

Opendiem Training

Exercise 8

Opendiem-TRN-0008

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Released	RAC	11/18/2010	Updated format and content



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OPENDIEM TRAINING EXERCISE 8

Exercise 8 – Opendiem Designer Substitution

Introduction

This Exercise covers Opendiem Substitution a powerful feature of Opendiem that allows you to create an Opendiem screen once and automatically link in tag data based on a parameter.

Many projects have situations where the same controls are used multiple times, for example an office building may have several floors all with similar equipment or controls and hotels have multiple rooms with identical equipment. Substitution allows you to design your Opendiem screen once and use it for multiple areas by substituting the Tag values based on screen navigation.

Objective

In this exercise you will adapt a screen created in an earlier exercise to utilize substitution. You will create an index page which allows just two screens to represent many areas.



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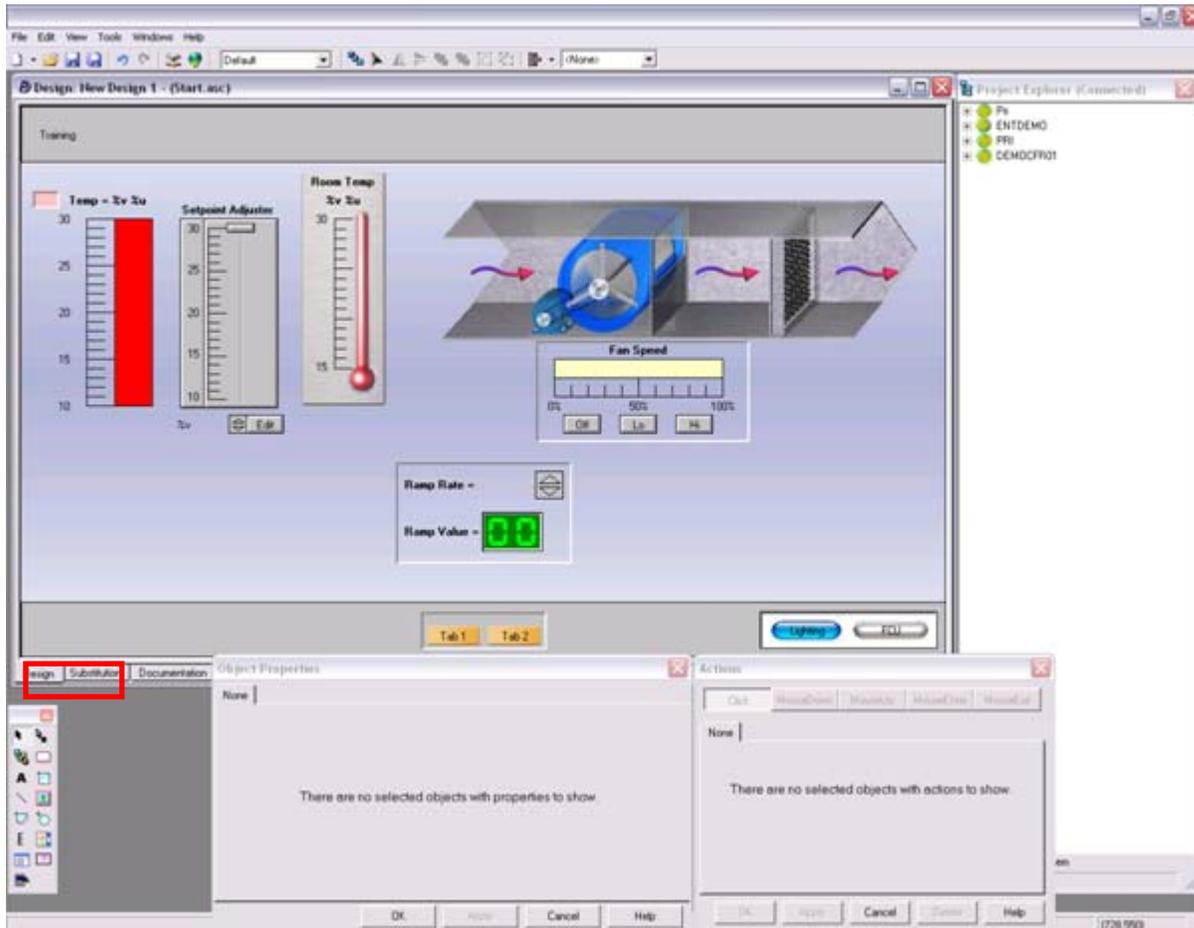
Designer

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.



