# Inca How To
27 février 2013

# Post-treatment

- At the end of each simulation launch with libIGCM you can create several post-treatment
  - Time Series
  - Seasonal Average
  - Monitoring

# But what do you mean by a time serie ?

- Model Output
  - Many variables are stored in a same file covering a model period, often one month.

    *For exemple MyJob_20010101_20010131_histmth.nc*
- Time Series
  - One variable per file over the many time periods, if possible the whole simulation lenght.

    *For exemple MyJob_20010101_21051231_1M_evap.nc*

# Ouput in COMP Directory

```
[OutputFiles]
List=(inca_avgr.nc, ${R_OUT_CHM_O_M}/${PREFIX}_1M_inca_avgr.nc, Post_1M_inca_avgr),\
      (forcage.nc,    ${R_OUT_CHM_O_M}/${PREFIX}_1M_forcage.nc    , NONE)
```

Syntaxe :

List= (output file, file name on archive, post-treatment)

```
[Post_1M_inca_avgr]
Patches= ()
GatherWithInternal = (lon, lat, presnivs, time_counter)
TimeSeriesVars2D = (OD550_ASBCM, OD550_ASPOMM, OD550_ASSO4M,
OD550_CSSO4M, OD550_SSSSM, OD550_ASSSM, OD550_CSSSM, OD550_CIDUSTM,
OD550_AIBCM, OD550_AIPOMM)
ChunckJob2D = NONE
TimeSeriesVars3D = (CH4,NO,NO2,CO,O3,HNO3)
ChunckJob3D = NONE
```

# Ouput in COMP directory

- GatherWithInternal : list of variables to be added in each time serie file
- TimeSeriesVars2D/3D : list of variables to create time series
- ChunckJob2D/3D =
  - NONE : One time serie for the whole simulation
  - ***Y (10Y, 50Y etc...) : Time serie file by period of *** years (10 years, 50 years, etc...)

# How launch TimeSeries ?

**In config.card**

[Post]

#D- Do we rebuild parallel output, this flag determines

#D- frequency of rebuild submission

RebuildFrequency=1Y

#D- Do we rebuild parallel output from archive

RebuildFromArchive=NONE

#D- If you want to produce time series, this flag determines

#D- frequency of post-processing submission

TimeSeriesFrequency=NONE → 10Y

#D- If you want to produce seasonal average, this flag determines

#D- the period of this average

SeasonalFrequency=NONE

#D-

PackFrequency=1Y

# How to launch Time Series

- If you ask for TimeSeriesFrequency : the time series will be create in parallel of your simulation.
- If you didn't ask for TimeSeriesFrequency : you can launch all the timeSeries after the simulation with TimeSeries_Checker.job

```
cp modipsl/libIGCM/TimeSeries_Checker.job
        modipsl/config/LMDZORINCA/MyEXP/.

./TimeSeries_Checker.job
```

# How to create a TimeSeries from zero

For exemple after your simulation you want a timeSeries for OD443_ASSO4M in inca_avgr.nc :

- Modify inca.card to add OD443_ASSO4M in post-treatment

```
TimeSeriesVars2D = (OD443_ASSO4M)
```

- Ask for TimeSeriesFrequency in your config.card
- Copy TimeSeries_Checker.job and launch it

# Monitoring

dods.extra.cea.fr/work/p86cozic/LMDZORINCA/AER/PROD/CURIE/L5OI4run.G2/MONITORING/

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Cards Analysis | Monitoring Board | About

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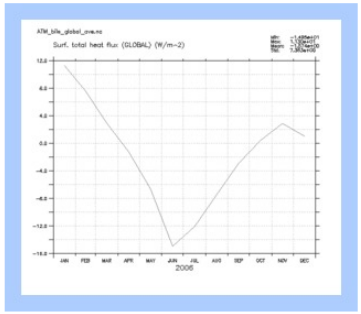
ATM | CHM | ICE | MBG | OCE | SBG | SRF | XOR | CLR

