Archived:Displaying time in different formats using TTime

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Overview

This code snippet shows how to use the class `TTime` to format time strings. The class `TTime` is used to store date and time and has the method `FormatL()` to format date and time into a user-defined format. The Avkon UI library also offers some predefined formatting strings that can be used in the application by reading strings from the Avkon resource file.

Note: The Avkon library contains predefined format strings to display time durations and they can be used the same way than the time resource strings (R_QTN_TIME_DURAT_SHORT, R_QTN_TIME_DURAT_SHORT_WITH_ZERO, R_QTN_TIME_DURAT_LONG, R_QTN_TIME_DURAT_LONG_WITH_ZERO, R_QTN_TIME_DURAT_MIN_SEC, R_QTN_TIME_DURAT_MIN_SEC_WITH_ZERO)

This snippet can be self-signed.

MMP file

The following libraries are required:

```
LIBRARY avkon.lib   //Avkon resources
LIBRARY euser.lib   //TTime, HBufC
LIBRARY eikcore.lib //InfoWinL, CEikonEnv
LIBRARY cone.lib    //CCoeEnv
```

Header file

```
#ifndef __FORMATEXAMPLEAPPUI_H__
#define __FORMATEXAMPLEAPPUI_H__

//...

class CFormatExampleAppUi : public CAknAppUi
    {
//...
private:
    enum TTimeType
                {
                ETimeUsual=0,
                ETimeUsualZero,
                ETimeLong,
                ETimeLongZero,
                ETimeTypeCount
            };

    /**
     * From CEikAppUi, HandleCommandL.
     * Takes care of command handling.
     * @param aCommand Command to be handled.
     */
    void HandleCommandL(TInt aCommand);

    void showTimeFormattingL(TTime aTime, TTimeType aFormatType);

//...
    };

#endif // __FORMATEXAMPLEAPPUI_H__
```

Source file

```
#include <avkon.rsg>

void CFormatExampleAppUi::HandleCommandL(TInt aCommand)
    {
    switch (aCommand)
        {
        case EEikCmdExit:
        case EAknSoftkeyExit:
            Exit();
            break;

        //*** Shows how to use user-defined time formatting ***
        case ECommand1:
```


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```
            {
            TTime now;
            now.HomeTime();    // get current date and time

            TBuf<50> timeString;

            // print time using default time separator characters in 24 hour clock format
            // format: hour:minute:second.microsecond
            _LIT(KOwnTimeFormat,"%:0%H%:1%T%:2%S.%*C3%:3");
            now.FormatL(timeString,KOwnTimeFormat);

            CEikonEnv::Static()->InfoWinL(_L("Own Time Format:"), timeString);

            }
            break;

        //*** Shows how to use Avkon predefined time formatting ***
        case ECommand2:
            {
            TTime now;
            now.HomeTime();    // get current date and time

            //loop through predefined Avkon time formats
            for (TInt i=0; i<ETimeTypeCount; i++)
                {
                showTimeFormattingL(now, (TTimeType)i);
                }

            }
            break;
//...

        default:
            //Panic(EFormatExampleUi);
            break;
        }
    }


/* This method shows the given time in different formats with InfoWin dialog.
Supported format types from avkon.rsg:
#define R_QTN_TIME_USUAL 0x8cc00d7
#define R_QTN_TIME_USUAL_WITH_ZERO 0x8cc00d8
#define R_QTN_TIME_LONG 0x8cc00d9
#define R_QTN_TIME_LONG_WITH_ZERO 0x8cc00da
  */
void CFormatExampleAppUi::showTimeFormattingL(TTime aTime, TTimeType aFormatType)
    {
     HBufC* timeFormatString = NULL;
     TBuf<50> timeString;

    // read format string from Avkon resources by given format type
    switch (aFormatType)
        {
        case ETimeUsual:
            timeFormatString = CEikonEnv::Static()->
            AllocReadResourceLC(R_QTN_TIME_USUAL);
            break;
        case ETimeUsualZero:
            timeFormatString = CEikonEnv::Static()->
            AllocReadResourceLC(R_QTN_TIME_USUAL_WITH_ZERO);
            break;
        case ETimeLong:
            timeFormatString = CEikonEnv::Static()->
            AllocReadResourceLC(R_QTN_TIME_LONG);
            break;
        case ETimeLongZero:
            timeFormatString = CEikonEnv::Static()->
            AllocReadResourceLC(R_QTN_TIME_LONG_WITH_ZERO);
            break;

        default:
            timeFormatString = CEikonEnv::Static()->
            AllocReadResourceLC (R_QTN_TIME_USUAL);
        }

    // format the time string
    aTime.FormatL(timeString, *timeFormatString);
    CleanupStack::PopAndDestroy();  // timeFormatString

    //show the time with a dialog
    CEikonEnv::Static()->InfoWinL(_L("Time:"), timeString);
    }
```

Postconditions

The current time is displayed with dialogs using the user-defined time format and predefined Avkon library time formats.

See also

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