VA TMS Mobile Courseware Template

# Documentation: Technical Information

v.1.0.0.3

Documentation

## Technical Information

This mobile course template uses the **jQuery Mobile 1.3.1** library providing a cross platform system to display content across the most popular mobile device platforms. **jQuery Mobile** is highly structured and is somewhat limited in the way it can load external content such as external javascript or css files. The information included here provides a brief overview of each of the available variables and their functions within the pre-programmed template. For additional help programming with **jQuery Mobile 1.3.1**, please visit their website. <http://view.jquerymobile.com/1.3.1/demos/>

## JS

### config.js

The configuration file allows the developer to set up variables for various course functions, language variables, and modes within the template.

| **Name** | **Location** |
| --- | --- |
| var titleCourse | includes/config.js |
| **Description** | |
| This variable defines the title of the course and is used in several messages and elements throughout the course. | |

| **Name** | **Location** |
| --- | --- |
| var viewMode | includes/config.js |
| **Description** | |
| When set to "test" the course will be in test mode, which will allow the answers to the exam to be visible during testing. When set to "production" the course will behave as if it were live. | |
| **Values** | **Results** |
| test | Will display answers to the exam questions before submission. |
| production | The answers to the questions will be hidden |

| **Name** | **Location** |
| --- | --- |
| var pageMismatch | includes/config.js |
| **Description** | |
| Allows the developer to set how bookmarking will work if the mobile course is paired with a desktop course. In some cases, depending on the content, it may not be feasible to program the mobile course to match exactly to the desktop version. When set to "true" the course will bookmark and return only to the first page of the lesson. When set to "false", the template will bookmark and return the last page visited. | |
| **Values** | **Results** |
| false | The course will bookmark and return the last visited page, with the exception of the resources or help page. |
| true | The course will bookmark and return to the first page in the lesson. If the learner opens a previously visited desktop course on their mobile device, the course will also update to the first page in the lesson. |

| **Name** | **Location** |
| --- | --- |
| var lesson | includes/config.js |
| **Description** | |
| The lesson array defines several key values for the course and determines how the course will be assembled. The first value defines the number of pages in the lesson, the second if any assessments are to be presented in this section, the third the location of the assessment (if any), and the fourth the title of the lesson. At the moment, the mobile template is only configured for an end of course assessment or final exam. To configure the course for a single end of course assessment, enter "none" for all lessons and "eoc" for the last lesson in the array. | |
| **Examples** | |
| **End of Course Assessment Configuration**  var lesson = new Array();  lesson[0] = new Array(3,"none","#","Welcome and Course Overview");  lesson[1] = new Array(7,"none","#","Lesson One");  lesson[2] = new Array(7,"none","#","Lesson Two");  lesson[3] = new Array(3,"eoc","03\_002.htm","End of Course");  **No Assessment Configuration**  var lesson = new Array();  lesson[0] = new Array(3,"none","#","Welcome and Course Overview");  lesson[1] = new Array(7,"none","#","Lesson One");  lesson[2] = new Array(7,"none","#","Lesson Two");  lesson[3] = new Array(3,"none","#","End of Course"); | |

| **Name** | **Location** |
| --- | --- |
| var footerText | includes/config.js |
| **Description** | |
| This variable defines what text will appear in the footer of every page. | |

| **Name** | **Location** |
| --- | --- |
| var msgEOC | includes/config.js |
| **Description** | |
| This variable defines the message that appears on the final page of the course. | |

| **Name** | **Location** |
| --- | --- |
| var disclaimerInt | includes/config.js |
| **Description** | |
| This variable defines the alert messages that appears when selecting a link that is called with the disclaimer('int') function. | |

| **Name** | **Location** |
| --- | --- |
| var disclaimerExt | includes/config.js |
| **Description** | |
| This variable defines the alert messages that appears when selecting a link that is called with the disclaimer('ext') function. | |

| **Name** | **Location** |
| --- | --- |
| var msgCompleteAllLessons | includes/config.js |
| **Description** | |
| This variable defines the alert messages that appears when all lesson requirements are met before proceeding to the final exam. It’s drawn automatically in the “beforeEOCContent” content area. | |

### custom.js

This file is loaded upon entry into course via the global.js file. Because **jQuery Mobile** needs to load all scripts upon entry into the course, all custom javascript should be created here and called using the jQuery Mobile "pageinit" event.

