MUFASA 1.0

USER GUIDE

Multiple fragments assembler for scarless cloning of big genetic constructs.

Mufasa 1.0 software is a project which was created on the10th edition of international Genetically Engineered Machine iGEM competition designed by Pozna Soft Team. Members of the team: Melania Nowicka, Katarzyna Rżosińska, Jakub Bartoszewicz, Weronika Krzynowek.

Goals of Mufasa 1.0 as a tool are to rationalize the theoretical and laboratory work with designing synthetic biological constructs. Mufasa easily and quickly generate optimized overlaps, which enables for constructs cloning by CPEC or GIBSON reaction

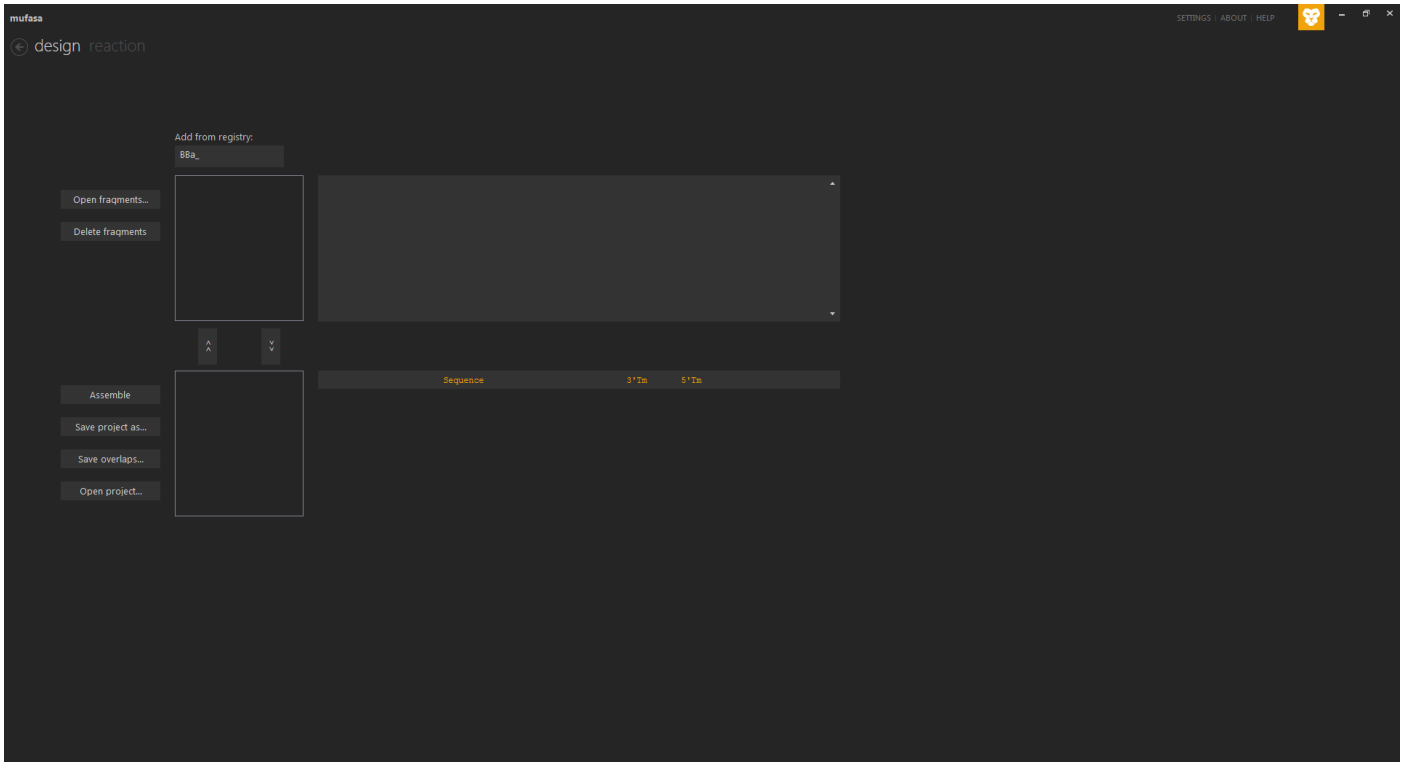
Installation

Installation of Mufasa 1.0 is automatic. You can download Mufasa from the our official page www.poznanbioinf.pl/software/download or use source code on github (https://github.com/igemsoftware/PoznanSoft2014). Click twice on Mufasa.exe and program will install automatically.

