

## Getting Started with Symbian Web Apps

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# Nokia Web Tools

**NOKIA**

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## Change history

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# 1 Introduction

This document provides a guide to getting started with the creation of Symbian Web Runtime (WRT) web apps and describes the processes of creating, previewing, testing, and deploying a Symbian web app. Reading this guide will provide you with sufficient information to start creating Symbian web apps with Nokia Web Tools.

## 1.1 Nokia Web Tools

Nokia Web Tools comprises four components:

- *Web Developer Environment (WDE)* — built on the Eclipse and Aptana Studio platforms; WDE leverages the powerful web editing features of these platforms to provide for the editing, packaging, and deploying of web apps. The features of WDE for creating Symbian web apps are described fully in *Web Developer Environment Guide for Symbian Web Apps*, available from Web Developer Channel.
- *Web App Simulator (WAS)* — this tool enables web apps to be previewed on a computer. The features of WAS for creating Symbian web apps are described fully in *Web App Simulator Guide for Symbian Web Apps*, available from Web Developer Channel.
- *Web Developer Channel (WDC)* — this resource is embedded in WDE and provides online access to a range of resources from Nokia that will assist in the development of web apps. The features of WDC are described fully in *Web Developer Channel Guide*, available from WDC.
- *Web App Designer (WAD)* — this tool enables developers and designers to create application prototypes using screen mock-ups. Using hotspots and by defining screens linked to hotspot actions, interactive prototypes can be created. These prototypes can be exported and exercised on a wide variety of Nokia devices to gather feedback. The features of Web App Designer are described in *Web App Designer User Guide*, available from WDC.

Nokia Web Tools are available for computers running Microsoft Windows, Apple OS X, or Ubuntu Linux.

## 1.2 Content

This document covers creating a web app from a template, then editing, previewing, and deploying it to a compatible Nokia device, before installing the web app to see it in action.

The features described in this guide are explained in more detail in *Web Developer Environment Guide for Symbian Web Apps*, available from WDC.

This guide has been written based on use of a Microsoft Windows installation; however the guidance provided is the same for Apple Mac and Ubuntu installations, unless specifically noted.

## 2 Getting started

This guide assumes you have installed Nokia Web Tools onto your computer. Nokia Web Tools are delivered in a standard installer package for Microsoft Windows, Apple Mac, and Ubuntu Linux. If you need additional information on the installation process, it's provided in the [Nokia Web Tools Installation Guide](#), which is available on the [Nokia Web Tools download page](#).

Once Nokia Web Tools are installed, getting started is easy: You create a web app from a template, edit it, preview it, deploy it to your compatible Nokia device, and install the web app to see it in action.

### 2.1 Starting Nokia Developer Environment

Symbian web apps are created, edited, packaged and deployed from within Nokia Developer Environment (WDE), which is started from the applications menu of your system. The first time WDE is run you will be prompted to select a workspace, as shown in Figure 1. Unless you wish to regularly change the active workspace, **Use this as the default and do not ask again** can be selected. Click **OK**.

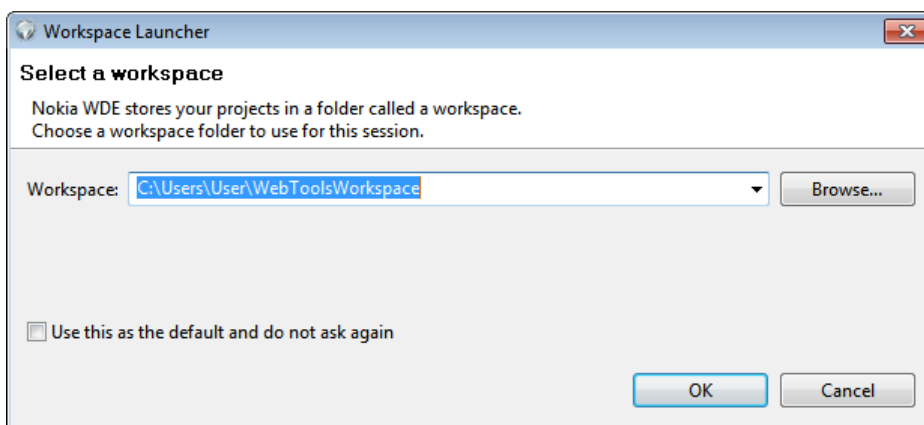


Figure 1: The Workspace Launcher, enabling an alternative work space to be selected, is shown.

Once the workspace has been selected you may receive a **Windows Security Alert** prompt, as shown in Figure 2. If this message is displayed, click **Unblock**.

