

ISO 22893:2022-04 (E)

Space systems - Software product assurance (SPA)

| Contents | | Page |
|--------------------|--|-------------|
| Foreword | | v |
| Introduction | | vi |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Software product assurance overview | 1 |
| 4.1 | General | 1 |
| 4.2 | Product assurance activities related to software engineering | 2 |
| 4.3 | Product assurance activities related to software safety and security | 2 |
| 4.4 | Product assurance activities related to software reliability | 2 |
| 5 | Software product assurance management | 2 |
| 5.1 | General | 2 |
| 5.2 | Software product assurance planning and control | 3 |
| 5.3 | Risk management | 3 |
| 5.4 | Supplier selection and monitoring | 3 |
| 5.5 | Procurement process | 3 |
| 5.6 | Tools and support environment | 4 |
| 5.7 | Assessment and improvement process | 4 |
| 6 | Software process assurance | 4 |
| 6.1 | General | 4 |
| 6.2 | Software product assurance related to software engineering processes | 4 |
| 6.2.1 | General | 4 |
| 6.2.2 | System requirements analysis process | 4 |
| 6.2.3 | Software requirement analysis process | 5 |
| 6.2.4 | Software architectural design process | 5 |
| 6.2.5 | Software detailed design process | 5 |
| 6.2.6 | Software construction process | 5 |
| 6.2.7 | Software testing process | 5 |
| 6.2.8 | Delivery and acceptance process | 6 |
| 6.2.9 | Operations process | 6 |
| 6.2.10 | Maintenance process | 6 |
| 6.3 | Software product assurance related to support process | 6 |
| 6.3.1 | General | 6 |
| 6.3.2 | Documentation process | 7 |
| 6.3.3 | Safety and security analysis process | 7 |
| 6.3.4 | Critical items handling process | 7 |
| 6.3.5 | Configuration management process | 7 |
| 6.3.6 | Metric process | 7 |
| 6.3.7 | Verification process | 8 |
| 6.3.8 | Validation process | 8 |
| 6.3.9 | Review process | 8 |
| 6.3.10 | Audit process | 8 |
| 6.3.11 | Problem resolution process | 8 |
| 6.4 | Software product assurance related to organizational process | 9 |
| 6.4.1 | General | 9 |

| | | |
|-------|--|----|
| 6.4.2 | Software product assurance related to management process | 9 |
| 6.4.3 | Infrastructure process | 9 |
| 6.4.4 | Training process | 9 |
| 6.4.5 | Reuse process | 9 |
| 6.4.6 | Automatic code generation evaluation process | 10 |
| 6.4.7 | Model-based software engineering process | 10 |
| 7 | Software product quality assurance | 10 |
| | Bibliography | 11 |