

Zpráva rok 2024

TC442/WG6

Skupina se od zvolení nového convenora Mr. Dominique Chevillard z ANFOR schází pravidelně prostřednictvím ZOOM a projednává cíle a další směřování WG6.

V roce 2024 bylo celkem 10. jednání, 26.1., 28.2., 22.3., 22.4., 24.5., 24.6., 6.9., 8.10., 5.11. a bude 13.12.

11. září zasedání v Berlíně za WG6 convenor Chevillard Guidelines for Long-term Access to and Maintenance of Infrastructure data. V rámci zasedání nebylo osobní setkání. Bylo domluveno osobní setkání na březen 2025.

Nyní je připravován NWIP (New Work Item Proposal) se zaměřením na dlouhodobé uchování dat a jejich údržbě týkající se infrastruktury. Výstupem by měla být Technická specifikace TS. Pracovní návrh byl dokumentu byl projednán a odsouhlasen. Pracovní návrh by měl být odeslán technické komisi CEN/TC 442 v srpnu 2025. Na dokumentu se za Českou republiku aktivně podílí Jiří Buneš. Pro Guidelines byly stanoveny odpovědnosti členů týmu za jednotlivé části.

Základní informace:

Infrastructure Data Management Summary Context & Necessity Modern society relies on infrastructure like transport and energy grids. Long-term success requires durable, accessible, and reusable data for design, construction, and maintenance. Current practices often fail to ensure data reliability over the decades-long lifespan of infrastructure projects. This proposal aims to establish comprehensive guidelines for better data management.

Core Objectives

- Specification: Establish long-term infrastructure data management standards for asset owners and their supply chain to harmonize practices and improve cross-border functionality.
- Guidance: Offer best practice guidance and standards for various use cases, adhering to FAIR (Findable, Accessible, Interoperable, Reusable) and CARE (Collective Benefit, Authority, Responsibility, Ethics) principles.

Technical Topics

- Data Formats & Interoperability: Address challenges of diverse data formats and databases by promoting standard formats like openBIM (buildingSMART International's IFC, IDS, BCF) and open GIS formats (OGC's WFS/WMS/WMTS, LAS, KML, GML, GeoPackage), ensuring long-term storage and accessibility.
- Metadata & Conversion: Define metadata standards and conversion strategies to maintain data integrity while transitioning from proprietary to open formats.
- Data Federation: Integrate BIM and GIS data using Spatial ETL processes and APIs for a unified view of the built environment.
- Archival Strategies: Tackle data degradation and hardware obsolescence with digital preservation, version control, redundancy, and data warehousing discussions.

- Security & Privacy: Balance data openness with protection, considering access controls, anonymization, and legal privacy regulations.
- Maintenance Regimes: Discuss the adoption of standards like ISO 55000 and ISO 19650-3 for data management in maintenance systems, and explore automated asset lifecycle monitoring technologies.

1. Context and Necessity

Infrastructure—ranging from transportation networks to energy grids—provides the backbone of modern societies. The success of design, construction, and maintenance of infrastructure hinges on accurate, accessible, reusable, and durable data. Infrastructure projects span decades, and reliable data storage is essential for maintenance, upgrades, and historical analysis. Reliable access to high-quality data promotes informed decision-making, risk mitigation, and innovation. However, existing practices often fall short in ensuring long-term data reliability. This proposal seeks to rectify this gap by establishing comprehensive guidelines based on pragmatic use cases.

2. Core Objectives

The primary purpose of this document is twofold:

1. Specification: To provide a specification for the long-term management of infrastructure data by asset owners and their supply chain with the aim of promoting harmonized practices, enhanced collaboration, reduced redundancy, and improved cross-border functionality.
2. Guidance: To provide guidance supporting the specification, addressing best practices and relevant standards across a range of specific use cases.

In this work, the following principles will be followed:

- FAIR, i.e., making data Findable, Accessible, Interoperable and Reusable.
- CARE, i.e., addressing Collective Benefit, Authority to control, Responsibility and Ethics.

3. Technical Topics to Be Discussed

The proposal will delve into several technical areas:

- a. Data Formats and Interoperability
- b. Archival Strategies
- c. Security and Privacy
- d. Maintenance Regimes

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