

Enhancements to the NSpeex library

Filip Navara <navarfil@fel.cvut.cz>

What is Speex?

- Audio compression format designed for speech
- Uses code excited linear prediction for compression and series of preprocessing filters
 - Slow encoding, fast decoding
- Patent-free with libraries released under BSD license
- Used for VoIP communication (Google Talk)

What is the NSpeex library?

- Library for interfacing the Speex codec in .NET platform
- Goals:
 - Wrapper around the native C library
 - Full implementation of the codec in C# language
 - Demo application to transfer audio over the network

Project details

- Programming languages: C#, C++
- Organization
 - Hosted on Codeplex
 - Source code repository with TFS / SVN access
 - Integrated issue tracking
 - Wiki
 - Discussion forum
 - New BSD License
 - Developed by single developer (Christoph Fröschl)

How will I contribute to the project?

- Write initial C# implementation of the codec based on the JSpeex Java port and the Speex C library
- Preliminary source code was submitted to the current project maintainer
 - Outdated in respect to the C library, but still offers acceptable quality

Efficiency of the Speex codec

- Simple test data:
 - Uncompress file size: 42,505,390 bytes
 - Encoded using libspeex: 1,571,007 bytes
 - Encoded using NSpeex: 1,297,136 bytes

Links

- Speex
<http://www.speex.org>
- NSpeex
<http://nspeex.codeplex.com>
- NAudio
<http://naudio.codeplex.com>

Questions?

