

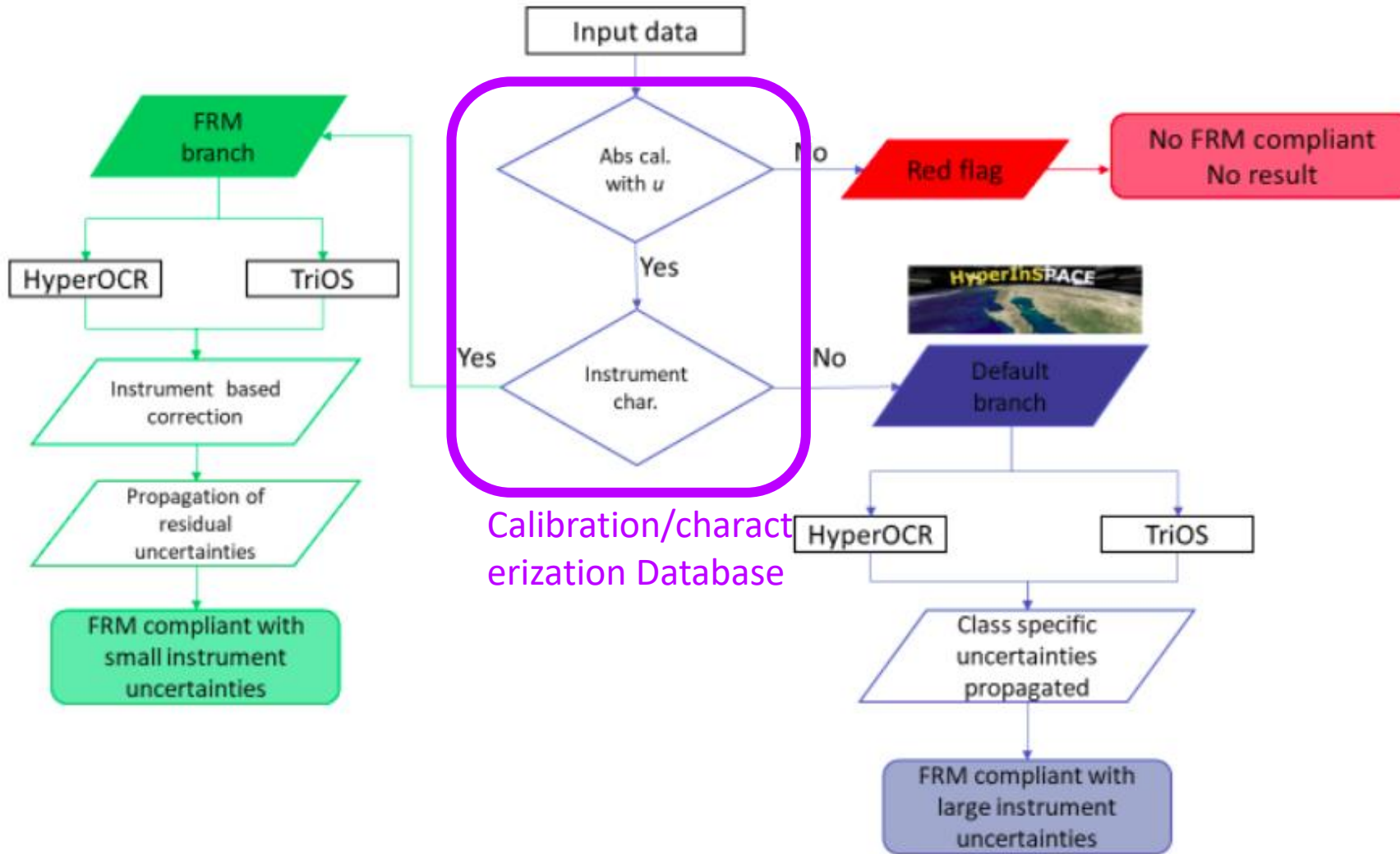


Instrument cal/char database (FidRadDB)

User Workshop, 5-7 Dec

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Accepted files:

- Tartu calibration files (ex: Cal_SAM_862D.dat)
- TRIOS calibration files
 - ✓ Angular : angular responsivity characterization results
 - ✓ Polar : polarization sensitivity characterization results
 - ✓ Radcal : radiometric calibration coefs & linearity, lamp and panel data
 - ✓ Straylight : straylight characterization results
 - ✓ Thermal: thermal characterization results

Tartu format

File type: !

