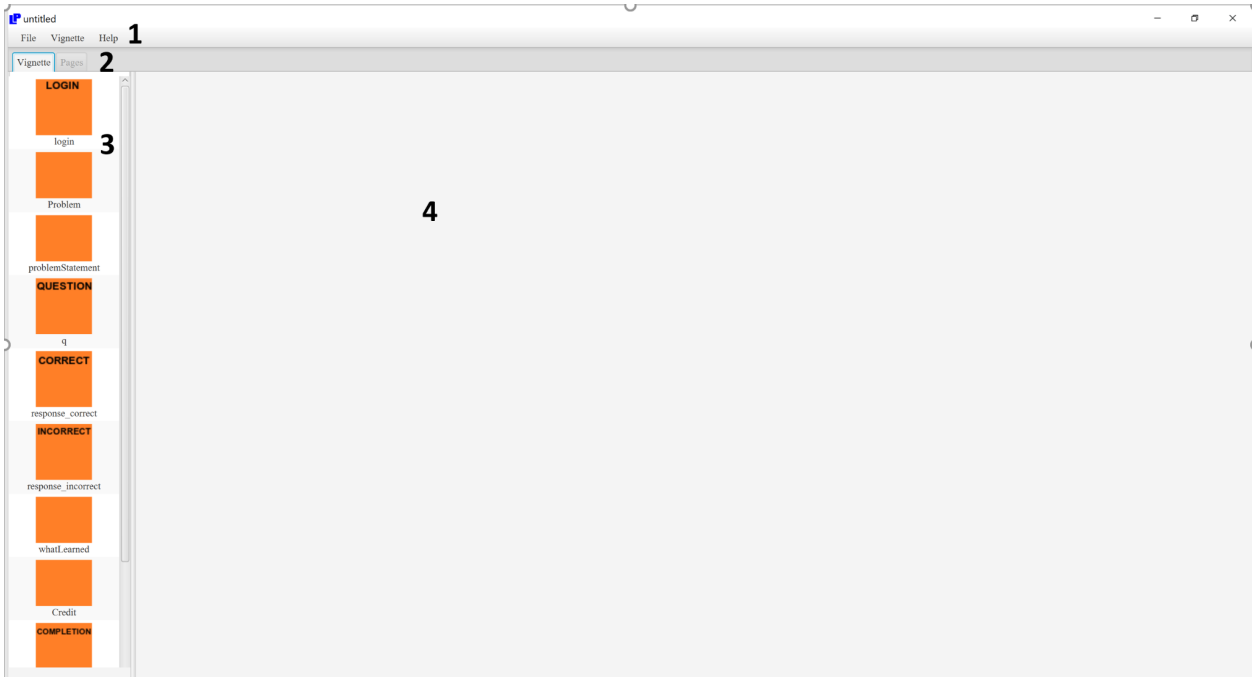

FIGURE 4. Main Screen

(1) Along the top is the menu bar which has the File Menu, Vignette Menu and the Help Menu.
(2) Below that is the Tab Bar which can be used to switch between the workspace and the editor for a page.
(3) The left edge is the pane tab that shows icons for all the page templates in the selected framework. The icons can be dragged onto the workspace to create pages.
(4) The workspace is where you will arrange the icons for the pages in your vignette.

Creating a vignette

Step 1: Drag the Login page icon from the left pane onto the workspace. **The first page of a vignette must always be named "login"**.

Step 2: Drag template icons for the other pages onto the workspace. Give each page a unique name. The name could be numerical, like "q2" for the second question page, or semantic, like "q-WhatAreTheUnits". Page names must not contain spaces. You may create all the pages before editing them, or you may edit each page as you create it.

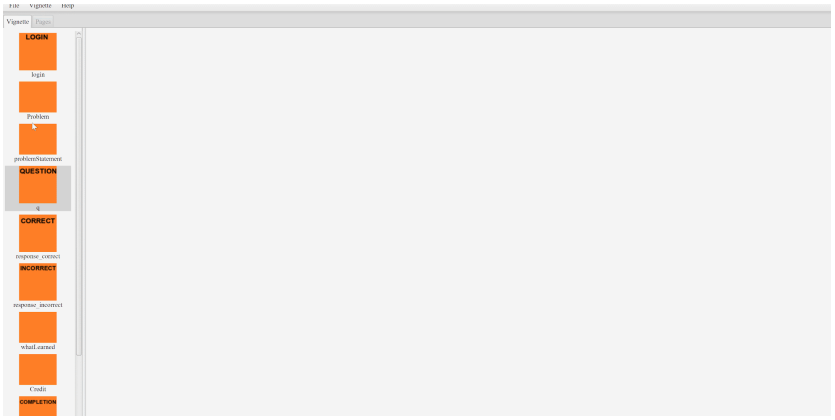

FIGURE 5. Creating a Page

Step 3: To edit a page, double click on its icon. This will open the page editor tab for that page.

