Subject: Re: Porting U++ to Blackfin DSP
Posted by mirek on Wed, 16 Dec 2009 13:42:12 GMT
View Forum Message <> Reply to Message

kohait00 wrote on Wed, 16 December 2009 08:20hi mirek,

considering the full porting of U++ to Blackfin, arise some little huge problems.

1) the BF is an interger DSP, which emulates floating point stuff. is it reasonable to think about integrating fixpoint arithmetik to compute sizes, colors etc. all the graphics stuff? what do you think, how severe is the huge of float/double operations inside the graphics layer?

It will have an impact.

Quote:
2) the BF is running uClinux as flavor. no MMU!! so memory fragmentation is a problem, when doing a lot of malloc/free new/delete. how much dynamic allocation is done in the graphics layer? i know of the containers, which allocate on heap. how intense is the use there? could we modify the UPP ALLOCATER to somehow being able to manage a fixed chunk of memory? it means, when we start upp application, the Core allocates a given size of memoy (i.e. 64 MB) and is using this to service the heap alloc demands. (i would need to port to UPP MALLOC anyway for that porpuse, its not supportet currently)

these 2 major problems stand in performance way of porting full Upp to BF environment.

MMU does not really has a lot to do with process heap fragmentation. U++ generally is quite allocation intensive in all parts, maybe less than other libraries, but still is. But U++ allocator should cope with that.

Of course, it does not allocate memory from the system in small chunks. 4KB is the minimum size requested from system.

Mirek