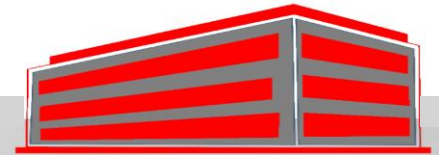


IMMOTIQUE

Jean-Yves Tigli – tigli@unice.fr

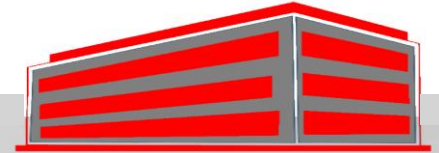
Polytech'Nice – Département Bâtiment Intelligent – 4^{ième} année



TRAVAUX PRATIQUE

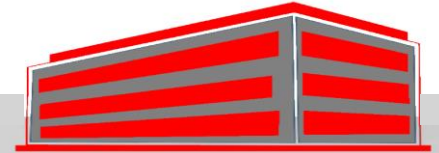
PRISE EN MAIN DE WCOMP

INTRODUCTION A WCOMP



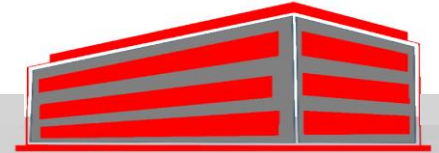
- Installation de WComp sur vos Machines
- SharpDevelop est un IDE Libre qui remplace Visual Studio
- VOIR : www.wcomp.fr

INSTALLATION DE LA PLATEFORME STEP BY STEP



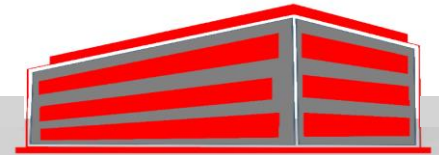
- Sur <http://www.wcomp.fr/sharpwcomp3>
- La documentation d'installation est http://www.wcomp.fr/media/public_namespace:releases:installation_sharpwcomp_3.2.pdf
- Vérifiez que vous avez le bon framework .Net 3.5
- <http://www.microsoft.com/en-us/download/details.aspx?id=22>

TESTS DE SHARPEVELOP



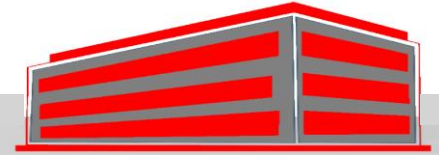
- Installation de SharpDevelop 3.x : [SharpDevelop 3.2.1 installer](#)
- A trouver dans C:\Program Files (x86)\SharpDevelop\3.0\bin
- Tester SharpDevelop avec une simple solution C# / Application Windows
- Voir Démo