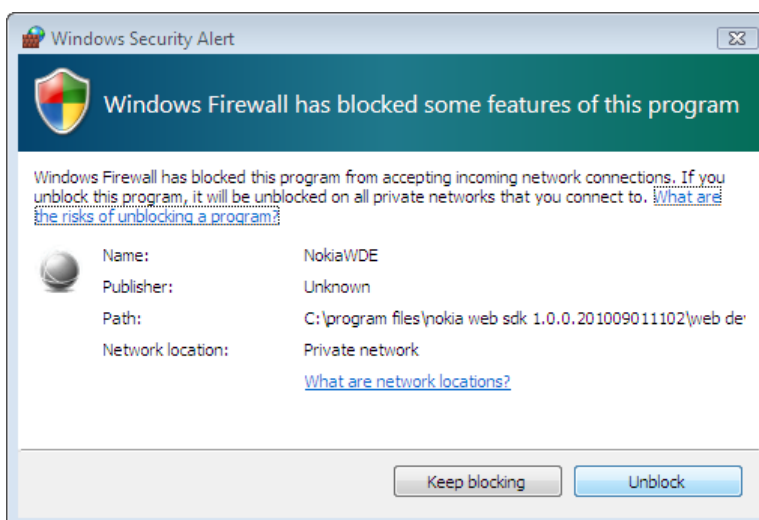


Figure 2: The Windows Security Alert that may be displayed when WDE is first run is shown.

## 2.2 Creating a Symbian web app project

To enable the creation of web apps, WDE offers a number of templates for Symbian web apps. You can import a web app from Web Developer Channel, an [example found on the Forum Nokia website](#), or a web app project you are already working on as well.

For this quick start the fully working Flickr template will be used.

To create a web app project from the Flickr template, on the File menu point to **New** and click **Nokia web app (wgz)**, shown in Figure 3.

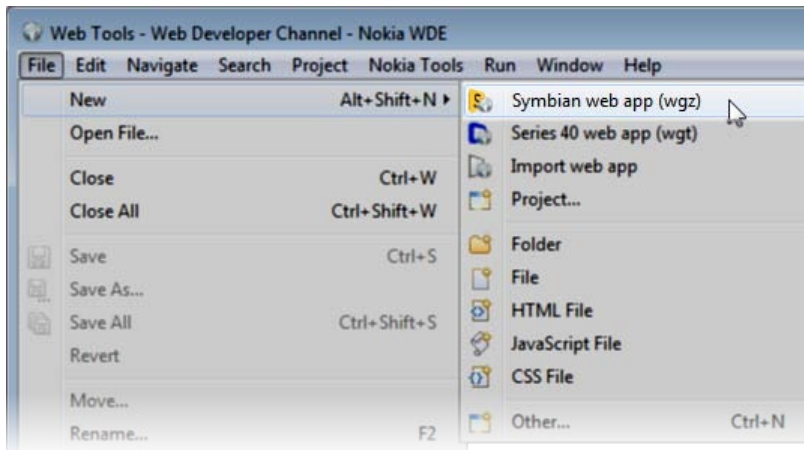


Figure 3: Selecting the Symbian web app (wgz) option on the File menu is shown.

The **New Symbian web app** dialogue, shown in Figure 4, displays. Select **Flickr web app project** and click **Next**.

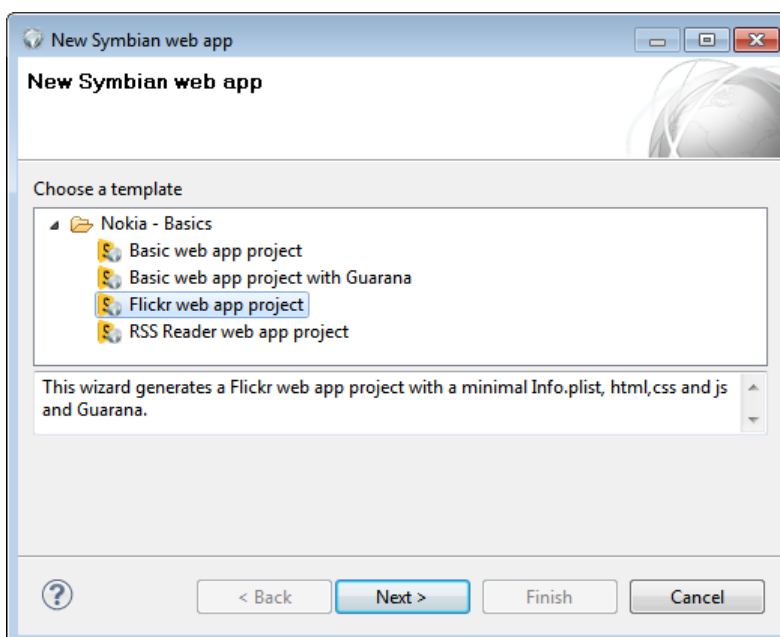


Figure 4: Selecting a template for a new Symbian web app is shown.