Click on the Substitution tab to select it as shown above. In the substitution tab page there will be a single line containing ' [Default] ' this defines the substitution section to be applied if no section match is found. We will now add a substitution section for an example room 'Room 101'.



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In the substitution tab page add the following text under the ' [Default] ' section.

```
[Room1101]
node=fcx
description=Room Number 101
```

The above text defines a section header [Room101] followed by a node substitution, in this example we are substituting the node name 'fcx' for our token which we have called 'node'. You will see how this substitution works when we develop an index page.

The next line contains an additional substitution called description where we will substitute 'description' with our chosen text, in this example 'Room Number 101'.

The above is repeated for each instance where we wish to re-use our screen. E.g.

```
[Default]
node=error
Description=No Room

[Room101]
node=fcx
description=Room Number 101

[Room102]
node=Room 102
description=Room Number 102

[Room103]
node=Room 103
description=Room Number 103

[Room104]
node=Room 104
description=Room Number 104
```



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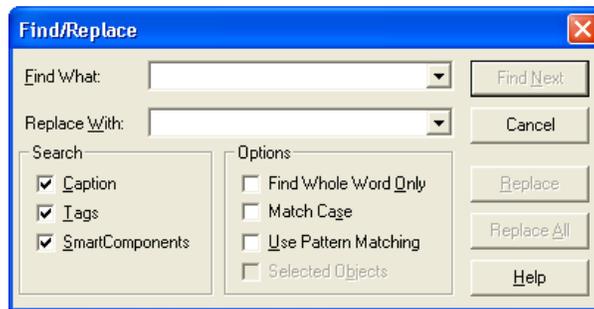
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The next stage is to edit each of the Tags in the design screen and replace the LNS node name with our substitution token. We will use Opendiem Designer's Replace feature to automatically replace all Tags with our substitution value.

Switch back to the design screen tab.

From the main menu in Designer select **Edit | Replace...**, the following dialogue will appear:



Enter the node name to find i.e. 'FCX' in the Find box and in the replace box enter the substitution value i.e. '\$ [node]'. This is the field name defined in our substitution file enclosed by '\$ []'.

Select **Replace**. When Designer finds a match it will display the dialogue where the match occurs, click **Replace** for all instances of the text.

We will now add a title section to show our user which room they are currently viewing using the 'description' substitution. Add a label to the screen containing the description substitute value enclosed in '\$ []' i.e '\$ [description]' as shown below.

Save the file.



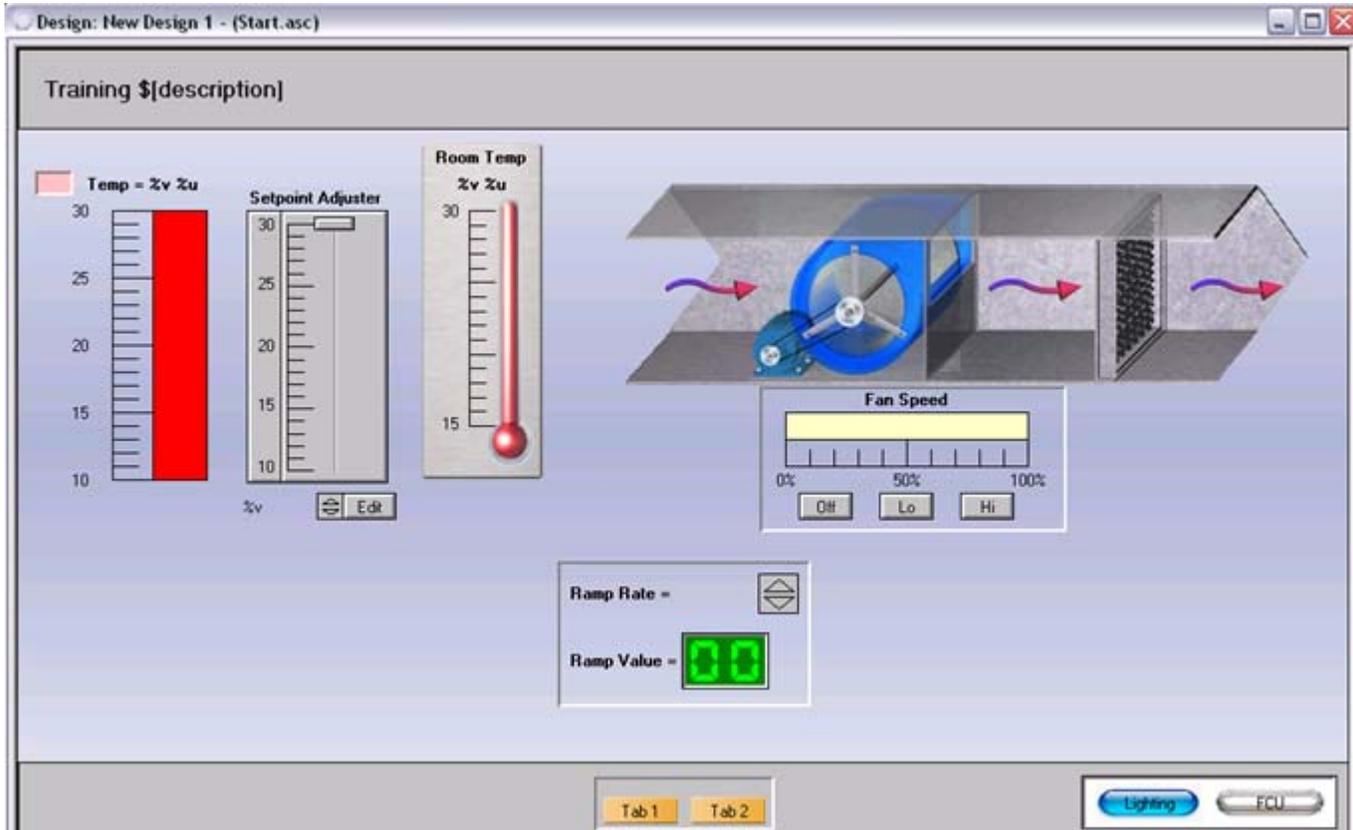
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We will now add a new screen to the project that will contain the index page.

