Recommended Practices: Planning for, Acquiring and Verifying Thin Common Cartridges® (Thin CC®) District Template

Introduction to this Guide

Districts can maximize the value of purchased course materials and learning resources by taking steps to ensure that all content delivered by the publisher can be used efficiently and effectively in the school's digital learning ecosystem. As part of the Thin Common Cartridge® (thin CC®) acquisition, explicit requirements should be considered and documented regarding

- how the content aligns to applicable standards,
- how it should be organized, and
- how it should be searched and located by the content end-users, teachers and students.

On receipt of the thin CC, testing and verifying that the publisher adhered to the documented requirements is a good way to ensure end-users will be provided a productive and high quality digital learning environment. This process can be done in three simple steps: Planning, Requirements and Verification.

Planning for Thin Common Cartridge Use

I. Purpose

Use this section to describe at a high level the district's digital ecosystem. Describe the products in use (learning platform, learning object repository, etc).

II. Project Information

Use this section to describe the goal of implementing Thin CCs as a part of the district's digital learning ecosystem. An example is provided below.

The goal of implementing the solution is to:

- Facilitate transformational, digital-age instruction that will prepare students to succeed in the 21st century.
- Facilitate teachers creating more effective, engaging instruction that can be tailored to the needs and interests of students.
- Provide students with anytime-anywhere learning.
- Provide students with the skills that complement technology
- Facilitate the development and implementation of rigorous, aligned standards-based curriculum.

A. Scope

Use this section to describe the scope of use of the Thin CC. An example is below.

The district requires existing and future digital educational applications to be integrated with the learning platform and be IMS Global conformance certified.

B. Stakeholders

Use this section to list the stakeholders who will be involved in this project.

C. Assumptions and Constraints

Use this section to explain in any important information that may not be clear to a potential vendor. An example is below.
Assumption: To import LTI-enabled content resources into the learning platform, content providers must supply the LTI definitions in a Common Cartridge (CC) v1.2 package. A single package should contain less than 5000 LTI definitions.

Constraint: The learning platform currently has the following technical limitations on metatags for an individual asset. These limitations are: description, keyword and field

- The character limit for keywords is 200 characters*.
- The character limit for URLs is 2,000 characters*.
- Use of State Standards Academic Benchmarks GUIDS.
- *Character limits are not cumulative

D. Delivery Dates

The Vendor should provide the approximate delivery date and then update with a target date/revised target date as needed.
Approximate Delivery Date:
It is recommended that the cartridge should be delivered at least a month before school starts to allow time for any issues that may arise during testing of the cartridge.

Acquiring Thin Common Cartridges

III. Requirements Information

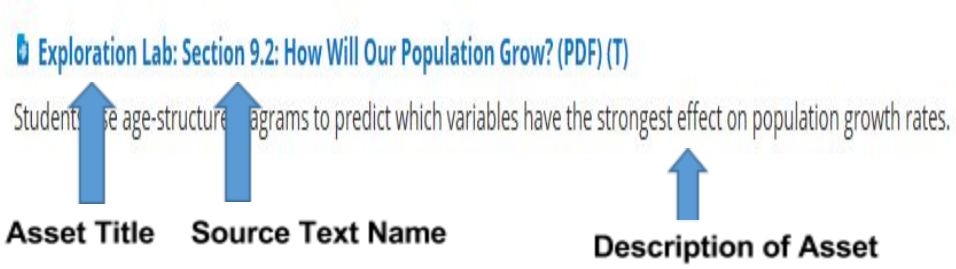
Use this section to define specific requirements within the Thin CC. An example is below.

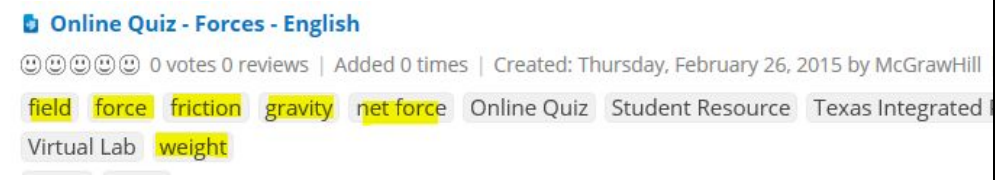
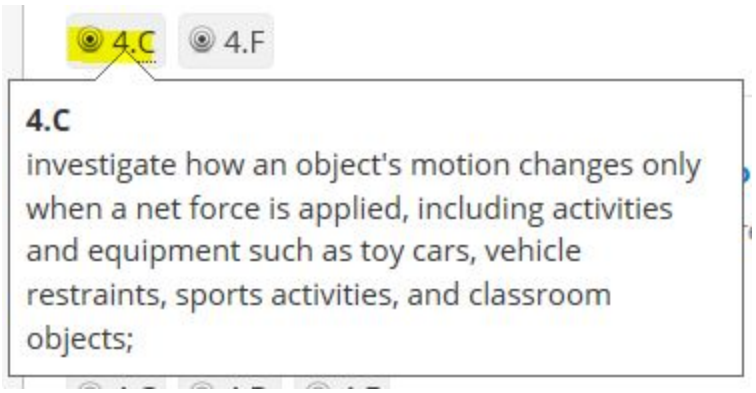
The School District and Learning Platform Provider require all publishers to tag assets in a specific format with the asset's source, information, type, use, content keywords, and the state standards.

