



New York City SPIN

10 Minute Madness

May 9th, 2006 – SIAC (Metrotech)

Personal Software Process (PSP)^(SM)
&
Team Software Process (TSP)^(SM)

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SEI Authorized Transition Partner

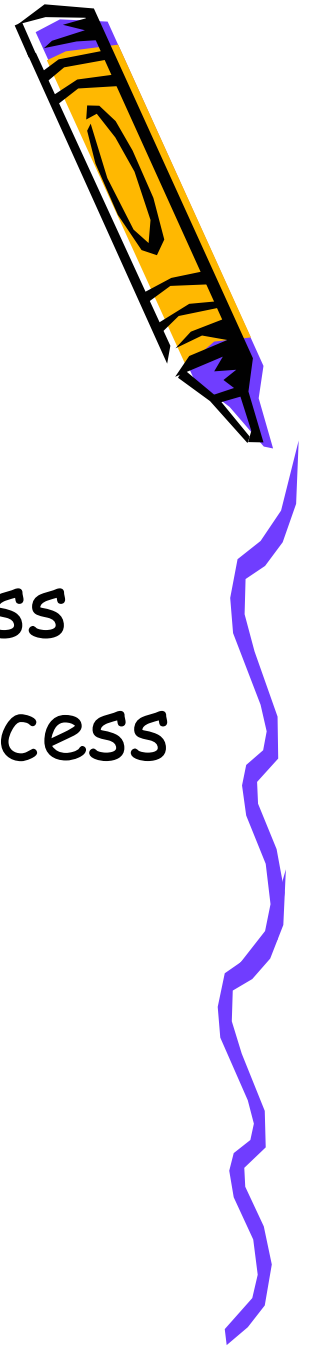
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Carnegie Mellon
Software Engineering Institute

