

# Limnor Studio – User’s Guide

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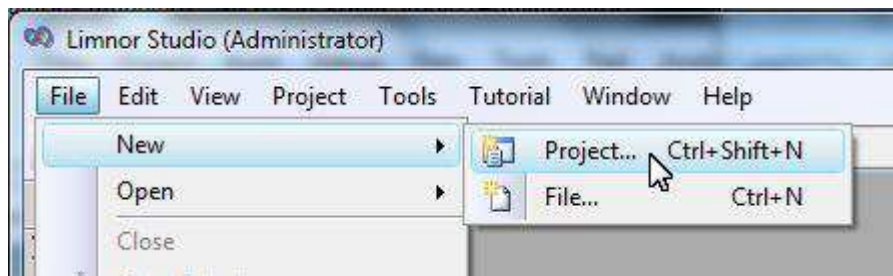
## *Screensaver*

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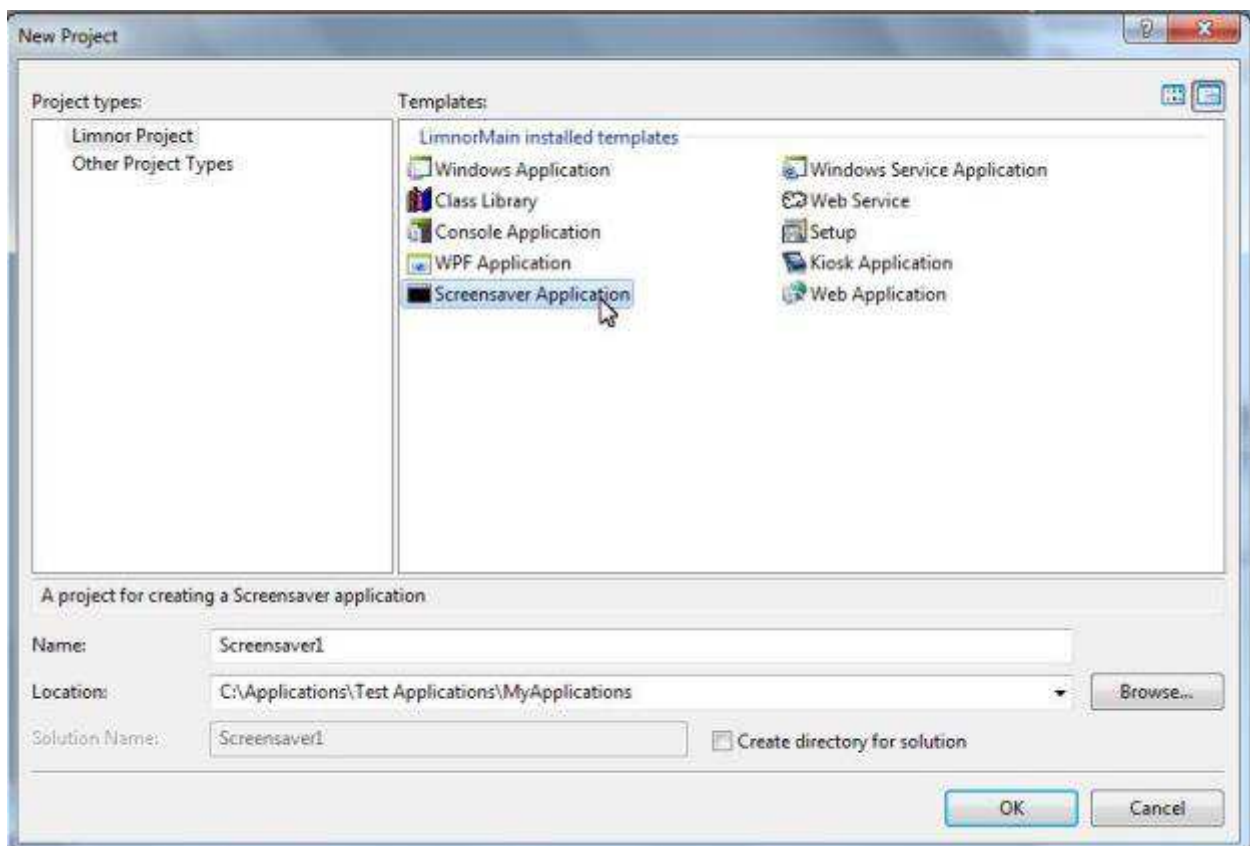
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## 1 Create Screensaver Project

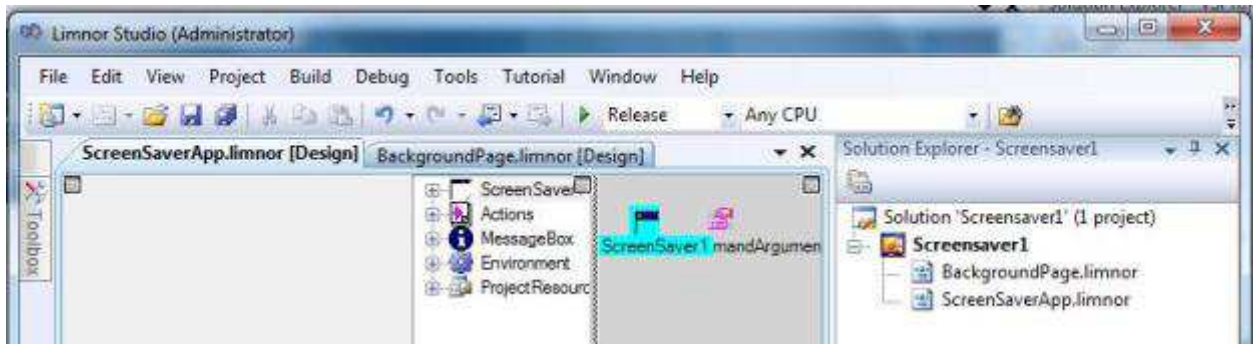
Create a new project:



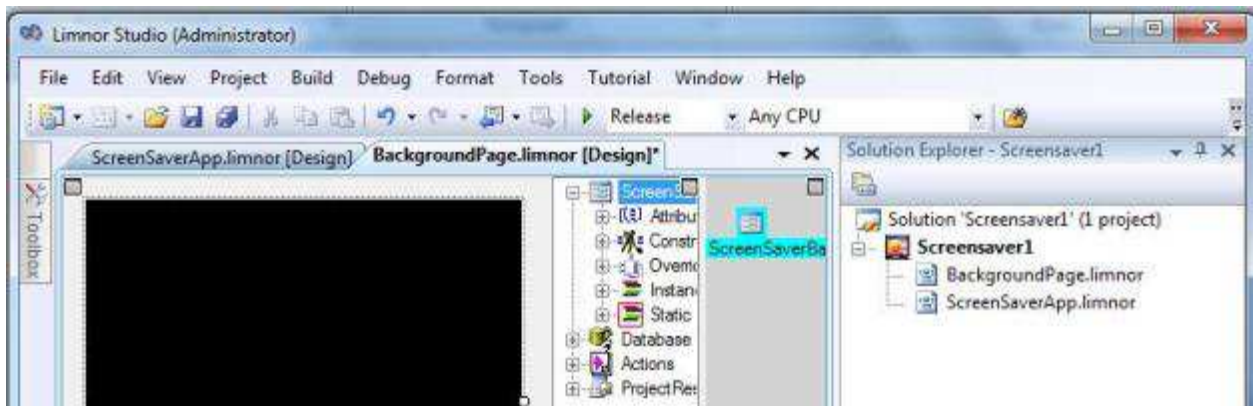
Select Screensaver Application and give it a name:



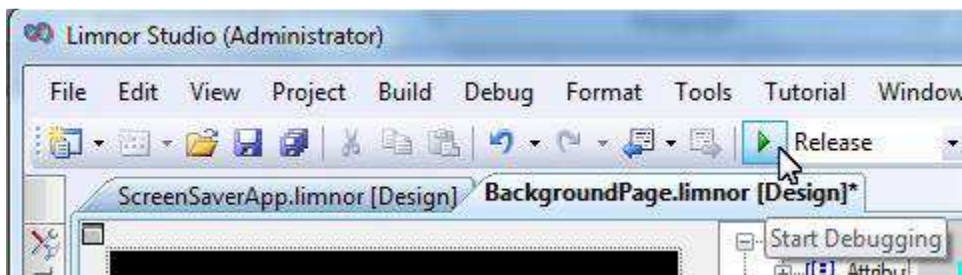
The Screensaver project initially contains two objects. One is the screensaver application:



The other object is a background form. It is a empty form with black background:



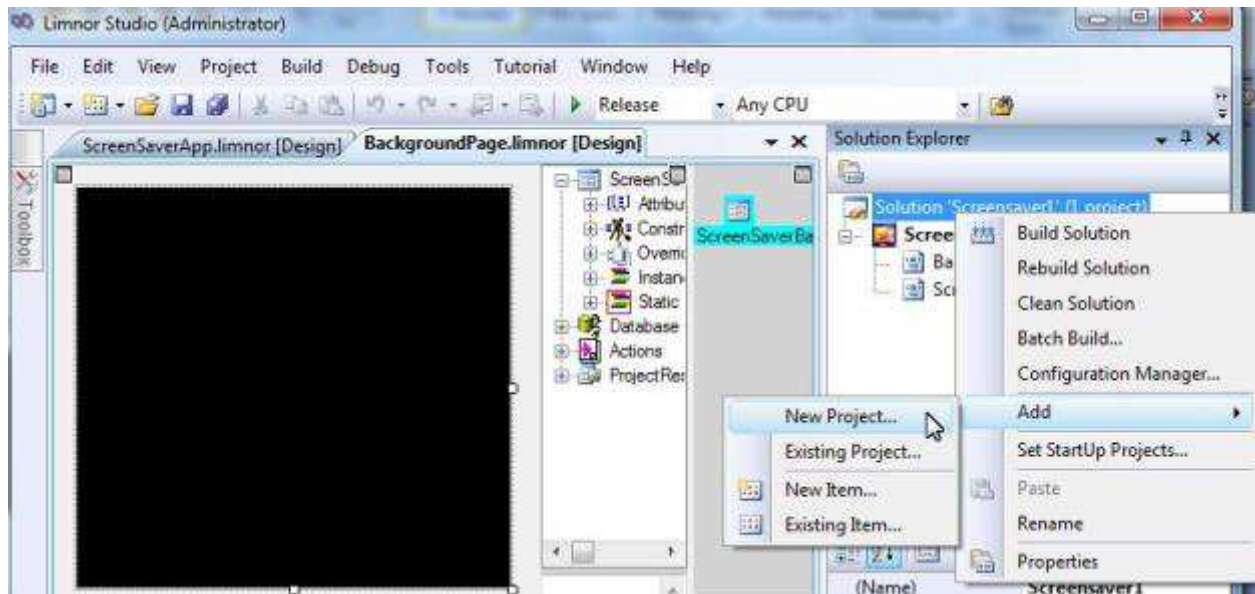
Test this application:



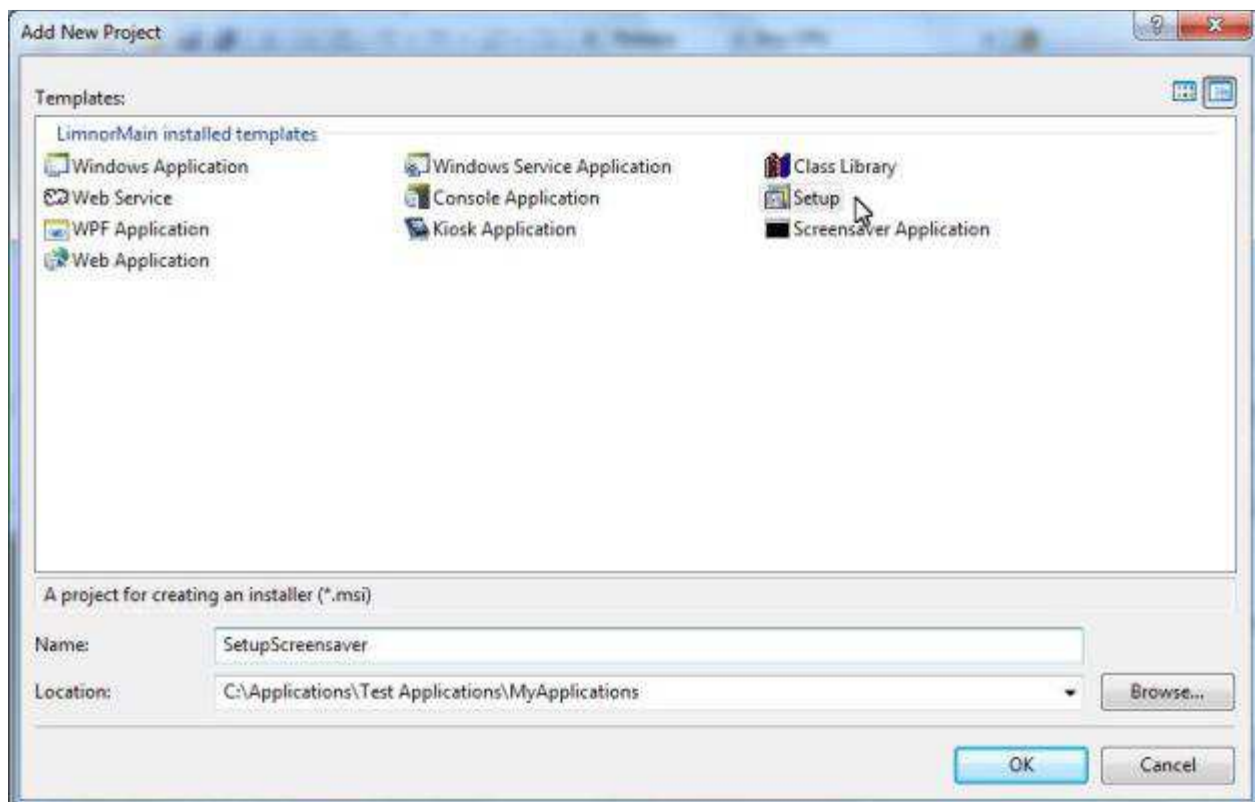
The screen becomes black. Move mouse pointer. The application closes.

