

ISO/TS 15143-4:2025-02 (E)

Earth-moving machinery and mobile road construction machinery - Worksite data exchange - Part 4: Worksite topographical data

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
3.1	General terms relating to construction worksites and technology	2
3.2	Terms specific to field positioning	4
3.3	Terms specific to data exchange	6
3.4	Terms specific to codelist	7
4	System overview	8
4.1	Service roles	8
4.2	Project data	9
4.3	Design model exchange format	10
4.4	Common localization	10
4.5	Units and formatting	10
4.6	As-built and production data exchange	10
4.7	Concept diagram	10
5	Method of data exchange between servers	11
5.1	General	11
5.2	API URL	12
5.3	Discovering worksites	12
5.4	Reporting unexpected errors	12
5.5	Authorizing worksite data exchange	12
5.6	Versioning	12
6	Method of project data exchange	12
6.1	General	12
6.2	Obtaining project data	13
6.3	Contributing project data	13
7	Method of as-built and production data exchange	13
7.1	General	13
7.2	System-of-record data stream	14
7.3	Real-time data stream	14
8	Method of design model data exchange	14
8.1	Design file format	14
8.2	Background drawings	15
8.3	Codelist	15
9	Method of local position correction and localization	15
9.1	General	15
9.2	RTK GNSS position correction	15
9.3	Localization	15

Annex A (normative) Authorization mechanisms for worksite data exchange	17
Annex B (normative) Worksite directory SMS API	22
Annex C (informative) Server to server use cases	28
Annex D (normative) Shared data types	30
Annex E (normative) Project data types	34
Annex F (normative) Project data SMS API	53
Annex G (normative) As-built and production system-of-record types	84
Annex H (normative) As-built and production real-time types	94
Annex I (normative) As-built and production data system-of-record SMS API	111
Annex J (normative) As-built and production data real-time SMS API	115
Annex K (normative) Localization	118
Annex L (normative) ISO LandXML	122
Annex M (informative) Codelist	177
Annex N (normative) Maintenance agency	179
Bibliography	182