
Information technology — Computer graphics, image processing and environmental data representation — Guidelines for representation and visualization of smart cities

Technologies de l'information — Infographie, traitement d'images et représentation de données environnementales — Lignes directrices relatives à la représentation et à la visualisation des villes intelligentes





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Foreword

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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 and www.iec.ch/national-committees.

Introduction

Developers and users of a smart city need tools to evaluate and examine options and trade-offs and predict outcomes. Parts or all of a smart city may need to be modelled, and smart city functions need to be simulated to evaluate possible outcomes. The modelling and simulation of smart city functions and processes require representation and visualization of the data. Representation and visualization of smart cities enable prototyping, demonstration and analysis of smart city concepts for further development. Both physical/geometric and semantic data can be represented and visualized. Representation and visualization of smart cities is a prime application for an integrated approach to leverage standardization since no single standard may address all requirements. This document provides guidance as to what needs to be represented for smart cities and how this can be achieved.

This document describes categories of data associated with smart cities and guidelines for their representation and visualization. It describes how standards can be applied to represent and visualize urban infrastructure, services and features. Use cases are presented that explore how these standards could be applied in smart city analysis and visualization applications.

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1 Scope

This document specifies guidelines for the representation and visualization of smart cities. This document:

- a) describes the concepts of a smart city, smart city object and smart city data,
- b) describes categories of data associated with smart cities,
- c) provides guidance for representation of smart cities,
- d) describes guidance for visualization of smart cities,
- e) provides guidance in selecting the appropriate representation and visualization technique for different categories of smart city data using standards, and
- f) provides use cases for applying standards to the representation and visualization of smart cities.

2 Normative references

There are no normative references in the document.