initWithString:
initWithString:calendarFormat:
initWithYear:month:day:hour:minute:second:timeZone:

Retrieving date elements dayOfMonth
dayOfWeek
dayOfYear
hourOfDay
minuteOfHour
monthOfYear
secondOfMinute
yearOfCommonEra

Providing adjusted date addYear:month:day:hour:minute:second:

Getting string descriptions of dates
description
descriptionWithCalendarFormat:
descriptionWithCalendarFormat:timeZone:

Getting and setting calendar formats
calendarFormat
setCalendarFormat:

Getting and setting time zones setTimeZone:
timeZoneDetail

initWithString:calendarFormat:, setCalendarFormat:

initWithYear:month:day:hour:minute:second:timeZone:

(NSCalendarDate*)addYear:(int)year
month:(int)month
day:(int)day
hour:(int)hour
minute:(int)minute
second:(int)second

Returns an NSCalendarDate object that is updated with the year, month, day, hour and second offs
arguments. The offsets can be positive (future) or negative (past). This method extracts and modi

(NSString *)calendarFormat

Returns the calendar format for the NSCalendar object. If you do not specify with setCalendarForm
as the default when invoking the description method, NSCalendarDate substitutes its own default:
of ª%Y- %m-%d %H:%M:%S %zº (for example, 1994-01-14 16:45:12 +0900). See the description
dateWithString:calendarFormat: for a discussion of date conversion specifiers.

(int)dayOfMonth

Returns a number that indicates the day of the month (1 through 31) of the receiving object.

dayOfYear dayOfWeek hourOfDay hourOfDay minuteOfHour monthOfYear secondOfMinut

(int)dayOfWeek

Returns a number that indicates the day of the week (0 through 6) of the receiving object 0 indicate

dayOfMonth dayOfYear hourOfDay minuteOfHour monthOfYear secondOfMinute yearOfCo

(int)dayOfYear

Returns a number that indicates the day of the year (1 through 366) of the receiving object.

dayOfMonth dayOfWeek hourOfDay minuteOfHour monthOfYear secondOfMinute yearOfC

(NSString*)description

Returns the date as a string, represented according to the default format string for the object. The s
calendar format string is ª%Y- %m-%d %H:%M:%S %zº (for example, 1994-01-14 16:45:12 +090
this and set your own default format string by invoking the setCalendarFormat: method. See the de
method dateWithString:calendarFormat: for a listing of conversion specifiers for dates.

calendarFormat, descriptionWithCalendarFormat:, descriptionWithCalendarFormat:timeZone:

(NSString *)descriptionWithCalendarFormat:(NSString *)format

Returns a string representation of the NSCalendarDate object that is formatted as specified by the
the format string format. The default time zone for the locale is assumed. The conversion specifier
conventions. See the description of the class method dateWithString:calendarFormat: for a listing

This example gets the current date, formats it in the form ªTues 3/1/94 3:30 PMº and displays the
field:

calendarFormat, description, descriptionWithCalendarFormat:timeZone:

calendarFormat, description, descriptionWithCalendarFormat:, setCalendarFormat:

(int)hourOfDay

Returns the hour value (0 through 23) of the receiver. On ªspring backº days a value of 1 is returne
hours, but with a different time zone.

dayOfMonth dayOfWeek dayOfYear minuteOfHour monthOfYear secondOfMinute yearOfC

initWithString:(NSString *)description

Returns an NSCalendarDate object initialized with the date specified as a string in description. Thi
the international format for date representation YYYY-MM-DD HH:MM:SS +HHMM, where +H
minute offset from Greenwich Mean Time. An example of such a representation is ª1995- 05-11 13

initWithString:(NSString *)description calendarFormat:(NSString *)format

Returns an NSCalendarDate object initialized with the date specified as a string in description and
format string format. The format string consists of conversion specifiers for dates that are similar t
(). See the description of the class method dateWithString:calendarFormat: for a listing of these sp

For an example, let's assume you want to initialize an NSCalendarDate object with a string obtain
This date string takes the form ª03. 21.94 22:00 PSTº:

initWithYear:(int)year
month:(unsigned int)month
day:(unsigned int)day
hour:(unsigned int)hour
minute:(unsigned int)minute
second:(unsigned int)second
timeZone:(id <NSTimeZone>)timeZone

Returns an NSCalendarDate object that is initialized with the year, month, day, hour and second of
time-zone object that are specified as arguments. The offsets can be positive (future) or negative (p
which cannot be negative. The year value must include the century (for example, 1995 instead of 9
the standard ones: 1 through 12 for months, 1 through 31 for days, 0 through 23 for hours and 0 th
minutes and seconds.

The method verifies the time zone supplied as an argument and can substitute an alternative time z
supply a new time zone, it applies the difference in offsets-from-GMT values between the substitu
time zone to the date object being created.

(int)minuteOfHour

Returns the minutes value (0 through 59) of the receiver.

dayOfMonth dayOfWeek dayOfYear hourOfDay monthOfYear secondOfMinute yearOfCom

(int)monthOfYear

Returns a number that indicates the month of the year (1 through 12) of the receiver.

dayOfMonth dayOfWeek dayOfYear hourOfDay minuteOfHour secondOfMinute yearOfCon

(int)secondOfMinute

Returns the seconds value (0 through 59) of the receiver.

dayOfMonth dayOfWeek dayOfYear hourOfDay minuteOfHour monthOfYear yearOfComm

(void)setCalendarFormat:(NSString *)format

Sets the default calendar format for the NSCalendar object. A calendar format string is a string for
conversion specifiers. If you do not specify a calendar format for an object, NSCalendarDate subst
for methods such as description and initWithString:. This is the international format of ª%Y-%m-%
(for example, 1994-01-14 16:45:12 +0900). See the description of the class method dateWithString
listing of date-conversion specifiers.

calendarFormat

(void)setTimeZone:(NSTimeZone *)timeZone

Sets the time zone that is associated with the NSCalendarDate object. When you create an NSCale
the methods dateWithString:calendarFormat:, initWithString:, or initWithString:calendarFormat:,
the associated time zone to be the default time zone for the locale. With this method you can set it

timeZoneDetail

(NSTimeZoneDetail *)timeZoneDetail

Returns the time-zone detail object that is associated with the NSCalendarDate object.

setTimeZone:

(int)yearOfCommonEra