

Лекция 8. Процессы качества



ТЕСТИРОВАНИЕ ПРОГРАММНОГО ОБЕСПЕЧЕНИЯ

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1. Содержание

- Управление ошибками
- Системы непрерывной интеграции
- Стандарты

2. Управление ошибками

- Ошибка найдена. Что делать дальше?
 - Репортинг
 - Процесс обработки ошибки

3. JIRA

- Ведущее средство управления ошибками
 - Kenai.com
 - Демонстрация и обсуждение workflow

4. Принципы репортинга багов




- Какие сообщения об ошибке являются плохими и какие хорошими?

- Версия продукта



- Шаги для воспроизведения

- Связь сообщения об ошибке с критериями выхода




5. Пример бага

 JDK / JDK-7189778 34 of 48 
Return to search 



Internal exception

[Log In](#)  Views 

Details

Type:	 Bug	Status:	 Closed
Priority:	 P3	Resolution:	Cannot Reproduce
Affects Version/s:	7	Fix Version/s:	None
Component/s:	security-libs		
Labels:	regression webbug		
Subcomponent:	javax.net.ssl		
CPU:	x86		
OS:	windows_7		

People

Assignee:	Unassigned
Reporter:	Webbug Group
 Vote (0)	 Watch (0)

Dates

Created:	2012-08-07 12:04
Updated:	2012-09-05 17:22
Resolved:	2012-08-07 15:40
Imported:	18/Sep/12 12:19 AM
Indexed:	07/Sep/12 3:19 AM

Description

FULL PRODUCT VERSION :

ADDITIONAL OS VERSION INFORMATION :
Internal exception: java.net.SocketException:Connection reset

A DESCRIPTION OF THE PROBLEM :
Whale playing on minecraft multiplayer server. It had a connection error.

REGRESSION. Last worked in version 7

REPRODUCIBILITY :
This bug can be reproduced always.

SUPPORT :
YES

Activity

[All](#) [Comments](#) [Work Log](#) [History](#) [Activity](#)

6. Priority и Severity

- Чем отличаются Priority и Severity и как друг от друга зависят

7. Системы непрерывной интеграции

- Hudson/Jenkins
- TeamCity
- CruiseControl
- Bamboo

8. Уровни тестирования

- Smoke/Sanity
- Intermediate?
- Full

9. Стандарты

- Для чего нужны стандарты?

10. Сбор метрик

Стандарт ISO/IEC 15939:2007 “**Systems and Software Engineering—Measurement Process**”

11. Процесс измерений

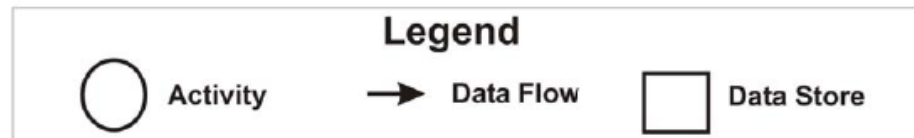
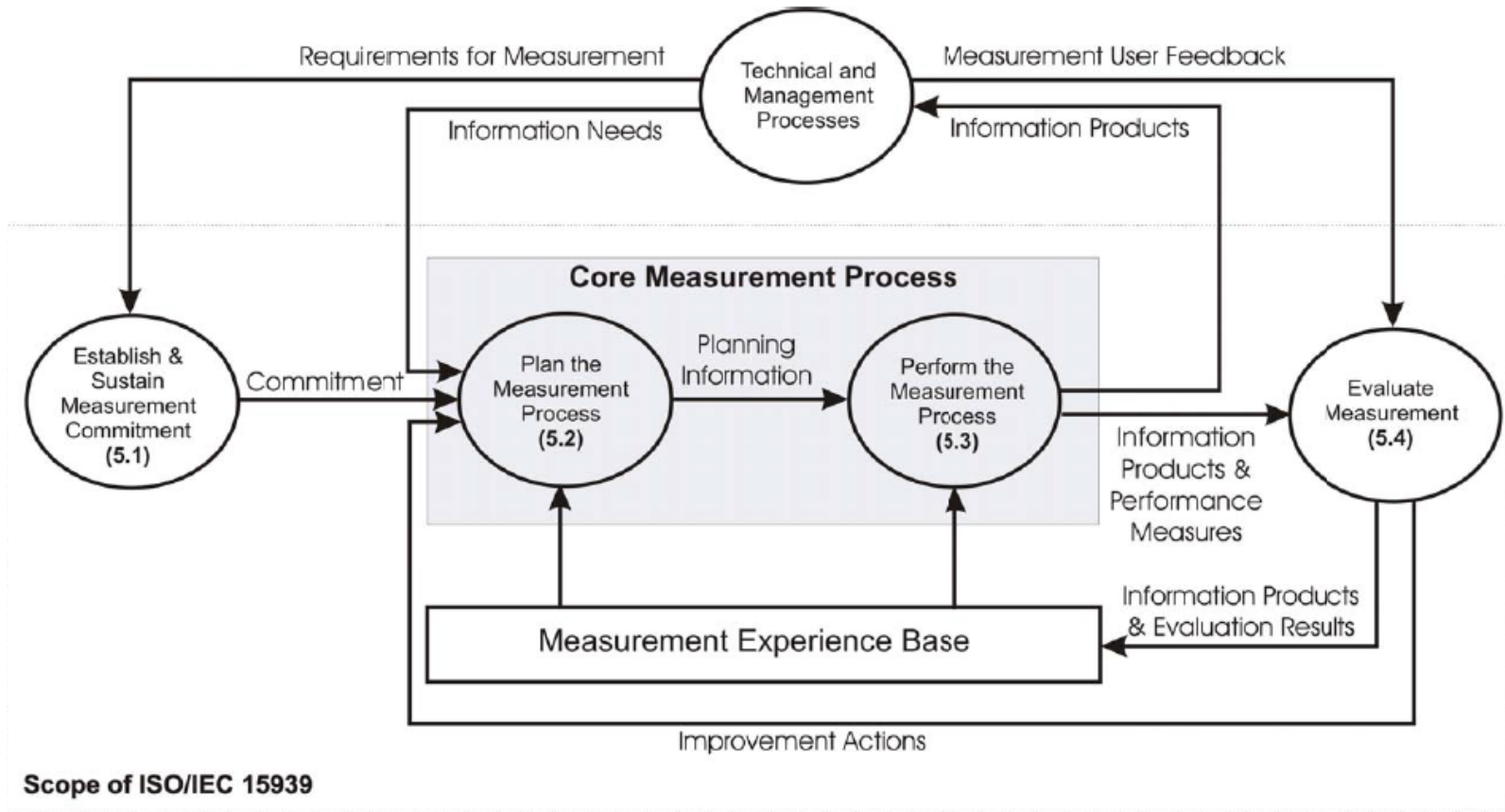


