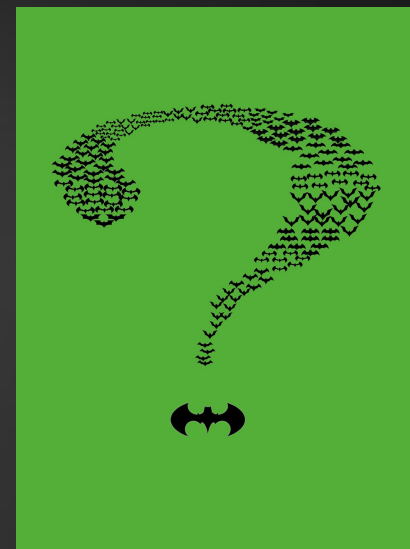




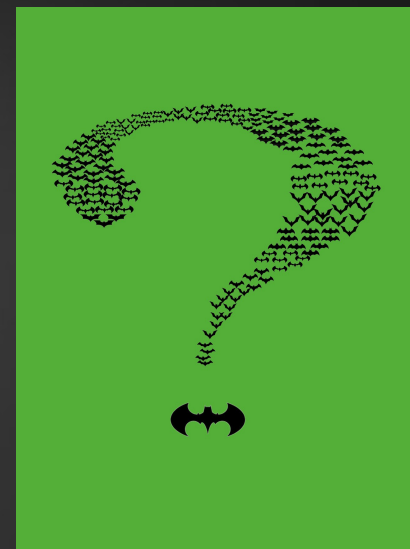
Dodatko Alexander

November 2012

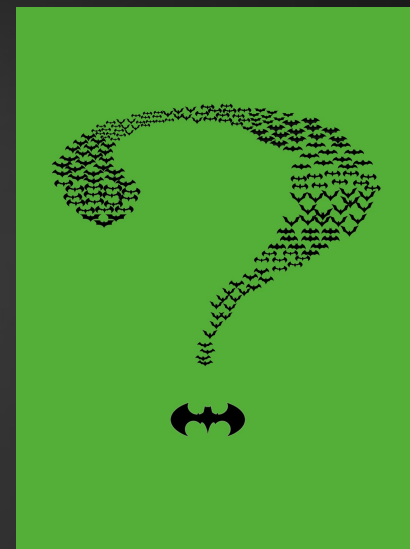




How many moths does the
year consist of?



How many months 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.

