



EULYNX Initiative

EULYNX Partners:

Bane NOR
Société Nationale des Chemins de Fer Luxembourgeois (CFL)
DB Netz AG (DB)
S.A. Infrabel
Network Rail
ProRail B.V.
Rete Ferroviaria Italiano (RFI)
SBB AG
Société Nationale des Chemins de Fer Français (SNCF)
SŽ-Infrastruktura, d.o.o. (SŽ)
Trafikverket
Väylä (FTIA)

Requirements specification for subsystem Point

Document number: Eu.Doc.36

Baseline: 2.6 (0.A)

EULYNX Baseline Set: 3



Contents

1	Introduction	1
1.1	Release information	1
1.2	Impressum	3
1.3	Purpose	3
1.4	Applicable standards and regulations	3
1.5	Applicable documents	3
1.6	Terms and abbreviations	3
1.7	Variability management	3
1.8	Definition of object types	3
1.9	Modelling	3
2	Conditions of use	4
3	Functional requirements specification	4
3.1	Subsystem definition	4
3.1.1	Subsystem context	4
3.1.1.1	Technical subsystem context	4
3.1.1.2	Functional subsystem context	4
3.1.2	InformationFlow at the subsystem interfaces	5
3.1.2.1	Interface SCI-P (Subsystem - Electronic Interlocking)	5
3.1.2.2	Interface SMI-P (Subsystem - Maintenance and Data Management)	6
3.1.2.3	Interface SDI-P (Subsystem - Maintenance and Data Management)	6
3.1.2.4	Interface P4 (Basic Data Identifier)	8
3.1.2.5	Interface P1 (Maintainer)	8
3.1.2.6	Interface P3 (Point machine)	8
3.1.3	Subsystem functions	8
3.1.3.1	Definition of time values	8
3.1.3.2	Essential subsystem states	8
3.1.3.3	Subsystem-UseCases "Initialisation"	8
3.1.3.4	Subsystem-UseCases "Operation"	10
3.1.3.5	Subsystem-UseCases "Maintenance"	37
3.2	Subsystem requirements	37
3.2.1	Connection context	37
3.2.2	Logical architectures	37
3.2.2.1	Process Data Interface protocol SCI-P	37
3.2.2.2	Subsystem - Point	38
4	RAMSS requirements	40
5	Technical Requirements	40
5.1	Specific technical interface requirements	40
5.1.1	Interface to the Point of Service Signalling (PoS-Signalling)	40
5.1.2	Interface to the point machine	40
5.2	Time behaviour	40
5.2.1	Response times	41
5.3	Configuration and engineering data	41
5.3.1	Specific data	41

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1	Head	1 Introduction		Default
Eu.P.2	Head	1.1 Release information		Default
Eu.P.3	Info	[Eu.Doc.36] Requirements specification for subsystem Point CENELEC Phase: 4 Version: 2.6 (0.A) EULYNX Baseline Set: 3 Approval date: 29.11.2018		Default
Eu.P.3032	Info	Version history		Default
Eu.P.3033	Info	version number: 1.0 date: 22.12.16 author: Charlotte Gäbel model version: 2.2.7 generic profile version: 2 review: - changes: EUP-29, EUP-30, EUP-31, EUP-32, EUP-33, EUP-34, EUP-35, EUP-36, EUP-37, EUP-38, EUP-39, EUP-40, EUP-41, EUP-42, EUP-43, EUP-44, EUP-45, EUP-47, EUP-48, EUP-49		Default
Eu.P.3034	Info	version number: 1.1 date: 16.01.17 author: Charlotte Gäbel model version: 2.2.12 generic profile version: 2 review: - changes: chapter "Technical requirements" and JIRA-Tickets EUP-54, EUP-55, EUP-56		Default
Eu.P.3043	Info	version number: 1.2 date: 22.02.17		Default
Eu.P.3044	Info	version number: 1.3 date: 22.02.17		Default
Eu.P.3045	Info	version number: 1.4 date: 22.02.17		Default
Eu.P.3035	Info	version number: 1.5 date: 22.02.17 author: Charlotte Gäbel model version: 2.2.19 generic profile version: 5 review: Axel Schneider (DB), Patrick Demuth (CFL), Thierry Jung (CFL), Thomas Harrison (NR), Mirko Blazic changes: EUP-21, EUP-58, EUP-61, EUP-66, EUP-69, EUP-70, EUP-71, EUP-73, EUP-75, EUP-76, EUP-77, EUP-78, EUP-79, EUP-81, EUP-83, EUP-84, EUP-85, EUP-86, EUP-87, EUP-89, EUP-91, EUP-93, EUP-94, EUP-95, EUP-96, EUP-97, EUP-98, EUP-99, EUP-100, EUP-101, EUP-102, EUP-103, EUP-105, EUP-108, EUP-109, EUP-110, EUP-111, EUP-112, EUP-113, EUP-114, EUP-115, EUP-116, EUP-117, EUP-118, EUP-119		Default
Eu.P.3046	Info	version number: 1.6 (0.A) date: 22.03.17 author: Charlotte Gäbel model version: 2.2.20 generic profile version: 5 review: CCB changes: EUP-123, EUP-124, EUP-125, EUP-126, EUP-127, EUP-128, EUP-130, EUP-131, EUP-132, EUP-133, EUP-135, EUP-136, EUP-138		Default
Eu.P.3049	Info	version number: 1.7 (0.A) date: 25.10.2017 author: Filip Giering and Jorge Block model version: 4.4.3 generic profile version: 21 Generic interface and subsystem requirements version: 1.4 (1.B) review: - changes: EUP-137, EUP-141, EUP-151, EUP-152, EUP-172, EUP-176, EUP-177, EUP-178, EUP-162, EUP-161, EUP-159, EUP-157, EUP-163, EUP-82, EUP-175, EUP-143, EUP-158, EUP-181, EUP-134, EUP-168, EUP-184, EUP-174, EUP-185, EUP-186, EUP-144, EUP-153, EUP-187, EUP-154, EUP-155, EUP-146, EUP-166, EUP-149		Default
Eu.P.3047	Info	version number: 1.8 (0.A) date: 03.11.2017 author: Jorge Block model version: 4.4.4 generic profile version: 22 Generic interface and subsystem requirements version: 1.4 (1.B) review: - changes: EUP-149, EUP-188, EUP-190, EUP-191, EUP-193, EUP-194		Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3149	Info	version number: 1.8 (0.B) date: 08.11.2017 author: Jorge Block model version: 4.4.4 generic profile version: 22 Generic interface and subsystem requirements version: 1.4 (3.B) review: - changes: EUP-148		Default
Eu.P.3150	Info	version number: 1.8 (1.B) date: 08.11.2017 author: Jorge Block model version: 4.4.4 generic profile version: 22 Generic interface and subsystem requirements version: 1.4 (3.B) review: - changes: EUP-197		Default
Eu.P.3152	Info	version number: 2.0 (0.A) date: 08.12.2017 author: Darren Witts model version: 4.4.8 generic profile version: 25 Generic interface and subsystem requirements version: 2.0 (0.A) review: - CCB changes: EUP-198, EUP-199, EUP-200		Default
Eu.P.3156	Info	version number: 2.1 (0.A) date: 07.03.2018 author: James Towers / Darren Witts model version: 15.6.1 generic profile version: 25 Generic interface and subsystem requirements version: 2.0 (0.A) review: - cluster changes: EUP-155, EUP-202, EUP-209, EUP-211, EUP-213, EUP-215		Default
Eu.P.3164	Info	version number: 2.2 (0.A) date: 22.03.2018 author: James Towers / Darren Witts model version: 15.6.1 generic profile version: 26 Generic interface and subsystem requirements version: 2.0 (0.A) review: - CCB changes: EUP-210, EUP-214, EUP-217		Default
Eu.P.3166	Info	version number: 2.2 (1.A) date: 24.04.2018 author: Darren Witts model version: 15.6.1 generic profile version: 26 Generic interface and subsystem requirements version: 2.0 (0.A) review: - CCB changes: EUP-218, EUP-219, EUP-220, EUP-222, EUP-224		Default
Eu.P.3169	Info	version number: 2.3 (0.A) date: 19.10.2018 author: Darren Witts model version: 15.6.8 generic profile version: 30 Generic interface and subsystem requirements version: 2.1 (0.A) review: - Cluster changes: EUP-224, EUP-225, EUP-226, EUP-227, EUP-228, EUP-229, EUP-230, EUP-231, EUP-232, EUP-233, EUP-234, EUP-235, EUP-238, EUP-239		Default
Eu.P.3243	Info	version number: 2.4 (0.A) date: 06.11.2018 author: Darren Witts model version: 15.6.8 generic profile version: 30 Generic interface and subsystem requirements version: 2.1 (0.A) review: - CCB changes: EUP-242, EUP-244, EUP-245, EUP-247		Default
Eu.P.3270	Info	version number: 2.5 (0.A) date: 11.12.2018 author: Darren Witts model version: 15.6.8 generic profile version: 30 Generic interface and subsystem requirements version: 3.0 (0.A) review: - CCB changes: EUP-251, EUP-252, EUP-254		Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3272	Info	version number: 2.6 (0.A) date: 09.08.2019 author: Philipp Wolber model version: 15.6.11 generic profile version: 33 Generic interface and subsystem requirements version: 3.0 (0.A) review: Marie Gehrmann changes: EUP-250, EUP-260, EUP-262, EUP-263, EUP-264, EUP-267, EUP-270, EUP-272, EUP-273, EUP-277, EUP-278 ,EUP-279, EUP-281		Default
Eu.P.7	Head	1.2 Impressum		Default
Eu.P.8	Info	Publisher: EULYNX Initiative EULYNX Partners: Bane NOR Société Nationale des Chemins de Fer Luxembourgeois (CFL) DB Netz AG (DB) S.A. Infrabel Väylä (FTIA) Network Rail ProRail B.V. Rete Ferroviaria Italiana (RFI) SBB AG Société Nationale des Chemins de Fer Français (SNCF) SŽ-Infrastruktura, d.o.o. (SŽ) Trafikverket		Default
Eu.P.9	Info	Responsible for this document: EULYNX Project Management Office www.eulynx.eu		Default
Eu.P.3038	Info	Copyright EULYNX Partners All information included or disclosed in this document is licensed under the European Union Public Licence EUPL, Version 1.1.		Default
Eu.P.10	Head	1.3 Purpose		Default
Eu.P.11	Info	The purpose of the document is the specification of requirements for the Subsystem - Point for the development of the EULYNX System.		Default
Eu.P.12	Info	This document describes functional, non-functional and technical requirements for the Subsystem - Point and functional requirements for interface SCI-P.		Default
Eu.P.13	Info	This document is intended for the following users: <ul style="list-style-type: none">• safety authorities• infrastructure managers• safety assessors• signalling system suppliers• validators		Default
Eu.P.14	Info	This document is the basis for the implementation by the supplier and for approval by the infrastructure manager.		Default
Eu.P.15	Head	1.4 Applicable standards and regulations		Default
Eu.P.314	Info	The applicable standards and regulations used in EULYNX are listed in the EULYNX Reference Document List [Eu.Doc.12].		Default
Eu.P.35	Head	1.5 Applicable documents		Default
Eu.P.36	Info	The current versions of documents used as input or related to this document are listed in the EULYNX Documentation Plan [Eu.Doc.11]. The relationships between the documents are displayed in the Appendix A1 Documentation plan and structure [Eu.Doc.11_A1].		Default
Eu.P.51	Head	1.6 Terms and abbreviations		Default
Eu.P.52	Info	The terms and abbreviations are listed in the EULYNX Glossary [Eu.Doc.9].		Default
Eu.P.1350	Head	1.7 Variability management		Default
Eu.P.1351	Info	The applicability column indicates the applicability of the requirement or information object per EULYNX partner. Value "Default" means the object applies to all EULYNX partners. Value "IM code" means the object applies specifically to the stated EULYNX partner. IM codes follow the pattern "abcdyz", where abcd is the UIC numeric code for railway companies and yz is by default "00".		Default
Eu.P.3024	Head	1.8 Definition of object types		Default
Eu.P.3025	Info	The following definition for object types is applied in this document:		Default
Eu.P.3026	Info	• "Req" - This denotes a mandatory requirement.		Default
Eu.P.3027	Info	• "Info" - This denotes additional information to help understand the specification. These objects do not specify any additional requirements.		Default
Eu.P.3028	Info	• "Head" - This denotes chapter headings.		Default
Eu.P.53	Head	1.9 Modelling		Default
Eu.P.54	Info	The section "Functional requirements specification" follows a model based systems engineering process using Systems Modelling Language (SysML) and defines the functional system requirements for the Subsystem - Point operational in stimulus-response form. Furthermore the information objects (stimuli and responses) exchanged over the interfaces of the Subsystem - Point are defined.		Default
Eu.P.55	Info	The diagrams presented in this document are modelled in SysML [SysML].		Default
Eu.P.3050	Info	The rules for the interpretation of the model based parts of specification are defined in [Eu.Doc.29].		Default
Eu.P.3051	Info	In chapter 3 Functional requirements specification the functional system requirements, defined in the form of a SysML model in the PTC Integrity Modeler are depicted as a surrogate of this model in the form of DOORS-objects.		Default
Eu.P.3052	Info	A requirement thereby consists of the respective SysML model element, for instance a SysML diagram, and if necessary an additional extension of the requirement.		Default

