

ISO/IEC/IEEE 24748-3:2020 (E)

Systems and software engineering — Life cycle management — Part 3: Guidelines for the application of ISO/IEC/IEEE 12207 (software life cycle processes)

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms, definitions, and abbreviated terms
3.1	Terms and definitions
3.2	Abbreviated terms
4	Concepts for software and software systems
4.1	General
4.2	Software system concepts
4.3	Organizational concepts
4.4	Project concepts
5	Process and life cycle concepts
5.1	Process concepts
5.2	Life cycle concepts
5.2.1	Life cycle stages
5.2.2	Interrelationships of software processes and stages
5.2.3	Life cycle process models for software systems
5.2.3.1	General
5.2.3.2	Sequential life cycle model
5.2.3.3	Incremental life cycle model
5.2.3.4	Evolutionary life cycle model
5.3	Process groups
6	Software life cycle processes
6.1	Agreement processes
6.1.1	Acquisition process
6.1.1.1	Aspects of purpose
6.1.1.2	Aspects of outcomes and outputs
6.1.1.3	Related processes
6.1.1.4	Activities, tasks, and approaches
6.1.1.5	Related standards
6.1.2	Supply process
6.1.2.1	Aspects of purpose
6.1.2.2	Aspects of outcomes and outputs
6.1.2.3	Related processes
6.1.2.4	Activities, tasks, and approaches
6.1.2.5	Related standards
6.2	Organizational project-enabling processes
6.2.1	Life cycle model management process
6.2.1.1	Aspects of purpose
6.2.1.2	Aspects of outcomes and outputs
6.2.1.3	Related processes
6.2.1.4	Activities, tasks, and approaches
6.2.1.5	Related standards
6.2.2	Infrastructure Management process

6.2.2.1	Aspects of purpose
6.2.2.2	Aspects of outcomes and outputs
6.2.2.3	Related processes
6.2.2.4	Activities, tasks, and approaches
6.2.2.5	Related standard
6.2.3	Portfolio Management process
6.2.3.1	Aspects of purpose
6.2.3.2	Aspects of outcomes and outputs
6.2.3.3	Related processes
6.2.3.4	Activities, tasks, and approaches
6.2.3.5	Related standards
6.2.4	Human Resource Management process
6.2.4.1	Aspects of purpose
6.2.4.2	Aspects of outcomes and outputs
6.2.4.3	Related processes
6.2.4.4	Activities, tasks, and approaches
6.2.4.5	Related standard
6.2.5	Quality Management process
6.2.5.1	Aspects of purpose
6.2.5.2	Aspects of outcomes and outputs
6.2.5.3	Related processes
6.2.5.4	Activities, tasks, and approaches
6.2.5.5	Related standards
6.2.6	Knowledge Management process
6.2.6.1	Aspects of purpose
6.2.6.2	Aspects of outcomes and outputs
6.2.6.3	Related processes
6.2.6.4	Activities, tasks, and approaches
6.2.6.5	Related standard
6.3	Technical Management processes
6.3.1	Project Planning process
6.3.1.1	Aspects of purpose
6.3.1.2	Aspects of outcomes and outputs
6.3.1.3	Related processes
6.3.1.4	Activities, tasks, and approaches
6.3.1.5	Related standards
6.3.2	Project assessment and control process
6.3.2.1	Aspects of purpose
6.3.2.2	Aspects of outcomes and outputs
6.3.2.3	Related processes
6.3.2.4	Activities, tasks, and approaches
6.3.2.5	Related standards
6.3.3	Decision Management process
6.3.3.1	Aspects of purpose
6.3.3.2	Aspects of outcomes and outputs
6.3.3.3	Related processes
6.3.3.4	Activities, tasks, and approaches
6.3.3.5	Related standards
6.3.4	Risk Management process
6.3.4.1	Aspects of purpose
6.3.4.2	Aspects of outcomes and outputs
6.3.4.3	Related processes
6.3.4.4	Activities, tasks, and approaches
6.3.4.5	Related standards
6.3.5	Configuration Management process
6.3.5.1	Aspects of purpose
6.3.5.2	Aspects of outcomes and outputs
6.3.5.3	Related processes
6.3.5.4	Activities, tasks, and approaches
6.3.5.5	Related standards
6.3.6	Information Management process
6.3.6.1	Aspects of purpose
6.3.6.2	Aspects of outcomes and outputs
6.3.6.3	Related processes