The New Flickr web app project dialogue, shown in Figure 12, displays.

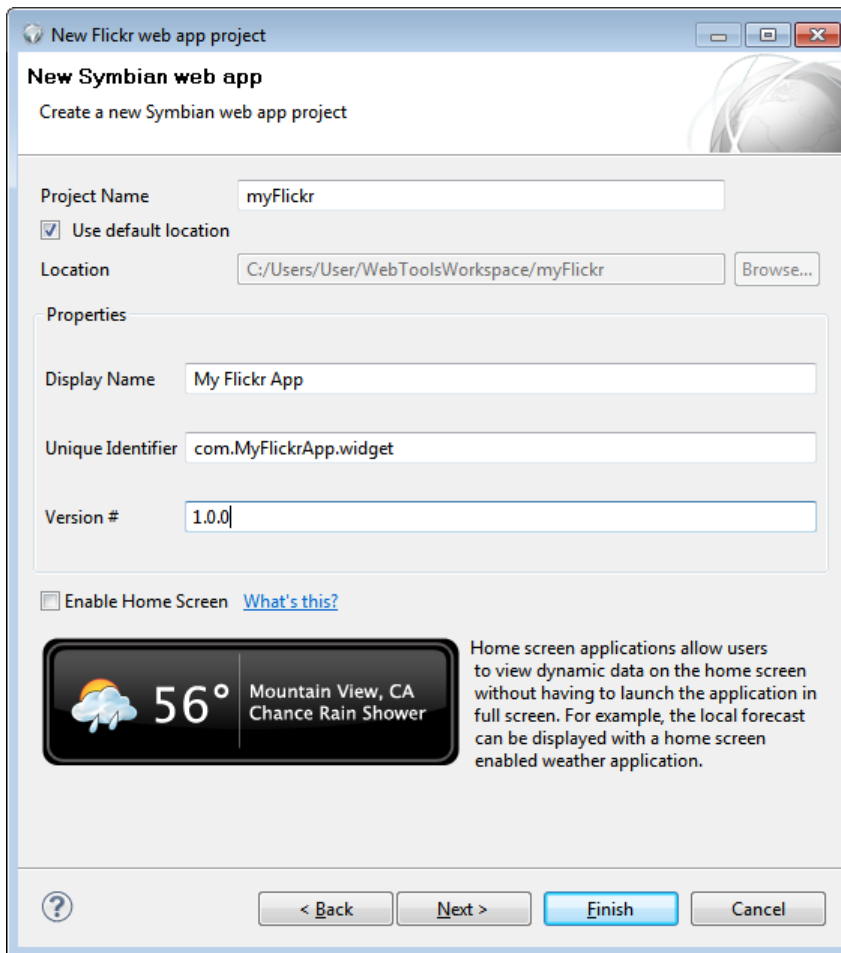


Figure 5: Naming the project and defining other web app details in the New Flickr web app project dialogue is shown.

Enter the project name `myflickr` in the **Project Name** field. When you leave the **Project Name** field the wizard automatically populates the **Display Name** and **Unique Identifier**. You can change these fields as desired: do so for the **Display Name**, using `My Flickr App`. A default isn't provided in the version number and this field should be set to `1.0.0`.

There is also a flag, labeled **Enable Home Screen**, which is used to indicate whether a Symbian web app will contain a home screen implementation. Leave this option unchecked.

There are additional parameters you can set for the project, by clicking **Next**, but for this getting started guide all the information required has been entered.

Your Flickr web app project is created by clicking **Finish**. The **Creating Project** dialogue, see Figure 6, displays, showing the progress of the project's creation.

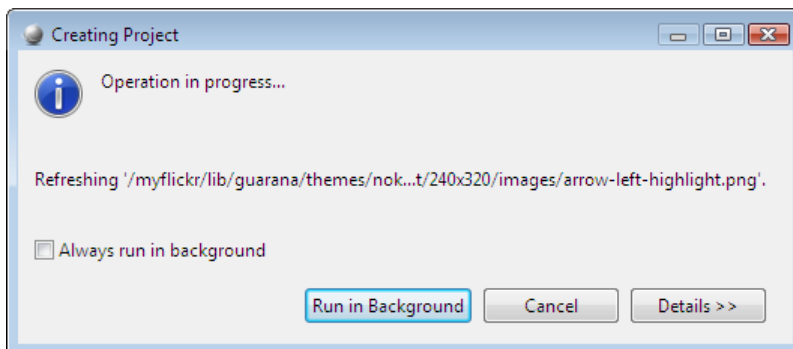


Figure 6: The Creating Project dialogue displaying the progress of project creation is shown.

