

Paper Study Toolbox

Overview of elements that can be analyzed from paper reproductions and software that can be developed therefore

Obtained information

1. identification of paper (date, location, paper mill) cumulating data extracted from elements of the paper structure
2. variation of technology in time and space
3. estimation of paper quality

Software tools to develop

1. image enhancement
2. segmentation of elements of the paper structure from the image
3. measurement of proprieties of the elements
4. shape comparison (particularly that of watermarks)
5. search for similar elements in paper databases
6. visualization of the content of paper databases (statistical data distributed over time and geographical location of paper proprieties)
7. report generation on paper measurements and database content

Elements that can be extracted from a paper reproduction with measurements that can be performed on each one

1. watermarks (landmarking, location vis-à-vis other elements)
2. laid lines (mean density, density variation, distance between every two lines, straightness of each line, pattern of movement of the wires of the sieve over time)
3. chain lines (distance, distance variation, orientation, straightness, location vis-à-vis other elements)
4. pontuseaux [fr., ger.: Steg, en.: ?] (existence, number, location, width, correlation to chain lines and watermarks)
5. wire (mean width, width variation)
6. wire on pontuseaux (existence, shape, landmarking)
7. attachment points of elements to each other (existence, location)
8. countermarks (existence, location vis-à-vis other elements, landmarking)
9. zigzag wires (existence, location vis-à-vis other elements, shape, landmarking)
10. paper pulp distribution (variation over the paper sheet)
11. paper fibers (lengths variation, distribution)
12. paper sheet width (variation)
13. faults in paper (location, size, type)

