3.10 ENGAGING THE RADAR COMMUNITY THROUGH OPEN SOURCE SOFTWARE

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Hosted on GitHub and implemented in the Python programming language, the Python Atmospheric Radiation Measurement (ARM) Radar Toolkit (Py-ART) is an instrumental component in radar workflows at many institutions. Py-ART is used for reading, plotting and analyzing radar data and has a rich input/output suite making it applicable to many platforms. The package also has a variety of correction and retrieval algorithms that allow for the user to quality control their data, such as attenuation corrected reflectivity and velocity dealiasing. Py-ART can create plots from different scan types, and can also be used to create Cartesian grids from data from one or more radars. Py-ART has grown over the years, and this is due to the open source community. Partly due to the use of good software engineering practices (self documenting code, modularity and unit testing), Py-ART is particularly amenable to accepting contributions from the community. With 25 contributors, Py-ART has become a platform for collaboration in the radar community. This presentation will describe Py-ART as a project, provide some specific examples of how the community came together to make radar code better and introduce the Py-ART roadmap, a five year plan leading to a fully featured open source architecture: Py-ART 2.0.