Subject: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Wed, 31 Jan 2018 11:44:32 GMT
View Forum Message <> Reply to Message

Hi folks,
I have an application developed on Windows platform, that compiles and works fine. Now I am in the process to port it on a linux platform. When I try to compile it with gcc, I get the following error: "expression cannot be used as a function" on line 17 of Function.h. I am using Ultimate++ 2017.2. It is unclear if the error is triggered by some code I wrote even if it shows up in that file. In the past I compiled the same program on linux using an older version of Ultimate++ and it compiled without problems.
Regards,
Gio

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Klugier on Wed, 31 Jan 2018 12:11:59 GMT
View Forum Message <> Reply to Message

Hello,

Please post full compilation error - it will save our time on investigation the problem.

Sincerely,
Klugier

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Wed, 31 Jan 2018 13:26:31 GMT
View Forum Message <> Reply to Message

This is the complete output.

Note that /home/pi/MyApps/StatusDetector/AggiungiComm.cpp:149 is the last line of the file (and is blank).

----- CtrlLib (GUI SSE2 GCC SHARED POSIX LINUX) (1 / 19)
----- MySql (GUI SSE2 NOMYSQL GCC SHARED POSIX LINUX) (2 / 19)
----- SqlCtrl (GUI SSE2 GCC SHARED POSIX LINUX) (3 / 19)
----- Barcode (GUI SSE2 GCC SHARED POSIX LINUX) (4 / 19)
----- MyINI (GUI SSE2 GCC SHARED POSIX LINUX) (5 / 19)
----- PostgreSQL (GUI SSE2 GCC SHARED POSIX LINUX) (6 / 19)
----- CtrlCore (GUI SSE2 GCC SHARED POSIX LINUX) (7 / 19)
----- PdfDraw (GUI SSE2 GCC SHARED POSIX LINUX) (8 / 19)
----- Draw (GUI SSE2 GCC SHARED POSIX LINUX) (9 / 19)

```
----- plugin/bmp ( GUI SSE2 GCC SHARED POSIX LINUX ) (10 / 19)
----- RichText ( GUI SSE2 GCC SHARED POSIX LINUX ) (11 / 19)
----- Core ( GUI SSE2 GCC SHARED POSIX LINUX ) (12 / 19)
----- plugin/png ( GUI SSE2 GCC SHARED POSIX LINUX ) (13 / 19)
----- Sql ( GUI SSE2 GCC SHARED POSIX LINUX ) (14 / 19)
----- plugin/z ( GUI SSE2 GCC SHARED POSIX LINUX ) (15 / 19)
----- Report ( GUI SSE2 GCC SHARED POSIX LINUX ) (16 / 19)
----- CodeEditor ( GUI SSE2 GCC SHARED POSIX LINUX ) (17 / 19)
----- plugin/pcre ( GUI SSE2 GCC SHARED POSIX LINUX ) (18 / 19)
----- StatusDetector ( GUI SSE2 NOMYSQL MAIN GCC SHARED POSIX LINUX ) (19 / 19)
AggiungiComm.cpp
In file included from /home/pi/upp/uppsrc/Core/Core.h:304:0,
                 from /home/pi/MyApps/StatusDetector/StatusDetector.h:23,
                 from /home/pi/MyApps/StatusDetector/AggiungiComm.h:5,
                 from /home/pi/MyApps/StatusDetector/AggiungiComm.cpp:1:
/home/pi/upp/uppsrc/Core/Function.h: In instantiation of 'Res Upp::Function<Res(ArgTypes
...)>::Wr
    apper<F>::Execute(ArgTypes ...) [with F = const char*; Res = void; ArgTypes = {}]':
/home/pi/MyApps/StatusDetector/AggiungiComm.cpp:149:1:   required from here
/home/pi/upp/uppsrc/Core/Function.h:17:60: error: expression cannot be used as a function
   virtual Res Execute(ArgTypes... args) { return fn(args...); }
                                                ^
/home/pi/upp/uppsrc/Core/Function.h:17:60: warning: return-statement with a value, in function ret
    urning 'void' [-fpermissive]
/home/pi/upp/uppsrc/Core/Function.h: In instantiation of 'Res Upp::Function<Res(ArgTypes
...)>::Wr
    apper<F>::Execute(ArgTypes ...) [with F = int; Res = void; ArgTypes = {}]':
/home/pi/MyApps/StatusDetector/AggiungiComm.cpp:149:1:   required from here
/home/pi/upp/uppsrc/Core/Function.h:17:60: error: expression cannot be used as a function
/home/pi/upp/uppsrc/Core/Function.h:17:60: warning: return-statement with a value, in function ret
    urning 'void' [-fpermissive]
/home/pi/upp/uppsrc/Core/Function.h: In instantiation of 'Res Upp::Function<Res(ArgTypes
...)>::Wr
    apper<F>::Execute(ArgTypes ...) [with F = Upp::GateN<>; Res = void; ArgTypes = {}]':
/home/pi/MyApps/StatusDetector/AggiungiComm.cpp:149:1:   required from here
/home/pi/upp/uppsrc/Core/Function.h:17:60: warning: return-statement with a value, in function ret
    urning 'void' [-fpermissive]
StatusDetector: 1 file(s) built in (0:14.29), 14291 msecs / file, duration = 14305 msecs, parallel
    ization 0%

There were errors. (0:14.48)
```

