

# Newton DNA



Makoto Nukui



- SideClip
- NEWT/o
- Déjà vu
- Next Generation
- Missing Pieces



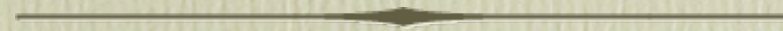
# Newton Discontinued

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Feb 1998



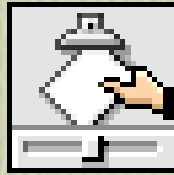
# SideClip



Mar 2000



# SideClip



- Newton like multi clipboard
- Very simple
- Drag and Drop
- Mac OS 8.1 later

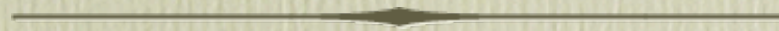


# The Secret of SideClip

- Newton like View System on C++
- Reference counting GC
- Automatically retain and release
- ResEdit like Interface Builder



# Mac OS 9



Mar 2001



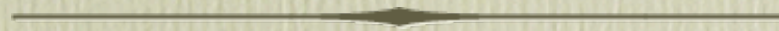
# Mac OS X



Mar 2001



NEWT/o



Oct 2003



# NEWT/o

- NewtonScript
- Prototype Oriented
- Bytecode and VM
- Mark and Sweep GC
- Multi Platform
- Open Source





# NEWT/o



- Paul Guyot wrote NewtObjC
- Matthias wrote NewtPkg
- DyneTK use NEWT/o







# Déjà vu

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2007



# Déjà vu

- JSON
- BISON
- Ruby 1.9 New literal Hash syntax
- JavaFX



# JSON

## ❖ JSON(JavaScript Object Notation)

```
{  
  "name": "John Smith",  
  "age": 33  
}
```

## ❖ NewtonScript

```
{  
  name: "John Smith",  
  age: 33  
}
```



# BISON

❖ BISON(Binary JSON)

❖ Newton には NSOF

(Newton Streamed Object Format)



# Ruby 1.9 New literal Hash syntax

## ❖ Ruby 1.8 and older

```
{  
  :name => "John Smith",  
  :age => 33  
}
```

## ❖ Ruby 1.9

```
{  
  name: "John Smith",  
  age: 33  
}
```



# JavaFX

## ❖ JavaFX

```
package examples.helloworld;
import javafx.ui.*;
import javax.swing.JOptionPane;

var f = Frame {
    title: "Hello, World", width: 200, height: 100
    var: frame
    content: Button {
        text: "Click!"
        action: operation() {
            JOptionPane.showMessageDialog(
                (<<java.awt.Frame>>)frame.getWindow(), "Hello, JavaFX");
        }
    }
    centerOnScreen: true, visible: true
};
```



# JavaFX

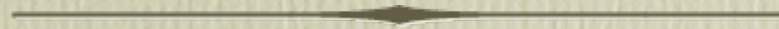
## ❖ NewtonScript

```
f := {  
  _proto: protoFloatNGo,  
  appSymbol: 'HelloWorld:SIG|,  
  text: "Hello, World",  
  viewJustify: vjParentCenterH + vjParentCenterV,  
  viewBounds: {left: 0, top: 0, right: 200, bottom: 100},  
  stepChildren: [  
    {  
      _proto: protoTextButton,  
      viewBounds: {left: 50, top: 20, right: 150, bottom: 60},  
      text: "click!",  
      ButtonClickScript: func() AlarmUser("Hello, World, Hello", "NewtonScript"),  
    },  
  ],  
};
```

```
BuildContext(f):Open();
```



# Newton



The Features of JavaFX...Since 1993!



閑話休題



- ✓ Feb 1998      Newton Discontinued
- ✓ Mar 2000      SideClip
- ✓ Oct 2003      NEWT/o
- ✓ July 2007      Next...?



Newt View(仮)



