Interactive comment on “The CMIP6 Data Request (version 01.00.31)” by Martin Juckes et al.

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CMIP6 is an ambitious task of coordinating several hundreds of experiments which are being ran by over 40 modeling centers world wide. The data produced by these models are compared against each other and are eventually used to make mitigation decisions. The work described in this paper was an effort to organize the data request of each of these experiments in order to ensure that the modeling centers each provide the same set of variables with the same attributes in order to ease the process of the comparisons. This was an ambitions and necessary task that helped all centers create and format the data more easily than it had been done in the past. Also, the authors’ efforts in creating several different ways to access this information made the process more smooth for several institutions who took advantage of this work and used it to automate the output for their experiments.

Overall this paper was well written, but it seems as if part of the motivation was lost in the introduction. While the complications of the data are highlighted and are very important to discuss, a lot of what is presented in lines 134-140 and around line number 375 seem to highlight the organization need for this work and could also be added to the introduction more clearly.

It may also be helpful to the readers of this paper if the versioning and issue tracking methods were also briefly discussed. This could probably be done within only a couple of lines.

Some technical correction suggestions:
- The footnote on the bottom of page 2 should have a period
- Line 64: figure needs to be capitalized
- Line 161: “the” used twice
- Figure 2 continued caption: under “F3:” “A” should be capitalized and in the C1:… section, there should be a period at the end instead of a semicolon
- Line 198: Should there be a period after note10?
- Line 236: “aas” should be “as”
- Line 247: figure should be capitalized
- Line 281: figure should be capitalized
- In the Table 4 continued section on page 20: there should be a space between the and International
- Line 467 (in author contributions): main should be many?
- Line 476: “respon- sible” should be fixed
- In Table B2 there seem to be inconsistencies in when a period is used at the end of a
In Table B4 the description should have gigabytes listed at “G” not “B” and megabytes as “M” not “MB”