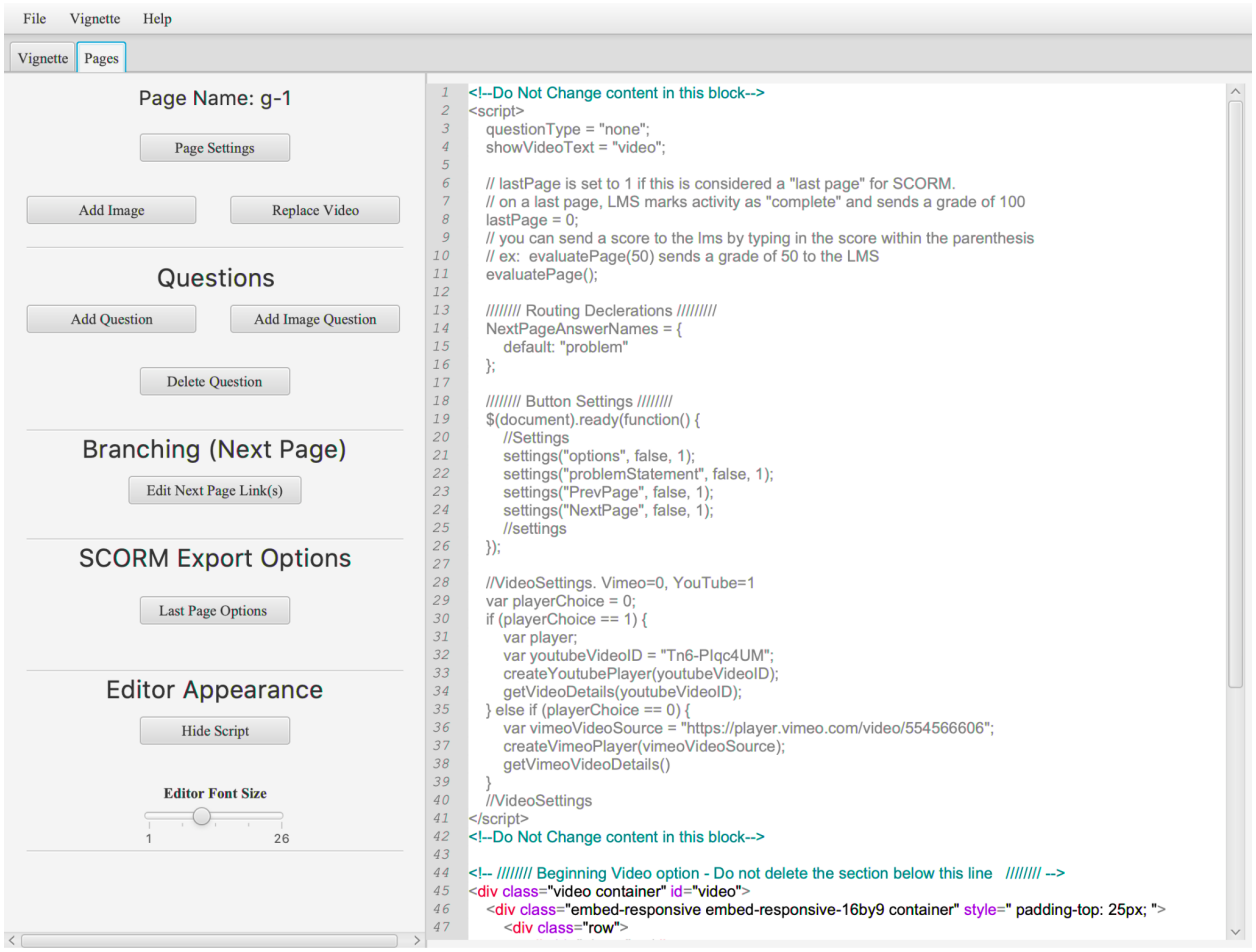

FIGURE 6. Page Editor Tab

The buttons on the left menu column perform various functions like adding a video, a question, or an image. The right side of the screen is the HTML text editor that you can use to customize the page.

