

# Construction drawings — Designation systems —

## Part 3: Room identifiers

The European Standard EN ISO 4157-3:1998 has the status of a British Standard

ICS 01.100.30

# National foreword

This British Standard is the English language version of EN ISO 4157-3:1998. It is identical with ISO 4157-3:1998.

The UK participation in its preparation was entrusted by Technical Committee B/212, Tolerances, drawing practice, modular co-ordination, joints, project information and computer modelling to Subcommittee B/212/2, Construction drawing practice, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

## Cross-references

Attention is drawn to the fact that CEN and CENELEC standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement these international or European publications may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

## Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN ISO title page, page 2, the ISO title page, pages ii to iv, pages 1 and 2, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

## Amendments issued since publication

| Amd. No. | Date | Comments |
|----------|------|----------|
|          |      |          |
|          |      |          |
|          |      |          |
|          |      |          |

This British Standard, having been prepared under the direction of the Sector Committee for Building and Civil Engineering, was published under the authority of the Standards Committee and comes into effect on 15 April 1999

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ICS 01.100.30

Descriptors: See ISO document

English version

# Construction drawings — Designation systems — Part 3: Room identifiers

(ISO 4157-3:1998)

Dessins de bâtiment — Systèmes de  
désignation — Partie 3: Identificateurs  
de pièces (ISO 4157-3:1998)

Zeichnungen für das Bauwesen —  
Bezeichnungssysteme —  
Teil 3: Raum-Kennzeichnungen  
(ISO 4157-3:1998)

This European Standard was approved by CEN on 21 November 1998.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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## CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

## Foreword

The text of the International Standard ISO 4157-3:1998 has been prepared by Technical Committee ISO/TC 10 “Technical drawings, product definition and related documentation” in collaboration with CEN/CS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 1999, and conflicting national standards shall be withdrawn at the latest by June 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 4157-3:1998 was approved by CEN as a European Standard without any modification.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

INTERNATIONAL  
STANDARD

**ISO**  
**4157-3**

First edition  
1998-12-01

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**Construction drawings — Designation  
systems —**

**Part 3:  
Room identifiers**

*Dessins de bâtiment — Systèmes de désignation —*

*Partie 3: Identificateurs de pièces*



Reference number  
ISO 4157-3:1998(E)

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**Descriptors:** Drawings, technical drawings, architectural drawings, buildings, rooms, identification methods, designation.



## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 4751-3 was prepared by Technical Committee ISO/TC 10, *Technical drawings, product definition and related documentation*, Subcommittee SC 8, *Construction documentation*.

ISO 4157 consists of the following parts, under the general title *Construction drawings — Designation systems*:

- *Part 1: Buildings and parts of buildings;*
- *Part 2: Room names and numbers;*
- *Part 3: Room identifiers.*



## 1 Scope

This part of ISO 4157 establishes requirements for designation systems for rooms, areas, spaces, and voids in buildings by room identifiers. It introduces a new designation concept intended for identification of rooms in a project throughout its life cycle, i.e. the conception, programming, planning, erection, maintenance, remodelling and demolition phases.

## 2 Normative references

The following standards contain provisions, which through reference in this text, constitute provisions of this part of ISO 4157. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 4157 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4157-1:1998, *Construction drawings — Designation systems — Part 1: Buildings and parts of buildings*.

ISO 4157-2:1998, *Construction drawings — Designation systems — Part 2: Room names and numbers*.

## 3 Definitions

For the purposes of this part of ISO 4157, the definitions given in ISO 4157-1 apply.

## 4 Room identifiers principle

### 4.1 General rules

When appropriate for the planning, maintenance or management purposes of a building, room identifiers shall be assigned to each and every room, i.e. room, area, space, void, etc., of a building.

Room identifiers shall be allocated in consecutive order for each storey and may not be revised during the lifecycle of a building. They serve as unique identification of a room which is planned, built or extinct, and is conceived for the interface between the building and a computerized information system. They uniquely identify rooms, areas, spaces and voids with a fixed geometry, time span of existence and other inherent properties and information.

### 4.2 Geometry

For the purposes of room identifiers, rooms shall be geometrically defined by their physical boundaries, or with imaginary planes which shall correspond with building parts such as storey level, protruding beams or partitions. For the purpose of room numbers (see ISO 4157-2) such bounds may have been left undefined.

### 4.3 Correspondence

**4.3.1** All room numbers shall have a corresponding room identifier at any time.

**4.3.2** All room identifiers need not correspond to room numbers.

**4.3.3** Room identifiers need not have corresponding room names.

### 4.4 Integers

Room identifiers shall be of positive integers.

