

# Intel AppUp<sup>SM</sup>

## Getting Your Windows and MeeGo Apps Into AppUp



Andreas Breitschopp



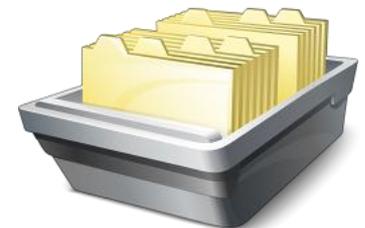
# Andreas Breitschopp





# Overview

- **Windows Apps**
  - Example Project
  - Preparations
  - Add AppUp SDK Code
  - Build an Installer
  - Digitally Sign the Installer
  - Published After Validation
- MeeGo Apps
- Conclusion





# Example Project

- “Energy Costs Calculator”:  
Free power and water  
consumption calculator
- Development environment:  
Microsoft .NET Framework 2.0 (C#)





# Example Project

## Power



Select an appliance from the list

You can easily add your own items to the list: specify the appliance name, power rating in watts and the number of hours the appliance is used daily, and then click on the icon next to the list. The price per kilowatt-hour of energy can also be modified.

Check out also our software "Energy Saving" which will help you record and review the costs of electric energy.

[Show more info on energy saving](#)

**Calculator**

Appliance:   

Or enter the consumption directly:  Watt

Each day is used on average for:  h

Price per kilowatt-hour:  \$

---

Total consumption during a year:  kWh

Total cost during a year:   **Calculate**

## Water



Select an appliance from the list

You can easily add your own items to the list: specify the appliance name, water consumption in gallons and the number uses per week, and then click on the icon next to the list. The price per gallon of water can also be modified.

Check out also our software "Energy Saving" which will help you record and review the costs of water.

[Show more info on energy saving](#)

**Calculator**

Appliance:   

Or enter the consumption directly:  gallons

Number of uses a week:  times

Price per gallon:  \$

---

Total consumption during a year:  gal.

Total cost during a year:   **Calculate**

**Save money by recording and reviewing energy consumption**  
This will be made possible by simple and easy-to-use software Energy Saving

 Show tip

 Change settings

 [More info on Energy Saving](#)

 Show info

 Close program





# Preparations

## Windows\*

### Download SDK 1.1.2 for Windows C/C++

Posted 10<sup>th</sup> June, 2011

[Download](#) (login required)

- Download the Intel AppUp™ SDK Microsoft Visual Studio\* IDE Plug-in (.MSI file)

### Download SDK 1.1.2 for .NET\*

Posted 10<sup>th</sup> June, 2011

[Download](#) (login required)

- Download the Intel AppUp™ SDK Microsoft Visual Studio\* IDE Plug-in (.MSI file)

### Download SDK 1.1.2 for Java\*

Posted 10<sup>th</sup> June, 2011

[Download](#) (login required)

- Download the Intel AppUp™ SDK Plug-In for Eclipse\* Software (.ZIP file)

### Download Adobe AIR InMarket SDK

[Download](#) (login required)

<http://appdeveloper.intel.com/en-us/sdk>

- Download the AppUp SDK for the Microsoft .NET Framework
- Add a reference to the “AdpLibrary.dll” assembly in your project

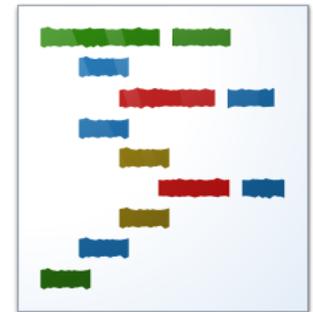




# Add AppUp SDK Code

Insert only few lines of code:

```
// [...]  
InitializeComponent();  
  
useIntelAdp = File.Exists(Application.StartupPath + "\\AdpLibrary.dll");  
if (useIntelAdp)  
{  
    try  
    {  
#if (DEBUG)  
        var app = new AdpApplication(new AdpApplicationId(0x11111111, 0x11111111, 0x11111111, 0x11111111));  
#else  
        var app = new AdpApplication(new AdpApplicationId(0x0E5AF5E4, 0xD81D43BC, 0x832C0571, 0x1D9041D0));  
#endif  
    }  
    catch (AdpException e)  
    {  
        MessageBox.Show(e.Message, "Error");  
        System.Environment.Exit(1);  
    }  
}  
  
// [...]
```





# Build an Installer

- For Windows products:  
only MSIs are accepted as product installers
- The installer has to be absolute silent
- It has to perform a clean(!) uninstall
- We use the integrated setup system of the Microsoft Visual Studio to build the MSI
- It is extendible with “Custom Actions”  
if necessary