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by mirek on Wed, 31 Jan 2018 17:46:16 GMT
View Forum Message <> Reply to Message

Giorgio wrote on Wed, 31 January 2018 12:44Hi folks,
I have an application developed on Windows platform, that compiles and works fine. Now I am in the process to port it on a linux platform. When I try to compile it with gcc, I get the following error: "expression cannot be used as a function" on line 17 of Function.h. I am using Ultimate++ 2017.2. It is unclear if the error is triggered by some code I wrote even if it shows up in that file. In the past I compiled the same program on linux using an older version of Ultimate++ and it compiled without problems.
Regards,
Gio

The problem will be around here:

/home/pi/MyApps/StatusDetector/AggiungiComm.cpp:149:1:

Can you show us a couple of lines around it? Or maybe the whole file, if possible.

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Novo on Wed, 31 Jan 2018 18:14:01 GMT
View Forum Message <> Reply to Message

Gate (or what you assigned to it) is supposed to return bool. In your case it returns void.

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Thu, 01 Feb 2018 09:47:44 GMT
View Forum Message <> Reply to Message

mirek wrote on Wed, 31 January 2018 18:46
The problem will be around here:

/home/pi/MyApps/StatusDetector/AggiungiComm.cpp:149:1:

Can you show us a couple of lines around it? Or maybe the whole file, if possible.