| **Example** |
| --- |
| **custom.js**  // sets up the function to be called  function loadAlert() {  alert('A page with an id of "alertPage" was just created by jQuery Mobile!';)  }  // assign the function to load when the page with an id of "alertPage" initializes  $( document ).delegate("#alertPage", "pageinit", function() {  loadAlert();  });  **01\_001.htm**  // assign the id of "alertPage" to the "data-role='page'" div. When this div loads, the alert will fire.  <div data-role="page" data-theme="b" id="alertPage">  <!-- content goes here -->  </div> |

### global.js

This file contains the paths to the various scripts that operate the template. You may change the file path to the API if you are hosting the template on a LMS. It is advisable not to change any of the other paths.

| **Example** |
| --- |
| // Browser only tracking  document.write('<script src="'+path+'includes/api.js"></script>');  // LMS Tracking  document.write('<script src="'+path+'includes/api\_scorm.js"></script>'); |

### Questions configuration (eoc\_xx\_xxx.js) or (kc\_xx\_xxx.js)

If working with a desktop course using the *VA Master Template*, you can use the same questions configuration file with the mobile template with very minor modifications. Below are the variables currently being used in the template.

| **Name** | **Location** |
| --- | --- |
| var assessment\_type | Found at the top of the eoc configuration file |
| **Description** | |
| Currently the only option for the mobile template is a single final exam. | |
| **Values** | **Results** |
| eoc | Designates that the course has a single final exam and will submit the score to the LMS/TMS once all requirements are met |
| practice | Designates that the questions are for knowledge checking only. Scores are not counted against final score. |

| **Name** | **Location** |
| --- | --- |
| var required\_score | Found at the top of the eoc configuration file |
| **Description** | |
| Set this variable to the desired score in order to pass the exam. To require a score of 80% or higher, enter a value of 80. | |
| **Values** | **Results** |
| numeric |  |

| **Name** | **Location** |
| --- | --- |
| var msgSelectionRequired | Found at the top of the eoc configuration file |
| **Description** | |
| This variable contains the message that appears if the user did not answer all the available questions. | |

## Functions

| **Name** | **Location** |
| --- | --- |
| disclaimer(' '); | Any links to outside of template |
| **Description** | |
| Used if linking to a page outside of the template. When a link is selected, it alerts the learner that they are leaving the template and are about to view information that is not included in the testable material and not managed by the content manager. | |
| **Example** | |
| **disclaimer('int');**  // For linking to sites within the organization  <a href="http://www.va.gov " target="\_blank" onclick="disclaimer('int');">VA Website</a>  **disclaimer('ext');**  // For linking to sites outside the organization  <a href="http://www.google.com" target="\_blank" onclick="disclaimer('ext');">Google Website</a> | |

| **Name** | **Location** |
| --- | --- |
| mobileVisited(' '); | Usually on default page |
| **Description** | |
| Call this function if you want to set a value in the suspend data to mark whether the mobile course has been visited or not. | |
| **Example** | |
| **mobileVisited('true');**  // Sets a value of "mobileVisited=1" in the suspend data for use later  <a href="lesson00/00\_001.htm" data-role="button" data-theme="b" onclick="mobileVisited('true');" data-ajax="false">Main Menu</a>  **mobileVisited('false');**  // Sets a value of "mobileVisited=0" in the suspend data for use later  <a href="lesson00/00\_001.htm" data-role="button" data-theme="b" onclick="mobileVisited('false');" data-ajax="false">Main Menu</a> | |

| **Name** | **Location** |
| --- | --- |
| determineCurrent(); | Any where you need to get information on the current page. |
| **Description** | |
| A utility function to return information such as the current pages path, page number or lesson. | |
| **Example** | |
| Assign the function to a variable, it will return an array of information  var lessonInfo = determineCurrent();  Return array  lessonInfo[0] will contain the full http path of the current page  lessonInfo[1] will contain the folder and file path  lessonInfo[2] will contain the folder name  lessonInfo[3] will contain the file name  lessonInfo[4] will contain the lesson number (without the leading 0)  lessonInfo[5] will contain the page number (with leading 0's) | |

| **Name** | **Location** |
| --- | --- |
| setComplete(); | Call when all course requirements have been satisfied. |
| **Description** | |
| Sets the course completion status to complete. | |
| **Example** | |
| **custom.js**  $( document ).delegate("#eocInstructions", "pageinit", function() {  setComplete();  });  **Final Page.htm**  <div data-role="page" data-theme="b" id="eocInstructions">  </div> | |
| Or you can tie the function to an onclick event such as the next button on the final exam page.  <a href="../lesson04/04\_003.htm" data-mini="true" data-icon="arrow-r" data-direction="forward" data-role="button" data-theme="e" data-transition="slide" id="summaryNext" class="ui-disabled" onclick="setComplete();">Next</a> | |

