

Reducing Authoring Costs of Online Training in Microelectronics Design by Reusing Design Documentation Content

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The **authoring** of **online educational material** for microelectronics design is **costly** and requires expertise that the educators may not have. We address this issue - more specifically the case of **online training** - and propose a technique to reduce authoring costs by **reusing the documentation** content from a **design database**.



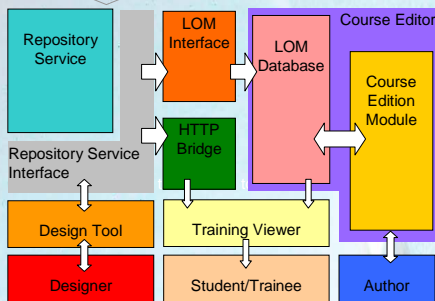
- designers produce both design data and design documentation
- design documentation can be a rich source of content training
- educators need tools to extract, organize and deploy the design documentation



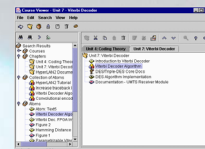
- Besides the regular interface with design tools, two new interfaces are added to the **Repository**:
- a **LOM Interface**, which exports pertinent information about the design documentation modules in LOM format
 - an **HTTP Bridge**, which allows the actual documentation modules to be downloaded by the Viewer

The **Course Editor** includes a **LOM Database** and a **Course Edition Module**. The **LOM Database** stores the LOM records extracted from one or more Repositories.

- LOM** - Learning Objects Metadata
- proposed by the IEEE Learning Technology Standards Committee
 - XML-based
 - provides guidelines to create metadata information for learning modules



The **Course Edition Module** provides an interface where the **author** can browse through the material and organize it in logical units, such as lessons, chapters, etc. Those units can be also stored in the **LOM Database** afterwards.



Once a training unit is ready, it can be deployed to the **trainees** using a **Training Viewer**. The viewer is an enhanced web browser which follows the hypermedia structure generated by the **Course Edition Module**.



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