To use Vignette Studio II effectively, you need at least a beginner's understanding of the HTML markup language. There are many free and paid tutorials available on the internet. One popular learn-by-doing tutorial is:

https://www.w3schools.com/html/

If you want to change the appearance of your vignette, you should have a basic understanding of CSS styles. Again, there are many tutorials available, such as:

https://www.w3schools.com/css/

Text Editor Area

The text editor shows the content of the HTML file for the content section of a page. The section at the top between the <script> and </script> tags contains the Javascript necessary for the smooth the functioning of the vignette. It is highly recommended that you not change this content as this portion of the code is responsible for functionality of vignettes like routing, loading and playing video, and other page-specific functions. The font color of this section is gray to remind you of this recommendation. Nevertheless, if you are proficient with Javascript you may add code to this section.

The styling (fonts, colors, layout, etc.) in Vignette Studio II's default framework is done using a combination of inline styles, CSS and Bootstrap 5. If you are new to HTML, the easiest way for you to modify the styles is to use inline styles. For example, if you want to create a paragraph containing only the text "Hello!" in large, red letters on a gold background, you would write:

```
<p style="font-size:large; color:red; background-color: gold;">
Hello!
</p>
```

Inline styles will override styles that are set in the custom.css file. If you know how, you can also edit custom.css using the top menu item Vignette/Style Editor.

Text Editor Buttons

The buttons on the left pane provide the following functionality.

1. **Page Settings** - This option lets you enable or disable the buttons on the bottom of the vignette page. By default, disabled buttons have an opacity of 0% (invisible) and enabled buttons have an opacity of 100%. You can customize the opacity of any enabled button. The settings are displayed on the popup itself so you can see how they will look in the vignette. Remember to disable the *Next Page* button on the last page of the vignette.

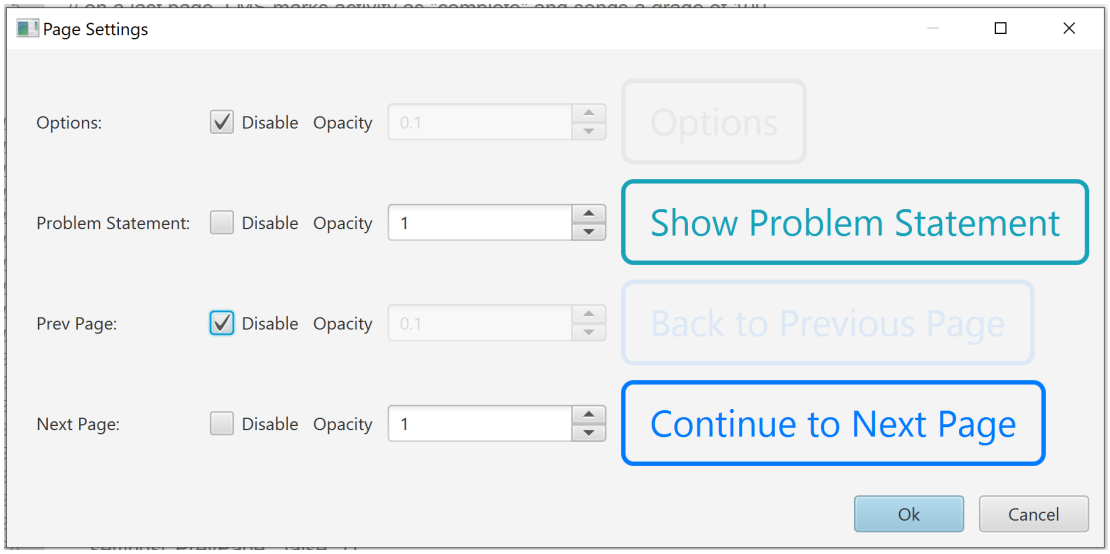

FIGURE 7. Page Settings

2. **Add Image** - This option can be used to upload an image to the page.

