





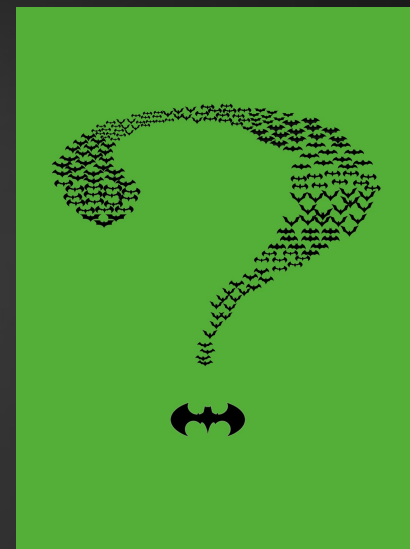
Dodatko Alexander

November 2012





How many moths does the
year consist of?



What is the first day of the
year?



Which day is the beginning of
the week?

Right, but did you know that ...

Jewish calendar consists of 13 months. And month #6 is a leaping one.

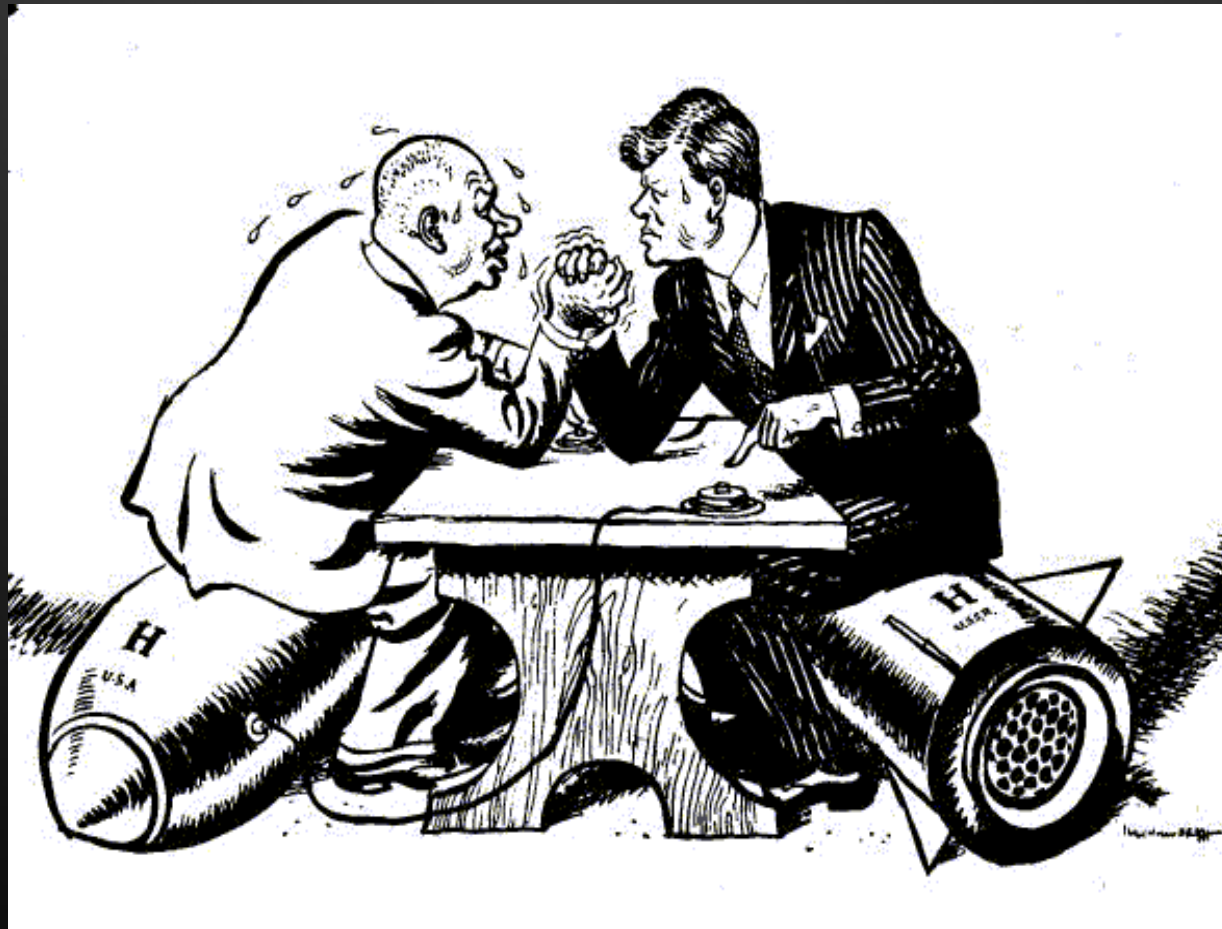


In Japan the calendar may
return to year #1 at the day of
the emperor's death



In Russia week starts on Monday.

