



# Welcome

Plugin design in a LabVIEW environment

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*Test Specialist*



# Agenda

- Plug-in Basics
- Using plug-ins in LabVIEW
- LVOOP "Factory Pattern"
- Deployment
- Questions & Answers



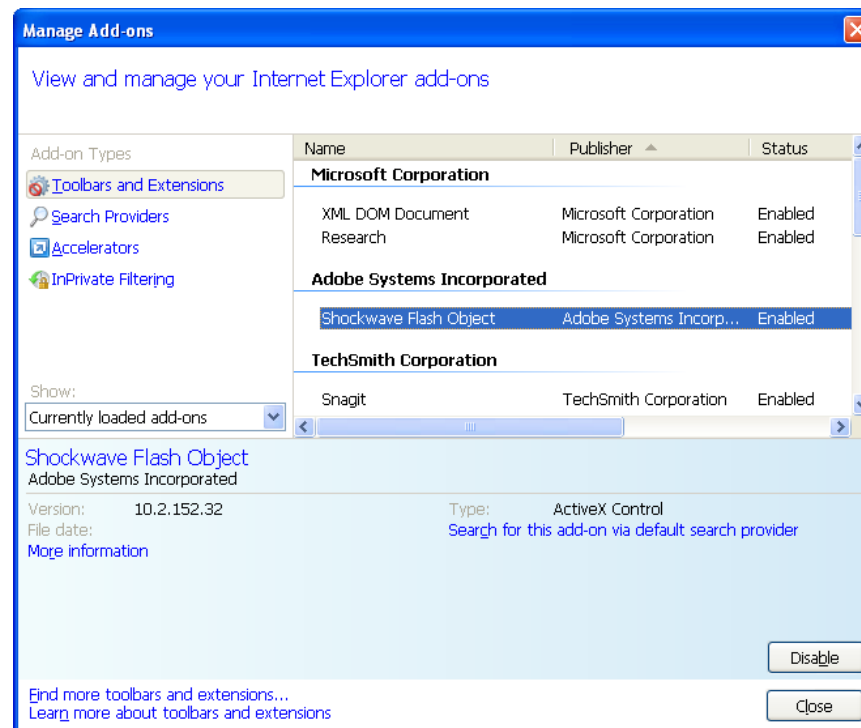
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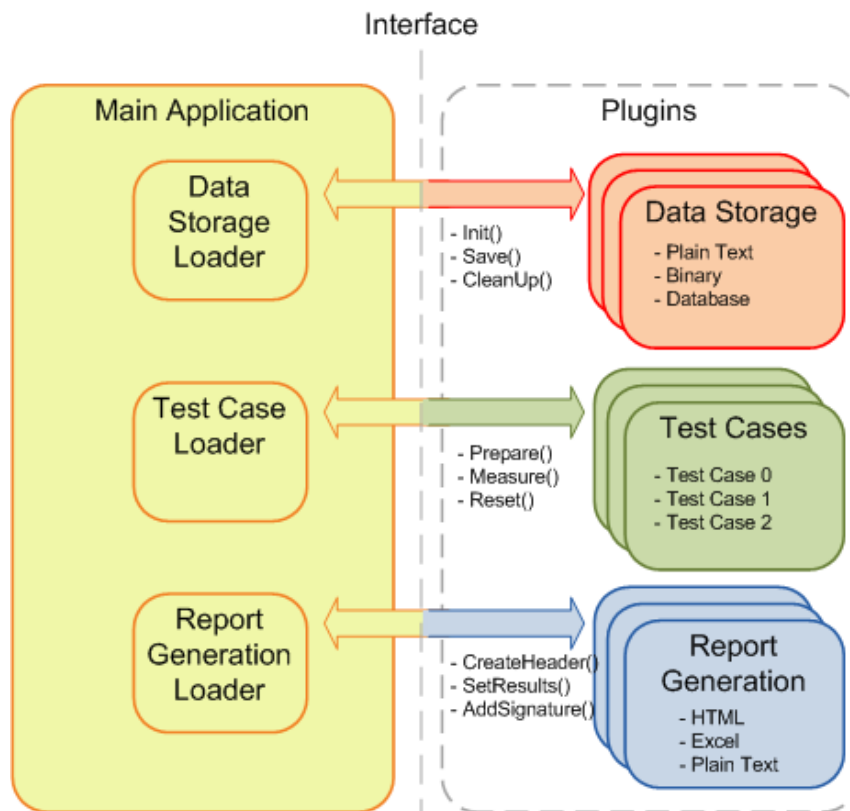
# What is a plug-in

- Add-ons
- Add-ins
- Extensions
- Themes
- Snap-ins

A component (with a well defined interface) which extends an application and gives it additional features without changing that application.



