

ISO/IEC/IEEE 24748-2:2018 (E)

Systems and software engineering — Life cycle management — Part 2: Guidelines for the application of ISO/IEC/IEEE 15288 (System life cycle processes)

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Overview of ISO/IEC/IEEE 15288:2015
4.1	General
4.2	Structure of ISO/IEC/IEEE 15288:2015
4.3	Context of ISO/IEC/IEEE 15288:2015
4.4	Comparison of ISO/IEC/IEEE 15288:2015 to prior versions
5	Application concepts
5.1	Overview
5.2	System concepts
5.3	Life cycle concepts
5.4	Process concepts
5.5	Organizational concepts
5.6	Project concepts
6	Applying ISO/IEC/IEEE 15288:2015
6.1	Overview
6.2	Application strategy
6.2.1	Overview
6.2.2	Planning the application
6.2.3	Conduct pilot project(s)
6.2.4	Formalize the approach
6.2.5	Institutionalize the approach
6.3	Application of system concepts
6.3.1	General
6.3.2	Systems
6.3.3	System structure
6.3.4	Structure in systems and projects
6.3.5	Enabling systems
6.4	Application of life cycle concepts
6.4.1	Overview
6.4.2	Decision gates
6.4.3	Application approaches
6.4.3.1	Sequential approach
6.4.3.1.1	General
6.4.3.1.2	Applicable systems
6.4.3.1.3	Risks
6.4.3.1.4	Opportunities
6.4.3.2	Incremental approach
6.4.3.2.1	General
6.4.3.2.2	Applicable systems
6.4.3.2.3	Risks
6.4.3.2.4	Opportunities

- 6.4.3.3 Evolutionary approach
 - 6.4.3.3.1 General
 - 6.4.3.3.2 Applicable systems
 - 6.4.3.3.3 Risks
 - 6.4.3.3.4 Opportunities
- 6.4.3.4 Technical reviews
- 6.4.3.5 Configuration audits
- 6.5 Application of organizational concepts
 - 6.5.1 Overview
 - 6.5.2 Considerations and techniques
 - 6.5.3 Application opportunities
 - 6.5.4 Management commitment
 - 6.5.5 Uses of ISO/IEC/IEEE 15288:2015 within an organization
- 6.6 Application of project concepts
- 6.7 Application of process concepts
 - 6.7.1 Application of Agreement processes (6.1)
 - 6.7.1.1 Application of Acquisition Process (6.1.1)
 - 6.7.1.2 Application of Supply Process (6.1.2)
 - 6.7.2 Application of Organizational Project-enabling Processes (6.2)
 - 6.7.2.1 Application of Life Cycle Model Management Process (6.2.1)
 - 6.7.2.2 Application of Infrastructure Management Process (6.2.2)
 - 6.7.2.3 Application of Portfolio Management Process (6.2.3)
 - 6.7.2.4 Application of Human Resource Management Process (6.2.4)
 - 6.7.2.5 Application of Quality Management Process (6.2.5)
 - 6.7.2.6 Application of Knowledge Management Process (6.2.6)
 - 6.7.3 Application of Technical Management Processes (6.3)
 - 6.7.3.1 Application of Project Planning Process (6.3.1)
 - 6.7.3.2 Application of Project Assessment and Control Process (6.3.2)
 - 6.7.3.3 Application of Decision Management Process (6.3.3)
 - 6.7.3.4 Application of Risk Management Process (6.3.4)
 - 6.7.3.5 Application of Configuration Management Process (6.3.5)
 - 6.7.3.6 Application of Information Management Process (6.3.6)
 - 6.7.3.7 Application of Measurement Process (6.3.7)
 - 6.7.3.8 Application of Quality Assurance Process (6.3.8)
 - 6.7.4 Application of technical processes (6.4)
 - 6.7.4.1 General
 - 6.7.4.2 Related technical processes for understanding system needs
 - 6.7.4.2.1 General
 - 6.7.4.2.2 Business or Mission Analysis Process (6.4.1)
 - 6.7.4.2.3 Stakeholder Needs and Requirements Definition Process (6.4.2)
 - 6.7.4.2.4 System Requirements Definition Process (6.4.3)
 - 6.7.4.2.5 System Analysis Process (6.4.6)
 - 6.7.4.3 Related Technical processes for defining the system solution
 - 6.7.4.3.1 General
 - 6.7.4.3.2 Architecture Definition Process (6.4.4)
 - 6.7.4.3.3 Design Definition Process (6.4.5)
 - 6.7.4.3.4 System Analysis Process (6.4.6)
 - 6.7.4.4 Related Technical processes for system realization
 - 6.7.4.4.1 General
 - 6.7.4.4.2 Implementation Process (6.4.7)
 - 6.7.4.4.3 Integration Process (6.4.8)
 - 6.7.4.4.4 Verification Process (6.4.9)
 - 6.7.4.4.5 Transition Process (6.4.10)
 - 6.7.4.4.6 Validation Process (6.4.11)
 - 6.7.4.5 Related technical processes for system utilization
 - 6.7.4.5.1 General
 - 6.7.4.5.2 Operation Process (6.4.12)
 - 6.7.4.5.3 Maintenance Process (6.4.13)
 - 6.7.4.5.4 Disposal Process (6.4.14)
 - 6.7.4.6 Enabling system definition and realization
- 6.8 Application of conformance and adaptation concepts

Annex A (informative) Guidance on transitioning from ISO/IEC 15288:2008

- A.1 General

- A.2** **Considerations for transition decisions**
- A.3** **Timing and phasing of transition**
- A.4** **Maintaining alignment with ISO/IEC/IEEE 12207**

Annex B **(informative) Guidance on the engineering view and the “Vee” model**

- B.1** **General**
- B.2** **Application of the engineering view to the “Vee” model**

Page count: 64