### 4.5 Composition of room identifier

A room identifier shall consist of a storey number (see ISO 4157-1) normally combined with a three-digit number, both preceded by a prefix I# (abbreviation for ISO Room Identifier). For each storey an unbroken succession of room identifiers shall start with I#n001 and be in ascending order.

**NOTE** The storey number, which is counted from the bottom of the building, is normally not equal to the floor number, which is counted from ground floor (see ISO 4157-1).

### 4.6 Extra digit

Room identifiers shall have one more digit than room numbers to distinguish them from each other. When room numbering is chosen to be by the two- or four-digit system (see ISO 4157-2), room identifiers shall have one more digit. This also allows for a greater number of room identifiers than room numbers to identify voids, and for the numbers lost over the course of time due to rooms being remodelled.

### 4.7 Documentation

The current owner of such building should maintain a complete list of all room identifiers assigned with cross-reference to

- a) the geometry of the rooms (x, y and z coordinates);
- b) dates of occurrence (erection and demolishing dates);
- c) room names, if any;
- d) room numbers, if any.

#### 4.8 Room coordinates

Room identifiers should be complemented by a set of coordinates to determine the rooms' position in three-dimensional space, i.e.:

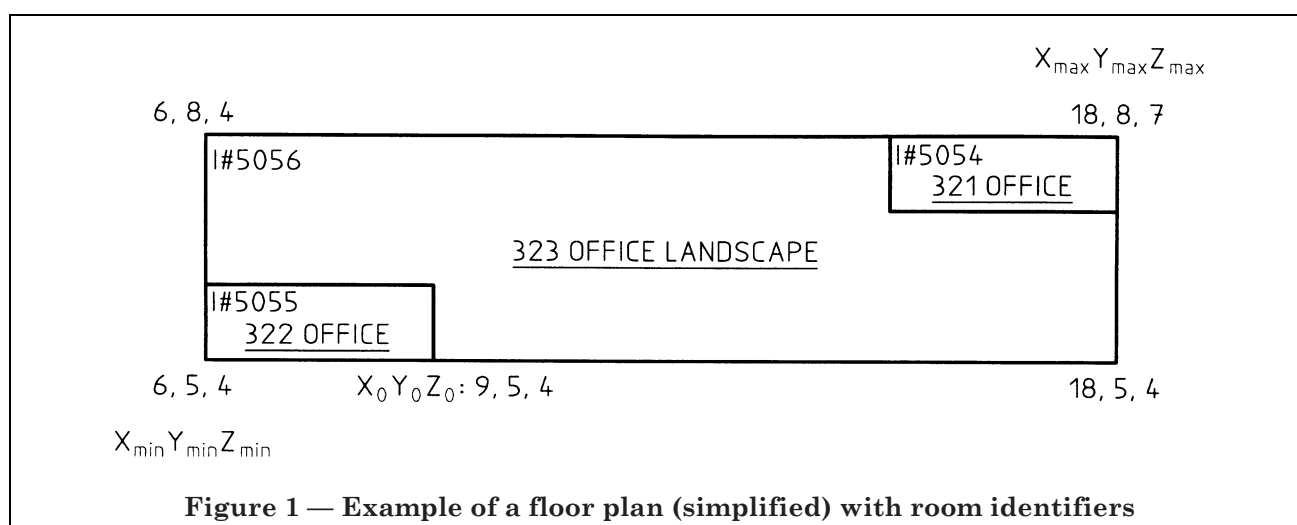
- origin of room:  $X_0Y_0Z_0$ ;
- minimum extension:  $X_{\min}Y_{\min}Z_{\min}$ ;
- maximum extension:  $X_{\max}Y_{\max}Z_{\max}$ .

The origin of the room coordinates should be coordinated with the grid system of the building at the level of its lowest point and clearly indicated on the appropriate drawings (see Figure 1).

Room identifier I#5056 in Figure 1 is assigned to room number 323 OFFICE LANDSCAPE for the life span of the building. (The room is physically in the fifth storey and logically on the third floor.) The room coordinates are as follows:

- corner  $X_0Y_0Z_0$  has coordinates 9, 5, 4;
- corner  $X_{\min}Y_{\min}Z_{\min}$  has coordinates 6, 5, 4;
- corner  $X_{\max}Y_{\max}Z_{\max}$  has coordinates 18, 8, 7.

NOTE Simplified coordinates are chosen for example only.



**Annex ZA (normative)****Normative references to international publications with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

| Publication | Year | Title   | EN            | Year |
|-------------|------|---|---------------|------|
| ISO 4157-1  | 1998 | <i>Construction drawings — Designation systems — Part 1: Buildings and parts of buildings</i> | EN ISO 4157-1 | 1998 |
| ISO 4157-2  | 1998 | <i>Construction drawings — Designation systems — Part 2: Room names and numbers</i>           | EN ISO 4157-2 | 1998 |

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