NEURO4J.ORG

# Hello, World!

PDF version available online at http://static.neuro4j.org/download/doc/studio/HelloWorld.pdf

## ABOUT THIS GUIDE

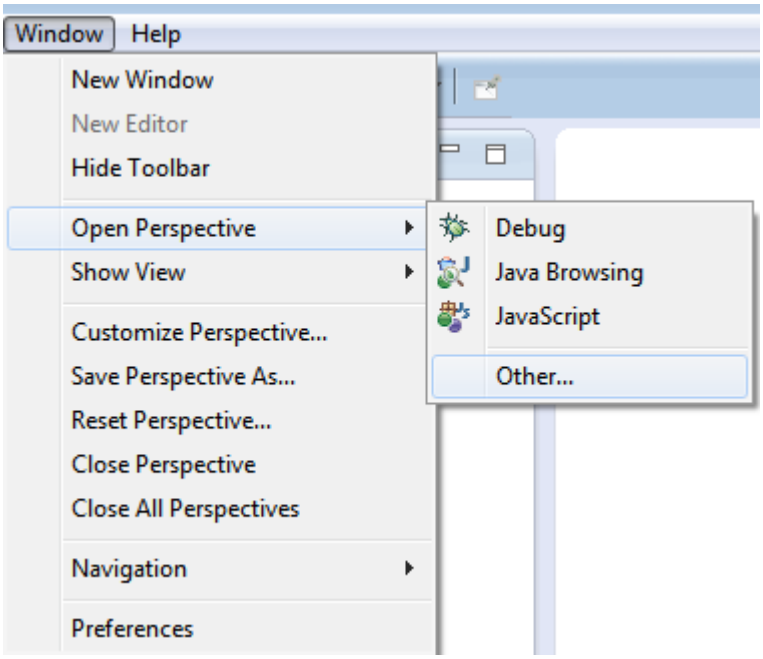
This guide describes how to create first flow with Neuro4j Studio.

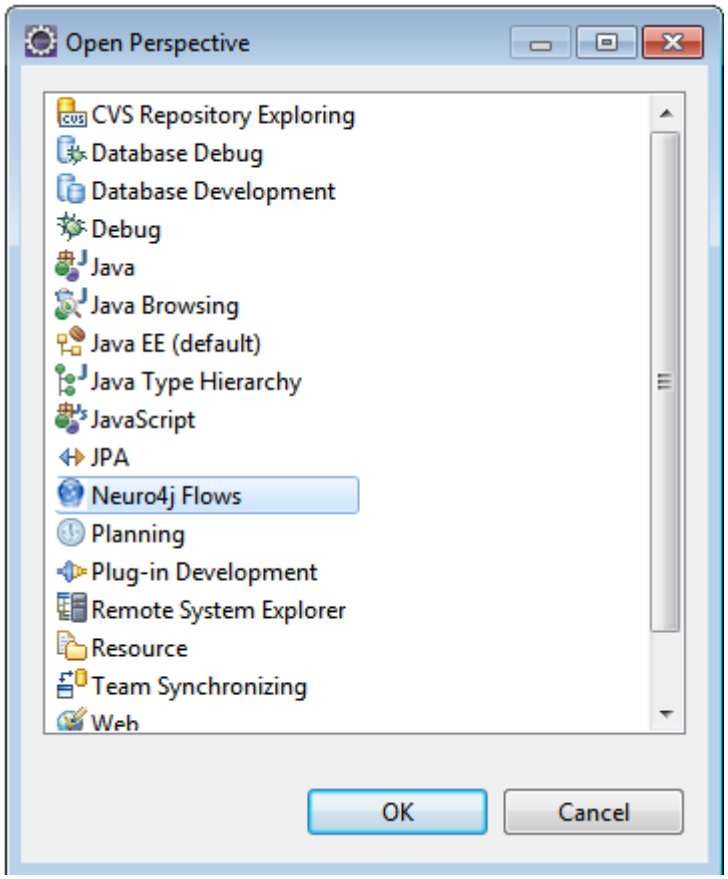
To install Neuro4j Studio use document http://static.neuro4j.org/download/doc/studio/StudioInstallationGuide.pdf