In the USA the first day is Sunday



Dates must look in the way the user expects





iPod



13:39



Cancel

Language

Done

British English



English

Français

Deutsch

日本語

Nederlands

Italiano

Español

Português



The Typical Solution



```
-(NSDate*)parseDate:( NSString* )date_  
{  
    NSDateFormatter* df_ = [ NSDateFormatter new ];  
    df_.dateFormat = @"yyyy-MM-dd";  
  
    return [ df_ dateFromString: date_ ];  
}
```

WRONG !



```
-(NSDate*)parseDate:( NSString* )date_  
{  
    NSDateFormatter* df_ = [ NSDateFormatter new ];  
    df_.dateFormat = @"yyyy-MM-dd";  
  
    return [ df_ dateFromString: date_ ];  
}
```


NSDateFormatter

NSCalendar

NSLocale

NSLocale





Use **en_US_POSIX** locale for
dates from the network

Use **Gregorian** calendar too

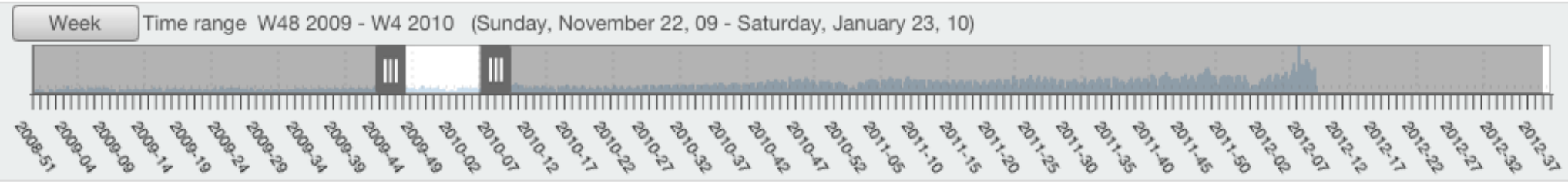
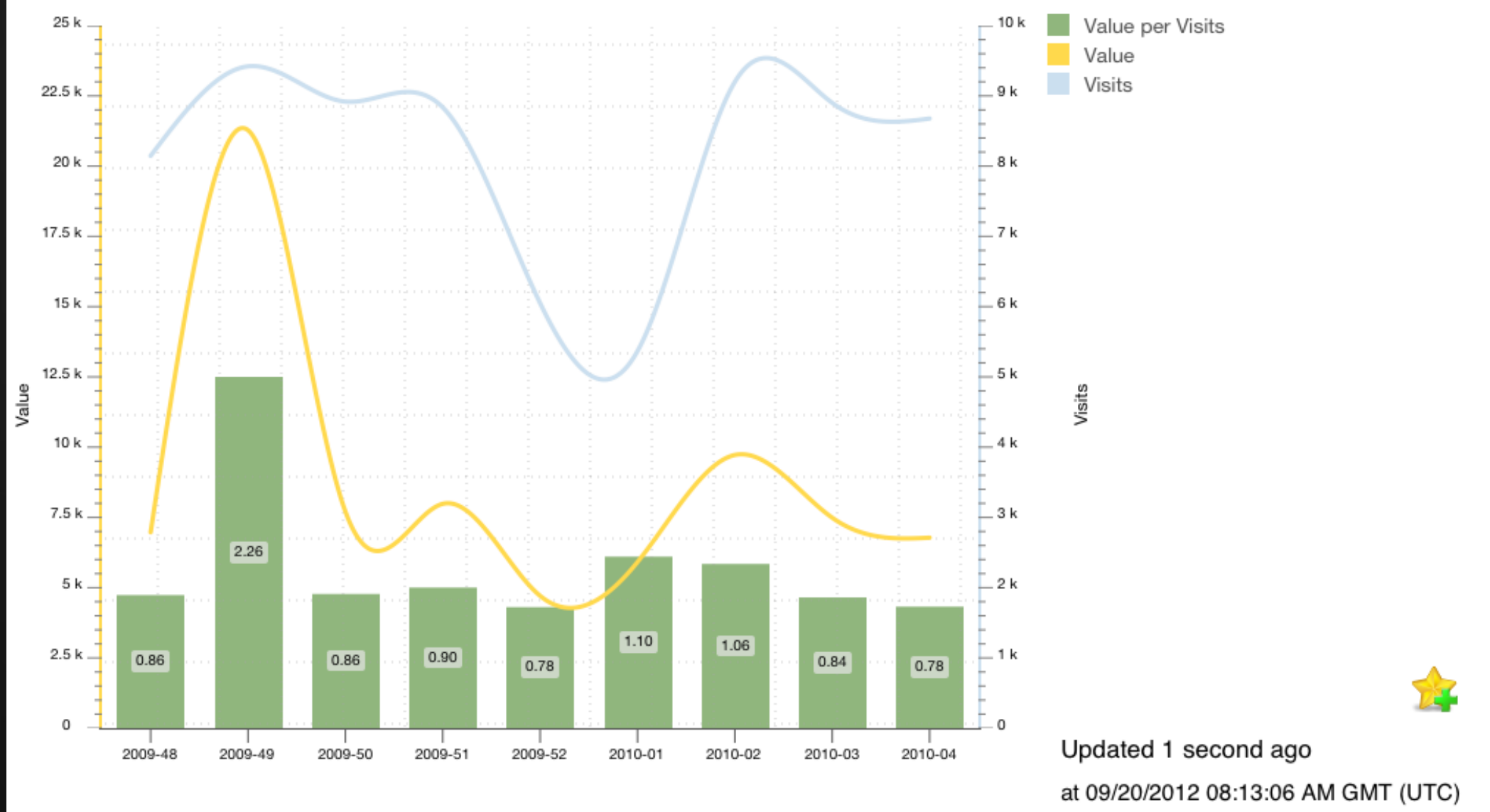