# Basic plugin design



## Advantages

- Application more scalable
- Uses less memory

## Disadvantages

- Harder to debug
- More complex design

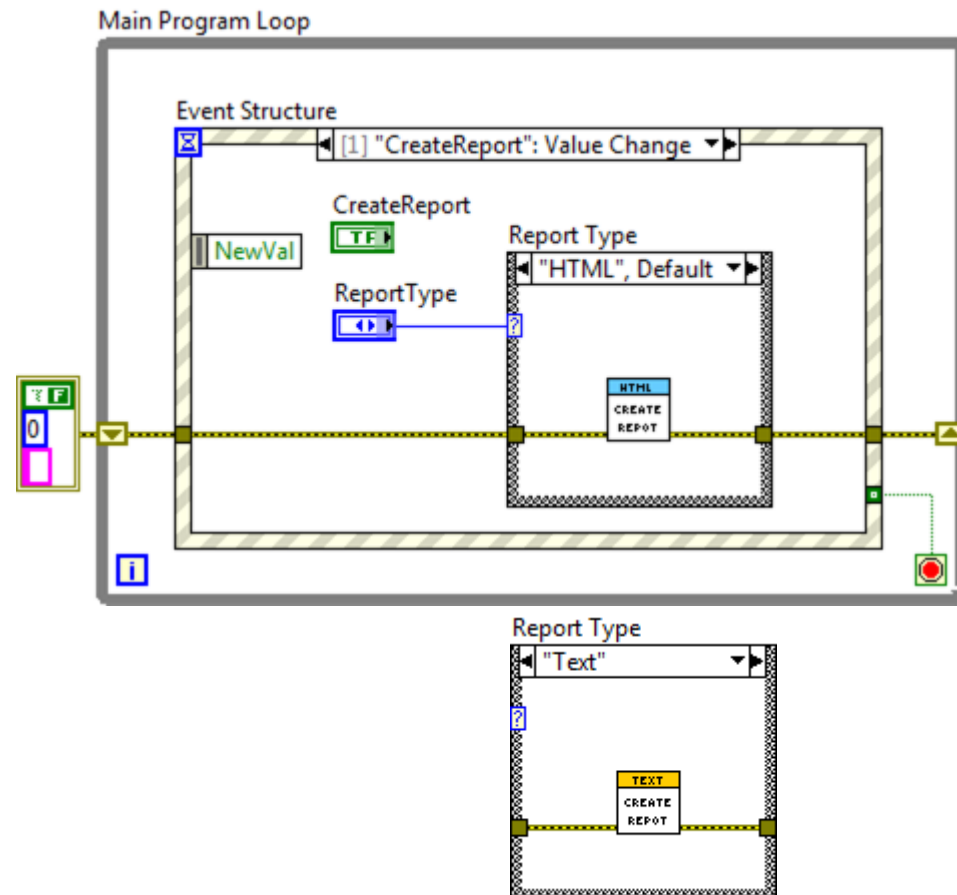


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- Parallel Processes
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# Traditional Implementation

Static code modules directly in the main application.



