Master's Project Proposal
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MEASURE Evaluation, known informally as "Measure," is a project funded by the United States Agency for International Development (USAID) and based at the Carolina Population Center (CPC), a research department of the University of North Carolina at Chapel Hill (UNC).

Measure has a custom financial information system which augments UNC's Financial Records System (FRS), giving Measure the flexibility to meet USAID's wide-ranging financial reporting requirements and the control to manage the project's finances internally. The system, implemented in Microsoft Access (an end-user and small business relational database management system), provides rich graphical user-interfaces and extensive reporting capabilities—but is only accessible to people located at Measure's UNC office. Measure's project members traveling abroad, major subcontractors located in Washington, DC and New Orleans, LA, and USAID administrators have no direct access to the financial information system.

Phase I of Measure, which began on October 1, 1997, will end on July 31, 2004, after which point the existing Access-based financial information system will no longer be actively maintained. Phase II of Measure began on October 1, 2003 without a similar system in place to begin tracking the project's finances. Measure could continue using a variation on the existing Microsoft Access system, but its inaccessibility to geographically dispersed project members makes it an unappealing option.

The financial information system recast as a web application would provide authorized on- and off-site project members with the ability to access and update Measure's financial information directly. The design of the existing relational database and business logic would remain relatively unchanged, while the graphical user-interface (GUI) and underlying application programming (originally implemented using Microsoft Access and Visual Basic for Applications) would have to be reconceived, redesigned, and implemented for the web.

The existing financial information system evolved over time, yielding a jumble of interface design, business logic, and architecture-specific application programming. The major challenge of this master's project will involve the design and architecture of a custom fiscal web application, relying on industry standard software design practices such as the Rational Unified Process (RUP) and the Unified Model Language (UML).

Deliverables will include the application design artifacts and documentation, a functional implementation based on the design, and a case study write-up of the design and implementation process.