# NewtView(仮)

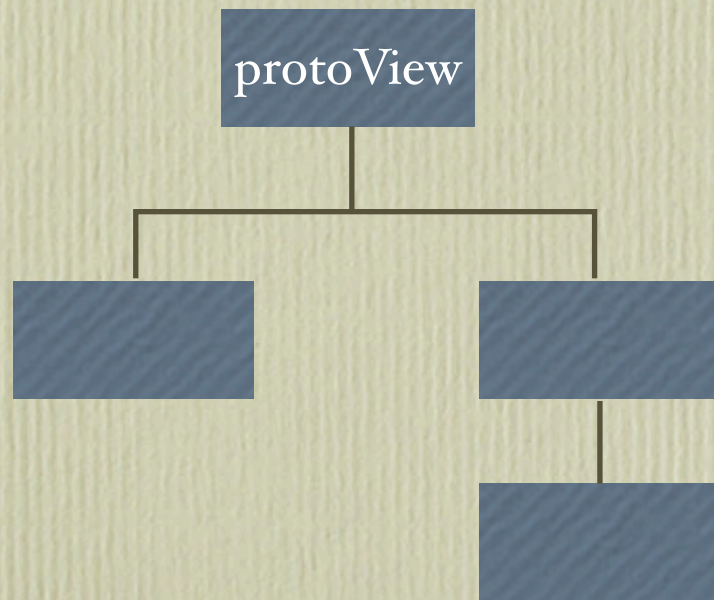
- Newton like View System
- NewtonScript base
- Platform Independent
- Fit into platform native



