

Web Runtime

Path of the fast development

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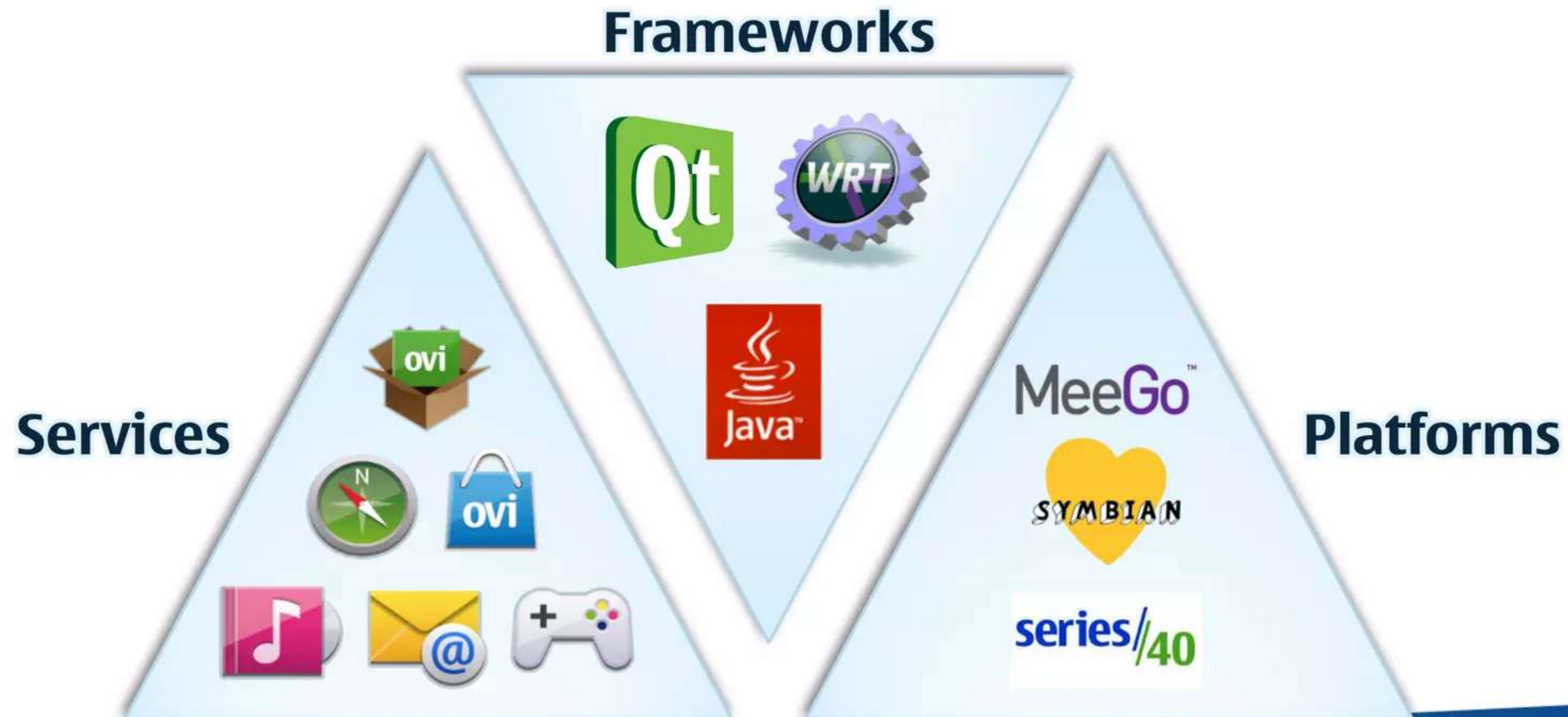
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Contents

- Nokia developer offering in nutshell
- Web runtime widgets – overview
- Let's take a closer look from tech perspective
- How to utilize platform services?
- Adding value with home screen
- Ovi App Wizard
- Who's able to use my widgets?

