Archived:Using customized key sounds with CAknKeySoundSystem

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Overview

This code snippet shows how CAknKeySoundSystem is used to customize the key sounds of an application. The example code customizes arrow key sounds by defining its own AVKON_SKEY_LIST and AVKON_SKEY_INFO structures and uses these when array keys are pressed.

This snippet can be self-signed.

MMP file

The following libraries are required:

```
LIBRARY avkon.lib
LIBRARY eikcore.lib
LIBRARY eiksrv.lib
```

Resource files

- .hrh file

```
#ifndef __TESTER_HRH__
#define __TESTER_HRH__

//...

//arrow sound ids
enum TArrowSoundId
    {
    EUpSoundId = 1,
    EDownSoundId,
    ELeftSoundId,
    ERightSoundId
    };


#endif // __TESTER_HRH__
```

- .rss file

```
#include <eikon.rh>
#include <avkon.rsg>
#include <avkon.rh>

#define KUpArrowSoundFile    "c:\\data\\up.wav"
#define KDownArrowSoundFile    "c:\\data\\down.wav"
#define KLeftArrowSoundFile    "c:\\data\\left.wav"
#define KRightArrowSoundFile    "c:\\data\\right.wav"

RESOURCE AVKON_SOUND_INFO_LIST r_arrow_sound_list
    {
    list =
        {
        // up arrow
        AVKON_SOUND_INFO
           {
           sid = EUpSoundId;
           priority = EAvkonKeyClickPriority;
           preference = EAknAudioPrefDefaultTone;
           file = KUpArrowSoundFile;
           volume = 5;
           },
        // down arrow
        AVKON_SOUND_INFO
           {
           sid = EDownSoundId;
           priority = EAvkonKeyClickPriority;
           preference = EAknAudioPrefDefaultTone;
           file = KDownArrowSoundFile;
           volume = 5;
           },
        // left arrow
        AVKON_SOUND_INFO
            {
            sid = ELeftSoundId;
            priority = EAvkonKeyClickPriority;
            preference = EAknAudioPrefDefaultTone;
            file = KLeftArrowSoundFile;
            volume = 5;
            },
        // right arrow
        AVKON_SOUND_INFO
```


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```
            {
            sid = ERightSoundId;
            priority = EAvkonKeyClickPriority;
            preference = EAknAudioPrefDefaultTone;
            file = KRightArrowSoundFile;
            volume = 5;
            }
        };
    }

RESOURCE AVKON_SKEY_LIST r_arrow_skey_list
  {
  list=
    {
    AVKON_SKEY_INFO
      {
      key = EStdKeyUpArrow;
      sid = EUpSoundId;
      },
    AVKON_SKEY_INFO
      {
      key = EStdKeyDownArrow;
      sid = EDownSoundId;
      },
    AVKON_SKEY_INFO
      {
      key = EStdKeyLeftArrow;
      sid = ELeftSoundId;
      },
    AVKON_SKEY_INFO
      {
      key = EStdKeyRightArrow;
      sid = ERightSoundId;
      }
    };
  }
```

Header file

```
 #ifndef __TESTERAPPVIEW_H__
 #define __TESTERAPPVIEW_H__

// INCLUDES
#include <coecntrl.h>

class CAknKeySoundSystem;

class CTesterAppView : public CCoeControl
    {
 //...
private:
    CAknKeySoundSystem* iSoundSystem;
    TBool iCustomizedKeySounds;
    };

#endif // __TESTERAPPVIEW_H__
```

Source file

```
#include <Tester_0xE0060BB5.RSG> //r_arrow_sound_list,r_arrow_skey_list
#include "Tester.hrh" //TArrowSoundId
#include <aknsoundsystem.h>  // CAknKeySoundSystem
#include <aknappui.h>

void CTesterAppView::ConstructL(const TRect& aRect)
    {
//...
    iCustomizedKeySounds = EFalse;
    iSoundSystem = static_cast<CAknAppUi*>(
    CEikonEnv::Static()->AppUi() )->KeySounds();

    if (!iSoundSystem)
        {
        //pointer to KeySound API object is null
        User::Leave(KErrGeneral);
        }

    //install the application-specific set of sound ids
    TRAPD( error, iSoundSystem->AddAppSoundInfoListL(
           R_ARROW_SOUND_LIST ) );


    if ((error != KErrNone) && (error != KErrAlreadyExists))
        {
        //install sound ids failed
        User::Leave( error );
        }


    //NOTE: it is now also possible to play an installed sound
    //just by calling the PlaySound() method e.g.
    //iSoundSystem->PlaySound( EUpSoundId );
    //...and stop playing it by calling
    //iSoundSystem->StopSound( EUpSoundId );

    }

CTesterAppView::~CTesterAppView()
    {
    iSoundSystem = NULL;
    }

// ---------------------------------------------------------------------------
// Disable customized key sounds
// ---------------------------------------------------------------------------
//
void CTesterAppView::DisableCustomizedKeySounds()
```


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```
    {
    if ( iSoundSystem && iCustomizedKeySounds )
        {
        //release the locked context
        iSoundSystem->ReleaseContext();

        //pop the pushed context from the context stack
        iSoundSystem->PopContext();

        iCustomizedKeySounds = EFalse;
        }
    }


// ---------------------------------------------------------------------------
// Enable customized key sounds
// ---------------------------------------------------------------------------
//
void CTesterAppView::EnableCustomizedKeySounds()
    {
    if ( iSoundSystem && !iCustomizedKeySounds )
        {
        //load key sound map from resources and push it to the context stack
        iSoundSystem->PushContextL( R_ARROW_SKEY_LIST );

        //tell server to use this context stack for processing sounds
        iSoundSystem->BringToForeground();

        //lock this context to the foreground, other BringToForeground() calls
        //will be ignored until ReleaseContext() is called
        iSoundSystem->LockContext();

        iCustomizedKeySounds = ETrue;
        }
    }
```

Postconditions

If the `EnableCustomizedKeySounds()` method is called, the customized key sounds are played when the user presses the arrow keys. The default key sounds are played again after the `DisableCustomizedKeySounds()` method call.

See also

Archived:Enabling and disabling defined key sound using CAknKeySoundSystem Enabling and disabling all key sounds using CAknKeySoundSystem

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