Proposed improvements within coupling files

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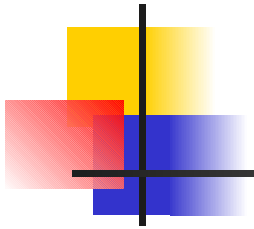
- Survey of proposed changes :
  - Ready “on demand” fields
  - Innovations
  - Shrinking files
- General considerations /Conclusion

Fields « on demand » (1/2)

- Sticking to the improvements in Arpege physics :
  - New snow scheme by Eric Bazile
    - + 2 constant 2D fields (bare ground and vegetation albedos)
    - + 1 pronostic 2D field (snow albedo)
    - + 1 diagnostic 2D field (snow density)
    - + possibly 1 diagnostic 2D field (full albedo)

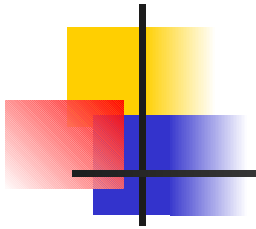
Fields « on demand » (2/2)

- Sticking to the improvements in Arpege physics :
  - O3 + aerosols for RRTM radiative scheme
    - + 7 constant 2D fields
  - Incoming microphysics (Lopez)
    - + 3 pronostic upper air gridpoint fields (ql, qi, qr)
    - +1 diagnostic upper air gridpoint field (convective precipitation flux)
- Add more vertical levels ?



Innovations

- Warning index (cf Piet Termonia) :
  - + 1 diagnostic spectral field (2D)
  - To be coded in (e)(e)927 this summer !
- Changes in formulations :
  - Interpolate a soil wetness index rather than relative contents
  - Improved initialization of snow cover



Shrinking files

- Use of 2nd order packing (GRIBEX) :
  - To be validated this summer
- « on demand » stronger packing for surface fields useless for coupling
  - To be investigated (side effects ?)
- « hard » removal of the surface fields useless for coupling
  - But is it the right strategy ?
  - Side effects ?

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General considerations/Conclusion

- Waiting list … getting longer !
- Consequences of new research issues
- Planning :
  - Short term / mid term /long term ?
  - Code experts availability ?

Discussion is needed

to assess priorities