

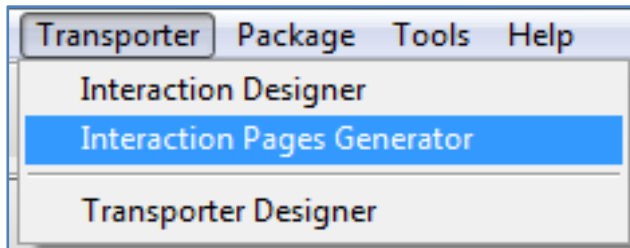
Creating New VPL (Visual Programming Language) for PWCT – Lesson (9)

In this lesson we are going to learn how to write the code mask script that can format our code to show the nested structure of the source code.

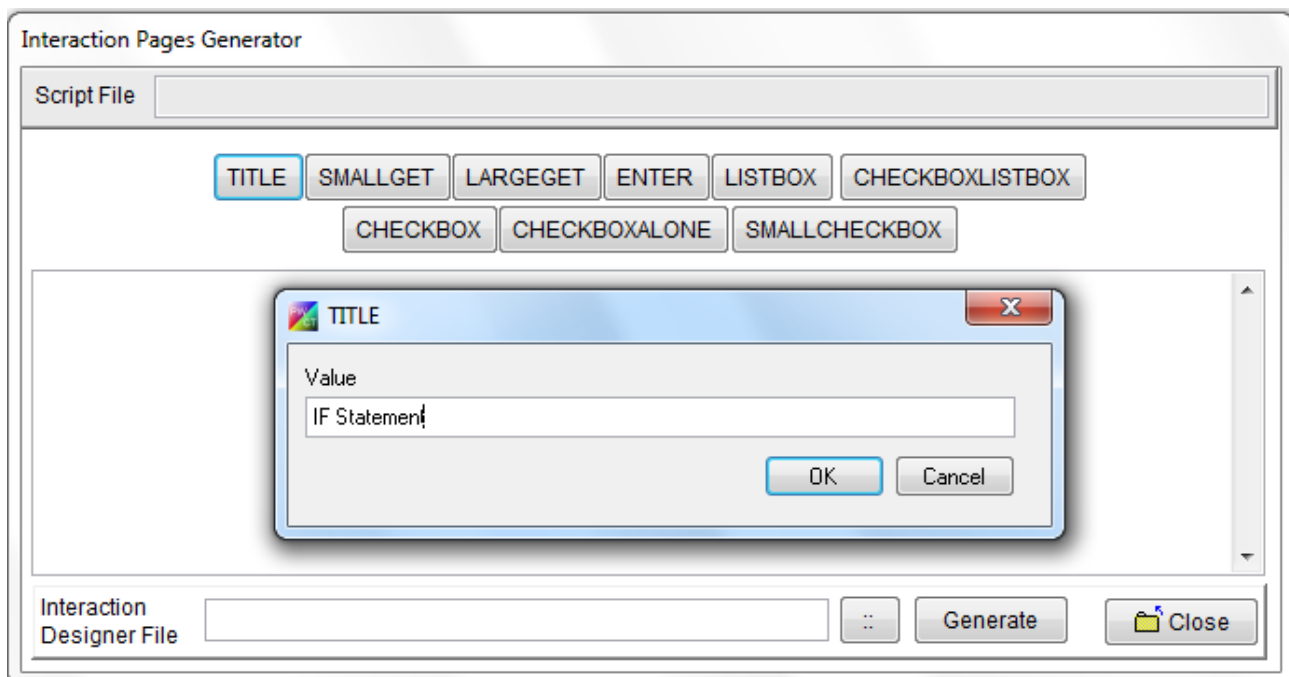
for example we want to put a tab after something like if statement as shown ,and after these statements we need to avoid the tab , so to add a tab in the code mask script we use the Command **<RPWI:TABPUSH>** and to avoid the tab we use the command **<RPWI:TABPOP>**

```
If (condition )
{
  <RPWI:TABPUSH>
    Statement 1
    Statement 2
    Statement 3
  <RPWI:TABPOP>
}
```

