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WEC Calibration Files

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1 Introduction

The purpose of this document is to describe the server of WEC calibration files.

2 Access

This calibration server will be located at CNES [Ref. 1]. The access will be via ftp with a password. The telnet connection can be only used to change the password. The password must be changed every 3 months. The related experiments are: STAFF_SA, STAFF_SC, EFW, DWP, WHISPER, and WBD.

The lookup tables for the WEC modes will be install under the DWP directory with the other DWP calibration files.

The users will be: WEC Pis, WEC Co-Is, WEC Technical Teams, JSOC , CTM of CFC (see the list in Appendix B). These users will only have the permission to read all the files.

Only one person from each experiment will have a permission to read + write the file corresponding to his experiment (see the list in Appendix C).

When the server will be fully operational (i.e. after the launch), a change in a calibration file must be accompanied by an e-mail to all the WEC Pi's and WEC NDC's. The WEC Pi's and WEC NDC's must acknowledge the reception of this e-mail. To avoid perturbation during a change the procedure is the following: install the new file with a wrong name, delete the old file, rename the new file with the right name.

The access will be under the responsibility of CNES with Pi's information (lists). The server will be active 24/24 h and 2 years after the end of the mission (on a best effort basis).

3 Organisation

The files on the server will have the following characteristics:

- only one directory
- one file/instrument/sc
- ASCII file with comments in the file, comments are indicated by #, they are on one line
these are parameters concerning the 10 Hz filter
or at the end of a line
34.56 # length in meters

- a file will contain all the calibration parameters needed for the data processing with the full resolution available. It is up to the user to write a piece of software in order to read the file and to extract the information he needs.

- the convention for the name of the file is
Ci_CT_EXP_AAAAMMJJ_VZZZ.cal

where i is the number of the satellite, CT is for Calibration Table (use LT for Lookup Table), EXP is for the name of the experiment (STASA, STASC, EFW, DWP, WBD, WHISPER), AAAAMMJJ is the beginning date of the validate data in the calibration file (for WEC it is always the same date as we have only one calibration file and as the change will be done inside this file), and ZZZ is the version number of the calibration file (this number will be updated each time a change will be introduced in the calibration file).

- in case of hardware failure regular save will be performed by CNES,

4 Calibration File Format

```
BEGIN
instrument block EFW/STAFF_SC/STAFF_SA/WHISPER/WBD/DWP
model block F1/F2/F3/F4/FS
YYYY-MM-DD date of update of this block
V number of version
YYYY-MM-DD HH:MM:SS valid from date
.....
.....
..... calibration parameters + comments
.....
.....
END
```

- The <valid from date> gives the date from which the calibration block is valid, a later block will determine the interval in which it is valid.

- There will be one block for each change in instrument status.

References

[1] Expression des besoins pour la mise en place au CNES d'un server WEC, M. Nonon-Latapie, Ref: CT/TI/PS/AP/94, 27/05/94.

Appendix A: Examples of calibration files

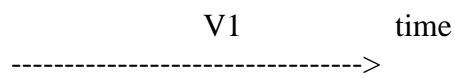
Example with one block:

```
BEGIN
EFW
F1
1995-12-21          # date of update of this block
1                  # version number
1995-12-26 10:56:50      # valid from date
# readme comments
# This explains how you can read the following information,
# it concerns the Ey component, filter 10 Hz
# you have first the frequency in Hz and then the amplitude in dB
.....
.....
.....
.....
# it concerns the Ez component, filter 10 Hz
.....
.....
.....
.....
END
```

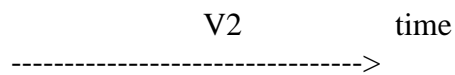
Examples of change:

* In the following case, the change is valid all the time. The version number is changed. The old one is not available except from the Pi.

1 block

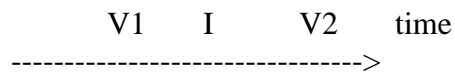


is replaced by



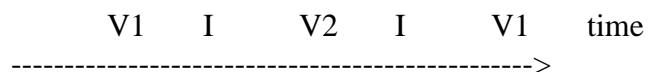
* In the following case, the change is only valid after a given date:

2 blocks

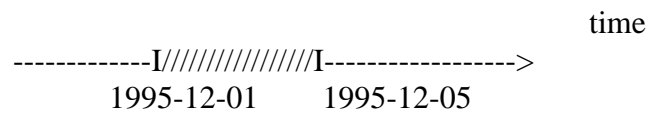


* In the following case, the change is only valid during a given time interval:

3 blocks



Examples when no calibration parameters are available in a given time interval:



```
BEGIN
...
1995-11-01 22:01:34 # valid from date
...
...
END
BEGIN
...
1995-12-01 12:56:44 # valid from date
NONE
END
BEGIN
...
1995-12-05 09:30:10 # valid from date
...
...
END
```

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