# Build an Installer

EnergiekostenSchnellrechner - Microsoft Visual Studio

Datei Bearbeiten Ansicht Projekt Erstellen Debuggen Team Daten Extras Architektur Test Analyse DevExpress Fenster Hilfe

Dateisystem (Setup) x

Dateisystem auf Zielcomputer

- Anwendungsordner
- Desktop des Benutzers
- Ordner für Anwendungsdaten des Benutzers
  - Energy Costs Calculator
- Programmmenü des Benutzers

Name	Typ
- AdpLibrary.dll	Assembly
- CustomActions.dll	Assembly
EKS-de.hep	Datei
EKS-de.rd	Datei
EKS-en.hep	Datei
EKS-en.rd	Datei
EKS-pl.hep	Datei
EKS-pl.rd	Datei
EKS.rd	Datei
EnergiekostenSchnellrechner.mdb	Datei
- ErrorReport.dll	Assembly
- HepHelp.exe	Assembly
Inhaltsdateien von EnergiekostenSchnellrechner (Aktiv)	Ausgabe
Primäre Ausgabe von EnergiekostenSchnellrechner (Aktiv)	Ausgabe
- RDDLL.dll	Assembly
- System.Data.SQLite.dll	Assembly
- Update.exe	Assembly

Projektmappen-Explo... x

Suchen und Ersetzen

Projektmappe: Setup

- Gefundene Abh...
- Inhaltsdateien vo...
- Primäre Ausgabe...
- AdpLibrary.dll
- CustomActions...
- EKS-de.hep
- EKS-de.rd
- EKS-en.hep
- EKS-en.rd

Eigenschaften

Setup Bereitstellungsprojekt

- AddRemo (Symbol)
- Author AB-Tools.com
- Descriptio
- DetectNew True
- InstallAllU False
- Keywords
- Localizatio German
- Manufactu AB-Tools.com
- Manufactu http://www.al...

Fehlerliste Direktfenster Ausgabe

Bereit





# Digitally Sign the Installer

- Get “signtool.exe” with the Windows SDK
- Create a small Batch file like this:

```
1 signtool.exe sign /f "mykey.pfx" /p "pfx_password" /t "http://timestamp.verisign.com/scripts/timestamp.dll" "%1"
```

- Just drag & drop your MSI on this Batch file





# Published After Validation

The screenshot displays the Intel AppUp application store interface. The main window title is "Intel AppUp™" with a user name "Andreas Breitscho..." and a "Help" menu. The navigation bar shows "Store", "Search results", and "Energy Cost Calculator". On the left, there are "Store" and "My Apps" buttons. The main content area features the "Energy Cost Calculator" app, which has a lightbulb icon, a 5-star rating (4 stars visible), and is rated "3+". The app is free to download. Metadata includes: Category: Utilities, Released: 9/4/2010, License: EULA, Developer: AB-Tools.com, Version: 1.1.5.1, Size: 2 MB, and Downloads: 521. The description section is active, showing text about household appliances and utility consumption. A "Related Apps" sidebar on the right lists four other applications: "Advanced Hard..." (0,79 €), "Duplicate Pictur..." (0,99 €), "MyOnApp" (Free), and "Ambiance" (7,99 €).

**Energy Cost Calculator**  
★★★★★ (2)  
Rated: 3+  
Category: Utilities  
Released: 9/4/2010  
License: EULA  
Developer: AB-Tools.com  
Version: 1.1.5.1  
Size: 2 MB  
Downloads: 521

**Description** | Screenshots | Reviews

Do you often wonder which household appliances use so much power? You don't know why your water bill is so high?

This free power and water consumption calculator will allow a quick and easy calculation of the consumption of utilities of a single appliance.

Just after the installation, the program includes an extensive database of household appliances. Of course, you can add your own items to the list.

You will easily find out which appliances are responsible for your high bills.

The program includes many tips, which will help you reduce monthly costs of utilities.

Features of Energy Costs Calculator at a glance:  
Do you often wonder which household appliances use so much power? You don't know why your water bill is so high?

This free power and water consumption calculator will allow a quick and easy calculation of the consumption of utilities of a single appliance.

