Modelling the Intentional Structure of a Software Process

Eric Yu, University of Toronto

- The Actor Dependency Model
- What AI concepts?
- Controversial perspective?

Conference Paper:

Understanding ''Why'' in Software Process Modelling, Analysis, and Design

Eric Yu and John Mylopoulos
University of Toronto

Thursday at 11 a.m.

Software Process Modelling
Various objectives

– understanding

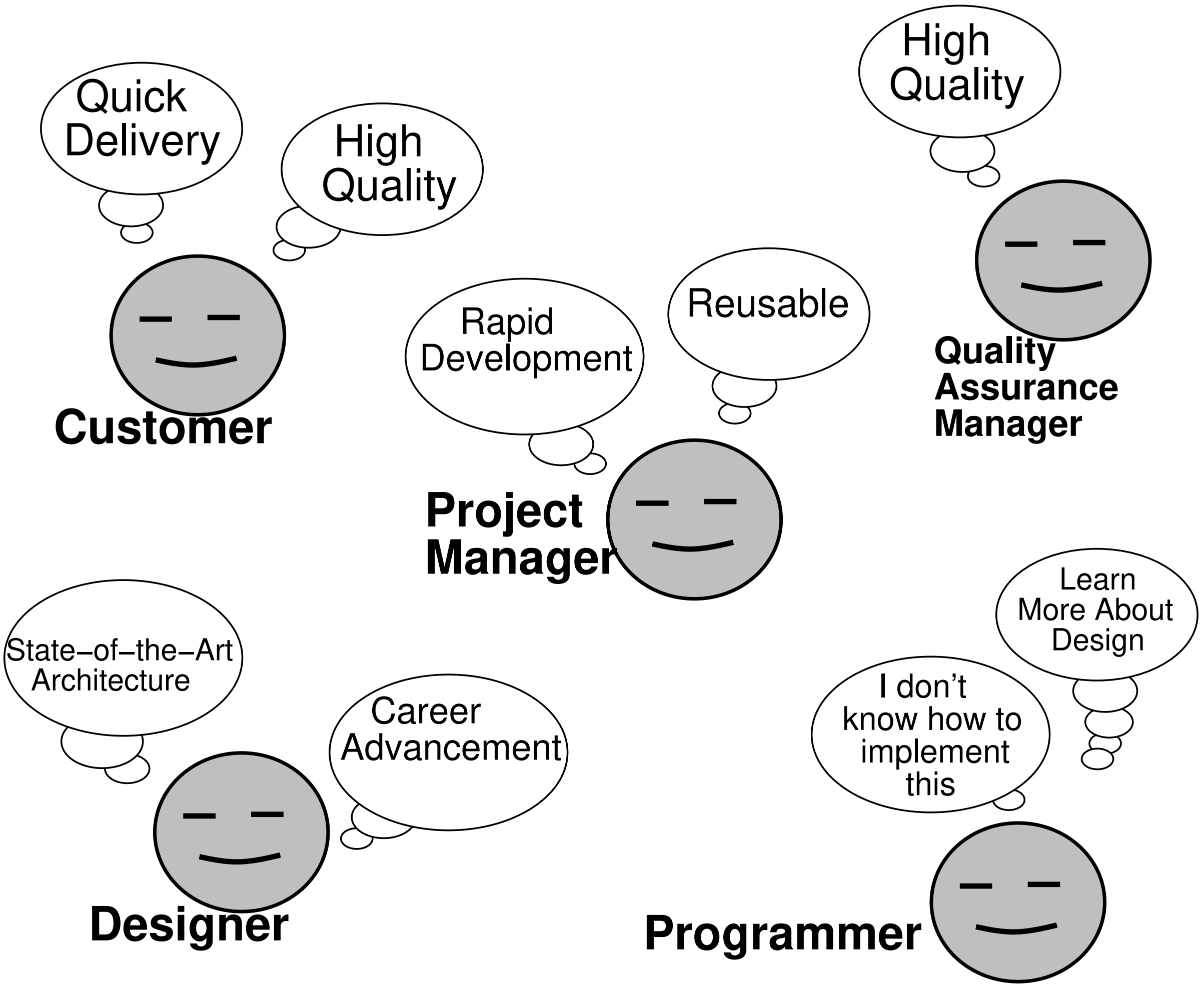
– improving, designing

.
.
.

