

baltrad



BALTRAD Cookbook

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QC process in BALTRAD

1. National R&D delivers algorithms whose applicability varies from first guess scientific ideas to well tested and implemented operational solutions.
2. Algorithms are discussed in international workshops and conferences, such as **BALTRAD QA Workshops**, which prioritized the need for each QA, see the **Roadmap** on <http://git.baltrad.eu/trac/wiki/cookbook/roadmap>
3. QAs are described in the BALTRAD **Cookbook** in the form of flow charts, denoted as **recipes**, see <http://git.baltrad.eu/trac/wiki/cookbook>
4. A recipe is the basis for coding and implementing the open QA into operations.



BALTRAD+ Cookbook of algorithms

- Recipes are documented in wiki applying the “unambiguous but simple” approach (e.g. flow chart).
- Recipes are aimed for free implementation anywhere.
- The Cookbook is open for any recipe which can be seen useful for the community.
- The list of algorithms was mapped with realization weight and responsibilities at each Partner were given in the QA Workshops:
 - Helsinki, Feb 2012
 - Norrköping, Sep 2012
 - Vilnius, May 2013
 - Berlin, Nov 2013
- The kick-off Workshop generated basic requirements of the content of a recipe
<http://git.baltrad.eu/trac/wiki/cookbook/HOWTO>



BALTRAD+ recipe types (fuzzy)

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Bin situ algorithms for the measured polar volume

- Diagnosis or removal of echoes not generated by back-scattering (e.g. spikes due to external emitters). Input DBZH, output METADATA & DBZH_PHYS
- Diagnosis or removal of non-meteorological echoes from the measured polar data (e.g. birds). Input DBZH_PHYS, output METADATA & DBZH_PREC
- Diagnosis and correction of the errors in the measured quantities (e.g. dual pol attenuation correction for DBZH). Input DBZH_PREC, output METADATA & DBZH_PREC_CORR

Algorithms for ground level conditions

- Correction of the polar measurements to represent conditions at the ground at the time of the time label (e.g. VPR correction). Input DBZH_PREC, output METADATA & DBZH_GROUND

Algorithms for optimal end user products

- Quality index algorithms providing and applying the quality indicators in a specific product. Input DBZH_GROUND, output PREC

Algorithms or system tools for improving the QC process itself

- Optimal order of the QC process (e.g. the “spagetti” tool and unambiguous naming convention)

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Conclusion

- The BALTRAD Cookbook of Recipes is a very useful realization of the Open Algorithm concept.

