Part 1: Definitions & Fundamentals of the TIME ZONE
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Foreword

Late President Yasser Arafat issued a decree in 1994 to establish PSI. It began to operate in 1997. Nowadays, PSI works under the law of standards and metrology No 6/2000. PSI has an autonomous status, it is the sole body responsible for issuing Palestinian standards that are recognized by the business community and consumers, both locally and internationally for being the focal point for Palestinian participation in the global system of harmonized standards.

This document was prepared by Technical Committee PSI-ICT, (Time Zone Workgroup) It is the first edition PSI 4308:1, which has been technically reviewed. The main task of the technical committees is to prepare national Standards.

A draft national Standards adopted by the technical committees are circulated to board members to be approved.

A list of all parts of this standard will be included in the (PSI 4308).

All parts of the series can be browsed on the PSI website.
Introduction

The main objective of this document is to provide a standard set of date, time and Time Zone in Palestine State, format representations for information interchange to minimize the risk of misunderstanding, confusion and their consequences. Being in an area that observes a uniform standard time for legal, commercial and social communications, Palestine in particular will be able to reduce systems downtime, human effort and last-minute arrangements that is caused by not having a unified time zone and also not being able to have a clear road map for setting daylight saving time as well as providing certainty that the given information is relevant to the State of Palestine country of ownership.

Scope

This article of the national Standard introduces the fundamentals and definitions of the Time Zone. It is the first part of a series of documents defining the Time Zone standard that is prepared according to the needs of the state of Palestine. Requirements of implementation will be detailed in the documents of national standards intended to be applicable to all organizations regardless of type, size or nature.

Normative references

1) ISO 8601-1:2019: Date and time — Representations for information interchange — Part 1: Basic rule

Some or all of the content of the following documents that are referred to in the text constitute 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.
Terms and definitions

1. Coordinated Universal Time

Time scale with the same rate as International Atomic Time (TAI), but differing from TAI only by an integral number of seconds.

Note 1 to entry: UTC is the time standard commonly used across the world from which local time is derived.

Note 2 to entry: UTC is produced by the Bureau International des Poids et Mesures (BIPM), i.e., the International Bureau of Weights and Measures.

Note 3 to entry: TAI is a continuous time scale produced by the BIPM based on the best realizations of the SI second. TAI is a realization of Terrestrial Time (TT) with the same rate as that of TT, as defined by the International Astronomical Union Resolution B1.9 (2000).

[SOURCE: BIPM Recommendation CCTF 3 (2017), modified — The definition of TAI has been included as Note 3 to entry.]

2. UTC of day

Time of day in UTC:

Time scale derived from (UTC), by a time shift established in a given location by the competent authority.

3. Local time scale

Locally-applicable time scale such as standard time or a non-UTC based time scale.
4. **Time of day**

Time occurring within a calendar day.

Note 1 to entry: Generally, time of day relates to the duration elapsed after the beginning of the day. However, this correlation breaks when changes occur in the time scale that applies to the time of day, such as time shifts and leap seconds.

Note 2 to entry: This definition corresponds closely with the definition of “clock time” given in IEC 60050-113:2011, 113-01-18, except that the concepts of duration and time scale are not used in this definition.

5. **local time of day**

 time of day in a local time scale.

6. **Standard Time**

Time scale derived from UTC, by a time shift established in a given location by the competent authority.

7. **(DST): Daylight Saving Time**

(DST) is the practice of setting the clocks forward one hour from standard time during the summer months, and back again in the fall, in order to make better use of natural daylight.
EXAMPLE 1:

Some standard times do not vary within a year, such as US Eastern Standard Time (EST), US Eastern Daylight Time (EDT), Australia Western Standard Time (AWST), China Standard Time (CST), Hong Kong Standard Time (HKT), Korea Standard Time (KST) and Japanese Standard Time (JST).

EXAMPLE 2:

Some standard times vary within a year, such as US Eastern Time (ET) and Australian Central Standard Time (ACST).

Note 1 to entry: The time shift of a standard time may vary in the course of a year, such as due to daylight savings.

[SOURCE: IEC 60050-113:2011, 113-01-17, modified — The original NOTE has been deleted;1 and 2 and Note 1 to entry has been added.]
Fundamental Principles

1. Time zone

A time zone is a description of the past and predicted future timekeeping practices of a collection of clocks that are intended to agree.

Note that the term "Time Zone" does not have the common meaning of a region of the world at a specific UTC offset, possibly modified by daylight saving time.

2. Time Zone Data

Time zone data is data that defines a single time zone, including an identifier, UTC offset values, DST rules, and other information such as time zone abbreviations.

3. Time Zone Metadata

Time zone metadata is data that describes additional properties of a time zone that is not itself included in the time zone data. This may include the publisher's name, version identifier, aliases, and localized names.

4. The tz database

The public-domain time zone database contains code and data that represent the history of local time for many representative locations around the globe. It is updated periodically to reflect changes made by political bodies to time zone boundaries and daylight-saving rules. This database (known as tz, tzdb, or zone info) is used by several implementations, including the GNU C Library (used in GNU/Linux), Android, FreeBSD, NetBSD, OpenBSD, Chromium OS, Cygwin,
MariaDB, MINIX, MySQL, webOS, AIX, BlackBerry 10, iOS, macOS, Microsoft Windows, OpenVMS, Oracle Database, and Oracle Solaris.

5. Time Zone Identifiers

Time zone identifiers are unique names associated with each time zone.

Each time zone has a name that uniquely identifies the time zone. Government is expected to select these names alone. Distributors should provide documentation and/or a simple selection interface that explains each name via a map or via descriptive text.

6. Publisher: Palestinian Government

Publishers collect information from contributors to determine the reliability of this information in generating time zone data. A publisher may choose to "republish" data from another publisher.

7. Distributors

The common form of distributing information on time zones and its updates nowadays seems to be the physical distribution of time zone databases (and updates to those) to devices and systems. In many cases, the updates also require a reboot of the underlying machine in order to become effective.

8. Observance

A time zone with varying rules for the UTC offset will have adjacent periods of time that use different UTC offsets. Each period of time with a constant UTC offset
is called an observance. Etc. This specification does not define what format of time zone identifiers should be used. It is possible that time zone identifiers from different publishers overlap, and there might be a need for a provider to distinguish those with some form of "namespace" prefix identifying the publisher.

The Structure:

1. **The format of the Palestine Time Zone**

   Palestine will use Palestine Standard Time (PSST), and Palestine daylight time (PSDT).

2. **Names of Time Zone**

   Names normally have the form AREA/LOCATION, where AREA is a continent or ocean, and LOCATION is a specific location within the area.

   The State of Palestine is the Palestine Time Zone owner, It has the sole right to set, modify and register the Standard Time Zone; Name / Database / DST.

Legal Clause:

According to the provisions of this standard, the State of Palestine is the exclusive holder of the jurisdiction and the right to designate, modify and register the name of the standard time zone and the database, daylight saving time and everything related to it in a series of documents determined by digital and descriptive data, according to the needs of the state of Palestine, as it has the right to address the competent regional and international bodies.
Bibliography


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