

Time Box Scheduling

Technology is not the strongest driver of productivity for a software project.

Glen B. Alleman, Copyright ©, 2002

If Technology Isn't, Then what is?

- ◆ *The length of a project is the single most important factor influencing productivity.*
- ◆ *Short projects with smaller teams are more productive than longer projects with larger teams.*
- ◆ *This is a “simple” concept, but it is also complex since time boxing requires:*
 - Commitment from all participants
 - Rethinking the traditional management engagement process.
 - Strict control over the inclusion of requirements in each cycle.

Glen B. Alleman, Copyright ©, 2002

Components of Time Box Scheduling

- ◆ *User Involvement*
- ◆ *Senior Management Agreement*
- ◆ *Business Objectives*
- ◆ *Project Empowerment*
- ◆ *Scheduling*
- ◆ *Backing Out Changes*
- ◆ *Testing*

Glen B. Alleman, Copyright ©, 2002

User Involvement

- ◆ *Users must agree with the approach and be involved through at all times.*
- ◆ *Users must acknowledge that priorities must be set and observed.*
- ◆ *This is a departure from the normal “analysis and design” processes.*
- ◆ *Schedule comes first, features come second.*
- ◆ *Priorities for managing “requirements in the box”*
 - Essential requirements
 - Required but could be in the future
 - Include only if effort is available
 - Specifically not included

Glen B. Alleman, Copyright ©, 2002

Senior Management Agreement

- ◆ *Senior management must agree on the time box approach*
- ◆ *They must resist any attempts to break the time box*
- ◆ *With only a few exceptions, 6 months is a maximum duration for a time box project*
- ◆ *Staying with the time box is a matter of resolve by all the participants*

Glen B. Alleman, Copyright ©, 2002

Business Objectives

- ◆ *Focus on key business objectives*
 - Critical success factors can be used to define these objectives
 - Iterative deliverables can verify that value is being produced
- ◆ *“Business needs” are the goal, not how they are met*
 - Delivery of value needs to be controlled by architecture
 - If the delivered component fits the architecture, its internals are subject to local optimization
- ◆ *Nothing requires a specific technology or toolset, provided the requirements are focused on the business needs*

Glen B. Alleman, Copyright ©, 2002

Project Empowerment

- ◆ *The team must be allowed to make decisions in order to maintain the schedule*
- ◆ *Waiting for decisions doesn't work, PERIOD*
- ◆ *Project sponsor must be available at all times. They must be:*
 - Capable
 - Involved
 - Responsible
 - Decisive
- ◆ *Make decisions within the framework of the business objectives, supported by the architecture*

Glen B. Alleman, Copyright ©, 2002

Scheduling

- ◆ *It's easier to estimate how much work can be done in a fixed amount of time, than how much time it will take to do a fixed amount of work*
- ◆ *Time boxing restricts "scope creep"*
- ◆ *The focus on deadlines allows resources to be added at the end and still maintain the schedule*
- ◆ *Experience says "time lost can NEVER be made up"*

Glen B. Alleman, Copyright ©, 2002

Backing Out Changes

- ◆ *Features that are not feasible or break the time box must be removed*
- ◆ *Good configuration management is essential*
 - Undoing a feature should be a matter of regressing the configuration
 - Continuous testing (test first development) allows regressions to take place in a seamless manner

Glen B. Alleman, Copyright ©, 2002

Testing

- ◆ *Continuous integration and testing is essential for staying on schedule*
- ◆ *In phased-based system only unit tests can be performed before the system is assembled*
 - These interfaces tests form the basis of time boxing the delivery.
 - The system runs the unit tests at all times

Glen B. Alleman, Copyright ©, 2002

Win / Win

- ◆ *Core Requirements*
- ◆ *Commitment*
- ◆ *Resources*

Glen B. Alleman, Copyright ©, 2002

Core Requirements

- ◆ *Ensures that only key requirements are developed*
 - The duration is fixed
 - The features can come or go
- ◆ *“Nice to haves” are deferred to the next release cycle.*

Glen B. Alleman, Copyright ©, 2002

Commitment

- ◆ *Over time enthusiasm diminishes*
 - Staying on schedule requires constant vigilance
- ◆ *Once important items are forgotten all is lost*
 - Continuous testing against essential deliverables
- ◆ *Six month time boxing maximizes enthusiasm*

Glen B. Alleman, Copyright ©, 2002

Resources

- ◆ *Finishing on time, on budget removes the backlog for the next phase*
- ◆ *Pressure on the next phase is removed in the beginning of this phase*

Glen B. Alleman, Copyright ©, 2002