## ■ Call By Reference Node



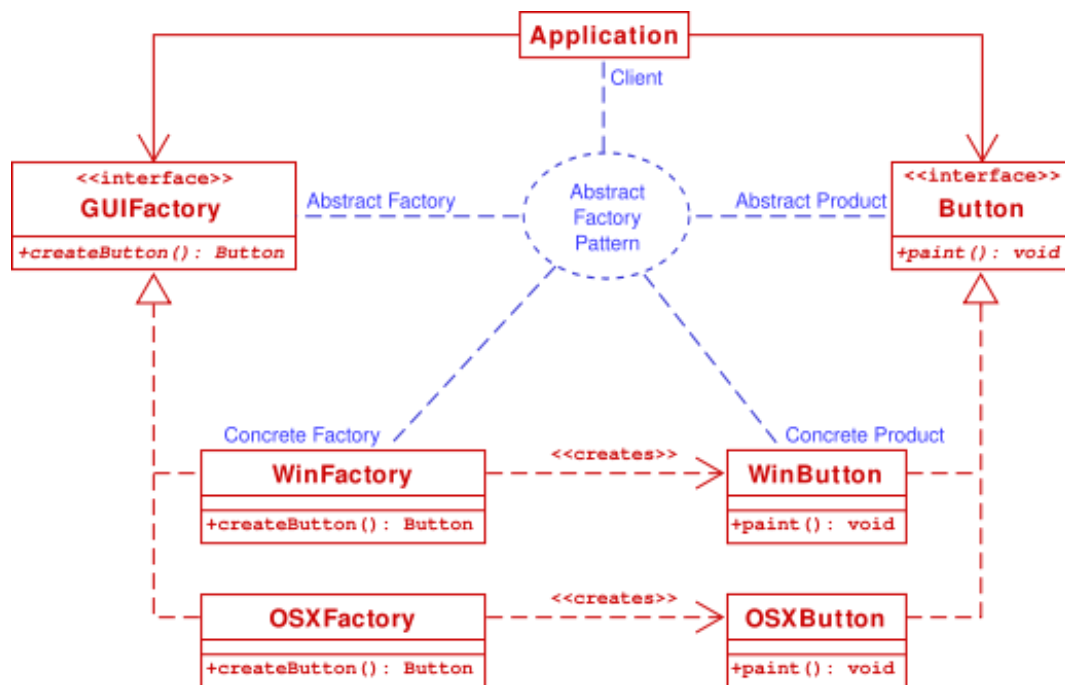




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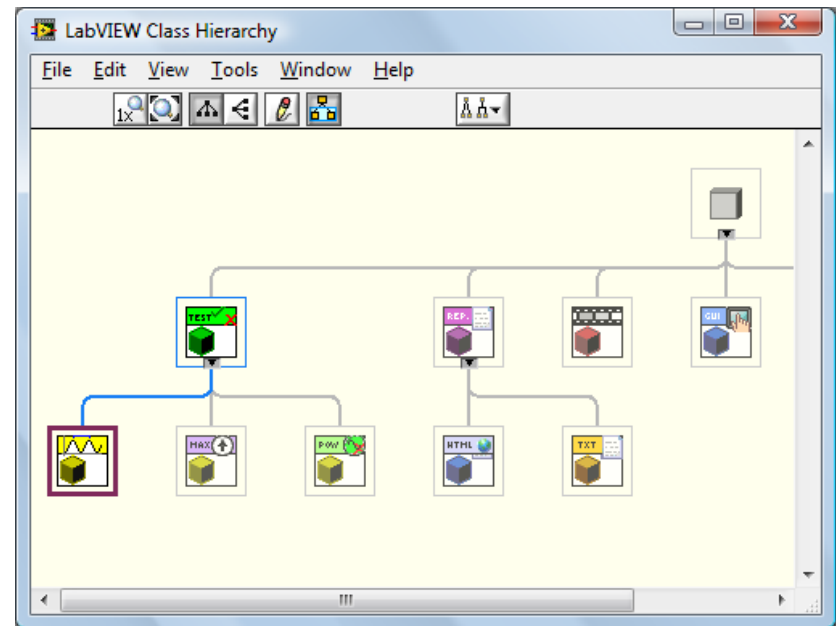
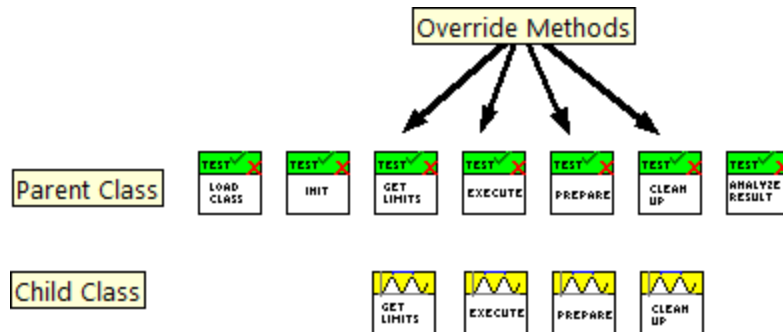
# LVOOP Factory Pattern



A factory can be thought of as an object for creating other objects without knowing in before hand what object to create.

