

[Citation Needed]

SE Code of Ethics – Client and Employer

“Principle 2: CLIENT AND EMPLOYER

Software engineers shall act in a manner that is in the best interests of their client and employer, consistent with the public interest. In particular, software engineers shall, as appropriate:

2.01. Provide service in their areas of competence, being honest and forthright about any limitations of their experience and education.

2.02. Not knowingly use software that is obtained or retained either illegally or unethically.

2.03. Use the property of a client or employer only in ways properly authorized, and with the client's or employer's knowledge and consent.

2.04. Ensure that any document upon which they rely has been approved, when required, by someone authorized to approve it.

2.05. Keep private any confidential information gained in their professional work, where such confidentiality is consistent with the public interest and consistent with the law.

2.06. Identify, document, collect evidence and report to the client or the employer promptly if, in their opinion, a project is likely to fail, to prove too expensive, to violate intellectual property law, or otherwise to be problematic.

2.07. Identify, document, and report significant issues of social concern, of which they are aware, in software or related documents, to the employer or the client.

2.08. Accept no outside work detrimental to the work they perform for their primary employer.

2.09. Promote no interest adverse to their employer or client, unless a higher ethical concern is being compromised; in that case, inform the employer or another appropriate authority of the ethical concern [1].”

Summary

“2. CLIENT AND EMPLOYER - Software engineers shall act in a manner that is in the best interests of their client and employer consistent with the public interest [1].”

Main Duty

- **What it does well:**

- It tells the Software Engineer to tell the supervisor when a project is unlikely to succeed. This saves project time and money.
- Asks the Software Engineer to make sure documentation is approved and authorized.

- **What it does poorly:**

- Point 2.08 needs to be more expanded and made to be more specific. It is currently too vague.

Means of Ethics

- **Deontological**
 - 2.01
 - 2.02
 - 2.03
 - 2.04
 - 2.05
 - 2.06
 - 2.07
- **Utilitarian**
 - 2.01
 - 2.05
 - 2.08
 - 2.09

Note: some points contain both Utilitarian and Deontological elements, and are listed under both headings.

Papers

- **Chaos Report**
 - 2.06, 2.07 – Chaos Report makes people aware of the issue of project failures. Also, proper documentation of the process is key to project success.
- **Unskilled and Unaware**
 - 2.01 - is only one that applies to "Unskilled and Unaware." But based on the idea behind this paper, this section actually promotes the lesser skilled software engineers. Since less competent people will have a higher regard for their skills while the better programmers have a more realistic but lower placement of their skill level, it is more likely that incompetent software engineers will take on more projects and not be able to handle them while the competent ones will back off on projects they very well could have completed.
- **Rational Design**
 - 2.04 – Rational Design Process states that the developer is responsible for designing the requirements document (and other similar documents), which goes against code 2.04. However, Parnas points out that the developer will have the client (and any other authoritative people) review the drafted documents and approve it.
- **Software is Different**
 - 2.04 - Providing a document that is written explicitly that both parties agree to is important in making sure that misconceptions about software and requirements are dispelled.
 - 2.07 - Identifying safety margins with software is impossible. Reporting on potential risks if possible, but software as a whole cannot determine all the risks.
- **Process of Incompetence**
 - 2.01 – Provide services only in the areas in which you are competent.
 - 2.06, 2.07 – One should identify and document issues rather than covering them up.

- **Therac-25**

- 2.01 – The Systems Engineer was incompetent – he assumed that the software was infallible.
- 2.06, 2.07 – People failed to report significant issues of social concern of which they were aware.
- 2.09– Employees knew the software was dangerous but did not act to stop it. Even though reporting the software is against the interest of their employer, they should report the problem to the proper authorities.

Note: unlisted papers have no relevance to our section of the SE Code.

[1] “Software Engineering Code of Ethics and Professional Practice — Association for Computing Machinery.”