Use of ODB at Met Office

Adam Maycock
ECMWF MOS 20th Nov 2013
Contents

• Why is Met Office using ODB?
• Implementation in OPS
• Current status
• Work to do
Why is Met Office using it?

- Current monitoring processes are not good enough
MetDB mergeback issues

• MetDB provides convenient storage and interface, but no unified monitoring tools
• Therefore, huge number of separate, bespoke applications
• High maintenance costs, single experts
• Cannot use for research trials
• MetDB not owned by Weather Science
• Development can take a long time
Better solution?

ODB addresses these issues

- With obstat, magics, Metview etc, all scientists can use the same basic framework
- Weather Science can “own” the system
- Implement in operations and any research experiment or trial
We can put what we want in ODB

Any observed, derived, model background quantity, flag, correction, metadata. In fact anything that OPS knows about

To do this, we add a column - or varno - to the ODB schema and change OPS code to write to it

Applications are (should be) independent of the schema
Implementation in OPS

BUFR / FTP → MetDB → Obs → ODB feedback → OPS

This is OpsProg_CreateODB

bgerr

background

stationlists

Oberr

B
Implementation in rose suite

16 x OpsProg_CreateODB
16 x OpsProg_ExtractAndProcess

bgerr create
Current status

- Implemented in operational global model
- Implemented in research global suite(s)
- Working in regional research suites (UKV only – NAE to be retired soon)
- ODBs archived as per-cycle tarballs 😞
- Rapidly developing obstat, Magics, Metview applications
Work to do

• Develop substantial range of automatic monitoring for global (Mar 2014)
• Implement in operational UKV (~Apr 2014)
• Interface with VER (~now)
• Proper archiving solution. Quite possibly MARS - or “MARS lite”. (~mid 2014)
• Enable production of ODB without MetDB (~Mar 2014, with KMA)
Acknowledgments

David Davies (OPS team; ODB developer)
Peter Kuchta and colleagues (ECMWF)
Questions?