When the project has been created it's opened in **Project Explorer**.

### 2.3 The content of your Symbian web app project

If you are new to web apps, take a moment to review the content of the project before continuing. To do this, expand the **myFlickr** item in **Project Explorer**, as shown in Figure 7.

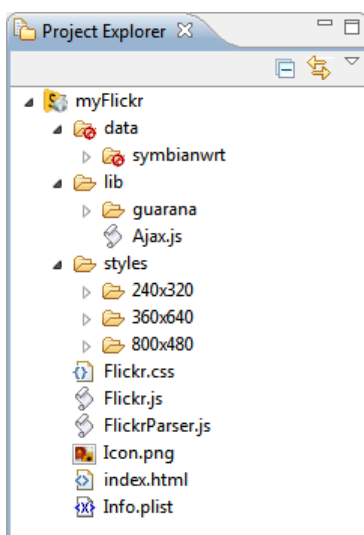


Figure 7: The content of the Flickr web app project in Project Explorer is shown.

The content of the project is as follows:

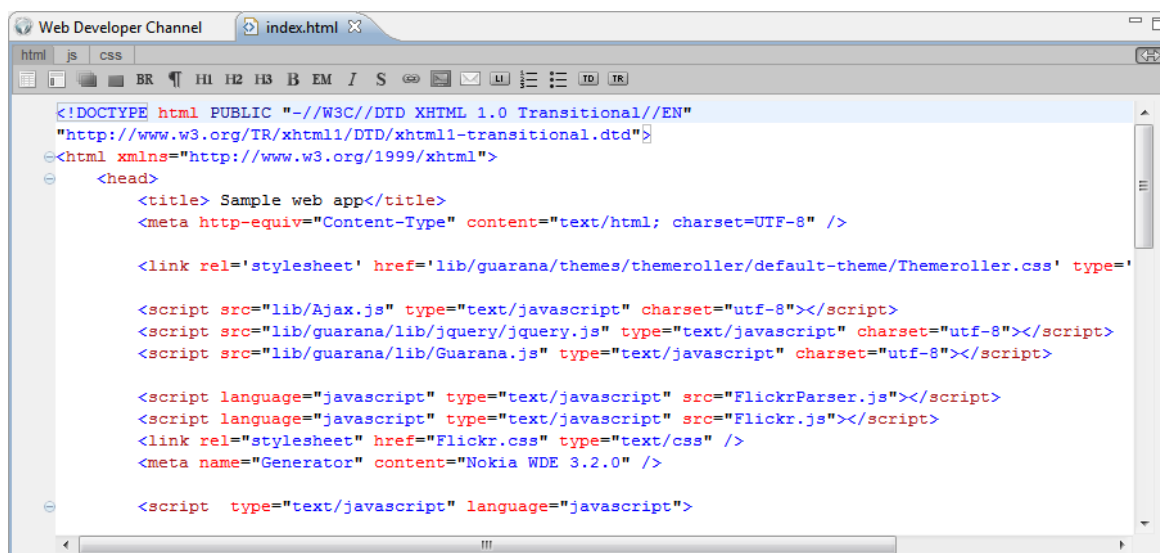
- **data** — this folder contains a series of JavaScript files that define sample platform services data. This data is used to test the platform integration features of a web app in WAS.
- **libs** — this folder contains the Guarana library. This is an optional library that can be used to help create attractive Symbian web apps quickly. If you don't use the Guarana files in a web app, the folder should be deleted or excluded from the final web app package.
- **Styles** — this folder contains a set of custom style sheets that optimise the web app's style for the various screen sizes it could be displayed on.
- **Files config.xml to index.html** — these files define the content and behaviour of the web app. A detailed description of the files that can be used in a web app can be found in the [Widgets component files](#) section of the Forum Nokia Web Developer's Library.

Notice that the icon for the `data` folder includes a prohibition symbol. WDE uses an exclude mechanism as a way to define files and folders that are excluded from the build of the packaged web app. This enables all the files associated with the web app to be stored in the project folder, but not added to the web app package. Such files may include the raw image files from graphics packages such as Adobe Illustrator or GIMP.

## 2.4 Short guide to editing

No editing is required to the Flickr web app, as the template is functionally complete. However, a short introduction to editing a web app's files is worthwhile at this stage.

