

Intelligent transport systems — Management of electronic traffic regulations (METR)~~—~~ ==

Part 2: Operational ~~Concept~~concepts (ConOps)

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Systèmes de transport intelligents — Gestion des règles de circulation sous forme électronique —

Partie 2: Concepts opérationnels

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

~~This is, in collaboration with the first edition of~~<https://standards.iteh.ai/catalog/standards/iso/ce63000e-04a5-4104-939b-b0e6107720ac/iso-dtr-24315-2>European Committee for Standardization (CEN) Technical Committee CEN/TC 278, *Intelligent transport systems*, in accordance with the Agreement on technical cooperation between ISO 24315-2 and CEN (Vienna Agreement).

A list of all parts in the ISO 24315 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

0.1 System overview

0.1.1 General

The ISO 24315 series is intended to provide users access to geo-specific, trustworthy, timely, authoritative, machine-interpretable, traffic and transport related rules enacted by jurisdictional entities, including those who define rules for campuses (i.e., private grounds). This is conceptually shown in [Figure 1](#).

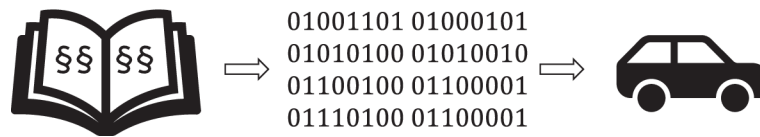


Figure 0-1: METR concept

0.1.1.2 Purpose

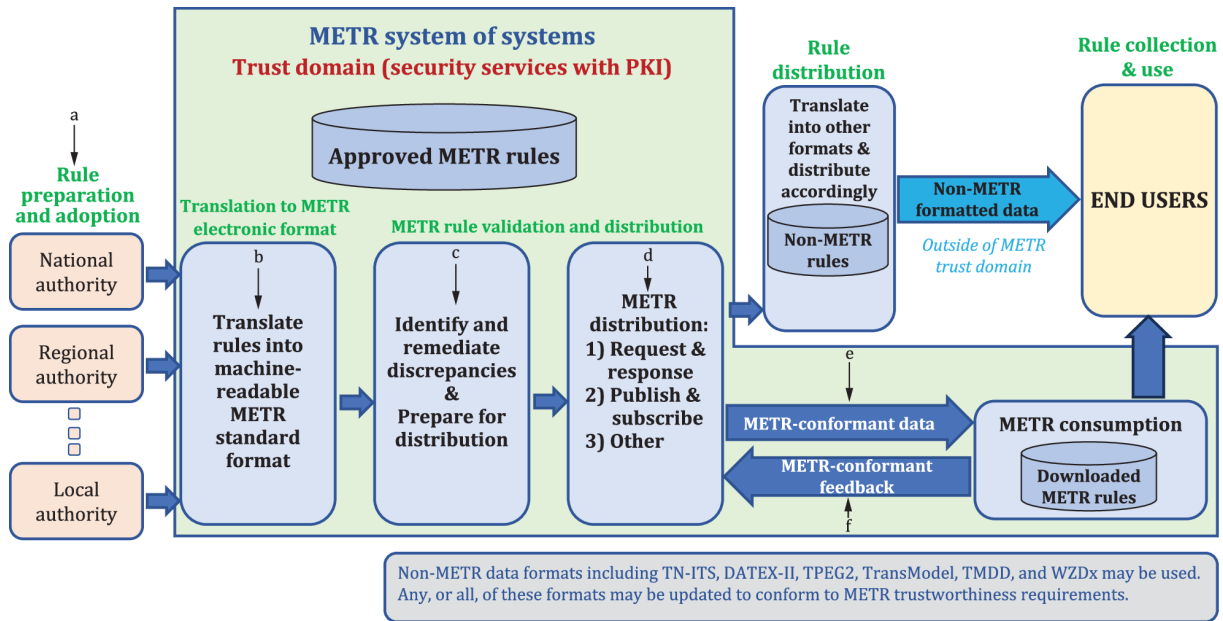
Management of ~~Electronic Traffic Regulations~~ **electronic traffic regulations** (METR) is designed to assist developers and manufacturers of driving automation systems (i.e., automation ~~Levels~~ **levels** 1-5) and driver information systems (including those at automation ~~Level~~ **level** 0) to electronically obtain traffic rules to better enable:

- a) interacting safely with other road users;
- b) following instructions from law enforcement organizations, and those authorized to direct traffic;
- c) maintaining smooth and safe flow of traffic; ~~and~~
- d) complying with other rules enacted to support legislative policies (such as environmental protection, noise, manage height and weight restrictions, and societal aspects such as market days, fiestas, pedestrian zones) ~~[8], etc.). [1]~~.