INSTALLATION DE LA PLATEFORME STEP BY STEP

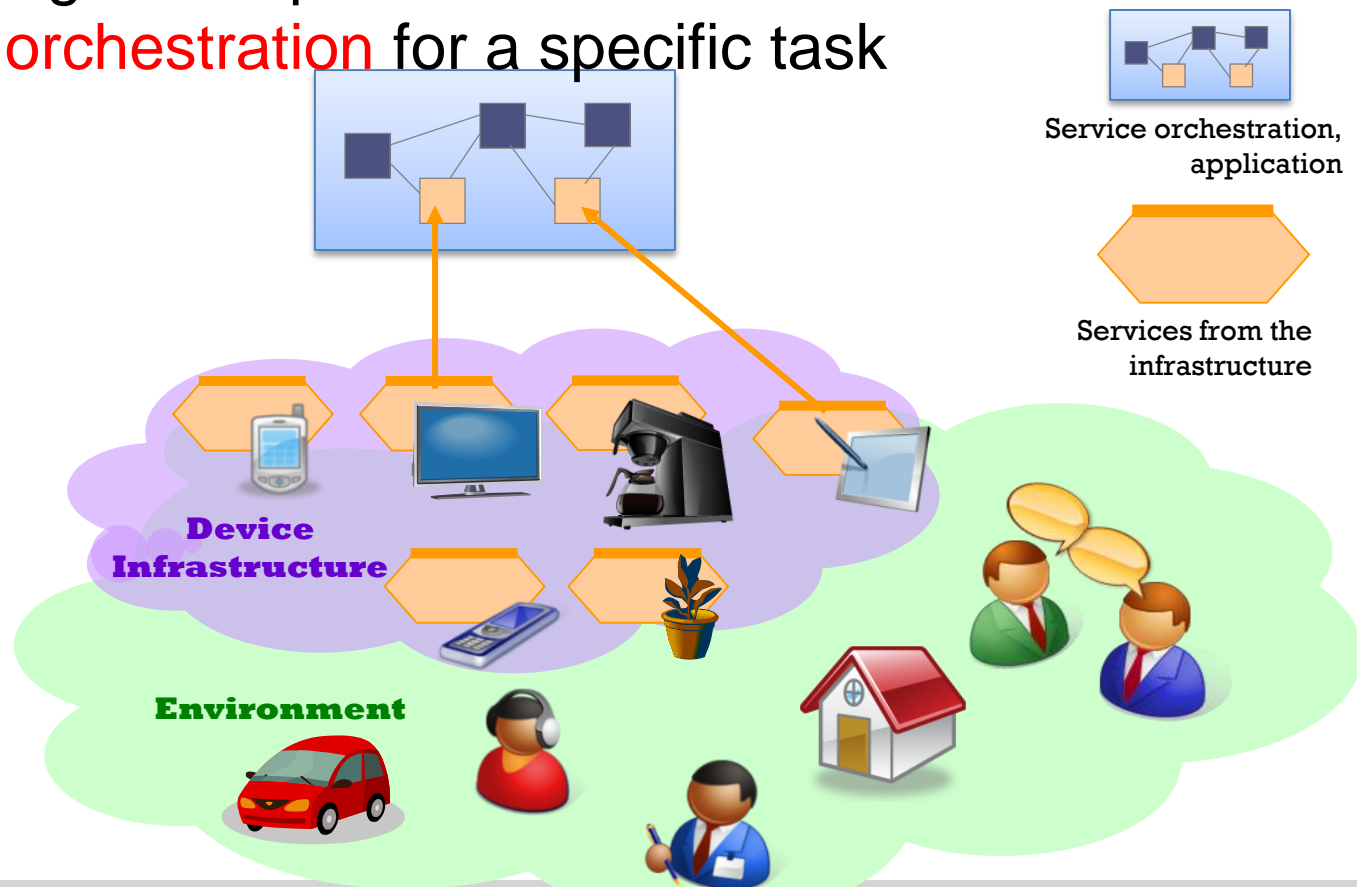


- Installer : Last Release
- http://www.wcomp.fr/telechargement:v_3.2.1.1390
- Relancez SharpDevelop et ouvrez un nouveau fichier.
- Vous pouvez dans Wcomp.Net ouvrir alors un C# Container
- Tester Wcomp en rajoutant / retirant des composants Bean.
- Vérifiez que vous ne compilez pas mais que vous modifiez bien une application qui s'exécute.
- Voir Démo

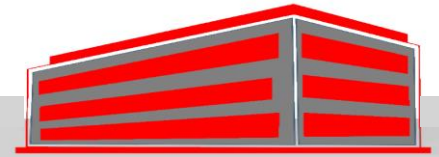
WCOMP : LCA TO COMPOSE SERVICES FOR DEVICES



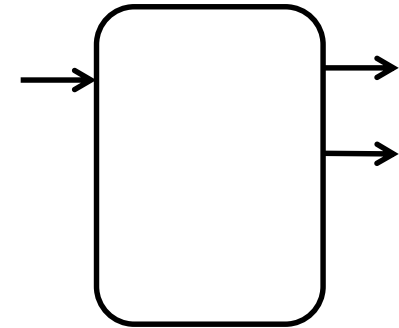
- Lightweight Component Architecture to create service-based **orchestration** for a specific task



