IT Project Timeline Guidance for DES
December 2011

One of the key ingredients for improved management of IT projects here at DES is the ability to prepare reliable timelines. One of the most common complaints made about IT projects is how often they take longer – and sometimes much longer – than estimated.

A reliable timeline that documents all of the project-related tasks, and that translates hours spent on the project into a calendar estimate that reflects things like time off , interruptions and unforeseen technical challenges, can go a long way towards improving the credibility of DoIT for delivering on time and towards creating reasonable expectations for all parties regarding project completion.

The last three items in the Task column – Project Management Factor, Conversion to Days and Vacation Factor if applicable – account for those factors that can affect project timelines but are often ignored or not given due consideration.

The Project Management Factor takes the original time estimate for the total of all of the tasks and adds a factor of 50 percent to reflect holidays, days off here and there, unavoidable interruptions to work on other projects and technical issues that take longer than anticipated to resolve. There is a wide spectrum of adjustment factors - ranging from 10 percent to 200 percent - in the literature of project management; there is nothing sacred about 50 percent other than it is a commonly used factor and seems reasonable. We will monitor the success over time in hitting our target dates and adjust the factor if warranted.

The Conversion to Days takes the adjusted time estimate in hours and converts it to days, using a figure of 6.0 hours per day as the multiplier. Like the Project Management Factor, this is an adjustment to reflect reality. Time management studies routinely find that the average worker is only productive for 75-80 percent of their day, despite management's best efforts to get this to 100 percent. The 6.0 hour figure is 80 percent of our official 7.5 hour day.

The Vacation Factor if applicable is simply a placeholder to account for any vacations of a week or more that are scheduled for sometime within the project timeline. The Project Management Factor takes care of the individual days off; this Vacation Factor makes sure that the timeline also incorporates any scheduled vacations.

What is presented here as guidance is an outline of what should be included in an IT project timeline for software application development projects. These projects represent the bulk of the work done here at DES. The DoIT developer assigned to the project is the person primarily responsible for preparing the timeline, with input from the business analyst/point person for those tasks dependent on the actions of DES personnel.

Page 2 identifies the categories of tasks that need to be included in the timeline and provides guidance on the time estimates for each. Page 3 is a template for the timeline that would be maintained jointly by the DoIT developer and the agency contact.

Task	Time Estimate (in hours unless noted)
All tasks related to database development (tables, constraints, sequences, indexes, triggers, etc.)	TBD
Produce data/process flow models (e.g. Entity Relationship Diagram (ERD)	TBD
Develop each screen, organized by module (include all sub-tasks for each screen, such as design, control layout, buttons, etc., and include unit testing for each module)	TBD
System testing to verify full functionality prior to user testing	TBD
Help/user documentation	TBD w/agency contact
Code review	40 hours
Subtotal	Sum of above, in hours
Project Management Factor	Raw Total x 1.5, in hours
Conversion to Days	Project Management Factor divided by 6.0
User acceptance testing	TBD w/agency contact, typically 2-4 weeks
PCI compliance-related tasks (for all applications accepting credit cards online)	Currently unknown, allow 4 weeks
Deployment tasks (including but not limited to data conversion, user training, outreach if public web application, DoIT procedures for moving into production, etc.)	TBD w/agency contact
Harvest source code control, final documentation	1 week
Vacation Factor (if applicable)	TBD
Total	Total of above, in days

Task/sub-task	Assigned Staff	Estimated Time (hours/days)	Actual Time (hours/days)	Notes