



Towards accessible complete plain text to general public reader

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Introduction

- Enable anybody to communicate with everybody
- From plain text to formatted and accessible document
- Target audience :
 - visually impaired
 - and also : sighted people;
- Two objectives:
 - to create any type of document easily;
 - to make it accessible and intelligible for all audiences.



Presentation overview

Slides 4-5 Definition of Foundations

Slides 6-8 Designing a document

Slides 9-12 Structuring text, tables and figures

Slide 13-14 Building tables & Drawing diagrams

Slide 15 Conclusion



What is accessibility?

Four dimensions for accessibility:

- Readability
- Time spending
- Cognitive load
- Understanding



How to improve existing solutions ?

- Enhancement of the efficiency of screen readers for tables, 2D objects (graphics)
- Initial textual document facilitated by creation of a lightweight tag syntax
 - Inspired of the existing
 - Audible through vocalisation
- Final document reading is facilitated by inserting additional tags and attributes proposed by HTML and WAI-ARIA.



Latitude

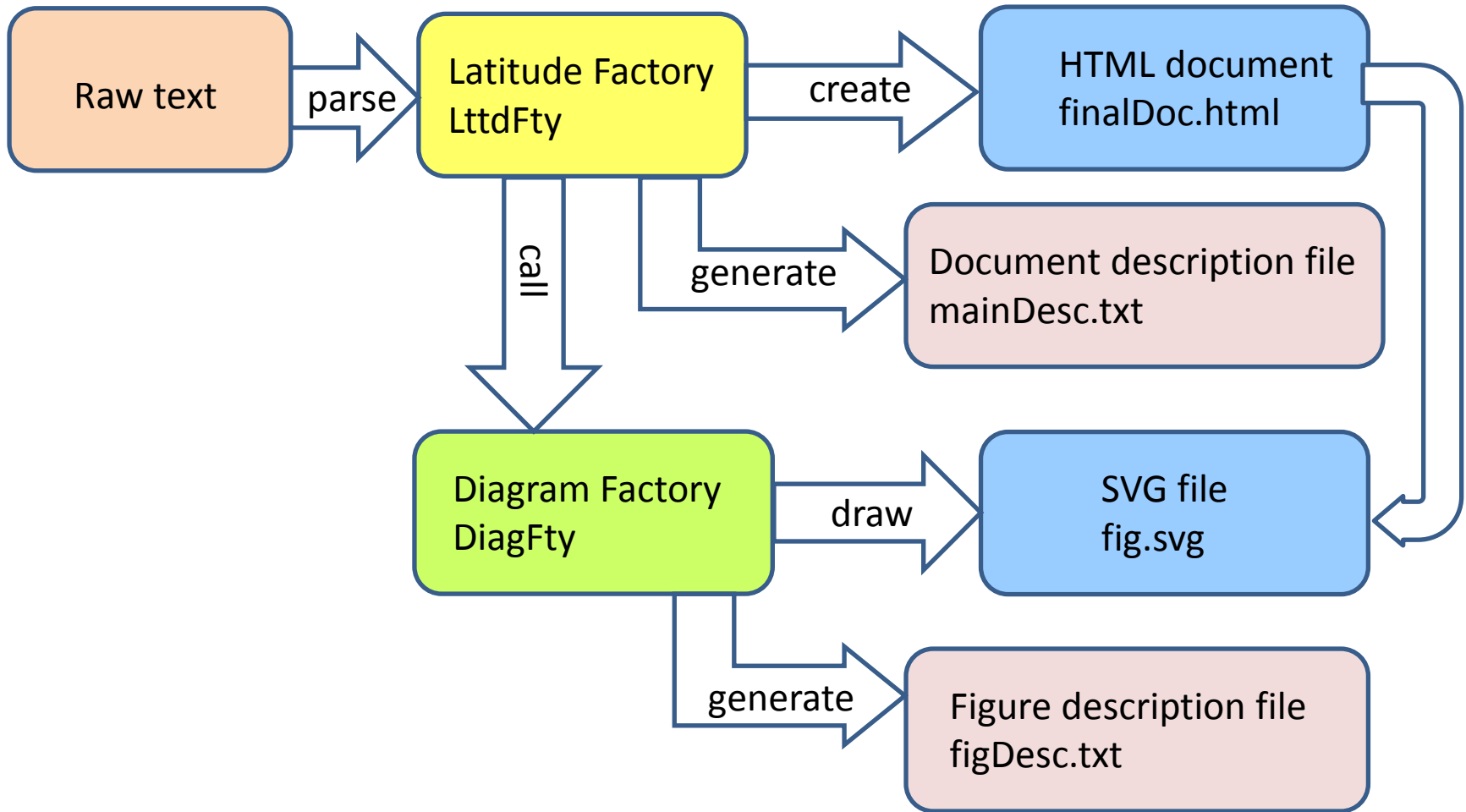
Light and Accessible Text Including Tags and Using Universal Design

