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Use of TEX plugin technology for displaying of real-time weather and geographic information

S. Austin[a], D. Menshikov[b], and M. Vulis[a]

[a] Dept. of CSC, CCNY, NY, USA
[b] MicroPress, Inc, USA

In this article we show how by means of the GeX plugin technology one can process and display geographic information including real-time weather data as part of a TEX→PDF compilation.

The plugin technology [introduced at TUG2000] functions under the PDF backend of the VTeX compiler; it allows the user to enhance the TEX-integrated PostScript converter (GeX) with user-defined language extensions. Plugins can be used for plotting or retrieving specialized data; earlier plugin examples were used for business or scientific plots.

The Tiger plugin is a new experimental plugin which can retrieve static geographic data (the Tiger database, for instance), as well as the real time weather data and plot them together within the context of a TeX document compilation; it can be used, for example, to supplement static TeX documents (papers, books) with maps, as well as (on a server environment) produce real-time weather maps.