Subject: Help needed with Convert class
Posted by pacoquintana on Thu, 12 Sep 2013 18:50:56 GMT
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Hi all.:
I need some help about date time format and convert
In my application I use SQLITE 3 with a column to store date and time in a TIME column
in app.layout an sqlArray has to columns, one to display date and the next one to display time coming from the same colum time in sqlite.
Working with a convert class to display date in the first sqlArray.column and time in the next one so :

```
Convert& DateDateConvert();
Convert& DateTimeConvert();

struct DateDateConvertCls : Convert {
   virtual Value Format(const Value& q) const;
};

Value DateDateConvertCls::Format(const Value& q) const
{
 Time d = q;
   return !d.IsValid() ? String() : ::Format("%1:04d-%2:02d-%3:02d", d.year, d.month, d.day);
}

Convert& DateDateConvert()
{
   return Single<DateDateConvertCls>();
}


struct DateTimeConvertCls : Convert {
   virtual Value Format(const Value& q) const;
};

Value DateTimeConvertCls::Format(const Value& q) const
{
 Time d = q;
   return !d.IsValid() ? String() : ::Format("%1:02d-%2:02d-%3:02d", d.hour, d.minute, d.second);
}

Convert& DateTimeConvert()
{
   return Single<DateTimeConvertCls>();
}
```

In the Layout :
qs.AddColumn(O_DATE, "fecha").SetConvert(DateDateConvert());

qs.AddColumnAt(1, "Hora").SetConvert(DateTimeConvert());

It compiles and link but I get an Assertion error.
I can not understand how Convert class woks, so any "good Elmer" can explain me how it works ?
Thank you very much

Subject: Re: Help needed with Convert class
Posted by BioBytes on Fri, 13 Sep 2013 07:05:38 GMT
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Hi Paco,

What happens when you change the final part of the code to:

In the Layout :
qs.AddColumn(O_DATE, "fecha").SetConvert(Single<DateDateConvertCls>());
qs.AddColumnAt(1, "Hora").SetConvert(Single<DateTimeConvertCls>());

Regards
Biobytes

Subject: Re: Help needed with Convert class
Posted by pacoquintana on Fri, 13 Sep 2013 11:20:22 GMT
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Thanks for help.
In mainLayout I replaced my code with the one you suggested (adding Single template) but error is the same :

Assertion failed in E:\upp_portable_win32\src/uppsrc/Core/Value.hpp line 142 t<255 &&(t==STRING_V ? IsString() : Is((byte)t))

Subject: Re: Help needed with Convert class
Posted by BioBytes on Fri, 13 Sep 2013 15:55:37 GMT
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Hi,

Which version of UPP are you using ? I am running SVN 6331 Under Win 7 for example.

Another suggestion, why not using Date formatting scan functions :

Quote:

Sets date scan string - this string represents order of day, month and year for StrToDate function. Letters 'd', 'm' and 'y' are used in scan to designate the order. This is per-thread setting with threads inheriting the setting of main thread.
Example:
    "mdy"
The month is first, day second and year third.

Regards

BioBytes

Subject: Re: Help needed with Convert class
Posted by pacoquintana on Fri, 13 Sep 2013 17:40:39 GMT
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SVN 5385 upgraded over previous upp_portable (4452) if I can remember correctly. MingW compiler.
I found a solution by unodogs in forums :

```
struct MyDataConvert : Convert
{
  Value Format(const Value& q) const
  {
     const Time& d = q;
     return !d.IsValid() ? String() : ::Format("%1:04d-%2:02d-%3:02d", d.year, d.month, d.day);
  }
}
```

But the assert error in line 142 in Core is the same.

Subject: Re: Help needed with Convert class
Posted by BioBytes on Fri, 13 Sep 2013 20:50:50 GMT
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Perhaps you could consider to upgrade your Upp system to the most recent file ? and see if the same error still appears.

I tried the following code without any assert errors using MSC 9 or MSC 10 compilers : Sorry I do not use MingW.

Main file

```
#include "EsConvert.h"

void EsConvertMainWin::fillGrid()
{
 for(int i=0;i<5;++i)aGridCtrl.Add(i+1,Date(2013,9,13)+i,Time(12,12,10)+i);
}

void EsConvertMainWin::close()
{
 Close();
}

EsConvertMainWin::EsConvertMainWin()
{
 CtrlLayout(*this, "Convert study");
 SetRect(0,0,800,600);
 CenterScreen();


 aGridCtrl.AddColumn("Date",100,false).AlignCenter().SetConvert(Single<MyDataDateConvert>())
;
 aGridCtrl.AddColumn("Time",100,false).AlignCenter().SetConvert(Single<MyDataTimeConvert>()
);

 fillBtn<<=THISBACK(fillGrid);
 closeBtn<<=THISBACK(close);
}

GUI_APP_MAIN
{
 SetLNGCharset(GetSystemLNG(),CHARSET_UTF8);
 EsConvertMainWin().Run();
}
```

Header file

```
#ifndef _EsConvert_EsConvert_h
#define _EsConvert_EsConvert_h

#include <CtrlLib/CtrlLib.h>
#include <GridCtrl/GridCtrl.h>
```

```
using namespace Upp;

#define LAYOUTFILE <EsConvert/EsConvert.lay>
#include <CtrlCore/lay.h>

struct MyDataDateConvert : Convert
{
  Value Format(const Value& q) const
  {
  const Date& d = q;
  return !d.IsValid() ? String() : ::Format("%1:02d-%2:02d-%3:02d", d.day, d.month, d.year);
  }
};

struct MyDataTimeConvert : Convert
{
  Value Format(const Value& q) const
  {
  const Time& d = q;
  return !d.IsValid() ? String() : ::Format("%1:02d-%2:02d-%3:02d", d.hour, d.minute, d.second);
  }
};

class EsConvertMainWin : public WithEsConvertMainWinLayout<TopWindow> {
public:
 typedef EsConvertMainWin CLASSNAME;

 void fillGrid();
 void close();

 EsConvertMainWin();

};

#endif
```

Regards
Biobytes

Subject: Re: Help needed with Convert class
Posted by pacoquintana on Mon, 16 Sep 2013 11:57:04 GMT
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Absolutely, your code compiles and link and has no assertion errors, I tried Microsoft linker and mingw.

The only difference with my code is that you assing dates to vars directly and mine obtains dates from a SQLite 3 database, as Sqlite works as if everything inside is a string maybe colums are returned to the programm as string and not as dates or some other structure that cannot be coverted to date inside the format public function of convert structure.
I will continue investigating.
Can you test to obtain dates from a column of a sqlite database ?
Thak you very much
Sorry about the delay (free weekend)
Best regards
Paco

Subject: Re: Help needed with Convert class
Posted by pacoquintana on Fri, 20 Sep 2013 08:56:41 GMT
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I found an answer from Mirek to a problem lije this one and talk about the assertion error in case you got any structure not convertible to time estructure, maybe this is why in the example SQLAPP dates are stored in SQLite as integers and then converted into dates
Best regards
paco

Subject: Re: Help needed with Convert class
Posted by BioBytes on Fri, 20 Sep 2013 17:00:16 GMT
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Hi Paco,

Sorry for late reply due to professional occupation. I was just on the way to reply the same answer than Mirek as I got the same assertion message than you when using an SqlArray to render date fields.

As you know Sqlite does not have specific field format for datetime data which are recorded as string (Text if I remember well). So this is not possible to go to SetConvert function in SqlArray.AddColumn().

One way is perhaps to parse all columns that contains date data to the time format you wish.

Regards

Biobytes
