Charm++ - Feature #1986
Avoid msg creation when contributing a pointer to a streamable reduction
10/07/2018 07:49 PM - Sam White

Status: New
Priority: Normal
Assignee: Nitin Bhat
Category:
Target version:

Start date: 10/07/2018
Due date:
% Done: 0%
Estimated time: 0.00 hour
Spent time: 0.00 hour

Description
ckreduction currently optimizes for streamable reductions by combining messages as they arrive, but this doesn't avoid the creation of many messages in the first place, which is unnecessary if the user passes a pointer to contribute() and the reducer is streamable.

History
#1 - 10/09/2018 09:47 AM - Sam White
- Target version deleted (6.9.1)

The idea here is that the first contributor on a PE creates the message and all subsequent contributors on that PE contribute directly into that 1 message. This obviously only works for constant sized messages or if doing a gather with fixed size contributions. Also, this requires a new API, since we can't safely assume that the value passed to contribute() is a pointer that will persist beyond the current scope of that call.

#2 - 10/18/2018 12:30 PM - Eric Bohm
- Assignee set to Nitin Bhat