ScalES-PPM - Task #295

Apply optimizations to repartitioning routines

01/02/2012 02:17 PM - Thomas Jahns

Status:	New	Start date:	01/02/2012
Priority:	Normal	Due date:	
Assignee:	Thomas Jahns	% Done:	0%
Category:		Estimated time:	0:00 hour
Target version:			

Description

The repartition-by-swapping routines can benefit from the following improvements:

- repartition in parallel by pairing up lowest weight with highest weight part, second-lowest weight with second-highest weight part etc.
- sort the larger part weights (size n) to achieve O(log n) lookup

This issue is mostly for documenting the progress of an on-going implementation: the above is done for the variant for multi-process and 4 byte integer weights (mp_i4) the following are required for completion:

- mp_dp
- mt_i4
- mt dp

Where the multi-threaded variants have yet to be written.