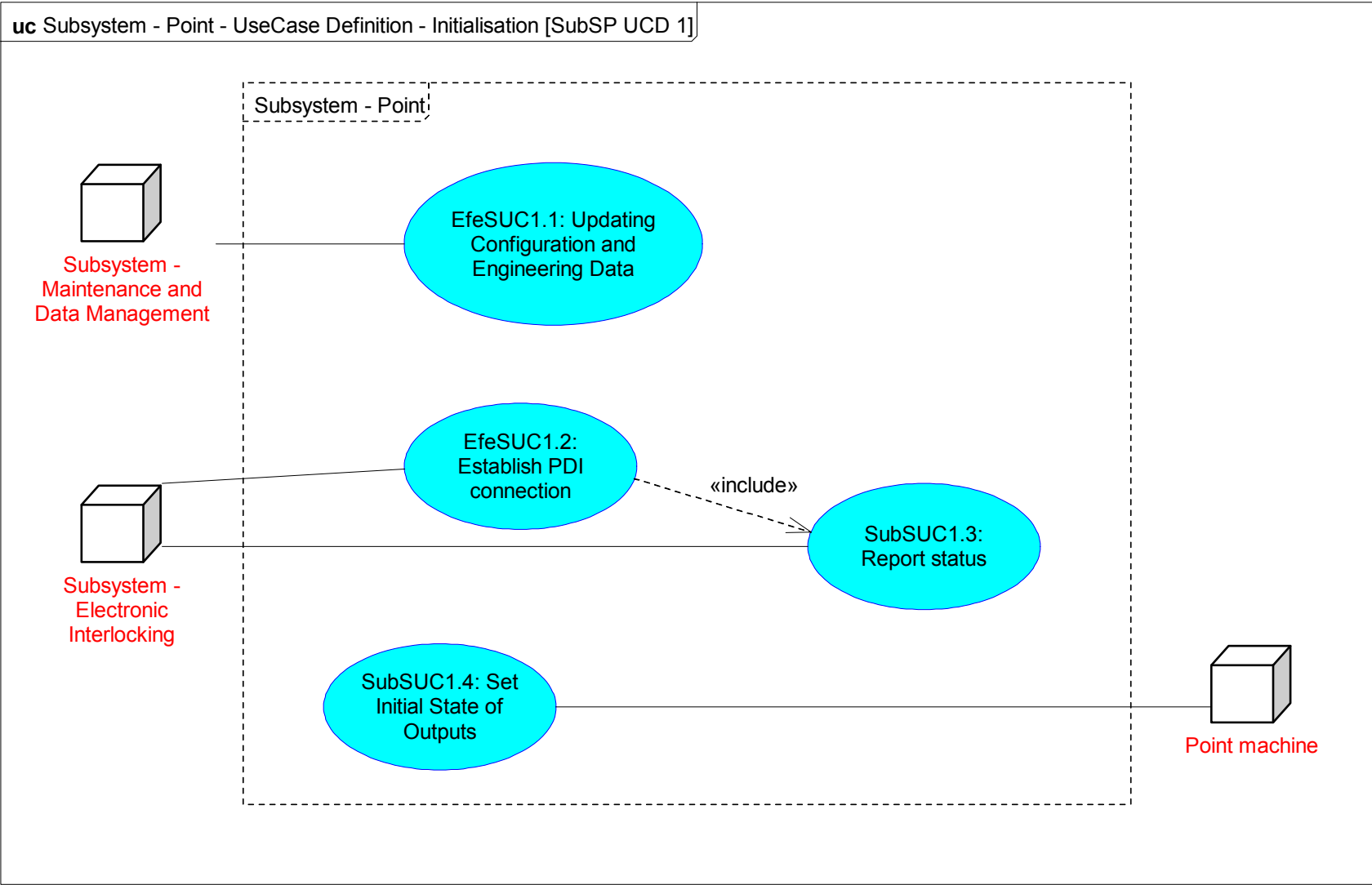
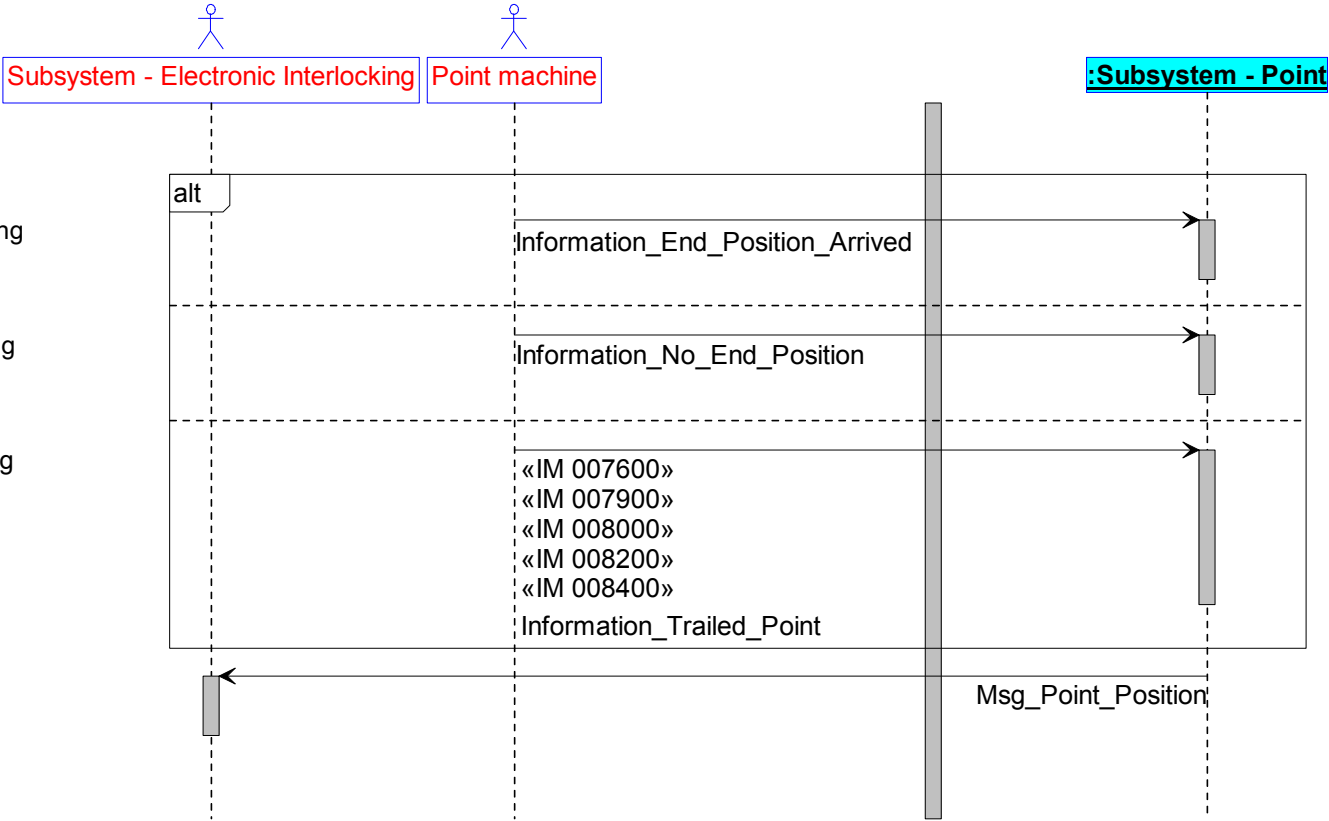
ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3053	Info	In the column “Requirement Part 1” the particular SysML model element is depicted and in the column “Requirement Part 2” the corresponding extension of the definition is given. The stated object type normally applies both to “Requirement Part 1” and to “Requirement Part 2”.		Default
Eu.P.3054	Info	There are requirements with type "Req" given, where the column "Requirement Part 2" or a part of it is provided with the heading "Information". In this case, the defined type only applies to the column "Requirement Part 1" and the part of "Requirement Part 2", which is not labelled as "Information".		Default
Eu.P.57	Head	2 Conditions of use		Default
Eu.P.58	Req	The specifications defined in this document shall follow the requirements of the EULYNX System Architecture Specification [Eu.Doc.16].		Default
Eu.P.884	Head	3 Functional requirements specification		Default
Eu.P.888	Head	3.1 Subsystem definition	Defines the subsystem according to phase 2 of life cycle model from EN 50126.	Default
Eu.P.937	Head	3.1.1 Subsystem context		Default
Eu.P.948	Head	3.1.1.1 Technical subsystem context		Default
Eu.P.950	Req	<div>Subsystem - Point - Technical Subsystem Context [SubSP BDD 1] bdd Subsystem - Point - Technical Subsystem Context [SubSP BDD 1]</div> <pre>graph LR subgraph "Subsystem - Point" P1 P2 P3 P4 end Maintainer[Maintainer] --- P1 PowerSupply[Power supply] --> P2 PointMachine[Point machine] --- P3 BasicDataIdentifier[Basic Data identifier] --> P4 SEI[Subsystem - Electronic Interlocking] --- SCI_P[SCI-P] SMDM[Subsystem - Maintenance and Data Management] --- SMI_P[SMI-P] SMDM --- SDI_P[SDI-P]</pre>	<p>The Subsystem - Point shall provide the technical interfaces shown in "Subsystem - Point - Technical Subsystem Context [SubSP BDD 1]". Each interface shall allow the connection to the corresponding actors shown in the quantities defined in the multiplicities.</p> <p>The Subsystem - Point has to be able to manage and control more than one connected Point machine. It does not send each status input from the n-fold (n = 1...5) Point machine to the Subsystem - Electronic Interlocking, but instead sends one collective message.</p>	Default
Eu.P.938	Head	3.1.1.2 Functional subsystem context		Default
Eu.P.939	Info	Subsystem - Point	The Subsystem - Point integrates the moveable elements, that may be moved to a different position by a request from the Subsystem - Electronic Interlocking.	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.947	Req	<div>Subsystem - Point - Functional Subsystem Context [SubSP IBD 1]</div> <div><div>ibid Subsystem - Point - Functional Subsystem Context [SubSP IBD 1]</div><pre>graph LR subgraph "Subsystem - Point" direction TB SCI_P["SCI-P : Subsystem_Electronic_Interlocking"] SMI_P["SMI-P : Subsystem_MDM_M"] SDI_P["SDI-P : Subsystem_MDM_D"] P4["P4 : Basic_Data_Identifier"] P1["P1 : Maintainer"] end SEI["Subsystem - Electronic Interlocking"] --- SCI_P SMDM["Subsystem - Maintenance and Data Management"] --- SMI_P SMDM --- SDI_P BDI["Basic Data identifier"] --- P4 M["Maintainer"] --- P1 P3["P3 : Point_machine"] --- PM["Point machine"] SCI_P --- SMI_P SMI_P --- SDI_P SDI_P --- P4 P4 --- P1 P1 --- P3</pre></div>	The Subsystem - Point shall provide the functional interfaces shown in "Subsystem - Point - Functional Subsystem Context [SubSP IBD 1]", typed by FlowSpecifications. Each FlowSpecification is defined by a set of FlowProperties that specify the possible exchange of information through the particular interface.	Default
Eu.P.944	Info	SCI-P	The functional Process Data Interface to the Subsystem - Electronic Interlocking (SCI: Standard Communication Interface). The InformationFlow through the Interface is defined by the FlowSpecification "Subsystem_Electronic_Interlocking".	Default
Eu.P.946	Info	SMI-P	The functional System Maintenance Interface to the Subsystem - Maintenance and Data Management f for the InformationFlow through the Interface, which is defined by the FlowSpecification "Subsystem_MDM_M".	Default
Eu.P.945	Info	SDI-P	The functional Diagnostic Interface to the Subsystem - Maintenance and Data Management. The InformationFlow through the Interface is defined by the FlowSpecification "Subsystem_MDM_D".	Default
Eu.P.943	Info	P4	The functional System Data Interface to the Basic_Data_Identifier. The InformationFlow through the Interface is defined by the FlowSpecification "Basic_Data_Identifier".	Default
Eu.P.941	Info	P1	The functional Local Control and Display Interface to the Maintainer. The InformationFlow through the Interface is defined by the FlowSpecification "Maintainer".	Default
Eu.P.942	Info	P3	The functional control interface to a minimum of one and maximum of 5 Point machine(s) for the information flow through the interface, which is defined by the FlowSpecification "Point machine".	Default
Eu.P.889	Head	3.1.2 InformationFlow at the subsystem interfaces		Default
Eu.P.913	Head	3.1.2.1 Interface SCI-P (Subsystem - Electronic Interlocking)		Default
Eu.P.3064	Info	The generic commands and messages through the SCI-P are specified in Eu.Doc.20.		Default
Eu.P.914	Info	Subsystem_Electronic_Interlocking	Definition of the InformationFlow (by FlowSpecification) for Process Data Interface SCI-P (Subsystem - Electronic Interlocking).	Default
Eu.P.916	Req	Cd_Move_Point	Command (Cd) from Subsystem - Electronic Interlocking to Subsystem - Point to move the Point into the commanded position.	Default
Eu.P.922	Req	Msg_Point_Position	Message (Msg) from Subsystem - Point to Subsystem - Electronic Interlocking about the current Point Position.	Default
Eu.P.924	Req	Msg_Timeout	Message (Msg) from Subsystem - Point to Subsystem - Electronic Interlocking that the maximum acceptable time for moving the Point "Con_tmax_Point_Operation" has expired. The Subsystem - Point has stopped the Point machine moving the points.	007600 007900 008000 008200 008400

