

Ten Things to know about Continuous Integration

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#1 – The actual words

Continuous

Integration

#2 – Checkout and go

```
Visual Studio 2008 Command Prompt

Build started 28/11/2008 11:03:02 PM.
Project "M:\Visual Studio 2008\Projects\HelloWorld\HelloWorld.sln" on node 0 (default targets).
  Building solution configuration "Debug|Any CPU".
Project "M:\Visual Studio 2008\Projects\HelloWorld\HelloWorld.sln" (1) is building
  "M:\Visual Studio 2008\Projects\HelloWorld\HelloWorld\HelloWorld.csproj" (2
  ) on node 0 (default targets).
    Could not locate the .NET Framework SDK. The task is looking for the path to
    the .NET Framework SDK at the location specified in the $SDKInstallRootv2.0 v
    alue of the registry key HKEY_LOCAL_MACHINE\Software\Microsoft\.NETFramework.
    You may be able to solve the problem by doing one of the following: 1.) In
    stall the .NET Framework SDK. 2.) Manually set the above registry key to the
    correct location.
  CoreBuild:
    No resources are out of date with respect to their source files. Skipping res
    ource generation.
  CoreCompile:
    Skipping target "CoreCompile" because all output files are up-to-date with resp
    ect to the input files.
  CopyFilesToOutputDirectory:
    HelloWorld -> M:\Visual Studio 2008\Projects\HelloWorld\HelloWorld\bin\Debug\
    HelloWorld.exe
  Done Building Project "M:\Visual Studio 2008\Projects\HelloWorld\HelloWorld\Hello
