By Win7

Chapter 1 TSPi OVERVIEW

Exercises

1. What is TSPi?

TSPi 提供结构化的步骤告知工程师每个步骤该做什么并且说明了如何将这些步骤联系起来用以生产一个完整的产品

TSPi 是精简版的 TSP，他也包含与其相同的基本概念和方法

//2. What are the four basic TSPi principles?

//3. List the seven choices which the TSPi design involves.

4. What is the basic development strategy in TSPi?

A cyclic development strategy 循环开发策略

5. List the eight process steps which TSPi includes in each development cycle.

Launch -> Strategy -> Plan -> Requirements -> Design -> Implementation -> Test -> Postmortem

Chapter 2 The Logic of the Team Software Process

Exercises

1. Is it generally because of teamwork problem or technical issues when software projects fail TSPi?

1. **A poor or ineffective response to pressure** is often the cause of project failure.

2. The apparent source of pressure in software project is the need to **meet a tight schedule**.

3. By guiding teams through **a strategy and planning process**, the TSPi shows teams how to handle pressure

2. The TSPi shows teams how to handle pressure by guiding teams through (BC).

A. a launch process

B. a strategy process

C. a planning process

D. a requirement process

3. The TSPi supports the jelling process by walking teams through a （A）procedure.

A. Launch

B. Strategy

C. Plan

D. requirement

4. List the most common problems for student teams.

1. Ineffective Leadership 领导不力

2. Failure to Compromise or Cooperate 无法妥协或折中

3. Lack of Participation 缺少参与

4. Procrastination and Lack of Confidence 拖延以及信心缺乏

5. Poor Quality 质量低劣

6. Function Creep 随意增加功能

7. Ineffective Peer Evaluation 无效的互评

5. What is a team?

1. **at least two people** 至少两人
2. **common goal** 共同目标
3. **each person has been assigned specific role** 特定角色分配
4. **dependency among the group members** 任务完成需要成员的相互依赖共同努力

//6. What are the three basic conditions that must be met for a group to operate successfully as a team?

7. What are the characteristics of the effective teams?

1. **Team Cohesion** 团队凝聚力
2. **Challenging Goals** 挑战性的目标
3. **Feedback** 反馈
4. **Common Working Framework** 统一工作框架

8. How does TSPi build teams?

1. **Goals** 目标
2. **Roles** 角色（分配角色）
3. **Plans** 计划
4. **Communication** 内部交流沟通
5. **External Communication** 外部交流沟通

9. List the five TSPi roles.

1. Team Leader
2. Development Manager
3. Planning Manager
4. Quality / Process Manager
5. Support Manager

Chapter 3 Launching a Team Project

Exercises

//1. Why conduct a team launch?

2. What are the three basic team goals for TSPi?

1. **Produce a quality product** 生产高质量产品
2. **Run a productive and well-managed project** 运营一个管理良好的高效的项目
3. **Finish on time** 按时完成

//3. List the goal-setting considerations.

4. What are the functions of the weekly team meeting for TSPi?

1. The team meeting is the basic mechanism for communication, planning and decision making 团队会议是团队交流、做计划、做决定的基本机制

2. The most important single function of the weekly team meeting is to gather and analyze the team's data for the prior week and for the development cycle to date 团队周会最重要的功能是收集和分析团队前一个星期的数据和到目前为止的开发循环工作

5. What are the functions of the first team meeting for TSPi?

1. **Discuss the team member roles** 讨论队员角色
2. **Review and updates the team goals** 回顾和更新团队目标
3. **Establish a standard time for the weekly team meeting** 建立每周开会的标准时间
4. **Agrees on a specific time each week when all team members will provide**

weekly data to the planning manager 确定每周所有队员何时向计划经理提交数据

Chapter 4 The Development Strategy

Exercises

1. **What is a strategy?**

1. The strategy is to figure out **how to build big systems**

2. The principal objective of the strategy is to **minimize the risk** that you will exceed the available development schedule

3. A basic strategy decision in the TSPi: You will develop the product with **a cyclic process**

//2. How do you establish strategy criteria in the TSPi?

