YOGA - A Software Development Process Based On Ancient Principles

Seth Winis, YM
sethwinis@gmail.com
ACM Highlights

• Learning Center tools for professional development: [http://learning.acm.org](http://learning.acm.org)
  • 4,500+ trusted technical books and videos by O’Reilly, Morgan Kaufmann, etc.
  • 1,300+ courses, virtual labs, test preps, live mentoring for software professionals covering programming, data management, cybersecurity, networking, project management, more
  • Training toward top vendor certifications (CEH, Cisco, CISSP, CompTIA, ITIL, PMI, etc.)
  • Learning Webinars from thought leaders and top practitioner
  • Podcast interviews with innovators, entrepreneurs, and award winners

• Popular publications:
  • Flagship *Communications of the ACM (CACM)* magazine: [http://cacm.acm.org/](http://cacm.acm.org/)
  • *ACM Queue* magazine for practitioners: [http://queue.acm.org/](http://queue.acm.org/)

• ACM Digital Library, the world’s most comprehensive database of computing literature: [http://dl.acm.org](http://dl.acm.org).

• International conferences that draw leading experts on a broad spectrum of computing topics: [http://www.acm.org/conferences](http://www.acm.org/conferences).

• Prestigious awards, including the ACM A.M. Turing and Infosys: [http://awards.acm.org](http://awards.acm.org)

• And much more... [http://www.acm.org](http://www.acm.org).
1. Look ahead
2. Don’t try to be rational
3. Meditate on code one hour every day
4. Hold a strum meeting every day
5. Be flexible
6. Rotate often
7. Strengthen your core
8. Improve your balance
9. Salute the sun
10. Relax
UUUMMMLLL
I. Ignore the past and look ahead

- Those who ignore history will not repeat it.
- Data shows that improvement is never steady. Forge ahead. Use the latest technology.

II. Don’t Try To Be Rational

- No such thing as a rational design process
Plans vs. Reality
(Rational vs. Irrational)

Plan
Plans vs. Reality
(Rational vs. Irrational)

Reality

copyright swinis 2016
III. Meditate on code an hour a day

- What is easy to change?
- What is hard to change?
  - How can I make it easier?
- What is worth changing?
  - What is the value of each change?
  - What is the cost of each change?
    - If I do it?
    - If someone else does it?
- What should I change today?
IV. Hold a strum meeting every day*

- Everyone proposes a change – based on meditation
  - What did you meditate on?
- Vote on what change(s) to make today
- All done to the relaxing rhythm of a guitar – strum meeting

* Stand-up – works well with team of about 10
V. Be Flexible About Changes

- Make a change a day
- Pick a change that everyone likes
  - Choose daily change during strum meeting
  - Start with variabilities
Identify Variabilities Early and Often

- The following statements describe how Floating Weather Stations* may vary. While commonalities identify what is common to all members of the family, variabilities describe how members of the family may differ.
  - V1. The number of wind speed sensors.
  - V2. The resolution of each sensor.
  - V3. The sensor period.
  - V4. The format of the messages transmitted.
  - V5. The transmission period.
  ...

* For map of and data from FWS see http://www.ndbc.noaa.gov/
VI. Rotate Often

Switch Roles

Architect → Developer → Tester → PM → Architect
VII. Strengthen Your Core

- Practice Refactoring

Core Group: Developers who made 80% of changes


Project Moved Offshore To Inexperienced Group
VIII. Improve Your Balance

- Do team members complement each other?
- Do team members compliment each other?
- Do team members back up each other so that essential knowledge is unlikely to be lost?
- Do inexperienced team members have mentors?
- Practice balance during strum meeting.
IX. Salute The Sun

The Yoga master leads the team to start the day.
• Is everything/everyone ready to start the day? Look up and ahead!
X. Relax

- End the day with group deep relaxation
  - Some may be finishing the day, some may be starting the day
  - Puts everyone in a good frame of mind
  - Program the mind for the next step

\[\text{UUUUMMMMMMLLLL}\]
But, what about …

- Artifacts
- Roles
- Activities
- Schedules
- Risks

Process = Artifacts + Roles + Activities
  - Roles perform the activities to produce the artifacts
Why the Neanderthals became extinct.

I don't know, it seemed easier when we just went hunting.

Yes, but Og assures me that this will improve our efficiency and keep us ahead of those Cro-Magnons in the valley.
Everything should be as simple as possible, but not simpler
“If I have seen farther than others, it is because I have stood on the shoulders of giants.”
-- Isaac Newton (17th century)

“Pygmies who stand on the shoulders of giants see farther then the giants.”
-- Bernard of Chartres (12th century)
1. Look ahead
2. Don’t try to be rational
3. Meditate on code one hour every day
4. Hold a strum meeting every day
5. Be flexible
6. Rotate often
7. Strengthen your core
8. Improve your balance
9. Salute the sun
10. Relax
ACM: The Learning Continues...

- Questions about this webcast? learning@acm.org

- ACM Learning Webinars (on-demand archive): http://learning.acm.org/webinar

- ACM Learning Center: http://learning.acm.org

- ACM Applicative Conference: http://applicative.acm.org/

- ACM Queue: http://queue.acm.org/