- 6.3.6.4 Activities, tasks, and approaches
- 6.3.6.5 Related standards
- 6.3.7 Measurement process
- 6.3.7.1 Aspects of purpose
- 6.3.7.2 Aspects of outcomes and outputs
- 6.3.7.3 Related processes
- 6.3.7.4 Activities, tasks, and approaches
- 6.3.7.5 Related standards
- 6.3.8 Quality Assurance process
- 6.3.8.1 Aspects of purpose
- 6.3.8.2 Aspects of outcomes and outputs
- 6.3.8.3 Related processes
- 6.3.8.4 Activities, tasks, and approaches
- 6.3.8.5 Related standards
- 6.4 Technical processes
- 6.4.1 Business or Mission Analysis process
- 6.4.1.1 Aspects of purpose
- 6.4.1.2 Aspects of outcomes and outputs
- 6.4.1.3 Related processes
- 6.4.1.4 Activities, tasks, and approaches
- 6.4.1.5 Related standards
- 6.4.2 Stakeholder Needs and Requirements Definition process
- 6.4.2.1 Aspects of purpose
- 6.4.2.2 Aspects of outcomes and outputs
- 6.4.2.3 Related processes
- 6.4.2.4 Activities, tasks, and approaches
- 6.4.2.5 Related standards
- 6.4.3 System/Software requirements definition process
- 6.4.3.1 Aspects of purpose
- 6.4.3.2 Aspects of outcomes and outputs
- 6.4.3.3 Related processes
- 6.4.3.4 Activities, tasks, and approaches
- 6.4.3.5 Related standards
- 6.4.4 Architecture Definition process
- 6.4.4.1 Aspects of purpose
- 6.4.4.2 Aspects of outcomes and outputs
- 6.4.4.3 Related processes
- 6.4.4.4 Activities, tasks, and approaches
- 6.4.4.5 Related standards
- 6.4.5 Design Definition process
- 6.4.5.1 Aspects of purpose
- 6.4.5.2 Aspects of outcomes and outputs
- 6.4.5.3 Related processes
- 6.4.5.4 Activities, tasks, and approaches
- 6.4.5.5 Related standards
- 6.4.6 System Analysis process
- 6.4.6.1 Aspects of purpose
- 6.4.6.2 Aspects of outcomes and outputs
- 6.4.6.3 Related processes
- 6.4.6.4 Activities, tasks, and approaches
- 6.4.6.5 Related standards
- 6.4.7 Implementation process
- 6.4.7.1 Aspects of purpose
- 6.4.7.2 Aspects of outcomes and outputs
- 6.4.7.3 Related processes
- 6.4.7.4 Activities, tasks, and approaches
- 6.4.7.5 Related standard
- 6.4.8 Integration process
- 6.4.8.1 Aspects of purpose
- 6.4.8.2 Aspects of outcomes and outputs
- 6.4.8.3 Related processes
- 6.4.8.4 Activities, tasks, and approaches
- 6.4.8.5 Related standards
- 6.4.9 Verification process

- 6.4.9.1 Aspects of purpose
- 6.4.9.2 Aspects of outcomes and outputs
- 6.4.9.3 Related processes
- 6.4.9.4 Activities, tasks, and approaches
- 6.4.9.5 Related standards
- 6.4.10 Transition process
- 6.4.10.1 Aspects of purpose
- 6.4.10.2 Aspects of outcomes and outputs
- 6.4.10.3 Related processes
- 6.4.10.4 Activities, tasks, and approaches
- 6.4.10.5 Related standards
- 6.4.11 Validation process
- 6.4.11.1 Aspects of purpose
- 6.4.11.2 Aspects of outcomes and outputs
- 6.4.11.3 Related processes
- 6.4.11.4 Activities, tasks and methods
- 6.4.11.5 Related standards
- 6.4.12 Operation process
- 6.4.12.1 Aspects of purpose
- 6.4.12.2 Aspects of outcomes and outputs
- 6.4.12.3 Related processes
- 6.4.12.4 Activities, tasks, and approaches
- 6.4.12.5 Related standards
- 6.4.13 Maintenance process
- 6.4.13.1 Aspects of purpose
- 6.4.13.2 Aspects of outcomes and outputs
- 6.4.13.3 Related processes
- 6.4.13.4 Activities, tasks, and approaches
- 6.4.13.5 Related standards
- 6.4.14 Disposal process
- 6.4.14.1 Aspects of purpose
- 6.4.14.2 Aspects of outcomes and outputs
- 6.4.14.3 Related processes
- 6.4.14.4 Activities, tasks, and approaches
- 6.4.14.5 Related standards

Annex A (informative) Tailoring process

- A.1 Aspects of purpose
- A.2 Aspects of outcomes and outputs
- A.3 Related processes
- A.4 Activities, tasks, and approaches
- A.5 Related standard