Double-click any web or web app related file in **Project Explorer** and it opens in the WDE editor. To see how this works, double-click the `index.html` file in **Project Explorer** and see that it's opened in the editor, as shown in Figure 8.



```

Web Developer Channel  index.html
html  js  css
BR  H1  H2  H3  B  EM  I  S  G  U  ID  TR
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title> Sample web app</title>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />

    <link rel='stylesheet' href='lib/guarana/themes/themeroller/default-theme/Themeroller.css' type='

    <script src="lib/Ajax.js" type="text/javascript" charset="utf-8"></script>
    <script src="lib/guarana/lib/jquery/jquery.js" type="text/javascript" charset="utf-8"></script>
    <script src="lib/guarana/lib/Guarana.js" type="text/javascript" charset="utf-8"></script>

    <script language="javascript" type="text/javascript" src="FlickrParser.js"></script>
    <script language="javascript" type="text/javascript" src="Flickr.js"></script>
    <link rel="stylesheet" href="Flickr.css" type="text/css" />
    <meta name="Generator" content="Nokia WDE 3.2.0" />

    <script type="text/javascript" language="javascript">
  
```

Figure 8: The `index.html` file opened in the WDE editor is shown.

WDE includes two features designed to simplify code editing: Code completion and the ability to insert components provided by WDC. For more information, see *Web Developer Environment Guide for Symbian Web Apps* available from WDC.

## 2.5 Previewing your Symbian web app

Transferring a web app onto a device each time changes are made to the code is not a practical way of previewing and testing your web app during development. To simplify testing of a web app, WDE integrates with Web App Simulator.

To preview a web app, from the project's shortcut menu click **Preview web app** or on the **Run** menu click **Run**.

The first time you run WAS you may receive a **Windows Security Alert** prompt, as shown in Figure 9. If this message is displayed, click **Unblock**.

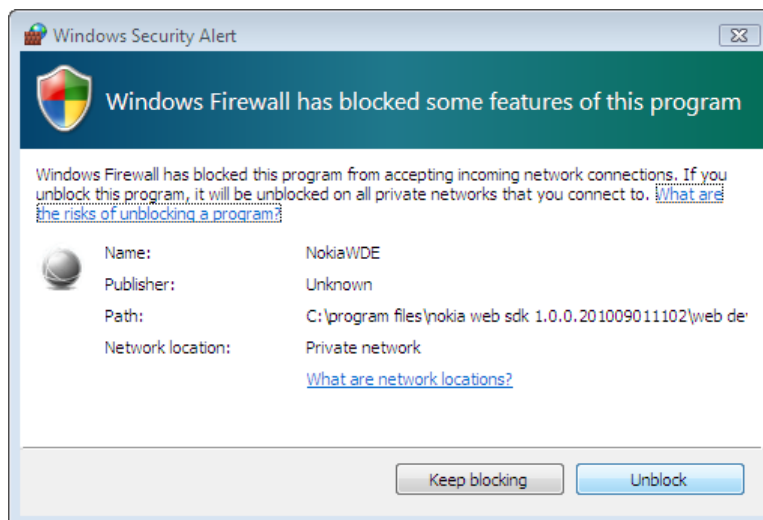


Figure 9: The Windows Security Alert that may be displayed when WAS is first run is shown.

WAS opens, shown in Figure 10, displaying the Flickr web app that can now be run very much as it would on a device. WAS provides features to define location and accelerometer data, adjust device characteristics, issue device event triggers, and examine web apps as well. For more information see *Web App Simulator Guide for Symbian Web Apps*, available from WDC.