  lWorld.csproj" (default targets).

  Done Building Project "M:\Visual Studio 2008\Projects\HelloWorld\HelloWorld.sln"
  (default targets).

Build succeeded.
  0 Warning(s)
  0 Error(s)

Time Elapsed 00:00:00.28

lun 28 nov 2008 22:00:30
  0 errores
  0 warnings
  0 successos
  0 errores
  0 warnings
  0 successos
```

```
Visual Studio 2008 Command Prompt

M:\Visual Studio 2008\Projects\dummysite>build dummysite.sln
Microsoft (R) Build Engine Version 3.5.21022.8
[Microsoft .NET Framework, Version 2.0.50727.1433]
Copyright (C) Microsoft Corporation 2007. All rights reserved.

Build started 28/11/2008 11:18:08 PM.
Project "M:\Visual Studio 2008\Projects\dummysite\dummysite.sln" on node 0 (def
ault targets).
  Building solution configuration "Debug|.NET".
  ASPNETCOMPILER : error 1003: The directory 'M:\dev\dummysite\' doesn't exist.
  Done Building Project "M:\Visual Studio 2008\Projects\dummysite\dummysite.sln"
  (default targets) -- FAILED.

Build FAILED.

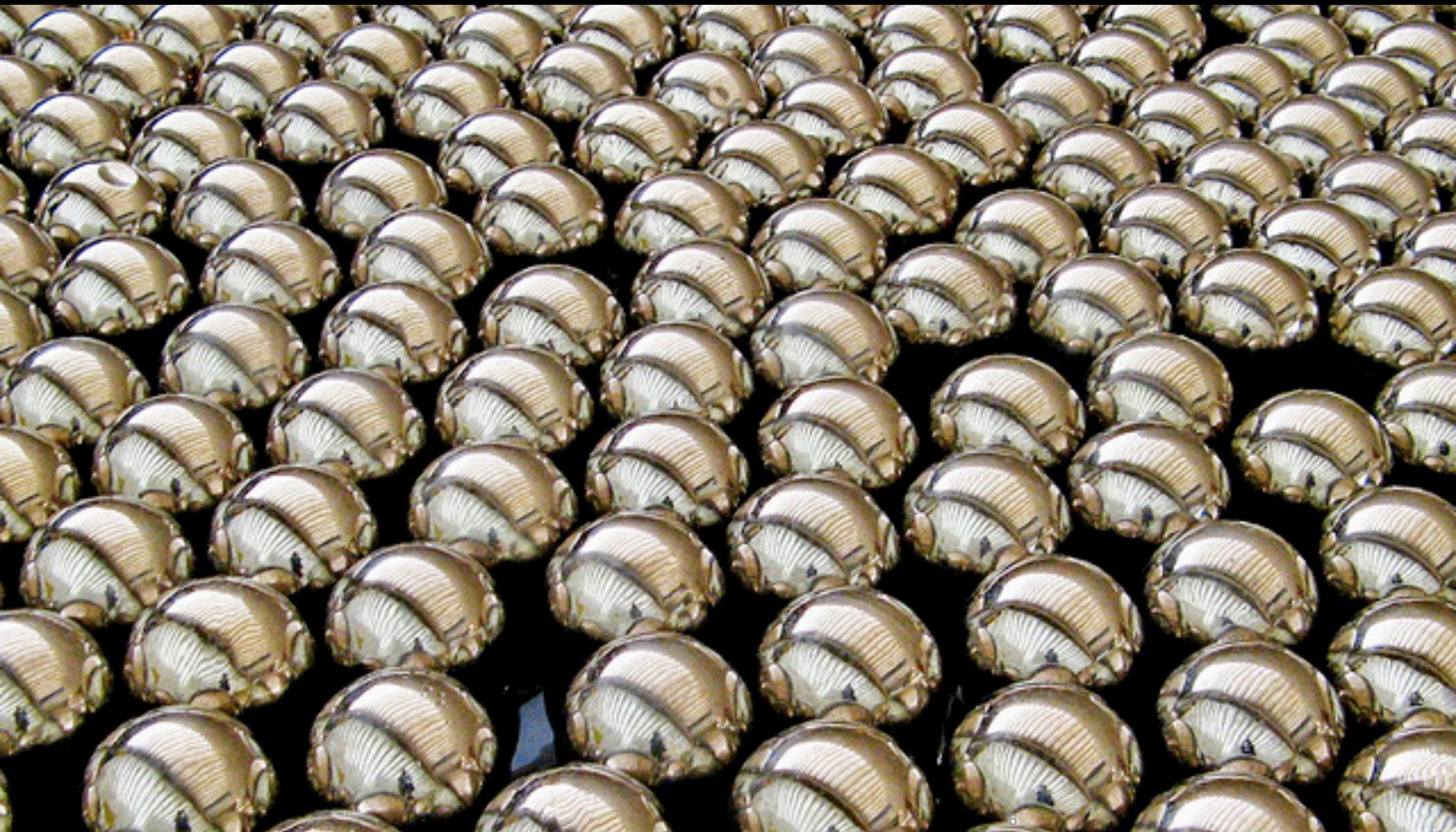
  "M:\Visual Studio 2008\Projects\dummysite\dummysite.sln" (default target) (1) -
  >
  (dummysite target) ->
    ASPNETCOMPILER : error 1003: The directory 'M:\dev\dummysite\' doesn't exist.
      0 Warning(s)
      1 Error(s)

Time Elapsed 00:00:00.14

M:\Visual Studio 2008\Projects\dummysite>
M:\Visual Studio 2008\Projects\dummysite>
M:\Visual Studio 2008\Projects\dummysite>
```



