Learning Content Management System (LCMS) Procedures

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Contents

[Procedures 4](#_Toc35846119)

[Course Structure/Hierarchy 4](#_Toc35846120)

[Developing Course Structure/Hierarchy (IS and ILT) 4](#_Toc35846121)

[Create a Single Screen/PPT Slide (IS and ILT) 5](#_Toc35846122)

[Add Instructor Guide Specific Content(R) 6](#_Toc35846123)

[Mark Content for Appropriate Output (IS and ILT) 7](#_Toc35846124)

[Add Textual Content to Your Discussion Point (IS and ILT) 7](#_Toc35846125)

[Add a Description Element to Your Screen/PPT Slide 7](#_Toc35846126)

[Add a Bulleted List to a Discussion Point (IS and ILT) 7](#_Toc35846127)

[Add Instructor and Student Notes 8](#_Toc35846128)

[Adding Media 9](#_Toc35846129)

[Importing Media into the LCMS (IS and ILT) 9](#_Toc35846130)

[Add Images to a Page (Discussion Point) 9](#_Toc35846131)

[Add Audio to a Screen (IS) 10](#_Toc35846132)

[Add a Video to Your Screen/Slide (IS and ILT) 11](#_Toc35846133)

[Adding PDFs or Other Documents to a Course (ILT) 12](#_Toc35846134)

[Updating Existing Media Objects (Changing Alt text): 12](#_Toc35846135)

[Update Existing Media Objects (Change the media/file site-wide): 13](#_Toc35846136)

[Creating Links 13](#_Toc35846137)

[Create Pop-Up Content (IS) 13](#_Toc35846138)

[Add a Link to an Element (IS or ILT) 14](#_Toc35846139)

[Create a Printable Summary (IS) 15](#_Toc35846140)

[Assessments 15](#_Toc35846141)

[Text Area (IS) 16](#_Toc35846142)

[Matching Assessment Element (IS or ILT) 16](#_Toc35846143)

[Multiple Choice Multiple Answer (MCMA) Assessment Element (IS or ILT) 17](#_Toc35846144)

[Multiple Choice Single Answer (MCSA) Assessment Element (IS or ILT) 18](#_Toc35846145)

[Ordering Assessment Element (IS or ILT) 19](#_Toc35846146)

[True/False Assessment Question (IS or ILT) 19](#_Toc35846147)

[Self-Assessment Page (IS) 20](#_Toc35846148)

[Activity Page (IS) 20](#_Toc35846149)

[Reusing Content 21](#_Toc35846150)

[Searching – Finding Content to Reuse 21](#_Toc35846151)

[Paste 21](#_Toc35846152)

[Paste as Link 22](#_Toc35846153)

[Positioning Elements within a Page (Discussion Point) 22](#_Toc35846154)

[Using Layouts (IS) 22](#_Toc35846155)

[Positioning Media and PPT Layout (IS and ILT) 23](#_Toc35846156)

[Special Screens 23](#_Toc35846157)

[Course Overview (IS) 23](#_Toc35846158)

[Lesson Overview (IS) **NOTE:** Each lesson of an Independent Study course includes a graphical lesson list. You may download the lesson list PSD (source) to create lesson lists for the course that you are developing. 24](#_Toc35846159)

[Screen Features, Navigating Using Your Keyboard, Receiving Credit (IS) 25](#_Toc35846160)

[Lesson Summary (IS) 25](#_Toc35846161)

[Exam Page (IS) 25](#_Toc35846162)

[Create a Flexible Delivery Slide in the LCMS 25](#_Toc35846163)

[Equivalent Slides (Same slide in Web and PPT slide): 26](#_Toc35846164)

[Differing Slides/Same Info Covered: 27](#_Toc35846165)

[Change Log: 28](#_Toc35846166)

[2/28/19: 28](#_Toc35846167)

[6/12/19: 28](#_Toc35846168)

[3/23/2020: 28](#_Toc35846169)

[Appendix A: Alt Text 29](#_Toc35846170)

[Independent Study Image: 29](#_Toc35846171)

[Instructor Led Image: 29](#_Toc35846172)

[SendMeSummary Function 29](#_Toc35846173)

[Media Element – Source View 29](#_Toc35846174)

# Procedures

Procedures for adding various types of content can be found below. All Procedures include information regarding whether it can be applied to Independent Study (IS) or Instructor Led Training (ILT) within the course title. For instance, if a procedure’s title includes “(IS or ILT)” it applies to either Independent Study or Instructor Led courses.

Some of the procedures include information about EMI Specific Requirements; however, please review the “EMI LCMS Developer Requirements” document found here: http://training.fema.gov/devres/lcmssupport.aspx for a complete list of requirements.

## Course Structure/Hierarchy

### Developing Course Structure/Hierarchy (IS and ILT)

1. Begin in the Web Authoring tool
2. Drag a *Course* Object from the Objects Palette to the Center Pane
3. In the far right pane, change to *General* view
4. Add a label (Course code + Course Name) to your new course and then click Save in the upper left corner 
5. Drag a *Module* from the Objects Palette to the Center Pane (underneath of your new course).\*
6. With your new module selected, follow similar procedures to steps 3 & 4, again giving the module the **same label** as the course.
7. Drag and drop a *Unit* underneath your new module.\*\*
8. Change the label of the unit to reflect the lesson (Lesson # + Lesson Name)
9. Drag a *lesson* underneath of your unit. Give the lesson the same name as the unit.
10. Add page level objects as necessary. The *Discussion Point* object can be used for every page required in the lesson.
11. Add any number of *elements* under each discussion point. The elements include textual, rich media, and assessment objects. This is where the actual content is. See specific guidelines for using different elements.

Example Structure

* + Look at IS-1110 and L0205 in the LCMS as examples of the proper structures or see screenshots below.

| IS Example:See appendix 1 for full description. | Instructor Led Example:See full description under appendix A. |
| --- | --- |

Additional Information

\* - If a course does not need to be broken up into modules, simply create a single module under the course level using the above naming conventions. Everything else in the course will go underneath of this single module.

\*\* - Each lesson should be created at the unit level and then directly under it at the lesson level as well. The unit and lesson will have the same name/label. Example: if there are 3 lessons in your course, you would create 3 *units* with a single *lesson* under each.