land | ocean | north | south | global | forcing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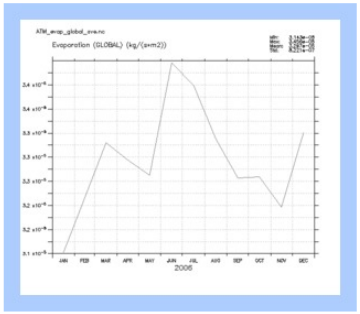
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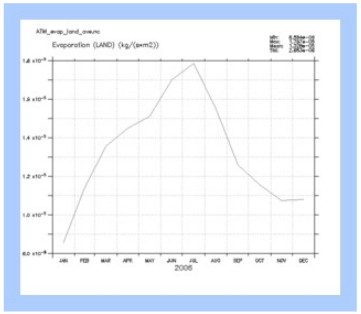
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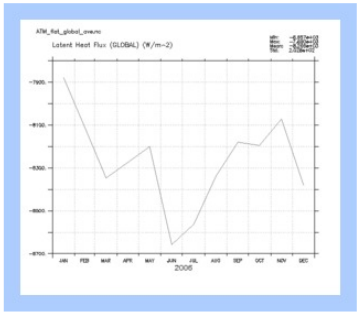
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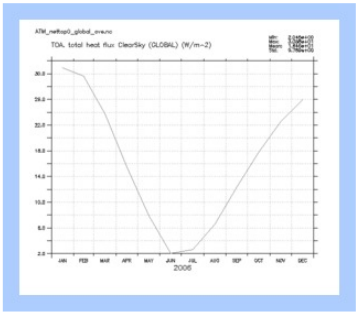
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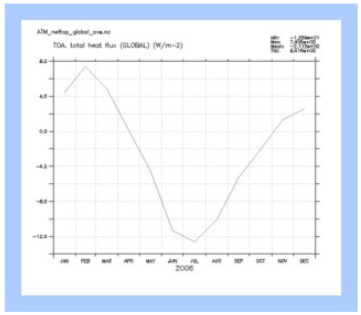
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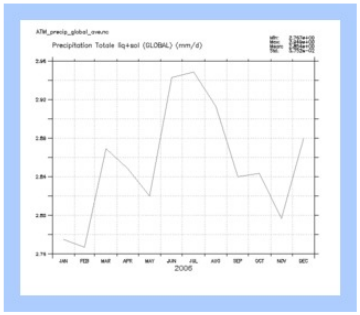
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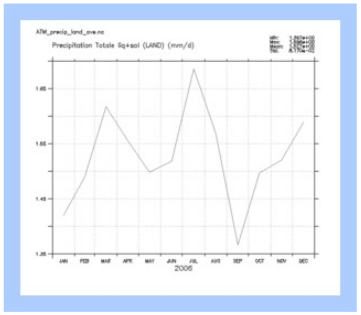
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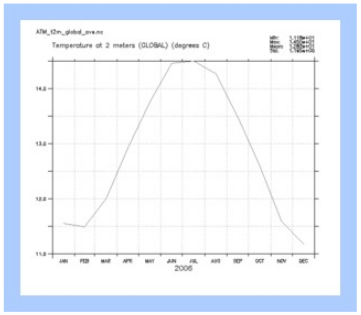
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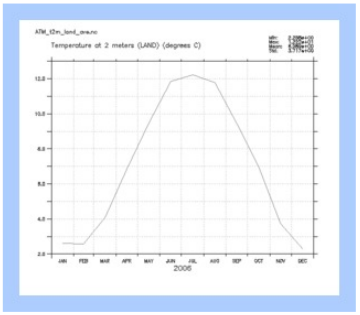
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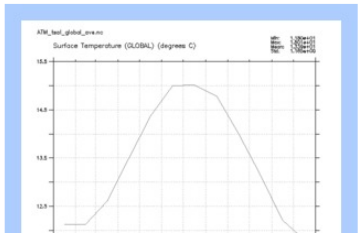
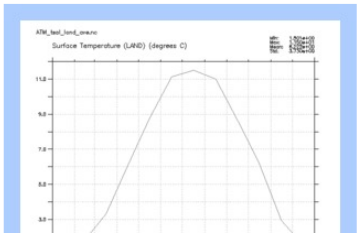
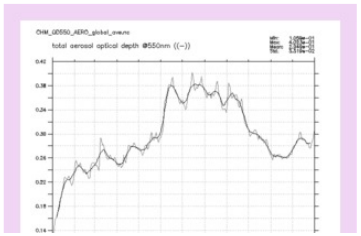
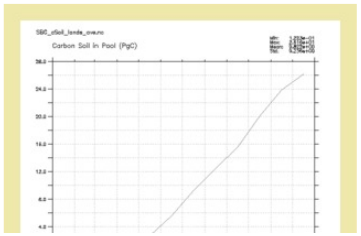
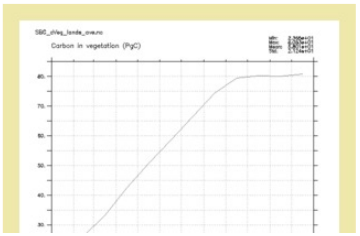




