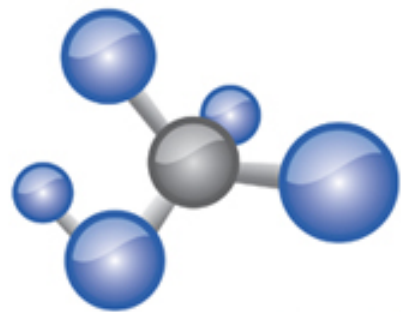




**UI Unlimited -  
Things you can do  
with the  
New  
Cincom Smalltalk UI**





# ObjectStudio®



## Related Talks

- **How and Where in Glorp Tutorial – Niall Ross**
- **Pursuing Performance in Store – Tom Robinson**
- **Cincom Smalltalk New Native GUI – Andreas Hiltner**
- **Cincom Smalltalk Roadmap – Arden Thomas**

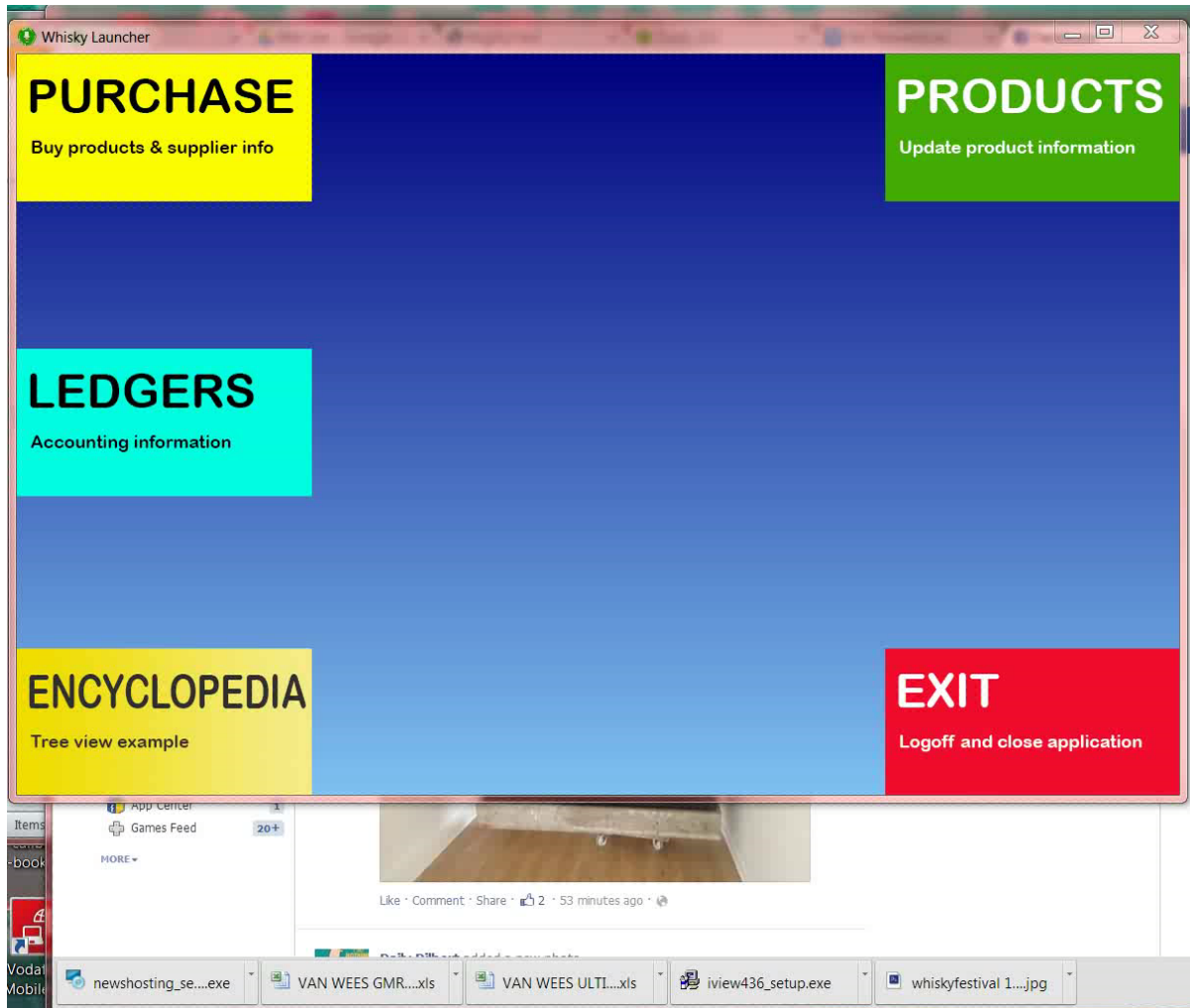
# Intention and Goals

- Modernize the UI Controls / Widgets
- Eliminate Primitives and use DLLCC
- Easy to Maintain and Extend

# Questions - Usability

- How does the API work?
- Works for a regular business application?
- Performance?
- Extend the API?

# Demo 1



# Launcher



# Building the window

```
self mainWindow: UIView new.  
self mainWindow
```

```
    position: self position;
```

```
    extent: self extent;
```

```
    text: self title;
```

```
    backgroundBrush: self defaultBackgroundBrush;
```

```
    gdiBackgroundBrush: self defaultGdiBackgroundBrush;
```

```
    create;
```

```
    setDefaultEvents;
```

```
WndBrush newColor:  
    RGBColor blue
```

```
    1200@800
```

```
'Whisky Launcher'
```

```
GdiLinearGradientBrush
```

```
    rect: (0 @ 0 extent: self extent)
```

```
    color1: ARGBColor navy
```

```
    color2: ARGBColor lightSkyBlue
```

```
    self getIcon: #company using: 'c:
```

```
    \programdata\projects\comp.ico'
```



# Creating Widgets - UIOwnerDrawButton

```
widget := self
    add: #imgProducts
    class: UIOwnerDrawButton
    rect: #(883 0 300 150)
    options: ((IdentityDictionary new)
        at: #theme put: UIThemeData new;
        yourself)
    form: self mainWindow.
widget filename: 'c:\...\productTile.png'.
widget setDefaultEvents
```



# Creating Widgets - UIEdit

Traditional Cask

```
widget := UIEdit  
    newRect: #(650 5 50 30)
```

```
(IdentityDictionary new)
```