**Related Apps**

- 1 **Advanced Hard...** ★★★★★ 0,79 € Buy App >
- 2 **Duplicate Pictur...** ★★★★★ 0,99 € Buy App >
- 3 **MyOnApp** ★★★★★ Free Get >
- 4 **Ambiance** ★★★★★ 7,99 € Buy App >

More >



# Overview

- Windows Apps
- **MeeGo Apps**
  - Porting to MeeGo
  - Preparations on Developer Machine
  - Preparations on MeeGo Device
  - Preparations in Qt Creator for Debugging
  - Design User Interface
  - Porting Code
  - Build an Installer
  - Published After Validation
- Conclusion





# Porting to MeeGo

- Porting the “Energy Costs Calculator”

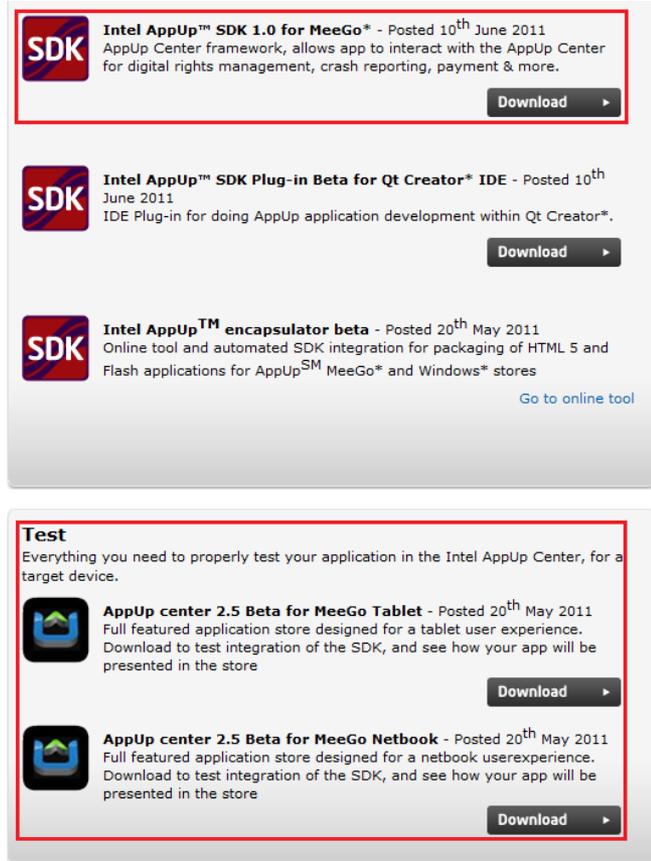
to

MeeGo<sup>TM</sup>





# Preparations on Developer Machine



The screenshot shows a webpage with two main sections: 'SDK' and 'Test'. The 'SDK' section contains three items, each with an 'SDK' icon, a title, a description, and a 'Download' button. The 'Test' section contains two items, each with an AppUp icon, a title, a description, and a 'Download' button.

**SDK** Intel AppUp™ SDK 1.0 for MeeGo\* - Posted 10<sup>th</sup> June 2011  
AppUp Center framework, allows app to interact with the AppUp Center for digital rights management, crash reporting, payment & more.  
[Download](#)

**SDK** Intel AppUp™ SDK Plug-in Beta for Qt Creator\* IDE - Posted 10<sup>th</sup> June 2011  
IDE Plug-in for doing AppUp application development within Qt Creator\*.  
[Download](#)

**SDK** Intel AppUp™ encapsulator beta - Posted 20<sup>th</sup> May 2011  
Online tool and automated SDK integration for packaging of HTML 5 and Flash applications for AppUp<sup>SM</sup> MeeGo\* and Windows\* stores  
[Go to online tool](#)

**Test**  
Everything you need to properly test your application in the Intel AppUp Center, for a target device.

 **AppUp center 2.5 Beta for MeeGo Tablet** - Posted 20<sup>th</sup> May 2011  
Full featured application store designed for a tablet user experience. Download to test integration of the SDK, and see how your app will be presented in the store  
[Download](#)

 **AppUp center 2.5 Beta for MeeGo Netbook** - Posted 20<sup>th</sup> May 2011  
Full featured application store designed for a netbook user experience. Download to test integration of the SDK, and see how your app will be presented in the store  
[Download](#)

- Download MeeGo SDK from MeeGo webpage
- Download AppUp SDK for MeeGo
- Install AppUp center for testing



<http://appdeveloper.intel.com/en-us/meego-sdk-suite>



# Preparations on MeeGo Device

- **Install mad-developer component:**

```
zypper install mad-developer
```

- **Install AppUp SDK Debugger:**

```
rpm -i
```

```
appup-sdk-debugger-1.1.0-36.i386.rpm
```

