Program as Component

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This sample demonstrates moving the body of the application in a component. It's an extension to the previous basic sample, Using Assembly .

Project name: "C.ProgramAsComponent"

For information on how to get the code, and run the sample, please see About Basic Samples .

Description

The functionality of this sample is exactly the same as the previous sample , but it uses a different composition. Here, we moved the main logic of the application inside a component so that it can declare its own dependencies using component plugs, and get treated the same way as other components.

In addition to previous contracts and components present, there is a new contract in this sample, called IProgramRunner, that contains a Run method. The body of the main method is moved to the component that provides IProgramRunner, which is DefaultProgramRunner. This component uses services from ICalculator using an injected dependency property of type ICalculator.
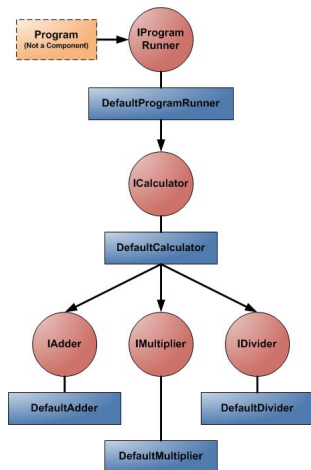
As before, the program output shows the order of component instantiation, setting the plugs, an calling the methods.

Dependency Diagram

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Sample output

```
 CONSTRUCTOR  - DefaultProgramRunner
CONSTRUCTOR  - DefaultCalculator
CONSTRUCTOR  - DefaultAdder
SET PLUG     - DefaultCalculator.Adder
CONSTRUCTOR  - DefaultMultiplier
SET PLUG     - DefaultCalculator.Multiplier
CONSTRUCTOR  - DefaultDivider
SET PLUG     - DefaultCalculator.Divider
SET PLUG     - DefaultProgramRunner.Calculator  METHOD CALL  -
DefaultProgramRunner.Run()  METHOD CALL  - DefaultCalculator.Add(67, 12)
METHOD CALL  - DefaultAdder.Add(67, 12)
67 + 12 = 79  METHOD CALL  - DefaultCalculator.Subtract(67, 12)
METHOD CALL  - DefaultAdder.Add(67, -12)
67 - 12 = 55  METHOD CALL  - DefaultCalculator.Multiply(67, 12)
METHOD CALL  - DefaultMultiplier.Multiply(67, 12)
67 * 12 = 804  METHOD CALL  - DefaultCalculator.Divide(67, 12)
METHOD CALL  - DefaultDivider.Divide(67, 12)
METHOD CALL  - DefaultCalculator.Remainder(67, 12)
METHOD CALL  - DefaultDivider.Remainder(67, 12)
67 / 12 = 5 (with remainder = 7)
```