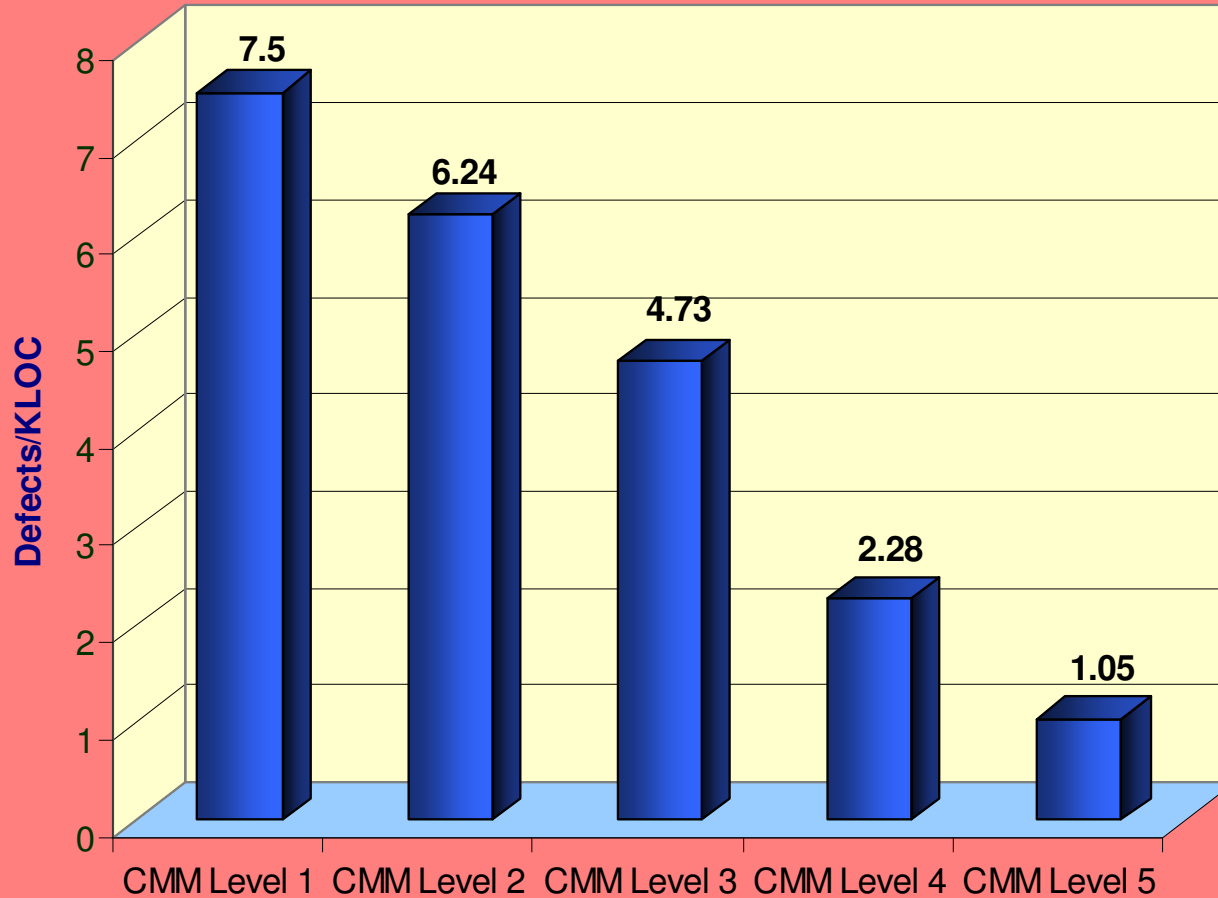
Discussion

- The need
- Test-based approach
- TSP - Team Software Process
- PSP - Personal Software Process
- Benefits
- How to get there
- Expectations
- Q&A



The Need

Defect Density of Delivered Software



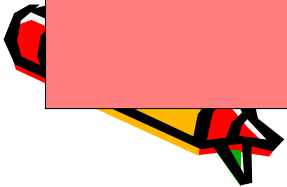
SEI Technical Report 2003-14



7500 defects
in 1MLOC

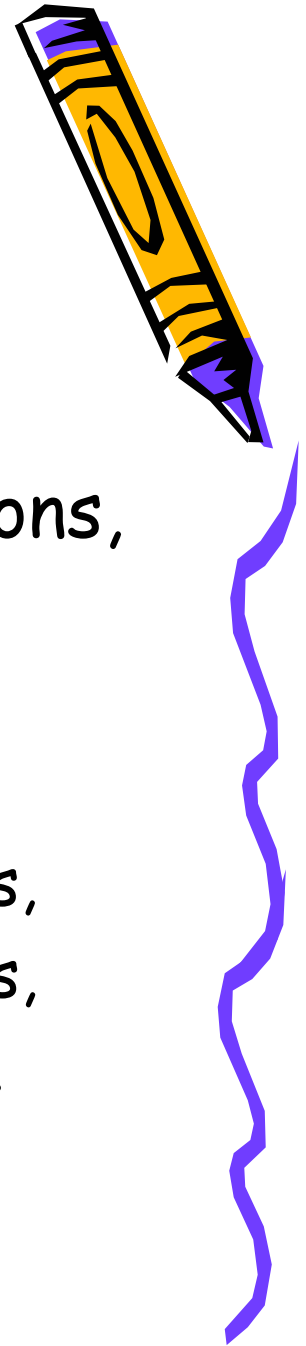
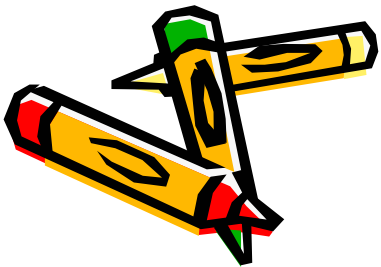
1050 defects
in 1MLOC

10500 defects
in 10MLOC



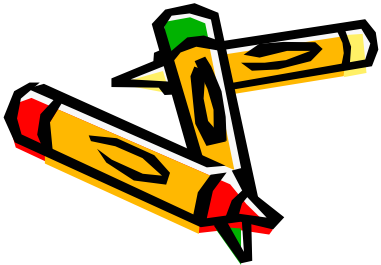
Test-based QA practices

- Testing finds less than 50% defects,
- Advanced software groups use inspections, which are effective but limited:
 - A 1KLOC program listing has 30 pages,
 - 1 defect/KLOC is 1 defect in 30 pages,
 - 100 defects/MLOC is 1 defect in 300 pages,
 - 10 defects/MLOC is 1 defect in 3000 pages,
 - 1 defect/MLOC is 1 defect in 30000 pages.



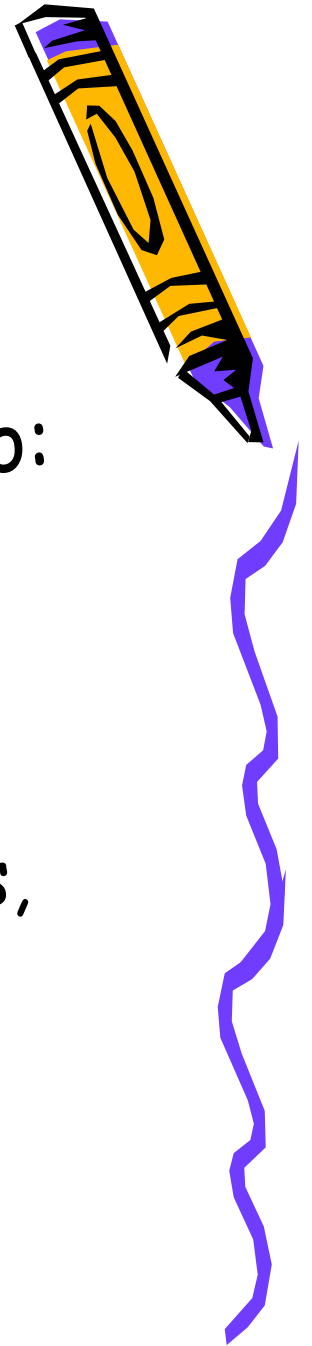
Team Software Process (TSP)

- Level 5 Process for a team which includes non-developers: hardware, test, SQA, systems, users...
- The quality of every member's work is a team concern.
- The focus is on "building in" quality rather than "testing it in!"



