

# Opendiem Training

## Exercise 6

Opendiem-TRN-0006

Revision	5.0.0		
Status	Initials	Date	Comment
Released	RAC	11/18/2010	Updated format and content



Engine



Connect



Designer

Opendiem-TRN-0006

## OPENDIEM TRAINING EXERCISE 6

# Exercise 6 – Building Opendiem SmartComponents

---

## Introduction

---

This exercise is an introduction to creating Opendiem SmartComponents. A SmartComponent is a pre-defined object which can have intelligent associations with the data and is a powerful feature of Opendiem that compliments the graphics and allows complex screens to be quickly and easily designed.

SmartComponents are linked rather than added to the screen and loaded dynamically when the screen is being viewed. If changes are made to a SmartComponent on the disk then these changes will be reflected on all screens that use that object.

The power behind the SmartComponent is the ability to give it intelligence. A SmartComponent can be associated either with a single variable or a set of variables, such as different variables on a single controller even different variables on multiple controllers of a complete sub system.

---

## Objective

---

In this exercise you will create an Opendiem SmartComponent for adjusting setpoints that is automatically associated with the LONMark type SNVT\_temp\_p.



Engine



Connect



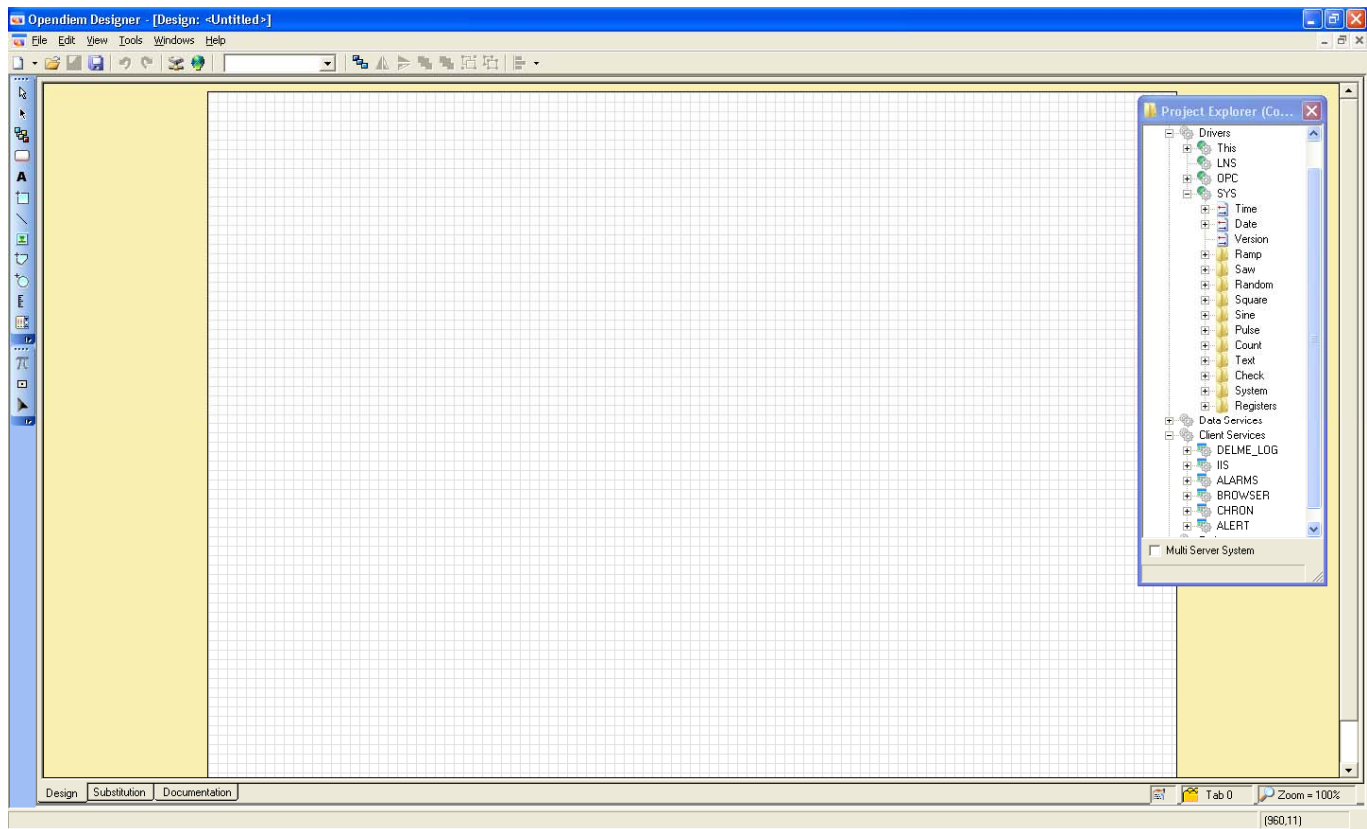
Designer

## Re-opening the project in Opendiem Designer

### Exercise Instructions

Ensure that Opendiem Manager is running on your Opendiem Server and if necessary restart it.