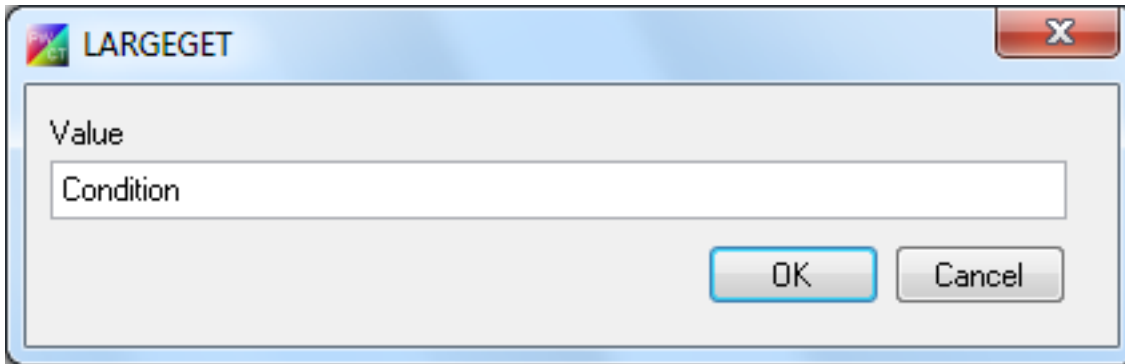
Now we learn how to do this, move to the **Transporter** menu then select **Interaction Pages Generator** to create a new interaction page.



Click the **TITLE** button to determine the title of the interaction page for example (IF Statement)



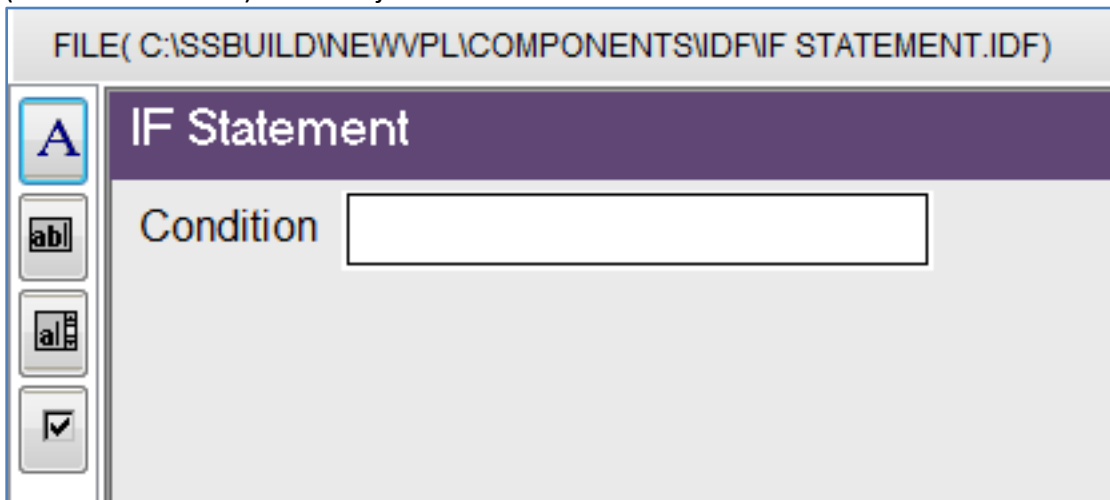
The (If Statement)will accept the parameter for the condition so click on the **LARGEGET** button to add a label and a textbox to determine the this parameter



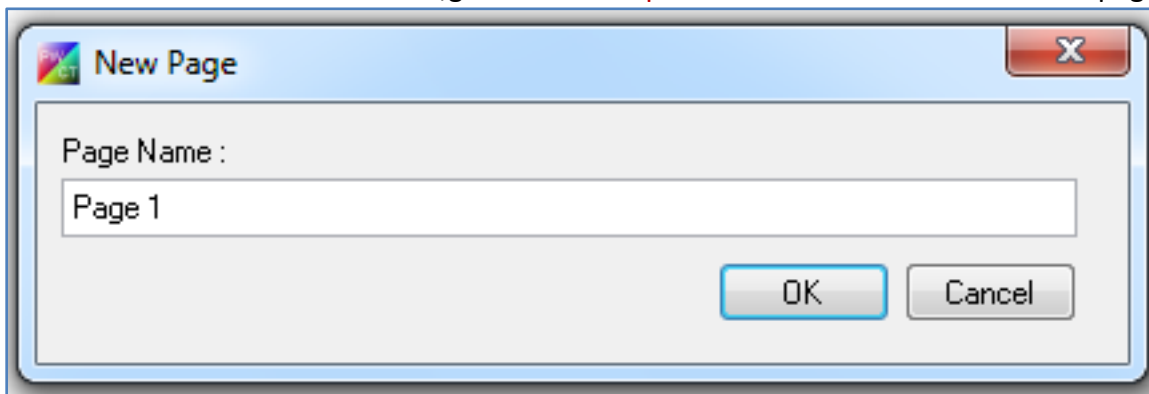
Save the interaction script file in the folder **ISF(Interaction Script Files)** SSBUILD\NewVPL\Components\ISF and name it for example (**IF Statement.ISF**)