The Developer Offering – Simplification

Via Cross platform tools, Ovi Services and strong ecosystem partners
Innovation (and transparency) through open source



Internet Evolution



Full HTML browser
lets mobile consumers experience the complete Web



Mobile-optimized sites serve specific needs and tasks



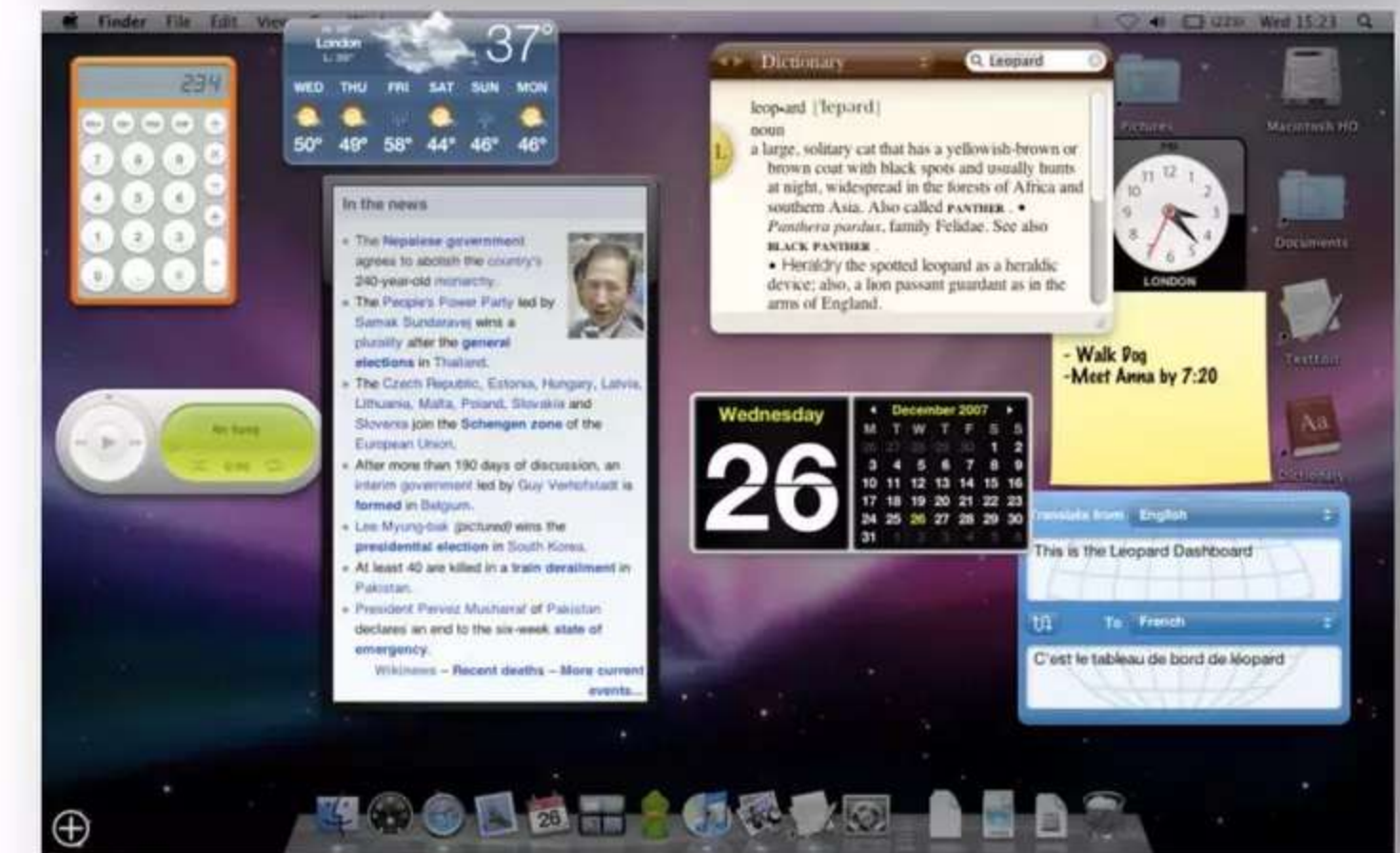
Widgets offer focused, optimized front-ends to Web-based information and services



Widgets + Platform Services offer seamless integration of the Web with personal context

What are Widgets?