If necessary, re-open the previous project using Opendiem Designer. Your screen should look similar to the one below.



We will create a SmartComponent to represent a menu navigation system that can appear on each screen.



Engine



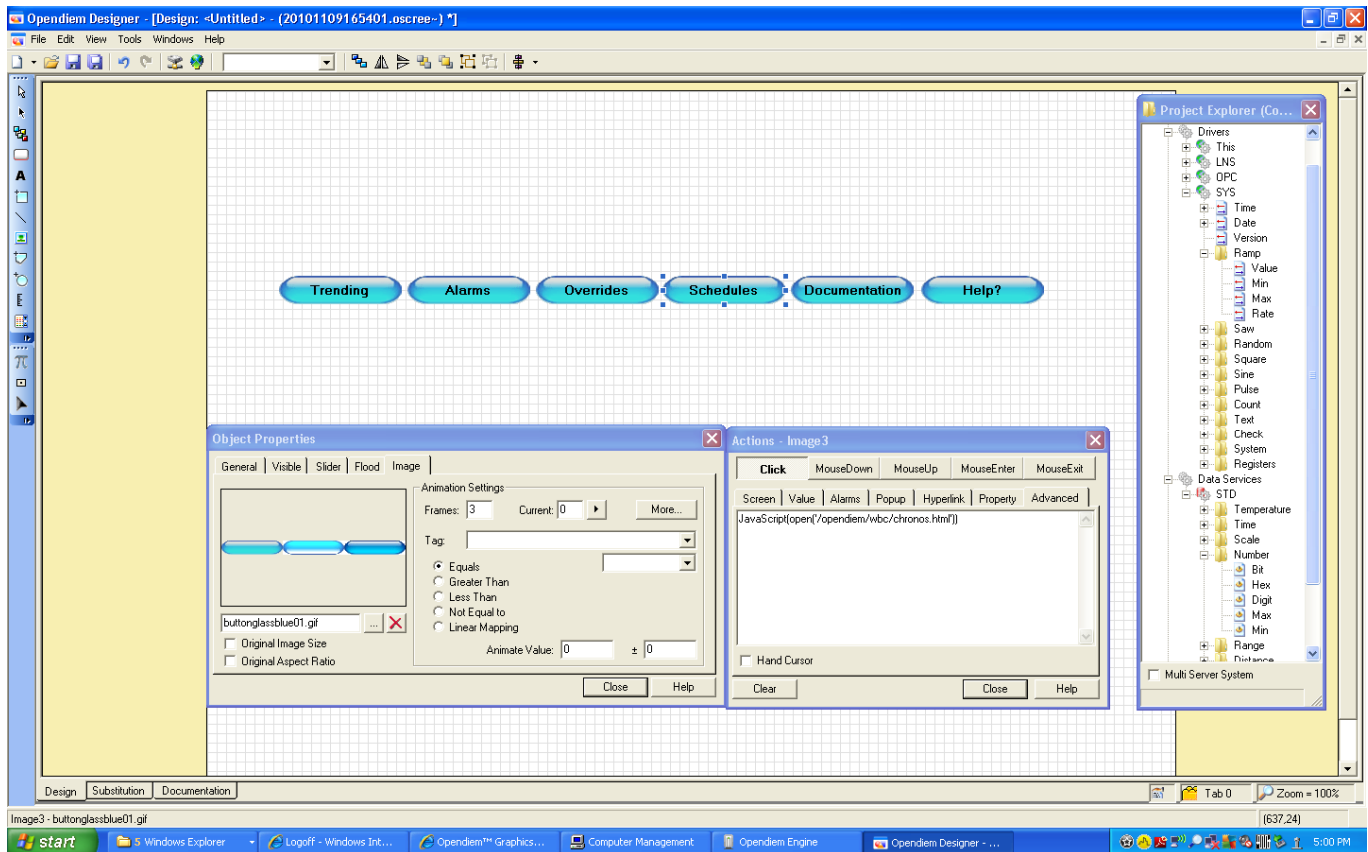
Connect



Designer

Opendiem-TRN-0006

## OPENDIEM TRAINING EXERCISE 6



Place buttons and text, along with all the required click Actions for the menu system on an Opendiem screen. Pay careful attention to the size and alignment of the individual items. All components must be on the same layer.