Online html version available at http://neuro4j.org/docs/wf/helloworld

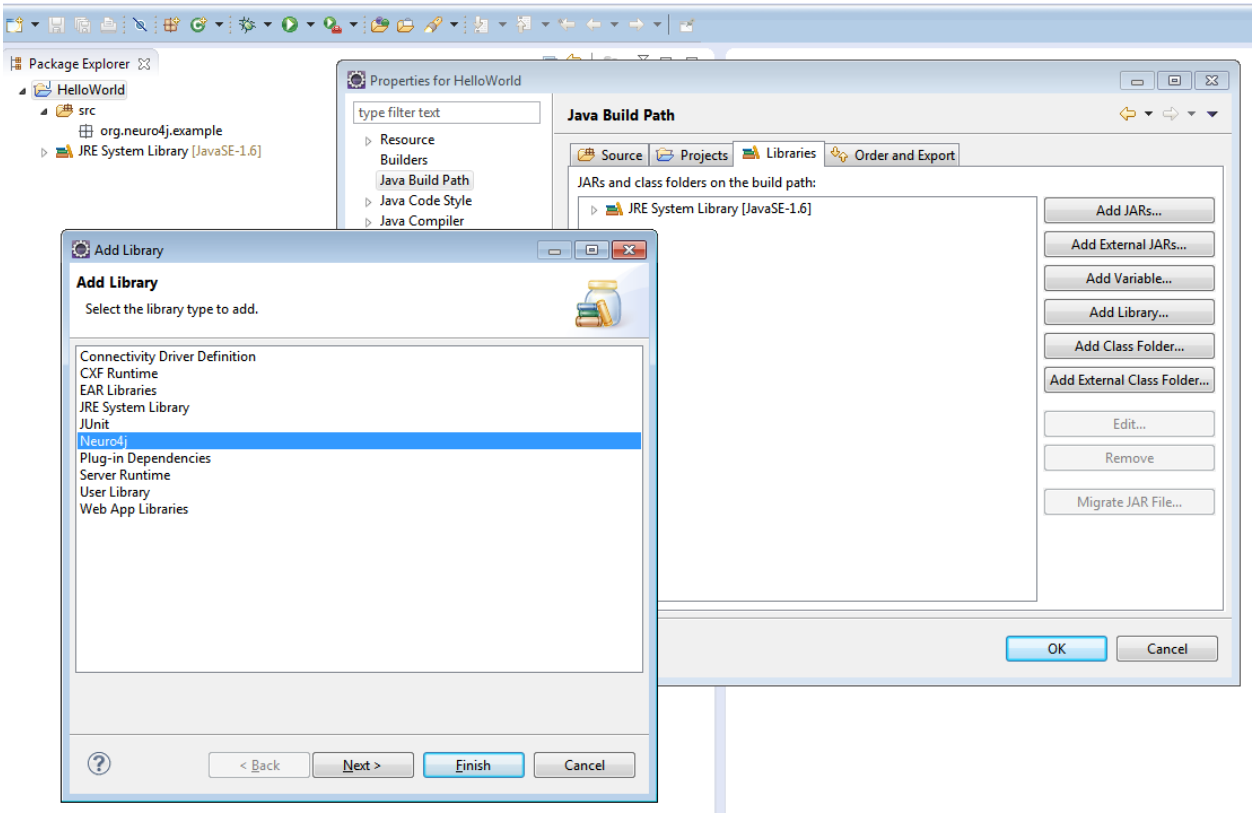
## STEPS

1) Run Eclipse and create new “Java project”;
2) Switch to “Neuro4j Flows” perspective;