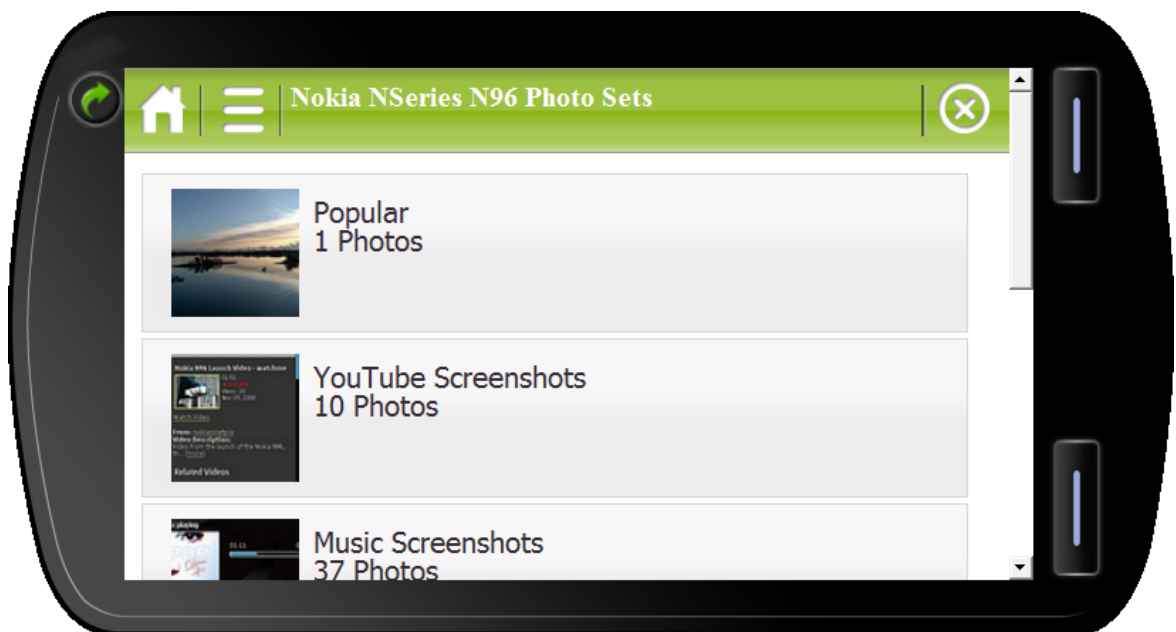


Figure 10: My Flickr App running in WAS is shown.

## 2.6 Deploying your web app to a device

During the course of development you would normally validate and package a web app before deploying it. However, the Flickr template provides a fully functional web app so, if you've not made any changes to the code, the web app can be deployed after defining the deployment target. This is possible because the deployment process automatically validates and packages a web app.

**Note:** If your computer doesn't have Bluetooth hardware you will have to deploy the web app manually. On the web app project's shortcut menu click **Package Web app**. Then locate the \* .wgz file in the project's folder and transfer it to your device over a USB cable, in an email, or by another available method.

### 2.6.1 Define deployment target

Before deployment can be undertaken the target device needs to be defined. Ensure your target device is visible to your computer over a Bluetooth connection and click **Deployment Settings** on the project's shortcut menu. The **Preferences** dialogue displays with the **Deployment** item selected, as shown in Figure 11.

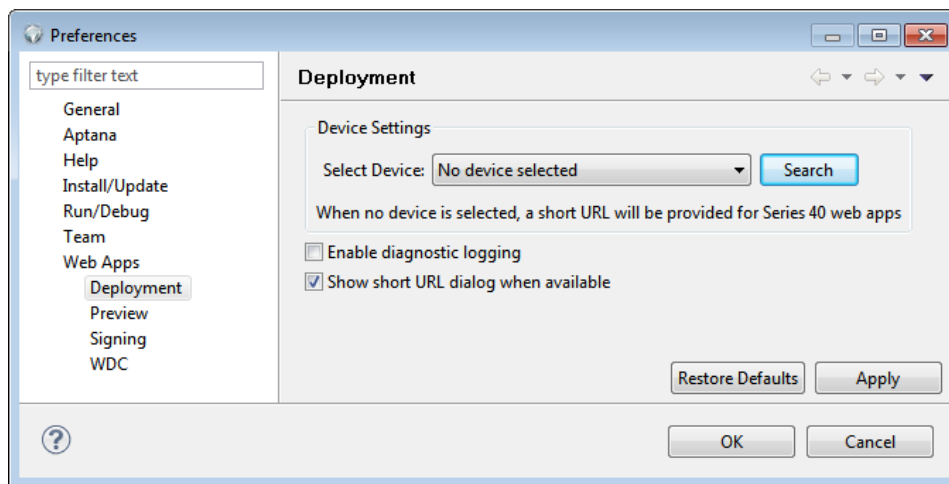


Figure 11: The deployment settings of the project's preferences are shown.

Click **Search**. A progress information message displays while the available Bluetooth devices are found. When the process is complete the progress message closes and a Bluetooth device can be selected from the **Select Device** drop-down list, as shown in Figure 12.

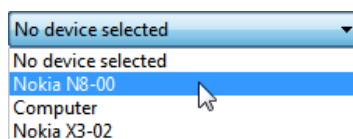


Figure 12: Selecting a device from the list of available Bluetooth devices is shown.

Click **OK** to save the preferences.

## 2.6.2 Deploying the web app

To deploy the web app, on the project's shortcut menu click **Deploy Web app**. The **Deploying widget** dialogue, shown in Figure 13, displays. It's recommended that you select **Always run in background** and then click **Run in Background**.

