

# Eubrewnet Database

Tenerife Meeting, Jan 2015

- Ozone Configuration
- Configuration Interface
- Real time data
- Access to Database
- Discussion

- Ozone Configuration: Present

Constant	Source
Deadtime	B File Headers, ICF, O3Brewer
Ozone temperature coefficients	B File Headers, ICF, O3Brewer
Neutral Density Filter attenuations	B File Headers, ICF, O3Brewer
ETC O3	B File Headers, ICF, O3Brewer
O3 Absorption Coefficient	B File Headers, ICF, O3Brewer
Interval Scaling Factor	O3Brewer (fixed for standard)
Weighting coefficients	O3Brewer (fixed for standard)
Rayleigh Coefficients	O3Brewer (fixed for standard)

- ## Ozone Configuration: Future

Constant	Source
SL R6 Ratio (reference value)	O3Brewer
Stray Light Correction Parameters ( $a^x+b$ )	(For discussion)
More values?	(For discussion)

- ## New values

  - UV Configuration
  - AOD Configuration

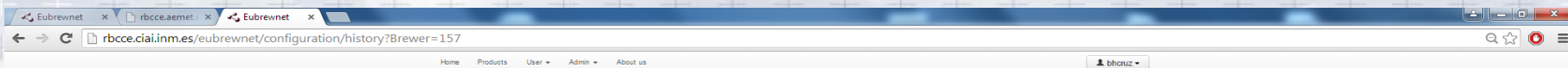
## • Requirements

- Unique configuration for one date
- User can set values by hand, using database (b\_header, ICF, O3Brewer...) or file uploading
- Possibility to edit configuration in database
- Possibility to add new configuration using the values of an older one
- Import from ICF if possible from database or by demand

- ## Requirements

- Import from O3Brewer if possible from database or by demand
- Configuration variables can be added in future required by algorithm versions
- Access by command to the calibration history, parameters vs time.
- History of configurations, in table view or like a form

# Configuration Interface: History Interface



Home Products User Admin About us

bhcnuz

Eubrewnet

## Configuration History

Brewer: 157

Add

Brewer: 157

Form view

Table

Dates	Definition
1990-01-01	Brewer: 157
1999-05-29	Calibration Constants
1999-05-08	O3 ETC: 1605.0
2000-03-31	Neutral Density Filters
2000-10-08	Temperature Coefficients
2001-09-15	Fixed for Standard Algorithm
2002-09-04	Interval Scaling Factor: 0.1147
2003-09-13	Weights for O3
2004-01-01	Rayleigh Coefficients
2004-09-07	Modify
2005-09-29	
2005-09-23	
2007-08-01	