At this time, the school district does not require publishers to tag to other standard sets (such as Webb's Depth of Knowledge, English Proficiency Standards or College and Career Readiness Standards); however, publishers may include these tags if they are able to do so.

A. High-Level Business Requirements

Use this section to describe specific requirements in the design and delivery of the thin common cartridge. See Examples on the next page.

ID	Function	Comments
1.1	Publisher has to provide Asset Title that includes the *source text name and brief description of asset*. Example:  	Mandatory Requirement
1.2	Publisher has to provide the Grade Level for all non-high school courses and/or provide course name for all high school courses. Example: Grade 7 OR Physics (High school course search result)	Mandatory Requirement
1.3	The following Types of assets are recommended to be available in the library search. 1. Quiz 2. Lab manual 3. Lab 4. Student practice 5. Worksheet 6. Study Guide 7. egame 8. Animation 9. Interactive 10. Concept map 11. Test 12. Web quest 13. Video Example:	Mandatory Requirement

		
1.4	Publisher has to tag the resource by explicitly mentioning whether the intended user is Teacher, Student or All Example: 	Mandatory Requirement
1.5	Keywords associated with the asset should result in a relevant and sufficient list of materials in a search. It is appropriate to use keywords from the learning standards. Example: 	Mandatory Requirement
1.6	State standards should be correlated to the asset 	Mandatory Requirement. HISD requires the most recent adoption of state standards and there should be no 'custom' standards or creation of unique labels of standards.
1.7	Lexile level	Optional Requirement

<table>
<tr>
<td></td>
<td>The Lexile® Framework for Reading is a scientific approach to reading and text measurement. The Lexile text measure represents a text's difficulty level on the Lexile scale. This would measure the reading level for a student for a particular grade level. The school district recommends to have a dropdown box with the below measures to retrieve the search result for each Lexile scale. It is advised to discuss with the school district and learning platform provider to come up with a standard entry format for this before this functionality is implemented.
<table>
<tr><th colspan="2">Lexile® Text Measure</th></tr>
<tr><td>○</td><td>BR – 95L</td></tr>
<tr><td>○</td><td>100L – 195L</td></tr>
<tr><td>○</td><td>200L – 295L</td></tr>
<tr><td>○</td><td>300L – 395L</td></tr>
<tr><td>○</td><td>400L – 495L</td></tr>
<tr><td>○</td><td>500L – 595L</td></tr>
<tr><td>○</td><td>600L – 695L</td></tr>
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<tr><td>○</td><td>1100L – 1195L</td></tr>
<tr><td>○</td><td>1200L – 1295L</td></tr>
<tr><td>○</td><td>1300L – 1395L</td></tr>
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<tr><td>○</td><td>1800L – 1895L</td></tr>
<tr><td>○</td><td>1900L – 2000L</td></tr>
</table>
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<tr>
<td>1.8</td>
<td>Fountas and Pinnell level

This is a teaching approach designed to help teachers for guided learning to support learners at each level from A to Z+. It is advised to discuss with the school district and learning platform provider to come up with a standard entry format for this before this functionality is implemented.</td>
<td>Optional Requirement</td>
</tr>
</table>

1.9	Reading Recovery level Reading Recovery is a highly effective short-term intervention of one-to-one tutoring for low-achieving first graders. The intervention is most effective when it is available to all students who need it and is used as a supplement to good classroom teaching.	Optional Requirement
2.0	DRA Level The Developmental Reading Assessment (DRA) is an individually administered assessment of a child's reading capabilities. It is a tool to be used by instructors to identify a student's reading level, accuracy, fluency, and comprehension. Once levels are identified, an instructor can use this information for instructional planning purposes.	Optional Requirement

Verifying Thin Common Cartridges

IV. Verification Processes

Explain strategies for verifying an integration here. Example provided below.

Quick Index Check

Thin CCs which are produced by the same publisher as an adopted textbook should contain approximately the same number of metatags as the keywords and terms found in the index of the textbook. For example, if the textbox has 300 items in the index then there should be 300 discrete tags in the Thin CC.

Print and digital forms are informed by one another but the forms are not necessarily equitable. It's important to have conversations with your Thin CC provider to understand the number of metatags associated with the cartridge provided.

Testing accessibility of links after ingestion.

Validation of Thin CC on IMS site (future state) Who do you notify when something doesn't work right?

Querying to verify the numbers of resources match what I thought I purchased.

V. Glossary

Define any unusual terms here. Examples are provided below.

Common Cartridge	CC is an IMS Global standard for integrating digital applications
LTI®	Learning Tool Interoperability® – an IMS Global standard for integrating digital applications
Thin CC	Thin Common Cartridge content resides in the vendor's' servers and can be automatically (single-sign-on) recalled through the learning platform
Single Sign on	Provides automatic access to the content, so teachers and students don't have to sign to multiple platforms and remember different IDs and passwords
Links	Links provide a URL (Uniform Resource Locator) which identifies specific page(s) on the internet where a resource can be found

Revision History

Date	Version	Author	Change
6/5/17	0.1	J. Hobson/M. Leuba	Initial Documentation
11/5/17	1.0	K. Daughtery/A. Boothe	First Version for Publication