This is the whole file. The line numbers differ from those in the log because I removed the comments. In the original file the line number 149 is the last line of the file and is blank.

```
#include "AggiungiComm.h"

AggiungiComm::AggiungiComm(MLav _mlav, char tipo)
{
```

```
 String macchina = _mlav.GetMacchina();
 CtrlLayoutOKCancel(*this, t_("Selezionare commessa e pezzatura"));
 Add(strCommPezz.LeftPosZ(16, 148).TopPosZ(12, 19));
 btnTrova <<= THISBACK1(ScanCommessa, macchina);
 listaMetri <<= THISBACK(CambioPezzatura);
 DisableFields();
 strMacchina = macchina;
 ok.Disable();
 btnTrova.Ok();
 if (tipo == 'B')
 {
  ok.Enable();
  ok.Ok();
  btnTrova.Normal().Disable();
  strCommPezz <<= AsString(_mlav.lav_in_corso.COMM) + AsString(_mlav.lav_in_corso.FASE)
+ "1" ;
  ScanCommessa(macchina);
 }
}

void AggiungiComm::ScanCommessa(String macchina)
{
 if (SplittaComm() > 0)
 {
  ok.Enable();
  ok.Ok();
  btnTrova.Normal().Disable();
 } else {
  PromptOK(t_("ATTENZIONE: commessa non trovata, effettuare di nuovo lo scan"));
  CleanFields();
  strMacchina = macchina;
 }
}

void AggiungiComm::CleanFields()
{
 strLav3A <<= Null;
 strLav3B <<= Null;
 strLav3C <<= Null;
 strLav3D <<= Null;
 strLav3Dbis <<= Null;
 strMacchina <<= Null;
 strCommPezz <<= Null;
 listaMetri.Reset();
 strCommPezz.SetFocus();
}

void AggiungiComm::DisableFields()
```

```
{
 strLav3A.Disable();
 strLav3B.Disable();
 strLav3C.Disable();
 strLav3D.Disable();
 strLav3Dbis.Disable();
 strMacchina.Disable();
 strCommPezz.SetFocus();
}

int AggiungiComm::SplittaComm()
{
 String ingresso = this->strCommPezz.GetData();
    WString pulita = (WString)TrimBoth(ingresso);
 pulita = pulita.Left(pulita.GetLength() - 1);
 WString comm = pulita.Left(pulita.GetLength() - 2);
 WString fas = pulita.Right(2);
 strLav3A = comm;
 strLav3B = fas;
 strLav3C = db_data.ContaBobFatte(AsString(comm), AsString(fas)) + 1;
 strLav3D = NULL;
 strLav3Dbis = NULL;
 int esiste_comm = db_data.ControllaCommessa(AsString(comm));
 if (esiste_comm > 0)
 {
  if (fas == (WString)"90")
  {
   InserisciPezzature(AsString(comm), AsString(fas));
  }
  else {
   vcodbob.resize(1);
   vmtbob.resize(1);
   std::fill(vcodbob.begin(), vcodbob.end(), "");
   std::fill(vmtbob.begin(), vmtbob.end(), 0);
   listaMetri = 0;
  }
 }
 return esiste_comm;
}

void AggiungiComm::InserisciPezzature(String commessa, String fase)
{
 std::vector<PEZZE_BOB> lista = db_data.TrovaPezzature(commessa, fase);
 size_t dimensione = lista.size();
 vcodbob.resize(dimensione);
 vmtbob.resize(dimensione);
 int m = 0;
 for (size_t i=0; i<lista.size(); i++)
```

```
 {
  int num_bob = lista[i].PEZZE.N_BOB;
  int k = 0;
  for(int j = 0; j < num_bob; j++)
  {
   if (AsString(lista[i].PEZZE.BOB) == "777")
    listaMetri.Set(m, m, t_(" Pezz. non prevista"));
   else
    listaMetri.Set(m, m, ( AsString(lista[i].PEZZE.MT) + "m - N: " + AsString(k+1) + " di " +
AsString(num_bob)));
   vcodbob[m] = lista[i].PEZZE.BOB;
   vmtbob[m] = lista[i].PEZZE.MT;
   if (k<lista[i].fatte) { listaMetri.DisableCase(m); }
   k++;
   m++;
  }
  k = 0;
 }
 listaMetri = m -1;
 strLav3D.MaxLen(3);
 strLav3D <<= "777" ;
 strLav3Dbis = 0 ;
}

void AggiungiComm::CambioPezzatura()
{
 strLav3D.MaxLen(3);
 strLav3D <<= vcodbob[listaMetri] ;
 strLav3Dbis = vmtbob[listaMetri] ;
}
```

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Thu, 01 Feb 2018 09:51:35 GMT
View Forum Message <> Reply to Message

Novo wrote on Wed, 31 January 2018 19:14Gate (or what you assigned to it) is supposed to return bool. In your case it returns void.

This is not clear to me: Gate is in Function.h (Core library of U++).

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Oblivion on Thu, 01 Feb 2018 10:16:01 GMT

Hello Giorgio,

Quote:
This is not clear to me: Gate is in Function.h (Core library of U++).

Because compiler is tracing back the error to its source. Event/Gate/Function are templates. Event and Gate are aliases for specialized Function templates. Basically, compiler has to go back to their declarations (in function.h) to inform you that it cannot instantiate them with the parameters you provided.

As Novo pointed out, there is probably an ill-defined Event/Gate/Function (or CALLBACK) in your code. Check your callbacks and verify their signatures (i.e., if they are taking correct parameters, returning the expected value types or just void.)

First check:

```
btnTrova <<= THISBACK1(ScanCommessa, macchina);
listaMetri <<= THISBACK(CambioPezzatura);
```

Are these callbacks defined correctly?
Then check other callbacks. E.g. look into StatusDetector.h, AggiungiComm.h (if you defined some callback there).