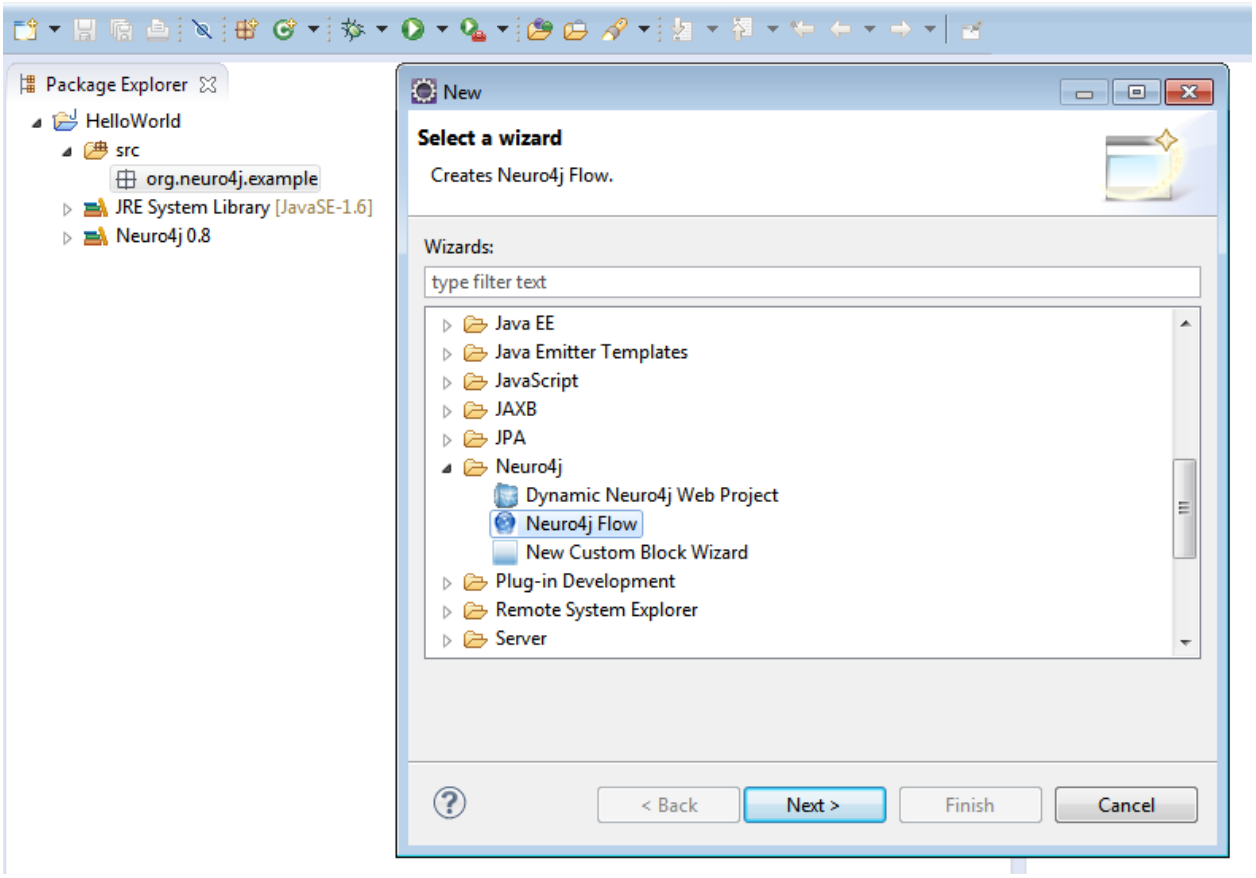




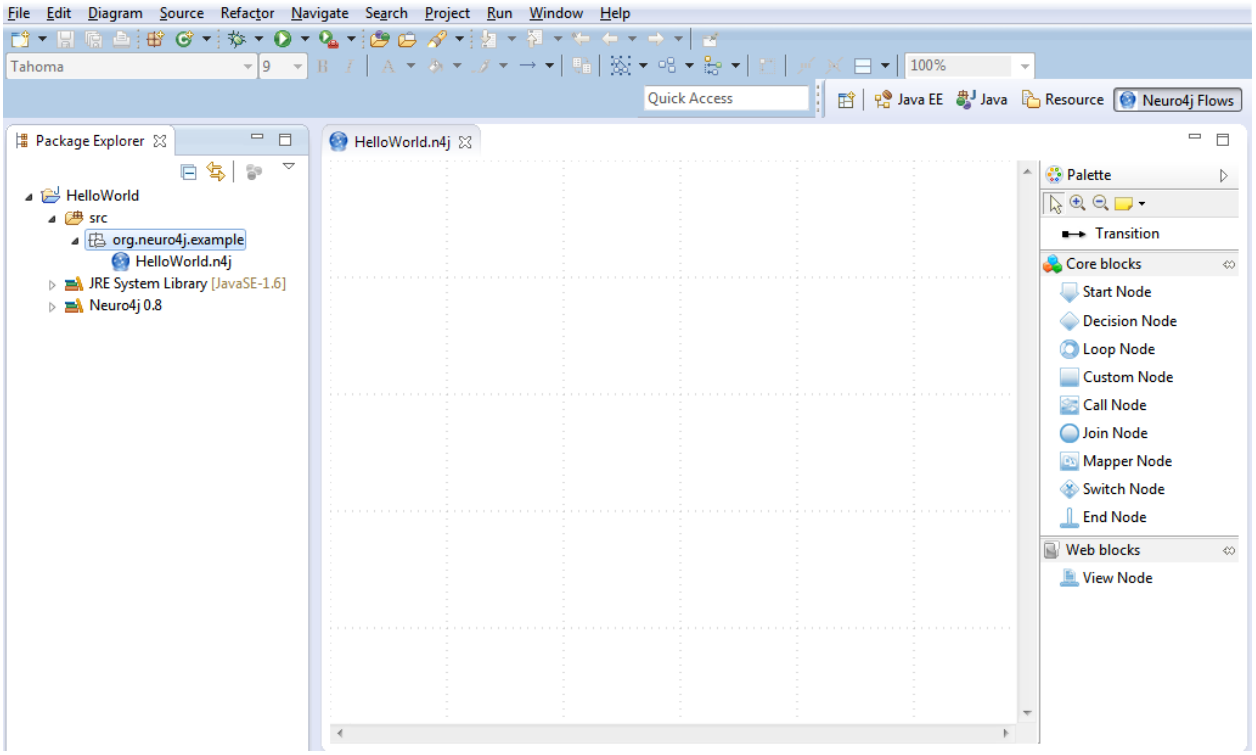

3) Create new package “org.neuro4j.example”
4) Add Neuro4j Library to project;