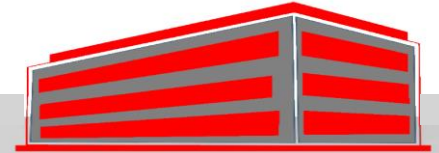
LCA COMPONENT MODEL



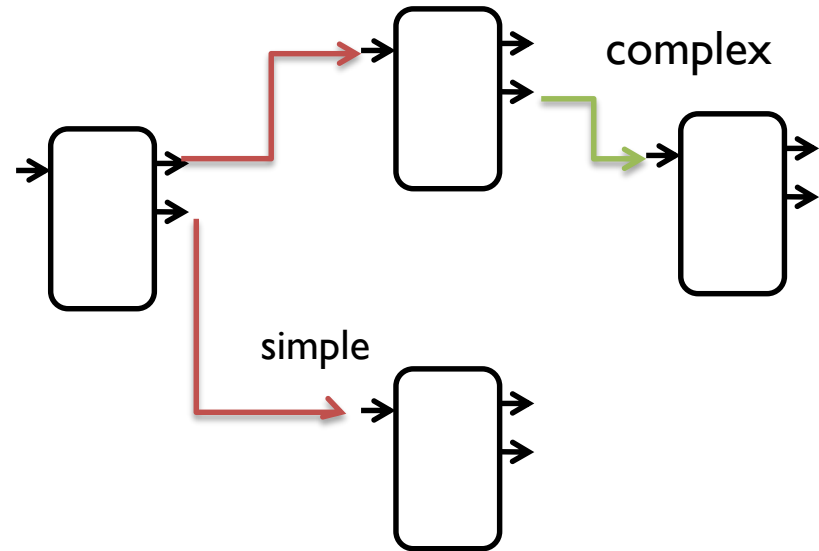
- Input : Methods
 - C2.Method (param)
- Output : Events
 - C1.Event (param)
- Internal Properties are associated with Getters and Setters
 - C2.Set<Name>(<type>)
 - <type> C2.Get<Name>()



LCA, CONNECTORS



- Demo
- (Generated source code)



