

## **Information Technology Application Development Project Management Guidelines**

**Purpose:** The purpose of this document is to detail the standard steps to be followed for the completion of a major IT Software Application project. An IT Software Application project is one which involves the acquisition, development or enhancement of application software for the requesting department.

The goal is to assure that the result of the project will be a product of the highest quality which satisfies the in advance defined requirements, respects the constraints on both the user and IT departments' workload and resources, and has been produced as efficiently as possible.

“Planning is an unnatural process: it is much more fun to do something. And the nicest thing about not planning is that failure is a complete surprise rather than being preceded by a period of worry and depression”  
-John Harvey-Jones

### **Determination of Project Effort**

To initiate an IT Software Application project, the requesting User Department enters a work request in the IT Request Tracking System. The request is assigned to a Systems Analyst who calls the requesting user to get a high level understanding of the request, priority and rough estimate of the level of effort. At this point, the analyst should be able to determine whether this is a major work request (greater than approximately 37 hours of work.)

Below is a sequential series of steps which should be followed for all major IT Software Application projects.

### **IT Project Request Form**

Based on the type of request, the analyst will forward the appropriate IT Project Request Form to the user. This may be either a Process Development Form or a System Modification Form.

A Process Development Form is used to collect information regarding a new process or system to be implemented. This could be a new system to replace a process which is currently done manually, or a new system to replace an existing older automated system which no longer meets the needs of the user. This could also be a new process to be incorporated into an existing system, for example; the incorporation of producing jury checks into the existing Accounts Payable system.

A System Modification Form is used to collect information regarding a change to an existing software application. This could entail the collection of new data, screen modifications, additional reporting needs, change in the way the data is processed, or a combination of any of the above.

The purpose of the either of the above IT Project Request Forms is for the requesting user to compile all of the

information known about the project. This includes the scope and purpose of the project, benefits of the project implementation, time frame constraints, details as to how the process is currently being handled, specifics as to what the resulting software should do, examples of forms, work flow diagrams, flow charts, etc. From this document, the analyst should be able to gain a solid understanding of what the user feels is needed from the new system/process.

Once the requesting user has completed the form, it should be returned, with any pertinent documentation, to the analyst. After the analyst has reviewed the form and all associated documents, the analyst and user department representative(s) will meet to discuss the project. This could entail multiple meetings.

## **System Requirements Document**

The System Requirements Document details the functionality that is required from the automated process. It should define exactly what the system needs to do, without going into the specific details of what is on each report or what is stored in each file.

Although the IT department is responsible for producing the System Requirements Document, the document is the result of the combined efforts of both IT and the requesting department. Both departments need to approve and sign off on the final document.

If the project is a request for a modification/enhancement to existing software, at the analyst's discretion, the development of a System Requirements Document may be not be necessary. For example, if a modification to an existing internally developed application is requested and, based on workload, it is predetermined that the modification will be done in-house, the analyst may decide to skip the System Requirements Document. However a System Requirements Document is always required when the request is for the development or acquisition of a new system.

## **Best Solution**

Once the System Requirements Document has been approved, the best solution for the project must be determined. Possible solutions include a Commercial Off the Shelf (COTS) software package or a custom developed solution.

## **Custom Developed Solution**

### **System Specification Meetings**

The IT analyst will conduct a series of specification meetings with representatives from the requesting department. Through these meetings, the analyst will gather specific information regarding each system/modification requirement. The analyst will review copies of existing reports, existing forms (invoices, statements, letters, etc..) and any other information which will assist in the analysis.

The analyst will use the IT Project Request Form and the System Requirements Document as the guiding

tools to work through the analysis of the system.

It is imperative that the requesting department has the proper representatives in these meetings. The people who know what the process currently does and the people who know what the process needs to do must attend these meetings.

At the conclusion of the specification meetings, the analyst will have gathered the information necessary to design a successful system/modification.

## **Specification Document**

The Specification Document is the document which details the specifics of the system/modification(s). It outlines the data to be collected, including type and size, the reports to be generated, the system interfaces, screen layouts, data conversion and all automated processes.

The requesting department should carefully review the Specification Document to make sure that the system/modification(s) being designed will meet all of their requirements. Any changes or inconsistencies should be discussed with the IT analyst and resolved.

The final Specification Document will be signed off by both the requesting department and the IT department. This document will be the guiding tool used during the programming and testing phases.

Upon the approval of the Specification Document, IT will review its current outstanding commitments and should be able to provide the user department with an anticipated completion date.

## **Programming**

Once the Specification Document has been approved by both departments, the programming effort will begin. Programming can either be done in house by the CCG Applications staff or outsourced to an outside vendor. Regardless of where programming is done, the IT department is responsible for ensuring that the specifications are being followed and the timetables are being met.

During the programming phase, the analyst may contact the user department with questions. In order to meet established time frames, the user department should be as responsive as possible in helping to resolve questions.

Any changes to the specifications which arise after the initial Specification Document is approved should be documented and signed off by both the IT and user departments. Changes to the specifications will result in an adjustment to the estimated completion date.

Changes to the specifications must be within the initial scope of the project. Any requested changes which are not within the initial project scope may require an additional project to be initiated.

During the programming phase, the analyst will also develop any necessary software documentation, as well as any maintenance plans needed to sustain the system/modification.

### **Testing/Training**

Throughout and at the completion of the programming phase, the system/modification(s) is tested within the IT department.

After being successfully tested by the IT department, the system/modification(s), and associated documentation, is turned over to the requesting department for their review. User training will be provided by the IT department.

If necessary or feasible, the system/modification(s) will be placed in a test environment.

### **Implementation**

After being approved by the requesting department, the system/modification is moved to the live system. The project is closed out and IT's copies of the System Requirements Document, the System Specification Document, the System Documentation and any other supporting documentation are filed in a central location within the IT Department.

### **Evaluation**

After the system/modification(s) has been in the production environment for a period of time, the analyst should meet with the user to evaluate the solution.

### **A Commercial Off-the-Shelf-Solution (COTS)**

A COTS solution results from the analyst and the user department working together to locate a software package that is the best fit for the project. In locating this package, the following items must be considered:

- (1) Does the solution satisfy the needs detailed in the System Requirements Document.
- (2) Does the solution fit within the available funding, taking into consideration the initial purchase cost and the annual maintenance fee.
- (3) Does the solution adhere to the county's IT standards.
  - a) If a database is to be shared among multiple users, then the solution must be networkable. A networkable solution for CCG must run on a Novell server under Netware 6.
  - b) The solution must run under the county's standard desktop operating system, Windows XP.

- c) The solution must either use a DB2 database or have its own integrated database. The solution cannot require a purchase of a special database to run.

As long as the COTS package adheres to the county's IT standards, the user department will make the final decision regarding the functionality of the software package. IT will not be held responsible if a software package is chosen which does not meet the processing needs of the user department.

IT will assist in the implementation of the COTS package in the following manner:

- (1) assist with the conversion of existing data to the new COTS, if necessary
- (2) provide the necessary space and equipment for the vendor's initial training session

Once the system is operational, the IT department will be responsible for safeguarding the data and assisting in the application of any new software releases or upgrades. The IT department will not be responsible for learning the software, answering operational/procedural questions or resolving any software issues.

It will be the user department's responsibility to contact the vendor directly for software support and any training needs.