

```

public aspect AjDemo
{
    int line =1;

    pointcut ObjectTrace():
        execution(Notepad.new(..)) || execution(Notepad.*.new(..));

    pointcut MethodTrace():
        (execution(* * (..) ) && !execution(static void Notepad.main (..))&&
within(Notepad) && !execution(* *.access*(..))
        && !cflow(within(AjDemo)));

    before(): ObjectTrace()
    {
        System.out.println("Creating object ==> "+ thisJoinPoint.getSignature());
        line++;
        if (line>10)
        {
            System.out.println();
            line=1;
        }
    }

    before():MethodTrace()
    {
        System.out.println("Executing ==> "+ thisJoinPoint.getSignature());
        line++;
        if (line>10)
        {
            System.out.println();
            line=1;
        }
    }
}

```

/*output

```

Creating object ==> Notepad()
Creating object ==> Notepad.UndoHandler(Notepad)
Creating object ==> Notepad.UndoAction(Notepad)
Creating object ==> Notepad.RedoAction(Notepad)
Creating object ==> Notepad.NewAction(Notepad)
Creating object ==> Notepad.NewAction(Notepad, String)
Creating object ==> Notepad.OpenAction(Notepad)
Creating object ==> Notepad.SaveAction(Notepad)
Creating object ==> Notepad.ExitAction(Notepad)
Creating object ==> Notepad.ShowElementTreeAction(Notepad)

Executing ==> JTextComponent Notepad.createEditor()
Executing ==> Action[] Notepad.getActions()
Executing ==> Component Notepad.createToolbar()
Executing ==> String Notepad.getResourceString(String)
Executing ==> String[] Notepad.tokenize(String)

```

```
Executing ==> Component Notepad.createTool(String)
Executing ==> JButton Notepad.createToolBarButton(String)
Executing ==> URL Notepad.getResource(String)
Executing ==> String Notepad.getResourceString(String)
Creating object ==> Notepad.1(Notepad, Icon)
```

```
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Component Notepad.createTool(String)
Executing ==> JButton Notepad.createToolBarButton(String)
Executing ==> URL Notepad.getResource(String)
Executing ==> String Notepad.getResourceString(String)
Creating object ==> Notepad.1(Notepad, Icon)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
```

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Executing ==> String Notepad.getResourceString(String)
Executing ==> Component Notepad.createTool(String)
Executing ==> JButton Notepad.createToolBarButton(String)
Executing ==> URL Notepad.getResource(String)
Executing ==> String Notepad.getResourceString(String)
Creating object ==> Notepad.1(Notepad, Icon)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
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Executing ==> JButton Notepad.createToolBarButton(String)
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Creating object ==> Notepad.1(Notepad, Icon)
Executing ==> String Notepad.getResourceString(String)
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Executing ==> String Notepad.getResourceString(String)
Executing ==> Component Notepad.createTool(String)
Executing ==> JButton Notepad.createToolBarButton(String)
Executing ==> URL Notepad.getResource(String)
```

```
Executing ==> String Notepad.getResourceString(String)
Creating object ==> Notepad.1(Notepad, Icon)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Component Notepad.createTool(String)
Executing ==> JButton Notepad.createToolBarButton(String)
Executing ==> URL Notepad.getResource(String)
Executing ==> String Notepad.getResourceString(String)
Creating object ==> Notepad.1(Notepad, Icon)
```