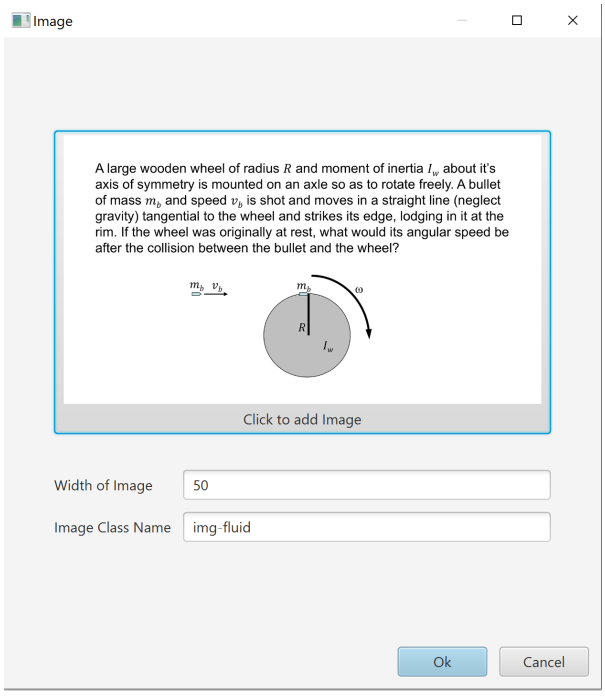

FIGURE 8. Add Image Dialog

Click on the “Click to add image” area in the dialog box to browse for the image you want to upload. Once uploaded, a preview of the image is shown on the screen. The default width is 50% of the available window width. You may want to change this to 90% or 95% to make the image nearly fill the screen. A smaller percentage may be appropriate for narrow or small images. The image height will be adjusted automatically. You may also change the units from % to pixels or

other units. The default image class name (img-fluid) is a Bootstrap 5 class that makes the image adjust itself to different size browser windows. After you click OK, you will be returned to the HTML editor window. Click on the place in the HTML where you want to insert the image tag.

3. **Replace Video** - If there is already a video on the page, this button allows you to replace it with a different one. If there is no video on the page, this button lets you place one at the bottom of the page. Once the HTML code for the video is at the bottom of the page, you can cut and paste it into another section of the page if you wish.
   The videos to be used in a vignette should first be uploaded to either Vimeo.com or YouTube.com. When you click the Replace Video button, you will be asked for the video link.

FIGURE 9. Replace Video Dialog

   Use the dropdown menu to select either Vimeo or YouTube. Typical links will look like these examples:
   https://vimeo.com/264759461
   https://www.youtube.com/watch?v=oETTunUVJio
   You can either enter the entire link, or just the last part (highlighted in yellow in the examples above).
   Vignette Studio is designed to place only one video on each page because multiple videos on a page are distracting and increase cognitive load. If you want to add an additional video you will need to use the embed code that you get from Vimeo or YouTube.

4. **Add Question** - Vignette Studio II supports two classes of questions: Branching

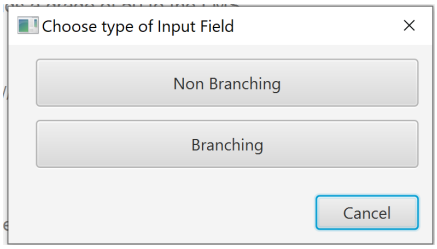

FIGURE 10. Branching or Non-Branching

and Non-Branching. With a branching question, the student's answer to the question determines what the next page will be. Only one branching question is allowed on a page. Non-branching questions do not affect the next page. Questions are by default required. That is, if the questions are not answered, the student will not be able to click the *Next Page* button. It is possible to change this behavior with the *isRequired* check box in the *Add Question* dialog box.

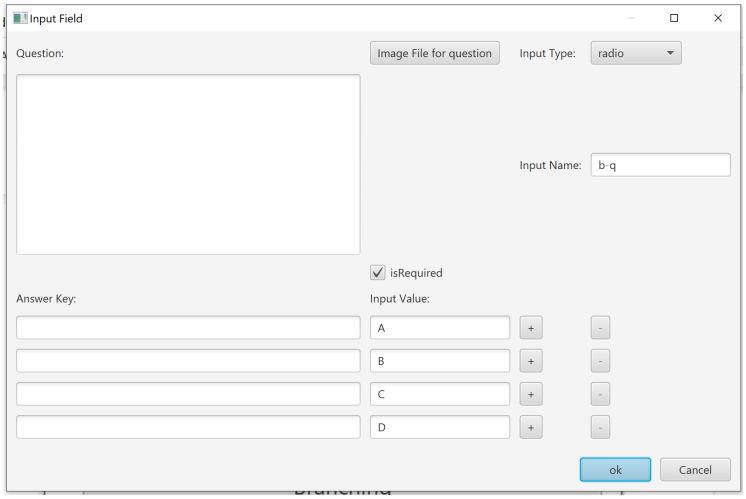

FIGURE 11. Add Question Dialog Box

Branching questions can be either radio button (multiple-choice) or checkbox (multiple-select). To specify the next page for each answer choice, use the *Edit Next Page Link(s)* button on the left-hand pane. Non-branching questions can be textarea, radio or checkbox questions.

