

# Extreme RIA

= Silverlight 3 + PHP

Accessibility, Networking  
Listing, Data Handling  
Interoperability



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# Silverlight

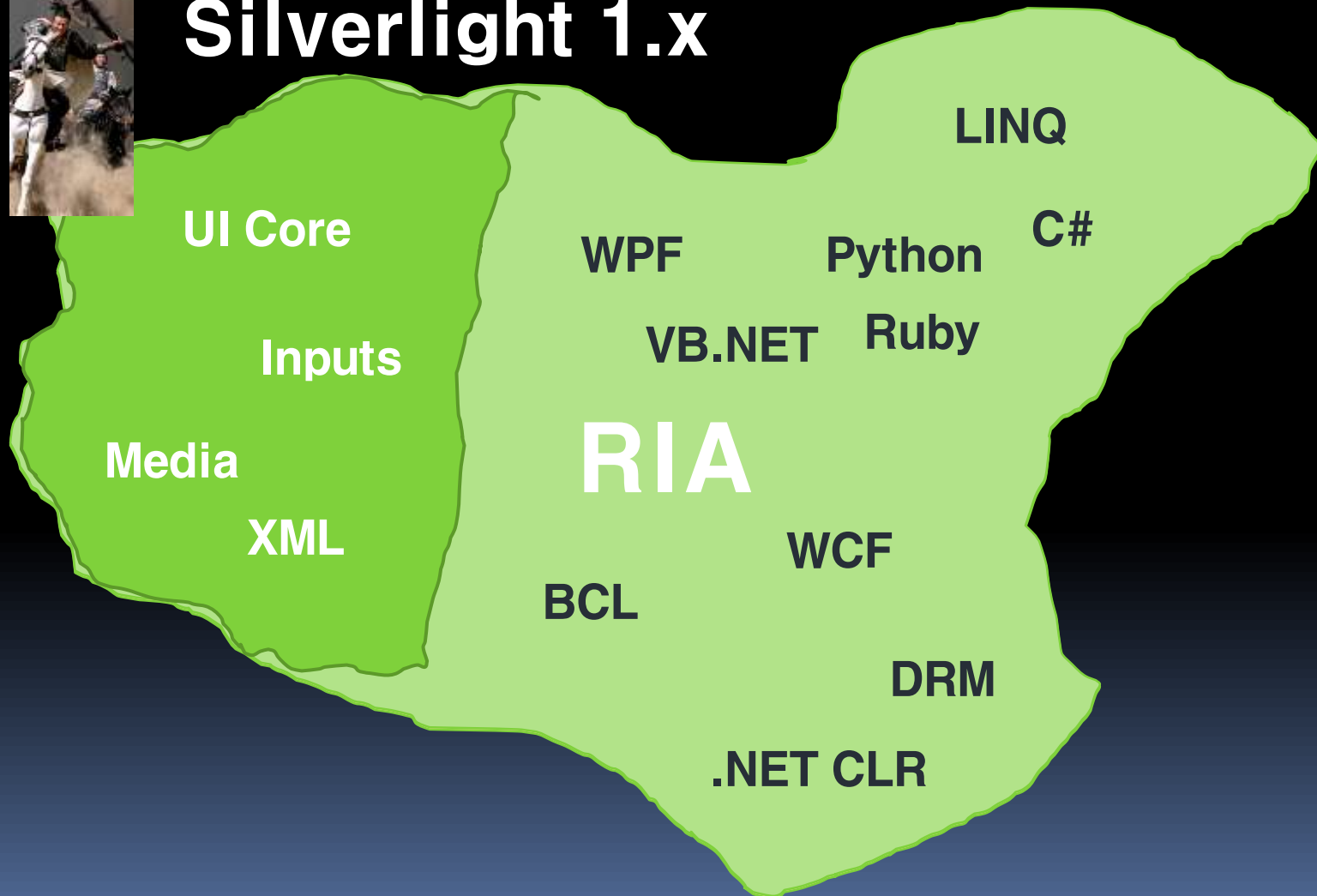
**Silverlight communication**

# Silverlight 2

## Silverlight 2



### Silverlight 1.x





# H.264/AAC/MP4

- Silverlight 3 supports H.264/AAC/MP4
- Industry standard format
  - Hardware decoders on most devices
  - YouTube, iPhone, Flash supported format
  - Base format for QuickTime and iTunes
    - Example: Silverlight plays .M4A
- Silverlight 3 H.264 vs. VC1
  - DRM
  - Windows Media Server



