

Interfaces to structured text

Peter Flynn
University College Cork
pflynn@ucc.ie

November 16, 2002

Abstract The increased use of XML-based text systems in the last few years has led to a heightened awareness of the demands that structured-text systems (including \LaTeX) place on the users themselves as well as on the user interface.

Many existing paradigms for the editing interface (often inherited from wordprocessing systems) are inadequate for the task as they implement a dimensionless model of the document and have no facilities for adapting to a planned document structure. They also lack suitable hierarchical, navigational, and manipulative features, and there are some well-documented performance and behaviour difficulties associated with their rendering and styling. Users may have become conditioned to such models because of their prevalence, and may thus be unaware of the possibility of any other way of working. At the same time they are asked to handle increasingly complex document structures with inadequate facilities.

Editing interfaces have long been available for some systems which implement a structured approach to the document model (including \LaTeX and SGML-based systems). Some extensive implementations have been undertaken with these systems in the last 15–20 years. There would appear to be scope for them to contribute to the shift towards greater use of the structured model as well as to benefit from it. However, while there has been extensive research into human–computer interface design and implementation, especially for the dimensionless ‘wordprocessor’ model, there appears to be virtually nothing in the way of published material on interfaces to the structured model.

A better understanding is required of what the users want, expect, and need from their document interfaces. While there can be little substitute at a professional level for careful training in the use of structured information, the increasing demand for systems which can be used by the untrained operator cannot commercially be ignored. An analysis of the expectations may reveal whether or not the use of structured text systems can be made easier or more effective without sacrificing accuracy and timeliness.

[This paper will present the preliminary findings of research for the author’s postgraduate thesis on interfaces to structured text systems.]