### Create a Single Screen/PPT Slide (IS and ILT)

Each screen in and Independent Study course or PPT slide in an instructor led course can be represented in the LCMS by a single Discussion Point. In addition to the slide content, instructor led courses may also contain an Instructor Note or a Student Note. These notes would be included under the same Discussion Point as the slide contents.

1. Add a *Discussion Point* object by dragging the *Discussion Point* object from the left pane (Utilities) into your lesson.
2. Add 1 or more textual or media elements to your slide. Specific guidance and procedures on the various media elements can be found throughout this document.
3. Mark your content for appropriate output.

Examples:

| IS:IS Discussion point with Textual element and Image under it.  See document for full description.*IS Discussion Point Labeled "GeoCONOPS Alighnment to Federal Doctrine: PPD-8", Expanded with a description element and Media Element under it. Description element is labeled: "GeoCONOPS Alignment to Federal Doctrine: PPD-8" and Media labeled " National Preparedness Goal - Cover"* | ILT:ILT Discussion Point with Media element and 2 message boxes under it.  Full description in document.*ILT Discussion Point Labeled "Key Activity Three: Risks, Impacts, and Consequences" expanded showing a Media Element and 2 message boxes. The Media element is labeled "Ice Aerial Shot Discussing 400x111 (png)" and the message boxes are Labeled same as disucssion point with the addition of "Instructor Note" and "Student Note"* |
| --- | --- |

In this example, the IS Course screen contains text and an image. In the ILT course slide example, there is a slide that contains an image (with text), an instructor note, and a student note. The instructor and student notes would only be marked for print.

### Add Instructor Guide Specific Content(R)

Examples include: Content Objectives, Scope, Time Plans, Materials, References, etc.

1. Add a *Discussion Point* object by dragging the *Discussion Point* object from the left pane (Utilities) into your lesson. The single discussion point will hold all elements.
2. Create a new *Textual* (Description or list) element for each piece of content. You would create a separate element for each of the following: Objectives, Scope, Time Plan, Materials, References. Add each to the *Discussion Point* and label each element appropriately.
3. Specify Output for Print only, IG, and possibly SM. See “Mark Content for Appropriate Output” section of this document for additional information.
4. Add your text to each element via the *Design* tab or *Source* tab. See the “Add Textual Content to Your Discussion Point” section of this document for additional information.

You may repeat similar steps for each unit/lesson. Consider the way that these are written and ways that you may be able to re-use them in other sections of the course.

Example structure:



*Structure Image full text: ILT Example of an expanded lesson. The lesson label is "E0210 Unit 1: Introduction to Recovery Concepts". A single discussion point labeled: "E0210 Objectives and Scope" is expanded with Textual elements labeled “L0205 Unit 1 Objectives,” E0210 Unit 1 Scope,” “E0210 Time Plan,” “E0210 Unit 1 Materials and Equipment,” “L0205 Unit 1 Audiovisuals,” “E0210 References”*

### Mark Content for Appropriate Output (IS and ILT)

Content can be marked for Print (IG and SM), PPT, or Web output at the Element level (below discussion point). Each element must be marked individually.

1. Select your element in the center (Structure) pane
2. Change the right-hand (Details Top) pane to the General tab.
3. Modify the Output by selecting or deselecting them (green means selected) 
4. Expand the Print Output under the Metadata area and mark appropriately for Instructor Guide and Student Manual 
5. Click Save at the top left side of the screen.

## Add Textual Content to Your Discussion Point (IS and ILT)

### Add a Description Element to Your Screen/PPT Slide

This assumes a discussion point has already been created.

1. In the left hand (Utilities) pane, change to *Objects Palette* if it is not already selected.
2. Expand the *Textual* section of the *Objects Palette* 
3. Drag a *Description* element from the textual section of the left pane and drop it in the *discussion point*.
4. Change the label appropriately under the *General* tab in the right (Details Top) pane.
5. Click the save button in the upper left corner.
6. Click on *General* in the right pane (Details Top) and change that to *Design*  tab.
7. Add a title and text (format appropriately) using this Design pane.
8. Click the save button in the upper left corner.

### Add a Bulleted List to a Discussion Point (IS and ILT)

This assumes a discussion point has already been created.

1. Expand the *Textual* section of the *Objects Palette* 
2. Drag a *List* element from the textual section of the left pane and drop it in the *discussion point*.
3. Select the *list* element that was created in step 2, change the 3rd (rightmost) pane to *General* 
4. Change the label appropriately.
5. Click the save button in the upper left corner.
6. Change from *General* to *Source* in the rightmost pane. 
7. Optional: Add a title and text
8. Choose the *Type* of list (Blank, Bullets, Letters, Numbers)
9. For each bulleted list item, add text.
10. If you need to add another Item click the *Add* icon:  and then repeat step 9.
11. Optional: Add Text to the *Bottom Text* area if you would like additional text to be displayed under the list.
12. Click the save button in the upper left corner.

Additional Information:

* Switch between List elements using the previous and next buttons 
* Add sub-lists by using html code in a single list element: 
* Delete a list element by clicking the Delete Icon 
* You May also choose to use the *Design* view to modify a list. Similar options can be found by right clicking a list element in the *Design* view.
* You may create lists within a *Description* element instead of a *List* element if you choose to do so. Simply use one of the list options in the *Design* tab of the *Description* element:  or add the html in the *Source* tab.

### Add Instructor and Student Notes

1. Drag and drop a “Message Box”  element from the Textual section into the same Discussion Point  that contains the related slide content
2. Label the Element. Use the name of the slide and then add either “Instructor Note” or “Student Note” to the label
3. Set the Output to Print  only on the General tab
4. Set the Print Output section by placing checkmarks next to Student Guide and/or Instructor Guide.
	1. Student Notes general should have both checked: 
	2. Instructor Notes should only have Instructor Guide checked: 

## Adding Media

### Importing Media into the LCMS (IS and ILT)

Media includes Images (png, jpg, gif), Videos (mp4), Closed Captioning (vtt or srt), and additional documents (pdf, doc, docx, xls, xlsx).

