8.3.1 Preamble

PRINCIPLES

8.5.2 Principles

Software engineers shall act consistently with the public interest. In particular, software engineers shall act, as appropriate:

1.01 Accept full responsibility for their own work.

1.02 Moderate the interests of the software engineer, the employer, the client and the users with the public good.

1.03 Approve software only if they have a well-founded belief that it is safe, meets specifications, passes appropriate tests, and does not diminish quality of life, diminish privacy, or harm the environment. The ultimate effect of the work should be to the public good (Clause 1.03).
CHAPTER 8 Professional Ethics

1.04 Disclose to appropriate persons or authorities any actual or potential danger to the privacy or harm the environment. The ultimate effect of the work should be to the public good.

1.05 Cooperate in efforts to address matters of grave public concern caused by software, its installation, maintenance, support or documentation.

1.07 Consider issues of physical disabilities, allocation of resources, economic disadvantage and other factors that can diminish access to the benefits of software.

1.08 Be encouraged to volunteer professional skills to good causes and contribute to public education concerning the discipline.

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 area 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 (Clause 2.03)
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 authorized to be destroyed is actually destroyed.

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 privacy concerns, 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.

PRINCIPLE 3: PRODUCT

Software engineers shall ensure that their products meet the highest professional standards possible, in particular, software engineers shall, as appropriate:

3.01 Strive for high quality, acceptable cost and a reasonable schedule, ensuring significant tradeoffs are clear to and accepted by the employer and the client, and are available for consideration by the user and the public.

3.02 Ensure proper and achievable goals and objectives for any project on which they work.

3.03 Ensure that they are qualified for the task at hand, preparing for these only when ethically or technically justified.

3.04 Work to fully understand the specifications for software on which they work.

3.05 Ensure that specifications for software on which they work have been well documented, satisfy the users' requirements and have the appropriate approvals.

3.06 Work to follow professional standards, when available, that are most appropriate for the task at hand, preparing for these only when ethically or technically justified.

3.07 Ensure that specifications for software on which they work have been well documented, satisfy the users' requirements and have the appropriate approvals.

3.08 Work to follow professional standards, when available, that are most appropriate for the task at hand, preparing for these only when ethically or technically justified.
Chapter 8: Professional Ethics

4.02 Any software development effort proceeds under the premise of the following values:

- 4.01 Integrity of data, plans, and design.
- 4.02 Quality in all technical judgments by the user to support and maintain human values.

Principle 4: Judgement

3.12 Software development is one of the professions that require an ethical approach to the protection of intellectual property. It is only in the genuine interest of the user that intellectual property be maintained. It is the responsibility of the software developer to protect the rights of the developer and the user in all aspects of the software development process. Software developers should maintain their integrity and independence in their professional judgments.

3.13 Ensure adequate documentation and reviews of software and related documents. The software's output must be thoroughly and objectively assessed for ethical, legal, and technical issues.

3.14 In any project on which they work, software developers shall ensure that they work in accordance with the project's objectives and that the project's objectives are in alignment with the ethical standards of their profession.

3.15 Ensure adequate testing, debugging, and review of software and related documents. Any software that does not meet the project's objectives should be rejected.

3.16 Ensure that software packages that are intended for use by others are appropriately licensed and that the users are informed of their rights and responsibilities.

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3.18 Ensure that all software is used in a manner that is consistent with the intended purpose and that the user is informed of the risks and benefits associated with the use of the software.

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4.03 Maintain professional objectivity with respect to any software or related documents they are asked to evaluate.

4.04 Not engage in deceptive financial practices such as bribery, double billing, or other improper financial practices.

4.05 Disclose to all concerned parties those conflicts of interest that cannot reasonably be avoided or escaped.

4.06 Refuse to participate, as members or officers, in private, governmental, or professional bodies concerned with software-related issues in which they, their employers, or their clients have undisclosed potential conflicts of interest.

PRINCIPLE: MANAGEMENT

Software engineering managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance. In particular,

1. Ensure good management for any project on which they work, including effective procedures for promotion of quality and reduction of risk.

2. Ensure that software engineers are informed of standards before being held to those managing or leading software engineers shall, as appropriate:

3. Ensure that software engineers know the employer's policies and procedures for protecting passwords, files, and information that is confidential to the employer or confidential to others.

4. Assign work only after taking into account appropriate contributions of education and experience, tempered with a desire to further that education and experience.

5. Ensure realistic quantitative estimates of cost, scheduling, personnel, quality, and other outcomes on any project on which they work or propose to work, and provide an uncertainty assessment of these estimates.

6. Offer fair and just remuneration.

7. Not unjustly prevent someone from taking a position for which that person is suitably qualified.

8. Not ask a software engineer to do anything inconsistent with this Code.
CHAPTER 8  PROFESSIONAL ETHICS

Software engineers shall help develop an organizational environment favorable to acting ethically (Clause 6.01).

PRINCIPLE 6: PROFESSION

Software engineers shall advance the integrity and reputation of the profession consistently with the public interest. In particular, software engineers shall, as appropriate:

6.01 Help develop an organizational environment favorable to acting ethically.
6.02 Promote public knowledge of software engineering.
6.03 Extend software engineering knowledge by appropriate participation in professional organizations, meetings, and publications.
6.04 Support, as members of a profession, other software engineers striving to follow this Code.
6.05 Not promote their own interest at the expense of the profession, client, or employer.
6.06 Obey all laws governing their work, unless, in exceptional circumstances, such compliance is inconsistent with the public interest.
6.07 Be accurate in stating the characteristics of software on which they work, avoiding not only false claims but also claims that might reasonably be supposed to be speculative, vacuous, deceptive, misleading, or doubtful.
6.08 Take responsibility for detecting, correcting, and reporting errors in software and associated documents on which they work.
6.09 Ensure that clients, employers, and supervisors know of the software engineer's commitment to this Code of Ethics, and the subsequent ramifications of such commitment.
6.10 Avoid associations with businesses and organizations which are in conflict with this code.
and read documents on which they work to improve their knowledge of relevant standards and the law governing the software.

8'04 Improve their understanding of the software and related documents on which they work and the environment in which they will be used.

8'03 Improve their ability to produce accurate, informative, and well-written documents.

8'02 Improve their ability to create effective, reliable, and usable quality software at reasonable cost and within a reasonable time.

8'00 With the management of the development process, software engineers, software engineers together with software engineers, and software engineers in cooperation with software engineers in the development of the software engineering design. Further their knowledge of developments in the analysis, specification, design, etc.

10'08 Further their knowledge of developments in the analysis, specification, design, etc.

Software engineers shall be guided by the principles of software engineering in the development of software. Software engineers shall act to support the principles of software engineering.

PRINCIPLE 8: ETHICS

Where professionals who have competence in this area.

7'08 In situations outside of their own area of competence, call upon the opinion of others.

7'07 Ethically, on questions of the competence of a colleague.

7'06 Competence, the ability of a public interest may conflict with software engineers in good faith and reasonable measures to safeguard information and security measures in general.

7'02 Follow the policies and procedures for reporting trespass to software engineers, and other computer professionals.

6'00 Software engineers shall be guided by the principles of software engineering in the development of software. Software engineers shall act to support the principles of software engineering.

PRINCIPLE 7: COLLABORATION

Counter-productive or dangerous.

6'13 Counter-productive or dangerous.

6'12 Express concerns to the people involved, when significant violations of this Code are discovered.

6'11 Recognize that violations of this Code are misconduct with being a professional.
In this section we analyze the code and derive an alternative set of underlying principles.