Acronis

Industrial Programming

L2: Project Lifecycle, source control

Telegram

https://goo.gl/HbZcmb

Google sheet

https://goo.gl/HmrqLH

Project Lifecycle

- **Cambridge Dictionary**
  - "The series of changes that a living thing goes through from the beginning of its life until death."
  - "The length of time that something lasts or can be used."
- **Reifer (1997): (product)**
  "Period of time that begins when a software product is conceived and ends when the product is retired from use."

Product types

Kind of Software

Typical applications	Business Systems	Mission-Critical Systems	Embedded Life-Critical Systems
	Internet site	Embedded software	Avionics software
	Intranet site	Games	Embedded software
	Inventory management	Internet site	Medical devices
	Games	Packaged software	Operating systems
	Management information systems	Software tools	Packaged software
	Payroll system	Web services	

Code complete p34 (Determine the Kind of Software You're Working On)

Processes

…Then what is a Process?

- A process is a sequence of steps performed for a given purpose.

Lifecycle vs Process

Lifecycle

- Strategic view
- Phases
- Go/No Go Decisions
- Goal Oriented
- "Long" Term

Process

- Tactical view
- Begin and End
- Clear result
- Make something
- "Short" term

Choose your weapon

Justin Rockwood - Choose Your Weapon Wisely: A handbook for determining the right software development method best suited for your team, client, and project

Aadish K. Kotwal - Choose Your Cave Weapon Wisely: An extension of 'Choose Your Weapon Wisely' by Justin Rockwood

Process choice motivation (based on article "Choose your weapon" by Justin Rockwood from Carnegie Mellon University)

		RUP	MSS	TSP	XP	Scrum	OUP	AUP	ACDM	DSDM	FDD
Team Size	4	1	1	3	3	3	3	3	3	3	2
Product size	100k - 1M	2	2	2	2	2	2	2	2	2	2
Experienced	< 10%	1	1	3	1	1					
Hacker lvl	should plan and design enough	2	2	1	2	2	2	2	1	3	2
Management Style	Macro-management	2	3	1	3	3	3	3	3	1	3
New Process Adoption	The process is fairly mature	2	2	2	2	2	2	2	2	2	2
type of product	mission-critical system	2	2	2	2	2	1	1	3	1	1
Requirements	changing	2	2	2	3	3	3	3	2	2	1
Requirements Traceability	Somewhat important	2	2	2	1	1	2	2	3	2	2
Results		16	17	18	19	19	18	18	19	16	15
						WINNER					

Source control

Programmers

encoding (win1251, utf-8, KOI8)

format (tabs VS spaces)

code-style (struct VS class, exceptions, singletons)

comments

build

Managers

version control

tasks\bugs control

document management system

release control

Admins (operations)

deploy

versions, compatibility, migration

automatization

autotests, profiling, logs

Task

1. Create github account
2. Create Travis-ci account
3. Create bintray account
4. Create repo with fizzbuzz program.
5. Set-up travis and bintray.
   1. Commit 1: your default implementation
   2. Commit 2: add unit test
6. Travis must run unit tests