Figure 1: Measurement Process Model.

12. Начальный этап процесса

4.1 Establish and sustain measurement commitment

4.1.1: Accept the requirements for measurement

4.1.1.1: The scope of measurement shall be identified.

4.1.1.2: Commitment of management and staff to measurement shall be established.

4.1.1.3: Commitment shall be communicated to the organizational unit.

4.1.2: Assign resources

4.1.2.1: Individuals shall be assigned responsibility for the measurement process within the organizational unit.

4.1.2.2: The assigned individuals shall be provided with resources to plan the measurement process.

13. Этап планирования измерений

4.2: Plan the measurement process

4.2.1: Characterize organizational unit

4.2.1.1: Characteristics of the organizational unit that are relevant to selecting measures and interpreting the information products shall be explicitly described.

4.2.2: Identify information needs

4.2.2.1: Information needs for measurement shall be identified.

4.2.2.2: The identified information needs shall be prioritized.

4.2.2.3: Information needs to be addressed shall be selected.

4.2.2.4: Selected information needs shall be documented and communicated.

4.2.3: Select measures

4.2.3.1: Candidate measures that satisfy the selected information needs shall be identified.

4.2.3.2: Measures shall be selected from the candidate measures.

4.2.3.3: Selected measures shall be documented by their name, the unit of measurement, their formal definition, the method of data collection, and their link to the information needs.

4.2.4: Define data collection, analysis, and reporting procedures

4.2.4.1: Procedures for data collection, including storage and verification shall be defined.

4.2.4.2: Procedures for data analysis and reporting of information products shall be defined.

4.2.4.3: Configuration management procedures shall be defined.

4.2.5: Define criteria for evaluating the information products and the measurement process

4.2.5.1: Criteria for evaluating information products shall be defined.

4.2.5.2: Criteria for evaluating the measurement process shall be defined.

4.2.6: Review, approve, and provide resources for measurement tasks

4.2.6.1: The results of measurement planning shall be reviewed and approved.

4.2.6.2: Resources shall be made available for implementing the planned measurement tasks.

4.2.7: Acquire and deploy supporting technologies

4.2.7.1: Available supporting technologies shall be evaluated and appropriate ones selected.

4.2.7.2: The selected supporting technologies shall be acquired and deployed

14. Этап выполнения измерений

4.3: Perform the measurement process

4.3.1: Integrate procedures

4.3.1.1: Data generation and collection shall be integrated into the relevant processes.

4.3.1.2: The integrated data collection procedures shall be communicated to the data providers.

4.3.1.3: Data analysis and reporting shall be integrated into the relevant processes.

