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## Translation on-the-fly add-on based on existing translation files and machine-translation

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## Translation on-the-fly add-on based on existing translation files and machine-translation

### Abstract

A new method for translating webpage on-the-fly is disclosed. This method use a browser add-on to auto localize the newly developed webpage or web application using existing translation files or machine-translation, so that web UI developer can detect & fix potential layout issues (including bad layout and truncation) during development time.

### Body

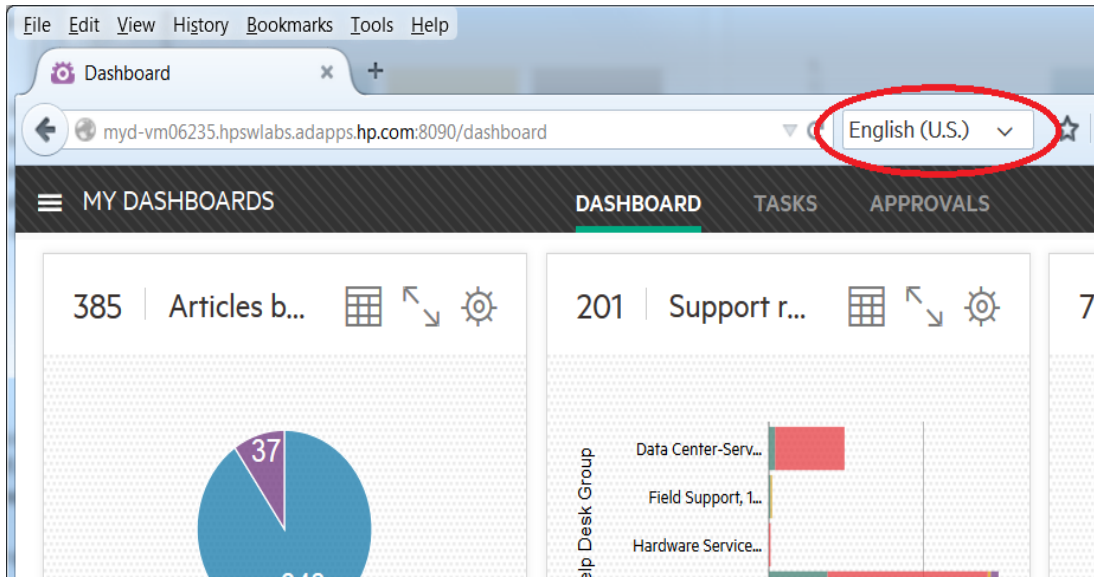
One of the top challenging issues in localized software product is application layout issue (including bad layout and truncation). In some products, layout issues may reach up to 24% of the Globalization defects and it may be the top Globalization defect category.

When layout defects are found by Globalization QA engineers in Globalization testing time, it is quite late (considering the time needed for the translation). The later a defect is found - the higher fixing costs. The agile development approach wishes for detecting the defects during the iteration time, while Globalization defects are found much after that. In average, R&D may need 1 hour to fix a layout defect found in Globalization testing, while, in development time, they may just need 5 minutes to fix such a defect. Furthermore, it was found out that some layout defects were postponed to next version as they were found too late close to UI freeze and that strongly harm customers' satisfaction.

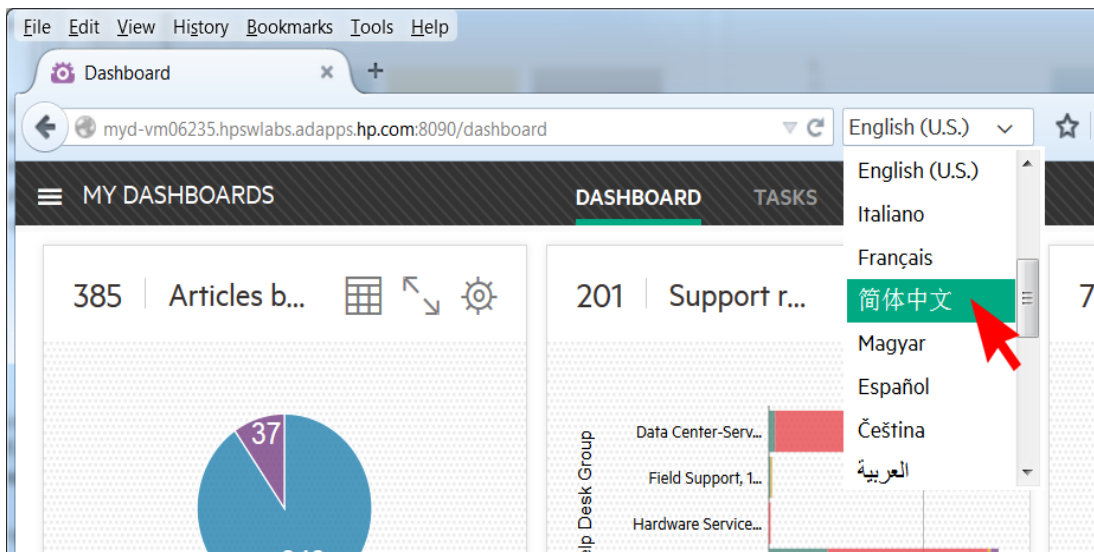
Our method is "Translation On-the-Fly Add-On". It use browser add-on to auto localize the newly developed webpage using existing translation files or machine-translation, so that web UI developer can detect & fix potential layout issues (including bad layout and truncation) during development time.

