
Subject: Re: Unability to debug
Posted by [Shire](#) on Fri, 31 Jan 2014 13:44:26 GMT
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GDB_MI2 crashes when debugging by TheIDE built with MSC compiler.
(Microsoft (R) 32-bit C/C++ Optimizing Compiler Version 16.00.40219.01 for 80x86, for me).

Debugger crashes at this harmless place:
uppsrc/ide/Builders/Gdb_MI2.cpp

```
MIValue Gdb_MI2::MICmd(const char *cmdLine)
{ // ...
    return ReadGdb();
}
```

Return by value operation destructs MIValue instance. Let's see at MIValue class:
uppsrc/ide/Builders/MIValue.h

```
MIValue &operator=(pick_ MIValue &v);
MIValue &operator=(String const &s);
```

```
MIValue(MIValue pick_ &v);
MIValue(String const &s);
```

```
operator String&() { return Get(); }
operator const String &() const { return Get(); }
```

After some debugging I found fundamental difference
uppsrc/Core/Defs.h

```
#ifdef COMPILER_MSC
#define pick_
#else
#define pick_ const
#endif
```

Smart Microsoft compiler, when it can not find copy constructor of MIValue (because _pick is not const), copies instance via const String& conversion:

```
return MIValue((const String&)ReadGdb());
```

May be, this method was preferred by compiler because constantness of returning operator. Solution is make String& constructor explicit and replace operator= with Set(String&) method. Patch is attached.

Such compiler behavior causes floating bugs. I mean this cause must be at "Pick behavior explained" article.

File Attachments

1) [gdb_fix.diff](#), downloaded 362 times
