

DragonFlyBSD - Bug #2490

nmalloc should color addresses to avoid cache bank conflicts

01/15/2013 11:38 PM - vsrinivas

Status:	New	Start date:	
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	Feature request	Estimated time:	0.00 hour
Target version:			
Description			
<p>nmalloc returns addresses without regard as to whether those addresses will result in cache bank conflicts; cache bank conflicts will result in wasting a fair amount of a CPU's load bandwidth, as seen in the Himeno matrix benchmark, among others.</p> <p>commit 8120f5e2a46e669c06a7afdd7de60fa6d6996f9d added simple cache coloring to nmalloc for 32KB allocations, offsetting them by 4KB. While it does work (and restores Himeno's performance), it can be substantially improved on. We should look at doing so.</p> <p>-- vs;</p>			

History

#1 - 06/10/2014 05:51 AM - jorisgio

- Description updated

- Category set to Feature request