# What has been done (synthesis)

* Dimitrios-SBB comments have been integrated into this version. Some comments have been deleted since not appropriate.
* The folder ReadMeFiles has also been incorporated: this folder contains some files that explain the meaning of the struct variables used in *TrainDy*.

# Modified functions

## BWc3 & extr\_var2

The output variables na and nbs has been removed, since they are not updated. This caused a modification in the calling function extr\_var2 and the removal of the un-useful rows such as: train(ii).na = na; train(ii).nbs = nbs;

## CalcCF

The comment “ % [s!] this is zero.. why not just write 0?” has been accepted and the assignment has been changed.

## GUI\_input

* It has been cancelled the mistyping: TRAIN\_CONF\_NUM
* The obsolete input tmap has been cancelled.
* Lwag has been removed as output from configuration function since it is computed (in the same way) in the following extr\_var2 function. Un-useful rows from configuration function has been deleted.

## PneumDevices

* Since P1 is not changed, it is removed from the outputs; this caused a change also in tRTUf2011.
* Wrong comment: % [b] it should be posDBV(ii) > 1 before so that we enter this condition for pos == 1! Results in wrong position when loco is at the beginning of train
* Removed the comments on the redefinition of Lvago (since it is not applied).

## boundaryCond2

The comment “[s!] Perhaps they can be removed” has been removed, since future feature can require the update of Q, ro, T and u.

## brake\_eldyn

Removed the comment “[s!] Initialized to zero just before calling this function so it can be eliminated” since the code is better programmed as it is.

Commenting the meaning of jmloc, the sentence “for each loco” has been added to make the explanation more clear.

## brakeforce

Removed the comment “[s!] Since it's always initialized to zero before calling this function, why do we need it as an input?” since the code is better programmed as it is.

## Comp\_data

The comments on L and SR have been revised. The comment “% [s!] In all the conditions below, substitute & with &&” has been accepted and the code has been updated as suggested; previous versions of MATLAB did not supported &&, but only &.

## comp\_pressure\_tpSR

The comment “(T\_0 \* P\_0)^((1-kpolSA)/kpolSA) [?]” has been deleted and the description of cstPol has been updated by “Constant of the polytropic transformation in the Auxiliary Reservoir”

The comment on ptarget has been revised.

## defTrack

The comment “% tipopar variable is unused and can be deleted [s!]” has been removed even if it is correct but the value 2 assigned to tipopar can be used in an advanced modelling of the track.

## extr\_var2

* The comment “TODO: this function is NOT general” has been removed since it is not applicable.
* The function comp\_X has been added to the official version since it was missing.
* The code is updated when it look for “BLOCK\_SI” entry for wagons (for diagnostic purpose). The same has been done for “DISK\_SI” sone rows below.

## Ftrack

Input variable has been removed since it was no more used.

## initialManvBP

* Un-used inputs have been removed; integraode has been updated accordingly.
* The meaning of “ptarget” has been updated.
* The global variables no more used have been removed

## Prel\_com

Comment on positive gap has been rephrased as requested.

## Recharge

The “&” have been substituted by “&&” and the “==” have been substituted by “=”