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Using virtual machines for training at ECMWF - Building sound environments to improve training

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ECMWF is committed to share its knowledge in NWP and IT through training of the wider research community. To give these courses most efficiently and have the participants concentrate on the research content rather than technical setup problems, the chosen environment is very important.

ECMWF is also committed to support the wider meteorological community with Open Source software. Part of this is the Metview desktop and batch system, a modern, graphical and easy to use tool for analysing and visualising forecasts routinely used by scientists and forecasters at ECMWF and other institutions. Metview's high-level approach makes it ideal to deliver classroom-friendly tools, allowing students to apply their theoretical knowledge to real-world examples using a world-leading weather forecasting model.

In this poster, we describe how virtualization technologies have been successfully used to develop and deliver training courses, around various research activities (OpenIFS) and for the Metview application itself. By using virtual machines we are able to include data, runnable applications and training course documents in a package that is tested in-house and employed at another site. Virtual technologies provide a technically easy and safe way of providing a classroom learning environment that can be shipped on USB sticks or transferred by file. Participants can explore the exercises without fear of impacting other users and can revert to saved checkpoints in case of problems.

A demonstration of the training courses developed so far would be possible as part of the poster session. We welcome discussions with interested parties.

This poster is complementary to the presentation of G. Carver et al on the specific case of supporting the OpenIFS training workshops.