Creating a radio button settings page using Symbian C++

Overview

This code snippet shows how to create a radio button settings page using the class `CAknRadioButtonSettingPage`. After implementing the interface `MAknSettingPageObserver`, the UI class will be able to capture events of type `TAknSettingPageEvent`.

This snippet can be self-signed.

Resource file (.rss)

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

//...

RESOURCE AVKON_SETTING_PAGE r_example_setting_page
    {
    label = "Title";
    type = EAknCtPopupSettingList;
    editor_resource_id = r_example_setting_list;
    }


RESOURCE POPUP_SETTING_LIST r_example_setting_list
    {
    flags = 0;
    }

RESOURCE ARRAY r_example_options
    {
    items =
        {
        LBUF { txt = "option0";},
        LBUF { txt = "option1";},
        LBUF { txt = "option2";}
        };
    }
```

MMP file

The following libraries are required:

```
LIBRARY avkon.lib
LIBRARY eikctl.lib
LIBRARY eikcoctl.lib
LIBRARY bafl.lib
```

Header file

```
#ifndef __EXAMPLEAPPUI_H__
#define __EXAMPLEAPPUI_H__

// INCLUDES
#include <aknappui.h>
#include <AknSettingPage.h> //For CAknSettingPage, TAknSettingPageEvent
#include <eiklbx.h>         //For CEikListBox
#include <badesca.h>        //For CDesCArrayFlat
#include <aknradiobuttonsettingpage.h> //For CAknRadioButtonSettingPage

// CLASS DECLARATION
// CExampleAppUi application UI class.

class CExampleAppUi : public CAknAppUi, public MAknSettingPageObserver
    {
    //...
public: //From MAknSettingPageObserver
    void HandleSettingPageEventL(CAknSettingPage* aSettingPage,
                            TAknSettingPageEvent aEventType);

//...
private:
    void ShowRadioButtonSettingPageL();
    void ShowDynamicRadioButtonSettingPageL();
    CDesCArrayFlat* CreateRadionButtonOptionsLC();
//...
private:
    //data
    TInt iSelection;
    };


#endif //__EXAMPLEAPPUI_H__
```


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Source file

```
#include "ExampleAppUi.h"
//...

void CExampleAppUi::ShowRadioButtonSettingPageL()
    {
    CDesCArrayFlat *array = CEikonEnv::Static()->
        ReadDesCArrayResourceL(R_EXAMPLE_OPTIONS);
    CleanupStack::PushL(array);

    CAknRadioButtonSettingPage* dialog =
    new (ELeave) CAknRadioButtonSettingPage(R_EXAMPLE_SETTING_PAGE,
            iSelection, array);
    CleanupStack::PushL(dialog);
    dialog->ConstructL();
    CleanupStack::Pop();//dialog
    dialog->SetSettingPageObserver(this);
    //ExecuteLD() enumeration controls how often the setting page updates the
    //externally held client object (EUpdateWhenChanged, EUpdateWhenAccepted)
    dialog->ExecuteLD(CAknSettingPage::EUpdateWhenChanged);

    CleanupStack::PopAndDestroy(); //array
    }

void CExampleAppUi::ShowDynamicRadioButtonSettingPageL()
    {
    CDesCArrayFlat *array = CreateRadionButtonOptionsLC();

    CAknRadioButtonSettingPage* dialog =
    new (ELeave) CAknRadioButtonSettingPage(R_EXAMPLE_SETTING_PAGE,
            iSelection, array);
    CleanupStack::PushL(dialog);
    dialog->ConstructL();
    CleanupStack::Pop();//dialog
    dialog->SetSettingPageObserver(this);
    dialog->ExecuteLD(CAknSettingPage::EUpdateWhenChanged);

    CleanupStack::PopAndDestroy(); //array
    }

CDesCArrayFlat* CExampleAppUi::CreateRadionButtonOptionsLC()
    {
    TInt itemCount = 3;
    CDesCArrayFlat* array = new (ELeave) CDesCArrayFlat(itemCount);
    CleanupStack::PushL(array);

    array->AppendL(_L("option0"));
    array->AppendL(_L("option1"));
    array->AppendL(_L("option2"));

    return array;
    }

// Handles an event of type aEventType reported by the Setting Page to this observer.
void CExampleAppUi::HandleSettingPageEventL(CAknSettingPage* aSettingPage,
    TAknSettingPageEvent aEventType)
    {
    if (aEventType == EEventSettingOked)
        {
        CEikListBox* listBox = (CEikListBox*) aSettingPage->EditorControl();
        TInt selection = listBox->CurrentItemIndex();
        //do something...
        }
    else if (aEventType == EEventSettingChanged)
        {
        //do something...
        }
    else if (aEventType == EEventSettingCancelled)
        {
        //do something...
        }
    else
        {
        //unknown type, do something...
        }
    }
```

Postconditions

The radio button setting page has been shown and the events (ok, cancel, change) have been captured.

See also

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