# Team Software Process

## Working in Teams

- Successful teams are both satisfying and rare.
- Although many teams come close to meeting their product and business goals, they often do so at the expense of the team members.
- We describe a team that works together smoothly and efficiently as being a "jelled team."
- A **jelled team** has a specific goal, a goal that is shared by all members. All members of a **jelled team** have a high sense of responsibility and commitment. All members of a **jelled team** feel they are accomplishing something of value.

# **Building Jelled Teams**

- Artificially-jelled teams can be built quickly through "team-building" exercises.
  - retreats, seminars, workshops
  - games (paintball, laser tag, etc.)
  - Contrived challenges (e.g., blind obstacle courses)
- Team-building activities are unlikely to produce long-term team success unless they address real workplace issues.
  - Common understanding of roles, goals, products
  - Management support of team needs
- The TSP is a proven-effective way of building jelled teams quickly.

# The Need for Personal Discipline

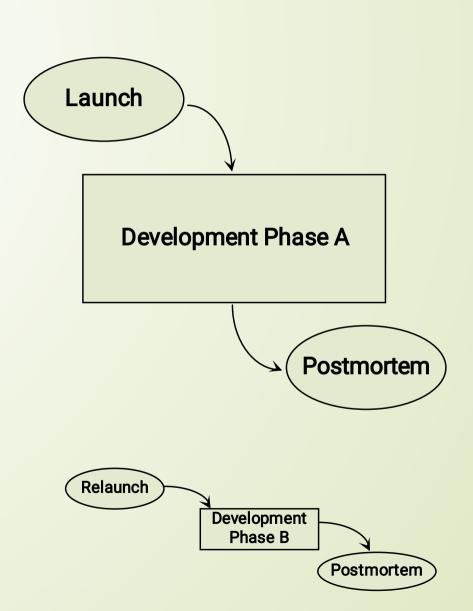
- Building successful high-performance teams requires more than technical ability; team members must be committed to the concept of personal discipline.
- Personal discipline means that all team members understand their own abilities and can make realistic commitments to each other and to management.
- Team members develop personal discipline by learning the principles of the Personal Software Process (PSP).

## The TSP Strategy Rests on PSP

The TSP strategy Team communication Team Team coordination improves performance **Project tracking** from the bottom-up. Management Risk analysis **Team** Software Goal setting **Process Team** Role assignment Tailored team process **Building** Detailed balanced plans Team Process discipline Personal Performance measures Member Software Estimating & planning skills **Process** Skills Quality management skills

## **Building Teams with TSP**

- TSP facilitates team-building
- through a defined team launch
- process.
- The launch process kicks off
- - The team establishes a common understanding of the work and the development approach.
  - A plan is produced to guide the next development phase.
  - Subsequent phases kick off with a relaunch process.



#### TSP Process Structure and Flow

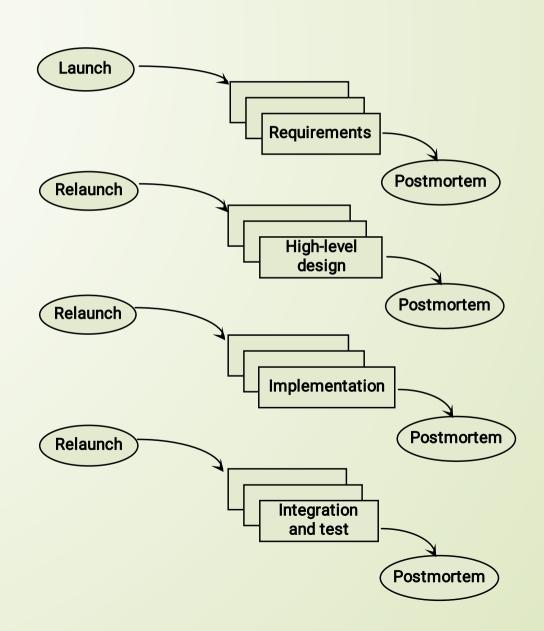
TSP has four principal development phases.

Requirements

high-level design

Implementation

test



### When to Launch

- A launch or relaunch occurs
  - at the beginning of every project phase
  - when <u>substantive changes</u> to the plan are required
- A launch may also be needed <u>when new members are</u> <u>added</u> to the team.
  - familiarize them with the team processes
  - integrate them into the team's plans
  - get their <u>agreement with the goals</u>

## Purpose of the TSP Launch

- The purpose of the launch is to establish a <u>common team</u> <u>understanding</u> of the following project elements.
  - Management's goals for the project
  - team and team members' goals
  - the roles that the <u>team members will perform</u>
  - the development work to be done
  - the processes that the team will use
  - the plan for doing the work
  - the management and <u>customer reporting system</u>
  - the ongoing team communication process

## The TSP Launch Workshop

- The TSP launch is a four-day workshop used to kick off each project phase.
- During the launch workshop, the team produces a comprehensive plan for their work.
- The team leader and all team members participate.
- The launch workshop is considered to be part of the project work (it is planned and tracked).

## Launch Postmortem

- The coach and team members meet to discuss how things went during the launch.
  - what worked well
  - what did not work well
  - suggestions for improving the launch process in future launches

# The Weekly Team Meeting

- The weekly team meeting keeps the project on track by reviewing status and planned work for the team and each team member on a weekly basis.
- The meeting objective is to ensure that all team members
  - understand <u>current project status</u>
  - know what tasks are next
  - are aware of <u>everyone's status and progress</u>
  - know the status <u>against the quality plan</u>
  - discuss actions needed to ensure high quality
  - understand the <u>key project issues and risks</u>
  - participate in <u>key team decisions</u>

Suppose the following tables contain the historical data from past projects.

- •Determine which one is the candidate size measure that is related to effort.
- •Apply regression model to selected candidate size measure in a) and predict the effort of project having 156 LOC/FP.

Table 1: LOC vs Dev time

LOC	Development time
10	5
20	10
50	25
60	30
70	35
80	40
90	40 45

Table 2: FP vs Dev time

Functional Point	Development time
2	5
4	4
6	8
8	7
10	6
12	10
20	9