ALMA Release Management: A Practical Approach
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Abstract: The ALMA software is a large collection of modules, which implements the functionality needed for the observatory day-to-day operations. The main software components are: array/antenna control/correlator, telescope calibration, submission/processing of science proposals and data archiving. The implementation of new features and improvements for every software subsystem must be in coordination with developers schedule, observatory milestones and testing resources available to verify new software. This paper describes the software delivery process adopted by ALMA since the construction phase and its evolution until these days. It also describes the acceptance process defined by the observatory in order to validate the software used for science operations. Main roles of the software delivery and acceptance processes are mentioned on this paper including their responsibility at the delivery of the different software releases. Finally, some ideas are presented about how the process should change in the near future by considering the operational reality of ALMA Observatory.