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Preface

Two components of the Pennsylvania State University / National Center for Atmospheric Research (PSU/NCAR) modeling system, DATAGRID and RAWINS, access all of the meteorological data for the forecast model. DATAGRID accesses historical coarse-resolution analyses supplied by the National Meteorological Center (NMC) or the European Center for Medium-range Weather Forecasts (ECMWF), or real-time forecasts from the NMC's Medium Range Forecast model. DATAGRID horizontally interpolates the large-scale analyses to the much finer mesoscale grid. RAWINS, using those interpolated analyses as a first guess, introduces more detail into the mesoscale analyses by performing an iterative Cressman-type analysis of the raw observations. The analyses from RAWINS are used as input to other components of the modeling system.

This document describes in detail the programs DATAGRID and RAWINS. It includes discussion of many features which have been added in the several years since the last documentation of these two programs was written.