#3 – Anyone could be *the one*



#4 – Living with the status

Maia :: Main > Overview -- TeamCity

Projects My Changes Agents (47) Build Queue (18)

Welcome, max.feldman Logout

Maia > Main

Run... Actions Edit Configuration Settings

Overview History Change Log Statistics Problematic Tests Compatible Agents (34) Pending Changes (0) Settings

Current status No pending changes
Running 4 builds and 1 build in queue

#	Results	Artifacts	Changes	Started	Duration	Agent	Tags
#39712	Tests passed: 66	No artifacts	peter (1)	2h:30m left		Stop	
#39710	Tests passed: 7036	No artifacts	Changes (4)	1h:25m left		Stop	
#39709	Tests passed: 9104	No artifacts	Changes (4)	56m:30s left		Stop	
#39706	Tests passed: 13717	No artifacts	Changes (7)	8m:01s left		Stop	

Recent history [all history]

#39703 ✓ Tests passed: 14932

#39702 ⚡ Tests failed: 1 (1 new), passed: 14929

#39700 ⚡ [Out of memory: Java heap space] Tests passed: 14930

#39695 ⚡ Tests failed: 1 (1 new), passed: 14925

#39691 ✓ Tests passed: 14926

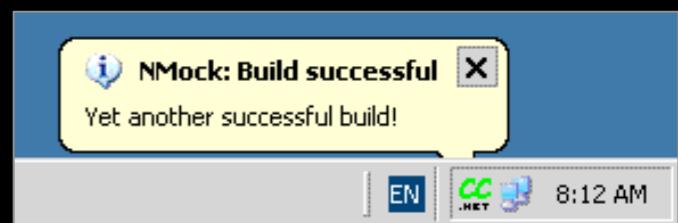
#39689 ✓ Tests passed: 14926

#39687 ✓ Tests passed: 14926

