

YAXT - Feature #341

Call MPI_Testany from time to time to improve performance

08/25/2017 04:23 PM - Moritz Hanke

Status:	New	Start date:	08/25/2017
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0:00 hour
Target version:			
Description			
<p>While doing some tests with YAC, I noticed that: when setting up a list of MPI_Isends, the performance improved, if from time to time MPI_Testany is called (MPI_Testsome did produce better results).</p> <p>We should check whether YAXT could also benefit from this.</p> <p>The following is a pseudo code showing the idea, which is based an the Routine psmile_bsend written by Hubert Ritzdorf for OASIS4.</p> <pre>int num_open_requests = 0 MPI_Requests requests[total_num_send_rcv_msgs] for all send/rcv msgs MPI_Request * request = &requests[num_open_requests++] set up MPI_Isend/MPI_Irecv int flag = 1, idx while (flag && (num_open_requests >= 64)) MPI_Testany(num_open_requests, requests, &idx, &flag, MPI_STATUS_IGNORE) if (flag && (idx != MPI_UNDEFINED)) requests[idx] = requests[--num_open_requests] MPI_Waitall(num_open_requests, requests, MPI_STATUSES_IGNORE)</pre>			