## 2 Distribute Screensaver

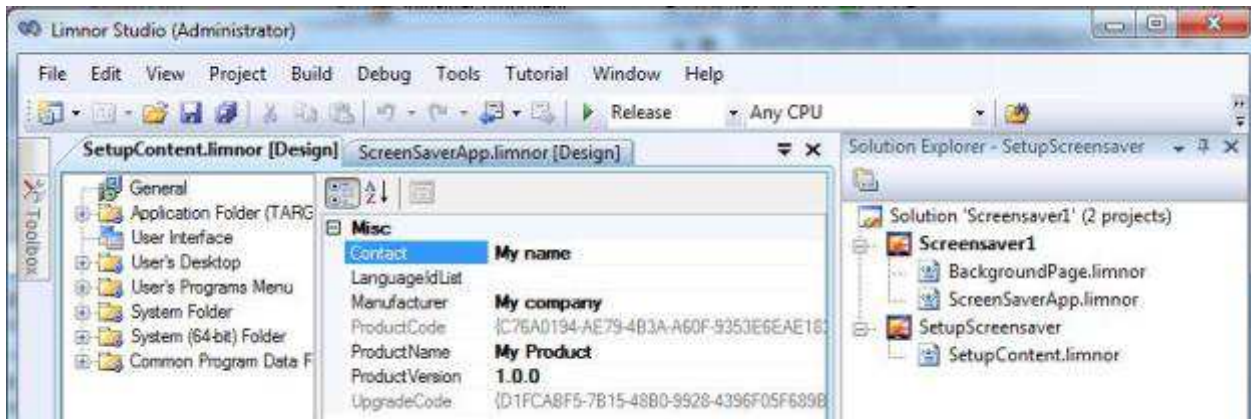
Add a new project to the solution:



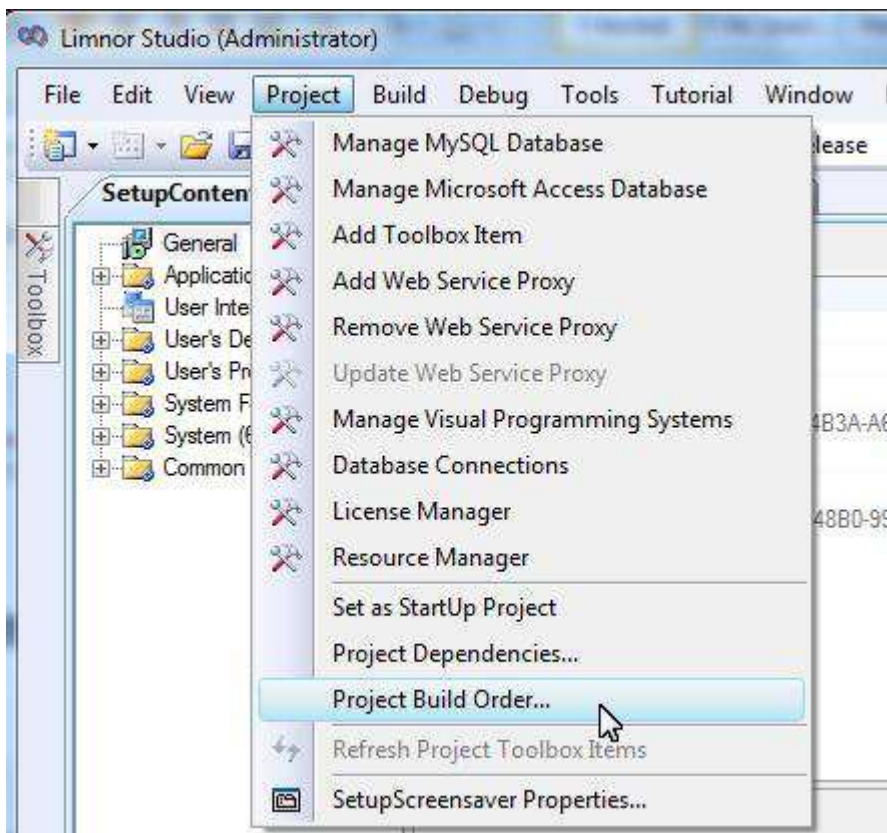
Select Setup and give a project name:



Enter the product name and company name for the setup project:

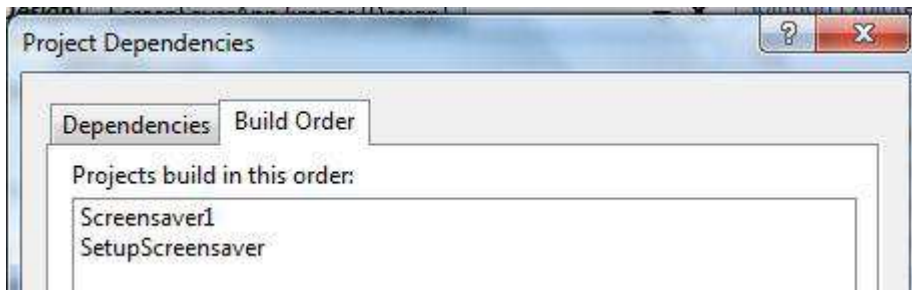


Check Project Build Order to make sure that the setup project is the last one to build:

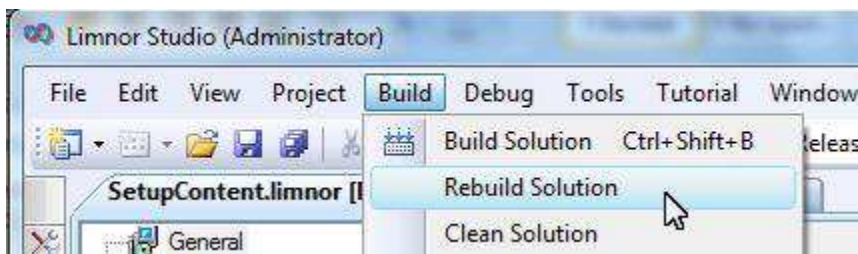


Let the setup project depends on the screensaver project so that the screensaver project will be built first and the setup project be built last:

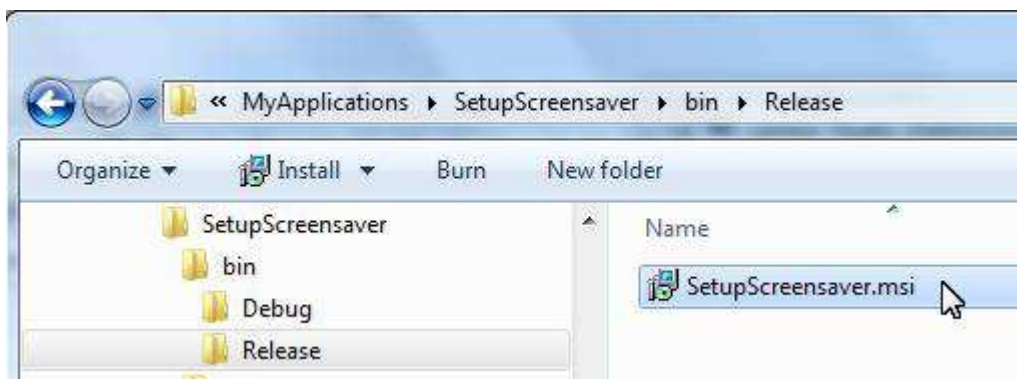




Build the solution:



An installer for the screensaver is created:



This msi file can be distributed to users. Run this msi on the users' computers to install the screensaver.



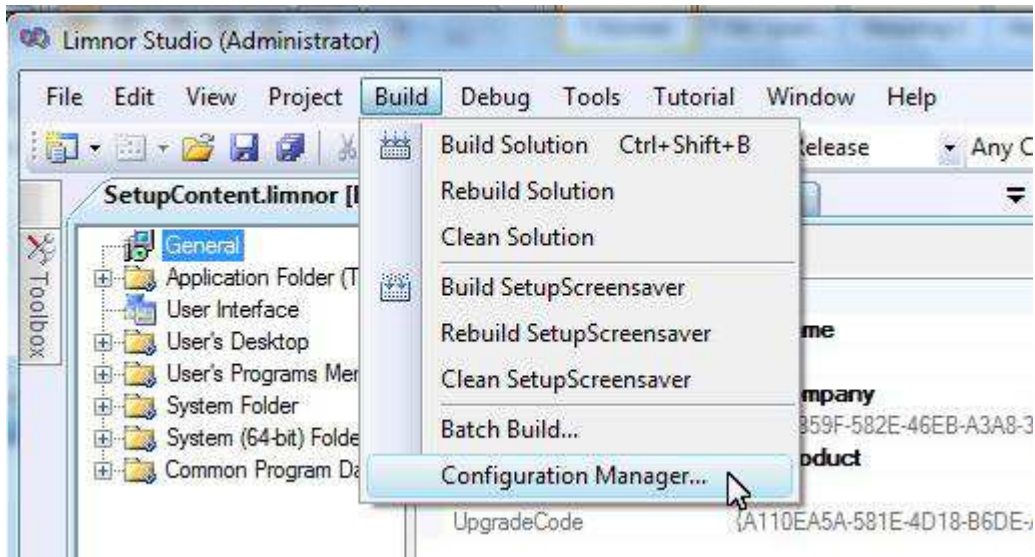
Once installed, the screensaver can be selected:



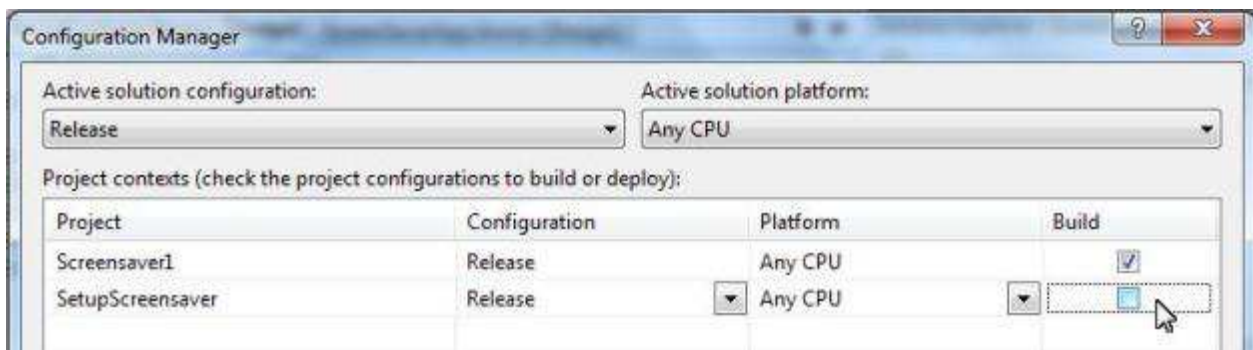
### 3 Test Before Distribute

Once the setup project is added to the solution, we need to turn off the compiling for it so that we may test the screensaver during development:

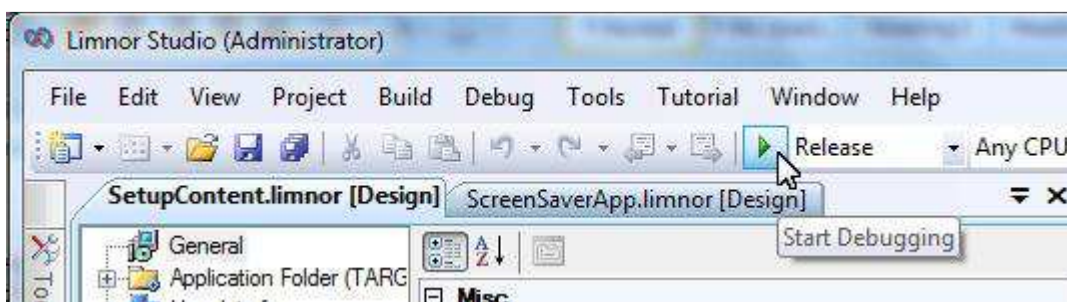




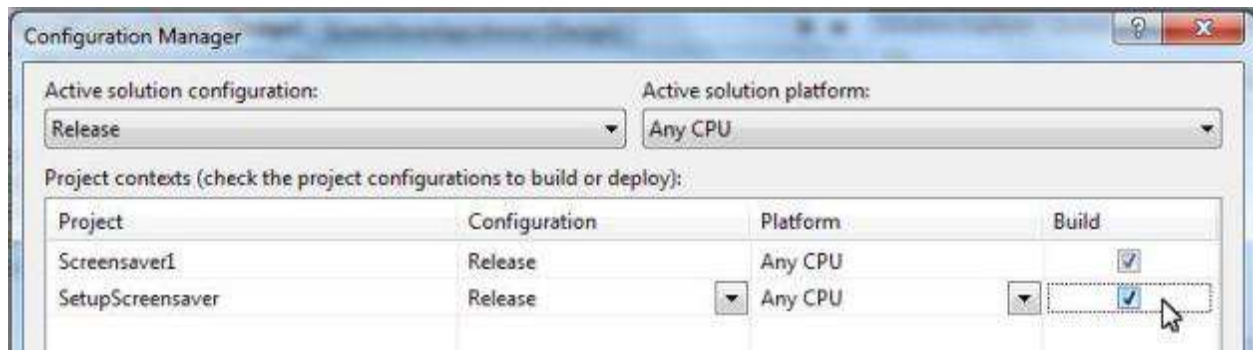
Uncheck the Build of the setup project:



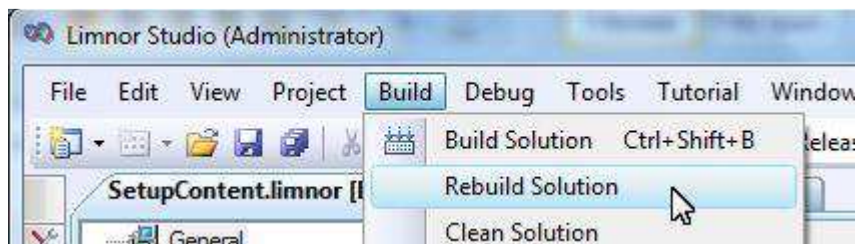
Now we may start debugging the screensaver:



When it is ready to distribute the screensaver, check the Build of the setup project:



