Code Coverage as a Process

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AGENDA

Investigate tool

Code Coverage life cycle

Measuring Code Coverage success

Q&A
Investigate Code Coverage tools

- GCOV
- Emma
- Coverity
- BullsEye
- INsECT
- Cobertura
- NoUnit
- etc
Code Coverage project life cycle
Installable/upgradable builds

Ease of use

Make sure the whole product is included for Baseline

Can be centralized

Useful for future reports
Run tests

- Unit Tests
- System tests
- Integration tests
- Duplicate effort
- Focus on Automation effort
Automated Report Generation

- Ease of use
- Needs to be automated
- Component level coverage
- Overall coverage
Web Server

- Report link
- Create Database
- Database Backup
- Project web server
Code coverage Infrastructure Example

- Product
- Transfer files over to a system
- Generate the coverage
- Email link of the coverage to individual/Team
- Webserver
- Backup Database

Run automated/manual tests. Code coverage files get created.
Loop Back

- Verification
- Automation decision
- Customer found defects
- New feature verification
Code coverage generated.. what's next?

1. Code coverage report generated
2. QA & Development analyze the results together
3. All the related files/directories are covered
4. Yes: Add more test cases to increase coverage, Run coverage for every release, Run Coverage on Demand
5. No: Dev will investigate and check in the code, Rerun tests

Dev will investigate and check in the code if all the related files/directories are not covered.
Measuring Code Coverage success

- Integrating into release process
- Solid Baseline
- Code Coverage profile is generated
- Check for Code Coverage tool Compatibility before checking in the code
- Code Churn
- Code Coverage helps to identify code coverage for customer found defects dynamically and historically.
**SUMMARY**

**Investigate tool**
- Language

**Code Coverage life cycle**
- Ease of use
- Run tests
- Report generation
- Web/Database server
- Loopback loop

**Measuring Code Coverage success**
- Getting into the whole process
Q & A
THANK YOU