Subject: weird reaction with const w_chart
Posted by robbyke on Fri, 09 Mar 2012 13:21:38 GMT
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::onchat call
Toggle Spoiler

```
bool Kambot::OnChat(int PlayerID,TextMessageEnum Type,const wchar_t *Message,int
recieverID)
{
 Kambot_Commands(PlayerID,Type,Message,recieverID);

 return true;
}
```

start of the called function
Toggle Spoiler

```
void Kambot_Commands(int PlayerID,TextMessageEnum Type,const wchar_t *Message,int
recieverID)
{
 Console_Input("msg functie ok");
 StringClass Msg;
 Msg.Format("msg %s",Message);
 Console_Input(Msg);
 if (wcsstr(Message,L"!") != NULL)
 {
  Console_Input("msg message ok");
```

keyhook function
Toggle Spoiler

```
void KB_keyhook::KeyHook()
{
 if((The_Game()->Get_Game_Duration_S() - LastPress) >= 1){
  StringClass Msg;
  const wchar_t* message = (const wchar_t*)Get_Parameter("Command");
  Kambot_Commands(Get_Player_ID(Owner()),TEXT_MESSAGE_TEAM,message,-1);
  Msg.Format("msg %s",(const wchar_t*)Get_Parameter("Command"));
  Console_Input(Msg);
  LastPress = The_Game()->Get_Game_Duration_S();
 }
}
ScriptRegistrant<KB_keyhook>
```

KB_keyhook_Registrant("KB_keyhook","Key:string,Command:string");

what happens:

if i use a command in game the command works.
but the message is just a ! according to the game

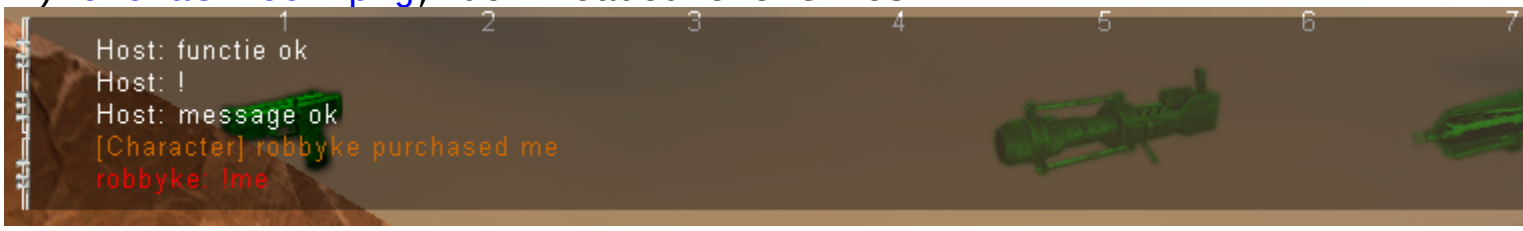
but when i use my chathook the message is more and the command wont work

now i wonder what i do wrong.
probably my conversion.

File Attachments

1) keyhook.png, downloaded 522 times

2) onchat hook.png, downloaded 525 times



Subject: Re: weird reaction with const w_chart
Posted by iRANian on Fri, 09 Mar 2012 13:53:51 GMT
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You're using %s with a wchar_t in formatted functions, you need to use %S. Casting a char to wchar_t (if it works) can cause memory corruption. Instead of using wchar_t, use StringClass. Instead of using Console_Input, use a wrapper function that takes formated input like Console_Output() does. This is how I would write the code:

Toggle Spoiler// Console_Input() taking formatted input
void Console(const char *Format, ...)

```
{
 char buffer[256];
 va_list va;
 _crt_va_start(va, Format);
 vsnprintf(buffer, 256, Format, va);
 va_end(va);
 Console_Input(buffer);
}

// Call Kambot_Commands() via chat
bool Kambot::OnChat(int PlayerID,TextMessageEnum Type,const wchar_t *Message,int
recieverID)
{
 StringClass Msg = Message;
 Kambot_Commands(PlayerID, Type, Msg, recieverID);

 return true;
}

void Kambot_Commands(int PlayerID,TextMessageEnum Type, StringClass Msg,int recieverID)
{
 Console("MSG Debug: Kambot_Commands() called"); // DEBUG CRAP
 Console("MSG Debug: Kambot_Commands() MSG == %s", Msg); // DEBUG CRAP
 if (Msg[0] == '!')
 {
  Console("MSG Debug: Kambot_Commands() Command triggered"); // DEBUG CRAP
 }
}

// Call Kambot_Commands() via a Keyhook (using keys.cfg keys)
void KB_keyhook::KeyHook()
{
 if((The_Game()->Get_Game_Duration_S() - LastPress) >= 1)
 {
  StringClass Msg = Get_Parameter("Command");

  Kambot_Commands(Get_Player_ID(Owner()), TEXT_MESSAGE_TEAM, Msg, -1); // Last
parameter isn't used
  Console("MSG Debug: KeyHook() called with %s", Msg); // DEBUG CRAP

  LastPress = The_Game()->Get_Game_Duration_S();
 }
}
```

Not sure if it actually runs correctly though, didn't bother checking. You can also use the __FUNCTION__ and __LINE__ macros to grab the function the code is executing and the line number while debugging.

