



## Project Rainbow Bridge

- EU-supported project
- the main goal is to teach people with physical disabilities to control PC by their voice
- in addition we try to find suitable jobs for our clients and negotiate with potential employers

*This project was funded by the Operational Programme Prague – Adaptability, which is co-financed by the ESF and the Czech Republic state budget*

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### Project:

- duration: 3 years (2010 - 2012)

### Goals:

- to help people with disabilities benefit from modern voice technologies
- to build a training center
- to create methodology for specialized voice-command teaching
- to learn computer usage via voice – at least **50 clients**
- to help the course participants in search for prospective jobs

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### What do we teach in our courses?

- PC basics
- MS Windows 7 – navigate, control, file system, etc.
- MS Word - dictation, text editing, most used features
- Mozilla Firefox – web browsing - principles, usage, search, e-mail
- Skype
- MS Excel (advanced users)

No prior experience with PC expected

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### Used speech recognition technologies:

- MyVoice – voice-control of a PC
- MyDictate – speech-to-text word by word (discrete transcription)
- NEWTON Dictate – fluent speech-to-text transcription

Software was developed at The Technical University of Liberec (TUL) together with NEWTON Technologies.

Software is available only for Czech language at the moment, can be translated to work in other languages.

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### MyVoice:

- replaces keyboard and mouse, completely controls a PC
- recognizes discrete-speech commands (~500)
- allows user to modify, remove and add commands
- the tool runs on virtually any PC, controls any application
- most often used for: text typing, internet access, communication (e-mail, chat, Skype, ...), leisure activities (TV, radio, games, painting, ...)
- has a switch for listen/sleep mode

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### MyDictate:

- discrete-speech dictation tool designed for Czech
- compatible with most text editors
- very large vocabulary – 550.000 words and word-forms
- commands for correcting, editing, formatting
- easy modification of vocabulary (by voice)
- cooperation with MyVoice

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**NEWTON Dictate:**

- fluent-speech dictation tool designed for Slavic languages
- context speech recognition
- works as a self-standing text editor
- large vocabulary – 600.000 words and word-forms
- easy modification of vocabulary

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**Courses:**

- **free of charge** for participants (project funded by EU)
- duration: **3 months**
- groups of max. 4 per course
- first 2 months – twice a week 5 hours of training
- 3rd month - homework on notebooks (help via phone, Skype, e-mail)

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**Dita Horochovská – lecturer**

- 6 years experience with voice control SW

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**Future projects:**

- 2 more projects funded by the ESF starting November 2011 – cover another 4 regions of Czech Republic
- International cooperation – we have plans for international project and are looking for partners



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**Thank you for your attention,  
could voice recognition help you too?**

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