Download

© AEMET



ES 13:55  
26/01/2015

# Configuration Interface: History Interface



Eubrewnet

rbce.aemet.es/eubrewnet

Eubrewnet

← →

rbce.cia.inm.es/eubrewnet/configuration/history?Brewer=157

Home

Products

User

Admin

About Us

bhenz

Brewer: 157

Add

Brewer: 157

Form view

Table

Configuration	1960-01-01	1999-05-20	1999-09-06	2000-03-31	2000-10-06	2001-09-15	2002-09-04	2003-09-13	2004-01-01	2004-09-07	2005-09-20	2005-09-23	2007-08-01
bse	4870	4870	4870	4870	4870	4870	4870	4870	4870	4870	4870	4870	4870
bse1	4820	4820	4820	4820	4820	4820	4820	4820	4820	4820	4820	4820	4820
bse4	4410	4410	4410	4410	4410	4410	4410	4410	4410	4410	4410	4410	4410
bse5	4220	4220	4220	4220	4220	4220	4220	4220	4220	4220	4220	4220	4220
bse6	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040
bsewse	187	187	187	187	187	187	187	187	187	187	187	187	187
data	1960-01-01	1999-05-20	1999-09-06	2000-03-31	2000-10-06	2001-09-15	2002-09-04	2003-09-13	2004-01-01	2004-09-07	2005-09-20	2005-09-23	2007-08-01
deftime	4.4e-08	3.2e-08	3.2e-08	3.2e-08	2.3e-08	2.3e-08	2.3e-08	3.2e-08	2.3e-08	3.2e-08	3.2e-08	3.2e-08	3.2e-08
deco3rate	0.0	1851.0	1851.0	1855.0	1855.0	1875.0	1875.0	1875.0	1875.0	1880.0	1875.0	1880.0	1880.0
id	7	8	9	10	11	12	13	14	15	16	17	18	19
il	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147
ntfstar0	0	0	0	0	0	0	0	0	0	0	0	0	0
ntfstar1	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
ntfstar2	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
ntfstar3	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000
ntfstar4	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000
ntfstar5	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000	25000
o3o3rate	0.0	0.342	0.342	0.337	0.342	0.342	0.3397	0.3397	0.3397	0.3397	0.3397	0.3397	0.3397
o3e1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o3e2	0.0	-0.179	-0.179	-0.179	-0.179	-0.179	-0.179	-0.179	-0.179	-0.179	-0.179	-0.179	-0.179
o3e3	0.0	-0.3338	-0.3338	-0.3338	-0.3338	-0.3338	-0.3338	-0.3338	-0.3338	-0.3338	-0.3338	-0.3338	-0.3338
o3e4	0.0	-0.213	-0.213	-0.213	-0.213	-0.213	-0.213	-0.213	-0.213	-0.213	-0.213	-0.213	-0.213
o3e5	0.0	-0.5648	-0.5648	-0.5648	-0.5648	-0.5648	-0.5648	-0.5648	-0.5648	-0.5648	-0.5648	-0.5648	-0.5648
wo30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
wo31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
wo32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
wo33	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
wo34	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
wo35	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
wo36	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7

Download

rbce.cia.inm.es/eubrewnet/configuration/history?Brewer=157#tab2

ES

13:55

26/01/2015



# Configuration Interface: History Interface



Eubrewnet

rbcce.cia.inm.es/eubrewnet/configuration/history?Brewer=157

Home Products User Admin About us

bhcruz

## Eubrewnet

### Configuration History

Brewer: 157

Add

Brewer: 157

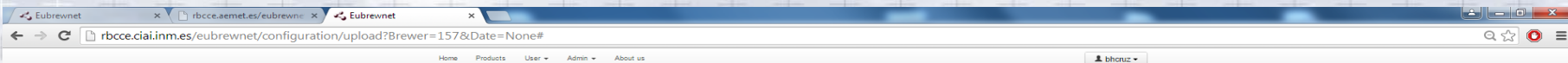
Form viewTable

#### Show etco3rate

Configuration	1960-01-01	1999-05-20	1999-09-06	2000-03-31	2000-10-06	2001-09-15	2002-09-04	2003-09-13	2004-01-01	2004-09-07	2005-09-20	2005-09-23	2007-08-01
be2	4870	4870	4870	4870	4870	4870	4870	4870	4870	4870	4870	4870	4870
be3	4620	4620	4620	4620	4620	4620	4620	4620	4620	4620	4620	4620	4620
be4	4410	4410	4410	4410	4410	4410	4410	4410	4410	4410	4410	4410	4410
be5	4220	4220	4220	4220	4220	4220	4220	4220	4220	4220	4220	4220	4220
be6	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040
brewerid	157	157	157	157	157	157	157	157	157	157	157	157	157
date	1960-01-01	1999-05-20	1999-09-06	2000-03-31	2000-10-06	2001-09-15	2002-09-04	2003-09-13	2004-01-01	2004-09-07	2005-09-20	2005-09-23	2007-08-01
deadtime	4.4e-08	3.2e-08	3.2e-08	3.2e-08	2.3e-08	2.3e-08	2.3e-08	3.2e-08	2.3e-08	3.2e-08	3.2e-08	3.2e-08	3.2e-08
etco3rate	0.0	1551.0	1551.0	1565.0	1565.0	1575.0	1575.0	1575.0	1575.0	1605.0	1575.0	1605.0	1605.0
id	7	8	9	10	11	12	13	14	15	16	17	18	19
it	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147	0.1147
nfilter0	0	0	0	0	0	0	0	0	0	0	0	0	0
nfilter1	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
nfilter2	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
nfilter3	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	15000
nfilter4	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000	20000