Do not forget to set
the **same Locale**
for both **NSCalendar** and
NSDateFormatter

Or let my library do it for you



dodikk / ESLocale





```
SELECT SUM( Visits )  
FROM VisitsLog  
WHERE Date BETWEEN  
x AND y  
GROUP BY week
```



What should I take as week ?



```
SELECT SUM( Visits )  
FROM VisitsLog  
WHERE Date BETWEEN x AND y  
GROUP BY
```

```
Strftime( '%Y-%W' , Date )
```




```
SELECT SUM( Visits)  
FROM VisitsLog  
WHERE Date BETWEEN x AND y  
GROUP BY
```

```
Strftime( '%Y-%W', Date )
```

SQLite





```
SELECT SUM( Visits )  
FROM VisitsLog  
WHERE Date BETWEEN x AND y  
GROUP BY
```

```
ObjcFormatDate( 'YYYYY-ww' ,  
Date, 'en_US_POSIX' )
```

Бендер Родригез

Бендер Родригез *Луна-Парк с нуля*



Подробное
иллюстрированное
руководство

Луна-Парк с нуля

с блек-джеком
и шлюхами



```
int sqlite3_create_function(  
    dbHandle,  
    "ObjcFormatDate",  
    3, //int nArg,  
    SQLITE_UTF8,  
    NULL, // sqlite user data  
    void (*xFunc)  
    (sqlite3_context*,int,sqlite3_value**),  
    NULL, NULL // for aggregates  
);
```

Plan of attack

Convert C strings to NSString

Convert date string to NSDate

Format NSDate using locale

NSDateFormatter

NSCalendar

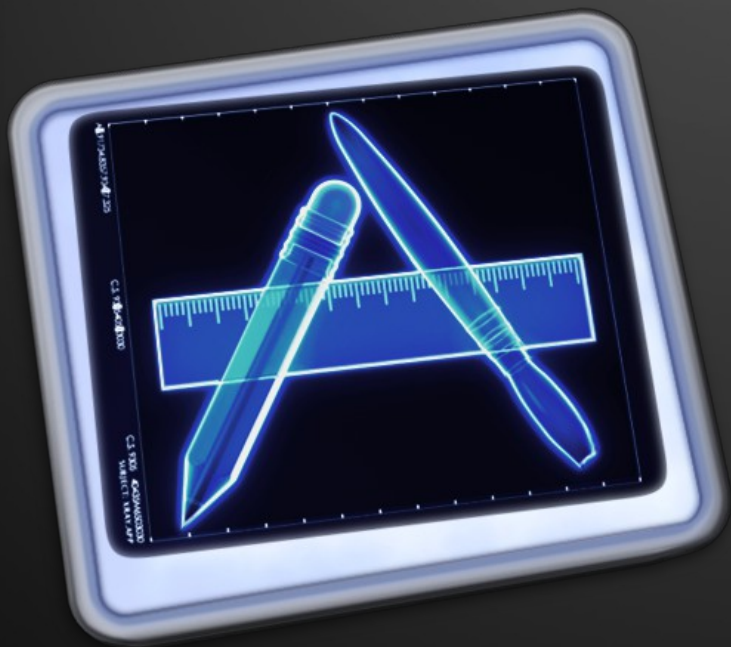
NSLocale

NSLocale



Demo

One More Thing



1000 times slower than **strftime**



10K records

Creating NSDateFormatter on-the-fly



Same speed as **strftime**

Singleton NSDateFormatter



Same 10K records

Thread Safety



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Github :

<https://github.com/dodikk>

<https://github.com/EmbeddedSources>