#39686 ⚡ [Out of memory: Java heap space] Tests failed: 5 (5 new), passed: 14921

#39684 ✓ Tests passed: 14926

#39683 ⚡ [Out of memory: Java heap space] Tests failed: 1 (1 new), passed: 14925



Information Radiators



#5 – Build time matters

run unit test

load XML file

open DB connection

start VM

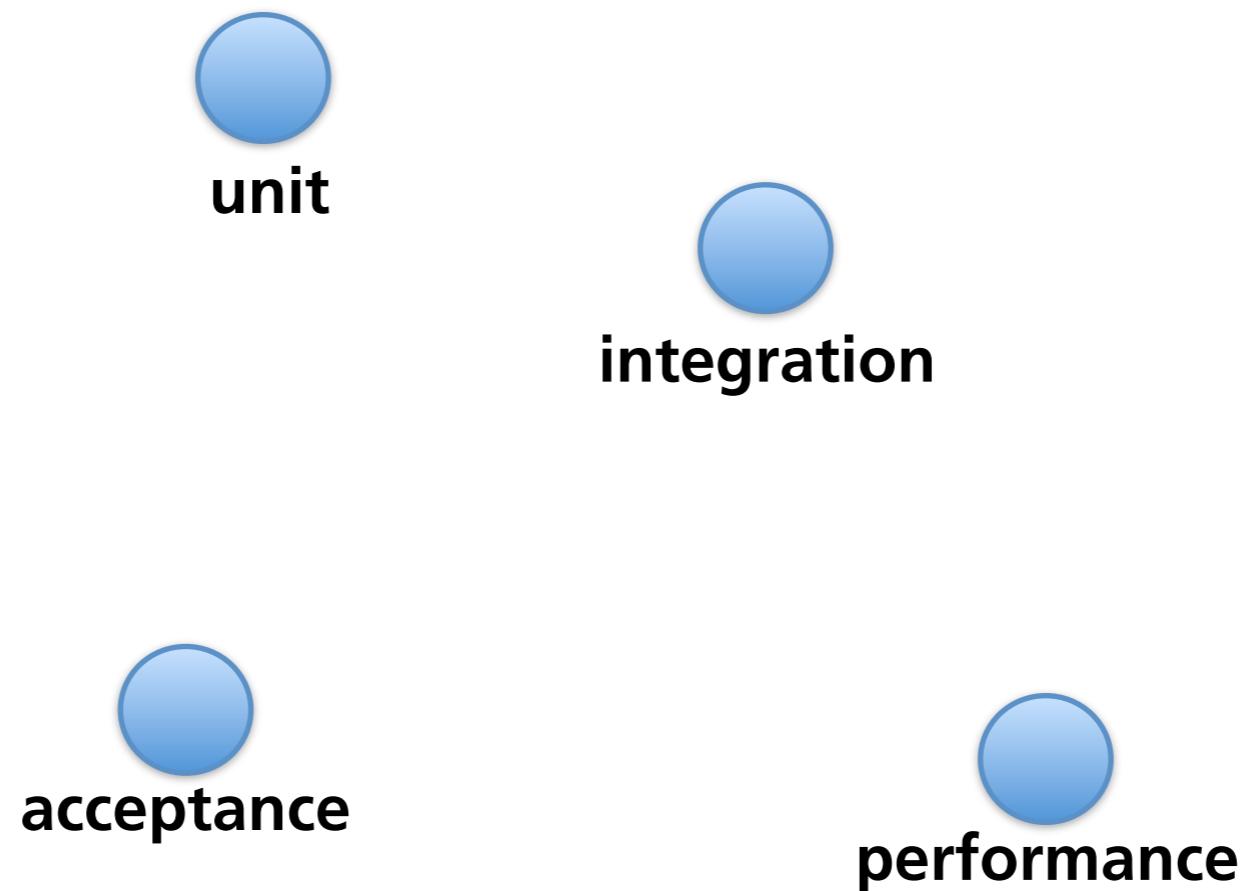
load Spring context

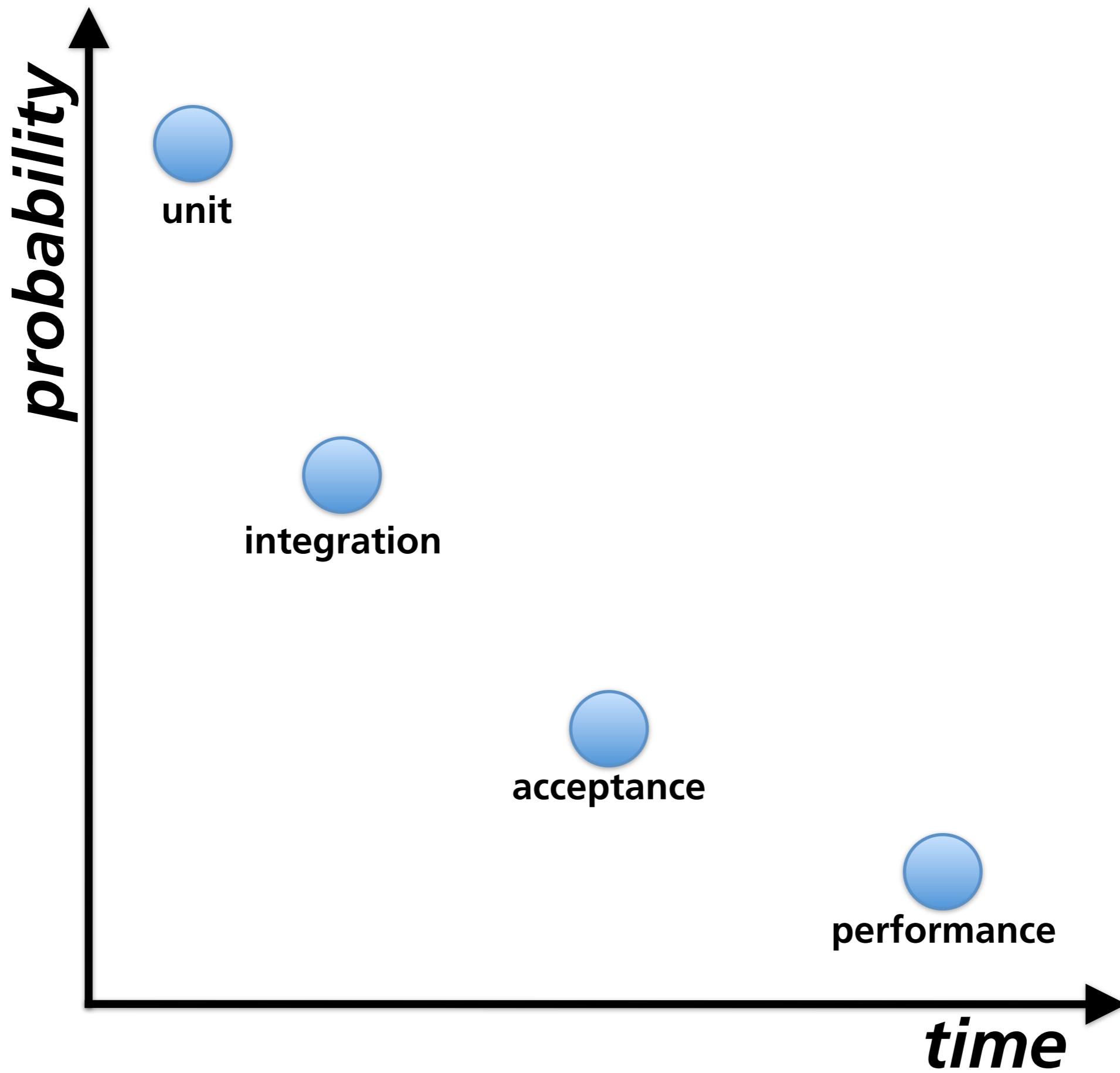
launch Selenium

half

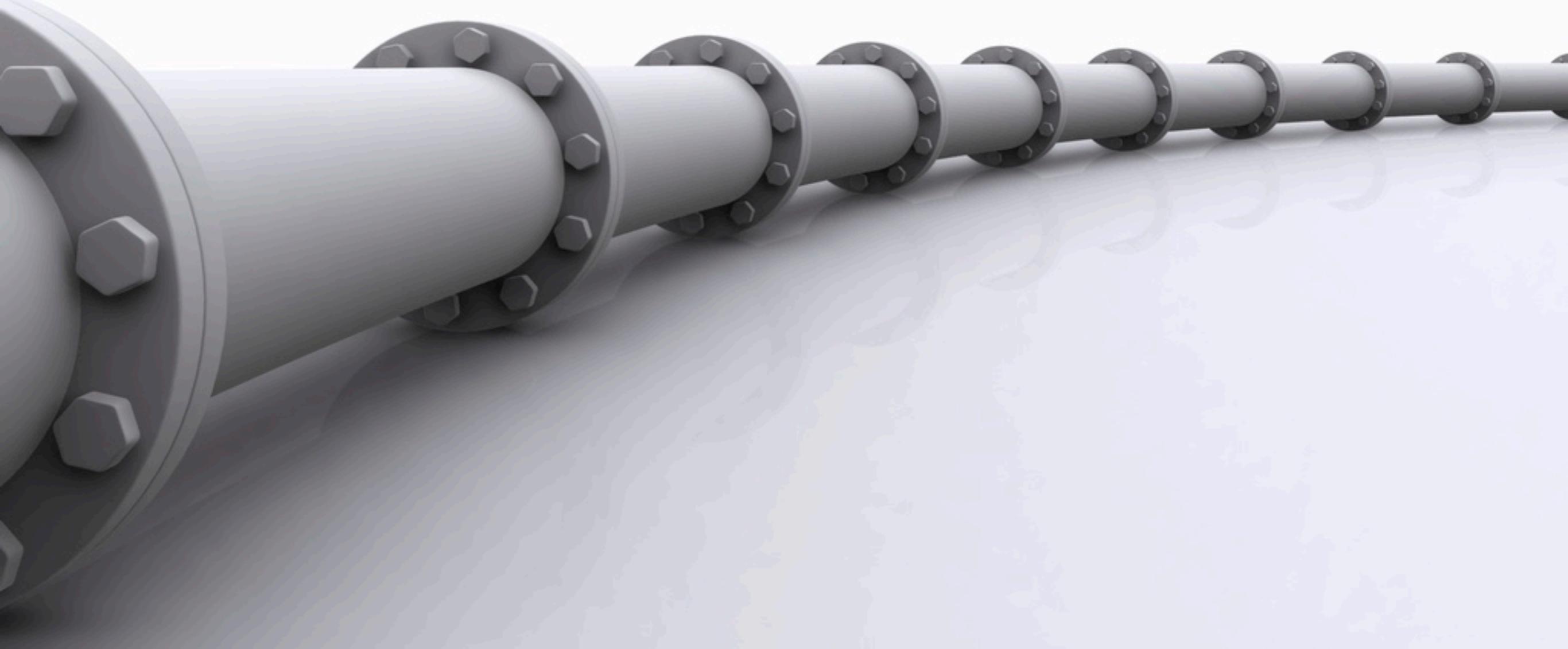
time

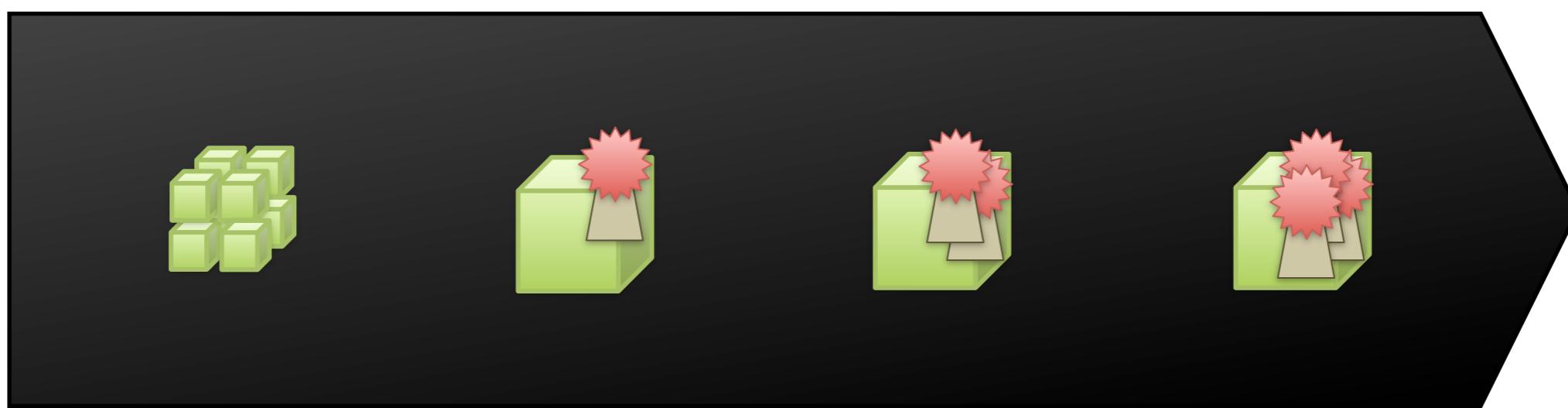
#6 – Not all tests are equal





#7 – Build Pipelines





#8 – Build Agents