5. **Add Image Question** - This is almost identical to the *Add Question* button, except the answer choices are images rather than text.
6. **Delete Question** - This lets you delete one or more questions on the page. The Question Name is in the *name="..."* attribute of the question's <input> tag in the HTML.
7. **Edit Next Page Link(s)** - This lets you set what will happen when the student clicks the *Next Page* button in the vignette. If there is no branching question on the page, you will select the next page using a dropdown menu. If there is a radio button branching question, you will select the next page for each answer choice. For a checkbox branching question, you need to think about all possible combinations of answer choices. For four choices there are 15 possible combinations, for five choices there are 31 possible combinations, and so on. You usually don't need to specify all of them, because Vignette Studio II gives you a default Next Page for any answer combination that you have not already

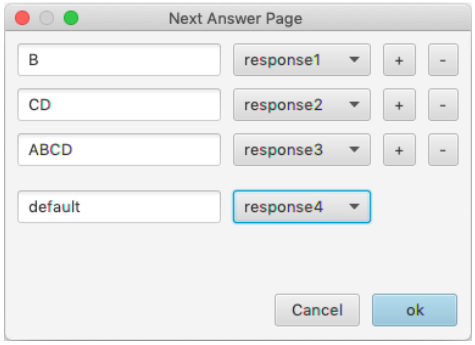

FIGURE 12. Edit Next Page Link(s) for Checkbox

listed. For example, in Figure 12, choosing only B will lead to the page named response1, choosing both C and D will lead to response2, choosing A, B, C, and D will lead to response3, and any other combination of choices will lead to the default page, response4. Use the + and - buttons to add or remove combinations.

8. **Last Page Options** - If you are going to export the vignette as a SCORM package, you need to specify which page(s) constitute completion of the vignette. The actual last page of a vignette should not be specified because completion is reported to the LMS when the student leaves the specified page using the *Next Page* button. If several pages lead to the last page, then all of them should be specified.
9. **Hide Script** - The content between the <script> and </script> tags in the beginning part of the HTML is JavaScript code that controls how the page functions. You should not modify it unless you have a good knowledge of JavaScript. The *Hide Script* button lets you hide the JavaScript so you can concentrate on the HTML.

MENU BAR OPTIONS

File Menu

New Vignette - This option is used to create a new vignette. It does not save the current vignette.

Open - Any existing vignette can be opened in Vignette Studio using the *Open* command in the File Menu. Navigate to the folder containing the vignette files and select the file that has a .vgn extension.

Open in Explorer - This opens the folder continuing the current vignette you are working on. (Microsoft Windows only)

SCORM Export - This saves the vignette in the form of a single ZIP file that can be uploaded to most Learning Management Systems (LMS) such as Blackboard, Canvas or Moodle. The export contains code that links the vignette to the LMS. The vignette can export a completion score to the LMS gradebook, and the vignette can obtain and display the student's login name from the LMS.

Add Extras - This lets you put a file or directory into a directory named "extras" in the vignette. You may use this option for adding a JavaScript file, a library, a video, or any other content you wish. To incorporate the extra content in your vignette, you will need to write your own HTML or JavaScript code.

Save - This saves the current vignette.

Save As - This saves the current vignette to a different location and/or with a different name.

Preferences - This does not do anything. It will be removed in the next version of Vignette Studio II.

Exit - This option will close Vignette Studio II. It will not save the current vignette.

Vignette Menu

Rename Vignette - This option is used to rename the vignette that you are currently working on.

Settings - This lets you edit the course title, instructor's name, etc. for the current vignette. See Figure 3.

Style Editor - This opens an editor window that lets you edit the styles in the vignette's custom.css file.

Preview Vignette - This opens the default web browser on your computer and displays the current vignette in it. Use this option frequently to monitor your progress while you create a vignette.

Stop Preview - This option lets you stop the preview function.

Help

Tutorial - This will open a tutorial on how to use Vignette Studio II.