1. In the left-hand (Utilities) pane change to Media Search
2. Click *Create New Media Object* from the bottom left under Media Tasks 
3. Click browse and locate the media file on your local computer
4. Click Next
5. The following fields must be filled out:
	1. **Label** – The label is the name that will be displayed when someone searches for this in the LCMS. The label must contain a short description, the image size in pixels (width by height), and the file extension. See example: 
	2. **Alt Text** – Complete alt text required. If words are within the image, all words must be included in the alt text. There is a 250 character limit.
	3. **Category** - Always choose “EMI Media Category”
	4. **Description** – Use something similar to the alt text. The system only allows about 3 lines of text though
	5. **Search Keys** – separate by commas. These are additional ways to find the image in the system
6. Click *Next*
7. Click *Finish*

### Add Images to a Page (Discussion Point)

This assumes a discussion point has already been created.

1. In the leftmost pane (Utilities), expand the *Rich Media* section 
2. Drag and drop the *Media* element from this section to your *Discussion Point*.
3. Select/highlight the *media* element.
4. With *General* opened in the 3rd (Details Top) pane, change the label of the new *media* element.
5. Change from *General* to *Source* in the rightmost pane. 
6. Click the magnifying glass next to the Media *label*. 
7. If the image is already in the system, continue onto step 8. If it is not yet in the system, follow the “Importing Media into the LCMS” procedures found within this document.
8. Search for the media by entering key words or part of the label in the upper left corner of the dialog box and then click on the magnifying glass.
9. Select the appropriate image from the results by clicking on it and then choosing *OK* at the bottom right of the dialog.
10. Click the save icon in the upper left corner.

### Add Audio to a Screen (IS)

This assumes a discussion point has already been created. Please note, you should only use mp3 files.

1. In the leftmost pane (Utilities), expand the *Rich Media* section 
2. Drag and drop the *Media* element from this section to your *Discussion Point*.
3. Select/highlight the *media* element.
4. With *General* opened in the 3rd (Details Top) pane, change the label of the new *media* element.
5. Change from *General* to *Source* in the rightmost pane. 
6. Click the magnifying glass next to the Media *label*. 
7. If the mp3 is already in the system, continue onto step 8. If it is not yet in the system, follow the “Importing Media into the LCMS” procedures found within this document.
8. Search for the mp3 by entering key words or part of the label in the upper left corner of the dialog box and then click on the magnifying glass.
9. Select the appropriate audio from the results by clicking on it and then choosing *OK* at the bottom right of the dialog.
10. Click on the parameters  icon, which is found right next to the media label.
11. Change the player attribute to “HTML5”. Click OK.
12. Click the save icon in the upper left corner.

### Add a Video to Your Screen/Slide (IS and ILT)

#### Independent Study – Video Procedures (IS)

MP4 is the required video type. An additional closed captioning file (vtt format) is also required and must correspond to the video. These files should be created outside of the system and then imported in. See section 9.1 of the Requirements Documentation.

1. Import the mp4 and closed captioning files into the LCMS into the same “Media Object”
	1. Change the left hand pane to “Media Search”
	2. Choose “Create Media Object” at the bottom.
	3. Leave “Media Type” as “Web” – browse your computer and find the MP4 file
	4. Click the “Add” button at the top left to add a 2nd file (that you will upload).
	5. A new line will appear. Change the “Media Type” of the 2nd line to “Caption”
	6. Browse for the VTT file
	7. Click Next
	8. Change the Label to give it a good name. Change the Category to “EMI Media Category.” No need to change the Media Class. If you want to, you may also add Description, Search Keys, and Copyright info (if it is copyright protected).
	9. Click Finish
2. Add or select the *Discussion Point* that will become your screen.
3. Add a *Video* element from the *Rich* Media section and label it appropriately.
4. In Design view of the *Video* element, select the **Search** icon. Find the video in the system just like you would find an image.
5. Adjust the width (height will auto adjust if you leave the field blank).
6. Check both: Controls and Autocaption
7. Save the element.
8. Add a pop-up link to the transcript. You can use the procedures found in this document titled: “Add a Link to an Element (IS or ILT)” You can add a description element that will contain the link. **Note**: Both a transcript and closed captioning are required for EMI Videos
9. Test by Previewing the video. The captions should appear.

#### Instructor Led Course – Video Procedures (ILT)

MP4 is the required video type. Closed Captioning must be embedded into the video. The video should be created outside of the system and then imported in.

1. Import the mp4 and closed captioning files into the LCMS by following the “Importing Media into the LCMS” procedures found in this document.
2. Follow the “Adding Images to a Page (Discussion Point) procedures found in this document, but add your video instead.

### Adding PDFs or Other Documents to a Course (ILT)

Occasionally, you may want to add supportive documents (PDFs, Word Docs, Excel Spreadsheets, etc.) to a course for various reasons. In order to have these documents exported out with the final project (final course materials), follow the directions below.

1. Import the document into the LCMS by following the procedures: “Importing Media into the LCMS (IS and ILT)”. Once your file is imported into the system you will create a link to it:
2. Add a description element to your course. The description element will contain a link to the document/file. Depending on the flow of the course, you may want to add all course references to a single description element in the beginning of the course (creating a references section).
3. Select the *description* element in the center pane.
4. Change the rightmost pane to *Design* view.
5. Add text: Type the title of the PDF or document that you will be linking to.
6. Using your cursor, select the text that you added above.
7. Click the *hyperlink* icon 
8. In the link dialog box, change *Type* to the Media Object that you will be linking to.
9. Click on the browse for media object Icon 
10. Type the name of the PDF or document that you have previously imported into the system.
11. Select the correct element from the list of results. Note: you may need to right click, choose properties, to ensure that you are choosing the right document.
12. Select *OK* again.

Following the steps above will do 2 things. In the final exported Word Document (IG or SM), there will be an embedded link to the document. Also, the final export will include the document that you added in the zipped materials.

### Updating Existing Media Objects (Changing Alt text):

Note: Media Elements and Media Objects in the LCMS are slightly different things:

* Media Elements: When you drag *Media* from the left pane (Object Palette), this is a media element. These are what you see in the center pane as part of your course structure. They refer/point to the actual base Media Object (image, video, etc.) in the system. Media elements can include more than just the media (meaning text can be added to them, etc.)
* Media Objects: This is the base media that you actually upload the system. It is referred to by a media element. A media object must be placed into a media element to be added to a course.