# GPU Acceleration

- Opt-in feature on the Silverlight 3 plug-in
  - Enables final surface draw with the GPU
- Opt-in feature per element
  - Use GPU to blend/composite multiple elements
  - Use GPU to stretch elements
    - Example: Full screen media
- Works in-browser and in full-screen mode
- Scenarios
  - Performance – no other visual impact


Lecture - Windows Internet Explorer

http://localhost:32969/LectureTestPage.aspx

즐거찾기 | CBSC 프로페셔널 바리스... | 추천 사이트 | 웹 조각 갤러리

Lecture

# Silverlight Lecture 2



MIX09 패러디

UX Bakery.com  
실버라이트 강좌

발표를 잘하는 법

재생 | 정지 | 일시정지 | 재생 구간 | 볼륨 | 캡처 | 전체화면

완료 | 로컬 인트라넷 | 보호 모드: 해제 | 100%

4장

PeteBrown.SilverlightDropShadowShader - Windo

http://localhost:231

PeteBrown.SilverlightDropShadowSha

http://localho

Favorites | PeteBrown.

Done

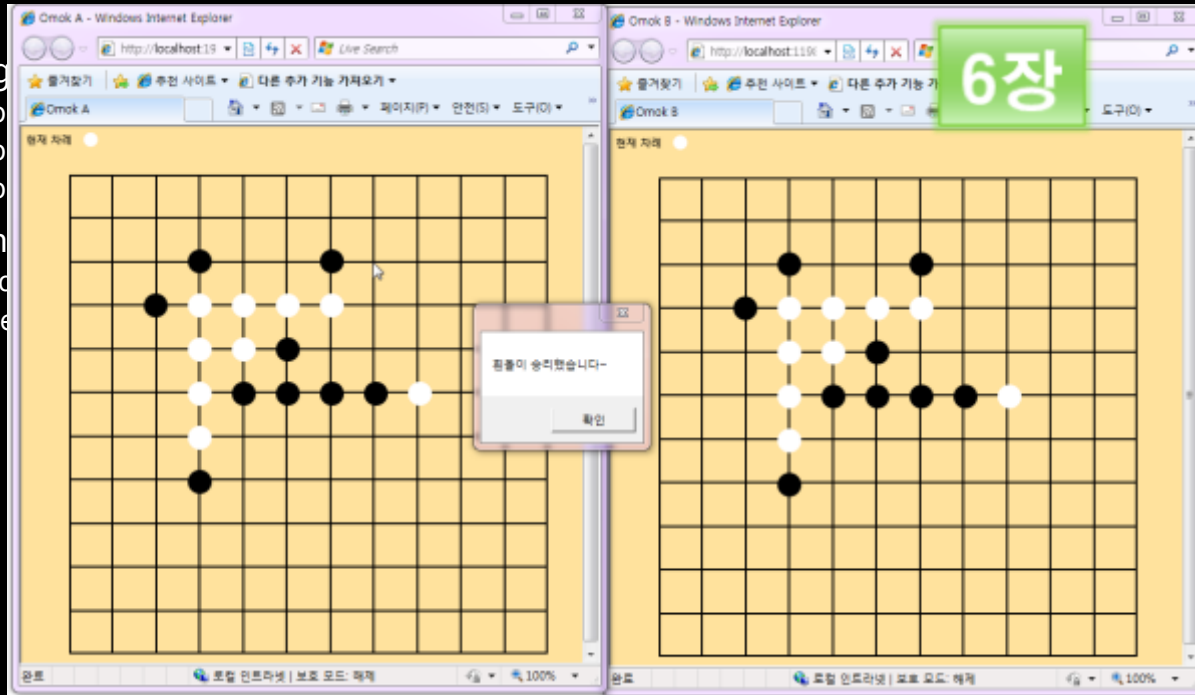
Done

Done



# Local Messaging

- Cross plug
  - Multip
  - Multip
  - Multip
- Implemen
  - Shared
  - Expose
  - String
- Scenarios
  - Mixed