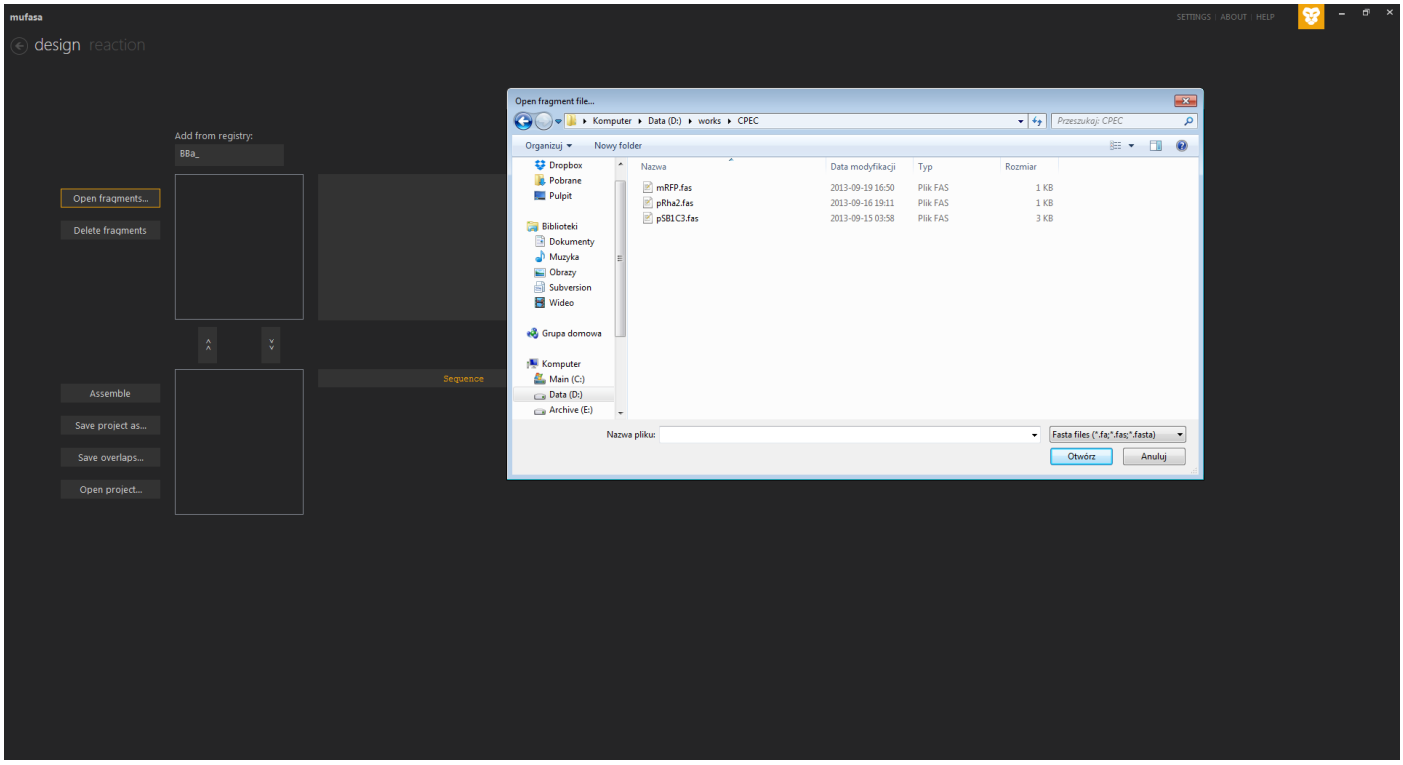
Working with Mufasa 1.0

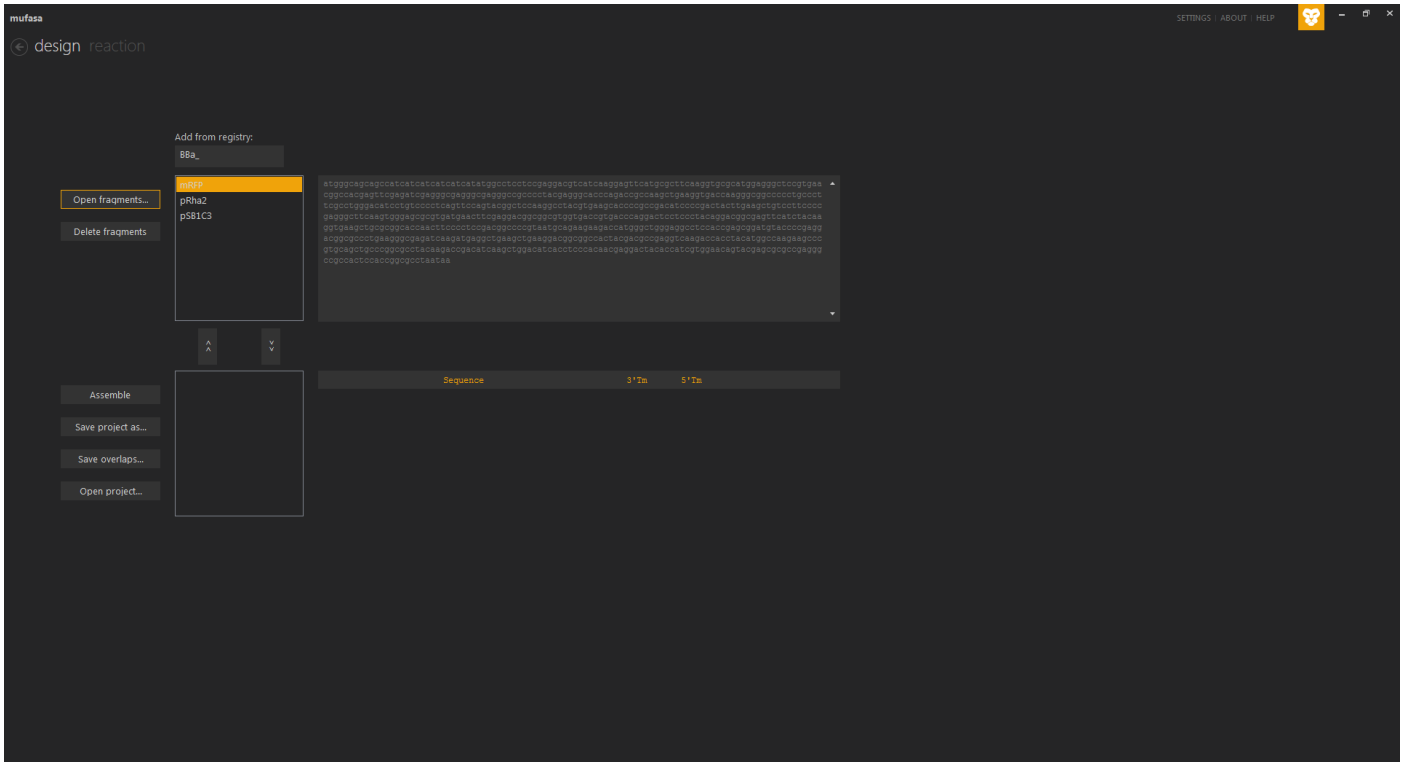
Workspace

You create and manipulate your sequence using left-panel and windows.
Arrangement of this area is called workspace. Workspace presents elements such as: left-panel: you can choose the operation with sequences; windows: displays your sequences.