ES 13:56 26/01/2015

# Configuration Interface: Upload Interface



## Eubrewnet

### Configuration Upload

Date: 2015-01-26 Brewer: 157 Refresh Config New

Calibration Values File Upload ICF Values O3Brewer Values

Set values from ICF in database (2014-02-12)

Set ICF values

#### Instrument Dependant

O3 ETC:

O3 on O3:

Deadtime:

Neutral Density Filters

NDF From ICF

NDF From O3Brewer

Temperature Coefficients

TC From ICF

TC From O3Brewer

Set values from O3Brewer in database (2007-08-01)

Set O3 values

O3 ETC (ICF):

O3 on O3 (ICF):

Deadtime (ICF):

O3 ETC (O3Brewer):

O3 on O3 (O3Brewer):

Deadtime (O3Brewer):

Site 0

0

0

0.0

0.0

Site 1

5000

5000

0.0

0.0

Site 2

10000

10000

-0.179

-0.179

Site 3

15000

15000

-0.3335

-0.3335

Site 4

20000

20000

-0.213

-0.213

Site 5

25000

25000

-0.5645

-0.5645

#### Fixed for Standard Algorithm

Interval Scaling Factor:

Weights for O3

Rayleigh Coefficients

Site 0

0

Site 1

0

Site 2

0

Site 2

4870

Site 3

-1

Site 3

4620

Site 4

0.5

Site 4

4410

Site 5

2.2

Site 5

4220

Site 6

-1.7

Site 6

4040

© AEMET



ES 13:58 26/01/2015

# Configuration Interface: Upload Interface

Eubrewnet

rbce.cia.inm.es/eubrewnet/configuration/upload?Brewer=157&Date=2007-08-01

Home Products User Admin About us

bhoruz

## Eubrewnet

### Configuration Upload

Date: 2007-08-01 Brewer: 157

Refresh Config New Modify

Calibration Values File Upload ICF Values O3Brewer Values

Set values from ICF in database (2006-10-11)

Set ICF values

Instrument Dependant

O3 ETC: 1805.0  
O3 on O3: 0.3397  
Deadline: 3.2e-08

Neutral Density Filters

Silt 0	Silt 1	Silt 2	Silt 3	Silt 4	Silt 5
0	5000	10000	15000	20000	25000
NDF From ICF: 0	5000	10000	15000	20000	25000
NDF From O3Brewer: 0	5000	10000	15000	20000	25000
Temperature Coefficients	Silt 1: 0.0	Silt 2: -0.179	Silt 3: -0.3335	Silt 4: -0.213	Silt 5: -0.5645
TC From ICF: 0.0	0.0	-0.179	-0.3335	-0.213	-0.5645
TC From O3Brewer: 0.0	0.0	-0.179	-0.3335	-0.213	-0.5645

Set values from O3Brewer in database (2007-08-01)

Set O3 values

O3 ETC (ICF): 1805.0  
O3 on O3 (ICF): 0.3397  
Deadline (ICF): 3.2e-08

O3 ETC (O3Brewer): 1805.0  
O3 on O3 (O3Brewer): 0.3397  
Deadline (O3Brewer): 3.2e-08

Fixed for Standard Algorithm

Interval Scaling Factor: 0.1147

Weights for O3

Silt 0	Silt 1	Silt 2	Silt 3	Silt 4	Silt 5	Silt 6
0	0	0	-1	0.5	2.2	-1.7
Playgain Coefficients	Silt 2: 4970	Silt 3: 4920	Silt 4: 4410	Silt 5: 4220	Silt 6: 4040	