# UI Framework Improvements

- Merged resource dictionaries
- BasedOn styles
- Styles can be “cleared”(changed at runtime)
- Multi-select ListBox
- Listening to “handled” routed events
- New VSM “invalid” states
  - Supported on TextBox, CheckBox, ComboBox, ListBox, RadioButton (post Mix: PasswordBox)
- More details: T16F (Karen Corby)

# Other Improvements

- SystemColors
- SaveFileDialog
- Text Improvements
  - ClearType Text (Post Beta)
  - CaretBrush (Silverlight 2 Caret was black)
  - Flag to optimize for animating text
  - Glyphs support for system font
- Image refinements

# New SDK Controls

- DockPanel
- Expander
- Label
- TreeView
- ViewBox
- WrapPanel
- ChildWindow
- DatePickerTextBox
- TabPanel
- +Others

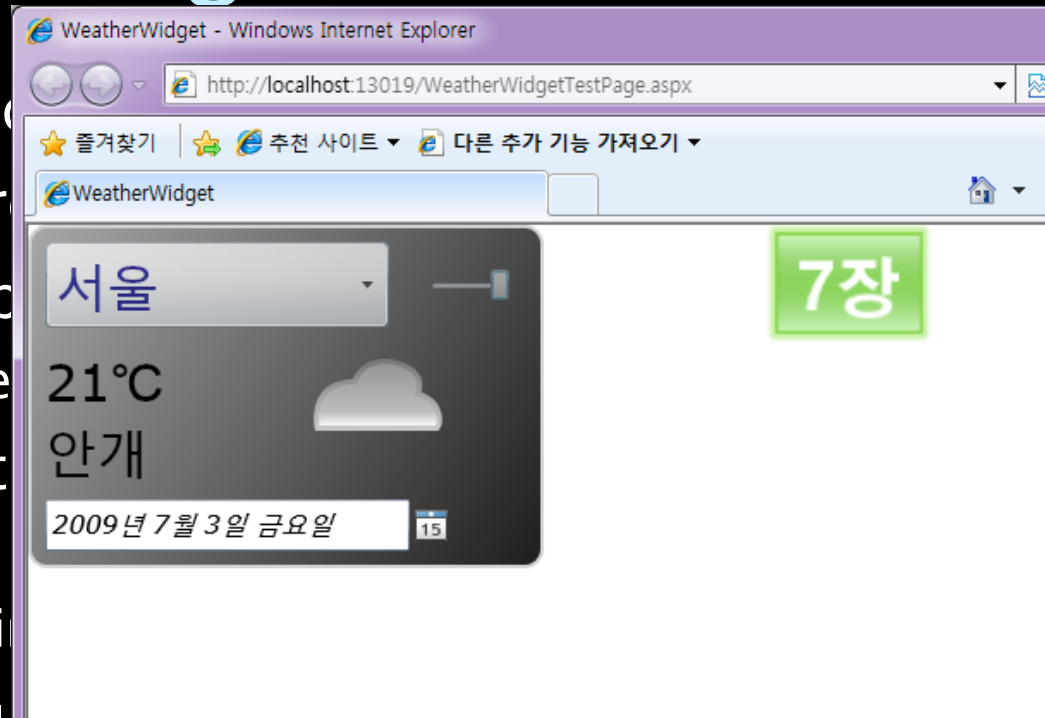
# Other Big Additions

- In the business talk
  - Navigation framework
  - Data control additions
  - SEO support
  - N-Tier data support
  - See T40F (Brad Abrams)
- Web service stack improvements
  - Binary XML, SOAP faults, credentials
  - See T42F (Eugene Osovetsky)
- Silverlight toolkit release
  - See T15F (Shawn Oster)

# Silverlight “Out of the Browser”

ser”

- Silverlight runs “Out of the Browser”
- Built into the core of Internet Explorer
- Enabled per “application”
  - Manifest update
- User gesture to toggle
  - Right click
  - Custom button in browser
- New networking APIs
  - Connected, disconnected and changed state
- Offline APIs
  - Launch state, update APIs



# Networking

**Silverlight communication**

# Silverlight Networking

1. HTTP

2. RSS

3. REST

4. Standard Web Service  
(SOAP)

5. WCF

6. TCP/IP



WEB

# Silverlight web communication

## 1. **HttpRequest**

### **HttpResponse**

- Http기본 통신 방법을 제공

## 2. **WebClient**

- 좀 더 상위 클래스로 세세한 제어가 필요하지 않은 일반적인 경우 다 적용이 가능하며 사용하기 쉽다.