Create a new screen by clicking on the New Item button on the toolbar.



The Screen Properties dialogue box will appear, enter a screen title e.g. 'Substitution Index' and click 'OK'.

In the new screen add a Button control.

Select the 'Click Action' properties for the button, on the **New screen** tab select the 'start.oscreen' file (or the .oscreen file containing your screen with substitution). Check the **Use Substitution** box. Designer will automatically select 'start.sub' as the substitution file to use; in the 'Section' drop down list select the section for this button i.e. 'Room 101' as shown below. This instructs Opendiem to use this substitution section when this particular button is selected.



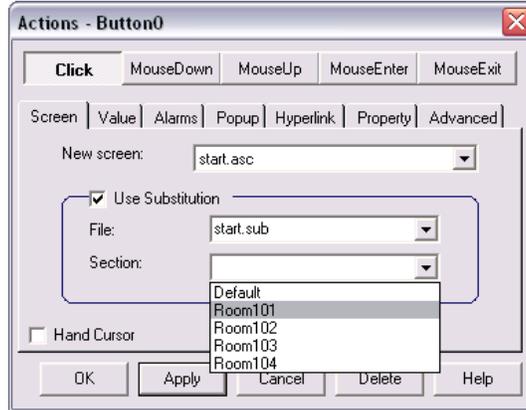
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Duplicate the button for as many times as the substitution needs to be applied and edit the substitution section for each button. Your screen should be similar to the one below.

Save your work.

Note that for simplicity we have used buttons here as our method of selecting which area to view, however we could equally have defined 'hot spots' on a floor plan as our selection method.