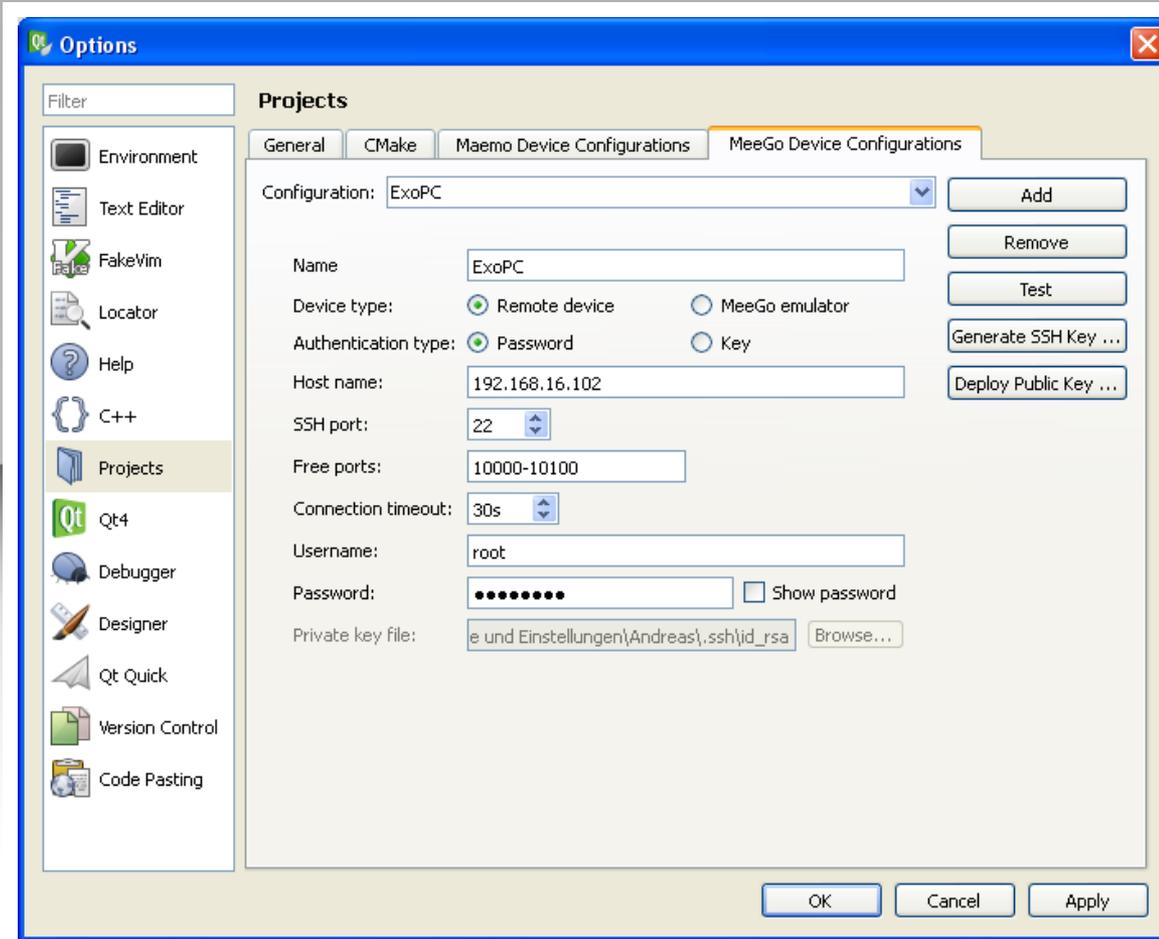
- **Start AppUp SDK Debugger:**

```
/opt/com.intel.appupsdk/tools/  
debugger/bin/iadp_atds
```





# Preparations in Qt Creator for Debugging





# Design User Interface

The screenshot displays the Qt Creator IDE with a Qt Designer window titled "mainwindow.ui - energycostcalculator - Qt Creator". The design canvas shows two side-by-side calculator panels. The left panel, titled "Power", has a yellow background and a lightbulb icon. It contains a "Calculator" section with a dropdown for "Appliance", input fields for "Consumption" (unit: watt), "Daily used on average for:" (unit: h), and "Price per kilowatt-hour:" (unit: USD). Below these are fields for "Total consumption during a year:" (unit: kWh) and "Total cost during a year:" (unit: USD). The right panel, titled "Water", has a blue background and a faucet icon. It contains a "Calculator" section with a dropdown for "Appliance", input fields for "Consumption" (unit: gal), "Number of uses per week:" (unit: times), and "Price per HCF:" (unit: USD). Below these are fields for "Total consumption during a year:" (unit: HCF) and "Total cost during a year:" (unit: USD). The bottom of the design area features a green footer with a "Show tips" button, the text "Energy Costs Calculator for MeeGo", "© 2011 by Andreas Bretschopp", and a website URL "www.ab-tools.com", along with an "Exit" button. The Qt Creator interface includes a sidebar with widget and input widget palettes, a central design canvas, and a right-hand pane with an object tree and property inspector.