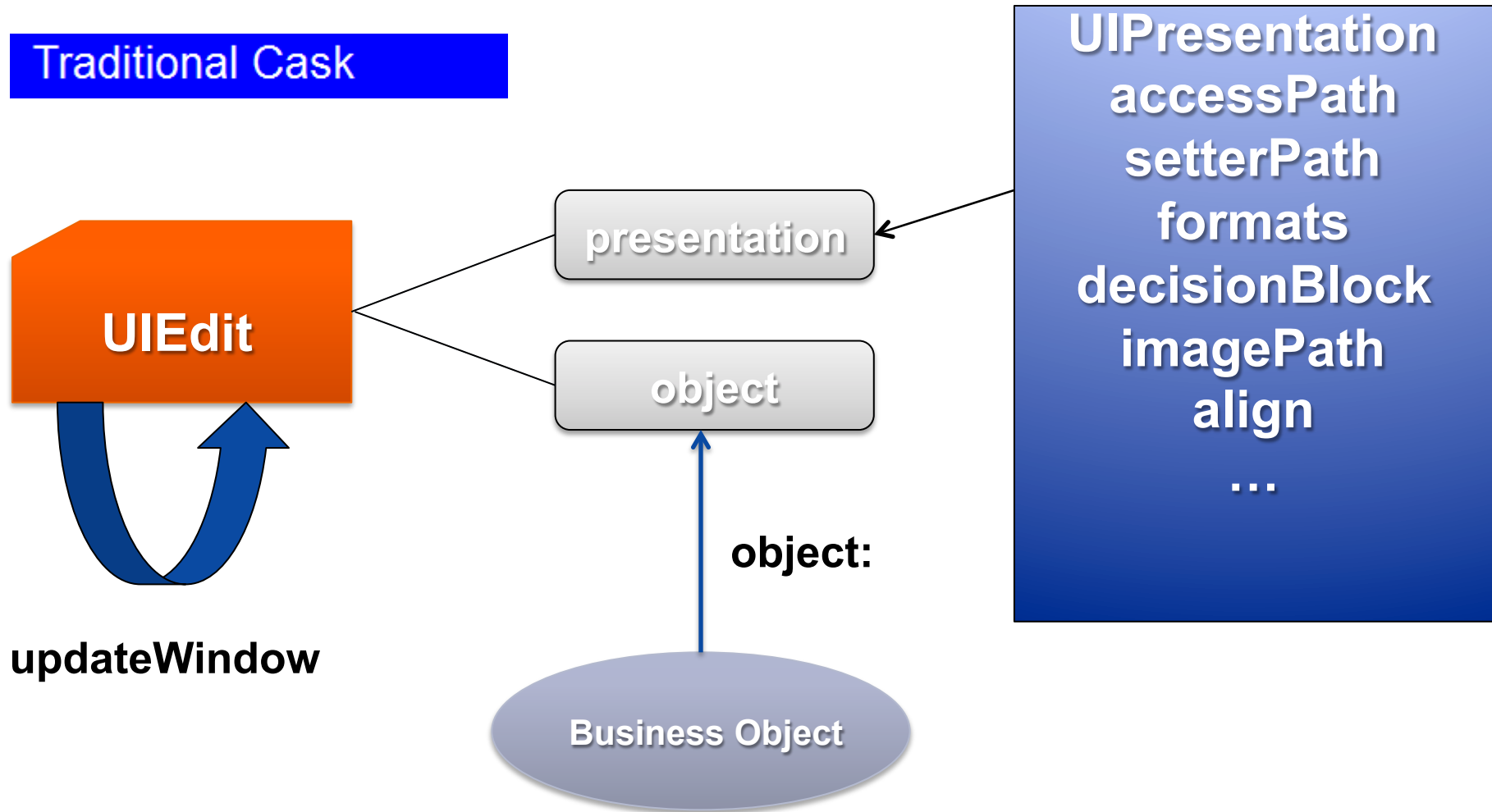
```
    at: #exStyle put: WS_EX_LTRREADING | WS_EX_RIGHTSCROLLBAR;  
    at: #style put: WS_CHILD | ...;  
    yourself
```

```
widget  
    theme: UIThemeData new;  
    presentation: self productNamePresentation.
```

```
widget  
    create;  
    setDefaultEvents;  
    updateWindow.
```

# UIControl vs UIPresentation

## Traditional Cask



# UIPresentation - accessPath setterPath

accessPath	setterPath
<pre>#name #(name) [:obj   obj name]</pre>	<pre>nil #name #(name) [:obj :value   obj name: value]</pre>
<pre>widget presentation   accessPath: #name;   setterPath: nil</pre> <div data-bbox="1132 915 1740 993" style="background-color: #0056b3; color: white; padding: 5px; display: inline-block;">Traditional Cask</div>	

# UIPresentation - sortAccessPath

column presentation

**accessPath:** [:obj | obj volume printString , 'cl'];

**sortAccessPath:** [:obj | obj volume];

**align:** #right

T	Name	Age	Distilled	cl	Supplier	Sales	Dram
III	Ben Nevis 15Y 1996 46% CM SL	15	1996	70cl	Xiitlz!Jnqpsu!CF...	41.99	2