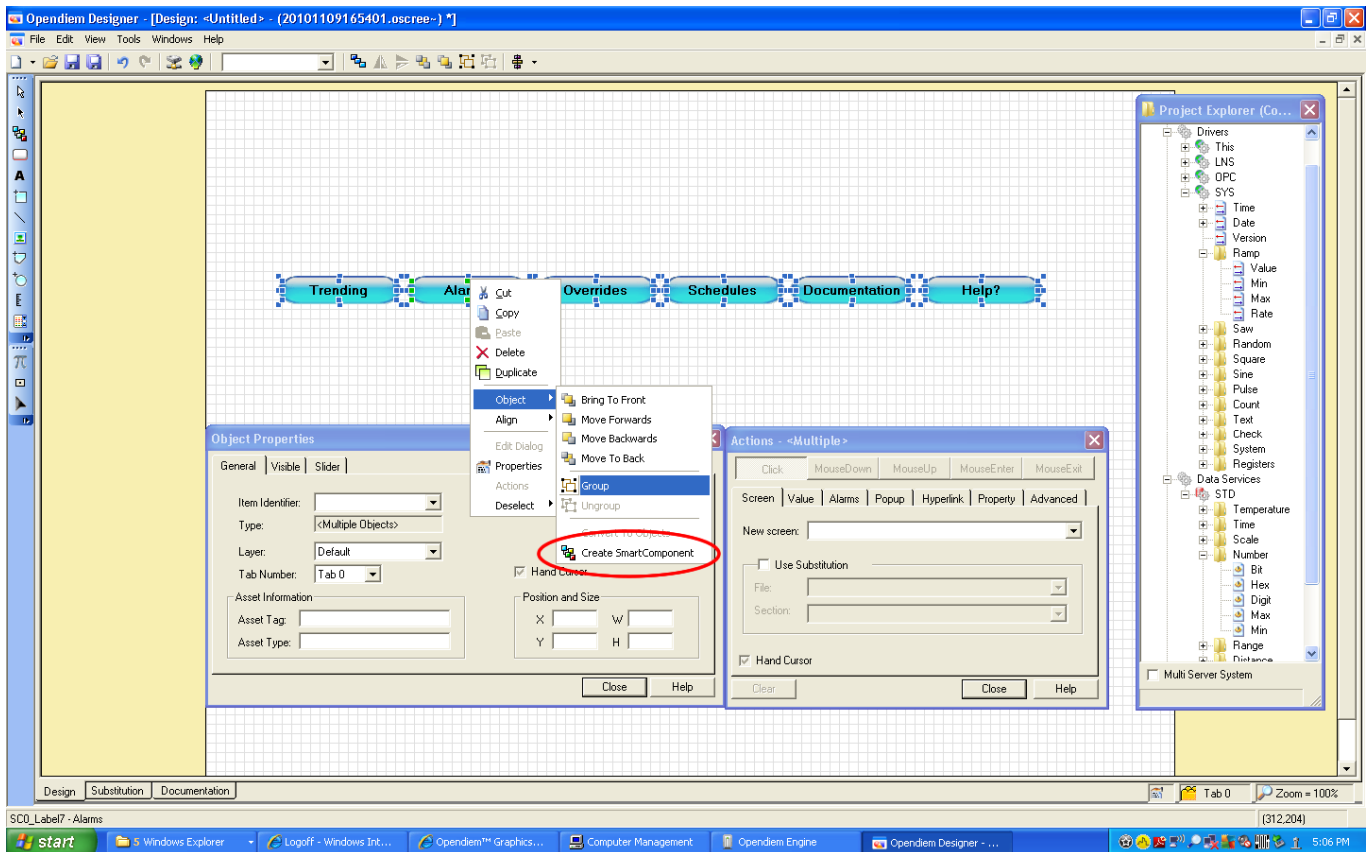
Select all components of the menu system by dragging around them with the selection tool. Right click on the selected group of components and choose Object > then Create SmartComponent from the context menu.



