
Is There Such a Thing as “Just Replicate It”?

Dr Christo Potgieter

WINTERC
Trisram Street
Hamilton, New Zealand
christo.potgieter@wintec.ac.nz

Jannat Maqbool

WINTERC
Trisram Street
Hamilton, New Zealand
jannat.maqbool@wintec.ac.nz

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Abstract

This poster summarizes interesting experiences in helping the Hamilton office of Ministry of Education (MoE) implement a stand-alone system developed and already in use in the Christchurch MoE office.

Keywords

DBMS, Software adaption, Project Management

Background

Wintec operates a scheme for industry whereby a problem is solved for them. Wintec released \$5,000 (2-3 weeks work) to help the local office of MoE, who simply wanted a small MS Access database application to be replicated locally. Local requirements are also to be met. The project was set up by Christo, done by Jannat – first doing a thorough Feasibility Analysis and then overseeing programming by John Wells.

First observations and project approach

Typical Voucher phases are Initiation, Definition, Planning, Execution, Report. First two done by Christo in about 10 hours, resulting in A4 scoping document indicating risks like:

- No local ICT knowledge
- Fit-for-purpose system for Christchurch only
- No support by MoE head-office
- Developed by local contractor in Christchurch
- No fixed processes, ie. a group of professionals
- Many participants outside MoE, per case

Four weeks after first steps, Jannat was contracted in.

Feasibility and issues identified

The high level needs analysis considered ‘fit for purpose’ and identified a number of areas requiring attention if the application was to align with the MoE’s requirements,

including security concerns, multiple users, minimal data entry verification, reports to be developed, proper case workflow wanted; as well as a number of additional areas worthy of further investigation including additional detailed data requirements, automated links to other systems and ongoing maintenance. Scope creep is typical of software experience but it was quickly clear that the early stage cost estimate by Christo was too positive. The study recommended that the application be rebuilt for long term use however this was unlikely given a lack of funds and technical expertise available to the Hamilton office. We could not cover all of the above in budget or in timeframes required by the MoE. However, MoE Hamilton wanted to use system to create evidence of a need for such an application for MoE head quarters. The second recommendation was to develop the existing application for use in the interim, and hence we proceeded to Phase 2 of the project.

Steps taken

It was critical to do scope management to fit budget, therefore the development requirements were prioritized based on business needs and resource/time available and it was agreed that Wintec would do redevelopment for first five items only, leaving MoE to discuss the remainder with their head office, backed up by findings of the feasibility study, considering their long term plans. The development required a specific set of skills and hence Jannat contracted a tutor who has significant MS Access development experience. We bought about eight days from his nine weeks leave out to do the software development. John could start working about three months after first steps. Intellectual Property Rights remain with the MoE.

Software development and implementation

John also needed some time to study the software in the business context. Unfortunately he fell ill during this period and so project was delayed for several months. After more delays caused by priorities and resources at MoE, everything was completed about four months later. The delay from Wintec's perspective were also due to workload pressures for

John when work flowed over into semester-begin, which has top priority. User is sad about time elapse however satisfied with the enhancements specifically data integrity and security which are fundamental to the systems application in the field. The database would not have otherwise been accessible to MoE Hamilton and is proving useful in recording statistics for both promotion of the importance of the specific element of the MoE's work in Hamilton and motivating need for full system integrated with related applications across the sector.

Conclusion

Learned following:

- Inaccurate early estimates (typical!)
- Importance of clear understanding of user needs
- Scope creep as users become experienced
- Complexities of enhancing quick-fix software
- Complexities from multiple users of software
- Complexities when several people on small project
- Challenges of fully staying in small budget
- Importance of being very (very!) flexible
- Constantly managing expectations of all
- Complexities of business cycles, especially semesters
- Creating interim solution to help justify need
- Importance of dedicated project resources

Since then started work on two more IT voucher projects, all due by June 2011.

References

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Enhanced software located at MoE Hamilton.