Subject: Gate() or flow control problem
Posted by pntkl on Tue, 10 Jul 2007 00:08:05 GMT
View Forum Message <> Reply to Message

Hi,
I am very new to programming (especially C++). I am having trouble with some code I'm writing to create an XML file that stores user information. (Is XML a preferred method for such a thing?)

Problem:
I'm trying to use Gate() in an if statement, to determine if there exists a duplicate entry in an ArrayCtrl. When I run the application, the flow control never hits the for() loop contained in User::Validate(). Can anyone help me understand what it is I am doing wrong?

Test Case:

User.cpp

```
#include "TrayApp.h"
#include "User.h"


void
User::Add()
{
 if(!IsNull(~modify.EditFName) && !IsNull(~modify.EditLName) && !IsNull(~modify.EditUser) &&
!IsNull(~modify.EditPass) && !IsNull(~modify.DropGroup))
 {
  if(Gate(Validate()))
  {
   sha.Put(~modify.EditPass);
   String hashpass = sha.Finish();
   userarray.Add(~modify.EditFName, ~modify.EditLName, ~modify.EditUser, hashpass,
~modify.DropGroup);
   userarray.GoEnd();
   modify.EditFName <<= modify.EditLName <<= modify.EditUser <<= modify.EditPass <<=
modify.DropGroup <<= Null;
   ActiveFocus(modify.EditFName);
   sha.Put("", 0);
  }
  else
   PromptOK("First and last name or user already exists!");
 }
 else
  PromptOK("Please complete all fields!");
}

bool
User::Validate()
```

```
{
 bool match;
 int rcount = userarray.GetCount();
 if(rcount > 0)
 {
  for(int i = rcount; i >= 1; i--)
  {
   PromptOK("For loop entered");
   String strFirstName = ~modify.EditFName;
   String strLastName = ~modify.EditLName;
   String strUser = ~modify.EditUser;
   String strColFirstName = userarray.GetColumn(i, 0); // Get the First Name
   String strColLastName = userarray.GetColumn(i, 1); // Get the Last Name
   String strColUser = userarray.GetColumn(i, 2); // Get the User Name

   if(CompareNoCase(strFirstName, strColFirstName) && CompareNoCase(strLastName,
strColLastName) || CompareNoCase(strUser, strColUser))
   {
    PromptOK("CompareNoCase match found");
    match = true;
    break;
   }
   else
   {
    PromptOK("CompareNoCase does not match");
    match = false;
   }
  }
 }
 else
 {
  PromptOK("Rcount Else");
  return false;
 }
 if(!match)
 {
  PromptOK("Match return false");
  return false;
 }
 else
 {
  PromptOK("Match return true");
  return true;
 }
}

void
User::Change()
```

```
{
 ;
}

void
User::Delete()
{
 if(userarray.IsCursor() && PromptOKCancel("Are you sure?"))
 {
  int row = userarray.GetCursor();
  userarray.Remove(row);
 }
 else
  PromptOK("Please select which user to delete.");
}

void
User::Open()
{
 ;
}

void
User::Save()
{
 ;
}

void
User::Exit()
{
 ;
}

//void
//User::Serialize()
//{
// ;
//}

User::User()
{
 CtrlLayout(*this, "APR User Management");
 CtrlLayout(modify);
 tab.Add(modify, "Manage");
 userarray.AddColumn("First Name");
 userarray.AddColumn("Last Name");
 userarray.AddColumn("User");
```

```
 userarray.AddColumn("Password");
 userarray.AddColumn("Group");
 modify.EditPass.Password();
 modify.DropGroup.Add("Tech");
 modify.DropGroup.Add("Admin");
 modify.add <<= THISBACK(Add);
 //modify.change <<= THISBACK(Change)
 modify.del <<= THISBACK(Delete);
 //fs.AllFilesType();
}
```

User.h

```
#ifndef _APR_User_h_
#define _APR_User_h_

#include <CtrlLib/CtrlLib.h>
#include <Crypto/Crypto.h>
#include <Report/Report.h>

using namespace Upp;

#define LAYOUTFILE <APR/User.lay>
#include <CtrlCore/lay.h>

class User : public WithUserLayout<TopWindow> {
 WithModifyLayout<ParentCtrl> modify;
 Sha1 sha;
 FileSel fs;
 String filename;

 void Add();
 bool Validate();
 void Change();
 void Delete();
 void Open();
 void Save();
 void Exit();

 typedef User CLASSNAME;

public:
 //void Serialize(Stream& s);

 User();
};
```

