

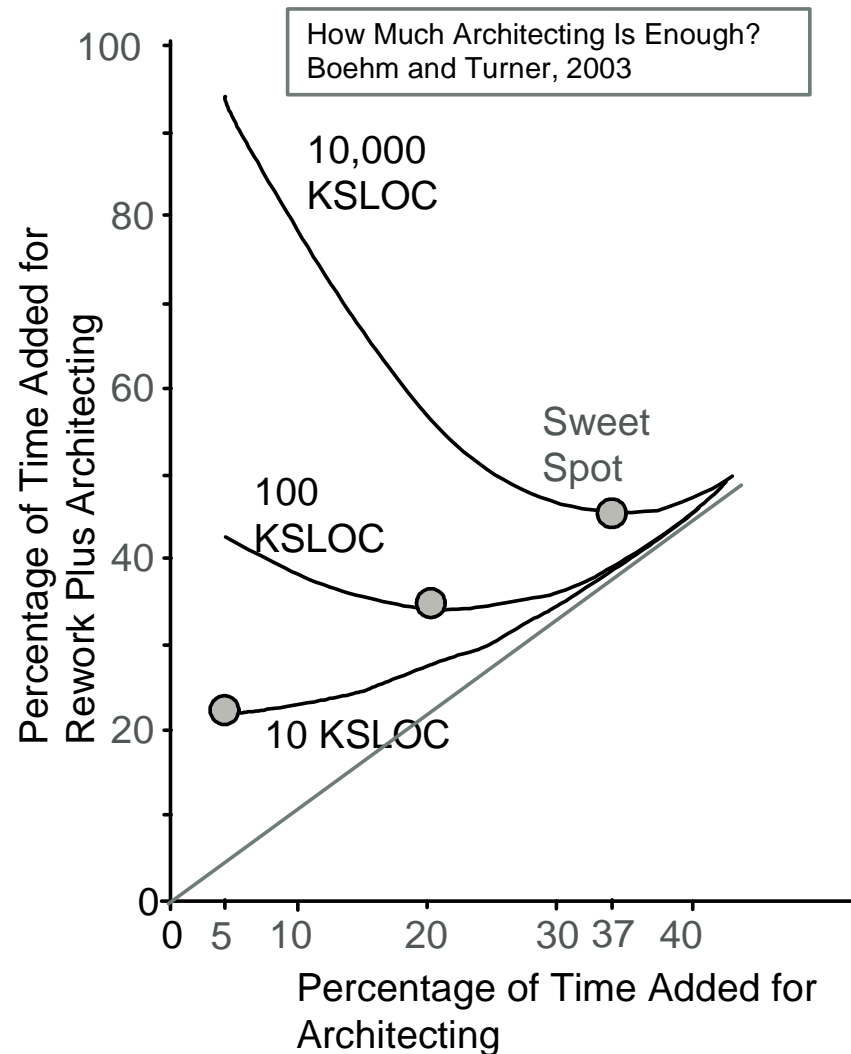
PHILIPS

Measuring Architecting Effort

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How Much Architecting Is Enough?

- Boehm and Turner relate **architecting effort** to ***rework effort***.
- **More architecting** means **less rework**.
- For smaller systems, the amount of rework would be small anyway.
- For larger systems, the penalty for doing too little / too much can be quite large.
- Each project has an architecting **sweet spot**.



So, How Much Are We Architecting?

- Measuring architecting effort at two Philips Medical Systems development groups.
- Daisy:
 - 5 million lines of system code, + another 5 million lines of test code
 - Timekeeping database
 - ‘general’ category too general
- Daffodil:
 - product line with about 8 million lines of code.
 - No time-keeping. We interviewed people that do architecting.
 - Many roles: sw designer, sw architect, sys architect, senior architect, principal architect, fellow architect.

The Sweet Spot May Be Sour

The location of a project's sweet spot depends on more than just system size:

- Requirements volatility
 - Stable requirements are an opportunity to do more in advance
 - Unstable requirements lead to redocumentation
- Efficiency is not the main driver
 - Quality demands justify more architecting work
 - Time-to-market may lead to less architecting.
- Work in earlier projects pays off / catches up
 - Architecture as an investment (e.g. product lines)
 - Technical debt
- Quality of work
 - A few good architecting decisions can go further than a whole lot of bad ones

Open Questions

- What is architecting?
 - We know what architecture is, but what is ‘architecting’? Architects do far more than just ‘defining the architecture.’
 - How to define ‘architecting’ in a measurable way?
- What factors influence the sweet spot?
- Do we need this many architects?
 - The term seems to devalue. Fellow architects spend as much of their time ‘architecting’ as sw designers.