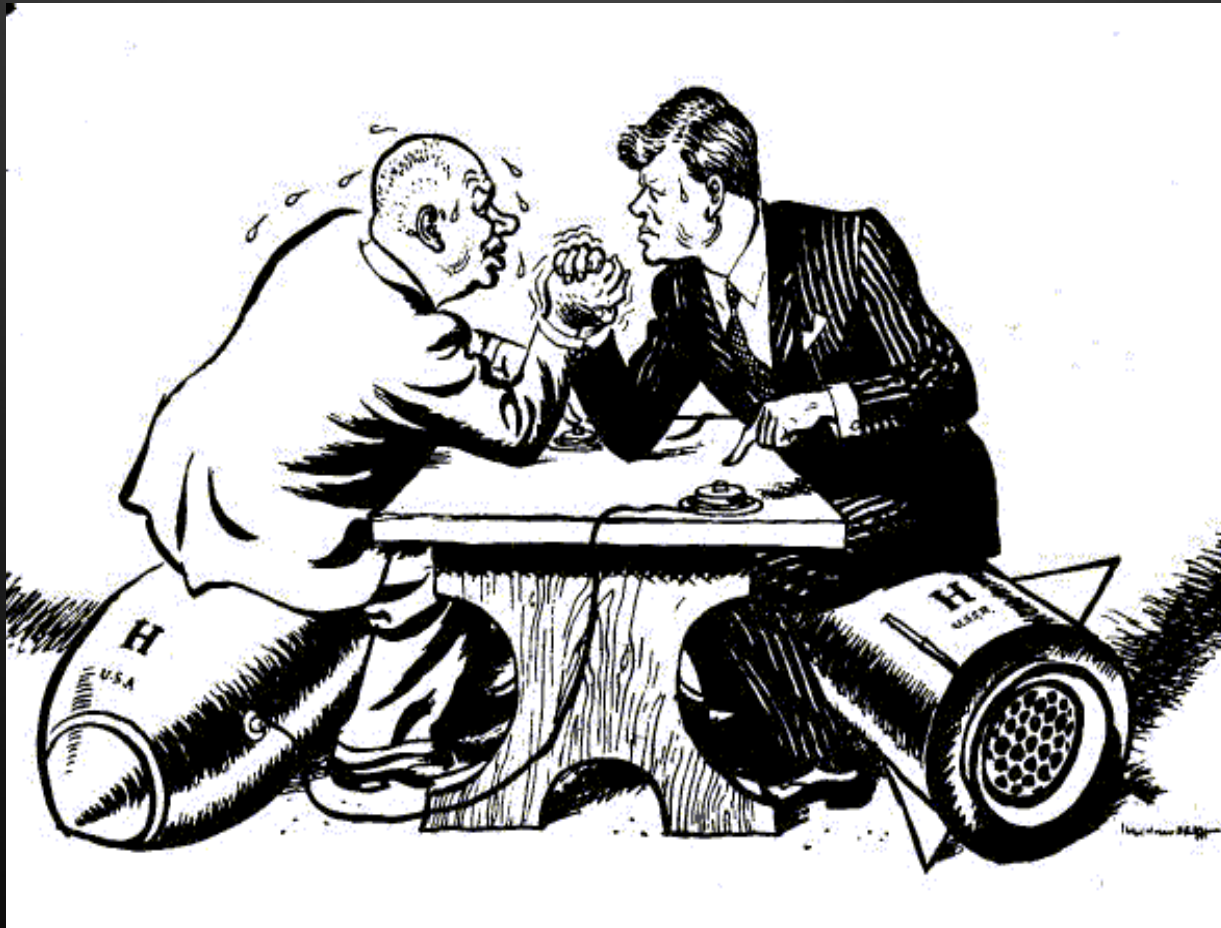


In Japan the calendar may
return to year #1 at the day of
the emperor's death



In Russia week starts on Monday.

