



Climate Grid – an open source gridding tool for climate monitoring

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There are continuing and growing demands on climate science and in the development of climate services to produce high resolution gridded climate data derived from in-situ observational data. For many years the Met Office's National Climate Information Centre (NCIC) used proprietary software (built on ArcView 3.2 GIS) for generating these datasets and associated products. Over the last two years we have developed a new tool – known as Climate Grid – that has now replaced our legacy system. Climate Grid is a modular system written in Python. The aims of the development were threefold – to maintain our existing capability, to add new functionality and to create a tool that could be used more widely. In this presentation we will describe the new functionality and benefits the system is able to provide such as greater automation and improved scientific traceability to better support the generation of robust climate services. We will also present case studies showing how the system has been applied to a variety of different observational networks such as an amateur observers network or an overseas network. These will be used to highlight improved capability such as quality control of observational data, quantification of uncertainty and evaluation of the benefits of historical data recovery.