



3D Digital Textbook using X3D

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Applications of X3D

- **CAD**
- **GIS, Earth**
- **Medicine**
- **E-Learning**
 - **ePub - eBook**
 - **Digital Textbooks**

Digital Textbook

- **A digital learning textbook that maximizes the convenience and effectiveness of learning by digitizing existing printed textbooks**
- **Supporting functions**
 - traditional functions on printed textbooks such as annotation**
 - multimedia learning functions such as animations, 2D/3D graphics, and audiovisuals**
 - search and navigation, learning support functions**

An Example of Digital Textbook

DEMO

Digital Textbook based on X3D

- **Display Functions**

- Displaying texts or images
- Viewing by page unit(single or double page)
- Zooming in and out
- Fitting the page to the screen
- Page scrolling
- Fitting to width and/or to height of a page
- Indicating page thickness, page numbering, and text hiding

DEMO1

DEMO2

Digital Textbook based on X3D

- Demo of Display Functions

DEMO1

DEMO1

Digital Textbook based on X3D

- **Multimedia Support Functions**
 - Multimedia (Viewing pictures, 3D motion graphics, animations, audiovisuals or visual reality, Opening multimedia objects in new window)
 - Interactive multimedia (Viewing interactive multimedia, Opening interactive multimedia objects in new window)

DEMO

A 3D Book Sample for children

- **Flash**

DEMO

Conclusion

- ◆ **Make Digital Textbook Using X3DOM**

- ◆ **Make Full 3D Digital Textbook using X3D**

 - Book: A set of pages

 - A page: space containing digital textbook contents (text, table, image, 2D graphics, Audio, Motion images, 3D graphics, etc)

- ◆ **Functions**

 - Turn the page naturally: template

 - Annotation: Note, Memo, Highlight, Hyperlink, etc



Thank you

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