In the USA the first day is Sunday





Dates must look in the way the user expects







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_ ];  
}
```






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

Use **Gregorian** calendar too

NSDateFormatter

NSCalendar

NSLocale

NSLocale





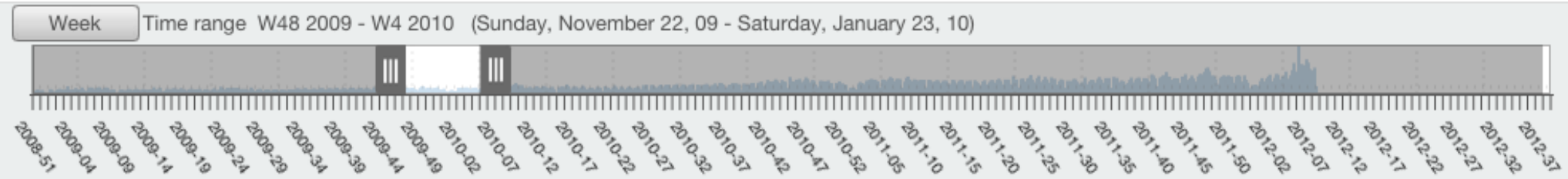
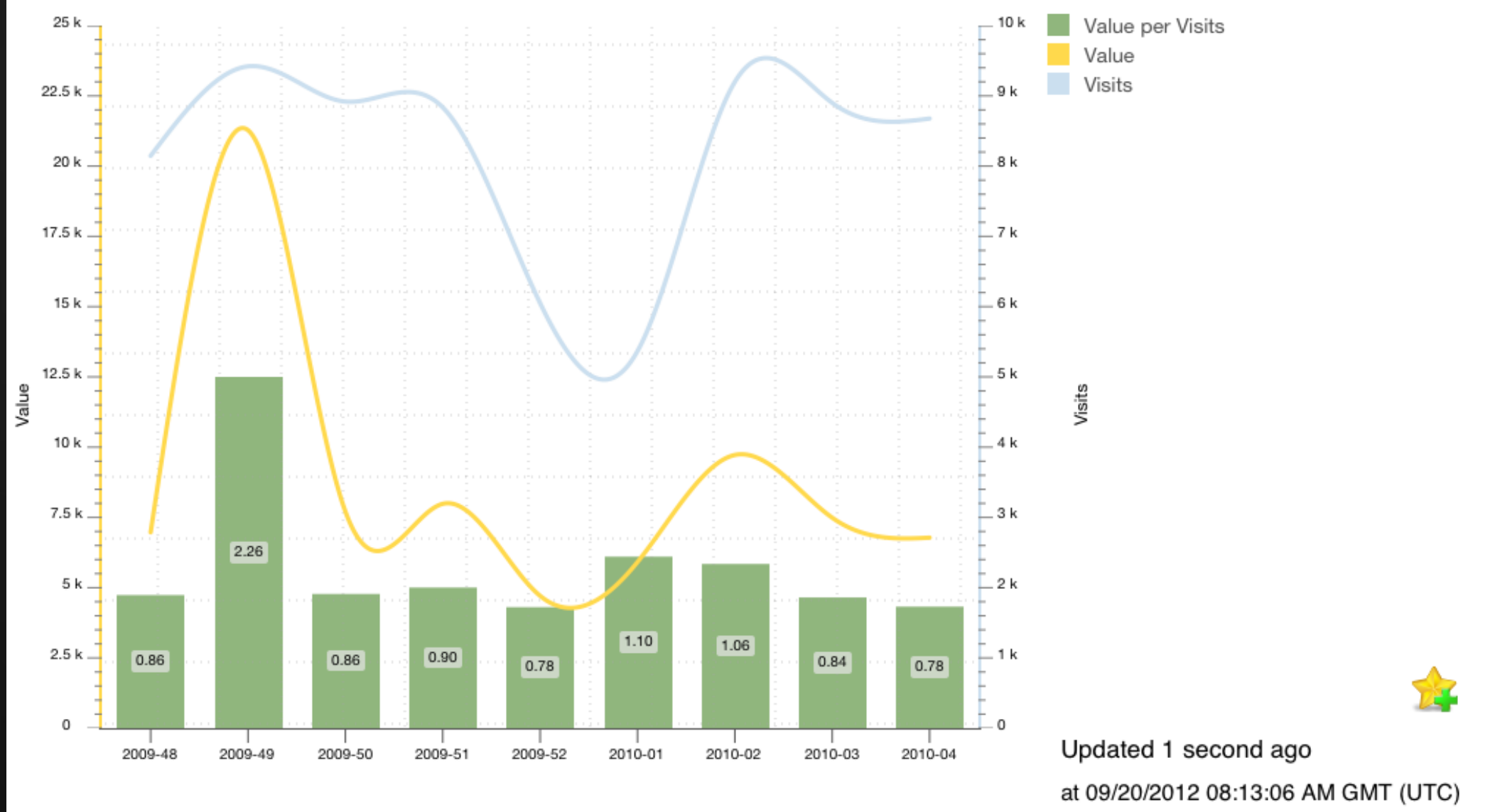
Do not forget to set
the **same Locale**
for both **NSCalendar** and
NSDateFormatter

Or let my library do it for you



dodikk / ESLocale

Ok. How about SQLite?





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




What should I take as week ?



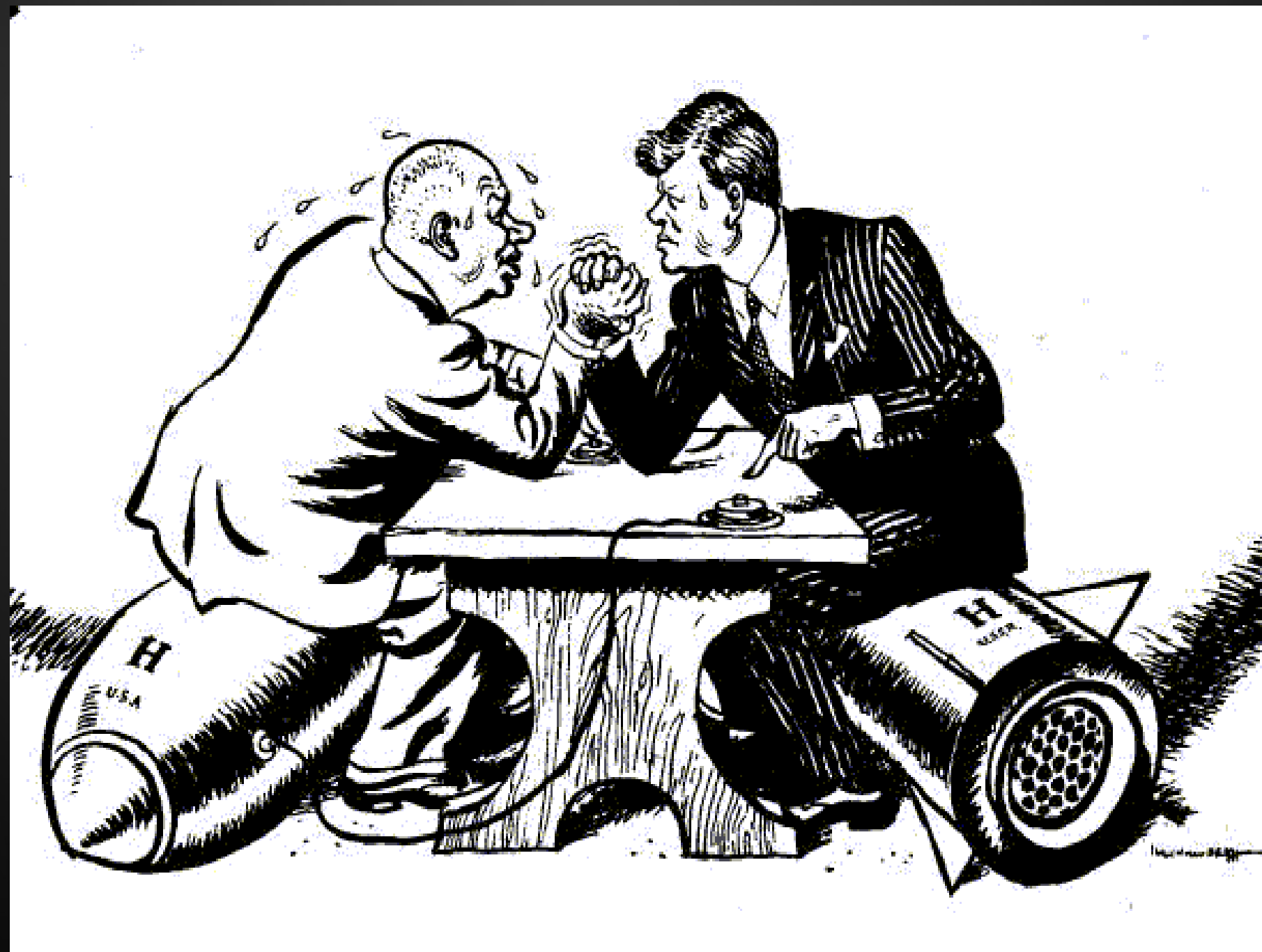
```
SELECT SUM( Visits )  
FROM VisitsLog  
WHERE Date BETWEEN x AND y  
GROUP BY
```

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



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

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





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

