Subject: Re: Avoiding a FOR loop in calculation of SPH potential energy
Posted by cody on Tue, 23 Jun 2009 07:29:35 GMT
View Forum Message <> Reply to Message

i've been reading through this discussion group and one thing i see often is that you can vectorize a FOR loop to avoid it. so my code would be something like:

```
u = 1 + bytarr(pn)
dx = u#s.x
dy = u#s.y
dz = u#s.z
for i = 0L, pn-1 do dx[0, i] = dx[*, i] - s.x
for i = 0L, pn-1 do dy[0, i] = dy[*, i] - s.y
for i = 0L, pn-1 do dz[0, i] = dz[*, i] - s.z
d = sqrt(dx^2+dy^2+dz^2)
print,'calculated all ds?'
```

but i'm not able to allocate that much memory for 100k particles and i wouldn't know how to do the proper potential energy calculation that way either since not all particles are the same mass.