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## Interactive comment on ""Changes" of the thermal continentality in Central Europe between the years 1951 and 2013: case study – Slovak Republic" by J. Vilček et al.

J. Vilček et al.

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Reply to General comments of Referee#3:

Thank you for your comments and time spent on our paper. After deep analyzing we agree with the referee that the submitted paper is not in sufficient form for publication in ESD. Therefore we will undertake substantial changes on the paper (see replies on particular comments). Secondary, we will corrected the text by native English speaker from scientific community.

Comment No 1.: "It is unclear whether the data are original or quality controlled"

C875

Reply: Source of the data is Slovak hydrometeorological institute (SHMI). All the data of the SHMI are before using for further research homogenized and quality controlled by WMO standards.

Comment No 2.: "If the used stations are in CRUTEM4 or GHCNMv3 will be better to use these datasets"

Reply: Unfortunately only the station Sliač and Hurbanovo are incorporated in gridded product. Thus it is not possible to use this datasets. As written in manuscript, stations selected are because of the specific geographical and geomorphological conditions of Slovakia.

Comment No 3.: "It is not clear whether the continentality index used in work is the most relevant"

Reply: We understand the problem described in the comment. Therefore we will use also other indices in order to explain and confirm our findings. In addition we see that we have to rewrite introduction session because it is not clear why we decided to use thermal continentality as an indicator related to conclusions and research questions written in introduction respectively.

Comment No 4.: "Some stations are available for 1951  $\rightarrow$  and 1961  $\rightarrow$  respectively"

Reply: Yes we agree with this comment. All the stations will have period 1961  $\rightarrow$ 

Comment No 5.: "Geographical and geomorphological interpretation is needed"

Reply: We agree. We will do it.

Thank you

Interactive comment on Earth Syst. Dynam. Discuss., 6, 1261, 2015.