//3. How do you make a conceptual design in the TSPi?

4. **List the six likely risks you might consider in selecting your strategy.**

1. Too large a product 产品过大

2. Difficult or complex functions 过难或复杂的功能

3. Support system problems 系统支持问题

4. Testing time 测试时间（产品缺陷太多导致测试时间过长）

5. Product control 版本控制

6. Teamwork problems 协同合作问题

5. Enter the data on each risk in the **ITL(Issue Tracking Log 风险跟踪日志)** form.

6. **What is the SCM?**

SCM (Software Configuration Management 软件配置管理) is the total set of activities used to manage the content of a software product from the beginning to the end of the development process 软件配置管理是从开发过程的开始到结束的管理软件产品内容的总活动集

7. The SCM plan must include **The configuration identification plan (CIP 配置标识计划)**, **The configuration control procedures (CCP 配置控制规程)** and **The configuration control board membership (CCB 配置管理控制委员会)**

//8. List the key functions the configuration management process has.

Chapter 5 The Development plan

Exercises

1. Why make plans?

1. When you have a detailed plan, you can work more efficiently 有了计划就可以更高效地工作

2. When people don't plan, they often do things in an unproductive order, or overlook important tasks 不制定计划经常容易以低效的顺序工作，有时还会忽略重要的任务

3. With a realistic plan, you will do better work 一个实际的计划有助于更好的工作

2. **What is PV?**

Planed Value 每个任务的计划工作量占计划总工作量的百分比 （计划价值）

3. **What is EV?**

Earned Value 每个任务的实际工作量占实际总工作量的百分比 （获得价值）

4. What is the cumulative PV?

累计计划价值

//5. Why the TSPi process requires that teams estimate tasks to a granularity of about 10 or a fewer hours?

6. The TSPi provides a **Handling Unplanned Tasks**(不是很确定) phase when you can record time spent on "management and miscellaneous" tasks.

//7. How do you produce the overall team TASK and SCHEDULE forms in the TSPi?

8. The data in the form SUMP come from form(ABC) .

A. SUMS
B. SUMQ
C. TASK
D. SCHEDULE

注：SUMP 表的 Product Size 来自于 SUMS 表；Time 来自于 Task 表；Defect 来自于 SUMQ 表

9. List the three summary rates in form SUMQ.

1. LOC / hour 编程速率
2. %reuse 复用百分比
3. %new reuse 新复用百分比

10. If an assembly had 10 parts and 4 of them had testing defects in cycle 1，the assembly would be **60** % Defect-free (PDF) in testing.

11. In TSPi, the ratio that compares the number of defects found in code review to the number of defects found in compiling should be more than **2**

12. In TSPi, if you had 15 defects in a program at compile entry, injected 5 defects during the compile, and found 15 of these defects in the compile, then compile phase yield is **75%**.

13. A reasonable rule of thumb is to spend about （D）or more of code time in DLD in TSPi.

A. 25%
B. 50%
C. 75%
D. 100%

14. For products produced with TSPi, A/FR ratios of （A ）should be adequate.

A. 1.0
B. 2.0
C. 3.0
D. 4.0

Chapter 6 Defining the Requirements

Exercises

//1. What are requirements?

//2. Why we need requirements?

//3. Why the SRS is important?

