## $\ensuremath{\mathbb{A}}\ensuremath{\mathrm{T}}_{\ensuremath{\mathrm{E}}}\ensuremath{\mathrm{X}}\ensuremath{\mathrm{3}}$ : Using the layers

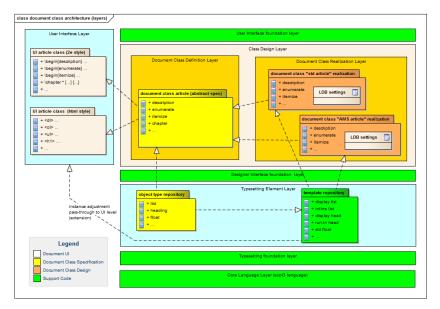


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In this talk we will briefly present the architecture of  ${\rm \sc LATE}X3$  with its four conceptual layers

- Document Interface Layer
- Typesetting Element Layer
- Document Design Layer
- Programming Layer



We will then look in some detail at xparse — a  $\text{IAT}_{\text{E}}X 2_{\varepsilon}$ -like user interface, as an example of the  $\text{IAT}_{\text{E}}X3$  Document Interface Layer, that can already now be used to provide extended functionality for existing  $\text{IAT}_{\text{E}}X 2_{\varepsilon}$  documents and packages.

We conclude with a brief detour of expl3 the foundation layer for  $\text{ET}_{\text{E}}X3$  that provides the basis for all higher-level modules of  $\text{ET}_{\text{E}}X3$  but can also be usefully deployed to develop packages for  $\text{ET}_{\text{E}}X2_{\varepsilon}$ .

The expl3 language is by now in a stable state and gets more and more traction outside the LATEX3 development work, which can be seen, for example, by its use in a growing number of answers on the question and answer portal http://tex.stackexchange.com and in the appearance of LATEX  $2_{\varepsilon}$  packages that use it for programming.