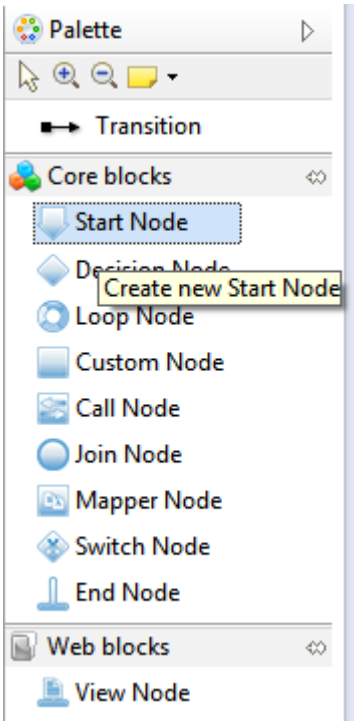
5) Select package “org.neuro4j.example”->Right-Click->New->Other
6) Select “Neuro4j Flow” in Category “Neuro4j” and click “Next”



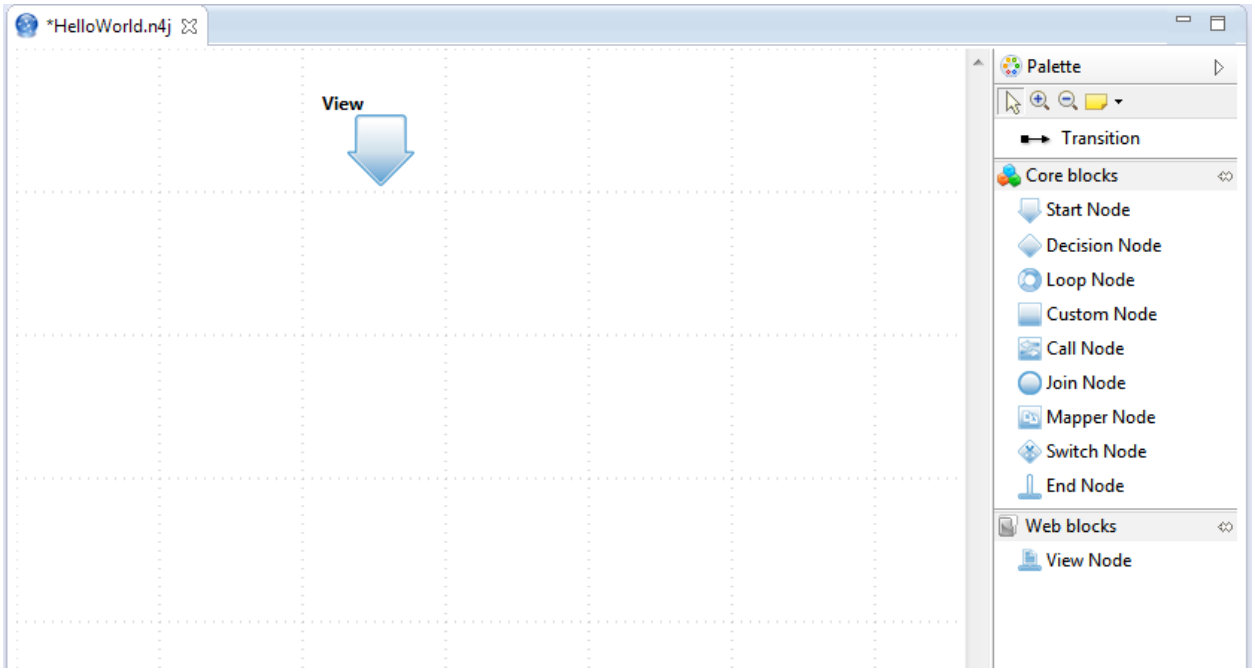

7) Put name “HelloWorld.n4j” and click “Finish”