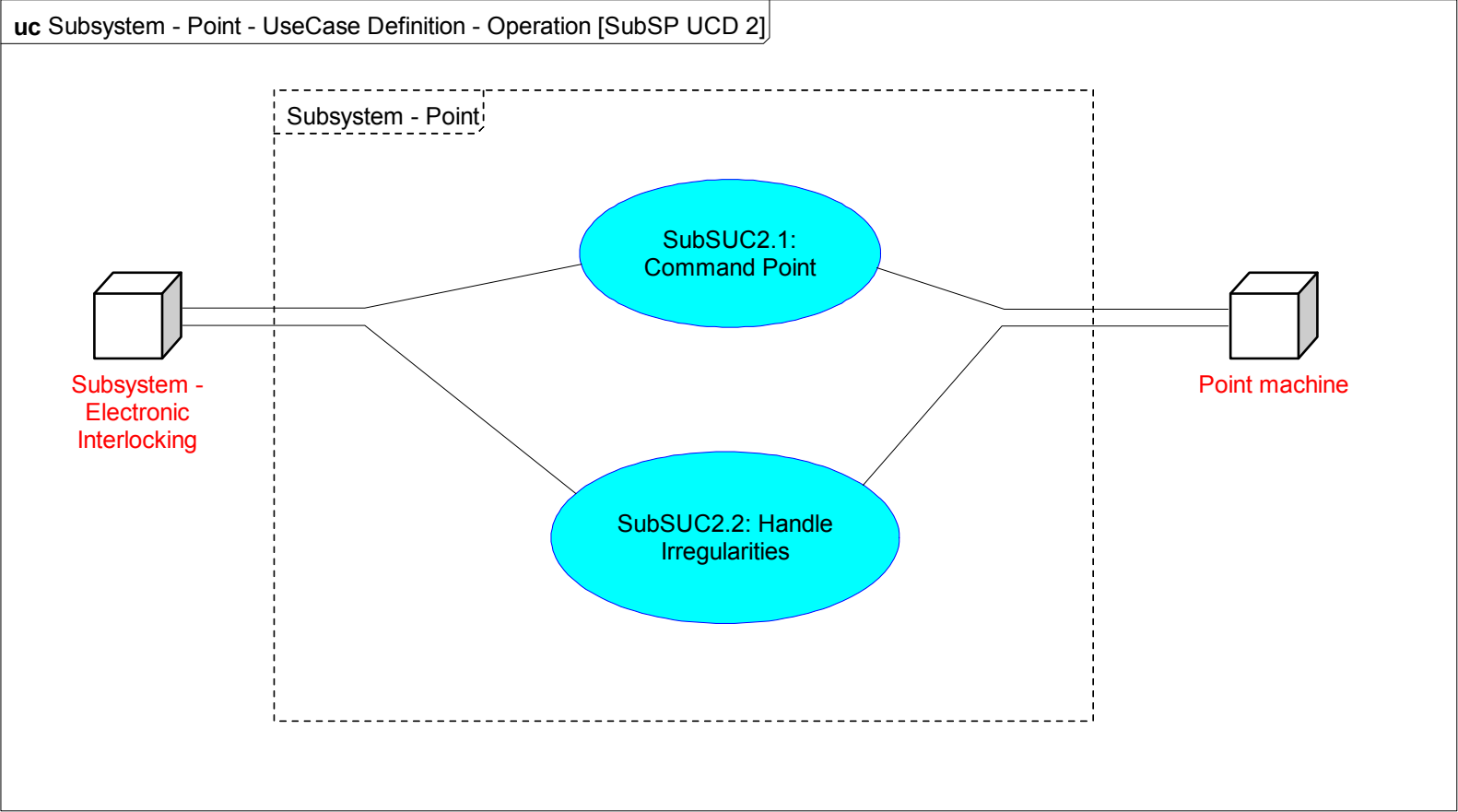
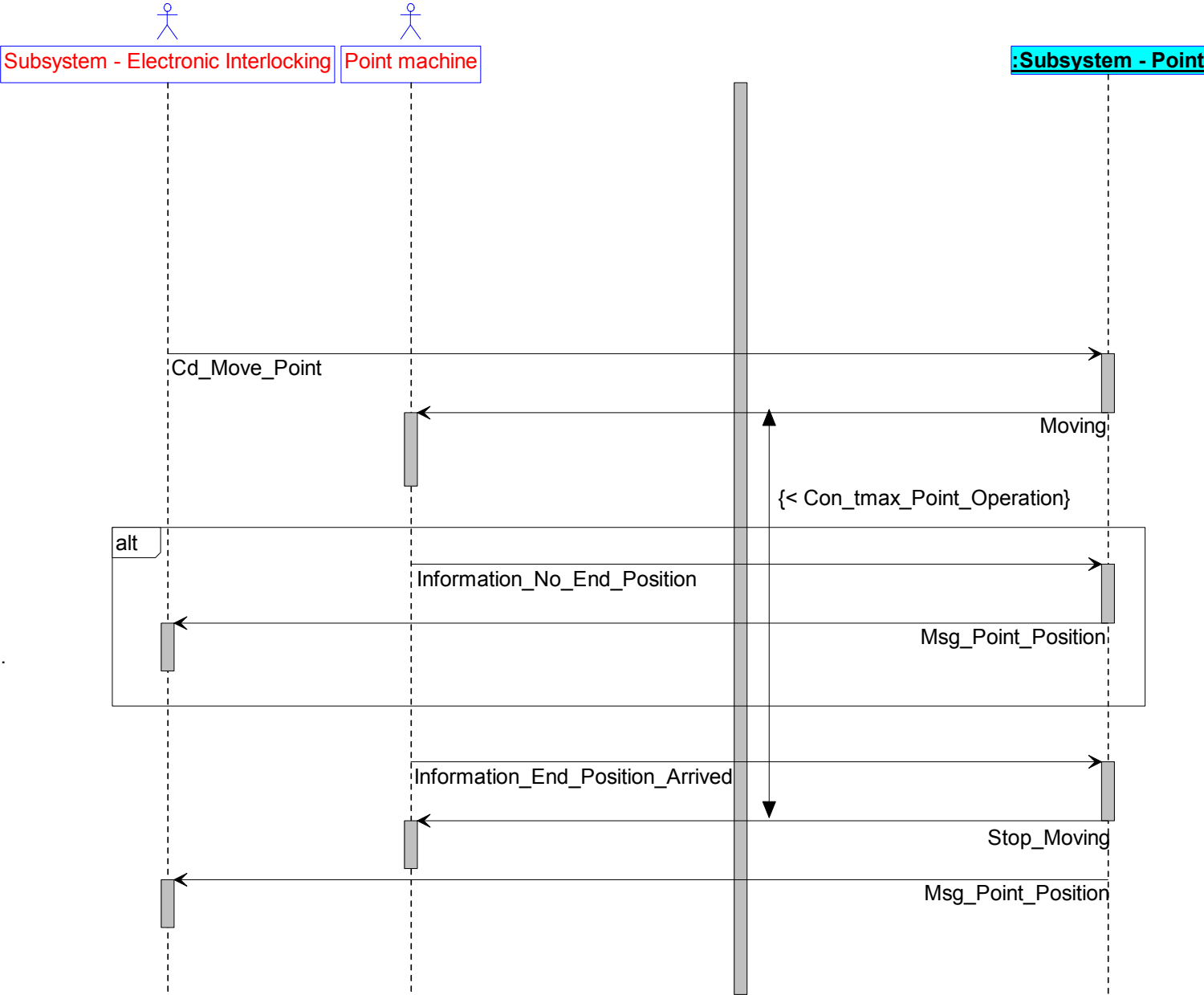
ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.929	Head	3.1.2.2 Interface SMI-P (Subsystem - Maintenance and Data Management)		Default
Eu.P.3066	Info	The generic FlowSpecification and the related FlowProperties through SMI-P are specified in Eu.Doc.20.		Default
Eu.P.925	Head	3.1.2.3 Interface SDI-P (Subsystem - Maintenance and Data Management)		Default
Eu.P.3065	Info	The generic data points through the SDI-P are specified in Eu.Doc.20.		Default
Eu.P.926	Info	Subsystem_MDM_D	Definition of the InformationFlow (by FlowSpecification) for the diagnostic data at the interface to Subsystem - Maintenance and Data Management.	Default
Eu.P.1397	Req	DriveVoltageFault	Type: Boolean Parameter = {yes, no} Electricity is not switchable. The message shall be transmitted as event triggered. Note: The electricity is not detected.	Default
Eu.P.1404	Req	PointTurnEvent.MotorTurnData[i].CurrentL1Phase	Type: Array of Float Unit: A The course of active current from L1-Phase during the Point Movement is indicated (not the apparent current, which is included in the blind current component). The measured values of the Point Movement shall be given in a continous domain. The time interval between to measured values is defined as PointTurnEvent.SamplingInterval. i is the number of the Point machine (1 = first Point machine). The message shall be transmitted as event triggered after completion of point movement.	Default
Eu.P.1405	Req	PointTurnEvent.MotorTurnData[i].CurrentL2Phase	Type: Array of Float Unit: A The course of active current from L2-Phase during the Point Movement is indicated (not the apparent current, which is included in the blind current component). The measured values of the Point Movement shall be given in a continous domain. The time interval between to measured values is defined as PointTurnEvent.SamplingInterval. i is the number of the Point machine (1 = first Point machine). The message shall be transmitted as event triggered after completion of point movement.	Default
Eu.P.1406	Req	PointTurnEvent.MotorTurnData[i].CurrentL3Phase	Type: Array of Float Unit: A The course of active current from L3-Phase during the Point Movement is indicated (not the apparent current, which is included in the blind current component). The measured values of the Point Movement shall be given in a continous domain. The time interval between to measured values is defined as PointTurnEvent.SamplingInterval. i is the number of the Point machine (1 = first Point machine). The message shall be transmitted as event triggered after completion of point movement.	Default
Eu.P.1407	Req	PointTurnEvent.MotorTurnData[i].DelayStartTime	Type: Float Unit: Seconds Delay of time between the first started Point machine and the considered Point machine. i is the number of the Point machine (1 = first Point machine). The message shall be transmitted as event triggered.	Default
Eu.P.1408	Req	PointTurnEvent.MotorTurnData[i].idSub1	Type: String Functional location of Subsystem - Point (e.g. DB Netz AG TP 1-3 from SAP R/3). If this attribute is not defined, it needs to be filled with Underscore (0x5F). The attribute shall be changeable by updating of Configuration Data. i is the number of the Point machine (1 = first Point machine). The message shall be transmitted as event triggered.	Default
Eu.P.1409	Req	PointTurnEvent.MotorTurnData[i].MotorType	Type: Enumeration Type of Point machine`s motor. i is the number of the Point machine (1 = first Point machine). The message shall be transmitted as event trigerred.	Default
Eu.P.1410	Req	PointTurnEvent.MotorTurnData[i].Power	Type: Array of Float Unit: W The course of active power during the Point Movement is indicated. The	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
			<p>measured values of the Point Movement shall be given in a continuous domain. The time interval between measured values is defined as PointTurnEvent.SamplingInterval. i is the number of the Point machine (1 = first Point machine).</p> <p>The message shall be transmitted as event triggered after completion of point movement.</p> <p>Note: This requirement is an alternative realisation for the requirements of Eu.P.1404, Eu.P.1405 and Eu.P.1406 (current measurement of the 3 phases).</p>	
Eu.P.1411	Req	PointTurnEvent.Position	Type: Enumeration Direction of Moving Point. The message shall be transmitted as event triggered.	Default
Eu.P.1412	Req	PointTurnEvent.TurnTime	Type: Float Unit: Seconds Time of Moving Point resulting from start of the first moved Point machine until the last switched off Point machine. The message shall be transmitted as event triggerred.	Default
Eu.P.1413	Req	PrincipleOfMeasurement	Type: Enumeration Description how the data of the measurement from electricity (current) or performance (power) are collected. The message shall be transmitted with the establishing connection SDI-P.	Default
Eu.P.1416	Req	PointTurnEvent.SamplingInterval	Type: Float Unit: Seconds Information of time between two measure points for values of electricity or performance from the Moving point curve. The message shall be transmitted with the establishing connection SDI-P. Note: The value shall be between 20ms and 50ms.	Default
Eu.P.1419	Req	StatusPositionLeft	Type: Enumeration Status from detector of the left hand end position. The message shall be transmitted as event triggered.	Default
Eu.P.1420	Req	StatusPositionLeft_PM[i]	Type: Enumeration Information from the additional detector of the left hand end position (producer specific). i is the number of the Point machine or detectors (1 = first Point machine or detector). The message shall be transmitted as event triggered.	Default
Eu.P.1421	Req	StatusPositionRight	Type: Enumeration Status from detector of the right hand end position. The message shall be transmitted as event triggered.	Default
Eu.P.1422	Req	StatusPositionRight_PM[i]	Type: Enumeration Information from the additional detector of the right hand end position (producer specific). i is the number of the Point machine or detectors (1 = first Point machine or detector). The message shall be transmitted as event triggered.	Default
Eu.P.1423	Req	PointTurnEvent.Timeout	Type: Enumeration Status of Timeout from Moving Point. The message shall be transmitted as event triggered.	Default
Eu.P.1424	Req	TrailingStatus_PM[i]	Type: Boolean Information from the Point machine of a trailed point. i is the number of the Point machine (1 = first Point machine). The message shall be transmitted as event triggered.	Default
Eu.P.1425	Req	TurnCounter	Type: Long Counter of Moving point (right and left hand position are counted). The message shall be transmitted as event triggered.	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.2127	Info	A Point Movement starts with the Point machine starting up first (Trigger). The measuring of all Point machines starts when exceeding an appropriate starting value (Electricity). The delay from start of the first starting Point machine is to be specified for each Point machine in the variable PointTurnEvent.MotorTurnData[i].DelayStartTime. The recording of the data ends for each Point machine by stating a continuing undercut of an appropriate minimum value (Electricity). Start and End of the particular measuring procedure of the particular Point machine need to be detected.		Default
Eu.P.2126	Req	All the Data belonging to PointTurnEvent.[XXX] are sent when detecting a Point Movement. As those Datapoints belong together, all of them get the identical time stamp, indicating the beginning of the Point Movement.		Default
Eu.P.910	Head	3.1.2.4 Interface P4 (Basic Data Identifier)		Default
Eu.P.3063	Info	The generic FlowSpecification and the related FlowProperties through P4 are specified in Eu.Doc.20.		Default
Eu.P.890	Head	3.1.2.5 Interface P1 (Maintainer)		Default
Eu.P.891	Info	Maintainer	Definition of the InformationFlow (by FlowSpecification) for Maintenance/Operation/Display Interface P1 (Maintainer).	Default
Eu.P.896	Req	Point_Moving	Displays the moving of the point at the local status display.	Default
Eu.P.1377	Req	End_Position_R	Displays the status of the detection of point end position on the right hand.	Default
Eu.P.894	Req	End_Position_L	Displays the status of the detection of point end position on the left hand.	Default
Eu.P.3037	Req	Point_Trailed	Displays the trailing of the point at the local status display (point trailed or not trailed).	007600 007900 008000 008200 008400
Eu.P.3173	Info	The generic FlowProperties through P1 are specified in Eu.Doc.20.		Default
Eu.P.902	Head	3.1.2.6 Interface P3 (Point machine)		Default
Eu.P.903	Info	Point_machine	Definition of the InformationFlow (by FlowSpecification) for the Control Interfaces P3 (Point machine). Note: The behaviour of the interfaces P3 is described generically. The Subsystem - Point needs to be able to write and to read the generic information objects of the statuses from the Point machine.	Default
Eu.P.904	Req	Information_End_Position_Arrived	Information object from Point machine to Subsystem - Point that the Point has an end position (left hand position or right hand position).	Default
Eu.P.905	Req	Information_No_End_Position	Information object from Point machine to Subsystem - Point that the Point has no end position.	Default
Eu.P.906	Req	Information_Trailed_Point	Information object from Point machine to Subsystem - Point that the "Point is trailed from left hand position" or "Point is trailed from right hand position".	007600 007900 008000 008200 008400
Eu.P.907	Req	Moving	Information object from Subsystem - Point to Point machine to move the Point.	Default
Eu.P.909	Req	Stop_Moving	Information object from Subsystem - Point to Point machine to stop Moving the Point.	Default
Eu.P.959	Head	3.1.3 Subsystem functions		Default
Eu.P.2286	Head	3.1.3.1 Definition of time values		Default
Eu.P.3068	Info	The generic time values are specified in Eu.Doc.20.		Default
Eu.P.2439	Req	Con_tmax_Point_Operation	The Operation for Moving of Point takes more than the configured time value of monitoring "Con_tmax_Point_Operation" allows. The standardized time value is configured: Con_tmax_Point_Operation := 12 s (008000, 007600, 007000) Con_tmax_Point_Operation := 10 s (008200) Con_tmax_Point_Operation := 7 s (007000) - additional value selectable by dataprep	Default
Eu.P.960	Head	3.1.3.2 Essential subsystem states		Default
Eu.P.3069	Info	The essential subsystem states are specified in Eu.Doc.20.		Default
Eu.P.986	Head	3.1.3.3 Subsystem-UseCases "Initialisation"		Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1467	Info	<div>Subsystem - Point - UseCase Definition - Initialisation [SubSP UCD 1]</div> <div>uc Subsystem - Point - UseCase Definition - Initialisation [SubSP UCD 1]</div> 		Default
Eu.P.3070	Info	The generic UseCases EfsSUC 1.1 and EfeSUC 1.2 are specified in Eu.Doc.20.		Default
Eu.P.1465	Info	SubSUC1.3: Report status	The Subsystem-UseCase "SubSUC1.3: Report status" defines a scenario for the transmission of status data of Subsystem - Point to Subsystem - Electronic Interlocking, while Process Data Interface protocol connection is establishing.	Default
Eu.P.1110	Req	<div>SubSP SD 1.3.1</div> <div>SubSUC1.3: Report status</div> <div>Main Success Scenario: Report status [SubSP SD 1.3.1]</div> <div>alt [The Point is in an End position]</div> <div>1.a1 - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "Y".</div> <div>else alt [The Point is in No end position]</div> <div>1.b1 - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.</div> <div>else alt [The Point is in a Trailed position]</div> <div>1.c1 - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in a Trailed position.</div> <div>end alt</div> <div>2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating the Point position.</div> <div>Postcondition:</div> <div>The initial Point position is known.</div> 	If a state change happens while establishing the PDI connection and the status report Msg_Point_Position has already been sent, a new status report Msg_Point_Position has to be sent to Subsystem - Electronic Interlocking immediately after completion of the establishment of the connection.	Default
Eu.P.2296	Req	Main Success Scenario: Report status [SubSP SD 1.3.1]	See ID Eu.P.1110	Default
Eu.P.1666	Req	alt [The Point is in an End position]	See ID Eu.P.1110	Default
Eu.P.1667	Req	1.a1 - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "Y".	See ID Eu.P.1110	Default
Eu.P.1668	Req	else alt [The Point is in No end position]	See ID Eu.P.1110	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1669	Req	1.b1 - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID Eu.P.1110	Default
Eu.P.1670	Req	else alt [The Point is in a Trailed position]	See ID Eu.P.1110	007600 007900 008000 008200 008400
Eu.P.1671	Req	1.c1 - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in a Trailed position.	See ID Eu.P.1110	007600 007900 008000 008200 008400
Eu.P.1672	Req	end alt	See ID Eu.P.1110	Default
Eu.P.3175	Req	2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating the Point position.	See ID Eu.P.1110	Default
Eu.P.1673	Req	Postcondition:	See ID Eu.P.1110	Default
Eu.P.1674	Req	The initial Point position is known.	See ID Eu.P.1110	Default
Eu.P.1109	Info	SubSUC1.4: Set Initial State of Outputs	The Subsystem-UseCase "SubSUC1.4: Set Initial State of Outputs" specifies the main success scenario of establishing the basic state of Subsystem - Point when changing to the state BOOTING or to the state INITIALISING without moving the Point.	Default
Eu.P.1466	Req	<div><div><div>SubSP SD 1.4.1</div><div><u>SubSUC1.4: Set Initial State of Outputs</u></div><div></div><div>Main Success Scenario: Set Initial State of Outputs [SubSP SD 1.4.1]</div><div>Precondition: The Subsystem - Point is in the state BOOTING.</div><div>Interaction 1.4.1.A: 1. - The Subsystem - Point enters the state INITIALISING. 2. The Subsystem - Point sends a Command to the Point machine to Stop Moving.</div><div>Postconditions: The Subsystem - Point is in the state INITIALISING. The Initial State Of Outputs of the Subsystem - Point has been set.</div></div><div><pre>sequenceDiagram actor PM as Point machine participant SP as :Subsystem - Point PM->>SP: Stop_Moving</pre></div></div>		Default
Eu.P.2295	Req	Main Success Scenario: Set Initial State of Outputs [SubSP SD 1.4.1]	See ID Eu.P.1466	Default
Eu.P.3176	Req	Precondition:	See ID Eu.P.1466	Default
Eu.P.3178	Req	The Subsystem - Point is in the state BOOTING.	See ID Eu.P.1466	Default
Eu.P.3177	Req	Interaction 1.4.1.A:	See ID Eu.P.1466	Default
Eu.P.3179	Req	1. - The Subsystem - Point enters the state INITIALISING.	See ID Eu.P.1466	Default
Eu.P.1661	Req	2. The Subsystem - Point sends a Command to the Point machine to Stop Moving.	See ID Eu.P.1466	Default
Eu.P.3180	Req	Postconditions:	See ID Eu.P.1466	Default
Eu.P.3181	Req	The Subsystem - Point is in the state INITIALISING.	See ID Eu.P.1466	Default
Eu.P.3182	Req	The Initial State Of Outputs of the Subsystem - Point has been set.	See ID Eu.P.1466	Default
Eu.P.1128	Head	3.1.3.4 Subsystem-UseCases "Operation"		Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1320	Info	<div>Subsystem - Point - UseCase Definition - Operation [SubSP UCD 2]</div> <div>uc Subsystem - Point - UseCase Definition - Operation [SubSP UCD 2]</div> 		Default
Eu.P.1129	Info	SubSUC2.1: Command Point	The Subsystem-UseCase "SubSUC2.1: Command Point" defines Main Success Scenario and Alternative Scenarios (e.g. Reversing Point) for Moving of the Point through Subsystem - Point after the command from Subsystem - Electronic Interlocking.	Default
Eu.P.1237	Req	<div>SubSP SD 2.1.1</div> <div>SubSUC2.1: Command Point</div> <div>Main Success Scenario: Moving of the Point [SubSP SD 2.1.1]</div> <div>Precondition:</div> <div>The Subsystem - Point is in the state OPERATIONAL.</div> <div>The Subsystem - Point is in:</div> <div>- an End position "Y",</div> <div>- No end position, or</div> <div>- a Trailed position.</div> <div>Interaction 2.1.1.A:</div> <div>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</div> <div>2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.</div> <div>Interaction 2.1.1.B:</div> <div>alt [The Subsystem - Point is in an End position or a Trailed position]</div> <div>3. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.</div> <div>4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.</div> <div>end alt</div> <div>Interaction 2.1.1.C:</div> <div>5. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".</div> <div>6. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.</div> <div>7. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "X".</div> <div>Postcondition:</div> <div>The Subsystem - Point is in an End position "X".</div> 		Default
Eu.P.2308	Req	Main Success Scenario: Moving of the Point [SubSP SD 2.1.1]	See ID Eu.P.1237	Default
Eu.P.1855	Req	Precondition:	See ID Eu.P.1237	Default
Eu.P.1856	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID Eu.P.1237	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.2993	Req	- a Trailed position.	See ID Eu.P.1237	007600 007900 008000 008200 008400
Eu.P.1857	Req	Interaction 2.1.1.A:	See ID Eu.P.1237	Default
Eu.P.1858	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID Eu.P.1237	Default
Eu.P.1859	Req	2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID Eu.P.1237	Default
Eu.P.1860	Req	Interaction 2.1.1.B:	See ID Eu.P.1237	Default
Eu.P.3205	Req	alt [The Subsystem - Point is in an End position or a Trailed position]	See ID Eu.P.1237	Default
Eu.P.1861	Req	3. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID Eu.P.1237	Default
Eu.P.1862	Req	4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID Eu.P.1237	Default
Eu.P.3206	Req	end alt	See ID Eu.P.1237	Default
Eu.P.1863	Req	Interaction 2.1.1.C:	See ID Eu.P.1237	Default
Eu.P.1864	Req	5. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".	See ID Eu.P.1237	Default
Eu.P.3012	Req	6. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.	See ID Eu.P.1237	Default
Eu.P.1865	Req	7. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "X".	See ID Eu.P.1237	Default
Eu.P.1866	Req	Postcondition:	See ID Eu.P.1237	Default
Eu.P.1867	Req	The Subsystem - Point is in an End position "X".	See ID Eu.P.1237	Default
Eu.P.1175	Req	<div><div>SubSP SD 2.1.2</div><div><div><div><div><div><div>Subsystem - Electronic Interlocking</div><div>Point machine</div></div></div><div><div><div>Subsystem - Point</div></div></div></div></div><div><div>Alternative Scenario: Reversing Point [SubSP SD 2.1.2]</div><div><div>Precondition:</div><div>The Subsystem - Point is in the state OPERATIONAL.</div><div>The Subsystem - Point is in:</div><div><div>- an End position "Y",</div><div>- No end position, or</div><div>- a Trailed position.</div></div><div><div>Interaction 2.1.2.A:</div><div><div>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</div><div>2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.</div></div><div><div>Interaction 2.1.2.B:</div><div>alt [The Subsystem - Point is in an End position or a Trailed position]</div><div><div><div>3. - The Point machine sends a Message to the Subsystem - Point indicating that Point is in No end position.</div><div>4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that Point is in No end position.</div></div></div><div>end alt</div><div><div>Interaction 2.1.2.C:</div><div>5. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "Y".</div><div><div>Interaction 2.1.2.D:</div><div><div>6. - The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "Y". At this moment the Subsystem - Point re-starts the timer Con_tmax_Point_Operation.</div><div>7. The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "Y".</div><div>8. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.</div><div>9. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "Y".</div></div><div><div>Postcondition:</div><div>The Subsystem - Point is in an End position "Y".</div></div></div></div></div></div><div>Default</div></div></div></div></div>		Default
Eu.P.2305	Req	Alternative Scenario: Reversing Point [SubSP SD 2.1.2]	See ID Eu.P.1175	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1792	Req	Precondition:	See ID Eu.P.1175	Default
Eu.P.1793	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID Eu.P.1175	Default
Eu.P.2992	Req	- a Trailed position.	See ID Eu.P.1175	007600 007900 008000 008200 008400
Eu.P.1794	Req	Interaction 2.1.2.A:	See ID Eu.P.1175	Default
Eu.P.1795	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID Eu.P.1175	Default
Eu.P.1796	Req	2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID Eu.P.1175	Default
Eu.P.1797	Req	Interaction 2.1.2.B:	See ID Eu.P.1175	Default
Eu.P.3199	Req	alt [The Subsystem - Point is in an End position or a Trailed position]	See ID Eu.P.1175	Default
Eu.P.1798	Req	3. - The Point machine sends a Message to the Subsystem - Point indicating that Point is in No end position.	See ID Eu.P.1175	Default
Eu.P.1799	Req	4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that Point is in No end position.	See ID Eu.P.1175	Default
Eu.P.3200	Req	end alt	See ID Eu.P.1175	Default
Eu.P.1800	Req	Interaction 2.1.2.C:	See ID Eu.P.1175	Default
Eu.P.1801	Req	5. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "Y".	See ID Eu.P.1175	Default
Eu.P.1804	Req	Interaction 2.1.2.D:	See ID Eu.P.1175	Default
Eu.P.1802	Req	6. - The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "Y". At this moment the Subsystem - Point re-starts the timer Con_tmax_Point_Operation.	See ID Eu.P.1175	Default
Eu.P.1805	Req	7. The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "Y".	See ID Eu.P.1175	Default
Eu.P.3010	Req	8. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.	See ID Eu.P.1175	Default
Eu.P.1806	Req	9. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "Y".	See ID Eu.P.1175	Default
Eu.P.1807	Req	Postcondition:	See ID Eu.P.1175	Default
Eu.P.1808	Req	The Subsystem - Point is in an End position "Y".	See ID Eu.P.1175	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1193	Req	<div><div><div>SubSP SD 2.1.3</div><div>SubSUC2.1: Command Point</div><div><p>Alternative Scenario: Reversing Point directly after the position has been commanded [SubSP SD 2.1.3]</p><p>Precondition:</p><p>The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in:</p><ul style="list-style-type: none">- an End position "Y",- No end position, or- a Trailed position.<p>Interaction 2.1.3.A:</p><p>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</p><p>2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.</p><p>Interaction 2.1.3.B:</p><p>par</p><div><p>alt [The Subsystem - Point is in an End position or a Trailed position]</p><p>3.a1 - The Point machine sends a Message to the Subsystem - Point indicating that Point is in No end position.</p><p>end alt</p></div><p>also par</p><p>3.b1 The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to the oposite End position "Y".</p><p>end par</p><p>4. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "Y". At this moment the Subsystem - Point re-starts the timer Con_tmax_Point_Operation.</p><p>Interaction 2.1.3.C:</p><p>5. - The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that Point is in No end position.</p><p>Interaction 2.1.3.D:</p><p>6. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "Y".</p><p>7. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.</p><p>8. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "Y".</p><p>Postcondition:</p><p>The Subsystem - Point is in an End position "Y".</p></div></div><div></div></div>		Default
Eu.P.2307	Req	Alternative Scenario: Reversing Point directly after the position has been commanded [SubSP SD 2.1.3]	See ID Eu.P.1193	Default
Eu.P.1835	Req	Precondition:	See ID Eu.P.1193	Default
Eu.P.1836	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID Eu.P.1193	Default
Eu.P.3003	Req	- a Trailed position.	See ID Eu.P.1193	007600 007900 008000 008200 008400
Eu.P.1837	Req	Interaction 2.1.3.A:	See ID Eu.P.1193	Default
Eu.P.1838	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID Eu.P.1193	Default
Eu.P.1839	Req	2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID Eu.P.1193	Default
Eu.P.1840	Req	Interaction 2.1.3.B:	See ID Eu.P.1193	Default
Eu.P.1841	Req	par	See ID Eu.P.1193	Default
Eu.P.3203	Req	alt [The Subsystem - Point is in an End position or a Trailed position]	See ID Eu.P.1193	Default
Eu.P.1842	Req	3.a1 - The Point machine sends a Message to the Subsystem - Point indicating that Point is in No end position.	See ID Eu.P.1193	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3204	Req	end alt	See ID Eu.P.1193	Default
Eu.P.1843	Req	also par	See ID Eu.P.1193	Default
Eu.P.1844	Req	3.b1 The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to the oposite End position "Y".	See ID Eu.P.1193	Default
Eu.P.1845	Req	end par	See ID Eu.P.1193	Default
Eu.P.1846	Req	4. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "Y". At this moment the Subsystem - Point re-starts the timer Con_tmax_Point_Operation.	See ID Eu.P.1193	Default
Eu.P.1847	Req	Interaction 2.1.3.C:	See ID Eu.P.1193	Default
Eu.P.1849	Req	5. - The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that Point is in No end position.	See ID Eu.P.1193	Default
Eu.P.1850	Req	Interaction 2.1.3.D:	See ID Eu.P.1193	Default
Eu.P.1851	Req	6. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "Y".	See ID Eu.P.1193	Default
Eu.P.2456	Req	7. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.	See ID Eu.P.1193	Default
Eu.P.1852	Req	8. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "Y".	See ID Eu.P.1193	Default
Eu.P.1853	Req	Postcondition:	See ID Eu.P.1193	Default
Eu.P.1854	Req	The Subsystem - Point is in an End position "Y".	See ID Eu.P.1193	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1210	Req	<div><div><div><div>SubSP SD 2.1.4</div><div>SubSUC2.1: Command Point</div><div><p>Alternative Scenario: Reversing Point after end position is arrived [SubSP SD 2.1.4]</p><p>Precondition:</p><p>The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in:</p><ul style="list-style-type: none">- an End position "Y",- No end position, or- a Trailed position.<p>Interaction 2.1.4.A:</p><p>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</p><p>2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.</p><p>Interaction 2.1.4.B:</p><p>alt [The Subsystem - Point is in an End position or a Trailed position]</p><p>3. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.</p><p>4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.</p><p>end alt</p><p>par</p><p>Interaction 2.1.4.C:</p><p>5.a1 - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".</p><p>5.a2 The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.</p><p>5.a3 The Subsystem - Point reports to the Subsystem - Electronic Interlocking that the point is in End position "X".</p><p>also par</p><p>Interaction 2.1.4.D:</p><p>5.b1 - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to the opposite End position "Y".</p><p>5.b2 The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "Y". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.</p><p>end par</p><p>Interaction 2.1.4.E:</p><p>6. - The Point machine sends a Message to the Subsystem - Point indicating that Point is in No end position.</p><p>7. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.</p><p>Interaction 2.1.4.F:</p><p>8. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "Y".</p><p>9. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.</p><p>10. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "Y".</p><p>Postcondition:</p><p>The Subsystem - Point is in an End position "Y".</p></div></div><div><pre>sequenceDiagram participant IE as Subsystem - Electronic Interlocking participant PM as Point machine participant SP as Subsystem - Point IE->>SP: Cd_Move_Point activate SP SP->>PM: Moving activate PM PM-->>SP: {< Con_tmax_Point_Operation} deactivate PM alt [The Subsystem - Point is in an End position or a Trailed position] PM->>SP: Information_No_End_Position activate SP SP->>IE: Msg_Point_Position deactivate SP else [] PM->>SP: Information_End_Position_Arrived activate SP SP->>PM: Stop_Moving deactivate SP SP->>IE: Msg_Point_Position deactivate SP else [] IE->>SP: Cd_Move_Point activate SP SP->>PM: Moving activate PM PM-->>SP: {< Con_tmax_Point_Operation} deactivate PM PM->>SP: Information_No_End_Position activate SP SP->>IE: Msg_Point_Position deactivate SP else [] PM->>SP: Information_End_Position_Arrived activate SP SP->>PM: Stop_Moving deactivate SP SP->>IE: Msg_Point_Position deactivate SP end deactivate SP</pre></div></div><div>Note: From the perspective of the Subsystem - Point the sequence between the notification of the original target position and the receipt of the reversal command must be freely selectable, because the command might have been sent from the Subsystem - Electronic Interlocking before receiving the message.</div><div>Default</div></div>		
Eu.P.2306	Req	Alternative Scenario: Reversing Point after end position is arrived [SubSP SD 2.1.4]	See ID Eu.P.1210	Default
Eu.P.1809	Req	Precondition:	See ID Eu.P.1210	Default
Eu.P.1810	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID Eu.P.1210	Default
Eu.P.3002	Req	- a Trailed position.	See ID Eu.P.1210	007600 007900 008000 008200 008400