The following is the screenshots of our mock-up. The language list of our add-on is marked by cycle. To switch language, user (namely the web UI developer) just need to choose the language in the language list of our add-on.

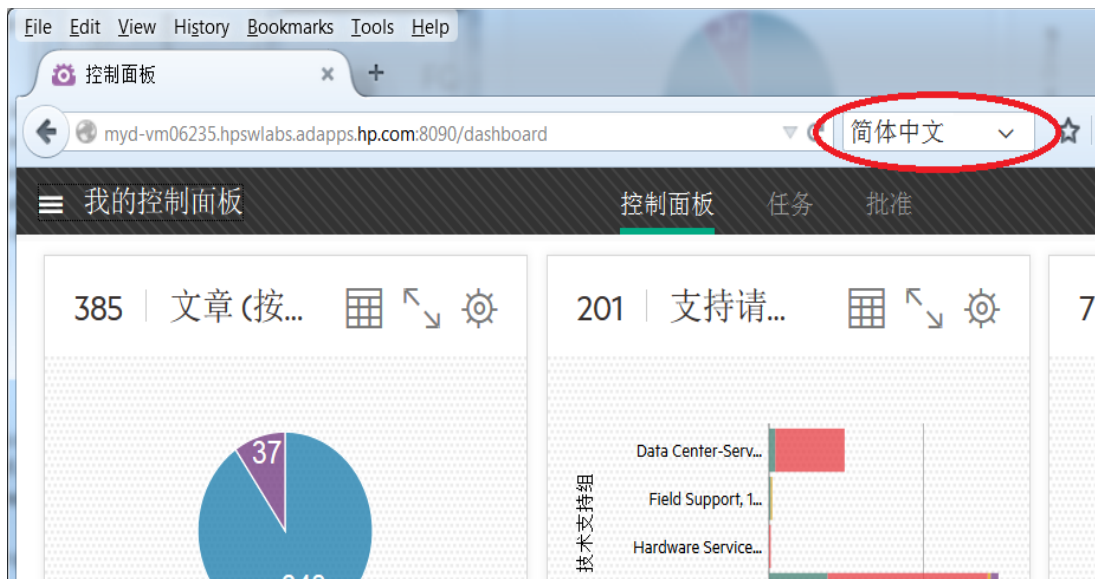
Mock-up step 1: Web UI developer opens newly developed English webpage.



Mock-up step2: Web UI developer switches displayed language by the target language (such as Chinese) in language list.



Mock-up step3: Web UI developer see localized webpage (such as the Chinese webpage):



The translation will first re-use existing translation files, including the translation memory (namely TMX files) from previous versions and/or the translation memory of other software sharing the same domain, existing glossary files (such as Microsoft's glossary). The quality of these translations is high.

Machine-translation is the additional way for the translation. In order to assure the quality of the translation, we recommend using dedicated trained machine translation solution based on internal translation assets rather than generic machine translation like Google Translation.

Our method changes the process. Web UI developer can change the application UI locale and find layout defects and fix them in development time.

Comparing to the existing UI machine-translation methods, our method has big advantages: it can assure that the quality of the translation will be very high and close to human translation and the issues that will be detected by the developer will be real ones and in the same time the probability of missing defects is low; the solution is easy to deploy and to use and the overhead for the developer is small while the value is high.

Disclosed by Yi-Qun Ren, Uriel Lustig and Kai Hu, Hewlett Packard Enterprise