# Silverlight web communication

```
private void SetGuestBoardList()
```

```
{
```

```
    WebClient wc = new WebClient();
```

```
    wc.DownloadStringCompleted +=
```

```
        new DownloadStringCompletedEventHandler  
            (wc_DownloadStringCompleted);
```

```
    wc.DownloadStringAsync(new  
        Uri("http://localhost/winkey_guestboard_list.php"));
```

```
}
```

```
void wc_DownloadStringCompleted(object sender,  
DownloadStringCompletedEventArgs e)
```

```
{
```

```
    //가져온 데이터를 보여주는 코드  
    MessageBox.Show(e.Result);
```

```
}
```

```
}
```



# Demo



## RSS Reader

<http://www.winkey.pe.kr/rss>

# Cross Domain Issue



A서버



B서버



**clientaccesspolicy.xml  
or crossdomain.xml**



사용자

# clientaccesspolicy.xml

```
000: <?xml version="1.0" encoding="utf-8"?>
001: <access-policy>
002:   <cross-domain-access>
003:     <policy>
004:       <allow-from http-request-headers="*">
005:         <domain uri="*" />
006:       </allow-from>
007:       <grant-to>
008:         <resource path="/" include-subpaths="true" />
009:       </grant-to>
010:     </policy>
011:   </cross-domain-access>
012: </access-policy>
```

# crossdomain.xml

000: <?xml version="1.0"?>

001: <!DOCTYPE cross-domain-policy SYSTEM "http://www.m  
acromedia.com/xml/dtds/cross-domain-policy.dtd">

