DPP: Evolution towards a browser-based distributed volunteer-computing platform

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Abstract
The *Distributed Ping Project* (DPP) is an active, open-source data-mining framework, used to generate, organize and re-distribute (via XML/RDF) inter-client worldwide network latency data. Deployment is managed through embedded Javascript in participant web-sites, and data is generated en-masse by client browsers and stored via web-service, leading to a massive dataset representing a decentralized demographic. This paper briefly outlines the new framework of DPP, which has recently been completely re-written, and goes on to describe the changing goals of the developers and the increasingly ambitious capabilities of the underlying technology, which is evolving into a Javascript / browser-based distributed data processing framework utilizing the HTML5 canvas method and modeled on the BOINC platform application. While eventually intended to be utilized across many fields as an open-source framework, the initial application intended for this software will be parallel visualization modeling of Edge-Localized-Modes (ELMs) in thermonuclear plasma simulations produced by the ITER Organization, the primary sponsor of this project.