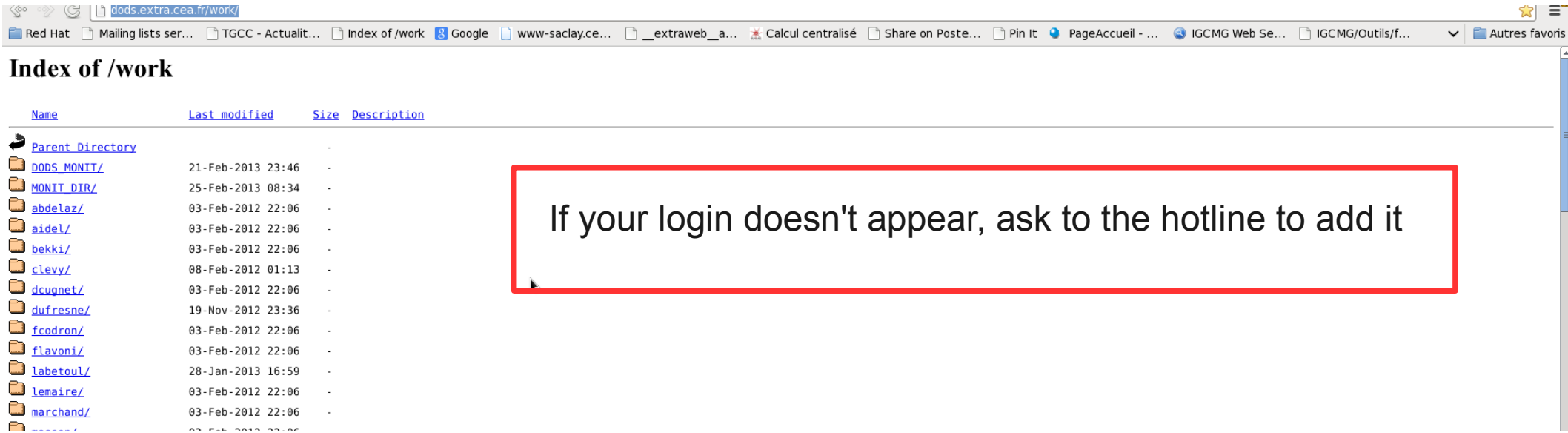






# Monitoring

- If you create TimeSeries, it will create automatically monitoring. It's the variable average for each time step
- You can see them on web :
  - http://dods.extra.cea.fr/work/



# Inter Monitoring

webservices.ipsl.jussieu.fr/monitoring/tmp/fegg_plot01_82U3Cj_prod/

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**Monitoring comparison: L5OI3NA_39 vs L4OI4NA_39**