And build the solution to create the msi file

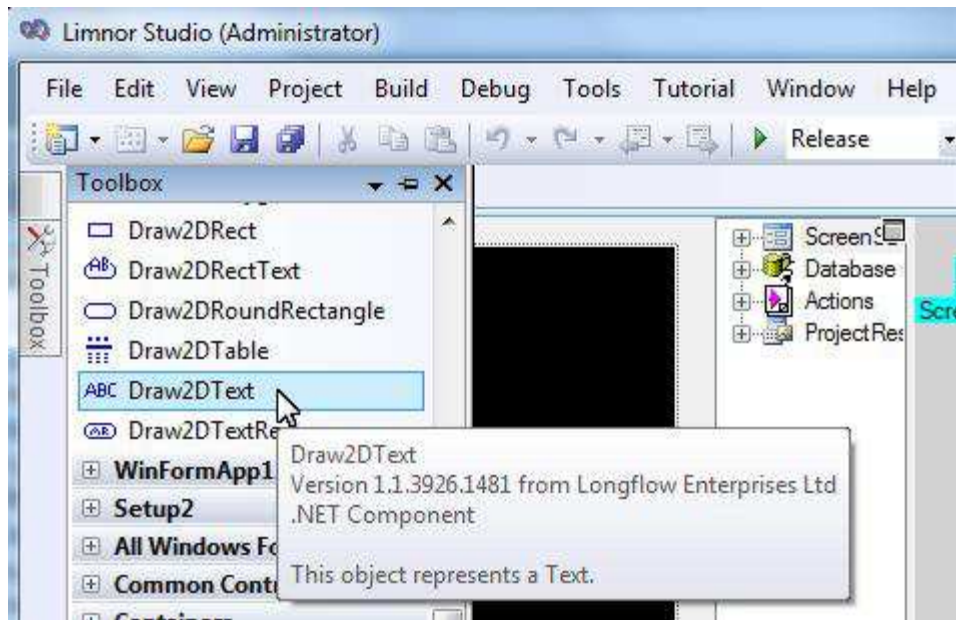


## 4 Develop Screensaver

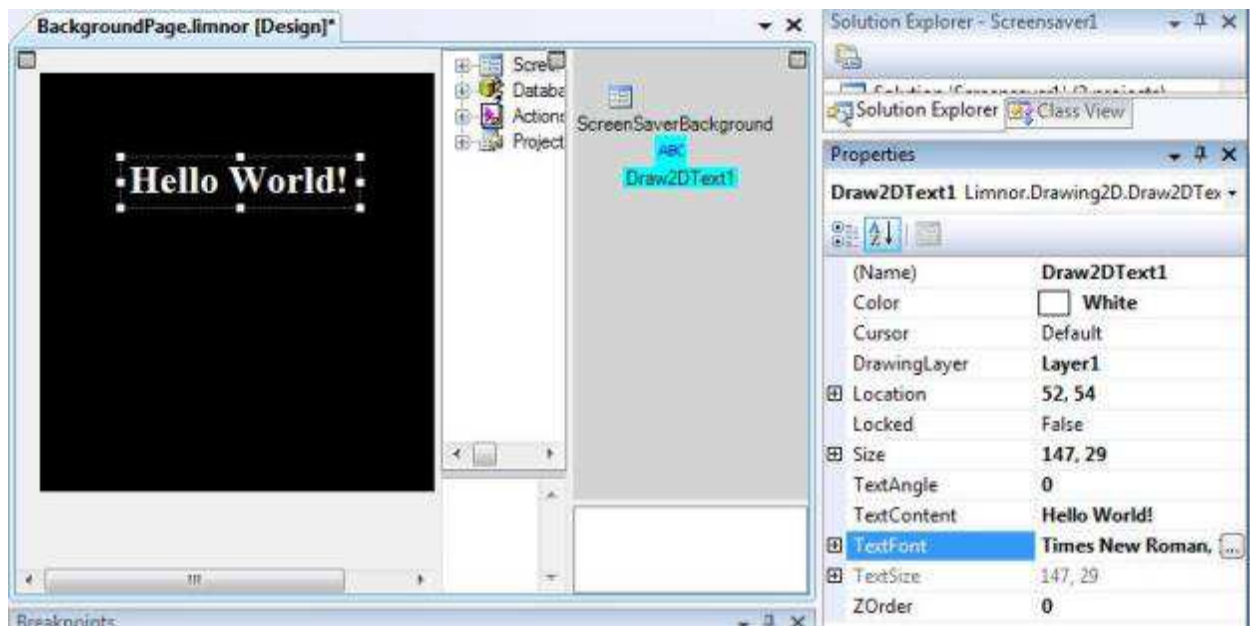
We have created a blank screensaver. You may use your innovation and imagination to create various screensaver displays. Note that this part of programming is not specific to screensavers. For example, make drawings, use Media Player to play videos, or use Flash Player to play flashes, etc. See “How to ...” in <http://www.limnor.com>

As an example, we create a moving text.

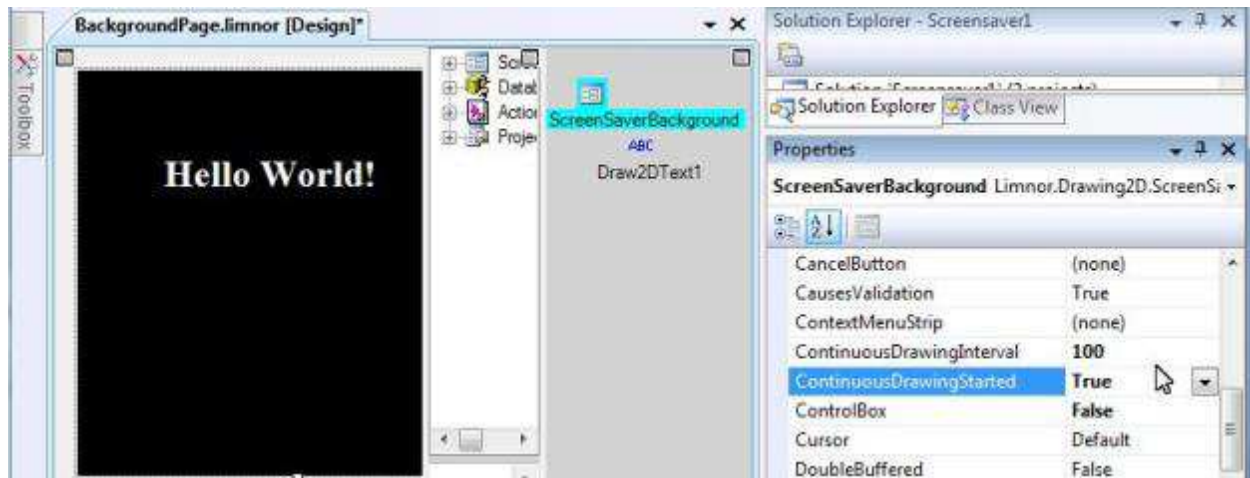
Add a text to the screensaver background form:



Set TextContent, Color and TextFont properties:

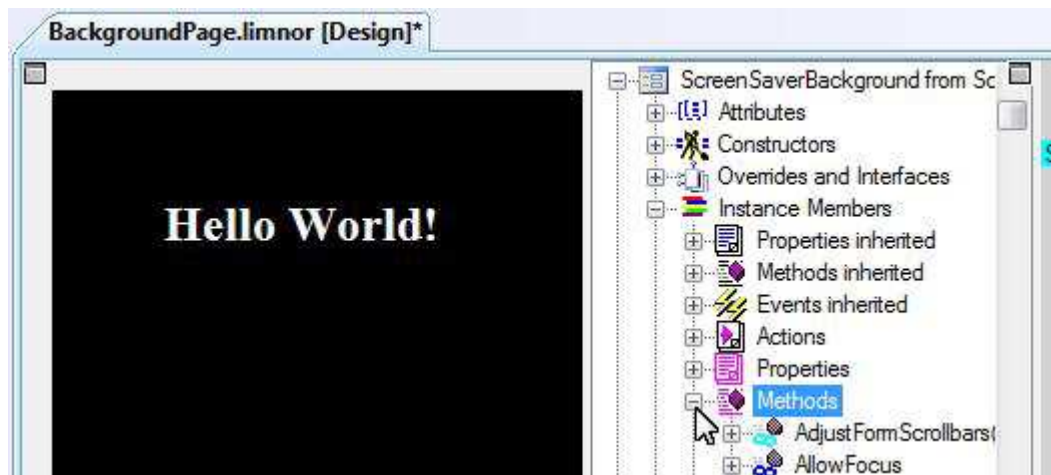


Set ContinuousDrawingStarted to True ContinuousDrawingInterval and to 100 so that every 0.1 second the form repaints itself.

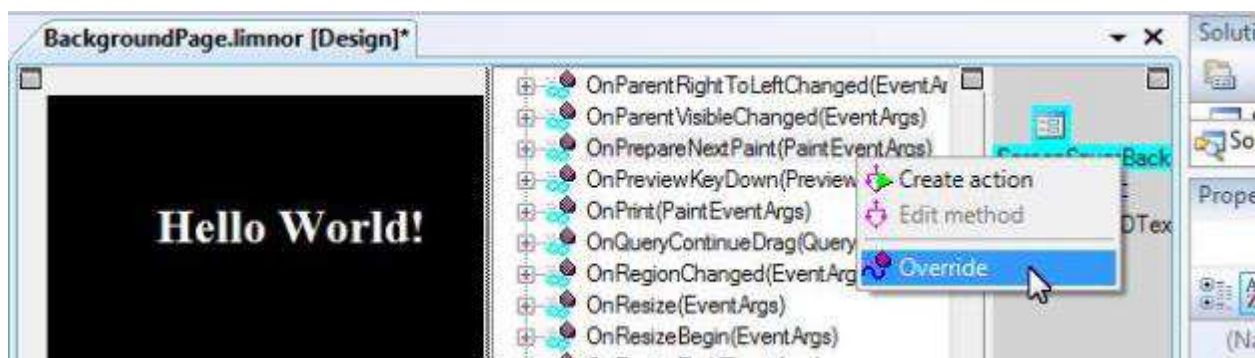


Every time before painting of the form starts the method `OnPrepareNextPaint` is executed. We may override this method to make changes to the drawings so that every time the form paints differently, achieving an effect of animation.

To override `OnPrepareNextPaint`, find it under Methods:



Right-click it and choose “Override”:

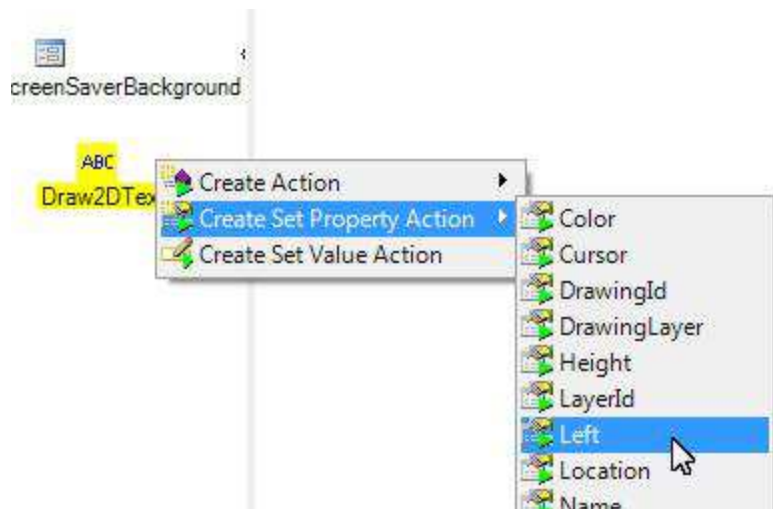


The override is created. Right-click and choose “Edit method”:

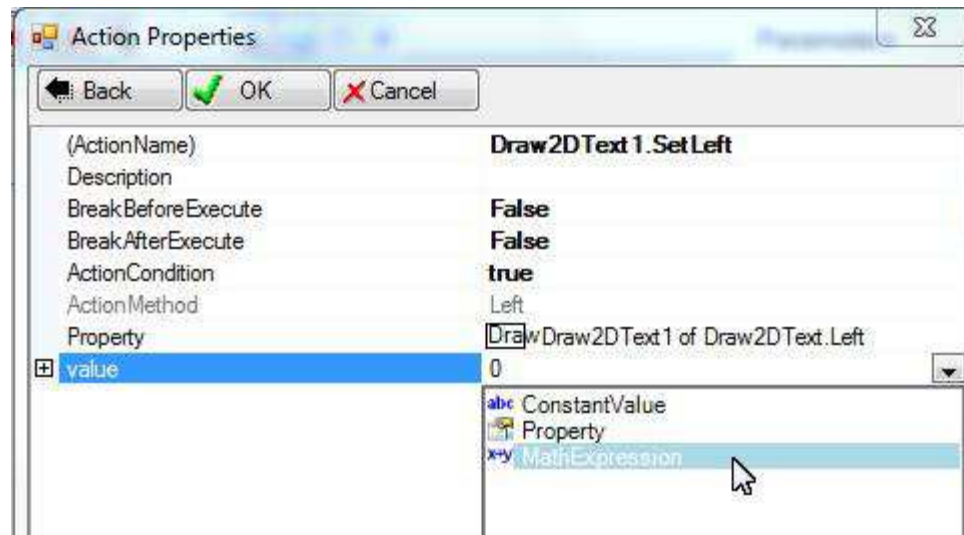




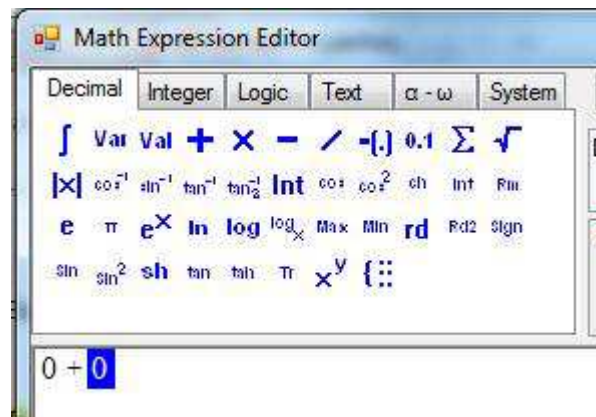




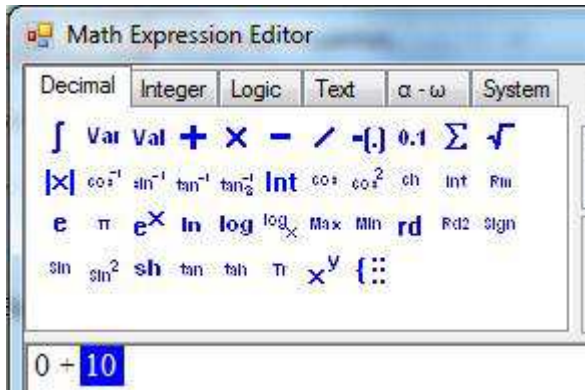
Choose Math Expression:



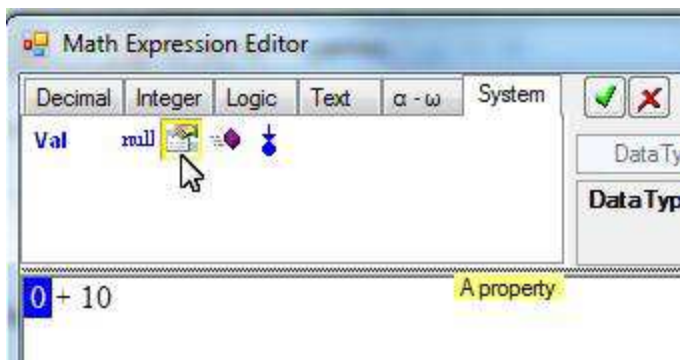
Press +



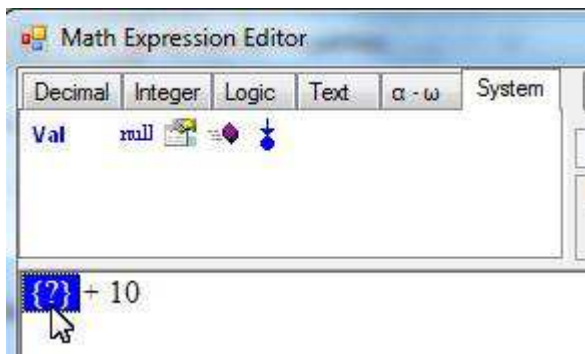
Type 10



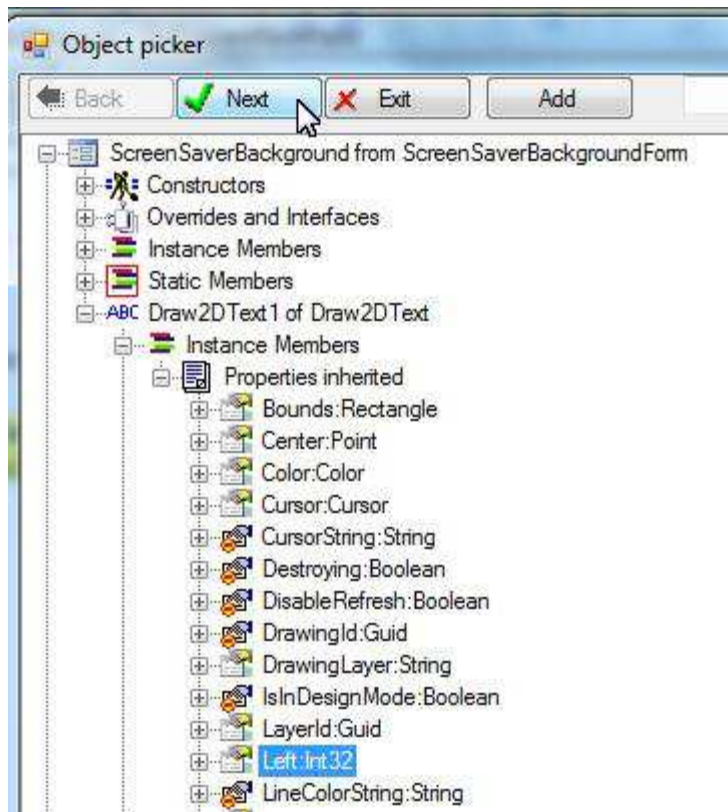
Select the first element and click the Property icon:



