

V23a Application of Field System-FS9 in Radio Astronomy in Peru

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We are in the process to transform a 32m antenna in Peru, used for telecommunications, into a Radio Telescope to perform Radio Astronomy and Geodesy in Peru. The 32m antenna of Peru constructed by NEC was used for telecommunications with communications satellites at 6 GHz for transmission, and 4 GHz for reception, we expect to work up to higher frequencies in the future. In collaboration of NICT, we developed an Antenna Control System for the 32m antenna in Peru. It is based on the Field System FS9 (software released by NASA for VLBI station), and an interface for Antenna Unit Control(ACU). The interface has been developed to link FS9 PC and ACU of the 32 antenna of Peru, for that purpose we used a micro controller based interface to read and send control signal to ACU, through serial communications protocol. The software running on interface board is build under ANSI C compiler and assembler programming languages to administrate the antenna operation through the ports of the interface.

Details of and advances of our work will be presented.