```
ObjcFormatDate( 'YYYY-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  
    functionPointer,  
    NULL, NULL // for aggregates  
);
```

Plan of attack

Convert C strings to NSString

Convert date string to NSDate

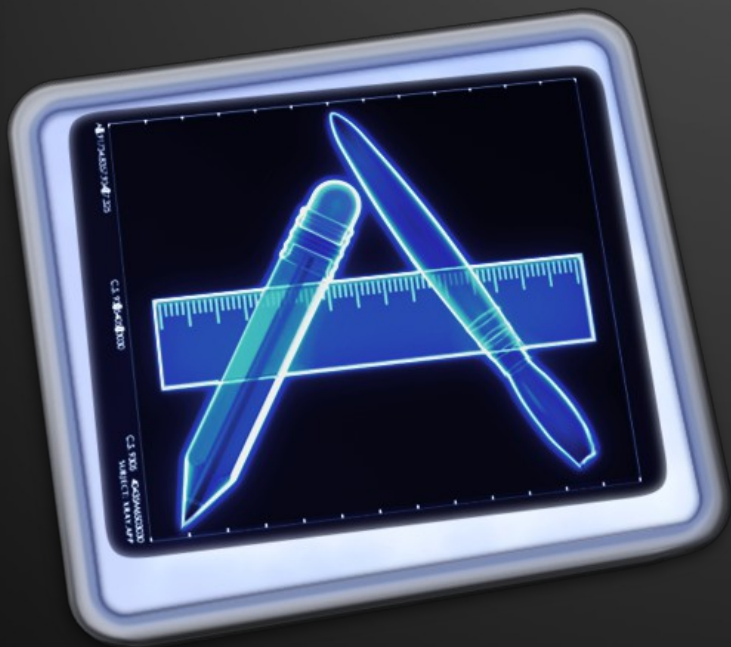
Format NSDate using locale

SQLite uses ANSI format

yyyy-MM-dd

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



dodikk / ESLocale



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Twitter : [@dodikk88](https://twitter.com/dodikk88)

Github :

<https://github.com/dodikk>

<https://github.com/EmbeddedSources>