Creation of an IPCC model data archive for use by the Lamont research community

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The Lamont/OCP Climate Modeling Group has been researching the mechanisms of model-projected 21st Century climate change on global and regional scales. In particular, we are at the midst of an investigation into the dimension and physical underpinning of the future of the hydrological cycle in subtropical regions around the world, with a focus on the US Southwest and the Mediterranean regions. In our work we make intensive use of the vast archive of IPCC AR4 model results, parts of which we were able to download from the servers at PCMDI. Our goal is to make the model data available (in a unified format) to the Lamont and Columbia University research community for various research projects and applications. This will provide easy and trouble-free access to a database of tremendous value but which is currently hard to access and awkward to use. By serving the data via "Ingrid", visualization, analysis and downloading of the data will be straightforward and enable sped up advances in research on future climate change. (Data will not be available outside of Lamont and Columbia due to access restrictions imposed by PCMDI.) In order to make these data accessible for analysis in our group we need to apply various pre-processing steps and store the data on fast hard drives accessible to our computer systems via the Ingrid data server. The Climate Center award will be used to purchase hardware to facilitate such storage and fast access.