– enacting

– managing, controlling

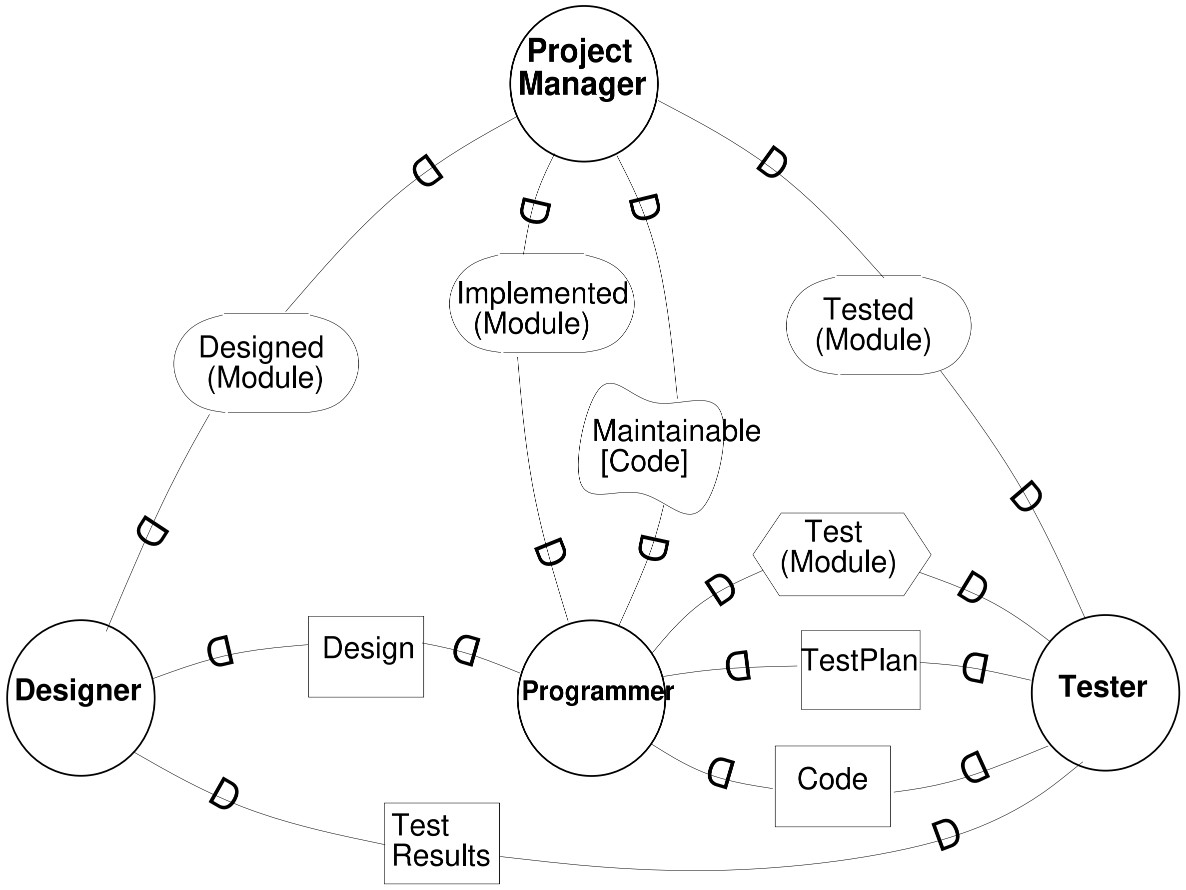
Understanding a Software Process



- **The "WHYs" can be traced to motivations, goals, and interests of different participants/ stakeholders in the software process.**