Note 2: Alt text added to a Media Object is the default alt text of anything that refers to that image. If Alt text is added to the Media Element, that would only apply to that 1 instance of the media element, but it does take precedence over the default (Media Object’s) alt text.

With that said, if alt text needs to be changed, it is normally preferred to have it changed on the Media Object (so that everything gets changed, not just a single instance).

The steps below outline how to change the alt text on the Media Object. You can search for an image by name (using a media search) If you do that, skip steps 1-3, otherwise:

1. Select the media element (in the center pane) that refers to the media object alt text you would like to change.
2. Remove the Alt Text from that in the source view (if there is any there, this ensures the default alt will be used for this instance).
3. Switch the Right pane to “Dependencies” tab (This shows you the base Media Object that this element is referring to).
4. Double click on the Media Object name.
5. From there, change the alt text and click “OK” – Please note, you can also change the Label if you wish.

### Update Existing Media Objects (Change the media/file site-wide):

Use this if you want to update an image, video, or mp3 file and you would like your update to affect all courses that use the Media Object. Please see notes in the above directions as they apply to this as well.

1. Select the media element (in the center pane) that refers to the media object alt text you would like to change.
2. Remove the Alt Text from that in the source view (if there is any there, this ensures the default alt will be used for this instance).
3. Switch the Right pane to “Dependencies” tab (This shows you the base Media Object that this element is referring to).
4. Double click on the Media Object name.
5. Switch from the General tab to Files tab
6. Click the gear icon in the top right
7. Add File
	1. Follow the on screen prompts to upload a new file (this will replace the existing).
8. Click OK.

## Creating Links

### Create Pop-Up Content (IS)

Add content that isn’t shown within the normal course path and is only available when something is clicked.

1. If you do not already have a hidden lesson in your course, follow A-C. Otherwise, skip to step 2
	1. Create a new Unit – Label it with something like: “IS-XXXX Hidden Content”
	2. Create a new *lesson* under your unit. Label the new Lesson “IS-XXXX Hidden Content” or something similar.
	3. Follow these steps for both the unit and the lesson
		1. Right click on the *lesson* in the center pane.
		2. Click *More*
		3. Click *Hide*
2. Add a discussion point and any number of elements below that discussion point into your hidden lesson. Add labels and actual content to each element. \*
3. Go to or create a new element within the normal flow of the course and then follow the “Add a Link to an Element” procedures found in this document.

\* - You may link to objects at various different levels including lesson, discussion point, or even element level. Change *Type* based upon the material that should be displayed.

### Add a Link to an Element (IS or ILT)

Links can be added to several different types of elements including *lists* or *descriptions*. The procedures are similar for both. The example below specifically describes adding a link to a *Description* element:

1. Select the *description* element or any element you want to add a link to in the center pane.
2. Change the rightmost pane to *Design* view.
3. Highlight the text that will become the link.
4. Click the *hyperlink* icon 
5. For an internal link (to page in course) follow these procedures:
	1. In the link dialog box, change *Type* to the Type of Object/Element that you will be linking to. You can link to entire lessons; however the most common is either *Discussion Point* or *Element*
	2. Change *Window* to “New.”
	3. Click the icon  next to the Window dropdown and change the window size to 800x600 or something else if required. Click OK.
	4. Click on the browse for object Icon 
	5. Type the name of the *discussion point*, *element*, or *lesson* that you would like to link to. Click the search (magnifying icon) button.
	6. Select the correct element from the list of results. Note: you may need to right click, choose properties, and then change to preview to ensure that you have selected the correct element.
	7. Select *OK* again.
6. For an external link (example http://www.google.com) follow these procedures:
	1. Type the link in the *Target* field (without http:// or https://).
	2. Change *Window* to “New” if it should be opened in a new window
	3. Click the icon  next to the Window dropdown and change the window size to 800x600 or something else if required. Click OK.
	4. Click *OK*.

Note: There is no need to add any information about leaving FEMA. The template will take care of this automatically when it is exported.

### Create a Printable Summary (IS)

This assumes that you have already created all content for individual pages. Also, keep in mind that not everything will be included in the printable version and in some cases alternative content will be included (ex: videos replaced by transcripts).

1. If you do not already have a lesson that is holding your hidden content, create one underneath of the current unit and name it “Hidden Pages.”
2. Add a new *Discussion Point* to the newly created “Hidden Pages” lesson. Label the discussion point something like “IS-XXXX Lesson 1 Printable”
3. Open your current course structure and current lesson. Copy (right click, copy) each *element* level item that should be included in the printable version.
4. Select the *discussion point* created in step 2. Right click it, *paste as link*.\*
5. Repeat steps 3 and 4 for every element that belongs in the printable version. Note: you may need to copy transcripts and other elements that are found in hidden pages. You would copy the transcript instead of the videos. Only include media necessary for course content (Example: Organizational charts, etc.). Do not include media added for decorative purposes.
6. Once the printable lesson is complete, you can create a link using the “Add a Link to an Element” procedures.

Follow similar procedures to create a Printable version of the Entire course. In that case, you may multi-select elements found in each printable lesson and copy/paste as link into your full course printable *Discussion Point*.

\* - Use the *paste as link* feature as much as possible instead of the *paste* feature because if the content ever changes it will only need to be changed in one place (it will automatically be changed in the other places).

## Assessments

All assessment procedures assume that you have already created a single *Discussion Point* that will hold your assessment element.

Note: Some assessment elements are available in both IS and instructor led courses; however, they may display differently. Users will not be able to select (by clicking) the correct answer choice in the Word version. It will only be the question/answers in textual format.

### Text Area (IS)

This type of question provides room for the student to type out their answer. When they click “Check” it will show a suggested response. The system does not automatically compare their response to the suggested response.

1. Drag a *FreeForm* element from the *Survey* section of the left hand pane (Object Palette) into your course.
2. In the General view, enter a label in the Label field. Change the output to Web/CD only since this is a web-based course. After you save the content, this label displays in the course treeview.
3. Change from the General tab/view to the Design tab/view.
4. Enter the Title of the slide (this will be visible to the student) in the Title field
5. Enter the question in the Text field
6. (Optional) – change the Length of the field if you wish the allowed student entered text to be larger or smaller than the default.
7. Add a *Textual* element to the same discussion point. This element will only contain a single word “Check” that is hyperlinked to the suggested response.
	1. Follow the directions in this documents to “Create Pop-Up Content (IS)” – The link to “Check” their answer will simply be a standard pop-up.

