Subject: Improvements to several Lang.cpp functions
Posted by Novo on Tue, 03 Feb 2009 22:21:09 GMT
View Forum Message <> Reply to Message

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

File Attachments
1) Lang.cpp.diff, downloaded 613 times

Subject: Re: Improvements to several Lang.cpp functions
Posted by mirek on Fri, 13 Feb 2009 10:07:40 GMT
View Forum Message <> Reply to Message

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
View Forum Message <> Reply to Message

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
View Forum Message <> Reply to Message

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
View Forum Message <> Reply to Message

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.
