# CONTRACT BASICS

# Contracting for DL

### 1. Contract overview

DL developed by contractor is closely monitored by both DDL and the proponent schools. The DL preferred contract AVLE contains specifics on the development of the courseware and on the specific technical guidelines to be followed. The preferred contract vehicle is a firm, fixed-price services contract which means the contractor has proposed the work for a fixed price. The contract does not allow for new requirements which affect both time and money. The following are important considerations for content development:

#### a. There is a quality assurance surveillance plan in effect to track contractor performance.

#### b. The Contractor may develop “parts and pieces” of training and education products that in-house developers use in building the final finished product; it is the “chunk” strategy to training development.

#### c. In-house development of content will be held to the same standards and specifications as contractor development of content.

#### d. Periods of performance dates are firm, and they cannot and will not be extended.

#### e. GFI and GFM must be included in the Request for Quote package. The contractors must be able to inspect the GFI as part of calculating their bids on task orders (TOs).

#### f. SCORM testing remains part of the DDL acceptance process.

#### g. Government acceptance is by the DDL.

### 2. Performance work statement (PWS) preparation

#### The PWS guidelines contain information and tips to aid in developing PWSs for the development of content and courseware for DL IMI and provide the capability to insert unique requirements the proponent school identifies. The PWS establishes contractor performance criteria and deliverable requirements for the development of DL courseware under the contract vehicle. Schools use the guidelines to provide variable data that identifies the school, the applicable course, GFI/GFM, and unique design specifications, when applicable. When requested, DDL will assist in tailoring the PWS to meet other specific or unique development requirements, as needed. DDL will publish and post online a guide to development of PWS.

*Note:* Schools keep the PWS current until award of the TO. The DDL notifies the field of updates to the PWS guidelines; however, proponents should check the TADLP Web site for any changes.

#### Schools/proponents will identify staff assignment of supporting roles and responsibilities. These roles include identifying who is responsible for providing and assembling GFI/GFM and who will fill the role of SME to respond to contractor questions, reviews of contractor deliverables, and consolidation of comments sent back to the contractor. Additionally, the use of internal memoranda of agreement among key personnel will be used to establish priorities within these roles.

##### COR responsibilities for the DDL and all Army requiring activities (RAs) that wish to utilize the preferred contract will ensure the effective oversight of contract requirements when contract support cannot be directly monitored by a DDL Contracting Officer Representative located at Fort Eustis, VA.

##### Roles and Responsibilities

 a. All RAs will include an Onsite COR (OSCOR) nomination with their requirements package submission (if onsite presence in required), to fulfill the OSCOR responsibilities. Specific OSCOR information, as it applies to the preferred contract, can be found at the TADLP website

 b. At a minimum, all OSCORs must complete the following Defense Acquisition University (DAU) on-line training (and submit completed certificates with their COR nomination):

* CLM 003 – Ethics training for Acquisition Technology and Logistics
* CLC 222 Section 888 – On-line Training for Contracting Officer Representative
* ACC Comprehension Training (January 2012)
* [Wide Area Workflow (WAWF) https://wawf.eb.mil](https://wawf.eb.mil/)

 c. All CORs (DDL and Alternate CORs / Supporting CORs) will complete the COR nomination process using the Virtual Contracting Enterprise (VCE) COR module found at <https://arc.army.mil/COR/>. OSCORs will self-nominate using the category of Alternate COR. The MICC-Eustis KO will appoint all CORs using this electronic process. ALL COR VCE nominations that do not meet the minimum COR training requirements will not be approved/appointed by the MICC-Eustis KO.

### 3. Contract basics

#### a. The AVLE (base contract) provides the guidelines, tips, and other information to aid in developing PWSs for the development of content and courseware for DL IMI and provides the capability to insert unique requirements the proponent school identifies. The PWS establishes contractor performance criteria and deliverable requirements for the development of DL courseware under the preferred contract vehicle. Schools use the guidelines to provide variable data that identifies the school, the applicable course, GFI/GFM, and unique design specifications, when applicable. When requested, DDL will assist in tailoring the PWS to meet other specific or unique development requirements, as needed.

*Note:* Schools keep the PWS current until award of the TO. The DDL notifies the field of updates to the PWS guidelines; however, proponents periodically check the PWS Web site for any changes.