III	Ben Nevis Highland 12Y 46% CM CMC	12		70cl	Xiitlz!Jnqpsu!CF...	38.99	2
III	BenRiach 24Y 1985 46% 20cl CM CMVC	24	1985	20cl	Xiitlz!Jnqpsu!CF...	24.99	3
III	Benrinnes 27Y 1984 57.6% CM COTC	27	1984	70cl	Xiitlz!Jnqpsu!CF...	158.99	6
III	Benrinnes 7Y 2002 46% 20cl CM CMVC	7	2002	20cl	Xiitlz!Jnqpsu!CF...	12.99	2
III	Big Peat Smallbatch 53.6% DLC			70cl	Qsfjvnl!Tajsiut	52.99	2
III	Bladnoch 22Y 1990 57% CM COTC	22	1990	70cl	Xiitlz!Jnqpsu!CF...	145.99	6
III	Bowmore (for WIN) 9Y 2001 54.3% BBR ...	9	2001	70cl	Xiitlz!Jnqpsu!CF...	58.99	2
III	Bowmore #07 2003 40.1% LMDW T10		2003	70cl	Csrtifs!Ujnnfs	42.99	2
III	Bowmore + glass 12Y 40% 5cl OB	12		5cl	Jif!Ofdubs	7.99	4
III	Bowmore 100 Degrees Proof 57.1% 100...			100cl	Jif!Ofdubs	70.99	2
III	Bowmore 10Y 2000 45% JMA	10	2000	70cl	Xiitlzivjt/cf	44.99	2
III	Bowmore 10Y 2000 58.4% DLC OMC	10	2000	70cl	UjflOfdubs	78.99	3
III	Bowmore 10Y 2001 58.8% AD	10	2001	70cl	Xiitlz!Jnqpsu!CF...	70.99	3
III	Bowmore 10Y 2002 46% CM SL	10	2002	70cl	Xiitlz!Jnqpsu!CF...	46.99	2

