
**Digital token identifier (DTI) —
Registration, assignment and
structure —**

Part 1:
**Method for registration and
assignment**



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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 68, *Financial services*, Subcommittee SC 8, *Reference data for financial services*.

A list of all parts in the ISO 24165 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

With the rise in popularity of peer-to-peer payment systems, relying less on centralized authorities and instead on aspects of cryptography, decentralized processing and a distributed network for the maintenance of a shared record of transaction activity, the need to identify the digital tokens issued, traded, transacted or stored on these networks has grown. Stakeholders in the trading community, service providers, custodians and regulatory bodies have identified numerous use cases where a standard identifier for accounting, research, tracking and management of these digital tokens would improve efficiency and eliminate confusion in the marketplace.

However, the nature of these new types of digital asset means they do not fit within the structure of existing ISO identifiers, in part because they possibly lack clear reference to an issuing authority and will therefore not be considered the liability of an issuing authority or corporate governing body. These digital assets, in many cases, are cross geographic and monetary governance jurisdictions.

Though these digital assets are sometimes referred to as cryptocurrencies, virtual currencies or digital currencies, the term 'currency' has a specific meaning as defined by ISO 4217. This definition is in conflict with the nature of the digital tokens identified within this document due to the reasons described above; namely, the lack of monetary authority and geographic location.

Where traditional financial instruments or currencies are tokenized for electronic exchange and issued by a legal entity or a monetary authority responsible for it, other International Standards, such as ISO 6166 or ISO 4217, can apply. To eliminate confusion for users of this document, care has been taken to provide a clear definition and eligibility criteria for assignment of a digital token identifier (DTI).

This document is addressed to applicants seeking to identify digital tokens conforming to the definition provided in this document. The data elements used to distinguish one set of digital tokens from another, are, wherever possible, objective and publicly available. This document only covers fungible tokens. When mentioning "token" singular, this document refers to all tokens with the same attributes and identifiers; for example, a specific ISIN identifies the issuance of a financial instrument, such as IBM, and refers to all the IBM shares. Inclusion in the registry and the issuance of an identifier signifies, therefore, only the existence of the token and its 1:1 relationship to its identifier.

The ISO 24165 series is organized into the following parts:

- ISO 24165-1 describes the method of registration and assignment of a DTI.
- ISO 24165-2 describes the data elements required for registration and display on the DTI registry.

Digital token identifier (DTI) — Registration, assignment and structure —

Part 1: Method for registration and assignment

1 Scope

This document defines the assignment and generation of a random, unique, fixed-length identifier for digital tokens in response to a request for registration that conforms to specified application guidelines (see also ISO 24165-2).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 24165-2, *Data elements for registration and display on the DTI registry*

ISO/IEC 7064:2003, *Information technology — Security techniques — Check character systems*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>

3.1

asset

anything that has value to a stakeholder

[SOURCE: ISO/TS 17573-2:2020, 3.9]

3.2

block

data structure comprising a *block header* (3.5) and *block data* (3.4)

Note 1 to entry: For the purposes of this document, the division of data elements in a block between block header and block data is illustrative. Other methods of organizing the data elements typically contained in block header and block data may be utilized.

[SOURCE: ISO 22739:2020, 3.2, modified — Note 1 to entry added.]