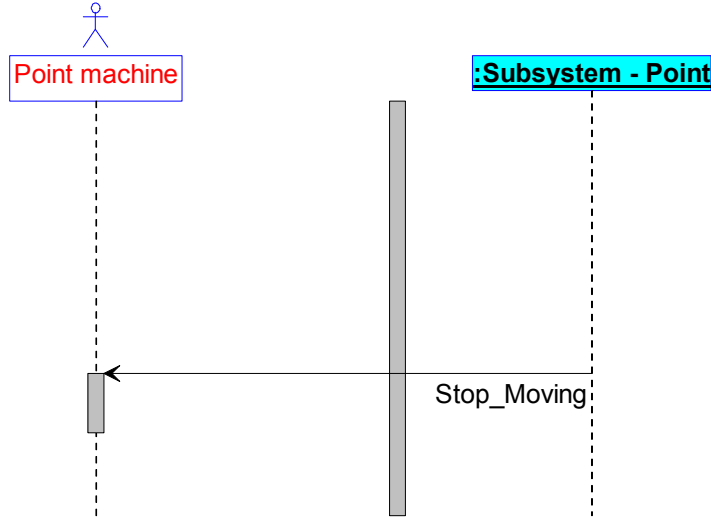
ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1811	Req	Interaction 2.1.4.A:	See ID Eu.P.1210	Default
Eu.P.1812	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID Eu.P.1210	Default
Eu.P.1813	Req	2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID Eu.P.1210	Default
Eu.P.1814	Req	Interaction 2.1.4.B:	See ID Eu.P.1210	Default
Eu.P.3201	Req	alt [The Subsystem - Point is in an End position or a Trailed position]	See ID Eu.P.1210	Default
Eu.P.1815	Req	3. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID Eu.P.1210	Default
Eu.P.1816	Req	4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID Eu.P.1210	Default
Eu.P.3202	Req	end alt	See ID Eu.P.1210	Default
Eu.P.1817	Req	par	See ID Eu.P.1210	Default
Eu.P.1818	Req	Interaction 2.1.4.C:	See ID Eu.P.1210	Default
Eu.P.1819	Req	5.a1 - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".	See ID Eu.P.1210	Default
Eu.P.3011	Req	5.a2 The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.	See ID Eu.P.1210	Default
Eu.P.1820	Req	5.a3 The Subsystem - Point reports to the Subsystem - Electronic Interlocking that the point is in End position "X".	See ID Eu.P.1210	Default
Eu.P.1821	Req	also par	See ID Eu.P.1210	Default
Eu.P.1822	Req	Interaction 2.1.4.D:	See ID Eu.P.1210	Default
Eu.P.1823	Req	5.b1 - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to the opposite End position "Y".	See ID Eu.P.1210	Default
Eu.P.1824	Req	5.b2 The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "Y". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID Eu.P.1210	Default
Eu.P.1825	Req	end par	See ID Eu.P.1210	Default
Eu.P.1827	Req	Interaction 2.1.4.E:	See ID Eu.P.1210	Default
Eu.P.1828	Req	6. - The Point machine sends a Message to the Subsystem - Point indicating that Point is in No end position.	See ID Eu.P.1210	Default
Eu.P.1829	Req	7. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID Eu.P.1210	Default
Eu.P.1830	Req	Interaction 2.1.4.F:	See ID Eu.P.1210	Default
Eu.P.1831	Req	8. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "Y".	See ID Eu.P.1210	Default
Eu.P.2454	Req	9. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID Eu.P.1210	Default
Eu.P.1832	Req	10. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "Y".	See ID Eu.P.1210	Default
Eu.P.1833	Req	Postcondition:	See ID Eu.P.1210	Default
Eu.P.1834	Req	The Subsystem - Point is in an End position "Y".	See ID Eu.P.1210	Default