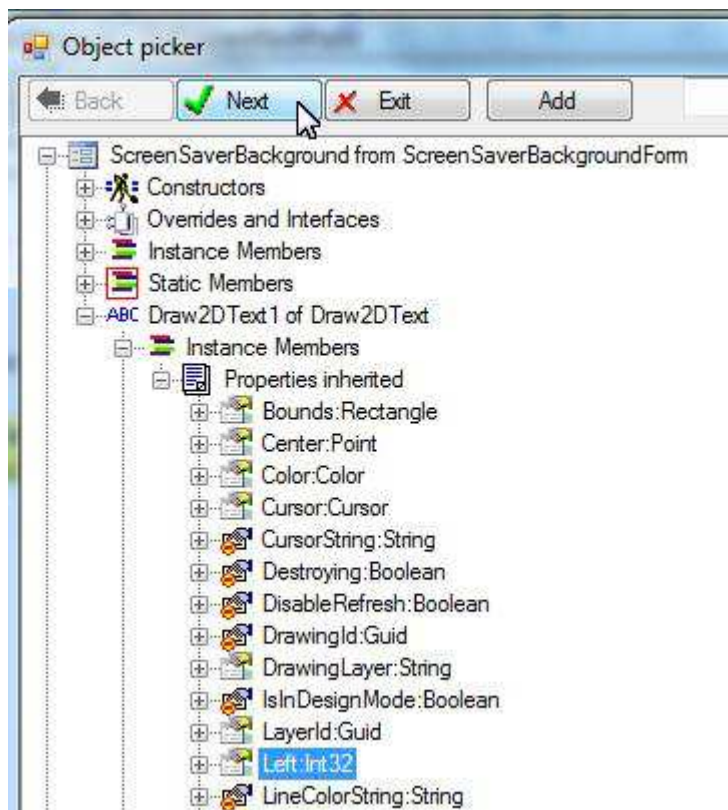
Double-click the Property element:



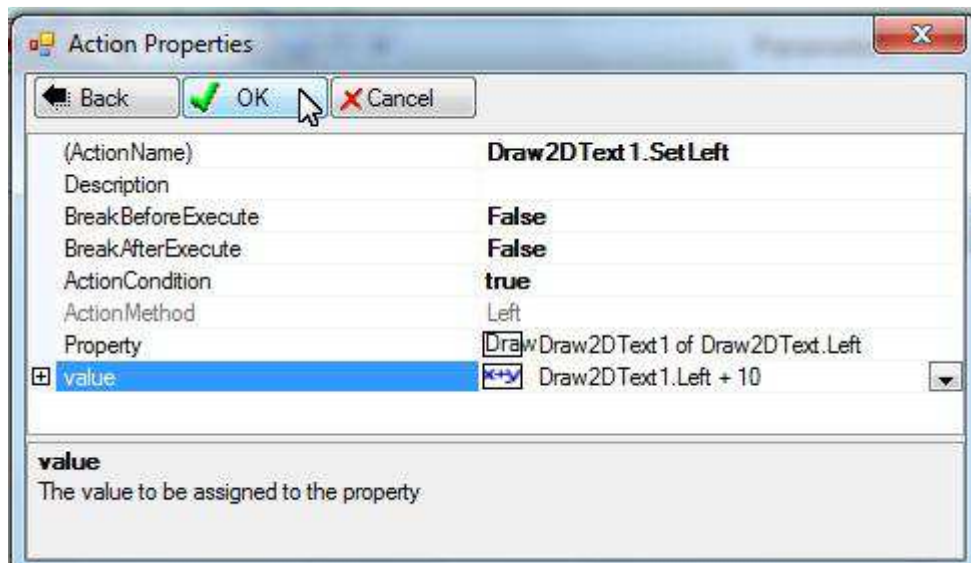
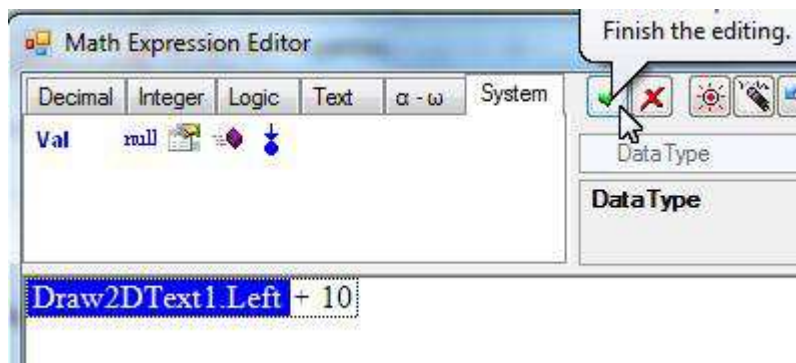
Select the Left property of the text:



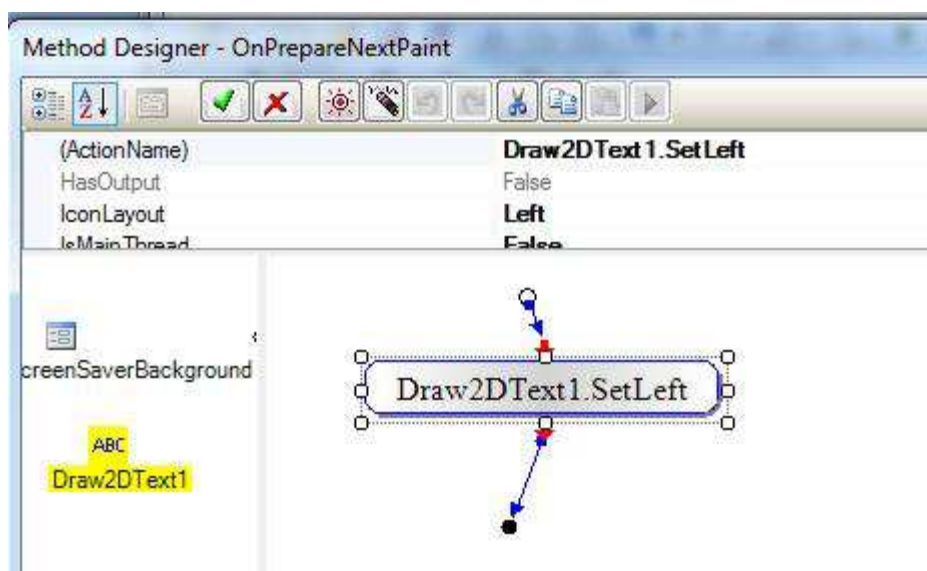
This math expression is to add 10 pixels to the Left position of the text:



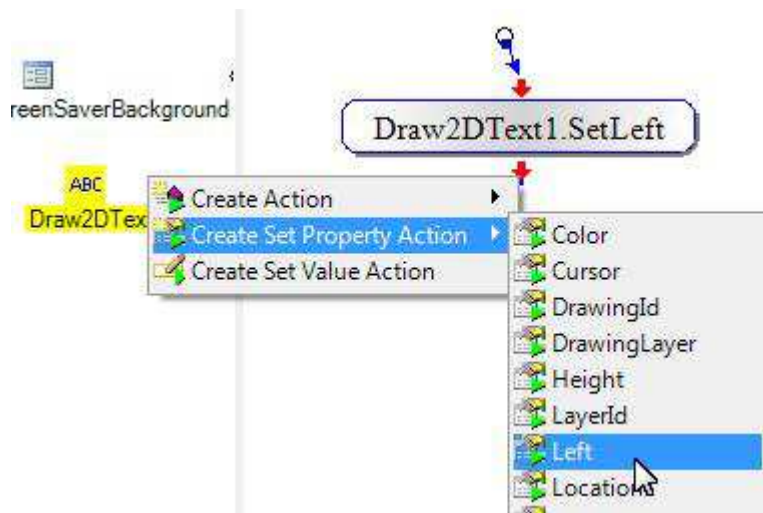
This action will move the text to right by 10 pixels:



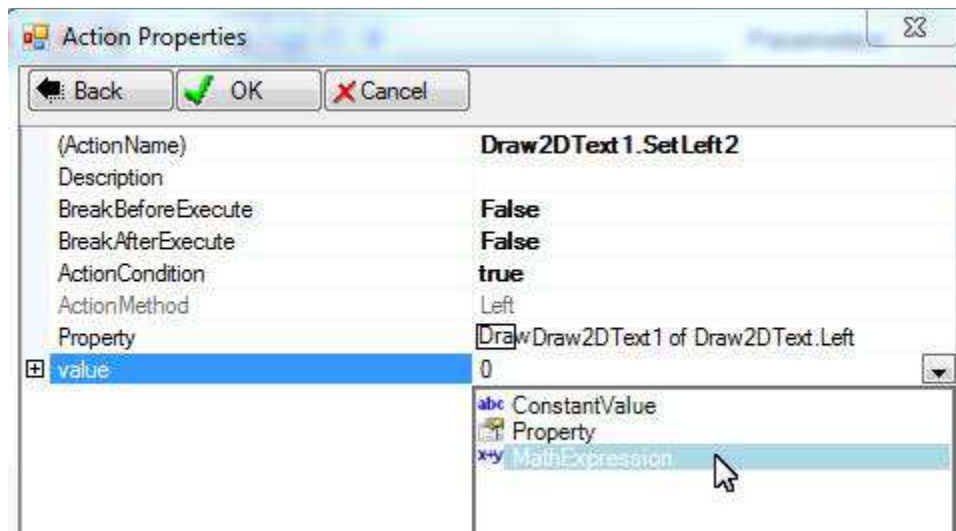
The action appears in the Action Pane of the Method Editor:



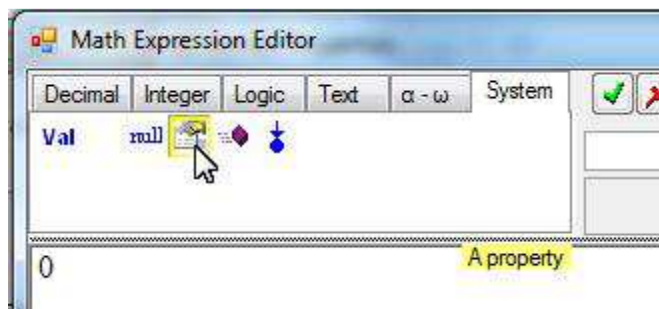
We want to move the text to the left if the text moves over the edge of the right. Right-click the text and choose “Create Set Property Action” and choose “Left” again:



Choose Math Expression:

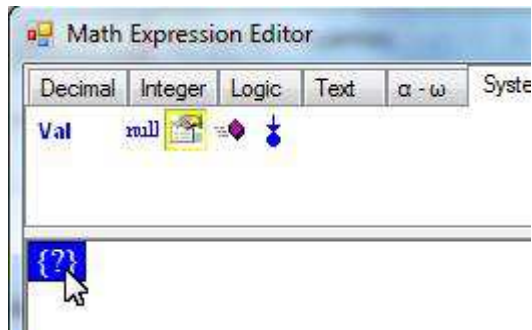


Click the Property icon:

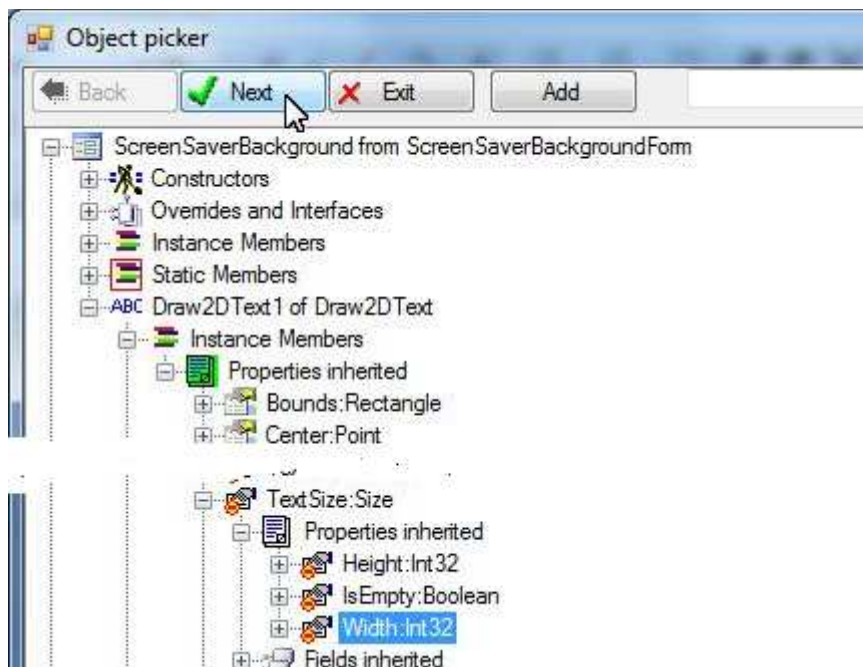


Double-click the element:

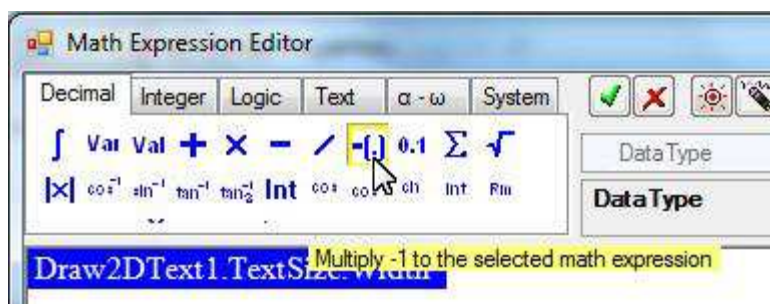


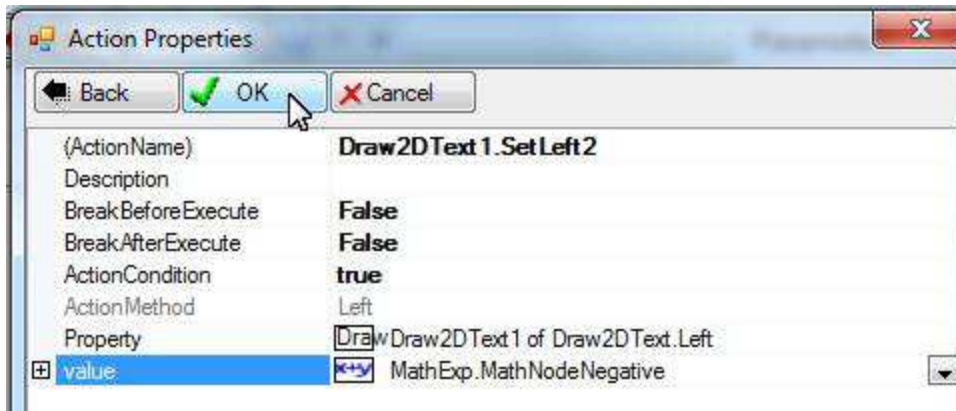


Choose the text width:

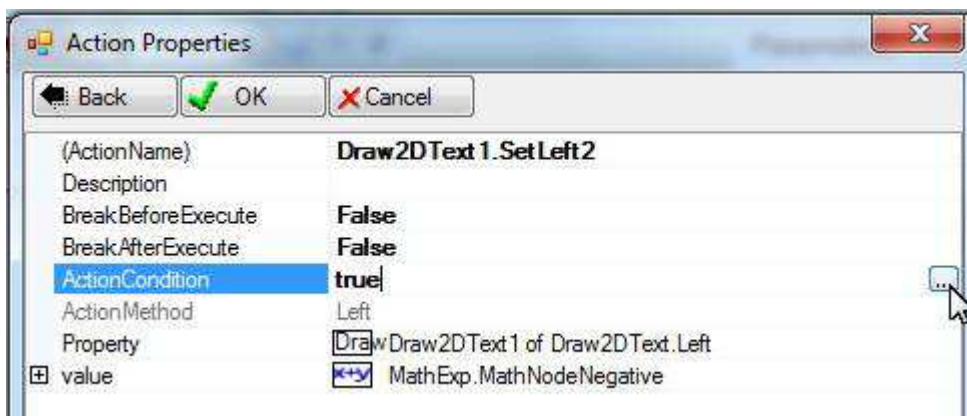


Make it negative:

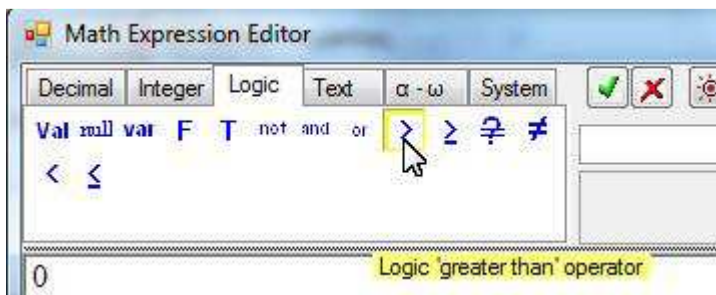




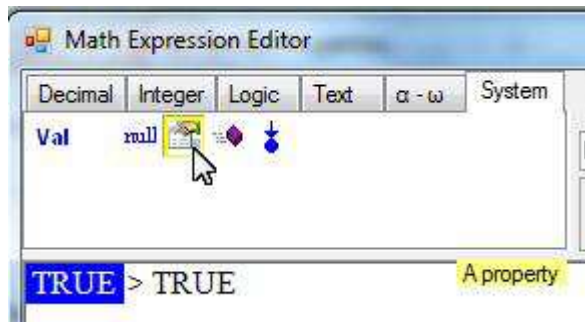
Set its ActionCondition so that this action only executes when the text is over the right edge:



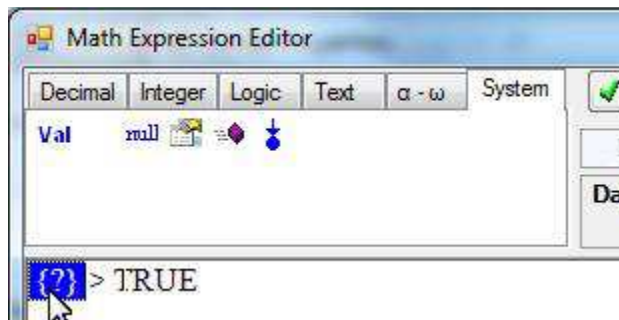
Use 



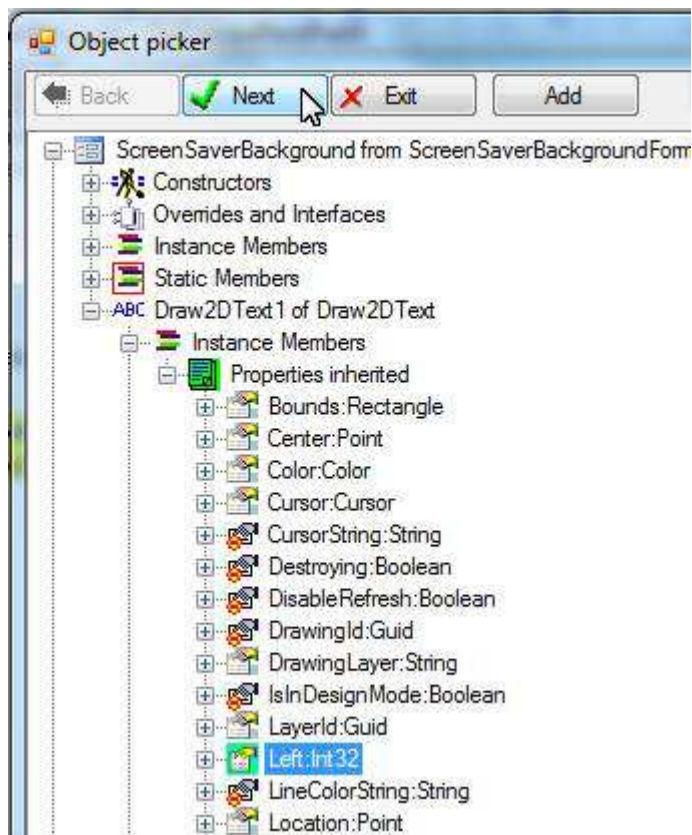
Select the first element and use the Property icon:



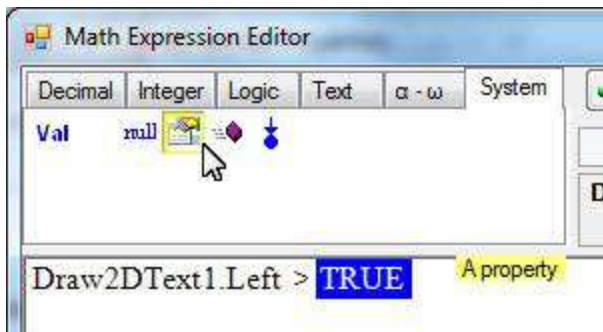
Double-click the first element:



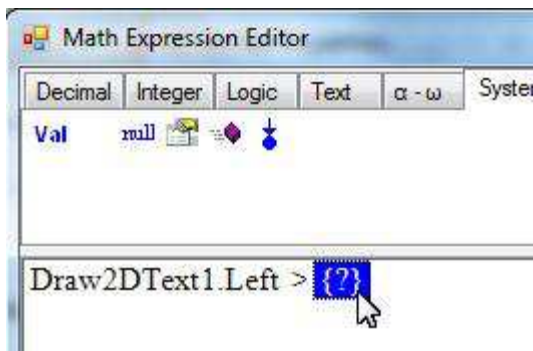
Select the Left property of the text:



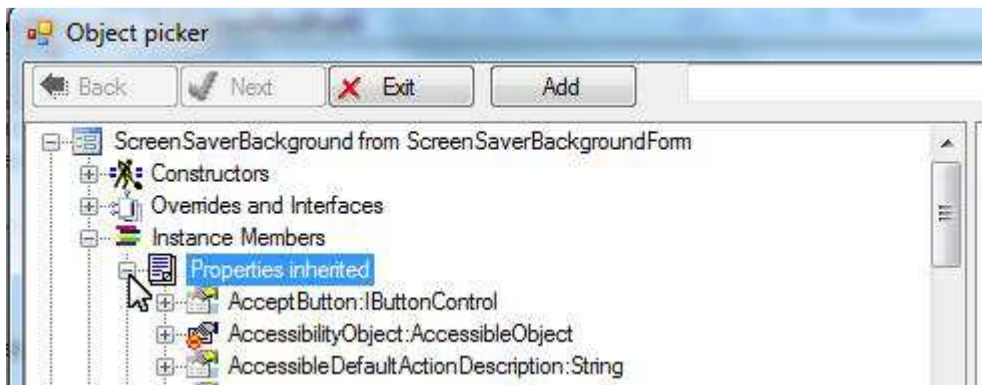
Select the second element. Use Property:



Double-click the element:



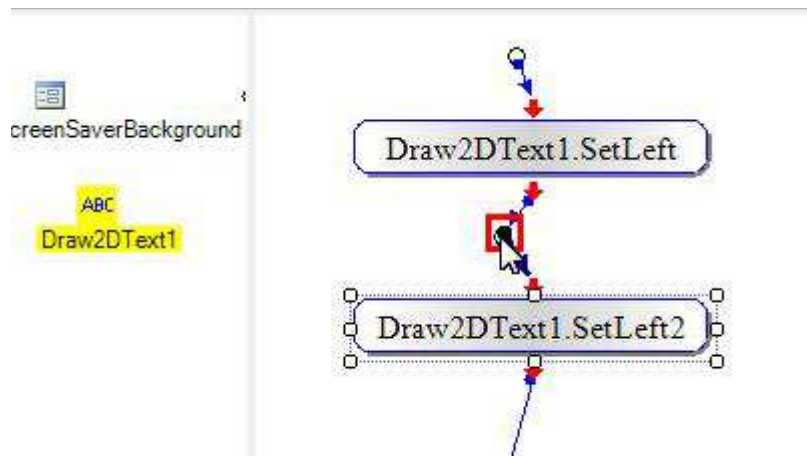
Select the Width property of the form:





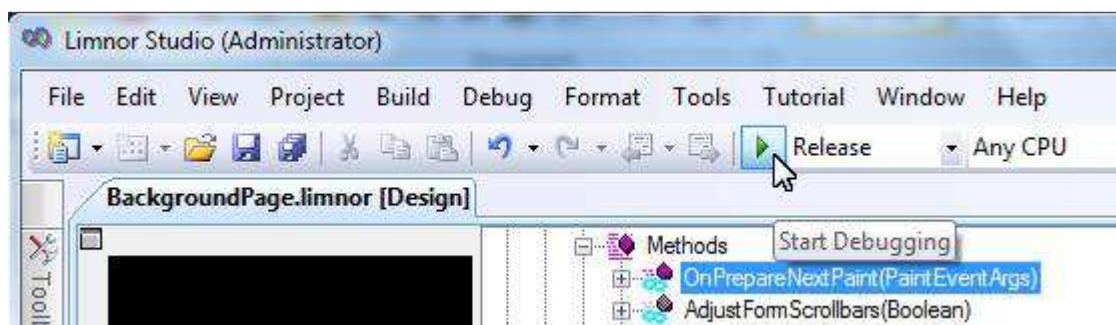


Link the two actions:



We are done creating this method. For more details on using Method Editor, see Users' Guide  
<http://www.limnor.com/support/Limnor%20Studio%20-%20User%20Guide%20-%20Part%20V.pdf>

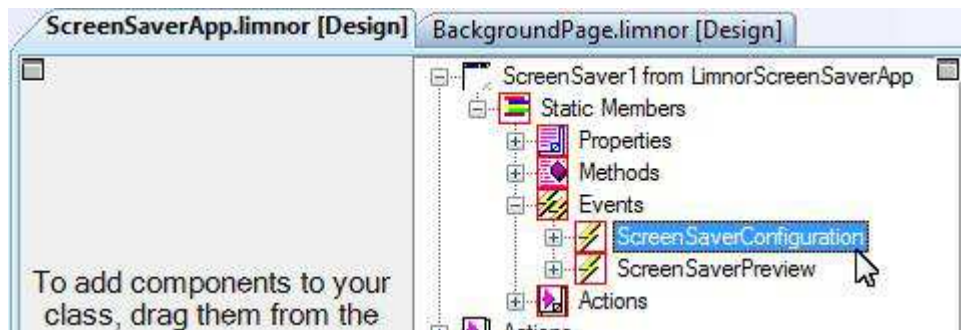
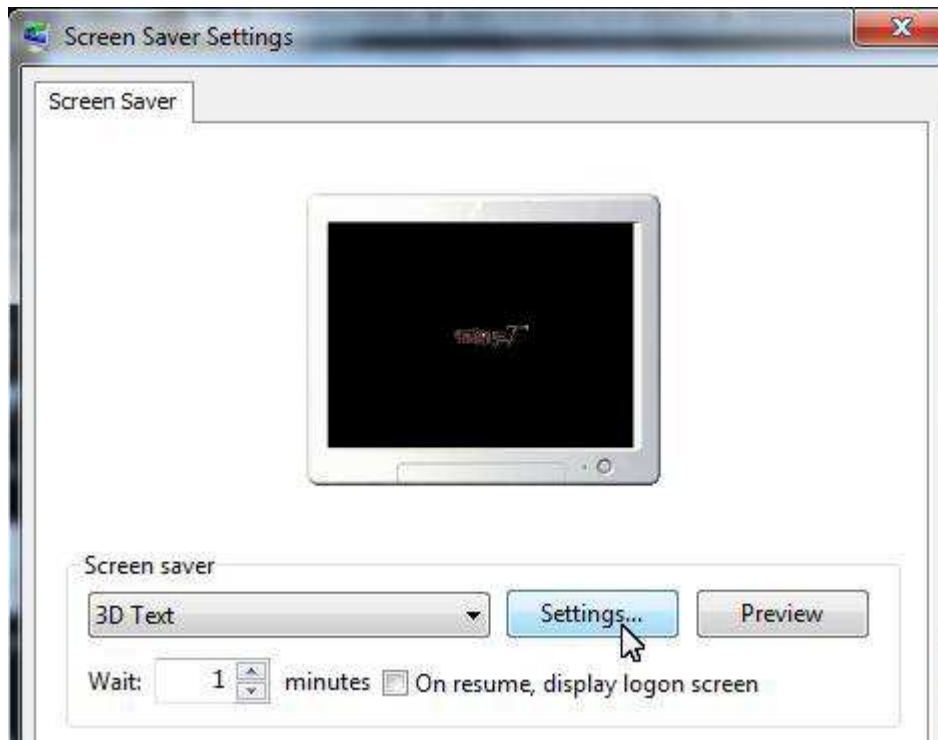
We may test it now:





## 5 Create Screensaver Configuration

When the user click Settings button the ScreenSaverConfiguration event occurs:

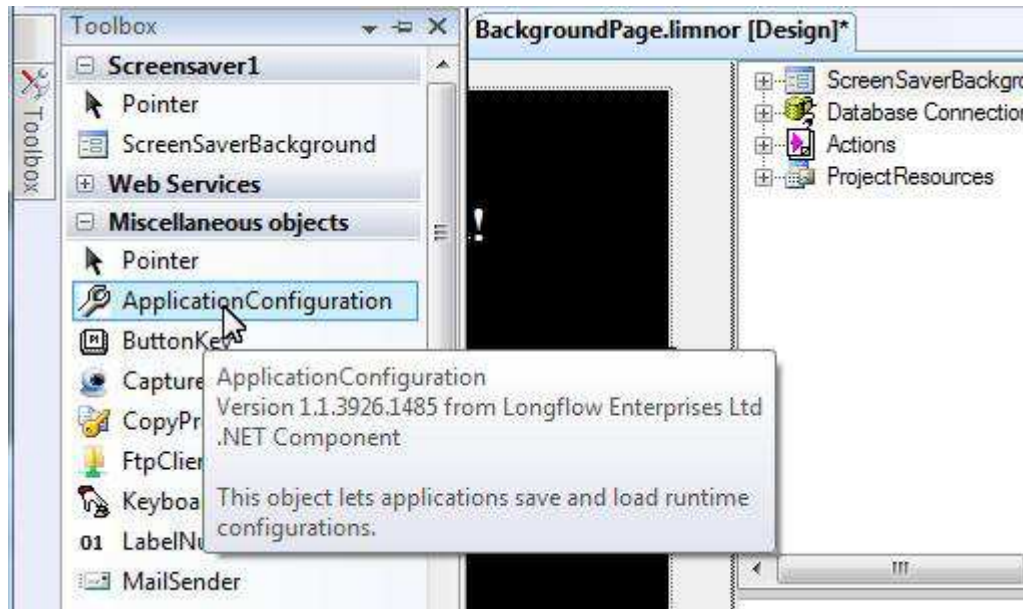


We may handle this event to let the user to modify screensaver configurations.