DEMO

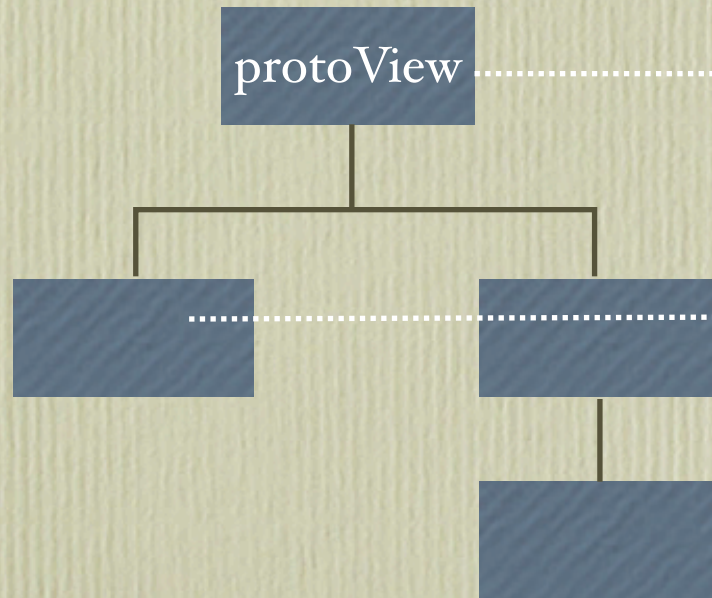


# NewtView(仮)

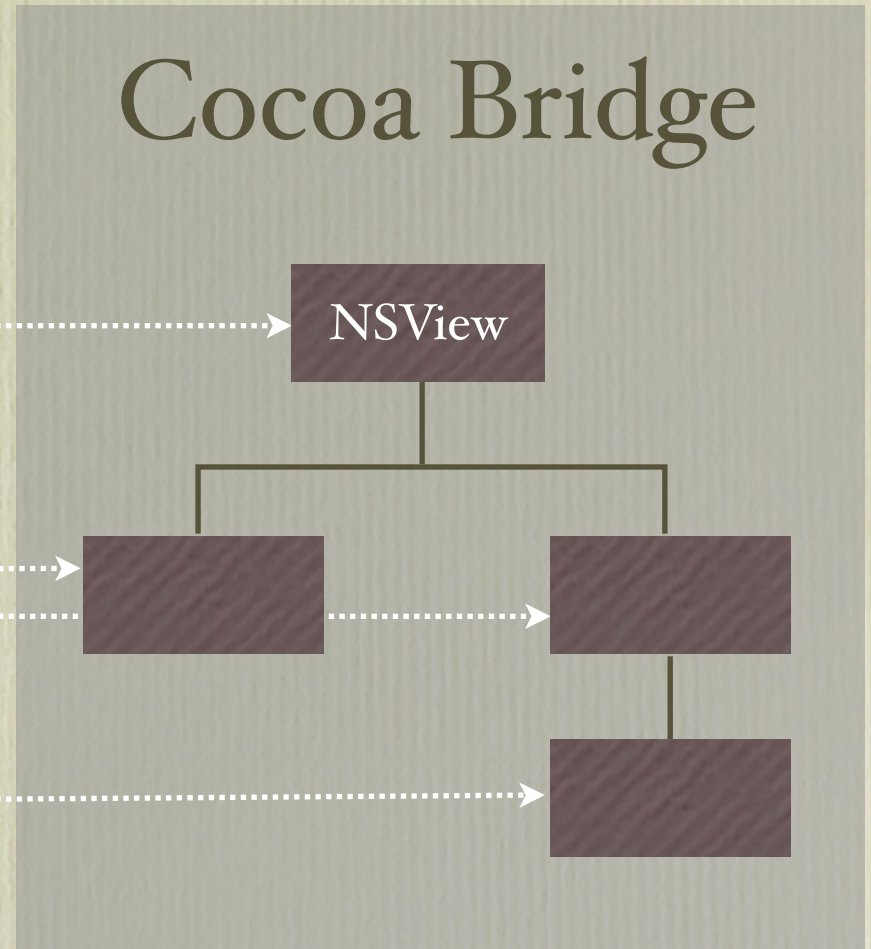




# NewtView(仮)

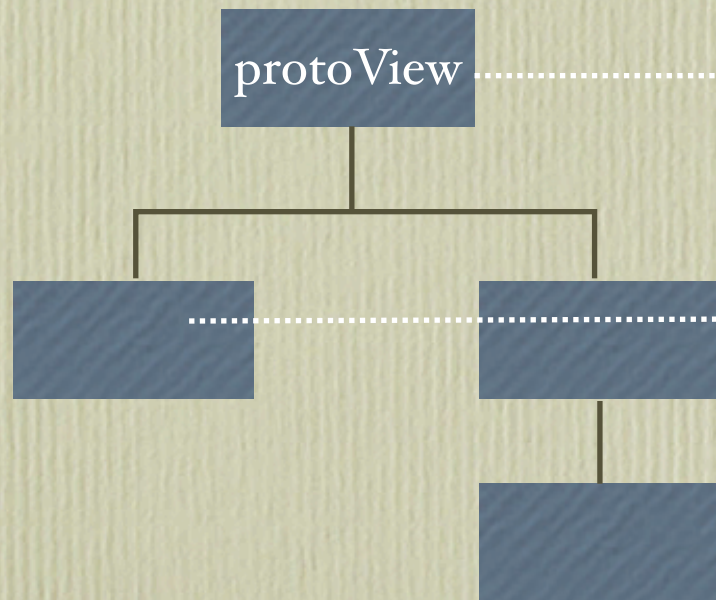


# Cocoa Bridge

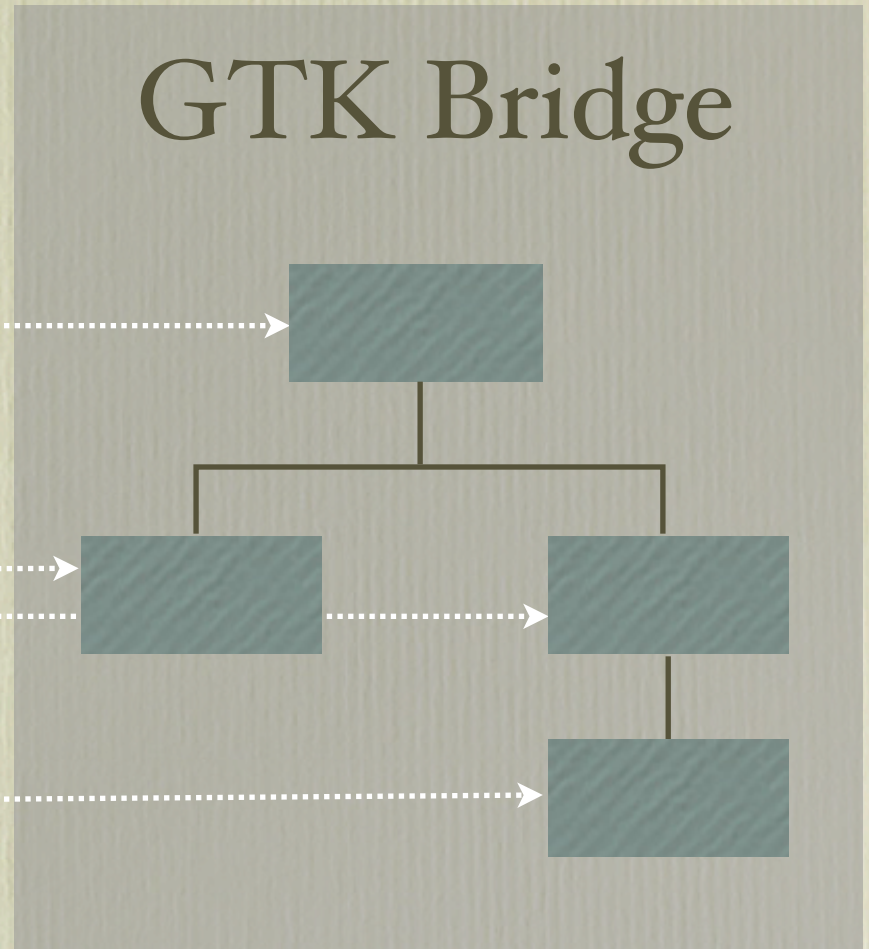




# NewtView(仮)

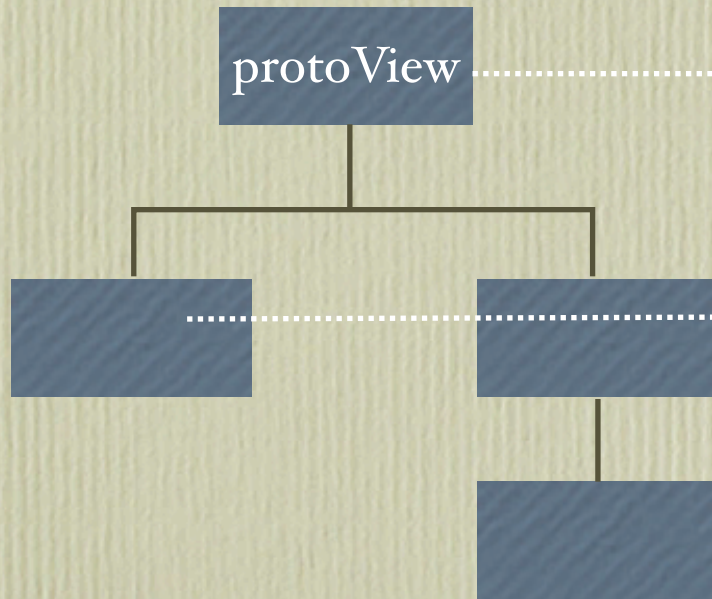