Best regards,
Oblivion

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Thu, 01 Feb 2018 13:13:47 GMT

Oblivion wrote on Thu, 01 February 2018 11:16
Are these callbacks defined correctly?
Then check other callbacks. E.g. look into StatusDetector.h, AggiungiComm.h (if you defined some callback there).

I think they are defined correctly (the code on Windows compiles and works), but to be on the safe side I commented every and each callback in the application and the problem is still there... maybe gcc is too picky?

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Oblivion on Thu, 01 Feb 2018 14:01:11 GMT
View Forum Message <> Reply to Message

Then it seems that maybe you are accidentally assigning an expression to a callback (Gate/Event/Function); You need to find it.
GCC will give you the same error in such cases.

E.g. A simple example:

Event<> event;

event << 2 * 2; // Will give you the exact same error

Best regards,

Oblivion

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Thu, 01 Feb 2018 15:21:28 GMT
View Forum Message <> Reply to Message

Well, finally I found the problem. I have a bunch of assignment like this:

strLav3D <<= vcodbob[listaMetri];

Now I changed the using .SetData:

strLav3D.SetData(vcodbob[listaMetri]);

And the program compiles. Weird thing, on Windows it compiles in any case. Furthermore, about 6 months ago the same application compiled with no problem on Linux, maybe tere was an older gcc version.

Thanks to all.

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by mirek on Thu, 01 Feb 2018 15:25:35 GMT
View Forum Message <> Reply to Message

What is the declaration of vcoddob?

<<= should work, so this definitely warrants further examination...

Mirek

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Thu, 01 Feb 2018 15:29:55 GMT
View Forum Message <> Reply to Message

mirek wrote on Thu, 01 February 2018 16:25What is the declaration of vcoddob?

std::vector<String> vcodbob;

But also there were things as simple as:

strLav3D <<= "777" ;

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by mirek on Thu, 01 Feb 2018 15:34:40 GMT
View Forum Message <> Reply to Message

Giorgio wrote on Thu, 01 February 2018 16:29mirek wrote on Thu, 01 February 2018 16:25What is the declaration of vcoddob?

std::vector<String> vcodbob;

But also there were things as simple as:

strLav3D <<= "777" ;

And what exectly is your compiler? (gcc --version)

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Thu, 01 Feb 2018 15:37:19 GMT
View Forum Message <> Reply to Message

mirek wrote on Thu, 01 February 2018 16:34
And what exectly is your compiler? (gcc --version)

Gcc (Raspbian 4.9.2-10) 4.9.2

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by mirek on Thu, 01 Feb 2018 16:43:18 GMT
View Forum Message <> Reply to Message

Giorgio wrote on Thu, 01 February 2018 16:37mirek wrote on Thu, 01 February 2018 16:34
And what exectly is your compiler? (gcc --version)

Gcc (Raspbian 4.9.2-10) 4.9.2

That is quite old, but should work.

Can you compile theide?

BTW, off-topic: What raspberry variant are you using? I have got PI2, I wanted to do some tests with that and it is crashing way to often for any serious work. Probably overheating.

Subject: Re: Function.h: "expression cannot be used as a function"
Posted by Giorgio on Thu, 01 Feb 2018 17:05:03 GMT
View Forum Message <> Reply to Message

mirek wrote on Thu, 01 February 2018 17:43Giorgio wrote on Thu, 01 February 2018 16:37mirek wrote on Thu, 01 February 2018 16:34
And what exectly is your compiler? (gcc --version)

Gcc (Raspbian 4.9.2-10) 4.9.2

That is quite old, but should work.

I did an apt update / apt upgrade a couple of days ago, so it should be the latest available for Raspbian.

mirek wrote on Thu, 01 February 2018 17:43
Can you compile theide?

Yes, it takes ages but it compiles; I made all the tests using theide on Raspbian.

mirek wrote on Thu, 01 February 2018 17:43
BTW, off-topic: What raspberry variant are you using? I have got PI2, I wanted to do some tests with that and it is crashing way to often for any serious work. Probably overheating.

I have a Raspberry Pi 3 Model B, slow in compiling but it succeeds, lightweight applications works well (this will be tested on a manufacturing environment, working 24/24 5 days a week).