002: <cross-domain-policy>

003:     <allow-access-from domain="\*" secure="true" />

004: </cross-domain-policy>

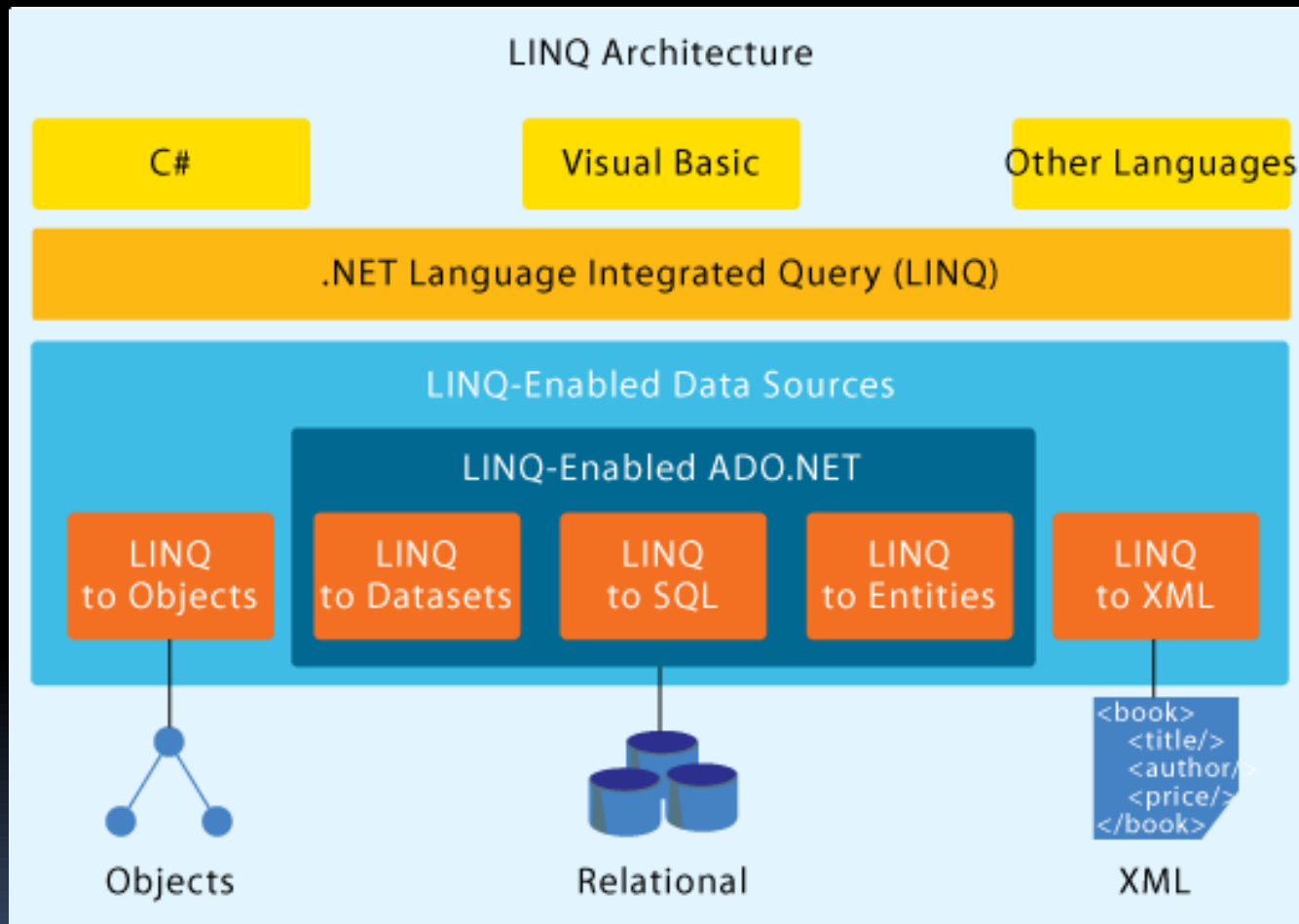
# RSS Tag

<rss>	RSS의 시작과 끝을 나타낸다.
<channel>	하나의 RSS안에는 여러개의 채널을 가질 수 있다. 각 각의 채널을 표시한다.
<title>	채널이나 게시글의 제목을 나타낼 때 사용한다.
<link>	채널이나 게시글의 Link를 나타낼 때 사용한다.
<description>	채널이나 게시글의 내용을 출력할 때 사용한다.
<language>	언어를 출력한다. 단 이때 각 언어의 약어를 사용해야 한다. 한국어이면 KO 영어면 EN등등이다.
<pubDate>	해당 채널이나 게시글이 배포된 날짜와 시간을 출력한다.
<totalCount>	총 개수를 나타낸다.
<item>	채널에 속해 있는 게시글을 표현한다.
<author>	글쓴이를 표현할 때 사용한다.

# RSS Entity Class

```
public class RSSEntity
{
    public string Title {get;set;}
    public string Author { get; set; }
    public string Link { get; set; }
    public string Description { get; set; }
    public string PubDate { get; set; }
}
```

# LINQ



# LINQ

- Language-INtegrated Query (LINQ)
  - Language Features (through LINQ to Objects)
  - LINQ to Data
    - LINQ to DataSet
    - LINQ to SQL
    - LINQ to Entities
- LINQ to XML and XML Integration

# LINQ Code sample

```
XDocument xmlStories = XDocument.Parse(e.Result);
```

```
var feed = from rss in xmlStories.Descendants("item")  
           select new RSSEntity
```

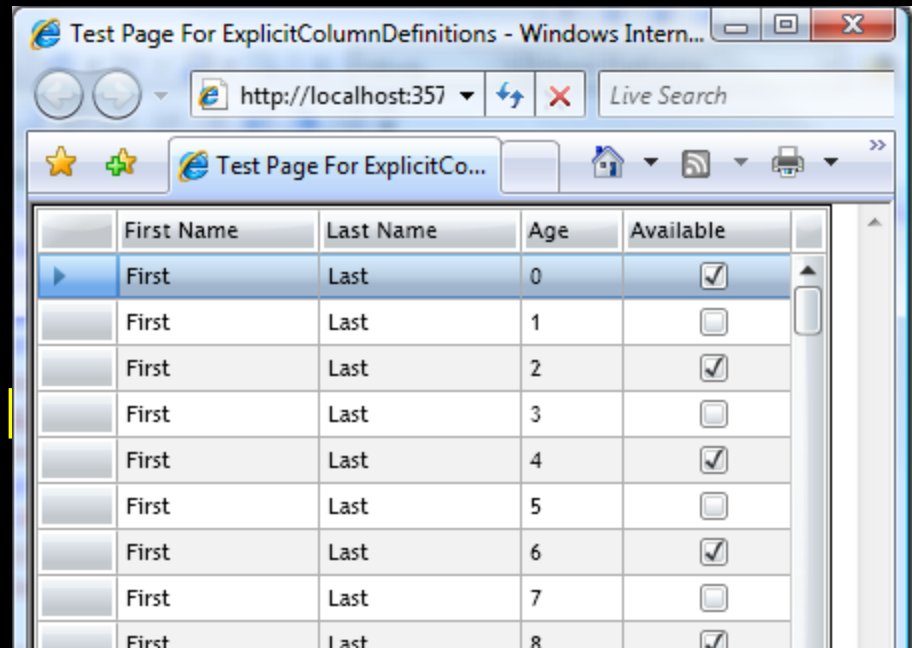
```
{
```

```
    Title = (string)rss.Element("title"),  
    Author= (string)rss.Element("author"),  
    Description = (string)rss.Element("description"),  
    Link = (string)rss.Element("link"),  
    PubDate =  
        ((DateTime)rss.Element("pubDate"))  
            .ToShortDateString(),
```

```
};
```