Connectors

Simple Event based Connector

`C1.Event (param) → C2.Method (param)`

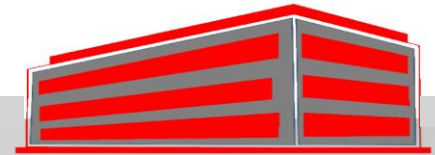


Complex Event based Connector

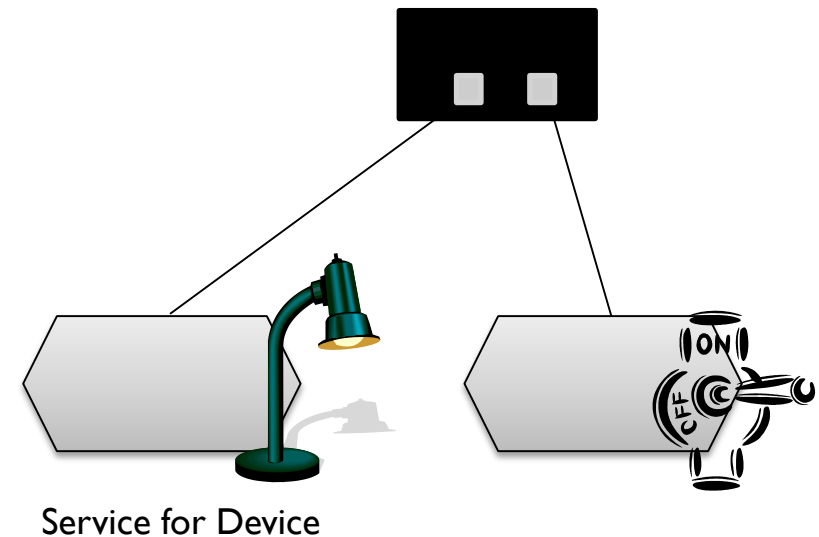
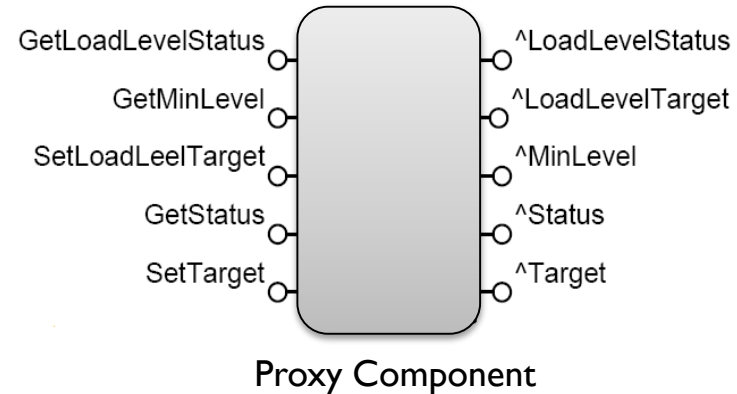
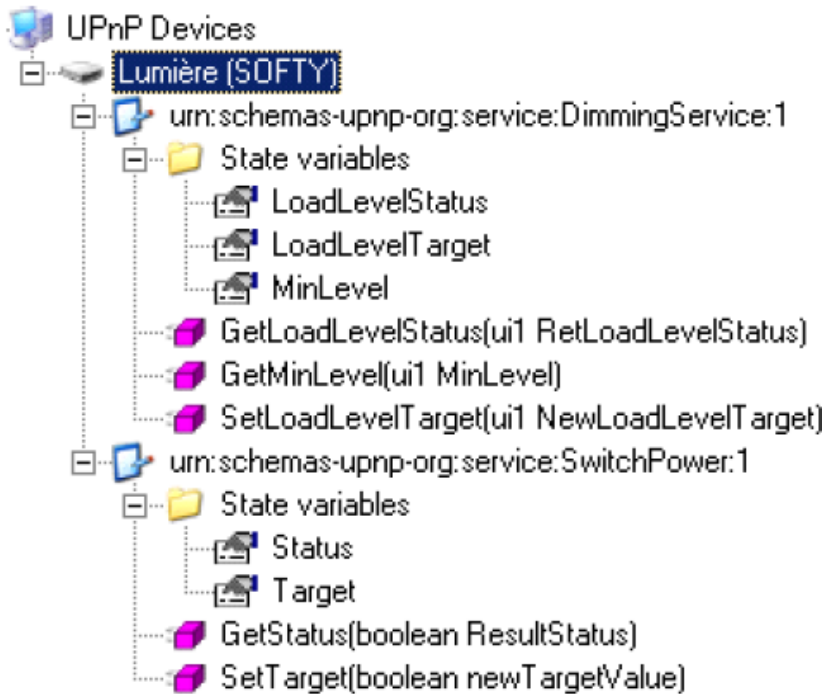
`C1.Event (param) → C2.Method (C1.GetAProperty()`



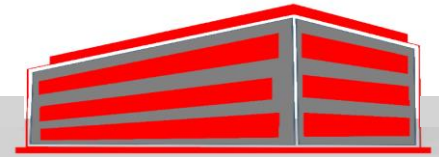
LCA PROXY COMPONENTS TO ACCESS TO SERVICES FOR DEVICES