### Matching Assessment Element (IS or ILT)

Perform the following steps to create a Matching Assessment element. Matching elements can be used for Do/Don’t style questions or Multiple True/False on the same screen.

1. Create a new Matching element by dragging and dropping from the Object Palette or by using the right-select menu in the Objects view.
2. In the General view, enter a label in the Label field. After you save the content, this label displays in the course treeview.
3. In the General view, change the *Rendering* to Dropdown List: 
4. In the Source view, enter a title for the element in the Title field, and enter an introduction in the Text field.
5. Select a Shuffle option as follows:
	* Not Shuffled if you do not want answers to ever be shuffled
	* Shuffle All Answers if you would like answers to be randomly shuffled each time that the question is taken
	* Shuffle Distractors Only if you would like incorrect answers to be randomly shuffled each time that the question is taken
6. Select the number of times that a learner can attempt to answer this question from the Number of Tries drop-down list.
7. Enter question level remediation by clicking the remediation icon . This information will be displayed after the student gets the question correct or fails to within the allowed number of tries.
8. If you would like to display an image, enter the image label in the Label field of the Media frame, or search for the media object. To display the image as a link, select the Display as Link check box and enter a label in the Link Text field.
9. Enter a question, word, or phrase in the Text field of the Item frame. You can use a Media Object as a question by entering a valid media label in the Media field, or browse for the Media Object.
10. Enter the answer in the Text field of the Answer frame. You can use a Media Object as an answer by entering a valid media label in the Media field, or browse for the Media Object.
11. To add a question and answer, select the corresponding Add button and repeat Steps 9 and 10. To delete the current question or answer, select the corresponding Delete button .
12. To specify the correct answer choices: Select an item from the Item drop-down list in the Match frame and select its correct answer from the Answer drop-down list. To add a match, select the Add button and repeat Step 12. To delete the current match, select the Delete button. You would add matches for every item/answer choice combo.

Note: To view all items and matches at the same time, select the Summary button . You can add, edit, and delete items and matches in this view.

1. Save your work.

Example: GUID# 00B7205241531FD2BEF31301000101F0

### Multiple Choice Multiple Answer (MCMA) Assessment Element (IS or ILT)

Perform the following steps to create a Multiple Choice – Multiple Answer Assessment element.

1. Create a new Multiple Choice-Multiple Answer element by dragging and dropping from the Object Palette or by using the right-select menu in your course treeview.
2. In the General view, enter a label in the Label field. After you save the content, this label displays in the course treeview.
3. In the Source view, enter a title for the element in the Title field, and enter an introduction in the Text field.
4. Select a Shuffle option as follows:
	* Not Shuffled if you do not want answers to ever be shuffled
	* Shuffle All Answers if you would like answers to be randomly shuffled each time that the question is taken
	* Shuffle Distractors Only if you would like incorrect answers to be randomly shuffled each time that the question is taken
5. Select the number of times that a learner can attempt to answer this question from the Number of Tries drop-down list.
6. Enter question level remediation by clicking the remediation icon . This information will be displayed after the student gets the question correct or fails to within the allowed number of tries.
7. If you would like to display an image, enter the image label in the Label field of the Media frame, or search for the media object. To display the image as a link, select the Display as Link check box and enter a label in the Link Text field.
8. Enter an answer in the Answer field of the Answer frame. You can also use a Media Object as an answer by entering a valid media label in the Media field, or search for the media object.
9. Select the Correct check box if this answer is correct. (Multiple correct answers may be selected)
10. To add an answer, select the Add button and repeat Steps 8 and 9. To delete the current answer, select the Delete button.

Note: To view all answers at the same time, select the Summary button. You can add, edit, and delete answers in this view.

1. Save your work.

### Multiple Choice Single Answer (MCSA) Assessment Element (IS or ILT)

Perform the following steps to create a Multiple Choice – Single Answer Assessment element.

1. Create a new Multiple Choice-Single Answer element by dragging and dropping from the Object Palette or by using the right-select menu in your course treeview.
2. In the General view, type a label in the Label field. After you save the content, this label displays in the course treeview.
3. In the Source view, enter a title for the element in the Title field, and enter an introduction in the Text field.
4. Select a Shuffle option as follows:
	* Not Shuffled if you do not want answers to ever be shuffled
	* Shuffle All Answers if you would like answers to be randomly shuffled each time that the question is taken
	* Shuffle Distractors Only if you would like incorrect answers to be randomly shuffled each time that the question is taken
5. Select the number of times that a learner can attempt to answer this question from the Number of Tries drop-down list.
6. Enter question level remediation by clicking the remediation icon . This information will be displayed after the student gets the question correct or fails to within the allowed number of tries.
7. If you would like to display an image, enter the image label in the Label field of the Media frame, or search for the media object. To display the image as a link, select the Display as Link check box and enter a label in the Link Text field.
8. Enter an answer in the Answer field of the Answer frame. You can also use a Media Object as an answer by entering a valid media label in the Media field, or search for the media object.
9. Select the Correct check box if this answer is correct. For this Assessment element, you can select this check box only for one answer.
10. To add an answer, select the Add button and repeat steps 8 and 9. To delete the current answer, select the Delete button.

Note: To view all answers at the same time, select the Summary button. You can add, edit, and delete answers in this view.

1. Save your work.

### Ordering Assessment Element (IS or ILT)

Perform the following steps to create an Ordering Assessment element.