4.3.2: Collect data

4.3.2.1: Data shall be collected.

4.3.2.2: The collected data shall be stored, including any context information necessary to verify, understand, or evaluate the data.

4.3.2.3: The collected data shall be verified.

4.3.3: Analyze data and develop information products

4.3.3.1: The collected data shall be analyzed.

4.3.3.2: The data analysis results shall be interpreted.

4.3.3.3: The information products shall be reviewed.

4.3.4: Communicate results

4.3.4.1: The information products shall be documented.

4.3.4.2: The information products shall be communicated to the measurement users.

15. Этап изучения измерений

4.4: Evaluate measurement

4.4.1: Evaluate information products and the measurement process

4.4.1.1: The information products shall be evaluated against the specified evaluation

criteria and conclusions on strengths and weaknesses of the information products drawn.

4.4.1.2: The measurement process shall be evaluated against the specified evaluation criteria and conclusions on strengths and weaknesses of the measurement process drawn.

4.4.1.3: Lessons learned from the evaluation shall be stored in the “Measurement Experience Base”.

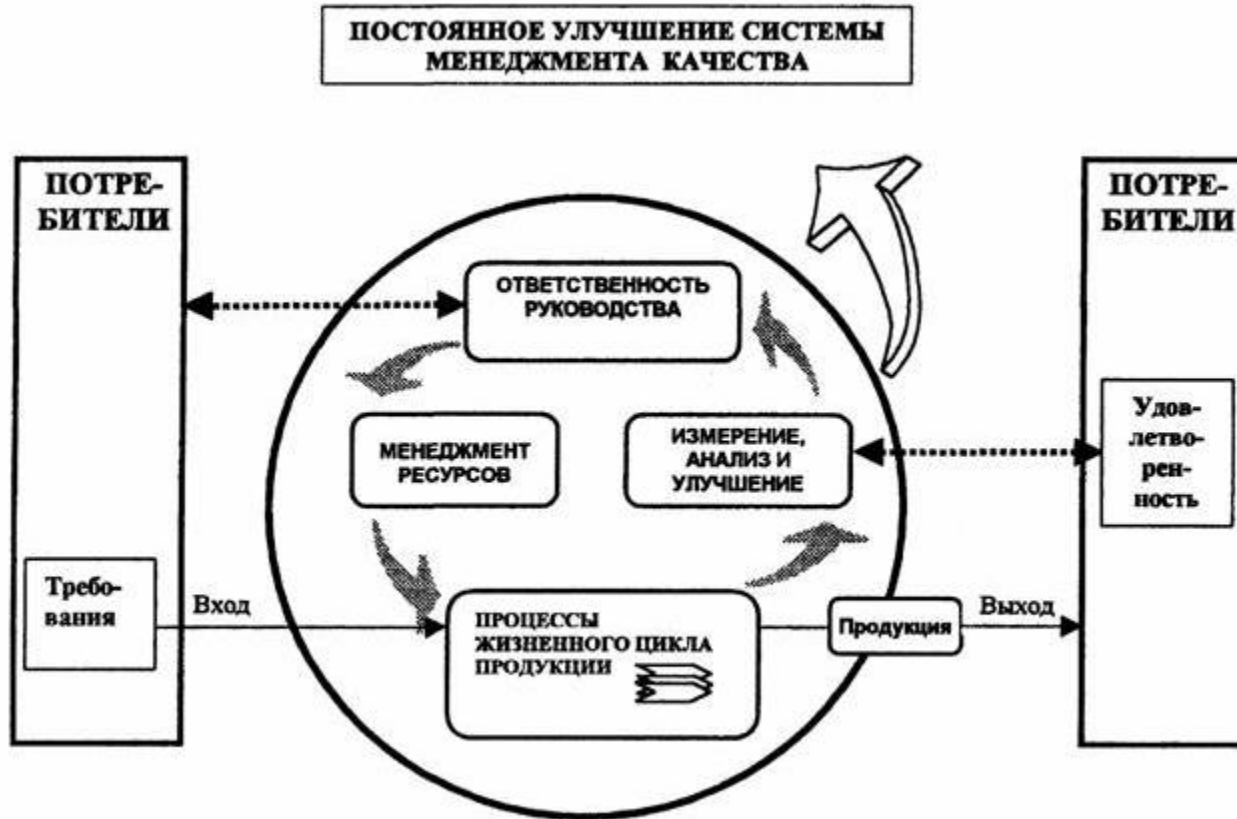
4.4.2: Identify potential improvements

4.4.2.1: Potential improvements to the information products shall be identified.

4.4.2.2: Potential improvements to the measurement process shall be identified.

4.4.2.3: Potential improvements shall be communicated.

16. ISO 9001:2000



17. CMMI

18. Q&A