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Subject: A little experiment with smarter debugging  
Posted by [cbpporter](#) on Fri, 13 Nov 2009 08:47:27 GMT  
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I find that String0::Dsyn is quite an ugly hack and it makes understanding string a lot harder, especially because of the macro juggling with `_DEBUG` and `COMPILER_GCC` in String and String0. I think this should be addressed by the debugger without bloating up String in debug mode, so I did a little experiment. I removed the "len" fields, and added this to `ide/Debuggers/Visulize.cpp`:

```
if (t.name == "Upp::String") {
    if(cm)
        result.Cat(", ");
    result.Cat("len");
    result.Cat("=", SColorMark);
    union {
        char temp[16];
        dword w[4];
    };
    if(!Copy(val.address, &temp, sizeof(temp)))
        result.Cat("\\"Error\"", Green);
    int len = 0;
    if (temp[14] == 0)
        len = temp[15];
    else
        len = w[2];
    result.Cat(IntFormat(len), Cyan);
}
```

This works well and can be adapted for "s" field. What is your opinion on making the debugger "understand" String? As far as I can tell there are just a few tricky classes like String, so the effort wouldn't be that great. The disadvantage is that outside TheIDE, people would have a harder time debugging strings, so maybe we could keep Dsyn, but only use it if Core is compiled with an option for that.

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