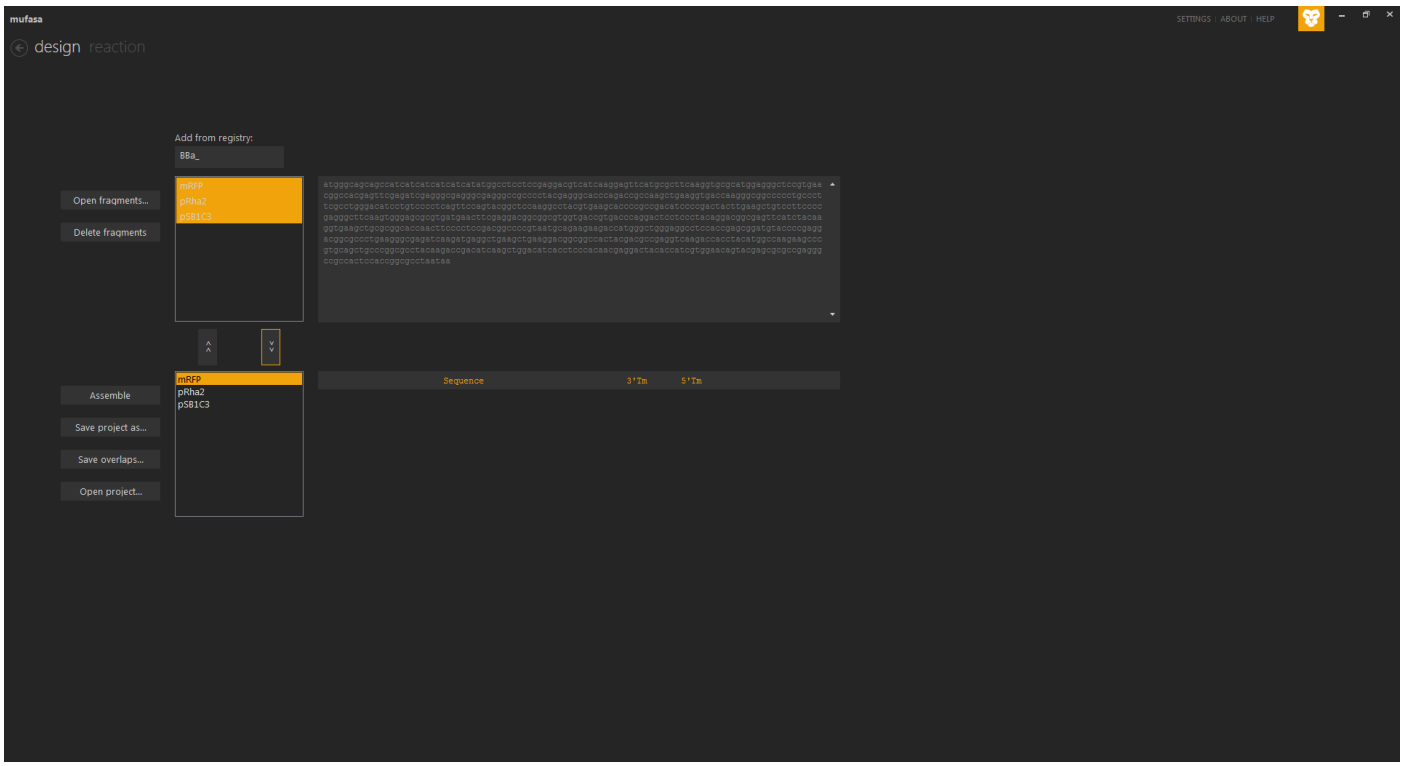


Adding fragments



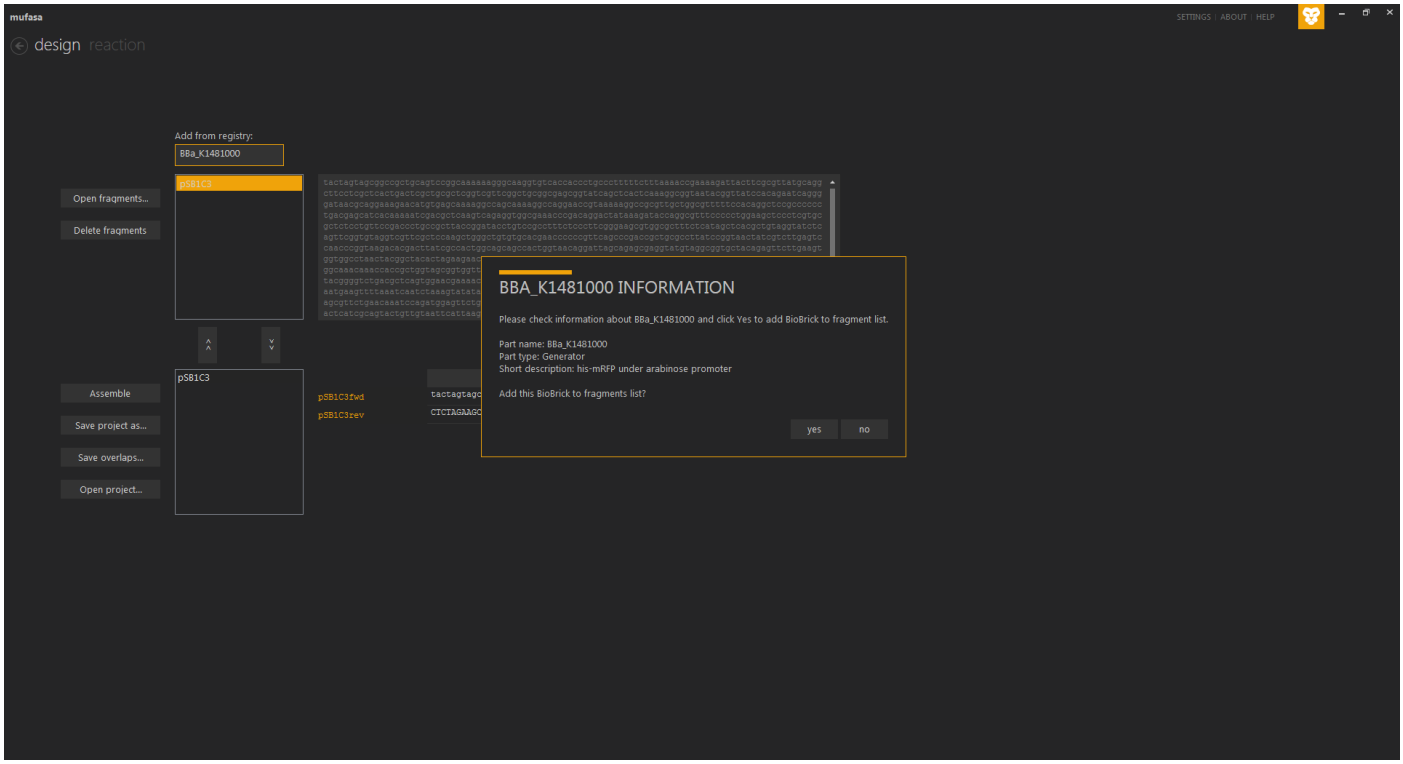