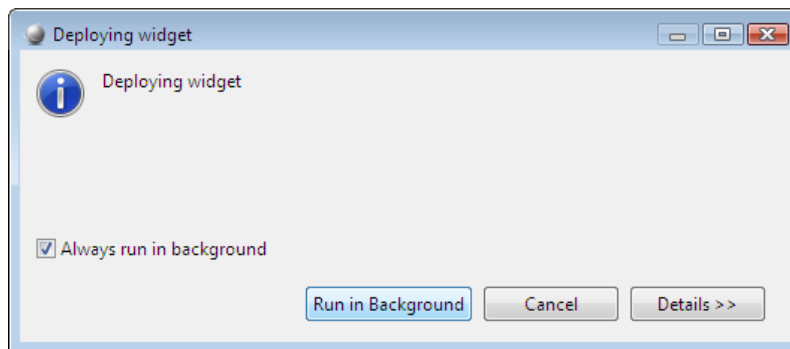


Figure 13: The Deploying widget dialogue is shown.

If not already open, the **Console**, shown in Figure 14, displays and provides details of the web app's deployment over the Bluetooth connection.

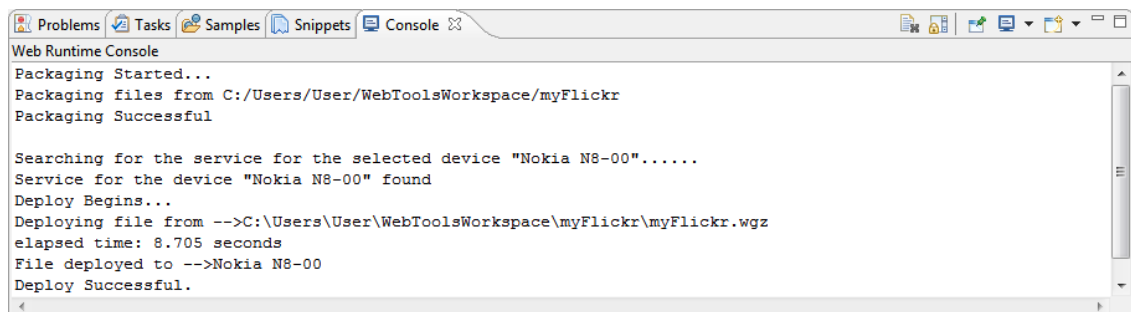


Figure 14: Progress of the web app deployment reported in the Console is shown.

Depending on your device's setting you may have to authorise receipt of the file on the device. Once deployment is complete, the web app can be installed and run on your compatible Nokia device.

## 2.7 Installing and running your web app on a device

Deploying the Flickr web app over a Bluetooth connection delivers it to a Symbian device's Messaging application **Inbox**, as shown in Figure 15.

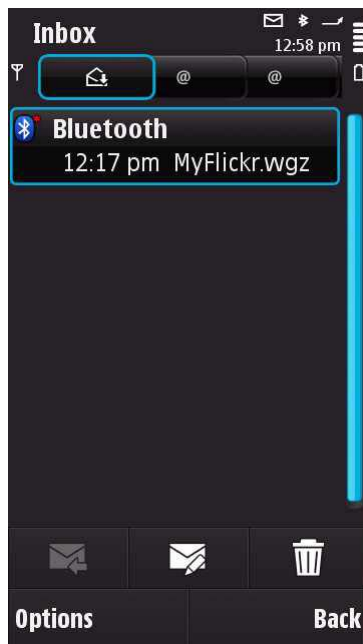


Figure 15: The Flickr web app's package file in the Messaging application's Inbox.

Start the installation process by tapping the message, on a touch screen device, or pressing the select key, on a non-touch screen device. The installation process, as shown in Figure 16, first asks for confirmation that the installation should be started. It then requests an installation location be chosen. Once a location has been chosen, the web app is installed.