Our project:



- Focus on the substance,
- Let the form to the software.
- Do not increase the number of constraints proposed by the WCAG
- Decrease the quantity of rules that an editor must have in mind.

Text document creation process

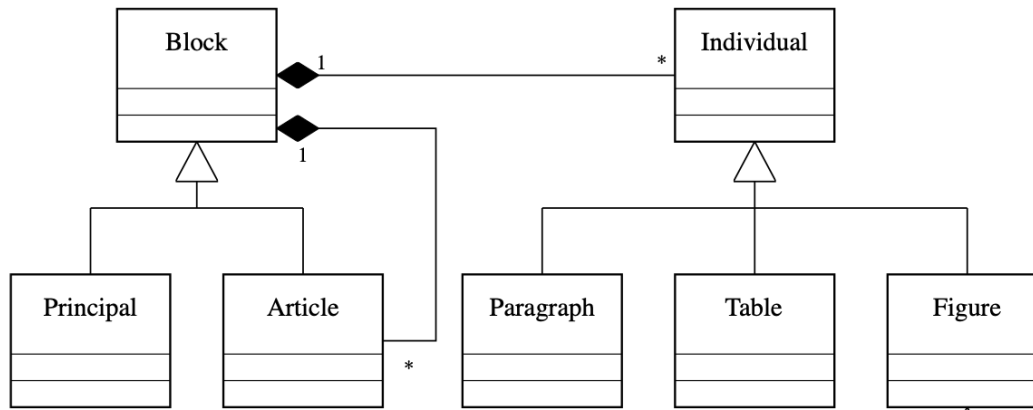


Additional Descriptions

- Factories create a description document and indicate some other informations
- The description file therefore helps blind people who do not have a global perception of the document, but also students who want to benefit from an indicative feedback.
- According to the target audience, blinds and students, the description texts are very useful. This is why we would like to draw your attention to these complementary documents. They contain
 - statistical elements (size, complexity),
 - warnings such as typographical elements (paragraphs or sentences that are too long)
 - suggestions for improvement.

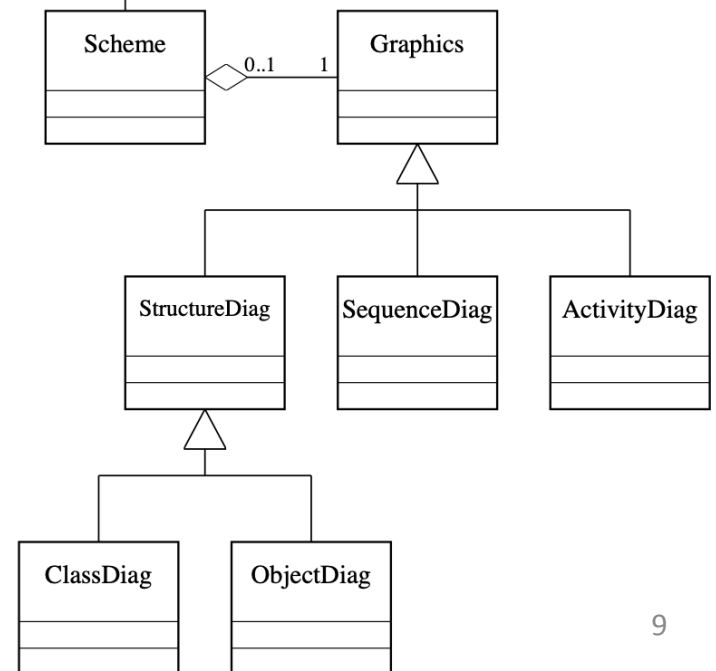


Structuring text, tables and figures



Text composition

- Plain text
- Tags inspired from Markdown et al.