# Factory Pattern in LabVIEW - Example

# Dynamic Dispatch





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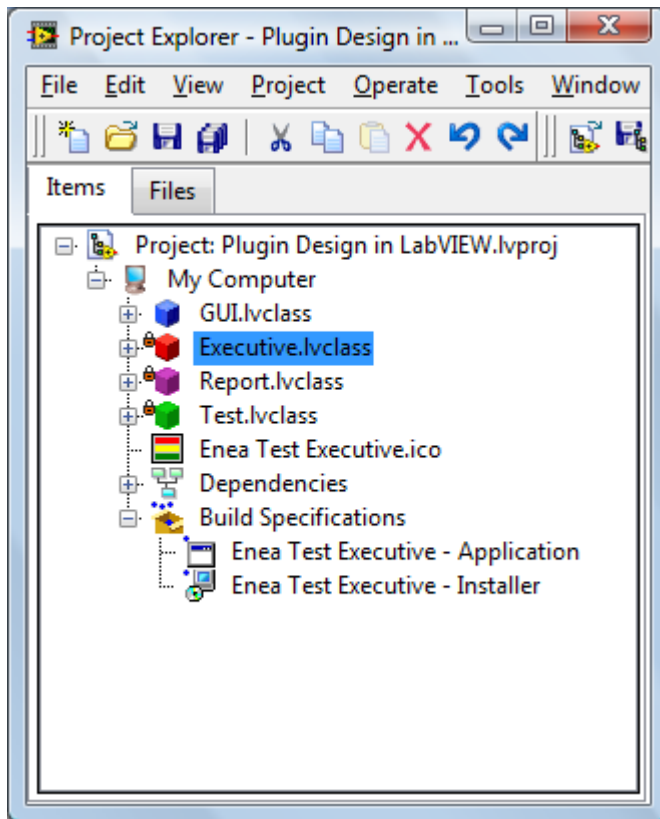
# Deploying your application

- What is the intended use of the application?
- Who is the customer(s)?
- How is the system going to be updated?
  - By development team
  - By the customer(s)