Adding fragments to construct

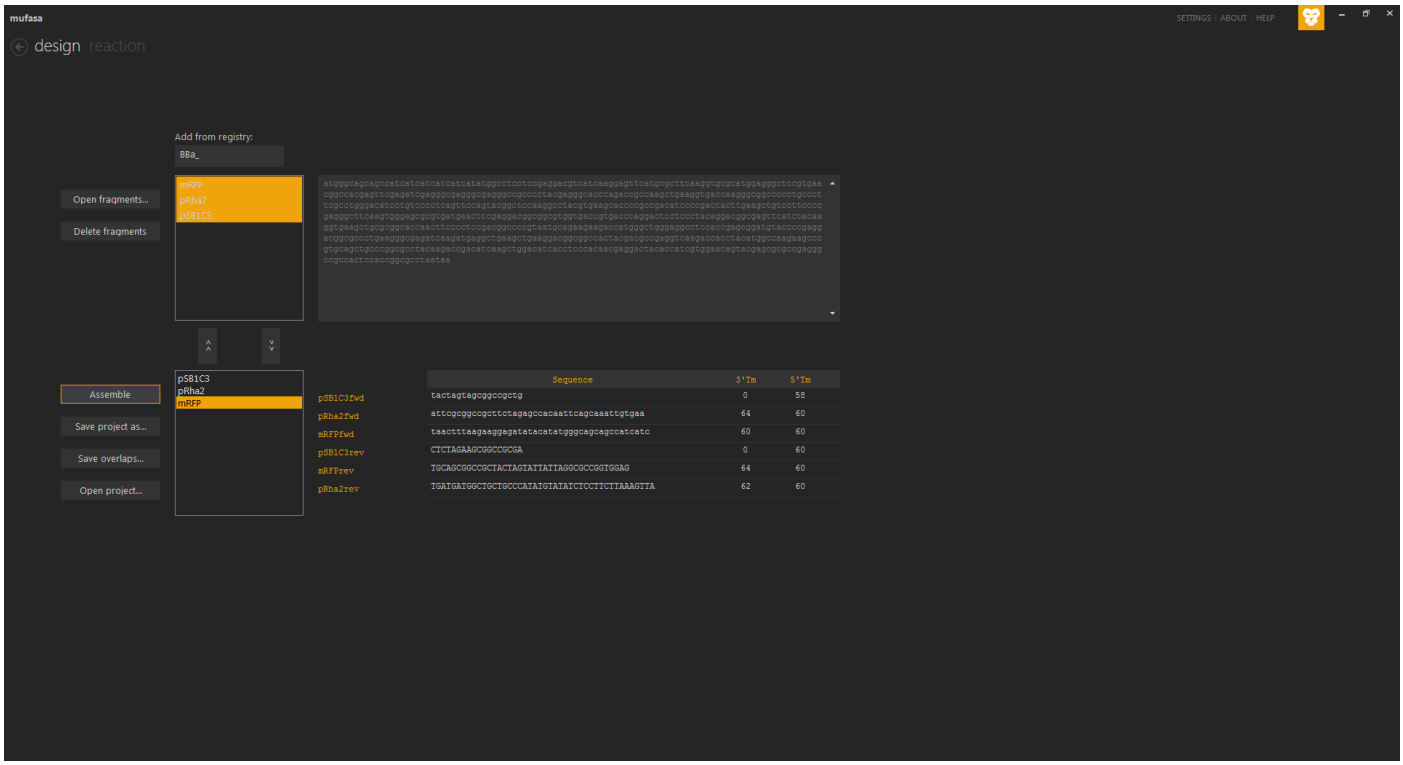


Adding BioBricks from Parts Registry