- Web sites often not suitable for small screens
- Widgets are “local websites” on the device
 - Rendered using browser
 - Fetch web data using AJAX (Web 2.0)
 - Look & feel like native applications
 - **But:** easy development with HTML & JavaScript



Definition of widget

- **Lightweight mobile applications**
 - Give users easy access to the web
- **The easiest way to bring web-based business to millions of Nokia mobile devices**

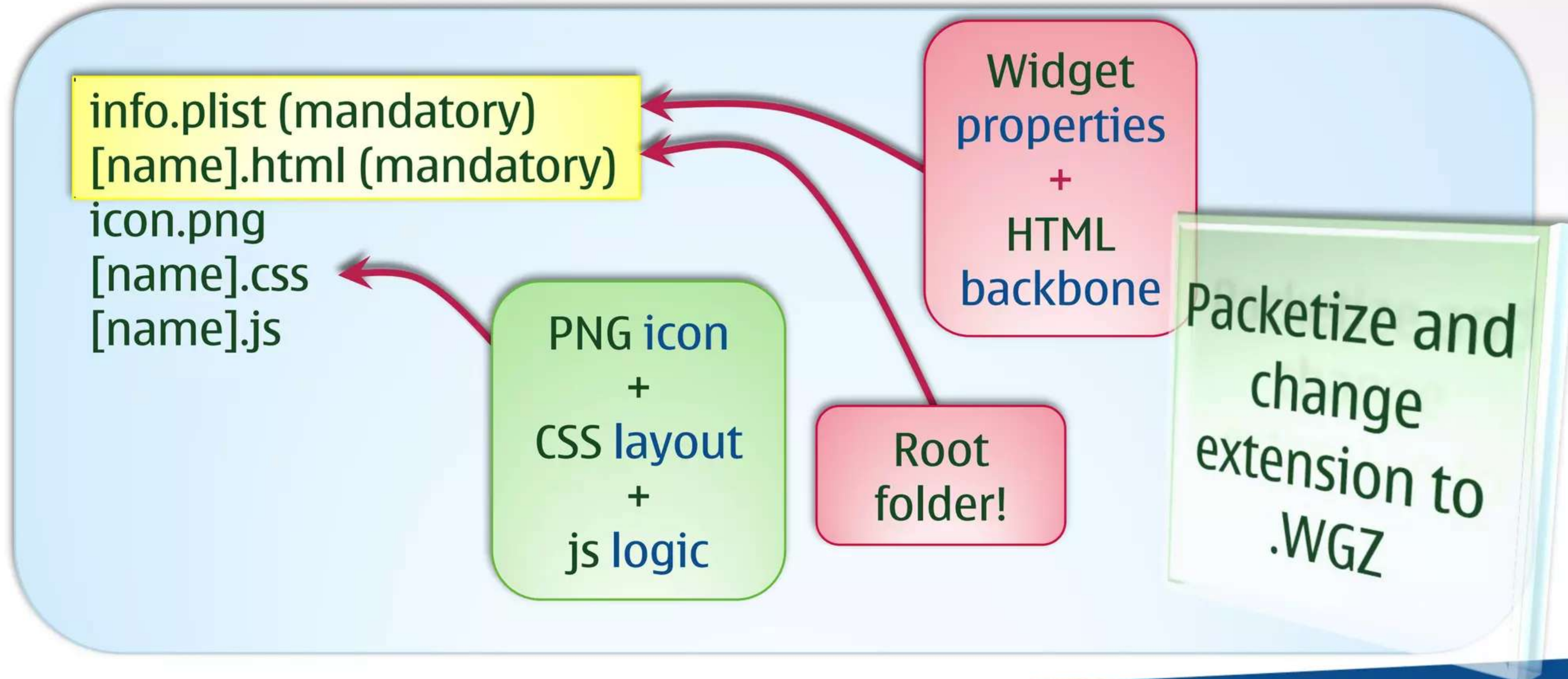
Application like delivery

Visible in the UI like native apps

Standards-based HTML, Javascript, and CSS



WRT Widget Ingredients



info.plist

- **The heart of the widget**
 - **Defines the widget**
 - **XML text file**
 - Provides information about the **components** and **features** of this specific widget

```
...  
<plist version="1.0">  
  <dict>  
    <key>DisplayName</key>  
    <string>AccuWidget</string>  
  
    <key>Identifier</key>  
    <string>com.nokia.forum.accuwidget  
      </string>  
  
    <key>MainHTML</key>  
    <string>accuwidget.html</string>  
  
    <key>AllowNetworkAccess</key>  
    <true />  
  
  ...
```