the generated interaction page will be saved into the folder IDF(Interaction Designer Files) SSBUILD\NewVPL\Components\IDF , name it for example (IF Statements.IDF) , then click on the **GENERATE** button to generate the interaction page then close

you can check the interaction page using the interaction designer , move to the Interaction tab and open the file (IF Statements.IDF) we have just a textbox to determine the condition



Now we will write the code mask ,go to the **Transporter** tab and add the interaction page (page1)





Select the interaction designer file (**IF STATEMENT.IDF**), then move to the **Code Mask** tab to write the code mask script

```
<RPWI:NEWSTEP>IF (<T_Condition>)  
if(<T_Condition>)  
{  
<RPWI:TABPUSH>  
<RPWI:PUTMARK>2  
<RPWI:SETMARK>2  
<RPWI:NEWSTEP>Start Here  
<RPWI:NEWSTEP>End of if statement  
<RPWI:TABPOP>  
}
```

Create new step using command **<RPWI:NEWSTEP>IF (<T_Condition>)** ,step name is (**IF**) and the variable (**<T_Condition>**) for the condition

Now we want a tab after the new prase so we use the command **<RPWI:TABPUSH>**

Then we want to create a sub step using the command **<RPWI:PUTMARK>2** and the command **<RPWI:SETMARK>2**

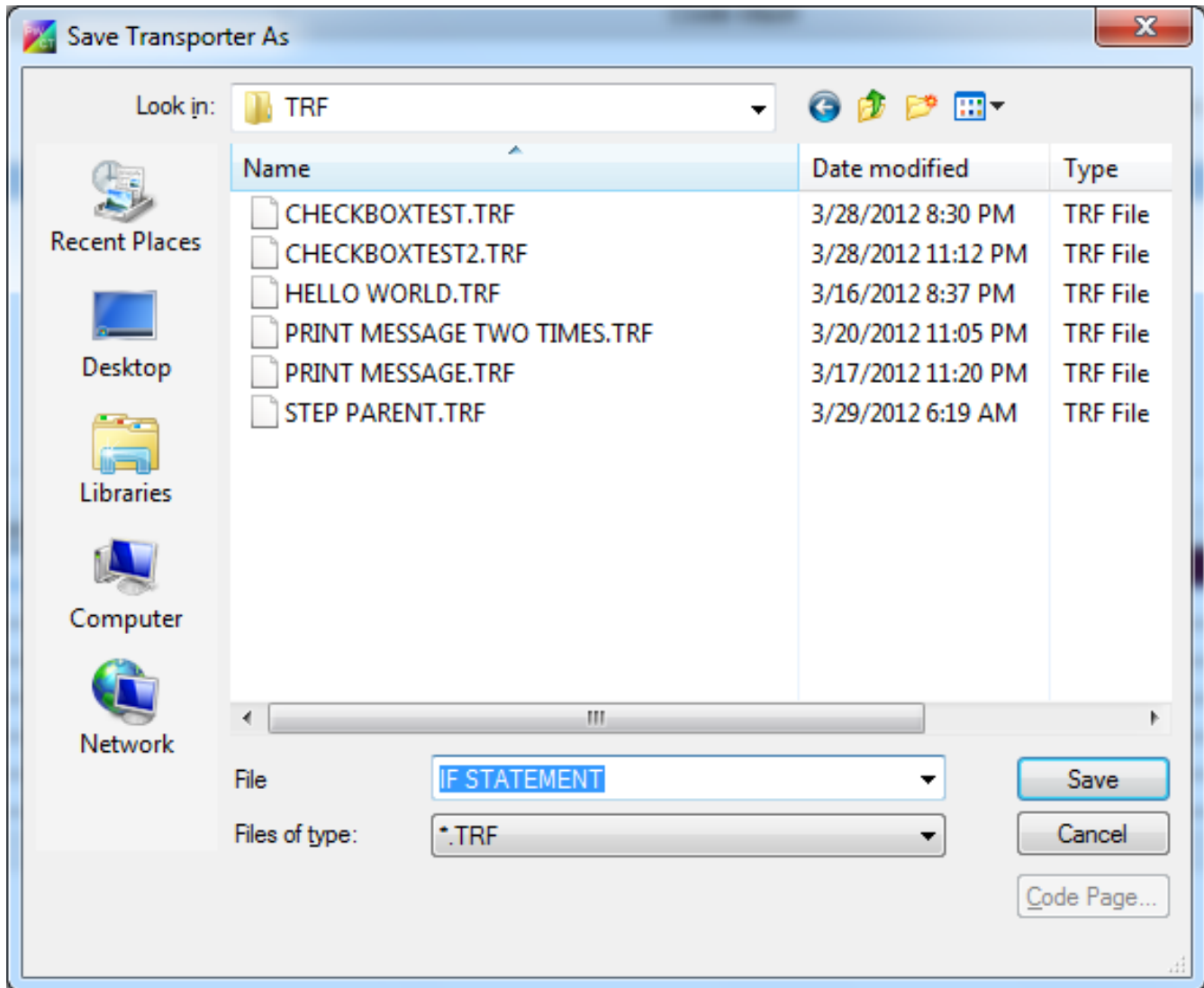
Then create new step for Start Here using the command **<RPWI:NEWSTEP>Start Here**