```
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Component Notepad.createStatusbar()
Creating object ==> Notepad.StatusBar(Notepad)
Executing ==> JMenuBar Notepad.createMenuubar()
Executing ==> String Notepad.getResourceString(String)
```

[illegible]

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Executing ==> String Notepad.getResourceString(String)

Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
Executing ==> PropertyChangeListener Notepad.createActionChangeListener(JMenuItem)
Creating object ==> Notepad.ActionChangeListener(Notepad, JMenuItem)
Executing ==> JMenuItem Notepad.createMenuItem(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> URL Notepad.getResource(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
Executing ==> PropertyChangeListener Notepad.createActionChangeListener(JMenuItem)
Creating object ==> Notepad.ActionChangeListener(Notepad, JMenuItem)

Executing ==> JMenuItem Notepad.createMenuItem(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> URL Notepad.getResource(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
Executing ==> PropertyChangeListener Notepad.createActionChangeListener(JMenuItem)
Creating object ==> Notepad.ActionChangeListener(Notepad, JMenuItem)
Executing ==> JMenu Notepad.createMenu(String)
Executing ==> String Notepad.getResourceString(String)

Executing ==> String[] Notepad.tokenize(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> JMenuItem Notepad.createMenuItem(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> URL Notepad.getResource(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
Executing ==> PropertyChangeListener Notepad.createActionChangeListener(JMenuItem)
Creating object ==> Notepad.ActionChangeListener(Notepad, JMenuItem)

Executing ==> JMenuItem Notepad.createMenuItem(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> URL Notepad.getResource(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> String Notepad.getResourceString(String)
Executing ==> Action Notepad.getAction(String)
Executing ==> PropertyChangeListener Notepad.createActionChangeListener(JMenuItem)
Creating object ==> Notepad.ActionChangeListener(Notepad, JMenuItem)
Creating object ==> Notepad.AppCloser()
Executing ==> float Notepad.l.getAlignmentY()
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Executing ==> float Notepad.1.getAlignmentY()
Executing ==> float Notepad.1.getAlignmentY()
Executing ==> float Notepad.1.getAlignmentY()
Executing ==> float Notepad.1.getAlignmentY()
Executing ==> float Notepad.1.getAlignmentY()
Executing ==> float Notepad.1.getAlignmentY()
Executing ==> float Notepad.1.getAlignmentY()
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Executing ==> float Notepad.1.getAlignmentY()
Executing ==> float Notepad.1.getAlignmentY()
Executing ==> float Notepad.1.getAlignmentY()
Executing ==> void Notepad.paintChildren(Graphics)
Executing ==> void Notepad.UndoHandler.undoableEditHappened(UndoableEditEvent)
Executing ==> void Notepad.UndoAction.update()
Executing ==> void Notepad.ActionChangeListener.propertyChange(PropertyChangeEvent)
Executing ==> void Notepad.ActionChangeListener.propertyChange(PropertyChangeEvent)
Executing ==> void Notepad.RedoAction.update()
Executing ==> void Notepad.UndoHandler.undoableEditHappened(UndoableEditEvent)
Executing ==> void Notepad.UndoAction.update()
Executing ==> void Notepad.RedoAction.update()
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Executing ==> void Notepad.UndoAction.update()
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Executing ==> void Notepad.UndoHandler.undoableEditHappened(UndoableEditEvent)
Executing ==> void Notepad.UndoAction.update()
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Executing ==> void Notepad.UndoAction.update()
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Executing ==> void Notepad.RedoAction.update()
Executing ==> void Notepad.UndoHandler.undoableEditHappened(UndoableEditEvent)
Executing ==> void Notepad.UndoAction.update()
Executing ==> void Notepad.ActionChangeListener.propertyChange(PropertyChangeEvent)
Executing ==> void Notepad.RedoAction.update()
Executing ==> void Notepad.UndoAction.actionPerformed(ActionEvent)
Executing ==> void Notepad.UndoAction.update()
Executing ==> void Notepad.ActionChangeListener.propertyChange(PropertyChangeEvent)

Executing ==> void Notepad.RedoAction.update()
Executing ==> void Notepad.ActionChangeListener.propertyChange(PropertyChangeEvent)
Executing ==> void Notepad.ActionChangeListener.propertyChange(PropertyChangeEvent)
Executing ==> void Notepad.paintChildren(Graphics)
Executing ==> void Notepad.SaveAction.actionPerformed(ActionEvent)
Executing ==> Frame Notepad.getFrame()
Executing ==> void Notepad.paintChildren(Graphics)
Creating object ==> Notepad.FileSaver(Notepad, File, Document)
Executing ==> void Notepad.FileSaver.run()
Executing ==> void Notepad.paintChildren(Graphics)

Executing ==> void Notepad.StatusBar.paint(Graphics)
Executing ==> void Notepad.paintChildren(Graphics)
Executing ==> void Notepad.ExitAction.actionPerformed(ActionEvent)
```