Temporal Enumerated Ranges (TEMPER)

Status of this Document

By submitting this Internet-Draft, each author represents that any applicable patent or other IPR claims of which he or she is aware have been disclosed, or will be disclosed, and any of which he or she become aware will be disclosed, in accordance with RFC 3668.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF), its areas, and its working groups. Note that other groups may also distribute working documents as Internet-Drafts.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

The list of current Internet-Drafts can be accessed at http://www.ietf.org/ietf/1id-abstracts.txt

The list of Internet-Draft Shadow Directories can be accessed at http://www.ietf.org/shadow.html.

Distribution of this document is unlimited. Please send comments to jak@ucop.edu.

Copyright (C) The Internet Society (2005). All Rights Reserved.

Abstract

TEMPER (TEmporal Enumerated Ranges) is a simple date and time syntax for representing points, lists, and ranges of timestamps. The syntax is designed to be trivial to parse, easy for humans to read, and friendly to simple lexical sorting algorithms. TEMPER consists of 4-, 8-, and 14-digit points, point ranges, and lists of points and ranges. Examples:
19990916145903
19960401-19971202
1. The TEMPER Syntax

A TEMPER point is a string of characters representing a single date or a combination of a date and a time. Sometimes this is called a timestamp. Here are some examples of TEMPER points.

- 0384: The year 384.
- 19990916145903: The third second past 2:59 PM, 16 September 1999.

There are three different lengths of TEMPER points:

- CCYY: 4-digit year, with CC being the 2-digit century
- CCYYMMDD: 8-digit year-month-day
- CCYYMMDDhhmmss: 14-digit day-hour-minute-second

As a special case, when DD is given as 00 it is treated as if no day was given for the specified month.

A TEMPER range is a start point and an end point separated by a hyphen. An open-ended range is specified when either start or end point is absent. At least one point must be present in a range. Two points in a range must have the same number of digits; e.g., an 8-digit start point and a 4-digit end point is not a valid TEMPER range. Here are some examples of ranges.

- 19960401-19971202: 1 April 1996 to 2 December 1997
- 2004-: 2004 and later
- -1889: up to 1889

A TEMPER list is one or more points and ranges separated by commas. Every point in a list must have the same number of digits; e.g., a 14-digit point and a 4-digit range end point cannot occur in a valid TEMPER list. Here are some examples of lists.

- -1889, 1909, 1925-, 2005

Whitespace is not significant throughout the TEMPER syntax. Whitespace may be used for formatting, but will be squeezed out when creating canonical forms. The following TEMPER lists are equivalent.
Future versions of the TEMPER specification may address such things as timezones, fractional dates, approximate dates, and BCE dates. Currently disallowed in TEMPER are all constructions not specified above and all numerical values with no defined meaning in ordinary calendars and clocks.

2. Security considerations

The TEMPER syntax poses no direct risk to computers and networks. Implementors should always exercise care when receiving data that may be private or maliciously intended. These are normal risks to which TEMPER is no more vulnerable than most other syntaxes. Because of its restricted character repertoire, TEMPER dates may actually have enhanced security compared to other date syntaxes (e.g., [ISO8601]).

3. Authors' Addresses

John A. Kunze
California Digital Library
University of California, Office of the President
415 20th St, 4th Floor
Oakland, CA 94612-3550, USA

Fax: +1 510-893-5212
EMail: jak@ucop.edu

4. Informative References


5. Copyright Notice

Copyright (C) The Internet Society (2005). This document is subject to the rights, licenses and restrictions contained in BCP 78, and except as set forth therein, the authors retain all their rights.

This document and the information contained herein are provided on an "AS IS" basis and THE CONTRIBUTOR, THE ORGANIZATION HE/SHE REPRESENTS OR IS SPONSORED BY (IF ANY), THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED
WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Expires 14 August 2005
Table of Contents

Status of this Document ............................................. 1
Abstract ............................................................... 1
1. The TEMPER Syntax ............................................... 3
2. Security considerations ......................................... 4
3. Authors’ Addresses ............................................... 4
4. Informative References ......................................... 4
5. Copyright Notice ................................................ 4