| **Name** | **Location** |
| --- | --- |
| setLessonComplete(); | Call when all current lesson requirements have been satisfied. |
| **Description** | |
| Sets the current lesson as complete. | |
| **Example** | |
| **custom.js**  $( document ).delegate("#01\_007", "pageinit", function() {  setLessonComplete();  });  **01\_007.htm**  <div data-role="page" data-theme="b" id="01\_007">  </div> | |
| Or you can tie the function to an onclick event such as the next button on a page.  <a href="../lesson02/02\_001.htm" data-mini="true" data-icon="arrow-r" data-direction="forward" data-role="button" data-theme="e" data-transition="slide" onclick="setLessonComplete();">Next</a> | |

## HTML

Below is a sample of how an **HTML5** page must be structured for use in **jQuery Mobile**.

| **Example** |
| --- |
| <!DOCTYPE html>  <!-- We must assign the "ui-mobile-rendering" class or the page will render as normal HTML -->  <html class="ui-mobile-rendering">    <head>  <!-- NOTE: Only the scripts on the initial loading page are actually loaded into the DOM. Placing anything else in the head on any other page will be ignored unless the page is refreshed. As a precaution include all links to all scripts on every page in the event the page is refreshed -->  <meta charset="utf-8">  <!-- This sets the width of the screen to that of device width-->  <meta name="viewport" content="width=device-width, initial-scale=1">  <title>Page Title</title>  <!-- Links to the jQuery Mobile css -->  <link rel="stylesheet" href="../includes/jquery.mobile-1.3.1.css" />  <!-- Links to the jQuery library, this must be the first script file we load-->  <script src="../includes/jquery-1.9.1.min.js"></script>  <!-- Load any additional scripts here between the jQuery library and the jQuery Mobile library. -->  <script type="text/javascript">  <!-- We left the path variable on every page in case the page is reloaded for some reason. -->  var path = "../";  </script>  <script src="../includes/global.js"></script>  <!-- Load the jQuery Mobile library. Attempting to load any scripts after this will fail.-->  <script src="../includes/jquery.mobile-1.3.1.js"></script>  </head>    <body>  <!-- Start of first page: #one -->  <div data-role="page" data-theme="b">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Insert Header Page Title Here</h2>  </div>  <!-- Main Content Area -->  <div data-role="content">  <!-- All of your content will be displayed here -->  </div>  <!-- Footer Section -->  <div data-role="footer" data-theme="a">  <!-- The footer is automatically drawn in this area. It includes a menu button, a help button and a resources button -->  </div>  </div>  <!-- /page one -->  </body>  </html> |

### Knowledge Check and Final Exam Setup

| **Name** | **Location** |
| --- | --- |
| data-ajax="false" | Page before Knowledge Check or EOC page |
| **Description** | |
| In order for knowledge checks and final exams to render, you must clear the DOM by inserting the attribute data-ajax="false" into the Next button, or button that opens the exam page. | |
| **Example 1** | |
| <a href="../lesson04/04\_002.htm" **data-ajax="false"** data-role="button" data-transition="slide" data-direction="forward" data-theme="b">Take the Final Exam</a> | |
| **Example 2** | |
| <a href="../lesson02/02\_010.htm" **data-ajax="false"** onclick="setValue('lesson2','complete');" data-mini="true" data-icon="arrow-r" data-direction="forward" data-role="button" data-theme="e" data-transition="slide">Next</a> | |

| **Name** | **Location** |
| --- | --- |
|  | Knowledge Check or EOC page |
| **Description** | |
| You must link the kc\_xx\_xxx.htm or eoc\_xx\_xxx.htm file on the page the exam is to be rendered on. You must place the code between the jquery.js include and the global.js include in order for the questions to be loading in the DOM. | |
| **Example** | |
| <head>  <meta charset="utf-8">  <meta name="viewport" content="width=device-width, initial-scale=1">  <title>Final Exam</title>  <link rel="stylesheet" href="../includes/jquery.mobile-1.3.1.css" />  <script src="../includes/jquery-1.9.1.min.js"></script>  <script type="text/javascript">  var path = "../";  </script>  **<script src="../includes/eoc\_04\_002.js"></script>**  <script src="../includes/global.js"></script>    <script src="../includes/jquery.mobile-1.3.1.js"></script>  </head> | |

### Template specific IDs

The following are some premade events tied to specific IDs; each is listed below with a brief description.