HTML

- **Defines the widget structure**
 - Construct **views** with **static** HTML elements or ...
 - Create **dynamically** with JavaScript at runtime.

```
<html>
  <head>
    ..
  </head>
  <body id="body">
    <div id='mainView'>
      <span class='title'>Front view</span>
    </div>
    <div id='subView1' class='subView'>
      <p class='title'>Back view</p>
    </div>
    <div id='subView2' class='subView'>
      <p class='title'>Config view</p>
    </div>
  </body>
</html>
```

CSS

- **Style and layout information**
 - Defines **how to display** HTML elements: position, color, size etc.
 - **Embed CSS** in the **HTML** file or import from an **external stylesheet**

```
// Class selector to define common style
for similar components

.title {
  font-size: 26px;
  color: blue;
}
.subView {
  display: none
}

// Id selector to define a unique style
for a unique component

#mainView {
  font-size: 16px;
  color: red;
  text-align: center;
}

// Pseudo-class selector to design a
pattern style
div.subview div {
  margin: 10px 0 0 0;
  padding: 20px 20px 20px 20px;
  . . .
}
```

JavaScript

Event handling

XMLHttpRequest

DOM manipulation

UI effects

UI tweaking

Widgets and Platform Services

- **Platform Services**

- Framework for abstracting access to a set of services
- Runtime specific bindings and security management
- Access through JavaScript

- **Example use cases:**

- Combine Web-based data with local context to deliver personalized, relevant services
- Save critical Web-based contacts and events locally to create reliable, dependable reminders



Home Screen

- **What it is for the end-user?**
 - Add / remove home screen content
 - Tap content to open widget full screen view
- **Home screen (HS) enabled WRT widget implements 2 views**
 - Home screen view
 - Full screen view
- **HS communicates to widget when end-user interacts with HS**
 - onload() and onresize() as widget side interface functions
 - JavaScript code to determine current view size – correct view rendered

Home screen view



Full screen view



Guarana UI – jQuery based UI library

- **UI Library for your widget**
 - Set of customizable UI elements, application frameworks, and templates
 - Based on jQuery
 - Complete package of components, documentation and examples from Forum Nokia web pages
- **Go and check out!**
 - <http://bit.ly/9LkU9g>



Web Developer to Widget Developer

- **Develop web widgets using popular development tools**
 - WRT plug-in 2.0 for Aptana Studio
 - WRT Extension for Adobe Dreamweaver
 - WRT plug-in for Microsoft Visual Studio
- **Create, develop, test, preview and deploy WRT widgets for millions of Nokia devices**
 - Easy transition from web design to widget development
 - Designers and developers collaborate easily



*WRT plug-ins
and extension*



Widgets

Device Specifications – Web Runtime

So how can I find what devices are supporting this technology?

http://www.forum.nokia.com/devices/matrix_webruntime_1.html

Get more information and resources:

<http://www.forum.nokia.com/wrt>

Ovi App Wizard

- **Mobilize your web content (RSS / Atom) for the Ovi Store**
 - **Free** to use. No registration fee
 - Open to all **businesses and individuals**
 - **No programming** skills required
 - Only takes **minutes to create**
 - Apps delivered into Ovi Store within **24 hours of submission**
 - **Optional: Monetize** using included ad feature or through app purchase
 - **Distribute** apps that work on nearly every Nokia handset to millions
- **Currently an open beta**
 - <http://ovi.com/appwizard>



Thank You.

Want to learn more?

www.forum.nokia.com/wrt