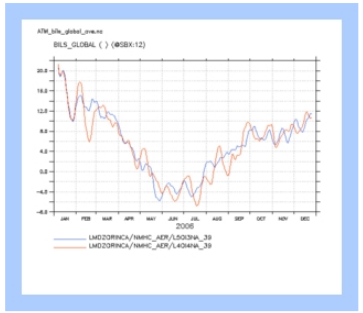
**at 2013-02-26 11:44:08**

http://webservices.ipsl.jussieu.fr/monitoring/

ALL  **Filter :** .*  **Images :** 038 / 038

ATM | CHM | ICE | MBG | OCE | SBG | SRF | XOR | CLR

land | ocean | north | south | global | forcing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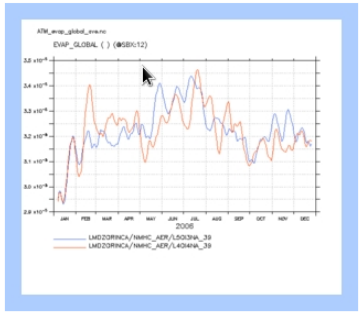
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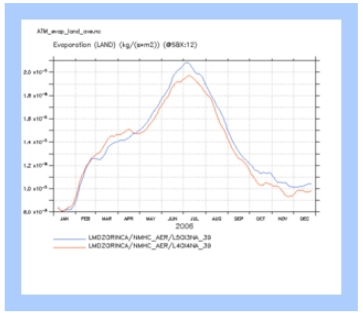
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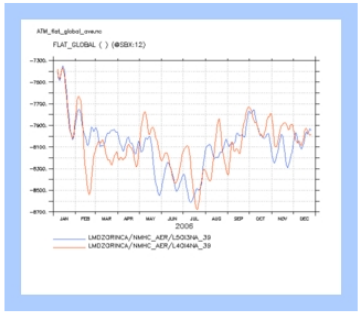
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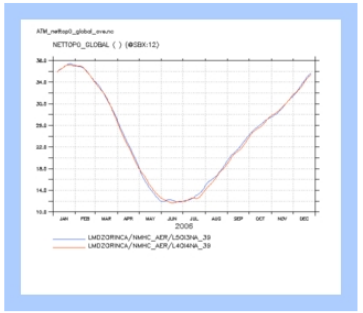
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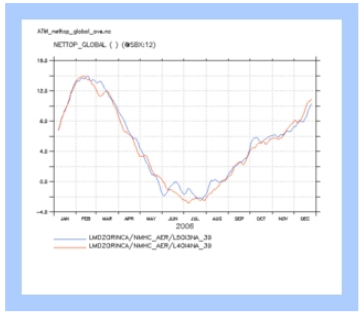
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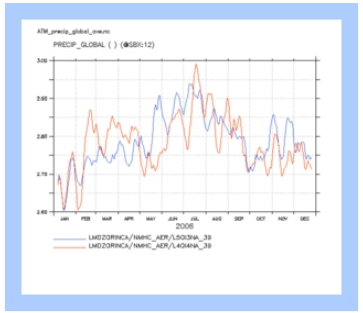
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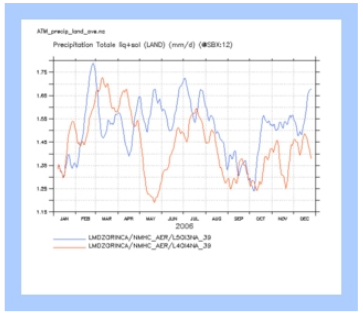
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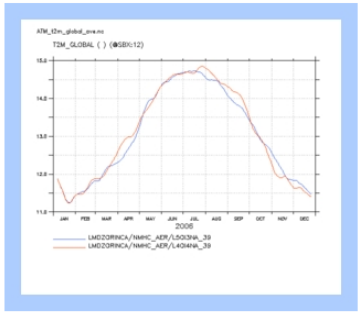
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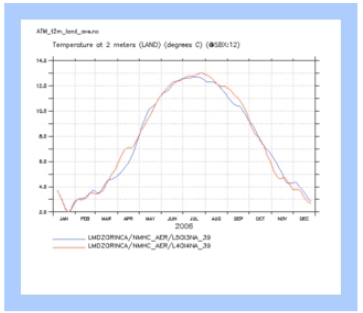
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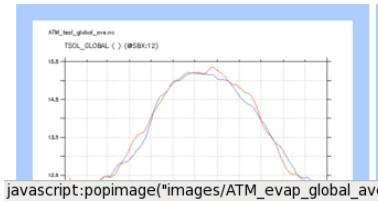

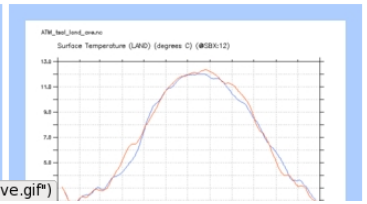

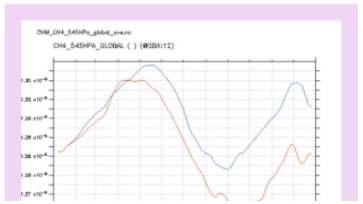

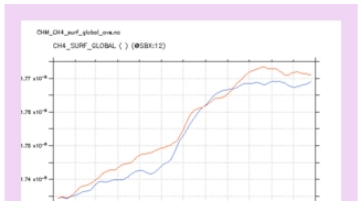

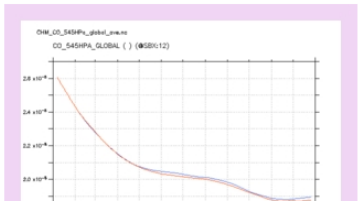

javascript:popimage("images/ATM_evap_global_ave.gif")

# Tutorial for Inter Monitoring

webservices.ipsl.jussieu.fr

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**Welcome to the ICMC Web Applications portal**

**Applications**

- Migration Monitoring Board
- Trusting Web Application
- Machine Load Status
- Inter Monitoring Web Application
- Meta Atlas Web Application
- Metrics Web Application

**News**

- 2012-09-19 : Migration Monitoring Board activated
- 2010-09-20 : Web Applications are now hosted at IPSL
- 2010-04-06 : Trusting Web Application started
- 2010-03-16 : Thème Modélisation presentation
- 2010-03-01 : Screencast tutorials announcement
  http://wiki.ipsl.jussieu.fr/IGCMG/Outils/WebApplications
- 2009-10-04 : Machine Load Status started
- 2009-09-22 : Metrics Web Application added
- 2009-09-17 : Meta Atlas Web Application added
- 2009-04-09 : Discover the IPSL ESM with Google Earth

# Where can you find all these files ?

- TimeSeries are stored on

`$STOREDIR/IGCM_OUT/LMDZORINCA/JobName/Componant/Analyse/TS_MO`

- Monitoring picture are stored on

`$CCCWORKDIR/IGCM_OUT/LMDZORINCA/JobName/MONITORING`