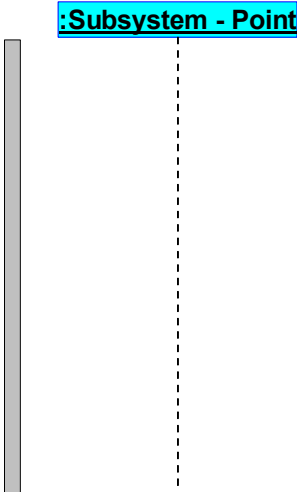
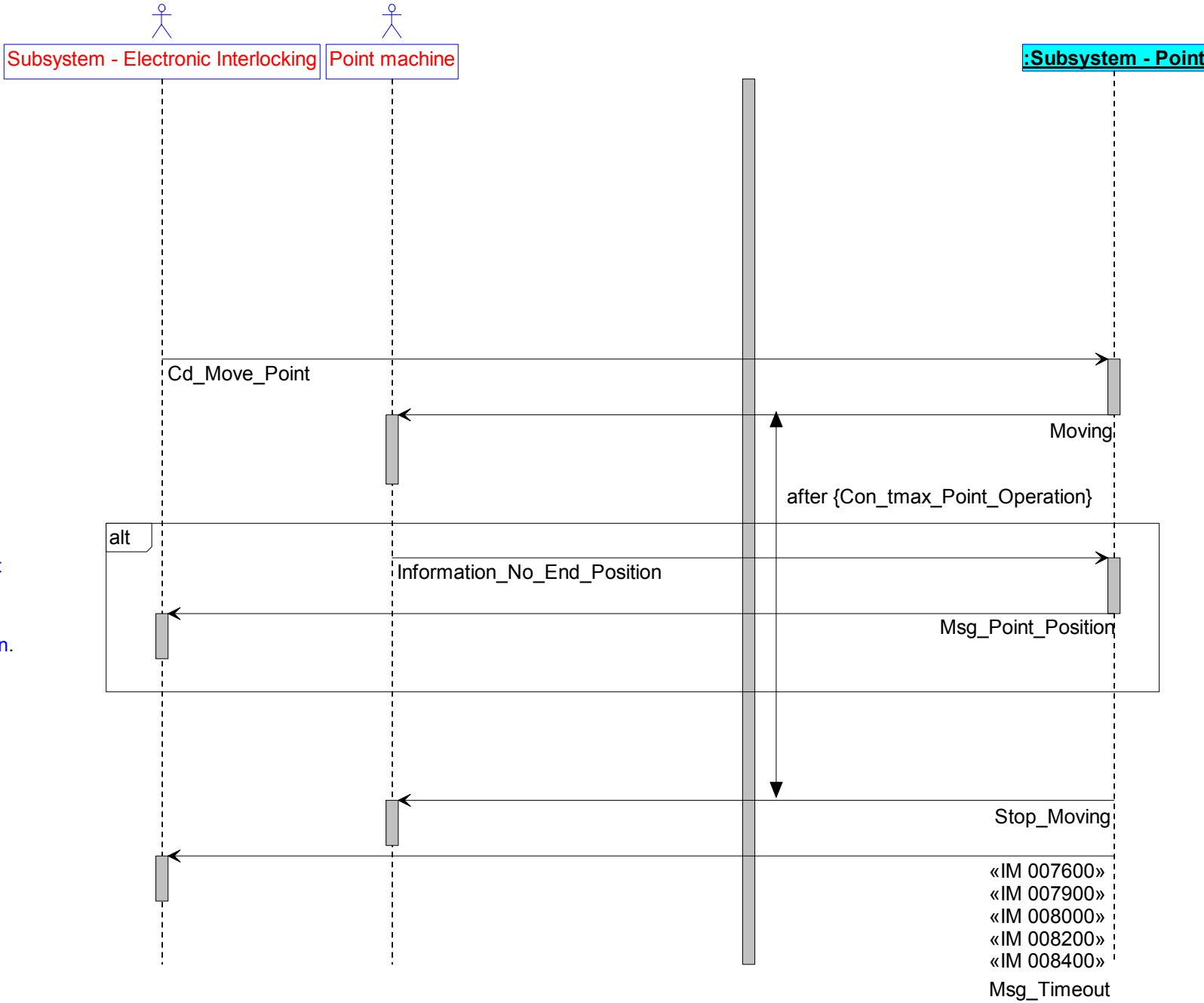
ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.2447	Req	7. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.	See ID Eu.P.1140	Default
Eu.P.3195	Req	8. The Subsystem - Point is unable to send a Message to the Subsystem - Electronic Interlocking.	See ID Eu.P.1140	Default
Eu.P.1775	Req	Postcondition:	See ID Eu.P.1140	Default
Eu.P.1776	Req	The Subsystem - Point is in the state INITIALISING. The Subsystem - Point is in an End position "X".	See ID Eu.P.1140	Default
Eu.P.1471	Req	<div><div>SubSP SD 2.1.7</div><div><div><div><div><div><div>SubSUC2.1: Command Point</div></div></div><div><div>Alternative Scenario: Moving of the Point with n-th Point machine</div><div>[SubSP SD 2.1.7]</div></div><div><div>Precondition:</div><div>The Subsystem - Point is in the state OPERATIONAL.</div><div>The Subsystem - Point is in:</div><div><div>- an End position "Y",</div><div>- No end position, or</div><div>- a Trailed position.</div></div><div><div>Interaction 2.1.7.A:</div><div>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</div></div><div><div>par</div><div><div>par</div><div><div>2.a1 The Subsystem - Point sends a Command to the 1st Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.</div><div>also par</div><div><div>2.b1 The Subsystem - Point sends a Command to the n-th Point machine to move the Point to an End position "X".</div><div>also par</div><div><div>2.c1 The Subsystem - Point starts the timer Con_tmax_Point_Operation.</div><div>end par</div></div></div><div>end par</div></div><div><div>also par</div><div><div>Interaction 2.1.7.B:</div><div>alt [The 1st Point machine is in an End position or a Trailed position]</div><div><div>3.a1 - The 1st Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.</div><div>else alt [The n-th Point machine is in an End position or a Trailed position]</div><div><div>3.b1 - The n-th Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.</div><div>end alt</div></div><div>alt [One of the Point machine is in No end position]</div><div><div>4. - On receipt of the 1st Message, the Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.</div><div>end alt</div></div></div><div>end par</div></div><div><div>Interaction 2.1.7.C:</div><div>par</div><div><div>5.a1 - The 1st Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".</div><div>5.a2 The Subsystem - Point sends a Command to the 1st Point machine to stop moving the Point.</div><div>also par</div><div><div>5.b1 The n-th Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".</div><div>5.b2 The Subsystem - Point sends a Command to the n-th Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.</div><div>end par</div></div><div>6. When Information_End_Position_Arrived has been received from all Point machines, the Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "X".</div><div><div>Postcondition:</div><div>The Subsystem - Point is in an End position "X".</div></div></div></div></div></div></div></div></div></div></div></div>		Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.2299	Req	Alternative Scenario: Moving of the Point with n-th Point machine [SubSP SD 2.1.7]	See ID EU.P.1471	Default
Eu.P.1698	Req	Precondition:	See ID EU.P.1471	Default
Eu.P.1699	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID EU.P.1471	Default
Eu.P.2996	Req	- a Trailed position.	See ID EU.P.1471	Default
Eu.P.1700	Req	Interaction 2.1.7.A:	See ID EU.P.1471	Default
Eu.P.1701	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID EU.P.1471	Default
Eu.P.1702	Req	par	See ID EU.P.1471	Default
Eu.P.1703	Req	par	See ID EU.P.1471	Default
Eu.P.1704	Req	2.a1 The Subsystem - Point sends a Command to the 1st Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID EU.P.1471	Default
Eu.P.1705	Req	also par	See ID EU.P.1471	Default
Eu.P.1706	Req	2.b1 The Subsystem - Point sends a Command to the n-th Point machine to move the Point to an End position "X".	See ID EU.P.1471	Default
Eu.P.1707	Req	also par	See ID EU.P.1471	Default
Eu.P.1708	Req	2.c1 The Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID EU.P.1471	Default
Eu.P.1709	Req	end par	See ID EU.P.1471	Default
Eu.P.1710	Req	also par	See ID EU.P.1471	Default
Eu.P.1711	Req	Interaction 2.1.7.B:	See ID EU.P.1471	Default
Eu.P.1712	Req	alt [The 1st Point machine is in an End position or a Trailed position]	See ID EU.P.1471	Default
Eu.P.1713	Req	3.a1 - The 1st Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.1471	Default
Eu.P.1714	Req	else alt [The n-th Point machine is in an End position or a Trailed position]	See ID EU.P.1471	Default
Eu.P.1715	Req	3.b1 - The n-th Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.1471	Default
Eu.P.1716	Req	end alt	See ID EU.P.1471	Default
Eu.P.3183	Req	alt [One of the Point machine is in No end position]	See ID EU.P.1471	Default
Eu.P.1717	Req	4. - On receipt of the 1st Message, the Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID EU.P.1471	Default
Eu.P.3184	Req	end alt	See ID EU.P.1471	Default
Eu.P.1718	Req	end par	See ID EU.P.1471	Default
Eu.P.1719	Req	Interaction 2.1.7.C:	See ID EU.P.1471	Default
Eu.P.1720	Req	par	See ID EU.P.1471	Default
Eu.P.1721	Req	5.a1 - The 1st Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".	See ID EU.P.1471	Default
Eu.P.3185	Req	5.a2 The Subsystem - Point sends a Command to the 1st Point machine to stop moving the Point.	See ID EU.P.1471	Default
Eu.P.1722	Req	also par	See ID EU.P.1471	Default
Eu.P.1723	Req	5.b1 The n-th Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".	See ID EU.P.1471	Default
Eu.P.3186	Req	5.b2 The Subsystem - Point sends a Command to the n-th Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID EU.P.1471	Default
Eu.P.1724	Req	end par	See ID EU.P.1471	Default
Eu.P.1726	Req	6. When Information_End_Position_Arrived has been received from all Point machines, the Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "X".	See ID EU.P.1471	Default
Eu.P.1727	Req	Postcondition:	See ID EU.P.1471	Default
Eu.P.1728	Req	The Subsystem - Point is in an End position "X".	See ID EU.P.1471	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1469	Req	<div><div><div>SubSP SD 2.1.8</div><div>SubSUC2.1: Command Point</div><div>Alternative Scenario: Moving of the Point to the current End position [SubSP SD 2.1.8]</div><div>Precondition: The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in an End position "Y".</div><div>Interaction 2.1.8.A: 1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "Y". 2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "Y".</div><div>Postcondition: ---</div></div></div> <div><pre>sequenceDiagram actor Actor as Subsystem - Electronic Interlocking participant Participant as :Subsystem - Point Actor->>Participant: Cd_Move_Point activate Participant Participant->>Actor: Msg_Point_Position deactivate Participant activate Actor</pre></div>		Default
Eu.P.2297	Req	Alternative Scenario: Moving of the Point to the current End position [SubSP SD 2.1.8]	See ID EU.P.1469	Default
Eu.P.1675	Req	Precondition:	See ID EU.P.1469	Default
Eu.P.1676	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in an End position "Y".	See ID EU.P.1469	Default
Eu.P.1677	Req	Interaction 2.1.8.A:	See ID EU.P.1469	Default
Eu.P.1678	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "Y".	See ID EU.P.1469	Default
Eu.P.3157	Req	2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "Y".	See ID EU.P.1469	Default
Eu.P.1680	Req	Postcondition:	See ID EU.P.1469	Default
Eu.P.1681	Req	---	See ID EU.P.1469	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1472	Req	<div><p>SubSP SD 2.1.9</p><p>SubSUC2.1: Command Point</p><p>Alternative Scenario: Moving of the Point with repeated command of moving #1 [SubSP SD 2.1.9]</p><p>Precondition:</p><p>The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in:</p><ul style="list-style-type: none">- an End position "Y",- No end position, or- a Trailed position.<p>Interaction 2.1.9.A:</p><p>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</p><p>2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.</p><p>Interaction 2.1.9.B:</p><p>alt [The Subsystem - Point is in an End position or a Trailed position]</p><p>3. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.</p><p>4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.</p><p>end alt</p><p>Interaction 2.1.9.C:</p><p>5. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</p><p>6. The Subsystem - Point ignores the command from the Subsystem - Electronic Interlocking.</p><p>Interaction 2.1.9.D:</p><p>7. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".</p><p>8. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.</p><p>9. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "X".</p><p>Postcondition:</p><p>The Subsystem - Point is in an End position "X".</p></div>		Default
Eu.P.2300	Req	Alternative Scenario: Moving of the Point with repeated command of moving #1 [SubSP SD 2.1.9]	See ID EU.P.1472	Default
Eu.P.1729	Req	Precondition:	See ID EU.P.1472	Default
Eu.P.1730	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID EU.P.1472	Default
Eu.P.2997	Req	- a Trailed position.	See ID EU.P.1472	007600 007900 008000 008200 008400
Eu.P.1731	Req	Interaction 2.1.9.A:	See ID EU.P.1472	Default
Eu.P.1732	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID EU.P.1472	Default
Eu.P.1733	Req	2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID EU.P.1472	Default
Eu.P.1734	Req	Interaction 2.1.9.B:	See ID EU.P.1472	Default
Eu.P.3187	Req	alt [The Subsystem - Point is in an End position or a Trailed position]	See ID EU.P.1472	Default
Eu.P.1735	Req	3. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.1472	Default
Eu.P.1736	Req	4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID EU.P.1472	Default
Eu.P.3188	Req	end alt	See ID EU.P.1472	Default
Eu.P.1737	Req	Interaction 2.1.9.C:	See ID EU.P.1472	Default
Eu.P.1738	Req	5. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID EU.P.1472	Default
Eu.P.1739	Req	6. The Subsystem - Point ignores the command from the Subsystem - Electronic Interlocking.	See ID EU.P.1472	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1749	Req	2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID EU.P.1473	Default
Eu.P.1750	Req	Interaction 2.1.10.B:	See ID EU.P.1473	Default
Eu.P.1751	Req	par	See ID EU.P.1473	Default
Eu.P.3189	Req	alt [The Subsystem - Point is in an End position or a Trailed position]	See ID EU.P.1473	Default
Eu.P.1752	Req	3.a1 The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.1473	Default
Eu.P.3190	Req	end alt	See ID EU.P.1473	Default
Eu.P.1753	Req	also par	See ID EU.P.1473	Default
Eu.P.1754	Req	3.b1 The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID EU.P.1473	Default
Eu.P.1755	Req	end par	See ID EU.P.1473	Default
Eu.P.1756	Req	4. - The Subsystem - Point ignores the command from the Subsystem - Electronic Interlocking.	See ID EU.P.1473	Default
Eu.P.3191	Req	alt [The Subsystem - Point is in No end position]	See ID EU.P.1473	Default
Eu.P.1757	Req	5. - The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID EU.P.1473	Default
Eu.P.3192	Req	end alt	See ID EU.P.1473	Default
Eu.P.1758	Req	Interaction 2.1.10.C:	See ID EU.P.1473	Default
Eu.P.1759	Req	6. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".	See ID EU.P.1473	Default
Eu.P.2445	Req	7. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID EU.P.1473	Default
Eu.P.1760	Req	8. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "X".	See ID EU.P.1473	Default
Eu.P.1761	Req	Postcondition:	See ID EU.P.1473	Default
Eu.P.1762	Req	The Subsystem - Point is in an End position "X".	See ID EU.P.1473	Default
Eu.P.1251	Info	SubSUC2.2: Handle Irregularities	The Subsystem-UseCase "SubSUC2.2: Handle Irregularities" defines the behaviour of the Subsystem - Point when an irregularity occurs.	Default
Eu.P.1252	Req	<div>SubSP SD 2.2.1</div> <div><u>SubSUC2.2: Handle Irregularities</u></div> <div></div> <div>Alternative Scenario: Execution of safety switch-off [SubSP SD 2.2.1]</div> <div>Precondition: The Subsystem - Point in the state BOOTING, INITIALISING or OPERATIONAL</div> <div>Interaction 2.2.1.A: 1. - The Subsystem - Point enters the state FALLBACK_MODE. 2. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.</div> <div>Postcondition: The Subsystem - Point is in the state FALLBACK_MODE.</div>		Default
Eu.P.2309	Req	Alternative Scenario: Execution of safety switch-off [SubSP SD 2.2.1]	See ID EU.P.1252	Default
Eu.P.1868	Req	Precondition:	See ID EU.P.1252	Default
Eu.P.1869	Req	The Subsystem - Point in the state BOOTING, INITIALISING or OPERATIONAL	See ID EU.P.1252	Default
Eu.P.1870	Req	Interaction 2.2.1.A:	See ID EU.P.1252	Default
Eu.P.1871	Req	1. - The Subsystem - Point enters the state FALLBACK_MODE.	See ID EU.P.1252	Default
Eu.P.1872	Req	2. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID EU.P.1252	Default
Eu.P.1874	Req	Postcondition:	See ID EU.P.1252	Default
Eu.P.1875	Req	The Subsystem - Point is in the state FALLBACK_MODE.	See ID EU.P.1252	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1299	Req	<div>SubSP SD 2.2.2</div> <div>SubSUC2.2: Handle Irregularities</div> <div>Alternative Scenario: Handling of interrupted safe communication protocol-connection [SubSP SD 2.2.2]</div> <div>Precondition: The Subsystem - Point is in the state INITIALISING or OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or - a Trailed position. Interaction 2.2.2.A: 1. - The Event T10_SCP_Connection_Terminated occurs. Postcondition: The Subsystem - Point is in the state INITIALISING.</div> <div></div>		Default
Eu.P.2318	Req	Alternative Scenario: Handling of interrupted safe communication protocol-connection [SubSP SD 2.2.2]	See ID EU.P.1299	Default
Eu.P.1994	Req	Precondition:	See ID EU.P.1299	Default
Eu.P.1995	Req	The Subsystem - Point is in the state INITIALISING or OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID EU.P.1299	Default
Eu.P.3006	Req	- a Trailed position.	See ID EU.P.1299	007600 007900 008000 008200 008400
Eu.P.1996	Req	Interaction 2.2.2.A:	See ID EU.P.1299	Default
Eu.P.1997	Req	1. - The Event T10_SCP_Connection_Terminated occurs.	See ID EU.P.1299	Default
Eu.P.1998	Req	Postcondition:	See ID EU.P.1299	Default
Eu.P.1999	Req	The Subsystem - Point is in the state INITIALISING.	See ID EU.P.1299	Default
Eu.P.1284	Req	<div>SubSP SD 2.2.3</div> <div>SubSUC2.2: Handle Irregularities</div> <div>Alternative Scenario: Handle and report Timeout with position change [SubSP SD 2.2.3]</div> <div>Precondition: The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or - a Trailed position. Interaction 2.2.3.A: 1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X". 2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation. Interaction 2.2.3.B: alt [The Subsystem - Point is in an End position or a Trailed position] 3. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position. 4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position. end alt Interaction 2.2.3.C: 5. - The timer Con_tmax_Point_Operation expires resulting in a Timeout. 6. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted. 7. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking to indicate that a Timeout has occurred. Postcondition: The Subsystem - Point is in No end position..</div> <div></div>		Default
Eu.P.2315	Req	Alternative Scenario: Handle and report Timeout with position change [SubSP SD 2.2.3]	See ID EU.P.1284	Default
Eu.P.1917	Req	Precondition:	See ID EU.P.1284	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1918	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID EU.P.1284	Default
Eu.P.3005	Req	- a Trailed position.	See ID EU.P.1284	007600 007900 008000 008200 008400
Eu.P.1919	Req	Interaction 2.2.3.A:	See ID EU.P.1284	Default
Eu.P.1920	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID EU.P.1284	Default
Eu.P.1921	Req	2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID EU.P.1284	Default
Eu.P.1922	Req	Interaction 2.2.3.B:	See ID EU.P.1284	Default
Eu.P.3222	Req	alt [The Subsystem - Point is in an End position or a Trailed position]	See ID EU.P.1284	Default
Eu.P.1923	Req	3. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.1284	Default
Eu.P.1924	Req	4. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID EU.P.1284	Default
Eu.P.3223	Req	end alt	See ID EU.P.1284	Default
Eu.P.1925	Req	Interaction 2.2.3.C:	See ID EU.P.1284	Default
Eu.P.1926	Req	5. - The timer Con_tmax_Point_Operation expires resulting in a Timeout.	See ID EU.P.1284	Default
Eu.P.1927	Req	6. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID EU.P.1284	Default
Eu.P.1928	Req	7. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking to indicate that a Timeout has occurred.	See ID EU.P.1284	007600 007900 008000 008200 008400
Eu.P.1929	Req	Postcondition:	See ID EU.P.1284	Default
Eu.P.1930	Req	The Subsystem - Point is in No end position.	See ID EU.P.1284	Default
Eu.P.1476	Req	<div>SubSP SD 2.2.4</div> <div>SubSUC2.2: Handle Irregularities</div> <div>Alternative Scenario: Handle and report Timeout without position change [SubSP SD 2.2.4]</div> <div>Precondition:</div> <div>The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or - a Trailed position.</div> <div>Interaction 2.2.4.A:</div> <div>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</div> <div>2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.</div> <div>Interaction 2.2.4.B:</div> <div>3. - The timer Con_tmax_Point_Operation expires resulting in a Timeout.</div> <div>4. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.</div> <div>5. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking to indicate that a Timeout has occurred.</div> <div>Postcondition:</div> <div>---</div> <pre>sequenceDiagram participant Interlocking as Subsystem - Electronic Interlocking participant Machine as Point machine participant Point as :Subsystem - Point Note over Interlocking: Cd_Move_Point Interlocking->>Point: Cd_Move_Point activate Point Point->>Machine: Moving activate Machine Note over Machine: after {Con_tmax_Point_Operation} Machine->>Point: Stop_Moving deactivate Machine Point->>Interlocking: «IM 007600» «IM 007900» «IM 008000» «IM 008200» «IM 008400» Msg_Timeout deactivate Point</pre>		Default
Eu.P.2316	Req	Alternative Scenario: Handle and report Timeout without position change [SubSP SD 2.2.4]	See ID EU.P.1476	Default
Eu.P.1962	Req	Precondition:	See ID EU.P.1476	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1963	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID EU.P.1476	Default
Eu.P.3224	Req	- a Trailed position.	See ID EU.P.1476	007600 007900 008000 008200 008400
Eu.P.1964	Req	Interaction 2.2.4.A:	See ID EU.P.1476	Default
Eu.P.1965	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID EU.P.1476	Default
Eu.P.1966	Req	2. The Subsystem - Point sends a Command to the Point machine to move the Point to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID EU.P.1476	Default
Eu.P.1967	Req	Interaction 2.2.4.B:	See ID EU.P.1476	Default
Eu.P.1968	Req	3. - The timer Con_tmax_Point_Operation expires resulting in a Timeout.	See ID EU.P.1476	Default
Eu.P.1969	Req	4. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID EU.P.1476	Default
Eu.P.1970	Req	5. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking to indicate that a Timeout has occurred.	See ID EU.P.1476	007600 007900 008000 008200 008400
Eu.P.1971	Req	Postcondition:	See ID EU.P.1476	Default
Eu.P.1972	Req	---	See ID EU.P.1476	Default
Eu.P.1474	Req	SubSP SD 2.2.5 SubSUC2.2: Handle Irregularities Alternative Scenario: Handle and report No end position [SubSP SD 2.2.5] Precondition: The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", or - a Trailed position Interaction 2.2.5.A: 1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position. 2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position. Postcondition: The Subsystem - Point is in No end position.		Default
Eu.P.2311	Req	Alternative Scenario: Handle and report No end position [SubSP SD 2.2.5]	See ID EU.P.1474	Default
Eu.P.1903	Req	Precondition:	See ID EU.P.1474	Default
Eu.P.1904	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", or	See ID EU.P.1474	Default
Eu.P.3217	Req	- a Trailed position	See ID EU.P.1474	007600 007900 008000 008200 008400
Eu.P.1905	Req	Interaction 2.2.5.A:	See ID EU.P.1474	Default
Eu.P.1906	Req	1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.1474	Default
Eu.P.1907	Req	2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID EU.P.1474	Default
Eu.P.1908	Req	Postcondition:	See ID EU.P.1474	Default
Eu.P.1909	Req	The Subsystem - Point is in No end position.	See ID EU.P.1474	Default