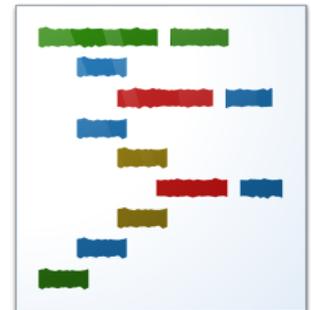
# Porting Code

## Port your application code:

```
void MainWindow::calculatePowerUsage ()
{
    try {
        bool conversionOk;
        double powerConsumption = this->ui->powerConsumption->text ().toDouble (&conversionOk);
        double powerUsage = this->ui->powerUsage->text ().toDouble (&conversionOk);
        double powerPrice = this->ui->powerPrice->text ().toDouble (&conversionOk);
        double powerConsumptionYear = powerConsumption * powerUsage * 365 / 1000;
        double powerPriceYear = powerConsumptionYear * powerPrice;

        QString powerConsumptionYearString;
        powerConsumptionYearString.append (QString ("%1").arg (powerConsumptionYear, 0, 'f', 2));
        this->ui->powerConsumptionYear->setText (powerConsumptionYearString);

        QString powerPriceYearString;
        powerPriceYearString.append (QString ("%1").arg (powerPriceYear, 0, 'f', 2));
        this->ui->powerPriceYear->setText (powerPriceYearString);
    } catch (...) {
    }
}
```

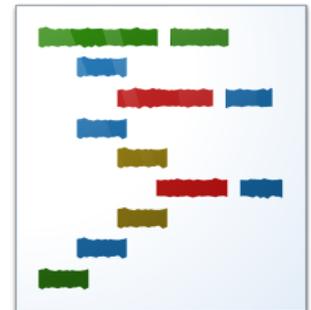




# Add AppUp SDK Code

Again only few lines of code are needed:

```
// [...]  
  
com::intel::adp::Application *app = NULL;  
try{  
    const ADP_APPLICATIONID appID = ADP_DEBUG_APPLICATIONID;  
    //const ADP_APPLICATIONID appID = {{0x19723547, 0x9ADD48DE, 0xA168E27A, 0x0D3E4D30}};  
    app = new Application(appID);  
}  
catch (com::intel::adp::AdpException& e) {  
    QMessageBox::critical(new QWidget(), "Error", e.message());  
    return 1;  
}  
if(app != NULL){  
    delete app;  
    app = NULL;  
}  
  
// [...]
```





# Build an Installer

- Creating a desktop entry file
- Adding dependencies to project file:
  - desktop entry file
  - icons files
  - AppUp libraries
- Build RPM installer





# Published After Validation

Intel AppUp<sup>SM</sup> Beta

Andreas Breitschopp

Help

Store > Search Results > Energy Costs Calculator for MeeGo

My Apps

**Energy Costs Cal...**  
Rated: 3+  
★★★★★  
Get Free >

Category: Finance  
Released: 2011-04-26  
License: EULA  
Developer: AB-Tools.com  
Version: 1.0.0  
Size: 0.09 Mb  
Downloads: 10

Description | Screenshots | Reviews

Do you often wonder which household appliances use so much power? You don't know why your water bill is so high?

This free power and water consumption calculator will allow a quick and easy calculation of the consumption of appliances.

Just after the installation, the program includes an extensive database of household appliances.

You will easily find out which appliances are responsible for your high bills.

The program includes many tips, which will help you reduce monthly costs of utilities.

Features of Energy Costs Calculator at a glance:  
- Free power and water consumption calculator

**Related Apps**

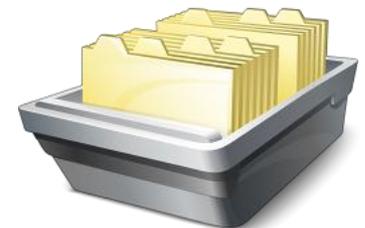
- Finance Tips ★★★★★ FREE Get App
- Fatwallet Desk ★★★★★ FREE Get App
- Car Loan Calc fo... ★★★★★ FREE Get App
- Stock News ★★★★★ FREE Get App
- Credit Card Cutt... ★★★★★ FREE Get App

More



# Overview

- Windows Apps
- MeeGo Apps
- **Conclusion**





# Conclusion



If you already have Windows apps ready it is very easy to get them into AppUp.



Depending on the complexity of your apps and their programming language you can easily port them to MeeGo.



# Thank You for Your Attention!



*Andreas Breitschopp*

a.breitschopp@ab-softcon.net

www.ab-softcon.net

+49 89 38898588