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Hyper Text Object Notation

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Abstract

For the past decade, many Data Serializing Technologies have been introduced for the web-based applications, and they mostly focus on the Communication Efficiency and less on Development Productivity and vice versa. Due to this reason, the developer has to sacrifice either of those fundamental factors of Delta Communication to fulfil the requirement. This research looks in depth at the current major Data Serializing Technologies to identify the problem of those two factors not being able being held in an equilibrium state.

As part of the solution, HTON (Hyper Text Object Notation), a new Data Serializing Technology, the solution to the core problem of the research, helps keep the development productivity at an optimal state and maintains the communication efficiency as JSON. The solution is built on the plus points of both JSON and HTML in regards to the two fundamental factors of DC. To use HTON, the other part of the solution which is a library for both client and server sides are introduced. The libraries make the usage of HTON easier, therefore, enhancing the factor of development productivity.

The tests results of the libraries' functionalities and performance is included in the Testing chapter while both quantitative and qualitative evaluations are described in the Evaluation chapter. At the end of the thesis, the conclusion of the whole research project is added including the limitations and the future work as well.

Keywords:

Rich Internet Application, Delta Communication, Data Serializing Technologies, Development Productivity, Communication Efficiency