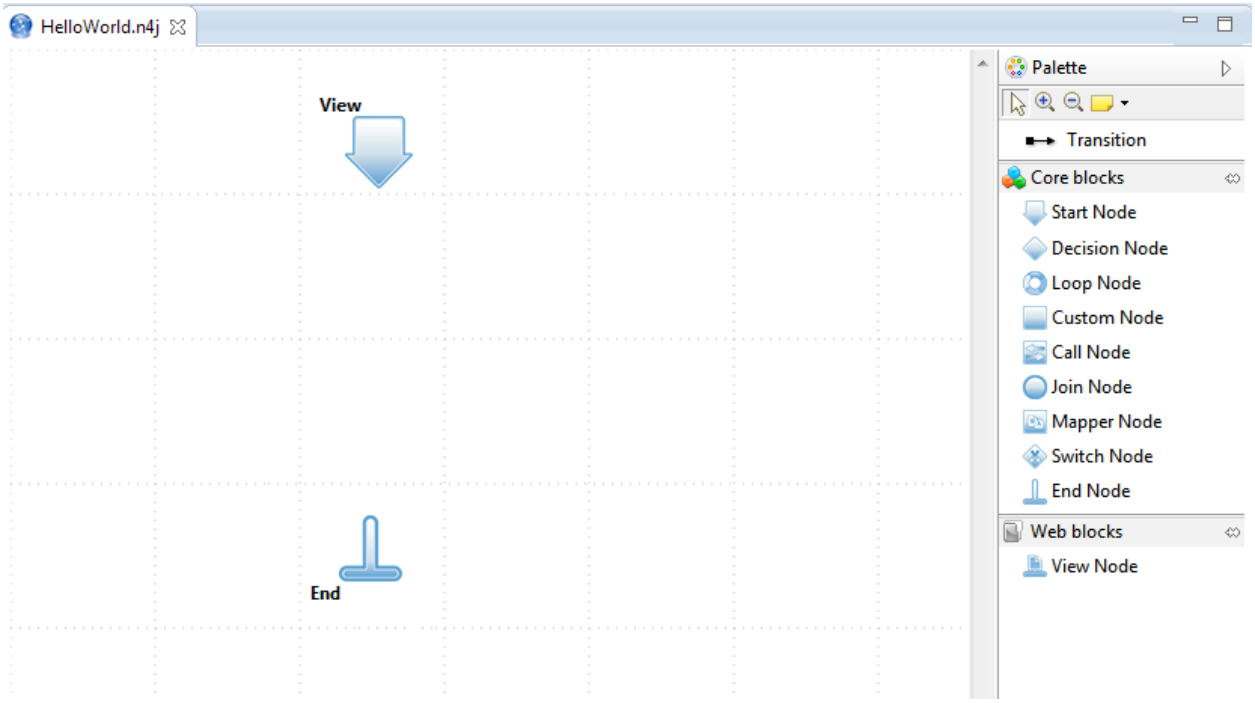

8) Click on Start Node




9) Click on Diagram and Set name – “View”.

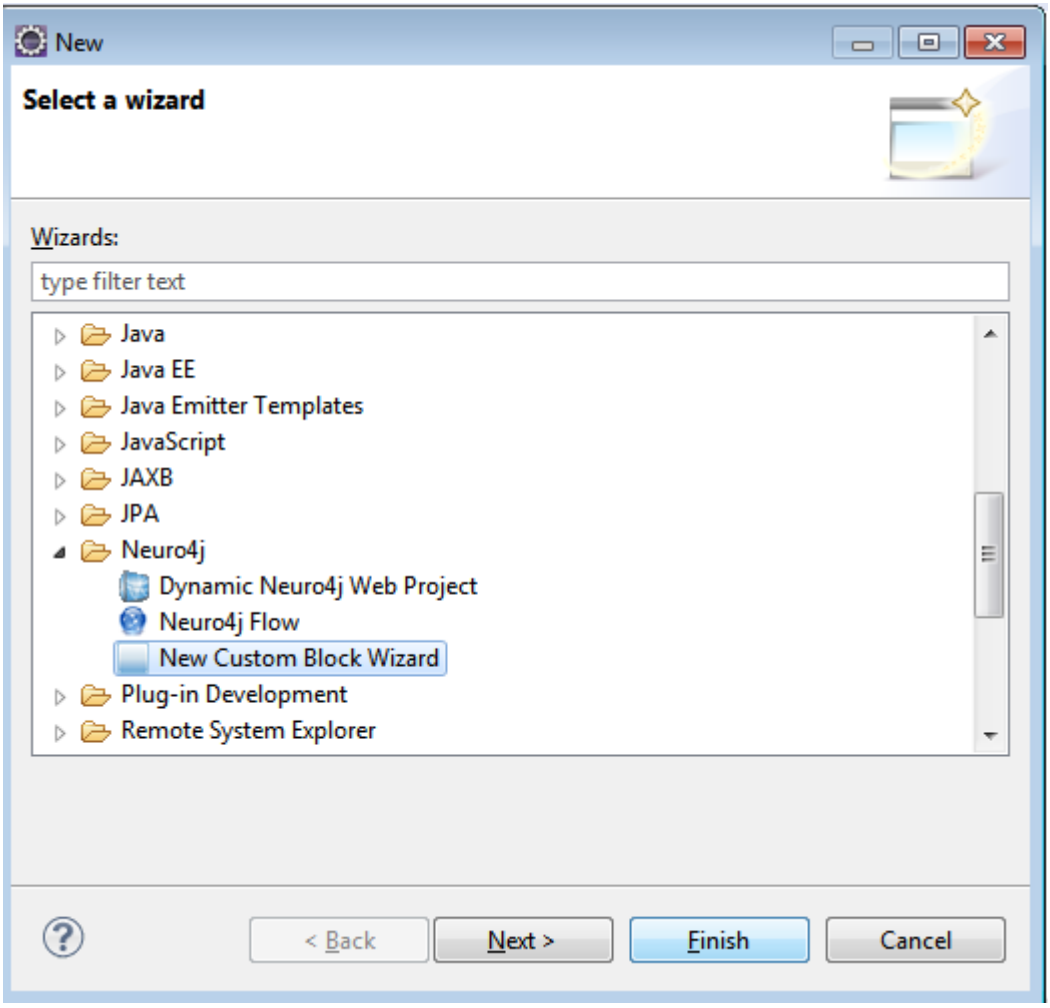



10) Add “End Node” to Diagram;