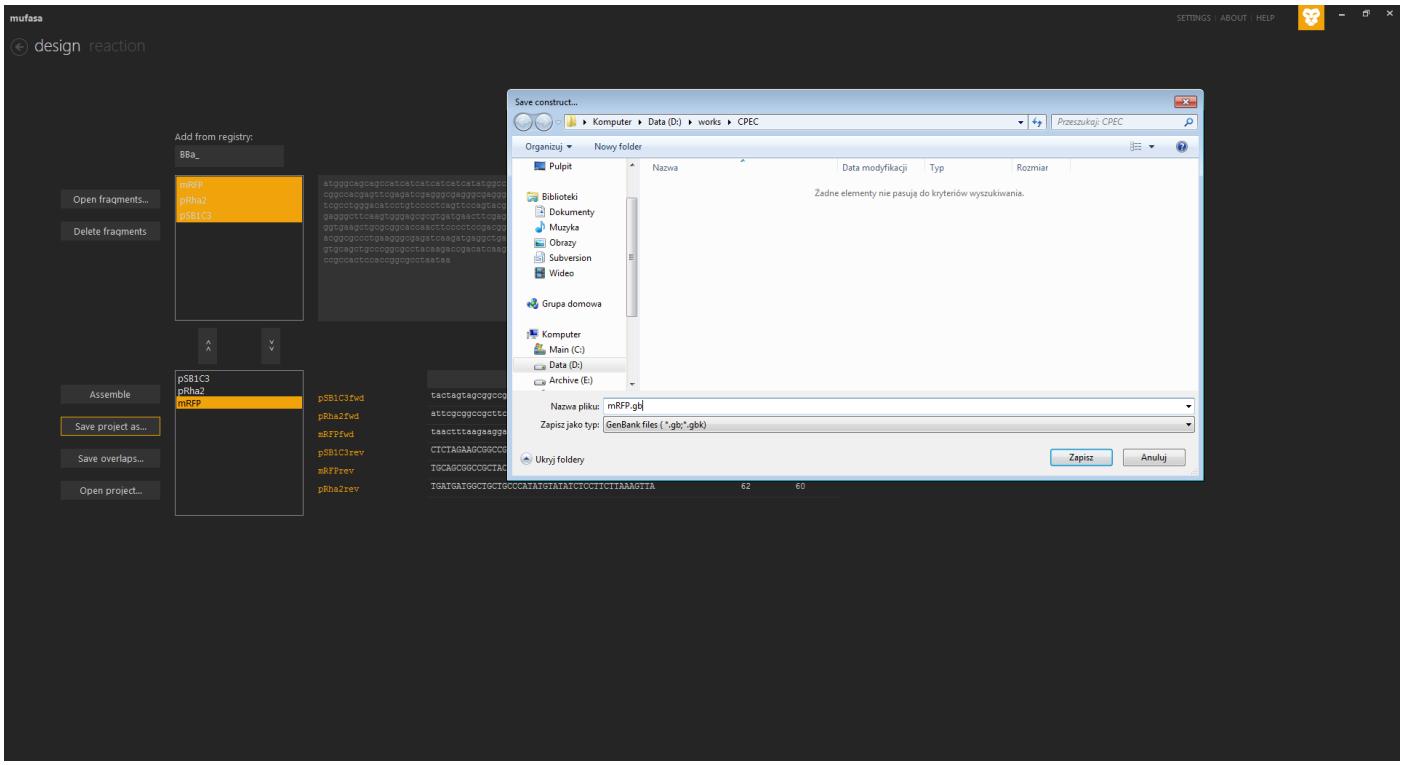
You can also add BioBricks from Parts Registry to the list of fragments.