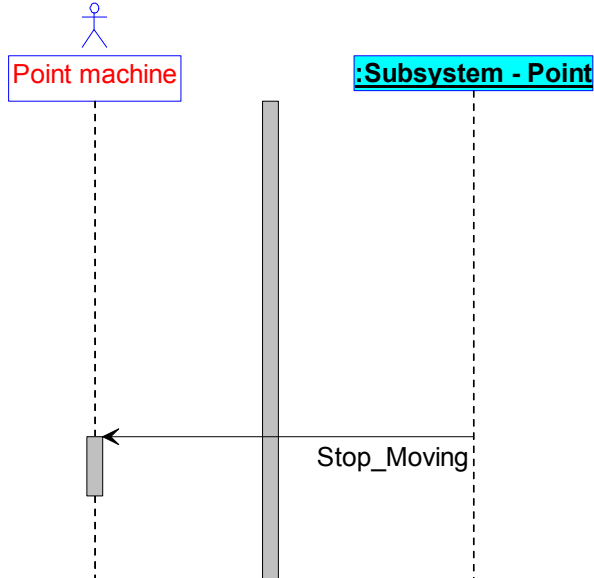
ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1273	Req	<div><div>SubSP SD 2.2.6</div><div>SubSUC2.2: Handle Irregularities</div><div>Alternative Scenario: Handle and report Trailed Position [SubSP SD 2.2.6]</div><div>Precondition: The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in an End position "Y".</div><div>Interaction 2.2.6.A: 1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in a Trailed position. 2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in a Trailed position.</div><div>Postcondition: The Subsystem - Point is in a Trailed position.</div></div> <div><pre>sequenceDiagram actor IE as Subsystem - Electronic Interlocking actor PM as Point machine participant SP as :Subsystem - Point PM->>SP: Information_Trailed_Point activate SP SP->>IE: Msg_Point_Position deactivate SP</pre></div>		007600 007900 008000 008200 008400
Eu.P.2312	Req	Alternative Scenario: Handle and report Trailed Position [SubSP SD 2.2.6]	See ID EU.P.1273	007600 007900 008000 008200 008400
Eu.P.1910	Req	Precondition:	See ID EU.P.1273	007600 007900 008000 008200 008400
Eu.P.1911	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in an End position "Y".	See ID EU.P.1273	007600 007900 008000 008200 008400
Eu.P.1912	Req	Interaction 2.2.6.A:	See ID EU.P.1273	007600 007900 008000 008200 008400
Eu.P.1913	Req	1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in a Trailed position.	See ID EU.P.1273	007600 007900 008000 008200 008400
Eu.P.1914	Req	2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in a Trailed position.	See ID EU.P.1273	007600 007900 008000 008200 008400
Eu.P.1915	Req	Postcondition:	See ID EU.P.1273	007600 007900 008000 008200 008400
Eu.P.1916	Req	The Subsystem - Point is in a Trailed position.	See ID EU.P.1273	007600 007900 008000 008200 008400