#### b. IMDP. The IMDP provides Army reviewers with an overview of the final IMI courseware plan. It contains the design documentation for the development of instructional media materials. See appendix H (Components of the IMDP Process) for more details.

#### c. As part of the DL contract, contractors are required to produce the IMDP and submit it for government review. Senior school management should review and approve the design documentation before development begins.

#### d. In-house developers are not excluded from this requirement and should develop design documentation of the IMDP. Senior school management should review and approve the design documentation before development begins.

#### e. If the plan changes during development, revise the IMDP and file with final courseware documentation.

#### f. The following is a general outline of the IMDP process.

##### (1) Review source documents and previous design decisions.

##### (2) Prepare the front matter.

##### Prepare the summary description of the course.

##### Identify the sequence of objectives.

##### Prepare the course overview.

##### Prepare the DL design specifications.

##### Obtain school management review and approval.

### 4. The IMDP process goal

##### The IMDP is a demonstration of the plan to develop courseware. The goal should be a clear description of the proposed course design and delivery method. The IMDP should demonstrate an understanding of instructional design, the instructional goals of the lessons, and a plan to implement the goals with sound delivery methods. The IMDP:

#### a. Provides reviewers a chance to visualize the plan before the start of development.

#### b. Offers reviewers and developers a platform for discussion of the development plan.

#### c. Provides a way to make changes that will not affect work already completed.

### 5. Deployment guidelines

#### a. Browser check. Courseware functionality will verify the compatibility of the user’s browser type and version. This may be an application that is available before the student launches the courseware or available through the "help" feature of the courseware. If the browser type and version currently used do not meet these requirements, display a warning message to the user. Additionally, if for any reason the browser type and version are not adequate to display any content that the developer has included in the courseware, display a similar warning message. The warning message will state the reason that the current configuration is not adequate, and will advise the user to install the appropriate version of the browser. If the browser being used is adequate to run the courseware, no message will be displayed.

#### b. Plug-ins check. The developer will include the necessary programming to check for the presence of any plug-ins required by the course. This may be an application that is available before the student launches the courseware or available through the "help" feature of the courseware. The check must be done prior to any attempt to load the plug-in when the courseware first opens or at the point that a plug-in becomes necessary. Each courseware that uses a plug-in will do this check again, even though it may have already been done by a previous courseware of the course. If a required plug-in is determined to be missing, display a message informing the user of this fact and explain how to obtain the plug-in. Content that will not be distributed Army-wide may have special browser and plug-in requirements that must be identified early.

#### c. CD-ROM production and development considerations. Delivery of courseware by CD-ROM is still part of the reality of military DL. The considerations that appendix K describes are based on are issues and problems that have occurred during the development of several multimedia courses. These considerations are listed in three categories to reflect the three different modes of development: general, Web version equivalent, and CD-ROM only. Apply the appropriate guidelines to any IMI development placed on CD-ROM.

#### d. Classified material. Any file containing classified/sensitive material must be marked with appropriate classification/sensitivity markings. Videos shall include the security level classification or warning notices IAW AR 380-5. The classification shall remain displayed long enough to be readable but does not have to remain on the screen throughout the entire video. A DD Form 254 must be in place to produce classified material.

#### e. Copyright/proprietary materials. Developers must comply with copyright and intellectual property laws. Anything incorporated into the learning product (text, images, music, audio, or video, etc.) developed by others requires permission for use according to Library of Congress Circular 92, Copyright Law of the United States of America and related Laws contained in Title 17 of the United States Code (17USC). For additional information and clarity refer to [http://www.atsc.army.mil/tadlp/contractors/preferred/compliance/copyright.asp](http://www.atsc.army.mil/tadlp/contractors/capdl/compliance/copyright.asp).

### 6. DL contractor development process

#### a. The process for developing courseware under the contract is adaptable for proponent school in-house developers and contractors to use outside of the contract vehicle. This process promotes standardization among all DL developers and ensures all Army DL products are compatible with ALCMC software and hardware. The process consists of a series of activities grouped into four phases: pre-award, development, fielding, and sustainment. These phases are described below and addressed in the following chapters.