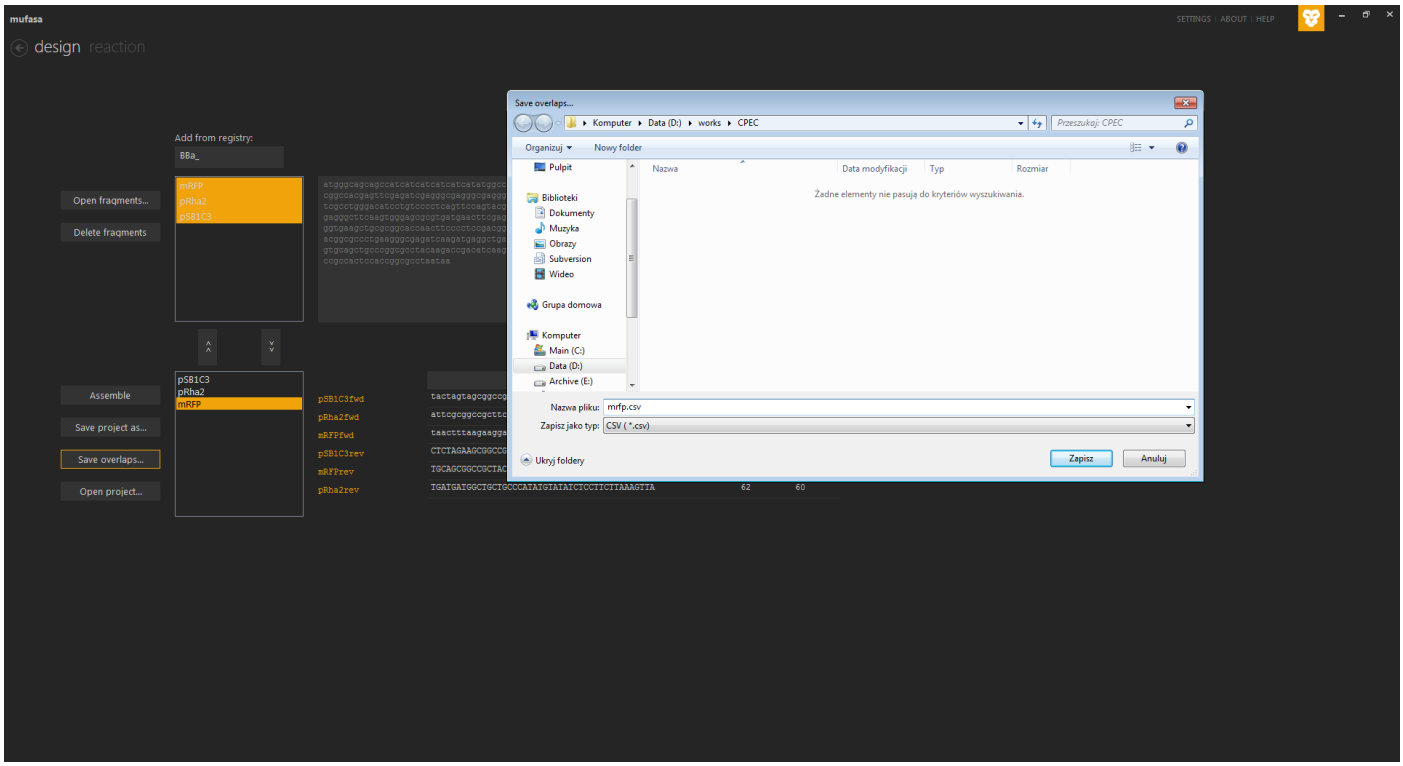
Making overlaps analysis



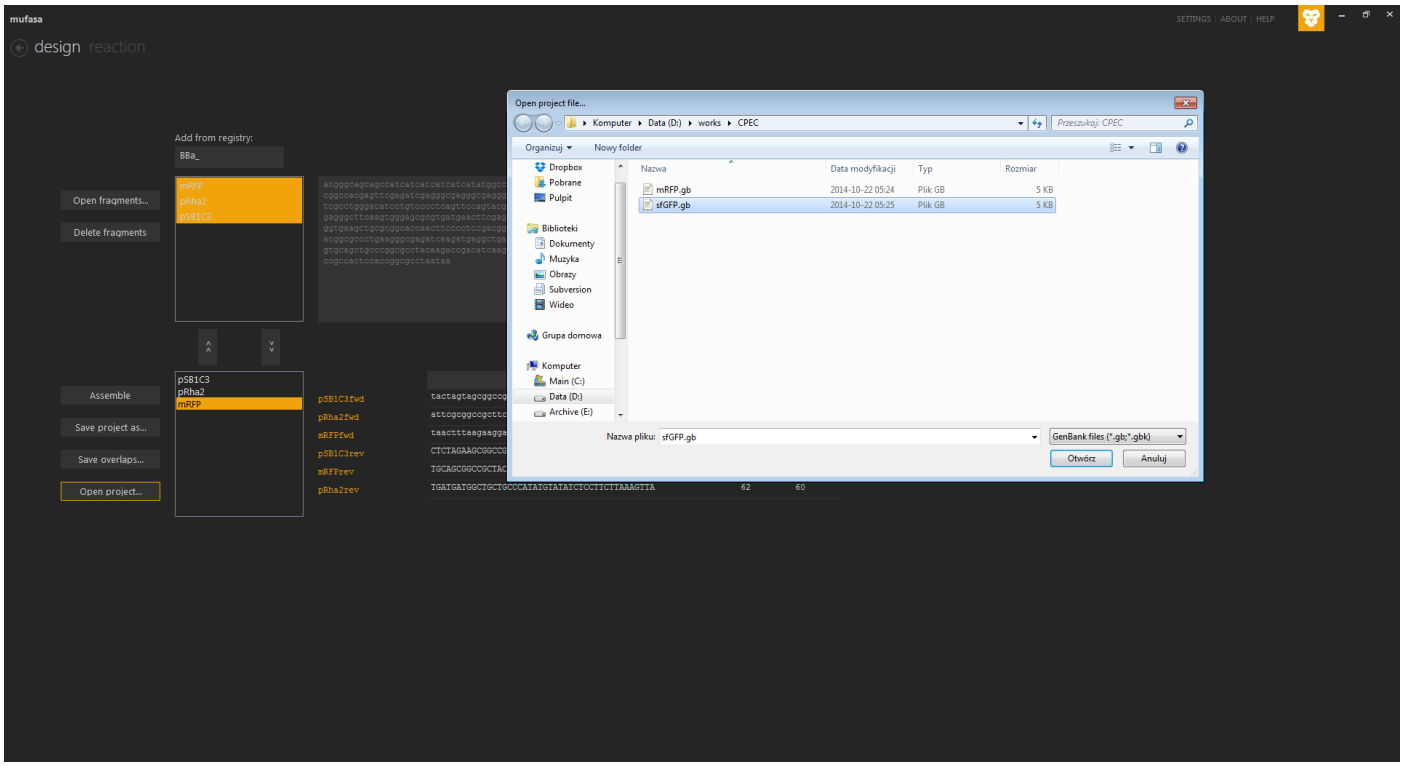
Saving current workspace



