CIO SOLUTIONS PRESENTS AWARD FOR EXCELLENCE IN COMPUTER ENGINNERING TO RECEIPENT FROM BISHOP DIEGO HIGH SCHOOL

Mary Lou Bailey, a senior at Bishop Diego High School, received the CIO Award for Excellence in Computer Engineering for her Science Fair project in the Senior Physical Sciences Division.

March 8, 2011 – Santa Barbara – CIO was honored to present Bishop Diego senior Mary Lou Bailey with the CIO Award for Excellence in Computer Engineering for her project titled "Divide and Conquer" which was entered in the Senior Physical Sciences Division of the annual Science Fair. Bailey used complex algorithms to determine which computer chip had the fastest processor and developed her own independent program and compiler for testing.

Bailey tested five different division methods which tested speed and accuracy. The five chosen methods were division by restoring, division by non-restoring, division by binomial expansion algorithm (Goldschmidt's method), division by reciprocation (Newton's method), and division by repeated subtraction. Each method/algorithm was written in the PAL 32 assembly language – a unique computer language initially written for Advanced Scientific Concepts, Inc (in which she wrote the compiler for over the summer during her internship with the company). Each division method went through a series of tests and from the results, it was concluded that the Newton-Raphson division method was the quickest to divide, repeated subtraction was the slowest, and deciding which methods produced the most precise number was debatable.

Bailey will be attending UCSB in the fall and plans to study Computer Science. Bailey stated, "I am very honored to be recognized by CIO Solutions for excellence in computer engineering. I worked very hard on my project, and winning this award has encouraged me to continue pursuing projects in the computer science realm." She is currently the valedictorian of her class and is excited to pursue her passion for engineering at the university.

CIO Solutions has been providing IT management and design services to the Tri-County Area since 1986. CIO specializes in helping businesses focus on their core business by designing and managing their IT department. In addition to managing IT networks, CIO also provides the design, implementation and management of [VoIP phone systems](#) and the installation and management of enterprise-class [storage systems](#). More information can be found at www.ciosolutions.com or by calling their office 805-692-6700.

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