1. Create a new Ordering element by dragging and dropping from the Object Palette or using the right-select menu in your course treeview.
2. In the General view, type a label in the Label field. After you save the content, this label displays in the Development TreeView.
3. In the Source view, enter a title for the element in the Title field, and enter an introduction in the Text field.
4. Select a Shuffle option as follows:
	* Not Shuffled if you do not want answers to ever be shuffled
	* Shuffle All Answers if you would like answers to be randomly shuffled each time that the question is taken
	* Shuffle Distractors Only if you would like incorrect answers to be randomly shuffled each time that the question is taken
5. Select the number of times that a learner can attempt to answer this question from the Number of Tries drop-down list.
6. Enter question level remediation by clicking the remediation icon . This information will be displayed after the student gets the question correct or fails to within the allowed number of tries.
7. If you would like to display an image, enter the image label in the Label field of the Media frame, or search for the media object. To display the image as a link, select the Display as Link check box and enter a label in the Link Text field.
8. Enter an answer in the Answer field of the Answer frame. You can also use a Media Object as an answer by entering a valid media label in the Media field, or search for the media object.
9. To add an answer, select the Add button and repeat step 8. To delete the current answer, select the Delete button. The order that the answers are loaded will be the correct order. You may choose to Show All Answers with the Summary Icon. Within this section, you can change the order by changing the numbers in the order fields.

### True/False Assessment Question (IS or ILT)

Perform the following steps to create a TrueFalse Assessment element.

1. Create a new TrueFalse element by dragging and dropping from the Object Palette or using the right-select menu in your course treeview. Select the General view and continue with the steps below:
2. In the General view, enter a label in the Label field. After you save the content, this label displays in the course treeview.
3. In the Source view, enter a title for the element in the Title field, and enter the question in the Text field.
4. Select the number of times that a learner can attempt to answer this question from the Number of Tries drop-down list.
5. Enter question level remediation by clicking the remediation icon . This information will be displayed after the student gets the question correct or fails to within the allowed number of tries.
6. If you would like to use an answer other than True, enter the answer in the Answer field of the Answer frame. You can also use a Media Object as an answer by entering a valid media label in the Media field, or search for the Media Object.
7. Select the Next button. If you would like to use an answer other than False for answer 2, enter the answer in the Answer field. You can also use a Media Object as an answer by entering a valid media label in the Media field, or search for the Media Object.
8. Mark the Correct answer with the checkbox.

Note: To view all answers at once, select the Summary button. You can add, edit, and delete answers in this view.

1. Save your work.

### Self-Assessment Page (IS)

Self-Assessment pages are those that allow the learner to evaluate themselves on a specific topic. \*\*\*Recent Update: Please note, previously self-assessments were created by using custom HTML; however, self-assessments should now be created with a description element or a table element. They will NOT be interactive. Instead they will serve as thought-experiments. Use the steps below if you are using a Table element to create your self-assessment.

1. Create a Discussion Point in the Lesson and label it appropriately and uniquely.
2. Add a Table element into the Discussion Point, labeling the table appropriately.
3. Go to Design view of the table element.
	1. Add the Title of the slide in the title field
	2. Add the question/instructions into the first Text field. Please note, you may need to consider the wording of the question:
		1. Word the question appropriately for a thought experiment. For example: “Instructions: Based on what you have learned about formal and informal partnerships, consider whether the following partnerships are FORMAL or INFORMAL. “

### Activity Page (IS)

Activity pages are those that are used to evaluate your knowledge based on checking of knowledge points covered in a lesson. In order to create an Activity page for the LCMS custom HTML and JavaScript had to be developed. Below are the steps for adding an Activity page to your course.

1. Create a Discussion Point in the Lesson where you would like to add an Activity page.
2. Locate the IS-Reusable Content course in the Objects pane of the LCMS.
3. Under Activity locate the *Activity Check List* Extended object.
4. Copy the *Activity Check List* Extended object.
5. Paste As Link the *Activity Check List* Extended object into the Discussion Point object you created in step 1.
6. Navigate back to the IS-Reusable Content course locate and Copy the *Activity Check List Array* Extended object.
7. Paste the *Activity Check List Array* Extended object into the Discussion Point object you created in step 1.
8. Select the *Activity Check List Array* Extended object.
9. Select Source from the Preview Pane menu.
10. Copy all of the text from the Head section.
11. Open Notepad (or your favorite text editor) and paste the text into a new document.
12. Locate the lines of text that begin with “listArray.push”. These represent the table entries with the check boxes and the resulting list based on responses.
	1. Add responses as necessary by replacing the text between listArray.push(“ and “) on each line.
	2. Lines can be added or removed as necessary
	3. Do not leave any “empty” lines.
13. Select all of the text in the document and Copy.
14. Open the Web Authoring tool in the LCMS and navigate to the *Activity Check List Array* Extended object you created in your Discussion Point object.
15. In the Head section of the *Activity Check List Array* Extended object Select All and Paste the text from the document you just Copied.
16. Save your work.

## Reusing Content

Content can and should be used at various levels. Always develop content with reuse in mind. Think about creating descriptions and/or information that may be able to be reused in other courses. Create the base text as a single element (reusable) and then you can create an additional element to get more specific (if necessary).

### Searching – Finding Content to Reuse

1. In the left hand (Utilities) pane, select *Content Search* from the dropdown.
2. Type in part of the label or keywords. Note: You may wish to use quotes to search for phrases or content that contains numerical values.
3. After finding an object, you can Right Click it to:
	1. Find – (within the hierarchy/structure pane)
	2. Copy – to be pasted or pasted as link later
	3. Properties – to view various tabs and/or make changes. It is possible to preview in here as well.

### Paste

Pasting will create a separate 2nd version of an object. If you paste an object and make a change to it, the original will not be modified.

1. Find an object or element that you would like to paste
2. Right click – copy
3. Find the location that you would like to paste it
4. Right click Paste

### Paste as Link

Pasting as link will add another element into your course structure. If either the original or the new version are modified, both will change. An object can potentially be linked in hundreds of locations. If it is changed once all locations will change.

When copying/pasting as link at a higher level (Example Lesson level), all objects and elements underneath will also be linked. If any of those are changed, they will be changed in all places.

1. Find an object or element that you would like to Paste as Link
2. Right click – copy
3. Find the location that you would like to paste it
4. Right click Paste as Link

## Positioning Elements within a Page (Discussion Point)

### Using Layouts (IS)

This assumes multiple elements have been added to a discussion point. Before you begin, determine the type of layout that you want. You may want a single column, 2 columns (with varying widths), or something else.

1. In the leftmost pane, change the pane to *Layouts* 
2. Drag and drop the appropriate layout from this pane to your *Discussion Point* in the center pane.
3. Reposition elements within your discussion point appropriately by changing their order. Most 2 column layouts will float the 1st element left, 2nd element right, 3rd element left, 4th right, and so on.