Metadata name : []

```

1 !FRM4SOC_CP
2 [RADCAL]
3 # radiometric calibration coefs & linearity, lamp and panel data
4 # comments start with # (ignored by the processor)
5 # no empty lines between the parameter signatures in [] and the parameter values
6 # parameters are case insensitive
7 # parameters can be inserted in any order, except the first two signatures
8 # columns are tab- or space-delimited
9
10 [VERSION]
11 0.1
12
13 [CALDATE]
14 2022-06-27 11:35:10 ← Metadata data
15
16 [CALLAB]
17 Tartu Observatory
18
19 [USER]
20 Riho Vendt
21
22 [LAMP_ID]
23 TO_717
24
25 [PANEL_ID]
26 SG3151_2019
27
28 [DEVICE]
29 SAM_81CA
30
31 [LAMP_CCT]
32 2990.7
33
34 [LAMPDATA]
35 300.00 0.00 1.5637 2.31
36 300.50 0.00 1.5923 2.29
37 301.00 0.00 1.6214 2.27
38 301.50 0.00 1.6508 2.25
39 302.00 0.00 1.6807 2.23
40 302.50 0.00 1.7109 2.21
41 [END_OF_LAMPDATA]
42
43 [AMBIENT_TEMP]
44 21.0
45
46 [CALDATA]
47 0 302.35 5 0.00 12 0.000000 128 0.00 64 0.00
48 1 305.66 0.000000 0.00 0.024802 0.029569 203.89 0.72 205.43 1.54
49 2 308.97 0.000000 0.00 0.024849 0.029852 217.42 0.76 216.96 1.48
50 3 312.28 0.000000 0.00 0.024692 0.029249 237.02 0.80 241.03 1.71
51 4 315.60 0.000000 0.00 0.024828 0.029255 264.85 0.67 267.43 1.37
52 [END_OF_CALDATA]
    
```

← Metadata data

} Metadata data

Mandatory and optional metadata

File type

	<u>ANGDATA</u>	<u>POLDATA</u>	<u>RADCAL</u>	<u>STRAYDATA</u>	<u>TEMPDATA</u>
<u>CALDATE</u>	M	M	M	M	M
DEVICE	M	M	M	M	M
<u>CALLAB</u>	M	M	M	M	M
USER	O	O	O	O	O
VERSION	O	O	O	O	O
<u>CALDATA</u>	-	M	M	-	M
UNCERTAINTY	M	-	-	M	-
<u>COSERROR</u>	M	-	-	-	-
<u>LSF</u>	-	-	-	M	-
PANEL_ID	-	-	O	-	-
LAMP_ID	-	-	O	-	-
AZIMUTH_ANGLE	M	-	-	-	-
<u>LAMP_CCT</u>	-	-	O	-	-
AMBIENT_TEMP	-	O	O	O	O
REFERENCE_TEMP	-	-	-	-	M
<u>PANELDATA</u>	-	O	-	-	-
<u>LAMPDATA</u>	-	O	-	-	-

metadata

Files submission

Test version: <https://ocdb-stage.eumetsat.int/>

Wait deployment on
<https://ocdd.eumetsat.int/>
before use.

Any suggestion or demand about files submission?
How many files should be submitted as the same time?

The screenshot shows a web form titled "Create new Calibration Submission". It contains the following fields:

- Radiometer system:** A dropdown menu with "TriOS-RAMSES" selected.
- Laboratory*:** A text input field containing "Tartu".
- Calibration path (read only):** A text input field containing "TriOS/Tartu".
- Unique calibration ID*:** A text input field containing "TriOS_Tartu".
- Calibration date*:** A date picker field showing "11/01/2022".

Below the fields is a text instruction: "Drag and drop calibration and characterisation files as well as additional documentation files to the corresponding drop box. Alternatively, you can click the drop boxes to select files via a file browser dialog." There are two drop boxes:

- The first drop box is for "cal/char files [* .txt , *.dat]" and shows "accepted:Rejected:".
- The second drop box is for "DOCUMENT files [any file type]." and also shows "accepted:Rejected:".

At the bottom of the form are three buttons: "SUBMIT" (with a cloud upload icon), "CLEAR", and "CLOSE" (with a red question mark icon).

Messages from file validation check:

Accepted files		Non accepted files	
Warning: optional metadata XXX is not available	Missing non mandatory metadata	Error, file type could not be recognized	File type (ex: !RADCAL) is not found
Warning: optional metadata XXX is invalid	Invalid non mandatory metadata	Error: metadata XXX is mandatory but is not available	Non found mandatory metadata
uploaded file passed all QC on file format and is accepted!	Process is finished and files are accepted	Error: metadata XXX is mandatory but is invalid	Not valid mandatory metadata