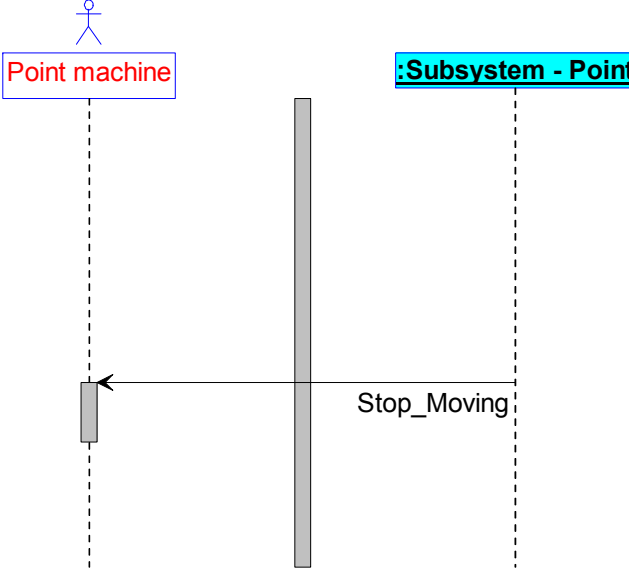
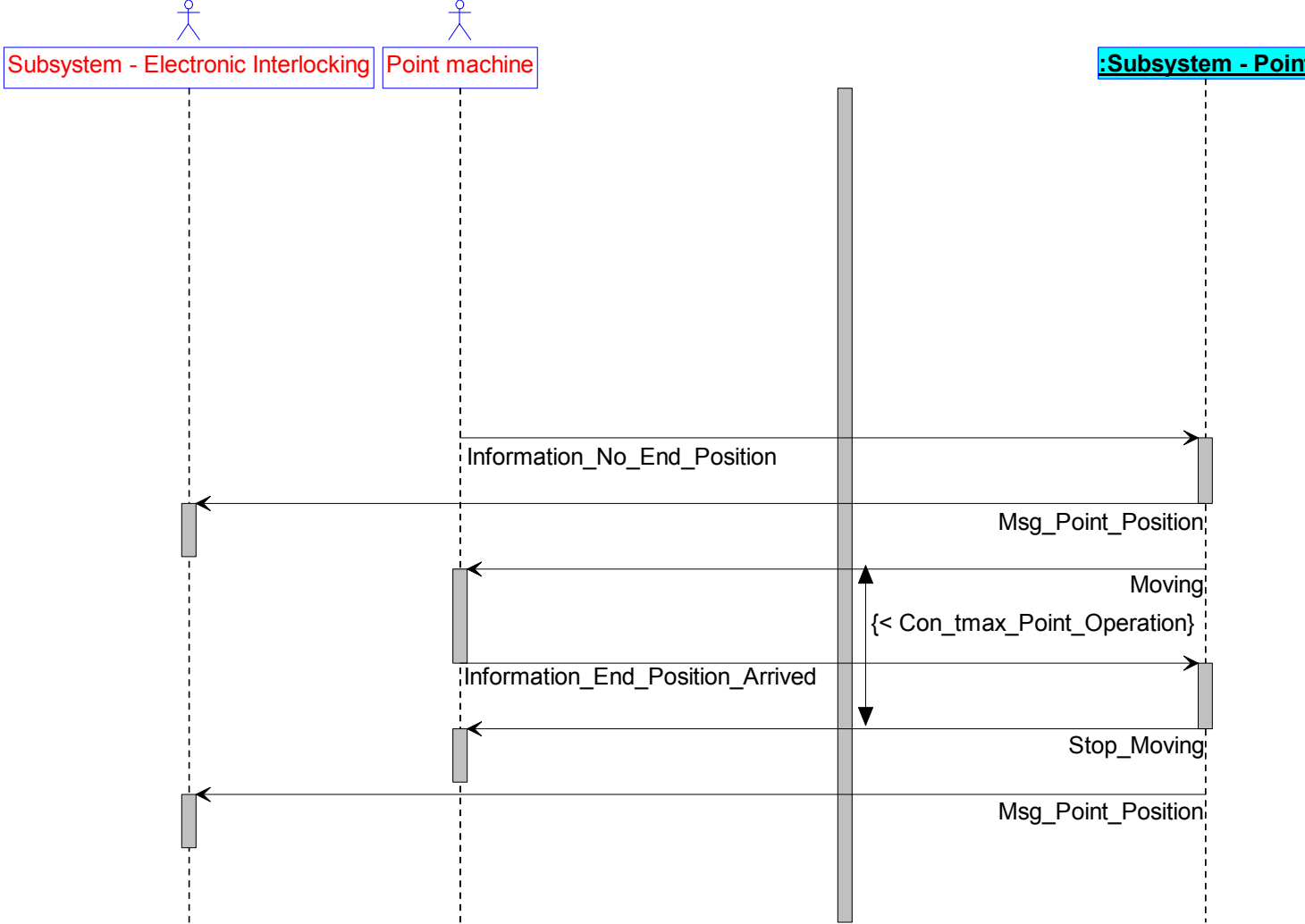
ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3207	Req	<div><div><div>SubSP SD 2.2.7</div><div>SubSUC2.2: Handle Irregularities</div><div>Alternative Scenario: Handle and report End Position [SubSP SD 2.2.7]</div><div>Precondition: The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an No end position, or - a Trailed position.</div><div>Interaction 2.2.7.A: 1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position. 2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position.</div><div>Postcondition: The Subsystem - Point is in an End position "Y".</div></div></div> <div></div>		Default
Eu.P.3208	Req	Alternative Scenario: Handle and report End Position [SubSP SD 2.2.7]	See ID EU.P.3207	Default
Eu.P.3209	Req	Precondition:	See ID EU.P.3207	Default
Eu.P.3210	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an No end position, or	See ID EU.P.3207	Default
Eu.P.3211	Req	- a Trailed position.	See ID EU.P.3207	007600 007900 008000 008200 008400
Eu.P.3212	Req	Interaction 2.2.7.A:	See ID EU.P.3207	Default
Eu.P.3213	Req	1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position.	See ID EU.P.3207	Default
Eu.P.3214	Req	2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position.	See ID EU.P.3207	Default
Eu.P.3215	Req	Postcondition:	See ID EU.P.3207	Default
Eu.P.3216	Req	The Subsystem - Point is in an End position "Y".		Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1475	Req	<div><p>SubSP SD 2.2.8</p><p>SubSUC2.2: Handle Irregularities</p><p>Alternative Scenario: Handle and report Timeout with n-th Point machines with position change [SubSP SD 2.2.8]</p><p>Precondition:</p><p>The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in:</p><ul style="list-style-type: none">- an End position "Y",- No end position, or- a Trailed position.<p>Interaction 2.2.8.A:</p><p>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</p><p>par</p><p>par</p><p>2.a1 - The Subsystem - Point sends a Command to the 1st Point machine to move the Point to an End position "X".</p><p>also par</p><p>2.b1 - The Subsystem - Point sends a Command to the n-th Point machine to move the Point to an End position "X".</p><p>also par</p><p>2.c1 - The Subsystem - Point starts the Timer for Moving Con_tmax_Point_Operation.</p><p>end par</p><p>also par</p><p>Interaction 2.2.8.B:</p><p>alt [The 1st Point machine is in an End position or a Trailed position]</p><p>3.a1 - The 1st Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.</p><p>else alt [The n-th Point machine is in an End position or a Trailed position]</p><p>3.b1 - The n-th Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.</p><p>end alt</p><p>alt [One of the Point machine is in No end position]</p><p>4. - On receipt of the first Message, The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.</p><p>end alt</p><p>end par</p><p>Interaction 2.2.8.C:</p><p>5. - The timer Con_tmax_Point_Operation expires resulting in a Timeout.</p><p>par</p><p>6.a1 The Subsystem - Point sends a Command to the 1st Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.</p><p>also par</p><p>6.b1 The Subsystem - Point sends a Command to the n-th Point machine to stop moving the Point.</p><p>end par</p><p>7. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking to indicate that a Timeout has occurred.</p><p>Postcondition:</p><p>The Subsystem - Point is in No end position.</p></div> <pre>sequenceDiagram actor IE as Subsystem - Electronic Interlocking actor PM1 as Point machine 1st actor PMn as Point machine n-th participant SP as Subsystem - Point IE->>SP: Cd_Move_Point activate SP par SP->>PM1: Moving SP->>PMn: Moving and SP-->>IE: after {Con_tmax_Point_Operation} end alt [The 1st Point machine is in an End position or a Trailed position] PM1->>SP: Information_No_End_Position else alt [The n-th Point machine is in an End position or a Trailed position] PMn->>SP: Information_No_End_Position end alt [One of the Point machine is in No end position] SP->>IE: Msg_Point_Position end deactivate SP par SP->>PM1: Stop_Moving SP->>PMn: Stop_Moving end SP->>IE: «IM 007600»; «IM 007900»; «IM 008000»; «IM 008200»; «IM 008400»; Msg_Timeout deactivate SP</pre>		Default
Eu.P.2313	Req	Alternative Scenario: Handle and report Timeout with n-th Point machines with position change [SubSP SD 2.2.8]	See ID EU.P.1475	Default
Eu.P.1931	Req	Precondition:	See ID EU.P.1475	Default
Eu.P.1932	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position "Y", - No end position, or	See ID EU.P.1475	Default
Eu.P.3004	Req	- a Trailed position.	See ID EU.P.1475	007600 007900 008000 008200 008400

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1933	Req	Interaction 2.2.8.A:	See ID EU.P.1475	Default
Eu.P.1934	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID EU.P.1475	Default
Eu.P.1935	Req	par	See ID EU.P.1475	Default
Eu.P.1936	Req	par	See ID EU.P.1475	Default
Eu.P.1937	Req	2.a1 - The Subsystem - Point sends a Command to the 1st Point machine to move the Point to an End position "X".	See ID EU.P.1475	Default
Eu.P.1938	Req	also par	See ID EU.P.1475	Default
Eu.P.1939	Req	2.b1 - The Subsystem - Point sends a Command to the n-th Point machine to move the Point to an End position "X".	See ID EU.P.1475	Default
Eu.P.1940	Req	also par	See ID EU.P.1475	007000 007600 007900 008000 008400
Eu.P.1941	Req	2.c1 - The Subsystem - Point starts the Timer for Moving Con_tmax_Point_Operation.	See ID EU.P.1475	007000 007600 007900 008000 008400
Eu.P.1942	Req	end par	See ID EU.P.1475	007000 007600 007900 008000 008400
Eu.P.1943	Req	also par	See ID EU.P.1475	Default
Eu.P.1944	Req	Interaction 2.2.8.B:	See ID EU.P.1475	Default
Eu.P.1945	Req	alt [The 1st Point machine is in an End position or a Trailed position]	See ID EU.P.1475	Default
Eu.P.1946	Req	3.a1 - The 1st Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.1475	Default
Eu.P.1947	Req	else alt [The n-th Point machine is in an End position or a Trailed position]	See ID EU.P.1475	Default
Eu.P.1948	Req	3.b1 - The n-th Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.1475	Default
Eu.P.1949	Req	end alt	See ID EU.P.1475	Default
Eu.P.3218	Req	alt [One of the Point machine is in No end position]	See ID EU.P.1475	Default
Eu.P.1950	Req	4. - On receipt of the first Message, The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID EU.P.1475	Default
Eu.P.3219	Req	end alt	See ID EU.P.1475	Default
Eu.P.1951	Req	end par	See ID EU.P.1475	Default
Eu.P.1952	Req	Interaction 2.2.8.C:	See ID EU.P.1475	Default
Eu.P.1953	Req	5. - The timer Con_tmax_Point_Operation expires resulting in a Timeout.	See ID EU.P.1475	Default
Eu.P.1954	Req	par	See ID EU.P.1475	Default
Eu.P.1955	Req	6.a1 The Subsystem - Point sends a Command to the 1st Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.	See ID EU.P.1475	Default
Eu.P.1956	Req	also par	See ID EU.P.1475	Default
Eu.P.1957	Req	6.b1 The Subsystem - Point sends a Command to the n-th Point machine to stop moving the Point.	See ID EU.P.1475	Default
Eu.P.1958	Req	end par	See ID EU.P.1475	Default
Eu.P.1959	Req	7. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking to indicate that a Timeout has occurred.	See ID EU.P.1475	007600 007900 008000 008200 008400
Eu.P.1960	Req	Postcondition:	See ID EU.P.1475	Default
Eu.P.1961	Req	The Subsystem - Point is in No end position.	See ID EU.P.1475	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1477	Req	<div><div><div>SubSP SD 2.2.9</div><div>SubSUC2.2: Handle Irregularities</div><div><p>Alternative Scenario: Handle and report Timeout with n-th Point machines without position change [SubSP SD 2.2.9]</p><p>Precondition:</p><p>The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in:</p><ul style="list-style-type: none">- an End position Y",- No end position, or- a Trailed position.<p>Interaction 2.2.9.A:</p><p>1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".</p><p>par</p><p> 2.a1 The Subsystem - Point sends a Command to the 1st Point machine to move the Point to an End position "X".</p><p>also par</p><p> 2.b1 The Subsystem - Point sends a Command to the n-th Point machine to move the Point to an End position "X".</p><p>also par</p><p> 2.c1 The Subsystem - Point starts the Timer for Moving Con_tmax_Point_Operation.</p><p>end par</p><p>Interaction 2.2.9.B:</p><p>3. - The timer Con_tmax_Point_Operation expires resulting in a Timeout.</p><p>par</p><p> 4.a1 - The Subsystem - Point sends a Command to the 1st Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.</p><p>also par</p><p> 4.b1 The Subsystem - Point sends a Command to the n-th Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.</p><p>end par</p><p>5. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking to indicate that a Timeout has occurred.</p><p>Postcondition:</p><p>The Subsystem - Point remains in:</p><ul style="list-style-type: none">- an End position "Y",- No end position, or- a Trailed position.</div></div><div></div></div>		Default
Eu.P.2314	Req	Alternative Scenario: Handle and report Timeout with n-th Point machines without position change [SubSP SD 2.2.9]	See ID EU.P.1477	Default
Eu.P.1973	Req	Precondition:	See ID EU.P.1477	Default
Eu.P.1974	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in: - an End position Y", - No end position, or	See ID EU.P.1477	Default
Eu.P.3220	Req	- a Trailed position.	See ID EU.P.1477	007600 007900 008000 008200 008400
Eu.P.1975	Req	Interaction 2.2.9.A:	See ID EU.P.1477	Default
Eu.P.1976	Req	1. - The Subsystem - Electronic Interlocking sends a Command to the Subsystem - Point to move the Point to an End position "X".	See ID EU.P.1477	Default
Eu.P.1977	Req	par	See ID EU.P.1477	Default
Eu.P.1978	Req	2.a1 The Subsystem - Point sends a Command to the 1st Point machine to move the Point to an End position "X".	See ID EU.P.1477	Default
Eu.P.1979	Req	also par	See ID EU.P.1477	Default
Eu.P.1980	Req	2.b1 The Subsystem - Point sends a Command to the n-th Point machine to move the Point to an End position "X".	See ID EU.P.1477	Default
Eu.P.1981	Req	also par	See ID EU.P.1477	Default
Eu.P.1982	Req	2.c1 The Subsystem - Point starts the Timer for Moving Con_tmax_Point_Operation.	See ID EU.P.1477	Default
Eu.P.1983	Req	end par	See ID EU.P.1477	Default
Eu.P.1984	Req	Interaction 2.2.9.B:	See ID EU.P.1477	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.1985	Req	3. - The timer Con_tmax_Point_Operation expires resulting in a Timeout.	See ID EU.P.1477	Default
Eu.P.1986	Req	par	See ID EU.P.1477	Default
Eu.P.1987	Req	4.a1 - The Subsystem - Point sends a Command to the 1st Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.	See ID EU.P.1477	Default
Eu.P.1988	Req	also par	See ID EU.P.1477	Default
Eu.P.1989	Req	4.b1 The Subsystem - Point sends a Command to the n-th Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reset.	See ID EU.P.1477	Default
Eu.P.1990	Req	end par	See ID EU.P.1477	Default
Eu.P.1991	Req	5. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking to indicate that a Timeout has occurred.	See ID EU.P.1477	007600 007900 008000 008200 008400
Eu.P.1992	Req	Postcondition:	See ID EU.P.1477	Default
Eu.P.1993	Req	The Subsystem - Point remains in: - an End position "Y", - No end position, or	See ID EU.P.1477	Default
Eu.P.3221	Req	- a Trailed position.	See ID EU.P.1477	007600 007900 008000 008200 008400
Eu.P.3093	Req	SubSP SD 2.2.10 <u>SubSUC2.2: Handle Irregularities</u> Alternative Scenario: Supply voltage of the Subsystem has gone outside of the required range for operation [SubSP SD 2.2.10] Precondition: The Subsystem - Point is in the state OPERATING_VOLTAGE_SUPPLIED. Interaction 2.2.10.A: 1. - The Subsystem - Point enters the state NO_OPERATING_VOLTAGE. 2. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted. Postcondition: The Subsystem - Point is in the state NO_OPERATING_VOLTAGE. 		Default
Eu.P.3094	Req	Alternative Scenario: Supply voltage of the Subsystem has gone outside of the required range for operation [SubSP SD 2.2.10]	See ID EU.P.3093	Default
Eu.P.3095	Req	Precondition:	See ID EU.P.3093	Default
Eu.P.3096	Req	The Subsystem - Point is in the state OPERATING_VOLTAGE_SUPPLIED.	See ID EU.P.3093	Default
Eu.P.3097	Req	Interaction 2.2.10.A:	See ID EU.P.3093	Default
Eu.P.3098	Req	1. - The Subsystem - Point enters the state NO_OPERATING_VOLTAGE.	See ID EU.P.3093	Default
Eu.P.3100	Req	2. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID EU.P.3093	Default
Eu.P.3102	Req	Postcondition:	See ID EU.P.3093	Default
Eu.P.3103	Req	The Subsystem - Point is in the state NO_OPERATING_VOLTAGE.	See ID EU.P.3093	Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3104	Req	<div>SubSP SD 2.2.11</div> <div>SubSUC2.2: Handle Irregularities</div> <div>Alternative Scenario: Reset Occures [SubSP SD 2.2.11]</div> <div>Precondition: The Subsystem - Point is in the state INITIALISING or OPERATIONAL.</div> <div>Interaction 2.2.11.A: 1. - The event T3_Reset occurs. 2. The event T12_Terminate_SCP_Connection is triggered. 3. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted. 4. The Subsystem - Point enters the state BOOTING. Postcondition: The Subsystem - Point is in the state BOOTING.</div> 		Default
Eu.P.3105	Req	Alternative Scenario: Reset Occures [SubSP SD 2.2.11]	See ID EU.P.3104	Default
Eu.P.3106	Req	Precondition:	See ID EU.P.3104	Default
Eu.P.3107	Req	The Subsystem - Point is in the state INITIALISING or OPERATIONAL.	See ID EU.P.3104	Default
Eu.P.3108	Req	Interaction 2.2.11.A:	See ID EU.P.3104	Default
Eu.P.3109	Req	1. - The event T3_Reset occurs.	See ID EU.P.3104	Default
Eu.P.3268	Req	2. The event T12_Terminate_SCP_Connection is triggered.		Default
Eu.P.3111	Req	3. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID EU.P.3104	Default
Eu.P.3110	Req	4. The Subsystem - Point enters the state BOOTING.	See ID EU.P.3104	Default
Eu.P.3112	Req	Postcondition:	See ID EU.P.3104	Default
Eu.P.3113	Req	The Subsystem - Point is in the state BOOTING.	See ID EU.P.3104	Default
Eu.P.3136	Req	<div>SubSP SD 2.2.12</div> <div>SubSUC2.2: Handle Irregularities</div> <div>Alternative Scenario: Redrive Point after lost end position [SubSP SD 2.2.12]</div> <div>Precondition: The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in an End position "X". The last Cd_Move_Point Command received was also for End position "X". The last Cd_Move_Point Command received occured since exiting the state BOOTING.</div> <div>Interaction 2.2.12.A: 1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position. 2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position. 3. The Subsystem - Point sends a Command to the Point machine to move the Point back to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation. 4. The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X". 5. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted. 6. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "X". Postcondition: The Subsystem - Point is in an End position "X".</div> 		007000
Eu.P.3137	Req	Alternative Scenario: Redrive Point after lost end position [SubSP SD 2.2.12]	See ID EU.P.3136	007000
Eu.P.3138	Req	Precondition:	See ID EU.P.3136	007000