And new step for End of if statement using the command **<RPWI:NEWSTEP>End of if statement**

Finally we use the command **<RPWI:TABPOP>** then write (**}**) to close the if statement

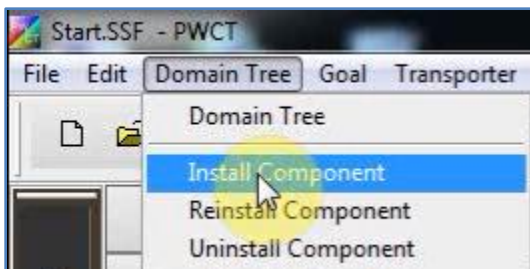
Now move to the matching tab to match between the variable from interaction page (**D_TB_Condition**) and the variable from the code mask (**<T_Condition>**)

Then save the component into the (**TRF**) folder **C:\SSBUILD\NewVPL\Components\TRF** and name it for example (**IF STATEMENT.TRIF**)



Now save and close

Now we will install the component to do this, click (**Domain Tree**) then select (**Install Component**)





Component name: IF Statement

Component file: C:\SSBUILD\NEWVPL\COMPONENTS\TRF\IF Statement.TRF

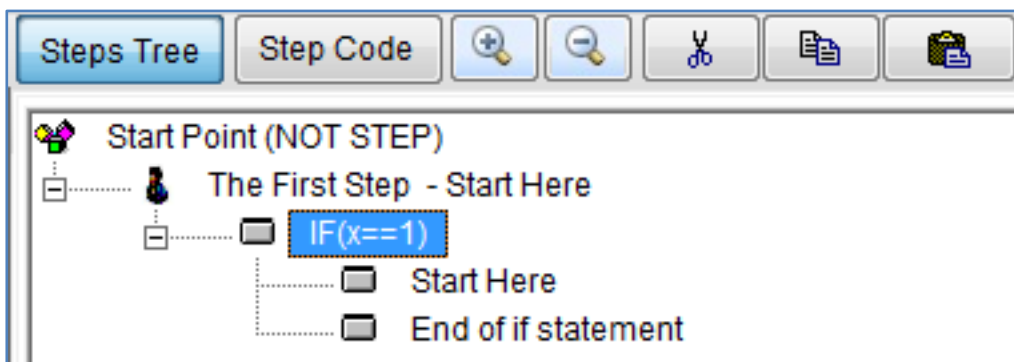
Domain: Control Structure

The 'Install Component' dialog box contains three input fields: 'Name' with the value 'IF Statement', 'File' with the value 'C:\SSBUILD\NEWVPL\COMPONENTS\TRF\IF STATEME', and 'Domain' with the value 'Control Structure'. Each field has a browse button (three dots) to its right. At the bottom are two buttons: 'Install' with a folder icon and 'Close' with a trash can icon.