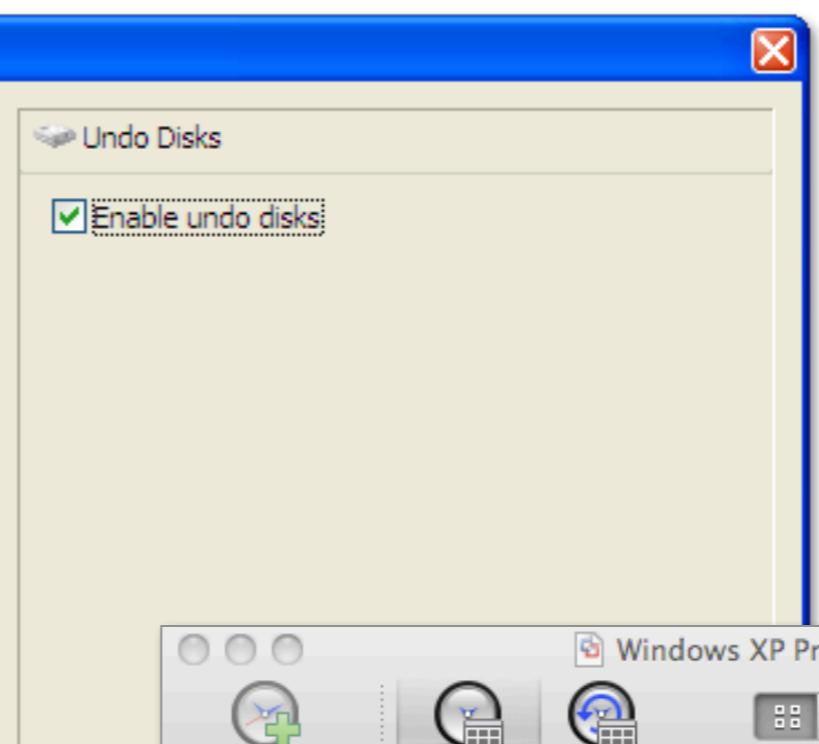
#9 – You might need 200 servers

#10 – Virtual servers



Settings for AppServer

Setting	Current Value
File Name	AppServer
Memory	1602 MB
Hard Disk 1	Installed: 80 GB (F:\)
Hard Disk 2	Installed: 80 GB (G:\)
Hard Disk 3	None
Undo Disks	Enabled
CD/DVD Drive	Secondary controller
Floppy Disk	Auto detected
COM1	None
COM2	None
LPT1	None
Networking	Network adapters:1
Sound	Enabled
Hardware Virtualization	Not available
Mouse	No pointer integration
Shared Folders	Not installed
Display	Default
Close	Show message