Sections

- Section is

- A title
- Begin with paragraphs
- Contain subsections



- Special tag to detect the title

==== level 1, main title

==== level 2, direct subsection

Structure Description 1/2

- For texts or tables, it will give indications such as size and reading complexity (Flesch score),
- Point out titles, items, sentences or paragraphs that are too long.

Flesch score	Notes
100–80	Easy to read, children
80–60	Plain English, newspaper.
60–30	Difficult to read, graduates.
30–0	Very difficult to read, academic style



Structure Description 2/2

- Each section is composed of a title, paragraphs and optionally, subsections.
 - Automatical study of the balance of these sections inside the document
 - Suggestion, if necessary, to add sections and subdivisions
- Guidelines for blind and novice writers
 - Perception of a good distribution of sections is geometric.
 - Calculate the number of sections and subsections desired
 - Indicate the imbalances found among sections.



Building tables

Country	Main Cities		Residents (millions)
	Capital	Metropole	
Algeria	Algiers		34
Australia	Canberra	Sydney	42
Belgium	Brussels		12
Brazil	Brasilia	Sao Paulo	110

Code to create tables

`__table caption of the table`

`Country | Main Cities | Residents`

`| Capital | Metropole | (millions)`

`-----`

`Algeria | Algiers | | 34`

`Australia | Canberra | Sydney | 42`



Drawing diagrams

__classdiag *caption of the figure*

Section

*abstract Individual

*Paragraph

*Table

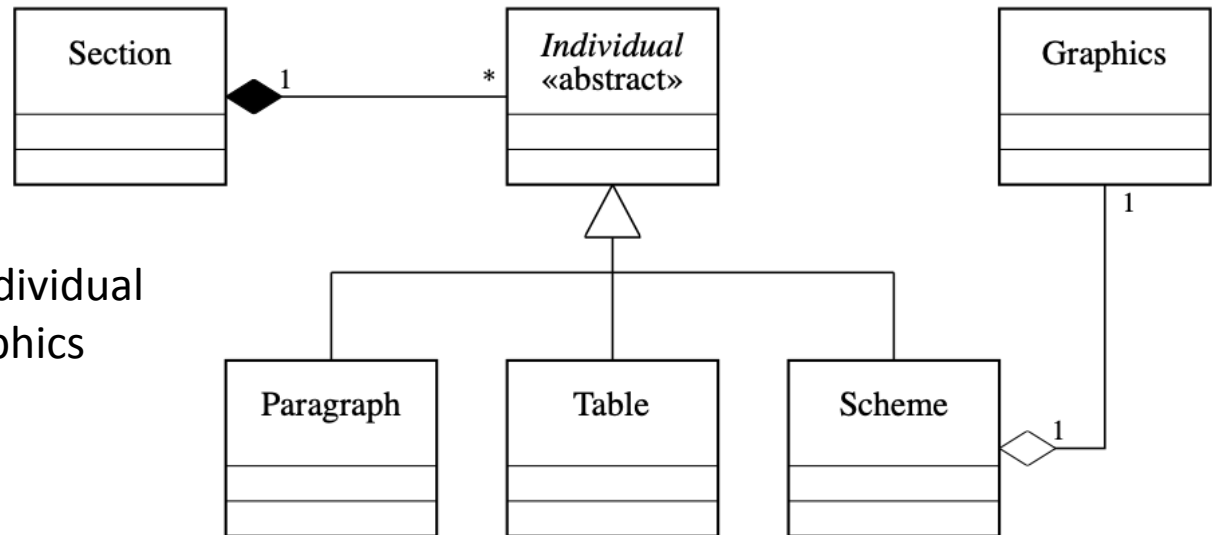
*Scheme

Graphics

Section 1 <<>>----- * Individual

Scheme 1 <>----- 1 Graphics

__end



Conclusion

- The proposed approach may be attractive for other audiences: students learning to design inclusive text with graphics, web designers who must design accessible sites, etc.
- Moreover, it gives the opportunity to discover new ways to data and knowledge acquisition , and new ways for learning (inclusive) strategies.



Thank you for your attention



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