#### b. The pre-award phase precedes the awarding of a task order (TO) for DL course or courseware development. During the pre-award phase, proponent schools, DDL and CAC perform administrative and coordinating activities to ensure that funds are available, a viable development strategy exists, and if required, the DL instructional unit is entered in ATRRS. Pre-nomination activities include delivering and approving an updated ITP and CAD or program of instruction, providing required supplemental information, developing a course-specific PWS/SOW, and assembling required GFI/GFM. Based on the accomplishment of pre-award activities and DDL's review of GFI/GFM and other pertinent information (for example, CAD and ITP), the ATSC advises the Headquarters TRADOC G-3/5/7 on the readiness of the school to proceed to contract award. After the award of a TO to a learning product development contractor, a post-award meeting between the contractor and the Government kicks off the development project. Government representatives normally include the contracting officer representative (COR), a DDL courseware manager, the technical representative, and school personnel. Other DDL personnel may attend to assist the contractor in understanding development standards and requirements. The primary goals of the meeting are to ensure complete, mutual understanding of the project and to establish a cooperative relationship between the contractor and school personnel. All parties approach the project as a team effort.

#### c. Successful completion of the development effort requires complete understanding of the PWS requirements. The purpose of the meeting is not to rewrite the PWS, but to execute the PWS as written.

#### d. The contractor records and submits the minutes of the meeting to all attendees for comment. After receiving comments, the contractor prepares and distributes final minutes to all attendees.

#### e. Provide GFI and GFM.

##### Provide GFI and GFM at the time of course nomination. Complete and relevant GFI and GFM are crucial to the development of high quality courseware. Failure to provide correct or sufficient materials can seriously impede the development effort, or halt it entirely.

##### The Government furnishes information and/or materials to the contractor to enable the contractor to design a courseware development strategy and perform the contractual services. GFI and GFM may include documents, equipment, software, facilities, and services.

##### Assemble GFI/GFM packages.

##### The development team performs the following action in assembling GFI/GFM packages to deliver to contractors: provide complete and relevant information to ensure development of high quality courseware.

##### The development team follows the steps below:

###### Upon notification that a particular course is selected for development, identify appropriate source materials

###### Retrieve source materials and determine their relevancy to the development effort

###### Remove irrelevant materials and assemble remaining materials into packages for delivery to the contractor

###### Deliver GFI/GFM packages to the contractor at the post-award meeting.

#### f. The development phase of the process begins following the award of the TO to a contractor. This phase requires continuous communication and cooperation between the Government (the proponent school and DDL) and the contractor. The objective is the contractor’s complete understanding of the Government’s requirements and expectations concerning the DL products. This is best accomplished with close coordination during a series of meetings, in person, teleconference or video conference methods.

#### g. The contractor prepares and submits to the Government for approval a milestone schedule, a validation plan, an assessment and evaluation plan, an ISAP, an instructional multimedia design package (IMDP), and a prototype lesson (if required by TO) demonstrating understanding of the instructional and technical requirements. Once these deliverables are approved and the technical approach agreed upon, the contractor proceeds to develop the courseware. The contractor delivers lessons to the Government as they are completed. The lessons receive quality assurance, technical reviews, and corrections as required. After passing these reviews, the DL course is validated for instructional sufficiency and tested in a common test environment to ensure courseware compatibility with ALCMC equipment. The fielding phase may include operational tryouts during the first iteration of implementation. Upon satisfactory completion of all reviews and tests, the Government accepts and prepares the courseware for release to the field.

#### h. The fielding phase involves entering the completed DL product into the ALCMC and ATRRS (if required), and completing the catalog information to register the course/module with the CAR. Schools submit the uniform resource locator address for Web-based courses. The CAR uses the uniform resource locator to point to the location where the courseware resides.

#### i. The sustainment phase follows the ADDIE process. The proponent schools review and update learning materials periodically IAW their training development plan, or whenever a significant change to doctrine, procedures, or equipment occurs, to ensure materials remain up-to-date and relevant to Army missions, functions, and skills. Proponent schools identify requirements to revise courseware as soon as possible. They include these requirements in their planning, programming, budgeting, and execution process.

#### Periodic content review of learning products cataloged on the CAR requires proponents to conduct periodic course reviews and revise courses annually as required. Learning product revisions are immediately mandatory when task performance threatens survivability, mission accomplishment, or when a major environmental or safety impact is identified. Perform QC checks. This package includes QC checks for the courseware development and implementation in the form of performance measures. Meeting these checks assures all levels of management of the successful implementation of DL products.