Subject: Re: weird reaction with const w_chart
Posted by robbyke on Fri, 09 Mar 2012 17:51:18 GMT
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thanks this helped alot

made me understand stringclass better to

Subject: Re: weird reaction with const w_chart
Posted by iRANian on Sun, 11 Mar 2012 00:05:06 GMT
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robbyke wrote on Fri, 09 March 2012 10:51thanks this helped alot

made me understand stringclass better to
Cheers no problem. I suggest you take a look at HashTemplateClass and HashTemplateIterator too, they provide hash maps/tables, also known as dictionaries in other languages. If you're gonna be building a bot that responds to commands, it's a nice idea to store them in a hash table, with as key the text that triggers the command and the value being a pointer to a class that inherits a generic chat command class, so you can call a function from a class when it is found in the hash table, which is done almost instantaneously, instead of having to go over a list of all triggers to trigger a specific function, which is very slow and makes the code to check what command to trigger very long-winded code.

I've written an example for this that I haven't tested, I hope this helps you:

derp.cpp:
```
#include "General.h"
#include "derp.h"
#include "HashTemplateClass.h"
#include "HashTemplateIterator.h"

// This macro creates a new Class on the heap and cals Startup for it
#define REGISTER_COMMAND(Class, Trigger, registrant) Class *registrant = new Class; registrant->Startup(Trigger)

HashTemplateClass<StringClass, ChatCommand *> ChatCommand::CommandsMap;

void ChatCommand::Load()
{
 REGISTER_COMMAND(Help, "!help", Help_Registrant); // Registers a new Help ChatCommand objectcalled with !help
 REGISTER_COMMAND(Help, "!h", HelpAlias_Registrant); // Registers a new Help ChatCommand object called with !h
}

void ChatCommand::Unload()
```

```
{
}

// This simply adds the command to our CommandsMap with the trigger, it can later be expanded to do more
void ChatCommand::Startup(const char* Trigger)
{
 ChatCommand::CommandsMap.Insert(Trigger, this); // 'this' is a pointer to the current class
}

// This is a virtual method, this is used for the default for classes that don't have the Activate() method
void ChatCommand::Activate(int ID, int Type, StringClass Msg)
{
 Console("MSG this command hasn't been implemented yet!");
}

// This is the only thing we nee to implement for a new class inheriting from ChatCommand
void Help::Activate(int ID, int Type, StringClass Msg)
{
 Console("MSG This is a fancy help command!");
}

// Example chat hook code to get the above to work
bool KamBot::OnChat(int PlayerID, TextMessageEnum Type, const wchar_t *Message, int recieverID)
{
 StringClass Msg = Message;

 if (ChatCommand::CommandsMap.Exists(Msg)) // Does our hash map contain a trigger that is the same as the input message?
 { // If so
  ChatCommand* c = ChatCommand::CommandsMap.Get(Msg, 0); // Get the ChatCommand pointer that's indexed for the chat message
  c->Activate(PlayerID, Type, Msg); // With our ChatCommand pointer called 'c', call the Activate() function
 }

 return true;
}

derp.h:

class ChatCommand
{
public:

 // Static functions and data, dont need to be called from an object
```

```
 static HashTemplateClass<StringClass, ChatCommand *> CommandsMap; // This is our hash map, we put ChatCommand object pointers here
                // That are triggered by a StringClass trigger text

 static void Load(); // This is our loading code, call this from somewhere
 static void Unload(); // Unloads all chat commands related stuff

 void Startup(const char* Trigger); // Loads a ChatCommand object and adds it to the hash table

 virtual void Activate(int ID, int Type, StringClass Msg); // The default Activate() function called if not defined by an inheriting class
};

// a class that inherits the ChatCommand class, this one implements the !help command
class Help : public ChatCommand
{
public:
 void Activate(int ID, int Type, StringClass Msg); // The code to execute when this function is called in the chat hook by its trigger
};
```

This code should respond to ingame chat that's "!h" or "!help", but I haven't tested it.