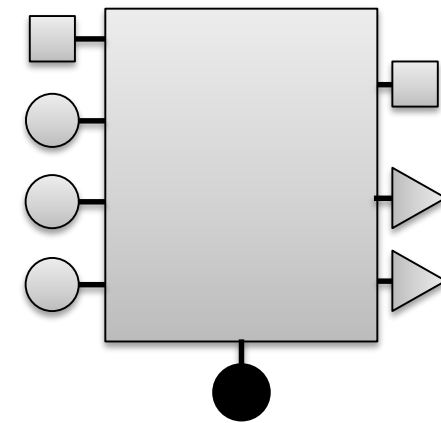
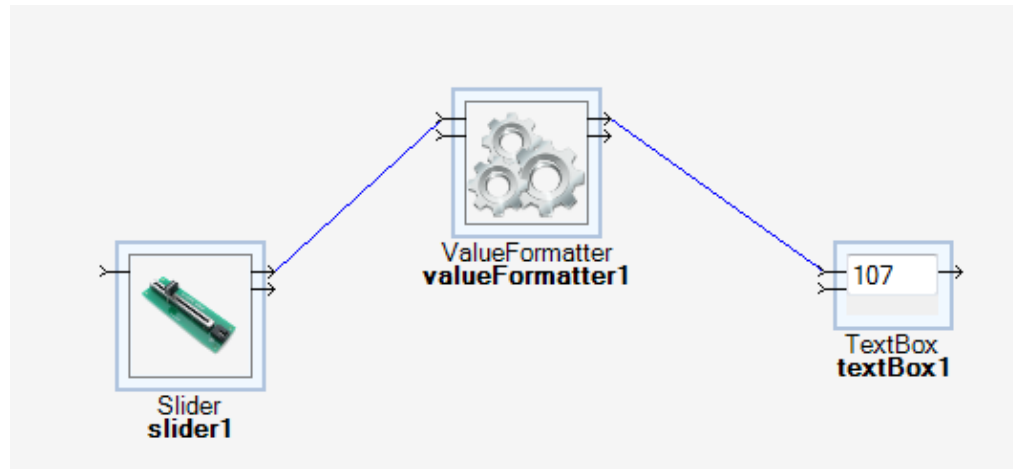
- Demo



BUILD YOUR OWN ORCHESTRATION SET OF OPERATORS / BEANS



- Demo



- Property
- Method
- ▶ Event source

- If you need If, filters, ... feel free ..

BEANWCOMP .NET TEMPLATE



- Events are based on « delegate » model (in C#)

Category

Event

```
using System;
using System.ComponentModel;
using WComp.Beans;

namespace Bean4
{
    /// <summary>
    /// Description rsume de Class1.
    /// </summary>
    [Bean(Category="MyCategory")]

    public class Class1
    {

        // delegate implicite de void EventHandler(object sender, EventArgs e)

        public event EventHandler MyEvent;

        // graphiquement ce qui sera fait :
        // MyEvent += new EventHandler(func)
        // avec private void func(object sender, EventArgs e)
    }
}
```

BEANWCOMP .NET TEMPLATE

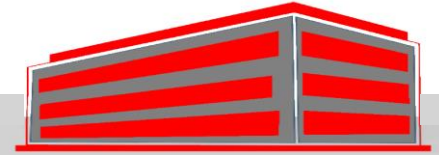


- Propriétés

```
...  
  
// Nom de la propriété avec minuscule  
// variable de sauvegarde propriété  
  
    protected int myprop = 1;  
  
        //meta donnée : valeur par défaut propriété  
        [DefaultValue(1)]  
  
// déclaration propriété : public <type> Nom  
public int Myprop  
{  
    get  
    {  
        return myprop;  
    }  
  
    set  
    {  
        if (myprop < 1)  
        {  
            throw new ArgumentException("positif !");  
        }  
        // mot clef value  
        myprop = value;  
    }  
}  
  
...
```

Property

BEANWCOMP .NET TEMPLATE



- Méthodes

```
// méthodes  
  
public void MyStep(int val1, int val2)  
{  
    if (myprop >= max)  
    {  
        myprop=1;  
        MyEvent(this, null);  
    }  
    else  
        myprop++;  
}
```

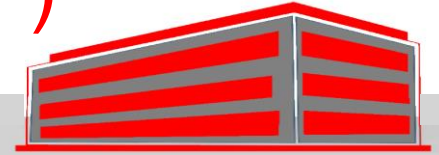
Method

COMMENT CRÉER MON COMPOSANT BEAN



- http://www.wcomp.fr/_media/public_namespace:releases:bean_develop.pdf
- Ouvrir et développer une solution BeanWComp
- Voir Démo

DES DISPOSITIFS (PROTOCOLE UPNP)



- Installer les outils Intel UPnP :
- <http://opentools.homeip.net/dev-tools-for-upnp>

Voir démo sur des devices UPnP (device spy)

- Installer UPnP Wizard Designer
- [UPnPDesigner-3.2.1.1390.msi](#)
- Voir démo sur l'utilisation d'UPnP dans WComp