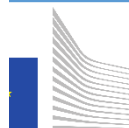
Problems with metadata

```
Open  radcal.txt  Save  -  x
~/Documents/FRM4SOC/fileformats

1 |FRM4SOC_CP
2 |RADCAL
3 # radiometric calibration coeffs & linearity, lamp and panel data
4
5 # comments start with # (ignored by the processor)
6 # no empty lines between the parameter signatures in [] and the parameter values
7 # parameters are case insensitive
8 # parameters can be inserted in any order, except the first two signatures
9 # columns are tab- or space-delimited
10
11 # file format version
12 # type(s): string(255)
13 [VERSION]
14 0.1
15
16 # calibration date
17 # type(s): fixed format as shown
18 [CALDATE]
19 yyyy-mm-dd hh:mm:ss
20
21 # calibration lab name
22 # type(s): string(255)
23 [CALLAB]
24 Tartu Observatory
25
26 # calibration lab person to contact
27 # type(s): string(255)
28 [USER]
29 Riho Vendt
30
31 # for reference only
32 # type(s): string(255)
33 [LAMP_ID]
34 T0_7
35
36 # for reference only
37 # type(s): string(255)
38 [PANEL_ID]
39 SG3151_2019
40
41 # serial number of the calibrated instrument
42 # type(s): string(255)
43 [DEVICE]
44 SAM_8329
45
46 # Correlated color temperature, needed for lamp interpolation with NPL method
47 # type(s): single
48 [LAMP_CCT]
49 3100.2
50
51 # lamp data (line count is arbitrary)
```

```
Run:  main x
/home/hlavigne/anaconda3/envs/OCDB/bin/python /home/hlavigne/Documents/FRM4SOC/PYTHON/main.py
/home/hlavigne/Documents/FRM4SOC/fileformats/radcal.txt has been read
-----
RADCAL file has been recognized
-----
The following metadata were found:
VERSION: 0.1
CALDATE: yyyy-mm-dd hh:mm:ss
CALLAB: Tartu Observatory
USER: Riho Vendt
LAMP_ID: T0_7
PANEL_ID: SG3151_2019
DEVICE: SAM_8329
LAMP_CCT: 3100.2
LAMPDATA: 300  0  1.360422576  2.490160637
PANELDATA: 350  0  0.981  2.75
CALDATA: 0  302.08  6  0  128  128  256  256
-----
check metadata validity:
VERSION: valid
CALDATE: not valid
CALLAB: valid
USER: valid
LAMP_ID: valid
PANEL_ID: valid
DEVICE: valid
LAMP_CCT: valid
LAMPDATA: valid
PANELDATA: valid
CALDATA: valid
-----
Error: metadata CALDATE is mandatory but is invalid

Process finished with exit code 0
```



Valid file:

```
-----  
RADCAL file has been recognized  
-----  
The following metadata were found:  
VERSION: 0.1  
CALDATE: 2018-06-21 14:47:29  
CALLAB: Tartu Observatory  
USER: Riho Vendt  
LAMP_ID: T0_7  
PANEL_ID: SG3151/1  
DEVICE: SAT0222  
LAMP_CCT: 2967.0  
LAMPDATA: 300.00 0.00 1.3604 4.00  
PANELDATA: 380.00 0.00 0.9780 1.20  
AMBIENT_TEMP: 21.0  
CALDATA: 0 0.00 1024.000 0 0.000 0.000 1024.000 0 512.000 0  
-----  
check metadata validity:  
VERSION: valid  
CALDATE: valid  
CALLAB: valid  
USER: valid  
LAMP_ID: valid  
PANEL_ID: valid  
DEVICE: valid  
LAMP_CCT: valid  
LAMPDATA: valid  
PANELDATA: valid  
AMBIENT_TEMP: valid  
CALDATA: valid  
-----  
uploaded file passed all QC on file format and is accepted!  
  
Process finished with exit code 0
```



Questions

Thank you for your
attention

Metadata name	Ending code?	Test
[CALDATE]	-	Valid date format: YYYY-MM-DD HH:MM:SS
[DEVICE]	-	Device serial number. Either SAM_XXXX for TriOS or SATXXXX for Satlantic. X are numbers.
[CALDATA]	[END_OF_CALDATA]	File type = RADCAL More than 5 lines, columns are separated by tabulations, 10 columns (i.e. elements per line) for TriOS sensors and 8 for satlantic sensors.
		File type = POLDATA More than 5 lines, columns are separated by tabulations, 6 columns (i.e. elements per line)
		File type = TEMPDATA More than 5 lines, columns are separated by tabulations, 3 columns (i.e. elements per line)
[COSERROR]	[END_OF_COSERROR]	More than 5 lines, columns are separated by tabulations, 47 columns (i.e. elements per line)
[UNCERTAINTY]	[END_OF_UNCERTAINTY]	File type = ANGDATA More than 5 lines, columns are separated by tabulations, 47 columns (i.e. elements per line)
		File type = STRAYDATA More than 5 lines, columns are separated by tabulations, 256 columns (i.e. elements per line)
[LSF]	[END_OF_LSF]	More than 5 lines, columns are separated by tabulations, 256 columns (i.e. elements per line)
[AZIMUTH_ANGLE]	-	float
[PANEL_ID]	-	Not empty character string
[LAMP_ID]	-	Not empty character string
[USER]	-	Not empty character string
[CALLAB]	-	Not empty character string
[LAMP_CCT]	-	float
[VERSION]	-	float
[AMBIENT_TEMP]	-	float
[REFERENCE_TEMP]	-	float
[DEVICE_TEMP]	-	float
[PANELDATA]	[END_OF_PANELDATA]	More than 5 lines, columns are separated by tabulations, 4 columns (i.e. elements per line)
[LAMPDATA]	[END_OF_LAMPDATA]	More than 5 lines, columns are separated by tabulations, 4 columns (i.e. elements per line)