Subject: Re: weird reaction with const w_chart
Posted by Ethenal on Sun, 11 Mar 2012 01:28:48 GMT
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iRANian wrote on Sat, 10 March 2012 18:05If you're gonna be building a bot that responds to commands, it's a nice idea to store them in a hash table, with as key the text that triggers the command and the value being a pointer to a class that inherits a generic chat command class, so you can call a function from a class when it is found in the hash table, which is done almost instantaneously, instead of having to go over a list of all triggers to trigger a specific function, which is very slow and makes the code to check what command to trigger very long-winded code.
Isn't that essentially the same thing? Even if you're using a hash table, does it not internally have to go down the list of values until it finds the one with the name you want?

Subject: Re: weird reaction with const w_chart
Posted by iRANian on Sun, 11 Mar 2012 12:19:35 GMT
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No, it's basically an array where a hash function is used to index values with based on the key, and when you want to grab a value the index is calculated from the hash of the key.

See: http://www.pcmag.com/encyclopedia_term/0,2542,t=hash+table&i=44129,00.asp

A very simplified view of it would be like:

Array[hash_function(key)] = value;
printf("%s", Array[hash_function(key)]);

Although it requires a lot of internal work and in C++ you need to use std::unordered_map (see http://en.wikipedia.org/wiki/Unordered_map_(C%2B%2B)) or in case of using the scripts.dll API HashTemplateClass can be used.

Subject: Re: weird reaction with const w_chart
Posted by robbyke on Sun, 11 Mar 2012 13:54:08 GMT
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ok this is pretty funny the code i have used to work like that but with the 4.0 i had to modify it because chatcommandclass was gona.

now u understand how that works and ill have remake all the commands again

thanks alot this helps me great deal im really starting to understand everythin bit by bit

---

Subject: Re: weird reaction with const w_chart
Posted by iRANian on Sun, 11 Mar 2012 14:50:48 GMT
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You'll need a tokenizer class to split the message into tokens, I ported the SSGM 2.0.2 tokenizer class to 4.0, if you need that I can give you it.

Subject: Re: weird reaction with const w_chart
Posted by jonwil on Sun, 11 Mar 2012 15:32:16 GMT
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Look at CommandLineParser.h, that is part of 4.0 and what the ban system plugin, extraconsolecommands plugin, mute plugin, spectate plugin and sudden death plugin are using.

Subject: Re: weird reaction with const w_chart
Posted by robbyke on Sun, 11 Mar 2012 15:34:08 GMT
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i tried to convert it once but i didnt understand vector then(stil not)

so ye if you want to it would be nice

Subject: Re: weird reaction with const w_chart
Posted by jonwil on Sun, 11 Mar 2012 15:45:43 GMT
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commandlineparser is already in 4.0.

Subject: Re: weird reaction with const w_chart
Posted by iRANian on Sun, 11 Mar 2012 16:03:15 GMT
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robbyke wrote on Sun, 11 March 2012 08:34i tried to convert it once but i didnt understand vector then(stil not)

so ye if you want to it would be nice
Alright, it should work the same way the stuff in SSGM 2.0.2 worked like (accessing [0] gives you the full string, [1] gives you the first token). Not sure if there's any issues with it.

Tokenizer.cpp:
Toggle Spoiler#include "Tokenizer.h"

```
void Tokenizer::Build(const StringClass &Text, int Pos)
{
 Tokens.Clear();
 VectorSize = 0;
 StringClass Temp2, All;

 StringClass Tokenz = Text;
 char *p = strtok(Tokenz.Peek_Buffer()," ");

 if (!Pos)
 {
  Tokens.Add(Text);
 }
 else
 {
  int i = 0;
  while (i < Pos)
  {
   p = strtok(0, " ");
   ++i;
  }
 }
 while (p)
 {
  Temp2 = p;
```

```
  Tokens.Add(Temp2);
  p = strtok(0, " ");
  ++VectorSize;

  if (Pos)
  {
   All += Temp2;
   if (p) All += " ";
  }
 }
 if (Pos)
 {
  Tokens.Add_Head(All);
 }
}

Tokenizer::Tokenizer(const Tokenizer &Copy)
{
 Tokens = Copy.Tokens;
 VectorSize = Copy.VectorSize;
}

Tokenizer::Tokenizer()
{
}

Tokenizer::Tokenizer(const StringClass &Text, int Pos)
{
 Build(Text, Pos);
}

Tokenizer& Tokenizer::operator=(const Tokenizer &Copy)
{
 Tokens = Copy.Tokens;
 VectorSize = Copy.VectorSize;
 return *this;
}

Tokenizer& Tokenizer::operator=(const StringClass &Text)
{
 Build(Text,0);
 return *this;
}

StringClass Tokenizer::operator[](int Pos)
{
 if (VectorSize < Pos)
 {
```

```
  return "";
 }
 return Tokens[Pos];
}

StringClass Tokenizer::operator()(int Start,int End)
{
 if (VectorSize < Start || VectorSize < End)
 {
  return "";
 }
 StringClass Ret;
 if (!End) {
  End = Tokens.Count();
 }
 int i = Start;

 while (i <= End && i <= VectorSize)
 {
  Ret += Tokens[i];
  ++i;
  if (i <= End)
   Ret += StringClass(" ");
 }
 return Ret;
}

int Tokenizer::Size()
{
 return VectorSize;
}

void Tokenizer::Erase(int Pos)
{
 if (VectorSize < Pos) return;

 Tokens.Delete(Pos);
 VectorSize--;
}

void Tokenizer::Replace(int Pos, const StringClass &Rep)
{
 if (VectorSize < Pos || !Pos) return;

 Tokens[Pos] = Rep;
}

 /* inline void Tokenizer::Erase_Global(int Pos)
```

```
{
 if (VectorSize < Pos) return;

 StringClass Temp = Tokens[0];
 Temp.Replace(Temp.find(Tokens[Pos]),Tokens[Pos].size()+1,"");
 Tokens[0] = Temp;
 Erase(Pos);
} */

inline void Tokenizer::Add(const StringClass &Text, int Pos)
{
 if (!Pos)
 {
  Tokens.Add(Text);
  ++VectorSize;
 }
 else if (VectorSize < Pos)
 {
  return;
 }
 else
 {
  Tokens.Insert(Pos, Text);
  ++VectorSize;
 }
}
```