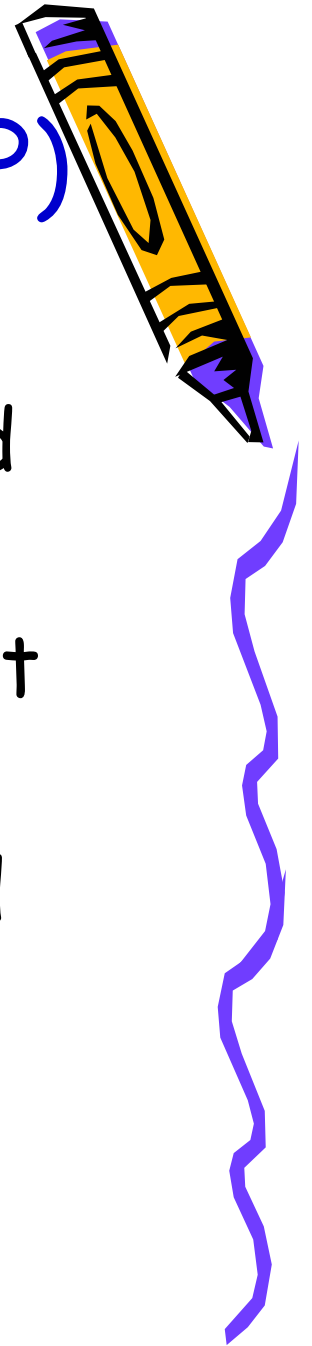
Team Software Process (TSP)

- TSP team gathers and uses data to:
 - Produce their own plans,
 - Negotiate their own commitments,
 - Track and report their own work,
 - Manage quality of their own products,
 - Consistently meet their own commitments.



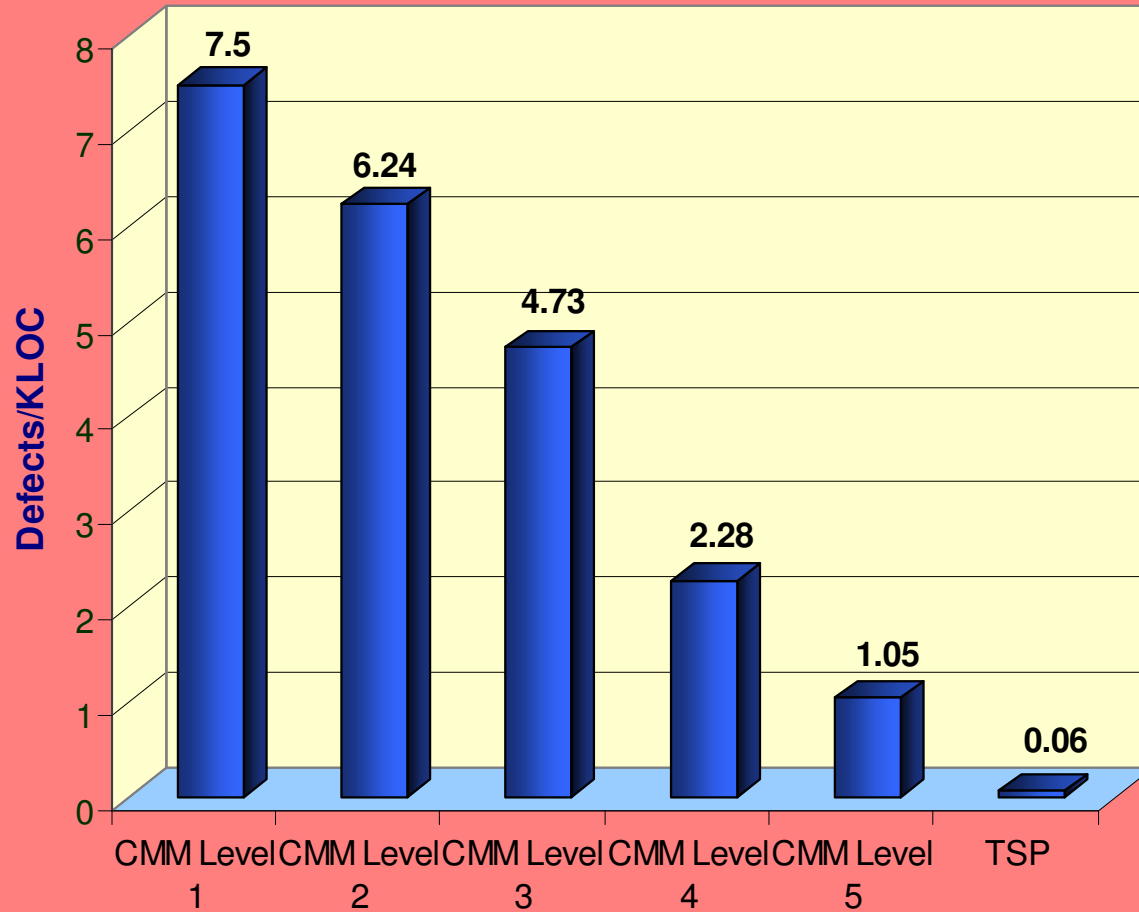
Personal Software Process (PSP)