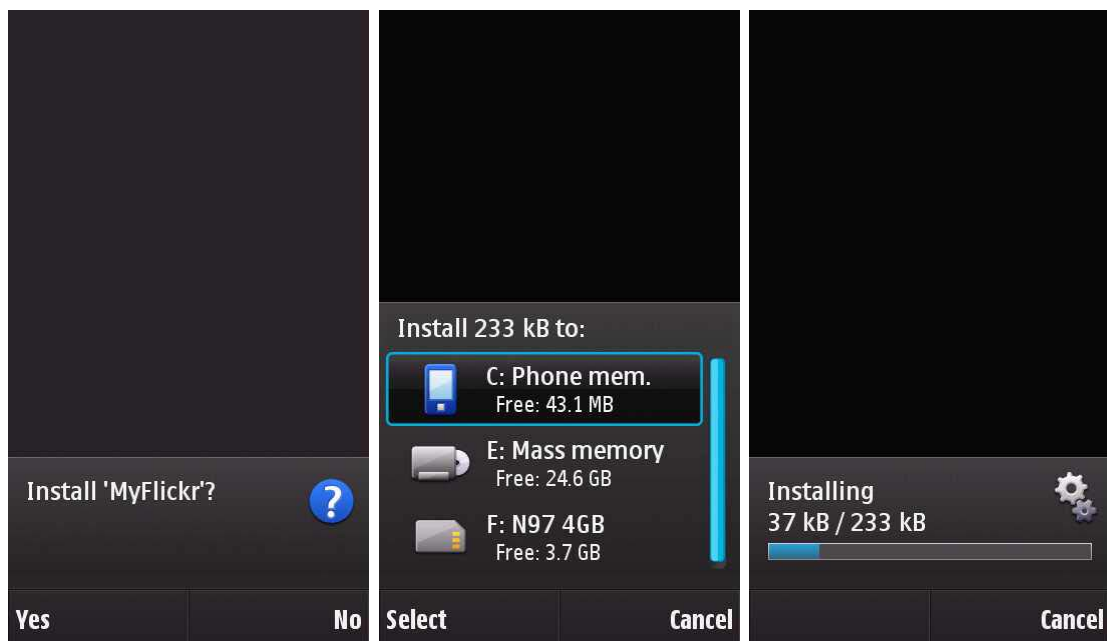


Figure 16: The steps of the web app installation process.

Once installed, the Flickr web app can be found in the **Applications** folder, as shown in Figure 17. The web app is started by tapping or clicking the MyFlickr item, in the same way any other application is started on a Symbian device.

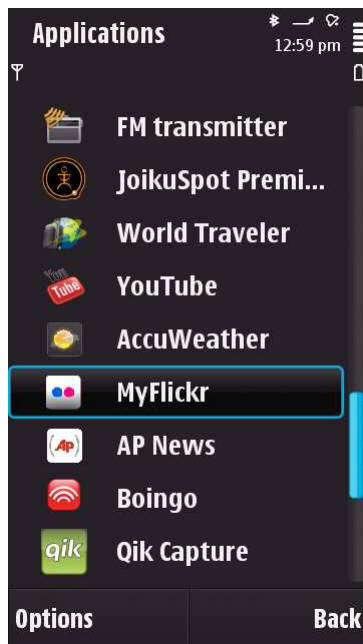


Figure 17: The Flickr web app will have been installed in the Applications folder.

When the web app starts it requests that a network connection be allowed, as shown in Figure 18, before displaying images and information from the defined Flickr URL.

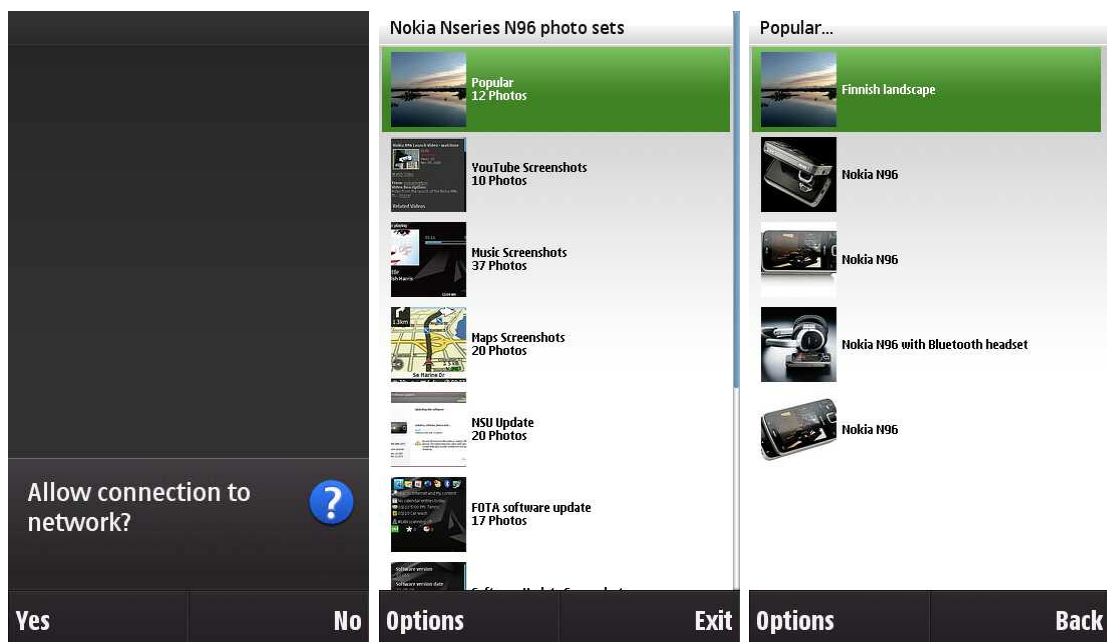


Figure 18: After allowing the web app to connect to the network, it displays information on Flickr pictures.