### 7. Period of performance

#### a. Calculating DL development time period. In [Guide to Planning your DL Project](https://rdl.train.army.mil/catalog-ws/view/PLANDLPROJECT/GuidexforxPlanningxyourxDLxProject.docx), it is useful to consider the amount of time required to develop the project. This provides a basis for evaluating a cost-to-benefit decision. Assumptions can be made for estimating development hours. There are factors and variables that can affect the development time required to develop 1 hour of completed IMI. The following list of factors defines a best-case situation:

##### The developer is familiar with the subject matter and has access to in-house SMEs.

##### The subject matter is not highly complex.

##### The instructional content is stable. In other words, the system for which the IMI is being developed exists and is not emerging, and the tasks selected for IMI DL do not continually change.

##### The instructional content is well documented. A needs analysis and task analysis are complete, giving the developer a good idea of the performance expected and tasks to teach. The technical materials supporting the IMI development are accurate and available.

##### The developer is familiar with the selected IMI authoring system.

##### The developer is familiar with the target audience.

##### The development team consists of individuals experienced with IMI management, design, and development.

##### The selected IMI authoring system is mature and stable. No beta versions are used.

##### A lesson format, to include the design strategy, is agreed upon in advance and management has approved the strategy, prototype lesson, and lesson specifications.

##### The development process is standardized.

##### An instructional strategy is approved and a wireframe is tested.

##### The COR and SME work closely with the development team on a regular basis. The COR uses objective acceptance criteria and does not continually change the individual responsible for reviewing and approving the lessons.

##### Best commercial practices are accepted for software development and video production. There is no requirement to document to a military standard.

##### All required resources are in place.

#### b. Calculating time in government acceptance testing. DDL performs the function of government acceptance testing using the following process:

##### (1) Contractors shall load the content following the final course structure provided by the proponent.

##### (2) The contractor shall perform playability testing for all instructional strategies and exercising all exit paths.

##### (3) Contractors shall document the results of all instructional strategies to include roll-up and completion status.

##### (4) Contractors shall submit the results of their tests to DDL who will document and notify all stakeholders. After confirming receipt of all deliverables and screen shots displaying test results, notify the PDM ATIS that the courseware is ready for operational testing in the common test environment.

##### (5) PDM ATIS will acknowledge the courseware is ready for testing and the date courseware entered into their testing pipeline.

##### (6) PDM ATIS will provide all stakeholders with a daily report that reflects the status of the proponents' products as they move through the pipeline. This report will include, at a minimum: the date received in testing, tester assigned, iteration of test, product being tested, contractor name, results with dates, notifications, and fielding date.

##### (7) Any product with critical errors that fails to perform correctly during the testing process will be removed from the pipeline with notification to the stakeholders. Once notified, the contractor will work with the proponent and PDM ATIS to correct the errors and resubmit to PDM ATIS. The contractor will notify all stakeholders of the resubmission.

##### (8) Any product with non-critical observations will be fielded with notification to the stakeholders of the date of fielding. Once notified, the contractor will work with the proponent to correct the errors and resubmit to PDM ATIS. The contractor will notify all stakeholders of the resubmission.

##### (9) Once the courseware is fielded and error free, DDL will complete government acceptance, notify the COR, and ensure final payment to the contractor is made.

##### (10) After government acceptance is made, the contractor will deliver a copy of the final courseware/content products for archival purposes.

### 8. In-house development

#### a. Authoring systems/tools overview. Authoring systems/tools provide easy-to-use interfaces that can decrease many of the technical issues associated with SCORM development. Most developers use database-driven authoring tools that speed up the development process. The systems/tools also provide courseware with a consistent appearance. Whether choosing an off-the-shelf authoring system/tool or using a proprietary system, a number of factors should be considered: the learning product requirements, standards, and specifications; cost and time constraints; standard features; ease of use; and ability to be modified. Table 1 lists the most common advantages and disadvantages of authoring systems.

| Table 1Authoring system advantages and disadvantages |
| --- |
| Advantages | Disadvantages |
| 1. Brisk development.
2. Professional quality through the use of templates and/or tools.
3. Consistent look and feel of courseware.
4. Reduced need for programmer.
5. More reliable (fewer defects).
 | 1. Increased initial/upgrade costs.
2. Possible cross-platform compatibility issues.
3. Possible problems with generating metadata and manifests.
4. Limited capabilities without programming support.
 |

#### b. Rapid Online Content Creation Environment (ROCCE). ROCCE is a Web-based content development tool used to build interactive courses that can be published on the Learning Content Management and Creation System. It enables online collaborative content development and produces SCORM compliant courses on the Learning Content Management and Creation System. ROCCE2 supports multi-role content development functions and complies with Department of Defense instruction (DoDI) 1322.26 standards. It is a government off-the-shelf product.