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3139	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in an End position "X". The last Cd_Move_Point Command received was also for End position "X". The last Cd_Move_Point Command received occurred since exiting the state BOOTING.	See ID EU.P.3136	007000
Eu.P.3140	Req	Interaction 2.2.12.A:	See ID EU.P.3136	007000
Eu.P.3141	Req	1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.3136	007000
Eu.P.3142	Req	2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID EU.P.3136	007000
Eu.P.3143	Req	3. The Subsystem - Point sends a Command to the Point machine to move the Point back to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID EU.P.3136	007000
Eu.P.3144	Req	4. The Point machine sends a Message to the Subsystem - Point indicating that the Point is in an End position "X".	See ID EU.P.3136	007000
Eu.P.3145	Req	5. The Subsystem - Point sends a Command to the Point machine to stop moving the Point. The timer Con_tmax_Point_Operation is reseted.	See ID EU.P.3136	007000
Eu.P.3146	Req	6. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in an End position "X".	See ID EU.P.3136	007000
Eu.P.3147	Req	Postcondition:	See ID EU.P.3136	007000
Eu.P.3148	Req	The Subsystem - Point is in an End position "X".	See ID EU.P.3136	007000
Eu.P.3226	Req	<div><div>SubSP SD 2.2.13</div><div>SubSUC2.2: Handle Irregularities</div><div><div>Alternative Scenario: Handle Timeout during Redrive [SubSP SD 2.2.13]</div><div>Precondition: The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in an End position "X" The last Cd_Move_Point Command received was also for End position "X" The last Cd_Move_Point Command received occurred since exiting the state BOOTING.</div><div>Interaction 2.2.13.A: 1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position. 2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position. 3. The Subsystem - Point sends a Command to the Point machine to move the Point back to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation. 4. The timer Con_tmax_Point_Operation expires resulting in a Timeout. 5. The Subsystem - Point stops Moving of the Point at the Point machine.</div><div>Postcondition: The Subsystem - Point is in No end position.</div></div></div> <div><pre>sequenceDiagram participant E as Subsystem - Electronic Interlocking participant P as Point machine participant S as :Subsystem - Point Note over S: Information_No_End_Position S->>E: Information_No_End_Position activate E E->>S: Msg_Point_Position deactivate E S->>P: Moving activate P Note over P: after {Con_tmax_Point_Operation} P->>S: Stop_Moving deactivate P S->>E: deactivate S</pre></div>		007000
Eu.P.3227	Req	Alternative Scenario: Handle Timeout during Redrive [SubSP SD 2.2.13]	See ID EU.P.3226	007000
Eu.P.3228	Req	Precondition:	See ID EU.P.3226	007000
Eu.P.3229	Req	The Subsystem - Point is in the state OPERATIONAL. The Subsystem - Point is in an End position "X" The last Cd_Move_Point Command received was also for End position "X" The last Cd_Move_Point Command received occurred since exiting the state BOOTING.	See ID EU.P.3226	007000
Eu.P.3230	Req	Interaction 2.2.13.A:	See ID EU.P.3226	007000
Eu.P.3231	Req	1. - The Point machine sends a Message to the Subsystem - Point indicating that the Point is in No end position.	See ID EU.P.3226	007000
Eu.P.3232	Req	2. The Subsystem - Point sends a Message to the Subsystem - Electronic Interlocking indicating that the Point is in No end position.	See ID EU.P.3226	007000
Eu.P.3233	Req	3. The Subsystem - Point sends a Command to the Point machine to move the Point back to an End position "X". At this moment the Subsystem - Point starts the timer Con_tmax_Point_Operation.	See ID EU.P.3226	007000
Eu.P.3234	Req	4. The timer Con_tmax_Point_Operation expires resulting in a Timeout.	See ID EU.P.3226	007000

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3235	Req	5. The Subsystem - Point stops Moving of the Point at the Point machine.	See ID EU.P.3226	007000
Eu.P.3236	Req	Postcondition:	See ID EU.P.3226	007000
Eu.P.3237	Req	The Subsystem - Point is in No end position.	See ID EU.P.3226	007000
Eu.P.1123	Head	3.1.3.5 Subsystem-UseCases "Maintenance"		Default
Eu.P.1127	Info	<div>Subsystem - Point - UseCase Definition - Maintenance [SubSP UCD 3]<div><div>uc Subsystem - Point - UseCase Definition - Maintenance [SubSP UCD 3]</div><div><div>Subsystem - Point</div><div><div>SubSUC3.1: Display status of Subsystem - Point locally</div><div>SubSUC3.2: Collect and provide event driven diagnostic data</div><div>SubSUC3.3: Collect and provide preventive diagnostic data</div><div>SubSUC3.4: Updating specific software</div></div><div><div>Maintainer</div><div>Subsystem - Maintenance and Data Management</div></div></div></div></div> <div></div> <div>Default</div>		Default
Eu.P.1124	Req	SubSUC3.1: Display status of Subsystem - Point locally	Information: The Subsystem-UseCase "SubSUC3.1: Display status of Subsystem - Point locally" defines the local display of the EULYNX field element Subsystem. See ID Eu.P.890.	Default
Eu.P.1125	Req	SubSUC3.2: Collect and provide event driven diagnostic data	Information: The Subsystem-UseCase "SubSUC3.2: Collect and provide event driven diagnostic data" defines the event driven collection and provision of diagnostic data in case of irregularities. See ID Eu.P.925.	Default
Eu.P.1126	Req	SubSUC3.3: Collect and provide preventive diagnostic data	Information: The Subsystem-UseCase "SubSUC3.3: Collect and provide preventive diagnostic data" defines the continuous collection and provision of diagnostic data for preventive maintenance. See ID Eu.P.925.	Default
Eu.P.1468	Info	SubSUC3.4: Updating specific software	Information: The Subsystem-UseCase "SubSUC3.4: Updating specific software" defines the process of updating the specific software between Subsystem - Maintenance and Data Management and the Subsystem.	Default
Eu.P.3275	Head	3.2 Subsystem requirements		-
Eu.P.3276	Head	3.2.1 Connection context		-
Eu.P.3277	Head	3.2.2 Logical architectures		-
Eu.P.3278	Head	3.2.2.1 Process Data Interface protocol SCI-P		-

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3287	Req	<div>SCI-P PDI SR - Logical Partitioning [SCI-P PDI BDD 1]</div> <div>bdd SCI-P PDI SR - Logical Partitioning [SCI-P PDI BDD 1]</div> <div><pre>classDiagram class EfeS_SCI_XX_PDI_SR class SCI_P_PDI_SR class S_SCI_EfeS_Prim_SR class S_SCI_P_SR class F_SCI_EfeS_Sec_SR class F_SCI_P_SR EfeS_SCI_XX_PDI_SR < -- SCI_P_PDI_SR SCI_P_PDI_SR *-- S_SCI_EfeS_Prim_SR : 1 SCI_P_PDI_SR *-- S_SCI_P_SR : 1 SCI_P_PDI_SR *-- F_SCI_EfeS_Sec_SR : 1 SCI_P_PDI_SR *-- F_SCI_P_SR : 1</pre></div>		-
Eu.P.3279	Req	SCI-P PDI SR		-
Eu.P.3286	Req	<div>SCI-P PDI SR - Logical Architecture [SCI-P PDI IBD 1]</div> <div>ibd SCI-P PDI SR - Logical Architecture [SCI-P PDI IBD 1]</div> <div><pre>classDiagram class SCI_P_PDI_SR { <<block>> } class D50_PDI_Connection_State { : S_SCI_EfeS_Prim_SR } class D21_S_SCI_EfeS_Gen_SR_State { : S_SCI_P_SR } class D50_PDI_Connection_State { T6_Start_Status_Report T9_Status_Report_Completed } class D21_F_SCI_EfeS_Gen_SR_State { T23_Sending_Status_Report_Completed T18_Start_Status_Report } class SAP_SubS_EIL class SAP_SubS_P SCI_P_PDI_SR < -- D50_PDI_Connection_State SCI_P_PDI_SR < -- D21_S_SCI_EfeS_Gen_SR_State D50_PDI_Connection_State <--> D50_PDI_Connection_State D21_S_SCI_EfeS_Gen_SR_State <--> D21_F_SCI_EfeS_Gen_SR_State SAP_SubS_EIL <--> SAP_SubS_P</pre></div>		-
Eu.P.3284	Req	SAP_SubS_EIL		-
Eu.P.3285	Req	SAP_SubS_P		-
Eu.P.3288	Head	3.2.2.2 Subsystem - Point		-

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3297	Req	<p>Subsystem - Point SR - Logical Partitioning [SubS P BDD 2]</p> <p>bdd Subsystem - Point SR - Logical Partitioning [SubS P BDD 2]</p> <pre> classDiagram class EULYNX_field_element_Subsystem_SR["EULYNX field element Subsystem SR"] class SubS_P_SR["SubS P SR"] class F_SCI_P_SR["F_SCI_P_SR"] class F_P3_Gen["F_P3_Gen"] class F_SCI_EfeS_Sec_SR["F_SCI_EfeS_Sec_SR"] class F_EST_EfeS_SR["F_EST_EfeS_SR"] class F_PM_Gen["F_PM_Gen"] EULYNX_field_element_Subsystem_SR < -- SubS_P_SR SubS_P_SR --> F_SCI_P_SR : 1 SubS_P_SR --> F_P3_Gen : 1 SubS_P_SR --> F_SCI_EfeS_Sec_SR : 1 SubS_P_SR --> F_EST_EfeS_SR : 1 SubS_P_SR --> F_PM_Gen : PM1, 1 SubS_P_SR --> F_PM_Gen : PM2, 1 </pre>		-
Eu.P.3289	Req	SubS P SR		-

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3296	Req	<div>Subsystem - Point SR - Logical Architecture [SubS P IBD 2]</div> <div><div>ibd Subsystem - Point SR - Logical Architecture [SubS P IBD 2]</div><div><div>«block» SubS P SR</div><div><div><div><div>T9_Status_Report_Completed</div><div>T6_Start_Status_Report : F_SCI_EfeS_Sec_SR</div><div>D50_PDI_Connection_State</div></div><div>D21_F_SCI_EfeS_Gen_SR_State</div><div>T18_Start_Status_Report</div><div>T23_Sending_Status_Report_Completed</div><div>SCI_P</div><div>T1_Cd_Move_Point : F_SCI_P_SR</div><div>DT1_Move_Point_Target</div><div>T2_Msg_Point_Position</div><div>DT2_Point_Position</div><div>T3_Msg_Timeout</div></div><div><div>D51_EST_EfeS_State : F_EST_EfeS_SR</div><div>D20_F_EST_EfeS_Gen_SR_State</div><div>T10_Move</div><div>DT10_Move_Target</div><div>T11_Stop_Operation</div><div>T20_Point_Position</div><div>DT20_Point_Position</div><div>T40_Send_Status_Report</div><div>T30_Report_Timeout</div><div>D30_Con_007000</div><div>D31_Con_007400 : F_P3_Gen</div><div>D32_Con_007600</div><div>D33_Con_007900</div><div>D34_Con_008000</div><div>D35_Con_008200</div><div>D36_Con_008300</div><div>D37_Con_008400</div><div>D38_Con_008500</div><div>D39_Con_008700</div><div>D40_Con_008800</div><div>D41_Con_310900</div><div>D25_Redrive</div></div><div><div>D13_Activate_PM1</div><div>T12_Reset_PMs</div><div>D21_PM1_Position</div><div>D11_Active</div><div>T2_Reset PM1 : F_PM_Gen</div><div>D1_Position_Out</div><div>D12_Position_In</div><div>D11_Active</div><div>T2_Reset PM2 : F_PM_Gen</div><div>D1_Position_Out</div><div>D12_Position_In</div><div>D10_Move_Left</div><div>D11_Move_Right</div><div>D4_Con_tmax_Point_Operation</div><div>D5_Drive_State</div><div>D6_Detection_State</div><div>T5_Info_End_Position_Arrived</div><div>T4_Information_No_End_Position</div><div>T6_Information_Trailed_Point</div><div>T7_Information_Out_Of_Sequence</div></div></div></div></div>		-
Eu.P.3295	Req	SCI_P		-
Eu.P.233	Head	4 RAMSS requirements		Default
Eu.P.2987	Info	The requirements for reliability, availability, maintainability, safety and security are specified in [Eu.Doc.20]		Default
Eu.P.3244	Head	5 Technical Requirements		Default
Eu.P.3245	Info	The generic technical requirements are specified in [Eu.Doc.20]		Default
Eu.P.3246	Head	5.1 Specific technical interface requirements		Default
Eu.P.3247	Head	5.1.1 Interface to the Point of Service Signalling (PoS-Signalling)		Default
Eu.P.3248	Req	Via the technical interface PoS-Signalling , the data of the functional interface "SCI-P" shall be exchanged with the Subsystem - Electronic Interlocking as specified in [Eu.Doc.92].		Default
Eu.P.3249	Req	Via the technical interface PoS-Signalling , the data of the functional interface "SMI-P" shall be exchanged with the Subsystem - Maintenance and Data Management as specified in [Eu.Doc.76].		Default
Eu.P.3250	Req	Via the technical interface PoS-Signalling , the data of the functional interface "SDI-P" shall be exchanged with the Subsystem - Maintenance and Data Management as specified in [Eu.Doc.77].		Default
Eu.P.3251	Head	5.1.2 Interface to the point machine		Default
Eu.P.3252	Info	These requirements shall be defined by national specifications.		Default
Eu.P.3253	Head	5.2 Time behaviour		Default

ID	Type	Requirement Part 1	Requirement Part 2	Appl.
Eu.P.3254	Req	The time values defined in the chapter Functional requirements specification (Eu.P.2286) shall be configured for the operation of the Subsystem - Point.		Default
Eu.P.3262	Head	5.2.1 Response times		Default
Eu.P.3263	Req	The Subsystem - Point shall send the corresponding message telegram to the Subsystem - Electronic Interlocking within 250 ms after successful change of state, according to specific use cases.		Default
Eu.P.3264	Req	The Subsystem - Point shall start the reversal operation within 500 ms after receiving a command telegram.		Default
Eu.P.3265	Req	The Subsystem - Point shall start the redrive operation within 500 ms after detecting No end position.		007000
Eu.P.3255	Head	5.3 Configuration and engineering data		Default
Eu.P.3256	Head	5.3.1 Specific data		Default
Eu.P.3257	Req	The engineering and configuration data for the Subsystem - Point shall include as a minimum the following information:		Default
Eu.P.3258	Req	<ul style="list-style-type: none">the duration, starting from the moment a point machine is powered to begin a point movement, after which the power has to be switched of, even if the point hasn't reached an End position. (point movement monitoring time)		Default
Eu.P.3259	Info	Two different data sections can be loaded which are identified as PR_ID1 or PR_ID2. The section identified via PR_ID1 covers the safety-relevant data and the section identified via PR_ID2 the non safety-relevant data. The following definitions apply to the assignment of the sections PR_ID1 or PR_ID2:		Default
Eu.P.3260	Req	<ul style="list-style-type: none">configuration data, such as the IP addresses of the Subsystem - Electronic Interlocking (or the corresponding RaSTA concentrators), the value of the attribute "Identification" (data point of the SDI-P) and the value of the attribute "InterfaceRevision" (data point of the SDI-P) and the value of the attribute "PointTurnEvent.MotorTurnData[i].idSub1" (data point of the SDI-P) are non safety-relevant and belongs to the section identified via PR_ID2. This data shall be used to calculate the CSNS.		Default
Eu.P.3261	Req	<ul style="list-style-type: none">The remaining configuration data is currently categorised as safety-relevant and belongs to the section identified via PR_ID1. This data shall be used to calculate the CSS.		Default