
Subject: Improvements to several Lang.cpp functions

Posted by [Novo](#) on Tue, 03 Feb 2009 22:21:09 GMT

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It is possible to use `_alloca()` instead of fixed size stack buffer on Windows.

File Attachments

1) [Lang.cpp.diff](#), downloaded 478 times

Subject: Re: Improvements to several Lang.cpp functions

Posted by [mirek](#) on Fri, 13 Feb 2009 10:07:40 GMT

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Novo wrote on Tue, 03 February 2009 17:21It is possible to use `_alloca()` instead of fixed size stack buffer on Windows.

I believe it is not worth of trouble. These functions do not tend to be called in recursion and buffer sizes are adequate.

Mirek

Subject: Re: Improvements to several Lang.cpp functions

Posted by [Novo](#) on Sat, 14 Feb 2009 00:47:10 GMT

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luzr wrote on Fri, 13 February 2009 05:07Novo wrote on Tue, 03 February 2009 17:21It is possible to use `_alloca()` instead of fixed size stack buffer on Windows.

I believe it is not worth of trouble. These functions do not tend to be called in recursion and buffer sizes are adequate.

Mirek

It is just cleaner code and more efficient memory usage. You do not need such big buffer in most cases.

Subject: Re: Improvements to several Lang.cpp functions

Posted by [mirek](#) on Mon, 16 Mar 2009 09:25:31 GMT

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Novo wrote on Fri, 13 February 2009 19:47luzr wrote on Fri, 13 February 2009 05:07Novo wrote on Tue, 03 February 2009 17:21It is possible to use `_alloca()` instead of fixed size stack buffer on Windows.

I believe it is not worth of trouble. These functions do not tend to be called in recursion and buffer sizes are adequate.

Mirek

It is just cleaner code and more efficient memory usage. You do not need such big buffer in most cases.

I do not believe that alloca is better code... It is longer code and it is (in general, it is perhaps not a problem here) platform/compiler specific (AFAIK).

Mirek

Subject: Re: Improvements to several Lang.cpp functions

Posted by [Novo](#) on Tue, 17 Mar 2009 02:37:41 GMT

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I don't insist on using alloca().

I'm pretty sure alloca() doesn't exist on gaming consoles, but it exists in msvc, glibc (Linux and BSD).

Below is an implementation of alloca(), which I found in GLIBC.

```
# define alloca(size) __builtin_alloca (size)
```

```
#ifndef NO_UNDERSCORES
```

```
#define __builtin_alloca __builtin_alloca
```

```
#endif
```

```
ENTRY (__builtin_alloca)
```

```
sub %sp, %o0, %sp /* Push some stack space. */
```

```
retl /* Return; the returned buffer leaves 96 */
```

```
add %sp, 96, %o0 /* bytes of register save area at the top. */
```

```
END (__builtin_alloca)
```

IMHO, using of alloca() is just safer and cleaner. But that is completely up to you.
