Subject: Some debugging improvements on linux
Posted by mdelfede on Fri, 27 Jan 2012 00:45:10 GMT
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Hi,

tired of seing things like this when debugging on GDB:

{<Upp::Moveable<Upp::String, Upp::AString<Upp::String0> >> = {<Upp::AString<Upp::String0>>
= {<Upp::String0> = {<Upp::Moveable<Upp::String0, Upp::EmptyClass>> = {<Upp::EmptyClass>
= {<No data fields>}, <No data fields>}, len = 13, s = 0x7fffffffdf70 "a test string", {
chr = "a test string\000\000\r", ptr = 0x7320747365742061 <Address 0x7320747365742061
out of bounds>, wptr = 0x7320747365742061,
qptr = 0x7320747365742061, v = {8289, 25972, 29811, 29472, 29300, 28265, 103, 3328},
w = {1702109281, 1931506803, 1852404340,
218103911}, q = {8295758552588623969, 936749166727098996}}, static voidptr =
{{refcount = 2, alloc = 0}, {refcount = 0,
alloc = 0}}}, <No data fields>}, <No data fields>}, <No data fields>}

Which is all but human-readable, I wrote a small IDE addon to allow embedding of python pretty-printers into debugger; the result above is :

"a test string"

Which is a bit more clear

I'll attach the IDE patches; it's enough to unpack the code in

uppsrc/ide/Debuggers

folder, overwriting the old ones.

I plan to extend python scripts and to make small mods to debugging code to encompass most Upp types.
By now, String and an initial Vector support are embedded.

Ciao

Max

File Attachments

1) Debuggers.zip, downloaded 490 times

Subject: Re: Some debugging improvements on linux
Posted by dolik.rce on Fri, 27 Jan 2012 06:09:10 GMT
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Hi Max,

That looks great I'm using pretty printers for STL at work, but it never occurred to me that we could use the same mechanism for U++... Do you have any idea about the compatibility with different gdb versions? I think it should work in gdb 7.0 and newer, but I also remember something important didn't work before 7.4. If 7.0 is the only requirement, it should be safe to add this to U++, as it would work in all currently supported distributions. And it would sure make our life easier

Best regards,
Honza

Subject: Re: Some debugging improvements on linux
Posted by mdelfede on Fri, 27 Jan 2012 07:15:52 GMT
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IIRC pretty-printing is supported from GDB 7.0... I really don't know how many gdb versions are used around.

BTW, I was thinking to go a bit further, rewriting from scratch the GDB interface and using python to communicate from upp to gdb.

That should allow to have a more usable and complete debugger in Linux....

Max