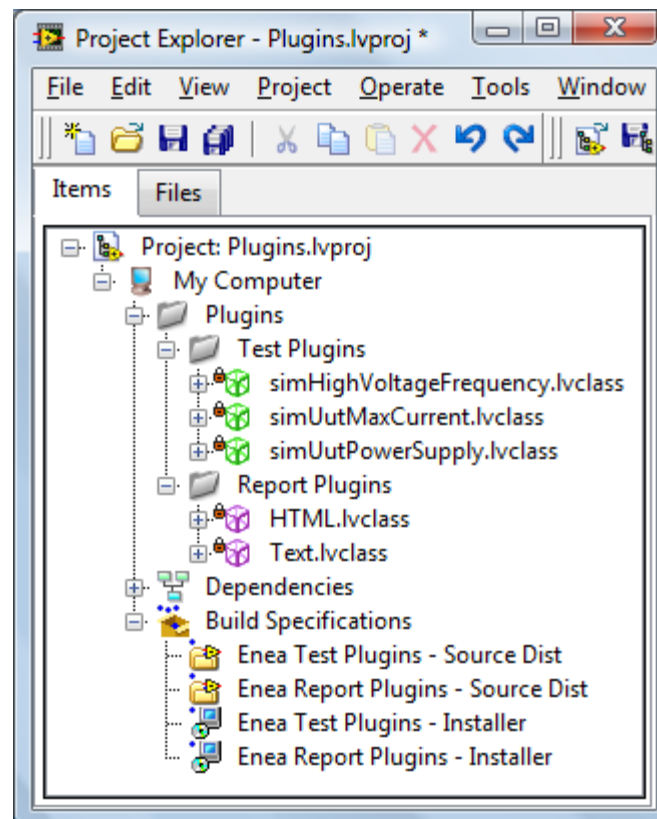


# Development environment

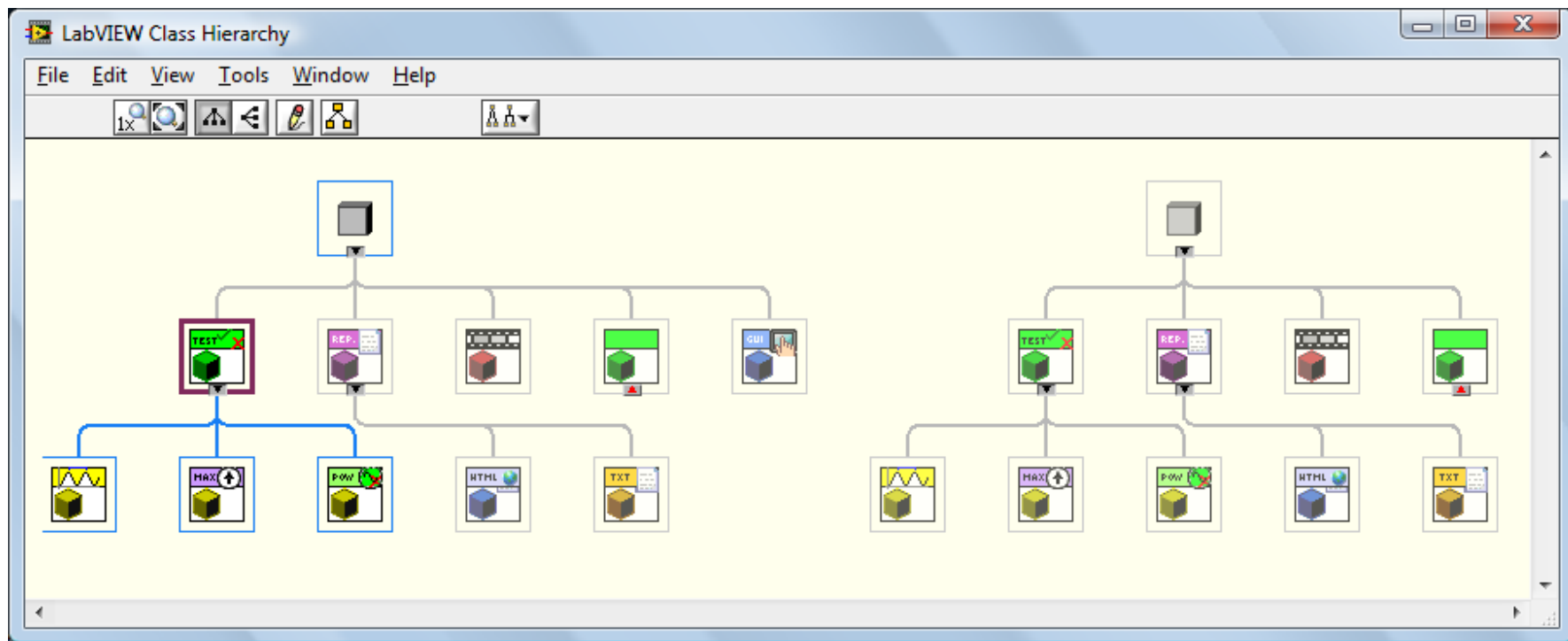
Main



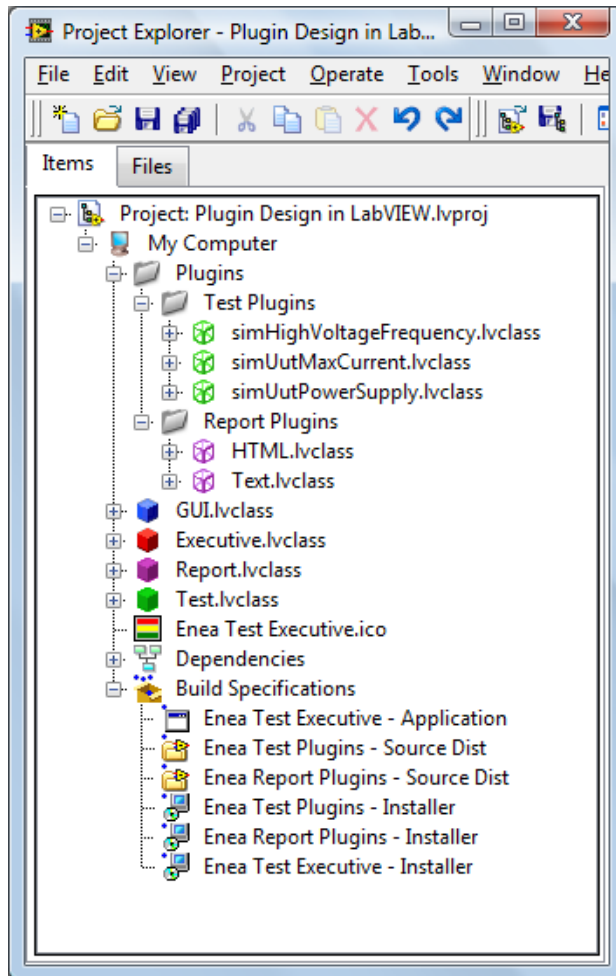
Plugins



# Development environment



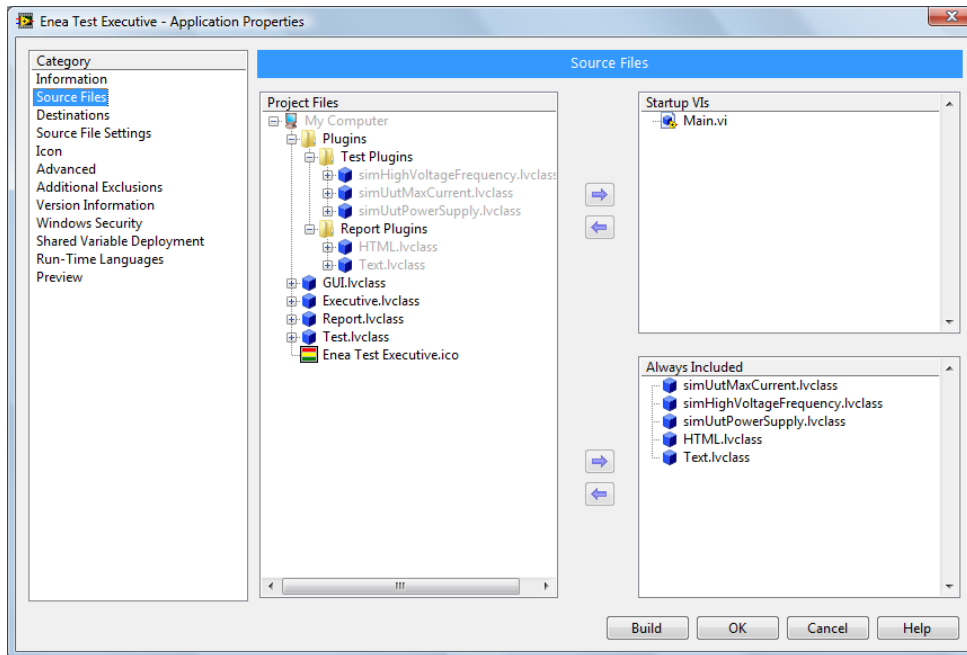
# Development environment



Plugins & Main  
share the same  
project

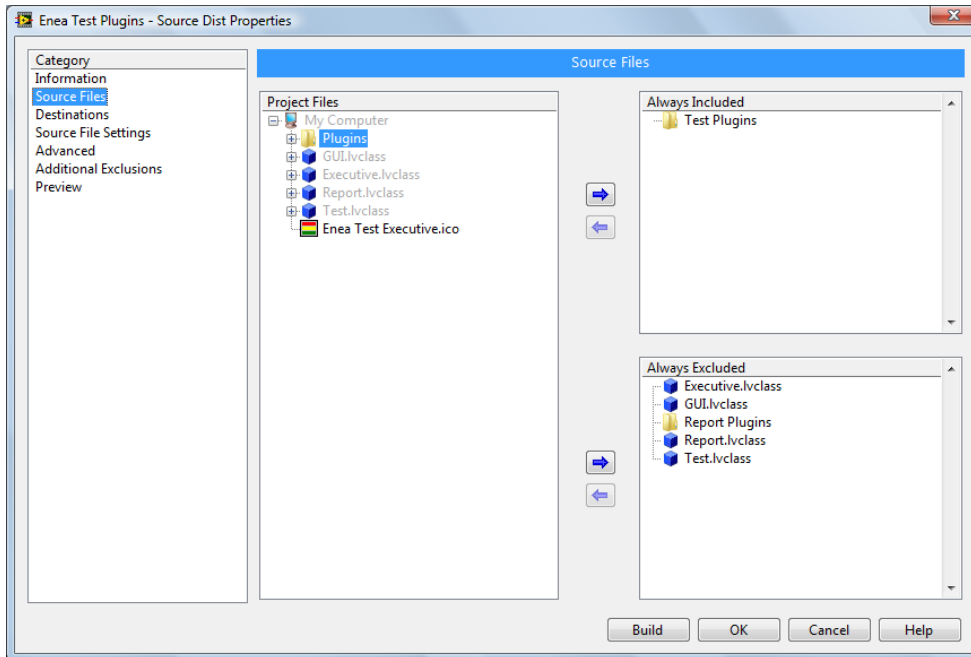


