

Commentary and instruction for merging parameters (mergeParams)

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1. Objectives

It is laborious and time-consuming to set many parameters manually. The mergeParams module helps users setting the parameters by copying or merging the existing data that have been obtained, which greatly reduces such laborious parameter setting. The mergeParams module reads and sets the parameters that have been already calculated in the current parameter file.

2. Function

The mergeParams module reads the previous parameter file and the current parameter file to input the values of the variables, constants, and parameters according to their tags (#comment). The tags are added to all the variables, constants and parameters in order to distinguish them. Comparing the previous parameters with the current parameters, the current parameters with the same tag as the previous ones are updated by the values of the previous ones, if necessary. When some values of the current parameters have been already set, users can chose two types of merging parameters:

- 1) Only empty parameters are updated.
- 2) The values of the previous parameters replace those of all the current parameters.

3. Input/output specification

The mergeParams module reads the previous and current parameter files, and writes the current parameters with updated values. Both parameter files are text files, the lines to be merged are:

- Y_START : the line starting from "Y_START". the initial values of variables.
- PARAM : the line starting from "PARAM". the values of kinetic parameters.

This module processes only the lines to be merged, the other lines never be changed.

3.1 Y_START

Y_START ; index; initial_value; tag #comment

Each field is distinguished with semicolon";". The mergeParams skips the region preceded by "#". The tag "#comment" distinguishes the parameters to be merged, and "initial_value" is merged.

3.2 PARAM

PARAM;name;index;val;val_start;num_survey;D/R;change-val;GA_start;GA_end;tag #comment

Each field is distinguished with semicolon";". The mergeParams skips the region preceded by "#". The tag "#comment" distinguishes the parameters to be merged, and "val" is merged.

4. Command

Users use the mergeParams program on command lines as follows.

```
mergeParams -IMathParam.txt -Rinput.txt [-B]
```

MathParam.txt is the current parameter file. The space between the file and the option is not allowed.

- MathParam.txt input/output : the current parameter
- input.txt input : the previous parameter

The flag -B indicates that only empty parameters are updated.

No flag indicates that the previous parameters replace all the current parameters.

5. Error message

"Too many parameters."

"Invalid line:

LINE_TEXT"

"Cannot open FILENAME for reading."

"Cannot read parameters. (file = FILENAME)"

"Cannot open FILENAME for writing."

"Invalid argument !!"

"Too few arguments !!"

"Cannot import files !!"

"Cannot merge parameters !!"

"Cannot export parameters !!"