

See through documents

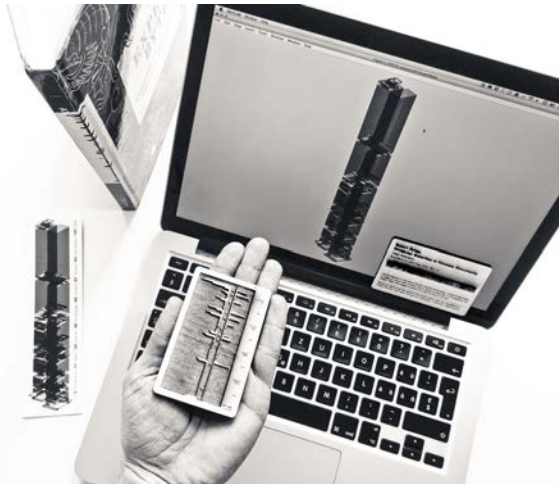
Call for evaluators of a document visualization software

The problem

Consider that you need to open a document to find out if it contains any images, how many and where they are. Consider, furthermore, how tedious rowising becomes when it has to be repeated over an entire document collection.

The solution

Crystal is a software that lets you see through documents and reveals their three dimensional structure. It uses the architectural metaphor of "Twin Towers" for representing such entities as text paragraphs and images as "rooms" inside the physical boundaries of double-pages ("floors") of the document volume ("tower"). The picture below shows that you can use the visualization interactively on screen, printed alternatively as a histogram or color coded ribbon on the spine of a physical book, fashioned as a bookmark, or as a tactile card for the visually impaired.



Browse the book on Amazon.com: Vlad Atanasiu, Expert Bytes, CRC Press, 2013

An example

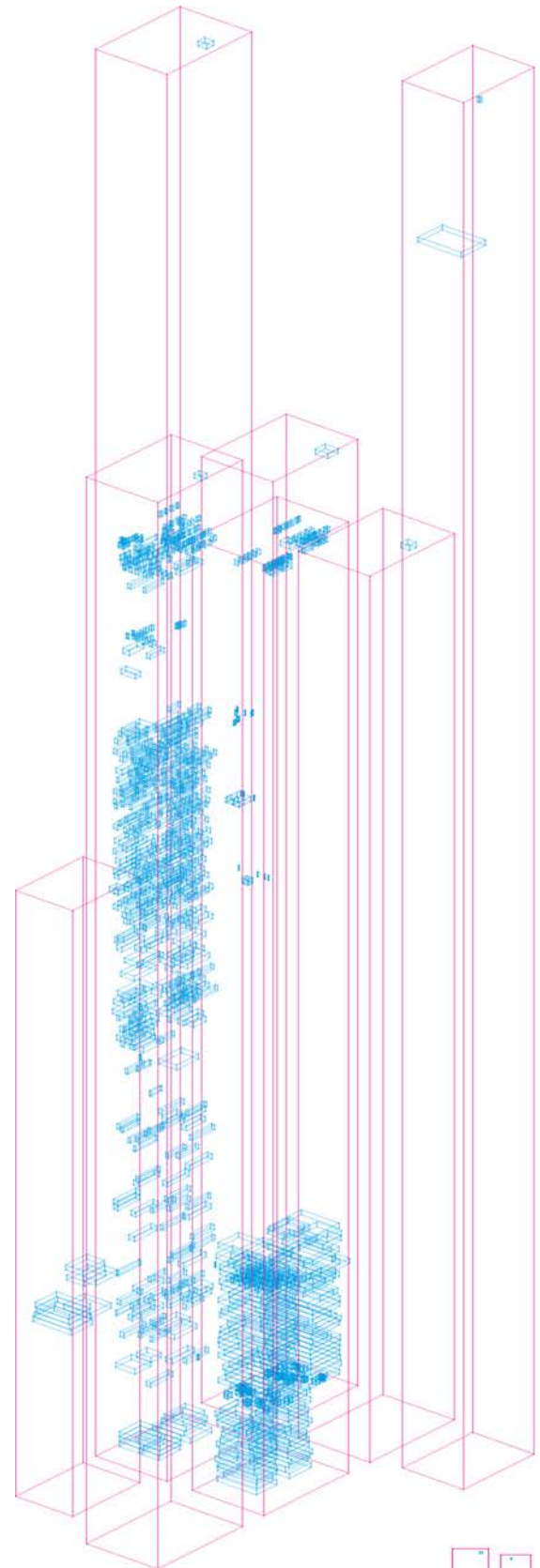
The red outlines in the perspective view on the right represent the virtual volumes of seven books and in blue the location, size, and shape of images. You can see that only three books have substantial amounts of images. In one they are spread over the entire document, while in the others the images are clustered at the end. This information is useful to the reader for faster navigation within the document, it has an impact on the price of the book (clustering images is cheaper to design and print), and might be used as a further element in a quantitative history of printing and book design. The color ribbon to the left shows the location and size of images in a single book.

For whom and what for

The representations address readers with or without visual impairments, librarians and archivists, researchers and publishers. They are expected to improve document triage, conservation, accessibility, navigation, analysis, and communication, while adding an aesthetic touch. Crystal can be used for electronic or physical collections, in native electronic (PDF) or raster formats (scans). Currently the visualized information is text, images, fonts, and perceptual page homogeneity. You can incorporate the visualization in the online description of a single electronic document or visualize the content of a document database.

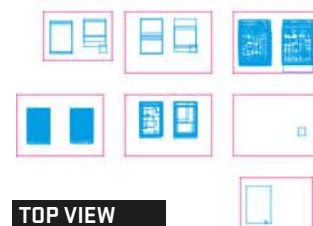
Contact

For testing Crystal on your own data, contact Vlad Atanasiu, Department of Informatics, University of Fribourg, Switzerland, atanasiu@alum.mit.edu, T +41 76 242 8118.



PERSPECTIVE

FRONT VIEW



TOP VIEW