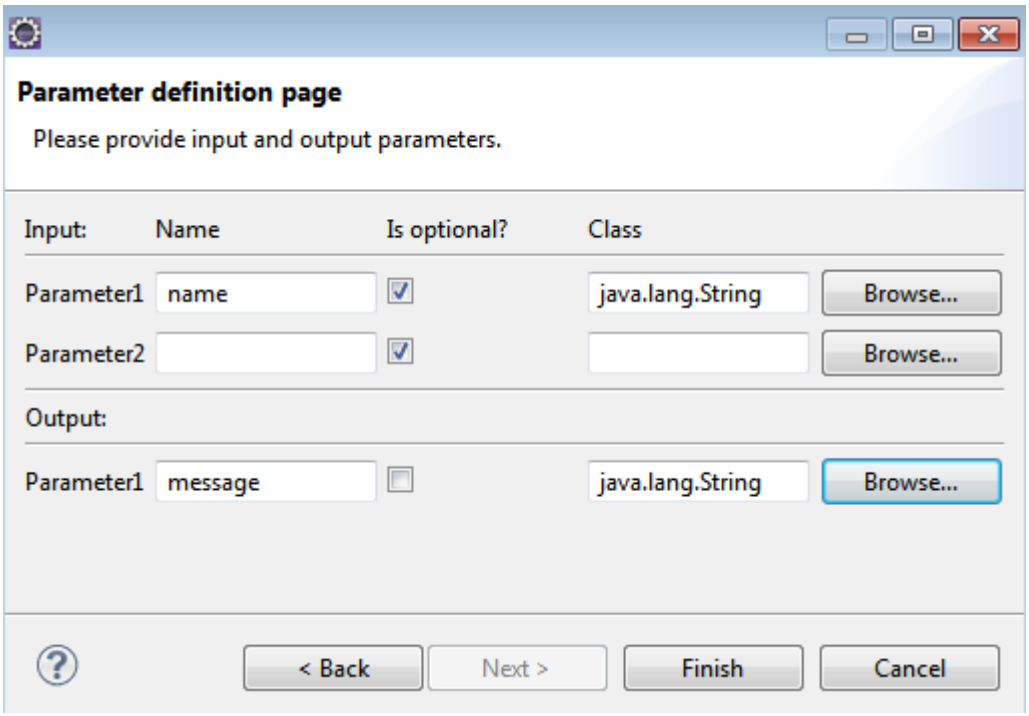



## CUSTOM BLOCK

11) Select package “org.neuro4j.example”-> Right-Click->New->Other->Neiro4j->”New Custom Block Wizard”




12) Select package – enter name “HelloBlock.java” -> click “Next”;
13) Create 1 optional input parameter “name” with type “java.lang.String” and mandatory output parameter “message” with type “java.lang.String”;



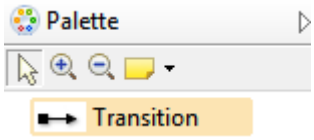

14) Click “Finish”;
15) New java file has been created;

```
import org.neuro4j.workflow.FlowContext;

@ParameterDefinitionList(input={
                                @ParameterDefinition(name=IN_NAME, isOptional=true, type= "java.lang.String")},
                        output={
                                @ParameterDefinition(name=OUT_MESSAGE, isOptional=false, type= "java.lang.String")})
public class HelloBlock extends CustomBlock {

    static final String IN_NAME = "name";

    static final String OUT_MESSAGE = "message";


    @Override
    public int execute(FlowContext ctx) throws FlowExecutionException {

        String name = (String)ctx.get(IN_NAME);

        String message = "Hello ";

        if (name != null)
        {
            message += name;
        }

        ctx.put(OUT_MESSAGE, message);


        return NEXT;
    }

    @Override
    public void init() throws FlowInitializationException{
        super.init();
    }


}
```

16) Update method *execute*:

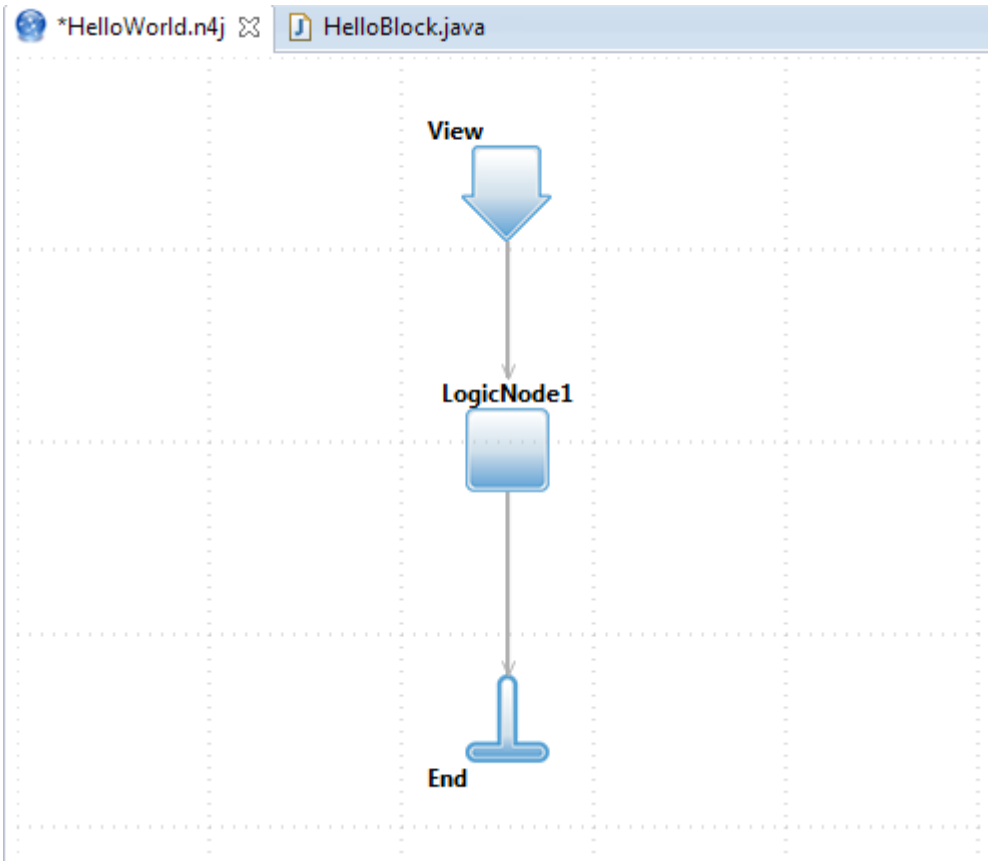
```
 @Override
public int execute(FlowContext ctx)     throws FlowExecutionException {

       Object name = ctx.get(IN_NAME);

       String myMessage = "Hello ";

       if(name != null)
       {
              myMessage += name;
       }

       ctx.put(OUT_MESSAGE, myMessage);


return NEXT;

 }
```

17) Open Diagram and create “Custom Node”