# UIPresentation - imagePath

```

imageList := ImageList new.
imageList
    create: 16
    y: 16
    mask: nil
    initial: 4
    grow: 4,
imageList
    add: SingleMalt loadIcon
    ....
  
```

column presentation

accessPath: [:obj | ''];

imagePath: [:obj | obj class iconNumber]

T	Name	Age	Distilled	Cl	Supplier	Sales	Dram
III	Ben Nevis 15Y 1996 46% CM SL	15	1996	70cl	Xiitlz!Jnapsu!CF...	41.99	2
III	Ben Nevis Highland 12Y 46% CM CMC	12		70cl	Xiitlz!Jnapsu!CF...	38.99	2
III	BenRiach 24Y 1985 46% 20cl CM CMVC	24	1985	20cl	Xiitlz!Jnapsu!CF...	24.99	3
III	Benrinnes 27Y 1984 57.6% CM COTC	27	1984	70cl	Xiitlz!Jnapsu!CF...	158.99	6
III	Benrinnes 7Y 2002 46% 20cl CM CMVC	7	2002	20cl	Xiitlz!Jnapsu!CF...	12.99	2
II	Big Peat Smallbatch 53.6% DLC			70cl	Qsfniyn!Tajsiut	52.99	2
III	Badnoch 22Y 1990 57% CM COTC	22	1990	70cl	Xiitlz!Jnapsu!CF...	145.99	6
III	Bowmore (for WIN) 9Y 2001 54.3% BBR ...	9	2001	70cl	Xiitlz!Jnapsu!CF...	58.99	2
III	Bowmore #07 2003 40.1% LMDW T10		2003	70cl	Csfttfs!Ujnnfs	42.99	2
III	Bowmore + glass 12Y 40% 5cl OB	12		5cl	Uif!Ofdubs	7.99	4
III	Bowmore 100 Degrees Proof 57.1% 100...			100cl	Uif!Ofdubs	70.99	2
III	Bowmore 10Y 2000 45% JMA	10	2000	70cl	Xiitlzivit/cf	44.99	2
III	Bowmore 10Y 2000 58.4% DLC OMC	10	2000	70cl	Uif!Ofdubs	78.99	3
III	Bowmore 10Y 2001 58.8% AD	10	2001	70cl	Xiitlz!Jnapsu!CF...	70.99	3
III	Bowmore 10Y 2002 46% CM SL	10	2002	70cl	Xiitlz!Jnapsu!CF...	46.99	2

# UIPresentation – decisionBlock

column presentation

accessPath: [ :obj | obj findCheapestSupplier

ifNil [‘’]

ifNotNil: [ :supplier | supplier companyName]];

formats: ((IdentityDictionary new)

at: #+ put: (UIControlFormat

font: (Font newArray: (#(FontFace #Arial) #(PointSize 14)))

textColor: RGBColor green

backgroundColor: RGBColor blue);

at: #= .... ;

