

# Data.Time.Calendar

Safe Haskell  
LanguageSafe  
Haskell2010

## Days

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[Gregorian calendar](#)newtype **Day** | [# Source](#)

The Modified Julian Day is a standard count of days, with zero being the day 1858-11-17.

### Constructors

#### ModifiedJulianDay

**toModifiedJulianDay** :: **Integer**

### Instances

**Enum Day** | [# Source](#)**Eq Day** | [# Source](#)**Data Day** | [# Source](#)**Ord Day** | [# Source](#)**Ix Day** | [# Source](#)**NFData Day** | [# Source](#)**ParseTime Day** | [# Source](#)**FormatTime Day** | [# Source](#)**addDays** :: **Integer** -> **Day** -> **Day** | [# Source](#)**diffDays** :: **Day** -> **Day** -> **Integer** | [# Source](#)

## Gregorian calendar

**toGregorian** :: **Day** -> (**Integer**, **Int**, **Int**) | [# Source](#)

convert to proleptic Gregorian calendar. First element of result is year, second month number (1-12), third day (1-31).

**fromGregorian** :: **Integer** -> **Int** -> **Int** -> **Day** | [# Source](#)

convert from proleptic Gregorian calendar. First argument is year, second month number (1-12), third day (1-31). Invalid values will be clipped to the correct range, month first, then day.

**fromGregorianValid** :: **Integer** -> **Int** -> **Int** -> **Maybe Day** | [# Source](#)

convert from proleptic Gregorian calendar. First argument is year, second month number (1-12), third day (1-31). Invalid values will return Nothing

**showGregorian** :: **Day** -> **String** | [# Source](#)

show in ISO 8601 format (yyyy-mm-dd)

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**gregorianMonthLength** :: Integer -> Int -> Int | # Source

The number of days in a given month according to the proleptic Gregorian calendar. First argument is year, second is month.

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**addGregorianMonthsClip** :: Integer -> Day -> Day | # Source

Add months, with days past the last day of the month clipped to the last day. For instance, 2005-01-30 + 1 month = 2005-02-28.

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**addGregorianMonthsRollOver** :: Integer -> Day -> Day | # Source

Add months, with days past the last day of the month rolling over to the next month. For instance, 2005-01-30 + 1 month = 2005-03-02.

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**addGregorianYearsClip** :: Integer -> Day -> Day | # Source

Add years, matching month and day, with Feb 29th clipped to Feb 28th if necessary. For instance, 2004-02-29 + 2 years = 2006-02-28.

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**addGregorianYearsRollOver** :: Integer -> Day -> Day | # Source

Add years, matching month and day, with Feb 29th rolled over to Mar 1st if necessary. For instance, 2004-02-29 + 2 years = 2006-03-01.

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**isLeapYear** :: Integer -> Bool | # Source

Is this year a leap year according to the proleptic Gregorian calendar?