Engine Connect Designer

Opendiem-TRN-0006

**OPENDIEM TRAINING EXERCISE 6**



**This will open the Smart Component Wizard**

Select SmartComponent.  
Click Next>



Engine



Connect




Designer

Opendiem-TRN-0006

**OPENDIEM TRAINING EXERCISE 6**

**Create Smart Component**




Component

Component properties


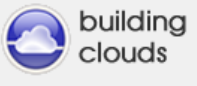
The Title property is used to identify the Component when selecting it from the list of available objects.

The File Name is used for storing the Component on the disk in the SmartComponent Library.

Cancel < Back Next > Finish

Enter a Title for the SmartComponent e.g. Navigation Menu01.  
Click Next>

**Create Smart Component**

Hints

Enter a hint that will be displayed when this Component is placed on a screen.

Hint Title:

Hint:

Cancel < Back Next > Finish

Enter a Hint - this is useful for other users who may wish to use this SmartComponent but are unsure how it works.  
Click Next>



Engine



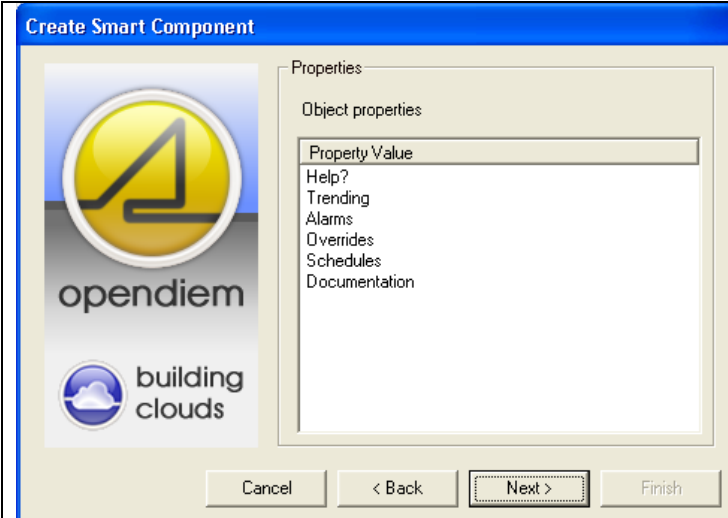
Connect



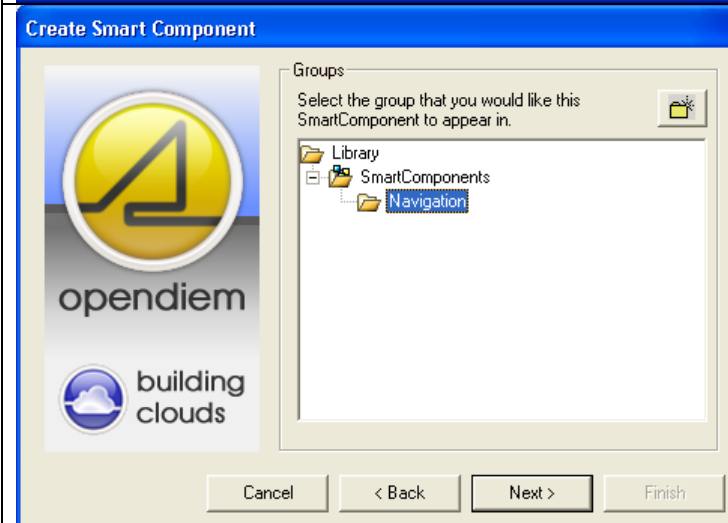
Designer

Opendiem-TRN-0006

**OPENDIEM TRAINING EXERCISE 6**



This shows the properties within the SmartComponent.  
 An images screen will also appear which lists all images used in the SmartComponent.  
 Click Next>



Select the Group that you wish the SmartComponent to be indexed with or create a new group.  
 Click Next>



Engine

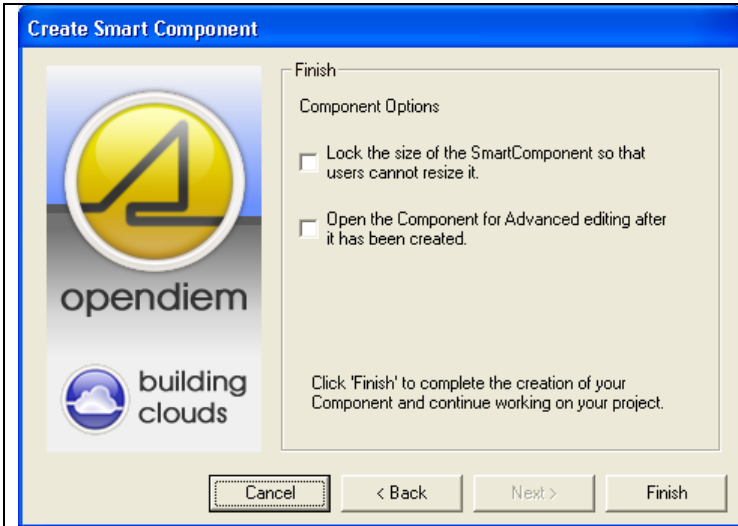


Connect



Designer

**OPENDIEM TRAINING EXERCISE 6**



Here you have two options:

1. Lock the size - this ensures that the SmartComponent is the same size every time it is added to a screen, ensuring consistency.
2. Open for Advanced editing - this will open the SmartComponent in Notepad as the source code that generates the SmartComponent.

Check both boxes and click Finish.

You will now have two Notepad documents open, one for Hints (Close this window) and the other for the SmartComponent, starting with code similar to:

```
Title=Navigation Menu01
Version=20101109172108
File=100
Extent(76,195,886,225)
Attrib=noresize
```

This File is located in the Project Library folder located at 'c:\Program Files\Building Clouds\Opendiem\Library'

**Example Syntax**

```
Title=Navigation Menu01
Version=20101109172108
File=100
Extent(76,195,886,225)
Attrib=noresize
```

Title is what is displayed in Designer

```
4("Image5")
Pos(756,195,886,225)
```

Attrib locks the size of the SC so that every time it is added to a screen the size will be consistent

This line give the constraints of the object, the first value is the left of the object, the second value is the top of the object, the third is the right of the object and the fourth is the bottom of the object.





Engine



Connect



Designer

**OPENDIEM TRAINING EXERCISE 6**

```

Image("", "buttonglassblue01.gif") Image placeholder
Animate(3,1,0,0,1) Image animated properties
P(0,100,0,100)
}
4("Image4")
Pos(618,195,748,225)
Image("", "buttonglassblue01.gif")
Animate(3,1,0,0,1)
P(0,100,0,100)
}
4("Image3")
Pos(482,195,612,225)
Image("", "buttonglassblue01.gif")
Animate(3,1,0,0,1)
P(0,100,0,100)
C(JavaScript(open('/opendiem/wbc/chronos.html'))) C=Click followed by the link associated with the click
Action
}
...Truncated for clarity.

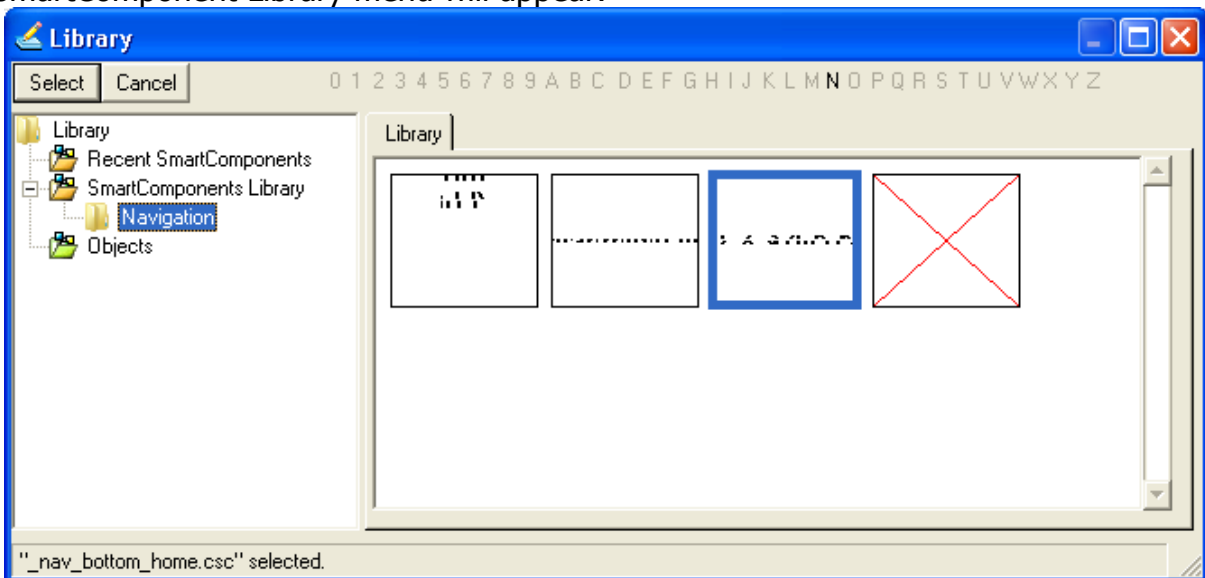
```

**To Place a SmartComponent on the Designer Screen**

Choose the SmartComponent icon from the Tool Menu



The SmartComponent Library menu will appear.





