

International representation of time*

The confusion caused by the different numerical representations of time in the ever-increasing international exchange of information has underlined the need for a world-wide uniform representation of time. Recognizing this need, the International Organization for Standardization (ISO) published an International Standard (ISO 8601 of 1988) last year. This Standard contains the recommendations for numerical representation as agreed to at international level, viz from larger to smaller elements. ISO has asked all member bodies to accept and propagate the numerical representation of dates and time as set out in the Standard.

A number of examples from ISO 8601 are given below. Two formats—a basic and an extended format—are given.

To assist comprehension, the extended format, i.e. the use of separators, is recommended for general use: a colon (:) for the representation of time and a hyphen (-) for the representation of the date. However, the use of separators is unnecessary in certain fields such as electronic data processing.

ISO 8601 of 1988 is available at a price of R81,50 (GST included) per copy from Standards Sales, SABS, Private Bag X191, 0001 Pretoria.

Examples of the representation of dates, times of the day, combinations of date and time, and periods of time

1. Dates

<i>Basic format</i>	<i>Extended format</i>	<i>Explanations</i>
Calendar date – 12 April 1985		
19850412	1985-04-12	Complete
850412	85-04-12	Year of any century, with month and date only
--0412	--04-12	Month and date of any year
---12	not applicable	Day only of any month

2. Time of the day

<i>Basic format</i>	<i>Extended format</i>	<i>Explanations</i>
<i>Local time of day</i>		
27 minutes 46 seconds past 15 hours locally		
152746	15:27:46	Complete
-2746	-27:46	Specific minute and second of any hour
--46	not applicable	Specific second of any minute
<i>Reduced to hours and minutes</i>		
1527	15:27	Complete
-27	not applicable	Specific minute of any hour
<i>Midnight – The beginning of a day</i>		
000000	00:00:00	Complete
0000	00:00	Hour and minute only
<i>Midnight – The end of the day</i>		
240000	24:00:00	Complete
2400	24:00:00	Hour and minute only

3. Combinations of date and time

<i>Basic format</i>	<i>Extended format</i>	<i>Explanations</i>
19850412T101530	1985-04-12T10:15:30	Complete
850412T101530	85-04-12T10:15:30	Within specific year of any century
850412T1015	85-04-12T10:15	Ditto, with hour and minute only
0412T1015	04-12T10:15	Within specific month of any year, with hour and minute only
0412T10	04-12T10	Ditto, with hour only
12T10	12T10	Within specific day of any month, with hour only
850412T10	85-04-12T10	Within specific date of any century, with hour only
12T101530	12T10:15:30	Within specific day of any month, year and century

* Released by the South African Bureau of Standards, Private Bag X191, 0001 Pretoria.