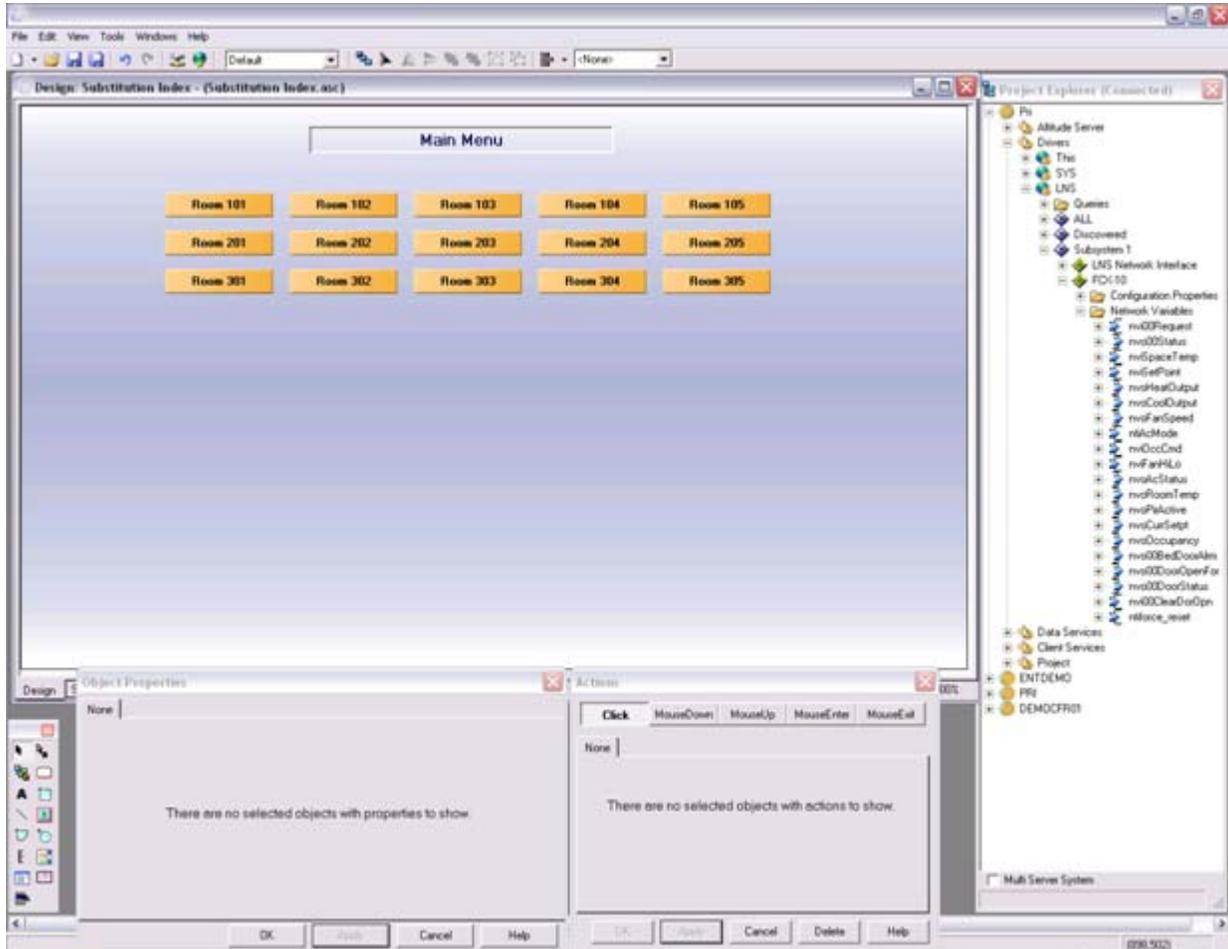
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Return to the main 'start.oscreen' file and place a navigation button to allow you to return back to the 'index.oscreen' screen.

To test the substitution, first change the default start page to 'index.oscreen' as shown below:



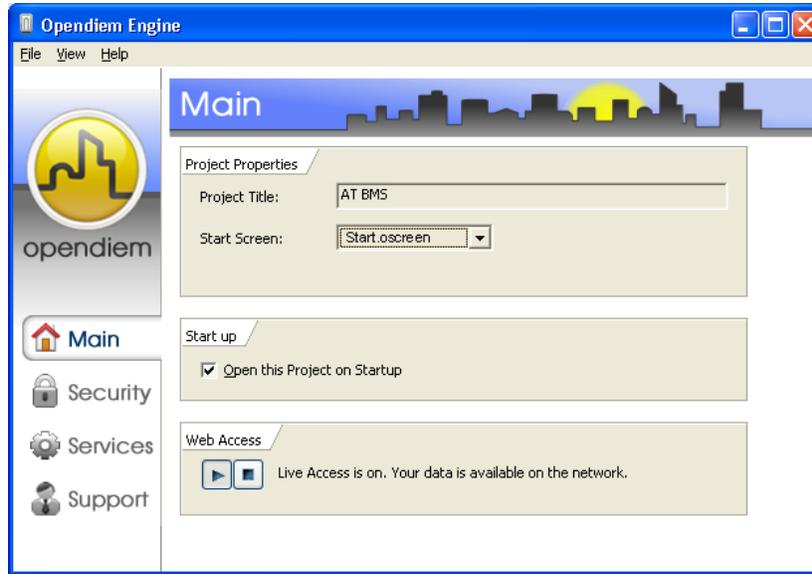
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Start a browser connection and test your substitution, your screen should look similar to the one below, ensure that the title text correctly shows the room number for the index button selected.