| **Name** | **Location** |
| --- | --- |
| id="mainMenu" | lesson00/00\_001.htm |
| **Description** | |
| This ID should be placed in the first page of the course in the first div that identifies the page. | |
| **Example** | |
| <div data-role="page" data-theme="b" id="mainMenu">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Insert Header Page Title Here</h2>  </div>  <!-- Main Content Area -->  <div data-role="content" id="drawMenu">  <!-- All of your content will be displayed here -->  </div>  <!-- Footer Section -->  <div data-role="footer" data-theme="a">  <!-- The footer is automatically drawn in this area. It includes a menu button, a help button and a resources button -->  </div>  </div> | |

| **Name** | **Location** |
| --- | --- |
| id="drawMenu" | lesson00/00\_001.htm |
| **Description** | |
| This ID should be placed in the first page of the course in the div that identifies the content. This will draw a menu based on the lesson information written in the config.js file. | |
| **Example** | |
| <div data-role="page" data-theme="b" id="mainMenu">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Insert Header Page Title Here</h2>  </div>  <!-- Main Content Area -->  <div data-role="content" id="drawMenu">  <!-- All of your content will be displayed here -->  </div>  <!-- Footer Section -->  <div data-role="footer" data-theme="a">  <!-- The footer is automatically drawn in this area. It includes a menu button, a help button and a resources button -->  </div>  </div> | |

| **Name** | **Location** |
| --- | --- |
| id="defaultPage" | default.htm |
| **Description** | |
| This ID should be placed in the default page of the course in the div that identifies the content. This initializes the doBookMark() function if the mobile version of the course has been visited at least once.  Also notice the 'data-dom-cache="false"' attribute in this div. This attribute ensures this page is not cached in the DOM for later use because the user only views this particular page one time upon first visiting the mobile course. | |
| **Example** | |
| <div data-role="page" data-theme="b" id="defaultPage" data-dom-cache="false">  <-- Rest of content -->  </div> | |

| **Name** | **Location** |
| --- | --- |
| id="navBar" |  |
| **Description** | |
| This id is reserved for the navigation menu in the footer. | |

| **Name** | **Location** |
| --- | --- |
| id="beforeEOCPage" | Last page in last lesson before the final exam lesson |
| **Description** | |
| This ID is used to identify the page before the Final Exam Lesson | |
| **Example** | |
| <div data-role="page" data-theme="b" id="beforeEOCPage">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Final Page Before EOC</h2>  </div>  <!-- Main Content Area -->  <div data-role="content" id="beforeEOCContent">  <p>There are currently one or more lessons in this course that have not been reviewed. Please return to the "Main Menu" to check which lessons have not been completed.</p>  </div>  </div> | |

| **Name** | **Location** |
| --- | --- |
| id="beforeEOCContent" | Last page in last lesson before the final exam lesson |
| **Description** | |
| This ID is used to identify the content area inside the “beforeEOCPage” page area. This id identities the location of instructions that are drawn automatically if the user has completed all requirements before taking the final exam. The default message informs the user they have not completed all requirements and can be changed on this page. The success message can be configured in the config.js file using the “msgCompleteAllLessons” variable. | |
| **Example** | |
| <div data-role="page" data-theme="b" id="beforeEOCPage">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Final Page Before EOC</h2>  </div>  <!-- Main Content Area -->  <div data-role="content" id="beforeEOCContent">  <p>There are currently one or more lessons in this course that have not been reviewed. Please return to the "Main Menu" to check which lessons have not been completed.</p>  </div>  </div> | |

| **Name** | **Location** |
| --- | --- |
| id="examPage" | On the page the exam is to be drawn on |
| **Description** | |
| This ID is used to identify the page the exam is being drawn on. | |
| **Example** | |
| <div data-role="page" data-theme="b" id="examPage">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Final Exam</h2>  </div>  <!-- Main Content Area -->  <div data-role="content" id="examC">  <!-- The exam is drawn automatically here. Anything placed in this space will be removed -- >  </div>  <!-- Footer Section -->  <div data-role="footer" data-theme="a">  <!-- The footer is automatically drawn in this area. It includes a menu button, a help button and a resources button -->  </div>  </div> | |

| **Name** | **Location** |
| --- | --- |
| id="examC" | On the page the exam is to be drawn on |
| **Description** | |
| This ID is used to identify the content area where the exam will be drawn automatically. If there is any content inside the div before the exam is drawn, it will be removed. | |
| **Example** | |
| <div data-role="page" data-theme="b" id="examPage">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Final Exam</h2>  </div>  <!-- Main Content Area -->  <div data-role="content" id="examC">  <!-- The exam is drawn automatically here. Anything placed in this space will be removed -- >  </div>  <!-- Footer Section -->  <div data-role="footer" data-theme="a">  <!-- The footer is automatically drawn in this area. It includes a menu button, a help button and a resources button -->  </div>  </div> | |

