

1096-H5-624

David W. Farmer* (farmer@aimath.org). *How to write LaTeX that can be converted to various formats*. Preliminary report.

Open textbooks need to be viewable in multiple formats, such as PDF for printing or HTML for viewing in a browser or mobile device. The LaTeX source, as well as the source files for any images, also have to be available or else the book is not truly “open.”

Since LaTeX is a full programming language, it is possible to write LaTeX which is extremely difficult to convert to HTML. I will describe some simple principles for structuring LaTeX in a way that allows the conversion to be done more easily. Some key points are to use macros which add to the semantic structure of the document, to have all environments include a labeled beginning and ending, and to avoid nested structures. Following these principles makes it possible to do the conversion using regular expressions, avoiding the need to completely parse the document. (Received September 08, 2013)