

A music interface for Visually Impaired people in the WEDELMUSIC environment. Design and Architecture

Anastasia Georgaki, Spyros Raptis , Stelios Bakamidis

Institute for Language and Speech Processing, Speech Technology Department,
Epidavrou & Artemidos 6, GR - 151 25 Marousi, Athens, GREECE

Abstract: In this poster we present the architecture of a new music interface for blind musicians, integrated in the WEDELMUSIC¹ environment which is under development at ILSP². Our scope is to facilitate the access of visually impaired persons to musical databases (scores, audio and MIDI files) via Internet and give them the possibility to edit and create musical scores.

1.Important Key issues for the design of an interface for Visually impaired persons

- a) Accessible visualisation of the current location
- b) Accessible visualisation of searching information
- c) Visualisation of information / feedback of above results.

2. Architecture of the interface

The WEDELMUSIC VIP MODULE is part of the overall WEDELMUSIC SYSTEM (DSI, UNIVERSITY OF FLORENCE)¹, and is itself divided into smaller modules and components. The most important modules are:

- a (normal or Braille) printer using Braille Music format and to the Braille bar.
- Spoken Music Interpreter. The main purpose of this module is to interpret information from the WEDEL object to a descriptive textual form. This text is then converted to speech via a speech synthesiser.

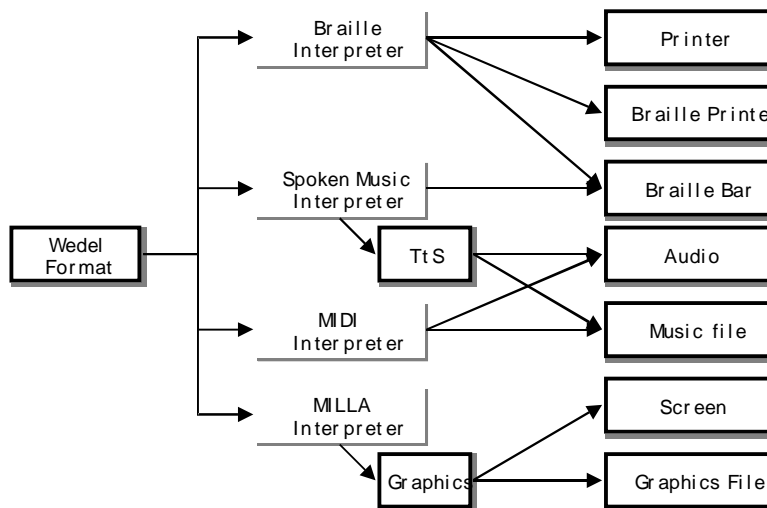


Fig.1. Data interpretations and target output devices.

¹ The WEDELMUSIC main project (www.wedelmusic.org) is a European IST project which started in January 2000.

3. General components of the VIP Module

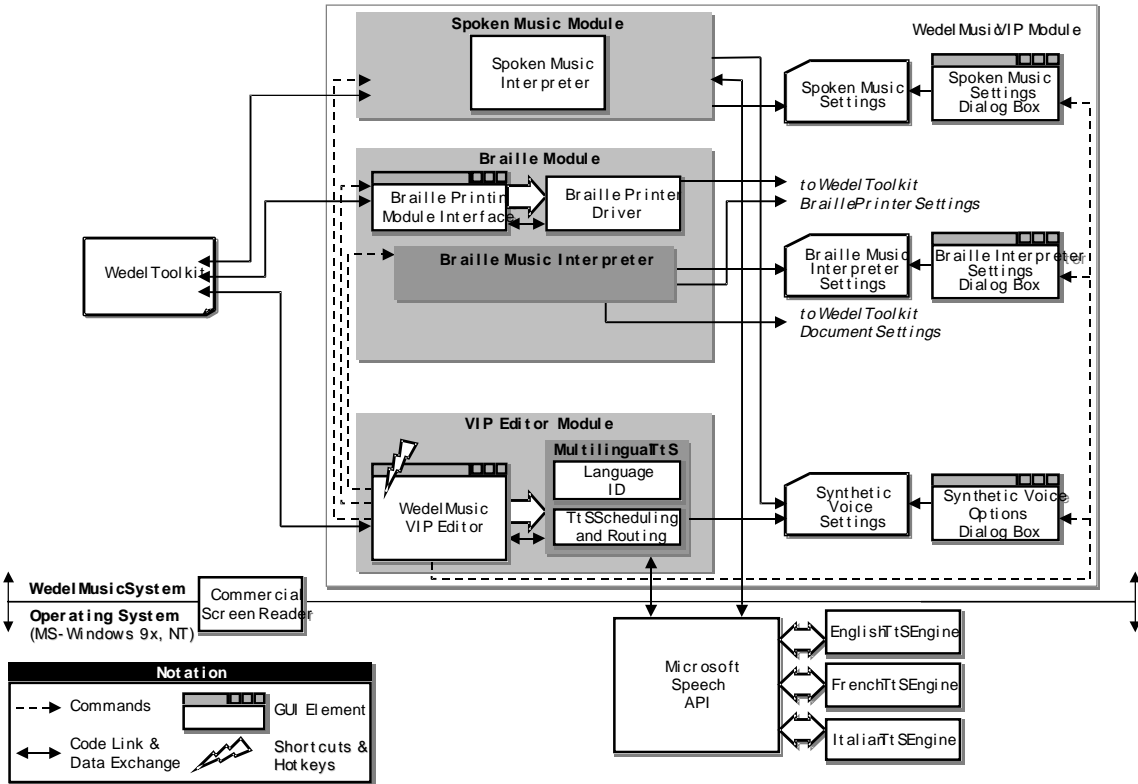


Fig.2. Layout of the system architecture

4. The WEDELMUSIC VIP EDITOR User Interface Component

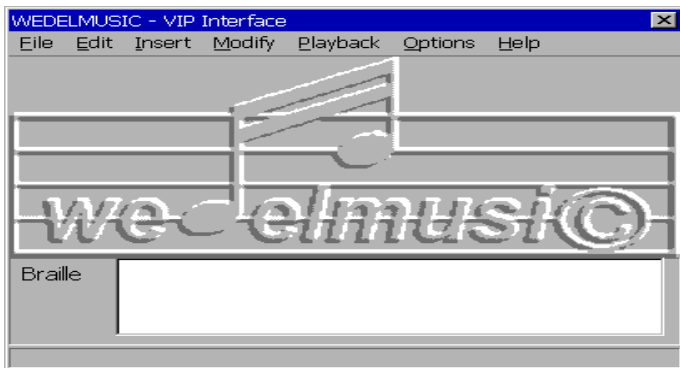


Fig. 3. An indicative version of the WEDELMUSIC VIP INTERFACE

5. Conclusions

Through our work, we want to give the blind musician access to the same information available to the sighted musician: the unfiltered, written message of the composer distributed via the new WEDELMUSIC environment. In addition WEDELMUSIC will also precipitate a renewed interest in the use and teaching of Braille and speech-music. In particular, it will help sighted music educators who do not know the Braille music system to teach blind to be literate musicians.