

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