

# TEAM SOFTWARE PROCESS

MIEIC: ESOF

Class I – Group F

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**Team software process (TSP)** is a software development strategy developed in **1996** by **Watts Humphrey**.

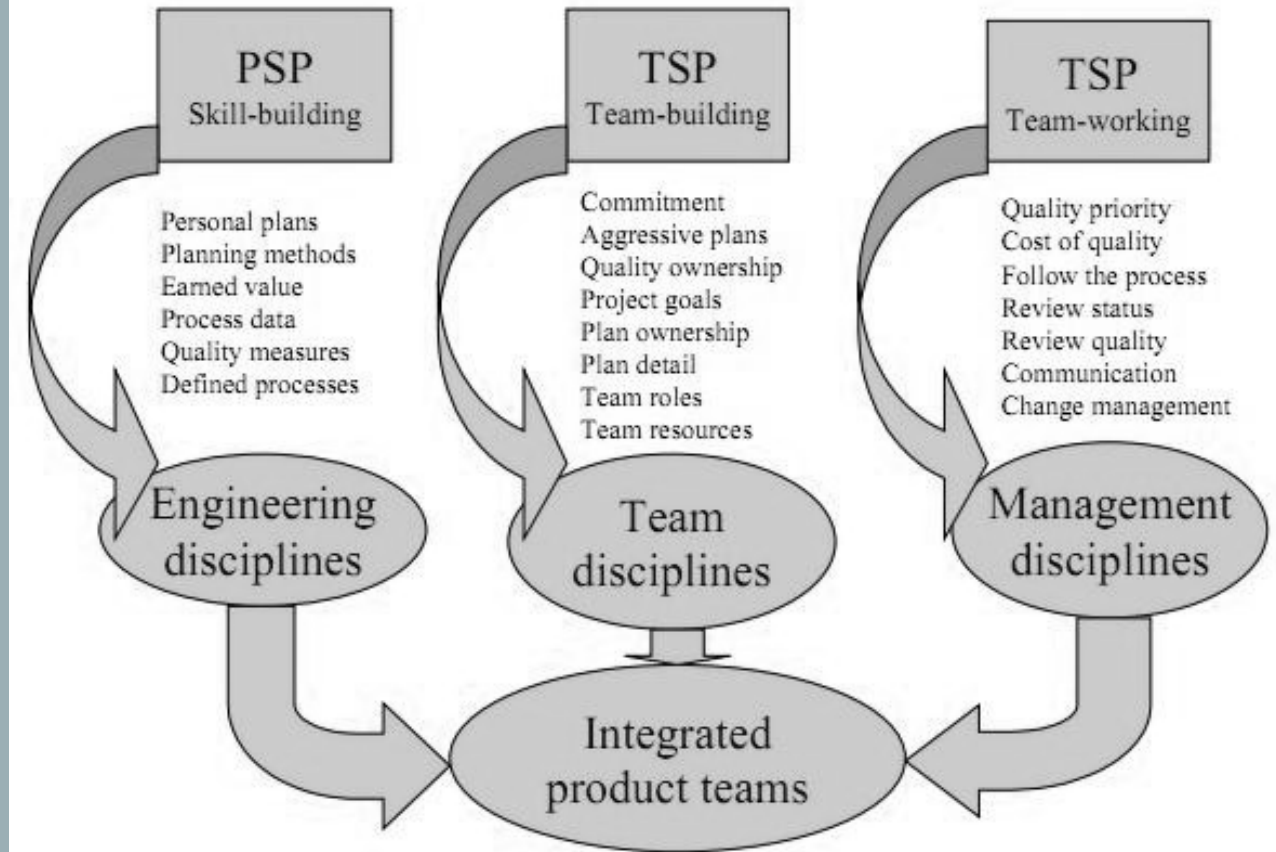


Watts Humphrey

TSP is a software development strategy that provides a well defined process framework designed to:

- show managers and engineers how to build self-directed teams;
- plan and manage their work;
- coach and motivate their teams;
- sustain peak performance;
- produce software products in a way that improves the quality and productivity of the team.

To really understand TSP, engineers must be trained in the personal software process (PSP), in which they learn how to gather and use process data, make detailed plans, manage product quality as well as using earned value to find a project.



TSP Main Elements

TSP divides the team in various **roles** with specific functions:

Team leader

Design manager

Team coach

Support manager

Quality manager

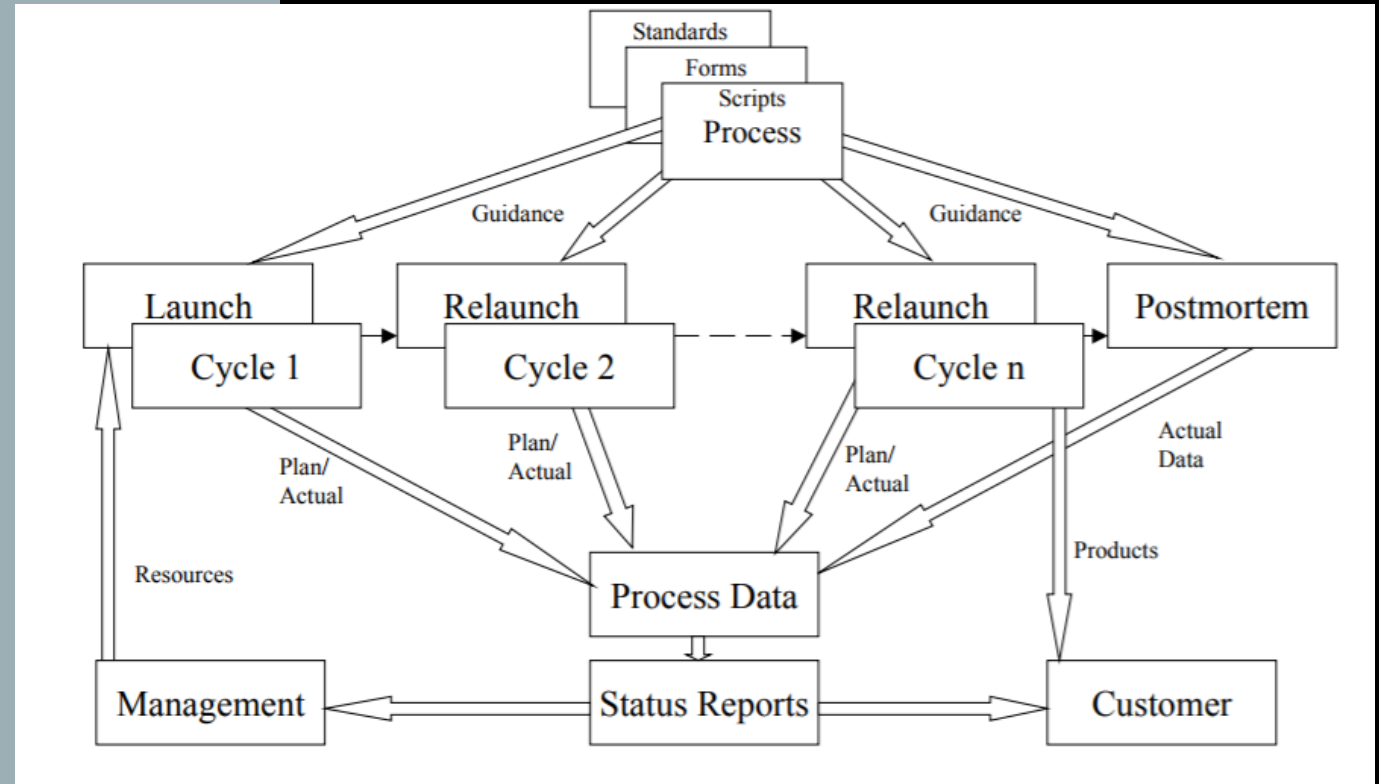
Implementation manager

Planning manager

Test manager

The TSP involves 6 major **phases**:

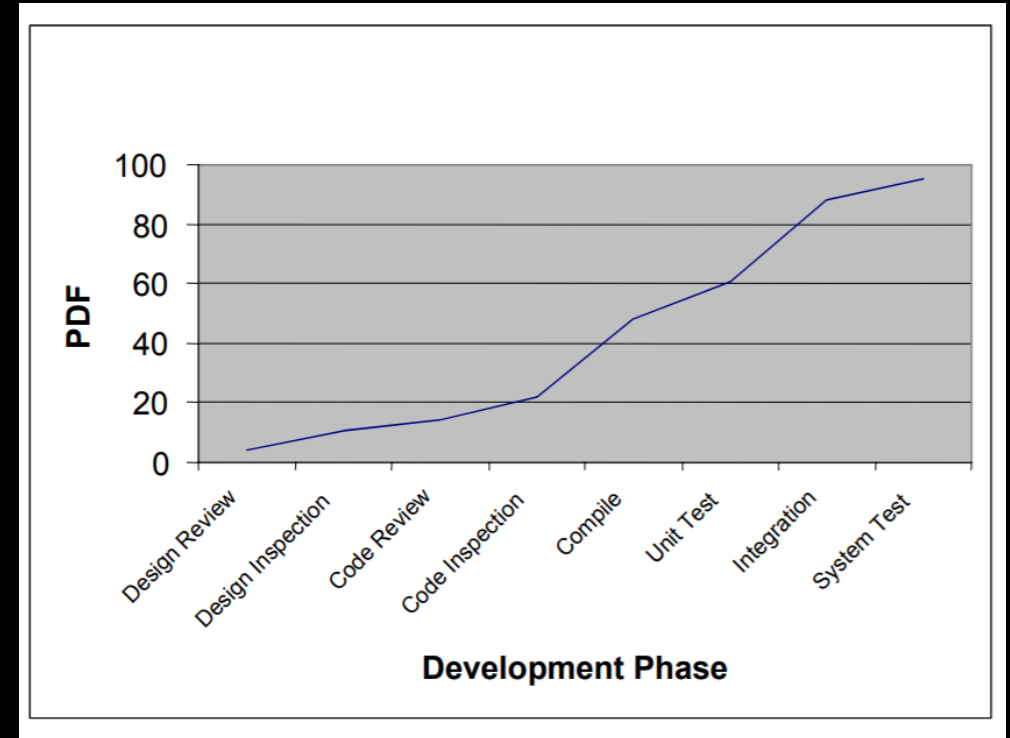
1. Launch;
2. Requirements;
3. High level design;
4. Implementation;
5. Release test;
6. Post mortem.