# Data List

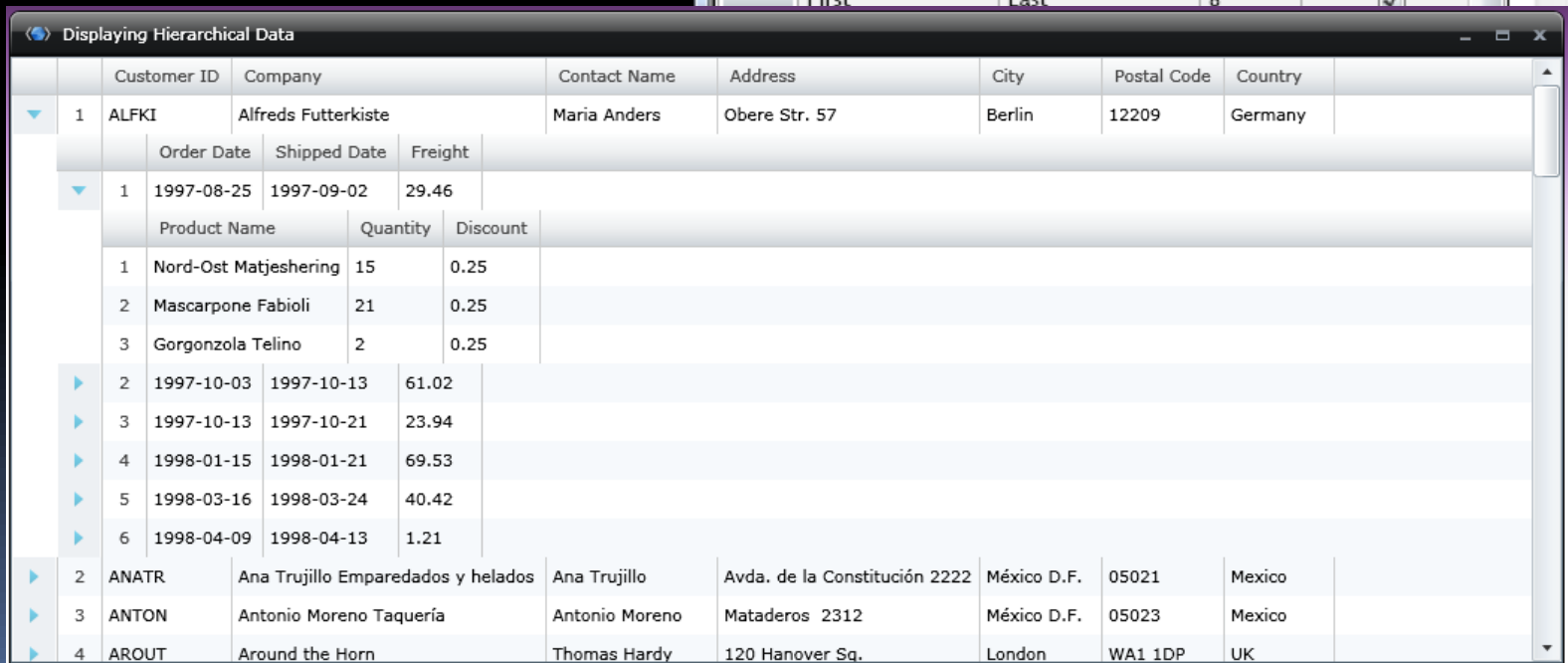
1. DataGrid
2. Custom Control
3. ListBox