Example: Using a 2 column layout.

 In this example, the Left column will have the Objectives followed by the Clock media element. The right hand column would have the Navigation media element followed by the Print media element. If you ever need to add multiple elements on 1 side, but not the other, make use of the *Empty Spot* content – copy and paste as link into your discussion point. This will serve as a place holder. For instance, if I only wanted the Objectives in the left of this example, I would replace the clock with the *Empty Spot.*

Note: These layouts only work in IS courses.

### Positioning Media and PPT Layout (IS and ILT)

You may add text to a media element and position the image/text appropriately. In IS courses, this should only be used when the media/image conveys meaning relative to the content itself (for example a chart). Since PPTs files cannot use the LCMS’s build in layout capabilities, this method is OK to use for any slide that it needs.

1. Create a new media element and add an image to it using the “Add Images to a Page” procedure found in this document.
2. Open to *Source* view and Modify the following:
	1. Alignment under Media – This is the alignment of the image itself
	2. Text Area 1 – Add Text and possibly a title. Basic HTML may be used
	3. Position under Text Area 1 – this is the alignment of the text in relation to the image.
	4. Save the Media Element.
	5. You may wish to look at it in Design or Preview mode.

## Special Screens

Use the IS-987 Sample Course as an Example of what each of these pages should look like in the LCMS.

### Course Overview (IS)

1. Add a single *Discussion Point* labeling it something like: “IS-XXXX Course Overview”
2. Insert a single *List* element that contains an intro sentence and the list of objectives
3. Insert a *Media* element for an image of a bulleted list of the Lessons
4. Add/Reuse a clock icon showing the time to complete the lesson. Use the *Content Search* to see if there is a clock icon that already meets your needs by searching for “Clock 1 hour” or something like that. Be sure to use one that mentions course time, not lesson time.
5. Perform a *Content Search* to find the “Empty Space” and paste as link under the clock. This will be a blank space in the right hand side and is necessary when using the layout.
6. Add a *Media* element with the Print Icon and text next to it that contains a link to the Printable version of the entire course. You may wish to copy/paste a version from another course and simply modify the link to point to your course’s printable version.
7. Apply the layout titled: “2 Column (2/3rds) and (1/3rd)”



### Lesson Overview (IS)**NOTE:** Each lesson of an Independent Study course includes a graphical lesson list. You may download the [lesson list PSD (source)](https://training.fema.gov/DevRes/docs/lessonList.psd) to create lesson lists for the course that you are developing.

1. Add a single *Discussion Point* labeling it something like: “IS-XXXX Lesson 1 Overview”
2. Insert a single *List* element that contains an intro sentence and the list of lesson objectives
3. Insert a *Media* element for an image of a bulleted list of the Lessons (showing current lesson)
4. Add/Reuse a clock icon showing the time to complete the lesson. Use the *Content Search* to see if there is a clock icon that already meets your needs by searching for “Clock 1 hour” or something like that. Be sure to use one that mentions lesson time, not course time.
5. Perform a *Content Search* to find the “Empty Space” and paste as link under the clock. This will be a blank space in the right hand side and is necessary when using the layout.
6. Add a *Media* element with the Print Icon and text next to it that contains a link to the Printable version of this lesson. You may wish to copy/paste a version from another course and simply modify the link to point to your lesson’s printable version.
7. Apply the layout titled: “2 Column (2/3rds) and (1/3rd)”



### Screen Features, Navigating Using Your Keyboard, Receiving Credit (IS)

1. Search for the 3 Discussion Points Labeled:
	1. “Screen Features”
	2. “Navigating Using Your Keyboard”
	3. “Receiving Credit”
2. For each, Copy and Paste as Link into your first lesson.

### Lesson Summary (IS)

**NOTE:** Each lesson of an Independent Study course includes a graphical lesson list. You may download the [lesson list PSD (source)](https://training.fema.gov/DevRes/docs/lessonList.psd) to create lesson lists for the course that you are developing.

1. Insert a single *Discussion Point* at the end of the Lesson
2. Insert a *List* element that contains some text and the list of objectives completed.
3. Insert a *Media* element that is an image of the Lesson List indicating that this lesson is now complete.
4. Copy/Paste as Link the Print Icon (with link to printable lesson) from the Lesson Overview Discussion point into this one.



### Exam Page (IS)

1. Perform a Content Search for this exact phrase: “Exam Page (IS-987) [Offical Template]” – keeping the quotes around it.
2. Right click the Object that is found and choose **Copy**
3. Right click the last Discussion Point in your course and choose **Paste** – DO NOT PASTE AS LINK
4. Change the name/label of the Discussion Point and element below it.
5. Open Source or Design view of the element and add your course code in place of the current number that is there, but leave the rest of the text. Follow the guidelines below:
	1. If your course contains a letter enter it without the dot like this: “230d”
	2. If your course contains a yearly version, enter it with the dot: “18.16”
	3. Do not include “IS-“

## Create a Flexible Delivery Slide in the LCMS

Flexible Delivery courses are web-based courses that also have the option to be delivered in-person.

With that in mind, the final flexible delivery course products will be:

* Web Delivery: SCORM Compliant Independent Study course
* Instructor Led: Visual Slide Deck (PPT), Instructor Guide, and Student Manual

Since the same objectives are being covered, the course should be the same length of time whether offered independently or via instructor led delivery. All information conveyed in one version MUST be presented in the other version.

When creating a flexible delivery course, you can either create:

* Equivalent Slides: Exactly the same for both the IS and Instructor Led version or
* Differing Slides/Same Info Covered: Have reduced information in one slide, but that information is covered in another way (such as instructor/student notes)
	+ An example of this may be that you have a bulleted list of 4 words. In the web-version, you would have the 4 words along with their definitions. In the Instructor led version, you would have just the 4 words in the slide, but you would also include a student note with the full definitions.

**Note**: Each slide in your course must be created in one of the two methods above; however, you may use both options within the same course (some slides exactly the same content, others info presented in a different way).

Please see the 2 sets of directions below depending on your method of choice.

