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Modifying the Crystal Ball and Developing Data Acquisition Software¹ ALEXEY STRAKOVSKY², The George Washington University, BAYA OUSSENA³, Johannes Gutenberg Universitaet, A2 COLLABORATION⁴ — This poster describes work done with the A2 Collaboration at the Johannes Gutenberg Universitaet (JGU) in Mainz, Germany. In 2009, we modified the cabling of the Crystal Ball detector, housed at the Mainzer Mikrotron facility (MAMI) at JGU. This reduced the length of the 672 signal cables by approximately 43.68 km to reduce weight on the frame of the detector and make room for a frozen-spin hydrogen target. This involved cutting cables in half and resoldering the ends to new interface cards and photomultiplier tube connectors. More recently in 2010, our focus has been to develop new data acquisition software to replace the one currently in use. The new version, AcquDAQ, is based on C++ rather than the old C programming language. When completed, AcquDAQ will control and read data from the new electronics hardware utilized at MAMI, including the Crystal Ball.

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> Alexey Strakovsky The George Washington University

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