On the Implementation of the Opus Coordination Language

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Description of Changes and Response to Referees

- Section 4.2 has been slightly shortened; the term "implementation" is used less often.
- The statement "an Opus implementation has to provide an efficient mapping of SASPs to nodes" in the last paragraph of Section 3 is discussed again in Section 4.1, 2nd paragraph, where we discuss the benefits of a multithreading model over a process-based one. We changed the statement to "... an efficient mapping of SASPs to low level services (like threads and processes) available on nodes ...". In addition, we added a sentence describing the Opus "on-clause" in the 2nd paragraph of Section 2 to make clear that the user can specify the resources allocated for an SDA.
- In Section 6, 2nd paragraph, we added a statement saying that the compiler is not yet fully implemented and hence the presented runtime results are based on a hand-compiled program.
- The runtime results in Section 6 are explained in more detail. In particular, we discuss the differences between the process and thread based versions (Figure 11b) in more detail and state that the differences in the runtime between Figure 12 and Figure 11 are due to an increased problem size. The referees refer to a runtime of 90 seconds on Figure 20(a). It is not completely clear to us what is meant, because there is no Figure 20 - and in Figure 11(a) there is no runtime of 90 seconds reported. If the referees meant Figure 11(b) we hope, that the explanation we added in the last but one paragraph of Section 6 clarified the situation.
- The first paragraph of Section 7 has been reformulated.
- The remark that we refer "to SDAs instead of SDA objects" can now be found in the 2nd paragraph of Section 2 only.
- The typesetting of the last sentence in bullet `ors_wait` has been modified and the sentence terminates now.
- The last sentence of the `ors_handle_return` bullet has been reformulated.
- The sentence "Therefore executing the program on more than one processor ..." in the 4th paragraph of Section 6 has been corrected according to the referees suggestions.
- Small stylistic and grammatical changes have been applied throughout the paper.