Adding doppler effects to the audio player in Symbian C++

Overview

The S60 platform has several audio enhancement APIs that can be used to modify the audio experience. One of them is the CSourceDoppler API. This API makes the audio source appear to either move towards or away from the listener.

This snippet can be self-signed.

Preconditions

The audio player must be fully constructed before constructing the instance of the API. This can be done with the following lines of code:

```
iMdaAudioPlayerUtility =
  CMdaAudioPlayerUtility::NewFilePlayerL( aFileName,
                                          *this,
                                          EMdaPriorityNormal,
                                          EMdaPriorityPreferenceTimeAndQuality);
```

MMP file

The following capabilities and libraries are required:

```
CAPABILITY NONE
LIBRARY DopplerBase.lib
HEADER SourceDopplerBase.h
```

Source file

First you need to construct the reverb utility instance:

```
iDopplerEffect = CSourceDoppler::NewL( *iMdaAudioPlayerUtility );
```

To set the doppler effect on, you need to set the doppler effect factor. The factor needs to be between 0 and `FactorMax()`. After this, you can enable and apply the effect to the player.

```
iDopplerEffect->SetFactorL(iDopplerEffect->FactorMax());

if(!iDopplerEffect ->IsEnabled())
         iDopplerEffect ->EnableL();

 iDopplerEffect ->ApplyL();
```

You can also add a 3D effect by using a timer that periodically changes the effect factor of the effect.

To set the source location effect off, just call the following line of code:

```
iDopplerEffect->DisableL();
```

Test application

File:3D AudioEfects.zip

See also

- Adding source location effects to the Symbian C++ audio player
- Adding listener's location effects to the Symbian C++ audio player
- Adding bass boost to the Symbian C++ audio player
- Adding stereo widening to the Symbian C++ audio player
- Adding reverb to the Symbian C++ audio player

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- Adding equalizer to the Symbian C++ audio player

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