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ソフトウェア論文特集

論文・記事番号：16-S-05

題目：Component-Based Framework of Lightweight Ruby for Efficient Embedded Software Development

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Dear Editor and Reviewer,

We highly appreciate the insightful suggestions and detailed valuable comments on our paper. The suggestions of the reviewers are very helpful for us and the suggestions are now incorporated in the revised paper as follows. We have attached the last paper review and revised paper in our reply letter. In the revised paper, newly added and modified sentences are written in the bold and red colored font so that the reviewers can easily find them. We hope the editor and the reviewers will be satisfied with our replies to the comments and the revised paper.

Yours sincerely,

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1 Response to 1st reviewer

1. **Comment:** 初見では、Fig.21 をどう解釈すればよいかが分かりにくかったです。図の解釈について説明を追加いただければ、多くの読者にとってわかりやすくなると思います。

Our reply: Thank you for your thoughtful suggestion. We have added and modified the section as follows. (page 13)

4.3 Synchronization of Multiple RiteVMs

To execute multiple mruby applications, a synchronization mechanism for RiteVM tasks is implemented in the proposed framework. We measured the execution time from the execution of the first RiteVM task to that of the last RiteVM task. Fig. 21 shows the case of two to eight RiteVM tasks. Note that the periodic time is 1 msec. It was confirmed that the execution time was within the theoretical value which is *periodic time* \times (*number of RiteVM tasks* - 1). In the case of two RiteVM tasks, the theoretical value is 1 msec and the execution time does not exceed the theoretical value. As shown in Fig. 21, the execution time is within the theoretical value, which indicates successful synchronization of multiple RiteVM tasks.

2. **Comment:** 3 ページ左カラムの下から 2 行目で「4. Benets of CBD:」で始まっていますが、他の項目は「.」で終わっています。この点、ご確認ください。

Our reply: Thank you for pointing out the wrong expression. We have modified the other contributions to “.” such as “Improved software development efficiency.”. (page 3)

2 Response to 2nd reviewer

1. **Comment:** Figure 11 seems to be a wrong diagram. Maybe this is an old version. Please replace it with a correct one so that A, B, C, D matches to the description in the text.

Our reply: Thank you very much for your careful reading. As you said, we used the different figure. We have replaced it with the correct figure. (page 7)

2. **Comment:** The first reference of Figure 12 from the text is after Figure 13 is refereed. Please change the order.

Our reply: Thank you for your thoughtful comment. We have switched the order of Fig. 12 and Fig. 13. (page 7-8)