Engine



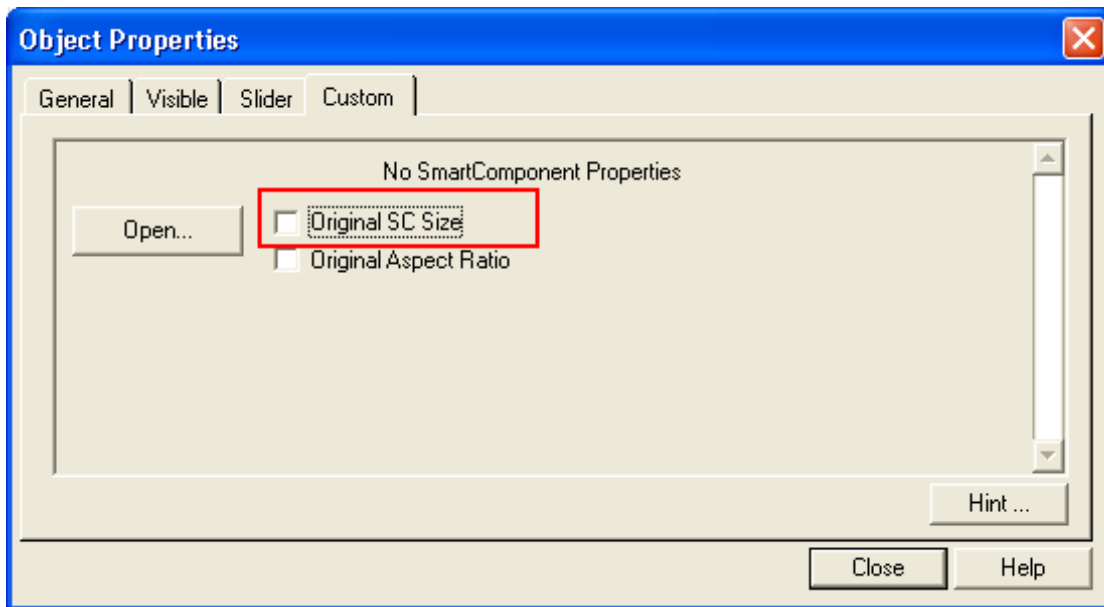
Connect



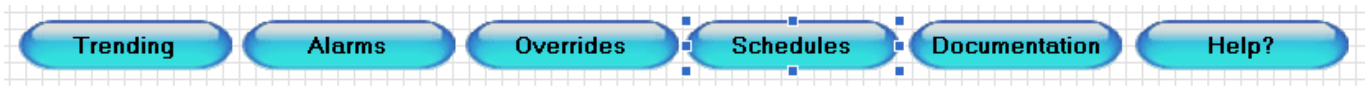
Designer

Choose the navigation menu thumbnail and click Select.

Drag the approximate shape and position of the SmartComponent on the screen. You will be able to position it exactly later.



From here you can choose to keep the original SmartComponent size, aspect ration, or open the SmartComponent for further editing.



Your SmartComponent can now be precisely placed on your screen.

**End of Exercise 6**

In this exercise you have created a simple SmartComponent that allows you to add pre-built components to an Opendiem design.

This exercise has however not fully explored some of the advanced features of SmartComponents, which are beyond the scope of this training class.



Engine



Connect



Designer

Opendiem-TRN-0006

---

**OPENDIEM TRAINING EXERCISE 6**

---

Notes:

---

---

**Version 5.00 November 2010**

All Rights Reserved. Copyright © 2010 Building Clouds. Information contained in this document regarding device applications is intended through suggestion only and may be superseded by updates. No representation or warranty is given and no liability is assumed by Building Clouds, Inc. with respect to accuracy or use of such information or infringement of patents arising from such use or otherwise. Use of Building Clouds products as critical components in life support systems is not authorized except with expressly written approval by Building Clouds. No Licenses are conveyed, implicitly or otherwise, under any intellectual property rights.

All Trademarks mentioned herein are the property of their respective companies

---

**Building Clouds**

3229 Whipple Road  
Union City, CA 94587

Email: [support@buildingclouds.com](mailto:support@buildingclouds.com)

<http://www.buildingclouds.com>