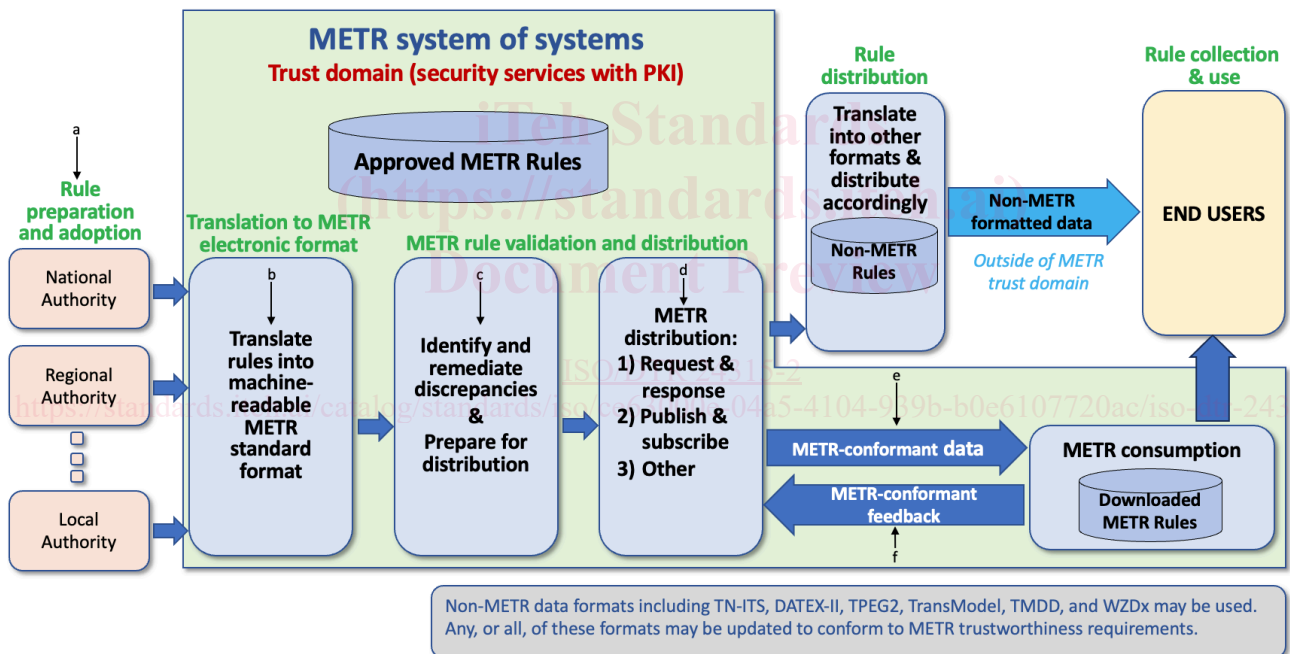
METR is designed to provide a reference framework for the trustworthy distribution of electronic versions of legal traffic rules, however content and application of the traffic rules is outside of the scope of the METR standards and specifications.

0.1.2.0.1.3 Flow of information

The general flow of METR information is illustrated in [Figure 2](#) and subsequently described.



Key



- a** METR starts with rule makers defining and enacting rules that are relevant to transport users.
- b** Each legal rule is translated into a METR rule, which is a secure, standardized electronic representation that includes a digital signature of the rule signing organization.
- c** METR rules are collected for a geographic area(s) and specific scope(s).
- d** Rules are distributed to METR users based on their needs.
- e** METR users become aware of the METR rules, verify their authenticity, and respond appropriately.
- f** As needed, METR users can submit discrepancy reports to a discrepancy handler for investigation and correction.

Figure 0-2: METR flow of information

Key

— METR starts with rule makers defining and enacting rules that are relevant to transport users;

- each legal rule is translated into a METR rule, which is a secure, standardized electronic representation that includes a digital signature of the rule signing organization;
- METR rules are collected for a geographic area(s) and specific scope(s);
- rules are distributed to METR users based on their needs;
- METR users become aware of the METR rules, verify their authenticity, and respond appropriately; and
- as needed, METR users can submit discrepancy reports to a discrepancy handler for investigation and correction.

0.1.100.1.4 Graphical overview

Figure 3 provides an overview of the data and devices included within the scope of the METR environment.

Figure 0-3: METR streetscape



Key

- A — Freight rules
- B — Kerbside usage rules
- C — Ride sharing rules
- D — Micromobility rules
- E — VRU rules
- F — Public transport rules
- G — Rules for automated driving systems
- H — Driving rules