TSP Process Flow

The quality of a project is an essential part. The TSP shows teams how to manage quality, by:

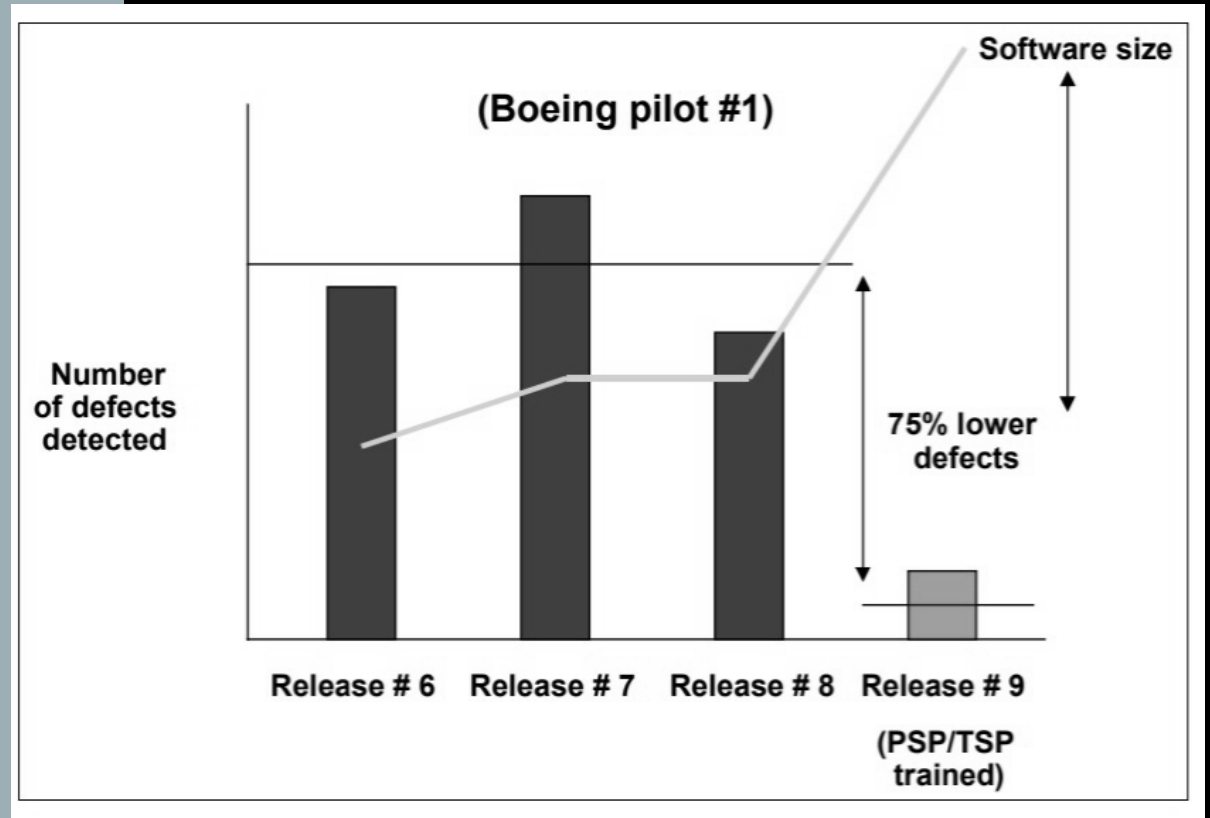
1. Making a quality plan;
2. Identifying quality problems;
3. Preventing quality problems.



PDF plot

TSP is being introduced into both industrial and academic environments. Some examples of projects where TSP was successfully used are:

1. Teradyne;
2. Hill air force base;
3. Nedbank;
4. Beckman coulter;
5. Boeing.



TSP Test Defects



TSP has many proven **benefits**...

- Improved size, effort and schedule estimation;
- Improved productivity;
- Better defect detection;
- High quality products.

...but also some **cons**:

- A lot of planning is needed and has to be **strictly** followed;
- Is very time consuming as there are weekly meetings;
- There is constant management's pressure on team members.

Without a doubt, TSP is a software development strategy that differentiates from others because of the main role a **team** has in the software development. More than focusing on the individual, TSP forms a **strong team** with well defined **roles**, in order to produce the **best software possible** for the clients it attends.