### Equivalent Slides (Same slide in Web and PPT slide):

**Note**: Generally when the slides are the same, Instructor/Student notes should not be added for that slide content because you should not be providing additional information in the Instructor Led version that is not available in the web version.

1. Add a new Discussion Point  to your lesson and label it appropriately.
2. Add your slide content:
	1. If your slide includes an image follow the steps below: (Defined in Requirement 8.2):
		1. Add a single media element and name it
		2. In Design view – add the image (search or upload new)
		3. In the 2nd text area (within Design view) add your text and format appropriately (bullets, etc.) **Note**: It is important to use the 2nd text area only. If you add text to the both the first and second, all text will appear above the image.
		4. Specify where the text goes: If the text goes above the image, leave it as is. Otherwise go to Source view change the “Alignment” of the media to left or right. Change the “Position” of the Text Area to Left or Right (opposite of media).
	2. If your slide does NOT include an image:
		1. Add a single description element and label it.
		2. Go to Design view, add your Title and text and format appropriately.
	3. In either case above (a or b), go back to General tab and set the output to Web, CD, Print, and Slides (if it belongs everywhere and is same for both versions of course): 

### Differing Slides/Same Info Covered:

1. Add a new Discussion Point  to your lesson and label it appropriately.
2. Add your Slide content – 2 separate versions both within same discussion point:
	1. Instructor Led: Follow the standard procedures to add instructor led content within a single element. Set the output as you would a for a normal Instructor Led Slide: 
	2. Web Based: Add 1 or more elements that will become your web slide content. Set the appropriate output for each (Web/CD icons only) . Apply a layout. Note: this layout will only work when viewed as a web-based course.
3. Add Instructor and Student notes. Any information covered in the web slide that is not also covered in the Instructor-led slide must be included in either an Instructor or Student Note.

# Change Log:

Below lists all of the changes made to this document. Please note, this section began 2/28/19. Changes prior to that will not be included in the change log.

## 2/28/19:

* The following note was added to the *Lesson Overview (IS)* and *Lesson Summary (IS)* directions: “**NOTE:** Each lesson of an Independent Study course includes a graphical lesson list. You may download the [lesson list PSD (source)](https://training.fema.gov/DevRes/docs/lessonList.psd) to create lesson lists for the course that you are developing.”
* Updated the *Text Area (IS)* directions (completely new)
* Added new directions: “Updating Existing Media Objects (Changing Alt text)”
* Added new directions: “Update Existing Media Objects (Change the media/file site-wide)”

## 6/12/19:

* Revised the following procedures (completely new method): “Independent Study – Video Procedures (IS)”
* Removed the procedure to add Flash videos. Flash should no longer be used.

## 3/23/2020:

* Added directions: “Add Instructor and Student Notes”
* Added directions: “Create a Flexible Delivery Slide in the LCMS” and sub-directions

# Appendix A: Alt Text

This section of the document is included for 508 purposes and includes full descriptions of the most complex images found in the document.

## Independent Study Image:

Independent Study Course Structure - showing IS-1110 at course level labeled: “IS-1110 Writing Commercial Exposures-Copy”, single module labeled: “IS-1110 Writing Commercial Exposures”, 4 units Labeled: “Lesson 1: Course Introduction,” “Lesson 2: Identifying Commercial Exposures,” “Lesson 3: Eligibility, Coverage, and Loss Settlement,” “Lesson 4: Special Considerations.” There are single lessons under each unit with the same names as the parent units. The Lesson 4 lesson is expanded with the following discussion points: “Hidden Lesson 4: Special Considerations,” “Lesson 4 Objectives,” “Non-Condominium Flood Insurance,” “Tenant’s Coverage,” “Other Insurance and Excess Flood,” “Lesson 4 Knowledge Check 1,” “Course Summary,” “Completing this Course.” “Lesson 4 Objectives” is expanded showing “Lesson 4 Objectives,” “IS-1110 Lesson 3 Complete Lesson List 202x283 (png),” “Clock 10 minutes Lesson,” “Empty Spot,” and “Print Lesson.”

## Instructor Led Image:

Resident course hierarchy – Course labeled “L0205: Recovery from Disaster: The Local Government Rule-Copy.” A single module under the course with the same label. Seven Units under the module with the following labels: “Unit 1: Introduction to Recovery Concepts,” “Unit 2: Recovery Pre-Disaster Planning Guidance for Local Governments,” “Unit 3: Leading and Managing Recovery,” “Unit 4: Stakeholder Engagement and Information Management,” “Unit 5: Local Capabilities and Challenges,” “Unit 6: Joplin, Missouri Case Study,” “Unit 7: Course Conclusion.” There is a single lesson under each unit. The Lessons have the same names as the parent units. Lesson/Unit 7 Expanded showing several discussion points. Discussion points are labeled: “Unit 7: Course Conclusion,” “Course Summary and Final Comments,” “Course Examination,” “Final Course Evaluation,” and “Conclusion L205.” The Discussion point labeled "Unit 7: Course Conclusion" is expanded with a single list element labeled the same.

## SendMeSummary Function

HTML – Head Text Area: “function SendMeSummary() { vwidth = 740; vheight = 560; sWidth = screen.width; tWidth = (sWidth/2); hWidth = (vwidth/2); uWidth = (tWidth-hWidth); //Change the number 00B7205241531FD57DDD130B00010FAE 2 lines below this. If (typeof(newContent) != ‘undefined’) { NewContent ‘00B7205241531FD57DDD130B00010FAE(highlighted)’, ‘1’

## Media Element – Source View

Source view of Media Element with Text Area 1 Highlighted – Title “Key Activity: Five: Leadership” Text – empty. Media Section: Label: “Community Meeting and Downtown 200x242,” Alt Text: “Open community meeting and a picture of a downtown,” Caption – empty, Alignment: “Left” (highlighted), Display as Thumbnail – unchecked, Caption – empty, Thumbnail – empty, Thumbnail alt text- empty. Text Area 1 of 1 Section: Add, Paste, Delete, Previous, Next, and Summary Icons. Title – empty, Text (highlighted): “<p><em>Timeline: 3-9 Months</em></p><ol><li>Leadership Position</li><li>Organizational Strucfture</li><li>Sector-Specific Coordinators</li></ol>,” Position: “Right,” Alignment Section: Vertical: “Top,” Horizontal: “Left”