© ADMET

ES 14:01 26/01/2015

# Configuration Interface: Upload Interface



Eubrewnet

Home Products User Admin About us

bhcruz

## Configuration Upload

Date: 2015-01-26 Brewer: 157

Refresh Config New

Calibration Values File Upload ICF Values O3Brewer Values

ICF:  Ningún archivo seleccionado

Insert in Database ☐ (Database content will be replaced)

O3Brewer:  Ningún archivo seleccionado

Insert in Database ☐ (Database content will be replaced)

© AEMET

rbccce.ciaa.inm.es/eubrewnet/configuration/upload?Brewer=157&Date=None#tab2

ES 13:59 26/01/2015

# Configuration Interface: Upload Interface



Eubrewnet

rbccc.ciaa.inm.es/eubrewnet/configuration/upload?Brewer=157&Date=None#

home Products User Admin About us

bhoruz

## Configuration Upload

Date: 2015-01-26 Brewer: 157 Refresh Config New

Calibration Values File Upload ICF Values O3Brewer Values

### ICF: 2014-02-12

Brewer\_Mode: mklr

Brewer: 157

Bufferdelay: 0.0

Com\_Port: 1

Config\_T: <Set (config\_1\_icf\_x

Deadtime: 3.2e-08

ElbowRate: 1555.0

ElbowRate: 220.0

F2Wpck: 0

Gintar: -10.0

Gelope: 0.008

IS: 400

Mopamts: 250

Motordelay: 60

Matap: 0.0

Masropos: 1732

NHitter: 0

NHitter1: 5000

NHitter2: 10000

NHitter3: 15000

NHitter4: 20000

NHitter5: 25000

No2Abcorrt: -3.0

No2Abcorrt: 770.0

No2Edit: None

No2Hmroff: 8028.0

No2SMT: 0.0

No2SMT: 0.0

rbccc.ciaa.inm.es/eubrewnet/configuration/upload?Brewer=157&Date=None#tab3

ES 14:00 26/01/2015

- Real Time Data
  - Graph Generation
    - Standard Lamp Test
    - DS and ZS RAW values (last week)
    - Daily DS and ZS filtered

- Real Time Data
  - Example: RAW

```
bfs = db(((db.b_t.brewerid == brewer.num) & (db.b_t.date > d - t) & ((db.b_t.date <= d))))).select()
for bf in bfs:
    dsSum = db(db.b_ds_summary_t.b_id == bf.id).select(orderby=db.b_ds_summary_t.gmt)
    if dsSum:
        for s in dsSum:
            dsRaw.append(s.o3value)
            dsGMT.append(s.gmt)
    zsSum = db(db.b_zs_summary_t.b_id == bf.id).select(orderby=db.b_zs_summary_t.gmt)
    if zsSum:
        for s in zsSum:
            zsRaw.append(s.o3value)
            zsGMT.append(s.gmt)
```

- Access to Database
  - JSON
    - GetConfig
    - GetDS
    - GetConfigbyDate



- Access to Database
  - Example: getDS

```
brewerid, date = checkBrewerAndDate(request.vars)
bf = db((db.b_t.date == date) & (db.b_t.brewerid == brewerid)).select().last()
data = simplejson.OrderedDict()
dsSums = db(db.b_ds_summary_t.b_id == bf.id).select(orderby=db.b_ds_summary_t.gmt)
nds = 1
for dSum in dsSums:
    dss = db(db.b_ds_t.s_id == dSum["id"]).select(orderby=db.b_ds_t.gmt)
    for ds in dss:
        gmtDS = ds["gmt"].strftime("%Y-%m-%d %H:%M:%S")
        data[gmtDS] = ds.as_dict()
        data[gmtDS]["nds"] = nds \ data[gmtDS]["nd_filter_position"] = dSum.nd_filter_position
        data[gmtDS]["temp"] = dSum.temp \ data[gmtDS]["gmt"] = gmtDS
    nds = nds + 1
return simplejson.dumps(data)
```

# Discussion

Thank you!



Thank you for your attention