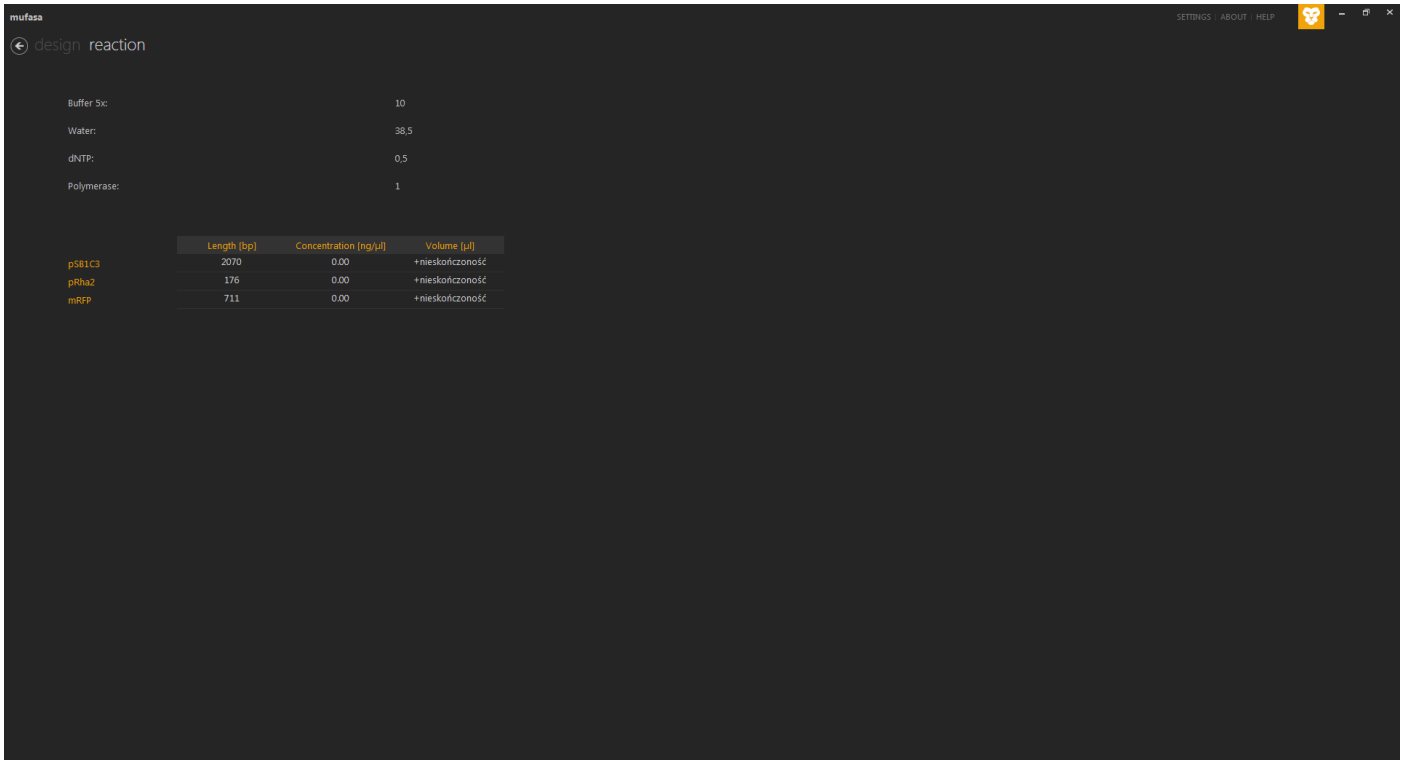
Saving overlaps

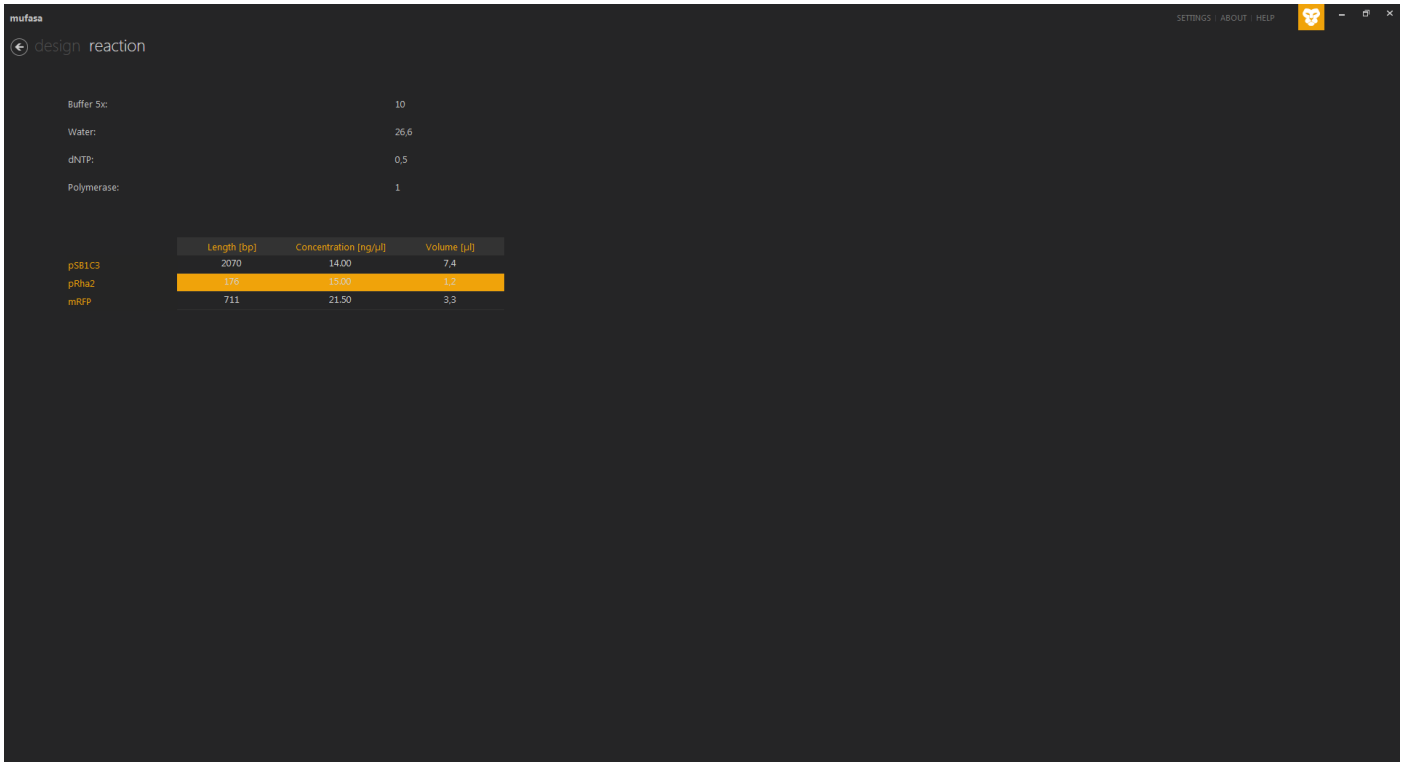


Saving to GenBank format



Creating CPEC reaction





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http://www.poznanbioinf.pl