# Application – plugins included



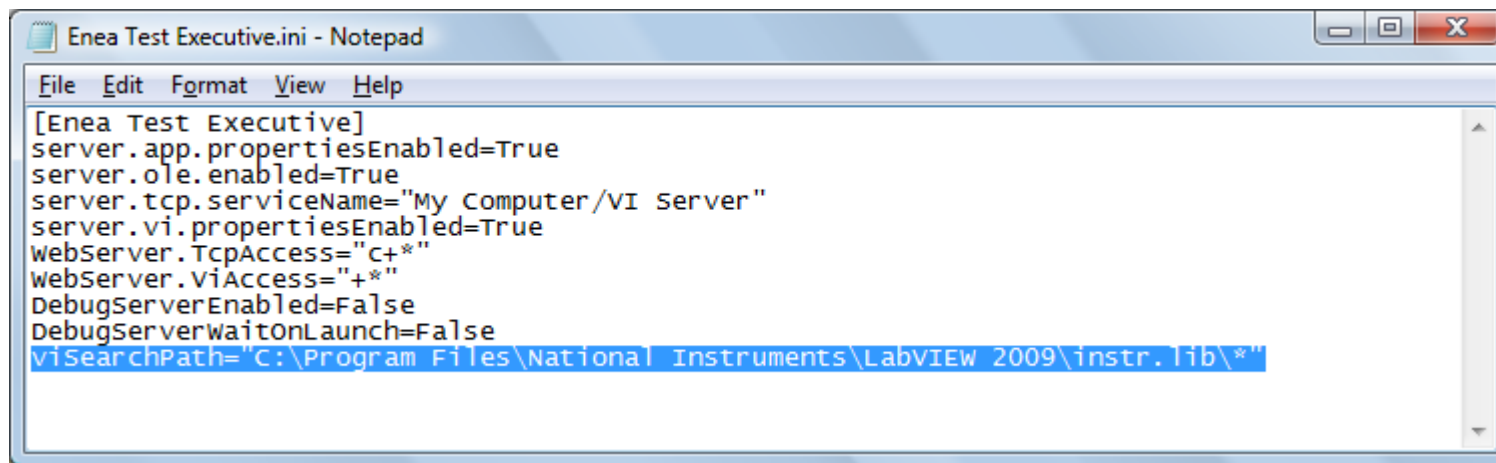
Set plugins as  
always included in  
the application build  
specification

# Application – plugins excluded



Build a source distribution which includes all the plugin dependencies

# Application – plugins excluded



```
Enea Test Executive.ini - Notepad
File Edit Format View Help
[Enea Test Executive]
server.app.propertiesEnabled=True
server.ole.enabled=True
server.tcp.serviceName="My Computer/VI Server"
server.vi.propertiesEnabled=True
WebServer.TcpAccess="C+*"
WebServer.ViAccess="+*"
DebugServerEnabled=False
DebugServerWaitOnLaunch=False
viSearchPath="C:\Program Files\National Instruments\LabVIEW 2009\instr.lib\*"

```



Q & A