Test Page For ExplicitColumnDefinitions - Windows Intern...

http://localhost:357

	First Name	Last Name	Age	Available
▶	First	Last	0	<input checked="" type="checkbox"/>
	First	Last	1	<input type="checkbox"/>
	First	Last	2	<input checked="" type="checkbox"/>
	First	Last	3	<input type="checkbox"/>
	First	Last	4	<input checked="" type="checkbox"/>
	First	Last	5	<input type="checkbox"/>
	First	Last	6	<input checked="" type="checkbox"/>
	First	Last	7	<input type="checkbox"/>
	First	Last	8	<input checked="" type="checkbox"/>



Displaying Hierarchical Data

	Customer ID	Company	Contact Name	Address	City	Postal Code	Country	
▼	1	ALFKI	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
		Order Date	Shipped Date	Freight				
▼	1	1997-08-25	1997-09-02	29.46				
		Product Name	Quantity	Discount				
	▶	1	Nord-Ost Matjeshering	15	0.25			
	▶	2	Mascarpone Fabioli	21	0.25			
	▶	3	Gorgonzola Telino	2	0.25			
	▶	2	1997-10-03	1997-10-13	61.02			
	▶	3	1997-10-13	1997-10-21	23.94			
	▶	4	1998-01-15	1998-01-21	69.53			
	▶	5	1998-03-16	1998-03-24	40.42			
	▶	6	1998-04-09	1998-04-13	1.21			
▶	2	ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitución 2222	México D.F.	05021	Mexico
▶	3	ANTON	Antonio Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico
▶	4	AROUT	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK

# Data Template

```
<ListBox x:Name="lstList"  
SelectionChanged="lstList_SelectionChanged">  
  <ListBox.ItemTemplate>  
    <DataTemplate>  
      <StackPanel>  
        <TextBlock Text="{Binding PubDate}"/>  
        <TextBlock Text="{Binding Title}" Width="500" />  
      </StackPanel>  
    </DataTemplate>  
  </ListBox.ItemTemplate>  
</ListBox>
```

```
lstList.ItemsSource = feed;
```

# Data Template

```
<ListBox x:Name="lstList"
SelectionChanged="lstList_SelectionChanged">
  <ListBox.ItemTemplate>
    <DataTemplate>
      <StackPanel>
        <TextBlock Text="{Binding PubDate}"/>
        <TextBlock Text="{Binding Title}" Width="500" />
      </StackPanel>
    </DataTemplate>
  </ListBox.ItemTemplate>
</ListBox>
```

# Selection Changed Event

```
private void lstList_SelectionChanged(object sender,  
SelectionChangedEventArgs e)
```

```
{  
    RSSEntity feed = (RSSEntity)lstList.SelectedItem;  
  
    System.Windows.Browser.HtmlPage.Window  
        .Navigate(new Uri(feed.Link), "_new");  
}
```

# 장애인 차별금지 및 권리구제에 관한 법률

2009년 4월 시행

# Accessibility

2007년 4월에 제정된

## 장애인 차별금지 및 권리구제 등에 관한 법률

### - 동법 14조:

정보접근 및 의사소통에서의 정당한 편의제공 및 단계적 범위 및 편의 내용 (필요한 수단) 누구든지 **신체적 기술적 여건과 관계없이** 웹 사이트를 통해서 원하는 서비스를 이용할 수 있도록 **접근성이 보장되는 웹사이트**

### - 동법 21조:

정보통신 및 의사전달에서의 정당한 편의제공  
장애인에게 **전자정보 및 비전자 정보를 동등하게 접근할 수 있는 필요한 수단을 제공**해야 함을 명시하고 있습니다.

# Accessibility

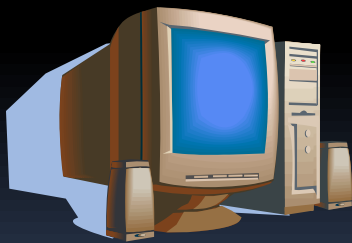
300,000 person



# UIA(User Interface Automation)

1. Windows XP later
2. .NET & Native
3. Message base
4. 드림보이스, 센스 리더, 이브

Screen Reader



UIA



# Demo



**Windows 내레이터  
UIA Message  
Silverlight UIA Test**

# Thanks you

# Microsoft®

*Your potential. Our passion.*