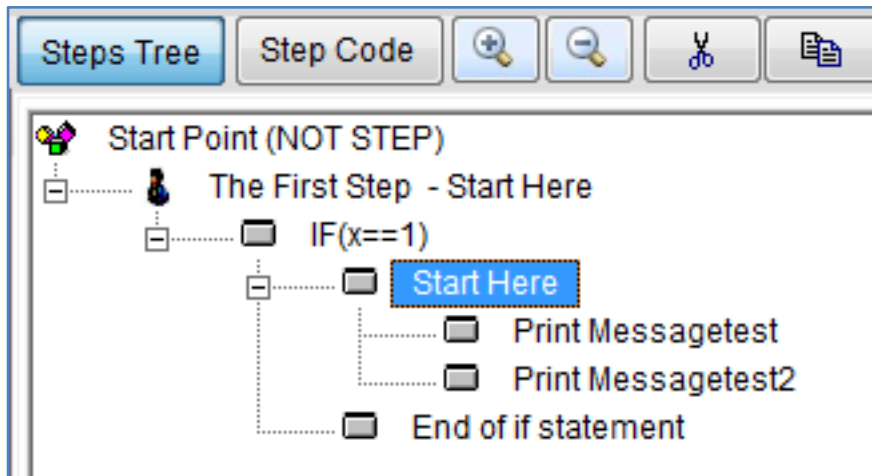
Click install , and now it is the time for test our component

click interact  then select the **Control Structure** domain then select **IF Statement** , for example (x=1)

The 'IF Statement' configuration window has a title bar 'FILE(C:\SSBUILD\NEWVPL\COMPONENTS\IDF\IF STATEMENT.IDF)'. Below the title bar is a dark purple header with the text 'IF Statement'. Underneath is a 'Condition' label followed by a text box containing the expression 'x==1'.



Now create statements inside the Start Here block for example

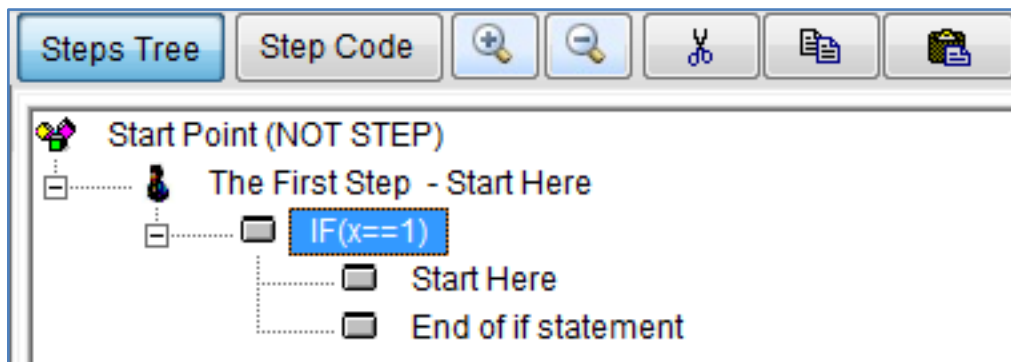


Now click run to show the generated code

```
if(x==1)
{
    test
    test2
}
```

We find that tab her after if statement and in the last (in the end of the if statement) it will remove the tab

Now when we use the if statement component we see that the active step after using the component is the if statement like this



But we want to set the active step to be (Start Here) , so we will modify our component and we will change the code mask script to be able to use the Start here step directly after creating the if statement so open the IF Statement component

Code :

```
<RPWI:NEWSTEP>IF(<T_Condition>)
if(<T_Condition>)
{
<RPWI:TABPUSH>
<RPWI:PUTMARK>2
<RPWI:SETMARK>2
<RPWI:NEWSTEP>Start Here
<RPWI:PUTMARK>3
<RPWI:NEWSTEP>End of if statement
<RPWI:TABPOP>
}
<RPWI:SETMARK>3
```

Just we will use the command **<RPWI:PUTMARK>3** for the step start here then use the command **<RPWI:SETMARK>3** in the end of the script to activate the start here step

Then save and close

Now when we use the IF Statement we see that the active step is (Start Here)