The Actor Dependency Model

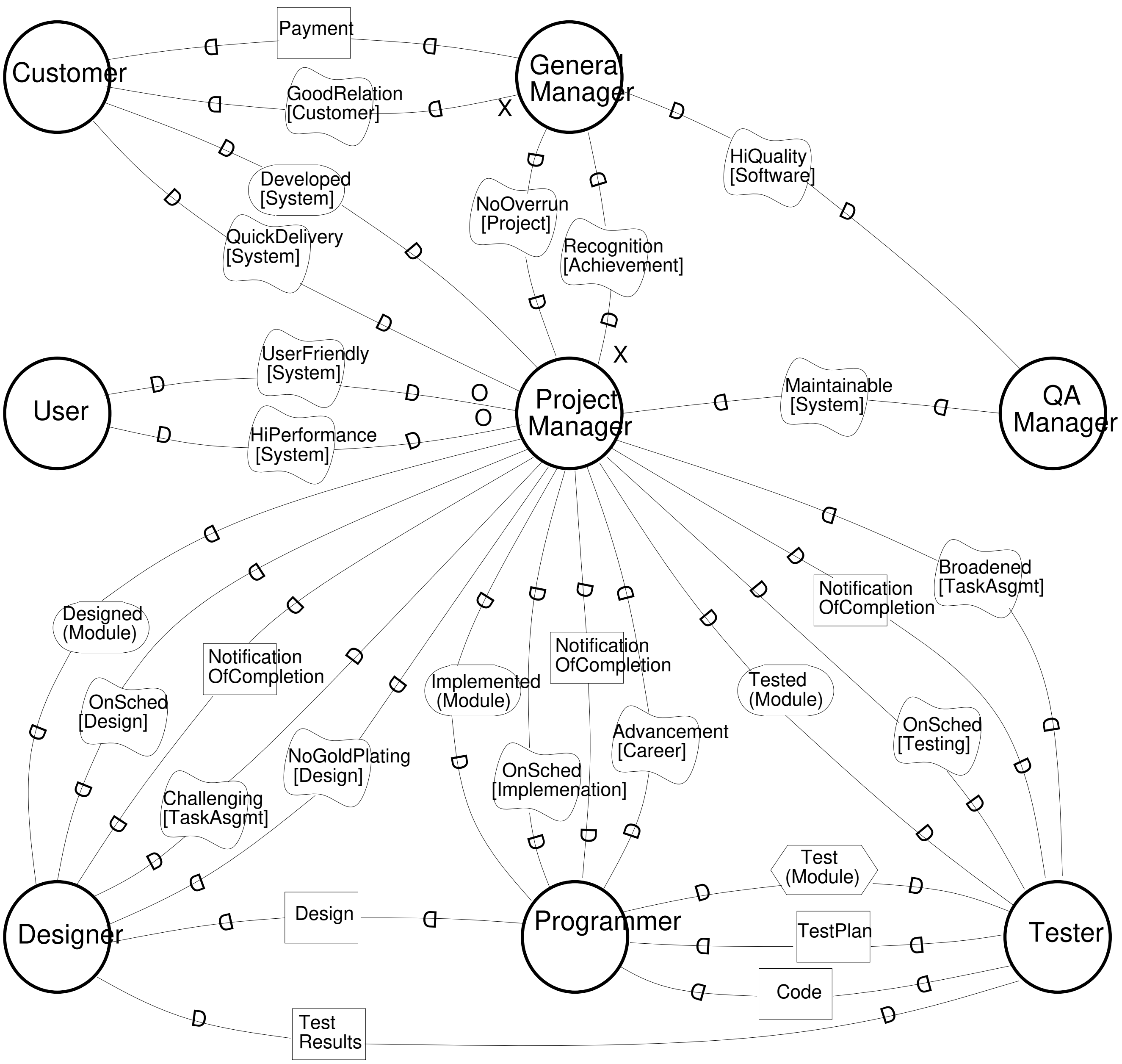
a small example



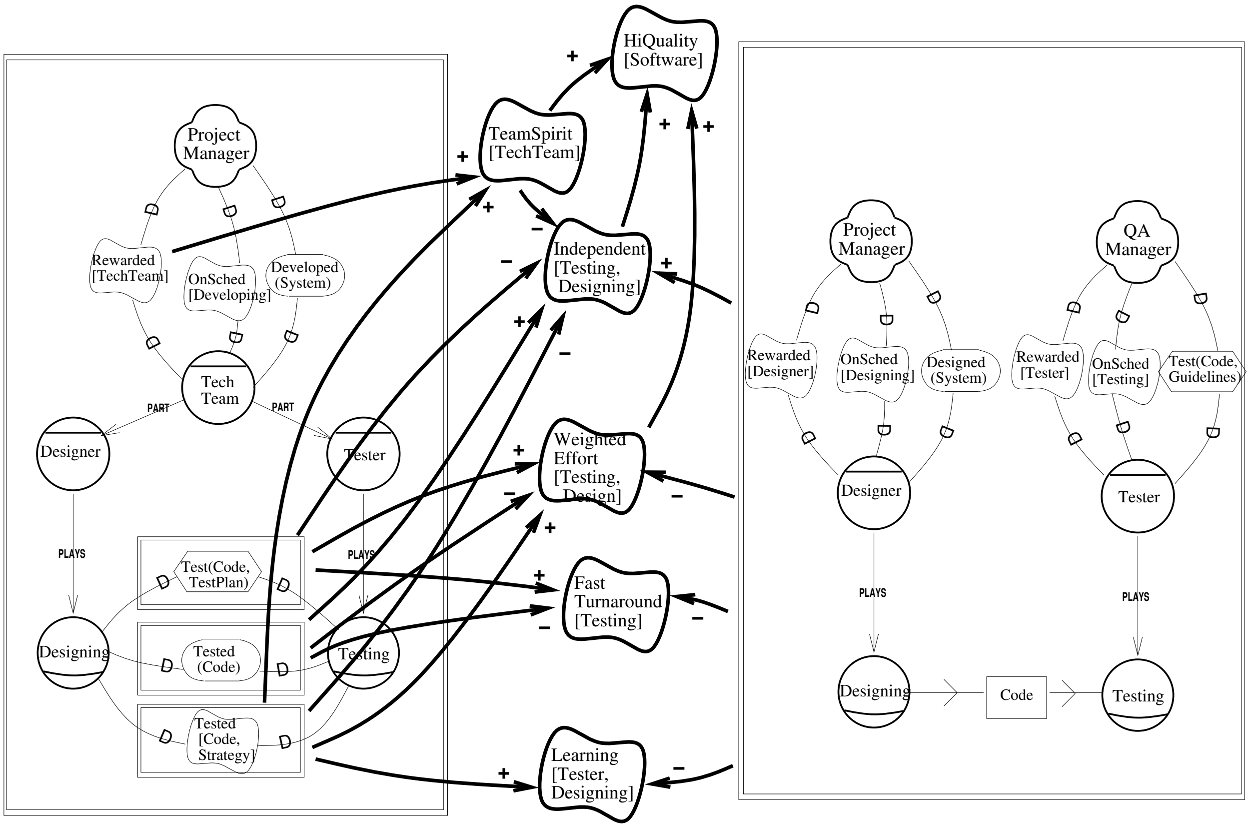
Intentional Dependency

2 aspects:
- **opportunity**
- **vulnerability**

Modelling the Intentional Structure of a (simple) software process



Towards Systematic Design of Software Processes



A design rationales framework is used to support:

- **generation of space of process design alternatives using means–ends reasoning**
- **qualitative assessment of alternatives**
- **managing design decisions**

AI concepts used in *i**

- **intentional concepts for agent modelling**
  [CohenLevesque90]
  [Thomas91]

- **non−functional requirements**
  [Chung93]

- **means−ends reasoning**

- **conceptual modelling, KR**
  Telos [Mylopoulos91]
  RML[Greenspan84]