Tokenizer.h:
Toggle Spoiler

```
#pragma once

#include "gmplugin.h"

// First position in the Tokenizer string contains the full string, so use [1] instead of [0]
// for the first string

class Tokenizer
{
private:
 DynamicVectorClass<StringClass> Tokens;
 int VectorSize;
 void Build(const StringClass &Text, int Pos);

public:
 Tokenizer();
 Tokenizer(const Tokenizer &Copy);
 Tokenizer(const StringClass &Text, int Pos = 0);
 Tokenizer& operator=(const Tokenizer &Copy);
 Tokenizer& operator=(const StringClass &Text);
```

```
 StringClass operator[](int Pos);
 StringClass operator()(int Start, int End = 0);
 int Size();
 void Erase(int Pos);
 void Replace(int Pos,const StringClass &Rep);
// void Erase_Global(int Pos);
 void Add(const StringClass &Text, int Pos = 0);
};
```

Subject: Re: weird reaction with const w_chart
Posted by iRANian on Sun, 11 Mar 2012 16:07:19 GMT
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If you modify Activate() to take a Tokenizer object instead of StringClass, you could write commands in a similar way to this:

```
void Ping::Activate(int ID, int Type, Tokenizer Msg)
{
 if (Msg.Size() > 1)
 {
  int Count = Functions::Get_Part_Names_Fixed(Msg[2]);
  if (Count < 1)
  {
   Functions::Page(ID,"Player not found.");
  }
  else if (Count > 1)
  {
   Functions::Page(ID, "Multiple players found.");
  }
  else
  {
   int OtherID = Get_Player_ID(Functions::Get_Part_Name_Fixed(Msg[2]));
   Player_t* p = Player::Get(OtherID);
   Functions::Page(ID,"%s's ping is %d.", p->Nick, Get_Ping(p->PlayerId));
  }
 }
 else
 {
  Functions::Page(ID,"Your ping is %d.", Get_Ping(ID));
 }
}
```

Subject: Re: weird reaction with const w_chart
Posted by robbyke on Sun, 11 Mar 2012 21:04:37 GMT
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jonwil commandlineparser seems to be for consolo or at least those plugins use it for console commands while im bussy with ingame commands

Subject: Re: weird reaction with const w_chart
Posted by jonwil on Mon, 12 Mar 2012 02:18:13 GMT
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CommandLineParser is usable for anything where you have a bunch of different items all separated by spaces.

so a string like "a 1.4 ddd 4" can be parsed by it.
Or any string like that.
Its not just for console commands.

Subject: Re: weird reaction with const w_chart
Posted by Jerad2142 on Mon, 12 Mar 2012 13:26:47 GMT
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This is a real rough/bad example of how I THINK it works; I'm looking at it on my break, have never used it before, and am not sure if you can stick string class into Console_Input. However, implementing the tokenizer should be at least SOMEWHAT similar to this:

```
Tokenizer TokenString = new Tokenizer();
TokenString = "Cool Story Bro";
Console_Input(TokenString[3]);
```

If it works you should see "BRO" as an unknown command popup in pink text.

Subject: Re: weird reaction with const w_chart
Posted by iRANian on Mon, 12 Mar 2012 18:28:48 GMT
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It just takes a char* as input, e.g.

```
Tokenizer derp("yo 1 2");
Console("MSG %s", derp[3]);

//Output is "2".
```