

# Free(b)soft Projects

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## **Free(b)soft Laboratory**

- Computer Accessibility for blind and visually impaired
- Solutions based on Free Software
- Lead by Brailcom, o.p.s
- A team of direct employees, external collaborators and volunteers

## Brailcom

- A non-profit organization (Social Enterprise)
- Founded in 1996 by the Czech Foundation for the Blind

### Activities:

- Services for blind people
- Services for organizations
- Development of Free Software

**ALL FREE OF CHARGE**

## Financing

- Supplementary commercial activities
- Grants
- Donations
- Volunteers

## Main Fields

- Speech synthesis systems
- Making the existing software accessible
- Specialized applications for blind and visually impaired
- Localization
- E-learning

## The Infrastructure

- CVS repositories
- Mailing lists
- Web space
- A framework to utilize it all easily and effectively
- Promotion
- Financial funding
- Coordination

## The Key Projects

- Speech Dispatcher
- speechd-el
- Speechd-Up
- Festival Czech
- festival-freebsoft-utils
- Free(b)soft CDROM
- Wiking
- Learning Content Generator

## Speech Dispatcher

Speech Dispatcher is a high level speech interface

- Client/Server model over TCP/IP (SSIP)
- Client libraries for different programming languages
- Multiple output modules (Festival, Flite, ...)
- High-level interface for client applications (priorities, context preservation, sound icons, ...)
- Highly configurable

## Speechd-el

### Speech support for Emacs

- New approach to speech output in Emacs
- Alternative to Emacspeak (not a competitor)
- Full Speech Dispatcher support
- Easy to customize/extend
- May be useful for sighted Emacs users as well

## Speechd-Up

### Speakup to Speech Dispatcher interface

- Reads `/dev/sftsynth`
- Uses Speech Dispatcher to speak
- Currently the only way to use Speakup with a software speech synthesizer

### Current issues:

- Speakup lacks support for national character sets
- Speakup internally performs TTS processing (oriented to HW synthesizers)

## Festival Czech

Czech support and Czech voice for Festival.

- Transformation of a written text to a phonetic form
- Czech prosody rules
- Czech diphone database
- Developed in cooperation with FÚ FF UK

The Goal:

- Non-proprietary phoneme database (currently using MBROLA)

## Free(b)soft CDROM

Bootable CD with a blind friendly GNU/Linux system

- Based on Knoppix
- Speech enabled Emacs environment (Czech and English)
- Using Speechd-el and Speech Dispatcher
- Applications for www, e-mail, text processing etc.
- Easy opportunity for everyone to try a speech-enabled desktop without the need to install anything

## Wiking

### Web Content Management System

- Wiki formatting – simple and accessible source format
- Good separation of content and presentation
- Proved to be easily manageable by blind users
- Designed to produce accessible web sites

## **Eurochance project**

Distance English and German language courses for blind people

- EU funded long-term project
- Cooperation with other 7 companies/organizations from all around Europe
- Using ATutor Learning Management System
- Learning Content Generator to produce accessible content

<http://eurochance.brailcom.org>

## Learning Content Generator

- Produce reusable content packages (IMS format)
- Separate content definition and final presentation
- Generate accessible content packages
- Easily extensible (Python)

## Thank you

The Free(b)soft Laboratory

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