About - This displays details about the development of Vignette Studio II. It also shows the version numbers for Vignette Studio II and for the Java installation.

Documentation - This displays the manual you are reading right now.

PAGE TEMPLATES IN THE DEFAULT FRAMEWORK

The default framework was designed for making Interactive Video-Enhanced Tutorials (IVETs). An IVET starts with a login page followed by an introduction video, a statement of the problem to be solved, and a page asking the student to enter a plan for solving it. Then the student must answer a series of branching questions to step through the problem solution. Finally there is a page asking the student to enter a summary of what they learned, and then a completion certificate page. The framework includes templates for many of these different page types. In any of the pages, you may modify the HTML to suit your own purposes.

Most of the pages give the student the option of watching a video or reading text with content similar to the video. The idea behind this is that students who need more help should watch the video, while confident students can proceed faster by reading the text version. Also, on most pages there is a button that displays the text version of the problem statement, so students can get a quick reminder of it at any time. Near the middle of the IVET and near the end, there is a video page that summarizes what has been done up to then.

COMPLETION - There is a lot happening on this page! The script section contains code that (1) gets the student's login name and displays it, (2) gets and displays the date and duration of the student's activity, (3) creates a screenshot of the page and (4) sends the page to a printer. The HTML includes a line with id="IVET_title" that displays the title of the vignette from Page Settings.
CUSTOM - This page contains no HTML at all. To use it you will need to write your own HTML.
GENERAL - This page contains the video/text option but nothing else. The student can use the *Options* button to switch back and forth between text and video guidance.
GENERAL_INPUT - This is like the General page but it contains a question. Use the *Add Question* button to edit the question.
LOGIN - This page has a textfield question asking for the student's login ID. It is not saved or authenticated, but is displayed on the completion page. If the vignette is a SCORM page uploaded to an LMS, then the login name from the LMS will be automatically entered. The page also displays information about the instructor and course from the Settings (see Figure 3).
The first page of a vignette must be named login. Feel free to modify any or all of the HTML content in the login page. The script for the login template includes a SCORM

Initialize section. That section must appear in the login page or else the vignette will not integrate properly with the LMS.

PROBLEM - This page is the same as the General page except it displays the text "This is the problem we are solving" above the video/text section.

PROBLEMSTATEMENT - This is actually not a page. It should not be linked to any other page. It should contain the text version of the problem statement that is shown on the Problem page. This content will be displayed whenever the student clicks the *Show Problem Statement* button.

QUESTION - This page is the same as the General page except it has a question below the video/text section. Use the *Add Question* button to edit the question.

RESPONSE - This page is the same as the General page. Use it for a response page to one of the answer choices in a branching question.

RESPONSE_CORRECT - This page is the same as the Response page except it displays "Correct. Click the Next Page button to continue" above the video/text section.

RESPONSE_INCORRECT - This page is the same as the Response page except it displays "Incorrect. Click the Next Page or Previous Page button to go back and try again" above the video/text section. This page should be linked back to the question page.

TEXT_ONLY - This page always displays text, regardless of how the video/text option has been set.

VIDEO_ONLY - This page always displays a video, regardless of how the video/text option has been set.

WHATLEARNED - This page asks the student to enter a summary of what they learned in the vignette. It is normally the last page before the completion page, so it should be specified as a SCORM lastPage.

Z-NSFDISCLAMER - This is actually not a page. It should not be linked to any other page. Use it to modify the NSF disclaimer that is in the footer of every page.

Z-COPYRIGHT - This is actually not a page. It should not be linked to any other page. Use it to modify the copyright notice that is in the footer of every page.

Z-CREDITS - This is actually not a page. It should not be linked to any other page. Use it to modify the credits page displayed by the credits link that is in the footer of every page.

Z-HOSTED - This is actually not a page. It should not be linked to any other page. Use it to modify the "Hosted by" notice that is in the footer of every page.

TIPS AND TRICKS

FONTS - You can set the font for a , or using inline styles. For example, the text in this paragraph

<p style=”font-family: Arial, Helvetica, sans-serif;”> …

will be set in Arial if it is available to the browser, or Helvetica if Arial is not available, or in any other sans-serif font if neither is available.
You can also specify fonts and other attributes using CSS. Vignette Studio II has a font specification defined in custom.css for all normal text. The following paragraph would have that specification:

 …

Notice that CSS styles are called with “class” rather than “style”.