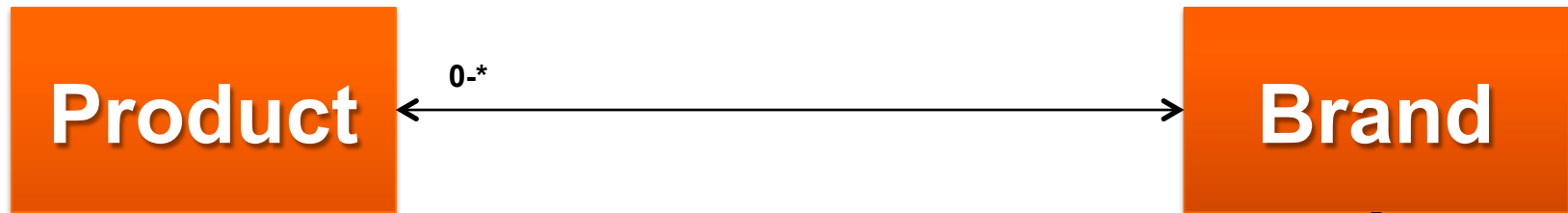
at: #- .....;

yourself);

decisionBlock: [:obj | obj available asSymbol]

T	Name	Age	Distilled	Cl	Supplier	Sales	Dram
15	Ben Nevis 15Y 1996 46% CM SL	15	1996	70cl	Xiiltz!Jnapsu!CF...	41.99	2
12	Ben Nevis Highland 12Y 46% CM CMC	12		70cl	Xiiltz!Jnapsu!CF...	38.99	3
24	BenRiach 24Y 1985 46% 20cl CM CMVC	24	1985	20cl	Xiiltz!Jnapsu!CF...	24.99	3
27	Benrinnes 27Y 1984 57.6% CM COTC	27	1984	70cl	Xiiltz!Jnapsu!CF...	153.99	6
7	Benrinnes 7Y 2002 46% 20cl CM CMVC	7	2002	20cl	Xiiltz!Jnapsu!CF...	12.99	2
	Big Peat Smallbatch 53.6% DLC			70cl	Qsfriwn!Taisiut...	53.99	2
22	Bladnoch 22Y 1990 57% CM COTC	22	1990	70cl	Xiiltz!Jnapsu!CF...	141.99	6
9	Bowmore (for WIN) 9Y 2001 54.3% BBR ...	9	2001	70cl	Xiiltz!Jnapsu!CF...	58.99	2
	Bowmore #07 2003 40.1% LMDW T10		2003	70cl	Csfttis!Ujnnis	42.99	2
12	Bowmore + glass 12Y 40% 5cl OB	12		5cl	Ui!Ofdubs	7.99	4
	Bowmore 100 Degrees Proof 57.1% 100...			100cl	Ui!Ofdubs	70.99	2
10	Bowmore 10Y 2000 45% JMA	10	2000	70cl	Xiiltzivit/cf	14.99	2
10	Bowmore 10Y 2000 58.4% DLC OMC	10	2000	70cl	Ui!Ofdubs	78.99	3
10	Bowmore 10Y 2001 58.8% AD	10	2001	70cl	Xiiltz!Jnapsu!CF...	70.99	3
10	Bowmore 10Y 2002 46% CM SL	10	2002	70cl	Xiiltz!Jnapsu!CF...	46.99	2

# UIPresentation - UIDropDownListBox



**ddlBrand**

**object:** self currentProduct;  
**presentation list:** Brand all.

**ddlBrand presentation**

**accessPath:** [:aProduct| aProduct brand]

**ddlBrand presentation**

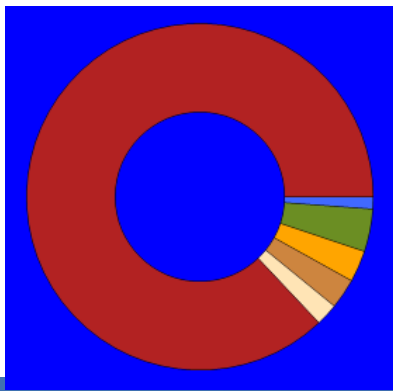
**displayValue:** [:aBrand | aBrand name]





# Graphics

- Object & Presentation
- Extra instance variables for Presentation like  
doughnutStyle: totalValueBlock: xTicksTextPath  
yTicksTextPath axisPen axisFont ....
- Extra formats like UIBarChartFormat,  
UIPieChartFormat
- Array of accessPath and decisionBlock (BarChart)



# Demo 2



# Contact Information

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Thanks for listening