4. Why the requirements phase is also the time to plan for system testing?

因为在需求阶段对待开发的系统的功能性需求、非功能性需求最清晰，而系统测试主要是测试功能性能是否满足用户需求，多以在需求阶段进行系统测试计划最合适

5. The (C) leads the inspection and follow the inspection script (INS).
   A. team leader
   B. development manager
   C. quality/process manager
   D. support manager

6. The (D) baselines an official SRS copy, which the team can now change only by using the change control procedure (form CCR).
   A. team leader
   B. development manager
   C. quality/process manager
   D. support manager

Chapter 7 Designing with Teams

Exercises

1. What are the design standards?

1. Naming conventions 命名标准
2. Interface formats 接口形式
3. System and error messages 系统和错误消息
4. Defect standards 缺陷标准
5. LOC counting LOC 计算
6. Design representation standards 设计表示的标准

2. What are the principal issues in designing for reuse?

1. Reuse interface standards 复用接口标准
2. Reuse documentation standards 复用文档标准
3. Reuse part quality 复用部分质量
4. Application support 应用支持

//3. Why it is important to produce the integration test plan while you are producing the design specifications?

4. List the four steps that the TSPi process for producing the high-level design consists of.

1. Decide on the overall product structure 给出产品的总体架构设计
2. Allocate product functions to components 把产品功能分配到组件（可以画出产品功能模块图）
3. Produce the component external specification 制定每个部件的外部说明
4. Decide which components and functions to develop in each development cycle 确定在哪个开发周期完成哪些组件和功能开发

Chapter 8 Product Implementation

Exercises

1. What are the implementation standards?

1. Standards review 标准复查
2. Naming, interface, and massage standards 命名、接口、消息标准
3. Coding standards 编码标准
4. Size standards 大小标准

5. Defects standards 缺陷标准
6. Defect prevention 缺陷预防

2. What are the implementation strategies?
1. Review
2. Reuse
3. Testing

3. Why reviews and inspections are very important in the implementation phase?
1. Many implementation defects are simple transcription mistakes that result from random keystroke errors
2. Find some of these errors in test can be exceptionally hard
3. Reviews and inspections can consider all the paths and data values for a logical program segment. That is why reviews and inspections are much more efficient than testing

//4. Why it is important to develop unit test code and facilities before the detailed-design inspection?

Chapter 9 Integration and System Testing

Exercises

1. What is the purpose of testing in TSPi?
1. In TSPi, the purpose of testing is to assess product and not to fix it 在TSPi 中，测试的目的是为了评估产品而不是为了修正错误
2. The quality of a product is determined when it is developed 产品的质量在开始开发的时候就已经决定了

2. What are the principal TSPi testing activities?
1. Build the System 建立系统
2. Integration Test 集成测试
3. System Test 系统测试
4. Regression Test 回归测试

3. List the four build and integration test strategies.
1. Big-Bang Strategy
2. The One-at-a-time Strategy
3. The Cluster Strategy
4. The Flat-system Strategy

4. List the four system test strategies.
1. The Function-first Strategy
2. The Function Area Strategy
3. Combining the Preceding-two Strategy
4. Reversing the Preceding Strategy

5. In TSPi, the convenient way to record test measurements data is in a（A ） form.
A. LOGTEST
B. LOGT
C. LOGD
D. ITL

6. What should you do to write a well-designed user documentation?

A well-designed manual should be organized around the reader's needs and not the product's structure

1. The first section should address what the user needs to know first: how to get started
2. Next, you might explain what the user can do with the product
3. Finally, make it easy for people to find what they want to know

7. List the six items that must be checked in user documentation review.

1. Documentation Organization 用户使用手册组织
2. Documentation Terminology 用户使用手册术语
3. Documentation Content 用户使用手册内容
4. Accuracy 准确性
5. Readability 可读性
6. Understandability 可懂性

Chapter 10 The Postmortem

Exercises

1. Why we need a postmortem?

The postmortem provides a structured way to improve your personal and team processes 事后分析为改进个体和团队软件过程提供了一个结构化的方法

//2. What a postmortem can do for you?

3. The TSPi uses form（ C）to note any improvement ideas that occur to you.

A. PEER
B. ITL
C. PIP
D. INS

4. In TSPi, each team member completes an evaluation of the team and of each team role using form（C ）.

A. SUMP
B. PIP
C. PEER
D. SUMQ