

CFPS 40

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Sortable, Versatile CFPS 17

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Created: 2013-04-17

URL: Most recent version: <http://fhiso.org/files/cfp/cfps40.pdf>
This version: http://fhiso.org/files/cfp/cfps40_v1-2.pdf

Description: CFPS 17's yearly quarters are not sortable with other dates; fixing this makes the proposal more general as well.

Keywords: Dates, ISO-8601, Quarters

Sortable, Versatile CFPS 17

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17 April 2013

***Abstract:** CFPS 17 includes yearly quarters, which are simple month ranges. It suggests a form that does not sort well with other date formats. If a special form for this type of date range is desired, one can be added that does sort naturally with existing dates.*

CFPS 17 suggests a date format that includes $yyyy[-mm[-dd]]$, $yyyy-Qq$, and $yyyy-Www$. While week dates require non-trivial computation to convert into month-based dates, yearly quarters are simply ranges of three dates: $yyyy-Qn = yyyy-(3n - 2)$ through $yyyy-3n$ inclusive.

Thus, quarters can be handled using existing date range facilities.

If some non-range syntax for quarters is desired¹, I suggest using a postfix “span” symbol rather than a prefix “quarter” symbol, making quarters lexicographically sortable with other dates and allowing for increased versatility of the notation.

I have not thought through the implication of a particular “span” symbol in any depth. I’ll use \oplus in my presentation because it is unlikely to be used in any existing date specification format. A different (presumably ASCII) symbol such as “+”, “p”, or “s” ought to be selected if this suggestion is used.

Given a date string d with terminating resolution r and an integer n , $d \oplus n$ means the range beginning at d with duration $n \times r$.

(Recall from ISO 8601 that d by itself means the range beginning at d with duration r).

Several examples:

- $1801 \oplus 100$ is “the 19th century.”
- $1950 \oplus 10$ is “the 1950s.”
- $1956-07 \oplus 3$ is “the third quarter of 1956.”
- $2013-04-14 \oplus 7$ is “the week I drafted this comment” for a Sunday-first week.
- $1971-06-30 \oplus 366$ is “the fiscal year ending 30 June 1972.”

Depending on the symbol selected, this notation will sort lexicographically either right before or right after the opening date of the period it specifies.

¹ Why it would be desired is not clear to me, but I am not opposed to it in principle.