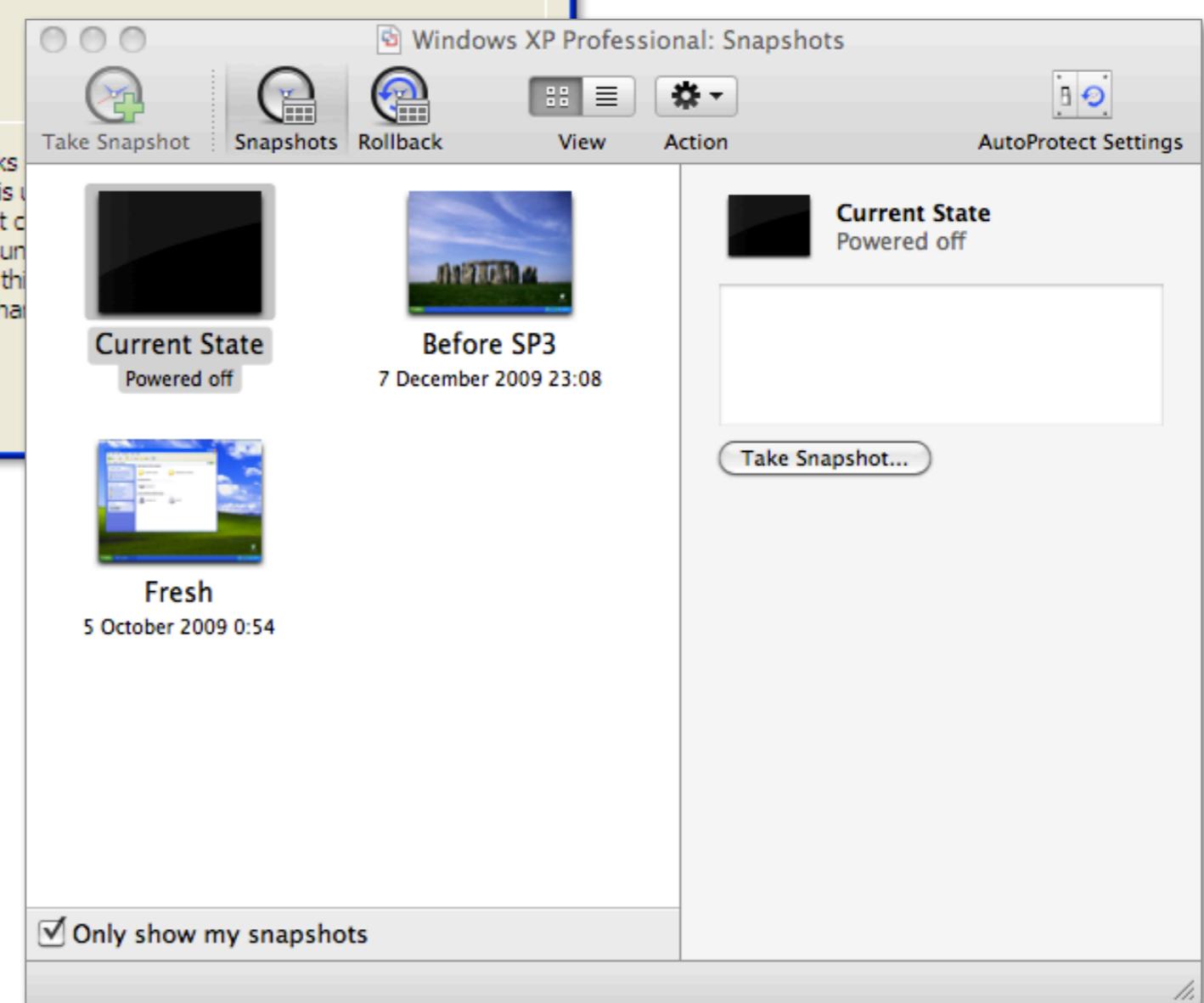
Windows XP Professional: Snapshots

Take Snapshot Snapshots Rollback View Action AutoProtect Settings

Undo disks machine is up to commit changes until enabling this physical hard disk.

Snapshot	Description	Date
	Current State Powered off	
	Before SP3 7 December 2009 23:08	
	Fresh 5 October 2009 0:54	

Only show my snapshots



...and this book