| **Name** | **Location** |
| --- | --- |
| id="eocInstructions" | On the final page of the course |
| **Description** | |
| This ID is used to identify the page the eoc instructions are being drawn on. | |
| **Example** | |
| <div data-role="page" data-theme="b" id="eocInstructions">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Final Exam</h2>  </div>  <!-- Main Content Area -->  <div data-role="content" id="eocMessage">  <!-- The eoc message is drawn automatically here. Anything placed in this space will be removed -- >  </div>  <!-- Footer Section -->  <div data-role="footer" data-theme="a">  <!-- The footer is automatically drawn in this area. It includes a menu button, a help button and a resources button -->  </div>  </div> | |

| **Name** | **Location** |
| --- | --- |
| id="eocMessage" | On the final page of the course |
| **Description** | |
| This ID is used to identify the content areas the eoc instructions are being drawn in. If there is any content inside the "div" before the eoc instructions are drawn, it will be removed. The eoc message can be configured from the "msgEOC" variable in the config.js file. | |
| **Example** | |
| <div data-role="page" data-theme="b" id="eocInstructions">  <!-- Header Section -->  <div data-role="header" data-theme="a">  <h2>Final Exam</h2>  </div>  <!-- Main Content Area -->  <div data-role="content" id="eocMessage">  <!-- The eoc message is drawn automatically here. Anything placed in this space will be removed -- >  </div>  <!-- Footer Section -->  <div data-role="footer" data-theme="a">  <!-- The footer is automatically drawn in this area. It includes a menu button, a help button and a resources button -->  </div>  </div> | |

### Headers

It is up to the user to set the title and insert the buttons for the headers on every page. Below is an example header.

| Example |
| --- |
| <div data-role="header" data-backbtn="false">  <a href="../lesson01/01\_001.htm" data-mini="true" data-icon="arrow-l" data-direction="reverse" data-role="button" data-theme="e" data-transition="slide">Back</a>  <h2>Your Title Header Here</h2>  <a href="../lesson03/03\_001.htm" data-mini="true" data-icon="arrow-r" data-direction="forward" data-role="button" data-theme="e" data-transition="slide">Next</a>  </div><!-- /header --> |

## jQuery Mobile

### Helpful jQuery Mobile functions

| **Name** | **Location** |
| --- | --- |
| Video .bind(ended) event | Any page with video |
| **Description** | |
| Bind something to happen when a video ends. | |
| **Example** | |
| **Custom.js -** This function will set the lesson to complete when the video identified ends  $( document ).delegate("#videoPage2", "pageinit", function() {  $("#video\_2").bind("ended", function() {  setLessonComplete();  });  });  **HTML**  <div data-role="page" data-theme="b" id="videoPage2">  <!-- header info -->  <div data-role="content" data-theme="b">  <video id="video\_2" width="400" height="300" controls="controls" preload="true" >  <source src="../media/section\_2.mp4" type="video/mp4; codecs=avc1.42E01E, mp4a.40.2" />  </video>  </div>  <!-- footer info -->  </div> | |

| **Name** | **Location** |
| --- | --- |
| Disable and re-enable a button |  |
| **Description** | |
| Using a jQuery class we can disable a button and then re-enable when a condition is met. | |
| **Example** | |
| **HTML** - Using the class 'ui-disabled' we can disable a button to make it non-clickable.  <a href="../lesson02/02\_003.htm" data-mini="true" data-icon="arrow-r" data-direction="forward" data-role="button" data-theme="e" data-transition="slide" id="dButton" class="ui-disabled">Next</a>  **JS** - Then we can bind it to an event, such as a video ending to reactivate it.  $( document ).delegate("#videoPage2", "pageinit", function() {  $("#video\_2").bind("ended", function() {  $('#dButton').removeClass('ui-disabled');  });  }); | |

### Themes

**jQuery Mobile** includes fives themes you can use to change the look and feel of the course. Almost every element can be changed by changing the "data-theme" attribute in the tag.

| Example | |
| --- | --- |
| <a href="../lesson04/04\_002.htm" data-role="button" data-transition="slide" data-direction="forward" data-theme="b">Sample</a> | |
| **Values** | **Results** |
| a |  |
| b |
| c |
| d |
| e |