Quarterly Programmatic Report

Developing Screen Reader and Text to Speech Synthesizer for Indian Languages

November 2012
to
February 2013

Contents

Progress in the Present Quarter

Bugs and Testing

- Manish Agarwal, the project manager for NVDA development has commenced work in this quarter and the team now keeps in touch regularly through mail and weekly telephone calls.
- Suman Dogra has joined as tester and is writing test scripts and validating the bugs. At CIS, Yogesh Kumar is in charge of guiding the interns and coordinates with Mahiti.
- A new NVDA plan document is being created since many of the tickets in the previous list were closed. The Annexure contains the first set of confirmed bugs on which work has commenced.
- A wiki has been set up on the Saksham website to manage and track the project. The url is http://saksham.org/wiki.
- Two interns have joined CIS for three weeks to work on this project; Krishna Kant Kumar and Rameshwar Nagar. Krishna Kant Kumar is working on bug 1641 and Rameshwar Nagar is working on bug 1353.
- Another bug on which work is being done is '2047'. The bug addresses the problem of NVDA not recognizing the language automatically in MS Word. This makes it necessary for a user to manually change the synthesizer if they need to read a Hindi or Indic document and makes reading mixed language documents very difficult.
- The work of developing manual test scripts for the MS office suite of applications has started. So far, test scripts for MS Word and Outlook 2010 have been created and reviewed. One round of testing for MS Word using these scripts was done. The testing of scripts for MS Excel 2010 has also been completed.

Development of a driver for Vocalizer languages

- Vocalizer from Nuance is a text-to-speech engine that provides a Hindi variant called "Lekha" and an Indian English variant called "Sangeeta". These voices significantly improve the user's ability to work with Hindi documents and access internet content in Hindi. To use these voices with NVDA, we bought a Euro 75 driver from a company called Tiflotechnia.
- We wrote an alternative driver that allows a user to use these voices by getting them from Saksham on a "not for profit" basis at a much lower cost and without having to buy the Tiflotechnia license. This driver uses the existing open source components available for vocalizer voices as much as possible.
- This driver has been developed and tested and is now ready for distribution. Saksham will be spending additional effort to package the driver for installation along with NVDA and the vocalizer "Lekha" and "Sangeeta" voices.

Contracts with Mahiti

- CIS has signed a contract with Mahiti to close 12 bugs from the NVDA list and also signed another contract to develop e-speak text-to-speech (TTS) for four languages, namely, Malayalam, Hindi, Gujarati and Bengali.

Invitation to IIT, Delhi

- CIS sent an invitation to the Indian Institute of Technology (IIT), Delhi, and they have agreed to join the project. IIT has also agreed to have three professors involved in the project and let students work on this project. This will help in capacity building and build a stronger open source community.

Annexure – NVDA Plan Document

Bug List (Confirmed)

ID	Description	Assigned To
446	When deleting one before the last message in the outlook express message list NVDA fails to announce new item in focus	Mahiti
779	Problem when deleting a selection in Microsoft Word NVDA does not announce "Selected deleted" and NVDA does not announce the text that has followed the previously selected the word "Unchecked" when you move the focus	
781	Added support for detecting multiple selections in Microsoft Excel	
942	NVDA Should Announce Tracked Changes in Microsoft Office Word	Mahiti
1353	When Pressing the following shortcut keys control plus b control plus u and control plus i and control plus e in Microsoft Word NVDA doesn't tell you if you are going to center a line or bold on or underline on or italics on or centered when pressing control plus.	Mahiti
1428	Keys which produce a compound character spoken as separate typed characters	
1541	Detecting shapes and charts in Microsoft Word	Mahiti
1786	Excel 2010: copy from word paste into cell NVDA speaks cell coordinates but not pasted content	
1933	Word 2010: Application/context key/menu items double-speak where each item should speak once	Mahiti
1934	Word 2010: When applying list formatting e.g. bullets or list press ENTER for next bullet/number NVDA is silent where it should speak bullet/number other screen readers	Mahiti
1935	Word 2010: With a bulleted/numbered list selected using SHIFT+UP/DOWN ARROWS NVDA doesn't speak the bullet/number where it should	Mahiti
1938	Word 2010: While performing a spell check Â initiated with F7 there are times where NVDA will not read context and speak/read spelling mistake	Mahiti
1987	Add the ability for NVDA to read charts in Excel	
2047	Support to detect languages in word	Manish
2446	Allow NVDA to speak the bullets and numbering and list levels in Microsoft Word lists	Mahiti
2511	NVDA doesn't read some shapes in MS Word 2010	
2816	Announcement of suggested contacts in outlook 2010	Mahiti

List of ARIA Bugs

913	Aria-value text for progress bars not working
1195	ARIA Landmark Roles and Labelling the Landmark
1283	Aria-labelled by should precede aria-label attribute
1972	Sentences are joined together when last word in the first is a link
2009	Added support for the list items when typing NVDA+F7

Enhancement Bug List

1307	Headlines in Word not possible
1911	Row/Column Table Navigation
1939	Word 2010: need a way to query cursor position i.e. how many inches from margin - very useful for formatting
2041	Command to reading by line in Microsoft Excel
957	Commands to facilitate navigation on the tables
406	Each NVDA language should have a preferred voice