#### c. Productivity tools. Productivity tools range from small software applications used for very specific jobs to all-encompassing authoring systems with formatted templates, automated SCORM calls, and metadata generators. Many developers use tools that catalog files, review products, and analyze validation data. These tools offer efficiency and, if contracting, a competitive advantage to the contractor. Tools provided by ADL and the Army give developers an easy to use interface to implement proper SCORM testing. Examples of "acceptable tools" or tools that produce results compatible with the current recognized LMS systems (Lifelong Learning Capability and ALMS). These tools reduce government cost and provide standardized methods of developing and testing. This, in turn, makes development and testing faster and easier. However, these tools do not provide a 100-percent solution.

##### (1) ADL test suite software. This software contains conformance testing software, procedures, and supporting documents to perform self-testing on LMSs, SCOs, metadata, extensible markup language (XML) documents, and content packages.

##### (2) Multilog parser. This simplifies the review of the contractor/developer-submitted logs by summarizing their information.

##### (3) Resource validator. This compares physical files to the resource files reference in the manifest to determine whether the manifest is complete. It also verifies the existence of all external links in the manifest.

##### (4) Manifest auditors. This verifies that all file paths contained in the manifest are valid paths to existing files.

##### (5) XML core services. This provides XML parsing routines for the resource validator.

##### (6) Sequencing templates. Sequencing templates are examples of a particular sequencing strategy that can be used for a particular part of a course. Developers can take all or parts of sequencing templates and/or combine features from several different templates for the development of a wireframe for a content package. Sequencing templates will have generic names for SCOs, such as "SCO-1." Sequencing templates should be generic content packages, not tied to any actual content.

##### (7) Cascading style sheets (CSS). CSS separate the presentation style of Web pages from content and standardize the appearance of courseware from SCO to SCO. Using CSS simplifies Web authoring and site maintenance. To maintain a consistent look, use a single external CSS within each SCO that contains the majority of style information for that SCO. Then copy the external style sheet from one SCO into the next SCO to maintain a consistent style from SCO to SCO. If there are special circumstances that require a different appearance for a page or section within the SCO, the styles can be overridden with the use of inline styles or embedded style sheets. Use CSS calls that are part of the existing World Wide Web Consortium (W3C) standards (1, 2, and 3) and function in the browser specified in the delivery or task order.

*Note:* No browser fully supports all of the standards. Do not use tags that are not supported by the W3C standards and do not use a browser's specific tags.

#### d. SCORM conformance and waivers

##### (1) Degree of conformance. SCORM conformance is a requirement for all Army DL browser-based courseware that requires tracking by an LMS. All courseware developed to SCORM specifications and standards must be tested for SCORM conformance IAW U.S. Army acceptance criteria.

##### (2) Waivers. Although SCORM's increased capabilities have reduced the need for waivers, a learning strategy not supported by SCORM may still necessitate a waiver. Developers may send an e-mail request for waiver to DDL. Any part of the courseware that is not covered by a CAC-approved waiver must be SCORM conformant. DoDI 1322.26 includes a number of capability exemptions. However, this does not mean that the Army makes these exceptions. Waivers may be granted for the following:

###### Security reasons.

###### Using complex logic requiring server-side scripting and/or dynamic databases used at run-time.

###### Using a third party interface.

###### Using new technologies and/or experimental approaches that prevent the courseware from being SCORM conformant.

###### There will be no reporting of test scores to ATRRS.

###### Content is very perishable and will be replaced or updated frequently.

*Note:* Selection of instructional approach may mean courseware cannot be SCORM conformant because it is needed immediately (for example, courseware on improvised explosive devices, just in time training, training on demand, safety or mission critical courseware), and/or because it is not developed at the CAC-mandated ELO SCO level (for example, a simulation that covers more than a single ELO). This instructional decision must be documented with a request for waiver. The waiver should include a statement regarding future plans to bring the courseware into conformance.