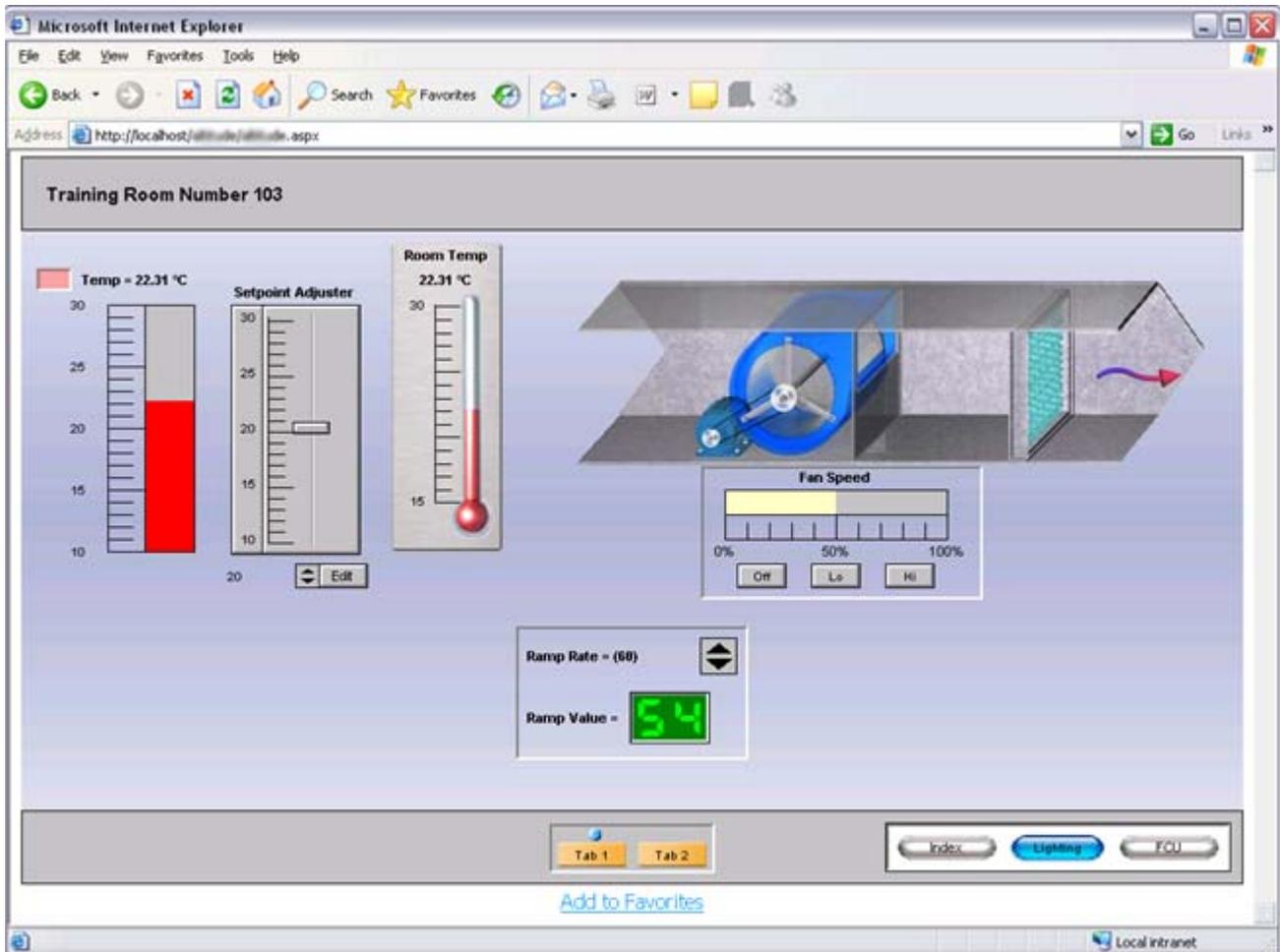
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End of Exercise 8

In this exercise you have created a substitution file for a screen that allows a single design screen to represent many different areas by substituting the node Tag parameter for one selected by a navigation command. This feature of Opendiem can dramatically reduce the amount of engineering effort required to implement a project where the site uses the same or similar equipment multiple times such as in an office floor, factory or hotel.



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Notes:

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