MeteoCAL creates online interactive training

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Granularity

Granularity is one key for bringing added value to existing training materials. Training resources can be re-used for course building under a different structure.

![Granularity](image)

Figure 1. Granules can be built into courses by using a flexible hierarchical structure, which allows the integration of existing resources.

Choose your path for efficient learning

Every person has a different style to learn. Some prefer practical approaches, some like to understand the essential theory first. To take into account a variety of learners, like those in a course, a variety of paths is available. The user finds a sensible choice to cover the objectives of a module.

![Choose your path](image)

Figure 2. A module is the content of a learning session, about 45 minutes of interaction. The choice of contents inside the module is left to the user.

XML

The basic creation work relies on XML templates. Graphic manipulation and standard editing skills are the only requirements to profit from this tool.

- Source: XML file containing elements of the interaction
- Core: XSL Transformations, invoked in Java (Xalan)
- Destination: HTML page
- Elements of JavaScript and Cascading Style Sheets (CSS)

![XML](image)

Figure 3. MeteoCAL processes the definitions in XML into dynamic HTML for interaction. An extensible stylesheet language transformation does the processing.

HTML interactions

![HTML interactions](image)

Figure 4. Typical interactions managed by MeteoCAL include index pages, question and answer, matrix matches, hotspots, drag and drops, and finally embedded applets.

Figure 5. To help with the creation work, an editing tool facilitates the combination of elements for an interaction. In the example, a question and answer page.

Conclusions

- Satellite meteorology takes advantage of PC interaction for concept clarification, illustration and exercising
- You learn by creating training materials on the subject: An authoring tool in addition, an excellent self-training tool
- Exercises can be applied to stand-alone, tutored or presentational teaching (instructor absent, behind or in front)

WEB REFERENCES

http://www.eumetcal.org/MeteoCAL
is the site for downloading the authoring tool
http://oiswww.eumetsat.org/WEBOPS/meteocal/latest/

is a collection of Metoecal modules on satellite meteorology