Adobe technology platform for rich Internet applications

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Customer expectations have changed
Customer expectations have changed

- Explosion in digital content
- Personal publishing and social networks
- Multiple devices
Applications have evolved
Applications have evolved

Global

REACH

Local

MAINFRAME

Text UI

1992

RICH

CLIENT/SERVER

Integrated media GUI
Applications have evolved

- **Mainframe** (1992)
- **Web Applications** (1998)
- **Client/Server**

**Dimensions**
- **Global**
- **Local**

**User Interfaces**
- **Text UI**
- **RICH**
- **Integrated media GUI**

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Applications have evolved

- **Mainframe** (1992)
- **Client/Server** (1998)
- **Web Applications** (2004)
- **Rich Internet Applications (RIAs)**

**Axes:***
- Vertical: Global vs. Local
- Horizontal: Text UI vs. Rich

**Categories:***
- **Local**
  - **Mainframe**
- **Global**
  - **Web Applications**
  - **Rich Internet Applications (RIAs)**
- **Integrated media GUI**
The web changed business requirements

- Applications must be built faster by fewer people
- Applications must reuse existing infrastructure and assets
- Applications must be flexible to support changing requirements
The designer–developer continuum

- RIAs require an integrated designer/developer project team
- Smooth, efficient workflows from design through application development
- Familiar, proven tools working together
A highly productive, free open source framework for building expressive web applications that deploy consistently on all major browsers and on the desktop with Adobe AIR.
Amazing Flex apps
Amazing Flex apps

List Handling

Buzzword makes it easy to build and manage bulleted or numbered lists. For example, place the cursor on the second item in the list below, open the List Bar and click on the Skip button.

1. First item
2. Second item
3. Third item

Images

While current HTML editors are constrained by HTML it is a graphic quite well. To place an Image in the document, you can drag and drop the document. You can then place it at the center of the document. The provide easy placement options like centering.
How Flex Works in the Browser

Flex Builder IDE

Flex SDK

- MXML
- ActionScript

Flex Class Library

```xml
<?xml version="1.0" encoding="utf-8"?>
    xmlns="*" layout="absolute"
    creationComplete="initApp()">

    <mx:Script>
    private function initApp():void {
        hs.send();
    }
    </mx:Script>

    <mx:HTTPService id="hs" url="data/catalog.xml"/>

    <mx:Panel layout="vertical" top="10" left="10"
        right="10" bottom="10">
        <mx:TileList itemRenderer="Thumb" width="100%" height="100%"
            dataProvider="hs.lastResult.catalog.product"/>
    </mx:Panel>
</mx:Application>
```
How Flex Works in the Browser

Flex Builder IDE
- Flex SDK
  - MXML
  - ActionScript
- Flex Class Library

Compile

Web Server

Browser
- Flash Player

SWF
How Flex Works in the Browser

Flex Builder IDE

Flex SDK
- MXML
- ActionScript
- Flex Class Library

Browser
  - <HTML>
  - Flash Player

Compil

Web Server
- SOAP
- HTTP/S
- AMF/S
- RTMP/S

Existing Applications & Infrastructure

J2EE Application Server

LC Data Services

XML/HTTP
REST
SOAP Web Services
Flash Player and Flex Adoption

Installs of Flash Player 9

3,400,000,000+
Flash Player and Flex Adoption

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3,400,000,000+

Downloads of Flex
600,000+
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600,000+
Downloads of Flex

97%
streamers used Flash to view video in Feb 08
Demand for Flex skills
Application Development Choices

Static Web  Rich Internet Applications (RIAs)  Desktop RIAs  Native Apps

REACH  RICH
Application Development Choices

- Static Web
- Rich Internet Applications (RIAs)
- Desktop RIAs
- Native Apps
Application Development Choices

Static Web

Rich Internet Applications (RIAs)

Desktop RIAs

Native Apps

REACH

RICH

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Disruptive innovation
Disruptive innovation

1984
PostScript®

1990
Creative applications

1993
Adobe Reader®

1995
Adobe Flash®

2008
Adobe AIR™
Adobe AIR enables web developers to use existing technologies to build and deploy rich Internet applications on the desktop.
Why RIAs on the desktop

Persistent connection

Branded experiences

Desktop functionality

Data access

Efficient development
Adobe AIR features

Rich applications

Broad reach

Designer and developer productivity

Proven technology

Fx  Fl  Fw
Dw  Ps  Ai

<HTML>
Adobe AIR features

Rich applications
- Rich media and video
- Custom chrome and transparency
- Desktop integration (Drag and drop, background, notifications, clipboard)

Broad reach

Designer and developer productivity

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Broad reach
- Windows/Macintosh/Linux
- Universal application installer
- On/offline with network detection
- Local file access and embedded database

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Designer and developer productivity
- Existing tools: Flex, Flash, Dreamweaver, Ajax Frameworks
- Reuse existing assets
- Adobe Creative Suite integration
- Application updates

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Proven technology
- Integrated HTML/Flash/PDF
- AJAX: Full WebKit HTML engine
- Flex/Flash: Full Flash Player 9
- Embedded SQL database
- Robust application security
Now building on Adobe AIR
Getting started resources

- www.adobe.com/ria
- www.adobe.com/products/flex
- www.adobe.com/products/air
Revolutionizing how the world engages with ideas and information