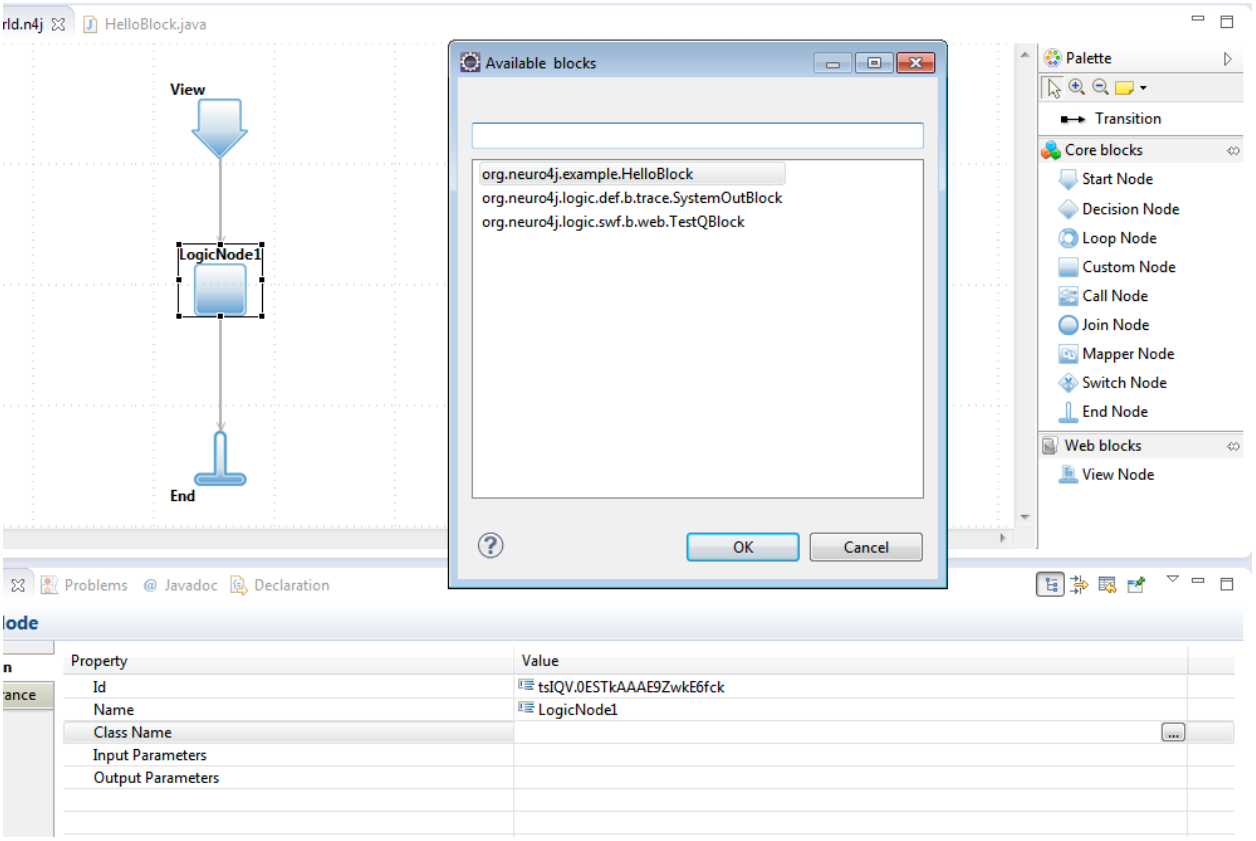



18) Click on “Transition”

19) Make connection between StartNode and CustomNode; CustomNode and EndNode;




20) Select on CustomNode and in Properties-View select “Class Name”



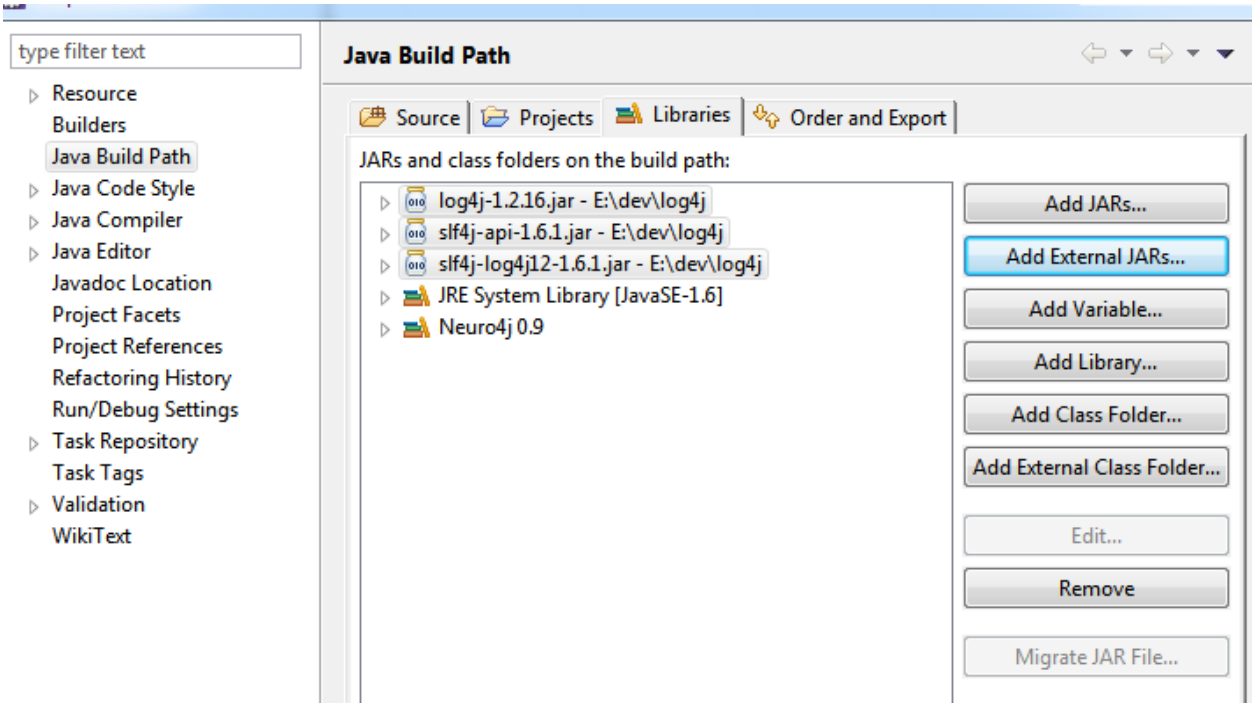
21) Select “HelloBlock” and click “Ok”;

## ADD LOG LIBRARY

Neuro4j Workflow has a dependency on following jars:

- slf4j-api-1.6.1
- slf4j-log4j12-1.6.1
- log4j-1.2.16

Before run client application check if these jars are in classpath.




## RUN FLOW

22) Create java class with main-method;
23) Put add following code;

```
public static void main(String[] args)
{

    Map<String, Object> params = new HashMap<String, Object>();
    params.put("name", "World");

    ExecutionResult result = WorkflowEngine.run("org.neuro4j.example.HelloWorld-View ",
params);

    String greeting = (String) result.getFlowContext().get("message");

    System.out.println(greeting);

}
```

24) Run class with main method – Message “Hello World” should be printed in Console;