

IT assignment

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File type	min	average	max	variance
doc	2.746	4.953	7.943	1.850
pdf	6.403	7.764	7.987	0.122
exe	3.222	7.039	7.999	1.089
jpg	7.788	7.931	7.988	0.003
png	7.677	7.951	7.998	0.006
all	2.746	7.108	7.999	1.780

Mean entropy for all files is 7.108, this means that on average each bytes stores 7.108 bits of information.

Entropy differs for the files of the same type. We can see it by looking at the column “variance” or compare values in columns “min” and “max”. File type that vary maximally is doc. The lowest variance was obtained on jpg-files.

Average entropy differs for different types of files. For example, average entropy of png-files is 1,61 times greater than average entropy of doc-files.