#endif

User.lay

```
LAYOUT(UserLayout, 520, 360)
 ITEM(TabCtrl, tab, LeftPosZ(8, 504).TopPosZ(20, 132))
 ITEM(ArrayCtrl, userarray, LeftPosZ(8, 504).TopPosZ(160, 192))
END_LAYOUT

LAYOUT(ModifyLayout, 496, 96)
 ITEM(Label, dv___0, SetLabel(t_("First Name")).LeftPosZ(4, 56).TopPosZ(20, 19))
 ITEM(Label, dv___1, SetLabel(t_("Last Name")).LeftPosZ(92, 56).TopPosZ(20, 19))
 ITEM(Label, dv___2, SetLabel(t_("User")).LeftPosZ(180, 56).TopPosZ(20, 19))
 ITEM(Label, dv___3, SetLabel(t_("Password")).LeftPosZ(268, 56).TopPosZ(20, 19))
 ITEM(Label, dv___4, SetLabel(t_("Group")).LeftPosZ(356, 56).TopPosZ(20, 19))
 ITEM(EditString, EditFName, LeftPosZ(4, 72).TopPosZ(48, 19))
 ITEM(EditString, EditLName, LeftPosZ(92, 72).TopPosZ(48, 19))
 ITEM(EditString, EditUser, LeftPosZ(180, 72).TopPosZ(48, 19))
 ITEM(EditString, EditPass, LeftPosZ(268, 72).TopPosZ(48, 19))
 ITEM(DropList, DropGroup, LeftPosZ(356, 72).TopPosZ(48, 19))
 ITEM(Button, add, SetLabel(t_("Add")).LeftPosZ(444, 42).TopPosZ(12, 15))
 ITEM(Button, change, SetLabel(t_("Change")).LeftPosZ(444, 42).TopPosZ(40, 15))
 ITEM(Button, del, SetLabel(t_("Delete")).LeftPosZ(444, 42).TopPosZ(68, 15))
END_LAYOUT
```

P.S. - Any pointers on more appropriate methods of writing this? :)

Subject: Re: Gate() or flow control problem
Posted by pntkl on Tue, 10 Jul 2007 15:14:41 GMT
View Forum Message <> Reply to Message

Hi Again,
I changed 'if(Gate(Validate())){}' to if(!Gate(Validate())){}, which seems to be working okay. Now, the CompareNoCase() statments always match, even if the compared strings are completely different. Can someone help me understand what I'm missing?

Also, I can't find stricmp(), nor CompareNoCase() in Assist++. Is there an easy way to search through the UPP source code (with TheIDE), in order to find out how they are written? (I'd normally use grep/sed/awk, but I was hoping TheIDE had similar functionality)

<Edit1>
I forgot to mention: It seems as if the instance of Sha1 is simply compounded, when it is called again. E.G. the same password strings are showing different Sha1.Finish() strings when I use Add(). I tried using Sha1.Put("", 0), and it seemed to work initially. I'm not sure what changed, but it doesn't work now.

If I'm posting in the wrong forum, please, let me know...
</Edit2>

<Edit2>
I used PromptOK(strColFirstName, etc), and it seems that userarray.GetColumn(i, N) isn't returning the column value. Get(i, N) didn't work for me either. I was thinking about using a char array, but that won't help me--when I can't get a column's value...
</Edit2>

Subject: Re: Gate() or flow control problem
Posted by mirek on Tue, 10 Jul 2007 20:25:14 GMT
View Forum Message <> Reply to Message

I am not quite sure what you want to achieve, however

if(Gate(Validate()))

This constructs a Gate object with default value obtained by calling Validate(), then it evaluates Gate by operator bool (which results in the value returned by Validate) and then destructs the Gate instance.

In other words, quite nonsense

Subject: Re: Gate() or flow control problem
Posted by mirek on Tue, 10 Jul 2007 20:27:56 GMT
View Forum Message <> Reply to Message

P.S.: Now seing the code more carefuly, there is no need for Gate IMO. Just call Validate... or what did you expect the Gate is able to give to you?

