

# ISO/IEC/IEEE 24748-4:2016-05 (E)

## Systems and software engineering - Life cycle management - Part 4: Systems engineering planning

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		ix
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Conformance .....</b>	<b>2</b>
2.1	Intended usage .....	2
2.2	Conformance to processes .....	2
2.3	Conformance to information item content .....	2
2.4	Full conformance .....	2
2.5	Tailored conformance .....	3
<b>3</b>	<b>Normative references .....</b>	<b>3</b>
<b>4</b>	<b>Terms and definitions .....</b>	<b>3</b>
<b>5</b>	<b>Concepts .....</b>	<b>5</b>
5.1	Introduction .....	5
5.2	System concepts .....	6
5.3	Life cycle concepts .....	6
5.4	Process concepts .....	6
5.5	Organizational concepts .....	7
5.6	Project concepts .....	7
5.7	Information items concepts .....	7
5.8	SEMP development concepts .....	8
<b>6</b>	<b>Technical management processes for systems engineering planning .....</b>	<b>9</b>
6.1	General .....	9
6.2	Project planning process .....	10
6.3	Project assessment and control process .....	14
6.4	Decision management process .....	16
6.5	Risk management process .....	18
6.6	Configuration management process .....	19
6.7	Information management process .....	20
6.8	Measurement process .....	21
6.9	Quality assurance process .....	22
<b>7</b>	<b>Information items .....</b>	<b>23</b>
<b>8</b>	<b>Guidelines for information items .....</b>	<b>23</b>
8.1	Introduction .....	23
8.3	Elements of the SEMP .....	26
<b>9</b>	<b>Information item content .....</b>	<b>27</b>
9.1	General .....	27
9.2	Front matter .....	28
9.3	Technical Project Summary .....	28
9.3.1	General .....	28
9.3.2	Purpose, scope and objectives .....	28
9.3.3	Assumptions and constraints .....	29

9.3.4	System description .....	29
9.3.5	Schedule and budget summary .....	29
9.4	References .....	29
9.5	Definitions .....	29
9.6	Technical project organization .....	29
9.7	Planning for technical definition .....	30
9.7.1	General .....	30
9.7.2	Process definition .....	30
9.7.3	Infrastructure planning .....	31
9.7.4	Technical project planning .....	31
9.8	Technical project execution and control .....	33
9.8.1	Performance assessment and control .....	33
9.8.2	Measurement .....	34
9.8.3	Quality assurance .....	34
9.8.4	Reviews and audits .....	34
9.8.5	Subcontractor management .....	35
9.8.6	Project management controls .....	35
9.8.7	Technical project closeout .....	35
9.8.8	Technical baseline management .....	36
9.9	Supporting process plans .....	38
9.9.1	General .....	38
9.9.2	Decision management .....	38
9.9.3	Risk management .....	39
9.9.4	Communications .....	39
9.9.5	Verification and validation .....	39
9.10	Specialty engineering activities and plans .....	40
Annex A (informative) Project Management Plan (PMP) elements .....		42
Annex B (informative) SEMP considerations for system life cycle stages .....		49
B.1	Introduction .....	49
B.2	Concept stage .....	52
B.3	Development stage .....	53
B.4	Production stage .....	54
B.5	Utilization stage .....	55
B.6	Support stage .....	56
B.7	Retirement stage .....	57
Annex C (normative) Tailoring policies .....		59
C.1	Introduction .....	59
C.2	Information item tailoring process .....	59
C.2.1	Purpose .....	59
C.2.2	Outcomes .....	59
C.2.3	Activities and tasks .....	59
Bibliography .....		61