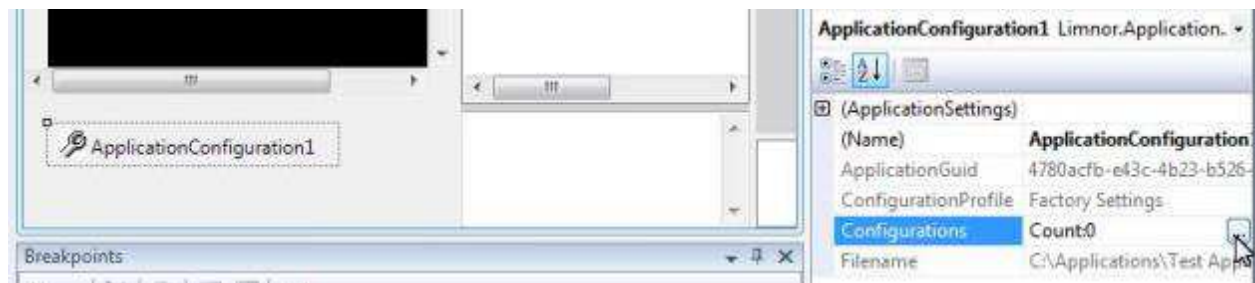
In our text moving example, every time we move the text by 10 pixels and we repaint the screen every 100 milliseconds. We may let the user to modify these two values to modify the text moving effects.

### 5.1 Create Configurable Values

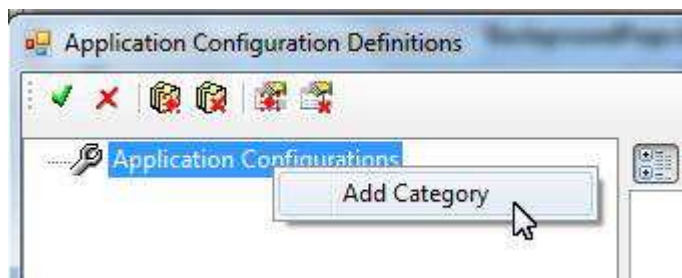
ApplicationConfiguration component can be used to create configurable values.



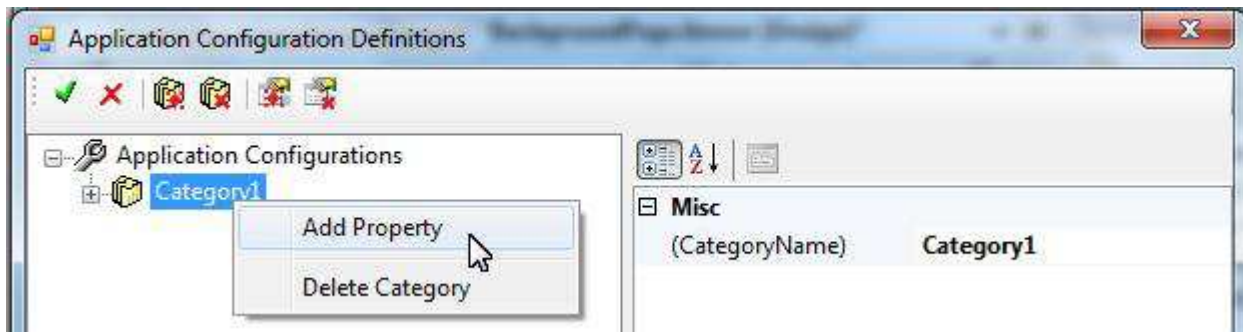
Set its Configurations property to create configurable values:



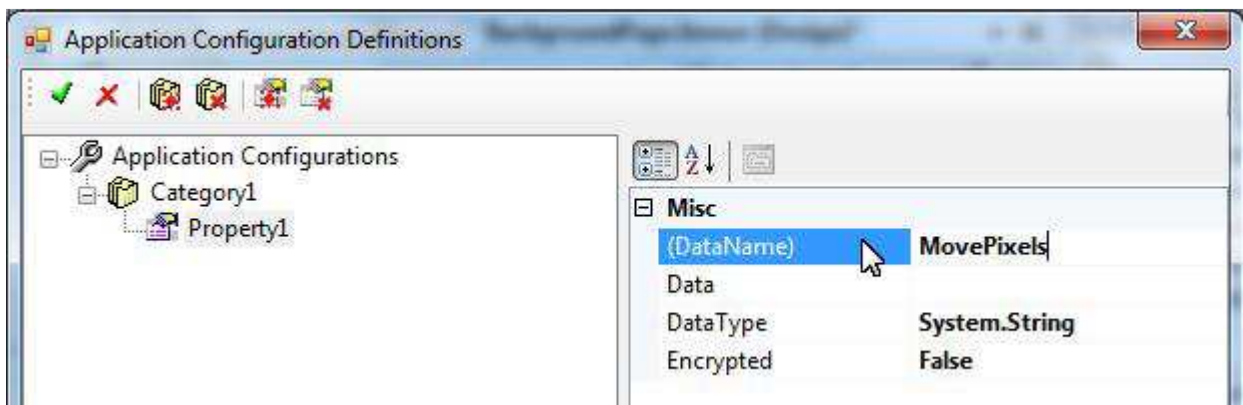
Create a new category:



Create a new configurable value under the category:



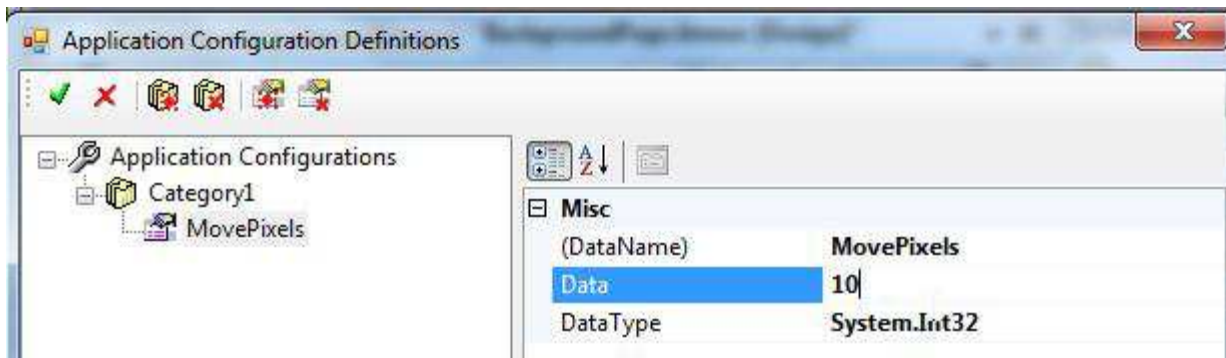
Modify the name of the value:



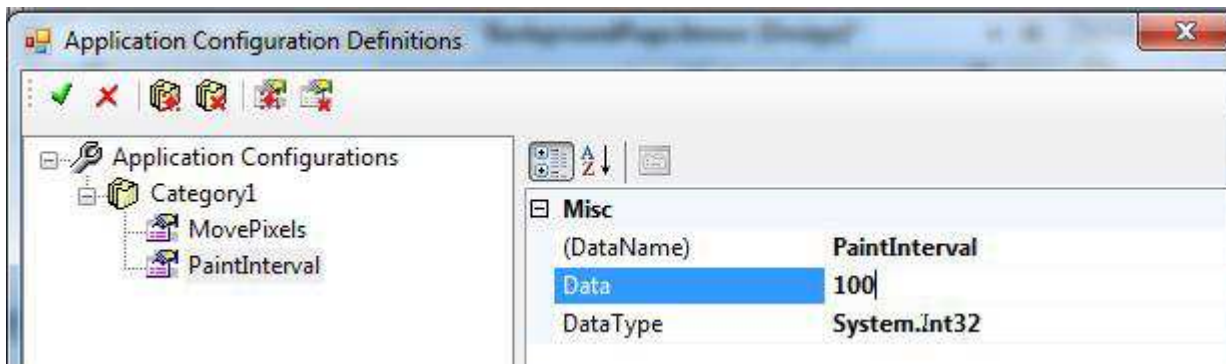
Change the type of the value:



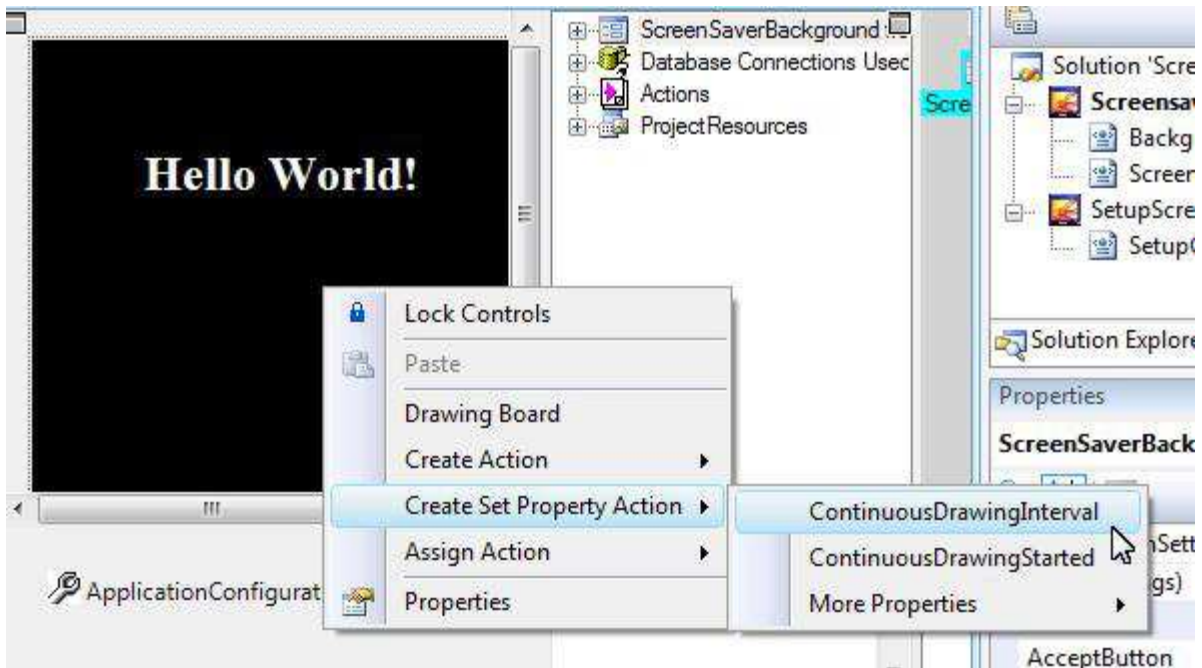
Set its default value:



Create another value:

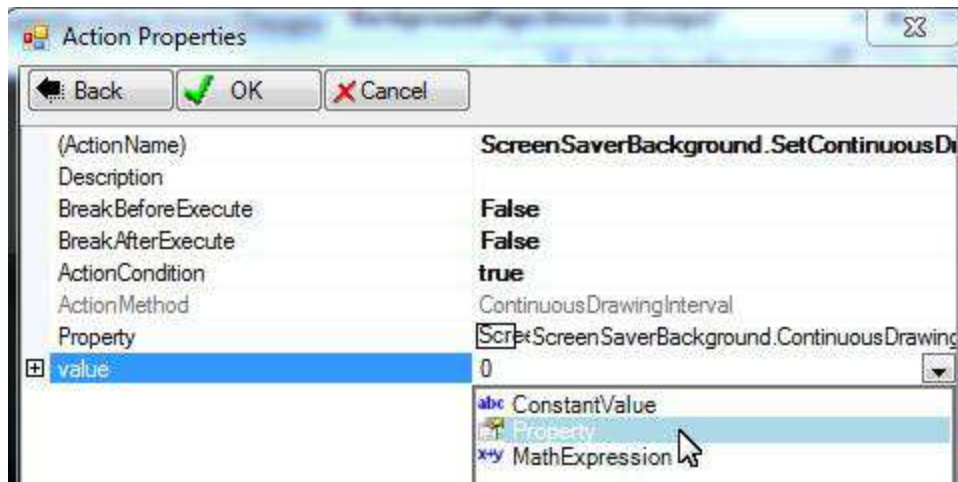


Create an action to use the configurable value PaintInterval:

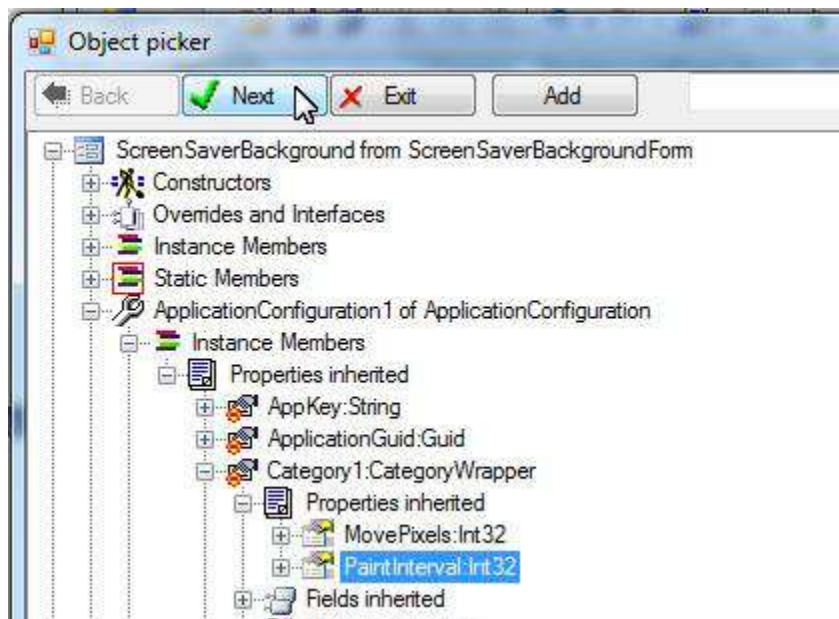


Select Property for value:

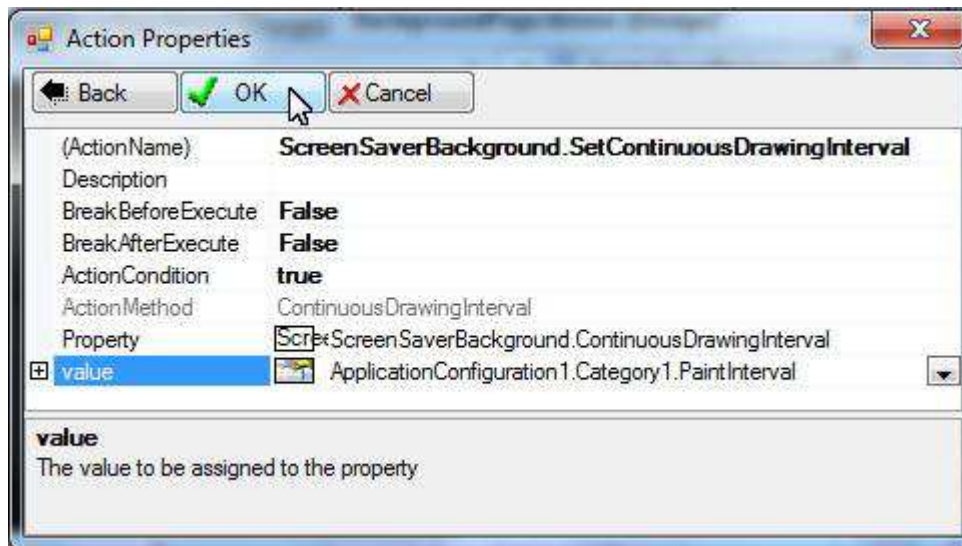




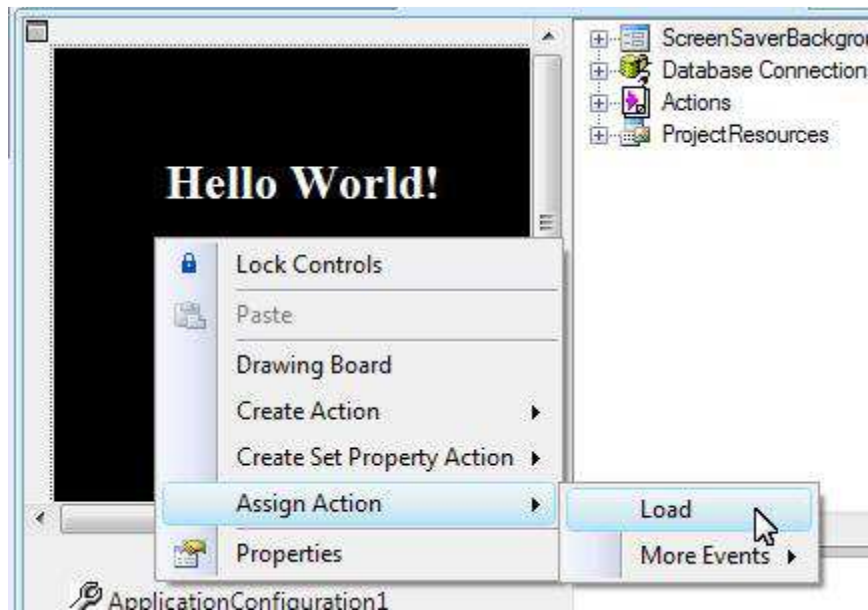
Select PaintInterval:

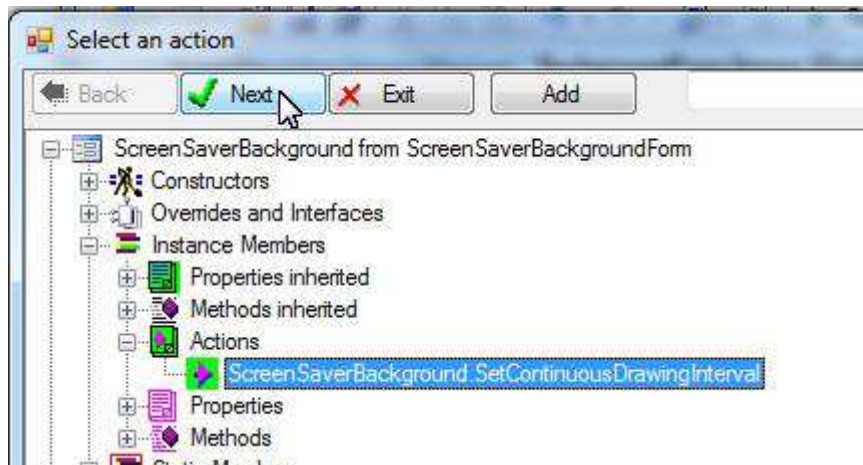




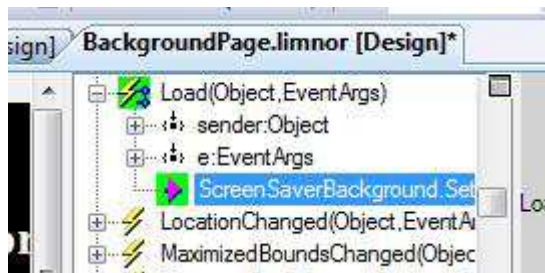


Assign this action the Load event of the form:

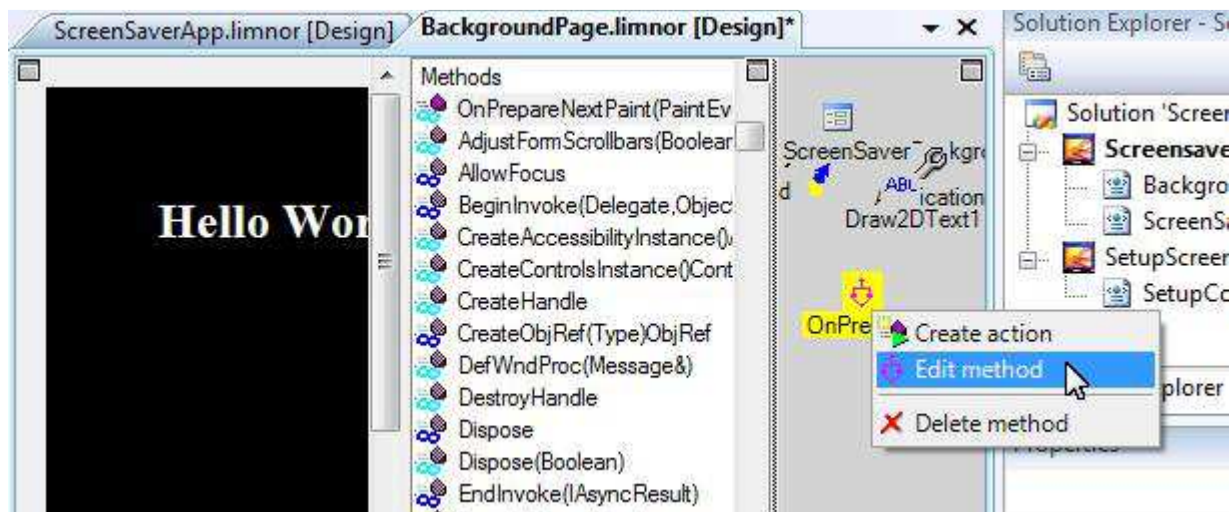




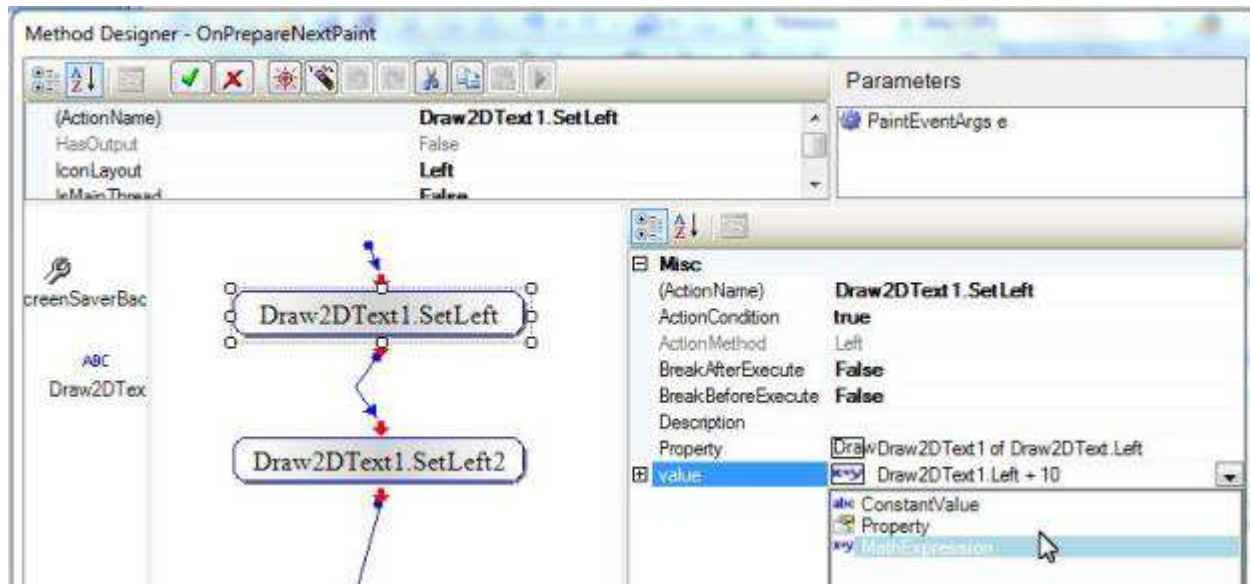
The action appears under the event:



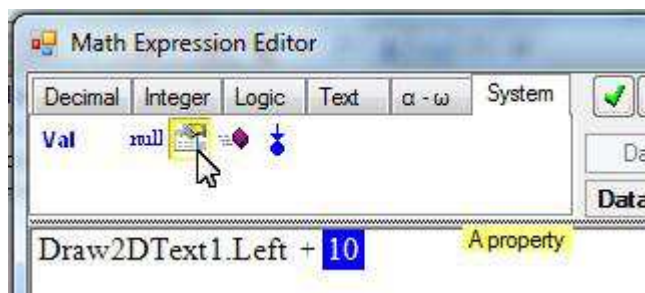
Modify the method OnPrepareNextPaint to modify the action inside it:



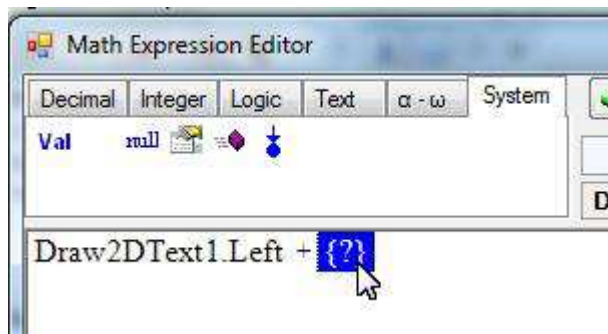
The first action moves the text by 10 pixels. We replace the value 10 to the configurable value MovePixels. Select Math Expression for the value:



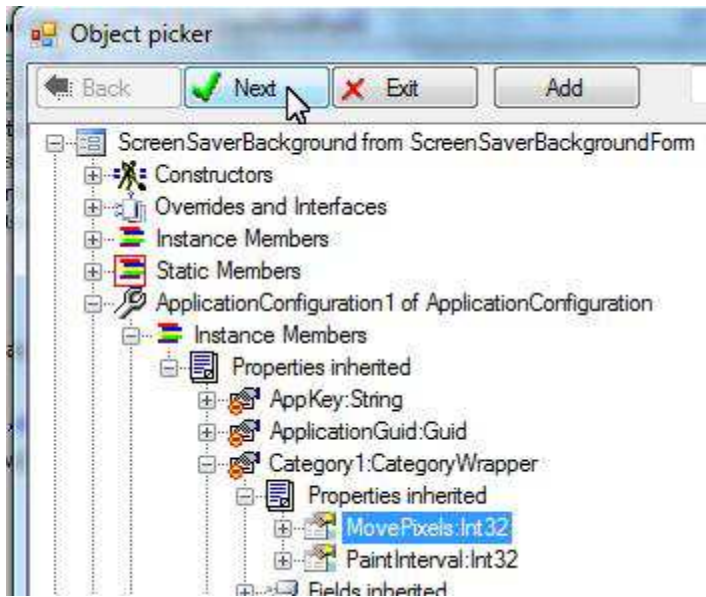
Select value 10, click Property icon:



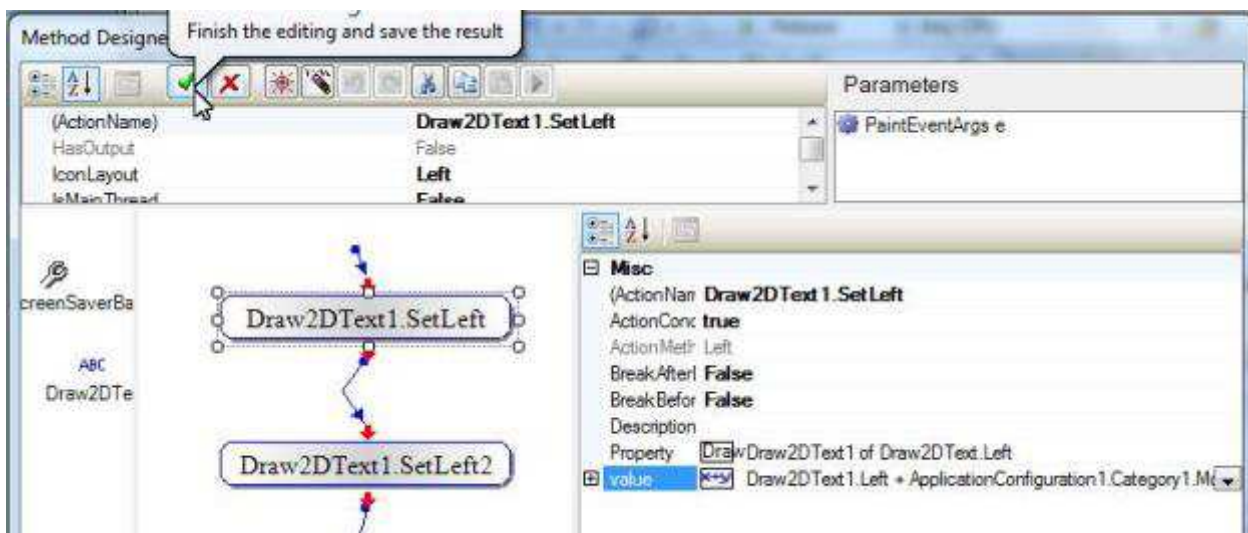
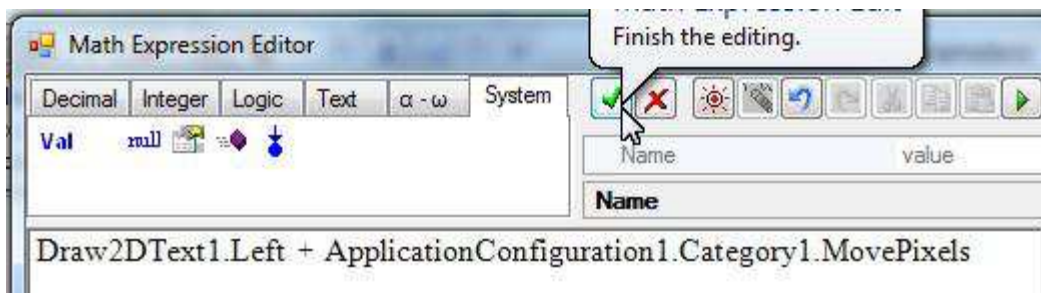
Double-click the property element:



Select the configurable value MovePixels



This is the new math expression:

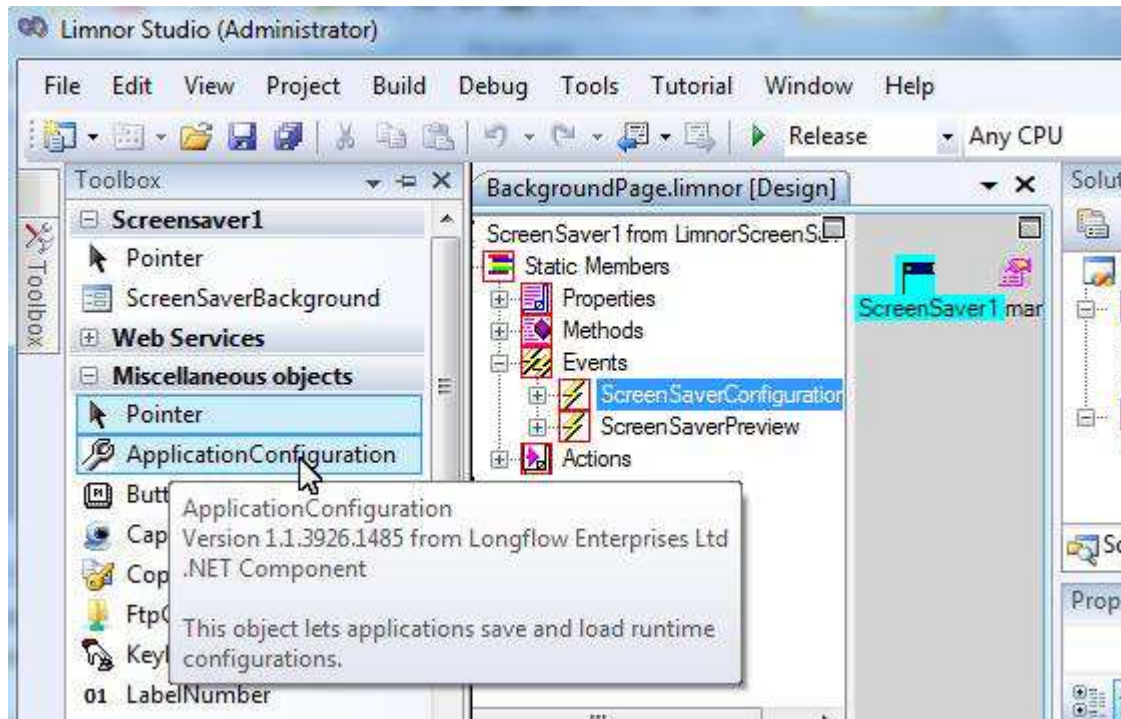


## 5.2 Handle Screensaver Configuration Event

We need to handle event `ScreenSaverConfiguration` of the Screensaver application to let the user modify configurations. In our example, because we use `ApplicationConfiguration` component to create

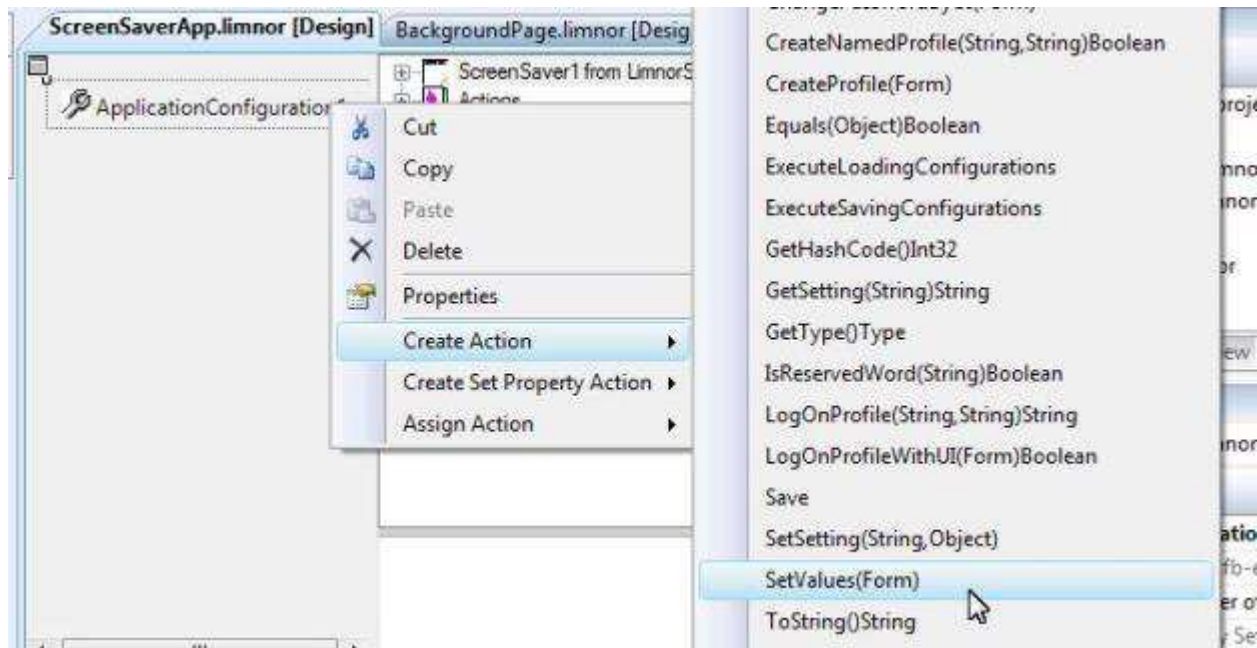


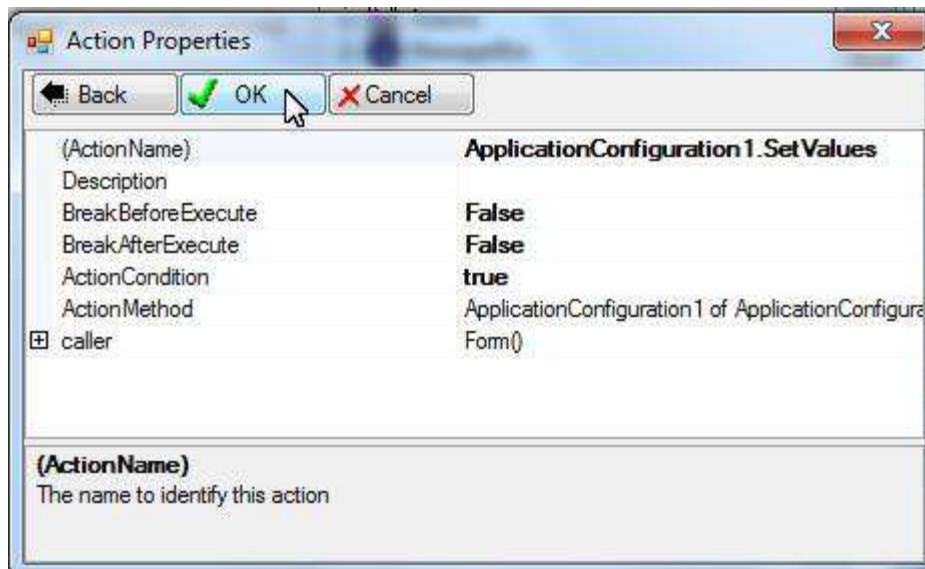
configurable values, we add an ApplicationConfiguration component to the Screensaver Application class:



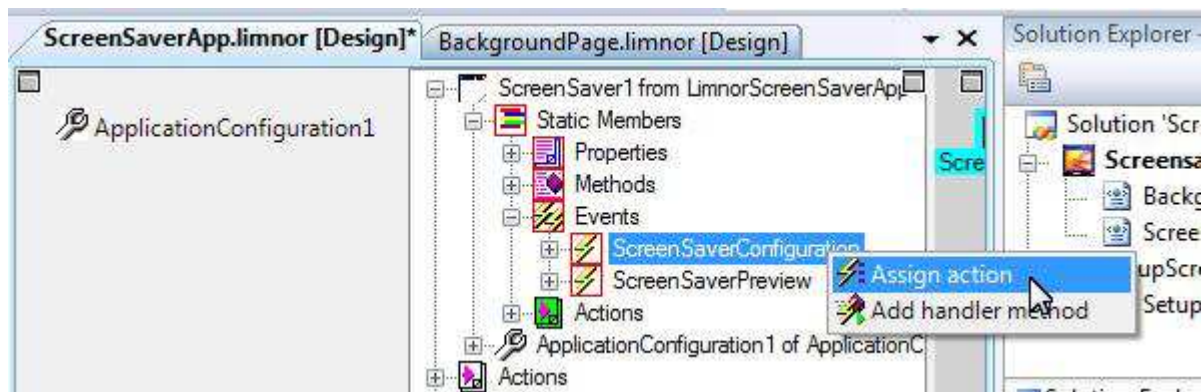
You may create an UI of your desire to show all the configurations and let the user to modify the values.

For simplicity of this sample we create a SetValues action:

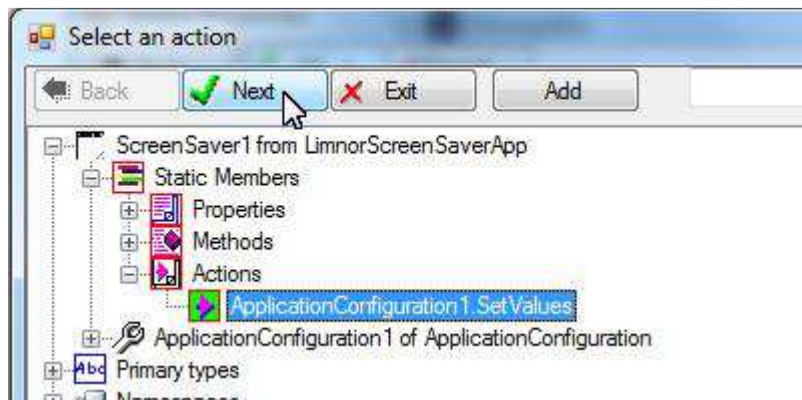




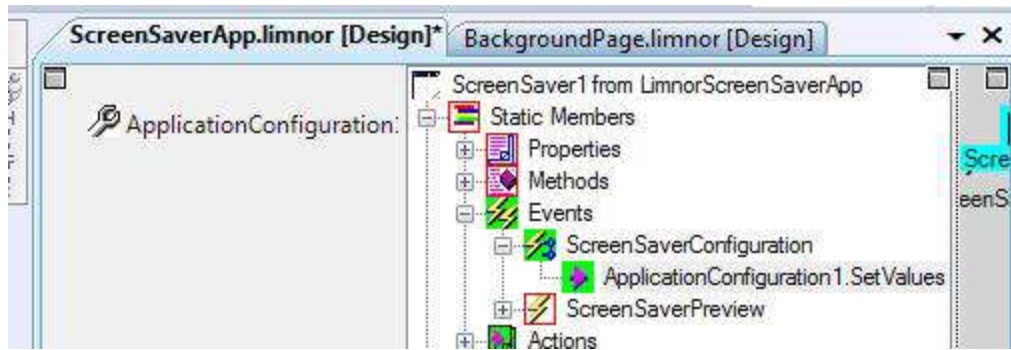
Assign this action to ScreensaverConfiguration event:



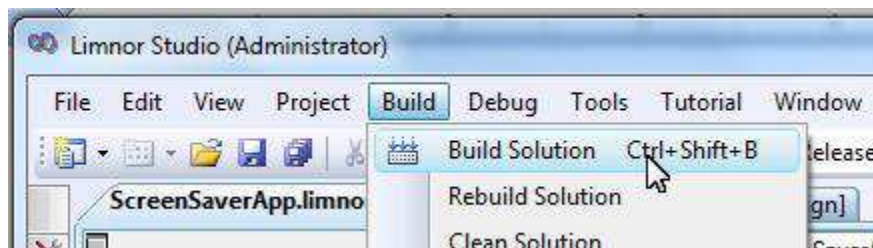
Select the action:



The action appears under the event:

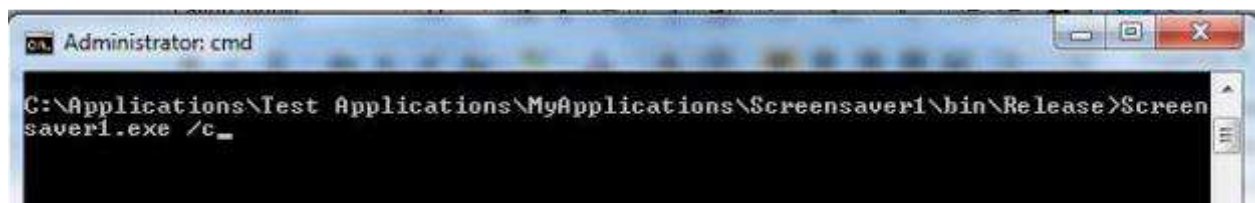


We may compile the project

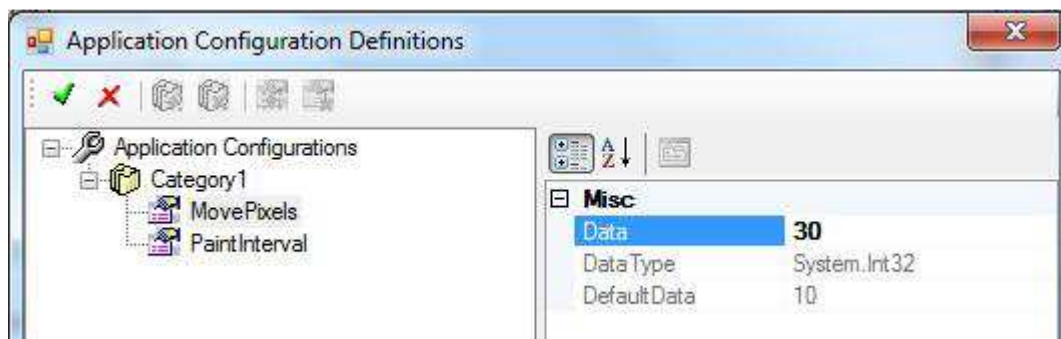


### 5.3 Test Configuration

We may test the configuration by start the application with /c



The configuration action is executed. It displays configurations. The value can be changed.



Last reminder: before you do release build, do not forget to turn on the Build for the setup project.

## 6 Feedback

Please send your feedback to [support@limnor.com](mailto:support@limnor.com)