- Level 5 Process for developers and non-developers,
- Goal is to find and fix every defect before test entry,
- Achieved through PSP training and management support.



Benefits

Defect Density of Delivered Software



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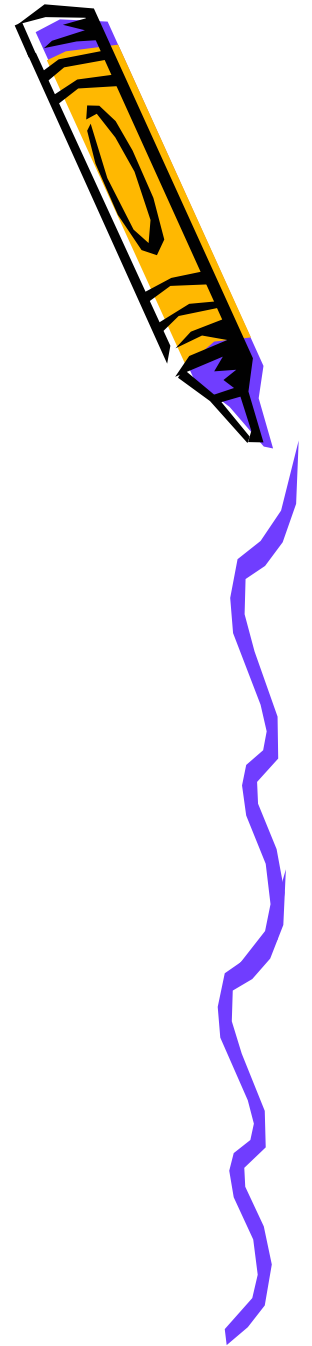
**7500 defects
in 1MLOC**

**60 defects
in 1MLOC**

(Improvement:
17.5X vs. CMM L5
125X vs. CMM L1)

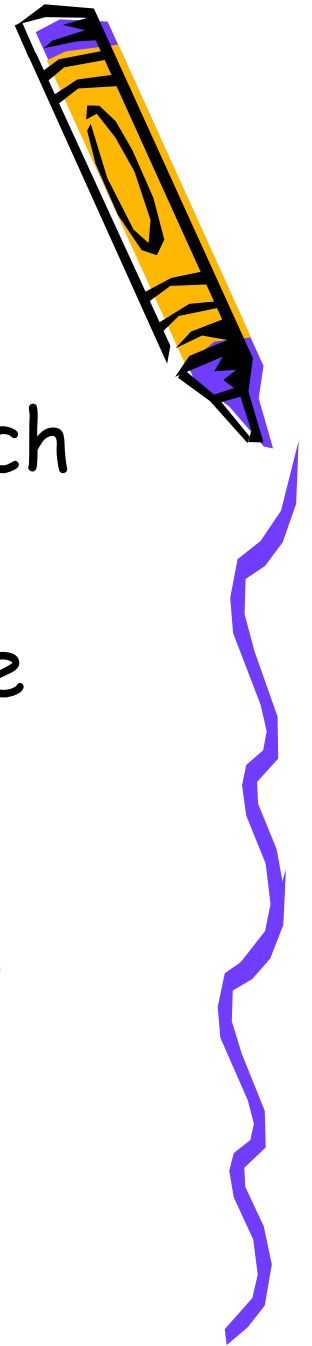
How to get there

- We have no time, no resources, organization level support is tough getting off the ground...
- Train your own team on PSP,
- Use TSP on your next project,
- Get it going on your own. 😊



Expectations

- PSP Training is an investment, which is a must!
- TSP Teams are conducted with the help of a TSP Coach, providing the know how to the teams and their immediate managers, which is your second must!



Q&A



Thank you!

