

## YAXT - Feature #341

### Call MPI\_Testany from time to time to improve performance

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

<b>Status:</b>	New	<b>Start date:</b>	08/25/2017
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0:00 hour
<b>Target version:</b>			
<b>Description</b>			
<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 = &amp;requests[num_open_requests++]   set up MPI_Isend/MPI_Irecv   int flag = 1, idx   while (flag &amp;&amp; (num_open_requests &gt;= 64))     MPI_Testany(num_open_requests, requests, &amp;idx, &amp;flag, MPI_STATUS_IGNORE)     if (flag &amp;&amp; (idx != MPI_UNDEFINED))       requests[idx] = requests[--num_open_requests] MPI_Waitall(num_open_requests, requests, MPI_STATUSES_IGNORE)</pre>			