Subject: Re: Gate() or flow control problem
Posted by mirek on Tue, 10 Jul 2007 20:34:16 GMT
View Forum Message <> Reply to Message

pntkl wrote on Tue, 10 July 2007 11:14
Also, I can't find stricmp(), nor CompareNoCase() in Assist++. Is there an easy way to search through the UPP source code (with TheIDE), in order to find out how they are written? (I'd normally use grep/sed/awk, but I was hoping TheIDE had similar functionality)

Ctrl+Shift+F (Find in files).

Quote:
<Edit2>
I used PromptOK(strColFirstName, etc), and it seems that userarray.GetColumn(i, N) isn't returning the column value. Get(i, N) didn't work for me either. I was thinking about using a char array, but that won't help me--when I can't get a column's value...
</Edit2>

Yes, I have just noticed another trouble:

for(int i = rcount; i >= 1; i--)

In C/C++/Java/C# etc... array indexes start at 0, which is adapted in ArrayCtrl as well. Therefore I think this should be

for(int i == rcount - 1; i >= 0; i++)

Mirek

Subject: Re: Gate() or flow control problem
Posted by pntkl on Tue, 10 Jul 2007 20:49:32 GMT
View Forum Message <> Reply to Message

Thank you so much, Mirek. You're right, I didn't account for the 0 based index.

I think the only problem I'm having now has to do with why I am using Gate(). I was initially using if(Validate())..., but when I use that; it seems to go straight to the else statement. Then, I tried if(THISBACK(Validate))..; that went into the if(Validate())..., but never actually called Validate(). I think its just a lack of understanding, I'm just not sure what I'm missing...

Subject: Re: Gate() or flow control problem
Posted by pntkl on Tue, 10 Jul 2007 23:59:03 GMT
View Forum Message <> Reply to Message

Ok,

I understand what you're saying, Mirek. I'm not sure what gave me the impression I needed to use THISBACK(); in the condition...

Thanks again, Mirek. Now I just need to find out what my Sha1 instance is doing...

<EDIT>
I was calling the instance in the header file, instead of in its proper scope (User::Add()).
</EDIT>

Is crypto.h going to include other algorithms and will it be documented at all? It took me a while to realize crypto.

These are the relevant code changes:

```
void
User::Add()
{
 if(!IsNull(~modify.EditFName) && !IsNull(~modify.EditLName) && !IsNull(~modify.EditUser) &&
!IsNull(~modify.EditPass) && !IsNull(~modify.DropGroup))
 {
  //if(!Gate(Validate())) <-- Removed.
  match = false;
  Validate();
  if(!match) // <-- bool match; added to User.h
  {
   Sha1 sha; // <-- Removed from User.h
   sha.Put(~modify.EditPass);
   String hashpass = sha.Finish();
   userarray.Add(~modify.EditFName, ~modify.EditLName, ~modify.EditUser, hashpass,
~modify.DropGroup);
   userarray.GoEnd();
   modify.EditFName <<= modify.EditLName <<= modify.EditUser <<= modify.EditPass <<=
modify.DropGroup <<= Null;
   ActiveFocus(modify.EditFName);
   // sha.Put("", 0); <-- Removed. What was I thinking?!
  }
  else
   PromptOK("First and last name or user already exists!");
 }
 else
  PromptOK("Please complete all fields!");
}

void
User::Validate()
{
 int rcount = userarray.GetCount();
 if(rcount > 0)
 {
  for(int i = rcount - 1; i >= 0; i--)
  {
   String strFirstName = ~modify.EditFName;
   String strColFirstName = userarray.GetColumn(i, 0); // Get the First Name
   String strLastName = ~modify.EditLName;
   String strColLastName = userarray.GetColumn(i, 1); // Get the Last Name
```

```
   String strUser = ~modify.EditUser;
   String strColUser = userarray.GetColumn(i, 2); // Get the User Name

   if(CompareNoCase(strFirstName, strColFirstName) && CompareNoCase(strLastName,
strColLastName) || CompareNoCase(strUser, strColUser))
   {
    match = false; // <-- Reversed, I guess CompareNoCase returns true--with no match?
   }
   else
   {
    match = true;
    break;
   }
  }
 }
 else
 {
  match = false;
 }
}
```

Subject: Re: Gate() or flow control problem
Posted by mirek on Wed, 11 Jul 2007 05:38:08 GMT
View Forum Message <> Reply to Message

pntkl wrote on Tue, 10 July 2007 19:59
Is crypto.h going to include other algorithms and will it be documented at all? It took me a while to realize crypto.

I rather think Sha1 should be moved somewhere (e.g. where MD5 is...)
