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# Chronology

Jan 16, 2020



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Tools which help convert structured schedule data into events.

### 1.1 chronology.events module

Abstractions for some common types of events that Chronology can handle

**class** `chronology.events.NaiveOccurrence` (*start, end*)

Bases: `object`

An event occurrence which consists of a naive datetime for start and end.

The event can be said to be occurring between start and end. Before start, the event is going to happen. After end, the event has happened.

**end = None**

A naive datetime object representing the beginning of the event

**start = None**

A naive datetime object representing the beginning of the event

**class** `chronology.events.NaiveRecurringEvent` (*start\_date: datetime.date, end\_date: datetime.date, start\_time: datetime.time, end\_time: datetime.time, days: List[chronology.notation.ISODayOfWeek]*)

Bases: `object`

A simple event which recurs.

The event occurs on the `ISODayOfWeek` days listed in `days` between `start_date` and `end_date` at the time between `start_time` and `end_time`.

#### Parameters

- **start\_date** – The first date that the event may possibly occur. The first occurrence of the event is only on this date if it is contained in `days`, otherwise the first occurrence occurs the first time that a day in `days` is reached after `start_date`

- **end\_date** – The last date that the event may possibly occur.
- **start\_time** – The time that each occurrence of the event begins.
- **end\_time** – The time that each occurrence of the event ends.
- **days** – The days that the event occurs on.

### **occurrences**

Every occurrence of this event

## 1.2 chronology.notation module

Abstractions that handle notation of different time values

**class** `chronology.notation.ISODayOfWeek`

Bases: `enum.IntEnum`

Represents days of weeks. The values of this enum can be used as an ISO dow value (1-7) if needed

**friday** = 5

**monday** = 1

**saturday** = 6

**sunday** = 7

**thursday** = 4

**tuesday** = 2

**wednesday** = 3

`chronology.notation.days_from_fields` (*monday, tuesday, wednesday, thursday, friday, saturday, sunday*) →  
List[`chronology.notation.ISODayOfWeek`]

Converts seven truthy or falsy fields into `ISODayOfWeek` values

Given a field for each of Monday through Sunday, each is checked for its truthiness or falsiness. Each truthy field corresponds to a returned `ISODayOfWeek` value in the list.

`chronology.notation.time_from_24h_notation` (*timespec: str*) → `datetime.time`

Gets a naive time value from a 24-hour noted time (like 1155 for 11:55)

This function only accepts four-character strings. Trying to pass “155” for 01:55 is not valid. “0155” is valid.

**Parameters** **timespec** – An integer value of a 24-hour time, such as 1155.

### **Raises**

- **ValueError** – A four-character string was not provided.
- **ValueError** – The four-character string provided was not numeric.

## CHAPTER 2

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### Indices and tables

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