# GTK Bridge

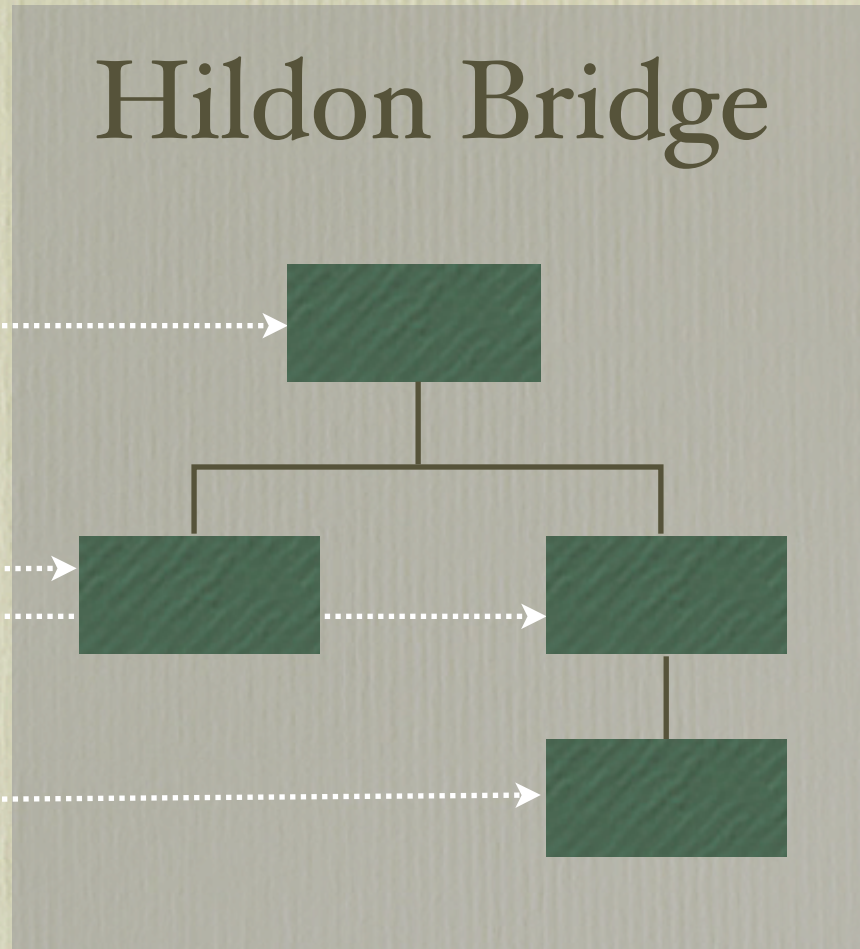




# NewtView(仮)



# Hildon Bridge



protoView



NewtView

Cocoa

Qt

Hildon

GTK+

FB

WIN<sub>32</sub>

X<sub>11</sub>

Mac OS X

\*BSD

Linux

Windows



NewtView

Cocoa

Qt

Hildon

GTK+

FB

WIN<sub>32</sub>

X<sub>11</sub>

Mac OS X

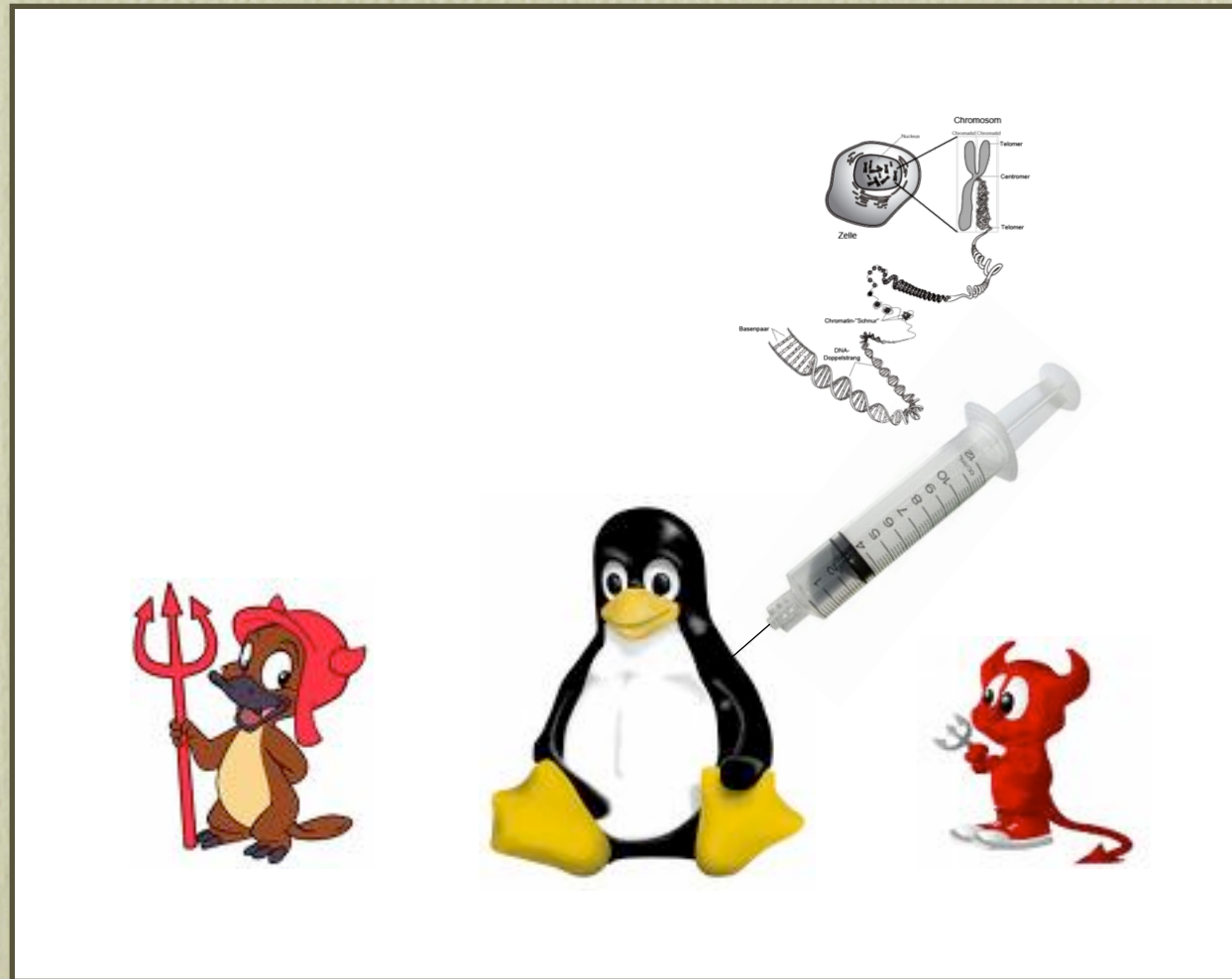
\*BSD

Linux

Windows



# Injection





# 素体:base body





# Future

- Multi byte text code support
- Conservative GC
- NewtonScript 3.0?
- IDE as REALbasic
- Easy Programming as HyperTalk



# Missing Pieces

- Soup like Object Database
- Handwriting Recognition
- PIM Applications
- and more...