MATHEMATICS - Most mathematics text will use an italic serif font. Vignette Studio II has a CSS style named mathTxt for that. Subscripts are indicated by _{...} and superscripts by ^{...}. Greek letters and special characters are “HTML entities” that begin with “&” and end with “;”. Example:

```
<span class="mathTxt">G<sup>&mu;</sup><sub>&nu;</sub></span> = 0.
```

will be rendered as

$$G^{\mu}_{\nu} = 0.$$

Vignette Studio II also has CSS styles for building fractions. Example:

```
<span class="fraction">
<span class="fup"><span class="mathTxt">L</span> cos30&deg;</span>
<span class="bar">/</span>
<span class="fdn " >2</span>
</span>
```

will be rendered as

$$\frac{L\ \cos 30^\circ}{2}$$

Notice which things are italic and which are not. This is standard usage.
Complicated equations can be difficult to create in HTML. A good way to handle them is to use a word processor with an equation editor, then make a screenshot of the result, and insert the screenshot into the HTML as an image.

PAGE LAYOUT - Arranging items on a page in HTML can be tricky. To simplify the layout, Vignette Studio uses the Bootstrap 5 library as well as custom CSS classes. The

default page templates already contain <p> and tags with appropriate classes for basic layouts. If you want to find or modify custom CSS classes, use the main menu item Vignette → Style Editor. There are many websites containing Bootstrap 5 documentation and tutorials, such as

https://www.w3schools.com/bootstrap5/bootstrap_get_started.php

VERTICAL SPACING AND CENTERING - Vignette Studio II uses custom CSS classes (tall20, tall21, … tall30) to create areas with defined height. For example,

 …

will create an area 24 lines high with the content centered vertically.

JQUERY - Vignette Studio II uses the JQuery library for searching and selecting HTML elements. A JavaScript line that starts with a dollar sign ($) is probably a JQuery command. There are many JQuery tutorials online, but you don't need to know anything about JQuery unless you intend to modify the JavaScript.

SCORM EXPORTS - If you want to upload your vignette to an LMS such as Blackboard, Canvas or Moodle, first create the vignette and preview it to make sure it works the way you want it to. Then choose SCORM Export from the File pull-down on the main menu. The dialog box that pops up shows the path to the export. It will be in the same directory as the saved vignette. The export will be a single .zip file created in SCORM version 1.2, which is accepted by most LMSs. Every LMS has its own way of uploading SCORM files. You will need to consult your LMS's documentation or your campus IT experts to find out how to do it. In the process of uploading it to your LMS, you should be able to connect it to a grade item in the LMS's gradebook.

YOUR WEBSITE - When you save a vignette, it creates a *web application*. This is a directory containing other directories and files that work together to create the vignette functionality. Before your students can use it, you need to upload the entire directory to a website. However, many websites that colleges and universities provide for their faculty do not allow them to upload web applications. They only allow individual files, such as images, videos or PDFs. To find out if your website is suitable for hosting a vignette you may need to talk to your IT or network staff.
As described above, if you use an LMS you can upload a vignette to it as a SCORM package.

BLOCKED YOUTUBE/VIMEO - If your students are using computers at a public high school or middle school, it is possible that access to Vimeo or YouTube will be blocked by the school's equipment. In that case you should put the video files in mp4 format into the "extras" folder in the vignette (see *Add Extras* in the menu bar). Example: Suppose

you put an HD video with the filename myVideo.mp4 in the extras folder. Put this code for the video into the HTML editor:

```
<div class="embed-responsive embed-responsive-16by9" style=" padding-top: 10px; margin: auto; width: 90%; ">
	<video class="embed-responsive-item" width="925" controls autoplay>
		<source src="extras/myVideo.mp4" type="video/mp4">
	</video>
</div>
```

LAUNCHING VIGNETTE STUDIO II - To open the application double-click on the "vignette-studio-ii-x.jar" file, where x is the version number.
If it does not open, most likely either Java is not installed, or it is being blocked by security measures. To install or update Java, go to https://java.com and follow the download instructions.
On a Macintosh, Vignette Studio II may be blocked the first time you try to open it. Instead, open it with Jar Launcher. If Jar Launcher is not in your Mac's Applications folder, try looking in /System/Library/CoreServices/ for it. If you cannot find Jar Launcher, go to the website https://support.apple.com/en-us/HT202491 and scroll down to the section on how to open an app that hasn't been notarized.