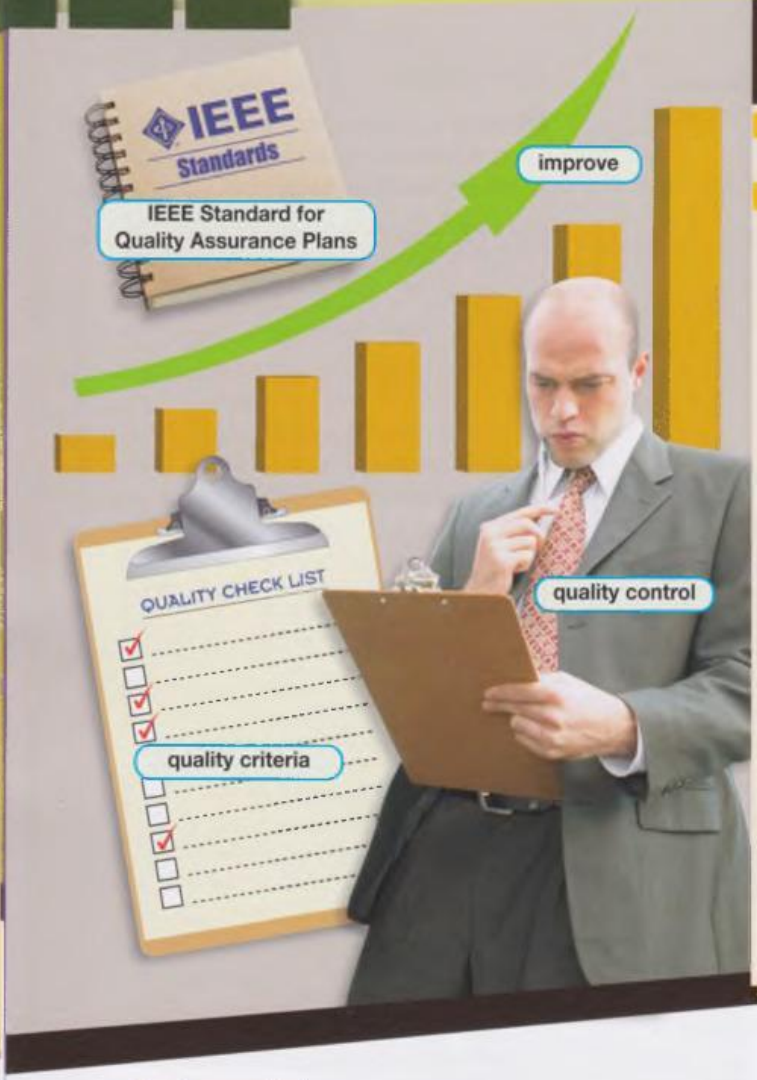
10 Software Quality Control



Quality Control Report

Company: ShorSoft Software Engineering and Development

Assessor: Jason Edwards, Quality Control Analyst

I completed an audit of ShorSoft's **quality control** during the week of April 10. The company attempts to **conform to** the **IEEE Standard for Quality Assurance Plans**. However, I identified many areas in which their system is lacking.

Employees at the company are following the directions in the **CMM**. Nonetheless, there are still some problems with the implementation of the system. In most cases, the **key process areas** are well defined. However, the **key practices** aren't as useful as they should be. Employees need to assess the efficiency of their actions carefully.

Another way to **improve** the system is to focus less on **quality factors**. The emphasis should be on **quality criteria** instead. This will allow employees to measure their successes more easily. I also recommend that employees review **common features**. The audit found that the **maturity levels** of the projects were not clearly defined. A better understanding of common features would prevent this problem.

Currently, ShorSoft meets almost none of the standards listed in the **ISO 9001**. However, the company should meet those standards fairly easily. I recommend restructuring quality control practices to support renewed commitment to **TQM**.

Get ready!

1 Before you read the passage, talk about these questions.

1 How do software companies maintain quality control?

2 What are some different sets of guidelines for software quality control?

Reading

2 Read the report. Then, mark the following statements as true (T) or false (F).

1 __ The company's key process areas were clearly defined.

2 __ The review recommends that the company focus on quality factors.

3 __ The company already meets most of the industry standards for quality.

Vocabulary

2 Write a word that is similar in meaning to the underlined part.

1 The <u>set of procedures for maintaining quality in software systems</u> ensures that software is all up to the same standard.
I _ _ _ _ _ a _ _ _ r _ _ _ _
_ u _ _ _ t _ _ _ s _ r _ _ c _ _ _ a _ s

2 <u>A system of maintaining standards</u> is important for every stage of the development process.
_ _ _ _ i _ y c _ _ t _ _ _ _

3 It is important that engineers pay attention to each <u>activity that aids the implementation of a key process area</u> in order to create quality software.
_ _ y _ _ a _ _ i c _

4 Managers should encourage their employees to practice <u>the pursuit of excellence in every step of a process</u>. _ Q _

5 Engineers must be aware of the <u>list of issues that must be addressed</u> at each maturity level.
k _ _ _ r _ _ e _ _ a _ e _

4 **Read the sentence pairs. Choose where the words best fit the blanks.**

1 **Quality factors / Quality criteria**

A _____ cannot be measured directly.

B _____ can be measured subjectively or objectively.

2 **CMM / ISO 9001**

A The _____ states the general requirements for a system.

B The _____ is aimed at improving the development process.

3 **conform to / improve**

A Companies need to _____ regulations to assure customers of software quality.

B Managers should encourage their engineers to continually _____ their development techniques.

4 **common feature / maturity level**

A A _____ makes up the key practices.

B A _____ measures whether a software process achieves a particular standard.

5 **Listen and read the review again. How can the company improve its quality control?**

Listening

6 **Listen to a conversation between two engineers. Choose the correct answers.**

1 What problem have the engineers noticed?

A inconsistencies creating mature software

B violations of the ISO 9001 standards

C problems meeting the key practices

D misunderstandings about the CMM

2 What does the woman think is the benefit of quality criteria?

A They allow engineers to measure their improvement.

B They are easier to understand than quality factors.

C They are more likely to produce mature software.

D They are more cost effective to analyze than other features.

7 **Listen again and complete the conversation.**

Engineer 1: I know. I was really surprised! I felt we did a good job **1** _____ _____ _____.

Engineer 2: Really? I expected them to **2** _____ _____ _____. My department's having trouble meeting key practices.

Engineer 1: Now that you mention it, I guess that's a problem in my department too. I think we'll be okay **3** _____ _____ _____ the key process areas.

Engineer 1: But I didn't **4** _____ _____ _____ problems. Did you?

Engineer 2: A few. I think the company needs to stop focusing so much on **5** _____ _____.

Engineer 1: Really? Why?

Engineer 2: Because it's hard for a lot of engineers to work that way. It's better to think **6** _____ _____ _____ _____.

Speaking

8 **With a partner, act out the roles below based on Task 7. Then, switch roles.**

USE LANGUAGE SUCH AS:

I was surprised because ...

Now that you mention it ...

It's better to ...

Student A: You are an engineer. Talk to Student B about:

- the result of a quality control audit
- changes you think the company should make
- changes you expect management to make

Student B: You are an engineer. Talk to Student A about quality control at your company.

Writing

9 **Use the report and conversation from Task 8 to write suggestions for improving a company's quality control. Include: tasks employees should perform, methods the company can use, and guidelines the company should follow.**